Kirby Canyon Recycling and Disposal Facility

Facility # 1812

Annual Compliance Emissions Test Report #07116
Landfill Gas Flare- Source A-11

Located at:

910 Coyote Creek Golf Drive
San Jose, CA 95198

Performed and Reported by:

Blue Sky Environmental, LLC
624 San Gabriel Avenue
Albany, CA 94706

Prepared For:

Cornerstone Environmental Group, LLC
7600 Dublin Boulevard, Suite 285
Dublin, CA 94568

For Submittal To:

Bay Area Air Quality Management District
939 Ellis Street
San Francisco, CA 94109

Testing Performed On:
November 6th, 2007

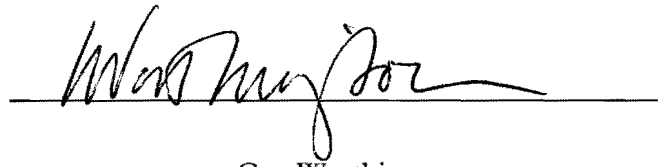
Final Report Submitted On:
1/2/08

REVIEW AND CERTIFICATION

Team Leader:

The work performed herein was conducted under my supervision, and I certify that: a) the details and results contained within this report are to the best of my knowledge an authentic and accurate representation of the test program; b) that the sampling and analytical procedures and data presented in the report is authentic and accurate: c) that all testing details and conclusions are accurate and valid, and: d) that the production rate and/or heat input rate during the source test are reported accurately.

If this report is submitted for Compliance purposes it should only be reproduced in its entirety. If there are any questions concerning this report, please contact me at (510) 525 1261.



Guy Worthington

Principal Project Manager

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SECTION 1. INTRODUCTION

1.1. Summary

Blue Sky Environmental, LLC was contracted to perform emissions testing on the A-11 Landfill Gas Flare at Kirby Canyon Recycling and Disposal Facility, 910 Coyote Creek Golf Drive, San Jose, California. This report presents the results of the test program. Table 1 summarizes the source test information. Table 2 summarizes the results compared to the emission limits. The flare met all compliance emission criteria.

Table 1. Source Test Information

Test Location:	Kirby Canyon Recycling and Disposal Facility, 910 Coyote Creek Golf Drive, San Jose, CA 95198
Source Contact:	Joe Morse (408) 779-2206
Source Tested:	Enclosed Landfill Gas Flare (A-11)
Source Test Date:	November 6th, 2007
Test Objective:	Determine Compliance with Regulation 8, Rule 34 and Permit A1812, Condition 1437, Part 11 and 12
Test Performed By:	Blue Sky Environmental, LLC 624 San Gabriel Ave., Albany, CA 94706 Guy Worthington (510) 508 3469
Test Parameters:	**Landfill Gas** O_2, N_2, CO_2, BTU, THC, CH_4, NMOC, HHV, F-Factor, Sulfur & VOC Species, Volumetric Flow Rate **Flare Emissions** THC, CH_4, NMOC, NOx, CO, O_2, SO_2, Volumetric Flow Rate.

Table 2. Compliance Summary

Condensate Off	**Average Test Result**	**Permit Limit**	**Compliance Status**
NOx, lbs/MMBTU	**0.04**	**0.06**	**In Compliance**
CO, lbs/MMBTU	**0.01**	**0.3**	**In Compliance**
SO_2, ppmvd	**8.4**	**300**	**In Compliance**
NMOC, (ppmvd @ 3% O_2 as CH_4)	**<2.0**	**30**	**In Compliance**
Condensate On			
NOx, lbs/MMBTU	**0.03**	**0.06**	**In Compliance**
CO, lbs/MMBTU	**0.01**	**0.3**	**In Compliance**
SO_2, ppmvd	**7.9**	**300**	**In Compliance**
NMOC, (ppmvd @ 3% O_2 as CH_4)	**<2.2**	**30**	**In Compliance**

SECTION 2. SOURCE TEST PROGRAM

2.1. Overview

This performance test was conducted to demonstrate that the A-11 landfill gas flare is operating in accordance with the Bay Area Air Quality Management District (BAAQMD) Title V Permit A1812 and Regulation 8 Rule 34.

2.2. Pollutants Tested

The following BAAQMD, EPA and ASTM sampling and analytical methods were used:

BAAQMD ST-5	CO_2
BAAQMD ST-6	CO
BAAQMD ST-7	NMOC
BAAQMD ST-13A	NOx
BAAQMD ST-14	O_2
BAAQMD ST-19A (calculated from TRS)	SO_2 calculated from TRS
EPA 19	Flow Rate Calculation, DSCFM
EPA 25C	LFG Gas analysis for NMOC by GC
EPA TO-15	AP-42 Table 2.4-1 VOC Species
ASTM 1945/3588	LFG Gas analysis for BTU and F-Factor
ASTM D-5504	Sulfur Species, H_2S and TRS

2.3. Test Date(s)

Testing was conducted on November 6th, 2007.

2.4. Sampling and Observing Personnel

Testing was performed by Guy Worthington and Jeff Mesloh representing Blue Sky Environmental, LLC.

Mark McKeever of Cornerstone Environmental Group, LLC was present to operate the Flare and assist in coordinating testing and the collection of process data during testing.

The BAAQMD was notified of the test in a plan submitted by Waste Management. A Source Test Protocol acknowledgement was requested and received by Blue Sky Environmental (NST # 1242), but no agency observers were present to witness the testing.

2.5. Source/Process Description

The enclosed landfill gas flare consists of a 45 million British Thermal Units per hour (MMBtu/hr) multiple nozzle burner manufactured by LFG Specialties, Inc. The flare shell is approximately 40 feet high and approximately 8.5 feet in diameter. The inside diameter is 7.5 feet.

The flare normally operates at about ~1100 ±100 scfm. The flare setpoint was established at 1550°F. Methane quality is typically about 50%, and the Oxygen content typically less than 1%. Landfill gas condensate that is collected is periodically injected into the flare via one vertical nozzle positioned near the burner.

2.6. Source Operating Conditions

The flare operating temperature and the landfill gas flow rate records are contained in Appendix-F. The condensate injection rate was recorded in the field at approximately 1.3 gallons per minute.

The flare was operated between 1538 and 1554 °F avg. The average landfill gas flow rate ranged between 1083 and 1196 scfm.

The landfill gas methane content ranged between 46.7 and 47.2%.

SECTION 3. SAMPLING AND ANALYSIS PROCEDURES

3.1. Port location

The A-11 Flare sampling was conducted in the 7.5 feet diameter ID stack, via ports approximately 35' above grade, accessible by boom-lift. Four, 4-inch flange ports are available ~5 stack diameters downstream from the burners and ~2 stack diameters upstream from the exit.

3.2. Point description/Labeling – ports/stack

Blue Sky Environmental conducted two perpendicular 8 pt traverses and found mild stratification, so CEM sampling was conducted at a representative, mid-point of the stack.

3.3. Sample train description

Sampling system diagrams are included in the appendices. Additional descriptive information is included in the following section.

3.4. Sampling procedure description

Three, 30-minute test runs were peformed with the Condensate Injection Off, and repeated with the Condensate Injection On.

Continuous Emission Monitoring by BAAQMD Methods ST-5, -6, 7, 13A and 14. These methods are all continuous monitoring techniques using instrumental analyzers to measure carbon dioxide (CO_2), carbon monoxide (CO), total non-methane hydrocarbons (THC & CH_4), nitrogen oxides (NOx) and oxygen (O_2), respectively. Sampling is performed by extracting exhaust flue gas from the stack, conditioning the sample and analyzing it by continuous monitoring gas analyzers in a CEM test van. The sampling system consists of a stainless steel sample probe, Teflon sample line, glass-fiber particulate filter, glass moisture-knockout condensers in ice, Teflon sample transfer tubing, diaphragm pump and a stainless steel/Teflon manifold and flow control/delivery system. A constant sample and calibration gas supply pressure of 5 PSI was provided to each analyzer to avoid pressure variable response differences. The entire sampling system was leak checked prior to and at the end of the sampling program.

Methane in the exhaust is usually determined per BAAQMD Methods, using a charcoal scrubber to remove the non-methane organics, and determining the difference between the total hydrocarbon and non-methane hydrocarbon concentrations. However, because the THC was less than the detection limit of 2 ppm the methane content was not determined in this manner.

The sampling and analytical system (for BAAQMD Methods) was calibrated at the beginning and end of each test run. The calibration gases were selected to fall approximately within 80 to 90 percent of the instrument range. Zero and calibration drift values were determined for each test. All calibration gases are EPA Protocol #1. The analyzer data recording system consists of Omega 3 channel strip chart recorders.

System Performance Criteria

Instrument Linearity	≤2% Full Scale (checked routinely)
Instrument Bias	≤5% Full Scale (checked routinely)
System Response Time	≤± 2 minutes (checked routinely)
NOx Converter Efficiency (EPA 20)	≥ 90% (checked routinely)
Instrument Zero Drift	≤± 3% Full Scale (complied)
Instrument Span Drift	≤± 3% Full Scale (complied)

Concurrent with the exhaust sampling, Blue Sky collected a total of six integrated 1-liter Tedlar Bag samples of the LFG for analysis. The samples were collected using Teflon tubing connections, and the tubing and the Tedlar bag were filled and purged prior to sampling. The gas sample was controlled with a rotometer to collect a 30-minute integrated sample. All the samples were analyzed for NMOC, HHV, F-Factor, Fixed Gases, Sulfur Species (incl. H_2S and TRS).

The inlet volumetric flow rate was continuously measured and recorded by the LFG Flowmeter.

3.5. Instrumentation and Analytical procedures

The following continuous emissions analyzers were used:

Instrumentation	Parameter	Principle
TECO 42i	NO_x	Chemiluminescence
TECO 48C	CO	GFC/IR
Ratfisch, RS-55	THC	FID
Horiba PIR 2000	CO_2	IR
Rosemount 755R	O_2	Paramagnetic

All calibration gases are EPA Protocol #1. The analyzer data recording system consists of Omega 3 channel strip chart recorders, which can be supported by a Data Aquisition System (DAS).

The instrument response was recorded on strip charts and manually reduced. The averages were corrected for drift using BAAQMD & EPA Method 6C equations.

3.6. Comments: Limitations and Data Qualifications

Blue Sky Environmental has reviewed this report for accuracy, and concluded that the test procedures were followed and accurately described and documented. The review included the following items:

Review of the general text
Review of calculations
Review of CEMS data
Review of supporting documentation

The services described in this report were performed in a manner consistent with the generally accepted professional testing principles and practices. No other warranty, expressed or implied, is made. These services were performed in a manner consistent with our agreement with our client. The report is solely for the use and information of our client unless otherwise noted. Any reliance on this report by a third party is at such party's sole risk.

Opinions contained in this report pertain to conditions existing when services were performed and are intended only for the client, purposes, locations, time frames, and operating parameters indicated. We are not responsible for the impacts of any changes in environmental standards, practices, or regulations, subsequent to this, and do not warranty the accuracy of information supplied by others.

SECTION 4. APPENDICES

A.	Tabulated Results
B.	Calculations
C.	Laboratory Reports
D.	Field Data Sheets
E.	Strip Charts
F.	Process Information
G.	Calibration Certifications and Quality Assurance Records
H.	Sample Train Configuration and Stack Diagrams
I.	Related Correspondence (Source Test Plan)
J.	Title V Permit (pertinent pages)

A
Tabulated Results

TABLE #1

Kirby Canyon Recycling & Disposal Facility
Flare A-11
1550°F - Condensate On

RUN	1A	2A	3A	AVERAGE	LIMITS
Test Date	11/06/07	11/06/07	11/06/07		
Test Time	0840-0910	0928-0958	1010-1040		
Standard Temp., °F	70	70	70		
Flare Temperature, °F	1,554	1,545	1,549	1,549	
Condensate Injection, gpm	1.3	1.3	1.3	1.3	
Fuel Flow Rate, DSCFM	1,159	1,097	1,083	1,113	
Fuel Heat Input, MMBTU/Hr	32.7	30.6	30.2	31.2	
Exhaust Flow Rate, DSCFM (Method 19)	12,779	11,569	11,419	11,922	
Oxygen, O_2, %	12.3	12.0	12.0	12.1	
Carbon Dioxide, CO_2, %	8.0	8.2	8.2	8.1	
NOx, ppm	12.6	13.5	13.7	13.3	
NOx, ppm @ 15% O_2	8.6	9.0	9.1	8.9	
NOx, lbs/hr	1.15	1.12	1.12	1.13	
NOx, lbs/MMBTU	0.04	0.04	0.04	0.04	**0.06**
CO, ppm	7.0	<5.0	<5.0	<5.7	
CO, ppm @ 15% O_2	4.8	<3.3	<3.3	<3.8	
CO, lbs/hr	0.39	<0.25	<0.25	<0.30	
CO, lbs/MMBTU	0.01	<0.01	<0.01	<0.01	**0.3**
Total Sulfurs as H_2S in fuel, ppm	92	92	84	90	
SO_2 calculated emission, ppm	**8.4**	**8.7**	**8.0**	**8.4**	**300**
THC, ppm	<1.0	<1.0	<1.0	<1.0	
THC, lbs/hr as CH_4	<0.03	<0.03	<0.03	<0.03	
CH_4, ppm	<1.0	<1.0	<1.0	<1.0	
NMHC, ppm as CH_4	<1.0	<1.0	<1.0	<1.0	
NMHC, lbs/hr as CH_4	<0.03	<0.03	<0.03	<0.03	
NMHC, ppm @ 3% O_2 as CH_4	<2.1	<2.0	<2.0	<2.0	**30**
INLET NMHC ppm as CH_4	4,700	4,609	4,448	4,586	
INLET NMHC lbs/hr as CH_4	13.5	12.6	12.0	12.7	
NMHC Removal Efficiency	>99.8%	>99.8%	>99.8%	>99.8%	**98**
INLET CH_4	473,000	467,000	467,000	469,000	
INLET THC (TOC) ppm as CH_4	477,700	471,609	471,448	473,586	
INLET THC (TOC) lbs/hr as CH_4	1,374	1,284	1,267	1,309	
THC (TOC) Removal Efficiency	99.998%	99.998%	99.998%	99.998%	**98**

WHERE,

ppm = Parts Per Million Concentration

Lbs/hr = Pound Per Hour Emission Rate

Tstd. = Standard Temp. (°R = °F+460)

MW = Molecular Weight

DSCFM = Dry Standard Cubic Feet Per Minute

NOx = Oxides of Nitrogen as NO_2 (MW = 46)

CO = Carbon Monoxide (MW = 28)

TOC = THC = Total Organic Carbon as Methane including CH_4 (MW = 16)

THC = Total Hydrocarbons as Methane (MW = 16)

NMHC = Total Non-Methane Hydrocarbons as Methane (MW = 16)

SO2 = Sulfur Dioxide as SO_2 (MW = 64.1)

CALCULATIONS,

PPM @ 15% O_2 = ppm * 5.9 / (20.9 - %O_2)

PPM @ 3% O_2 = ppm * 17.9 / (20.9 - %O_2)

Lbs/hr = ppm x 8.223 E-05 x DSCFM x MW / Tstd. °R

Lbs/day = Lbs/hr * 24

THC (TOC) Removal Efficiency = (inlet lbs/hr- outlet lbs/hr) / inlet lbs/hr

NMHC Removal Efficiency = (inlet lbs/hr- outlet lbs/hr) / inlet lbs/hr

SO2 emission ppm = H2S in fuel * Fuel Flow/Stack Gas Flow

TABLE #2

Kirby Canyon Recycling & Disposal Facility
Flare A-11
1550°F - Condensate Off

RUN	1B	2B	3B	AVERAGE	LIMITS
Test Date	11/06/07	11/06/07	11/06/07		
Test Time	1145-1215	1225-1255	1308-1338		
Standard Temp., °F	70	70	70		
Flare Temperature, °F	1,538	1,538	1,539	1,538	
Condensate Injection, gpm	0.0	0.0	0.0	0.0	
Fuel Flow Rate, DSCFM	1,172	1,146	1,196	1,171	
Fuel Heat Input, MMBTU/Hr	33.0	32.1	33.5	32.9	
Exhaust Flow Rate, DSCFM (Method 19)	12,709	12,516	12,975	12,733	
Oxygen, O_2, %	12.1	12.2	12.2	12.2	
Carbon Dioxide, CO_2, %	8.0	7.9	7.9	7.9	
NOx, ppm	11.4	11.3	11.7	11.5	
NOx, ppm @ 15% O_2	7.7	7.7	7.9	7.8	
NOx, lbs/hr	1.04	1.01	1.08	1.04	
NOx, lbs/MMBTU	0.03	0.03	0.03	0.03	**0.06**
CO, ppm	8.1	3.4	8.1	6.5	
CO, ppm @ 15% O_2	5.5	2.3	5.5	4.4	
CO, lbs/hr	0.45	0.18	0.46	0.36	
CO, lbs/MMBTU	0.01	0.01	0.01	0.01	**0.3**
H_2S, ppm in fuel	87.8	86.1	84.5	86.1	
SO_2, ppm calculated emission	**8.1**	**7.9**	**7.8**	**7.9**	**300**
THC, ppm	2.5	1.2	2.8	2.2	
THC, lbs/hr as CH_4	0.08	0.04	0.09	0.07	
CH_4, ppm	2.4	NM	3.5	2.9	
NMHC, ppm as CH_4	<1.0	<1.2	<1.0	<1.1	
NMHC, lbs/hr as CH_4	<0.03	<0.04	<0.03	<0.03	
NMHC, ppm @ 3% O_2 as CH_4	<2.0	<2.5	<2.1	<2.2	**30**
INLET NMHC ppm as CH_4	4,605	4,218	4,721	4,515	
INLET NMHC lbs/hr as CH_4	13.4	12.0	14.0	13.1	
NMHC Removal Efficiency	>99.8%	>99.7%	>99.8%	>99.7%	**98**
INLET CH_4	472,000	470,000	469,000	470,333	
INLET THC (TOC) ppm as CH_4	476,605	474,218	473,721	474,848	
INLET THC (TOC) lbs/hr as CH_4	1,387	1,349	1,406	1,381	
THC (TOC) Removal Efficiency	99.994%	99.997%	99.994%	99.995%	**98**

WHERE,

ppm = Parts Per Million Concentration

Lbs/hr = Pound Per Hour Emission Rate

Tstd. = Standard Temp. (°R = °F+460)

MW = Molecular Weight

DSCFM = Dry Standard Cubic Feet Per Minute

NOx = Oxides of Nitrogen as NO_2 (MW = 46)

CO = Carbon Monoxide (MW = 28)

TOC = THC = Total Organic Carbon as Methane including CH_4 (MW = 16)

THC = Total Hydrocarbons as Methane (MW = 16)

NMHC = Total Non-Methane Hydrocarbons as Methane (MW = 16)

SO2 = Sulfur Dioxide as SO_2 (MW = 64.1)

CALCULATIONS,

PPM @ 15% O_2 = ppm * 5.9 / (20.9 - %O_2)

PPM @ 3% O_2 = ppm * 17.9 / (20.9 - %O_2)

Lbs/hr = ppm x 8.223 E-05 x DSCFM x MW / Tstd. °R

Lbs/day = Lbs/hr * 24

THC (TOC) Removal Efficiency = (inlet lbs/hr- outlet lbs/hr) / inlet lbs/hr

NMHC Removal Efficiency = (inlet lbs/hr- outlet lbs/hr) / inlet lbs/hr

SO2 emission ppm = H2S in fuel * Fuel Flow/Stack Gas Flow

TABLE # 3

Kirby Canyon Recycling & Disposal Facility
Flare A-11
AP42 2.4-1

Full List

Constituent	Method	Units	Detection Limit MDL/PQL	Landfill Gas Samples 11/06/07 **AP42 Table 2.4-1 2B**
1,1,1-Trichloroethane	EPA TO-15	ppb	1.0/100	ND
1,1,2,2-Tetrachloroethane	EPA TO-15	ppb	1.0/100	ND
1,1-Dichloroethane	EPA TO-15	ppb	1.0/100	ND
1,1-Dichloroethene	EPA TO-15	ppb	1.0/100	ND
1,2-Dichloroethane	EPA TO-15	ppb	1.0/100	ND
1,2-Dichloropropane	EPA TO-15	ppb	1.0/100	ND
2-Propanol	EPA TO-15	ppb	1.0/100	54700
Acrylonitrile	EPA TO-15	ppb	1.0/100	ND
Bromodichloromethane	EPA TO-15	ppb	1.0/100	ND
Butane (C4)	EPA 18/ASTM 1945	ppm	0.3	93.1
Carbon Disulfide	EPA TO-15	ppb	1.0/100	490
Carbon Monoxide	ASTM 1945	%	NA	NA
Carbon Tetrachloride	EPA TO-15	ppb	1.0/100	ND
Carbonyl sulfide	ASTM D-5504	ppm	0.1	0.29
Chlorobenzene	EPA TO-15	ppb	0.5/5	ND
Chlorodifluoromethane	EPA TO-15	ppb	1.0/100	787
Chloroethane	EPA TO-15	ppb	1.0/100	ND
Chloroform	EPA TO-15	ppb	1.0/100	ND
Chloromethane	EPA TO-15	ppb	1.0/100	ND
1,3-Dichlorobenzene	EPA TO-15	ppb	1.0/100	ND
1,4-Dichlorobenzene	EPA TO-15	ppb	1.0/100	510
1,2-Dichlorobenzene	EPA TO-15	ppb	1.0/100	ND
Dichlorodifluoromethane	EPA TO-15	ppb	1.0/100	833
Dichlorofluoromethane	EPA TO-15	ppb	1.0/100	151
Dichloromethane (Methylene Chloride)	EPA TO-15	ppb	1.0/100	112
Dimethyl sulfide	ASTM D-5504	ppm	0.1	8.2
Ethane (C2)	EPA 18/ASTM 1945	ppm	30	ND
Ethanol	EPA TO-15	ppb	1.0/100	183000
Ethyl Mercaptan	ASTM D-5504	ppm	0.1	0.21
Ethyl Benzene	EPA TO-15	ppb	1.0/100	6250
1,2 Dibromethane (Ethylene Dibromide)	EPA TO-15	ppb	1.0/100	ND
Trichlorofluoromethane	EPA TO-15	ppb	1.0/100	ND
Hexane	EPA TO-15	ppb	1.0/100	679
Hydrogen sulfide	ASTM D-5504	ppm	0.1	70
Mercury	NIOSH 6009	ug/m3	NA	NA
2-Butanone (MEK)	EPA TO-15	ppb	1.0/100	41800
MiBK	EPA TO-15	ppb	1.0/100	2920
Pentane (C5)	EPA 18/ASTM 1945	ppm	0.3	93.1
Tetrachloroethylene (Perchloroethylene)	EPA TO-15	ppb	1.0/100	325
Propane (C3)	EPA 18/ASTM 1945	ppm	0.3	18.4
trans-1,2-Dichloroethene	EPA TO-15	ppb	1.0/100	ND
Trichloroethylene	EPA TO-15	ppb	1.0/100	151
Vinyl Chloride	EPA TO-15	ppb	1.0/100	154
m,p-Xylene	EPA TO-15	ppb	1.0/100	11900
o-Xylene	EPA TO-15	ppb	1.0/100	3340
Benzene	EPA TO-15	ppb	1.0/100	858
Toluene	EPA TO-15	ppb	1.0/100	18500

ND = not detected
pql = not detected (practical quatitation limit)

B
Calculations

CEM BIAS CORRECTION SUMMARY

Facility:	Kirby Canyon Recycling & Disposal Facility	Barometric:	
Unit:	Flare A-11	Leak Check:	OK
Condition:	1550°F - Condensate On	Strat. Check:	OK
Date:	11-06-07	Personnel:	gw, jm

	O_2	CO_2	NOx	CO	THC	CH4	SO_2		
Analyzer	755R	PIR 2000	42i	48C	RS-55	RS-55	721AT		
Range	25	10	50	100	50	50	100		r
Units, ppm or %	%	%	ppm	ppm	ppm	ppm	ppm		
Span Gas Value	20.43	12.62	44.8	88.1	45.0	45.0			Ccal
Run 1	0.00	0.00	0.0	0.0	0.0	0.0			zero (initial), Cib
Test Time:	20.38	12.60	45.3	88.2	45.5	45.5			cal (initial), Cib
0840-0910	12.23	7.97	12.8	7.0	1.0	<1			TEST AVG, Cavg
	0.30	0.00	0.0	0.0	0.5	0.5			zero (final), Cfb
	20.13	12.53	45.5	88.0	45.7	45.7			cal (final), Cfb
	1%	*0%*	*0%*	*0%*	*1%*	*1%*			% zero drift
	-1%	*-1%*	*1%*	*0%*	*0%*	*0%*			% cal drift
	12.28	**8.00**	**12.6**	**7.0**	**0.7**	**<1**			**Cgas**
Run 2	0.30	0.00	0.0	0.0	0.5	0.5			zero (initial), Cib
Test Time:	20.13	12.53	45.5	88.0	45.7	45.7			cal (initial), Cib
0928-0958	11.88	8.10	13.8	<5	1.3	<1			TEST AVG, Cavg
	0.25	0.00	0.0	0.0	1.3	1.3			zero (final), Cfb
	20.00	12.38	45.5	88.0	46.8	46.8			cal (final), Cfb
	0%	*0%*	*0%*	*0%*	*2%*	*2%*			% zero drift
	-1%	*-1%*	*0%*	*0%*	*2%*	*2%*			% cal drift
	11.98	**8.21**	**13.5**	**<5**	**0.4**	**<0.1**			**Cgas**
Run 3	0.25	0.00	0.0	0.0	1.3	1.3			zero (initial), Cib
Test Time:	20.00	12.38	45.5	88.0	46.8	46.8			cal (initial), Cib
1010-1040	11.83	7.95	13.9	<5	1.0	<1			TEST AVG, Cavg
	0.25	0.00	0.0	0.0	0.8	0.8			zero (final), Cfb
	20.00	12.15	45.5	87.4	47.8	47.8			cal (final), Cfb
	0%	*0%*	*0%*	*0%*	*-1%*	*-1%*			% zero drift
	0%	*-2%*	*0%*	*-1%*	*2%*	*2%*			% cal drift
	11.98	**8.18**	**13.7**	**<5**	**0.0**	**<0.0**			**Cgas**

Pollutant Concentration (Cgas) = (Cavg - Co) x Ccal / (Cbcal - Co)

Zero and Calibration Drift = 100 x (Cfb - Cib) / r

Co = (Cib + Cfb) / 2 for zero gas

Cbcal = (Cif + Cfb) / 2 for cal gas

STACK GAS FLOW RATE DETERMINATION -- Method 19

Facility: Kirby Canyon Recycling & Disposal Facility
Unit: Flare A-11
Condition: 1550°F - Condensate On
Date: 11/06/07

		Time:	0840-0910	0928-0958	1010-1040	
		Run:	1	2	3	
# cubic feet/rev			1,159	1,097	1,083	ft^3
# of seconds/rev			60	60	60	seconds
Gas Line Pressure (PSIG)			0.0	0.0	0.0	PSI Gauge
Gas Line Pressure (PSIA)			14.7	14.7	14.7	PSI Absolute
Gross Calorific Value @ 60°F	avg		479.9	473.5	473.5	Btu / ft^3
Stack Oxygen			12.3	12.0	12.0	%
Gas Fd-Factor @ 60°F	avg		9,480.8	9,505.0	9,505.0	DSCF/MMBtu
Gas Temperature (°F)			70	70	70	°F
Standard Temperature (°F) Tstd			70	70	70	°F
Realtime Fuel Rate (CFM)			1159.0	1097.0	1083.0	CFM
Corrected Fuel Rate (SCFM) @ Tstd			1159.0	1097.0	1083.0	SCFM
Fuel Flowrate (SCFH)			69,540	65,820	64,980	SCFH
Million Btu per minute			0.546	0.510	0.503	MMBtu/min
Heat Input (MMBtu/hour)			32.7	30.6	30.2	MMBtu/Hr
Stack Gas Flow Rate @ Tstd			**12,779**	**11,569**	**11,419**	**DSCFM**

WHERE:

Gas Fd-Factor = Fuel conversion factor (ratio of combustion gas volumes to heat inputs)
MMBtu = Million Btu

CALCULATIONS:

SCFM = CFM * (460+Tstd) * (PSIA) / 14.7 / (460+Gas°F))
SCFH = SCFM * 60
MMBtu/min = SCFM * (Btu/ft^3) * (520/(460+Tstd)) / 1,000,000
MMBtu/hr Heat Input = MMBtu/min * 60
DSCFM = Gas Fd-Factor * ((460+Tstd)/520) * MMBtu/min * 20.9/ (20.9 - O_2%)

Fd-FACTOR CALCULATION

Landfill Gas -1A

Sample ID: Kirby Canyon Recycling & Disposal Facility
Date: 11/6/2007

	Molecular Weight	Ideal Gas Specific Gravity, G_i	Ideal Gas Total Calorific Value, H_i	Compressibility Summation Factor, $\sqrt{b_i}$	Specific Volume, ft^3/lb	Composition Mole Fraction, x_i	Specific Gravity Fraction, x_iG_i	Calorific Value Fraction, x_iH_i	Compressibility Fraction, $x_i\sqrt{b_i}$	x_iMW	Weight Fraction, $f_iMW / \sum xiMW$	CARBON Weight Fraction	HYDROGEN Weight Fraction	OXYGEN Weight Fraction	NITROGEN Weight Fraction	SULFUR Weight Fraction	CHONS SUM	Specific Volume, ft^3/lb
Helium‡	4.00	0.1382	0.0	-0.0170		**0.0000**	0.0000	0.0	0.0000	0.0000	0.0000							
Hydrogen (H_2) ‡	2.02	0.0696	324.9		187.723	**0.0030**	0.0002	1.0	0.0000	0.0060							0.0000	
Nitrogen	28.01	0.9672	0.0	0.0164	13.443	**0.1450**	0.1402	0.0	0.0024	4.0615	0.1441				0.1441		0.1441	1.9368
Oxygen	32.00	1.1053	0.0		11.819	**0.0120**	0.0133	0.0	0.0000	0.3840	0.0136			0.0136			0.0136	0.1610
Carbon Monoxide	28.01	0.9671	321.3	0.0217	13.506	**0.0000**	0.0000	0.0	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000	0.0000
Carbon Dioxide‡	44.01	1.5194	0.0	0.0640	8.548	**0.3670**	0.5576	0.0	0.0235	16.1517	0.5730	0.1564	0.0000	0.4166			0.5730	4.8976
Methane	16.04	0.5539	1012.0	0.0436	23.565	**0.4730**	0.2620	478.7	0.0206	7.5869	0.2691	0.2015	0.0677				0.2692	6.3422
Ethane	30.01	1.0382	1772.9	0.0917	12.455	**0.0000**	0.0000	0.0	0.0000	0.0000	0.0000	0.0000	0.0000				0.0000	0.0000
Propane	44.09	1.5224	2523.0	0.1342	8.365	**0.0000**	0.0000	0.0	0.0000	0.0000	0.0000	0.0000	0.0000				0.0000	0.0000
Isobutane	58.12	2.0067	3260.1	0.1744	6.321	**0.0000**	0.0000	0.0	0.0000	0.0000	0.0000	0.0000	0.0000				0.0000	0.0000
n-Butane	58.12	2.0067	3269.6	0.1825	6.321	**0.0000**	0.0000	0.0	0.0000	0.0000	0.0000	0.0000	0.0000				0.0000	0.0000
Isopentane	72.14	2.4910	4009.4	0.2276	5.252	**0.0000**	0.0000	0.0	0.0000	0.0000	0.0000	0.0000	0.0000				0.0000	0.0000
n-Pentane	72.14	2.4910	4018.5	0.2377	5.252	**0.0000**	0.0000	0.0	0.0000	0.0000	0.0000	0.0000	0.0000				0.0000	0.0000
Hexanes	86.17	2.9753	4758.0	0.2830	4.398	**0.0000**	0.0000	0.0	0.0000	0.0000	0.0000	0.0000	0.0000				0.0000	0.0000
Total						1.0000	**0.973**	**479.7**	0.0230	28.1901	0.9998	0.3579	0.0677	0.4302	0.1441	0.0000	0.9998	**13.34**
							SG	**Btu/ft³**	**$\sum x_i\sqrt{b_i}$**	**$\sum xiMW$**		**35.79%**	**6.77%**	**43.03%**	**14.41%**	**0.00%**		**ft^3/lb**

‡ Omitted from Compressibility Factor Calculation

Calculated Specific Gravity (SG) *(Air = 1.000 @ 760mm Hg, 60°F)* **0.973**

Compressibility Factor (Z) **0.9995**

$Z = 1 - (\sum x_i \sqrt{b_i})^2 + (2x_{11} \cdot x_{11}^2)\ (0.0005)^3$

Specific Gravity (corrected) **0.974**

Specific Volume, (SV) ft^3/lb **13.34** **ft^3/lb**

Gross Calorific Value (GCV) @ 60°F **479.9** **Btu/ft^3 Gross**

Gross Calorific Value (GCV) @ 68°F **472.6** **Btu/ft^3 Gross**

Gross Calorific Value (GCV) **6,401** **Btu/lb**

$Btu/lb = Btu/ft^3 * ft^3/lb$

Gas Fd-Factor @ 68°F **9,627** **DSCF/MMBtu**

$DSCF/MMBtu = 10^6 * ((3.64*\%oH_2)+(1.53*\%oC)+(0.57*\%oS)+(0.14*\%oN_2)-(0.46*\%oO_2)) / Btu/lb$

Gas Fd-Factor @ 60°F **9,481** **DSCF/MMBtu**

Fd-FACTOR CALCULATION

Landfill Gas -2A

Sample ID: Kirby Canyon Recycling & Disposal Facility
Date: 11/6/2007

	Molecular Weight	Ideal Gas Specific Gravity, G_i	Ideal Gas Total Calorific Value, H_i	Compressibility Summation Factor, $\sqrt{b_i}$	Specific Volume, ft^3/lb	Composition Mole Fraction, x_i	Specific Gravity Fraction, x_iG_i	Calorific Value Fraction, x_iH_i	Compressibility Fraction, $x_i\sqrt{b_i}$	x_iMW	Weight Fraction, $\xi_i MW / \sum xiMW$	CARBON Weight Fraction	HYDROGEN Weight Fraction	OXYGEN Weight Fraction	NITROGEN Weight Fraction	SULFUR Weight Fraction	CHONS SUM	Specific Volume, ft^3/lb
Helium‡	4.00	0.1382	0.0	-0.0170		**0.0000**	0.0000	0.0	0.0000	0.0000	0.0000							
Hydrogen (H_2) ‡	2.02	0.0696	324.9		187.723	**0.0020**	0.0001	0.6	0.0000	0.0040							0.0000	
Nitrogen	28.01	0.9672	0.0	0.0164	13.443	**0.1560**	0.1509	0.0	0.0026	4.3696	0.1548				0.1548		0.1548	2.0812
Oxygen	32.00	1.1053	0.0		11.819	**0.0120**	0.0133	0.0	0.0000	0.3840	0.0136			0.0136			0.0136	0.1608
Carbon Monoxide	28.01	0.9671	321.3	0.0217	13.506	**0.0000**	0.0000	0.0	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000	0.0000
Carbon Dioxide‡	44.01	1.5194	0.0	0.0640	8.548	**0.3630**	0.5515	0.0	0.0232	15.9756	0.5660	0.1545	0.0000	0.4116			0.5660	4.8384
Methane	16.04	0.5539	1012.0	0.0436	23.565	**0.4670**	0.2587	472.6	0.0204	7.4907	0.2654	0.1987	0.0667				0.2654	6.2542
Ethane	30.01	1.0382	1772.9	0.0917	12.455	**0.0000**	0.0000	0.0	0.0000	0.0000	0.0000	0.0000	0.0000				0.0000	0.0000
Propane	44.09	1.5224	2523.0	0.1342	8.365	**0.0000**	0.0000	0.0	0.0000	0.0000	0.0000	0.0000	0.0000				0.0000	0.0000
Isobutane	58.12	2.0067	3260.1	0.1744	6.321	**0.0000**	0.0000	0.0	0.0000	0.0000	0.0000	0.0000	0.0000				0.0000	0.0000
n-Butane	58.12	2.0067	3269.6	0.1825	6.321	**0.0000**	0.0000	0.0	0.0000	0.0000	0.0000	0.0000	0.0000				0.0000	0.0000
Isopentane	72.14	2.4910	4009.4	0.2276	5.252	**0.0000**	0.0000	0.0	0.0000	0.0000	0.0000	0.0000	0.0000				0.0000	0.0000
n-Pentane	72.14	2.4910	4018.5	0.2377	5.252	**0.0000**	0.0000	0.0	0.0000	0.0000	0.0000	0.0000	0.0000				0.0000	0.0000
Hexanes	86.17	2.9753	4758.0	0.2830	4.398	**0.0000**	0.0000	0.0	0.0000	0.0000	0.0000	0.0000	0.0000				0.0000	0.0000
Total						1.0000	**0.974**	**473.3**	0.0229	28.2239	0.9999	0.3532	0.0667	0.4252	0.1548	0.0000	0.9999	**13.33**
							SG	**Btu/ft^3**	$\sum x_i\sqrt{b_i}$	$\sum xiMW$		**35.32%**	**6.67%**	**42.52%**	**15.48%**	**0.00%**		**ft^3/lb**

‡ Omitted from Compressibility Factor Calculation

Calculated Specific Gravity (SG) *(Air = 1.000 @ 760mm Hg, 60°F)* **0.974**

Compressibility Factor (Z) **0.9995**

$Z = 1 - (\sum x_i \sqrt{b_i})^2 + (2x_{H_2} - x_H^2)\,(0.0005)$

Specific Gravity (corrected) **0.975**

Specific Volume, (SV) ft^3/lb **13.33** **ft^3/lb**

Gross Calorific Value (GCV) @ 60°F **473.5** **Btu/ft^3 Gross**

Gross Calorific Value (GCV) @ 68°F **466.3** **Btu/ft^3 Gross**

Gross Calorific Value (GCV) **6,314** **Btu/lb**

$Btu/lb = Btu/ft^3 * ft^3/lb$

Gas Fd-Factor @ 68°F **9,651** **DSCF/MMBtu**

$DSCF/MMBtu = 10^6 * ((3.64*\%H_2) + (1.53*\%C) + (0.57*\%S) + (0.14*\%N_2) - (0.46*\%O_2)) / Btu/lb$

Gas Fd-Factor @ 60°F **9,505** **DSCF/MMBtu**

Fd-FACTOR CALCULATION

Landfill Gas -3A

Sample ID: Kirby Canyon Recycling & Disposal Facility
Date: 11/6/2007

	Molecular Weight	Ideal Gas Specific Gravity, G_i	Ideal Gas Total Calorific Value, H_i	Compressibility Summation Factor, $\sqrt{b_i}$	Specific Volume, ft^3/lb	Composition Mole Fraction, x_i	Specific Gravity Fraction, x_iG_i	Calorific Value Fraction, x_iH_i	Compressibility Fraction, $x_i\sqrt{b_i}$	x_iMW	Weight Fraction, $\xi_iMW / \Sigma xiMW$	CARBON Weight Fraction	HYDROGEN Weight Fraction	OXYGEN Weight Fraction	NITROGEN Weight Fraction	SULFUR Weight Fraction	CHONS SUM	Specific Volume, ft^3/lb
Helium‡	4.00	0.1382	0.0	-0.0170		**0.0000**	0.0000	0.0	0.0000	0.0000	0.0000							
Hydrogen (H_2) ‡	2.02	0.0696	324.9		187.723	**0.0020**	0.0001	0.6	0.0000	0.0040							0.0000	
Nitrogen	28.01	0.9672	0.0	0.0164	13.443	**0.1560**	0.1509	0.0	0.0026	4.3696	0.1548				0.1548		0.1548	2.0812
Oxygen	32.00	1.1053	0.0		11.819	**0.0120**	0.0133	0.0	0.0000	0.3840	0.0136			0.0136			0.0136	0.1608
Carbon Monoxide	28.01	0.9671	321.3	0.0217	13.506	**0.0000**	0.0000	0.0	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000	0.0000
Carbon Dioxide‡	44.01	1.5194	0.0	0.0640	8.548	**0.3630**	0.5515	0.0	0.0232	15.9756	0.5660	0.1545	0.0000	0.4116			0.5660	4.8384
Methane	16.04	0.5539	1012.0	0.0436	23.565	**0.4670**	0.2587	472.6	0.0204	7.4907	0.2654	0.1987	0.0667				0.2654	6.2542
Ethane	30.01	1.0382	1772.9	0.0917	12.455	**0.0000**	0.0000	0.0	0.0000	0.0000	0.0000	0.0000	0.0000				0.0000	0.0000
Propane	44.09	1.5224	2523.0	0.1342	8.365	**0.0000**	0.0000	0.0	0.0000	0.0000	0.0000	0.0000	0.0000				0.0000	0.0000
Isobutane	58.12	2.0067	3260.1	0.1744	6.321	**0.0000**	0.0000	0.0	0.0000	0.0000	0.0000	0.0000	0.0000				0.0000	0.0000
n-Butane	58.12	2.0067	3269.6	0.1825	6.321	**0.0000**	0.0000	0.0	0.0000	0.0000	0.0000	0.0000	0.0000				0.0000	0.0000
Isopentane	72.14	2.4910	4009.4	0.2276	5.252	**0.0000**	0.0000	0.0	0.0000	0.0000	0.0000	0.0000	0.0000				0.0000	0.0000
n-Pentane	72.14	2.4910	4018.5	0.2377	5.252	**0.0000**	0.0000	0.0	0.0000	0.0000	0.0000	0.0000	0.0000				0.0000	0.0000
Hexanes	86.17	2.9753	4758.0	0.2830	4.398	**0.0000**	0.0000	0.0	0.0000	0.0000	0.0000	0.0000	0.0000				0.0000	0.0000
Total						1.0000	**0.974**	**473.3**	0.0229	28.2239	0.9999	0.3532	0.0667	0.4252	0.1548	0.0000	0.9999	**13.33**
							SG	**Btu/ft^3**	**$\Sigma x_i\sqrt{b_i}$**	**$\Sigma xiMW$**		**35.32%**	**6.67%**	**42.52%**	**15.48%**	**0.00%**		**ft^3/lb**

‡ Omitted from Compressibility Factor Calculation

Calculated Specific Gravity (SG) *(Air = 1.000 @ 760mm Hg, 60°F)* **0.974**

Compressibility Factor (Z) **0.9995**

$Z = 1 - (\Sigma x_i \sqrt{b_i})^2 + (2x_H - x_H^2)(0.0005)$

Specific Gravity (corrected) **0.975**

Specific Volume, (SV) ft^3/lb **13.33** **ft^3/lb**

Gross Calorific Value (GCV) @ 60°F **473.5** **Btu/ft^3 Gross**

Gross Calorific Value (GCV) @ 68°F **466.3** **Btu/ft^3 Gross**

Gross Calorific Value (GCV) **6,314** **Btu/lb**

$Btu/lb = Btu/ft^3 * ft^3/lb$

Gas Fd-Factor @ 68°F **9,651** **DSCF/MMBtu**

$DSCF/MMBtu = 10^6 * ((3.64*\%H_2)+(1.53*\%C)+(0.57*\%S)+(0.14*\%N_2)-(0.46*\%O_2)) / Btu/lb$

Gas Fd-Factor @ 60°F **9,505** **DSCF/MMBtu**

CEM BIAS CORRECTION SUMMARY

Facility:	Kirby Canyon Recycling & Disposal Facility	Barometric:	
Unit:	Flare A-11	Leak Check:	OK
Condition:	1550°F - Condensate Off	Strat. Check:	OK
Date:	11-06-07	Personnel:	gw, jm

	O_2	CO_2	NOx	CO	THC	CH4	SO_2		
Analyzer	755R	PIR 2000	42i	48C	RS-55	RS-55	721AT		
Range	25	15	50	100	50	50	100		r
Units, ppm or %	%	%	ppm	ppm	ppm	ppm	ppm		
Span Gas Value	20.43	12.62	44.8	88.1	45.0	45.0			Ccal
Run 1	0.25	0.00	-0.25	0.0	0.0	0.0			zero (initial), Cib
Test Time:	20.25	12.22	44.8	86.5	47.5	47.5			cal (initial), Cib
1145-1215	12.13	7.73	11.3	8.0	2.7	2.5			TEST AVG, Cavg
	0.25	0.00	-0.3	0.0	0.0	0.0			zero (final), Cfb
	20.25	12.22	44.8	86.5	47.5	47.5			cal (final), Cfb
	0%	*0%*	*0%*	*0%*	*0%*	*0%*			% zero drift
	0%	*0%*	*0%*	*0%*	*0%*	*0%*			% cal drift
	12.14	**7.98**	**11.4**	**8.1**	**2.5**	**2.4**			**Cgas**
Run 2	0.25	0.00	-0.3	0.0	0.0	0.0			zero (initial), Cib
Test Time:	20.25	12.22	44.8	86.5	47.5	47.5			cal (initial), Cib
1225-1255	12.13	7.58	11.0	3.3	1.5				TEST AVG, Cavg
	0.14	0.00	-0.3	0.0	0.5	0.5			zero (final), Cfb
	20.00	12.08	44.3	85.0	49.5	49.5			cal (final), Cfb
	0%	*0%*	*0%*	*0%*	*1%*	*1%*			% zero drift
	-1%	*-1%*	*-1%*	*-2%*	*4%*	*4%*			% cal drift
	12.23	**7.87**	**11.3**	**3.4**	**1.2**				**Cgas**
Run 3	0.14	0.00	-0.3	0.0	0.5	0.5			zero (initial), Cib
Test Time:	20.00	12.08	44.3	85.0	49.5	49.5			cal (initial), Cib
1308-1338	12.00	7.50	11.3	7.8	3.6	4.3			TEST AVG, Cavg
	0.14	0.00	-0.3	0.0	0.5	0.5			zero (final), Cfb
	20.00	11.94	43.8	85.0	48.8	48.8			cal (final), Cfb
	0%	*0%*	*0%*	*0%*	*0%*	*0%*			% zero drift
	0%	*-1%*	*-1%*	*0%*	*-2%*	*-2%*			% cal drift
	12.20	**7.88**	**11.7**	**8.1**	**2.8**	**3.5**			**Cgas**

Pollutant Concentration (Cgas) = (Cavg - Co) x Ccal / (Cbcal - Co)
Zero and Calibration Drift = 100 x (Cfb - Cib) / r

Co = (Cib + Cfb) / 2 for zero gas
Cbcal = (Cif + Cfb) / 2 for cal gas

STACK GAS FLOW RATE DETERMINATION -- Method 19

Facility: Kirby Canyon Recycling & Disposal Facility
Unit: Flare A-11
Condition: 1550°F - Condensate Off
Date: 11/06/07

		Time:	1145-1215	1225-1255	1308-1338	
		Run:	**1**	**2**	**3**	
# cubic feet/rev			1,172	1,146	1,196	ft^3
# of seconds/rev			60	60	60	seconds
Gas Line Pressure (PSIG)			0.0	0.0	0.0	PSI Gauge
Gas Line Pressure (PSIA)			14.7	14.7	14.7	PSI Absolute
Gross Calorific Value @ 60°F	avg		477.9	476.5	475.5	Btu / ft^3
Stack Oxygen			12.1	12.2	12.2	%
Gas Fd-Factor @ 60°F	avg		9,515.4	9,502.3	9,496.3	DSCF/MMBtu
Gas Temperature (°F)			70	70	70	°F
Standard Temperature (°F) Tstd			70	70	70	°F
Realtime Fuel Rate (CFM)			1172.0	1146.0	1196.0	CFM
Corrected Fuel Rate (SCFM) @ Tstd			1172.0	1146.0	1196.0	SCFM
Fuel Flowrate (SCFH)			70,320	68,760	71,760	SCFH
Million Btu per minute			0.550	0.536	0.558	MMBtu/min
Heat Input (MMBtu/hour)			33.0	32.1	33.5	MMBtu/Hr
Stack Gas Flow Rate @ Tstd			**12,709**	**12,516**	**12,975**	**DSCFM**

WHERE:

Gas Fd-Factor = Fuel conversion factor (ratio of combustion gas volumes to heat inputs)
MMBtu = Million Btu

CALCULATIONS:

SCFM = CFM * (460+Tstd) * (PSIA) / 14.7 / (460+Gas°F))
SCFH = SCFM * 60
MMBtu/min = SCFM * (Btu/ft^3) * (520/(460+Tstd)) / 1,000,000
MMBtu/hr Heat Input = MMBtu/min * 60
DSCFM = Gas Fd-Factor * ((460+Tstd)/520) * MMBtu/min * 20.9/ (20.9 - O_2%)

Fd-FACTOR CALCULATION

Landfill Gas -1B

Sample ID: Kirby Canyon Recycling & Disposal Facility
Date: 11/6/2007

	Molecular Weight	Ideal Gas Specific Gravity, G_i	Ideal Gas Total Calorific Value, H_i	Compressibility Summation Factor, $\sqrt{b_i}$	Specific Volume, ft^3/lb	Composition Mole Fraction, x_i	Specific Gravity Fraction, x_iG_i	Calorific Value Fraction, x_iH_i	Compressibility Fraction, $x_i\sqrt{b_i}$	x_iMW	Weight Fraction, $\xi_i MW / \Sigma xiMW$	CARBON Weight Fraction	HYDROGEN Weight Fraction	OXYGEN Weight Fraction	NITROGEN Weight Fraction	SULFUR Weight Fraction	CHONS SUM	Specific Volume, ft^3/lb
Helium‡	4.00	0.1382	0.0	-0.0170		**0.0000**	0.0000	0.0	0.0000	0.0000	0.0000							
Hydrogen (H_2) ‡	2.02	0.0696	324.9		187.723	**0.0000**	0.0000	0.0	0.0000	0.0000							0.0000	
Nitrogen	28.01	0.9672	0.0	0.0164	13.443	**0.1490**	0.1441	0.0	0.0024	4.1735	0.1479				0.1479		0.1479	1.9884
Oxygen	32.00	1.1053	0.0		11.819	**0.0100**	0.0111	0.0	0.0000	0.3200	0.0113			0.0113			0.0113	0.1340
Carbon Monoxide	28.01	0.9671	321.3	0.0217	13.506	**0.0000**	0.0000	0.0	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000	0.0000
Carbon Dioxide‡	44.01	1.5194	0.0	0.0640	8.548	**0.3670**	0.5576	0.0	0.0235	16.1517	0.5724	0.1562	0.0000	0.4162			0.5724	4.8931
Methane	16.04	0.5539	1012.0	0.0436	23.565	**0.4720**	0.2614	477.7	0.0206	7.5709	0.2683	0.2009	0.0674				0.2684	6.3229
Ethane	30.01	1.0382	1772.9	0.0917	12.455	**0.0000**	0.0000	0.0	0.0000	0.0000	0.0000	0.0000	0.0000				0.0000	0.0000
Propane	44.09	1.5224	2523.0	0.1342	8.365	**0.0000**	0.0000	0.0	0.0000	0.0000	0.0000	0.0000	0.0000				0.0000	0.0000
Isobutane	58.12	2.0067	3260.1	0.1744	6.321	**0.0000**	0.0000	0.0	0.0000	0.0000	0.0000	0.0000	0.0000				0.0000	0.0000
n-Butane	58.12	2.0067	3269.6	0.1825	6.321	**0.0000**	0.0000	0.0	0.0000	0.0000	0.0000	0.0000	0.0000				0.0000	0.0000
Isopentane	72.14	2.4910	4009.4	0.2276	5.252	**0.0000**	0.0000	0.0	0.0000	0.0000	0.0000	0.0000	0.0000				0.0000	0.0000
n-Pentane	72.14	2.4910	4018.5	0.2377	5.252	**0.0000**	0.0000	0.0	0.0000	0.0000	0.0000	0.0000	0.0000				0.0000	0.0000
Hexanes	86.17	2.9753	4758.0	0.2830	4.398	**0.0000**	0.0000	0.0	0.0000	0.0000	0.0000	0.0000	0.0000				0.0000	0.0000
Total						0.9980	**0.974** SG	**477.7** Btu/ft^3	0.0230 $\Sigma x_i\sqrt{b_i}$	28.2160 ΣxiMW	1.0000	0.3571 **35.71%**	0.0674 **6.74%**	0.4276 **42.75%**	0.1479 **14.79%**	0.0000 **0.00%**	1.0000	**13.34** ft^3/lb

‡ Omitted from Compressibility Factor Calculation

Calculated Specific Gravity (SG) *(Air = 1.000 @ 760mm Hg, 60°F)* **0.974**

Compressibility Factor (Z) **0.9995**

$Z = 1 - (\Sigma x_i \sqrt{b_i})^2 + (2x_H - x_H^2)(0.0005)^2$

Specific Gravity (corrected) **0.975**

Specific Volume, (SV) ft^3/lb **13.34** ft^3/lb

Gross Calorific Value (GCV) @ 60°F **477.9** **Btu/ft^3 Gross**

Gross Calorific Value (GCV) @ 68°F **470.7** **Btu/ft^3 Gross**

Gross Calorific Value (GCV) **6,375** **Btu/lb**

$Btu/lb = Btu/ft^3 * ft^3/lb$

Gas Fd-Factor @ 68°F **9,662** **DSCF/MMBtu**

$DSCF/MMBtu = 10^6 * ((3.64 * {}_aH_2) + (1.53 * {}_aC) + (0.57 * {}_aS) + (0.14 * {}_aN_2) - (0.46 * {}_aO_2)) / Btu/lb$

Gas Fd-Factor @ 60°F **9,515** **DSCF/MMBtu**

Fd-FACTOR CALCULATION

Landfill Gas -2B

Sample ID: Kirby Canyon Recycling & Disposal Facility
Date: 11/6/2007

	Molecular Weight	Ideal Gas Specific Gravity, G_i	Ideal Gas Total Calorific Value, H_i	Compressibility Summation Factor, $\sqrt{b_i}$	Specific Volume, ft³/lb	Composition Mole Fraction, x_i	Specific Gravity Fraction, x_iG_i	Calorific Value Fraction, x_iH_i	Compressibility Fraction, $x_i\sqrt{b_i}$	x_iMW	Weight Fraction, $\xi_iMW / \Sigma xiMW$	CARBON Weight Fraction	HYDROGEN Weight Fraction	OXYGEN Weight Fraction	NITROGEN Weight Fraction	SULFUR Weight Fraction	CHONS SUM	Specific Volume, ft³/lb
Helium‡	4.00	0.1382	0.0	-0.0170		**0.0000**	0.0000	0.0	0.0000	0.0000	0.0000							
Hydrogen (H_2) ‡	2.02	0.0696	324.9		187.723	**0.0020**	0.0001	0.6	0.0000	0.0040							0.0000	
Nitrogen	28.01	0.9672	0.0	0.0164	13.443	**0.1520**	0.1470	0.0	0.0025	4.2575	0.1509				0.1509		0.1509	2.0284
Oxygen	32.00	1.1053	0.0		11.819	**0.0110**	0.0122	0.0	0.0000	0.3520	0.0125			0.0125			0.0125	0.1474
Carbon Monoxide	28.01	0.9671	321.3	0.0217	13.506	**0.0000**	0.0000	0.0	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000	0.0000
Carbon Dioxide‡	44.01	1.5194	0.0	0.0640	8.548	**0.3650**	0.5546	0.0	0.0234	16.0637	0.5693	0.1554	0.0000	0.4139			0.5693	4.8665
Methane	16.04	0.5539	1012.0	0.0436	23.565	**0.4700**	0.2603	475.6	0.0205	7.5388	0.2672	0.2001	0.0672				0.2672	6.2961
Ethane	30.01	1.0382	1772.9	0.0917	12.455	**0.0000**	0.0000	0.0	0.0000	0.0000	0.0000	0.0000	0.0000				0.0000	0.0000
Propane	44.09	1.5224	2523.0	0.1342	8.365	**0.0000**	0.0000	0.0	0.0000	0.0000	0.0000	0.0000	0.0000				0.0000	0.0000
Isobutane	58.12	2.0067	3260.1	0.1744	6.321	**0.0000**	0.0000	0.0	0.0000	0.0000	0.0000	0.0000	0.0000				0.0000	0.0000
n-Butane	58.12	2.0067	3269.6	0.1825	6.321	**0.0000**	0.0000	0.0	0.0000	0.0000	0.0000	0.0000	0.0000				0.0000	0.0000
Isopentane	72.14	2.4910	4009.4	0.2276	5.252	**0.0000**	0.0000	0.0	0.0000	0.0000	0.0000	0.0000	0.0000				0.0000	0.0000
n-Pentane	72.14	2.4910	4018.5	0.2377	5.252	**0.0000**	0.0000	0.0	0.0000	0.0000	0.0000	0.0000	0.0000				0.0000	0.0000
Hexanes	86.17	2.9753	4758.0	0.2830	4.398	**0.0000**	0.0000	0.0	0.0000	0.0000	0.0000	0.0000	0.0000				0.0000	0.0000
Total						1.0000	**0.974**	**476.3**	0.0230	28.2160	0.9999	0.3554	0.0672	0.4264	0.1509	0.0000	0.9999	**13.34**
							SG	**Btu/ft³**	$\Sigma x_i\sqrt{b_i}$	$\Sigma xiMW$		**35.55%**	**6.72%**	**42.65%**	**15.09%**	**0.00%**		**ft³/lb**

‡ Omitted from Compressibility Factor Calculation

Calculated Specific Gravity (SG) *(Air = 1.000 @ 760mm Hg, 60°F)* **0.974**

Compressibility Factor (Z) **0.9995**

$Z = 1 - ((\Sigma x_i \sqrt{b_i})^2 + (2x_H \cdot x_H^2))\ (0.0005)$

Specific Gravity (corrected) **0.975**

Specific Volume, (SV) ft³/lb **13.34** **ft³/lb**

Gross Calorific Value (GCV) @ 60°F **476.5** **Btu/ft³ Gross**

Gross Calorific Value (GCV) @ 68°F **469.3** **Btu/ft³ Gross**

Gross Calorific Value (GCV) **6,356** **Btu/lb**

$Btu/lb = Btu/ft^3 * ft^3/lb$

Gas Fd-Factor @ 68°F **9,648** **DSCF/MMBtu**

$DSCF/MMBtu = 10^6 * ((3.64*\%aH_2)+(1.53*\%aC)+(0.57*\%aS)+(0.14*\%aN_2)-(0.46*\%aO_2)) / Btu/lb$

Gas Fd-Factor @ 60°F **9,502** **DSCF/MMBtu**

Fd-FACTOR CALCULATION

Landfill Gas -3B

Sample ID: Kirby Canyon Recycling & Disposal Facility
Date: 11/6/2007

	Molecular Weight	Ideal Gas Specific Gravity, G_i	Ideal Gas Total Calorific Value, H_i	Compressibility Summation Factor, $\sqrt{b_i}$	Specific Volume, ft^3/lb	Composition Mole Fraction, x_i	Specific Gravity Fraction, xG_i	Calorific Value Fraction, xH_i	Compressibility Fraction, $x\sqrt{b_i}$	x_iMW	Weight Fraction, $\xi_i MW / \Sigma xiMW$	CARBON Weight Fraction	HYDROGEN Weight Fraction	OXYGEN Weight Fraction	NITROGEN Weight Fraction	SULFUR Weight Fraction	CHONS SUM	Specific Volume, ft^3/lb
Helium‡	4.00	0.1382	0.0	-0.0170		**0.0000**	0.0000	0.0	0.0000	0.0000	0.0000							
Hydrogen (H_2) ‡	2.02	0.0696	324.9		187.723	**0.0020**	0.0001	0.6	0.0000	0.0040							0.0000	
Nitrogen	28.01	0.9672	0.0	0.0164	13.443	**0.1530**	0.1480	0.0	0.0025	4.2855	0.1519				0.1519		0.1519	2.0418
Oxygen	32.00	1.1053	0.0		11.819	**0.0120**	0.0133	0.0	0.0000	0.3840	0.0136			0.0136			0.0136	0.1608
Carbon Monoxide	28.01	0.9671	321.3	0.0217	13.506	**0.0000**	0.0000	0.0	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000	0.0000
Carbon Dioxide‡	44.01	1.5194	0.0	0.0640	8.548	**0.3640**	0.5531	0.0	0.0233	16.0196	0.5678	0.1549	0.0000	0.4128			0.5678	4.8531
Methane	16.04	0.5539	1012.0	0.0436	23.565	**0.4690**	0.2598	474.6	0.0204	7.5228	0.2666	0.1996	0.0670				0.2666	6.2828
Ethane	30.01	1.0382	1772.9	0.0917	12.455	**0.0000**	0.0000	0.0	0.0000	0.0000	0.0000	0.0000	0.0000				0.0000	0.0000
Propane	44.09	1.5224	2523.0	0.1342	8.365	**0.0000**	0.0000	0.0	0.0000	0.0000	0.0000	0.0000	0.0000				0.0000	0.0000
Isobutane	58.12	2.0067	3260.1	0.1744	6.321	**0.0000**	0.0000	0.0	0.0000	0.0000	0.0000	0.0000	0.0000				0.0000	0.0000
n-Butane	58.12	2.0067	3269.6	0.1825	6.321	**0.0000**	0.0000	0.0	0.0000	0.0000	0.0000	0.0000	0.0000				0.0000	0.0000
Isopentane	72.14	2.4910	4009.4	0.2276	5.252	**0.0000**	0.0000	0.0	0.0000	0.0000	0.0000	0.0000	0.0000				0.0000	0.0000
n-Pentane	72.14	2.4910	4018.5	0.2377	5.252	**0.0000**	0.0000	0.0	0.0000	0.0000	0.0000	0.0000	0.0000				0.0000	0.0000
Hexanes	86.17	2.9753	4758.0	0.2830	4.398	**0.0000**	0.0000	0.0	0.0000	0.0000	0.0000	0.0000	0.0000				0.0000	0.0000
Total						1.0000	**0.974**	**475.3**	0.0230	28.2160	0.9999	0.3546	0.0670	0.4264	0.1519	0.0000	0.9999	**13.34**
							SG	**Btu/ft^3**	**$\Sigma x_i\sqrt{b_i}$**	**ΣxiMW**		**35.46%**	**6.70%**	**42.65%**	**15.19%**	**0.00%**		**ft^3/lb**

‡ Omitted from Compressibility Factor Calculation

Calculated Specific Gravity (SG) *(Air = 1.000 @ 760mm Hg, 60°F)* **0.974**

Compressibility Factor (Z) **0.9995**

$Z = 1 - [(\Sigma x_i \sqrt{b_i})^2 + (2x_{H_2} \cdot x_{H_2}^2)](0.0005)^2$

Specific Gravity (corrected) **0.975**

Specific Volume, (SV) ft^3/lb **13.34** **ft^3/lb**

Gross Calorific Value (GCV) @ 60°F **475.5** **Btu/ft^3 Gross**

Gross Calorific Value (GCV) @ 68°F **468.3** **Btu/ft^3 Gross**

Gross Calorific Value (GCV) **6,343** **Btu/lb**

*Btu/lb = Btu/ft^3 * ft^3/lb*

Gas Fd-Factor @ 68°F **9,642** **DSCF/MMBtu**

*DSCF/MMBtu = 10^6 * [(3.64*%aH$_2$)+(1.53*%aC)+(0.57*%aS)+(0.14*%aN$_2$)-(0.46*%aO$_2$)] / Btu/lb*

Gas Fd-Factor @ 60°F **9,496** **DSCF/MMBtu**

C
Laboratory Reports

Atmospheric Analysis & Consulting, Inc.

CLIENT : Blue Sky Environmental, LLC
PROJECT NAME : KIRBY
AAC PROJECT NO. : 071221
REPORT DATE : 11/21/2007

On November 7, 2007, Atmospheric Analysis & Consulting, Inc. received six (6) Tedlar Bags for Total Reduced Sulfur analysis by ASTM D-5504, non-methane organic compounds analysis by EPA 25C, Fixed Gases analysis by EPA 3C and hydrocarbon analysis by EPA 18. Upon receipt the samples were assigned unique Laboratory ID numbers as follows:

Client ID	Lab No.
KIRBY-1A	071221-30217
KIRBY-2A	071221-30218
KIRBY-3A	071221-30219
KIRBY-1B	071221-30220
KIRBY-2B	071221-30221
KIRBY-3B	071221-30222

EPA 3C - An aliquot of the gaseous sample is injected into the GC/TCD for analysis following EPA 3C as specified in the SOW.

EPA 25C Analysis - Up to a 1 mL aliquot of samples is injected into the GC/FID/TCA for analysis following EPA 25C as specified in the SOW.

EPA 18 Analysis - Up to a 1 ml aliquot of samples is injected into the GC/FID for analysis following EPA 18 as specified in the SOW.

ASTM D-5504 – Up to a 1mL aliquot of sample is injected into the GC/SCD for analysis following ASTM D-5504 as specified in the SOW.

No problems were encountered during receiving, preparation, and/ or analysis of this sample. The test results included in this report meet all requirements of the NELAC Standards and/or AAC SOP# AACI- EPA 25C, EPA 3C, EPA 18, and ASTM D-5504.

I certify that this data is technically accurate, complete, and in compliance with the terms and conditions of the contract. Release of the data contained in this hardcopy data package and its electronic data deliverable submitted on diskette has been authorized by the Laboratory Director or his designee, as verified by the following signature.

If you have any questions or require further explanation of data results, please contact the undersigned.

Sucha S. Parmar, PhD
Technical Director

This report consists of 13 pages.

ACCREDITED IN ACCORDANCE WITH nelac Certificate#E87837

1534 Eastman Avenue • Suite A • Ventura, California 93003 (805) 650-1642 • FAX (805) 650-1644

Laboratory Analysis Report

Client	**Blue Sky Environmental Inc**	**Sampling Date**	**11/06/2007**
Project No.	**071221**	**Receiving Date**	**11/07/2007**
Matrix	**Air**	**Analysis Date**	**11/07/2007**
Units	**%**	**Report Date**	**11/21/2007**

EPA Method 3C

Detection Limit: 0.1 %		Analyte					
Client ID	**AAC ID**	**Hydrogen**	**Oxygen**	**Nitrogen**	**CO**	**Methane**	**CO2**
KIRBY-1A	071221-30217	0.3	1.2	14.5	<PQL	47.3	36.7
KIRBY-2A	071221-30218	0.2	1.2	15.6	<PQL	46.7	36.3
KIRBY-3A	071221-30219	0.2	1.2	15.6	<PQL	46.7	36.3
KIRBY-1B	071221-30220	0.2	1.0	14.9	<PQL	47.2	36.7
KIRBY-2B	071221-30221	0.2	1.1	15.2	<PQL	47.0	36.5
KIRBY-3B	071221-30222	0.2	1.2	15.3	<PQL	46.9	36.4

Dr. Sucha Parmar
Technical Director

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Atmospheric Analysis & Consulting, Inc.

LABORATORY ANALYSIS REPORT

Client	**Blue Sky Environmental Inc**	**SAMPLING DATE**	**11/06/2007**
Project No.	**071221**	**RECEIVING DATE**	**11/07/2007**
Matrix	**Air**	**ANALYSIS DATE**	**11/08/2007**
Units	**ppmV**	**REPORT DATE**	**11/21/2007**

Client ID.	**KIRBY-1A**	**KIRBY-2A**	**KIRBY-3A**	**MDL**
AAC ID	**071221-30217**	**071221-30218**	**071221-30219**	
Analysis Dilution Factor	**1.0**	**1.0**	**1.0**	
Can Dilution Factor	**1.0**	**1.0**	**1.0**	
H_2S	75.00	75.00	68.00	0.10
Carbonyl Sulfide	0.43	0.32	0.31	0.10
SO2	<PQL	<PQL	<PQL	0.10
Methyl Mercaptan	5.60	5.40	5.10	0.10
Ethyl Mercaptan	0.17	0.17	0.14	0.10
Dimethyl Sulfide	8.60	8.80	8.10	0.10
n-Butyl mercaptan	<PQL	<PQL	<PQL	0.10
Carbon Disulfide	0.08	0.07	0.06	0.05
Allyl Sulfide	<PQL	<PQL	<PQL	0.10
Propyl Sulfide	<PQL	<PQL	<PQL	0.10
Allyl disulfide	<PQL	<PQL	<PQL	0.10
Isopropyl Mercaptan	0.96	0.87	0.81	0.10
t-Butyl mercaptan	0.28	0.26	0.24	0.10
Propyl Mercaptan	<PQL	<PQL	<PQL	0.10
Butyl Sulfide	<PQL	<PQL	<PQL	0.10
Ethyl methyl sulfide	<PQL	<PQL	<PQL	0.10
Thiophene	1.20	1.10	0.98	0.10
Isobutyl mercaptan	<PQL	<PQL	<PQL	0.10
Dimethyl disulfide	0.07	0.08	0.09	0.05
Allyl mercaptan	<PQL	<PQL	<PQL	0.10
3-Methylthiophene	<PQL	<PQL	<PQL	0.10
Tetrahydrothiophene	<PQL	<PQL	<PQL	0.10
Diethyl sulfide	<PQL	<PQL	<PQL	0.10
2-Ethylthiophene	<PQL	<PQL	<PQL	0.10
2,5-Dimethylthiophene	<PQL	<PQL	<PQL	0.10
Diethyl disulfide	<PQL	<PQL	<PQL	0.05
Total Unidentified Sulfurs as H_2S	<PQL	<PQL	<PQL	0.10
Total Sulfurs as H_2S	92.47	92.14	83.90	0.10

PQL = Practical Quantitation Limit (MDL x Analysis Dilution factor)
All compounds concentrations expressed in terms of H_2S.

Dr. Sucha Parmar
Technical Director

1534 Eastman Avenue • Suite A • Ventura, California 93003 (805) 650-1642 • FAX (805) 650-1644

Atmospheric Analysis & Consulting, Inc.

LABORATORY ANALYSIS REPORT

Client	**Blue Sky Environmental Inc**	**SAMPLING DATE**	**11/06/2007**
Project No.	**071221**	**RECEIVING DATE**	**11/07/2007**
Matrix	**Air**	**ANALYSIS DATE**	**11/08/2007**
Units	**ppmV**	**REPORT DATE**	**11/21/2007**

Client ID.	KIRBY-1B	KIRBY-2B	KIRBY-3B	MDL
AAC ID	071221-30220	071221-30221	071221-30222	
Analysis Dilution Factor	1.0	1.0	1.0	
Can Dilution Factor	1.0	1.0	1.0	
H_2S	72.00	70.00	68.00	0.10
Carbonyl Sulfide	0.29	0.29	0.29	0.10
SO2	<PQL	<PQL	<PQL	0.10
Methyl Mercaptan	5.10	5.20	5.30	0.10
Ethyl Mercaptan	0.14	0.21	0.14	0.10
Dimethyl Sulfide	8.00	8.20	8.40	0.10
n-Butyl mercaptan	<PQL	<PQL	<PQL	0.10
Carbon Disulfide	0.06	0.08	0.05	0.05
Allyl Sulfide	<PQL	<PQL	<PQL	0.10
Propyl Sulfide	<PQL	<PQL	<PQL	0.10
Allyl disulfide	<PQL	<PQL	<PQL	0.10
Isopropyl Mercaptan	0.80	0.80	0.82	0.10
t-Butyl mercaptan	0.25	0.19	0.22	0.10
Propyl Mercaptan	<PQL	<PQL	<PQL	0.10
Butyl Sulfide	<PQL	<PQL	<PQL	0.10
Ethyl methyl sulfide	<PQL	<PQL	<PQL	0.10
Thiophene	0.96	0.94	1.00	0.10
Isobutyl mercaptan	<PQL	<PQL	<PQL	0.10
Dimethyl disulfide	0.09	0.08	0.09	0.05
Allyl mercaptan	<PQL	<PQL	<PQL	0.10
3-Methylthiophene	<PQL	<PQL	0.10	0.10
Tetrahydrothiophene	<PQL	<PQL	<PQL	0.10
Diethyl sulfide	<PQL	<PQL	<PQL	0.10
2-Ethylthiophene	<PQL	<PQL	<PQL	0.10
2,5-Dimethylthiophene	<PQL	<PQL	<PQL	0.10
Diethyl disulfide	<PQL	<PQL	<PQL	0.05
Total Unidentified Sulfurs as H_2S	<PQL	<PQL	<PQL	0.10
Total Sulfurs as H_2S	87.75	86.08	84.47	0.10

PQL = Practical Quantitation Limit (MDL x Analysis Dilution factor)
All compounds concentrations expressed in terms of H_2S.

Dr. Sucha Parmar
Technical Director

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Atmospheric Analysis & Consulting, Inc.

Laboratory Analysis Report

CLIENT:	**Blue Sky Environmental Inc**	**Sampling Date**	**11/06/2007**
PROJECT NO.	**071221**	**Receiving Date**	**11/07/2007**
MATRIX	**Air**	**Analysis Date**	**11/07/2007**
UNITS	**ppmv**	**Report Date**	**11/21/2007**

Client ID	AAC ID	*ANALYSIS METHOD*		*EPA Method 18*				
		Detection Limit		*0.3 ppmv*				
		C1*	C2**	C3	C4	C5	C6	C6+
KIRBY-1A	071221-30217	NA	<30	16.1	15.8	73.6	81.2	327
KIRBY-2A	071221-30218	NA	<30	16.9	15.7	79.5	85.0	331
KIRBY-3A	071221-30219	NA	<30	18.4	17.0	77.5	80.6	255
KIRBY-1B	071221-30220	NA	<30	18.3	16.3	94.8	91.9	294
KIRBY-2B	071221-30221	NA	<30	18.4	16.2	93.1	89.9	306
KIRBY-3B	071221-30222	NA	<30	17.8	16.8	100.1	96.8	314

***C1 reported off of the EPA 3C report**

**** Due to the extremely high C1 concentration, the C2 concentration could not be measured below this PQL due to matrix interference.**

Dr. Sucha Parmar
Technical Director

Atmospheric Analysis & Consulting, Inc.

Laboratory Analysis Report

Client	**Blue Sky Environmental Inc**	**Sampling Date**	**11/06/2007**
Project No.	**071221**	**Receiving Date**	**11/07/2007**
Matrix	**Air**	**Analysis Date**	**11/07/2007**
Units	**ppmv**	**Report Date**	**11/21/2007**

EPA Method 25C

Detection Limit:		1.0 ppmv
Client Sample ID	**AAC ID**	**NMHC****
KIRBY-1A	**071221-30217**	4700
KIRBY-2A	**071221-30218**	4609
KIRBY-3A	**071221-30219**	4448
KIRBY-1B	**071221-30220**	4605
KIRBY-2B	**071221-30221**	4218
KIRBY-1A	**071221-30222**	4721

****Non-Methane Hydrocarbons as Methane**

Dr. Sucha Parmar
Technical Director

1534 Eastman Avenue • Suite A • Ventura, California 93003 (805) 650-1642 • FAX (805) 650-1644

Atmospheric Analysis & Consulting, Inc.

Quality Control/Quality Assurance Report

Date Analyzed: 11/7/2007 **Instrument ID:** TCD#1
Analyst: MH/EV **Units:** %

I - Method Blank-EPA Method 3C

AAC ID	Analyte	MB Concentration
Method Blank	Hydrogen	ND
	Oxygen	ND
	Nitrogen	ND
	CO	ND
	Methane	ND
	CO2	ND

II-Laboratory Control Spike & Duplicate - EPA Method 3C

AAC ID	Analyte	Spike Added	LCS Result	LCSD Result	LCS % Rec *	LCSD % Rec *	% RPD***
Lab Control Standards	Hydrogen	20.0	19.7	19.2	98	96	2.3
	Nitrogen	20.0	20.5	20.6	102	103	0.5
	CO	20.0	18.6	18.6	93	93	0.1
	Methane	20.0	19.3	19.3	97	97	0.0
	CO2	20.0	19.4	19.4	97	97	0.2

III - Duplicate Analysis - EPA Method 3C

AAC ID	Analyte	Sample Concentration	Duplicate Concentration	Mean	% RPD***
071221-30217	Hydrogen	0.26	0.28	0.3	5.2
	Oxygen	1.06	1.20	1.1	12.4
	Nitrogen	13.65	14.14	13.9	3.5
	CO	0.00	0.00	0.0	0.0
	Methane	45.49	45.16	45.3	0.7
	CO2	35.26	34.99	35.1	0.8

IV-Matrix Spike & Duplicate- EPA Method 3C

AAC ID	Analyte	Sample Concentration	Spike Added	MS Result	MSD Result	MS % Rec **	MSD % Rec **	% RPD***
071221-30217	Hydrogen	0.14	10.0	9.2	8.9	91	87	3.8
	Nitrogen	6.95	10.0	18.2	18.6	112	117	3.7
	CO	0.00	10.0	9.5	9.5	95	95	0.4
	Methane	22.66	10.0	31.7	31.6	90	90	0.5
	CO2	17.56	10.0	26.7	26.6	91	91	0.3

** Must be 85-115%*
*** Must be 75-125%*
**** Must be < 25%*

Dr. Sucha Parmar
Technical Director

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Quality Control/Quality Assurance Report

Date Analyzed: 11/7/2007
Analyst: MH/EV
Instrument ID: TCD#1
Calibration Date: 08/21/07

Opening Calibration Verification Standard

Analyte	xLR**	LR	%RPD*
Hydrogen	2127	2062	**3.1**
Oxygen* **	56490	53540	**5.4**
Nitrogen	59782	61383	**2.6**
Carbon Monoxide	65600	61224	**6.9**
Methane	53998	52511	**2.8**
Carbon Dioxide	88017	85725	**2.6**

Closing Calibration Verification Standard

Analyte	xLR**	LR	%RPD*
Hydrogen	2127	2069	**2.8**
Nitrogen	59782	61461	**2.8**
Carbon Monoxide	65600	61548	**6.4**
Methane	53998	52971	**1.9**
Carbon Dioxide	88017	86016	**2.3**

* Must be <15%
** Linear Response Factor from Initial Calibration Curve
*** Oxygen from Lab Air

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Quality Control/Quality Assurance Report

Date Analyzed: 11/08/07 **Units: PPMV**

I - Method Blank

Analyte	Result	MRL
Hydrogen Sulfide	ND	0.0050
Carbonyl Sulfide	ND	0.0050
Methyl Mercaptan	ND	0.0050
Ethyl Mercaptan	ND	0.0050
Dimethyl Sulfide	ND	0.0050
Carbon Disulfide	ND	0.0025
Isopropyl Mercaptan	ND	0.0050
t-Butyl Mercaptan	ND	0.0050
n-Propyl Mercaptan	ND	0.0050
Ethyl Methyl Sulfide	ND	0.0050
Thiophene	ND	0.0050
Isobutyl Mercaptan	ND	0.0050
Diethyl Sulfide	ND	0.0050
n-Butyl mercaptan	ND	0.0050
Dimethyl Disulfide	ND	0.0025
3-Methylthiophene	ND	0.0050
Tetrahydrothiophene	ND	0.0050
2,5-Dimethylthiophene	ND	0.0050
2-Ethylthiophene	ND	0.0050
Diethyl disulfide	ND	0.0025

II-Laboratory Control Spike & Duplicate

Analyte	Spike Added	LCS Result	LCSD Result	LCS % Rec	LCSD % Rec	Acceptance Limits
Hydrogen Sulfide	1.98	1.780	2.370	90	120	74-136
Carbonyl Sulfide	2.13	1.910	2.640	90	124	71-133
Methyl Mercaptan	2.08	1.820	2.440	88	117	82-133

Dr. Sucha Parmar
Technical Director

Quality Control/Quality Assurance Report

Date Analyzed: 11/7/2007
Analyst: MH/EV
Instrument ID: FID#3
Units: PPMV

I - Method Blank-EPA Method 18

AAC ID	Analyte	MB Concentration
Method Blank	Methane	ND
	Ethane	ND
	Propane	ND
	Butane	ND
	Pentane	ND
	Hexane	ND

II-Laboratory Control Spike & Duplicate - EPA Method 18

AAC ID	Analyte	Spike Added	LCS Result	LCSD Result	LCS % Rec *	LCSD % Rec *	% RPD***
Lab Control Standards	Methane	100.4	100.2	110.1	99.8	109.6	9.4
	Ethane	100.2	100.3	110.8	100.1	110.6	10.0
	Propane	100.2	96.7	106.0	96.5	105.8	9.2
	Butane	100.4	94.7	103.2	94.3	102.8	8.6
	Pentane	100.0	94.3	103.6	94.3	103.6	9.4
	Hexane	99.4	96.1	106.1	96.7	106.7	9.9

III - Duplicate Analysis - EPA Method 18

AAC ID	Analyte	Sample Concentration	Duplicate Concentration	Mean	% RPD***
071221-30222	Methane	NA	NA	NA	NA
	Ethane	NA	NA	NA	NA
	Propane	12.9	13.2	13.1	2.2
	Butane	4.1	4.0	4.0	1.5
	Pentane	2.4	2.6	2.5	7.5
	Hexane	1.2	1.2	1.2	7.0

IV-Matrix Spike & Duplicate- EPA Method 18

AAC ID	Analyte	Sample Concentration	Spike Added	MS Result	MSD Result	MS % Rec **	MSD % Rec **	% RPD***
071221-30222	Methane	NA	NA	NA	NA	NA	NA	NA
	Ethane	NA	NA	NA	NA	NA	NA	NA
	Propane	6.5	50.0	49.0	52.6	85	92	8.1
	Butane	2.0	50.0	46.9	49.6	90	95	5.9
	Pentane	1.2	50.0	47.6	50.4	93	98	5.9
	Hexane	0.6	50.0	47.6	51.6	94	102	8.1

** Must be 85-115%*
*** Must be 75-125%*
**** Must be < 25%*

Dr. Sucha Parmar
Technical Director

1534 Eastman Avenue • Suite A • Ventura, California 93003 (805) 650-1642 • FAX (805) 650-1644

Quality Control/Quality Assurance Report

Date Analyzed: 11/7/2007 **Instrument ID: FID#3**
Analyst: MH/EV **Calibration Date: 09/10/07**

Opening Calibration Verification Standard

Analyte	xCF**	CF	%RPD*
C1	716	745	**3.9**
C2	1415	1465	**3.4**
C3	2205	2180	**1.1**
C4	2997	2996	**0.0**
C5	3655	3814	**4.2**
C6	4191	4774	**13.0**

Closing Calibration Verification Standard

Analyte	xCF**	CF	%RPD*
C1	716	721	**0.7**
C2	1415	1439	**1.7**
C3	2205	2175	**1.3**
C4	2997	2866	**4.4**
C5	3655	3520	**3.8**
C6	4191	4191	**0.0**

* Must be <15%
** Average Calibration Factor from Initial Calibration Curve

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Quality Control/Quality Assurance Report

Analysis Date:	**11/7/2007**	**Instrument ID:**	**FID#4**
Analyst:	**MH/EV**	**Calibration Date:**	**10/11/2007**
Units:	**ppmv**		

I - Opening Calibration Verification Standard - Method 25C

Analyte	xCF	dCF	%RPD*
CO	3192	3082	3.5
CH4	3376	3237	4.2
CO2	3287	3323	1.1
Propane	9428	9045	4.1

II - Method Blank - Method 25C

AAC ID	Analyte	Sample Result
MB	NMEHC	ND

III - Laboratory Control Spike & Duplicate - Method 25C

AAC ID	Analyte	Spike Added	LCS Result	LCSD Result	LCS % Rec **	LCSD % Rec **	% RPD***
LCS/LCSD	NMEHC	50.0	48.6	48.2	97.2	96.5	0.8

IV - Closing Calibration Verification Standard - Method 25C

Analyte	xCF	dCF	%RPD*
CO	3192	3122	2.2
CH4	3376	3311	1.9
CO2	3287	3272	0.5
Propane	9428	9131	3.2

xCF - Average Calibration Factor from Initial Calibration Curve

dCF - Daily Calibration Factor

* Must be <15%

** Must be 90-110 %

*** Must be <20%

Dr. Sucha Parmar
Technical Director

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BLUE SKY ENVIRONMENTAL, LLC
624 San Gabriel Avenue
Albany, CA 94706
510.525.1261 ph/fax
Contact: *Guy Worthington 510 508 3469*
E.Mail *blueskyenvironmental@yahoo.com*

LAB: AAC
ADDRESS:

ph/fax
Contact:

CHAIN OF CUSTODY RECORD

Project Name: KIRBY

Project #:

SAMPLE Date	SAMPLE Time	Sample ID (Method-Run-Fraction)	Type/Size of container	Analysis Requested: 25C	1945 (18/3C)	5504	AP42-2.9-1			
11/6/07	0840 –	KIRBY-1A	Tedlar 1L	✓	✓	✓				
	0928 –	KIRBY-2A		✓	✓	✓				
	1010 –	KIRBY-3A		✓	✓	✓				
		KIRBY-1B		✓	✓	✓				
		KIRBY-2B		✓	✓	✓	✓			
		KIRBY-3B		✓	✓	✓				

All samples submitted to laboratories for analysis are accepted on a custodial basis only. Ownership of the material remains with the client submitting the sample. Samples should be held for 90+ days. The laboratory reserves the right to return unused sample portions.

COMMENTS:

AP42 2.9-1 excl. Acetone, CO, Hg.

Relinquished by:	Date:	Time:	Received by:	Date:	Time:
[signature]	11-6-07	5:00	GSO	11-6-07	5:00
Relinquished by:	Date:	Time:	Received by:	Date:	Time:
Relinquished by:	Date:	Time:	Received by:	Date:	Time:

Atmospheric Analysis & Consulting, Inc.

CLIENT : Blue Sky Environmental, LLC
PROJECT NAME : Kirby
AAC PROJECT NO. : 071221
REPORT DATE : 11/07/07

On November 7, 2007, Atmospheric Analysis & Consulting, Inc. received one (1) Tedlar Bag for Volatile Organic Compounds analysis by EPA Method TO-15 for AP-42 list compounds. Upon receipt the sample was assigned a unique Laboratory ID number as follows:

Client ID	Lab ID
Kirby-2B	071221-30221

TO-15 Analysis - Up to a 500 ml aliquot of sample is concentrated, put through a water and CO_2 management system, cryofocused and injected into the GC/MS (full scan mode) for analysis following EPA Method TO-15 as specified in the SOW.

No problems were encountered during receiving, preparation and/ or analysis of these samples. The test results included in this report meet all requirements of the NELAC Standards and/or AAC SOP# AACI-TO-15. Estimated uncertainty of the test results will be provided upon request.

I certify that this data is technically accurate, complete and in compliance with the terms and conditions of the contract. The Laboratory Director or his designee, as verified by the following signature, has authorized the release of the data contained in this hardcopy data package.

If you have any questions or require further explanation of data results, please contact the undersigned.

Sucha S. Parmar, PhD
Technical Director

This report consists of 10 pages.

ACCREDITED IN ACCORDANCE WITH nelac Certificate #E87837

1534 Eastman Avenue • Suite A • Ventura, California 93003 (805) 650-1642 • FAX (805) 650-1644

Laboratory Analysis Report

CLIENT	**: Blue Sky Environmental, LLC**	**DATE RECEIVED**	**: 11/07/07**
PROJECT NO	**: 071221**	**DATE REPORTED**	**: 11/07/07**
MATRIX	**: AIR**		
UNITS	**: PPB (v/v)**		

VOLATILE ORGANIC COMPOUNDS BY EPA TO-15

Client ID	Kirby-2A			Sample Reporting Limit (RLxDF's)	Method Reporting Limit
AAC ID	071221-30221				
Date Sampled	11/6/2007				
Date Analyzed	11/7/2007				
Can Dilution Factor	1.00				
	Result	**Qualifier**	**Dil. Fac.**		
Chlorodifluoromethane	787		100	100	1.0
Dichlorodifluoromethane	833		100	100	1.0
Chloromethane	ND	U	100	100	1.0
Vinyl Chloride	154		100	100	1.0
Chloroethane	ND	U	100	100	1.0
Dichlorofluoromethane	151		100	100	1.0
Ethanol	183000		5000	10000	2.0
Acetone	27800		2000	4000	2.0
Trichlorofluoromethane	ND	U	100	100	1.0
Isopropyl Alcohol	54700		2000	4000	2.0
Acrylonitrile	ND	U	100	100	1.0
1,1-Dichloroethylene	ND	U	100	100	1.0
Methylene Chloride	112		100	100	1.0
Carbon Disulfide	490		100	100	1.0
t-1,2-Dichloroethylene	ND	U	100	100	1.0
1,1-Dichloroethane	ND	U	100	100	1.0
2-Butanone (MEK)	41800		2000	2000	1.0
Hexane	679		100	100	1.0
Chloroform	ND	U	100	100	1.0
1,2-Dichloroethane	ND	U	100	100	1.0
1,1,1-Trichloroethane	ND	U	100	100	1.0
Benzene	858		100	100	1.0
Carbon Tetrachloride	ND	U	100	100	1.0
1,2-Dichloropropane	ND	U	100	100	1.0
Bromodichloromethane	ND	U	100	100	1.0
Trichloroethene	151		100	100	1.0
4-Methyl-2-Pentanone (MiBK)	2920		100	100	1.0
Toluene	18500		2000	2000	1.0
1,2-Dibromoethane	ND	U	100	100	1.0
Tetrachloroethylene	325		100	100	1.0
Chlorobenzene	ND	U	100	100	1.0
Ethylbenzene	6250		2000	2000	1.0
m- & p-Xylenes	11900		2000	4000	2.0
1,1,2,2-Tetrachloroethane	ND	U	100	100	1.0
o-Xylene	3340		100	100	1.0
1,3-Dichlorobenzene	ND	U	100	100	1.0
1,4-Dichlorobenzene	510		100	100	1.0
1,2-Dichlorobenzene	ND	U	100	100	1.0
BFB-Surrogate Std. % Recovery	99%				70-130%

J- Analyte was detected. However the analyte concentration is an estimated value, which is between the Method Detection Limit (MDL) and the Reporting Limit (RL).
E - Estimated value, result outside linear range of instrument.
U - Compound was analyzed for, but was not detected.
!! - Estimated

Sucha S. Parmar, PhD
Technical Director

ANALYSIS DATE : 11/07/07
ANALYST : JJG / KP
INSTRUMENT ID : GC/MS-03
STD ID : PS092607-01

VOLATILE ORGANIC COMPOUNDS BY EPA METHOD TO-15

Continuing Calibration Verification of the 10/09/07 Calibration

Compounds	Conc.	Daily Conc.	%REC
4-BFB (surrogate standard)***	10	9.87	99
Chlorodifluoromethane*	10	10.65	107
Propylene*	10	12.45	125
DiClDIFMethane*	10	9.45	95
CHLOROMETHANE*	10	12.81	128
1,2 DiCl-1,1,2,2-TetraFEthane*	10	9.15	92
VINYL CHLORIDE*	10	10.84	108
Methanol*	10	12.65	127
1,3-Butadiene*	10	12.06	121
BROMOMETHANE*	10	8.42	84
CHLOROETHANE*	10	9.08	91
Dichlorofluoromethane*	10	8.29	83
Ethanol*	10	9.90	99
Vinyl Bromide*	10	8.95	90
Acetone*	10	10.44	104
TRICHLOROFLUOROMETHANE*	10	8.94	89
Isopropanol*	10	11.74	117
Acrylonitrile*	10	12.33	123
1,1 DICHLOROETHENE*	10	9.68	97
METHYLENE CHLORIDE*	10	10.99	110
Allyl CHLORIDE*	10	11.95	120
Carbon disulfide*	10	9.01	90
1,1,2-TRICHLORO-1,2,2-TRIFLUO	10	8.82	88
trans-1,2- DICHLOROETHYLENE*	10	10.36	104
1,1- DICHLOROETHANE*	10	9.97	100
MTBE*	10	9.74	97
Vinyl Acetate*	10	11.51	115
MEK*	10	11.91	119
cis-1,2- DICHLOROETHYLENE*	10	10.14	101
Hexane*	10	9.94	99
CHLOROFORM*	10	9.22	92
Ethyl Acetate*	10	10.57	106
Tetrahydrofuran*	10	12.10	121
1,2-DICHLOROETHANE*	10	9.56	96
1,1,1-TRICHLOROETHANE*	10	9.40	94

ANALYSIS DATE : 11/07/07 INSTRUMENT ID : GC/MS-03
ANALYST : JJG / KP STD ID : PS092607-01

VOLATILE ORGANIC COMPOUNDS BY EPA METHOD TO-15
Continuing Calibration Verification of the 10/09/07 Calibration

Compounds	*Conc*	*Daily Conc*	*%REC*
BENZENE**	10	9.93	99
CARBON TETRACHLORIDE**	10	9.74	97
Cyclohexane**	10	9.37	94
1,2-DICHLOROPROPANE**	10	10.48	105
Bromodichloromethane**	10	8.84	88
1,4-Dioxane**	10	9.21	92
TRICHLOROETHENE**	10	8.80	88
2,2,4-Trimethylpentane**	10	9.83	98
Heptane**	10	11.59	116
cis- 1,3 DICHLOROPROPENE**	10	9.68	97
MiBK**	10	10.82	108
trans 1,3 DICHLOROPROPENE**	10	10.24	102
1,1,2-TRICHLOROETHANE**	10	9.91	99
TOLUENE**	10	10.05	101
2-Hexanone**	10	11.41	114
Dibromochloromethane**	10	9.78	98
1,2 DIBROMOETHANE**	10	9.84	98
TETRACHLOROETHYLENE**	10	9.99	100
CHLOROBENZENE***	10	10.02	100
ETHYLBENZENE***	10	9.88	99
m-, & p- XYLENES***	20	19.57	98
Bromoform***	10	9.42	94
STYRENE***	10	10.40	104
1,1, 2,2- TETRACHLORETHANE**	10	8.95	90
o- XYLENE***	10	9.42	94
Ethyltoluene***	10	10.26	103
1,3,5- TRIMETHYLBENZENE***	10	10.16	102
1,2,4- TRIMETHYLBENZENE***	10	10.25	103
Benzyl Chloride***	10	9.51	95
1,3- DICHLOROBENZENE***	10	10.10	101
1,4- DICHLOROBENZENE***	10	9.87	99
1,2-DICHLOROBENZENE***	10	10.22	102
1,2,4-TRICHLOROBENZENE***	10	10.43	104
HEXACHLOROBUTADIENE***	10	9.95	100

* Internal std calculation IS1 : Bromochloromethane
** Internal std calculation IS2 : 1,4-Difluorobenzene
*** Internal std calculation IS3 : Chlorobenzene-d5
%REC should be 70-130%
!! Compound failed criteria and results should be considered estimated

Sucha S. Parmar, PhD
Technical Director

Quality Control/Quality Assurance Report

CLIENT ID	**: Laboratory Control Spike**	**DATE ANALYZED**	**: 11/07/07**
AAC ID	**: LCS/LCSD**	**DATE REPORTED**	**: 11/07/07**
MEDIA	**: Air**	**UNITS**	**: ppbv**

TO-15 Laboratory Control Spike Recovery

Compound	Sample Conc.	Spike Added	Spike Res	Dup Spike Res	Spike % Rec *	Spike Dup % Rec *	RPD** %
1,1-DICHLOROETHYLENE	0.0	10.00	9.68	9.70	97	97	0.2
METHYLENE CHLORIDE	0.0	10.00	10.99	11.00	110	110	0.1
BENZENE	0.0	10.00	9.93	9.82	99	98	1.1
TRICHLOROETHENE	0.0	10.00	8.80	8.65	88	86	1.7
TOLUENE	0.0	10.00	10.05	9.88	100	99	1.7
TETRACHLOROETHYLENE	0.0	10.00	9.99	9.73	100	97	2.6
CHLOROBENZENE	0.0	10.00	10.02	9.82	100	98	2.0
ETHYLBENZENE	0.0	10.00	9.88	9.63	99	96	2.6
m-, & p- XYLENES	0.0	20.00	19.57	18.96	98	95	3.2
o- XYLENE	0.0	10.00	9.42	9.10	94	91	3.5

* Must be 70-130%

** Must be < 25%

Sucha S. Parmar, PhD
Technical Director

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Method Blank Analysis Report

MATRIX	**: AIR**	**ANALYSIS DATE**	**: 11/07/07**
UNITS	**: ppbv**	**REPORT DATE**	**: 11/07/07**

VOLATILE ORGANIC COMPOUNDS BY EPA TO-15

Client ID / *AAC ID*	Method Blank MB 110707	RL
Chlorodifluoromethane*	<RL	1.0
Propylene*	<RL	1.0
DiClDIFMethane*	<RL	1.0
CHLOROMETHANE*	<RL	1.0
1,2 DiCl-1,1,2,2-TetraFEthane*	<RL	1.0
VINYL CHLORIDE*	<RL	1.0
Methanol*	<RL	5.0
1,3-Butadiene*	<RL	1.0
BROMOMETHANE*	<RL	1.0
CHLOROETHANE*	<RL	1.0
Dichlorofluoromethane	<RL	1.0
Ethanol*	<RL	2.0
Vinyl Bromide*	<RL	1.0
Acetone*	<RL	2.0
TRICHLOROFLUOROMETHANE*	<RL	1.0
Isopropyl Alcohol*	<RL	2.0
Acrylonitrile*	<RL	1.0
1,1 DICHLOROETHENE*	<RL	1.0
METHYLENE CHLORIDE*	<RL	1.0
Allyl CHLORIDE*	<RL	1.0
Carbon disulfide*	<RL	1.0
1,1,2-TRICHLORO-1,2,2-TRIFLUOROETHANE*	<RL	1.0
trans-1,2- DICHLOROETHYLENE*	<RL	1.0
1,1- DICHLOROETHANE*	<RL	1.0
MTBE*	<RL	1.0
Vinyl Acetate*	<RL	1.0
MEK*	<RL	1.0
cis-1,2- DICHLOROETHYLENE*	<RL	1.0
Hexane*	<RL	1.0
CHLOROFORM*	<RL	1.0
Ethyl Acetate*	<RL	1.0
Tetrahydrofuran*	<RL	1.0
1,2-DICHLOROETHANE*	<RL	1.0
1,1,1-TRICHLOROETHANE*	<RL	1.0
BENZENE**	<RL	1.0
CARBON TETRACHLORIDE**	<RL	1.0
Cyclohexane**	<RL	1.0
1,2-DICHLOROPROPANE**	<RL	1.0
Bromodichloromethane**	<RL	1.0
1,4-Dioxane**	<RL	1.0
TRICHLOROETHENE**	<RL	1.0
2,2,4-Trimethylpentane**	<RL	1.0
Heptane**	<RL	1.0

Method Blank Analysis Report

MATRIX	**: AIR**	**ANALYSIS DATE**	**: 11/07/07**
UNITS	**: ppbv**	**REPORT DATE**	**: 11/07/07**

VOLATILE ORGANIC COMPOUNDS BY EPA TO-15

Client ID / *AAC ID*	Method Blank MB 110707	RL
cis- 1,3 DICHLOROPROPENE**	<RL	1.0
MiBK**	<RL	1.0
trans 1,3 DICHLOROPROPENE**	<RL	1.0
1,1,2-TRICHLOROETHANE**	<RL	1.0
TOLUENE**	<RL	1.0
2-Hexanone**	<RL	1.0
Dibromochloromethane**	<RL	1.0
1,2 DIBROMOETHANE**	<RL	1.0
TETRACHLOROETHYLENE**	<RL	1.0
CHLOROBENZENE***	<RL	1.0
ETHYLBENZENE***	<RL	1.0
m-, & p- XYLENES***	<RL	2.0
Bromoform***	<RL	3.0
STYRENE***	<RL	1.0
1,1, 2,2- TETRACHLORETHANE***	<RL	1.0
o- XYLENE***	<RL	1.0
Ethyltoluene***	<RL	1.0
1,3,5- TRIMETHYLBENZENE***	<RL	1.0
1,2,4- TRIMETHYLBENZENE***	<RL	1.0
Benzyl Chloride***	<RL	5.0
1,3- DICHLOROBENZENE***	<RL	1.0
1,4- DICHLOROBENZENE***	<RL	1.0
1,2-DICHLOROBENZENE***	<RL	1.0
1,2,4 TRICHLOROBENZENE***	<RL	1.0
HEXACHLOROBUTADIENE***	<RL	1.0
System Monitoring Compounds		
BFB-Surrogate Std. % Recovery	96%	--

RL - Reporting Limit

Sucha S. Parmar, PhD
Technical Director

Quality Control/Quality Assurance Report

AAC ID	: 071211-30154	DATE ANALYZED	: 11/07/07
MATRIX	: Air	DATE REPORTED	: 11/08/07
		UNITS	: ppbv

TO-15 Duplicate Analysis

Compound	Sample Conc	Duplicate Conc	% RPD
Chlorodifluoromethane*	3.4	3.5	1.2
Propylene*	3.3	3.1	8.5
DiClDIFMethane*	3.1	3.1	0.3
CHLOROMETHANE*	<RL	<RL	0.0
1,2 DiCl-1,1,2,2-TetraFEthane*	<RL	<RL	0.0
VINYL CHLORIDE*	<RL	<RL	0.0
Methanol*	15.0	14.7	2.0
1,3-Butadiene*	<RL	<RL	0.0
BROMOMETHANE*	<RL	<RL	0.0
CHLOROETHANE*	<RL	<RL	0.0
Dichlorofluoromethane	<RL	<RL	0.0
Ethanol*	4.3	4.3	0.7
Vinyl Bromide*	<RL	<RL	0.0
Acetone*	10.6	10.5	0.9
TRICHLOROFLUOROMETHANE*	<RL	<RL	0.0
Isopropyl Alcohol*	<RL	<RL	0.0
Acrylonitrile*	<RL	<RL	0.0
1,1 DICHLOROETHENE*	8.3	8.4	1.4
METHYLENE CHLORIDE*	<RL	<RL	0.0
Allyl CHLORIDE*	<RL	<RL	0.0
Carbon disulfide*	<RL	<RL	0.0
1,1,2-TRICHLORO-1,2,2-TRIFLUOROETHANE*	<RL	<RL	0.0
trans-1,2- DICHLOROETHYLENE*	<RL	<RL	0.0
1,1- DICHLOROETHANE*	<RL	<RL	0.0
MTBE*	<RL	<RL	0.0
Vinyl Acetate*	<RL	<RL	0.0
MEK*	<RL	<RL	0.0
cis-1,2- DICHLOROETHYLENE*	2.1	2.2	0.9
Hexane*	<RL	<RL	0.0
CHLOROFORM*	<RL	<RL	0.0
Ethyl Acetate*	<RL	<RL	0.0
Tetrahydrofuran*	<RL	<RL	0.0
1,2-DICHLOROETHANE*	<RL	<RL	0.0
1,1,1-TRICHLOROETHANE*	<RL	<RL	0.0
BENZENE**	<RL	<RL	0.0
CARBON TETRACHLORIDE**	<RL	<RL	0.0

Quality Control/Quality Assurance Report

AAC ID	: 071211-30154	DATE ANALYZED	: 11/07/07
MATRIX	: Air	DATE REPORTED	: 11/08/07
		UNITS	: ppbv

TO-15 Duplicate Analysis

Compound	Sample Conc	Duplicate Conc	% RPD
Cyclohexane**	<RL	<RL	0.0
1,2-DICHLOROPROPANE**	<RL	<RL	0.0
Bromodichloromethane**	<RL	<RL	0.0
1,4-Dioxane**	<RL	<RL	0.0
TRICHLOROETHENE**	<RL	<RL	0.0
2,2,4-Trimethylpentane**	<RL	<RL	0.0
Heptane**	<RL	<RL	0.0
cis- 1,3 DICHLOROPROPENE**	<RL	<RL	0.0
MiBK**	<RL	<RL	0.0
trans 1,3 DICHLOROPROPENE**	<RL	<RL	0.0
1,1,2-TRICHLOROETHANE**	<RL	<RL	0.0
TOLUENE**	<RL	<RL	0.0
2-Hexanone**	<RL	<RL	0.0
Dibromochloromethane**	<RL	<RL	0.0
1,2 DIBROMOETHANE**	<RL	<RL	0.0
TETRACHLOROETHYLENE**	<RL	<RL	0.0
CHLOROBENZENE***	<RL	<RL	0.0
ETHYLBENZENE***	<RL	<RL	0.0
m-, & p- XYLENES***	<RL	<RL	0.0
Bromoform***	<RL	<RL	0.0
STYRENE***	<RL	<RL	0.0
1,1,2,2-TETRACHLORETHANE***	<RL	<RL	0.0
o- XYLENE***	<RL	<RL	0.0
Ethyltoluene***	<RL	<RL	0.0
1,3,5- TRIMETHYLBENZENE***	<RL	<RL	0.0
1,2,4- TRIMETHYLBENZENE***	<RL	<RL	0.0
Benzyl Chloride***	<RL	<RL	0.0
1,3- DICHLOROBENZENE***	<RL	<RL	0.0
1,4- DICHLOROBENZENE***	<RL	<RL	0.0
1,2-DICHLOROBENZENE***	<RL	<RL	0.0
1,2,4 TRICHLOROBENZENE***	<RL	<RL	0.0
Hexachlorobutadiene***	<RL	<RL	0.0
System Monitoring Compounds			
BFB-Surrogate Std. % Recovery	96%	97%	1.9

RL - Reporting Limit

Sucha S. Parmar, PhD
Technical Director

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510.525.1261 ph/fax
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E.Mail *blueskyenvironmental@yahoo.com*

LAB: AAC
ADDRESS:
ph/fax
Contact:

07123-1

CHAIN OF CUSTODY RECORD

Project Name: KIRBY

Project #:

SAMPLE Date	SAMPLE Time	Sample ID (Method-Run-Fraction)	Type/Size of container	Analysis Requested: 25C	1945 (1&3C)	5504	AP42-2,4-1			
11/6/07	0840 –	KIRBY-1A	Tedlar 1L	✓	✓	✓				
	0928 –	KIRBY-2A		✓	✓	✓				
	1010 –	KIRBY-3A		✓	✓	✓				
		KIRBY-1B		✓	✓	✓				
		KIRBY-2B		✓	✓	✓	✓			
		KIRBY-3B		✓	✓	✓				

All samples submitted to laboratories for analysis are accepted on a custodial basis only. Ownership of the material remains with the client submitting the sample. Samples should be held for 90+ days. The laboratory reserves the right to return unused sample portions.

COMMENTS:

AP42 2.4-1 excl. Acetone, CO, Hg.

Relinquished by:	Date:	Time:	Received by:	Date:	Time:
[signature]	11-6-07	5:00	GSO	11-6-07	5:00
Relinquished by:	Date:	Time:	Received by:	Date:	Time:
			[signature]	11/7/07	9:30
Relinquished by:	Date:	Time:	Received by:	Date:	Time:

D
Field Data Sheets

CONTINUOUS EMISSION MONITORING SUMMARY DATA SHEET

Facility: KIRBY CANYON LANDFILL Test #: 1B, 2B, 3B Date: 11/6/07
Location: A-11 Flare Personnel: GW, JM Leak Check: ✓
CONDENSATE OFF Stratification Check: ✓

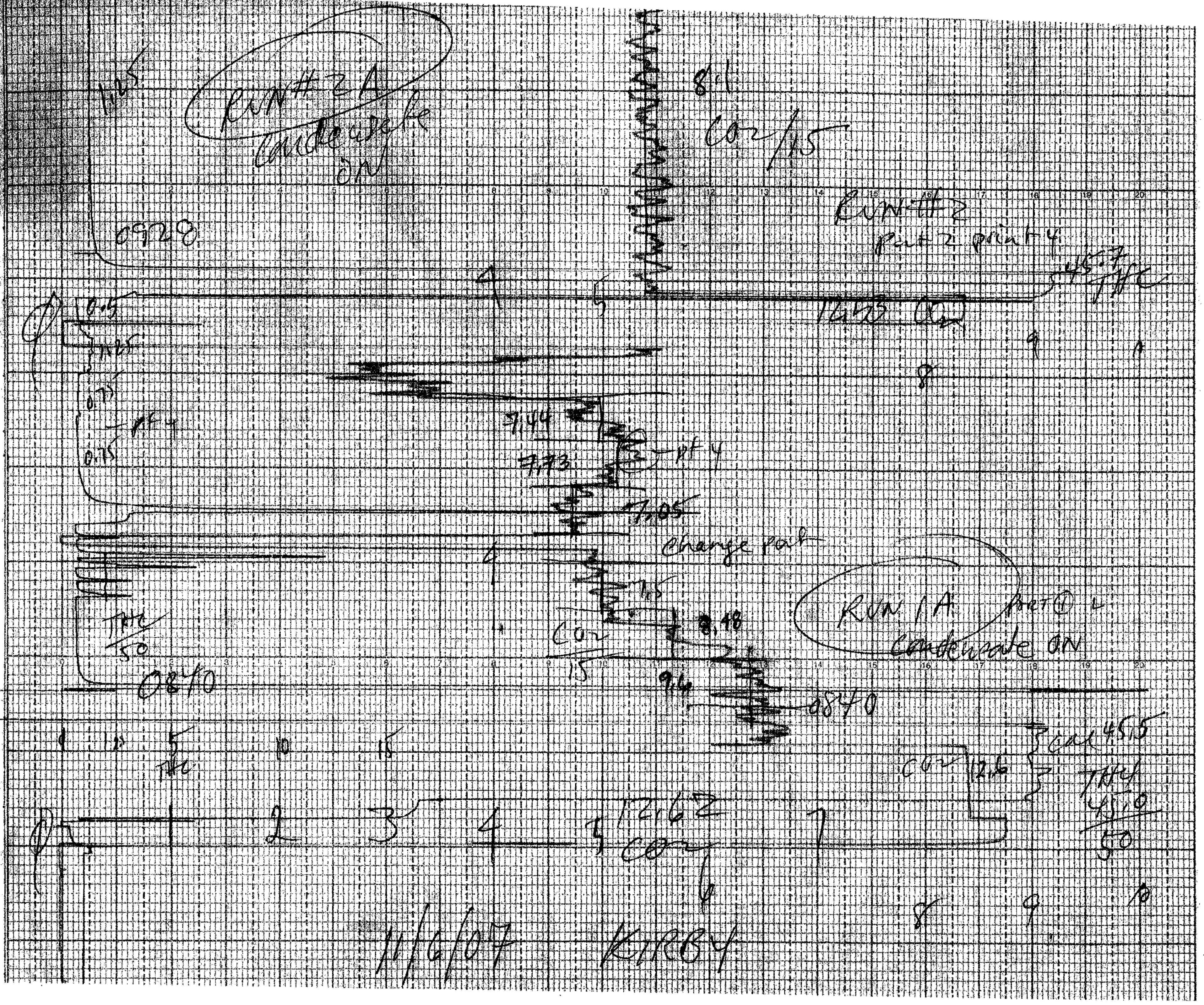
Parameter		O_2	CO_2	NOx	CO	THC	CH_4	SO_2			Unit Description/Serial #:
Analyzer		755R	PIR 2000	42	48C	RS-55	RS-55				A-11 Flare
Range		25	15	50	100	50					Operating Conditions:
Span Value(s)		20.43	12.62	44.8	88.1	45.0					1550°F Cond. OFF
Span Value(s)											Fuel: LFG
Span Value(s)											
	0	0.25	0	0	0	0					NOTES:
	CAL	20.38	12.34	45.0	87.5	46.05					
											°F SCFM GPM
1	1145	12.13	7.73	11.25	8	1.75					1542, 1063, 0.0
B		12.13	7.73	11.25	8	1.75					
		12.13	7.73	11.25	8	1.75					
		12.13	7.73	11.25	8		2.5				
	↓	12.13	7.73	11.25	8	4.0					
	1215	12.13	7.73	11.25	8	4.0					
	AVG	(12.13)	(7.73)	(11.25)	(8)	(2.65)	(2.5)				
	0	0.25	0	-0.25	0	0					
	CAL	20.25	12.22	44.75	86.5	47.5					
2	1225	12.13	7.58	11.0	0	1.25					1549, 1074, 0.0
B		12.13	7.58	11.0	0	1.25					
		12.13	7.58	11.0	0	1.25					
		12.13	7.58	11.0	0	1.25					
	↓	12.13	7.58	11.0	10	4.0					
	1255	12.13	7.58	11.0	10	4.0					
	AVG	(12.13)	(7.58)	(11.0)	(3.3)	(1.50)					
	0	0.14	0	-0.25	0	0.5					
	CAL	20.0	12.08	44.25	85.2	49.5					
3	1308	12.0	7.50	11.25	10	3.25					
B		12.0	7.50	11.25	10	3.25					1552, 1057, 0.0
		12.0	7.50	11.25	10	—	4.25				
		12.0	7.50	11.25	10	3.75					
	↓	12.0	7.50	11.25	3.5	3.75					
	1338	12.0	7.50	11.25	3.5	3.75					
	AVG	(12.0)	(7.50)	(11.25)	(7.8)	(3.55)					
	0	0.14	0	-0.3	0	0.5					
	CAL	20.0	11.94	43.75	85	48.75					

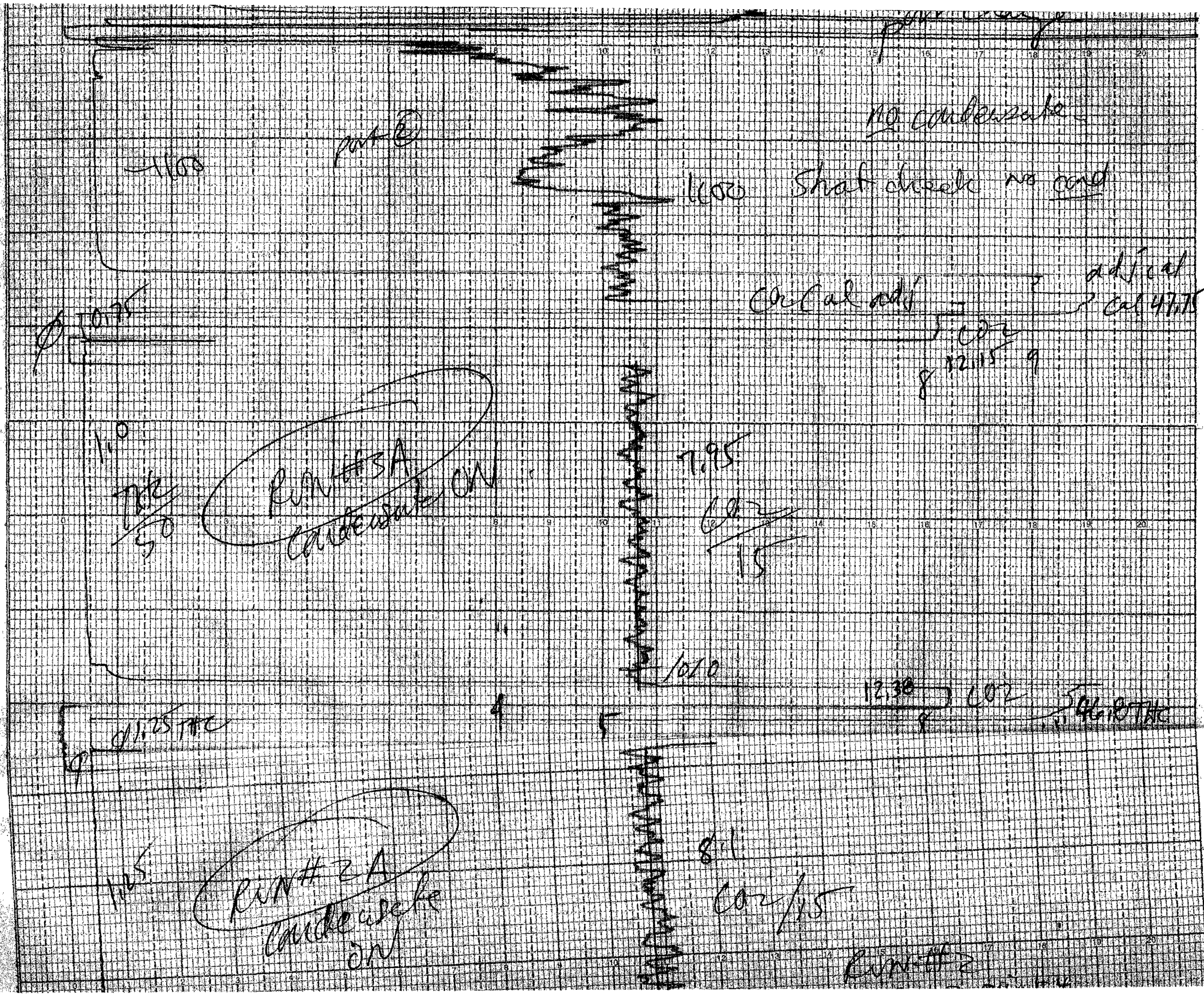
CONTINUOUS EMISSION MONITORING SUMMARY DATA SHEET

Facility: KIRBY CANYON LANDFILL Test #: 1A, 2A, 3A Date: 11/6/07
Location: A-11 FLARE Personnel: GW JM Leak Check: ✓
CONDENSATE ON Stratification Check: ✓

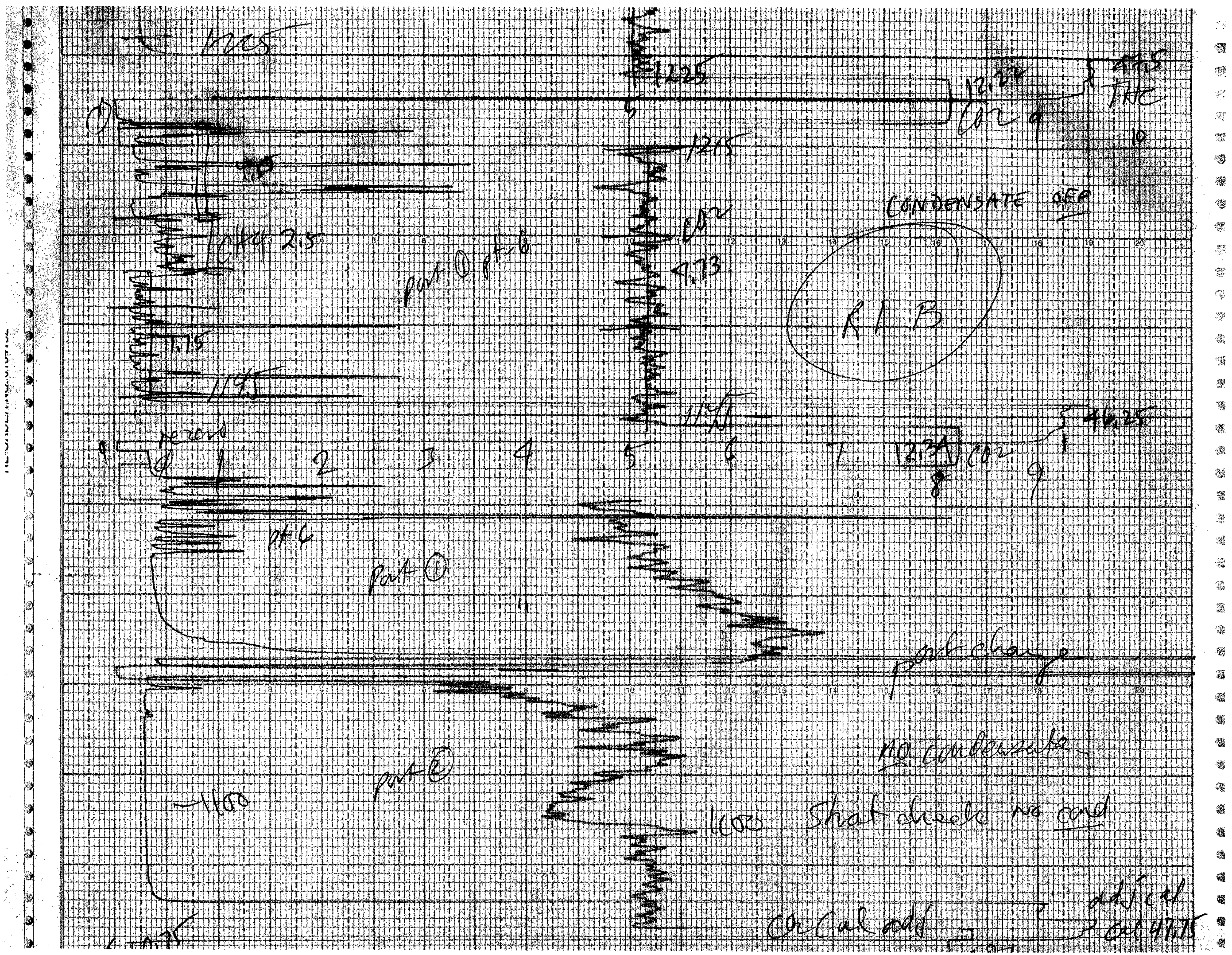
Parameter		O_2	CO_2	NOx	CO	THC	CH_4	SO_2			Unit Description/Serial #:
Analyzer		755R	PIR 2000	42	48C	RS-55	RS-55				A-11 FLARE
Range		25	15	50	100	50					Operating Conditions:
Span Value(s)		20.43	12.62	44.8	88.1	45.0					1530°F Cond. On
Span Value(s)											Fuel: LFG
Span Value(s)											
	0	0	0	0	0	0					NOTES:
	CAL	20.38	12.6	45.25	88.2	45.5					
	TRAVERSE										(TEMP) (SCFM) (GPM)
(1)	0840	10.5	9.6	14.4	3.5	0.6					
A		11.38	8.48	14.0	2.5	0.6					1554, 1159, 1.3
		12.63	7.5	13.5	12.5	2.0					
		12.75	7.05	13.0	13	0.75					
	↓	12.13	7.73	11.75	8	0.75					
	0910	14.0	7.44	10.125	2.3	1.25					
	AVG	(12.23)	(7.97)	(12.8)	(7.0)	(1.0)					
	0	0.3	0	0	0	0.5					
	CAL.	20.13	12.53	45.5	88	45.7					
(2)	0928	11.88	8.1	13.75	<5	1.25					
		11.88	8.1	13.75	<5	1.25					1545, 1097, 1.33
		11.88	8.1	13.75	<5	1.25					
		11.88	8.1	13.75	<5	1.25					
	↓	11.88	8.1	13.75	<5	1.25					
	0958	11.88	8.1	13.75	<5	1.25					
	AVG	(11.88)	(8.1)	(13.75)	(<5)	(1.25)					
	0	0.25	0	0	0	1.25					
	CAL.	20.0	12.38	45.5	88	46.8					
(3)	1010	11.83	7.95	13.9	<5	1.0					
		11.83	7.95	13.9	<5	1.0					1549, 1083, 1.31
		11.83	7.95	13.9	<5	1.0					
		11.83	7.95	13.9	<5	1.0					
	↓	11.83	7.95	13.9	<5	1.0					
	1040	11.83	7.95	13.9	<5	1.0					
	AVG	(11.83)	(7.95)	(13.9)	(<5)	(1.0)					
	0	0.25	0	0	0	0.8					
	CAL.	20.0	12.15	45.5	87.4	47.75					

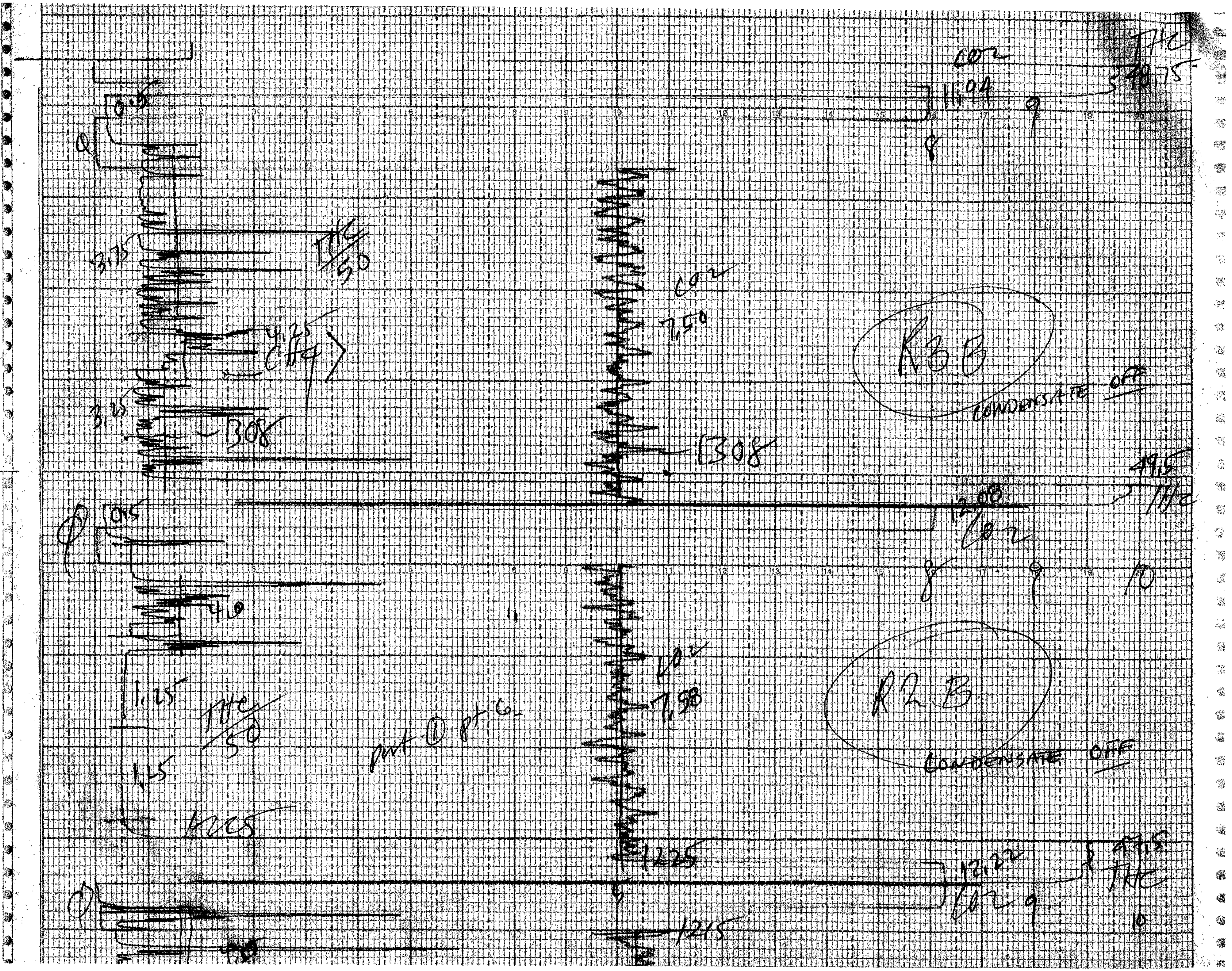
E
Strip Charts


1125
RUN #2A
Condewske ON
8.1
CO2/15
RUN #2
Part 2 print 4
45.7 THC
0928
0.5
1.25
0.75
0.75
pt 4
7.44
7.73
pt 4
7.05
Change pad
7.5
CO2
9.48
RUN 1A
Part ① 4
Condeurate ON
THC/50
0840
15
9.4
0840
1255 CO2
Cal 45.5
CO2
12.6
THC 45.0/50
12.62
CO2
11/6/07
KIRBY

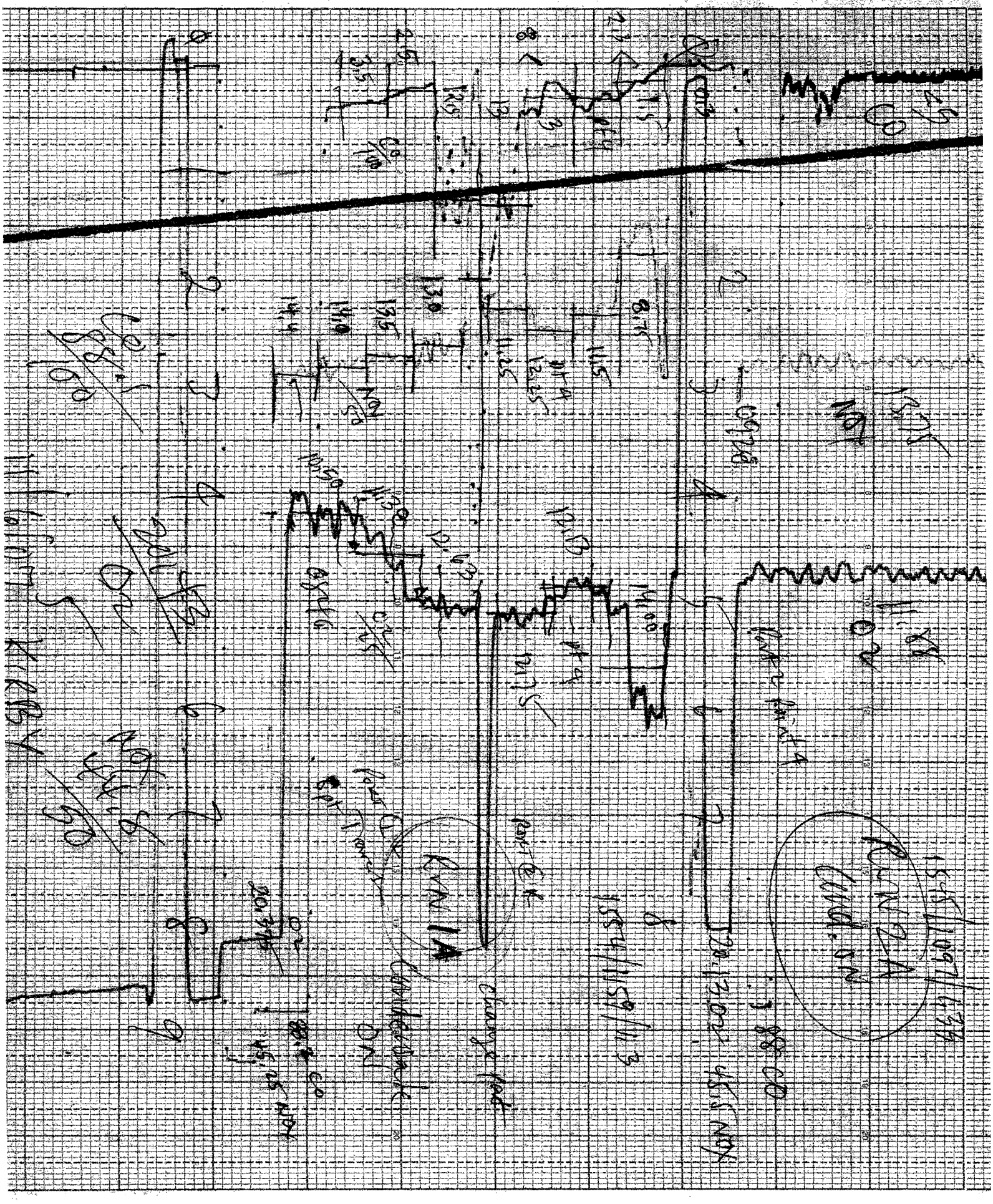


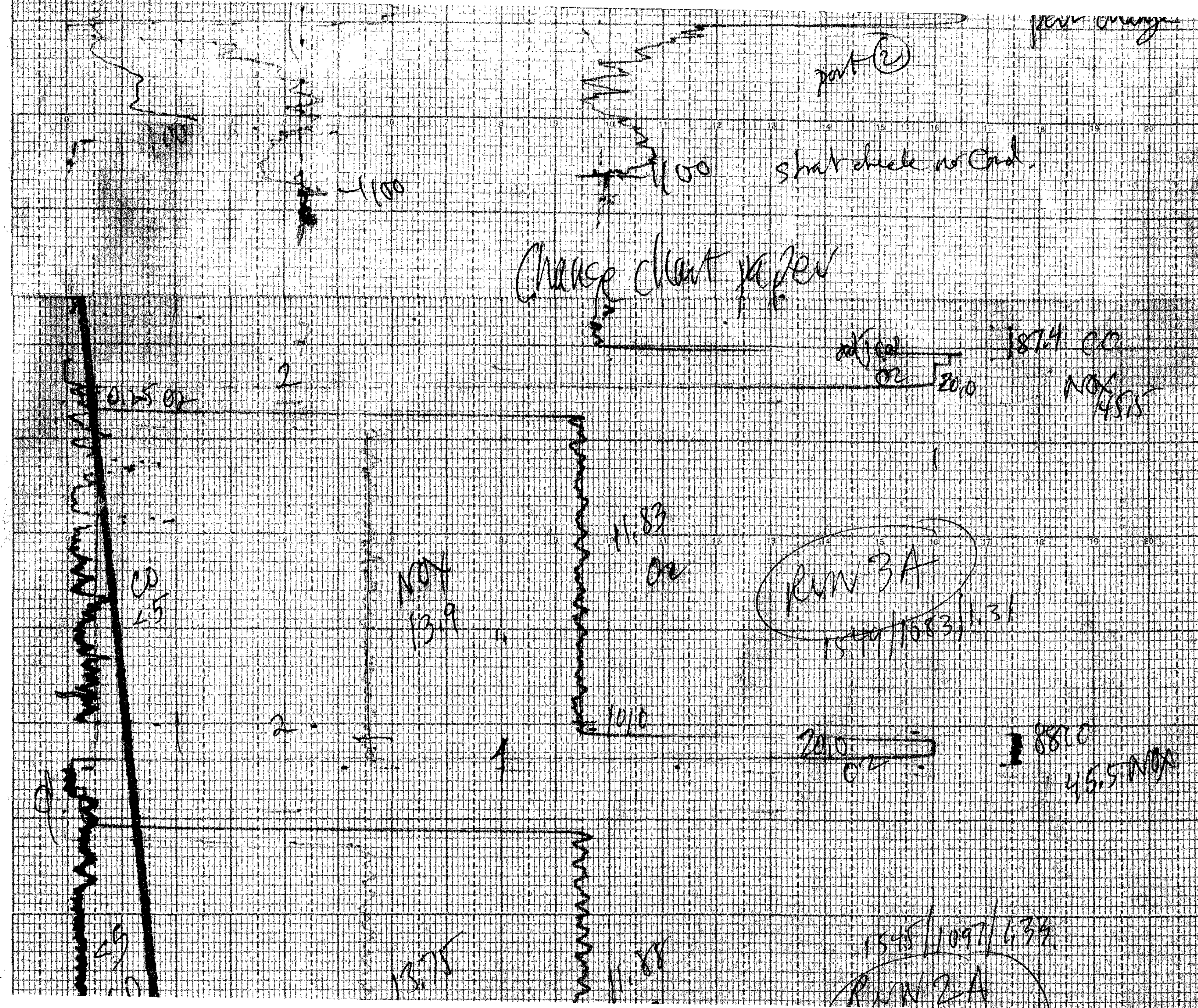
port ②
1160
no condensate
1600 Shaft check no cond
CO2 Cal adj
adj cal
Cal 47.78
CO2
12:15
Ø 0.75
1.0
THC/50
RUN #3A
Condensate ON
7.95
CO2/15
1010
12:38
CO2
46.10 THC
Ø 1.25 THC
1.25
RUN #2A
Condensate ON
8.1
CO2/15
RUN #2

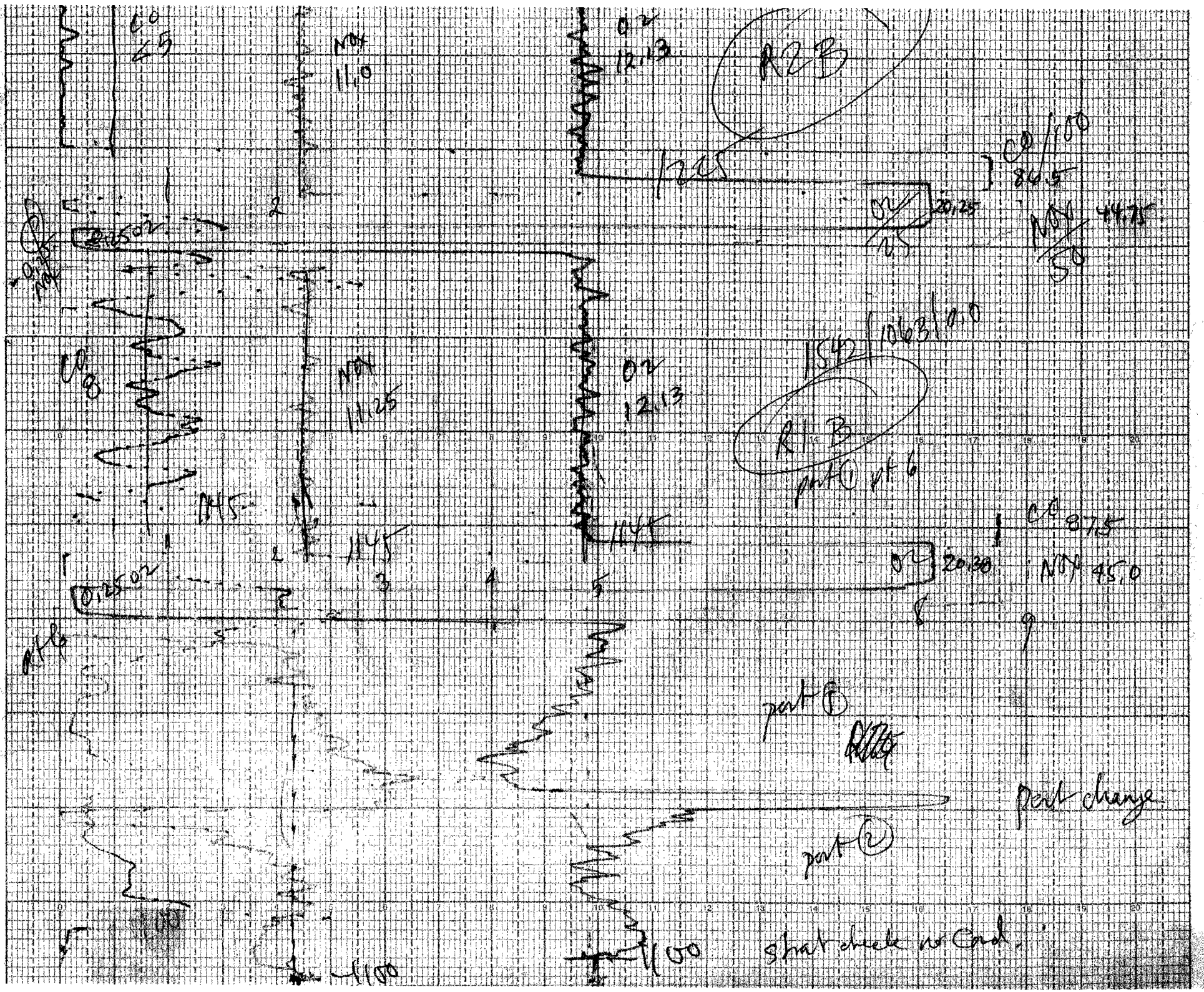

1225
CH4 2.5
part ① pt 6
CO2
47.73
R I B
CONDENSATE OFF
1.75
46.25
CO2
pt 4
part ①
part change
no condensate
part ②
1100
1600 Shaft check no cond
adj cal
cal 47.75

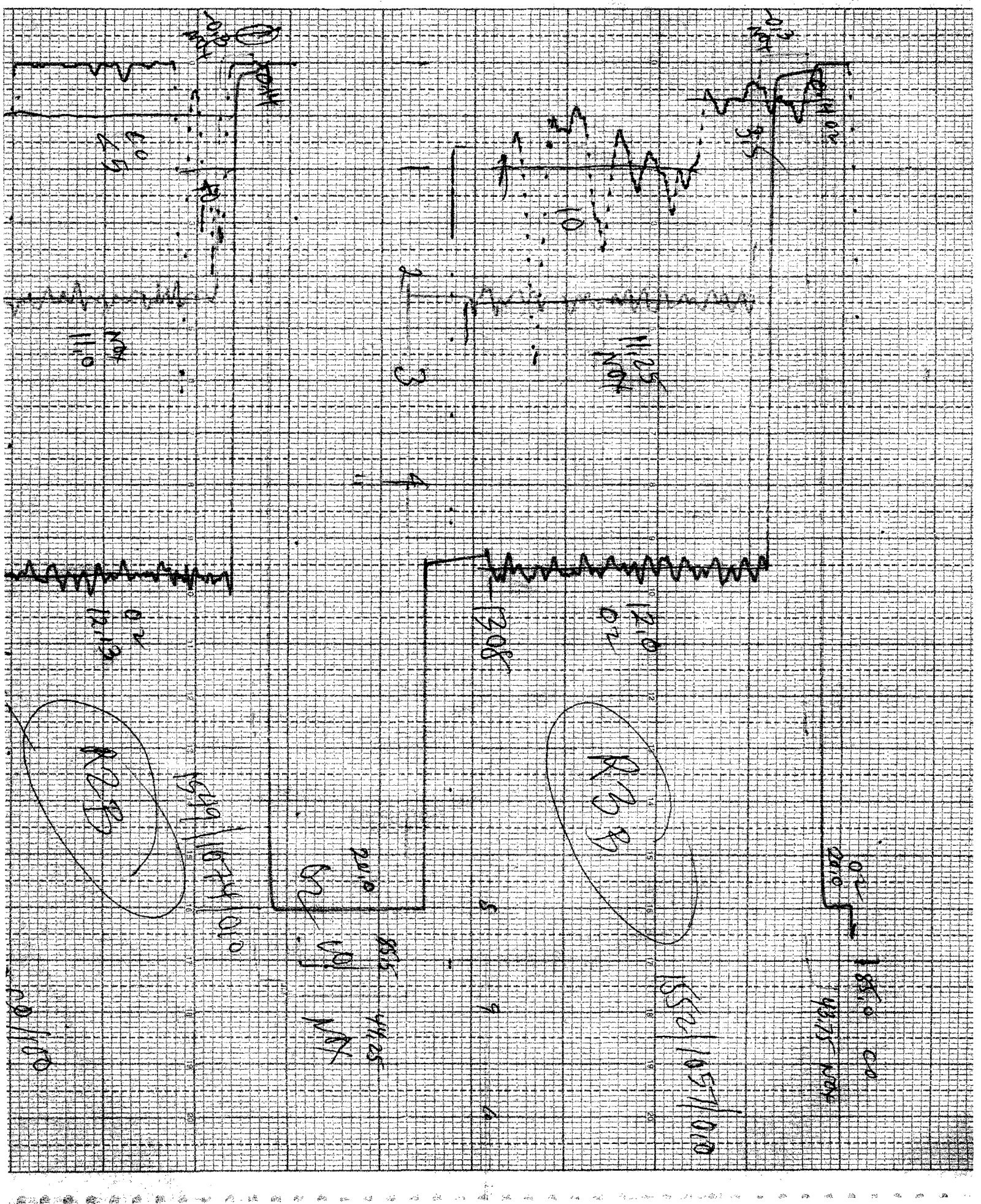


THC
48.75
CO2
11.94
3.75
THC/50
CO2
7.50
4.25
CH4
K3B
CONDENSATE OFF
3.25
1308
1308
49.5
THC
12.08
CO2
0.5
10
7.58
R2B
1.25
THC/50
1.25
CONDENSATE OFF
1225
12.22
47.5
THC
CO2
1215




pen change
part 2
1100
1100 shut check no card.
Change chart paper
adjust
O2
20.0
1874 CO
NOX 45.5
0.25 O2
2
11.83
O2
CO
<5
NOX
13.9
RUN 3A
15 49/1083/1.31
1010
2
1
20.0
O2
8820
45.5 NOX
<9
13.75
11.88
1545/1097/1.33
RUN 2A


CO 45
NOx 11.0
O2 12.13
R2B
1205
CO 86.5
O2 20.25
NOx 44.75
50
CO 8
NOx 11.25
O2 12.13
1145
1144
1142
1063
10.0
R1B
part C pt 6
CO 87.5
O2 20.30
NOx 45.0
part B
part C
part change
1150
shut check w Carol



F
Process Information

KCRDF DATA 11/6/07

		CH01 FLARE TEMP F		CH02 LFG FLOW SCFM		CH03 COND FLOW GPM		CH04 LFG TEMP °F	
Date	Time	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX
CONDENSATE ON									
RUN 1									
2007/11/06	8:39:00	1542	1552	1160	1175	1.25	1.36	89.1	89.4
2007/11/06	8:41:00	1543	1551	1156	1180	1.28	1.37	89.4	89.8
2007/11/06	8:43:00	1546	1552	1158	1179	1.27	1.37	89.8	90.1
2007/11/06	8:45:00	1545	1552	1155	1176	1.26	1.37	90.0	90.3
2007/11/06	8:47:00	1548	1553	1166	1177	1.26	1.36	90.3	90.4
2007/11/06	8:49:00	1545	1553	1166	1177	1.25	1.36	90.4	90.4
2007/11/06	8:51:00	1547	1550	1159	1173	1.26	1.36	90.3	90.4
2007/11/06	8:53:00	1543	1549	1156	1173	1.26	1.37	90.3	90.4
2007/11/06	8:55:00	1547	1550	1159	1177	1.26	1.36	90.4	90.5
2007/11/06	8:57:00	1542	1553	1147	1176	1.25	1.36	90.4	90.5
2007/11/06	8:59:00	1547	1553	1163	1179	1.26	1.36	90.5	90.7
2007/11/06	9:01:00	1544	1549	1158	1174	1.24	1.35	90.7	90.9
2007/11/06	9:03:00	1546	1549	1152	1169	1.24	1.34	90.9	91.0
2007/11/06	9:05:00	1547	1554	1150	1171	1.22	1.35	91.0	91.1
2007/11/06	9:07:00	1544	1552	1154	1171	1.23	1.33	91.0	91.1
2007/11/06	9:09:00	1542	1550	1145	1171	1.23	1.34	91.1	91.2
2007/11/06	9:11:00	1547	1551	1159	1173	1.23	1.33	91.1	91.2
RUN 2									
2007/11/06	9:27:00	1545	1554	1083	1103	1.23	1.33	91.9	92.0
2007/11/06	9:29:00	1545	1548	1087	1103	1.23	1.34	92.0	92.1
2007/11/06	9:31:00	1543	1552	1080	1103	1.24	1.34	92.1	92.1
2007/11/06	9:33:00	1544	1552	1075	1100	1.23	1.34	92.1	92.2
2007/11/06	9:35:00	1543	1552	1080	1104	1.23	1.34	92.2	92.3
2007/11/06	9:37:00	1543	1554	1092	1115	1.22	1.34	92.3	92.5
2007/11/06	9:39:00	1544	1551	1099	1108	1.22	1.33	92.5	92.5
2007/11/06	9:41:00	1544	1551	1101	1116	1.23	1.33	92.5	92.8
2007/11/06	9:43:00	1543	1551	1097	1107	1.23	1.32	92.8	93.0
2007/11/06	9:45:00	1544	1552	1096	1110	1.22	1.32	93.0	93.3
2007/11/06	9:47:00	1546	1552	1095	1105	1.23	1.32	93.2	93.3
2007/11/06	9:49:00	1544	1551	1092	1106	1.22	1.34	93.2	93.3
2007/11/06	9:51:00	1544	1550	1097	1105	1.23	1.33	93.2	93.3
2007/11/06	9:53:00	1545	1549	1081	1101	1.23	1.33	93.3	93.4
2007/11/06	9:55:00	1544	1552	1080	1105	1.22	1.32	93.4	93.6
2007/11/06	9:57:00	1543	1552	1073	1100	1.22	1.32	93.6	93.8
2007/11/06	9:59:00	1544	1550	1084	1101	1.23	1.33	93.8	93.9
RUN 3									
2007/11/06	10:09:00	1545	1550	1074	1097	1.22	1.33	93.9	94.1
2007/11/06	10:11:00	1548	1550	1077	1096	1.23	1.34	93.9	94.0
2007/11/06	10:13:00	1545	1552	1080	1096	1.23	1.33	94.0	94.0
2007/11/06	10:15:00	1545	1550	1072	1097	1.23	1.33	94.0	94.1
2007/11/06	10:17:00	1544	1552	1076	1096	1.23	1.34	94.0	94.1
2007/11/06	10:19:00	1546	1548	1078	1096	1.23	1.33	94.1	94.3
2007/11/06	10:21:00	1547	1549	1080	1098	1.22	1.32	94.3	94.5
2007/11/06	10:23:00	1544	1552	1076	1095	1.22	1.31	94.5	94.7
2007/11/06	10:25:00	1545	1554	1078	1101	1.22	1.32	94.7	94.8
2007/11/06	10:27:00	1543	1549	1074	1091	1.21	1.33	94.7	94.8
2007/11/06	10:29:00	1543	1552	1074	1094	1.21	1.32	94.8	94.8
2007/11/06	10:31:00	1542	1554	1067	1101	1.21	1.31	94.8	94.9
2007/11/06	10:33:00	1542	1552	1080	1100	1.22	1.31	94.9	95.1
2007/11/06	10:35:00	1545	1552	1073	1100	1.22	1.32	95.1	95.2
2007/11/06	10:37:00	1543	1552	1062	1094	1.22	1.32	95.2	95.3
2007/11/06	10:39:00	1543	1550	1062	1085	1.21	1.31	95.3	95.3
2007/11/06	10:41:00	1543	1550	1064	1083	1.21	1.31	95.3	95.6

KCRDF DATA 11/6/07

	Date	Time	CH01 FLARE TEMP F MIN	CH01 FLARE TEMP F MAX	CH02 LFG FLOW SCFM MIN	CH02 LFG FLOW SCFM MAX	CH03 COND FLOW GPM MIN	CH03 COND FLOW GPM MAX	CH04 LFG TEMP °F MIN	CH04 LFG TEMP °F MAX
CONDENSATE OFF										
RUN 1										
	2007/11/06	11:45:00	1545	1550	1056	1082	0.00	0.00	106.5	106.9
	2007/11/06	11:47:00	1545	1548	1062	1082	0.00	0.00	106.9	107.4
	2007/11/06	11:49:00	1543	1550	1067	1085	0.00	0.00	107.4	107.9
	2007/11/06	11:51:00	1543	1550	1064	1078	0.00	0.00	107.9	108.3
	2007/11/06	11:53:00	1544	1551	1066	1085	0.00	0.00	108.3	108.8
	2007/11/06	11:55:00	1542	1551	1063	1076	0.00	0.00	108.8	109.2
	2007/11/06	11:57:00	1542	1551	1064	1078	0.00	0.00	109.2	109.4
	2007/11/06	11:59:00	1542	1550	1065	1079	0.00	0.00	109.4	109.9
	2007/11/06	12:01:00	1542	1554	1066	1081	0.00	0.00	109.9	110.3
	2007/11/06	12:03:00	1542	1551	1054	1085	0.00	0.00	110.3	110.8
	2007/11/06	12:05:00	1546	1550	1070	1083	0.00	0.00	110.8	111.2
	2007/11/06	12:07:00	1542	1549	1058	1078	0.00	0.00	111.2	111.5
	2007/11/06	12:09:00	1542	1551	1059	1079	0.00	0.00	111.5	111.9
	2007/11/06	12:11:00	1544	1549	1049	1078	0.00	0.00	111.9	112.1
	2007/11/06	12:13:00	1547	1551	1062	1086	0.00	0.00	112.1	112.3
	2007/11/06	12:15:00	1540	1552	1068	1084	0.00	0.00	112.3	112.7
RUN 2										
	2007/11/06	12:25:00	1544	1550	1075	1082	0.00	0.00	114.1	114.4
	2007/11/06	12:27:00	1543	1552	1074	1083	0.00	0.00	114.4	114.6
	2007/11/06	12:29:00	1546	1548	1074	1082	0.00	0.00	114.5	114.7
	2007/11/06	12:31:00	1543	1550	1074	1082	0.00	0.00	114.7	115.1
	2007/11/06	12:33:00	1542	1552	1073	1079	0.00	0.00	115.1	115.6
	2007/11/06	12:35:00	1541	1554	1072	1081	0.00	0.00	115.6	115.9
	2007/11/06	12:37:00	1540	1552	1073	1080	0.00	0.00	115.8	116.0
	2007/11/06	12:39:00	1543	1554	1070	1083	0.00	0.00	116.0	116.1
	2007/11/06	12:41:00	1538	1550	1071	1082	0.00	0.00	116.1	116.3
	2007/11/06	12:43:00	1543	1551	1073	1084	0.00	0.00	116.3	116.5
	2007/11/06	12:45:00	1543	1552	1073	1079	0.00	0.00	116.5	116.7
	2007/11/06	12:47:00	1544	1550	1042	1076	0.00	0.00	116.7	116.8
	2007/11/06	12:49:00	1542	1552	1063	1076	0.00	0.00	116.7	116.9
	2007/11/06	12:51:00	1545	1552	1060	1076	0.00	0.00	116.9	117.0
	2007/11/06	12:53:00	1544	1552	1057	1077	0.00	0.00	117.0	117.2
	2007/11/06	12:55:00	1545	1555	1066	1081	0.00	0.00	117.2	117.4
RUN 3										
	2007/11/06	13:07:00	1544	1554	1043	1060	0.00	0.00	118.2	118.3
	2007/11/06	13:09:00	1543	1554	1036	1060	0.00	0.00	118.3	118.3
	2007/11/06	13:11:00	1540	1549	1044	1061	0.00	0.00	118.2	118.3
	2007/11/06	13:13:00	1542	1551	1034	1062	0.00	0.00	118.3	118.4
	2007/11/06	13:15:00	1542	1553	1051	1070	0.00	0.00	118.4	118.6
	2007/11/06	13:17:00	1541	1553	1048	1065	0.00	0.00	118.6	118.7
	2007/11/06	13:19:00	1540	1552	1041	1061	0.00	0.00	118.7	118.8
	2007/11/06	13:21:00	1544	1548	1041	1056	0.00	0.00	118.8	119.0
	2007/11/06	13:23:00	1543	1552	1037	1057	0.00	0.00	119.0	119.3
	2007/11/06	13:25:00	1543	1552	1032	1058	0.00	0.00	119.3	119.6
	2007/11/06	13:27:00	1547	1552	1038	1060	0.00	0.00	119.6	119.8
	2007/11/06	13:29:00	1542	1552	1042	1058	0.00	0.00	119.8	119.9
	2007/11/06	13:31:00	1543	1552	1048	1066	0.00	0.00	119.8	120.0
	2007/11/06	13:33:00	1542	1553	1050	1068	0.00	0.00	120.0	120.1
	2007/11/06	13:35:00	1544	1550	1039	1067	0.00	0.00	120.0	120.2
	2007/11/06	13:37:00	1544	1551	1043	1065	0.00	0.00	120.2	120.3
	2007/11/06	13:39:00	1543	1550	1043	1067	0.00	0.00	120.2	120.3

G
Calibration Certifications & QC Records

PRAXAIR

Praxair
5700 South Alameda Street
Los Angeles, CA 90058
Telephone: (323) 585-2154
Facsimile: (714) 542-6689

CERTIFICATE OF ANALYSIS / EPA PROTOCOL GAS

CUSTOMER BLUE SKY **P.O NUMBER**

REFERENCE STANDARD

COMPONENT	NIST SRM NO.	CYLINDER NO.	CONCENTRATION
CARBON MONOXIDE GMIS	vs.SRM#1678	SA 5499	52.43ppm
NITRIC OXIDE GMIS	vs.SRM#1683	CC 120399	50.7 ppm

ANALYZER READINGS

R=REFERENCE STANDARD ***Z=ZERO GAS*** ***C=GAS CANDIDATE***

1. **COMPONENT** CARBON MONOXIDE GMIS **ANALYZER MAKE-MODEL-S/N** HORIBA, VIA 510, S/N 576876015
   ANALYTICAL PRINCIPLE NDIR **LAST CALIBRATION DATE** 06/02/07
   FIRST ANALYSIS DATE 05/31/07 **SECOND ANALYSIS DATE** 06/07/07

Z 0.0	R 52.4	C 45.3	CONC. 45.3		Z 0.0	R 52.4	C 45.3	CONC. 45.3			
R 52.4	Z 0.0	C 45.3	CONC. 45.3		R 52.4	Z 0.0	C 45.3	CONC. 45.3			
Z 0.0	C 45.4	R 52.4	CONC. 45.4		Z 0.0	C 45.4	R 52.4	CONC. 45.4			
U/M ppm		**MEAN TEST ASSAY** 45.3			**U/M** ppm			**MEAN TEST ASSAY** 45.3			

2. **COMPONENT** NITRIC OXIDE GMIS **ANALYZER MAKE-MODEL-S/N** Thermo Env. 42C S/N 0518112467
   ANALYTICAL PRINCIPLE Chemiluminescence **LAST CALIBRATION DATE** 06/02/07
   FIRST ANALYSIS DATE 05/31/07 **SECOND ANALYSIS DATE** 06/07/07

Z 0.0	R 50.2	C 44.4	CONC. 44.8		Z 0.0	R 49.9	C 43.9	CONC. 44.6			
R 50.3	Z 0.0	C 44.4	CONC. 44.8		R 49.9	Z 0.0	C 43.9	CONC. 44.6			
Z 0.0	C 44.4	R 50.3	CONC. 44.8		Z 0.0	C 43.9	R 49.9	CONC. 44.6			
U/M ppm		**MEAN TEST ASSAY** 44.8			**U/M** ppm			**MEAN TEST ASSAY** 44.7			

Values not valid below 150 psig.
NOx value for reference only.

THIS CYLINDER NO. SA 18818
HAS BEEN CERTIFIED ACCORDING TO SECTION EPA-600/R97/121
OF TRACEABILITY PROTOCOL NO. Rev. 9/97
PROCEDURE G1
CERTIFIED ACCURACY ± 1 **% NIST TRACEABLE**
CYLINDER PRESSURE 2000 **PSIG**
CERTIFICATION DATE 06/07/07
EXPIRATION DATE 06/07/09 **TERM** 24 MONTHS

CERTIFIED CONCENTRATION

CARBON MONOXIDE	45.3 ppm
NITRIC OXIDE	44.7 ppm
NITROGEN	BALANCE
NOx	44.8 ppm

ANALYZED BY HENRY YOUNG ***CERTIFIED BY*** JACK FU

PRAXAIR

Dec '06

Praxair
5700 South Alameda Street
Los Angeles, CA 90058
Telephone: (323) 585-2154
Facsimile: (714) 542-6689

CERTIFICATE OF ANALYSIS / EPA PROTOCOL GAS

CUSTOMER BLUE SKY **P.O NUMBER** 835411

REFERENCE STANDARD

COMPONENT	NIST SRM NO.	CYLINDER NO.	CONCENTRATION
CARBON MONOXIDE GMIS	vs.SRM#1679	CC 155880	99.4 ppm
NITRIC OXIDE GMIS	vs.SRM#1683	CC 115611	100.3 ppm

ANALYZER READINGS

R=REFERENCE STANDARD ***Z=ZERO GAS*** ***C=GAS CANDIDATE***

1. COMPONENT CARBON MONOXIDE GMIS **ANALYZER MAKE-MODEL-S/N** HORIBA, VIA-510, S/N 576876015

ANALYTICAL PRINCIPLE NDIR **LAST CALIBRATION DATE** 11/10/06

FIRST ANALYSIS DATE 11/10/06 **SECOND ANALYSIS DATE** 11/17/06

Z 0.0	R 99.3	C 88.0	CONC. 88.1		Z 0.0	R 99.4	C 88.0	CONC. 88.0	
R 99.3	Z 0.0	C 88.0	CONC. 88.1		R 99.4	Z 0.0	C 88.0	CONC. 88.0	
Z 0.0	C 88.0	R 99.3	CONC. 88.1		Z 0.0	C 88.0	R 99.4	CONC. 88.0	
U/M ppm		**MEAN TEST ASSAY**	88.1		**U/M** ppm		**MEAN TEST ASSAY**	88.0	

2. COMPONENT NITRIC OXIDE GMIS **ANALYZER MAKE-MODEL-S/N** BECKMAN 951A S/N#0101354

ANALYTICAL PRINCIPLE CHEMILUMINESCENCE **LAST CALIBRATION DATE** 11/08/06

FIRST ANALYSIS DATE 11/10/06 **SECOND ANALYSIS DATE** 11/17/06

Z 0	R 829	C 704	CONC. 85.2		Z 0	R 826	C 704	CONC. 85.5	
R 829	Z 0	C 704	CONC. 85.2		R 827	Z 0	C 706	CONC. 85.6	
Z 0	C 704	R 829	CONC. 85.2		Z 0	C 708	R 828	CONC. 85.8	
U/M mV		**MEAN TEST ASSAY**	85.2		**U/M** mV		**MEAN TEST ASSAY**	85.6	

Values not valid below 150 psig.
NOx value for reference only.

THIS CYLINDER NO. SA 11533
HAS BEEN CERTIFIED ACCORDING TO SECTION EPA-600/R97/121
OF TRACEABILITY PROTOCOL NO. Rev. 9/97
PROCEDURE G1
CERTIFIED ACCURACY ± 1 **% NIST TRACEABLE**
CYLINDER PRESSURE 2000 **PSIG**
CERTIFICATION DATE 11/17/06
EXPIRATION DATE 11/17/08 **TERM** 24 MONTHS

CERTIFIED CONCENTRATION

CARBON MONOXIDE	88.1 ppm
NITRIC OXIDE	85.4 ppm
NITROGEN	BALANCE
NOx	86.4 ppm

ANALYZED BY GEORGE WAHBA ***CERTIFIED BY*** PHU TIEN NGUYEN

11/6/07 IN Service

PRAXAIR

Praxair
5700 South Alameda Street
Los Angeles, CA 90058
Telephone: (323) 585-2154
Facsimile: (714) 542-6689

CERTIFICATE OF ANALYSIS / EPA PROTOCOL GAS

CUSTOMER BLUE SKY **P.O NUMBER**

REFERENCE STANDARD

COMPONENT	NIST SRM NO.	CYLINDER NO.	CONCENTRATION
CARBON DIOXIDE GMIS	vs.SRM#2745	SA 18273	15.05 %
OXYGEN GMIS	vs.SRM#2659	CC 95752	20.97 %

ANALYZER READINGS

R=REFERENCE STANDARD *Z=ZERO GAS* *C=GAS CANDIDATE*

1. **COMPONENT** CARBON DIOXIDE GMIS **ANALYZER MAKE-MODEL-S/N** Siemens Ultramat 5E S/N A12-730
   ANALYTICAL PRINCIPLE NDIR **LAST CALIBRATION DATE** 09/04/07
   FIRST ANALYSIS DATE 09/25/07 **SECOND ANALYSIS DATE**

Z 0.00	R 15.04	C 12.62	CONC. 12.62	Z	R	C	CONC.
R 15.04	Z 0.00	C 12.62	CONC. 12.62	R	Z	C	CONC.
Z 0.00	C 12.62	R 15.04	CONC. 12.62	Z	C	R	CONC.
U/M %		MEAN TEST ASSAY 12.62		U/M %		MEAN TEST ASSAY	

2. **COMPONENT** OXYGEN GMIS **ANALYZER MAKE-MODEL-S/N** Siemens Oxymat 5E S/N A12-839
   ANALYTICAL PRINCIPLE Paramagnetic **LAST CALIBRATION DATE** 09/04/07
   FIRST ANALYSIS DATE 09/25/07 **SECOND ANALYSIS DATE**

Z 0.00	R 20.98	C 20.44	CONC. 20.43	Z	R	C	CONC.
R 20.98	Z 0.00	C 20.44	CONC. 20.43	R	Z	C	CONC.
Z 0.00	C 20.44	R 20.98	CONC. 20.43	Z	C	R	CONC.
U/M %		MEAN TEST ASSAY 20.43		U/M %		MEAN TEST ASSAY	

Values not valid below 150 psig

THIS CYLINDER NO. CC 75817
HAS BEEN CERTIFIED ACCORDING TO SECTION EPA-600/R97/121
OF TRACEABILITY PROTOCOL NO. Rev. 9/97
PROCEDURE G1
CERTIFIED ACCURACY ± 1 **% NIST TRACEABLE**
CYLINDER PRESSURE 2000 **PSIG**
CERTIFICATION DATE 09/25/07
EXPIRATION DATE 09/25/10 **TERM** 36 MONTHS

CERTIFIED CONCENTRATION

CARBON DIOXIDE	12.62 %
OXYGEN	20.43 %
NITROGEN	BALANCE

ANALYZED BY EUGENE CHO ***CERTIFIED BY*** PABLO REYES

PRAXAIR

Praxair
5700 South Alameda Street
Los Angeles, CA 90058
Telephone: (323) 585-2154
Facsimile: (714) 542-6689

CERTIFICATE OF ANALYSIS / EPA PROTOCOL GAS

CUSTOMER BLUE SKY **P.O NUMBER**

REFERENCE STANDARD

COMPONENT	NIST SRM NO.	CYLINDER NO.	CONCENTRATION
PROPANE GMIS	vs.SRM#1666	SA 9503	10.1 ppm

ANALYZER READINGS

R=REFERENCE STANDARD *Z=ZERO GAS* *C=GAS CANDIDATE*

1. **COMPONENT** PROPANE GMIS **ANALYZER MAKE-MODEL-S/N** HORIBA, FID-510, 851135122

ANALYTICAL PRINCIPLE Flame Ionization Detector **LAST CALIBRATION DATE** 06/02/07

FIRST ANALYSIS DATE 06/19/07 **SECOND ANALYSIS DATE**

Z	0.00	R	27.16	C	40.30	CONC. 15.0	Z	R	C	CONC.
R	27.11	Z	0.00	C	40.22	CONC. 15.0	R	Z	C	CONC.
Z	0.00	C	40.33	R	27.18	CONC. 15.0	Z	C	R	CONC.
U/M	ppm			MEAN TEST ASSAY		15.0	U/M ppm		MEAN TEST ASSAY	

Values not valid below 150 psig

THIS CYLINDER NO. CC 238669
HAS BEEN CERTIFIED ACCORDING TO SECTION EPA-600/R97/121
OF TRACEABILITY PROTOCOL NO. Rev. 9/97
PROCEDURE G1
CERTIFIED ACCURACY ± 1 **% NIST TRACEABLE**
CYLINDER PRESSURE 2000 **PSIG**
CERTIFICATION DATE 06/19/07
EXPIRATION DATE 06/19/10 **TERM** 36 MONTHS

CERTIFIED CONCENTRATION

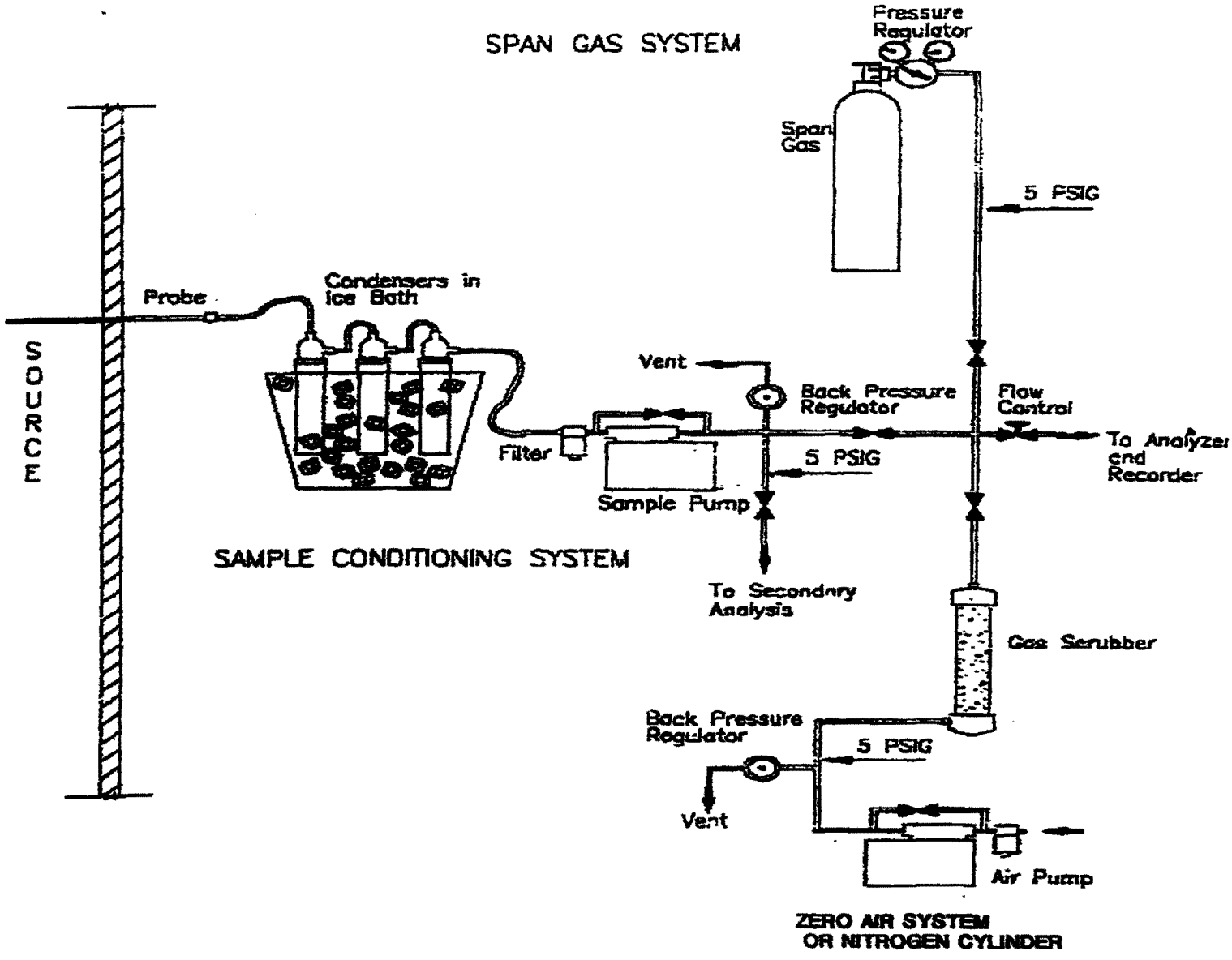
PROPANE	15.0 ppm
AIR	BALANCE

45.0

ANALYZED BY ERIC YOUNG ***CERTIFIED BY*** PABLO REYES

H
Sample Train Configuration and Stack Diagrams

Kirby Canyon Flare A-11 (left)



BAAQMD ST-5 (CO2)
BAAQMD ST-6 (CO)
BAAQMD ST-7 (THC by FID)
BAAQMD ST-13A (NOx)
BAAQMD ST-14 (O2)
BAAQMD ST-19A (SO2)

I
Related Correspondence (Source Test Plan)

KIRBY CANYON RECYCLING & DISPOSAL FACILITY
A WASTE MANAGEMENT COMPANY

910 Coyote Creek Golf Drive
P.O. Box 1870
Morgan Hill, CA 95037
(408) 779-2206
(408) 779-5165 Fax

VIA FAX (415) 749-4922

October 22, 2007

Tim Underwood
Principal Air Quality Engineer
Source Test Division
Bay Area Air Quality Management District
939 Ellis Street
San Francisco, CA 94109

Subject: Source Test Protocol & Test Notification

Dear Mr. Underwood:

Attached please find the Source Test Protocol for compliance emissions testing of the Enclosed Landfill Gas Flare (A-11) at Kirby Canyon Recycling and Disposal Facility in San Jose, CA. If you have any questions, please contact Guy Worthington from the Source Testing Contractor, Blue Sky Environmental, LLC at (510) 525-1261, or (510) 508-3469.

Sincerely,
Kirby Canyon Recycling & Disposal Facility

Becky Zito
Environmental Protection Manager

Cc: Paul Stout, Cornerstone Environmental Group

Blue Sky Environmental, LLC
624 San Gabriel Avenue
Albany, California 94706
Ph/Fax (510) 525 1261
Cell (510) 508 3469
blueskyenvironmental@yahoo.com

October 22, 2007

Attn.: Tim Underwood
Source Test Division
Bay Area Air Quality Management District
Compliance and Enforcement Division
939 Ellis Street
San Francisco, CA 94109

Re: Source Test Protocol for compliance emissions testing of the Enclosed Landfill Gas Flare (A-11) at Kirby Canyon Landfill, located at 910 Coyote Creek Golf Course Drive, San Jose, California. BAAQMD Facility #A1812.

Dear Mr. Underwood,

Blue Sky Environmental, LLC is pleased to present this Source Test Plan for the Enclosed Landfill Gas Flare at the Kirby Canyon Landfill in San Jose, California. Blue Sky Environmental, LLC is approved by the California Air Resources Board as an independent contractor to conduct compliance emission testing. This Source Test Protocol will include the following:

BAAQMD Source # A-11 Flare	Test Parameters/Limits
Compliance Test 3xCondensate on 3xCondensate off	Exhaust, THC, CH_4, NMOC, NOx, CO, CO_2, O_2 NOx 0.06 # MMBtu CO 0.3 #/MMBtu SO_2 300 ppm, calculated from TRS analysis of the fuel NMOC 98% DE or 30 ppm as CH_4 @3% O_2 6xLFG samples for HHV, H_2S, CO_2, N_2, O_2, NMOC, CH_4 A single sample of LFG will be analyzed for AP42 Table 4.2-1 compounds excluding mercury, carbon monoxide and acetone.

Testing is currently scheduled for November 6th, with a 7:00 am arrival time. If you have any questions, please contact Guy Worthington at 510 525 1261, or 510 508 3469.

- At the flare exhaust, triplicate thirty-minute tests will be performed with the Condensate On and will be repeated with the Condensate Off. Testing will use BAAQMD methods for NO_x (ST-13A), CO (ST-6), TNMHC's (ST-7-FID), CO_2 (ST-5) and O_2 (ST-14). Testing is designed to determine compliance with the following BAAQMD Permit and Reg 8 Rule 34 conditions listed in the Table above.
- Integrated Tedlar bag samples of the Landfill Gas (LFG) will be collected during each test run, and will be analyzed for HHV, H_2S, CO_2, N_2, O_2, NMOC and CH_4, using ASTM 1945 (EPA 18 & 3C), EPA 25C and ASTM 5504. A Single sample of LFG will be analyzed by EPA TO-15 GCMS for AP42 Table 4.2-1 compounds excluding mercury, carbon monoxide and acetone. The samples will be analyzed within 72 hours.
- Fuel flow rate will be measured by BAAQMD Methods 17 & 18. The fuel moisture content will be determined by wet-bulb/dry-bulb measurement. The facility fuel flow meter will be recorded and a fuel analysis will be performed to calculate outlet volumetric flow rate using EPA Method

19. The facility is required to have accurate, operating Flare temperature recording and LFG gas flow monitors.

- Three copies of the compliance test report will be submitted to the client upon completion of the test program and will include analytical test results. The report will include a test description and tables presenting concentrations (ppm), emission rates (lbs/hr) for all sampling parameters. All supporting documents (strip charts, field data sheets, calibrations, calculations, etc.) will also be included. The final report is due to the BAAQMD 60 days after testing has been completed.

hp officejet 4200 series 4215 Personal Printer/Fax/Copier/Scanner

Log for
Guadalupe Rubbish Disposal Co Inc
408 268 7451
10/22/2007 6:02PM

Last Transaction

Date	Time	Type	Identification	Duration	Pages	Result
10/22	06:01p	Fax Sent	14157494922	0:51	3	OK

J
Authority To Construct
or
Permit To Operate

Bay Area Air Quality Management District

939 Ellis Street
San Francisco, CA 94109
(415) 771-6000

Final
MAJOR FACILITY REVIEW PERMIT

Issued To:

Kirby Canyon Landfill
Facility #A1812

Facility Address:
910 Coyote Creek Golf Drive
San Jose, CA 95198

Mailing Address:
P.O. Box 1870
Morgan Hill, CA 95038

Responsible Official
Joe Morse, Site Manager
(408) 779-2206

Facility Contact
Joe Morse

Type of Facility: Landfill
Primary SIC: 4953
Product: Non-hazardous Solid Waste

BAAQMD Permit Division Contact:
Ted Hull, Senior Air Quality Engineer

ISSUED BY THE BAY AREA AIR QUALITY MANAGEMENT DISTRICT

Signed by Jack P. Broadbent
Jack P. Broadbent, Executive Officer/Air Pollution Control Officer

January 28, 2007
Date

VI. PERMIT CONDITIONS

Any condition that is preceded by an asterisk is not federally enforceable.

Condition #1437
For: S-1, Active Landfill with Landfill Gas Collection System;
For:A-11, Landfill Gas Flare

1. The Permit Holder shall comply with the following waste acceptance and disposal limits and shall obtain the appropriate New Source Review permit, if one of the following limits is exceeded:
   a. Except for temporary emergency situations approved by the Local Enforcement Agency, the total waste accepted and placed at the landfill shall not exceed 2600 tons in any day. (Basis: Regulation 2-1-301)
   b. The total cumulative amount of all waste placed in the landfill shall not exceed 19.84 million tons. Exceedance of the cumulative tonnage limit is not a violation of the permit and does not trigger the requirement to obtain a New Source review permit, if the operator can, within 30 days of the date of discovery of the exceedance, provide documentation to the District demonstrating, in accordance with BAAQMD Regulation 2-1-234.3, that the limit should be higher. (Basis: Regulation 2-1-234.3)
   c. The maximum design capacity of the landfill (total volume of all wastes placed in the landfill) shall not exceed 36.40 million cubic yards. (Basis: Regulation 2-1-301)

2. Handling Procedures for Soil Containing Volatile Organic Compounds
   a. The procedures listed below in subparts b-l do not apply if the following criteria are satisfied. However, the record keeping requirements in subpart m, below, are applicable.
      i. The Permit Holder has appropriate documentation demonstrating that either the organic content of the soil or the organic concentration above the soil is below the "contaminated" level (as defined in Regulation 8, Rule 40, Sections 205, 207, and 211). The handling of soil containing VOCs in concentrations below the "contaminated" level is subject to Part 3 below.
      ii. The Permit Holder has no documentation to prove that soil is not contaminated, but source of the soil is known and there is no reason to suspect that the soil might contain organic compounds.

VI. Permit Conditions

Condition #1437
For: S-1, Active Landfill with Landfill Gas Collection System;
For:A-11, Landfill Gas Flare

b. The Permit Holder shall provide verbal notification to the Compliance and Enforcement Division of the Permit Holder's intention to accept contaminated soil at the facility at least 24 hours in advance of receiving the contaminated soil. The Permit Holder shall provide an estimate of the amount of contaminated soil to be received, the degree of contamination (range and average VOC Content), and the type or source of contamination.

c. Any soil received at the facility that is known or suspected to contain volatile organic compounds (VOCs) shall be handled as if the soil were contaminated, unless the Permit Holder receives test results proving that the soil is not contaminated. To prove that the soil is not contaminated, the Permit Holder shall collect soil samples in accordance with Regulation 8-40-601 within 24 hours of receipt of the soil by the facility. The organic content of the collected soil samples shall be determined in accordance with Regulation 8-40-602.

   i. If these test results indicate that the soil is still contaminated or if the soil was not sampled within 24 hours of receipt by the facility, the Permit Holder must continue to handle the soil in accordance with the procedures set forth in subparts e-1, below, until the soil has completed treatment or has been placed in a final disposal location and adequately covered. Storing soil in a temporary stockpile or pit is not considered treatment. Co-mingling, blending, or mixing of soil lots is not considered treatment.

   ii. If these test results indicate that the soil – as received at the facility – has an organic content of 50 ppmw or less, then the soil is no longer contaminated and shall be handled in accordance with the procedures in Part 3 instead of Part 2, subparts e-l.

d. Any contaminated soil received at the facility shall be clearly identified as contaminated soil, shall be handled in accordance with subparts e-l. below, and shall be segregated from non-contaminated soil. Contaminated soil lots may not be co-mingled, blended, or otherwise mixed with non-contaminated soil lots prior to treatment, reuse, or disposal. Mixing soil lots in an attempt to reduce the overall concentration of the contaminated soil or to circumvent any requirements or limits is strictly prohibited.

VI. Permit Conditions

Condition #1437
For: S-1, Active Landfill with Landfill Gas Collection System;
For:A-11, Landfill Gas Flare

e. On-site handling of contaminated soil shall be limited to no more than 2 on-site transfers per soil lot. For instance, unloading soil from off-site transport vehicles into a temporary storage pile is 1 transfer. Moving soil from a temporary storage to a staging area is 1 transfer. Moving soil from a temporary storage pile to a final disposal site is 1 transfer. Moving soil from a staging area to a final disposal site is 1 transfer. Therefore, unloading soil from off-site transport into a temporary storage pile and then moving the soil from that temporary storage pile to the final disposal site is allowed. Unloading soil from off-site transport into a staging area and then moving the soil from that staging area to the final disposal site is allowed. However, unloading soil from off-site transport to a temporary storage pile, moving this soil to a staging area, and then moving the soil again to a final disposal site is 3 on-site transfers and is not allowed.

f. If the contaminated soil has an organic content of less than 500 ppmw, the contaminated soil shall be treated, deposited in a final disposal site, or transported off-site for treatment within 90 days of receipt at the facility.

g. If the contaminated soil has an organic content 500 ppmw or more, the contaminated soil shall be treated, deposited in a final disposal site, or transported off-site for treatment within 45 days of receipt at the facility.

h. All active storage piles shall meet the requirements of Regulation 8-40-304 by using water sprays, vapor suppressants or approved coverings to minimize emissions. The exposed surface area of any active storage pile (including the active face at a landfill) shall be limited to 6000 ft^2. The types of storage piles that may become subject to these provisions include (but are not limited to) truck unloading areas, staging areas, temporary stockpiles, soil on conveyors, bulldozers or trucks, the active face of a landfill, or other permanent storage pile at the final disposal location.

VI. Permit Conditions

Condition #1437
For: S-1, Active Landfill with Landfill Gas Collection System;
For:A-11, Landfill Gas Flare

i. All inactive storage piles shall meet the requirements of Regulation 8-40-305 including the requirement to cover contaminated soil during periods of inactivity longer than one hour. The types of storage piles that may become subject to these provisions include (but are not limited to) soil on trucks or other on-site equipment, staging areas, temporary stockpiles, and the permanent storage pile at the final disposal location. District approved coverings for inactive storage piles include continuous heavy-duty plastic sheeting (in good condition, joined at the seams, and securely anchored) or encapsulating vapor suppressants (with re-treatment as necessary to prevent emissions).

j. The Permit Holder must:
   i. Keep contaminated soil covered with continuous heavy-duty plastic sheeting (in good condition, joined at the seams, and securely anchored) whenever soil is to be stored in temporary stockpiles or during on-site transport in trucks. Soil in trucks shall not be left uncovered for more than 1 hour.
   ii. Establish a tipping area for contaminated soils near the active face that is isolated from the tipping area for other wastes.
   iii. Spray contaminated soil with water or vapor suppressant immediately after dumping the soil from a truck at the tipping area.
   iv. Ensure that all contaminated soil is transferred from the tipping area to the active face immediately after spraying with water or vapor suppressant.
   v. Ensure that contaminated soil in the tipping area is not disturbed by subsequent trucks. Trucks shall not drive over contaminated soil in the tipping area or track contaminated soil out of the tipping area on their wheels.
   vi. Spray contaminated soil on the active face with water or vapor suppressant (to keep the soil visibly moist) until the soil can be covered with an approved covering.
   vii. Limit the area of exposed soil on the active face to no more than 6000 ft^2.

VI. Permit Conditions

Condition #1437
For: S-1, Active Landfill with Landfill Gas Collection System;
For:A-11, Landfill Gas Flare

viii. Ensure that contaminated soil spread on the active face is completely covered on all sides with one of the following approved coverings: at least 6 inches of clean compacted soil, at least 12 inches of compacted garbage, or at least 12 inches of compacted green waste.

ix. Ensure that covering of soil on the active face is completed within one hour of the time that the soil was first dumped from a truck at the tipping area.

k. Contaminated soil shall not be used as daily, intermediate, or final cover material for landfill waste operations unless the requirements of Regulation 8, Rule 40, Sections 116 or 117 have been satisfied.

l. Contaminated soil is considered to be a decomposable solid waste pursuant to Regulation 8, Rule 34. All contaminated soil disposed of at a site shall be included in any calculations of the amount of decomposable waste in place that are necessary for annual reporting requirements or for purposes of 8-34-111 or 8-34-304.

m. The Permit Holder shall keep the following records for each lot of soil received, in order to demonstrate on-going compliance with the applicable provisions of Regulation 8, Rule 40.

i. For all soil received by the facility (including soil with no known contamination), record the arrival date at the facility, the soil lot number, the amount of soil in the lot, the organic content or organic concentration of the lot (if known), the type of contamination (if any), and keep copies of any test data or other information that documents whether the soil is contaminated (as defined in 8-40-205) or not contaminated, with what, and by how much.

ii. If the soil is tested for organic content after receipt by the facility, record the sampling date, test results, and the date that these results were received.

iii. For all on-site handling of contaminated soil, use a checklist or other approved method to demonstrate that appropriate procedures were followed during all on-site handling activities. One checklist shall be completed for each day and for each soil lot (if multiple lots are handled per day).

VI. Permit Conditions

Condition #1437
For: S-1, Active Landfill with Landfill Gas Collection System;
For:A-11, Landfill Gas Flare

iv. For soil aerated in accordance with 8-40-116 or 117 record the soil lot number, the amount of soil in the lot, the organic content, the final placement date, the final placement location, and describe how the soil was handled or used on-site.

v. For final disposal at a landfill, record on a daily basis the soil lot number, the amount of soil placed in the landfill, the disposal date, and the disposal location.

All records shall be retained for at least 5 years from the date of entry and shall be made available for District inspection upon request.

(basis: Regulations 8-40-301, 8-40-304 and 8-40-305)

3. Low VOC soil (soil that contains 50 ppmw or less of VOC) is not considered to be "contaminated soil" and may be used as daily, intermediate, or final cover material for landfill waste operations if the organic concentration above the soil does not exceed 50 ppmv (expressed as methane, C1). To demonstrate compliance with this requirement, each lot of soil to be used as cover material shall be randomly screened for VOC surface emissions (in such a manner as to be representative of the entire lot) using the testing procedures outlined in Regulation 8-40-604. The Permit Holder shall keep the following records for each lot of soil subject to this requirement:
   a. The soil lot number as established in part 2m.i. (above).
   b. The time and date of the soil screening.
   c. The name and affiliation of the person performing the monitoring.
   d. The results of the screening and an acknowledgement that the procedures outlined in Regulation 8-40-604 were used.

   Soil presumed to be low VOC soil that is found to have a surface VOC concentration greater than 50 ppmv as described above shall be considered contaminated soil and will be subject to the requirements of part 2 of these conditions. (basis: Regulations 8-40-205, 8-40-604)

4. Water and/or dust suppressants shall be applied to all unpaved roadways, active soil removal, and fill areas as necessary to prevent visible particulate emissions. Paved roadways shall be kept sufficiently clear of dirt and debris to prevent visible particulate emissions from vehicle traffic or wind. (basis: Regulations 2-1-403, 6-301, and 6-305)

VI. Permit Conditions

Condition #1437
For: S-1, Active Landfill with Landfill Gas Collection System;
For:A-11, Landfill Gas Flare

5. All collected landfill gas shall be vented to properly operating abatement equipment including the Landfill Gas Flare (A-11) and/or the IC Engines (S-5, S-6, and S-7)). Raw landfill gas shall not be vented to the atmosphere, except for unavoidable landfill gas emissions that occur during collection system installation, maintenance, or repair that is performed in compliance with Regulation 8, Rule 34, Sections 113, 116, 117, or 118 and for component or surface leaks that do not exceed the limits specified in 8-34-301.2 or 8-34-303. (basis: Regulation 8-34-301)

6. The Permit Holder shall apply for and receive an Authority to Construct before modifying the landfill gas collection system described in Parts 6a-b below. Increasing or decreasing the number of wells or collectors, changing the length of collectors, or changing the locations of wells or collectors are all considered to be modifications that are subject to the Authority to Construct requirement.
   a. The Permit Holder has been issued a Permit to Operate for the landfill gas collection system components listed below. Well and collector locations, depths, and lengths are as described in detail in Permit Applications #2232 and #7835.

	Current
Total Number of Gas Wells:	36

   b. The Permit Holder was issued an Authority to Construct for additional landfill gas collection system components as described in Permit Application #11730. Additional wells installed under this Authority will be added to the Title V permit using the minor permit amendment procedures identified in Regulation 2-6-414.

   (basis: Regulations 2-1-301, 8-34-301.1, 8-34-304, 8-34-305)

7. The landfill gas collection system described in Part 6a shall be operated continuously as defined in Regulation 8-34-219. Wells shall not be shut off, disconnected or removed from operation without written authorization from the APCO, unless the Permit Holder complies with all applicable requirements of Regulation 8, Rule 34, Sections 113, 116, 117, and 118. (basis: Regulation 8-34-301.1)

VI. Permit Conditions

Condition #1437
For: S-1, Active Landfill with Landfill Gas Collection System;
For:A-11, Landfill Gas Flare

8. The heat input to the A-11 Landfill Gas Flare shall not exceed 1,080 million BTU per day and shall not exceed 394,200 million BTU per year. In order to demonstrate compliance with this part, the Permit Holder shall calculate and record, on a monthly basis, the maximum daily and total monthly heat input to the flare based on: (a) the landfill gas flow rate recorded pursuant to part 14h, (b) the average methane concentration in the landfill gas measured in most recent source test, and (c) a high heating value for methane of 1013 BTU per cubic foot at 60 degrees F. (basis: Regulation 2-1-301)

9. The minimum combustion zone temperature of the Flare A-11 shall be determined by the results of the most recent source test in which compliance with all applicable requirements was demonstrated. The minimum combustion zone temperature shall be the average temperature measured during the complying source test minus 50 degrees F. Once the minimum temperature has been established, it shall be maintained during all periods of flare operation. Compliance with the temperature limit shall be based on a 3-hour averaging period. Under no circumstances shall the minimum flare temperature be less than 1,400 degrees F. Based on the results of required source testing of the flare, the APCO may add an explicit temperature limit to the conditions for the Flare A-11 in accordance with the procedures identified in Regulation 2-6-414 or 2-6-415. (Basis: Regulation 8-34-301.3)

10. Emissions of Nitrogen Oxides (NOx) from the Flare A-11 shall not exceed 0.06 pounds per million BTU (calculated as NO_2). (basis: RACT and Offsets)

11. Emissions of Carbon Monoxide (CO) from the Flare A-11 shall not exceed 0.3 pounds per million BTU. (basis: RACT and Offsets).

12. To demonstrate compliance with Regulation 8, Rule 34, Sections 301.3 and 412, and the above requirements, the Permit Holder shall ensure that a District approved source test is conducted annually on the Landfill Gas Flare (A-11). The annual source test shall determine the following:

VI. Permit Conditions

Condition #1437
For: S-1, Active Landfill with Landfill Gas Collection System;
For:A-11, Landfill Gas Flare

a. landfill gas flow rate to the flare (dry basis);
b. concentrations (dry basis) of carbon dioxide (CO_2), nitrogen (N_2), oxygen (O_2), total hydrocarbons (THC), methane (CH_4), and total non-methane organic compounds (NMOC) in the landfill gas;
c. stack gas flow rate from the flare (dry basis);
d. concentrations (dry basis) of nitrogen oxides (NOx), carbon monoxide (CO), THC, CH_4, NMOC, SO_2, and O_2 in the flare stack gas;
e. the NMOC destruction efficiency achieved by the flare; and
f. the average combustion temperature in the flare during the test period.

Annual source tests shall be conducted no earlier than 9 months and no later than 12 months after the previous source test. The Source Test Section of the District shall be contacted to obtain approval of the source test procedures at least 14 days in advance of each source test. The Source Test Section shall be notified of the scheduled test date at least 7 days in advance of each source test. The source test report shall be submitted to the Compliance and Enforcement Division and to the Source Test Section within 60 days of the test date. This testing shall also be used to determine compliance with the SO2 requirements of Regulation 9-1-302 for the IC Engine Generator Sets S-5, S-6, and S-7. For this purpose, the SO2 concentration shall be corrected to zero percent oxygen. (basis: RACT, Regulations 2-1-301, 8-34-301.3, 8-34-412, and 9-1-302)

13. The Permit Holder shall conduct a characterization of the landfill gas concurrent with the annual source test required by part 12 above. The landfill gas sample shall be drawn from the main landfill gas header. In addition to the compounds listed in part 12b, the landfill gas shall be analyzed for all the compounds listed in the most recent version of EPA's AP-42 Table 2.4-1 excluding acetone, carbon monoxide, and mercury. All concentrations shall be reported on a dry basis. The test report shall be submitted to the Compliance and Enforcement Division within 60 days of the test date. After conducting three annual landfill gas characterization tests, the Permit Holder may request to remove specific compounds from the list of compounds to be tested for if the compounds have not been detected, have no significant impact on the cancer risk determination for the site, and have no significant impact on the hazard index determination for the site. (basis: Toxic Risk Management Policy and Regulation 8-34-412)

VI. Permit Conditions

Condition #1437
For: S-1, Active Landfill with Landfill Gas Collection System;
For:A-11, Landfill Gas Flare

*14. The landfill gas condensate injection rate shall not exceed 5 gallons per minute. Total landfill gas condensate injection throughput shall not exceed 375,000 gallons during any consecutive twelve-month period. The Permit Holder for S-1 and A-11 may submit a written petition to the District to increase the landfill gas condensate injection rate subject to current District-approved source test results. (basis: Toxic Risk Management Policy)

15. To demonstrate compliance with the above conditions, the Permit Holder shall maintain the following records in a District approved logbook.
    a. The total amount of municipal solid waste received at S-1 recorded on a daily basis. A summary of the daily waste acceptance records for each calendar month.
    b. For each area or cell that is not controlled by a landfill gas collection system, a record of the date that waste was initially placed in the area or cell. The cumulative amount of waste placed in each uncontrolled area or cell recorded on a monthly basis.
    c. If the Permit Holder plans to exclude an uncontrolled area or cell from the collection system requirement, the Permit Holder shall also record the types and amounts of all non-decomposable waste placed in the area and the percentage (if any) of decomposable waste placed in the area.
    d. Low VOC soil screening data, pursuant to part 3.
    e. The dates, locations, and frequency per day of all watering activities on unpaved roads or active soil or fill areas. The dates, locations, and type of any dust suppressant applications. The dates and description of all paved roadway cleaning activities. All records shall be summarized monthly.
    f. The initial operation date for each new landfill gas well and collector.
    g. An accurate map of the landfill that indicates the locations of all refuse boundaries and the locations of all wells and collectors (using unique identifiers) that are required to be operating continuously pursuant to part 6a. Any areas containing only non-decomposable waste shall be clearly identified. This map shall be updated at least once a year to indicate changes in refuse boundaries and to include any newly installed wells and collectors.
    h. The operating times and the landfill gas flow rate to the A-11 Landfill Gas Flare recorded on a daily basis. A monthly summary of the heat input toA-11, pursuant to part 8 shall be calculated and recorded.
    i. Continuous records of the combustion zone temperature for the A-11 Landfill Gas Flare during all hours of operation.

VI. Permit Conditions

Condition #1437
For: S-1, Active Landfill with Landfill Gas Collection System;
For:A-11, Landfill Gas Flare

j. Records of all test dates and test results performed to maintain compliance with parts 12 and 13 above or any applicable rule or regulation.

k. Records of landfill gas condensate injection throughput and the duration of the injection recorded daily.

All records shall be maintained on site or shall be made readily available to District staff upon request for at least 5 years from the date of entry. These recordkeeping requirements do not replace the recordkeeping requirements contained in any applicable rules or regulations.
(basis: Cumulative Increase, 2-1-301, 2-6-501, 6-301, 6-305, 8-2-301, 8-34-301, 8-34-304, 8-34-501, and 9-1-302)

16. The annual report required by BAAQMD Regulation 8-34-411 shall be submitted in two semi-annual increments. The reporting period for the first increment of the Regulation 8-34-411 annual report that is submitted subsequent to the issuance of the MFR Permit for this site shall be from December 1, 2002 through August 31, 2003. This first increment report shall be submitted by September 30, 2003. The reporting periods and report submittal due dates for all subsequent increments of the Regulation 8-34-411 report shall be synchronized with the reporting periods and report submittal due dates for the semi-annual MFR Permit monitoring reports that are required by Section I.F. of the MFR Permit for this site. (basis: Regulation 8-34-411 and 40 CFR Part 63.1980(a))

Condition #21582
For: S-3, S-4; Diesel IC Engines for Flare Generator and Trash Pump

1. The Diesel Engines S-3 and S-4 shall each be limited to 3,120 hours per year of operation. (basis: Offsets)

2. Only low sulfur fuel (<0.5% sulfur by weight) shall be combusted at S-3 and S-4. The maximum sulfur content of the fuel shall be demonstrated by vendor certification. (basis: Regulation 9-1-304)

VII. APPLICABLE LIMITS & COMPLIANCE MONITORING REQUIREMENTS

This section has been included to summarize the applicable emission limits contained in Section IV, Source-Specific Applicable Requirements, of this permit. The following tables show the relationship between each emission limit and the associated compliance monitoring provisions, if any. The monitoring frequency column indicates whether periodic (P) or continuous (C) monitoring is required. For periodic monitoring, the frequency of the monitoring has also been shown using the following codes: annual (A), quarterly (Q), monthly (M), weekly (W), daily (D), or on an event basis (E). No monitoring (N) has been required if the current applicable rule or regulation does not require monitoring, and the operation is unlikely to deviate from the applicable emission limit based upon the nature of the operation.

This section is only a summary of the limits and monitoring requirements. In the case of a conflict with any requirement in Sections I-VI, the preceding sections take precedence over Section VII.

Table VII – A
Applicable Limits and Compliance Monitoring Requirements
S-1 ACTIVE LANDFILL
A-11 LANDFILL GAS FLARE

Type of Limit	Citation of Limit	FE Y/N	Future Effective Date	Limit	Monitoring Requirement Citation	Monitoring Frequency (P/C/N)	Monitoring Type
Collection System Installation Dates	BAAQMD 8-34-304.1	Y		For Inactive/Closed Areas: collection system components must be installed and operating by 2 years + 60 days after initial waste placement	BAAQMD 8-34-501.7 and 501.8 and BAAQMD Condition #1437, Parts 15b-c and 15f-g	P/E	Records
Collection System Installation Dates	BAAQMD 8-34-304.2	Y		For Active Areas: Collection system components must be installed and operating by 5 years + 60 days after initial waste placement	BAAQMD 8-34-501.7 and 501.8 and BAAQMD Condition #1437, Parts 15b-c and 15f-g	P/E	Records

VII. Applicable Limits and Compliance Monitoring Requirements

Table VII – A
Applicable Limits and Compliance Monitoring Requirements
S-1 ACTIVE LANDFILL
A-11 LANDFILL GAS FLARE

Type of Limit	Citation of Limit	FE Y/N	Future Effective Date	Limit	Monitoring Requirement Citation	Monitoring Frequency (P/C/N)	Monitoring Type
Collection System Installa-tion Dates	BAAQMD 8-34-304.3	Y		For Any Uncontrolled Areas or Cells: collection system components must be installed and operating within 60 days after the uncontrolled area or cell accumulates 1,000,000 tons of decomposable waste	BAAQMD 8-34-501.7 and 501.8 and BAAQMD Condition #1437, Parts 15a-c and 15f-g	P/E	Records
Gas Flow	BAAQMD 8-34-301 and 301.1	Y		Landfill gas collection system shall operate continuously and all collected gases shall be vented to a properly operating control system	BAAQMD 8-34-501.10 and 508	C	Gas Flow Meter and Recorder (every 15 minutes)
Gas Flow	BAAQMD Condition #1437, Parts 5, 6, and 7	Y		Landfill gas collection system shall operate continuously and all collected gases shall be vented to a properly operating control system	BAAQMD Condition #1437, Parts 15f-h	P/D	Records of Landfill Gas Flow Rates, Collection and Control Systems Downtime, and Collection System Components
Collection and Control Systems Shutdown Time	BAAQMD 8-34-113.2	Y		Less than 240 hours/year and less than 5 consecutive days	BAAQMD 8-34-501.1	P/D	Operating Records

VII. Applicable Limits and Compliance Monitoring Requirements

Table VII – A
Applicable Limits and Compliance Monitoring Requirements
S-1 ACTIVE LANDFILL
A-11 LANDFILL GAS FLARE

Type of Limit	Citation of Limit	FE Y/N	Future Effective Date	Limit	Monitoring Requirement Citation	Monitoring Frequency (P/C/N)	Monitoring Type
Periods of Inoperation for Parametric Monitors	BAAQMD 1-523.2	Y		15 consecutive days/incident and 30 calendar days/12 month period	BAAQMD 1-523.4	P/D	Operating Records for All Parametric Monitors
Continuous Monitors	40 CFR 60.13(e)	Y		Requires Continuous Operation except for breakdowns, repairs, calibration, and required span adjustments	40 CFR 60.7(b)	P/D	Operating Records for All Continuous Monitors
Wellhead Pressure	BAAQMD 8-34-305.1	Y		< 0 psig	BAAQMD 8-34-414, 501.9 and 505.1	P/M	Monthly Inspection and Records
Temperature of Gas at Wellhead	BAAQMD 8-34-305.2	Y		< 55 °C	BAAQMD 8-34-414, 501.9 and 505.2	P/M	Monthly Inspection and Records
Gas Concentrations at Wellhead	BAAQMD 8-34-305.3 or 305.4	Y		N_2 < 20% **OR** O_2 < 5%	BAAQMD 8-34-414, 501.9 and 505.3 or 505.4	P/M	Monthly Inspection and Records
Well Shutdown Limits	BAAQMD 8-34-116.2	Y		No more than 5 wells at a time or 10% of total collection system, whichever is less	BAAQMD 8-34-116.5 and 501.1	P/D	Records
Well Shutdown Limits	BAAQMD 8-34-116.3	Y		24 hours per well	BAAQMD 8-34-116.5 and 501.1	P/D	Records
Well Shutdown Limits	BAAQMD 8-34-117.4	Y		No more than 5 wells at a time or 10% of total collection system, whichever is less	BAAQMD 8-34-117.6 and 501.1	P/D	Records

VII. Applicable Limits and Compliance Monitoring Requirements

Table VII – A
Applicable Limits and Compliance Monitoring Requirements
S-1 ACTIVE LANDFILL
A-11 LANDFILL GAS FLARE

Type of Limit	Citation of Limit	FE Y/N	Future Effective Date	Limit	Monitoring Requirement Citation	Monitoring Frequency (P/C/N)	Monitoring Type
Well Shutdown Limits	BAAQMD 8-34-117.5	Y		24 hours per well	BAAQMD 8-34-117.6 and 501.1	P/D	Records
TOC (Total Organic Com-pounds Plus Methane)	BAAQMD 8-34-301.2	Y		1000 ppmv as methane (component leak limit)	BAAQMD 8-34-501.6 and 503	P/Q	Quarterly Inspection of collection and control system components with OVA and Records
TOC	BAAQMD 8-34-303	Y		500 ppmv as methane at 2 inches above surface	BAAQMD 8-34-415, 416, 501.6, 506 and 510	P/M, Q, and E	Monthly Visual Inspection of Cover, Quarterly Inspection with OVA of Surface, Various Reinspec-tion Times for Leaking Areas, and Records
Non-Methane Organic Com-pounds (NMOC)	BAAQMD 8-34-301.3	Y		98% removal by weight OR < 30 ppmv, dry basis @ 3% O_2, expressed as methane (applies to A-11 Flare only)	BAAQMD 8-34-412 and 8-34-501.4 and BAAQMD Condition #1437, Part 11	P/A	Initial and Annual Source Tests and Records

VII. Applicable Limits and Compliance Monitoring Requirements

Table VII – A
Applicable Limits and Compliance Monitoring Requirements
S-1 ACTIVE LANDFILL
A-11 LANDFILL GAS FLARE

Type of Limit	Citation of Limit	FE Y/N	Future Effective Date	Limit	Monitoring Requirement Citation	Monitoring Frequency (P/C/N)	Monitoring Type
Temperature of Combustion Zone (CT)	BAAQMD Condition #1437, Part 9	Y		CT ≥ 1400 °F, averaged over any 3-hour period (applies to A-11 Flare only)	BAAQMD 8-34-501.3 and 507, and BAAQMD Condition #1437, Part 15i	C	Temperature Sensor and Recorder (continuous)
Total Carbon	BAAQMD 8-2-301	Y		15 pounds/day or 300 ppm, dry basis (applies only to aeration of or use as cover soil of soil containing ≤ 50 ppmw of volatile organic compounds)	BAAQMD Condition # 1437, Part 15d	P/E	Inspection with Portable Organic Vapor Analyzer and Records
Amount of Contaminated Soil Aerated or Used as Cover	BAAQMD 8-40-116.1 and BAAQMD Condition # 1437, Part 2	Y		1 cubic yard per project	BAAQMD Condition # 1437, Part 2m	P/E	Records
Amount of Contaminated Soil Aerated or Used as Cover	BAAQMD 8-40-116.2 and BAAQMD Condition #1437, Part 2	Y		8 cubic yards per project, provided organic content ≤ 500 ppmw and limited to 1 exempt project per 3 month period	BAAQMD 8-40-116.2 and BAAQMD Condition # 1437, Part 2m	P/E	Records
Amount of Contaminated Soil Aerated or Used as Cover	BAAQMD 8-40-301 and BAAQMD Condition #1437, Part 2	Y		Prohibited for Soil with Organic Content >50 ppmw unless exempt per BAAQMD 8-40-116, 117, or 118	BAAQMD Condition # 1437, Part 2m	P/E	Records

VII. Applicable Limits and Compliance Monitoring Requirements

Table VII – A
Applicable Limits and Compliance Monitoring Requirements
S-1 ACTIVE LANDFILL
A-11 LANDFILL GAS FLARE

Type of Limit	Citation of Limit	FE Y/N	Future Effective Date	Limit	Monitoring Requirement Citation	Monitoring Frequency (P/C/N)	Monitoring Type
Amount of Acci-dental Spillage	BAAQMD 8-40-117 and BAAQMD Condition # 1437, Part 2	Y		Soil Contaminated by Accidental Spillage of ≤ 5 Gallons of Liquid Organic Compounds	None	N	N/A
Total Aeration Project Emissions	BAAQMD 8-40-118 and BAAQMD Condition # 1437, Part 2	Y		150 pounds per project and toxic air contaminant emissions per year <BAAQMD Table 2-1-316 limits	BAAQMD Condition #1437, Part 2m	P/E	Records
Low VOC Soil	BAAQMD Condition # 1437, Part 3	Y		Soil with Organic Vapor Concentration ≤50 ppmv Acceptable as Cover Material	BAAQMD 8-40-604 and BAAQMD Condition # 1437, Part 3	P/E	Surface Organic Vapor Monitoring
Opacity	BAAQMD 6-301	Y		Ringelmann No. 1 for < 3 minutes/hr (applies to S-1 Landfill operations)	BAAQMD Condition #1437, Part 15e	P/E, M	Records of all site watering and road cleaning events
Opacity	BAAQMD 6-301	Y		Ringelmann No. 1 for < 3 minutes/hr (applies to A-11 Flare)	None	N	N/A
FP	BAAQMD 6-310	Y		≤ 0.15 grains/dscf (applies to A-11 Flare only)	None	N	N/A

VII. Applicable Limits and Compliance Monitoring Requirements

Table VII – A
Applicable Limits and Compliance Monitoring Requirements
S-1 ACTIVE LANDFILL
A-11 LANDFILL GAS FLARE

Type of Limit	Citation of Limit	FE Y/N	Future Effective Date	Limit	Monitoring Requirement Citation	Monitoring Frequency (P/C/N)	Monitoring Type
SO_2	BAAQMD 9-1-301	Y		Property Line Ground Level Limits: ≤ 0.5 ppm for 3 minutes and ≤ 0.25 ppm for 60 min. and ≤0.05 ppm for 24 hours (applies to A-11 Flare only)	None	N	N/A
SO_2	BAAQMD Regulation 9-1-302	Y		≤ 300 ppm (dry basis) (applies to A-11 Flare only)	BAAQMD Condition #1437, Part 12	P/A	Annual Source Test
H_2S	BAAQMD 9-2-301	N		Property Line Ground Level Limits: ≤ 0.06 ppm, averaged over 3 minutes and ≤ 0.03 ppm, averaged over 60 minutes	None	N	N/A
NOx	BAAQMD Condition #1437, Part 10	Y		≤ 0.06 lb/MMBTU (calculated as NO_2)	BAAQMD Condition #1437, Part 12	P/A	Annual Source Test
NOx	BAAQMD Condition #23024, Part 1	Y		40.90 tons per consecutive 12-month period (facility-wide limit)	BAAQMD Condition #23024, Part 2	P/M	Records
CO	BAAQMD Condition #1437, Part 11	Y		≤ 0.3 lb/MMBTU	BAAQMD Condition #1437, Part 12	P/A	Annual Source Test

VII. Applicable Limits and Compliance Monitoring Requirements

Table VII – A
Applicable Limits and Compliance Monitoring Requirements
S-1 ACTIVE LANDFILL
A-11 LANDFILL GAS FLARE

Type of Limit	Citation of Limit	FE Y/N	Future Effective Date	Limit	Monitoring Requirement Citation	Monitoring Frequency (P/C/N)	Monitoring Type
Amount of Waste Accepted	BAAQMD Condition #1437, Part 1	Y		≤ 2600 tons/day (except for temporary situations approved by the LEA) and ≤ 19,840,000 tons (cumulative amount of all wastes) and ≤ 36,400,000 yd^3 (cumulative amount of all wastes)	BAAQMD Condition #1437, Part 15a	P/D	Records
Heat Input	BAAQMD Condition #1437, Part 8	Y		≤ 1,080 MM BTU per day and ≤ 394,200 MM BTU per year (applies to A-11 Flare only)	BAAQMD Condition #1437, Part 8	P/D	Records
Landfill Gas Condensate Injection in Flare	BAAQMD Condition #1437, Part 14	N		≤ 5 gallons per minute ≤ 375,000 gallons per year	BAAQMD Condition #1437, Part 15k	P/D	Records
Startup Shutdown or Malfunction Procedures	40 CFR 63.6(e)	Y	1/16/04	Minimize Emissions by Implementing SSM Plan	40 CFR 63.1980(a-b)	P/E	Records (all occurrences, duration of each, corrective actions)