TOTAL AIR ANALYSIS, INC.

COMPLIANCE SOURCE TEST REPORT

THREE I.C. ENGINES

BRADLEY LANDFILL

Prepared For:

Waste Management, Inc.
9081 Tujunga Avenue
Sun Valley, CA 91352

Site Address:
9227 Tujunga Avenue
Sun Valley, CA 91352

FACILITY I.D. NO.: 50310
PERMIT TO OPERATE NO.'s:
F73942 F73943 and F73945

Conducted By:

Total Air Analysis, Inc.
1210 East 223rd Street, Suite 314
Carson, CA 90745

Test Date: May 6, 2008 & May 9, 2008
Report Date: June 12, 2008
Report Identification No: WM-80696

Prepared by: _____
Mr. Eiji J. Harada, Air Quality Engineer

Reviewed by: _____
Mr. Russ P. Logan, Director

Submitted To:

South Coast Air Quality Management District
21865 East Copley Drive
Diamond Bar, CA 91765

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1.0 SUMMARY OF RESULTS

Facility: Bradley Landfill
Source: ICE #2, #3 &#5
Load: Normal
Start Date: 5/6/2008
End Date: 5/9/2008

Parameter	Units	Engine #2	Engine #3	Engine #5	Emission Limits
Inlet					
ROGs	ppmv	3,395	3,395	3,877	--
Emission Rate	lb/hr	3.92	3.55	3.91	--
Exhaust					
ROGs	ppmv	38.77	52.02	53.05	
ROGs @ 15% O2	ppmv	17.60	20.67	21.51	
Emission Rate	lb/hr	**0.29**	**0.34**	**0.34**	**1.65**
Emission Rate	g/bhp-hr	**0.071**	**0.082**	**0.082**	**0.80**
ROGs (as Hexane)	ppmv	7.21	9.68	9.87	**(Rule 1150.1)**
ROGs (@ 3% O2), C6	ppm	**9.93**	**11.67**	**12.14**	**20.0**
Destruction Efficiency	%	92.5	90.5	91.4	--
Fuel Flow	scfm	455.9	412.6	398.3	--
Heat Input	MMBTU/hr	**12.58**	**11.39**	**10.87**	**16.80**
O_2	%	7.90	6.05	6.35	--
CO_2	%	12.40	13.80	13.30	--
Calculated Flowrate	dscfm	3,239	2,566	2,518	--
Operating Horsepower	Bhp	1,877	1,877	1,877	--

2.0 Introduction

Total Air Analysis, Inc. was contracted by Waste Management, Inc. to perform a compliance test program on three I.C. Engines at the Bradley Landfill operated in Sun Valley, CA. The purpose of the test program was to determine the emissions of Reactive Organic Gases (ROGs) at the inlet and outlet to satisfy SCAQMD Rule 1150.1 and Permit to Operate Condition No. 16. ROG's are determined as Total Non-Methane and Ethane Organic Compounds (TNMEOC). The test program was conducted on May 6, 2008 (ICE #2, #3) and May 9, 2008 (ICE #5).

Testing was performed by Mr. Russ P. Logan and Mr. Eiji J. Harada of Total Air Analysis, Inc. Arrangements for the source testing were made through Mr. Kishore Billapati of Shaw Environmental. Total Air Analysis performed the test program using standard SCAQMD test methods demonstrated in the approved protocol according to the following table.

TABLE 1
EQUIPMENT AND TEST REQUIREMENTS

Parameter	***Method***	***Sampling Location***	***Number/ Duration of Runs***
Reactive Organic Gases (ROG's)	SCAQMD 25.3	Outlet	Duplicate, 1 hour/ICE
Reactive Organic Gases (ROG's)	ASTM D-1945	Inlet	Single
Calculated Exhaust Gas Flow Rate	EPA 19, Fuel usage	Inlet	Single, 1hour/Day

Contracting Firm:	Mr. Kishore Billapati	949/660-7555
Testing Firm Contact:	Mr. Russ P. Logan	310/ 518-5133
SCAQMD Representative:	Mr. Ted Kowalczyk	909/ 396-2592

3.0 Process Description

The resource recovery system consists of five identical Deutz, Model TBG620V16K landfill gas fired internal combustion engine with sixteen cylinders rated 1877 BHP, lean burn, turbocharged and intercooled, driving a 1.3 MW electrical generator.

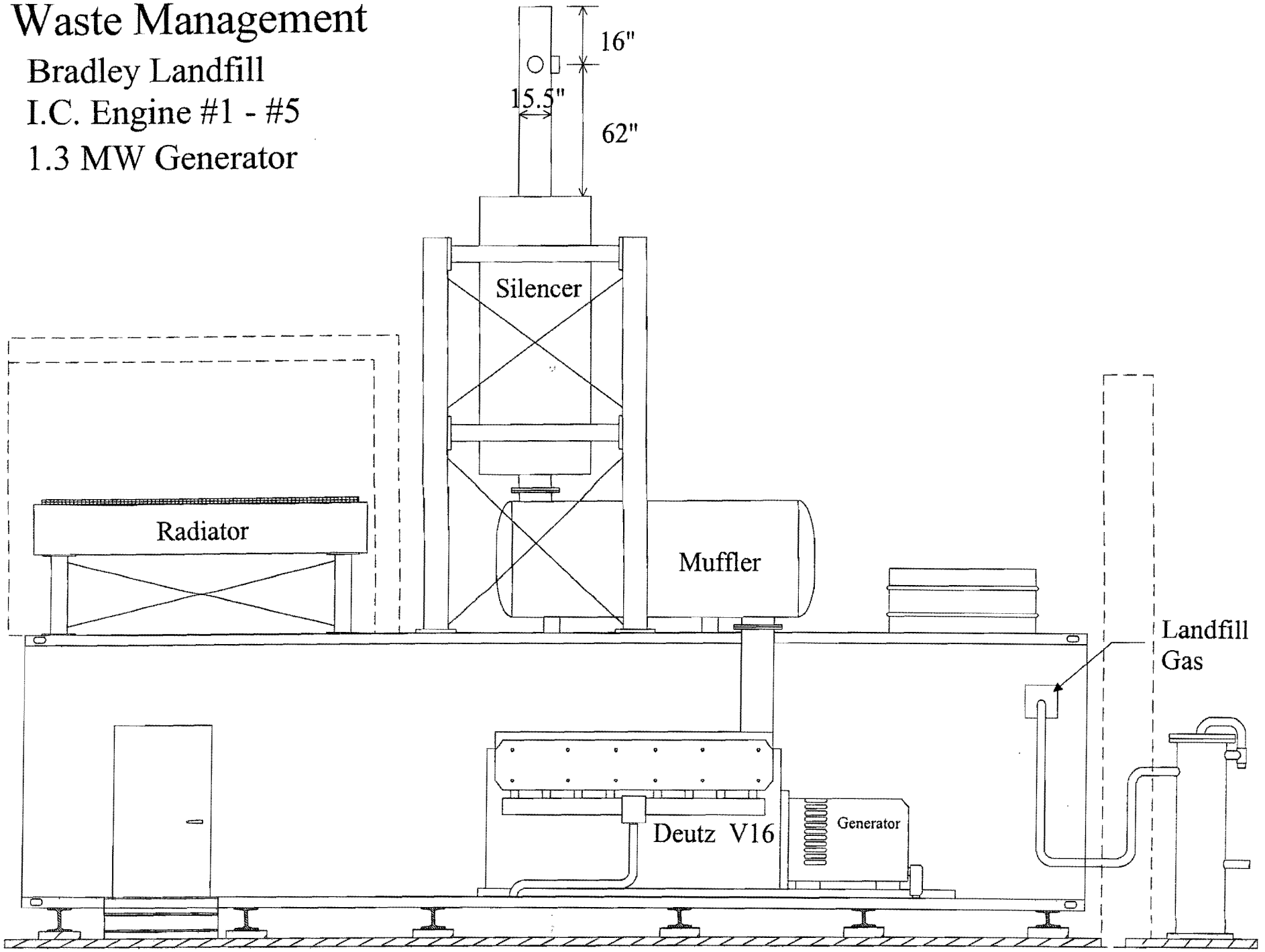
The five I.C. Engines are operated on Landfill gas to generate electrical power.

Waste Management

Bradley Landfill

I.C. Engine #1 - #5

1.3 MW Generator



4.0 Rule/Compliance Requirements

The I.C. engines are being source tested to ascertain whether they meet the requirements of their SCAQMD Permit to Operate No.'s F73942 F73943 and F73945. Specifically SCAQMD Rule 1150.1 requires annual testing for Reactive Organic Gases (ROGs).

5.0 Operating Parameters

The engines were operating at a normal full load condition during the test program. Process data showing fuel usages and operating rates (SCFM, and KW Output) throughout the test program are shown in Appendix C.

6.0 Test Methods and References

6.1 ASTM D-1945 – ROGs Emissions (High Level)

A gas sample was withdrawn from the inlet fuel source at a constant rate into a new Tedlar bag. Reactive Organic Gases (ROGs) as Total Non-Methane and Ethane Compounds (TNMEOC) were analyzed.

The samples were analyzed using gas chromatograph equipped with oxidizer and methanizer. The results from the analysis are reported as Total Non-Methane and Ethane Organic Compounds measured as Methane in ppmv.

Calculations:

ppm NO_x @ 15% O_2 = Corrected Concentrations x 5.95/(20.95 - %O_2 drift corr.)

LB/hr, Emission Rate = Corrected Concentrations x $1.583 \times 10^{-7} \times DSCFM \times M_d$ (@ 60 °F

1.552×10^{-7} @ 70 °F

1.558×10^{-7} @ 68 °F

M_d = Dry Molecular Weight of NO_x and CO= 46 and 28

g/bhp-hr = lb/hr * (453.6 g/lb)/(bhp-eng.)

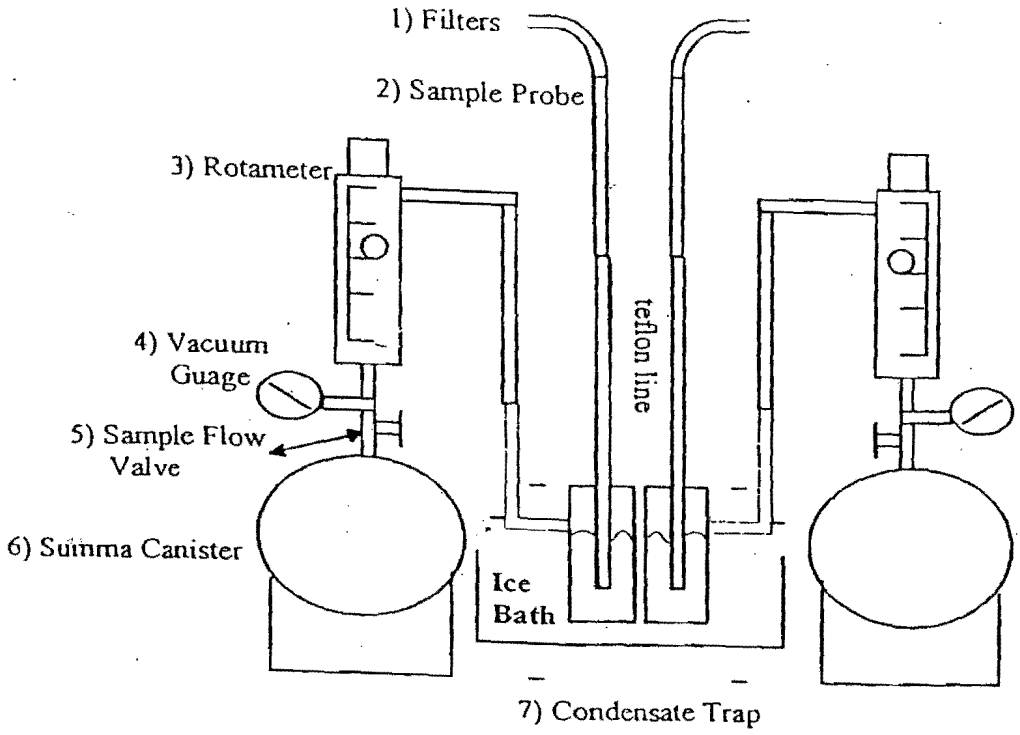
6.2 SCAQMD Method 25.3 – ROG Emissions (Low Level)

Sample was extracted from the stack at a constant rate through an ultra pure water trap immersed in ice followed by an evacuated 6-liter tank. Heavy organic components were trapped as liquids in the water trap. Lighter components passed through the water trap into the tank. After sampling was completed, the tanks and the water traps were sent to Almega Laboratory for analysis.

In the laboratory, a Total Organic Carbon (TOC) analyzer according to EPA Method 415.1 determined the organic content of the water trap. The organic content of the sample in the tank was measured according to SCAQMD Method 25.3 using Total Combustion Analysis (TCA). The sample was analyzed using gas chromatograph equipped with oxidizer and methanizer. The Total Non-Methane and Ethane Organic Compounds (TNMEOC) were separated from CO, CO_2, and CH_4 via a chromatograph column. The TNMEOC were oxidized to CO_2 via oxidizer then reduced to CH_4 via methanizer and finally detected by Flame Ionization Detector (FID). The results from the independent analyses of the water traps and tanks were combined and reported as Total Non-Methane and Ethane Organic Compounds measured as Methane in ppmv.

TCA Sampling Schematic

SCAQMD Method 25.3
(low concentration levels)



1) Filter Nozzels with Glass fiber

2) Sample Probe, 1/8" Stainless Steel tubing, with teflon sample line

3) Rotameter, Specifically designed for low flow vacuum applications 100 cc/min. with stainless steel top mounted critical flow valve

4) Vacuum Guage

5) Sample Flow Valve

6) Summa Canister, 6 liters Stainless Steel or Silico can

7) Condensate Traps, 10ml UHP water traps

Calculations:

$$C_{sa}\ (\text{Tank}) = \frac{C_{st} \times A_{sa} \times P_f \times D}{A_{st} \times P_i}$$

$$C_{sa}\ (\text{Trap}) = \frac{C_{st} \times A_{sa} \times P_f \times D}{A_{st} \times P_i \times}$$

Where:

C_{sa}	=	CO, CH_4, CO_2 or backflush concentration corresponding to peak being measured, ppmv
C_{st}	=	Concentration of CO, CH_4 or CO_2 in the standard, ppmv
A_{sa}	=	Area of charted response curve for the CO, CH_4, CO_2 or backflush sample in identical units
A_{st}	=	Area of charted response curve for the standard in identical units to A_{sa}
Pi	=	Initial pressure of sample in tank as received after sample collection, Torr
P_f	=	Final pressure to which the sample was pressurized, Torr
D	=	Dilution Factor

6.3 *EPA Method 19 – Emission Rates Determination using Calculated Stack Gas Flowrate*

The fuel usage of each I.C. Engine was monitored and recorded for the duration of the test. The stack gas flowrate was then calculated stochiometrically based on the analyzed gas heating value taken the day of testing and analyzed by Quantum Analytical Services, Inc. (See Appendix C.)

Calculations:

Stack gas flow rate = Fuel Flow rate x Heat Content x F Factor x (20.9/(20.9-O_2)

7.0 Test Results and Discussion

The compliance test was conducted at the outlet of three (3) I.C. Engines for emissions of Reactive Organic Gases (ROGs) determined as Total Non-Methane and Ethane Organic Compounds (TNMEOC). Duplicate (1 hour) sample runs were performed at the outlet of each engine.

Exhaust low-level ROGs were analyzed by Almega Laboratory. A single inlet high-level ROG taken from the inlet fuel was analyzed by Quantum Analytical Services, Inc.

Results of the Compliance test and their emission limits are in the Summary of Results section.

8.0 Quality Assurance and Quality Control

Total Air Analysis, Inc. applies stringent quality control and quality assurance procedures to ensure the validity of measurements for all projects. Our QA/QC procedures are documented in detailed Quality Assurance Project Plans similar to those used by the EPA, CARB, SCAQMD, and SDAPCD.

8.1 QA/QC Overview

Our QA/QC procedures follow guidelines in *Quality Assurance Handbook for Air Pollution Measurement Systems*, Volumes I through III. These procedures outline pretest preparation and calibrations of sampling equipment, post-test sample handling, and post-test calibrations. Standardized, written procedures, calculator programs, and spreadsheets are used for test planning, pre-surveys, equipment checklists, preliminary calculations, data and sample collection, sample tracking, data analysis, and reporting. Pre-test preparations and maintenance include organization of the following equipment:

- Calibrated pitots, balances, TCs, control boxes, sampling train specific for moisture, sample probes suitable for type of sampling to be done, and support equipment such as tools, safety gear, radios, and spares.

Test procedures follow applicable CARB/EPA or other approved test methods. For non-continuous sampling systems (moisture train, etc.), these procedures specify the following:

- Pre-test and post-test leak checks on both pitot connections and moisture trains.
- Maintenance of pitot tubes in a horizontal attitude by employment of special rail systems or jigs.
- Proper configuration of moisture train.
- Sample and velocity traverses, number and location of sampling points, check for cyclonic flow; stratification checks.
- Minimum sample time and volume for moisture determination.
- Required temperature limitations.
- Other test method-specific procedures.

8.2 QA/QC Equipment Calibration Procedures

Table 2 contains the specific QA/QC equipment calibration requirements that are strictly followed by Total Air Analysis personnel.

TABLE 2
QUALITY ASSURANCE / QUALITY CONTROL CALIBRATION TABLE

Component	*Frequency of Calibration*	*Requirements of Calibration*	*Limits of Calibration*
Pitots	Prior to each source testing program and semiannually	Visual inspection and measurements of angles and distances	C_p is assumed to be 0.84 if all measurements are within specification
Temperature Sensors	Bimonthly	Ice water, boiling water, and boiling oil	$\pm$ 1.5% deviation from referenced mercury in-glass thermometer
Barometer	Semiannual	Comparison to mercury in-glass barometer	$\pm$ 0.1 inches from deviation from referenced mercury in-glass thermometer
Reference Wet Test Meter	Semiannual	Calibrated against an NBS traceable orifice or NBS laminar flow element	$Y_{rm} = 1.00 \pm 0.05$
Analyzer Linearity Checks	Daily Per Site	3 points – 0.%, 40% or 60% and 80% of full scale	Analyzer linearity = $\pm$ 2% from actual value
Gas Divider Verification	Daily Per Site	6 point linearity check followed by internal calibration	Gas divider = $\pm$ 2% from verification cylinder value
NO_2 Conversion Efficiency	Daily Per Site	NO_2 calibration gas direct to NO_x analyzer	Greater than 90% conversion efficiency

Appendix A

ASTM D-1945
ROGs (High Level) Calculations, Lab Analysis and Field Data Sheets

ASTM D-1945 Data Calculation Sheet

Facility: Bradley Landfill
Source: ICE #2
Load: Normal
Start Date: 5/6/08

Parameter/Run No.	Units	ICE #2
Inlet Gas Flowrate	scfm	455.85
bhp	hp	1,877
NMNEHC (as CH_4)	ppmv	3395
NMNEHC	lb/hr	3.92

ASTM D-1945 Data Calculation Sheet

Facility: Bradley Landfill
Source: ICE #3
Load: Normal
Start Date: 5/6/08

Parameter/Run No.	Units	ICE #3
Inlet Gas Flowrate	scfm	412.55
bhp	hp	1,877
NMNEHC (as CH_4)	ppmv	3395
NMNEHC	lb/hr	3.55

ASTM D-1945 Data Calculation Sheet

Facility: Bradley Landfill
Source: ICE #5
Load: Normal
Start Date: 5/9/08

Parameter/Run No.	Units	ICE #5
Inlet Gas Flowrate	scfm	398.32
bhp	hp	1,877
NMNEHC (as CH_4)	ppmv	3877
NMNEHC	lb/hr	3.91

Quantum Analytical Services Inc.
www.quantumairlab.com
1210 E. 223rd Street, Suite #314 • Carson, California 90745 • 310/830-2226 • Fax 310/830-2227

CLIENT: **Total Air Analysis, Inc.**
LABORATORY NO: **08-401**
SAMPLING DATE: May 6, 2008
RECEIVING DATE: May 7, 2008
ANALYSIS DATE: May 7, 2008
REPORT DATE: May 9, 2008

Laboratory Analysis Report

Analysis Method	**SCAQMD 25.1**				
Detection Limits	**1.0 PPMV**				
Total Air Sample ID	**Lab Sample ID**	**Methane %**	**Ethane PPMV**	**Ethylene PPMV**	**TNMNEOC PPMV**
Fuel Inlet #1	12808-1	45.5	<1.0	19	3395

TNMNEOC: Total non-Methane non-Ethane Organic Carbon

Dr. Andrew Kitto
President

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SAMPLING DATE: May 6, 2008
RECEIVING DATE: May 7, 2008
ANALYSIS DATE: May 7, 2008
REPORT DATE: May 9, 2008

Quality Assurance Report

Duplicate Analysis

Analysis Method		**SCAQMD 25.1**			
Detection Limits		**1.0 PPMV**			
Total Air Sample ID	**Analyte**	**Analysis #1 PPMV**	**Analysis #2 PPMV**	**Mean PPMV**	**% Difference from the Mean**
12808-1	Ethane	<1.0	<1.0	N/A	N/A
	Ethylene	19	19	19	0.4%
	TNMNEOC	3395	3384	3389	0.2%

TNMNEOC: Total non-Methane non-Ethane Organic Carbon
N/A: Not Applicable

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CLIENT: **Total Air Analysis, Inc.**
LABORATORY NO: **08-413**
SAMPLING DATE: May 9, 2008
RECEIVING DATE: May 9, 2008
ANALYSIS DATE: May 9, 2008
REPORT DATE: May 12, 2008

Laboratory Analysis Report

Analysis Method	**SCAQMD 25.1**				
Detection Limits	**1.0 PPMV**				
Total Air Sample ID	**Lab Sample ID**	**Methane %**	**Ethane PPMV**	**Ethylene PPMV**	**TNMNEOC PPMV**
Fuel Sample #5	13008-9	44	<1.0	22	3877

TNMNEOC: Total non-Methane non-Ethane Organic Carbon

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President

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CLIENT: **Total Air Analysis, Inc.**
LABORATORY NO: **08-413**
SAMPLING DATE: May 9, 2008
RECEIVING DATE: May 9, 2008
ANALYSIS DATE: May 9, 2008
REPORT DATE: May 12, 2008

Quality Assurance Report

Duplicate Analysis

Analysis Method		**SCAQMD 25.1**			
Detection Limits		**1.0 PPMV**			
Total Air Sample ID	**Analyte**	**Analysis #1 PPMV**	**Analysis #2 PPMV**	**Mean PPMV**	**% Difference from the Mean**
Fuel Sample #5	Ethane	<1.0	<1.0	N/A	N/A
	Ethylene	22	22	22	0.5%
	TNMNEOC	3877	3900	3889	0.3%

TNMNEOC: Total non-Methane non-Ethane Organic Carbon

Dr. Andrew Kitto
President

08-13

TOTAL AIR ANALYSIS, INC.

1210 East 223 rd Street, # 314 Carson, CA 90745 (310) 518 5133 Fax: (310) 518 5107

CHAIN OF CUSTODY

Page: 1 of: 1

Client: Waste Mgmt

Contact Person: Russ Lyon

tel:

fax:

Project No.: WM-80696

Project Name: Bradley

Project Manager: AL

P.O. Number:

Analysis: ASTM 3588 (BTU + F Value), ASTM D1945 (Trace HC's)

Turnaround Time:

- ☐ Same Day
- ☐ 24 Hours
- ☐ 48 Hours
- ☑ Normal

Total Air ID #	Client Sample ID	Summa Canister #	Date	Type of Sample	Lab ID Number	ASTM 3588	ASTM D1945					Remarks
	Fuel Sample #5	—	5/9/08	Gas	13008-9	✓	✓					Landfill Gas

Relinquished by: (signature)	Date/Time	Received by: (signature)	Date/time
	5/9/08 @ 15:00		5/9/08 @ 15:00.
Relinquished by: (signature)	Date/Time	Received by: (signature)	Date/time

Appendix B

SCAQMD Method 25.3

ROGs (Low Level), Calculations, Lab Analysis, and Field Data Sheets

SCAQMD Method 25.3 Data Calculation Sheet

Facility: Bradley Landfill
Source: ICE #2
Load: Normal
Start Date: 5/6/08

Parameter/Run No.	Units	A	B	Average
Stack Gas Flowrate	dscfm	3,239	3,239	3,239
Operating Horsepower	Bhp	1,877	1,877	1,877
Oxygen Concentration	%	7.90	7.90	7.90
NMNEHC (as CH_4)	ppmv	36.0	35.4	35.70
NMNEHC corrected (1.086)	ppmv	39.1	38.4	38.77
NMNEHC (@ 15% O2)	ppm	17.7	17.4	17.60
NMNEHC (as Hexane)	ppmv	7.3	7.2	7.21
NMNEHC (@ 3% O2), C6	ppm	10.0	9.8	9.93
NMNEHC	lb/hr	0.295	0.290	**0.29**
NMNEHC	g/bhp-hr	0.071	0.070	**0.071**

SCAQMD Method 25.3 Data Calculation Sheet

Facility: Bradley Landfill
Source: ICE #3
Load: Normal
Start Date: 5/6/08

Parameter/Run No.	Units	A	B	Average
Stack Gas Flowrate	dscfm	2,566	2,566	2,566
Operating Horsepower	Bhp	1,877	1,877	1,877
Oxygen Concentration	%	6.05	6.05	6.05
NMNEHC (as CH_4)	ppmv	25.8	70.0	47.90
NMNEHC corrected (1.086)	ppmv	28.0	76.0	52.02
NMNEHC (@ 15% O2)	ppm	11.1	30.2	20.67
NMNEHC (as Hexane)	ppmv	5.2	14.1	9.68
NMNEHC (@ 3% O2), C6	ppm	6.3	17.0	11.67
NMNEHC	lb/hr	0.182	0.494	**0.34**
NMNEHC	g/bhp-hr	0.044	0.119	**0.082**

SCAQMD Method 25.3 Data Calculation Sheet

Facility: Bradley Landfill
Source: ICE #5
Load: Normal
Start Date: 5/9/08

Parameter/Run No.	Units	A	B	Average
Stack Gas Flowrate	dscfm	2,518	2,518	2,518
Operating Horsepower	Bhp	1,877	1,877	1,877
Oxygen Concentration	%	6.35	6.35	6.35
NMNEHC (as CH_4)	ppmv	52.6	45.1	48.85
NMNEHC corrected (1.086)	ppmv	57.1	49.0	53.05
NMNEHC (@ 15% O2)	ppm	23.2	19.9	21.51
NMNEHC (as Hexane)	ppmv	10.6	9.1	9.87
NMNEHC (@ 3% O2), C6	ppm	13.1	11.2	12.14
NMNEHC	lb/hr	0.364	0.312	**0.34**
NMNEHC	g/bhp-hr	0.088	0.075	**0.082**

Almega
ENVIRONMENTAL

LABORATORY REPORT

Non-Methane Non-Ethane Organic compound Emissions by SCAQMD Method 25.3 (TCA/FID)

Client: Total Air Analysis, Inc
Project No.: L 1389
Unit Tested: ICE
Sampling Date: 6-May-08 09-May-08
Analyzed Date: 13-May-08
Lab No A 087

Client Sample ID	Lab ID	Almega Sample ID		Total* NMNEO	NMNEO	NMNEO	CH_4	C_2H_6	CO	CO_2	O_2
		Tank	Trap	ppm	ppm condensable	ppm noncondensable	ppm	ppm	ppm	% v/v by TCD	% v/v by TCD
Bradley ICE 2											
Bradley ICE 2 A	A 087 - 011 A	91183	98	36.0	27.8	8 18	3441	ND	232	12 1	7 7
Bradley ICE 2 B	A 087 - 011 B	S 027	104	35.4	9.11	26.3	3210	ND	191	12.7	8 1
Bradley ICE 3											
Bradley ICE 3 A	A 087 - 021 A	S 079	94	25.8	7 73	18.1	542	ND	306	13.8	6.0
Bradley ICE 3 B	A 087 - 021 B	S 035	110	70.0	52.7	17.3	545	ND	277	13 8	6.1
Bradley ICE 5											
Bradley ICE 5 A	A 087 - 031 A	S 070	96	52.6	18 4	34.2	878	ND	272	13.5	6.3
Bradley ICE 5 B	A 087 - 031 B	91185	102	45.1	31.6	13 5	828	ND	259	13.1	6.4
Detection Limit					2	2	2	2	2	0.3	0.3

* NOTE - the BIAS FACTOR (of 1 086) is NOT applied in these results
ND= Not Detected

Water Blank, ppmC 0.00

TGNMNEO concentration values are reported in ppm (v/v) as Methane (carbon#=1)

The sample cylinder is analyzed for NMNEO, CO, CH_4, CO_2 and C_2H_6. It is then directed to a separation column where all heavy organics (C_3+) separate from the light organics (CO, CO_2, CH_4 and C_2H_6). The light organics are then passed through a reduction catalyst to convert CO and CO_2 to CH_4, and are then directed to a FID for detection and quantification. The heavy organics are backflushed off the holding column, passed through an oxidation catalyst, which convert all organics to CO_2, then through a reduction catalyst to convert CO_2 to CH_4 and then to a FID for detection and quantification

Reviewed by: GA

CALCULATIONS

Client:	Total Air Analysis, Inc.	Lab No.: A 087
Project No.:	L 1389	
Unit Tested:	ICE	
Sampling Date:	6-May-08	
Date tested:	13-May-08	

Parameter	Symbol	Units	Run 1 A	Run 1 B
Sample ID			Bradley ICE 2 A	Bradley ICE 2 B
Lab ID			A 087 - 011 A	A 087 - 011 B
Sample Tank				
Tank No			91183	S 027
Sample Tank Volume	V_T	L	6.000	6.000
Barometric Pressure	P_b	mm Hg	763	763
Pre-test Pressure	P_{TI}	mm Hg (abs)	2	2
Pre-test Temperature	t_{TI}	°C	20	20
Abs. Pre-test Temperature	T_{TI}	°K	293	293
Post-test Pressure	P_{TS}	mm Hg (abs)	616	648
Post-test Temperature	t_{TS}	°C	20	20
Abs. Post-test Temperature	T_{TS}	°K	293	293
Final Pressure	P_{TF}	mm Hg (abs)	870	908
Abs.Final Temperature	T_{TF}	°K	293	293
Dilution Factor	DF_T		1.42	1.41
Concentration Methane	C_{CH4}	ppm	2428.4	2283.6
NMNEO (noncond)	C_{SA}	ppm	**5.77**	**18.71**
Sample Volume	V_S	L	4.777	5.026
Methane in Tank(C_{CH4}*DF_T)	C_{CH4T}	ppm	**3440.8**	**3209.8**
NMNEO (noncond)	C_{SAT}	ppm	**8.18**	**26.30**
Condensate Recovery - Trap				
Sample ID			Bradley ICE 2 A	Bradley ICE 2 B
Trap No			98	104
Lab No.:			A 087 - 012 A	A 087 - 012 B
Sample Impinger Volume	V_{IMP}	ml	2.0	2.0
Sample Volume	V_S	L	4.777	5.026
TC Concentration	C_{TC}	mg/L	77.47	54.60
IC Concentration	C_{IC}	mg/L	43.76	42.99
TOC Concentration	C_{TOC}	mg/L	33.713	11.607
NMNEO, Condensable	C_T	ppm	**27.84**	9.11
TNMNEOC (Csa+C_T)	C	ppmC	**36.02**	**35.41**

Calculations

$V_S = k_1 * V_T * (P_{TS}/T_{TS} - P_{TI}/T_{TI})$

$k_1 = (273+15.56)/760 = 0.3799$

$C_{SAT} = DF * C_{SA}$

$C_{CH4T} = DF * C_{CH4}$

$DF = (P_{TF}/T_{TF})/(P_{TS}/T_{TS} - P_{TI}/T_{TI})$

$C_T = (C_{TOC} * V_{IMP} * V_{ID})/(V_S * A_C)$

V_{ID} = 23.6902 L/mole

CALCULATIONS

Client:	Total Air Analysis, Inc.		Lab No.: A 087
Project No.:	L 1389		
Unit Tested:	ICE		
Sampling Date:	06-May-08		
Date tested:	13-May-08		

Parameter	Symbol	Units	Run 2 A	Run 2 B
Sample ID			Bradley ICE 3 A	Bradley ICE 3 B
Lab ID			A 087 - 021 A	A 087 - 021 B
Sample Tank				
Tank No			S 079	S 035
Sample Tank Volume	V_T	L	6.000	6.000
Barometric Pressure	P_b	mm Hg	763	763
Pre-test Pressure	P_{TI}	mm Hg (abs)	2	2
Pre-test Temperature	t_{TI}	°C	23	23
Abs. Pre-test Temperature	T_{TI}	°K	296	296
Post-test Pressure	P_{TS}	mm Hg (abs)	642	642
Post-test Temperature	t_{TS}	°C	23	23
Abs. Post-test Temperature	T_{TS}	°K	296	296
Final Pressure	P_{TF}	mm Hg (abs)	864	864
Abs.Final Temperature	T_{TF}	°K	293	293
Dilution Factor	DF_T		1.36	1.36
Concentration Methane	C_{CH4}	ppm	542.11	544.80
NMNEO (noncond)	C_{SA}	ppm	13.24	12.69
Sample Volume	Vs	L	4.928	4.928
Methane in Tank(C_{CH4}*DF_T)	C_{CH4T}	ppm	**739.34**	**743.01**
NMNEO (noncond)	C_{SAT}	ppm	**18.05**	**17.31**
Condensate Recovery - Trap				
Sample ID			Bradley ICE 3 A	Bradley ICE 3 B
Trap No			94	110
Lab No.:			A 087 - 022 A	A 087 - 022 B
Sample Impinger Volume	V_{IMP}	ml	2.0	2.0
Sample Volume	V_S	L	4.928	4.928
TC Concentration	C_{TC}	mg/L	63.61	149.03
IC Concentration	C_{IC}	mg/L	53.96	83.17
TOC Concentration	C_{TOC}	mg/L	9.653	65.867
NMNEO, Condensable	C_T	ppm	**7.73**	**52.72**
TNMNEOC (Csa+C_T)	C	ppmC	**25.78**	**70.03**

Calculations

$V_S = k_1 * V_T * (P_{TS}/T_{TS} - P_{TI}/T_{TI})$

$k_1 = (273+15.56)/760 = 0.3799$

$C_{SAT} = DF * C_{SA}$

$C_{CH4T} = DF * C_{CH4}$

$DF = (P_{TF}/T_{TF})/(P_{TS}/T_{TS} - P_{TI}/T_{TI})$

$C_T = (C_{TOC} * V_{IMP} * V_{ID})/(V_S * A_C)$

$V_{ID} = 23.6902$ L/mole

CALCULATIONS

Client:	Total Air Analysis, Inc.	Lab No.: A 087
Project No.:	L 1389	
Unit Tested:	ICE	
Sampling Date:	9-May-08	
Date tested:	13-May-08	

Parameter	Symbol	Units	Run 3 A	Run 3 B
Sample ID			Bradley ICE 5 A	Bradley ICE 5 B
Lab ID			A 087 - 031 A	A 087 - 031 B
Sample Tank				
Tank No			S 070	91185
Sample Tank Volume	V_T	L	6.000	6.000
Barometric Pressure	P_b	mm Hg	763	763
Pre-test Pressure	P_{TI}	mm Hg (abs)	2	2
Pre-test Temperature	t_{TI}	°C	23	23
Abs. Pre-test Temperature	T_{TI}	°K	296	296
Post-test Pressure	P_{TS}	mm Hg (abs)	674	628
Post-test Temperature	t_{TS}	°C	23	23
Abs. Post-test Temperature	T_{TS}	°K	296	296
Final Pressure	P_{TF}	mm Hg (abs)	880	878
Abs.Final Temperature	T_{TF}	°K	293	293
Dilution Factor	DF_T		1.32	1.42
Concentration Methane	C_{CH4}	ppm	663.59	584.25
NMNEO (noncond)	C_{SA}	ppm	**25.87**	**9.53**
Sample Volume	Vs	L	5.175	4.821
Methane in Tank(CCH4*DFT)	C_{CH4T}	ppm	**877.89**	**827.83**
NMNEO (noncond)	C_{SAT}	ppm	**34.22**	**13.51**
Condensate Recovery - Trap				
Sample ID			Bradley ICE 5 A	Bradley ICE 5 B
Trap No			96	102
Lab No.:			A 087 - 032 A	A 087 - 032 B
Sample Impinger Volume	V_{IMP}	ml	2.0	2.0
Sample Volume	V_S	L	5.175	4.821
TC Concentration	C_{TC}	mg/L	91.48	104.97
IC Concentration	C_{IC}	mg/L	67.32	66.39
TOC Concentration	C_{TOC}	mg/L	24.160	38.580
NMNEO, Condensable	C_T	ppm	**18.42**	**31.57**
TNMNEOC (Csa+CT)	C	ppmC	**52.64**	**45.08**

Calculations

$V_S = k_1 * V_T * (P_{TS}/T_{TS} - P_{TI}/T_{TI})$

$k_1 = (273+15.56)/760 = 0.3799$

$C_{SAT} = DF * C_{SA}$

$C_{CH4T} = DF * C_{CH4}$

$DF = (P_{TF}/T_{TF})/(P_{TS}/T_{TS} - P_{TI}/T_{TI})$

$C_T = (C_{TOC} * V_{IMP} * V_{ID})/(V_S * A_C)$

V_{ID} = 23.6902 L/mole

TOTAL AIR ANALYSIS, INC.
SCAQMD Method 25.3 Field Data Sheet

Facility: [illegible]
Source: 16 2
Test Date: 5/16/16

Run No.: 1
Pbar:
Operator: EH

A		B	
Trap No.:	98	*Trap No.:*	104
Tank No.:	1183	*Tank No.:*	5 [illegible]
Initial Vacuum:	27.5	*Initial Vacuum:*	28
Pre-Test Leak Rate:	[illegible]	*Pre-Test Leak Rate:*	[illegible]

Sample Point	Time (hr)	Vacuum ("Hg)	Flow rate (CC/min)
	11:36	27.5	
	:41	23	
	:46	19	
	11:56	15	
	:16	11	
	:26	7	
	:36	5	

Sample Point	Time (hr)	Vacuum ("Hg)	Flow rate (CC/min)
	11:36	28.	
	:41	24	
	:46	20	
	11:56	15	
	:16	11	
	:26	7	
	12:36	3	

Post-Test Leak Check: [illegible]
Final Vacuum: 5

Post-Test Leak Check: [illegible]
Final Vacuum: 3

TOTAL AIR ANALYSIS, INC.
SCAQMD Method 25.3 Field Data Sheet

Facility: Bradley
Source: 10[illegible]
Test Date: 5/6/[illegible]

Run No.: 1
Pbar:
Operator: [illegible]

	A	B
Trap No.:	94	100
Tank No.:	3079	3035
Initial Vacuum:	29	29.5
Pre-Test Leak Rate:	[illegible]	[illegible]

Sample Point	Time (hr)	Vacuum ("Hg)	Flow rate (CC/min)
	14:36	29	
	:46	24	
	56	20	
	15:06	16	
	:16	12	
	:26	8	
	:36	4	

Sample Point	Time (hr)	Vacuum ("Hg)	Flow rate (CC/min)
	14:36	29.5	
	:46	23	
	:56	19	
	15:06	15	
	:16	11	
	:26	7	
	:36	4	

Post-Test Leak Check:
Final Vacuum: 4

Post-Test Leak Check:
Final Vacuum: 4

TOTAL AIR ANALYSIS, INC.
SCAQMD Method 25.3 Field Data Sheet

Facility: Brea
Source: IC E 5
Test Date: 5/9 25

Run No.: 1
Pbar:
Operator: EM

	A	B
Trap No.:	16	13
Tank No.:	3070	11185
Initial Vacuum:	29.5	29
Pre-Test Leak Rate:		

Sample Point	Time (hr)	Vacuum ("Hg)	Flow rate (CC/min)
	9:50	29.5	
	10:00	23	
	:10	19	
	:20	15	
	:30	11	
	:40	7	
	:50	4	

Sample Point	Time (hr)	Vacuum ("Hg)	Flow rate (CC/min)
	9:50	29	
	10:00	23	
	10	19	
	:20	15	
	:30	11	
	:40	7	
	:50	4	

Post-Test Leak Check:
Final Vacuum:

Post-Test Leak Check:
Final Vacuum:

Laboratory: Alweg

TOTAL AIR ANALYSIS, INC.

1210 East 223 rd Street, # 314 Carson, CA 90745 (310) 518 5133 Fax: (310) 518 5107

CHAIN OF CUSTODY

Page: 1 of: 1

Client: ~~Shell~~ Waste Management

Contact Person: Russ Logan

tel:

fax:

Project No.: WM-80691

Project Name: Bradley

Project Manager: RP2

P.O. Number:

Analysis: STANDARD 25-3 TUNNEL

Turnaround Time:

- ☐ Same Day
- ☐ 24 Hours
- ☐ 48 Hours
- ☒ Normal

Total Air ID #	Client Sample ID	Summa Canister #	Date	Type of Sample	Lab ID Number	Analysis	Remarks
	Bradley ICE 2 A98	91183	5/6/08	GAS		✓	
	Bradley ICE 2 B104	S-027				✓	
	Bradley ICE 3 A94	S-079				✓	
	Bradley ICE 3 B100	S-055				✓	
	Bradley ICE 5 A96	S-070	5/9/08			✓	
	Bradley ICE 5 B93	91185				✓	

Relinquished by: (signature)	Date/Time	Received by: (signature)	Date/time
	5/9/08 @ 1500	G. Alexandroff	5/9/08 15:55
Relinquished by: (signature)	Date/Time	Received by: (signature)	Date/time

Appendix C

EPA Method 19 and Operating Parameters

EPA Method 19, Stack Gas Flowrate Calculation

Facility: Bradley Landfill
Source: IC Engine #2, #3 &#5
Load: Normal
Start Date: 5/6/2008

Run No.	Time Start	Time End	O_2 (%)	Fuel Flow (scfm)	HHV (btu/scf)	F Factor (sdcf/Mmbtu)	System Flow (scfm)	Heat Input (Mmbtu/hr)
ICE #2	11:36	12:36	7.90	455.85	460.0	9,607	3,239	12.58
ICE #3	14:36	15:36	6.05	412.55	460.0	9,607	2,566	11.39
ICE #5	9:50	10:50	6.35	398.32	455.0	9,671	2,518	10.87

Flow Rate = Fuel Flow Rate x F Factor x HHV/1000000 x 20.9/(20.9 - O2 conc)

Quantum Analytical Services Inc.
www.quantumairlab.com
1210 E. 223rd Street, Suite #314 • Carson, California 90745 • 310/830-2226 • Fax 310/830-2227

CLIENT: **Total Air Analysis, Inc.**
LABORATORY NO: **08-401**
SAMPLING DATE: May 6, 2008
RECEIVING DATE: May 7, 2008
ANALYSIS DATE: May 7, 2008
REPORT DATE: May 9, 2008

Laboratory Analysis Report

Analysis Method: ASTM-3588-98

Analyte, Units	Sample ID	Fuel Inlet #1
	Sampling Date	5/6/2008
	Lab ID	12808-1
	Units	Mole %
Methane, %		45
Ethane, %		<0.1
Ethylene, %		<0.1
Propane, %		<0.1
Propylene, %		<0.1
i-Butane, %		<0.1
n-Butane, %		<0.1
1-Butene, %		<0.1
i-Butylene, %		<0.1
trans-2-Butene,%		<0.1
cis-2-Butene,%		<0.1
i-Pentane, %		<0.1
n-Pentane, %		<0.1
2,2-Dimethyl Butane, %		<0.1
2,3-Dimethyl Butane, %		<0.1
2-Methyl Pentane, %		<0.1
3-Methyl Pentane, %		<0.1
n-Hexane, %		<0.1
C6+, %		0.1
CO2, %		39
CO, %		<0.1
O2, %		1.2
N2 %		15
H2, %		0.8
H2S, %		<0.1
Average Molecular Weight		**28.758**
Total Wt.% Adjusted Sp. Gravity		**0.9929**
Compressibility Factor (14.696 Psi, 60 F)		**0.9977**
NET BTU/Cub. Ft.		**414**
GROSS BTU/Cub. Ft.		**460**
CHONS		**%**
Carbon		35
Hydrogen		6.4
Oxygen		44
Nitrogen		14
Sulfur		<0.1
Dry F Factor (60 F, 1 Atm); SDCF/MMBTU, ASTM 3588		**9607**

Dr. Andrew Kitto
President

Quantum Analytical Services Inc.
www.quantumairlab.com
1210 E. 223rd Street, Suite #314 • Carson, California 90745 • 310/830-2226 • Fax 310/830-2227

CLIENT: **Total Air Analysis, Inc.**
LABORATORY NO: **08-413**
SAMPLING DATE: May 9, 2008
RECEIVING DATE: May 9, 2008
ANALYSIS DATE: May 9, 2008
REPORT DATE: May 12, 2008

Laboratory Analysis Report

Analysis Method: ASTM-3588-98

Analyte, Units	Sample ID	Fuel Sample #5
	Sampling Date	5/9/2008
	Lab ID	13008-9
	Units	Mole %
Methane, %		45
Ethane, %		<0.1
Ethylene, %		<0.1
Propane, %		<0.1
Propylene, %		<0.1
i-Butane, %		<0.1
n-Butane, %		<0.1
1-Butene, %		<0.1
i-Butylene, %		<0.1
trans-2-Butene,%		<0.1
cis-2-Butene,%		<0.1
i-Pentane, %		<0.1
n-Pentane, %		<0.1
2,2-Dimethyl Butane, %		<0.1
2,3-Dimethyl Butane, %		<0.1
2-Methyl Pentane, %		<0.1
3-Methyl Pentane, %		<0.1
n-Hexane, %		<0.1
C6+, %		<0.1
CO2, %		39
CO, %		<0.1
O2, %		0.7
N2 %		15
H2, %		0.7
H2S, %		<0.1
Average Molecular Weight		**28.745**
Total Wt.% Adjusted Sp. Gravity		**0.9924**
Compressibility Factor (14.696 Psi, 60 F)		**0.9977**
NET BTU/Cub. Ft.		**409**
GROSS BTU/Cub. Ft.		**455**
CHONS		**%**
Carbon		35
Hydrogen		6.3
Oxygen		44
Nitrogen		14
Sulfur		<0.1
Dry F Factor (60 F, 1 Atm); SDCF/MMBTU, ASTM 3588		**9671**

Dr. Andrew Kitto
President

Bradley Landfill

Burbank, CA

HEAT INPUT RATE SHEET
GenSet 2

Date	5/6/2008				Engine Permit Limit	16.8	Chiller Permit Limit		1.447500
Time	Genset Runtime	Genset KWH	Average LFG Gross BTU	Engine Avg SCFM	Engine MMBTU	Engine Permit Exceedence	Total Site Chiller Avg SCFM	Total Site Chiller MMBTU/Hr	Chiller Permit Exceedence
1:00 AM	1:00	720.90	469.70	346.00	9.75	No	0.00	0.000000	No
2:00 AM	1:00	735.23	469.64	354.67	9.99	No	0.00	0.000000	No
3:00 AM	1:00	727.04	469.84	352.91	9.95	No	0.00	0.000000	No
4:00 AM	1:00	722.94	470.80	356.95	10.08	No	0.00	0.000000	No
5:00 AM	1:00	735.24	470.90	360.19	10.18	No	0.00	0.000000	No
6:00 AM	1:00	722.94	470.88	363.83	10.28	No	0.00	0.000000	No
7:00 AM	1:00	741.38	471.01	360.78	10.20	No	0.00	0.000000	No
8:00 AM	1:00	735.23	470.42	358.16	10.11	No	0.00	0.000000	No
9:00 AM	1:00	739.33	470.16	365.57	10.31	No	0.00	0.000000	No
10:00 AM	1:00	743.42	471.05	367.84	10.40	No	0.00	0.000000	No
11:00 AM	1:00	923.65	467.84	448.73	12.60	No	0.00	0.000000	No
12:00 PM	1:00	950.27	477.48	462.97	13.26	No	0.00	0.000000	No
1:00 PM	1:00	935.94	476.67	446.68	12.78	No	0.00	0.000000	No
2:00 PM	0:10	96.25	473.25	296.13	1.40	No	0.00	0.000000	No
3:00 PM	0:00	0.00	473.29	0.00	0.00	No	0.00	0.000000	No
4:00 PM	0:00	0.00	473.64	0.00	0.00	No	0.00	0.000000	No
5:00 PM	0:00	0.00	473.30	0.00	0.00	No	0.00	0.000000	No
6:00 PM	0:00	0.00	474.12	0.00	0.00	No	0.00	0.000000	No
7:00 PM	0:00	0.00	474.59	0.00	0.00	No	0.00	0.000000	No
8:00 PM	0:00	0.00	475.62	0.00	0.00	No	0.00	0.000000	No
9:00 PM	0:00	0.00	475.75	0.00	0.00	No	0.00	0.000000	No
10:00 PM	0:00	0.00	475.26	0.00	0.00	No	0.00	0.000000	No
11:00 PM	0:00	0.00	474.73	0.00	0.00	No	0.00	0.000000	No
12:00 AM	0:00	0.00	474.44	0.00	0.00	No	0.00	0.000000	No
Daily Totals	13:10	10229.76	472.68	5241.41	141.28	0	0.00	0.000000	0

Note: MMBTU = LFG Gross BTU * Average SCFM * Runtime/60

Bradley Landfill

Burbank, CA

HEAT INPUT RATE SHEET
GenSet 3

Date	5/6/2008				Engine Permit Limit	16.8	Chiller Permit Limit		1.447500
Time	**Genset Runtime**	**Genset KWH**	**Average LFG Gross BTU**	**Engine Avg SCFM**	**Engine MMBTU**	**Engine Permit Exceedence**	**Total Site Chiller Avg SCFM**	**Total Site Chiller MMBTU/Hr**	**Chiller Permit Exceedence**
1:00 AM	1:00	821.24	469.70	372.15	10.49	No	0.00	0.000000	No
2:00 AM	1:00	808.96	469.64	372.26	10.49	No	0.00	0.000000	No
3:00 AM	1:00	808.96	469.84	371.36	10.47	No	0.00	0.000000	No
4:00 AM	1:00	821.25	470.80	371.36	10.49	No	0.00	0.000000	No
5:00 AM	1:00	808.96	470.90	371.47	10.50	No	0.00	0.000000	No
6:00 AM	1:00	821.25	470.88	372.20	10.52	No	0.00	0.000000	No
7:00 AM	1:00	808.96	471.01	390.47	11.03	No	0.00	0.000000	No
8:00 AM	1:00	804.86	470.42	393.47	11.11	No	0.00	0.000000	No
9:00 AM	1:00	823.30	470.16	395.24	11.15	No	0.00	0.000000	No
10:00 AM	0:34	409.60	471.05	362.38	5.80	No	0.00	0.000000	No
11:00 AM	0:18	196.61	467.84	330.89	2.79	No	0.00	0.000000	No
12:00 PM	0:00	0.00	477.48	0.00	0.00	No	0.00	0.000000	No
1:00 PM	0:00	0.00	476.67	0.00	0.00	No	0.00	0.000000	No
2:00 PM	0:06	36.86	473.25	197.53	0.56	No	0.00	0.000000	No
3:00 PM	1:00	931.84	473.29	412.55	11.72	No	0.00	0.000000	No
4:00 PM	1:00	960.51	473.64	419.74	11.93	No	0.00	0.000000	No
5:00 PM	1:00	909.32	473.30	404.69	11.49	No	0.00	0.000000	No
6:00 PM	1:00	907.26	474.12	405.09	11.52	No	0.00	0.000000	No
7:00 PM	1:00	940.03	474.59	411.08	11.71	No	0.00	0.000000	No
8:00 PM	1:00	933.89	475.62	412.57	11.77	No	0.00	0.000000	No
9:00 PM	1:00	948.22	475.75	412.27	11.77	No	0.00	0.000000	No
10:00 PM	1:00	931.84	475.26	412.58	11.76	No	0.00	0.000000	No
11:00 PM	1:00	933.89	474.73	411.95	11.73	No	0.00	0.000000	No
12:00 AM	1:00	948.23	474.44	412.72	11.75	No	0.00	0.000000	No
Daily Totals	19:58	17315.84	472.68	8416.01	222.54	0	0.00	0.000000	0

Note: MMBTU = LFG Gross BTU * Average SCFM * Runtime/60

Bradley Landfill

Burbank, CA

HEAT INPUT RATE SHEET
GenSet 5

Date	5/9/2008				Engine Permit Limit	16.8	Chiller Permit Limit		1.447500
Time	**Genset Runtime**	**Genset KWH**	**Average LFG Gross BTU**	**Engine Avg SCFM**	**Engine MMBTU**	**Engine Permit Exceedence**	**Total Site Chiller Avg SCFM**	**Total Site Chiller MMBTU/Hr**	**Chiller Permit Exceedence**
1:00 AM	1:00	814.94	469.98	398.84	11.25	No	0.00	0.000000	No
2:00 AM	1:00	803.04	470.24	399.14	11.26	No	0.00	0.000000	No
3:00 AM	1:00	819.43	470.20	398.84	11.25	No	0.00	0.000000	No
4:00 AM	1:00	823.04	470.51	405.57	11.45	No	0.00	0.000000	No
5:00 AM	1:00	809.42	469.06	400.85	11.28	No	0.00	0.000000	No
6:00 AM	1:00	813.04	464.45	393.06	10.95	No	0.00	0.000000	No
7:00 AM	1:00	828.94	478.01	394.73	11.32	No	0.00	0.000000	No
8:00 AM	1:00	841.32	476.31	395.35	11.30	No	0.00	0.000000	No
9:00 AM	1:00	813.56	475.62	397.94	11.36	No	0.00	0.000000	No
10:00 AM	1:00	808.43	474.41	398.32	11.34	No	0.00	0.000000	No
11:00 AM	1:00	829.67	473.39	400.26	11.37	No	0.00	0.000000	No
12:00 PM	1:00	829.72	472.62	401.84	11.39	No	0.00	0.000000	No
1:00 PM	1:00	810.34	472.03	398.40	11.28	No	0.00	0.000000	No
2:00 PM	1:00	810.33	471.47	399.88	11.31	No	0.00	0.000000	No
3:00 PM	1:00	826.72	471.03	399.09	11.28	No	0.00	0.000000	No
4:00 PM	1:00	807.27	472.43	398.15	11.29	No	0.00	0.000000	No
5:00 PM	1:00	809.31	474.61	397.94	11.33	No	0.00	0.000000	No
6:00 PM	1:00	826.72	474.60	396.38	11.29	No	0.00	0.000000	No
7:00 PM	1:00	810.33	473.69	396.59	11.27	No	0.00	0.000000	No
8:00 PM	1:00	823.65	473.66	396.95	11.28	No	0.00	0.000000	No
9:00 PM	1:00	810.34	473.35	397.79	11.30	No	0.00	0.000000	No
10:00 PM	1:00	807.26	473.47	398.20	11.31	No	0.00	0.000000	No
11:00 PM	1:00	826.72	472.73	398.69	11.31	No	0.00	0.000000	No
12:00 AM	1:00	810.34	472.19	398.41	11.29	No	0.00	0.000000	No
Daily Totals	24:00	19613.88	472.50	9561.21	271.06	0	0.00	0.000000	0

Note: MMBTU = LFG Gross BTU * Average SCFM * Runtime/60

Appendix D

Quality Assurance/Quality Control

TOTAL AIR ANALYSIS, INC.

totalair

CERTIFICATE OF NO CONFLICT OF INTEREST

I certify that I am responsible for the testing operations of Total Air Analysis, Inc. and am authorized to sign this certificate on the company's behalf.

Total Air Analysis, Inc. may conduct tests as an independent tester in accordance with SCAQMD Rule 304 (k). I further certify that Total Air Analysis, Inc. has no conflict of interests, and is not related or owned in any way to the company being tested.

Facility To Be Tested: Waste Management, Inc - Bradley

Permit to Operate/Construct Application No.: F73942, F73943 and F73945

Signature:

Printed Name: Russ P. Logan

Title: Director

Date: 6/11/08

1210 East 223rd Street, Suite 314 ■ Carson, CA 90745 ■ 310.518.5133 ■ Fax: 310.518.5107

SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT
TECHNICAL SERVICES DIVISION

CHECK LIST (ST-1) FOR REQUEST TO REVIEW SOURCE TEST PROTOCOL/REPORT

This checklist is to be submitted with the Engineering Division's standardized Review Request Memorandum when an evaluation of a source test protocol or report is requested.

To begin the evaluation of the Source Test Protocol/Report, the reviewing engineer requires certain basic information. The processing engineer is to use the check list below to assure that this basic information is provided either in or along with the report to be reviewed. An incomplete submittal may delay the evaluation of the report.

LIST I Please check off all the following items to verify that the information is provided in the Source Test Report, and then send it along with the Source Test Report.

[ ] Information Form ST-2 with those applicable parts filled out completely.

[✓] Complete Permit to Construct, Permit to Operate, and/or Application Number including company ID number.

[✓] Brief description of the equipment (to be) tested.

[✓] Brief process description, including maximum and normal operating temperatures, pressures, through-put, etc.

[✓] Operating conditions under which test (will be) was performed.

[✓] Process schematic diagram showing the ports and sampling locations, including the dimensions of the ducts/stacks at the sampling locations, along with upstream and downstream locations, and distances of flow disturbances, (e.g. elbows, tees, fans) from the sampling locations (upstream & downstream).

[✓] Field and laboratory data forms.

[✓] Brief description of sampling and analytical methods for each gaseous and particulate constituent to be measured. If a standard District, EPA, or ARB method without "any deviation" will be used, reference it by number.

[✓] Calculations for volumetric flow rates and emission rates.

[✓] Calibration and quality assurance procedures identified.

[✓] For Reg 11 VOC Testing, an acceptable method is provided for determining usage rate of organic materials.

[✓] Testing laboratory qualifies as an "independent testing laboratory" under Rule 304 (no coenflict of interest).