

June 5, 2007

Darrell Thompson
Cornerstone Environmental Group, LLC
7600 Dublin Blvd
Suite 285
Dublin, CA 94568

Subject: Shaw Environmental, Inc. Technical Report entitled, "2007 Source Test Report, Anderson Landfill, Anderson, California, Landfill Gas Control – Flare, Initial Performance Test"

Re: Shaw Environmental, Inc. Project No. 125738.01

Dear Mr. Thompson:

Enclosed please find three copies of the subject report. If you have questions, please contact William Johnston, Project Manager, at (408) 382-5822. It is the responsibility of Cornerstone Environmental Group, LLC to transmit a copy of this report to the District. Shaw Environmental looks forward to assisting Cornerstone in the future.

Sincerely,



William R. Johnston
Project Manager
william.johnston@shawgrp.com

Enclosures (3)

2007 SOURCE TEST REPORT

ANDERSON LANDFILL, ANDERSON, CA LANDFILL GAS CONTROL - FLARE

Initial Performance Test

Test Date: May 2, 2007

Submittal Date: June 5, 2007

Prepared for:

Cornerstone Environmental Group, LLC
7600 Dublin Blvd
Suite 285
San Ramon, CA 94568

For submittal to:

Shasta County
Department of Resources Management
Redding, CA

Prepared by:


Shaw™ Shaw Environmental, Inc.
2360 Bering Drive
San Jose, California 95131-1121

Project 125738.01

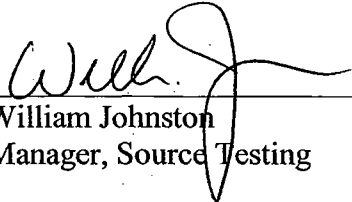
2007 SOURCE TEST REPORT

ANDERSON LANDFILL, ANDERSON, CA LANDFILL GAS CONTROL - FLARE

Initial Performance Test

The material and data in this report were reviewed by the undersigned.





William Johnston
Manager, Source Testing

SUMMARY OF 2007 SOURCE TEST INFORMATION

Source: Enclosed Gas Flare

Source Location: Anderson Landfill
18703 Cambridge Rd.
Anderson, CA 96007

Site Contact: Mr. Greg Anderson: 530-227-6629

Source Description: LFG Specialties 45.5 MMBtu/hr enclosed flare

Reference: Authority to Construct (ATC 06-PO-06)
Emission Limits:
NO_x = 0.06 lb/MMBtu
CO = 0.30 lb/MMBtu
NMOC = 20 ppmv at 3% O₂, as hexane

Test Results: NO_x = 0.04 lb/MMBtu
CO = < 0.002 lb/MMBtu
NMOC = < 1 ppmv at 3% O₂, as hexane

Agency: Shasta County
Department of Resource Management
Air Quality Management District
Redding, CA

Source Test Contractor: Shaw Environmental, Inc.
2360 Bering Drive
San Jose, CA 95131

Contact: Mr. William Johnston: 408-382-5800

Test Date: May 2, 2007

Notes:

MMBtu/hr = million British thermal units per hour

lb/MMBtu = pounds per million British thermal units

ppmv @ 3% O₂ = parts per million by volume corrected to three percent oxygen

NO_x = oxides of nitrogen

CO = carbon monoxide

NMOC = non-methane organic compounds

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1.0 Summary and Overview

1.1 Summary

Shaw Environmental, Inc. (Shaw) performed a source test of the landfill gas flare at the Anderson Landfill located in Anderson, California. This report presents the results of the test program. Table 1 summarizes the test results compared to the permit limits. **The flare met all compliance criteria.**

Table 1-1
Compliance Summary
Test Date: May 2, 2007

Condition	Average Result	Permit Limit	Compliance Status
NOx lb/MMBtu	0.04	0.06	In Compliance
CO lb/MMBtu	< 0.002	0.30	In Compliance
NMOC (ppmv @ 3% O ₂ , dry as hexane)	< 1	20	In Compliance

Notes:

NOx = oxides of nitrogen

CO = carbon monoxide

NMOC = non-methane organic compounds

ppmv @ 3% O₂ = parts per million by volume corrected to three percent oxygen

1.2 Overview

Shaw, an approved California Air Resources Board (ARB) source test contractor, performed the source test program. The test program was designed to demonstrate compliance with the Shasta County Department of Resource Management Air Quality Management District (District) Authority to Construct (ATC 06-PO-06). The source test was performed on the flare exhaust to assess the emissions of NOx, CO, NMOC and gas speciation. Additionally, landfill gas (LFG) samples were collected for gas characterization.

The source test was conducted on May 2, 2007. Sampling was performed by Mr. Bill Johnston and Mr. Jeff Snow of Shaw. The test plan was submitted to the District on April 13, 2007. Ms. Lindsey Watt of the District witnessed the test.

Source test data are presented in Appendix A. Continuous emissions monitoring system (CEMS) data are contained in Appendix B, and process data documenting the operation of the flare are contained in Appendix C. The analytical laboratory results are contained in Appendix D. Copies of the Source Test Protocol and Shaw's ARB Independent Contractor Certification are

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presented in Appendix E. A copy of the ATC is contained in Appendix F, and a picture of the flare is presented in Appendix G.

1.3 Source Operating Conditions

The flare is a LFG Specialties, 45.5 million British thermal units per hour (MMBtu/hr) enclosed flare. A data acquisition system records the flare temperatures and gas flow rate. Three thermocouples are installed at the top, middle, and bottom of the flare exhaust stack to provide temperature indication for control of the combustion temperature. The average LFG rate was 272 cubic feet per minute and the flare was operating at an average temperature of 1,454 degrees Fahrenheit (°F) for the source test. The temperature was measured from the bottom thermocouple.

2.0 Source Test Program

The objective of the flare source test was to demonstrate compliance with requirements of the ATC for flare stack emissions of NO_x, CO, NMOC, and other gaseous constituents.

Measurements of the flare's emissions were conducted at the flare exhaust. LFG was sampled at the inlet to the flare. Table 2-1 provides a test matrix of the parameters tested at each sample location. U.S. Environmental Protection Agency (EPA) and American Society for Testing and Materials (ASTM) source test methods were used. The source test program consisted of three 60-minute runs to measure gaseous emissions of NO_x, CO and NMOC. Additionally one integrated 1-liter Tedlar[®] bag sample of the exhaust gas was collected for a characterization of all compounds listed in California Health and Safety Code Section 41805.5(i)(6). Triplicate integrated 1-liter Tedlar[®] bag samples of the inlet LFG were collected for gas analysis.

The outlet volumetric flow rate was calculated using the fuel flow rate, higher heating value (HHV), exhaust gas O₂ content, and the F-Factor according to EPA Method 19.

**Table 2-1
Source Test Methods and Instrumentation**

Method	Inlet (fuel) Analyte	Exhaust Analyte	Instrumentation/ Laboratory	Principle
ASTM D-1945/D-3588 EPA Method 25 C EPA TO-15 ASTM-5504	Fixed Gases and HHV NMOC Organic Compounds Sulfur Compounds	—	Atmospheric Analysis & Consulting, Inc.	Chromatographic Analysis GC/FID/TCA Analysis SO ₂ Analysis
EPA Method 25A	—	NMOC	TECO Model 51	FID
EPA Method 3A	—	O ₂	Teledyne	Fuel Cell
EPA Method 10	—	CO	Horiba 510	Infrared
EPA Method 7E	—	NO _x	Ecophysics	Chemiluminescence
EPA Method 19	—	Flow rate, dscfm		Algorithm

Notes:

dscfm = dry standard cubic feet per minute

FID = flame ionization detection

GC = Gas Chromatography

TCA = thermal conductivity analyzer

IR = infrared

3.0 Source Test Results

The source test was performed on the flare exhaust and on the LFG. Table 3-1 presents the results of the LFG analysis. The LFG sample was drawn from the inlet to the flare and was analyzed for organic compounds, sulfur compounds, HHV, F-Factor, and additional fixed gases. Table 3-2 presents the results of the flare exhaust test. Table 3-3 presents the results for the list of compounds identified in the California Health and Safety Code Section 41805.5(i)(6). Concurrent with each run, the O₂ content of the exhaust gas was also measured. Hydrocarbon concentrations were measured as methane but reported to hexane and reported in units of ppmv corrected to 3 percent O₂.

Table 3-1
Anderson Landfill
LFG Analysis
Test Date: May 2, 2007

	Run 1	Run 2	Run 3	Average
Heat Input (MMBtu/day)	229	226	227	227
H ₂ S (ppmv)	12.1	18.3	13.0	14.5
O ₂ (%)	2.4	2.6	2.4	2.5
CO ₂ (%)	34.1	34	34.2	34.1
N ₂ (%)	16.9	17.3	16.9	17.0
Methane (%)	46.6	46.1	46.5	46.4

Notes:

MMBtu/day = million British thermal units/day

H₂S = hydrogen sulfide

CO₂ = carbon dioxide

N₂ = nitrogen

ppmv = parts per million by volume

Table 3-2
Anderson Landfill
Source Test Results — Landfill Flare Exhaust
Test Date: May 2, 2007

	Run 1	Run 2	Run 3	Average	Permit
Time	0838-0941	1009-1109	1141-1241	—	—
Flare Temperature (°F)	1,453	1,454	1,455	1,454	—
Landfill Gas Fuel Flow Rate, (scfm)	273	272	271	272	—
Exhaust Flow Rate (dscfm)	3703	3514	3767	3661	—
O ₂ (%)	13.1	12.8	13.3	13.1	—
NOx					
NOx (ppmv)	13.4	14.1	13.9	13.8	—
NMOC (lb/MMBtu)	0.037	0.038	0.040	0.038	0.06
CO					
CO (ppmv)	<1	<1	<1	<1	—
CO (lb/MMBtu)	< 0.002	< 0.002	< 0.002	< 0.002	0.30
Hydrocarbons as Hexane					
NMOC (ppmv)	< 1	< 1	< 1	< 1	—
NMOC (ppmv corrected to 3% O ₂)	< 1	< 1	< 1	< 1	20

Note:

scfm = standard cubic feet per minute

Table 3-3
Summary of Results,
California Health and Safety Code List of Compounds,
Flare Exhaust
Test Date: May 2, 2007

Organic Compounds ¹	Concentration (ppbv)
Benzene	< 2.0
Chloroethene	< 2.0
1,2-dibromoethane	< 2.0
1,2-dichloroethane	< 2.0
Benzyl chloride	< 2.0
Chlorobenzene	< 2.0
Dichlorobenzene	< 2.0
1,1-dichloroethene	< 2.0
Dichloromethane	< 2.0
Formaldehyde	< 2.0
Hydrogen sulfide	0.35 ppmv
Tetrachloroethylene	< 2.0
Tetrachloromethane	< 2.0
Toluene	9.1
1,1,1-trichloroethane	< 2.0
Trichloroethylene	< 2.0
Trichloromethane	< 2.0
m- and p-Xylenes	4.4

Notes:

¹For compounds reported as non-detected, a less than (<) sign is used with the sample reporting limit.
ppbv = parts per billion by volume.

4.0 Test Procedures

Shaw conducted the source test according to EPA test methods as described below.

4.1 Continuous Emissions Monitoring

Shaw measured stack gas constituent concentrations, using its CEMS sampling van, according to EPA methods. Figure 4-1 is a schematic diagram of the Shaw CEMS.

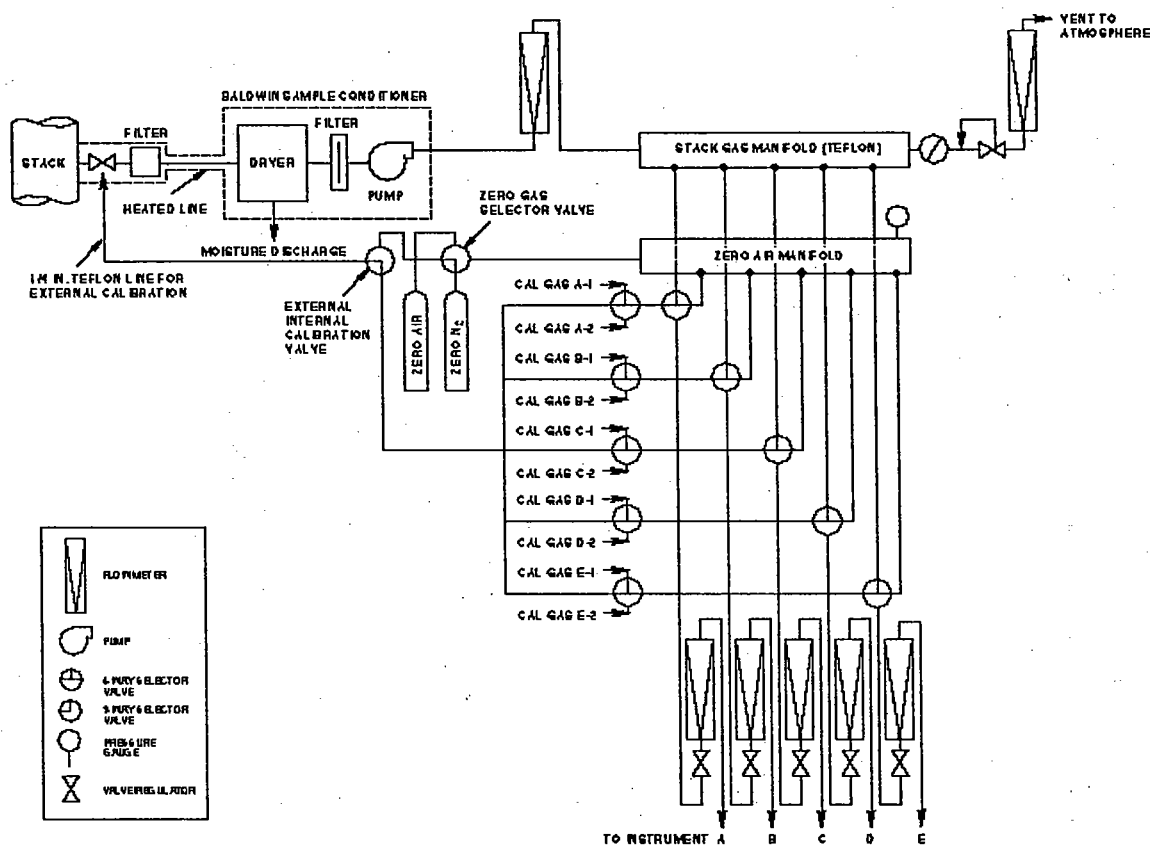


Figure 4-1
Schematic Diagram of the Shaw CEMS

In this source test, a sample pump was used to extract the sample gas continuously from each source through a stainless-steel sampling probe equipped with an in-stack filter, followed by a heated Teflon® sample line and a Baldwin sample conditioner. The sample line between the sample point and the sample conditioner was heated to 250°F to maintain the gas stream temperatures above the water dew point. Gas flow was controlled with a back-pressure regulator. The sample flow rate to each instrument was controlled with individual rotameters. Instrument output was recorded with a strip chart recorder and a digital data logger, the STRATA™ data acquisition system. Table 4-1 lists the specifications of the instruments used in the source test.

Table 4-1
CEMS Instrument Specifications

Gas	Analyzer/Manufacturer	Principle of Operation	Operating Range
O ₂	Teledyne 326A	Fuel Cell	0-25%
THC	TECO Model 51	Flame Ionization	0-50 ppmv as methane
NO _x	Ecophysics 70E	Chemiluminescence	0-50 ppmv
CO	Horiba VIA 510	NDIR	0-100 ppmv

Note:

NDIR = nondispersive infrared

Before the start of testing, the sampling system was assembled at the site and leak-checked. Calibrations were performed on each of the instruments, using certified calibration gases and a gas dilution system. A field evaluation of the gas dilution system was performed according to EPA Method 205. Results of the field evaluation indicate that the system met the method's precision and accuracy requirements.

A span drift check was performed at the end of each run to measure analyzer drift. The drift check measurement uses a zero gas (N₂) and the calibration gas. All of the instrument checks conducted for this source test were within the drift limit criterion of 3 percent, as specified in the test methods. Reported values include a correction for the recorded instrument drift, as specified in EPA Method 7E. Copies of data logger printouts, calibration data sheets, strip charts, and gas certificates of analysis are presented in Appendix B.

4.2 Exhaust Gas, California Health and Safety Code Compounds

Shaw measured exhaust constituent concentrations according to EPA test methods. An integrated sample was collected in 1-liter Tedlar® bags. The sample line was purged with sample gas prior to sampling. The sample flow rate was controlled with rotameters to collect a integrated sample. The samples were kept out of sunlight and were analyzed within the method

holding times. Analysis of the sample was conducted according to EPA Method TO-15. Analytical results are presented in Appendix D.

4.3 Landfill Gas

Shaw measured LFG constituent concentrations according to EPA and ASTM test methods. Samples were collected from a sample port located at the flare inlet header. Samples were collected in 1-liter Tedlar® bags under positive pressure through Teflon® tubing. The sample line was purged with sample gas prior to sampling. The sample flow rate was controlled with rotameters to collect 30-minute integrated samples. The samples were kept out of sunlight and were analyzed within the method holding times. Analytical results are presented in Appendix D.

5.0 Data Review

Shaw performed a quality assurance review of the source test data and report. The review included the following activities:

- Review of the general text
- Check of calculation algorithms for correctness
- Review of CEMS data extraction
- Determination that all supporting documentation is present

A detailed manual review of the data was completed. Based on our data review, Shaw concludes the following:

- The source test procedures were followed, and all data were reduced and entered into the reporting spreadsheets properly.
- The instrument drift and other measures of instrument performance were deemed acceptable.

As a result, the data are considered to be acceptable.

Limitations

The services described in this report were performed consistent with generally accepted professional consulting principles and practices. No other warranty, expressed or implied, is made. These services were performed consistent with our agreement with our client. This 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 apply to conditions existing when services were performed and are intended only for the client, purposes, locations, time frames, and project parameters indicated. We are not responsible for the impacts of any changes in environmental standards, practices, or regulations subsequent to performance of services. We do not warrant the accuracy of information supplied by others, or the use of segregated portions of this report.

Appendix A
Source Test Data

Emission Rate Calculations
Stack Gas Flow Rate and Fuel Usage, EPA Method 19

EMISSION RATE CALCULATION

Facility: Anderson Landfill
Source : Flare
Test date: 5/2/2007

Temperature Std: 70
Pressure Std: 29.92

O2% correction: 3 NMOC

Time	0838-0941 Run 1		1009-1109 Run 2		1141-1241 Run 3		Avg		Permit
	Inlet	Outlet	Inlet	Outlet	Inlet	Outlet	Inlet	Outlet	Limits
Flare Parameters									
Flare Temp (F)	1,453		1,454		1,455		1,454		
LFG rate	273		272		271		272		
Fuel factor	8,682		8,678		8,684		8,681		
Outlet Parameters									
Oxygen (%)	13.1		12.8		13.3		13.1		
Flowrate (dscfm)	3,703		3,514		3,767		3,661		
Oxides of Nitrogen									
MW = 46									
NOx, ppm	13.4		14.1		13.9		13.8		
NOx, lb/hr	0.35		0.35		0.37		0.36		
NOx, lb/MMBtu	0.037		0.038		0.040		0.038		0.06
Carbon Monoxide									
MW = 28									
CO, ppm	< 1		< 1		< 1		< 1		
CO, lb/hr	< 0.016		< 0.015		< 0.016		< 0.016		
CO, lb/MMBtu	< 0.002		< 0.002		< 0.002		< 0.002		0.30
Hydrocarbons as methane									
MW = 16									
THC, ppm	NM	< 1	0	< 1	NM	< 1	< 1		
THC, lb/hr	< 0		0	< 0	< 0		< 0		
Methane, ppm	NM	NM	NM	NM	NM	NM			
NMOC, ppm	NM	< 1	< 1.0	NM	< 1.0	#DIV/0!	< 1.0		
NMOC, ppm corrected to 3% O2	< 2		< 2.2		< 2.4		< 2		120
NMOC, as hexane, ppm corrected to 3% O2	< 1		< 1		< 1		< 1		20
NMOC, lb/hr	NM	< 0	0.0	< 0.0	NM	< 0.0	0.0	< 0.0	
Efficiency %									
NMOC	NM		#DIV/0!		NM				98

Calculations

lb/hr = ppm x MW x Qs x 8.223x10-5 / (Tstd + 460)

ppm corrected @ O2 = ppm measured x [(20.9 - O2% correction) / (20.9% O2 - O2 measured)]

lb/MMBtu = F-factor x MW x [1.3711x10-6 / (Tstd + 460)] x [(20.9 / 20.9 - O2%)] x ppm

Efficiency (%) = in (lb/hr)-out (lb/hr)/in (lb/hr) x 100

NM = not measured

Calculation of Mass Emission Rates & VOC DRE

Client: Anderson Landfill
 Test Location: Flare
 Test Date: May 2, 2007

Inlet						
Run	Time	Flowrate dscfm	VOC ppmv	Methane as methane	NMOC	NMOC lb/hr
1	0838-0941	273			1,239	0.86
2	1009-1109	272			1,068	0.73
3	1141-1241	271			1,242	0.85
Avg		270			1,183	0.81

Outlet						
Run	Time	Flowrate dscfm	VOC ppmv	Methane as methane	NMOC	NMOC lb/hr
1	0838-0941	3,703	< 1	< 1	< 1	< 0.0094
2	1009-1109	3,514	< 1	< 1	< 1	< 0.0089
3	1141-1241	3,767	< 1	< 1	< 1	< 0.0095
Avg		3,660	< 1	< 1	< 1	< 0.0093

Efficiency	
R-1	98.9%
R-2	98.8%
R-3	98.9%
Avg	98.9%

Calculation

constant: $1.581\text{E-}07$ (flowrate standard conditions)
 $\text{lb/hr} = \text{Constant} \times \text{Flowrate (dscfm)} (Q) \times \text{Molecular Weight} \times \text{Concentration}$
 Molecular weight of methane is 16
 $\text{Efficiency} = \frac{\text{in-out}}{\text{in}} \times 100$

Constant = $\frac{60 \text{ min/hr}}{385.4 \text{ scdf/lb-mole} \times 10\text{E}6 \text{ ppm}}$

Stack Gas Flow Rate ---- Fuel Usage

EPA Method 19

Facility Anderson Landfill

Source Flare

Date 5/2/2007

		Run 1	Run 2	Run 3	Average
Gross Caloric Value (Btu/ft3)	Btu/ft3	583	577	582	581
Stack Oxygen	%	13.1	12.8	13.3	13.1
Fuel factor @ 68 F	DSCF/MMBtu	8,682	8,678	8,684	8,681

Corrected Fuel Rate (SCFM) @ Tstd	SCFM	273	272	271	272
Fuel Flowrate (SCFH) @ Tstd	SCFH	16,380	16,320	1,455	11,385
Million Btu per minute	MMBtu/min	0.159	0.157	0.158	0.158
Heat Input (MMBtu/hr)	MMBtu/hr	9.5	9.4	9.5	9.5
Heat Input (MMBtu/day)	MMBtu/day	229.2	226.0	227.1	227.4
Stack Gas Flow Rate (dscfm)	dscfm	3,703	3,514	3,767	3,661

Calculations

$$\text{SCFM} = \text{CFM} * (\text{Tstd} + 460) * \text{gas PSIA} / 14.7 / (\text{gas F} + 460)$$

$$\text{SCFH} = \text{SCFM} * 60$$

$$\text{MMBtu/min} = \text{SCFM} * \text{Btu/ft}^3 / 1,000,000$$

$$\text{MMBtu/hr} = \text{MMBtu/min} * 60$$

$$\text{DSCFM} = \text{Fuel factor} * \text{MMBtu/min} * (20.9 / (20.9 - \text{O}_2\%)) * (\text{Tstd} + 460) / 528$$

Notes

Corrected Fuel Rate (SCFM) @ Tstd data is from the system data aquisition

Appendix B
Continuous Emission Monitoring Data

Data Acquisition
Strip Chart Records
Calibration Gas Certificates of Analysis
EPA Method 205 Field Check

Operator: B Johnston
Plant Name: Anderson Landfill
Location: Flare
Run Length: 60 minutes
Sample Rate: 40 per minute
Average Calibration Results: 1 minutes
Automatic Sequence, Calibration Error: No
Automatic Sequence, System Bias: No
Max Response Time: Manual
Max Response Time: 1 minutes
Traverse During Run: No

Active	Chan.	Analyte Name	Units	Span Units	Span Volts	Offset Volts
Yes	1	O2	%	25	1	0
Yes	3	CO	ppm	100	1	0
Yes	4	NOx	ppm	50	10	0
Yes	5	THC	ppm	50	10	0

Measurement System Preparation Table

Gas Name	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
O2	Z	H	M													
CO	Z			H	M											
NOx	Z					H	M									
THC	Z							H	M	L						

CEM Leak check 0.1" C/19"vac for 1 min

R-1
0838-0941

stratification check port 1

R2
1009-1109

stratified port 2

R3
1141-1241

* no stratification present

STRATA Configuration Page 2

Gas Name	Zero Reference Cylinder		Low Reference Cylinder			
	No.	Conc	ID Number	No.	Conc	ID Number
O2	1	0		99	99	
CO	1	0		99	9999	
NOx	1	0		99	99	
THC	1	0		10	15	Env

Gas Name	Mid Reference No.	Cylinder Conc	ID Number	High Reference No.	Cylinder Conc	ID Number
O2	3	9	AAL16767	2	19.04	CC8445
CO	5	40.3	AAAL 7467	4	90.1	AAL19769
NOx	7	19.9	AAL 7479	6	44.8	AAL19769
THC	9	35	Env	8	45	ALM4576

Seq	Calibration Error Test			Sequence
Num	O2	CO	NOx	THC
1	Zero	Zero		
2	High	High	High	High
3	Mid	Mid	Mid	Mid
4				Low
5				
6				
7				
8				
9				
10				
11				
12				
13				
14				
15				

[illegible]

STRATA Configuration Page 3

Seq Num	System	Bias	Check	Sequence
1	O2	CO	NOx	THC
2	Zero	Zero	Zero	Zero
3	High			
4		Mid	Mid	
5				Low
6				
7				
8				
9				
10				
11				
12				
13				
14				
15				

Seq	System Bias				Valve				Sequence							
Num	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
1	X															
2		X														
3					X		X									
4										X						
5																
6																
7																
8																
9																
10																
11																
12																
13																
14																
15																

STRATA Configuration End

Calibration Error Test, Run 1 STRATA Version 1.1

	O2 %	CO ppm	NOx ppm	THC ppm
05-02-2007 08:13:43	-0.017	-0.08	0.004	0.024
05-02-2007 08:14:44	2.151	19.55	15.313	12.808
05-02-2007 08:15:43	17.303	89.69	44.918	44.934
05-02-2007 08:16:43	18.809	89.69	44.981	44.977
05-02-2007 08:17:43	18.787	87.93	37.571	43.184
05-02-2007 08:18:44	10.496	33.84	18.825	35.293
05-02-2007 08:19:43	9.023	40.14	19.838	35.361
05-02-2007 08:20:43	4.175	14.61	3.213	22.128
05-02-2007 08:21:43	0.111	0.17	0.005	14.854

Calibration Error Test at Run 1

Operator: B Johnston
 Plant Name: Anderson Landfill
 Location: Flare

	Reference Cylinder Numbers			
	Zero	Low-range	Mid-range	High-range
O2			AAL16767	CC8445
CO			AAAL 7467	AAL19769
NOx			AAL 7479	AAL19769
THC		Env	Env	ALM4576

Date/Time	05-02-2007		08:21:43	
Analyte	O2	CO	NOx	THC
Units	%	ppm	ppm	ppm
Zero Ref Cyl	0.000	0.00	0.000	0.000
Zero Avg	-0.038	-0.09	0.005	-0.024
Zero Error%	0.2%	0.1%	0.0%	0.0%
Low Ref Cyl				15.000
Low Avg				14.861
Low Error%				0.3%
Mid Ref Cyl	9.000	40.30	19.900	35.000
Mid Avg	9.022	40.14	19.836	35.365
Mid Error%	0.1%	0.2%	0.1%	0.7%
High Ref Cyl	19.040	90.10	44.800	45.000
High Avg	19.002	89.70	45.005	45.013
High Error%	0.2%	0.4%	0.4%	0.0%

Calibration Error Test End

Initial System Bias Check, Run 1 STRATA Version 1.1

	O2 %	CO ppm	NOx ppm	THC ppm
05-02-2007 08:22:49	-0.042	0.06	0.006	0.170
05-02-2007 08:23:48	-0.060	0.03	0.006	0.038
05-02-2007 08:24:48	3.002	0.02	0.006	-0.041
05-02-2007 08:25:47	17.506	-0.02	0.006	-0.066
05-02-2007 08:26:48	18.879	-0.11	0.006	-0.075
05-02-2007 08:27:48	12.718	13.51	11.663	-0.092
05-02-2007 08:28:47	0.588	39.92	19.886	-0.092
05-02-2007 08:29:48	0.011	39.95	19.860	-0.092
05-02-2007 08:30:47	-0.039	12.47	2.767	5.559
05-02-2007 08:31:48	-0.051	-0.03	0.006	13.903
05-02-2007 08:32:47	-0.057	-0.06	0.006	14.747

Initial System Bias Check for Run 1

Operator: B Johnston
Plant Name: Anderson Landfill
Location: Flare

Reference Cylinder Numbers

	Zero	Span
O2		CC8445
CO		AAAL 7467
NOx		AAL 7479
THC		Env

Date/Time	05-02-2007	08:33:07	PASSED
Analyte	O2	CO	NOx
Units	%	ppm	ppm
Zero Ref Cyl	0.000	0.00	0.000
Zero Cal	-0.038	-0.09	0.005
Zero Avg	-0.061	0.03	0.006
Zero Bias%	0.1%	0.1%	0.0%
Zero Drift%			
Span Ref Cyl	19.040	40.30	19.900
Span Cal	19.002	40.14	19.836
Span Avg	18.912	39.94	19.863
Span Bias%	0.4%	0.2%	0.1%
Span Drift%			
System Bias Check End			

Test Run 1 STRATA Version 1.1

	O2 %	CO ppm	NOx ppm	THC ppm
05-02-2007 08:34:40	6.377	5.98	3.733	7.360
05-02-2007 08:35:39	13.346	4.11	12.353	4.468
05-02-2007 08:36:40	13.927	0.65	11.649	2.697
05-02-2007 08:37:40	13.549	0.71	12.781	1.845
Begin calculating run averages				
05-02-2007 08:38:39	13.086	0.58	13.307	1.396
05-02-2007 08:39:40	12.828	0.61	13.844	1.191
05-02-2007 08:40:39	12.734	0.72	13.823	0.965
05-02-2007 08:41:39	13.325	0.91	12.257	0.926
05-02-2007 08:42:40	13.148	0.89	13.182	0.833
05-02-2007 08:43:39	12.919	0.82	13.402	0.746
05-02-2007 08:44:40	13.029	0.85	13.164	0.755
05-02-2007 08:45:40	13.674	1.01	12.009	0.810
05-02-2007 08:46:39	13.039	0.86	13.161	0.698
05-02-2007 08:47:40	13.145	0.97	13.110	0.585
05-02-2007 08:48:39	13.079	0.94	13.151	0.544
05-02-2007 08:49:39	12.923	0.78	13.255	0.544
05-02-2007 08:50:40	12.912	0.74	13.282	0.545
05-02-2007 08:51:39	12.871	0.67	13.180	0.536
05-02-2007 08:52:40	12.814	0.71	13.017	0.506
05-02-2007 08:53:39	13.504	0.87	12.205	0.540
05-02-2007 08:54:39	13.358	0.80	12.203	0.559
05-02-2007 08:55:40	13.424	0.87	12.695	0.442
05-02-2007 08:56:39	13.105	0.76	12.946	0.492
05-02-2007 08:57:39	13.038	0.71	12.750	0.423
05-02-2007 08:58:40	13.210	0.72	12.854	0.449
05-02-2007 08:59:39	13.067	0.75	12.788	0.419
05-02-2007 09:00:40	13.106	0.79	12.944	0.470
05-02-2007 09:01:39	12.884	0.79	13.653	0.414
05-02-2007 09:02:39	13.135	0.88	12.923	0.464
05-02-2007 09:03:40	13.317	0.86	12.440	0.477
05-02-2007 09:04:39	13.074	0.77	13.182	0.445
05-02-2007 09:05:40	12.921	0.59	13.266	0.393
05-02-2007 09:06:40	12.782	0.57	13.486	0.374
05-02-2007 09:07:39	12.989	0.62	13.402	0.385
05-02-2007 09:08:40	12.549	0.53	13.933	0.352
Pause				
05-02-2007 09:09:39	17.455	1.19	0.369	2.414
05-02-2007 09:10:39	20.216	1.28	0.004	2.784
05-02-2007 09:11:40	18.102	0.96	7.594	1.540
End Pause				
05-02-2007 09:12:39	13.961	0.62	11.632	0.552
05-02-2007 09:13:40	13.387	0.44	12.503	0.447
05-02-2007 09:14:39	13.153	0.41	13.148	0.466
05-02-2007 09:15:39	13.290	0.41	12.793	0.504

Test Run 1 STRATA Version 1.1

		O2 %	CO ppm	NOx ppm	THC ppm
05-02-2007 09:16:40		13.259	0.44	12.542	0.502
05-02-2007 09:17:39		13.298	0.43	13.048	0.439
05-02-2007 09:18:40		13.018	0.32	13.154	0.475
05-02-2007 09:19:39		13.117	0.32	13.169	0.456
05-02-2007 09:20:39		12.737	0.18	13.756	0.393
05-02-2007 09:21:40		12.772	0.21	13.582	0.397
05-02-2007 09:22:39		12.787	0.20	13.945	0.366
05-02-2007 09:23:40		12.354	0.06	14.282	0.370
05-02-2007 09:24:39		12.512	0.04	14.172	0.341
05-02-2007 09:25:39		12.526	0.03	14.163	0.234
05-02-2007 09:26:40		12.791	0.15	13.591	0.284
05-02-2007 09:27:39		12.794	0.03	13.502	0.342
05-02-2007 09:28:40		12.954	0.02	13.398	0.382
05-02-2007 09:29:39		12.779	-0.05	13.547	0.388
05-02-2007 09:30:39		12.663	-0.13	13.871	0.310
05-02-2007 09:31:40		12.447	-0.19	14.220	0.233
05-02-2007 09:32:39		12.455	-0.15	14.058	0.280
05-02-2007 09:33:39		12.631	-0.07	13.792	0.285
05-02-2007 09:34:40		12.763	-0.04	13.557	0.306
05-02-2007 09:35:39		12.603	-0.09	14.065	0.243
05-02-2007 09:36:40		12.512	-0.14	13.910	0.195
05-02-2007 09:37:39		12.651	-0.08	13.781	0.233
05-02-2007 09:38:39		12.685	-0.05	13.906	0.217
05-02-2007 09:39:40		12.288	-0.23	14.798	0.193
05-02-2007 09:40:39		12.511	-0.14	13.973	0.193
05-02-2007 09:41:39		12.579	-0.15	13.924	0.193
Run Averages		O2 %	CO ppm	NOx ppm	THC ppm
05-02-2007 09:41:48		12.923	0.43	13.333	0.466

Operator: B Johnston
Plant Name: Anderson Landfill
Location: Flare
Test Run 1 End

Final System Bias Check, Run 1 STRATA Version 1.1

		O2 %	CO ppm	NOx ppm	THC ppm
05-02-2007	09:42:52	4.991	0.85	1.089	-0.044
05-02-2007	09:43:51	0.131	0.70	0.004	-0.082
05-02-2007	09:44:51	-0.046	0.46	0.004	-0.053
05-02-2007	09:45:52	7.527	0.36	0.004	-0.095
05-02-2007	09:46:51	18.078	0.29	0.004	-0.022
05-02-2007	09:47:51	18.549	0.19	0.004	-0.055
05-02-2007	09:48:50	18.587	0.14	0.004	-0.055
05-02-2007	09:49:51	18.586	0.69	1.521	-0.070
05-02-2007	09:50:52	4.893	39.64	18.476	-0.048
05-02-2007	09:51:51	0.160	40.53	19.851	-0.040
05-02-2007	09:52:51	-0.026	40.51	19.791	-0.084
05-02-2007	09:53:51	-0.055	29.35	12.855	5.049
05-02-2007	09:54:52	-0.078	0.08	0.003	17.137
05-02-2007	09:55:51	-0.081	0.01	0.003	15.205
05-02-2007	09:56:50	-0.078	0.00	0.003	14.792
05-02-2007	09:57:51	-0.086	0.00	0.003	14.716
05-02-2007	09:58:52	-0.098	-0.02	0.003	14.618
05-02-2007	09:59:51	-0.097	-0.02	0.003	14.464

Final System Bias Check, Run 1 STRATA Version 1.1

Operator: B Johnston
 Plant Name: Anderson Landfill
 Location: Flare

Reference Cylinder Numbers

	Zero	Span
O2		CC8445
CO		AAAL 7467
NOx		AAL 7479
THC		Env

Date/Time	05-02-2007		10:00:36		PASSED
Analyte	O2	CO	NOx	THC	
Units	%	ppm	ppm	ppm	
Zero Ref Cyl	0.000	0.00	0.000	0.000	
Zero Cal	-0.038	-0.09	0.005	-0.024	
Zero Avg	-0.049	0.45	0.004	-0.095	
Zero Bias%	0.0%	0.5%	0.0%	0.1%	
Zero Drift%	0.0%	0.4%	0.0%	-0.2%	
Span Ref Cyl	19.040	40.30	19.900	15.000	
Span Cal	19.002	40.14	19.836	14.861	
Span Avg	18.592	40.48	19.779	14.466	
Span Bias%	1.6%	0.3%	0.1%	0.8%	
Span Drift%	-1.3%	0.5%	-0.2%	-0.7%	
Ini Zero Avg	-0.061	0.03	0.006	0.017	
Ini Span Avg	18.912	39.94	19.863	14.796	
Run Avg	12.923	0.43	13.333	0.466	
Co	-0.055	0.24	0.005	-0.039	
Cm	18.752	40.21	19.821	14.631	
Correct Avg	13.138	0.20	13.384	0.517	
System Bias Check End					

Test Run 2 STRATA Version 1.1

	O2 %	CO ppm	NOx ppm	THC ppm
Begin calculating run averages				
05-02-2007 10:09:12	12.821	0.09	13.840	0.191
05-02-2007 10:10:13	12.677	0.09	14.849	0.280
05-02-2007 10:11:12	12.611	0.82	14.697	0.385
05-02-2007 10:12:13	12.766	0.89	14.056	0.335
05-02-2007 10:13:13	12.778	0.91	14.074	0.194
05-02-2007 10:14:12	12.782	0.72	14.083	0.194
05-02-2007 10:15:13	12.409	0.69	15.104	0.191
05-02-2007 10:16:12	12.494	0.80	14.686	0.191
05-02-2007 10:17:12	12.761	0.80	13.951	0.211
05-02-2007 10:18:13	12.773	0.74	13.899	0.191
05-02-2007 10:19:12	12.874	0.82	13.788	0.182
05-02-2007 10:20:13	12.865	0.73	13.560	0.198
05-02-2007 10:21:13	12.823	0.60	13.808	0.170
05-02-2007 10:22:12	12.484	0.46	14.459	0.191
05-02-2007 10:23:13	12.460	0.40	14.316	0.186
05-02-2007 10:24:12	12.629	0.48	13.744	0.188
05-02-2007 10:25:12	12.874	0.52	13.490	0.191
05-02-2007 10:26:13	12.786	0.37	13.705	0.190
05-02-2007 10:27:12	12.690	0.36	13.813	0.187
05-02-2007 10:28:13	12.704	0.41	13.903	0.191
05-02-2007 10:29:13	12.675	0.49	13.844	0.190
05-02-2007 10:30:12	12.753	0.56	13.678	0.196
05-02-2007 10:31:13	12.740	0.54	13.762	0.192
05-02-2007 10:32:12	12.751	0.42	13.505	0.190
05-02-2007 10:33:12	12.868	0.37	13.551	0.191
05-02-2007 10:34:13	12.421	0.11	14.399	0.189
05-02-2007 10:35:12	12.580	0.18	14.139	0.190
05-02-2007 10:36:13	12.670	0.24	13.761	0.190
05-02-2007 10:37:13	12.803	0.26	13.473	0.177
05-02-2007 10:38:12	12.858	0.26	13.525	0.157
05-02-2007 10:39:13	12.501	0.17	14.465	0.175
05-02-2007 10:40:12	12.392	0.15	14.278	0.189
05-02-2007 10:41:12	12.523	0.20	14.007	0.190
05-02-2007 10:42:13	12.758	0.03	13.478	0.190
05-02-2007 10:43:12	12.767	-0.06	13.794	0.190
05-02-2007 10:44:13	12.790	-0.08	13.546	0.197
05-02-2007 10:45:13	12.446	-0.15	14.625	0.190
05-02-2007 10:46:12	12.692	-0.09	13.643	0.190
05-02-2007 10:47:13	12.885	0.00	13.543	0.193
05-02-2007 10:48:12	12.614	-0.13	13.759	0.196
05-02-2007 10:49:12	12.732	-0.09	13.642	0.190
05-02-2007 10:50:13	12.659	-0.10	13.608	0.189
05-02-2007 10:51:12	12.767	-0.05	13.375	0.190
05-02-2007 10:52:13	12.780	-0.04	13.383	0.203

Test Run 2 STRATA Version 1.1

	O2 %	CO ppm	NOx ppm	THC ppm
05-02-2007 10:53:12	12.792	-0.09	13.385	0.197
05-02-2007 10:54:13	12.409	-0.22	14.317	0.187
05-02-2007 10:55:12	12.650	-0.17	13.245	0.188
05-02-2007 10:56:12	12.738	-0.09	13.579	0.190
05-02-2007 10:57:13	12.471	-0.20	14.235	0.184
05-02-2007 10:58:12	12.612	-0.12	13.676	0.186
05-02-2007 10:59:13	12.614	-0.19	13.607	0.184
05-02-2007 11:00:13	12.471	-0.17	14.253	0.154
05-02-2007 11:01:12	12.518	-0.28	13.946	0.142
05-02-2007 11:02:13	12.584	-0.25	13.903	0.159
05-02-2007 11:03:12	12.563	-0.18	14.056	0.171
05-02-2007 11:04:13	12.431	-0.26	14.427	0.122
05-02-2007 11:05:13	12.454	-0.30	14.171	0.074
05-02-2007 11:06:12	12.570	-0.25	14.266	0.068
05-02-2007 11:07:13	11.953	-0.39	15.432	0.047
05-02-2007 11:08:12	12.213	-0.30	14.793	0.056
Run Averages	O2 %	CO ppm	NOx ppm	THC ppm
05-02-2007 11:09:09	12.636	0.18	13.973	0.183

Operator: B Johnston
Plant Name: Anderson Landfill
Location: Flare
Test Run 2 End

Final System Bias Check, Run 2 STRATA Version 1.1

	O2 %	CO ppm	NOx ppm	THC ppm
05-02-2007 11:10:24	5.710	0.69	2.281	0.111
05-02-2007 11:11:23	0.126	0.63	0.002	0.033
05-02-2007 11:12:24	-0.053	0.46	0.002	-0.005
05-02-2007 11:13:23	3.478	0.33	0.002	-0.050
05-02-2007 11:14:24	17.514	0.24	0.002	-0.011
05-02-2007 11:15:24	18.694	0.18	0.002	0.007
05-02-2007 11:16:23	18.910	0.15	0.002	-0.014
05-02-2007 11:17:24	18.919	0.07	0.002	0.014
05-02-2007 11:18:23	16.442	15.44	8.247	4.033
05-02-2007 11:19:24	1.363	40.47	19.534	0.056
05-02-2007 11:20:24	0.023	40.43	19.714	0.017
05-02-2007 11:21:23	-0.053	40.45	19.638	0.016
05-02-2007 11:22:24	-0.066	24.64	9.823	1.936
05-02-2007 11:23:23	-0.079	0.07	0.002	11.183
05-02-2007 11:24:24	-0.080	0.02	0.002	14.866
05-02-2007 11:25:23	-0.084	-0.04	0.002	14.876

Final System Bias Check, Run 2 STRATA Version 1.1

Operator: B Johnston
 Plant Name: Anderson Landfill
 Location: Flare

Reference Cylinder Numbers

	Zero	Span
O2		CC8445
CO		AAAL 7467
NOx		AAL 7479
THC		Env

Date/Time	05-02-2007	11:25:28	PASSED
Analyte	O2	CO	NOx
Units	%	ppm	ppm
Zero Ref Cyl	0.000	0.00	0.000
Zero Cal	-0.038	-0.09	0.005
Zero Avg	-0.065	0.41	0.002
Zero Bias%	0.1%	0.5%	0.0%
Zero Drift%	-0.1%	0.0%	0.0%
Span Ref Cyl	19.040	40.30	19.900
Span Cal	19.002	40.14	19.836
Span Avg	18.920	40.44	19.618
Span Bias%	0.3%	0.3%	0.4%
Span Drift%	1.3%	0.0%	-0.3%
Ini Zero Avg	-0.049	0.45	0.004
Ini Span Avg	18.592	40.48	19.779
Run Avg	12.636	0.18	13.973
Co	-0.057	0.43	0.003
Cm	18.756	40.46	19.698
Correct Avg	12.846	-0.24	14.115
System Bias Check End			

Test Run 3 STRATA Version 1.1

	O2 %	CO ppm	NOx ppm	THC ppm
05-02-2007 11:40:46	12.913	4.70	14.527	0.202
Begin calculating run averages				
05-02-2007 11:41:46	12.921	7.78	14.580	0.191
05-02-2007 11:42:47	12.833	4.12	14.775	0.164
05-02-2007 11:43:46	12.861	1.07	14.617	0.065
05-02-2007 11:44:47	12.831	0.81	14.713	0.101
05-02-2007 11:45:46	12.786	2.08	14.614	0.118
05-02-2007 11:46:46	12.908	3.42	14.739	0.089
05-02-2007 11:47:47	12.693	0.41	14.894	0.086
05-02-2007 11:48:46	12.736	0.00	14.727	0.105
05-02-2007 11:49:47	12.946	0.08	14.258	0.143
05-02-2007 11:50:46	12.943	-0.19	14.409	0.144
05-02-2007 11:51:46	12.876	-0.22	14.343	0.070
05-02-2007 11:52:47	13.004	-0.18	14.114	0.100
05-02-2007 11:53:46	13.026	-0.18	13.846	0.100
05-02-2007 11:54:46	13.607	-0.02	12.708	0.234
05-02-2007 11:55:47	13.450	-0.07	13.107	0.216
05-02-2007 11:56:46	13.607	-0.04	13.156	0.230
05-02-2007 11:57:47	12.840	-0.21	14.555	0.099
05-02-2007 11:58:46	13.013	-0.21	13.878	0.134
05-02-2007 11:59:46	13.076	-0.16	13.781	0.167
05-02-2007 12:00:47	13.155	-0.14	13.717	0.133
05-02-2007 12:01:46	13.272	-0.10	13.337	0.165
05-02-2007 12:02:46	13.171	-0.09	13.688	0.126
05-02-2007 12:03:47	13.073	-0.15	13.880	0.142
05-02-2007 12:04:46	13.112	-0.08	13.721	0.143
05-02-2007 12:05:47	13.577	0.01	13.106	0.234
05-02-2007 12:06:46	13.073	-0.18	14.061	0.193
05-02-2007 12:07:46	13.464	-0.03	13.206	0.234
05-02-2007 12:08:47	13.198	-0.16	13.518	0.157
05-02-2007 12:09:46	13.102	-0.17	13.680	0.286
05-02-2007 12:10:46	13.093	-0.16	13.791	0.145
05-02-2007 12:11:47	12.877	-0.22	14.255	0.138
05-02-2007 12:12:46	12.923	-0.16	14.499	0.114
05-02-2007 12:13:47	12.879	-0.20	14.298	0.159
05-02-2007 12:14:46	13.070	-0.02	13.749	0.201
05-02-2007 12:15:46	13.160	-0.15	13.801	0.189
05-02-2007 12:16:47	13.565	-0.05	12.855	0.268
05-02-2007 12:17:46	13.606	-0.01	12.519	0.293
05-02-2007 12:18:46	13.609	-0.04	12.765	0.242
05-02-2007 12:19:47	13.412	-0.07	13.412	0.212
05-02-2007 12:20:46	13.411	-0.12	13.036	0.208
05-02-2007 12:21:47	13.291	-0.15	13.285	0.192
05-02-2007 12:22:46	13.367	-0.12	12.897	0.216
05-02-2007 12:23:46	13.496	-0.03	13.061	0.222

Test Run 3 STRATA Version 1.1

	O2 %	CO ppm	NOx ppm	THC ppm
05-02-2007 12:24:47	13.217	-0.15	13.160	0.235
05-02-2007 12:25:46	13.670	0.02	12.747	0.283
05-02-2007 12:26:47	13.235	-0.12	13.474	0.175
05-02-2007 12:27:46	12.863	-0.20	14.541	0.140
05-02-2007 12:28:46	12.707	-0.27	14.341	0.145
05-02-2007 12:29:47	12.993	-0.13	14.002	0.096
05-02-2007 12:30:46	12.990	-0.13	14.229	0.108
05-02-2007 12:31:46	12.910	-0.24	13.826	0.125
05-02-2007 12:32:47	13.589	-0.01	12.883	0.219
05-02-2007 12:33:46	13.720	-0.04	12.123	0.255
05-02-2007 12:34:47	14.003	0.07	12.153	0.311
05-02-2007 12:35:46	13.571	-0.04	13.049	0.212
05-02-2007 12:36:46	13.378	-0.09	13.337	0.163
05-02-2007 12:37:47	12.872	-0.24	14.168	0.065
05-02-2007 12:38:46	13.486	-0.08	12.755	0.245
05-02-2007 12:39:46	13.209	-0.14	13.718	0.138
05-02-2007 12:40:45	12.905	-0.20	14.155	0.090
Run Averages	O2 %	CO ppm	NOx ppm	THC ppm
05-02-2007 12:41:06	13.171	0.19	13.708	0.169

Operator: B Johnston
Plant Name: Anderson Landfill
Location: Flare
Test Run 3 End

Final System Bias Check, Run 3 STRATA Version 1.1

	O2 %	CO ppm	NOx ppm	THC ppm
05-02-2007 12:43:48	6.025	0.69	2.275	0.040
05-02-2007 12:44:47	0.145	0.68	0.003	-0.063
05-02-2007 12:45:47	-0.043	0.52	0.003	-0.087
05-02-2007 12:46:48	-0.064	0.39	0.003	-0.018
05-02-2007 12:47:47	10.163	0.26	0.003	0.022
05-02-2007 12:48:48	18.545	0.17	0.003	0.019
05-02-2007 12:49:48	18.815	0.21	0.003	0.034
05-02-2007 12:50:47	18.841	0.14	0.003	-0.045
05-02-2007 12:51:48	18.625	1.50	3.038	-0.096
05-02-2007 12:52:47	3.384	39.76	17.972	-0.083
05-02-2007 12:53:48	0.089	40.20	19.779	-0.096
05-02-2007 12:54:48	-0.041	40.19	19.749	-0.096
05-02-2007 12:55:47	-0.063	21.73	7.567	7.762
05-02-2007 12:56:48	-0.069	0.12	0.003	14.835
05-02-2007 12:57:47	-0.078	0.09	0.003	14.768

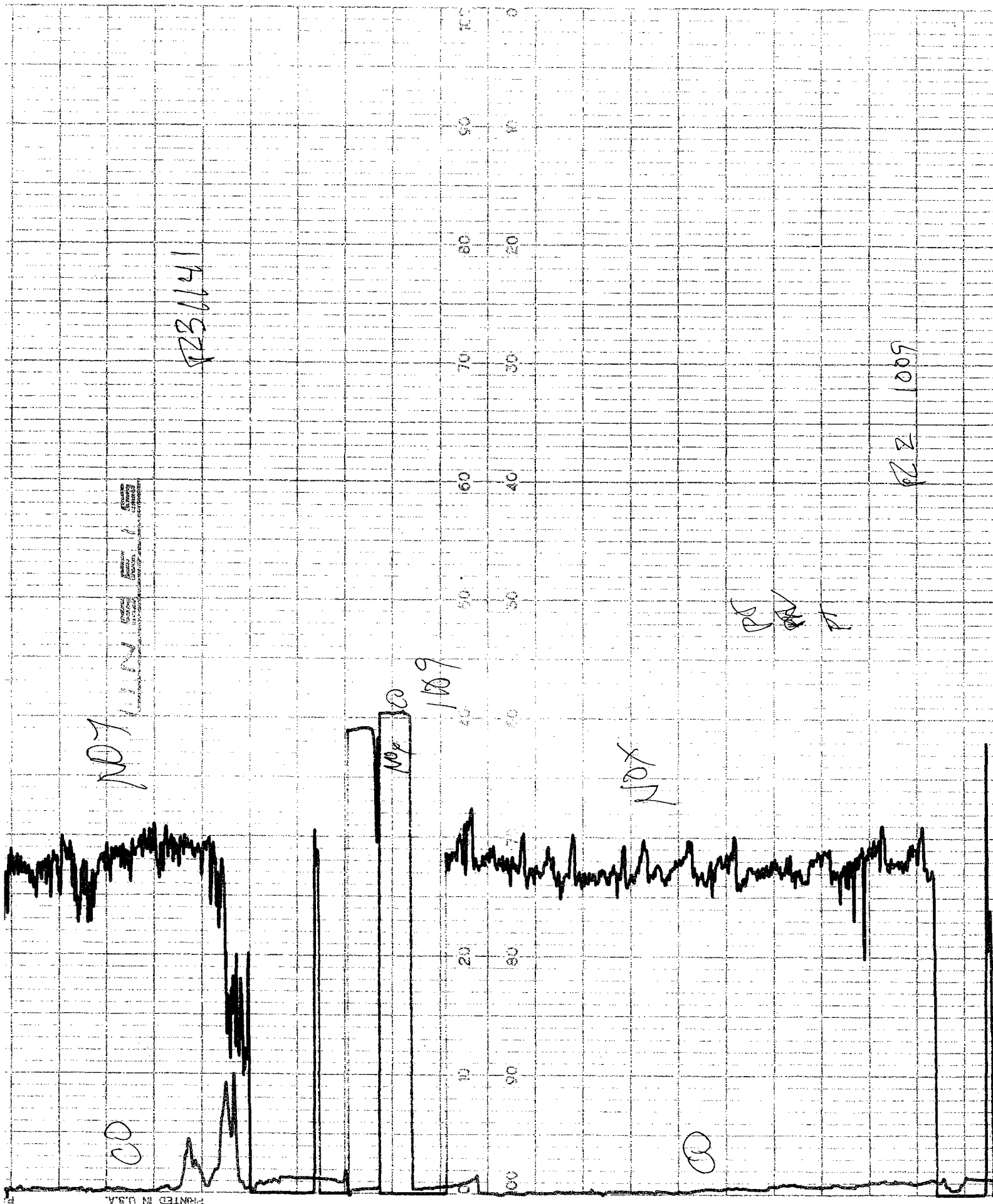
Final System Bias Check, Run 3 STRATA Version 1.1

Operator: B Johnston
 Plant Name: Anderson Landfill
 Location: Flare

Reference Cylinder Numbers

	Zero	Span
O2		CC8445
CO		AAAL 7467
NOx		AAL 7479
THC		Env

Date/Time	05-02-2007		12:58:18		PASSED
Analyte	O2	CO	NOx	THC	
Units	%	ppm	ppm	ppm	
Zero Ref Cyl	0.000	0.00	0.000	0.000	
Zero Cal	-0.038	-0.09	0.005	-0.024	
Zero Avg	-0.064	0.38	0.003	-0.013	
Zero Bias%	0.1%	0.5%	0.0%	0.0%	
Zero Drift%	0.0%	0.0%	0.0%	0.0%	
Span Ref Cyl	19.040	40.30	19.900	15.000	
Span Cal	19.002	40.14	19.836	14.861	
Span Avg	18.842	40.19	19.730	14.745	
Span Bias%	0.6%	0.1%	0.2%	0.2%	
Span Drift%	-0.3%	-0.2%	0.2%	-0.3%	
Ini Zero Avg	-0.065	0.41	0.002	-0.024	
Ini Span Avg	18.920	40.44	19.618	14.872	
Run Avg	13.171	0.19	13.708	0.169	
Co	-0.064	0.39	0.002	-0.019	
Cm	18.881	40.32	19.674	14.808	
Correct Avg	13.301	-0.21	13.865	0.190	
System Bias Check End					



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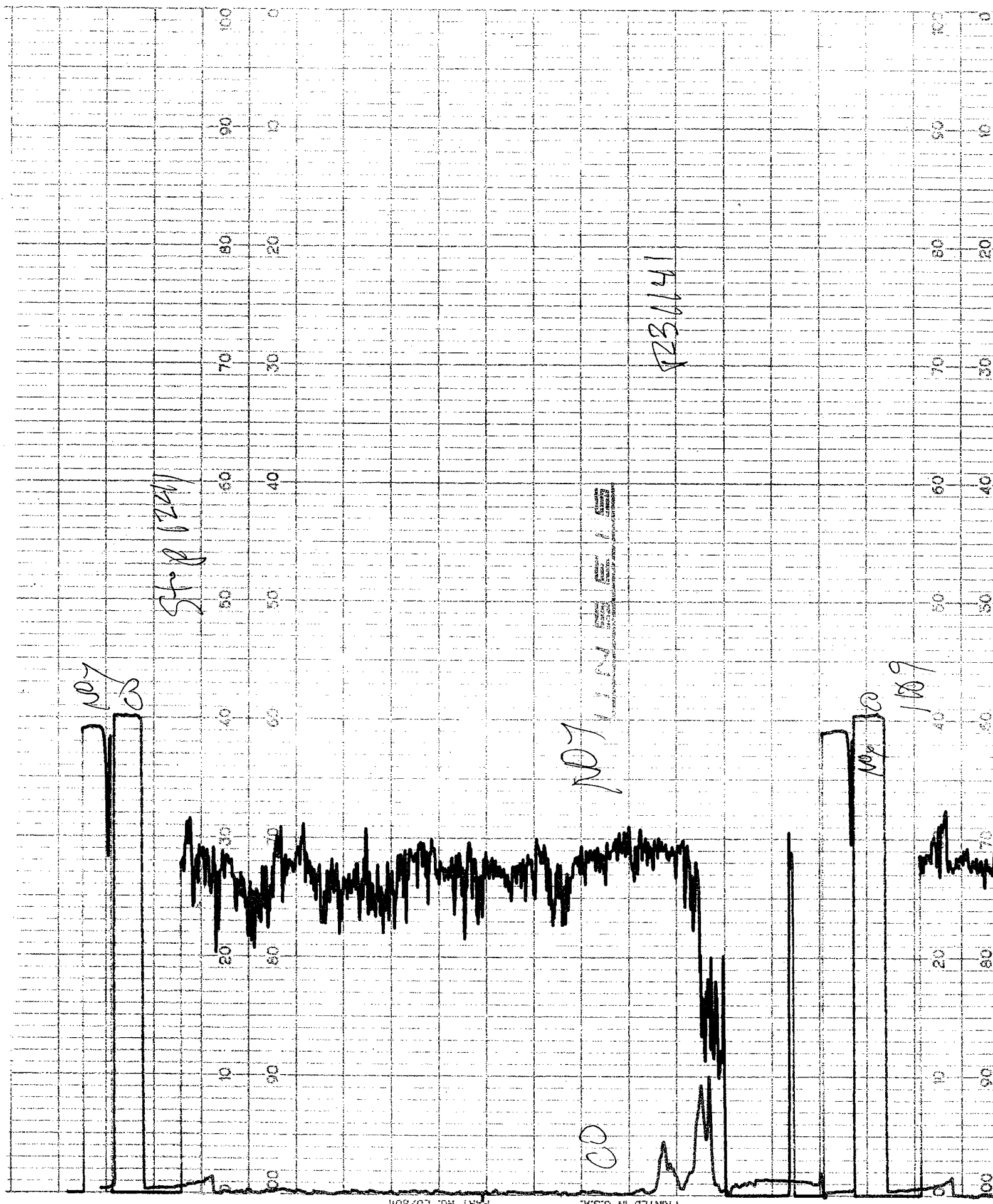
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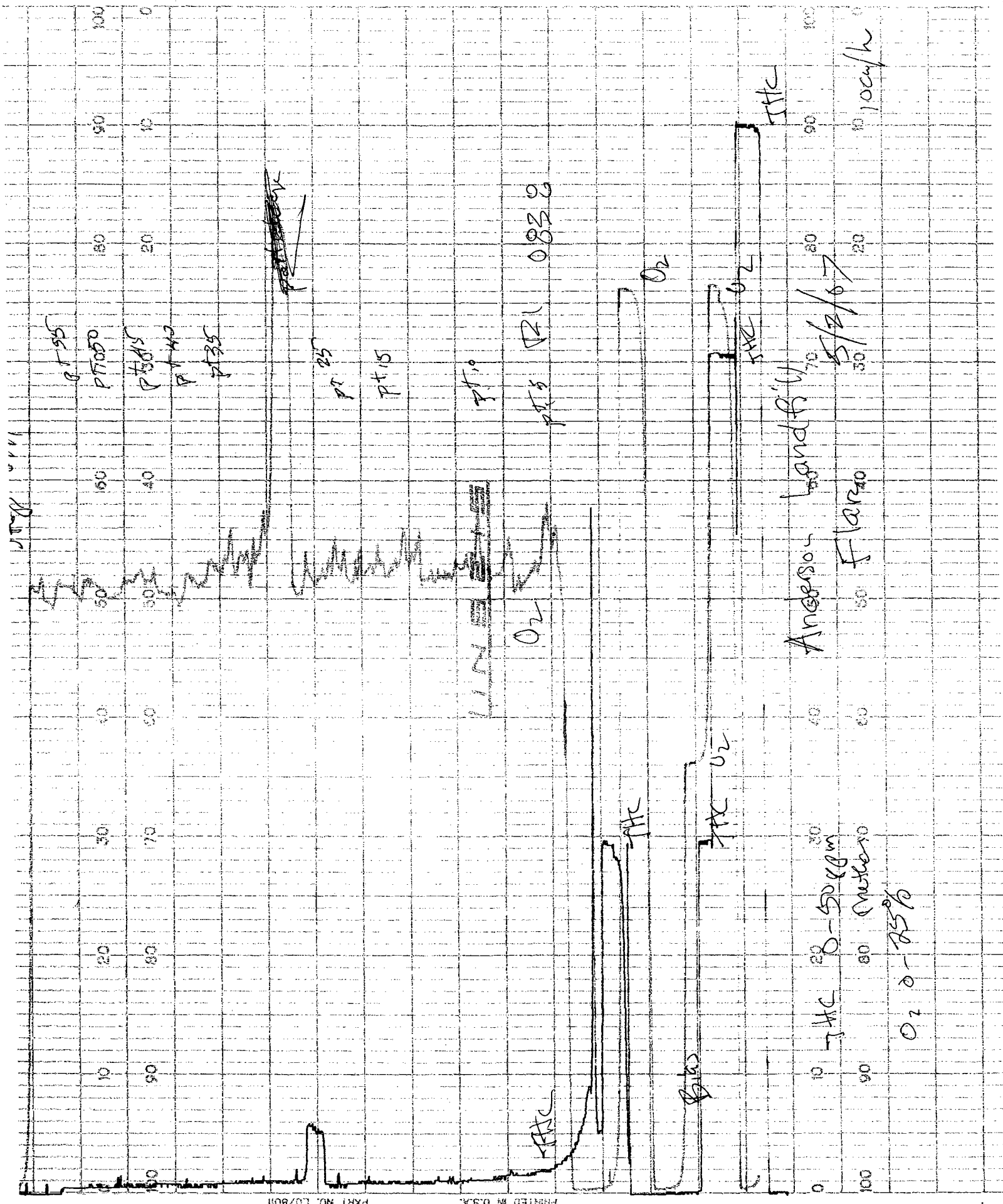
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PART NO. L0/80H

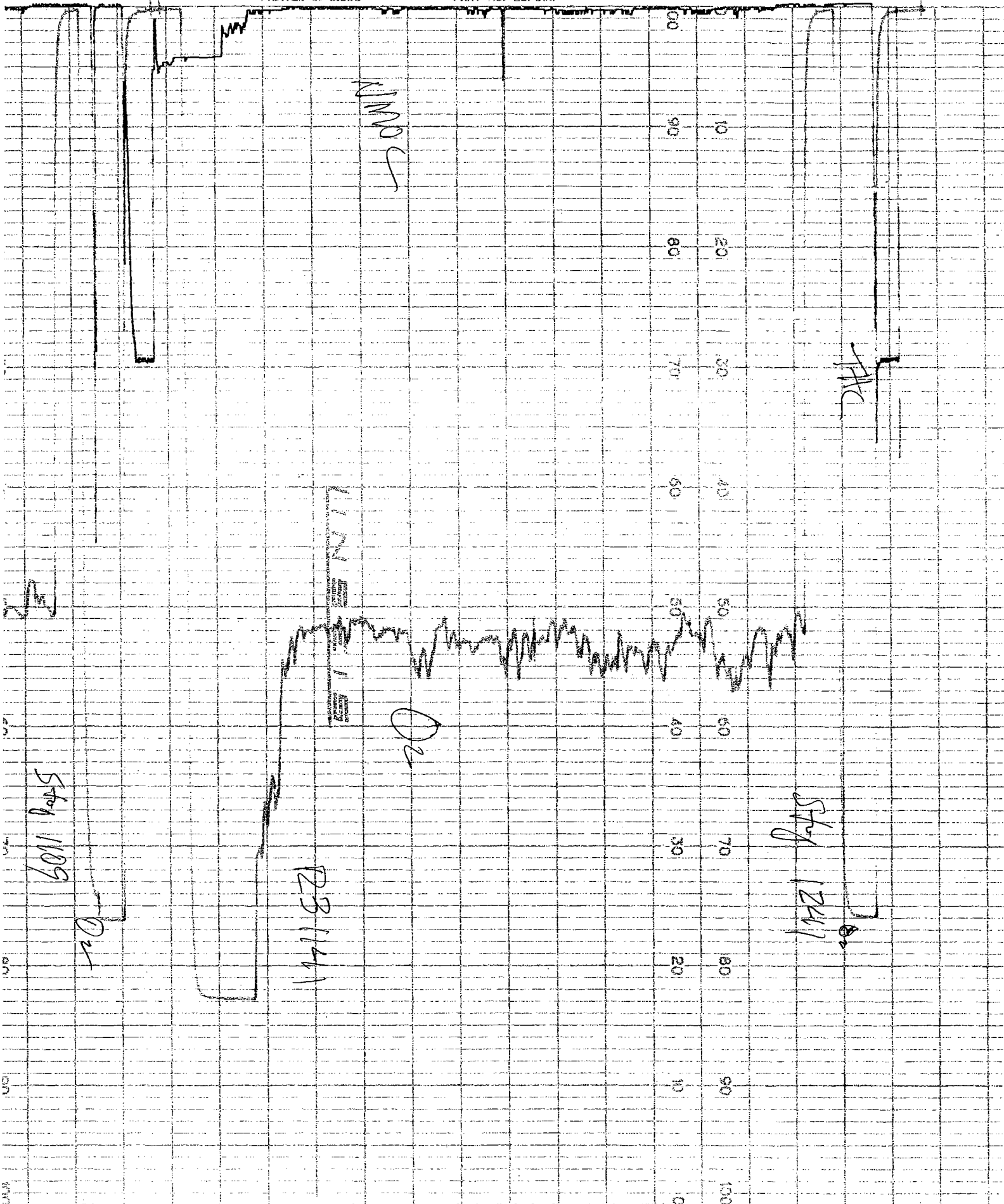
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PART NO. LD/8011





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

CERTIFICATE OF ANALYSIS / EPA PROTOCOL GAS

CUSTOMER SHAW ENV.

P.O NUMBER

REFERENCE STANDARD

COMPONENT	NIST SRM NO.	CYLINDER NO.	CONCENTRATION
CARBON DIOXIDE GMIS	vs. SRM#2745	CC 102004	19.73 %
OXYGEN GMIS	vs. SRM#2659	CC 95713	21.04 %

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	08/01/05		
FIRST ANALYSIS DATE	08/08/05			SECOND ANALYSIS DATE			
Z 0.00	R 19.74	C 17.82	CONC. 17.81	Z	R	C	CONC.
R 19.74	Z 0.00	C 17.80	CONC. 17.81	R	Z	C	CONC.
Z 0.00	C 17.80	R 19.74	CONC. 17.81	Z	C	R	CONC.
U/M %		MEAN TEST ASSAY	17.81	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	08/01/05		
FIRST ANALYSIS DATE	08/08/05			SECOND ANALYSIS DATE			
Z 0.00	R 21.04	C 19.04	CONC. 19.04	Z	R	C	CONC.
R 21.04	Z 0.00	C 19.04	CONC. 19.04	R	Z	C	CONC.
Z 0.00	C 19.04	R 21.04	CONC. 19.04	Z	C	R	CONC.
U/M %		MEAN TEST ASSAY	19.04	U/M %		MEAN TEST ASSAY	

VALUES NOT VALID BELOW 150 PSIG.

THIS CYLINDER NO.	CC 8445	CERTIFIED CONCENTRATION	
HAS BEEN CERTIFIED ACCORDING TO SECTION	EPA-600/R97/121	CARBON DIOXIDE	17.81 %
OF TRACEABILITY PROTOCOL NO.	REV 9/97	OXYGEN	19.04 %
PROCEDURE	G1	NITROGEN	BALANCE
CERTIFIED ACCURACY	± 1 % NIST TRACEABLE		
CYLINDER PRESSURE	2000 PSIG		
CERTIFICATION DATE	08/08/05		
EXPIRATION DATE	08/08/08	TERM	36 MONTHS

ANALYZED BY

ISMAIL RANGSIYAWONG

CERTIFIED BY

HELENA TRAN

IMPORTANT

Information contained herein has been prepared at your request by qualified experts within Praxair Distribution, Inc. While we believe that the information is accurate within the limits of the analytical methods employed and is complete to the extent of the specific analyses performed, we make no warranty or representation as to the suitability of the use of the information for any particular purpose. The information is offered with the understanding that any use of the information is at the sole discretion and risk of the user. In no event shall the liability of Praxair Distribution, Inc., arising out of the use of the information contained herein exceed the fee established for providing such information.



Scott Specialty Gases

500 WEAVER PARK RD, LONGMONT, CO 80501

RATA CLASS

Dual-Analyzed Calibration Standard

Phone: 888-253-1635

Fax: 303-772-7673

CERTIFICATE OF ACCURACY: Interference Free TM Multi-Component EPA Protocol Gas

Assay Laboratory

SCOTT SPECIALTY GASES
500 WEAVER PARK RD
LONGMONT, CO 80501

P.O. No.: 101520

Project No.: 08-38417-004

Customer

SHAW ENVIRONMENTAL & INFRASTRUCTURE

2360 BERING DRIVE
SAN JOSE CA 95131

ANALYTICAL INFORMATION

This certification was performed according to EPA Traceability Protocol For Assay & Certification of Gaseous Calibration Standards; Procedure G-1; September, 1997.

Cylinder Number: AAL16767 Certification Date: 24Jul2006 Exp. Date: 23Jul2009
Cylinder Pressure***: 2000 PSIG

COMPONENT

CERTIFIED CONCENTRATION (Moles)

ANALYTICAL

ACCURACY**

TRACEABILITY

CARBON DIOXIDE	9.98 %	+/- 1 %	Direct NIST and NMI
OXYGEN	9.00 %	+/- 1 %	Direct NIST and NMI
NITROGEN	BALANCE		

*** Do not use when cylinder pressure is below 150 psig.

** Analytical accuracy is based on the requirements of EPA Protocol Procedure G1, September 1997.

REFERENCE STANDARD

TYPE/SRM NO.	EXPIRATION DATE	CYLINDER NUMBER	CONCENTRATION	COMPONENT
NTRM 1675	04Jul2008	K005063	13.93 %	CARBON DIOXIDE
NTRM 2658	02Oct2006	ALM065037	9.930 %	OXYGEN

INSTRUMENTATION

INSTRUMENT/MODEL/SERIAL#

DATE LAST CALIBRATED

ANALYTICAL PRINCIPLE

FTIR/000929062

19Jul2006

FTIR

HPGC/5890/3115A34624

07Jul2006

TCD

ANALYZER READINGS

(Z=Zero Gas R=Reference Gas T=Test Gas r=Correlation Coefficient)

First Triad Analysis

Second Triad Analysis

Calibration Curve

CARBON DIOXIDE

Date: 24Jul2006 Response Unit: %
Z1=0.00352 R1=13.94110 T1=9.98847
R2=13.94426 Z2=0.00384 T2=9.99031
Z3=0.00545 T3=9.99857 R3=13.96591
Avg. Concentration: 9.977 %

Concentration = A + Bx + Cx² + Dx³ + Ex⁴
r = 9.99992E-1
Constants: A = 0.00000E+0
B = 6.35748E-1 C = 5.12500E-3
D = 0.00000E+0 E = 0.00000E+0

OXYGEN

Date: 18Jul2006 Response Unit: %
Z1=0.00000 R1=208951.0 T1=188672.0
R2=208656.0 Z2=0.00000 T2=188637.0
Z3=0.00000 T3=188726.0 R3=208450.0
Avg. Concentration: 8.997 %

Concentration = A + Bx + Cx² + Dx³ + Ex⁴
r = 0.999999
Constants: A = -0.00469359
B = 4.58E-05 C = 2.78E-12
D = E =

APPROVED BY:

Jon Witzak



Scott Specialty Gases

500 WEAVER PARK RD, LONGMONT, CO 80501

RATA CLASS

Dual-Analyzed Calibration Standard

Phone: 888-253-1635

Fax: 303-772-7678

CERTIFICATE OF ACCURACY: Interference Free™ Multi-Component EPA Protocol Gas

Assay Laboratory

SCOTT SPECIALTY GASES
500 WEAVER PARK RD
LONGMONT, CO 80501

P.O. No.: 101520
Project No.: 08-36059-001

Customer

SHAW ENVIRONMENTAL & INFRASTRUCTURE
BILL JOHNSTON
2360 BERING DRIVE
SAN JOSE CA 95131

ANALYTICAL INFORMATION

This certification was performed according to EPA Traceability Protocol For Assay & Certification of Gaseous Calibration Standards; Procedure G-1; September, 1997.

Cylinder Number: **AAL19769** Certification Date: **10May2006** Exp. Date: **09May2008**
Cylinder Pressure***: **1870 PSIG**

COMPONENT	CERTIFIED CONCENTRATION (Moles)		ACCURACY**	TRACEABILITY
CARBON MONOXIDE	90.1	PPM	+/- 1%	Direct NIST and NMI
NITRIC OXIDE	44.7	PPM	+/- 1%	Direct NIST and NMI
NITROGEN - OXYGEN FREE		BALANCE		
TOTAL OXIDES OF NITROGEN	44.8	PPM		Reference Value Only

*** Do not use when cylinder pressure is below 150 psig.

** Analytical accuracy is based on the requirements of EPA Protocol Procedure G1, September 1997.

REFERENCE STANDARD

TYPE/SRM NO.	EXPIRATION DATE	CYLINDER NUMBER	CONCENTRATION	COMPONENT
NTRM 1679	02Apr2007	ALM030197	94.90 PPM	CARBON MONOXIDE
NTRM 1683	15Aug2009	AAL070639	49.82 PPM	NITRIC OXIDE

INSTRUMENTATION

INSTRUMENT/MODEL/SERIAL#	DATE LAST CALIBRATED	ANALYTICAL PRINCIPLE
FTIR//000929062	10May2006	FTIR
FTIR//000929062	08May2006	FTIR

ANALYZER READINGS

(Z=Zero Gas R=Reference Gas T=Test Gas r=Correlation Coefficient)

First Triad Analysis

Second Triad Analysis

Calibration Curve

CARBON MONOXIDE

Date: 01May2006 Response Unit: PPM

Z1=-0.01877 R1=95.10122 T1=90.59397
R2=95.12704 Z2=0.00010 T2=90.60740
Z3=0.02836 T3=90.63578 R3=95.16162
Avg. Concentration: 90.39 PPM

Date: 10May2006 Response Unit: PPM

Z1=-0.02533 R1=95.68689 T1=90.52361
R2=95.79857 Z2=-0.01272 T2=90.56149
Z3=0.03944 T3=90.72761 R3=95.90278
Avg. Concentration: 89.76 PPM

Concentration = A + Bx + Cx2 + Dx3 + Ex4
r = 9.99985E-1

Constants: A = 0.00000E+0
B = 7.18007E-1 C = 3.18000E-4
D = 0.00000E+0 E = 0.00000E+0

NITRIC OXIDE

Date: 01May2006 Response Unit: PPM

Z1=-0.02773 R1=49.51237 T1=44.39455
R2=49.69193 Z2=-0.01858 T2=44.81024
Z3=0.11894 T3=44.90252 R3=49.72640
Avg. Concentration: 44.86 PPM

Date: 10May2006 Response Unit: PPM

Z1=-0.06655 R1=50.11168 T1=44.73440
R2=50.12921 Z2=-0.05510 T2=44.78113
Z3=-0.03373 T3=44.85699 R3=50.22003
Avg. Concentration: 44.50 PPM

Concentration = A + Bx + Cx2 + Dx3 + Ex4
r = 9.99993E-1

Constants: A = 0.00000E+0
B = 9.79296E-1 C = 1.73000E-4
D = 0.00000E+0 E = 0.00000E+0

Special Notes:

PLEASE REPORT NOX

APPROVED BY:

Jon Witzak



Scott Specialty Gases

500 WEAVER PARK RD, LONGMONT, CO 80501

RATA CLASS

Dual-Analyzed Calibration Standard

Phone: 888-253-1635

Fax: 303-772-7678

CERTIFICATE OF ACCURACY: Interference Free™ Multi-Component EPA Protocol Gas

Assay Laboratory

SCOTT SPECIALTY GASES
500 WEAVER PARK RD
LONGMONT, CO 80501

P.O. No.: 101520
Project No.: 08-36059-002

Customer

SHAW ENVIRONMENTAL & INFRASTRUCTURE
BILL JOHNSTON
2360 BERING DRIVE
SAN JOSE CA 95131

ANALYTICAL INFORMATION

This certification was performed according to EPA Traceability Protocol For Assay & Certification of Gaseous Calibration Standards; Procedure G-1; September, 1997.

Cylinder Number: **AAL7479** Certification Date: **10May2006** Exp. Date: **09May2008**
Cylinder Pressure***: **1920 PSIG**

COMPONENT	CERTIFIED CONCENTRATION (Moles)		ACCURACY**	TRACEABILITY
CARBON MONOXIDE	40.3	PPM	+/- 1%	Direct NIST and NMi
NITRIC OXIDE	19.8	PPM	+/- 1%	Direct NIST and NMi
NITROGEN - OXYGEN FREE		BALANCE		
TOTAL OXIDES OF NITROGEN	19.9	PPM		Reference Value Only

*** Do not use when cylinder pressure is below 150 psig.

** Analytical accuracy is based on the requirements of EPA Protocol Procedure G1, September 1997.

REFERENCE STANDARD

TYPE/SRM NO.	EXPIRATION DATE	CYLINDER NUMBER	CONCENTRATION	COMPONENT
NTRM 1678	15Aug2009	ALM002681	51.13 PPM	CARBON MONOXIDE
NTRM 2629	15Aug2009	KAL003026	19.83 PPM	NITRIC OXIDE

INSTRUMENTATION

INSTRUMENT/MODEL/SERIAL#	DATE LAST CALIBRATED	ANALYTICAL PRINCIPLE
FTIR//000929062	10May2006	FTIR
FTIR//000929062	08May2006	FTIR

ANALYZER READINGS

(Z=Zero Gas R=Reference Gas T=Test Gas r=Correlation Coefficient)

First Triad Analysis

Second Triad Analysis

Calibration Curve

CARBON MONOXIDE

Date: 02May2006 Response Unit: PPM
Z1=-0.00626 R1=51.25518 T1=40.39549
R2=51.28341 Z2=0.02656 T2=40.42246
Z3=0.03812 T3=40.46782 R3=51.29773
Avg. Concentration: 40.31 PPM

Date: 10May2006 Response Unit: PPM
Z1=0.00994 R1=51.44870 T1=40.50402
R2=51.47099 Z2=0.01140 T2=40.54033
Z3=0.02948 T3=40.56905 R3=51.50014
Avg. Concentration: 40.26 PPM

Concentration = A + Bx + Cx2 + Dx3 + Ex4
r = 9.99985E-1
Constants: A = 0.00000E+0
B = 8.33156E-1 C = 4.28000E-4
D = 1.00000E-6 E = 0.00000E+0

NITRIC OXIDE

Date: 02May2006 Response Unit: PPM
Z1=-0.04110 R1=19.79684 T1=19.80672
R2=19.85916 Z2=0.01102 T2=19.81543
Z3=0.03025 T3=19.85722 R3=19.89692
Avg. Concentration: 19.81 PPM

Date: 10May2006 Response Unit: PPM
Z1=-0.11371 R1=19.91154 T1=19.87877
R2=19.93563 Z2=-0.03538 T2=19.89845
Z3=-0.00917 T3=19.93772 R3=19.98695
Avg. Concentration: 19.79 PPM

Concentration = A + Bx + Cx2 + Dx3 + Ex4
r = 9.99994E-1
Constants: A = 0.00000E+0
B = 8.05777E-1 C = 1.14000E-4
D = 0.00000E+0 E = 0.00000E+0

Special Notes:

PLEASE REPORT NOX

APPROVED BY:

Jon Witzak

EPA METHOD 205 GAS DILUTION SYSTEM FIELD EVALUATION

Manufacture: Environics
 Model: Series 4040
 S/N: 2254
 Last calibration date: 10/30/2006

Client: Anderson Landfill
 Date: 5/1/2007
 Operator:

Calibration analyzer: Ecophysics NOx MFC No: 3
 Diluent gas: 871
 Cylinder No.: CC211732

Expected Result

High Dilution concentration: 45
 Mid Dilution concentration: 25
 Calibration gas: 44.8 (must be within 10% of dilution level 1 or 2)
 Cylinder No.: AAL 19769

Observed Result

	High Dilution	Mid Dilution	Cal gas direct	Result
Run 1	44.7	24.6	44.9	
Difference from average	-1.0%	-0.7%	-0.2%	Pass
Run 2	45.3	24.8	45.0	
Difference from average	0.4%	0.1%	0.0%	Pass
Run 3	45.4	24.9	45.1	
Difference from average	0.6%	0.5%	0.2%	Pass
Avg	45.13	24.77	45.00	
Difference	-0.30%	0.93%	-0.45%	Pass

All parameters must be within 2%

% Difference = (Expected - observed) / expected x 100

A field check must be performed for each mass flow controller used

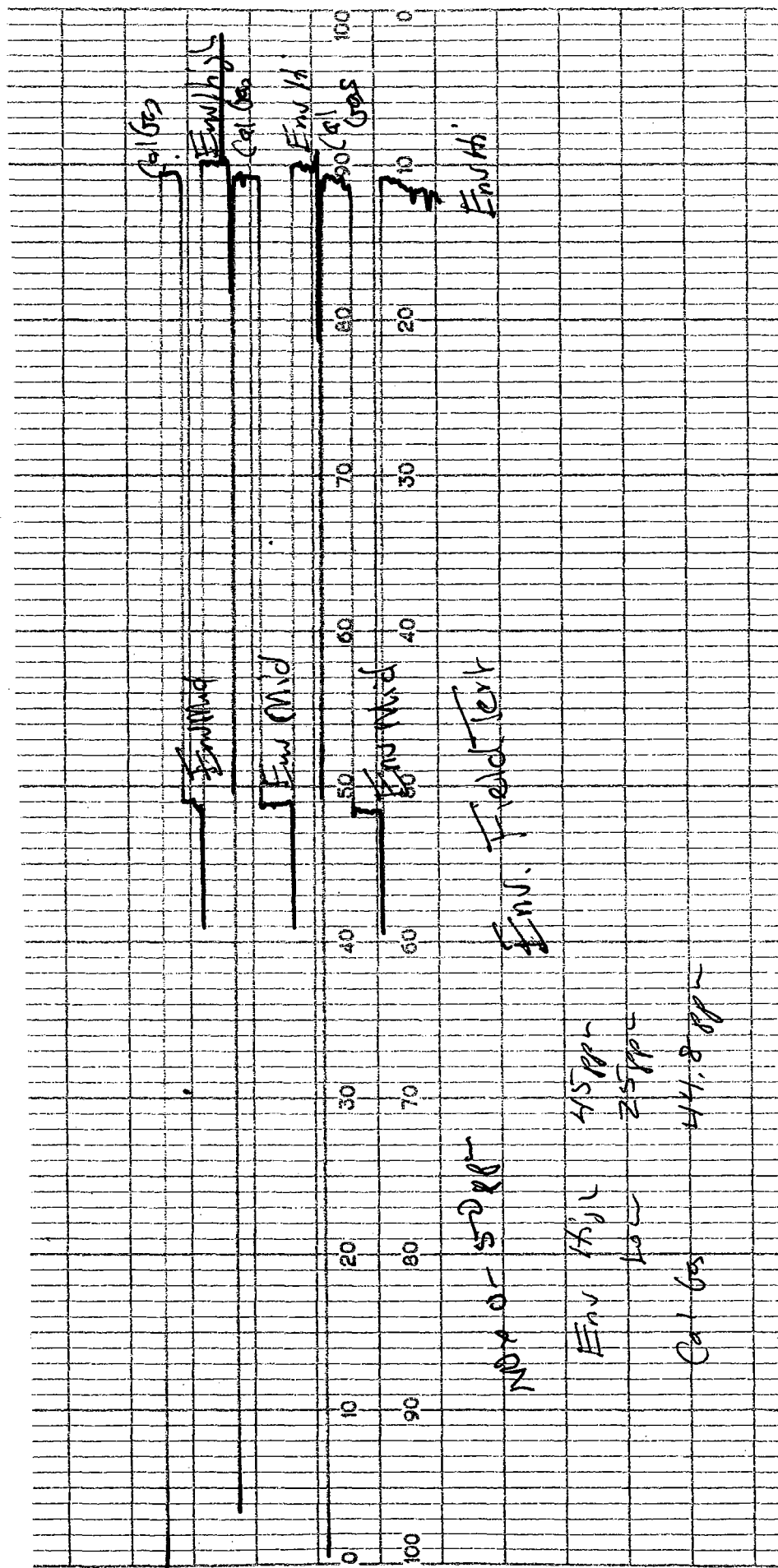
Test Run 1 Begin. STRATA Version 1.1

Operator: B Johnston

Plant Name: Anderson Landfill

Location: Flare

		NOx ppm	
		44.4	
Start Averaging			
		44.5	
		44.9	
Average	84 samples	44.7	Env High
		33.7	
		24.6	
Start Averaging			
		24.6	
Average	44 samples	24.6	Env low
		38.4	
Start Averaging			
		44.8	
		44.9	
Average	70 samples	44.9	Cal gas
		40.7	
Start Averaging			
		45.2	
Average	56 samples	45.3	Env high
		45.4	
		26.1	
Start Averaging			
		24.8	
		24.8	
Average	53 samples	24.8	Env low
		38.6	
Start Averaging			
		44.9	
Average	66 samples	45.0	Cal gas
		41.4	
		44.8	
Start Averaging			
		45.4	
Average	52 samples	45.4	Env high
		43.2	
Start Averaging			
		24.7	
Average	45 samples	24.9	Env low
		26.9	
Start Averaging			
		45.1	
Average	43 samples	45.1	Cal gas
Test Run 1 End			





CERTIFICATE OF ACCURACY: EPA Protocol Gas

Assay Laboratory

SCOTT SPECIALTY GASES
500 WEAVER PARK RD
LONGMONT, CO 80501

P.O. No.: 101520
Project No.: 08-38417-002

Customer

SHAW ENVIRONMENTAL & INFRASTRUCTURE

2360 BERING DRIVE
SAN JOSE CA 95131

ANALYTICAL INFORMATION

This certification was performed according to EPA Traceability Protocol For Assay & Certification of Gaseous Calibration Standards; Procedure G-1; September, 1997.

Cylinder Number: ALM018046 Certification Date: 28Jul2006 Exp. Date: 27Jul2008
Cylinder Pressure***: 1930 PSIG

COMPONENT	CERTIFIED CONCENTRATION (Moles)		ANALYTICAL ACCURACY**	TRACEABILITY
NITRIC OXIDE	480	PPM	+/- 1%	Direct NIST and NMI
NITROGEN - OXYGEN FREE		BALANCE		
TOTAL OXIDES OF NITROGEN	481.	PPM		Reference Value Only

*** Do not use when cylinder pressure is below 150 psig.

** Analytical accuracy is based on the requirements of EPA Protocol Procedure G1, September 1997.

REFERENCE STANDARD

TYPE/SRM NO.	EXPIRATION DATE	CYLINDER NUMBER	CONCENTRATION	COMPONENT
NTRM 1686	01Jan2010	AAL071094	497.7 PPM	NITRIC OXIDE

INSTRUMENTATION

INSTRUMENT/MODEL/SERIAL#	DATE LAST CALIBRATED	ANALYTICAL PRINCIPLE
FTIR/000929062	10Jul2006	FTIR

ANALYZER READINGS

(Z=Zero Gas R=Reference Gas T=Test Gas r=Correlation Coefficient)

First Triad Analysis

Second Triad Analysis

Calibration Curve

NITRIC OXIDE

Date: 21Jul2006	Response Unit: PPM	
Z1=0.01364	R1=498.2792	T1=479.8544
R2=498.4586	Z2=0.16271	T2=480.0825
Z3=0.22097	T3=480.7183	R3=498.6981
Avg. Concentration:	479.5	PPM

Date: 28Jul2006	Response Unit: PPM	
Z1=0.13729	R1=496.6789	T1=478.7701
R2=497.0350	Z2=0.17314	T2=478.9807
Z3=0.24363	T3=479.0754	R3=497.1778
Avg. Concentration:	479.5	PPM

Concentration = A + Bx + Cx ² + Dx ³ + Ex ⁴	
r = 9.99991E-1	
Constants:	A = 0.00000E+0
B = 6.77842E-1	C = 9.20000E-5
D = 0.00000E+0	E = 0.00000E+0

Special Notes: PLEASE REPORT NOX CONC CAN'T BE OVER 490 PPM

APPROVED BY: JW
Jon Witzak

Appendix C
Process Data

Anderson Landfill, Flare

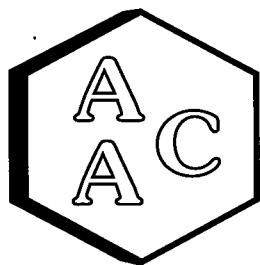
Date	Time	TEMP DEG F		FLOW SCFM		COND. FLOW GPM		
		MIN	MAX	MIN	MAX	MIN	MAX	
2007/05/02	08:30:00	1444	1475	272	276	0.0	0.0	
2007/05/02	08:32:00	1439	1457	271	273	0.0	0.0	
2007/05/02	08:34:00	1457	1471	272	275	0.0	0.0	
2007/05/02	08:36:00	1446	1465	272	276	0.0	0.0	
2007/05/02	08:38:00	1441	1446	273	276	0.0	0.0	Run1
2007/05/02	08:40:00	1446	1455	273	275	0.0	0.0	Run1
2007/05/02	08:42:00	1450	1455	274	276	0.0	0.0	Run1
2007/05/02	08:44:00	1446	1451	273	275	0.0	0.0	Run1
2007/05/02	08:46:00	1450	1477	273	276	0.0	0.0	Run1
2007/05/02	08:48:00	1447	1475	272	277	0.0	0.0	Run1
2007/05/02	08:50:00	1440	1447	273	277	0.0	0.0	Run1
2007/05/02	08:52:00	1442	1472	273	276	0.0	0.0	Run1
2007/05/02	08:54:00	1443	1463	272	276	0.0	0.0	Run1
2007/05/02	08:56:00	1444	1451	272	274	0.0	0.0	Run1
2007/05/02	08:58:00	1447	1454	271	274	0.0	0.0	Run1
2007/05/02	09:00:00	1450	1458	273	274	0.0	0.0	Run1
2007/05/02	09:02:00	1443	1453	270	274	0.0	0.0	Run1
2007/05/02	09:04:00	1441	1449	272	275	0.0	0.0	Run1
2007/05/02	09:06:00	1441	1476	272	276	0.0	0.0	Run1
2007/05/02	09:08:00	1455	1475	271	275	0.0	0.0	Run1
2007/05/02	09:10:00	1447	1461	270	274	0.0	0.0	Run1
2007/05/02	09:12:00	1443	1461	270	273	0.0	0.0	Run1
2007/05/02	09:14:00	1443	1465	271	273	0.0	0.0	Run1
2007/05/02	09:16:00	1446	1465	271	274	0.0	0.0	Run1
2007/05/02	09:18:00	1443	1462	269	274	0.0	0.0	Run1
2007/05/02	09:20:00	1438	1461	268	273	0.0	0.0	Run1
2007/05/02	09:22:00	1458	1462	269	273	0.0	0.0	Run1
2007/05/02	09:24:00	1443	1463	268	272	0.0	0.0	Run1
2007/05/02	09:26:00	1441	1462	269	272	0.0	0.0	Run1
2007/05/02	09:28:00	1438	1455	268	271	0.0	0.0	Run1
2007/05/02	09:30:00	1453	1463	266	271	0.0	0.0	Run1
2007/05/02	09:32:00	1457	1465	270	272	0.0	0.0	Run1
2007/05/02	09:34:00	1446	1458	271	274	0.0	0.0	Run1
2007/05/02	09:36:00	1443	1458	270	274	0.0	0.0	Run1
2007/05/02	09:38:00	1457	1468	271	273	0.0	0.0	Run1
2007/05/02	09:40:00	1441	1465	272	275	0.0	0.0	Run1
		1446	1461	271	274			
			1453		273			
2007/05/02	09:42:00	1444	1461	272	276	0.0	0.0	
2007/05/02	09:44:00	1442	1455	273	276	0.0	0.0	
2007/05/02	09:46:00	1454	1470	272	275	0.0	0.0	
2007/05/02	09:48:00	1439	1466	273	275	0.0	0.0	
2007/05/02	09:50:00	1441	1458	271	274	0.0	0.0	
2007/05/02	09:52:00	1456	1461	271	275	0.0	0.0	
2007/05/02	09:54:00	1453	1459	271	274	0.0	0.0	

Date	Time	TEMP DEG F		FLOW SCFM		COND. FLOW GPM		
		MIN	MAX	MIN	MAX	MIN	MAX	
2007/05/02	09:56:00	1450	1458	273	275	0.0	0.0	
2007/05/02	09:58:00	1446	1455	272	275	0.0	0.0	
2007/05/02	10:00:00	1443	1448	272	275	0.0	0.0	
2007/05/02	10:02:00	1444	1476	272	275	0.0	0.0	
2007/05/02	10:04:00	1451	1475	272	276	0.0	0.0	
2007/05/02	10:06:00	1443	1463	271	274	0.0	0.0	
2007/05/02	10:08:00	1451	1463	271	274	0.0	0.0	Run 2
2007/05/02	10:10:00	1441	1460	270	273	0.0	0.0	Run 2
2007/05/02	10:12:00	1459	1470	271	274	0.0	0.0	Run 2
2007/05/02	10:14:00	1442	1468	272	274	0.0	0.0	Run 2
2007/05/02	10:16:00	1441	1458	271	273	0.0	0.0	Run 2
2007/05/02	10:18:00	1450	1458	272	274	0.0	0.0	Run 2
2007/05/02	10:20:00	1439	1463	270	273	0.0	0.0	Run 2
2007/05/02	10:22:00	1461	1466	270	273	0.0	0.0	Run 2
2007/05/02	10:24:00	1457	1465	272	275	0.0	0.0	Run 2
2007/05/02	10:26:00	1439	1458	271	275	0.0	0.0	Run 2
2007/05/02	10:28:00	1446	1467	270	274	0.0	0.0	Run 2
2007/05/02	10:30:00	1443	1473	271	275	0.0	0.0	Run 2
2007/05/02	10:32:00	1437	1444	271	273	0.0	0.0	Run 2
2007/05/02	10:34:00	1442	1465	272	275	0.0	0.0	Run 2
2007/05/02	10:36:00	1458	1465	272	273	0.0	0.0	Run 2
2007/05/02	10:38:00	1441	1462	270	274	0.0	0.0	Run 2
2007/05/02	10:40:00	1446	1458	271	274	0.0	0.0	Run 2
2007/05/02	10:42:00	1446	1465	270	274	0.0	0.0	Run 2
2007/05/02	10:44:00	1440	1454	271	274	0.0	0.0	Run 2
2007/05/02	10:46:00	1454	1470	270	273	0.0	0.0	Run 2
2007/05/02	10:48:00	1449	1468	271	273	0.0	0.0	Run 2
2007/05/02	10:50:00	1441	1465	270	272	0.0	0.0	Run 2
2007/05/02	10:52:00	1441	1465	270	273	0.0	0.0	Run 2
2007/05/02	10:54:00	1448	1462	270	274	0.0	0.0	Run 2
2007/05/02	10:56:00	1449	1460	271	274	0.0	0.0	Run 2
2007/05/02	10:58:00	1442	1449	269	274	0.0	0.0	Run 2
2007/05/02	11:00:00	1443	1473	271	273	0.0	0.0	Run 2
2007/05/02	11:02:00	1439	1459	268	273	0.0	0.0	Run 2
2007/05/02	11:04:00	1447	1459	266	272	0.0	0.0	Run 2
2007/05/02	11:06:00	1444	1463	268	271	0.0	0.0	Run 2
2007/05/02	11:08:00	1450	1459	267	270	0.0	0.0	Run 2
		1446	1462	270	273			
			1454		272			
2007/05/02	11:10:00	1447	1453	269	272	0.0	0.0	
2007/05/02	11:12:00	1447	1483	268	270	0.0	0.0	
2007/05/02	11:14:00	1470	1487	268	273	0.0	0.0	
2007/05/02	11:16:00	1446	1470	270	273	0.0	0.0	
2007/05/02	11:18:00	1443	1447	267	272	0.0	0.0	
2007/05/02	11:20:00	1442	1453	269	272	0.0	0.0	
2007/05/02	11:22:00	1450	1458	268	272	0.0	0.0	
2007/05/02	11:24:00	1450	1456	268	271	0.0	0.0	

Date	Time	TEMP DEG F		FLOW SCFM		COND. FLOW GPM		
		MIN	MAX	MIN	MAX	MIN	MAX	
2007/05/02	11:26:00	1446	1453	267	272	0.0	0.0	
2007/05/02	11:28:00	1449	1469	268	272	0.0	0.0	
2007/05/02	11:30:00	1469	1489	269	273	0.0	0.0	
2007/05/02	11:32:00	1460	1478	269	272	0.0	0.0	
2007/05/02	11:34:00	1459	1461	270	273	0.0	0.0	
2007/05/02	11:36:00	1454	1462	269	272	0.0	0.0	
2007/05/02	11:38:00	1453	1458	268	271	0.0	0.0	
2007/05/02	11:40:00	1454	1459	269	272	0.0	0.0	Run 3
2007/05/02	11:42:00	1442	1456	267	272	0.0	0.0	Run 3
2007/05/02	11:44:00	1433	1443	268	272	0.0	0.0	Run 3
2007/05/02	11:46:00	1439	1451	267	273	0.0	0.0	Run 3
2007/05/02	11:48:00	1445	1453	266	271	0.0	0.0	Run 3
2007/05/02	11:50:00	1451	1456	268	272	0.0	0.0	Run 3
2007/05/02	11:52:00	1448	1467	267	271	0.0	0.0	Run 3
2007/05/02	11:54:00	1464	1471	269	271	0.0	0.0	Run 3
2007/05/02	11:56:00	1460	1466	269	271	0.0	0.0	Run 3
2007/05/02	11:58:00	1450	1460	268	271	0.0	0.0	Run 3
2007/05/02	12:00:00	1447	1453	267	270	0.0	0.0	Run 3
2007/05/02	12:02:00	1442	1467	269	272	0.0	0.0	Run 3
2007/05/02	12:04:00	1466	1472	269	272	0.0	0.0	Run 3
2007/05/02	12:06:00	1454	1468	269	272	0.0	0.0	Run 3
2007/05/02	12:08:00	1441	1454	269	272	0.0	0.0	Run 3
2007/05/02	12:10:00	1437	1444	269	272	0.0	0.0	Run 3
2007/05/02	12:12:00	1443	1483	270	273	0.0	0.0	Run 3
2007/05/02	12:14:00	1464	1483	271	274	0.0	0.0	Run 3
2007/05/02	12:16:00	1445	1465	269	272	0.0	0.0	Run 3
2007/05/02	12:18:00	1453	1458	272	274	0.0	0.0	Run 3
2007/05/02	12:20:00	1448	1455	271	273	0.0	0.0	Run 3
2007/05/02	12:22:00	1448	1455	270	273	0.0	0.0	Run 3
2007/05/02	12:24:00	1448	1458	270	272	0.0	0.0	Run 3
2007/05/02	12:26:00	1447	1477	269	274	0.0	0.0	Run 3
2007/05/02	12:28:00	1448	1473	270	274	0.0	0.0	Run 3
2007/05/02	12:30:00	1448	1462	269	275	0.0	0.0	Run 3
2007/05/02	12:32:00	1443	1449	269	273	0.0	0.0	Run 3
2007/05/02	12:34:00	1445	1471	268	270	0.0	0.0	Run 3
2007/05/02	12:36:00	1444	1459	269	271	0.0	0.0	Run 3
2007/05/02	12:38:00	1456	1465	269	272	0.0	0.0	Run 3
2007/05/02	12:40:00	1451	1458	270	272	0.0	0.0	Run 3
		1449	1462	269	272			
			1455		271			
2007/05/02	12:42:00	1448	1453	270	275	0.0	0.0	
2007/05/02	12:44:00	1445	1453	270	274	0.0	0.0	
2007/05/02	12:46:00	1452	1458	271	273	0.0	0.0	

Appendix D
Analytical Results

Atmospheric Analysis & Consulting, Inc.



Atmospheric Analysis & Consulting, Inc.

CLIENT : Shaw Environmental, Inc.
PROJECT NAME : Anderson Landfill
AAC PROJECT NO. : 070461
REPORT DATE : 05/04/07

On May 4, 2007, Atmospheric Analysis & Consulting, Inc. received three (3) Tedlar Bags for TNMOC analysis by EPA Method 25C, and BTU analysis which includes: C₁-C₆⁺ analysis by EPA Method 18, TRS analysis by ASTM D-5504 and fixed gas analysis by EPA Method 3C. An additional Tedlar Bag was received for Hydrogen Sulfide analysis by ASTM D-5504. Upon receipt the samples were assigned unique Laboratory ID numbers as follows:

Client ID	Lab ID
LFG R1	070461-25289
LFG R2	070461-25290
LFG R3	070461-25291
Outlet R2	070461-25292

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.

EPA 3C Analysis - Up to a 1 ml aliquot of samples is injected into the GC/TCD for analysis following EPA 3C as specified in the SOW.

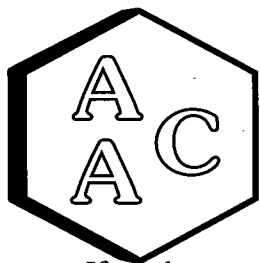
ASTM D-5504 - Up to a 1ml aliquot of sample is injected into the GC/SCD for analysis following ASTM D-5504 as specified in the SOW.

EPA 25C Analysis - Up to a 1 ml aliquot of gaseous sample is injected into the GC/FID for analysis following EPA 25C 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-ASTM D-5504, EPA 18, EPA 25C, and EPA 3C.

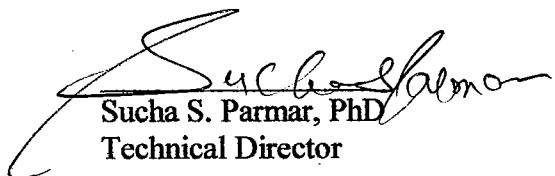
I certify that this data is technically accurate, complete and in compliance with the terms and conditions of the contract. The Laboratory Director or his designee, as verified by the following signature, has authorized the release of the data contained in this hardcopy data package.





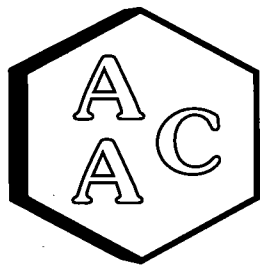
Atmospheric Analysis & Consulting, Inc.

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 15 pages.





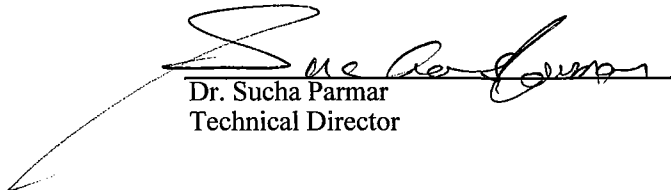
Atmospheric Analysis & Consulting, Inc.

Laboratory Analysis Report

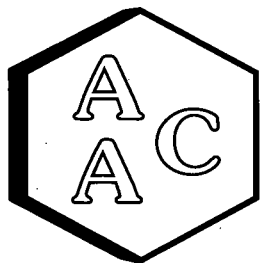
CLIENT : Shaw Environmental, Inc.
PROJECT NO. : 070461
MATRIX : AIR

SAMPLING DATE : 05/02/2007
RECEIVING DATE : 05/04/2007
ANALYSIS DATE : 05/04/2007
REPORT DATE : 05/09/2007

Client ID:	LFG R1	LFG R2	LFG R3	Detection Limits
AAC ID:	070461-25289	070461-25290	070461-25291	
Compounds, Units				
H ₂ S, ppmv	12.1	18.3	13.0	0.01 ppmv
Carbonyl Sulfide, ppmv	ND	ND	ND	0.01 ppmv
Methyl Mercaptan, ppmv	1.0	0.8	1.2	0.01 ppmv
Ethyl Mercaptan, ppmv	ND	ND	ND	0.01 ppmv
Propyl Mercaptan, ppmv	ND	ND	ND	0.01 ppmv
Carbon Disulfide, ppmv	ND	ND	ND	0.01 ppmv
Dimethyl sulfide, ppmv	1.6	1.2	1.8	0.01 ppmv
Allyl Sulfide, ppmv	ND	ND	ND	0.01 ppmv
Propyl Sulfide, ppmv	ND	ND	ND	0.01 ppmv
Allyl Disulfide, ppmv	ND	ND	ND	0.01 ppmv
Butyl Sulfide, ppmv	ND	ND	ND	0.01 ppmv
Ethyl Methyl Sulfide, ppmv	ND	ND	ND	0.01 ppmv
Thiophene, ppmv	ND	ND	ND	0.01 ppmv
Dimethyl Disulfide, ppmv	ND	ND	ND	0.01 ppmv
Butyl Mercaptan, ppmv	ND	ND	ND	0.01 ppmv
Allyl mercaptan, ppmv	ND	ND	ND	0.01 ppmv
C1 hydrocarbons, ppmv	465899	460938	464892	0.3 ppmv
C2 hydrocarbons, ppmv	<100	<100	<100	0.3 ppmv
C3 hydrocarbons, ppmv	50.8	23.9	52.3	0.3 ppmv
C4 hydrocarbons, ppmv	20.7	9.6	20.4	0.3 ppmv
C5 hydrocarbons, ppmv	22.4	11.9	23.7	0.3 ppmv
C6 hydrocarbons, ppmv	34.9	18.9	36.6	0.3 ppmv
C6 + hydrocarbons, ppmv	74.0	49.8	82.9	0.3 ppmv
CO ₂ , %	ND	ND	ND	0.1 %
CO, %	34.1	34.0	34.2	0.1 %
O ₂ , %	2.4	2.6	2.4	0.1 %
N ₂ , %	16.9	17.3	16.9	0.1 %
H ₂ , %	ND	ND	ND	0.1 %
F Factor(dscf Exhaust/MM Btu)	8682	8678	8684	
Total Wt.% Adjusted Sp. Gravity	0.7815	0.7838	0.7820	
FUEL GAS BTU per LBM	12612	12487	12592	
FUEL GAS BTU per CU. FT	582.6	576.9	581.9	


Dr. Sucha Parmar
Technical Director





Atmospheric Analysis & Consulting, Inc.

LABORATORY ANALYSIS REPORT

Client : Shaw Environmental, Inc.
Project No. : 070461
Matrix : Air
Units : ppmv

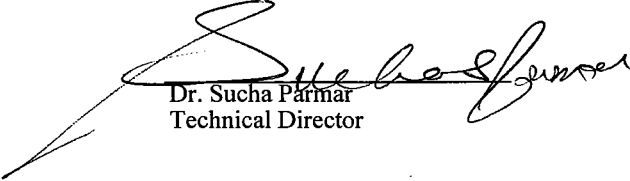
SAMPLING DATE : 05/02/2007
RECEIVING DATE : 05/04/2007
ANALYSIS DATE : 05/04/2007
REPORT DATE : 05/09/2007

Total Reduced Sulfur Compounds Analysis by ASTM D-5504

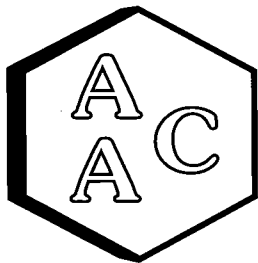
Client ID.	LFG R1	LFG R2	LFG R3	Outlet R2	MDL
AAC ID	070461-25289	070461-25290	070461-25291	070461-25291	
Analysis Dilution Factor	100, 500	100, 500	100, 500	10	
Can Dilution Factor	1.0	1.0	1.0	1.0	
H ₂ S	12.10	18.31	12.98	0.35	0.01
Carbonyl Sulfide	<PQL	<PQL	<PQL	<PQL	0.01
SO ₂	<PQL	<PQL	<PQL	<PQL	0.01
Methyl Mercaptan	1.03	0.82	1.21	<PQL	0.01
Ethyl Mercaptan	<PQL	<PQL	<PQL	<PQL	0.01
Dimethyl Sulfide	1.56	1.25	1.79	<PQL	0.01
n-Butyl mercaptan	<PQL	<PQL	<PQL	<PQL	0.01
Carbon Disulfide	<PQL	<PQL	<PQL	<PQL	0.01
Allyl Sulfide	<PQL	<PQL	<PQL	<PQL	0.01
Propyl Sulfide	<PQL	<PQL	<PQL	<PQL	0.01
Allyl disulfide	<PQL	<PQL	<PQL	<PQL	0.01
Isopropyl Mercaptan	<PQL	<PQL	<PQL	<PQL	0.01
t-Butyl mercaptan	<PQL	<PQL	<PQL	<PQL	0.01
Propyl Mercaptan	<PQL	<PQL	<PQL	<PQL	0.01
Butyl Sulfide	<PQL	<PQL	<PQL	<PQL	0.01
Ethyl methyl sulfide	<PQL	<PQL	<PQL	<PQL	0.01
Thiophene	<PQL	<PQL	<PQL	<PQL	0.01
Isobutyl mercaptan	<PQL	<PQL	<PQL	<PQL	0.01
Dimethyl disulfide	<PQL	<PQL	<PQL	<PQL	0.01
Allyl mercaptan	<PQL	<PQL	<PQL	<PQL	0.01
3-Methylthiophene	<PQL	<PQL	<PQL	<PQL	0.01
Tetrahydrothiophene	<PQL	<PQL	<PQL	<PQL	0.01
Diethyl sulfide	<PQL	<PQL	<PQL	<PQL	0.01
2-Ethylthiophene	<PQL	<PQL	<PQL	<PQL	0.01
2,5-Dimethylthiophene	<PQL	<PQL	<PQL	<PQL	0.01
Diethyl disulfide	<PQL	<PQL	<PQL	<PQL	0.01
Total Unidentified Sulfurs as H ₂ S	<PQL	<PQL	<PQL	<PQL	0.01
Total Sulfurs as H ₂ S	14.69	20.38	15.97	0.35	0.01

PQL = Practical Quantitation Limit (MDL x Analysis Dilution factor)

All compounds concentrations expressed in terms of H₂S.


Dr. Sucha Parmar
Technical Director





Atmospheric Analysis & Consulting, Inc.

Laboratory Analysis Report

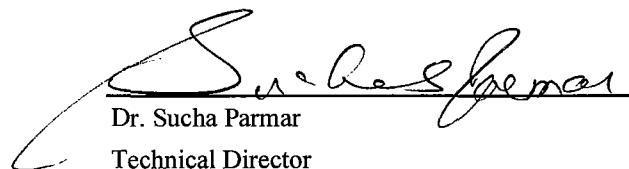
Client : Shaw Environmental, Inc.
Project No. : 070461
Matrix : AIR
Units : ppmv

Sampling Date : 05/02/2007
Receiving Date : 05/04/2007
Analysis Date : 05/04/2007
Report Date : 05/09/2007

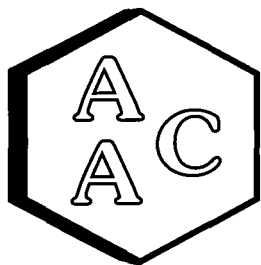
EPA Method 25C

<i>Detection Limit:</i>		1.0 ppmv
Client Sample ID	AAC ID	NMHC**
LFG R1	070461-25289	1239
LFG R2	070461-25290	1068
LFG R3	070461-25291	1242

**Non-Methane Hydrocarbons as Methane


Dr. Sucha Parmar
Technical Director





Atmospheric Analysis & Consulting, Inc.

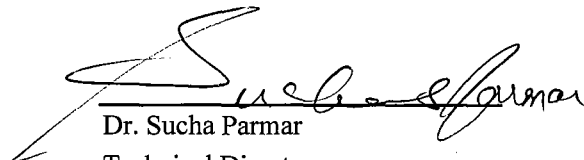
Laboratory Analysis Report

Client: : Shaw Environmental, Inc.
Project No. : 070461
Matrix : Air
Units : %

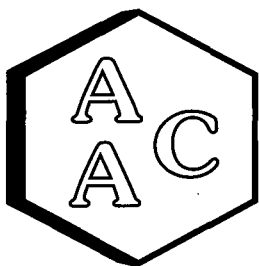
Sampling Date : 05/02/2007
Receiving Date : 05/04/2007
Analysis Date : 05/04/2007
Report Date : 05/09/2007

EPA Method 3C

Detection Limit: 0.1 %			Analyte				
Client ID	AAC ID	Hydrogen	Oxygen	Nitrogen	CO	Methane	CO2
LFG R1	070461-25289	<PQL	2.4	16.9	<PQL	46.6	34.1
LFG R2	070461-25290	<PQL	2.6	17.3	<PQL	46.1	34.0
LFG R3	070461-25291	<PQL	2.4	16.9	<PQL	46.5	34.2


Dr. Sucha Parmar
Technical Director





Atmospheric Analysis & Consulting, Inc.

Page 7

Laboratory Analysis Report

CLIENT: : Shaw Environmental, Inc.
PROJECT NO. : 070461
MATRIX : AIR
UNITS : PPMV

Sampling Date : 05/02/2007
Receiving Date : 05/04/2007
Analysis Date : 05/04/2007
Report Date : 05/09/2007

C1 to C6+ Hydrocarbons by EPA Method 18

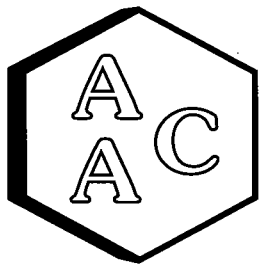
Client ID	AAC ID	ANALYSIS METHOD		EPA Method 18				
		Detection Limit		0.3 ppmv				
		C1 *	C2 **	C3	C4	C5	C6	C6+
LFG R1	070461-25289	NA	<100	50.8	20.7	22.4	34.9	74.0
LFG R2	070461-25290	NA	<100	23.9	9.6	11.9	18.9	49.8
LFG R3	070461-25291	NA	<100	52.3	20.4	23.8	36.6	83.0

* 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.

Quality Control/Quality Assurance Report

Date Analyzed: 05/04/07
Analyst: MH/TT

Instrument ID: SCD#2
Units: PPMV

I - Method Blank - ASTM D-5504

AAC ID	Analyte	MB Conc.
Method Blank	H2S	ND

II-Laboratory Control Spike & Duplicate - ASTM D-5504

Analyte	Spike Added	LCS Result	LCSD Result	LCS % Rec *	LCSD % Rec *	% RPD***
H2S	0.050	0.050	0.049	100	98	2.0

III-Matrix Spike & Duplicate- ASTM D-5504 (070462-25294)

Analyte	Sample Concentration	Spike Added	MS Result	MSD Result	MS % Rec **	MSD % Rec **	% RPD***
H2S	0.000	0.050	0.046	0.047	92	94	2.2

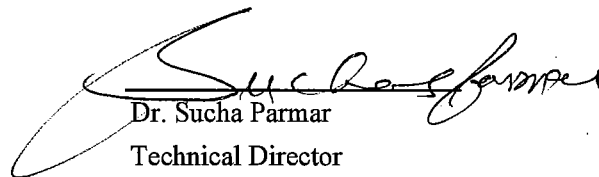
IV - Duplicate Analysis - ASTM D-5504 (070462-25294)

Analyte	Sample Concentration	Duplicate Concentration	Mean	% RPD***
H2S	0.00	0.00	0.00	NA

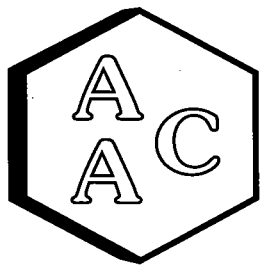
* Must be 90-110%

** Must be 85-115%

*** Must be < 10%


Dr. Sucha Parmar
Technical Director





Atmospheric Analysis & Consulting, Inc.

Quality Control/Quality Assurance Report

Date Analyzed: 5/4/2007
Analyst: MH/TT
Calibration Date: 4/19/2007

Instrument ID: SCD#2
Units: PPMV

Opening Calibration Verification Standard

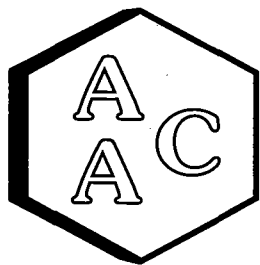
Analyte	Std. Conc.	Result	%Recovery*
H2S	0.050	0.050	100

Closing Calibration Verification Standard

Analyte	Std. Conc.	Result	%Recovery*
H2S	0.050	0.052	103

* Must be 90-110%





Atmospheric Analysis & Consulting, Inc.

Quality Control/Quality Assurance Report

Date Analyzed: 5/4/2007

Analyst: MH/TT

Instrument ID: TCD#1

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	20.0	21.6	100	108	7.6
	Nitrogen	20.0	20.3	19.6	101	98	3.3
	CO	20.0	19.2	18.8	96	94	1.7
	Methane	20.0	19.1	18.8	95	94	1.7
	CO2	20.0	19.3	19.5	97	97	0.8

III - Duplicate Analysis - EPA Method 3C

AAC ID	Analyte	Sample Concentration	Duplicate Concentration	Mean	% RPD***
070461-25289	Hydrogen	0.0	0.0	0.0	0.0
	Oxygen	2.3	2.3	2.3	0.7
	Nitrogen	16.0	16.5	16.3	3.4
	CO	0.0	0.0	0.0	0.0
	Methane	43.2	46.5	44.8	7.3
	CO2	31.6	34.0	32.8	7.4

IV-Matrix Spike & Duplicate- EPA Method 3C

AAC ID	Analyte	Sample Concentration	Spike Added	MS Result	MSD Result	MS % Rec **	MSD % Rec **	% RPD***
070461-25289	Hydrogen	0.0	10.0	9.2	8.7	92	87	5.6
	Nitrogen	8.1	10.0	19.0	19.8	108	117	7.8
	CO	0.0	10.0	10.0	9.7	100	97	2.7
	Methane	22.4	10.0	30.8	30.9	84	85	0.6
	CO2	16.4	10.0	25.4	25.3	90	89	1.1

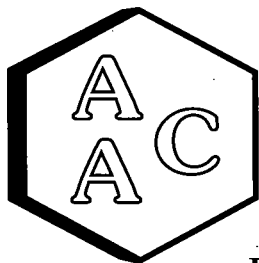
* Must be 85-115%

** Must be 75-125%

*** Must be < 25%

Dr. Sucha Parmar
Technical Director





Atmospheric Analysis & Consulting, Inc.

Quality Control/Quality Assurance Report

Date Analyzed: 5/4/2007

Instrument ID: TCD#1

Analyst: MH/TT

Calibration Date: 09/27/06

Opening Calibration Verification Standard

Analyte	xLR**	LR	%RPD*
Hydrogen	2128	2153	1.2
Oxygen***	58037	57560	0.8
Nitrogen	62209	64194	3.1
Carbon Monoxide	69067	66800	3.3
Methane	59891	56676	5.5
Carbon Dioxide	93158	90671	2.7

Closing Calibration Verification Standard

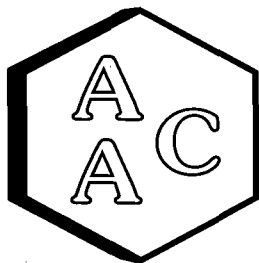
Analyte	xLR**	LR	%RPD*
Hydrogen	2128	2125	0.1
Nitrogen	62209	64850	4.2
Carbon Monoxide	69067	66316	4.1
Methane	59891	56355	6.1
Carbon Dioxide	93158	90216	3.2

* Must be <15%

** Linear Response Factor from Initial Calibration Curve

*** Oxygen from Lab Air





Atmospheric Analysis & Consulting, Inc.

Quality Control/Quality Assurance Report

Date Analyzed: 5/4/2007

Analyst: MH/TT

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	103.0	102.6	102.6	102.2	0.4
	Ethane	100.2	108.3	108.2	108.1	108.0	0.1
	Propane	100.2	107.2	108.0	107.0	107.7	0.7
	Butane	100.4	107.3	107.2	106.9	106.7	0.1
	Pentane	100.0	104.1	104.1	104.1	104.1	0.0
	Hexane	99.4	99.7	100.9	100.3	101.5	1.2

III - Duplicate Analysis - EPA Method 18

AAC ID	Analyte	Sample Concentration	Duplicate Concentration	Mean	% RPD***
070461-25290 (500x)	Methane	580115.5	589685.5	584900.5	1.6
	Ethane	0.0	0.0	0.0	0.0
	Propane	0.0	0.0	0.0	0.0
	Butane	0.0	0.0	0.0	0.0
	Pentane	0.0	0.0	0.0	0.0
	Hexane	0.0	0.0	0.0	0.0

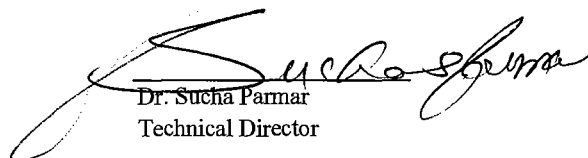
IV-Matrix Spike & Duplicate- EPA Method 18

AAC ID	Analyte	Sample Concentration	Spike Added	MS Result	MSD Result	MS % Rec **	MSD % Rec **	% RPD***
070461-25290 (500x)	Methane	584.9	250.0	823.4	829.4	95	98	2.4
	Ethane	0.0	250.0	248.0	248.4	99	99	0.1
	Propane	0.0	250.0	248.5	250.9	99	100	0.9
	Butane	0.0	250.0	248.5	250.1	99	100	0.7
	Pentane	0.0	250.0	244.4	246.6	98	99	0.9
	Hexane	0.0	250.0	241.6	246.5	97	99	2.0

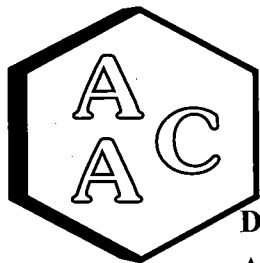
* Must be 85-115%

** Must be 75-125%

*** Must be < 25%


Dr. Sucha Parmar
Technical Director





Atmospheric Analysis & Consulting, Inc.

Quality Control/Quality Assurance Report

Date Analyzed: 5/4/2007

Instrument ID: FID#3

Analyst: MH/TT

Calibration Date: 03/14/07

Opening Calibration Verification Standard

Analyte	xCF**	CF	%RPD*
C1	691	708	2.5
C2	1275	1396	9.0
C3	1915	2062	7.4
C4	2523	2715	7.3
C5	3101	3301	6.2
C6	3538	3763	6.2

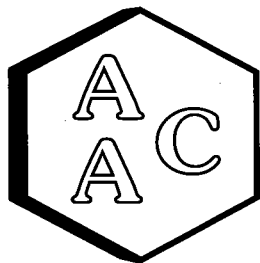
Closing Calibration Verification Standard

Analyte	xCF**	CF	%RPD*
C1	691	690	0.1
C2	1275	1329	4.1
C3	1915	1967	2.7
C4	2523	2572	1.9
C5	3101	3096	0.2
C6	3538	3445	2.7

* Must be <15%

** Average Calibration Factor from Initial Calibration Curve





Atmospheric Analysis & Consulting, Inc.

Quality Control/Quality Assurance Report

Analysis Date: 5/4/2007

Analyst: MH/TT

Units: ppmv

Instrument ID: FID#9

Calibration Date: 3/3/2007

I - Opening Calibration Verification Standard - Method 25C

Analyte	xCF	dCF	%RPD*
CO	11436	10289	10.6
CH4	9857	9883	0.3
CO2	9917	9774	1.5
Propane	26378	25208	4.5

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	52.8	47.7	105.6	95.4	10.2

IV - Closing Calibration Verification Standard - Method 25C

Analyte	xCF	dCF	%RPD*
CO	11436	10375	9.7
CH4	9857	9693	1.7
CO2	9917	9662	2.6
Propane	26378	25576	3.1

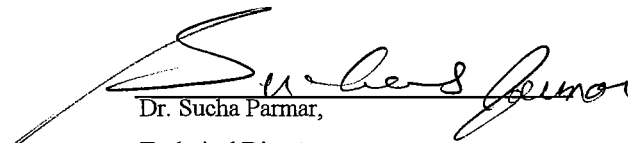
xCF - Average Calibration Factor from Initial Calibration Curve

dCF - Daily Calibration Factor

* Must be <15%

** Must be 90-110 %

*** Must be <20%


Dr. Sucha Parmar,
Technical Director



Laboratory

Shaw Environmental Chain Of Custody Record

070401

AAC

1534 Eastman Ave

Ventura, CA 93003

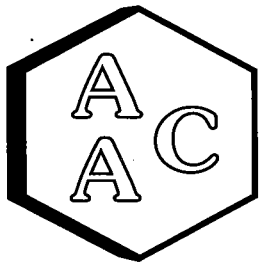
CLIENT

Anderson Landfill

DATE: 5/3/07

PAGE: 1 of 1

SAMPLING COMPANY: Shaw Environmental, Inc.		LOG CODE:		SITE ADDRESS (Street and City):																																																																																																																																																																																								
ADDRESS: 2360 Bering San Jose, CA 95131		EDF DELIVERABLE TO (Responsible Party or Designee):		PHONE NO.:		E-MAIL:																																																																																																																																																																																						
PROJECT CONTACT (Hardcopy or PDF Report to): Bill Johnston		SAMPLER NAME(S) (Print):				CONSULTANT PROJECT NO. 15																																																																																																																																																																																						
TELEPHONE: 408.382.5800	FAX: 408.433.1912	E-MAIL:																																																																																																																																																																																										
TURNAROUND TIME (BUSINESS DAYS): ☐ 10 DAYS ☐ 5 DAYS ☐ 72 HOURS ☐ 48 HOURS ☐ 24 HOURS ☐ LESS THAN 24 HOURS				REQUESTED ANALYSIS																																																																																																																																																																																								
SPECIAL INSTRUCTIONS OR NOTES: Report NMOC as Methane				FIELD NOTES: Container/Preservative or PID Readings or Laboratory Notes																																																																																																																																																																																								
<table border="1"> <thead> <tr> <th rowspan="2">LAB USE ONLY</th> <th rowspan="2">Field Sample Identification</th> <th colspan="2">SAMPLING</th> <th rowspan="2">MATRIX</th> <th rowspan="2">NO. OF CONT.</th> <th rowspan="2">C₁-C₆</th> <th rowspan="2">HHV & F-factor</th> <th rowspan="2">Fixed gases O₂, CO₂, N₂</th> <th rowspan="2">VOCs, TO 15</th> <th rowspan="2">Sulfurs, ASTM D5504</th> <th rowspan="2">H₂S</th> <th rowspan="2">LFG NMOC, EPA 25C</th> <th rowspan="2">Compound List attached</th> <th rowspan="2"></th> <th rowspan="2"></th> <th rowspan="2"></th> </tr> <tr> <th>DATE</th> <th>TIME</th> </tr> </thead> <tbody> <tr> <td></td> <td>LFG R1</td> <td>5/2</td> <td>0900</td> <td>Bag</td> <td>1</td> <td>X</td> <td>X</td> <td>X</td> <td></td> <td>X</td> <td></td> <td>X</td> <td></td> <td></td> <td></td> <td></td> <td>25289</td> </tr> <tr> <td></td> <td>LFG R2</td> <td>1</td> <td>1015</td> <td></td> <td>1</td> <td>X</td> <td>X</td> <td>X</td> <td></td> <td>X</td> <td></td> <td>X</td> <td></td> <td></td> <td></td> <td></td> <td>25290</td> </tr> <tr> <td></td> <td>LFG R3</td> <td>1</td> <td>1200</td> <td></td> <td>1</td> <td>X</td> <td>X</td> <td>X</td> <td></td> <td>X</td> <td></td> <td>X</td> <td></td> <td></td> <td></td> <td></td> <td>25291</td> </tr> <tr> <td></td> <td>Outlet R2</td> <td>1</td> <td>1015</td> <td></td> <td>1</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td>X</td> <td></td> <td></td> <td></td> <td>25292</td> </tr> <tr> <td></td> <td>Outlet Dug</td> <td>1</td> <td></td> <td>N</td> <td>1</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td>analyze if necessary 25293</td> </tr> <tr><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr> <tr><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr> <tr><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr> <tr><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr> </tbody> </table>				LAB USE ONLY	Field Sample Identification	SAMPLING		MATRIX	NO. OF CONT.	C ₁ -C ₆	HHV & F-factor	Fixed gases O ₂ , CO ₂ , N ₂	VOCs, TO 15	Sulfurs, ASTM D5504	H ₂ S	LFG NMOC, EPA 25C	Compound List attached				DATE	TIME		LFG R1	5/2	0900	Bag	1	X	X	X		X		X					25289		LFG R2	1	1015		1	X	X	X		X		X					25290		LFG R3	1	1200		1	X	X	X		X		X					25291		Outlet R2	1	1015		1								X				25292		Outlet Dug	1		N	1												analyze if necessary 25293																																																																												
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	LFG R3	1	1200		1	X	X	X		X		X					25291																																																																																																																																																																											
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Relinquished by: (Signature) <i>WRJ</i>						Received by: (Signature) <i>Anderson</i>						Date: 5/4/07		Time: 840																																																																																																																																																																														



Atmospheric Analysis & Consulting, Inc.

CLIENT : Shaw Environmental, Inc.
PROJECT NAME : Anderson Landfill
AAC PROJECT NO. : 070461
REPORT DATE : 05/04/07

On May 4, 2007, Atmospheric Analysis & Consulting, Inc. received one (1) Tedlar Bag for Volatile Organic Compounds analysis by EPA Method TO-15. Upon receipt the sample was assigned unique a Laboratory ID number as follows:

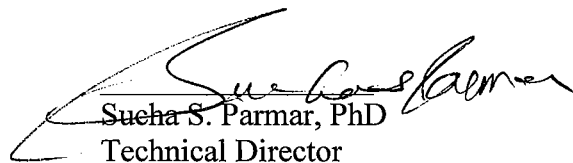
Client ID	Lab ID
Outlet R2	070461-25292

TO-14/15 Analysis - Up to a 500 ml aliquot of samples is concentrated, put through a water and CO₂ management system, cryofocused and injected into the GC/MS (full scan mode) for analysis following EPA Method TO-14/15 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-14/15. Estimated uncertainty of the test results will be provided upon request.

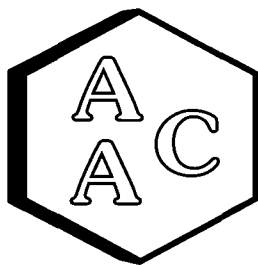
I certify that this data is technically accurate, complete and in compliance with the terms and conditions of the contract. The Laboratory Director or his designee, as verified by the following signature, has authorized the release of the data contained in this hardcopy data package.

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


Sueha S. Parmar, PhD
Technical Director

This report consists of 11 pages.





Atmospheric Analysis & Consulting, Inc.

Laboratory Analysis Report

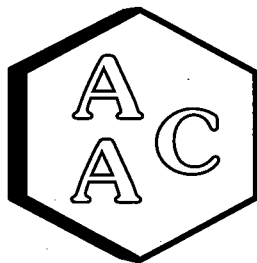
CLIENT : Shaw Environmental, Inc.
PROJECT NO : 070461
MATRIX : AIR
UNITS : PPB (v/v)

DATE RECEIVED : 05/04/07
DATE REPORTED : 05/04/07

VOLATILE ORGANIC COMPOUNDS BY EPA TO-15

Client ID	Outlet R2			Sample Reporting Limit (RLxDf's)	Method Reporting Limit
AAC ID	070461-25292				
Date Sampled	5/2/2007				
Date Analyzed	5/4/2007				
Can Dilution Factor	1.00				
	Result	Qualifier	Dil. Fac.		
Chlorodifluoromethane	ND	U	2.0	2.0	1.0
Propylene	ND	U	2.0	2.0	1.0
Dichlorodifluoromethane	ND	U	2.0	2.0	1.0
Chloromethane	ND	U	2.0	2.0	1.0
1,2-Dichloro-1,1,2,2-Tetrafluoroethane	ND	U	2.0	2.0	1.0
Vinyl Chloride	ND	U	2.0	2.0	1.0
Methanol	ND	U	2.0	10.0	5.0
1,3-Butadiene	ND	U	2.0	2.0	1.0
Bromomethane	ND	U	2.0	2.0	1.0
Chloroethane	ND	U	2.0	2.0	1.0
Dichlorofluoromethane	ND	U	2.0	2.0	1.0
Ethanol	ND	U	2.0	4.0	2.0
Vinyl Bromide	ND	U	2.0	2.0	1.0
Acetone	59.4		2.0	4.0	2.0
Trichlorofluoromethane	ND	U	2.0	2.0	1.0
Isopropyl Alcohol	ND	U	2.0	4.0	2.0
Acrylonitrile	ND	U	2.0	2.0	1.0
1,1-Dichloroethylene	ND	U	2.0	2.0	1.0
Methylene Chloride	ND	U	2.0	2.0	1.0
Allyl Chloride (Chloroprene)	ND	U	2.0	2.0	1.0
Carbon Disulfide	2.6		2.0	2.0	1.0
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	U	2.0	2.0	1.0
t-1,2-Dichloroethylene	ND	U	2.0	2.0	1.0
1,1-Dichloroethane	ND	U	2.0	2.0	1.0
MTBE	ND	U	2.0	2.0	1.0
Vinyl Acetate	ND	U	2.0	2.0	1.0
2-Butanone (MEK)	7.2		2.0	2.0	1.0
cis-1,2- Dichloroethene	ND	U	2.0	2.0	1.0
Hexane	19.1		2.0	2.0	1.0
Chloroform	ND	U	2.0	2.0	1.0
Ethyl Acetate	ND	U	2.0	2.0	1.0
Tetrahydrofuran	ND	U	2.0	2.0	1.0
1,2-Dichloroethane	ND	U	2.0	2.0	1.0
1,1,1-Trichloroethane	ND	U	2.0	2.0	1.0





Atmospheric Analysis & Consulting, Inc.

Laboratory Analysis Report

CLIENT : Shaw Environmental, Inc.
PROJECT NO : 070461
MATRIX : AIR
UNITS : PPB (v/v)

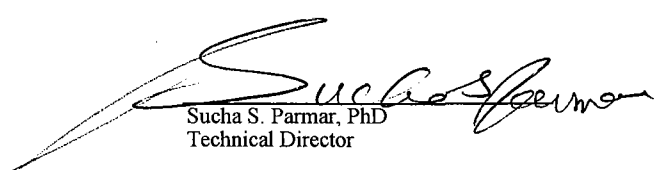
DATE RECEIVED : 05/04/07
DATE REPORTED : 05/04/07

VOLATILE ORGANIC COMPOUNDS BY EPA TO-15

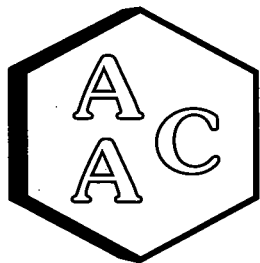
Client ID	Outlet R2			Sample Reporting Limit (RLxDF's)	Method Reporting Limit
AAC ID	070461-25292				
Date Sampled	5/2/2007				
Date Analyzed	5/4/2007				
Can Dilution Factor	1.00				
	Result	Qualifier	Dil. Fac.		
Benzene	ND	U	2.0	2.0	1.0
Carbon Tetrachloride	ND	U	2.0	2.0	1.0
Cyclohexane	ND	U	2.0	2.0	1.0
1,2-Dichloropropane	ND	U	2.0	2.0	1.0
Bromodichloromethane	ND	U	2.0	2.0	1.0
1,4-Dioxane	ND	U	2.0	2.0	1.0
Trichloroethene	ND	U	2.0	2.0	1.0
2,2,4-Trimethylpentane	ND	U	2.0	2.0	1.0
Heptane	2.1		2.0	2.0	1.0
cis-1,3-Dichloropropene	ND	U	2.0	2.0	1.0
4-Methyl-2-Pentanone (MiBK)	ND	U	2.0	2.0	1.0
t-1,3-Dichloropropene	ND	U	2.0	2.0	1.0
1,1,2-Trichloroethane	ND	U	2.0	2.0	1.0
Toluene	9.1		2.0	2.0	1.0
2-Hexanone	ND	U	2.0	2.0	1.0
Dibromochloromethane	ND	U	2.0	2.0	1.0
1,2-Dibromoethane	ND	U	2.0	2.0	1.0
Tetrachloroethylene	ND	U	2.0	2.0	1.0
Chlorobenzene	ND	U	2.0	2.0	1.0
Ethylbenzene	2.2		2.0	2.0	1.0
m- & p-Xylenes	4.4		2.0	4.0	2.0
Bromoform	ND	U	2.0	6.0	3.0
Styrene	ND	U	2.0	2.0	1.0
1,1,2,2-Tetrachloroethane	ND	U	2.0	2.0	1.0
o-Xylene	ND	U	2.0	2.0	1.0
4-Ethyltoluene	ND	U	2.0	2.0	1.0
1,3,5-Trimethylbenzene	ND	U	2.0	2.0	1.0
1,2,4-Trimethylbenzene	ND	U	2.0	2.0	1.0
Benzyl Chloride	ND	U	2.0	10.0	5.0
1,3-Dichlorobenzene	ND	U	2.0	2.0	1.0
1,4-Dichlorobenzene	ND	U	2.0	2.0	1.0
1,2-Dichlorobenzene	ND	U	2.0	2.0	1.0
1,2,4-Trichlorobenzene	ND	U	2.0	2.0	1.0
Hexachlorobutadiene	ND	U	2.0	2.0	1.0
Formaldehyde*	ND	U	2.0	2.0	1.0
BFB-Surrogate Std. % Recovery	99%				70-130%

U - Compound was analyzed for, but was not detected.

* TIC search.


Sucha S. Parmar, PhD
Technical Director





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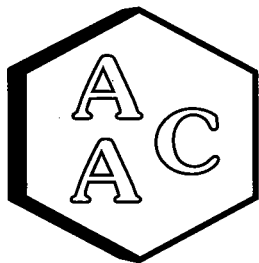
ANALYSIS DATE : 05/04/07
ANALYST : JJG

INSTRUMENT ID : GC/MS-01
STD ID : PS040407-01

VOLATILE ORGANIC COMPOUNDS BY EPA METHOD TO-14/TO-15
Continuing Calibration Verification of the 05/03/07 Calibration

Compounds	Conc	Daily Conc	%REC
4-BFB (surrogate standard)***	20	20.78	104
Chlorodifluoromethane*	10	8.49	85
Propylene*	10	9.15	92
DiCIDIFMethane*	10	8.98	90
CHLOROMETHANE*	10	8.29	83
1,2 DiCl-1,1,2,2-TetraFEthane*	10	8.81	88
VINYL CHLORIDE*	10	8.56	86
Methanol*	10	7.45	75
1,3-Butadiene*	10	8.54	85
BROMOMETHANE*	10	8.71	87
CHLOROETHANE*	10	8.71	87
Dichlorofluoromethane*	10	9.05	91
Ethanol*	10	9.24	92
Vinyl Bromide*	10	8.93	89
Acetone*	10	7.89	79
TRICHLOROFLUOROMETHANE*	10	8.78	88
Isopropanol*	10	8.82	88
Acrylonitrile*	10	9.54	95
1,1 DICHLOROETHENE*	10	9.75	98
METHYLENE CHLORIDE*	10	8.96	90
Allyl CHLORIDE*	10	10.27	103
Carbon disulfide*	10	9.88	99
1,1,2-TRICHLORO-1,2,2-TRIFLUO	10	8.95	90
trans-1,2- DICHLOROETHYLENE*	10	9.88	99
1,1- DICHLOROETHANE*	10	9.37	94
MTBE*	10	8.03	80
Vinyl Acetate*	10	8.28	83
MEK*	10	10.02	100
cis-1,2- DICHLOROETHYLENE*	10	10.38	104
Hexane*	10	9.65	97
CHLOROFORM*	10	9.46	95
Ethyl Acetate*	10	9.70	97
Tetrahydrofuran*	10	9.19	92
1,2-DICHLOROETHANE*	10	9.89	99
1,1,1-TRICHLOROETHANE*	10	9.58	96





Atmospheric Analysis & Consulting, Inc.

ANALYSIS DATE : 05/04/07
ANALYST : JIG

INSTRUMENT ID : GC/MS-01
STD ID : PS040407-01

VOLATILE ORGANIC COMPOUNDS BY EPA METHOD TO-14/TO-15

Continuing Calibration Verification of the 05/03/07 Calibration

Compounds	Conc	Daily Conc	%REC
BENZENE**	10	10.11	101
CARBON TETRACHLORIDE**	10	9.62	96
Cyclohexane**	10	9.92	99
1,2-DICHLOROPROPANE**	10	9.98	100
Bromodichloromethane**	10	10.00	100
1,4-Dioxane**	10	10.48	105
TRICHLOROETHENE**	10	9.65	97
2,2,4-Trimethylpentane**	10	9.99	100
Heptane**	10	10.68	107
cis- 1,3 DICHLOROPROPENE**	10	8.40	84
MiBK**	10	10.29	103
trans 1,3 DICHLOROPROPENE**	10	8.01	80
1,1,2-TRICHLOROETHANE**	10	9.81	98
TOLUENE**	10	8.94	89
2-Hexanone**	10	10.70	107
Dibromochloromethane**	10	10.37	104
1,2 DIBROMOETHANE**	10	10.20	102
TETRACHLOROETHYLENE**	10	10.08	101
CHLOROBENZENE***	10	9.56	96
ETHYLBENZENE***	10	9.60	96
m-, & p- XYLENES***	20	17.93	90
Bromoform***	10	8.56	86
STYRENE***	10	8.73	87
1,1, 2,2- TETRACHLORETHANE**	10	9.89	99
o- XYLENE***	10	9.07	91
Ethyltoluene***	10	9.84	98
1,3,5- TRIMETHYLBENZENE***	10	9.45	95
1,2,4- TRIMETHYLBENZENE***	10	9.29	93
Benzyl Chloride***	10	8.25	83
1,3- DICHLOROBENZENE***	10	10.26	103
1,4- DICHLOROBENZENE***	10	10.42	104
1,2-DICHLOROBENZENE***	10	10.66	107
1,2,4-TRICHLOROBENZENE***	10	8.27	83
HEXACHLOROBUTADIENE***	10	9.27	93

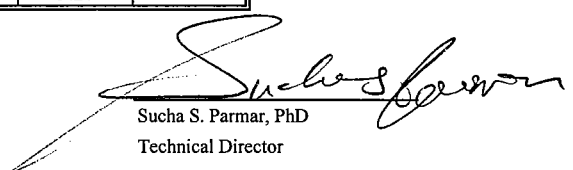
* Internal std calculation IS1 : Bromochloromethane

** Internal std calculation IS2 : 1,4-Difluorobenzene

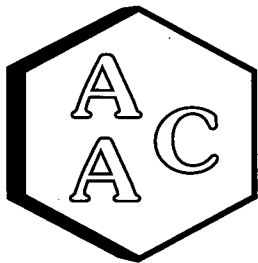
*** Internal std calculation IS3 : Chlorobenzene-d5

%REC should be 70-130%

!! Compound failed criteria and results should be considered estimated.


Sucha S. Parmar, PhD
Technical Director





Atmospheric Analysis & Consulting, Inc.

Quality Control/Quality Assurance Report

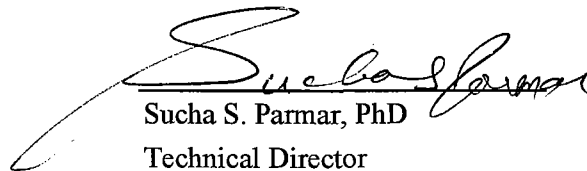
CLIENT ID : Laboratory Control Spike DATE ANALYZED : 05/04/07
AAC ID : LCS/LCSD DATE REPORTED : 05/04/07
MEDIA : Air UNITS : ppbv

TO-14/15 Laboratory Control Spike Recovery

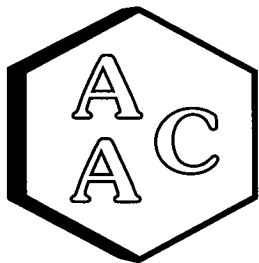
Compound	Sample Conc.	Spike Added	Spike Res	Dup Spike Res	Spike % Rec *	Spike Dup % Rec *	RPD** %
1,1-DICHLOROETHYLENE	0.0	10.00	9.75	9.96	97	100	2.1
METHYLENE CHLORIDE	0.0	10.00	8.96	9.39	90	94	4.7
BENZENE	0.0	10.00	10.11	10.48	101	105	3.6
TRICHLOROETHENE	0.0	10.00	9.65	10.00	96	100	3.6
TOLUENE	0.0	10.00	8.94	9.27	89	93	3.6
TETRACHLOROETHYLENE	0.0	10.00	10.08	10.57	101	106	4.7
CHLOROBENZENE	0.0	10.00	9.56	9.76	96	98	2.1
ETHYLBENZENE	0.0	10.00	9.60	9.87	96	99	2.8
m-, & p- XYLENES	0.0	20.00	17.93	18.33	90	92	2.2
o- XYLENE	0.0	10.00	9.07	9.28	91	93	2.3

* Must be 70-130%

** Must be < 25%


Sucha S. Parmar, PhD
Technical Director





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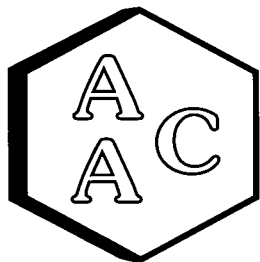
Method Blank Analysis Report

MATRIX : AIR ANALYSIS DATE : 05/04/07
UNITS : ppbv REPORT DATE : 05/04/07

VOLATILE ORGANIC COMPOUNDS BY EPA TO-14/TO-15

Client ID AAC ID	Method Blank MB 050407	RL
Chlorodifluoromethane*	<RL	1.0
Propylene*	<RL	1.0
DiCIDI Methane*	<RL	1.0
CHLOROMETHANE*	<RL	1.0
1,2 DiCl-1,1,2,2-TetraF Ethane*	<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





Atmospheric Analysis & Consulting, Inc.

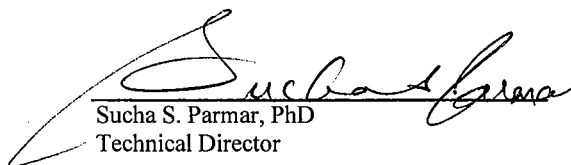
Method Blank Analysis Report

MATRIX : AIR ANALYSIS DATE : 05/04/07
UNITS : ppbv REPORT DATE : 05/04/07

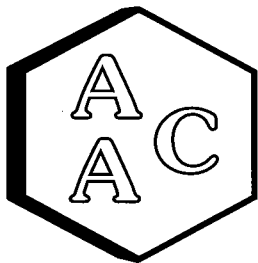
VOLATILE ORGANIC COMPOUNDS BY EPA TO-14/TO-15

Client ID AAC ID	Method Blank MB 050407	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	95%	--

RL - Reporting Limit


Sucha S. Parmar, PhD
Technical Director





Atmospheric Analysis & Consulting, Inc.

Quality Control/Quality Assurance Report

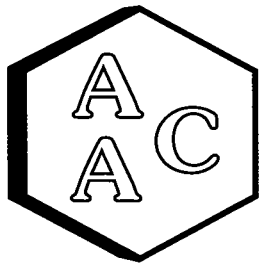
AAC ID : 070461-25292
MATRIX : Air

DATE ANALYZED : 05/04/07
DATE REPORTED : 05/04/07
UNITS : ppbv

TO-14/TO-15 Duplicate Analysis

Compound	Sample Conc	Duplicate Conc	% RPD
Chlorodifluoromethane*	<RL	<RL	0.0
Propylene*	<RL	<RL	0.0
DiCIDIFMethane*	<RL	<RL	0.0
CHLOROMETHANE*	<RL	<RL	0.0
1,2 DiCl-1,1,2,2-TetraFEthane*	<RL	<RL	0.0
VINYL CHLORIDE*	<RL	<RL	0.0
Methanol*	<RL	<RL	0.0
1,3-Butadiene*	<RL	<RL	0.0
BROMOMETHANE*	<RL	<RL	0.0
CHLOROETHANE*	<RL	<RL	0.0
Dichlorofluoromethane	<RL	<RL	0.0
Ethanol*	<RL	<RL	0.0
Vinyl Bromide*	<RL	<RL	0.0
Acetone*	59.4	63.5	6.7
TRICHLOROFLUOROMETHANE*	<RL	<RL	0.0
Isopropyl Alcohol*	<RL	<RL	0.0
Acrylonitrile*	<RL	<RL	0.0
1,1 DICHLOROETHENE*	<RL	<RL	0.0
METHYLENE CHLORIDE*	<RL	<RL	0.0
Allyl CHLORIDE*	<RL	<RL	0.0
Carbon disulfide*	2.6	3.0	13.3
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*	7.2	7.7	6.8
cis-1,2- DICHLOROETHYLENE*	<RL	<RL	0.0
Hexane*	19.1	18.6	2.7
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





Atmospheric Analysis & Consulting, Inc.

Quality Control/Quality Assurance Report

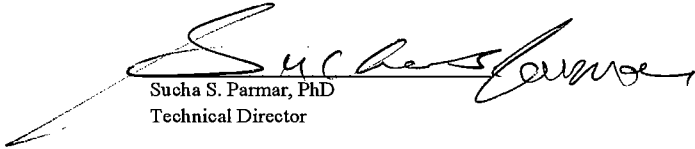
AAC ID : 070461-25292
MATRIX : Air

DATE ANALYZED : 05/04/07
DATE REPORTED : 05/04/07
UNITS : ppbv

TO-14/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**	2.1	2.1	1.4
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**	9.1	9.3	2.0
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***	2.2	2.4	5.7
m-, & p- XYLENES***	4.4	4.7	5.9
Bromoform***	<RL	<RL	0.0
STYRENE***	<RL	<RL	0.0
1,1,2,2-TETRACHLOROETHANE***	<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	99%	96%	3.0

RL - Reporting Limit


Sucha S. Parmar, PhD
Technical Director



Shaw Environmental Chain Of Custody Record

070421

1534 Eastman Ave
Ventura, CA 93003

CLIENT:

Anderson Landfill

DATE: 5/3/07

PAGE: 1 of 1

Page 111

SAMPLING COMPANY: Shaw Environmental, Inc.		LOG CODE:		SITE ADDRESS (Street and City):		EDF DELIVERABLE TO (Responsible Party or Designee):		PHONE NO.:		E-MAIL:		CONSULTANT PROJECT NO.:																																																																																																																																															
ADDRESS: 2360 Bering San Jose, CA 95131		PROJECT CONTACT (Hardcopy or PDF Report to): Bill Johnston		SAMPLER NAME(S) (Print):																																																																																																																																																							
TELEPHONE: 408.382.5800		FAX: 408.433.1912		E-MAIL:																																																																																																																																																							
TURNAROUND TIME (BUSINESS DAYS): ☐ 10 DAYS ☐ 5 DAYS ☐ 72 HOURS ☐ 48 HOURS ☐ 24 HOURS ☐ LESS THAN 24 HOURS				REQUESTED ANALYSIS																																																																																																																																																							
SPECIAL INSTRUCTIONS OR NOTES: Report NMOC as Methane				FIELD NOTES: Container/Preservative or PID Readings or Laboratory Notes																																																																																																																																																							
<table border="1"> <thead> <tr> <th rowspan="2">LAB USE ONLY</th> <th rowspan="2">Field Sample Identification</th> <th colspan="2">SAMPLING</th> <th rowspan="2">MATRIX</th> <th rowspan="2">NO. OF CONT.</th> <th rowspan="2">C-C₂</th> <th rowspan="2">HHV & F-factor</th> <th rowspan="2">Fixed gases O₂, CO₂, N₂</th> <th rowspan="2">VOCs, TO 15</th> <th rowspan="2">Sulfurs, ASTM D5504</th> <th rowspan="2">H₂S</th> <th rowspan="2">LFG NMOC, EPA 25C</th> <th rowspan="2">Compound List attached</th> </tr> <tr> <th>DATE</th> <th>TIME</th> </tr> </thead> <tbody> <tr> <td></td> <td>LFG R1</td> <td>5/2</td> <td>0900</td> <td>Bag</td> <td>1</td> <td>X</td> <td>X</td> <td>X</td> <td>X</td> <td>X</td> <td>X</td> <td></td> <td></td> </tr> <tr> <td></td> <td>LFG R2</td> <td>1</td> <td>1015</td> <td></td> <td>1</td> <td>X</td> <td>X</td> <td>X</td> <td>X</td> <td>X</td> <td>X</td> <td></td> <td></td> </tr> <tr> <td></td> <td>LFG R3</td> <td>1</td> <td>1200</td> <td></td> <td>1</td> <td>X</td> <td>X</td> <td>X</td> <td>X</td> <td>X</td> <td>X</td> <td></td> <td></td> </tr> <tr> <td></td> <td>Outlet R2</td> <td>1</td> <td>1015</td> <td></td> <td>1</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td>X</td> <td></td> </tr> <tr> <td></td> <td>Outlet Dug</td> <td>1</td> <td></td> <td></td> <td>1</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> </tbody> </table>				LAB USE ONLY	Field Sample Identification	SAMPLING		MATRIX	NO. OF CONT.	C-C ₂	HHV & F-factor	Fixed gases O ₂ , CO ₂ , N ₂	VOCs, TO 15	Sulfurs, ASTM D5504	H ₂ S	LFG NMOC, EPA 25C	Compound List attached	DATE	TIME		LFG R1	5/2	0900	Bag	1	X	X	X	X	X	X				LFG R2	1	1015		1	X	X	X	X	X	X				LFG R3	1	1200		1	X	X	X	X	X	X				Outlet R2	1	1015		1							X			Outlet Dug	1			1																																																																										
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Appendix E
ARB Independent Contractor Program Certification and
Source Test Protocol

State of California
Air Resources Board
Approved Independent Contractor

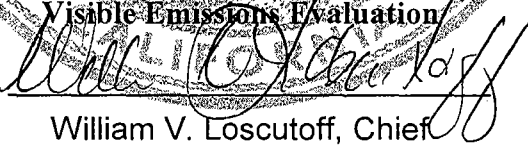
Shaw Environmental, Inc.

This is to certify that the company listed above has been approved
by the Air Resources Board to conduct compliance testing
pursuant to section 91207, title 17, California Code of Regulations,
until June 30, 2007 for those test methods listed below:

ARB Source Test Methods:

1, 2, 3, 4, 5, 8, 100 (CO, CO₂, NO_x, O₂, SO₂, THC)

Visible Emissions Evaluation



William V. Loscutt, Chief
Monitoring and Laboratory Division



Shaw Environmental, Inc.
2360 Bering Drive
San Jose, California 95131
408-382-5800
FAX: 408-433-1912

Date: April 13, 2007

To: Shasta County Department of Resource Management Air Quality Management District

**SOURCE TEST PROTOCOL
FOR
ANDERSON LANDFILL INC., ANDERSON LANDFILL
ENCLOSED GAS FLARE**

Shaw Environmental, Inc. will perform compliance testing on one flare located at Anderson Landfill Inc.'s (ALI's) Anderson Landfill in Anderson, California. The purpose of the test is to demonstrate performance of the landfill gas (LFG) flare as specified by Shasta County Department of Resource Management Air Quality Management District (District) Authority To Construct (ATC) number 06-PO-06 and the Federal New Source Performance Standards (NSPS), Subpart WWW. This protocol is to inform the District of the planned test date and testing procedures. Shaw Environmental is approved by the California Air Resources Board (ARB) as an independent contractor to conduct compliance emission testing.

Source Test Information

Test Location:	Waste Management Anderson Landfill Anderson, CA 96007	Contact: Greg Anderson: Tel: (530) 227-6629
Source Tested:	Flare	
Test Objective:	Determine compliance with (ATC) number 06-PO-06. Determine Compliance with the Federal New Source Performance Standards (NSPS), Subpart WWW [40 CFR 60.752(b)(2)(iii)(B); 40 CFR 60.754(d)]	Flare Emission Limits: NMOC: 20 ppm as hexane or 98% removal by weight NOx: 0.06 lb/MMBtu CO: 0.030 lb/MMBtu Flare Temperature: > 1,400 °F
Test Date:	May 2 nd , 2007	
Test Performed By:	Shaw Environmental, Inc. 2360 Bering Drive San Jose, CA 95131	Contact: William R. Johnston Tel: (408) 382-5822
Test Parameters:	<i>Inlet</i> O ₂ , CO ₂ , N ₂ , HHV, CH ₄ , NMOC, H ₂ S, LFG rate <i>Outlet</i> Compounds listed in California Health and Safety Code Section 41805.5(i)(6), NMOC, NOx, CO, O ₂ , stack gas flow rate	

SOURCE DESCRIPTION

Landfill Gas Flare Source Test

The flare source test shall demonstrate compliance with ATC 06-PO-06 according to the test matrix. A gas stratification check will be performed as part of the source test procedures.

Landfill Gas:

- Determine LFG flow rate (dry basis);
- LFG analysis is not required for the performance test. As requested by ALI, triplicate samples will be collected and analyzed of the LFG. The LFG shall be analyzed for Higher Heating Value (HHV), Hydrogen Sulfide (H₂S), Carbon Dioxide (CO₂), Nitrogen (N₂), Oxygen (O₂), Methane (CH₄), and non-methane organic compounds (NMOC);

Stack Exhaust:

- Triplicate 1-hour runs will be performed;
- Stack gas flow rate from the flare using EPA Method 19 or equivalent (dry basis);
- Concentrations (dry basis) of NMOC, CO, NO_x, and O₂ in the flare stack gas;
- A characterization of the LFG for all compounds listed in California Health and Safety Code Section 41805.5(i)(6). Only one of the samples will be analyzed for these compounds. All concentrations shall be reported on a dry basis.

Source Parameters:

- NMOC destruction efficiency/exhaust outlet concentration achieved by the flare; and
- Record the average LFG flow rate and combustion zone temperature in the flare during the test period.

Test Matrix, Anderson LFG and Flare

Sample Parameter	Test Method	Runs	Test Duration
LFG Parameters- Flare Inlet			
Fuel factor	EPA Method 19	3	1 Hour
H ₂ S	ASTM D5504	3	1 Hour
Fixed gases ¹	ASTM D1945, EPA Method 18	3	1 Hour
NMOC	EPA Method 25 C	3	1 Hour
Source Parameters-Flare Exhaust			
Volumetric flow rate	EPA Method 19	3	1 Hour
Parameter Compounds ²	EPA Method TO 15	1	1 Hour
O ₂	EPA Method 3A	3	1 Hour
NMOC	EPA Method 25A	3	1 Hour
CO	EPA Method 10	3	1 Hour
NO _x	EPA Method 7E	3	1 Hour

¹ Fixed gases include HHV, CO₂, N₂, O₂, THC, CH₄, and NMOC.

² Compounds listed in California Health and Safety Code Section 41805.5(i)(6).

Permit Limits

The source test on the LFG flare will demonstrate the following limits:

- Emissions of NO_x shall not exceed 0.06 pounds per million BTU (lb/MMBtu);
- Emissions of CO shall not exceed 0.30 lb/MMBtu; and
- The flare destruction efficiency of NMOC shall not be less than 98 percent by weight, unless the outlet NMOC concentration is less than 20 ppmv on a dry basis, expressed as hexane at 3 percent oxygen.

Continuous Emission Monitoring

All analyzers will be checked for calibration before and after each run. Emission monitoring data will be recorded on strip charts and a data logger. NMOC destruction efficiency will be determined for each test condition. Methane concentrations will be determined by passing sample gas through an activated carbon scrubber prior to the hydrocarbon analyzer. Hydrocarbon emissions will be measured and reported as methane.

Process parameters

Flare process parameters including the fuel gas flow rate and the flare operating temperature will be measured and recorded during each run using the flare gas measurement system data acquisition system.

REPORT

The final report is due to the District 60 days after testing has occurred. The report will describe the tests that were conducted, the operating conditions of the source during the test, and the emission results. All raw data and sample calculations used to obtain the reported results will be included so that the accuracy of the reported results can be verified from the report. The flare process information will be submitted in the report.

Appendix F
Authority To Construct



Shasta County

DEPARTMENT OF RESOURCE MANAGEMENT
1855 Placer Street, Redding, CA 96001

Russ Mull, R.E.H.S., A.I.C.P.
Director
Richard D. Barnum
Assistant Director

June 2, 2006

Greg Johnson
Anderson Landfill
18703 Cambridge Road
Anderson, CA 96007

Dear Mr. Johnson:

AUTHORITY TO CONSTRUCT 06-PO-06; GAS COLLECTION AND CONTROL SYSTEM

We acknowledge receipt of your application dated 3/17/06 for an Authority to Construct a gas collection and control system to be located at 18703 Cambridge Road, Anderson, CA.

Enclosed is the Authority to Construct for this project. It is based on the information provided in your application. The attached conditions shall apply to this Authorization and are also intended to be incorporated in the Permit to Operate, which shall be issued after the device is installed and tested.

Please be advised that the Authorization is given solely with respect to air quality concerns and does not relieve you of the responsibility to obtain a use permit as required by the County or City Planning Department and any other necessary permit or authorization.

We request that you notify this office when construction has been completed so that an inspection can be conducted prior to issuing the Permit to Operate. A fee may be due at that time.

If you have questions, please call the District at 530-225-5674.

Sincerely,

Sarah Randall
Administrative Secretary

Enclosure

☒ Suite 101
AIR QUALITY MANAGEMENT DISTRICT
(530) 225-5674
FAX: (530) 225-5237

☐ Suite 102
BUILDING DIVISION
(530) 225-5761
FAX: (530) 245-6468

☐ Suite 103
PLANNING DIVISION
(530) 225-5532
FAX: (530) 245-6468

☐ Suite 201
ENVIRONMENTAL HEALTH DIVISION
(530) 225-5787
FAX: (530) 225-5413

☐ Suite 200
ADMINISTRATION & COMMUNITY EDUCATION
(530) 225-5789
FAX: (530) 225-5807

EXPIRATION DATE:
NOVEMBER 2007

PERMIT NO:
06-PO-06

SHASTA COUNTY
DEPARTMENT OF RESOURCE MANAGEMENT
AIR QUALITY MANAGEMENT DISTRICT

ANDERSON LANDFILL
(Applicant)

IS HEREBY GRANTED A
AUTHORITY TO CONSTRUCT
SUBJECT TO CONDITIONS NOTED

GAS COLLECTION AND CONTROL SYSTEM
(Nature of Activity)

AT **18703 Cambridge Road, Anderson, CA**
(AP#207-170-009)

DATE ISSUED: June 2, 2006

APPROVED: Boss Bell for
Air Pollution Control Officer

EQUIPMENT UNDER PERMIT
45.5MMBtu/hr Enclosed Flare, LFG Specialties Model EF84018
two(2) American Fan Blowers Model 7N-06-31.5N

GENERAL PERMIT CONDITIONS

1. This Authority to Construct shall be posted in a conspicuous location within the control center of the facility for which it was issued.
2. This Authority to Construct is not transferable from either one location to another, one piece of equipment to another, or from one person to another.
3. Equipment is to be maintained so that it operates as it did when this Authority to Construct was issued.
4. This Authority to Construct shall be valid for a period of eighteen (18) months from the date of which it was issued.

**ANDERSON LANDFILL
AUTHORITY TO CONSTRUCT #06-PO-06
GAS COLLECTION AND CONTROL SYSTEM**

June 2, 2006

5. Acceptance of this Authority to Construct is deemed acceptance of all conditions as specified. Failure to comply with any condition of this Authority to Construct or the Rules and Regulations of the Shasta County Air Quality Management District (District) shall be grounds for revocation, either by the Air Pollution Control Officer (APCO) or the Air Quality Management District Hearing Board.
6. The District reserves the right to amend this Authority to Construct, if the need arises, in order to insure compliance of this facility or to abate any public nuisance.
7. If any provision of this Authority to Construct is found invalid, such finding shall not affect the remaining provisions.
8. All equipment, facilities, and systems shall be designed to be operated in a manner that minimizes air pollutant emissions and maintains compliance with the conditions of this Authority to Construct and the regulations of the District.
9. Periods of excess emission levels with respect to emission limitations specified in this Authority to Construct shall be reported to the District within four (4) hours of the occurrence. In no event shall the equipment be operated in a manner that creates excessive emissions beyond the end of the first shift or twenty-four (24) hours, whichever occurs first (District Rule 3:10).
10. The right of entry described in the *California Health and Safety Code*, Section 41510, Division 26, shall apply at all times.
11. The site manager and designated operations personnel of this facility shall be advised of and familiar with all the conditions of this Authority to Construct.

CONSTRUCTION CONDITIONS

12. The use of reasonably available control measure shall be implemented to reduce fugitive dust emissions during construction. Such measures may include but are not limited to dust suppressants, wind breaks, compaction, and vehicle speed control.
13. The Asbestos Dust Mitigation Plan, as submitted to the District, shall be implemented in response to any activities occurring during construction that disturbs any asbestos containing materials.

OPERATING CONDITIONS

14. The Gas Collection and Control System shall be operated in a manner which maximizes the amount of landfill gas extracted while preventing overdraw from the landfill that can cause fires from excessive oxygen, or damage to the collection system while collecting. The surface emissions standards as specified in 40 CFR 60.754(d), the wellhead standards specified in 40 CFR 60.753(c), and Conditions 21, 22, and 37 will serve to demonstrate compliance with this condition.

**ANDERSON LANDFILL
AUTHORITY TO CONSTRUCT #06-PO-06
GAS COLLECTION AND CONTROL SYSTEM**

June 2, 2006

15. The Gas Collection and Control System shall be designed to reduce both subsurface lateral migration and surface emissions of Landfill Gas.
16. If any portion of the Gas Collection and Control System is shut down which results in gas collection from less than 80% of the total number of active collection wells for longer than twenty-four (24) hours due to scheduled or unscheduled maintenance activities, equipment breakdown, or any other reason, the owner shall notify the District within twenty-four (24) hours of the detection of such shutdown.
17. The APCO may immediately require system shutdown and request additional control devices be installed if the system creates a downwind nuisance or hazard due to odorous compounds.
18. The flare shall be designed for and operated with no visible emissions as determined by reference Method 22, except for periods not to exceed a total of 5 minutes during any 2 consecutive hours.
19. The enclosed LFG flare shall be designed to reduce the concentration of NMOC's present in the LFG delivered to the flare by at least 98 percent by weight or reduce outlet NMOC concentrations to less than 20 parts per million by volume on a dry basis as hexane corrected to 3 percent oxygen.
20. The Gas Collection and Control System operator shall monitor each individual wellhead monthly for static pressure using a Landtec, GEM500, GEM2000, or equivalent LFG analyzer. Negative pressure shall be maintained at each well, unless one of the conditions in 40CFR 60.753(b)(1,2, or 3), is encountered.
21. Each interior wellhead in the collection system shall be monitored monthly to ensure the system is being operated with a landfill gas temperature of less than 55°C and with either a nitrogen level less than 20 percent or an oxygen level less than 5 percent. The operator may establish a higher operating temperature, nitrogen, or oxygen value at a particular well. Any monitored exceedances of the limitations in this condition shall be corrected as specified in 40 CFR 60.755(a).
22. During any start-up or re-start, there shall be a sufficient flow of propane or commercial natural gas to the pilot flame to ensure that unburned landfill gases are not emitted to the atmosphere.
23. Except during an ignition and warm up period, not to exceed fifteen (15) minutes, all collected landfill gas shall be subjected to a combustion zone temperature of at least 1400°F. In the event that a flare thermocouple fails, a spare thermocouple shall be located on site and be available for immediate replacement. The inlet flow rate of landfill gas to the flare shall not exceed 45.5 MMBtu/hr.
24. Emissions from the flare shall not exceed the following limits:
 - (a) Oxides of nitrogen (NOx) 0.06 pounds per million BTUs of heat input.
 - (b) Carbon monoxide (CO) 0.30 pounds per million BTUs of heat input.

**ANDERSON LANDFILL
AUTHORITY TO CONSTRUCT #06-PO-06
GAS COLLECTION AND CONTROL SYSTEM**

June 2, 2006

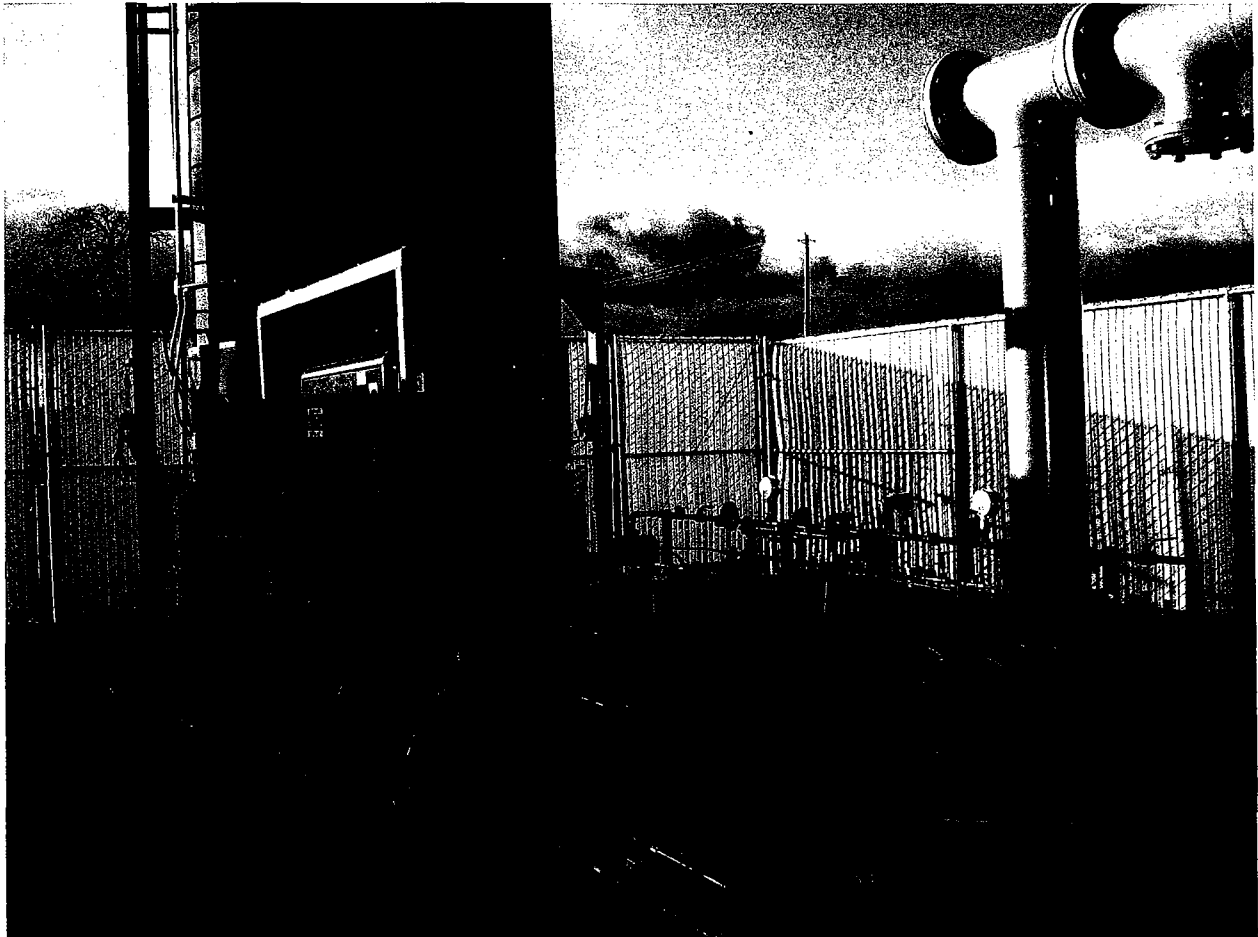
25. Following the initial construction of the Landfill Gas Collection and Control System, as described in the Landfill Gas Control System Design Plan, the District shall allow the commissioning of up to ten (10) wells, the decommissioning of up to ten (10) wells, and the replacement of up to five (5) wells on an "as needed" basis with proper letter notification to the APCO.
26. If future landfill gas collection wells are deemed necessary, a shut-off valve at the head of each such well shall be installed and maintained in good working order.
27. A condensate sump shall be installed immediately preceding the flare station. The sump shall be equipped with a pneumatic pump, pneumatic fail close valve, level controls, and piping to transfer the collected condensate to the nearby condensate storage tank(s) for injection into the LFG flare and/or discharged to the leachate evaporation pond. The condensate sump shall not be allowed to overflow to the flare.
28. The flare skid shall include one knockout pot, a knockout gravity drain line, fail-close valve, air compressor, flame arrester, 45.5 MMBtu/hr heat input flare, blower/flare control panel, and a Yokogawa digital recorder. Flare thermocouple output shall be recorded continuously.
29. The condensate mist injection into the flame zone shall not be injected at a rate greater than five gallons per minute.
30. The Landfill Gas Collection and Control System shall operate continuously unless written permission by the Air Pollution Control Officer is granted, except as allowed by Condition 16 and 40 CFR 60.757(f)(4).
31. At no time shall collected, untreated landfill gas be conveyed to the atmosphere.
32. If the current gas extraction system is to be connected to the Gas Collection and Control System, the connector assembly shall include a positive closing throttle valve, any necessary seals and couplings, access couplings, and at least one (1) sampling port.
33. The Landfill Gas Collection and Control System components shall be designed to control air intrusion, prevent landfill gas from escaping the collection system, and prohibit refuse from entering the collection system.
34. The Gas Collection and Control System shall be operated so that the methane concentration is less than 500 parts per million above background at the surface of the landfill. The LFG surface emissions shall be monitored quarterly in accordance with regulatory requirements and the procedures described in the Surface Emission Monitoring Plan. Each location of a monitored exceedance of the methane concentration limit in this condition shall be recorded and corrected as specified in 40 CFR 60.755(c)(4).
35. Portions of the Landfill with an active Gas Collection and Control System shall be monitored quarterly for Landfill Gas surface emissions. Potential emission areas shall be inspected by using a flame ionization detector (FID) or an organic vapor analyzer.

**ANDERSON LANDFILL
AUTHORITY TO CONSTRUCT #06-PO-06
GAS COLLECTION AND CONTROL SYSTEM**

June 2, 2006

36. An initial performance test of the flare will be accomplished within six (6) months of flare startup. The initial performance test will utilize EPA test methods to demonstrate compliance with either the 98 percent weight reduction or 20 ppmv NMOC limit on a dry basis as hexane corrected to 3 percent oxygen. District approved methods shall be implemented to test Oxides of Nitrogen and Carbon Monoxide.
37. Flare stack emission testing shall be completed every four (4) years beginning after the initial performance test, to determine emission characteristics of the Gas Collection and Control System. Testing shall include emissions of methane and specified air contaminants, as stated in the *California Health and Safety Code* Section 41805.5(i)(6). This emission testing shall commence within 180 days of system startup as specified in Condition 41. More frequent emission testing may be requested by the District if a significant increase in the landfill gas inlet flow rate occurs. Flare stack emission testing shall be conducted by a California Air Resources Board-approved testing firm, and the facility operator shall submit a proposed source test protocol for District review and approval fifteen (15) days prior to scheduled testing. Testing shall follow the District approved source test protocol, be conducted under normal operating conditions, and be witnessed by District staff. The operator shall provide access, utilities, and any necessary safety equipment for emission testing upon request of the District. Test results shall be submitted to the District within 60 days of completion of the emissions test.
38. All monitoring records shall be kept onsite and be readily accessible in either a paper or electronic format. Records of each surface monitoring exceedance shall be kept on file for at least five years. These records shall include the location and reading of the exceedance, as well as the results of the follow-up readings in the subsequent months (whether or not these follow-up readings were exceedances), the action taken to repair excess emissions, and the date of repair.

Appendix G
Site Picture



Anderson Landfill
Enclosed Landfill Gas Flare