SOURCE TEST REPORT FOR
2025 1ST QUARTER LEACHATE AND CONDENSATE VAPOR SAMPLING AT THE CHIQUITA CANYON LANDFILL
FACILITY ID: 119219

Prepared For:

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For Submittal To:

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Test Date: **March 20, 2025**
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MONTROSE AIR QUALITY SERVICES

STAC STACK TESTING ACCREDITATION COUNCIL

ACCREDITED TO ASTM D7036 ONLY CERT #3925.01

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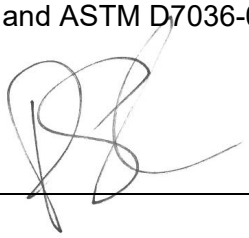
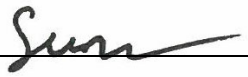
REVIEW AND CERTIFICATION

All work, calculations, and other activities and tasks performed and presented in this document were carried out by me or under my direction and supervision. I hereby certify that, to the best of my knowledge, Montrose operated in conformance with the requirements of the Montrose Quality Management System and ASTM D7036-04 during this test project.

Signature:  Date: 4/18/2025

Name: Pete SanJuan Title: Client Project Manager

I have reviewed, technically and editorially, details, calculations, results, conclusions, and other appropriate written materials contained herein. I hereby certify that, to the best of my knowledge, the presented material is authentic, accurate, and conforms to the requirements of the Montrose Quality Management System and ASTM D7036-04.

Signature:  Date: 4/18/2025

Name: Surya Adhikari Title: Senior Reporting QC Specialist

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1.0 INTRODUCTION

Montrose Air Quality Services, LLC (MAQS) was contacted by SCS Engineers (SCS) to conduct quarterly sampling at various locations on the vapor ventilation system located at the Chiquita Canyon Landfill (Chiquita), in Castaic, California. Testing was conducted to comply with Condition 72 of the Modified Stipulated Order for Abatement (SOFA) issued to Chiquita by the South Coast Air Quality Management District (SCAQMD) on April 24, 2024. The tests were conducted according to the test protocol (MAQS Document Number W002AS-056454-PP-1074) and source test protocol evaluation (S/T ID: P24228). The Montrose test team consisted of Pete San Juan and Kyle Thomas. Pete San Juan was the on-site qualified individual for MAQS. MAQS qualifies as an independent testing laboratory under SCAQMD Rule 304 (no conflict of interest) and is certified by the SCAQMD to conduct testing for criteria pollutants according to District Methods.

Equipment and facility information is provided in Section 2.0. Source test information is detailed in Section 3.0. Test results are provided in Section 4.0. Supplemental information is contained in the Appendices.

2.0 FACILITY AND SOURCE INFORMATION

The facility address is:

Physical Address: Chiquita Canyon Landfill
29201 Henry Mayo Drive
Castaic, California 91384

Sampling of leachate and condensate vapors was conducted from the following locations:

- The tank vents or manifolds which are representative of a set of tanks;
- The header/manifold from each leachate tank farm or manifold including Tank Farm #2, Tank Farm #6, Tank Farm #7A, Tank Farm #7B, Tank Farm #9A, and Tank Farm #9B, inlet to Zeeco Flare, Flare Station Pre-H2S treatment, and Flare Station Post-H2S treatment. Testing was performed upstream of the piping connection to the LFG Collection and Conveyance System where landfill gas may affect results.

2.1 PROCESS EQUIPMENT INFORMATION

Vapors created from the volatilization of chemicals in the head space in the leachate tanks at tank farms #2, #6, #7A, #7B, #9A and #9B are transferred under vacuum through the wellhead and into the landfill gas collection system then to the flare station for combustion. The pressure and temperature of the vapors in the piping varies based on ambient temperatures during normal operation. The facility operates 24 hours per day.

3.0 TEST INFORMATION AND METHODOLOGY

The pollutants measured and test methodology are summarized in Table 3-1. Volume flow rate measurements were performed before the sample collection.

The field sampling procedures utilized during the test program are described below. The published reference methods provide greater detailed descriptions than in this section. The purpose of this section is to provide an overview of the sampling methods and any variations. The sampling procedures are based on SCAQMD, and EPA Reference Methods.

TABLE 3-1
TEST PROCEDURES
TEST PROGRAM OVERVIEW
CHIQUITA CANYON LANDFILL
LEACHATE AND CONDENSATE VAPOR SAMPLING

Parameter	Sample Medium	Analytical Technique	Reference Method	Number of Replicates
Flow Rate/Temperature	Pitot Tube / TC	Differential Pressure	SCAQMD 2.1	1 for each location
Moisture	Wet Bulb/Dry Bulb	Psychrometric Chart	SCAQMD 4.1	1 for each location
H_2S and TRS	Summa Can	GC/SCD	SCAQMD 307-91	1 for each location
TO-15 (Rule 1150.1)	Summa Can	GC/MS	EPA TO-15	1 for each location

3.1 SCAQMD METHOD 1.1 – SAMPLING AND VELOCITY TRAVERSES FOR STATIONARY SOURCES

A preliminary source test site assessment was performed prior to the source test in order to determine applicable sample point traverse locations. The stack diameter, and the distance from sample ports to disturbances (bends, flanges, etc.), both upstream and downstream, were measured. This information is utilized to determine the minimum number of sampling points per traverse, and the distance from the inner stack wall to each sample point location. All sample locations were located according to the minimum requirements of SCAQMD Method 1.1. Additionally, this method considers cyclonic flow patterns and in-situ stratified pollutant concentrations. Cyclonic flow tests were performed at locations where flow was measurable.

3.2 SCAQMD METHOD 2.1 – VELOCITY AND VOLUMETRIC FLOW RATE

The velocity of the gas stream was determined by using an "S" type or standard pitot tube, a low flow electronic manometer, and type "K" thermocouple with a digital temperature measuring device. The calibrated pitot tube is connected to the calibrated electronic Air Data Multimeter (ADM) manometer and leak checked. A temperature and delta P is obtained at each traverse point, and a duct static pressure is measured and recorded. The dry volumetric flow rate is determined from the gas velocity data, stack pressure, stack gas moisture content, stack gas molecular weight, and cross-sectional area of duct.

3.3 SCAQMD METHOD 3.1 – GAS ANALYSIS FOR DRY MOLECULAR WEIGHT AND EXCESS AIR

Leachate and condensate vapor gases were analyzed by GC for O_2 and CO_2.

3.4 SCAQMD METHOD 4.1 – DETERMINATION OF MOISTURE CONTENT IN STACK GASES

Moisture was measured using a wet bulb/dry bulb and calculated with a psychrometric chart.

3.5 SCAQMD METHOD 307-91 – HYDROGEN SULFIDE AND REDUCED SULFUR COMPOUNDS

Samples for determination of hydrogen sulfide and speciated reduced sulfur compounds were collected in Summa canisters. The samples were analyzed by GC/SCD by AtmAA, Inc., in Calabasas, California, following SCAQMD Method 307-91 protocol. The samples are analyzed within 24 hours of sampling.

3.6 EPA METHOD TO-15 – VOLATILES AND HYDROCARBON COLLECTED IN SUMMA CANISTER

Samples were collected in glass silicate lined Summa canisters. The samples were analyzed by AtmAA Inc., located in Calabasas, California for volatile organics listed in SCAQMD Rule 1150.1 Table 1 list.

Sampling Procedure:

One summa can per location was filled with sample gas using an evacuated cylinder. The sampling probe was connected to the can with Teflon tubing. The samples were collected at a fixed point halfway into the sampling duct.

4.0 RESULTS

The emission results are presented in Tables 4-1 and 4-2. Site schematics are presented in Appendix A.1.

TABLE 4-1
H_2S AND TOTAL REDUCED SULFUR RESULTS
CHIQUITA CANYON LANDFILL
LEACHATE AND CONDENSATE VAPOR SAMPLING
MARCH 20, 2025

Parameter/Units	Tank Farm 6	Tank Farm 9A	Tank Farm 9B	Tank Farm 2	Tank Farm 7A	Tank Farm 7B	ZEECO	Flare Station Pre-H_2S	Flare Station Post-H_2S
N_2, %	77.59	74.80	77.27	74.00	76.26	75.93	29.74	17.50	18.76
H_2O, %	1.24	0.68	0.76	0.61	0.86	0.86	4.36	2.68	2.64
Flow Rate, scfm	230	190	281	58	214	224	1,164	1,761	1,731
Temperature, °F	81	78	76	77	79	79	165	90	90
O_2, %	21.82	21.17	21.88	20.66	21.52	21.29	6.75	4.04	3.64
CO_2, %	0.14	2.64	0.14	2.30	0.14	1.92	36.30	42.98	43.53
Sulfur Compounds									
H_2S, ppm	<0.10	10.5	<0.10	<.10	<0.10	0.69	209	301	<0.40
Carbonyl Sulfide, ppm	<0.10	<0.10	<0.10	0.12	<0.10	<.10	0.71	1.07	0.98
Methyl Mercaptan, ppm	0.12	14.60	<0.10	1.46	<0.10	4.45	104	170	<0.40
Ethyl Mercaptan, ppm	<0.10	0.22	<0.10	<.10	<0.10	<.10	1.64	2.43	<0.40
Dimethyl Sulfide, ppm	3.54	49.90	1.76	62.30	1.60	28.90	284	502	495
Carbon Disulfide, ppm	<0.10	<0.10	<0.10	<.10	<0.10	<.10	<0.40	<0.40	0.45
i-Propyl Mercaptan, ppm	<0.10	0.17	<0.10	<.10	<0.10	<.10	1.72	3.28	<0.40
t-Butyl Mercaptan, ppm	<0.10	<0.10	<0.10	<.10	<0.10	<.10	<0.40	<0.40	<0.40
n-Propyl Mercaptan, ppm	<0.10	<0.10	<0.10	0.85	<0.10	0.34	4.31	7.01	7.57
s-Butyl Mercaptan, ppm	<0.10	0.76	<0.10	0.94	<0.10	0.29	4.98	9.24	9.27
i-Butyl Mercaptan, ppm	<0.10	<0.10	<0.10	<.10	<0.10	<.10	<0.40	<0.40	<0.40
Dimethyl Disulfide, ppm	<0.10	0.30	<0.10	1.33	<0.10	0.34	0.99	2.22	57.0
Tetrahydrothiophene, ppm	<0.10	0.38	<0.10	0.93	<0.10	0.16	2.07	3.87	4.51
Unidentified S Compounds, ppm	<0.10	2.18	<0.10	5.14	0.14	1.16	10.3	16.4	87.3
Total Sulfur Compounds									
Total Sulfur, ppm	3.66	79.24	1.76	74.38	1.73	36.64	624.2	1019.7	719.4

TABLE 4-2
TRACE ORGANICS SPECIES RESULTS
CHIQUITA CANYON LANDFILL
LEACHATE AND CONDENSATE VAPOR SAMPLING
MARCH 20, 2025

Sample Location:	Tank Farm 6	Tank Farm 9A	Tank Farm 9B	Tank Farm 2	Tank Farm 7A	Tank Farm 7B	Zeeco	Flare Station Pre-H_2S	Flare Station Post-H_2S
Test No.:	1	1	1	1	1	1	1	1	1
Start Time:	815	855	855	900	935	935	935	1010	1010
Flow Rate, scfm:	230	190	281	58	214	224	1,164	1,761	1,731
Species	**ppb**	**ppb**	**ppb**	**ppb**	**ppb**	**ppb**	**ppb**	**ppb**	**ppb**
Hydrogen sulfide:	< 100	10,500	< 100	< 100	< 100	685	209,000	300,500	< 400
Benzene:	765	15,400	358	23,650	421	6,500	81,900	127,000	116,000
Benzyl Chloride:	< 30	< 30	< 30	< 45	< 45	< 45	< 5,000	< 5,000	< 5,000
Chlorobenzene:	< 25	< 25	< 25	53.3	< 40	< 40	< 4,500	< 4,500	< 4,500
Dichlorobenzenes*:	< 40	< 40	< 40	214	< 60	< 60	< 6,500	< 6,500	< 6,500
1,1-dichloroethane:	< 30	< 30	< 30	< 45	< 45	< 45	< 5,000	< 5,000	< 5,000
1,2-dichloroethane:	< 30	< 30	< 30	51.6	< 45	< 45	< 5,000	< 5,000	< 5,000
1,1-dichloroethylene:	< 30	< 30	< 30	< 45	< 45	< 45	< 5,000	< 5,000	< 5,000
Dichloromethane:	< 60	< 60	< 60	< 100	< 100	< 100	< 11,000	< 11,000	< 11,000
1,2-dibromoethane:	< 15	< 15	< 15	< 25	< 25	< 25	< 3,000	< 3,000	< 3,000
Perchloroethylene:	< 15	< 15	< 15	< 25	< 25	< 25	< 3,000	< 3,000	< 3,000
Carbon Tetrachloride:	< 35	< 35	< 35	< 60	< 60	< 60	< 6,000	< 6,000	< 6,000
Toluene:	58.3	905	59.0	3,190	96.0	409	8,910	12,400	11,800
1,1,1-trichloroethane:	< 20	< 20	< 20	< 35	< 35	< 35	< 4,000	< 4,000	< 4,000
Trichloroethene:	< 20	< 20	< 20	< 35	< 35	< 35	< 4,000	< 4,000	< 4,000
Chloroform:	< 20	< 20	< 20	< 35	< 35	< 35	< 4,000	< 4,000	< 4,000
Vinyl Chloride:	< 20	< 20	< 20	< 35	< 35	< 35	< 4,000	< 4,000	< 4,000
M+P-xylenes:	36.1	309	49.5	1,535	71.6	156	4,580	5,360	5,440
O-xylene:	< 25	105	< 25	569	< 40	65.4	< 4,500	< 4,500	< 4,500

< - indicates that the species was not detected in the sample above the analytical detection limit for this species.
The values reported is the detection limit for the species and the actual concentration is lower.
*Total amount containing meta, para, and ortho isomers.
Due to high concentration of certain chemicals present in the sample (such as benzene etc.), affected samples were diluted for the analysis which resulted the elevated detection limits.

APPENDIX A
TEST DATA

Appendix A.1
Sample Location Data

MONTROSE

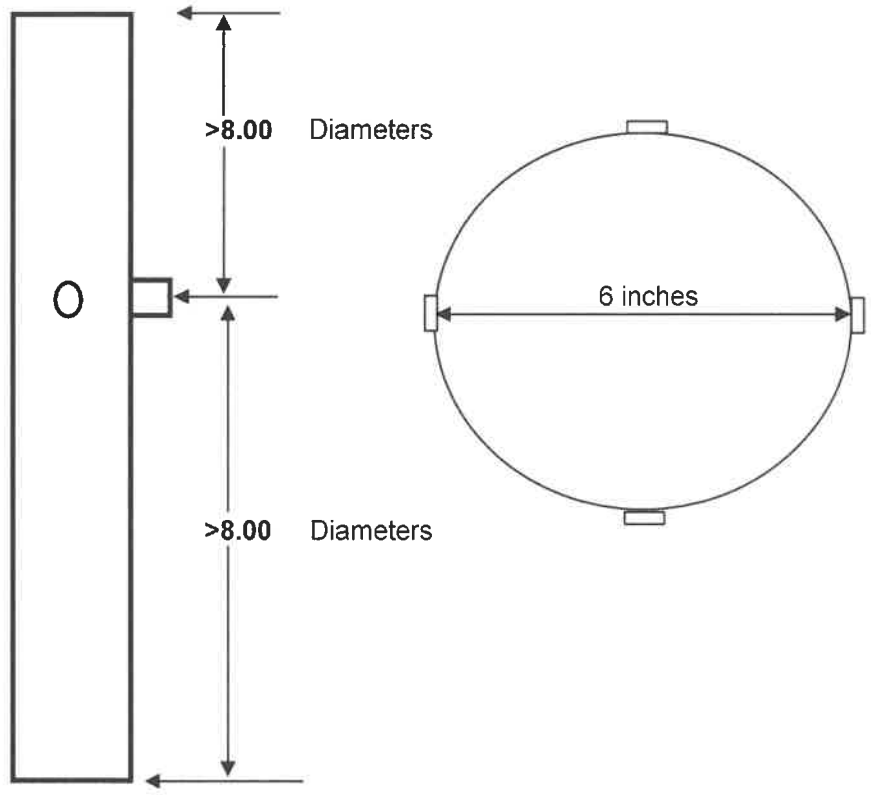
METHOD 1 DATA SHEET
INLET SAMPLE LOCATION

Client: SCS Field Services

Date: 3/20/25

Location: Chiquita TF 6

Performed By: SJ, KT



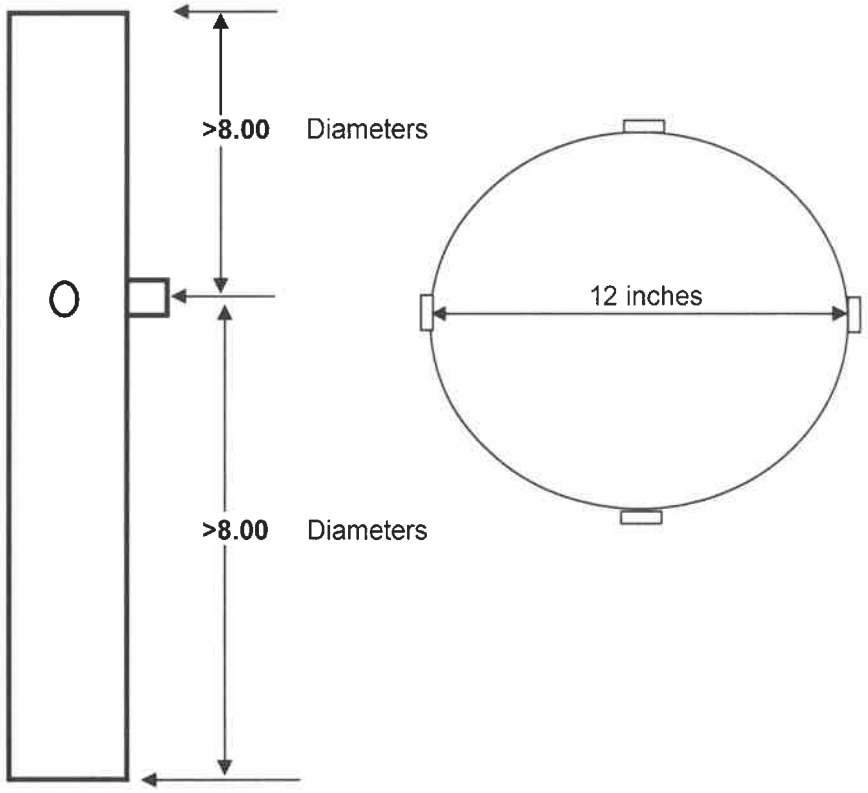
Diameter (inches)	**6.00**
Upstream (inches)	**48.00**
Downstream (inches)	**48.00**
Coupling (in.)	**0.00**
Stack Area (ft^2)	**0.196**

Sample Point	% of Diameter	Dist from Wall (inches)	Dist from Port (inches)
1	4.4	0.5	0.5
2	14.6	0.9	0.9
3	29.6	1.8	1.8
4	70.4	4.2	4.2
5	85.4	5.1	5.1
6	95.6	5.5	5.5

METHOD 1 DATA SHEET
INLET SAMPLE LOCATION

Client: SCS Field Services Date: 3/20/25

Location: Chiquita TF 9A Performed By: SJ, KT



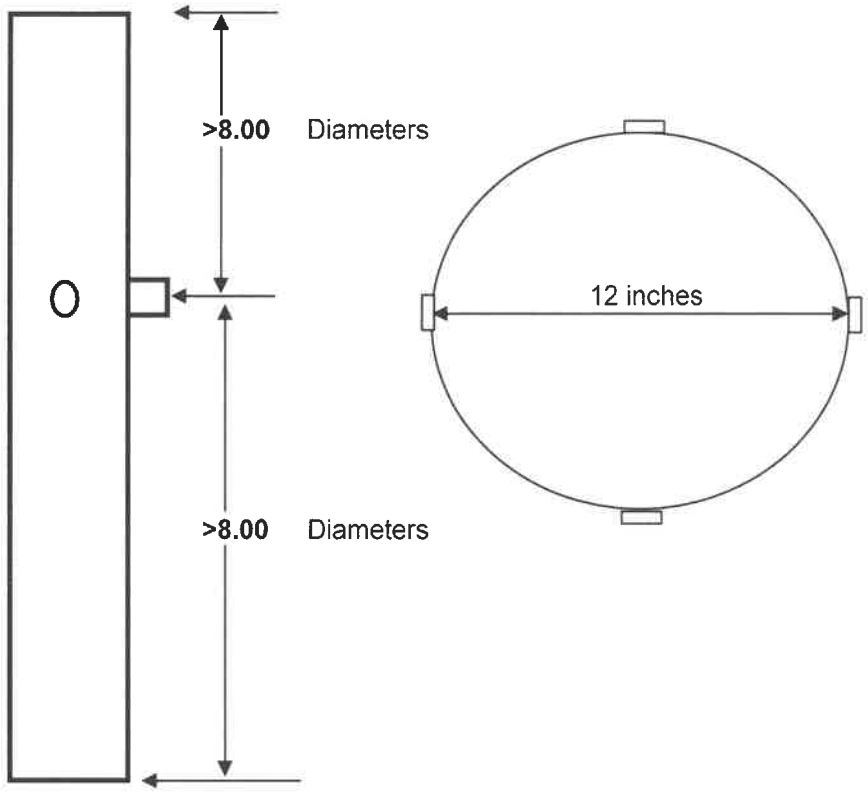
Diameter (inches)	**12.00**
Upstream (inches)	**96.00**
Downstream (inches)	**96.00**
Coupling (in.)	**0.00**
Stack Area (ft^2)	**0.785**

Sample Point	% of Diameter	Dist from Wall (inches)	Dist from Port (inches)
1	4.4	0.5	0.5
2	14.6	1.8	1.8
3	29.6	3.6	3.6
4	70.4	8.4	8.4
5	85.4	10.2	10.2
6	95.6	11.5	11.5

METHOD 1 DATA SHEET
INLET SAMPLE LOCATION

Client: SCS Field Services Date: 3/20/25

Location: Chiquita TF 9B Performed By: SJ, KT



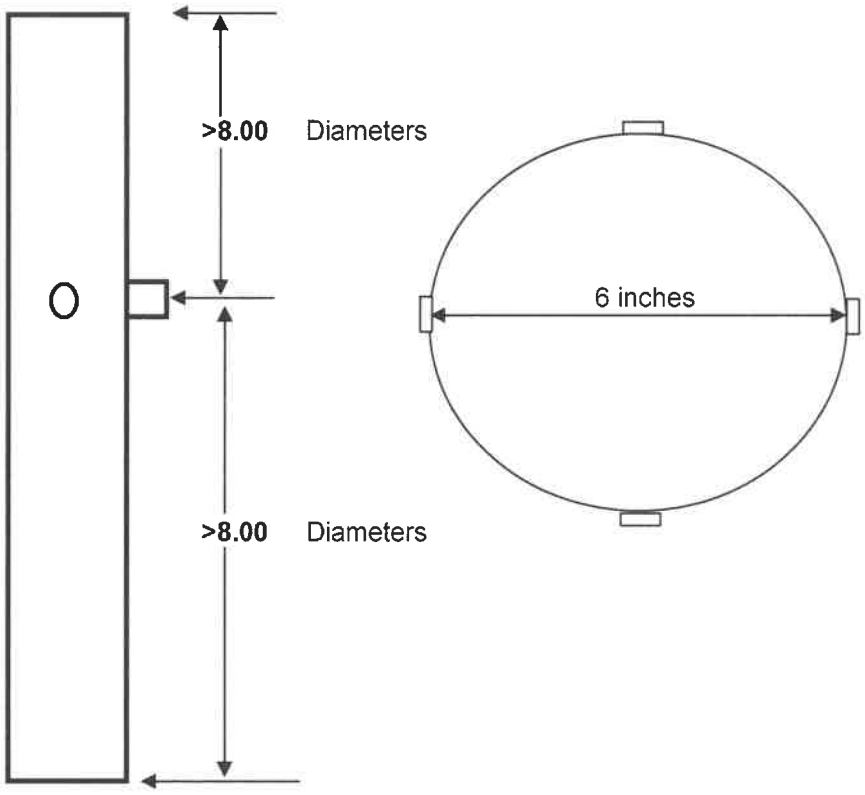
Diameter (inches)	**12.00**
Upstream (inches)	**96.00**
Downstream (inches)	**96.00**
Coupling (in.)	**0.00**
Stack Area (ft^2)	**0.785**

Sample Point	% of Diameter	Dist from Wall (inches)	Dist from Port (inches)
1	4.4	0.5	0.5
2	14.6	1.8	1.8
3	29.6	3.6	3.6
4	70.4	8.4	8.4
5	85.4	10.2	10.2
6	95.6	11.5	11.5

METHOD 1 DATA SHEET
INLET SAMPLE LOCATION

Client: SCS Field Services Date: 3/20/25

Location: Chiquita TF 2 Performed By: SJ, KT



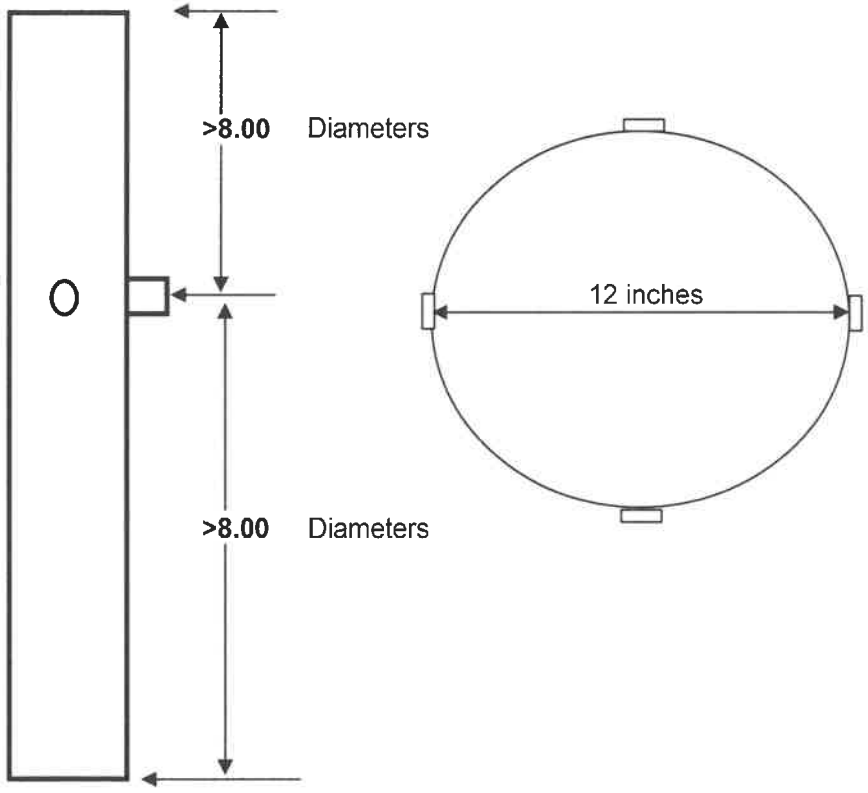
Diameter (inches)	**6.00**
Upstream (inches)	**48.00**
Downstream (inches)	**48.00**
Coupling (in.)	**0.00**
Stack Area (ft^2)	**0.196**

Sample Point	% of Diameter	Dist from Wall (inches)	Dist from Port (inches)
1	4.4	0.5	0.5
2	14.6	0.9	0.9
3	29.6	1.8	1.8
4	70.4	4.2	4.2
5	85.4	5.1	5.1
6	95.6	5.5	5.5

METHOD 1 DATA SHEET
INLET SAMPLE LOCATION

Client: SCS Field Services Date: 3/20/25

Location: Chiquita TF 7A Performed By: SJ, KT



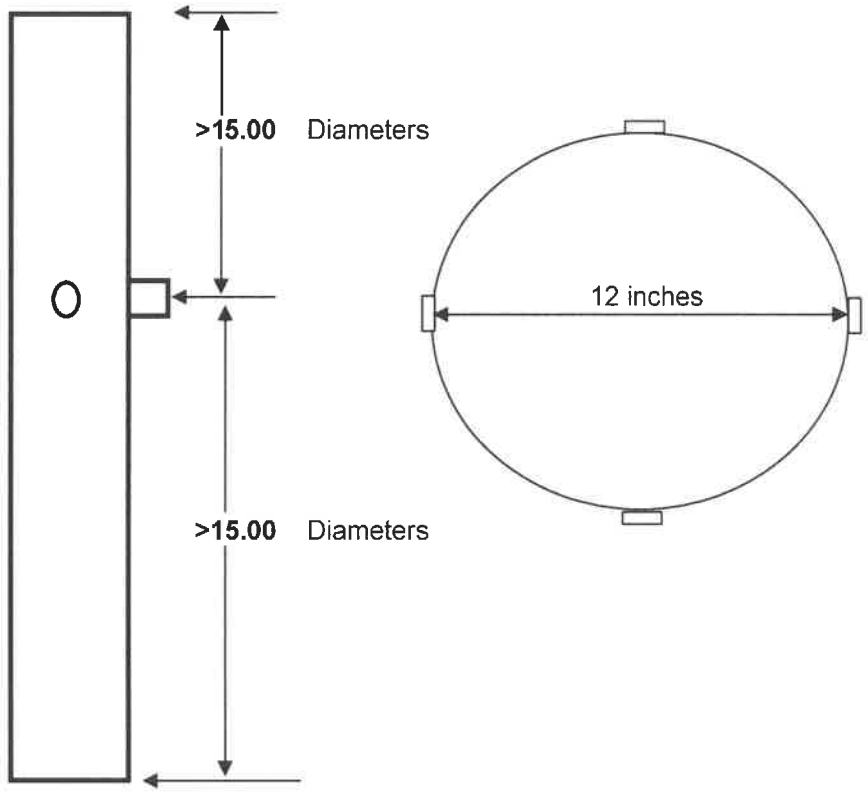
Diameter (inches)	**12.00**
Upstream (inches)	**96.00**
Downstream (inches)	**96.00**
Coupling (in.)	**0.00**
Stack Area (ft^2)	**0.785**

Sample Point	% of Diameter	Dist from Wall (inches)	Dist from Port (inches)
1	4.4	0.5	0.5
2	14.6	1.8	1.8
3	29.6	3.6	3.6
4	70.4	8.4	8.4
5	85.4	10.2	10.2
6	95.6	11.5	11.5

METHOD 1 DATA SHEET
INLET SAMPLE LOCATION

Client: SCS Field Services Date: 3/20/25

Location: Chiquita TF 7B Performed By: SJ, KT



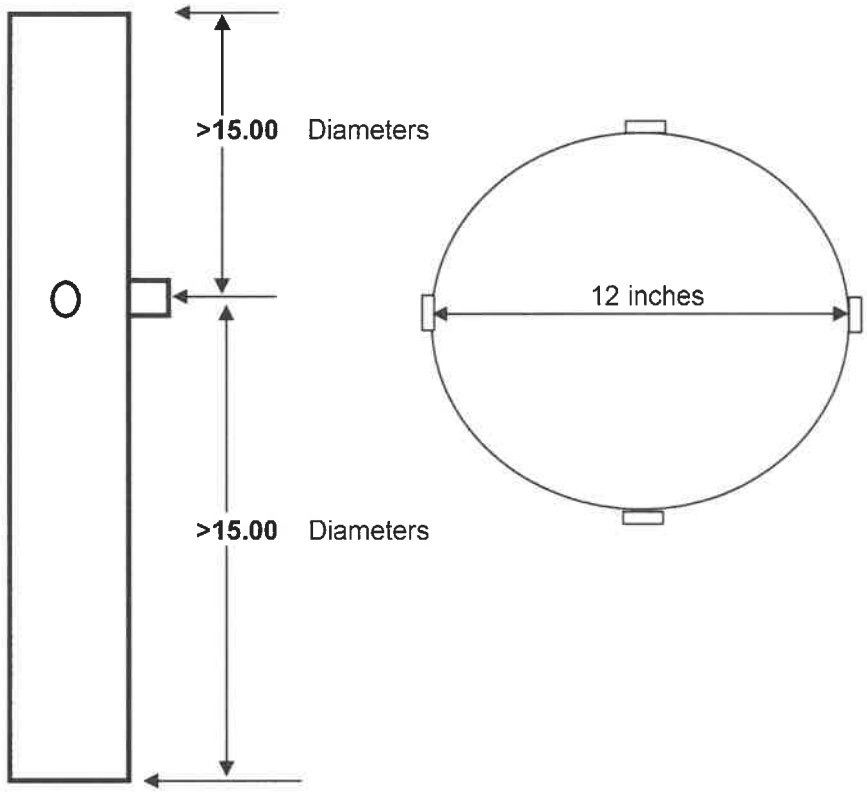
Diameter (inches)	**12.00**
Upstream (inches)	**180.00**
Downstream (inches)	**180.00**
Coupling (in.)	**0.00**
Stack Area (ft^2)	**0.785**

Sample Point	% of Diameter	Dist from Wall (inches)	Dist from Port (inches)
1	4.4	0.5	0.5
2	14.6	1.8	1.8
3	29.6	3.6	3.6
4	70.4	8.4	8.4
5	85.4	10.2	10.2
6	95.6	11.5	11.5

METHOD 1 DATA SHEET
INLET SAMPLE LOCATION

Client: SCS Field Services Date: 3/20/25

Location: Chiquita Zeeco Flare Inlet Performed By: SJ, KT



Diameter (inches)	**12.00**
Upstream (inches)	**180.00**
Downstream (inches)	**180.00**
Coupling (in.)	**0.00**
Stack Area (ft^2)	**0.785**

Sample Point	% of Diameter	Dist from Wall (inches)	Dist from Port (inches)
1	4.4	0.5	0.5
2	14.6	1.8	1.8
3	29.6	3.6	3.6
4	70.4	8.4	8.4
5	85.4	10.2	10.2
6	95.6	11.5	11.5

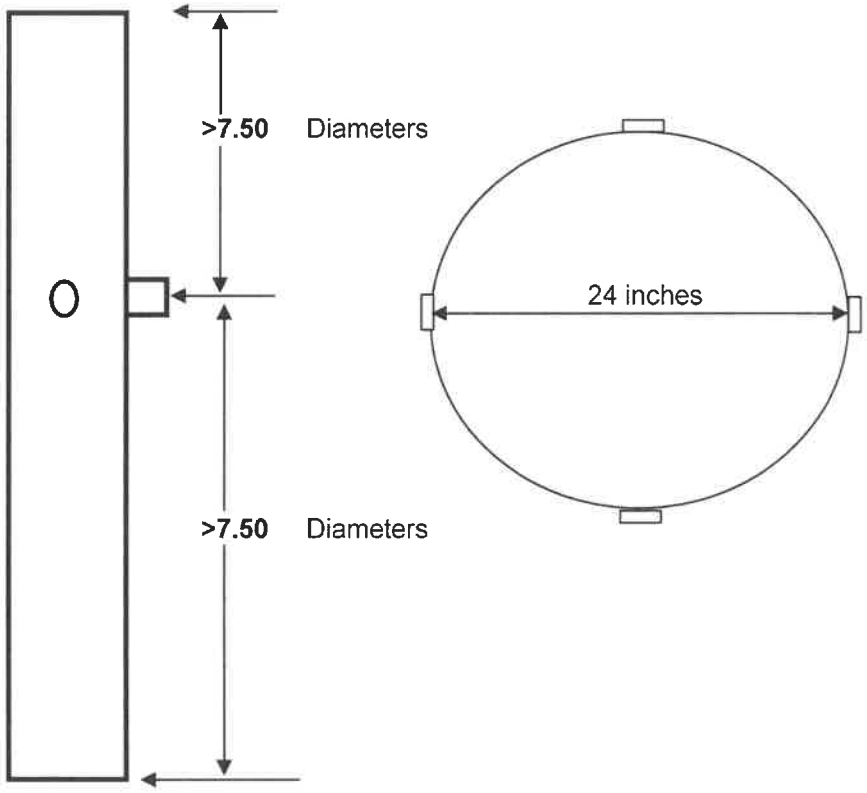
METHOD 1 DATA SHEET
INLET SAMPLE LOCATION

Client: SCS Field Services

Date: 3/20/25

Location: Flare Station Pre-H2S

Performed By: SJ, KT



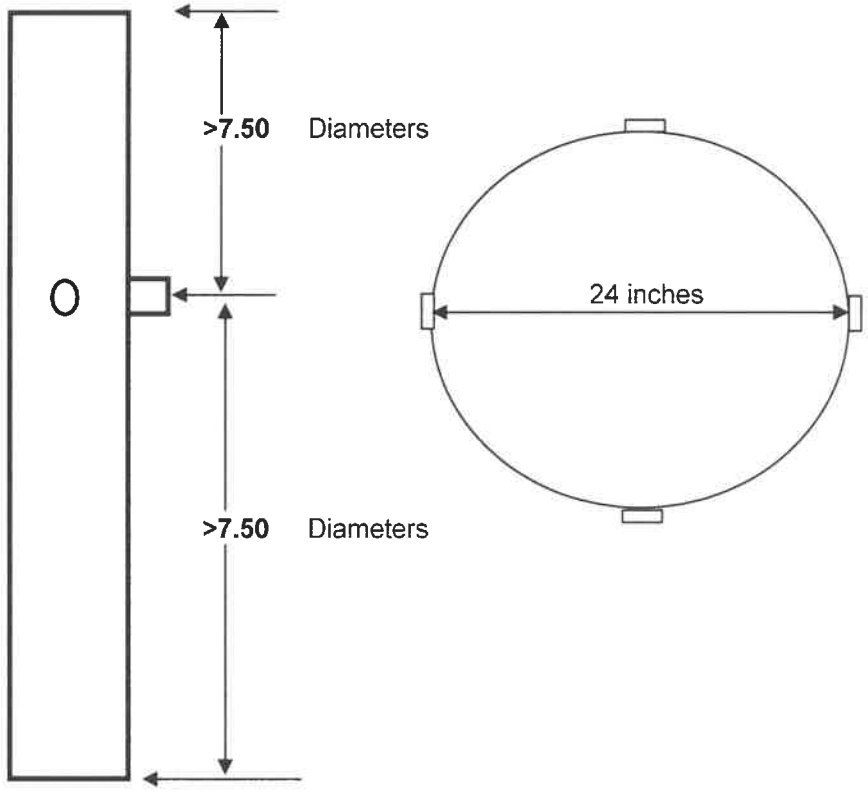
Diameter (inches)	**24.00**
Upstream (inches)	**180.00**
Downstream (inches)	**180.00**
Coupling (in.)	**0.00**
Stack Area (ft^2)	**3.142**

Sample Point	% of Diameter	Dist from Wall (inches)	Dist from Port (inches)
1	3.2	0.8	0.8
2	10.5	2.5	2.5
3	19.4	4.7	4.7
4	32.3	7.8	7.8
5	67.7	16.2	16.2
6	80.6	19.3	19.3
7	89.5	21.5	21.5
8	96.8	23.2	23.2

METHOD 1 DATA SHEET
INLET SAMPLE LOCATION

Client: SCS Field Services Date: 3/20/25

Location: Flare Station Post-H2S Performed By: SJ, KT



Diameter (inches)	**24.00**
Upstream (inches)	**180.00**
Downstream (inches)	**180.00**
Coupling (in.)	**0.00**
Stack Area (ft^2)	**3.142**

Sample Point	% of Diameter	Dist from Wall (inches)	Dist from Port (inches)
1	3.2	0.8	0.8
2	10.5	2.5	2.5
3	19.4	4.7	4.7
4	32.3	7.8	7.8
5	67.7	16.2	16.2
6	80.6	19.3	19.3
7	89.5	21.5	21.5
8	96.8	23.2	23.2

Appendix A.2
Velocity, Moisture and Flow Rate Data

MONTROSE AQS

Duct Moisture by Wet bulb/Dry bulb Measurements

Facility: Chiquita Canyon Landfill
CEM I.D. : T-4

TEST DATE: March 20, 2025

BY: PSJ

$$B_{ws} = \frac{e''_a}{P_a}$$

$$e_a = e'' - \frac{(P_a - e'')[T_{dry} - T_{wet}]}{2800 - 1.3 \times T_{wet}}$$

	P_{bar}	Static Pressure (in. of H_2O)	P_a	T_{dry}	T_{wet}	e_a	B_{ws}	e''
Tank Farm 6	29.03	-4.50	28.7011	81	61	0.3562	1.24	0.56307
Tank Farm 9A	29.03	-0.007	29.0315	78	55	0.198489	0.68	0.439506
Tank Farm 9B	29.03	-0.009	29.0313	76	55	0.219448	0.76	0.439506
Tank Farm 2	29.03	-0.006	29.0316	77	54	0.178052	0.61	0.419127
Tank Farm 7A	29.03	-0.005	29.0316	79	57	0.249873	0.86	0.480303
Tank Farm 7B	29.03	-0.005	29.0316	79	57	0.249873	0.86	0.480303
Zeeco	29.03	-2.800	28.8261	165	100	1.256142	4.36	1.91137
Flare Station Pre	29.03	-0.020	29.0305	90	76	0.778127	2.68	0.923801
Flare Station Post	29.03	5.200	29.4144	90	76	0.776138	2.64	0.923801

DATA AND WORKSHEET
RUN NUMBER 1

TEST CONSTANTS		
Station:	Chiquita Canyon Landfill	
Unit:	Tank Farm 6	
Performed By:	3/20/2025	
Cp:	0.84	
T_{ref}:	60	°F
Stack Area:	0.196	ft^2

TEST VARIABLES		
Start Date:	3/20/25	
Start/End Time:	8:15	8:45
Test Condition:	Normal	
Barom. Pressure:	29.03	
Pstack:	-4.50	iwg
Pstack:	28.70	"Hg
MW Wet:	28.66	lb/lb-mole
MW Dry:	28.79	lb/lb-mole

Moisture		
Moisture Content:	1.24 %	From WbDb

Fuel Gas Composistion Data		
O_2:	21.82 %	From canister analysis
CO_2:	0.14 %	From canister analysis
N_2:	77.59 %	From canister analysis
CH_4:	0.14 %	From canister analysis

METHOD 2.1 DATA

Point	dP (in. H_2O)	sqrt(dP)	Temp °F	Vel. (fps)
1	0.130	0.3606	81	20.96
2	0.150	0.3873	81	22.52
3	0.100	0.3162	81	18.39
4	0.090	0.3000	81	17.44
5	0.120	0.3464	81	20.14
6	0.110	0.3317	81	19.28
1	0.120	0.3464	81	20.14
2	0.160	0.4000	81	23.26
3	0.150	0.3873	81	22.52
4	0.170	0.4123	81	23.97
5	0.150	0.3873	81	22.52
6	0.160	0.4000	81	23.26
Average	0.1329	0.3646	81	21.20

Flow Rate:	250	wacfm	
Flow Rate:	230	scfm	
Flow Rate:	227	dscfm	

DATA AND WORKSHEET
RUN NUMBER 1

TEST CONSTANTS		
Station:	Chiquita Canyon Landfill	
Unit:	Tank Farm 9A	
Performed By:	3/20/2025	
Cp:	0.84	
T_{ref}:	60	°F
Stack Area:	0.785	ft^2

TEST VARIABLES		
Start Date:	3/20/25	
Start/End Time:	8:55	9:25
Test Condition:	Normal	
Barom. Pressure:	29.03	
Pstack:	-0.007	iwg
Pstack:	29.03	"Hg
MW Wet:	28.92	lb/lb-mole
MW Dry:	29.00	lb/lb-mole

Moisture		
Moisture Content:	0.68 %	From WbDb

Fuel Gas Composistion Data		
O_2:	21.17 %	From canister analysis
CO_2:	2.64 %	From canister analysis
N_2:	74.80 %	From canister analysis
CH_4:	0.75 %	From canister analysis

METHOD 2.1 DATA

Point	dP (in. H_2O)	sqrt(dP)	Temp °F	Vel. (fps)
1	0.005	0.0707	78	4.06
2	0.007	0.0837	78	4.80
3	0.006	0.0775	78	4.45
4	0.006	0.0775	78	4.45
5	0.008	0.0894	78	5.13
6	0.005	0.0707	78	4.06
1	0.005	0.0707	78	4.06
2	0.006	0.0775	78	4.45
3	0.005	0.0707	78	4.06
4	0.007	0.0837	78	4.80
5	0.003	0.0548	78	3.14
6	0.005	0.0707	78	4.06
Average	0.0056	0.0748	78	4.29

Flow Rate:	202	wacfm
Flow Rate:	190	scfm
Flow Rate:	188	dscfm

DATA AND WORKSHEET
RUN NUMBER 1

TEST CONSTANTS		
Station:	Chiquita Canyon Landfill	
Unit:	Tank Farm 9B	
Performed By:	3/20/2025	
Cp:	0.84	
T_{ref}:	60	°F
Stack Area:	0.785	ft^2

TEST VARIABLES		
Start Date:	3/20/25	
Start/End Time:	8:55	9:25
Test Condition:	Normal	
Barom. Pressure:	29.03	
Pstack:	-0.009	iwg
Pstack:	29.03	"Hg
MW Wet:	28.64	lb/lb-mole
MW Dry:	28.72	lb/lb-mole

Moisture		
Moisture Content:	0.76 %	From WbDb

Fuel Gas Composistion Data		
O_2:	21.88 %	From canister analysis
CO_2:	0.14 %	From canister analysis
N_2:	77.27 %	From canister analysis
CH_4:	0.14 %	From canister analysis

METHOD 2.1 DATA

Point	dP (in. H_2O)	sqrt(dP)	Temp °F	Vel. (fps)
1	0.013	0.1140	76	6.56
2	0.013	0.1140	76	6.56
3	0.013	0.1140	76	6.56
4	0.010	0.1000	76	5.76
5	0.013	0.1140	76	6.56
6	0.012	0.1095	76	6.31
1	0.012	0.1095	76	6.31
2	0.012	0.1095	76	6.31
3	0.013	0.1140	76	6.56
4	0.012	0.1095	76	6.31
5	0.011	0.1049	76	6.04
6	0.012	0.1095	76	6.31
Average	0.0121	0.1102	76	6.34

Flow Rate:	299	wacfm
Flow Rate:	281	scfm
Flow Rate:	279	dscfm

DATA AND WORKSHEET
RUN NUMBER 1

TEST CONSTANTS		
Station:	Chiquita Canyon Landfill	
Unit:	Tank Farm 2	
Performed By:	3/20/2025	
Cp:	0.84	
T_{ref}:	60	°F
Stack Area:	0.196	ft^2

TEST VARIABLES		
Start Date:	3/20/25	
Start/End Time:	9:00	9:30
Test Condition:	Normal	
Barom. Pressure:	29.03	
Pstack:	-0.006	iwg
Pstack:	29.03	"Hg
MW Wet:	28.30	lb/lb-mole
MW Dry:	28.37	lb/lb-mole

Moisture		
Moisture Content:	0.61 %	From WbDb

Fuel Gas Composistion Data		
O_2:	20.66 %	From canister analysis
CO_2:	2.30 %	From canister analysis
N_2:	74.00 %	From canister analysis
CH_4:	0.14 %	From canister analysis

METHOD 2.1 DATA

Point	dP (in. H_2O)	sqrt(dP)	Temp °F	Vel. (fps)
1	0.006	0.0775	77	4.49
2	0.007	0.0837	77	4.85
3	0.007	0.0837	77	4.85
4	0.009	0.0949	77	5.50
5	0.010	0.1000	77	5.80
6	0.013	0.1140	77	6.61
1	0.008	0.0894	77	5.18
2	0.009	0.0949	77	5.50
3	0.007	0.0837	77	4.85
4	0.005	0.0707	77	4.10
5	0.009	0.0949	77	5.50
6	0.010	0.1000	77	5.80
Average	0.0082	0.0906	77	5.25

Flow Rate:	62	wacfm
Flow Rate:	58	scfm
Flow Rate:	58	dscfm

DATA AND WORKSHEET
RUN NUMBER 1

TEST CONSTANTS		
Station:	Chiquita Canyon Landfill	
Unit:	Tank Farm 7A	
Performed By:	3/20/2025	
Cp:	0.84	
T_{ref}:	60	°F
Stack Area:	0.785	ft^2

TEST VARIABLES		
Start Date:	3/20/25	
Start/End Time:	9:35	10:05
Test Condition:	Normal	
Barom. Pressure:	29.03	
Pstack:	-0.005	iwg
Pstack:	29.03	"Hg
MW Wet:	28.23	lb/lb-mole
MW Dry:	28.32	lb/lb-mole

Moisture		
Moisture Content:	0.86 %	From WbDb

Fuel Gas Composistion Data		
O_2:	21.52 %	From canister analysis
CO_2:	0.14 %	From canister analysis
N_2:	76.26 %	From canister analysis
CH_4:	0.14 %	From canister analysis

METHOD 2.1 DATA

Point	dP (in. H_2O)	sqrt(dP)	Temp °F	Vel. (fps)
1	0.005	0.0707	79	4.11
2	0.007	0.0837	79	4.86
3	0.006	0.0775	79	4.50
4	0.009	0.0949	79	5.52
5	0.008	0.0894	79	5.20
6	0.007	0.0837	79	4.86
1	0.006	0.0775	79	4.50
2	0.008	0.0894	79	5.20
3	0.006	0.0775	79	4.50
4	0.005	0.0707	79	4.11
5	0.009	0.0949	79	5.52
6	0.008	0.0894	79	5.20
Average	0.0069	0.0833	79	4.84

Flow Rate:	228	wacfm
Flow Rate:	214	scfm
Flow Rate:	212	dscfm

DATA AND WORKSHEET
RUN NUMBER 1

TEST CONSTANTS		
Station:	Chiquita Canyon Landfill	
Unit:	Tank Farm 7B	
Performed By:	3/20/2025	
Cp:	0.84	
T_{ref}:	60	°F
Stack Area:	0.785	ft^2

TEST VARIABLES		
Start Date:	3/20/25	
Start/End Time:	9:35	10:05
Test Condition:	Normal	
Barom. Pressure:	29.03	
Pstack:	-0.005	iwg
Pstack:	29.03	"Hg
MW Wet:	28.85	lb/lb-mole
MW Dry:	28.94	lb/lb-mole

Moisture		
Moisture Content:	0.86 %	From WbDb

Fuel Gas Composistion Data		
O_2:	21.29 %	From canister analysis
CO_2:	1.92 %	From canister analysis
N_2:	75.93 %	From canister analysis
CH_4:	0.14 %	From canister analysis

METHOD 2.1 DATA

Point	dP (in. H_2O)	sqrt(dP)	Temp °F	Vel. (fps)
1	0.007	0.0837	79	4.81
2	0.009	0.0949	79	5.46
3	0.008	0.0894	79	5.14
4	0.009	0.0949	79	5.46
5	0.008	0.0894	79	5.14
6	0.007	0.0837	79	4.81
1	0.006	0.0775	79	4.46
2	0.009	0.0949	79	5.46
3	0.010	0.1000	79	5.75
4	0.011	0.1049	79	6.03
5	0.006	0.0775	79	4.46
6	0.005	0.0707	79	4.07
Average	0.0078	0.0884	79	5.09

Flow Rate:	240	wacfm
Flow Rate:	224	scfm
Flow Rate:	222	dscfm

DATA AND WORKSHEET
RUN NUMBER 1

TEST CONSTANTS		
Station:	Chiquita Canyon Landfill	
Unit:	Zeeco	
Performed By:	3/20/2025	
Cp:	0.84	
T_{ref}:	60	°F
Stack Area:	0.785	ft^2

TEST VARIABLES		
Start Date:	3/20/25	
Start/End Time:	9:35	10:05
Test Condition:	Normal	
Barom. Pressure:	29.03	
Pstack:	-2.80	iwg
Pstack:	28.83	"Hg
MW Wet:	31.65	lb/lb-mole
MW Dry:	32.27	lb/lb-mole

Moisture		
Moisture Content:	4.36 %	From WbDb

Fuel Gas Composistion Data		
O_2:	6.75 %	From canister analysis
CO_2:	36.30 %	From canister analysis
N_2:	29.74 %	From canister analysis
CH_4:	36.3 %	From canister analysis

METHOD 2.1 DATA

Point	dP (in. H_2O)	sqrt(dP)	Temp °F	Vel. (fps)
1	0.270	0.5196	165	30.84
2	0.280	0.5292	165	31.40
3	0.300	0.5477	165	32.50
4	0.300	0.5477	165	32.50
5	0.280	0.5292	165	31.40
6	0.260	0.5099	165	30.26
1	0.280	0.5292	165	31.40
2	0.270	0.5196	165	30.84
3	0.280	0.5292	165	31.40
4	0.240	0.4899	165	29.07
5	0.250	0.5000	165	29.67
6	0.230	0.4796	165	28.46
Average	0.2696	0.5192	165	30.81

Flow Rate:	1,452	wacfm
Flow Rate:	1,164	scfm
Flow Rate:	1,113	dscfm

DATA AND WORKSHEET
RUN NUMBER 1

TEST CONSTANTS		
Station:	Chiquita Canyon Landfill	
Unit:	Flare Station Pre-H2S	
Performed By:	3/20/2025	
Cp:	0.84	
T_{ref}:	60	°F
Stack Area:	3.142	ft^2

TEST VARIABLES		
Start Date:	3/20/25	
Start/End Time:	10:10	10:40
Test Condition:	Normal	
Barom. Pressure:	29.03	
Pstack:	-0.02	iwg
Pstack:	29.03	"Hg
MW Wet:	29.39	lb/lb-mole
MW Dry:	29.71	lb/lb-mole

Moisture		
Moisture Content:	2.68 %	From WbDb

Fuel Gas Composistion Data		
O_2:	4.04 %	From canister analysis
CO_2:	42.98 %	From canister analysis
N_2:	17.50 %	From canister analysis
CH_4:	28.78 %	From canister analysis

METHOD 2.1 DATA

Point	dP (in. H_2O)	sqrt(dP)	Temp °F	Vel. (fps)
1	0.026	0.1612	90	9.28
2	0.025	0.1581	90	9.10
3	0.028	0.1673	90	9.63
4	0.027	0.1643	90	9.46
5	0.029	0.1703	90	9.80
6	0.028	0.1673	90	9.63
7	0.031	0.1761	90	10.13
8	0.030	0.1732	90	9.97
1	0.033	0.1817	90	10.46
2	0.032	0.1789	90	10.30
3	0.033	0.1817	90	10.46
4	0.032	0.1789	90	10.30
5	0.037	0.1924	90	11.07
6	0.035	0.1871	90	10.77
7	0.038	0.1949	90	11.22
8	0.039	0.1975	90	11.37
Average	0.0313	0.1769	90	10.18

Flow Rate:	1,920	wacfm
Flow Rate:	1,761	scfm
Flow Rate:	1,714	dscfm

DATA AND WORKSHEET
RUN NUMBER 1

TEST CONSTANTS		
Station:	Chiquita Canyon Landfill	
Unit:	Flare Station Post-H2S	
Performed By:	3/20/2025	
Cp:	0.84	
T_{ref}:	60	°F
Stack Area:	3.142	ft^2

TEST VARIABLES		
Start Date:	3/20/25	
Start/End Time:	10:10	10:40
Test Condition:	Normal	
Barom. Pressure:	29.03	
Pstack:	5.20	iwg
Pstack:	29.41	"Hg
MW Wet:	29.41	lb/lb-mole
MW Dry:	29.72	lb/lb-mole

Moisture			
Moisture Content:	2.64	%	From WbDb

Fuel Gas Composistion Data			
O_2:	3.64	%	From canister analysis
CO_2:	43.53	%	From canister analysis
N_2:	18.76	%	From canister analysis
CH_4:	25.95	%	From canister analysis

METHOD 2.1 DATA

Point	dP (in. H_2O)	sqrt(dP)	Temp °F	Vel. (fps)
1	0.031	0.1761	90	10.06
2	0.027	0.1643	90	9.39
3	0.025	0.1581	90	9.04
4	0.029	0.1703	90	9.73
5	0.028	0.1673	90	9.57
6	0.027	0.1643	90	9.39
7	0.029	0.1703	90	9.73
8	0.030	0.1732	90	9.90
1	0.025	0.1581	90	9.04
2	0.029	0.1703	90	9.73
3	0.031	0.1761	90	10.06
4	0.034	0.1844	90	10.54
5	0.033	0.1817	90	10.38
6	0.036	0.1897	90	10.85
7	0.034	0.1844	90	10.54
8	0.031	0.1761	90	10.06
Average	0.0299	0.1728	90	9.88

Flow Rate:	1,862	wacfm	
Flow Rate:	1,731	scfm	
Flow Rate:	1,685	dscfm	

FLUE GAS VELOCITY DATA AND WORKSHEET

CLIENT: W/C SCS
LOCATION/UNIT: CHIQUITA TANK FARM 6
PERFORMED BY: SS, KT
TEST DATE: 3/20/25
BAR. PRESSURE: 29.03
TC READOUT ID: RTC 43
DP INDICATOR ID: ADM 850 #9
TC ID: ~~W/B~~ S-B DB
DP INDICATOR TYPE: ELECTRONIC
PITOT TUBE ID: L45
Cp: 0.84
ZERO: ✓ LEVEL: ✓ LEAK CHECK PRE- ✓ POST- ✓ BALANCE CHECK WEIGHT —

Run #: 1	Ps: -4.50	Run #:	Ps:	Run #:	Ps:
Start: 0815	Stop: 0845	Start:	Stop:	Start:	Stop:

Sample Point	Vel. Head inches H_2O	Temp, °F	~~Sample Point~~ CYCL.	Vel. Head inches H_2O	Temp, °F	Sample Point	Vel. Head inches H_2O	Temp, °F
T 1	0.130	81	2					
2	0.150	81	1					
3	0.160	81	0					
4	0.09	81	1					
5	0.12	81	3					
6	0.11	81	4					
1	0.12	81	2					
2	0.16	81	1					
3	0.15	81	0					
4	0.17	81	3					
5	0.15	81	1					
6	0.16	81	3					
Heated Line Temp. °F			Heated Line Temp. °F			Heated Line Temp. °F.		
Chiller Temp. °C			Chiller Temp. °C			Chiller Temp. °C		

FLUE GAS VELOCITY DATA AND WORKSHEET

CLIENT: WIC SCS | LOCATION/UNIT: CHIQUITA TANK FARM 9A
PERFORMED BY: SS/KT | TEST DATE: 3/20/25
BAR. PRESSURE: 29.03 | TC READOUT ID: PTC43
DP INDICATOR ID: ADM 850 #2 | TC ID: PB
DP INDICATOR TYPE: ELECTRONIC | PITOT TUBE ID: 145 | Cp: 0.84
ZERO: ✓ | LEVEL: ✓ | LEAK CHECK PRE- ✓ POST- ✓ | BALANCE CHECK WEIGHT —

Run #: 1	Ps: -0.007	Run #:	Ps:	Run #:	Ps:
Start: 0855	Stop: 0925	Start:	Stop:	Start:	Stop:

Sample Point	Vel. Head inches H_2O	Temp, °F	~~Sample Point~~ CYCL.	Vel. Head inches H_2O	Temp, °F	Sample Point	Vel. Head inches H_2O	Temp, °F
1	0.005	78	6					
2	0.007	78	4					
3	0.006	78	2					
4	0.006	78	1					
5	0.008	78	4					
6	0.005	78	1					
1	0.005	78	3					
2	0.006	78	6					
3	0.005	78	2					
4	0.007	78	2					
5	0.003	78	8					
6	0.005	78	2					
Heated Line Temp. °F	N/A		Heated Line Temp. °F			Heated Line Temp. °F.		
Chiller Temp. °C			Chiller Temp. °C			Chiller Temp. °C		

FLUE GAS VELOCITY DATA AND WORKSHEET

CLIENT: W/C SAS
LOCATION/UNIT: CHIQUITA TANK FARM 9B
PERFORMED BY: JS / KT
TEST DATE: 3/20/25
BAR. PRESSURE: 29.03
TC READOUT ID: PTC43
DP INDICATOR ID: ADM350 #9
TC ID: OB
DP INDICATOR TYPE: ELECTRONIC
PITOT TUBE ID: 145
Cp: 0.84
ZERO: ✓ LEVEL: ✓ LEAK CHECK PRE- ✓ POST- ✓ BALANCE CHECK WEIGHT —

Run #: 1	Ps: -0.009	Run #:	Ps:	Run #:	Ps:
Start: 855	Stop: 925	Start:	Stop:	Start:	Stop:

Sample Point	Vel. Head inches H_2O	Temp, °F	CYCL. Sample Point	Vel. Head inches H_2O	Temp, °F	Sample Point	Vel. Head inches H_2O	Temp, °F
1	0.013	76	10					
2	0.013	76	0					
3	0.013	76	1					
4	0.010	76	3					
5	0.013	76	1					
6	0.012	76	2					
1	0.012	76	7					
2	0.012	76	1					
3	0.013	76	3					
4	0.012	76	1					
5	0.011	76	0					
6	0.012	76	6					

Heated Line Temp. °F	N/A	Heated Line Temp. °F		Heated Line Temp. °F.	
Chiller Temp. °C		Chiller Temp. °C		Chiller Temp. °C	

FLUE GAS VELOCITY DATA AND WORKSHEET

CLIENT: WC SCS | LOCATION/UNIT: CHIQUITA TANK FARM 2
PERFORMED BY: SS / KT | TEST DATE: 3/20/25
BAR. PRESSURE: 29.03 | TC READOUT ID: PTC 43
DP INDICATOR ID: ADM 850 #2 | TC ID: DB
DP INDICATOR TYPE: ELECTRONIC | PITOT TUBE ID: 145 | Cp: 0.84
ZERO: ✓ | LEVEL: ✓ | LEAK CHECK PRE- ✓ POST- ✓ | BALANCE CHECK WEIGHT —

Run #: 1	Ps: -0.006	Run #:	Ps:	Run #:	Ps:
Start: 900	Stop: 930	Start:	Stop:	Start:	Stop:

Sample Point	Vel. Head inches H_2O	Temp, °F	~~Sample Point~~ CYCL.	Vel. Head inches H_2O	Temp, °F	Sample Point	Vel. Head inches H_2O	Temp, °F
1	0.006	77	4°					
2	0.007	77	4					
3	0.007	77	8					
4	0.009	77	4					
(5)	0.010	77	2					
6	0.013	77	1					
1	0.008	77	6					
2	0.009	77	3					
3	0.007	77	1					
4	0.005	77	5					
5	0.009	77	1					
6	0.010	77	2					

Heated Line Temp. °F		Heated Line Temp. °F		Heated Line Temp. °F.	
Chiller Temp. °C		Chiller Temp. °C		Chiller Temp. °C	

FLUE GAS VELOCITY DATA AND WORKSHEET

CLIENT: W/C SCS
LOCATION/UNIT: CHINO TA TANK FARM 7A
PERFORMED BY: SS / KT
TEST DATE: 3/20/25
BAR. PRESSURE: 29.03
TC READOUT ID: PTC 43
DP INDICATOR ID: ADM 550 #9
TC ID: DB
DP INDICATOR TYPE: ELECTRONIC
PITOT TUBE ID: 145
Cp: 0.84
ZERO: ✓ LEVEL: ✓ LEAK CHECK PRE- ✓ POST- ✓ BALANCE CHECK WEIGHT —/—

Run #: 1	Ps: -0.005	Run #:	Ps:	Run #:	Ps:
Start: 935	Stop: 1005	Start:	Stop:	Start:	Stop:

Sample Point	Vel. Head inches H_2O	Temp, °F	CYCL. Sample Point	Vel. Head inches H_2O	Temp, °F	Sample Point	Vel. Head inches H_2O	Temp, °F
1	0.005	79	30					
2	0.007	79	1					
3	0.006	79	2					
4	0.009	79	2					
5	0.004	79	1					
6	0.007	79	0					
1	0.006	79	2					
2	0.008	79	1					
3	0.006	79	4					
4	0.005	79	3					
5	0.009	79	1					
6	0.008	79	3					
Heated Line Temp. °F		N/A	Heated Line Temp. °F			Heated Line Temp. °F.		
Chiller Temp. °C			Chiller Temp. °C			Chiller Temp. °C		

FLUE GAS VELOCITY DATA AND WORKSHEET

CLIENT: W/C SCS
LOCATION/UNIT: CHIQUITA TANK FARM 7B
PERFORMED BY: SS | KT
TEST DATE: 3/20/25
BAR. PRESSURE: 29.03
TC READOUT ID: PTC 43
DP INDICATOR ID: ADM 850 #9
TC ID: DB
DP INDICATOR TYPE: ELECTRONIC
PITOT TUBE ID: 146
Cp: 0.84
ZERO: ✓ LEVEL: ✓ LEAK CHECK PRE- ✓ POST- ✓ BALANCE CHECK WEIGHT —

Run #: 1	Ps: -0.005	Run #:	Ps:	Run #:	Ps:
Start: 935	Stop: 1005	Start:	Stop:	Start:	Stop:

Sample Point	Vel. Head inches H_2O	Temp, °F	~~Sample Point~~ CYCL.	Vel. Head inches H_2O	Temp, °F	Sample Point	Vel. Head inches H_2O	Temp, °F
1	0.007	79	10°					
2	0.009	79	6					
3	0.008	79	5					
4	0.009	79	1					
5	0.008	79	0					
6	0.007	79	1					
1	0.006	79	4					
2	0.009	79	2					
3	0.010	79	1					
4	0.011	79	3					
5	0.006	79	5					
6	0.005	79	1					
Heated Line Temp. °F	N/A		Heated Line Temp. °F			Heated Line Temp. °F.		
Chiller Temp. °C	N/A		Chiller Temp. °C			Chiller Temp. °C		

FLUE GAS VELOCITY DATA AND WORKSHEET

CLIENT: W/C SCS
LOCATION/UNIT: CHIQUITA REECO
PERFORMED BY: SS/KF
TEST DATE: 3/20/25
BAR. PRESSURE: 29.03
TC READOUT ID: PTC43
DP INDICATOR ID: ELECTRONIC MANOMETER
TC ID: DB
DP INDICATOR TYPE: ELECTRONIC
PITOT TUBE ID: 175
Cp: 0.84
ZERO: ✓ LEVEL: ✓ LEAK CHECK PRE- ✓ POST- ✓ BALANCE CHECK WEIGHT —

Run #: 1	Ps: -2.80	Run #:	Ps:	Run #:	Ps:
Start: 935	Stop: 1005	Start:	Stop:	Start:	Stop:

Sample Point	Vel. Head inches H_2O	Temp, °F	~~Sample Point~~ eVCL.	Vel. Head inches H_2O	Temp, °F	Sample Point	Vel. Head inches H_2O	Temp, °F
1	0.27	165	0°					
2	0.28	165	1					
3	0.30	165	2					
4	0.30	165	1					
5	0.28	165	0					
6	0.26	165	0					
1	0.28	165	3					
2	0.27	165	1					
3	0.28	165	0					
4	0.24	165	2					
5	0.25	165	1					
6	0.23	165	4					

Heated Line Temp. °F	N/A	Heated Line Temp. °F		Heated Line Temp. °F.	
Chiller Temp. °C		Chiller Temp. °C		Chiller Temp. °C	

FLUE GAS VELOCITY DATA AND WORKSHEET

CLIENT: W/E SCS
LOCATION/UNIT: CHIQUITA PLANT STATION PRE #2S
PERFORMED BY: SS/KT
TEST DATE: 3/20/25
BAR. PRESSURE: 29.03
TC READOUT ID: PTC43
DP INDICATOR ID: ADM 850 #9
TC ID: D46
DP INDICATOR TYPE: ELECTRONIC
PITOT TUBE ID: 1TL
Cp: 0.84
ZERO: ✓ LEVEL: ✓ LEAK CHECK PRE- ✓ POST- ✓ BALANCE CHECK WEIGHT —

Run #: 1	Ps: 0.020	Run #:	Ps:	Run #:	Ps:
Start: 1010	Stop: 1040	Start:	Stop:	Start:	Stop:

Sample Point	Vel. Head inches H_2O	Temp, °F	~~Sample Point~~ CYCL.	Vel. Head inches H_2O	Temp, °F	Sample Point	Vel. Head inches H_2O	Temp, °F
1	0.026	90	2					
2	0.025	90	0					
3	0.028	90	1					
4	0.027	90	3					
5	0.029	90	6					
6	0.028	90	2					
7	0.031	90	4					
8	0.030	90	7					
1	0.033	90	2					
2	0.032	90	1					
3	0.033	90	3					
4	0.032	90	1					
5	0.037	90	2					
6	0.035	90	1					
7	0.038	90	5					
8	0.039	90	4					

Heated Line Temp. °F	N/A	Heated Line Temp. °F		Heated Line Temp. °F.	
Chiller Temp. °C		Chiller Temp. °C		Chiller Temp. °C	

FLUE GAS VELOCITY DATA AND WORKSHEET

CLIENT: W/C SCS — LOCATION/UNIT: CHIQUITA FLARE STATION POST H2S
PERFORMED BY: SS/KT — TEST DATE: 3/20/25
BAR. PRESSURE: 29.03 — TC READOUT ID: 146
DP INDICATOR ID: ADM 850 #9 — TC ID: 146
DP INDICATOR TYPE: ELECTRONIC — PITOT TUBE ID: 146 — Cp: 0.84
ZERO: ✓ — LEVEL: ✓ — LEAK CHECK PRE- ✓ POST- ✓ — BALANCE CHECK WEIGHT —

Run #: 1	Ps: 5.20	Run #:	Ps:	Run #:	Ps:
Start: 1010	Stop: 1040	Start:	Stop:	Start:	Stop:

Sample Point	Vel. Head inches H_2O	Temp, °F	~~Sample Point~~ CVCL	Vel. Head inches H_2O	Temp, °F	Sample Point	Vel. Head inches H_2O	Temp, °F
1	0.031	90	2°					
2	0.027	90	6°					
3	0.025	90	9°					
4	0.029	90	4°					
5	0.028	90	3					
6	0.027	90	1					
7	0.029	90	7					
8	0.030	90	1					
1	0.025	90	0					
2	0.029	90	4					
3	0.031	90	8					
4	0.034	90	2					
5	0.033	90	4					
6	0.036	90	1					
7	0.034	90	6					
8	0.031	90	3					

Heated Line Temp. °F		Heated Line Temp. °F		Heated Line Temp. °F.	
Chiller Temp. °C		Chiller Temp. °C		Chiller Temp. °C	

Appendix A.3
Organics and Sulfur Field and Laboratory Data

LEACHATE TANK HEADSPACE SAMPLING DATA

Client/Facility: CHIQUITA Date: 3/20/25

Unit/Location: TANK FARM 6 Performed By: ST/KT

Barometric Pressure 29.03 Ambient Temperature 78°

SUMMA CANISTER DATA

Test No.		1	
Canister ID		51383	
		Time	Vacuum
Pre-Test Leak Check	Start	0740	30
Pre-Test Leak Check	Stop	0750	30
Sample Collection	Start	0815	30
	10	0825	21
	20	0835	12
End →	30	0845	5
Sample Collection	Stop		
Post -Test Leak Check	Start	1050	5
Post-Test Leak Check	Stop	1100	5

FLOWRATE DATA

Diameter: 6.0"

Upstream: 48"

Downstream: 48"

Flow Rate: —

Wet bulb: 61

Dry bulb: 81

TEDLAR BAG DATA

Start: N/A

Stop:

Bag ID:

LEACHATE TANK HEADSPACE SAMPLING DATA

Client/Facility: CHIQUITA Date: 3/20/25

Unit/Location: TANK FARM 9A Performed By: ST/KT

Barometric Pressure 29.03 Ambient Temperature 78°

SUMMA CANISTER DATA

Test No.		1	
Canister ID		49442	
		Time	Vacuum
Pre-Test Leak Check	Start	0740	30
Pre-Test Leak Check	Stop	0750	30
Sample Collection	Start	0855	30
	10	0905	22
	20	0915	13
→END	30	0925	5
Sample Collection	Stop		
Post -Test Leak Check	Start	1050	5
Post-Test Leak Check	Stop	1100	5

FLOWRATE DATA

Diameter: 12"

Upstream: 96"

Downstream: 96"

Flow Rate: —

Wet bulb: ST ~~78~~ 55

Dry bulb: 78

TEDLAR BAG DATA

Start: N/A

Stop:

Bag ID:

LEACHATE TANK HEADSPACE SAMPLING DATA

Client/Facility: CHIQUITA Date: 3/20/25

Unit/Location: TANK Farm 93 Performed By: SJ/KG

Barometric Pressure 29.03 Ambient Temperature 78°

SUMMA CANISTER DATA

Test No.		1	
Canister ID		48469	
		Time	Vacuum
Pre-Test Leak Check	Start	0740	30
Pre-Test Leak Check	Stop	0750	30
Sample Collection	Start	0855	30
	10	0905	21
	20	0915	13
end→	30	0925	5
Sample Collection	Stop		
Post -Test Leak Check	Start	1050	5
Post-Test Leak Check	Stop	1100	5

FLOWRATE DATA

Diameter: 12"

Upstream: 96"

Downstream: 96"

Flow Rate: —

Wet bulb: 55

Dry bulb: 76

TEDLAR BAG DATA

Start: N/A

Stop:

Bag ID:

LEACHATE TANK HEADSPACE SAMPLING DATA

Client/Facility: CHIQUITA Date: 3/20/25

Unit/Location: TANK FARM 2 Performed By: ST/KT

Barometric Pressure 29.03 Ambient Temperature 78°

SUMMA CANISTER DATA

Test No.		1	
Canister ID		46911	
		Time	Vacuum
Pre-Test Leak Check	Start	0740	30
Pre-Test Leak Check	Stop	0750	30
Sample Collection	Start	0900	30
	10	0910	23
	20	0920	14
End →	30	0930	5
Sample Collection	Stop		
Post -Test Leak Check	Start	1050 ~~1040~~	9
Post-Test Leak Check	Stop	1100 ~~1050~~	5

CG 3/21/25

FLOWRATE DATA

Diameter: 6"

Upstream: 48"

Downstream: 48"

Flow Rate: —

Wet bulb: 54

Dry bulb: 77

TEDLAR BAG DATA

Start: N/A

Stop:

Bag ID:

LEACHATE TANK HEADSPACE SAMPLING DATA

Client/Facility: CHIQUITA Date: 3/20/25

Unit/Location: TANK FARM 7A Performed By: ST/KT

Barometric Pressure 29.07 Ambient Temperature 28°

SUMMA CANISTER DATA

Test No.		1	
Canister ID		47728	
		Time	Vacuum
Pre-Test Leak Check	Start	0740	30
Pre-Test Leak Check	Stop	0750	30
Sample Collection	Start	0935	30
	10	0945	22
	20	0955	14
ends	30	1005	5
Sample Collection	Stop		
Post -Test Leak Check	Start	1050	5
Post-Test Leak Check	Stop	1100	5

FLOWRATE DATA

Diameter: 12"

Upstream: 76"

Downstream: 96"

Flow Rate: —

Wet bulb: 57

Dry bulb: 79

TEDLAR BAG DATA

Start: _____

Stop: N/A

Bag ID: _____

LEACHATE TANK HEADSPACE SAMPLING DATA

Client/Facility: CHIQUITA Date: 3/20/25

Unit/Location: TANK FARM TB Performed By: SS/KT

Barometric Pressure 29.03 Ambient Temperature 78°

SUMMA CANISTER DATA

Test No.		1	
Canister ID		48864	
		Time	Vacuum
Pre-Test Leak Check	Start	0740	30
Pre-Test Leak Check	Stop	0750	30
Sample Collection	Start	0935	30
	10	0945	21
	20	0955	13
end→	30	1005	5
Sample Collection	Stop		
Post -Test Leak Check	Start	1050	5
Post-Test Leak Check	Stop	1100	5

FLOWRATE DATA

Diameter: 12"

Upstream: 180'

Downstream: 180'

Flow Rate: —

Wet bulb: 57

Dry bulb: 79

TEDLAR BAG DATA

Start: _____

Stop: N/A

Bag ID: _____

LEACHATE TANK HEADSPACE SAMPLING DATA

Client/Facility: CHIQUITA Date: 5/20/25

Unit/Location: ZEECO Performed By: ST/KT

Barometric Pressure 29.03 Ambient Temperature 78°

SUMMA CANISTER DATA

Test No.		1	
Canister ID		5125	
		Time	Vacuum
Pre-Test Leak Check	Start	0740	30
Pre-Test Leak Check	Stop	0750	30
Sample Collection	Start	0935	30
	10	0945	22
	20	0955	14
end →	30	1005	5
Sample Collection	Stop		
Post -Test Leak Check	Start	1050	5
Post-Test Leak Check	Stop	1100	5

FLOWRATE DATA

Diameter: 12"

Upstream: 180"

Downstream: 180"

Flow Rate: —

Wet bulb: 100

Dry bulb: 165

TEDLAR BAG DATA

Start: N/A

Stop:

Bag ID:

LEACHATE TANK HEADSPACE SAMPLING DATA

Client/Facility: CHI QUITA Date: 3/20/25

Unit/Location: FLARE STATION PRE H2O Performed By: ST/KT

Barometric Pressure 29.03 Ambient Temperature 78°

SUMMA CANISTER DATA

Test No.		1	
Canister ID		49439	
		Time	Vacuum
Pre-Test Leak Check	Start	0740	30
Pre-Test Leak Check	Stop	0750	30
Sample Collection	Start	1010	30
	10	1020	23
	20	1030	13
end →	30	1040	5
Sample Collection	Stop		
Post -Test Leak Check	Start	1050	5
Post-Test Leak Check	Stop	1100	5

FLOWRATE DATA

Diameter: 24"

Upstream: 180"

Downstream: 180"

Flow Rate: —

Wet bulb: 76

Dry bulb: 90

TEDLAR BAG DATA

Start: N/A

Stop:

Bag ID:

LEACHATE TANK HEADSPACE SAMPLING DATA

Client/Facility: CHIQUITA Date: 3/20/25

Unit/Location: FLARE STATION POST H2S Performed By: SJ/KT

Barometric Pressure 29.03 Ambient Temperature 78°

SUMMA CANISTER DATA

Test No.		1	
Canister ID		46611	
		Time	Vacuum
Pre-Test Leak Check	Start	0740	30
Pre-Test Leak Check	Stop	0750	30
Sample Collection	Start	1010	30
	10	1020	23
	20	1030	13
end →	30	1040	5
Sample Collection	Stop		
Post -Test Leak Check	Start	1050	5
Post-Test Leak Check	Stop	1100	5

FLOWRATE DATA

Diameter: 24"

Upstream: 180"

Downstream: 180"

Flow Rate: —

Wet bulb: 76

Dry bulb: 90

TEDLAR BAG DATA

Start: N/A

Stop:

Bag ID:

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LABORATORY ANALYSIS REPORT

Permanent Gases Analysis in Silco Canister Samples by Method ASTM D1946-90

Report Date: April 14, 2025
Client: Montrose AQS
Project Location: Chiquita Landfill
Project No.: PROJ-053154
Date Received: March 20, 2025
Date Analyzed: March 21, 2025

ANALYSIS DESCRIPTION

Permanent gases were measured by thermal conductivity detection/gas chromatography (TCD/GC), ASTM D1946-90.

AtmAA Lab No.:	20795-31	20795-32	20795-33
Sample I.D.:	Tank Farm 6	Tank Farm 9A	Tank Farm 9B
Components	*(Concentration in %,v)*		
Nitrogen	77.59	74.80	77.27
Oxygen	21.82	21.17	21.88
Methane	<0.14	0.75	<0.14
Carbon dioxide	<0.14	2.64	<0.14

The reported oxygen concentration includes any argon present in the sample. Calibration is based on a standard atmosphere containing 20.95% oxygen and 0.93% argon.
The accuracy of permanent gas analysis by TCD/GC is +/- 2%, actual results are reported.
Actual analysis results are reported on a "wet" basis.

Brian W. Fung
Laboratory Director

QUALITY ASSURANCE SUMMARY
(Repeat Analyses)

Project Location: Chiquita Landfill
Date Received: March 20, 2025
Date Analyzed: March 21, 2025

Components	Sample ID	Repeat Analysis Run #1	Repeat Analysis Run #2	Mean Conc.	% RPD
		(Concentration in %,v)			
Nitrogen	Tank Farm 6	77.98	77.19	77.59	1.0
Oxygen	Tank Farm 6	21.86	21.77	21.82	0.41
Methane	Tank Farm 6	<0.14	<0.14	---	---
Carbon dioxide	Tank Farm 6	<0.14	<0.14	---	---

Three Silco canister samples, laboratory numbers 20795-(31-33), were analyzed for permanent gases. Agreement between repeat analyses is a measure of precision and is shown above in the column "% RPD". The average % RPD for 2 repeat measurements from three Silco canister samples is 0.72%.

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LABORATORY ANALYSIS REPORT

Speciated Hydrocarbons Analysis in Silco Canister Samples

Report Date: April 14, 2025
Client: Montrose AQS
Project Location: Chiquita Landfill
Project No.: PROJ-053154
Date Received: March 20, 2025
Date Analyzed: March 21, 2025
Laboratory Temp: 73.5 °F
Barometric Pressure: 29.95 inHg

ANALYSIS DESCRIPTION

Hydrocarbon speciation analysis was performed by flame ionization detection/gas chromatography (FID/GC), modified EPA-18. Methane was measured by thermal conductivity detection/gas chromatography (TCD/GC), ASTM D1946-90

AtmAA Lab No.:	20795-31	20795-32	20795-33
Sample ID:	Tank Farm 6	Tank Farm 9A	Tank Farm 9B
Component	*(Concentration in ppmv, component)*		
Methane	300	7500	26.4
Ethene	<0.30	6.48	<0.20
Acetylene	<0.30	<0.30	<0.20
Ethane	<0.30	7.12	<0.20
Non-methane hydrocarbons analysis by carbon number grouping			
C3	<0.10	22.3	<0.10
C4	70.0	75.5	31.9
C5	60.0	71.3	29.5
C6	42.0	96.3	21.7
C7	7.57	36.0	5.18
C8	7.29	29.4	4.69
C9	4.90	29.0	8.17
C10	9.27	26.5	23.1
C11	1.28	5.35	7.17
C12	0.65	3.12	6.87
C13	0.24	2.03	9.36
C14	<0.06	0.51	2.16
	(Concentration in ppmvC)		
TNMHC	1105	2473	1096

TNMHC - total non-methane hydrocarbons as ppmvC.
Actual analysis results are reported on a "wet" basis.

Brian W. Fung
Laboratory Director

QUALITY ASSURANCE SUMMARY
(Repeat Analyses)

Project Location: Chiquita Landfill
Date Received: March 20, 2025
Date Analyzed: March 21, 2025

Component	Sample ID	Repeat Analysis Run #1	Repeat Analysis Run #2	Mean Conc.	% RPD
		(Conc. in ppmv, component)			
Methane	Tank Farm 6	254	254	254	0.08
Ethene	Tank Farm 6	<0.30	<0.30	<0.30	---
Acetylene	Tank Farm 6	<0.30	<0.30	<0.30	---
Ethane	Tank Farm 6	<0.30	<0.30	<0.30	---
non-methane hydrocarbons analysis by carbon number grouping					
C3	Tank Farm 6	<0.10	<0.10	<0.10	---
C4	Tank Farm 6	70.0	69.9	70.0	0.09
C5	Tank Farm 6	60.0	60.1	60.0	0.17
C6	Tank Farm 6	42.0	41.9	42.0	0.26
C7	Tank Farm 6	7.70	7.45	7.57	3.3
C8	Tank Farm 6	7.44	7.13	7.29	4.2
C9	Tank Farm 6	4.86	4.95	4.90	1.7
C10	Tank Farm 6	9.17	9.37	9.27	2.1
C11	Tank Farm 6	1.08	1.48	1.28	31
C12	Tank Farm 6	0.61	0.69	0.65	12
C13	Tank Farm 6	0.24	0.25	0.24	4.5
C14	Tank Farm 6	<0.06	<0.06	<0.06	---
		(Concentration in ppmvC)			
TNMHC	Tank Farm 6	1103	1107	1105	0.32

Three Silco canister samples, laboratory numbers 20795-(31-33), were analyzed for hydrocarbon speciation, EPA Method 18. Agreement between repeat analyses is a measure of precision and is shown above in the column "% RPD". The average % RPD for 12 repeat measurements from three Silco canister samples is 5.0%.

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LABORATORY ANALYSIS REPORT

Hydrogen Sulfide and Reduced Sulfur Compounds
Analysis in Silco Canister Sample by SCAQMD Method 307.91

Report Date: April 14, 2025
Client: Montrose AQS
Project Location: Chiquita Landfill
Project No.: PROJ-053154
Date Received: March 20, 2025
Date Analyzed: March 20, 2025

ANALYSIS DESCRIPTION

Total sulfur analysis measured by gas chromatography with sulfur chemiluminescence detector (SCD), SCAQMD 307.91.

AtmAA Lab No.:	20795-31	20795-32	20795-33
Sample I.D.:	Tank Farm 6	Tank Farm 9A	Tank Farm 9B
Components	*(Concentration in ppmv)*		
Hydrogen sulfide	<0.10	10.5	<0.10
Carbonyl sulfide	<0.10	<0.10	<0.10
Methyl mercaptan	0.12	14.6	<0.10
Ethyl mercaptan	<0.10	0.22	<0.10
Dimethyl sulfide	3.54	49.9	1.76
Carbon disulfide	<0.10	<0.10	<0.10
i-Propyl mercaptan	<0.10	0.17	<0.10
t-Butyl mercaptan	<0.10	<0.10	<0.10
n-Propyl mercaptan	<0.10	<0.10	<0.10
s-Butyl mercaptan	<0.10	0.76	<0.10
i-Butyl mercaptan	<0.10	<0.10	<0.10
Dimethyl disulfide	<0.10	0.30	<0.10
Tetrahydrothiophene	<0.10	0.38	<0.10
Unidentified sulfurs	<0.10	2.18	<0.10
	(Concentration in ppmv, as H_2S)		
Total Sulfur	3.66	79.24	1.76

Brian W. Fung
Laboratory Director

QUALITY ASSURANCE SUMMARY
(Repeat Analyses)

Project Location: Chiquita Landfill
Date Received: March 20, 2025
Date Analyzed: March 20, 2025

Components	Sample ID	Repeat Analysis Run #1	Repeat Analysis Run #2	Mean Conc.	% RPD
		(Concentration in ppmv)			
Hydrogen sulfide	Tank Farm 6	<0.10	<0.10	---	---
	Tank Farm 9A	10.6	10.4	10.5	1.9
	Tank Farm 9B	<0.10	<0.10	---	---
Carbonyl sulfide	Tank Farm 6	<0.10	<0.10	---	---
	Tank Farm 9A	<0.10	<0.10	---	---
	Tank Farm 9B	<0.10	<0.10	---	---
Methyl mercaptan	Tank Farm 6	0.12	0.12	0.12	0.00
	Tank Farm 9A	14.6	14.5	14.6	0.69
	Tank Farm 9B	<0.10	<0.10	---	---
Ethyl mercaptan	Tank Farm 6	<0.10	<0.10	---	---
	Tank Farm 9A	0.22	0.22	0.22	0.00
	Tank Farm 9B	<0.10	<0.10	---	---
Dimethyl sulfide	Tank Farm 6	3.55	3.52	3.54	0.85
	Tank Farm 9A	50.3	49.5	49.9	1.6
	Tank Farm 9B	1.77	1.74	1.76	1.7
Carbon disulfide	Tank Farm 6	<0.10	<0.10	---	---
	Tank Farm 9A	<0.10	<0.10	---	---
	Tank Farm 9B	<0.10	<0.10	---	---
i-Propyl mercaptan	Tank Farm 6	<0.10	<0.10	---	---
	Tank Farm 9A	0.17	0.16	0.17	6.1
	Tank Farm 9B	<0.10	<0.10	---	---
t-Butyl mercaptan	Tank Farm 6	<0.10	<0.10	---	---
	Tank Farm 9A	<0.10	<0.10	---	---
	Tank Farm 9B	<0.10	<0.10	---	---
n-Propyl mercaptan	Tank Farm 6	<0.10	<0.10	---	---
	Tank Farm 9A	<0.10	<0.10	---	---
	Tank Farm 9B	<0.10	<0.10	---	---
s-Butyl mercaptan	Tank Farm 6	<0.10	<0.10	---	---
	Tank Farm 9A	0.76	0.75	0.76	1.3
	Tank Farm 9B	<0.10	<0.10	---	---

QUALITY ASSURANCE SUMMARY
(Repeat Analyses)
(continued)

Components	Sample ID	Repeat Analysis Run #1	Repeat Analysis Run #2	Mean Conc.	% RPD
		(Concentration in ppmv)			
i-Butyl mercaptan	Tank Farm 6	<0.10	<0.10	---	---
	Tank Farm 9A	<0.10	<0.10	---	---
	Tank Farm 9B	<0.10	<0.10	---	---
Dimethyl disulfide	Tank Farm 6	<0.10	<0.10	---	---
	Tank Farm 9A	0.31	0.29	0.30	6.7
	Tank Farm 9B	<0.10	<0.10	---	---
Tetrahydrothiophene	Tank Farm 6	<0.10	<0.10	---	---
	Tank Farm 9A	0.38	0.37	0.38	2.7
	Tank Farm 9B	<0.10	<0.10	---	---
Unidentified sulfurs	Tank Farm 6	<0.10	<0.10	---	---
	Tank Farm 9A	2.19	2.16	2.18	1.4
	Tank Farm 9B	<0.10	<0.10	---	---

Three Silco canister samples, laboratory numbers 20795-(31-33), were analyzed for total sulfur compounds. Agreement between repeat analyses is a measure of precision and is shown above in the column "% RPD". The average % RPD for 12 repeat measurements from three Silco canister samples is 2.1%.

Calculated values for Specific Volume, BTU, and F (factor)

Report Date: April 14, 2025
Client: Montrose AQS
Project Location: Chiquita Landfill
Date Received: March 20, 2025
Date Analyzed: March 21, 2025
AtmAA Lab #: 20795-31
Sample ID: Tank Farm 6

Specific volume, BTU, and F-factor are calculated using normalized labortatory analysis results for methane, carbon dioxide, nitrogen, oxygen, TNMHC, and sulfur compounds in equations that include gross/net heating and specific gas volume values taken from the GPA-2145 Midstream Standard. Heating value factor is a calculated according to ASTM 3588-98 (14.696 psia and 60°F).

Component	Mole %	Wt %	C,H,O,N,S,	Wt.%
Methane	0.00	0.00	Carbon	0.05
Carbon dioxide	0.00	0.00	Hydrogen	0.01
Nitrogen	78.04	75.45	Oxygen	23.21
Oxygen	21.01	23.21	Nitrogen	75.46
Argon	0.93	1.28	Argon	1.28
Hydrogen	0.00	0.00	Sulfur	0.00
$(CH_2)_n$	0.020	0.06		

Specific Volume	13.091			
BTU/ft3 (Dry @60F, 14.696 psia)	0.8850	(HHV)	0.8189	(LHV)
BTU/ft3 (Water Saturated @ 0.25636 psia)	0.8695	(HHV)	0.8046	(LHV)
BTU/lb (Dry @60F, 14.696 psia)	11.59	(HHV)	10.72	(LHV)
Compressibility Factor (@60F, 14.696 psia)	0.9996			
Wobbe Index	0.8907			
Specific Gravity	0.9871			

Component	Specific volume reference values *	
Methane	23.7	(ft^3/lb)
Carbon dioxide	8.62	
Nitrogen	13.5	
Oxygen	11.9	
Argon	9.52	
Hydrogen	188.2	

* reference, Rev. 2016, GPA-2145 Midstream Standard, Selected Hydrocarbons 60°F

Calculated values for Specific Volume, BTU, and F (factor)

Report Date: April 14, 2025
Client: Montrose AQS
Project Location: Chiquita Landfill
Date Received: March 20, 2025
Date Analyzed: March 21, 2025
AtmAA Lab #: 20795-32
Sample ID: Tank Farm 9A

Specific volume, BTU, and F-factor are calculated using normalized labortatory analysis results for methane, carbon dioxide, nitrogen, oxygen, TNMHC, and sulfur compounds in equations that include gross/net heating and specific gas volume values taken from the GPA-2145 Midstream Standard. Heating value factor is a calculated according to ASTM 3588-98 (14.696 psia and 60°F).

Component	Mole %	Wt %	C,H,O,N,S,	Wt.%	
Methane	0.75	0.41	Carbon	1.50	
Carbon dioxide	2.66	3.99	Hydrogen	0.12	
Nitrogen	75.25	71.95	Oxygen	25.19	
Oxygen	20.39	22.29	Nitrogen	71.95	
Argon	0.90	1.24	Argon	1.24	
Hydrogen	0.00	0.00	Sulfur	0.00	
$(CH_2)_n$	0.041	0.12			
Specific Volume		12.948			
BTU/ft3 (Dry @60F, 14.696 psia)		9.596	(HHV)	8.691	(LHV)
BTU/ft3 (Water Saturated @ 0.25636 psia)		9.429	(HHV)	8.540	(LHV)
BTU/lb (Dry @60F, 14.696 psia)		124.25	(HHV)	112.53	(LHV)
F_d (factor)		9895			
F_w (factor)		11805			
F_c (factor)		3874			
Compressibility Factor (@60F, 14.696 psia)		0.9996			
Wobbe Index		9.6014			
Specific Gravity		0.9989			

Component	Specific volume reference values *	
Methane	23.7	(ft^3/lb)
Carbon dioxide	8.62	
Nitrogen	13.5	
Oxygen	11.9	
Argon	9.52	
Hydrogen	188.2	

* reference, Rev. 2016, GPA-2145 Midstream Standard, Selected Hydrocarbons 60°F

Calculated values for Specific Volume, BTU, and F (factor)

Report Date: April 14, 2025
Client: Montrose AQS
Project Location: Chiquita Landfill
Date Received: March 20, 2025
Date Analyzed: March 21, 2025
AtmAA Lab #: 20795-33
Sample ID: Tank Farm 9B

Specific volume, BTU, and F-factor are calculated using normalized labortatory analysis results for methane, carbon dioxide, nitrogen, oxygen, TNMHC, and sulfur compounds in equations that include gross/net heating and specific gas volume values taken from the GPA-2145 Midstream Standard. Heating value factor is a calculated according to ASTM 3588-98 (14.696 psia and 60°F).

Component	Mole %	Wt %	C,H,O,N,S,	Wt.%
Methane	0.00	0.00	Carbon	0.05
Carbon dioxide	0.00	0.00	Hydrogen	0.01
Nitrogen	77.92	75.31	Oxygen	23.34
Oxygen	21.13	23.34	Nitrogen	75.31
Argon	0.94	1.29	Argon	1.29
Hydrogen	0.00	0.00	Sulfur	0.00
$(CH_2)_n$	0.015	0.05		

Specific Volume	13.088			
BTU/ft3 (Dry @60F, 14.696 psia)	0.8666	(HHV)	0.8034	(LHV)
BTU/ft3 (Water Saturated @ 0.25636 psia)	0.8515	(HHV)	0.7894	(LHV)
BTU/lb (Dry @60F, 14.696 psia)	11.34	(HHV)	10.52	(LHV)
Compressibility Factor (@60F, 14.696 psia)	0.9996			
Wobbe Index	0.8715			
Specific Gravity	0.9888			

Component	Specific volume reference values *	
Methane	23.7	(ft^3/lb)
Carbon dioxide	8.62	
Nitrogen	13.5	
Oxygen	11.9	
Argon	9.52	
Hydrogen	188.2	

* reference, Rev. 2016, GPA-2145 Midstream Standard, Selected Hydrocarbons 60°F

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LABORATORY ANALYSIS REPORT

Permanent Gases Analysis in Silco Canister Samples by Method ASTM D1946-90

Report Date: April 14, 2025
Client: Montrose AQS
Project Location: Chiquita Landfill
Project No.: PROJ-053154
Date Received: March 20, 2025
Date Analyzed: March 21, 2025

ANALYSIS DESCRIPTION

Permanent gases were measured by thermal conductivity detection/gas chromatography (TCD/GC), ASTM D1946-90.

AtmAA Lab No.:	20795-34	20795-35	20795-36
Sample I.D.:	Tank Farm 2	Tank Farm 7A	Tank Farm 7B
Components	*(Concentration in %,v)*		
Nitrogen	74.00	76.26	75.93
Oxygen	20.66	21.52	21.29
Methane	<0.14	<0.14	<0.14
Carbon dioxide	2.30	<0.14	1.92

The reported oxygen concentration includes any argon present in the sample. Calibration is based on a standard atmosphere containing 20.95% oxygen and 0.93% argon.
The accuracy of permanent gas analysis by TCD/GC is +/- 2%, actual results are reported.
Actual analysis results are reported on a "wet" basis.

Brian W. Fung
Laboratory Director

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LABORATORY ANALYSIS REPORT

Speciated Hydrocarbons Analysis in Silco Canister Samples

Report Date: April 14, 2025
Client: Montrose AQS
Project Location: Chiquita Landfill
Project No.: PROJ-053154
Date Received: March 20, 2025
Date Analyzed: March 21, 2025
Laboratory Temp: 73.5 °F
Barometric Pressure: 29.95 inHg

ANALYSIS DESCRIPTION

Hydrocarbon speciation analysis was performed by flame ionization detection/gas chromatography (FID/GC), modified EPA-18. Methane was measured by thermal conductivity detection/gas chromatography (TCD/GC), ASTM D1946-90.

AtmAA Lab No.:	20795-34	20795-35	20795-36
Sample ID:	Tank Farm 2	Tank Farm 7A	Tank Farm 7B
Component	*(Concentration in ppmv, component)*		
Methane	1015	77.7	695
Ethene	<0.30	<0.30	2.90
Acetylene	<0.30	<0.30	<0.20
Ethane	<0.30	<0.30	2.18
Non-methane hydrocarbons analysis by carbon number grouping			
C3	17.1	<0.10	6.16
C4	167	66.2	91.7
C5	277	99.3	203
C6	301	60.9	132
C7	129	9.66	242
C8	89.1	6.49	18.8
C9	116	8.12	15.0
C10	149	34.4	38.7
C11	24.1	9.50	15.5
C12	14.3	8.33	5.88
C13	5.38	5.18	9.01
C14	<0.06	1.29	0.87
	(Concentration in ppmvC)		
TNMHC	8567	1953	4934

TNMHC - total non-methane hydrocarbons as ppmvC.
Actual analysis results are reported on a "wet" basis.

Brian W. Fung
Laboratory Director

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LABORATORY ANALYSIS REPORT

Hydrogen Sulfide and Reduced Sulfur Compounds
Analysis in Silco Canister Sample by SCAQMD Method 307.91

Report Date: April 14, 2025
Client: Montrose AQS
Project Location: Chiquita Landfill
Project No.: PROJ-053154
Date Received: March 20, 2025
Date Analyzed: March 20, 2025

ANALYSIS DESCRIPTION

Total sulfur analysis measured by gas chromatography with sulfur chemiluminescence detector (SCD), SCAQMD 307.91.

AtmAA Lab No.:	20795-34	20795-35	20795-36
Sample I.D.:	Tank Farm 2	Tank Farm 7A	Tank Farm 7B
Components	*(Concentration in ppmv)*		
Hydrogen sulfide	<0.10	<0.10	0.69
Carbonyl sulfide	0.12	<0.10	<0.10
Methyl mercaptan	1.46	<0.10	4.45
Ethyl mercaptan	<0.10	<0.10	<0.10
Dimethyl sulfide	62.3	1.60	28.9
Carbon disulfide	<0.10	<0.10	<0.10
i-Propyl mercaptan	<0.10	<0.10	<0.10
t-Butyl mercaptan	<0.10	<0.10	<0.10
n-Propyl mercaptan	0.85	<0.10	0.34
s-Butyl mercaptan	0.94	<0.10	0.29
i-Butyl mercaptan	<0.10	<0.10	<0.10
Dimethyl disulfide	1.33	<0.10	0.34
Tetrahydrothiophene	0.93	<0.10	0.16
Unidentified sulfurs	5.14	0.14	1.16
	(Concentration in ppmv, as H_2S)		
Total Sulfur	74.38	1.73	36.64

Brian W. Fung
Laboratory Director

QUALITY ASSURANCE SUMMARY
(Repeat Analyses)

Project Location: Chiquita Landfill
Date Received: March 20, 2025
Date Analyzed: March 20, 2025

Components	Sample ID	Repeat Analysis Run #1	Repeat Analysis Run #2	Mean Conc.	% RPD
		(Concentration in ppmv)			
Hydrogen sulfide	Tank Farm 2	<0.10	<0.10	---	---
	Tank Farm 7A	<0.10	<0.10	---	---
	Tank Farm 7B	0.69	0.68	0.69	1.5
Carbonyl sulfide	Tank Farm 2	0.11	0.12	0.12	8.7
	Tank Farm 7A	<0.10	<0.10	---	---
	Tank Farm 7B	<0.10	<0.10	---	---
Methyl mercaptan	Tank Farm 2	1.43	1.49	1.46	4.1
	Tank Farm 7A	<0.10	<0.10	---	---
	Tank Farm 7B	4.49	4.41	4.45	1.8
Ethyl mercaptan	Tank Farm 2	<0.10	<0.10	---	---
	Tank Farm 7A	<0.10	<0.10	---	---
	Tank Farm 7B	<0.10	<0.10	---	---
Dimethyl sulfide	Tank Farm 2	61.8	62.8	62.3	1.61
	Tank Farm 7A	1.60	1.59	1.60	0.63
	Tank Farm 7B	28.9	28.9	28.9	0.17
Carbon disulfide	Tank Farm 2	<0.10	<0.10	---	---
	Tank Farm 7A	<0.10	<0.10	---	---
	Tank Farm 7B	<0.10	<0.10	---	---
i-Propyl mercaptan	Tank Farm 2	<0.10	<0.10	---	---
	Tank Farm 7A	<0.10	<0.10	---	---
	Tank Farm 7B	<0.10	<0.10	---	---
t-Butyl mercaptan	Tank Farm 2	<0.10	<0.10	---	---
	Tank Farm 7A	<0.10	<0.10	---	---
	Tank Farm 7B	<0.10	<0.10	---	---
n-Propyl mercaptan	Tank Farm 2	0.85	0.85	0.85	0.00
	Tank Farm 7A	<0.10	<0.10	---	---
	Tank Farm 7B	0.34	0.34	0.34	0.00
s-Butyl mercaptan	Tank Farm 2	0.94	0.94	0.94	0.00
	Tank Farm 7A	<0.10	<0.10	---	---
	Tank Farm 7B	0.29	0.29	0.29	0.00

QUALITY ASSURANCE SUMMARY
(Repeat Analyses)
(continued)

Components	Sample ID	Repeat Analysis Run #1	Repeat Analysis Run #2	Mean Conc.	% RPD
		(Concentration in ppmv)			
i-Butyl mercaptan	Tank Farm 2	<0.10	<0.10	---	---
	Tank Farm 7A	<0.10	<0.10	---	---
	Tank Farm 7B	<0.10	<0.10	---	---
Dimethyl disulfide	Tank Farm 2	1.32	1.33	1.33	0.75
	Tank Farm 7A	<0.10	<0.10	---	---
	Tank Farm 7B	0.34	0.34	0.34	0.00
Tetrahydrothiophene	Tank Farm 2	0.92	0.94	0.93	2.2
	Tank Farm 7A	<0.10	<0.10	---	---
	Tank Farm 7B	0.17	0.15	0.16	13
Unidentified sulfurs	Tank Farm 2	5.10	5.17	5.14	1.4
	Tank Farm 7A	0.14	0.13	0.14	7.4
	Tank Farm 7B	1.16	1.16	1.16	0.00

Three Silco canister samples, laboratory numbers 20795-(34-36), were analyzed for total sulfur compounds. Agreement between repeat analyses is a measure of precision and is shown above in the column "% RPD". The average % RPD for 18 repeat measurements from three Silco canister samples is 2.4%.

Calculated values for Specific Volume, BTU, and F (factor)

Report Date: April 14, 2025
Client: Montrose AQS
Project Location: Chiquita Landfill
Date Received: March 20, 2025
Date Analyzed: March 21, 2025
AtmAA Lab #: 20795-34
Sample ID: Tank Farm 2

Specific volume, BTU, and F-factor are calculated using normalized labortatory analysis results for methane, carbon dioxide, nitrogen, oxygen, TNMHC, and sulfur compounds in equations that include gross/net heating and specific gas volume values taken from the GPA-2145 Midstream Standard. Heating value factor is a calculated according to ASTM 3588-98 (14.696 psia and 60°F).

Component	Mole %	Wt %	C,H,O,N,S,	Wt.%
Methane	0.00	0.00	Carbon	1.33
Carbon dioxide	2.37	3.55	Hydrogen	0.07
Nitrogen	76.22	72.62	Oxygen	24.75
Oxygen	20.38	22.18	Nitrogen	72.62
Argon	0.90	1.23	Argon	1.23
Hydrogen	0.00	0.00	Sulfur	0.00
$(CH_2)_n$	0.133	0.43		

Specific Volume	12.900			
BTU/ft3 (Dry @60F, 14.696 psia)	6.949	(HHV)	6.439	(LHV)
BTU/ft3 (Water Saturated @ 0.25636 psia)	6.828	(HHV)	6.326	(LHV)
BTU/lb (Dry @60F, 14.696 psia)	89.64	(HHV)	83.06	(LHV)
Compressibility Factor (@60F, 14.696 psia)	0.9996			
Wobbe Index	6.941			
Specific Gravity	1.0023			

Component	Specific volume reference values *	
Methane	23.7	(ft^3/lb)
Carbon dioxide	8.62	
Nitrogen	13.5	
Oxygen	11.9	
Argon	9.52	
Hydrogen	188.2	

* reference, Rev. 2016, GPA-2145 Midstream Standard, Selected Hydrocarbons 60°F

Calculated values for Specific Volume, BTU, and F (factor)

Report Date: April 14, 2025
Client: Montrose AQS
Project Location: Chiquita Landfill
Date Received: March 20, 2025
Date Analyzed: March 21, 2025
AtmAA Lab #: 20795-35
Sample ID: Tank Farm 7A

Specific volume, BTU, and F-factor are calculated using normalized labortatory analysis results for methane, carbon dioxide, nitrogen, oxygen, TNMHC, and sulfur compounds in equations that include gross/net heating and specific gas volume values taken from the GPA-2145 Midstream Standard. Heating value factor is a calculated according to ASTM 3588-98 (14.696 psia and 60°F).

Component	Mole %	Wt %	C,H,O,N,S,	Wt.%	
Methane	0.00	0.00	Carbon	0.08	
Carbon dioxide	0.00	0.00	Hydrogen	0.02	
Nitrogen	77.97	75.34	Oxygen	23.27	
Oxygen	21.07	23.27	Nitrogen	75.34	
Argon	0.93	1.29	Argon	1.29	
Hydrogen	0.00	0.00	Sulfur	0.00	
$(CH_2)_n$	0.032	0.10			
Specific Volume		13.086			
BTU/ft3 (Dry @60F, 14.696 psia)		1.576	(HHV)	1.460	(LHV)
BTU/ft3 (Water Saturated @ 0.25636 psia)		1.549	(HHV)	1.435	(LHV)
BTU/lb (Dry @60F, 14.696 psia)		20.63	(HHV)	19.11	(LHV)
Compressibility Factor (@60F, 14.696 psia)		0.9996			
Wobbe Index		1.586			
Specific Gravity		0.9884			

Component	Specific volume reference values *	
Methane	23.7	(ft^3/lb)
Carbon dioxide	8.62	
Nitrogen	13.5	
Oxygen	11.9	
Argon	9.52	
Hydrogen	188.2	

* reference, Rev. 2016, GPA-2145 Midstream Standard, Selected Hydrocarbons 60°F

Calculated values for Specific Volume, BTU, and F (factor)

Report Date: April 14, 2025
Client: Montrose AQS
Project Location: Chiquita Landfill
Date Received: March 20, 2025
Date Analyzed: March 21, 2025
AtmAA Lab #: 20795-36
Sample ID: Tank Farm 7B

Specific volume, BTU, and F-factor are calculated using normalized labortatory analysis results for methane, carbon dioxide, nitrogen, oxygen, TNMHC, and sulfur compounds in equations that include gross/net heating and specific gas volume values taken from the GPA-2145 Midstream Standard. Heating value factor is a calculated according to ASTM 3588-98 (14.696 psia and 60°F).

Component	Mole %	Wt %	C,H,O,N,S,	Wt.%
Methane	0.00	0.00	Carbon	1.00
Carbon dioxide	1.94	2.91	Hydrogen	0.04
Nitrogen	76.53	73.16	Oxygen	24.56
Oxygen	20.55	22.45	Nitrogen	73.16
Argon	0.91	1.24	Argon	1.24
Hydrogen	0.00	0.00	Sulfur	0.00
$(CH_2)_n$	0.079	0.24		

Specific Volume	12.945			
BTU/ft3 (Dry @60F, 14.696 psia)	3.928	(HHV)	3.638	(LHV)
BTU/ft3 (Water Saturated @ 0.25636 psia)	3.859	(HHV)	3.575	(LHV)
BTU/lb (Dry @60F, 14.696 psia)	50.84	(HHV)	47.10	(LHV)
Compressibility Factor (@60F, 14.696 psia)	0.9996			
Wobbe Index	3.929			
Specific Gravity	0.9993			

Component	Specific volume reference values *	
Methane	23.7	(ft^3/lb)
Carbon dioxide	8.62	
Nitrogen	13.5	
Oxygen	11.9	
Argon	9.52	
Hydrogen	188.2	

* reference, Rev. 2016, GPA-2145 Midstream Standard, Selected Hydrocarbons 60°F

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LABORATORY ANALYSIS REPORT

Permanent Gases Analysis in Silco Canister Samples by Method ASTM D1946-90

Report Date: April 14, 2025
Client: Montrose AQS
Project Location: Chiquita Landfill
Project No.: PROJ-053154
Date Received: March 20, 2025
Date Analyzed: March 21, 2025

ANALYSIS DESCRIPTION

Permanent gases were measured by thermal conductivity detection/gas chromatography (TCD/GC), ASTM D1946-90.

AtmAA Lab No.:	20795-37	20795-38	20795-39
Sample I.D.:	Zeeco Inlet	Flare Station Pre H2S	Flare Station Post H2S
Components	*(Concentration in %,v)*		
Nitrogen	29.74	17.50	18.76
Oxygen	6.75	4.04	3.64
Methane	22.39	28.78	25.95
Carbon dioxide	36.30	42.98	43.53
Hydrogen	1.82	2.84	3.38

The reported oxygen concentration includes any argon present in the sample. Calibration is based on a standard atmosphere containing 20.95% oxygen and 0.93% argon.
The accuracy of permanent gas analysis by TCD/GC is +/- 2%, actual results are reported.
Actual analysis results are reported on a "wet" basis.

Brian W. Fung
Laboratory Director

QUALITY ASSURANCE SUMMARY
(Repeat Analyses)

Project Location: Chiquita Landfill
Date Received: March 20, 2025
Date Analyzed: March 21, 2025

Components	Sample ID	Repeat Analysis Run #1	Repeat Analysis Run #2	Mean Conc.	% RPD
		(Concentration in %,v)			
Nitrogen	Zeeco Inlet	29.78	29.69	29.74	0.30
Oxygen	Zeeco Inlet	6.75	6.74	6.75	0.15
Methane	Zeeco Inlet	22.47	22.30	22.39	0.76
Carbon dioxide	Zeeco Inlet	36.30	36.30	36.30	0.00
Hydrogen	Zeeco Inlet	1.78	1.85	1.82	3.9

Three Silco canister samples, laboratory numbers 20795-(37-39), were analyzed for permanent gases. Agreement between repeat analyses is a measure of precision and is shown above in the column "% RPD". The average % RPD for 5 repeat measurements from three Silco canister samples is 1.0%.

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LABORATORY ANALYSIS REPORT

Speciated Hydrocarbons Analysis in Silco Canister Samples

Report Date: April 14, 2025
Client: Montrose AQS
Project Location: Chiquita Landfill
Project No.: PROJ-053154
Date Received: March 20, 2025
Date Analyzed: March 21, 2025
Laboratory Temp: 73.5 °F
Barometric Pressure: 29.95 inHg

ANALYSIS DESCRIPTION

Hydrocarbon speciation analysis was performed by flame ionization detection/gas chromatography (FID/GC), modified EPA-18. Methane was measured by thermal conductivity detection/gas chromatography (TCD/GC), ASTM D1946-90.

AtmAA Lab No.:	20795-37	20795-38	20795-39
Sample ID:	Zeeco Inlet	Flare Station Pre H2S	Flare Station Post H2S
Component	*(Concentration in ppmv, component)*		
Methane	223900	287800	259500
Ethene	<0.30	<0.30	<0.20
Acetylene	<0.30	<0.30	<0.20
Ethane	48.4	55.9	59.9
Non-methane hydrocarbons analysis by carbon number grouping			
C3	211	223	221
C4	1040	1422	1872
C5	1240	1324	1703
C6	939	952	2251
C7	294	1110	708
C8	211	341	510
C9	221	321	464
C10	227	311	168
C11	47.5	49.1	18.6
C12	17.0	28.9	12.6
C13	10.4	11.2	5.94
C14	1.98	0.68	2.02
	(Concentration in ppmvC)		
TNMHC	25622	36332	45638

TNMHC - total non-methane hydrocarbons as ppmvC.
Actual analysis results are reported on a "wet" basis.

Brian W. Fung
Laboratory Director

QUALITY ASSURANCE SUMMARY
(Repeat Analyses)

Project Location: Chiquita Landfill
Date Received: March 20, 2025
Date Analyzed: March 21, 2025

Component	Sample ID	Repeat Analysis Run #1	Repeat Analysis Run #2	Mean Conc.	% RPD
		(Conc. in ppmv, component)			
Methane	Zeeco Inlet	224700	223000	223850	0.76
Ethene	Zeeco Inlet	<0.30	<0.30	<0.30	---
Acetylene	Zeeco Inlet	<0.30	<0.30	<0.30	---
Ethane	Zeeco Inlet	48.2	48.7	48.4	1.0
non-methane hydrocarbons analysis by carbon number grouping					
C3	Zeeco Inlet	215	207	211	3.5
C4	Zeeco Inlet	1106	974	1040	13
C5	Zeeco Inlet	1312	1168	1240	12
C6	Zeeco Inlet	977	901	939	8.2
C7	Zeeco Inlet	295	293	294	0.85
C8	Zeeco Inlet	213	210	211	1.1
C9	Zeeco Inlet	223	220	221	1.2
C10	Zeeco Inlet	233	221	227	5.5
C11	Zeeco Inlet	48.1	47.0	47.5	2.3
C12	Zeeco Inlet	16.6	17.3	17.0	4.3
C13	Zeeco Inlet	10.4	10.3	10.4	0.77
C14	Zeeco Inlet	1.96	2.00	1.98	2.1
		(Concentration in ppmvC)			
TNMHC	Zeeco Inlet	26582	24663	25622	7.5

Three Silco canister samples, laboratory numbers 20795-(37-39), were analyzed for hydrocarbon speciation, EPA Method 18. Agreement between repeat analyses is a measure of precision and is shown above in the column "% RPD". The average % RPD for 15 repeat measurements from three Silco canister samples is 4.2%.

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LABORATORY ANALYSIS REPORT

Hydrogen Sulfide and Reduced Sulfur Compounds
Analysis in Silco Canister Sample by SCAQMD Method 307.91

Report Date: April 14, 2025
Client: Montrose AQS
Project Location: Chiquita Landfill
Project No.: PROJ-053154
Date Received: March 20, 2025
Date Analyzed: March 20, 2025

ANALYSIS DESCRIPTION

Total sulfur analysis measured by gas chromatography with sulfur chemiluminescence detector (SCD), SCAQMD 307.91.

AtmAA Lab No.:	20795-37	20795-38	20795-39
Sample I.D.:	Zeeco Inlet	Flare Station Pre H2S	Flare Station Post H2S
Components	*(Concentration in ppmv)*		
Hydrogen sulfide	209	301	<0.40
Carbonyl sulfide	0.71	1.07	0.98
Methyl mercaptan	104	170	<0.40
Ethyl mercaptan	1.64	2.43	<0.40
Dimethyl sulfide	284	502	495
Carbon disulfide	<0.40	<0.40	0.45
i-Propyl mercaptan	1.72	3.28	<0.40
t-Butyl mercaptan	<0.40	<0.40	<0.40
n-Propyl mercaptan	4.31	7.01	7.57
s-Butyl mercaptan	4.98	9.24	9.27
i-Butyl mercaptan	<0.40	<0.40	<0.40
Dimethyl disulfide	0.99	2.22	57.0
Tetrahydrothiophene	2.07	3.87	4.51
Unidentified sulfurs	10.3	16.4	87.3
	(Concentration in ppmv, as H_2S)		
Total Sulfur	624.2	1019.7	719.4

Brian W. Fung
Laboratory Director

QUALITY ASSURANCE SUMMARY
(Repeat Analyses)

Project Location: Chiquita Landfill
Date Received: March 20, 2025
Date Analyzed: March 20, 2025

Components	Sample ID	Repeat Analysis Run #1	Repeat Analysis Run #2	Mean Conc.	% RPD
		(Concentration in ppmv)			
Hydrogen sulfide	Zeeco Inlet	213	205	209	3.8
	Flare Station Pre H2S	299	302	301	1.0
	Flare Station Post H2S	<0.40	<0.40	---	---
Carbonyl sulfide	Zeeco Inlet	0.70	0.71	0.71	1.4
	Flare Station Pre H2S	1.07	1.07	1.07	0.00
	Flare Station Post H2S	1.00	0.95	0.98	5.1
Methyl mercaptan	Zeeco Inlet	106	102	104	3.8
	Flare Station Pre H2S	169	171	170	1.2
	Flare Station Post H2S	<0.40	<0.40	---	---
Ethyl mercaptan	Zeeco Inlet	1.67	1.61	1.64	3.7
	Flare Station Pre H2S	2.39	2.47	2.43	3.29
	Flare Station Post H2S	<0.40	<0.40	---	---
Dimethyl sulfide	Zeeco Inlet	289	278	284	3.9
	Flare Station Pre H2S	500	503	502	0.60
	Flare Station Post H2S	511	479	495	6.5
Carbon disulfide	Zeeco Inlet	<0.40	<0.40	---	---
	Flare Station Pre H2S	<0.40	<0.40	---	---
	Flare Station Post H2S	0.45	0.44	0.45	2.2
i-Propyl mercaptan	Zeeco Inlet	1.73	1.70	1.72	1.7
	Flare Station Pre H2S	3.28	3.27	3.28	0.31
	Flare Station Post H2S	<0.40	<0.40	---	---
t-Butyl mercaptan	Zeeco Inlet	<0.40	<0.40	---	---
	Flare Station Pre H2S	<0.40	<0.40	---	---
	Flare Station Post H2S	<0.40	<0.40	---	---
n-Propyl mercaptan	Zeeco Inlet	4.40	4.21	4.31	4.4
	Flare Station Pre H2S	6.96	7.06	7.01	1.4
	Flare Station Post H2S	7.80	7.34	7.57	6.1
s-Butyl mercaptan	Zeeco Inlet	5.04	4.92	4.98	2.4
	Flare Station Pre H2S	9.23	9.25	9.24	0.22
	Flare Station Post H2S	9.54	8.99	9.27	5.9

QUALITY ASSURANCE SUMMARY
(Repeat Analyses)
(continued)

Components	Sample ID	Repeat Analysis Run #1	Repeat Analysis Run #2	Mean Conc.	% RPD
		(Concentration in ppmv)			
i-Butyl mercaptan	Zeeco Inlet	<0.40	<0.40	---	---
	Flare Station Pre H2S	<0.40	<0.40	---	---
	Flare Station Post H2S	<0.40	<0.40	---	---
Dimethyl disulfide	Zeeco Inlet	1.02	0.96	0.99	6.1
	Flare Station Pre H2S	2.20	2.24	2.22	1.8
	Flare Station Post H2S	58.7	55.2	57.0	6.1
Tetrahydrothiophene	Zeeco Inlet	2.07	2.06	2.07	0.48
	Flare Station Pre H2S	3.86	3.88	3.87	0.52
	Flare Station Post H2S	4.56	4.46	4.51	2.2
Unidentified sulfurs	Zeeco Inlet	10.1	10.5	10.3	3.8
	Flare Station Pre H2S	15.9	16.9	16.4	6.4
	Flare Station Post H2S	89.9	84.7	87.3	6.0

Three Silco canister samples, laboratory numbers 20795-(37-39), were analyzed for total sulfur compounds. Agreement between repeat analyses is a measure of precision and is shown above in the column "% RPD". The average % RPD for 30 repeat measurements from three Silco canister samples is 3.1%.

Calculated values for Specific Volume, BTU, and F (factor)

Report Date: April 14, 2025
Client: Montrose AQS
Project Location: Chiquita Landfill
Date Received: March 20, 2025
Date Analyzed: March 21, 2025
AtmAA Lab #: 20795-37
Sample ID: Zeeco Inlet

Specific volume, BTU, and F-factor are calculated using normalized labortatory analysis results for methane, carbon dioxide, nitrogen, oxygen, TNMHC, and sulfur compounds in equations that include gross/net heating and specific gas volume values taken from the GPA-2145 Midstream Standard. Heating value factor is a calculated according to ASTM 3588-98 (14.696 psia and 60°F). The F-factor is calculated according to the equation in EPA Method 19.

Component	Mole %	Wt %	C,H,O,N,S,	Wt.%	
Methane	22.97	11.78	Carbon	24.11	
Carbon dioxide	37.25	52.40	Hydrogen	3.28	
Nitrogen	30.51	27.32	Oxygen	44.88	
Oxygen	6.63	6.78	Nitrogen	27.32	
Argon	0.29	0.38	Argon	0.38	
Hydrogen	1.86	0.12	Sulfur	0.02	
$(CH_2)_n$	0.463	1.21			
Specific Volume		12.126			
BTU/ft3 (Dry @60F, 14.696 psia)		259.1	(HHV)	233.5	(LHV)
BTU/ft3 (Water Saturated @ 0.25636 psia)		254.5	(HHV)	229.4	(LHV)
BTU/lb (Dry @60F, 14.696 psia)		3141	(HHV)	2831	(LHV)
F_d (factor)		10194			
F_w (factor)		12210			
F_c (factor)		2464			
Compressibility Factor (@60F, 14.696 psia)		0.9978			
Wobbe Index		249.60			
Specific Gravity		1.0772			

Component	Specific volume reference values *	
Methane	23.7	(ft^3/lb)
Carbon dioxide	8.62	
Nitrogen	13.5	
Oxygen	11.9	
Argon	9.52	
Hydrogen	188.2	

* reference, Rev. 2016, GPA-2145 Midstream Standard, Selected Hydrocarbons 60°F

Calculated values for Specific Volume, BTU, and F (factor)

Report Date: April 14, 2025
Client: Montrose AQS
Project Location: Chiquita Landfill
Date Received: March 20, 2025
Date Analyzed: March 21, 2025
AtmAA Lab #: 20795-38
Sample ID: Flare Station Pre H2S

Specific volume, BTU, and F-factor are calculated using normalized labortatory analysis results for methane, carbon dioxide, nitrogen, oxygen, TNMHC, and sulfur compounds in equations that include gross/net heating and specific gas volume values taken from the GPA-2145 Midstream Standard. Heating value factor is a calculated according to ASTM 3588-98 (14.696 psia and 60°F). The F-factor is calculated according to the equation in EPA Method 19.

Component	Mole %	Wt %	C,H,O,N,S, Wt.%		
Methane	29.74	15.19	Carbon	29.85	
Carbon dioxide	44.41	62.39	Hydrogen	4.27	
Nitrogen	18.08	16.17	Oxygen	49.46	
Oxygen	4.00	4.08	Nitrogen	16.17	
Argon	0.18	0.23	Argon	0.23	
Hydrogen	2.93	0.19	Sulfur	0.03	
$(CH_2)_n$	0.635	1.72			
Specific Volume		12.100			
BTU/ft3 (Dry @60F, 14.696 psia)		339.8	(HHV)	306.2	(LHV)
BTU/ft3 (Water Saturated @ 0.25636 psia)		333.9	(HHV)	300.8	(LHV)
BTU/lb (Dry @60F, 14.696 psia)		4112	(HHV)	3705	(LHV)
F_d (factor)		9907			
F_w (factor)		11910			
F_c (factor)		2330			
Compressibility Factor (@60F, 14.696 psia)		0.9972			
Wobbe Index		327.0			
Specific Gravity		1.0797			

Component	Specific volume reference values *	
Methane	23.7	(ft^3/lb)
Carbon dioxide	8.62	
Nitrogen	13.5	
Oxygen	11.9	
Argon	9.52	
Hydrogen	188.2	

* reference, Rev. 2016, GPA-2145 Midstream Standard, Selected Hydrocarbons 60°F

Calculated values for Specific Volume, BTU, and F (factor)

Report Date: April 14, 2025
Client: Montrose AQS
Project Location: Chiquita Landfill
Date Received: March 20, 2025
Date Analyzed: March 21, 2025
AtmAA Lab #: 20795-39
Sample ID: Flare Station Post H2S

Specific volume, BTU, and F-factor are calculated using normalized labortatory analysis results for methane, carbon dioxide, nitrogen, oxygen, TNMHC, and sulfur compounds in equations that include gross/net heating and specific gas volume values taken from the GPA-2145 Midstream Standard. Heating value factor is a calculated according to ASTM 3588-98 (14.696 psia and 60°F). The F-factor is calculated according to the equation in EPA Method 19.

Component	Mole %	Wt %	C,H,O,N,S,	Wt.%	
Methane	27.01	13.63	Carbon	29.17	
Carbon dioxide	45.32	62.88	Hydrogen	3.98	
Nitrogen	19.53	17.25	Oxygen	49.40	
Oxygen	3.63	3.66	Nitrogen	17.25	
Argon	0.16	0.20	Argon	0.20	
Hydrogen	3.52	0.22	Sulfur	0.00	
$(CH_2)_n$	0.832	2.15			
Specific Volume		11.95			
BTU/ft3 (Dry @60F, 14.696 psia)		322.0	(HHV)	290.2	(LHV)
BTU/ft3 (Water Saturated @ 0.25636 psia)		316.4	(HHV)	285.2	(LHV)
BTU/lb (Dry @60F, 14.696 psia)		3848	(HHV)	3469	(LHV)
F_d (factor)		10088			
F_w (factor)		12086			
F_c (factor)		2433			
Compressibility Factor (@60F, 14.696 psia)		0.9972			
Wobbe Index		307.8			
Specific Gravity		1.0943			

Component	Specific volume reference values *	
Methane	23.7	(ft^3/lb)
Carbon dioxide	8.62	
Nitrogen	13.5	
Oxygen	11.9	
Argon	9.52	
Hydrogen	188.2	

* reference, Rev. 2016, GPA-2145 Midstream Standard, Selected Hydrocarbons 60°F

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LABORATORY ANALYSIS REPORT

SCAQMD Rule 1150.1 Components Analysis in Silco Canister Samples

Report Date: April 14, 2025
Client: Montrose AQS
Project Name: Chiquita Landfill
Project No.: PROJ-053154
Date Received: March 20, 2025
Date Analyzed: March 20-21, 2025

AtmAA Lab No.:	20795-31	20795-32	20795-33
Sample I.D.:	Tank Farm 6	Tank Farm 9A	Tank Farm 9B
	(Concentration in ppbv)		
Components			
Hydrogen sulfide	<100	10500	<100
Benzene	765	15400	358
Benzyl chloride	<30	<30	<30
Chlorobenzene	<25	<25	<25
Dichlorobenzenes*	<40	<40	<40
1,1-dichloroethane	<30	<30	<30
1,2-dichloroethane	<30	<30	<30
1,1-dichloroethylene	<30	<30	<30
Dichloromethane	<60	<60	<60
1,2-dibromoethane	<15	<15	<15
Perchloroethylene	<15	<15	<15
Carbon tetrachloride	<35	<35	<35
Toluene	58.3	905	59.0
1,1,1-trichloroethane	<20	<20	<20
Trichloroethene	<20	<20	<20
Chloroform	<20	<20	<20
Vinyl chloride	<20	<20	<20
m+p-xylenes	36.1	309	49.5
o-xylene	<25	105	<25

Toxic air contaminants (TAC) compounds were analyzed by GC/MS, EPA TO-15.
Hydrogen sulfide was analyzed by SCD/GC, SCAQMD 307.91.
** total amount containing meta, para, and ortho isomers*

Brian W. Fung
Laboratory Director

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LABORATORY ANALYSIS REPORT

SCAQMD Rule 1150.1 Components Analysis in Silco Canister Samples

Report Date: April 14, 2025
Client: Montrose AQS
Project Name: Chiquita Landfill
Project No.: PROJ-053154
Date Received: March 20, 2025
Date Analyzed: March 20-21, 2025

AtmAA Lab No.:	20795-34	20795-35	20795-36
Sample I.D.:	Tank Farm 2	Tank Farm 7A	Tank Farm 7B
	(Concentration in ppbv)		
Components			
Hydrogen sulfide	<100	<100	685
Benzene	23650	421	6500
Benzyl chloride	<45	<45	<45
Chlorobenzene	53.3	<40	<40
Dichlorobenzenes*	214	<60	<60
1,1-dichloroethane	<45	<45	<45
1,2-dichloroethane	51.6	<45	<45
1,1-dichloroethylene	<45	<45	<45
Dichloromethane	<100	<100	<100
1,2-dibromoethane	<25	<25	<25
Perchloroethylene	<25	<25	<25
Carbon tetrachloride	<60	<60	<60
Toluene	3190	96.0	409
1,1,1-trichloroethane	<35	<35	<35
Trichloroethene	<35	<35	<35
Chloroform	<35	<35	<35
Vinyl chloride	<35	<35	<35
m+p-xylenes	1535	71.6	156
o-xylene	569	<40	65.4

Toxic air contaminants (TAC) compounds were analyzed by GC/MS, EPA TO-15.
Hydrogen sulfide was analyzed by SCD/GC, SCAQMD 307.91.
** total amount containing meta, para, and ortho isomers*

Brian W. Fung
Laboratory Director

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LABORATORY ANALYSIS REPORT

SCAQMD Rule 1150.1 Components Analysis in Silco Canister Samples

Report Date: April 18, 2025
Client: Montrose AQS
Project Name: Chiquita Landfill
Project No.: PROJ-053154
Date Received: March 20, 2025
Date Analyzed: March 20-21, 2025

AtmAA Lab No.:	20795-37	20795-38	20795-39
Sample I.D.:	Zeeco Inlet	Flare Station Pre H2S	Flare Station Post H2S
	(Concentration in ppbv)		
Components			
Hydrogen sulfide	209000	300500	<400
Benzene	81900	127000	116000
Benzyl chloride	<5000	<5000	<5000
Chlorobenzene	<4500	<4500	<4500
Dichlorobenzenes*	<6500	<6500	<6500
1,1-dichloroethane	<5000	<5000	<5000
1,2-dichloroethane	<5000	<5000	<5000
1,1-dichloroethylene	<5000	<5000	<5000
Dichloromethane	<11000	<11000	<11000
1,2-dibromoethane	<3000	<3000	<3000
Perchloroethylene	<3000	<3000	<3000
Carbon tetrachloride	<6000	<6000	<6000
Toluene	8910	12400	11800
1,1,1-trichloroethane	<4000	<4000	<4000
Trichloroethene	<4000	<4000	<4000
Chloroform	<4000	<4000	<4000
Vinyl chloride	<4000	<4000	<4000
m+p-xylenes	4580	5360	5440
o-xylene	<4500	<4500	<4500

Toxic air contaminants (TAC) compounds were analyzed by GC/MS, EPA TO-15.
Hydrogen sulfide was analyzed by SCD/GC, SCAQMD 307.91.
** total amount containing meta, para, and ortho isomers*

Brian W. Fung
Laboratory Director

QUALITY ASSURANCE SUMMARY
(Repeat Analyses)

Project Name: Chiquita Landfill
Date Received: March 20, 2025
Date Analyzed: March 20-21, 2025

Components	Sample ID	Repeat Analysis Run #1	Repeat Analysis Run #2	Mean Conc.	% RPD
		(Concentration in ppbv)			
Hydrogen sulfide	Tank Farm 2	<100	<100	---	---
Benzene	Tank Farm 2	24500	22800	23650	7.2
Benzyl chloride	Tank Farm 2	<45	<45	---	---
Chlorobenzene	Tank Farm 2	53.4	53.2	53.3	0.38
Dichlorobenzenes	Tank Farm 2	207	221	214	6.5
1,1-dichloroethane	Tank Farm 2	<45	<45	---	---
1,2-dichloroethane	Tank Farm 2	52.0	51.2	51.6	1.6
1,1-dichloroethylene	Tank Farm 2	<45	<45	---	---
Dichloromethane	Tank Farm 2	<100	<100	---	---
1,2-dibromoethane	Tank Farm 2	<25	<25	---	---
Perchloroethylene	Tank Farm 2	<25	<25	---	---
Carbon tetrachloride	Tank Farm 2	<60	<60	---	---
Toluene	Tank Farm 2	3280	3100	3190	5.6
1,1,1-trichloroethane	Tank Farm 2	<35	<35	---	---
Trichloroethene	Tank Farm 2	<35	<35	---	---
Chloroform	Tank Farm 2	<35	<35	---	---
Vinyl chloride	Tank Farm 2	<35	<35	---	---
m+p-xylenes	Tank Farm 2	1540	1530	1535	0.65
o-xylene	Tank Farm 2	576	562	569	2.5

Nine Silco canister samples, laboratory numbers 20795-(31-39), were analyzed for SCAQMD Rule 1150.1 components. Agreement between repeat analyses is a measure of precision and is shown above in the column "% RPD". The average % RPD for 7 repeat measurements from nine Silco canister samples is 3.5%.

CHAIN OF CUSTODY RECORD

Client/Project Name: MONTROSE AQS	**Project Location:** CHIQUITA LANDFILL
Project Number: PROJ -	**Purchase Order Number:**
Sampler: ~~(Signature)~~	**Turnaround Times:** ~~Standard 10 day~~ **Expedited:** 24hr / 48hr / 72hr / 5 day

ANALYSES REQUESTED

Client Sample Identification	Type of Sample Canister ID	AtmAA Lab Number	Sampling Date	Sampling Time	ASTM D1945/3588	Fixed Gases	TO-15 Purge MSD.	SCAQMD 307-91				Special Remarks
TANK FARM 6	51383	20795-31	3/20/25	0845	X	X	X					# 628
TANK FARM 9A	49442	-32		0855	X	X	X					# 584
TANK FARM 9B	48469	-33		0865	X	X	X					# 548
TANK FARM 2	46911	-34		0900	X	X	X					# 527
TANK FARM 7A	47728	-35		0935	X	X	X					# 566
TANK FARM 7B	48864	-36		0935	X	X	X					# 562
ZEECO INLET	51125	-37		0935	X	X	X					# 601

Relinquished by: *(Signature)*	**Date** 3/20/25	**Time**	**Received by:** *(Signature)*	**Date**	**Time**
Relinquished by: *(Signature)*	**Date**	**Time**	**Received by:** *(Signature)*	**Date**	**Time**
Relinquished by: *(Signature)*	**Date**	**Time**	**Received for Laboratory by:** *(Signature)*	**Date** 3/21/25	**Time** 11:55

Company Info:	**Send Report to:**	**Analytical Laboratory**
Company: MONTROSE	**Company:** MONTROSE	AtmAA Inc.
Street Address 1631 E. ST. ANDREW	**Street Address**	23917 Craftsman Rd.
City/State/Zip: SANTA ANA	**City/State/Zip:**	Calabasas, CA 91302
Telephone No.: 626 689 6313	**Project Manager:** PETE SAN JUAN	TEL: (818) 223-3277
Email Address: PSANJUAN@MONTROSE-ENV.COM	**Email Address:**	Email Address: info@atmaa.com

CHAIN OF CUSTODY RECORD

Client/Project Name: MONTAOSE AQS	Project Location: CHIQUITA LANDFILL
Project Number: PROJ -	Purchase Order Number:
Sampler: (Signature)	Turnaround Times: ~~Standard 10 day~~ Expedited: 24hr / 48hr / 72hr / 5 day

ANALYSES REQUESTED: ASTM 1945/3588; FIXED GAS 3C's; TO 15; RULE 1150.1; 5 CARBONS; 307-91

Client Sample Identification	Type of Sample Canister ID	AtmAA Lab Number	Sampling Date	Sampling Time	Special Remarks
~~FLARE~~ STATION PRE	H2S 49439	20795-38	3/20/25	1010	# 581
FLARESTATION POST	H2S 46611	-39	"	1010	# 516

Relinquished by: (Signature)	Date 3/20/25	Time	Received by: (Signature)	Date / Time
Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date / Time
Relinquished by: (Signature)	Date	Time	Received for Laboratory by: (Signature)	Date 3/21/25 Time 11:25

Company Info:	Send Report to:	Analytical Laboratory
Company:	Company:	AtmAA Inc.
Street Address	Street Address	23917 Craftsman Rd.
City/State/Zip:	City/State/Zip:	Calabasas, CA 91302
Telephone No.:	Project Manager:	TEL: (818) 223-3277
Email Address:	Email Address:	Email Address: info@atmaa.com

Appendix A.4
Quality Assurance Data

Barometric Pressure Determination

Date: 03/20/25

Time: 7:30

Data By: SJ, KT

Reference: https://forecast.weather.gov/MapClick.php?lat=33.6873&l

Lat: 34.42972°NLon: 118.66712°WElev: 1278.0ft.

Reference Barometer ID	**DEL VALLE (DLVC1)**
Reference Barometer Location	
Reference Barometer Other Info.	
Reference Barometer Indication, corrected to sea level	30.03
Reference Barometer Reference Elevation	**1278**
Reference Barometer Actual Pressure	28.75
Test Barometer Location/Site	**Chiquita Canyon**
Location/Site Elevation	**997**
Location/Site Barometric Pressure	29.03
Sampling Location Height (above/below site elevation)	**1**
Sampling Location Barometric Pressure	**29.03**

MONTROSE

THERMOCOUPLE CALIBRATION

Thermocouple ID: TC-WB
Date: 1/3/2025
Performed By: JS/JS/JL

Calibrated Digital Temperature Readout ID: PTC-69
T1 Reference Thermometer ID: 2788
T2 Reference Thermometer ID: 2736
T3 Reference Thermometer ID: 0514-1120

T/C I.D.	Readout	T/C - Readout °F				Reference Thermometer °F				Difference		
TC-WB	I.D.	Reading 1	Reading 2	Reading 3	Average	Reading 1	Reading 2	Reading 3	Average	°F	%, (°R)	
T3 (~ 370 F)	PTC-69	367	367	367	367	370	370	370	370	3.0	0.4%	Pass
T2 (~ 212 F)	PTC-69	215	215	215	215	212	212	212	212	3.0	0.4%	Pass
T1 (~ 32 F)	PTC-69	33	33	33	33	32	32	32	32	1.0	0.2%	Pass

1) Difference % (°R) = Difference (°F) / (Average Tref + 460)
2) Pass if all Differences are less than 1.5% (°R)

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THERMOCOUPLE CALIBRATION

Thermocouple ID: TC-DB
Date: 1/3/2025
Performed By: JS/JS/JL

Calibrated Digital Temperature Readout ID: PTC-69
T1 Reference Thermometer ID: 2788
T2 Reference Thermometer ID: 2736
T3 Reference Thermometer ID: 0514-1120

T/C I.D.	Readout	T/C - Readout °F				Reference Thermometer °F				Difference		
TC-DB	I.D.	Reading 1	Reading 2	Reading 3	Average	Reading 1	Reading 2	Reading 3	Average	°F	%, (°R)	
T3 (~ 370 F)	PTC-69	371	371	371	371	370	370	370	370	1.0	0.1%	Pass
T2 (~ 212 F)	PTC-69	215	215	215	215	212	212	212	212	3.0	0.4%	Pass
T1 (~ 32 F)	PTC-69	32	32	32	32	32	32	32	32	0.0	0.0%	Pass

1) Difference % (°R) = Difference (°F) / (Average Tref + 460)
2) Pass if all Differences are less than 1.5% (°R)

MONTROSE
AIR QUALITY SERVICES

THERMOCOUPLE CALIBRATION

Thermocouple ID: 145
Date: 1/3/2025
Performed By: JS/JS/JL

Calibrated Digital Temperature Readout ID: PTC-69
T1 Reference Thermometer ID: 2788
T2 Reference Thermometer ID: 2736
T3 Reference Thermometer ID: 0514-1120

T/C I.D.	Readout	T/C - Readout °F				Reference Thermometer °F				Difference		
145	I.D.	Reading 1	Reading 2	Reading 3	Average	Reading 1	Reading 2	Reading 3	Average	°F	%, (°R)	
T3 (~ 370 F)	PTC-69	368	368	368	368	370	370	370	370	2.0	0.2%	Pass
T2 (~ 212 F)	PTC-69	212	212	212	212	212	212	212	212	0.0	0.0%	Pass
T1 (~ 32 F)	PTC-69	33	33	33	33	32	32	32	32	1.0	0.2%	Pass

1) Difference % (°R) = Difference (°F) / (Average Tref + 460)
2) Pass if all Differences are less than 1.5% (°R)

MONTROSE

THERMOCOUPLE CALIBRATION

Thermocouple ID: 146
Date: 1/3/2025
Performed By: JS/JS/JL

Calibrated Digital Temperature Readout ID: PTC-69
T1 Reference Thermometer ID: 2788
T2 Reference Thermometer ID: 2736
T3 Reference Thermometer ID: 0514-1120

T/C I.D.	Readout	T/C - Readout °F				Reference Thermometer °F				Difference		
146	I.D.	Reading 1	Reading 2	Reading 3	Average	Reading 1	Reading 2	Reading 3	Average	°F	%, (°R)	
T3 (~ 370 F)	PTC-69	366	366	366	366	370	370	370	370	4.0	0.5%	Pass
T2 (~ 212 F)	PTC-69	212	212	212	212	212	212	212	212	0.0	0.0%	Pass
T1 (~ 32 F)	PTC-69	34	34	34	34	32	32	32	32	2.0	0.4%	Pass

1) Difference % (°R) = Difference (°F) / (Average Tref + 460)
2) Pass if all Differences are less than 1.5% (°R)

MONTROSE AIR QUALITY SERVICES

DIGITAL TEMPERATURE READOUT CALIBRATION

Digital Temperature Readout ID: PTC-43
Readout Description: Handheld
Date: 1/3/2025
Performed By: JS, JS, JI

Calibrated Thermocouple ID: TC-Cal
T1 Reference Thermometer ID: 2788
T2 Reference Thermometer ID: 2736
T3 Reference Thermometer ID: 0514-1120

T/C I.D.	Readout	T/C - Readout °F				Reference Thermometer °F				Difference		
TC-Cal	I.D.	Reading 1	Reading 2	Reading 3	Average	Reading 1	Reading 2	Reading 3	Average	°F	%, (°R)	
T3 (~ 370 F)	PTC-43	370	370	370	370	370	370	370	370	0.0	0.0%	Pass
T2 (~212 F)	PTC-43	213	213	213	213	212	212	212	212	1.0	0.1%	Pass
T1 (~ 32 F)	PTC-43	32	32	32	32	32	32	32	32	0.0	0.0%	Pass

1) Difference % (°R) = Difference (°F) / (Average Tref + 460)
2) Pass if all Differences are less than 1.5% (°R)

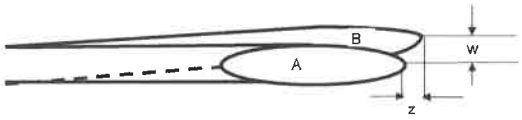
Thermocouple Source Readings

	T/C Source S/N	T/C - Readout °F				T/C Source °F				Difference		
		Reading 1	Reading 2	Reading 3	Average	Reading 1	Reading 2	Reading 3	Average	°F	%, (°R)	
T4 (~650 F)	129462	648	648	648	648	650	650	650	650	2.0	0.2%	Pass
T3 (~370 F)	129462	370	370	370	370	370	370	370	370	0.0	0.0%	Pass
T2 (~212 F)	129462	212	212	212	212	212	212	212	212	0.0	0.0%	Pass
T1 (~32 F)	129462	32	32	32	32	32	32	32	32	0.0	0.0%	Pass

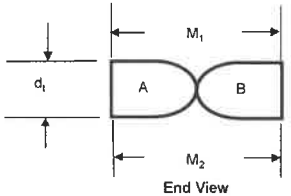
1) Difference % (°R) = Difference (°F) / (Average Tref + 460)
2) Pass if all Differences are less than 1.5% (°R)

MONTROSE

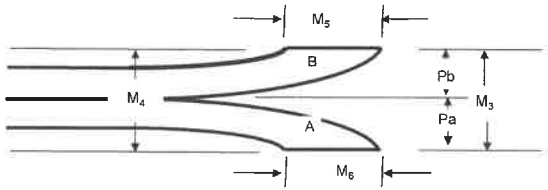
S Type Pitot Tube Dimensional Calibration Record



Side View



End View



Top View

Acceptability Criteria			z < 1/8"	w < 1/32"	Yes	"3/16" < Dt < 3/8"	n/a	n/a	n/a	n/a	n/a	n/a	10 degrees	5 degrees	1.05 Dt < P < 1.5 Dt	
Pitot ID	Date	Calibrated By	Side View, Impact openings Properly aligned, z < 1/8"	Side View, Impact openings Properly aligned, w < 1/32"	Pa = Pb	Tubing Diameter, dt	M1	M2	M3	M4	M5	M6	Average Face Opening Plane Angle, offset from perpendicular to transverse axis	Average Face Opening Plane Frontal Angle from parallel to Longitudinal Axis	Ratio of P/Dt	Status
145	1/3/25	JAC	Y	Y	Y	0.268	0.653	0.650	0.638	0.655	0.349	0.365	0.3	-1.4	1.2	Pass
146	1/3/25	JAC	Y	Y	Y	0.375	1.100	1.100	1.100	1.100	0.290	0.290	0.0	0.0	1.5	Pass

Notes: Reference "A Type-S Pitot Tube Calibration Study", Robert F. Vollaro, October 15, 1975
If tube is not visibly deformed it is assumed that Pa = Pb = .5 x avg. of M1 & M2, and that average face opening plane angles represent individual angles to tube axis

DIFFERENTIAL PRESSURE CALIBRATION

Semi-annual

Display ID: ADM 9
Description: Air Data Multimeter (ADM 850)
Serial Number: M14140
Calibration Date: 1/3/2025

Reference Device ID: Microtector
Reference Serial Number: S270
Calibrated By: K. Thomas

Calibration Range Scale: 0 - 0.050 inches H_2O		Run 1 Measured Value (inches W.C.)	Run 1 Reference Value (inches W.C.)	Individual Run Results Absolute Value	% Difference	Pass/ Fail
Target 20%	0.010	0.010	0.010	0.0000	0.00%	Pass
Target 40%	0.020	0.020	0.020	0.0000	0.00%	Pass
Target 60%	0.030	0.030	0.030	0.0000	0.00%	Pass
Target 80%	0.040	0.040	0.040	0.0000	0.00%	Pass
Target 100%	0.050	0.050	0.050	0.0000	0.00%	Pass

Calibration Range Scale: 0 - 0.050 inches H_2O		Run 2 Measured Value (inches W.C.)	Run 2 Reference Value (inches W.C.)	Individual Run Results Absolute Value	% Difference	Pass/ Fail
Target 20%	0.010	0.010	0.010	0.0000	0.00%	Pass
Target 40%	0.020	0.020	0.020	0.0000	0.00%	Pass
Target 60%	0.030	0.030	0.030	0.0000	0.00%	Pass
Target 80%	0.040	0.040	0.040	0.0000	0.00%	Pass
Target 100%	0.050	0.050	0.050	0.0000	0.00%	Pass

Calibration Range Scale: 0 - 0.050 inches H_2O		Run 3 Measured Value (inches W.C.)	Run 3 Reference Value (inches W.C.)	Individual Run Results Absolute Value	% Difference	Pass/ Fail
Target 20%	0.010	0.010	0.010	0.0000	0.00%	Pass
Target 40%	0.020	0.020	0.020	0.0000	0.00%	Pass
Target 60%	0.030	0.030	0.030	0.0000	0.00%	Pass
Target 80%	0.040	0.040	0.040	0.0000	0.00%	Pass
Target 100%	0.050	0.050	0.050	0.0000	0.00%	Pass

Criteria: Each individual measured value within + or - 5.0% of reference value.
Percent difference of three run average within 5.0 %.

Average results for three runs

% Difference	Pass/Fail
0.00%	Pass

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DIFFERENTIAL PRESSURE CALIBRATION

Semi-annual

Display ID: ADM 9
Description: Air Data Multimeter (ADM 850)
Serial Number: M14140
Calibration Date: 1/3/2025

Reference Device ID: Microtector
Reference Serial Number: S270
Calibrated By: K. Thomas

Calibration Range Scale: 0 - 0.100 inches H_2O		Run 1 Measured Value (inches W.C.)	Run 1 Reference Value (inches W.C.)	Individual Run Results Absolute Value	% Difference	Pass/ Fail
Target 20%	0.020	0.020	0.020	0.0000	0.00%	Pass
Target 40%	0.040	0.040	0.040	0.0000	0.00%	Pass
Target 60%	0.060	0.059	0.060	0.0010	1.67%	Pass
Target 80%	0.080	0.079	0.080	0.0010	1.25%	Pass
Target 100%	0.100	0.100	0.100	0.0000	0.00%	Pass

Calibration Range Scale: 0 - 0.100 inches H_2O		Run 2 Measured Value (inches W.C.)	Run 2 Reference Value (inches W.C.)	Individual Run Results Absolute Value	% Difference	Pass/ Fail
Target 20%	0.020	0.020	0.020	0.0000	0.00%	Pass
Target 40%	0.040	0.040	0.040	0.0000	0.00%	Pass
Target 60%	0.060	0.059	0.060	0.0010	1.67%	Pass
Target 80%	0.080	0.079	0.080	0.0010	1.25%	Pass
Target 100%	0.100	0.100	0.100	0.0000	0.00%	Pass

Calibration Range Scale: 0 - 0.100 inches H_2O		Run 3 Measured Value (inches W.C.)	Run 3 Reference Value (inches W.C.)	Individual Run Results Absolute Value	% Difference	Pass/ Fail
Target 20%	0.020	0.020	0.020	0.0000	0.00%	Pass
Target 40%	0.040	0.040	0.040	0.0000	0.00%	Pass
Target 60%	0.060	0.059	0.060	0.0010	1.67%	Pass
Target 80%	0.080	0.079	0.080	0.0010	1.25%	Pass
Target 100%	0.100	0.100	0.100	0.0000	0.00%	Pass

Criteria: Each individual measured value within + or - 5.0% of reference value.
Percent difference of three run average within 5.0 %.

Average results for three runs

% Difference	Pass/Fail
0.58%	Pass

MONTROSE AIR QUALITY SERVICES

DIFFERENTIAL PRESSURE CALIBRATION

Semi-annual

Display ID: ADM 9
Description: Air Data Multimeter (ADM 850)
Serial Number: M14140
Calibration Date: 1/3/2025

Reference Device ID: Microtector
Reference Serial Number: S270
Calibrated By: K. Thomas

Calibration Range Scale: 0 - 1.000 inches H_2O		Run 1 Measured Value (inches W.C.)	Run 1 Reference Value (inches W.C.)	Individual Run Results Absolute Value	% Difference	Pass/ Fail
Target 20%	0.200	0.200	0.200	0.0000	0.00%	Pass
Target 40%	0.400	0.401	0.400	0.0010	0.25%	Pass
Target 60%	0.600	0.602	0.600	0.0020	0.33%	Pass
Target 80%	0.800	0.800	0.800	0.0000	0.00%	Pass
Target 100%	1.000	1.000	1.000	0.0000	0.00%	Pass

Calibration Range Scale: 0 - 1.000 inches H_2O		Run 2 Measured Value (inches W.C.)	Run 2 Reference Value (inches W.C.)	Individual Run Results Absolute Value	% Difference	Pass/ Fail
Target 20%	0.200	0.200	0.200	0.0000	0.00%	Pass
Target 40%	0.400	0.401	0.400	0.0010	0.25%	Pass
Target 60%	0.600	0.602	0.600	0.0020	0.33%	Pass
Target 80%	0.800	0.801	0.800	0.0010	0.13%	Pass
Target 100%	1.000	1.000	1.000	0.0000	0.00%	Pass

Calibration Range Scale: 0 - 1.000 inches H_2O		Run 3 Measured Value (inches W.C.)	Run 3 Reference Value (inches W.C.)	Individual Run Results Absolute Value	% Difference	Pass/ Fail
Target 20%	0.200	0.200	0.200	0.0000	0.00%	Pass
Target 40%	0.400	0.401	0.400	0.0010	0.25%	Pass
Target 60%	0.600	0.602	0.600	0.0020	0.33%	Pass
Target 80%	0.800	0.800	0.800	0.0000	0.00%	Pass
Target 100%	1.000	1.000	1.000	0.0000	0.00%	Pass

Criteria: Each individual measured value within + or - 5.0% of reference value.
Percent difference of three run average within 5.0 %.

Average results for three runs

% Difference	Pass/Fail
0.13%	Pass

MONTROSE AIR QUALITY SERVICES

DIFFERENTIAL PRESSURE CALIBRATION

Semi-annual

Display ID: ADM 9
Description: Air Data Multimeter (ADM 850)
Serial Number: M14140
Calibration Date: 1/3/2025

Reference Device ID: Dwyer 0 - 10" Manometer
Reference Serial Number: CC-2
Calibrated By: K. Thomas

Calibration Range Scale: 0 - 10.000 inches H_2O		Run 1 Measured Value (inches W.C.)	Run 1 Reference Value (inches W.C.)	Individual Run Results Absolute Value	% Difference	Pass/ Fail
Target 20%	2.000	1.955	2.000	0.0450	2.25%	Pass
Target 40%	4.000	4.015	4.000	0.0150	0.37%	Pass
Target 60%	6.000	6.010	6.000	0.0100	0.17%	Pass
Target 80%	8.000	8.045	8.000	0.0450	0.56%	Pass
Target 100%	10.000	10.100	10.000	0.1000	1.00%	Pass

Calibration Range Scale: 0 - 10.000 inches H_2O		Run 2 Measured Value (inches W.C.)	Run 2 Reference Value (inches W.C.)	Individual Run Results Absolute Value	% Difference	Pass/ Fail
Target 20%	2.000	1.995	2.000	0.0050	0.25%	Pass
Target 40%	4.000	4.035	4.000	0.0350	0.88%	Pass
Target 60%	6.000	6.095	6.000	0.0950	1.58%	Pass
Target 80%	8.000	8.055	8.000	0.0550	0.69%	Pass
Target 100%	10.000	10.100	10.000	0.1000	1.00%	Pass

Calibration Range Scale: 0 - 10.000 inches H_2O		Run 3 Measured Value (inches W.C.)	Run 3 Reference Value (inches W.C.)	Individual Run Results Absolute Value	% Difference	Pass/ Fail
Target 20%	2.000	1.990	2.000	0.0100	0.50%	Pass
Target 40%	4.000	4.090	4.000	0.0900	2.25%	Pass
Target 60%	6.000	6.095	6.000	0.0950	1.58%	Pass
Target 80%	8.000	8.040	8.000	0.0400	0.50%	Pass
Target 100%	10.000	10.050	10.000	0.0500	0.50%	Pass

Criteria: Each individual measured value within + or - 5.0% of reference value.
Percent difference of three run average within 5.0 %.

Average results for three runs

% Difference	Pass/Fail
0.94%	Pass

MONTROSE AIR QUALITY SERVICES

APPENDIX B
GENERAL EMISSIONS CALCULATIONS

GENERAL EMISSIONS CALCULATIONS

I. Stack Gas Velocity

A. Stack gas molecular weight, lb/lb-mole

$MW_{dry} = 0.44 * \%\ CO_2 + 0.32 * \%\ O_2 + 0.28 * \%\ N_2$

$MW_{wet} = MW_{dry} * (1 - B_{wo}) + 18 * B_{wo}$

B. Absolute stack pressure, iwg

$$P_s = P_{bar} + \frac{P_{sg}}{13.6}$$

C. Stack gas velocity, ft/sec

$$V_s = 2.9 * C_p * \sqrt{\Delta P} * \sqrt{T_s} * \sqrt{\frac{29.92 * 28.95}{P_s * MW_{wet}}}$$

II. Moisture

A. Sample gas volume, dscf

$$V_{mstd} = 0.03342 * V_m * \left(P_{bar} + \frac{\Delta H}{13.6}\right) * \frac{T_{ref}}{T_m} * Y_d$$

B. Water vapor volume, scf

$$V_{wstd} = 0.0472 * V_{ic} * \frac{T_{ref}}{528°R}$$

C. Moisture content, dimensionless

$$B_{wo} = \frac{V_{wstd}}{(V_{mstd} + V_{wstd})}$$

III. Stack Gas Volumetric Flow Rate

A. Actual stack gas volumetric flow rate, wacfm

$Q = V_s * A_s * 60$

B. Standard stack gas flow rate, dscfm

$$Q_{sd} = Q * (1 - B_{wo}) * \frac{T_{ref}}{T_s} * \frac{P_s}{29.92}$$

Nomenclature:

A_s	=	stack area, ft^2
B_{wo}	=	flue gas moisture content, dimensionless
$C_{12\%CO2}$	=	particulate grain loading, gr/dscf corrected to 12% CO_2
C	=	particulate grain loading, gr/dscf
C_p	=	pitot calibration factor, dimensionless
Dn	=	nozzle diameter, inches
F	=	fuel F-Factor, dscf/MMBtu @ 0% O_2
H	=	orifice differential pressure, iwg
I	=	% isokinetics
M_n	=	mass of collected particulate, mg
M_i	=	mass emission rate of specie i, lb/hr
MW	=	molecular weight of flue gas, lb/lb-mole
M_{wi}	=	molecular weight of specie i:
	SO_2:	64
	NO_x:	46
	CO:	28
	HC:	16
0	=	sample time, minutes
ΔP	=	average velocity head, iwg = $(\sqrt{\Delta P})^2$
P_{bar}	=	barometric pressure, inches Hg
P_s	=	stack absolute pressure, inches Hg
P_{sg}	=	stack static pressure, iwb
Q	=	wet stack flow rate at actual conditions, wacfm
Q_{sd}	=	dry standard stack flow rate, dscfm
SV	=	specific molar volume of an ideal gas at standard conditions, ft^3/lb-mole
T_m	=	meter temperature, °R
T_{ref}	=	reference temperature, °R
T_s	=	stack temperature, °R
V_s	=	stack gas velocity, ft/sec
V_{lc}	=	volume of liquid collected in impingers, ml
V_m	=	uncorrected dry meter volume, dcf
V_{mstd}	=	dry meter volume at standard conditions, dscf
V_{wstd}	=	volume of water vapor at standard conditions, scf
Y_d	=	meter calibration coefficient

APPENDIX C
QUALITY ASSURANCE

Appendix C.1
Quality Assurance Program Summary

QUALITY ASSURANCE PROGRAM SUMMARY

As part of Montrose Air Quality Services, LLC (Montrose) ASTM D7036-04 certification, Montrose is committed to providing emission related data which is complete, precise, accurate, representative, and comparable. Montrose quality assurance program and procedures are designed to ensure that the data meet or exceed the requirements of each test method for each of these items. The quality assurance program consists of the following items:

- Assignment of an Internal QA Officer
- Development and use of an internal QA Manual
- Personnel training
- Equipment maintenance and calibration
- Knowledge of current test methods
- Chain-of-custody
- QA reviews of test programs

Assignment of an Internal QA Officer: Montrose has assigned an internal QA Officer who is responsible for administering all aspects of the QA program.

Internal Quality Assurance Manual: Montrose has prepared a QA Manual according to the requirements of ASTM D7036-04 and guidelines issued by EPA. The manual documents and formalizes all of Montrose's QA efforts. The manual is revised upon periodic review and as Montrose adds capabilities. The QA manual provides details on the items provided in this summary.

Personnel Testing and Training: Personnel testing and training is essential to the production of high quality test results. Montrose training programs include:

- A requirement for all technical personnel to read and understand the test methods performed
- A requirement for all technical personnel to read and understand the Montrose QA manual
- In-house testing and training
- Quality Assurance meetings
- Third party testing where available
- Maintenance of training records.

Equipment Maintenance and Calibration: All laboratory and field equipment used as a part of Montrose's emission measurement programs is maintained according to manufacturer's recommendations. A summary of the major equipment maintenance schedules is summarized in Table 1. In addition to routine maintenance, calibrations are performed on all sampling equipment according to the procedures outlined in the applicable test method. The calibration intervals and techniques for major equipment components is summarized in Table 2. The calibration technique may vary to meet regulatory agency requirements.

Knowledge of Current Test Methods: Montrose maintains current copies of EPA, ARB, and SCAQMD Source Test Manuals and Rules and Regulations.

Chain-of-Custody: Montrose maintains chain-of-custody documentation on all data sheets and samples. Samples are stored in a locked area accessible only to Montrose source test personnel. Data sheets are kept in the custody of the originator, program manager, or in locked storage until return to Montrose office. Electronic field data is duplicated for backup on secure storage media. The original data sheets are used for report preparation and any additions are initialed and dated.

QA Reviews: Periodic field, laboratory, and report reviews are performed by the in-house QA coordinator. Periodically, test plans are reviewed to ensure proper test methods are selected and reports are reviewed to ensure that the methods were followed and any deviations from the methods are justified and documented.

ASTM D7036-04 Required Information

Uncertainty Statement

Montrose is qualified to conduct this test program and has established a quality management system that led to accreditation with ASTM Standard D7036-04 (Standard Practice for Competence of Air Emission Testing Bodies). Montrose participates in annual functional assessments for conformance with D7036-04 which are conducted by the American Association for Laboratory Accreditation (A2LA). All testing performed by Montrose is supervised on site by at least one Qualified Individual (QI) as defined in D7036-04 Section 8.3.2. Data quality objectives for estimating measurement uncertainty within the documented limits in the test methods are met by using approved test protocols for each project as defined in D7036-04 Sections 7.2.1 and 12.10. Additional quality assurance information is presented in the report appendices.

Performance Data

Performance data are available for review.

Qualified Personnel

A qualified individual (QI), defined by performance on a third party or internal test on the test methods, is present on each test event.

Plant Entry and Safety Requirements

Plant Entry

All test personnel are required to check in with the guard at the entrance gate or other designated area. Specific details are provided by the facility and project manager.

Safety Requirements

All personnel shall have the following personal protective equipment (PPE) and wear them where designated:

- Hard Hat
- Safety Glasses
- Steel Toe Boots
- Hearing Protection
- Gloves
- High Temperature Gloves (if required)
- Flame Resistant Clothing (if required)

The following safety measures are followed:

- Good housekeeping
- SDS for all on-site hazardous materials
- Confine selves to necessary areas (stack platform, mobile laboratory, CEMS data acquisition system, control room, administrative areas)
- Knowledge of evacuation procedures

Each facility will provide plant specific safety training.

TABLE 1
EQUIPMENT MAINTENANCE SCHEDULE

Equipment	Acceptance Limits	Frequency of Service	Methods of Service
Pumps	1. Absence of leaks 2. Ability to draw manufacturers required vacuum and flow	As recommended by manufacturer	1. Visual inspection 2. Clean 3. Replace parts 4. Leak check
Flow Meters	1. Free mechanical movement	As recommended by manufacturer	1. Visual inspection 2. Clean 3. Calibrate
Sampling Instruments	1. Absence of malfunction 2. Proper response to zero span gas	As recommended by manufacturer	As recommended by manufacturer
Integrated Sampling Tanks	1. Absence of leaks	Depends on nature of use	1. Steam clean 2. Leak check
Mobile Van Sampling System	1. Absence of leaks	Depends on nature of use	1. Change filters 2. Change gas dryer 3. Leak check 4. Check for system contamination
Sampling Lines	1. Sample degradation less than 2%	After each test series	1. Blow dry, inert gas through line until dry

TABLE 2
MAJOR SAMPLING EQUIPMENT CALIBRATION REQUIREMENTS

Sampling Equipment	Calibration Frequency	Calibration Procedure	Acceptable Calibration Criteria
Continuous Analyzers	Before and After Each Test Day	3-point calibration error test	< 2% of analyzer range
Continuous Analyzers	Before and After Each Test Run	2-point sample system bias check	< 5% of analyzer range
Continuous Analyzers	After Each Test Run	2-point analyzer drift determination	< 3% of analyzer range
CEMS System	Beginning of Each Day	leak check	< 1 in. Hg decrease in 5 min. at > 20 in. Hg
Continuous Analyzers	Semi-Annually	3-point linearity	< 1% of analyzer range
NO_x Analyzer	Daily	NO_2 -> NO converter efficiency	> 90%
Differential Pressure Gauges (except for manometers)	Semi-Annually	Correction factor based on 5-point comparison to standard	± 5%
Differential Pressure Gauges (except for manometers)	Bi-Monthly	3-point comparison to standard, no correction factor	± 5%
Barometer	Semi-Annually	Adjusted to mercury-in-glass or National Weather Service Station	± 0.1 inches Hg
Dry Gas Meter	Semi-Annually	Calibration check at 4 flow rates using a NIST traceable standard	± 2%
Dry Gas Meter	Bi-Monthly	Calibration check at 2 flow rates using a NIST traceable standard	± 2% of semi-annual factor
Dry Gas Meter Orifice	Annually	4-point calibration for ΔH@	--
Temperature Sensors	Semi-Annually	3-point calibration vs. NIST traceable standard	± 1.5%

Note: Calibration requirements that meet applicable regulatory agency requirements are used.

Appendix C.2
SCAQMD and STAC Certifications

South Coast
Air Quality Management District
21865 Copley Drive, Diamond Bar, CA 91765-4178
(909) 396-2000 • www.aqmd.gov

September 26, 2024

Mr. John Peterson
Montrose Air Quality Services, LLC
1631 E. Saint Andrew Place
Santa Ana, CA 92705

Subject: LAP Approval Notice
Reference # 96LA1220

Dear Mr. Peterson:

We have completed our review of Montrose Air Quality Services' revised renewal application, which was submitted as notification of Montrose's recent acquisition of AirKinetics, Inc. under the South Coast AQMD Laboratory Approval Program (LAP). We are pleased to inform you that your firm is approved for the period beginning September 30, 2024, and ending September 30, 2025, for the following methods, subject to the requirements in the LAP Conditions For Approval Agreement and conditions listed in the attachment to this letter:

South Coast AQMD Methods 1-4
South Coast AQMD Methods 10.1 and 100.1
South Coast AQMD Methods 5.1, 5.2, 5.3, 6.1 (Sampling and Analysis)
South Coast AQMD Methods 25.1 and 25.3 (Sampling)
Rule 1121/ 1146.2 Protocol
Rule 1420/1420.1/1420.2 – (Lead) Source and Ambient Sampling
USEPA CTM-030 and ASTM D6522-00

Your LAP approval to perform nitrogen oxide emissions compliance testing for Rule 1121/ 1146.2 Protocols includes satellite facilities located at:

McKenna Boiler
1510 North Spring Street
Los Angeles, CA 90012

Noritz America Corp.
11160 Grace Avenue
Fountain Valley, CA 92708

Ajax Boiler, Inc.
2701 S. Harbor Blvd.
Santa Ana, CA 92704

VA Laundry Bldg., Greater LA Healthcare Sys.
508 Constitution Avenue
Los Angeles, CA 90049

So Cal Gas – Engr Analysis Ctr, Bldg H
8101 Rosemead Blvd
Pico Rivera, CA 90660

Thank you for participating in the LAP. Your cooperation helps us to achieve the goal of the LAP: to maintain high standards of quality in the sampling and analysis of source emissions. You may direct any questions or information to LAP Coordinator, Colin Eckerle. He may be reached by telephone at (909) 396-2476, or via e-mail at ceckerle@aqmd.gov.

Sincerely,

D. Sarkar

Dipankar Sarkar
Program Supervisor
Source Test Engineering

DS:CE
Attachment

240926 LapRenewal.doc

STAC STACK TESTING ACCREDITATION COUNCIL

A2LA American Association for Laboratory Accreditation

Accredited Air Emission Testing Body

A2LA has accredited

MONTROSE AIR QUALITY SERVICES

In recognition of the successful completion of the joint A2LA and Stack Testing Accreditation Council (STAC) evaluation process, this laboratory is accredited to perform testing activities in compliance with ASTM D7036:2004 - Standard Practice for Competence of Air Emission Testing Bodies.

Presented this 27th day of February 2024.

Vice President, Accreditation Services
For the Accreditation Council
Certificate Number 3925.01
Valid to February 28, 2026

This accreditation program is not included under the A2LA ILAC Mutual Recognition Arrangement.

Appendix C.3
Individual QI Certifications

CERTIFICATE OF COMPLETION

Pedro SanJuan

This document certifies that this individual has passed a comprehensive examination and is now a Qualified Individual (QI) as defined in Section 8.3 of ASTM D7036-04 for the following method(s):

SCAQMD Methods 1.1, 1.2, 2.1, 2.2, 2.3, 3.1, & 4.1

Certificate Number: 002-2022-50

DATE OF ISSUE: 02/28/2022

Tate Strickler, VP – Quality Systems

DATE OF EXPIRATION: 02/27/2027

MONTROSE ENVIRONMENTAL

Certificate of Completion

Pedro SanJuan

This document certifies that this individual has passed a comprehensive examination and is now a Qualified Individual (QI) as defined in Section 8.3 of ASTM D7036-04 for the following method(s):

SCAQMD Methods 25.1, 25.3 & 307-91

Certificate Number: 002-2022-52

Tate Strickler, VP – Quality Systems

DATE OF ISSUE: 02/28/2022

DATE OF EXPIRATION: 02/27/2027

MONTROSE ENVIRONMENTAL

CERTIFICATE OF COMPLETION

Pedro SanJuan

This document certifies that this individual has passed a comprehensive examination and is now a Qualified Individual (QI) as defined in Section 8.3 of ASTM D7036-04 for the following method(s):

EPA Methods 3C, TO-8, TO-12 and TO-15

Certificate Number: 002-2023-48

Tate Strickler, VP – Quality Systems

DATE OF ISSUE: 11/01/2023

DATE OF EXPIRATION: 10/31/2028

MONTROSE ENVIRONMENTAL

Appendix C.4
Statement of No Conflict of Interest

STATEMENT OF NO CONFLICT OF INTEREST AS AN INDEPENDENT TESTING LABORATORY

(To be completed by authorized source testing firm representative and included in source test report)

The following facility and equipment were tested by my source testing firm and are the subjects of this statement:

Facility ID:	**119219**
Date(s) Tested:	**March 20, 2025**
Facility Name:	**Chiquita Canyon Landfill**
Equipment Address:	**29201 Henry Mayo Drive**
	Castaic, California 91384
Equipment Tested:	**Leachate and Condensate Sampling System**

I state, as its legally authorized representative, that the source testing firm of:

Source Test Firm:	Montrose Air Quality Services, LLC
Business Address:	1631 E. St. Andrew Pl.
	Santa Ana, California 92705

is an "Independent Testing Laboratory" as defined in ***District Rule 304(k):***

For the purposes of this Rule, when an independent testing laboratory is used for the purposes of establishing compliance with District rules or to obtain a District permit to operate, it must meet all of the following criteria:

(1) The testing laboratory shall have no financial interest in the company or facility being tested, or in the parent company, or any subsidiary thereof -

(2) The company or facility being tested, or parent company or any subsidiary thereof, shall have no financial interest in the testing laboratory;

(3) Any company or facility responsible for the emission of significant quantities of pollutants to the atmosphere, or parent company or any subsidiary thereof shall have no financial interest in the testing laboratory; and

(4) The testing laboratory shall not be in partnership with, own or be owned by, in part or in full, the contractor who has provided or installed equipment (basic or control), or monitoring systems, or is providing maintenance for installed equipment or monitoring systems, for the company being tested.

Furthermore, I state that any contracts or agreements entered into by my source testing firm and the facility referenced above, or its designated contractor(s), either verbal or written, are not contingent upon the outcome of the source testing, or the source testing information provided to the SCAQMD.

Signature: _____ **Date:** **4/18/2025**

Pete SanJuan	**Client Project Manager**	**(714) 279-6777**	**4/18/2025**
(Name)	(Title)	(Phone)	(Date)

FORM ST-110 :stevforl.doc (Revised 11/18/98

APPENDIX D
FACILITY PERMIT

FACILITY PERMIT TO OPERATE
CHIQUITA CANYON LLC

PERMIT TO CONSTRUCT/OPERATE

Permit No. G66132
A/N 613131

Equipment Description:

Modification of an existing Landfill Gas Condensate and Leachate Collection/Storage System consisting of:

1. Condensate storage tank, 5,000-gallon capacity, at Canyon B.
2. Condensate storage tank, 10,000-gallon capacity, at Primary Canyon.
3. Condensate storage tanks, three (3), each 6,650-gallon capacity, at flare station.
4. Leachate collection tanks, up to (4), each 10,000-gallon capacity, and one 1,600-gallon capacity, with associated sump pump and transfer pumps.

By removal of:

1. One 1,600-gallon capacity leachate collection tank [under Item 4].

By addition of:

1. One 10,000-gallon capacity leachate collection tank [to Item 4].

Conditions:

1. Operation of this equipment shall be conducted in accordance with all data and specifications submitted with the application under which this permit is issued unless otherwise noted below.
[Rule 204]
2. This equipment shall be properly maintained and kept in good operating condition at all times.
[Rule 204]
3. This equipment shall be operated and maintained by personnel properly trained in its operation.
[Rule 204]
4. This equipment shall be vented to air pollution control equipment which is in full operation and has been issued a valid Permit to Construct or Operate by the South Coast AQMD.
[Rule 1303(a)(1)-BACT]
5. This equipment shall be used only for the storage of landfill gas condensate and leachate collection.
[Rule 204]
6. All connectors, valves and openings shall be properly sealed or closed at all times to prevent landfill gas condensate vapors from entering into the atmosphere unless disposal of the condensate/leachate is taking place or during maintenance or repairs.
[Rule 204]

7. Any breakdown or malfunction of the landfill gas condensate/leachate storage system shall be reported to South Coast AQMD within one hour after occurrence, or within one hour of the time personnel knew or reasonably should have known of its occurrence, per Rule 430 requirements, and remedial measures shall be undertaken to correct the problem and prevent further emissions into the atmosphere in a timely manner.
[Rule 430]

8. The operator shall keep and maintain adequate records for this equipment to verify compliance with the conditions of this permit. These records shall be prepared in a format which is acceptable to the South Coast AQMD. Records shall be kept for at least five years and made available to South Coast AQMD personnel upon request.
[Rule 204]

9. This permit shall expire if construction of this equipment is not complete within one year from the date of issuance of this permit unless an extension is granted by the Executive Officer.
[Rule 204]

THIS IS THE LAST PAGE OF THIS DOCUMENT

If you have any questions, please contact one of the following individuals by email or phone.

Name:	Mr. Pete SanJuan
Title:	Client Project Manager
Region:	West
Email:	PSanjuan@montrose-env.com
Phone:	(714) 279-6777

Name:	Mr. Matt McCune
Title:	Regional Vice President
Region:	West
Email:	MMccune@montrose-env.com
Phone:	(714) 279-6777