Bridgeton Landfill, LLC

Monthly Data Submittals

April 2015

Required by Section 52.E of Agreed Order, Case No. 13SL-CC01088
Effective May 13, 2013

Contents:

Provided Separately:

– Flare Raw Data Excel Spreadsheet
– Gas Wellfield Raw Data Excel Spreadsheet

May 20, 2015

Commentary on Data

May 20, 2015

The following observations and comments are offered for the April 2015 data, exclusive of temperature data for the GIW series wells, which are undergoing Heat Extraction System evaluation:

Gas Volume

- As seen in Attachment B-2, gas collection volumetric rate in April averaged 4581 SCFM, as normalized per the MDNR weekly flow and TRS sampling results.

Gas Quality

- Attachments D and E contain the monthly data related to gas quality and temperature as measured at the respective wellheads. Four vertical wells decreased by 30°F or more in April; the majority due to minimal flow conditions. Additionally, 18 vertical wells increased by 30°F or more, and are all within the historical gas temperature norms for these wells, and result from re-establishment of gas flow from these wells.

- Attachment E-1 details the vertical wells had oxygen levels over 5% at one or more weekly monitoring events in April. These consisted of 14 older GEW wells (<#-120) that are experiencing low flows; 12 new GEW wells (>#-120) that are experiencing restricted flows; 4 GIW wells that have low gas flow; and 10 SEW wells that are shallow extractors. By the end of the month, the majority (71%) of these wells still exhibited oxygen at the wellhead at or greater than 5%. All these wells, except the new GEWs are low-flow/vacuum sensitive wells with valves only slightly open. On-going tuning and maintenance and pump operation is being performed to manage the oxygen content. The wells are in the south quarry area where the flexible membrane liner cap is in place to prevent atmospheric intrusion into the waste mass.

- A detailed review of the gas extraction wells in the neck area was conducted. Temperature is consistent with previous months in each of the monitorable wells in vicinity to the neck. Carbon monoxide (CO) results from April showed stable month-over-month; wells remain within historical norms.

- All wells in the North Quarry continue to exhibit a maximum wellhead temperature under 145° F for the month of April, with the exception of GEW-054, that had a maximum temperature of 147.0° F during the month, which is within the historical operational range for this well. Therefore, monthly carbon monoxide testing has continued until this well gas temperature is below 140° F. Carbon monoxide (CO) results showed non-detect (ND) for this well, and all other North quarry wells except low level CO concentrations in GEW-008 and GEW-053. These two wells had low level detection concentrations in previous monthly sampling events. Review of weekly gas quality in Attachment F reveals that all of the active North Quarry gas wells continue to

have low, if any, oxygen and healthy methane and carbon dioxide levels indicating normal wellfield conditions for aged waste at all locations, consistent with well conditions observed in the North Quarry for some time.

Settlement

- The South Quarry exhibited monthly maximum settlement up to **2.2 feet (see Attachment F)** for the month of April. The rate of settlement directly south of the neck continues to be small and stable compared to previous months.

Bird Monitoring and Mitigation

- Bridgeton Landfill conducted bird monitoring during April 2015 in accordance with the Approved Bird Hazard Monitoring and Mitigation Plan. Logs of bird population observations were provided to the Airport on a weekly basis. No change in bird population or bird hazards were observed and no bird mitigation measures were necessary.

ATTACHMENT A

WORK COMPLETED AND PLANNED

Bridgeton Landfill, LLC
Monthly Summary of Work Completed and Planned

Work Completed in April 2015

Gas Collection and Control System

- Continued operation and maintenance of GCCS System and GIW wells.

Alternative Heat Extraction System

- Continued operation and maintenance of the HES.

Leachate Management System

- Continued routine operation of previously installed and upgraded features.

Pre-Treatment Facility

- Ongoing operation of facility.

Work Planned for May 2015

Gas Collection and Control System

- Continue operation and maintenance of GCCS system.
- Continue upgrades to GCCS system as required.

Alternative Heat Extraction System

- Expand HES to additional GIWs

Leachate Management System

- Continue routine operation of previously installed and upgraded features.
- Install new pump in LCS-2.

Pre-Treatment Facility

- Ongoing operation of facility.

ATTACHMENT B

DAILY FLARE MONITORING DATA

ATTACHMENT B-1

FLOW DATA TABLE

Daily Flare Monitoring Data - Bridgeton Landfill
April 2015

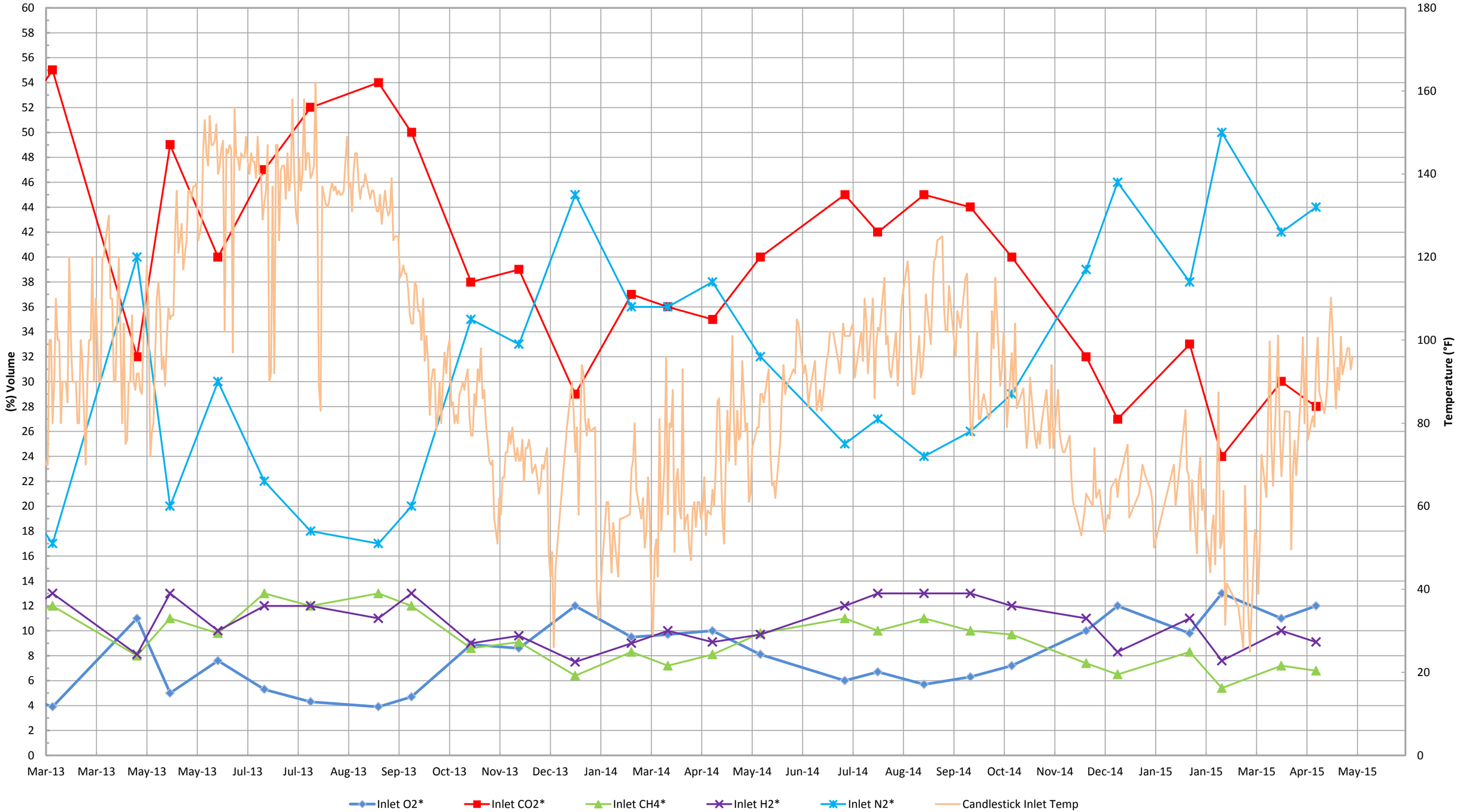
Date	Average Device Flow (scfm)*				Total Avg. Flow* (scfm)
	Utility Flare (FL-100)	Utility Flare (FL-120)	Utility Flare (FL-140)	E. Aux. Utility Flare	
4/1/2015	1,473	1,822	1,712	18	5,025
4/2/2015	1,518	1,768	1,740		5,027
4/3/2015	1,346	1,720	1,627		4,693
4/4/2015	1,303	1,746	1,625		4,674
4/5/2015	1,187	1,496	1,570	440	4,693
4/6/2015	1,191	1,205	1,515	587	4,498
4/7/2015	1,421	1,305	1,709	164	4,598
4/8/2015	1,452	1,695	1,766		4,913
4/9/2015	1,350	1,737	1,716		4,804
4/10/2015	1,148	1,241	1,484	98	3,971
4/11/2015	1,250	1,478	1,598		4,326
4/12/2015	1,246	1,626	1,652		4,524
4/13/2015	1,271	1,422	1,652	60	4,405
4/14/2015	1,256	1,452	1,654	42	4,404
4/15/2015	1,278	1,629	1,572		4,479
4/16/2015	1,410	1,682	1,700		4,793
4/17/2015	1,443	1,700	1,792		4,936
4/18/2015	1,412	1,719	1,760		4,891
4/19/2015	1,344	1,642	1,633		4,619
4/20/2015	1,243	1,612	1,489		4,343
4/21/2015	1,277	1,648	1,524		4,450
4/22/2015	1,267	1,622	1,485		4,374
4/23/2015	1,300	1,656	1,573		4,529
4/24/2015	1,289	1,616	1,490		4,395
4/25/2015	1,378	1,576	1,246		4,200
4/26/2015	1,268	1,672	1,490		4,430
4/27/2015	1,289	1,678	1,547		4,514
4/28/2015	1,312	1,667	1,465		4,444
4/29/2015	1,295	1,563	1,657	180	4,694
4/30/2015	1,234	1,526	1,758	264	4,782
				Average	**4,581**

* Flows normalized to EPA Method 2 flow measurment verificaiton

ATTACHMENT B-2

FLOW DATA GRAPHS

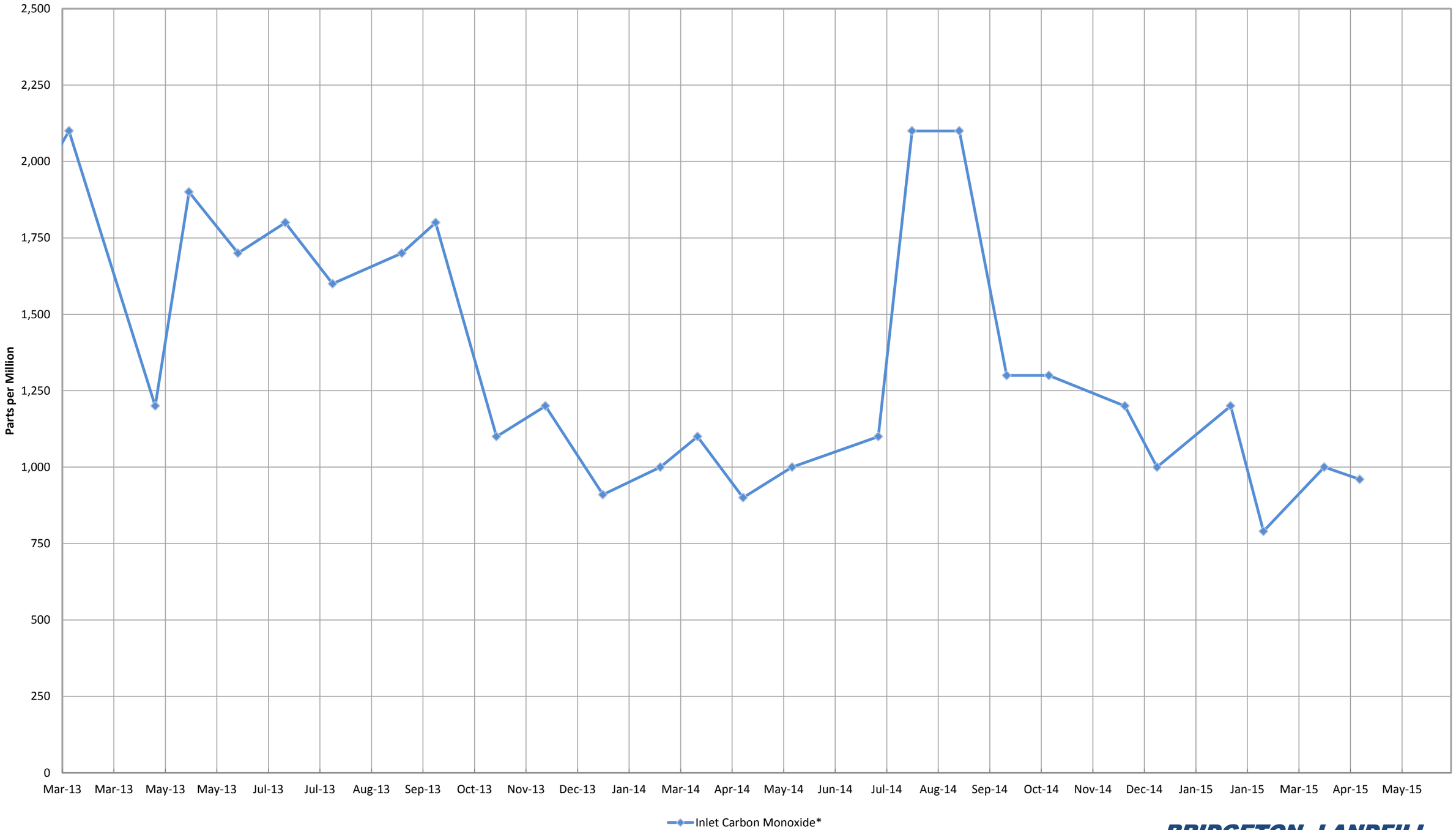
Inlet Gas and Temperature*



*Gas data collected from Laboratory Reports. Temperature data collected from GEM 2000 field readings.

BRIDGETON LANDFILL

Inlet Carbon Monoxide*



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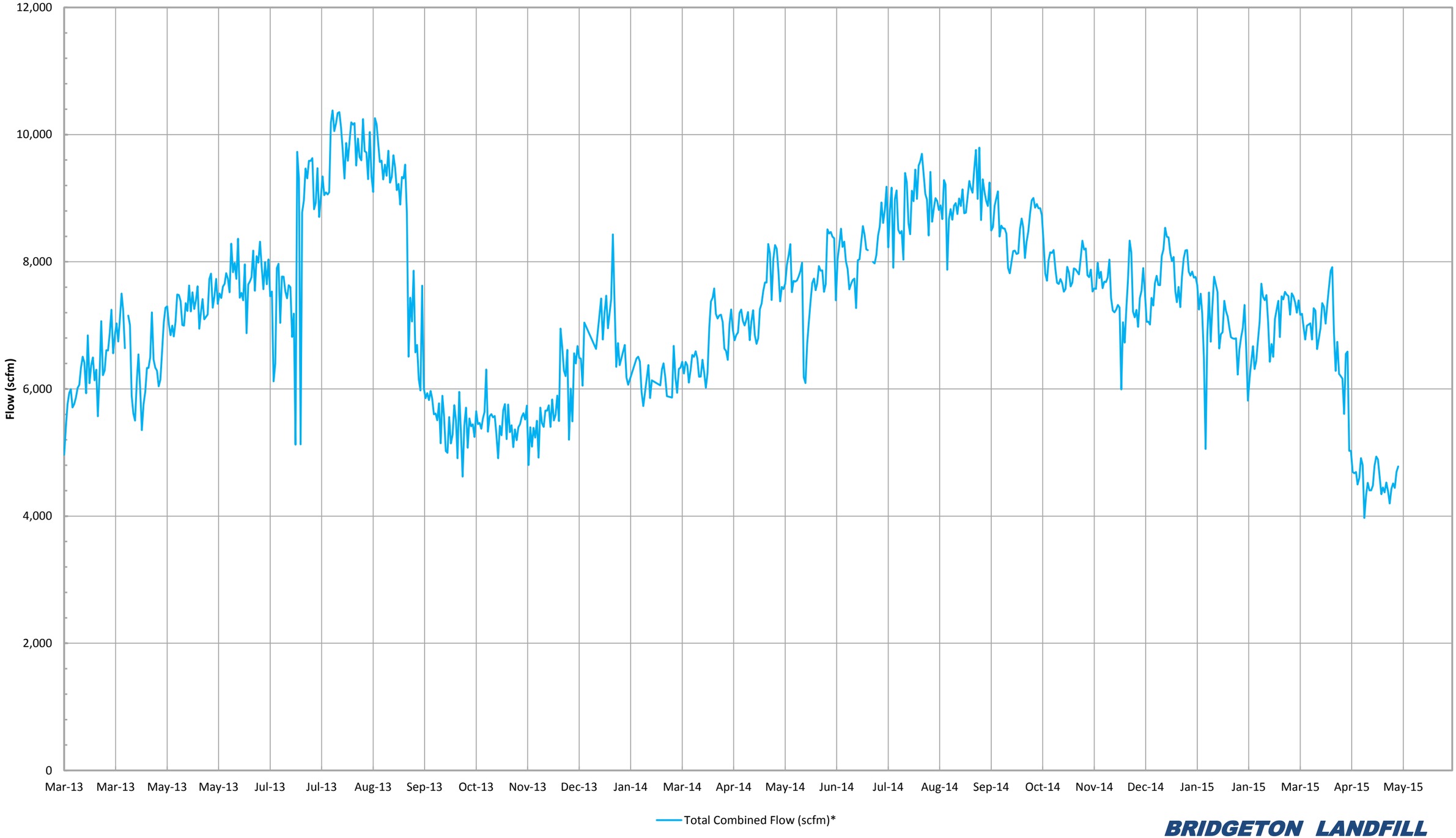
*Data collected from Laboratory Reports.

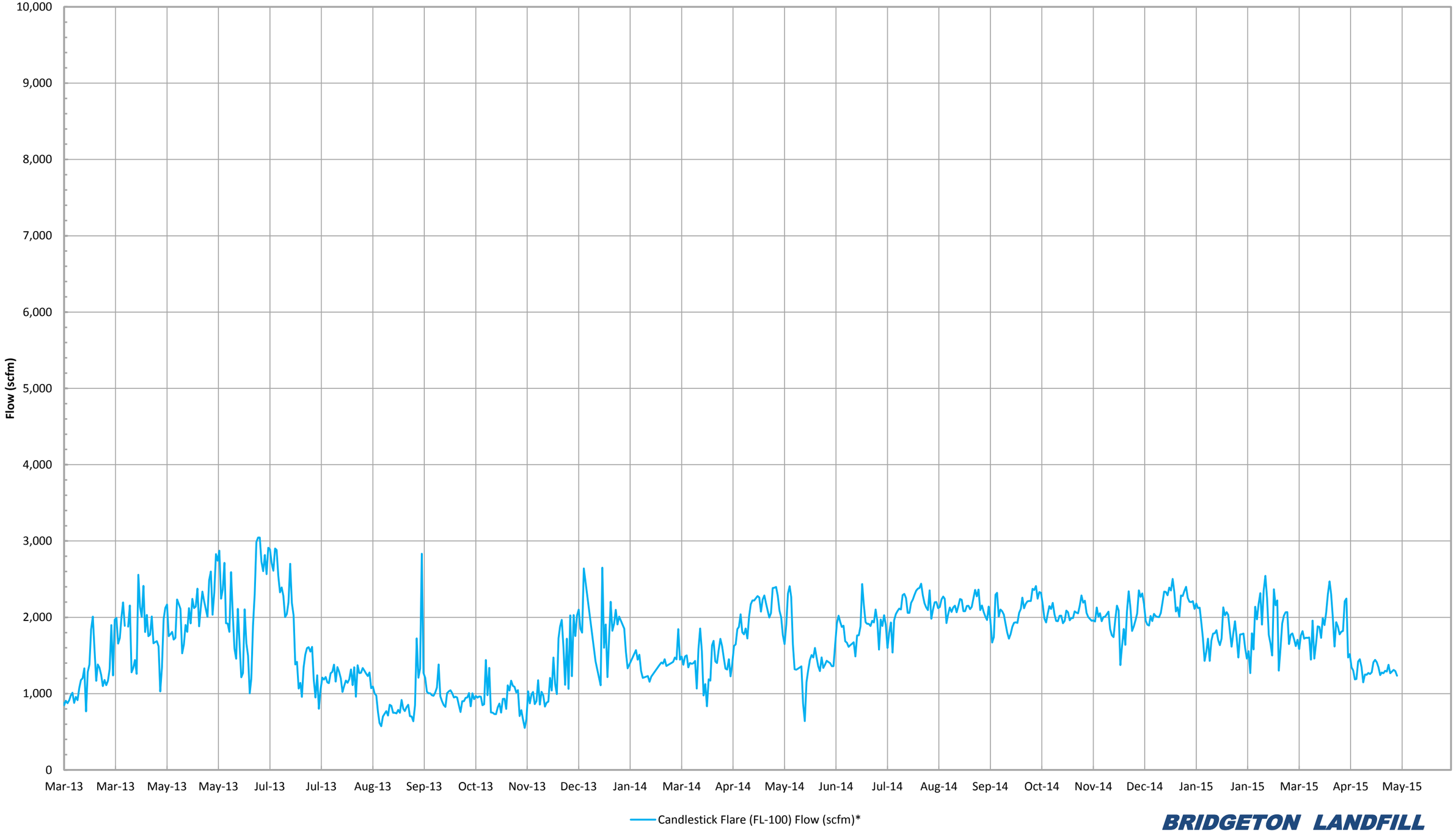
Total Combined Flow (scfm)*



BRIDGETON LANDFILL

*Combined flow is based on tabulated flow data collected daily from each device.

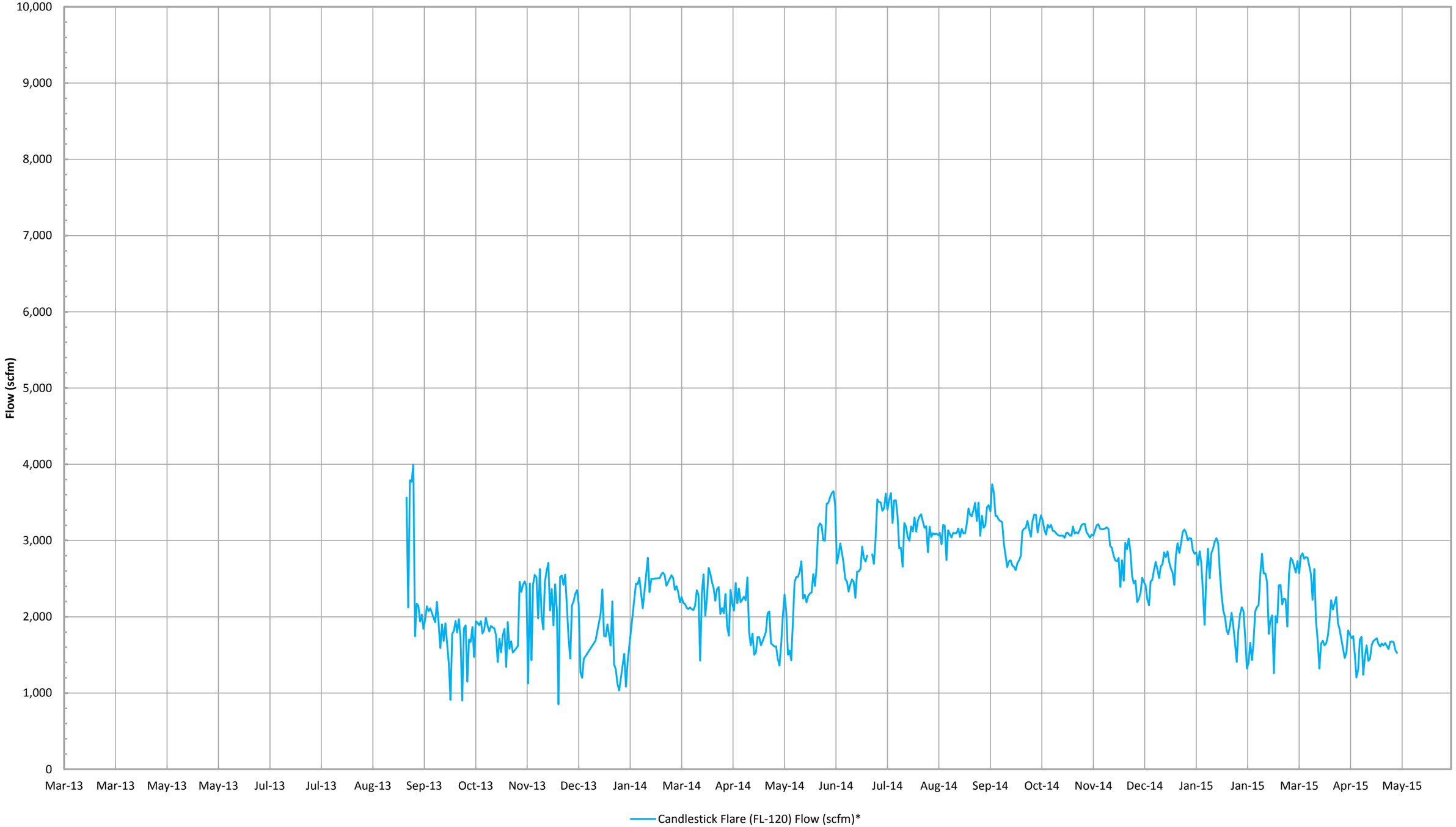
Candlestick Flare (FL-100) Flow (scfm)*



BRIDGETON LANDFILL

*Flow is based on tabulated flow data collected daily.

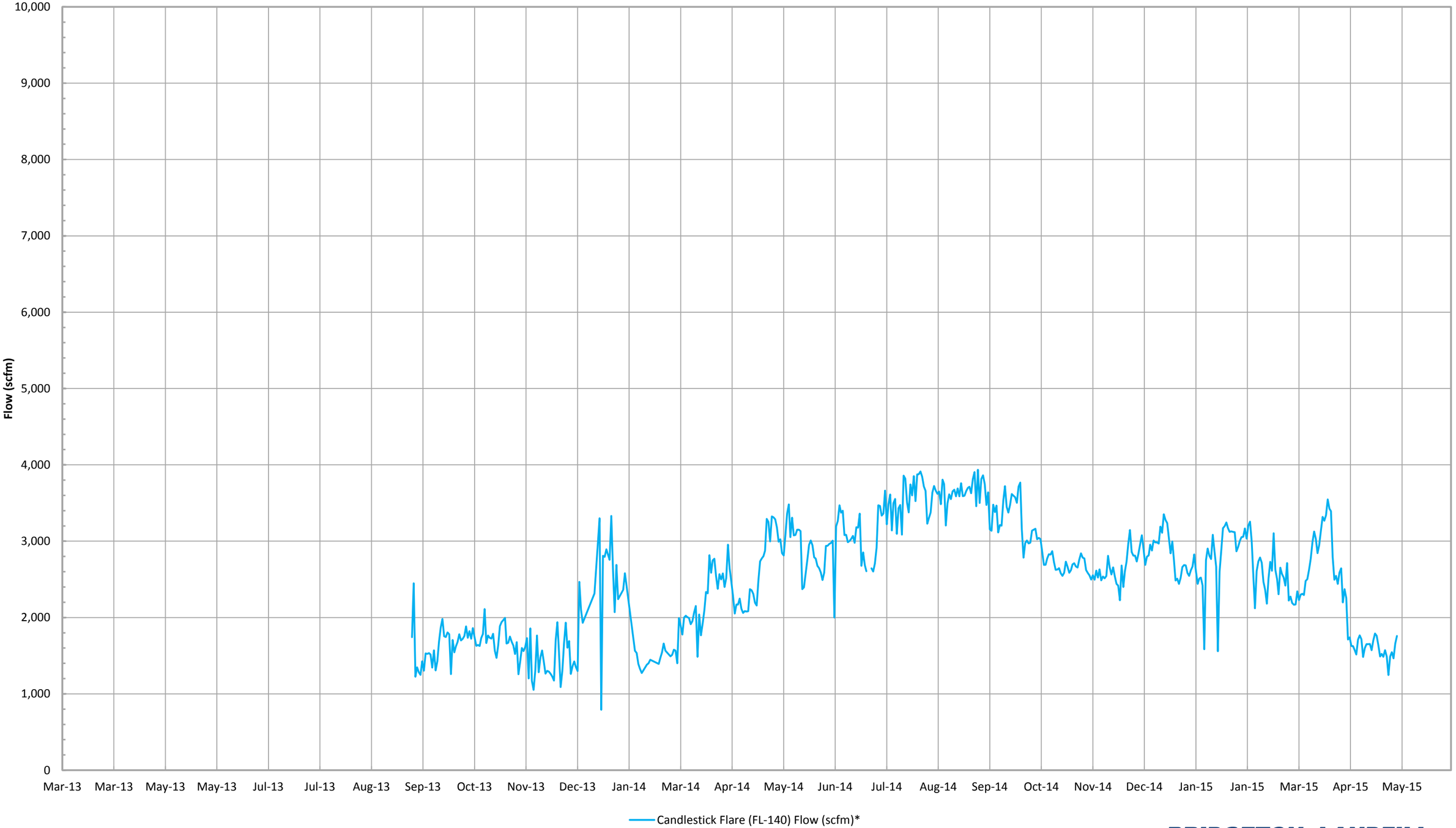
Candlestick Flare (FL-120) Flow (scfm)*



BRIDGETON LANDFILL

*Flow is based on tabulated flow data collected daily.

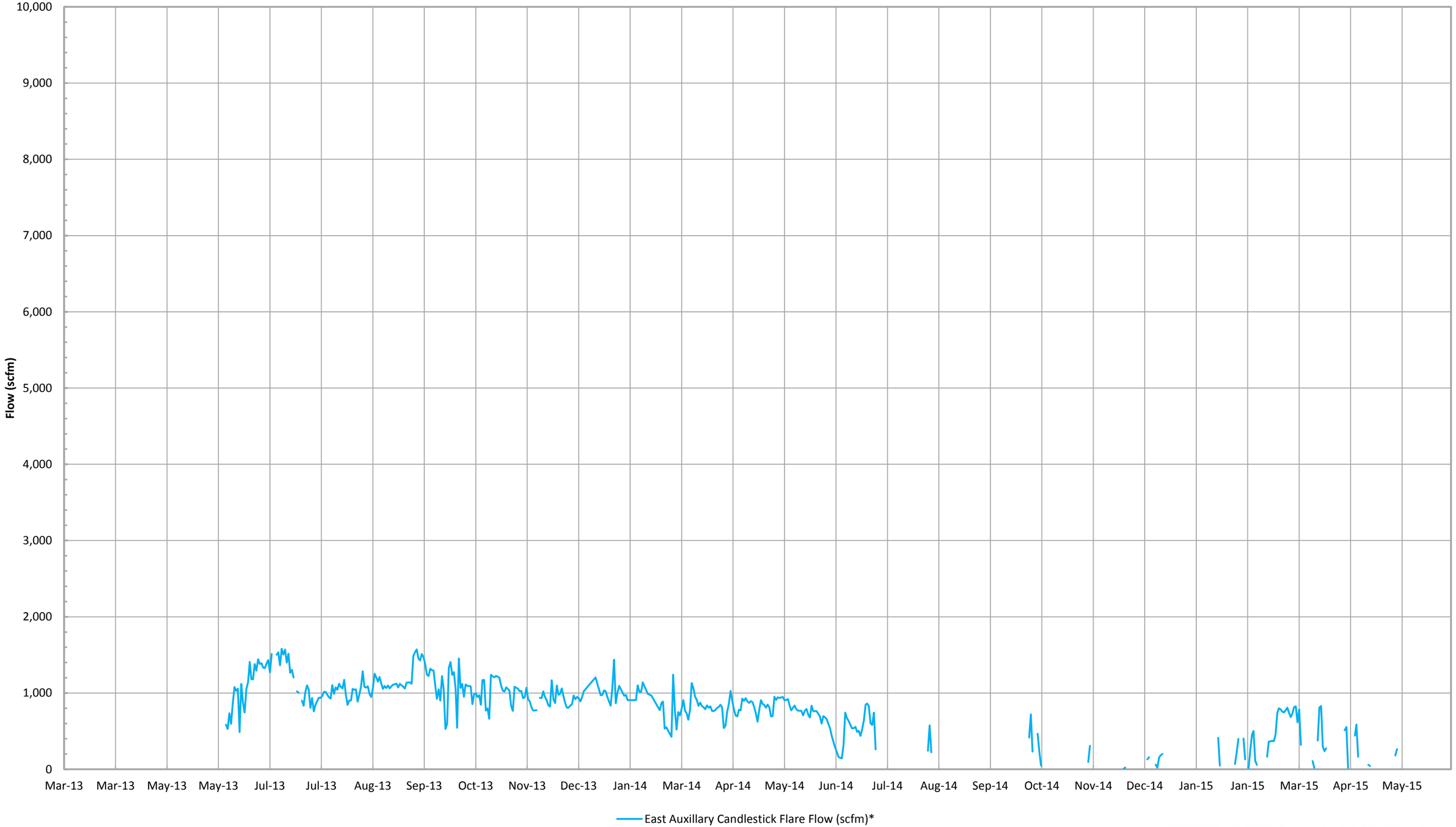
Candlestick Flare (FL-140) Flow (scfm)*



BRIDGETON LANDFILL

*Flow is based on tabulated flow data collected daily.

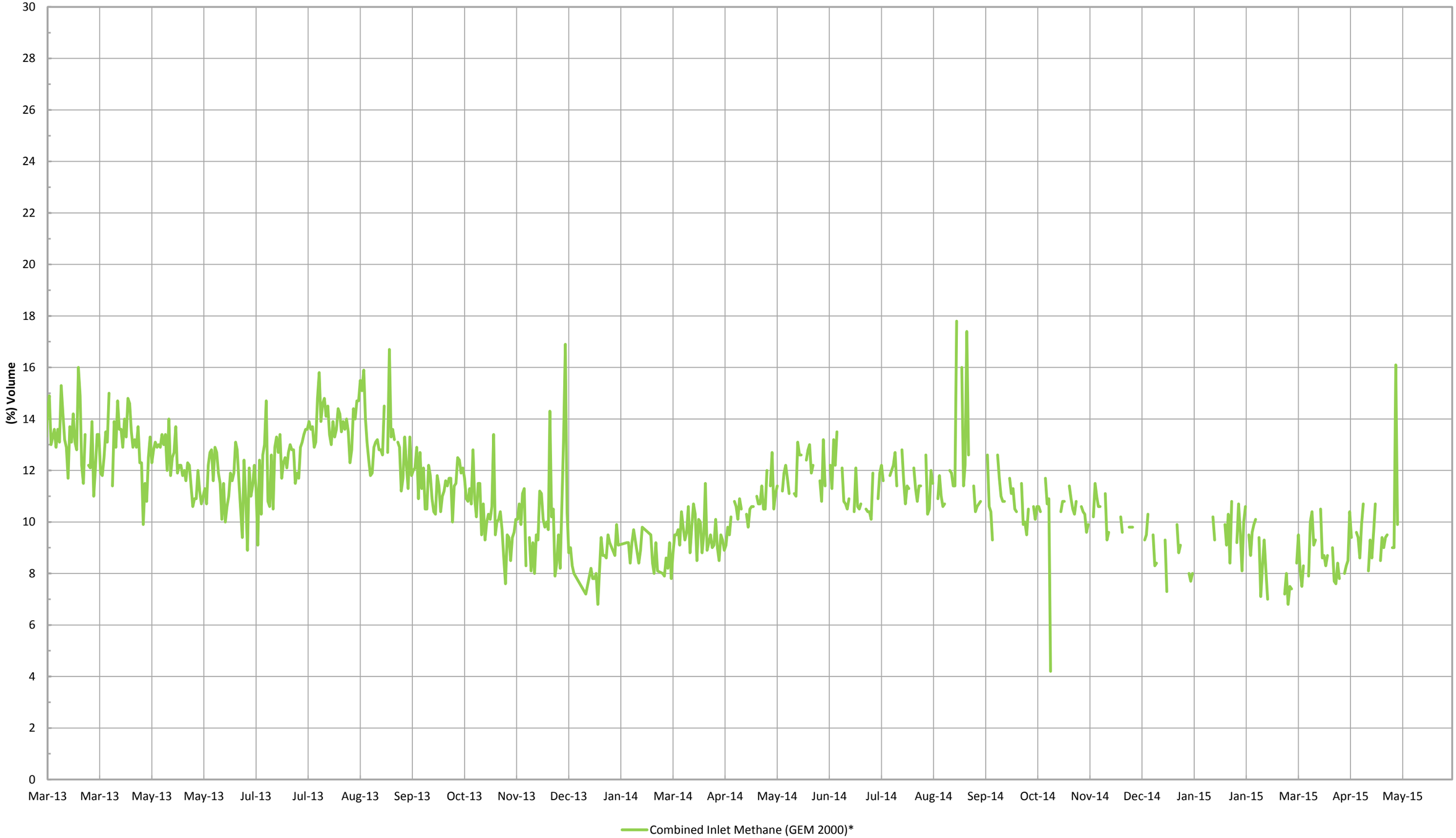
East Auxillary Candlestick Flare Flow (scfm)*



BRIDGETON LANDFILL

*Flow is based on tabulated flow data collected daily.

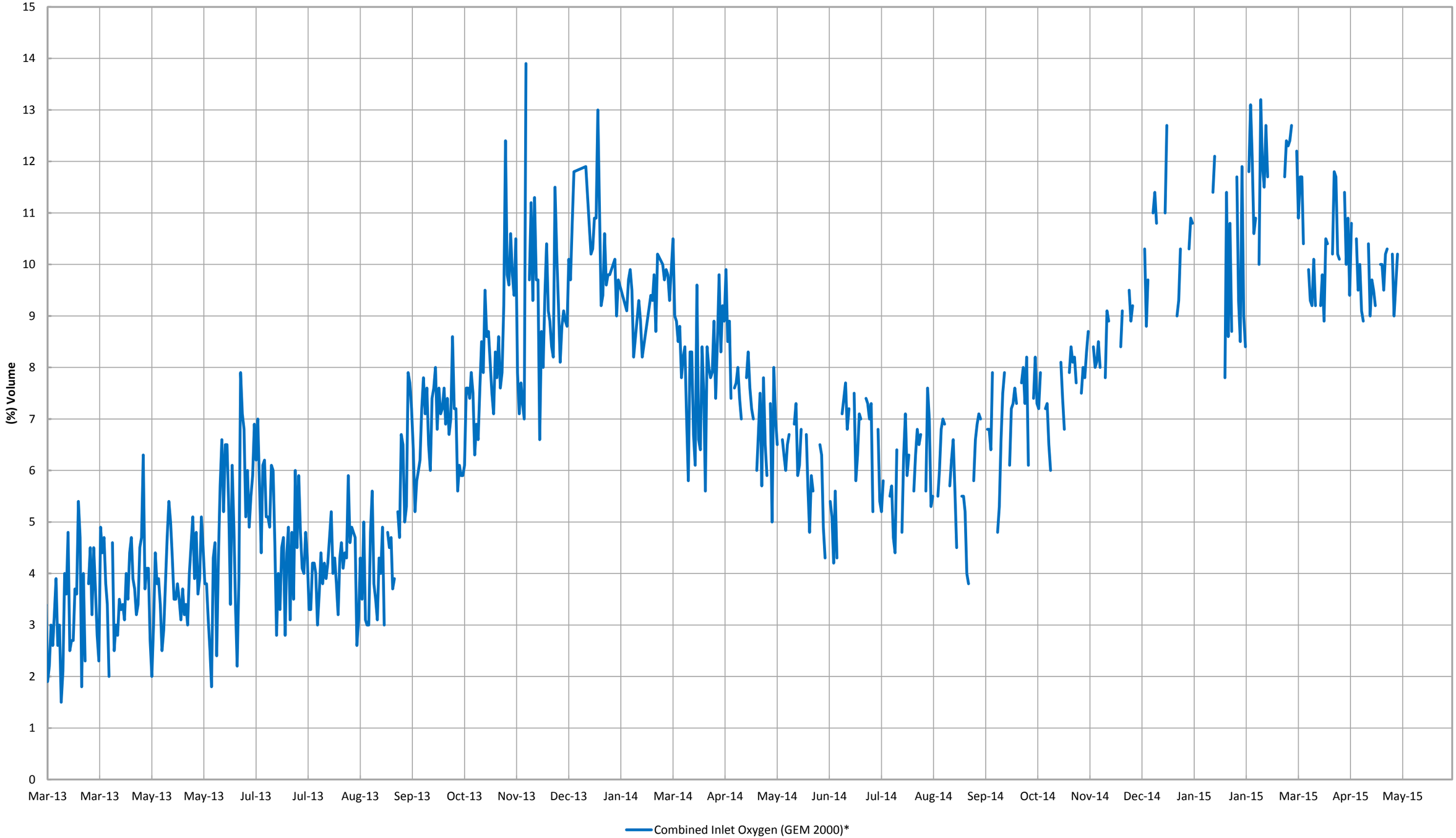
Combined Inlet Methane (GEM 2000)*



BRIDGETON LANDFILL

*Gas data collected from GEM 2000 field monitoring instrument.

Combined Inlet Oxygen (GEM 2000)*



BRIDGETON LANDFILL

*Gas data collected from GEM 2000 field monitoring instrument.

ATTACHMENT B-3

FLARE TRS / FLARE STATION FLOW

TABLE 1 **Bridgeton Landfill, LLC.**

Summary of Key LFG Tested Parameters **March 12 to May 19, 2015**

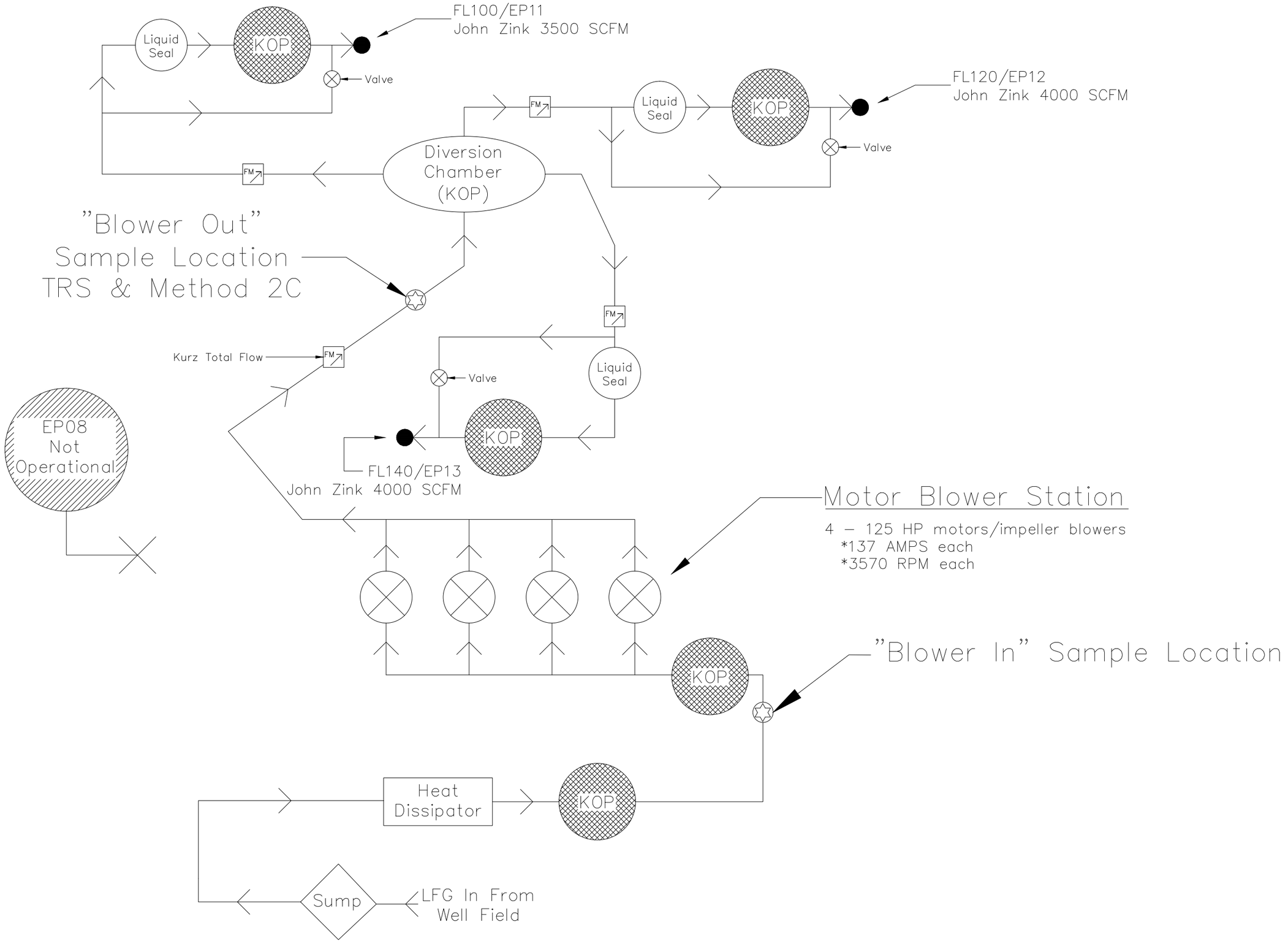
Flare Compound: *Blower Outlet*

SAMPLE EVENT #	DATE	VELOCITY ft/sec	❶FLOW dscfm	❷TRS ppm_{vd}
1	3/12/2015	52.38	4033	1518
2	3/18/2015	58.30	4702	817 874
3	3/24/2015	62.90	4815	832 834
4	4/1/2015	64.99	4742	881 922 1200 1300
5	4/8/2015	68.58	4984	1400 1100
6	4/14/2015	67.26	4888	1100 1700
7	4/21/2015	63.29	4751	1300 1200
8	4/28/2015	62.56	4752	1200 1100
9	5/5/2015	62.94	❸4194	Final not received yet Final not received yet
10	5/12/2015	62.13	❸4697	Final not received yet Final not received yet
11	5/19/2015	59.17	❸4452	Final not received yet Final not received yet

❶ Flow based on EPA Method 2C (& Method 3C and 4) data collection from "Blower Outlet" Method 1 location for approximately 90 minutes

❷ TRS analyzed per EPA Method 15/16, collected from "Blower Outlet" location for approximately 5-10 minutes

❸Flow results for these dates based on field results for fixed gas results (Method 3C), when final lab data received, will be utilized in computations



PREPARED FOR:
BRIDGETON LANDFILL, LLC

FIGURE 1 - FLARE COMPOUND
PROCESS FLOW DIAGRAM
13570 ST. CHARLES ROCK ROAD
BRIDGETON, MISSOURI

No.	DATE	REVISION DESCRIPTION

Weaver Consultants Group

WEAVER CONSULTANTS GROUP
6301 EAST HWY AB
COLUMBIA, MISSOURI 65201
(636)-431-3399
www.wcgrp.com

DRAWN BY:	DT
REVIEWED BY:	DAR
DATE:	5/20/2015
FILE:	0120-131-10
CAD:	Figure 1 - Flow Diagram - REV.dwg

SHEET 1 OF 1

Detailed Summary Sheets 03-12 to 05-12-2015

SOURCE		EP11/FL100	EP12/FL120	EP13/FL140	Blower Out
Date	Test Date				3/12/15
Start	Run Start Time				11:02
	Run Finish Time				11:05
	Net Traversing Points				8
Θ	Net Run Time, minutes				0:03:00
C_p	Pitot Tube Coeficient				0.99
P_{Br}	Barometric Pressure, inches of Mercury				29.60
% H_2O	Moisture Content of LFG, %				
% H_2O_{sat}	Moisture Saturation at LFG Temperature, %				4.91
M_{fd}	Dry Mole Fraction				0.951
%CH_4	Methane, %				8.52
%CO_2	Carbon Dioxide, %				33.90
%O_2	Oxygen, %				10.35
%Balance	Assumed as Nitorgen, %				37.50
%H_2	Hydrogen, %				9.71
M_d	Dry Molecular Weight, lb/lb-Mole				30.30
M_s	Wet Molecular weight, lb/lb-Mole				29.69
P_g	Flue Gas Static Pressure, inches of H_2O				19.60
P_s	Absolute Flue Gas Pressure, inches of Mercury				31.04
t_s	Average Stack Gas Temperature, °F				100
ΔP_{avg}	Average Velocity Head, inches of H_2O				0.631
v_s	Average LFG Velocity, feet/second				52.4
A_s	Stack Crossectional Area, square feet				1.38
Q_{sd}	Dry Volumetric Flow Rate, dry scfm				4,033
Q_s	Standard Volumetric Flow Rate, scfm				4,231
Q_{aw}	Actual Wet Volumetric Flue Gas Flow Rate, acfm				4,334
$Q_{lb/hr}$	Dry Air Flow Rate at Standard Conditions, lb/hr				19,030
LFG_{CH4}	Methane, lb/hr				858.7
	Methane, grains/dscf				24.8397
LFG_{CO2}	Carbon Dioxide, lb/hr				9,373.2
	Carbon Dioxide, grains/dscf				271.13
LFG_{O2}	Oxygen, lb/hr				2080.7
	Oxygen, grains/dscf				60.1880
LFG_{N2}	Balance gas as Nitrogen, lb/hr				6,599.9
	Balance gas as Nitrogen, grains/dscf				190.91
LFG_{H4}	Hydrogen, lb/hr				123.0
	Hydrogen, grains/dscf				3.56

H_2S	Hydrogen Sulfide Concentration, ppmd				17.80
	Hydrogen Sulfide Rate, lb/hr				0.38
	Hydrogen Sulfide Rate, grains/dscf				0.01
COS	Carbonyl Sulfide Concentration, ppmd				0.30
	Carboynl Sulfide Rate, lb/hr				0.01
	Carbonyl Sulfide Rate, grains/dscf				0.00
CH_4S	Methyl Mercaptan Concentration, ppmd				281.00
	Methyl Mercaptan Rate, lb/hr				8.49
	Methyl Mercaptan Rate, grains/dscf				0.25
C_2H_6S	Ethyl Mercaptan Concentration, ppmd				2.02
	Ethyl Mercaptan Rate, lb/hr				0.08
	Ethyl Mercaptan Rate, grains/dscf				0.00
$(CH_3)_2S$	Dimethyl Sulfide Concentration, ppmd				1100.00
	Dimethyl Sulfide Rate, lb/hr				42.94
	Dimethyl Sulfide Rate, grains/dscf				1.24
CS_2	Carbon Disulfide Concentration, ppmd				0.32
	Carbon Disulfide Rate, lb/hr				0.02
	Carbon Disulfide Rate, grains/dscf				0.00
$C_2H_6S_2$	Dimethyl Disulfide Concentration, ppmd				58.70
	Dimethyl Disulfide Rate, lb/hr				3.47
	Dimethyl Disulfide Rate, grains/dscf				0.10

❶$E_{TRS-SO2}$	TRS-->SO2 Emission Concentration, ppmd				1518.0
	TRS-->SO2 Emission Rate, lb/hr				61.1
	TRS-->SO2 Emission Rate, grains/dscf				190.91

❶ TRS assumed moelcular mass = SO2, 64.06 gram/mole, I.e. 1 TRS in LFG assumed to = 1 SO2 emitted from the stack

	SOURCE	EP11/FL100	EP12/FL120	EP13/FL140	Blower Out
Date	Test Date	3/18/15	3/18/15	3/18/15	3/18/15
Start	Run Start Time	12:24:00	12:55:00	13:26:00	10:07
	Run Finish Time	12:30:00	13:01:00	13:32:00	10:22
	Net Traversing Points	6	6	6	16 (2 x 8)
Θ	Net Run Time, minutes	0:06:00	0:06:00	0:06:00	0:15:00
C_p	Pitot Tube Coeficient	0.99	0.99	0.99	0.99
P_{Br}	Barometric Pressure, inches of Mercury	29.60	29.60	29.60	29.60
% H_2O	Moisture Content of LFG, %	10.00	10.00	10.00	
% H_2O_{sat}	Moisture Saturation at LFG Temperature, %				3.37
M_{fd}	Dry Mole Fraction	0.900	0.900	0.900	0.966
%CH_4	Methane, %	8.75	8.75	8.75	8.75
%CO_2	Carbon Dioxide, %	31.25	31.25	31.25	31.25
%O_2	Oxygen, %	14.73	14.73	14.73	14.73
%Balance	Assumed as Nitorgen, %	41.15	41.15	41.15	41.15
%H_2	Hydrogen, %	3.03	3.03	3.03	3.03
M_d	Dry Molecular Weight, lb/lb-Mole	31.46	31.46	31.46	31.46
M_s	Wet Molecular weight, lb/lb-Mole	30.11	30.11	30.11	31.00
P_g	Flue Gas Static Pressure, inches of H_2O	1.00	0.18	1.07	19.60
P_s	Absolute Flue Gas Pressure, inches of Mercury	29.67	29.61	29.68	31.04
t_s	Average Stack Gas Temperature, °F	69	73	74	73
ΔP_{avg}	Average Velocity Head, inches of H_2O	0.281	0.080	0.302	0.858
v_s	Average LFG Velocity, feet/second	34.53	18.54	35.94	58.33
A_s	Stack Crossectional Area, square feet	0.92	1.23	1.23	1.35
Q_{sd}	Dry Volumetric Flow Rate, dry scfm	1,703	1,204	2,337	4,702
Q_s	Standard Volumetric Flow Rate, scfm	1,873	1,324	2,571	4,861
Q_{aw}	Actual Wet Volumetric Flue Gas Flow Rate, acfm	1,910	1,365	2,646	4,735
$Q_{lb/hr}$	Dry Air Flow Rate at Standard Conditions, lb/hr	8,342	5,897	11,450	23,035
LFG_{CH4}	Methane, lb/hr	372.4	263.2	511.1	1,028.2
	Methane, grains/dscf	25.51	25.51	25.51	25.51
LFG_{CO2}	Carbon Dioxide, lb/hr	3,648.5	2,578.8	5,007.6	10,074.2
	Carbon Dioxide, grains/dscf	249.94	249.94	249.94	249.94
LFG_{O2}	Oxygen, lb/hr	1250.0	883.5	1715.6	3451.5
	Oxygen, grains/dscf	85.63	85.63	85.63	85.63
LFG_{N2}	Balance gas as Nitrogen, lb/hr	3,058.1	2,161.5	4,197.2	8,444.0
	Balance gas as Nitrogen, grains/dscf	209.49	209.49	209.49	209.49
LFG_{H4}	Hydrogen, lb/hr	16.2	11.4	22.2	44.7
	Hydrogen, grains/dscf	1.11	1.11	1.11	1.11

				Blower Out #1	Blower Out #2
H_2S	Hydrogen Sulfide Concentration, ppmd			19.90	23.3
	Hydrogen Sulfide Rate, lb/hr			0.5	0.6
	Hydrogen Sulfide Rate, grains/dscf			0.01	0.01
COS	Carbonyl Sulfide Concentration, ppmd			0.26	0.3
	Carboynl Sulfide Rate, lb/hr			0.0	0.0
	Carbonyl Sulfide Rate, grains/dscf			0.00	0.00
CH_4S	Methyl Mercaptan Concentration, ppmd			137.00	142.0
	Methyl Mercaptan Rate, lb/hr			4.8	5.0
	Methyl Mercaptan Rate, grains/dscf			0.12	0.12
C_2H_6S	Ethyl Mercaptan Concentration, ppmd			1.74	1.7
	Ethyl Mercaptan Rate, lb/hr			0.1	0.1
	Ethyl Mercaptan Rate, grains/dscf			0.00	0.00
$(CH_3)_2S$	Dimethyl Sulfide Concentration, ppmd			621.0	651.0
	Dimethyl Sulfide Rate, lb/hr			28.3	29.6
	Dimethyl Sulfide Rate, grains/dscf			0.70	0.74
CS_2	Carbon Disulfide Concentration, ppmd			0.2	0.2
	Carbon Disulfide Rate, lb/hr			0.0	0.0
	Carbon Disulfide Rate, grains/dscf			0.00	0.00
$C_2H_6S_2$	Dimethyl Disulfide Concentration, ppmd			18.6	27.8
	Dimethyl Disulfide Rate, lb/hr			1.3	1.9
	Dimethyl Disulfide Rate, grains/dscf			0.03	0.05

❶$E_{TRS-SO2}$	TRS-->SO2 Emission Concentration, ppmd			817.0	874.0
	TRS-->SO2 Emission Rate, lb/hr			38.3	41.0
	TRS-->SO2 Emission Rate, grains/dscf			0.95	1.02

❶ TRS assumed moelcular mass = SO2, 64.06 gram/mole, I.e. 1 TRS in LFG assumed to = 1 SO2 emitted from the stack

	SOURCE	EP11/FL100	EP12/FL120	EP13/FL140	Blower Out
Date	Test Date				3/18/15
Start	Run Start Time				8:20
	Run Finish Time				8:42
	Net Traversing Points				16 (2 x 8)
Θ	Net Run Time, minutes				0:22:00
C_p	Pitot Tube Coeficient				0.99
P_{Br}	Barometric Pressure, inches of Mercury				29.60
% H_2O	Moisture Content of LFG, %				10.00
% H_2O_{sat}	Moisture Saturation at LFG Temperature, %				
M_{fd}	Dry Mole Fraction				0.900
%CH_4	Methane, %				7.62
%CO_2	Carbon Dioxide, %				31.25
%O_2	Oxygen, %				11.52
%Balance	Assumed as Nitorgen, %				41.25
%H_2	Hydrogen, %				8.34
M_d	Dry Molecular Weight, lb/lb-Mole				30.39
M_s	Wet Molecular weight, lb/lb-Mole				29.15
P_g	Flue Gas Static Pressure, inches of H_2O				25.40
P_s	Absolute Flue Gas Pressure, inches of Mercury				31.47
t_s	Average Stack Gas Temperature, °F				70
ΔP_{avg}	Average Velocity Head, inches of H_2O				0.956
v_s	Average LFG Velocity, feet/second				62.90
A_s	Stack Crossectional Area, square feet				1.35
Q_{sd}	Dry Volumetric Flow Rate, dry scfm				4,815
Q_s	Standard Volumetric Flow Rate, scfm				5,296
Q_{aw}	Actual Wet Volumetric Flue Gas Flow Rate, acfm				5,106
$Q_{lb/hr}$	Dry Air Flow Rate at Standard Conditions, lb/hr				22,782
LFG_{CH4}	Methane, lb/hr				916.8
	Methane, grains/dscf				22.22
LFG_{CO2}	Carbon Dioxide, lb/hr				10,314.6
	Carbon Dioxide, grains/dscf				249.94
LFG_{O2}	Oxygen, lb/hr				2764.7
	Oxygen, grains/dscf				66.99
LFG_{N2}	Balance gas as Nitrogen, lb/hr				8,666.5
	Balance gas as Nitrogen, grains/dscf				210.00
LFG_{H4}	Hydrogen, lb/hr				126.2
	Hydrogen, grains/dscf				3.06

H_2S	Hydrogen Sulfide Concentration, ppmd				28.75
	Hydrogen Sulfide Rate, lb/hr				0.73
	Hydrogen Sulfide Rate, grains/dscf				0.018
COS	Carbonyl Sulfide Concentration, ppmd				0.27
	Carboynl Sulfide Rate, lb/hr				0.01
	Carbonyl Sulfide Rate, grains/dscf				0.000
CH_4S	Methyl Mercaptan Concentration, ppmd				150.00
	Methyl Mercaptan Rate, lb/hr				5.41
	Methyl Mercaptan Rate, grains/dscf				0.131
C_2H_6S	Ethyl Mercaptan Concentration, ppmd				1.69
	Ethyl Mercaptan Rate, lb/hr				0.08
	Ethyl Mercaptan Rate, grains/dscf				0.002
$(CH_3)_2S$	Dimethyl Sulfide Concentration, ppmd				599.50
	Dimethyl Sulfide Rate, lb/hr				27.94
	Dimethyl Sulfide Rate, grains/dscf				0.677
CS_2	Carbon Disulfide Concentration, ppmd				0.25
	Carbon Disulfide Rate, lb/hr				0.01
	Carbon Disulfide Rate, grains/dscf				0.000
$C_2H_6S_2$	Dimethyl Disulfide Concentration, ppmd				26.05
	Dimethyl Disulfide Rate, lb/hr				1.49
	Dimethyl Disulfide Rate, grains/dscf				0.036

❶$E_{TRS-SO2}$	TRS-->SO2 Emission Concentration, ppmd				833.00
	TRS-->SO2 Emission Rate, lb/hr				40.02
	TRS-->SO2 Emission Rate, grains/dscf				0.970

❶ TRS assumed moelcular mass = SO2, 64.06 gram/mole, I.e. 1 TRS in LFG assumed to = 1 SO2 emitted from the stack

	SOURCE	EP11/FL100	EP12/FL120	EP13/FL140	Blower Out
Date	Test Date	4/1/15	4/1/15	4/1/15	4/1/15
Start	Run Start Time	10:01:34	11:54:08	11:27:22	8:29
	Run Finish Time	10:29:10	12:06:48	11:43:57	9:33
	Net Traversing Points	6	6	6	16 (2 x 8)
Θ	Net Run Time, minutes	0:27:36	0:12:40	0:16:35	1:03:05
C_p	Pitot Tube Coeficient	0.99	0.99	0.99	0.99
P_{Br}	Barometric Pressure, inches of Mercury	29.44	29.33	29.39	29.35
% H_2O	Moisture Content of LFG, %	10.00	10.00	10.00	6.27
% H_2O_{sat}	Moisture Saturation at LFG Temperature, %				
M_{fd}	Dry Mole Fraction	0.900	0.900	0.900	0.937
%CH_4	Methane, %	8.60	8.90	8.90	7.80
%CO_2	Carbon Dioxide, %	34.60	33.20	34.00	30.20
%O_2	Oxygen, %	9.70	9.70	9.60	11.60
%Balance	Assumed as Nitorgen, %	33.60	34.60	34.40	37.80
%H_2	Hydrogen, %	13.50	13.60	13.10	12.60
M_d	Dry Molecular Weight, lb/lb-Mole	29.40	29.11	29.36	29.10
M_s	Wet Molecular weight, lb/lb-Mole	28.26	28.00	28.23	28.40
P_g	Flue Gas Static Pressure, inches of H_2O	0.77	0.54	0.70	25.40
P_s	Absolute Flue Gas Pressure, inches of Mercury	29.50	29.37	29.44	31.22
t_s	Average Stack Gas Temperature, °F	95	95	105	115
ΔP_{avg}	Average Velocity Head, inches of H_2O	0.427	0.791	0.192	0.910
v_s	Average LFG Velocity, feet/second	45.13	61.84	30.60	64.99
A_s	Stack Crossectional Area, square feet	0.92	1.23	1.23	1.35
Q_{sd}	Dry Volumetric Flow Rate, dry scfm	2,106	3,824	1,865	4,742
Q_s	Standard Volumetric Flow Rate, scfm	2,316	4,207	2,052	5,039
Q_{aw}	Actual Wet Volumetric Flue Gas Flow Rate, acfm	2,496	4,554	2,253	5,276
$Q_{lb/hr}$	Dry Air Flow Rate at Standard Conditions, lb/hr	9,638	17,336	8,528	21,488
LFG_{CH4}	Methane, lb/hr	452.5	850.6	414.8	924.4
	Methane, grains/dscf	25.07	25.95	25.95	22.74
LFG_{CO2}	Carbon Dioxide, lb/hr	4,994.3	8,704.4	4,347.1	9,818.1
	Carbon Dioxide, grains/dscf	276.73	265.53	271.93	241.54
LFG_{O2}	Oxygen, lb/hr	1018.0	1849.1	892.4	2742.0
	Oxygen, grains/dscf	56.41	56.41	55.83	67.46
LFG_{N2}	Balance gas as Nitrogen, lb/hr	3,087.1	5,774.3	2,799.6	7,822.3
	Balance gas as Nitrogen, grains/dscf	171.06	176.15	175.13	192.44
LFG_{H4}	Hydrogen, lb/hr	89.3	163.3	76.7	187.6
	Hydrogen, grains/dscf	4.95	4.98	4.80	4.62

				Cans	*Bags*
H_2S	Hydrogen Sulfide Concentration, ppmd			20.5	27.15
	Hydrogen Sulfide Rate, lb/hr			0.5	0.68
	Hydrogen Sulfide Rate, grains/dscf			0.0323	0.0168
COS	Carbonyl Sulfide Concentration, ppmd			0.5	0.28
	Carboynl Sulfide Rate, lb/hr			0.0	0.01
	Carbonyl Sulfide Rate, grains/dscf			0.0015	0.0003
CH_4S	Methyl Mercaptan Concentration, ppmd			165.0	150.50
	Methyl Mercaptan Rate, lb/hr			5.9	5.35
	Methyl Mercaptan Rate, grains/dscf			0.3668	0.1316
C_2H_6S	Ethyl Mercaptan Concentration, ppmd			2.0	1.56
	Ethyl Mercaptan Rate, lb/hr			0.1	0.07
	Ethyl Mercaptan Rate, grains/dscf			0.0056	0.0018
$(CH_3)_2S$	Dimethyl Sulfide Concentration, ppmd			885.0	658.50
	Dimethyl Sulfide Rate, lb/hr			40.6	30.22
	Dimethyl Sulfide Rate, grains/dscf			2.541	0.744
CS_2	Carbon Disulfide Concentration, ppmd			0.5	0.30
	Carbon Disulfide Rate, lb/hr			0.0	0.02
	Carbon Disulfide Rate, grains/dscf			0.0019	0.0004
$C_2H_6S_2$	Dimethyl Disulfide Concentration, ppmd			96.0	31.50
	Dimethyl Disulfide Rate, lb/hr			5.4	1.77
	Dimethyl Disulfide Rate, grains/dscf			0.3378	0.0436
❶$E_{TRS-SO2}$	TRS-->SO2 Emission Concentration, ppmd			1250.0	901.50
	TRS-->SO2 Emission Rate, lb/hr			59.2	42.66
	TRS-->SO2 Emission Rate, grains/dscf			3.70	1.05

❶ TRS assumed moelcular mass = SO2, 64.06 gram/mole, I.e. 1 TRS in LFG assumed to = 1 SO2 emitted from the stack

	SOURCE	EP11/FL100	P12/FL1	EP13/FL140	Blower Out
Date	Test Date				4/8/15
Start	Run Start Time				7:49
	Run Finish Time				9:12
	Net Traversing Points				16 (2 x 8)
Θ	Net Run Time, minutes				1:23:52
C_p	Pitot Tube Coeficient				0.99
P_{Br}	Barometric Pressure, inches of Mercury				29.25
% H_2O	Moisture Content of LFG, %				4.79
% H_2O_{sat}	Moisture Saturation at LFG Temperature, %				
M_{fd}	Dry Mole Fraction				0.952
%CH_4	Methane, %				7.40
%CO_2	Carbon Dioxide, %				31.00
%O_2	Oxygen, %				10.50
%Balance	Assumed as Nitorgen, %				41.00
%H_2	Hydrogen, %				9.20
M_d	Dry Molecular Weight, lb/lb-Mole				29.86
M_s	Wet Molecular weight, lb/lb-Mole				29.29
P_g	Flue Gas Static Pressure, inches of H_2O				25.40
P_s	Absolute Flue Gas Pressure, inches of Mercury				31.12
t_s	Average Stack Gas Temperature, °F				124
ΔP_{avg}	Average Velocity Head, inches of H_2O				1.025
v_s	Average LFG Velocity, feet/second				68.58
A_s	Stack Crossectional Area, square feet				1.35
Q_{sd}	Dry Volumetric Flow Rate, dry scfm				4,984
Q_s	Standard Volumetric Flow Rate, scfm				5,223
Q_{aw}	Actual Wet Volumetric Flue Gas Flow Rate, acfm				5,568
$Q_{lb/hr}$	Dry Air Flow Rate at Standard Conditions, lb/hr				23,177
LFG_{CH4}	Methane, lb/hr				921.7
	Methane, grains/dscf				21.57
LFG_{CO2}	Carbon Dioxide, lb/hr				10,592.7
	Carbon Dioxide, grains/dscf				247.94
LFG_{O2}	Oxygen, lb/hr				2608.7
	Oxygen, grains/dscf				61.06
LFG_{N2}	Balance gas as Nitrogen, lb/hr				8,917.6
	Balance gas as Nitrogen, grains/dscf				208.73
LFG_{H4}	Hydrogen, lb/hr				144.0
	Hydrogen, grains/dscf				3.37

				Blower Out Sample#1	Blower Out Sample#2
H_2S	Hydrogen Sulfide Concentration, ppmd			9.90	0.59
	Hydrogen Sulfide Rate, lb/hr			0.26	0.02
	Hydrogen Sulfide Rate, grains/dscf			0.006	0.000
COS	Carbonyl Sulfide Concentration, ppmd			0.58	0.59
	Carboynl Sulfide Rate, lb/hr			0.03	0.03
	Carbonyl Sulfide Rate, grains/dscf			0.001	0.001
CH_4S	Methyl Mercaptan Concentration, ppmd			170.00	100.00
	Methyl Mercaptan Rate, lb/hr			6.35	3.74
	Methyl Mercaptan Rate, grains/dscf			0.149	0.087
C_2H_6S	Ethyl Mercaptan Concentration, ppmd			1.90	1.80
	Ethyl Mercaptan Rate, lb/hr			0.09	0.09
	Ethyl Mercaptan Rate, grains/dscf			0.002	0.002
$(CH_3)_2S$	Dimethyl Sulfide Concentration, ppmd			830.00	800.00
	Dimethyl Sulfide Rate, lb/hr			40.04	38.59
	Dimethyl Sulfide Rate, grains/dscf			0.937	0.903
CS_2	Carbon Disulfide Concentration, ppmd			0.58	0.59
	Carbon Disulfide Rate, lb/hr			0.03	0.03
	Carbon Disulfide Rate, grains/dscf			0.001	0.001
$C_2H_6S_2$	Dimethyl Disulfide Concentration, ppmd			190.00	100.00
	Dimethyl Disulfide Rate, lb/hr			13.90	5.91
	Dimethyl Disulfide Rate, grains/dscf			0.325	0.138
❶$E_{TRS-SO2}$	TRS-->SO2 Emission Concentration, ppmd			1400.00	1100.00
	TRS-->SO2 Emission Rate, lb/hr			69.64	54.71
	TRS-->SO2 Emission Rate, grains/dscf			1.630	1.281

❶ TRS assumed moelcular mass = SO2, 64.06 gram/mole, I.e. 1 TRS in LFG assumed to = 1 SO2 emitted from the stack

	SOURCE	EP11/FL10	P12/FL12	EP13/FL140	Blower Out
Date	Test Date				4/14/15
Start	Run Start Time				7:29
	Run Finish Time				8:47
	Net Traversing Points				16 (2 x 8)
Θ	Net Run Time, minutes				1:18:27
C_p	Pitot Tube Coeficient				0.99
P_{Br}	Barometric Pressure, inches of Mercury				29.25
% H_2O	Moisture Content of LFG, %				4.79
% H_2O_{sat}	Moisture Saturation at LFG Temperature, %				
M_{fd}	Dry Mole Fraction				0.952
%CH_4	Methane, %				7.50
%CO_2	Carbon Dioxide, %				31.00
%O_2	Oxygen, %				10.50
%Balance	Assumed as Nitorgen, %				40.00
%H_2	Hydrogen, %				10.50
M_d	Dry Molecular Weight, lb/lb-Mole				29.62
M_s	Wet Molecular weight, lb/lb-Mole				29.07
P_g	Flue Gas Static Pressure, inches of H_2O				25.40
P_s	Absolute Flue Gas Pressure, inches of Mercury				31.12
t_s	Average Stack Gas Temperature, °F				124
ΔP_{avg}	Average Velocity Head, inches of H_2O				0.978
v_s	Average LFG Velocity, feet/second				67.26
A_s	Stack Crossectional Area, square feet				1.35
Q_{sd}	Dry Volumetric Flow Rate, dry scfm				4,888
Q_s	Standard Volumetric Flow Rate, scfm				5,122
Q_{aw}	Actual Wet Volumetric Flue Gas Flow Rate, acfm				5,460
$Q_{lb/hr}$	Dry Air Flow Rate at Standard Conditions, lb/hr				22,547
LFG_{CH4}	Methane, lb/hr				916.1
	Methane, grains/dscf				21.87
LFG_{CO2}	Carbon Dioxide, lb/hr				10,387.4
	Carbon Dioxide, grains/dscf				247.94
LFG_{O2}	Oxygen, lb/hr				2558.1
	Oxygen, grains/dscf				61.06
LFG_{N2}	Balance gas as Nitrogen, lb/hr				8,531.5
	Balance gas as Nitrogen, grains/dscf				203.64
LFG_{H4}	Hydrogen, lb/hr				161.2
	Hydrogen, grains/dscf				3.85

				Blower Out Sample#1	Blower Out Sample#2
H_2S	Hydrogen Sulfide Concentration, ppmd			8.10	0.56
	Hydrogen Sulfide Rate, lb/hr			0.21	0.01
	Hydrogen Sulfide Rate, grains/dscf			0.005	0.000
COS	Carbonyl Sulfide Concentration, ppmd			0.55	0.56
	Carboynl Sulfide Rate, lb/hr			0.03	0.03
	Carbonyl Sulfide Rate, grains/dscf			0.001	0.001
CH_4S	Methyl Mercaptan Concentration, ppmd			140.00	110.00
	Methyl Mercaptan Rate, lb/hr			5.13	4.03
	Methyl Mercaptan Rate, grains/dscf			0.122	0.096
C_2H_6S	Ethyl Mercaptan Concentration, ppmd			1.70	1.40
	Ethyl Mercaptan Rate, lb/hr			0.08	0.07
	Ethyl Mercaptan Rate, grains/dscf			0.002	0.002
$(CH_3)_2S$	Dimethyl Sulfide Concentration, ppmd			730.00	1000.00
	Dimethyl Sulfide Rate, lb/hr			34.53	47.31
	Dimethyl Sulfide Rate, grains/dscf			0.824	1.129
CS_2	Carbon Disulfide Concentration, ppmd			0.55	0.56
	Carbon Disulfide Rate, lb/hr			0.03	0.03
	Carbon Disulfide Rate, grains/dscf			0.001	0.001
$C_2H_6S_2$	Dimethyl Disulfide Concentration, ppmd			100.00	310.00
	Dimethyl Disulfide Rate, lb/hr			7.17	17.97
	Dimethyl Disulfide Rate, grains/dscf			0.171	0.429

❶$E_{TRS-SO2}$	TRS-->SO2 Emission Concentration, ppmd			1,100.00	1,700.00
	TRS-->SO2 Emission Rate, lb/hr			53.65	82.92
	TRS-->SO2 Emission Rate, grains/dscf			1.281	1.979

❶ TRS assumed moelcular mass = SO2, 64.06 gram/mole, I.e. 1 TRS in LFG assumed to = 1 SO2 emitted from the stack

	SOURCE	EP11/FL100	EP12/FL120	EP13/FL140	Blower Out
Date	Test Date	4/21/15	4/21/15	4/21/15	4/21/15
Start	Run Start Time	10:25:52	10:55:50	11:23:06	8:28
	Run Finish Time	10:46:12	11:13:12	11:39:51	9:58
	Net Traversing Points	6	8	8	16 (2 x 8)
Θ	Net Run Time, minutes	0:20:20	0:17:22	0:16:45	1:29:36
C_p	Pitot Tube Coeficient	0.99	0.99	0.99	0.99
P_{Br}	Barometric Pressure, inches of Mercury	29.14	29.14	29.14	29.14
% H_2O	Moisture Content of LFG, %	10.00	10.00	10.00	3.43
% H_2O_{sat}	Moisture Saturation at LFG Temperature, %				
M_{fd}	Dry Mole Fraction	0.900	0.900	0.900	0.966
%CH_4	Methane, %	8.60	8.80	8.70	7.60
%CO_2	Carbon Dioxide, %	33.90	34.10	34.60	32.50
%O_2	Oxygen, %	10.20	10.00	9.90	9.85
%Balance	Assumed as Nitorgen, %	33.90	33.40	33.10	39.00
%H_2	Hydrogen, %	13.70	13.70	13.70	10.00
M_d	Dry Molecular Weight, lb/lb-Mole	29.34	29.25	29.34	29.80
M_s	Wet Molecular weight, lb/lb-Mole	28.20	28.13	28.21	29.40
P_g	Flue Gas Static Pressure, inches of H_2O	0.10	1.00	0.66	23.99
P_s	Absolute Flue Gas Pressure, inches of Mercury	29.14	29.21	29.18	30.90
t_s	Average Stack Gas Temperature, °F	85	91	104	110
ΔP_{avg}	Average Velocity Head, inches of H_2O	0.174	0.220	0.345	0.892
v_s	Average LFG Velocity, feet/second	28.75	32.51	41.18	63.29
A_s	Stack Crossectional Area, square feet	0.92	1.23	1.23	1.35
Q_{sd}	Dry Volumetric Flow Rate, dry scfm	1,350	2,017	2,492	4,751
Q_s	Standard Volumetric Flow Rate, scfm	1,485	2,219	2,741	4,914
Q_{aw}	Actual Wet Volumetric Flue Gas Flow Rate, acfm	1,590	2,394	3,032	5,138
$Q_{lb/hr}$	Dry Air Flow Rate at Standard Conditions, lb/hr	6,169	9,188	11,385	22,048
LFG_{CH4}	Methane, lb/hr	290.2	443.6	541.7	902.3
	Methane, grains/dscf	25.07	25.66	25.36	22.16
LFG_{CO2}	Carbon Dioxide, lb/hr	3,138.1	4,715.4	5,910.6	10,585.4
	Carbon Dioxide, grains/dscf	271.13	272.73	276.73	259.94
LFG_{O2}	Oxygen, lb/hr	686.5	1005.4	1229.6	2332.6
	Oxygen, grains/dscf	59.32	58.15	57.57	57.28
LFG_{N2}	Balance gas as Nitrogen, lb/hr	1,997.5	2,939.9	3,599.2	8,085.5
	Balance gas as Nitrogen, grains/dscf	172.58	170.04	168.51	198.55
LFG_{H4}	Hydrogen, lb/hr	58.1	86.8	107.2	149.2
	Hydrogen, grains/dscf	5.02	5.02	5.02	3.66

				Blower Out Sample#1	Blower Out Sample#2
H_2S	Hydrogen Sulfide Concentration, ppmd			4.20	0.6
	Hydrogen Sulfide Rate, lb/hr			0.11	0.0
	Hydrogen Sulfide Rate, grains/dscf			0.003	0.00
COS	Carbonyl Sulfide Concentration, ppmd			0.53	0.6
	Carboynl Sulfide Rate, lb/hr			0.02	0.0
	Carbonyl Sulfide Rate, grains/dscf			0.001	0.00
CH_4S	Methyl Mercaptan Concentration, ppmd			140.00	130.0
	Methyl Mercaptan Rate, lb/hr			4.98	4.6
	Methyl Mercaptan Rate, grains/dscf			0.122	0.11
C_2H_6S	Ethyl Mercaptan Concentration, ppmd			1.10	1.6
	Ethyl Mercaptan Rate, lb/hr			0.05	0.1
	Ethyl Mercaptan Rate, grains/dscf			0.001	0.00
$(CH_3)_2S$	Dimethyl Sulfide Concentration, ppmd			780.00	840.0
	Dimethyl Sulfide Rate, lb/hr			35.87	38.6
	Dimethyl Sulfide Rate, grains/dscf			0.881	0.95
CS_2	Carbon Disulfide Concentration, ppmd			0.53	0.6
	Carbon Disulfide Rate, lb/hr			0.03	0.0
	Carbon Disulfide Rate, grains/dscf			0.001	0.00
$C_2H_6S_2$	Dimethyl Disulfide Concentration, ppmd			170.00	110.0
	Dimethyl Disulfide Rate, lb/hr			11.85	6.2
	Dimethyl Disulfide Rate, grains/dscf			0.291	0.15
❶$E_{TRS-SO2}$	TRS-->SO2 Emission Concentration, ppmd			1,300.00	1200.0
	TRS-->SO2 Emission Rate, lb/hr			61.64	56.9
	TRS-->SO2 Emission Rate, grains/dscf			1.514	1.40

❶ TRS assumed moelcular mass = SO2, 64.06 gram/mole, I.e. 1 TRS in LFG assumed to = 1 SO2 emitted from the stack

	PARAMETER	EP11/FL100	EP12/FL120	EP13/FL140	Blower Out
Date	Test Date	4/28/15	4/28/15	4/28/15	4/28/15
Start	Run Start Time	9:48:45	10:25:27	10:56:17	7:23
	Run Finish Time	10:18:45	10:45:17	11:45:00	9:23
	Net Traversing Points	6	8	8	16 (2 x 8)
Θ	Net Run Time, minutes	0:30:00	0:19:50	0:48:43	1:59:39
C_p	Pitot Tube Coeficient	0.99	0.99	0.99	0.99
P_{Br}	Barometric Pressure, inches of Mercury	29.45	29.45	29.45	29.45
% H_2O	Moisture Content of LFG, %	10.00	10.00	10.00	4.29
% H_2O_{sat}	Moisture Saturation at LFG Temperature, %				
M_{fd}	Dry Mole Fraction	0.900	0.900	0.900	0.957
%CH_4	Methane, %	9.20	9.40	9.30	7.55
%CO_2	Carbon Dioxide, %	35.00	32.70	35.60	32.00
%O_2	Oxygen, %	10.20	10.00	9.80	9.90
%Balance	Assumed as Nitorgen, %	35.50	36.80	32.90	39.50
%H_2	Hydrogen, %	10.10	11.10	12.40	10.50
M_d	Dry Molecular Weight, lb/lb-Mole	30.29	29.63	29.76	29.74
M_s	Wet Molecular weight, lb/lb-Mole	29.06	28.47	28.59	29.24
P_g	Flue Gas Static Pressure, inches of H_2O	0.16	0.91	0.90	23.17
P_s	Absolute Flue Gas Pressure, inches of Mercury	29.46	29.52	29.52	31.15
t_s	Average Stack Gas Temperature, °F	85	94	97	102
ΔP_{avg}	Average Velocity Head, inches of H_2O	0.170	0.197	0.187	0.885
v_s	Average LFG Velocity, feet/second	27.85	30.48	29.74	62.56
A_s	Stack Crossectional Area, square feet	0.92	1.23	1.23	1.35
Q_{sd}	Dry Volumetric Flow Rate, dry scfm	1,323	1,898	1,844	4,752
Q_s	Standard Volumetric Flow Rate, scfm	1,455	2,088	2,028	4,956
Q_{aw}	Actual Wet Volumetric Flue Gas Flow Rate, acfm	1,540	2,244	2,190	5,078
$Q_{lb/hr}$	Dry Air Flow Rate at Standard Conditions, lb/hr	6,240	8,759	8,544	22,009
LFG_{CH4}	Methane, lb/hr	304.1	445.9	428.4	896.6
	Methane, grains/dscf	26.82	27.41	27.11	22.01
LFG_{CO2}	Carbon Dioxide, lb/hr	3,174.0	4,255.2	4,499.3	10,425.5
	Carbon Dioxide, grains/dscf	279.93	261.54	284.73	255.94
LFG_{O2}	Oxygen, lb/hr	672.5	946.1	900.5	2345.2
	Oxygen, grains/dscf	59.32	58.15	56.99	57.57
LFG_{N2}	Balance gas as Nitrogen, lb/hr	2,049.2	3,048.2	2,646.7	8,191.5
	Balance gas as Nitrogen, grains/dscf	180.73	187.35	167.49	201.09
LFG_{H4}	Hydrogen, lb/hr	42.0	66.2	71.8	156.7
	Hydrogen, grains/dscf	3.70	4.07	4.54	3.85

		FL100/EP11 Stack		Blower Out Sample #1	Blower Out Sample #2
H_2S	Hydrogen Sulfide Concentration, ppmd	20.00		0.59	3.80
	Hydrogen Sulfide Rate, lb/hr	0.14		0.01	0.10
	Hydrogen Sulfide Rate, grains/dscf	0.009		0.000	0.002
COS	Carbonyl Sulfide Concentration, ppmd	0.53		0.49	0.51
	Carboynl Sulfide Rate, lb/hr	0.01		0.02	0.02
	Carbonyl Sulfide Rate, grains/dscf	0.000		0.001	0.001
CH_4S	Methyl Mercaptan Concentration, ppmd	170.00		160.00	150.00
	Methyl Mercaptan Rate, lb/hr	1.69		5.70	5.34
	Methyl Mercaptan Rate, grains/dscf	0.104		0.140	0.131
C_2H_6S	Ethyl Mercaptan Concentration, ppmd	2.20		1.80	1.90
	Ethyl Mercaptan Rate, lb/hr	0.03		0.08	0.09
	Ethyl Mercaptan Rate, grains/dscf	0.002		0.002	0.002
$(CH_3)_2S$	Dimethyl Sulfide Concentration, ppmd	900.00		940.00	810.00
	Dimethyl Sulfide Rate, lb/hr	11.52		43.24	37.26
	Dimethyl Sulfide Rate, grains/dscf	0.708		1.061	0.915
CS_2	Carbon Disulfide Concentration, ppmd	0.53		0.49	0.51
	Carbon Disulfide Rate, lb/hr	0.01		0.03	0.03
	Carbon Disulfide Rate, grains/dscf	0.001		0.001	0.001
$C_2H_6S_2$	Dimethyl Disulfide Concentration, ppmd	100.00		69.00	83.00
	Dimethyl Disulfide Rate, lb/hr	1.94		4.81	4.68
	Dimethyl Disulfide Rate, grains/dscf	0.119		0.118	0.115
❶$E_{TRS-SO2}$	TRS-->SO2 Emission Concentration, ppmd	1,300.00		1,200.00	1,100.00
	TRS-->SO2 Emission Rate, lb/hr	17.16		56.91	52.17
	TRS-->SO2 Emission Rate, grains/dscf	1.055		1.397	1.281

❶ TRS assumed moelcular mass = SO2, 64.06 gram/mole, I.e. 1 TRS in LFG assumed to = 1 SO2 emitted from the stack

	PARAMETER	EP11/FL100	EP12/FL120	EP13/FL140	Blower Out
Date	Test Date	5/5/15	5/5/15	5/5/15	5/5/15
Start	Run Start Time	10:10:28	10:50:08	11:32:55	8:50
	Run Finish Time	10:41:03	11:19:23	12:08:35	9:59
	Net Traversing Points	6	8	8	16 (2 x 8)
Θ	Net Run Time, minutes	0:30:35	0:29:15	0:35:40	1:09:20
C_p	Pitot Tube Coeficient	0.99	0.99	0.99	0.99
P_{Br}	Barometric Pressure, inches of Mercury	29.51	29.51	29.51	29.51
% H_2O	Moisture Content of LFG, %	10.00	10.00	10.00	12.54
% H_2O_{sat}	Moisture Saturation at LFG Temperature, %				
M_{fd}	Dry Mole Fraction	0.900	0.900	0.900	0.875
%CH_4	Methane, %	7.60	7.60	7.60	7.60
%CO_2	Carbon Dioxide, %	32.50	32.50	32.50	32.50
%O_2	Oxygen, %	9.85	9.85	9.85	9.85
%Balance	Assumed as Nitorgen, %	39.00	39.00	39.00	39.00
%H_2	Hydrogen, %	10.00	10.00	10.00	10.00
M_d	Dry Molecular Weight, lb/lb-Mole	29.80	29.80	29.80	29.80
M_s	Wet Molecular weight, lb/lb-Mole	28.62	28.62	28.62	28.32
P_g	Flue Gas Static Pressure, inches of H_2O	0.16	0.91	0.90	23.23
P_s	Absolute Flue Gas Pressure, inches of Mercury	29.56	29.54	29.54	31.22
t_s	Average Stack Gas Temperature, °F	102	113	115	127
ΔP_{avg}	Average Velocity Head, inches of H_2O	0.183	0.197	0.063	0.825
v_s	Average LFG Velocity, feet/second	29.51	30.93	17.52	62.64
A_s	Stack Crossectional Area, square feet	0.92	1.23	1.23	1.35
Q_{sd}	Dry Volumetric Flow Rate, dry scfm	1,363	1,865	1,052	4,174
Q_s	Standard Volumetric Flow Rate, scfm	1,500	2,052	1,158	4,697
Q_{aw}	Actual Wet Volumetric Flue Gas Flow Rate, acfm	1,632	2,278	1,290	5,085
$Q_{lb/hr}$	Dry Air Flow Rate at Standard Conditions, lb/hr	6,327	8,655	4,884	19,369
LFG_{CH4}	Methane, lb/hr	258.9	354.2	199.9	792.7
	Methane, grains/dscf	22.16	22.16	22.16	22.16
LFG_{CO2}	Carbon Dioxide, lb/hr	3,037.6	4,155.4	2,345.0	9,299.0
	Carbon Dioxide, grains/dscf	259.94	259.94	259.94	259.94
LFG_{O2}	Oxygen, lb/hr	669.4	915.7	516.7	2049.2
	Oxygen, grains/dscf	57.28	57.28	57.28	57.28
LFG_{N2}	Balance gas as Nitrogen, lb/hr	2,320.2	3,174.1	1,791.2	7,102.9
	Balance gas as Nitrogen, grains/dscf	198.55	198.55	198.55	198.55
LFG_{H4}	Hydrogen, lb/hr	42.8	58.6	33.0	131.1
	Hydrogen, grains/dscf	3.66	3.66	3.66	3.66

	PARAMETER	EP11/FL100	EP12/FL120	EP13/FL140	Blower Out
Date	Test Date	5/12/15	5/12/15	5/12/15	5/12/15
Start	Run Start Time	9:28:26	10:05:40	11:01:34	7:32
	Run Finish Time	9:56:56	10:31:45	11:11:29	9:12
	Net Traversing Points	6	8	8	16 (2 x 8)
Θ	Net Run Time, minutes	0:28:30	0:26:05	0:09:55	1:39:39
C_p	Pitot Tube Coeficient	0.99	0.99	0.99	0.99
P_{Br}	Barometric Pressure, inches of Mercury	29.53	29.53	29.53	29.53
% H_2O	Moisture Content of LFG, %	10.00	10.00	10.00	3.62
% RH	Relative Humidity, %	75.0	80.4	98.0	46.20
M_{fd}	Dry Mole Fraction	0.900	0.900	0.900	0.964
%CH_4	Methane, %	7.90	7.90	10.00	7.80
%CO_2	Carbon Dioxide, %	34.70	35.30	35.00	34.30
%O_2	Oxygen, %	10.70	10.50	9.90	11.20
%Balance	Assumed as Nitorgen, %	36.60	35.20	32.70	33.70
%H_2	Hydrogen, %	10.10	11.10	12.40	13.00
M_d	Dry Molecular Weight, lb/lb-Mole	30.42	30.25	29.59	29.63
M_s	Wet Molecular weight, lb/lb-Mole	29.18	29.02	28.43	29.21
P_g	Flue Gas Static Pressure, inches of H_2O	0.23	0.91	0.91	22.98
P_s	Absolute Flue Gas Pressure, inches of Mercury	29.59	29.61	29.65	31.13
t_s	Average Stack Gas Temperature, °F	87	93	100	109
ΔP_{avg}	Average Velocity Head, inches of H_2O	0.106	0.198	0.101	0.862
v_s	Average LFG Velocity, feet/second	21.94	30.21	21.91	62.13
A_s	Stack Crossectional Area, square feet	0.92	1.23	1.23	1.35
Q_{sd}	Dry Volumetric Flow Rate, dry scfm	1,042	1,892	1,358	4,697
Q_s	Standard Volumetric Flow Rate, scfm	1,146	2,081	1,494	4,867
Q_{aw}	Actual Wet Volumetric Flue Gas Flow Rate, acfm	1,213	2,224	1,614	5,044
$Q_{lb/hr}$	Dry Air Flow Rate at Standard Conditions, lb/hr	4,935	8,911	6,257	21,677
LFG_{CH4}	Methane, lb/hr	205.7	373.5	339.4	915.6
	Methane, grains/dscf	23.03	23.03	29.15	22.74
LFG_{CO2}	Carbon Dioxide, lb/hr	2,478.3	4,578.2	3,258.6	11,045.7
	Carbon Dioxide, grains/dscf	277.53	282.33	279.93	274.33
LFG_{O2}	Oxygen, lb/hr	555.6	990.2	670.2	2622.4
	Oxygen, grains/dscf	62.22	61.06	57.57	65.13
LFG_{N2}	Balance gas as Nitrogen, lb/hr	1,663.9	2,905.9	1,937.9	6,907.9
	Balance gas as Nitrogen, grains/dscf	186.33	179.20	166.48	171.57
LFG_{H4}	Hydrogen, lb/hr	33.0	65.9	52.9	191.8
	Hydrogen, grains/dscf	3.70	4.07	4.54	4.76

Lab Results 03-12 to 04-28-2015

Air TECHNOLOGY Laboratories, Inc.

May 5, 2015

ACLASS ACCREDITED DoD ELAP
ADE-1461
EPA Methods TO-3, TO14A,TO15 SIM & Scan, ASTM D1946

nelac
LA Cert 04140
EPA Methods TO3, TO14A, TO15, 25C/3C, RSK-175
TX Cert T104704450-09-TX
EPA Methods TO14A, TO15
UT Cert CA0133332014-1
EPA Methods TO3, TO14A, TO15, RSK-175

Weaver Consultants Group
ATTN: David Randall
6301 East Highway AB
Columbia, MO 65201

LABORATORY TEST RESULTS

Project Name: Bridgeton Weekly GCCS TRS Sampling
Project Number: 0120-131-10-47
Lab Number: G042901-01/03

Enclosed are results for sample(s) received 4/29/15 by Air Technology Laboratories. Samples were received intact. Analyses were performed according to specifications on the chain of custody provided with the sample(s).

Report Narrative:

- Unless otherwise noted in the report, sample analyses were performed within method performance criteria and meet all requirements of the NELAC Standards.
- The enclosed results relate only to the sample(s).

Preliminary results were e-mailed to David Randall on 5/04/15.

ATL appreciates the opportunity to provide testing services to your company. If you have any questions regarding these results, please call me at (626) 964-4032.

Sincerely,

Mark Johnson
Operations Manager
MJohnson@AirTechLabs.com

Enclosures

Note: The cover letter is an integral part of this analytical report.

AirTECHNOLOGY Laboratories, Inc.

18501 E. Gale Ave., Suite 130
City of Industry, CA 91748
Ph: 626-964-4032
Fx: 626-964-5832

CHAIN OF CUSTODY RECORD

TURNAROUND TIME				DELIVERABLES		PAGE: 1 OF 1
Standard	■	48 hours	☐	EDD	☐	Condition upon receipt:
Same Day	☐	72 hours	☐	EDF	☐	Sealed Yes ☐ No ☐
24 hours	☐	96 hours	☐	Level 3	☐	Intact Yes ☐ No ☐
Other:				Level 4	☐	Chilled _____ deg C

Project No.:	0120-131-10-47
Project Name:	Bridgeton Weekly GCCS TRS Sampling
Report To:	David A. Randall
Company:	Weaver Consultants Group
Street:	6301 East Highway AB
City/State/Zip:	Columbia, MO 65201
Phone& Fax:	888-660-0346
e-mail:	drandall@weaverboos.com

BILLING

P.O. No.:

Bill to: Ms. Michele Clark

<--Same

LAB USE ONLY	SAMPLE IDENTIFICATION	SAMPLE DATE	SAMPLE TIME	CONTAINER QTY/TYPE	MATRIX	PRESERVATION	ANALYSIS REQUEST: EPA 15/16 + TRS & ASTM1946 + H2
042901-01	Blower Outlet #1, Can # 1537	4/28/2015	0805	C -1L	LFG		X
-02	Blower Outlet #2, Can # 1615	4/28/2015	0835	C-1L	LFG		X
-03	EP 11, FL 100 Can # J1713	4/28/2015	942	C-1L	LFG		X

AUTHORIZATION TO PERFORM WORK	COMPANY	DATE/TIME
David A. Randall	Weaver Consultants Group	03/26/2015
SAMPLED BY	COMPANY	DATE/TIME
J Holt/D Randall	Weaver Consultants Group	04/28/15 0800-1100

RELINQUISHED BY	DATE/TIME	RECEIVED BY	DATE/TIME
UPS	DATE/TIME	RECEIVED BY	DATE/TIME 4/29/15 1000
RELINQUISHED BY	DATE/TIME	RECEIVED BY	DATE/TIME

METHOD OF TRANSPORT (circle one): Walk-In FedEx UPS Courier ATLI Other_____

COMMENTS

DISTRIBUTION: White & Yellow - Lab Copies / Pink - Customer Copy

Preservation: H=HCl N=None / Container: B=Bag C=Can V=VOA O=Other *Rev. 03 - 5/7/09*

Client: Weaver Consultants Group
Attn: David Randall
Project Name: Bridgeton Weekly GCCS TRS Sampling
Project No.: 0120-131-10-47
Date Received: 04/29/15
Matrix: Air
Reporting Units: ppmv

EPA 15/16

Lab No.:	G042901-01		G042901-02		G042901-03			
Client Sample I.D.:	Blower Outlet #1, Can #1537		Blower Outlet #2, Can #1615		FL100 (EP11) Can #J1713			
Date/Time Sampled:	4/28/15 8:05		4/28/15 8:35		4/28/15 9:42			
Date/Time Analyzed:	5/1/15 8:56		5/1/15 9:32		5/1/15 10:07			
QC Batch No.:	150501GC3A1		150501GC3A1		150501GC3A1			
Analyst Initials:	AS		AS		AS			
Dilution Factor:	2.5		2.5		2.7			
ANALYTE	Result ppmv	RL ppmv	Result ppmv	RL ppmv	Result ppmv	RL ppmv		
Hydrogen Sulfide	3.8	0.59	ND	0.59	20 d	5.3		
Carbonyl Sulfide	ND	0.51	ND	0.49	ND	0.53		
Methyl Mercaptan	150 d	5.1	160 d	4.9	170 d	5.3		
Ethyl Mercaptan	1.9	0.51	1.8	0.49	2.2	0.53		
Dimethyl Sulfide	810 d	51	940 d	49	900 d	53		
Carbon Disulfide	ND	0.51	ND	0.49	ND	0.53		
Dimethyl Disulfide	83 d	5.1	69 d	4.9	100 d	5.3		
Total Reduced Sulfur	1,100	0.51	1,200	0.49	1,300	0.53		

ND = Not Detected (below RL)
RL = Reporting Limit
d = result obtained from secondary dilution

Reviewed/Approved By: _____ Date 5-5-15

Mark Johnson
Operations Manager

The cover letter is an integral part of this analytical report

QC Batch No.: 150501GC3A1
Matrix: Air
Units: ppmv

QC for Sulfur Compounds by EPA 15/16

Lab No.:	Method Blank		LCS		LCSD			
Date/Time Analyzed:	5/1/15 8:45		5/1/15 8:21		5/1/15 8:33			
Analyst Initials:	AS		AS		AS			
Datafile:	01may003		01may001		01may002			
Dilution Factor:	1.0		1.0		1.0			
ANALYTE	Results	RL	% Rec.	Criteria	% Rec.	Criteria	%RPD	Criteria
Hydrogen Sulfide	ND	0.20	108	70-130%	103	70-130%	4.4	<30
Carbonyl Sulfide	ND	0.20	102	70-130%	103	70-130%	1.1	<30
Methyl Mercaptan	ND	0.20	109	70-130%	109	70-130%	0.0	<30
Ethyl Mercaptan	ND	0.20	106	70-130%	103	70-130%	2.9	<30
Dimethyl Sulfide	ND	0.20	104	70-130%	104	70-130%	0.5	<30
Carbon Disulfide	ND	0.20	104	70-130%	99	70-130%	4.9	<30
Dimethyl Disulfide	ND	0.20	105	70-130%	98	70-130%	7.0	<30

ND = Not Detected (Below RL)
RL = Reporting Limit

Reviewed/Approved By: _____ Date: 5-5-15
Mark J. Johnson
Operations Manager

The cover letter is an integral part of this analytical report.

Client: Weaver Consultants Group
Attn: David Randall
Project Name: Bridgeton Weekly GCCS TRS Sampling
Project No.: 0120-131-10-47
Date Received: 04/29/15
Matrix: Air
Reporting Units: % v/v

ASTM D1946

Lab No.:	G042901-01		G042901-02		G042901-03			
Client Sample I.D.:	Blower Outlet #1, Can #1537		Blower Outlet #2, Can #1615		FL100 (EP11) Can #J1713			
Date/Time Sampled:	4/28/15 8:05		4/28/15 8:35		4/28/15 9:42			
Date/Time Analyzed:	5/1/15 14:20		5/1/15 14:34		5/1/15 14:49			
QC Batch No.:	150501GC8A1		150501GC8A1		150501GC8A1			
Analyst Initials:	AS		AS		AS			
Dilution Factor:	2.5		2.5		2.7			
ANALYTE	Result % v/v	RL % v/v	Result % v/v	RL % v/v	Result % v/v	RL % v/v		
Hydrogen	10	2.5	11	2.5	10	2.7		
Carbon Dioxide	32	0.025	32	0.025	31	0.027		
Oxygen/Argon	10	1.3	9.8	1.2	10	1.3		
Nitrogen	40	2.5	39	2.5	41	2.7		
Methane	7.5	0.0025	7.6	0.0025	7.3	0.0027		

Results normalized including non-methane hydrocarbons
ND = Not Detected (below RL)
RL = Reporting Limit

Reviewed/Approved By: _____ **Date** 5-5-15

Mark Johnson
Operations Manager

The cover letter is an integral part of this analytical report

AirTECHNOLOGY Laboratories, Inc.
18501 E. Gale Avenue, Suite 130 ♦ City of Industry, CA 91748 ♦ Ph: (626) 964-4032 ♦ Fx: (626) 964-5832

QC Batch No.: 150501GC8A1
Matrix: Air
Units: % v/v

QC for ASTM D1946

Lab No.:	Method Blank		LCS		LCSD			
Date/Time Analyzed:	5/1/15 11:14		5/1/15 10:30		5/1/15 10:44			
Analyst Initials:	AS		AS		AS			
Datafile:	01may011		01may008		01may009			
Dilution Factor:	1.0		1.0		1.0			
ANALYTE	**Results**	**RL**	**% Rec.**	**Criteria**	**% Rec.**	**Criteria**	**%RPD**	**Criteria**
Hydrogen	ND	1.0	71	70-130%	71	70-130%	0.5	<30
Carbon Dioxide	ND	0.010	90	70-130%	90	70-130%	0.1	<30
Oxygen/Argon	ND	0.50	112	70-130%	112	70-130%	0.4	<30
Nitrogen	ND	1.0	108	70-130%	108	70-130%	0.2	<30
Methane	ND	0.0010	88	70-130%	88	70-130%	0.5	<30

ND = Not Detected (Below RL)

Reviewed/Approved By: _____ **Date:** 5-5-15

Mark J. Johnson
Operations Manager

The cover letter is an integral part of this analytical report.

Air TECHNOLOGY Laboratories, Inc.

May 13, 2015

ACCLASS ACCREDITED DoD ELAP
ADE-1461
EPA Methods TO-3, TO14A,TO15 SIM & Scan, ASTM D1946

nelac
LA Cert 04140
EPA Methods TO3, TO14A, TO15, 25C/3C, RSK-175
TX Cert T104704450-09-TX
EPA Methods TO14A, TO15
UT Cert CA0133332014-1
EPA Methods TO3, TO14A, TO15, RSK-175

Weaver Consultants Group
ATTN: David Randall
6301 East Highway AB
Columbia, MO 65201

LABORATORY TEST RESULTS

Project Name: Bridgeton Weekly GCCS TRS Sampling
Project Number: 0120-131-10-47
Lab Number: G042204-01/02

Enclosed are results for sample(s) received 4/22/15 by Air Technology Laboratories. Samples were received intact. Analyses were performed according to specifications on the chain of custody provided with the sample(s).

Report Narrative:

- Unless otherwise noted in the report, sample analyses were performed within method performance criteria and meet all requirements of the NELAC Standards.
- The enclosed results relate only to the sample(s).

Preliminary results for were e-mailed to David Randall on 5/07/15.

ATL appreciates the opportunity to provide testing services to your company. If you have any questions regarding these results, please call me at (626) 964-4032.

Sincerely,

Mark Johnson
Operations Manager
MJohnson@AirTechLabs.com

Enclosures

Note: The cover letter is an integral part of this analytical report.

AirTECHNOLOGY Laboratories, Inc.

18501 E. Gale Ave., Suite 130
City of Industry, CA 91748
Ph: 626-964-4032
Fx: 626-964-5832

CHAIN OF CUSTODY RECORD

TURNAROUND TIME				DELIVERABLES		PAGE: 1 OF 1
Standard	■	48 hours	☐	EDD	☐	Condition upon receipt:
Same Day	☐	72 hours	☐	EDF	☐	Sealed Yes ☐ No ☐
24 hours	☐	96 hours	☐	Level 3	☐	Intact Yes ☐ No ☐
Other:				Level 4	☐	Chilled _____ deg C

Project No.:	0120-131-10-47
Project Name:	Bridgeton Weekly GCCS TRS Sampling
Report To:	David A. Randall
Company:	Weaver Consultants Group
Street:	6301 East Highway AB
City/State/Zip:	Columbia, MO 65201
Phone& Fax:	888-660-0346
e-mail:	drandall@weaverboos.com

BILLING

P.O. No.:
Bill to: Ms. Michele Clark
<--Same

ANALYSIS REQUEST

LAB USE ONLY	SAMPLE IDENTIFICATION	SAMPLE DATE	SAMPLE TIME	CONTAINER QTY/TYPE	MATRIX	PRESERVATION	EPA 15/16 + TRS & ASTM1946 + H2
042204-01	Blower Outlet #1, Can # 1538	4/21/2015	0836	C -1L	LFG		X
↓ -02	Blower Outlet #2, Can # 1536 DS 4/24/15	4/21/2015	0922	C-1L	LFG		X
	~~EP , FL , Can #~~	~~4/21/2015~~		~~C-1L~~	~~LFG~~		~~X~~

AUTHORIZATION TO PERFORM WORK	COMPANY	DATE/TIME
David A. Randall	Weaver Consultants Group	03/26/2015
SAMPLED BY	COMPANY	DATE/TIME
J Holt/D Randall	Weaver Consultants Group	04/21/15 0800-1100

RELINQUISHED BY	DATE/TIME	RECEIVED BY	DATE/TIME
WS		DJ	4/22/15 0934

METHOD OF TRANSPORT (circle one): Walk-In FedEx UPS Courier ATLI Other_____

COMMENTS

DISTRIBUTION: White & Yellow - Lab Copies / Pink - Customer Copy

Preservation: **H**=HCl **N**=None / Container: **B**=Bag **C**=Can **V**=VOA **O**=Other *Rev. 03 - 5/7/09*

Client: Weaver Consultants Group
Attn: David Randall
Project Name: Bridgeton Weekly GCCS TRS Sampling
Project No.: 0120-131-10-47
Date Received: 04/22/15
Matrix: Air
Reporting Units: % v/v

ASTM D1946

Lab No.:	G042204-01		G042204-02					
Client Sample I.D.:	Blower Outlet #1, Can #1538		Blower Outlet #2, Can #1536					
Date/Time Sampled:	4/21/15 8:36		4/21/15 9:22					
Date/Time Analyzed:	4/23/15 14:52		4/23/15 15:53					
QC Batch No.:	150423GC8A1		150423GC8A1					
Analyst Initials:	AS		AS					
Dilution Factor:	2.7		2.8					
ANALYTE	**Result % v/v**	**RL % v/v**	**Result % v/v**	**RL % v/v**				
Hydrogen	10	2.7	10	2.8				
Carbon Dioxide	32	0.027	33	0.028				
Oxygen/Argon	10	1.3	9.7	1.4				
Nitrogen	40	2.7	38	2.8				
Methane	7.5	0.0027	7.7	0.0028				

Results normalized including non-methane hydrocarbons
ND = Not Detected (below RL)
RL = Reporting Limit

Reviewed/Approved By: _____ **Date** 5/7/15
Mark Johnson
Operations Manager

The cover letter is an integral part of this analytical report

AirTECHNOLOGY Laboratories, Inc.
18501 E. Gale Avenue, Suite 130 ♦ City of Industry, CA 91748 ♦ Ph: (626) 964-4032 ♦ Fx: (626) 964-5832

QC Batch No.: 150423GC8A1
Matrix: Air
Units: % v/v

QC for ASTM D1946

Lab No.:	Method Blank		LCS		LCSD			
Date/Time Analyzed:	4/23/15 12:51		4/23/15 12:07		4/23/15 12:22			
Analyst Initials:	AS		AS		AS			
Datafile:	23apr013		23apr010		23apr011			
Dilution Factor:	1.0		1.0		1.0			
ANALYTE	**Results**	**RL**	**% Rec.**	**Criteria**	**% Rec.**	**Criteria**	**%RPD**	**Criteria**
Hydrogen	ND	1.0	80	70-130%	77	70-130%	4.0	<30
Carbon Dioxide	ND	0.010	90	70-130%	87	70-130%	4.1	<30
Oxygen/Argon	ND	0.50	104	70-130%	100	70-130%	4.0	<30
Nitrogen	ND	1.0	102	70-130%	98	70-130%	3.9	<30
Methane	ND	0.0010	109	70-130%	108	70-130%	0.5	<30

ND = Not Detected (Below RL)

Reviewed/Approved By: _____ **Date:** 5/7/15

Mark J. Johnson
Operations Manager

The cover letter is an integral part of this analytical report.

Client: Weaver Consultants Group
Attn: David Randall
Project Name: Bridgeton Weekly GCCS TRS Sampling
Project No.: 0120-131-10-47
Date Received: 04/22/15
Matrix: Air
Reporting Units: ppmv

EPA 15/16

Lab No.:	G042204-01		G042204-02					
Client Sample I.D.:	Blower Outlet #1, Can #1538		Blower Outlet #2, Can #1536					
Date/Time Sampled:	4/21/15 8:36		4/21/15 9:22					
Date/Time Analyzed:	4/23/15 11:21		4/23/15 11:55					
QC Batch No.:	150423GC3A1		150423GC3A1					
Analyst Initials:	AS		AS					
Dilution Factor:	2.7		2.8					
ANALYTE	**Result ppmv**	**RL ppmv**	**Result ppmv**	**RL ppmv**				
Hydrogen Sulfide	4.2	0.53	ND	0.56				
Carbonyl Sulfide	ND	0.53	ND	0.56				
Methyl Mercaptan	140 d	5.3	130 d	5.6				
Ethyl Mercaptan	1.1	0.53	1.6	0.56				
Dimethyl Sulfide	780 d	53	840 d	56				
Carbon Disulfide	ND	0.53	ND	0.56				
Dimethyl Disulfide	170 d	53	110 d	5.6				
Total Reduced Sulfur	1,300	0.53	1,200	0.56				

ND = Not Detected (below RL)
RL = Reporting Limit
d = Reported from a secondary dilution

Reviewed/Approved By: _____ Date 5/7/15
Mark Johnson
Operations Manager

The cover letter is an integral part of this analytical report

QC Batch No.: 150423GC3A1
Matrix: Air
Units: ppmv

QC for Sulfur Compounds by EPA 15/16

Lab No.:	Method Blank		LCS		LCSD			
Date/Time Analyzed:	4/23/15 9:03		4/23/15 8:39		4/23/15 8:52			
Analyst Initials:	AS		AS		AS			
Datafile:	23apr003		23apr001		23apr002			
Dilution Factor:	1.0		1.0		1.0			
ANALYTE	Results	RL	% Rec.	Criteria	% Rec.	Criteria	%RPD	Criteria
Hydrogen Sulfide	ND	0.20	90	70-130%	89	70-130%	0.9	<30
Carbonyl Sulfide	ND	0.20	102	70-130%	101	70-130%	0.8	<30
Methyl Mercaptan	ND	0.20	99	70-130%	96	70-130%	2.8	<30
Ethyl Mercaptan	ND	0.20	115	70-130%	115	70-130%	0.0	<30
Dimethyl Sulfide	ND	0.20	92	70-130%	92	70-130%	0.4	<30
Carbon Disulfide	ND	0.20	89	70-130%	90	70-130%	1.4	<30
Dimethyl Disulfide	ND	0.20	88	70-130%	96	70-130%	8.9	<30

ND = Not Detected (Below RL)
RL = Reporting Limit

Reviewed/Approved By: _____ Date: 5/7/15
Mark J. Johnson
Operations Manager

The cover letter is an integral part of this analytical report.

Air TECHNOLOGY Laboratories, Inc.

April 28, 2015

ACCLASS ACCREDITED DoD ELAP
ADE-1461
EPA Methods TO-3, TO14A,TO15 SIM & Scan, ASTM D1946

nelac
LA Cert 04140
EPA Methods TO3, TO14A, TO15, 25C/3C, RSK-175
TX Cert T104704450-09-TX
EPA Methods TO14A, TO15
UT Cert CA0133332014-1
EPA Methods TO3, TO14A, TO15, RSK-175

Weaver Consultants Group
ATTN: David Randall
6301 East Highway AB
Columbia, MO 65201

LABORATORY TEST RESULTS

Project Name: Bridgeton Weekly GCCS TRS Sampling
Project Number: 0120-131-10-47
Lab Number: G041502-01/02

Enclosed are results for sample(s) received 4/15/15 by Air Technology Laboratories. Samples were received intact. Analyses were performed according to specifications on the chain of custody provided with the sample(s).

Report Narrative:

- Unless otherwise noted in the report, sample analyses were performed within method performance criteria and meet all requirements of the NELAC Standards.
- The enclosed results relate only to the sample(s).

Preliminary results for were e-mailed to David Randall on 4/27/15.

ATL appreciates the opportunity to provide testing services to your company. If you have any questions regarding these results, please call me at (626) 964-4032.

Sincerely,

Mark Johnson
Operations Manager
MJohnson@AirTechLabs.com

Enclosures

Note: The cover letter is an integral part of this analytical report.

AirTECHNOLOGY Laboratories, Inc.

18501 E. Gale Ave., Suite 130
City of Industry, CA 91748
Ph: 626-964-4032
Fx: 626-964-5832

CHAIN OF CUSTODY RECORD

TURNAROUND TIME				DELIVERABLES		PAGE: 1 OF 1
Standard	■	48 hours	☐	EDD	☒	Condition upon receipt:
Same Day	☐	72 hours	☐	EDF	☐	Sealed Yes ☐ No ☐
24 hours	☐	96 hours	☐	Level 3	☐	Intact Yes ☐ No ☐
Other:				Level 4	☐	Chilled _____ deg C

Project No.:	0120-131-10-47
Project Name:	Bridgeton Weekly GCCS TRS Sampling
Report To:	David A. Randall
Company:	Weaver Consultants Group
Street:	6301 East Highway AB
City/State/Zip:	Columbia, MO 65201
Phone& Fax:	888-660-0346
e-mail:	drandall@weaverboos.com

BILLING

P.O. No.:	
Bill to:	Ms. Michele Clark
	<--Same

ANALYSIS REQUEST

LAB USE ONLY	SAMPLE IDENTIFICATION	SAMPLE DATE	SAMPLE TIME	CONTAINER QTY/TYPE	MATRIX	PRESERVATION	EPA 15/16 + TRS & ASTM1946 + H2					
G041502-01	Blower Outlet #1, Can # J17262	4/14/2015	1054	C -1L	LFG		X					
↓ -02	Blower Outlet #2, Can # J17236	4/14/2015	1122	C-1L	LFG		X					
	~~EP~~ , ~~FL~~ , ~~Can #~~	~~4/14/2015~~		~~C-1L~~	~~LFG~~		~~X~~					

AUTHORIZATION TO PERFORM WORK	COMPANY	DATE/TIME
David A. Ranall	Weaver Consultants Group	03/26/2015
SAMPLED BY	COMPANY	DATE/TIME
J Holt/D Randall	Weaver Consultants Group	04/14/15 0800-1100

RELINQUISHED BY	DATE/TIME	RECEIVED BY	DATE/TIME
	4/14/15 3:15		
RELINQUISHED BY	DATE/TIME	RECEIVED BY	DATE/TIME
UPS	4/15/15 0949		4/15/15 0949
RELINQUISHED BY	DATE/TIME	RECEIVED BY	DATE/TIME

METHOD OF TRANSPORT (circle one): Walk-In FedEx UPS Courier ATLI Other_____

COMMENTS

3rd smpl not submitted per email from DRandall 4/15/15 1112
ID corrections per email from DRandall 4/15/15 1209

DISTRIBUTION: White & Yellow - Lab Copies / Pink - Customer Copy

Preservation: H=HCl N=None / Container: B=Bag C=Can V=VOA O=Other

Rev. 03 - 5/7/09

Client: Weaver Consultants Group
Attn: David Randall
Project Name: Bridgeton Weekly GCCS TRS Sampling
Project No.: 0120-131-10-47
Date Received: 04/15/15
Matrix: Air
Reporting Units: ppmv

EPA 15/16

Lab No.:	G041502-01		G041502-02					
Client Sample I.D.:	Blower Outlet #1, Can #J1722		Blower Outlet #2, Can #J1726					
Date/Time Sampled:	4/14/15 10:54		4/14/15 11:22					
Date/Time Analyzed:	4/17/15 12:29		4/17/15 13:45					
QC Batch No.:	150417GC3A1		150417GC3A1					
Analyst Initials:	AS		AS					
Dilution Factor:	2.7		2.8					
ANALYTE	**Result ppmv**	**RL ppmv**	**Result ppmv**	**RL ppmv**				
Hydrogen Sulfide	8.1	0.55	ND	0.56				
Carbonyl Sulfide	ND	0.55	ND	0.56				
Methyl Mercaptan	140 d	5.5	110 d	5.6				
Ethyl Mercaptan	1.7	0.55	1.4	0.56				
Dimethyl Sulfide	730 d	55	1,000 d	56				
Carbon Disulfide	ND	0.55	ND	0.56				
Dimethyl Disulfide	100 d	5.5	310 d	56				
Total Reduced Sulfur	1,100	0.55	1,700	0.56				

ND = Not Detected (below RL)
RL = Reporting Limit
d = Reported from a secondary dilution

Reviewed/Approved By: _____ Date 4-27-15

Mark Johnson
Operations Manager

The cover letter is an integral part of this analytical report

QC Batch No.: 150417GC3A1
Matrix: Air
Units: ppmv

QC for Sulfur Compounds by EPA 15/16

Lab No.:	Method Blank		LCS		LCSD			
Date/Time Analyzed:	4/17/15 12:26		4/17/15 11:55		4/17/15 12:06			
Analyst Initials:	AS		AS		AS			
Datafile:	17apr006		17apr004		17apr005			
Dilution Factor:	1.0		1.0		1.0			
ANALYTE	Results	RL	% Rec.	Criteria	% Rec.	Criteria	%RPD	Criteria
Hydrogen Sulfide	ND	0.20	101	70-130%	101	70-130%	0.3	<30
Carbonyl Sulfide	ND	0.20	112	70-130%	112	70-130%	0.1	<30
Methyl Mercaptan	ND	0.20	110	70-130%	107	70-130%	2.9	<30
Ethyl Mercaptan	ND	0.20	123	70-130%	115	70-130%	7.0	<30
Dimethyl Sulfide	ND	0.20	97	70-130%	93	70-130%	4.2	<30
Carbon Disulfide	ND	0.20	101	70-130%	96	70-130%	4.8	<30
Dimethyl Disulfide	ND	0.20	101	70-130%	95	70-130%	5.6	<30

ND = Not Detected (Below RL)
RL = Reporting Limit

Reviewed/Approved By: _____ Date: 4-27-15
Mark J. Johnson
Operations Manager

The cover letter is an integral part of this analytical report.

Client: Weaver Consultants Group
Attn: David Randall
Project Name: Bridgeton Weekly GCCS TRS Sampling
Project No.: 0120-131-10-47
Date Received: 04/15/15
Matrix: Air
Reporting Units: % v/v

ASTM D1946

Lab No.:	G041502-01		G041502-02					
Client Sample I.D.:	Blower Outlet #1 - Can# J1722		Blower Outlet #2 - Can# J1726					
Date/Time Sampled:	4/14/15 10:54		4/14/15 11:22					
Date/Time Analyzed:	4/15/15 20:15		4/15/15 20:30					
QC Batch No.:	150415GC8A1		150415GC8A1					
Analyst Initials:	AS		AS					
Dilution Factor:	2.7		2.8					
ANALYTE	Result % v/v	RL % v/v	Result % v/v	RL % v/v				
Hydrogen	10	2.7	11	2.8				
Carbon Dioxide	30	0.027	32	0.028				
Oxygen/Argon	11	1.4	9.9	1.4				
Nitrogen	41	2.7	39	2.8				
Methane	7.4	0.0027	7.9	0.0028				

Results normalized including non-methane hydrocarbons
ND = Not Detected (below RL)
RL = Reporting Limit

Reviewed/Approved By: _____ Date 4-27-15

Mark Johnson
Operations Manager

The cover letter is an integral part of this analytical report

AirTECHNOLOGY Laboratories, Inc.
18501 E. Gale Avenue, Suite 130 ♦ City of Industry, CA 91748 ♦ Ph: (626) 964-4032 ♦ Fx: (626) 964-5832

QC Batch No.: 150415GC8A1
Matrix: Air
Units: % v/v

QC for ASTM D1946

Lab No.:	Method Blank		LCS		LCSD			
Date/Time Analyzed:	4/15/15 17:05		4/15/15 13:13		4/15/15 13:27			
Analyst Initials:	AS		AS		AS			
Datafile:	15apr022		15apr006		15apr007			
Dilution Factor:	1.0		1.0		1.0			
ANALYTE	Results	RL	% Rec.	Criteria	% Rec.	Criteria	%RPD	Criteria
Hydrogen	ND	1.0	100	70-130%	100	70-130%	0.3	<30
Carbon Dioxide	ND	0.010	94	70-130%	94	70-130%	0.0	<30
Oxygen/Argon	ND	0.50	98	70-130%	98	70-130%	0.0	<30
Nitrogen	ND	1.0	99	70-130%	99	70-130%	0.1	<30
Methane	ND	0.0010	128	70-130%	127	70-130%	0.6	<30

ND = Not Detected (Below RL)

Reviewed/Approved By: _____ Date: 4-27-15

Mark J. Johnson
Operations Manager

The cover letter is an integral part of this analytical report.

Air TECHNOLOGY Laboratories, Inc.

April 22, 2015

ACCLASS ACCREDITED DoD ELAP
ADE-1461
EPA Methods TO-3, TO14A,TO15 SIM & Scan, ASTM D1946

nelac
LA Cert 04140
EPA Methods TO3, TO14A, TO15, 25C/3C, RSK-175
TX Cert T104704450-09-TX
EPA Methods TO14A, TO15
UT Cert CA0133332014-1
EPA Methods TO3, TO14A, TO15, RSK-175

Weaver Consultants Group
ATTN: David Randall
6301 East Highway AB
Columbia, MO 65201

LABORATORY TEST RESULTS

Project Name: Bridgeton Weekly GCCS TRS Sampling
Project Number: 0120-131-10-47
Lab Number: G040902-01/02

Enclosed are results for sample(s) received 4/09/15 by Air Technology Laboratories. Samples were received intact. Analyses were performed according to specifications on the chain of custody provided with the sample(s).

Report Narrative:

- Unless otherwise noted in the report, sample analyses were performed within method performance criteria and meet all requirements of the NELAC Standards.
- The enclosed results relate only to the sample(s).

ATL appreciates the opportunity to provide testing services to your company. If you have any questions regarding these results, please call me at (626) 964-4032.

Sincerely,

Mark Johnson
Operations Manager
MJohnson@AirTechLabs.com

Enclosures

Note: The cover letter is an integral part of this analytical report.

CHAIN OF CUSTODY RECORD

AirTECHNOLOGY Laboratories, Inc.
18501 E. Gale Ave., Suite 130
City of Industry, CA 91748
Ph: 626-964-4032
Fx: 626-964-5832

TURNAROUND TIME				DELIVERABLES		PAGE: 1 OF 1
Standard	■	48 hours	☐	EDD	☑	Condition upon receipt:
Same Day	☐	72 hours	☐	EDF	☐	Sealed Yes ☐ No ☐
24 hours	☐	96 hours	☐	Level 3	☐	Intact Yes ☐ No ☐
Other:				Level 4	☐	Chilled _____ deg C

Project No.:	0120-131-10-47
Project Name:	Bridgeton Weekly GCCS TRS Sampling
Report To:	David A. Randall
Company:	Weaver Consultants Group
Street:	6301 East Highway AB
City/State/Zip:	Columbia, MO 65201
Phone& Fax:	888-660-0346
e-mail:	drandall@weaverboos.com

BILLING

P.O. No.:
Bill to: Ms. Michele Clark
<--Same

ANALYSIS REQUEST

LAB USE ONLY	SAMPLE IDENTIFICATION	SAMPLE DATE	SAMPLE TIME	CONTAINER QTY/TYPE	MATRIX	PRESERVATION	EPA 15/16 + TRS	ASTM D1946 + H2 (CO + H2 OK per DRandall)				
G040902-01	Blower Outlet #1	4/8/2015	0806	C -1L	LFG		X	X				
-02	Blower Outlet #2	4/8/2015	0852	C-1L	LFG		X	X				

AUTHORIZATION TO PERFORM WORK	COMPANY	DATE/TIME
David A. Randall Jenny Holt	Weaver Consultants Group	03/26/2015
SAMPLED BY	**COMPANY**	**DATE/TIME**
D Randall Jenny Holt	Weaver Consultants Group	04/08/15 0800-1000

RELINQUISHED BY	DATE/TIME	RECEIVED BY	DATE/TIME
[signature]	4/8/15		
[signature] UPS	DATE/TIME	[signature]	4/9/15 1020
RELINQUISHED BY	DATE/TIME	RECEIVED BY	DATE/TIME

METHOD OF TRANSPORT (circle one): Walk-In FedEx UPS Courier ATLI Other_____

COMMENTS

DISTRIBUTION: White & Yellow - Lab Copies / Pink - Customer Copy

Preservation: H=HCl N=None / Container: B=Bag C=Can V=VOA O=Other

Rev. 03 - 5/7/09

Client: Weaver Consultants Group
Attn: David Randall
Project Name: Bridgeton Weekly GCCS TRS Sampling
Project No.: 0120-131-10-47
Date Received: 04/09/15
Matrix: Air
Reporting Units: % v/v

ASTM D1946

Lab No.:	G040902-01		G040902-02					
Client Sample I.D.:	Blower Outlet #1		Blower Outlet #2					
Date/Time Sampled:	4/8/15 8:06		4/8/15 8:52					
Date/Time Analyzed:	4/14/15 9:03		4/14/15 9:17					
QC Batch No.:	150413GC8A2		150413GC8A2					
Analyst Initials:	AS		AS					
Dilution Factor:	2.9		3.0					
ANALYTE	Result % v/v	RL % v/v	Result % v/v	RL % v/v				
Hydrogen	8.4	2.9	10	3.0				
Carbon Dioxide	30	0.029	32	0.030				
Oxygen/Argon	11	1.4	10	1.5				
Nitrogen	43	2.9	39	3.0				
Methane	7.1	0.0029	7.7	0.0030				

Results normalized including non-methane hydrocarbons
ND = Not Detected (below RL)
RL = Reporting Limit

Reviewed/Approved By: _____ Date 4/22/15
Mark Johnson
Operations Manager

The cover letter is an integral part of this analytical report

AirTECHNOLOGY Laboratories, Inc.
18501 E. Gale Avenue, Suite 130 ♦ City of Industry, CA 91748 ♦ Ph: (626) 964-4032 ♦ Fx: (626) 964-5832

QC Batch No.: 150413GC8A2
Matrix: Air
Units: % v/v

QC for ASTM D1946

Lab No.:	Method Blank		LCS		LCSD			
Date/Time Analyzed:	4/13/15 21:07		4/13/15 19:29		4/13/15 19:49			
Analyst Initials:	AS		AS		AS			
Datafile:	13apr039		13apr034		13apr035			
Dilution Factor:	1.0		1.0		1.0			
ANALYTE	Results	RL	% Rec.	Criteria	% Rec.	Criteria	%RPD	Criteria
Hydrogen	ND	1.0	106	70-130%	107	70-130%	0.8	<30
Carbon Dioxide	ND	0.010	97	70-130%	96	70-130%	0.0	<30
Oxygen/Argon	ND	0.50	97	70-130%	96	70-130%	0.1	<30
Nitrogen	ND	1.0	98	70-130%	98	70-130%	0.0	<30
Methane	ND	0.0010	107	70-130%	106	70-130%	1.2	<30

ND = Not Detected (Below RL)

Reviewed/Approved By: _____ **Date:** 4/22/15

Mark J. Johnson
Operations Manager

The cover letter is an integral part of this analytical report.

Client:	**Weaver Consultants Group**
Attn:	**David Randall**
Project Name:	**Bridgeton Weekly GCCS TRS Sampling**
Project No.:	**0120-131-10-47**
Date Received:	**04/09/15**
Matrix:	**Air**
Reporting Units:	**ppmv**

EPA 15/16

Lab No.:	G040902-01		G040902-02					
Client Sample I.D.:	Blower Outlet #1		Blower Outlet #2					
Date/Time Sampled:	4/8/15 8:06		4/8/15 8:52					
Date/Time Analyzed:	4/10/15 9:29		4/10/15 10:06					
QC Batch No.:	150410GC3A1		150410GC3A1					
Analyst Initials:	AS		AS					
Dilution Factor:	2.9		3.0					
ANALYTE	**Result ppmv**	**RL ppmv**	**Result ppmv**	**RL ppmv**				
Hydrogen Sulfide	9.9	0.58	ND	0.59				
Carbonyl Sulfide	ND	0.58	ND	0.59				
Methyl Mercaptan	170 d	5.8	100 d	5.9				
Ethyl Mercaptan	1.9	0.58	1.8	0.59				
Dimethyl Sulfide	830 d	58	800 d	59				
Carbon Disulfide	ND	0.58	ND	0.59				
Dimethyl Disulfide	190 d	58	100 d	5.9				
Total Reduced Sulfur	1,400	0.58	1,100	0.59				

ND = Not Detected (below RL)
RL = Reporting Limit
d = Reported from a secondary dilution

Reviewed/Approved By: _____ Date 4/22/15
Mark Johnson
Operations Manager

The cover letter is an integral part of this analytical report

QC Batch No.: 150410GC3A1
Matrix: Air
Units: ppmv

QC for Sulfur Compounds by EPA 15/16

Lab No.:	Method Blank		LCS		LCSD			
Date/Time Analyzed:	4/10/15 8:11		4/10/15 7:47		4/10/15 8:00			
Analyst Initials:	AS		AS		AS			
Datafile:	10apr003		10apr001		10apr002			
Dilution Factor:	1.0		1.0		1.0			
ANALYTE	Results	RL	% Rec.	Criteria	% Rec.	Criteria	%RPD	Criteria
Hydrogen Sulfide	ND	0.20	95	70-130%	98	70-130%	3.4	<30
Carbonyl Sulfide	ND	0.20	97	70-130%	99	70-130%	2.9	<30
Methyl Mercaptan	ND	0.20	97	70-130%	99	70-130%	1.9	<30
Ethyl Mercaptan	ND	0.20	93	70-130%	93	70-130%	0.2	<30
Dimethyl Sulfide	ND	0.20	95	70-130%	97	70-130%	1.9	<30
Carbon Disulfide	ND	0.20	93	70-130%	92	70-130%	1.6	<30
Dimethyl Disulfide	ND	0.20	100	70-130%	99	70-130%	0.6	<30

ND = Not Detected (Below RL)
RL = Reporting Limit

Reviewed/Approved By: _____ Date: 4/22/15
Mark J. Johnson
Operations Manager

The cover letter is an integral part of this analytical report.

Air TECHNOLOGY
Laboratories, Inc.

April 17, 2015

ACCLASS ACCREDITED DoD ELAP
ADE-1461
EPA Methods TO-3, TO14A,TO15 SIM & Scan, ASTM D1946

nelac
LA Cert 04140
EPA Methods TO3, TO14A, TO15, 25C/3C, RSK-175
TX Cert T104704450-09-TX
EPA Methods TO14A, TO15
UT Cert CA0133332014-1
EPA Methods TO3, TO14A, TO15, RSK-175

Weaver Consultants Group
ATTN: David Randall
6301 East Highway AB
Columbia, MO 65201

LABORATORY TEST RESULTS

Project Name: Bridgeton Weekly GCCS TRS Sampling
Project Number: 0120-131-10-47
Lab Number: G040203-01/02

Enclosed are results for sample(s) received 4/02/15 by Air Technology Laboratories. Samples were received intact. Analyses were performed according to specifications on the chain of custody provided with the sample(s).

Report Narrative:

- Unless otherwise noted in the report, sample analyses were performed within method performance criteria and meet all requirements of the NELAC Standards.
- The enclosed results relate only to the sample(s).

Preliminary results for were e-mailed to David Randall on 4/17/15.

ATL appreciates the opportunity to provide testing services to your company. If you have any questions regarding these results, please call me at (626) 964-4032.

Sincerely,

Mark Johnson
Operations Manager
MJohnson@AirTechLabs.com

Enclosures

Note: The cover letter is an integral part of this analytical report.

AirTECHNOLOGY Laboratories, Inc.

18501 E. Gale Ave., Suite 130
City of Industry, CA 91748
Ph: 626-964-4032
Fx: 626-964-5832

CHAIN OF CUSTODY RECORD

TURNAROUND TIME				DELIVERABLES		PAGE: 1 OF 1
Standard	■	48 hours	☐	EDD	☐	Condition upon receipt:
Same Day	☐	72 hours	☐	EDF	☐	Sealed Yes ☐ No ☐
24 hours	☐	96 hours	☐	Level 3	☐	Intact Yes ☐ No ☐
Other:				Level 4	☐	Chilled _____ deg C

Project No.:	0120-131-10-47
Project Name:	Bridgeton Weekly GCCS TRS Sampling
Report To:	David A. Randall
Company:	Weaver Consultants Group
Street:	6301 East Highway AB
City/State/Zip:	Columbia, MO 65201
Phone& Fax:	888-660-0346
e-mail:	drandall@weaverboos.com

BILLING

P.O. No.:	
Bill to:	Ms. Michele Clark
	<--Same

ANALYSIS REQUEST

LAB USE ONLY	SAMPLE IDENTIFICATION	SAMPLE DATE	SAMPLE TIME	CONTAINER QTY/TYPE	MATRIX	PRESERVATION	EPA 15/16 + TRS
G040203-01	Blower Outlet #1 1618	4/1/2015	0845	C -1L	LFG		X
↓ -02	Blower Outlet #2 1613	4/1/2015	0855	C-1L	LFG		X

AUTHORIZATION TO PERFORM WORK	COMPANY	DATE/TIME
David A. Randall	Weaver Boos Eng.	03/26/2015
SAMPLED BY	**COMPANY**	**DATE/TIME**
J Holt & D Randall	Weaver Consultants Group	04/01/15 0800-1000

RELINQUISHED BY	DATE/TIME	RECEIVED BY	DATE/TIME
[signature]	04/01/15 930am		
RELINQUISHED BY	DATE/TIME	RECEIVED BY	DATE/TIME
UPS		[signature]	4/2/15 0948
RELINQUISHED BY	DATE/TIME	RECEIVED BY	DATE/TIME

METHOD OF TRANSPORT (circle one): Walk-In FedEx UPS Courier ATLI Other_____

COMMENTS

DISTRIBUTION: White & Yellow - Lab Copies / Pink - Customer Copy

Preservation: H=HCl N=None / Container: B=Bag C=Can V=VOA O=Other

Rev. 03 - 5/7/09

Client:	**Weaver Consultants Group**
Attn:	**David Randall**
Project Name:	**Bridgeton Weekly GCCS TRS Sampling**
Project No.:	**0120-131-10-47**
Date Received:	**04/02/15**
Matrix:	**Air**
Reporting Units:	**ppmv**

EPA 15/16

Lab No.:	G040203-01		G040203-02					
Client Sample I.D.:	Blower Outlet #1 1618		Blower Outlet #2 1613					
Date/Time Sampled:	4/1/15 8:45		4/1/15 8:55					
Date/Time Analyzed:	4/2/15 13:58		4/2/15 14:32					
QC Batch No.:	150402GC3A1		150402GC3A1					
Analyst Initials:	AS		AS					
Dilution Factor:	2.7		2.7					
ANALYTE	**Result ppmv**	**RL ppmv**	**Result ppmv**	**RL ppmv**				
Hydrogen Sulfide	17 d	5.3	24 d	5.5				
Carbonyl Sulfide	ND	0.53	ND	0.55				
Methyl Mercaptan	160 d	5.3	170 d	5.5				
Ethyl Mercaptan	1.9	0.53	2.0	0.55				
Dimethyl Sulfide	930 d	53	840 d	55				
Carbon Disulfide	ND	0.53	ND	0.55				
Dimethyl Disulfide	95 d	5.3	97 d	5.5				
Total Reduced Sulfur	1,300	0.53	1,200	0.55				

ND = Not Detected (below RL)
RL = Reporting Limit
d = Reported from a secondary dilution

Reviewed/Approved By: Mark Johnson
Operations Manager

Date 4/15/15

The cover letter is an integral part of this analytical report

QC Batch No.: 150402GC3A1
Matrix: Air
Units: ppmv

QC for Sulfur Compounds by EPA 15/16

Lab No.:	Method Blank		LCS		LCSD			
Date/Time Analyzed:	4/2/15 9:02		4/2/2015 08:35		4/2/15 8:46			
Analyst Initials:	AS		AS		AS			
Datafile:	02apr003		02apr001		02apr002			
Dilution Factor:	1.0		1.0		1.0			
ANALYTE	Results	RL	% Rec.	Criteria	% Rec.	Criteria	%RPD	Criteria
Hydrogen Sulfide	ND	0.20	91	70-130%	90	70-130%	1.7	<30
Carbonyl Sulfide	ND	0.20	99	70-130%	99	70-130%	0.0	<30
Methyl Mercaptan	ND	0.20	90	70-130%	89	70-130%	1.0	<30
Ethyl Mercaptan	ND	0.20	99	70-130%	99	70-130%	0.6	<30
Dimethyl Sulfide	ND	0.20	93	70-130%	94	70-130%	1.3	<30
Carbon Disulfide	ND	0.20	86	70-130%	86	70-130%	0.6	<30
Dimethyl Disulfide	ND	0.20	103	70-130%	103	70-130%	0.4	<30

ND = Not Detected (Below RL)
RL = Reporting Limit

Reviewed/Approved By: _____ Date: 4/15/15
Mark J. Johnson
Operations Manager

The cover letter is an integral part of this analytical report.

ANALYTICAL SOLUTION, INC. **(AnSol)**

4/18/2015

Analytical Report

Sample log # : Q0402c1

Purchase Order #:	0120-131-10-27		
Company :	**Weaver Boos Consultants**	Requester :	David Randall
Address :	*6301 East Hwy AB* *Columbia, MO 65201*	Phone:	(888) 660-0346
		Fax:	
Sample Description :	*Bio Gas*	Customer Project:	***Bridgeton***
Number of Samples :	*2*	Received Date :	*4/2/2015*
Total Report Page:	*3*		

Note: This report is submitted to the requester through E-mail only. Please let us know if your need this document security signed, or a hard copy report by mail or fax.

Results:

All results are attached in following pages.

The unit conversion is based on standard conditions at 60^{o}F and 14.73 psia, where applied

Submitted by: Sherman S. Chao, Ph.D.
Tel: (630) 230-9378, Fax: (630) 230-9376

Disclaimer:

Neither AnSol nor any person acting on behalf of AnSol assumes any liability with respect to the use of, or for damages resulting from the use of, any information presented in this report.

GAS COMPONENT –

Sample ID:	**Conc Unit**	**Q0402c01**	**Q0402c02**
		Blower Outlet, pre diverter, #1, 4/1/15	Blower Outlet #2, 4/1/15
Hydrogen	%	7.65	7.95
Methane	%	7.82	7.87
Carbon dioxide	%	29.7	29.9
Nitrogen	%	42.9	42.5
Oxygen	%	11.96	11.77
Relative density *		1.048	1.046
GHV, dry (14.73 psi) *	Btu/scf	104	106
NHV, dry (14.73 psi) *	Btu/scf	92	94

Note: Major component concentrations were normalized to 100% on a dry basis. Oxygen and Argon cannot be separated; therefore, the oxygen result may include a small amount of Argon. Some results may be reported with additional significance for reference. All components are identified by GC retention times only. (ASTM D1945/EPA 3C)

* 60^{o}F and 14.73 psia , ASTM D3588

Compound Speciation – Sulfur Components

	Q0402c01	**Q0402c02**
Sulfur Compounds, ppmv	Blower Outlet, pre diverter, #1, 4/1/15	Blower Outlet #2, 4/1/15
Hydrogen sulfide	25.9	28.4
Carbonyl sulfide	0.36	0.20
Carbon disulfide *	0.27	0.33
Methyl mercaptan	146	155
Ethyl mercaptan	1.56	1.55
Dimethyl sulfide/ i-Propyl mercaptan	653	664
Dimethyl disulfide *	27.1	35.9
Total Reduced Sulfur (H2S, COS, CS2, MM, EM, DMS & DMDS), as S	881	922
(mg/M3)	1193	1248

Note: ASTM D5504. Some results were reported with additional significance for reference. The normal detection limit of each sulfur compound is 0.1 ppmv S.

* 1.0 ppmv sulfur compound = 2.0 ppmv sulfur

ANALYTICAL SOLUTION, INC. **(AnSol)**

4/6/2015

Analytical Report

Sample log # : Q0325c1

Purchase Order #:	0120-131-10-27		
Company :	**Weaver Boos Consultants**	Requester :	David Randall
Address :	*6301 East Hwy AB* *Columbia, MO 65201*	Phone:	(888) 660-0346
		Fax:	
Sample Description :	*Bio Gas*	Customer Project:	***Bridgeton***
Number of Samples :	*2*	Received Date :	*3/25/2015*
Total Report Page:	*3*		

Note: This report is submitted to the requester through E-mail only. Please let us know if your need this document security signed, or a hard copy report by mail or fax.

Results:

All results are attached in following pages.

The unit conversion is based on standard conditions at 60^{o}F and 14.73 psia, where applied

Submitted by: Sherman S. Chao, Ph.D.
Tel: (630) 230-9378, Fax: (630) 230-9376

Disclaimer:

Neither AnSol nor any person acting on behalf of AnSol assumes any liability with respect to the use of, or for damages resulting from the use of, any information presented in this report.

GAS COMPONENT –

Sample ID:	**Conc Unit**	**Q0325c01**	**Q0325c02**
		Blower Outlet, pre diverter, #1, 3/24/15	Blower Outlet #2, 3/24/15
Hydrogen	%	8.39	8.34
Methane	%	7.56	7.68
Carbon dioxide	%	31.3	31.2
Nitrogen	%	41.2	41.3
Oxygen	%	11.52	11.52
Relative density *		1.051	1.050
GHV, dry (14.73 psi) *	Btu/scf	104	105
NHV, dry (14.73 psi) *	Btu/scf	92	93

Note: Major component concentrations were normalized to 100% on a dry basis. Oxygen and Argon cannot be separated; therefore, the oxygen result may include a small amount of Argon. Some results may be reported with additional significance for reference. All components are identified by GC retention times only. (ASTM D1945/EPA 3C)

* 60^{o}F and 14.73 psia , ASTM D3588

Compound Speciation – Sulfur Components

	Q0325c01	**Q0325c02**
Sulfur Compounds, ppmv	Blower Outlet, pre diverter, #1, 3/24/15	Blower Outlet #2, 3/24/15
Hydrogen sulfide	28.1	29.4
Carbonyl sulfide	0.29	0.24
Carbon disulfide *	0.23	0.26
Methyl mercaptan	148	152
Ethyl mercaptan	1.66	1.71
Dimethyl sulfide/ i-Propyl mercaptan	602	597
Dimethyl disulfide *	25.5	26.6
Total Reduced Sulfur (H2S, COS, CS2, MM, EM, DMS & DMDS), as S	832	834
(mg/M3)	1126	1129

Note: ASTM D5504. Some results were reported with additional significance for reference. The normal detection limit of each sulfur compound is 0.1 ppmv S.

* 1.0 ppmv sulfur compound = 2.0 ppmv sulfur

ANALYTICAL SOLUTION, INC. **(AnSol)**

4/4/2015

Analytical Report

Sample log # : Q0319a1

Purchase Order #:	0120-131-10-27		
Company :	**Weaver Boos Consultants**	Requester :	David Randall
Address :	*6301 East Hwy AB* *Columbia, MO 65201*	Phone:	(888) 660-0346
		Fax:	
Sample Description :	*Bio Gas*	Customer Project:	***Bridgeton***
Number of Samples :	*2*	Received Date :	*3/19/2015*
Total Report Page:	*3*		

Note: This report is submitted to the requester through E-mail only. Please let us know if your need this document security signed, or a hard copy report by mail or fax.

Results:

All results are attached in following pages.

The unit conversion is based on standard conditions at 60^{o}F and 14.73 psia, where applied

Submitted by: Sherman S. Chao, Ph.D.
Tel: (630) 230-9378, Fax: (630) 230-9376

Disclaimer:

Neither AnSol nor any person acting on behalf of AnSol assumes any liability with respect to the use of, or for damages resulting from the use of, any information presented in this report.

GAS COMPONENT –

Sample ID:	**Conc Unit**	**Q0319a01**	**Q0319a02**
		Blower Outlet #1, 3/18/15, 0934	Blower Outlet #2, 3/18/15, 0935
Hydrogen	%	2.86	3.19
Methane	%	8.6	8.9
Carbon dioxide	%	31.2	32.7
Nitrogen	%	42.1	41.1
Oxygen	%	15.26	14.19
Relative density *		1.101	1.103
GHV, dry (14.73 psi) *	Btu/scf	97	100
NHV, dry (14.73 psi) *	Btu/scf	86	90

Note: Major component concentrations were normalized to 100% on a dry basis. Oxygen and Argon cannot be separated; therefore, the oxygen result may include a small amount of Argon. Some results may be reported with additional significance for reference. All components are identified by GC retention times only. (ASTM D1945/EPA 3C)

* 60^{o}F and 14.73 psia , ASTM D3588

Compound Speciation – Sulfur Components

	Q0319a01	**Q0319a02**
Sulfur Compounds, ppmv	Blower Outlet #1, 3/18/15, 0934	Blower Outlet #2, 3/18/15, 0935
Hydrogen sulfide	19.9	23.3
Carbonyl sulfide	0.26	0.26
Carbon disulfide *	0.22	0.22
Methyl mercaptan	137	142
Ethyl mercaptan	1.74	1.66
Dimethyl sulfide/ i-Propyl mercaptan	621	651
Dimethyl disulfide *	18.6	27.8
Total Reduced Sulfur (H2S, COS, CS2, MM, EM, DMS & DMDS), as S	817	874
(mg/M3)	1106	1182

Note: ASTM D5504. Some results were reported with additional significance for reference. The normal detection limit of each sulfur compound is 0.1 ppmv S.

* 1.0 ppmv sulfur compound = 2.0 ppmv sulfur

ANALYTICAL SOLUTION, INC. **(AnSol)**

3/24/2015

Analytical Report

Sample log # : Q0312b3

Purchase Order #:	0120-131-10-27		
Company :	**Weaver Boos Consultants**	Requester :	David Randall
Address :	*6301 East Hwy AB* *Columbia, MO 65201*	Phone:	(888) 660-0346
		Fax:	
Sample Description :	*Bio Gas*	Customer Project:	***Bridgeton***
Number of Samples :	*2*	Received Date :	*3/12/2015*
Total Report Page:	*2*		

Note: This report is submitted to the requester through E-mail only. Please let us know if your need this document security signed, or a hard copy report by mail or fax.

Results:

All results are attached in following pages.

The unit conversion is based on standard conditions at 60^{o}F and 14.73 psia, where applied

Submitted by: Sherman S. Chao, Ph.D.
Tel: (630) 230-9378, Fax: (630) 230-9376

3/24/2015 **Analytical Report** **Sample log # : Q0312b3**

GAS COMPONENT –

Sample ID:	**Conc Unit**	**Q0312b05**
		Blower Outlet, Pre diverter, 3/12/15
Hydrogen	%	9.71
Methane	%	8.52
Carbon dioxide	%	33.9
Nitrogen	%	37.5
Oxygen	%	10.35
Relative density *		1.047
GHV, dry (14.73 psi) *		118.0
NHV, dry (14.73 psi) *		104.5
Total Reduced Sulfur (EPA15 - CS2, H2S & COS)	ppmv	18.8
Total Reduced Sulfur (EPA16, H2S, MM, DMS & DMDS)		1515
Total Reduced Sulfur (EPA15/16, plus other mercaptans)		1557

Note: Major component concentrations were normalized to 100% on a dry basis. Oxygen and Argon cannot be separated; therefore, the oxygen result may include a small amount of Argon. Some results may be reported with additional significance for reference. All components are identified by GC retention times only. (ASTM D1945/EPA 3C)

* 60^{o}F and 14.73 psia , ASTM D3588

ATTACHMENT C

GAS WELL ANALYSES MAPS

LEGEND

= Well Location

Hydrogen

	<	10%
10	<	20%
20	<	30%
30	<	40%
	>	40%

NOTES:

Hydrogen represents the laboratory reported concentration for samples collected during the month.

Only points monitored during the report period show data.

GEW-004 GEW-003 GEW-002 PGW-60 GEW-005 GEW-001 LCS-6B GEW-006 GEW-048 GEW-046R GEW-047R T-56 GEW-045R GEW-049 GEW-050 GEW-051 GEW-044 GEW-052 GEW-043R LCS-5A GEW-007 GEW-042R GEW-053 GEW-054 GEW-008 GEW-055 GEW-041R GEW-009 GEW-040 GEW-010 GEW-039 GIW-13 GIW-11 GEW-109 GEW-110 GIW-10 GEW-056R GIW-12 LCS-1D GIW-09 GIW-01 GIW-08 GEW-038 GIW-02 GIW-07 GEW-011 GIW-06 GEW-108 SEW-063 GIW-03 GIW-04 GIW-05 GEW-037 GEW-149 GEW-091 GEW-112 SEW-012A GEW-154 GEW-107 GEW-148 GEW-067A GEW-090 GEW-153 GEW-013A GEW-152 GEW-014A GEW-151 GEW-059R GEW-036 GEW-113 SEW-067 GEW-085 SEW-062R GEW-106 GEW-015 GEW-147 GEW-088 GEW-058A GEW-035 GEW-016R GEW-087 GEW-156 GEW-058 GEW-105 GEW-071B GEW-089 GEW-135 SEW-072R GEW-084 SEW-061R GEW-104 GEW-150 GEW-072RR GEW-061B GEW-057R GEW-071 GEW-066 GEW-034 SEW-017R GEW-136 LCS-4B GEW-146 GEW-065A GEW-057B GEW-034A GEW-134 GEW-086 GEW-075 SEW-060R GEW-033R GEW-018B GEW-137 GEW-083 GEW-116 GEW-076R GEW-070R GEW-145 GEW-103 GEW-064A GEW-018R GEW-082R SEW-079R GEW-069R GEW-102 GEW-133 GEW-118 GEW-155 SEW-074 SEW-064 LCS-3C GEW-138 GEW-117 GEW-068A SEW-032R GEW-019A GEW-140 GEW-144 GEW-081 GEW-078R SEW-031R GEW-132 GEW-073R GEW-120 GEW-020A GEW-122 GEW-143 GEW-021A GEW-080 GEW-077 GEW-121 GEW-030R LCS-2D GEW-101 GEW-123 GEW-022R GEW-131 GEW-139 GEW-100 GEW-124 GEW-023A GEW-142 GEW-125 GEW-025A GEW-028R GEW-126 GEW-029 GEW-024A GEW-026R GEW-141 GEW-127 GEW-027A GEW-129 GEW-128

1 inch = 70 meters

0 35 70 105 140

Hydrogen Data Map - April 2015 - Bridgeton Landfill

SCS ENGINEERS

LEGEND

= Well Location

Carbon Monoxide (ppm)

- < 1,000
- 1,001 ≤ 2,000
- 2,001 ≤ 3,000
- 3,001 ≤ 4,000
- 4,001 ≤ 5,000
- > 5,000

NOTES:

Carbon Monoxide represents the laboratory reported concentration for samples collected during the month.

Only points monitored during the report period show data.

1 inch = 70 meters

0 35 70 105 140

Carbon Monoxide Data Map - April 2015 - Bridgeton Landfill

SCS ENGINEERS

LEGEND

= Well Location

Maximum Temperature

< 131°	
131 < 151°	
151 < 171°	
171 < 191°	
191 < 211°	
211 < 231°	
> 231°	

NOTES:

Maximum Temperature represents the maximum initial wellhead temperature reading collected during the month.

Only points monitored during the report period show data.

GEW-010 GEW-039 GIW-13 GIW-12 GIW-11 GEW-056R GIW-08 GEW-109 GEW-038 GEW-110 GIW-01 GIW-09 GIW-07 GIW-10 LCS-1D GIW-02 GIW-03 GIW-04 GIW-06 GIW-05 GEW-011 GEW-108 SEW-063 GEW-091

GEW-003 GEW-002 PGW-60 GEW-005 GEW-004 GEW-001 GEW-048 LCS-6B GEW-006 GEW-046R T-56 GEW-047R GEW-045R GEW-044 GEW-049 GEW-050 GEW-051 GEW-052 LCS-5A GEW-007 GEW-043R GEW-053 GEW-008 GEW-054 GEW-042R GEW-009 GEW-041R GEW-055 GEW-040 GEW-039 GEW-109 GEW-011 GEW-149 GEW-091 GEW-153 GEW-037 GEW-107 GEW-112 GEW-013A SEW-012A GEW-154 GEW-152 GEW-151 GEW-014A GEW-067A GEW-090 GEW-059R GEW-036 GEW-113 GEW-148 GEW-088 GEW-085 SEW-062R GEW-106 GEW-087 GEW-147 GEW-015 SEW-072R GEW-156 GEW-058A GEW-035 GEW-016R SEW-067 SEW-061R GEW-071 GEW-089 GEW-104 SEW-017R GEW-072RR GEW-084 GEW-066 GEW-058 GEW-105 GEW-135 LCS-4B GEW-071B GEW-061B GEW-150 GEW-034 GEW-136 GEW-146 GEW-083 GEW-134 GEW-057B GEW-034A GEW-116 GEW-076R SEW-060R GEW-018B GEW-103 GEW-132 GEW-133 GEW-137 GEW-086 GEW-145 GEW-082R GEW-075 GEW-070R GEW-065A GEW-057R GEW-118 GEW-018R GEW-155 SEW-079R SEW-074 SEW-032R GEW-033R GEW-117 GEW-069R SEW-064 GEW-064A GEW-120 GEW-068A GEW-144 LCS-3C GEW-122 GEW-138 GEW-140 SEW-031R GEW-102 GEW-020A GEW-021A GEW-078R GEW-077 GEW-101 GEW-019A GEW-081 GEW-080 GEW-073R GEW-143 GEW-123 GEW-131 GEW-142 GEW-121 GEW-139 GEW-100 LCS-2D GEW-022R GEW-124 GEW-023A GEW-029 GEW-030R GEW-126 GEW-141 GEW-125 GEW-129 GEW-028R GEW-025A GEW-024A GEW-026R GEW-027A GEW-127 GEW-128

1 inch = 70 meters

0 35 70 105 140

Initial Temperature Maximums - April 2015 - Bridgeton Landfill

SCS ENGINEERS

ATTACHMENT D

HYDROGEN / CARBON MONOXIDE DATA

ATTACHMENT D-1

LAB ANALYSIS SUMMARY

Laboratory Analysis - Bridgeton Landfill

Well Name	Date Sampled	Methane	CO_2	O_2/Argon	Nitrogen	Hydrogen	Carbon Monoxide
		(%)					(ppm)
North Quarry							
GEW-002	1/20/2015	54	39	ND	5.7	0.058	ND
GEW-002	3/17/2015	55	39	ND	4.7	0.06	ND
GEW-002	4/29/2015	53	40	ND	5.4	0.046	ND
GEW-003	1/20/2015	48	37	ND	15	0.055	ND
GEW-003	3/17/2015	53	42	ND	3.7	ND	ND
GEW-003	4/29/2015	49	39	ND	11	0.089	ND
GEW-004	1/20/2015	51	38	ND	9.5	0.11	ND
GEW-004	3/17/2015	55	38	ND	5.4	0.11	ND
GEW-004	4/29/2015	53	40	ND	6	0.054	ND
GEW-005	1/27/2015	35	ND	0.046	48	15	ND
GEW-005	3/17/2015	55	37	ND	7.2	0.091	ND
GEW-005	4/29/2015	53	38	ND	8.6	0.085	ND
GEW-006	1/20/2015	51	38	ND	10	ND	ND
GEW-006	3/18/2015	52	36	2.2	9.7	ND	ND
GEW-007	1/20/2015	55	42	ND	ND	ND	ND
GEW-007	3/18/2015	55	39	ND	4.8	ND	ND
GEW-008	1/19/2015	50	45	ND	ND	2.6	ND
GEW-008	2/24/2015	47	42	2	7.2	2.6	30
GEW-008	3/18/2015	50	42	ND	3.5	2.6	33
GEW-008	4/17/2015	51	44	ND	ND	2.6	33
GEW-009	1/19/2015	51	43	ND	3.9	0.81	ND
GEW-009	2/24/2015	45	38	1.8	14	0.99	ND
GEW-009	3/18/2015	50	41	ND	6.5	0.96	ND
GEW-009	4/17/2015	49	40	ND	8.5	0.64	ND
GEW-040	1/16/2015	52	43	ND	3.4	ND	ND
GEW-040	2/13/2015	50	40	ND	7.4	ND	ND
GEW-040	3/17/2015	50	39	2.4	8.5	ND	ND
GEW-040	4/17/2015	54	43	ND	ND	ND	ND
GEW-041R	1/16/2015	55	40	ND	3.8	ND	ND
GEW-041R	2/13/2015	53	39	ND	7.7	ND	ND
GEW-041R	3/17/2015	55	39	ND	5.2	ND	ND
GEW-042R	1/20/2015	57	40	ND	2.8	0.031	ND
GEW-042R	3/17/2015	55	39	ND	4.8	ND	ND
GEW-042R	4/29/2015	55	39	ND	4.6	ND	ND
GEW-043R	1/16/2015	52	40	ND	5.8	0.435	ND
GEW-043R	2/13/2015	56	42	ND	ND	0.380	ND
GEW-043R	3/18/2015	54	41	ND	3.4	0.620	ND
GEW-044R	1/27/2015	30	ND	ND	38	31	ND
GEW-045R	1/20/2015	57	37	ND	5.6	ND	ND
GEW-045R	4/29/2015	59	38	ND	ND	ND	ND
GEW-046R	1/27/2015	35	ND	0.1	41	23	ND
GEW-046R	4/29/2015	52	39	ND	8.1	0.11	ND
GEW-047R	1/27/2015	35	ND	0.1	44	20	ND
GEW-047R	3/17/2015	52	37	ND	9.7	0.09	ND
GEW-047R	4/29/2015	55	41	ND	3.3	0.069	ND

Laboratory Analysis - Bridgeton Landfill

Well Name	Date Sampled	Methane	CO_2	O_2/Argon	Nitrogen	Hydrogen	Carbon Monoxide
		(%)					(ppm)
GEW-048	1/20/2015	55	39	ND	5.6	0.043	ND
GEW-048	3/17/2015	56	38	ND	4.8	0.047	ND
GEW-048	4/29/2015	55	40	ND	5	0.031	ND
GEW-049	1/27/2015	29	ND	ND	32	37	ND
GEW-049	3/17/2015	49	34	ND	15	0.17	ND
GEW-049	4/29/2015	49	36	ND	14	0.064	ND
GEW-050	1/20/2015	54	42	ND	3.1	0.052	ND
GEW-050	3/17/2015	51	35	2.7	11	0.058	ND
GEW-051	1/20/2015	52	40	ND	6.3	0.92	ND
GEW-051	3/17/2015	50	36	2.5	9.9	1.5	ND
GEW-052	1/20/2015	51	39	ND	10	ND	ND
GEW-052	3/18/2015	52	37	ND	9.9	ND	ND
GEW-053	1/16/2015	48	42	ND	3.6	5	41
GEW-053	3/17/2015	50	40	ND	3.7	4.9	52
GEW-053	4/29/2015	48	43	ND	ND	7.1	55
GEW-054	1/16/2015	50	42	ND	ND	5.3	ND
GEW-054	2/26/2015	51	41	ND	ND	4.5	ND
GEW-054	3/17/2015	46	35	3.1	11	4.4	ND
GEW-054	4/24/2015	51	41	ND	ND	4.6	ND
GEW-055	1/16/2015	50	42	ND	4.3	3	ND
GEW-055	2/24/2015	50	41	ND	5.3	2.2	ND
GEW-055	3/17/2015	51	40	ND	5.8	2.4	0
GEW-055	4/17/2015	52	41	ND	3.9	2	ND

Laboratory Analysis - Bridgeton Landfill

Well Name	Date Sampled	Methane	CO_2	O_2/Argon	Nitrogen	Hydrogen	Carbon Monoxide
		(%)					(ppm)
South Quarry							
GEW-010	1/19/2015	52	36	2.4	8.8	0.4	ND
GEW-010	2/24/2015	36	40	3.4	19	1.3	110
GEW-010	3/18/2015	42	44	2.3	9.1	2.0	130
GEW-010	4/17/2015	54	39	ND	4.3	0.53	83
GEW-011	1/20/2015	1.2	55	2.4	8.6	32	2,600
GEW-011	3/31/2015	3.3	58	ND	5.4	31	2,500
GEW-016R	1/20/2015	0.47	55	ND	3.4	38	2,500
GEW-016R	3/31/2015	0.51	53	ND	4.9	38	2,500
GEW-020A	1/20/2015	0.53	51	6.6	24	17	3,000
GEW-022R	1/20/2015	0.46	63	ND	3.7	30	3,900
GEW-022R	1/20/2015	2.8	67	ND	ND	27	3,900
GEW-022R	3/31/2015	3	65	ND	ND	28	3,600
GEW-023A	1/20/2015	0.13	64	ND	3	31	4,200
GEW-023A	3/31/2015	0.13	65	ND	3.7	28	4,000
GEW-025A	1/20/2015	0.18	63	ND	ND	34	4,600
GEW-025A	3/31/2015	0.13	65	ND	3.6	28	4,100
GEW-026R	1/20/2015	0.4	70	ND	ND	25	5,300
GEW-026R	3/31/2015	0.33	65	2.2	7.9	23	4,700
GEW-027A	1/20/2015	0.1	58	2.0	7	32	2,800
GEW-028R	1/20/2015	0.5	53	2.0	7	36	4,600
GEW-029	1/20/2015	0.13	56	ND	ND	40	3,300
GEW-029	3/31/2015	0.15	55	ND	ND	41	3,700
GEW-033R	1/20/2015	12	55	ND	ND	30	1,800
GEW-034	1/20/2015	6.8	61	ND	4.2	26	1,700
GEW-034	3/31/2015	15	63	ND	3.5	16	1,100
GEW-035	1/20/2015	3.2	43	6.3	23	24	2,200
GEW-035	3/31/2015	3.0	53	2.8	12	28	2,900
GEW-038	1/19/2015	0.17	38	7.3	26	28	2,700
GEW-038	2/24/2015	0.18	47	4.7	17	31	2,800
GEW-038	3/30/2015	0.12	30	11.0	38	20	1,800
GEW-038	4/17/2015	0.2	41	6.5	24	28	2,600
GEW-039	1/19/2015	29	56	ND	ND	11	500
GEW-039	2/24/2015	33	50	ND	9.3	6.2	250
GEW-039	3/18/2015	32	57	ND	ND	7.6	390
GEW-039	4/17/2015	32	57	ND	ND	8.2	450
GEW-056R	1/19/2015	19	50	1.6	19	11	570
GEW-056R	2/24/2015	13	35	2.7	41	8.6	480
GEW-056R	3/18/2015	16	41	2.4	30	11	650
GEW-056R	4/17/2015	14	41	1.9	32	10	680
GEW-057R	1/20/2015	0.46	54	1.6	5.7	37	2,700
GEW-057R	3/31/2015	0.46	54	1.7	6	36	2,600
GEW-058	1/20/2015	0.42	48	3.3	12	36	2,600
GEW-058	3/31/2015	0.75	56	ND	3.9	37	2,700
GEW-058A	3/31/2015	0.43	50	2.6	9.4	36	2,600
GEW-059R	3/31/2015	0.75	51	1.8	6.3	39	1,700

Laboratory Analysis - Bridgeton Landfill

Well Name	Date Sampled	Methane	CO_2	O_2/Argon	Nitrogen	Hydrogen	Carbon Monoxide
		(%)					(ppm)
GEW-065A	1/20/2015	0.37	59	ND	ND	37	3,600
GEW-065A	3/31/2015	0.38	58	ND	3.7	35	3,300
GEW-071	3/31/2015	0.53	54	ND	ND	41	2,500
GEW-077	1/21/2015	0.33	57	3.6	13	26	5,700
GEW-080	1/21/2015	0.22	64	ND	ND	32	5,800
GEW-080	3/30/2015	0.26	64	ND	3	30	5,000
GEW-082R	1/21/2015	0.75	57	ND	ND	40	2,700
GEW-082R	3/30/2015	0.99	55	ND	3.3	38	2,500
GEW-084	3/31/2015	1.9	65	ND	ND	29	3,000
GEW-090	1/21/2015	0.41	55	ND	ND	42	3,000
GEW-090	3/31/2015	1.7	51	1.9	6.6	37	2,400
GEW-101	1/21/2015	0.36	27	14.0	49	9.3	1,400
GEW-102	1/21/2015	0.71	61	ND	ND	35	2,600
GEW-102	3/31/2015	0.71	60	ND	ND	35	2,600
GEW-107	1/20/2015	0.33	58	ND	3	37	3,600
GEW-107	3/31/2015	0.32	55	2.0	7.3	34	3,500
GEW-109	12/8/2014	1.4	56	ND	3.4	37	2,400
GEW-109	1/19/2015	1.1	53	1.8	6.2	37	2,200
GEW-109	2/24/2015	1.6	54	2.2	7.7	34	210
GEW-109	3/18/2015	2.6	56	1.6	5.7	33	2,400
GEW-109	4/17/2015	1.6	52	2.4	8.4	34	2,400
GEW-110	2/26/2015	19	51	2.4	8.8	18	1,300
GEW-110	3/18/2015	1.3	53	2.5	8.9	33	2,500
GEW-110	4/17/2015	15	40	3.6	27	14	1,200
GEW-116	1/21/2015	5.9	73	3.2	11	5.8	420
GEW-116	3/31/2015	20	63	ND	2.9	12	1,300
GEW-117	1/21/2015	48	50	ND	ND	0.048	39
GIW-01	1/21/2015	0.93	61	1.5	5.5	30	3,500
GIW-01	2/13/2015	2.3	64	1.5	5.6	26	2,700
GIW-01	3/18/2015	2.4	54	4.3	15	22	2,300
GIW-01	4/17/2015	3	67	ND	ND	27	2,600
GIW-02	1/21/2015	1.3	58	ND	ND	37	4,200
GIW-02	2/11/2015	0.9	58	3.8	14	24	2,400
GIW-02	3/18/2015	3.6	63	ND	ND	30	2,500
GIW-02	4/17/2015	10	57	ND	6	25	1,600
GIW-03	1/21/2015	0.25	47	5.5	20	27	2,800
GIW-03	2/10/2015	0.34	60	ND	5	32	3,300
GIW-03	3/30/2015	0.26	39	8.4	31	21	2,200
GIW-03	4/16/2015	0.47	62	ND	ND	34	3,300
GIW-04	1/21/2015	0.35	58	1.6	5.7	34	3,600
GIW-04	2/10/2015	0.36	57	3.0	11	28	2,800
GIW-04	3/18/2015	0.43	55	1.9	6.8	35	3,400
GIW-04	4/16/2015	0.44	52	3.4	12	31	3,000
GIW-05	1/21/2015	0.54	61	ND	ND	34	3,600
GIW-05	2/11/2015	0.45	59	2.4	8.7	29	2,800
GIW-05	3/18/2015	0.6	61	ND	3.1	34	3,200
GIW-05	4/17/2015	0.7	60	ND	3.5	34	3,000

Laboratory Analysis - Bridgeton Landfill

Well Name	Date Sampled	Methane	CO_2	O_2/Argon	Nitrogen	Hydrogen	Carbon Monoxide
		(%)					(ppm)
GIW-06	1/21/2015	0.93	64	ND	ND	31	2,200
GIW-06	2/11/2015	0.64	58	2.7	9.7	29	2,000
GIW-06	3/18/2015	0.76	61	ND	4.3	32	2,300
GIW-06	4/16/2015	0.84	63	ND	ND	32	1,900
GIW-07	1/21/2015	27	50	2.1	7.5	13	1,100
GIW-07	2/11/2015	20	56	2.7	9.7	11	970
GIW-07	3/18/2015	26	58	ND	ND	12	1,100
GIW-07	4/17/2015	29	58	ND	ND	9.6	800
GIW-08	1/21/2015	1.1	30	12.0	45	10	1,300
GIW-08	2/11/2015	22	64	ND	4.9	7.2	1,300
GIW-08	3/18/2015	23	65	ND	2.9	7.3	1,300
GIW-08	4/16/2015	23	65	ND	3.3	7.5	1,100
GIW-09	1/21/2015	0.5	67	ND	3	27	3,900
GIW-09	2/11/2015	0.66	68	ND	3.5	26	3,400
GIW-09	3/18/2015	0.77	67	ND	ND	26	3,400
GIW-09	4/16/2015	0.78	64	ND	3.6	28	3,400
GIW-10	1/21/2015	0.36	53	3.4	12	30	5,600
GIW-10	2/10/2015	0.24	53	3.6	13	30	3,900
GIW-10	3/18/2015	0.25	54	ND	3	41	3,500
GIW-10	4/16/2015	0.69	54	ND	ND	42	3,200
GIW-11	1/21/2015	1.5	60	ND	4.1	32	3,300
GIW-11	2/11/2015	1.9	55	3.8	15	24	2,400
GIW-11	3/18/2015	1.5	60	ND	ND	34	3,200
GIW-11	4/17/2015	2.5	53	2.5	10	30	2,700
GIW-12	1/21/2015	2.5	54	2.9	11	29	2,400
GIW-12	2/11/2015	3.4	31	8.4	44	13	1,100
GIW-12	3/30/2015	3.5	27	10.0	49	10	790
GIW-12	4/17/2015	2.3	55	3.4	14	25	2,300
GIW-13	1/21/2015	1.8	61	ND	3.7	32	2,700
GIW-13	2/11/2015	3.7	63	ND	4.7	27	2,200
GIW-13	3/18/2015	2.9	62	ND	3.4	30	2,300
GIW-13	4/17/2015	4.6	58	ND	6.6	29	2,100
INLET	1/21/2015	8.3	33	9.8	38	11	1,200
INLET	2/10/2015	5.4	24	13.0	50	7.6	790
INLET	3/18/2015	7.2	30	11.0	42	10	1,000
INLET	4/16/2015	6.8	28	12	44	9.1	960

ND = Analyte not detected in sample.

ATTACHMENT D-2

LAB ANALYSIS REPORTS

AIR TECHNOLOGY
Laboratories, Inc.

April 28, 2015

ACLASS ACCREDITED DoD ELAP
ADE-1461
EPA Methods TO-3, TO14A,TO15 SIM & Scan, ASTM D1946

nelac
LA Cert 04140
EPA Methods TO3, TO14A, TO15, 25C/3C, RSK-175
TX Cert T104704450-09-TX
EPA Methods TO14A, TO15
UT Cert CA0133332014-1
EPA Methods TO3, TO14A, TO15, RSK-175

Republic Services
ATTN: Jim Getting
13570 St. Charles Rock Rd.
Bridgeton, MO 63044

LABORATORY TEST RESULTS

Project Reference: Bridgeton Landfill
Lab Number: G041302-01/24

Enclosed are results for sample(s) received 4/13/15 by Air Technology Laboratories. Samples were received intact. Analyses were performed according to specifications on the chain of custody provided with the sample(s).

Report Narrative:

- Unless otherwise noted in the report, sample analyses were performed within method performance criteria and meet all requirements of the NELAC Standards.
- The enclosed results relate only to the sample(s).

Preliminary results were e-mailed to Jim Getting, Mike Lambrich, Dan Brennan and Ray Huff of SCS Engineers on 4/27/15.

ATL appreciates the opportunity to provide testing services to your company. If you have any questions regarding these results, please call me at (626) 964-4032.

Sincerely,

Mark Johnson
Operations Manager
MJohnson@AirTechLabs.com

Note: The cover letter is an integral part of this analytical report.

CHAIN OF CUSTODY RECORD

AirTECHNOLOGY Laboratories, Inc.
18501 E. Gale Ave., Suite 130
City of Industry, CA 91748
Ph: 626-964-4032
Fx: 626-964-5832

PAGE: 1 OF 3

TURNAROUND TIME

Standard ■ 48 hours ☐
Same Day ☐ 72 hours ☐
24 hours ☐ 96 hours ☐
Other: **120 hours**

DELIVERABLES

EDD ☑
EDF ☐
Level 3 ☐
Level 4 ☐

Condition upon receipt:
Sealed Yes ☐ No ☐
Intact Yes ☐ No ☐
Chilled _____ deg C

Project No.:	
Project Name:	Bridgeton Landfill
Report To:	Jim Getting
Company:	Republic Services
Street:	13570 St. Charles Rock Rd.
City/State/Zip:	Bridgeton , MO 63044
Phone& Fax:	314-683-3921
e-mail:	JGetting@republicservices.com

BILLING

P.O. No.:	PO4862452
Bill to:	Republic Services
	Attn: Mike Lambrich
	13570 St. Charles Rock Rd.
	Bridgeton, MO 63044

ANALYSIS REQUEST

LAB USE ONLY	SAMPLE IDENTIFICATION	SAMPLE DATE	SAMPLE TIME	CONTAINER QTY/TYPE	MATRIX	PRESERVATION	D1946 + CO, H2					
G041302-01	Outlet A	4/8/2015	908	C	LFG	NA	X					
-02	Outlet B	4/8/2015	912	C	LFG	NA	X					
-03	Inlet A	4/8/2015	923	C	LFG	NA	X					
-04	Inlet B	4/8/2015	927	C	LFG	NA	X					
-05	GIW-6	4/8/2015	957	C	LFG	NA	X					
-06	GIW-7	4/8/2015	1007	C	LFG	NA	X					
-07	GIW-8	4/8/2015	1015	C	LFG	NA	X					
-08	GIW-9	4/8/2015	1023	C	LFG	NA	X					
-09	GIW-10	4/8/2015	1047	C	LFG	NA	X					
-10	GIW-4	4/8/2015	1057	C	LFG	NA	X					

AUTHORIZATION TO PERFORM WORK: Dave Penoyer COMPANY: Republic Services DATE/TIME:

SAMPLED BY: Ryan Ayers COMPANY: Republic Services DATE/TIME

RELINQUISHED BY	DATE/TIME	RECEIVED BY	DATE/TIME
Ryan Ayers	4-10-15 1300		
FED EX		[illegible]	4/13/15 1146

METHOD OF TRANSPORT (circle one): Walk-In **FedEx** UPS Courier ATLI Other_____

COMMENTS

DISTRIBUTION: White & Yellow - Lab Copies / Pink - Customer Copy

Preservation: H=HCl N=None / Container: B=Bag C=Can V=VOA O=Other

Rev. 03 - 5/7/09

CHAIN OF CUSTODY RECORD

AirTECHNOLOGY Laboratories, Inc.
01 E. Gale Ave., Suite 130
of Industry, CA 91748
626-964-4032
626-964-5832

TURNAROUND TIME

Standard	■	48 hours	☐
Same Day	☐	72 hours	☐
24 hours	☐	96 hours	☐
Other:	120 hours		

DELIVERABLES

EDD	✓
EDF	☐
Level 3	☐
Level 4	☐

PAGE: 2 OF 3

Condition upon receipt:
Sealed Yes ☐ No ☐
Intact Yes ☐ No ☐
Chilled _____ deg C

Project No.:	
Project Name:	Bridgeton Landfill
Report To:	Jim Getting
Company:	Republic Services
Street:	13570 St. Charles Rock Rd.
City/State/Zip:	Bridgeton , MO 63044
Phone& Fax:	314-683-3921
e-mail:	JGetting@republicservices.com

BILLING

P.O. No.:	PO4862452
Bill to:	Republic Services
	Attn: Mike Lambrich
	13570 St. Charles Rock Rd.
	Bridgeton, MO 63044

ANALYSIS REQUEST

LAB USE ONLY	SAMPLE IDENTIFICATION	SAMPLE DATE	SAMPLE TIME	CONTAINER QTY/TYPE	MATRIX	PRESERVATION	D1946 + CO, H2					
604302-11	GIW-3	4/10/2015	903	C	LFG	NA	X					
-12	GIW-12	4/10/2015	911	C	LFG	NA	X					
-13	GIW-13	4/10/2015	917	C	LFG	NA	X					
-14	GIW-2	4/10/2015	924	C	LFG	NA	X					
-15	GIW-11	4/10/2015	940	C	LFG	NA	X					
-16	GEW-56R	4/10/2015	949	C	LFG	NA	X					
-17	GEW-110	4/10/2015	956	C	LFG	NA	X					
-18	GEW-40	4/10/2015	1131	C	LFG	NA	X					
-19	GEW-55	4/10/2015	1138	C	LFG	NA	X					
-20	GIW-1	4/10/2015	917	C	LFG	NA	X					

AUTHORIZATION TO PERFORM WORK: Dave Penoyer	COMPANY: Republic Services	DATE/TIME:	
SAMPLED BY: Ryan Ayers	COMPANY: Republic Services	DATE/TIME	
RELINQUISHED BY	DATE/TIME 4/10-15 1300	RECEIVED BY	DATE/TIME
RELINQUISHED BY FedEx	DATE/TIME	RECEIVED BY	DATE/TIME 4/13/15 1146
RELINQUISHED BY	DATE/TIME	RECEIVED BY	DATE/TIME

METHOD OF TRANSPORT (circle one): Walk-In **FedEx** UPS Courier ATLI Other_____

COMMENTS

DISTRIBUTION: White & Yellow - Lab Copies / Pink - Customer Copy

Preservation: **H**=HCl **N**=None / Container: **B**=Bag **C**=Can **V**=VOA **O**=Other *Rev. 03 - 5/7/09*

CHAIN OF CUSTODY RECORD

AirTECHNOLOGY Laboratories, Inc.
01 E. Gale Ave., Suite 130
of Industry, CA 91748
626-964-4032
626-964-5832

TURNAROUND TIME				DELIVERABLES		PAGE: 3 OF 3
Standard	■	48 hours	☐	EDD	☑	Condition upon receipt:
Same Day	☐	72 hours	☐	EDF	☐	Sealed Yes ☐ No ☐
24 hours	☐	96 hours	☐	Level 3	☐	Intact Yes ☐ No ☐
Other:	120 hours			Level 4	☐	Chilled _____ deg C

Project No.:	
Project Name:	Bridgeton Landfill
Report To:	Jim Getting
Company:	Republic Services
Street:	13570 St. Charles Rock Rd.
City/State/Zip:	Bridgeton , MO 63044
Phone& Fax:	314-683-3921
e-mail:	JGetting@republicservices.com

BILLING

P.O. No.:	PO4862452
Bill to:	Republic Services
	Attn: Mike Lambrich
	13570 St. Charles Rock Rd.
	Bridgeton, MO 63044

LAB USE ONLY	SAMPLE IDENTIFICATION	SAMPLE DATE	SAMPLE TIME	CONTAINER QTY/TYPE	MATRIX	PRESERVATION	ANALYSIS REQUEST: D1946 + CO, H2
G041302-21	GIW-5	4/10/2015	938	C	LFG	NA	X
-22	GEW-10	4/10/2015	951	C	LFG	NA	X
-23	GEW-8	4/10/2015	1138	C	LFG	NA	X
-24	GEW-9	4/10/2015	1151	C	LFG	NA	X

AUTHORIZATION TO PERFORM WORK: Dave Penoyer COMPANY: Republic Services DATE/TIME:

SAMPLED BY: Ryan Ayers COMPANY: Republic Services DATE/TIME

RELINQUISHED BY	DATE/TIME	RECEIVED BY	DATE/TIME
[signature]	4-10-15 1300		
[signature]		[signature]	4/13/15 1146

METHOD OF TRANSPORT (circle one): Walk-In **FedEx** UPS Courier ATLI Other_____

COMMENTS

DISTRIBUTION: White & Yellow - Lab Copies / Pink - Customer Copy

Preservation: **H**=HCl **N**=None / Container: **B**=Bag **C**=Can **V**=VOA **O**=Other *Rev. 03 - 5/7/09*

Client: Republic Services
Attn: Jim Getting
Project Name: Bridgeton Landfill
Project No.: NA
Date Received: 04/13/15
Matrix: Air
Reporting Units: % v/v

ASTM D1946

Lab No.:	G041302-01		G041302-02		G041302-03		G041302-04	
Client Sample I.D.:	Outlet A		Outlet B		Inlet A		Inlet B	
Date/Time Sampled:	4/8/15 9:08		4/8/15 9:12		4/8/15 9:23		4/8/15 9:27	
Date/Time Analyzed:	4/16/15 17:43		4/16/15 17:57		4/16/15 18:12		4/16/15 18:27	
QC Batch No.:	150416GC8A1		150416GC8A1		150416GC8A1		150416GC8A1	
Analyst Initials:	AS		AS		AS		AS	
Dilution Factor:	3.0		3.1		3.1		3.2	
ANALYTE	Result % v/v	RL % v/v	Result % v/v	RL % v/v	Result % v/v	RL % v/v	Result % v/v	RL % v/v
Hydrogen	11	3.0	10	3.1	9.1	3.1	9.5	3.2
Carbon Dioxide	32	0.030	32	0.031	28	0.031	29	0.032
Oxygen/Argon	10	1.5	10	1.5	12	1.5	11	1.6
Nitrogen	39	3.0	39	3.1	44	3.1	43	3.2
Methane	7.9	0.0030	7.8	0.0031	6.8	0.0031	7.0	0.0032
Carbon Monoxide	0.092	0.0030	0.10	0.0031	0.096	0.0031	0.099	0.0032

Results normalized including non-methane hydrocarbons
ND = Not Detected (below RL)
RL = Reporting Limit

Reviewed/Approved By: _____ Date 4/27/15
Mark Johnson
Operations Manager

The cover letter is an integral part of this analytical report

AirTECHNOLOGY Laboratories, Inc.
18501 E. Gale Avenue, Suite 130 ♦ City of Industry, CA 91748 ♦ Ph: (626) 964-4032 ♦ Fx: (626) 964-5832

Client:	**Republic Services**
Attn:	**Jim Getting**
Project Name:	**Bridgeton Landfill**
Project No.:	**NA**
Date Received:	**04/13/15**
Matrix:	**Air**
Reporting Units:	**% v/v**

ASTM D1946

Lab No.:	G041302-05		G041302-06		G041302-07		G041302-08	
Client Sample I.D.:	GIW-6		GIW-7		GIW-8		GIW-9	
Date/Time Sampled:	4/8/15 9:57		4/8/15 10:07		4/8/15 10:15		4/8/15 10:23	
Date/Time Analyzed:	4/16/15 18:41		4/17/15 10:18		4/16/15 19:11		4/16/15 19:25	
QC Batch No.:	150416GC8A1		150416GC8A1		150416GC8A1		150416GC8A1	
Analyst Initials:	AS		AS		AS		AS	
Dilution Factor:	3.0		3.0		3.1		3.1	
ANALYTE	**Result % v/v**	**RL % v/v**	**Result % v/v**	**RL % v/v**	**Result % v/v**	**RL % v/v**	**Result % v/v**	**RL % v/v**
Hydrogen	**32**	3.0	**9.6**	3.0	**7.5**	3.1	**28**	3.1
Carbon Dioxide	**63**	0.030	**58**	0.030	**65**	0.031	**64**	0.031
Oxygen/Argon	**ND**	1.5	**ND**	1.5	**ND**	1.5	**ND**	1.5
Nitrogen	**ND**	3.0	**ND**	3.0	**3.3**	3.1	**3.6**	3.1
Methane	**0.84**	0.0030	**29**	0.0030	**23**	0.0031	**0.78**	0.0031
Carbon Monoxide	**0.19**	0.0030	**0.080**	0.0030	**0.11**	0.0031	**0.34**	0.0031

Results normalized including non-methane hydrocarbons
ND = Not Detected (below RL)
RL = Reporting Limit

Reviewed/Approved By: _____ **Date** 4/25/15

Mark Johnson
Operations Manager

The cover letter is an integral part of this analytical report

AirTECHNOLOGY Laboratories, Inc.
18501 E. Gale Avenue, Suite 130 ♦ City of Industry, CA 91748 ♦ Ph: (626) 964-4032 ♦ Fx: (626) 964-5832

Client: Republic Services
Attn: Jim Getting
Project Name: Bridgeton Landfill
Project No.: NA
Date Received: 04/13/15
Matrix: Air
Reporting Units: % v/v

ASTM D1946

Lab No.:	G041302-09		G041302-10		G041302-11		G041302-12	
Client Sample I.D.:	GIW-10		GIW-4		GIW-3		GIW-12	
Date/Time Sampled:	4/8/15 10:47		4/8/15 10:57		4/10/15 9:03		4/10/15 9:11	
Date/Time Analyzed:	4/16/15 19:40		4/16/15 19:54		4/16/15 20:09		4/17/15 8:21	
QC Batch No.:	150416GC8A1		150416GC8A1		150416GC8A1		150416GC8A1	
Analyst Initials:	AS		AS		AS		AS	
Dilution Factor:	3.2		3.2		2.8		2.8	
ANALYTE	Result % v/v	RL % v/v	Result % v/v	RL % v/v	Result % v/v	RL % v/v	Result % v/v	RL % v/v
Hydrogen	42	3.2	31	3.2	34	2.8	25	2.8
Carbon Dioxide	54	0.032	52	0.032	62	0.028	55	0.028
Oxygen/Argon	ND	1.6	3.4	1.6	ND	1.4	3.4	1.4
Nitrogen	ND	3.2	12	3.2	ND	2.8	14	2.8
Methane	0.69	0.0032	0.44	0.0032	0.47	0.0028	2.3	0.0028
Carbon Monoxide	0.32	0.0032	0.30	0.0032	0.33	0.0028	0.23	0.0028

Results normalized including non-methane hydrocarbons
ND = Not Detected (below RL)
RL = Reporting Limit

Reviewed/Approved By: _____ Date 4/17/15
Mark Johnson
Operations Manager

The cover letter is an integral part of this analytical report

AirTECHNOLOGY Laboratories, Inc.
18501 E. Gale Avenue, Suite 130 ♦ City of Industry, CA 91748 ♦ Ph: (626) 964-4032 ♦ Fx: (626) 964-5832

Client: Republic Services
Attn: Jim Getting
Project Name: Bridgeton Landfill
Project No.: NA
Date Received: 04/13/15
Matrix: Air
Reporting Units: % v/v

ASTM D1946

Lab No.:	G041302-13		G041302-14		G041302-15		G041302-16	
Client Sample I.D.:	GIW-13		GIW-2		GIW-11		GEW-56R	
Date/Time Sampled:	4/10/15 9:17		4/10/15 9:24		4/10/15 9:40		4/10/15 9:49	
Date/Time Analyzed:	4/17/15 8:35		4/17/15 8:50		4/17/15 9:19		4/17/15 9:34	
QC Batch No.:	150416GC8A1		150416GC8A1		150416GC8A1		150416GC8A1	
Analyst Initials:	AS		AS		AS		AS	
Dilution Factor:	2.9		2.8		2.8		2.8	
ANALYTE	Result % v/v	RL % v/v	Result % v/v	RL % v/v	Result % v/v	RL % v/v	Result % v/v	RL % v/v
Hydrogen	29	2.9	25	2.8	30	2.8	10	2.8
Carbon Dioxide	58	0.029	57	0.028	53	0.028	41	0.028
Oxygen/Argon	ND	1.4	ND	1.4	2.5	1.4	1.9	1.4
Nitrogen	6.6	2.9	6.0	2.8	10	2.8	32	2.8
Methane	4.6	0.0029	10.0	0.0028	2.5	0.0028	14	0.0028
Carbon Monoxide	0.21	0.0029	0.16	0.0028	0.27	0.0028	0.068	0.0028

Results normalized including non-methane hydrocarbons
ND = Not Detected (below RL)
RL = Reporting Limit

Reviewed/Approved By: _____ Date 4/27/15
Mark Johnson
Operations Manager

The cover letter is an integral part of this analytical report

AirTECHNOLOGY Laboratories, Inc.
18501 E. Gale Avenue, Suite 130 ♦ City of Industry, CA 91748 ♦ Ph: (626) 964-4032 ♦ Fx: (626) 964-5832

Client: Republic Services
Attn: Jim Getting
Project Name: Bridgeton Landfill
Project No.: NA
Date Received: 04/13/15
Matrix: Air
Reporting Units: % v/v

ASTM D1946

Lab No.:	G041302-17		G041302-18		G041302-19		G041302-20	
Client Sample I.D.:	GEW-110		GEW-40		GEW-55		GIW-1	
Date/Time Sampled:	4/10/15 9:56		4/10/15 11:31		4/10/15 11:38		4/10/15 9:17	
Date/Time Analyzed:	4/17/15 9:49		4/17/15 10:03		4/17/15 13:37		4/17/15 13:51	
QC Batch No.:	150416GC8A1		150416GC8A1		150417GC8A1		150417GC8A1	
Analyst Initials:	AS		AS		AS		AS	
Dilution Factor:	2.9		3.0		3.0		2.8	
ANALYTE	Result % v/v	RL % v/v	Result % v/v	RL % v/v	Result % v/v	RL % v/v	Result % v/v	RL % v/v
Hydrogen	14	2.9	ND d	0.030	2.0 d	0.030	27	2.8
Carbon Dioxide	40	0.029	43	0.030	41	0.030	67	0.028
Oxygen/Argon	3.6	1.4	ND	1.5	ND	1.5	ND	1.4
Nitrogen	27	2.9	ND	3.0	3.9	3.0	ND	2.8
Methane	15	0.0029	54	0.0030	52	0.0030	3.0	0.0028
Carbon Monoxide	0.12	0.0029	ND	0.0030	ND	0.0030	0.26	0.0028

Results normalized including non-methane hydrocarbons
ND = Not Detected (below RL)
RL = Reporting Limit
d = Reported from a secondary dilution. QC Batch 150420GC8A2

Reviewed/Approved By: _____ Date 4/27/15
Mark Johnson
Operations Manager

The cover letter is an integral part of this analytical report

AirTECHNOLOGY Laboratories, Inc.
18501 E. Gale Avenue, Suite 130 ♦ City of Industry, CA 91748 ♦ Ph: (626) 964-4032 ♦ Fx: (626) 964-5832

Client: Republic Services
Attn: Jim Getting
Project Name: Bridgeton Landfill
Project No.: NA
Date Received: 04/13/15
Matrix: Air
Reporting Units: % v/v

ASTM D1946

Lab No.:	G041302-21		G041302-22		G041302-23		G041302-24	
Client Sample I.D.:	GIW-5		GEW-10		GEW-8		GEW-9	
Date/Time Sampled:	4/10/15 9:38		4/10/15 9:51		4/10/15 11:38		4/10/15 11:51	
Date/Time Analyzed:	4/17/15 14:06		4/17/15 14:21		4/17/15 14:35		4/17/15 14:50	
QC Batch No.:	150417GC8A1		150417GC8A1		150417GC8A1		150417GC8A1	
Analyst Initials:	AS		AS		AS		AS	
Dilution Factor:	3.0		3.0		3.2		3.2	
ANALYTE	Result % v/v	RL % v/v	Result % v/v	RL % v/v	Result % v/v	RL % v/v	Result % v/v	RL % v/v
Hydrogen	34	3.0	0.53 d	0.030	2.6 d	0.032	0.64 d	0.032
Carbon Dioxide	60	0.030	39	0.030	44	0.032	40	0.032
Oxygen/Argon	ND	1.5	ND	1.5	ND	1.6	ND	1.6
Nitrogen	3.5	3.0	4.3	3.0	ND	3.2	8.5	3.2
Methane	0.70	0.0030	54	0.0030	51	0.0032	49	0.0032
Carbon Monoxide	0.30	0.0030	0.0083	0.0030	0.0033	0.0032	ND	0.0032

Results normalized including non-methane hydrocarbons
ND = Not Detected (below RL)
RL = Reporting Limit
d = Reported from a secondary dilution. QC Batch 150420GC8A2

Reviewed/Approved By: _____ Date 4/27/15
Mark Johnson
Operations Manager

The cover letter is an integral part of this analytical report

AirTECHNOLOGY Laboratories, Inc.
18501 E. Gale Avenue, Suite 130 ♦ City of Industry, CA 91748 ♦ Ph: (626) 964-4032 ♦ Fx: (626) 964-5832

QC Batch No.: 150416GC8A1
Matrix: Air
Units: % v/v

QC for ASTM D1946

Lab No.:	Method Blank		LCS		LCSD			
Date/Time Analyzed:	4/16/15 16:59		4/17/15 11:17		4/17/15 11:35			
Analyst Initials:	AS		AS		AS			
Datafile:	16apr011		16apr038		16apr039			
Dilution Factor:	1.0		1.0		1.0			
ANALYTE	**Results**	**RL**	**% Rec.**	**Criteria**	**% Rec.**	**Criteria**	**%RPD**	**Criteria**
Hydrogen	ND	1.0	115	70-130%	117	70-130%	1.5	<30
Carbon Dioxide	ND	0.010	99	70-130%	100	70-130%	0.7	<30
Oxygen/Argon	ND	0.50	99	70-130%	99	70-130%	0.6	<30
Nitrogen	ND	1.0	100	70-130%	101	70-130%	0.5	<30
Methane	ND	0.0010	118	70-130%	118	70-130%	0.3	<30
Carbon Monoxide	ND	0.0010	127	70-130%	121	70-130%	4.8	<30

ND = Not Detected (Below RL)

Reviewed/Approved By: _____ **Date:** 4/27/15

Mark J. Johnson
Operations Manager

The cover letter is an integral part of this analytical report.

QC Batch No.: 150417GC8A1
Matrix: Air
Units: % v/v

QC for ASTM D1946

Lab No.:	Method Blank		LCS		LCSD			
Date/Time Analyzed:	4/17/15 13:21		4/17/15 12:37		4/17/15 12:52			
Analyst Initials:	AS		AS		AS			
Datafile:	17apr006		17apr003		17apr004			
Dilution Factor:	1.0		1.0		1.0			
ANALYTE	Results	RL	% Rec.	Criteria	% Rec.	Criteria	%RPD	Criteria
Hydrogen	ND	1.0	114	70-130%	115	70-130%	0.5	<30
Carbon Dioxide	ND	0.010	99	70-130%	99	70-130%	0.0	<30
Oxygen/Argon	ND	0.50	98	70-130%	98	70-130%	0.1	<30
Nitrogen	ND	1.0	100	70-130%	100	70-130%	0.0	<30
Methane	ND	0.0010	120	70-130%	119	70-130%	1.2	<30
Carbon Monoxide	ND	0.0010	115	70-130%	111	70-130%	3.8	<30

ND = Not Detected (Below RL)

Reviewed/Approved By: _____ Date: 4/27/15

Mark J. Johnson
Operations Manager

The cover letter is an integral part of this analytical report.

QC Batch # 150420GC8A2
Matrix: Air
Units: % v/v

QC for Low Level Hydrogen Analysis

Lab No.:	Blank		LCS		LCSD			
Date Analyzed:	4/20/15 11:40		4/20/15 11:31		4/20/15 11:46			
Analyst Initials:	AS		AS		AS			
Dilution Factor:	1.0		1.0		1.0			
ANALYTE	Results	RL	%Rec	Criteria	%Rec	Criteria	RPD	Criteria
Hydrogen	ND	0.01	113	70-130	113	70-130	0.1	<20

ND = Not Detected (Below RL)
RL = PQL X Dilution Factor

Reviewed/Approved By: _____ Date: 4/27/15
Mark Johnson
Operations Manager

The cover letter is an integral part of this analytical report.

AirTECHNOLOGY
Laboratories, Inc.

April 28, 2015

ACCLASS ACCREDITED DoD ELAP
ADE-1461
EPA Methods TO-3, TO14A,TO15 SIM & Scan, ASTM D1946

nelac
LA Cert 04140
EPA Methods TO3, TO14A, TO15, 25C/3C, RSK-175
TX Cert T104704450-09-TX
EPA Methods TO14A, TO15
UT Cert CA0133332014-1
EPA Methods TO3, TO14A, TO15, RSK-175

Republic Services
ATTN: Jim Getting
13570 St. Charles Rock Rd.
Bridgeton, MO 63044

LABORATORY TEST RESULTS

Project Reference: Bridgeton Landfill
Lab Number: G041602-01/03

Enclosed are results for sample(s) received 4/16/15 by Air Technology Laboratories. Samples were received intact. Analyses were performed according to specifications on the chain of custody provided with the sample(s).

Report Narrative:

- Unless otherwise noted in the report, sample analyses were performed within method performance criteria and meet all requirements of the NELAC Standards.
- The enclosed results relate only to the sample(s).

Preliminary results were e-mailed to Jim Getting, Mike Lambrich, Dan Brennan and Ray Huff of SCS Engineers on 4/27/15.

ATL appreciates the opportunity to provide testing services to your company. If you have any questions regarding these results, please call me at (626) 964-4032.

Sincerely,

Mark Johnson
Operations Manager
MJohnson@AirTechLabs.com

Note: The cover letter is an integral part of this analytical report.

AirTECHNOLOGY Laboratories, Inc.

18501 E. Gale Ave., Suite 130
City of Industry, CA 91748
Ph: 626-964-4032
Fx: 626-964-5832

CHAIN OF CUSTODY RECORD

TURNAROUND TIME

Standard ■ 48 hours ☐
Same Day ☐ 72 hours ☐
24 hours ☐ 96 hours ☐
Other: **120 hours**

DELIVERABLES

EDD ☐
EDF ☐
Level 3 ☐
Level 4 ☐

PAGE: 1 **OF** 1

Condition upon receipt:
Sealed Yes ☐ No ☐
Intact Yes ☐ No ☐
Chilled _____ deg C

Project No.:	
Project Name:	Bridgeton Landfill
Report To:	Jim Getting
Company:	Republic Services
Street:	13570 St. Charles Rock Rd.
City/State/Zip:	Bridgeton , MO 63044
Phone& Fax:	314-683-3921
e-mail:	JGetting@republicservices.com

BILLING

P.O. No.:	PO4862452
Bill to:	Republic Services
	Attn: Mike Lambrich
	13570 St. Charles Rock Rd.
	Bridgeton, MO 63044

ANALYSIS REQUEST

LAB USE ONLY	SAMPLE IDENTIFICATION	SAMPLE DATE	SAMPLE TIME	CONTAINER QTY/TYPE	MATRIX	PRESERVATION	D1946 + CO, H2					
G041602-01	GEW-38	4/15/2015	1349	C	LFG	NA	X					
-02	GEW-109	4/15/2015	1355	C	LFG	NA	X					
-03	GEW-39	4/15/2015	1402	C	LFG	NA	X					

AUTHORIZATION TO PERFORM WORK: Dave Penoyer COMPANY: Republic Services DATE/TIME:

SAMPLED BY: Ryan Ayers COMPANY: Republic Services DATE/TIME

RELINQUISHED BY	DATE/TIME	RECEIVED BY	DATE/TIME
	4-15-15 1500		
FBO EX			4/16/15 0919

METHOD OF TRANSPORT (circle one): Walk-In **FedEx** UPS Courier ATLI Other_____

COMMENTS

DISTRIBUTION: White & Yellow - Lab Copies / Pink - Customer Copy

Preservation: **H**=HCl **N**=None / Container: **B**=Bag **C**=Can **V**=VOA **O**=Other *Rev. 03 - 5/7/09*

Client:	**Republic Services**
Attn:	**Jim Getting**
Project Name:	**Bridgeton Landfill**
Project No.:	**NA**
Date Received:	**04/16/15**
Matrix:	**Air**
Reporting Units:	**% v/v**

ASTM D1946

Lab No.:	G041602-01		G041602-02		G041602-03			
Client Sample I.D.:	GEW-38		GEW-109		GEW-39			
Date/Time Sampled:	4/15/15 13:49		4/15/15 13:55		4/15/15 14:02			
Date/Time Analyzed:	4/17/15 15:04		4/17/15 15:19		4/17/15 15:34			
QC Batch No.:	150417GC8A1		150417GC8A1		150417GC8A1			
Analyst Initials:	AS		AS		AS			
Dilution Factor:	3.1		3.2		3.2			
ANALYTE	**Result % v/v**	**RL % v/v**	**Result % v/v**	**RL % v/v**	**Result % v/v**	**RL % v/v**		
Hydrogen	28	3.1	34	3.2	8.2	3.2		
Carbon Dioxide	41	0.031	52	0.032	57	0.032		
Oxygen/Argon	6.5	1.5	2.4	1.6	ND	1.6		
Nitrogen	24	3.1	8.4	3.2	ND	3.2		
Methane	0.20	0.0031	1.6	0.0032	32	0.0032		
Carbon Monoxide	0.26	0.0031	0.24	0.0032	0.045	0.0032		

Results normalized including non-methane hydrocarbons
ND = Not Detected (below RL)
RL = Reporting Limit

Reviewed/Approved By: _____ **Date** 4/27/15

Mark Johnson
Operations Manager

The cover letter is an integral part of this analytical report

AirTECHNOLOGY Laboratories, Inc.
18501 E. Gale Avenue, Suite 130 ♦ City of Industry, CA 91748 ♦ Ph: (626) 964-4032 ♦ Fx: (626) 964-5832

QC Batch No.: 150417GC8A1
Matrix: Air
Units: % v/v

QC for ASTM D1946

Lab No.:	Method Blank		LCS		LCSD			
Date/Time Analyzed:	4/17/15 13:21		4/17/15 12:37		4/17/15 12:52			
Analyst Initials:	AS		AS		AS			
Datafile:	17apr006		17apr003		17apr004			
Dilution Factor:	1.0		1.0		1.0			
ANALYTE	**Results**	**RL**	**% Rec.**	**Criteria**	**% Rec.**	**Criteria**	**%RPD**	**Criteria**
Hydrogen	ND	1.0	114	70-130%	115	70-130%	0.5	<30
Carbon Dioxide	ND	0.010	99	70-130%	99	70-130%	0.0	<30
Oxygen/Argon	ND	0.50	98	70-130%	98	70-130%	0.1	<30
Nitrogen	ND	1.0	100	70-130%	100	70-130%	0.0	<30
Methane	ND	0.0010	120	70-130%	119	70-130%	1.2	<30
Carbon Monoxide	ND	0.0010	115	70-130%	111	70-130%	3.8	<30

ND = Not Detected (Below RL)

Reviewed/Approved By: _____ **Date:** 4/27/15

Mark J. Johnson
Operations Manager

The cover letter is an integral part of this analytical report.

Air TECHNOLOGY
Laboratories, Inc.

April 29, 2015

ACCLASS ACCREDITED DoD ELAP
ADE-1461
EPA Methods TO-3, TO14A,TO15 SIM & Scan, ASTM D1946

nelac
LA Cert 04140
EPA Methods TO3, TO14A, TO15, 25C/3C, RSK-175
TX Cert T104704450-09-TX
EPA Methods TO14A, TO15
UT Cert CA0133332014-1
EPA Methods TO3, TO14A, TO15, RSK-175

Republic Services
ATTN: Jim Getting
13570 St. Charles Rock Rd.
Bridgeton, MO 63044

LABORATORY TEST RESULTS

Project Reference: Bridgeton Landfill
Lab Number: G042701-01

Enclosed are results for sample(s) received 4/27/15 by Air Technology Laboratories. Sample was received intact. Analyses were performed according to specifications on the chain of custody provided with the sample(s).

Report Narrative:

- Unless otherwise noted in the report, sample analyses were performed within method performance criteria and meet all requirements of the NELAC Standards.
- The enclosed results relate only to the sample(s).

Preliminary results were e-mailed to Jim Getting, Mike Lambrich, and Ryan Ayers on 4/28/15.

ATL appreciates the opportunity to provide testing services to your company. If you have any questions regarding these results, please call me at (626) 964-4032.

Sincerely,

Mark Johnson
Operations Manager
MJohnson@AirTechLabs.com

Enclosures

Note: The cover letter is an integral part of this analytical report.

CHAIN OF CUSTODY RECORD

AirTECHNOLOGY Laboratories, Inc.

18501 E. Gale Ave., Suite 130
City of Industry, CA 91748
Ph: 626-964-4032
Fx: 626-964-5832

TURNAROUND TIME				DELIVERABLES		PAGE: 1 OF 1
Standard	☐	48 hours	■	EDD	☐	Condition upon receipt:
Same Day	☐	72 hours	☐	EDF	☐	Sealed Yes ☐ No ☐
24 hours	☐	96 hours	☐	Level 3	☐	Intact Yes ☐ No ☐
Other:	120 hours			Level 4	☐	Chilled _____ deg C

		BILLING	
Project No.:		*P.O. No.:*	PO4862452
Project Name:	Bridgeton Landfill	*Bill to:*	Republic Services
Report To:	Jim Getting		Attn: Mike Lambrich
Company:	Republic Services		13570 St. Charles Rock Rd.
Street:	13570 St. Charles Rock Rd.		Bridgeton, MO 63044
City/State/Zip:	Bridgeton , MO 63044		
Phone& Fax:	314-683-3921		
e-mail:	JGetting@republicservices.com		

LAB USE ONLY	SAMPLE IDENTIFICATION	SAMPLE DATE	SAMPLE TIME	CONTAINER QTY/TYPE	MATRIX	PRESERVATION	ANALYSIS REQUEST: D1946 + CO, H2					
G042701-01	GEW-54	4/24/2015	813	C	LFG	NA	X					

AUTHORIZATION TO PERFORM WORK: Dave Penoyer COMPANY: Republic Services DATE/TIME:

SAMPLED BY: Ryan Ayers COMPANY: Republic Services DATE/TIME

RELINQUISHED BY	DATE/TIME	RECEIVED BY	DATE/TIME
[signature]	4-24-15 0900		
FED EX		[signature]	4/27/15 0831

METHOD OF TRANSPORT (circle one): Walk-In **FedEx** UPS Courier ATLI Other_____

COMMENTS

DISTRIBUTION: White & Yellow - Lab Copies / Pink - Customer Copy

Preservation: **H**=HCl **N**=None / Container: **B**=Bag **C**=Can **V**=VOA **O**=Other *Rev. 03 - 5/7/09*

Client: Republic Services
Attn: Jim Getting
Project Name: Bridgeton Landfill
Project No.: NA
Date Received: 04/27/15
Matrix: Air
Reporting Units: % v/v

ASTM D1946

Lab No.:	**G042701-01**							
Client Sample I.D.:	**GEW-54**							
Date/Time Sampled:	**4/24/15 8:13**							
Date/Time Analyzed:	**4/27/15 12:23**							
QC Batch No.:	**150427GC8A1**							
Analyst Initials:	**AS**							
Dilution Factor:	**2.8**							
ANALYTE	**Result % v/v**	**RL % v/v**						
Hydrogen	4.6	2.8						
Carbon Dioxide	41	0.028						
Oxygen/Argon	ND	1.4						
Nitrogen	ND	2.8						
Methane	51	0.0028						
Carbon Monoxide	ND	0.0028						

Results normalized including non-methane hydrocarbons
ND = Not Detected (below RL)
RL = Reporting Limit

Reviewed/Approved By: _____ **Date** 4/28/15

Mark Johnson
Operations Manager

The cover letter is an integral part of this analytical report

AirTECHNOLOGY Laboratories, Inc.
18501 E. Gale Avenue, Suite 130 ♦ City of Industry, CA 91748 ♦ Ph: (626) 964-4032 ♦ Fx: (626) 964-5832

QC Batch No.: 150427GC8A1
Matrix: Air
Units: % v/v

QC for ASTM D1946

Lab No.:	Method Blank		LCS		LCSD			
Date/Time Analyzed:	4/27/15 12:08		4/27/15 11:24		4/27/15 11:39			
Analyst Initials:	AS		AS		AS			
Datafile:	27apr009		27apr006		27apr007			
Dilution Factor:	1.0		1.0		1.0			
ANALYTE	Results	RL	% Rec.	Criteria	% Rec.	Criteria	%RPD	Criteria
Hydrogen	ND	1.0	111	70-130%	110	70-130%	0.6	<30
Carbon Dioxide	ND	0.010	98	70-130%	98	70-130%	0.4	<30
Oxygen/Argon	ND	0.50	97	70-130%	97	70-130%	0.3	<30
Nitrogen	ND	1.0	99	70-130%	99	70-130%	0.2	<30
Methane	ND	0.0010	104	70-130%	102	70-130%	1.8	<30
Carbon Monoxide	ND	0.0010	116	70-130%	110	70-130%	4.6	<30

ND = Not Detected (Below RL)

Reviewed/Approved By: _____ **Date:** 4/28/15

Mark J. Johnson
Operations Manager

The cover letter is an integral part of this analytical report.

Air TECHNOLOGY
Laboratories, Inc.

April 29, 2015

ACCLASS ACCREDITED DoD ELAP
ADE-1461
EPA Methods TO-3, TO14A,TO15 SIM & Scan, ASTM D1946

nelac
LA Cert 04140
EPA Methods TO3, TO14A, TO15, 25C/3C, RSK-175
TX Cert T104704450-09-TX
EPA Methods TO14A, TO15
UT Cert CA0133332014-1
EPA Methods TO3, TO14A, TO15, RSK-175

Republic Services
ATTN: Jim Getting
13570 St. Charles Rock Rd.
Bridgeton, MO 63044

LABORATORY TEST RESULTS

Project Reference: Bridgeton Landfill
Lab Number: G042701-01

Enclosed are results for sample(s) received 4/27/15 by Air Technology Laboratories. Sample was received intact. Analyses were performed according to specifications on the chain of custody provided with the sample(s).

Report Narrative:

- Unless otherwise noted in the report, sample analyses were performed within method performance criteria and meet all requirements of the NELAC Standards.
- The enclosed results relate only to the sample(s).

Preliminary results were e-mailed to Jim Getting, Mike Lambrich, and Ryan Ayers on 4/28/15.

ATL appreciates the opportunity to provide testing services to your company. If you have any questions regarding these results, please call me at (626) 964-4032.

Sincerely,

Mark Johnson
Operations Manager
MJohnson@AirTechLabs.com

Enclosures

Note: The cover letter is an integral part of this analytical report.

CHAIN OF CUSTODY RECORD

AirTECHNOLOGY Laboratories, Inc.

18501 E. Gale Ave., Suite 130
City of Industry, CA 91748
Ph: 626-964-4032
Fx: 626-964-5832

TURNAROUND TIME				DELIVERABLES		PAGE: 1 OF 1
Standard	☐	48 hours	■	EDD	☐	Condition upon receipt:
Same Day	☐	72 hours	☐	EDF	☐	Sealed Yes ☐ No ☐
24 hours	☐	96 hours	☐	Level 3	☐	Intact Yes ☐ No ☐
Other:	120 hours			Level 4	☐	Chilled _____ deg C

		BILLING	
Project No.:		*P.O. No.:*	PO4862452
Project Name:	Bridgeton Landfill	*Bill to:*	Republic Services
Report To:	Jim Getting		Attn: Mike Lambrich
Company:	Republic Services		13570 St. Charles Rock Rd.
Street:	13570 St. Charles Rock Rd.		Bridgeton, MO 63044
City/State/Zip:	Bridgeton , MO 63044		
Phone& Fax:	314-683-3921		
e-mail:	JGetting@republicservices.com		

LAB USE ONLY	SAMPLE IDENTIFICATION	SAMPLE DATE	SAMPLE TIME	CONTAINER QTY/TYPE	MATRIX	PRESERVATION	ANALYSIS REQUEST: D1946 + CO, H2					
G042701-01	GEW-54	4/24/2015	813	C	LFG	NA	X					

AUTHORIZATION TO PERFORM WORK: Dave Penoyer COMPANY: Republic Services DATE/TIME:

SAMPLED BY: Ryan Ayers COMPANY: Republic Services DATE/TIME

RELINQUISHED BY	DATE/TIME	RECEIVED BY	DATE/TIME
[signature]	4-24-15 0900		
FED EX		[signature]	4/27/15 0831

METHOD OF TRANSPORT (circle one): Walk-In **FedEx** UPS Courier ATLI Other_____

COMMENTS

DISTRIBUTION: White & Yellow - Lab Copies / Pink - Customer Copy

Preservation: **H**=HCl **N**=None / Container: **B**=Bag **C**=Can **V**=VOA **O**=Other *Rev. 03 - 5/7/09*

Client: Republic Services
Attn: Jim Getting
Project Name: Bridgeton Landfill
Project No.: NA
Date Received: 04/27/15
Matrix: Air
Reporting Units: % v/v

ASTM D1946

Lab No.:	**G042701-01**							
Client Sample I.D.:	**GEW-54**							
Date/Time Sampled:	**4/24/15 8:13**							
Date/Time Analyzed:	**4/27/15 12:23**							
QC Batch No.:	**150427GC8A1**							
Analyst Initials:	**AS**							
Dilution Factor:	**2.8**							
ANALYTE	**Result % v/v**	**RL % v/v**						
Hydrogen	4.6	2.8						
Carbon Dioxide	41	0.028						
Oxygen/Argon	ND	1.4						
Nitrogen	ND	2.8						
Methane	51	0.0028						
Carbon Monoxide	ND	0.0028						

Results normalized including non-methane hydrocarbons
ND = Not Detected (below RL)
RL = Reporting Limit

Reviewed/Approved By: _____ **Date** 4/28/15

Mark Johnson
Operations Manager

The cover letter is an integral part of this analytical report

AirTECHNOLOGY Laboratories, Inc.
18501 E. Gale Avenue, Suite 130 ♦ City of Industry, CA 91748 ♦ Ph: (626) 964-4032 ♦ Fx: (626) 964-5832

QC Batch No.: 150427GC8A1
Matrix: Air
Units: % v/v

QC for ASTM D1946

Lab No.:	Method Blank		LCS		LCSD			
Date/Time Analyzed:	4/27/15 12:08		4/27/15 11:24		4/27/15 11:39			
Analyst Initials:	AS		AS		AS			
Datafile:	27apr009		27apr006		27apr007			
Dilution Factor:	1.0		1.0		1.0			
ANALYTE	Results	RL	% Rec.	Criteria	% Rec.	Criteria	%RPD	Criteria
Hydrogen	ND	1.0	111	70-130%	110	70-130%	0.6	<30
Carbon Dioxide	ND	0.010	98	70-130%	98	70-130%	0.4	<30
Oxygen/Argon	ND	0.50	97	70-130%	97	70-130%	0.3	<30
Nitrogen	ND	1.0	99	70-130%	99	70-130%	0.2	<30
Methane	ND	0.0010	104	70-130%	102	70-130%	1.8	<30
Carbon Monoxide	ND	0.0010	116	70-130%	110	70-130%	4.6	<30

ND = Not Detected (Below RL)

Reviewed/Approved By: _____ **Date:** 4/28/15

Mark J. Johnson
Operations Manager

The cover letter is an integral part of this analytical report.

Air TECHNOLOGY Laboratories, Inc.

May 6, 2015

ACCREDITED DoD ELAP
ADE-1461
EPA Methods TO-3, TO14A,TO15 SIM & Scan, ASTM D1946

nelac
LA Cert 04140
EPA Methods TO3, TO14A, TO15, 25C/3C, RSK-175
TX Cert T104704450-09-TX
EPA Methods TO14A, TO15
UT Cert CA0133332014-1
EPA Methods TO3, TO14A, TO15, RSK-175

Republic Services
ATTN: Jim Getting
13570 St. Charles Rock Rd.
Bridgeton, MO 63044

LABORATORY TEST RESULTS

Project Reference: Bridgeton Landfill
Lab Number: G043007-01/11

Enclosed are results for sample(s) received 4/30/15 by Air Technology Laboratories. Samples were received intact. Analyses were performed according to specifications on the chain of custody provided with the sample(s).

Report Narrative:

- Unless otherwise noted in the report, sample analyses were performed within method performance criteria and meet all requirements of the NELAC Standards.
- The enclosed results relate only to the sample(s).

ATL appreciates the opportunity to provide testing services to your company. If you have any questions regarding these results, please call me at (626) 964-4032.

Sincerely,

Mark Johnson
Operations Manager
MJohnson@AirTechLabs.com

Enclosures

Note: The cover letter is an integral part of this analytical report.

AirTECHNOLOGY Laboratories, Inc.

18501 E. Gale Ave., Suite 130
City of Industry, CA 91748
Ph: 626-964-4032
Fx: 626-964-5832

CHAIN OF CUSTODY RECORD

TURNAROUND TIME

Standard ☐ 48 hours ☒
Same Day ☐ 72 hours ☐
24 hours ☐ 96 hours ☐
Other: **120 hours**

DELIVERABLES

EDD ☐
EDF ☐
Level 3 ☐
Level 4 ☐

PAGE: 1 OF 2

Condition upon receipt:
Sealed Yes ☐ No ☐
Intact Yes ☐ No ☐
Chilled _____ deg C

Project No.:
Project Name: Bridgeton Landfill
Report To: Jim Getting
Company: Republic Services
Street: 13570 St. Charles Rock Rd.
City/State/Zip: Bridgeton , MO 63044
Phone& Fax: 314-683-3921
e-mail: JGetting@republicservices.com

BILLING

P.O. No.: PO4862452
Bill to: Republic Services
Attn: Mike Lambrich
13570 St. Charles Rock Rd.
Bridgeton, MO 63044

ANALYSIS REQUEST

LAB USE ONLY	SAMPLE IDENTIFICATION	SAMPLE DATE	SAMPLE TIME	CONTAINER QTY/TYPE	MATRIX	PRESERVATION	D1946 + CO, H2					
1043007-01	GEW-42R	4/29/2015	845	C	LFG	NA	X					
-02	GEW-45R	4/29/2015	855	C	LFG	NA	X					
-03	GEW-2	4/29/2015	906	C	LFG	NA	X					
-04	GEW-3	4/29/2015	917	C	LFG	NA	X					
-05	GEW-4	4/29/2015	931	C	LFG	NA	X					
-06	GEW-46R	4/29/2015	941	C	LFG	NA	X					
-07	GEW-47R	4/29/2015	949	C	LFG	NA	X					
-08	GEW-5	4/29/2015	959	C	LFG	NA	X					
-09	GEW-48	4/29/2015	1006	C	LFG	NA	X					
-10	GEW-49	4/29/2015	1014	C	LFG	NA	X					

AUTHORIZATION TO PERFORM WORK: Dave Penoyer COMPANY: Republic Services DATE/TIME:

SAMPLED BY: Ryan Ayers COMPANY: Republic Services DATE/TIME

RELINQUISHED BY	DATE/TIME	RECEIVED BY	DATE/TIME
[signature]	4-29-15 1100		
FedEX		[signature]	4/30/15 0919

METHOD OF TRANSPORT (circle one): Walk-In **FedEx** UPS Courier ATLI Other_____

COMMENTS

DISTRIBUTION: White & Yellow - Lab Copies / Pink - Customer Copy

Preservation: **H**=HCl **N**=None / Container: **B**=Bag **C**=Can **V**=VOA **O**=Other *Rev. 03 - 5/7/09*

AirTECHNOLOGY Laboratories, Inc.

01 E. Gale Ave., Suite 130
of Industry, CA 91748
626-964-4032
626-964-5832

CHAIN OF CUSTODY RECORD

TURNAROUND TIME

Standard ☐ 48 hours ☐
Same Day ☐ 72 hours ☐
24 hours ☐ 96 hours ☐
Other: **120 hours**

DELIVERABLES

EDD ☐
EDF ☐
Level 3 ☐
Level 4 ☐

PAGE: 2 OF 2

Condition upon receipt:
Sealed Yes ☐ No ☐
Intact Yes ☐ No ☐
Chilled _____ deg C

Project No.:	
Project Name:	Bridgeton Landfill
Report To:	Jim Getting
Company:	Republic Services
Street:	13570 St. Charles Rock Rd.
City/State/Zip:	Bridgeton , MO 63044
Phone& Fax:	314-683-3921
e-mail:	JGetting@republicservices.com

BILLING

P.O. No.:	PO4862452
Bill to:	Republic Services
	Attn: Mike Lambrich
	13570 St. Charles Rock Rd.
	Bridgeton, MO 63044

ANALYSIS REQUEST

LAB USE ONLY	SAMPLE IDENTIFICATION	SAMPLE DATE	SAMPLE TIME	CONTAINER QTY/TYPE	MATRIX	PRESERVATION	D1946 + CO, H2					
G043007-18	GEW-53	4/29/2015	1024	C	LFG	NA	X					

AUTHORIZATION TO PERFORM WORK: **Dave Penoyer** COMPANY: **Republic Services** DATE/TIME:

SAMPLED BY: **Ryan Ayers** COMPANY: **Republic Services** DATE/TIME

RELINQUISHED BY	DATE/TIME	RECEIVED BY	DATE/TIME
[signature]	4-29-15 1100		
FED EX		[signature]	4/30/15 0919

METHOD OF TRANSPORT (circle one): Walk-In **FedEx** UPS Courier ATLI Other_____

COMMENTS

DISTRIBUTION: White & Yellow - Lab Copies / Pink - Customer Copy

Preservation: **H**=HCl **N**=None / Container: **B**=Bag **C**=Can **V**=VOA **O**=Other *Rev. 03 - 5/7/09*

Client: Republic Services
Attn: Jim Getting
Project Name: Bridgeton Landfill
Project No.: NA
Date Received: 04/30/15
Matrix: Air
Reporting Units: % v/v

ASTM D1946

Lab No.:	G043007-01		G043007-02		G043007-03		G043007-04	
Client Sample I.D.:	GEW-42R		GEW-45R		GEW-2		GEW-3	
Date/Time Sampled:	4/29/15 8:45		4/29/15 8:55		4/29/15 9:06		4/29/15 9:17	
Date/Time Analyzed:	5/4/15 11:34		5/4/15 11:49		5/4/15 12:04		5/4/15 12:18	
QC Batch No.:	150504GC8A1		150504GC8A1		150504GC8A1		150504GC8A1	
Analyst Initials:	AS		AS		AS		AS	
Dilution Factor:	3.0		3.0		3.0		3.1	
ANALYTE	Result % v/v	RL % v/v	Result % v/v	RL % v/v	Result % v/v	RL % v/v	Result % v/v	RL % v/v
Hydrogen	ND d	0.030	ND d	0.030	0.046 d	0.030	0.089 d	0.031
Carbon Dioxide	39	0.030	38	0.030	40	0.030	39	0.031
Oxygen/Argon	ND	1.5	ND	1.5	ND	1.5	ND	1.5
Nitrogen	4.6	3.0	ND	3.0	5.4	3.0	11	3.1
Methane	55	0.0030	59	0.0030	53	0.0030	49	0.0031
Carbon Monoxide	ND	0.0030	ND	0.0030	ND	0.0030	ND	0.0031

Results normalized including non-methane hydrocarbons
ND = Not Detected (below RL)
RL = Reporting Limit
d = Reported from a secondary analysis. QC Batch 150504GC8A2

Reviewed/Approved By: _____ **Date** 5/6/15

Mark Johnson
Operations Manager

The cover letter is an integral part of this analytical report

18501 E. Gale Avenue, Suite 130 ♦ City of Industry, CA 91748 ♦ Ph: (626) 964-4032 ♦ Fx: (626) 964-5832

Client: Republic Services
Attn: Jim Getting
Project Name: Bridgeton Landfill
Project No.: NA
Date Received: 04/30/15
Matrix: Air
Reporting Units: % v/v

ASTM D1946

Lab No.:	G043007-05		G043007-06		G043007-07		G043007-08	
Client Sample I.D.:	GEW-4		GEW-46R		GEW-47R		GEW-5	
Date/Time Sampled:	4/29/15 9:31		4/29/15 9:41		4/29/15 9:49		4/29/15 9:59	
Date/Time Analyzed:	5/4/15 12:33		5/4/15 12:47		5/4/15 13:02		5/4/15 13:17	
QC Batch No.:	150504GC8A1		150504GC8A1		150504GC8A1		150504GC8A1	
Analyst Initials:	AS		AS		AS		AS	
Dilution Factor:	3.2		3.0		3.0		3.2	
ANALYTE	Result % v/v	RL % v/v	Result % v/v	RL % v/v	Result % v/v	RL % v/v	Result % v/v	RL % v/v
Hydrogen	0.054 d	0.032	0.11 d	0.030	0.069 d	0.030	0.085 d	0.032
Carbon Dioxide	40	0.032	39	0.030	41	0.030	38	0.032
Oxygen/Argon	ND	1.6	ND	1.5	ND	1.5	ND	1.6
Nitrogen	6.0	3.2	8.1	3.0	3.3	3.0	8.6	3.2
Methane	53	0.0032	52	0.0030	55	0.0030	53	0.0032
Carbon Monoxide	ND	0.0032	ND	0.0030	ND	0.0030	ND	0.0032

Results normalized including non-methane hydrocarbons
ND = Not Detected (below RL)
RL = Reporting Limit
d = Reported from a secondary analysis. QC Batch 150504GC8A2

Reviewed/Approved By: _____ Date 5/6/15
Mark Johnson
Operations Manager

The cover letter is an integral part of this analytical report

AirTECHNOLOGY Laboratories, Inc.
18501 E. Gale Avenue, Suite 130 ♦ City of Industry, CA 91748 ♦ Ph: (626) 964-4032 ♦ Fx: (626) 964-5832

Client: Republic Services
Attn: Jim Getting
Project Name: Bridgeton Landfill
Project No.: NA
Date Received: 04/30/15
Matrix: Air
Reporting Units: % v/v

ASTM D1946

Lab No.:	G043007-09		G043007-10		G043007-11			
Client Sample I.D.:	GEW-48		GEW-49		GEW-53			
Date/Time Sampled:	4/29/15 10:06		4/29/15 10:14		4/29/15 10:24			
Date/Time Analyzed:	5/4/15 13:31		5/4/15 13:46		5/4/15 14:01			
QC Batch No.:	150504GC8A1		150504GC8A1		150504GC8A1			
Analyst Initials:	AS		AS		AS			
Dilution Factor:	3.1		3.0		3.2			
ANALYTE	Result % v/v	RL % v/v	Result % v/v	RL % v/v	Result % v/v	RL % v/v		
Hydrogen	0.031 d	0.031	0.064 d	0.030	7.1	3.2		
Carbon Dioxide	40	0.031	36	0.030	43	0.032		
Oxygen/Argon	ND	1.5	ND	1.5	ND	1.6		
Nitrogen	5.0	3.1	14	3.0	ND	3.2		
Methane	55	0.0031	49	0.0030	48	0.0032		
Carbon Monoxide	ND	0.0031	ND	0.0030	0.0055	0.0032		

Results normalized including non-methane hydrocarbons
ND = Not Detected (below RL)
RL = Reporting Limit
d = Reported from a secondary analysis. QC Batch 150504GC8A2

Reviewed/Approved By: _____ **Date** 5/6/15
Mark Johnson
Operations Manager

The cover letter is an integral part of this analytical report

AirTECHNOLOGY Laboratories, Inc.
18501 E. Gale Avenue, Suite 130 ♦ City of Industry, CA 91748 ♦ Ph: (626) 964-4032 ♦ Fx: (626) 964-5832

QC Batch No.: 150504GC8A1
Matrix: Air
Units: % v/v

QC for ASTM D1946

Lab No.:	Method Blank		LCS		LCSD			
Date/Time Analyzed:	5/4/15 10:30		5/4/15 9:46		5/4/15 10:01			
Analyst Initials:	AS		AS		AS			
Datafile:	04may009		04may006		04may007			
Dilution Factor:	1.0		1.0		1.0			
ANALYTE	**Results**	**RL**	**% Rec.**	**Criteria**	**% Rec.**	**Criteria**	**%RPD**	**Criteria**
Hydrogen	ND	1.0	120	70-130%	105	70-130%	13.4	<30
Carbon Dioxide	ND	0.010	102	70-130%	89	70-130%	13.6	<30
Oxygen/Argon	ND	0.50	102	70-130%	89	70-130%	14.0	<30
Nitrogen	ND	1.0	104	70-130%	90	70-130%	13.9	<30
Methane	ND	0.0010	96	70-130%	95	70-130%	1.0	<30
Carbon Monoxide	ND	0.0010	100	70-130%	99	70-130%	1.4	<30

ND = Not Detected (Below RL)

Reviewed/Approved By: _____ **Date:** 5/6/15

Mark J. Johnson
Operations Manager

The cover letter is an integral part of this analytical report.

QC Batch # 150504GC8A2
Matrix: Air
Units: % v/v

QC for Low Level Hydrogen Analysis

Lab No.:	Blank		LCS		LCSD			
Date Analyzed:	5/4/15 15:51		5/4/15 15:42		5/4/15 15:46			
Analyst Initials:	AS		AS		AS			
Dilution Factor:	1.0		1.0		1.0			
ANALYTE	Results	RL	%Rec	Criteria	%Rec	Criteria	RPD	Criteria
Hydrogen	ND	0.01	98	70-130	98	70-130	0.7	<20

ND = Not Detected (Below RL)

RL = PQL X Dilution Factor

Reviewed/Approved By: _____ **Date:** 5/6/15

Mark Johnson
Operations Manager

The cover letter is an integral part of this analytical report.

ATTACHMENT E

GAS WELLFIELD DATA

ATTACHMENT E-1

GEM DATA TABLE

April 2015 Wellfield Monitoring Data - Bridgeton Landfill

Well Name	Date Sampled	Methane	CO_2	O_2	Balance Gas	Init Temp	Adj Temp	Init Flow	Adj Flow	Init Static Press	Adj Static Press	System Pressure	Baro
		(%)				°F		scfm		"H_2O			"Hg
GEW-002	4/1/2015 10:28	56.1	41.0	0	2.9	119		13	14	-0.3	-0.3	-26.91	
GEW-002	4/10/2015 13:57	56.6	38.5	0	4.9	120		14	14	-0.6	-0.6	-28.47	
GEW-002	4/16/2015 12:33	53.1	41.1	0	5.8	123	123	16	15	-0.9	-1.0	-26.38	29.53
GEW-002	4/16/2015 12:35	52.7	41.5	0	5.8	123	123	14	13	-0.7	-0.7	-26.08	29.53
GEW-002	4/22/2015 9:33	55.8	41.6	0	2.6	117		13	14	-0.5	-0.5	-26.76	
GEW-002	4/29/2015 9:03	55.4	40.3	0	4.3	122		44	44	-1.0	-1.0	-27.22	
GEW-002	4/29/2015 9:12	55.5	40.7	0	3.8	119		34	35	-0.3	-0.3	-26.85	
GEW-003	4/1/2015 10:31	53.6	40.6	0	5.8	124		7	8	-0.1	-0.1	-25.93	
GEW-003	4/10/2015 14:01	54.2	35.5	0	10.3	120		51	53	-3.7	-3.6	-27.73	
GEW-003	4/16/2015 12:38	46.7	40.0	0	13.3	124	124	45	47	-3.0	-3.0	-24.90	29.52
GEW-003	4/16/2015 12:40	48.2	40.0	0	11.8	124	124	27	36	-2.2	-2.2	-25.21	29.52
GEW-003	4/22/2015 9:38	47.5	38.3	0	14.2	119		0	5	-2.1	-2.1	-26.70	
GEW-003	4/22/2015 9:41	47.3	39.0	0	13.7	118		18	22	-1.7	-1.7	-26.51	
GEW-003	4/29/2015 9:15	50.1	38.7	0	11.2	125		17	21	-0.7	-0.7	-26.97	
GEW-003	4/29/2015 9:21	50.1	39.6	0	10.3	125		17	17	-0.6	-0.6	-27.28	
GEW-004	4/1/2015 10:34	54.9	41.1	0	4.0	99		0	0	0.1	0.1	-24.59	
GEW-004	4/1/2015 10:35	55.1	41.3	0	3.6	105		37	36	0.0	0.0	-25.87	
GEW-004	4/10/2015 14:04	52.8	37.6	0	9.6	112		7	5	-1.3	-1.3	-28.47	
GEW-004	4/16/2015 12:42	46.5	39.9	0	13.6	117	117	25	24	-0.8	-0.8	-26.16	29.51
GEW-004	4/16/2015 12:44	47.1	39.6	0	13.3	117	117			-0.6	-0.6	-26.37	29.51
GEW-004	4/22/2015 9:46	49.4	40.7	0	9.9	71		33	33	-1.0	-1.0	-26.82	
GEW-004	4/22/2015 9:48	49.5	40.9	0	9.6	68		0	0	-0.9	-0.9	-26.82	
GEW-004	4/29/2015 9:28	53.0	39.9	0.5	6.6	77		4	4	0	0	-27.58	
GEW-004	4/29/2015 9:35	54.9	40.5	0	4.6	77		10	10	0.0	0.0	-27.34	
GEW-005	4/1/2015 14:48	55.4	38.6	0	6.0	90		14	10	0.5	0.5	-24.89	
GEW-005	4/1/2015 14:49	56.0	39.2	0	4.8	95		19	15	0.4	0.4	-25.32	
GEW-005	4/10/2015 14:17	45.1	35.1	0	19.8	91		9	8	-0.6	-0.6	-30.05	
GEW-005	4/16/2015 12:55	40.0	35.4	0	24.6	92	92	15	15	-0.1	-0.1	-25.92	29.50
GEW-005	4/22/2015 10:04	38.2	35.6	0	26.2	90		12	14	-0.7	-0.7	-27.18	
GEW-005	4/22/2015 10:06	38.6	34.9	0	26.5	87		10	10	-0.7	-0.7	-26.94	
GEW-005	4/29/2015 9:57	52.8	38.9	0	8.3	91		10	10	0.1	0.1	-27.77	
GEW-005	4/29/2015 10:02	53.4	37.9	0	8.7	92		25	24	0.1	0.1	-27.34	
GEW-006	4/1/2015 14:56	56.7	39.7	0	3.6	89		13	12	0.5	0.6	-25.87	
GEW-006	4/1/2015 14:57	57.1	39.7	0	3.2	90		16	20	0.4	0.4	-25.26	
GEW-006	4/10/2015 14:23	53.1	36.6	0	10.3	85		19	19	-0.6	-0.6	-28.89	
GEW-006	4/16/2015 13:01	55.4	40.2	0	4.4	88	88	20	26	0	-0.1	-26.02	29.51
GEW-006	4/22/2015 10:31	49.6	37.5	0	12.9	87		19	18	-0.8	-0.8	-26.45	
GEW-006	4/22/2015 10:33	49.5	38.2	0	12.3	86		13	11	-0.6	-0.6	-26.82	
GEW-006	4/29/2015 12:05	55.4	38.6	0	6.0	90		10	10	0.2	0.2	-25.96	
GEW-006	4/29/2015 12:07	55.4	38.5	0	6.1	91		16	15	0.1	0.1	-27.49	

April 2015 Wellfield Monitoring Data - Bridgeton Landfill

Well Name	Date Sampled	Methane	CO_2	O_2	Balance Gas	Init Temp	Adj Temp	Init Flow	Adj Flow	Init Static Press	Adj Static Press	System Pressure	Baro
		(%)				°F		scfm		"H_2O			"Hg
GEW-007	4/1/2015 15:07	56.3	40.3	0	3.4	95		37	36	0.3	0.4	-24.89	
GEW-007	4/1/2015 15:08	56.4	41.6	0	2.0	95		34	34	-0.2	-0.1	-25.14	
GEW-007	4/10/2015 14:23	56.5	39.9	0	3.6	97		7	7	-2.1	-2.1	-28.69	
GEW-007	4/10/2015 14:24	56.2	41.6	0	2.2	97		6		-2.1		-28.87	
GEW-007	4/16/2015 13:12	57.0	42.9	0	0.1	99	99	8	7	-1.2	-1.2	-25.67	29.54
GEW-007	4/22/2015 11:01	56.5	42.4	0	1.1	95		3	5	-2.4	-2.4	-26.15	
GEW-007	4/29/2015 12:42	56.5	38.8	0	4.7	99		12	12	-1.2	-1.2	-26.45	
GEW-007	4/29/2015 12:44	56.2	38.9	0	4.9	99		11	10	-1.0	-1.0	-28.04	
GEW-008	4/1/2015 15:32	50.4	42.7	0	6.9	116		16	13	0.1	0.1	-24.95	
GEW-008	4/1/2015 15:32	50.4	43.6	0	6.0	117		17	20	0.0	0.0	-25.02	
GEW-008	4/10/2015 11:36	53.6	38.3	0	8.1	116		17	16	-0.7	-0.7	-27.31	
GEW-008	4/10/2015 11:40	53.2	39.2	0	7.6	116		19	19	-0.8	-0.7	-28.16	
GEW-008	4/16/2015 13:15	52.6	45.6	0	1.8	118	118	15	15	-0.3	-0.3	-25.51	29.53
GEW-008	4/22/2015 13:33	52.0	43.6	0	4.4	116		19	19	-0.6	-0.6	-26.88	
GEW-008	4/29/2015 12:24	50.4	41.3	0	8.3	117		17	17	-0.3	-0.3	-27.43	
GEW-008	4/29/2015 12:26	50.2	42.1	0	7.7	117		17	15	-0.2	-0.2	-25.29	
GEW-009	4/1/2015 15:37	51.3	40.6	0	8.1	123		12	15	-0.1	-0.1	-24.95	
GEW-009	4/10/2015 11:49	50.7	40.5	0	8.8	121		12	12	-0.3	-0.3	-26.39	
GEW-009	4/10/2015 11:53	51.6	39.6	0	8.8	121		38	37	-0.3	-0.3	-27.24	
GEW-009	4/16/2015 13:43	52.3	43.5	0	4.2	126	126	28	28	0	0	-25.01	29.55
GEW-009	4/16/2015 13:44	51.9	43.5	0	4.6	126	126	29	28	0	0	-25.20	29.55
GEW-009	4/22/2015 13:38	51.2	41.3	0	7.5	121		8	9	-0.3	-0.3	-25.78	
GEW-009	4/29/2015 12:30	52.2	41.8	0	6.0	123		9	8	0.0	0	-21.20	
GEW-009	4/29/2015 12:31	52.1	41.5	0	6.4	124		12	12	0.0	0.0	-19.36	
GEW-010	4/1/2015 15:40	42.8	40.7	2.4	14.1	103				-15.9	-15.9	-25.26	
GEW-010	4/1/2015 15:40	41.6	44.1	1.5	12.8	103				-13.1	-13.0	-24.83	
GEW-010	4/10/2015 9:49	53.9	41.4	1.0	3.7	63				-2.5	-2.5	-25.41	
GEW-010	4/10/2015 9:53	54.0	35.8	1.3	8.9	63				-2.4	-2.5	-27.61	
GEW-010	4/16/2015 13:51	57.8	40.6	0	1.6	97	97			3.8	3.8	-25.33	29.55
GEW-010	4/16/2015 13:52	57.7	40.5	0	1.8	100	100	244	247	-13.4	-13.8	-25.20	29.55
GEW-010	4/22/2015 13:45	38.3	38.5	1.5	21.7	96				-25.7	-25.4	-26.02	
GEW-010	4/22/2015 13:48	38.1	38.7	1.8	21.4	96				-25.3	-25.2	-25.90	
GEW-010	4/28/2015 15:33	40.7	43.0	0.2	16.1	105				-20.2	-20.0	-21.53	
GEW-011	4/20/2015 13:50	2.7	63.2	0.1	34.0	189				-3.7	-3.7	-25.08	
GEW-011	4/20/2015 13:52	2.7	62.0	0	35.3	190				-3.7	-3.7	-25.26	
GEW-011	4/21/2015 14:41	2.7	60.3	0	37.0	190				-3.3	-3.2	-25.78	
GEW-011	4/21/2015 14:43	2.7	59.5	0	37.8	190				-5.4	-5.4	-25.05	
GEW-014A	4/20/2015 14:35	0.3	48.4	5.0	46.3	83				-22.9	-23.0	-22.87	

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Well Name	Date Sampled	Methane	CO_2	O_2	Balance Gas	Init Temp	Adj Temp	Init Flow	Adj Flow	Init Static Press	Adj Static Press	System Pressure	Baro
		(%)				°F		scfm		"H_2O			"Hg
GEW-016R	4/20/2015 14:39	0.5	57.6	0.1	41.8	196				-9.8	-8.9	-22.02	
GEW-016R	4/20/2015 14:40	0.8	59.5	0	39.7	196				-7.1	-7.5	-14.86	
GEW-016R	4/21/2015 15:01	0.8	59.2	0	40.0	196				-9.2	-9.2	-21.62	
GEW-016R	4/21/2015 15:02	1.0	57.7	0	41.3	196				-13.7	-13.7	-20.59	
GEW-018R	4/20/2015 10:05	0.1	27.2	13.9	58.8	178				-20.7	-21.5	-20.86	
GEW-018R	4/20/2015 10:09	0.1	26.7	13.7	59.5	179				-18.5	-19.1	-17.43	
GEW-020A	4/20/2015 10:23	0	6.6	20.5	72.9	63				-5.4	-5.9	-5.57	
GEW-020A	4/20/2015 10:24	0	6.6	19.8	73.6	64				-6.4	-6.4	-6.48	
GEW-021A	4/20/2015 10:33	0.5	58.5	2.6	38.4	88				-6.4	-6.4	-6.30	
GEW-022R	4/20/2015 10:36	2.8	65.4	0	31.8	191				-1.7	-1.9	-6.79	
GEW-022R	4/20/2015 10:37	3.0	65.3	0	31.7	191				-1.3	-1.8	-6.48	
GEW-022R	4/21/2015 13:51	3.0	62.7	0	34.3	192				-6.8	-6.8	-6.84	
GEW-022R	4/21/2015 13:52	2.2	62.1	0	35.7	192				-7.3	-7.3	-7.33	
GEW-023A	4/20/2015 10:42	0.2	68.8	0	31.0	165				-4.0	-4.0	-5.32	
GEW-023A	4/20/2015 10:42	0.2	67.1	0	32.7	165				-5.7	-4.0	-7.65	
GEW-025A	4/20/2015 10:48	0.2	59.3	0	40.5	189				-0.4	-0.8	-8.26	
GEW-025A	4/20/2015 10:49	0.2	65.4	0	34.4	190				0.0	0.0	-8.50	
GEW-025A	4/21/2015 14:07	0.3	64.9	0	34.8	190				-1.7	-1.3	-6.90	
GEW-025A	4/21/2015 14:08	0.2	65.4	0	34.4	190				-2.3	-2.3	-8.00	
GEW-026R	4/20/2015 10:53	0.8	63.8	2.8	32.6	150				-8.3	-8.4	-8.56	
GEW-026R	4/20/2015 10:55	0.8	65.7	2.1	31.4	151				-8.3	-7.9	-8.56	
GEW-027A	4/20/2015 11:05	0.6	59.0	1.4	39.0	178				-6.0	-6.4	-10.34	
GEW-027A	4/20/2015 11:06	0.6	57.3	1.2	40.9	177				-5.2	-4.4	-10.64	
GEW-028R	4/20/2015 11:11	2.3	57.2	0	40.5	184				-10.8	-9.9	-11.31	
GEW-028R	4/20/2015 11:12	2.5	62.4	0	35.1	184				-10.6	-10.5	-11.38	
GEW-029	4/20/2015 11:21	0.3	58.8	0	40.9	193				-3.1	-2.1	-11.38	
GEW-029	4/20/2015 11:22	0.3	59.6	0	40.1	193				-3.3	-4.2	-11.01	
GEW-029	4/21/2015 14:14	0.1	59.7	0	40.2	193				-1.3	-1.2	-9.77	
GEW-029	4/21/2015 14:16	0.2	57.9	0	41.9	193				-3.5	-3.4	-10.38	
GEW-034	4/20/2015 13:15	13.5	58.6	0.8	27.1	80				-4.4	-4.4	-19.02	
GEW-035	4/17/2015 15:18	5.0	50.3	2.6	42.1	131				-4.3	-4.3	-3.97	
GEW-035	4/17/2015 15:19	5.1	53.0	1.6	40.3	133				-4.6	-4.8	-4.52	
GEW-037	4/17/2015 15:28	1.0	30.4	15.9	52.7	87				-23.1	-23.4	-23.21	
GEW-037	4/17/2015 15:29	2.1	8.8	18.1	71.0	90				-23.9	-23.8	-24.13	

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Well Name	Date Sampled	Methane	CO_2	O_2	Balance Gas	Init Temp	Adj Temp	Init Flow	Adj Flow	Init Static Press	Adj Static Press	System Pressure	Baro
		(%)				°F		scfm		"H_2O			"Hg
GEW-038	4/1/2015 15:48	2.4	44.2	4.8	48.6	165				-10.7	-10.7	-12.72	
GEW-038	4/1/2015 15:49	0.3	48.9	4.4	46.4	166				-10.1	-9.7	-13.09	
GEW-038	4/10/2015 14:46	1.6	39.8	6.6	52.0	147				-19.5	-19.5	-19.63	
GEW-038	4/10/2015 14:49	0.2	49.4	5.2	45.2	150				-18.5	-18.6	-18.53	
GEW-038	4/15/2015 13:47	0.2	47.6	4.9	47.3	145				-14.6	-15.0	-14.68	
GEW-038	4/15/2015 13:51	0.1	45.5	5.3	49.1	145				-15.6	-15.6	-15.11	
GEW-038	4/22/2015 14:05	0.6	51.6	2.9	44.9	128				-14.1	-14.2	-14.17	
GEW-038	4/28/2015 15:11	0.2	51.1	5.5	43.2	149				-20.3	-20.0	-20.98	
GEW-038	4/28/2015 15:14	0.2	52.1	4.9	42.8	149				-19.8	-20.0	-20.80	
GEW-039	4/1/2015 15:53	32.3	59.4	0	8.3	137				-0.1	-0.1	-22.87	
GEW-039	4/1/2015 15:53	32.6	57.7	0.1	9.6	136				-0.1	-0.1	-23.36	
GEW-039	4/10/2015 14:53	33.5	57.3	0	9.2	136				-0.5	-0.5	-27.34	
GEW-039	4/10/2015 14:54	34.5	57.1	0	8.4	136				-0.3	-0.3	-29.36	
GEW-039	4/15/2015 14:00	33.0	56.9	0	10.1	136				0.0	0.0	-23.36	
GEW-039	4/15/2015 14:05	34.6	53.4	0.1	11.9	136				-0.1	0.0	-24.04	
GEW-039	4/22/2015 14:14	35.5	60.3	0	4.2	134				-0.1	-0.2	-23.52	
GEW-039	4/22/2015 14:15	36.8	56.6	0	6.6	133				-0.1	-0.2	-23.95	
GEW-039	4/28/2015 15:17	36.3	60.6	0	3.1	135				0.0	0.0	-24.59	
GEW-039	4/28/2015 15:18	36.5	60.0	0	3.5	135				0.0		-23.73	
GEW-040	4/1/2015 10:02	56.5	42.2	0.1	1.2	89		17	15	-0.1	-0.1	-26.79	
GEW-040	4/10/2015 11:29	55.1	43.8	0	1.1	89		10	11	-0.1	0.0	-27.89	
GEW-040	4/10/2015 11:33	55.5	42.2	0	2.3	89		36	36	-0.1	-0.1	-29.11	
GEW-040	4/16/2015 12:10	56.2	43.7	0	0.1	92	92	16	15	-0.1	-0.1	-26.45	29.53
GEW-040	4/22/2015 8:45	55.8	44.2	0	0	87		34	34	-0.2	-0.3	-26.51	
GEW-040	4/29/2015 11:00	55.8	41.9	0	2.3	93		12	12	-0.2	-0.2	-28.47	
GEW-041R	4/1/2015 10:05	56.2	40.5	0	3.3	105		13	13	-0.3	-0.3	-26.36	
GEW-041R	4/10/2015 13:34	58.2	38.8	0	3.0	103		34	34	-0.3	-0.3	-27.09	
GEW-041R	4/16/2015 12:12	57.8	42.1	0	0.1	102	102	31	31	0	0	-25.39	29.53
GEW-041R	4/16/2015 12:14	58.0	41.9	0	0.1	106	106	19	16	-0.1	-0.1	-24.65	29.53
GEW-041R	4/22/2015 8:51	56.5	41.2	0	2.3	105		17	15	-0.6	-0.6	-26.70	
GEW-041R	4/29/2015 11:05	56.0	40.0	0	4.0	108		18	18	-0.3	-0.3	-26.57	
GEW-041R	4/29/2015 11:07	55.9	39.8	0	4.3	108		15	18	-0.3	-0.3	-26.70	
GEW-042R	4/1/2015 10:08	55.8	39.5	0	4.7	76		9	9	-0.1	-0.2	-24.89	
GEW-042R	4/10/2015 13:37	56.6	38.0	0	5.4	76		13	14	-0.2	-0.2	-25.20	
GEW-042R	4/16/2015 12:16	57.8	42.1	0	0.1	77	77	16	17	0.1	0.1	-23.16	29.53
GEW-042R	4/16/2015 12:19	57.8	42.1	0	0.1	80	80	17	17	-0.1	-0.1	-23.16	29.53
GEW-042R	4/22/2015 8:54	56.3	40.8	0	2.9	84		7	6	-0.6	-0.6	-24.43	
GEW-042R	4/29/2015 8:43	56.5	39.8	0	3.7	91		9	8	-0.4	-0.4	-25.14	
GEW-042R	4/29/2015 8:49	56.6	39.6	0	3.8	91		19	20	-0.4	-0.4	-25.50	

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Well Name	Date Sampled	Methane	CO_2	O_2	Balance Gas	Init Temp	Adj Temp	Init Flow	Adj Flow	Init Static Press	Adj Static Press	System Pressure	Baro
		(%)				°F		scfm		"H_2O			"Hg
GEW-043R	4/1/2015 10:11	55.5	41.9	0	2.6	134		39	39	-0.3	-0.3	-23.00	
GEW-043R	4/1/2015 10:12	54.7	43.0	0	2.3	135		32	30	-0.1	-0.1	-23.00	
GEW-043R	4/10/2015 13:40	53.0	41.4	0	5.6	131		52	54	-3.2	-3.2	-27.89	
GEW-043R	4/10/2015 13:41	53.5	41.5	0	5.0	131		36	34	-2.3	-2.3	-29.85	
GEW-043R	4/16/2015 12:22	55.6	42.8	0	1.6	129	129	26	25	-1.2	-1.2	-25.58	29.52
GEW-043R	4/22/2015 8:57	54.6	40.5	0	4.9	131		59	60	-2.6	-2.6	-26.27	
GEW-043R	4/22/2015 9:00	54.1	42.1	0	3.8	131		45	45	-2.2	-2.3	-26.08	
GEW-043R	4/30/2015 8:24	56.2	42.4	0	1.4	132				-0.6		-26.82	
GEW-044	4/1/2015 10:15	53.7	38.0	0	8.3	93		0	0	-0.5	-0.5	-25.38	
GEW-044	4/10/2015 13:44	42.2	34.7	0	23.1	92		3	4	-1.0	-1.0	-26.24	
GEW-044	4/16/2015 12:25	47.2	37.4	0	15.4	98	98	5	5	-0.6	-0.6	-22.92	29.52
GEW-044	4/22/2015 9:06	42.2	35.5	0	22.3	92		7	7	-1.2	-1.3	-25.84	
GEW-044	4/29/2015 11:18	49.0	34.6	0	16.4	99		10	9	-0.7	-0.7	-24.98	
GEW-044	4/29/2015 11:20	48.6	34.8	0	16.6	98		8	7	-0.3	-0.3	-24.50	
GEW-045R	4/1/2015 10:18	59.4	38.1	0	2.5	73		12	10	-0.4	-0.3	-26.42	
GEW-045R	4/10/2015 13:54	56.7	39.9	0	3.4	78		8	9	-0.6	-0.6	-27.89	
GEW-045R	4/16/2015 12:28	59.2	40.7	0	0.1	87	87	2	2	-0.1	-0.1	-26.15	29.53
GEW-045R	4/22/2015 9:11	58.3	40.2	0	1.5	66		0	0	-0.6	-0.6	-26.76	
GEW-045R	4/29/2015 8:54	59.3	38.9	0	1.8	80		8	8	-0.2	-0.2	-27.52	
GEW-045R	4/29/2015 8:59	60.2	38.1	0	1.7	83		9	9	-0.3	-0.2	-27.52	
GEW-046R	4/1/2015 10:21	55.9	38.7	0	5.4	80		13	12	-0.1	0.0	-26.36	
GEW-046R	4/10/2015 13:56	53.3	38.9	0	7.8	77		11	9	-0.5	-0.4	-28.32	
GEW-046R	4/10/2015 13:59	53.5	39.0	0	7.5	80		9	9	-0.5	-0.6	-27.34	
GEW-046R	4/16/2015 12:31	51.5	39.2	0	9.3	84	84	10	10	-0.3	-0.3	-25.73	29.53
GEW-046R	4/22/2015 9:15	51.5	38.9	0	9.6	80		10	9	-0.4	-0.4	-26.82	
GEW-046R	4/29/2015 9:39	52.7	39.0	0	8.3	88		9	8	-0.1	-0.1	-28.01	
GEW-046R	4/29/2015 9:44	53.0	39.0	0	8.0	89		9	9	-0.1	-0.1	-27.46	
GEW-047R	4/1/2015 14:28	54.4	41.4	0	4.2	107		0	0	0.4	0.4	-25.93	
GEW-047R	4/1/2015 14:29	54.9	41.2	0	3.9	113		39	39	0.4	0.4	-25.38	
GEW-047R	4/10/2015 14:14	46.9	37.3	0.2	15.6	112		19	21	-0.9	-0.9	-29.26	
GEW-047R	4/16/2015 12:50	43.0	37.7	0	19.3	115	115	19	19	-0.4	-0.4	-25.46	29.51
GEW-047R	4/16/2015 12:52	43.9	37.9	0.1	18.1	114	114	17	16	-0.3	-0.3	-25.88	29.51
GEW-047R	4/22/2015 9:59	38.8	36.6	0.3	24.3	110		40	40	-0.9	-0.9	-27.00	
GEW-047R	4/22/2015 10:01	38.9	36.6	0.3	24.2	104		4	0	-0.6	-0.6	-27.24	
GEW-047R	4/29/2015 9:47	55.0	41.2	0	3.8	100		7	7	0.1	0.1	-27.34	
GEW-047R	4/29/2015 9:53	55.0	41.6	0	3.4	100		35	36	0.1	0.1	-28.26	

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Well Name	Date Sampled	Methane	CO_2	O_2	Balance Gas	Init Temp	Adj Temp	Init Flow	Adj Flow	Init Static Press	Adj Static Press	System Pressure	Baro
		(%)				°F		scfm		"H_2O			"Hg
GEW-048	4/1/2015 14:52	56.6	39.8	0	3.6	105		0	0	0.5	0.5	-21.53	
GEW-048	4/1/2015 14:53	56.0	40.6	0	3.4	105		0	0	0.4	0.4	-22.08	
GEW-048	4/10/2015 14:20	56.1	37.5	0	6.4	104		38	40	-0.8	-0.8	-28.04	
GEW-048	4/16/2015 12:58	56.8	41.8	0	1.4	107	107	33	31	-0.1	-0.1	-25.02	29.50
GEW-048	4/22/2015 10:10	54.8	40.5	0	4.7	104		37	38	-0.8	-0.8	-21.81	
GEW-048	4/29/2015 10:05	54.9	39.5	0	5.6	106		16	22	-0.2	-0.2	-26.61	
GEW-048	4/29/2015 10:09	55.5	38.9	0	5.6	106		20	16	-0.2	-0.2	-26.54	
GEW-049	4/1/2015 15:12	55.9	40.6	0	3.5	85		0	0	0.5	0.6	-23.00	
GEW-049	4/1/2015 15:13	55.4	41.3	0	3.3	100		0	0	0.4	0.4	-24.04	
GEW-049	4/10/2015 14:15	40.8	35.2	0.6	23.4	107		18	18	-0.5	-0.5	-27.16	
GEW-049	4/10/2015 14:16	40.9	34.0	0.6	24.5	106		23	19	-0.5	-0.5	-28.32	
GEW-049	4/16/2015 13:20	48.5	38.5	0	13.0	109	109	4	4	0	0	-25.27	29.50
GEW-049	4/16/2015 13:22	49.5	37.5	0	13.0	110	110	29		-0.1	-0.3	-25.10	29.50
GEW-049	4/22/2015 11:27	39.4	33.0	0.3	27.3	105		14	11	-0.6	-0.6	-26.94	
GEW-049	4/22/2015 11:29	39.5	33.1	0.2	27.2	104		11	13	-0.5	-0.5	-27.31	
GEW-049	4/29/2015 10:12	48.7	37.0	0	14.3	109		11	10	-0.2	-0.2	-27.16	
GEW-049	4/29/2015 10:17	49.2	36.7	0	14.1	108		0	0	-0.2	-0.2	-24.95	
GEW-050	4/1/2015 15:01	57.0	39.8	0	3.2	107		11	11	0.5	0.5	-17.55	
GEW-050	4/1/2015 15:01	56.3	40.6	0	3.1	108		15	10	0.4	0.4	-20.12	
GEW-050	4/10/2015 14:28	53.8	39.6	0	6.6	108		13	17	-0.5	-0.5	-22.02	
GEW-050	4/10/2015 14:29	54.1	40.2	0	5.7	106		11	12	-0.3	-0.3	-25.93	
GEW-050	4/16/2015 13:03	58.3	40.9	0	0.8	107	107	12	13	0.1	0.2	-20.77	29.51
GEW-050	4/16/2015 13:04	57.1	41.9	0	1.0	107	107	16	15	0.1	0	-19.95	29.51
GEW-050	4/22/2015 10:38	53.2	40.1	0	6.7	106		17	14	-0.7	-0.7	-22.97	
GEW-050	4/29/2015 12:10	55.8	38.3	0	5.9	109		10	13	0.1	0.1	-22.05	
GEW-050	4/29/2015 12:12	55.5	39.0	0	5.5	109		20	17	0	0	-18.51	
GEW-051	4/1/2015 15:15	53.9	40.8	0	5.3	118		10	10	0.8	0.8	-25.02	
GEW-051	4/1/2015 15:16	52.8	42.3	0	4.9	121		13	19	0.6	0.6	-24.95	
GEW-051	4/10/2015 14:12	54.1	41.9	0	4.0	122		7	11	-0.6	-0.7	-26.79	
GEW-051	4/10/2015 14:13	54.3	42.1	0	3.6	120		10	10	-0.6	-0.6	-29.17	
GEW-051	4/16/2015 13:24	55.6	42.5	0	1.9	123	123	12	12	0.1	0.1	-25.17	29.50
GEW-051	4/16/2015 13:26	55.8	42.0	0	2.2	123	123	12	16	0	0	-25.31	29.50
GEW-051	4/22/2015 11:33	55.7	41.2	0	3.1	122		14	8	-1.0	-1.0	-26.21	
GEW-051	4/29/2015 11:41	54.4	39.5	0	6.1	124		8	14	-0.1	-0.1	-26.33	

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Well Name	Date Sampled	Methane	CO_2	O_2	Balance Gas	Init Temp	Adj Temp	Init Flow	Adj Flow	Init Static Press	Adj Static Press	System Pressure	Baro
		(%)				°F		scfm		"H_2O			"Hg
GEW-052	4/1/2015 15:04	55.2	40.1	0	4.7	114		0	0	0.3	0.3	-24.89	
GEW-052	4/1/2015 15:05	55.6	40.3	0	4.1	114		0	0	0.2	0.2	-24.71	
GEW-052	4/10/2015 14:20	51.5	37.6	0	10.9	111		17	17	-0.3	-0.3	-27.89	
GEW-052	4/10/2015 14:21	51.4	38.3	0	10.3	110		11	12	-0.2	-0.2	-28.20	
GEW-052	4/16/2015 13:07	53.7	41.0	0	5.3	115	115	31	31	0	0	-25.73	29.51
GEW-052	4/16/2015 13:08	54.1	40.1	0	5.8	117	117	38		-0.1	0	-25.77	29.51
GEW-052	4/22/2015 10:43	48.1	37.5	0	14.4	110		15	14	-0.5	-0.5	-26.57	
GEW-052	4/22/2015 10:44	48.1	37.8	0	14.1	110		7	0	-0.4	-0.5	-26.63	
GEW-052	4/29/2015 12:17	51.1	37.0	0	11.9	113		30	30	0.0	0.0	-27.06	
GEW-052	4/29/2015 12:18	50.7	37.5	0	11.8	113		32	31	0.0	0.0	-25.90	
GEW-053	4/1/2015 15:19	51.0	41.2	0	7.8	137		15	15	0.3	0.3	-24.89	
GEW-053	4/1/2015 15:19	50.3	42.3	0	7.4	138		18	17	0.2	0.2	-25.32	
GEW-053	4/10/2015 14:08	50.0	43.6	0	6.4	138		17	19	-0.9	-0.9	-28.32	
GEW-053	4/10/2015 14:09	49.9	43.7	0	6.4	137		20	13	-0.9	-0.9	-28.44	
GEW-053	4/16/2015 13:30	52.5	41.9	0	5.6	138	138	15	17	-0.1	-0.1	-25.33	29.51
GEW-053	4/16/2015 13:32	50.2	44.4	0	5.4	138	138	15	16	-0.1	-0.1	-25.47	29.51
GEW-053	4/22/2015 11:42	51.8	42.3	0	5.9	137		17	13	-1.0	-1.0	-26.57	
GEW-053	4/22/2015 11:44	50.5	43.5	0	6.0	132		12	10	-0.7	-0.7	-26.57	
GEW-053	4/29/2015 10:22	48.6	43.6	0	7.8	137		11	10	-0.1	-0.1	-27.46	
GEW-053	4/29/2015 10:27	48.7	42.4	0	8.9	136		12	9	-0.1	0.0	-27.22	
GEW-054	4/1/2015 15:24	51.9	41.9	0	6.2	140		18	15	-0.2	-0.2	-25.81	
GEW-054	4/1/2015 15:24	51.4	42.3	0	6.3	140		24	27	-0.2	-0.2	-26.48	
GEW-054	4/10/2015 14:02	52.8	41.3	0	5.9	139		22	25	-1.0	-1.0	-27.83	
GEW-054	4/10/2015 14:03	52.4	43.2	0	4.4	139		19	17	-0.9	-0.8	-29.54	
GEW-054	4/16/2015 13:35	53.3	43.1	0	3.6	145	145	19	21	0	0	-25.33	29.52
GEW-054	4/16/2015 13:37	53.0	42.9	0	4.1	145	145	20	21	-0.1	-0.1	-24.81	29.52
GEW-054	4/22/2015 11:48	51.8	43.6	0	4.6	145		21	20	-0.8	-0.8	-23.40	
GEW-054	4/22/2015 11:49	51.7	43.8	0	4.5	144		27	28	-0.5	-0.6	-26.21	
GEW-054	4/24/2015 8:09	51.9	44.3	0	3.8	147		32	30	-0.3	-0.3	-26.57	
GEW-054	4/24/2015 8:16	52.2	42.6	0	5.2	145		18	17	-0.4	-0.3	-26.15	
GEW-054	4/29/2015 11:51	52.5	41.1	0	6.4	143		0	0	0.7	0.7	-4.15	
GEW-054	4/29/2015 11:53	52.1	41.1	0	6.8	147		0	0	0.3	0.3	-9.22	
GEW-054	4/30/2015 8:09	52.9	42.6	0	4.5	140				-1.6		-27.49	
GEW-054	4/30/2015 8:12	52.8	42.6	0	4.6	139				-0.9		-28.96	

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Well Name	Date Sampled	Methane	CO_2	O_2	Balance Gas	Init Temp	Adj Temp	Init Flow	Adj Flow	Init Static Press	Adj Static Press	System Pressure	Baro
		(%)				°F		scfm		"H_2O			"Hg
GEW-055	4/1/2015 15:28	51.8	41.9	0	6.3	123		30	30	0.3	0.3	-25.32	
GEW-055	4/1/2015 15:29	51.5	43.0	0	5.5	125		14	10	0.1	0.1	-25.69	
GEW-055	4/10/2015 11:36	52.9	42.8	0	4.3	123		11	9	-0.7	-0.7	-28.87	
GEW-055	4/10/2015 11:41	53.6	41.8	0	4.6	120		0	0	-0.4	-0.5	-26.73	
GEW-055	4/16/2015 13:39	53.0	43.8	0	3.2	121	121	10	6	0.2	0.2	-25.94	29.52
GEW-055	4/16/2015 13:40	53.4	43.3	0	3.3	123	123	15	15	0	-0.1	-25.89	29.52
GEW-055	4/22/2015 11:53	53.1	43.6	0	3.3	125		12	13	-0.9	-0.9	-26.63	
GEW-055	4/29/2015 11:56	52.5	40.6	0	6.9	124		25	25	-0.3	-0.3	-23.40	
GEW-056R	4/1/2015 15:45	15.7	48.2	0.5	35.6	161				-5.3	-5.4	-22.94	
GEW-056R	4/1/2015 15:45	16.6	45.4	0.6	37.4	161				-5.4	-5.4	-21.53	
GEW-056R	4/10/2015 9:48	16.2	45.4	0.4	38.0	160				-6.4	-6.4	-26.97	
GEW-056R	4/10/2015 9:52	16.4	41.5	0.5	41.6	160				-5.9	-6.0	-23.55	
GEW-056R	4/16/2015 13:57	18.4	51.8	0	29.8	166	166	105	105	-3.4	-3.4	-21.83	29.54
GEW-056R	4/16/2015 13:58	18.7	50.4	0	30.9	166	166	104	106	-3.4	-3.4	-22.05	29.54
GEW-056R	4/22/2015 13:59	16.5	43.9	0.2	39.4	161				-4.1	-4.1	-20.28	
GEW-056R	4/22/2015 14:00	16.4	44.7	0.1	38.8	161				-3.7	-3.8	-22.05	
GEW-056R	4/28/2015 15:27	14.7	51.3	0	34.0	165				-2.6	-2.6	-20.61	
GEW-056R	4/28/2015 15:29	14.8	51.5	0	33.7	164				-1.9	-1.9	-21.10	
GEW-057B	4/17/2015 10:46	0.6	58.7	0.1	40.6	187				-18.4	-18.4	-20.24	
GEW-057B	4/17/2015 10:47	0.5	59.8	0	39.7	188				-19.2	-19.2	-20.55	
GEW-057R	4/17/2015 9:59	2.8	39.0	1.1	57.1	190				-19.7	-19.8	-20.06	
GEW-057R	4/17/2015 10:03	0.9	52.6	0.7	45.8	190				-19.7	-19.2	-20.49	
GEW-058	4/17/2015 9:39	0.5	58.4	0.1	41.0	194				-4.9	-4.3	-22.51	
GEW-058	4/17/2015 9:41	0.6	59.7	0	39.7	194				-4.6	-4.6	-21.65	
GEW-058	4/21/2015 14:53	0.9	53.7	0.1	45.3	193				-5.1	-4.7	-20.95	
GEW-058	4/21/2015 14:54	0.9	56.7	0.1	42.3	193				-14.9	-14.7	-23.46	
GEW-058A	4/17/2015 9:32	0.4	48.6	2.1	48.9	191				-5.1	-5.1	-22.08	
GEW-058A	4/17/2015 9:37	0.7	59.0	1.9	38.4	192				-3.8	-3.8	-22.45	
GEW-059R	4/17/2015 9:26	2.0	55.0	0.4	42.6	184				-23.2	-23.1	-23.49	
GEW-059R	4/17/2015 9:27	1.8	57.2	0.3	40.7	184				-23.4	-23.1	-23.43	
GEW-061B	4/17/2015 11:02	0	0.5	21.2	78.3	88				-21.3	-21.3	-21.16	
GEW-065A	4/17/2015 14:40	1.1	63.0	0.2	35.7	196				-3.4	-3.4	-13.88	
GEW-065A	4/17/2015 14:40	0.9	62.0	0.3	36.8	196				-2.9	-3.5	-13.76	
GEW-065A	4/21/2015 15:19	1.0	56.5	0	42.5	195				-10.8	-10.2	-18.63	
GEW-065A	4/21/2015 15:21	0.6	58.8	0	40.6	195				-13.7	-13.1	-18.63	
GEW-066	4/17/2015 14:31	1.8	55.6	0	42.6	197				-7.9	-8.9	-20.80	
GEW-066	4/17/2015 14:32	1.6	53.5	0	44.9	197				-8.2	-8.8	-21.28	
GEW-066	4/21/2015 15:12	1.0	50.2	0	48.8	195				-14.7	-14.6	-22.97	
GEW-066	4/21/2015 15:13	1.4	51.9	0	46.7	195				-18.2	-18.5	-22.54	

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Well Name	Date Sampled	Methane	CO_2	O_2	Balance Gas	Init Temp	Adj Temp	Init Flow	Adj Flow	Init Static Press	Adj Static Press	System Pressure	Baro
		(%)				°F		scfm		"H_2O			"Hg
GEW-067A	4/20/2015 14:07	1.2	59.7	0.2	38.9	192				-23.9	-22.8	-24.59	
GEW-067A	4/20/2015 14:09	1.1	61.4	0.1	37.4	192				-24.8	-24.4	-24.71	
GEW-069R	4/17/2015 14:46	1.7	19.6	17.2	61.5	113				-11.7	-11.9	-11.80	
GEW-069R	4/17/2015 14:46	1.4	14.8	17.0	66.8	113				-11.8	-11.8	-11.50	
GEW-070R	4/17/2015 14:49	9.9	28.9	8.7	52.5	105				-21.5	-20.6	-21.28	
GEW-070R	4/17/2015 14:49	10.1	30.2	8.2	51.5	105				-21.5	-21.4	-21.77	
GEW-071	4/20/2015 14:52	12.4	46.5	3.7	37.4	169				-12.3	-14.2	-12.35	
GEW-071	4/20/2015 14:53	12.1	48.6	4.0	35.3	170				-8.1	-8.4	-14.74	
GEW-075	4/17/2015 14:57	4.2	45.6	2.8	47.4	92				-0.4	-0.4	-11.44	
GEW-080	4/20/2015 8:54	0.4	65.0	0.1	34.5	197				-4.0	-4.0	-5.99	
GEW-080	4/20/2015 8:57	0.3	64.2	0	35.5	197				-3.8	-3.7	-6.30	
GEW-080	4/21/2015 13:59	0.4	64.7	0	34.9	197				-1.8	-2.0	-4.46	
GEW-080	4/21/2015 14:03	0.4	63.1	0	36.5	197				-3.4	-2.7	-4.89	
GEW-082R	4/20/2015 9:03	1.0	59.6	0	39.4	191				-13.7	-13.7	-16.02	
GEW-082R	4/20/2015 9:04	1.0	60.5	0	38.5	191				-14.2	-13.9	-18.72	
GEW-083	4/17/2015 14:36	0.3	12.1	20.0	67.6	88				-17.3	-17.2	-21.77	
GEW-083	4/17/2015 14:37	0.1	6.3	20.4	73.2	89				-17.1	-17.1	-21.22	
GEW-084	4/20/2015 14:57	2.2	43.3	8.6	45.9	76				-14.1	-13.7	-11.87	
GEW-084	4/20/2015 15:00	2.6	46.6	7.4	43.4	80				-11.7	-11.9	-22.45	
GEW-086	4/17/2015 14:34	0.4	33.7	12.0	53.9	97				-21.5	-21.5	-21.77	
GEW-086	4/17/2015 14:34	0.3	29.1	11.6	59.0	102				-21.1	-21.0	-21.22	
GEW-089	4/17/2015 11:30	0.1	0.7	21.2	78.0	84				-19.4	-18.3	-20.24	
GEW-089	4/17/2015 11:32	0.1	0.3	21.4	78.2	85				-18.3	-18.3	-17.61	
GEW-090	4/17/2015 9:19	6.4	53.9	0.2	39.5	193				-20.8	-20.9	-21.47	
GEW-090	4/17/2015 9:21	6.5	55.3	0	38.2	193				-21.3	-20.9	-21.96	
GEW-104	4/17/2015 9:46	0.5	51.0	4.6	43.9	122				-19.4	-19.4	-19.57	
GEW-104	4/17/2015 15:07	1.2	45.6	4.5	48.7	119				-17.1	-16.8	-17.23	
GEW-105	4/17/2015 15:13	15.8	58.7	0	25.5	95				1.8	1.8	-20.22	
GEW-105	4/17/2015 15:15	16.1	61.2	0	22.7	96				-10.9	-10.7	-19.30	
GEW-107	4/17/2015 15:24	1.1	47.6	3.2	48.1	132				-23.0	-22.9	-23.27	
GEW-107	4/17/2015 15:25	1.1	50.7	2.1	46.1	132				-23.1	-22.9	-23.03	
GEW-109	4/1/2015 15:50	1.6	52.4	0.3	45.7	186				-19.2	-19.5	-22.94	
GEW-109	4/1/2015 15:51	3.2	59.1	0.3	37.4	186				-19.5	-19.1	-22.45	
GEW-109	4/10/2015 14:51	1.6	58.1	0.3	40.0	181				-27.3	-27.4	-27.28	
GEW-109	4/10/2015 14:51	1.8	59.9	0.2	38.1	181				-26.9	-26.8	-26.85	
GEW-109	4/15/2015 13:54	2.1	56.5	0.2	41.2	180				-23.3	-23.0	-23.36	
GEW-109	4/15/2015 13:58	1.6	54.2	0.3	43.9	181				-22.9	-23.1	-23.24	
GEW-109	4/22/2015 14:09	2.5	58.9	0	38.6	172				-23.5	-24.0	-23.95	
GEW-109	4/22/2015 14:10	2.3	58.3	0	39.4	173				-23.4	-23.5	-24.01	
GEW-109	4/28/2015 15:22	3.2	62.4	0	34.4	180				-23.9	-23.9	-24.95	
GEW-109	4/28/2015 15:24	2.6	65.7	0	31.7	180				-24.1	-23.4	-24.46	

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Well Name	Date Sampled	Methane	CO_2	O_2	Balance Gas	Init Temp	Adj Temp	Init Flow	Adj Flow	Init Static Press	Adj Static Press	System Pressure	Baro
		(%)				°F		scfm		"H_2O			"Hg
GEW-110	4/1/2015 15:43	8.3	54.5	0.8	36.4	146				-24.4	-24.4	-24.46	
GEW-110	4/1/2015 15:43	7.1	56.8	0.9	35.2	147				-24.0	-24.0	-24.40	
GEW-110	4/10/2015 9:55	16.7	44.8	1.8	36.7	167				-22.4	-22.5	-26.42	
GEW-110	4/10/2015 9:58	17.1	42.1	2.0	38.8	167				-22.5	-22.1	-26.61	
GEW-110	4/16/2015 13:54	24.3	54.3	0.4	21.0	160	160			-24.1	-24.0	-24.03	29.55
GEW-110	4/16/2015 13:55	24.2	54.5	0.4	20.9	160	160			-24.0	-24.1	-24.15	29.55
GEW-110	4/22/2015 13:54	7.6	33.6	4.6	54.2	168				-19.5	-19.5	-25.96	
GEW-110	4/22/2015 13:56	9.4	35.4	4.6	50.6	168				-19.5	-19.5	-25.41	
GEW-110	4/28/2015 15:37	5.8	30.6	8.1	55.5	168				-15.1	-15.1	-19.76	
GEW-110	4/28/2015 15:39	5.9	30.2	7.9	56.0	168				-15.6	-15.6	-21.47	
GEW-116	4/20/2015 9:55	2.4	9.5	19.5	68.6	63				-10.7	-10.9	-8.32	
GEW-116	4/20/2015 9:57	3.4	10.2	18.8	67.6	63				-9.3	-9.9	-7.16	
GEW-120	4/16/2015 15:22	0.9	36.7	3.6	58.8	109				-0.5	-0.4	-0.31	
GEW-120	4/29/2015 15:27	0.6	10.7	17.1	71.6	86				-6.8	-6.7	-6.66	
GEW-120	4/29/2015 15:29	0.7	10.1	16.9	72.3	87				-5.4	-5.6	-5.13	
GEW-120	4/30/2015 8:38	38.6	50.8	0	10.6	98				-2.9		-2.99	
GEW-120	4/30/2015 8:39	38.4	52.3	0	9.3	98				-2.8		-2.93	
GEW-121	4/16/2015 15:27	2.3	64.7	0.1	32.9	194				-3.0	-2.7	-3.49	
GEW-121	4/16/2015 15:29	2.4	62.1	0	35.5	194				-3.2	-3.2	-3.55	
GEW-121	4/29/2015 14:09	1.7	61.8	0	36.5	195				1.9	1.9	2.14	
GEW-121	4/29/2015 14:14	1.3	61.8	0	36.9	195				2.4	2.4	2.20	
GEW-121	4/30/2015 8:43	3.1	60.3	0	36.6	193				-8.3		-8.43	
GEW-121	4/30/2015 8:44	3.0	61.3	0	35.7	193				-8.2		-8.19	
GEW-122	4/17/2015 14:35	9.7	54.3	0	36.0	190				-3.2	-2.4	-2.99	
GEW-122	4/17/2015 14:36	9.9	55.8	0	34.3	190				-2.6	-3.3	-2.57	
GEW-122	4/29/2015 15:01	8.9	56.9	0	34.2	190				-5.6	-5.6	-5.56	
GEW-122	4/29/2015 15:02	8.9	57.4	0	33.7	190				-5.6	-5.6	-5.62	
GEW-123	4/29/2015 14:19	7.0	63.0	0	30.0	190				5.0	5.0	4.46	
GEW-123	4/29/2015 14:22	7.4	61.0	0	31.6	190				1.5	1.5	1.59	
GEW-123	4/30/2015 8:50	8.4	62.4	0.2	29.0	190				-6.8		-5.99	
GEW-123	4/30/2015 8:56	8.8	61.7	0.4	29.1	190				-7.3		-6.05	
GEW-124	4/29/2015 15:39	0.3	3.3	17.3	79.1	80				-12.3	-12.2	-12.03	
GEW-124	4/29/2015 15:44	0.1	4.8	12.5	82.6	88				-16.1	-16.1	-11.97	
GEW-125	4/16/2015 15:36	2.8	61.8	0.1	35.3	189				1.3	1.2	1.16	
GEW-125	4/16/2015 15:37	2.9	65.7	0.1	31.3	189				1.7	1.4	1.41	
GEW-125	4/29/2015 15:48	3.0	65.6	0.1	31.3	189				-6.3	-6.3	-6.66	
GEW-125	4/29/2015 15:50	2.6	64.2	0	33.2	189				-5.6	-5.6	-5.74	

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Well Name	Date Sampled	Methane	CO_2	O_2	Balance Gas	Init Temp	Adj Temp	Init Flow	Adj Flow	Init Static Press	Adj Static Press	System Pressure	Baro
		(%)				°F		scfm		"H_2O			"Hg
GEW-126	4/16/2015 15:43	0.4	58.9	1.6	39.1	195				-10.7	-11.3	-10.83	
GEW-126	4/16/2015 15:45	0.2	59.7	1.3	38.8	195				-9.3	-9.1	-11.31	
GEW-126	4/29/2015 15:53	0.3	57.7	1.4	40.6	195				-12.0	-12.0	-13.26	
GEW-126	4/29/2015 15:58	0.2	57.5	0.9	41.4	195				-14.1	-14.1	-13.44	
GEW-127	4/16/2015 15:51	0.5	65.9	0.1	33.5	186				-7.0	-7.0	-7.03	
GEW-127	4/16/2015 15:52	0.7	66.3	0.1	32.9	186				-7.0	-6.5	-7.03	
GEW-127	4/29/2015 16:25	1.6	63.3	0	35.1	186				-8.8	-8.4	-8.55	
GEW-127	4/29/2015 16:26	1.6	64.2	0	34.2	186				-8.3	-5.4	-7.27	
GEW-128	4/16/2015 15:57	1.7	70.9	0.1	27.3	183				-4.5	-3.9	-6.97	
GEW-128	4/16/2015 15:58	1.8	66.2	0.1	31.9	183				-4.8	-4.7	-7.34	
GEW-128	4/30/2015 10:11	2.8	59.6	0	37.6	182				-10.6		-13.32	
GEW-128	4/30/2015 10:13	3.0	63.5	0	33.5	182				-12.6		-12.77	
GEW-129	4/16/2015 16:06	3.5	65.2	0.1	31.2	163				-8.9	-9.8	-9.54	
GEW-129	4/16/2015 16:07	3.7	63.4	0.1	32.8	163				-8.3	-9.3	-9.36	
GEW-129	4/21/2015 10:43	3.9	60.8	0	35.3	162				-8.7	-8.7	-9.35	
GEW-129	4/21/2015 10:46	3.6	61.2	0	35.2	162				-9.7	-9.7	-9.84	
GEW-129	4/29/2015 16:29	3.4	62.3	0	34.3	163				-4.5	-4.6	-5.01	
GEW-129	4/29/2015 16:30	3.8	61.7	0	34.5	163				-9.2	-9.2	-9.04	
GEW-131	4/17/2015 14:39	14.7	54.2	0	31.1	178				-4.2	-4.2	-9.47	
GEW-131	4/17/2015 14:40	15.7	54.1	0	30.2	179				-3.9	-3.9	-9.59	
GEW-131	4/21/2015 10:52	13.8	56.7	0	29.5	177				-6.8	-6.8	-13.74	
GEW-131	4/21/2015 10:53	14.1	54.6	0	31.3	177				-7.2	-7.3	-13.26	
GEW-131	4/29/2015 16:02	14.0	54.3	0	31.7	177				-5.8	-5.8	-10.81	
GEW-131	4/29/2015 16:03	14.1	55.0	0	30.9	177				-6.1	-6.2	-10.87	
GEW-132	4/17/2015 14:29	8.3	55.6	0	36.1	193				0.8	0.7	-3.85	
GEW-132	4/17/2015 14:30	10.0	56.9	0	33.1	193				-1.9	-1.9	-3.60	
GEW-132	4/21/2015 11:09	8.8	57.2	0	34.0	190				-3.4	-3.5	-4.46	
GEW-132	4/21/2015 11:10	8.9	58.4	0	32.7	190				-3.8	-3.8	-4.46	
GEW-132	4/29/2015 15:05	12.4	58.2	0	29.4	188				-7.7	-7.7	-8.55	
GEW-132	4/29/2015 15:07	11.9	58.4	0	29.7	188				-8.2	-8.2	-8.67	
GEW-133	4/16/2015 15:17	0.7	10.5	17.6	71.2	97				-10.3	-10.1	-10.40	
GEW-133	4/16/2015 15:18	0.8	7.0	17.8	74.4	99				-10.6	-10.3	-10.83	
GEW-133	4/29/2015 15:32	0.6	4.7	19.5	75.2	92				-11.2	-11.2	-11.00	
GEW-133	4/29/2015 15:35	0.7	3.9	19.5	75.9	94				-11.7	-11.7	-11.00	
GEW-133	4/30/2015 9:27	1.0	58.7	0	40.3	113				73.7		-10.69	
GEW-133	4/30/2015 9:29	2.6	59.4	0	38.0	189				-11.7		-11.79	

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Well Name	Date Sampled	Methane	CO_2	O_2	Balance Gas	Init Temp	Adj Temp	Init Flow	Adj Flow	Init Static Press	Adj Static Press	System Pressure	Baro
		(%)				°F		scfm		"H_2O			"Hg
GEW-134	4/16/2015 15:13	4.2	30.4	4.6	60.8	106				-11.8	-11.8	-11.44	
GEW-134	4/29/2015 14:31	0.3	39.9	9.1	50.7	82				-9.3	-9.3	-9.16	
GEW-134	4/29/2015 14:35	0.3	38.7	8.9	52.1	82				-8.8	-8.8	-8.61	
GEW-134	4/30/2015 10:02	0.6	25.8	13.9	59.7	78				-13.6		-13.32	
GEW-134	4/30/2015 10:06	0.8	36.3	9.8	53.1	79				-13.7		-13.32	
GEW-135	4/16/2015 15:08	5.0	59.7	0.1	35.2	189				-14.7	-14.8	-18.72	
GEW-135	4/21/2015 11:16	6.0	57.1	0	36.9	187				-17.0	-17.0	-21.01	
GEW-135	4/21/2015 11:18	5.2	59.1	0	35.7	187				-18.1	-18.1	-21.08	
GEW-135	4/29/2015 14:38	5.4	53.5	0.1	41.0	191				-10.1	-10.1	-13.44	
GEW-135	4/29/2015 14:39	5.2	57.7	0	37.1	191				-11.2	-11.2	-13.99	
GEW-136	4/16/2015 15:02	3.2	25.3	12.3	59.2	154				-2.3	-2.2	-13.58	
GEW-136	4/16/2015 15:03	3.3	23.5	12.5	60.7	156				-1.4	-1.4	-14.01	
GEW-136	4/29/2015 14:43	4.4	42.7	6.2	46.7	179				-0.3	-0.3	-11.48	
GEW-136	4/29/2015 14:45	4.4	41.4	6.0	48.2	179				-0.3	-0.3	-11.00	
GEW-136	4/30/2015 9:47	3.5	27.3	11.1	58.1	170				-0.9		-15.82	
GEW-136	4/30/2015 9:57	3.8	36.6	7.9	51.7	137				-0.3		-15.64	
GEW-137	4/17/2015 14:14	16.2	47.0	1.7	35.1	146				-13.5	-13.0	-13.38	
GEW-137	4/17/2015 14:16	17.2	43.5	1.8	37.5	147				-14.7	-15.1	-15.33	
GEW-137	4/29/2015 14:49	14.1	40.5	2.6	42.8	141				-8.1	-8.1	-7.57	
GEW-137	4/29/2015 14:52	14.7	38.9	2.6	43.8	139				-7.8	-7.8	-7.64	
GEW-138	4/17/2015 14:09	11.5	48.8	0	39.7	187				-7.3	-7.7	-16.25	
GEW-138	4/17/2015 14:10	11.3	52.1	0	36.6	186				-6.4	-6.3	-12.40	
GEW-138	4/29/2015 16:14	14.9	56.3	0	28.8	184				-3.2	-3.2	-6.54	
GEW-138	4/29/2015 16:15	14.6	56.0	0	29.4	184				-3.5	-3.5	-9.04	
GEW-139	4/17/2015 14:45	1.9	55.4	0	42.7	194				-3.7	-3.9	-6.90	
GEW-139	4/17/2015 14:45	1.0	58.1	0	40.9	194				-4.3	-4.0	-9.16	
GEW-139	4/21/2015 10:58	0.7	61.6	0	37.7	193				-7.3	-7.3	-12.65	
GEW-139	4/21/2015 11:00	0.6	60.4	0	39.0	193				-7.8	-7.8	-12.83	
GEW-139	4/29/2015 16:08	1.0	60.5	0	38.5	193				-6.0	-5.6	-10.51	
GEW-139	4/29/2015 16:10	0.7	62.4	0	36.9	193				-6.7	-6.2	-10.51	
GEW-140	4/17/2015 14:49	12.3	58.1	0	29.6	186				-5.6	-3.5	-6.29	
GEW-140	4/17/2015 14:50	13.2	56.6	0	30.2	186				-4.0	-5.4	-3.97	
GEW-140	4/29/2015 16:44	14.2	58.2	0	27.6	187				-2.0	-2.3	5.31	
GEW-140	4/29/2015 16:45	14.5	59.0	0	26.5	187				-2.1	-2.4	11.00	
GEW-141	4/16/2015 16:11	11.0	68.2	0.1	20.7	140				-10.4	-10.4	-11.07	
GEW-141	4/16/2015 16:12	11.4	65.1	0.1	23.4	140				-10.4	-10.3	-10.58	
GEW-141	4/30/2015 10:18	10.9	64.5	0	24.6	132				-17.0		-17.23	
GEW-141	4/30/2015 10:20	11.3	64.1	0	24.6	134				-17.1		-17.72	
GEW-142	4/16/2015 16:20	0.5	62.0	0.2	37.3	192				-5.4	-5.4	-5.57	
GEW-142	4/16/2015 16:22	0.8	59.4	0.3	39.5	192				-4.9	-4.9	-5.57	
GEW-142	4/30/2015 10:24	0.8	59.3	0	39.9	193				-7.3		-8.67	
GEW-142	4/30/2015 10:25	0.8	60.4	0	38.8	192				-8.8		-8.86	

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Well Name	Date Sampled	Methane	CO_2	O_2	Balance Gas	Init Temp	Adj Temp	Init Flow	Adj Flow	Init Static Press	Adj Static Press	System Pressure	Baro
		(%)				°F		scfm		"H_2O			"Hg
GEW-143	4/16/2015 16:30	0.2	59.9	0.1	39.8	193				-13.2	-13.2	-12.97	
GEW-143	4/16/2015 16:32	0.4	59.8	0.1	39.7	193				-12.9	-12.8	-12.84	
GEW-143	4/29/2015 16:50	1.7	55.3	0	43.0	194				-7.7	-8.7	-7.57	
GEW-143	4/29/2015 16:51	1.6	54.6	0	43.8	193				-9.2	-8.3	-8.55	
GEW-144	4/17/2015 13:50	0.4	47.4	4.2	48.0	105				-13.3	-13.5	-13.38	
GEW-144	4/17/2015 13:51	0.5	53.8	2.0	43.7	107				-13.2	-13.6	-13.26	
GEW-144	4/29/2015 16:55	1.6	55.0	2.4	41.0	102				-11.8	-10.9	-11.55	
GEW-144	4/29/2015 16:56	1.5	58.5	1.7	38.3	101				-11.2	-10.9	-10.75	
GEW-145	4/17/2015 13:55	2.2	40.3	6.3	51.2	106				-9.8	-9.4	-11.18	
GEW-145	4/17/2015 13:56	1.9	40.4	6.0	51.7	107				-8.9	-13.0	-9.35	
GEW-145	4/29/2015 16:38	1.0	34.5	9.3	55.2	96				-9.2	-7.3	-9.10	
GEW-145	4/29/2015 16:40	1.3	35.6	9.2	53.9	96				-9.5	-7.4	-12.40	
GEW-145	4/30/2015 10:33	0.9	36.5	9.0	53.6	100				-7.3		-4.52	
GEW-145	4/30/2015 10:37	1.1	39.1	8.1	51.7	103				-9.2		-12.22	
GEW-146	4/17/2015 14:03	5.1	27.9	12.2	54.8	99				-5.4	-5.2	-11.85	
GEW-146	4/17/2015 14:05	6.5	21.7	12.6	59.2	99				-3.3	-3.3	-12.77	
GEW-146	4/30/2015 11:21	11.2	22.2	11.3	55.3	99				-1.8		-14.54	
GEW-146	4/30/2015 11:27	13.8	26.7	8.9	50.6	99				-12.1		-13.26	
GEW-147	4/16/2015 14:57	3.4	55.4	0.1	41.1	189				-10.3	-12.2	-10.40	
GEW-147	4/21/2015 11:51	6.0	55.7	0	38.3	188				-5.9	-5.3	-5.86	
GEW-147	4/21/2015 11:52	3.5	57.0	0	39.5	189				-11.2	-10.8	-11.00	
GEW-147	4/29/2015 16:18	3.6	57.8	0	38.6	191				-5.7	-5.7	-5.62	
GEW-147	4/29/2015 16:19	3.3	58.3	0	38.4	190				-2.9	-2.9	-2.75	
GEW-148	4/20/2015 14:24	1.2	4.5	19.7	74.6	67				-20.5	-21.5	-20.61	
GEW-148	4/20/2015 14:27	1.4	8.7	18.5	71.4	71				-17.2	-18.0	-17.43	
GEW-148	4/30/2015 11:32	2.9	58.3	0	38.8	189				-16.5		-17.29	
GEW-148	4/30/2015 11:33	3.2	59.0	0	37.8	189				-17.9		-18.14	
GEW-149	4/20/2015 14:01	9.1	62.9	0	28.0	181				-0.1	-0.1	-21.47	
GEW-149	4/20/2015 14:02	9.3	64.2	0	26.5	181				-0.2	-0.2	-22.57	
GEW-149	4/21/2015 11:45	8.5	55.9	0	35.6	179				-0.1	-0.1	-21.50	
GEW-149	4/21/2015 11:47	9.5	61.7	0	28.8	179				-0.2	-0.2	-23.03	
GEW-149	4/30/2015 11:47	18.8	58.2	0	23.0	177				-0.1		-19.73	
GEW-149	4/30/2015 11:49	34.7	60.6	0	4.7	179				-8.8		-11.91	
GEW-150	4/20/2015 13:20	3.1	64.9	0	32.0	191				12.6	12.3	12.66	
GEW-150	4/20/2015 13:21	3.0	66.2	0	30.8	191				12.2	12.2	12.60	
GEW-150	4/29/2015 17:08	6.4	61.6	0	32.0	192				13.7	13.7	13.93	
GEW-150	4/29/2015 17:09	7.2	63.6	0	29.2	192				5.9	13.2	13.87	
GEW-150	4/30/2015 10:44	6.0	62.0	0	32.0	191				10.8		10.93	
GEW-151	4/20/2015 14:14	0	5.6	20.7	73.7	64				-24.4	-24.9	-24.40	
GEW-151	4/20/2015 14:17	0	1.8	21.3	76.9	65				-21.1	-21.0	-24.04	
GEW-151	4/30/2015 11:38	2.8	60.1	0	37.1	117				53.7		-22.72	
GEW-151	4/30/2015 11:40	18.0	62.8	0	19.2	200				-16.0		-18.88	

April 2015 Wellfield Monitoring Data - Bridgeton Landfill

Well Name	Date Sampled	Methane	CO_2	O_2	Balance Gas	Init Temp	Adj Temp	Init Flow	Adj Flow	Init Static Press	Adj Static Press	System Pressure	Baro
		(%)				°F		scfm		"H_2O			"Hg
GEW-152	4/20/2015 13:27	3.3	56.9	0.5	39.3	187				-20.0	-19.5	-25.32	
GEW-152	4/20/2015 13:28	3.5	56.9	0.4	39.2	187				-18.0	-18.0	-25.14	
GEW-152	4/29/2015 17:13	8.3	53.7	1.6	36.4	188				-11.2	-11.6	-24.80	
GEW-152	4/29/2015 17:14	8.5	50.9	1.6	39.0	188				-14.5	-14.5	-23.34	
GEW-153	4/20/2015 13:34	0	7.2	20.6	72.2	61				-24.9	-25.3	-24.65	
GEW-153	4/20/2015 13:35	0	3.9	21.2	74.9	62				-24.9	-24.9	-24.59	
GEW-153	4/29/2015 17:18	1.8	7.5	17.2	73.5	77				-24.8	-23.8	-24.68	
GEW-153	4/29/2015 17:19	2.0	7.1	17.0	73.9	77				-25.9	-24.8	-25.60	
GEW-153	4/30/2015 11:03	19.2	28.8	8.3	43.7	81				-23.4		-23.46	
GEW-153	4/30/2015 11:13	19.4	29.2	8.0	43.4	82				-24.2		-24.50	
GEW-154	4/20/2015 13:39	10.9	16.6	15.6	56.9	110				-8.9	-8.7	-16.94	
GEW-154	4/20/2015 13:41	10.9	16.8	15.6	56.7	110				-7.3	-7.8	-15.96	
GEW-154	4/30/2015 11:59	19.4	33.8	9.5	37.3	161				-2.4		-11.36	
GEW-154	4/30/2015 12:09	29.1	55.1	0.5	15.3	155				-0.1		-13.56	
GEW-155	4/17/2015 14:19	9.8	41.2	4.7	44.3	164				-11.8	-10.2	-11.85	
GEW-155	4/17/2015 14:21	9.2	42.7	4.2	43.9	168				-1.7	-1.6	-18.75	
GEW-155	4/29/2015 14:56	9.6	38.8	4.9	46.7	159				-7.2	-7.2	-7.57	
GEW-155	4/29/2015 14:58	9.6	39.5	4.8	46.1	162				-5.7	-5.7	-6.29	
GEW-156	4/17/2015 11:03	0	0.2	21.3	78.5	91				-21.2	-20.8	-21.59	
GEW-156	4/17/2015 11:08	15.2	21.5	4.3	59.0	149				-1.4	-1.4	-20.00	
GEW-156	4/17/2015 11:12	20.2	44.0	3.1	32.7	154				-1.2	-1.2	-18.59	
GEW-156	4/29/2015 17:03	19.9	50.0	2.6	27.5	164				-0.4	-0.4	-18.81	
GEW-156	4/29/2015 17:04	20.6	49.9	2.6	26.9	164				-0.4	-0.4	-17.90	
GIW-01	4/2/2015 8:10	3.1	68.2	0	28.7	190		48	12	-15.6	-18.0	-22.32	
GIW-01	4/2/2015 8:11	3.5	67.4	0	29.1	190		11	10	-12.6	-12.9	-22.14	
GIW-01	4/10/2015 9:13	3.9	61.0	0.1	35.0	191		40	27	-14.3	-14.1	-22.42	
GIW-01	4/10/2015 9:19	4.1	55.9	0.2	39.8	191		38	38	-14.2	-14.4	-23.76	
GIW-01	4/16/2015 14:04	3.2	73.9	0	22.9	193	193	29	12	-14.8	-14.1	-22.08	29.55
GIW-01	4/16/2015 14:05	3.3	72.6	0	24.1	193	193	36		-12.6	-12.6	-22.50	29.55
GIW-01	4/21/2015 14:42	5.9	62.2	0	31.9	191		27	38	-8.2	-9.2	-16.94	
GIW-01	4/21/2015 14:43	4.1	66.6	0	29.3	192		14	15	-7.8	-7.8	-25.08	
GIW-01	4/30/2015 16:39	5.8	65.0	0	29.2	190				-8.3		-19.67	
GIW-01	4/30/2015 16:43	6.0	64.4	0	29.6	190				-4.6		-10.08	
GIW-02	4/2/2015 7:44	4.2	59.8	0.1	35.9	67		8	8	-0.6	-0.6	-22.94	
GIW-02	4/2/2015 7:44	5.1	62.9	0.1	31.9	67		8	8	-1.0	-1.0	-23.00	
GIW-02	4/10/2015 9:23	11.1	57.7	0.3	30.9	61		9	8	-1.7	-1.7	-23.98	
GIW-02	4/10/2015 9:27	10.9	57.2	0.4	31.5	61		11	11	-1.9	-1.9	-23.55	
GIW-02	4/16/2015 11:36	9.9	59.3	0.4	30.4	86		11	8	-1.7	-1.7	-23.12	
GIW-02	4/16/2015 11:37	12.3	59.1	0.3	28.3	86		9	10	-2.0	-2.0	-23.12	
GIW-02	4/21/2015 14:38	12.1	55.3	0.2	32.4	73		71	91	-4.1	-4.1	-24.22	
GIW-02	4/30/2015 15:32	13.7	46.6	1.8	37.9	81				-3.0		-22.72	
GIW-02	4/30/2015 15:38	12.0	46.2	1.8	40.0	81				-2.4		-19.24	

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Well Name	Date Sampled	Methane	CO_2	O_2	Balance Gas	Init Temp	Adj Temp	Init Flow	Adj Flow	Init Static Press	Adj Static Press	System Pressure	Baro
		(%)				°F		scfm		"H_2O			"Hg
GIW-03	4/2/2015 7:33	0.5	57.6	1.1	40.8	67		0	14	-0.2	-0.3	-22.51	
GIW-03	4/10/2015 9:00	0.5	62.5	0	37.0	61		46	22	-0.4	-0.1	-24.10	
GIW-03	4/10/2015 9:05	0.3	63.9	0.2	35.6	61		0	9	-0.7	-0.8	-24.28	
GIW-03	4/16/2015 11:26	0.5	57.1	1.5	40.9	85		0	0	-0.2	-0.1	-22.75	
GIW-03	4/16/2015 11:27	0.3	49.2	1.9	48.6	87		18	11	-0.4	-1.0	-23.49	
GIW-03	4/21/2015 14:16	0.3	42.9	7.7	49.1	72		19	6	-0.9	-1.2	-23.55	
GIW-03	4/30/2015 15:42	0.9	43.5	7.5	48.1	82				-0.9		-19.30	
GIW-03	4/30/2015 15:46	1.0	46.7	5.8	46.5	82				-0.3		-19.61	
GIW-04	4/2/2015 7:29	0.5	55.7	0	43.8	67		14	15	23.0	23.5	-22.08	
GIW-04	4/2/2015 7:30	0.5	58.5	0	41.0	66		0	0	8.4	8.3	-22.57	
GIW-04	4/8/2015 10:55	0.8	52.4	2.3	44.5	79		6	6	-21.3	-21.3	-22.45	
GIW-04	4/8/2015 10:59	0.8	50.0	3.5	45.7	79		11	12	-17.5	-17.5	-22.45	
GIW-04	4/16/2015 11:22	0.6	50.0	0.6	48.8	83		11	9	-2.4	-2.5	-22.75	
GIW-04	4/16/2015 11:23	0.6	57.3	0.3	41.8	84		9	9	-4.9	-4.9	-23.00	
GIW-04	4/21/2015 14:13	0.1	15.0	17.5	67.4	71		0	0	-0.2	-0.2	-23.49	
GIW-04	4/30/2015 16:01	1.3	55.5	0	43.2	83				4.7		-22.42	
GIW-04	4/30/2015 16:03	1.0	57.9	0	41.1	84				-4.7		-20.10	
GIW-05	4/2/2015 8:03	0.5	63.7	0	35.8	67		59	0	10.3	10.3	-22.02	
GIW-05	4/2/2015 8:03	0.6	64.0	0	35.4	67		0	0	8.1	4.6	-23.06	
GIW-05	4/10/2015 9:34	1.0	57.9	0.2	40.9	61		0	0	-19.9	-20.1	-24.01	
GIW-05	4/10/2015 9:40	0	41.7	1.2	57.1	62		0	0	-19.9	-19.5	-24.01	
GIW-05	4/16/2015 14:08	0.7	69.3	0	30.0	93	93	10		4.2	4.6	-21.86	29.54
GIW-05	4/16/2015 14:09	0.6	68.1	0	31.3	95	95	40	46	-3.0	-3.2	-22.11	29.54
GIW-05	4/21/2015 14:54	0.3	24.6	15.6	59.5	70		0	0	-16.1	-16.1	-22.69	
GIW-05	4/21/2015 14:55	2.4	33.8	4.0	59.8	70		10	10	-16.1	-15.8	-23.55	
GIW-05	4/30/2015 16:30	2.8	59.8	0	37.4	79				7.2		-19.98	
GIW-05	4/30/2015 16:35	2.8	60.7	0	36.5	81				-4.3		-19.61	
GIW-06	4/2/2015 7:49	1.2	64.4	0	34.4	67		8	8	16.6	16.7	-22.57	
GIW-06	4/2/2015 7:49	1.0	65.9	0	33.1	67		9	8	5.9	5.9	-22.02	
GIW-06	4/8/2015 9:55	1.0	65.4	0	33.6	80		12	14	16.5	16.6	-22.45	
GIW-06	4/8/2015 10:01	0.7	63.4	0	35.9	80		10	10	-19.4	-19.4	-21.53	
GIW-06	4/16/2015 11:04	1.1	60.9	0.7	37.3	87		0	40	-22.3	-22.7	-23.06	
GIW-06	4/16/2015 11:05	1.1	61.1	0.4	37.4	87		39	52	-20.3	-20.9	-23.06	
GIW-06	4/21/2015 13:57	1.2	62.4	0	36.4	73		0	15	-4.6	-4.3	-23.98	
GIW-06	4/30/2015 15:09	1.4	61.7	0	36.9	81				25.8		-20.53	
GIW-06	4/30/2015 15:16	1.7	65.7	0	32.6	82				-4.6		-21.08	
GIW-07	4/2/2015 7:53	31.0	51.7	0.1	17.2	67		8	8	-0.1	-0.1	-0.06	
GIW-07	4/8/2015 10:06	30.1	61.1	0	8.8	80		8	8	-0.2	-0.2	-0.43	
GIW-07	4/8/2015 10:10	32.1	54.6	0	13.3	80		11	11	-0.2	-0.2	-0.43	
GIW-07	4/16/2015 11:08	28.9	59.0	0	12.1	87		11	12	-0.2	-0.2	-0.18	
GIW-07	4/21/2015 14:00	32.9	54.8	0	12.3	73		10	10	-0.2	-0.2	-0.18	
GIW-07	4/30/2015 15:04	31.7	56.4	0	11.9	79				-0.1		0.18	

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Well Name	Date Sampled	Methane	CO_2	O_2	Balance Gas	Init Temp	Adj Temp	Init Flow	Adj Flow	Init Static Press	Adj Static Press	System Pressure	Baro
		(%)				°F		scfm		"H_2O			"Hg
GIW-08	4/2/2015 7:56	24.6	61.7	0.3	13.4	84		7	8	-6.4	-6.4	-13.76	
GIW-08	4/8/2015 10:13	25.0	61.5	0.2	13.3	99		7	5	-5.4	-5.3	-14.43	
GIW-08	4/8/2015 10:17	25.8	62.2	0	12.0	99		16	16	-5.3	-5.3	-13.46	
GIW-08	4/16/2015 11:11	27.7	58.4	0.2	13.7	101		10	8	-4.7	-4.7	-12.42	
GIW-08	4/21/2015 14:02	26.4	58.6	0.2	14.8	89		10	11	-6.4	-6.3	-13.94	
GIW-08	4/30/2015 14:54	24.1	64.5	0	11.4	99				-7.0		-19.12	
GIW-08	4/30/2015 14:57	24.6	62.7	0	12.7	99				-7.0		-16.25	
GIW-09	4/2/2015 7:58	1.3	65.9	0	32.8	189		30	0	-8.5	-7.8	-14.25	
GIW-09	4/2/2015 7:59	1.0	68.4	0	30.6	189		11	7	-7.8	-7.8	-14.56	
GIW-09	4/8/2015 10:20	0.8	71.7	0	27.5	194		11	0	15.2	16.9	-14.13	
GIW-09	4/8/2015 10:25	0.6	65.1	0	34.3	193		0	0	-5.9	-6.2	-14.07	
GIW-09	4/16/2015 11:13	4.2	60.5	0	35.3	190		11	21	-7.0	-8.9	-12.48	
GIW-09	4/16/2015 11:14	1.0	67.3	0	31.7	190		30	0	-6.5	-5.6	-12.35	
GIW-09	4/21/2015 14:05	1.2	65.1	0	33.7	190		27	21	-4.9	-4.1	-12.48	
GIW-10	4/2/2015 7:26	0.4	57.0	0.1	42.5	66		23	47	-3.5	-4.1	-22.63	
GIW-10	4/8/2015 10:46	0.6	57.1	0	42.3	80		0	0	4.0	4.0	-22.45	
GIW-10	4/8/2015 10:50	0.8	51.9	0	47.3	80		8	11	1.4	1.4	-22.02	
GIW-10	4/16/2015 11:18	2.4	57.7	0	39.9	86		33	0	-18.1	-17.6	-22.94	
GIW-10	4/16/2015 11:19	2.6	57.1	0	40.3	88		9	0	-11.9	-11.7	-22.75	
GIW-10	4/21/2015 14:09	3.7	59.6	0	36.7	73		5	6	-1.1	-1.1	-22.94	
GIW-10	4/21/2015 14:10	3.7	58.6	0	37.7	73		10	7	-1.6	-1.6	-22.63	
GIW-10	4/30/2015 16:19	4.3	57.8	0	37.9	83				-1.3		-20.04	
GIW-10	4/30/2015 16:20	4.7	57.8	0	37.5	84				-3.3		-20.10	
GIW-11	4/2/2015 8:06	1.7	65.0	0	33.3	158		15	22	-20.0	-20.0	-22.51	
GIW-11	4/2/2015 8:07	2.5	66.5	0.1	30.9	154		2	0	-17.0	-17.1	-22.87	
GIW-11	4/10/2015 9:38	2.3	61.4	0.9	35.4	167		24	11	-3.7	-3.7	-24.34	
GIW-11	4/10/2015 9:44	2.5	53.4	2.3	41.8	167		0	0	-2.2	-2.2	-24.65	
GIW-11	4/16/2015 14:00	1.7	69.5	0	28.8	175	175	14	14	1.2	1.2	-22.54	29.53
GIW-11	4/16/2015 14:01	1.5	70.2	0	28.3	175	175	16	15	0.8	0.8	-22.70	29.53
GIW-11	4/21/2015 14:45	2.7	62.7	2.0	32.6	166		0	0	-7.7	-7.2	-24.04	
GIW-11	4/21/2015 14:46	2.5	60.9	1.9	34.7	168		3	10	-1.9	-1.9	-24.40	
GIW-11	4/30/2015 16:09	3.1	58.0	1.2	37.7	168				-1.8		-20.53	
GIW-11	4/30/2015 16:13	3.0	59.8	0.7	36.5	166				-1.0		-20.65	
GIW-12	4/2/2015 7:36	2.7	49.8	6.1	41.4	161		19	16	-1.0	-1.0	-22.57	
GIW-12	4/2/2015 7:37	3.5	45.4	6.1	45.0	161		15	18	-0.9	-0.9	-22.45	
GIW-12	4/10/2015 9:10	2.4	58.1	3.1	36.4	175		19	23	-0.4	-0.5	-23.85	
GIW-12	4/10/2015 9:14	2.3	55.2	2.9	39.6	175		19	24	-0.5	-0.5	-23.79	
GIW-12	4/16/2015 11:31	3.0	64.9	0.6	31.5	180		22	19	-0.2	-0.2	-22.57	
GIW-12	4/21/2015 14:31	3.0	51.3	3.9	41.8	177		25	12	-0.4	-0.5	-22.94	
GIW-12	4/21/2015 14:32	3.2	54.5	3.5	38.8	176		18	27	-0.5	-0.5	-23.49	
GIW-12	4/30/2015 15:52	6.2	40.3	7.3	46.2	161				-0.9		-19.12	
GIW-12	4/30/2015 15:54	6.3	38.5	7.2	48.0	161				-0.9		-19.49	

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Well Name	Date Sampled	Methane	CO_2	O_2	Balance Gas	Init Temp	Adj Temp	Init Flow	Adj Flow	Init Static Press	Adj Static Press	System Pressure	Baro
		(%)				°F		scfm		"H_2O			"Hg
GIW-13	4/2/2015 7:40	3.6	61.6	0.1	34.7	178		4	0	3.3	3.3	-13.21	
GIW-13	4/2/2015 7:41	3.1	64.1	0.1	32.7	179		24	23	2.0	2.0	-15.11	
GIW-13	4/10/2015 9:16	5.3	59.8	0	34.9	163		18	18	-9.8	-9.8	-15.35	
GIW-13	4/10/2015 9:20	4.4	59.8	0	35.8	161		0	0	-7.3	-7.3	-15.17	
GIW-13	4/16/2015 11:33	3.1	61.5	0	35.4	171		8	7	-2.9	-2.9	-13.94	
GIW-13	4/16/2015 11:34	3.6	62.7	0	33.7	172		0	7	-3.5	-3.5	-13.46	
GIW-13	4/21/2015 14:34	3.4	65.6	0	31.0	169		0	0	-0.5	-0.5	-15.78	
GIW-13	4/21/2015 14:35	3.5	66.4	0	30.1	171		24	24	-1.3	-1.3	-15.29	
GIW-13	4/30/2015 15:25	5.4	59.1	0	35.5	166				-4.6		-14.29	
GIW-13	4/30/2015 15:27	5.4	62.2	0	32.4	167				-4.4		-12.83	
LCS-2D	4/14/2015 9:14	49.5	48.7	0	1.8	123				-2.6	-2.1	-2.50	
LCS-5A	4/1/2015 15:21	53.5	43.9	0	2.6	98				-24.5	-23.5	-24.40	
LCS-5A	4/10/2015 13:47	57.3	40.2	0	2.5	84				-28.8	-28.3	-28.38	
LCS-5A	4/10/2015 13:50	57.1	40.7	0	2.2	81				-3.9	-3.9	-27.65	
LCS-5A	4/16/2015 13:28	58.5	41.4	0	0.1	95	95	326	327	-24.3	-24.7	-25.67	29.51
LCS-5A	4/22/2015 11:38	58.7	40.8	0	0.5	92				-11.7	-9.9	-26.08	
LCS-5A	4/29/2015 11:45	57.3	38.6	0	4.1	94				-13.2	-12.7	-26.51	
LCS-5A	4/29/2015 11:47	57.7	39.0	0	3.3	94				-12.2	-12.2	-26.70	
LCS-6B	4/1/2015 14:22	59.5	37.2	0.1	3.2	85		18	16	0.5	0.5	-25.26	
LCS-6B	4/1/2015 14:23	56.5	40.5	0	3.0	85		13	14	-0.8	-0.8	-25.93	
LCS-6B	4/10/2015 14:08	49.7	37.8	1.2	11.3	83		8	7	-2.5	-2.5	-28.53	
LCS-6B	4/10/2015 14:10	50.4	37.4	1.2	11.0	82		0	0	-0.7	-0.8	-29.32	
LCS-6B	4/16/2015 12:47	52.2	40.9	1.2	5.7	84	84	13	13	-0.3	-0.2	-25.73	29.51
LCS-6B	4/22/2015 9:53	51.0	39.0	1.8	8.2	56		8	9	-0.9	-0.9	-27.00	
LCS-6B	4/22/2015 9:55	51.2	39.1	1.8	7.9	58		9	8	-0.6	-0.6	-27.31	
LCS-6B	4/29/2015 11:34	55.2	41.0	0	3.8	83		9	10	0.6	0.6	-27.98	
LCS-6B	4/29/2015 11:37	55.5	40.8	0	3.7	84		7	8	-0.2	-0.2	-27.98	
PGW-60	4/1/2015 10:24	55.1	39.8	0.2	4.9	92		88	88	-22.7	-22.7	-22.32	
PGW-60	4/10/2015 14:36	54.2	36.7	0.5	8.6	73		0	0	-23.3	-25.9	-23.15	
PGW-60	4/14/2015 16:13	56.8	38.3	0.2	4.7	72		19	28	-27.4	-27.9	-27.55	
PGW-60	4/14/2015 16:18	56.9	38.8	0.2	4.1	72		23	15	-16.2	-16.0	-30.54	
PGW-60	4/22/2015 9:29	56.3	40.8	0.2	2.7	63		0	0	-19.9	-19.6	-22.97	
PGW-60	4/29/2015 11:25	55.8	39.2	0	5.0	76		8	7	-19.0	-19.0	-20.83	
PGW-60	4/29/2015 11:28	55.5	39.6	0	4.9	77		6	0	-17.1	-17.0	-21.01	
SEW-002	4/20/2015 11:00	1.1	64.3	2.4	32.2	137				-9.9	-9.8	-9.72	
SEW-002	4/20/2015 11:01	1.3	66.5	0.8	31.4	137				-9.9	-9.9	-9.85	
SEW-012A	4/20/2015 13:57	7.3	30.1	11.4	51.2	76				-1.4	-1.4	-25.38	
SEW-012A	4/20/2015 13:59	7.2	29.9	11.5	51.4	76				-1.3	-1.4	-24.59	
SEW-017R	4/20/2015 9:08	10.0	61.0	0	29.0	131				-0.7	-0.7	-22.57	
SEW-017R	4/20/2015 9:10	10.3	61.3	0	28.4	132				-0.6	-0.6	-22.87	

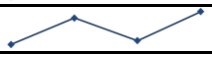
April 2015 Wellfield Monitoring Data - Bridgeton Landfill

Well Name	Date Sampled	Methane	CO_2	O_2	Balance Gas	Init Temp	Adj Temp	Init Flow	Adj Flow	Init Static Press	Adj Static Press	System Pressure	Baro
		(%)				°F		scfm		"H_2O			"Hg
SEW-031R	4/20/2015 13:03	0.4	66.7	0.1	32.8	193				-13.1	-12.2	-13.15	
SEW-031R	4/20/2015 13:04	0.4	68.6	0	31.0	193				-13.1	-13.1	-13.21	
SEW-032R	4/20/2015 11:47	0.1	3.2	21.8	74.9	65				0.0	-0.1	-0.06	
SEW-032R	4/20/2015 11:48	0	0	20.4	79.6	65				0.0	0.0	-0.12	
SEW-060R	4/17/2015 9:53	10.6	30.6	8.4	50.4	90				-0.2	-0.2	-18.04	
SEW-060R	4/17/2015 9:56	10.9	29.8	8.7	50.6	90				-0.1	-0.2	-16.76	
SEW-061R	4/17/2015 10:57	0.1	1.4	21.0	77.5	119				-4.7	-4.7	-20.12	
SEW-061R	4/17/2015 10:58	0	0.8	21.2	78.0	120				-12.0	-12.0	-18.90	
SEW-062R	4/17/2015 11:20	0.1	0.1	21.4	78.4	94				0.2	0.1	-20.55	
SEW-062R	4/17/2015 11:25	0.1	1.3	20.8	77.8	104				0.0	0.0	-20.80	
SEW-063	4/20/2015 13:44	0.9	10.9	18.0	70.2	143				-2.7	-3.4	-11.01	
SEW-063	4/20/2015 13:47	0.4	32.5	11.7	55.4	155				-0.6	-0.3	-13.76	
SEW-064	4/17/2015 14:43	9.4	48.5	5.7	36.4	125				-1.4	-1.4	-15.35	
SEW-064	4/17/2015 14:43	9.2	48.2	5.8	36.8	125				-1.4	-1.4	-14.92	
SEW-072R	4/20/2015 14:45	3.8	18.0	14.6	63.6	102				-0.6	-0.5	-15.78	
SEW-072R	4/20/2015 14:46	3.8	17.5	14.7	64.0	103				-0.7	-0.5	-16.64	
SEW-074	4/17/2015 14:52	17.8	42.5	5.3	34.4	104				-0.4	-0.4	-2.87	
SEW-074	4/17/2015 14:53	18.0	42.9	5.1	34.0	105				-0.4	-0.4	-2.14	
SEW-079R	4/17/2015 15:02	10.9	37.8	6.8	44.5	101				-0.7	-0.7	-14.07	
SEW-079R	4/17/2015 15:04	11.7	34.7	6.8	46.8	101				-0.5	-0.5	-15.05	
T-56	4/10/2015 14:26	36.9	33.4	0.9	28.8	59		21	23	-0.2	-0.2	-28.53	

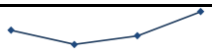
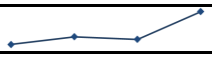
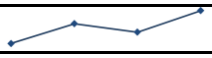
ATTACHMENT E-2

MAXIMUM WELLHEAD TEMPERATURE TABLE

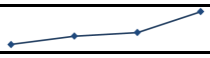
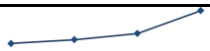
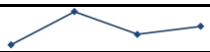
Wellfield Temperature - Bridgeton Landfill

Well Name	Maximum Initial Temperature From All Monthly Wellhead Readings (in °F)				Temp Trend ><30°F	Comments
	Jan 2015	Feb 2015	Mar 2015	Apr 2015		
GEW-001	--	--	--	--		
GEW-002	121.5	120.5	123.0	123.0		
GEW-003	109.5	72.9	124.5	124.5		
GEW-004	115.5	103.9	118.6	117.0		
GEW-005	97	93.1	96.9	95.4		
GEW-006	88.9	88.6	91.2	91.1		
GEW-007	115.5	89.7	93.4	99.0		
GEW-008	116.5	115	117	118.0		
GEW-009	122.1	124	125.4	126.0		
GEW-010	84.3	91.3	97.9	104.7		
GEW-011	185.8	187.4	185.8	190.2		
GEW-013A	--	--	--	--		
GEW-014A	104.5	126.6	95.2	83.2		
GEW-015	--	--	--	--		
GEW-016R	196.6	196	196.6	196.0		
GEW-018B	--	--	--	--		
GEW-018R	181.4	--	180.8	179.3		
GEW-019A	--	--	--	--		
GEW-020A	55	63	55.5	63.8		
GEW-021A	89	103	88.7	88.4		
GEW-022R	185	188.3	191.3	191.9		
GEW-023A	153	108.6	147.7	165.0		
GEW-024A	--	--	--	--		
GEW-025A	183	186.3	187.9	189.6		
GEW-026R	186	185.8	177.3	150.5		
GEW-027A	68	72	71	178.2		Flow Restored
GEW-028R	76	162.7	87.8	184.1		Flow Restored
GEW-029	191	192	192	193.1		
GEW-030R	--	--	--	--		
GEW-033R	60	--	--	--		
GEW-034	75	88	92.5	79.5		
GEW-034A	--	--		--		
GEW-035	132	129	123.2	133.1		
GEW-036	--	--	--	--		
GEW-037	44	54	--	89.8		

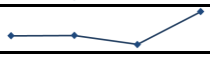
Wellfield Temperature - Bridgeton Landfill

Well Name	Maximum Initial Temperature From All Monthly Wellhead Readings (in °F)				Temp Trend ><30°F	Comments
	Jan 2015	Feb 2015	Mar 2015	Apr 2015		
GEW-038	166.4	139.3	158.8	165.5		
GEW-039	138.1	137.5	138.4	136.5		
GEW-040	86.3	87	92.3	92.7		
GEW-041R	100.8	104.3	107.2	107.6		
GEW-042R	125.4	51.9	87.8	90.9		
GEW-043R	57.4	122.3	130.6	134.7		
GEW-044	89.2	88.6	91.7	99.2		
GEW-045R	61.4	41.7	53.8	87.0		Flow Restored
GEW-046R	94.5	79.3	81.5	88.8		
GEW-047R	115	111.3	116.6	115.0		
GEW-048	102.4	103.4	104.7	107.0		
GEW-049	104.7	107.2	107.4	110.0		
GEW-050	105.4	106.7	106.5	109.2		
GEW-051	120.2	120.4	120.4	123.7		
GEW-052	111.3	112.8	112.1	117.0		
GEW-053	136.2	136	138.8	138.0		
GEW-054	153.7	148.4	145.5	147.0		
GEW-055	123.4	122.6	126.6	124.9		
GEW-056R	156.6	167.3	161.4	166.0		
GEW-057B	184.6	181.9	185.7	187.9		
GEW-057R	192	186.8	187.4	190.2		
GEW-058	191.3	192.5	192.5	194.1		
GEW-058A	192	--	191.3	191.6		
GEW-059R	188.5	187.5	184.6	183.5		
GEW-061B	34.9	47.2	43.1	87.6		Low Flow Restored
GEW-065A	198	194.2	195.4	196.0		
GEW-066	195.4	196	199	196.7		
GEW-067A	189.6	192.3	193.7	191.9		
GEW-069R	90	49.6	95.7	113.2		
GEW-070R	52.8	83.7	70.7	104.5		Low Flow Restored
GEW-071	--	200.2	196	170.2		
GEW-071B	--	--	--	--		
GEW-072RR	--	--	--	--		
GEW-073R	--	--	--	--		
GEW-075	50.3	66.2	48.2	91.7		Low Flow Restored

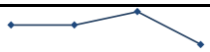
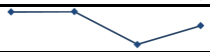
Wellfield Temperature - Bridgeton Landfill

Well Name	Maximum Initial Temperature From All Monthly Wellhead Readings (in °F)				Temp Trend ><30°F	Comments
	Jan 2015	Feb 2015	Mar 2015	Apr 2015		
GEW-076R	--	--	--	--		
GEW-077	96	--	--	--		
GEW-078R	--	--	--	--		
GEW-080	199	196.6	197.2	197.2		
GEW-081	--	--	--	--		
GEW-082R	193	191.9	190.8	191.3		
GEW-083	40.9	46.9	61.1	89.4		
GEW-084	75.4	75.5	90.1	79.5		
GEW-085	--	--	--	--		
GEW-086	44.8	70.7	76.1	102.0		
GEW-088	--	--	--	--		
GEW-089	36	48.4	53.7	85.1		Low Flow Restored
GEW-090	203	193.1	193.7	192.5		
GEW-091	--	--	--	--		
GEW-100	--	--	--	--		
GEW-101	58	105	82.1	--		
GEW-102	58	--	118.8	--		
GEW-103	--	58	81.5	--		
GEW-104	59.1	74.9	83.4	122.1		Flow Restored
GEW-105	57.9	58	76.6	95.9		
GEW-106	--	--	--	--		
GEW-107	59	67	81.3	132.1		Flow Restored
GEW-108	--	--	--	--		
GEW-109	183.5	181.4	186.3	186.3		
GEW-110	63.5	175.7	169	168.3		
GEW-112	--	--	--	--		
GEW-113	--	--	--	--		
GEW-116	72	63.3	59.9	63.3		
GEW-117	49	--	--	--		
GEW-118	--	--	--	--		
GEW-120	--	196.6	61.7	108.8		Flow Restored
GEW-121	196.6	193.1	193.7	194.8		
GEW-122	194.8	192.5	194.8	190.2		
GEW-123	169.7	183.5	181.4	190.3		
GEW-124	51.2	52.5	140.8	87.8		Flow Restricted

Wellfield Temperature - Bridgeton Landfill

Well Name	Maximum Initial Temperature From All Monthly Wellhead Readings (in °F)				Temp Trend ><30°F	Comments
	Jan 2015	Feb 2015	Mar 2015	Apr 2015		
GEW-125	96.4	65.4	178.3	189.1		
GEW-126	--	--	194.2	195.4		
GEW-127	80.7	52.8	185.2	186.3		
GEW-128	183.5	183	183.1	183.0		
GEW-129	--	--	161.4	163.2		
GEW-130	--	--	--	--		
GEW-131	156.2	152.5	148.9	178.7		
GEW-132	186.3	190.2	189.6	193.1		
GEW-133	57.3	40.7	64.6	188.5		Flow Restored
GEW-134	59.1	42.4	116.9	105.6		
GEW-135	61.6	40.2	57.9	190.8		Flow Restored
GEW-136	139.3	140	125.4	179.1		Flow Restored
GEW-137	41.4	38.4	161.9	146.7		
GEW-138	169.7	143.3	197.2	186.5		
GEW-139	194.8	193.8	193.1	193.7		
GEW-140	184.6	186.9	187.4	186.8		
GEW-141	73.8	70.5	126	140.0		
GEW-142	84.7	178.7	189.6	192.5		
GEW-143	190.2	191.9	192.5	193.7		
GEW-144	73.4	76	100.2	107.2		
GEW-145	69.2	63.7	80.2	106.6		
GEW-146	53.7	97.1	127.2	99.3		Flow Restricted
GEW-147	202.1	194.2	191.3	190.6		
GEW-148	43.8	--	183	189.1		
GEW-149	43.2	183.1	178.3	181.4		
GEW-150	176.7	177.2	177.7	191.9		
GEW-151	46.2	39.2	46.2	199.6		Flow Restored
GEW-152	192.5	194.8	188.5	187.9		
GEW-153	45.5	146.3	46.6	82.1		Low Flow Restored
GEW-154	162.7	176.8	162.7	161.4		
GEW-155	158.8	173.2	198.5	168.3		Flow Restricted
GEW-156	145.5	176.3	171.7	164.1		
GIW-01	189.7	195.4	192.5	193.0		
GIW-02	54.5	43.8	70.4	86.1		
GIW-03	62.2	77.4	69.2	86.8		

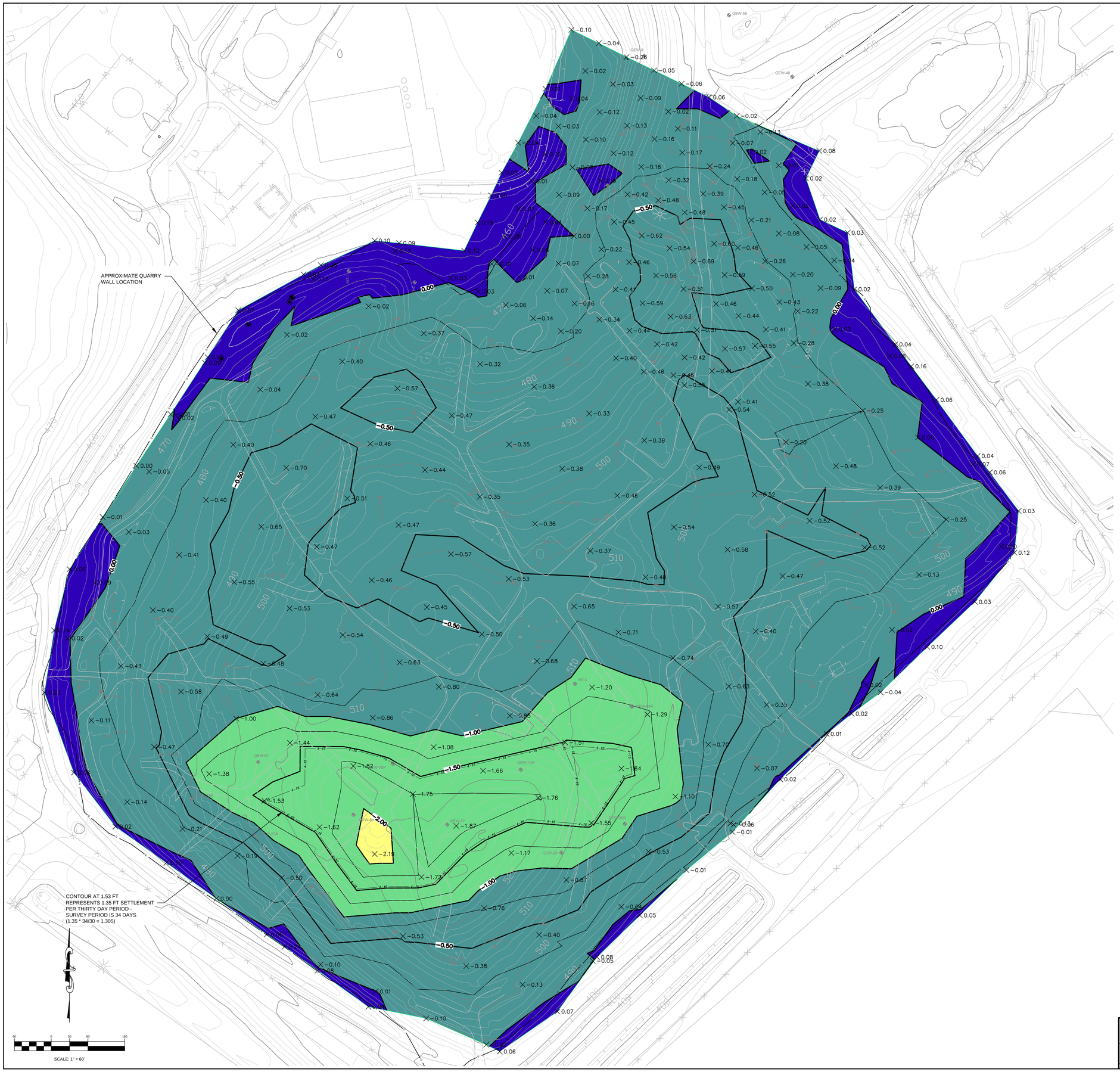
Wellfield Temperature - Bridgeton Landfill

Well Name	Maximum Initial Temperature From All Monthly Wellhead Readings (in °F)				Temp Trend ><30°F	Comments
	Jan 2015	Feb 2015	Mar 2015	Apr 2015		
GIW-04	58.8	56.3	68.3	84.2		
GIW-05	53.4	42.1	75.2	95.0		
GIW-06	56.4	44.5	79.5	87.2		
GIW-07	64.6	42.8	70.2	87.2		
GIW-08	56.9	57.9	92.7	100.8		
GIW-09	190.8	188	192.8	194.2		
GIW-10	61.6	52.5	71.2	87.6		
GIW-11	149.3	168.8	171.2	175.0		
GIW-12	165.9	168.3	155.8	180.2		
GIW-13	151.7	135	177.7	178.8		
LCS-1D	--	--	--	--		
LCS-2D	--	--	126.3	123.0		
LCS-3C	150.6	--	--	--		
LCS-4B	--	--	--	--		
LCS-5A	98.3	98.3	100.7	98.3		
LCS-6B	57.9	47.9	62.2	84.9		
PGW-60	93.4	42.5	91.1	92.3		
SEW-012A	53.1	48.6	65.7	76.4		
SEW-017R	153.5	80.6	140.7	132.3		
SEW-031R	--	193	191.8	193.1		
SEW-032R	61.3	70	101.4	64.6		Flow Restricted
SEW-060R	63.3	67.8	67.4	90.3		
SEW-061R	33.6	95	127	120.0		
SEW-062R	146.6	146.2	175.7	104.1		Flow Restriced
SEW-063	187.6	188.5	111.3	155.4		Flow Restored
SEW-064	122.8	107	115.7	124.9		
SEW-067	120.2	110.6	94.7	--		
SEW-072R	88.4	89.3	93.1	103.0		
SEW-074	84	91.7	87.8	104.5		
SEW-079R	79.3	74.5	54.3	101.0		Flow Restored
T-56	44.6	46.3	48.9	59.1		

-- = Indicates no data available.

ATTACHMENT F

SETTLEMENT FRONT MAP



LEGEND

- TOPOGRAPHY (2' CONTOUR)
- 500 TOPOGRAPHY (10' CONTOUR)
- ELEVATION CHANGE (0.25' CONTOUR)
- −1.50 ELEVATION CHANGE (0.50' CONTOUR)
- 4−15 APRIL 17, 2015 SETTLEMENT FRONT

GENERAL NOTES:
1.) TOPOGRAPHY SHOWN BASED ON PHOTOGRAPHY DATED 2-10-2015.

SETTLEMENT NOTES:
1.) CONTOURS ARE OF CHANGE IN ELEVATION FROM 3/14/15 TO 4/17/15 PERFORMED AT GRID POINTS USING GPS METHODS.

2.) SETTLEMENT IS REPORTED AS A NEGATIVE CHANGE IN ELEVATION.

3.) ANY POINTS THAT WERE NOT A GROUND TO GROUND COMPARISON FROM THE PREVIOUS MONTH OR WERE NOT SURVEYED IN THE SAME LOCATION AS THE PREVIOUS MONTH HAVE BEEN FILTERED OUT.

ELEVATION CHANGE (FEET)

Number	Minimum Elev. Change	Maximum Elev. Change	Area (sq.ft.)	Color
1	−5.00	−4.00	0.00	
2	−4.00	−3.00	0.00	
3	−3.00	−2.00	3806.04	
4	−2.00	−1.00	194683.55	
5	−1.00	0.00	1203450.40	
6	0.00	1.00	135835.66	

BRIDGETON LANDFILL, LLC
13570 SAINT CHARLES ROCK ROAD
BRIDGETON, MISSOURI 63044

BRIDGETON LANDFILL
SETTLEMENT MONITORING

SETTLEMENT FROM 3-14-15 TO 4-17-15 (34 DAYS)

Engineering for a Better World
FEEZOR ENGINEERING, INC.

DATE: APRIL 2015
DESIGNED BY: DMK
APPROVED BY: ALK

DRAWING NO.: 001

PROJECT NUMBER: BT-021 | FILE PATH: S:\BRIDGETON LANDFILL\BT-021\SETTLEMENT DRAWINGS\APRIL 2015\SETTLEMENT MARCH – APRIL 2015.DWG

REVISION	DATE

ATTACHMENT G

SUMMARY OF ODOR COMPLAINTS

April 1, 2015 – April 30, 2015 / MDNR ODOR COMPLAINTS

Name: N/A

Message: Odor logged April 30, 2015, at 5:30 pm, strength of 10

Follow-up: The following concern has been investigated by Bridgeton Landfill staff. A brief vacuum interruption occurred on this date resulting in observed low level (<2 nasal ranger D/T value) odors along the south fence line of the Bridgeton Landfill. Multiple odor inspections were performed during this disruption which lasted from approximately 14:30 to 15:00, odor was not observed in the location of this concern. This was resolved and odor had dissipated by approximately 15:30. Odor self-inspections performed on the evening of this date did not observe any Bridgeton Landfill odor. As this concern was submitted over 23 hours after stated observation this could not be further investigated by Bridgeton Landfill staff.

Name: N/A

Message: Odor logged April 30, 2015, at 5:15 pm, strength of 3

Follow-up: The following concern has been investigated by Bridgeton Landfill staff. A brief vacuum interruption occurred on this date resulting in observed low level (<2 nasal ranger D/T value) odors along the south fence line of the Bridgeton Landfill. Multiple odor inspections were performed during this disruption which lasted from approximately 14:30 to 15:00, odor was not observed in the location of this concern. This was resolved and odor had dissipated by approximately 15:30. Odor self-inspections performed on the evening of this date did not observe any Bridgeton Landfill odor. As this concern was submitted approximately 2 hours after stated observation this could not be further investigated by Bridgeton Landfill staff.

Name: N/A

Message: Odor logged April 30, 2015, at 4:30 pm, strength of 8

Follow-up: The following concern has been investigated by Bridgeton Landfill staff. A brief vacuum interruption occurred on this date resulting in observed low level (<2 nasal ranger D/T value) odors along the south fence line of the Bridgeton Landfill. Multiple odor inspections were performed during this disruption which lasted from approximately 14:30 to 15:00, odor was not observed in the location of this concern. This was resolved and odor had dissipated by approximately 15:30. Odor self-inspections performed on the evening of this date did not observe any Bridgeton Landfill odor. As this concern was submitted approximately 4 hours after stated observation this could not be further investigated by Bridgeton Landfill staff.

Name: John Guptill

Message: Odor logged April 30, 2015, at 3:45 pm, strength of 10

Follow-up: The following concern has been investigated by Bridgeton Landfill staff. A brief vacuum interruption occurred on this date resulting in observed low level (<2 nasal ranger D/T value) odors along the south fence line of the Bridgeton Landfill. Multiple odor inspections were performed during this disruption which lasted from approximately 14:30 to 15:00, odor was not observed in the location of this concern. This was resolved and odor had dissipated by approximately 15:30. Odor self-inspections performed on the evening of this date did not observe any Bridgeton Landfill odor. As this concern was submitted over 17 hours after stated observation this could not be further investigated by Bridgeton Landfill staff.

Name: Michael Dailey

Message: Odor logged April 30, 2015, at 1:22 pm, strength of 10

Follow-up: The following concern was investigated by Bridgeton Landfill staff immediately upon receipt. No odor related to the Bridgeton Landfill was observed.

Name: Robbin Dailey

Message: Odor logged April 30, 2015, at 1:23 pm, strength of 10

Follow-up: The following concern was investigated by Bridgeton Landfill staff immediately upon receipt. No odor related to the Bridgeton Landfill was observed.

Name: N/A

Message: Odor logged April 30, 2015, at 12:30 pm, strength of 4

Follow-up: Bridgeton Landfill staff performed and odor self-inspection less than one hour before this concern and following up inspections less than half an hour after this concern. No odor related to the Bridgeton Landfill was observed at locations in proximity to this concern location during any of those inspections. This was not a Bridgeton Landfill odor.

Name: Michael Dailey

Message: Odor logged April 30, 2015, at 12:19 pm, strength of 10

Follow-up: The following concern was investigated by Bridgeton Landfill staff immediately upon receipt. No odor related to the Bridgeton Landfill was observed.

Name: Robbin Dailey

Message: Odor logged April 30, 2015, at 12:19 pm, strength of 10

Follow-up: The following concern was investigated by Bridgeton Landfill staff immediately upon receipt. No odor related to the Bridgeton Landfill was observed.

Name: Robbin Dailey

Message: Odor logged April 30, 2015, at 11:27 am, strength 10

Follow-up: The following concern has been investigated by Bridgeton Landfill staff. A self-inspection was in progress at the time of this concern including an observation in the immediate vicinity of this concern approximately 10 minutes after the stated observation time in this concern. No odor related to the Bridgeton Landfill was observed.

Name: Michael Dailey

Message: Odor logged April 30, 2015, at 11:26 am, strength 10

Follow-up: The following concern has been investigated by Bridgeton Landfill staff. A self-inspection was in progress at the time of this concern including an observation in the immediate vicinity of this concern approximately 10 minutes after the stated observation time in this concern. No odor related to the Bridgeton Landfill was observed.

Name: Kathy Bell

Message: Odor logged April 30, 2015, at 10:50 am, strength 5

Follow-up: The following concern was investigated shortly after receipt by Bridgeton Landfill staff. An odor best described as burnt peanuts was observed at this location. This odor is consistent with recent observations that have been traced back to an industrial facility to the immediate north of this location. Winds were of a northern origin, placing this location upwind of the Bridgeton Landfill. This was not a Bridgeton Landfill odor.

Name: Robbin Dailey

Message: Odor logged April 30, 2015, at 10:15 am, strength 10

Follow-up: The following concern has been investigated by Bridgeton Landfill staff. No odor related to the Bridgeton Landfill has been observed in this location during odor self-inspections on this date. This is not believed to have been a Bridgeton Landfill odor.

Name: Michael Dailey

Message: Odor logged April 30, 2015, at 10:15 am, strength 10

Follow-up: The following concern has been investigated by Bridgeton Landfill staff. No odor related to the Bridgeton Landfill has been observed in this location during odor self-inspections on this date. This is not believed to have been a Bridgeton Landfill odor.

Name: N/A

Message: Odor logged April 30, 2015, at 9:45 am, strength of 4

Follow-up: The following concern is located in the immediate vicinity and at the time cited in this concern directly downwind of two other known odor sources in the area. This was not a Bridgeton Landfill odor.

Name: Rhonda Steelman

Message: Odor logged April 30, 2015, at 9:10 am, strength of 9

Follow-up: The following concern has been investigated by Bridgeton Landfill staff. An odor self-inspection was performed between the stated observation time of this concern and the submittal time. No odor was observed at multiple points in close proximity to this concern location. A very weak earthy odor could be observed at the southeastern most fence line of the Bridgeton Landfill but faded to non-detect in a short distance from that point.

Name: Tara Routt

Message: Odor logged April 30, 2015, at 9:00 am, strength of 8

Follow-up: The following odor occurred in close chronological and geographic proximity to Bridgeton Landfill odor self-inspection points. A distinct asphalt odor was visible. Winds were

of a western origin throughout this period, indicating that this odor originated from the asphalt plant located to the southwest of this location.

Name: Anna Werner

Message: Odor logged April 30, 2015, at 6:50 am, strength of 8

Follow-up: The following concern is located in the immediate vicinity and at the time cited in this concern directly downwind of two other known odor sources in the area. This was not a Bridgeton Landfill odor.

Name: Greg and Ellen Wortham

Message: Odor logged April 29, 2015, at 7:30 pm, strength 4

Follow-up: The following concern has been investigated by Bridgeton Landfill staff. Odor self-inspections performed on this evening observed no odor related to the Bridgeton Landfill around the site perimeter including at observation points in close proximity to this concern location. Winds were of a west southwest origin placing this location upwind of the Bridgeton Landfill and directly downwind of another known odor source with off-site odor observed by Bridgeton Landfill staff the morning of 4/30/15 during a period of similar wind conditions as the previous evening, strongly indicating that this other known odor source was the origin of this odor.

Name: N/A

Message: Odor logged April 29, 2015, at 7:10 pm, strength 7

Follow-up: The following concern cites a location within the restricted boundaries of the Bridgeton Landfill, the default location for concern submitted without location data. As a result this concern cannot be investigated.

Name: N/A

Message: Odor logged April 29, 2015, at 6:30 pm, strength 5

Follow-up: The following concern has been investigated by Bridgeton Landfill staff. Odor self-inspections performed on this evening observed no odor related to the Bridgeton Landfill around the site perimeter including at observation points in close proximity to this concern location. Winds were of a west southwest origin placing this location upwind of the Bridgeton Landfill and directly downwind of another known odor source with off-site odor observed by

Bridgeton Landfill staff the morning of 4/30/15 during a period of similar wind conditions as the previous evening, strongly indicating that this other known odor source was the origin of this odor.

Name: Meagan Beckermann

Message: Odor logged April 29, 2015, at 5:00 pm, strength 7

Follow-up: The following concern was submitted less than an hour after a Bridgeton Landfill odor self-inspection that observed no odor related to the Bridgeton Landfill at points between this concern and the Bridgeton Landfill. This location is directly adjacent to another known odor source. Winds were of a north northwest origin placing this location well outside the downwind pathway of the Bridgeton Landfill and directly downwind from this other known odor source. This was not a Bridgeton Landfill odor.

Name: Kathy Bell

Message: Odor logged April 29, 2015, at 4:33 pm, strength of 5

Follow-up: An odor self-inspection was performed shortly before the time cited in this concern. No odor related to the Bridgeton Landfill was observed in the vicinity of this concern. Low level odor (2-4 Nasal Ranger D/T value) was observed immediately at the Bridgeton Landfill property boundary during this inspection, but was consistently non-detect within 30 feet of the boundary. This is not believed to have been a Bridgeton Landfill odor.

Name: N/A

Message: Odor logged April 29, 2015, at 3:10 pm, strength 7

Follow-up: The following concern cites a location within the restricted boundaries of the Bridgeton Landfill, the default location for concern submitted without location data. As a result this concern cannot be investigated.

Name: N/A

Message: Odor logged April 29, 2015, at 2:52 pm, strength of 8

Follow-up: The following concern was investigated within approximately half an hour of the concern observation time. No odor related to the Bridgeton Landfill was observed at this

location or multiple locations in close proximity to this location. This is not a Bridgeton Landfill odor.

Name: Michael Dailey

Message: Odor logged April 29, 2015, at 2:44 pm, strength of 10

Follow-up: The following concern was investigated within approximately half an hour of the concern observation time. No odor related to the Bridgeton Landfill was observed at this location or multiple locations in close proximity to this location. This is not a Bridgeton Landfill odor.

Name: Steve Commuso

Message: Odor logged April 29, 2015, at 2:27 pm, strength of 6

Follow-up: The following concern was investigated within approximately half an hour of the concern observation time. No odor related to the Bridgeton Landfill was observed at this location or multiple locations in close proximity to this location. This is not a Bridgeton Landfill odor.

Name: Robbin Dailey

Message: Odor logged April 29, 2015, at 1:30 pm, strength of 5

Follow-up: The following concern has been investigated by Bridgeton Landfill staff. As this concern was submitted over one hour after the stated observation time this could not be investigated in real-time. Multiple odor self-inspections were performed on this date and did not observe odor related to the Bridgeton Landfill in the vicinity of this concern. This is not believed to have been a Bridgeton Landfill odor.

Name: Bob Nowlin

Message: Odor logged April 29, 2015, at 11:01 am, strength of 6

Follow-up: The following concern has been investigated by Bridgeton Landfill staff. As this concern was submitted 5 hours after the stated observation time this could not be investigated in real-time. Multiple odor self-inspections were performed on this date and did not observe odor related to the Bridgeton Landfill in the vicinity of this concern. This is not believed to have been a Bridgeton Landfill odor.

Name: N/A

Message: Odor logged April 29, 2015, at 9:16 am, strength of 5

Follow-up: The following concern is immediately adjacent and directly downwind of another known odor source while being well upwind of the Bridgeton Landfill. This was not a Bridgeton Landfill related odor.

Name: Meagan Beckermann

Message: Odor logged April 29, 2015, at 8:56 am, strength of 6

Follow-up: An odor self-inspection was performed within less than half an hour of this concern. No odor related to the Bridgeton Landfill was observed at multiple locations between this location and the Bridgeton Landfill. This was not a Bridgeton Landfill odor.

Name: Debbie Neuman

Message: Odor logged April 29, 2015, at 8:00 am, strength of 9

Follow-up: The following concern has been investigated by Bridgeton Landfill staff. As the concern was submitted approximately 4 hours after the stated observation time this could not be investigated in real-time. An odor self-inspection slightly over an hour after this concern observed no odor related to the Bridgeton Landfill.

Name: John Guptill

Message: Odor logged April 29, 2015, at 7:16 am, strength of 10

Follow-up: The following concern has been investigated by Bridgeton Landfill staff. As the concern was submitted approximately 2 hours after the stated observation time this could not be investigated in real-time. An odor self-inspection slightly over an hour after this concern observed no odor related to the Bridgeton Landfill.

Name: Kathy Bell

Message: Odor logged April 29, 2015, at 5:38 am, strength of 8

Follow-up: The following concern has been investigated by Bridgeton Landfill staff. At this time winds were of a due west origin, placing this location directly upwind of the Bridgeton Landfill and directly downwind of another known odor source with other concerns in the immediate vicinity within the last 12 hours. This concern likely was related to odor from this other known odor source.

Name: Lori Hartley

Message: Odor logged April 29, 2015, at 4:30 am, strength of 10

Follow-up: The following concern is located immediately downwind of another known odor source and well upwind of the Bridgeton Landfill. This was not a Bridgeton Landfill odor.

Name: Kathy Bell

Message: Odor logged April 29, 2015, at 3:30 am, strength of 9

Follow-up: The following concern has been investigated by Bridgeton Landfill staff. At this time winds were of a due west origin, placing this location directly upwind of the Bridgeton Landfill and directly downwind of another known odor source with other concerns in the immediate vicinity within the last 12 hours. This concern likely was related to odor from this other known odor source.

Name: Karen Nickel

Message: Odor logged April 28, 2015, at 8:00 pm, strength of 3

Follow-up: The following concern is in close proximity to another known odor source and well upwind of the Bridgeton Landfill. This was not a Bridgeton Landfill odor.

Name: Rhonda Steelman

Message: Odor logged April 28, 2015, at 12:41 pm, strength of 7

Follow-up: The following concern has been investigated by Bridgeton Landfill staff. Due to the late filing this concern could not be investigated in real-time. Odor observations were performed in close geographic and chronological proximity to this concern however. No odor related to the Bridgeton Landfill was observed in the proximity of this concern.

Name: Mark Chamberlain

Message: Odor logged April 28, 2015, at 12:00 pm, strength of 6

Follow-up: This concern is of substantial distance from the Bridgeton Landfill. The concern was submitted over 8 hours after the observation time. Odor self-inspections on this date did not observe odor related to the Bridgeton Landfill at far closer points than this during self-inspections. This was not a Bridgeton Landfill odor.

Name: N/A

Message: Odor logged April 27, 2015, at 8:16 am, strength of 8

Follow-up: The map coordinates selected are within the boundaries of the Bridgeton Landfill. The address provided is immediately adjacent to another known odor source. Winds were of a due north origin throughout this date, placing this location directly downwind of this other known odor source. This was not a Bridgeton Landfill odor.

Name: Kathy Bell

Message: Odor logged April 27, 2015, at 6:53 am, strength of 7

Follow-up: The following concern was investigated approximately 40 minutes following the stated observation time. An odor best described as "burnt peanuts" and previously associated with an industrial facility directly upwind (to the north) at the time of this concern has been identified as the source. This was not a Bridgeton Landfill odor.

Name: Christen Commuso

Message: Odor logged April 27, 2015, at 6:47 am, strength of 9

Follow-up: The map coordinates selected are within the boundaries of the Bridgeton Landfill. The address provided is immediately adjacent to another known odor source. Winds were of a due north origin throughout this date, placing this location directly downwind of this other known odor source. This was not a Bridgeton Landfill odor.

Name: Kathy Bell

Message: Odor logged April 27, 2015, at 5:44 am, strength of 6

Follow-up: The following concern has been investigated by Bridgeton Landfill staff. No odor was observed originating from the Bridgeton Landfill during evening or morning odor self-inspections prior to and after the stated observation time of this concern.

Name: Rhonda Steelman

Message: Odor logged April 26, 2015, at 4:18 pm, strength of 5

Follow-up: The following concern has been investigated by Bridgeton Landfill staff. No odor was observed originating from the Bridgeton Landfill during evening or morning odor self-inspections prior to and after the stated observation time of this concern.

Name: Bob & Kathy Schindler

Message: Odor logged April 26, 2015, at 3:20 pm, strength of 8

Follow-up: The following concern cites a location within the boundaries of the Bridgeton Landfill site and is therefore invalid.

Name: Rebecca Tobar

Message: Odor logged April 24, 2015, at 9:50 am, strength 4

Follow-up: The following concern was investigated immediately after receipt. No odor related to the Bridgeton Landfill was observed. An odor from a commercial bakery was very faintly observed and tracked back to said bakery, this was a sweet odor with a slightly savory background and very faint nasal irritant properties.

Name: N/A

Message: Odor logged April 24, 2015, at 8:17 am, strength of 7

Follow-up: The map coordinates selected are within the boundaries of the Bridgeton Landfill. The address provided is immediately adjacent to another known odor source. Winds were of a due north origin throughout this date, placing this location directly downwind of this other known odor source. This was not a Bridgeton Landfill odor.

Name: Kathy Bell

Message: Odor logged April 23, 2015, at 6:45 am, strength 9

Follow-up: The following concern has been investigated by Bridgeton Landfill staff. Winds were of a persistent southwest vector before and during the time cited in this concern. The Bridgeton Landfill is located to the northeast of this location while other known odor sources with frequent odor observations are located in close proximity to the southwest. This is not believed to have been a Bridgeton Landfill odor.

Name: David Blackwell

Message: Odor logged April 23, 2015, at 6:00 am, strength 6

Follow-up: The following concern has been investigated by Bridgeton Landfill staff. Winds were of a persistent southwest vector before and during the time cited in this concern. The Bridgeton Landfill is located to the northeast of this location while other known odor sources with frequent odor observations are located in close proximity to the southwest. This is not believed to have been a Bridgeton Landfill odor.

Name: Kathy Bell

Message: Odor logged April 23, 2015, at 5:48 am, strength 6

Follow-up: The following concern has been investigated by Bridgeton Landfill staff. Winds were of a persistent southwest vector before and during the time cited in this concern. The Bridgeton Landfill is located to the northeast of this location while other known odor sources with frequent odor observations are located in close proximity to the southwest. This is not believed to have been a Bridgeton Landfill odor.

Name: Tracy Dedert

Message: Odor logged April 22, 2015, at 5:15 pm, strength 4

Follow-up: The following concern cites a date and time 21 hours prior to the submission of this concern. At that time winds were of a consistent due west vector. This location is due south of the Bridgeton Landfill. A known odor source with frequent observed odor exceedances is in close proximity of this concern due west. This was likely the source of this odor. Bridgeton Landfill staff performed odor inspections at 16:00 and 20:00 on this date and neither observed odor related to the Bridgeton Landfill. The 16:00 observations observed an asphalt/tar odor likely originating from the aforementioned suspected source.

Name: Irma Kennebeck

Message: Odor logged April 22, 2015, at 3:29 pm, strength 9

Follow-up: The following concern has been investigated by Bridgeton Landfill staff. An odor self-inspection was in close proximity to this concern location less than half an hour after the time cited in this concern and no odor related to the Bridgeton Landfill could be observed.

Name: N/A

Message: Odor logged April 22, 2015, at 12:00 pm, strength 7

Follow-up: The following concern has been investigated by Bridgeton Landfill staff. This concern is of significant crosswind/upwind distance from the Bridgeton Landfill. No Bridgeton Landfill odor has ever been confirmed remotely close to this concern location. This is not believed to have been a Bridgeton Landfill odor.

Name: Meagan Beckermann

Message: Odor logged April 22, 2015, at 10:30 am, strength 9

Follow-up: The following concern has been investigated by Bridgeton Landfill staff. This concern was submitted 5 hours after the stated observation time. No odor was observed in proximity of this location during self-inspections on this date.

Name: Karen Nickel

Message: Odor logged April 22, 2015, at 10:00 am, strength 8

Follow-up: The following concern has been investigated by Bridgeton Landfill staff. As this concern cites a time over 9 hours prior to submission this could not be investigated in real-time. Bridgeton Landfill staff observed a very weak (<2 Nasal Ranger D/T value) odor at this location during a later odor self-inspection round. This odor was intermittently present.

Name: Kathy Bell

Message: Odor logged April 22, 2015, at 10:00 am, strength 7

Follow-up: Bridgeton Landfill staff have investigated the following odor concern. As this concern was submitted effectively one hour after the stated observation time this could not be investigated in real-time by Bridgeton Landfill staff. During a self-inspection on this date a very faint, intermittent odor with potential to have originated from the Bridgeton Landfill was briefly observed. This odor was <2 Nasal Ranger D/T and only infrequently present.

Name: Meagan Beckermann

Message: Odor logged April 22, 2015, at 9:30 am, strength 8

Follow-up: The following concern is located well to the southwest of the Bridgeton Landfill. Winds were of a consistently western origin prior to and during the time cited in this concern. Other odor sources are of far closer proximity and upwind of this location. The Bridgeton Landfill is of significant distance downwind. This was not a Bridgeton Landfill odor.

Name: Meagan Beckermann

Message: Odor logged April 22, 2015, at 9:30 am, strength 8

Follow-up: The following concern is located well to the southwest of the Bridgeton Landfill. Winds were of a consistently western origin prior to and during the time cited in this concern. Other odor sources are of far closer proximity and upwind of this location. The Bridgeton Landfill is of significant distance downwind. This was not a Bridgeton Landfill odor.

Name: N/A

Message: Odor logged April 22, 2015, at 9:29 am, strength 6

Follow-up: The following concern is located well to the southwest of the Bridgeton Landfill. Winds were of a consistently western origin prior to and during the time cited in this concern. Other odor sources are of far closer proximity and upwind of this location. The Bridgeton Landfill is of significant distance downwind. This was not a Bridgeton Landfill odor.

Name: Karen Nickel

Message: Odor logged April 22, 2015, at 9:15 am, strength 7

Follow-up: The following concern is located well to the southwest of the Bridgeton Landfill. Winds were of a consistently western origin prior to and during the time cited in this concern.

Other odor sources are of far closer proximity and upwind of this location. The Bridgeton Landfill is of significant distance downwind. This was not a Bridgeton Landfill odor.

Name: N/A

Message: Odor logged April 22, 2015, at 3:00 am, strength 4

Follow-up: The following concern cites a location inside the boundaries of the Bridgeton Landfill property. This is not a valid concern.

Name: David Blackwell

Message: Odor logged April 21, 2015, at 10:45 pm, strength 10

Follow-up: The following concern has been investigated by Bridgeton Landfill staff. An odor self-inspection was performed within the hour of this concern's stated observation time. No odor related to the Bridgeton Landfill was observed. Winds were of a consistent southwest origin placing the Bridgeton Landfill well upwind of this location at the time of this concern. This was not a Bridgeton Landfill odor.

Name: N/A

Message: Odor logged April 21, 2015, at 7:56 pm, strength 6

Follow-up: The following concern is located due south of the Bridgeton Landfill during a period of strong western winds. Other known odor sources with observed odor emissions during this time period are located due west of this concern. Bridgeton Landfill odor self-inspections did not observe Bridgeton Landfill odor at multiple points between this location and the Bridgeton Landfill. This is not believed to have been a Bridgeton Landfill odor.

Name: Rhonda Steelman

Message: Odor logged April 21, 2015, at 3:49 pm, strength 5

Follow-up: The following concern time coincided with a Bridgeton Landfill odor self-inspection. No odor related to the Bridgeton Landfill was observed at multiple points between this location and the Bridgeton Landfill. This was not a Bridgeton Landfill odor.

Name: N/A

Message: Odor logged April 21, 2015, at 10:30 am, strength 7

Follow-up: The following concern cites a location inside the boundaries of the Bridgeton Landfill property. This is not a valid concern.

Name: Kathy Bell

Message: Odor logged April 21, 2015, at 5:04 am, strength 6

Follow-up: The following concern has been investigated by Bridgeton Landfill staff. At the time of this concern winds were of a southwest origin, placing this location directly upwind of the Bridgeton Landfill and directly downwind of another known odor source of equal or closer proximity to this location than the Bridgeton Landfill. This was not a Bridgeton Landfill odor.

Name: Kathy Bell

Message: Odor logged April 20, 2015, at 11:59 pm, strength 9

Follow-up: The following concern has been investigated by Bridgeton Landfill staff. At the time of this concern winds were of a southwest origin, placing this location directly upwind of the Bridgeton Landfill and directly downwind of another known odor source of equal or closer proximity to this location than the Bridgeton Landfill. This was not a Bridgeton Landfill odor.

Name: N/A

Message: Odor logged April 20, 2015, at 9:03 pm, strength 10

Follow-up: The following concern has been investigated by Bridgeton Landfill staff. An odor self-inspection was performed approximately one hour after the submitted time of this concern. No odor related to the Bridgeton Landfill was observed. The location cited in this concern is to the southwest of the Bridgeton Landfill. At the time of this concern winds were of a west northwest origin. Therefore this location was well upwind of the Bridgeton Landfill and directly downwind from another known odor source with multiple odor observations recently of far closer proximity to this concern than the Bridgeton Landfill. This was not a Bridgeton Landfill odor.

Name: N/A

Message: Odor logged April 20, 2015, at 1:37 pm, strength 8

Follow-up: The following concern has been investigated by Bridgeton Landfill staff. Winds have been of a consistent west northwest origin with odor observations from an related source directly upwind of this concern location. This was not a Bridgeton Landfill odor.

Name: N/A

Message: Odor logged April 20, 2015, at 1:00 pm, strength 6

Follow-up: The following concern has been investigated by Bridgeton Landfill staff. Winds have been of a consistent west northwest origin with odor observations from an related source directly upwind of this concern location. This was not a Bridgeton Landfill odor.

Name: Chapman

Message: Odor logged April 20, 2015, at 11:33 am, strength 7

Follow-up: The following concern has been investigated by Bridgeton Landfill. At the time cited in this concern Bridgeton Landfill staff were performing an odor inspection in this area. Winds were of a high velocity west northwest origin. A distinct garbage odor was observed at points near this concern. This odor is typical of another close odor source located directly upwind from this concern. The Bridgeton Landfill is not upwind of this concern and no odor related to the Bridgeton Landfill was observed in this area or at multiple points between this location and the Bridgeton Landfill. This was not a Bridgeton Landfill odor.

Name: Kathy Baumann

Message: Odor logged April 20, 2015, at 10:39 am, strength 6

Follow-up: The following concern was investigated shortly after receipt. Winds were of a persistent west northwest origin with high velocity. No odor was observed in close proximity to this concern location, but odor was observed at both sides of the Creve Coeur Mill Rd. overpass of I-270. This odor was distinctly garbage and likely originated from the nearby odor source consistent with these observations. This was not a Bridgeton Landfill odor.

Name: Karen Nickel

Message: Odor logged April 20, 2015, at 9:30 am, strength 10

Follow-up: The following concern has been investigated by Bridgeton Landfill staff. Winds have been of a consistent west northwest origin at high velocities throughout the day placing this concern location directly upwind of the Bridgeton Landfill. A Bridgeton Landfill odor self-inspection concluded shortly before the time of this concern and observed no odor related to the Bridgeton Landfill at multiple points between this location and the Bridgeton Landfill. This was not a Bridgeton Landfill odor.

Name: N/A

Message: Odor logged April 20, 2015, at 8:29 am, strength 5

Follow-up: The following concern is located well to the southwest of the Bridgeton Landfill. Winds were of a consistently western origin prior to and during the time cited in this concern. Other odor sources are of far closer proximity and upwind of this location. The Bridgeton Landfill is of significant distance downwind. This was not a Bridgeton Landfill odor.

Name: Kathy Bell

Message: Odor logged April 19, 2015, at 8:37 pm, strength 7

Follow-up: The following concern has been investigated by Bridgeton Landfill staff. An odor self-inspection performed slightly over an hour after this concern did not observe any odor related to the Bridgeton Landfill. Winds were of a west southwest origin at this time and for several hours before, placing the Bridgeton Landfill downwind from this location and another known odor source directly upwind of this location. This appears to be a clear example of misattributed odor from a non-Bridgeton Landfill source and not a Bridgeton Landfill odor.

Name: Traci Vette

Message: Odor logged April 19, 2015, at 12:15 pm, strength 3

Follow-up: The following concern has been investigated by Bridgeton Landfill staff. This concern is located directly adjacent to another known odor source with recent observable odor emissions. Winds were gaining velocity from a western origin at this point in time, placing this location upwind of the Bridgeton Landfill and downwind from the other odor source. This is not believed to have been a Bridgeton Landfill odor.

Name: Traci Vette

Message: Odor logged April 19, 2015, at 9:05 am, strength 5

Follow-up: The following odor concern has been investigated by Bridgeton Landfill staff. An odor self-inspection was performed within the hour following this concern and did not observe any odor related to the Bridgeton Landfill in locations close to this concern. Winds were of variable origin at this point in time and this concern location is situated between the Bridgeton Landfill and other known odor sources.

Name: David Blackwell

Message: Odor logged April 18, 2015, at 7:00 am, strength 7

Follow-up: The following concern has been investigated by Bridgeton Landfill staff. An odor self-inspection was performed less than an hour after the time cited in this concern. A septic odor was observed in close proximity to this location, only observable during times of high velocity western wind gusts. As these gusts were from an orientation that places this concern location upwind of the Bridgeton Landfill and no odor associated with the Bridgeton Landfill was observed at multiple points between this location and the Bridgeton Landfill this is not believed to have been a Bridgeton Landfill odor.

Name: N/A

Message: Odor logged April 14, 2015, at 12:17 pm, strength 10

Follow-up: The location given is inside the Bridgeton Landfill property. No one is at that location. This is not a valid concern.

Name: N/A

Message: Odor logged April 14, 2015, at 10:26 am, strength 10

Follow-up: The following concern has been investigated by Bridgeton Landfill staff. The time of this concern coincides with a Bridgeton Landfill odor self-inspection. No odor related to the Bridgeton Landfill was observed throughout this round, including multiple points much closer to the Bridgeton Landfill than this location.

Name: N/A

Message: Odor logged April 14, 2015, at 6:20 am, strength 10

Follow-up: The following concern has been investigated by Bridgeton Landfill staff. This concern is of significant geographic distance away from the Bridgeton Landfill and that location has consistently been against the direction of prevailing winds. No odor related to the Bridgeton Landfill has ever been confirmed from this location. This is not believed to have been a Bridgeton Landfill odor.

Name: Margie Menke

Message: Odor logged April 13, 2015, at 7:40 pm, strength 8

Follow-up: The following concern has been investigated by Bridgeton Landfill staff. This concern failed to provide accurate latitude and longitude coordinates, those listed are the default location within the perimeter of the Bridgeton Landfill. At the time of this concern Bridgeton Landfill staff had observed variance in wind direction with a due west wind. Given that other odor concerns filed on this evening are believed to have originated from another nearby odor source located directly to the west of the postal address provided in this concern and that no odor related to the Bridgeton Landfill was observed on evening site inspections it is believed that this odor was from this other source.

Name: N/A

Message: Odor logged April 13, 2015, at 7:40 pm, strength 8

Follow-up: The following concern has been investigated by Bridgeton Landfill staff. This concern location is immediately adjacent to another known odor source during a time when winds were generally originating from that point. A Bridgeton Landfill odor self-inspection performed slightly over one hour after this concern observed no odor related to the Bridgeton Landfill.

Name: Traci Vette

Message: Odor logged April 13, 2015, at 8:35 pm, strength 4

Follow-up: The following concern has been investigated by Bridgeton Landfill staff. This concern location is immediately adjacent to another known odor source during a time when winds were generally originating from that point. A Bridgeton Landfill odor self-inspection performed slightly over one hour after this concern observed no odor related to the Bridgeton Landfill.

Name: Greg and Ellen Wortham

Message: Odor logged April 13, 2015, at 4:01 pm, strength 5

Follow-up: The following concern was investigated immediately upon receipt by Bridgeton Landfill staff. No odor related to the Bridgeton Landfill was observed at multiple locations throughout the immediate vicinity of this concern.

Name: Traci Vette

Message: Odor logged April 10, 2015, at 9:51 pm, strength of 8

Follow-up: The following concern has been investigated by Bridgeton Landfill staff. This concern is located well to the southwest of the Bridgeton Landfill during a period of due west winds. Two known odor sources are located directly upwind of this concern location. Bridgeton Landfill self-inspections observed garbage odor on the western boundary (upwind) of the Bridgeton Landfill shortly after the submittal of this concern. All evidence indicates that the origin of this odor was a source located to the west of the Bridgeton Landfill.

Name: Richard Beckermann

Message: Odor logged April 10, 2015, at 6:35 pm, strength of 9

Follow-up: The following concern has been investigated by Bridgeton Landfill staff. This concern is located well to the southwest of the Bridgeton Landfill during a period of due west winds. Two known odor sources are located directly upwind of this concern location. Bridgeton Landfill self-inspections observed garbage odor on the western boundary (upwind) of the Bridgeton Landfill shortly after the submittal of this concern. All evidence indicates that the origin of this odor was a source located to the west of the Bridgeton Landfill.

Name: Cindy Burt

Message: Odor logged April 10, 2015, at 6:20 pm, strength of 8

Follow-up: The following concern has been investigated by Bridgeton Landfill staff. This concern is located well to the southwest of the Bridgeton Landfill during a period of due west winds. Two known odor sources are located directly upwind of this concern location. Bridgeton Landfill self-inspections observed garbage odor on the western boundary (upwind) of the Bridgeton Landfill shortly after the submittal of this concern. All evidence indicates that the origin of this odor was a source located to the west of the Bridgeton Landfill.

Name: Meagan Beckermann

Message: Odor logged April 10, 2015, at 6:15 pm, strength of 8

Follow-up: The following concern has been investigated by Bridgeton Landfill staff. This concern is located well to the southwest of the Bridgeton Landfill during a period of due west winds. Two known odor sources are located directly upwind of this concern location. Bridgeton Landfill self-inspections observed garbage odor on the western boundary (upwind) of the Bridgeton Landfill shortly after the submittal of this concern. All evidence indicates that the origin of this odor was a source located to the west of the Bridgeton Landfill.

Name: meagan

Message: Odor logged April 10, 2015, at 8:09 am, strength 5

Follow-up: This concern cites a time shortly before a Bridgeton Landfill self-inspection. That self-inspection stopped at a location in close proximity to this concern and observed no odor related to the Bridgeton Landfill.

Name: meagan

Message: Odor logged April 9, 2015, at 9:06 pm, strength 6

Follow-up: The following concern has been investigated by Bridgeton Landfill staff. As this concern was submitted almost 12 hours after the stated time of observation this could not be investigated in real-time. Winds were of a due west vector placing this location outside of the downwind pathway of the Bridgeton Landfill. It is however directly downwind of another known odor source that Bridgeton Landfill staff observed early on the date of 4/10/15. It is entirely possible this odor source started emitting odor during the evening of 4/9/15.

Name: N/A

Message: Odor logged April 9, 2015, at 9:03 pm, strength 6

Follow-up: The following concern has been investigated by Bridgeton Landfill staff. As this concern was submitted almost 12 hours after the stated time of observation this could not be investigated in real-time. Winds were of a due west vector placing this location outside of the downwind pathway of the Bridgeton Landfill. It is however directly downwind of another known odor source that Bridgeton Landfill staff observed early on the date of 4/10/15. It is entirely possible this odor source started emitting odor during the evening of 4/9/15.

Name: David Blackwell

Message: Odor logged April 8, 2015, at 9:00 am, strength 7

Follow-up: The following concern has been investigated by Bridgeton Landfill staff. Winds were of a southern origin throughout the morning, a garbage smell has been observed in close proximity to this location while performing odor self-inspections this morning. As an odor source to the south of this location frequently has odors consistent with garbage it is likely that was the source of this odor. Bridgeton Landfill was directly upwind from this location throughout the morning and has had no odors observed off-site at multiple points between this location and the Bridgeton Landfill.

Name: Mike Dolan

Message: Odor logged April 7, 2015, at 7:31 am, strength 6

Follow-up: The following concern was investigated by Bridgeton Landfill staff immediately upon receipt. No odor was observed at this location. A distinct sweet odor related to a nearby commercial bakery was observed at a point upwind from this location.

Name: Kathy Bell

Message: Odor logged April 7, 2015, at 6:55 am, strength 5

Follow-up: The following concern has been investigated by Bridgeton Landfill staff. An investigation was performed shortly after receipt. No odor was observed at this specific location. Shortly down the road a distinct solvent odor, likely originating from one of the nearby upwind factories, was detected. Winds were of a southeast origin. This was not a Bridgeton Landfill odor.

Name: Rebecca Tobar

Message: Odor logged April 6, 2015, at 9:10 am, strength 3

Follow-up: The following concern has been investigated by Bridgeton Landfill staff. An odor self-inspection was performed shortly after receipt of this concern as well as approximately 45 minutes prior. The later of the two inspections observed a very faint garbage odor originating from the southwest (winds were of a south by southwest origin). The earlier inspection did not observe any odor at multiple points between this concern location and the Bridgeton Landfill. This is not believed to have been a Bridgeton Landfill odor.

Name: Brandan kelby

Message: Odor logged April 5, 2015, at 10:12 pm, strength 10

Follow-up: The following concern has been investigated by Bridgeton Landfill staff. Winds were of a consistently due south origin placing this concern downwind of another known odor source and directly upwind of the Bridgeton Landfill.

Name: Karen nickel

Message: Odor logged April 4, 2015, at 8:30 pm, strength 7

Follow-up: The following concern failed to provide useable location data. Other odor concerns received on this date strongly indicate another odor source as the cause of multiple concerns on this date. Without complete data this cannot not be fully investigated.

Name: N/A

Message: Odor logged April 4, 2015, at 8:00 pm, strength 10

Follow-up: The following concern has been investigated by Bridgeton Landfill staff. Odor self-inspections performed on the evening of this concern did not detect an odor associated with the Bridgeton Landfill. Winds were of a due south origin placing this concern directly upwind of the Bridgeton Landfill and downwind of another known odor source.

Name: karen nickel

Message: Odor logged April 4, 2015, at 8:15 pm, strength 8

Follow-up: The following concern has been investigated by Bridgeton Landfill staff. Odor self-inspections performed on the evening of this concern did not detect an odor associated with the Bridgeton Landfill. Winds were of a due south origin. This concern is of far closer proximity to another known odor source.

Name: Barbara Ray

Message: Odor logged April 3, 2015, at 5:00 pm, strength 7

Follow-up: The following concern has been investigated by Bridgeton Landfill staff. No odor related to the Bridgeton Landfill was detected during multiple self-inspections performed at

points between this location and the Bridgeton Landfill, both before and after the time cited in this concern.

Name: Mike Dolan

Message: Odor logged April 3, 2015, at 10:36 am, strength 6

Follow-up: The following concern was submitted during Bridgeton Landfill odor inspections, the time and location overlap with observations that did not detect any odor related to the Bridgeton Landfill.

Name: N/A

Message: Odor logged April 3, 2015, at 9:03 pm, strength 5

Follow-up: The following concern was submitted during Bridgeton Landfill odor inspections, the time and location overlap with observations that did not detect any odor related to the Bridgeton Landfill.

Name: Jessi Clayton

Message: Odor logged April 3, 2015, at 10:44 am, strength 7

Follow-up: The following concern was investigated shortly after receipt. No odor related to the Bridgeton Landfill was observed.

Name: Traci Vette

Message: Odor logged April 2, 2015, at 6:25 pm, strength 4

Follow-up: The following concern has been investigated by Bridgeton Landfill staff. This concern location is in very close proximity to another known odor source and was well upwind of the Bridgeton Landfill based on daily wind patterns for this date. No odor was observed off-site during self-inspections throughout this date performed by Bridgeton Landfill staff.

Name: Kathy Bell

Message: Odor logged April 2, 2015, at 4:02 pm, strength 7

Follow-up: The following concern was investigated within minutes of receipt by Bridgeton Landfill staff, no odor related to the Bridgeton Landfill was observed.

Name: Margie Menke

Message: Odor logged April 2, 2015, at 6:45 pm, strength 8

Follow-up: The following concern has been investigated by Bridgeton Landfill staff. No odor related to the Bridgeton Landfill was observed during self-inspections performed on this date. Winds were of a southwest origin throughout the day, placing this location upwind of the Bridgeton Landfill.

Name: Tonya Mason

Message: Odor logged April 2, 2015, at 7:55 pm, strength 7

Follow-up: The following concern has been investigated by Bridgeton Landfill staff. No odor related to the Bridgeton Landfill was observed during self-inspections performed on this date. Winds were of a southwest origin throughout the day, placing this location upwind of the Bridgeton Landfill.

Name: Dawn Chapman

Message: Odor logged April 2, 2015, at 9:42 pm, strength 5

Follow-up: The following concern has been investigated by Bridgeton Landfill staff. No odor related to the Bridgeton Landfill was observed during self-inspections performed on this date. Winds were of a southwest origin throughout the day, placing this location upwind of the Bridgeton Landfill.

Name: Kathy Bell

Message: Odor logged April 2, 2015, at 6:23 pm, strength 6

Follow-up: The following concern has been investigated by Bridgeton Landfill staff. No odor related to the Bridgeton Landfill was observed during self-inspections performed on this date. Winds were of a southwest origin throughout the day, placing this location upwind of the Bridgeton Landfill.

Name: Kathy Bell

Message: Odor logged April 1, 2015, at 10:03 pm, strength 8

Follow-up: Bridgeton Landfill staff performed an odor self-inspection in close proximity to this concern less than an hour before the time cited in this concern. No odor related to the Bridgeton Landfill was observed.

ATTACHMENT H

LIQUID CHARACTERIZATION DATA AND DISCHARGE LOG

Bridgeton Landfill - Leachate PreTreatment Plant

April 2015

Liquid Characterization Data

Liquid characterization data is made available to MDNR on an ongoing basis. No additional leachate characterization data, beyond that produced for MSD, was collected during the prior month.

Hauled Disposal to MSD – Bissell Point

Date	Waste	Source	Transporter	Quantity
4/1/2015	LPTP Activated Sludge/ Permeate	Tank 1 (T1)	MBI	172,500
4/2/2015				300,000
4/3/2015				300,000
4/4/2015				300,000
4/5/2015				0
4/6/2015				300,000
4/7/2015				300,000
4/8/2015				330,000
4/9/2015				322,500
4/10/2015				300,000
4/11/2015				247,500
4/12/2015				0
4/13/2015				330,000
4/14/2015				330,000
4/15/2015				330,000
4/16/2015				330,000
4/17/2015				330,000
4/18/2015				0
4/19/2015				0
4/20/2015				322,500
4/21/2015				330,000
4/22/2015				330,000
4/23/2015				330,000
4/24/2015				322,500
4/25/2015				0
4/26/2015				0
4/27/2015				165,000
4/28/2015				165,000
4/29/2015				165,000
4/30/2015				180,000
			Total:	**6,832,500**

Direct Discharge to MSD

Date	Waste	Source	Quantity (gal)
4/1/2015	LPTP Permeate	Through Tank AST 97k (MSD Sampling Point 013)	14,362
4/2/2015			0
4/3/2015			11,724
4/4/2015			9,727
4/5/2015			1,573
4/6/2015			3,976
4/7/2015			158,381
4/8/2015			162,453
4/9/2015			85,772
4/10/2015			72,853
4/11/2015			123,090
4/12/2015			117,549
4/13/2015			29,821
4/14/2015			117,426
4/15/2015			136,918
4/16/2015			170,749
4/17/2015			126,314
4/18/2015			38,843
4/19/2015			141,834
4/20/2015			78,138
4/21/2015			99,884
4/22/2015			127,627
4/23/2015			131,172
4/24/2015			109,671
4/25/2015			135,925
4/26/2015			98,642
4/27/2015			152,289
4/28/2015			167,994
4/29/2015			132,324
4/30/2015			168,767
		Total:	**2,925,798**

ATTACHMENT I

SUPPORTING DOCUMENTATION

MDNR May 1, 2015 Request

Attachment I:
Supporting Documentation – MDNR May 1, 2015 Request

To the best of our knowledge, Bridgeton Landfill, LLC is providing the attached lab analyses and other file reports addressing sulfur content of the landfill gas, or other emissions from the flare, as it relates to existing permit conditions or limits.

Table of Contents:

NOTE: The documents of Attachment I are included as a separate .pdf format file to the Monthly Data Report dated May 20, 2015.