Bridgeton Landfill, LLC

Monthly Data Submittals

February, 2016

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

March 21, 2016

Commentary on Data

March 21, 2016

The following observations and comments are offered during this time period:

Gas Volume

- As seen in Attachment B-1, gas collection volumetric rate in for this month averaged 2,907 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 as measured at the respective wellheads.

- Attachment E-1 details vertical wells which had oxygen levels over 5% at one or more weekly monitoring events during this reporting period. These consisted of 12 older GEW wells (<#-120) that are experiencing low flows; 11 new GEW wells (>#-120) that are experiencing restricted flows; 8 GIW wells that have low gas flow due to the cooling loops that are installed within these wells. By the end of the month, the majority 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, maintenance and pump operation is being performed to manage the oxygen content. These wells are in the south quarry area where the flexible membrane liner cap is in place to prevent atmospheric intrusion into the waste mass.

- Attachment E-2 contains gas temperatures as measured at the wellheads. Three (3) vertical wells (excluding GIW wells) decreased by 30°F during this reporting period. Additionally, seven (7) vertical wells (excluding GIW wells) increased by 30°F or more. All wells that exhibited changes greater than 30 degrees are all within the historical gas temperature norms for these wells or within the range of temperatures of nearby vertical wells.

- A detailed review of the gas extraction wells in the neck area was conducted. Maximum temperatures are consistent with previous months in each of the gas extraction wells in vicinity to the neck. Carbon monoxide (CO) results during this reporting period showed stable month-over-month based on historic levels within the Neck Area wells.

- All wells in the North Quarry during this reporting period exhibited a maximum wellhead temperature under 145°F with the exception of GEW-054. The well had a maximum well head temperature of 147°F, but it returned to 139°F. The only North Quarry well that had detections of carbon monoxide during this reporting period was GEW-053 (57 ppm). Carbon monoxide (CO) results showed non-detect (ND) for all other North quarry wells.

- Review of weekly gas quality in Attachment E 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 GCCS wellfield conditions observed in the North Quarry for some time.

Settlement

- The South Quarry exhibited monthly maximum settlement up to 1.35 feet over 30 days for this reporting period (see Attachment F); which is comparable to last month's rate. 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 this reporting period 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.

Low Fill Project Area

- Enclosed is the requested clean fill placement figure in accordance with the June 19, 2015 letter from the Missouri Department of Natural Resources (MDNR) granting modification approval to Permit number 0118912. This modification allows for the acceptance of clean fill and use thereof as a method of re-establishing positive surface drainage and maintaining structural stability of landfill infrastructure. Condition four (4) of this approval is satisfied via the text below and the accompanying figure.

- Clean fill activities commenced in late December and have continued into March on a region of differential settlement located in the northeastern portion of the South Quarry. The total cubic yardage of fill material used is still to be determined. The enclosed figure indicates this fill area. Upon conclusion of the fill project the requested cubic yardage, drainage features (if applicable), and drawings showing the completed location area shall be provided with the following monthly report.

ATTACHMENT A

WORK COMPLETED AND PLANNED

Bridgeton Landfill, LLC
Monthly Summary of Work Completed and Planned

Work Completed in February 2016

Gas Collection and Control System

- Continued operation and maintenance of GCCS System and GIW wells.
- Continued header realignment project to improve condensate management and header vacuum distribution.

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

- Continued ongoing operation of facility.
- Continued to optimize operation efficiency of pre-treatment facility.
- Permeate continued to be discharged directly to MSD – Bissell Point Facility or other approved disposal facilities as determined by MSD. Began hauling permeate to MSD Bissell Point Facility to reduce solids concentrations in the treatment tank system.

Other Projects

- Continued North Quarry cap enhancements.
- Continued low area fill project in South Quarry.
- Continued acceptance of clean fill.

Work Planned for March 2016

Gas Collection and Control System

- Continue operation and maintenance of GCCS system.
- Continue header realignment project to improve condensate management and header vacuum distribution.
- Continue upgrades to GCCS system as necessary.
- Begin installation of five (5) dewatering sumps in a gas interceptor trench on the southern side of the landfill. The total number of sumps to be installed may vary based on field conditions.
- Begin the installation of fourteen (14) gas extraction wells. The total number of wells to be installed may vary based on field conditions.

Alternative Heat Extraction System

- Continued operation and maintenance of the HES.

Leachate Management System

- Continued routine operation of previously installed and upgraded features.
- Begin work on West Lift Station including the replacement of flow meters and valves

Pre-Treatment Facility

- Ongoing operation of facility.
- Continue to optimize operation efficiency of pre-treatment facility.

Other Projects:

- Continue fill projects for north slope of south quarry and low area on east slope
- Continue acceptance of clean fill materials for future fill projects.
- Complete north quarry cap enhancement project (weather permitting).

ATTACHMENT B

DAILY FLARE MONITORING DATA

ATTACHMENT B-1

FLOW DATA TABLE

Daily Flare Monitoring Data - Bridgeton Landfill
February 2016

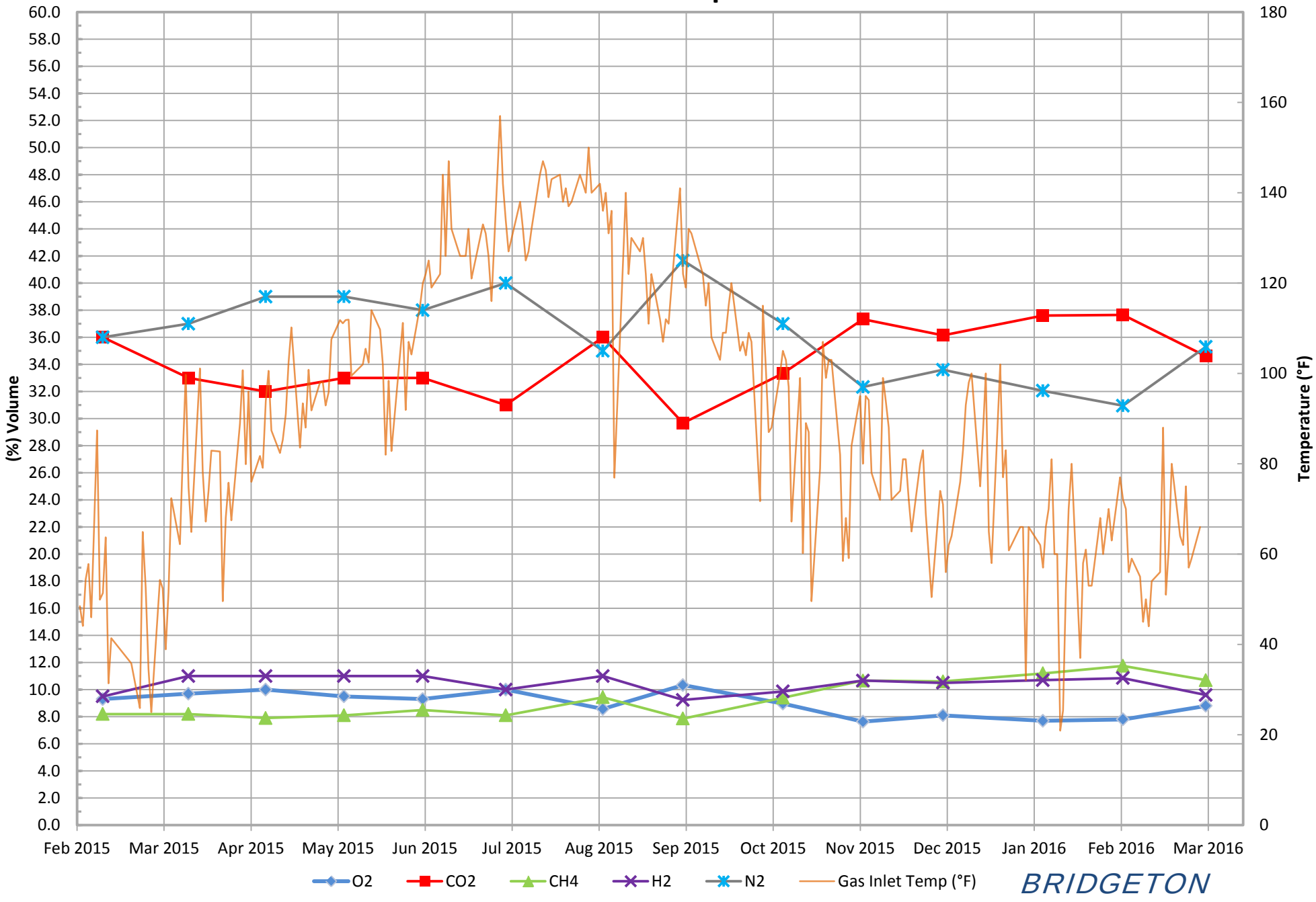
Date	Average Device Flow* (scfm)				Total Avg. Flow** (scfm)
	Utility Flare (FL-100)	Utility Flare (FL-120)	Utility Flare (FL-140)	Aux. Utility Flare	
2/1/2016	0	0	2,846		2,846
2/2/2016	0	0	2,899	11	2,910
2/3/2016	0	0	2,861		2,861
2/4/2016	0	0	2,795		2,795
2/5/2016	0	0	2,783		2,783
2/6/2016	0	0	2,977	4	2,981
2/7/2016	0	0	2,986		2,986
2/8/2016	0	0	3,047		3,047
2/9/2016	0	0	3,137		3,137
2/10/2016	0	0	2,812		2,812
2/11/2016	0	0	2,849		2,849
2/12/2016	0	0	2,934		2,934
2/13/2016	0	0	2,898		2,898
2/14/2016	0	0	2,904		2,904
2/15/2016	0	0	2,912		2,912
2/16/2016	0	0	2,850		2,850
2/17/2016	0	0	2,788		2,788
2/18/2016	0	0	2,987		2,987
2/19/2016	0	0	2,943		2,943
2/20/2016	0	0	2,951		2,951
2/21/2016	0	0	2,872		2,872
2/22/2016	0	0	2,793		2,793
2/23/2016	0	0	2,863		2,863
2/24/2016	0	0	2,925		2,925
2/25/2016	0	0	2,900		2,900
2/26/2016	0	0	2,929		2,929
2/27/2016	0	0	2,984		2,984
2/28/2016	0	0	2,960		2,960
2/29/2016	0	0	2,900		2,900
				Average	**2,907**

* Flows normalized to **Blower Outlet Flowmeter - EPA Method 2 measurement verified

ATTACHMENT B-2

FLOW DATA GRAPHS

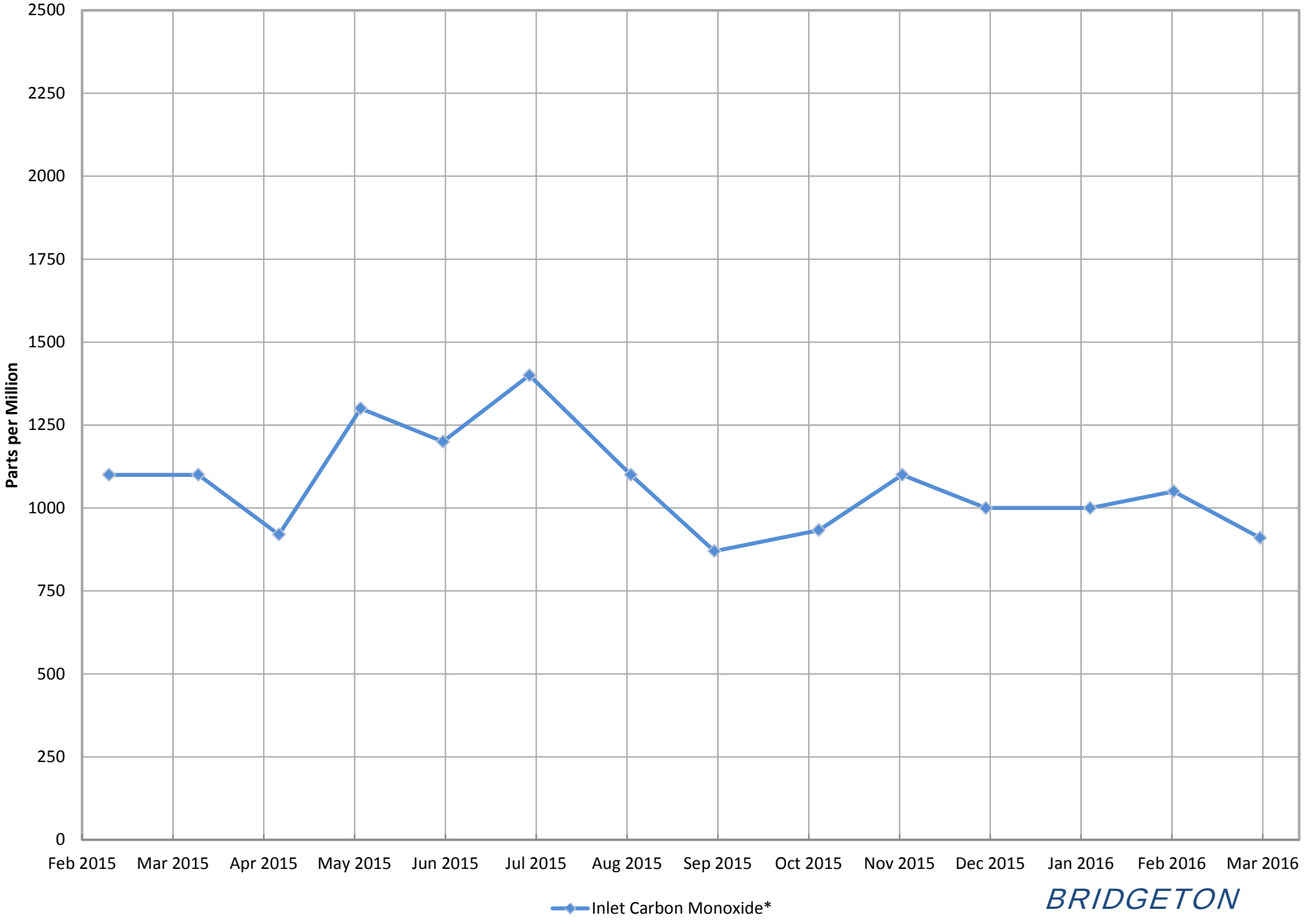
Inlet Gas and Temperature*



BRIDGETON LANDFILL

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

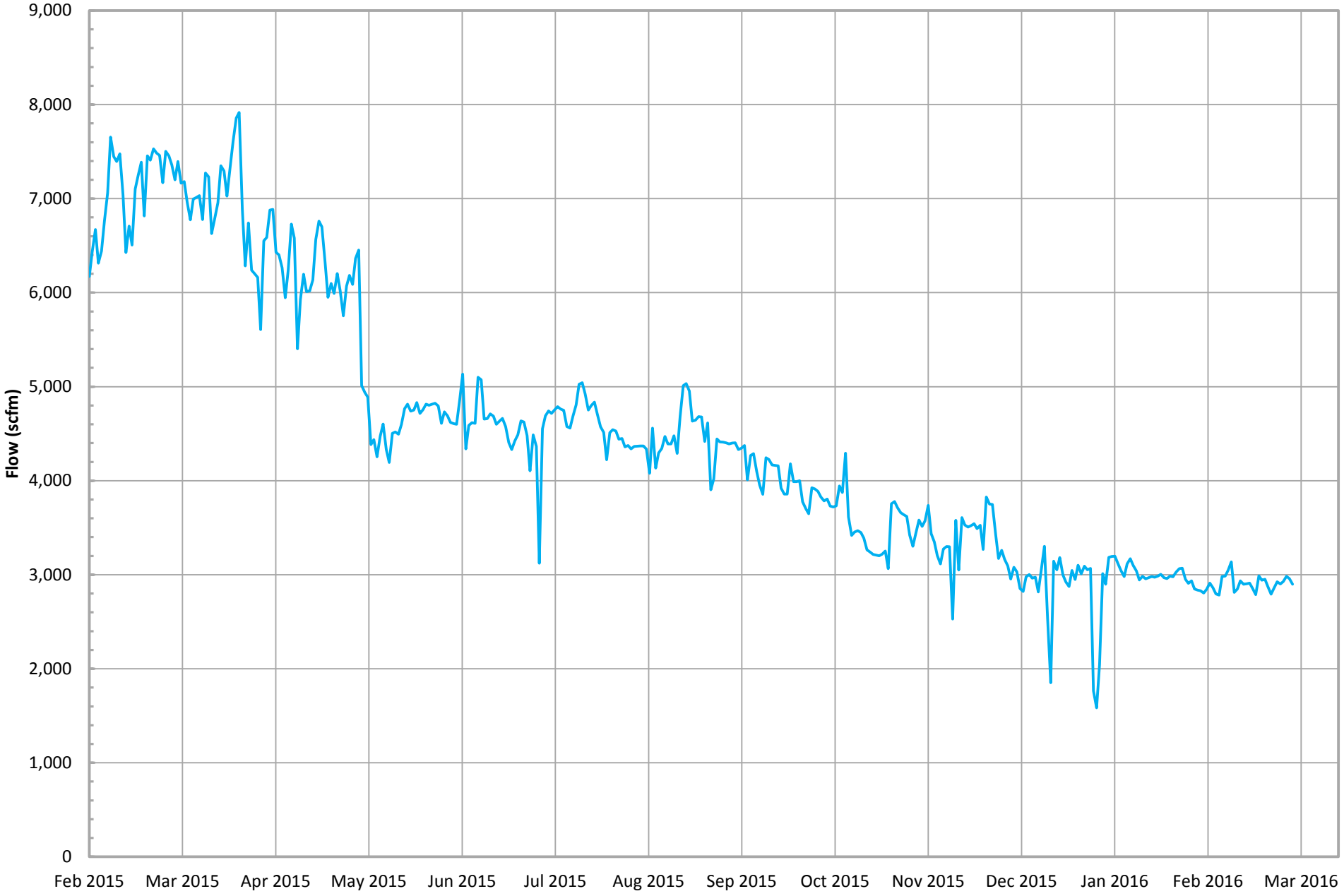
Inlet Carbon Monoxide*



*Data collected from Laboratory Reports.

BRIDGETON LANDFILL

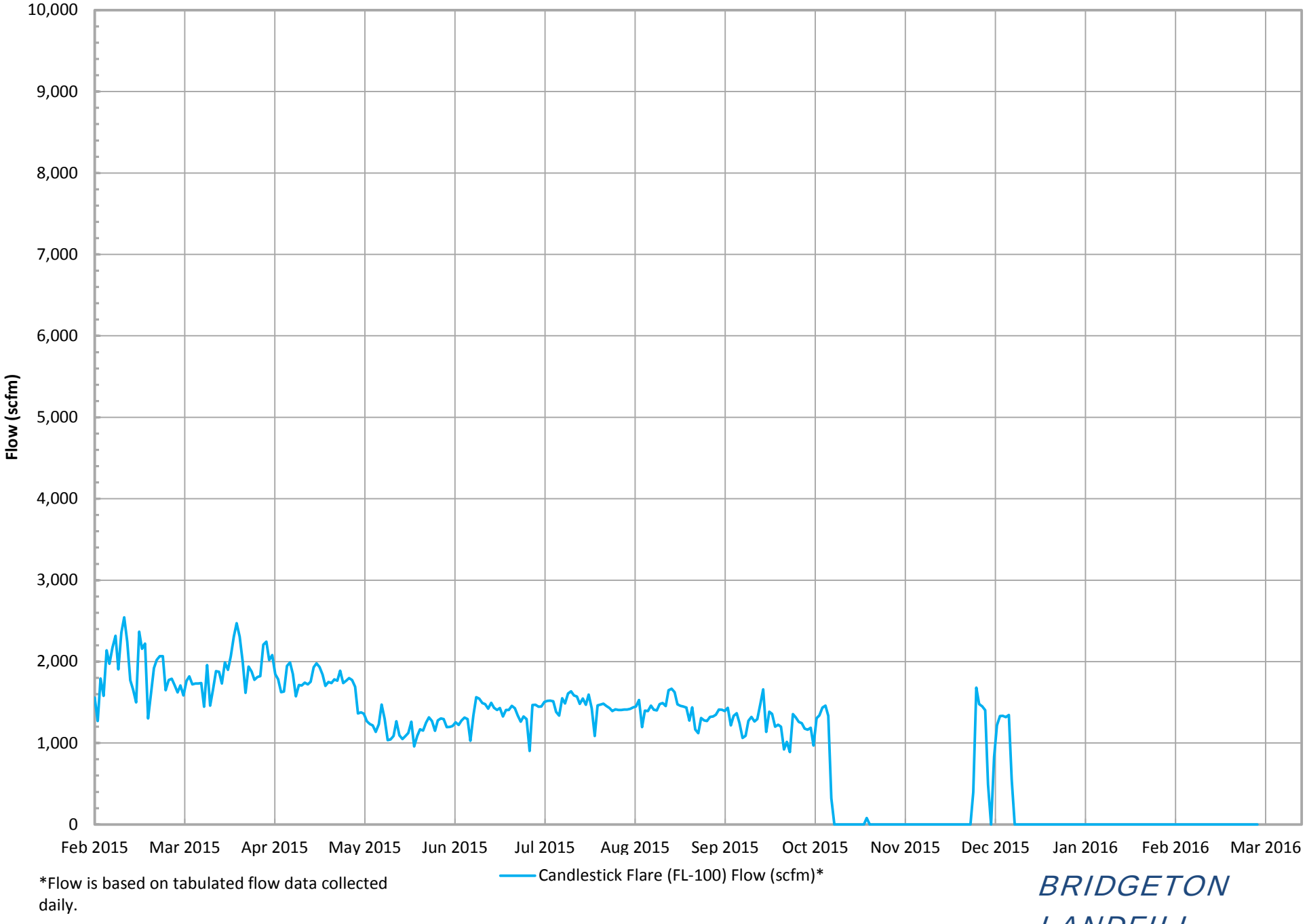
Total Combined Flow (scfm)*



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

BRIDGETON LANDFILL

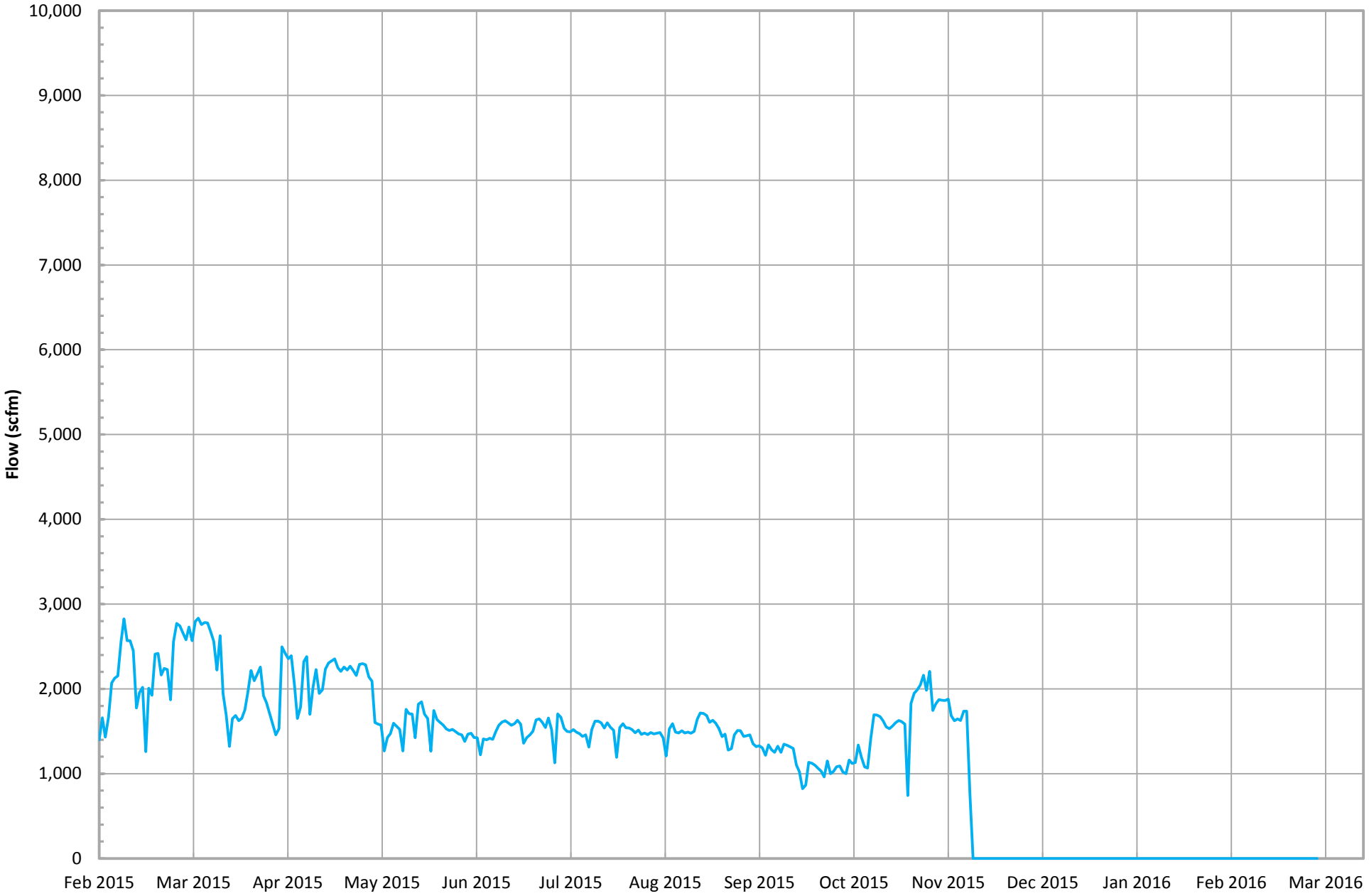
Candlestick Flare (FL-100) Flow (scfm)*



*Flow is based on tabulated flow data collected daily.

BRIDGETON LANDFILL

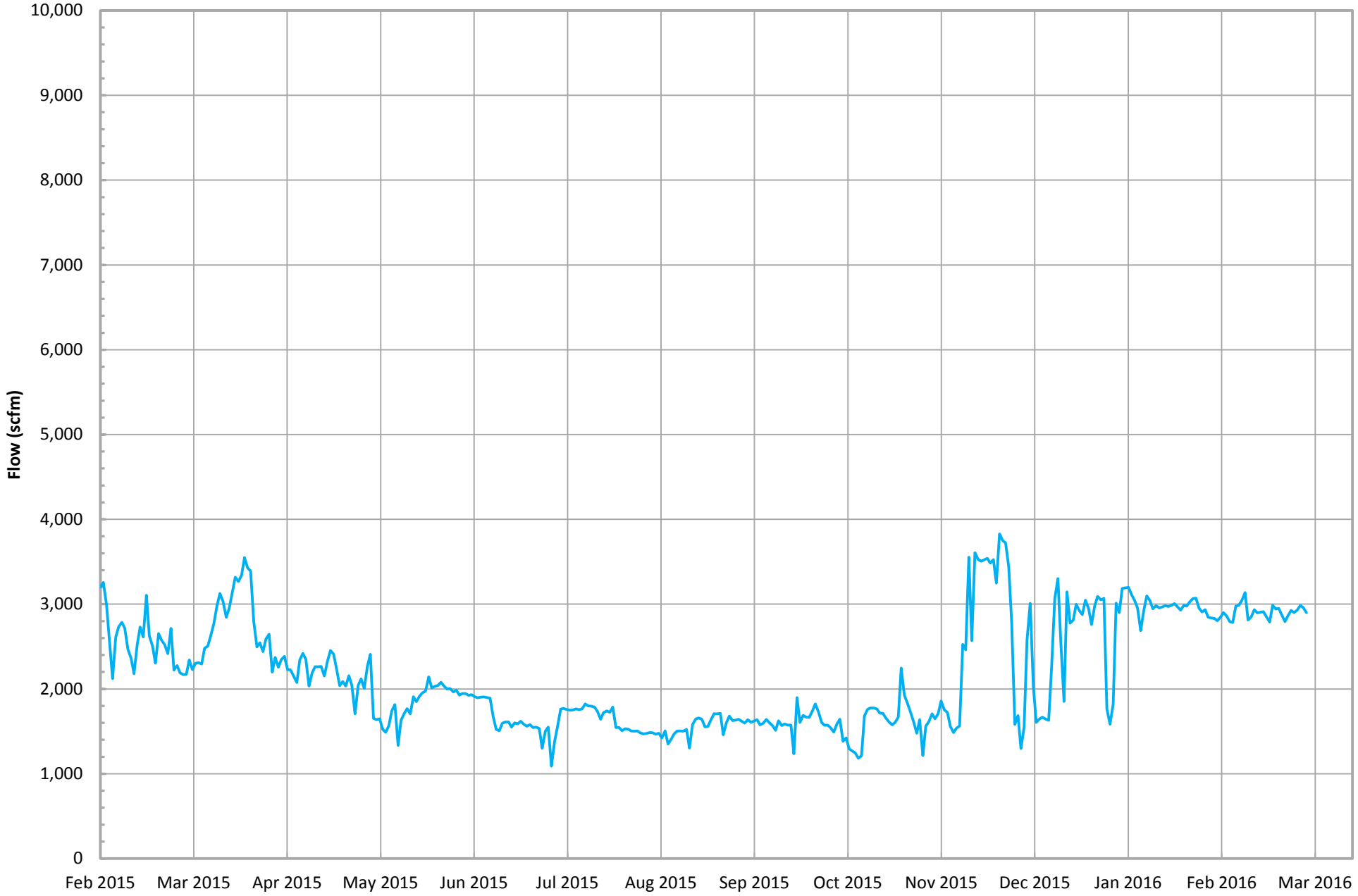
Candlestick Flare (FL-120) Flow (scfm)*



*Flow is based on tabulated flow data collected daily.

BRIDGETON LANDFILL

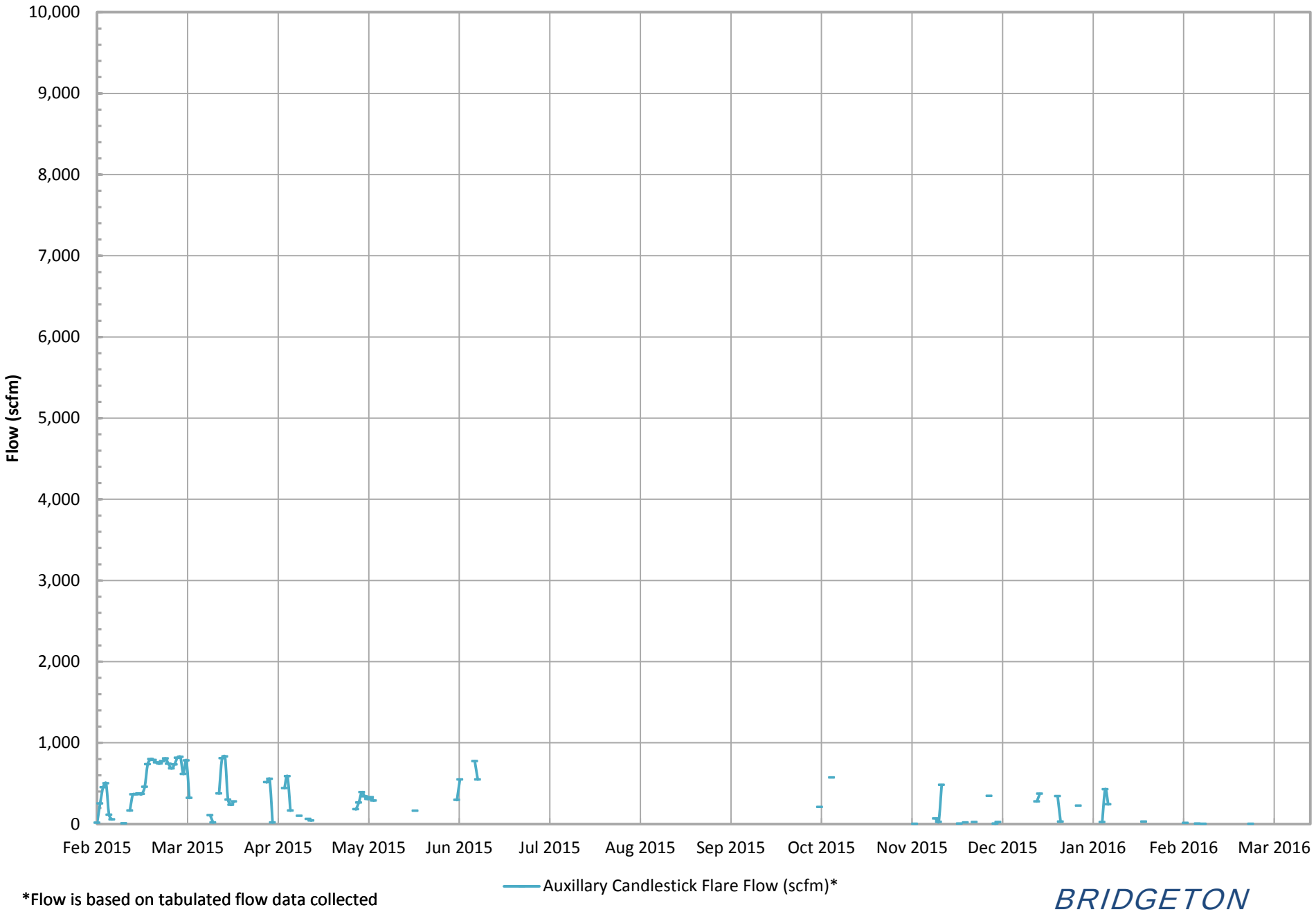
Candlestick Flare (FL-140) Flow (scfm)*



*Flow is based on tabulated flow data collected daily.

BRIDGETON LANDFILL

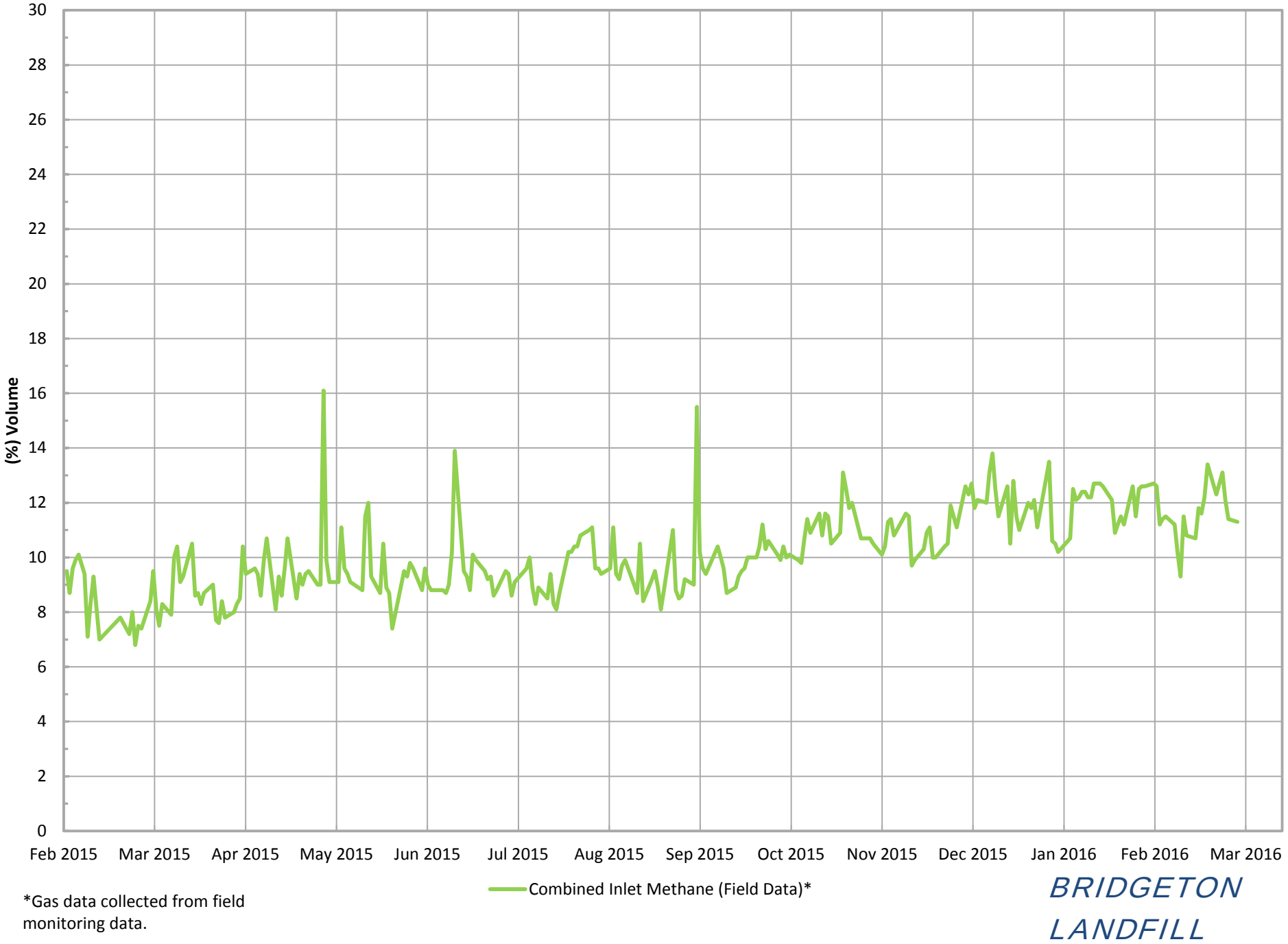
Auxillary Candlestick Flare Flow (scfm)*



*Flow is based on tabulated flow data collected daily.

BRIDGETON LANDFILL

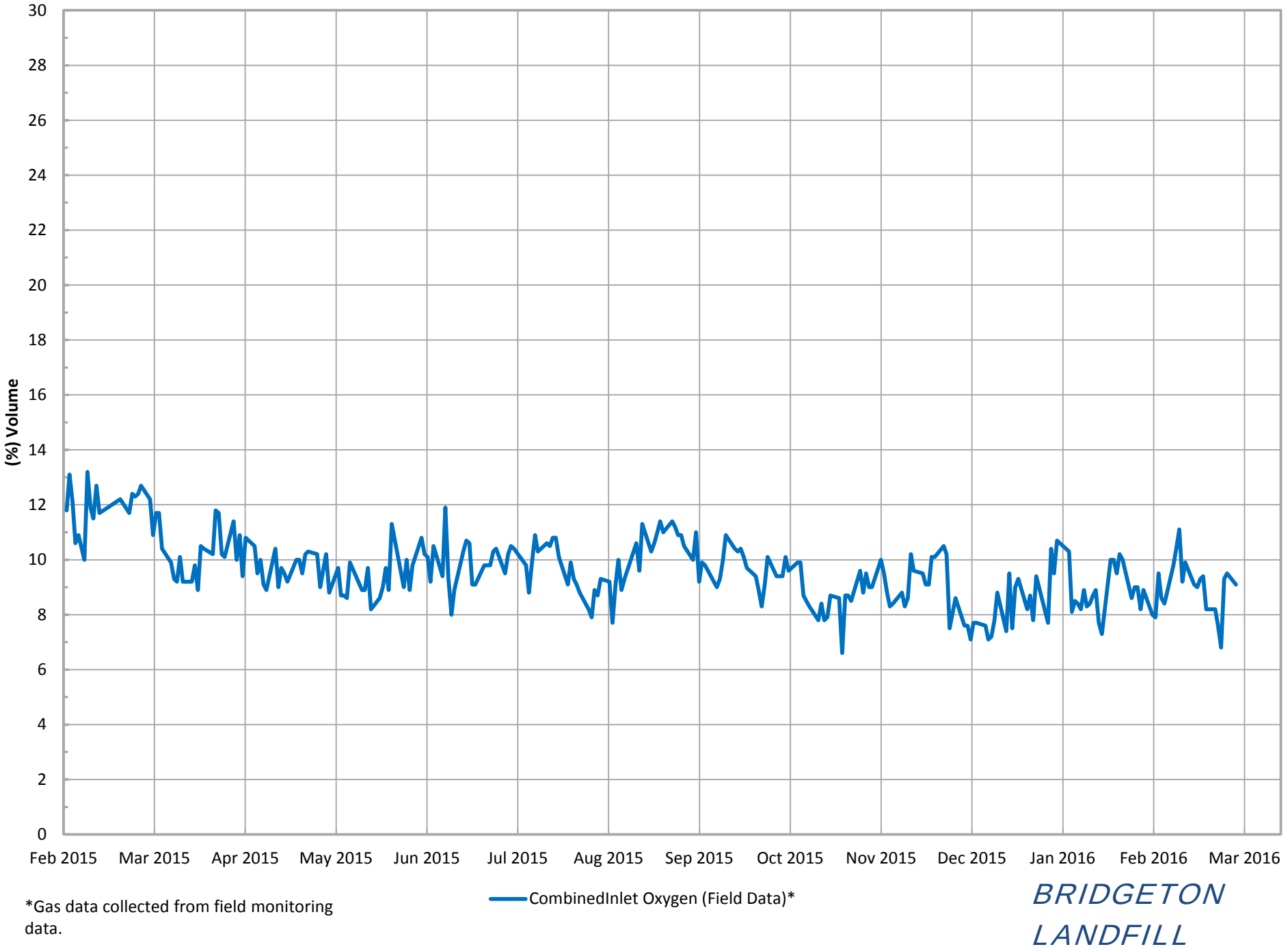
Combined Inlet Methane (Field Data)*



*Gas data collected from field monitoring data.

BRIDGETON LANDFILL

Combined Inlet Oxygen (Field Data)*

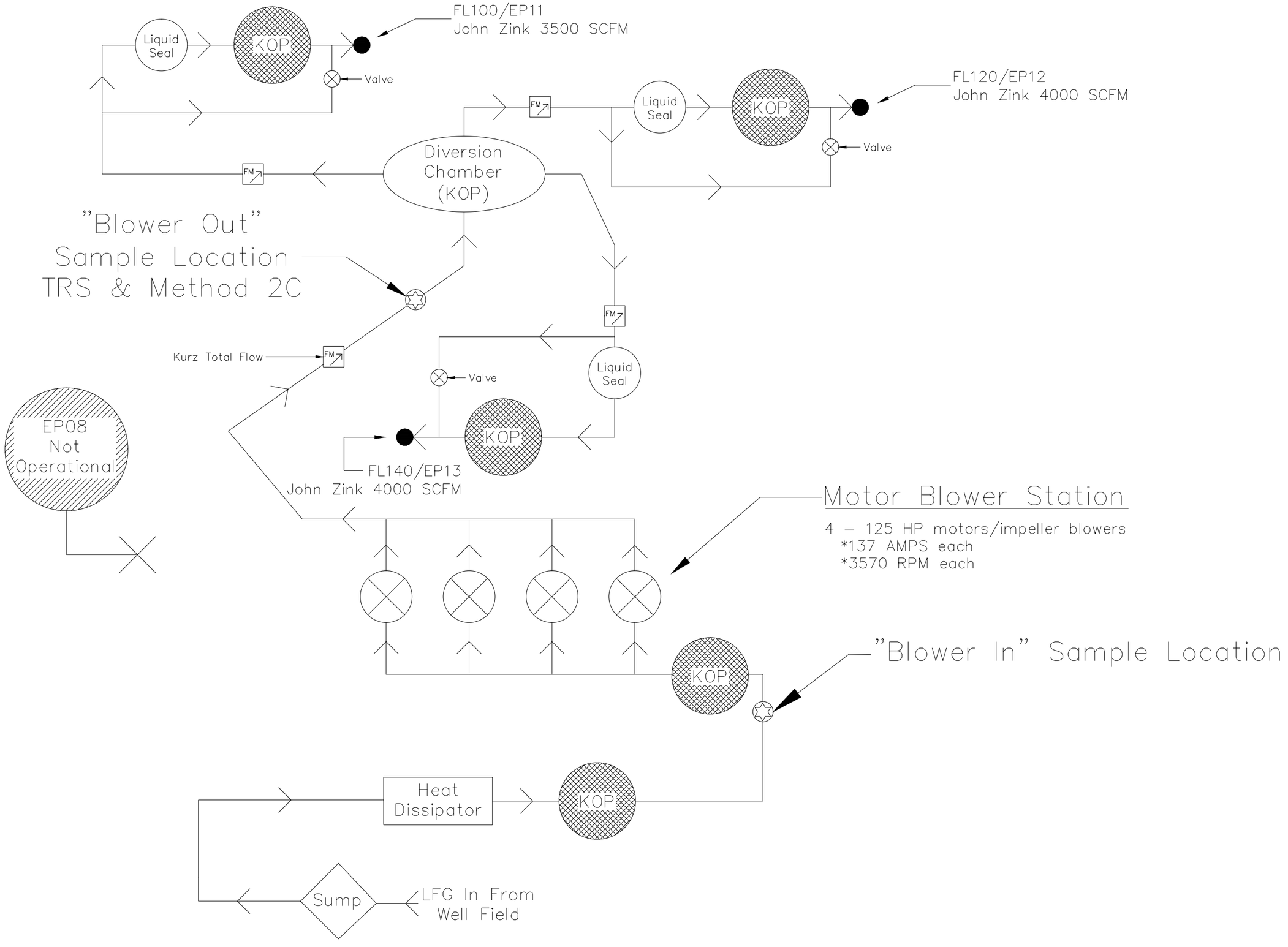


*Gas data collected from field monitoring data.

BRIDGETON LANDFILL

ATTACHMENT B-3

FLARE TRS / FLARE STATION FLOW



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

TABLE 1 **Bridgeton Landfill, LLC.**

Summary of Key LFG Tested Parameters **February 2, 2016 to March 8, 2016**

Flare Compound: *Blower Outlet*

SAMPLE EVENT #	DATE	VELOCITY ft/sec	FLOW dscfm	TRS ppm_{vd}
53-10 [1]	3/8/2016	37.25	3017	1200
				1200
				1100
52-09	3/2/2016	37.79	3061	VOID [4]
				1300
51-08	2/22/2016	32.48	2631	1300
				1200
50-07	2/17/2016	37.35	3025	1300
				1200
49-06	2/11/2016	35.21	2852	1000
				VOID [3]
48-05 [1]	2/2/2016	33.03	2730	1200
				1100
				1100 [2]
				1300 [2]
				VOID [2,3]
				1200 [2]

Notes:

[1] Indicates velocity/flow determined by EPA Method 2

[2] Split smples, different lab and test method

[3] Void due to apparent air intrusion

[4] Void due to acetone cross contamination

Bridgeton Landfill, LLC
Weekly TRS
Monthly Method 2C
Event 53-10
03/08/2016

	PARAMETER	Blower Out
Date	Test Date	3/8/16
Start	Run Start Time	8:04
	Run Finish Time	10:08
	Net Traversing Points	8 (2 x 4)
Θ	Net Run Time, minutes	2:03:41
C_p	Pitot Tube Coeficient	0.99
P_{Br}	Barometric Pressure, inches of Mercury	29.45
% H_2O	Moisture Content of LFG, %	2.37
% RH	Relative Humidity, %	61.90
M_{fd}	Dry Mole Fraction	0.976
%CH_4	Methane, %	11.00
%CO_2	Carbon Dioxide, %	36.50
%O_2	Oxygen, %	8.50
%Balance	Assumed as Nitorgen, %	34.00
%H_2	Hydrogen, %	9.10
%CO	Carbon Monoxide, %	0.10
M_d	Dry Molecular Weight, lb/lb-Mole	30.28
M_s	Wet Molecular weight, lb/lb-Mole	29.99
P_g	Flue Gas Static Pressure, inches of H_2O	30.22
P_s	Absolute Flue Gas Pressure, inches of Mercury	31.86
t_s	Average Stack Gas Temperature, °F	91
ΔP_{avg}	Average Velocity Head, inches of H_2O	0.337
v_s	Average LFG Velocity, feet/second	37.31
A_s	Stack Crossectional Area, square feet	1.35
Q_{sd}	Dry Volumetric Flow Rate, dry scfm	3,017
Q_s	Standard Volumetric Flow Rate, scfm	3,089
Q_{aw}	Actual Wet Volumetric Flue Gas Flow Rate, acfm	3,029
$Q_{lb/hr}$	Dry Air Flow Rate at Standard Conditions, lb/hr	14,228
NHV	Net Heating Value, Btu/scf	151
LFG_{CH4}	Methane, lb/hr	829.4
	Methane, grains/dscf	32.07
LFG_{CO2}	Carbon Dioxide, lb/hr	7,549.6
	Carbon Dioxide, grains/dscf	291.93
LFG_{O2}	Oxygen, lb/hr	1278.3
	Oxygen, grains/dscf	49.43
LFG_{N2}	Balance gas as Nitrogen, lb/hr	4,476.4
	Balance gas as Nitrogen, grains/dscf	173.09
LFG_{H4}	Hydrogen, lb/hr	86.2
	Hydrogen, grains/dscf	3.33
LFG_{CO}	Carbon Monoxide, lb/hr	12.5
	Carbon Monoxide, grains/dscf	0.48

		Outlet A	Outlet B	Outlet C
H_2S	Hydrogen Sulfide Concentration, ppmd	26.00	11.00	0.63
	Hydrogen Sulfide Rate, lb/hr	0.42	0.18	0.01
	Hydrogen Sulfide Rate, grains/dscf	0.016	0.007	0.000
COS	Carbonyl Sulfide Concentration, ppmd	0.51	0.53	0.63
	Carboynl Sulfide Rate, lb/hr	0.01	0.01	0.02
	Carbonyl Sulfide Rate, grains/dscf	0.001	0.001	0.001
CH_4S	Methyl Mercaptan Concentration, ppmd	190.00	190.00	150.00
	Methyl Mercaptan Rate, lb/hr	4.30	4.30	3.39
	Methyl Mercaptan Rate, grains/dscf	0.166	0.166	0.131
C_2H_6S	Ethyl Mercaptan Concentration, ppmd	2.30	2.30	1.70
	Ethyl Mercaptan Rate, lb/hr	0.07	0.07	0.05
	Ethyl Mercaptan Rate, grains/dscf	0.003	0.003	0.002
$(CH_3)_2S$	Dimethyl Sulfide Concentration, ppmd	960.00	910.00	860.00
	Dimethyl Sulfide Rate, lb/hr	28.03	26.57	25.11
	Dimethyl Sulfide Rate, grains/dscf	1.084	1.028	0.971
CS_2	Carbon Disulfide Concentration, ppmd	0.51	0.53	0.63
	Carbon Disulfide Rate, lb/hr	0.02	0.02	0.02
	Carbon Disulfide Rate, grains/dscf	0.001	0.001	0.001
$C_2H_6S_2$	Dimethyl Disulfide Concentration, ppmd	25.00	26.00	31.00
	Dimethyl Disulfide Rate, lb/hr	1.11	0.93	1.11
	Dimethyl Disulfide Rate, grains/dscf	0.043	0.036	0.043

❶$E_{TRS-SO2}$	TRS-->SO2 Emission Concentration, ppmd	1,200.00	1,200.00	1,100.00
	TRS-->SO2 Emission Rate, lb/hr	36.13	36.13	33.12
	TRS-->SO2 Emission Rate, grains/dscf	1.397	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

Tuesday, March 08, 2016

LOCATION	TIME	FLOW -SCFM			Method 2 vs. Fleetzoom	Method 2 vs Kurz
		Method 2	FleetZoom	Kurz FM		
BLOWER OUT	8:04	3,089	3,142	2,934	-1.7%	5.0%

Air TECHNOLOGY Laboratories, Inc.

March 14, 2016

ADE-1461
EPA Methods TO3, TO14A, TO15 SIM & SCAN
ASTM D1946

LA Cert #04140
EPA Methods TO3, TO14A, TO15, 25C/3C, RSK-175
TX Cert T104704450-14-6
EPA Methods TO14A, TO15
UT Cert CA0133332015-3
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: H030901-01/07

Enclosed are results for sample(s) received 3/09/16 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, Ryan Ayer, Nicholas Bauer and David Randall, Weaver Consultants Group, on 3/11/16.

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:		5 day	☐	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 5544160 SD 3/11/16
Bill to: Republic Services
Attn: Jim Getting
13570 St. Charles Rock Rd.
Bridgeton, MO 63044

LAB USE ONLY	Canister Pressures ("hg)				SAMPLE IDENTIFICATION	SAMPLE DATE	SAMPLE TIME	CONTAINER QTY/TYPE	MATRIX	PRESERVATION	ANALYSIS REQUEST: EPA 15/16 + TRS	ASTM 1946 +H2 + CO & BTU/SCF	EPA Method 25C			
	Canister ID	Sample Start	Sample End	Lab Receive												
H030901-01	5948	-19.69	-2.75	1" Hg	Blower Outlet 1	3/8/2016	859	C	LFG	NA	X	X	X			
-02	1613	-20.14	-3.75	2"	Blower Outlet 2	3/8/2016	930	C	LFG	NA	X	X	X			
-03	1620	-18.74	-3.5	5"	Blower Outlet 3	3/8/2016	1132	C	LFG	NA	X	X	X			
-04	5959	-23.09	-3.91	1"	SOUTH QUARRY & CCS Blower Outlet 4 SD 3/9/16	3/8/2016	1345	C	LFG	NA	X	X	X			
-05	5962	-20.43	-3.69	4"	North Quarry	3/8/2016	856	C	LFG	NA	~~X~~	X	X			
-06	5976	-19.77	-3.9	4"	LFG CSU EP14	3/1/2016	743	C	LFG	NA		X				
-07	5936	-20.73	-3.67	2"	North Quarry #1	3/1/2016	845	C	LFG	NA	~~X~~	X	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	3-8-16 1500		
FedEx	3-9-16 10:32	[signature]	3-9-16 10:32

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

COMMENTS

★ CANCEL 15/16 on N Quarry & N Quarry #1 & ID CHANGE per email from DRandall 3/9/16 SD

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

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

Client: Republic Services
Attn: Jim Getting
Project Name: Bridgeton Landfill
Project No.: NA
Date Received: 03/09/16
Matrix: Air
Reporting Units: % v/v

ASTM D1946

Lab No.:	H030901-01		H030901-02		H030901-03		H030901-04	
Client Sample I.D.:	Blower Outlet 1		Blower Outlet 2		Blower Outlet 3		South Quarry GCCS	
Date/Time Sampled:	3/8/16 8:59		3/8/16 9:30		3/8/16 11:32		3/8/16 13:45	
Date/Time Analyzed:	3/9/16 14:12		3/9/16 15:00		3/9/16 15:30		3/9/16 15:45	
QC Batch No.:	160309GC8A1		160309GC8A1		160309GC8A1		160309GC8A1	
Analyst Initials:	AS		AS		AS		AS	
Dilution Factor:	2.5		2.7		3.2		2.5	
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	8.5	2.5	9.3	2.7	9.4	3.2	11	2.5
Carbon Dioxide	37	0.025	36	0.027	36	0.032	37	0.025
Oxygen/Argon	8.7	1.3	8.5	1.3	8.4	1.6	8.7	1.3
Nitrogen	34	2.5	34	2.7	34	3.2	35	2.5
Methane	11	0.0025	11	0.0027	11	0.0032	7.2	0.0025
Carbon Monoxide	0.093	0.0025	0.095	0.0027	0.093	0.0032	0.11	0.0025
Net Heating Value (BTU/ft3)	146	2.5	152	2.7	154	3.2	127	2.5
Gross Heating Value (BTU/ft3)	165	2.5	172	2.7	174	3.2	144	2.5

Results normalized including non-methane hydrocarbons
BTU values based on D1946 analysis and non-methane analysis assumed as propane
ND = Not Detected (below RL)
RL = Reporting Limit

Reviewed/Approved By: _____ Date 3/11/16
Mark Johnson
Operations Manager

The cover letter is an integral part of this analytical report

Client: Republic Services
Attn: Jim Getting
Project Name: Bridgeton Landfill
Project No.: NA
Date Received: 03/09/16
Matrix: Air
Reporting Units: % v/v

ASTM D1946

Lab No.:	H030901-05		H030901-06		H030901-07			
Client Sample I.D.:	North Quarry		LFG CSU EP14		North Quarry #1			
Date/Time Sampled:	3/8/16 8:56		3/1/16 7:43		3/1/16 8:45			
Date/Time Analyzed:	3/9/16 16:13		3/9/16 16:42		3/9/16 16:27			
QC Batch No.:	160309GC8A1		160309GC8A1		160309GC8A1			
Analyst Initials:	AS		AS		AS			
Dilution Factor:	3.0		3.0		2.7			
ANALYTE	Result % v/v	RL % v/v	Result % v/v	RL % v/v	Result % v/v	RL % v/v		
Hydrogen	ND	3.0	10	3.0	ND	2.7		
Carbon Dioxide	33	0.030	31	0.030	31	0.027		
Oxygen/Argon	4.1	1.5	10	1.5	4.6	1.3		
Nitrogen	19	3.0	41	3.0	21	2.7		
Methane	43	0.0030	6.3	0.0030	42	0.0027		
Carbon Monoxide	ND	0.0030	0.087	0.0030	ND	0.0027		
Net Heating Value (BTU/ft3)	402	3.0	107	3.0	385	2.7		
Gross Heating Value (BTU/ft3)	447	3.0	122	3.0	428	2.7		

Results normalized including non-methane hydrocarbons
BTU values based on D1946 analysis and non-methane analysis assumed as propane
ND = Not Detected (below RL)
RL = Reporting Limit

Reviewed/Approved By: _____ Date 3/11/16
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

QC Batch No.: 160309GC8A1
Matrix: Air
Units: % v/v

QC for ASTM D1946

Lab No.:	Method Blank		LCS		LCSD			
Date/Time Analyzed:	3/9/16 13:54		3/9/16 13:10		3/9/16 13:25			
Analyst Initials:	AS		AS		AS			
Datafile:	09mar014		09mar011		09mar012			
Dilution Factor:	1.0		1.0		1.0			
ANALYTE	Results	RL	% Rec.	Criteria	% Rec.	Criteria	%RPD	Criteria
Hydrogen	ND	1.0	103	70-130%	103	70-130%	0.1	<30
Carbon Dioxide	ND	0.010	101	70-130%	100	70-130%	0.5	<30
Oxygen/Argon	ND	0.50	102	70-130%	102	70-130%	0.1	<30
Nitrogen	ND	1.0	101	70-130%	102	70-130%	0.5	<30
Methane	ND	0.0010	100	70-130%	100	70-130%	0.1	<30
Carbon Monoxide	ND	0.0010	111	70-130%	111	70-130%	0.0	<30

ND = Not Detected (Below RL)

Reviewed/Approved By: _____ Date: 3/11/16

Mark J. Johnson
Operations Manager

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

Client: Republic Services
Attn: Jim Getting

Project Name: Bridgeton Landfill
Project Number: NA
Date Received: 3/9/2016
Matrix: Vapor

TNMOC by EPA METHOD 25C

Lab Number:		H030901-01		H030901-02		H030901-03		H030901-04		H030901-05	
Client Sample ID:		Blower Outlet 1		Blower Outlet 2		Blower Outlet 3		South Quarry GCCS		North Quarry	
Date/Time Collected:		3/8/16 8:59		3/8/16 9:30		3/8/16 11:32		3/8/16 13:45		3/8/16 8:56	
Date/Time Analyzed:		3/9/16 17:11		3/9/16 18:09		3/9/16 19:07		3/9/16 20:06		3/9/16 23:00	
Analyst Initials:		AS		AS		AS		AS		AS	
QC Batch:		160309GC8A1		160309GC8A1		160309GC8A1		160309GC8A1		160309GC8A1	
Dilution Factor:		13		13		16		13		3.0	
ANALYTE	Units	Result	RL	Result	RL	Result	RL	Result	RL	Result	RL
TNMOC	ppmv C	72,000	130	68,000	130	65,000	160	68,000	130	12,000	30
TNMOC uncorr*	ppmv C	35,000	130	34,000	130	34,000	160	35,000	130	8,800	30

ND = Not detected at or above reporting limit.
TNMOC = Total Non-Methane Organic Carbon.
TNMOC uncorr* = TNMOC concentration in sample without nitrogen/moisture correction.
NA = Nitrogen/moisture correction causes division by zero.

Reviewed/Approved By: _____ Date: 3-14-16

Mark Johnson
Operations Manager

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

Client: Republic Services
Attn: Jim Getting

Project Name: Bridgeton Landfill
Project Number: NA
Date Received: 3/9/2016
Matrix: Vapor

TNMOC by EPA METHOD 25C

Lab Number:		H030901-07									
Client Sample ID:		North Quarry #1									
Date/Time Collected:		3/1/16 8:45									
Date/Time Analyzed:		3/10/16 23:59									
Analyst Initials:		AS									
QC Batch:		160309GC8A1									
Dilution Factor:		2.7									
ANALYTE	Units	Result	RL								
TNMOC	ppmv C	6,800	27								
TNMOC uncorr*	ppmv C	4,700	27								

ND = Not detected at or above reporting limit.
TNMOC = Total Non-Methane Organic Carbon.
TNMOC uncorr* = TNMOC concentration in sample without nitrogen/moisture correction.
NA = Nitrogen/moisture correction causes division by zero.

Reviewed/Approved By: _____ Date: 3/14/16
Mark Johnson
Operations Manager

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

Client: Republic Services
Attn: Jim Getting
Project Name: Bridgeton Landfill
Project No.: NA
Date Received: 03/09/16
Matrix: Air
Reporting Units: ppmv

EPA 15/16

Lab No.:	H030901-01		H030901-02		H030901-03		H030901-04	
Client Sample I.D.:	Blower Outlet 1		Blower Outlet 2		Blower Outlet 3		South Quarry GCCS	
Date/Time Sampled:	3/8/16 8:59		3/8/16 9:30		3/8/16 11:32		3/8/16 13:45	
Date/Time Analyzed:	3/10/16 9:10		3/10/16 9:47		3/10/16 10:24		3/10/16 11:00	
QC Batch No.:	160310GC3A1		160310GC3A1		160310GC3A1		160310GC3A1	
Analyst Initials:	AS		AS		AS		AS	
Dilution Factor:	2.5		2.7		3.2		2.5	
ANALYTE	Result ppmv	RL ppmv	Result ppmv	RL ppmv	Result ppmv	RL ppmv	Result ppmv	RL ppmv
Hydrogen Sulfide	26 d	5.1	11	0.53	ND	0.63	30 d	5.1
Carbonyl Sulfide	ND	0.51	ND	0.53	ND	0.63	ND	0.51
Methyl Mercaptan	190 d	5.1	190 d	5.3	150 d	6.3	210 d	5.1
Ethyl Mercaptan	2.3	0.51	2.3	0.53	1.7	0.63	2.4	0.51
Dimethyl Sulfide	960 d	51.0	910 d	53.0	860 d	63.0	980 d	51.0
Carbon Disulfide	ND	0.51	ND	0.53	ND	0.63	0.52	0.51
Dimethyl Disulfide	25	0.51	26	0.53	31	0.63	25	0.51
Total Reduced Sulfur	1,200	0.51	1,200	0.53	1,100	0.63	1,300	0.51

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

Reviewed/Approved By: _____ Date 3/11/16
Mark Johnson
Operations Manager

The cover letter is an integral part of this analytical report

QC Batch No.: 160310GC3A1
Matrix: Air
Units: ppmv

QC for Sulfur Compounds by EPA 15/16

Lab No.:	Method Blank		LCS		LCSD			
Date/Time Analyzed:	3/10/16 8:58		3/10/16 8:34		3/10/16 8:46			
Analyst Initials:	AS		AS		AS			
Datafile:	10mar003		10mar001		10mar002			
Dilution Factor:	1.0		1.0		1.0			
ANALYTE	Results	RL	% Rec.	Criteria	% Rec.	Criteria	%RPD	Criteria
Hydrogen Sulfide	ND	0.20	78	70-130%	78	70-130%	0.5	<30
Carbonyl Sulfide	ND	0.20	99	70-130%	98	70-130%	0.5	<30
Methyl Mercaptan	ND	0.20	74	70-130%	74	70-130%	0.7	<30
Ethyl Mercaptan	ND	0.20	97	70-130%	99	70-130%	1.4	<30
Dimethyl Sulfide	ND	0.20	84	70-130%	84	70-130%	0.1	<30
Carbon Disulfide	ND	0.20	81	70-130%	81	70-130%	0.1	<30
Dimethyl Disulfide	ND	0.20	95	70-130%	94	70-130%	0.5	<30

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

Reviewed/Approved By: _____ Date: 3/11/16
Mark J. Johnson
Operations Manager

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

Sample results on 3/2/2016 for Blower Outlet A were void due to acetone in the sample train. Calculations were performed for the representative sample for Blower Outlet B. Lab data is attached below.

Additionally, EPA Test Method TO15 was performed to confirm the acetone contamination. Those lab results are also attached below.

Bridgeton Landfill, LLC.
Weekly TRS Sampling Summary
Event 52-09
03/02/2016

Kurz FM =	**3,061**	**scfm**		
Fleetzoom Total =	**3,231**	**scfm**	**Δ =** **5.3%**	Sample results void from sample No. H030302-01 for **Outlet A** due to apparent cross contamination with acetone in sample train.

	PARAMETER	Outlet A	Outlet B
Date	Test Date		3/2/16
Time	Start - Finish		14:55
%CH_4	Methane, %		10.70
%CO_2	Carbon Dioxide, %		34.60
%O_2	Oxygen, %		8.80
%Balance	Assumed as Nitorgen, %		35.30
%H_2	Hydrogen, %		9.60
%CO	Carbon Monoxide, %		0.091
P_g	Flue Gas Static Pressure, inches of H_2O		30.80
t_s	Blower Outlet LFG Temperature, °F		57
Q_{sd}	Dry Volumetric Flow Rate, dry scfm (assumes 5%H2O)	2,908	
Q_s	Kurz FM, Standard Volumetric Flow Rate, scfm	3,061	
NHV	Net Heating Value, Btu/scf		145.0
LFG_{CH4}	Methane, lb/hr	0.0	777.5
	Methane, grains/dscf	0.00	31.20
LFG_{CO2}	Carbon Dioxide, lb/hr	0.0	6,896.8
	Carbon Dioxide, grains/dscf	0.00	276.73
LFG_{O2}	Oxygen, lb/hr	0.0	1,275.4
	Oxygen, grains/dscf	0.00	51.17
LFG_{N2}	Balance gas as Nitrogen, lb/hr	0.0	4,478.9
	Balance gas as Nitrogen, grains/dscf	0.00	179.71
LFG_{H4}	Hydrogen, lb/hr	0.0	87.7
	Hydrogen, grains/dscf	0.00	3.52
LFG_{CO}	Carbon Monoxide, lb/hr	0.0	11.5
	Carbon Monoxide, grains/dscf	0.00	0.44

		Outlet A	Outlet B
H_2S	Hydrogen Sulfide Concentration, ppmd		42.00
	Hydrogen Sulfide Rate, lb/hr	0.00	0.65
	Hydrogen Sulfide Rate, grains/dscf	0.000	0.026
COS	Carbonyl Sulfide Concentration, ppmd		0.56
	Carboynl Sulfide Rate, lb/hr	0.00	0.02
	Carbonyl Sulfide Rate, grains/dscf	0.000	0.001
CH_4S	Methyl Mercaptan Concentration, ppmd		180.00
	Methyl Mercaptan Rate, lb/hr	0.00	3.92
	Methyl Mercaptan Rate, grains/dscf	0.000	0.157
C_2H_6S	Ethyl Mercaptan Concentration, ppmd		2.40
	Ethyl Mercaptan Rate, lb/hr	0.00	0.07
	Ethyl Mercaptan Rate, grains/dscf	0.000	0.003
$(CH_3)_2S$	Dimethyl Sulfide Concentration, ppmd		910.00
	Dimethyl Sulfide Rate, lb/hr	0.00	25.61
	Dimethyl Sulfide Rate, grains/dscf	0.000	1.028
CS_2	Carbon Disulfide Concentration, ppmd		0.56
	Carbon Disulfide Rate, lb/hr	0.00	0.02
	Carbon Disulfide Rate, grains/dscf	0.000	0.001
$C_2H_6S_2$	Dimethyl Disulfide Concentration, ppmd		74.00
	Dimethyl Disulfide Rate, lb/hr	0.00	3.16
	Dimethyl Disulfide Rate, grains/dscf	0.000	0.127

❶**$E_{TRS-SO2}$**	TRS-->SO2 Emission Concentration, ppmd		1,300.00
	TRS-->SO2 Emission Rate, lb/hr	0.00	37.72
	TRS-->SO2 Emission Rate, grains/dscf	0.000	1.514
	TPY =	0.00	165.22

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

Air TECHNOLOGY Laboratories, Inc.

March 15, 2016

ADE-1461
EPA Methods TO3, TO14A, TO15 SIM & SCAN
ASTM D1946

LA Cert #04140
EPA Methods TO3, TO14A, TO15, 25C/3C, RSK-175

TX Cert T104704450-14-6
EPA Methods TO14A, TO15

UT Cert CA0133332015-3
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: H030302-01/02

Enclosed are results for sample(s) received 3/03/16 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, Ryan Ayer, Nicholas Bauer and David Randall, Weaver Consultants Group, on 3/07/16 and 3/14/16 (EPA TO15).

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.

H030302-01/02

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:		5 day	☐	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.:	PO5544106
Bill to:	Republic Services
	Attn: Jim Getting
	13570 St. Charles Rock Rd.
	Bridgeton, MO 63044

ANALYSIS REQUEST

LAB USE ONLY	Canister Pressures ("hg)				SAMPLE IDENTIFICATION	SAMPLE DATE	SAMPLE TIME	CONTAINER QTY/TYPE	MATRIX	PRESERVATION	EPA 15/16 + TRS & ASTM1946 + H2+ CO	ASTM 1946, BTU/SCF	TO-15 *			
	Canister ID	Sample Start	Sample End	Lab Receive												
H030302-01	1614	-20.3	-3.5	-3" Hg	Outlet A	3/2/2016	1445	C	LFG	NA	X	X	X			
-02	1540	-20.1	-3.5	-3" Hg	Outlet B	3/2/2016	1455	C	LFG	NA	X	X	X			

AUTHORIZATION TO PERFORM WORK: Dave Penoyer	COMPANY: Republic Services	DATE/TIME:	
SAMPLED BY: Ryan Ayers	COMPANY: Republic Services	DATE/TIME	
RELINQUISHED BY Ryan Ayers	3-2-16 1600	DATE/ RECEIVED BY	DATE/TIME
RELINQUISHED BY FedEx	3-3-16 9:10	DATE/ RECEIVED BY	DATE/TIME 3-3-16 9:10
RELINQUISHED BY		DATE/ RECEIVED BY	DATE/TIME

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

COMMENTS

Add TO-15 per N Bauer 3-10-16

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: 03/03/16
Matrix: Air
Reporting Units: % v/v

Sample results void from the evaluation due to apparent cross contamination with acetone in the sample train.

ASTM D1946

Lab No.:	H030302-01		H030302-02					
Client Sample I.D.:	Outlet A		Outlet B					
Date/Time Sampled:	3/2/16 14:45		3/2/16 14:55					
Date/Time Analyzed:	3/4/16 11:47		3/4/16 12:07					
QC Batch No.:	160304GC8A1		160304GC8A1					
Analyst Initials:	AS		AS					
Dilution Factor:	2.8		2.8					
ANALYTE	Result % v/v	RL % v/v	Result % v/v	RL % v/v				
Hydrogen	8.8	2.8	9.6	2.8				
Carbon Dioxide	31.1	0.028	34.6	0.028				
Oxygen/Argon	9.0	1.4	8.8	1.4				
Nitrogen	35.5	2.8	35.3	2.8				
Methane	9.5	0.0028	10.7	0.0028				
Carbon Monoxide	0.081	0.0028	0.091	0.0028				
Net Heating Value (BTU/ft3)	255.4	2.8	145.0	2.8				
Gross Heating Value (BTU/ft3)	283.5	2.8	164.1	2.8				

Results normalized including non-methane hydrocarbons
BTU values based on D1946 analysis and non-methane analysis assumed as propane
ND = Not Detected (below RL)
RL = Reporting Limit

Reviewed/Approved By: _____ Date 3-7-16

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

QC Batch No.: 160304GC8A1
Matrix: Air
Units: % v/v

QC for ASTM D1946

Lab No.:	Method Blank		LCS		LCSD			
Date/Time Analyzed:	3/4/16 10:17		3/4/16 9:33		3/4/16 9:48			
Analyst Initials:	AS		AS		AS			
Datafile:	04mar009		04mar006		04mar007			
Dilution Factor:	1.0		1.0		1.0			
ANALYTE	Results	RL	% Rec.	Criteria	% Rec.	Criteria	%RPD	Criteria
Hydrogen	ND	1.0	92	70-130%	92	70-130%	1.0	<30
Carbon Dioxide	ND	0.010	95	70-130%	96	70-130%	1.4	<30
Oxygen/Argon	ND	0.50	102	70-130%	103	70-130%	1.2	<30
Nitrogen	ND	1.0	101	70-130%	102	70-130%	1.0	<30
Methane	ND	0.0010	108	70-130%	108	70-130%	0.2	<30
Carbon Monoxide	ND	0.0010	110	70-130%	110	70-130%	0.7	<30

ND = Not Detected (Below RL)

Reviewed/Approved By: _____ Date: 3-7-16

Mark J. Johnson
Operations Manager

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

Client: Republic Services
Attn: Jim Getting
Project Name: Bridgeton Landfill
Project No.: NA
Date Received: 03/03/16
Matrix: Air
Reporting Units: ppmv

Sample results void from the evaluation due to apparent cross contamination with acetone in the sample train.

EPA 15/16

Lab No.:	H030302-01		H030302-02					
Client Sample I.D.:	Outlet A		Outlet B					
Date/Time Sampled:	3/2/16 14:45		3/2/16 14:55					
Date/Time Analyzed:	3/3/16 11:21		3/3/16 11:58					
QC Batch No.:	160303GC3A1		160303GC3A1					
Analyst Initials:	AS		AS					
Dilution Factor:	2.8		2.8					
ANALYTE	Result ppmv	RL ppmv	Result ppmv	RL ppmv				
Hydrogen Sulfide	34 d	5.6	42 d	5.6				
Carbonyl Sulfide	ND	0.56	ND	0.56				
Methyl Mercaptan	160 d	5.6	180 d	5.6				
Ethyl Mercaptan	2.2	0.56	2.4	0.56				
Dimethyl Sulfide	860 d	56.0	910 d	56.0				
Carbon Disulfide	ND	0.56	ND	0.56				
Dimethyl Disulfide	56 d	5.6	74 d	5.6				
Total Reduced Sulfur	1,200	0.56	1,300	0.56				

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

Reviewed/Approved By: _____ Date 3-7-16
Mark Johnson
Operations Manager

The cover letter is an integral part of this analytical report

QC Batch No.: 160303GC3A1
Matrix: Air
Units: ppmv

QC for Sulfur Compounds by EPA 15/16

Lab No.:	Method Blank		LCS		LCSD			
Date/Time Analyzed:	3/3/16 10:58		3/3/16 10:33		3/3/16 10:45			
Analyst Initials:	AS		AS		AS			
Datafile:	03MAR004		03MAR002		03MAR003			
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%	95	70-130%	0.3	<30
Carbonyl Sulfide	ND	0.20	115	70-130%	114	70-130%	1.2	<30
Methyl Mercaptan	ND	0.20	89	70-130%	89	70-130%	0	<30
Ethyl Mercaptan	ND	0.20	114	70-130%	113	70-130%	0.6	<30
Dimethyl Sulfide	ND	0.20	97	70-130%	97	70-130%	0.9	<30
Carbon Disulfide	ND	0.20	100	70-130%	100	70-130%	0.3	<30
Dimethyl Disulfide	ND	0.20	114	70-130%	108	70-130%	5.4	<30

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

Reviewed/Approved By: _____ Date: 3-7-16
Mark J. Johnson
Operations Manager

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

Client: Republic Services
Attn: Jim Getting
Project Name: Bridgeton Landfill
Project No.: NA
Date Received: 03/03/16
Matrix: Air
Reporting Units: ppbv

Sample results below show apparent cross contamination of acetone in sample train.

EPA Method TO15

Lab No.:	H030302-01		H030302-02					
Client Sample I.D.:	Outlet A		Outlet B					
Date/Time Sampled:	3/2/16 14:45		3/2/16 14:55					
Date/Time Analyzed:	3/11/16 15:09		3/11/16 14:29					
QC Batch No.:	160311MS2A1		160311MS2A1					
Analyst Initials:	DT		DT					
Dilution Factor:	200,000		2,800					
ANALYTE	Result ppbv	RL ppbv	Result ppbv	RL ppbv				
Dichlorodifluoromethane (12)	ND	200,000	ND	2,800				
Chloromethane	ND	390,000	ND	5,600				
1,2-Cl-1,1,2,2-F ethane (114)	ND	200,000	ND	2,800				
Vinyl Chloride	ND	200,000	ND	2,800				
Bromomethane	ND	200,000	ND	2,800				
Chloroethane	ND	200,000	ND	2,800				
Trichlorofluoromethane (11)	ND	200,000	ND	2,800				
1,1-Dichloroethene	ND	200,000	ND	2,800				
Carbon Disulfide	ND	980,000	ND	14,000				
1,1,2-Cl 1,2,2-F ethane (113)	ND	200,000	ND	2,800				
Acetone	32,000,000	980,000	450,000	14,000				
Methylene Chloride	ND	200,000	ND	2,800				
t-1,2-Dichloroethene	ND	200,000	ND	2,800				
1,1-Dichloroethane	ND	200,000	ND	2,800				
Vinyl Acetate	ND	980,000	ND	14,000				
c-1,2-Dichloroethene	ND	200,000	ND	2,800				
2-Butanone	250,000	200,000	350,000	2,800				
t-Butyl Methyl Ether (MTBE)	ND	200,000	ND	2,800				
Chloroform	ND	200,000	ND	2,800				
1,1,1-Trichloroethane	ND	200,000	ND	2,800				
Carbon Tetrachloride	ND	200,000	ND	2,800				
Benzene	230,000	200,000	190,000	2,800				
1,2-Dichloroethane	ND	200,000	ND	2,800				
Trichloroethene	ND	200,000	ND	2,800				
1,2-Dichloropropane	ND	200,000	ND	2,800				
Bromodichloromethane	ND	200,000	ND	2,800				
c-1,3-Dichloropropene	ND	200,000	ND	2,800				
4-Methyl-2-Pentanone	ND	200,000	9,600	2,800				
Toluene	ND	200,000	34,000	2,800				
t-1,3-Dichloropropene	ND	200,000	ND	2,800				

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:	**03/03/16**
Matrix:	**Air**
Reporting Units:	**ppbv**

EPA Method TO15

Lab No.:	H030302-01		H030302-02					
Client Sample I.D.:	Outlet A		Outlet B					
Date/Time Sampled:	3/2/16 14:45		3/2/16 14:55					
Date/Time Analyzed:	3/11/16 15:09		3/11/16 14:29					
QC Batch No.:	160311MS2A1		160311MS2A1					
Analyst Initials:	DT		DT					
Dilution Factor:	200,000		2,800					
ANALYTE	Result ppbv	RL ppbv	Result ppbv	RL ppbv				
1,1,2-Trichloroethane	ND	200,000	ND	2,800				
Tetrachloroethene	ND	200,000	ND	2,800				
2-Hexanone	ND	200,000	4,600	2,800				
Dibromochloromethane	ND	200,000	ND	2,800				
1,2-Dibromoethane	ND	200,000	ND	2,800				
Chlorobenzene	ND	200,000	ND	2,800				
Ethylbenzene	ND	200,000	14,000	2,800				
p,&m-Xylene	ND	200,000	21,000	2,800				
o-Xylene	ND	200,000	9,000	2,800				
Styrene	ND	200,000	ND	2,800				
Bromoform	ND	200,000	ND	2,800				
1,1,2,2-Tetrachloroethane	ND	390,000	ND	5,600				
Benzyl Chloride	ND	200,000	ND	2,800				
4-Ethyl Toluene	ND	200,000	3,600	2,800				
1,3,5-Trimethylbenzene	ND	390,000	ND	5,600				
1,2,4-Trimethylbenzene	ND	390,000	ND	5,600				
1,3-Dichlorobenzene	ND	200,000	ND	2,800				
1,4-Dichlorobenzene	ND	200,000	ND	2,800				
1,2-Dichlorobenzene	ND	200,000	ND	2,800				
1,2,4-Trichlorobenzene	ND	390,000	ND	5,600				
Hexachlorobutadiene	ND	200,000	ND	2,800				

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

Reviewed/Approved By: _____ Date 3-14-16

Mark Johnson
Operations Manager

This 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: 03/03/16
Matrix: Air
Reporting Units: ppbv

EPA Method TO15

Lab No.:	METHOD BLANK
Client Sample I.D.:	-
Date/Time Sampled:	-
Date/Time Analyzed:	3/11/16 13:47
QC Batch No.:	160311MS2A1
Analyst Initials:	DT
Dilution Factor:	0.20

ANALYTE	Result ppbv	RL ppbv
Dichlorodifluoromethane (12)	ND	0.20
Chloromethane	ND	0.40
1,2-Cl-1,1,2,2-F ethane (114)	ND	0.20
Vinyl Chloride	ND	0.20
Bromomethane	ND	0.20
Chloroethane	ND	0.20
Trichlorofluoromethane (11)	ND	0.20
1,1-Dichloroethene	ND	0.20
Carbon Disulfide	ND	1.0
1,1,2-Cl 1,2,2-F ethane (113)	ND	0.20
Acetone	ND	1.0
Methylene Chloride	ND	0.20
t-1,2-Dichloroethene	ND	0.20
1,1-Dichloroethane	ND	0.20
Vinyl Acetate	ND	1.0
c-1,2-Dichloroethene	ND	0.20
2-Butanone	ND	0.20
t-Butyl Methyl Ether (MTBE)	ND	0.20
Chloroform	ND	0.20
1,1,1-Trichloroethane	ND	0.20
Carbon Tetrachloride	ND	0.20
Benzene	ND	0.20
1,2-Dichloroethane	ND	0.20
Trichloroethene	ND	0.20
1,2-Dichloropropane	ND	0.20
Bromodichloromethane	ND	0.20
c-1,3-Dichloropropene	ND	0.20
4-Methyl-2-Pentanone	ND	0.20
Toluene	ND	0.20
t-1,3-Dichloropropene	ND	0.20

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:	**03/03/16**
Matrix:	**Air**
Reporting Units:	**ppbv**

EPA Method TO15

Lab No.:	METHOD BLANK							
Client Sample I.D.:	-							
Date/Time Sampled:	-							
Date/Time Analyzed:	3/11/16 13:47							
QC Batch No.:	160311MS2A1							
Analyst Initials:	DT							
Dilution Factor:	0.20							
ANALYTE	**Result ppbv**	**RL ppbv**						
1,1,2-Trichloroethane	ND	0.20						
Tetrachloroethene	ND	0.20						
2-Hexanone	ND	0.20						
Dibromochloromethane	ND	0.20						
1,2-Dibromoethane	ND	0.20						
Chlorobenzene	ND	0.20						
Ethylbenzene	ND	0.20						
p,&m-Xylene	ND	0.20						
o-Xylene	ND	0.20						
Styrene	ND	0.20						
Bromoform	ND	0.20						
1,1,2,2-Tetrachloroethane	ND	0.40						
Benzyl Chloride	ND	0.20						
4-Ethyl Toluene	ND	0.20						
1,3,5-Trimethylbenzene	ND	0.40						
1,2,4-Trimethylbenzene	ND	0.40						
1,3-Dichlorobenzene	ND	0.20						
1,4-Dichlorobenzene	ND	0.20						
1,2-Dichlorobenzene	ND	0.20						
1,2,4-Trichlorobenzene	ND	0.40						
Hexachlorobutadiene	ND	0.20						

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

Reviewed/Approved By: _____ Date 3-14-16

Mark Johnson
Operations Manager

This 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

LCS/LCSD Recovery and RPD Summary Report

QC Batch #: 160311MS2A1

Matrix: Air

EPA Method TO-14/TO-15											
Lab No:	Method Blank		LCS		LCSD						
Date/Time Analyzed:	3/11/16 13:47		3/11/16 10:29		3/11/16 11:08						
Data File ID:	11MAR014.D		11MAR009.D		11MAR010.D						
Analyst Initials:	DT		DT		DT						
Dilution Factor:	0.2		1.0		1.0			Limits			
ANALYTE	Result ppbv	Spike Amount	Result ppbv	% Rec	Result ppbv	% Rec	RPD	Low %Rec	High %Rec	Max. RPD	Pass/ Fail
1,1-Dichloroethene	0.0	10.0	9.8	98	9.9	99	1.5	70	130	30	Pass
Methylene Chloride	0.0	10.0	9.7	97	9.8	98	1.5	70	130	30	Pass
Trichloroethene	0.0	10.0	10.0	100	10.2	102	1.5	70	130	30	Pass
Toluene	0.1	10.0	9.8	97	10.0	99	2.2	70	130	30	Pass
1,1,2,2-Tetrachloroethane	0.0	10.0	11.1	111	10.9	109	1.6	70	130	30	Pass

RPD = Relative Percent Difference

Reviewed/Approved By: _____ Date: 3-17-16

Mark Johnson
Operations Manager

The cover letter is an integral part of this analytical report

Bridgeton Landfill, LLC.
Weekly TRS Sampling Summary
Event 51-08
02/22/2016

Kurz FM =	**2,770**	scfm
Fleetzoom Total =	**3,025**	scfm

$\Delta =$ **8.4%**

	PARAMETER	Outlet A	Outlet B
Date	Test Date		2/22/16
Time	Start - Finish	13:55	14:05
%CH_4	Methane, %	11.70	10.30
%CO_2	Carbon Dioxide, %	38.80	38.50
%O_2	Oxygen, %	7.40	7.40
%Balance	Assumed as Nitorgen, %	30.30	30.30
%H_2	Hydrogen, %	11.00	11.20
%CO	Carbon Monoxide, %	0.100	0.100
P_g	Flue Gas Static Pressure, inches of H_2O	16.28	16.28
t_s	Blower Outlet LFG Temperature, °F	97	97
Q_{sd}	Dry Volumetric Flow Rate, dry scfm (assumes 5%H2O)	2,631	
Q_s	Kurz FM, Standard Volumetric Flow Rate, scfm	2,770	
NHV	Net Heating Value, Btu/scf	156.5	159.7
LFG_{CH4}	Methane, lb/hr	769.4	677.3
	Methane, grains/dscf	34.11	30.03
LFG_{CO2}	Carbon Dioxide, lb/hr	6,999.3	6,945.2
	Carbon Dioxide, grains/dscf	310.32	307.92
LFG_{O2}	Oxygen, lb/hr	970.6	970.6
	Oxygen, grains/dscf	43.03	43.03
LFG_{N2}	Balance gas as Nitrogen, lb/hr	3,479.2	3,479.2
	Balance gas as Nitrogen, grains/dscf	154.26	154.26
LFG_{H4}	Hydrogen, lb/hr	90.9	92.5
	Hydrogen, grains/dscf	4.03	4.10
LFG_{CO}	Carbon Monoxide, lb/hr	11.5	11.5
	Carbon Monoxide, grains/dscf	0.48	0.48

		Outlet A	Outlet B
H_2S	Hydrogen Sulfide Concentration, ppmd	36.00	43.00
	Hydrogen Sulfide Rate, lb/hr	0.50	0.60
	Hydrogen Sulfide Rate, grains/dscf	0.022	0.027
COS	Carbonyl Sulfide Concentration, ppmd	0.56	0.56
	Carboynl Sulfide Rate, lb/hr	0.01	0.01
	Carbonyl Sulfide Rate, grains/dscf	0.001	0.001
CH_4S	Methyl Mercaptan Concentration, ppmd	170.00	200.00
	Methyl Mercaptan Rate, lb/hr	3.35	3.94
	Methyl Mercaptan Rate, grains/dscf	0.149	0.175
C_2H_6S	Ethyl Mercaptan Concentration, ppmd	2.60	2.70
	Ethyl Mercaptan Rate, lb/hr	0.07	0.07
	Ethyl Mercaptan Rate, grains/dscf	0.003	0.003
$(CH_3)_2S$	Dimethyl Sulfide Concentration, ppmd	860.00	910.00
	Dimethyl Sulfide Rate, lb/hr	21.90	23.18
	Dimethyl Sulfide Rate, grains/dscf	0.971	1.028
CS_2	Carbon Disulfide Concentration, ppmd	0.56	0.56
	Carbon Disulfide Rate, lb/hr	0.02	0.02
	Carbon Disulfide Rate, grains/dscf	0.001	0.001
$C_2H_6S_2$	Dimethyl Disulfide Concentration, ppmd	68.00	79.00
	Dimethyl Disulfide Rate, lb/hr	2.63	3.05
	Dimethyl Disulfide Rate, grains/dscf	0.116	0.135

❶**$E_{TRS-SO2}$**	TRS-->SO2 Emission Concentration, ppmd	1,200.00	1,300.00
	TRS-->SO2 Emission Rate, lb/hr	31.51	34.14
	TRS-->SO2 Emission Rate, grains/dscf	1.397	1.514
	TPY =	138.02	149.52

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

AirTECHNOLOGY
Laboratories, Inc.

February 26, 2016

ADE-1461
EPA Methods TO3, TO14A, TO15 SIM & SCAN
ASTM D1946

LA Cert #04140
EPA Methods TO3, TO14A, TO15, 25C/3C, RSK-175

TX Cert T104704450-14-6
EPA Methods TO14A, TO15

UT Cert CA0133332015-3
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: H022302-01/02

Enclosed are results for sample(s) received 2/23/16 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:

- Complete reanalysis of both samples was conducted, per client's request.
- 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, Ryan Ayers and David Randall, Weaver Consultants Group, on 2/25/16.

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

Air TECHNOLOGY 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:		5 day	☐	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.:	PO5544106
Bill to:	Republic Services
	Attn: Jim Getting
	13570 St. Charles Rock Rd.
	Bridgeton, MO 63044

LAB USE ONLY	Canister Pressures ("hg)				SAMPLE IDENTIFICATION	SAMPLE DATE	SAMPLE TIME	CONTAINER QTY/TYPE	MATRIX	PRESERVATION	ANALYSIS REQUEST: EPA 15/16 + TRS & ASTM1946 + H2+ CO	ANALYSIS REQUEST: ASTM 1946, BTU/SCF				
	Canister ID	Sample Start	Sample End	Lab Receive												
#022302-01	J1720	-20	-3.5	-3	Outlet A	2/22/2016	1355	C	LFG	NA	X	X				
↓ -02	1621	-20	-3.5	-2.5	Outlet B	2/22/2016	1405	C	LFG	NA	X	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	2-22-16 1430		
RELINQUISHED BY	DATE/TIME	RECEIVED BY	DATE/TIME
			2/23/16 1250
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: Republic Services
Attn: Jim Getting
Project Name: Bridgeton Landfill
Project No.: NA
Date Received: 02/23/16
Matrix: Air
Reporting Units: % v/v

ASTM D1946

Lab No.:	H022302-01		H022302-02					
Client Sample I.D.:	Outlet A		Outlet B					
Date/Time Sampled:	2/22/16 13:55		2/22/16 14:05					
Date/Time Analyzed:	2/24/16 15:52		2/24/16 16:07					
QC Batch No.:	160224GC8A1		160224GC8A1					
Analyst Initials:	AS		AS					
Dilution Factor:	2.8		2.7					
ANALYTE	Result % v/v	RL % v/v	Result % v/v	RL % v/v				
Hydrogen	11.0	2.8	11.2	2.7				
Carbon Dioxide	38.8	0.028	38.5	0.027				
Oxygen/Argon	7.4	1.4	7.4	1.4				
Nitrogen	30.3	2.8	30.3	2.7				
Methane	11.4	0.0028	11.4	0.0027				
Carbon Monoxide	0.10	0.0028	0.10	0.0027				
Net Heating Value (BTU/ft3)	156.5	2.8	159.7	2.7				
Gross Heating Value (BTU/ft3)	177.4	2.8	180.9	2.7				

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

Reviewed/Approved By: _____ Date 2/25/16
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.: 160224GC8A1
Matrix: Air
Units: % v/v

QC for ASTM D1946

Lab No.:	Method Blank		LCS		LCSD			
Date/Time Analyzed:	2/24/16 13:58		2/24/16 13:04		2/24/16 13:18			
Analyst Initials:	AS		AS		AS			
Datafile:	24feb012		24feb009		24feb010			
Dilution Factor:	1.0		1.0		1.0			
ANALYTE	Results	RL	% Rec.	Criteria	% Rec.	Criteria	%RPD	Criteria
Hydrogen	ND	1.0	73	70-130%	74	70-130%	1.4	<30
Carbon Dioxide	ND	0.010	89	70-130%	88	70-130%	1.0	<30
Oxygen/Argon	ND	0.50	106	70-130%	105	70-130%	1.0	<30
Nitrogen	ND	1.0	103	70-130%	102	70-130%	0.9	<30
Methane	ND	0.0010	123	70-130%	122	70-130%	1.0	<30
Carbon Monoxide	ND	0.0010	104	70-130%	102	70-130%	1.4	<30

ND = Not Detected (Below RL)

Reviewed/Approved By: _____ **Date:** 2/25/16

Mark J. Johnson
Operations Manager

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

Client: Republic Services
Attn: Jim Getting
Project Name: Bridgeton Landfill
Project No.: NA
Date Received: 02/23/16
Matrix: Air
Reporting Units: ppmv

EPA 15/16

Lab No.:	H022302-01		H022302-02					
Client Sample I.D.:	Outlet A		Outlet B					
Date/Time Sampled:	2/22/16 13:55		2/22/16 14:05					
Date/Time Analyzed:	2/24/16 9:59		2/24/16 10:54					
QC Batch No.:	160224GC3A1		160224GC3A1					
Analyst Initials:	AS		AS					
Dilution Factor:	2.8		2.7					
ANALYTE	Result ppmv	RL ppmv	Result ppmv	RL ppmv				
Hydrogen Sulfide	36 d	5.6	43 d	5.5				
Carbonyl Sulfide	ND	0.56	ND	0.55				
Methyl Mercaptan	170 d	5.6	200 d	5.5				
Ethyl Mercaptan	2.6	0.56	2.7	0.55				
Dimethyl Sulfide	860 d	56.0	910 d	55.0				
Carbon Disulfide	ND	0.56	ND	0.55				
Dimethyl Disulfide	68 d	5.6	79 d	5.5				
Total Reduced Sulfur	1,200	0.56	1,300	0.55				

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

Reviewed/Approved By: Mark Johnson
Operations Manager

Date 2/25/16

The cover letter is an integral part of this analytical report

QC Batch No.: 160224GC3A1
Matrix: Air
Units: ppmv

QC for Sulfur Compounds by EPA 15/16

Lab No.:	Method Blank		LCS		LCSD			
Date/Time Analyzed:	2/24/16 8:55		2/24/16 8:30		2/24/16 8:42			
Analyst Initials:	AS		AS		AS			
Datafile:	24feb003		24feb001		24feb002			
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%	89	70-130%	2.3	<30
Carbonyl Sulfide	ND	0.20	115	70-130%	113	70-130%	1.7	<30
Methyl Mercaptan	ND	0.20	86	70-130%	84	70-130%	1.6	<30
Ethyl Mercaptan	ND	0.20	113	70-130%	111	70-130%	1.8	<30
Dimethyl Sulfide	ND	0.20	99	70-130%	97	70-130%	1.9	<30
Carbon Disulfide	ND	0.20	97	70-130%	94	70-130%	3.3	<30
Dimethyl Disulfide	ND	0.20	103	70-130%	104	70-130%	0.8	<30

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

Reviewed/Approved By: _____ Date: 2/25/16
Mark J. Johnson
Operations Manager

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

Bridgeton Landfill, LLC.
Weekly TRS Sampling Summary
Event 50-07
2-17-2016

Kurz FM =	**3,184**	**scfm**	
Fleetzoom Total =	**3,301**	**scfm**	**$\Delta =$ 3.5%**

	PARAMETER	Outlet A	Outlet B
Date	Test Date		2/17/16
Time	Start - Finish	14:32	14:43
%CH_4	Methane, %	11.70	10.30
%CO_2	Carbon Dioxide, %	38.30	36.40
%O_2	Oxygen, %	7.60	8.30
%Balance	Assumed as Nitorgen, %	30.40	32.80
%H_2	Hydrogen, %	11.20	10.60
%CO	Carbon Monoxide, %	0.110	0.110
P_g	Flue Gas Static Pressure, inches of H_2O	23.94	23.94
t_s	Blower Outlet LFG Temperature, °F	82	82
Q_{sd}	Dry Volumetric Flow Rate, dry scfm (assumes 5%H2O)	3,025	
Q_s	Kurz FM, Standard Volumetric Flow Rate, scfm	3,184	
NHV	Net Heating Value, Btu/scf	156.7	152.5
LFG_{CH4}	Methane, lb/hr	884.3	778.5
	Methane, grains/dscf	34.11	30.03
LFG_{CO2}	Carbon Dioxide, lb/hr	7,941.6	7,547.6
	Carbon Dioxide, grains/dscf	306.32	291.13
LFG_{O2}	Oxygen, lb/hr	1,145.8	1,251.3
	Oxygen, grains/dscf	44.20	48.27
LFG_{N2}	Balance gas as Nitrogen, lb/hr	4,012.4	4,329.1
	Balance gas as Nitrogen, grains/dscf	154.77	166.98
LFG_{H4}	Hydrogen, lb/hr	106.4	100.7
	Hydrogen, grains/dscf	4.10	3.88
LFG_{CO}	Carbon Monoxide, lb/hr	14.5	14.5
	Carbon Monoxide, grains/dscf	0.53	0.53

		Outlet A	Outlet B
H_2S	Hydrogen Sulfide Concentration, ppmd	26.00	21.00
	Hydrogen Sulfide Rate, lb/hr	0.42	0.34
	Hydrogen Sulfide Rate, grains/dscf	0.016	0.013
COS	Carbonyl Sulfide Concentration, ppmd	0.56	0.56
	Carboynl Sulfide Rate, lb/hr	0.02	0.02
	Carbonyl Sulfide Rate, grains/dscf	0.001	0.001
CH_4S	Methyl Mercaptan Concentration, ppmd	180.00	160.00
	Methyl Mercaptan Rate, lb/hr	4.08	3.63
	Methyl Mercaptan Rate, grains/dscf	0.157	0.140
C_2H_6S	Ethyl Mercaptan Concentration, ppmd	2.50	2.00
	Ethyl Mercaptan Rate, lb/hr	0.07	0.06
	Ethyl Mercaptan Rate, grains/dscf	0.003	0.002
$(CH_3)_2S$	Dimethyl Sulfide Concentration, ppmd	970.00	900.00
	Dimethyl Sulfide Rate, lb/hr	28.40	26.35
	Dimethyl Sulfide Rate, grains/dscf	1.095	1.016
CS_2	Carbon Disulfide Concentration, ppmd	0.56	0.56
	Carbon Disulfide Rate, lb/hr	0.02	0.02
	Carbon Disulfide Rate, grains/dscf	0.001	0.001
$C_2H_6S_2$	Dimethyl Disulfide Concentration, ppmd	66.00	75.00
	Dimethyl Disulfide Rate, lb/hr	2.93	3.33
	Dimethyl Disulfide Rate, grains/dscf	0.113	0.128

❶**$E_{TRS-SO2}$**	TRS-->SO2 Emission Concentration, ppmd	1,300.00	1,200.00
	TRS-->SO2 Emission Rate, lb/hr	39.24	36.22
	TRS-->SO2 Emission Rate, grains/dscf	1.514	1.397
	TPY =	171.87	158.65

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

AIR TECHNOLOGY
Laboratories, Inc.

February 25, 2016

ADE-1461
EPA Methods TO3, TO14A, TO15 SIM & SCAN
ASTM D1946

LA Cert #04140
EPA Methods TO3, TO14A, TO15, 25C/3C, RSK-175

TX Cert T104704450-14-6
EPA Methods TO14A, TO15

UT Cert CA0133332015-3
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: H021907-01/02

Enclosed are results for sample(s) received 2/19/16 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:

- Complete reanalysis of both samples was conducted, per client's request.
- 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, Ryan Ayers and David Randall, Weaver Consultants Group, on 2/24/16.

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:		5 day	☐

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.:	PO5544106
Bill to:	Republic Services
	Attn: Jim Getting
	13570 St. Charles Rock Rd.
	Bridgeton, MO 63044

ANALYSIS REQUEST

LAB USE ONLY	Canister Pressures ("hg)				SAMPLE IDENTIFICATION	SAMPLE DATE	SAMPLE TIME	CONTAINER QTY/TYPE	MATRIX	PRESERVATION	EPA 15/16 + TRS & ASTM1946 + H2+ CO	ASTM 1946, BTU/SCF				
	Canister ID	Sample Start	Sample End	Lab Receive												
H02967-01	1619	-20.1	-3.5	-3	Outlet A	2/17/2016	1432	C	LFG	NA	X	X				
↓ -02	1536	-19.8	-3.5	-3	Outlet B	2/17/2016	1443	C	LFG	NA	X	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	2-17-16 1530		
FED EX			2/19/16 0845

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: 02/19/16
Matrix: Air
Reporting Units: % v/v

ASTM D1946

Lab No.:	H021907-01		H021907-02					
Client Sample I.D.:	Outlet A		Outlet B					
Date/Time Sampled:	2/17/16 14:32		2/17/16 14:43					
Date/Time Analyzed:	2/19/16 17:24		2/19/16 17:38					
QC Batch No.:	160219GC8A2		160219GC8A2					
Analyst Initials:	MJ		MJ					
Dilution Factor:	2.8		2.8					
ANALYTE	Result % v/v	RL % v/v	Result % v/v	RL % v/v				
Hydrogen	11.2	2.8	10.6	2.8				
Carbon Dioxide	38.3	0.028	36.4	0.028				
Oxygen/Argon	7.6	1.4	8.3	1.4				
Nitrogen	30.4	2.8	32.8	2.8				
Methane	11.3	0.0028	10.7	0.0028				
Carbon Monoxide	0.11	0.0028	0.11	0.0028				
Net Heating Value (BTU/ft3)	156.7	2.8	152.5	2.8				
Gross Heating Value (BTU/ft3)	177.8	2.8	172.8	2.8				

Results normalized including non-methane hydrocarbons
BTU values based on D1946 analysis and non-methane analysis assumed as propane
ND = Not Detected (below RL)
RL = Reporting Limit

Reviewed/Approved By: _____ Date 2-24-16
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

QC Batch No.: 160219GC8A2
Matrix: Air
Units: % v/v

QC for ASTM D1946

Lab No.:	Method Blank		LCS		LCSD			
Date/Time Analyzed:	2/19/16 17:09		2/19/16 16:19		2/19/16 16:34			
Analyst Initials:	MJ		MJ		MJ			
Datafile:	19feb036		19feb033		19feb034			
Dilution Factor:	1.0		1.0		1.0			
ANALYTE	Results	RL	% Rec.	Criteria	% Rec.	Criteria	%RPD	Criteria
Hydrogen	ND	1.0	109	70-130%	110	70-130%	0.4	<30
Carbon Dioxide	ND	0.010	102	70-130%	102	70-130%	0.4	<30
Oxygen/Argon	ND	0.50	101	70-130%	102	70-130%	0.5	<30
Nitrogen	ND	1.0	101	70-130%	102	70-130%	0.6	<30
Methane	ND	0.0010	99	70-130%	97	70-130%	2.4	<30
Carbon Monoxide	ND	0.0010	122	70-130%	120	70-130%	2.2	<30

ND = Not Detected (Below RL)

Reviewed/Approved By: _____ Date: 2-24-16

Mark J. Johnson
Operations Manager

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

Client: Republic Services
Attn: Jim Getting
Project Name: Bridgeton Landfill
Project No.: NA
Date Received: 02/19/16
Matrix: Air
Reporting Units: ppmv

EPA 15/16

Lab No.:	H021907-01		H021907-02					
Client Sample I.D.:	Outlet A		Outlet B					
Date/Time Sampled:	2/17/16 14:32		2/17/16 14:43					
Date/Time Analyzed:	2/22/16 12:05		2/22/16 13:06					
QC Batch No.:	160222GC3A1		160222GC3A1					
Analyst Initials:	AS		AS					
Dilution Factor:	2.8		2.8					
ANALYTE	Result ppmv	RL ppmv	Result ppmv	RL ppmv				
Hydrogen Sulfide	26 d	5.6	21 d	5.6				
Carbonyl Sulfide	ND	0.56	ND	0.56				
Methyl Mercaptan	180 d	5.6	160 d	5.6				
Ethyl Mercaptan	2.5	0.56	2.0	0.56				
Dimethyl Sulfide	970 d	56.0	900 d	56.0				
Carbon Disulfide	ND	0.56	ND	0.56				
Dimethyl Disulfide	66 d	5.6	75 d	5.6				
Total Reduced Sulfur	1,300	0.56	1,200	0.56				

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

Reviewed/Approved By: _____ Date 2-24-16

Mark Johnson
Operations Manager

The cover letter is an integral part of this analytical report

QC Batch No.: 160222GC3A1
Matrix: Air
Units: ppmv

QC for Sulfur Compounds by EPA 15/16

Lab No.:	Method Blank		LCS		LCSD			
Date/Time Analyzed:	2/22/16 11:48		2/22/16 11:23		2/22/16 11:35			
Analyst Initials:	AS		AS		AS			
Datafile:	22feb005		22feb003		22feb004			
Dilution Factor:	1.0		1.0		1.0			
ANALYTE	Results	RL	% Rec.	Criteria	% Rec.	Criteria	%RPD	Criteria
Hydrogen Sulfide	ND	0.20	89	70-130%	89	70-130%	0.6	<30
Carbonyl Sulfide	ND	0.20	108	70-130%	109	70-130%	0.4	<30
Methyl Mercaptan	ND	0.20	83	70-130%	85	70-130%	1.5	<30
Ethyl Mercaptan	ND	0.20	107	70-130%	108	70-130%	0.8	<30
Dimethyl Sulfide	ND	0.20	94	70-130%	92	70-130%	1.9	<30
Carbon Disulfide	ND	0.20	93	70-130%	91	70-130%	2.5	<30
Dimethyl Disulfide	ND	0.20	101	70-130%	100	70-130%	1.4	<30

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

Reviewed/Approved By: _____ Date: 2-24-16
Mark J. Johnson
Operations Manager

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

Bridgeton Landfill, LLC.
Weekly TRS Sampling Summary
Event 49-06
02/11/2016

Kurz FM =	**3,002**	scfm		
Fleetzoom Total =	**3,006**	scfm	**Δ = 0.1%**	**Outlet A** sample results void from the evaluation due to apparent ambient intrusion of the sample

	PARAMETER	Outlet A	Outlet B
Date	Test Date		2/11/16
Time	Start - Finish		16:30
%CH_4	Methane, %		9.65
%CO_2	Carbon Dioxide, %		33.95
%O_2	Oxygen, %		9.30
%Balance	Assumed as Nitorgen, %		36.45
%H_2	Hydrogen, %		9.95
%CO	Carbon Monoxide, %		0.095
P_g	Flue Gas Static Pressure, inches of H_2O		23.80
t_s	Blower Outlet LFG Temperature, °F		77
Q_{sd}	Dry Volumetric Flow Rate, dry scfm (assumes 5%H2O)	2,852	
Q_s	Kurz FM, Standard Volumetric Flow Rate, scfm	3,002	
NHV	Net Heating Value, Btu/scf		128.8
LFG_{CH4}	Methane, lb/hr	0.0	687.8
	Methane, grains/dscf	0.00	28.13
LFG_{CO2}	Carbon Dioxide, lb/hr	0.0	6,638.5
	Carbon Dioxide, grains/dscf	0.00	271.53
LFG_{O2}	Oxygen, lb/hr	0.0	1,322.2
	Oxygen, grains/dscf	0.00	54.08
LFG_{N2}	Balance gas as Nitrogen, lb/hr	0.0	4,536.8
	Balance gas as Nitrogen, grains/dscf	0.00	185.57
LFG_{H4}	Hydrogen, lb/hr	0.0	89.1
	Hydrogen, grains/dscf	0.00	3.65
LFG_{CO}	Carbon Monoxide, lb/hr	0.0	11.8
	Carbon Monoxide, grains/dscf	0.00	0.46

		Outlet A	Outlet B
H_2S	Hydrogen Sulfide Concentration, ppmd		36.00
	Hydrogen Sulfide Rate, lb/hr	0.00	0.55
	Hydrogen Sulfide Rate, grains/dscf	0.000	0.022
COS	Carbonyl Sulfide Concentration, ppmd		0.60
	Carboynl Sulfide Rate, lb/hr	0.00	0.02
	Carbonyl Sulfide Rate, grains/dscf	0.000	0.001
CH_4S	Methyl Mercaptan Concentration, ppmd		150.00
	Methyl Mercaptan Rate, lb/hr	0.00	3.21
	Methyl Mercaptan Rate, grains/dscf	0.000	0.131
C_2H_6S	Ethyl Mercaptan Concentration, ppmd		2.20
	Ethyl Mercaptan Rate, lb/hr	0.00	0.06
	Ethyl Mercaptan Rate, grains/dscf	0.000	0.002
$(CH_3)_2S$	Dimethyl Sulfide Concentration, ppmd		725.00
	Dimethyl Sulfide Rate, lb/hr	0.00	20.01
	Dimethyl Sulfide Rate, grains/dscf	0.000	0.819
CS_2	Carbon Disulfide Concentration, ppmd		0.60
	Carbon Disulfide Rate, lb/hr	0.00	0.02
	Carbon Disulfide Rate, grains/dscf	0.000	0.001
$C_2H_6S_2$	Dimethyl Disulfide Concentration, ppmd		45.00
	Dimethyl Disulfide Rate, lb/hr	0.00	1.88
	Dimethyl Disulfide Rate, grains/dscf	0.000	0.077

❶**$E_{TRS-SO2}$**	TRS-->SO2 Emission Concentration, ppmd		1,000.00
	TRS-->SO2 Emission Rate, lb/hr	0.00	28.46
	TRS-->SO2 Emission Rate, grains/dscf	0.000	1.164
	TPY =	0.00	124.67

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

Air TECHNOLOGY Laboratories, Inc.

February 19, 2016

ADE-1461
EPA Methods TO3, TO14A, TO15 SIM & SCAN
ASTM D1946

LA Cert #04140
EPA Methods TO3, TO14A, TO15, 25C/3C, RSK-175

TX Cert T104704450-14-6
EPA Methods TO14A, TO15

UT Cert CA0133332015-3
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: H021201-01/02

Enclosed are results for sample(s) received 2/12/16 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:

- Complete reanalysis of both samples was conducted, per client's request.
- 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, Ryan Ayers and David Randall, Weaver Consultants Group, on 2/12/16 (TRS only), 2/15/16 and 2/16/16.

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.

H021201-01/02

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:		5 day	☐	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.:	PO5544106
Bill to:	Republic Services
	Attn: Jim Getting
	13570 St. Charles Rock Rd.
	Bridgeton, MO 63044

ANALYSIS REQUEST

LAB USE ONLY	Canister Pressures ("hg)				SAMPLE IDENTIFICATION	SAMPLE DATE	SAMPLE TIME	CONTAINER QTY/TYPE	MATRIX	PRESERVATION	EPA 15/16 + TRS & ASTM1946 + H2+ CO	ASTM 1946, BTU/SCF				
	Canister ID	Sample Start	Sample End	Lab Receive												
H021201-01	J1719	-18.6	-3.5	-1.0	Outlet A	2/11/2016	1621	C	LFG	NA	X	X				
-02	1535	-20.3	-3.5	-1.0	Outlet B	2/11/2016	1630	C	LFG	NA	X	X				

AUTHORIZATION TO PERFORM WORK: Dave Penoyer		COMPANY: Republic Services		DATE/TIME:
SAMPLED BY: Ryan Ayers		COMPANY: Republic Services		DATE/TIME
RELINQUISHED BY: Ryan Ayers	2-11-16 1700	DATE/ RECEIVED BY		DATE/TIME
RELINQUISHED BY: FEDEX	2/12/16 0855	DATE/ RECEIVED BY		DATE/TIME 2/12/16 0855
RELINQUISHED BY		DATE/ RECEIVED BY		DATE/TIME

COMMENTS

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

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:	**02/12/16**
Matrix:	**Air**
Reporting Units:	**% v/v**

Outlet A results void from the evaluation due to apparent ambient intrusion of the sample.

ASTM D1946

Lab No.:	H021201-01		H021201-01R		H021201-02		H021201-02R	
Client Sample I.D.:	Outlet A		Outlet A		Outlet B		Outlet B	
Date/Time Sampled:	2/11/16 16:21		2/11/16 16:21		2/11/16 16:30		2/11/16 16:30	
Date/Time Analyzed:	2/12/16 13:57		2/16/16 8:27		2/12/16 14:12		2/16/16 8:42	
QC Batch No.:	160212GC8A1		160216GC8A2		160212GC8A1		160216GC8A2	
Analyst Initials:	AS		AS		AS		AS	
Dilution Factor:	2.5		2.5		2.5		2.5	
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	8.2	2.5	8.1	2.5	10.0	2.5	9.9	2.5
Carbon Dioxide	28.2	0.025	28.1	0.025	34.0	0.025	33.9	0.025
Oxygen/Argon	11.4	1.3	11.5	1.3	9.3	1.3	9.3	1.3
Nitrogen	43.7	2.5	43.8	2.5	36.4	2.5	36.5	2.5
Methane	8.1	0.0025	8.0	0.0025	9.7	0.0025	9.6	0.0025
Carbon Monoxide	0.075	0.0025	0.076	0.0025	0.091	0.0025	0.090	0.0025
Net Heating Value (BTU/ft3)	104.2	2.5	104.4	2.5	128.9	2.5	128.6	2.5
Gross Heating Value (BTU/ft3)	118.6	2.5	118.8	2.5	146.6	2.5	146.3	2.5

Results normalized including non-methane hydrocarbons
BTU values based on D1946 analysis and non-methane analysis assumed as propane
ND = Not Detected (below RL)
RL = Reporting Limit

Reviewed/Approved By: _____ **Date** _____

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.: 160212GC8A1
Matrix: Air
Units: % v/v

QC for ASTM D1946

Lab No.:	Method Blank		LCS		LCSD			
Date/Time Analyzed:	2/12/16 10:50		2/12/16 10:06		2/12/16 10:21			
Analyst Initials:	AS		AS		AS			
Datafile:	12feb008		12feb005		12feb006			
Dilution Factor:	1.0		1.0		1.0			
ANALYTE	Results	RL	% Rec.	Criteria	% Rec.	Criteria	%RPD	Criteria
Hydrogen	ND	1.0	107	70-130%	108	70-130%	0.6	<30
Carbon Dioxide	ND	0.010	99	70-130%	100	70-130%	0.8	<30
Oxygen/Argon	ND	0.50	100	70-130%	100	70-130%	0.3	<30
Nitrogen	ND	1.0	100	70-130%	101	70-130%	0.2	<30
Methane	ND	0.0010	101	70-130%	100	70-130%	0.7	<30
Carbon Monoxide	ND	0.0010	107	70-130%	107	70-130%	0.1	<30

ND = Not Detected (Below RL)

Reviewed/Approved By: _____ Date: 2-15-16

Mark J. Johnson
Operations Manager

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

QC Batch No.: 160216GC3A1
Matrix: Air
Units: ppmv

QC for Sulfur Compounds by EPA 15/16

Lab No.:	Method Blank		LCS		LCSD			
Date/Time Analyzed:	2/16/16 9:03		2/16/16 8:38		2/16/16 8:50			
Analyst Initials:	AS		AS		AS			
Datafile:	16feb003		16feb001		16feb002			
Dilution Factor:	1.0		1.0		1.0			
ANALYTE	Results	RL	% Rec.	Criteria	% Rec.	Criteria	%RPD	Criteria
Hydrogen Sulfide	ND	0.20	74	70-130%	73	70-130%	2.0	<30
Carbonyl Sulfide	ND	0.20	96	70-130%	95	70-130%	0.4	<30
Methyl Mercaptan	ND	0.20	76	70-130%	76	70-130%	0.8	<30
Ethyl Mercaptan	ND	0.20	79	70-130%	79	70-130%	0.6	<30
Dimethyl Sulfide	ND	0.20	90	70-130%	90	70-130%	0.7	<30
Carbon Disulfide	ND	0.20	86	70-130%	85	70-130%	1.0	<30
Dimethyl Disulfide	ND	0.20	101	70-130%	101	70-130%	0.4	<30

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

Reviewed/Approved By: _____ Date: 2-16-16
Mark J. Johnson
Operations Manager

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

Client: Republic Services
Attn: Jim Getting
Project Name: Bridgeton Landfill
Project No.: NA
Date Received: 02/12/16
Matrix: Air
Reporting Units: ppmv

Outlet A results void from the evaluation due to apparent ambient intrusion of the sample.

EPA 15/16

Lab No.:	H021201-01		H021201-01R		H021201-02		H021201-02R	
Client Sample I.D.:	Outlet A		Outlet A		Outlet B		Outlet B	
Date/Time Sampled:	2/11/16 16:21		2/11/16 16:21		2/11/16 16:30		2/11/16 16:30	
Date/Time Analyzed:	2/12/16 12:20		2/16/16 11:55		2/12/16 13:24		2/16/16 12:07	
QC Batch No.:	160212GC3A1		160216GC3A1		160212GC3A1		160216GC3A1	
Analyst Initials:	AS		AS		AS		AS	
Dilution Factor:	2.5		3.4		2.5		3.4	
ANALYTE	Result ppmv	RL ppmv	Result ppmv	RL ppmv	Result ppmv	RL ppmv	Result ppmv	RL ppmv
Hydrogen Sulfide	30 d	5.1	25 d	6.8	39 d	5.1	33 d	6.8
Carbonyl Sulfide	ND	0.51	ND	0.68	ND	0.51	ND	0.68
Methyl Mercaptan	120 d	5.1	110 d	6.8	160 d	5.1	140 d	6.8
Ethyl Mercaptan	1.6	0.51	1.5	0.68	2.3	0.51	2.1	0.68
Dimethyl Sulfide	580 d	51.0	560 d	68.0	720 d	51.0	730 d	68.0
Carbon Disulfide	ND	0.51	ND	0.68	ND	0.51	ND	0.68
Dimethyl Disulfide	23	0.51	25	0.68	43 d	5.1	48 d	*10
Total Reduced Sulfur	780	0.51	750	0.68	1,000	0.51	1,000	0.68

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

Reviewed/Approved By: _____ Date _____
Mark Johnson
Operations Manager

The cover letter is an integral part of this analytical report

QC Batch No.: 160212GC3A1
Matrix: Air
Units: ppmv

QC for Sulfur Compounds by EPA 15/16

Lab No.:	Method Blank		LCS		LCSD			
Date/Time Analyzed:	2/12/16 9:13		2/12/16 8:48		2/12/16 9:00			
Analyst Initials:	AS		AS		AS			
Datafile:	12feb003		12feb001		12feb002			
Dilution Factor:	1.0		1.0		1.0			
ANALYTE	Results	RL	% Rec.	Criteria	% Rec.	Criteria	%RPD	Criteria
Hydrogen Sulfide	ND	0.20	87	70-130%	88	70-130%	1.1	<30
Carbonyl Sulfide	ND	0.20	107	70-130%	106	70-130%	1.1	<30
Methyl Mercaptan	ND	0.20	86	70-130%	86	70-130%	0.2	<30
Ethyl Mercaptan	ND	0.20	85	70-130%	85	70-130%	0.1	<30
Dimethyl Sulfide	ND	0.20	96	70-130%	96	70-130%	0.5	<30
Carbon Disulfide	ND	0.20	98	70-130%	98	70-130%	0.5	<30
Dimethyl Disulfide	ND	0.20	105	70-130%	104	70-130%	0.8	<30

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

Reviewed/Approved By: _____ Date: 2-12-16
Mark J. Johnson
Operations Manager

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

QC Batch No.: 160215GC8A2
Matrix: Air
Units: % v/v

QC for ASTM D1946

Lab No.:	Method Blank		LCS		LCSD			
Date/Time Analyzed:	2/15/16 18:54		2/15/16 18:10		2/15/16 18:25			
Analyst Initials:	MJ		MJ		MJ			
Datafile:	15feb042		15feb039		15feb040			
Dilution Factor:	1.0		1.0		1.0			
ANALYTE	Results	RL	% Rec.	Criteria	% Rec.	Criteria	%RPD	Criteria
Hydrogen	ND	1.0	116	70-130%	116	70-130%	0.0	<30
Carbon Dioxide	ND	0.010	103	70-130%	103	70-130%	0.4	<30
Oxygen/Argon	ND	0.50	99	70-130%	99	70-130%	0.1	<30
Nitrogen	ND	1.0	100	70-130%	100	70-130%	0.1	<30
Methane	ND	0.0010	89	70-130%	88	70-130%	1.1	<30
Carbon Monoxide	ND	0.0010	107	70-130%	104	70-130%	2.3	<30

ND = Not Detected (Below RL)

Reviewed/Approved By: _____ Date: 2-16-16

Mark J. Johnson
Operations Manager

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

	PARAMETER	Blower Out
Date	Test Date	2/2/16
Start	Run Start Time	9:08
	Run Finish Time	11:05
	Net Traversing Points	16 (2 x 8)
Θ	Net Run Time, minutes	1:56:20
C_p	Pitot Tube Coeficient	0.99
P_{Br}	Barometric Pressure, inches of Mercury	29.08
% H_2O	Moisture Content of LFG, %	1.34
% RH	Relative Humidity, %	47.90
M_{fd}	Dry Mole Fraction	0.987
%CH_4	Methane, %	12.30
%CO_2	Carbon Dioxide, %	39.20
%O_2	Oxygen, %	8.40
%Balance	Assumed as Nitorgen, %	29.30
%H_2	Hydrogen, %	10.70
%CO	Carbon Monoxide, %	0.10
M_d	Dry Molecular Weight, lb/lb-Mole	30.36
M_s	Wet Molecular weight, lb/lb-Mole	30.20
P_g	Flue Gas Static Pressure, inches of H_2O	30.22
P_s	Absolute Flue Gas Pressure, inches of Mercury	31.30
t_s	Average Stack Gas Temperature, °F	75
ΔP_{avg}	Average Velocity Head, inches of H_2O	0.269
v_s	Average LFG Velocity, feet/second	33.03
A_s	Stack Crossectional Area, square feet	1.35
Q_{sd}	Dry Volumetric Flow Rate, dry scfm	2,730
Q_s	Standard Volumetric Flow Rate, scfm	2,767
Q_{aw}	Actual Wet Volumetric Flue Gas Flow Rate, acfm	2,682
$Q_{lb/hr}$	Dry Air Flow Rate at Standard Conditions, lb/hr	12,908
NHV	Net Heating Value, Btu/scf	158
LFG_{CH4}	Methane, lb/hr	839.1
	Methane, grains/dscf	35.86
LFG_{CO2}	Carbon Dioxide, lb/hr	7,336.1
	Carbon Dioxide, grains/dscf	313.52
LFG_{O2}	Oxygen, lb/hr	1143.0
	Oxygen, grains/dscf	48.85
LFG_{N2}	Balance gas as Nitrogen, lb/hr	3,490.3
	Balance gas as Nitrogen, grains/dscf	149.17
LFG_{H4}	Hydrogen, lb/hr	91.7
	Hydrogen, grains/dscf	3.92
LFG_{CO}	Carbon Monoxide, lb/hr	11.9
	Carbon Monoxide, grains/dscf	0.51

		Blower Out Sample #1	Blower Out Sample #2
H_2S	Hydrogen Sulfide Concentration, ppmd	48.00	43.00
	Hydrogen Sulfide Rate, lb/hr	0.70	0.62
	Hydrogen Sulfide Rate, grains/dscf	0.030	0.027
COS	Carbonyl Sulfide Concentration, ppmd	0.63	0.53
	Carboynl Sulfide Rate, lb/hr	0.02	0.01
	Carbonyl Sulfide Rate, grains/dscf	0.001	0.001
CH_4S	Methyl Mercaptan Concentration, ppmd	180.00	150.00
	Methyl Mercaptan Rate, lb/hr	3.68	3.07
	Methyl Mercaptan Rate, grains/dscf	0.157	0.131
C_2H_6S	Ethyl Mercaptan Concentration, ppmd	2.50	2.40
	Ethyl Mercaptan Rate, lb/hr	0.07	0.06
	Ethyl Mercaptan Rate, grains/dscf	0.003	0.003
$(CH_3)_2S$	Dimethyl Sulfide Concentration, ppmd	880.00	810.00
	Dimethyl Sulfide Rate, lb/hr	23.25	21.40
	Dimethyl Sulfide Rate, grains/dscf	0.994	0.915
CS_2	Carbon Disulfide Concentration, ppmd	0.63	0.53
	Carbon Disulfide Rate, lb/hr	0.02	0.02
	Carbon Disulfide Rate, grains/dscf	0.001	0.001
$C_2H_6S_2$	Dimethyl Disulfide Concentration, ppmd	67.00	64.00
	Dimethyl Disulfide Rate, lb/hr	2.68	2.07
	Dimethyl Disulfide Rate, grains/dscf	0.115	0.089

❶ **$E_{TRS-SO2}$**	TRS-->SO2 Emission Concentration, ppmd	1,200.00	1,100.00
	TRS-->SO2 Emission Rate, lb/hr	32.69	29.97
	TRS-->SO2 Emission Rate, grains/dscf	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

Tuesday, February 02, 2016

LOCATION	TIME	FLOW -SCFM			Method 2 vs. Fleetzoom	Method 2 vs Kurz
		Method 2	FleetZoom	Kurz FM		
BLOWER OUT	9:08	2,767	3,259	2,904	-17.8%	-5.0%

AirTECHNOLOGY
Laboratories, Inc.

February 10, 2016

ADE-1461
EPA Methods TO3, TO14A, TO15 SIM & SCAN
ASTM D1946

LA Cert #04140
EPA Methods TO3, TO14A, TO15, 25C/3C, RSK-175

TX Cert T104704450-14-6
EPA Methods TO14A, TO15

UT Cert CA0133332015-3
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: H020311-01/03

Enclosed are results for sample(s) received 2/03/16 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, Ryan Ayers, Nicholas Bauer and David Randall, Weaver Consultants Group, on 2/05/16 (ASTM D1946) and 2/09/16 (EPA 15/16).

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:		5 day	☐

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 5544160
Bill to: Republic Services
Attn: Jim Getting
13570 St. Charles Rock Rd.
Bridgeton, MO 63044

ANALYSIS REQUEST

LAB USE ONLY	Canister Pressures ("hg) Canister ID	Sample Start	Sample End	Lab Receive	SAMPLE IDENTIFICATION	SAMPLE DATE	SAMPLE TIME	CONTAINER QTY/TYPE	MATRIX	PRESERVATION	EPA 15/16 + TRS & ASTM1946 + H2+ CO	ASTM 1946, BTU/SCF	ASTM D5504 V 2/3/16	per. D. Randall		
H020316-01	5960	-19.4	-3.96	-5	Blower Outlet 1	2/2/2016	931	C	LFG	NA	X	X	X			
-02	4431	-19.61	-3.95	-2	Blower Outlet 2	2/2/2016	1026	C	LFG	NA	X	X	X			
-03	5958	-20.97	-3.96	-4	LFG CSU EP14	2/2/2016	811	C	LFG	NA	X	X				

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

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

RELINQUISHED BY: Ryan Ayers — 2-3-16 1600 — DATE/TIME — RECEIVED BY: FedEx — DATE/TIME

RELINQUISHED BY: FedEx — DATE/TIME — RECEIVED BY: [signature] — 2/3/16 0705 — DATE/TIME

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: Republic Services
Attn: Jim Getting
Project Name: Bridgeton Landfill
Project No.: NA
Date Received: 02/03/16
Matrix: Air
Reporting Units: % v/v

ASTM D1946

Lab No.:	H020311-01		H020311-02		H020311-03			
Client Sample I.D.:	Blower Outlet 1		Blower Outlet 2		LFG CSU EP14			
Date/Time Sampled:	2/2/16 9:31		2/2/16 10:26		2/2/16 8:11			
Date/Time Analyzed:	2/4/16 12:43		2/4/16 12:58		2/4/16 13:12			
QC Batch No.:	160204GC8A1		160204GC8A1		160204GC8A1			
Analyst Initials:	AS		AS		AS			
Dilution Factor:	3.2		2.7		3.0			
ANALYTE	Result % v/v	RL % v/v	Result % v/v	RL % v/v	Result % v/v	RL % v/v		
Hydrogen	10.8	3.2	10.9	2.7	11	3.0		
Carbon Dioxide	37.3	0.032	38.0	0.027	33	0.030		
Oxygen/Argon	7.9	1.6	7.7	1.3	9.3	1.5		
Nitrogen	31.3	3.2	30.6	2.7	38	3.0		
Methane	11.7	0.0032	11.8	0.0027	7.3	0.0030		
Carbon Monoxide	0.10	0.0032	0.11	0.0027	0.083	0.0030		
Net Heating Value (BTU/ft3)	157.8	3.2	157.6	2.7	119	3.0		
Gross Heating Value (BTU/ft3)	178.9	3.2	178.6	2.7	136	3.0		

Results normalized including non-methane hydrocarbons
BTU values based on D1946 analysis and non-methane analysis assumed as propane
ND = Not Detected (below RL)
RL = Reporting Limit

Reviewed/Approved By: _____ Date 2-5-16

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.: 160204GC8A1
Matrix: Air
Units: % v/v

QC for ASTM D1946

Lab No.:	Method Blank		LCS		LCSD			
Date/Time Analyzed:	2/4/16 10:45		2/4/16 10:00		2/4/16 10:15			
Analyst Initials:	AS		AS		AS			
Datafile:	04feb010		04feb007		04feb008			
Dilution Factor:	1.0		1.0		1.0			
ANALYTE	Results	RL	% Rec.	Criteria	% Rec.	Criteria	%RPD	Criteria
Hydrogen	ND	1.0	112	70-130%	111	70-130%	0.0	<30
Carbon Dioxide	ND	0.010	100	70-130%	99	70-130%	0.8	<30
Oxygen/Argon	ND	0.50	100	70-130%	99	70-130%	0.8	<30
Nitrogen	ND	1.0	100	70-130%	100	70-130%	0.6	<30
Methane	ND	0.0010	93	70-130%	93	70-130%	0.9	<30
Carbon Monoxide	ND	0.0010	112	70-130%	111	70-130%	0.6	<30

ND = Not Detected (Below RL)

Reviewed/Approved By: _____ **Date:** 2-5-16

Mark J. Johnson
Operations Manager

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

Client: Republic Services
Attn: Jim Getting
Project Name: Bridgeton Landfill
Project No.: NA
Date Received: 02/03/16
Matrix: Air
Reporting Units: ppmv

EPA 15/16

Lab No.:	H020311-01		H020311-02		H020311-03			
Client Sample I.D.:	Blower Outlet 1		Blower Outlet 2		LFG CSU EP14			
Date/Time Sampled:	2/2/16 9:31		2/2/16 10:26		2/2/16 8:11			
Date/Time Analyzed:	2/8/16 16:02		2/8/16 17:38		2/9/16 8:20			
QC Batch No.:	160208GC3A1		160208GC3A1		160208GC3A1			
Analyst Initials:	AS		AS		AS			
Dilution Factor:	3.2		2.7		3.0			
ANALYTE	Result ppmv	RL ppmv	Result ppmv	RL ppmv	Result ppmv	RL ppmv		
Hydrogen Sulfide	48 d	6.3	43 d	5.3	13	0.59		
Carbonyl Sulfide	ND	0.63	ND	0.53	ND	0.59		
Methyl Mercaptan	180 d	6.3	150 d	5.3	150 d	5.9		
Ethyl Mercaptan	2.5	0.63	2.4	0.53	1.6	0.59		
Dimethyl Sulfide	880 d	63.0	810 d	53.0	980 d	59.0		
Carbon Disulfide	ND	0.63	ND	0.53	ND	0.59		
Dimethyl Disulfide	67 d	6.3	64 d	5.3	89 d	5.9		
Total Reduced Sulfur	1,200	0.63	1,100	0.53	1,300	0.59		

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

Reviewed/Approved By: _____ Date 2-9-16
Mark Johnson
Operations Manager

The cover letter is an integral part of this analytical report

QC Batch No.: 160208GC3A1
Matrix: Air
Units: ppmv

QC for Sulfur Compounds by EPA 15/16

Lab No.:	Method Blank		LCS		LCSD			
Date/Time Analyzed:	2/8/16 13:51		2/8/16 13:23		2/8/16 13:38			
Analyst Initials:	AS		AS		AS			
Datafile:	08feb008		08feb006		08feb007			
Dilution Factor:	1.0		1.0		1.0			
ANALYTE	Results	RL	% Rec.	Criteria	% Rec.	Criteria	%RPD	Criteria
Hydrogen Sulfide	ND	0.20	94	70-130%	95	70-130%	0.3	<30
Carbonyl Sulfide	ND	0.20	110	70-130%	109	70-130%	0.6	<30
Methyl Mercaptan	ND	0.20	90	70-130%	89	70-130%	0.3	<30
Ethyl Mercaptan	ND	0.20	90	70-130%	87	70-130%	3.0	<30
Dimethyl Sulfide	ND	0.20	100	70-130%	101	70-130%	1.2	<30
Carbon Disulfide	ND	0.20	104	70-130%	103	70-130%	1.2	<30
Dimethyl Disulfide	ND	0.20	108	70-130%	108	70-130%	0.5	<30

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

Reviewed/Approved By: _____ Date: 2-9-16
Mark J. Johnson
Operations Manager

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

2655 Park Center Dr., Suite A
Simi Valley, CA 93065
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F: +1 805 526 7270
www.alsglobal.com

LABORATORY REPORT

February 5, 2016

David Randall
Weaver Consultants Group
6301 East HWY AB
Columbia, MO 65201

RE: Bridgeton LF Monthly Permit Flare LFG Testing-SPLIT / 0120-131-10-63

Dear David:

Enclosed are the results of the samples submitted to our laboratory on February 3, 2016. For your reference, these analyses have been assigned our service request number P1600503.

All analyses were performed according to our laboratory's NELAP and DoD-ELAP-approved quality assurance program. The test results meet requirements of the current NELAP and DoD-ELAP standards, where applicable, and except as noted in the laboratory case narrative provided. For a specific list of NELAP and DoD-ELAP-accredited analytes, refer to the certifications section at www.alsglobal.com. Results are intended to be considered in their entirety and apply only to the samples analyzed and reported herein.

If you have any questions, please call me at (805) 526-7161.

Respectfully submitted,

ALS | Environmental

Samantha Henningsen

By Samantha Henningsen at 2:16 pm, Feb 05, 2016

Samantha Henningsen
Project Manager

2655 Park Center Dr., Suite A
Simi Valley, CA 93065
T: +1 805 526 7161
F: +1 805 526 7270
www.alsglobal.com

Client: Weaver Consultants Group Service Request No: P1600503
Project: Bridgeton LF Monthly Permit Flare LFG Testing-SPLIT / 0120-131-10-63

CASE NARRATIVE

The samples were received intact under chain of custody on February 3, 2016 and were stored in accordance with the analytical method requirements. Please refer to the sample acceptance check form for additional information. The results reported herein are applicable only to the condition of the samples at the time of sample receipt.

BTU and CHONS Analysis

The results for BTU and CHONS were generated according to ASTM D 3588-98. The following analyses were performed and used to calculate the BTU and CHONS results. This method is not included on the laboratory's NELAP, DoD-ELAP, or AIHA-LAP scope of accreditation.

C2 through C6 Hydrocarbon Analysis

The samples were analyzed according to modified EPA Method TO-3 for C2 through >C6 hydrocarbons using a gas chromatograph equipped with a flame ionization detector (FID). This method is included on the laboratory's DoD-ELAP scope of accreditation, however it is not part of the NELAP or AIHA-LAP accreditation.

Fixed Gases Analysis

The samples were also analyzed for fixed gases (hydrogen, oxygen/argon, nitrogen, carbon monoxide, methane and carbon dioxide) according to modified EPA Method 3C (single injection) using a gas chromatograph equipped with a thermal conductivity detector (TCD). This method is included on the laboratory's DoD-ELAP scope of accreditation, however it is not part of the NELAP or AIHA-LAP accreditation.

Sulfur Analysis

The samples were analyzed for twenty sulfur compounds per ASTM D 5504-12 using a gas chromatograph equipped with a sulfur chemiluminescence detector (SCD). All compounds with the exception of hydrogen sulfide and carbonyl sulfide are quantitated against the initial calibration curve for methyl mercaptan. This method is included on the laboratory's NELAP scope of accreditation, however it is not part of the DoD-ELAP or AIHA-LAP accreditation.

2655 Park Center Dr., Suite A
Simi Valley, CA 93065
T: +1 805 526 7161
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www.alsglobal.com

Client: Weaver Consultants Group Service Request No: P1600503
Project: Bridgeton LF Monthly Permit Flare LFG Testing-SPLIT / 0120-131-10-63

The analysis of Blower Out-Bag 5 Cal and Blower Out-Tedlar were performed past the holding time. The results have been flagged accordingly.

2655 Park Center Dr., Suite A
Simi Valley, CA 93065
T: +1 805 526 7161
F: +1 805 526 7270
www.alsglobal.com

ALS Environmental – Simi Valley

CERTIFICATIONS, ACCREDITATIONS, AND REGISTRATIONS

Agency	Web Site	Number
AIHA	http://www.aihaaccreditedlabs.org	101661
Arizona DHS	http://www.azdhs.gov/lab/license/env.htm	AZ0694
DoD ELAP	http://www.pjlabs.com/search-accredited-labs	L15-398
Florida DOH (NELAP)	http://www.doh.state.fl.us/lab/EnvLabCert/WaterCert.htm	E871020
Maine DHHS	http://www.maine.gov/dhhs/mecdc/environmental-health/water/dwp-services/labcert/labcert.htm	2014025
Minnesota DOH (NELAP)	http://www.health.state.mn.us/accreditation	977273
New Jersey DEP (NELAP)	http://www.nj.gov/dep/oqa/	CA009
New York DOH (NELAP)	http://www.wadsworth.org/labcert/elap/elap.html	11221
Oregon PHD (NELAP)	http://public.health.oregon.gov/LaboratoryServices/EnvironmentalLaboratoryAccreditation/Pages/index.aspx	4068-001
Pennsylvania DEP	http://www.depweb.state.pa.us/labs	68-03307 (Registration)
Texas CEQ (NELAP)	http://www.tceq.texas.gov/field/qa/env_lab_accreditation.html	T104704413-15-6
Utah DOH (NELAP)	http://www.health.utah.gov/lab/labimp/certification/index.html	CA016272015-5
Washington DOE	http://www.ecy.wa.gov/programs/eap/labs/lab-accreditation.html	C946

Analyses were performed according to our laboratory's NELAP and DoD-ELAP approved quality assurance program. A complete listing of specific NELAP and DoD-ELAP certified analytes can be found in the certifications section at www.alsglobal.com, or at the accreditation body's website.

Each of the certifications listed above have an explicit Scope of Accreditation that applies to specific matrices/methods/analytes; therefore, please contact the laboratory for information corresponding to a particular certification.

ALS ENVIRONMENTAL

DETAIL SUMMARY REPORT

Client: Weaver Consultants Group

Service Request: P1600503

Project ID: Bridgeton LF Monthly Permit Flare LFG Testing-SPL / 0120-131-10-63

Date Received: 2/3/2016

Time Received: 09:45

Client Sample ID	Lab Code	Matrix	Date Collected	Time Collected	Container ID	Pi1 (psig)	Pf1 (psig)	TO-3 Modified - C1C6+ Can	ASTM D1946-90(2006) - Fxd Gases Can	3C Modified - Fxd Gases Can	ASTM D5504-01 - H2S Can	ASTM D 5504-12 - Sulfur Can	TO-3 Modified - C1C6+ Bag	3C Modified - Fxd Gases Bag
Blower Out #1 (Can)	P1600503-001	Air	2/2/2016	09:31	SSC00163	0.65	3.53	X	X	X	X	X		
Blower Out #2 (Can)	P1600503-002	Air	2/2/2016	10:26	SSC00230	1.21	3.64	X	X	X	X	X		
Blower Out-Bag 5 Cal	P1600503-003	Air	2/2/2016	11:10									X	X
Blower Out-Tedlar	P1600503-004	Air	2/2/2016	11:00									X	X

Blower Out-Bag 5 Cal sample results void from evaluation due to apparent sample tubing and/or lab GC injection leak or ambient intrusion

Air - Chain of Custody Record & Analytical Service Request

2655 Park Center Drive, Suite A
Simi Valley, California 93065
Phone (805) 526-7161
Fax (805) 526-7270

Requested Turnaround Time in Business Days (Surcharges) please circle
1 Day (100%) **2 Day (75%)** 3 Day (50%) 4 Day (35%) 5 Day (25%) 10 Day-Standard

ALS Project No. PL1605503

ALS Contact:

Company Name & Address (Reporting Information)
Weaver Consultants Group
6301 East Highway AB
Columbia, MO 65201

Project Name
Bridgeton LF Monthly Permit Flare LFG Testing - SPLIT

Project Number
0120-131-10-63

P.O. # / Billing Information
Bill to WCG with reference project no.

Project Manager
David A. Randall

Phone
573-645-2650

Fax

Email Address for Result Reporting
drandall@wcgrp.com

Sampler (Print & Sign)
Jenny Holt

Client Sample ID	Laboratory ID Number	Date Collected	Time Collected	Canister ID (Bar code # - AC, SC, etc.)	Flow Controller ID (Bar code # - FC #)	Canister Start Pressure "Hg	Canister End Pressure "Hg/psig	Sample Volume	Analysis Method: ASTM D5504 + TRS	Analysis Method: ASTM 1946, fixed gases, + H2, CO, & Btu	Comments e.g. Actual Preservative or specific instructions
Blower Out # 1 (Can)	1	2/2/2016	931						✓	✓	
Blower Out #2 (Can)	2	2/2/2016	1026						✓	✓	
Blower Out - Bag 5 Cal	3	2/2/2016	1110	NA	NA	NA	NA	0.5L	✓	✓	
Blower Out - Tedlar	4	2/2/2016	1100	NA	NA	NA	NA	0.5L	✓	✓	

Report Tier Levels - please select

Tier I - Results (Default if not specified) ____
Tier II (Results + QC Summaries) ____
Tier III (Results + QC & Calibration Summaries) ✓
Tier IV (Data Validation Package) 10% Surcharge ____

EDD required Yes / No
Type: _____ Units: _____

Chain of Custody Seal: (Circle)
INTACT BROKEN ABSENT

Project Requirements (MRLs, QAPP)

Relinquished by: (Signature)	Date:	Time:	Received by: (Signature)	Date:	Time:
Jenny Holt	2/2/16	12:00pm		2/3/16	0945
Relinquished by: (Signature)	Date:	Time:	Received by: (Signature)	Date:	Time:

Cooler / Blank Temperature ____ °C

ALS Environmental
Sample Acceptance Check Form

Client: Weaver Consultants Group Work order: P1600503

Project: Bridgeton LF Monthly Permit Flare LFG Testing-SPLIT / 0120-131-10-63

Sample(s) received on: 2/3/16 Date opened: 2/3/16 by: KKELPE

Note: This form is used for all samples received by ALS. The use of this form for custody seals is strictly meant to indicate presence/absence and not as an indication of compliance or nonconformity. Thermal preservation and pH will only be evaluated either at the request of the client and/or as required by the method/SOP.

		Yes	No	N/A
1	Were **sample containers** properly marked with client sample ID?	☒	☐	☐
2	Did **sample containers** arrive in good condition?	☒	☐	☐
3	Were **chain-of-custody** papers used and filled out?	☒	☐	☐
4	Did **sample container labels** and/or tags agree with custody papers?	☒	☐	☐
5	Was **sample volume** received adequate for analysis?	☒	☐	☐
6	Are samples within specified holding times?	☒	☐	☐
7	Was proper **temperature** (thermal preservation) of cooler at receipt adhered to?	☐	☐	☒
8	Were **custody seals** on outside of cooler/Box/Container?	☐	☒	☐
	Location of seal(s)? _____ Sealing Lid?	☐	☐	☒
	Were signature and date included?	☐	☐	☒
	Were seals intact?	☐	☐	☒
9	Do containers have appropriate **preservation**, according to method/SOP or Client specified information?	☐	☐	☒
	Is there a client indication that the submitted samples are **pH** preserved?	☐	☐	☒
	Were **VOA vials** checked for presence/absence of air bubbles?	☐	☐	☒
	Does the client/method/SOP require that the analyst check the sample pH and if necessary alter it?	☐	☐	☒
10	**Tubes:** Are the tubes capped and intact?	☐	☐	☒
11	**Badges:** Are the badges properly capped and intact?	☐	☐	☒
	Are dual bed badges separated and individually capped and intact?	☐	☐	☒

Lab Sample ID	Container Description	Required pH *	Received pH	Adjusted pH	VOA Headspace (Presence/Absence)	Receipt / Preservation Comments
P1600503-001.02	6.0 L Silonite Can					
P1600503-002.02	6.0 L Silonite Can					
P1600503-003.01	1.0 L Tedlar Bag					
P1600503-004.01	1.0 L Tedlar Bag					

Explain any discrepancies: (include lab sample ID numbers): _____

RSK - MEEPP, HCL (pH<2); RSK - CO2, (pH 5-8); Sulfur (pH>4)

ALS ENVIRONMENTAL

RESULTS OF ANALYSIS

Client: **Weaver Consultants Group** ALS Project ID: P1600503
Client Sample ID: **Blower Out #1 (Can)** ALS Sample ID: P1600503-001
Client Project ID: **Bridgeton LF Monthly Permit Flare LFG Testing-SPLIT / 0120-131-10-63**

Test Code: ASTM D3588-98
Analyst: Mike Conejo Date Collected: 2/2/16
Sample Type: 6.0 L Silonite Canister Date Received: 2/3/16
Test Notes:

Canister Dilution Factor: 2.01

Components	Result Volume %	Result Weight %	Data Qualifier
Hydrogen	**9.11**	**0.60**	
Oxygen	**8.26**	**8.62**	
Nitrogen	**31.98**	**29.21**	
Carbon Monoxide	**0.09**	**0.09**	
Methane	**12.25**	**6.41**	
Carbon Dioxide	**38.16**	**54.76**	
Hydrogen Sulfide	< 0.01	< 0.01	
C2 as Ethane	< 0.01	< 0.01	
C3 as Propane	< 0.01	**0.01**	
C4 as n-Butane	**0.03**	**0.06**	
C5 as n-Pentane	**0.06**	**0.15**	
C6 as n-Hexane	**0.02**	**0.07**	
> C6 as n-Hexane	< 0.01	< 0.01	
TOTALS	**99.99**	**99.99**	

Components	Mole %	Weight %
Carbon	**18.34**	**19.89**
Hydrogen	**24.89**	**2.27**
Oxygen	**33.62**	**48.57**
Nitrogen	**23.14**	**29.27**
Sulfur	< 0.10	< 0.10

Specific Gravity (Air = 1)		**1.0587**
Specific Volume	ft3/lb	**12.38**
Gross Heating Value (Dry Gas @ 60 F, 14.696 psia)	BTU/ft3	**159.0**
Net Heating Value (Dry Gas @ 60 F, 14.696 psia)	BTU/ft3	**141.7**
Gross Heating Value (Water Saturated at 0.25636 psia)	BTU/ft3	**156.0**
Net Heating Value (Water Saturated at 0.25636 psia)	BTU/ft3	**139.0**
Gross Heating Value (Dry Gas @ 60 F, 14.696 psia)	BTU/lb	**1,968.3**
Net Heating Value (Dry Gas @ 60 F, 14.696 psia)	BTU/lb	**1,753.9**
Compressibility Factor "Z" (60 F, 14.696 psia)		**0.9982**

ALS ENVIRONMENTAL

RESULTS OF ANALYSIS

Client: **Weaver Consultants Group** ALS Project ID: P1600503
Client Sample ID: **Blower Out #2 (Can)** ALS Sample ID: P1600503-002
Client Project ID: **Bridgeton LF Monthly Permit Flare LFG Testing-SPLIT / 0120-131-10-63**

Test Code: ASTM D3588-98
Analyst: Mike Conejo Date Collected: 2/2/16
Sample Type: 6.0 L Silonite Canister Date Received: 2/3/16
Test Notes:

Canister Dilution Factor: 1.91

Components	Result Volume %	Result Weight %	Data Qualifier
Hydrogen	**9.17**	**0.60**	
Oxygen	**8.23**	**8.58**	
Nitrogen	**31.85**	**29.09**	
Carbon Monoxide	**0.09**	**0.08**	
Methane	**12.29**	**6.43**	
Carbon Dioxide	**38.23**	**54.86**	
Hydrogen Sulfide	< 0.01	< 0.01	
C2 as Ethane	< 0.01	< 0.01	
C3 as Propane	< 0.01	< 0.01	
C4 as n-Butane	**0.02**	**0.03**	
C5 as n-Pentane	**0.03**	**0.06**	
C6 as n-Hexane	**0.03**	**0.09**	
> C6 as n-Hexane	**0.04**	**0.14**	
TOTALS	**99.99**	**99.99**	

Components	Mole %	Weight %
Carbon	**18.42**	**20.00**
Hydrogen	**24.99**	**2.28**
Oxygen	**33.59**	**48.58**
Nitrogen	**23.01**	**29.13**
Sulfur	< 0.10	< 0.10

Specific Gravity (Air = 1)		**1.0589**
Specific Volume	ft3/lb	**12.37**
Gross Heating Value (Dry Gas @ 60 F, 14.696 psia)	BTU/ft3	**160.1**
Net Heating Value (Dry Gas @ 60 F, 14.696 psia)	BTU/ft3	**142.7**
Gross Heating Value (Water Saturated at 0.25636 psia)	BTU/ft3	**157.1**
Net Heating Value (Water Saturated at 0.25636 psia)	BTU/ft3	**140.0**
Gross Heating Value (Dry Gas @ 60 F, 14.696 psia)	BTU/lb	**1,981.7**
Net Heating Value (Dry Gas @ 60 F, 14.696 psia)	BTU/lb	**1,766.0**
Compressibility Factor "Z" (60 F, 14.696 psia)		**0.9982**

ALS ENVIRONMENTAL

RESULTS OF ANALYSIS

Client: **Weaver Consultants Group** ALS Project ID: P1600503
Client Sample ID: **Blower Out-Bag 5 Cal** ALS Sample ID: P1600503-003
Client Project ID: **Bridgeton LF Monthly Permit Flare LFG Testing-SPLIT / 0120-131-10-63**

Test Code: ASTM D3588-98
Analyst: Mike Conejo
Sample Type: 1.0 L Tedlar Bag
Test Notes:

VOID DUE TO AMBIENT INTRUSION/BIAS

Date Collected: 2/2/16
Date Received: 2/3/16

Components	Result Volume %	Result Weight %	Data Qualifier
Hydrogen	**5.32**	**0.36**	
Oxygen	**13.84**	**14.78**	
Nitrogen	**50.49**	**47.18**	
Carbon Monoxide	**0.05**	**0.04**	
Methane	**7.35**	**3.94**	
Carbon Dioxide	**22.92**	**33.65**	
Hydrogen Sulfide	< 0.01	< 0.01	**H1**
C2 as Ethane	< 0.01	< 0.01	
C3 as Propane	< 0.01	< 0.01	
C4 as n-Butane	< 0.01	< 0.01	
C5 as n-Pentane	< 0.01	**0.02**	
C6 as n-Hexane	< 0.01	< 0.01	
> C6 as n-Hexane	< 0.01	< 0.01	
TOTALS	**99.99**	**99.99**	

Components	Mole %	Weight %	
Carbon	**12.38**	**12.17**	
Hydrogen	**16.43**	**1.35**	
Oxygen	**30.00**	**39.28**	
Nitrogen	**41.18**	**47.20**	
Sulfur	< 0.10	< 0.10	**H1**

Specific Gravity (Air = 1)		**1.0349**
Specific Volume	ft3/lb	**12.66**
Gross Heating Value (Dry Gas @ 60 F, 14.696 psia)	BTU/ft3	**92.5**
Net Heating Value (Dry Gas @ 60 F, 14.696 psia)	BTU/ft3	**82.4**
Gross Heating Value (Water Saturated at 0.25636 psia)	BTU/ft3	**90.8**
Net Heating Value (Water Saturated at 0.25636 psia)	BTU/ft3	**80.9**
Gross Heating Value (Dry Gas @ 60 F, 14.696 psia)	BTU/lb	**1,171.4**
Net Heating Value (Dry Gas @ 60 F, 14.696 psia)	BTU/lb	**1,043.0**
Compressibility Factor "Z" (60 F, 14.696 psia)		**0.9989**

H1 = Sample analysis performed past holding time. See case narrative.

ALS ENVIRONMENTAL

RESULTS OF ANALYSIS

Client: **Weaver Consultants Group** ALS Project ID: P1600503
Client Sample ID: **Blower Out-Tedlar** ALS Sample ID: P1600503-004
Client Project ID: **Bridgeton LF Monthly Permit Flare LFG Testing-SPLIT / 0120-131-10-63**

Test Code: ASTM D3588-98
Analyst: Mike Conejo Date Collected: 2/2/16
Sample Type: 1.0 L Tedlar Bag Date Received: 2/3/16
Test Notes:

Components	Result Volume %	Result Weight %	Data Qualifier
Hydrogen	**8.59**	**0.57**	
Oxygen	**8.74**	**9.13**	
Nitrogen	**33.33**	**30.46**	
Carbon Monoxide	**0.09**	**0.08**	
Methane	**12.31**	**6.44**	
Carbon Dioxide	**36.68**	**52.66**	
Hydrogen Sulfide	< 0.01	< 0.01	**H1**
C2 as Ethane	**0.01**	< 0.01	
C3 as Propane	< 0.01	**0.01**	
C4 as n-Butane	**0.04**	**0.07**	
C5 as n-Pentane	**0.07**	**0.16**	
C6 as n-Hexane	**0.03**	**0.09**	
> C6 as n-Hexane	**0.08**	**0.32**	
TOTALS	**99.99**	**99.99**	

Components	Mole %	Weight %	
Carbon	**18.02**	**19.61**	
Hydrogen	**25.14**	**2.30**	
Oxygen	**32.80**	**47.56**	
Nitrogen	**24.05**	**30.53**	
Sulfur	< 0.10	< 0.10	**H1**

Specific Gravity (Air = 1)		**1.0584**
Specific Volume	ft3/lb	**12.38**
Gross Heating Value (Dry Gas @ 60 F, 14.696 psia)	BTU/ft3	**163.9**
Net Heating Value (Dry Gas @ 60 F, 14.696 psia)	BTU/ft3	**146.3**
Gross Heating Value (Water Saturated at 0.25636 psia)	BTU/ft3	**160.7**
Net Heating Value (Water Saturated at 0.25636 psia)	BTU/ft3	**143.5**
Gross Heating Value (Dry Gas @ 60 F, 14.696 psia)	BTU/lb	**2,028.6**
Net Heating Value (Dry Gas @ 60 F, 14.696 psia)	BTU/lb	**1,811.3**
Compressibility Factor "Z" (60 F, 14.696 psia)		**0.9982**

H1 = Sample analysis performed past holding time. See case narrative.

ALS ENVIRONMENTAL

RESULTS OF ANALYSIS

Client: **Weaver Consultants Group**
Client Sample ID: **Blower Out #1 (Can)** ALS Project ID: P1600503
Client Project ID: **Bridgeton LF Monthly Permit Flare LFG Testing-SPLIT / 0120-131-10-63** ALS Sample ID: P1600503-001

Test Code: ASTM D1946 Date Collected: 2/2/16
Instrument ID: HP5890 II/GC1/TCD Date Received: 2/3/16
Analyst: Mike Conejo Date Analyzed: 2/4/16
Sample Type: 6.0 L Silonite Canister Volume(s) Analyzed: 0.10 ml(s)
Test Notes:

Canister Dilution Factor: 2.01

CAS #	Compound	Result %, v/v	MRL %, v/v	Data Qualifier
1333-74-0	**Hydrogen**	**9.11**	0.20	
7782-44-7	**Oxygen***	**8.26**	0.20	
7727-37-9	**Nitrogen**	**32.0**	0.20	
630-08-0	Carbon Monoxide	ND	0.20	
74-82-8	**Methane**	**12.2**	0.20	
124-38-9	**Carbon Dioxide**	**38.1**	0.20	

ND = Compound was analyzed for, but not detected above the laboratory reporting limit.
MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.
* = The oxygen result may include argon due to coelution. Ambient air includes 0.93% argon.

ALS ENVIRONMENTAL

RESULTS OF ANALYSIS

Client: **Weaver Consultants Group**
Client Sample ID: **Blower Out #2 (Can)** ALS Project ID: P1600503
Client Project ID: **Bridgeton LF Monthly Permit Flare LFG Testing-SPLIT / 0120-131-10-63** ALS Sample ID: P1600503-002

Test Code: ASTM D1946 Date Collected: 2/2/16
Instrument ID: HP5890 II/GC1/TCD Date Received: 2/3/16
Analyst: Mike Conejo Date Analyzed: 2/4/16
Sample Type: 6.0 L Silonite Canister Volume(s) Analyzed: 0.10 ml(s)
Test Notes:

Canister Dilution Factor: 1.91

CAS #	Compound	Result %, v/v	MRL %, v/v	Data Qualifier
1333-74-0	**Hydrogen**	**9.17**	0.19	
7782-44-7	**Oxygen***	**8.23**	0.19	
7727-37-9	**Nitrogen**	**31.9**	0.19	
630-08-0	Carbon Monoxide	ND	0.19	
74-82-8	**Methane**	**12.3**	0.19	
124-38-9	**Carbon Dioxide**	**38.2**	0.19	

ND = Compound was analyzed for, but not detected above the laboratory reporting limit.
MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.
* = The oxygen result may include argon due to coelution. Ambient air includes 0.93% argon.

ALS ENVIRONMENTAL

RESULTS OF ANALYSIS

Client: **Weaver Consultants Group**
Client Sample ID: **Blower Out-Bag 5 Cal**
Client Project ID: **Bridgeton LF Monthly Permit Flare LFG Testing-SPLIT / 0120-131-10-63**

ALS Project ID: P1600503
ALS Sample ID: P1600503-003

Test Code: ASTM D1946
Instrument ID: HP5890 II/GC1/TCD
Analyst: Mike Conejo
Sample Type: 1.0 L Tedlar Bag
Test Notes:

VOID DUE TO AMBIENT INTRUSION/BIAS

Date Collected: 2/2/16
Date Received: 2/3/16
Date Analyzed: 2/3/16
Volume(s) Analyzed: 0.10 ml(s)

CAS #	Compound	Result %, v/v	MRL %, v/v	Data Qualifier
1333-74-0	**Hydrogen**	**5.32**	0.10	
7782-44-7	**Oxygen***	**13.8**	0.10	
7727-37-9	**Nitrogen**	**50.5**	0.10	
630-08-0	Carbon Monoxide	ND	0.10	
74-82-8	**Methane**	**7.36**	0.10	
124-38-9	**Carbon Dioxide**	**22.9**	0.10	

ND = Compound was analyzed for, but not detected above the laboratory reporting limit.
MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.
* = The oxygen result may include argon due to coelution. Ambient air includes 0.93% argon.

ALS ENVIRONMENTAL

RESULTS OF ANALYSIS

Client: **Weaver Consultants Group**
Client Sample ID: **Blower Out-Tedlar** ALS Project ID: P1600503
Client Project ID: **Bridgeton LF Monthly Permit Flare LFG Testing-SPLIT / 0120-131-10-63** ALS Sample ID: P1600503-004

Test Code: ASTM D1946 Date Collected: 2/2/16
Instrument ID: HP5890 II/GC1/TCD Date Received: 2/3/16
Analyst: Mike Conejo Date Analyzed: 2/4/16
Sample Type: 1.0 L Tedlar Bag Volume(s) Analyzed: 0.10 ml(s)
Test Notes:

CAS #	Compound	Result %, v/v	MRL %, v/v	Data Qualifier
1333-74-0	**Hydrogen**	**8.61**	0.10	
7782-44-7	**Oxygen***	**8.76**	0.10	
7727-37-9	**Nitrogen**	**33.4**	0.10	
630-08-0	Carbon Monoxide	ND	0.10	
74-82-8	**Methane**	**12.3**	0.10	
124-38-9	**Carbon Dioxide**	**36.8**	0.10	

ND = Compound was analyzed for, but not detected above the laboratory reporting limit.
MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.
* = The oxygen result may include argon due to coelution. Ambient air includes 0.93% argon.

ALS ENVIRONMENTAL

RESULTS OF ANALYSIS

Client: **Weaver Consultants Group**
Client Sample ID: **Method Blank** ALS Project ID: P1600503
Client Project ID: **Bridgeton LF Monthly Permit Flare LFG Testing-SPLIT / 0120-131-10-63** ALS Sample ID: P160203-MB

Test Code: ASTM D1946 Date Collected: NA
Instrument ID: HP5890 II/GC1/TCD Date Received: NA
Analyst: Mike Conejo Date Analyzed: 2/03/16
Sample Type: 1.0 L Tedlar Bag Volume(s) Analyzed: 0.10 ml(s)
Test Notes:

CAS #	Compound	Result %, v/v	MRL %, v/v	Data Qualifier
1333-74-0	Hydrogen	ND	0.10	
7782-44-7	Oxygen*	ND	0.10	
7727-37-9	Nitrogen	ND	0.10	
630-08-0	Carbon Monoxide	ND	0.10	
74-82-8	Methane	ND	0.10	
124-38-9	Carbon Dioxide	ND	0.10	

ND = Compound was analyzed for, but not detected above the laboratory reporting limit.
MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.
* = The oxygen result may include argon due to coelution. Ambient air includes 0.93% argon.

ALS ENVIRONMENTAL

RESULTS OF ANALYSIS

Client: **Weaver Consultants Group**
Client Sample ID: **Method Blank** ALS Project ID: P1600503
Client Project ID: **Bridgeton LF Monthly Permit Flare LFG Testing-SPLIT / 0120-131-10-63** ALS Sample ID: P160204-MB

Test Code: ASTM D1946 Date Collected: NA
Instrument ID: HP5890 II/GC1/TCD Date Received: NA
Analyst: Mike Conejo Date Analyzed: 2/04/16
Sample Type: 6.0 L Silonite Canister Volume(s) Analyzed: 0.10 ml(s)
Test Notes:

CAS #	Compound	Result %, v/v	MRL %, v/v	Data Qualifier
1333-74-0	Hydrogen	ND	0.10	
7782-44-7	Oxygen*	ND	0.10	
7727-37-9	Nitrogen	ND	0.10	
630-08-0	Carbon Monoxide	ND	0.10	
74-82-8	Methane	ND	0.10	
124-38-9	Carbon Dioxide	ND	0.10	

ND = Compound was analyzed for, but not detected above the laboratory reporting limit.
MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.
* = The oxygen result may include argon due to coelution. Ambient air includes 0.93% argon.

ALS ENVIRONMENTAL

LABORATORY CONTROL SAMPLE SUMMARY

Client: **Weaver Consultants Group** ALS Project ID: P1600503
Client Sample ID: **Lab Control Sample** ALS Sample ID: P160204-LCS
Client Project ID: **Bridgeton LF Monthly Permit Flare LFG Testing-SPLIT / 0120-131-10-63**

Test Code: ASTM D1946 Date Collected: NA
Instrument ID: HP5890 II/GC1/TCD Date Received: NA
Analyst: Mike Conejo Date Analyzed: 2/04/16
Sample Type: 6.0 L Silonite Canister Volume(s) Analyzed: NA ml(s)
Test Notes:

CAS #	Compound	Spike Amount ppmV	Result ppmV	% Recovery	ALS Acceptance Limits	Data Qualifier
1333-74-0	Hydrogen	40,000	**37,500**	**94**	83-114	
7782-44-7	Oxygen*	25,000	**25,300**	**101**	84-121	
7727-37-9	Nitrogen	50,000	**50,500**	**101**	88-122	
630-08-0	Carbon Monoxide	50,000	**49,800**	**100**	87-118	
74-82-8	Methane	40,000	**40,600**	**102**	85-116	
124-38-9	Carbon Dioxide	50,000	**48,400**	**97**	84-117	

* = The oxygen result may include argon due to coelution. Ambient air includes 0.93% argon.

ALS ENVIRONMENTAL

LABORATORY CONTROL SAMPLE SUMMARY

Client: **Weaver Consultants Group** ALS Project ID: P1600503
Client Sample ID: **Lab Control Sample** ALS Sample ID: P160203-LCS
Client Project ID: **Bridgeton LF Monthly Permit Flare LFG Testing-SPLIT / 0120-131-10-63**

Test Code: ASTM D1946 Date Collected: NA
Instrument ID: HP5890 II/GC1/TCD Date Received: NA
Analyst: Mike Conejo Date Analyzed: 2/03/16
Sample Type: 1.0 L Tedlar Bag Volume(s) Analyzed: NA ml(s)
Test Notes:

CAS #	Compound	Spike Amount ppmV	Result ppmV	% Recovery	ALS Acceptance Limits	Data Qualifier
1333-74-0	Hydrogen	40,000	**38,200**	**96**	83-114	
7782-44-7	Oxygen*	25,000	**25,300**	**101**	84-121	
7727-37-9	Nitrogen	50,000	**49,600**	**99**	88-122	
630-08-0	Carbon Monoxide	50,000	**50,600**	**101**	87-118	
74-82-8	Methane	40,000	**41,600**	**104**	85-116	
124-38-9	Carbon Dioxide	50,000	**49,200**	**98**	84-117	

* = The oxygen result may include argon due to coelution. Ambient air includes 0.93% argon.

ALS ENVIRONMENTAL

RESULTS OF ANALYSIS

Client: **Weaver Consultants Group**
Client Sample ID: **Blower Out #1 (Can)** ALS Project ID: P1600503
Client Project ID: **Bridgeton LF Monthly Permit Flare LFG Testing-SPLIT / 0120-131-10-63** ALS Sample ID: P1600503-001

Test Code: ASTM D 5504-12
Instrument ID: Agilent 6890A/GC13/SCD
Analyst: Mike Conejo
Sample Type: 6.0 L Silonite Canister
Test Notes:

Date Collected: 2/2/16
Time Collected: 09:31
Date Received: 2/3/16
Date Analyzed: 2/4/16
Time Analyzed: 08:00
Volume(s) Analyzed: 0.050 ml(s)

Canister Dilution Factor: 2.01

CAS #	Compound	Result µg/m³		MRL µg/m³	Result ppbV		MRL ppbV	Data Qualifier
7783-06-4	Hydrogen Sulfide	**35,000**		280	**25,000**		200	
463-58-1	Carbonyl Sulfide	**620**		490	**250**		200	
74-93-1	Methyl Mercaptan	**250,000**		400	**130,000**		200	
75-08-1	Ethyl Mercaptan	**3,000**		510	**1,200**		200	
75-18-3	Dimethyl Sulfide	**2,200,000**		510	**860,000**		200	
75-15-0	Carbon Disulfide	**340**		310	**110**		100	
75-33-2	Isopropyl Mercaptan	**1,300**		630	**430**		200	
75-66-1	tert-Butyl Mercaptan		ND	740		ND	200	
107-03-9	n-Propyl Mercaptan		ND	630		ND	200	
624-89-5	Ethyl Methyl Sulfide	**15,000**		630	**4,700**		200	
110-02-1	Thiophene	**20,000**		690	**5,800**		200	
513-44-0	Isobutyl Mercaptan	**1,300**		740	**360**		200	
352-93-2	Diethyl Sulfide		ND	740		ND	200	
109-79-5	n-Butyl Mercaptan	**2,700**		740	**740**		200	
624-92-0	Dimethyl Disulfide	**110,000**		390	**28,000**		100	
616-44-4	3-Methylthiophene	**990**		810	**250**		200	
110-01-0	Tetrahydrothiophene	**2,200**		720	**620**		200	
638-02-8	2,5-Dimethylthiophene		ND	920		ND	200	
872-55-9	2-Ethylthiophene		ND	920		ND	200	
110-81-6	Diethyl Disulfide		ND	500		ND	100	

ND = Compound was analyzed for, but not detected above the laboratory reporting limit.
MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

ALS ENVIRONMENTAL

RESULTS OF ANALYSIS

Client: **Weaver Consultants Group**
Client Sample ID: **Blower Out #2 (Can)** ALS Project ID: P1600503
Client Project ID: **Bridgeton LF Monthly Permit Flare LFG Testing-SPLIT / 0120-131-10-63** ALS Sample ID: P1600503-002

Test Code: ASTM D 5504-12 Date Collected: 2/2/16
Instrument ID: Agilent 6890A/GC13/SCD Time Collected: 10:26
Analyst: Mike Conejo Date Received: 2/3/16
Sample Type: 6.0 L Silonite Canister Date Analyzed: 2/4/16
Test Notes: Time Analyzed: 08:17
Volume(s) Analyzed: 0.050 ml(s)

Canister Dilution Factor: 1.91

CAS #	Compound	Result µg/m³		MRL µg/m³	Result ppbV		MRL ppbV	Data Qualifier
7783-06-4	Hydrogen Sulfide	**44,000**		270	**31,000**		190	
463-58-1	Carbonyl Sulfide	**600**		470	**240**		190	
74-93-1	Methyl Mercaptan	**350,000**		380	**180,000**		190	
75-08-1	Ethyl Mercaptan	**3,800**		490	**1,500**		190	
75-18-3	Dimethyl Sulfide	**2,400,000**		490	**930,000**		190	
75-15-0	Carbon Disulfide	**330**		300	**100**		96	
75-33-2	Isopropyl Mercaptan	**1,600**		590	**520**		190	
75-66-1	tert-Butyl Mercaptan		ND	700		ND	190	
107-03-9	n-Propyl Mercaptan		ND	590		ND	190	
624-89-5	Ethyl Methyl Sulfide	**18,000**		590	**5,600**		190	
110-02-1	Thiophene	**25,000**		660	**7,300**		190	
513-44-0	Isobutyl Mercaptan	**1,600**		700	**440**		190	
352-93-2	Diethyl Sulfide		ND	700		ND	190	
109-79-5	n-Butyl Mercaptan	**4,100**		700	**1,100**		190	
624-92-0	Dimethyl Disulfide	**150,000**		370	**38,000**		96	
616-44-4	3-Methylthiophene	**1,900**		770	**480**		190	
110-01-0	Tetrahydrothiophene	**3,700**		690	**1,000**		190	
638-02-8	2,5-Dimethylthiophene		ND	880		ND	190	
872-55-9	2-Ethylthiophene		ND	880		ND	190	
110-81-6	Diethyl Disulfide		ND	480		ND	96	

ND = Compound was analyzed for, but not detected above the laboratory reporting limit.
MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

ALS ENVIRONMENTAL

RESULTS OF ANALYSIS

Client: **Weaver Consultants Group**
Client Sample ID: **Blower Out-Bag 5 Cal** ALS Project ID: P1600503
Client Project ID: **Bridgeton LF Monthly Permit Flare LFG Testing-SPLIT / 0120-131-10-63** ALS Sample ID: P1600503-003

Test Code: ASTM D 5504-12
Instrument ID: Agilent 6890A/GC13/SCD
Analyst: Mike Conejo
Sample Type: 1.0 L Tedlar Bag
Test Notes: **H1**

VOID DUE TO AMBIENT INTRUSION/BIAS

Date Collected: 2/2/16
Time Collected: 11:10
Date Received: 2/3/16
Date Analyzed: 2/3/16
Time Analyzed: 15:57
Volume(s) Analyzed: 0.010 ml(s)

CAS #	Compound	Result µg/m³	MRL µg/m³	Result ppbV	MRL ppbV	Data Qualifier
7783-06-4	Hydrogen Sulfide	**44,000**	700	**32,000**	500	
463-58-1	Carbonyl Sulfide	ND	1,200	ND	500	
74-93-1	Methyl Mercaptan	**260,000**	980	**130,000**	500	
75-08-1	Ethyl Mercaptan	**2,900**	1,300	**1,100**	500	
75-18-3	Dimethyl Sulfide	**1,500,000**	1,300	**580,000**	500	
75-15-0	Carbon Disulfide	ND	780	ND	250	
75-33-2	Isopropyl Mercaptan	ND	1,600	ND	500	
75-66-1	tert-Butyl Mercaptan	ND	1,800	ND	500	
107-03-9	n-Propyl Mercaptan	ND	1,600	ND	500	
624-89-5	Ethyl Methyl Sulfide	**8,100**	1,600	**2,600**	500	
110-02-1	Thiophene	**9,800**	1,700	**2,900**	500	
513-44-0	Isobutyl Mercaptan	ND	1,800	ND	500	
352-93-2	Diethyl Sulfide	ND	1,800	ND	500	
109-79-5	n-Butyl Mercaptan	ND	1,800	ND	500	
624-92-0	Dimethyl Disulfide	**34,000**	960	**9,000**	250	
616-44-4	3-Methylthiophene	ND	2,000	ND	500	
110-01-0	Tetrahydrothiophene	ND	1,800	ND	500	
638-02-8	2,5-Dimethylthiophene	ND	2,300	ND	500	
872-55-9	2-Ethylthiophene	ND	2,300	ND	500	
110-81-6	Diethyl Disulfide	ND	1,200	ND	250	

ND = Compound was analyzed for, but not detected above the laboratory reporting limit.
MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.
H1 = Sample analysis performed past holding time. See case narrative.

ALS ENVIRONMENTAL

RESULTS OF ANALYSIS

Client: **Weaver Consultants Group**
Client Sample ID: **Blower Out-Tedlar** ALS Project ID: P1600503
Client Project ID: **Bridgeton LF Monthly Permit Flare LFG Testing-SPLIT / 0120-131-10-63** ALS Sample ID: P1600503-004

Test Code:	ASTM D 5504-12	Date Collected:	2/2/16
Instrument ID:	Agilent 6890A/GC13/SCD	Time Collected:	11:00
Analyst:	Mike Conejo	Date Received:	2/3/16
Sample Type:	1.0 L Tedlar Bag	Date Analyzed:	2/3/16
Test Notes:	**H1**	Time Analyzed:	15:34
		Volume(s) Analyzed:	0.010 ml(s)

CAS #	Compound	Result µg/m³		MRL µg/m³	Result ppbV		MRL ppbV	Data Qualifier
7783-06-4	Hydrogen Sulfide	**66,000**		700	**47,000**		500	
463-58-1	Carbonyl Sulfide		ND	1,200		ND	500	
74-93-1	Methyl Mercaptan	**340,000**		980	**170,000**		500	
75-08-1	Ethyl Mercaptan	**4,300**		1,300	**1,700**		500	
75-18-3	Dimethyl Sulfide	**2,100,000**		1,300	**840,000**		500	
75-15-0	Carbon Disulfide		ND	780		ND	250	
75-33-2	Isopropyl Mercaptan	**2,000**		1,600	**650**		500	
75-66-1	tert-Butyl Mercaptan		ND	1,800		ND	500	
107-03-9	n-Propyl Mercaptan		ND	1,600		ND	500	
624-89-5	Ethyl Methyl Sulfide	**16,000**		1,600	**5,200**		500	
110-02-1	Thiophene	**28,000**		1,700	**8,200**		500	
513-44-0	Isobutyl Mercaptan		ND	1,800		ND	500	
352-93-2	Diethyl Sulfide		ND	1,800		ND	500	
109-79-5	n-Butyl Mercaptan	**5,900**		1,800	**1,600**		500	
624-92-0	Dimethyl Disulfide	**140,000**		960	**37,000**		250	
616-44-4	3-Methylthiophene	**3,000**		2,000	**750**		500	
110-01-0	Tetrahydrothiophene	**5,700**		1,800	**1,600**		500	
638-02-8	2,5-Dimethylthiophene		ND	2,300		ND	500	
872-55-9	2-Ethylthiophene		ND	2,300		ND	500	
110-81-6	Diethyl Disulfide		ND	1,200		ND	250	

ND = Compound was analyzed for, but not detected above the laboratory reporting limit.
MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.
H1 = Sample analysis performed past holding time. See case narrative.

ALS ENVIRONMENTAL

RESULTS OF ANALYSIS

Client: **Weaver Consultants Group**
Client Project ID: **Bridgeton LF Monthly Permit Flare LFG Testing-SPLIT / 0120-131-10-63** ALS Project ID: P1600503

Total Reduced Sulfur as Hydrogen Sulfide

Test Code: ASTM D 5504-12
Instrument ID: Agilent 6890A/GC13/SCD
Analyst: Mike Conejo
Sample Type: 6.0 L Silonite Canister(s)
Test Notes:

Date(s) Collected: 2/2/16
Date Received: 2/3/16
Date Analyzed: 2/4/16

Client Sample ID	ALS Sample ID	Canister Dilution Factor	Injection Volume ml(s)	Time Analyzed	**Result µg/m³**	MRL µg/m³	**Result ppbV**	MRL ppbV	Data Qualifier
Blower Out #1 (Can)	P1600503-001	2.01	0.050	08:00	**1,500,000**	280	**1,100,000**	200	
Blower Out #2 (Can)	P1600503-002	1.91	0.050	08:17	**1,800,000**	270	**1,300,000**	190	
Method Blank	P160204-MB	1.00	1.0	07:24	ND	7.0	ND	5.0	

ND = Compound was analyzed for, but not detected above the laboratory reporting limit.
MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

ALS ENVIRONMENTAL

RESULTS OF ANALYSIS

Client: **Weaver Consultants Group**

Client Project ID: **Bridgeton LF Monthly Permit Flare LFG Testing-SPLIT / 0120-131-10-63** ALS Project ID: P1600503

Total Reduced Sulfur as Hydrogen Sulfide

Test Code: ASTM D 5504-12
Instrument ID: Agilent 6890A/GC13/SCD
Analyst: Mike Conejo
Sample Type: 1.0 L Tedlar Bag(s)
Test Notes:

Date(s) Collected: 2/2/16
Date Received: 2/3/16
Date Analyzed: 2/3/16

Client Sample ID	ALS Sample ID	Injection Volume ml(s)	Time Analyzed	Result µg/m³	MRL µg/m³	Result ppbV	MRL ppbV	Data Qualifier
Blower Out-Bag 5 Cal	P1600503-003	0.010	15:57	**1,100,000**	700	**780,000**	500	**H1**
Blower Out-Tedlar	P1600503-004	0.010	15:34	**1,700,000**	700	**1,200,000**	500	**H1**
Method Blank	P160203-MB	1.0	14:32	ND	7.0	ND	5.0	

ND = Compound was analyzed for, but not detected above the laboratory reporting limit.
MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.
H1 = Sample analysis performed past holding time. See case narrative.

ALS ENVIRONMENTAL

RESULTS OF ANALYSIS

Client: **Weaver Consultants Group**
Client Sample ID: **Method Blank** ALS Project ID: P1600503
Client Project ID: **Bridgeton LF Monthly Permit Flare LFG Testing-SPLIT / 0120-131-10-63** ALS Sample ID: P160203-MB

Test Code: ASTM D 5504-12 Date Collected: NA
Instrument ID: Agilent 6890A/GC13/SCD Time Collected: NA
Analyst: Mike Conejo Date Received: NA
Sample Type: 1.0 L Tedlar Bag Date Analyzed: 2/03/16
Test Notes: Time Analyzed: 14:32
Volume(s) Analyzed: 1.0 ml(s)

CAS #	Compound	Result µg/m³	MRL µg/m³	Result ppbV	MRL ppbV	Data Qualifier
7783-06-4	Hydrogen Sulfide	ND	7.0	ND	5.0	
463-58-1	Carbonyl Sulfide	ND	12	ND	5.0	
74-93-1	Methyl Mercaptan	ND	9.8	ND	5.0	
75-08-1	Ethyl Mercaptan	ND	13	ND	5.0	
75-18-3	Dimethyl Sulfide	ND	13	ND	5.0	
75-15-0	Carbon Disulfide	ND	7.8	ND	2.5	
75-33-2	Isopropyl Mercaptan	ND	16	ND	5.0	
75-66-1	tert-Butyl Mercaptan	ND	18	ND	5.0	
107-03-9	n-Propyl Mercaptan	ND	16	ND	5.0	
624-89-5	Ethyl Methyl Sulfide	ND	16	ND	5.0	
110-02-1	Thiophene	ND	17	ND	5.0	
513-44-0	Isobutyl Mercaptan	ND	18	ND	5.0	
352-93-2	Diethyl Sulfide	ND	18	ND	5.0	
109-79-5	n-Butyl Mercaptan	ND	18	ND	5.0	
624-92-0	Dimethyl Disulfide	ND	9.6	ND	2.5	
616-44-4	3-Methylthiophene	ND	20	ND	5.0	
110-01-0	Tetrahydrothiophene	ND	18	ND	5.0	
638-02-8	2,5-Dimethylthiophene	ND	23	ND	5.0	
872-55-9	2-Ethylthiophene	ND	23	ND	5.0	
110-81-6	Diethyl Disulfide	ND	12	ND	2.5	

ND = Compound was analyzed for, but not detected above the laboratory reporting limit.
MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

ALS ENVIRONMENTAL

RESULTS OF ANALYSIS

Client: **Weaver Consultants Group**
Client Sample ID: **Method Blank** ALS Project ID: P1600503
Client Project ID: **Bridgeton LF Monthly Permit Flare LFG Testing-SPLIT / 0120-131-10-63** ALS Sample ID: P160204-MB

Test Code: ASTM D 5504-12 Date Collected: NA
Instrument ID: Agilent 6890A/GC13/SCD Time Collected: NA
Analyst: Mike Conejo Date Received: NA
Sample Type: 6.0 L Silonite Canister Date Analyzed: 2/04/16
Test Notes: Time Analyzed: 07:24
Volume(s) Analyzed: 1.0 ml(s)

CAS #	Compound	Result µg/m³	MRL µg/m³	Result ppbV	MRL ppbV	Data Qualifier
7783-06-4	Hydrogen Sulfide	ND	7.0	ND	5.0	
463-58-1	Carbonyl Sulfide	ND	12	ND	5.0	
74-93-1	Methyl Mercaptan	ND	9.8	ND	5.0	
75-08-1	Ethyl Mercaptan	ND	13	ND	5.0	
75-18-3	Dimethyl Sulfide	ND	13	ND	5.0	
75-15-0	Carbon Disulfide	ND	7.8	ND	2.5	
75-33-2	Isopropyl Mercaptan	ND	16	ND	5.0	
75-66-1	tert-Butyl Mercaptan	ND	18	ND	5.0	
107-03-9	n-Propyl Mercaptan	ND	16	ND	5.0	
624-89-5	Ethyl Methyl Sulfide	ND	16	ND	5.0	
110-02-1	Thiophene	ND	17	ND	5.0	
513-44-0	Isobutyl Mercaptan	ND	18	ND	5.0	
352-93-2	Diethyl Sulfide	ND	18	ND	5.0	
109-79-5	n-Butyl Mercaptan	ND	18	ND	5.0	
624-92-0	Dimethyl Disulfide	ND	9.6	ND	2.5	
616-44-4	3-Methylthiophene	ND	20	ND	5.0	
110-01-0	Tetrahydrothiophene	ND	18	ND	5.0	
638-02-8	2,5-Dimethylthiophene	ND	23	ND	5.0	
872-55-9	2-Ethylthiophene	ND	23	ND	5.0	
110-81-6	Diethyl Disulfide	ND	12	ND	2.5	

ND = Compound was analyzed for, but not detected above the laboratory reporting limit.
MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

ALS ENVIRONMENTAL

LABORATORY CONTROL SAMPLE SUMMARY

Client: **Weaver Consultants Group**
Client Sample ID: **Lab Control Sample** ALS Project ID: P1600503
Client Project ID: **Bridgeton LF Monthly Permit Flare LFG Testing-SPLIT / 0120-131-10-63** ALS Sample ID: P160203-LCS

Test Code: ASTM D 5504-12 Date Collected: NA
Instrument ID: Agilent 6890A/GC13/SCD Date Received: NA
Analyst: Mike Conejo Date Analyzed: 2/03/16
Sample Type: 1.0 L Tedlar Bag Volume(s) Analyzed: NA ml(s)
Test Notes:

CAS #	Compound	Spike Amount ppbV	Result ppbV	% Recovery	ALS Acceptance Limits	Data Qualifier
7783-06-4	Hydrogen Sulfide	2,000	**2,510**	**126**	65-138	
463-58-1	Carbonyl Sulfide	2,000	**2,390**	**120**	60-135	
74-93-1	Methyl Mercaptan	2,000	**2,450**	**123**	57-140	

ALS ENVIRONMENTAL

LABORATORY CONTROL SAMPLE SUMMARY

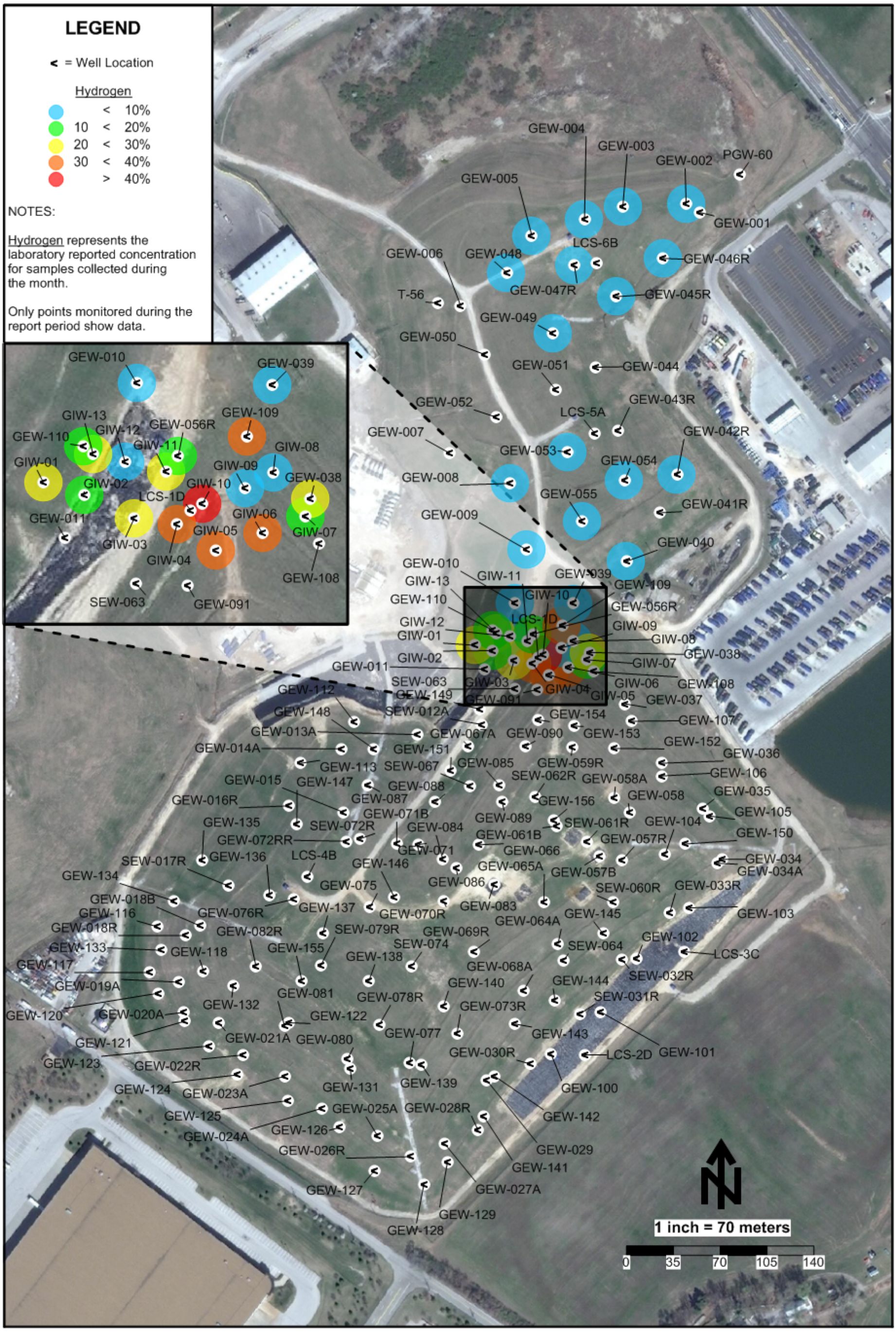
Client: **Weaver Consultants Group**
Client Sample ID: **Lab Control Sample** ALS Project ID: P1600503
Client Project ID: **Bridgeton LF Monthly Permit Flare LFG Testing-SPLIT / 0120-131-10-63** ALS Sample ID: P160204-LCS

Test Code: ASTM D 5504-12 Date Collected: NA
Instrument ID: Agilent 6890A/GC13/SCD Date Received: NA
Analyst: Mike Conejo Date Analyzed: 2/04/16
Sample Type: 6.0 L Silonite Canister Volume(s) Analyzed: NA ml(s)
Test Notes:

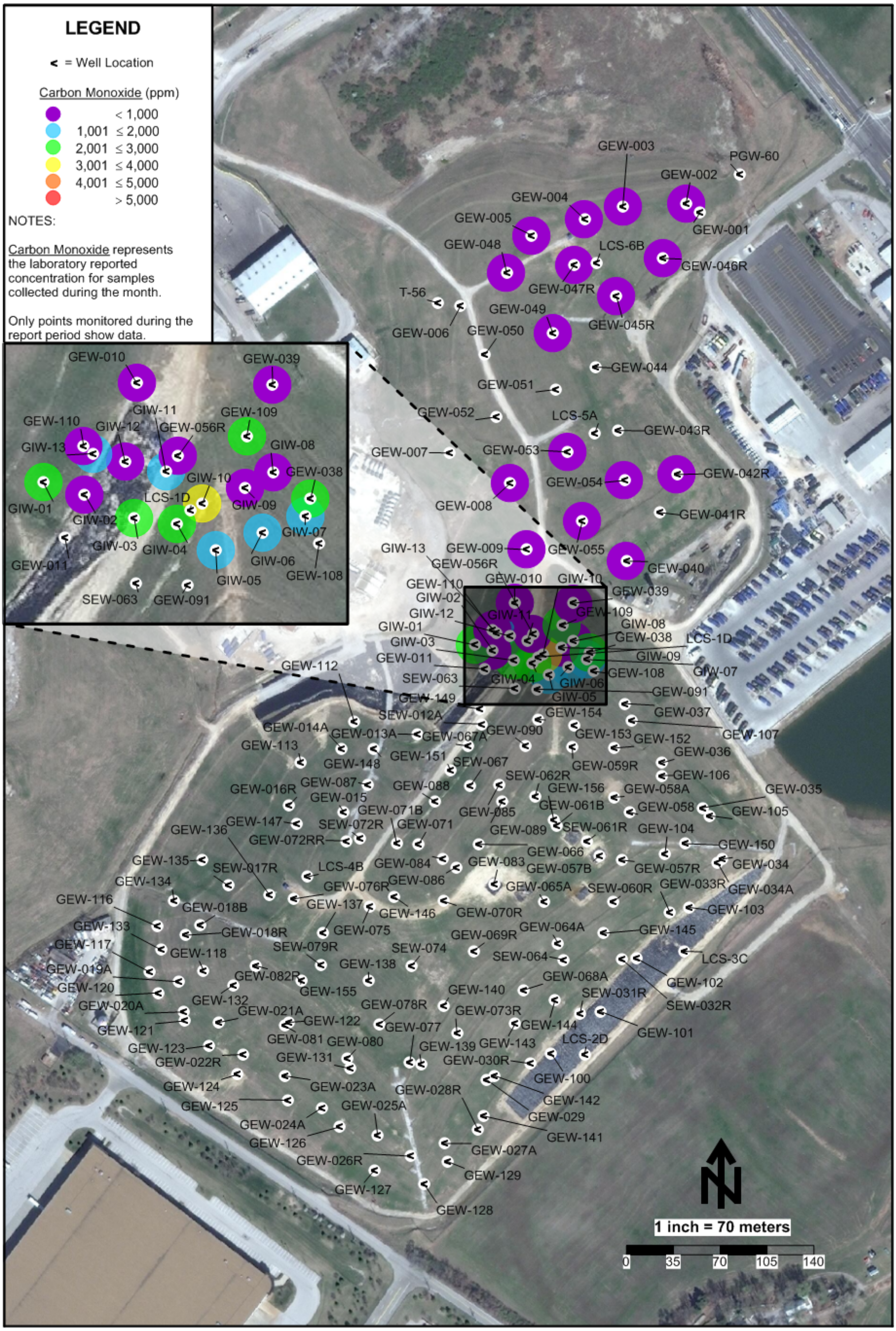
CAS #	Compound	Spike Amount ppbV	Result ppbV	% Recovery	ALS Acceptance Limits	Data Qualifier
7783-06-4	Hydrogen Sulfide	2,000	**2,490**	**125**	65-138	
463-58-1	Carbonyl Sulfide	2,000	**2,340**	**117**	60-135	
74-93-1	Methyl Mercaptan	2,000	**2,370**	**119**	57-140	

ATTACHMENT C

GAS WELL ANALYSIS MAPS



Hydrogen Data Map - February 2016 - Bridgeton Landfill



Carbon Monoxide Data Map - February 2016 - Bridgeton Landfill

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 GEW-056R GIW-08 GIW-13 GIW-12 GIW-11 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 SEW-063 GEW-091 GEW-108

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

1 inch = 70 meters

0 35 70 105 140

Initial Temperature Maximums - February 2016 - Bridgeton Landfill

ATTACHMENT D

LABORATORY 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	Comments
		(%)					(ppm)	
North Quarry								
GEW-002	10/12/2015	56	41	ND	ND	ND	ND	
GEW-002	11/13/2015	54	43	ND	ND	ND	ND	
GEW-002	12/14/2015	41	32	3.2	23	ND	35	See Note 3
GEW-002	12/31/2015	53	40	ND	5.7	0.1	ND	Resample
GEW-002	1/14/2016	55	43	ND	ND	ND	ND	
GEW-002	2/15/2016	52	41	1.7	5.8	ND	ND	See Note 3
GEW-003	10/12/2015	47	35	2.9	15	0.1	ND	See Note 1 and 3
GEW-003	11/10/2015	50	40	ND	8.7	0.1	ND	
GEW-003	12/14/2015	42	37	ND	20	ND	ND	
GEW-003	1/14/2016	52	39	ND	6.7	0.1	ND	
GEW-003	2/15/2016	56	42	ND	ND	0.1	ND	
GEW-004	10/12/2015	54	40	ND	5.8	0.1	ND	
GEW-004	11/10/2015	49	40	ND	10	0.1	ND	
GEW-004	12/14/2015	45	37	ND	16	ND	ND	
GEW-004	1/14/2016	52	40	ND	6.7	0.1	ND	
GEW-004	2/15/2016	52	41	1.7	5.8	ND	ND	
GEW-005	10/12/2015	47	35	1.7	16	ND	ND	See Note 3
GEW-005	11/10/2015	44	36	ND	19	0.03	ND	
GEW-005	12/15/2015	41	34	ND	23	ND	ND	
GEW-005	1/14/2016	42	34	ND	24	ND	ND	
GEW-005	2/15/2016	54	38	ND	7.6	0.07	ND	
GEW-006	11/10/2015	51	40	ND	8.1	ND	ND	
GEW-006	1/14/2016	52	37	ND	10	ND	ND	
GEW-007	11/11/2015	56	41	ND	ND	ND	ND	
GEW-007	1/14/2016	57	41	ND	ND	ND	ND	
GEW-007	1/27/2016	56	39	ND	4	ND	ND	
GEW-008	10/12/2015	50	46	ND	ND	1.3	ND	
GEW-008	11/11/2015	49	47	ND	ND	2.1	ND	
GEW-008	12/15/2015	42	42	1.8	8.6	1.4	ND	See Note 3
GEW-008	1/27/2016	50	47	ND	ND	1.6	ND	
GEW-008	2/15/2016	50	47	ND	ND	0.7	ND	
GEW-009	10/12/2015	52	41	ND	5.1	0.8	ND	
GEW-009	11/11/2015	46	39	2	12	0.4	ND	See Note 1 and 3
GEW-009	12/15/2015	39	40	ND	19	0.3	ND	
GEW-009	1/27/2016	51	41	ND	6.7	0.5	ND	
GEW-009	2/17/2016	54	43	ND	ND	0.7	ND	
GEW-040	10/12/2015	57	40	ND	ND	ND	ND	
GEW-040	11/10/2015	52	37	2.4	8.5	ND	ND	See Note 1 and 3
GEW-040	12/14/2015	54	38	1.9	6.6	ND	ND	See Note 3
GEW-040	1/14/2016	57	41	ND	ND	ND	ND	
GEW-040	2/15/2016	55	38	1.4	5.2	ND	ND	See Note 3
GEW-041R	11/10/2015	47	37	1.6	15	ND	ND	See Note 3
GEW-041R	1/14/2016	56	42	ND	ND	ND	ND	
GEW-042R	10/12/2015	56	41	ND	ND	ND	ND	
GEW-042R	11/10/2015	42	35	5	18	ND	ND	See Note 1 and 3
GEW-042R	12/14/2015	49	40	2.3	8.3	ND	ND	See Note 3
GEW-042R	1/14/2016	55	42	ND	ND	ND	ND	
GEW-042R	2/15/2016	56	41	ND	ND	0.04	ND	
GEW-043R	11/11/2015	53	44	ND	ND	ND	ND	
GEW-043R	1/14/2016	55	43	ND	ND	0.2	ND	
GEW-044	11/10/2015	47	37	ND	15	ND	ND	
GEW-044	1/14/2016	56	40	ND	ND	ND	ND	

Laboratory Analysis - Bridgeton Landfill

Well Name	Date Sampled	Methane	CO_2	O_2/Argon	Nitrogen	Hydrogen	Carbon Monoxide	Comments
		(%)					(ppm)	
GEW-045R	10/12/2015	58	38	ND	ND	ND	ND	
GEW-045R	11/10/2015	58	39	ND	ND	ND	ND	
GEW-045R	12/14/2015	57	38	ND	3.9	ND	ND	
GEW-045R	1/14/2016	56	43	ND	ND	ND	ND	
GEW-045R	2/15/2016	57	39	ND	ND	ND	ND	
GEW-046R	10/12/2015	56	41	ND	ND	0.1	ND	
GEW-046R	11/10/2015	53	41	ND	4.7	0.1	ND	
GEW-046R	12/14/2015	47	39	ND	13	ND	ND	
GEW-046R	1/14/2016	54	41	ND	4.7	0.1	ND	
GEW-046R	2/15/2016	55	40	ND	4.3	0.1	ND	
GEW-047R	10/12/2015	47	37	ND	15	ND	ND	
GEW-047R	11/10/2015	41	37	ND	21	0.1	ND	
GEW-047R	12/14/2015	37	33	ND	29	ND	ND	
GEW-047R	1/14/2016	40	35	ND	24	0.05	ND	
GEW-047R	2/15/2016	50	38	ND	11	0.2	ND	
GEW-048	10/12/2015	55	39	ND	4.9	ND	ND	
GEW-048	11/10/2015	53	40	ND	5.7	ND	ND	
GEW-048	12/15/2015	49	38	ND	12	ND	ND	
GEW-048	1/14/2016	52	39	ND	8.4	ND	ND	
GEW-048	2/15/2016	56	40	ND	3.8	0.03	ND	
GEW-049	10/12/2015	54	39	ND	6.2	0.1	ND	
GEW-049	11/10/2015	46	37	ND	15	0.1	ND	
GEW-049	12/15/2015	46	37	ND	16	ND	ND	
GEW-049	1/27/2016	45	34	ND	20	0.1	ND	
GEW-049	2/15/2016	55	37	ND	6.3	0.1	ND	
GEW-050	11/10/2015	48	37	ND	13	ND	ND	
GEW-050	1/14/2016	53	39	ND	7.9	0.1	ND	
GEW-051	11/10/2015	53	42	ND	3.3	1	ND	
GEW-051	1/27/2016	55	41	ND	ND	1	ND	
GEW-052	11/11/2015	43	37	1.7	18	0.04	ND	See Note 1 and 3
GEW-052	1/14/2016	45	36	ND	19	0.04	ND	
GEW-053	10/12/2015	50	41	ND	ND	5.7	64	
GEW-053	11/11/2015	49	42	ND	3.3	4.8	55	
GEW-053	12/15/2015	49	41	ND	4.8	4.5	51	
GEW-053	1/27/2016	50	41	ND	3.9	4.7	49	
GEW-053	2/15/2016	50	41	ND	ND	5.8	57	
GEW-054	10/28/2015	52	41	ND	3.5	2.2	ND	
GEW-054	11/11/2015	52	43	ND	ND	2.6	ND	
GEW-054	12/15/2015	50	42	ND	ND	5.1	39	
GEW-054	1/27/2016	53	42	ND	ND	4.0	ND	
GEW-054	2/15/2016	51	41	ND	3.4	4.3	ND	
GEW-055	10/12/2015	50	40	2	7.3	1.4	30	See Note 3
GEW-055	11/11/2015	52	43	ND	3.2	1.2	ND	
GEW-055	12/15/2015	51	41	ND	5.8	1.8	ND	
GEW-055	1/27/2016	54	42	ND	ND	1.0	ND	
GEW-055	2/15/2016	54	43	ND	ND	1.4	ND	

Notes: (1) Based on the comparison of field to laboratory readings, oxygen to balance gas ratios, and historical concentrations, the sample was determined to be suspect due to oxygen introduction which likely occurred during sample collection or laboratory analytical methods. (2) MDNR also collected duplicate LFG samples at these locations during this sampling period. (3) Based on the oxygen verification readings taken with an Envision meter, it was determined there is a sample train leak. (4) Based on the oxygen verification readings taken with an Envision meter, it was determined that the readings are accurate. (5) Flare station gas concentration data is an average of FL-100, FL-120, and FL-140. (6) Flare station gas concentration data is an average of Outlets 1 & 2. (7) Flare station gas concentration based on data from Outlet B.

Laboratory Analysis - Bridgeton Landfill

Well Name	Date Sampled	Methane	CO_2	O_2/Argon	Nitrogen	Hydrogen	Carbon Monoxide	Comments
		(%)					(ppm)	
South Quarry								
GEW-010	10/14/2015	42	44	2.9	11	0.6	79	See Note 4
GEW-010	11/11/2015	53	42	ND	3.9	0.6	50	
GEW-010	12/16/2015	54	40	ND	4.4	ND	35	
GEW-010	1/26/2016	53	43	ND	3.0	0.2	ND	
GEW-010	2/16/2016	50	41	1.6	6.5	0.2	31	See Note 4
GEW-022R	11/12/2015	0.8	65	ND	ND	30	4,800	
GEW-028R	11/13/2015	0.1	59	ND	4.9	34	3,600	
GEW-028R	1/26/2016	0.1	60	1.5	5.1	33	3,600	
GEW-038	10/14/2015	0.3	45	5.6	20	28	3,000	See Note 4
GEW-038	11/11/2015	0.2	33	9.8	35	21	2,100	
GEW-038	12/16/2015	0.2	33	10	36	20	2,100	See Note 4
GEW-038	1/26/2016	0.3	56	2.2	8	33	3,200	
GEW-038	2/16/2016	0.3	44	6.6	24	25	2,600	See Note 4
GEW-039	10/14/2015	39	53	ND	3.9	2.4	170	
GEW-039	11/11/2015	39	55	ND	ND	2.7	170	
GEW-039	12/16/2015	37	54	ND	4.5	3.3	150	
GEW-039	1/26/2016	42	56	ND	ND	0.7	52	
GEW-039	2/16/2016	42	55	ND	ND	0.9	75	
GEW-056R	10/14/2015	12	42	ND	23	22	1,300	
GEW-056R	11/11/2015	14	42	ND	24	18	1,100	
GEW-056R	12/16/2015	1.8	54	ND	5.8	37	2,000	
GEW-056R	1/26/2016	16	39	ND	31	13	700	
GEW-056R	2/16/2016	20	38	ND	30	10	620	
GEW-057R	11/11/2015	0.5	53	ND	3.8	40	2,800	
GEW-057R	1/14/2016	0.4	54	ND	ND	40	2,200	
GEW-058	11/11/2015	3.5	48	3.6	14	30	2,100	See Note 3
GEW-058	1/14/2016	3.8	54	ND	5.5	35	2,100	
GEW-058A	11/11/2015	0.4	49	3.3	12	35	2,500	
GEW-058A	1/14/2016	0.3	51	2	7.1	39	2,500	
GEW-059R	11/11/2015	0.8	51	ND	4.4	41	1,800	
GEW-059R	1/14/2016	0.9	48	1.9	6.9	41	1,900	See Note 3
GEW-065A	11/12/2015	0.4	58	ND	ND	37	3,200	
GEW-065A	1/14/2016	0.4	58	ND	ND	36	2,900	
GEW-082R	11/12/2015	0.9	55	ND	ND	40	2,300	
GEW-082R	1/14/2016	0.8	56	ND	ND	40	2,000	
GEW-086	11/12/2015	10	34	8.7	44	2.7	430	
GEW-090	11/12/2015	5.5	49	ND	3.6	40	2,200	
GEW-090	1/26/2016	5	50	ND	ND	42	1,900	
GEW-102	11/13/2015	2.1	59	ND	3.3	34	2,100	
GEW-102	1/14/2016	2.3	60	ND	ND	34	1,700	
GEW-104	11/13/2015	0.4	43	5.7	21	29	1,500	
GEW-109	10/14/2015	5.3	50	ND	12	30	2,000	
GEW-109	11/11/2015	5.6	60	ND	ND	31	2,400	
GEW-109	12/16/2015	3.6	42	5	24	25	1,500	See Note 3
GEW-109	1/26/2016	2.3	36	7.9	34	19	1,300	See Note 4
GEW-109	2/16/2016	3.4	63	ND	ND	32	2,300	
GEW-110	10/15/2015	3.8	15	14	62	5.2	380	See Note 4
GEW-110	11/11/2015	7.8	43	4.1	23	22	1,400	
GEW-110	12/16/2015	6	33	8.7	39	13	990	See Note 4
GEW-110	1/26/2016	4.2	23	11	51	11	630	See Note 4
GEW-110	2/16/2016	7	34	9	36	14	810	See Note 4
GEW-116	11/12/2015	2.8	50	6.2	22	17	1,800	
GEW-117	11/12/2015	3.7	66	ND	4.8	22	2,600	
GEW-120	11/12/2015	7.6	68	ND	ND	21	2,100	
GEW-120	1/14/2016	15	69	ND	ND	11	880	

Laboratory Analysis - Bridgeton Landfill

Well Name	Date Sampled	Methane	CO_2	O_2/Argon	Nitrogen	Hydrogen	Carbon Monoxide	Comments
		(%)					(ppm)	
GEW-121	11/12/2015	2.3	46	5	18	28	2,200	See Note 3
GEW-121	1/14/2016	3.8	60	ND	ND	33	2,600	
GEW-122	11/12/2015	5.3	55	ND	ND	35	2,800	
GEW-122	1/14/2016	3.5	57	ND	ND	37	3,000	
GEW-123	11/12/2015	1.6	51	4.9	17	24	3,200	See Note 3
GEW-124	11/13/2015	7	61	ND	ND	28	2,100	
GEW-124	1/15/2016	6.8	62	ND	ND	27	1,900	
GEW-125	11/12/2015	0.5	59	ND	ND	36	3,600	
GEW-126	11/12/2015	8.2	54	ND	ND	33	3,300	
GEW-126	1/14/2016	6.2	54	ND	ND	36	3,500	
GEW-127	11/13/2015	0.4	62	ND	ND	33	4,100	
GEW-127	1/14/2016	0.3	65	ND	ND	32	4,400	
GEW-128	11/13/2015	0.7	61	ND	ND	34	3,800	
GEW-128	1/14/2016	0.9	64	ND	ND	32	3,600	
GEW-129	11/13/2015	0.7	58	ND	3.3	36	3,400	
GEW-129	1/14/2016	1.0	62	ND	ND	34	3,300	
GEW-131	11/12/2015	20	47	ND	4.6	26	1,700	
GEW-131	1/26/2016	15	51	ND	ND	31	2,100	
GEW-132	11/12/2015	6.9	43	5.9	26	17	1,200	See Note 4
GEW-132	1/14/2016	8.7	50	2.9	15	23	1,700	
GEW-133	11/12/2015	0.4	53	3	11	32	3,800	
GEW-134	11/12/2015	11	43	5.8	28	11	770	See Note 1 and 3
GEW-134	1/14/2016	17	58	ND	13	11	750	
GEW-135	11/13/2015	4.8	47	4.2	15	28	1,500	See Note 3
GEW-137	11/12/2015	11	29	6.6	52	0.6	71	See Note 3
GEW-137	1/14/2016	13	36	ND	49	0.3	36	
GEW-138	11/12/2015	2.8	23	10	56	8	670	
GEW-138	1/15/2016	13	50	2.2	25	9.2	730	See Note 4
GEW-139	11/13/2015	0.9	47	4	19	29	3,300	
GEW-139	1/14/2016	1.4	54	1.8	6.6	35	3,600	
GEW-140	1/15/2016	1.7	60	ND	ND	35	3,300	
GEW-141	11/13/2015	1.7	60	1.6	5.5	30	3,500	See Note 1 and 3
GEW-141	1/14/2016	1.1	60	ND	ND	33	3,300	
GEW-142	11/13/2015	0.2	51	4.1	15	29	3,500	
GEW-143	11/13/2015	0.2	49	3.3	12	35	3,200	
GEW-144	11/13/2015	0.8	56	1.9	6.6	33	3,500	
GEW-145	11/13/2015	1.7	52	2.9	10	32	2,700	See Note 3
GEW-146	11/12/2015	3.1	18	13	64	2	220	
GEW-147	11/13/2015	5.1	51	ND	3.6	38	2,300	
GEW-147	1/15/2016	4.9	54	ND	3.5	36	2,000	
GEW-149	11/12/2015	9.6	55	2.4	14	18	1,600	See Note 1
GEW-150	11/13/2015	9	60	2	7.9	20	1,600	
GEW-150	1/14/2016	4	63	1.9	6.6	23	1,700	See Note 3
GEW-151	11/12/2015	11	56	ND	ND	28	2,200	
GEW-152	11/13/2015	4.1	49	2.3	8.2	35	2,900	See Note 1 and 3
GEW-153	11/13/2015	20	45	ND	19	15	580	
GEW-154	1/15/2016	21	33	ND	20	24	850	
GEW-156	11/12/2015	4.6	37	9.1	40	9.4	1,100	
GIW-01	10/14/2015	1.4	56	3.7	13	24	2,800	See Note 1 and 3
GIW-01	11/13/2015	2.6	66	ND	4.4	25	2,700	
GIW-01	12/9/2015	2.5	68	ND	ND	26	2,500	
GIW-01	1/26/2016	0.5	16	17	60	6.6	580	See Note 4
GIW-01	2/16/2016	1.7	61	2.7	9.8	24	2,500	See Note 4

Laboratory Analysis - Bridgeton Landfill

Well Name	Date Sampled	Methane	CO_2	O_2/Argon	Nitrogen	Hydrogen	Carbon Monoxide	Comments
		(%)					(ppm)	
GIW-02	10/14/2015	7.8	63	ND	ND	25	2,300	
GIW-02	11/13/2015	4.7	22	12	55	5.8	370	See Note 1
GIW-02	12/10/2015	5.7	33	9	44	8.5	610	See Note 4
GIW-02	1/26/2016	6.4	28	9.7	47	8.3	510	See Note 4
GIW-02	2/17/2016	8	40	7.8	33	10	620	See Note 4
GIW-03	10/14/2015	0.3	41	7.5	27	24	2,300	See Note 4
GIW-03	11/13/2015	0.2	38	8.3	30	23	2,200	
GIW-03	12/10/2015	0.1	24	13	47	14	1,300	See Note 4
GIW-03	1/26/2016	0.4	48	4.7	17	29	2,500	See Note 4
GIW-03	2/17/2016	0.3	36	9.3	33	21	2,100	See Note 4
GIW-04	10/14/2015	0.5	43	4.4	16	36	2,200	See Note 4
GIW-04	11/13/2015	0.5	41	5	18	35	2,200	
GIW-04	12/10/2015	0.5	35	6.9	25	32	1,900	See Note 4
GIW-04	1/26/2016	0.5	50	1.8	6.3	41	2,300	See Note 4
GIW-04	2/17/2016	0.6	43	4.2	15	36	2,300	See Note 3
GIW-05	10/14/2015	1.9	32	10.0	37	18	1,100	See Note 4
GIW-05	11/13/2015	2.6	58	ND	ND	37	1,900	
GIW-05	12/09/2015	2.3	51	2.3	8.2	35	1,700	See Note 3
GIW-05	1/26/2016	1.7	56	1.7	5.9	34	1,400	See Note 4
GIW-05	2/16/2016	2.2	57	ND	4.7	34	1,700	
GIW-06	10/14/2015	0.9	57	1.7	6.1	34	1,700	See Note 4
GIW-06	11/13/2015	0.9	56	1.8	6.2	34	1,700	
GIW-06	12/10/2015	1	56	1.8	6.3	34	1,600	See Note 4
GIW-06	1/27/2016	1	59	ND	ND	36	1,500	
GIW-06	2/17/2016	1.1	59	ND	ND	36	1,500	
GIW-07	10/14/2015	31	54	1.7	5.8	7.1	700	See Note 4
GIW-07	11/13/2015	30	53	2.2	7.9	6.9	660	
GIW-07	12/10/2015	26	58	ND	4.5	9.6	870	
GIW-07	1/27/2016	29	59	ND	3	8.6	660	
GIW-07	2/17/2016	15	68	ND	ND	15	1,500	
GIW-08	10/14/2015	19	62	2.8	12	5.0	740	See Note 4
GIW-08	11/13/2015	19	56	4	15	5.4	740	
GIW-08	12/09/2015	24	59	2	10	4.7	570	
GIW-08	12/10/2015	24	63	ND	4.9	6.7	860	See Note 2
GIW-08	1/27/2016	26	59	ND	13	2.2	320	
GIW-08	2/17/2016	25	62	ND	10	2.2	360	
GIW-09	10/14/2015	3	13	15	66	2.2	260	See Note 4
GIW-09	11/13/2015	3.9	13	16	64	2.4	220	
GIW-09	12/10/2015	5	21	14	55	5.4	340	See Note 4
GIW-09	1/27/2016	11	31	9.3	40	8.9	590	See Note 4
GIW-09	2/17/2016	6.2	17	14	57	4.9	320	See Note 4
GIW-10	10/14/2015	3.6	51	ND	ND	42	2,900	
GIW-10	11/13/2015	1.3	50	ND	4.5	42	3,200	
GIW-10	12/10/2015	0.4	42	5.1	18	34	2,500	See Note 1
GIW-10	1/26/2016	0.3	31	7.7	28	32	2,100	See Note 4
GIW-10	2/17/2016	0.4	53	ND	ND	44	3,200	
GIW-11	10/14/2015	2.9	47	4.8	19	26	2,500	See Note 4
GIW-11	11/13/2015	3.2	48	4.2	17	27	2,500	
GIW-11	12/09/2015	2.4	53	2.7	12	29	2,500	See Note 4
GIW-11	1/26/2016	4	46	4.1	19	27	1,900	See Note 4
GIW-11	2/16/2016	4.4	39	6	29	21	1,700	See Note 4
GIW-12	10/14/2015	5.2	20	11	57	5.9	510	See Note 4
GIW-12	11/13/2015	4.3	21	12	56	6.5	530	
GIW-12	12/09/2015	4.2	24	10	55	6.5	470	See Note 4
GIW-12	1/26/2016	4.2	20	11	61	4.9	320	See Note 4
GIW-12	2/16/2016	5.3	20	12	60	2.6	240	See Note 4

Laboratory Analysis - Bridgeton Landfill

Well Name	Date Sampled	Methane	CO_2	O_2/Argon	Nitrogen	Hydrogen	Carbon Monoxide	Comments
		(%)					(ppm)	
GIW-13	10/14/2015	8.5	57	ND	7	25	2,000	
GIW-13	11/13/2015	4.3	63	ND	3.2	28	2,500	
GIW-13	12/09/2015	10	58	ND	5.7	25	1,700	
GIW-13	1/26/2016	11	58	ND	6.8	22	1,500	
GIW-13	2/16/2016	13	58	ND	7.6	21	1,500	
Flare Station[2]	10/6/2015	9.4	33.3	9	37.0	9.9	933	See Note 5
Flare Station[2]	11/3/2015	10.7	37.3	8	32.0	10.7	1,100	See Note 5
Flare Station[2]	12/1/2015	10.6	36.2	8.1	33.6	10.5	1000	See Note 6
Flare Station[2]	1/5/2016	11.2	37.6	7.7	32.1	10.7	1,000	See Note 6
Flare Station[2]	2/2/2016	11.8	37.7	7.8	31.0	10.9	1,050	See Note 6
Flare Station[2]	3/2/2016	10.7	34.6	8.8	35.3	9.6	910	See Note 7

Notes: (1) Based on the comparison of field to laboratory readings, oxygen to balance gas ratios, and historical concentrations, the sample was determined to be suspect due to oxygen introduction which likely occurred during sample collection or laboratory analytical methods. (2) MDNR also collected duplicate LFG samples at these locations during this sampling period. (3) Based on the oxygen verification readings taken with an Envision meter, it was determined there is a sample train leak. (4) Based on the oxygen verification readings taken with an Envision meter, it was determined that the readings are accurate. (5) Flare station gas concentration data is an average of FL-100, FL-120, and FL-140. (6) Flare station gas concentration data is an average of Outlets 1 & 2. (7) Flare station gas concentration based on data from Outlet B.

ND = Analyte not detected in sample.

[2] = Flare Station Inlet measured at EPA Method 2 flow port (blower outlet)

ATTACHMENT D-2

LAB ANALYSIS REPORTS

AirTECHNOLOGY
Laboratories, Inc.

February 29, 2016

ADE-1461
EPA Methods TO3, TO14A, TO15 SIM & SCAN
ASTM D1946

LA Cert #04140
EPA Methods TO3, TO14A, TO15, 25C/3C, RSK-175

TX Cert T104704450-14-6
EPA Methods TO14A, TO15

UT Cert CA0133332015-3
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: H021912-01/35

Enclosed are results for sample(s) received 2/19/16 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:

- Complete reanalysis of both samples was conducted, per client's request.
- 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, Ryan Ayers and David Randall, Weaver Consultants Group, on 2/26/16.

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:		5 day	■

DELIVERABLES

EDD	☐
EDF	☐
Level 3	☐
Level 4	☐

PAGE: 1 OF 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.:	PO~~4862452~~ 5544160
Bill to:	Republic Services
	Attn: Jim Getting
	13570 St. Charles Rock Rd.
	Bridgeton, MO 63044

ANALYSIS REQUEST

LAB USE ONLY	Canister Pressures ("hg)				SAMPLE IDENTIFICATION	SAMPLE DATE	SAMPLE TIME	CONTAINER QTY/TYPE	MATRIX	PRESERVATION	D1946 + CO, H2					
	Canister ID	Sample Start	Sample End	Lab Receive												
H021912-01	5811	-20.8	-5	-3	GEW-40	2/15/2016	951	C	LFG	NA	X					
-02	3159	-20.5	-5	-4	GEW-46R	2/15/2016	1016	C	LFG	NA	X					
-03	A8080	-20	-5	-5	GEW-2	2/15/2016	1103	C	LFG	NA	X					
-04	5307	-20	-5	-4	GEW-4	2/15/2016	1117	C	LFG	NA	X					
-05	A7820	-20.4	-5	-4	GEW-5	2/15/2016	1135	C	LFG	NA	X					
-06	5924	-20.1	-5	-4	GEW-49	2/15/2016	1442	C	LFG	NA	X					
-07	A8085	-20.2	-5	-4	GEW-48	2/15/2016	1450	C	LFG	NA	X					
-08	5918	-19.9	-5	-4	GEW-53	2/15/2016	1519	C	LFG	NA	X					
-09	A8092	-20	-5	-4	GEW-54	2/15/2016	1528	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: Ryan Ayers	2-17-16 1100	DATE/RECEIVED BY	DATE/TIME
RELINQUISHED BY: FedEx	2-19-16 8:45	DATE/RECEIVED BY	DATE/TIME 2-19-16 8:45
RELINQUISHED BY		DATE/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*

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: 2 OF 4	
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:		5 day	■	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: Jim Getting
	13570 St. Charles Rock Rd.
	Bridgeton, MO 63044

ANALYSIS REQUEST

LAB USE ONLY	Canister Pressures ("hg)				SAMPLE IDENTIFICATION	SAMPLE DATE	SAMPLE TIME	CONTAINER QTY/TYPE	MATRIX	PRESERVATION	D1946 + CO, H2					
	Canister ID	Sample Start	Sample End	Lab Receive												
H02192-10	A7671	-20.1	-5	-4	GEW-55	2/15/2016	1539	C	LFG	NA	X					
-11	A7797	-20.6	-5	-3.5	GEW-42R	2/15/2016	1003	C	LFG	NA	X					
-12	5900	-20.5	-5	-4	GEW-45R	2/15/2016	1017	C	LFG	NA	X					
-13	A8094	-20.7	-5	-4	GEW-3	2/15/2016	1123	C	LFG	NA	X					
-14	A7765	-20.15	-5	-4	GEW-47R	2/15/2016	1141	C	LFG	NA	X					
-15	A7798	-20.1	-5	-4.5	GEW-8	2/15/2016	1531	C	LFG	NA	X					
-16	A7663	-20	-5	-4	GEW-109	2/16/2016	1438	C	LFG	NA	X					
-17	A7760	-20	-5	-4	GEW-38	2/16/2016	1449	C	LFG	NA	X					
-18	3441	-20.2	-5	-4	GEW-56R	2/16/2016	1515	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: Ryan Ayers	2-17-16 1100	DATE/ RECEIVED BY		DATE/TIME
RELINQUISHED BY: FedEx	2-19-16 8:45	DATE/ RECEIVED BY		2-19-16 8:45 DATE/TIME
RELINQUISHED BY		DATE/ 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*

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:		5 day	■

DELIVERABLES

EDD	☐
EDF	☐
Level 3	☐
Level 4	☐

PAGE: 3 OF 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: Jim Getting
	13570 St. Charles Rock Rd.
	Bridgeton, MO 63044

ANALYSIS REQUEST

LAB USE ONLY	Canister Pressures ("hg) Canister ID	Sample Start	Sample End	Lab Receive	SAMPLE IDENTIFICATION	SAMPLE DATE	SAMPLE TIME	CONTAINER QTY/TYPE	MATRIX	PRESERVATION	D1946 + CO, H2					
402192-19	5928	-20.1	-5	-4	GEW-10	2/16/2016	1539	C	LFG	NA	X					
-20	A7795	-20.3	-5	-4	GEW-110	2/16/2016	1548	C	LFG	NA	X					
-21	A7781	-20	-5	-4	GEW-39	2/16/2016	1442	C	LFG	NA	X					
-22	A8073	-20.2	-5	-4	GIW-5	2/16/2016	1453	C	LFG	NA	X					
-23	A8067	-20.15	-5	-4	GIW-11	2/16/2016	1520	C	LFG	NA	X					
-24	A8082	-20.35	-5	-4	GIW-12	2/16/2016	1545	C	LFG	NA	X					
-25	A7779	-20.3	-5	-4	GIW-13	2/16/2016	1554	C	LFG	NA	X					
-26	5819	-20.25	-5	-4	GIW-1	2/16/2016	1608	C	LFG	NA	X					
-27	5319	-20.3	-5	-4	GIW-9	2/17/2016	820	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: Ryan Ayers	2-17-16 1100	RECEIVED BY	DATE/TIME
RELINQUISHED BY: FedEx	2-19-16 8:45	RECEIVED BY	DATE/TIME 2-19-16 8:45
RELINQUISHED BY		RECEIVED BY	DATE/TIME

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

COMMENTS

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

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:		5 day	■

DELIVERABLES

EDD	☐
EDF	☐
Level 3	☐
Level 4	☐

PAGE: 4 OF 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: Jim Getting
	13570 St. Charles Rock Rd.
	Bridgeton, MO 63044

ANALYSIS REQUEST

LAB USE ONLY	Canister Pressures ("hg) Canister ID	Sample Start	Sample End	Lab Receive	SAMPLE IDENTIFICATION	SAMPLE DATE	SAMPLE TIME	CONTAINER QTY/TYPE	MATRIX	PRESERVATION	D1946 + CO, H2					
H021912-28	A8066	-20.6	-5	-4	GIW-8	2/17/2016	829	C	LFG	NA	X					
-29	A8083	-20.9	-5	-4	GIW-7	2/17/2016	836	C	LFG	NA	X					
-30	5836	-20	-5	-4	GIW-6	2/17/2016	845	C	LFG	NA	X					
-31	A7766	-20.4	-5	-4	GIW-10	2/17/2016	853	C	LFG	NA	X					
-32	A7769	-20.3	-5	-4	GIW-4	2/17/2016	903	C	LFG	NA	X					
-33	5912	-20.3	-5	-4	GIW-3	2/17/2016	910	C	LFG	NA	X					
-34	6141	-20.6	-5	-4	GIW-2	2/17/2016	918	C	LFG	NA	X					
-35	A8070	-20.6	-5	-4	GEW-9	2/17/2016	954	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: Ryan Ayers 2-17-16 1100 DATE/TIME — RECEIVED BY: DATE/TIME

RELINQUISHED BY: Fed Ex 2-19-16 8:45 DATE/TIME — RECEIVED BY: 2-19-16 8:45 DATE/TIME

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: Republic Services
Attn: Jim Getting
Project Name: Bridgeton Landfill
Project No.: NA
Date Received: 02/19/16
Matrix: Air
Reporting Units: % v/v

ASTM D1946

Lab No.:	H021912-01		H021912-02		H021912-03		H021912-04	
Client Sample I.D.:	GEW-40		GEW-46R		GEW-2		GEW-4	
Date/Time Sampled:	2/15/16 9:51		2/15/16 10:16		2/15/16 11:03		2/15/16 11:17	
Date/Time Analyzed:	2/25/16 16:03		2/25/16 16:18		2/25/16 16:32		2/25/16 16:47	
QC Batch No.:	160225GC8A1		160225GC8A1		160225GC8A1		160225GC8A1	
Analyst Initials:	AS		AS		AS		AS	
Dilution Factor:	2.8		3.0		3.2		3.0	
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	0.028	0.11 d	0.030	ND d	0.032	0.064 d	0.030
Carbon Dioxide	38	0.028	40	0.030	41	0.032	41	0.030
Oxygen/Argon	1.4	1.4	ND	1.5	1.7	1.6	ND	1.5
Nitrogen	5.2	2.8	4.3	3.0	5.8	3.2	3.3	3.0
Methane	55	0.0028	55	0.0030	52	0.0032	55	0.0030
Carbon Monoxide	ND	0.0028	ND	0.0030	ND	0.0032	ND	0.0030

Results normalized including non-methane hydrocarbons
ND = Not Detected (below RL)
RL = Reporting Limit
d = Reported from a secondary analysis. QC Batch 160226GC8A2

Reviewed/Approved By: _____ Date 2-26-16

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: 02/19/16
Matrix: Air
Reporting Units: % v/v

ASTM D1946

Lab No.:	H021912-05		H021912-06		H021912-07		H021912-08	
Client Sample I.D.:	GEW-5		GEW-49		GEW-48		GEW-53	
Date/Time Sampled:	2/15/16 11:35		2/15/16 14:42		2/15/16 14:50		2/15/16 15:19	
Date/Time Analyzed:	2/25/16 17:01		2/25/16 17:16		2/25/16 17:30		2/25/16 17:45	
QC Batch No.:	160225GC8A1		160225GC8A1		160225GC8A1		160225GC8A1	
Analyst Initials:	AS		AS		AS		AS	
Dilution Factor:	3.0		3.0		3.0		3.0	
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	0.073 d	0.030	0.10 d	0.030	0.033 d	0.030	5.8	3.0
Carbon Dioxide	38	0.030	37	0.030	40	0.030	41	0.030
Oxygen/Argon	ND	1.5	ND	1.5	ND	1.5	ND	1.5
Nitrogen	7.6	3.0	6.3	3.0	3.8	3.0	ND	3.0
Methane	54	0.0030	55	0.0030	56	0.0030	50	0.0030
Carbon Monoxide	ND	0.0030	ND	0.0030	ND	0.0030	0.0057	0.0030

Results normalized including non-methane hydrocarbons
ND = Not Detected (below RL)
RL = Reporting Limit
d = Reported from a secondary analysis. QC Batch 160226GC8A2

Reviewed/Approved By: _____ Date 2-26-16

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: 02/19/16
Matrix: Air
Reporting Units: % v/v

ASTM D1946

Lab No.:	H021912-09		H021912-10		H021912-11		H021912-12	
Client Sample I.D.:	GEW-54		GEW-55		GEW-42R		GEW-45R	
Date/Time Sampled:	2/15/16 15:28		2/15/16 15:39		2/15/16 10:03		2/15/16 10:17	
Date/Time Analyzed:	2/25/16 18:00		2/25/16 18:14		2/25/16 18:29		2/25/16 18:43	
QC Batch No.:	160225GC8A1		160225GC8A1		160225GC8A1		160225GC8A1	
Analyst Initials:	AS		AS		AS		AS	
Dilution Factor:	3.0		3.0		2.9		3.0	
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	4.3	3.0	1.4 d	0.030	0.041 d	0.029	ND d	0.030
Carbon Dioxide	41	0.030	43	0.030	41	0.029	39	0.030
Oxygen/Argon	ND	1.5	ND	1.5	ND	1.4	ND	1.5
Nitrogen	3.4	3.0	ND	3.0	ND	2.9	ND	3.0
Methane	51	0.0030	54	0.0030	56	0.0029	57	0.0030
Carbon Monoxide	ND	0.0030	ND	0.0030	ND	0.0029	ND	0.0030

Results normalized including non-methane hydrocarbons
ND = Not Detected (below RL)
RL = Reporting Limit
d = Reported from a secondary analysis. QC Batch 160226GC8A2

Reviewed/Approved By: _____ Date 2-26-16
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: 02/19/16
Matrix: Air
Reporting Units: % v/v

ASTM D1946

Lab No.:	H021912-13		H021912-14		H021912-15		H021912-16	
Client Sample I.D.:	GEW-3		GEW-47R		GEW-8		GEW-109	
Date/Time Sampled:	2/15/16 11:23		2/15/16 11:41		2/15/16 15:31		2/16/16 14:38	
Date/Time Analyzed:	2/25/16 18:58		2/25/16 19:12		2/25/16 21:24		2/25/16 21:39	
QC Batch No.:	160225GC8A1		160225GC8A1		160225GC8A2		160225GC8A2	
Analyst Initials:	AS		AS		MJ		MJ	
Dilution Factor:	3.0		3.0		3.1		3.0	
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	0.14 d	0.030	0.16 d	0.030	0.68 d	0.031	32	3.0
Carbon Dioxide	42	0.030	38	0.030	47	0.031	63	0.030
Oxygen/Argon	ND	1.5	ND	1.5	ND	1.5	ND	1.5
Nitrogen	ND	3.0	11	3.0	ND	3.1	ND	3.0
Methane	56	0.0030	50	0.0030	50	0.0031	3.4	0.0030
Carbon Monoxide	ND	0.0030	ND	0.0030	ND	0.0031	0.23	0.0030

Results normalized including non-methane hydrocarbons
ND = Not Detected (below RL)
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Reviewed/Approved By: _____ Date 2-26-16

Mark Johnson
Operations Manager

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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: 02/19/16
Matrix: Air
Reporting Units: % v/v

ASTM D1946

Lab No.:	H021912-17		H021912-18		H021912-19		H021912-20	
Client Sample I.D.:	GEW-38		GEW-56R		GEW-10		GEW-110	
Date/Time Sampled:	2/16/16 14:49		2/16/16 15:15		2/16/16 15:39		2/16/16 15:48	
Date/Time Analyzed:	2/25/16 21:54		2/25/16 22:08		2/25/16 22:23		2/25/16 22:37	
QC Batch No.:	160225GC8A2		160225GC8A2		160225GC8A2		160225GC8A2	
Analyst Initials:	MJ		MJ		MJ		MJ	
Dilution Factor:	3.0		3.0		3.0		3.0	
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	25	3.0	10	3.0	0.18 d	0.030	14	3.0
Carbon Dioxide	44	0.030	38	0.030	41	0.030	34	0.030
Oxygen/Argon	6.6	1.5	ND	1.5	1.6	1.5	9.0	1.5
Nitrogen	24	3.0	30	3.0	6.5	3.0	36	3.0
Methane	0.28	0.0030	20	0.0030	50	0.0030	7.0	0.0030
Carbon Monoxide	0.26	0.0030	0.062	0.0030	0.0031	0.0030	0.081	0.0030

Results normalized including non-methane hydrocarbons
ND = Not Detected (below RL)
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d = Reported from a secondary analysis. QC Batch 160226GC8A2

Reviewed/Approved By: _____ Date 2-26-16
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: 02/19/16
Matrix: Air
Reporting Units: % v/v

ASTM D1946

Lab No.:	H021912-21		H021912-22		H021912-23		H021912-24	
Client Sample I.D.:	GEW-39		GIW-5		GIW-11		GIW-12	
Date/Time Sampled:	2/16/16 14:42		2/16/16 14:53		2/16/16 15:20		2/16/16 15:45	
Date/Time Analyzed:	2/25/16 22:52		2/25/16 23:06		2/25/16 23:21		2/25/16 23:36	
QC Batch No.:	160225GC8A2		160225GC8A2		160225GC8A2		160225GC8A2	
Analyst Initials:	MJ		MJ		MJ		MJ	
Dilution Factor:	3.0		3.0		3.0		3.0	
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	0.86 d	0.030	34	3.0	21	3.0	2.6 d	0.030
Carbon Dioxide	55	0.030	57	0.030	39	0.030	20	0.030
Oxygen/Argon	ND	1.5	ND	1.5	6.0	1.5	12	1.5
Nitrogen	ND	3.0	4.7	3.0	29	3.0	60	3.0
Methane	42	0.0030	2.2	0.0030	4.4	0.0030	5.3	0.0030
Carbon Monoxide	0.0075	0.0030	0.17	0.0030	0.17	0.0030	0.024	0.0030

Results normalized including non-methane hydrocarbons
ND = Not Detected (below RL)
RL = Reporting Limit
d = Reported from a secondary analysis. QC Batch 160226GC8A2

Reviewed/Approved By: _____ Date 2-26-16

Mark Johnson
Operations Manager

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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: 02/19/16
Matrix: Air
Reporting Units: % v/v

ASTM D1946

Lab No.:	H021912-25		H021912-26		H021912-27		H021912-28	
Client Sample I.D.:	GIW-13		GIW-1		GIW-9		GIW-8	
Date/Time Sampled:	2/16/16 15:54		2/16/16 16:08		2/17/16 8:20		2/17/16 8:29	
Date/Time Analyzed:	2/25/16 23:50		2/26/16 0:05		2/26/16 0:19		2/26/16 0:34	
QC Batch No.:	160225GC8A2		160225GC8A2		160225GC8A2		160225GC8A2	
Analyst Initials:	MJ		MJ		MJ		MJ	
Dilution Factor:	3.0		3.0		3.0		3.0	
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	21	3.0	24	3.0	4.9	3.0	2.2 d	0.030
Carbon Dioxide	58	0.030	61	0.030	17	0.030	62	0.030
Oxygen/Argon	ND	1.5	2.7	1.5	14	1.5	ND	1.5
Nitrogen	7.6	3.0	9.8	3.0	57	3.0	10	3.0
Methane	13	0.0030	1.7	0.0030	6.2	0.0030	25	0.0030
Carbon Monoxide	0.15	0.0030	0.25	0.0030	0.032	0.0030	0.036	0.0030

Results normalized including non-methane hydrocarbons
ND = Not Detected (below RL)
RL = Reporting Limit
d = Reported from a secondary analysis. QC Batch 160226GC8A2

Reviewed/Approved By: _____ Date 2-26-16

Mark Johnson
Operations Manager

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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: 02/19/16
Matrix: Air
Reporting Units: % v/v

ASTM D1946

Lab No.:	H021912-29		H021912-30		H021912-31		H021912-32	
Client Sample I.D.:	GIW-7		GIW-6		GIW-10		GIW-4	
Date/Time Sampled:	2/17/16 8:36		2/17/16 8:45		2/17/16 8:53		2/17/16 9:03	
Date/Time Analyzed:	2/26/16 0:48		2/26/16 1:03		2/26/16 1:17		2/26/16 1:32	
QC Batch No.:	160225GC8A2		160225GC8A2		160225GC8A2		160225GC8A2	
Analyst Initials:	MJ		MJ		MJ		MJ	
Dilution Factor:	3.0		3.0		3.0		3.0	
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	15	3.0	36	3.0	44	3.0	36	3.0
Carbon Dioxide	68	0.030	59	0.030	53	0.030	43	0.030
Oxygen/Argon	ND	1.5	ND	1.5	ND	1.5	4.2	1.5
Nitrogen	ND	3.0	ND	3.0	ND	3.0	15	3.0
Methane	15	0.0030	1.1	0.0030	0.36	0.0030	0.56	0.0030
Carbon Monoxide	0.15	0.0030	0.15	0.0030	0.32	0.0030	0.23	0.0030

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

Reviewed/Approved By: _____ Date 2-26-16

Mark Johnson
Operations Manager

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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: 02/19/16
Matrix: Air
Reporting Units: % v/v

ASTM D1946

Lab No.:	H021912-33		H021912-34		H021912-35			
Client Sample I.D.:	GIW-3		GIW-2		GEW-9			
Date/Time Sampled:	2/17/16 9:10		2/17/16 9:18		2/17/16 9:54			
Date/Time Analyzed:	2/26/16 9:48		2/26/16 10:03		2/26/16 10:17			
QC Batch No.:	160226GC8A1		160226GC8A1		160226GC8A1			
Analyst Initials:	AS		AS		AS			
Dilution Factor:	3.0		3.0		3.0			
ANALYTE	Result % v/v	RL % v/v	Result % v/v	RL % v/v	Result % v/v	RL % v/v		
Hydrogen	21	3.0	10	3.0	0.69 d	0.030		
Carbon Dioxide	36	0.030	40	0.030	43	0.030		
Oxygen/Argon	9.3	1.5	7.8	1.5	ND	1.5		
Nitrogen	33	3.0	33	3.0	ND	3.0		
Methane	0.29	0.0030	8.0	0.0030	54	0.0030		
Carbon Monoxide	0.21	0.0030	0.062	0.0030	ND	0.0030		

Results normalized including non-methane hydrocarbons
ND = Not Detected (below RL)
RL = Reporting Limit
d = Reported from a secondary analysis. QC Batch 160226GC8A2

Reviewed/Approved By: _____ Date 2-26-16

Mark Johnson
Operations Manager

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

QC Batch No.: 160225GC8A1
Matrix: Air
Units: % v/v

QC for ASTM D1946

Lab No.:	Method Blank		LCS		LCSD			
Date/Time Analyzed:	2/25/16 10:32		2/25/16 9:48		2/25/16 10:03			
Analyst Initials:	AS		AS		AS			
Datafile:	25feb010		25feb007		25feb008			
Dilution Factor:	1.0		1.0		1.0			
ANALYTE	Results	RL	% Rec.	Criteria	% Rec.	Criteria	%RPD	Criteria
Hydrogen	ND	1.0	106	70-130%	105	70-130%	0.6	<30
Carbon Dioxide	ND	0.010	99	70-130%	98	70-130%	1.0	<30
Oxygen/Argon	ND	0.50	99	70-130%	98	70-130%	0.8	<30
Nitrogen	ND	1.0	99	70-130%	99	70-130%	0.6	<30
Methane	ND	0.0010	91	70-130%	91	70-130%	0.0	<30
Carbon Monoxide	ND	0.0010	107	70-130%	107	70-130%	0.1	<30

ND = Not Detected (Below RL)

Reviewed/Approved By: _____ Date: 2-26-16

Mark J. Johnson
Operations Manager

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

QC Batch No.: 160225GC8A2
Matrix: Air
Units: % v/v

QC for ASTM D1946

Lab No.:	Method Blank		LCS		LCSD			
Date/Time Analyzed:	2/25/16 21:10		2/25/16 20:25		2/25/16 20:40			
Analyst Initials:	MJ		MJ		MJ			
Datafile:	25feb053		25feb050		25feb051			
Dilution Factor:	1.0		1.0		1.0			
ANALYTE	Results	RL	% Rec.	Criteria	% Rec.	Criteria	%RPD	Criteria
Hydrogen	ND	1.0	102	70-130%	100	70-130%	1.9	<30
Carbon Dioxide	ND	0.010	97	70-130%	95	70-130%	1.7	<30
Oxygen/Argon	ND	0.50	98	70-130%	96	70-130%	2.0	<30
Nitrogen	ND	1.0	98	70-130%	96	70-130%	2.1	<30
Methane	ND	0.0010	114	70-130%	112	70-130%	1.3	<30
Carbon Monoxide	ND	0.0010	113	70-130%	113	70-130%	0.2	<30

ND = Not Detected (Below RL)

Reviewed/Approved By: _____ Date: 2-26-16

Mark J. Johnson
Operations Manager

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QC Batch No.: 160226GC8A1
Matrix: Air
Units: % v/v

QC for ASTM D1946

Lab No.:	Method Blank		LCS		LCSD			
Date/Time Analyzed:	2/26/16 9:21		2/26/16 7:50		2/26/16 8:51			
Analyst Initials:	AS		AS		AS			
Datafile:	26feb009		26feb003		26feb007			
Dilution Factor:	1.0		1.0		1.0			
ANALYTE	Results	RL	% Rec.	Criteria	% Rec.	Criteria	%RPD	Criteria
Hydrogen	ND	1.0	99	70-130%	101	70-130%	2.7	<30
Carbon Dioxide	ND	0.010	94	70-130%	97	70-130%	3.7	<30
Oxygen/Argon	ND	0.50	97	70-130%	99	70-130%	2.7	<30
Nitrogen	ND	1.0	97	70-130%	99	70-130%	2.6	<30
Methane	ND	0.0010	77	70-130%	97	70-130%	23.4	<30
Carbon Monoxide	ND	0.0010	92	70-130%	113	70-130%	20.6	<30

ND = Not Detected (Below RL)

Reviewed/Approved By: _____ Date: 2-26-16

Mark J. Johnson
Operations Manager

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QC Batch # 160226GC11A2
Matrix: Air
Units: % v/v

QC for Low Level Hydrogen Analysis

Lab No.:	Blank		LCS		LCSD			
Date Analyzed:	2/26/2016 11:51		2/26/2016 11:41		2/26/2016 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	97	70-130	97	70-130	0.7	<20

ND = Not Detected (Below RL)

RL = PQL X Dilution Factor

Reviewed/Approved By: Date: 2-26-16

Mark Johnson
Operations Manager

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ATTACHMENT E

GAS WELLFIELD DATA

ATTACHMENT E-1

WELLFIELD DATA TABLE

February 2016 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
		(% vol)				°F		scfm		H_2O		
GEW-002	2/4/2016 9:10	55.0	39.9	0.0	5.1	120.2		14	15	-0.4	-0.4	-13.3
GEW-002	2/9/2016 14:49	58.4	37.7	0.0	3.9	117.5		16	14	-0.6	-0.6	-12.7
GEW-002	2/9/2016 14:50	58.0	39.3	0.0	2.7	116.8		15	11	-0.4	-0.4	-12.8
GEW-002	2/15/2016 11:01	56.3	41.7	0.0	2.0	68.5		15	13	0.6	0.6	0.0
GEW-002	2/15/2016 11:06	56.7	42.2	0.0	1.1	76.2		9	10	0.4	0.4	-0.1
GEW-002	2/22/2016 11:17	60.4	35.7	0.0	3.9	118.0		15	16	-0.5	-0.5	-10.5
GEW-003	2/4/2016 9:14	50.3	37.5	0.0	12.2	109.8		16	15	-0.6	-0.6	-12.4
GEW-003	2/9/2016 15:06	57.3	35.3	0.1	7.3	107.0		34	32	-0.3	-0.3	-12.7
GEW-003	2/15/2016 11:18	56.8	40.3	0.0	2.9	89.0		0	0	0.7	0.7	-0.3
GEW-003	2/15/2016 11:25	56.8	40.1	0.0	3.1	88.7		0	0	0.8	0.8	-0.3
GEW-003	2/22/2016 11:21	55.2	39.6	0.0	5.2	110.9		13	13	-0.3	-0.3	-10.3
GEW-004	2/4/2016 9:18	50.5	36.0	0.0	13.5	112.5		16	16	-0.5	-0.5	-12.9
GEW-004	2/9/2016 15:07	56.5	38.5	0.1	4.9	104.3		21	20	-0.1	-0.1	-12.6
GEW-004	2/15/2016 11:16	56.4	40.8	0.0	2.8	78.9		0	0	0.6	0.6	-0.2
GEW-004	2/15/2016 11:20	57.4	36.2	0.0	6.4	78.8		0	0	0.7	0.7	-0.2
GEW-004	2/22/2016 11:24	55.3	39.2	0.0	5.5	106.8		0	0	-0.2	-0.2	-10.8
GEW-005	2/4/2016 9:49	43.1	36.4	0.0	20.5	90.1		0	0	-0.2	-0.2	-13.0
GEW-005	2/9/2016 15:10	48.3	36.6	0.0	15.1	89.2		16	15	-0.1	-0.1	-12.5
GEW-005	2/15/2016 11:34	53.7	39.5	0.0	6.8	93.8		0	0	0.5	0.5	-11.9
GEW-005	2/15/2016 11:38	53.6	35.0	0.0	11.4	96.2		0	0	0.4	0.4	-11.1
GEW-005	2/22/2016 11:30	44.9	36.5	0.0	18.6	95.2		0	0	-0.5	-0.4	-10.4
GEW-006	2/4/2016 9:57	46.7	34.1	0.0	19.2	84.7		19	12	-0.5	-0.5	-13.3
GEW-006	2/4/2016 9:58	48.1	35.4	0.0	16.5	83.3		9	10	-0.4	-0.4	-13.7
GEW-006	2/9/2016 15:25	53.3	39.4	0.0	7.3	84.0		17	15	-0.1	-0.1	-12.8
GEW-006	2/15/2016 14:36	46.7	30.9	0.2	22.2	86.4		0	0	0.2	0.2	-10.4
GEW-006	2/15/2016 14:37	58.8	36.7	0.0	4.5	89.9		3	0	0.0	-0.1	-10.4
GEW-006	2/22/2016 10:44	51.9	37.1	0.0	11.0	90.1		21	16	-0.6	-0.6	-9.7
GEW-007	2/4/2016 9:16	54.1	42.1	0.0	3.8	94.0		9	9	-4.0	-4.1	-12.4
GEW-007	2/4/2016 9:17	57.5	40.6	0.0	1.9	93.1		9	7	-3.6	-3.6	-12.4
GEW-007	2/11/2016 10:11	60.8	36.3	0.0	2.9	91.7		9	10	-3.0	-3.0	-12.6
GEW-007	2/11/2016 10:13	60.0	38.6	0.0	1.4	90.7		8	7	-2.4	-2.4	-12.6
GEW-007	2/15/2016 15:21	59.1	39.6	0.0	1.3	90.3		28	28	-0.3	-0.3	-10.0
GEW-007	2/22/2016 11:02	59.0	38.7	0.0	2.3	91.2		17	19	-1.2	-1.2	-11.0
GEW-007	2/22/2016 11:03	59.2	39.1	0.0	1.7	90.3		7	8	-0.7	-0.7	-10.7
GEW-008	2/4/2016 9:11	52.6	40.7	0.1	6.6	111.8		20	19	-1.3	-1.3	-12.3
GEW-008	2/4/2016 9:12	52.6	43.0	0.0	4.4	111.3		12	16	-1.0	-1.0	-12.3
GEW-008	2/11/2016 10:17	55.4	39.8	0.0	4.8	109.9		7	10	-0.3	-0.2	-12.5
GEW-008	2/15/2016 15:26	51.5	44.6	0.0	3.9	109.9		0	0	0.6	0.6	-9.7
GEW-008	2/15/2016 15:35	51.8	43.6	0.0	4.6	112.5		0	0	-0.1	-0.1	-9.9
GEW-008	2/22/2016 11:07	55.8	40.4	0.0	3.8	112.9		12	20	-1.1	-1.1	-10.5
GEW-008	2/22/2016 11:09	50.9	45.2	0.0	3.9	112.5		37	38	-1.0	-1.0	-10.5
GEW-009	2/4/2016 9:08	52.0	41.2	0.2	6.6	121.5		33	28	-0.2	-0.1	-5.9

February 2016 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
		(% vol)				°F		scfm		H_2O		
GEW-009	2/15/2016 15:40	52.9	44.0	0.0	3.1	56.4		0	3	0.5	0.5	0.6
GEW-009	2/17/2016 9:53	53.9	45.5	0.0	0.6	120.2		29	28	-0.1	-0.1	-10.9
GEW-009	2/17/2016 9:57	55.7	40.3	0.0	4.0	121.0		11	11	-0.1	-0.1	-11.3
GEW-009	2/22/2016 11:12	46.0	43.1	0.0	10.9	117.3		54	52	-4.2	-4.2	-23.5
GEW-009	2/22/2016 11:14	41.4	41.1	0.0	17.5	114.7		11	5	-0.9	-0.9	-22.8
GEW-010	2/1/2016 17:33	45.3	43.0	0.1	11.6	54.7		3	4	-2.8	-2.8	-11.7
GEW-010	2/11/2016 10:27	54.6	40.1	0.3	5.0	41.3		2	2	3.2	3.2	3.5
GEW-010	2/11/2016 10:30	56.3	39.9	0.0	3.8	49.9		2	2	-4.7	-4.6	-21.9
GEW-010	2/16/2016 15:37	46.5	35.9	2.8	14.8	45.0		4	5	-6.0	-6.1	-23.0
GEW-010	2/16/2016 15:41	54.6	42.1	0.3	3.0	45.9		5	4	-6.4	-6.5	-22.6
GEW-010	2/22/2016 11:18	53.7	42.2	0.2	3.9	69.2		1	0	-3.3	-3.3	-23.2
GEW-013A	2/4/2016 14:27	3.6	43.2	7.3	45.9	186.8				-11.8	-12.4	-11.9
GEW-013A	2/4/2016 14:28	3.7	45.5	7.1	43.7	186.8				-11.4	-11.9	-11.9
GEW-022R	2/19/2016 9:27	1.9	59.8	0.0	38.3	194.8				-20.8	-19.2	-21.4
GEW-022R	2/19/2016 9:27	1.3	62.9	0.1	35.7	194.6				-19.9	-16.5	-21.8
GEW-028R	2/4/2016 11:25	1.5	58.4	0.0	40.1	193.7				-12.5	-12.5	-13.2
GEW-028R	2/4/2016 11:25	0.6	61.3	0.0	38.1	193.7				-12.6	-12.6	-13.7
GEW-038	2/1/2016 17:06	1.5	56.0	0.1	42.4	56.1		7	4	0.0	0.0	-11.5
GEW-038	2/11/2016 10:27	0.5	38.8	14.9	45.8	34.6		4	4	-9.4	-9.4	-21.6
GEW-038	2/11/2016 10:27	0.3	30.6	15.4	53.7	35.8		6	9	-7.4	-7.2	-21.4
GEW-038	2/16/2016 14:48	0.7	49.2	7.7	42.4	40.2		5	12	-3.7	-3.6	-21.9
GEW-038	2/16/2016 14:52	0.3	42.0	8.7	49.0	39.7		4	11	-3.7	-3.6	-22.1
GEW-038	2/22/2016 11:43	0.9	47.6	6.4	45.1	54.3		8	3	-2.3	-2.3	-21.5
GEW-038	2/22/2016 11:43	0.6	47.1	6.2	46.1	54.9		3	9	-2.2	-2.3	-22.2
GEW-039	2/1/2016 10:22	43.0	54.2	0.2	2.6	126.6				0.1	0.1	-19.6
GEW-039	2/1/2016 10:24	42.7	54.3	0.1	2.9	128.9				-0.1	-0.1	-19.8
GEW-039	2/11/2016 10:22	40.4	51.3	0.0	8.3	128.4				0.0	0.0	-12.3
GEW-039	2/16/2016 14:37	47.2	46.3	0.2	6.3	130.2				-0.5	-0.5	-22.0
GEW-039	2/16/2016 14:43	43.9	49.5	0.1	6.5	129.9				-0.3	-0.3	-21.5
GEW-039	2/22/2016 11:46	40.8	52.0	0.0	7.2	132.5				-0.3	-0.3	-17.9
GEW-039	2/22/2016 11:47	41.9	50.7	0.0	7.4	132.7				-0.3	-0.3	-21.3
GEW-040	2/4/2016 8:12	58.5	40.7	0.1	0.7	83.6		0	0	-0.5	-0.5	-12.5
GEW-040	2/9/2016 14:09	55.7	37.8	0.1	6.4	81.9		29	34	-0.3	-0.3	-12.7
GEW-040	2/15/2016 9:48	59.9	39.7	0.0	0.4	84.6		9	8	-0.3	-0.3	-12.8
GEW-040	2/15/2016 9:54	59.6	39.8	0.0	0.6	84.1		0	0	-0.2	-0.2	-12.7
GEW-040	2/22/2016 9:34	60.7	39.1	0.0	0.2	85.5		33	33	-0.3	-0.3	-10.3
GEW-041R	2/4/2016 8:15	57.8	36.2	0.0	6.0	103.0		11	11	-0.7	-0.7	-11.9
GEW-041R	2/9/2016 14:17	53.9	43.0	0.0	3.1	26.6		17	18	0.3	0.3	1.4
GEW-041R	2/9/2016 14:18	54.5	42.0	0.0	3.5	26.7		19	16	0.4	0.4	1.0
GEW-041R	2/15/2016 9:48	53.9	37.5	0.3	8.3	103.2		14	10	-0.2	-0.2	-12.3
GEW-041R	2/22/2016 9:38	59.6	39.5	0.0	0.9	101.7		16	12	-0.2	-0.2	-10.1
GEW-042R	2/4/2016 8:20	59.2	38.1	0.0	2.7	112.6		20	17	-5.0	-5.0	-5.5

February 2016 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
		(% vol)				°F		scfm		H_2O		
GEW-042R	2/4/2016 8:22	58.4	39.4	0.0	2.2	112.7		28	19	-4.9	-4.9	-5.9
GEW-042R	2/9/2016 14:25	58.6	37.5	0.1	3.8	105.4		35	40	-5.3	-5.3	-6.3
GEW-042R	2/9/2016 14:27	57.2	39.3	0.0	3.5	103.5		23	21	-2.7	-2.7	-6.2
GEW-042R	2/15/2016 9:58	58.1	36.6	0.2	5.1	102.4		15	12	-2.4	-2.4	-6.1
GEW-042R	2/15/2016 10:05	56.3	37.9	0.1	5.7	101.1		15	11	-1.8	-1.8	-5.0
GEW-042R	2/22/2016 9:42	57.4	41.2	0.0	1.4	75.1		63	64	-0.4	-0.4	-0.6
GEW-043R	2/4/2016 8:32	53.3	44.9	0.0	1.8	122.3		38	34	-1.4	-1.4	-12.5
GEW-043R	2/9/2016 14:30	56.6	40.4	0.0	3.0	129.9		22	23	0.0	0.0	-13.2
GEW-043R	2/15/2016 10:01	56.1	42.0	0.0	1.9	132.7		31	28	0.0	0.1	-12.1
GEW-043R	2/15/2016 10:02	55.9	42.7	0.0	1.4	133.3		20	20	-0.1	-0.1	-12.4
GEW-043R	2/22/2016 9:47	57.2	40.1	0.0	2.7	132.1		10	20	-0.5	-0.5	-9.5
GEW-043R	2/22/2016 9:48	57.5	40.9	0.0	1.6	131.1		19	8	-0.1	-0.1	-9.7
GEW-044	2/4/2016 8:47	58.1	36.6	0.0	5.3	69.7		17	17	-1.0	-1.0	-6.2
GEW-044	2/9/2016 14:33	58.3	38.6	0.0	3.1	59.6		16	21	-0.6	-0.6	-8.6
GEW-044	2/15/2016 10:06	58.7	40.5	0.0	0.8	81.3		18	18	-0.4	-0.5	-7.8
GEW-044	2/22/2016 9:52	58.1	39.4	0.0	2.5	71.9		5	5	-0.5	-0.5	-2.7
GEW-045R	2/4/2016 8:50	58.7	38.8	0.0	2.5	60.3		10	9	-3.5	-3.5	-12.7
GEW-045R	2/9/2016 14:36	56.7	41.4	0.0	1.9	76.4		14	8	-0.6	-0.6	-12.7
GEW-045R	2/15/2016 10:12	59.1	39.2	0.0	1.7	79.1		3	3	-2.2	-2.2	-12.4
GEW-045R	2/15/2016 10:21	58.8	39.1	0.0	2.1	76.5		7	8	-0.5	-0.5	-12.6
GEW-045R	2/22/2016 10:59	61.6	37.8	0.0	0.6	81.3		19	18	0.6	0.6	-10.4
GEW-045R	2/22/2016 11:00	57.9	40.5	0.0	1.6	82.9		10	12	-0.1	-0.1	-10.4
GEW-046R	2/4/2016 8:53	54.9	38.6	0.0	6.5	89.9		3	5	-0.5	-0.5	-12.9
GEW-046R	2/9/2016 14:37	55.6	37.9	0.1	6.4	90.1		17	20	-0.3	-0.3	-13.0
GEW-046R	2/15/2016 10:15	57.5	38.3	0.0	4.2	92.9		13	13	0.1	0.1	-12.9
GEW-046R	2/15/2016 10:19	56.8	38.1	0.0	5.1	93.8		0	0	0.0	0.0	-13.0
GEW-046R	2/22/2016 11:02	54.5	40.5	0.0	5.0	95.0		0	0	-0.4	-0.4	-11.0
GEW-047R	2/4/2016 9:46	46.3	33.5	0.5	19.7	97.5		0	0	-0.2	-0.2	-12.8
GEW-047R	2/9/2016 15:14	50.5	39.4	0.1	10.0	93.6		6	7	-0.1	0.0	-12.8
GEW-047R	2/9/2016 15:15	50.2	38.8	0.2	10.8	95.9		17	16	0.0	-0.1	-12.8
GEW-047R	2/15/2016 11:36	55.4	40.3	0.0	4.3	107.0		0	0	0.6	0.6	-12.0
GEW-047R	2/15/2016 11:44	50.3	37.4	0.0	12.3	124.3		35	24	-0.3	-0.3	-11.3
GEW-047R	2/22/2016 11:27	49.0	38.8	0.0	12.2	111.6		23	18	-0.8	-0.8	-10.3
GEW-048	2/4/2016 9:52	49.9	36.1	0.0	14.0	101.3		18	16	-0.6	-0.6	-8.3
GEW-048	2/9/2016 15:13	53.4	39.3	0.0	7.3	100.2		15	15	-0.3	-0.3	-11.4
GEW-048	2/15/2016 14:33	58.3	37.5	0.0	4.2	101.9		18	20	-0.1	-0.1	-9.2
GEW-048	2/15/2016 14:52	57.0	39.4	0.0	3.6	102.2		20	17	0.0	-0.1	-7.0
GEW-048	2/22/2016 11:33	56.1	38.3	0.0	5.6	102.0		0	0	-0.3	-0.3	-6.7
GEW-049	2/4/2016 10:12	46.6	36.7	0.1	16.6	105.1		6	11	-0.4	-0.4	-6.8
GEW-049	2/9/2016 15:39	51.7	36.2	0.0	12.1	106.1		17	17	-0.3	-0.3	-8.1
GEW-049	2/15/2016 14:40	56.8	41.1	0.0	2.1	107.3		0	0	0.1	0.1	-4.1
GEW-049	2/15/2016 14:45	57.7	40.9	0.0	1.4	109.9		0	0	0.0	0.0	-4.1

February 2016 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
		(% vol)				°F		scfm		H_2O		
GEW-049	2/22/2016 9:55	51.4	36.6	0.0	12.0	105.6		11	11	-0.5	-0.4	-3.8
GEW-049	2/22/2016 9:56	48.6	36.5	0.0	14.9	104.5		5	9	-0.4	-0.4	-2.7
GEW-050	2/4/2016 10:01	47.1	35.8	0.0	17.1	105.4		10	19	-0.6	-0.7	-8.9
GEW-050	2/4/2016 10:02	49.4	36.9	0.0	13.7	103.7		0	0	-0.4	-0.4	-9.8
GEW-050	2/9/2016 15:40	56.0	37.5	0.0	6.5	100.6		20	18	-0.1	-0.1	-8.6
GEW-050	2/15/2016 14:43	56.8	39.0	0.0	4.2	100.4		6	10	0.3	0.3	-3.8
GEW-050	2/15/2016 14:45	56.8	39.0	0.0	4.2	106.4		0	17	-0.1	-0.1	-3.9
GEW-050	2/22/2016 10:52	56.9	37.2	0.0	5.9	105.6		16	14	-0.4	-0.4	-6.4
GEW-050	2/22/2016 10:55	55.7	38.3	0.0	6.0	105.0		27	26	-0.3	-0.3	-6.5
GEW-051	2/4/2016 10:07	55.8	39.0	0.1	5.1	122.6		15	15	-0.7	-0.7	-13.1
GEW-051	2/4/2016 10:08	56.7	40.4	0.0	2.9	121.8		15	12	-0.6	-0.6	-13.0
GEW-051	2/9/2016 15:41	57.1	38.2	0.0	4.7	121.6		19	18	-0.2	-0.2	-12.9
GEW-051	2/15/2016 14:55	54.6	40.7	0.0	4.7	123.2		13	11	0.4	0.4	-9.4
GEW-051	2/15/2016 14:56	55.7	41.4	0.0	2.9	124.1		0	0	0.3	0.3	-9.3
GEW-051	2/22/2016 9:59	56.5	39.4	0.0	4.1	123.7		14	16	-0.5	-0.5	-9.2
GEW-051	2/22/2016 10:02	56.5	41.2	0.0	2.3	121.0		9	13	-0.3	-0.4	-10.0
GEW-052	2/4/2016 10:05	41.7	34.1	0.0	24.2	109.2		11	12	-0.3	-0.3	-13.8
GEW-052	2/4/2016 10:05	40.5	33.6	0.0	25.9	108.3		8	8	-0.2	-0.2	-13.8
GEW-052	2/9/2016 15:43	48.2	35.8	0.0	16.0	107.3		5	4	-0.1	-0.1	-12.9
GEW-052	2/9/2016 15:44	47.0	36.0	0.0	17.0	106.3		6	4	-0.1	-0.1	-13.1
GEW-052	2/15/2016 14:50	55.9	39.9	0.0	4.2	109.1		5	5	0.2	0.2	-10.1
GEW-052	2/15/2016 14:52	55.3	40.1	0.0	4.6	115.0		20	16	0.0	0.0	-9.6
GEW-052	2/22/2016 10:58	51.0	36.3	0.0	12.7	112.1		32	34	-0.2	-0.2	-10.8
GEW-053	2/4/2016 9:58	51.9	40.7	0.0	7.4	136.6		20	18	-1.1	-1.1	-12.7
GEW-053	2/4/2016 10:00	51.7	40.8	0.0	7.5	135.0		11	9	-0.8	-0.8	-12.9
GEW-053	2/11/2016 10:09	53.1	40.4	0.0	6.5	136.0		21	18	-0.2	-0.2	-12.7
GEW-053	2/11/2016 10:10	53.0	39.7	0.0	7.3	135.7		17	18	-0.2	-0.3	-12.8
GEW-053	2/15/2016 15:17	49.6	44.0	0.0	6.4	137.1		13	14	0.3	0.3	-9.6
GEW-053	2/15/2016 15:22	49.8	43.1	0.0	7.1	138.7		20	22	0.1	0.1	-9.6
GEW-053	2/22/2016 10:06	54.2	40.0	0.0	5.8	138.7		16	17	-0.9	-0.9	-10.6
GEW-053	2/22/2016 10:07	53.2	41.2	0.0	5.6	135.3		8	0	-0.6	-0.6	-10.0
GEW-054	2/4/2016 9:53	53.9	41.0	0.0	5.1	147.1		28	25	-1.3	-1.3	-12.2
GEW-054	2/4/2016 9:55	54.0	41.5	0.0	4.5	146.6		17	21	-0.9	-0.9	-12.4
GEW-054	2/11/2016 10:16	55.3	36.5	0.0	8.2	126.3		0	0	1.5	1.5	0.8
GEW-054	2/11/2016 10:17	54.8	38.4	0.0	6.8	129.6		0	0	1.3	1.4	0.6
GEW-054	2/15/2016 15:27	52.6	43.1	0.0	4.3	145.1		0	0	0.0	0.0	-9.5
GEW-054	2/15/2016 15:32	52.3	43.4	0.0	4.3	145.1		0	0	-0.1	0.0	-9.4
GEW-054	2/22/2016 10:17	54.9	37.8	0.0	7.3	141.1		19	19	-0.8	-0.8	-10.1
GEW-054	2/22/2016 10:19	54.7	41.4	0.0	3.9	139.3		15	15	-0.4	-0.4	-10.1
GEW-055	2/4/2016 9:46	55.8	39.3	0.1	4.8	121.5		14	8	-1.0	-1.0	-12.3
GEW-055	2/4/2016 9:49	55.0	41.1	0.0	3.9	118.8		8	7	-0.7	-0.7	-12.5
GEW-055	2/11/2016 10:19	52.7	40.9	0.0	6.4	119.4		0	0	-0.1	-0.1	-13.0

February 2016 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
		(% vol)				°F		scfm		H_2O		
GEW-055	2/15/2016 15:38	52.9	43.8	0.0	3.3	118.9		0	0	0.2	0.1	-9.7
GEW-055	2/15/2016 15:42	53.6	40.8	0.0	5.6	118.6		0	0	0.1	0.1	-9.6
GEW-055	2/22/2016 10:23	55.4	41.4	0.0	3.2	121.8		0	0	-0.6	-0.6	-10.2
GEW-055	2/22/2016 10:24	55.0	41.8	0.0	3.2	121.4		0	0	-0.6	-0.6	-10.5
GEW-056R	2/1/2016 17:13	13.9	44.4	0.1	41.6	163.6				-3.7	-3.7	-6.4
GEW-056R	2/1/2016 17:13	16.5	42.5	0.0	41.0	163.6				-3.7	-3.8	-6.3
GEW-056R	2/11/2016 10:30	2.0	48.9	0.3	48.8	173.1				-9.9	-9.9	-13.5
GEW-056R	2/11/2016 10:31	1.3	52.3	0.1	46.3	175.2				-10.2	-9.9	-18.0
GEW-056R	2/16/2016 15:13	20.8	41.1	0.3	37.8	159.6				-10.0	-9.9	-13.8
GEW-056R	2/16/2016 15:17	22.3	38.9	0.3	38.5	159.2				-9.3	-9.4	-19.5
GEW-056R	2/22/2016 11:30	11.5	39.2	0.5	48.8	160.0				-8.8	-8.5	-18.4
GEW-056R	2/22/2016 11:31	11.7	41.5	0.4	46.4	159.6				-8.8	-8.3	-15.4
GEW-057B	2/19/2016 8:49	1.7	50.1	1.4	46.8	98.7				-21.8	-21.8	-23.4
GEW-057R	2/19/2016 8:50	4.0	49.2	7.3	39.5	142.8				-22.3	-22.3	-23.8
GEW-057R	2/19/2016 8:51	5.2	46.3	7.8	40.7	143.2				-22.2	-21.9	-23.3
GEW-058	2/19/2016 8:42	3.2	51.6	6.4	38.8	177.7				-22.3	-22.8	-23.4
GEW-058	2/19/2016 8:43	4.1	44.3	6.9	44.7	177.7				-21.9	-21.8	-23.3
GEW-058A	2/19/2016 8:40	2.9	53.4	2.3	41.4	170.7				-13.0	-13.0	-15.1
GEW-058A	2/19/2016 8:40	1.3	54.8	2.2	41.7	169.2				-12.9	-13.0	-14.6
GEW-059R	2/19/2016 8:36	2.7	52.6	0.0	44.7	187.4				-5.3	-5.2	-0.9
GEW-059R	2/19/2016 8:37	1.5	52.6	0.0	45.9	187.1				-6.1	-6.1	-0.9
GEW-065A	2/19/2016 9:03	4.0	26.8	15.9	53.3	99.4				-20.5	-20.8	-22.1
GEW-065A	2/19/2016 9:03	1.9	22.0	16.4	59.7	99.2				-20.6	-20.5	-21.9
GEW-067A	2/19/2016 9:15	4.7	23.7	12.7	58.9	122.3				-3.9	-3.9	-9.7
GEW-067A	2/19/2016 9:16	5.6	27.1	12.2	55.1	121.8				-3.4	-3.2	-9.6
GEW-082R	2/4/2016 13:24	2.2	55.0	0.0	42.8	197.9				-6.5	-6.5	-9.0
GEW-082R	2/4/2016 13:25	0.9	58.1	0.0	41.0	197.8				-9.5	-10.0	-9.5
GEW-086	2/19/2016 8:57	11.8	39.1	6.2	42.9	84.7				-4.8	-4.9	-22.7
GEW-086	2/19/2016 8:58	13.3	38.5	6.2	42.0	84.7				-4.9	-4.7	-23.8
GEW-089	2/19/2016 9:12	2.9	23.4	15.8	57.9	94.6				-2.0	-2.0	-22.8
GEW-089	2/19/2016 9:13	3.1	21.7	15.9	59.3	94.6				-2.1	-2.1	-22.9
GEW-090	2/19/2016 9:18	8.5	23.4	0.7	67.4	184.5				-17.6	-18.1	-19.4
GEW-090	2/19/2016 9:18	9.9	43.5	0.4	46.2	185.2				-20.4	-19.4	-21.9
GEW-102	2/19/2016 9:06	2.8	60.4	0.1	36.7	189.1				-20.6	-21.3	-21.9
GEW-102	2/19/2016 9:07	2.9	61.3	0.0	35.8	189.1				-21.4	-20.8	-21.9
GEW-107	2/5/2016 13:32	0.0	0.6	21.3	78.1	48.2				-12.4	-12.4	-22.5
GEW-107	2/5/2016 13:34	0.5	54.6	1.2	43.7	55.6				-19.2	-19.2	-22.6
GEW-109	2/1/2016 17:09	3.5	46.1	6.2	44.2	56.4		1	3	-22.2	-22.2	-21.4
GEW-109	2/1/2016 17:10	4.4	45.6	6.0	44.0	56.7		2	2	-22.4	-22.5	-24.2
GEW-109	2/11/2016 10:24	6.3	51.3	1.7	40.7	32.9		4	4	-0.7	-0.7	-13.3
GEW-109	2/16/2016 14:36	3.9	61.6	0.0	34.5	48.2		12	12	41.6	42.0	-21.8
GEW-109	2/16/2016 14:40	4.0	56.8	0.1	39.1	89.2		11	10	24.5	24.4	-20.3

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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
		(% vol)				°F		scfm		H_2O		
GEW-109	2/22/2016 11:45	10.2	49.6	0.4	39.8	113.1		8	3	-18.6	-18.6	-20.7
GEW-110	2/1/2016 17:37	7.4	18.6	14.7	59.3	61.6		13	11	-0.2	-0.1	-12.2
GEW-110	2/1/2016 17:38	6.4	16.2	14.9	62.5	61.4		9	12	-0.2	-0.2	-12.0
GEW-110	2/11/2016 10:35	21.5	32.1	9.8	36.6	59.1		12	13	-0.2	-0.2	-22.1
GEW-110	2/11/2016 10:36	14.6	29.6	9.4	46.4	57.6		5	8	-0.1	-0.1	-22.2
GEW-110	2/16/2016 15:46	10.0	33.6	9.8	46.6	50.2		6	5	-0.1	-0.1	-23.0
GEW-110	2/16/2016 15:50	6.8	31.8	10.8	50.6	50.3		5	2	-0.1	-0.1	-23.4
GEW-110	2/22/2016 11:21	19.2	44.9	4.1	31.8	71.3		1	4	-0.1	-0.1	-23.1
GEW-116	2/18/2016 9:45	6.5	22.7	16.2	54.6	49.9		3	9	-8.3	-8.4	-20.1
GEW-116	2/18/2016 9:46	2.1	19.7	15.2	63.0	51.2		2	2	-11.8	-11.8	-20.1
GEW-117	2/19/2016 9:31	6.3	55.1	2.0	36.6	83.3				-21.1	-21.1	-22.3
GEW-120	2/4/2016 11:00	11.3	62.3	0.1	26.3	184.1				0.3	0.3	-0.3
GEW-120	2/4/2016 11:01	8.5	63.8	0.0	27.7	183.5				0.3	0.3	-0.2
GEW-120	2/16/2016 10:36	19.9	60.2	1.0	18.9	146.6				-18.7	-18.7	-18.6
GEW-120	2/16/2016 10:38	19.8	61.9	1.3	17.0	146.5				-19.8	-19.8	-21.2
GEW-121	2/4/2016 11:00	19.4	37.5	0.2	42.9	187.9				-9.3	-9.7	-9.9
GEW-121	2/4/2016 11:02	7.3	54.9	0.1	37.7	187.9				-8.9	-9.3	-8.3
GEW-122	2/4/2016 11:05	5.3	51.6	0.0	43.1	190.8				-10.7	-10.7	-11.2
GEW-122	2/4/2016 11:06	4.8	57.4	0.0	37.8	190.8				-11.2	-10.9	-11.7
GEW-123	2/4/2016 11:08	3.3	51.6	0.3	44.8	193.0				-11.7	-11.7	-11.9
GEW-123	2/4/2016 11:09	3.9	63.2	0.2	32.7	193.1				-12.0	-11.8	-11.6
GEW-124	2/4/2016 11:12	7.2	58.0	0.3	34.5	119.0				-11.7	-11.7	-11.6
GEW-125	2/4/2016 11:09	2.4	52.4	0.1	45.1	193.1				-9.9	-10.4	-12.0
GEW-125	2/4/2016 11:09	0.7	58.5	0.1	40.7	193.1				-10.3	-9.3	-12.2
GEW-126	2/4/2016 11:16	8.0	55.2	0.1	36.7	191.3				-11.7	-11.7	-11.6
GEW-126	2/4/2016 11:17	9.7	55.1	0.1	35.1	191.3				-12.2	-12.2	-12.0
GEW-127	2/4/2016 11:21	2.0	56.9	0.2	40.9	186.8				-10.8	-10.8	-12.4
GEW-127	2/4/2016 11:22	0.5	62.8	0.1	36.6	186.4				-11.3	-10.8	-13.4
GEW-128	2/4/2016 11:20	4.4	61.6	0.0	34.0	182.4				-11.8	-12.1	-12.4
GEW-128	2/4/2016 11:20	5.2	65.5	0.0	29.3	182.4				-12.1	-12.1	-13.0
GEW-129	2/4/2016 11:22	2.5	56.8	0.0	40.7	159.2				-13.1	-13.3	-13.7
GEW-129	2/4/2016 11:23	2.2	59.9	0.0	37.9	159.6				-13.3	-13.6	-13.7
GEW-131	2/4/2016 11:34	12.1	56.8	0.0	31.1	178.7				-6.2	-6.0	-10.7
GEW-131	2/4/2016 11:35	16.0	55.9	0.0	28.1	179.8				-10.8	-10.3	-11.3
GEW-132	2/4/2016 13:21	8.7	47.2	2.5	41.6	173.6				-8.5	-9.0	-9.5
GEW-132	2/4/2016 13:22	8.5	51.2	2.4	37.9	173.6				-7.9	-7.5	-9.5
GEW-133	2/4/2016 13:24	0.4	5.6	16.2	77.8	53.4		7	12	-11.3	-11.8	-11.7
GEW-133	2/4/2016 13:25	0.7	25.4	10.6	63.3	56.5		6	5	-11.8	-11.4	-11.8
GEW-134	2/4/2016 13:28	12.0	49.7	1.3	37.0	155.4				-11.8	-11.8	-11.6
GEW-134	2/4/2016 13:29	14.3	54.6	1.2	29.9	155.6				-11.9	-11.8	-12.1
GEW-135	2/4/2016 13:33	7.4	51.8	2.6	38.2	147.0				-3.9	-4.0	-7.8
GEW-135	2/4/2016 13:35	5.9	46.7	2.7	44.7	146.6				-4.0	-4.0	-7.9

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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
		(% vol)				°F		scfm		H_2O		
GEW-136	2/4/2016 13:27	1.3	26.4	15.0	57.3	110.9				-4.5	-4.4	-6.1
GEW-136	2/4/2016 13:28	1.7	17.6	16.1	64.6	110.9				-4.5	-4.5	-6.5
GEW-137	2/4/2016 11:41	11.9	38.4	1.3	48.4	91.9				-10.4	-10.7	-11.0
GEW-138	2/4/2016 11:43	18.3	53.9	0.7	27.1	147.4				-1.4	-1.5	-6.9
GEW-138	2/4/2016 11:44	16.9	56.0	0.7	26.4	147.4				-1.6	-1.2	-5.6
GEW-139	2/4/2016 11:31	1.5	58.3	1.3	38.9	180.3				-5.0	-5.0	-9.3
GEW-139	2/4/2016 11:31	2.3	58.6	1.4	37.7	180.3				-6.0	-6.0	-10.3
GEW-140	2/4/2016 11:42	1.1	57.2	0.1	41.6	60.0				18.2	18.2	18.2
GEW-140	2/16/2016 10:43	10.5	57.1	0.0	32.4	191.3				-4.6	-4.9	-4.8
GEW-140	2/16/2016 10:44	10.8	56.9	0.0	32.3	191.3				-6.6	-6.6	-6.5
GEW-141	2/4/2016 11:27	1.3	61.3	0.1	37.3	154.1				-13.7	-13.1	-13.4
GEW-141	2/4/2016 11:28	1.3	62.2	0.1	36.4	155.0				-13.2	-13.6	-13.2
GEW-142	2/4/2016 11:27	0.2	59.2	0.0	40.6	88.6				5.7	13.6	12.8
GEW-142	2/4/2016 11:28	0.2	62.3	0.0	37.5	92.9				13.7	13.9	13.7
GEW-142	2/16/2016 10:50	0.9	45.3	7.1	46.7	72.4				-4.1	-4.8	-4.3
GEW-142	2/16/2016 10:50	0.5	45.9	6.9	46.7	72.9				-5.5	-5.5	-5.7
GEW-143	2/4/2016 14:21	1.3	35.4	9.2	54.1	113.7				-12.8	-12.8	-12.8
GEW-143	2/4/2016 14:22	0.4	38.7	6.3	54.6	113.6				-12.8	-12.8	-13.2
GEW-144	2/4/2016 11:37	1.2	51.8	3.3	43.7	64.9				-4.9	-4.2	-4.7
GEW-145	2/4/2016 14:25	1.0	48.0	0.4	50.6	150.9				-14.8	-14.8	-17.1
GEW-145	2/4/2016 14:27	2.7	58.4	0.2	38.7	150.5				-14.9	-14.8	-17.4
GEW-146	2/4/2016 13:35	6.4	37.0	8.3	48.3	68.2				-6.5	-6.5	-9.5
GEW-146	2/4/2016 13:36	6.6	33.7	8.6	51.1	69.5				-2.4	-2.3	-11.2
GEW-147	2/4/2016 13:31	11.1	52.7	0.3	35.9	178.2				-11.4	-11.4	-11.4
GEW-147	2/4/2016 13:32	10.1	53.6	0.1	36.2	178.2				-11.4	-11.5	-11.4
GEW-148	2/4/2016 14:23	1.2	27.8	11.0	60.0	61.6				-10.9	-10.9	-11.3
GEW-148	2/4/2016 14:23	0.7	31.3	10.2	57.8	64.9				-10.9	-11.4	-11.0
GEW-149	2/4/2016 14:35	9.6	60.2	0.4	29.8	170.2		10	7	-0.3	-0.3	-12.1
GEW-149	2/4/2016 14:36	9.8	60.5	0.3	29.4	171.2		15	18	-0.6	-0.6	-11.9
GEW-150	2/4/2016 14:32	5.9	60.0	0.6	33.5	188.5				-18.7	-17.8	-18.0
GEW-150	2/4/2016 14:33	7.0	62.7	0.5	29.8	188.5				-18.2	-18.2	-18.4
GEW-151	2/4/2016 14:31	0.4	34.6	7.8	57.2	57.9				-12.4	-12.3	-11.8
GEW-151	2/4/2016 14:32	0.4	35.4	7.3	56.9	57.3				-11.8	-11.8	-12.2
GEW-152	2/5/2016 13:36	0.0	4.6	20.6	74.8	61.2				33.1	33.2	-22.6
GEW-152	2/5/2016 13:38	0.6	52.1	0.4	46.9	71.9				10.1	10.1	-22.9
GEW-153	2/5/2016 7:34	0.1	2.8	22.2	74.9	27.3				-0.2	-0.2	-0.2
GEW-153	2/5/2016 7:34	0.0	2.2	22.3	75.5	27.0				-0.8	-0.8	-0.2
GEW-153	2/5/2016 13:29	0.0	1.5	20.7	77.8	50.9				-23.1	-23.1	-22.5
GEW-153	2/5/2016 13:29	0.0	1.3	20.7	78.0	52.4				-23.1	-23.0	-22.1
GEW-154	2/4/2016 14:40	29.9	46.7	3.9	19.5	113.8		15	12	-11.4	-10.8	-12.0
GEW-155	2/4/2016 11:38	6.6	37.2	9.1	47.1	113.3				-0.5	-0.7	-6.2
GEW-155	2/4/2016 11:39	6.0	34.3	9.6	50.1	113.3				-0.8	-0.8	-9.8

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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
		(% vol)				°F		scfm		H_2O		
GEW-156	2/4/2016 14:47	17.2	32.7	11.0	39.1	93.6				-1.1	-1.2	-11.6
GEW-156	2/4/2016 14:48	9.5	28.7	12.1	49.7	93.0				-0.7	-0.7	-11.8
GIW-01	2/4/2016 8:57	2.0	28.2	14.8	55.0	167.1		35	32	-3.1	-3.1	-12.5
GIW-01	2/4/2016 8:58	1.2	28.9	14.8	55.1	165.9		34	34	-3.4	-3.4	-12.7
GIW-01	2/11/2016 11:01	22.7	41.5	0.5	35.3	186.3		0	45	-21.4	-21.6	-22.2
GIW-01	2/11/2016 11:02	5.6	59.4	0.2	34.8	186.3		26	20	-20.5	-20.5	-21.1
GIW-01	2/16/2016 16:03	2.3	59.6	2.6	35.5	175.0		39	43	-22.2	-22.1	-21.7
GIW-01	2/16/2016 16:09	2.4	63.5	3.2	30.9	175.2		39		-21.7		-21.6
GIW-01	2/22/2016 11:39	3.5	50.8	4.3	41.4	178.2		0	14	-22.1	-22.1	-22.2
GIW-01	2/22/2016 11:40	1.4	49.6	3.8	45.2	178.7		37	0	-22.1	-22.1	-22.2
GIW-02	2/4/2016 8:51	3.2	32.9	10.9	53.0	54.5		0	6	-8.2	-7.4	-13.2
GIW-02	2/4/2016 8:52	4.8	29.7	11.1	54.4	54.7		0	0	-7.1	-7.9	-11.7
GIW-02	2/11/2016 13:51	6.8	32.5	9.9	50.8	62.7		29	3	-10.4	-11.9	-23.2
GIW-02	2/11/2016 13:52	8.5	35.6	9.9	46.0	62.2		0	23	-8.9	-9.8	-22.2
GIW-02	2/17/2016 9:17	8.8	41.4	8.1	41.7	64.5		76	63	-4.5	-4.5	-11.7
GIW-02	2/17/2016 9:20	8.6	36.3	8.3	46.8	64.9		0	0	-4.8	-4.9	-11.2
GIW-02	2/22/2016 16:27	7.3	35.3	8.8	48.6	73.8		0	0	-2.0	-2.0	-3.5
GIW-02	2/22/2016 16:28	7.6	37.4	8.8	46.2	71.4		0	0	-1.5	-1.5	-2.7
GIW-03	2/4/2016 8:46	0.3	40.2	11.2	48.3	35.3		12	19	-4.1	-4.2	-11.0
GIW-03	2/4/2016 8:47	0.3	37.7	11.2	50.8	36.5		28	23	-4.4	-4.2	-11.0
GIW-03	2/11/2016 13:46	0.3	36.1	13.1	50.5	44.9		0	20	-7.4	-6.9	-21.2
GIW-03	2/11/2016 13:47	0.2	29.9	13.8	56.1	46.9		9	22	-6.9	-6.9	-22.0
GIW-03	2/17/2016 9:09	0.4	39.0	9.3	51.3	53.1		14	14	-2.4	-2.4	-11.1
GIW-03	2/17/2016 9:13	0.4	37.9	9.9	51.8	56.7		11	4	-2.1	-2.2	-11.0
GIW-03	2/22/2016 16:21	0.2	7.5	15.4	76.9	62.9		20	13	-8.2	-7.9	-22.2
GIW-03	2/22/2016 16:23	0.3	18.3	14.7	66.7	64.1		7	7	-7.9	-7.9	-21.7
GIW-04	2/4/2016 8:41	0.4	30.0	8.8	60.8	29.7		7	8	-7.4	-7.4	-11.5
GIW-04	2/4/2016 8:42	0.5	40.1	2.9	56.5	30.0		9	8	-7.9	-7.9	-11.2
GIW-04	2/11/2016 13:41	0.5	44.1	4.7	50.7	42.8		3	3	-10.8	-10.9	-21.7
GIW-04	2/17/2016 9:02	0.1	28.0	15.4	56.5	47.3		0	0	-3.1	-3.1	-11.0
GIW-04	2/17/2016 9:06	0.5	18.5	9.9	71.1	50.0		13	13	-6.0	-6.0	-10.9
GIW-04	2/22/2016 16:32	1.5	21.5	16.0	61.0	59.4		0	0	-1.4	-1.4	-3.3
GIW-04	2/22/2016 16:34	1.2	21.8	11.3	65.7	62.0		8	9	-1.9	-1.9	-3.3
GIW-05	2/1/2016 17:51	3.3	53.2	0.6	42.9	52.9		32	25	-11.0	-11.3	-12.4
GIW-05	2/4/2016 8:36	0.8	43.3	4.5	51.4	33.4		7	8	-11.4	-11.4	-11.3
GIW-05	2/11/2016 11:05	4.5	67.0	3.7	24.8	38.0		8	23	-16.8	-16.2	-22.2
GIW-05	2/16/2016 14:48	4.5	54.0	1.4	40.1	43.7		58	0	-19.2	-19.0	-22.1
GIW-05	2/16/2016 14:53	1.8	44.8	1.0	52.4	42.9		0	0	-21.6	-21.2	-22.1
GIW-05	2/22/2016 11:40	7.3	51.7	1.0	40.0	62.4		0	0	-19.5	-19.5	-21.7
GIW-06	2/4/2016 8:17	3.8	47.4	0.9	47.9	32.0		10	9	-11.2	-10.9	-11.0
GIW-06	2/11/2016 14:14	22.8	38.0	0.3	38.9	42.8		51	26	-21.1	-20.6	-20.9
GIW-06	2/17/2016 8:43	1.7	55.0	0.1	43.2	49.9		15	7	-10.9	-10.9	-10.8

February 2016 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
		(% vol)				°F		scfm		H_2O		
GIW-06	2/17/2016 8:47	1.7	57.6	0.1	40.6	51.8		35	21	-11.0	-10.8	-11.0
GIW-06	2/22/2016 16:46	1.9	55.9	0.1	42.1	57.3		18	0	-2.9	-3.7	-3.5
GIW-07	2/4/2016 8:30	29.4	48.8	1.0	20.8	32.1		11	11	-10.3	-10.3	-11.7
GIW-07	2/11/2016 14:09	21.6	37.9	6.8	33.7	41.9		3	3	-11.4	-11.4	-21.2
GIW-07	2/11/2016 14:10	26.1	41.2	5.0	27.7	42.4		6	4	-7.9	-7.9	-21.0
GIW-07	2/17/2016 8:35	17.3	61.1	0.0	21.6	50.1		10	10	4.2	4.3	-11.3
GIW-07	2/17/2016 8:39	16.1	58.3	0.0	25.6	50.2		8	8	-1.4	-1.4	-10.7
GIW-07	2/22/2016 16:50	16.1	53.4	3.0	27.5	55.5		6	3	-12.3	-12.4	-24.0
GIW-08	2/4/2016 8:26	30.4	42.8	0.4	26.4	29.6				-6.9	-6.9	-11.3
GIW-08	2/11/2016 14:06	24.1	42.0	0.4	33.5	43.5				-13.8	-13.8	-21.7
GIW-08	2/17/2016 8:27	26.7	55.9	0.0	17.4	51.5				-6.6	-6.5	-11.1
GIW-08	2/17/2016 8:31	27.1	52.7	0.1	20.1	51.7				-6.5	-6.6	-9.9
GIW-08	2/22/2016 16:54	27.0	50.9	0.1	22.0	57.9				-13.7	-13.8	-22.3
GIW-09	2/4/2016 8:20	4.9	33.2	13.0	48.9	53.0				-4.8	-4.6	-11.8
GIW-09	2/4/2016 8:21	7.2	25.0	13.8	54.0	53.4				-3.9	-5.0	-11.0
GIW-09	2/11/2016 14:01	9.0	29.1	11.6	50.3	57.7				-6.9	-6.4	-22.0
GIW-09	2/11/2016 14:02	9.3	28.7	11.7	50.3	57.9				-5.5	-5.9	-22.0
GIW-09	2/17/2016 8:19	6.6	19.3	14.8	59.3	64.9				-2.9	-2.9	-11.0
GIW-09	2/17/2016 8:23	7.0	16.7	14.9	61.4	65.4				-2.9	-2.9	-11.2
GIW-09	2/22/2016 16:42	2.8	32.5	13.5	51.2	63.3				-1.0	-1.1	-3.1
GIW-09	2/22/2016 16:43	2.5	26.0	14.2	57.3	63.1				-1.1	-1.1	-3.3
GIW-10	2/11/2016 13:37	2.9	32.7	0.2	64.2	46.4		8	8	-0.3	-0.3	-21.4
GIW-10	2/17/2016 8:51	0.4	54.9	0.0	44.7	52.5		9	9	0.8	0.8	-10.8
GIW-10	2/17/2016 8:55	0.3	56.0	0.0	43.7	52.5		10	10	-0.1	-0.1	-10.8
GIW-10	2/22/2016 16:37	5.6	49.2	0.0	45.2	60.5		9	9	-0.5	-0.5	-3.3
GIW-11	2/1/2016 17:47	4.6	43.8	3.5	48.1	63.3				-3.4	-3.4	-11.6
GIW-11	2/11/2016 10:53	2.7	52.8	5.4	39.1	61.3				-6.3	-6.2	-22.6
GIW-11	2/11/2016 10:53	4.7	44.3	5.4	45.6	61.4				-6.2	-6.2	-23.0
GIW-11	2/16/2016 15:16	5.2	41.8	6.1	46.9	61.9				-6.4	-6.3	-22.3
GIW-11	2/16/2016 15:22	5.0	41.0	6.1	47.9	62.0				-6.4	-6.5	-22.1
GIW-11	2/22/2016 11:34	5.6	36.6	6.3	51.5	76.5				-6.3	-6.3	-22.4
GIW-12	2/1/2016 17:43	3.8	29.4	10.4	56.4	71.2				-2.2	-2.2	-11.3
GIW-12	2/1/2016 17:44	3.7	24.7	10.6	61.0	71.2				-2.2	-2.2	-11.2
GIW-12	2/11/2016 10:56	8.1	38.4	8.1	45.4	64.9				-3.5	-3.5	-21.9
GIW-12	2/11/2016 10:56	10.1	31.2	8.6	50.1	65.0				-3.6	-3.5	-22.3
GIW-12	2/16/2016 15:40	5.2	25.5	11.5	57.8	68.3				-3.8	-3.8	-22.4
GIW-12	2/16/2016 15:46	5.4	21.9	11.7	61.0	67.5				-3.7	-3.7	-21.9
GIW-12	2/22/2016 11:25	7.1	41.8	9.0	42.1	79.4				-3.6	-3.6	-21.5
GIW-12	2/22/2016 11:26	6.1	34.2	9.5	50.2	79.3				-3.6	-3.5	-22.1
GIW-13	2/1/2016 17:41	14.8	48.2	0.3	36.7	53.7				-7.9	-7.9	-8.0
GIW-13	2/11/2016 10:58	12.9	27.8	1.0	58.3	39.5				-17.9	-17.9	-18.2
GIW-13	2/16/2016 15:51	14.2	57.3	0.2	28.3	44.3				-18.2	-18.6	-17.9

February 2016 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
		(% vol)				°F		scfm		H_2O		
GIW-13	2/16/2016 15:57	14.5	56.8	0.3	28.4	43.8				-18.2	-18.2	-18.2
GIW-13	2/22/2016 11:23	13.7	53.0	0.1	33.2	66.1				-17.6	-17.7	-17.4
LCS-5A	2/4/2016 10:04	57.3	40.9	0.0	1.8	90.5				-12.8	-12.8	-12.3
LCS-5A	2/11/2016 10:12	57.8	38.3	0.0	3.9	90.9				-12.1	-12.3	-12.9
LCS-5A	2/22/2016 10:10	56.7	41.4	0.0	1.9	93.3				-9.3	-9.8	-9.3
LCS-6B	2/9/2016 15:10	56.5	40.7	0.1	2.7	44.5		7	6	-0.2	-0.2	-12.8
LCS-6B	2/15/2016 11:47	55.8	40.2	0.0	4.0	125.1		11	8	-4.2	-4.2	-11.1
LCS-6B	2/15/2016 11:48	55.7	41.2	0.0	3.1	123.4		9	11	-3.3	-3.3	-11.2
PGW-60	2/4/2016 9:03	58.6	33.6	1.6	6.2	40.6		16	16	-4.1	-4.1	-13.0
PGW-60	2/9/2016 14:46	56.7	38.2	0.5	4.6	38.3		0	0	-11.8	-11.8	-12.6
PGW-60	2/15/2016 10:58	64.4	20.9	1.4	13.3	45.5		18	26	-9.3	-9.3	-9.6
PGW-60	2/22/2016 11:09	58.8	39.8	0.0	1.4	60.5		16	15	79.9	79.7	-10.3
PGW-60	2/22/2016 11:10	57.4	41.9	0.0	0.7	65.7		0	11	40.6	41.2	-10.4
SEW-002	2/4/2016 15:31	0.6	29.0	14.0	56.4	62.4		7	10	-11.8	-11.8	-13.6
SEW-002	2/4/2016 15:34	0.9	24.8	12.4	61.9	64.6		3	0	-12.3	-12.3	-14.2
T-56	2/19/2016 8:31	32.3	35.1	0.9	31.7	47.3		21	21	0.0	0.0	-10.0
T-56	2/22/2016 10:48	31.0	29.0	3.4	36.6	47.2		15	15	-0.1	-0.1	-10.5
T-56	2/22/2016 10:48	31.0	28.4	3.4	37.2	47.2		17	19	-0.1	-0.1	-10.7

ATTACHMENT E-2

MAXIMUM WELLHEAD TEMPERATURE TABLE

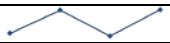
Wellfield Temperature - Bridgeton Landfill

Well Name	Maximum Initial Temperature From All Monthly Wellhead Readings (in °F)				Temp Trend	Comments
	November 2015	December 2015	Janaury 2016	February 2016	><30°F	
GEW-001	--	--	--	--		
GEW-002	116.5	122.0	124.9	120.2		
GEW-003	117.3	111.9	113.3	110.9		
GEW-004	120.4	115.0	117.8	112.5		
GEW-005	97.9	93.4	95.6	96.2		
GEW-006	95.0	84.0	89.9	90.1		
GEW-007	96.9	90.5	96.4	94.0		
GEW-008	114.3	111.8	112.5	112.9		
GEW-009	125.4	124.5	122.3	121.5		
GEW-010	77.3	59.9	63.3	69.2		
GEW-011	51.5	--	--	--		
GEW-013A	--	--	--	186.8		
GEW-014A	--	--	--	--		
GEW-015	--	--	--	--		
GEW-016R	--	--	--	--		
GEW-018B	--	--	--	--		
GEW-018R	150.1	--	--	--		
GEW-019A	--	--	--	--		
GEW-020A	146.2	90.0	--	--		
GEW-021A	156.2	--	--	--		
GEW-022R	192.5	170.0	192.8	194.8		
GEW-023A	--	--	--	--		
GEW-024A	--	--	--	--		
GEW-025A	--	--	--	--		
GEW-026R	--	--	--	--		
GEW-027A	--	90.0	--	--		
GEW-028R	195.1	150.0	178.2	193.7		
GEW-029	--	--	--	--		
GEW-030R	--	--	--	--		
GEW-033R	--	--	--	--		
GEW-034	--	--	--	--		
GEW-034A	--	--	--	--		
GEW-035	--	--	--	--		
GEW-036	--	--	--	--		
GEW-037	--	--	--	--		
GEW-038	108.6	59.9	50.9	56.1		
GEW-039	136.6	136.0	134.1	132.7		
GEW-040	93.4	87.4	86.9	85.5		
GEW-041R	108.7	95.2	103.2	103.2		
GEW-042R	110.4	99.9	111.6	112.7		
GEW-043R	138.3	127.0	130.8	133.3		
GEW-044	95.6	80.0	73.1	81.3		
GEW-045R	92.1	75.0	83.2	82.9		
GEW-046R	100.1	81.2	93.2	95.0		

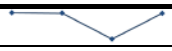
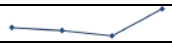
Wellfield Temperature - Bridgeton Landfill

Well Name	Maximum Initial Temperature From All Monthly Wellhead Readings (in °F)				Temp Trend	Comments
	November 2015	December 2015	Janaury 2016	February 2016	><30°F	
GEW-047R	115.0	103.5	110.4	124.3		
GEW-048	105.8	101.3	103.6	102.2		
GEW-049	112.5	100.7	109.9	109.9		
GEW-050	109.7	101.5	106.3	106.4		
GEW-051	125.8	122.1	125.1	124.1		
GEW-052	114.7	109.0	112.6	115.0		
GEW-053	139.3	144.0	138.0	138.7		
GEW-054	144.0	147.7	154.9	147.1		
GEW-055	125.1	116.8	122.8	121.8		
GEW-056R	168.8	165.9	165.5	175.2		
GEW-057B	80.0	167.0	100.8	98.7		
GEW-057R	176.7	185.0	162.3	143.2		
GEW-058	185.7	172.0	184.6	177.7		
GEW-058A	164.0	188.0	167.8	170.7		
GEW-059R	186.8	142.0	186.3	187.4		
GEW-061B	55.3	44.0	--	--		
GEW-064A	--	--	--	--		
GEW-065A	191.3	192.0	180.8	99.4		
GEW-066	--	--	70.2	--		
GEW-067A	160.0	189.1	165.0	122.3		
GEW-068A	--	--	--	--		
GEW-069R	--	--	--	--		
GEW-070R	--	--	--	--		
GEW-071	--	--	--	--		
GEW-071B	--	--	--	--		
GEW-072RR	--	--	--	--		
GEW-073R	--	--	--	--		
GEW-075	--	--	--	--		
GEW-076R	--	--	--	--		
GEW-077	90.0	111.0	65.9	--		
GEW-078R	--	--	--	--		
GEW-080	40.0	50.0	51.5	--		
GEW-081	--	--	--	--		
GEW-082R	194.9	180.0	196.6	197.9		
GEW-083	--	--	--	--		
GEW-084	--	--	--	--		
GEW-085	--	--	--	--		
GEW-086	97.1	110.0	87.0	84.7		
GEW-087	--	--	--	--		
GEW-088	--	--	--	--		
GEW-089	80.0	55.0	86.1	94.6		
GEW-090	187.4	173.0	185.2	185.2		
GEW-091	--	--	--	--		
GEW-100	--	--	--	--		

Wellfield Temperature - Bridgeton Landfill

Well Name	Maximum Initial Temperature From All Monthly Wellhead Readings (in °F)				Temp Trend ><30°F	Comments
	November 2015	December 2015	Janaury 2016	February 2016		
GEW-101	--	--	--	--		
GEW-102	148.8	188.0	144.0	189.1		
GEW-103	--	--	--	--		
GEW-104	81.5	55.0	--	--		
GEW-105	75.0	45.0	--	--		
GEW-106	--	--	--	--		
GEW-107	40.0	--	--	55.6		
GEW-108	--	--	--	--		
GEW-109	81.9	102.6	61.1	113.1		
GEW-110	133.0	95.6	98.0	71.3		
GEW-112	--	--	--	--		
GEW-113	--	--	--	--		
GEW-116	82.5	77.0	35.5	51.2		
GEW-117	115.5	70.0	57.4	83.3		
GEW-118	--	--	--	--		
GEW-120	186.8	171.2	173.1	184.1		
GEW-121	189.1	187.4	186.3	187.9		
GEW-122	184.6	193.7	190.8	190.8		
GEW-123	193.7	192.6	170.8	193.1		
GEW-124	163.2	111.6	157.6	119.0		
GEW-125	191.9	192.6	190.2	193.1		
GEW-126	191.3	184.6	189.1	191.3		
GEW-127	188.0	186.3	184.6	186.8		
GEW-128	183.5	182.2	181.9	182.4		
GEW-129	159.6	166.4	165.4	159.6		
GEW-130	--	--	--	--		
GEW-131	161.1	125.1	177.2	179.8		
GEW-132	182.5	181.4	171.7	173.6		
GEW-133	71.2	71.4	64.7	56.5		
GEW-134	176.2	168.3	163.2	155.6		
GEW-135	186.8	178.7	155.4	147.0		
GEW-136	184.6	136.6	112.8	110.9		
GEW-137	115.5	120.1	121.5	91.9		
GEW-138	164.5	157.0	152.9	147.4		
GEW-139	188.5	184.6	183.0	180.3		
GEW-140	185.7	183.0	160.5	191.3		
GEW-141	153.7	148.5	157.9	155.0		
GEW-142	115.2	104.2	88.2	92.9		
GEW-143	109.0	103.0	94.2	113.7		
GEW-144	98.3	71.9	70.7	64.9		
GEW-145	144.2	137.6	86.0	150.9		
GEW-146	89.7	77.3	70.0	69.5		
GEW-147	191.3	184.1	191.9	178.2		
GEW-148	71.4	136.3	45.2	64.9		

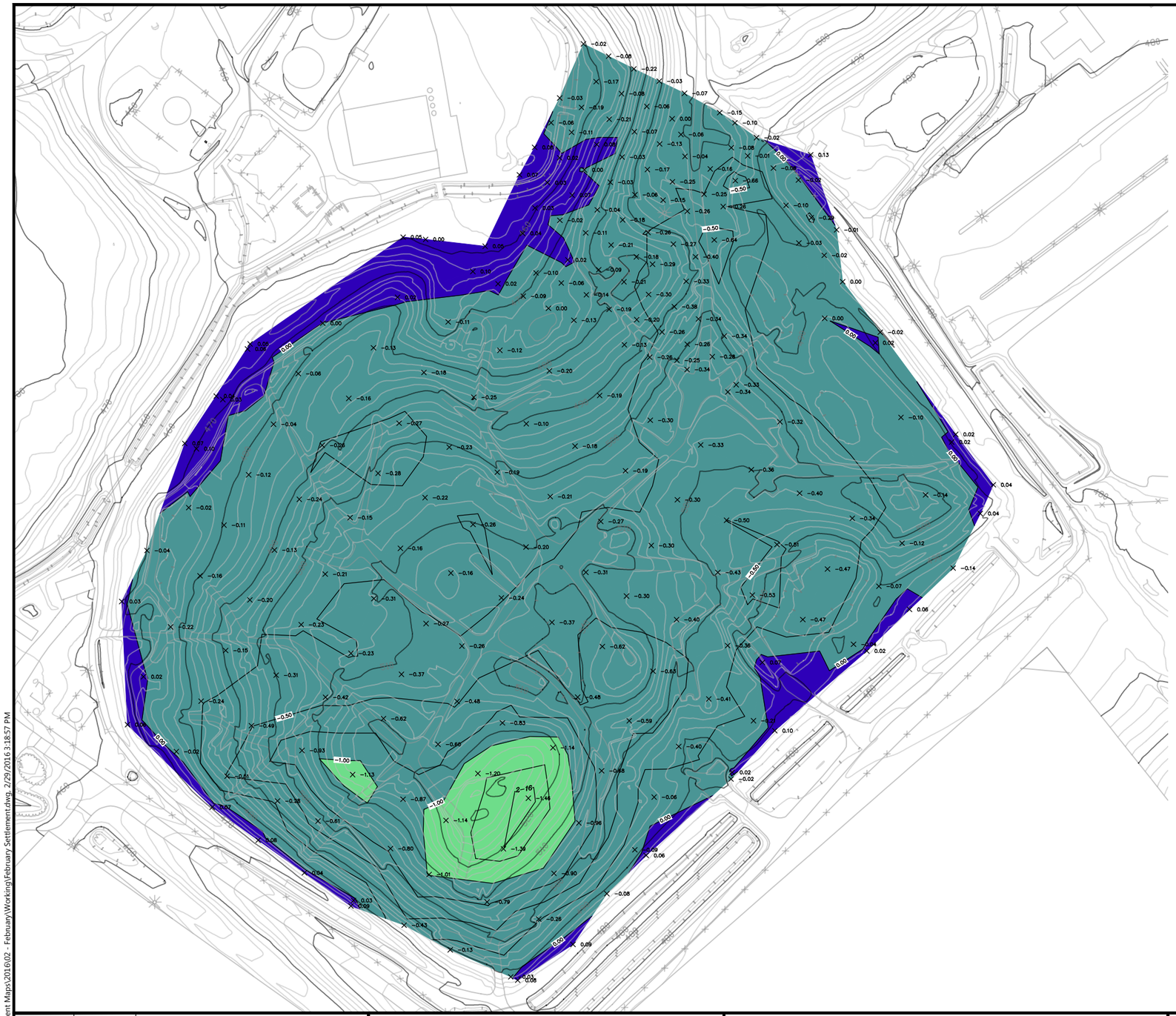
Wellfield Temperature - Bridgeton Landfill

Well Name	Maximum Initial Temperature From All Monthly Wellhead Readings (in °F)				Temp Trend ><30°F	Comments
	November 2015	December 2015	Janaury 2016	February 2016		
GEW-149	172.6	171.7	123.7	171.2		
GEW-150	182.4	136.3	184.6	188.5		
GEW-151	189.2	171.2	47.3	57.9		
GEW-152	192.5	--	--	71.9		
GEW-153	130.5	46.2	--	52.4		
GEW-154	184.1	144.7	51.5	113.8		
GEW-155	122.6	108.6	111.6	113.3		
GEW-156	118.6	124.0	102.0	93.6		
GIW-01	189.1	189.6	183.0	186.3		
GIW-02	77.3	63.8	75.5	73.8		
GIW-03	74.8	63.5	75.2	64.1		
GIW-04	71.2	61.9	72.3	62.0		
GIW-05	61.8	59.3	55.8	62.4		
GIW-06	72.2	60.5	73.6	57.3		
GIW-07	69.5	59.6	73.4	55.5		
GIW-08	68.5	59.2	81.0	57.9		
GIW-09	78.6	66.8	81.3	65.4		
GIW-10	70.9	60.2	72.5	60.5		
GIW-11	74.9	62.2	61.0	76.5		
GIW-12	83.6	74.7	65.6	79.4		
GIW-13	71.7	60.0	57.0	66.1		
LCS-1D	--	--	--	--		
LCS-2D	--	--	--	--		
LCS-3C	--	--	--	--		
LCS-4B	--	--	--	--		
LCS-5A	94.7	90.0	91.2	93.3		
LCS-6B	79.8	73.0	60.1	125.1		
PGW-60	81.9	60.0	49.6	65.7		
SEW-002	54.3	38.0	36.4	64.6		
SEW-012A	--	--	--	--		
SEW-017R	--	--	--	--		
SEW-031R	--	--	--	--		
SEW-032R	--	--	--	--		
SEW-060R	--	--	--	--		
SEW-061R	--	--	--	--		
SEW-062R	--	--	--	--		
SEW-063	--	--	--	--		
SEW-064	--	--	--	--		
SEW-067	--	--	--	--		
SEW-072R	--	--	--	--		
SEW-074	--	--	--	--		
SEW-079R	--	--	--	--		
T-56	69.4	40.0	47.7	47.3		

-- = Indicates no data available.

ATTACHMENT F

SETTLEMENT FRONT MAP



N

0 200'

GRAPHIC SCALE

NOTES

1. EXISTING CONTOURS DEVELOPED FROM SITE AERIAL TOPOGRAPHIC SURVEY BY COOPER AERIAL SURVEYS, CO. ON FEBRUARY 10, 2015.
2. FOR CLARITY, NOT ALL SITE FEATURES MAY BE SHOWN.
3. ELEVATION DIFFERENCE DETERMINED BY SUBTRACTING SPOT ELEVATIONS SURVEYED ON 1-18-16 FROM SPOT ELEVATIONS SURVEYED ON 2-18-16.
4. SURVEY POINTS WERE PERFORMED USING GPS METHODS.
5. SETTLEMENT RANGE SURFACE WAS GENERATED FROM THE SPOT ELEVATION DIFFERENCES.
6. ELEVATION DIFFERENCES THAT ARE SHOWN AS NEGATIVE INDICATE SPOTS OF SETTLEMENT.
7. ANY POINTS THAT ARE NOT A GROUND-TO-GROUND COMPARISON TO THE PREVIOUS MONTH'S POINTS, OR THAT WERE NOT SURVEYED IN THE SAME LOCATION AS THE PREVIOUS MONTH ARE NOT INCLUDED AND WERE NOT USED IN ANY SURFACE GENERATION.

LEGEND

× −0.42	SPOT ELEVATION DIFFERENCE (2-18-16 TO 1-18-16)
	MINOR ELEVATION CHANGE CONTOUR (0.25 FEET)
−0.50	MAJOR ELEVATION CHANGE CONTOUR (0.50 FEET)
2−18	SETTLEMENT FRONT CONTOUR FOR AREA WITH 1.35' PER 30 DAYS FOR CURRENT PERIOD OF DAYS (AREA REPRESENTS 1.395' OVER 31 DAYS BASED ON CONVERSION)

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	0.00	
4	−2.00	−1.00	57364.14	
5	−1.00	0.00	1333219.16	
6	0.00	1.00	125238.80	

REV. NO.	DATE	DESCRIPTION

BRIDGETON LANDFILL

CB&I Environmental & Infrastructure, Inc.

STATE OF ILLINOIS LICENSED DESIGN FIRM #184004093

BRIDGETON LANDFILL
BRIDGETON, MO

SETTLEMENT MAP
JANUARY 18, 2016 THROUGH FEBRUARY 18, 2016

DRAWN BY:	ORC	APPROVED BY:	JPV	PROJ. NO.:	155162	DATE:	MARCH 2016

T:\AutoCAD\Projects\Bridgeton LF\Settlement Maps\2016\02 - February\Working\February Settlement.dwg, 2/29/2016 3:18:57 PM

ATTACHMENT G

SUMMARY OF ODOR COMPLAINTS

February 1, 2015 – February 29, 2015 / MDNR ODOR COMPLAINTS

Name: NA

Message: Odor logged February 1, 2016, at 7:30 am strength of 10

Follow-up: The following concern has been investigated by Bridgeton Landfill staff. The location cited in this concern is of a significant distance from the Bridgeton Landfill. There is no evidence to suggest that this was a Bridgeton Landfill related odor.

Name: NA

Message: Odor logged February 1, 2016, at 7:48 am strength of 10

Follow-up: The following concern has been investigated by Bridgeton Landfill staff. An odor patrol was performed concurrent with the time of this concern. No odor related to the Bridgeton Landfill was observed at observation points in close proximity with this concern location. This was not a Bridgeton Landfill odor.

Name: Ron Nicholl

Message: Odor logged February 2, 2016, at 4:08 pm strength of 8

Follow-up: The following concern has been investigated by Bridgeton Landfill staff. The location cited in this concern is of a significant distance from the Bridgeton Landfill. There is no evidence to suggest that this was a Bridgeton Landfill related odor.

Name: NA

Message: Odor logged February 2, 2016, at 4:13 pm strength of 6

Follow-up: The following concern has been investigated by Bridgeton Landfill staff. The location cited in this concern is of a significant distance from the Bridgeton Landfill. There is no evidence to suggest that this was a Bridgeton Landfill related odor.

Name: Michael Dailey

Message: Odor logged February 2, 2016, at 4:16 pm strength of 10

Follow-up: The following concern was investigated by Bridgeton Landfill within the hour in which it was received. No odor related to the Bridgeton Landfill was observed at an observation point in immediately adjacent to this concern location.

Name: Michael Dailey

Message: Odor logged February 2, 2016, at 4:17 pm strength of 10

Follow-up: The following concern was investigated by Bridgeton Landfill within the hour in which it was received. No odor related to the Bridgeton Landfill was observed at an observation point in immediately adjacent to this concern location.

Name: Kathy Bell

Message: Odor logged February 2, 2016, at 6:51 pm strength of 9

Follow-up: The following concern has been investigated by Bridgeton Landfill staff. Odor patrols prior to and after the time cited in this concern did not observe any odor related to the Bridgeton Landfill at points in the immediate proximity to this odor concern location. This is not believed to be a Bridgeton Landfill related odor.

Name: Robert Miller

Message: Odor logged February 2, 2016, at 6:58 pm strength of 10

Follow-up: The following concern has been investigated by Bridgeton Landfill staff. Odor patrols prior to and after the time cited in this concern did not observe any odor related to the Bridgeton Landfill at points in the immediate proximity to this odor concern location. This is not believed to be a Bridgeton Landfill related odor.

Name: NA

Message: Odor logged February 2, 2016, at 8:43 pm strength of 10

Follow-up: The following concern lacks essential location data.

Name: Sharon Bishop

Message: Odor logged February 2, 2016, at 8:59 pm strength of 10

Follow-up: The following concern has been investigated by Bridgeton Landfill staff. An odor patrol was performed less than an hour after the time cited in this concern. No odor related to the Bridgeton Landfill was detected. This is not believed to be a Bridgeton Landfill odor.

Name: BrieAnn McCormick

Message: Odor logged February 2, 2016, at 7:45 pm strength of 8

Follow-up: The following concern has been investigated by Bridgeton Landfill staff. Odor patrols prior to and after the time cited in this concern did not observe any odor related to the Bridgeton Landfill at points in the immediate proximity to this odor concern location. This is not believed to be a Bridgeton Landfill related odor.

Name: Amy Comer

Message: Odor logged February 2, 2016, at 10:30 pm strength of 8

Follow-up: The following concern has been investigated by Bridgeton Landfill staff. The location cited in this concern is of a significant distance from the Bridgeton Landfill. There is no evidence to suggest that this was a Bridgeton Landfill related odor.

Name: Amy Comer

Message: Odor logged February 2, 2016, at 4:15 pm strength of 8

Follow-up: The following concern has been investigated by Bridgeton Landfill staff. The location cited in this concern is immediately adjacent to other known odor sources with frequent off-site odor emissions. This was not a Bridgeton Landfill odor.

Name: Amy Comer

Message: Odor logged February 2, 2016, at 7:10 am strength of 8

Follow-up: The following concern has been investigated by Bridgeton Landfill staff. The location cited in this concern is immediately adjacent to other known odor sources with frequent off-site odor emissions. This was not a Bridgeton Landfill odor.

Name: NA

Message: Odor logged February 2, 2016, at 5:30 pm strength of 10

Follow-up: The following concern has been investigated by Bridgeton Landfill staff. The location cited in this concern is immediately adjacent to other known odor sources with frequent off-site odor emissions. This was not a Bridgeton Landfill odor.

Name: NA

Message: Odor logged February 3, 2016, at 7:35 am strength of 10

Follow-up: The following concern has been investigated by Bridgeton Landfill staff. The location cited in this concern is immediately adjacent to other known odor sources with frequent off-site odor emissions. This was not a Bridgeton Landfill odor.

Name: NA

Message: Odor logged February 3, 2016, at 7:26 am strength of 10

Follow-up: The following concern has been investigated by Bridgeton Landfill staff. The location cited in this concern is immediately adjacent to other known odor sources with frequent off-site odor emissions. This was not a Bridgeton Landfill odor.

Name: NA

Message: Odor logged February 3, 2016, at 7:36 am strength of 10

Follow-up: The following concern has been investigated by Bridgeton Landfill staff. The location cited in this concern is immediately adjacent to other known odor sources with frequent off-site odor emissions. This was not a Bridgeton Landfill odor.

Name: David Blackwell

Message: Odor logged February 2, 2016, at 5:30 pm strength of 5

Follow-up: The following concern has been investigated by Bridgeton Landfill staff. An odor patrol was performed at the time cited in this concern and no odor related to the Bridgeton Landfill was observed at a monitoring point in close proximity to this concern. This was not a Bridgeton Landfill odor.

Name: NA

Message: Odor logged February 3, 2016, at 5:30 pm strength of 10

Follow-up: The following concern has been investigated by Bridgeton Landfill staff. The location cited in this concern is immediately adjacent to other known odor sources with frequent off-site odor emissions. This was not a Bridgeton Landfill odor.

Name: NA

Message: Odor logged February 4, 2016, at 6:30 am strength of 10

Follow-up: The following concern has been investigated by Bridgeton Landfill staff. The location cited in this concern is of a significant distance from the Bridgeton Landfill. There is no evidence to suggest that this was a Bridgeton Landfill related odor.

Name: NA

Message: Odor logged February 4, 2016, at 6:35 am strength of 10

Follow-up: The following concern has been investigated by Bridgeton Landfill staff. The location cited in this concern is immediately adjacent to other known odor sources with frequent off-site odor emissions. This was not a Bridgeton Landfill odor.

Name: NA

Message: Odor logged February 4, 2016, at 6:35 am strength of 10

Follow-up: The following concern has been investigated by Bridgeton Landfill staff. The location cited in this concern is immediately adjacent to other known odor sources with frequent off-site odor emissions. This was not a Bridgeton Landfill odor.

Name: NA

Message: Odor logged February 4, 2016, at 6:30 am strength of 10

Follow-up: The following concern has been investigated by Bridgeton Landfill staff. The location cited in this concern is immediately adjacent to other known odor sources with frequent off-site odor emissions. This was not a Bridgeton Landfill odor.

Name: Brieann mccormick

Message: Odor logged February 4, 2016, at 5:23 pm strength of 7

Follow-up: The following concern has been investigated by Bridgeton Landfill staff. Before, during, and after the time cited in this concern winds were of a west/southwest origin, placing this location well upwind of the Bridgeton Landfill and downwind of another known odor source with frequent off-site emissions. This was not a Bridgeton Landfill odor.

Name: Robbin Dailey

Message: Odor logged February 4, 2016, at 5:20 pm strength of 8

Follow-up: The following concern has been investigated by Bridgeton Landfill staff. Before, during, and after the time cited in this concern winds were of a west/southwest origin, placing this location well upwind of the Bridgeton Landfill and downwind of another known odor source with frequent off-site emissions. This was not a Bridgeton Landfill odor.

Name: Robbin Dailey

Message: Odor logged February 4, 2016, at 5:20 pm strength of 8

Follow-up: The following concern has been investigated by Bridgeton Landfill staff. Before, during, and after the time cited in this concern winds were of a west/southwest origin, placing this location well upwind of the Bridgeton Landfill and downwind of another known odor source with frequent off-site emissions. This was not a Bridgeton Landfill odor.

Name: NA

Message: Odor logged February 5, 2016, at 6:45 am strength of 8

Follow-up: The following concern has been investigated by Bridgeton Landfill staff. An odor patrol was performed shortly after the time cited in this concern. No odor related to the Bridgeton Landfill was observed at a point in close proximity to this concern location. Winds were of a predominantly western origin on this date placing this concern upwind of the Bridgeton Landfill. This is not believed to have been a Bridgeton Landfill odor.

Name: NA

Message: Odor logged February 5, 2016, at 7:27 am strength of 10

Follow-up: The following concern lacks essential location data.

Name: NA

Message: Odor logged February 5, 2016, at 7:30 am strength of 10

Follow-up: The following concern has been investigated by Bridgeton Landfill staff. The location cited in this concern is of a significant distance from the Bridgeton Landfill. There is no evidence to suggest that this was a Bridgeton Landfill related odor.

Name: NA

Message: Odor logged February 5, 2016, at 7:30 am strength of 10

Follow-up: The following concern has been investigated by Bridgeton Landfill staff. The location cited in this concern is of a significant distance from the Bridgeton Landfill. There is no evidence to suggest that this was a Bridgeton Landfill related odor.

Name: NA

Message: Odor logged February 5, 2016, at 7:35 am strength of 10

Follow-up: The following concern has been investigated by Bridgeton Landfill staff. The location cited in this concern is of a significant distance from the Bridgeton Landfill. There is no evidence to suggest that this was a Bridgeton Landfill related odor.

Name: NA

Message: Odor logged February 5, 2016, at 7:35 am strength of 10

Follow-up: The following concern has been investigated by Bridgeton Landfill staff. The location cited in this concern is of a significant distance from the Bridgeton Landfill. There is no evidence to suggest that this was a Bridgeton Landfill related odor.

Name: NA

Message: Odor logged February 5, 2016, at 7:40 am strength of 10

Follow-up: The following concern has been investigated by Bridgeton Landfill staff. The location cited in this concern is of a significant distance from the Bridgeton Landfill. There is no evidence to suggest that this was a Bridgeton Landfill related odor.

Name: NA

Message: Odor logged February 5, 2016, at 7:40 am strength of 10

Follow-up: The following concern is a duplicate of another concern.

Name: NA

Message: Odor logged February 5, 2016, at 7:45 am strength of 10

Follow-up: The following concern has been investigated by Bridgeton Landfill staff. The location cited in this concern is of a significant distance from the Bridgeton Landfill. There is no evidence to suggest that this was a Bridgeton Landfill related odor.

Name: NA

Message: Odor logged February 5, 2016, at 7:45 am strength of 10

Follow-up: The following concern has been investigated by Bridgeton Landfill staff. The location cited in this concern is immediately adjacent to other known odor sources with frequent off-site odor emissions. This was not a Bridgeton Landfill odor.

Name: NA

Message: Odor logged February 5, 2016, at 7:46 am strength of 10

Follow-up: The following concern has been investigated by Bridgeton Landfill staff. The location cited in this concern is immediately adjacent to other known odor sources with frequent off-site odor emissions. This was not a Bridgeton Landfill odor.

Name: NA

Message: Odor logged February 5, 2016, at 7:26 am strength of 10

Follow-up: The following concern has been investigated by Bridgeton Landfill staff. An odor patrol was performed within one hour of the time cited in this concern. No odor related to the Bridgeton Landfill was observed. This was not a Bridgeton Landfill odor.

Name: NA

Message: Odor logged February 5, 2016, at 6:45 pm strength of 10

Follow-up: The following concern has been investigated by Bridgeton Landfill staff. The location cited in this concern is of a significant distance from the Bridgeton Landfill. There is no evidence to suggest that this was a Bridgeton Landfill related odor.

Name: NA

Message: Odor logged February 5, 2016, at 6:37 pm strength of 10

Follow-up: The following concern has been investigated by Bridgeton Landfill staff. The location cited in this concern is of a significant distance from the Bridgeton Landfill. There is no evidence to suggest that this was a Bridgeton Landfill related odor.

Name: NA

Message: Odor logged February 6, 2016, at 1:02 pm strength of 4

Follow-up: The following concern has been investigated by Bridgeton Landfill staff. An odor patrol was performed slightly over an hour prior to this concern and again several hours after. Neither patrol observed any off-site odor between this location and the Bridgeton Landfill. This is not believed to be a Bridgeton Landfill odor.

Name: NA

Message: Odor logged February 5, 2016, at 7:24 pm strength of 3

Follow-up: The following concern lacks essential location data.

Name: NA

Message: Odor logged February 7, 2016, at 12:31 pm strength of 7

Follow-up: The following concern has been investigated by Bridgeton Landfill staff. At the time cited in this concern the location given was located outside the downwind pathway of the Bridgeton Landfill and directly downwind of another known odor source with frequent off-site odors. This was not a Bridgeton Landfill odor.

Name: Rhonda Steelman

Message: Odor logged February 7, 2016, at 11:17 am strength of 10

Follow-up: The following concern has been investigated by Bridgeton Landfill staff. At the time cited in this concern the location given was located directly upwind of the Bridgeton Landfill. There is no evidence to suggest that this was a Bridgeton Landfill odor.

Name: Jennifer

Message: Odor logged February 7, 2016, at 4:34 pm strength of 10

Follow-up: The following concern has been investigated by Bridgeton Landfill staff. At the time cited in this concern the location given was located directly upwind of the Bridgeton Landfill and immediately downwind of another known odor source. This was not a Bridgeton Landfill odor.

Name: NA

Message: Odor logged February 7, 2016, at 5:08 pm strength of 8

Follow-up: The following concern has been investigated by Bridgeton Landfill staff. At the time cited in this concern the location given was located directly upwind of the Bridgeton Landfill and immediately downwind of another known odor source. This was not a Bridgeton Landfill odor.

Name: NA

Message: Odor logged February 7, 2016, at 5:08 pm strength of 8

Follow-up: The following concern is a duplicate of a previous concern.

Name: NA

Message: Odor logged February 7, 2016, at 5:08 pm strength of 8

Follow-up: The following concern is a duplicate of a previous concern.

Name: Rachel Benjamin

Message: Odor logged February 7, 2016, at 10:00 pm strength of 7

Follow-up: The following concern has been investigated by Bridgeton Landfill staff. An odor patrol was performed immediately before the time cited in this concern. No odor related to the Bridgeton Landfill was observed. A strong trash odor was observed at select points. There is potential for this trash odor to be the source of this concern. This was not a Bridgeton Landfill odor.

Name: NA

Message: Odor logged February 8, 2016, at 7:45 am strength of 10

Follow-up: The following concern has been investigated by Bridgeton Landfill staff. The location referenced in this concern is immediately adjacent to another known odor source with frequent off-site odor emissions observed. This was not a Bridgeton Landfill odor.

Name: NA

Message: Odor logged February 8, 2016, at 7:47 am strength of 10

Follow-up: The following concern has been investigated by Bridgeton Landfill staff. The location referenced in this concern is immediately adjacent to another known odor source with frequent off-site odor emissions observed. This was not a Bridgeton Landfill odor.

Name: Georgia Leek

Message: Odor logged February 6, 2016, at 7:21 pm strength of 7

Follow-up: The following concern has been investigated by Bridgeton Landfill staff. The location cited in this concern is of a significant distance from the Bridgeton Landfill. At the time of this concern winds were of a western origin placing this location directly downwind of another known odor source with frequent off-site odor emissions. There is no evidence to suggest that this was a Bridgeton Landfill related odor.

Name: NA

Message: Odor logged February 8, 2016, at 11:13 am strength of 7

Follow-up: The following concern has been investigated by Bridgeton Landfill staff. No odor associated with the Bridgeton Landfill was observed during multiple odor patrols on the date of this concern. This was not a Bridgeton Landfill odor.

Name: NA

Message: Odor logged February 8, 2016, at 12:45 am strength of 5

Follow-up: The following concern has been investigated by Bridgeton Landfill staff. No odor associated with the Bridgeton Landfill was observed during multiple odor patrols on the date of this concern. This was not a Bridgeton Landfill odor.

Name: NA

Message: Odor logged February 8, 2016, at 1:15 pm strength of 6

Follow-up: The following concern has been investigated by Bridgeton Landfill staff. No odor associated with the Bridgeton Landfill was observed during multiple odor patrols on the date of this concern. This was not a Bridgeton Landfill odor.

Name: NA

Message: Odor logged February 9, 2016, at 7:15 am strength of 10

Follow-up: The following concern has been investigated by Bridgeton Landfill staff. The location referenced in this concern is immediately adjacent to another known odor source with frequent off-site odor emissions observed. This was not a Bridgeton Landfill odor.

Name: NA

Message: Odor logged February 9, 2016, at 7:15 am strength of 10

Follow-up: The following concern has been investigated by Bridgeton Landfill staff. The location referenced in this concern is immediately adjacent to another known odor source with frequent off-site odor emissions observed. This was not a Bridgeton Landfill odor.

Name: NA

Message: Odor logged February 9, 2016, at 7:15 am strength of 10

Follow-up: The following concern has been investigated by Bridgeton Landfill staff. The location referenced in this concern is immediately adjacent to another known odor source with frequent off-site odor emissions observed. This was not a Bridgeton Landfill odor.

Name: NA

Message: Odor logged February 9, 2016, at 3:30 pm strength of 5

Follow-up: The following concern has been investigated by Bridgeton Landfill staff. The location referenced in this concern is immediately adjacent to another known odor source with frequent off-site odor emissions observed. This was not a Bridgeton Landfill odor.

Name: NA

Message: Odor logged February 9, 2016, at 12:17 pm strength of 8

Follow-up: The following concern has been investigated by Bridgeton Landfill staff. At the time referenced in this concern the location provided was a substantial distance upwind of the Bridgeton Landfill. This was not a Bridgeton Landfill odor.

Name: NA

Message: Odor logged February 10, 2016, at 6:27 am strength of 10

Follow-up: The following concern has been investigated by Bridgeton Landfill staff. The location cited in this concern is of a significant distance from the Bridgeton Landfill. At the time of this concern winds were of a western origin placing this location directly downwind of another known odor source with frequent off-site odor emissions. There is no evidence to suggest that this was a Bridgeton Landfill related odor.

Name: NA

Message: Odor logged February 10, 2016, at 7:30 am strength of 10

Follow-up: The following concern has been investigated by Bridgeton Landfill staff. The location referenced in this concern is immediately adjacent to another known odor source with frequent off-site odor emissions observed. This was not a Bridgeton Landfill odor.

Name: NA

Message: Odor logged February 10, 2016, at 7:30 am strength of 10

Follow-up: The following concern has been investigated by Bridgeton Landfill staff. The location referenced in this concern is immediately adjacent to another known odor source with frequent off-site odor emissions observed. This was not a Bridgeton Landfill odor.

Name: NA

Message: Odor logged February 10, 2016, at 7:30 am strength of 10

Follow-up: The following concern has been investigated by Bridgeton Landfill staff. The location referenced in this concern is immediately adjacent to another known odor source with frequent off-site odor emissions observed. This was not a Bridgeton Landfill odor.

Name: NA

Message: Odor logged February 10, 2016, at 7:35 am strength of 10

Follow-up: The following concern has been investigated by Bridgeton Landfill staff. The location referenced in this concern is immediately adjacent to another known odor source with frequent off-site odor emissions observed. This was not a Bridgeton Landfill odor.

Name: NA

Message: Odor logged February 10, 2016, at 8:00 am strength of 6

Follow-up: The following concern has been investigated by Bridgeton Landfill staff. The location cited in this concern is of a significant distance from the Bridgeton Landfill. There is no evidence to suggest that this was a Bridgeton Landfill related odor.

Name: NA

Message: Odor logged February 10, 2016, at 7:30 am strength of 10

Follow-up: The following concern has been investigated by Bridgeton Landfill staff. The location cited in this concern is of a significant distance from the Bridgeton Landfill. There is no evidence to suggest that this was a Bridgeton Landfill related odor.

Name: NA

Message: Odor logged February 11, 2016, at 4:47 pm strength of 7

Follow-up: The following concern has been investigated by Bridgeton Landfill staff. An odor patrol was performed at multiple points in close proximity to this concern location minutes before the time cited in this concern. An odor unassociated with the Bridgeton Landfill was observed. This was not a Bridgeton Landfill odor.

Name: NA

Message: Odor logged February 12, 2016, at 7:22 am strength of 10

Follow-up: The following concern has been investigated by Bridgeton Landfill staff. The location cited in this concern is of a significant distance from the Bridgeton Landfill. There is no evidence to suggest that this was a Bridgeton Landfill related odor.

Name: NA

Message: Odor logged February 12, 2016, at 7:30 am strength of 10

Follow-up: The following concern has been investigated by Bridgeton Landfill staff. The location cited in this concern is of a significant distance from the Bridgeton Landfill. There is no evidence to suggest that this was a Bridgeton Landfill related odor.

Name: NA

Message: Odor logged February 12, 2016, at 7:30 am strength of 10

Follow-up: The following concern has been investigated by Bridgeton Landfill staff. The location cited in this concern is of a significant distance from the Bridgeton Landfill. There is no evidence to suggest that this was a Bridgeton Landfill related odor.

Name: NA

Message: Odor logged February 12, 2016, at 7:30 am strength of 10

Follow-up: The following concern has been investigated by Bridgeton Landfill staff. The location cited in this concern is of a significant distance from the Bridgeton Landfill. There is no evidence to suggest that this was a Bridgeton Landfill related odor.

Name: NA

Message: Odor logged February 12, 2016, at 7:30 am strength of 10

Follow-up: The following concern has been investigated by Bridgeton Landfill staff. The location cited in this concern is of a significant distance from the Bridgeton Landfill. There is no evidence to suggest that this was a Bridgeton Landfill related odor.

Name: NA

Message: Odor logged February 12, 2016, at 7:30 am strength of 10

Follow-up: The following concern has been investigated by Bridgeton Landfill staff. The location cited in this concern is of a significant distance from the Bridgeton Landfill. There is no evidence to suggest that this was a Bridgeton Landfill related odor.

Name: NA

Message: Odor logged February 12, 2016, at 7:30 am strength of 10

Follow-up: The following concern has been investigated by Bridgeton Landfill staff. The location cited in this concern is of a significant distance from the Bridgeton Landfill. There is no evidence to suggest that this was a Bridgeton Landfill related odor.

Name: NA

Message: Odor logged February 13, 2016, at 7:11 am strength of 10

Follow-up: The following concern has been investigated by Bridgeton Landfill staff. The location cited in this concern is of a significant distance from the Bridgeton Landfill. There is no evidence to suggest that this was a Bridgeton Landfill related odor.

Name: NA

Message: Odor logged February 13, 2016, at 7:51 am strength of 9

Follow-up: The following concern has been investigated by Bridgeton Landfill staff. The location cited in this concern is of a significant distance from the Bridgeton Landfill. There is no evidence to suggest that this was a Bridgeton Landfill related odor.

Name: NA

Message: Odor logged February 13, 2016, at 5:48 pm strength of 7

Follow-up: The following concern lacks essential location data and is therefore invalid.

Name: Kathy Bell

Message: Odor logged February 15, 2016, at 4:04 pm strength of 8

Follow-up: The following concern has been investigated by Bridgeton Landfill staff. An odor patrol was performed including points in close proximity to the concern location provided minutes before the time cited. No odor associated with the Bridgeton Landfill was observed. This was not a Bridgeton Landfill odor.

Name: NA

Message: Odor logged February 15, 2016, at 5:43 pm strength of 10

Follow-up: The following concern has been investigated by Bridgeton Landfill staff. The location cited in this concern is of a significant distance from the Bridgeton Landfill. There is no evidence to suggest that this was a Bridgeton Landfill related odor.

Name: NA

Message: Odor logged February 15, 2016, at 5:44 pm strength of 10

Follow-up: The following concern has been investigated by Bridgeton Landfill staff. The location cited in this concern is of a significant distance from the Bridgeton Landfill. There is no evidence to suggest that this was a Bridgeton Landfill related odor.

Name: Brady Nelson

Message: Odor logged February 15, 2016, at 9:09 pm strength of 10

Follow-up: The following concern has been investigated by Bridgeton Landfill staff. An odor patrol was performed approximately one hour after the time cited in this concern, no odor related to the Bridgeton Landfill was observed. This is not believed to have been a Bridgeton Landfill odor.

Name: Theresa Ravens

Message: Odor logged February 16, 2016, at 7:32 am strength of 6

Follow-up: The following concern has been investigated by Bridgeton Landfill staff. An odor patrol overlapped with the time cited in this concern. No odor related to the Bridgeton Landfill was observed at multiple points in close proximity to this concern location. A strong garbage odor unassociated with the Bridgeton Landfill was detected at a location in close proximity to this concern approximately 15 minutes after the time cited in this concern. This was not a Bridgeton Landfill odor.

Name: Amy Comer

Message: Odor logged February 16, 2016, at 8:06 am strength of 9

Follow-up: The following concern has been investigated by Bridgeton Landfill staff. An odor patrol was performed less than half an hour prior to the time cited in this concern. A strong garbage odor unassociated with the Bridgeton Landfill was detected between the suspected non-Bridgeton source of this odor and the location provided in this concern. This was not a Bridgeton Landfill odor.

Name: NA

Message: Odor logged February 15, 2016, at 2:00 pm strength of 6

Follow-up: The following concern lacks essential location data.

Name: NA

Message: Odor logged February 16, 2016, at 5:05 pm strength of 8

Follow-up: The following concern lacks essential location data.

Name: NA

Message: Odor logged February 16, 2016, at 5:29 pm strength of 10

Follow-up: The following concern cites a location immediately adjacent to another known odor source. This was not a Bridgeton Landfill odor.

Name: NA

Message: Odor logged February 16, 2016, at 5:30 pm strength of 10

Follow-up: The following concern cites a location immediately adjacent to another known odor source. This was not a Bridgeton Landfill odor.

Name: NA

Message: Odor logged February 16, 2016, at 5:31 pm strength of 10

Follow-up: The following concern cites a location immediately adjacent to another known odor source. This was not a Bridgeton Landfill odor.

Name: NA

Message: Odor logged February 16, 2016, at 5:31 pm strength of 10

Follow-up: The following concern cites a location immediately adjacent to another known odor source. This was not a Bridgeton Landfill odor.

Name: Bob LaBeaume

Message: Odor logged February 16, 2016, at 6:07 pm strength of 9

Follow-up: The following concern cites a location immediately adjacent to another known odor source. This was not a Bridgeton Landfill odor.

Name: Kathy Luther

Message: Odor logged February 16, 2016, at 8:39 pm strength of 8

Follow-up: The following concern lacks essential location data.

Name: Trisha Bakula

Message: Odor logged February 17, 2016, at 12:41 am strength of 8

Follow-up: The following concern has been investigated by Bridgeton Landfill staff. The location cited in this concern is of a significant distance from the Bridgeton Landfill. There is no evidence to suggest that this was a Bridgeton Landfill related odor.

Name: Kathy Luther

Message: Odor logged February 17, 2016, at 7:56 am strength of 6

Follow-up: The following concern lacks essential location data.

Name: NA

Message: Odor logged February 17, 2016, at 7:30 am strength of 10

Follow-up: The following concern cites a location immediately adjacent to another known odor source. This was not a Bridgeton Landfill odor.

Name: NA

Message: Odor logged February 17, 2016, at 7:30 am strength of 10

Follow-up: The following concern cites a location immediately adjacent to another known odor source. This was not a Bridgeton Landfill odor.

Name: Annette Hurley

Message: Odor logged February 17, 2016, at 7:30 am strength of 5

Follow-up: The following concern cites a location immediately adjacent to another known odor source. This was not a Bridgeton Landfill odor.

Name: Kathy Bell

Message: Odor logged February 18, 2016, at 12:02 pm strength of 8

Follow-up: The following concern cites a time 7 minutes in the future from the time of submittal. This is clearly an erroneous or false concern.

Name: NA

Message: Odor logged February 19, 2016, at 7:55 am strength of 7

Follow-up: The following concern has been investigated by Bridgeton Landfill staff. The location cited in this concern is of a significant distance from the Bridgeton Landfill. There is no evidence to suggest that this was a Bridgeton Landfill related odor.

Name: NA

Message: Odor logged February 19, 2016, at 9:56 am strength of 5

Follow-up: The following concern has been investigated by Bridgeton Landfill staff. The location cited in this concern is of a significant distance from the Bridgeton Landfill. There is no evidence to suggest that this was a Bridgeton Landfill related odor.

Name: NA

Message: Odor logged February 19, 2016, at 12:40 pm strength of 10

Follow-up: The following concern cites a location immediately adjacent to another known odor source. This was not a Bridgeton Landfill odor.

Name: NA

Message: Odor logged February 19, 2016, at 12:15 pm strength of 10

Follow-up: The following concern cites a location immediately adjacent to another known odor source. This was not a Bridgeton Landfill odor.

Name: NA

Message: Odor logged February 19, 2016, at 12:52 pm strength of 10

Follow-up: The following concern cites a location immediately adjacent to another known odor source. This was not a Bridgeton Landfill odor.

Name: NA

Message: Odor logged February 19, 2016, at 5:09 pm strength of 5

Follow-up: The following concern cites a location immediately downwind from another known odor source at the time cited in this concern. This was not a Bridgeton Landfill odor.

Name: NA

Message: Odor logged February 19, 2016, at 6:39 pm strength of 8

Follow-up: The following concern cites a location immediately downwind from another known odor source at the time cited in this concern. This was not a Bridgeton Landfill odor.

Name: NA

Message: Odor logged February 20, 2016, at 9:30 am strength of 8

Follow-up: The following concern cites a location immediately adjacent to another known odor source. This was not a Bridgeton Landfill odor.

Name: Steve Commuso

Message: Odor logged February 20, 2016, at 4:33 pm strength of 8

Follow-up: The following concern has been investigated by Bridgeton Landfill staff. The location cited in this concern is of a significant distance from the Bridgeton Landfill. There is no evidence to suggest that this was a Bridgeton Landfill related odor.

Name: Audra Richardson

Message: Odor logged February 21, 2016, at 12:29 am strength of 8

Follow-up: The following concern has been investigated by Bridgeton Landfill staff. No odor related to the Bridgeton Landfill was observed during odor patrols before and after the time referenced in this concern. The concern location provided is in the vicinity of observed odor related to another site on the previous date. There is no evidence to suggest that this was a Bridgeton Landfill related odor.

Name: Angela Bengford

Message: Odor logged February 20, 2016, at 5:00 pm strength of 8

Follow-up: The following concern has been investigated by Bridgeton Landfill staff. The location cited in this concern is of a significant distance from the Bridgeton Landfill. There is no evidence to suggest that this was a Bridgeton Landfill related odor.

Name: David Hinners

Message: Odor logged February 21, 2016, at 8:50 pm strength of 9

Follow-up: The following concern has been investigated by Bridgeton Landfill staff. The location cited in this concern is of a significant distance from the Bridgeton Landfill. There is no evidence to suggest that this was a Bridgeton Landfill related odor.

Name: David Hinners

Message: Odor logged February 21, 2016, at 9:16 pm strength of 10

Follow-up: The following concern has been investigated by Bridgeton Landfill staff. The location cited in this concern is of a significant distance from the Bridgeton Landfill. There is no evidence to suggest that this was a Bridgeton Landfill related odor.

Name: Steve Commuso

Message: Odor logged February 22, 2016, at 9:24 pm strength of 7

Follow-up: The following concern has been investigated by Bridgeton Landfill staff. The location cited in this concern is of a significant distance from the Bridgeton Landfill. There is no evidence to suggest that this was a Bridgeton Landfill related odor.

Name: Tonya Mason

Message: Odor logged February 22, 2016, at 10:12 pm strength of 10

Follow-up: The following concern has been investigated by Bridgeton Landfill staff. The following concern coincided with an odor patrol by Bridgeton Landfill staff. No odor related to the Bridgeton Landfill was observed at multiple points in close proximity to the concern location provided. This was not a Bridgeton Landfill odor.

Name: NA

Message: Odor logged February 23, 2016, at 5:45 am strength of 10

Follow-up: The following concern has been investigated by Bridgeton Landfill staff. The location cited in this concern is of a significant distance from the Bridgeton Landfill. There is no evidence to suggest that this was a Bridgeton Landfill related odor.

Name: NA

Message: Odor logged February 23, 2016, at 5:45 am strength of 10

Follow-up: The following concern has been investigated by Bridgeton Landfill staff. The location cited in this concern is of a significant distance from the Bridgeton Landfill. There is no evidence to suggest that this was a Bridgeton Landfill related odor.

Name: NA

Message: Odor logged February 23, 2016, at 5:50 am strength of 10

Follow-up: The following concern has been investigated by Bridgeton Landfill staff. The location cited in this concern is of a significant distance from the Bridgeton Landfill. There is no evidence to suggest that this was a Bridgeton Landfill related odor.

Name: NA

Message: Odor logged February 23, 2016, at 5:50 am strength of 10

Follow-up: The following concern has been investigated by Bridgeton Landfill staff. The location cited in this concern is of a significant distance from the Bridgeton Landfill. There is no evidence to suggest that this was a Bridgeton Landfill related odor.

Name: NA

Message: Odor logged February 23, 2016, at 6:00 am strength of 10

Follow-up: The following concern has been investigated by Bridgeton Landfill staff. The location cited in this concern is of a significant distance from the Bridgeton Landfill. There is no evidence to suggest that this was a Bridgeton Landfill related odor.

Name: NA

Message: Odor logged February 23, 2016, at 6:00 am to 7:35 am strength of 10

Follow-up: Five concerns were submitted with the subject of “Testing Bridgeton landfill”, these are presumably system test submittals as the locations provided are of significant distance from the Bridgeton Landfill and therefore no evidence suggests that these were Bridgeton Landfill related.

Name: NA

Message: Odor logged February 23, 2016, at 7:29 am strength of 10

Follow-up: The following concern has been investigated by Bridgeton Landfill staff. The location cited in this concern is of a significant distance from the Bridgeton Landfill. There is no evidence to suggest that this was a Bridgeton Landfill related odor.

Name: NA

Message: Odor logged February 23, 2016, at 7:20 am strength of 10

Follow-up: The following concern has been investigated by Bridgeton Landfill staff. The location cited in this concern is of a significant distance from the Bridgeton Landfill. There is no evidence to suggest that this was a Bridgeton Landfill related odor.

Name: NA

Message: Odor logged February 23, 2016, at 7:20 am strength of 10

Follow-up: The following concern has been investigated by Bridgeton Landfill staff. The location cited in this concern is of a significant distance from the Bridgeton Landfill. There is no evidence to suggest that this was a Bridgeton Landfill related odor.

Name: David Blackwell

Message: Odor logged February 23, 2016, at 7:45 am strength of 3

Follow-up: The following concern has been investigated by Bridgeton Landfill staff. An odor patrol was performed immediately after the time cited in this concern. No odor related to the Bridgeton Landfill was observed at points in close proximity to this concern location. This was not a Bridgeton Landfill odor.

Name: Todd Nichol

Message: Odor logged February 23, 2016, at 5:30 am strength of 8

Follow-up: The following concern has been investigated by Bridgeton Landfill staff. The location cited in this concern is of significant distance from the Bridgeton Landfill and immediately adjacent to another known odor source. Morning odor inspections did not observe Bridgeton Landfill related odor at multiple points between this location and the Bridgeton Landfill. There is no evidence to suggest this was a Bridgeton Landfill related odor.

Name: NA

Message: Odor logged February 23, 2016, at 7:13 am strength of 10

Follow-up: The following concern has been investigated by Bridgeton Landfill staff. The location cited in this concern is of a significant distance from the Bridgeton Landfill. There is no evidence to suggest that this was a Bridgeton Landfill related odor.

Name: NA

Message: Odor logged February 23, 2016, at 10:29 am strength of 10

Follow-up: The following concern has been investigated by Bridgeton Landfill staff. The location cited in this concern is of a significant distance from the Bridgeton Landfill. There is no evidence to suggest that this was a Bridgeton Landfill related odor.

Name: Greg Wortham

Message: Odor logged February 23, 2016, at 11:30 am strength of 5

Follow-up: The following concern has been investigated by Bridgeton Landfill staff. Odor patrols performed shortly before and after the time cited in this concern did not observe any odor related to the Bridgeton Landfill. This is not believed to have been a Bridgeton Landfill odor.

Name: NA

Message: Odor logged February 25, 2016, at 7:45 am strength of 10

Follow-up: The following concern cites a location immediately adjacent to another known odor source. This was not a Bridgeton Landfill odor.

Name: NA

Message: Odor logged February 25, 2016, at 7:45 am strength of 10

Follow-up: The following concern cites a location immediately adjacent to another known odor source. This was not a Bridgeton Landfill odor.

Name: NA

Message: Odor logged February 25, 2016, at 7:50 am strength of 10

Follow-up: The following concern cites a location immediately adjacent to another known odor source. This was not a Bridgeton Landfill odor.

Name: NA

Message: Odor logged February 25, 2016, at 7:45 am strength of 10

Follow-up: The following concern cites a location immediately adjacent to another known odor source. This was not a Bridgeton Landfill odor.

Name: NA

Message: Odor logged February 25, 2016, at 7:40 am strength of 10

Follow-up: The following concern cites a location immediately adjacent to another known odor source. This was not a Bridgeton Landfill odor.

Name: NA

Message: Odor logged February 25, 2016, at 7:45 am strength of 10

Follow-up: The following concern cites a location immediately adjacent to another known odor source. This was not a Bridgeton Landfill odor.

Name: Linda Eaker

Message: Odor logged February 25, 2016, at 11:00 am strength of 6

Follow-up: The following concern has been investigated by Bridgeton Landfill staff. The concern location provided is in close proximity to another known odor source on a date when winds were of a persistent western origin, placing this other source directly upwind of the location specified and well outside the downwind pathway of the Bridgeton Landfill. This was not a Bridgeton Landfill odor.

Name: Mary Eaker

Message: Odor logged February 25, 2016, at 10:00 am strength of 6

Follow-up: The following concern has been investigated by Bridgeton Landfill staff. The concern location provided is in close proximity to another known odor source on a date when winds were of a persistent western origin, placing this other source directly upwind of the location specified and well outside the downwind pathway of the Bridgeton Landfill. This was not a Bridgeton Landfill odor.

Name: 3 miles away we had to close our windows!!!!!

Message: Odor logged February 28, 2016, at 11:31 am strength of 6

Follow-up: The following concern has been investigated by Bridgeton Landfill staff. An odor patrol was initiated at the exact time cited in this concern. No odor related to the Bridgeton Landfill was observed around the entirety of the site perimeter. On this date winds were of a persistent southwestern origin, placing the location provided well outside the downwind pathway of the Bridgeton Landfill and immediately downwind of another known odor source with frequent unchecked off-site odor emissions. This was clearly not a Bridgeton Landfill odor.

Name: 3 miles away we had to close our windows!!!!!

Message: Odor logged February 29, 2016, at 7:00 am strength of 8

Follow-up: The following concern has been investigated by Bridgeton Landfill staff. An odor patrol was initiated within the hour the time referenced in this concern. No odor related to the Bridgeton Landfill was observed around the entirety of the site perimeter. On this date winds were of a persistent southwestern origin, placing the location provided well outside the downwind pathway of the Bridgeton Landfill and immediately downwind of another known odor source with frequent unchecked off-site odor emissions. This was not a Bridgeton Landfill odor.

Name: NA

Message: Odor logged February 27, 2016, at 2:00 pm strength of 10

Follow-up: The following concern cites a location immediately adjacent to another known odor source. This was not a Bridgeton Landfill odor.

Name: NA

Message: Odor logged February 27, 2016, at 2:05 pm strength of 10

Follow-up: The following concern cites a location immediately adjacent to another known odor source. This was not a Bridgeton Landfill odor.

Name: NA

Message: Odor logged February 27, 2016, at 2:05 pm strength of 10

Follow-up: The following concern cites a location immediately adjacent to another known odor source. This was not a Bridgeton Landfill odor.

Name: NA

Message: Odor logged February 29, 2016, at 7:30 am strength of 10

Follow-up: The following concern cites a location immediately adjacent to another known odor source. This was not a Bridgeton Landfill odor.

Name: NA

Message: Odor logged February 28, 2016, at 9:00 pm strength of 4

Follow-up: The following concern lacks essential location data.

ATTACHMENT H

LIQUID CHARACTERIZATION DATA AND DISCHARGE LOG

Bridgeton Landfill - Leachate PreTreatment Plant

February 2016

Liquid Characterization Data

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

Hauled Disposal to MSD – Bissell Point

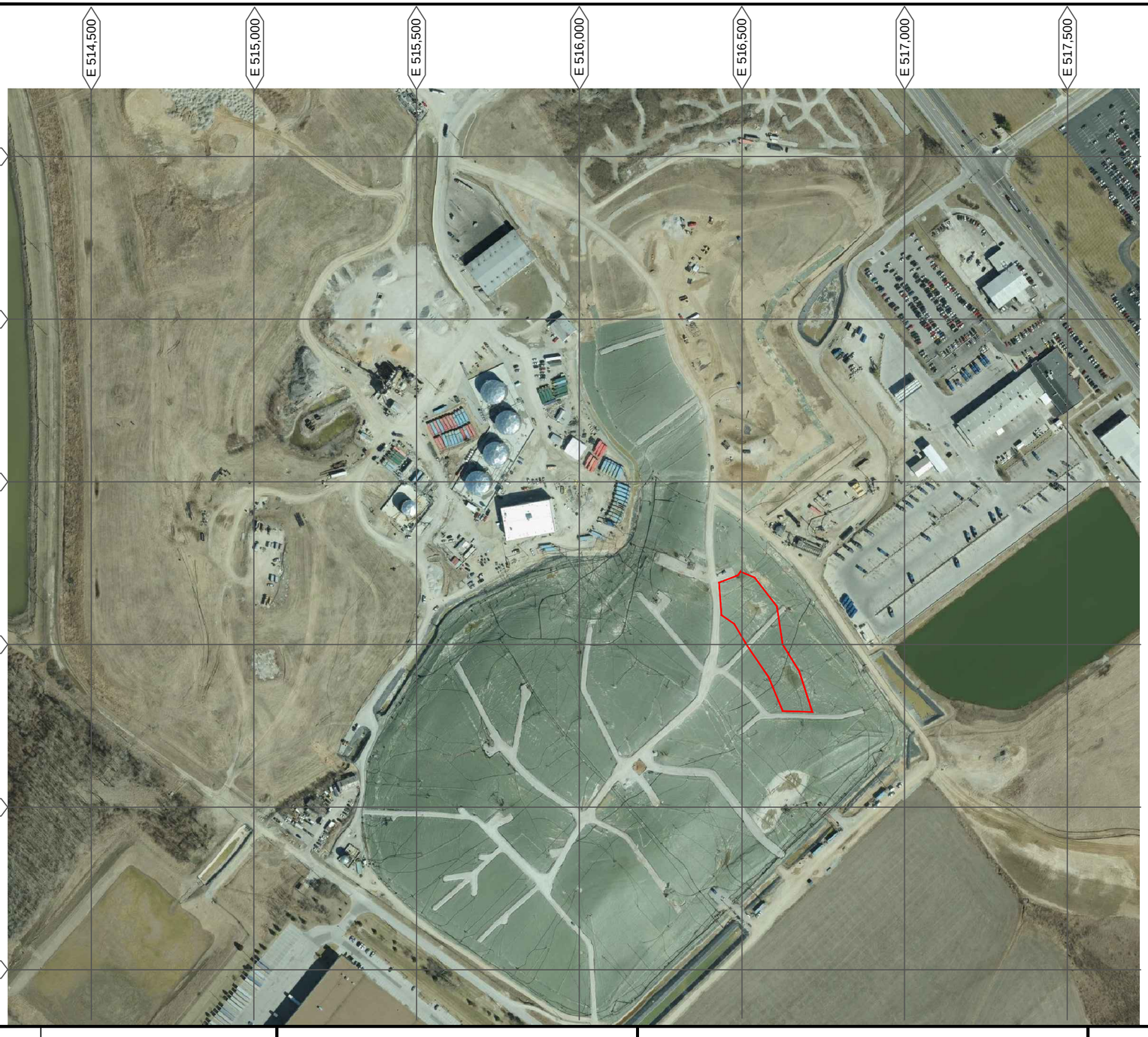
Date	Waste	Source	Transporter	Quantity
2/1/2016	LPTP Activated Sludge/ Permeate	Tank 1 (T1)	MBI	0
2/2/2016				0
2/3/2016				0
2/4/2016				0
2/5/2016				0
2/6/2016				0
2/7/2016				0
2/8/2016				0
2/9/2016				0
2/10/2016				0
2/11/2016				0
2/12/2016				0
2/13/2016				0
2/14/2016				0
2/15/2016				0
2/16/2016				0
2/17/2016				0
2/18/2016				0
2/19/2016				0
2/20/2016				0
2/21/2016				0
2/22/2016				0
2/23/2016				247,500
2/24/2016				210,000
2/25/2016				240,000
2/26/2016				247,500
2/27/2016				247,500
2/28/2016				247,500
2/29/2016				0
			Total=	**1,440,000**

Direct Discharge to MSD

Date	Waste	Source	Quantity (gal)
2/1/2016	LPTP Permeate	Through Tank AST 97k (MSD Sampling Point 013)	285,733
2/2/2016			247,109
2/3/2016			197,299
2/4/2016			122,008
2/5/2016			247,947
2/6/2016			250,451
2/7/2016			238,753
2/8/2016			228,159
2/9/2016			208,627
2/10/2016			201,423
2/11/2016			208,468
2/12/2016			269,608
2/13/2016			276,673
2/14/2016			320,591
2/15/2016			312,300
2/16/2016			315,060
2/17/2016			309,134
2/18/2016			317,068
2/19/2016			325,289
2/20/2016			320,343
2/21/2016			209,459
2/22/2016			0
2/23/2016			0
2/24/2016			0
2/25/2016			0
2/26/2016			0
2/27/2016			0
2/28/2016			0
2/29/2016			0
		Total =	**5,411,502**

ATTACHMENT I

LOW FILL PROJECT AREA



N

0 300'

GRAPHIC SCALE

NOTES

1. SITE AERIAL TOPOGRAPHIC SURVEY BY COOPER AERIAL SURVEYS, CO. ON AUGUST 1, 2015.
2. FOR CLARITY, NOT ALL SITE FEATURES MAY BE SHOWN.
3. SURVEY POINTS WERE PERFORMED USING GPS METHODS.

LEGEND

BOUNDARY OF FILL AREA FOR 01-18-16 THROUGH 02-18-16

REV. NO.	DATE	DESCRIPTION

BRIDGETON LANDFILL

CB&I Environmental & Infrastructure, Inc.

STATE OF ILLINOIS LICENSED DESIGN FIRM #184004093

BRIDGETON LANDFILL
BRIDGETON, MO

LOW FILL AREA BOUNDARY
FEBRUARY 2016

DRAWN BY:	ORC	APPROVED BY:	JPV	PROJ. NO.:	155162	DATE:	MARCH 2016

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