Bridgeton Landfill, LLC

Monthly Data Submittals

September 2017

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

October 20, 2017

Commentary on Data

October 20, 2017

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

Gas Volume

- As seen in Attachment B-1, the gas collection volumetric rate in for this month averaged 175 SCFM from the North Quarry and 1,494 SCFM from the South Quarry, for a total site flow of 1,669 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 contains vertical wells which had oxygen levels over 5% at one (1) or more weekly monitoring events during this reporting period. These consisted of 23 GEW wells that are experiencing low or restricted flows, and four (4) GIW wells that have low gas flow due to the cooling loops that are installed within these wells. By the end of the month, 11 of the GEW wells and 3 of the GIW wells still exhibited oxygen at the wellhead at or greater than 5%. All of these wells 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. With the exception of GEW-1A, all of 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. Seven (7) vertical wells (excluding GIW wells) increased by 30°F during this reporting period. Additionally, 3 vertical wells (excluding GIW wells) decreased 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.

- All wells in the North Quarry during this reporting period exhibited a maximum wellhead temperature under 145°F. Carbon monoxide (CO) results showed non-detect (ND) for North Quarry wells, with the exception of GEW-053 (56 ppm) and GEW-055 (35 ppm).

Settlement

- The South Quarry exhibited monthly maximum settlement up to 0.32 feet over 31 days for this reporting period (see Attachment F) which is comparable to last month's rate.

Bird Monitoring and Mitigation

- Bridgeton Landfill conducted bird monitoring during this reporting period in accordance with the Approved Bird Hazard Monitoring and Mitigation Plan, last updated in

December 2016. Bridgeton Landfill personnel completed required annual training by USDA APHIS Wildlife Services on August 25, 2017 for landfill personnel actively involved in managing hazardous wildlife near airports. Birds noted on-site are dispersed using pyrotechnics, a cap gun and vehicles. Logs of bird population observations are provided to the Airport and the USDA APHIS Wildlife Services on a weekly basis.

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 4 of this approval is satisfied via the text below and the accompanying figure in Attachment I-1.

- Clean fill activities commenced on June 28th and continued into September.

ATTACHMENT A

WORK COMPLETED AND PLANNED

Bridgeton Landfill, LLC
Monthly Summary of Work Completed and Planned

Work Completed in September 2017

Gas Collection and Control System (GCCS)

- Continued operation and maintenance of GCCS system.
- Continued upgrades to GCCS system as necessary.

Heat Extraction System (HES)

- Continued operation and maintenance of the HES (pilot and barrier wells).

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.
- Performed RTO media changeout on RTO 2.
- Permeate continued to be discharged directly to St. Louis Metropolitan Sewer District (MSD) – Bissell Point Facility or other approved disposal facilities as determined by MSD.

Other Projects

- Began the East Fill project.
- Continued accepting clean fill for East Fill maintenance and fill project.
- Infrastructure in East Fill area has been raised as necessary to perform maintenance on existing infrastructure.
- Completed construction of the perimeter roads for the North Quarry EVOH capping project.
- Phase 1 of the North Quarry Capping Project was completed.
- Began non routine liner repairs in the South Quarry.
- Installed a culvert pipe beneath the main access road to divert stormwater flow coming from the North Quarry to Outfall 003.
- Completed maintenance on the HDPE lined pond leading to Outfall 006.

Work Planned for October 2017

Gas Collection and Control System (GCCS)

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

Heat Extraction System (HES)

- Continue operation and maintenance of the HES.
- Continue upgrades to the HES as necessary.

Leachate Management System

- Continue routine operation of previously installed and upgraded features.

Pre-Treatment Facility

- Ongoing operation of facility.
- Continue to optimize operation efficiency of pre-treatment facility.
- Permeate will continue to be discharged directly to St. Louis Metropolitan Sewer District (MSD) – Bissell Point Facility or other approved disposal facilities as determined by MSD.
- Change out the media in the Regenerative Thermal Oxidizer (RTO) units.

Other Projects:

- Continue the East Fill project.
- Continue acceptance of clean fill materials for East Fill maintenance and fill project.
- Infrastructure will continued to be raised as necessary in the East Fill area.
- Continue nonroutine liner repairs in the South Quarry.

ATTACHMENT B

DAILY FLARE MONITORING DATA

ATTACHMENT B-1

FLOW DATA TABLE

Daily Flare Monitoring Data - Bridgeton Landfill
September 2017

Date	Average Device Flow* (scfm)				Total Avg. Flow** (scfm)
	Utility Flare (FL-100)	Utility Flare (FL-120)	Utility Flare (FL-140)	EP14 NQ Utility Flare***	
9/1/2017	0	0	1,535	186	1,721
9/2/2017	0	3	1,461	177	1,641
9/3/2017	0	0	1,612	184	1,796
9/4/2017	0	0	1,597	182	1,780
9/5/2017	0	0	1,575	174	1,748
9/6/2017	0	0	1,565	170	1,735
9/7/2017	0	0	1,540	173	1,713
9/8/2017	0	0	1,605	178	1,783
9/9/2017	0	0	1,637	180	1,817
9/10/2017	0	0	1,617	181	1,797
9/11/2017	0	0	1,609	180	1,789
9/12/2017	0	323	1,200	182	1,705
9/13/2017	0	0	1,544	180	1,724
9/14/2017	0	0	1,567	183	1,751
9/15/2017	0	0	1,588	173	1,761
9/16/2017	0	0	1,551	175	1,726
9/17/2017	0	0	1,502	185	1,688
9/18/2017	0	0	1,506	182	1,688
9/19/2017	0	0	1,525	174	1,699
9/20/2017	0	0	1,518	171	1,689
9/21/2017	0	0	1,403	168	1,571
9/22/2017	0	0	1,379	172	1,551
9/23/2017	0	0	1,388	171	1,559
9/24/2017	0	0	1,376	171	1,546
9/25/2017	0	0	1,368	171	1,439
9/26/2017	0	0	1,362	171	1,533
9/27/2017	0	0	1,286	166	1,453
9/28/2017	0	0	1,345	169	1,514
9/29/2017	0	0	1,392	170	1,562
9/30/2017	0	0	1,351	152	1,503
AVERAGE	0	11	1,483	175	1,669

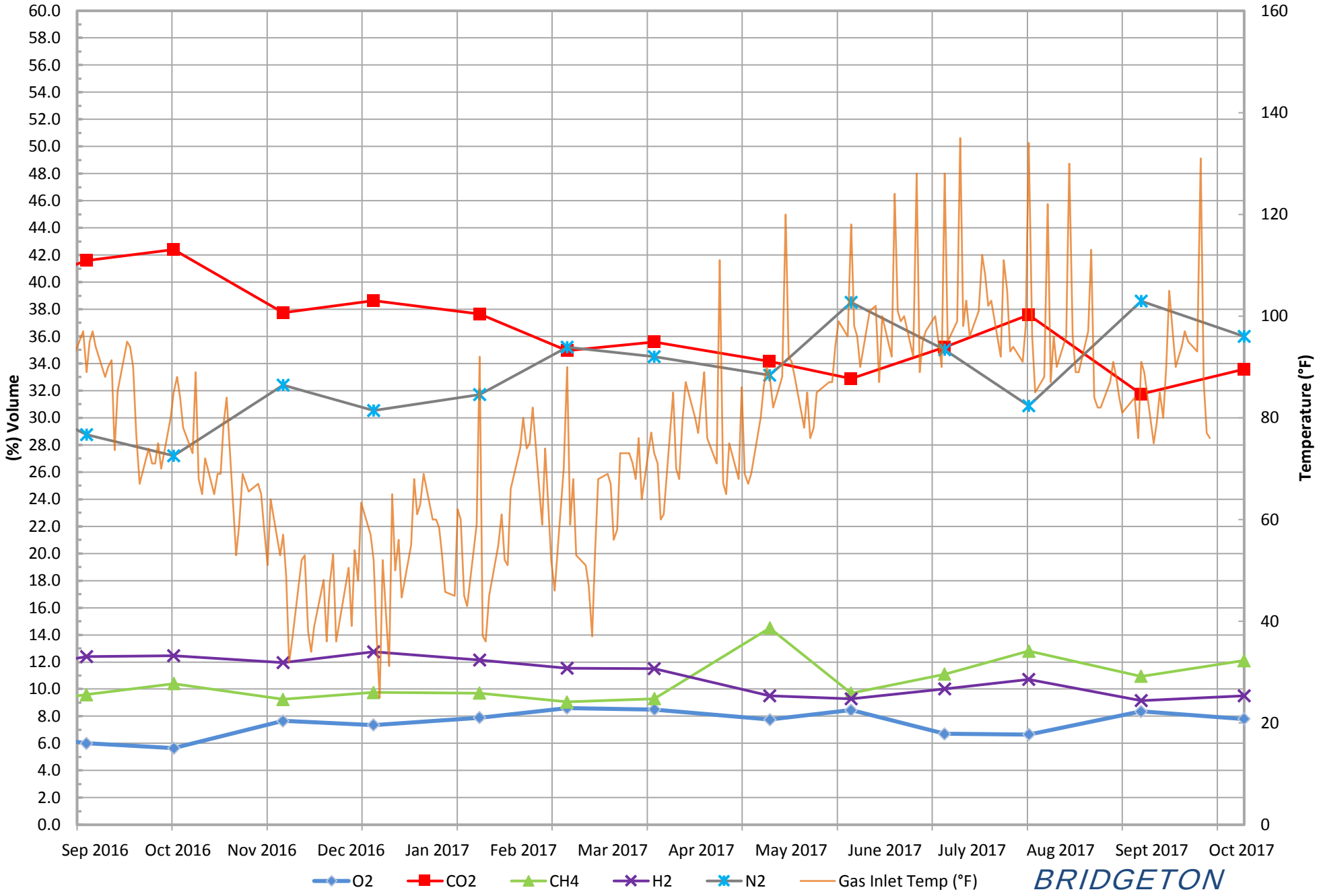
* Flows normalized to **Blower Outlet Flowmeter - EPA Method 2 measurement verified

*** On 3/18/2016, the Bridgeton Landfill began separating the North Quarry gas to the Auxiliary Flare.

ATTACHMENT B-2

FLOW DATA GRAPHS

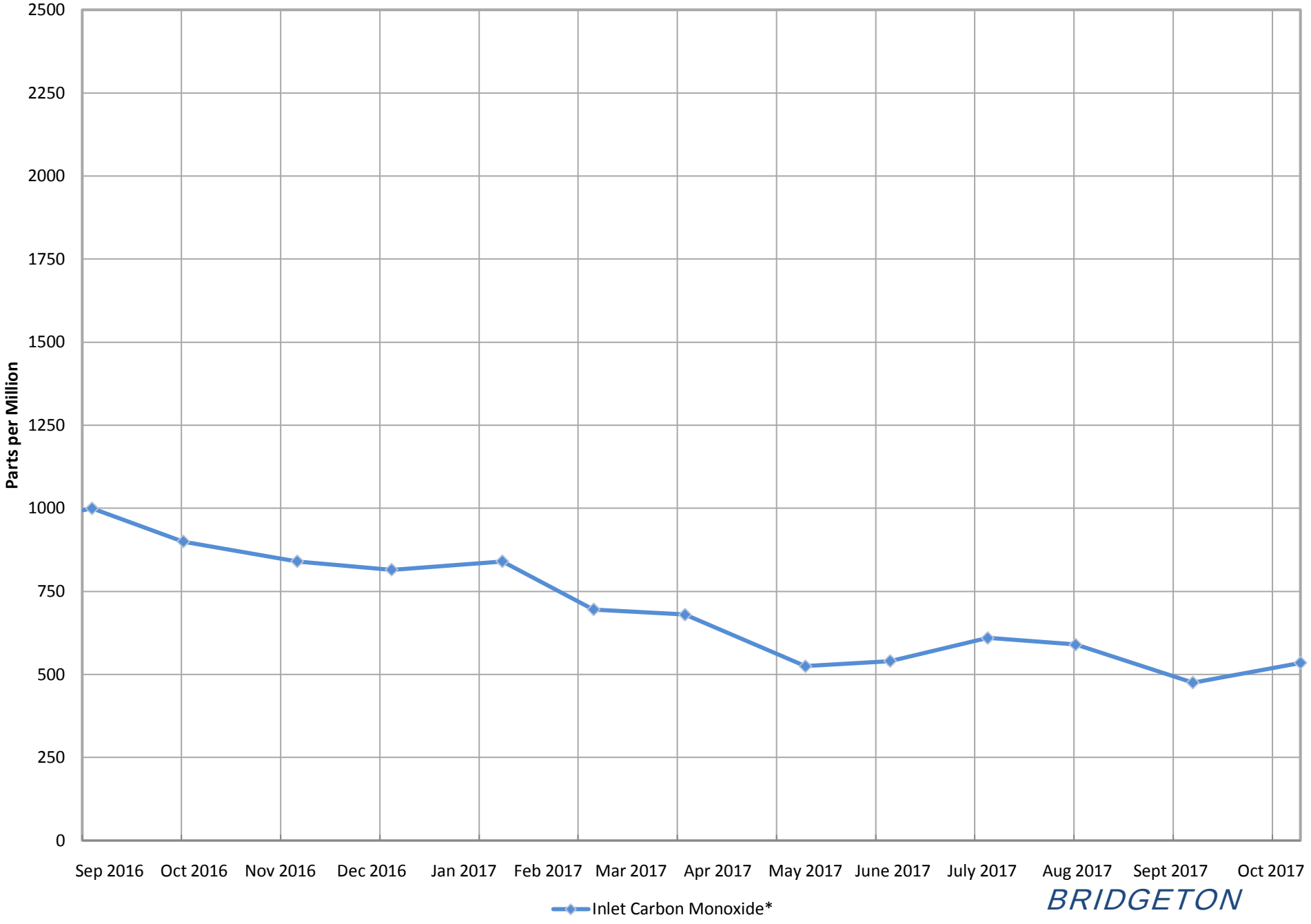
South Quarry Inlet Gas and Temperature*



BRIDGETON LANDFILL

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

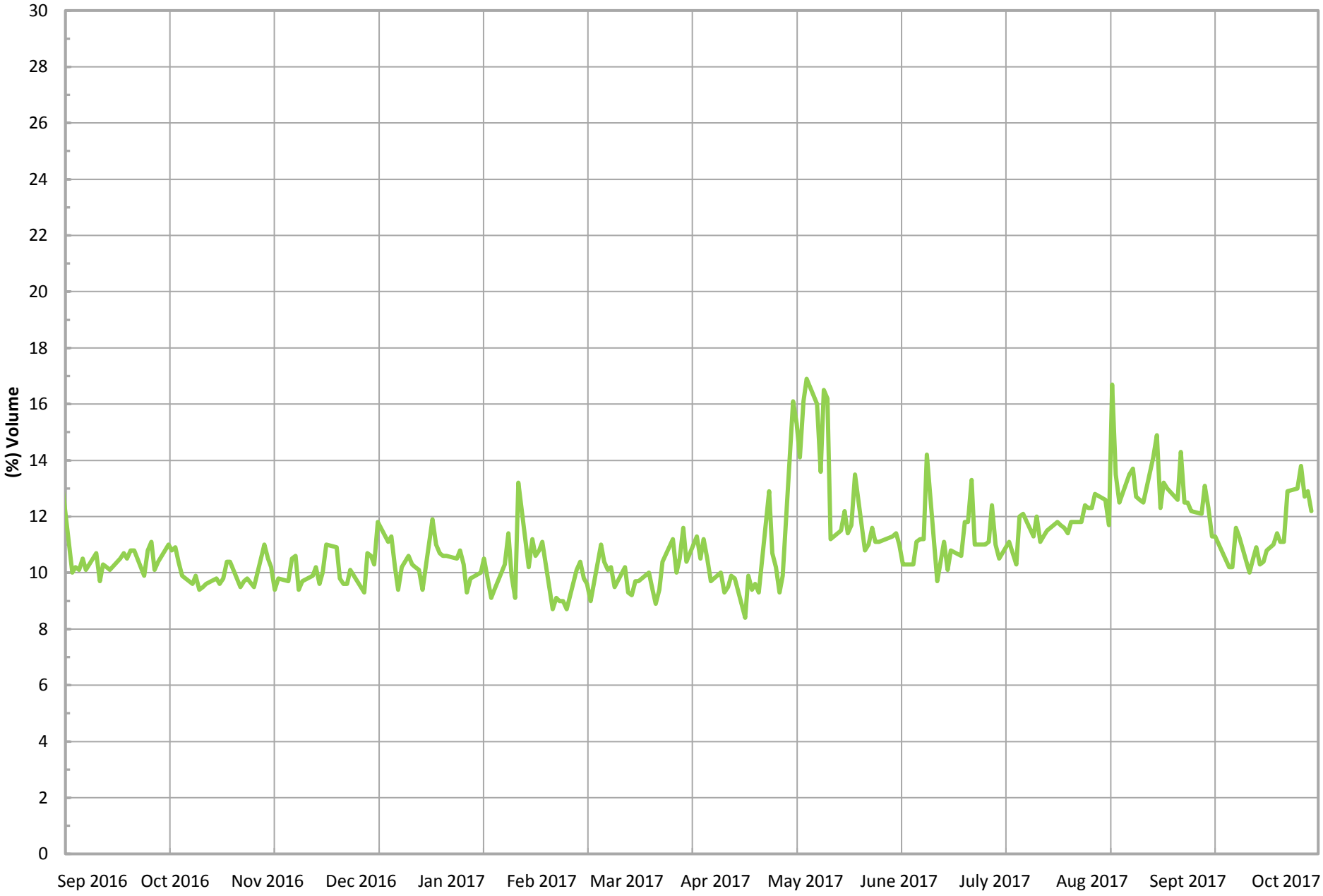
South Quarry Inlet Carbon Monoxide*



*Data collected from Laboratory Reports for the South Quarry.

BRIDGETON LANDFILL

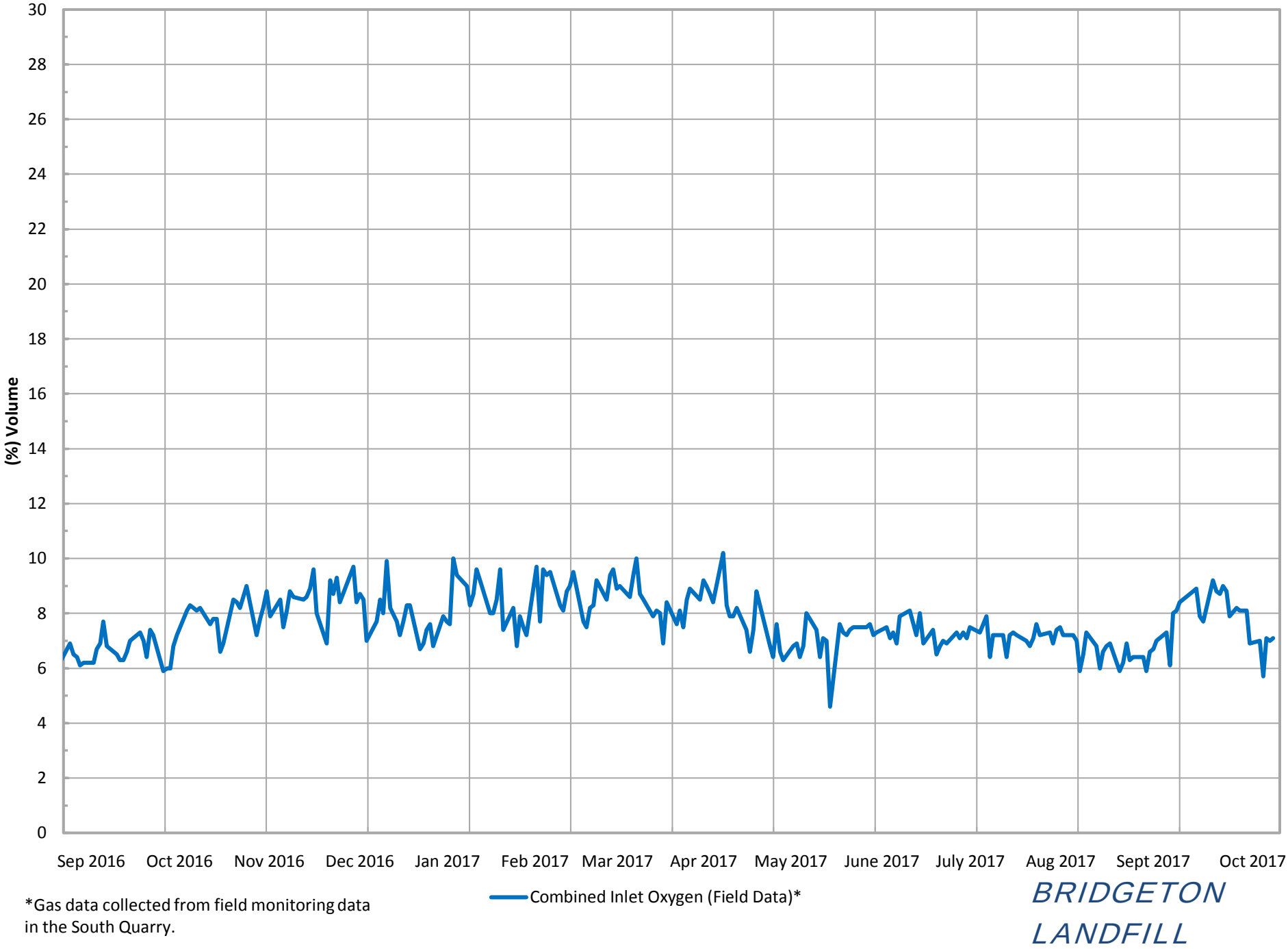
South Quarry Inlet Methane (Field Data)*



*Gas data collected from field monitoring data in the South Quarry.

BRIDGETON LANDFILL

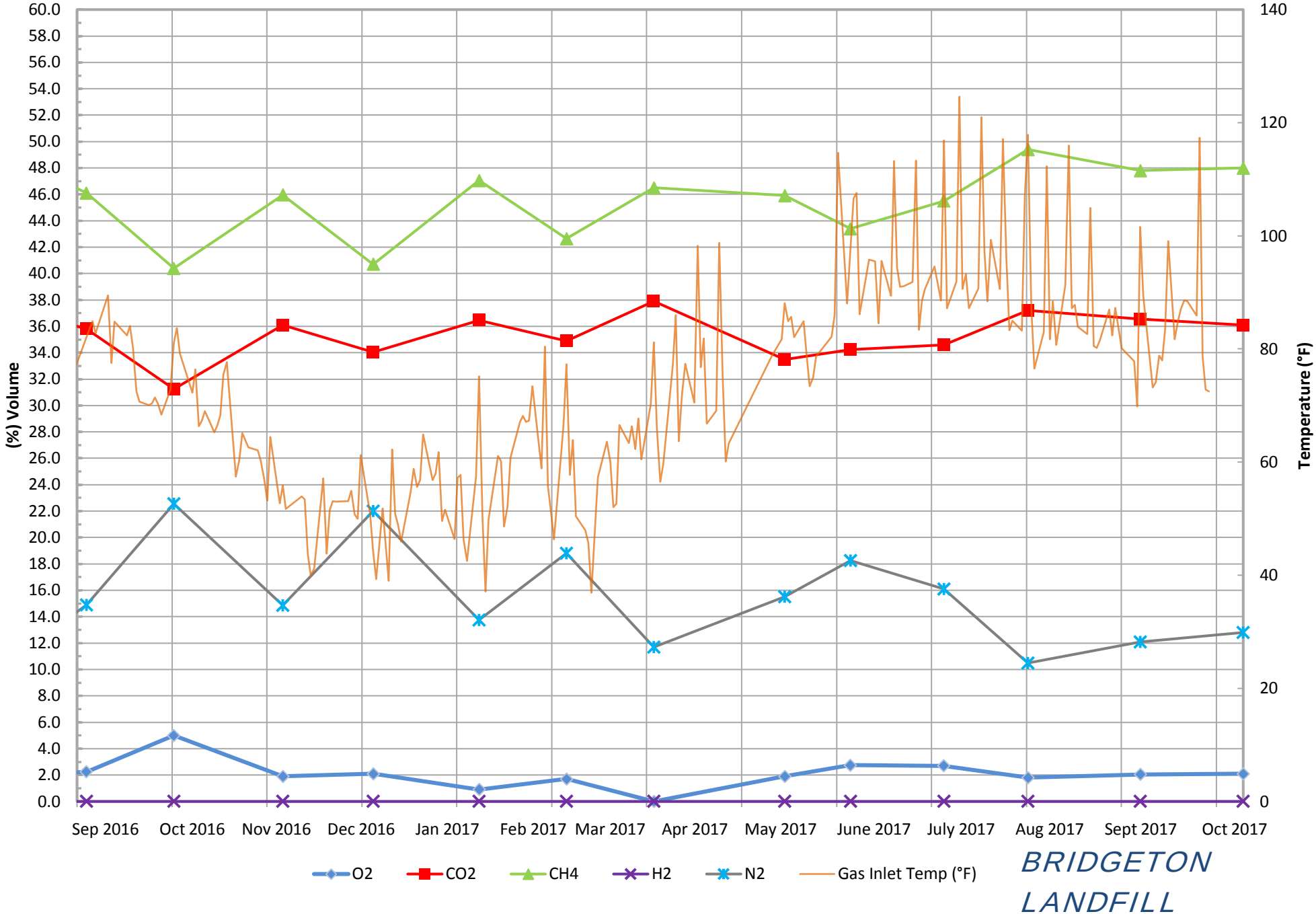
South Quarry Inlet Oxygen (Field Data)*



*Gas data collected from field monitoring data in the South Quarry.

BRIDGETON LANDFILL

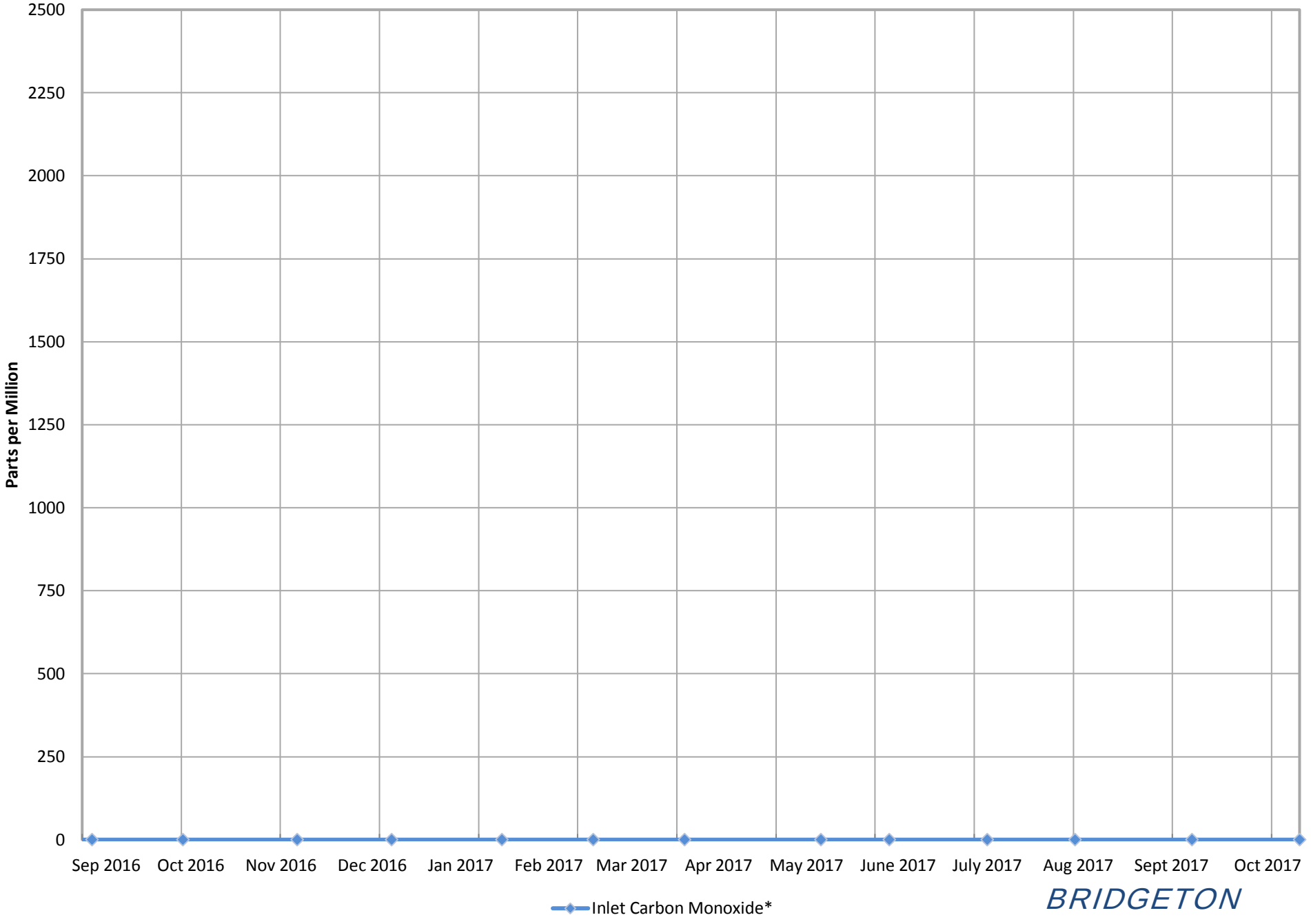
North Quarry Inlet Gas and Temperature*



BRIDGETON LANDFILL

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

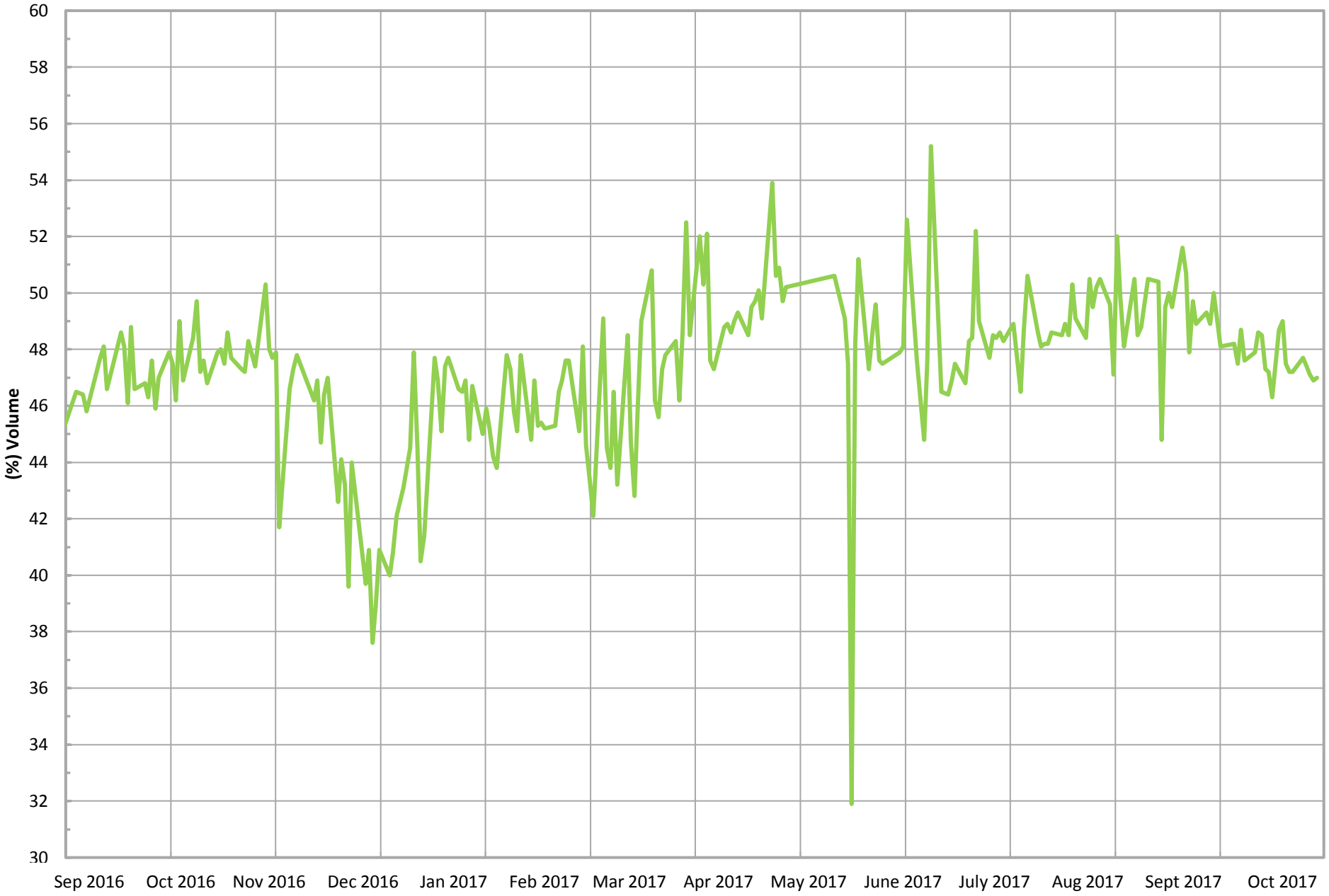
North Quarry Inlet Carbon Monoxide*



*Data collected from Laboratory Reports for the North Quarry.

BRIDGETON LANDFILL

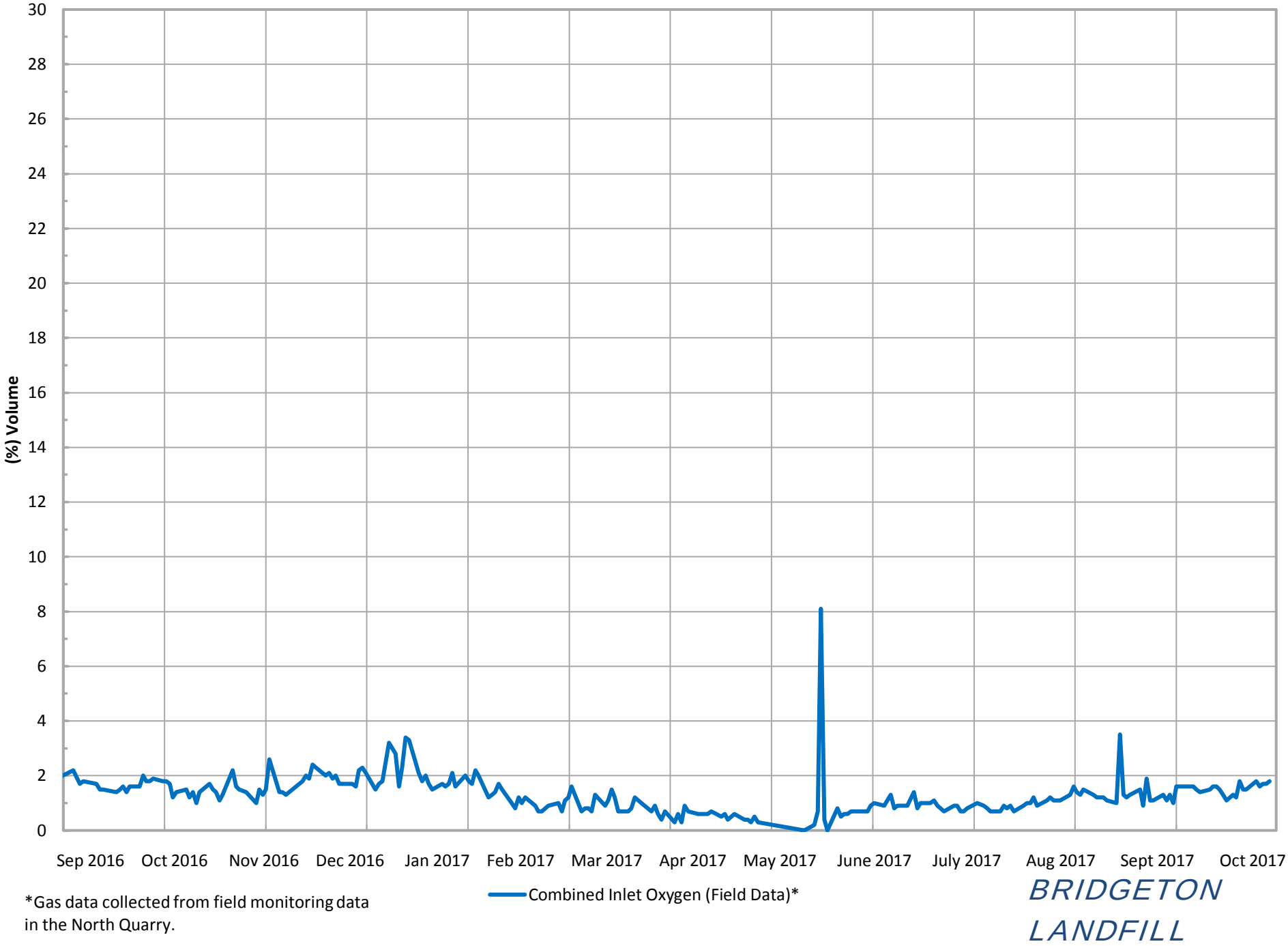
North Quarry Inlet Methane (Field Data)*



*Gas data collected from field monitoring data in the North Quarry.

BRIDGETON LANDFILL

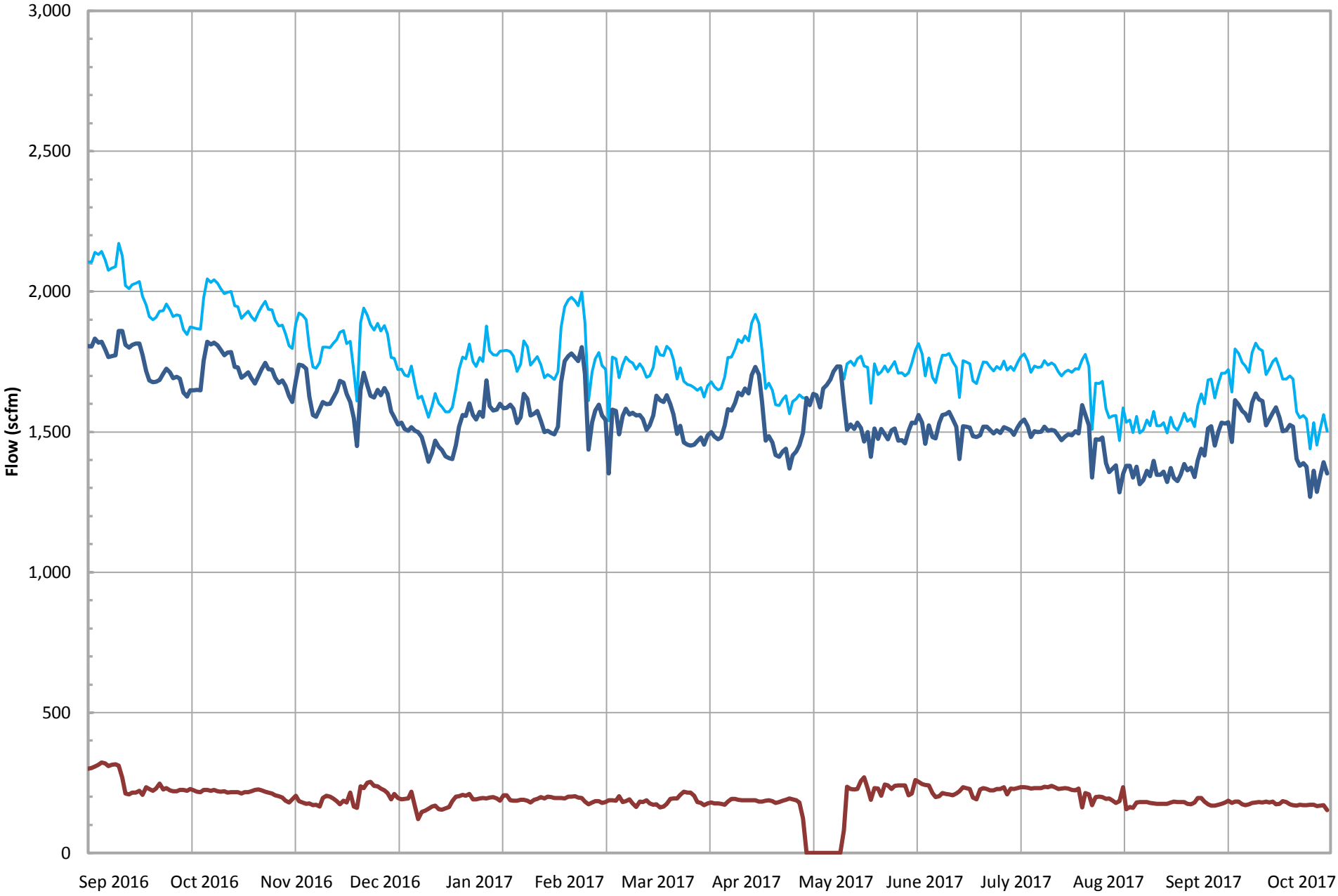
North Quarry Inlet Oxygen (Field Data)*



*Gas data collected from field monitoring data in the North Quarry.

BRIDGETON LANDFILL

Total Combined Flow (scfm)*

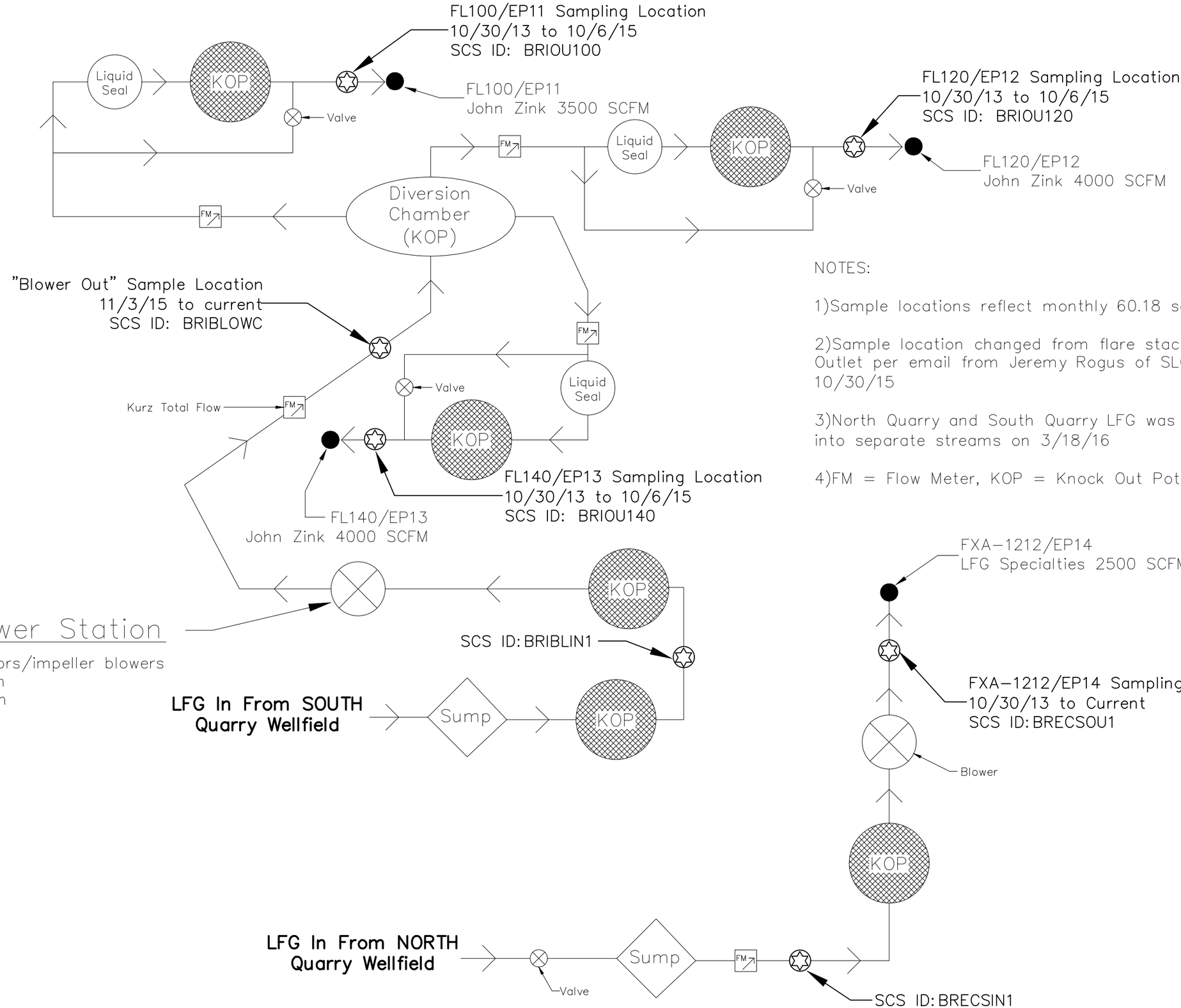


*Combined flow is based on tabulated flow data collected daily from FL-100, FL-120, FL-140, and the Auxillary Candlestick Flare.

BRIDGETON LANDFILL

ATTACHMENT B-3

FLARE TRS / FLARE STATION FLOW



NOTES:

1)Sample locations reflect monthly 60.18 sampling points

2)Sample location changed from flare stacks to Blower Outlet per email from Jeremy Rogus of SLCHD dated 10/30/15

3)North Quarry and South Quarry LFG was segregated into separate streams on 3/18/16

4)FM = Flow Meter, KOP = Knock Out Pot

PREPARED FOR:
BRIDGETON LANDFILL, LLC

FIGURE 1 - NORTH & SOUTH QUARRY FLARE COMPOUND
13570 ST. CHARLES ROCK ROAD
BRIDGETON, MISSOURI

No.	DATE	REVISION DESCRIPTION
1	9/19/2016	EP-08B Removed. Shown only to represent SQ LFG flow

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

REUSE OF DOCUMENTS
This document, and the designs incorporated herein, as an instrument of professional service, is the property of Weaver Consultants Group, and is not to be used in whole or in part, without the written authorization of Weaver Consultants Group.

DRAWN BY:	DT
REVIEWED BY:	MC
DATE:	10/7/2016
FILE:	0120-131-10
CAD:	Figure 1 - Flow Diagram.dwg

SHEET 1 OF 1

COPYRIGHT © 2015 WEAVER CONSULTANTS GROUP. ALL RIGHTS RESERVED.

I:\PROJECTS\120\131 Bridgeton\Bridgeton Air Compliance 2016\Figure 1 - Flow Diagram.dwg,dthoenen;February 17, 2017

TABLE 1 **Bridgeton Landfill, LLC.**

Summary of Key LFG Tested Parameters **September 07, 2017 October 10, 2017**

Flare Compound: Blower Outlet

SAMPLE EVENT #	DATE	VELOCITY ft/sec	FLOW dscfm	TRS ppm_{vd}
[1]136-41	10/10/2017	14.56	1126	1400
				1300
[2]135-40	10/3/2017	16.19	1311	1300
				1500
[2]134-39	9/26/2017	15.60	1264	1500
				1600
[2]133-38	9/19/2017	17.70	1434	1300
				1400
[2]132-37	9/13/2017	18.06	1463	1300
				1300
[1]131-36	9/7/2017	20.26	1477	1300
				1400

Notes:

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

[2]Indicates velocity/flow recorded by Blower Outlet's KURZ Flow Meter

Bridgeton Landfill, LLC
Weekly TRS
Monthly Method 2C
Event 136-41
10/10/2017

	PARAMETER	Blower Out
SOUTH QUARRY LFG - BLOWER OUTLET (FL140/EP-13 Only)		
Date	Test Date	10/10/17
Start	Run Start Time	10:33
	Run Finish Time	12:03
	Net Traversing Points	8 (2 x 4)
Θ	Net Run Time, minutes	1:29:55
C_p	Pitot Tube Coeficient	0.99
P_{Br}	Barometric Pressure, inches of Mercury	29.61
% H_2O	Moisture Content of LFG, %	2.96
% RH	Relative Humidity, %	68.50
M_{fd}	Dry Mole Fraction	0.970
%CH_4	Methane, %	12.10
%CO_2	Carbon Dioxide, %	33.60
%O_2	Oxygen, %	7.80
%Balance	Assumed as Nitrogen, %	35.95
%H_2	Hydrogen, %	9.45
%CO	Carbon Monoxide, %	0.05
M_d	Dry Molecular Weight, lb/lb-Mole	29.50
M_s	Wet Molecular weight, lb/lb-Mole	29.16
P_g	Flue Gas Static Pressure, inches of H_2O	11.83
P_s	Absolute Flue Gas Pressure, inches of Mercury	30.48
t_s	Average Stack Gas Temperature, °F	88
ΔP_{avg}	Average Velocity Head, inches of H_2O	0.048
v_s	Average LFG Velocity, feet/second	14.56
A_s	Stack Crossectional Area, square feet	1.35
Q_{sd}	Dry Volumetric Flow Rate, dry scfm	1,126
Q_s	Standard Volumetric Flow Rate, scfm	1,159
Q_{aw}	Actual Wet Volumetric Flue Gas Flow Rate, acfm	1,182
$Q_{lb/hr}$	Dry Air Flow Rate at Standard Conditions, lb/hr	5,171
NHV	Net Heating Value, Btu/scf	160.1
LFG_{CH4}	Methane, lb/hr	340.4
	Methane, grains/dscf	35.28
LFG_{CO2}	Carbon Dioxide, lb/hr	2,592.8
	Carbon Dioxide, grains/dscf	268.73
LFG_{O2}	Oxygen, lb/hr	437.6
	Oxygen, grains/dscf	45.36
LFG_{N2}	Balance gas as Nitrogen, lb/hr	1,765.9
	Balance gas as Nitrogen, grains/dscf	183.02
LFG_{H2}	Hydrogen, lb/hr	33.4
	Hydrogen, grains/dscf	3.46
LFG_{CO}	Carbon Monoxide, lb/hr	2.6
	Carbon Monoxide, grains/dscf	0.27

		Outlet A	Outlet B
H_2S	Hydrogen Sulfide Concentration, ppmd	0.59	7.2
	Hydrogen Sulfide Rate, lb/hr	0.00	0.04
	Hydrogen Sulfide Rate, grains/dscf	0.000	0.004
COS	Carbonyl Sulfide Concentration, ppmd	0.59	0.59
	Carboynl Sulfide Rate, lb/hr	0.01	0.01
	Carbonyl Sulfide Rate, grains/dscf	0.001	0.001
CH_4S	Methyl Mercaptan Concentration, ppmd	130	170
	Methyl Mercaptan Rate, lb/hr	1.10	1.43
	Methyl Mercaptan Rate, grains/dscf	0.114	0.149
C_2H_6S	Ethyl Mercaptan Concentration, ppmd	1.4	1.9
	Ethyl Mercaptan Rate, lb/hr	0.02	0.02
	Ethyl Mercaptan Rate, grains/dscf	0.002	0.002
$(CH_3)_2S$	Dimethyl Sulfide Concentration, ppmd	1,100	1,000
	Dimethyl Sulfide Rate, lb/hr	11.98	10.89
	Dimethyl Sulfide Rate, grains/dscf	1.242	1.129
CS_2	Carbon Disulfide Concentration, ppmd	0.90	0.90
	Carbon Disulfide Rate, lb/hr	0.01	0.01
	Carbon Disulfide Rate, grains/dscf	0.001	0.001
$C_2H_6S_2$	Dimethyl Disulfide Concentration, ppmd	100	74
	Dimethyl Disulfide Rate, lb/hr	1.65	0.99
	Dimethyl Disulfide Rate, grains/dscf	0.171	0.102

❶$E_{TRS-SO2}$	TRS-->SO2 Emission Concentration, ppmd	1,400	1,300
	TRS-->SO2 Emission Rate, lb/hr	15.73	14.60
	TRS-->SO2 Emission Rate, grains/dscf	1.630	1.514

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, October 10, 2017

LOCATION	TIME	FLOW -SCFM			Method 2 vs. Fleetzoom	Method 2 vs Kurz	Kurz vs Fleetzoom
		Method 2	FleetZoom	Kurz FM			
BLOWER OUT	**10:33**	**1,159**	**1,238**	**1,178**	**-6.8%**	**-1.7%**	**-5.0%**

**Note: Fleetzoom data derived from EP-13/FL140 TSI Flow Meter*

Bridgeton Landfill, LLC
Weekly TRS
Monthly Method 2C
Event 82-41
10/10/2017

	PARAMETER	Blower Out
	EP14 NORTH QUARRY LFG ONLY	
Date	Test Date	10/10/17
Start	Run Start Time	8:40
	Run Finish Time	10:09
	Net Traversing Points	8 (2 x 4)
Θ	Net Run Time, minutes	1:29:55
C_p	Pitot Tube Coeficient	0.99
P_{Br}	Barometric Pressure, inches of Mercury	29.53
% H_2O	Moisture Content of LFG, %	3.11
% RH	Relative Humidity, %	72.80
M_{fd}	Dry Mole Fraction	0.969
%CH_4	Methane, %	48.00
%CO_2	Carbon Dioxide, %	36.05
%O_2	Oxygen, %	2.05
%Balance	Assumed as Nitrogen, %	12.75
%H_2	Hydrogen, % (** reported at the laboratory detection limit*)	3.10
%CO	Carbon Monoxide, % (** reported at the laboratory detection limit*)	0.00310
M_d	Dry Molecular Weight, lb/lb-Mole	27.86
M_s	Wet Molecular weight, lb/lb-Mole	27.55
P_g	Flue Gas Static Pressure, inches of H_2O	0.50
P_s	Absolute Flue Gas Pressure, inches of Mercury	29.57
t_s	Average Stack Gas Temperature, °F	90
ΔP_{avg}	Average Velocity Head, inches of H_2O	0.004
v_s	Average LFG Velocity, feet/second	4.40
A_s	Stack Crossectional Area, square feet	0.51
Q_{sd}	Dry Volumetric Flow Rate, dry scfm	125
Q_s	Standard Volumetric Flow Rate, scfm	128
Q_{aw}	Actual Wet Volumetric Flue Gas Flow Rate, acfm	135
$Q_{lb/hr}$	Dry Air Flow Rate at Standard Conditions, lb/hr	540
NHV	Net Heating Value, Btu/scf	436.1
LFG_{CH4}	Methane, lb/hr	149.4
	Methane, grains/dscf	139.94
LFG_{CO2}	Carbon Dioxide, lb/hr	307.7
	Carbon Dioxide, grains/dscf	288.33
LFG_{O2}	Oxygen, lb/hr	12.7
	Oxygen, grains/dscf	11.92
LFG_{N2}	Balance gas as Nitrogen, lb/hr	69.3
	Balance gas as Nitrogen, grains/dscf	64.91
LFG_{H4}	Hydrogen, lb/hr	1.2
	Hydrogen, grains/dscf	1.14
LFG_{CO}	Carbon Monoxide, lb/hr	0.0
	Carbon Monoxide, grains/dscf	0.02

		Outlet A	Outlet B
H_2S	Hydrogen Sulfide Concentration, ppmd	4.0	0.63
	Hydrogen Sulfide Rate, lb/hr	0.00	0.00
	Hydrogen Sulfide Rate, grains/dscf	0.002	0.000
COS	Carbonyl Sulfide Concentration, ppmd	0.59	0.63
	Carboynl Sulfide Rate, lb/hr	0.00	0.00
	Carbonyl Sulfide Rate, grains/dscf	0.001	0.001
CH_4S	Methyl Mercaptan Concentration, ppmd	2.9	3.2
	Methyl Mercaptan Rate, lb/hr	0.00	0.00
	Methyl Mercaptan Rate, grains/dscf	0.003	0.003
C_2H_6S	Ethyl Mercaptan Concentration, ppmd	0.59	0.63
	Ethyl Mercaptan Rate, lb/hr	0.00	0.00
	Ethyl Mercaptan Rate, grains/dscf	0.001	0.001
$(CH_3)_2S$	Dimethyl Sulfide Concentration, ppmd	16	17
	Dimethyl Sulfide Rate, lb/hr	0.02	0.02
	Dimethyl Sulfide Rate, grains/dscf	0.018	0.019
CS_2	Carbon Disulfide Concentration, ppmd	0.59	0.63
	Carbon Disulfide Rate, lb/hr	0.00	0.00
	Carbon Disulfide Rate, grains/dscf	0.001	0.001
$C_2H_6S_2$	Dimethyl Disulfide Concentration, ppmd	0.59	0.63
	Dimethyl Disulfide Rate, lb/hr	0.00	0.00
	Dimethyl Disulfide Rate, grains/dscf	0.001	0.001

❶ **$E_{TRS-SO2}$**	TRS-->SO2 Emission Concentration, ppmd	23	21
	TRS-->SO2 Emission Rate, lb/hr	0.03	0.03
	TRS-->SO2 Emission Rate, grains/dscf	0.027	0.024

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.

October 12, 2017

Republic Services
ATTN: Nick Bauer
13570 St. Charles Rock Rd.
Bridgeton, MO 63044

nelac
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

LABORATORY TEST RESULTS

Project Reference: Bridgeton Landfill
Lab Number: I101106-01/04

Enclosed are results for sample(s) received 10/11/17 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 Nick Bauer, Mike Lambrich, Anthony Kimutis and Ron Baker; David Randall, Dustin Thoenen and Don Murphy, Weaver Consultants Group; and Jan Feezor, Feezor Engineering on 10/12/17.

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. J

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:	Nick Bauer
Company:	Republic Services
Street:	13570 St. Charles Rock Rd
City/State/Zip:	Bridgeton, MO 63044
Phone& Fax:	314-683-3921
e-mail:	Nbauer@republicservices.com

BILLING

P.O. No.:	6605567
Bill to:	Republic Services
	Attn: Nick Bauer
	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 Method 15/16 +TRS 10/11/17	ASTM 1946 + H2 + CO & Btu/SCF		ASTM 1946 + H2 + CO & Btu/SCF (by CH4 only)		
	Canister ID	Sample Start	Sample End	Lab Receive												
I101106-01	5960	-19.84	-3.5	-4	NQ EP14 A	10/10/2017	9:00	C-6L	LFG	He	X			X		
-02	5223	-20	-3.47	-5	NQ EP14 B	10/10/2017	9:30	C-6L	LFG	He	X			X		
-03	6009	-19.94	-3.5	-4	Blower Outlet A	10/10/2017	10:50	C-6L	LFG	He	X	X				
-04	5955	-19.93	-3.49	-4	Blower Outlet B	10/10/2017	11:19	C-6L	LFG	He	X	X				

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

SAMPLED BY: AK/RB — COMPANY: Republic Services — DATE/TIME 10/10/2017 0700-1200

RELINQUISHED BY: Ronald V Baker Jr — DATE: 10/10/2017 — RECEIVED BY — DATE/TIME

RELINQUISHED BY — DATE: 10/10/17 — RECEIVED BY — DATE/TIME

RELINQUISHED BY: FedEx — DATE — RECEIVED BY: J. Xiang — DATE/TIME: 16:43

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: Nick Bauer
Project Name: Bridgeton Landfill
Project No.: NA
Date Received: 10/11/17
Matrix: Air
Reporting Units: % v/v

ASTM D1946

Lab No.:	I101106-01		I101106-02					
Client Sample I.D.:	EP-14 NQ A		EP-14 NQ B					
Date/Time Sampled:	10/10/17 9:00		10/10/17 9:30					
Date/Time Analyzed:	10/12/17 11:29		10/12/17 11:44					
QC Batch No.:	171012GC8A1		171012GC8A1					
Analyst Initials:	AS		AS					
Dilution Factor:	3.0		3.2					
ANALYTE	Result % v/v	RL % v/v	Result % v/v	RL % v/v				
Hydrogen	ND	3.0	ND	3.2				
Carbon Dioxide	36.1	0.030	36.0	0.032				
Oxygen/Argon	2.06	1.5	2.1	1.6				
Nitrogen	12.7	3.0	12.8	3.2				
Methane	48.0	0.0030	47.9	0.0032				
Carbon Monoxide	ND	0.0030	ND	0.0032				
Net Heating Value (BTU/ft3) methane only	436.3	3.0	435.8	3.2				
Gross Heating Value (BTU/ft3) methane only	484.5	3.0	484.1	3.2				

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

Reviewed/Approved By: _____ Date 10-12-17

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: Nick Bauer
Project Name: Bridgeton Landfill
Project No.: NA
Date Received: 10/11/17
Matrix: Air
Reporting Units: % v/v

ASTM D1946

Lab No.:	I101106-03		I101106-04					
Client Sample I.D.:	Blower Outlet A		Blower Outlet B					
Date/Time Sampled:	10/10/17 10:50		10/10/17 11:19					
Date/Time Analyzed:	10/12/17 11:58		10/12/17 12:13					
QC Batch No.:	171012GC8A1		171012GC8A1					
Analyst Initials:	AS		AS					
Dilution Factor:	3.0		3.0					
ANALYTE	Result % v/v	RL % v/v	Result % v/v	RL % v/v				
Hydrogen	9.2	3.0	9.7	3.0				
Carbon Dioxide	32.7	0.030	34.5	0.030				
Oxygen/Argon	8.2	1.5	7.4	1.5				
Nitrogen	37.1	3.0	34.8	3.0				
Methane	11.8	0.0030	12.4	0.0030				
Carbon Monoxide	0.052	0.0030	0.055	0.0030				
Net Heating Value (BTU/ft3)	155.7	3.0	164.4	3.0				
Gross Heating Value (BTU/ft3)	175.8	3.0	185.7	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 10-12-17
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: 171012GC8A1
Matrix: Air
Reporting Units: % v/v

ASTM D1946
LABORATORY CONTROL SAMPLE SUMMARY

Lab No.:	METHOD BLANK			LCS		LCSD					
Date Analyzed:	10/12/17 11:15			10/12/17 10:31		10/12/17 10:46					
Analyst Initials:	AS			AS		AS					
Dilution Factor:	1.0			1.0		1.0			Limits		
ANALYTE	Result % v/v	RL % v/v	SPIKE AMT. % v/v	Result % v/v	% Rec.	Result % v/v	% Rec.	RPD %	Low %Rec	High %Rec	Max. RPD
Hydrogen	ND	1.0	5.0	4.63	93	4.62	92	0.2	70	130	30
Carbon Dioxide	ND	0.010	10	9.02	90	9.05	90	0.4	70	130	30
Oxygen/Argon	ND	0.50	15	15.6	105	15.6	105	0.0	70	130	30
Nitrogen	ND	1.0	70	70.5	101	70.4	101	0.1	70	130	30
Methane	ND	0.0010	0.10	0.106	106	0.106	106	0.5	70	130	30
Carbon Monoxide	ND	0.0010	0.10	0.106	106	0.105	105	0.5	70	130	30

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

Reviewed/Approved By: _____ Date 10-12-17

Mark Johnson
Operations Manager

The cover letter is an integral part of this analytical report

Client: Republic Services
Attn: Nick Bauer
Project Name: Bridgeton Landfill
Project No.: NA
Date Received: 10/11/17
Matrix: Air
Reporting Units: ppmv

EPA Methods 15/16

Lab No.:	I101106-01		I101106-02		I101106-03		I101106-04	
Client Sample I.D.:	EP-14 NQ A		EP-14 NQ B		Blower Outlet A		Blower Outlet B	
Date/Time Sampled:	10/10/17 9:00		10/10/17 9:30		10/10/17 10:50		10/10/17 11:19	
Date/Time Analyzed:	10/12/17 11:45		10/12/17 11:58		10/12/17 12:11		10/12/17 12:23	
QC Batch No.:	171012GC3A1		171012GC3A1		171012GC3A1		171012GC3A1	
Analyst Initials:	AS		AS		AS		AS	
Dilution Factor:	3.0		3.2		3.0		3.0	
ANALYTE	Result ppmv	RL ppmv	Result ppmv	RL ppmv	Result ppmv	RL ppmv	Result ppmv	RL ppmv
Hydrogen Sulfide	4.0	0.59	ND	0.63	ND	0.59	7.2	0.59
Carbonyl Sulfide	ND	0.59	ND	0.63	ND	0.59	ND	0.59
Methyl Mercaptan	2.9	0.59	3.2	0.63	130 d	59	170 d	59
Ethyl Mercaptan	ND	0.59	ND	0.63	1.4	0.59	1.9	0.59
Dimethyl Sulfide	16	0.59	17	0.63	1,100 d	59	1,000 d	59
Carbon Disulfide	ND	0.59	ND	0.63	0.90	0.59	0.90	0.59
Dimethyl Disulfide	ND	0.59	ND	0.63	100 d	59	74 d	59
Total Reduced Sulfur	23	0.59	21	0.63	1,400	0.59	1,300	0.59

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

Reviewed/Approved By: _____ Date 10-12-17

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 for Sulfur Compounds by EPA 15/16

Lab No.:	Method Blank		LCS		LCSD			
Date/Time Analyzed:	10/12/17 11:05		10/12/17 10:40		10/12/17 10:53			
Analyst Initials:	AS		AS		AS			
Datafile:	12oct003		12oct001		12oct002			
Dilution Factor:	1.0		1.0		1.0			
ANALYTE	Results	RL	% Rec.	Criteria	% Rec.	Criteria	%RPD	Criteria
Hydrogen Sulfide	ND	0.20	96	70-130%	96	70-130%	0.6	<30
Carbonyl Sulfide	ND	0.20	103	70-130%	102	70-130%	0.4	<30
Methyl Mercaptan	ND	0.20	107	70-130%	106	70-130%	0.3	<30
Ethyl Mercaptan	ND	0.20	99	70-130%	99	70-130%	0.1	<30
Dimethyl Sulfide	ND	0.20	92	70-130%	90	70-130%	2.4	<30
Carbon Disulfide	ND	0.20	92	70-130%	90	70-130%	2.4	<30
Dimethyl Disulfide	ND	0.20	80	70-130%	79	70-130%	0.5	<30

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

Reviewed/Approved By: _____ Date: 10-12-17
Mark J. Johnson
Operations Manager

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

Bridgeton Landfill, LLC.
Weekly TRS Sampling Summary
Event 135-40
10/03/2017

Kurz FM =	**1,380**	**scfm**
Fleetzoom Total =	**1,327**	**scfm**

Δ = -4.0%

	PARAMETER	Blower Outlet A	Blower Outlet B
SOUTH QUARRY LFG - MAIN FLARE COMPOUND BLOWER OUTLET (FL140)			
Date	Test Date	10/3/17	10/3/17
Time	Start	10:48	11:18
***%CH_4**	Methane, %	11.5	11.8
***%CO_2**	Carbon Dioxide, %	32.9	33.7
***'%O_2**	Oxygen, %	8.0	7.6
***%Balance**	Assumed as Nitrogen, %	47.6	46.9
P_g	Flue Gas Static Pressure, inches of H_2O	14.57	14.39
t_s	Blower Outlet LFG Temperature, °F	93.8	93.8
Q_{sd}	Dry Volumetric Flow Rate, dry scfm (assumes 5%H2O)	1,311	
Q_s	Kurz FM, Blower Out, Standard Volumetric Flow Rate, scfm	1,380	
LFG_{CH4}	Methane, lb/hr	376.8	386.6
	Methane, grains/dscf	33.53	34.40
LFG_{CO2}	Carbon Dioxide, lb/hr	2,957.3	3,029.2
	Carbon Dioxide, grains/dscf	263.13	269.53
LFG_{O2}	Oxygen, lb/hr	522.8	496.7
	Oxygen, grains/dscf	46.52	44.20
LFG_{N2}	Balance gas as Nitrogen, lb/hr	2,723.5	2,683.4
	Balance gas as Nitrogen, grains/dscf	242.33	238.77

** Fixed gas results based on field parameter data collection at the time of sampling, via Envision Landfill Gas Analyzer*

		Blower Outlet A	Blower Outlet B
H_2S	Hydrogen Sulfide Concentration, ppmd	0.59	15
	Hydrogen Sulfide Rate, lb/hr	0.00	0.10
	Hydrogen Sulfide Rate, grains/dscf	0.000	0.009
COS	Carbonyl Sulfide Concentration, ppmd	0.59	0.59
	Carboynl Sulfide Rate, lb/hr	0.01	0.01
	Carbonyl Sulfide Rate, grains/dscf	0.001	0.001
CH_4S	Methyl Mercaptan Concentration, ppmd	0.59	180
	Methyl Mercaptan Rate, lb/hr	0.01	1.77
	Methyl Mercaptan Rate, grains/dscf	0.001	0.157
C_2H_6S	Ethyl Mercaptan Concentration, ppmd	0.59	1.8
	Ethyl Mercaptan Rate, lb/hr	0.01	0.02
	Ethyl Mercaptan Rate, grains/dscf	0.001	0.002
$(CH_3)_2S$	Dimethyl Sulfide Concentration, ppmd	1,000	1,100
	Dimethyl Sulfide Rate, lb/hr	12.69	13.96
	Dimethyl Sulfide Rate, grains/dscf	1.129	1.242
CS_2	Carbon Disulfide Concentration, ppmd	1.2	0.95
	Carbon Disulfide Rate, lb/hr	0.02	0.01
	Carbon Disulfide Rate, grains/dscf	0.002	0.001
$C_2H_6S_2$	Dimethyl Disulfide Concentration, ppmd	150	100
	Dimethyl Disulfide Rate, lb/hr	2.89	1.92
	Dimethyl Disulfide Rate, grains/dscf	0.257	0.171
❶$E_{TRS-SO2}$	TRS-->SO2 Emission Concentration, ppmd	1,300	1,500
	TRS-->SO2 Emission Rate, lb/hr	17.01	19.63
	TRS-->SO2 Emission Rate, grains/dscf	1.514	1.746
	TPY =	74.50	85.97

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

Bridgeton Landfill, LLC.
Weekly TRS Sampling Summary
Event 81-40
10/03/2017

Fleetzoom Total = 172 scfm

	PARAMETER	EP14 NQ A	EP14 NQ B
EP14 NORTH QUARRY FLARE (OPERATING SOLO, NQ LFG Only)			
Date	Test Date	10/3/17	10/3/17
Time	Start	8:40	9:09
***%CH_4**	Methane, %	47.5	46.0
***%CO_2**	Carbon Dioxide, %	34.6	35.6
***'%O_2**	Oxygen, %	1.7	1.6
***%Balance**	Assumed as Nitrogen, %	16.2	16.8
P_g	Flue Gas Static Pressure, inches of H_2O	2.63	2.34
t_s	Blower Outlet LFG Temperature, °F	82.6	89.0
Q_{sd}	Dry Volumetric Flow Rate, dry scfm (assumes 5%H2O)	163	
Q_s	Fleetzoom Standard Volumetric Flow Rate, scfm	172	
LFG_{CH4}	Methane, lb/hr	193.5	187.4
	Methane, grains/dscf	138.48	134.11
LFG_{CO2}	Carbon Dioxide, lb/hr	386.6	397.8
	Carbon Dioxide, grains/dscf	276.73	284.73
LFG_{O2}	Oxygen, lb/hr	13.8	13.0
	Oxygen, grains/dscf	9.89	9.30
LFG_{N2}	Balance gas as Nitrogen, lb/hr	115.2	119.5
	Balance gas as Nitrogen, grains/dscf	82.47	85.53

** Fixed gas results based on field parameter data collection at the time of sampling, via Envision Landfill Gas Analyzer*

		EP14 NQ A	EP14 NQ B
H_2S	Hydrogen Sulfide Concentration, ppmd	47	0.59
	Hydrogen Sulfide Rate, lb/hr	0.04	0.00
	Hydrogen Sulfide Rate, grains/dscf	0.029	0.000
COS	Carbonyl Sulfide Concentration, ppmd	0.59	0.59
	Carboynl Sulfide Rate, lb/hr	0.00	0.00
	Carbonyl Sulfide Rate, grains/dscf	0.001	0.001
CH_4S	Methyl Mercaptan Concentration, ppmd	4.4	0.93
	Methyl Mercaptan Rate, lb/hr	0.01	0.00
	Methyl Mercaptan Rate, grains/dscf	0.004	0.001
C_2H_6S	Ethyl Mercaptan Concentration, ppmd	0.59	0.59
	Ethyl Mercaptan Rate, lb/hr	0.00	0.00
	Ethyl Mercaptan Rate, grains/dscf	0.001	0.001
$(CH_3)_2S$	Dimethyl Sulfide Concentration, ppmd	16	16
	Dimethyl Sulfide Rate, lb/hr	0.03	0.03
	Dimethyl Sulfide Rate, grains/dscf	0.018	0.018
CS_2	Carbon Disulfide Concentration, ppmd	0.59	0.59
	Carbon Disulfide Rate, lb/hr	0.00	0.00
	Carbon Disulfide Rate, grains/dscf	0.001	0.001
$C_2H_6S_2$	Dimethyl Disulfide Concentration, ppmd	0.59	0.59
	Dimethyl Disulfide Rate, lb/hr	0.00	0.00
	Dimethyl Disulfide Rate, grains/dscf	0.001	0.001
❶$E_{TRS-SO2}$	TRS-->SO2 Emission Concentration, ppmd	68	19
	TRS-->SO2 Emission Rate, lb/hr	0.11	0.03
	TRS-->SO2 Emission Rate, grains/dscf	0.079	0.022
	TPY =	0.48	0.14

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.

October 9, 2017

Republic Services
ATTN: Nick Bauer
13570 St. Charles Rock Rd.
Bridgeton, MO 63044

nelac
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

LABORATORY TEST RESULTS

Project Reference: Bridgeton Landfill
Lab Number: I100405-01/04

Enclosed are results for sample(s) received 10/04/17 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 Nick Bauer, Mike Lambrich, Ron Baker and Anthony Kimutis; David Randall, Dustin Thoenen and Don Murphy, Weaver Consultants Group, and Jan Feezor, Feezor Engineering on 10/09/17.

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.

Air TECHNOLOGY 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:	Nick Bauer
Company:	Republic Services
Street:	13570 St. Charles Rock Rd
City/State/Zip:	Bridgeton, MO 63044
Phone& Fax:	314-683-3921
e-mail:	Nbauer@republicservices.com

BILLING

P.O. No.:	6605567
Bill to:	Republic Services
	Attn: Nick Bauer
	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 Method 15/16 + TRS	ASTM 1946 + H2 + CO & Btu/SCF		ASTM 1946 + H2 + CO & Btu/SCF (by GH4 only)		
I100405-01	1296	-20.03	-3.47	-4	NQ EP14 A	10/3/2017	8:59	C-6L	LFG	He	X			X		
-02	4431	-20.01	-3.47	-4	NQ EP14 B	10/3/2017	9:27	C-6L	LFG	He	X			X		
-03	1290	-19.89	-3.47	-4	Blower Outlet A	10/3/2017	11:08	C-6L	LFG	He	X	X				
-04	6052	-20.27	-3.5	-4	Blower Outlet B	10/3/2017	11:35	C-6L	LFG	He	X	X				

AUTHORIZATION TO PERFORM WORK: Dave Penoyer		COMPANY: Republic Services	DATE/TIME:
SAMPLED BY: AK/RB		COMPANY: ~~Weaver Consultants Group~~ Republic Services	DATE/TIME 08/2/2017 0700-1300
RELINQUISHED BY: Ronald W Baker Jr	DATE: 10/3/2017	RECEIVED BY	DATE/TIME
RELINQUISHED BY	DATE: 10/3/2017	RECEIVED BY	DATE/TIME
RELINQUISHED BY: FedEx	DATE:	RECEIVED BY: J. Kang	DATE/TIME 10/4/17 12:45

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: Nick Bauer
Project Name: Bridgeton Landfill
Project No.: NA
Date Received: 10/04/17
Matrix: Air
Reporting Units: ppmv

EPA Methods 15/16

Lab No.:	I100405-01		I100405-02		I100405-03		I100405-04	
Client Sample I.D.:	EP-14 NQ A		EP-14 NQ B		Blower Outlet A		Blower Outlet B	
Date/Time Sampled:	10/3/17 8:59		10/3/17 9:27		10/3/17 11:08		10/3/17 11:35	
Date/Time Analyzed:	10/6/17 12:43		10/6/17 12:56		10/6/17 13:08		10/6/17 13:21	
QC Batch No.:	171006GC3A1		171006GC3A1		171006GC3A1		171006GC3A1	
Analyst Initials:	AS		AS		AS		AS	
Dilution Factor:	3.0		3.0		3.0		3.0	
ANALYTE	Result ppmv	RL ppmv	Result ppmv	RL ppmv	Result ppmv	RL ppmv	Result ppmv	RL ppmv
Hydrogen Sulfide	47 d	5.9	ND	0.59	ND	0.59	15	0.59
Carbonyl Sulfide	ND	0.59	ND	0.59	ND	0.59	ND	0.59
Methyl Mercaptan	4.4	0.59	0.93	0.59	ND	0.59	180 d	59
Ethyl Mercaptan	ND	0.59	ND	0.59	ND	0.59	1.8	0.59
Dimethyl Sulfide	16	0.59	16	0.59	1,000 d	59	1,100 d	59
Carbon Disulfide	ND	0.59	ND	0.59	1.2	0.59	0.95	0.59
Dimethyl Disulfide	ND	0.59	ND	0.59	150 d	59	100 d	59
Total Reduced Sulfur	68	0.59	19	0.59	1,300	0.59	1,500	0.59

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

Reviewed/Approved By: _____ Date 10/9/17
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 for Sulfur Compounds by EPA 15/16

Lab No.:	Method Blank		LCS		LCSD			
Date/Time Analyzed:	10/6/17 10:28		10/6/17 14:12		10/6/17 14:24			
Analyst Initials:	AS		AS		AS			
Datafile:	06oct004		06oct021		06oct022			
Dilution Factor:	1.0		1.0		1.0			
ANALYTE	Results	RL	% Rec.	Criteria	% Rec.	Criteria	%RPD	Criteria
Hydrogen Sulfide	ND	0.20	108	70-130%	108	70-130%	0.1	<30
Carbonyl Sulfide	ND	0.20	110	70-130%	109	70-130%	0.7	<30
Methyl Mercaptan	ND	0.20	119	70-130%	118	70-130%	0.8	<30
Ethyl Mercaptan	ND	0.20	110	70-130%	110	70-130%	0.6	<30
Dimethyl Sulfide	ND	0.20	94	70-130%	95	70-130%	0.2	<30
Carbon Disulfide	ND	0.20	97	70-130%	96	70-130%	0.7	<30
Dimethyl Disulfide	ND	0.20	87	70-130%	87	70-130%	0.4	<30

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

Reviewed/Approved By: _____ Date: 10/9/17
Mark J. Johnson
Operations Manager

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

Bridgeton Landfill, LLC.
Weekly TRS Sampling Summary
Event 134-39
09/26/2017

Kurz FM =	**1,331**	**scfm**
Fleetzoom Total =	**1,290**	**scfm**

Δ = -3.2%

	PARAMETER	Blower Outlet A	Blower Outlet B
SOUTH QUARRY LFG - MAIN FLARE COMPOUND BLOWER OUTLET (FL140)			
Date	Test Date	9/26/17	9/26/17
Time	Start	9:48	9:58
***%CH_4**	Methane, %	13.9	13.6
***%CO_2**	Carbon Dioxide, %	40.2	40.9
***'%O_2**	Oxygen, %	6.2	6.1
***%Balance**	Assumed as Nitrogen, %	39.7	39.4
P_g	Flue Gas Static Pressure, inches of H_2O	13.28	14.03
t_s	Blower Outlet LFG Temperature, °F	98.0	101.7
Q_{sd}	Dry Volumetric Flow Rate, dry scfm (assumes 5%H2O)	1,264	
Q_s	Kurz FM, Blower Out, Standard Volumetric Flow Rate, scfm	1,331	
LFG_{CH4}	Methane, lb/hr	439.1	429.7
	Methane, grains/dscf	40.52	39.65
LFG_{CO2}	Carbon Dioxide, lb/hr	3,484.2	3,544.8
	Carbon Dioxide, grains/dscf	321.52	327.12
LFG_{O2}	Oxygen, lb/hr	390.7	384.4
	Oxygen, grains/dscf	36.05	35.47
LFG_{N2}	Balance gas as Nitrogen, lb/hr	2,190.2	2,173.6
	Balance gas as Nitrogen, grains/dscf	202.11	200.58

** Fixed gas results based on field parameter data collection at the time of sampling, via Envision Landfill Gas Analyzer*

		Blower Outlet A	Blower Outlet B
H_2S	Hydrogen Sulfide Concentration, ppmd	0.61	11.00
	Hydrogen Sulfide Rate, lb/hr	0.00	0.07
	Hydrogen Sulfide Rate, grains/dscf	0.000	0.007
COS	Carbonyl Sulfide Concentration, ppmd	0.61	0.63
	Carboynl Sulfide Rate, lb/hr	0.01	0.01
	Carbonyl Sulfide Rate, grains/dscf	0.001	0.001
CH_4S	Methyl Mercaptan Concentration, ppmd	110	190.00
	Methyl Mercaptan Rate, lb/hr	1.04	1.80
	Methyl Mercaptan Rate, grains/dscf	0.096	0.166
C_2H_6S	Ethyl Mercaptan Concentration, ppmd	0.97	2.00
	Ethyl Mercaptan Rate, lb/hr	0.01	0.02
	Ethyl Mercaptan Rate, grains/dscf	0.001	0.002
$(CH_3)_2S$	Dimethyl Sulfide Concentration, ppmd	1,100	1,200
	Dimethyl Sulfide Rate, lb/hr	13.46	14.68
	Dimethyl Sulfide Rate, grains/dscf	1.242	1.355
CS_2	Carbon Disulfide Concentration, ppmd	0.98	1.00
	Carbon Disulfide Rate, lb/hr	0.01	0.01
	Carbon Disulfide Rate, grains/dscf	0.001	0.001
$C_2H_6S_2$	Dimethyl Disulfide Concentration, ppmd	130	110
	Dimethyl Disulfide Rate, lb/hr	2.41	2.04
	Dimethyl Disulfide Rate, grains/dscf	0.223	0.188
❶$E_{TRS-SO2}$	TRS-->SO2 Emission Concentration, ppmd	1,500	1,600
	TRS-->SO2 Emission Rate, lb/hr	18.92	20.19
	TRS-->SO2 Emission Rate, grains/dscf	1.746	1.863
	TPY =	82.89	88.42

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

Bridgeton Landfill, LLC.
Weekly TRS Sampling Summary
Event 80-39
09/26/2017

Fleetzoom Total = 172 scfm

	PARAMETER	EP14 NQ A	EP14 NQ B
EP14 NORTH QUARRY FLARE (OPERATING SOLO to NQ LFG Only)			
Date	Test Date	9/26/17	9/26/17
Time	Start	8:57	9:12
***%CH_4**	Methane, %	49.2	47.4
***%CO_2**	Carbon Dioxide, %	36.6	38.6
***'%O_2**	Oxygen, %	1.4	1.4
***%Balance**	Assumed as Nitrogen, %	12.8	12.6
P_g	Flue Gas Static Pressure, inches of H_2O	2.41	2.61
t_s	Blower Outlet LFG Temperature, °F	93.5	97.0
Q_{sd}	Dry Volumetric Flow Rate, dry scfm (assumes 5%H2O)	163	
Q_s	Fleetzoom Standard Volumetric Flow Rate, scfm	172	
LFG_{CH4}	Methane, lb/hr	200.3	193.0
	Methane, grains/dscf	143.44	138.19
LFG_{CO2}	Carbon Dioxide, lb/hr	408.8	431.2
	Carbon Dioxide, grains/dscf	292.73	308.72
LFG_{O2}	Oxygen, lb/hr	11.4	11.4
	Oxygen, grains/dscf	8.14	8.14
LFG_{N2}	Balance gas as Nitrogen, lb/hr	91.0	89.6
	Balance gas as Nitrogen, grains/dscf	65.16	64.15

** Fixed gas results based on field parameter data collection at the time of sampling, via Envision Landfill Gas Analyzer*

		EP14 NQ A	EP14 NQ B
H_2S	Hydrogen Sulfide Concentration, ppmd	14	0.59
	Hydrogen Sulfide Rate, lb/hr	0.01	0.00
	Hydrogen Sulfide Rate, grains/dscf	0.009	0.000
COS	Carbonyl Sulfide Concentration, ppmd	0.53	0.59
	Carboynl Sulfide Rate, lb/hr	0.00	0.00
	Carbonyl Sulfide Rate, grains/dscf	0.001	0.001
CH_4S	Methyl Mercaptan Concentration, ppmd	3.4	0.59
	Methyl Mercaptan Rate, lb/hr	0.00	0.00
	Methyl Mercaptan Rate, grains/dscf	0.003	0.001
C_2H_6S	Ethyl Mercaptan Concentration, ppmd	0.53	0.59
	Ethyl Mercaptan Rate, lb/hr	0.00	0.00
	Ethyl Mercaptan Rate, grains/dscf	0.001	0.001
$(CH_3)_2S$	Dimethyl Sulfide Concentration, ppmd	14	14
	Dimethyl Sulfide Rate, lb/hr	0.02	0.02
	Dimethyl Sulfide Rate, grains/dscf	0.016	0.016
CS_2	Carbon Disulfide Concentration, ppmd	0.53	0.59
	Carbon Disulfide Rate, lb/hr	0.00	0.00
	Carbon Disulfide Rate, grains/dscf	0.001	0.001
$C_2H_6S_2$	Dimethyl Disulfide Concentration, ppmd	0.53	0.69
	Dimethyl Disulfide Rate, lb/hr	0.00	0.00
	Dimethyl Disulfide Rate, grains/dscf	0.001	0.001
❶$E_{TRS-SO2}$	TRS-->SO2 Emission Concentration, ppmd	32	16
	TRS-->SO2 Emission Rate, lb/hr	0.05	0.03
	TRS-->SO2 Emission Rate, grains/dscf	0.037	0.019
	TPY =	0.23	0.11

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.

October 4, 2017

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: Nick Bauer
13570 St. Charles Rock Rd.
Bridgeton, MO 63044

LABORATORY TEST RESULTS

Project Reference: Bridgeton Landfill
Lab Number: I092711-01/04

Enclosed are results for sample(s) received 9/27/17 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 Nick Bauer, Mike Lambrich, Ron Baker and Anthony Kimutis; David Randall, Dustin Thoenen and Don Murphy, Weaver Consultants Group, and Jan Feezor, Feezor Engineering on 10/03/17.

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:	Nick Bauer
Company:	Republic Services
Street:	13570 St. Charles Rock Rd
City/State/Zip:	Bridgeton, MO 63044
Phone& Fax:	314-683-3921
e-mail:	Nbauer@republicservices.com

BILLING

P.O. No.:	~~6312552~~ 6605567
Bill to:	Republic Services TD 10/4/17
	Attn: Nick Bauer
	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 Method 15/16 + TRS					
I092711-01	1614	-19.36	-3.48		EP-14 NQ A	9/26/2017	8:57	C -1L	LFG	He	X					
-02	J1725	-18.88	-3.48		EP-14 NQ B	9/26/2017	9:12	C -1L	LFG	He	X					
-03	J1721	-18.82	-3.46		Blower Outlet A	9/26/2017	9:45	C -1L	LFG	He	X					
-04	R1158	-19.46	-3.46		Blower Outlet B	9/26/2017	9:58	C -1L	LFG	He	X					

AUTHORIZATION TO PERFORM WORK: Dave Penoyer	COMPANY: Republic Services	DATE/TIME:	COMMENTS
SAMPLED BY: Anthony Kimutis	COMPANY: Republic Services	DATE/TIME 9-26-17	
RELINQUISHED BY [signature] 9-26-17	DATE/ RECEIVED BY	DATE/TIME	
RELINQUISHED BY FedEx 9-27-17 13:07	DATE/ RECEIVED BY [signature]	DATE/TIME 9-27-17 1347	
RELINQUISHED BY	DATE/ RECEIVED BY	DATE/TIME	

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

Client: Republic Services
Attn: Nick Bauer
Project Name: Bridgeton Landfill
Project No.: NA
Date Received: 09/27/17
Matrix: Air
Reporting Units: ppmv

EPA Methods 15/16

Lab No.:	I092711-01		I092711-02		I092711-03		I092711-04	
Client Sample I.D.:	EP-14 NQ A		EP-14 NQ B		Blower Outlet A		Blower Outlet B	
Date/Time Sampled:	9/26/17 8:57		9/26/17 9:12		9/26/17 9:45		9/26/17 9:58	
Date/Time Analyzed:	9/29/17 11:23		9/29/17 11:36		9/29/17 11:48		9/29/17 12:01	
QC Batch No.:	170929GC3A1		170929GC3A1		170929GC3A1		170929GC3A1	
Analyst Initials:	AS		AS		AS		AS	
Dilution Factor:	2.7		3.0		3.1		3.2	
ANALYTE	Result ppmv	RL ppmv	Result ppmv	RL ppmv	Result ppmv	RL ppmv	Result ppmv	RL ppmv
Hydrogen Sulfide	14	0.53	ND	0.59	ND	0.61	11	0.63
Carbonyl Sulfide	ND	0.53	ND	0.59	ND	0.61	ND	0.63
Methyl Mercaptan	3.4	0.53	ND	0.59	110 d	61	190 d	63
Ethyl Mercaptan	ND	0.53	ND	0.59	0.97	0.61	2.0	0.63
Dimethyl Sulfide	14	0.53	14	0.59	1,100 d	61	1,200 d	63
Carbon Disulfide	ND	0.53	ND	0.59	0.98	0.61	1.0	0.63
Dimethyl Disulfide	ND	0.53	0.69	0.59	130 d	61	110 d	63
Total Reduced Sulfur	32	0.53	16	0.59	1,500	0.61	1,600	0.63

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

Reviewed/Approved By: _____ Date 10-3-17

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 for Sulfur Compounds by EPA 15/16

Lab No.:	Method Blank		LCS		LCSD			
Date/Time Analyzed:	9/29/17 8:19		9/29/17 8:32		9/29/17 8:45			
Analyst Initials:	AS		AS		AS			
Datafile:	29sep001		29sep002		29sep003			
Dilution Factor:	1.0		1.0		1.0			
ANALYTE	Results	RL	% Rec.	Criteria	% Rec.	Criteria	%RPD	Criteria
Hydrogen Sulfide	ND	0.20	109	70-130%	109	70-130%	0.2	<30
Carbonyl Sulfide	ND	0.20	112	70-130%	112	70-130%	0.3	<30
Methyl Mercaptan	ND	0.20	121	70-130%	120	70-130%	0.5	<30
Ethyl Mercaptan	ND	0.20	112	70-130%	112	70-130%	0.0	<30
Dimethyl Sulfide	ND	0.20	98	70-130%	98	70-130%	0.7	<30
Carbon Disulfide	ND	0.20	101	70-130%	100	70-130%	0.9	<30
Dimethyl Disulfide	ND	0.20	89	70-130%	88	70-130%	1.0	<30

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

Reviewed/Approved By: _____ Date: 10-3-17
Mark J. Johnson
Operations Manager

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

Bridgeton Landfill, LLC.
Weekly TRS Sampling Summary
Event 133-38
09/19/2017

Kurz FM =	**1,509**	scfm
Fleetzoom Total =	**1,732**	scfm

$\Delta =$ **12.9%**

	PARAMETER	Blower Outlet A	Blower Outlet B
SOUTH QUARRY LFG - MAIN FLARE COMPOUND BLOWER OUTLET (FL140)			
Date	Test Date	9/19/17	9/19/17
Time	Start	10:21	10:34
***%CH_4**	Methane, %	11.9	11.8
***%CO_2**	Carbon Dioxide, %	32.2	33.4
***'%O_2**	Oxygen, %	7.9	7.9
***%Balance**	Assumed as Nitrogen, %	48.0	46.9
P_g	Flue Gas Static Pressure, inches of H_2O	16.78	16.41
t_s	Blower Outlet LFG Temperature, °F	100.1	104.7
Q_{sd}	Dry Volumetric Flow Rate, dry scfm (assumes 5%H2O)	1,434	
Q_s	Kurz FM, Blower Out, Standard Volumetric Flow Rate, scfm	1,509	
LFG_{CH4}	Methane, lb/hr	426.3	422.7
	Methane, grains/dscf	34.69	34.40
LFG_{CO2}	Carbon Dioxide, lb/hr	3,164.4	3,282.3
	Carbon Dioxide, grains/dscf	257.54	267.13
LFG_{O2}	Oxygen, lb/hr	564.5	564.5
	Oxygen, grains/dscf	45.94	45.94
LFG_{N2}	Balance gas as Nitrogen, lb/hr	3,002.6	2,933.8
	Balance gas as Nitrogen, grains/dscf	244.37	238.77

** Fixed gas results based on field parameter data collection at the time of sampling, via Envision Landfill Gas Analyzer*

		Blower Outlet A	Blower Outlet B
H_2S	Hydrogen Sulfide Concentration, ppmd	0.63	0.63
	Hydrogen Sulfide Rate, lb/hr	0.00	0.00
	Hydrogen Sulfide Rate, grains/dscf	0.000	0.000
COS	Carbonyl Sulfide Concentration, ppmd	0.63	0.63
	Carboynl Sulfide Rate, lb/hr	0.01	0.01
	Carbonyl Sulfide Rate, grains/dscf	0.001	0.001
CH_4S	Methyl Mercaptan Concentration, ppmd	22	0.63
	Methyl Mercaptan Rate, lb/hr	0.24	0.01
	Methyl Mercaptan Rate, grains/dscf	0.019	0.001
C_2H_6S	Ethyl Mercaptan Concentration, ppmd	0.63	0.63
	Ethyl Mercaptan Rate, lb/hr	0.01	0.01
	Ethyl Mercaptan Rate, grains/dscf	0.001	0.001
$(CH_3)_2S$	Dimethyl Sulfide Concentration, ppmd	1,100	1,000
	Dimethyl Sulfide Rate, lb/hr	15.26	13.87
	Dimethyl Sulfide Rate, grains/dscf	1.242	1.129
CS_2	Carbon Disulfide Concentration, ppmd	1.0	0.98
	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	120	180
	Dimethyl Disulfide Rate, lb/hr	2.52	3.79
	Dimethyl Disulfide Rate, grains/dscf	0.205	0.308
❶**$E_{TRS-SO2}$**	TRS-->SO2 Emission Concentration, ppmd	1,300	1,400
	TRS-->SO2 Emission Rate, lb/hr	18.60	20.03
	TRS-->SO2 Emission Rate, grains/dscf	1.514	1.630
	TPY =	81.46	87.72

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

Bridgeton Landfill, LLC.
Weekly TRS Sampling Summary
Event 79-38
09/19/2017

Fleetzoom Total = 171 scfm

	PARAMETER	EP14 NQ A	EP14 NQ B
EP14 NORTH QUARRY FLARE (OPERATING SOLO to NQ LFG Only)			
Date	Test Date	9/19/17	9/19/17
Time	Start	9:34	9:49
***%CH_4**	Methane, %	50.5	49.1
***%CO_2**	Carbon Dioxide, %	35.1	37.0
***'%O_2**	Oxygen, %	1.6	1.2
***%Balance**	Assumed as Nitrogen, %	12.8	12.7
P_g	Flue Gas Static Pressure, inches of H_2O	2.41	2.32
t_s	Blower Outlet LFG Temperature, °F	92.9	97.0
Q_{sd}	Dry Volumetric Flow Rate, dry scfm (assumes 5%H2O)	162	
Q_s	Fleetzoom Standard Volumetric Flow Rate, scfm	171	
LFG_{CH4}	Methane, lb/hr	204.8	199.2
	Methane, grains/dscf	147.23	143.15
LFG_{CO2}	Carbon Dioxide, lb/hr	390.6	411.7
	Carbon Dioxide, grains/dscf	280.73	295.93
LFG_{O2}	Oxygen, lb/hr	12.9	9.7
	Oxygen, grains/dscf	9.30	6.98
LFG_{N2}	Balance gas as Nitrogen, lb/hr	90.7	89.9
	Balance gas as Nitrogen, grains/dscf	65.16	64.66

** Fixed gas results based on field parameter data collection at the time of sampling, via Envision Landfill Gas Analyzer*

		EP14 NQ A	EP14 NQ B
H_2S	Hydrogen Sulfide Concentration, ppmd	0.59	32
	Hydrogen Sulfide Rate, lb/hr	0.00	0.03
	Hydrogen Sulfide Rate, grains/dscf	0.000	0.020
COS	Carbonyl Sulfide Concentration, ppmd	0.59	0.59
	Carboynl Sulfide Rate, lb/hr	0.00	0.00
	Carbonyl Sulfide Rate, grains/dscf	0.001	0.001
CH_4S	Methyl Mercaptan Concentration, ppmd	0.59	3.8
	Methyl Mercaptan Rate, lb/hr	0.00	0.00
	Methyl Mercaptan Rate, grains/dscf	0.001	0.003
C_2H_6S	Ethyl Mercaptan Concentration, ppmd	0.59	0.59
	Ethyl Mercaptan Rate, lb/hr	0.00	0.00
	Ethyl Mercaptan Rate, grains/dscf	0.001	0.001
$(CH_3)_2S$	Dimethyl Sulfide Concentration, ppmd	15	15
	Dimethyl Sulfide Rate, lb/hr	0.02	0.02
	Dimethyl Sulfide Rate, grains/dscf	0.017	0.017
CS_2	Carbon Disulfide Concentration, ppmd	0.59	0.59
	Carbon Disulfide Rate, lb/hr	0.00	0.00
	Carbon Disulfide Rate, grains/dscf	0.001	0.001
$C_2H_6S_2$	Dimethyl Disulfide Concentration, ppmd	0.59	0.59
	Dimethyl Disulfide Rate, lb/hr	0.00	0.00
	Dimethyl Disulfide Rate, grains/dscf	0.001	0.001
❶$E_{TRS-SO2}$	TRS-->SO2 Emission Concentration, ppmd	16	51
	TRS-->SO2 Emission Rate, lb/hr	0.03	0.08
	TRS-->SO2 Emission Rate, grains/dscf	0.019	0.059
	TPY =	0.11	0.36

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.

September 27, 2017

Republic Services
ATTN: Nick Bauer
13570 St. Charles Rock Rd.
Bridgeton, MO 63044

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

LABORATORY TEST RESULTS

Project Reference: Bridgeton Landfill
Lab Number: I092002-01/04

Enclosed are results for sample(s) received 9/20/17 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 Nick Bauer, Mike Lambrich, Ron Baker and Anthony Kimutis; David Randall, Dustin Thoenen and Don Murphy, Weaver Consultants Group, and Jan Feezor, Feezor Engineering on 9/27/17.

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

Sincerely,

Mark Johnson
Operations Manager
MJohnson@AirTechLabs.com

Enclosures

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

CHAIN OF CUSTODY RECORD

AirTECHNOLOGY Laboratories, Inc.

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

TURNAROUND TIME		DELIVERABLES		PAGE: 1 OF 1
Standard	48 hours	EDD		Condition upon receipt:
Same Day	72 hours	EDF		Sealed Yes No
24 hours	96 hours	Level 3		Intact Yes No
Other:	✓ 5 day	Level 4		Chilled deg C

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

BILLING

P.O. No.:	~~6312552~~ 6605567
Bill to:	Republic Services
	Attn: Nick Bauer
	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 Method 15/16 + TRS					
	Canister ID	Sample Start	Sample End	Lab Receive												
I092002-01	1536	-19.19	-3.49	-4	EP-14 NQ A	9/19/2017	9:34	C -1L	LFG	He	X					
02	R1366	-19.43	-3.48	-4	EP-14 NQ B	9/19/2017	9:49	C -1L	LFG	He	X					
03	1532	-18.87	-3.48	-5	Blower Outlet A	9/19/2017	10:21	C -1L	LFG	He	X					
04	1534	-19.01	-3.48	-5	Blower Outlet B	9/19/2017	10:34	C -1L	LFG	He	X					

AUTHORIZATION TO PERFORM WORK: Dave Penoyer		COMPANY: Republic Services	DATE/TIME:
SAMPLED BY: Anthony Kimutis		COMPANY: Republic Services	DATE/TIME 9-19-17
RELINQUISHED BY	DATE 9-19-17	RECEIVED BY	DATE/TIME
RELINQUISHED BY FedEx	DATE	RECEIVED BY J. Kang	DATE/TIME 9/20/17 9:55
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*

Client:	**Republic Services**
Attn:	**Nick Bauer**
Project Name:	**Bridgeton Landfill**
Project No.:	**NA**
Date Received:	**09/20/17**
Matrix:	**Air**
Reporting Units:	**ppmv**

EPA Methods 15/16

Lab No.:	I092002-01		I092002-02		I092002-03		I092002-04	
Client Sample I.D.:	EP-14 NQ A		EP-14 NQ B		Blower Outlet A		Blower Outlet B	
Date/Time Sampled:	9/19/17 9:34		9/19/17 9:49		9/19/17 10:21		9/19/17 10:34	
Date/Time Analyzed:	9/21/17 11:05		9/21/17 11:17		9/21/17 11:30		9/21/17 11:43	
QC Batch No.:	170921GC3A1		170921GC3A1		170921GC3A1		170921GC3A1	
Analyst Initials:	AS		AS		AS		AS	
Dilution Factor:	3.0		3.0		3.2		3.2	
ANALYTE	**Result ppmv**	**RL ppmv**	**Result ppmv**	**RL ppmv**	**Result ppmv**	**RL ppmv**	**Result ppmv**	**RL ppmv**
Hydrogen Sulfide	ND	0.59	32 d	5.9	ND	0.63	ND	0.63
Carbonyl Sulfide	ND	0.59	ND	0.59	ND	0.63	ND	0.63
Methyl Mercaptan	ND	0.59	3.8	0.59	22	0.63	ND	0.63
Ethyl Mercaptan	ND	0.59	ND	0.59	ND	0.63	ND	0.63
Dimethyl Sulfide	15	0.59	15	0.59	1,100 d	63	1,000 d	63
Carbon Disulfide	ND	0.59	ND	0.59	1.0	0.63	0.98	0.63
Dimethyl Disulfide	ND	0.59	ND	0.59	120 d	63	180 d	63
Total Reduced Sulfur	16	0.59	51	0.59	1,300	0.63	1,400	0.63

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

Reviewed/Approved By: _____ Date 9-27-17

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 for Sulfur Compounds by EPA 15/16

Lab No.:	Method Blank		LCS		LCSD			
Date/Time Analyzed:	9/21/17 8:42		9/21/17 8:17		9/21/17 8:29			
Analyst Initials:	AS		AS		AS			
Datafile:	21sep003		21sep001		21sep002			
Dilution Factor:	1.0		1.0		1.0			
ANALYTE	Results	RL	% Rec.	Criteria	% Rec.	Criteria	%RPD	Criteria
Hydrogen Sulfide	ND	0.20	82	70-130%	83	70-130%	0.6	<30
Carbonyl Sulfide	ND	0.20	102	70-130%	101	70-130%	0.6	<30
Methyl Mercaptan	ND	0.20	101	70-130%	99	70-130%	2.0	<30
Ethyl Mercaptan	ND	0.20	96	70-130%	95	70-130%	0.7	<30
Dimethyl Sulfide	ND	0.20	94	70-130%	92	70-130%	1.3	<30
Carbon Disulfide	ND	0.20	85	70-130%	84	70-130%	1.5	<30
Dimethyl Disulfide	ND	0.20	76	70-130%	76	70-130%	0.4	<30

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

Reviewed/Approved By: _____ Date: 9-27-17
Mark J. Johnson
Operations Manager

The cover letter is an integral part of this analytical report

Bridgeton Landfill, LLC.
Weekly TRS Sampling Summary
Event 132-37
09/13/2017

Kurz FM =	**1,540**	**scfm**
Fleetzoom Total =	**1,696**	**scfm**

$\Delta =$ **9.2%**

	PARAMETER	Blower Outlet A	Blower Outlet B
SOUTH QUARRY LFG - MAIN FLARE COMPOUND BLOWER OUTLET (FL140)			
Date	Test Date	9/13/17	9/13/17
Time	Start	9:57	10:11
***%CH_4**	Methane, %	11.0	10.9
***%CO_2**	Carbon Dioxide, %	31.7	31.8
***'%O_2**	Oxygen, %	8.8	8.9
***%Balance**	Assumed as Nitrogen, %	48.5	48.4
P_g	Flue Gas Static Pressure, inches of H_2O	12.61	12.19
t_s	Blower Outlet LFG Temperature, °F	86.4	86.4
Q_{sd}	Dry Volumetric Flow Rate, dry scfm (assumes 5%H2O)	1,463	
Q_s	❷ Kurz FM Blower Outlet, Standard Volumetric Flow Rate, s	1,540	
LFG_{CH4}	Methane, lb/hr	402.0	398.4
	Methane, grains/dscf	32.07	31.78
LFG_{CO2}	Carbon Dioxide, lb/hr	3,178.4	3,188.4
	Carbon Dioxide, grains/dscf	253.54	254.34
LFG_{O2}	Oxygen, lb/hr	641.5	648.8
	Oxygen, grains/dscf	51.17	51.76
LFG_{N2}	Balance gas as Nitrogen, lb/hr	3,095.3	3,088.9
	Balance gas as Nitrogen, grains/dscf	246.91	246.40

** Fixed gas results based on field parameter data collection at the time of sampling, via Envision Landfill Gas Analyzer*

		Blower Outlet A	Blower Outlet B
H_2S	Hydrogen Sulfide Concentration, ppmd	7.8	9.10
	Hydrogen Sulfide Rate, lb/hr	0.06	0.07
	Hydrogen Sulfide Rate, grains/dscf	0.005	0.006
COS	Carbonyl Sulfide Concentration, ppmd	0.59	0.59
	Carboynl Sulfide Rate, lb/hr	0.01	0.01
	Carbonyl Sulfide Rate, grains/dscf	0.001	0.001
CH_4S	Methyl Mercaptan Concentration, ppmd	150	160
	Methyl Mercaptan Rate, lb/hr	1.64	1.75
	Methyl Mercaptan Rate, grains/dscf	0.131	0.140
C_2H_6S	Ethyl Mercaptan Concentration, ppmd	1.5	1.6
	Ethyl Mercaptan Rate, lb/hr	0.02	0.02
	Ethyl Mercaptan Rate, grains/dscf	0.002	0.002
$(CH_3)_2S$	Dimethyl Sulfide Concentration, ppmd	1,000	980
	Dimethyl Sulfide Rate, lb/hr	14.16	13.87
	Dimethyl Sulfide Rate, grains/dscf	1.129	1.107
CS_2	Carbon Disulfide Concentration, ppmd	0.88	0.87
	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	84	83
	Dimethyl Disulfide Rate, lb/hr	1.80	1.78
	Dimethyl Disulfide Rate, grains/dscf	0.144	0.142
❶$E_{TRS-SO2}$	TRS-->SO2 Emission Concentration, ppmd	1,300	1,300
	TRS-->SO2 Emission Rate, lb/hr	18.97	18.97
	TRS-->SO2 Emission Rate, grains/dscf	1.514	1.514
	TPY =	83.10	83.10

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

❷ Kurz FM located at Blower Outlet stable with consistent measurements now being utilized for TRS Q computations (9/13/2017)

Bridgeton Landfill, LLC.
Weekly TRS Sampling Summary
Event 78-37
09/13/2017

Fleetzoom Total = **178** scfm

	PARAMETER	EP14 NQ A	EP14 NQ B
EP14 NORTH QUARRY FLARE (OPERATING SOLO to NQ LFG Only)			
Date	Test Date	9/13/17	9/13/17
Time	Start	9:10	9:24
***%CH_4**	Methane, %	49.7	47.9
***%CO_2**	Carbon Dioxide, %	35.6	38.1
***'%O_2**	Oxygen, %	1.5	1.2
***%Balance**	Assumed as Nitrogen, %	13.2	12.8
P_g	Flue Gas Static Pressure, inches of H_2O	2.02	2.08
t_s	Blower Outlet LFG Temperature, °F	84.7	84.9
Q_{sd}	Dry Volumetric Flow Rate, dry scfm (assumes 5%H2O)	169	
Q_s	Fleetzoom Standard Volumetric Flow Rate, scfm	178	
LFG_{CH4}	Methane, lb/hr	209.8	202.2
	Methane, grains/dscf	144.90	139.65
LFG_{CO2}	Carbon Dioxide, lb/hr	412.4	441.3
	Carbon Dioxide, grains/dscf	284.73	304.72
LFG_{O2}	Oxygen, lb/hr	12.6	10.1
	Oxygen, grains/dscf	8.72	6.98
LFG_{N2}	Balance gas as Nitrogen, lb/hr	97.3	94.4
	Balance gas as Nitrogen, grains/dscf	67.20	65.16

** Fixed gas results based on field parameter data collection at the time of sampling, via Envision Landfill Gas Analyzer*

		EP14 NQ A	EP14 NQ B
H_2S	Hydrogen Sulfide Concentration, ppmd	28	30
	Hydrogen Sulfide Rate, lb/hr	0.03	0.03
	Hydrogen Sulfide Rate, grains/dscf	0.017	0.019
COS	Carbonyl Sulfide Concentration, ppmd	0.59	0.59
	Carboynl Sulfide Rate, lb/hr	0.00	0.00
	Carbonyl Sulfide Rate, grains/dscf	0.001	0.001
CH_4S	Methyl Mercaptan Concentration, ppmd	4.4	4.6
	Methyl Mercaptan Rate, lb/hr	0.01	0.01
	Methyl Mercaptan Rate, grains/dscf	0.004	0.004
C_2H_6S	Ethyl Mercaptan Concentration, ppmd	0.59	0.59
	Ethyl Mercaptan Rate, lb/hr	0.00	0.00
	Ethyl Mercaptan Rate, grains/dscf	0.001	0.001
$(CH_3)_2S$	Dimethyl Sulfide Concentration, ppmd	18	18
	Dimethyl Sulfide Rate, lb/hr	0.03	0.03
	Dimethyl Sulfide Rate, grains/dscf	0.020	0.020
CS_2	Carbon Disulfide Concentration, ppmd	0.59	0.59
	Carbon Disulfide Rate, lb/hr	0.00	0.00
	Carbon Disulfide Rate, grains/dscf	0.001	0.001
$C_2H_6S_2$	Dimethyl Disulfide Concentration, ppmd	0.59	0.59
	Dimethyl Disulfide Rate, lb/hr	0.00	0.00
	Dimethyl Disulfide Rate, grains/dscf	0.001	0.001
❶$E_{TRS-SO2}$	TRS-->SO2 Emission Concentration, ppmd	52	54
	TRS-->SO2 Emission Rate, lb/hr	0.09	0.09
	TRS-->SO2 Emission Rate, grains/dscf	0.061	0.063
	TPY =	0.38	0.40

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

Air TECHNOLOGY Laboratories, Inc.

September 20, 2017

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: Nick Bauer
13570 St. Charles Rock Rd.
Bridgeton, MO 63044

LABORATORY TEST RESULTS

Project Reference: Bridgeton Landfill
Lab Number: I091403-01/04

Enclosed are results for sample(s) received 9/14/17 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 Nick Bauer, Mike Lambrich, Ron Baker and Anthony Kimutis; David Randall, Dustin Thoenen and Don Murphy, Weaver Consultants Group, and Jan Feezor, Feezor Engineering on 9/20/17.

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

Sincerely,

Mark Johnson
Operations Manager
MJohnson@AirTechLabs.com

Enclosures

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

CHAIN OF CUSTODY RECORD

AirTECHNOLOGY Laboratories, Inc.

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

TURNAROUND TIME		DELIVERABLES		PAGE: 1 OF 1
Standard	48 hours	EDD	X	Condition upon receipt:
Same Day	72 hours	EDF	D 9/15/17	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:	Nick Bauer
Company:	Republic Services
Street:	13570 St. Charles Rock Rd
City/State/Zip:	Bridgeton, MO 63044
Phone& Fax:	314-683-3921
e-mail:	Nbauer@republicservices.com

BILLING

P.O. No.: ~~6312552~~ 4605567 9/18/17

Bill to: Republic Services
Attn: Nick Bauer
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 Method 15/16 + TRS					
I091403-01	J1723	-19.47	-3.48	-4	EP-14 NQ A	9/13/2017	9:10	C -1L	LFG	He	X					
-02	R1349	-19.16	-3.49	-4	EP-14 NQ B	9/13/2017	9:24	C -1L	LFG	He	X					
-03	R1373	-19.8	-3.47	-4	Blower Outlet A	9/13/2017	9:57	C -1L	LFG	He	X					
-04	R1343	-19.54	-3.47	-4	Blower Outlet B	9/13/2017	10:11	C -1L	LFG	He	X					

AUTHORIZATION TO PERFORM WORK: Dave Penoyer		COMPANY: Republic Services	DATE/TIME:
SAMPLED BY: Anthony Kimmins		COMPANY: Republic Services	DATE/TIME 9/13/17
RELINQUISHED BY	9/13/17	DATE RECEIVED BY	DATE/TIME
RELINQUISHED BY FED EX		DATE RECEIVED BY	DATE/TIME 9/14/17 0925
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*

Client:	**Republic Services**
Attn:	**Nick Bauer**
Project Name:	**Bridgeton Landfill**
Project No.:	**NA**
Date Received:	**09/14/17**
Matrix:	**Air**
Reporting Units:	**ppmv**

EPA Methods 15/16

Lab No.:	I091403-01		I091403-02		I091403-03		I091403-04	
Client Sample I.D.:	EP-14 NQ A		EP-14 NQ B		Blower Outlet A		Blower Outlet B	
Date/Time Sampled:	9/13/17 9:10		9/13/17 9:24		9/13/17 9:57		9/13/17 10:11	
Date/Time Analyzed:	9/18/17 9:58		9/18/17 10:10		9/18/17 10:23		9/18/17 10:35	
QC Batch No.:	170918GC3A1		170918GC3A1		170918GC3A1		170918GC3A1	
Analyst Initials:	AS		AS		AS		AS	
Dilution Factor:	3.0		3.0		3.0		3.0	
ANALYTE	Result ppmv	RL ppmv	Result ppmv	RL ppmv	Result ppmv	RL ppmv	Result ppmv	RL ppmv
Hydrogen Sulfide	28	0.59	30 d	5.9	7.8	0.59	9.1	0.59
Carbonyl Sulfide	ND	0.59	ND	0.59	ND	0.59	ND	0.59
Methyl Mercaptan	4.4	0.59	4.6	0.59	150 d	59	160 d	59
Ethyl Mercaptan	ND	0.59	ND	0.59	1.5	0.59	1.6	0.59
Dimethyl Sulfide	18	0.59	18	0.59	1,000 d	59	980 d	59
Carbon Disulfide	ND	0.59	ND	0.59	0.88	0.59	0.87	0.59
Dimethyl Disulfide	ND	0.59	ND	0.59	84 d	59	83 d	59
Total Reduced Sulfur	52	0.59	54	0.59	1,300	0.59	1,300	0.59

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

Reviewed/Approved By: _____ Date 9/20/17

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 for Sulfur Compounds by EPA 15/16

Lab No.:	Method Blank		LCS		LCSD			
Date/Time Analyzed:	9/18/17 9:41		9/18/17 9:17		9/18/17 9:29			
Analyst Initials:	AS		AS		AS			
Datafile:	18sep004		18sep002		18sep003			
Dilution Factor:	1.0		1.0		1.0			
ANALYTE	Results	RL	% Rec.	Criteria	% Rec.	Criteria	%RPD	Criteria
Hydrogen Sulfide	ND	0.20	99	70-130%	99	70-130%	0.3	<30
Carbonyl Sulfide	ND	0.20	107	70-130%	107	70-130%	0.0	<30
Methyl Mercaptan	ND	0.20	113	70-130%	113	70-130%	0.2	<30
Ethyl Mercaptan	ND	0.20	105	70-130%	105	70-130%	0.1	<30
Dimethyl Sulfide	ND	0.20	98	70-130%	97	70-130%	1.3	<30
Carbon Disulfide	ND	0.20	95	70-130%	94	70-130%	0.7	<30
Dimethyl Disulfide	ND	0.20	86	70-130%	85	70-130%	0.7	<30

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

Reviewed/Approved By: Mark J. Johnson
Operations Manager

Date: 9/20/17

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

Bridgeton Landfill, LLC
Weekly TRS
Monthly Method 2C
Event 131-36
09/07/2017

	PARAMETER	Blower Out
SOUTH QUARRY LFG - BLOWER OUTLET (FL140/EP-13 Only)		
Date	Test Date	9/7/17
Start	Run Start Time	13:39
	Run Finish Time	15:10
	Net Traversing Points	8 (2 x 4)
Θ	Net Run Time, minutes	1:30:42
C_p	Pitot Tube Coeficient	0.99
P_{Br}	Barometric Pressure, inches of Mercury	29.61
% H_2O	Moisture Content of LFG, %	5.80
% RH	Relative Humidity, %	71.75
M_{fd}	Dry Mole Fraction	0.942
%CH_4	Methane, %	10.95
%CO_2	Carbon Dioxide, %	31.75
%O_2	Oxygen, %	8.37
%Balance	Assumed as Nitrogen, %	38.60
%H_2	Hydrogen, %	9.10
%CO	Carbon Monoxide, %	0.05
M_d	Dry Molecular Weight, lb/lb-Mole	29.42
M_s	Wet Molecular weight, lb/lb-Mole	28.76
P_g	Flue Gas Static Pressure, inches of H_2O	14.69
P_s	Absolute Flue Gas Pressure, inches of Mercury	30.69
t_s	Average Stack Gas Temperature, °F	108
ΔP_{avg}	Average Velocity Head, inches of H_2O	0.089
v_s	Average LFG Velocity, feet/second	20.26
A_s	Stack Crossectional Area, square feet	1.35
Q_{sd}	Dry Volumetric Flow Rate, dry scfm	1,477
Q_s	Standard Volumetric Flow Rate, scfm	1,563
Q_{aw}	Actual Wet Volumetric Flue Gas Flow Rate, acfm	1,644
$Q_{lb/hr}$	Dry Air Flow Rate at Standard Conditions, lb/hr	6,766
NHV	Net Heating Value, Btu/scf	153.3
LFG_{CH4}	Methane, lb/hr	404.1
	Methane, grains/dscf	31.92
LFG_{CO2}	Carbon Dioxide, lb/hr	3,214.7
	Carbon Dioxide, grains/dscf	253.94
LFG_{O2}	Oxygen, lb/hr	616.2
	Oxygen, grains/dscf	48.67
LFG_{N2}	Balance gas as Nitrogen, lb/hr	2,487.7
	Balance gas as Nitrogen, grains/dscf	196.51
LFG_{H2}	Hydrogen, lb/hr	42.2
	Hydrogen, grains/dscf	3.33
LFG_{CO}	Carbon Monoxide, lb/hr	3.0
	Carbon Monoxide, grains/dscf	0.24

		Outlet A	Outlet B
H_2S	Hydrogen Sulfide Concentration, ppmd	11	14
	Hydrogen Sulfide Rate, lb/hr	0.09	0.11
	Hydrogen Sulfide Rate, grains/dscf	0.007	0.009
COS	Carbonyl Sulfide Concentration, ppmd	0.61	0.63
	Carboynl Sulfide Rate, lb/hr	0.01	0.01
	Carbonyl Sulfide Rate, grains/dscf	0.001	0.001
CH_4S	Methyl Mercaptan Concentration, ppmd	120	150
	Methyl Mercaptan Rate, lb/hr	1.33	1.66
	Methyl Mercaptan Rate, grains/dscf	0.105	0.131
C_2H_6S	Ethyl Mercaptan Concentration, ppmd	1.5	1.8
	Ethyl Mercaptan Rate, lb/hr	0.02	0.03
	Ethyl Mercaptan Rate, grains/dscf	0.002	0.002
$(CH_3)_2S$	Dimethyl Sulfide Concentration, ppmd	1,000	1,000
	Dimethyl Sulfide Rate, lb/hr	14.29	14.29
	Dimethyl Sulfide Rate, grains/dscf	1.129	1.129
CS_2	Carbon Disulfide Concentration, ppmd	1.1	1.1
	Carbon Disulfide Rate, lb/hr	0.02	0.02
	Carbon Disulfide Rate, grains/dscf	0.002	0.002
$C_2H_6S_2$	Dimethyl Disulfide Concentration, ppmd	110	93
	Dimethyl Disulfide Rate, lb/hr	2.38	1.63
	Dimethyl Disulfide Rate, grains/dscf	0.188	0.129

❶ **$E_{TRS-SO2}$**	TRS-->SO2 Emission Concentration, ppmd	1,300	1,400
	TRS-->SO2 Emission Rate, lb/hr	19.16	20.63
	TRS-->SO2 Emission Rate, grains/dscf	1.514	1.630

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

Thursday, September 07, 2017

LOCATION	TIME	FLOW -SCFM			Method 2 vs. Fleetzoom	Method 2 vs Kurz	Kurz vs Fleetzoom
		Method 2	FleetZoom	Kurz FM			
BLOWER OUT	**13:39**	**1,563**	**1,876**	**1,582**	**-20.1%**	**-1.2%**	**-18.6%**

**Note: Fleetzoom data derived from EP-13/FL140 TSI Flow Meter*

Bridgeton Landfill, LLC
Weekly TRS
Monthly Method 2C
Event 77-36
09/07/2017

	PARAMETER	Blower Out
	EP14 NORTH QUARRY LFG ONLY	
Date	Test Date	9/7/17
Start	Run Start Time	10:27
	Run Finish Time	11:54
	Net Traversing Points	8 (2 x 4)
Θ	Net Run Time, minutes	1:26:57
C_p	Pitot Tube Coeficient	0.99
P_{Br}	Barometric Pressure, inches of Mercury	29.70
% H_2O	Moisture Content of LFG, %	3.28
% RH	Relative Humidity, %	71.80
M_{fd}	Dry Mole Fraction	0.967
%CH_4	Methane, %	47.80
%CO_2	Carbon Dioxide, %	36.55
%O_2	Oxygen, %	2.05
%Balance	Assumed as Nitrogen, %	12.10
%H_2	Hydrogen, % (** reported at the laboratory detection limit*)	3.00
%CO	Carbon Monoxide, % (** reported at the laboratory detection limit*)	0.00300
M_d	Dry Molecular Weight, lb/lb-Mole	27.86
M_s	Wet Molecular weight, lb/lb-Mole	27.54
P_g	Flue Gas Static Pressure, inches of H_2O	2.22
P_s	Absolute Flue Gas Pressure, inches of Mercury	29.86
t_s	Average Stack Gas Temperature, °F	90
ΔP_{avg}	Average Velocity Head, inches of H_2O	0.006
v_s	Average LFG Velocity, feet/second	5.36
A_s	Stack Crossectional Area, square feet	0.51
Q_{sd}	Dry Volumetric Flow Rate, dry scfm	153
Q_s	Standard Volumetric Flow Rate, scfm	158
Q_{aw}	Actual Wet Volumetric Flue Gas Flow Rate, acfm	165
$Q_{lb/hr}$	Dry Air Flow Rate at Standard Conditions, lb/hr	664
NHV	Net Heating Value, Btu/scf	434.8
LFG_{CH4}	Methane, lb/hr	182.8
	Methane, grains/dscf	139.36
LFG_{CO2}	Carbon Dioxide, lb/hr	383.5
	Carbon Dioxide, grains/dscf	292.33
LFG_{O2}	Oxygen, lb/hr	15.6
	Oxygen, grains/dscf	11.92
LFG_{N2}	Balance gas as Nitrogen, lb/hr	80.8
	Balance gas as Nitrogen, grains/dscf	61.60
LFG_{H4}	Hydrogen, lb/hr	1.4
	Hydrogen, grains/dscf	1.10
LFG_{CO}	Carbon Monoxide, lb/hr	0.0
	Carbon Monoxide, grains/dscf	0.02

		Outlet A	Outlet B
H_2S	Hydrogen Sulfide Concentration, ppmd	51	44
	Hydrogen Sulfide Rate, lb/hr	0.04	0.04
	Hydrogen Sulfide Rate, grains/dscf	0.032	0.027
COS	Carbonyl Sulfide Concentration, ppmd	0.59	0.59
	Carboynl Sulfide Rate, lb/hr	0.00	0.00
	Carbonyl Sulfide Rate, grains/dscf	0.001	0.001
CH_4S	Methyl Mercaptan Concentration, ppmd	5.1	5.1
	Methyl Mercaptan Rate, lb/hr	0.01	0.01
	Methyl Mercaptan Rate, grains/dscf	0.004	0.004
C_2H_6S	Ethyl Mercaptan Concentration, ppmd	0.59	0.59
	Ethyl Mercaptan Rate, lb/hr	0.00	0.00
	Ethyl Mercaptan Rate, grains/dscf	0.001	0.001
$(CH_3)_2S$	Dimethyl Sulfide Concentration, ppmd	20	19
	Dimethyl Sulfide Rate, lb/hr	0.03	0.03
	Dimethyl Sulfide Rate, grains/dscf	0.023	0.021
CS_2	Carbon Disulfide Concentration, ppmd	0.59	0.59
	Carbon Disulfide Rate, lb/hr	0.00	0.00
	Carbon Disulfide Rate, grains/dscf	0.001	0.001
$C_2H_6S_2$	Dimethyl Disulfide Concentration, ppmd	0.59	0.59
	Dimethyl Disulfide Rate, lb/hr	0.00	0.00
	Dimethyl Disulfide Rate, grains/dscf	0.001	0.001

❶**$E_{TRS-SO2}$**	TRS-->SO2 Emission Concentration, ppmd	76	70
	TRS-->SO2 Emission Rate, lb/hr	0.12	0.11
	TRS-->SO2 Emission Rate, grains/dscf	0.088	0.081

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.

September 11, 2017

nelac
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: Nick Bauer
13570 St. Charles Rock Rd.
Bridgeton, MO 63044

LABORATORY TEST RESULTS

Project Reference: Bridgeton Landfill
Lab Number: I090806-01/04

Enclosed are results for sample(s) received 9/08/17 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 Nick Bauer and Mike Lambrich; David Randall, Dustin Thoenen and Don Murphy, Weaver Consultants Group, and Jan Feezor, Feezor Engineering on 9/11/17.

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: Nick Bauer
Company: Republic Services
Street: 13570 St. Charles Rock Rd
City/State/Zip: Bridgeton, MO 63044
Phone& Fax: 314-683-3921
e-mail: Nbauer@republicservices.com

BILLING

P.O. No.: ~~6312552~~ 660557
Bill to: Republic Services
Attn: Nick Bauer
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 Method 15/16	ASTM 1946 + H2 + CO & Btu/SCF		ASTM 1946 + H2 + CO & Btu/SCF (by CH4 only)		
I090806-01	3770	-20.16	-3.48	-4	NQ EP14 A	9/7/2017	10:10	C-6L	LFG	He	X			X		
-02	5988	-19.98	-3.47	-4	NQ EP14 B	9/7/2017	10:40	C-6L	LFG	He	X			X		
-03	2875	-20.07	-3.48	-4.5	Blower Outlet A	9/7/2017	13:42	C-6L	LFG	He	X	X				
-04	1288	-19.98	-3.46	-5	Blower Outlet B	9/7/2017	14:13	C-6L	LFG	He	X	X				

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

SAMPLED BY: RB/AK
COMPANY: Republic Services DATE/TIME 9/7/17 1010-1430

RELINQUISHED BY [signature] 9/7/17 DATE/TIME RECEIVED BY DATE/TIME

RELINQUISHED BY [signature] 9/7/17 DATE/TIME RECEIVED BY DATE/TIME

RELINQUISHED BY FedEx DATE/TIME RECEIVED BY ~~RECEIVED BY~~ [signature] 9/8/17 12:30

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:	**Nick Bauer**
Project Name:	**Bridgeton Landfill**
Project No.:	**NA**
Date Received:	**09/08/17**
Matrix:	**Air**
Reporting Units:	**% v/v**

ASTM D1946

Lab No.:	I090806-01		I090806-02					
Client Sample I.D.:	EP-14 NQ A		EP-14 NQ B					
Date/Time Sampled:	9/7/17 10:10		9/7/17 10:40					
Date/Time Analyzed:	9/8/17 14:40		9/8/17 14:55					
QC Batch No.:	170908GC8A1		170908GC8A1					
Analyst Initials:	AS		AS					
Dilution Factor:	3.0		3.0					
ANALYTE	**Result % v/v**	**RL % v/v**	**Result % v/v**	**RL % v/v**				
Hydrogen	ND	3.0	ND	3.0				
Carbon Dioxide	36.6	0.030	36.5	0.030				
Oxygen/Argon	2.0	1.5	2.1	1.5				
Nitrogen	12.0	3.0	12.2	3.0				
Methane	47.9	0.0030	47.7	0.0030				
Carbon Monoxide	ND	0.0030	ND	0.0030				
Net Heating Value (BTU/ft3) methane only	435.5	3.0	434.1	3.0				
Gross Heating Value (BTU/ft3) methane only	483.7	3.0	482.1	3.0				

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

Reviewed/Approved By: _____ **Date** 9/11/17

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: Nick Bauer
Project Name: Bridgeton Landfill
Project No.: NA
Date Received: 09/08/17
Matrix: Air
Reporting Units: % v/v

ASTM D1946

Lab No.:	I090806-03		I090806-04					
Client Sample I.D.:	Blower Outlet A		Blower Outlet B					
Date/Time Sampled:	9/7/17 13:42		9/7/17 14:13					
Date/Time Analyzed:	9/8/17 15:09		9/8/17 15:24					
QC Batch No.:	170908GC8A1		170908GC8A1					
Analyst Initials:	AS		AS					
Dilution Factor:	3.1		3.2					
ANALYTE	Result % v/v	RL % v/v	Result % v/v	RL % v/v				
Hydrogen	9.0	3.1	9.3	3.2				
Carbon Dioxide	31.5	0.031	32.0	0.032				
Oxygen/Argon	8.5	1.5	8.2	1.6				
Nitrogen	39.1	3.1	38.1	3.2				
Methane	10.9	0.0031	11.0	0.0032				
Carbon Monoxide	0.047	0.0031	0.048	0.0032				
Net Heating Value (BTU/ft3)	150.0	3.1	156.6	3.2				
Gross Heating Value (BTU/ft3)	169.3	3.1	176.8	3.2				

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 9/11/17
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: 170908GC8A1
Matrix: Air
Reporting Units: % v/v

ASTM D1946
LABORATORY CONTROL SAMPLE SUMMARY

Lab No.:	METHOD BLANK			LCS		LCSD					
Date Analyzed:	9/8/17 12:55			9/8/17 12:04		9/8/17 12:19					
Analyst Initials:	AS			AS		AS					
Dilution Factor:	1.0			1.0		1.0			Limits		
ANALYTE	Result % v/v	RL % v/v	SPIKE AMT. % v/v	Result % v/v	% Rec.	Result % v/v	% Rec.	RPD %	Low %Rec	High %Rec	Max. RPD
Hydrogen	ND	1.0	5.0	5.59	112	5.53	111	1.1	70	130	30
Carbon Dioxide	ND	0.010	10	9.65	96	9.67	97	0.2	70	130	30
Oxygen/Argon	ND	0.50	15	15.2	103	15.3	103	0.1	70	130	30
Nitrogen	ND	1.0	70	69.3	99	69.3	99	0.0	70	130	30
Methane	ND	0.0010	0.10	0.107	107	0.106	106	0.2	70	130	30
Carbon Monoxide	ND	0.0010	0.10	0.100	100	0.100	100	0.2	70	130	30

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

Reviewed/Approved By: _____ Date 9/11/17
Mark Johnson
Operations Manager

The cover letter is an integral part of this analytical report

Client: Republic Services
Attn: Nick Bauer
Project Name: Bridgeton Landfill
Project No.: NA
Date Received: 09/08/17
Matrix: Air
Reporting Units: ppmv

EPA Methods 15/16

Lab No.:	I090806-01		I090806-02		I090806-03		I090806-04	
Client Sample I.D.:	EP-14 NQ A		EP-14 NQ B		Blower Outlet A		Blower Outlet B	
Date/Time Sampled:	9/7/17 10:10		9/7/17 10:40		9/7/17 13:42		9/7/17 14:13	
Date/Time Analyzed:	9/8/17 13:59		9/8/17 14:11		9/8/17 14:24		9/8/17 14:36	
QC Batch No.:	170908GC3A1		170908GC3A1		170908GC3A1		170908GC3A1	
Analyst Initials:	AS		AS		AS		AS	
Dilution Factor:	3.0		3.0		3.1		3.2	
ANALYTE	Result ppmv	RL ppmv	Result ppmv	RL ppmv	Result ppmv	RL ppmv	Result ppmv	RL ppmv
Hydrogen Sulfide	51 d	5.9	44 d	5.9	11	0.61	14	0.63
Carbonyl Sulfide	ND	0.59	ND	0.59	ND	0.61	ND	0.63
Methyl Mercaptan	5.1	0.59	5.1	0.59	120 d	61	150 d	63
Ethyl Mercaptan	ND	0.59	0.59	0.59	1.5	0.61	1.8	0.63
Dimethyl Sulfide	20	0.59	19	0.59	1,000 d	61	1,000 d	63
Carbon Disulfide	ND	0.59	ND	0.59	1.1	0.61	1.1	0.63
Dimethyl Disulfide	ND	0.59	ND	0.59	110 d	61	93 d	63
Total Reduced Sulfur	76	0.59	70	0.59	1,300	0.61	1,400	0.63

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

Reviewed/Approved By: _____ Date 9/11/17
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 for Sulfur Compounds by EPA 15/16

Lab No.:	Method Blank		LCS		LCSD			
Date/Time Analyzed:	9/8/17 9:36		9/8/17 9:11		9/8/17 9:23			
Analyst Initials:	AS		AS		AS			
Datafile:	08sep004		08sep002		08sep003			
Dilution Factor:	1.0		1.0		1.0			
ANALYTE	Results	RL	% Rec.	Criteria	% Rec.	Criteria	%RPD	Criteria
Hydrogen Sulfide	ND	0.20	102	70-130%	103	70-130%	1.0	<30
Carbonyl Sulfide	ND	0.20	112	70-130%	111	70-130%	0.4	<30
Methyl Mercaptan	ND	0.20	116	70-130%	116	70-130%	0.5	<30
Ethyl Mercaptan	ND	0.20	106	70-130%	106	70-130%	0.8	<30
Dimethyl Sulfide	ND	0.20	99	70-130%	98	70-130%	0.9	<30
Carbon Disulfide	ND	0.20	101	70-130%	100	70-130%	0.9	<30
Dimethyl Disulfide	ND	0.20	89	70-130%	89	70-130%	0.5	<30

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

Reviewed/Approved By: _____ Date: 9/11/17
Mark J. Johnson
Operations Manager

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

ATTACHMENT C

GAS WELL ANALYSIS MAPS

LEGEND

< = Well Location

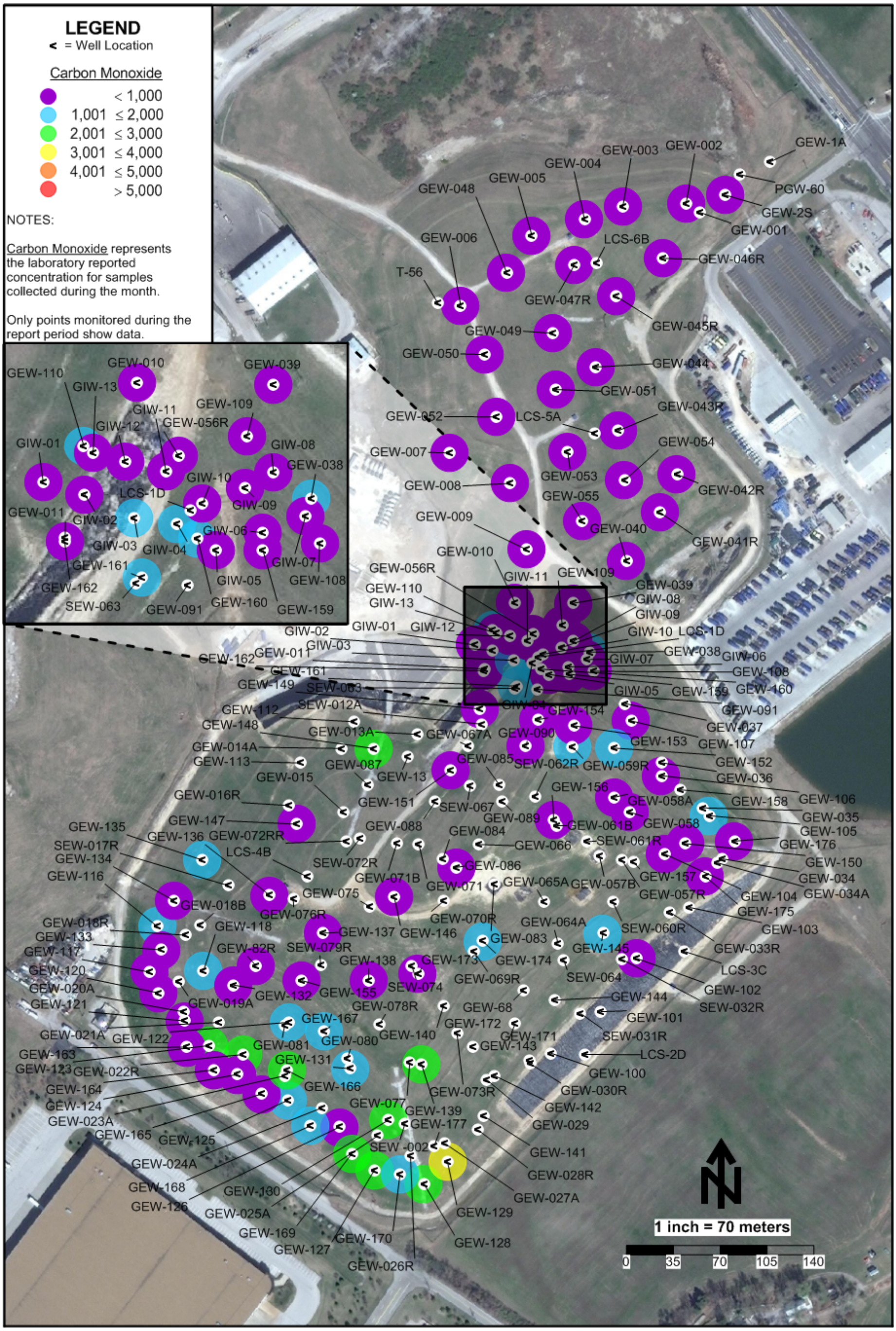
Carbon Monoxide

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

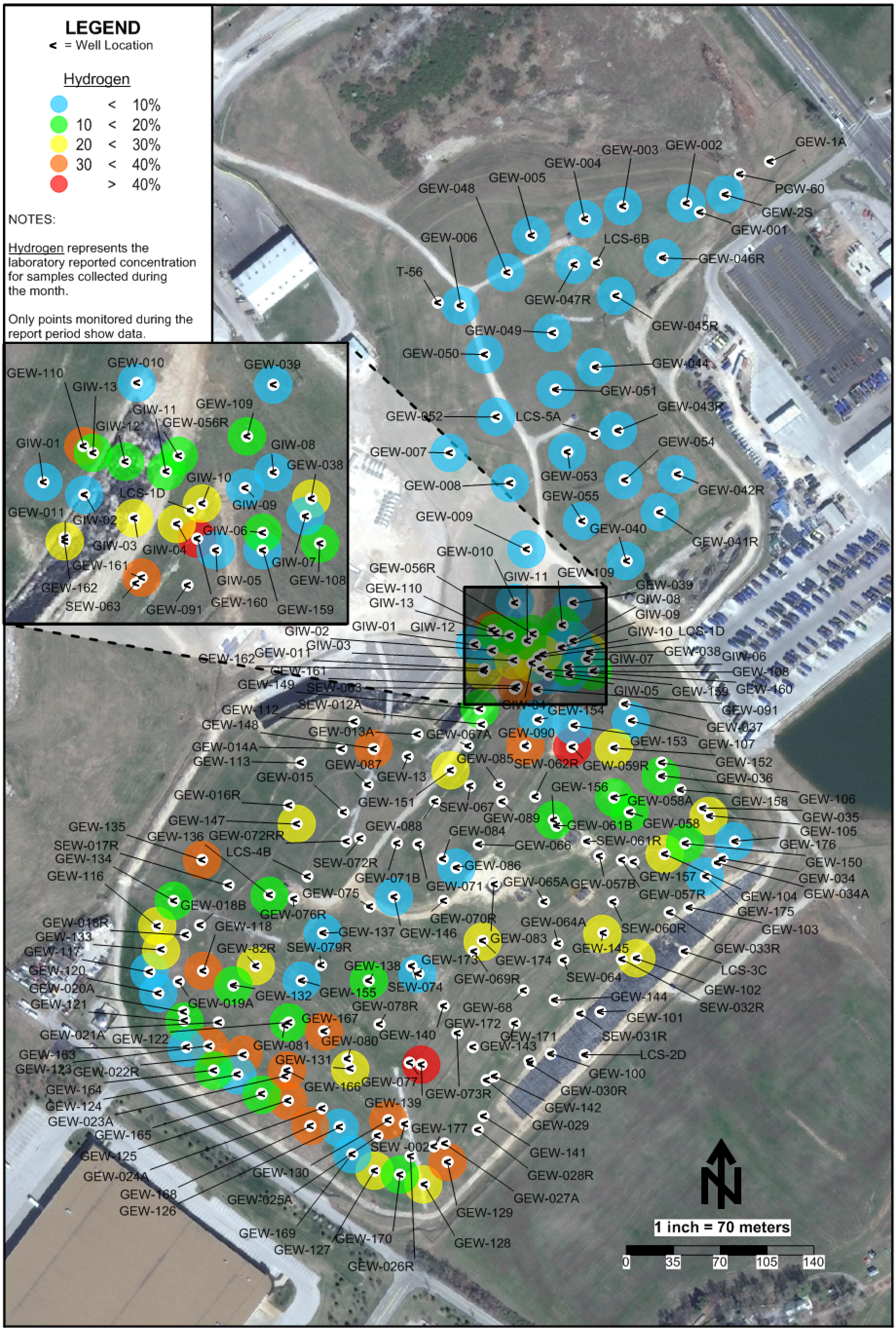
NOTES:

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

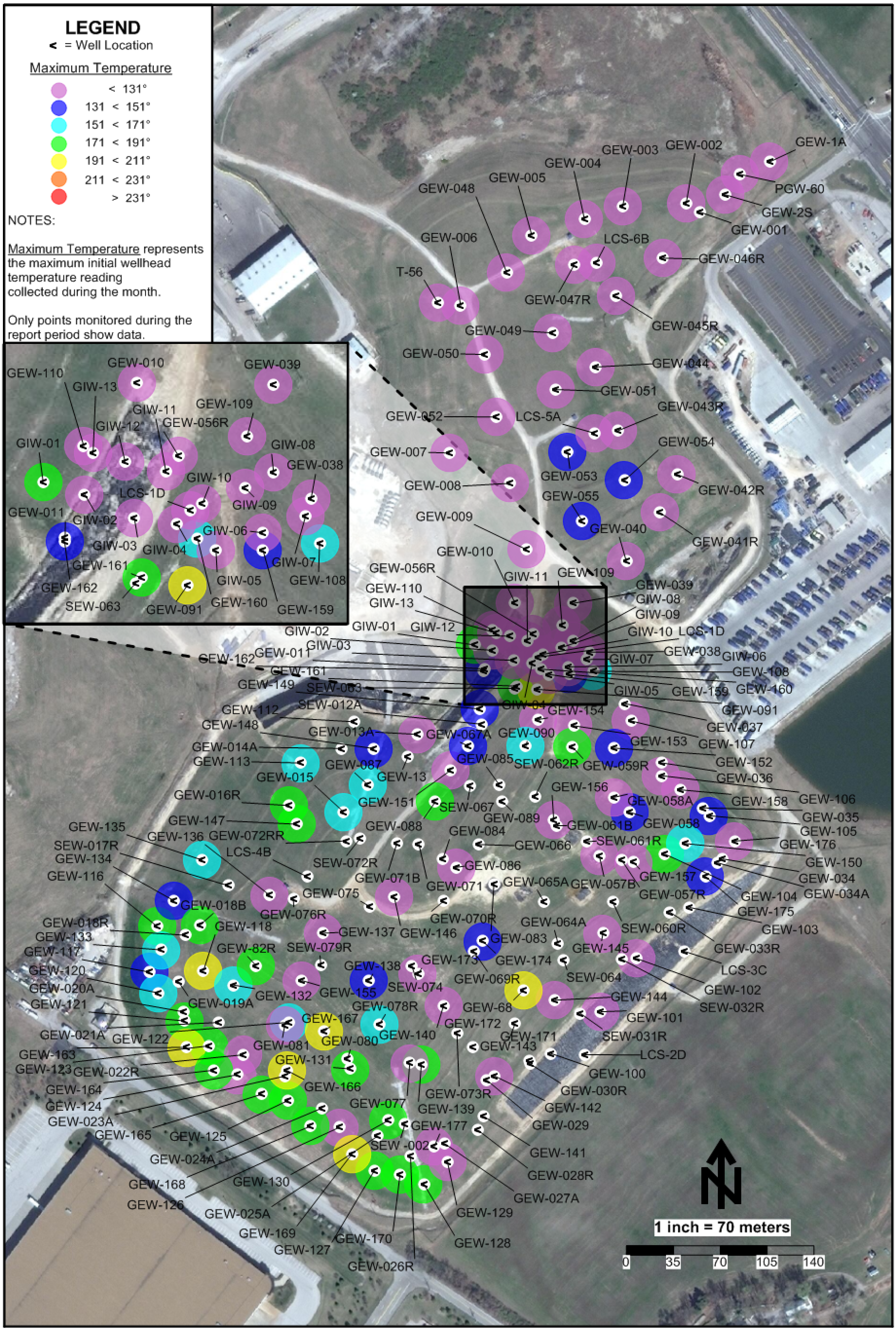
Only points monitored during the report period show data.



Carbon Monoxide Data Map - September 2017 - Bridgeton Landfill



Hydrogen Data Map - September 2017 - Bridgeton Landfill



Initial Temperature Maximums - September 2017 - 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	5/9/2017	49	40	2.7	9.1	ND	ND	See Note 3
GEW-002	6/5/2017	40	32	6.2	22	ND	ND	See Note 3
GEW-002	7/12/2017	56	42	ND	ND	ND	ND	
GEW-002	8/8/2017	53	40	ND	4.9	ND	ND	
GEW-002	9/12/2017	45	33	4.9	17	ND	ND	See Note 3
GEW-02S	5/9/2017	61	34	ND	3.7	ND	ND	
GEW-02S	7/12/2017	60	37	ND	ND	ND	ND	
GEW-02S	9/14/2017	60	37	ND	ND	ND	ND	
GEW-003	5/9/2017	56	41	ND	ND	0.08	ND	
GEW-003	6/5/2017	48	36	3.2	13.0	0.08	ND	See Note 3
GEW-003	7/12/2017	51	39	ND	9.0	0.18	ND	
GEW-003	8/8/2017	54	39	ND	6.3	0.09	ND	
GEW-003	9/12/2017	51	39	ND	8.7	0.09	ND	
GEW-004	5/9/2017	54	40	ND	5.7	0.08	ND	
GEW-004	6/5/2017	51	39	ND	9.4	0.07	ND	
GEW-004	7/12/2017	51	39	ND	8.5	0.15	ND	
GEW-004	8/8/2017	55	39	ND	4.5	0.08	ND	
GEW-004	9/12/2017	56	40	ND	3.7	0.06	ND	
GEW-005	5/9/2017	51	35	ND	14	ND	ND	
GEW-005	6/5/2017	40	33	ND	25	ND	ND	
GEW-005	7/12/2017	37	29	3.6	30	ND	ND	See Note 3
GEW-005	8/8/2017	55	38	ND	6.4	0.04	ND	
GEW-005	9/11/2017	54	36	ND	8.6	ND	ND	
GEW-006	5/9/2017	56	37	ND	6.6	ND	ND	
GEW-006	7/10/2017	53	37	ND	9.2	ND	ND	
GEW-006	9/11/2017	47	31	4.9	18	ND	ND	See Note 3
GEW-007	5/9/2017	44	31	5.7	20	ND	ND	See Note 3
GEW-007	7/10/2017	58	40	ND	ND	ND	ND	
GEW-007	9/12/2017	56	40	ND	ND	ND	ND	
GEW-008	5/9/2017	53	44	ND	ND	0.45	ND	
GEW-008	6/6/2017	51	43	ND	4.2	0.98	ND	
GEW-008	7/10/2017	52	44	ND	ND	1.0	ND	
GEW-008	8/9/2017	52	43	ND	ND	1.1	ND	
GEW-008	9/12/2017	53	44	ND	ND	1.1	ND	
GEW-009	5/9/2017	52	42	ND	4.2	0.8	ND	
GEW-009	6/6/2017	48	41	ND	10	0.49	ND	
GEW-009	7/10/2017	52	42	ND	4.6	0.7	ND	
GEW-009	8/9/2017	53	42	ND	4.5	0.48	ND	
GEW-009	9/12/2017	37	29	7.1	26	0.48	ND	See Note 4
GEW-040	5/9/2017	58	40	ND	ND	ND	ND	
GEW-040	6/7/2017	58	40	ND	ND	ND	ND	
GEW-040	7/11/2017	56	39	ND	4.0	ND	ND	
GEW-040	8/9/2017	57	41	ND	ND	ND	ND	
GEW-040	9/14/2017	57	40	ND	ND	ND	ND	
GEW-041R	5/15/2017	56	37	ND	5.1	ND	ND	
GEW-041R	7/11/2017	58	39	ND	ND	ND	ND	
GEW-041R	9/14/2017	58	39	ND	ND	ND	ND	
GEW-042R	5/9/2017	56	41	ND	ND	ND	ND	
GEW-042R	6/7/2017	56	42	ND	ND	ND	ND	
GEW-042R	7/11/2017	57	41	ND	ND	ND	ND	
GEW-042R	8/9/2017	57	41	ND	ND	ND	ND	
GEW-042R	9/12/2017	56	42	ND	ND	ND	ND	
GEW-043R	5/9/2017	56	41	ND	ND	0.22	ND	
GEW-043R	7/11/2017	55	42	ND	ND	0.49	ND	
GEW-043R	9/12/2017	55	43	ND	ND	0.25	ND	

Laboratory Analysis - Bridgeton Landfill

Well Name	Date Sampled	Methane	CO_2	O_2/Argon	Nitrogen	Hydrogen	Carbon Monoxide	Comments
		(%)					(ppm)	
GEW-044	5/9/2017	58	39	ND	ND	ND	ND	
GEW-044	7/10/2017	57	39	ND	ND	ND	ND	
GEW-044	9/12/2017	55	39	ND	4.4	ND	ND	
GEW-045R	5/9/2017	60	38	ND	ND	ND	ND	
GEW-045R	6/7/2017	50	32	3.9	14.0	ND	ND	See Note 3
GEW-045R	7/12/2017	58	36	ND	4.8	ND	ND	
GEW-045R	8/8/2017	56	41	ND	ND	ND	ND	
GEW-045R	9/12/2017	56	41	ND	ND	ND	ND	
GEW-046R	5/9/2017	56	39	ND	3.9	0.06	ND	
GEW-046R	6/7/2017	56	40	ND	3.5	0.07	ND	
GEW-046R	7/12/2017	55	40	ND	4.1	0.15	ND	
GEW-046R	8/8/2017	55	39	ND	5	0.06	ND	
GEW-046R	9/12/2017	56	41	ND	ND	0.07	ND	
GEW-047R	5/9/2017	53	39	ND	7.2	ND	ND	
GEW-047R	6/5/2017	40	31	3.8	25	0.07	ND	See Note 3
GEW-047R	7/12/2017	44	36	ND	19	0.21	ND	
GEW-047R	8/8/2017	56	41	ND	ND	ND	ND	
GEW-047R	9/12/2017	54	39	ND	6.3	ND	ND	
GEW-048	5/9/2017	54	38	ND	6.2	ND	ND	
GEW-048	6/6/2017	53	39	ND	7.6	ND	ND	
GEW-048	7/12/2017	54	38	ND	6.9	ND	ND	
GEW-048	8/8/2017	55	38	ND	6.7	ND	ND	
GEW-048	9/11/2017	56	39	ND	4.7	ND	ND	
GEW-049	5/9/2017	55	38	ND	5.9	ND	ND	
GEW-049	6/6/2017	42	32	3.5	22	ND	ND	See Note 3
GEW-049	7/10/2017	54	39	ND	6.8	ND	ND	
GEW-049	8/9/2017	56	39	ND	4.2	0.05	ND	
GEW-049	9/12/2017	56	40	ND	3.7	0.06	ND	
GEW-050	5/9/2017	55	38	ND	6	ND	ND	
GEW-050	7/10/2017	53	38	ND	7.8	0.05	ND	
GEW-050	9/12/2017	57	39	ND	ND	0.05	ND	
GEW-051	5/9/2017	54	41	ND	ND	1.1	ND	
GEW-051	7/10/2017	55	41	ND	ND	0.8	ND	
GEW-051	9/12/2017	43	32	5.3	19	0.7	ND	See Note 4
GEW-052	5/9/2017	51	36	ND	12	ND	ND	
GEW-052	7/10/2017	51	38	ND	10	0.04	ND	
GEW-052	9/12/2017	49	35	3.2	13	0.04	ND	See Note 3
GEW-053	5/9/2017	51	39	ND	5.8	2.8	55	
GEW-053	6/6/2017	39	33	5.4	20	2.8	56	See Note 3
GEW-053	7/11/2017	51	40	ND	ND	4.7	53	
GEW-053	8/9/2017	50	42	ND	ND	5.3	61	
GEW-053	9/13/2017	49	41	ND	ND	5	56	
GEW-054	5/9/2017	52	40	ND	3.9	2.2	ND	
GEW-054	6/7/2017	54	42	ND	ND	1.5	ND	
GEW-054	7/11/2017	52	40	ND	ND	2.8	ND	
GEW-054	8/9/2017	53	41	ND	ND	2.3	ND	
GEW-054	9/13/2017	52	43	ND	ND	2.7	ND	
GEW-055	5/9/2017	48	41	ND	ND	6.8	53	
GEW-055	6/7/2017	50	42	ND	ND	5	36	
GEW-055	7/11/2017	49	42	ND	ND	4.9	40	
GEW-055	8/9/2017	49	41	ND	3.7	4.6	36	
GEW-055	9/14/2017	49	41	ND	4.2	4.3	35	
Flare Station[2]	5/16/2017	45.9	34.5	2.4	15.5	ND	ND	See Note 5
Flare Station[2]	6/6/2017	43.4	34.3	2.8	18.3	ND	ND	See Note 5
Flare Station[2]	7/6/2017	45.5	34.6	2.7	16.1	ND	ND	See Note 5
Flare Station[2]	8/2/2017	49.4	37.2	1.8	10.5	ND	ND	See Note 5

Laboratory Analysis - Bridgeton Landfill

Well Name	Date Sampled	Methane	CO_2	O_2/Argon	Nitrogen	Hydrogen	Carbon Monoxide	Comments
		(%)					(ppm)	
Flare Station[2]	9/7/2017	47.8	36.6	2.1	12.1	ND	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 NQ EP14 A (or 1) and NQ EP14 B (or 2), located in the North Quarry. (6) Flare station gas concentration data is an average of Outlets 1 and 2 (A & B) or SQ OU 1 and OU 2, located in the South Quarry. (7) Sample not reported by lab due to canister leak.

ND = Analyte not detected in sample.

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

Laboratory Analysis - Bridgeton Landfill

Well Name	Date Sampled	Methane	CO_2	O_2/Argon	Nitrogen	Hydrogen	Carbon Monoxide	Comments
		(%)					(ppm)	
South Quarry								
GEW-010	5/2/2017	57	40	ND	ND	ND	ND	
GEW-010	6/5/2017	49	35	3.5	12	ND	ND	
GEW-010	7/11/2017	56	41	ND	ND	ND	ND	
GEW-010	8/8/2017	57	40	ND	ND	ND	ND	
GEW-010	9/12/2017	55	42	ND	ND	0.35	ND	
GEW-022R	7/12/2017	0.83	60	ND	4.3	31	2,500	
GEW-022R	9/18/2017	2.8	58	1.8	6.2	30	2,100	
GEW-038	5/2/2017	1.1	56	ND	ND	38	2,400	
GEW-038	6/5/2017	1.1	48	3.4	12	34	2,400	
GEW-038	7/12/2017	0.91	52	2.2	7.7	36	2,100	
GEW-038	8/9/2017	1.1	51	2.1	7.2	38	2,100	See Note 4
GEW-038	9/12/2017	0.67	44	5.8	20	29	1,800	See Note 4
GEW-039	5/2/2017	45	53	ND	ND	0.05	ND	
GEW-039	6/6/2017	45	53	ND	ND	ND	ND	
GEW-039	7/12/2017	44	54	ND	ND	ND	ND	
GEW-039	8/9/2017	42	51	ND	4.7	ND	ND	
GEW-039	9/12/2017	45	52	ND	ND	ND	ND	
GEW-056R	5/2/2017	16	53	ND	ND	28	920	
GEW-056R	6/5/2017	11	42	5.2	18	23	860	
GEW-056R	7/12/2017	18	51	ND	ND	26	820	
GEW-056R	8/8/2017	18	51	ND	ND	28	850	
GEW-056R	9/12/2017	27	52	ND	ND	18	590	
GEW-057R	5/9/2017	5.9	37	3	42	11	370	
GEW-057R	7/7/2017	16	42	2.8	38	1.3	190	
GEW-058	5/8/2017	11	38	1.8	42	7.4	260	
GEW-058	7/6/2017	5.3	28	6.1	52	8.7	300	
GEW-058	9/6/2017	1.5	25	5.2	53	14	510	See Note 3
GEW-058A	5/8/2017	9.9	33	2.9	50	4.6	210	
GEW-058A	7/6/2017	4.5	18	11	61	5.4	240	See Note 3
GEW-058A	9/6/2017	11	24	7.6	44	13	540	See Note 3
GEW-059R	5/8/2017	7.8	45	ND	ND	43	1,500	
GEW-059R	7/6/2017	7.3	45	ND	ND	44	1,600	
GEW-059R	9/6/2017	11	45	ND	ND	41	1,300	
GEW-082R	5/8/2017	2.5	49	ND	ND	45	1,700	
GEW-082R	7/10/2017	7.8	40	3.5	17	31	990	
GEW-082R	9/14/2017	12	42	ND	16	28	950	
GEW-086	7/7/2017	3.6	49	1.9	6.5	37	680	
GEW-086	9/6/2017	8.5	30	4.0	51	6.9	180	
GEW-090	5/9/2017	8.4	38	4.2	15	34	1,300	See Note 3
GEW-090	7/7/2017	11	43	ND	5	39	1,400	
GEW-090	9/6/2017	18	45	ND	3.9	32	980	
GEW-102	5/9/2017	7.2	47	2.5	8.6	34	640	
GEW-102	9/8/2017	7.8	42	4.8	17	28	440	
GEW-104	9/6/2017	17	52	ND	ND	26	1,000	
GEW-105	9/6/2017	11	44	4.1	18	22	1,200	
GEW-106	9/6/2017	27	50	ND	6.9	14	510	
GEW-107	9/6/2017	0.13	1.6	21	76	0.43	55	See Note 4
GEW-108	9/6/2017	29	44	1.7	5.7	18	640	
GEW-109	5/2/2017	23	50	ND	8	18	530	
GEW-109	6/6/2017	26	49	ND	8.2	16	440	
GEW-109	7/12/2017	31	48	ND	7.9	12	320	
GEW-109	8/9/2017	29	48	ND	6.8	15	330	
GEW-109	9/12/2017	32	44	ND	12	11	240	
GEW-110	5/2/2017	5.8	22	11	50	11	540	
GEW-110	6/5/2017	7.3	30	9.3	36	17	810	See Note 4

Laboratory Analysis - Bridgeton Landfill

Well Name	Date Sampled	Methane	CO_2	O_2/Argon	Nitrogen	Hydrogen	Carbon Monoxide	Comments
		(%)					(ppm)	
GEW-110	7/11/2017	6.3	23	12	45	13	560	See Note 4
GEW-110	8/8/2017	6.2	22	11	52	9.2	420	See Note 4
GEW-110	9/12/2017	13	53	ND	ND	31	1,100	
GEW-116	5/8/2017	1.8	42	7.4	26	21	1,200	See Note 3
GEW-116	7/10/2017	4.2	53	5.4	19	17	960	
GEW-116	9/14/2017	5	65	ND	ND	26	1,200	
GEW-117	5/9/2017	4.3	43	6.4	22	23	1,100	See Note 4
GEW-117	7/10/2017	13	63	ND	4.6	17	970	
GEW-117	9/14/2017	34	51	ND	5.2	7.5	310	
GEW-118	5/8/2017	1.1	54	ND	ND	39	1,600	
GEW-118	7/12/2017	1.3	57	ND	ND	38	1,300	
GEW-118	9/14/2017	0.9	50	1.9	6.8	39	1,400	
GEW-120	5/2/2017	16	54	ND	23	5.8	280	
GEW-120	7/12/2017	2.3	47	4.2	15	31	1,500	
GEW-120	9/14/2017	17	55	ND	18	9	390	
GEW-121	5/2/2017	8.8	50	2.7	18	20	980	See Note 3
GEW-121	7/12/2017	11	59	ND	7.3	21	950	
GEW-121	9/18/2017	9.3	50	ND	19	19	860	
GEW-122	5/2/2017	11	41	ND	30	16	1,200	
GEW-122	7/12/2017	4.8	53	ND	3.7	37	2,100	
GEW-122	9/18/2017	12	34	ND	36	16	1,400	
GEW-123	5/5/2017	18	37	3	35	7	420	See Note 3
GEW-123	7/12/2017	18	48	ND	26	5.7	330	
GEW-123	9/18/2017	2.8	61	ND	ND	32	2,400	
GEW-124	9/18/2017	48	49	ND	ND	0.067	ND	
GEW-125	5/2/2017	3.5	54	ND	5.7	35	2,200	
GEW-125	7/12/2017	3.5	54	ND	5.9	34	2,000	
GEW-125	9/18/2017	4.2	53	ND	10	31	1,800	
GEW-126	5/2/2017	18	49	ND	26	5.7	440	
GEW-126	7/12/2017	26	51	ND	17	5	410	
GEW-126	9/18/2017	29	48	ND	13	7.8	570	
GEW-127	5/2/2017	6.4	57	2.6	14	18	1,900	
GEW-127	7/12/2017	5.9	57	2.2	13	20	2,100	
GEW-127	9/14/2017	3.6	65	ND	ND	27	2,700	
GEW-128	5/2/2017	2.6	64	ND	ND	29	3,300	
GEW-128	7/12/2017	7.5	64	ND	3.8	23	2,500	
GEW-128	9/14/2017	7.8	63	ND	4.3	23	2,300	
GEW-129	5/2/2017	0.7	76	ND	ND	20	2,300	
GEW-129	9/14/2017	0.69	60	ND	ND	35	3,500	
GEW-130	5/2/2017	3.3	39	6.9	28	22	1,700	See Note 4
GEW-130	7/12/2017	3.9	45	4.8	18	26	2,100	
GEW-130	9/14/2017	3.5	46	3.3	16	31	2,300	
GEW-131	5/23/2017	12	41	ND	19	26	1,700	
GEW-131	7/12/2017	15	39	ND	24	20	1,600	
GEW-131	9/18/2017	20	42	ND	15	21	1,400	
GEW-132	5/2/2017	5.9	38	3.1	37	15	810	
GEW-132	7/12/2017	6.6	34	3.7	47	8.5	450	
GEW-132	9/14/2017	2.2	27	7.6	47	16	820	See Note 4
GEW-133	5/2/2017	0.88	57	2.4	8.4	30	2,200	
GEW-133	7/10/2017	5.8	57	ND	3.8	32	1,400	
GEW-133	9/14/2017	10	53	ND	13	22	990	
GEW-134	5/5/2017	8.9	34	6.1	41	11	480	See Note 4
GEW-134	7/10/2017	9.2	29	7.1	49	4.8	200	See Note 4
GEW-134	9/14/2017	14	46	ND	27	12	500	
GEW-135	5/5/2017	4.4	33	4.8	44	14	690	
GEW-135	7/10/2017	5	35	4.7	38	17	870	

Laboratory Analysis - Bridgeton Landfill

Well Name	Date Sampled	Methane	CO_2	O_2/Argon	Nitrogen	Hydrogen	Carbon Monoxide	Comments
		(%)					(ppm)	
GEW-135	9/14/2017	6	52	ND	8.6	32	1,200	
GEW-136	7/10/2017	6.1	27	9.3	38	19	520	See Note 4
GEW-136	9/8/2017	5.4	30	7.7	37	19	490	See Note 4
GEW-137	5/5/2017	8.4	20	6.7	65	ND	ND	See Note 3
GEW-137	7/10/2017	22	31	ND	45	ND	ND	
GEW-137	9/8/2017	22	31	3	44	ND	ND	
GEW-138	7/10/2017	1.7	12	12	71	2.4	250	See Note 4
GEW-138	9/14/2017	14	43	ND	28	14	790	
GEW-139	5/9/2017	3.1	48	2.7	10	36	2,500	
GEW-139	7/12/2017	6.4	42	3.2	21	27	1,800	
GEW-139	9/14/2017	2.6	50	ND	4.2	41	2,700	
GEW-140	5/8/2017	9.8	35	5.7	35	15	730	See Note 4
GEW-140	7/7/2017	12	36	4.9	34	12	450	
GEW-141	3/3/2017	1.9	43	5.6	20	29	3,200	See Note 4
GEW-141	5/8/2017	0.19	45	5.4	19	29	3,300	See Note 4
GEW-141	7/12/2017	0.45	58	ND	ND	38	4,000	
GEW-144	3/3/2017	0.78	45	4.8	17	32	1800	See Note 4
GEW-144	7/7/2017	0.61	55	ND	ND	40	2100	
GEW-145	9/8/2017	1.3	32	8.8	31	26	1100	See Note 3
GEW-146	7/10/2017	2.7	12	13	72	0.45	360	See Note 4
GEW-146	9/8/2017	1.7	7.4	16	74	0.44	ND	See Note 4
GEW-147	5/5/2017	0.5	53	ND	ND	41	2400	
GEW-147	7/10/2017	9.6	43	2	20	25	970	
GEW-147	9/14/2017	12	46	ND	13	27	960	
GEW-148	5/2/2017	7.1	55	1.8	6.1	30	2,300	
GEW-148	7/10/2017	3.2	45	4.1	14	33	1,900	
GEW-148	9/6/2017	4	51	1.8	6	37	2,100	
GEW-149	5/2/2017	12	41	3.6	33	9.9	400	
GEW-149	7/7/2017	14	44	2.2	29	11	340	
GEW-149	9/6/2017	12	36	5.2	34	13	570	See Note 3
GEW-150	5/9/2017	9.2	37	7.2	35	12	590	See Note 4
GEW-150	7/7/2017	18	56	ND	6.5	17	600	
GEW-150	9/6/2017	9.2	41	6.4	28	15	580	See Note 4
GEW-151	7/7/2017	1.3	43	ND	ND	52	720	
GEW-151	9/6/2017	23	51	ND	5.3	20	780	
GEW-152	9/6/2017	24	45	ND	3.8	26	1300	
GEW-153	5/8/2017	25	39	2.7	23	10	350	
GEW-153	7/6/2017	27	39	2.7	22	9.5	290	
GEW-153	9/6/2017	45	40	ND	8.1	5.3	66	
GEW-154	5/2/2017	22	29	8.7	38	1.6	140	See Note 4
GEW-154	7/7/2017	8	23	10	58	0.33	45	See Note 4
GEW-154	9/6/2017	13	18	13	55	1.5	88	See Note 4
GEW-155	5/8/2017	2.4	38	2.2	32	25	940	
GEW-155	7/10/2017	1.2	22	8.2	56	12	430	
GEW-155	9/14/2017	2.2	21	4.8	69	2.8	77	
GEW-156	3/3/2017	16	32	5.3	44	2	95	See Note 4
GEW-156	5/9/2017	10	25	8	56	0.77	40	See Note 4
GEW-156	7/7/2017	25	39	4.2	21	11	210	
GEW-157	5/9/2017	14	50	ND	5.4	28	1,500	
GEW-158	5/8/2017	5	51	ND	ND	40	1700	
GEW-158	9/6/2017	34	48	ND	ND	15	470	
GEW-159	5/8/2017	7.3	27	10	38	17	920	See Note 4
GEW-159	7/6/2017	30	45	ND	ND	21	940	
GEW-159	9/6/2017	26	43	ND	25	4.8	150	
GEW-160	5/2/2017	6	51	ND	ND	39	2,300	
GEW-160	7/7/2017	4.9	48	ND	5.2	40	2,100	

Laboratory Analysis - Bridgeton Landfill

Well Name	Date Sampled	Methane	CO_2	O_2/Argon	Nitrogen	Hydrogen	Carbon Monoxide	Comments
		(%)					(ppm)	
GEW-160	9/8/2017	1.2	55	ND	ND	40	1,900	
GEW-161	5/2/2017	16	42	6	24	11	480	See Note 3
GEW-161	9/8/2017	0.84	59	ND	ND	36	1,900	
GEW-162	7/7/2017	16	67	ND	6.4	7.8	320	
GEW-162	9/6/2017	7.9	64	ND	ND	25	930	
GEW-163	5/2/2017	3.1	41	4.8	36	14	900	
GEW-163	7/12/2017	8.9	49	4	25	12	740	
GEW-163	9/14/2017	4.6	31	7.2	46	9.7	450	See Note 4
GEW-164	5/2/2017	13	64	ND	6.4	15	1,200	
GEW-164	7/12/2017	13	64	ND	4	17	1,300	
GEW-164	9/14/2017	18	60	ND	6.4	14	920	
GEW-165	5/2/2017	5.1	59	1.7	6	28	2,100	
GEW-165	7/12/2017	5	49	4.7	17	23	1,600	
GEW-165	9/14/2017	5.4	38	8.8	32	14	850	See Note 4
GEW-166	5/2/2017	0.51	44	4.9	17	32	2,500	
GEW-166	7/12/2017	0.37	54	ND	4.7	38	2,900	
GEW-166	9/14/2017	0.66	53	1.8	6.9	37	2,400	
GEW-167	5/2/2017	1.4	41	5.1	21	31	2,100	See Note 4
GEW-167	7/12/2017	0.32	53	ND	3.9	41	2,500	
GEW-167	9/14/2017	0.33	40	5.5	20	33	1,900	See Note 4
GEW-168	5/2/2017	3.3	58	ND	ND	34	2,400	
GEW-168	7/12/2017	6.1	39	7.7	27	19	1,300	
GEW-168	9/14/2017	6.5	59	ND	ND	31	1,900	
GEW-169	5/2/2017	1.5	35	9.6	35	18	1,600	See Note 4
GEW-169	7/12/2017	2	52	3.8	14	28	2,200	
GEW-169	9/14/2017	3.2	62	ND	ND	32	2,400	
GEW-170	5/2/2017	2.9	65	ND	ND	29	3,200	
GEW-170	7/12/2017	6.5	47	5.2	24	16	1,600	
GEW-170	9/14/2017	7.6	52	3.5	16	19	1,800	
GEW-172	5/9/2017	0.25	48	3.3	12	36	2,800	
GEW-172	7/7/2017	0.3	52	ND	ND	43	3,200	
GEW-173	5/8/2017	7.1	21	9.2	59	2.7	310	See Note 4
GEW-173	9/14/2017	28	44	3.2	23	1.8	210	
GEW-174	5/8/2017	8.7	31	6.5	38	15	850	See Note 4
GEW-174	7/7/2017	12	52	ND	8.2	26	1,400	
GEW-174	9/8/2017	10	42	3.6	23	20	1,100	
GEW-175	5/8/2017	15	43	5.9	24	12	470	See Note 4
GEW-175	7/7/2017	18	48	3.4	17	13	500	
GEW-175	9/6/2017	14	40	5.3	31	9.8	420	See Note 4
GEW-176	5/8/2017	18	54	ND	8.1	17	730	
GEW-176	7/7/2017	29	44	3.1	17	6.9	260	
GEW-176	9/6/2017	21	42	4.4	23	9.3	370	
GEW-177	7/12/2017	0.29	60	ND	4.4	33	4,700	
GIW-01	5/1/2017	6.1	28	11	53	1.9	250	See Note 4
GIW-01	6/5/2017	14	53	2.9	20	9.4	620	
GIW-01	7/12/2017	14	37	3.8	44	1.4	190	
GIW-01	8/8/2017	12	64	ND	8.7	13	780	
GIW-01	9/12/2017	13	39	3.8	38	5.8	340	
GIW-02	5/1/2017	5.9	31	11	43	8.2	300	See Note 4
GIW-02	6/5/2017	5.5	31	9.8	45	8.7	250	See Note 4
GIW-02	7/12/2017	15	64	ND	ND	17	720	
GIW-02	8/8/2017	17	62	ND	ND	19	660	
GIW-02	9/12/2017	2.8	20	16	58	2.7	110	See Note 4
GIW-03	5/1/2017	0.82	52	3.4	12	31	1,800	
GIW-03	6/5/2017	0.83	47	4.9	17	29	1,700	
GIW-03	7/12/2017	0.99	48	4.1	14	32	1,600	

Laboratory Analysis - Bridgeton Landfill

Well Name	Date Sampled	Methane	CO_2	O_2/Argon	Nitrogen	Hydrogen	Carbon Monoxide	Comments
		(%)					(ppm)	
GIW-03	8/8/2017	1.1	50	4.7	17	27	1,500	See Note 4
GIW-03	9/12/2017	2.5	59	2	8.5	27	1,400	
GIW-04	5/2/2017	0.61	29	9.5	33	27	1,600	See Note 4
GIW-04	6/5/2017	0.56	30	9.1	32	27	1,500	
GIW-04	7/12/2017	0.31	19	14	51	16	850	See Note 3
GIW-04	8/8/2017	0.4	23	12	42	22	1,200	See Note 4
GIW-04	9/12/2017	12	49	3.4	14	21	1,100	
GIW-05	5/2/2017	0.013	2.6	21	76	ND	ND	See Note 4
GIW-05	6/5/2017	0.47	12	16	59	12	190	See Note 4
GIW-05	7/12/2017	4.9	50	ND	ND	41	2,200	
GIW-05	8/9/2017	1.7	50	ND	ND	46	610	
GIW-05	9/12/2017	0.3	6.8	19	68	6.1	120	See Note 3
GIW-06	5/2/2017	4.5	48	1.7	13	32	640	
GIW-06	6/5/2017	7.2	48	1.7	6	35	870	
GIW-06	7/12/2017	9.4	49	ND	11	28	570	
GIW-06	8/9/2017	21	48	ND	ND	28	530	
GIW-06	9/12/2017	12	44	ND	24	18	410	
GIW-07	5/2/2017	17	56	3.3	12	12	940	
GIW-07	6/5/2017	34	50	ND	5	9.7	550	
GIW-07	7/12/2017	26	56	1.8	6.8	9	400	
GIW-07	8/9/2017	32	52	ND	ND	12	590	
GIW-07	9/12/2017	26	59	ND	10	2.8	160	
GIW-08	5/2/2017	26	68	ND	4.2	0.7	220	
GIW-08	6/5/2017	29	61	ND	7	1.4	180	
GIW-08	7/12/2017	24	60	ND	13	1.3	150	
GIW-08	8/9/2017	44	51	ND	ND	1.4	120	
GIW-08	9/12/2017	22	56	ND	20	0.84	99	
GIW-09	5/2/2017	11	28	4.4	51	5.7	220	
GIW-09	6/6/2017	3	21	5.5	65	5.1	250	See Note 4
GIW-09	7/12/2017	9	28	2.1	55	5	170	
GIW-09	8/9/2017	28	40	ND	22	9.3	280	
GIW-09	9/12/2017	7.2	22	5	61	4.5	120	See Note 4
GIW-10	5/2/2017	4	51	ND	ND	42	1,100	
GIW-10	6/5/2017	3.6	48	2.1	7.2	39	980	
GIW-10	7/12/2017	2.2	51	ND	ND	44	830	
GIW-10	8/9/2017	7.3	51	ND	ND	39	810	
GIW-10	9/12/2017	11	42	ND	26	20	590	
GIW-11	5/2/2017	1.9	60	ND	ND	36	1,600	
GIW-11	6/5/2017	2	58	ND	ND	37	1,700	
GIW-11	7/12/2017	7	58	ND	ND	32	1,300	
GIW-11	8/8/2017	9.8	55	ND	ND	33	1,200	
GIW-11	9/12/2017	18	48	ND	18	15	580	
GIW-12	5/2/2017	11	39	6	30	14	470	See Note 4
GIW-12	6/5/2017	12	40	5.5	27	15	480	See Note 4
GIW-12	7/11/2017	12	39	5.7	30	12	350	
GIW-12	8/8/2017	15	44	3.7	22	15	390	See Note 4
GIW-12	9/12/2017	11	34	7.9	36	11	590	See Note 4
GIW-13	5/2/2017	9.6	66	ND	ND	22	880	
GIW-13	6/5/2017	9.4	65	ND	ND	23	860	
GIW-13	7/11/2017	11	65	ND	ND	21	770	
GIW-13	8/8/2017	11	62	ND	ND	24	850	
GIW-13	9/12/2017	15	63	1.6	6	14	550	
Flare Station[2]	4/4/2017	9.3	35.6	8.5	34.5	11.5	680	See Note 6
Flare Station[2]	5/11/2017	14.5	34.2	7.8	33.2	9.5	525	See Note 6
Flare Station[2]	6/6/2017	9.7	32.9	8.5	38.5	9.3	540	See Note 6
Flare Station[2]	7/6/2017	11.1	35.2	7.5	35.0	10.0	610	See Note 6

Laboratory Analysis - Bridgeton Landfill

Well Name	Date Sampled	Methane	CO_2	O_2/Argon	Nitrogen	Hydrogen	Carbon Monoxide	Comments
		(%)					(ppm)	
Flare Station[2]	8/2/2017	12.8	37.6	6.7	30.9	10.7	590	See Note 6
Flare Station[2]	9/7/2017	11.0	31.8	8.4	38.6	9.2	475	See Note 6

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 NQ EP14 A (or 1) and NQ EP14 B (or 2), located in the North Quarry. (6) Flare station gas concentration data is an average of Outlets 1 and 2 (A & B) or SQ OU 1 and OU 2, located in the South Quarry. (7) Sample not reported by lab due to canister leak.

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

Air TECHNOLOGY Laboratories, Inc.

September 26, 2017

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: Nick Bauer
13570 St. Charles Rock Rd.
Bridgeton, MO 63044

LABORATORY TEST RESULTS

Project Reference: Bridgeton Landfill
Lab Number: I092008-01/108

Enclosed are results for sample(s) received 9/20/17 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 Nick Bauer, Mike Lambrich, Anthony Kimutis and Ron Baker; David Randall, Dustin Thoenen and Don Murphy, Weaver Consultants Group; and Jan Feezor, Feezor Engineering on 9/25/17.

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: 9/21/17 per NB

DELIVERABLES

- EDD ☐
- EDF ☐
- Level 3 ☐
- Level 4 ☐

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

Project No.:	
Project Name:	Bridgeton Landfill
Report To:	Nick Bauer
Company:	Republic Services
Street:	13570 St. Charles Rock Rd.
City/State/Zip:	Bridgeton , MO 63044
Phone& Fax:	618-420-5209
e-mail:	Nbauer@republicservices.com

BILLING

P.O. No.:	PO~~6312552~~ 6605567
Bill to:	Republic Services
	Attn: Nick Bauer
	13570 St. Charles Rock Rd.
	Bridgeton, MO 63044

ANALYSIS REQUEST

LAB USE ONLY	Cannister ID	Cannister Pressure ("hg) Sample Start	Cannister Pressure ("hg) Sample End	SAMPLE IDENTIFICATION	SAMPLE DATE	SAMPLE TIME	CONTAINER QTY/TYPE	MATRIX	PRESERVATION	D1946 + CO, H2					"Hg LAB RECEIPT
I092008-01	5828	-20.1	-5	GEW 162	9/6/2017	10:02	C	LFG	NA	X					-5
-02	A7793	-20.3	-5	GEW 149	9/6/2017	10:15	C	LFG	NA	X					-5
-03	A7776	-19.8	-5	GEW 154	9/6/2017	11:05	C	LFG	NA	X					-5
-04	A8067	-20	-5	GEW 90	9/6/2017	11:23	C	LFG	NA	X					-5
-05	A8073	-20	-5	GEW 151	9/6/2017	13:33	C	LFG	NA	X					-5
-06	5825	-19.8	-5	GEW 86	9/6/2017	14:22	C	LFG	NA	X					-5
-07	5934	-19.9	-5	GEW 148	9/6/2017	14:56	C	LFG	NA	X					-5
-08	5907	-20.1	-5	GEW 160	9/8/2017	10:29	C	LFG	NA	X					-6
-09	5816	-20	-5	GEW 161	9/8/2017	10:40	C	LFG	NA	X					-6
-10	A7651	-19.9	-5	GEW 146	9/8/2017	11:12	C	LFG	NA	X					-6

AUTHORIZATION TO PERFORM WORK: Dave Penoyer COMPANY: Republic Services

SAMPLED BY: Ronald Baker COMPANY: Republic Services DATE/TIME

RELINQUISHED BY	DATE/TIME	RECEIVED BY	DATE/TIME
Ronald Baker	9/8/17		
FedEx		J. Kang	9/8/17 9:55

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

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:

DELIVERABLES

- EDD ☐
- EDF ☐
- Level 3 ☐
- Level 4 ☐

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

Project No.:	
Project Name:	Bridgeton Landfill
Report To:	Nick Bauer
Company:	Republic Services
Street:	13570 St. Charles Rock Rd.
City/State/Zip:	Bridgeton , MO 63044
Phone& Fax:	618-420-5209
e-mail:	Nbauer@republicservices.com

BILLING

P.O. No.:	PO6312552
Bill to:	Republic Services
	Attn: Nick Bauer
	13570 St. Charles Rock Rd.
	Bridgeton, MO 63044

ANALYSIS REQUEST

LAB USE ONLY	Canister Pressure ("hg) Canister ID	Sample Start	Sample End	SAMPLE IDENTIFICATION	SAMPLE DATE	SAMPLE TIME	CONTAINER QTY/TYPE	MATRIX	PRESERVATION	D1946 + CO, H2					4hr LAB recount
IO92008-11	3441	-20	-5	GEW 137	9/8/2017	11:36	C	LFG	NA	X					-6
-12	A8088	-19.9	-5	GEW 136	9/8/2017	13:58	C	LFG	NA	X					-6
-13	A7794	-17.2	-5	GEW 6	9/11/2017	11:12	C	LFG	NA	X					-6
-14	3126	-20.3	-5	GEW 48	9/11/2017	11:27	C	LFG	NA	X					-5
-15	5309	-20.1	-5	GEW 5	9/11/2017	11:40	C	LFG	NA	X					-5
-16	5817	-20.1	-5	GEW 47R	9/12/2017	8:45	C	LFG	NA	X					-5
-17	A8063	-17.3	-5	GEW 2	9/12/2017	8:59	C	LFG	NA	X					-5
-18	5813	-20.4	-5	GEW 3	9/12/2017	9:09	C	LFG	NA	X					-5
-19	3837	-19.9	-5	GEW 4	9/12/2017	9:18	C	LFG	NA	X					-5
-20	3130	-20.3	-5	GEW 45R	9/12/2017	9:30	C	LFG	NA	X					-5

AUTHORIZATION TO PERFORM WORK: Dave Penoyer COMPANY: Republic Services

SAMPLED BY: Ronald Baker COMPANY: Republic Services DATE/TIME

RELINQUISHED BY	DATE/TIME	RECEIVED BY	DATE/TIME
Ronald Baker	9/18/17		
RELINQUISHED BY: FedEx	DATE/TIME	RECEIVED BY: KKing	DATE/TIME: 9/20/17 9:55
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*

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:

DELIVERABLES
EDD ☐
EDF ☐
Level 3 ☐
Level 4 ☐

PAGE: 3 OF 11

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

Project No.:	
Project Name:	Bridgeton Landfill
Report To:	Nick Bauer
Company:	Republic Services
Street:	13570 St. Charles Rock Rd.
City/State/Zip:	Bridgeton , MO 63044
Phone& Fax:	618-420-5209
e-mail:	Nbauer@republicservices.com

BILLING
P.O. No.: PO6312552
Bill to: Republic Services
Attn: Nick Bauer
13570 St. Charles Rock Rd.
Bridgeton, MO 63044

ANALYSIS REQUEST

LAB USE ONLY	Cannister Pressure ("hg) Cannister ID	Sample Start	Sample End	SAMPLE IDENTIFICATION	SAMPLE DATE	SAMPLE TIME	CONTAINER QTY/TYPE	MATRIX	PRESERVATION	D1946 + CO, H2					Lab Request "Hg
I092008-21	3128	-19.7	-5	GEW 46R	9/12/2017	9:40	C	LFG	NA	X					-5
-22	6144	-20	-5	GEW 49	9/12/2017	11:00	C	LFG	NA	X					-6
-23	5306	-17.1	-5	GEW 51	9/12/2017	11:10	C	LFG	NA	X					-6
-24	5308	-19.7	-5	GEW 44	9/12/2017	11:22	C	LFG	NA	X					-6
-25	A7803	-19.8	-5	GEW 43R	9/12/2017	11:34	C	LFG	NA	X					-6
-26	3162	-20.3	-5	GEW 42R	9/12/2017	11:48	C	LFG	NA	X					-6
-27	5920	-19.8	-5	GEW 50	9/12/2017	13:23	C	LFG	NA	X					-6
-28	A8054	-18.6	-5	GEW 52	9/12/2017	13:35	C	LFG	NA	X					-6
-29	4656	-19.7	-5	GEW 7	9/12/2017	13:52	C	LFG	NA	X					-6
-30	A7773	-20.1	-5	GEW 8	9/12/2017	14:04	C	LFG	NA	X					-6.5

AUTHORIZATION TO PERFORM WORK: Dave Penoyer COMPANY: Republic Services

SAMPLED BY: Ronald Baker COMPANY: Republic Services DATE/TIME

RELINQUISHED BY	DATE/TIME	RECEIVED BY	DATE/TIME
Ronald Baker	9/18/17		
FedEx		J. Liang	9/20/17 9:55

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:

DELIVERABLES: EDD ☐ | EDF ☐ | Level 3 ☐ | Level 4 ☐

PAGE: 4 OF 11

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

Project No.:	
Project Name:	Bridgeton Landfill
Report To:	Nick Bauer
Company:	Republic Services
Street:	13570 St. Charles Rock Rd.
City/State/Zip:	Bridgeton , MO 63044
Phone& Fax:	618-420-5209
e-mail:	Nbauer@republicservices.com

BILLING

P.O. No.:	PO6312552
Bill to:	Republic Services
	Attn: Nick Bauer
	13570 St. Charles Rock Rd.
	Bridgeton, MO 63044

ANALYSIS REQUEST

LAB USE ONLY	Cannister Pressure ("hg) Cannister ID	Sample Start	Sample End	SAMPLE IDENTIFICATION	SAMPLE DATE	SAMPLE TIME	CONTAINER QTY/TYPE	MATRIX	PRESERVATION	D1946 + CO, H2					LAB Present
I092008-31	A7798	-15.6	-5	GEW 9	9/12/2017	14:16	C	LFG	NA	X					-6
-32	5269	-20.1	-5	GEW 54	9/13/2017	13:44	C	LFG	NA	X					-6
-33	A8072	-19.8	-5	GEW 53	9/13/2017	14:02	C	LFG	NA	X					-6
-34	A8057	-20	-5	GEW 55	9/14/2017	8:29	C	LFG	NA	X					-6
-35	5323	-19.9	-5	GEW 40	9/14/2017	8:48	C	LFG	NA	X					-6
-36	5912	-19.9	-5	GEW 41	9/14/2017	8:57	C	LFG	NA	X					-6
-37	A8083	-19.8	-5	GEW 2S	9/14/2017	9:21	C	LFG	NA	X					-6
-38	5310	-19.7	-5	GEW 147	9/14/2017	9:54	C	LFG	NA	X					-6
-39	A7764	-19.8	-5	GEW 135	9/14/2017	10:06 -19.8	C	LFG	NA	X					-6
-40	A8082	-19.9	-5	GEW 134	9/14/2017	10:18	C	LFG	NA	X					-6

AUTHORIZATION TO PERFORM WORK: Dave Penoyer COMPANY: Republic Services 9/18/17

SAMPLED BY: Ronald Baker COMPANY: Republic Services DATE/TIME

RELINQUISHED BY	DATE/TIME	RECEIVED BY	DATE/TIME
Ronald Baker	9/18/17		
Fed Ex		J. Liang	9/20/17 9:55

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

COMMENTS
TIME ON TAG IS TRICK FOR GEW 135 -JD 9/21/17

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:

DELIVERABLES

EDD ☐
EDF ☐
Level 3 ☐
Level 4 ☐

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

Project No.:	
Project Name:	Bridgeton Landfill
Report To:	Nick Bauer
Company:	Republic Services
Street:	13570 St. Charles Rock Rd.
City/State/Zip:	Bridgeton , MO 63044
Phone& Fax:	618-420-5209
e-mail:	Nbauer@republicservices.com

BILLING

P.O. No.:	PO6312552
Bill to:	Republic Services
	Attn: Nick Bauer
	13570 St. Charles Rock Rd.
	Bridgeton, MO 63044

ANALYSIS REQUEST

LAB USE ONLY	Cannister Pressure ("hg) Cannister ID	Sample Start	Sample End	SAMPLE IDENTIFICATION	SAMPLE DATE	SAMPLE TIME	CONTAINER QTY/TYPE	MATRIX	PRESERVATION	D1946 + CO, H2					Lab Percent
I092008-41	A7648	-19.8	-5	GEW 116	9/14/2017	10:45	C	LFG	NA	X					-6
-42	A8059	-19.6	-5	GEW 133	9/14/2017	10:58	C	LFG	NA	X					-6
-43	A7766	-19.7	-5	GEW 117	9/14/2017	11:14	C	LFG	NA	X					-6
-44	5320	-19.7	-5	GEW 120	9/14/2017	11:27	C	LFG	NA	X					-6
-45	A7744	-19.3	-5	GEW 118	9/14/2017	13:37	C	LFG	NA	X					-6
-46	3826	-19.6	-5	GEW 132	9/14/2017	14:01	C	LFG	NA	X					-6.5
-47	A8068	-19.6	-5	GEW 82R	9/14/2017	14:11	C	LFG	NA	X					-6.5
-48	5922	-19.7	-5	GEW 138	9/14/2017	14:30	C	LFG	NA	X					-6
-49	6146	-19.6	-5	GEW 155	9/14/2017	14:44	C	LFG	NA	X					-6.5
							C	LFG	NA	X					~~-5~~

DSF 9/12/17

AUTHORIZATION TO PERFORM WORK: Dave Penoyer COMPANY: Republic Services

SAMPLED BY: Ronald Baker COMPANY: Republic Services DATE/TIME

RELINQUISHED BY	DATE/TIME	RECEIVED BY	DATE/TIME
Ronald Baker	9/18/17		
RELINQUISHED BY	DATE/TIME	RECEIVED BY	DATE/TIME
FedEx		J. Kiang	9/20/17 9:55
RELINQUISHED BY	DATE/TIME	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*

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:

DELIVERABLES: EDD ☐ EDF ☐ Level 3 ☐ Level 4 ☐

PAGE: 6 OF 11

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

Project No.:	
Project Name:	Bridgeton Landfill
Report To:	Nick Bauer
Company:	Republic Services
Street:	13570 St. Charles Rock Rd.
City/State/Zip:	Bridgeton , MO 63044
Phone& Fax:	618-420-5209
e-mail:	Nbauer@republicservices.com

BILLING

P.O. No.: PO6312552
Bill to: Republic Services
Attn: Nick Bauer
13570 St. Charles Rock Rd.
Bridgeton, MO 63044

ANALYSIS REQUEST

LAB USE ONLY	Cannister ID	Cannister Pressure ("hg) Sample Start	Sample End	SAMPLE IDENTIFICATION	SAMPLE DATE	SAMPLE TIME	CONTAINER QTY/TYPE	MATRIX	PRESERVA-TION	D1946 + CO, H2					"Hg LAB RECEIPT
I092008-50	A7769	-20.1	-5	GEW 108	9/6/2017	9:11	C	LFG	NA	X					-5
-51	3156	-20	-5	GEW 159	9/6/2017	923	C	LFG	NA	X					-5
-52	A7808	-20.1	-5	GEW 153	9/6/2017	9.:34	C	LFG	NA	X					-5
-53	A7760	-20.3	-5	GEW 59R	9/6/2017	9:44	C	LFG	NA	X					-5
-54	A8071	-20	-5	GEW 107	9/6/2017	10:04	C	LFG	NA	X					-5
-55	5835	-19.9	-5	GEW 152	9/6/2017	10:17	C	LFG	NA	X					-5
-56	5834	-20	-5	GEW 58A	9/6/2017	10:37	C	LFG	NA	X					-5
-57	A7778	-20.1	-5	GEW 58	9/6/2017	10:49	C	LFG	NA	X					-5
-58	6141	-20	-5	GEW 106	9/6/2017	11:00	C	LFG	NA	X					-6
-59	3131	-20	-5	GEW 105	9/6/2017	11:20	C	LFG	NA	X					-5.5

AUTHORIZATION TO PERFORM WORK: Dave Penoyer COMPANY: Republic Services

SAMPLED BY: Anthony Kimutis COMPANY: Republic Services DATE/TIME

RELINQUISHED BY [signature] DATE/TIME 9/18/17 RECEIVED BY DATE/TIME

RELINQUISHED BY Fed Ex DATE/TIME RECEIVED BY [signature] DATE/TIME 9/20/17 9:55

RELINQUISHED BY DATE/TIME 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*

Air TECHNOLOGY 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:

DELIVERABLES

EDD ☐
EDF ☐
Level 3 ☐
Level 4 ☐

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

Project No.:	
Project Name:	Bridgeton Landfill
Report To:	Nick Bauer
Company:	Republic Services
Street:	13570 St. Charles Rock Rd.
City/State/Zip:	Bridgeton , MO 63044
Phone& Fax:	618-420-5209
e-mail:	Nbauer@republicservices.com

BILLING

P.O. No.:	PO6312552
Bill to:	Republic Services
	Attn: Nick Bauer
	13570 St. Charles Rock Rd.
	Bridgeton, MO 63044

ANALYSIS REQUEST

LAB USE ONLY	Canister Pressure ("hg) Canister ID	Sample Start	Sample End	SAMPLE IDENTIFICATION	SAMPLE DATE	SAMPLE TIME	CONTAINER QTY/TYPE	MATRIX	PRESERVATION	D1946 + CO, H2					"Hg Lab Request
I092008-60	5928	-20.1	-5	GEW 176	9/6/2017	11:29	C	LFG	NA	X					-5.5
-61	A7818	-20	-5	GEW 175	9/6/2017	13:35	C	LFG	NA	X					-6
-62	A8099	-19.4	-5	GEW 150	9/6/2017	13:49	C	LFG	NA	X					-5
-63	6160	-20.1	-5	GEW 104	9/6/2017	14:04	C	LFG	NA	X					-5
-64	A8090	-20.1	-5	GEW 158	9/6/2017	11:10	C	LFG	NA	X					-5.5
-65	5929	-20	-5	GEW 102	9/8/2017	14:26	C	LFG	NA	X					-6
-66	A7643	-19.9	-5	GEW 145	9/8/2017	14:38	C	LFG	NA	X					-6
-67	6143	-20.1	-5	GEW 174	9/8/2017	15:01	C	LFG	NA	X					-6
-68	A7809	-20.2	-5	GEW 10	9/12/2017	8:50	C	LFG	NA	X					-5
-69	A7665	-20	-5	GEW 110	9/12/2017	9:03	C	LFG	NA	X					-5

AUTHORIZATION TO PERFORM WORK: Dave Penoyer COMPANY: Republic Services

SAMPLED BY: Anthony Kimutis COMPANY: Republic Services DATE/TIME

RELINQUISHED BY	DATE/TIME	RECEIVED BY	DATE/TIME
[signature]	9/18/17		
FedEx		J. Liang	9/20/17 9:55

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:

DELIVERABLES
EDD ☐
EDF ☐
Level 3 ☐
Level 4 ☐

PAGE: 8 OF 11

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

Project No.:	
Project Name:	Bridgeton Landfill
Report To:	Nick Bauer
Company:	Republic Services
Street:	13570 St. Charles Rock Rd.
City/State/Zip:	Bridgeton , MO 63044
Phone& Fax:	618-420-5209
e-mail:	Nbauer@republicservices.com

BILLING

P.O. No.:	PO6312552
Bill to:	Republic Services
	Attn: Nick Bauer
	13570 St. Charles Rock Rd.
	Bridgeton, MO 63044

ANALYSIS REQUEST

LAB USE ONLY	Canister Pressure ("hg) Canister ID	Sample Start	Sample End	SAMPLE IDENTIFICATION	SAMPLE DATE	SAMPLE TIME	CONTAINER QTY/TYPE	MATRIX	PRESERVATION	D1946 + CO, H2					LAB REPORT H_2
I092008-70	A8097	-19.7	-5	GIW 13	9/12/2017	9:13	C	LFG	NA	X					-5
-71	A7810	-19.7	-5	GIW 12	9/12/2017	9:23	C	LFG	NA	X					-5
-72	5823	-20.2	-5	GEW 56R	9/12/2017	9:33	C	LFG	NA	X					-5
-73	5304	-19.6	-5	GIW 11	9/12/2017	11:~~18~~ CK	C	LFG	NA	X					-6
-74	A7805	-19.8	-5	GIW 1	9/12/2017	11:~~28~~ 18	C	LFG	NA	X					-6
-75	5833	-19.8	-5	GIW 2	9/12/2017	11:28	C	LFG	NA	X					-6
-76	A7761	-19.5	-5	GIW3	9/12/2017	11:37	C	LFG	NA	X					-6
-77	5313	-19.5	-5	GIW 4	9/12/2017	11:47	C	LFG	NA	X					-6
-78	A7781	-19.7	-5	GIW 10	9/12/2017	13:24	C	LFG	NA	X					-6
-79	6130	-19.4	-5	GIW 5	9/12/2017	13:35	C	LFG	NA	X					-6

AUTHORIZATION TO PERFORM WORK: Dave Penoyer COMPANY: Republic Services

SAMPLED BY: Anthony Kimutis COMPANY: Republic Services DATE/TIME

RELINQUISHED BY	DATE/TIME	RECEIVED BY	DATE/TIME
Ronald Baker	9/18/17		
FedEx		J. Qiang	9/20/17 9:55

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

COMMENTS
QD 9/21/17 corrected coll time per RBaker

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

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

CHAIN OF CUSTODY RECORD

AirTECHNOLOGY Laboratories, Inc.

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

TURNAROUND TIME
Standard ☐ 48 hours ☒
Same Day ☐ 72 hours ☐
24 hours ☐ 96 hours ☐
Other:

DELIVERABLES
EDD ☐
EDF ☐
Level 3 ☐
Level 4 ☐

PAGE: 9 **OF** 11

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

Project No.:	
Project Name:	Bridgeton Landfill
Report To:	Nick Bauer
Company:	Republic Services
Street:	13570 St. Charles Rock Rd.
City/State/Zip:	Bridgeton , MO 63044
Phone& Fax:	618-420-5209
e-mail:	Nbauer@republicservices.com

BILLING

P.O. No.:	PO6312552
Bill to:	Republic Services
	Attn: Nick Bauer
	13570 St. Charles Rock Rd.
	Bridgeton, MO 63044

LAB USE ONLY	Cannister Pressure ("hg)			SAMPLE IDENTIFICATION	SAMPLE DATE	SAMPLE TIME	CONTAINER QTY/TYPE	MATRIX	PRESERVATION	ANALYSIS REQUEST: D1946 + CO, H2					"Hg LAB RECEIPT
	Cannister ID	Sample Start	Sample End												
I092008-80	A7747	-19.6	-5	GIW 6	9/12/2017	1349	C	LFG	NA	X					-6
-81	A7792	-19.7	-5	GIW 7	9/12/2017	13:58	C	LFG	NA	X					-6
-82	A7814	-19.7	-5	GIW 8	9/12/2017	14:07	C	LFG	NA	X					-6
-83	6152	-19	-5	GEW 38	9/12/2017	14:15	C	LFG	NA	X					-6
-84	6131	-19.9	-5	GIW 9	9/12/2017	14:45	C	LFG	NA	X					-6
-85	A7767	-19.7	-5	GEW 109	9/12/2017	14:55	C	LFG	NA	X					-6
-86	3827	-19.6	-5	GEW 39	9/12/2017	15:04	C	LFG	NA	X					-6
-87	A8066	-18.3	-5	GEW 173	9/14/2017	9:29	C	LFG	NA	X					-6
-88	5832	-19.3	-5	GEW 139	9/14/2017	10:08	C	LFG	NA	X					-6
-89	A7802	-19.8	-5	GEW 129	9/14/2017	~~0:00~~ 10:24	C	LFG	NA	X					-6

AUTHORIZATION TO PERFORM WORK: Dave Penoyer COMPANY: Republic Services

SAMPLED BY: Anthony Kimutis COMPANY: Republic Services DATE/TIME

RELINQUISHED BY	DATE/TIME	RECEIVED BY	DATE/TIME
Darrell Bak	9/18/17		
FedEx		[illegible]	9/20/17 9:55

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

COMMENTS
90 9/21/17 per Rbaker

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:

DELIVERABLES: EDD ☐ EDF ☐ Level 3 ☐ Level 4 ☐

PAGE: 10 **OF** 11

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

Project No.:
Project Name: Bridgeton Landfill
Report To: Nick Bauer
Company: Republic Services
Street: 13570 St. Charles Rock Rd.
City/State/Zip: Bridgeton , MO 63044
Phone& Fax: 618-420-5209
e-mail: Nbauer@republicservices.com

BILLING
P.O. No.: PO6312552
Bill to: Republic Services
Attn: Nick Bauer
13570 St. Charles Rock Rd.
Bridgeton, MO 63044

ANALYSIS REQUEST

LAB USE ONLY	Cannister ID	Cannister Pressure ("hg) Sample Start	Sample End	SAMPLE IDENTIFICATION	SAMPLE DATE	SAMPLE TIME	CONTAINER QTY/TYPE	MATRIX	PRESERVA-TION	D1946 + CO, H2					"Hg LAB RECEIPT
I092008-90	6151	-19.9	-5	GEW 128	9/14/2017	10:32	C	LFG	NA	X					-6
-91	A7807	-19.6	-5	GEW 127	9/14/2017	10:42	10:42	LFG	NA	X					-6
-92	A8098	-19.6	-5	GEW 170	9/14/2017	10:51	C	LFG	NA	X					-5
-93	5818	-19.9	-5	GEW 130	9/14/2017	11:18	C	LFG	NA	X					-6
-94	3839	-19.9	-5	GEW 169	9/14/2017	11:29	C	LFG	NA	X					-6
-95	A7670	-19.4	-5	GEW 168	9/14/2017	11:41	C	LFG	NA	X					-6
-96	5319	-19.6	-5	GEW 163	9/14/2017	13:31	C	LFG	NA	X					-6.5
-97	5906	-19.7	-5	GEW 164	9/14/2017	~~13:53~~ 13:41	C	LFG	NA	X					-6.5
-98	A7663	-19.2	-5	GEW 165	9/14/2017	~~14:04~~ 13:53	C	LFG	NA	X					-6.5
-99	5318	-19.3	-5	GEW 166	9/14/2017	~~14:14~~ 14:04	C	LFG	NA	X					-7

AUTHORIZATION TO PERFORM WORK: Dave Penoyer **COMPANY:** Republic Services

SAMPLED BY: Anthony Kimutis **COMPANY:** Republic Services **DATE/TIME**

RELINQUISHED BY [signature] **DATE/TIME** 9/18/17 **RECEIVED BY** **DATE/TIME**

RELINQUISHED BY FedEx **DATE/TIME** **RECEIVED BY** J. Kizang **DATE/TIME** 9/20/17 9:55

RELINQUISHED BY **DATE/TIME** **RECEIVED BY** **DATE/TIME**

COMMENTS
[initials] 9/21/17 PO-RBaker

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*

Air TECHNOLOGY 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:

DELIVERABLES: EDD ☐ EDF ☐ Level 3 ☐ Level 4 ☐

PAGE: 11 OF 11

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

Project No.:	
Project Name:	Bridgeton Landfill
Report To:	Nick Bauer
Company:	Republic Services
Street:	13570 St. Charles Rock Rd.
City/State/Zip:	Bridgeton , MO 63044
Phone& Fax:	618-420-5209
e-mail:	Nbauer@republicservices.com

BILLING

P.O. No.: PO6312552
Bill to: Republic Services
Attn: Nick Bauer
13570 St. Charles Rock Rd.
Bridgeton, MO 63044

ANALYSIS REQUEST

LAB USE ONLY	Cannister ID	Cannister Pressure ("hg) Sample Start	Sample End	SAMPLE IDENTIFICATION	SAMPLE DATE	SAMPLE TIME	CONTAINER QTY/TYPE	MATRIX	PRESERVATION	D1946 + CO, H2					LAB RECEIPT "Hg
I092008-100	5836	-19.4	-5	GEW 167	9/14/2017	14:14	C	LFG	NA	X					-7
-101	6137	-19.7	-5	GEW 126	9/18/2017	14:25	C	LFG	NA	X					-6
-102	3834	-19.6	-5	GEW 131	9/18/2017	14:35	C	LFG	NA	X					-6
-103	5821	-19.6	-5	GEW 125	9/18/2017	14:45	C	LFG	NA	X					-6
-104	5819	-19.6	-5	GEW 124	9/18/2017	15:04	C	LFG	NA	X					-6
-105	4648	-19.8	-5	GEW 122	9/18/2017	14:23	C	LFG	NA	X					-6.5
-106	A8055	-19.7	-5	GEW 121	9/18/2017	14:36	C	LFG	NA	X					-6
-107	A7795	-19.5	-5	GEW ~~2~~ 123 gD 9/21/17 per RBaker	9/18/2017	14:47	C	LFG	NA	X					-6
-108	A7819	-19.9	-5	GEW 22R	9/18/2017	1501	C	LFG	NA	X					-6
							C	LFG	NA	X					-6

AUTHORIZATION TO PERFORM WORK: Dave Penoyer COMPANY: Republic Services

SAMPLED BY: Ronald Baker COMPANY: Republic Services DATE/TIME

RELINQUISHED BY	DATE/TIME	RECEIVED BY	DATE/TIME
Ronald Baker			
FedEx		[signature]	9/20/17 9:55

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: Nick Bauer
Project Name: Bridgeton Landfill
Project No.: NA
Date Received: 09/20/17
Matrix: Air
Reporting Units: % v/v

ASTM D1946

Lab No.:	I092008-01		I092008-02		I092008-03		I092008-04	
Client Sample I.D.:	GEW 162		GEW 149		GEW 154		GEW 90	
Date/Time Sampled:	9/6/17 10:02		9/6/17 10:15		9/6/17 11:05		9/6/17 11:23	
Date/Time Analyzed:	9/22/17 7:57		9/22/17 8:11		9/22/17 8:26		9/22/17 8:41	
QC Batch No.:	170922GC8A1		170922GC8A1		170922GC8A1		170922GC8A1	
Analyst Initials:	AS		AS		AS		AS	
Dilution Factor:	3.2		3.2		3.2		3.2	
ANALYTE	Result % v/v	RL % v/v	Result % v/v	RL % v/v	Result % v/v	RL % v/v	Result % v/v	RL % v/v
Hydrogen	25	3.2	13	3.2	1.5 d	0.032	32	3.2
Carbon Dioxide	64	0.032	36	0.032	18	0.032	45	0.032
Oxygen/Argon	ND	1.6	5.2	1.6	13	1.6	ND	1.6
Nitrogen	ND	3.2	34	3.2	55	3.2	3.9	3.2
Methane	7.9	0.0032	12	0.0032	13	0.0032	18	0.0032
Carbon Monoxide	0.093	0.0032	0.057	0.0032	0.0088	0.0032	0.098	0.0032

Results normalized including non-methane hydrocarbons
ND = Not Detected (below RL)
RL = Reporting Limit
d = Reported from a secondary analysis. QC Batch: 170925GC8A1

Reviewed/Approved By: _____ Date 9-25-17

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:	**Nick Bauer**
Project Name:	**Bridgeton Landfill**
Project No.:	**NA**
Date Received:	**09/20/17**
Matrix:	**Air**
Reporting Units:	**% v/v**

ASTM D1946

Lab No.:	I092008-05		I092008-06		I092008-07		I092008-08	
Client Sample I.D.:	GEW 151		GEW 86		GEW 148		GEW 160	
Date/Time Sampled:	9/6/17 13:33		9/6/17 14:22		9/6/17 14:56		9/8/17 10:29	
Date/Time Analyzed:	9/22/17 8:55		9/22/17 9:10		9/22/17 9:24		9/22/17 9:39	
QC Batch No.:	170922GC8A1		170922GC8A1		170922GC8A1		170922GC8A1	
Analyst Initials:	AS		AS		AS		AS	
Dilution Factor:	3.2		3.2		3.2		3.4	
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	20	3.2	6.9	3.2	37	3.2	40	3.4
Carbon Dioxide	51	0.032	30	0.032	51	0.032	55	0.034
Oxygen/Argon	ND	1.6	4.0	1.6	1.8	1.6	ND	1.7
Nitrogen	5.3	3.2	51	3.2	6.0	3.2	ND	3.4
Methane	23	0.0032	8.5	0.0032	4.0	0.0032	1.2	0.0034
Carbon Monoxide	0.078	0.0032	0.018	0.0032	0.21	0.0032	0.19	0.0034

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

Reviewed/Approved By: _____ Date 9-25-17

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: Nick Bauer
Project Name: Bridgeton Landfill
Project No.: NA
Date Received: 09/20/17
Matrix: Air
Reporting Units: % v/v

ASTM D1946

Lab No.:	I092008-09		I092008-10		I092008-11		I092008-12	
Client Sample I.D.:	GEW 161		GEW 146		GEW 137		GEW 136	
Date/Time Sampled:	9/8/17 10:40		9/8/17 11:12		9/8/17 11:36		9/8/17 13:58	
Date/Time Analyzed:	9/22/17 9:53		9/22/17 10:08		9/22/17 10:22		9/22/17 10:37	
QC Batch No.:	170922GC8A1		170922GC8A1		170922GC8A1		170922GC8A1	
Analyst Initials:	AS		AS		AS		AS	
Dilution Factor:	3.4		3.4		3.4		3.4	
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	36	3.4	0.44 d	0.034	ND d	0.034	19	3.4
Carbon Dioxide	59	0.034	7.4	0.034	31	0.034	30	0.034
Oxygen/Argon	ND	1.7	16	1.7	3.0	1.7	7.7	1.7
Nitrogen	ND	3.4	74	3.4	44	3.4	37	3.4
Methane	0.84	0.0034	1.7	0.0034	22	0.0034	5.4	0.0034
Carbon Monoxide	0.19	0.0034	ND	0.0034	ND	0.0034	0.049	0.0034

Results normalized including non-methane hydrocarbons
ND = Not Detected (below RL)
RL = Reporting Limit
d = Reported from a secondary analysis. QC Batch: 170925GC8A1

Reviewed/Approved By: _____ Date 9-25-17

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: Nick Bauer
Project Name: Bridgeton Landfill
Project No.: NA
Date Received: 09/20/17
Matrix: Air
Reporting Units: % v/v

ASTM D1946

Lab No.:	I092008-13		I092008-14		I092008-15		I092008-16	
Client Sample I.D.:	GEW 6		GEW 48		GEW 5		GEW 47R	
Date/Time Sampled:	9/11/17 11:12		9/11/17 11:27		9/11/17 11:40		9/12/17 8:45	
Date/Time Analyzed:	9/22/17 10:52		9/22/17 11:06		9/22/17 11:21		9/22/17 11:35	
QC Batch No.:	170922GC8A1		170922GC8A1		170922GC8A1		170922GC8A1	
Analyst Initials:	AS		AS		AS		AS	
Dilution Factor:	3.4		3.2		3.2		3.2	
ANALYTE	Result % v/v	RL % v/v	Result % v/v	RL % v/v	Result % v/v	RL % v/v	Result % v/v	RL % v/v
Hydrogen	ND d	0.034	ND d	0.032	ND d	0.032	ND d	0.032
Carbon Dioxide	31	0.034	39	0.032	36	0.032	39	0.032
Oxygen/Argon	4.9	1.7	ND	1.6	ND	1.6	ND	1.6
Nitrogen	18	3.4	4.7	3.2	8.6	3.2	6.3	3.2
Methane	47	0.0034	56	0.0032	54	0.0032	54	0.0032
Carbon Monoxide	ND	0.0034	ND	0.0032	ND	0.0032	ND	0.0032

Results normalized including non-methane hydrocarbons
ND = Not Detected (below RL)
RL = Reporting Limit
d = Reported from a secondary analysis. QC Batch: 170925GC8A1

Reviewed/Approved By: _____ Date 9-25-17

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: Nick Bauer
Project Name: Bridgeton Landfill
Project No.: NA
Date Received: 09/20/17
Matrix: Air
Reporting Units: % v/v

ASTM D1946

Lab No.:	I092008-17		I092008-18		I092008-19		I092008-20	
Client Sample I.D.:	GEW 2		GEW 3		GEW 4		GEW 45R	
Date/Time Sampled:	9/12/17 8:59		9/12/17 9:09		9/12/17 9:18		9/12/17 9:30	
Date/Time Analyzed:	9/22/17 11:50		9/22/17 12:04		9/22/17 12:19		9/22/17 12:34	
QC Batch No.:	170922GC8A1		170922GC8A1		170922GC8A1		170922GC8A1	
Analyst Initials:	AS		AS		AS		AS	
Dilution Factor:	3.2		3.2		3.2		3.2	
ANALYTE	Result % v/v	RL % v/v	Result % v/v	RL % v/v	Result % v/v	RL % v/v	Result % v/v	RL % v/v
Hydrogen	ND d	0.032	0.085 d	0.032	0.059 d	0.032	ND d	0.032
Carbon Dioxide	33	0.032	39	0.032	40	0.032	41	0.032
Oxygen/Argon	4.9	1.6	ND	1.6	ND	1.6	ND	1.6
Nitrogen	17	3.2	8.7	3.2	3.7	3.2	ND	3.2
Methane	45	0.0032	51	0.0032	56	0.0032	56	0.0032
Carbon Monoxide	ND	0.0032	ND	0.0032	ND	0.0032	ND	0.0032

Results normalized including non-methane hydrocarbons
ND = Not Detected (below RL)
RL = Reporting Limit
d = Reported from a secondary analysis. QC Batch: 170925GC8A1

Reviewed/Approved By: _____ Date 9-25-17

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: Nick Bauer
Project Name: Bridgeton Landfill
Project No.: NA
Date Received: 09/20/17
Matrix: Air
Reporting Units: % v/v

ASTM D1946

Lab No.:	I092008-21		I092008-22		I092008-23		I092008-24	
Client Sample I.D.:	GEW 46R		GEW 49		GEW 51		GEW 44	
Date/Time Sampled:	9/12/17 9:40		9/12/17 11:00		9/12/17 11:10		9/12/17 11:22	
Date/Time Analyzed:	9/22/17 17:56		9/22/17 18:11		9/22/17 18:25		9/22/17 18:40	
QC Batch No.:	170922GC8A2		170922GC8A2		170922GC8A2		170922GC8A2	
Analyst Initials:	MJ		MJ		MJ		MJ	
Dilution Factor:	3.2		3.4		3.4		3.4	
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	0.067 d	0.032	0.055 d	0.034	0.73 d	0.034	ND d	0.034
Carbon Dioxide	41	0.032	40	0.034	32	0.034	39	0.034
Oxygen/Argon	ND	1.6	ND	1.7	5.3	1.7	ND	1.7
Nitrogen	ND	3.2	3.7	3.4	19	3.4	4.4	3.4
Methane	56	0.0032	56	0.0034	43	0.0034	55	0.0034
Carbon Monoxide	ND	0.0032	ND	0.0034	ND	0.0034	ND	0.0034

Results normalized including non-methane hydrocarbons
ND = Not Detected (below RL)
RL = Reporting Limit
d = Reported from a secondary analysis. QC Batch: 170925GC8A1

Reviewed/Approved By: _____ Date 9-25-17

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: Nick Bauer
Project Name: Bridgeton Landfill
Project No.: NA
Date Received: 09/20/17
Matrix: Air
Reporting Units: % v/v

ASTM D1946

Lab No.:	I092008-25		I092008-26		I092008-27		I092008-28	
Client Sample I.D.:	GEW 43R		GEW 42R		GEW 50		GEW 52	
Date/Time Sampled:	9/12/17 11:34		9/12/17 11:48		9/12/17 13:23		9/12/17 13:35	
Date/Time Analyzed:	9/22/17 18:54		9/22/17 19:09		9/22/17 19:24		9/22/17 19:38	
QC Batch No.:	170922GC8A2		170922GC8A2		170922GC8A2		170922GC8A2	
Analyst Initials:	MJ		MJ		MJ		MJ	
Dilution Factor:	3.4		3.4		3.4		3.4	
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	0.25 d	0.034	ND d	0.034	0.050 d	0.034	0.042 d	0.034
Carbon Dioxide	43	0.034	42	0.034	39	0.034	35	0.034
Oxygen/Argon	ND	1.7	ND	1.7	ND	1.7	3.2	1.7
Nitrogen	ND	3.4	ND	3.4	ND	3.4	13	3.4
Methane	55	0.0034	56	0.0034	57	0.0034	49	0.0034
Carbon Monoxide	ND	0.0034	ND	0.0034	ND	0.0034	ND	0.0034

Results normalized including non-methane hydrocarbons
ND = Not Detected (below RL)
RL = Reporting Limit
d = Reported from a secondary analysis. QC Batch: 170925GC8A1, 170925GC8A2

Reviewed/Approved By: _____ Date 9-25-17

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: Nick Bauer
Project Name: Bridgeton Landfill
Project No.: NA
Date Received: 09/20/17
Matrix: Air
Reporting Units: % v/v

ASTM D1946

Lab No.:	I092008-29		I092008-30		I092008-31		I092008-32	
Client Sample I.D.:	GEW 7		GEW 8		GEW 9		GEW 54	
Date/Time Sampled:	9/12/17 13:52		9/12/17 14:04		9/12/17 14:16		9/13/17 13:44	
Date/Time Analyzed:	9/22/17 19:53		9/22/17 20:07		9/22/17 20:22		9/22/17 20:37	
QC Batch No.:	170922GC8A2		170922GC8A2		170922GC8A2		170922GC8A2	
Analyst Initials:	MJ		MJ		MJ		MJ	
Dilution Factor:	3.4		3.5		3.4		3.4	
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	0.034	1.1 d	0.035	0.48 d	0.034	2.7 d	0.034
Carbon Dioxide	40	0.034	44	0.035	29	0.034	43	0.034
Oxygen/Argon	ND	1.7	ND	1.7	7.1	1.7	ND	1.7
Nitrogen	ND	3.4	ND	3.5	26	3.4	ND	3.4
Methane	56	0.0034	53	0.0035	37	0.0034	52	0.0034
Carbon Monoxide	ND	0.0034	ND	0.0035	ND	0.0034	ND	0.0034

Results normalized including non-methane hydrocarbons
ND = Not Detected (below RL)
RL = Reporting Limit
d = Reported from a secondary analysis. QC Batch: 170925GC8A2

Reviewed/Approved By: _____ Date 9-25-17

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: Nick Bauer
Project Name: Bridgeton Landfill
Project No.: NA
Date Received: 09/20/17
Matrix: Air
Reporting Units: % v/v

ASTM D1946

Lab No.:	I092008-33		I092008-34		I092008-35		I092008-36	
Client Sample I.D.:	GEW 53		GEW 55		GEW 40		GEW 41	
Date/Time Sampled:	9/13/17 14:02		9/14/17 8:29		9/14/17 8:48		9/14/17 8:57	
Date/Time Analyzed:	9/22/17 20:51		9/22/17 21:06		9/22/17 21:20		9/22/17 21:35	
QC Batch No.:	170922GC8A2		170922GC8A2		170922GC8A2		170922GC8A2	
Analyst Initials:	MJ		MJ		MJ		MJ	
Dilution Factor:	3.4		3.4		3.4		3.4	
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	5.0	3.4	4.3	3.4	ND d	0.034	ND d	0.034
Carbon Dioxide	41	0.034	41	0.034	40	0.034	39	0.034
Oxygen/Argon	ND	1.7	ND	1.7	ND	1.7	ND	1.7
Nitrogen	ND	3.4	4.2	3.4	ND	3.4	ND	3.4
Methane	49	0.0034	49	0.0034	57	0.0034	58	0.0034
Carbon Monoxide	0.0056	0.0034	0.0035	0.0034	ND	0.0034	ND	0.0034

Results normalized including non-methane hydrocarbons
ND = Not Detected (below RL)
RL = Reporting Limit
d = Reported from a secondary analysis. QC Batch: 170925GC8A2

Reviewed/Approved By: _____ Date 9.25.17
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: Nick Bauer
Project Name: Bridgeton Landfill
Project No.: NA
Date Received: 09/20/17
Matrix: Air
Reporting Units: % v/v

ASTM D1946

Lab No.:	I092008-37		I092008-38		I092008-39		I092008-40	
Client Sample I.D.:	GEW 2S		GEW 147		GEW 135		GEW 134	
Date/Time Sampled:	9/14/17 9:21		9/14/17 9:54		9/14/17 10:06		9/14/17 10:18	
Date/Time Analyzed:	9/22/17 21:50		9/23/17 6:56		9/23/17 8:57		9/23/17 9:11	
QC Batch No.:	170922GC8A2		170922GC8A2		170923GC8A1		170923GC8A1	
Analyst Initials:	MJ		MJ		MJ		MJ	
Dilution Factor:	3.4		3.4		3.4		3.4	
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	0.034	27	3.4	32	3.4	12	3.4
Carbon Dioxide	37	0.034	46	0.034	52	0.034	46	0.034
Oxygen/Argon	ND	1.7	ND	1.7	ND	1.7	ND	1.7
Nitrogen	ND	3.4	13	3.4	8.6	3.4	27	3.4
Methane	60	0.0034	12	0.0034	6.0	0.0034	14	0.0034
Carbon Monoxide	ND	0.0034	0.096	0.0034	0.12	0.0034	0.050	0.0034

Results normalized including non-methane hydrocarbons
ND = Not Detected (below RL)
RL = Reporting Limit
d = Reported from a secondary analysis. QC Batch: 170925GC8A2

Reviewed/Approved By: _____ Date 9-25-17

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: Nick Bauer
Project Name: Bridgeton Landfill
Project No.: NA
Date Received: 09/20/17
Matrix: Air
Reporting Units: % v/v

ASTM D1946

Lab No.:	I092008-41		I092008-42		I092008-43		I092008-44	
Client Sample I.D.:	GEW 116		GEW 133		GEW 117		GEW 120	
Date/Time Sampled:	9/14/17 10:45		9/14/17 10:58		9/14/17 11:14		9/14/17 11:27	
Date/Time Analyzed:	9/23/17 9:26		9/23/17 9:40		9/23/17 9:55		9/23/17 10:09	
QC Batch No.:	170923GC8A1		170923GC8A1		170923GC8A1		170923GC8A1	
Analyst Initials:	MJ		MJ		MJ		MJ	
Dilution Factor:	3.4		3.4		3.4		3.4	
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	26	3.4	22	3.4	7.5	3.4	9.0	3.4
Carbon Dioxide	65	0.034	53	0.034	51	0.034	55	0.034
Oxygen/Argon	ND	1.7	ND	1.7	ND	1.7	ND	1.7
Nitrogen	ND	3.4	13	3.4	5.2	3.4	18	3.4
Methane	5.0	0.0034	10	0.0034	34	0.0034	17	0.0034
Carbon Monoxide	0.12	0.0034	0.099	0.0034	0.031	0.0034	0.039	0.0034

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

Reviewed/Approved By: _____ Date 9-25-17

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: Nick Bauer
Project Name: Bridgeton Landfill
Project No.: NA
Date Received: 09/20/17
Matrix: Air
Reporting Units: % v/v

ASTM D1946

Lab No.:	I092008-45		I092008-46		I092008-47		I092008-48	
Client Sample I.D.:	GEW 118		GEW 132		GEW 82R		GEW 138	
Date/Time Sampled:	9/14/17 13:37		9/14/17 14:01		9/14/17 14:11		9/14/17 14:30	
Date/Time Analyzed:	9/23/17 10:24		9/23/17 10:39		9/23/17 10:53		9/23/17 11:08	
QC Batch No.:	170923GC8A1		170923GC8A1		170923GC8A1		170923GC8A1	
Analyst Initials:	MJ		MJ		MJ		MJ	
Dilution Factor:	3.4		3.5		3.5		3.4	
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	39	3.4	16	3.5	28	3.5	14	3.4
Carbon Dioxide	50	0.034	27	0.035	42	0.035	43	0.034
Oxygen/Argon	1.9	1.7	7.6	1.7	ND	1.7	ND	1.7
Nitrogen	6.8	3.4	47	3.5	16	3.5	28	3.4
Methane	0.90	0.0034	2.2	0.0035	12	0.0035	14	0.0034
Carbon Monoxide	0.14	0.0034	0.082	0.0035	0.095	0.0035	0.079	0.0034

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

Reviewed/Approved By: _____ Date 9-25-17

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: Nick Bauer
Project Name: Bridgeton Landfill
Project No.: NA
Date Received: 09/20/17
Matrix: Air
Reporting Units: % v/v

ASTM D1946

Lab No.:	I092008-49		I092008-50		I092008-51		I092008-52	
Client Sample I.D.:	GEW 155		GEW 108		GEW 159		GEW 153	
Date/Time Sampled:	9/14/17 14:44		9/6/17 9:11		9/6/17 9:23		9/6/17 9:34	
Date/Time Analyzed:	9/23/17 11:22		9/23/17 11:37		9/23/17 11:52		9/23/17 13:05	
QC Batch No.:	170923GC8A1		170923GC8A1		170923GC8A1		170923GC8A1	
Analyst Initials:	MJ		MJ		MJ		MJ	
Dilution Factor:	3.5		3.2		3.2		3.2	
ANALYTE	Result % v/v	RL % v/v	Result % v/v	RL % v/v	Result % v/v	RL % v/v	Result % v/v	RL % v/v
Hydrogen	2.8 d	0.035	18	3.2	4.8	3.2	5.3	3.2
Carbon Dioxide	21	0.035	44	0.032	43	0.032	40	0.032
Oxygen/Argon	4.8	1.7	1.7	1.6	ND	1.6	ND	1.6
Nitrogen	69	3.5	5.7	3.2	25	3.2	8.1	3.2
Methane	2.2	0.0035	29	0.0032	26	0.0032	45	0.0032
Carbon Monoxide	0.0077	0.0035	0.064	0.0032	0.015	0.0032	0.0066	0.0032

Results normalized including non-methane hydrocarbons
ND = Not Detected (below RL)
RL = Reporting Limit
d = Reported from a secondary analysis. QC Batch: 170925GC8A2

Reviewed/Approved By: _____ Date 9-25-17

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: Nick Bauer
Project Name: Bridgeton Landfill
Project No.: NA
Date Received: 09/20/17
Matrix: Air
Reporting Units: % v/v

ASTM D1946

Lab No.:	I092008-53		I092008-54		I092008-55		I092008-56	
Client Sample I.D.:	GEW 59R		GEW 107		GEW 152		GEW 58A	
Date/Time Sampled:	9/6/17 9:44		9/6/17 10:04		9/6/17 10:17		9/6/17 10:37	
Date/Time Analyzed:	9/23/17 13:19		9/23/17 13:34		9/23/17 14:29		9/23/17 14:03	
QC Batch No.:	170923GC8A1		170923GC8A1		170923GC8A1		170923GC8A1	
Analyst Initials:	MJ		MJ		MJ		MJ	
Dilution Factor:	3.2		3.2		3.2		3.2	
ANALYTE	Result % v/v	RL % v/v	Result % v/v	RL % v/v	Result % v/v	RL % v/v	Result % v/v	RL % v/v
Hydrogen	41	3.2	0.43 d	0.032	26	3.2	13	3.2
Carbon Dioxide	45	0.032	1.6	0.032	45	0.032	24	0.032
Oxygen/Argon	ND	1.6	21	1.6	ND	1.6	7.6	1.6
Nitrogen	ND	3.2	76	3.2	3.8	3.2	44	3.2
Methane	11	0.0032	0.13	0.0032	24	0.0032	11	0.0032
Carbon Monoxide	0.13	0.0032	0.0055	0.0032	0.13	0.0032	0.054	0.0032

Results normalized including non-methane hydrocarbons
ND = Not Detected (below RL)
RL = Reporting Limit
d = Reported from a secondary analysis. QC Batch: 170925GC8A2

Reviewed/Approved By: _____ Date 9-25-17

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: Nick Bauer
Project Name: Bridgeton Landfill
Project No.: NA
Date Received: 09/20/17
Matrix: Air
Reporting Units: % v/v

ASTM D1946

Lab No.:	I092008-57		I092008-58		I092008-59		I092008-60	
Client Sample I.D.:	GEW 58		GEW 106		GEW 105		GEW 176	
Date/Time Sampled:	9/6/17 10:49		9/6/17 11:00		9/6/17 11:20		9/6/17 11:29	
Date/Time Analyzed:	9/23/17 16:24		9/23/17 16:39		9/23/17 16:54		9/23/17 17:08	
QC Batch No.:	170923GC8A2		170923GC8A2		170923GC8A2		170923GC8A2	
Analyst Initials:	MJ		MJ		MJ		MJ	
Dilution Factor:	3.2		3.4		3.3		3.3	
ANALYTE	Result % v/v	RL % v/v	Result % v/v	RL % v/v	Result % v/v	RL % v/v	Result % v/v	RL % v/v
Hydrogen	14	3.2	14	3.4	22	3.3	9.3	3.3
Carbon Dioxide	25	0.032	50	0.034	44	0.033	42	0.033
Oxygen/Argon	5.2	1.6	ND	1.7	4.1	1.6	4.4	1.6
Nitrogen	53	3.2	6.9	3.4	18	3.3	23	3.3
Methane	1.5	0.0032	27	0.0034	11	0.0033	21	0.0033
Carbon Monoxide	0.051	0.0032	0.051	0.0034	0.12	0.0033	0.037	0.0033

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

Reviewed/Approved By: _____ Date 9-25-17

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: Nick Bauer
Project Name: Bridgeton Landfill
Project No.: NA
Date Received: 09/20/17
Matrix: Air
Reporting Units: % v/v

ASTM D1946

Lab No.:	I092008-61		I092008-62		I092008-63		I092008-64	
Client Sample I.D.:	GEW 175		GEW 150		GEW 104		GEW 158	
Date/Time Sampled:	9/6/17 13:35		9/6/17 13:49		9/6/17 14:04		9/6/17 11:10	
Date/Time Analyzed:	9/23/17 17:23		9/23/17 17:37		9/23/17 17:52		9/23/17 18:07	
QC Batch No.:	170923GC8A2		170923GC8A2		170923GC8A2		170923GC8A2	
Analyst Initials:	MJ		MJ		MJ		MJ	
Dilution Factor:	3.4		3.2		3.2		3.3	
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	9.8	3.4	15	3.2	26	3.2	15	3.3
Carbon Dioxide	40	0.034	41	0.032	52	0.032	48	0.033
Oxygen/Argon	5.3	1.7	6.4	1.6	ND	1.6	ND	1.6
Nitrogen	31	3.4	28	3.2	ND	3.2	ND	3.3
Methane	14	0.0034	9.2	0.0032	17	0.0032	34	0.0033
Carbon Monoxide	0.042	0.0034	0.058	0.0032	0.10	0.0032	0.047	0.0033

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

Reviewed/Approved By: _____ Date 9-25-17

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: Nick Bauer
Project Name: Bridgeton Landfill
Project No.: NA
Date Received: 09/20/17
Matrix: Air
Reporting Units: % v/v

ASTM D1946

Lab No.:	I092008-65		I092008-66		I092008-67		I092008-68	
Client Sample I.D.:	GEW 102		GEW 145		GEW 174		GEW 10	
Date/Time Sampled:	9/8/17 14:26		9/8/17 14:38		9/8/17 15:01		9/12/17 8:50	
Date/Time Analyzed:	9/23/17 18:21		9/23/17 18:36		9/23/17 18:50		9/23/17 19:05	
QC Batch No.:	170923GC8A2		170923GC8A2		170923GC8A2		170923GC8A2	
Analyst Initials:	MJ		MJ		MJ		MJ	
Dilution Factor:	3.4		3.4		3.4		3.2	
ANALYTE	Result % v/v	RL % v/v	Result % v/v	RL % v/v	Result % v/v	RL % v/v	Result % v/v	RL % v/v
Hydrogen	28	3.4	26	3.4	20	3.4	0.35 d	0.032
Carbon Dioxide	42	0.034	32	0.034	42	0.034	42	0.032
Oxygen/Argon	4.8	1.7	8.8	1.7	3.6	1.7	ND	1.6
Nitrogen	17	3.4	31	3.4	23	3.4	ND	3.2
Methane	7.8	0.0034	1.3	0.0034	10	0.0034	55	0.0032
Carbon Monoxide	0.044	0.0034	0.11	0.0034	0.11	0.0034	ND	0.0032

Results normalized including non-methane hydrocarbons
ND = Not Detected (below RL)
RL = Reporting Limit
d = Reported from a secondary analysis. QC Batch: 170925GC8A2

Reviewed/Approved By: _____ Date 9-25-17

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: Nick Bauer
Project Name: Bridgeton Landfill
Project No.: NA
Date Received: 09/20/17
Matrix: Air
Reporting Units: % v/v

ASTM D1946

Lab No.:	I092008-69		I092008-70		I092008-71		I092008-72	
Client Sample I.D.:	GEW 110		GIW 13		GIW 12		GEW 56R	
Date/Time Sampled:	9/12/17 9:03		9/12/17 9:13		9/12/17 9:23		9/12/17 9:33	
Date/Time Analyzed:	9/23/17 19:20		9/23/17 19:34		9/23/17 19:49		9/23/17 20:04	
QC Batch No.:	170923GC8A2		170923GC8A2		170923GC8A2		170923GC8A2	
Analyst Initials:	MJ		MJ		MJ		MJ	
Dilution Factor:	3.2		3.2		3.2		3.2	
ANALYTE	Result % v/v	RL % v/v	Result % v/v	RL % v/v	Result % v/v	RL % v/v	Result % v/v	RL % v/v
Hydrogen	31	3.2	14	3.2	11	3.2	18	3.2
Carbon Dioxide	53	0.032	63	0.032	34	0.032	52	0.032
Oxygen/Argon	ND	1.6	1.6	1.6	7.9	1.6	ND	1.6
Nitrogen	ND	3.2	6.0	3.2	36	3.2	ND	3.2
Methane	13	0.0032	15	0.0032	11	0.0032	27	0.0032
Carbon Monoxide	0.11	0.0032	0.055	0.0032	0.059	0.0032	0.059	0.0032

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

Reviewed/Approved By: _____ Date 9-25-17

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: Nick Bauer
Project Name: Bridgeton Landfill
Project No.: NA
Date Received: 09/20/17
Matrix: Air
Reporting Units: % v/v

ASTM D1946

Lab No.:	I092008-73		I092008-74		I092008-75		I092008-76	
Client Sample I.D.:	GIW 11		GIW 1		GIW 2		GIW3	
Date/Time Sampled:	9/12/17 11:08		9/12/17 11:18		9/12/17 11:28		9/12/17 11:37	
Date/Time Analyzed:	9/24/17 7:56		9/24/17 8:10		9/24/17 10:19		9/24/17 10:33	
QC Batch No.:	170923GC8A2		170923GC8A2		170924GC8A1		170924GC8A1	
Analyst Initials:	MJ		MJ		MJ		MJ	
Dilution Factor:	3.4		3.4		3.4		3.4	
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	3.4	5.8	3.4	2.7 d	0.034	27	3.4
Carbon Dioxide	48	0.034	39	0.034	20	0.034	59	0.034
Oxygen/Argon	ND	1.7	3.8	1.7	16	1.7	2.0	1.7
Nitrogen	18	3.4	38	3.4	58	3.4	8.5	3.4
Methane	18	0.0034	13	0.0034	2.8	0.0034	2.5	0.0034
Carbon Monoxide	0.058	0.0034	0.034	0.0034	0.011	0.0034	0.14	0.0034

Results normalized including non-methane hydrocarbons
ND = Not Detected (below RL)
RL = Reporting Limit
d = Reported from a secondary analysis. QC Batch: 170925GC8A2

Reviewed/Approved By: _____ Date 9-25-17

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: Nick Bauer
Project Name: Bridgeton Landfill
Project No.: NA
Date Received: 09/20/17
Matrix: Air
Reporting Units: % v/v

ASTM D1946

Lab No.:	I092008-77		I092008-78		I092008-79		I092008-80	
Client Sample I.D.:	GIW 4		GIW 10		GIW 5		GIW 6	
Date/Time Sampled:	9/12/17 11:47		9/12/17 13:24		9/12/17 13:35		9/12/17 13:49	
Date/Time Analyzed:	9/24/17 10:48		9/24/17 11:03		9/24/17 11:17		9/24/17 11:32	
QC Batch No.:	170924GC8A1		170924GC8A1		170924GC8A1		170924GC8A1	
Analyst Initials:	MJ		MJ		MJ		MJ	
Dilution Factor:	3.4		3.4		3.4		3.4	
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	3.4	20	3.4	6.1	3.4	18	3.4
Carbon Dioxide	49	0.034	42	0.034	6.8	0.034	44	0.034
Oxygen/Argon	3.4	1.7	ND	1.7	19	1.7	ND	1.7
Nitrogen	14	3.4	26	3.4	68	3.4	24	3.4
Methane	12	0.0034	11	0.0034	0.30	0.0034	12	0.0034
Carbon Monoxide	0.11	0.0034	0.059	0.0034	0.012	0.0034	0.041	0.0034

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

Reviewed/Approved By: _____ Date 9-25-17

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: Nick Bauer
Project Name: Bridgeton Landfill
Project No.: NA
Date Received: 09/20/17
Matrix: Air
Reporting Units: % v/v

ASTM D1946

Lab No.:	I092008-81		I092008-82		I092008-83		I092008-84	
Client Sample I.D.:	GIW 7		GIW 8		GEW 38		GIW 9	
Date/Time Sampled:	9/12/17 13:58		9/12/17 14:07		9/12/17 14:15		9/12/17 14:45	
Date/Time Analyzed:	9/24/17 15:49		9/24/17 12:01		9/24/17 12:16		9/24/17 12:30	
QC Batch No.:	170924GC8A1		170924GC8A1		170924GC8A1		170924GC8A1	
Analyst Initials:	MJ		MJ		MJ		MJ	
Dilution Factor:	3.4		3.4		3.4		3.4	
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	2.8 d	0.034	0.84 d	0.034	29	3.4	4.5	3.4
Carbon Dioxide	59	0.034	56	0.034	44	0.034	22	0.034
Oxygen/Argon	ND	1.7	ND	1.7	5.8	1.7	5.0	1.7
Nitrogen	10	3.4	20	3.4	20	3.4	61	3.4
Methane	26	0.0034	22	0.0034	0.67	0.0034	7.2	0.0034
Carbon Monoxide	0.016	0.0034	0.0099	0.0034	0.18	0.0034	0.012	0.0034

Results normalized including non-methane hydrocarbons
ND = Not Detected (below RL)
RL = Reporting Limit
d = Reported from a secondary analysis. QC Batch: 170925GC8A2

Reviewed/Approved By: _____ Date 9-25-17

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: Nick Bauer
Project Name: Bridgeton Landfill
Project No.: NA
Date Received: 09/20/17
Matrix: Air
Reporting Units: % v/v

ASTM D1946

Lab No.:	I092008-85		I092008-86		I092008-87		I092008-88	
Client Sample I.D.:	GEW 109		GEW 39		GEW 173		GEW 139	
Date/Time Sampled:	9/12/17 14:55		9/12/17 15:04		9/14/17 9:29		9/14/17 10:08	
Date/Time Analyzed:	9/24/17 12:45		9/24/17 12:59		9/24/17 13:14		9/24/17 13:29	
QC Batch No.:	170924GC8A1		170924GC8A1		170924GC8A1		170924GC8A1	
Analyst Initials:	MJ		MJ		MJ		MJ	
Dilution Factor:	3.4		3.4		3.4		3.4	
ANALYTE	Result % v/v	RL % v/v	Result % v/v	RL % v/v	Result % v/v	RL % v/v	Result % v/v	RL % v/v
Hydrogen	11	3.4	ND d	0.034	1.8 d	0.034	41	3.4
Carbon Dioxide	44	0.034	52	0.034	44	0.034	50	0.034
Oxygen/Argon	ND	1.7	ND	1.7	3.2	1.7	ND	1.7
Nitrogen	12	3.4	ND	3.4	23	3.4	4.2	3.4
Methane	32	0.0034	45	0.0034	28	0.0034	2.6	0.0034
Carbon Monoxide	0.024	0.0034	ND	0.0034	0.021	0.0034	0.27	0.0034

Results normalized including non-methane hydrocarbons
ND = Not Detected (below RL)
RL = Reporting Limit
d = Reported from a secondary analysis. QC Batch: 170925GC8A2

Reviewed/Approved By: _____ Date 9-25-17

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: Nick Bauer
Project Name: Bridgeton Landfill
Project No.: NA
Date Received: 09/20/17
Matrix: Air
Reporting Units: % v/v

ASTM D1946

Lab No.:	I092008-89		I092008-90		I092008-91		I092008-92	
Client Sample I.D.:	GEW 129		GEW 128		GEW 127		GEW 170	
Date/Time Sampled:	9/14/17 10:24		9/14/17 10:32		9/14/17 10:42		9/14/17 10:51	
Date/Time Analyzed:	9/24/17 13:43		9/24/17 13:58		9/24/17 15:19		9/24/17 15:34	
QC Batch No.:	170924GC8A1		170924GC8A1		170924GC8A1		170924GC8A1	
Analyst Initials:	MJ		MJ		MJ		MJ	
Dilution Factor:	3.4		3.4		3.4		3.2	
ANALYTE	Result % v/v	RL % v/v	Result % v/v	RL % v/v	Result % v/v	RL % v/v	Result % v/v	RL % v/v
Hydrogen	35	3.4	23	3.4	27	3.4	19	3.2
Carbon Dioxide	60	0.034	63	0.034	65	0.034	52	0.032
Oxygen/Argon	ND	1.7	ND	1.7	ND	1.7	3.5	1.6
Nitrogen	ND	3.4	4.3	3.4	ND	3.4	16	3.2
Methane	0.69	0.0034	7.8	0.0034	3.6	0.0034	7.6	0.0032
Carbon Monoxide	0.35	0.0034	0.23	0.0034	0.27	0.0034	0.18	0.0032

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

Reviewed/Approved By: _____ Date 9-25-17

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: Nick Bauer
Project Name: Bridgeton Landfill
Project No.: NA
Date Received: 09/20/17
Matrix: Air
Reporting Units: % v/v

ASTM D1946

Lab No.:	I092008-93		I092008-94		I092008-95		I092008-96	
Client Sample I.D.:	GEW 130		GEW 169		GEW 168		GEW 163	
Date/Time Sampled:	9/14/17 11:18		9/14/17 11:29		9/14/17 11:41		9/14/17 13:31	
Date/Time Analyzed:	9/24/17 22:29		9/24/17 18:50		9/24/17 19:04		9/24/17 19:19	
QC Batch No.:	170924GC8A2		170924GC8A2		170924GC8A2		170924GC8A2	
Analyst Initials:	VM		VM		VM		VM	
Dilution Factor:	3.4		3.4		3.4		3.5	
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	31	3.4	32	3.4	31	3.4	9.7	3.5
Carbon Dioxide	46	0.034	62	0.034	59	0.034	31	0.035
Oxygen/Argon	3.3	1.7	ND	1.7	ND	1.7	7.2	1.7
Nitrogen	16	3.4	ND	3.4	ND	3.4	46	3.5
Methane	3.5	0.0034	3.2	0.0034	6.5	0.0034	4.6	0.0035
Carbon Monoxide	0.23	0.0034	0.24	0.0034	0.19	0.0034	0.045	0.0035

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

Reviewed/Approved By: _____ Date 9-25-17

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: Nick Bauer
Project Name: Bridgeton Landfill
Project No.: NA
Date Received: 09/20/17
Matrix: Air
Reporting Units: % v/v

ASTM D1946

Lab No.:	I092008-97		I092008-98		I092008-99		I092008-100	
Client Sample I.D.:	GEW 164		GEW 165		GEW 166		GEW 167	
Date/Time Sampled:	9/14/17 13:41		9/14/17 13:53		9/14/17 14:04		9/14/17 14:14	
Date/Time Analyzed:	9/24/17 19:33		9/24/17 19:48		9/24/17 20:03		9/24/17 20:18	
QC Batch No.:	170924GC8A2		170924GC8A2		170924GC8A2		170924GC8A2	
Analyst Initials:	VM		VM		VM		VM	
Dilution Factor:	3.5		3.5		3.6		3.6	
ANALYTE	Result % v/v	RL % v/v	Result % v/v	RL % v/v	Result % v/v	RL % v/v	Result % v/v	RL % v/v
Hydrogen	14	3.5	14	3.5	37	3.6	33	3.6
Carbon Dioxide	60	0.035	38	0.035	53	0.036	40	0.036
Oxygen/Argon	ND	1.7	8.8	1.7	1.8	1.8	5.5	1.8
Nitrogen	6.4	3.5	32	3.5	6.9	3.6	20	3.6
Methane	18	0.0035	5.4	0.0035	0.66	0.0036	0.33	0.0036
Carbon Monoxide	0.092	0.0035	0.085	0.0035	0.24	0.0036	0.19	0.0036

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

Reviewed/Approved By: _____ Date 9-25-17

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: Nick Bauer
Project Name: Bridgeton Landfill
Project No.: NA
Date Received: 09/20/17
Matrix: Air
Reporting Units: % v/v

ASTM D1946

Lab No.:	I092008-101		I092008-102		I092008-103		I092008-104	
Client Sample I.D.:	GEW 126		GEW 131		GEW 125		GEW 124	
Date/Time Sampled:	9/18/17 14:25		9/18/17 14:35		9/18/17 14:45		9/18/17 15:04	
Date/Time Analyzed:	9/24/17 20:32		9/24/17 20:47		9/24/17 21:01		9/24/17 21:16	
QC Batch No.:	170924GC8A2		170924GC8A2		170924GC8A2		170924GC8A2	
Analyst Initials:	VM		VM		VM		VM	
Dilution Factor:	3.4		3.4		3.4		3.4	
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	7.8	3.4	21	3.4	31	3.4	0.067 d	0.034
Carbon Dioxide	48	0.034	42	0.034	53	0.034	49	0.034
Oxygen/Argon	ND	1.7	ND	1.7	ND	1.7	ND	1.7
Nitrogen	13	3.4	15	3.4	10	3.4	ND	3.4
Methane	29	0.0034	20	0.0034	4.2	0.0034	48	0.0034
Carbon Monoxide	0.057	0.0034	0.14	0.0034	0.18	0.0034	ND	0.0034

Results normalized including non-methane hydrocarbons
ND = Not Detected (below RL)
RL = Reporting Limit
d = Reported from a secondary analysis. QC Batch: 170925GC8A2

Reviewed/Approved By: _____ Date 9-25-17

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: Nick Bauer
Project Name: Bridgeton Landfill
Project No.: NA
Date Received: 09/20/17
Matrix: Air
Reporting Units: % v/v

ASTM D1946

Lab No.:	I092008-105		I092008-106		I092008-107		I092008-108	
Client Sample I.D.:	GEW 122		GEW 121		GEW 123		GEW 22R	
Date/Time Sampled:	9/18/17 14:23		9/18/17 14:36		9/18/17 14:47		9/18/17 15:01	
Date/Time Analyzed:	9/24/17 21:31		9/24/17 21:45		9/24/17 22:00		9/24/17 22:14	
QC Batch No.:	170924GC8A2		170924GC8A2		170924GC8A2		170924GC8A2	
Analyst Initials:	VM		VM		VM		VM	
Dilution Factor:	3.5		3.4		3.4		3.4	
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	16	3.5	19	3.4	32	3.4	30	3.4
Carbon Dioxide	34	0.035	50	0.034	61	0.034	58	0.034
Oxygen/Argon	ND	1.7	ND	1.7	ND	1.7	1.8	1.7
Nitrogen	36	3.5	19	3.4	ND	3.4	6.2	3.4
Methane	12	0.0035	9.3	0.0034	2.8	0.0034	2.8	0.0034
Carbon Monoxide	0.14	0.0035	0.086	0.0034	0.24	0.0034	0.21	0.0034

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

Reviewed/Approved By: _____ Date 9-25-17

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: 170922GC8A1
Matrix: Air
Reporting Units: % v/v

ASTM D1946
LABORATORY CONTROL SAMPLE SUMMARY

Lab No.:	METHOD BLANK			LCS		LCSD					
Date Analyzed:	9/22/17 7:31			9/21/17 20:27		9/21/17 20:42					
Analyst Initials:	AS			AS		AS					
Dilution Factor:	1.0			1.0		1.0			Limits		
ANALYTE	Result % v/v	RL % v/v	SPIKE AMT. % v/v	Result % v/v	% Rec.	Result % v/v	% Rec.	RPD %	Low %Rec	High %Rec	Max. RPD
Hydrogen	ND	1.0	5.0	5.93	119	5.93	119	0.1	70	130	30
Carbon Dioxide	ND	0.010	10	10.0	100	10.2	102	1.3	70	130	30
Oxygen/Argon	ND	0.50	15	15.5	104	15.7	106	1.3	70	130	30
Nitrogen	ND	1.0	70	70.1	100	70.8	101	0.9	70	130	30
Methane	ND	0.0010	0.10	0.109	109	0.108	108	0.7	70	130	30
Carbon Monoxide	ND	0.0010	0.10	0.102	102	0.102	102	0.6	70	130	30

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

Reviewed/Approved By: _____ Date 9-25-17

Mark Johnson
Operations Manager

The cover letter is an integral part of this analytical report

QC Batch No: 170922GC8A2
Matrix: Air
Reporting Units: % v/v

ASTM D1946
LABORATORY CONTROL SAMPLE SUMMARY

Lab No.:	METHOD BLANK			LCS		LCSD					
Date Analyzed:	9/22/17 16:58			9/22/17 14:08		9/22/17 14:22					
Analyst Initials:	AS			AS		AS					
Dilution Factor:	1.0			1.0		1.0			Limits		
ANALYTE	Result % v/v	RL % v/v	SPIKE AMT. % v/v	Result % v/v	% Rec.	Result % v/v	% Rec.	RPD %	Low %Rec	High %Rec	Max. RPD
Hydrogen	ND	1.0	5.0	4.92	98	4.96	99	0.8	70	130	30
Carbon Dioxide	ND	0.010	10	9.56	95	9.54	95	0.2	70	130	30
Oxygen/Argon	ND	0.50	15	16.0	108	15.9	107	0.5	70	130	30
Nitrogen	ND	1.0	70	71.1	102	70.7	101	0.5	70	130	30
Methane	ND	0.0010	0.10	0.105	105	0.105	105	0.2	70	130	30
Carbon Monoxide	ND	0.0010	0.10	0.0996	100	0.0993	99	0.3	70	130	30

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

Reviewed/Approved By: _____ Date 9-25-17

Mark Johnson
Operations Manager

The cover letter is an integral part of this analytical report

QC Batch No: 170923GC8A1
Matrix: Air
Reporting Units: % v/v

ASTM D1946
LABORATORY CONTROL SAMPLE SUMMARY

Lab No.:	METHOD BLANK			LCS		LCSD					
Date Analyzed:	9/23/17 8:42			9/23/17 8:10		9/23/17 8:25					
Analyst Initials:	MJ			MJ		MJ					
Dilution Factor:	1.0			1.0		1.0			Limits		
ANALYTE	Result % v/v	RL % v/v	SPIKE AMT. % v/v	Result % v/v	% Rec.	Result % v/v	% Rec.	RPD %	Low %Rec	High %Rec	Max. RPD
Hydrogen	ND	1.0	5.0	4.60	92	4.58	92	0.3	70	130	30
Carbon Dioxide	ND	0.010	10	9.39	94	9.42	94	0.2	70	130	30
Oxygen/Argon	ND	0.50	15	16.1	109	16.1	108	0.1	70	130	30
Nitrogen	ND	1.0	70	71.3	102	71.3	102	0.1	70	130	30
Methane	ND	0.0010	0.10	0.105	105	0.105	105	0.4	70	130	30
Carbon Monoxide	ND	0.0010	0.10	0.0981	98	0.0979	98	0.2	70	130	30

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

Reviewed/Approved By: _____ Date 9-25-17

Mark Johnson
Operations Manager

The cover letter is an integral part of this analytical report

QC Batch No: 170923GC8A2
Matrix: Air
Reporting Units: % v/v

ASTM D1946
LABORATORY CONTROL SAMPLE SUMMARY

Lab No.:	METHOD BLANK			LCS		LCSD					
Date Analyzed:	9/23/17 16:10			9/23/17 15:28		9/23/17 15:43					
Analyst Initials:	MJ			MJ		MJ					
Dilution Factor:	1.0			1.0		1.0			Limits		
ANALYTE	Result % v/v	RL % v/v	SPIKE AMT. % v/v	Result % v/v	% Rec.	Result % v/v	% Rec.	RPD %	Low %Rec	High %Rec	Max. RPD
Hydrogen	ND	1.0	5.0	4.52	90	4.55	91	0.6	70	130	30
Carbon Dioxide	ND	0.010	10	9.44	94	9.43	94	0.1	70	130	30
Oxygen/Argon	ND	0.50	15	16.1	109	16.3	110	1.1	70	130	30
Nitrogen	ND	1.0	70	71.6	102	72.1	103	0.7	70	130	30
Methane	ND	0.0010	0.10	0.103	103	0.104	104	0.3	70	130	30
Carbon Monoxide	ND	0.0010	0.10	0.0972	97	0.0977	98	0.5	70	130	30

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

Reviewed/Approved By: _____ Date 9-25-17

Mark Johnson
Operations Manager

The cover letter is an integral part of this analytical report

QC Batch No: 170924GC8A1
Matrix: Air
Reporting Units: % v/v

ASTM D1946
LABORATORY CONTROL SAMPLE SUMMARY

Lab No.:	METHOD BLANK			LCS		LCSD					
Date Analyzed:	9/24/17 9:45			9/24/17 9:14		9/24/17 9:29					
Analyst Initials:	MJ			MJ		MJ					
Dilution Factor:	1.0			1.0		1.0			Limits		
ANALYTE	Result % v/v	RL % v/v	SPIKE AMT. % v/v	Result % v/v	% Rec.	Result % v/v	% Rec.	RPD %	Low %Rec	High %Rec	Max. RPD
Hydrogen	ND	1.0	5.0	4.28	86	4.24	85	0.9	70	130	30
Carbon Dioxide	ND	0.010	10	9.31	93	9.30	93	0.2	70	130	30
Oxygen/Argon	ND	0.50	15	16.1	109	16.1	109	0.1	70	130	30
Nitrogen	ND	1.0	70	71.4	102	71.4	102	0.0	70	130	30
Methane	ND	0.0010	0.10	0.105	105	0.104	104	0.4	70	130	30
Carbon Monoxide	ND	0.0010	0.10	0.0987	99	0.0984	98	0.3	70	130	30

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

Reviewed/Approved By: _____ Date 9-25-17
Mark Johnson
Operations Manager

The cover letter is an integral part of this analytical report

QC Batch No: 170924GC8A2
Matrix: Air
Reporting Units: % v/v

ASTM D1946
LABORATORY CONTROL SAMPLE SUMMARY

Lab No.:	METHOD BLANK			LCS		LCSD					
Date Analyzed:	9/24/17 17:41			9/24/17 16:53		9/24/17 17:08					
Analyst Initials:	VM			VM		VM					
Dilution Factor:	1.0			1.0		1.0			Limits		
ANALYTE	Result % v/v	RL % v/v	SPIKE AMT. % v/v	Result % v/v	% Rec.	Result % v/v	% Rec.	RPD %	Low %Rec	High %Rec	Max. RPD
Hydrogen	ND	1.0	5.0	4.19	84	3.97	79	5.2	70	130	30
Carbon Dioxide	ND	0.010	10	9.17	91	9.21	92	0.5	70	130	30
Oxygen/Argon	ND	0.50	15	16.3	110	16.3	110	0.1	70	130	30
Nitrogen	ND	1.0	70	71.9	103	71.9	103	0.0	70	130	30
Methane	ND	0.0010	0.10	0.104	104	0.104	104	0.4	70	130	30
Carbon Monoxide	ND	0.0010	0.10	0.0990	99	0.0987	99	0.3	70	130	30

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

Reviewed/Approved By: _____ Date 9-25-17
Mark Johnson
Operations Manager

The cover letter is an integral part of this analytical report

QC Batch # 170925GC8A1
Matrix: Air
Units: % v/v

QC for Low Level Hydrogen Analysis

Lab No.:	Blank		LCS		LCSD			
Date Analyzed:	9/25/2017 10:43		9/25/2017 10:34		9/25/2017 10:39			
Analyst Initials:	AS		AS		AS			
Dilution Factor:	1.0		1.0		1.0			
ANALYTE	Results	RL	%Rec	Criteria	%Rec	Criteria	RPD	Criteria
Hydrogen	ND	0.010	97	70-130	97	70-130	0.6	<20

ND = Not Detected (Below RL)

RL = PQL X Dilution Factor

Reviewed/Approved By: _____ **Date:** 9-25-17

Mark Johnson
Operations Manager

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

QC Batch # 170925GC8A2
Matrix: Air
Units: % v/v

QC for Low Level Hydrogen Analysis

Lab No.:	Blank		LCS		LCSD			
Date Analyzed:	9/25/2017 12:20		9/25/2017 12:10		9/25/2017 12:15			
Analyst Initials:	AS		AS		AS			
Dilution Factor:	1.0		1.0		1.0			
ANALYTE	Results	RL	%Rec	Criteria	%Rec	Criteria	RPD	Criteria
Hydrogen	ND	0.010	97	70-130	98	70-130	0.3	<20

ND = Not Detected (Below RL)

RL = PQL X Dilution Factor

Reviewed/Approved By: _____ **Date:** 9-25-17

Mark Johnson
Operations Manager

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

ATTACHMENT E

GAS WELLFIELD DATA

ATTACHMENT E-1

WELLFIELD DATA TABLE

September 2017 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	9/5/2017 10:56	54.9	40.4	0.0	4.7	114.3	114.3	21.7	21.3	-0.3	-0.3	-12.8
GEW-002	9/12/2017 8:54	55.3	41.2	0.0	3.5	113.2	113.2	40.5	38.0	-0.9	-0.8	-13.4
GEW-002	9/12/2017 9:00	55.0	38.5	0.0	6.5	110.5	110.5	9.6	12.0	-0.2	-0.2	-13.3
GEW-002	9/18/2017 10:33	50.2	43.9	0.0	5.9	119.7	119.7	14.8	16.5	1.1	1.2	-12.5
GEW-002	9/18/2017 10:35	50.1	44.0	0.0	5.9	122.6	122.6	18.0	19.6	0.9	0.9	-12.3
GEW-002	9/19/2017 8:51	52.1	42.3	0.0	5.6	124.2	124.2	17.5	17.9	-0.1	-0.1	-12.8
GEW-002	9/25/2017 10:04	55.6	37.1	0.0	7.3	122.7	122.9	17.2	18.8	-0.7	-0.8	-11.2
GEW-003	9/5/2017 11:00	51.4	38.6	0.0	10.0	114.3	114.3	11.3	15.6	-0.4	-0.5	-12.2
GEW-003	9/5/2017 11:01	51.2	39.5	0.0	9.3	114.1	114.2	22.2	21.7	-0.5	-0.5	-12.8
GEW-003	9/12/2017 9:04	50.6	39.6	0.0	9.8	114.0	113.9	23.7	24.2	-0.3	-0.3	-12.7
GEW-003	9/12/2017 9:10	50.5	38.9	0.0	10.6	114.0	114.0	30.0	30.8	-0.3	-0.3	-12.6
GEW-003	9/18/2017 10:39	48.5	40.6	0.0	10.9	115.8	115.8	14.5	14.8	-0.3	-0.3	-11.2
GEW-003	9/25/2017 10:08	50.5	39.4	0.0	10.1	115.7	115.8	7.6	13.6	-0.4	-0.4	-9.1
GEW-004	9/5/2017 11:04	54.9	39.7	0.0	5.4	117.3	117.4	15.0	8.2	-0.4	-0.4	-12.3
GEW-004	9/12/2017 9:14	54.2	40.0	0.0	5.8	116.6	116.8	27.2	25.9	-0.2	-0.2	-12.8
GEW-004	9/12/2017 9:19	53.2	39.2	0.0	7.6	116.0	116.5	24.6	25.3	-0.2	-0.2	-13.0
GEW-004	9/18/2017 10:42	51.4	40.0	0.0	8.6	118.4	118.4	39.4	39.7	-0.3	-0.3	-11.6
GEW-004	9/25/2017 10:11	54.3	40.1	0.0	5.6	118.9	118.9	25.5	23.7	-0.2	-0.3	-11.0
GEW-005	9/5/2017 11:20	53.8	37.3	0.0	8.9	91.5	91.5	12.6	12.6	-0.1	-0.1	-12.9
GEW-005	9/11/2017 11:35	53.7	38.3	0.0	8.0	93.6	93.6	7.9	9.7	0.1	0.1	-12.3
GEW-005	9/11/2017 11:42	53.7	38.6	0.0	7.7	93.9	93.9	0.0	0.0	0.0	0.1	-12.0
GEW-005	9/12/2017 8:34	52.4	36.2	0.0	11.4	91.3	91.2	14.6	13.5	-0.1	-0.1	-13.2
GEW-005	9/18/2017 10:56	51.1	37.8	0.0	11.1	94.2	94.3	10.9	13.4	-0.1	-0.1	-12.2
GEW-005	9/25/2017 8:21	52.2	37.5	0.0	10.3	92.8	92.5	14.5	17.4	-0.2	-0.2	-12.5
GEW-006	9/5/2017 8:32	55.7	38.1	0.0	6.2	87.2	87.2	12.6	13.8	-0.3	-0.3	-13.4
GEW-006	9/5/2017 8:34	56.4	38.3	0.0	5.3	87.0	87.0	6.9	9.8	-0.3	-0.3	-12.8
GEW-006	9/11/2017 11:00	55.9	39.3	0.0	4.8	91.3	91.3	12.6	15.0	0.0	0.0	-12.5
GEW-006	9/11/2017 11:14	56.2	39.3	0.0	4.5	91.7	91.7	13.2	13.5	0.0	0.0	-12.7
GEW-006	9/18/2017 8:21	53.3	36.9	0.0	9.8	89.8	89.8	15.4	16.2	-0.2	-0.2	-12.6
GEW-006	9/25/2017 8:30	54.7	37.9	0.0	7.4	88.4	88.4	17.0	17.3	-0.3	-0.3	-12.8
GEW-007	9/5/2017 9:02	56.8	38.7	0.0	4.5	93.4	93.6	11.5	10.5	-1.1	-1.1	-13.3
GEW-007	9/12/2017 13:47	56.0	39.9	0.0	4.1	97.2	97.2	0.0	0.0	0.2	0.2	-12.3
GEW-007	9/12/2017 13:53	55.9	39.3	0.0	4.8	97.2	97.2	0.0	0.0	0.1	0.2	-12.5
GEW-007	9/13/2017 10:08	55.6	37.3	0.0	7.1	93.2	93.1	6.3	6.3	-0.8	-0.8	-13.0
GEW-007	9/18/2017 8:42	55.5	39.4	0.0	5.1	95.5	95.5	6.3	8.4	-0.7	-0.7	-12.3
GEW-007	9/25/2017 8:51	57.0	39.8	0.0	3.2	95.8	95.8	7.2	8.2	-0.9	-0.9	-12.3
GEW-008	9/5/2017 9:07	54.8	38.6	0.0	6.6	111.5	111.5	13.2	12.9	-0.7	-0.7	-12.9
GEW-008	9/12/2017 13:59	53.1	38.2	0.0	8.7	113.4	113.1	23.9	24.5	-0.1	-0.1	-12.5
GEW-008	9/12/2017 14:06	50.9	42.9	0.0	6.2	113.2	113.2	22.0	22.4	-0.1	-0.1	-12.6
GEW-008	9/18/2017 8:46	52.2	41.8	0.0	6.0	112.7	112.7	12.6	15.6	-0.5	-0.5	-12.6
GEW-008	9/25/2017 8:55	53.3	41.9	0.0	4.8	112.7	112.7	13.7	12.2	-0.6	-0.6	-12.2
GEW-009	9/5/2017 9:11	52.0	41.4	0.0	6.6	121.0	121.3	23.0	21.5	-0.5	-0.5	-12.8
GEW-009	9/12/2017 14:11	51.4	41.0	0.0	7.6	124.5	124.5	2.7	3.8	-0.1	-0.1	-12.5

September 2017 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	9/12/2017 14:18	50.5	38.4	0.0	11.1	124.2	124.5	8.6	10.2	-0.1	-0.1	-12.3
GEW-009	9/18/2017 8:50	50.6	41.4	0.0	8.0	122.3	122.3	38.4	38.0	-0.3	-0.3	-12.6
GEW-009	9/25/2017 9:00	53.1	41.9	0.0	5.0	122.3	122.1	11.8	5.2	-0.4	-0.4	-12.5
GEW-010	9/5/2017 8:53	57.2	39.8	0.0	3.0	68.0	68.0	5.3	5.5	-1.0	-0.9	-18.3
GEW-010	9/12/2017 8:46	55.2	40.2	0.0	4.6	65.2	65.2	5.1	5.1	-0.8	-0.8	-19.1
GEW-010	9/12/2017 8:53	53.8	39.2	0.0	7.0	65.7	65.7	3.2	3.4	-0.7	-0.8	-19.6
GEW-010	9/19/2017 14:55	55.7	42.3	0.0	2.0	104.7	104.8	7.8	8.1	-0.5	-0.5	-18.1
GEW-010	9/25/2017 11:34	52.6	45.7	0.0	1.7	99.1	99.1	2.8	2.3	-0.7	-0.7	-18.9
GEW-013A	9/20/2017 9:15	9.9	34.6	5.5	50.0	128.6	128.5	114.2	114.0	-3.0	-2.9	-14.1
GEW-013A	9/20/2017 9:17	10.1	34.7	5.5	49.7	128.4	128.6	112.2	113.0	-2.9	-2.9	-14.1
GEW-013A	9/26/2017 9:44	12.5	40.1	2.9	44.5	130.0	130.0	113.4	114.8	-2.9	-3.1	-14.4
GEW-013A	9/26/2017 9:45	13.2	42.8	2.9	41.1	130.0	130.0	112.8	113.2	-3.0	-3.1	-14.7
GEW-015	9/20/2017 11:18	1.4	32.0	5.2	61.4	159.4	159.3	NFD		-1.5	-1.6	-14.4
GEW-015	9/20/2017 11:20	1.4	30.5	5.3	62.8	159.0	159.4	NFD		-1.5	-1.8	-14.2
GEW-015	9/26/2017 13:49	5.1	40.1	1.8	53.0	162.4	162.4	NFD		-1.8	-1.1	-14.2
GEW-015	9/26/2017 13:51	3.9	39.0	1.9	55.2	162.6	162.6	NFD		-1.8	-2.0	-14.2
GEW-016R	9/20/2017 11:13	4.5	46.0	0.8	48.7	180.5	180.5	NFD		-17.0	-17.0	-17.1
GEW-016R	9/20/2017 11:15	4.1	45.4	1.1	49.4	179.2	179.2	NFD		-17.0	-17.0	-16.9
GEW-016R	9/26/2017 13:59	8.2	46.8	0.2	44.8	178.6	179.2	NFD		-17.9	-18.3	-18.0
GEW-016R	9/26/2017 14:01	7.5	48.1	0.2	44.2	179.7	179.7	NFD		-18.9	-18.9	-19.1
GEW-018B	9/20/2017 10:53	3.2	46.0	1.6	49.2	175.8	175.8	3.7	2.2	-5.8	-5.8	-17.1
GEW-018B	9/20/2017 10:54	3.4	47.4	1.4	47.8	176.8	176.9	1.0	2.6	-5.8	-5.8	-17.2
GEW-018B	9/27/2017 14:33	3.4	51.2	1.0	44.4	179.2	179.2	4.2	4.4	-4.4	-4.4	-14.2
GEW-018B	9/27/2017 14:34	3.1	52.9	1.0	43.0	179.7	179.7	3.4	3.8	-4.5	-4.5	-13.8
GEW-022R	9/18/2017 14:56	2.8	59.2	0.7	37.3	123.4	123.4	8.9	10.8	-16.5	-16.5	-17.6
GEW-022R	9/18/2017 15:02	3.2	57.9	1.0	37.9	122.9	122.8	3.0	2.1	-16.5	-16.5	-17.7
GEW-022R	9/27/2017 10:37	3.9	60.6	0.5	35.0	76.4	76.4	11.1	11.3	-12.6	-12.9	-13.6
GEW-038	9/5/2017 10:26	0.7	49.8	3.5	46.0	80.6	80.6	3.4	2.5	-10.5	-10.5	-15.2
GEW-038	9/12/2017 14:11	0.7	46.7	3.9	48.7	86.8	86.8	3.5	5.0	-11.7	-11.8	-15.9
GEW-038	9/12/2017 14:17	0.3	50.4	3.4	45.9	88.4	88.6	4.5	2.1	-12.3	-12.3	-16.4
GEW-038	9/20/2017 9:19	2.4	30.2	12.5	54.9	88.2	88.2	3.2	1.3	-10.7	-10.7	-15.5
GEW-038	9/20/2017 9:21	0.9	30.3	12.2	56.6	88.6	88.6	1.1	1.8	-6.1	-6.0	-15.8
GEW-038	9/25/2017 13:51	4.4	46.4	4.8	44.4	110.0	110.4	1.1	2.5	-1.6	-1.6	-17.9
GEW-039	9/5/2017 10:36	44.9	51.2	0.0	3.9	107.2	107.2	14.9	10.6	-0.4	-0.6	-13.2
GEW-039	9/12/2017 15:00	44.4	51.4	0.0	4.2	109.1	109.1	10.8	8.2	-0.3	-0.3	-14.6
GEW-039	9/12/2017 15:06	44.8	50.9	0.0	4.3	109.2	109.2	8.9	11.5	-0.4	-0.4	-19.5
GEW-039	9/20/2017 9:30	44.3	53.1	0.0	2.6	113.0	113.0	26.1	24.0	-0.7	-1.3	-17.7
GEW-039	9/25/2017 13:58	43.9	51.0	0.0	5.1	120.5	120.5	13.7	11.4	-0.5	-0.4	-19.5
GEW-040	9/5/2017 10:08	53.6	40.7	0.0	5.7	79.6	79.8	8.0	6.3	-0.5	-0.5	-12.9
GEW-040	9/14/2017 8:36	56.2	39.9	0.0	3.9	73.7	73.7	12.1	12.1	-0.6	-0.6	-12.8
GEW-040	9/14/2017 8:48	55.7	38.4	0.0	5.9	74.5	74.5	35.4	35.4	-0.5	-0.5	-9.8
GEW-040	9/18/2017 9:47	55.7	40.5	0.0	3.8	83.5	83.5	6.3	6.3	-0.5	-0.5	-12.6
GEW-040	9/25/2017 9:26	58.2	41.8	0.0	0.0	85.6	85.8	6.7	6.3	-0.5	-0.5	-12.0

September 2017 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-041R	9/5/2017 10:13	56.8	38.9	0.0	4.3	105.0	104.9	8.8	10.4	-0.3	-0.3	-13.1
GEW-041R	9/5/2017 10:15	56.7	38.8	0.0	4.5	104.9	104.8	10.0	8.3	-0.3	-0.3	-13.2
GEW-041R	9/14/2017 8:53	56.3	38.8	0.0	4.9	103.8	103.8	13.3	13.3	-0.3	-0.3	-12.2
GEW-041R	9/14/2017 8:59	56.5	38.4	0.0	5.1	104.5	104.5	34.9	35.4	-0.3	-0.3	-13.0
GEW-041R	9/18/2017 9:51	54.6	38.7	0.0	6.7	104.0	104.3	10.0	11.1	-0.1	-0.1	-12.8
GEW-041R	9/25/2017 9:29	55.8	39.8	0.0	4.4	104.3	104.3	10.3	11.0	-0.1	-0.1	-12.0
GEW-042R	9/5/2017 10:19	55.6	40.7	0.0	3.7	106.8	106.5	0.0	0.0	-0.5	-0.6	-12.6
GEW-042R	9/12/2017 11:43	54.5	41.5	0.0	4.0	106.7	106.7	4.8	7.8	-0.3	-0.3	-12.4
GEW-042R	9/12/2017 11:49	54.3	40.7	0.0	5.0	106.8	107.0	11.4	11.4	-0.2	-0.2	-11.7
GEW-042R	9/18/2017 9:54	54.6	39.5	0.0	5.9	108.0	108.1	6.8	7.3	-0.4	-0.4	-12.3
GEW-042R	9/25/2017 9:32	56.4	41.6	0.0	2.0	109.2	109.2	12.9	12.9	-0.4	-0.4	-11.9
GEW-043R	9/5/2017 10:23	54.3	41.1	0.0	4.6	118.0	118.1	31.4	32.2	-0.6	-0.6	-12.8
GEW-043R	9/5/2017 10:24	53.8	41.7	0.0	4.5	117.6	117.7	8.7	9.1	-0.6	-0.6	-12.9
GEW-043R	9/12/2017 11:29	53.6	41.4	0.0	5.0	119.2	119.4	7.8	10.3	0.1	0.1	-12.4
GEW-043R	9/12/2017 11:36	53.3	42.0	0.0	4.7	118.9	119.4	0.0	0.0	0.1	0.1	-12.5
GEW-043R	9/13/2017 8:41	52.7	40.1	0.0	7.2	119.3	119.4	28.5	28.6	-0.6	-0.6	-12.8
GEW-043R	9/13/2017 8:42	54.5	41.6	0.0	3.9	119.4	119.4	7.2	11.3	-0.6	-0.6	-12.9
GEW-043R	9/18/2017 9:58	53.1	40.6	0.0	6.3	119.9	119.9	11.6	15.0	-0.3	-0.3	-12.5
GEW-043R	9/25/2017 9:36	54.7	42.2	0.0	3.1	121.0	121.0	26.5	27.7	-0.4	-0.4	-12.0
GEW-044	9/5/2017 10:28	55.5	39.8	0.0	4.7	93.0	93.0	25.4	26.6	-0.6	-0.6	-12.6
GEW-044	9/12/2017 11:18	55.5	40.2	0.0	4.3	92.9	93.1	9.3	10.5	-0.1	-0.2	-12.5
GEW-044	9/12/2017 11:23	55.4	39.2	0.0	5.4	92.9	93.1	0.0	0.0	-0.1	-0.2	-12.5
GEW-044	9/18/2017 10:02	53.9	40.4	0.0	5.7	94.7	94.7	7.4	7.9	-0.3	-0.3	-11.9
GEW-044	9/25/2017 9:40	55.8	40.5	0.0	3.7	97.0	97.0	13.6	16.7	-0.4	-0.4	-12.0
GEW-045R	9/5/2017 10:33	55.2	38.9	0.0	5.9	96.2	96.2	9.2	10.4	-2.2	-2.2	-12.9
GEW-045R	9/12/2017 9:25	55.3	40.8	0.0	3.9	92.7	92.8	10.5	10.8	-1.3	-1.3	-12.9
GEW-045R	9/12/2017 9:31	55.3	40.4	0.0	4.3	92.9	93.0	7.4	9.3	-1.4	-1.4	-13.0
GEW-045R	9/18/2017 10:06	54.2	40.7	0.0	5.1	97.1	97.1	7.9	9.2	-1.3	-1.3	-12.3
GEW-045R	9/25/2017 9:44	55.2	40.1	0.0	4.7	98.6	98.7	8.6	9.1	-1.5	-1.5	-12.2
GEW-046R	9/5/2017 10:37	55.3	39.5	0.0	5.2	100.4	100.4	3.9	3.9	-0.4	-0.4	-12.6
GEW-046R	9/12/2017 9:36	55.4	40.6	0.0	4.0	99.1	99.1	26.9	27.9	-0.1	-0.1	-12.8
GEW-046R	9/12/2017 14:30	55.0	40.3	0.0	4.7	101.8	101.8	0.0	2.7	0.0	0.0	-12.0
GEW-046R	9/18/2017 10:10	54.2	40.5	0.0	5.3	103.3	103.3	11.8	12.7	-0.2	-0.2	-12.1
GEW-046R	9/25/2017 9:48	55.5	40.1	0.0	4.4	101.1	101.0	6.6	11.7	-0.4	-0.4	-11.8
GEW-047R	9/5/2017 11:13	50.7	38.4	0.2	10.7	81.9	81.9	262.4	261.9	-11.5	-12.1	-12.5
GEW-047R	9/5/2017 11:15	50.7	38.6	0.2	10.5	81.2	81.2	85.7	85.7	-0.1	-0.1	-12.7
GEW-047R	9/12/2017 8:40	54.7	39.6	0.1	5.6	63.3	63.3	4.1	4.1	0.0	0.0	-12.8
GEW-047R	9/12/2017 8:47	54.0	39.8	0.1	6.1	64.0	64.0	8.7	13.8	0.0	0.0	-12.9
GEW-047R	9/18/2017 10:53	52.7	39.3	0.1	7.9	91.7	91.9	11.9	13.2	0.0	0.0	-11.7
GEW-047R	9/25/2017 8:17	55.1	41.3	0.0	3.6	81.0	81.0	36.3	36.3	-0.3	-0.3	-12.7
GEW-048	9/5/2017 11:24	55.8	38.9	0.0	5.3	103.5	103.8	13.3	6.2	-0.3	-0.3	-8.5
GEW-048	9/11/2017 11:21	54.9	38.6	0.0	6.5	104.0	104.1	11.8	18.0	-0.1	-0.1	-6.3
GEW-048	9/11/2017 11:28	55.0	38.7	0.0	6.3	104.3	104.3	13.6	13.6	-0.2	-0.2	-9.5

September 2017 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-048	9/18/2017 11:00	53.4	38.2	0.0	8.4	104.5	104.5	35.9	35.8	-0.2	-0.2	-8.0
GEW-048	9/25/2017 8:26	56.3	39.3	0.0	4.4	103.7	103.7	40.1	40.2	-0.4	-0.4	-6.7
GEW-049	9/5/2017 8:47	55.2	39.0	0.0	5.8	107.9	107.8	0.0	0.0	-0.5	-0.5	-12.8
GEW-049	9/5/2017 8:48	54.6	40.0	0.0	5.4	108.0	108.0	0.0	0.0	-0.5	-0.5	-12.9
GEW-049	9/12/2017 10:56	55.4	39.0	0.1	5.5	110.1	110.2	28.8	28.4	-0.1	-0.1	-12.4
GEW-049	9/12/2017 11:01	53.6	38.7	0.0	7.7	110.0	110.0	26.5	28.7	-0.1	-0.1	-12.4
GEW-049	9/18/2017 8:31	53.7	38.0	0.0	8.3	109.0	109.0	13.3	14.9	-0.3	-0.3	-12.5
GEW-049	9/25/2017 8:40	55.2	39.6	0.0	5.2	109.7	109.7	38.1	38.8	-0.4	-0.4	-12.8
GEW-050	9/5/2017 8:41	57.4	38.7	0.0	3.9	105.7	105.5	13.9	10.4	-0.4	-0.4	-8.1
GEW-050	9/5/2017 8:43	57.5	38.9	0.0	3.6	105.5	105.3	3.9	11.4	-0.3	-0.3	-6.1
GEW-050	9/12/2017 13:18	57.6	38.3	0.0	4.1	107.0	106.8	30.7	31.6	0.3	0.2	-6.0
GEW-050	9/12/2017 13:25	57.0	38.9	0.0	4.1	107.2	107.4	0.0	0.0	0.2	0.2	-4.0
GEW-050	9/13/2017 10:04	56.4	36.8	0.0	6.8	106.5	106.4	3.9	10.4	-0.3	-0.3	-4.7
GEW-050	9/18/2017 8:28	55.0	38.2	0.0	6.8	107.2	107.2	10.4	10.4	-0.2	-0.2	-6.4
GEW-050	9/25/2017 8:36	59.7	39.5	0.0	0.8	107.2	107.2	13.7	19.5	-0.3	-0.3	-7.1
GEW-051	9/5/2017 8:52	55.0	40.3	0.0	4.7	124.5	124.5	11.2	9.0	-0.9	-0.9	-12.9
GEW-051	9/5/2017 8:54	54.6	40.8	0.0	4.6	124.5	124.5	21.6	22.8	-0.9	-0.9	-12.8
GEW-051	9/12/2017 11:05	53.8	40.7	0.0	5.5	125.4	125.6	15.9	17.5	-0.1	-0.1	-12.3
GEW-051	9/12/2017 11:11	53.3	40.0	0.0	6.7	125.3	125.3	0.0	0.0	-0.1	-0.1	-12.4
GEW-051	9/18/2017 8:35	54.1	40.1	0.0	5.8	125.8	125.8	9.8	13.6	-0.5	-0.5	-12.2
GEW-051	9/25/2017 8:44	56.0	40.6	0.0	3.4	125.3	125.6	10.4	11.4	-0.6	-0.6	-12.0
GEW-052	9/5/2017 8:58	54.3	38.9	0.0	6.8	112.0	112.0	0.0	0.0	-0.3	-0.3	-13.2
GEW-052	9/12/2017 13:30	54.6	39.6	0.0	5.8	115.8	115.8	0.0	0.0	0.0	0.0	-12.7
GEW-052	9/12/2017 13:40	54.5	39.4	0.0	6.1	116.0	116.0	0.0	0.0	-0.1	0.0	-11.5
GEW-052	9/18/2017 8:38	52.8	39.5	0.0	7.7	114.0	114.0	34.8	34.5	-0.3	-0.3	-12.9
GEW-052	9/25/2017 8:47	53.7	39.6	0.0	6.7	113.0	113.0	5.9	5.9	-0.4	-0.4	-12.3
GEW-053	9/5/2017 9:44	51.2	37.7	0.0	11.1	135.1	135.0	8.5	12.7	-1.0	-1.0	-13.2
GEW-053	9/5/2017 9:46	51.2	41.3	0.0	7.5	134.5	134.4	23.4	25.0	-0.9	-0.9	-12.8
GEW-053	9/13/2017 13:51	50.5	40.6	0.0	8.9	136.0	136.1	10.8	12.1	-0.4	-0.4	-12.5
GEW-053	9/13/2017 14:03	50.3	39.8	0.0	9.9	135.9	135.9	8.5	6.0	-0.4	-0.4	-12.2
GEW-053	9/18/2017 8:54	49.5	41.0	0.0	9.5	136.2	136.2	15.3	14.5	-0.5	-0.5	-12.7
GEW-053	9/18/2017 8:55	49.7	42.3	0.0	8.0	136.4	136.5	15.3	14.5	-0.5	-0.5	-12.6
GEW-053	9/25/2017 9:04	50.8	40.4	0.0	8.8	135.3	135.3	14.2	12.0	-0.6	-0.5	-12.8
GEW-053	9/25/2017 9:05	51.6	41.9	0.0	6.5	135.3	135.5	12.6	12.3	-0.6	-0.6	-12.6
GEW-054	9/5/2017 9:53	52.4	38.6	0.0	9.0	141.5	141.5	37.8	36.2	-3.6	-3.6	-13.6
GEW-054	9/5/2017 9:54	51.3	41.9	0.0	6.8	141.5	141.5	35.6	34.9	-3.4	-3.4	-13.5
GEW-054	9/13/2017 13:34	51.8	41.3	0.1	6.8	141.9	141.9	38.2	35.9	-2.9	-2.9	-12.9
GEW-054	9/13/2017 13:45	51.1	40.7	0.0	8.2	141.9	141.9	34.0	30.6	-2.9	-2.9	-13.0
GEW-054	9/18/2017 9:02	50.8	39.1	0.0	10.1	142.2	142.2	34.0	37.5	-3.1	-3.1	-13.2
GEW-054	9/18/2017 9:04	50.2	42.5	0.0	7.3	142.2	142.2	32.6	38.2	-2.7	-2.7	-12.9
GEW-054	9/18/2017 9:05	50.2	42.2	0.0	7.6	142.2	142.2	28.5	34.0	-2.7	-2.7	-13.2
GEW-054	9/19/2017 8:41	51.1	41.8	0.0	7.1	142.2	142.2	36.4	29.9	-2.9	-2.9	-13.6
GEW-054	9/19/2017 8:42	51.0	42.1	0.0	6.9	142.3	142.3	40.3	43.0	-3.4	-3.4	-13.5

September 2017 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-054	9/19/2017 8:44	50.9	42.4	0.0	6.7	141.5	141.5	41.8	36.4	-1.8	-1.7	-13.1
GEW-054	9/25/2017 9:11	51.7	40.4	0.0	7.9	142.9	142.9	19.6	18.9	-1.0	-1.0	-12.5
GEW-054	9/25/2017 9:13	51.1	42.3	0.0	6.6	143.2	143.2	29.5	35.9	-1.5	-1.5	-12.7
GEW-054	9/26/2017 14:12	49.1	41.7	0.0	9.2	143.6	143.6	20.7	25.4	-1.3	-1.3	-12.5
GEW-054	9/26/2017 14:16	49.1	41.7	0.0	9.2	143.5	143.5	29.1	29.3	-1.4	-1.4	-12.3
GEW-054	9/27/2017 11:25	50.3	39.2	0.0	10.5	142.9	142.9	30.0	32.7	-2.2	-2.2	-13.5
GEW-054	9/27/2017 11:27	51.4	41.6	0.0	7.0	143.2	143.0	33.4	36.2	-2.3	-2.4	-13.8
GEW-054	9/28/2017 9:45	50.8	42.4	0.0	6.8	143.2	143.2	26.3	30.2	-2.5	-2.6	-13.5
GEW-054	9/28/2017 9:48	51.1	42.2	0.0	6.7	143.2	143.2	36.6	36.1	-2.7	-2.7	-13.2
GEW-054	9/29/2017 9:30	51.3	40.6	0.0	8.1	143.2	143.2	39.4	28.7	-3.0	-3.0	-13.8
GEW-054	9/29/2017 9:32	51.1	40.9	0.0	8.0	143.2	143.2	30.3	31.4	-3.3	-3.3	-13.4
GEW-055	9/5/2017 10:02	49.7	42.2	0.1	8.0	135.0	134.7	0.0	0.0	-0.5	-0.5	-13.2
GEW-055	9/5/2017 10:04	49.5	42.4	0.1	8.0	134.7	134.7	0.0	0.0	-0.5	-0.5	-12.8
GEW-055	9/13/2017 14:12	50.5	41.4	0.0	8.1	135.9	135.6	8.1	7.6	-0.1	-0.1	-12.0
GEW-055	9/13/2017 14:21	50.4	41.4	0.0	8.2	135.6	135.6	22.6	22.6	-0.1	-0.1	-12.0
GEW-055	9/14/2017 8:25	49.3	42.6	0.2	7.9	134.0	134.0	9.4	9.4	-0.5	-0.4	-13.1
GEW-055	9/14/2017 8:30	49.2	42.1	0.2	8.5	133.8	133.8	7.7	9.8	-0.5	-0.5	-12.9
GEW-055	9/18/2017 9:12	48.8	40.6	0.0	10.6	135.0	134.9	27.2	26.2	-0.2	-0.2	-12.6
GEW-055	9/18/2017 9:14	49.0	42.5	0.0	8.5	135.0	134.8	23.4	24.5	-0.2	-0.2	-12.1
GEW-055	9/25/2017 9:21	51.1	41.3	0.0	7.6	135.6	135.9	14.2	15.2	-0.1	-0.1	-12.4
GEW-055	9/25/2017 9:22	51.0	42.9	0.0	6.1	135.6	135.8	22.1	23.0	-0.1	-0.1	-12.6
GEW-056R	9/5/2017 9:13	25.5	53.5	0.0	21.0	105.7	105.7	2.7	2.5	-0.4	-0.4	-18.3
GEW-056R	9/12/2017 9:28	27.1	52.7	0.0	20.2	101.8	101.8	1.9	2.8	-0.5	-0.5	-19.4
GEW-056R	9/12/2017 9:34	26.4	50.4	0.0	23.2	100.6	100.6	1.6	4.2	-0.4	-0.4	-19.0
GEW-056R	9/19/2017 15:19	27.9	55.2	0.0	16.9	128.3	128.3	1.8	2.4	-0.3	-0.3	-18.0
GEW-056R	9/25/2017 13:19	26.0	52.9	0.0	21.1	129.4	129.4	2.6	2.8	-0.3	-0.3	-18.2
GEW-057B	9/20/2017 9:31	6.7	50.1	0.0	43.2	91.0	91.1	8.7	9.6	-15.5	-17.3	-15.8
GEW-057B	9/26/2017 14:54	7.8	55.5	0.0	36.7	107.1	107.5	29.0	20.6	-18.5	-18.0	-19.0
GEW-058	9/6/2017 10:45	1.7	27.6	3.9	66.8	100.4	100.6	10.9	10.9	-8.9	-9.1	-18.9
GEW-058	9/6/2017 10:51	1.7	26.9	3.9	67.5	100.2	100.4	7.6	5.8	-9.3	-9.5	-19.1
GEW-058	9/26/2017 14:07	1.8	32.4	2.5	63.3	139.9	139.6	13.5	9.6	-5.3	-6.1	-20.1
GEW-058	9/26/2017 14:08	1.6	33.2	1.2	64.0	136.5	136.2	5.5	6.4	-1.2	-1.4	-19.6
GEW-058A	9/6/2017 10:32	11.4	27.4	6.7	54.5	100.1	100.1	2.7	2.7	-2.2	-2.2	-19.4
GEW-058A	9/6/2017 10:40	11.6	26.3	6.8	55.3	94.6	94.4	2.0	3.2	-1.0	-1.0	-19.5
GEW-058A	9/26/2017 14:04	14.4	39.5	1.8	44.3	123.1	123.1	21.5	21.4	-0.9	-0.9	-18.7
GEW-059R	9/6/2017 9:40	11.7	46.8	0.0	41.5	170.0	169.5	10.6	7.7	-19.0	-19.0	-19.2
GEW-059R	9/6/2017 9:46	12.0	48.4	0.0	39.6	169.0	169.0	10.4	6.1	-19.0	-18.9	-19.6
GEW-059R	9/26/2017 13:49	16.3	49.4	0.0	34.3	172.6	172.7	11.4	12.1	-18.6	-18.8	-19.6
GEW-059R	9/26/2017 13:50	12.8	52.1	0.0	35.1	172.6	172.6	12.1	13.2	-18.2	-18.5	-18.9
GEW-067A	9/20/2017 9:06	6.6	40.7	2.4	50.3	149.9	149.9	7.5	5.7	-0.1	-0.1	-17.1
GEW-067A	9/20/2017 9:08	9.0	40.2	2.4	48.4	149.9	149.9	20.0	18.1	-0.7	-0.6	-17.5
GEW-067A	9/26/2017 9:39	9.2	39.7	2.2	48.9	150.0	150.1	5.8	2.9	-0.1	-0.1	-20.1
GEW-067A	9/26/2017 9:40	9.2	39.3	2.1	49.4	150.2	150.2	6.8	6.2	-0.1	-0.1	-18.9

September 2017 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-068A	9/26/2017 15:32	12.4	53.6	0.4	33.6	192.9	192.9	35.8	36.3	-10.7	-10.8	-13.2
GEW-068A	9/26/2017 15:33	13.2	57.4	0.4	29.0	192.9	192.9	34.5	34.5	-10.9	-10.9	-12.9
GEW-077	9/20/2017 10:21	0.5	47.9	3.8	47.8	120.0	119.9	28.1	26.5	-18.0	-17.7	-17.0
GEW-078R	9/20/2017 8:50	11.3	43.9	0.2	44.6	164.9	165.2	8.3	7.8	-17.0	-17.1	-17.5
GEW-078R	9/20/2017 8:51	10.7	47.3	0.0	42.0	165.3	165.2	9.6	9.1	-17.3	-17.4	-17.2
GEW-078R	9/26/2017 11:33	15.1	48.8	0.0	36.1	166.6	166.6	12.5	12.6	-14.7	-13.8	-15.4
GEW-078R	9/26/2017 11:34	15.6	48.2	0.0	36.2	167.1	167.1	13.3	10.8	-13.4	-13.9	-14.0
GEW-081	9/20/2017 8:59	0.6	56.0	1.0	42.4	90.3	90.3	1.1	1.6	-17.3	-17.3	-17.2
GEW-081	9/27/2017 10:23	1.8	48.2	3.2	46.8	74.6	74.5	4.1	2.8	-13.6	-13.6	-14.1
GEW-082R	9/14/2017 14:07	12.6	44.1	0.0	43.3	182.4	182.5	2.5	4.7	-16.9	-16.9	-17.1
GEW-082R	9/14/2017 14:13	12.9	44.7	0.0	42.4	182.7	182.7	2.8	5.4	-16.7	-16.9	-17.6
GEW-082R	9/27/2017 14:38	12.1	51.0	0.0	36.9	181.5	181.5	3.8	3.0	-12.9	-13.3	-14.3
GEW-082R	9/27/2017 14:39	12.7	49.7	0.0	37.6	182.1	182.5	6.1	6.0	-13.2	-13.3	-14.2
GEW-086	9/6/2017 14:17	8.9	34.5	2.2	54.4	89.8	89.8	6.0	7.9	-0.9	-0.9	-21.4
GEW-086	9/6/2017 14:24	8.8	31.1	2.6	57.5	89.6	89.6	9.8	9.0	-0.9	-0.8	-20.2
GEW-086	9/26/2017 10:57	17.5	38.0	1.1	43.4	106.9	107.0	6.9	5.7	-0.4	-0.4	-18.3
GEW-087	9/20/2017 9:57	2.8	28.4	6.6	62.2	166.6	166.6	NFD		-17.4	-17.0	-17.5
GEW-087	9/20/2017 9:58	2.7	28.1	6.6	62.6	96.2	95.8	NFD		-17.4	-17.3	-17.2
GEW-087	9/20/2017 9:58	2.7	27.7	6.6	63.0	166.6	166.6	NFD		-17.4	-16.7	-17.5
GEW-087	9/26/2017 11:02	5.4	34.1	3.9	56.6	158.1	158.1	NFD		-17.3	-17.9	-17.8
GEW-087	9/26/2017 11:03	5.2	33.6	3.9	57.3	158.1	158.1	NFD		-18.6	-18.6	-19.1
GEW-088	9/20/2017 9:23	9.2	43.9	0.1	46.8	180.2	180.3	56.4	46.5	-2.3	-2.5	-17.5
GEW-088	9/20/2017 9:24	9.0	47.5	0.0	43.5	180.8	180.6	55.5	50.0	-2.3	-2.4	-18.5
GEW-088	9/26/2017 9:54	9.6	48.1	0.1	42.2	181.3	181.0	40.0	58.8	-2.3	-2.1	-17.8
GEW-088	9/26/2017 9:55	10.1	48.6	0.0	41.3	181.5	181.5	55.4	62.5	-2.1	-2.5	-13.4
GEW-090	9/6/2017 11:18	19.3	47.3	0.0	33.4	159.4	159.4	7.2	9.5	-19.5	-19.2	-19.6
GEW-090	9/6/2017 11:25	19.5	48.1	0.0	32.4	161.1	161.1	10.3	12.4	-19.5	-19.5	-19.9
GEW-090	9/26/2017 9:23	20.0	47.2	0.1	32.7	163.7	163.8	13.5	16.6	-18.7	-18.9	-19.8
GEW-090	9/26/2017 9:24	19.7	47.7	0.1	32.5	163.8	163.7	14.1	14.2	-18.6	-18.6	-19.3
GEW-091	9/20/2017 10:08	2.6	59.0	0.0	38.4	195.5	195.7	12.8	25.1	-15.0	-14.6	-15.3
GEW-091	9/20/2017 10:09	2.5	58.2	0.0	39.3	195.7	195.7	32.0	14.3	-14.5	-15.0	-15.7
GEW-091	9/26/2017 9:11	2.8	53.2	0.0	44.0	192.3	192.3	25.8	21.7	-17.3	-17.0	-18.6
GEW-091	9/26/2017 9:13	2.6	58.3	0.0	39.1	192.9	192.9	27.4	34.3	-15.9	-15.9	-17.4
GEW-101	9/20/2017 11:29	14.1	55.9	1.9	28.1	103.8	103.7	21.7	18.1	-0.6	-0.4	-17.7
GEW-102	9/8/2017 14:22	8.8	46.8	3.6	40.8	101.6	101.8	6.0	3.6	-19.1	-19.1	-18.8
GEW-102	9/8/2017 14:28	8.4	45.1	4.3	42.2	104.8	104.8	2.1	1.1	-18.6	-18.6	-18.6
GEW-102	9/26/2017 15:15	5.7	55.6	0.8	37.9	110.0	110.2	6.7	5.7	-18.8	-20.7	-18.7
GEW-104	9/6/2017 13:59	18.1	52.6	0.0	29.3	168.5	168.5	4.5	2.5	-4.4	-4.4	-10.7
GEW-104	9/6/2017 14:05	16.1	50.6	0.0	33.3	169.5	169.0	2.1	1.3	-4.5	-4.4	-13.1
GEW-104	9/26/2017 14:44	16.5	55.6	0.1	27.8	171.6	172.6	14.3	18.1	-7.7	-6.7	-9.3
GEW-104	9/26/2017 14:45	17.0	58.5	0.1	24.4	172.6	172.6	15.7	11.4	-7.4	-7.4	-10.0
GEW-105	9/6/2017 11:15	12.4	46.0	3.3	38.3	140.2	139.9	5.5	3.8	-1.7	-1.8	-10.4
GEW-105	9/6/2017 11:21	12.1	44.8	3.5	39.6	140.9	141.9	4.8	4.8	-1.8	-1.8	-12.9

September 2017 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-105	9/26/2017 14:22	13.1	47.0	4.5	35.4	136.2	136.2	2.0	1.3	-1.9	-1.9	-13.9
GEW-105	9/26/2017 14:29	13.7	40.9	4.9	40.5	131.7	131.4	14.8	14.4	-0.7	-0.7	-10.0
GEW-106	9/6/2017 10:56	28.9	49.9	0.7	20.5	80.4	80.5	3.5	3.3	-0.8	-0.8	-12.7
GEW-106	9/6/2017 11:01	29.5	50.3	0.7	19.5	80.3	80.3	3.3	3.3	-0.9	-0.9	-12.2
GEW-106	9/26/2017 14:12	28.6	54.4	0.4	16.6	108.0	108.0	4.7	5.1	-0.8	-0.8	-11.3
GEW-107	9/6/2017 9:59	0.1	2.5	20.4	77.0	74.6	75.0	8.9	15.4	-17.6	-17.5	-18.5
GEW-107	9/6/2017 10:06	0.0	0.8	20.9	78.3	77.5	77.3	4.7	4.7	-17.8	-17.8	-19.0
GEW-107	9/26/2017 13:55	35.1	41.4	1.5	22.0	110.2	110.5	12.0	9.9	-12.5	-12.5	-19.6
GEW-108	9/6/2017 9:07	29.7	46.7	1.0	22.6	121.5	122.4	5.5	4.7	-20.0	-20.0	-19.6
GEW-108	9/6/2017 9:14	32.6	45.0	0.7	21.7	120.5	115.8	6.6	7.7	-19.2	-20.2	-19.0
GEW-108	9/26/2017 13:42	34.0	47.1	0.0	18.9	161.1	160.2	11.3	5.8	-18.8	-19.5	-19.1
GEW-108	9/26/2017 13:44	35.0	46.8	0.0	18.2	164.3	164.5	6.9	7.1	-20.0	-19.8	-20.2
GEW-109	9/5/2017 10:33	32.5	44.8	0.0	22.7	85.2	85.4	3.0	1.6	-6.4	-6.4	-17.8
GEW-109	9/12/2017 14:50	32.1	44.3	0.0	23.6	88.0	88.0	3.1	3.3	-5.9	-5.9	-18.5
GEW-109	9/12/2017 14:56	32.1	43.5	0.0	24.4	87.5	87.5	3.1	3.1	-5.9	-5.9	-18.9
GEW-109	9/20/2017 9:27	32.8	45.8	0.0	21.4	92.2	92.2	2.0	3.0	-5.8	-5.9	-16.1
GEW-109	9/25/2017 13:56	33.9	44.8	0.0	21.3	110.0	110.1	2.7	2.2	-5.4	-5.4	-14.8
GEW-110	9/5/2017 8:57	12.7	53.2	0.0	34.1	84.7	84.7	17.4	14.8	-0.3	-0.2	-18.9
GEW-110	9/12/2017 8:59	13.8	53.1	0.0	33.1	79.8	80.0	19.5	19.5	-0.4	-0.4	-19.6
GEW-110	9/12/2017 9:05	13.0	55.1	0.0	31.9	79.6	84.2	5.4	5.6	-0.3	-0.3	-19.7
GEW-110	9/19/2017 14:59	12.9	40.9	5.7	40.5	127.5	127.5	2.2	1.6	-0.2	-0.2	-18.3
GEW-110	9/19/2017 15:06	15.5	48.6	4.2	31.7	128.0	128.0	1.2	4.7	-0.1	-0.1	-18.7
GEW-110	9/25/2017 11:37	12.6	37.0	6.2	44.2	115.1	115.0	7.0	3.8	-0.3	-0.3	-18.9
GEW-110	9/25/2017 11:39	12.8	43.0	3.9	40.3	113.7	113.5	15.2	6.2	-0.2	-0.2	-18.9
GEW-113	9/20/2017 11:09	7.3	39.9	4.1	48.7	158.5	158.5	19.7	18.0	-8.7	-8.6	-17.9
GEW-113	9/20/2017 11:10	8.0	41.5	4.1	46.4	158.5	158.5	17.0	17.7	-8.7	-8.8	-17.7
GEW-113	9/26/2017 13:55	10.5	38.7	1.9	48.9	157.7	157.7	20.3	19.1	-9.1	-9.1	-19.3
GEW-113	9/26/2017 13:56	10.8	47.6	1.9	39.7	158.1	157.9	20.7	19.1	-9.2	-9.0	-19.7
GEW-116	9/14/2017 10:40	5.4	65.1	0.0	29.5	190.2	190.3	3.1	7.8	-2.3	-2.3	-17.2
GEW-116	9/14/2017 10:46	5.7	64.9	0.0	29.4	190.2	190.2	5.0	10.9	-2.2	-2.2	-17.2
GEW-116	9/27/2017 9:07	3.6	45.8	7.6	43.0	178.1	178.0	8.8	4.6	-0.7	-0.8	-14.2
GEW-116	9/27/2017 9:08	3.2	45.3	7.8	43.7	178.0	178.0	4.7	7.6	-0.8	-0.8	-14.4
GEW-116	9/28/2017 9:32	4.7	64.7	0.0	30.6	183.3	184.0	29.1	31.4	0.6	0.2	-17.0
GEW-116	9/28/2017 9:34	4.4	65.3	0.0	30.3	190.2	190.2	45.5	39.8	-6.1	-5.4	-12.5
GEW-117	9/14/2017 11:09	31.6	50.1	0.2	18.1	144.9	144.9	NR	NR	-16.2	-16.2	-17.2
GEW-117	9/14/2017 11:15	34.1	49.1	0.3	16.5	144.9	144.9	NR	NR	-16.4	-16.2	-17.2
GEW-117	9/27/2017 9:26	41.2	47.1	0.0	11.7	138.0	137.7	NR	NR	-11.0	-11.2	-14.7
GEW-117	9/27/2017 9:27	43.1	47.6	0.0	9.3	137.9	138.0	NR	NR	-11.2	-11.2	-14.4
GEW-118	9/14/2017 13:31	1.0	54.6	0.5	43.9	192.3	192.3	67.9	68.4	-8.1	-7.8	-17.0
GEW-118	9/14/2017 13:36	1.0	54.3	0.4	44.3	192.9	192.9	68.0	68.8	-8.2	-8.1	-17.4
GEW-118	9/27/2017 9:41	1.7	25.5	6.9	65.9	178.6	194.3	82.1	79.6	-1.0	-0.8	-14.9
GEW-118	9/27/2017 9:43	1.9	38.5	5.8	53.8	185.7	184.5	80.1	77.9	-1.2	-1.1	-14.7
GEW-120	9/14/2017 11:21	17.9	53.0	0.0	29.1	166.1	166.1	25.8	25.4	-16.2	-16.6	-16.8

September 2017 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-120	9/14/2017 11:27	16.9	54.1	0.0	29.0	167.1	167.1	26.0	26.8	-16.5	-16.6	-16.8
GEW-120	9/27/2017 9:32	19.9	53.8	0.0	26.3	145.6	145.6	12.6	17.6	-13.5	-13.7	-13.8
GEW-120	9/27/2017 9:33	19.0	54.7	0.0	26.3	147.0	147.0	17.6	15.0	-14.2	-13.5	-14.8
GEW-121	9/18/2017 14:31	9.8	50.7	0.0	39.5	175.8	175.8	18.3	18.3	-15.8	-15.8	-16.5
GEW-121	9/18/2017 14:38	9.7	49.8	0.0	40.5	177.5	177.5	15.6	18.7	-15.9	-16.2	-16.8
GEW-121	9/27/2017 14:27	10.5	56.2	0.0	33.3	178.0	178.0	30.9	38.7	-13.6	-14.5	-13.5
GEW-121	9/27/2017 14:28	11.1	59.8	0.0	29.1	178.0	178.0	35.3	36.3	-14.3	-14.1	-13.7
GEW-122	9/18/2017 14:18	13.1	37.1	0.2	49.6	158.2	158.2	5.1	5.1	-17.4	-17.4	-17.5
GEW-122	9/18/2017 14:25	12.5	38.1	0.0	49.4	159.4	159.4	19.3	19.3	-17.4	-17.4	-17.5
GEW-122	9/27/2017 10:18	13.2	44.1	0.0	42.7	158.0	157.7	21.4	22.3	-13.9	-14.0	-14.3
GEW-122	9/27/2017 10:19	13.9	43.7	0.0	42.4	157.7	158.1	24.3	20.6	-13.2	-13.9	-14.3
GEW-123	9/18/2017 14:43	3.3	58.4	0.0	38.3	177.5	177.5	4.7	4.1	0.2	0.2	-17.7
GEW-123	9/18/2017 14:50	2.9	61.4	0.0	35.7	184.5	185.1	2.0	1.0	-0.9	-0.9	-17.5
GEW-123	9/27/2017 10:40	10.4	65.1	0.0	24.5	173.6	173.7	8.8	8.3	-2.0	-2.0	-14.3
GEW-123	9/27/2017 10:41	10.6	64.2	0.0	25.2	174.2	174.2	4.7	4.8	-2.0	-2.0	-14.4
GEW-123	9/28/2017 14:05	12.4	56.6	0.0	31.0	174.8	175.3	7.6	7.1	-3.1	-3.1	-16.9
GEW-123	9/28/2017 14:07	12.2	57.4	0.0	30.4	162.7	161.6	2.3	1.9	-1.6	-1.6	-17.2
GEW-124	9/18/2017 15:00	39.7	41.6	2.9	15.8	90.1	90.1	2.7	2.7	-15.6	-15.6	-17.8
GEW-124	9/18/2017 15:07	43.7	45.1	1.0	10.2	91.3	91.3	2.5	2.5	-16.1	-16.1	-17.8
GEW-124	9/27/2017 10:34	44.9	46.5	0.6	8.0	72.5	72.5	1.6	3.1	-12.6	-12.6	-13.7
GEW-125	9/18/2017 14:40	4.3	56.2	0.0	39.5	189.6	189.6	24.4	25.2	-13.6	-13.7	-17.9
GEW-125	9/18/2017 14:46	4.0	52.8	0.1	43.1	189.6	189.6	23.3	24.7	-13.4	-13.5	-18.0
GEW-125	9/27/2017 10:06	5.0	58.1	0.0	36.9	186.4	186.8	21.1	20.4	-11.3	-10.9	-14.9
GEW-125	9/27/2017 10:07	4.3	60.6	0.0	35.1	186.4	186.7	24.8	25.5	-11.0	-11.3	-15.3
GEW-126	9/18/2017 14:19	30.4	49.6	0.0	20.0	101.6	101.6	4.1	4.0	-6.9	-6.9	-7.1
GEW-126	9/18/2017 14:26	30.2	50.4	0.0	19.4	99.9	99.7	7.7	10.1	-7.4	-7.4	-7.5
GEW-126	9/27/2017 9:54	29.0	53.9	0.0	17.1	74.5	74.7	13.2	9.5	-4.8	-4.6	-5.1
GEW-127	9/14/2017 10:38	4.2	67.7	0.0	28.1	187.1	187.2	12.8	12.8	-11.2	-11.2	-14.7
GEW-127	9/14/2017 10:43	4.5	56.6	0.0	38.9	188.6	188.3	18.2	17.1	-9.3	-9.0	-12.3
GEW-127	9/27/2017 9:28	1.2	57.6	3.7	37.5	73.0	73.0	6.3	6.1	-9.0	-8.9	-9.0
GEW-127	9/27/2017 9:32	1.1	73.5	0.0	25.4	73.6	73.7	17.2	14.9	-11.0	-10.9	-11.2
GEW-128	9/14/2017 10:28	8.9	64.0	0.0	27.1	183.3	183.3	21.1	21.1	-5.7	-5.7	-16.3
GEW-128	9/14/2017 10:34	7.7	62.2	0.0	30.1	183.3	183.3	21.8	23.0	-5.8	-5.9	-16.9
GEW-128	9/27/2017 9:19	8.1	64.5	0.0	27.4	182.7	182.6	15.9	10.0	-5.3	-5.3	-14.7
GEW-128	9/27/2017 9:20	8.3	69.7	0.0	22.0	182.6	182.7	13.0	10.1	-5.6	-5.6	-14.7
GEW-129	9/14/2017 10:19	0.2	62.9	0.0	36.9	90.3	90.3	12.9	22.7	-17.2	-17.2	-17.1
GEW-129	9/14/2017 10:25	0.9	60.8	0.0	38.3	91.5	91.5	12.2	9.0	-17.2	-16.8	-17.4
GEW-129	9/27/2017 9:14	0.1	42.1	11.3	46.5	71.4	71.4	2.3	3.5	-15.3	-13.0	-15.5
GEW-129	9/27/2017 9:16	0.1	33.7	12.9	53.3	71.2	71.1	3.5	3.3	-13.6	-13.5	-15.0
GEW-129	9/28/2017 8:48	0.0	0.1	21.5	78.4	67.3	67.4	2.1	3.1	-17.0	-17.3	-17.5
GEW-129	9/28/2017 10:52	1.7	68.7	0.0	29.6	81.5	81.5	2.9	2.8	-2.3	-2.3	-17.6
GEW-130	9/14/2017 11:14	4.1	50.5	2.5	42.9	185.2	185.4	22.6	23.3	-2.6	-2.6	-17.5
GEW-130	9/14/2017 11:20	4.0	49.7	2.5	43.8	185.7	185.7	30.4	30.4	-2.7	-2.7	-17.4

September 2017 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-130	9/26/2017 9:55	3.3	52.6	2.1	42.0	185.7		31.7	30.3	-1.9	-1.8	-15.2
GEW-130	9/26/2017 15:37	0.7	57.7	0.0	41.6	188.8		37.7	41.1	-1.4	-1.4	-9.3
GEW-130	9/27/2017 9:35	3.0	58.3	2.3	36.4	185.4	185.1	32.9	28.8	-2.4	-2.3	-11.2
GEW-130	9/27/2017 9:36	3.2	57.8	2.3	36.7	185.7	185.7	37.2	32.5	-2.5	-2.5	-13.1
GEW-131	9/18/2017 14:30	21.2	45.2	0.0	33.6	173.6	173.6	15.3	14.6	-9.7	-9.6	-17.6
GEW-131	9/18/2017 14:37	20.6	45.7	0.0	33.7	173.6	173.6	15.8	14.7	-9.7	-9.7	-17.5
GEW-131	9/27/2017 10:00	22.2	47.8	0.0	30.0	172.6	172.6	13.3	14.3	-7.6	-7.6	-14.8
GEW-131	9/27/2017 10:01	20.7	49.0	0.0	30.3	172.9	172.7	13.7	11.4	-7.6	-7.6	-14.8
GEW-132	9/14/2017 13:57	2.1	31.9	6.6	59.4	160.7	160.7	11.4	10.9	-0.4	-0.5	-17.2
GEW-132	9/14/2017 14:03	2.1	31.0	6.6	60.3	161.6	161.6	3.7	3.4	-0.5	-0.5	-17.4
GEW-132	9/18/2017 10:29	2.2	28.5	5.7	63.6	162.9	162.9	4.3	4.6	-0.5	-0.5	-17.2
GEW-132	9/18/2017 16:43	2.3	31.4	6.4	59.9	161.6	162.1	4.9	4.9	-0.6	-0.6	-18.3
GEW-132	9/27/2017 14:22	2.8	37.4	2.6	57.2	154.4	154.5	5.7	4.1	-0.3	-0.4	-13.4
GEW-132	9/27/2017 14:23	2.6	38.4	2.6	56.4	154.8	154.8	3.6	4.1	-0.4	-0.4	-13.7
GEW-133	9/14/2017 10:53	10.9	51.1	0.0	38.0	168.5	168.5	13.9	13.4	-14.4	-14.4	-15.7
GEW-133	9/14/2017 10:59	11.1	54.2	0.0	34.7	168.5	168.5	47.7	48.7	-14.4	-14.4	-7.4
GEW-133	9/27/2017 9:12	11.3	53.9	0.0	34.8	166.1	166.1	16.6	15.6	-12.2	-12.6	-12.1
GEW-133	9/27/2017 9:14	11.4	55.1	0.0	33.5	166.1	166.1	14.3	12.0	-12.2	-12.2	-15.4
GEW-134	9/14/2017 10:13	14.1	48.0	0.1	37.8	141.2	141.5	2.1	3.9	-0.7	-0.7	-17.0
GEW-134	9/14/2017 10:19	14.0	45.6	0.1	40.3	142.8	142.9	4.3	4.5	-0.7	-0.7	-17.2
GEW-134	9/27/2017 9:03	16.4	49.8	0.1	33.7	112.4	112.3	4.3	4.7	-0.7	-0.7	-14.2
GEW-135	9/14/2017 10:01	6.3	55.1	0.8	37.8	166.5	166.6	4.4	1.8	-1.5	-1.5	-17.2
GEW-135	9/14/2017 10:07	6.9	55.1	0.8	37.2	166.6	166.6	8.6	9.0	-1.7	-1.7	-17.5
GEW-135	9/27/2017 8:59	8.6	47.7	0.8	42.9	144.9	145.2	29.2	24.8	-2.7	-2.4	-16.1
GEW-135	9/27/2017 9:00	6.3	53.6	0.8	39.3	146.3	146.6	21.6	27.8	-2.1	-2.6	-13.8
GEW-135	9/28/2017 10:53	6.9	54.4	0.7	38.0	164.3	164.3	8.9	9.3	-1.7	-1.7	-16.9
GEW-135	9/28/2017 10:55	6.0	55.4	0.4	38.2	170.5	170.5	23.9	20.1	-7.1	-6.9	-18.1
GEW-136	9/8/2017 13:54	5.6	34.3	7.0	53.1	125.0	125.0	1.1	1.5	-0.1	-0.1	-7.9
GEW-136	9/8/2017 14:00	5.7	34.4	6.7	53.2	127.5	127.8	2.9	2.4	-0.1	-0.1	-7.8
GEW-136	9/26/2017 13:39	7.6	37.7	5.2	49.5	117.9	117.9	5.4	4.9	-0.1	-0.1	-4.8
GEW-136	9/26/2017 13:40	6.9	38.5	5.2	49.4	119.2	119.4	5.1	4.5	-0.1	-0.1	-4.8
GEW-137	9/8/2017 11:31	22.4	35.7	1.0	40.9	104.5	104.5	3.8	3.8	-11.8	-11.8	-17.8
GEW-137	9/8/2017 11:42	22.0	35.4	0.9	41.7	103.8	103.8	2.4	1.1	-11.7	-11.6	-16.8
GEW-137	9/26/2017 13:35	26.0	28.6	0.6	44.8	106.7	106.7	3.1	3.1	-9.1	-9.1	-13.2
GEW-138	9/14/2017 14:25	13.5	44.1	0.0	42.4	148.4	148.4	3.6	5.6	-0.3	-0.3	-16.9
GEW-138	9/14/2017 14:31	13.3	43.3	0.0	43.4	147.9	148.0	1.0	5.4	-0.3	-0.3	-17.1
GEW-138	9/26/2017 11:28	16.1	43.3	0.1	40.5	133.4	133.5	3.9	5.1	-0.2	-0.3	-14.6
GEW-138	9/26/2017 11:30	16.4	44.5	0.0	39.1	133.5	133.5	7.6	5.1	-0.2	-0.3	-13.8
GEW-138	9/28/2017 14:22	15.4	43.5	0.0	41.1	130.1	130.3	2.8	5.3	-0.3	-0.3	-17.6
GEW-138	9/28/2017 14:25	14.4	44.7	0.0	40.9	135.3	135.3	12.7	12.6	-0.9	-0.9	-17.2
GEW-139	9/14/2017 10:03	2.9	55.4	0.2	41.5	176.9	177.0	24.6	28.2	-1.8	-1.5	-17.8
GEW-139	9/14/2017 10:09	2.3	54.2	0.1	43.4	176.9	176.9	18.3	16.9	-2.0	-1.9	-17.2
GEW-139	9/27/2017 9:01	0.2	58.0	0.0	41.8	172.6	172.2	25.6	15.3	-3.7	-3.3	-11.5

September 2017 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-139	9/27/2017 9:02	0.2	60.0	0.0	39.8	172.1	172.1	29.1	30.5	-2.6	-2.7	-10.4
GEW-140	9/14/2017 9:34	3.0	56.3	0.0	40.7	79.6	80.3	3.3	3.4	1.2	1.3	1.4
GEW-140	9/14/2017 9:36	2.7	58.2	0.0	39.1	80.5	80.5	2.0	2.6	1.4	1.4	1.5
GEW-140	9/15/2017 15:08	4.1	48.7	0.4	46.8	101.3	101.7	3.1	3.1	0.4	0.4	-17.7
GEW-140	9/15/2017 15:09	2.4	55.2	0.0	42.4	106.0	106.5	8.1	6.2	-1.9	-1.8	-18.0
GEW-140	9/27/2017 8:42	4.1	56.4	0.0	39.5	72.0	72.0	15.6	11.4	-17.7	-17.1	-18.9
GEW-142	9/14/2017 9:44	0.0	3.2	20.4	76.4	83.5	83.7	3.9	3.5	-17.3	-17.2	-17.1
GEW-142	9/14/2017 9:46	0.0	1.2	20.8	78.0	82.2	82.1	1.6	1.4	-15.3	-15.2	-17.1
GEW-142	9/27/2017 8:47	0.0	2.3	20.8	76.9	71.1	71.1	7.5	2.8	-13.3	-12.4	-12.0
GEW-142	9/27/2017 8:48	0.0	1.6	21.0	77.4	70.9	70.9	1.6	2.0	-11.9	-11.9	-13.3
GEW-144	9/14/2017 9:54	1.0	57.9	0.0	41.1	91.5	91.5	3.2	3.0	25.5	25.5	25.8
GEW-144	9/14/2017 9:55	0.9	58.6	0.0	40.5	92.9	92.9	4.2	4.0	25.5	25.5	25.5
GEW-145	9/8/2017 14:34	1.7	38.0	7.7	52.6	98.6	98.8	2.9	2.7	-17.2	-17.2	-18.9
GEW-145	9/8/2017 14:42	2.7	47.4	6.5	43.4	99.4	98.9	2.8	2.9	-15.1	-15.1	-18.6
GEW-145	9/26/2017 15:19	0.4	12.1	16.0	71.5	104.3	104.3	1.0	1.0	-18.0	-17.8	-20.5
GEW-145	9/26/2017 15:20	0.4	6.4	17.7	75.5	104.5	104.5	1.0	1.0	-18.1	-17.8	-18.5
GEW-146	9/8/2017 11:08	1.7	12.0	14.2	72.1	102.2	102.3	14.8	14.7	-0.2	-0.2	-18.4
GEW-146	9/8/2017 11:21	1.8	9.6	14.2	74.4	102.8	102.8	12.9	13.8	-0.2	-0.2	-18.0
GEW-146	9/26/2017 11:23	2.6	13.2	14.8	69.4	102.9	102.9	18.2	15.3	-0.2	-0.1	-19.9
GEW-146	9/26/2017 11:24	2.9	9.5	14.8	72.8	103.0	103.0	13.9	14.7	-0.2	-0.2	-18.7
GEW-147	9/14/2017 9:49	12.6	50.1	0.0	37.3	184.7	184.9	39.2	39.4	-14.9	-14.9	-17.0
GEW-147	9/14/2017 9:54	12.2	50.9	0.0	36.9	185.7	185.7	38.9	39.3	-15.3	-15.2	-17.2
GEW-147	9/26/2017 13:45	13.3	47.8	0.0	38.9	183.3	183.3	39.1	41.1	-16.2	-16.2	-18.3
GEW-147	9/26/2017 13:46	13.5	48.0	0.0	38.5	183.3	183.3	42.2	40.0	-16.3	-16.5	-18.5
GEW-148	9/6/2017 14:51	5.3	44.5	0.2	50.0	88.8	88.9	11.2	10.3	-19.6	-19.6	-19.4
GEW-148	9/6/2017 14:57	4.7	51.4	0.2	43.7	88.9	88.8	9.1	9.2	-20.0	-20.0	-20.4
GEW-148	9/26/2017 11:08	4.3	52.0	1.0	42.7	147.7	147.5	7.0	9.2	-18.0	-17.9	-18.1
GEW-148	9/26/2017 11:09	4.6	53.5	1.2	40.7	148.8	149.1	9.0	13.0	-18.0	-18.0	-18.5
GEW-149	9/6/2017 10:10	12.1	39.6	4.3	44.0	138.5	138.7	10.2	10.6	-0.2	-0.2	-5.5
GEW-149	9/6/2017 10:51	12.3	38.5	4.5	44.7	138.3	138.3	14.7	15.1	-0.2	-0.2	-5.0
GEW-149	9/26/2017 9:34	18.5	45.9	1.2	34.4	139.2	139.3	13.0	13.8	-0.2	-0.2	-5.5
GEW-149	9/26/2017 9:35	18.8	45.4	1.1	34.7	139.6	139.6	12.1	13.8	-0.2	-0.2	-5.3
GEW-150	9/6/2017 13:45	11.0	44.4	4.4	40.2	141.5	141.2	6.7	8.9	-1.6	-1.6	-16.4
GEW-150	9/6/2017 13:51	10.6	44.8	4.6	40.0	140.9	141.0	6.3	8.7	-1.6	-1.6	-16.1
GEW-150	9/26/2017 14:40	11.3	49.1	3.0	36.6	154.1	154.1	7.7	7.0	-1.3	-1.3	-12.6
GEW-150	9/26/2017 14:41	10.6	48.3	3.1	38.0	154.4	154.4	6.5	7.4	-1.3	-1.3	-12.6
GEW-150	9/29/2017 14:45	11.2	45.3	3.5	40.0	156.5	156.5	7.5	8.1	-1.1	-1.1	-9.5
GEW-150	9/29/2017 15:03	12.6	45.1	3.8	38.5	154.4	154.5	6.9	8.1	-0.9	-0.9	-9.5
GEW-151	9/6/2017 13:26	24.1	49.6	0.2	26.1	74.6	74.5	3.4	5.2	-18.9	-19.6	-19.0
GEW-151	9/6/2017 13:34	24.5	49.9	0.0	25.6	76.3	76.2	11.0	8.1	-19.6	-19.2	-19.8
GEW-151	9/26/2017 9:48	4.1	25.1	14.2	56.6	94.5	94.6	1.1	6.1	-18.6	-17.2	-19.1
GEW-151	9/26/2017 9:50	2.8	17.4	15.7	64.1	96.2	96.3	7.5	8.7	-18.9	-17.9	-19.6
GEW-151	9/29/2017 9:43	20.2	48.3	0.0	31.5	107.0	107.5	17.6	10.1	-13.1	-16.0	-19.3

September 2017 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-152	9/6/2017 10:13	25.0	47.1	0.3	27.6	137.4	137.4	2.9	3.1	-8.6	-8.5	-18.8
GEW-152	9/6/2017 10:19	25.7	47.4	0.2	26.7	137.7	137.4	2.7	2.5	-8.6	-8.6	-19.4
GEW-152	9/26/2017 13:57	26.2	50.6	0.0	23.2	146.3	146.5	3.1	2.5	-7.3	-7.2	-20.2
GEW-152	9/26/2017 13:58	25.0	52.2	0.0	22.8	146.7	146.8	3.1	3.9	-7.1	-7.4	-18.8
GEW-153	9/6/2017 9:29	45.8	41.9	0.0	12.3	98.7	98.7	4.6	3.5	-5.6	-5.6	-18.9
GEW-153	9/6/2017 9:36	45.9	40.6	0.0	13.5	99.4	99.5	3.5	4.0	-5.5	-5.5	-18.6
GEW-153	9/26/2017 13:47	45.1	42.9	0.0	12.0	116.6	116.5	5.7	4.2	-3.7	-3.6	-19.6
GEW-154	9/6/2017 11:00	13.7	23.4	11.3	51.6	126.1	125.8	5.4	3.2	-4.4	-4.4	-18.6
GEW-154	9/6/2017 11:11	14.0	23.2	11.3	51.5	118.6	118.6	4.8	3.6	-3.0	-3.0	-18.7
GEW-154	9/26/2017 9:17	8.2	28.4	14.4	49.0	121.5	121.5	4.2	3.9	-2.6	-2.5	-19.1
GEW-154	9/26/2017 9:19	8.6	14.4	14.5	62.5	118.3	118.1	2.7	2.4	-2.0	-2.0	-18.5
GEW-155	9/14/2017 14:39	2.0	26.4	3.3	68.3	124.5	124.3	7.9	6.4	-0.4	-0.5	-14.7
GEW-155	9/14/2017 14:45	1.8	24.2	3.3	70.7	125.2	125.3	8.1	8.1	-0.5	-0.5	-15.1
GEW-155	9/27/2017 14:17	7.4	32.0	0.0	60.6	95.8	95.8	2.0	1.6	-0.1	-0.1	-14.5
GEW-155	9/27/2017 14:19	7.2	33.2	0.0	59.6	100.7	100.8	4.5	4.5	-0.2	-0.1	-14.9
GEW-156	9/8/2017 14:10	8.9	12.9	14.0	64.2	115.0	115.0	4.3	4.7	-0.2	-0.2	-18.8
GEW-156	9/8/2017 14:13	8.9	13.4	14.0	63.7	111.6	111.5	1.6	2.2	-0.1	-0.1	-20.3
GEW-156	9/26/2017 15:07	25.7	43.7	3.7	26.9	115.6	115.5	0.8	0.9	0.0	0.0	-20.2
GEW-156	9/26/2017 15:09	27.6	41.9	3.5	27.0	118.9	119.1	2.4	2.7	-0.1	-0.1	-17.6
GEW-157	9/8/2017 14:00	0.0	2.0	20.0	78.0	100.8	102.3	3.4	2.4	-15.6	-15.7	-19.6
GEW-157	9/8/2017 14:02	0.0	1.9	20.0	78.1	102.9	103.0	1.9	1.9	-16.2	-16.2	-18.4
GEW-157	9/26/2017 14:49	0.3	9.4	17.3	73.0	102.5	102.6	2.4	1.5	-15.9	-16.0	-17.9
GEW-157	9/26/2017 14:51	0.0	7.7	17.5	74.8	104.3	104.3	1.1	1.6	-17.1	-17.1	-18.6
GEW-158	9/6/2017 11:05	35.9	49.4	0.0	14.7	91.5	92.0	4.7	3.2	-0.7	-0.7	-19.5
GEW-158	9/6/2017 11:11	36.4	48.7	0.0	14.9	89.1	89.3	2.3	5.7	-0.7	-0.7	-19.1
GEW-158	9/26/2017 14:15	33.3	52.9	0.0	13.8	122.7	122.8	5.8	6.6	-0.5	-0.6	-18.9
GEW-158	9/26/2017 14:18	33.9	51.4	0.0	14.7	125.0	125.8	2.7	2.1	-1.1	-1.1	-17.5
GEW-159	9/6/2017 9:18	26.6	44.3	0.0	29.1	122.3	122.4	9.0	7.4	-15.4	-15.4	-19.6
GEW-159	9/6/2017 9:25	26.7	43.9	0.0	29.4	122.1	122.2	9.2	5.9	-15.4	-15.3	-19.9
GEW-159	9/26/2017 13:39	27.2	44.4	0.0	28.4	138.3	138.3	8.3	8.0	-14.8	-14.8	-19.5
GEW-159	9/26/2017 13:40	28.0	46.9	0.0	25.1	138.1	138.0	9.7	9.6	-14.8	-14.8	-18.7
GEW-159	9/28/2017 14:14	25.6	45.3	0.0	29.1	126.4	126.7	7.1	7.1	-14.6	-14.6	-19.2
GEW-159	9/28/2017 14:16	26.2	44.5	0.0	29.3	124.8	124.7	7.6	5.0	-10.7	-10.8	-19.3
GEW-160	9/8/2017 10:24	1.2	58.9	0.0	39.9	125.6	125.6	15.7	9.3	1.4	1.4	2.0
GEW-160	9/8/2017 10:31	1.3	59.6	0.0	39.1	126.9	126.9	2.6	5.2	1.6	1.6	1.8
GEW-160	9/11/2017 16:20	5.1	55.8	0.4	38.7	148.4	151.0	18.0	16.4	-17.2	-16.7	-17.5
GEW-160	9/11/2017 16:22	4.6	53.4	0.4	41.6	149.5	149.9	14.0	12.0	-16.6	-16.6	-16.4
GEW-160	9/26/2017 8:54	4.6	50.4	0.3	44.7	155.2	154.4	15.2	15.4	-18.6	-18.0	-18.8
GEW-160	9/26/2017 8:55	4.4	52.3	0.2	43.1	153.0	152.9	10.7	5.8	-18.9	-18.6	-18.8
GEW-161	9/8/2017 10:35	0.8	62.9	0.0	36.3	149.5	149.5	5.1	8.1	1.9	2.0	2.4
GEW-161	9/8/2017 10:42	1.0	62.3	0.0	36.7	150.6	150.7	31.4	3.9	2.1	2.4	2.7
GEW-161	9/11/2017 16:27	5.1	56.6	1.1	37.2	176.4	176.4	6.0	4.9	-16.1	-16.2	-17.1
GEW-161	9/11/2017 16:28	4.9	57.7	1.1	36.3	175.3	175.3	5.1	5.5	-15.7	-15.7	-16.6

September 2017 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-161	9/26/2017 8:58	5.0	53.7	0.7	40.6	173.6	173.6	7.4	5.4	-16.6	-16.4	-18.8
GEW-161	9/26/2017 9:00	4.9	54.7	0.7	39.7	174.2	174.2	7.7	4.1	-16.9	-16.6	-18.5
GEW-162	9/6/2017 9:56	8.7	63.0	0.0	28.3	126.1	126.1	7.3	6.7	-3.6	-3.6	-19.3
GEW-162	9/6/2017 10:05	8.9	62.8	0.0	28.3	125.8	125.8	3.0	2.4	-3.5	-3.5	-18.9
GEW-162	9/26/2017 9:29	10.2	57.6	0.0	32.2	136.2	136.5	5.4	3.0	-4.5	-4.5	-20.3
GEW-162	9/26/2017 9:30	9.1	64.2	0.0	26.7	137.2	137.3	1.5	2.6	-4.5	-4.5	-19.8
GEW-163	9/5/2017 10:49	5.3	33.0	7.4	54.3	179.2	179.2	13.3	16.7	-0.3	-0.3	-16.4
GEW-163	9/5/2017 10:51	5.3	33.4	7.4	53.9	179.2	178.6	19.1	16.8	-0.3	-0.3	-16.9
GEW-163	9/14/2017 13:27	5.2	32.3	5.9	56.6	180.9	180.4	15.3	10.5	-0.3	-0.3	-15.0
GEW-163	9/14/2017 13:33	5.1	32.9	5.9	56.1	180.9	180.5	12.4	17.5	-0.3	-0.3	-15.5
GEW-163	9/19/2017 13:34	2.9	53.8	3.0	40.3	192.3	192.3	10.3	12.3	-0.1	-0.1	-16.6
GEW-163	9/19/2017 13:35	2.7	56.8	2.8	37.7	192.3	192.3	20.2	13.4	-0.1	-0.1	-16.3
GEW-163	9/19/2017 13:37	25.0	46.7	3.6	24.7	191.1		23.0	23.9	-0.3	-0.3	-15.8
GEW-163	9/19/2017 15:25	26.5	46.9	3.3	23.3	190.8		20.7	20.0	-0.3	-0.3	-16.7
GEW-163	9/20/2017 9:32	2.5	65.6	0.0	31.9	190.2		26.3	27.2	-0.3	-0.3	-15.5
GEW-163	9/20/2017 10:48	2.3	65.3	0.0	32.4	188.1		26.5	28.3	-0.1	-0.1	-16.4
GEW-163	9/25/2017 9:31	11.0	53.2	1.0	34.8	187.4		32.0	29.5	-0.3	-0.2	-14.7
GEW-163	9/25/2017 10:27	19.6	46.6	3.3	30.5	161.8	162.0	87.5	80.8	-5.2	-5.2	-17.2
GEW-163	9/25/2017 10:28	19.8	48.9	3.2	28.1	164.3	164.3	70.8	67.1	-4.8	-4.7	-16.7
GEW-163	9/25/2017 15:45	15.9	50.1	1.5	32.5	169.7		29.7	27.1	-0.3	-0.3	-15.0
GEW-163	9/26/2017 16:01	14.1	57.4	0.2	28.3	186.3		28.8	25.5	0.0	-0.1	-13.5
GEW-163	9/26/2017 16:03	14.4	56.8	0.2	28.6	186.5		45.5	44.3	-0.9	-0.9	-13.9
GEW-164	9/5/2017 10:54	18.3	61.0	0.0	20.7	175.8	175.8	25.0	30.3	-0.2	-0.1	-19.1
GEW-164	9/5/2017 10:56	19.0	62.5	0.0	18.5	175.4	175.8	19.0	14.7	-0.3	-0.4	-18.3
GEW-164	9/14/2017 13:37	18.7	58.9	0.7	21.7	175.3	175.3	36.4	36.2	-0.5	-0.5	-18.6
GEW-164	9/14/2017 13:43	18.2	57.6	0.7	23.5	175.3	175.0	35.5	29.0	-0.5	-0.5	-18.2
GEW-164	9/19/2017 13:40	17.5	62.2	0.6	19.7	174.7	174.7	22.0	15.3	-0.5	-0.4	-17.6
GEW-164	9/19/2017 13:41	18.1	63.0	0.6	18.3	174.7	174.7	34.3	45.3	-0.4	-0.5	-17.9
GEW-164	9/20/2017 10:29	18.5	58.8	0.4	22.3	175.8		30.0	31.4	-0.3	-0.3	-18.3
GEW-164	9/20/2017 10:44	18.4	60.8	0.0	20.8	176.2		23.1	22.8	-0.5	-0.5	-17.4
GEW-164	9/25/2017 10:31	19.8	62.8	0.2	17.2	173.8	173.6	36.2	33.0	-0.6	-0.6	-16.7
GEW-164	9/25/2017 10:33	19.7	64.8	0.1	15.4	173.6	173.7	35.8	31.7	-0.6	-0.6	-16.5
GEW-165	9/5/2017 11:00	7.9	47.5	5.7	38.9	183.3	182.7	46.6	55.1	-7.9	-8.0	-18.2
GEW-165	9/5/2017 11:02	8.1	48.3	5.4	38.2	183.3	183.3	49.1	33.6	-5.9	-5.6	-17.8
GEW-165	9/14/2017 13:49	6.2	40.7	7.6	45.5	180.9	180.9	43.5	42.3	-4.7	-4.7	-18.2
GEW-165	9/14/2017 13:56	7.0	43.2	6.9	42.9	182.1	182.1	42.0	40.8	-2.8	-2.8	-17.5
GEW-165	9/19/2017 13:44	7.6	53.6	5.2	33.6	183.4	183.7	24.6	28.5	-2.6	-2.6	-18.1
GEW-165	9/19/2017 13:47	7.8	54.3	4.4	33.5	183.9	183.9	29.0	31.1	-1.7	-1.6	-17.5
GEW-165	9/19/2017 15:36	34.6	64.5	0.0	0.9	187.9		14.2	12.4	-0.5	-0.7	-15.4
GEW-165	9/19/2017 15:37	30.5	63.1	0.0	6.4	187.9		19.8	20.7	-2.5	-2.6	-17.6
GEW-165	9/25/2017 10:36	8.2	52.1	5.9	33.8	181.5	181.5	36.7	35.4	-2.8	-2.8	-16.1
GEW-165	9/25/2017 10:49	7.8	53.3	4.9	34.0	182.5	182.1	33.4	33.1	-1.4	-1.4	-16.0
GEW-166	9/5/2017 11:08	0.8	55.6	0.9	42.7	196.3	195.7	33.6	35.8	-14.4	-14.3	-17.4

September 2017 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-166	9/5/2017 11:09	0.7	57.1	0.8	41.4	195.7	195.8	30.5	47.2	-14.8	-14.7	-18.6
GEW-166	9/14/2017 14:00	0.7	54.5	0.9	43.9	195.7	195.8	40.3	31.5	-14.3	-14.2	-17.8
GEW-166	9/14/2017 14:05	0.6	50.4	0.8	48.2	196.1	195.7	40.3	33.6	-14.3	-14.3	-16.3
GEW-166	9/19/2017 13:52	1.0	61.4	0.6	37.0	196.4	196.4	36.3	36.1	-13.3	-13.3	-16.8
GEW-166	9/19/2017 13:54	0.8	63.2	0.5	35.5	196.4	196.4	36.7	35.0	-12.8	-13.0	-16.8
GEW-166	9/20/2017 11:33	0.7	57.0	0.7	41.6	193.7		34.0	24.2	-13.1	-13.0	-16.8
GEW-166	9/20/2017 13:30	0.4	58.6	0.0	41.0	194.2		58.3	50.8	-12.7	-13.2	-15.8
GEW-166	9/25/2017 10:55	1.1	61.0	0.2	37.7	196.4	196.4	32.8	24.7	-12.3	-12.4	-14.4
GEW-166	9/25/2017 10:56	0.9	64.1	0.2	34.8	196.4	196.4	34.6	35.9	-12.8	-12.8	-14.7
GEW-167	9/5/2017 11:13	0.5	48.2	4.0	47.3	190.9	191.6	39.8	39.8	-0.2	-0.2	-17.7
GEW-167	9/5/2017 11:15	0.5	48.4	4.0	47.1	191.6	191.6	40.4	40.4	-0.2	-0.2	-17.4
GEW-167	9/14/2017 14:10	0.2	44.8	4.9	50.1	192.4	192.9	41.2	41.0	-0.1	-0.2	-16.3
GEW-167	9/14/2017 14:16	0.2	42.8	4.8	52.2	192.3	192.3	41.7	42.0	-0.2	-0.2	-16.1
GEW-167	9/19/2017 13:57	0.9	54.9	2.7	41.5	192.9	192.9	39.7	39.3	-0.2	-0.2	-16.0
GEW-167	9/19/2017 13:58	1.1	54.2	2.8	41.9	193.5	193.3	34.5	35.5	-0.1	-0.3	-16.0
GEW-167	9/21/2017 10:44	1.0	42.7	5.3	51.0	189.6		48.4	47.9	-0.2	-0.2	-16.5
GEW-167	9/21/2017 11:09	0.4	57.2	0.2	42.2	190.2		14.9	14.5	-0.3	-0.3	-17.2
GEW-167	9/25/2017 10:59	2.9	42.2	5.8	49.1	184.9	185.0	20.1	22.3	-0.4	-0.4	-13.3
GEW-167	9/25/2017 11:09	2.8	42.1	5.9	49.2	185.1	184.6	17.8	24.4	-0.3	-0.2	-14.6
GEW-168	9/5/2017 11:19	3.9	59.4	0.0	36.7	185.7	185.7	194.5	178.6	-6.0	-8.1	-18.1
GEW-168	9/5/2017 11:21	4.2	62.3	0.0	33.5	185.7	185.7	176.5	176.5	-8.4	-8.4	-17.7
GEW-168	9/14/2017 11:36	8.9	62.1	0.0	29.0	186.0	185.8	190.4	216.9	-3.5	-3.3	-17.1
GEW-168	9/14/2017 11:42	11.4	59.6	0.0	29.0	186.2	185.8	171.1	171.1	-4.3	-4.3	-16.9
GEW-168	9/19/2017 14:04	4.1	66.8	0.0	29.1	188.3	188.3	150.7	143.4	-9.9	-11.0	-17.5
GEW-168	9/19/2017 14:05	4.2	68.2	0.0	27.6	188.3	188.3	153.2	154.1	-9.8	-9.1	-17.1
GEW-168	9/20/2017 15:44	4.2	56.1	0.1	39.6	185.7		153.6	136.5	-9.5	-10.9	-17.1
GEW-168	9/20/2017 17:02	7.1	61.1	0.0	31.8	186.3		151.1	150.0	-0.1	-0.1	-17.8
GEW-168	9/25/2017 11:17	3.8	64.0	0.0	32.2	188.9	188.9	139.1	144.2	0.3	0.2	-15.0
GEW-168	9/25/2017 11:19	4.0	68.1	0.0	27.9	189.6	189.6	167.4	165.0	-0.4	-0.4	-16.0
GEW-169	9/5/2017 11:24	2.7	63.1	0.6	33.6	194.3	194.3	20.2	18.6	-1.2	-1.3	-18.1
GEW-169	9/5/2017 11:25	3.0	62.7	0.6	33.7	194.3	194.3	31.8	32.9	-1.4	-1.5	-18.8
GEW-169	9/14/2017 11:24	4.1	65.9	0.0	30.0	196.4	196.4	20.9	21.3	-0.6	-0.6	-17.2
GEW-169	9/14/2017 11:29	4.2	62.7	0.0	33.1	196.4	196.4	19.1	23.4	-0.6	-0.6	-17.2
GEW-169	9/19/2017 14:08	3.5	66.8	0.7	29.0	194.3	194.3	15.5	18.5	-1.6	-1.7	-17.2
GEW-169	9/19/2017 14:09	3.9	66.7	0.8	28.6	194.3	194.3	15.4	19.8	-1.7	-1.7	-17.2
GEW-169	9/25/2017 11:22	4.1	66.1	0.1	29.7	195.7	195.0	21.4	16.2	-1.0	-1.1	-16.0
GEW-169	9/25/2017 11:23	4.1	68.5	0.1	27.3	195.3	195.5	17.6	21.6	-1.1	-1.1	-16.0
GEW-170	9/14/2017 10:47	8.9	55.4	2.7	33.0	176.4	176.4	30.4	30.9	-6.1	-6.3	-12.2
GEW-170	9/14/2017 10:54	8.7	55.8	2.7	32.8	175.8	175.8	35.1	24.7	-6.0	-6.0	-11.7
GEW-170	9/22/2017 9:06	10.5	50.7	3.4	35.4	165.9		27.8	23.1	-9.3	-8.8	-13.2
GEW-170	9/22/2017 10:47	7.1	60.3	0.6	32.0	171.7		36.6	37.4	-6.7	-6.7	-11.9
GEW-170	9/27/2017 9:23	9.1	61.3	2.8	26.8	170.5	170.0	37.7	40.7	-11.3	-11.3	-11.7
GEW-170	9/27/2017 9:25	9.3	58.9	2.7	29.1	170.5	170.5	46.2	53.0	-10.3	-11.1	-12.4

September 2017 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-173	9/14/2017 9:24	30.8	48.1	0.0	21.1	115.0	115.0	15.2	22.7	-0.2	-0.2	-17.8
GEW-173	9/14/2017 9:30	30.2	48.6	0.0	21.2	115.3	115.4	17.5	19.2	-0.2	-0.2	-17.2
GEW-173	9/27/2017 8:40	30.4	48.7	0.3	20.6	108.0	108.0	8.4	12.4	-0.2	-0.2	-20.6
GEW-174	9/8/2017 14:56	11.7	44.7	2.7	40.9	144.5	145.2	39.8	36.4	-0.9	-0.9	-12.5
GEW-174	9/8/2017 15:02	10.7	44.3	2.5	42.5	144.5	144.5	44.5	40.1	-1.0	-1.0	-14.6
GEW-174	9/26/2017 15:36	16.2	44.6	1.9	37.3	135.9	135.9	43.0	45.8	-1.3	-1.3	-14.0
GEW-174	9/26/2017 15:38	17.4	43.7	1.9	37.0	135.9	135.9	41.5	43.9	-1.3	-1.3	-13.6
GEW-175	9/6/2017 13:29	14.0	39.0	4.9	42.1	129.7	129.7	54.4	54.7	-0.7	-0.8	-18.5
GEW-175	9/6/2017 13:37	14.9	39.9	4.4	40.8	129.7	129.7	51.8	56.6	-0.9	-0.9	-18.9
GEW-175	9/26/2017 14:36	19.6	55.0	1.3	24.1	132.6	132.6	54.1	59.3	-0.8	-0.8	-20.6
GEW-175	9/26/2017 14:37	19.7	55.7	1.2	23.4	132.9	132.7	49.7	56.7	-0.8	-0.9	-21.3
GEW-176	9/6/2017 11:24	22.5	44.0	3.6	29.9	90.6	90.6	15.5	15.4	-0.8	-0.8	-19.4
GEW-176	9/6/2017 11:31	22.7	44.5	3.2	29.6	91.1	91.2	17.3	16.7	-0.8	-0.8	-20.7
GEW-176	9/26/2017 14:33	18.9	54.5	1.6	25.0	109.5	109.5	19.4	20.6	-0.8	-0.8	-19.0
GEW-177	9/11/2017 13:26	0.3	63.5	1.5	34.7	88.4	88.6	20.3	14.7	-18.0	-18.0	-17.7
GEW-177	9/11/2017 13:31	0.3	68.4	0.3	31.0	87.9	87.9	5.9	5.4	-18.3	-18.1	-18.1
GEW-177	9/27/2017 9:10	0.5	56.8	4.0	38.7	77.3	77.3	20.5	21.2	-15.5	-15.6	-16.3
GEW-1A	9/5/2017 10:44	0.5	4.5	20.5	74.5	79.1	79.1	6.1	3.2	-12.9	-12.6	-12.9
GEW-1A	9/5/2017 10:45	0.2	1.5	20.7	77.6	79.6	79.6	5.8	5.3	-12.8	-12.8	-12.9
GEW-1A	9/14/2017 9:09	1.1	2.2	20.9	75.8	73.2	73.2	5.0	7.5	-12.2	-12.5	-12.8
GEW-1A	9/14/2017 9:11	0.2	0.3	21.3	78.2	73.6	73.6	3.1	3.1	-12.5	-12.4	-12.8
GEW-1A	9/18/2017 10:17	0.9	5.1	20.9	73.1	87.2	87.2	3.4	2.3	-12.2	-12.1	-12.3
GEW-1A	9/18/2017 10:19	0.2	0.4	21.4	78.0	88.7	88.8	3.0	3.4	-12.5	-12.2	-12.3
GEW-1A	9/25/2017 9:54	0.9	5.6	21.2	72.3	87.2	87.3	5.2	2.6	-11.8	-11.8	-11.8
GEW-1A	9/25/2017 9:55	0.3	0.8	21.6	77.3	87.9	87.9	3.5	5.1	-12.1	-12.0	-12.4
GEW-2S	9/5/2017 10:52	55.3	39.4	0.1	5.2	87.0	87.2	5.6	8.1	-8.1	-8.1	-8.2
GEW-2S	9/14/2017 9:17	59.4	33.9	0.1	6.6	87.9	88.1	7.3	6.1	-3.6	-3.4	-9.4
GEW-2S	9/14/2017 9:22	58.0	35.8	0.0	6.2	90.1	90.1	4.4	4.4	-3.3	-3.3	-9.1
GEW-2S	9/18/2017 10:27	54.1	37.5	0.0	8.4	93.9	94.6	4.7	7.0	-1.2	-1.5	-10.2
GEW-2S	9/25/2017 10:01	60.2	38.1	0.0	1.7	96.5	96.6	2.9	2.9	-0.9	-0.9	-8.0
GIW-01	9/5/2017 9:21	9.3	33.7	4.9	52.1	81.4	81.4	3.7	4.3	-15.6	-15.6	-18.7
GIW-01	9/12/2017 11:14	13.0	41.6	2.6	42.8	91.8	91.8	5.6	5.2	-10.8	-10.8	-18.6
GIW-01	9/12/2017 11:20	13.4	39.6	2.7	44.3	90.3	90.3	4.6	5.5	-10.9	-10.7	-18.6
GIW-01	9/20/2017 8:42	5.1	75.0	0.0	19.9	179.4	179.2	8.0	7.6	11.5	11.8	-18.3
GIW-01	9/20/2017 8:45	5.0	75.9	0.0	19.1	182.5	182.5	17.0	16.0	-2.3	-2.3	-19.3
GIW-01	9/25/2017 13:25	8.4	67.6	0.0	24.0	178.0	178.6	14.9	16.0	-7.4	-7.7	-19.4
GIW-01	9/25/2017 13:26	7.5	72.2	0.0	20.3	178.2	178.0	14.8	15.2	-7.4	-7.4	-19.2
GIW-02	9/5/2017 9:26	4.5	29.3	12.8	53.4	75.9	75.9	2.4	2.0	-0.3	-0.3	-18.3
GIW-02	9/5/2017 9:28	4.4	29.6	12.8	53.2	75.9	75.9	3.3	3.3	-0.3	-0.3	-18.3
GIW-02	9/12/2017 11:23	2.9	21.4	15.5	60.2	81.0	81.0	3.7	2.9	-0.3	-0.3	-18.4
GIW-02	9/12/2017 11:30	2.8	20.1	15.6	61.5	84.2	84.2	1.2	1.2	-0.1	-0.2	-19.1
GIW-02	9/20/2017 8:49	1.4	19.8	16.3	62.5	88.5	88.6	3.3	4.2	-0.2	-0.1	-18.4
GIW-02	9/20/2017 8:51	1.3	17.6	16.5	64.6	90.3	90.3	3.3	2.6	-0.1	-0.1	-18.2

September 2017 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-02	9/25/2017 13:29	2.1	31.0	8.8	58.1	109.0	109.0	3.0	2.5	-0.1	-0.1	-17.8
GIW-02	9/25/2017 13:30	1.8	28.8	8.9	60.5	110.0	110.1	1.1	1.1	-0.1	-0.1	-19.2
GIW-03	9/5/2017 9:31	7.0	57.9	0.8	34.3	78.3	78.4	3.5	3.5	-2.1	-2.2	-18.1
GIW-03	9/12/2017 11:33	2.7	58.9	1.2	37.2	81.7	81.7	4.3	2.8	-2.7	-2.7	-15.7
GIW-03	9/12/2017 11:39	2.4	55.1	0.9	41.6	79.6	79.6	2.3	3.3	-2.9	-2.9	-18.2
GIW-03	9/20/2017 8:54	6.4	60.3	0.9	32.4	87.0	87.2	2.3	3.2	-6.3	-6.3	-17.1
GIW-03	9/25/2017 13:32	5.5	51.6	1.5	41.4	101.0	101.1	2.7	1.9	-6.5	-6.4	-14.8
GIW-04	9/5/2017 9:34	6.7	52.1	2.0	39.2	80.8	81.0	1.2	2.3	-5.9	-5.8	-14.6
GIW-04	9/12/2017 11:43	12.7	52.8	2.6	31.9	82.1	82.1	2.0	2.8	-7.8	-7.8	-14.7
GIW-04	9/12/2017 11:50	12.7	49.8	2.6	34.9	83.0	83.2	2.8	2.8	-6.9	-6.8	-14.6
GIW-04	9/20/2017 8:57	9.0	56.8	3.2	31.0	87.7	87.9	1.1	1.6	-8.0	-7.7	-16.1
GIW-04	9/25/2017 13:34	7.6	55.8	3.0	33.6	101.8	102.3	3.1	2.2	-8.2	-8.4	-17.2
GIW-05	9/5/2017 9:46	0.5	14.5	16.2	68.8	76.6	76.8	0.0	0.0	-1.3	-1.3	-10.0
GIW-05	9/5/2017 9:47	0.5	13.3	16.0	70.2	77.5	77.5	5.6	2.8	-1.4	-1.4	-9.6
GIW-05	9/12/2017 13:30	0.4	11.2	16.6	71.8	81.2	81.7	1.8	1.8	-0.9	-0.9	-15.1
GIW-05	9/12/2017 13:40	0.0	1.5	19.5	79.0	84.6	84.6	3.0	3.0	-0.7	-0.6	-11.9
GIW-05	9/20/2017 9:05	0.4	6.4	18.8	74.4	84.4	85.7	0.0	0.0	-1.6	-1.6	-15.8
GIW-05	9/20/2017 9:07	0.3	7.0	18.6	74.1	86.3	86.5	0.0	0.0	-1.6	-1.6	-15.4
GIW-05	9/25/2017 13:40	0.7	6.9	18.2	74.2	99.6	100.4	0.0	0.0	-1.5	-1.5	-18.2
GIW-05	9/25/2017 13:42	0.3	7.5	16.9	75.3	102.1	102.3	0.0	0.0	-1.6	-1.6	-19.2
GIW-06	9/5/2017 10:18	13.6	43.7	0.8	41.9	79.4	79.4	4.7	3.4	-12.9	-13.0	-13.9
GIW-06	9/12/2017 13:45	12.2	44.5	0.5	42.8	87.9	88.0	4.1	2.8	-14.0	-14.0	-15.2
GIW-06	9/12/2017 13:50	12.1	46.3	0.3	41.3	87.9	87.9	3.4	2.1	-13.7	-13.7	-15.0
GIW-06	9/20/2017 9:10	15.1	49.3	0.2	35.4	87.5	87.7	3.4	4.0	-14.4	-14.4	-16.1
GIW-06	9/25/2017 13:44	15.3	48.0	0.7	36.0	104.5	104.7	4.2	2.2	-17.1	-17.1	-17.9
GIW-07	9/5/2017 10:21	27.5	53.3	0.8	18.4	82.3	82.6	3.0	3.0	-12.7	-12.6	-14.0
GIW-07	9/12/2017 13:54	25.8	57.4	0.5	16.3	86.3	86.4	3.4	2.8	-13.8	-13.7	-15.9
GIW-07	9/12/2017 14:00	26.2	54.8	0.5	18.5	86.8	86.8	2.6	4.2	-13.8	-13.7	-15.4
GIW-07	9/20/2017 9:13	23.4	62.8	0.5	13.3	88.9	89.1	1.9	2.2	-14.4	-14.4	-15.7
GIW-07	9/25/2017 13:47	22.1	60.2	0.5	17.2	105.2	105.5	2.4	2.4	-16.5	-16.5	-18.5
GIW-08	9/5/2017 10:23	22.5	54.2	0.0	23.3	83.0	83.2	3.8	3.3	-3.5	-3.5	-14.4
GIW-08	9/12/2017 14:03	22.0	54.5	0.0	23.5	91.3	91.4	0.8	1.8	-3.4	-3.4	-15.3
GIW-08	9/12/2017 14:08	21.9	53.2	0.0	24.9	91.2	91.2	2.9	2.9	-3.4	-3.4	-15.2
GIW-08	9/20/2017 9:16	23.3	61.3	0.0	15.4	92.7	92.7	2.3	2.8	-3.6	-3.6	-16.4
GIW-08	9/25/2017 13:49	23.8	60.2	0.0	16.0	107.0	107.2	1.6	1.9	-3.8	-3.8	-18.2
GIW-09	9/5/2017 10:28	6.6	23.7	7.7	62.0	82.4	82.6	3.1	4.9	-3.4	-3.4	-14.4
GIW-09	9/5/2017 10:30	6.7	21.9	7.8	63.6	83.0	83.0	2.3	2.3	-2.7	-2.8	-14.0
GIW-09	9/12/2017 14:41	7.7	24.3	3.5	64.5	86.8	86.8	1.4	0.9	-2.5	-2.5	-15.9
GIW-09	9/12/2017 14:47	7.5	22.4	3.5	66.6	85.2	85.2	2.1	1.4	-2.5	-2.5	-16.0
GIW-09	9/20/2017 9:23	6.3	23.9	5.4	64.4	91.7	91.7	2.6	3.0	-2.9	-2.9	-17.7
GIW-09	9/20/2017 9:25	6.3	22.8	5.4	65.5	92.4	92.4	1.1	1.1	-2.5	-2.5	-15.8
GIW-09	9/25/2017 13:53	8.8	31.2	1.5	58.5	108.0	108.2	1.9	1.9	-2.5	-2.5	-18.7
GIW-10	9/5/2017 9:36	10.6	51.6	0.0	37.8	76.0	76.1	1.2	1.7	-3.4	-3.4	-14.4

September 2017 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-10	9/12/2017 13:20	11.3	42.5	0.0	46.2	83.7	83.7	3.5	2.9	-3.8	-3.8	-15.4
GIW-10	9/12/2017 13:26	10.6	44.9	0.0	44.5	83.6	83.7	2.4	2.7	-3.7	-3.7	-15.5
GIW-10	9/20/2017 9:01	11.9	48.3	0.0	39.8	83.0	83.0	1.2	1.2	-4.4	-4.4	-16.0
GIW-10	9/25/2017 13:37	13.2	46.2	0.0	40.6	108.0	108.2	1.6	2.9	-4.7	-4.7	-17.5
GIW-11	9/5/2017 9:16	18.6	51.8	0.1	29.5	77.3	77.4	3.9	3.9	-1.1	-1.1	-18.3
GIW-11	9/12/2017 11:03	17.9	48.9	0.2	33.0	78.1	78.1	4.1	4.1	-1.4	-1.4	-18.2
GIW-11	9/12/2017 11:09	18.0	48.5	0.1	33.4	80.0	80.1	1.2	2.9	-1.4	-1.4	-18.2
GIW-11	9/19/2017 15:22	22.4	54.4	0.2	23.0	102.8	102.8	5.6	2.8	-1.2	-1.2	-14.8
GIW-11	9/25/2017 13:21	18.3	52.6	0.3	28.8	104.8	104.8	6.2	2.7	-1.5	-1.5	-15.3
GIW-12	9/5/2017 9:10	9.6	44.3	3.8	42.3	74.1	74.3	2.9	2.4	-0.1	-0.1	-16.4
GIW-12	9/12/2017 9:18	11.0	36.9	7.4	44.7	67.7	67.7	1.2	1.7	-0.2	-0.2	-17.8
GIW-12	9/12/2017 9:24	11.4	33.6	7.5	47.5	68.1	68.2	2.1	2.1	-0.2	-0.2	-17.6
GIW-12	9/19/2017 15:17	14.4	50.3	4.0	31.3	104.0	104.2	2.2	2.2	-0.1	-0.1	-16.5
GIW-12	9/25/2017 13:15	13.2	33.2	6.7	46.9	104.2	104.3	3.4	3.2	-0.2	-0.2	-19.5
GIW-12	9/25/2017 13:17	13.7	37.3	6.5	42.5	105.5	105.5	2.8	2.5	-0.1	-0.1	-17.9
GIW-13	9/5/2017 9:00	11.5	66.3	0.0	22.2	74.3	74.5	2.4	2.4	-0.4	-0.4	-7.6
GIW-13	9/12/2017 9:08	17.4	64.1	0.0	18.5	66.8	66.9	2.9	1.7	-1.2	-1.2	-15.1
GIW-13	9/12/2017 9:15	15.2	63.6	0.0	21.2	67.7	67.7	2.7	1.7	-1.2	-1.2	-15.7
GIW-13	9/19/2017 15:14	12.8	75.1	0.0	12.1	106.2	106.2	2.5	2.8	-0.5	-0.6	-11.1
GIW-13	9/25/2017 11:42	16.7	66.8	0.0	16.5	97.9	97.9	3.2	1.6	-1.2	-1.2	-11.7
LCS-1D	9/20/2017 8:42	4.0	6.6	19.9	69.5	90.9	90.9	16.2	17.9	-3.4	-3.4	-17.1
LCS-1D	9/20/2017 8:45	8.8	6.1	18.1	67.0	92.0	91.9	12.9	13.4	-0.4	-0.4	-18.4
LCS-5A	9/5/2017 9:49	53.2	39.7	0.5	6.6	88.6	88.6	NFD		-12.8	-12.8	-12.8
LCS-5A	9/15/2017 13:42	54.2	38.2	0.6	7.0	96.5	96.5	NFD		-12.6	-12.6	-12.7
LCS-5A	9/18/2017 8:59	51.7	40.4	0.4	7.5	91.9	91.9	NFD		-12.9	-12.7	-12.6
LCS-5A	9/25/2017 9:08	54.9	42.0	0.0	3.1	92.7	92.8	NFD		-12.4	-12.3	-12.2
LCS-5B	9/5/2017 9:58	51.8	41.8	0.0	6.4	150.4	150.5	30.7	30.5	-12.6	-12.5	-12.6
LCS-5B	9/5/2017 9:59	51.5	42.1	0.0	6.4	150.7	150.9	29.8	30.4	-12.5	-12.8	-12.6
LCS-5B	9/15/2017 14:10	51.9	38.8	0.0	9.3	152.3	152.4	29.8	29.8	-11.9	-11.9	-12.1
LCS-5B	9/15/2017 14:11	51.3	40.9	0.0	7.8	152.4	152.4	30.1	29.1	-11.9	-11.9	-12.3
LCS-5B	9/18/2017 9:08	51.0	41.9	0.0	7.1	152.2	152.2	28.9	28.0	-12.2	-12.2	-12.1
LCS-5B	9/18/2017 9:09	50.8	42.2	0.0	7.0	152.3	152.4	29.1	26.7	-12.2	-12.2	-12.3
LCS-5B	9/25/2017 9:16	51.9	42.1	0.0	6.0	152.1	152.0	27.2	26.8	-11.8	-11.8	-12.0
LCS-5B	9/25/2017 9:17	52.2	42.2	0.0	5.6	152.2	152.2	28.8	27.9	-12.1	-12.1	-12.0
LCS-6B	9/5/2017 11:08	51.7	39.8	0.0	8.5	128.5	128.6	10.6	11.3	-9.4	-9.8	-12.9
LCS-6B	9/15/2017 13:36	52.4	37.5	0.1	10.0	130.1	130.0	15.7	16.1	-9.2	-9.6	-12.5
LCS-6B	9/18/2017 10:45	51.0	40.7	0.0	8.3	130.0		14.3	NR	-9.1		-12.2
LCS-6B	9/19/2017 8:56	51.4	40.5	0.0	8.1	128.6	128.1	17.2	14.8	-9.6	-9.6	-12.5
LCS-6B	9/19/2017 9:00	52.3	40.8	0.0	6.9	118.4	117.9	23.5	23.6	-0.2	-0.2	-13.0
LCS-6B	9/20/2017 8:19	51.7	41.6	0.0	6.7	81.2	81.3	8.5	9.0	0.8	0.8	-12.9
LCS-6B	9/20/2017 8:21	53.2	42.0	0.0	4.8	95.5	95.8	10.0	10.8	-2.0	-2.0	-12.7
LCS-6B	9/25/2017 8:10	54.0	38.7	0.0	7.3	112.5	112.5	9.4	9.4	-2.0	-2.0	-12.5
PGW-60	9/5/2017 10:49	57.9	35.0	0.1	7.0	90.1	90.1	21.9	27.5	-7.8	-7.8	-8.2

September 2017 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**		
PGW-60	9/15/2017 14:17	54.8	39.2	0.0	6.0	94.3	94.3	23.6	24.1	-7.9	-7.6	-8.9
PGW-60	9/18/2017 10:24	56.2	37.0	0.1	6.7	91.7	91.7	11.3	7.3	-10.2	-10.1	-10.2
T-56	9/5/2017 8:37	34.8	33.0	0.1	32.1	77.5	77.5	11.4	11.7	-0.1	-0.1	-12.6
T-56	9/11/2017 11:17	41.1	34.8	0.0	24.1	79.9	79.8	16.3	18.6	-0.1	0.0	-12.2
T-56	9/18/2017 8:24	37.9	34.2	0.2	27.7	78.4	78.5	18.2	16.1	-0.1	-0.1	-12.6
T-56	9/25/2017 8:32	39.1	34.1	0.0	26.8	80.3	80.3	11.6	11.9	-0.1	-0.1	-12.8

ATTACHMENT E-2

MAXIMUM WELLHEAD TEMPERATURE TABLE

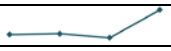
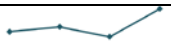
Wellfield Temperature - Bridgeton Landfill

Well Name	June 2017	July 2017	August 2017	September 2017	Temp Trend ><30°F	Comments
GEW-001	--	--	--	--		
GEW-002	105.0	117.3	118.6	124.2		
GEW-003	117.6	117.1	116.6	115.8		
GEW-004	120.2	119.8	118.5	118.9		
GEW-005	93.8	93.9	94.1	94.2		
GEW-006	92.7	93.6	91.8	91.7		
GEW-007	98.4	100.6	97.7	97.2		
GEW-008	114.3	113.7	112.7	113.4		
GEW-009	123.1	123.4	123.1	124.5		
GEW-010	95.8	113.1	106.2	104.7		
GEW-011	--	--	--	--		
GEW-013A	141.5	138.3	132.9	130.0		
GEW-014A	--	--	--	--		
GEW-015	175.9	170	163.1	162.6		
GEW-016R	182.7	181.8	182.7	180.5		
GEW-018B	183.3	180.9	193.6	179.7		
GEW-018R	--	--	--	--		
GEW-019A	--	--	--	--		
GEW-020A	--	--	--	--		
GEW-021A	--	--	--	--		
GEW-022R	152.9	164.8	136.2	123.4		
GEW-023A	--	--	--	--		
GEW-024A	--	--	--	--		
GEW-025A	--	--	--	--		
GEW-026R	--	--	--	--		
GEW-027A	--	--	--	--		
GEW-028R	--	--	--	--		
GEW-029	--	--	--	--		
GEW-030R	--	--	--	--		
GEW-033R	--	--	--	--		
GEW-034	--	--	--	--		
GEW-034A	--	--	--	--		
GEW-035	--	--	--	--		
GEW-036	--	--	--	--		
GEW-037	--	--	--	--		
GEW-038	107.3	115.5	111.6	110.0		
GEW-039	120.5	120.7	119.9	120.5		
GEW-040	95.5	98	93.4	85.6		
GEW-041R	104.8	105.6	106.3	105.0		
GEW-042R	110.2	111.8	110.5	109.2		
GEW-043R	121.3	121.0	121.3	121.0		

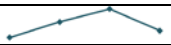
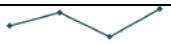
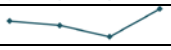
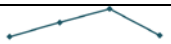
Wellfield Temperature - Bridgeton Landfill

Well Name	June 2017	July 2017	August 2017	September 2017	Temp Trend ><30°F	Comments
GEW-044	97.0	98.7	97.9	97.0		
GEW-045R	90.6	97.0	115.8	98.6		
GEW-046R	102.8	101.8	102.1	103.3		
GEW-047R	121.5	119.5	111.8	91.7		
GEW-048	104.7	104.8	105.0	104.5		
GEW-049	111.7	111.5	113.1	110.1		
GEW-050	109.2	109.1	108	107.2		
GEW-051	126.5	126.8	127.5	125.8		
GEW-052	115.6	115.8	115.1	116.0		
GEW-053	135.0	134.1	136.8	136.4		
GEW-054	141.5	140.2	140.9	143.6		
GEW-055	137.1	135.9	139.6	135.9		
GEW-056R	138.6	132.1	136.8	129.4		
GEW-057B	101.8	104.5	93.4	107.1		
GEW-057R	114.0	112.1	107.2	--		
GEW-058	133.5	140.2	130.6	139.9		
GEW-058A	148.0	127.5	124.2	123.1		
GEW-059R	175.2	172.3	171.0	172.6		
GEW-061B	--	--	--	--		
GEW-064A	93.6	--	--	--		
GEW-065A	--	--	--	--		
GEW-066	--	--	--	--		
GEW-067A	97.5	85.6	168.1	150.2		
GEW-068A	--	--	--	192.9		
GEW-069R	--	--	--	--		
GEW-070R	--	--	--	--		
GEW-071	--	--	--	--		
GEW-071B	--	--	--	--		
GEW-072RR	--	--	--	--		
GEW-073R	--	--	--	--		
GEW-075	--	--	--	--		
GEW-076R	--	--	--	--		
GEW-077	184.5	175.7	129.4	120.0		
GEW-078R	173.6	170.8	171	167.1		
GEW-080	--	--	--	--		
GEW-081	109.7	105.0	100.8	90.3		
GEW-082R	100.6	187.6	181.5	182.7		
GEW-083	--	--	--	--		
GEW-084	--	--	--	--		
GEW-085	--	--	--	--		
GEW-086	97.4	105.5	114.5	106.9		

Wellfield Temperature - Bridgeton Landfill

Well Name	June 2017	July 2017	August 2017	September 2017	Temp Trend ><30°F	Comments
GEW-087	194.3	188.9	195.7	166.6		
GEW-088	194.8	189.6	193.6	181.5		
GEW-089	--	--	--	--		
GEW-090	182.8	173.1	183.3	163.8		
GEW-091	185.2	180.3	194.4	195.7		
GEW-100	--	--	--	--		
GEW-101	107.1	109.4	106	103.8		
GEW-102	95.4	105.5	91.9	110.0		
GEW-103	--	--	--	--		
GEW-104	102.2	104.4	92.9	172.6		
GEW-105	--	--	154.8	140.9		
GEW-106	112.3	117.5	102.2	108.0		
GEW-107	99.4	114.0	101.8	110.2		
GEW-108	103.8	116.6	90.5	164.3		
GEW-109	118.6	126.8	108.5	110.0		
GEW-110	106.0	113.0	103.1	128.0		
GEW-112	--	--	--	--		
GEW-113	160.2	155.6	158.1	158.5		
GEW-116	155.2	171.6	190.2	190.2		
GEW-117	104.7	124.7	134.4	144.9		
GEW-118	194.3	197.2	194.3	192.9		
GEW-120	132	158.7	164.3	167.1		
GEW-121	171	174.7	178	178.0		
GEW-122	162	174	168.2	159.4		
GEW-123	129.7	128.9	169.5	184.5		
GEW-124	108	89	91	91.3		
GEW-125	181.5	187.0	188.9	189.6		
GEW-126	112.5	115.7	103	101.6		
GEW-127	156.3	179.7	183.9	188.6		
GEW-128	183.5	181.5	185.1	183.3		
GEW-129	150.6	106.2	197.9	91.5		
GEW-130	169	195.7	185.7	188.8		
GEW-131	175.3	185.7	177.5	173.6		
GEW-132	169	153.6	175.8	162.9		
GEW-133	133.4	172.1	171	168.5		
GEW-134	144.9	127.8	152.1	142.8		
GEW-135	157	160	186	170.5		
GEW-136	120.2	115.3	130.3	127.5		
GEW-137	101.3	100.6	101.4	106.7		
GEW-138	145.6	156.0	149.9	148.4		
GEW-139	169.1	173.8	184.6	176.9		

Wellfield Temperature - Bridgeton Landfill

Well Name	June 2017	July 2017	August 2017	September 2017	Temp Trend ><30°F	Comments
GEW-140	117.3	123.1	119.9	106.0		
GEW-141	110	98	--	--		
GEW-142	94.2	101.1	--	83.5		
GEW-143	--	99.9	103.6	--		
GEW-144	104.1	102.3	102.5	92.9		
GEW-145	96.2	103.8	94.5	104.5		
GEW-146	103.3	105.2	106.0	103.0		
GEW-147	191.6	189	188.3	185.7		
GEW-148	119.2	140.3	154.4	148.8		
GEW-149	109.7	115.3	138.3	139.6		
GEW-150	134.9	137.1	128.9	156.5		
GEW-151	97	107.5	100.4	107.0		
GEW-152	100.2	100.6	142.2	146.7		
GEW-153	128.6	128.2	116.6	116.6		
GEW-154	107.2	149.9	185.3	126.1		
GEW-155	145	165	150	125.2		
GEW-156	118.3	115.1	120.2	118.9		
GEW-157	107.0	102.3	93.6	104.3		
GEW-158	102.3	117.8	107.5	125.0		
GEW-159	106.8	131.4	87.2	138.3		
GEW-160	106.1	107.2	110.0	155.2		
GEW-161	105.0	103.7	103.7	176.4		
GEW-162	119.4	113.0	96.5	137.2		
GEW-163	191.7	180.8	182.7	192.3		
GEW-164	164.3	167.1	174.1	176.2		
GEW-165	183.3	180.9	192.3	187.9		
GEW-166	197.5	200.1	197.2	196.4		
GEW-167	190.9	197.2	195.7	193.5		
GEW-168	186.3	195.0	188.3	189.6		
GEW-169	184.6	199.3	195.0	196.4		
GEW-170	161.1	160.9	188.9	176.4		
GEW-171	--	101.8	93.0	--		
GEW-172	116.5	114.0	103.0	--		
GEW-173	116.3	114.3	124.7	115.3		
GEW-174	142.9	160.2	176.9	144.5		
GEW-175	135.6	136.8	134.4	132.9		
GEW-176	124.6	104.0	104.8	109.5		
GEW-177	98.3	104.0	110.2	88.4		
GEW-1A	106.5	94.8	100.6	88.7		
GEW-2S	100.4	98.5	99.6	96.5		
GIW-01	111.0	111.4	119.4	182.5		

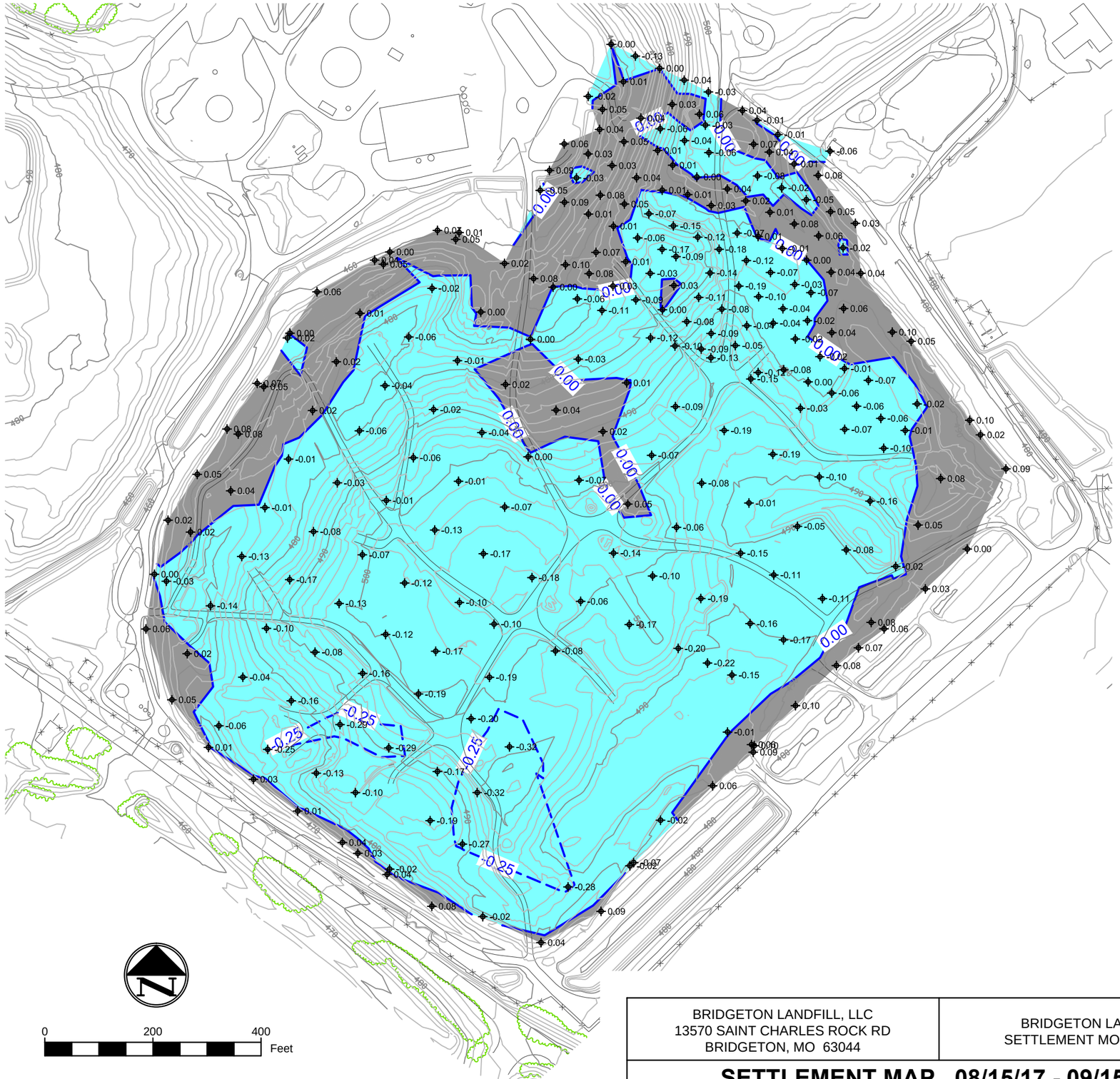
Wellfield Temperature - Bridgeton Landfill

Well Name	June 2017	July 2017	August 2017	September 2017	Temp Trend ><30°F	Comments
GIW-02	101.8	101.6	108.5	110.0		
GIW-03	112.4	111.7	112.3	101.0		
GIW-04	103.3	106.7	103.7	101.8		
GIW-05	101.3	100.6	101.8	102.1		
GIW-06	99.1	105.0	104.0	104.5		
GIW-07	100.8	101.3	101.0	105.2		
GIW-08	107.6	111.0	108.2	107.0		
GIW-09	100.8	108.2	103.0	108.0		
GIW-10	109	96.5	106.3	108.0		
GIW-11	100.1	97.9	106.4	104.8		
GIW-12	99.4	105.7	102.4	105.5		
GIW-13	100.1	108.8	101.1	106.2		
LCS-1D	117.7	119	96.7	92.0		
LCS-2D	--	--	--	--		
LCS-3C	--	--	--	--		
LCS-4B	--	--	--	--		
LCS-5A	99.6	96.8	92.4	96.5		
LCS-6B	110.2	119.2	112.5	130.1		
PGW-60	93	95	93	94.3		
SEW-002	105.0	105.7	--	--		
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	78	106	83	80.3		

-- = Indicates no data available.

ATTACHMENT F

SETTLEMENT FRONT MAP



Thickness Map				
Range	Minimum Depth	Maximum Depth	2D 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	0.00	
5	-1.00	0.00	1,528,123.47	
6	0.00	1.00	6,846.00	

LEGEND

- 12-2-2016 TOPOGRAPHY (2' CONTOUR)
- 500 — 12-2-2016 TOPOGRAPHY (10' CONTOUR)
- .25 — MINOR ELEVATION CHANGE CONTOUR (0.25 FEET)
- .50 — MAJOR ELEVATION CHANGE CONTOUR (0.50 FEET)
- -.03 — SPOT ELEVATION DIFFERENCE (TO 8-15-2017 TO 9-15-2017)
- *9–15* — *SETTLEMENT FRONT CONTOUR FOR AREA WITH 1.39' PER 31 DAYS FOR CURRENT PERIOD OF DAYS (AREA REPRESENTS 1.26' OVER 28 DAYS BASED ON CONVERSION)

*NONE FOR SEPTEMBER 2017

NOTES:

1. EXISTING CONTOURS DEVELOPED FROM SITE AERIAL TOPOGRAPHIC SURVEY BY COOPER AERIAL SURVEYS CO. ON DECEMBER 2, 2016.
2. FOR CLARITY, NOT ALL SITE FEATURES MAY BE SHOWN.
3. ELEVATION DIFFERENCE DETERMINED BY SUBTRACTING SPOT ELEVATIONS SURVEYED ON 8-15-17 FROM SPOT ELEVATIONS SURVEYED ON 9-15-17.
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.

BRIDGETON LANDFILL, LLC
13570 SAINT CHARLES ROCK RD
BRIDGETON, MO 63044

BRIDGETON LANDFILL
SETTLEMENT MONITORING

SETTLEMENT MAP 08/15/17 - 09/15/17

PROJECT NUMBER: BT-145 | FILE PATH: E:\Dropbox (Feezor Engineering)\BT-145 Agreed Order Reporting\Monthly Reports\09-2017 Report\Settlement\3_deliverables\Settlement And Fill 9-15-17.dwg

Engineering for a Better World
FEEZOR ENGINEERING, INC.

SEPTEMBER 2017
DESIGNED BY: PML
APPROVED BY: DRF

REVISION	DATE

DRAWING NO.:
001

ATTACHMENT G

SUMMARY OF ODOR COMPLAINTS

September 1, 2017 – September 30, 2017 / MDNR ODOR COMPLAINTS

Name: S. Rohde

Message: Odor logged September 1, 2017, at 11:19 am strength of 5

Follow-up: The following concern has been investigated by Bridgeton Landfill staff. Odor from another known odor source was observed at this location within an hour of the time cited in this concern. Odor patrols performed before and after the time cited in this concern did not observe Bridgeton Landfill odor at multiple observation points between this location and the Bridgeton Landfill. At the time cited in this concern winds were of a northern origin placing this location directly downwind of another known odor source. This was not a Bridgeton Landfill odor.

Name: Robbin Dailey

Message: Odor logged September 3, 2017, at 2:21 pm strength of 7

Follow-up: The following concern has been investigated by Bridgeton Landfill staff. No odor was observed at this location within an hour of the time cited in this concern. Odor patrols performed before and after the time cited in this concern did not observe Bridgeton Landfill odor. There is no evidence to suggest that this was a Bridgeton Landfill odor.

Name: Michael Dailey

Message: Odor logged September 3, 2017, at 2:22 pm strength of 7

Follow-up: The following concern has been investigated by Bridgeton Landfill staff. No odor was observed at this location within an hour of the time cited in this concern. Odor patrols performed before and after the time cited in this concern did not observe Bridgeton Landfill odor. There is no evidence to suggest that this was a Bridgeton Landfill odor.

Name: N/A

Message: No date, time, or odor strength was provided.

Follow-up: No information was provided in this odor concern received on September 4, 2017, therefore Bridgeton Landfill staff could not investigate.

Name: Susan Rohde

Message: Odor logged September 5, 2017, at 10:25 am strength of 6

Follow-up: The following concern has been investigated by Bridgeton Landfill staff. Odor from another known odor source was observed at this location within an hour of the time cited in this concern. Odor patrols performed before and after the time cited in this concern did not observe Bridgeton Landfill odor at multiple observation points between this location and the Bridgeton Landfill. At the time cited in this concern winds were of a north northwestern origin placing this location directly downwind of another known odor source. This was not a Bridgeton Landfill odor.

Name: N/A

Message: Odor logged September 8, 2017, at 6:30 am strength of 10

Follow-up: The following concern has been investigated by Bridgeton Landfill staff. No odor was observed at this location within an hour of the time cited in this concern. Odor patrols performed before and after the time cited in this concern did not observe Bridgeton Landfill odor at multiple observation points between this location and the Bridgeton Landfill. At the time cited in this concern winds were calm. Odor from another known odor source with frequent off-site odor emissions was observed in the vicinity of this location within an hour of the time cited in this concern. There is no evidence to suggest that this was a Bridgeton Landfill odor.

Name: Margaret Beckermann

Message: Odor logged September 11, 2017, at 9:00 am strength of 6

Follow-up: The following concern has been investigated by Bridgeton Landfill staff. No odor was observed at this location within an hour of the time cited in this concern. Odor patrols performed before and after the time cited in this concern did not observe Bridgeton Landfill odor. At the time cited in this concern winds were calm. There is no evidence to suggest that this was a Bridgeton Landfill odor.

Name: Shelley Favignano

Message: Odor logged September 11, 2017, at 10:27 am strength of 10

Follow-up: The following concern has been investigated by Bridgeton Landfill staff. No odor was observed at this location within an hour of the time cited in this concern. Odor from another odor source was detected in the vicinity of this location within an hour of the time cited in this concern. Odor patrols performed before and after the time cited in this concern did not observe Bridgeton Landfill odor in the vicinity of this location. At the time cited in this

concern winds were of a northeast origin placing this location outside the downwind pathway of the Bridgeton Landfill. There is no evidence to suggest that this was a Bridgeton Landfill odor.

Name: Suzanne Frens

Message: Odor logged September 11, 2017, at 11:27 am strength of 10

Follow-up: The following concern has been investigated by Bridgeton Landfill staff. No odor was observed at this location within an hour of the time cited in this concern. Odor patrols performed before and after the time cited in this concern did not observe Bridgeton Landfill odor. At the time cited in this concern winds were of a northeastern origin placing this location outside the downwind pathway of the Bridgeton Landfill. There is no evidence to suggest that this was a Bridgeton Landfill odor.

Name: Mel Leib

Message: Odor logged September 12, 2017, at 1:44 pm strength of 10

Follow-up: The following concern has been investigated by Bridgeton Landfill staff. No odor was observed at this location within an hour of the time cited in this concern. Odor patrols performed before and after the time cited in this concern did not observe Bridgeton Landfill odor in the vicinity of this location. At the time cited in this concern winds were of a northern origin placing this location upwind of the Bridgeton Landfill. There is no evidence to suggest that this was a Bridgeton Landfill odor.

Name: N/A

Message: Odor logged September 12, 2017, at 1:00 pm strength of 10

Follow-up: The following concern has been investigated by Bridgeton Landfill staff. No odor was observed at this location just over an hour after the time cited in this concern. Odor patrols performed before and after the time cited in this concern did not observe Bridgeton Landfill odor at multiple observation points between this location and the Bridgeton Landfill. At the time cited in this concern winds were of a northern 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 odor.

Name: Mel Leib

Message: Odor logged September 13, 2017, at 12:41 pm strength of 9

Follow-up: The following concern has been investigated by Bridgeton Landfill staff. No odor was observed at this location within an hour of the time cited in this concern. Odor patrols performed before and after the time cited in this concern did not observe Bridgeton Landfill odor in the vicinity of this location. At the time cited in this concern winds were calm. There is no evidence to suggest that this was a Bridgeton Landfill odor.

Name: Judi Stover

Message: Odor logged September 13, 2017, at 11:00 pm strength of 7

Follow-up: The following concern has been investigated by Bridgeton Landfill staff. This concern was reported over 2 hours after the observation time so real time follow-up was not possible. Odor patrols performed before and after the time cited in this concern did not observe Bridgeton Landfill odor. There is no evidence to suggest that this was a Bridgeton Landfill odor.

Name: Robbin Dailey

Message: Odor logged September 28, 2017, at 12:12 pm strength of 8

Follow-up: The following concern has been investigated by Bridgeton Landfill staff. No odor was observed at this location within an hour of the time cited in this concern. Odor patrols performed before and after the time cited in this concern did not observe Bridgeton Landfill odor at multiple observation points between this location and the Bridgeton Landfill. There is no evidence to suggest that this was a Bridgeton Landfill odor.

Name: Michael Dailey

Message: Odor logged September 28, 2017, at 12:13 pm strength of 8

Follow-up: The following concern has been investigated by Bridgeton Landfill staff. No odor was observed at this location within an hour of the time cited in this concern. Odor patrols performed before and after the time cited in this concern did not observe Bridgeton Landfill odor at multiple observation points between this location and the Bridgeton Landfill. There is no evidence to suggest that this was a Bridgeton Landfill odor.

ATTACHMENT H

LIQUID CHARACTERIZATION DATA AND DISCHARGE LOG

Bridgeton Landfill - Leachate PreTreatment Plant

September 2017

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
9/1/2017	LPTP Activated Sludge/ Permeate	Tank 1 (T1)	MBI	0
9/2/2017				0
9/3/2017				0
9/4/2017				0
9/5/2017				0
9/6/2017				0
9/7/2017				0
9/8/2017				0
9/9/2017				0
9/10/2017				0
9/11/2017				0
9/12/2017				0
9/13/2017				0
9/14/2017				0
9/15/2017				0
9/16/2017				0
9/17/2017				0
9/18/2017				0
9/19/2017				0
9/20/2017				0
9/21/2017				0
9/22/2017				0
9/23/2017				0
9/24/2017				0
9/25/2017				0
9/26/2017				0
9/27/2017				0
9/28/2017				0
9/29/2017				0
9/30/2017				0
			Total	**0**

Direct Discharge to MSD

Date	Waste	Source	Quantity (gal)
9/1/2017	LPTP Permeate	Through Tank AST 97k (MSD Sampling Point 013)	141,020
9/2/2017			138,036
9/3/2017			137,668
9/4/2017			138,272
9/5/2017			129,472
9/6/2017			232,176
9/7/2017			238,380
9/8/2017			241,276
9/9/2017			243,736
9/10/2017			157,516
9/11/2017			129,204
9/12/2017			130,752
9/13/2017			137,152
9/14/2017			132,588
9/15/2017			124,676
9/16/2017			124,948
9/17/2017			127,284
9/18/2017			128,192
9/19/2017			124,896
9/20/2017			110,476
9/21/2017			121,844
9/22/2017			120,268
9/23/2017			141,948
9/24/2017			233,972
9/25/2017			226,160
9/26/2017			158,664
9/27/2017			142,084
9/28/2017			106,016
9/29/2017			117,516
9/30/2017			112,224
		Total	**4,548,416**

ATTACHMENT I

LOW FILL PROJECT AREA

ATTACHMENT I-1

LOW FILL AREA BOUNDARY

LEGEND

BOUNDARY OF FILL AREA FOR 8-15-17 THROUGH 9-15-17

BOUNDARY OF STOCKPILE AREA FOR 8-15-17 THROUGH 8-15-17

NOTES:

1. SITE AERIAL TOPOGRAPHIC SURVEY BY COOPER AERIAL SURVEYS CO. ON DECEMBER 2, 2016.
2. FOR CLARITY, NOT ALL SITE FEATURES MAY BE SHOWN.
3. SURVEY POINTS WERE PERFORMED USING GPS METHODS.

N

0 350 700 Feet

BRIDGETON LANDFILL, LLC
13570 SAINT CHARLES ROCK RD
BRIDGETON, MO 63044

BRIDGETON LANDFILL
SETTLEMENT MONITORING

LOW FILL AREA BOUNDARY 8/15/2017 - 9/15/2017

PROJECT NUMBER: BT-145 | FILE PATH: E:\Dropbox (Feezor Engineering)\BT-145 Agreed Order Reporting\Monthly Reports\09-2017 Report\Settlement\3_deliverables\Settlement And Fill 9-15-17.dwg

Engineering for a Better World
FEEZOR ENGINEERING, INC.

SEPTEMBER 2017
DESIGNED BY: PML
APPROVED BY: DRF

REVISION	DATE

DRAWING NO.:
002