Bridgeton Landfill, LLC

Monthly Data Submittals

April 2018

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

Contents:

Provided Separately:

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

May 20, 2018

Commentary on Data

May 20, 2018

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 279 SCFM from the North Quarry and 1,060 SCFM from the South Quarry, for a total site flow of 1,339 SCFM, as normalized per the MDNR bi-monthly 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 40 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, 33 of the GEW wells and 4 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 are 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. Eleven (11) vertical wells (excluding GIW wells) increased by 30°F during this reporting period. Additionally, three (3) vertical wells (excluding GIW wells) decreased by 30°F or more. All wells that exhibited changes greater than 30°F are within the historical gas temperature norms for these wells or within the range of temperatures of nearby vertical wells.

- All gas wells in the North Quarry during this reporting period exhibited a maximum wellhead temperature under 145°F. Carbon monoxide (CO) results were non-detect (ND) for North Quarry wells, with the exception of GEW-053 (60 ppm), consistent with past events.

- Site personnel have been performing a comprehensive wellfield investigation to optimize landfill gas collection and control (GCCS). Wells that have been previously decommissioned due to excessive moisture and/or dangerous conditions have been reviewed and monitored to determine if the wells have obstructions that would prohibit pump installation and would therefore preclude leachate and landfill gas collection. Wells that have been identified to have downhole integrity issues will be scheduled for abandonment during the upcoming GCCS system expansion event. Wells

that have been identified not to have downhole integrity issues and are no longer presenting with excessive moisture and/or dangerous conditions have been brought back online. Wells that have been identified not to have downhole integrity issues but still present with excessive moisture and/or dangerous conditions will remain decommissioned until conditions at the location improve. Additional summa samples were collected and results analyzed to optimize the GCCS during the upcoming drilling event. This investigation will continue through Second Quarter 2018, and wellfield expansion and abandonment activities will be reported in the quarterly Landfill Gas Corrective Action Update.

Settlement

- The South Quarry exhibited monthly maximum settlement up to 0.87 feet over 33 days for this reporting period (see Attachment F). While the maximum settlement in the South Quarry is higher than recent measurements, the overall average settlement across the South Quarry has remained typical with the last several months. This specific settlement measurement (0.87 feet) occurred on the newly placed fill project, and most likely the increased maximum settlement is due to the consolidation of the waste from the overburden weight of the soil fill.
- The quarterly North Quarry settlement survey was conducted. The maximum settlement in the North Quarry was 0.24 feet over the quarter.

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. Birds noted on-site are dispersed using pyrotechnics, a cap gun, vehicles, or on foot. 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 2017 and continued until January 15th 2018.

ATTACHMENT A

WORK COMPLETED AND PLANNED

Bridgeton Landfill, LLC
Monthly Summary of Work Completed and Planned

Work Completed in April 2018

Gas Collection and Control System (GCCS)

- Continued operation and maintenance of GCCS system.
- Continued upgrades to GCCS system as necessary.
- Conducted repairs to the header.

Heat Extraction System (HES)

- Continued operation and maintenance of the HES (pilot and barrier wells).
- Began installation of HES redundancies.
- TMP-26R was installed.

Leachate Management System

- Continued routine operation of previously installed and upgraded features.
- Replaced LCS-6B pump.

Pre-Treatment Facility

- Continued ongoing operation of facility.
- Continued to optimize operation efficiency of pre-treatment facility.
- 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.

Work Planned for May 2018

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.
- Complete installation of HES redundancies.

Leachate Management System

- Continue routine operation of previously installed and upgraded features.
- Attempt to replace LCS-1D pump and transducer.
- Perform replacement of LCS-5B pump, motor, and transducer.

Pre-Treatment Facility

- Ongoing operation of facility.
- Continue to optimize operation efficiency of pre-treatment facility.
- Permeate will continue to be discharged directly to MSD – Bissell Point Facility or other approved disposal facilities as determined by MSD.

Other Projects:

- Continue construction of alternative first responder entrance, pending suitable weather conditions and contractor availability.
- Begin abandonment of Perimeter Extraction Wells (PEWs).

ATTACHMENT B

DAILY FLARE MONITORING DATA

ATTACHMENT B-1

FLOW DATA TABLE

Daily Flare Monitoring Data - Bridgeton Landfill
April 2018

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***	
4/1/2018	0	1,068	0	312	1,381
4/2/2018	0	1,053	0	323	1,376
4/3/2018	0	1,069	0	311	1,381
4/4/2018	0	1,068	0	299	1,367
4/5/2018	0	1,090	0	285	1,375
4/6/2018	0	1,082	0	300	1,383
4/7/2018	0	1,077	0	300	1,378
4/8/2018	0	1,072	0	303	1,375
4/9/2018	0	1,048	0	300	1,349
4/10/2018	0	1,062	0	301	1,362
4/11/2018	0	1,102	0	275	1,377
4/12/2018	0	1,117	0	291	1,408
4/13/2018	0	1,073	0	302	1,375
4/14/2018	0	1,018	0	279	1,297
4/15/2018	0	990	0	267	1,258
4/16/2018	0	992	0	270	1,262
4/17/2018	0	1,079	0	250	1,330
4/18/2018	0	1,015	0	284	1,299
4/19/2018	0	1,017	0	285	1,303
4/20/2018	0	1,052	0	286	1,338
4/21/2018	0	1,063	0	286	1,349
4/22/2018	0	1,044	0	283	1,327
4/23/2018	0	1,030	0	273	1,303
4/24/2018	0	1,046	0	265	1,312
4/25/2018	0	1,050	0	253	1,303
4/26/2018	0	1,074	0	255	1,329
4/27/2018	0	1,094	0	247	1,341
4/28/2018	0	1,071	0	245	1,316
4/29/2018	0	1,081	0	184	1,266
4/30/2018	0	1,090	0	252	1,342
AVERAGE	**0**	**1,060**	**0**	**279**	**1,339**

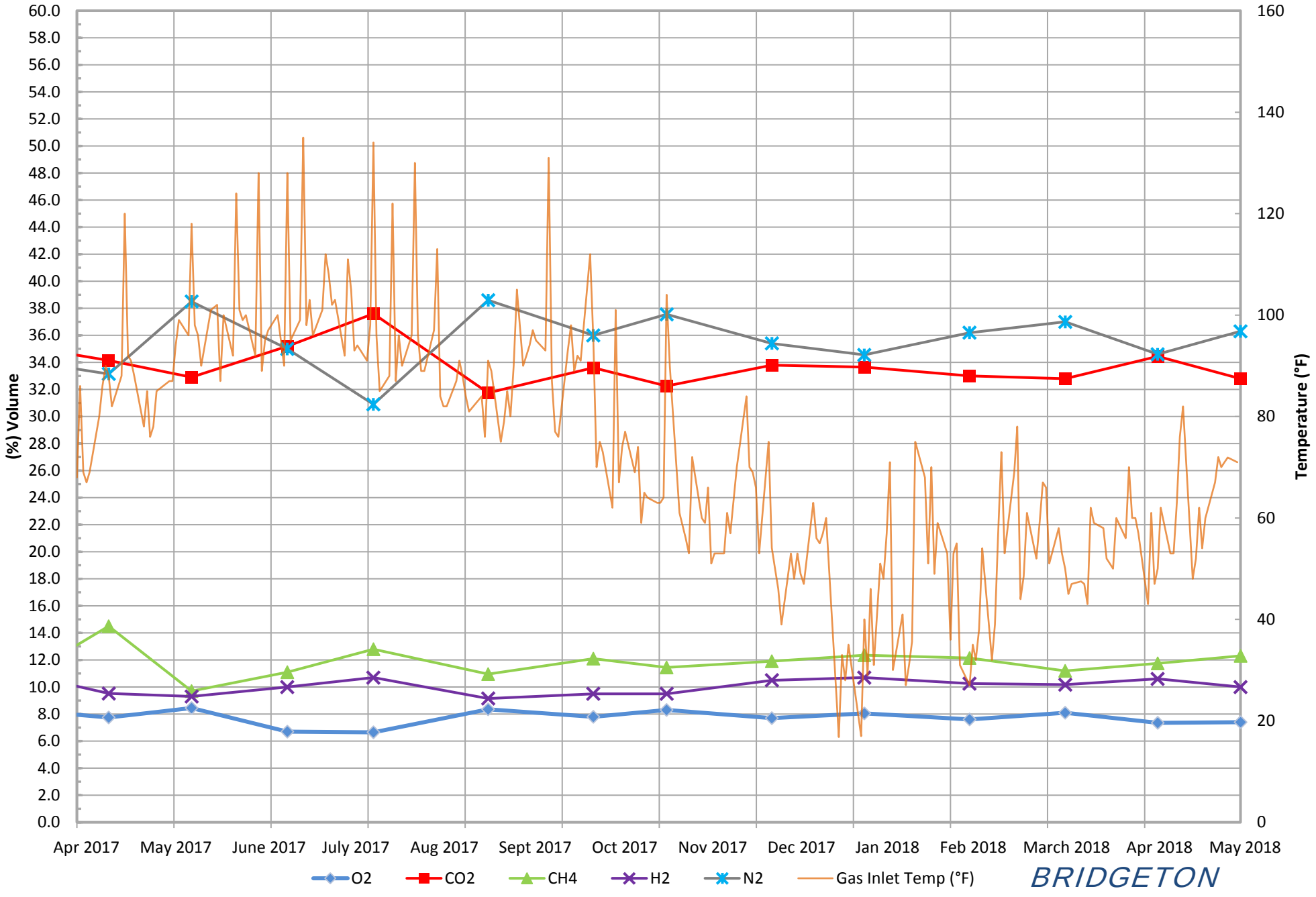
* Flows normalized to **Blower Outlet Flowmeter - EPA Method 2 measurement verified

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

ATTACHMENT B-2

FLOW DATA GRAPHS

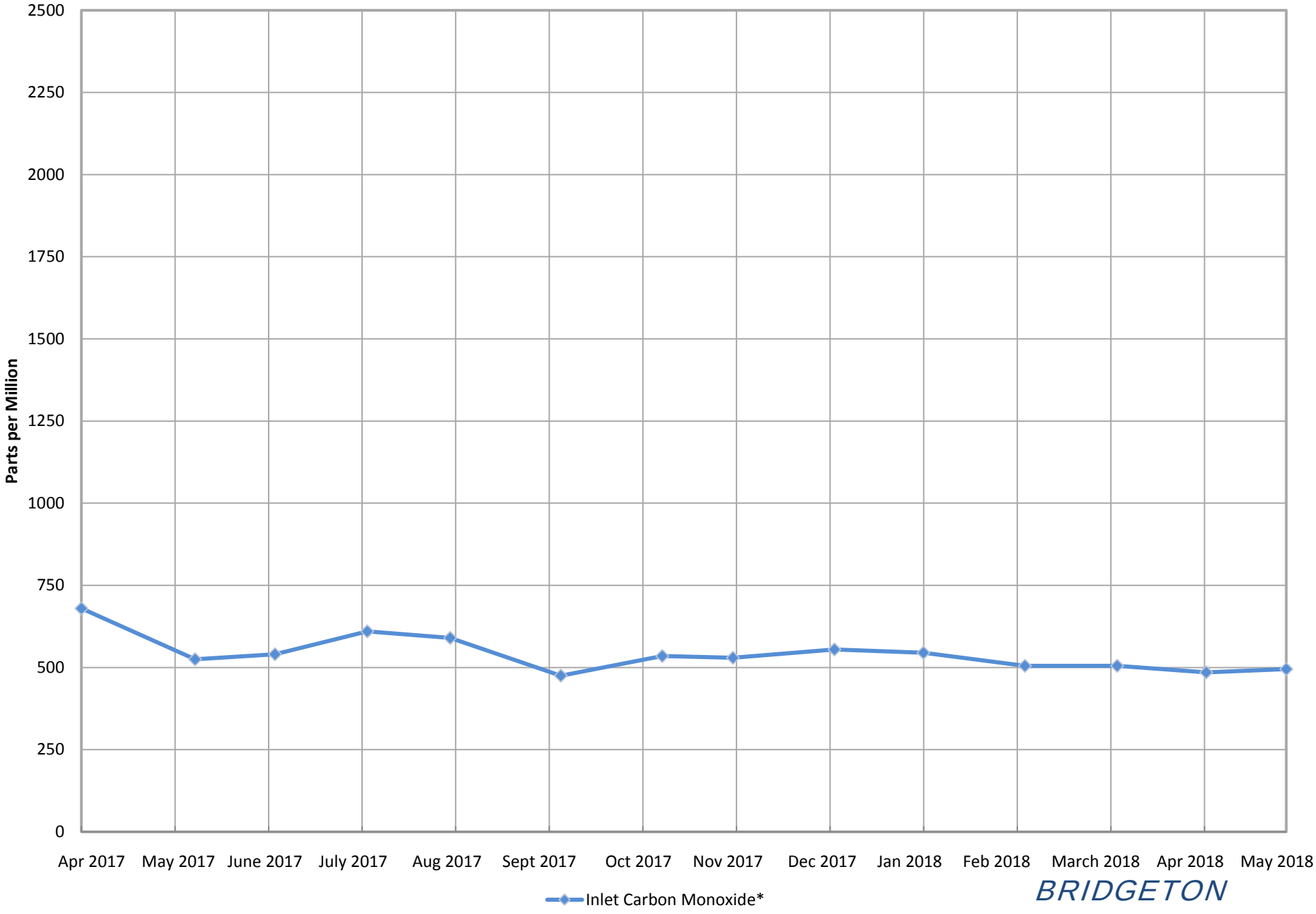
South Quarry Inlet Gas and Temperature*



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

BRIDGETON LANDFILL

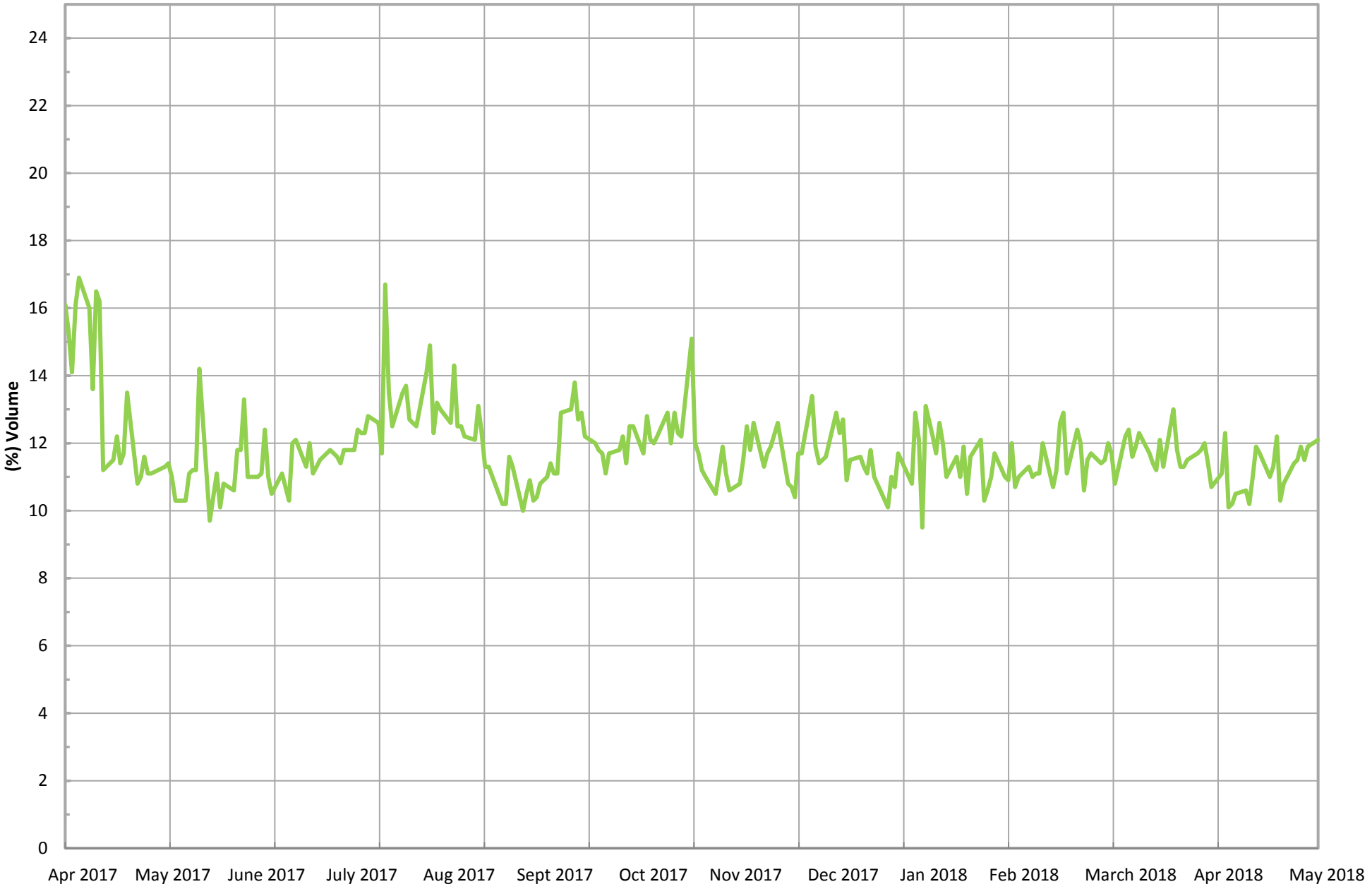
South Quarry Inlet Carbon Monoxide*



*Data collected from Laboratory Reports for the South Quarry.

BRIDGETON LANDFILL

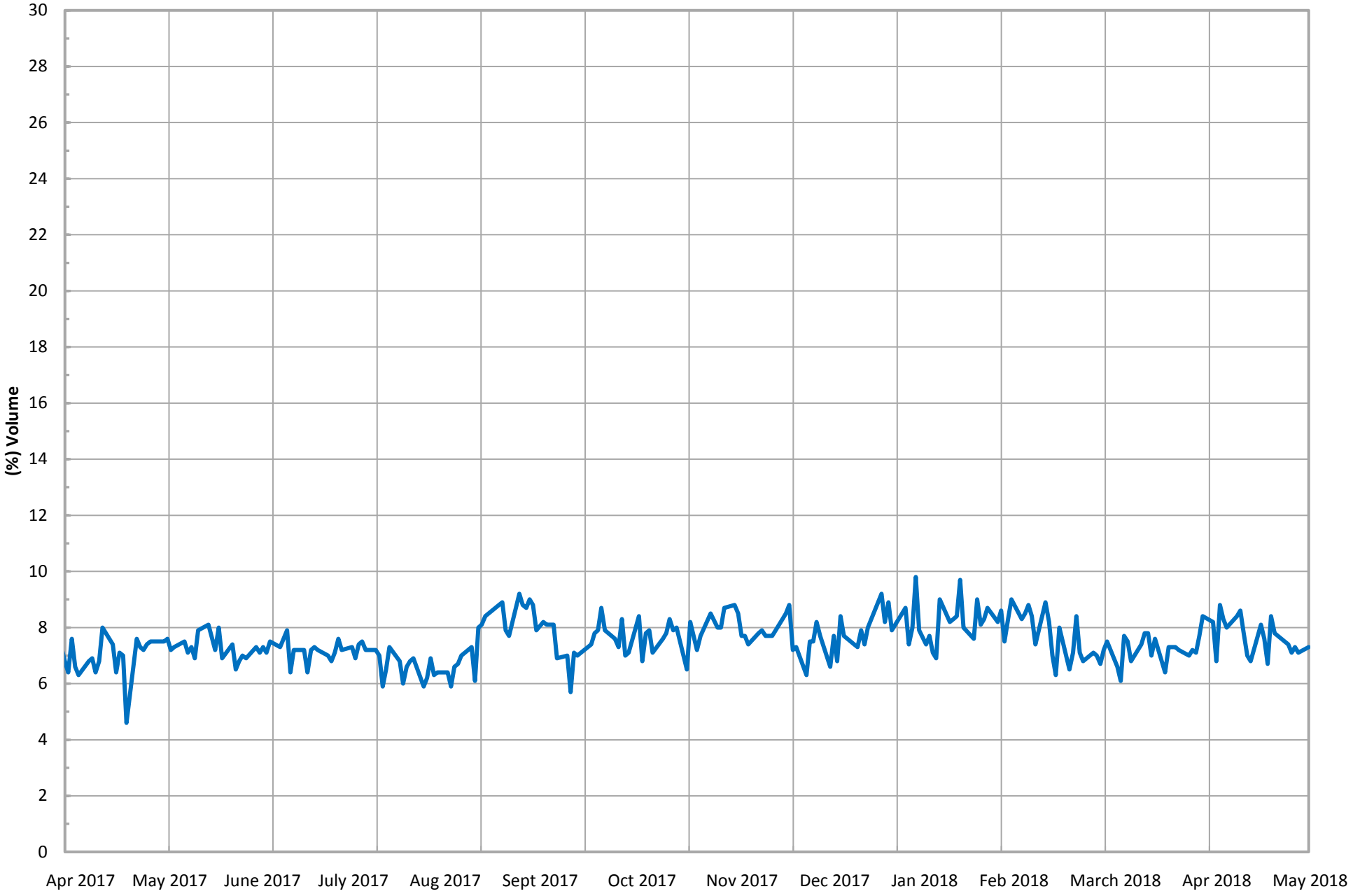
South Quarry Inlet Methane (Field Data)*



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

BRIDGETON LANDFILL

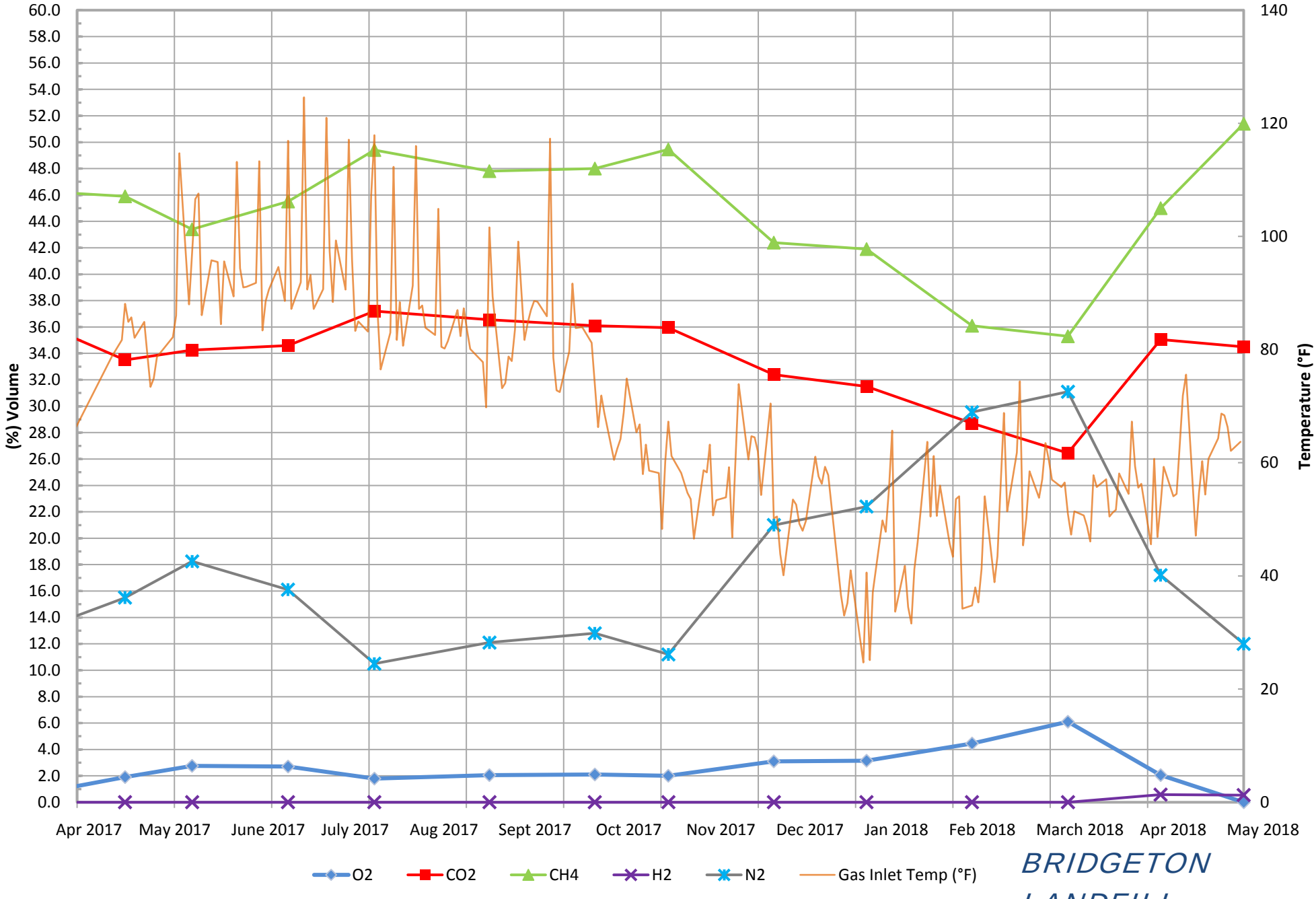
South Quarry Inlet Oxygen (Field Data)*



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

BRIDGETON LANDFILL

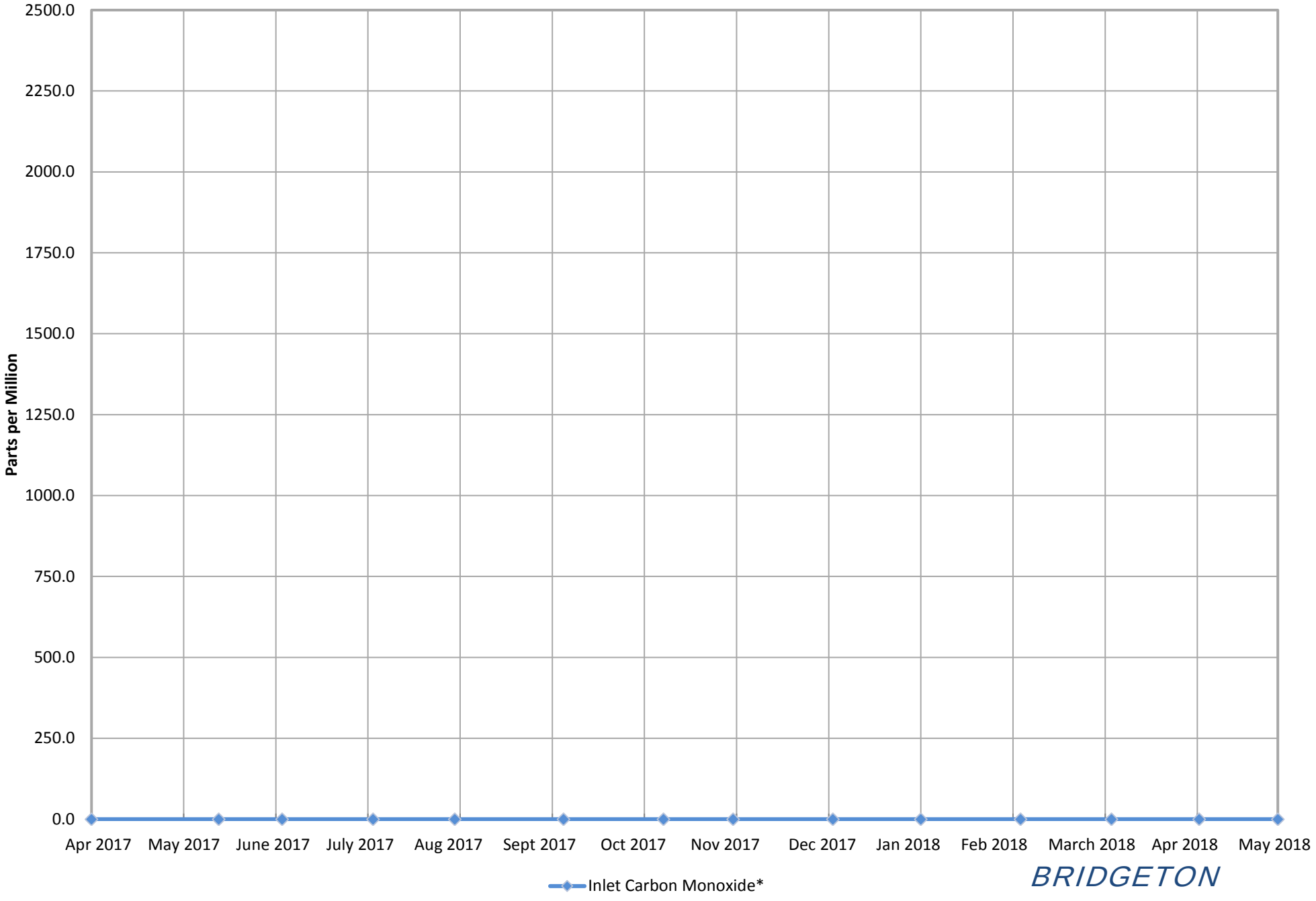
North Quarry Inlet Gas and Temperature*



BRIDGETON LANDFILL

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

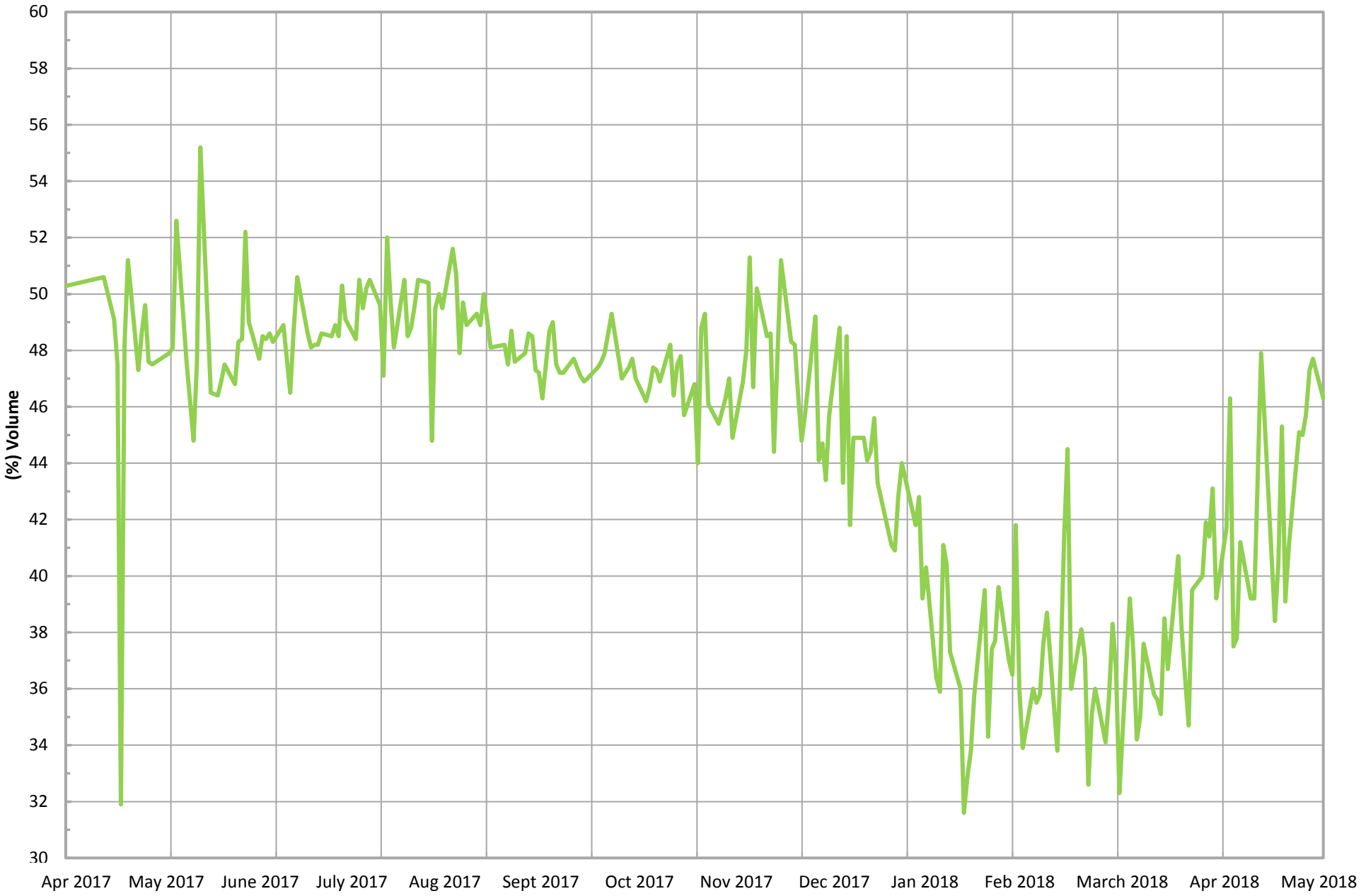
North Quarry Inlet Carbon Monoxide*



*Data collected from Laboratory Reports for the North Quarry.

BRIDGETON LANDFILL

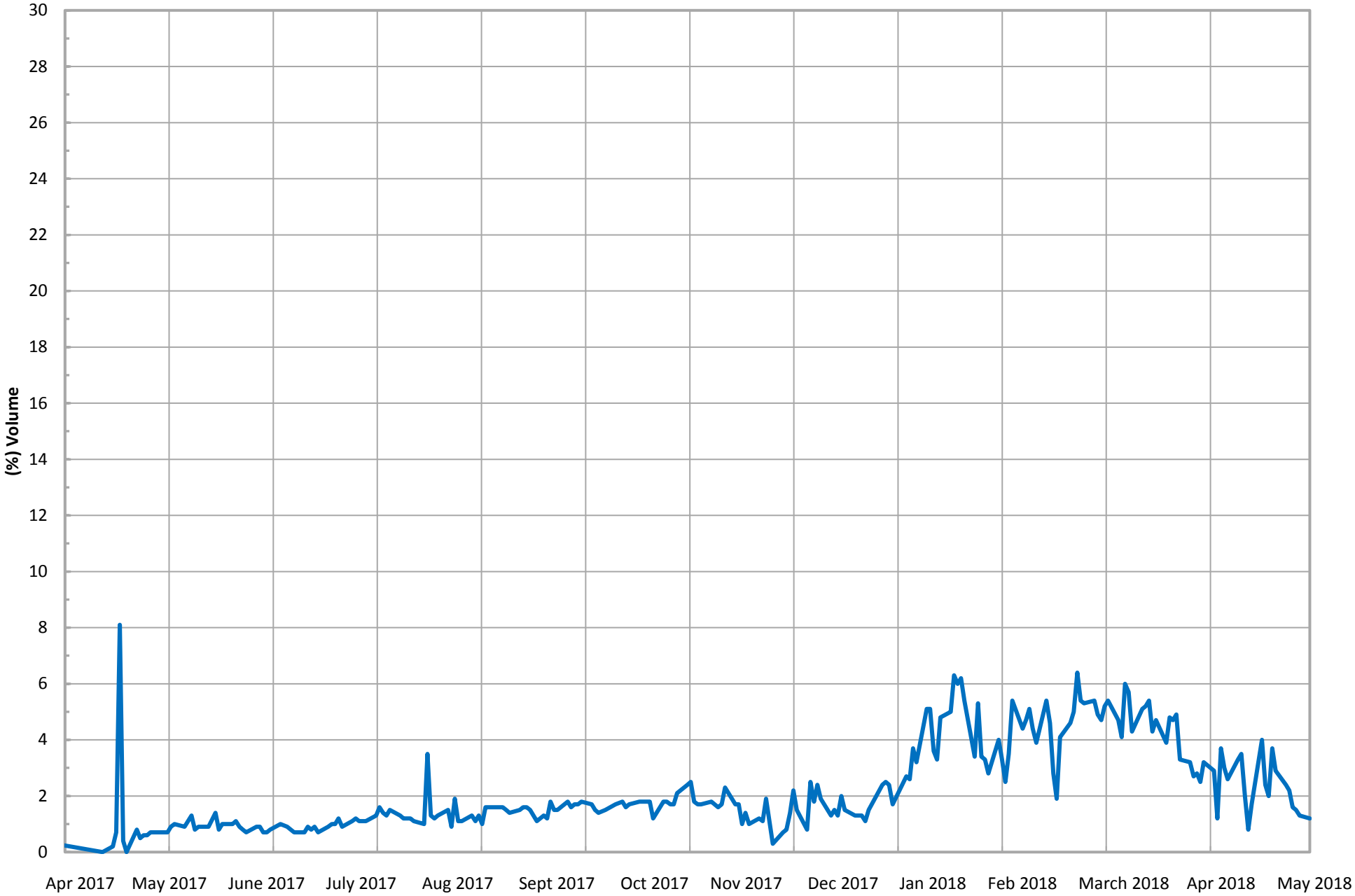
North Quarry Inlet Methane (Field Data)*



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

BRIDGETON LANDFILL

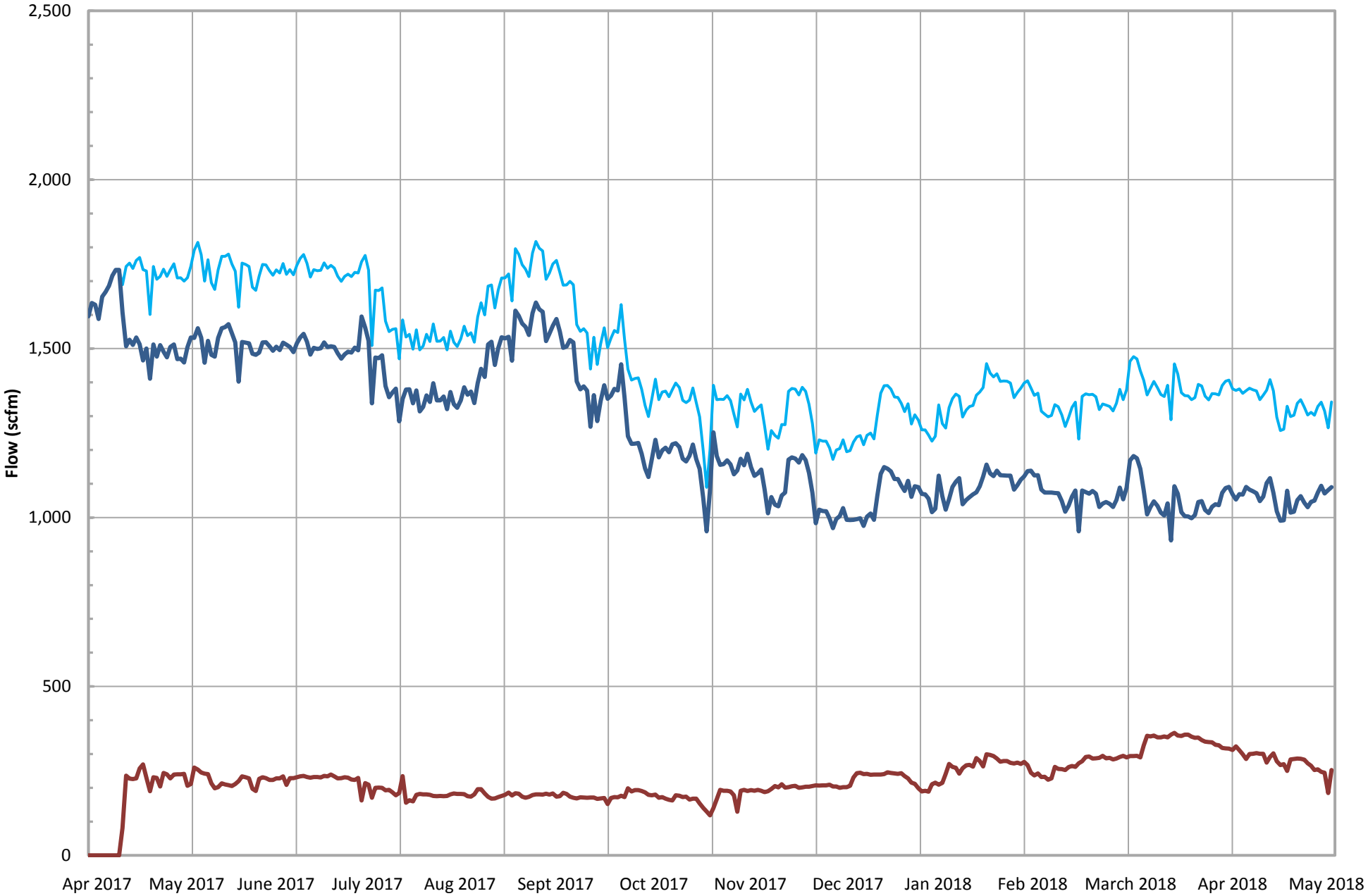
North Quarry Inlet Oxygen (Field Data)*



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

BRIDGETON LANDFILL

Total Combined Flow (scfm)*

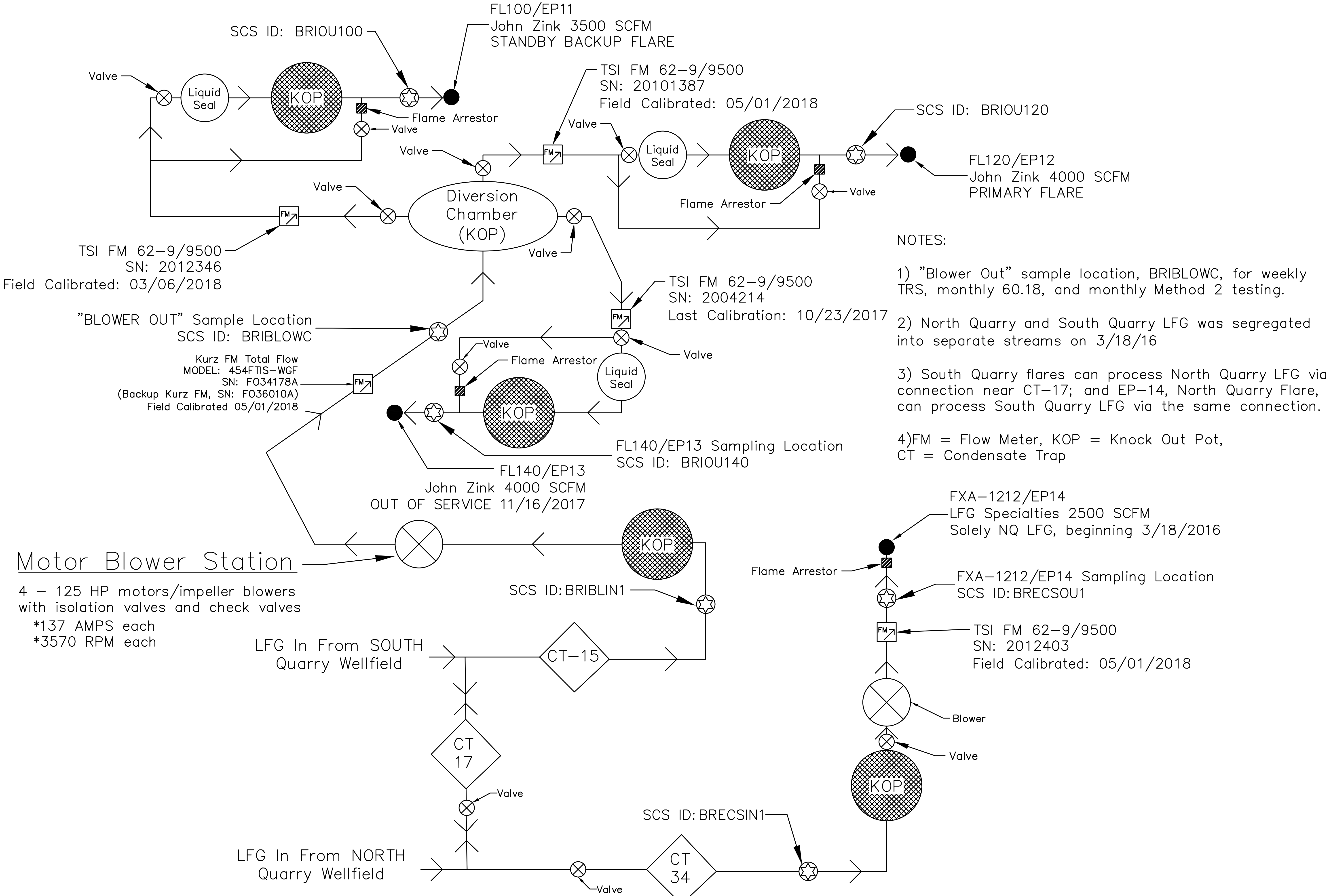


*Combined flow is based on tabulated flow data collected daily from FL-100, FL-120, FL-140, and the Auxillary Candlestick Flare.

BRIDGETON LANDFILL

ATTACHMENT B-3

FLARE TRS / FLARE STATION FLOW


FL100/EP11
John Zink 3500 SCFM
STANDBY BACKUP FLARE
SCS ID: BRIOU100
Valve
Liquid Seal
KOP
Flame Arrestor
Valve
TSI FM 62-9/9500
SN: 20101387
Field Calibrated: 05/01/2018
Valve
Liquid Seal
KOP
SCS ID: BRIOU120
FL120/EP12
John Zink 4000 SCFM
PRIMARY FLARE
Valve
FM
Flame Arrestor
Valve
Valve
Diversion Chamber (KOP)
Valve
TSI FM 62-9/9500
SN: 2012346
Field Calibrated: 03/06/2018
"BLOWER OUT" Sample Location
SCS ID: BRIBLOWC
Kurz FM Total Flow
MODEL: 454FTIS-WGF
SN: F034178A
(Backup Kurz FM, SN: F036010A)
Field Calibrated 05/01/2018
TSI FM 62-9/9500
SN: 2004214
Last Calibration: 10/23/2017
Valve
Flame Arrestor
Valve
Liquid Seal
KOP
FL140/EP13 Sampling Location
SCS ID: BRIOU140
FL140/EP13
John Zink 4000 SCFM
OUT OF SERVICE 11/16/2017
Motor Blower Station
4 - 125 HP motors/impeller blowers
with isolation valves and check valves
*137 AMPS each
*3570 RPM each
KOP
SCS ID: BRIBLIN1
LFG In From SOUTH Quarry Wellfield
CT-15
CT 17
Valve
LFG In From NORTH Quarry Wellfield
Valve
CT 34
SCS ID: BRECSIN1
FXA-1212/EP14
LFG Specialties 2500 SCFM
Solely NQ LFG, beginning 3/18/2016
Flame Arrestor
FXA-1212/EP14 Sampling Location
SCS ID: BRECSOU1
TSI FM 62-9/9500
SN: 2012403
Field Calibrated: 05/01/2018
Blower
Valve
KOP

NOTES:

1) "Blower Out" sample location, BRIBLOWC, for weekly TRS, monthly 60.18, and monthly Method 2 testing.

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

3) South Quarry flares can process North Quarry LFG via connection near CT-17; and EP-14, North Quarry Flare, can process South Quarry LFG via the same connection.

4) FM = Flow Meter, KOP = Knock Out Pot, CT = Condensate Trap

PREPARED FOR:
BRIDGETON LANDFILL, LLC

FIGURE 1 - NORTH & SOUTH QUARRY GCCS FLARE PROCESS FLOE DIAGRAM
13570 ST. CHARLES ROCK ROAD
BRIDGETON, MISSOURI

No.	DATE	REVISION DESCRIPTION
1	9/19/2016	EP-08 Removed, shown only to represent SQ LFG flow
2	3/1/2018	Add FM data, SQ/NQ connection, and update flare status'
3	4/19/2018	Add valves, flame arrestors, CT-15 name change. Remove a KOP.

Weaver Consultants Group

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

DRAWN BY:	DT
REVIEWED BY:	DAR
DATE:	03/02/2018
FILE:	0120-131-10
CAD:	2018-05-09 Figure 1 - Flow Diagram.dwg

SHEET 1 OF 1

BRIDGETON LANDFILL
INSTALLATION MONTHLY SO2 EMISSIONS
LIMIT < 100 Tons

MO APCP Air Construction Permit No. 042018-005
Special Condition No. 6A
FIPS ID = 189-0312

NEW Air Construction Permit (MO APCP) No.042018-005 issued 04/03/2018, tracking initiated 04/06/2018, superceeding the following

(Previous Permit , SLCHD/APCP #7839, 06/19/2014)

MONTH	EMISSION SOURCE ID	SOURCES MONTHLY SO_2 EMISSIONS (tons/MONTH)	INSTALLATION MONTHLY SO_2 EMISSIONS (tons/month)	CONSECUTIVE 12-MONTH SO_2 EMISSIONS (tons)
04/2018	SQ Blower Outlet	4.43	4.75	**77.39**
	EP-014/NQ-FXA1212	0.04		
	Natural Gas Sources	0.0006		
	Emergency Generators	0.0007		
	Leachate Mangement LMS	0.28		
03/2018	SQ Blower Outlet	5.94	6.28	**78.03**
	EP-014/NQ-FXA1212	0.06		
	Natural Gas Sources	0.0008		
	Emergency Generators	0.0005		
	Leachate Mangement LMS	0.28		
02/2018	SQ Blower Outlet	4.47	4.78	**71.74**
	EP-014/NQ-FXA1212	0.03		
	Natural Gas Sources	0.0009		
	Emergency Generators	0.0001		
	Leachate Mangement LMS	0.28		
01/2018	SQ Blower Outlet	5.76	6.08	**66.96**
	EP-014/NQ-FXA1212	0.04		
	Natural Gas Sources	0.0010		
	Emergency Generators	0.0007		
	Leachate Mangement LMS	0.28		
012/2017	SQ Blower Outlet	4.75	4.80	**60.88**
	EP-014/NQ-FXA1212	0.05		
	Natural Gas Sources	0.0010		
	Emergency Generators	0.0020		
	Leachate Mangement LMS			
11/2017	SQ Blower Outlet	6.07	6.39	**56.08**
	EP-014/NQ-FXA1212	0.04		
	Natural Gas Sources	0.0009		
	Emergency Generators	0.0013		
	Leachate Mangement LMS	0.28		
10/2017	SQ Blower Outlet	5.30	5.61	**49.68**
	EP-014/NQ-FXA1212	0.03		
	Natural Gas Sources	0.0008		
	Emergency Generators	0.0023		
	Leachate Mangement LMS	0.28		

BRIDGETON LANDFILL
INSTALLATION MONTHLY SO2 EMISSIONS
LIMIT < 100 Tons

MO APCP Air Construction Permit No. 042018-005
Special Condition No. 6A
FIPS ID = 189-0312

NEW Air Construction Permit (MO APCP) No.042018-005 issued 04/03/2018, tracking initiated 04/06/2018, superceeding the following

(Previous Permit , SLCHD/APCP #7839, 06/19/2014)

MONTH	EMISSION SOURCE ID	SOURCES MONTHLY SO_2 EMISSIONS (tons/MONTH)	INSTALLATION MONTHLY SO_2 EMISSIONS (tons/month)	CONSECUTIVE 12-MONTH SO_2 EMISSIONS (tons)
09/2017	SQ Blower Outlet	6.66	6.97	**44.08**
	EP-014/NQ-FXA1212	0.03		
	Natural Gas Sources	0.0008		
	Emergency Generators	0.0013		
	Leachate Mangement LMS	0.28		
08/2017	SQ Blower Outlet	8.14	8.45	**37.11**
	EP-014/NQ-FXA1212	0.04		
	Natural Gas Sources	0.0012		
	Emergency Generators	0.0009		
	Leachate Mangement LMS	0.28		
07/2017	SQ Blower Outlet	7.00	7.31	**28.66**
	EP-014/NQ-FXA1212	0.04		
	Natural Gas Sources	0.0010		
	Emergency Generators	0.0013		
	Leachate Mangement LMS	0.28		
06/2017	SQ Blower Outlet	6.69	7.04	**21.34**
	EP-014/NQ-FXA1212	0.07		
	Natural Gas Sources	0.0010		
	Emergency Generators	0.0000		
	Leachate Mangement LMS	0.28		
05/2017	SQ Blower Outlet	8.60	8.90	**14.30**
	EP-014/NQ-FXA1212	0.02		
	Natural Gas Sources	0.0011		
	Emergency Generators	0.0016		
	Leachate Mangement LMS	0.28		
04/2017	SQ Blower Outlet	5.07	5.39	**5.39**
	EP-014/NQ-FXA1212	0.04		
	Natural Gas Sources	0.0009		
	Emergency Generators	0.0010		
	Leachate Mangement LMS	0.28		

BRIDGETON LANDFILL
South Quarry Blower Outlet
MONTHLY SO2 EMISSIONS

MO APCP Air Construction Permit No. 042018-005
Special Condition No. 6A
FIPS ID = 189-0312

MONTH	SAMPLE PERIOD	SAMPLE DATE	PERIOD SULFUR CONTENT (ppmv)	PERIOD LFG FLOW (dscf)	SOURCE'S PERIOD SO_2 EMISSIONS (tons/period)	SOURCE'S MONTHLY SO_2 EMISSIONS (tons/month)
❶ 04/2018	04/16 to 05/01/2018	05/01/18	1400	22,706,035	2.6010	4.43
	04/06 to 04/16/2018	04/16/18	1350	16,602,576	1.8339	
03/2018	03/28 to 04/05/2018	04/05/18	1250	13,786,297	1.4101	5.94
	03/21 to 03/27/2018	03/27/18	1150	10,308,182	0.9700	
	03/14 to 03/20/2018	03/20/18	1200	10,295,709	1.0109	
	03/08 to 03/13/2018	03/13/18	1450	8,823,931	1.0469	
	02/28 to 03/07/2018	03/07/18	1450	12,699,099	1.5067	
02/2018	02/21 to 02/27/2018	02/27/18	1600	10,467,803	1.3704	4.47
	02/14 to 02/20/2018	02/20/18	1300	10,685,865	1.1367	
	02/06 to 02/13/2018	02/13/18	1100	12,073,495	1.0867	
	02/01 to 02/05/2018	02/05/18	1350	7,918,030	0.8746	
01/2018	01/26 to 01/31/2018	01/31/18	1150	9,551,624	0.8988	5.76
	01/19 to 01/25/2018	01/25/18	1250	11,345,149	1.1604	
	01/12 to 01/18/2018	01/18/18	1250	10,750,589	1.0996	
	01/04 to 01/11/2018	01/11/18	1450	12,316,022	1.4612	
	12/28/2017 to 01/03/2018	01/03/18	1300	10,692,771	1.1374	
12/2017	12/19 to 12/27/2017	12/27/17	1150	14,381,710	1.3533	4.75
	12/13 to 12/19/2017	12/19/17	1350	10,242,081	1.1314	
	12/06 to 12/12/2017	12/12/17	1200	10,007,413	0.9826	
	11/29 to 12/5/2017	12/05/17	1550	10,110,696	1.2823	
11/2017	11/22 to 11/28/2017	11/28/17	1350	11,616,347	1.2832	6.07
	11/15 to 11/21/2017	11/21/17	1350	10,512,830	1.1613	
	11/8 to 11/14/2017	11/14/17	1150	11,447,894	1.0772	
	11/03 to 11/7/2017	11/07/17	1150	8,168,968	0.7687	
	10/25 to 11/2/2017	11/02/17	1500	14,507,379	1.7806	
10/2017	10/18 to 10/24/2017	10/24/17	1250	11,767,082	1.2035	5.30
	10/11 to 10/17/2017	10/17/17	1250	11,604,622	1.1869	
	10/04 to 10/10/2017	10/10/17	1350	12,474,773	1.3780	
	09/27 to 10/03/2017	10/03/17	1400	13,345,930	1.5288	
09/2017	09/20 to 09/26/2017	09/26/17	1550	13,477,427	1.7093	6.66
	09/14 to 09/19/2017	09/19/17	1350	12,745,267	1.4079	
	09/8 to 09/13/2017	09/13/17	1300	13,185,185	1.4025	
	08/30 to 09/07/2017	09/07/17	1350	19,372,285	2.1399	
08/2017	08/23 to 08/29/2017	08/29/17	1400	14,001,454	1.6039	8.14
	08/16 to 08/22/2017	08/22/17	1450	11,100,656	1.3170	
	08/9 to 08/15/2017	08/15/17	1600	13,041,953	1.7074	
	08/03 to 08/08/2017	08/08/17	1550	11,096,599	1.4073	
	07/26 to 08/02/2017	08/02/17	1700	15,093,157	2.0995	
07/2017	07/19 to 07/25/2017	07/25/17	1450	14,442,919	1.7136	7.00
	07/12 to 07/18/2017	07/18/17	1500	14,326,080	1.7583	
	07/07 to 07/11/2017	07/11/17	1550	10,341,543	1.3116	
	06/28 to 07/06/2017	07/06/17	1450	18,655,228	2.2133	

BRIDGETON LANDFILL
South Quarry Blower Outlet
MONTHLY SO2 EMISSIONS

MO APCP Air Construction Permit No. 042018-005
Special Condition No. 6A
FIPS ID = 189-0312

MONTH	SAMPLE PERIOD	SAMPLE DATE	PERIOD SULFUR CONTENT (ppmv)	PERIOD LFG FLOW (dscf)	SOURCE'S PERIOD SO_2 EMISSIONS (tons/period)	SOURCE'S MONTHLY SO_2 EMISSIONS (tons/month)
06/2017	06/21 to 06/27/2017	06/27/17	1400	14,547,530	1.6665	6.69
	06/14 to 06/20/2017	06/20/17	1400	14,396,860	1.6492	
	06/07 to 06/13/2017	06/13/17	1350	14,819,875	1.6370	
	05/31 to 06/06/2017	06/06/17	1650	12,877,819	1.7386	
05/2017	05/25 to 05/30/2017	05/30/17	1650	12,410,576	1.6755	8.60
	05/17 to 05/24/2017	05/24/17	1350	16,504,198	1.8231	
	05/12 to 05/16/2017	05/16/17	1450	10,518,255	1.2479	
	05/05 to 05/11/2017	05/11/17	1350	16,295,800	1.8001	
	04/26 to 05/04/2017	05/04/17	1300	19,301,575	2.0531	
04/2017	04/19 to 04/25/2017	04/25/17	1350	14,179,884	1.5663	5.07
	04/12 to 04/18/2017	04/18/17	1350	16,183,033	1.7876	
	04/05 to 04/11/2017	04/11/17	1350	15,536,087	1.7161	
		04/04/17	NA	NA		

❶ per new MO APCP Air Construction Permit No. 201804-005, sampling frequency reduced to twice a month

Per MO APCP Air Construction Permit No. 042018-005, Page 15, Attachment A, Equation 1

$$SO_{2-EQ1} = \frac{Q_{LFG} * \left(\frac{C_{sulfur,ppmv}}{10^6}\right) * \left(\frac{0.02832\ m^3}{ft^3}\right) * (MW_{sulfur}) * \left(\frac{0.00220462\ lb}{g}\right) * (P) * \left(\frac{1\ ton}{2{,}000\ lb}\right) * (2)}{(R * (273.15 + T))}$$

Constants		
MW_{sulfur} =	32.06	g/g-mol
P =	1	atm
SO2 =	2	ratio of S to SO2
R =	8.21E-05	m3*atm/K*g-mol
T =	25	C
pppm	1,000,000	unitless
	273.15	absolute T
	0.02832	constant
lb -->	0.002204620	gram
lb -->	0.0005	ton

DEFINITIONS

SO_{2-EQ1} = SO2 Emssions from the combustion of landfill gas in all flares (EP-011, EP-012, EP-013, and EP-014).

Q_{LFG} = Total Flow of all collected landfill gas, in units of dry standard cubic feet (DSCF) from the previous sampling date to the current sampling date

$C_{sulfur,ppm}$ sampling results from ASTM D5504-12 for the current sampling date, in units of parts per million by volume

MW_{sulfur} = 32.06 g/g-mol (molecular mass of sulfur)

P = pressure at standard atmospheric

SO2 = 2, is the molecular ratio of sulfur to SO2

R = ideal gas law constant, 8.205E-5 m3*atm/K*g-mol

T = Temperature, 25°C or site specific LFG temperature

BRIDGETON LANDFILL
North Quarry Flare EP-014
MONTHLY SO2 EMISSIONS

MO APCP Air Construction Permit No. 042018-005
Special Condition No. 6A
FIPS ID = 189-0312

MONTH	SAMPLE PERIOD	SAMPLE DATE	PERIOD SULFUR CONTENT (ppmv)	PERIOD LFG FLOW (dscf)	SOURCE'S PERIOD SO_2 EMISSIONS (tons/period)	SOURCE'S MONTHLY SO_2 EMISSIONS (tons/month)
❶ 04/2018	04/17 to 05/01/2018	05/01/18	48	5,582,806	0.0219	0.04
	04/06 to 04/16/2018	04/16/18	37.5	4,541,233	0.0139	
03/2018	03/28 to 04/05/2018	04/05/18	44.5	3,995,209	0.0145	0.06
	03/21 to 03/27/2018	03/27/18	38.5	3,382,302	0.0107	
	03/14 to 03/20/2018	03/20/18	37.5	3,552,554	0.0109	
	03/08 to 03/13/2018	03/13/18	40	3,003,094	0.0098	
	02/28 to 03/07/2018	03/07/18	49	2,526,255	0.0101	
02/2018	02/21 to 02/27/2018	02/27/18	54	2,888,912	0.0128	0.03
	02/14 to 02/20/2018	02/20/18	43	2,812,318	0.0099	
	02/06 to 02/13/2018	02/13/18	20.5	2,859,593	0.0048	
	02/01 to 02/05/2018	02/05/18	51	1,692,341	0.0071	
01/2018	01/26 to 01/31/2018	01/31/18	41.5	2,338,808	0.0079	0.04
	01/19 to 01/25/2018	01/25/18	43.5	2,879,263	0.0102	
	01/12 to 01/18/2018	01/18/18	44.5	2,695,298	0.0098	
	01/04 to 01/11/2018	01/11/18	31	2,733,239	0.0069	
	12/28/2017 to 01/03/2018	01/03/18	51	2,007,812	0.0084	
12/2017	12/19 to 12/27/2017	12/27/17	62.5	3,051,910	0.0156	0.05
	12/13 to 12/19/2017	12/19/17	53.5	2,377,673	0.0104	
	12/06 to 12/12/2017	12/12/17	61.5	2,104,494	0.0106	
	11/29 to 12/5/2017	12/05/17	67.5	2,043,517	0.0113	
11/2017	11/22 to 11/28/2017	11/28/17	62	1,986,526	0.0101	0.04
	11/15 to 11/21/2017	11/21/17	55	1,879,308	0.0085	
	11/8 to 11/14/2017	11/14/17	51	1,869,713	0.0078	
	11/03 to 11/7/2017	11/07/17	58.5	1,227,126	0.0059	
	10/25 to 11/2/2017	11/02/17	53.5	1,892,870	0.0083	
10/2017	10/18 to 10/24/2017	10/24/17	61	1,658,933	0.0083	0.03
	10/11 to 10/17/2017	10/17/17	56.5	1,720,815	0.0080	
	10/04 to 10/10/2017	10/10/17	22	1,828,995	0.0033	
	09/27 to 10/03/2017	10/03/17	43.5	1,635,854	0.0058	
09/2017	09/20 to 09/26/2017	09/26/17	24	1,665,567	0.0033	0.03
	09/14 to 09/19/2017	09/19/17	33.5	1,480,864	0.0041	
	09/8 to 09/13/2017	09/13/17	53	1,506,296	0.0065	
	08/30 to 09/07/2017	09/07/17	73	2,248,456	0.0134	
08/2017	08/23 to 08/29/2017	08/29/17	39.5	1,728,799	0.0056	0.04
	08/16 to 08/22/2017	08/22/17	49.5	1,491,290	0.0060	
	08/9 to 08/15/2017	08/15/17	58	1,716,959	0.0081	
	08/03 to 08/08/2017	08/08/17	36.5	1,454,639	0.0043	
	07/26 to 08/02/2017	08/02/17	73.5	2,105,325	0.0127	
07/2017	07/19 to 07/25/2017	07/25/17	54	1,919,910	0.0085	0.04
	07/12 to 07/18/2017	07/18/17	37	2,206,737	0.0067	
	07/07 to 07/11/2017	07/11/17	38.5	1,615,877	0.0051	
	06/28 to 07/06/2017	07/06/17	66	2,849,119	0.0154	

BRIDGETON LANDFILL
North Quarry Flare EP-014
MONTHLY SO2 EMISSIONS

MO APCP Air Construction Permit No. 042018-005
Special Condition No. 6A
FIPS ID = 189-0312

MONTH	SAMPLE PERIOD	SAMPLE DATE	PERIOD SULFUR CONTENT (ppmv)	PERIOD LFG FLOW (dscf)	SOURCE'S PERIOD SO_2 EMISSIONS (tons/period)	SOURCE'S MONTHLY SO_2 EMISSIONS (tons/month)
06/2017	06/21 to 06/27/2017	06/27/17	41	2,225,859	0.0075	0.07
	06/14 to 06/20/2017	06/20/17	136.5	2,122,281	0.0237	
	06/07 to 06/13/2017	06/13/17	50	2,013,871	0.0082	
	05/31 to 06/06/2017	06/06/17	97.5	4,011,269	0.0320	
05/2017	05/25 to 05/30/2017	05/30/17	57	1,966,043	0.0092	0.02
	05/17 to 05/24/2017	05/24/17	51.5	2,640,710	0.0111	
	05/12 to 05/16/2017	05/16/17	50	375,629	0.0015	
	05/05 to 05/11/2017	05/11/17	0	143,740	0.0000	
	04/26 to 05/04/2017	05/04/17	0	1,230,871	0.0000	
04/2017	04/19 to 04/25/2017	04/25/17	72.5	2,286,284	0.0136	0.04
	04/12 to 04/18/2017	04/18/17	78.5	2,239,339	0.0144	
	04/05 to 04/11/2017	04/11/17	66	2,418,792	0.0131	
		04/04/17	NA	NA		

❶ per new MO APCP Air Construction Permit No. 201804-005, sampling frequency reduced to twice a month

Per MO APCP Air Construction Permit No. 042018-005, Page 15, Attachment A, Equation 1

$$SO_{2-EQ1} = \frac{Q_{LFG} * \left(\frac{C_{sulfur,ppmv}}{10^6}\right) * \left(\frac{0.02832\ m^3}{ft^3}\right) * (MW_{sulfur}) * \left(\frac{0.00220462\ lb}{g}\right) * (P) * \left(\frac{1\ ton}{2{,}000\ lb}\right) * (2)}{(R * (273.15 + T))}$$

Constants		
MW_{sulfur} =	32.06	g/g-mol
P =	1	atm
SO2 =	2	ratio of S to SO2
R =	8.21E-05	m3*atm/K*g-mol
T =	25	C
pppm	1,000,000	unitless
	273.15	absolute T
	0.02832	constant
lb -->	0.002204620	gram
lb -->	0.0005	ton

DEFINITIONS

SO_{2-EQ1} = SO2 Emssions from the combustion of landfill gas in all flares (EP-011, EP-012, EP-013, and EP-014).

Q_{LFG} = Total Flow of all collected landfill gas, in units of dry standard cubic feet (DSCF) from the previous sampling date to the current sampling date

$C_{sulfur,ppm}$ sampling results from ASTM D5504-12 for the current sampling date, in units of parts per million by volume

MW_{sulfur} = 32.06 g/g-mol (molecular mass of sulfur)

P = pressure at standard atmospheric

SO2 = 2, is the molecular ratio of sulfur to SO2

R = ideal gas law constant, 8.205E-5 m3*atm/K*g-mol

T = Temperature, 25°C or site specific LFG temperature

BRIDGETON LANDFILL
Installation Natural Gas Sources
MONTHLY SO2 EMISSIONS

MO APCP AIR Construction Permit No. 042018-005
Special Condition No. 6A
FIPS ID = 189-0312

SO2 Emission Factor = ***0.6*** lbs/MMSCF
Reference Air CP No. 042018-005, Attachment A, Equation 2

MONTH	METER READING BEGIN DATE	METER READING END DATE	NATURAL GAS SOURCE/LOCATION	BEGINNING METER READING (CCF)	ENDING METER READING (CCF)	USAGE (MMSCF)	SOURCE'S MONTHLY SO_2 EMISSIONS (tons/month)	TOTAL NG MONTHLY SO_2 EMISSIONS (tons/month)
04/2018	04/05/18	05/01/18	RTO Station	287473.00	308536.00	2.1	0.00063	0.00064
	04/05/18	05/01/18	WWTP Bldg	157269.00	157617.00	0.0	0.00001	
	04/05/18	05/01/18	SQ Flare Station	1.00	1.00	0.0	0.00000	
03/2018	03/07/18	04/05/18	RTO Station	263631.00	287473.00	2.4	0.00072	0.00082
	03/07/18	04/05/18	WWTP Bldg	153849.00	157269.00	0.3	0.00010	
	03/07/18	04/05/18	SQ Flare Station	1.00	1.00	0.0	0.00000	
02/2018	02/05/18	03/07/18	RTO Station	239002.00	263631.00	2.5	0.00074	0.00094
	02/05/18	03/07/18	WWTP Bldg	147217.00	153849.00	0.7	0.00020	
	02/05/18	03/07/18	SQ Flare Station	1.00	1.00	0.0	0.00000	
01/2018	01/03/18	02/05/18	RTO Station	215516.00	239002.00	2.3	0.00070	0.00104
	01/03/18	02/05/18	WWTP Bldg	135941.00	147217.00	1.1	0.00034	
	01/03/18	02/05/18	SQ Flare Station	1.00	1.00	0.0	0.00000	
12/2017	12/05/17	01/03/18	RTO Station	191290.00	215516.00	2.4	0.00073	0.00101
	12/05/17	01/03/18	WWTP Bldg	126358.00	135941.00	1.0	0.00029	
	12/05/17	01/03/18	SQ Flare Station	1.00	1.00	0.0	0.00000	
11/2017	11/02/17	12/05/17	RTO Station	164825.00	191290.00	2.6	0.00079	0.00093
	11/02/17	12/05/17	WWTP Bldg	121815.00	126358.00	0.5	0.00014	
	11/02/17	12/05/17	SQ Flare Station	1.00	1.00	0.0	0.00000	
10/2017	10/04/17	11/02/17	RTO Station	139298.00	164825.00	2.6	0.00077	0.00080
	10/04/17	11/02/17	WWTP Bldg	120560.00	121815.00	0.1	0.00004	
	10/04/17	11/02/17	SQ Flare Station	1.00	1.00	0.0	0.00000	
09/2017	09/05/17	10/04/17	RTO Station	112072.00	139298.00	2.7	0.00082	0.00082
	09/05/17	10/04/17	WWTP Bldg	120545.00	120560.00	0.0	0.00000	
	09/05/17	10/04/17	SQ Flare Station	1.00	1.00	0.0	0.00000	
08/2017	08/03/17	09/05/17	RTO Station	73449.00	112072.00	3.9	0.00116	0.00116
	08/03/17	09/05/17	WWTP Bldg	120533.00	120545.00	0.0	0.00000	
	08/03/17	09/05/17	SQ Flare Station	1.00	1.00	0.0	0.00000	
07/2017	07/05/17	08/03/17	RTO Station	38888.00	73449.00	3.5	0.00104	0.00104
	07/05/17	08/03/17	WWTP Bldg	120526.00	120533.00	0.0	0.00000	
	07/05/17	08/03/17	SQ Flare Station	1.00	1.00	0.0	0.00000	
06/2017	06/04/17	07/05/17	RTO Station	4208.00	38888.00	3.5	0.00104	0.00104
	06/04/17	07/05/17	WWTP Bldg	120506.00	120526.00	0.0	0.00000	
	06/04/17	07/05/17	SQ Flare Station	1.00	1.00	0.0	0.00000	
05/2017	05/02/17	06/04/17	RTO Station	967592.00	4208.00	3.7	0.00110	0.00111
	05/02/17	06/04/17	WWTP Bldg	119978.00	120506.00	0.1	0.00002	
	05/02/17	06/04/17	SQ Flare Station	1.00	1.00	0.0	0.00000	
04/2017	04/04/17	05/02/17	RTO Station	938009.00	967592.00	3.0	0.00089	0.00091
	04/04/17	05/02/17	WWTP	119239.00	119978.00	0.1	0.00002	
	04/04/17	05/02/17	Flare Station	1.00		0.0	0.00000	

Per MO APCP Air Construction Permit No. 042018-005, Page 15, Attachment A, Equation $SO_{2\text{-}NG}$

$$SO_{2-NG} = (MR_E - MR_B) * \left(\frac{100}{10^6}\right) * \left(\frac{0.6\ lbs}{MMscf}\right) * \left(\frac{1\ ton}{2000\ lbs}\right)$$

$SO_{2\text{-}NG}$ = natural gas source's SO2 emissions, tons/period
MR = natural gas meter display, therms (ccf), 100 cf NG = 1 therm
0.6 lbs SO2/MM EPA AP42, Table 1.4.2

BRIDGETON LANDFILL
Installation Diesel Generator Sources
MONTHLY SO2 EMISSIONS

MO APCP Air Construction Permit No. 042018-005
Special Condition No. 6A
FIPS ID = 189-0312

MONTH	METER READING BEGIN DATE	METER READING END DATE	DIESEL GENERATOR SOURCE	BEGINNING METER READING (hours)	ENDING METER READING (hours)	MONTHLY OPERATIONAL TIME (hours)	SOURCE'S MONTHLY SO_2 EMISSIONS (tons/month)	TOTAL EmGen MONTHLY SO_2 EMISSIONS (tons/month)
04/2018	04/05/18	05/01/18	SQ Flare Compound (EP-19)	185.20	186.80	1.6	0.00001	0.00071
	04/05/18	05/01/18	Site Wide(Cat XQ175) (EP-20)	14888.70	14904.08	15.4	0.00007	
	04/05/18	05/01/18	WWTP Perkins (EP-21)	81.54	84.00	2.5	0.00063	
	04/05/18	05/01/18	❶ NQ Flare Cat EG (EP-24)	0.00	0.00	0.0	0.00000	
03/2018	03/07/18	04/05/18	SQ Flare Compound (EP-19)	183.30	185.20	1.9	0.00002	0.00053
	03/07/18	04/05/18	Site Wide(Cat XQ175) (EP-20)	14888.70	14888.70	0	0.00000	
	03/07/18	04/05/18	WWTP Perkins (EP-21)	79.54	81.54	2	0.00051	
02/2018	02/05/18	03/07/18	SQ Flare Compound (EP-19)	181.40	183.30	1.9	0.00002	0.00012
	02/05/18	03/07/18	Site Wide(Cat XQ175) (EP-20)	14888.70	14888.70	0	0.00000	
	02/05/18	03/07/18	WWTP Perkins (EP-21)	79.12	79.54	0.42	0.00011	
01/2018	01/03/18	02/05/18	SQ Flare Compound (EP-19)	179.40	181.40	2	0.00002	0.00072
	01/03/18	02/05/18	Site Wide(Cat XQ175) (EP-20)	14888.70	14888.70	0	0.00000	
	01/03/18	02/05/18	WWTP Perkins (EP-21)	76.36	79.12	2.76	0.00070	
12/2017	12/05/17	01/03/18	SQ Flare Compound (EP-19)	177.90	179.40	1.5	0.00001	0.00195
	12/05/17	01/03/18	Site Wide(Cat XQ175) (EP-20)	14633.40	14888.70	255.3	0.00113	
	12/05/17	01/03/18	WWTP Perkins (EP-21)	73.18	76.36	3.18	0.00081	
11/2017	11/02/17	12/05/17	SQ Flare Compound (EP-19)	176.00	177.90	1.9	0.00002	0.00127
	11/02/17	12/05/17	Site Wide(Cat XQ175) (EP-20)	14448.60	14633.40	184.8	0.00082	
	11/02/17	12/05/17	WWTP Perkins (EP-21)	71.48	73.18	1.7	0.00043	
10/2017	10/10/17	11/02/17	SQ Flare Compound (EP-19)	174.30	176.00	1.7	0.00001	0.00235
	10/10/17	11/02/17	Site Wide(Cat XQ175) (EP-20)	14151.35	14448.60	297.25	0.00131	
	10/10/17	11/02/17	WWTP Perkins (EP-21)	67.48	71.48	4	0.00102	
09/2017	09/07/17	10/10/17	SQ Flare Compound (EP-19)	172.70	174.30	1.6	0.00001	0.00129
	09/07/17	10/10/17	Site Wide(Cat XQ175) (EP-20)	14151.35	14151.35	0	0.00000	
	09/07/17	10/10/17	WWTP Perkins (EP-21)	62.48	67.48	5	0.00128	
08/2017	08/02/17	09/07/17	SQ Flare Compound (EP-19)	167.70	172.70	5	0.00004	0.00085
	08/02/17	09/07/17	Site Wide(Cat XQ175) (EP-20)	14151.35	14151.35	0	0.00000	
	08/02/17	09/07/17	WWTP Perkins (EP-21)	59.30	62.48	3.18	0.00081	
07/2017	07/06/17	08/02/17	SQ Flare Compound (EP-19)	165.50	167.70	2.2	0.00002	0.00131
	07/06/17	08/02/17	Site Wide(Cat XQ175) (EP-20)	14113.56	14151.35	37.79	0.00017	
	07/06/17	08/02/17	WWTP Perkins (EP-21)	54.90	59.30	4.4	0.00112	
06/2017	06/06/17	07/06/17	SQ Flare Compound (EP-19)	164.00	165.50	1.5	0.00001	0.00005
	06/06/17	07/06/17	Site Wide(Cat XQ175) (EP-20)	14105.87	14113.56	7.69	0.00003	
	06/06/17	07/06/17	WWTP Perkins (EP-21)	54.90	54.90	0	0.00000	
05/2017	05/11/17	06/06/17	SQ Flare Compound (EP-19)	161.80	164.00	2.2	0.00002	0.00161
	05/11/17	06/06/17	Site Wide(Cat XQ175) (EP-20)	14058.20	14105.87	47.67	0.00021	
	05/11/17	06/06/17	WWTP Perkins (EP-21)	49.50	54.90	5.4	0.00138	
04/2017	04/04/17	05/11/17	SQ Flare Compound (EP-19)	160.50	161.80	1.3	0.00001	0.00096
	04/04/17	05/11/17	Site Wide(Cat XQ175) (EP-20)	14015.75	14058.20	42.45	0.00019	
	04/04/17	05/11/17	WWTP Perkins (EP-21)	46.50	49.50	3	0.00077	

❶ This source newly constructed 04/17/2018

Per MO APCP Air Construction Permit No. 042018-005, Page 16, Attachment A, Equation $SO_{2\text{-EmGen}}$

$$SO_{2-EmGen} = (MR_E - MR_B) * SO_2\ EF$$

$SO_{2\text{-EmGen}}$ = Generator diesel engine SO2 emissions, tons/period

MR = hour meter display, (hours)

SO_2 EF Per permit table, page 16

Emergency Generator		Emission Factor (ton SO2/hour)	EF Source	Source Rating (bHp/hr
EP-019		7.97E-06	Permit 042018-005	1250
EP-020		4.42E-06	Permit 042018-005	249
EP-021		2.55E-04	Permit 042018-005	728
EP-024		4.57202E-09	AP42, Table 3.4-1	237

	PARAMETER	Blower Out
	SOUTH QUARRY LFG - BLOWER OUTLET **The below based on final QA/QC lab fixed gas results**	
Date	Test Date	5/1/18
Start	Run Start Time	9:36
	Run Finish Time	11:04
	Net Traversing Points	8 (2 x 4)
Θ	Net Run Time, minutes	1:28:21
C_p	Pitot Tube Coeficient	0.99
P_{Br}	Barometric Pressure, inches of Mercury	29.59
% H_2O	Moisture Content of LFG, %	3.63
% RH	Relative Humidity, %	46.30
M_{fd}	Dry Mole Fraction	0.964
%CH_4	Methane, %	12.3
%CO_2	Carbon Dioxide, %	32.8
%O_2	Oxygen, %	7.4
%Balance	Assumed as Nitrogen, %	36.3
%H_2	Hydrogen, %	10.0
%CO	Carbon Monoxide, %	0.050
M_d	Dry Molecular Weight, lb/lb-Mole	29.14
M_s	Wet Molecular weight, lb/lb-Mole	28.73
P_g	Flue Gas Static Pressure, inches of H_2O	13.54
P_s	Absolute Flue Gas Pressure, inches of Mercury	30.70
t_s	Average Stack Gas Temperature, °F	92
ΔP_{avg}	Average Velocity Head, inches of H_2O	0.040
v_s	Average LFG Velocity, feet/second	13.44
A_s	Stack Crossectional Area, square feet	1.35
Q_{sd}	Dry Volumetric Flow Rate, dry scfm	1,033
Q_s	Standard Volumetric Flow Rate, scfm	1,070
Q_{aw}	Actual Wet Volumetric Flue Gas Flow Rate, acfm	1,091
$Q_{lb/hr}$	Dry Air Flow Rate at Standard Conditions, lb/hr	4,685
NHV	Net Heating Value, Btu/scf (not determined in the field)	167.5
LFG_{CH4}	Methane, lb/hr	316.1
	Methane, grains/dscf	35.71
LFG_{CO2}	Carbon Dioxide, lb/hr	2,321.7
	Carbon Dioxide, grains/dscf	262.34
LFG_{O2}	Oxygen, lb/hr	378.3
	Oxygen, grains/dscf	42.74
LFG_{N2}	Balance gas as Nitrogen, lb/hr	1,635.5
	Balance gas as Nitrogen, grains/dscf	184.80
LFG_{H2}	Hydrogen, lb/hr	32.4
	Hydrogen, grains/dscf	3.66
LFG_{CO}	Carbon Monoxide, lb/hr	2.2
	Carbon Monoxide, grains/dscf	0.25

		Outlet A	Outlet B
❶$E_{TRS-SO2}$	TRS-->SO2 Emission Concentration, ppmd	1,400	1,400
	TRS-->SO2 Emission Rate, lb/hr	14.43	14.43
	TRS-->SO2 Emission Rate, grains/dscf	1.630	1.630

This lb/hr result based on Method 2 velocity/flow determined results - not the respective flow meters.

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

SQ Blower Outlet (pre diversion chamber) 5/1/2018

FleetZoom Flow Average =	**1,169**	**scfm**
KURZ FM Average =	**1,060**	**scfm**

The below based on final QA/QC lab fixed gas results

CALCULATED RESULTS		
V_s =	**13.44**	ft/sec
Q_{dscfm}=	**1,033**	ft^3/min
Q_{scfm} =	**1,070**	ft^3/min
Q_{acfm} =	**1,091**	ft^3/min
Q_{lb} =	**4,685**	dry air flow rate lb/hr

CALCULATED VALUES

A_s =	1.35	ft^2
P_s =	**30.70**	in. Hg
$\%H_2O$ =	3.63	%
M_d =	29.14	lb/lb-mole
M_s =	28.73	lb/lb-mole

TEST VARIABLES

C_p =	**0.99**	[unitless]
P_{br} =	**29.59**	in Hg
T_A =	**81.3**	^oF
Point ID =	**15.75**	inches
RH% ambient =	**30.6**	%

SOURCE GAS PARAMETERS

Bws	**3.63**	%
P_g =	**13.5**	in H_2O
T_d =	**91.9**	^oF
T_w =	**84.4**	^oF
T_g =	**91.9**	^oF
RH%=	**46.3**	%

FIXED GAS RESULTS*

CH_4 =	**12.3**	%
CO_2 =	**32.80**	%
O_2 =	**7.35**	%
N_2=	**36.30**	%
H_2 =	**10.0**	%
CO=	**0.0495**	%

based on final QA/QC lab results

FIELD DATA

Duration =	9:36	***to***	11:04
Average DP=	0.040	in H_2O	

Example Calculations

1) Dry Volumetric Flue Gas Flow Rate at Standard Conditions, dscfm
(dry, standard, cubic feet per minute)

$$Q_{SD} = \frac{60 \times M_{fd} \times (t_{std} + 460) \times P_s \times V_s \times A_s}{(t_s + 460) \times P_{std}}$$

2) Actual Wet Volumetric Flue Gas Flow Rate at Actual Conditions, acfm
(actual [standard] cubic feet per minute)

$$Q_{AW} = 60 \times V_S \times A_S$$

3) Average Source Flue Gas Velocity, ft/sec

$$V_S = 85.49 \times C_p \times \sqrt{\left[\frac{(460 + t_S) \times \Delta P_{AVG}}{(P_S \times M_S)}\right]}$$

4) Wet Molecular Weight of the Flue Gas, lb/lb-mole

$$M_S = M_d \times M_{fd} + 18 \times \frac{\%H_2O}{100}$$

t_{std} = standard temperature; 68 ^oF
t_s = stack temperature; in units of ^oF
P_{std} = standard pressure; 29.92 inches Hg
A_S = stack cross sectional area; in units ft^2 (at point of sample collection)
C_p = pitot tube constant; unitless, defaults: 0.99 for standard pitot tube 0.84 for "S" Type
$\triangle P_{avg}$ = stack average differential pressure; in inches of H_2O from pitot tube & manometer
P_{Br} = barometeric pressure, inches of Hg
P_g = stack, static pressure, inches of H_2O
t_d = temperature, dry bulb; ^oF
t_{wet} = temperature, wet-bulb; ^oF
$\%H_2O$ = moisture content, % by volume

5) Dry Molecular Weight of Flue Gas, lb/lb-mole

$$M_d = \left(\frac{16.0425}{100\%} \, x \, CH_4\%\right) + \left(\frac{44.0095}{100\%} \, x \, CO_2\right) + \left(\frac{31.9988}{100\%} \, x \, O_2\%\right) + \left(\frac{28.0134}{100\%} \, x \, N_2\%\right) + \left(\frac{28.0101}{100\%} \, x \, CO\%\right) + \left(\frac{2.0159}{100\%} \, x \, H_2\%\right)$$

6) Percent Moisture at Flue Gas Conditions, % [via, dry bulb-wet bulb analysis]

$$\%H_2O = \left(\frac{100}{P_s}\right) \times 10$$

7) Absolute Flue Gas Pressure, Inches of Mercury

$$P_s = P_{Br} + \left(\frac{P_g}{13.6}\right)$$

8) Dry Mole Fraction of Flue Gas

$$M_{fd} = 1 - \left(\frac{\%H_2O}{100}\right)$$

9) EXAMPLE: CO_2 lb/hr determination from CO_2% measurement (for "dry" sample collection)

$$E_{CO_2} = (CO_2\% \times 10{,}000) \, x \, \frac{Q_{SCF}}{\text{min } ute} \, x \, \frac{60 \text{ min } ute}{hour} \, x \, \frac{44.0095 \, gram}{gram - mole} \, x \, \frac{1}{385{,}300{,}000}$$

10) $\%H_2O$ - Mositure Content via wet-bulb-dry-bulb determination

$$\%H_2O = \left(\frac{100}{P_S}\right) \text{ x } 10^{\left\{6.6912 - \left[\frac{3144}{(T_{wet} + 390.86)}\right]\right\} - \left\{0.011 \times P_{Br} \times (T_{wet} - T_{dry}) \times \left[1 + \frac{(T_{wet} - 32)}{1571}\right]\right\}}$$

Constants, conversions, and calculations

From Ideal Gas Law: PV = NRT

CONSTANTS		
R =	0.08206	L atm/K-mole
P =	1	atmosphere
T =	293.15	K (Kelvin)
Fwt - Standard Molecular Mass (MM)		
SO_2 =	64.0638	grams/mole
NOx =	46.0055	grams/mole
CO =	28.0101	grams/mole
CO_2 =	44.0095	grams/mole
CH_4 =	16.04246	grams/mole
N_2 =	28.0134	grams/mole
H_2 =	2.01588	grams/mole
O_2 =	31.9988	grams/mole
HCl =	36.46094	grams/mole
Standard Conversions		
1lb =	453.5924	grams
1 Liter =	0.0353	ft3
1minute =	60	seconds
1 ppmvd =	1,000,000	[unitless]

P = Pressure
V = Volume
N = Number of moles
R = Universal Gas Constant
T = Temperature
MM = Molecular Mass

Standard Atmoic Mass ($g.mol^{-1)}$	
Carbon, C =	12.0107
Oxygen, O =	15.9994
Hydrogen, H =	1.00794
Nitrogen, N =	14.0067
Sulfur, S =	32.065
Chlorine, Cl =	35.453

C_{ppmvd} = Gas concentration, dry standard
Q_{sd} = Dry volumetric flue gas flow rate, dry standard cubic feet per minute

* NOTE: NOx Fwt computed as NO2 (one Nitrogen, two oxygen)

*Note **T**, as standard temperature for purposes relevant to emissions and per EPA methodology (Method 19), 20 degrees celsius or 293.15 Kelvin*

TRS'			
Hydrogen Sulfide	H_2S	34.08088	grams/mole
Carboynl Sulfide	COS	60.0751	grams/mole
Methyl Mercaptan	CH_4S	48.10746	grams/mole
Ethyl Mercaptan	C_2H_6S	62.13404	grams/mole
Dimethyl Sulfide	$(CH_3)_2S$	62.13404	grams/mole
Carbon Disulfide	CS_2	76.1407	grams/mole
Dimethyl Disulfide	$C_2H_6S_2$	94.19904	grams/mole

Gas Density [lb/dry standard cubic foot} = (P/RT)(Fwt)

X gas compound density = $\frac{1\ atmosphere}{0.0826\ Liters-atmosphere} \times \frac{K-mole}{293.15^{o}\ Kelvin} \times X\ gas\ compound\ MM\ \left[\frac{gram}{gram-mole}\right] \times \frac{1\ pound}{453.5924\ grams} \times \frac{1\ Liter}{0.0353\ ft^3}$

If pollutant/gas measured as a:

	%	ppm_{vd}	
SO_2 =	0.1663	1.663E-07	lb/ft^3_{sd}
NOx =	0.1194	1.194E-07	lb/ft^3_{sd}
CO =	0.0727	7.272E-08	lb/ft^3_{sd}
CO_2 =	0.1143	1.143E-07	lb/ft^3_{sd}
CH_4 =	0.0416	4.165E-08	lb/ft^3_{sd}
N_2 =	0.0727	7.273E-08	lb/ft^3_{sd}
H_2 =	0.0052	5.234E-09	lb/ft^3_{sd}
O_2 =	0.0831	8.308E-08	lb/ft^3_{sd}
HCl =	0.0947	9.466E-08	lb/ft^3sd

		ppmvd
Hydrogen Sulfide	H_2S	8.84808E-08
Carboynl Sulfide	COS	1.55967E-07
Methyl Mercaptan	CH_4S	1.24897E-07
Ethyl Mercaptan	C_2H_6S	1.61312E-07
Dimethyl Sulfide	$(CH_3)_2S$	1.61312E-07
Carbon Disulfide	CS_2	1.97676E-07
Dimethyl Disulfide	$C_2H_6S_2$	2.4456E-07

Gas Emission Rate [lb/hr] = (C%)(Qsd)(Gas Density)

$$Gas\ E\ x = \frac{X\ compound\ (\%)}{100} \times Q_{SD}\left[\frac{ft^3, dry\ \&\ standard}{min}\right] \times \frac{60\ minutes}{hour} \times X gas\ density\ \left[\frac{lbs}{ft^3}\right]$$

$$Gas\ E\ x = \frac{X\ compound\ (ppmvd)}{1{,}000{,}000} \times Q_{SD}\left[\frac{ft^3, dry\ \&\ standard}{min}\right] \times \frac{60\ minutes}{hour} \times X gas\ density\ \left[\frac{lbs}{ft^3}\right]$$

	PARAMETER	Blower Out
SOUTH QUARRY GCCS LFG - BLOWER OUTLET		
The below based on FIELD fixed gas results, for FM Monthly Check & Calibration		
Date	Test Date	5/1/18
Start	Run Start Time	9:36
	Run Finish Time	11:04
	Net Traversing Points	8 (2 x 4)
Θ	Net Run Time, minutes	1:28:21
C_p	Pitot Tube Coeficient	0.99
P_{Br}	Barometric Pressure, inches of Mercury	29.59
% H_2O	Moisture Content of LFG, %	3.63
% RH	Relative Humidity, %	46.30
M_{fd}	Dry Mole Fraction	0.964
%CH_4	Methane, %	12.9
%CO_2	Carbon Dioxide, %	37.1
%O_2	Oxygen, %	6.3
%Balance	Assumed as Nitrogen, %	33.3
%H_2	Hydrogen, %	10.5
%CO	Carbon Monoxide, %	0.003
M_d	Dry Molecular Weight, lb/lb-Mole	29.92
M_s	Wet Molecular weight, lb/lb-Mole	29.49
P_g	Flue Gas Static Pressure, inches of H_2O	13.54
P_s	Absolute Flue Gas Pressure, inches of Mercury	30.59
t_s	Average Stack Gas Temperature, °F	92
ΔP_{avg}	Average Velocity Head, inches of H_2O	0.040
v_s	Average LFG Velocity, feet/second	13.30
A_s	Stack Crossectional Area, square feet	1.35
Q_{sd}	Dry Volumetric Flow Rate, dry scfm	1,017
Q_s	Standard Volumetric Flow Rate, scfm	1,054
Q_{aw}	Actual Wet Volumetric Flue Gas Flow Rate, acfm	1,079
$Q_{lb/hr}$	Dry Air Flow Rate at Standard Conditions, lb/hr	4,740
LFG_{CH4}	Methane, lb/hr	327.9
	Methane, grains/dscf	37.61
LFG_{CO2}	Carbon Dioxide, lb/hr	2,587.2
	Carbon Dioxide, grains/dscf	296.73
LFG_{O2}	Oxygen, lb/hr	316.9
	Oxygen, grains/dscf	36.35
LFG_{N2}	Balance gas as Nitrogen, lb/hr	1,475.9
	Balance gas as Nitrogen, grains/dscf	169.28
LFG_{H2}	Hydrogen, lb/hr	33.5
	Hydrogen, grains/dscf	3.85
LFG_{CO}	Carbon Monoxide, lb/hr	0.1
	Carbon Monoxide, grains/dscf	0.02

Tuesday, May 01, 2018

The below based on FIELD fixed gas results, for FM Monthly Check & Calibration

LOCATION	TIME		FLOW -SCFM			Method 2 vs. Fleetzoom	Method 2 vs Kurz	Kurz vs Fleetzoom
	Begin	End	Method 2	FleetZoom	Kurz FM			
SQ BLOWER OUT	9:36	11:04	1,054	1,169	1,060	-10.9%	-0.5%	-10.3%

**Note: Fleetzoom data derived from EP-12/FL120 TSI Flow Meter*

** Note: per new air construction permit, MO APCP No. 042018-005, monthly Method 2 check and calibration: based on field data and field computations, no adjustment needed to Blower Outlet Kurz FM; EP-012/FL120 TSI FM adjusted 10% (-0.4 mA) down to match flow of Method 2 and Kurz FM results. This was done after the subject sampling & Method 2 event. Recheck Method 2 and correlation with EP-012/FL120 TSI FM was monitoring <5% from the references.*

SQ GCCS Blower Outlet (pre diversion chamber) 5/1/2018

Flare FM Flow Average =	**1,169**	**scfm**
Blower Outlet KURZ FM Average =	**1,060**	**scfm**

The below based on FIELD fixed gas results, for FM Monthly Check & Calibration

CALCULATED RESULTS

V_s =	**13.30**	ft/sec
Q_{dscfm}=	**1,017**	ft^3/min
Q_{scfm} =	**1,054**	ft^3/min
Q_{acfm} =	**1,079**	ft^3/min
Q_{lb} =	**4,740**	dry air flow rate lb/hr

CALCULATED VALUES

A_s =	1.35	ft^2
P_s =	30.59	in. Hg
$\%H_2O$ =	3.63	%
M_d =	29.92	lb/lb-mole
M_s =	29.49	lb/lb-mole

TEST VARIABLES

C_p =	**0.99**	[unitless]
P_{br} =	**29.59**	in Hg
T_A =	**81.3**	^oF
Point ID =	**15.75**	inches
RH% ambient =	**30.60**	%

SOURCE LFG PARAMETERS

Bws	**3.63**	%
P_g =	**13.5**	in H_2O
T_d =	**91.9**	^oF
T_w =	**84.4**	^oF
T_g =	**91.9**	^oF
RH%=	**46.3**	%

FIXED GAS RESULTS*

CH_4 =	**12.9**	%
CO_2 =	**37.10**	%
O_2 =	**6.25**	%
N_2=	**33.25**	% field balance subtracting H2%
H_2 =	**10.5**	% assumed based on historical
CO=	**0.0030**	% assumed based on historical

**** based on field notes***

FIELD DATA

Duration = 9:36 ***to*** 11:04

Average DP= 0.040 in H_2O

	PARAMETER	Blower Out
	EP-014 NORTH QUARRY GCCS FLARE LFG	
	The below based on final QA/QC lab fixed gas results	
Date	Test Date	5/1/18
Start	Run Start Time	7:41
	Run Finish Time	9:11
	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	29.59
% H_2O	Moisture Content of LFG, %	1.79
% RH	Relative Humidity, %	46.30
M_{fd}	Dry Mole Fraction	0.982
%CH_4	Methane, %	51.4
%CO_2	Carbon Dioxide, %	34.5
%O_2	Oxygen, %	1.6
%Balance	Assumed as Nitrogen, %	12.0
%H_2	Hydrogen, %	0.54
%CO	Carbon Monoxide, %	0.0032
M_d	Dry Molecular Weight, lb/lb-Mole	27.31
M_s	Wet Molecular weight, lb/lb-Mole	27.15
P_g	Flue Gas Static Pressure, inches of H_2O	1.04
P_s	Absolute Flue Gas Pressure, inches of Mercury	29.67
t_s	Average Stack Gas Temperature, °F	83
ΔP_{avg}	Average Velocity Head, inches of H_2O	0.021
v_s	Average LFG Velocity, feet/second	9.95
A_s	Stack Crossectional Area, square feet	0.51
Q_{sd}	Dry Volumetric Flow Rate, dry scfm	290
Q_s	Standard Volumetric Flow Rate, scfm	295
Q_{aw}	Actual Wet Volumetric Flue Gas Flow Rate, acfm	307
$Q_{lb/hr}$	Dry Air Flow Rate at Standard Conditions, lb/hr	1,233
NHV	Net Heating Value, Btu/scf	467.4
LFG_{CH4}	Methane, lb/hr	372.5
	Methane, grains/dscf	149.85
LFG_{CO2}	Carbon Dioxide, lb/hr	685.8
	Carbon Dioxide, grains/dscf	275.93
LFG_{O2}	Oxygen, lb/hr	23.1
	Oxygen, grains/dscf	9.30
LFG_{N2}	Balance gas as Nitrogen, lb/hr	151.8
	Balance gas as Nitrogen, grains/dscf	61.09
LFG_{H2}	Hydrogen, lb/hr	0.5
	Hydrogen, grains/dscf	0.20
LFG_{CO}	Carbon Monoxide, lb/hr	0.0
	Carbon Monoxide, grains/dscf	0.02

		EP-14 NQ A	EP-14 NQ B
❶$E_{TRS-SO2}$	TRS-->SO2 Emission Concentration, ppmd	48	48
	TRS-->SO2 Emission Rate, lb/hr	0.14	0.14
	TRS-->SO2 Emission Rate, grains/dscf	0.056	0.056

This lb/hr result based on Method 2 velocity/flow determined results - not the respective flow meters.

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

EP14 NQ Blower Outlet (pre flame arrestor - header)

FleetZoom Data Flow Average = 287 **scfm** **5/1/2018**

The below based on final QA/QC lab fixed gas results

CALCULATED RESULTS		
V_s =	**9.95**	ft/sec
Q_{dscfm}=	**290**	ft^3/min
Q_{scfm} =	**295**	ft^3/min
Q_{acfm} =	**307**	ft^3/min
Q_{lb} =	**1,233**	dry air flow rate lb/hr

CALCULATED VALUES

A_s =	0.51	ft^2
P_s =	29.67	in. Hg
$\%H_2O$ =	1.79	%
M_d =	27.31	lb/lb-mole
M_s =	27.15	lb/lb-mole

TEST VARIABLES

C_p =	**0.99**	[unitless]
P_{br} =	**29.59**	in Hg
T_A =	**69.6**	^oF
Point ID =	**9.70**	inches
RH% ambient =	**37.2**	%

SOURCE LFG PARAMETERS

Bws	**1.79**	%
P_g =	**1.0**	in H_2O
T_d =	**83.5**	^oF
T_w =	**67.8**	^oF
T_g =	**83.5**	^oF
RH%=	**46.3**	%

FIXED GAS RESULTS*

CH_4 =	**51.4**	%
CO_2 =	**34.50**	%
O_2 =	**1.60**	%
N_2=	**12.00**	%
H_2 =	**0.54**	%
CO=	**0.0032**	%

based on final QA/QC lab results

FIELD DATA

Duration = 7:41 ***to*** 9:11

Average DP= 0.021 in H_2O

	PARAMETER	Blower Out
EP-014 NORTH QUARRY GCCS FLARE LFG		
The below based on FIELD collected fixed gas data, for Method 2 Monthly FM Calibration		
Date	Test Date	5/1/18
Start	Run Start Time	7:41
	Run Finish Time	9:11
	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	29.59
% H_2O	Moisture Content of LFG, %	1.79
% RH	Relative Humidity, %	46.30
M_{fd}	Dry Mole Fraction	0.982
%CH_4	Methane, %	48.9
%CO_2	Carbon Dioxide, %	37.7
%O_2	Oxygen, %	0.6
%Balance	Assumed as Nitrogen, %	12.9
%H_2	Hydrogen, %	0.0
%CO	Carbon Monoxide, %	0.000
M_d	Dry Molecular Weight, lb/lb-Mole	28.22
M_s	Wet Molecular weight, lb/lb-Mole	28.04
P_g	Flue Gas Static Pressure, inches of H_2O	1.04
P_s	Absolute Flue Gas Pressure, inches of Mercury	29.67
t_s	Average Stack Gas Temperature, °F	83
ΔP_{avg}	Average Velocity Head, inches of H_2O	0.021
v_s	Average LFG Velocity, feet/second	9.80
A_s	Stack Crossectional Area, square feet	0.51
Q_{sd}	Dry Volumetric Flow Rate, dry scfm	285
Q_s	Standard Volumetric Flow Rate, scfm	290
Q_{aw}	Actual Wet Volumetric Flue Gas Flow Rate, acfm	302
$Q_{lb/hr}$	Dry Air Flow Rate at Standard Conditions, lb/hr	1,254
LFG_{CH4}	Methane, lb/hr	348.3
	Methane, grains/dscf	142.42
LFG_{CO2}	Carbon Dioxide, lb/hr	737.5
	Carbon Dioxide, grains/dscf	301.53
LFG_{O2}	Oxygen, lb/hr	8.5
	Oxygen, grains/dscf	3.49
LFG_{N2}	Balance gas as Nitrogen, lb/hr	160.0
	Balance gas as Nitrogen, grains/dscf	65.42
LFG_{H2}	Hydrogen, lb/hr	0.0
	Hydrogen, grains/dscf	0.00
LFG_{CO}	Carbon Monoxide, lb/hr	0.0
	Carbon Monoxide, grains/dscf	0.00

Tuesday, May 01, 2018

EP-014 NORTH QUARRY GCCS FLARE LFG

The below based on FIELD collected fixed gas data, for Method 2 Monthly FM Calibration

LOCATION	TIME		FLOW -SCFM		Method 2 vs. Fleetzoom
	Begin	End	Method 2	FleetZoom	
NQ BLOWER OUT	7:41	9:11	290	287	1.2%

**Note: Fleetzoom data derived from EP-014/FXA1212 TSI Flow Meter*

** Note: per new air construction permit, MO APCP No. 042018-005, monthly Method 2 check and calibration: based on field data and field computations, no adjustment needed to TSI flow meter, FM was monitoring <5% from the reference.*

EP14 SQ Blower Outlet (pre flame arrestor - header)

FleetZoom Data Flow Average = 287 **scfm** **5/1/2018**

The below based on FIELD collected fixed gas data, for Method 2 Monthly FM Calibration

CALCULATED RESULTS		
V_s =	**9.80**	ft/sec
Q_{dscfm}=	**285**	ft^3/min
Q_{scfm} =	**290**	ft^3/min
Q_{acfm} =	**302**	ft^3/min
Q_{lb} =	**1,254**	dry air flow rate lb/hr

CALCULATED VALUES

A_s =	0.51	ft^2
P_s =	29.67	in. Hg
$\%H_2O$ =	1.79	%
M_d =	28.22	lb/lb-mole
M_s =	28.04	lb/lb-mole

TEST VARIABLES

C_p =	**0.99**	[unitless]
P_{br} =	**29.59**	in Hg
T_A =	**69.6**	^oF
Point ID =	**9.70**	inches
RH% ambient =	**37.2**	%

SOURCE LFG PARAMETERS

Bws	**1.79**	%
P_g =	**1.0**	in H_2O
T_d =	**83.5**	^oF
T_w =	**67.8**	^oF
T_g =	**83.5**	^oF
RH%=	**46.3**	%

FIXED GAS RESULTS*

CH_4 =	**48.9**	%
CO_2 =	**37.70**	%
O_2 =	**0.60**	%
N_2=	**12.85**	% field balance subtracting H2%
H_2 =	**0.0**	% assumed based on historical
CO=	**0.000**	% assumed based on historical

**** based on field notes***

FIELD DATA

Duration = 7:41 ***to*** 9:11

Average DP= 0.021 in H_2O

Air TECHNOLOGY
Laboratories, Inc.

May 7, 2018

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: Mike Lambrich
13570 St. Charles Rock Rd.
Bridgeton, MO 63044

LABORATORY TEST RESULTS

Project Reference: Bridgeton Landfill
Lab Number: J050202-01/04

Enclosed are results for sample(s) received 5/02/18 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 TNI Standards.
- The enclosed results relate only to the sample(s).

Preliminary results were e-mailed to Mike Lambrich and Erin Fanning; David Randall, Dustin Thoenen and Don Murphy, Weaver Consultants Group; and Jan Feezor, Feezor Engineering on 5/04/18.

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.

J050202

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

BILLING

P.O. No.:	6605567
Bill to:	Republic Services
	Attn: Mike Lambrich
	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	ASTM D5504-12	ASTM 1946 + H2 + CO & Btu/SC	ASTM 1946 + H2 + CO & Btu/SCF (by CH4 only)			
J050202-01	1169	-20.39	-3.97	-5	NQ EP14 A	5/1/2018	8:13	C-6L	LFG	He	X		X			
-02	1305	-20.13	-4	-5	NQ EP14 B	5/1/2018	8:40	C-6L	LFG	He	X		X			
-03	5983	-20.05	-3.98	-5	Blower Outlet A	5/1/2018	9:42	C-6L	LFG	He	X	X				
-04	5953	-20.29	-4.01	-5	Blower Outlet B	5/1/2018	10:09	C-6L	LFG	He	X	X				

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

SAMPLED BY: Anthony Kimutis — COMPANY: Republic Services — DATE/TIME 5/1/18

RELINQUISHED BY — DATE 5/01/18 — RECEIVED BY — DATE/TIME

RELINQUISHED BY FEDEX — DATE — RECEIVED BY — DATE/TIME 5/2/18 0915

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 Inc.
Attn: Mike Lambrich
Project Name: Bridgeton Landfill
Project No.: NA
Date Received: 05/02/18
Matrix: Air
Reporting Units: ppmv

ASTM D5504

Lab No.:	J050202-01		J050202-02		J050202-03		J050202-04	
Client Sample I.D.:	EP-14 NQ A		EP-14 NQ B		Blower Outlet A		Blower Outlet B	
Date/Time Sampled:	5/1/18 8:13		5/1/18 8:40		5/1/18 9:42		5/1/18 10:09	
Date/Time Analyzed:	5/2/18 13:28		5/2/18 13:41		5/2/18 13:55		5/2/18 14:09	
QC Batch No.:	180502GC3A1		180502GC3A1		180502GC3A1		180502GC3A1	
Analyst Initials:	AS		AS		AS		AS	
Dilution Factor:	3.2		3.2		3.2		3.2	
ANALYTE	Result ppmv	RL ppmv	Result ppmv	RL ppmv	Result ppmv	RL ppmv	Result ppmv	RL ppmv
Hydrogen Sulfide	32	0.63	33	0.63	16	0.63	20	0.63
Carbonyl Sulfide	ND	0.63	ND	0.63	ND	0.63	ND	0.63
Methyl Mercaptan	3.4	0.63	3.2	0.63	170 d	63	170 d	63
Ethyl Mercaptan	ND	0.63	ND	0.63	1.9	0.63	1.9	0.63
Dimethyl Sulfide	12	0.63	10	0.63	940 d	63	950 d	63
Carbon Disulfide	ND	0.63	ND	0.63	ND	0.63	ND	0.63
Isopropyl Mercaptan	ND	0.63	ND	0.63	0.93	0.63	0.93	0.63
t-Butylmercaptan	ND	0.63	ND	0.63	ND	0.63	ND	0.63
n-Propyl Mercaptan	ND	0.63	ND	0.63	ND	0.63	ND	0.63
Ethyl Methyl Sulfide	ND	0.63	ND	0.63	5.4	0.63	5.5	0.63
Thiophene	ND	0.63	ND	0.63	11	0.63	12	0.63
Isobutyl Mercaptan	ND	0.63	ND	0.63	ND	0.63	ND	0.63
Diethyl Sulfide	ND	0.63	ND	0.63	ND	0.63	0.79	0.63
n-Butyl Mercaptan	ND	0.63	ND	0.63	2.0	0.63	2.0	0.63
Dimethyl Disulfide	ND	0.63	ND	0.63	96 d	63	94 d	63
3-Methylthiophene	ND	0.63	ND	0.63	ND	0.63	ND	0.63
Tetrahydrothiophene	ND	0.63	ND	0.63	7.4	0.63	7.9	0.63
2-Ethylthiophene	ND	0.63	ND	0.63	1.7	0.63	1.8	0.63
2,5-Dimethylthiophene	ND	0.63	ND	0.63	1.2	0.63	1.4	0.63
Diethyl Disulfide	ND	0.63	ND	0.63	ND	0.63	ND	0.63
Dimethyl Trisulfide	ND	0.63	ND	0.63	78 d	63	68 d	63
Total Reduced Sulfur	48	0.63	48	0.63	1,400	0.63	1,400	0.63

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

Reviewed/Approved By: _____ Date 5/4/18
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.: 180502GC3A1
Matrix: Air
Units: ppmv

QC for Sulfur Compounds by ASTM D5504

Lab No.:	Method Blank		LCS		LCSD			
Date/Time Analyzed:	5/2/18 11:36		5/2/18 14:50		5/2/18 15:03			
Analyst Initials:	AS		AS		AS			
Datafile:	02may004		02may014		02may015			
Dilution Factor:	1.0		1.0		1.0			
ANALYTE	Results	RL	% Rec.	Criteria	% Rec.	Criteria	%RPD	Criteria
Hydrogen Sulfide	ND	0.20	89	70-130%	90	70-130%	0.7	<30
Carbonyl Sulfide	ND	0.20	98	70-130%	98	70-130%	0.3	<30
Methyl Mercaptan	ND	0.20	94	70-130%	94	70-130%	0.0	<30
Ethyl Mercaptan	ND	0.20	94	70-130%	94	70-130%	0.0	<30
Dimethyl Sulfide	ND	0.20	79	70-130%	80	70-130%	0.9	<30
Carbon Disulfide	ND	0.20	79	70-130%	78	70-130%	0.2	<30
Dimethyl Disulfide	ND	0.20	87	70-130%	87	70-130%	0.3	<30

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

Reviewed/Approved By: _____ Date: 5/4/18
Mark J. Johnson
Operations Manager

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

Client:	**Republic Services Inc.**
Attn:	**Mike Lambrich**
Project Name:	**Bridgeton Landfill**
Project No.:	**NA**
Date Received:	**05/02/18**
Matrix:	**Air**
Reporting Units:	**% v/v**

ASTM D1946

Lab No.:	J050202-01		J050202-02					
Client Sample I.D.:	EP-14 NQ A		EP-14 NQ B					
Date/Time Sampled:	5/1/18 8:13		5/1/18 8:40					
Date/Time Analyzed:	5/2/18 15:14		5/2/18 15:28					
QC Batch No.:	180502GC8A1		180502GC8A1					
Analyst Initials:	AS		AS					
Dilution Factor:	3.2		3.2					
ANALYTE	**Result % v/v**	**RL % v/v**	**Result % v/v**	**RL % v/v**				
Hydrogen	0.56 d	0.032	0.51 d	0.032				
Carbon Dioxide	34.6	0.032	34.4	0.032				
Oxygen/Argon	ND	1.6	ND	1.6				
Nitrogen	11.8	3.2	12.2	3.2				
Methane	51.5	0.0032	51.3	0.0032				
Carbon Monoxide	ND	0.0032	ND	0.0032				
Net Heating Value (BTU/ft3) methane only	468.6	3.2	466.2	3.2				
Gross Heating Value (BTU/ft3) methane only	520.4	3.2	517.8	3.2				

Results normalized including non-methane hydrocarbons
BTU values based on D1946 analysis methane only
ND = Not Detected (below RL)
RL = Reporting Limit
d = Reported from a secondary analysis. QC Batch: 180503GC8A2

Reviewed/Approved By: _____ Date 5/4/18

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 Inc.**
Attn:	**Mike Lambrich**
Project Name:	**Bridgeton Landfill**
Project No.:	**NA**
Date Received:	**05/02/18**
Matrix:	**Air**
Reporting Units:	**% v/v**

ASTM D1946

Lab No.:	J050202-03		J050202-04					
Client Sample I.D.:	Blower Outlet A		Blower Outlet B					
Date/Time Sampled:	5/1/18 9:42		5/1/18 10:09					
Date/Time Analyzed:	5/2/18 15:43		5/2/18 15:57					
QC Batch No.:	180502GC8A1		180502GC8A1					
Analyst Initials:	AS		AS					
Dilution Factor:	3.2		3.2					
ANALYTE	**Result % v/v**	**RL % v/v**	**Result % v/v**	**RL % v/v**				
Hydrogen	9.9	3.2	10.1	3.2				
Carbon Dioxide	32.5	0.032	33.1	0.032				
Oxygen/Argon	7.5	1.6	7.2	1.6				
Nitrogen	36.7	3.2	35.9	3.2				
Methane	12.2	0.0032	12.3	0.0032				
Carbon Monoxide	0.049	0.0032	0.050	0.0032				
Net Heating Value (BTU/ft3)	165.2	3.2	169.8	3.2				
Gross Heating Value (BTU/ft3)	186.5	3.2	191.7	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 5/4/18

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: 180502GC8A1
Matrix: Air
Reporting Units: % v/v

ASTM D1946
LABORATORY CONTROL SAMPLE SUMMARY

Lab No.:	METHOD BLANK			LCS		LCSD					
Date Analyzed:	5/2/18 10:21			5/2/18 9:33		5/2/18 9:49					
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	5.77	115	5.49	110	4.9	70	130	30
Carbon Dioxide	ND	0.010	10	9.07	90	8.74	87	3.6	70	130	30
Oxygen/Argon	ND	0.50	15	15.7	106	15.1	102	3.9	70	130	30
Nitrogen	ND	1.0	70	71.0	101	68.4	98	3.7	70	130	30
Methane	ND	0.0010	0.10	0.110	110	0.110	110	0.2	70	130	30
Carbon Monoxide	ND	0.0010	0.10	0.106	106	0.106	106	0.2	70	130	30

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

Reviewed/Approved By: _____ Date 5/4/18
Mark Johnson
Operations Manager

The cover letter is an integral part of this analytical report

QC Batch # 180503GC8A2
Matrix: Air
Units: % v/v

QC for Low Level Hydrogen Analysis

Lab No.:	Blank		LCS		LCSD			
Date Analyzed:	5/3/2018 12:24		5/3/2018 12:15		5/3/2018 12:19			
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	100	70-130	100	70-130	0.1	<20

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

Reviewed/Approved By: Mark Johnson
Operations Manager

Date: 5/4/18

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

SQ GCCS Blower Outlet (pre diversion chamber)

Flare FM Flow Average = **998** **scfm**

Blower Outlet KURZ FM Average = **994** **scfm**

Δ = **-0.5%**

	PARAMETER		Blower Outlet A	Blower Outlet B
SOUTH QUARRY GCCS LFG - BLOWER OUTLET (EP-012/FL120 Operating Solo)				
Date	Test Date		4/16/18	4/16/18
Time	Start		11:05	11:32
***%CH_4**	Methane, %		11.0	11.1
***%CO_2**	Carbon Dioxide, %		38.2	39.4
***'%O_2**	Oxygen, %		8.1	8.0
***%Balance**	Assumed as Nitrogen, %		42.7	41.5
P_{br}	Ambient, Atmospheric Pressure, inches of Hg		29.69	29.66
P_g	Flue Gas Static Pressure, inches of H_2O		14.88	14.93
P_s	Flue Gas Static Absolute Pressure, inches of Hg		30.78	30.76
t_d	Blower Outlet LFG Temperature, °F		51.2	56.2
t_w	Blower Outlet LFG Wet Bulb Temperature, °F		45.2	51.2
%H_2O	LFG Moisture Content (calculated wet bulb-dry bulb), %		0.91	
Q_s	Kurz Blower Outlet, Standard Volumetric Flow Rate, scfm		994	
Q_{sd}	Dry Volumetric Flow Rate, dscf		985	
LFG_{CH4}	Methane, lb/hr		273.2	275.7
	Methane, grains/dscf		32.07	32.36
LFG_{CO2}	Carbon Dioxide, lb/hr		2,602.8	2,684.5
	Carbon Dioxide, grains/dscf		305.52	315.12
LFG_{O2}	Oxygen, lb/hr		401.3	396.3
	Oxygen, grains/dscf		47.10	46.52
LFG_{N2}	Balance gas as Nitrogen, lb/hr		1,851.9	1,799.9
	Balance gas as Nitrogen, grains/dscf		217.39	211.28

** 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
❶$E_{TRS-SO2}$	TRS-->SO2 Emission Concentration, ppmd	1,400	1,300
	TRS-->SO2 Emission Rate, lb/hr	13.89	12.89
	TRS-->SO2 Emission Rate, grains/dscf	1.630	1.514
	TPY =	60.82	56.48

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

EP14 NQ GCCS Blower Outlet (pre flame arrestor - header)

Flare FM Flow Average = **333** **scfm**

	PARAMETER	NQ EP14A	NQ EP14B
EP14 NORTH QUARRY FLARE (OPERATING SOLO, NQ LFG Only)			
Date	Test Date	4/16/18	4/16/18
Time	Start	9:13	9:41
***%CH_4**	Methane, %	38.9	39.5
***%CO_2**	Carbon Dioxide, %	33.1	33.9
***'%O_2**	Oxygen, %	4.0	3.4
***%Balance**	Assumed as Nitrogen, %	24.0	23.2
P_{br}	Ambient, Atmospheric Pressure, inches of Hg	29.66	29.69
P_g	Flue Gas Static Pressure, inches of H_2O	1.04	1.03
P_s	Flue Gas Static Absolute Pressure, inches of Hg	29.74	29.77
t_d	Blower Outlet LFG Temperature, °F	46.8	52.0
t_w	Blower Outlet LFG Wet Bulb Temperature, °F	43.6	48.9
%H_2O	LFG Moisture Content (calculated wet bulb-dry bulb), %	0.95	
Q_s	Flare Flow Meter, Standard Volumetric Flow Rate, scfm	333	
Q_{sd}	Dry Volumetric Flow Rate, dscfm	330	
LFG_{CH4}	Methane, lb/hr	324.2	329.2
	Methane, grains/dscf	113.41	115.16
LFG_{CO2}	Carbon Dioxide, lb/hr	756.7	775.0
	Carbon Dioxide, grains/dscf	264.73	271.13
LFG_{O2}	Oxygen, lb/hr	66.5	56.5
	Oxygen, grains/dscf	23.26	19.77
LFG_{N2}	Balance gas as Nitrogen, lb/hr	349.3	337.6
	Balance gas as Nitrogen, grains/dscf	122.18	118.11

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

		NQ EP14A	NQ EP14B
❶**$E_{TRS-SO2}$**	TRS-->SO2 Emission Concentration, ppmd	51	24
	TRS-->SO2 Emission Rate, lb/hr	0.17	0.08
	TRS-->SO2 Emission Rate, grains/dscf	0.059	0.028
	TPY =	0.74	0.35

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.

April 24, 2018

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: Mike Lambrich
13570 St. Charles Rock Rd.
Bridgeton, MO 63044

LABORATORY TEST RESULTS

Project Reference: Bridgeton Landfill
Lab Number: J041806-01/04

Enclosed are results for sample(s) received 4/18/18 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 TNI Standards.
- The enclosed results relate only to the sample(s).

Preliminary results were e-mailed to Mike Lambrich and Erin Fanning; David Randall, Dustin Thoenen and Don Murphy, Weaver Consultants Group; and Jan Feezor, Feezor Engineering on 4/23/18.

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

PAGE: 1 OF 1

TURNAROUND TIME: Standard ☐ | Same Day ☐ | 24 hours ☐ | Other: | 48 hours ☐ | 72 hours ■ | 96 hours ☐ | 5 day ☐

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

BILLING
P.O. No.: 6605567
Bill to: Republic Services
Attn: Mike Lambrich
13570 St. Charles Rock Rd.
Bridgeton, MO 63044

ANALYSIS REQUEST: ASTM D5504-12 | ASTM D1946-O2, N2 | Go 4/18/18 per AK

LAB USE ONLY	Canister ID	Sample Start ("hg)	Sample End ("hg)	Lab Receive ("hg)	SAMPLE IDENTIFICATION	SAMPLE DATE	SAMPLE TIME	CONTAINER QTY/TYPE	MATRIX	PRESERVATION	ASTM D5504-12	ASTM D1946-O2, N2
J041806-01	4432	-20.87	-4	-2.5	NQ EP14 A	4/16/2018	9:13	C-6L	LFG	He	X	X
-02	1290	-20.91	-4	-2.5	NQ EP14 B	4/16/2018	9:41	C-6L	LFG	He	X	X
-03	6062	-21	-4.01	-2.5	Blower Outlet A	4/16/2018	11:05	C-6L	LFG	He	X	X
-04	5192	-21.08	-4.01	-3	Blower Outlet B	4/16/2018	11:32	C-6L	LFG	He	X	X

AUTHORIZATION TO PERFORM WORK: Dave Penoyer — COMPANY: Republic Services — DATE/TIME:
SAMPLED BY: Anthony Kimutis — COMPANY: Republic Services — DATE/TIME: 4/16/18 0900-1200
RELINQUISHED BY: [signature] — DATE: 4/16/18 — RECEIVED BY: — DATE/TIME:
RELINQUISHED BY: FedEx — DATE: — RECEIVED BY: J. Giang — DATE/TIME: 4/18/18 9:14
RELINQUISHED BY: — DATE: — RECEIVED BY: — DATE/TIME:

COMMENTS

METHOD OF TRANSPORT (circle one): Walk-In | FedEx (circled) | 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: Mike Lambrich
Project Name: Bridgeton Landfill
Project No.: NA
Date Received: 04/18/18
Matrix: Air
Reporting Units: ppmv

ASTM D5504

Lab No.:	J041806-01		J041806-02		J041806-03		J041806-04	
Client Sample I.D.:	EP-14 NQ A		EP-14 NQ B		Blower Outlet A		Blower Outlet B	
Date/Time Sampled:	4/16/18 9:13		4/16/18 9:41		4/16/18 11:05		4/16/18 11:32	
Date/Time Analyzed:	4/20/18 13:24		4/20/18 13:38		4/20/18 13:52		4/20/18 14:05	
QC Batch No.:	180420GC3A1		180420GC3A1		180420GC3A1		180420GC3A1	
Analyst Initials:	AS		AS		AS		AS	
Dilution Factor:	2.7		2.7		2.7		2.8	
ANALYTE	Result ppmv	RL ppmv	Result ppmv	RL ppmv	Result ppmv	RL ppmv	Result ppmv	RL ppmv
Hydrogen Sulfide	27	0.55	ND	0.55	26	0.55	17	0.56
Carbonyl Sulfide	ND	0.55	ND	0.55	ND	0.55	ND	0.56
Methyl Mercaptan	3.2	0.55	1.7	0.55	180 d	55	170 d	56
Ethyl Mercaptan	ND	0.55	ND	0.55	1.8	0.55	1.9	0.56
Dimethyl Sulfide	19	0.55	19	0.55	960 d	55	940 d	56
Carbon Disulfide	ND	0.55	ND	0.55	0.55	0.55	0.57	0.56
Isopropyl Mercaptan	ND	0.55	ND	0.55	ND	0.55	ND	0.56
t-Butyl Mercaptan	ND	0.55	ND	0.55	ND	0.55	ND	0.56
n-Propyl Mercaptan	ND	0.55	ND	0.55	ND	0.55	ND	0.56
Ethyl Methyl Sulfide	ND	0.55	ND	0.55	5.1	0.55	5.4	0.56
Thiophene	ND	0.55	ND	0.55	10	0.55	11	0.56
Isobutyl Mercaptan	ND	0.55	ND	0.55	ND	0.55	ND	0.56
Diethyl Sulfide	ND	0.55	ND	0.55	0.59	0.55	0.65	0.56
n-Butyl Mercaptan	ND	0.55	ND	0.55	1.8	0.55	1.9	0.56
Dimethyl Disulfide	0.74	0.55	0.90	0.55	78 d	55	75 d	56
3-Methylthiophene	ND	0.55	ND	0.55	0.66	0.55	0.72	0.56
Tetrahydrothiophene	ND	0.55	ND	0.55	5.8	0.55	6.3	0.56
2-Ethylthiophene	ND	0.55	ND	0.55	1.1	0.55	1.2	0.56
2,5-Dimethylthiophene	ND	0.55	ND	0.55	0.83	0.55	0.87	0.56
Diethyl Disulfide	ND	0.55	ND	0.55	ND	0.55	0.61	0.56
Dimethyl Trisulfide	ND	0.55	0.77	0.55	16	0.55	19	0.56
Total Reduced Sulfur	51	0.55	24	0.55	1,400	0.55	1,300	0.56

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

Reviewed/Approved By: _____ Date 4/23/18
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: Mike Lambrich
Project Name: Bridgeton Landfill
Project No.: NA
Date Received: 04/18/18
Matrix: Air
Reporting Units: ppmv

ASTM D5504

Lab No.:	METHOD BLANK
Client Sample I.D.:	--
Date/Time Sampled:	--
Date/Time Analyzed:	4/20/18 13:11
QC Batch No.:	180420GC3A1
Analyst Initials:	AS
Dilution Factor:	1.0

ANALYTE	Result ppmv	RL ppmv
Hydrogen Sulfide	ND	0.20
Carbonyl Sulfide	ND	0.20
Methyl Mercaptan	ND	0.20
Ethyl Mercaptan	ND	0.20
Dimethyl Sulfide	ND	0.20
Carbon Disulfide	ND	0.20
Isopropyl Mercaptan	ND	0.20
t-Butyl Mercaptan	ND	0.20
n-Propyl Mercaptan	ND	0.20
Ethyl Methyl Sulfide	ND	0.20
Thiophene	ND	0.20
Isobutyl Mercaptan	ND	0.20
Diethyl Sulfide	ND	0.20
n-Butyl Mercaptan	ND	0.20
Dimethyl Disulfide	ND	0.20
3-Methylthiophene	ND	0.20
Tetrahydrothiophene	ND	0.20
2-Ethylthiophene	ND	0.20
2,5-Dimethylthiophene	ND	0.20
Diethyl Disulfide	ND	0.20
Dimethyl Trisulfide	ND	0.20
Total Reduced Sulfur	ND	0.20

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

Reviewed/Approved By: _____ Date 4/23/18
Mark Johnson
Operations Manager

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.: 180420GC3A1
Matrix: Air
Units: ppmv

QC for Sulfur Compounds by ASTM D5504

Lab No.:	Method Blank		LCS		LCSD			
Date/Time Analyzed:	4/20/18 13:11		4/20/18 15:52		4/20/18 16:06			
Analyst Initials:	AS		AS		AS			
Datafile:	20apr007		20apr018		20apr019			
Dilution Factor:	1.0		1.0		1.0			
ANALYTE	Results	RL	% Rec.	Criteria	% Rec.	Criteria	%RPD	Criteria
Hydrogen Sulfide	ND	0.20	91	70-130%	92	70-130%	1.8	<30
Carbonyl Sulfide	ND	0.20	102	70-130%	101	70-130%	0.5	<30
Methyl Mercaptan	ND	0.20	96	70-130%	98	70-130%	1.7	<30
Ethyl Mercaptan	ND	0.20	96	70-130%	97	70-130%	1.2	<30
Dimethyl Sulfide	ND	0.20	82	70-130%	82	70-130%	0.7	<30
Carbon Disulfide	ND	0.20	81	70-130%	81	70-130%	0.2	<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: 4/23/18
Mark J. Johnson
Operations Manager

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

Client: Republic Services
Attn: Mike Lambrich
Project Name: Bridgeton Landfill
Project No.: NA
Date Received: 04/18/18
Matrix: Air
Reporting Units: % v/v

ASTM D1946

Lab No.:	J041806-01		J041806-02		J041806-03		J041806-04	
Client Sample I.D.:	EP-14 NQ A		EP-14 NQ B		Blower Outlet A		Blower Outlet B	
Date/Time Sampled:	4/16/18 9:13		4/16/18 9:41		4/16/18 11:05		4/16/18 11:32	
Date/Time Analyzed:	4/19/18 14:15		4/19/18 14:30		4/19/18 14:44		4/19/18 14:59	
QC Batch No.:	180419GC8A2		180419GC8A2		180419GC8A2		180419GC8A2	
Analyst Initials:	AS		AS		AS		AS	
Dilution Factor:	2.7		2.7		2.7		2.8	
ANALYTE	Result % v/v	RL % v/v	Result % v/v	RL % v/v	Result % v/v	RL % v/v	Result % v/v	RL % v/v
Oxygen/Argon	4.9	1.4	4.2	1.4	8.4	1.4	8.2	1.4
Nitrogen	27	2.7	26	2.7	39	2.7	37	2.8

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

Reviewed/Approved By: _____ Date 4/23/18
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: 180419GC8A2
Matrix: Air
Reporting Units: % v/v

ASTM D1946
LABORATORY CONTROL SAMPLE SUMMARY

Lab No.:	METHOD BLANK			LCS		LCSD					
Date Analyzed:	4/19/18 13:02			4/19/18 13:17		4/19/18 13:31					
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
Oxygen/Argon	ND	0.50	15	14.6	98	15.9	107	8.9	70	130	30
Nitrogen	ND	1.0	70	65.1	93	71.0	102	8.8	70	130	30

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

Reviewed/Approved By: _____ **Date** 4/23/18
Mark Johnson
Operations Manager

The cover letter is an integral part of this analytical report

ATTACHMENT C

GAS WELL ANALYSIS MAPS

LEGEND

WELL LOCATION

HYDROGEN

		<	10%
10%	<	<	20%
20%	<	<	30%
30%	<	<	40%
		≥	40%

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

*Only points monitored during the report period show data.

PGW-60
GEW-1A
GEW-003
GEW-002
GEW-02S
GEW-004
GEW-005
GEW-046R
LCS-6B
GEW-048
GEW-047R
GEW-045R
T-56
GEW-006
GEW-049
GEW-050
GEW-044
GEW-051
GEW-052
LCS-5A
GEW-043R
GEW-007
GEW-053
GEW-054
GEW-008
GEW-042R
LCS-5B
GEW-041R
GEW-055
GEW-009
GEW-040
SEE INSET
GEW-187
GEW-149
GEW-154
GEW-153
GEW-107
GEW-148
GEW-013A
SEW-003
GEW-113
GEW-152
GEW-059R
GEW-067A
GEW-090
GEW-151
GEW-087
GEW-106
GEW-016R
GEW-015
GEW-088
GEW-058A
GEW-158
GEW-058
GEW-105
GEW-147
GEW-156
GEW-104
GEW-176
GEW-135
GEW-150
GEW-086
GEW-136
GEW-057R
GEW-175
GEW-134
LCS-4B
GEW-146
GEW-057B
GEW-157
GEW-182
GEW-018B
GEW-116
GEW-137
GEW-133
GEW-082R
GEW-174
GEW-145
GEW-178
GEW-117
GEW-118
GEW-102
GEW-179
GEW-132
GEW-155
GEW-173
GEW-068A
GEW-138
GEW-188
GEW-081
GEW-122
GEW-144
GEW-180
GEW-184
GEW-121
GEW-078R
GEW-140
GEW-101
GEW-120
GEW-167
GEW-143
GEW-185
GEW-022R
GEW-077
GEW-181
GEW-163
GEW-172
GEW-123
GEW-166
GEW-139
LCS-2D
GEW-164
GEW-131
GEW-142
GEW-100
GEW-124
GEW-171
GEW-165
GEW-130
GEW-125
GEW-141
SEW -002
GEW-168
GEW-177
GEW-126
GEW-169
GEW-129
GEW-127
GEW-170
GEW-186
GEW-128

GEW-110
GEW-010
GEW-039
GIW-13
GIW-12
GEW-056R
GEW-109
GIW-09
GIW-08
GEW-038
GIW-11
LCS-1D
GIW-02
GIW-01
GIW-03
GIW-10
GIW-04
GIW-07
GEW-162
GEW-161
GIW-06
GIW-05
GEW-159
GEW-091
GEW-160
GEW-108

NOTE:

1.) AERIAL TOPOGRAPHY PROVIDED BY COOPER AERIAL SURVEYS, INC. AND IS DATED DECEMBER 1, 2017

0 200 400 Feet

N

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

BRIDGETON LANDFILL
MONTHLY REPORTING

HYDROGEN DATA MAP - APRIL 2018

PROJECT NUMBER: BT-145

FILE PATH: C:\Users\plins\Dropbox (Feezor Engineering)\Bridgeton\100-149\BT-145 (Agreed Order Reporting)\Monthly Reports\04-2018 Report\Draft Site Data\gas maps\April 2018.dwg

Engineering for a Better World
FEEZOR ENGINEERING, INC.

APRIL 2018
DESIGNED BY: PML
APPROVED BY: ---

REVISION DATE

DRAWING NO.:
001

LEGEND

WELL LOCATION

CARBON MONOXIDE (PPM)

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

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

*Only points monitored during the report period show data.

PGW-60
GEW-1A
GEW-003
GEW-002
GEW-02S
GEW-004
GEW-005
GEW-046R
LCS-6B
GEW-048
GEW-047R
GEW-045R
T-56
GEW-006
GEW-049
GEW-050
GEW-044
GEW-051
GEW-052
LCS-5A
GEW-043R
GEW-007
GEW-053
GEW-054
GEW-008
GEW-042R
LCS-5B
GEW-041R
GEW-055
GEW-009
GEW-040
SEE INSET
GEW-187
GEW-149
GEW-154
GEW-153
GEW-107
GEW-148
GEW-013A
SEW-003
GEW-113
GEW-152
GEW-059R
GEW-067A
GEW-090
GEW-151
GEW-087
GEW-106
GEW-016R
GEW-015
GEW-088
GEW-058A
GEW-158
GEW-058
GEW-105
GEW-147
GEW-156
GEW-104
GEW-176
GEW-135
GEW-150
GEW-086
GEW-136
GEW-175
GEW-057R
GEW-134
LCS-4B
GEW-146
GEW-157
GEW-057B
GEW-182
GEW-018B
GEW-116
GEW-137
GEW-133
GEW-174
GEW-145
GEW-178
GEW-082R
GEW-117
GEW-102
GEW-118
GEW-179
GEW-132
GEW-155
GEW-173
GEW-068A
GEW-138
GEW-188
GEW-081
GEW-144
GEW-180
GEW-184
GEW-122
GEW-078R
GEW-101
GEW-121
GEW-140
GEW-143
GEW-120
GEW-167
GEW-185
GEW-022R
GEW-077
GEW-181
GEW-172
GEW-163
GEW-139
LCS-2D
GEW-123
GEW-166
GEW-131
GEW-142
GEW-164
GEW-100
GEW-124
GEW-171
GEW-165
GEW-130
GEW-141
GEW-125
SEW -002
GEW-168
GEW-177
GEW-126
GEW-169
GEW-129
GEW-127
GEW-170
GEW-186
GEW-128

GEW-110
GEW-010
GEW-039
GIW-13
GIW-12
GEW-056R
GEW-109
GIW-09
GIW-08
GEW-038
GIW-11
LCS-1D
GIW-02
GIW-01
GIW-03
GIW-10
GIW-07
GIW-04
GEW-162
GEW-161
GIW-06
GIW-05
GEW-159
GEW-091
GEW-160
GEW-108

NOTE:

1.) AERIAL TOPOGRAPHY PROVIDED BY COOPER AERIAL SURVEYS, INC. AND IS DATED DECEMBER 1, 2017

0 200 400 Feet

N

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

BRIDGETON LANDFILL
MONTHLY REPORTING

CARBON MONOXIDE DATA MAP - APRIL 2018

PROJECT NUMBER: BT-145

FILE PATH: C:\Users\plins\Dropbox (Feezor Engineering)\Bridgeton\100-149\BT-145 (Agreed Order Reporting)\Monthly Reports\04-2018 Report\Draft Site Data\gas maps\April 2018.dwg

Engineering for a Better World
FEEZOR ENGINEERING, INC.

APRIL 2018
DESIGNED BY: PML
APPROVED BY: ---

REVISION DATE

DRAWING NO.:
002

LEGEND

WELL LOCATION

MAXIMUM TEMPERATURE (F°)

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

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

*Only points monitored during the report period show data.

SEE INSET

NOTE:

1.) AERIAL TOPOGRAPHY PROVIDED BY COOPER AERIAL SURVEYS, INC. AND IS DATED DECEMBER 1, 2017

0 200 400 Feet

N

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

BRIDGETON LANDFILL
MONTHLY REPORTING

INITIAL TEMPERATURE MAXIMUMS - APRIL 2018

PROJECT NUMBER: BT-145 | FILE PATH: C:\Users\plins\Dropbox (Feezor Engineering)\Bridgeton\100-149\BT-145 (Agreed Order Reporting)\Monthly Reports\04-2018 Report\Draft Site Data\gas maps\April 2018.dwg

Engineering for a Better World
FEEZOR ENGINEERING, INC.

APRIL 2018
DESIGNED BY: PML
APPROVED BY: ---

REVISION | DATE

DRAWING NO.:
003

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	12/12/2017	54	40	ND	4.4	ND	ND	
GEW-002	1/8/2018	52	36	ND	11	ND	ND	
GEW-002	2/5/2018	56	40	ND	ND	ND	ND	
GEW-002	3/8/2018	52	36	ND	11	ND	ND	
GEW-002	4/6/2018	57	40	ND	ND	ND	ND	
GEW-02S	1/23/2018	57	36	1.6	5.2	ND	ND	
GEW-02S	3/8/2018	46	26	6.0	21	ND	ND	See Note 8
GEW-02S	3/30/2018	59	32	2.0	7.3	ND	ND	
GEW-003	12/12/2017	49	36	ND	14	0.067	ND	
GEW-003	1/8/2018	43	34	ND	21	0.098	ND	
GEW-003	2/5/2018	48	37	ND	14	0.10	ND	
GEW-003	3/8/2018	47	35	ND	18	0.074	ND	
GEW-003	4/6/2018	51	37	ND	12	0.060	ND	
GEW-004	12/12/2017	52	38	ND	9.3	0.094	ND	
GEW-004	1/8/2018	50	37	ND	13	0.084	ND	
GEW-004	2/5/2018	47	36	ND	15	0.070	ND	
GEW-004	3/8/2018	51	36	ND	12	0.070	ND	
GEW-004	4/6/2018	53	37	ND	9.6	0.068	ND	
GEW-005	12/12/2017	46	34	ND	19	ND	ND	
GEW-005	1/8/2018	43	33	ND	23	ND	ND	
GEW-005	2/6/2018	37	30	ND	33	ND	ND	
GEW-005	3/8/2018	43	31	ND	25	ND	ND	
GEW-005	4/6/2018	49	34	ND	16	ND	ND	
GEW-006	1/8/2018	50	33	ND	16	ND	ND	
GEW-006	3/8/2018	54	34	ND	12	ND	ND	
GEW-007	1/9/2018	58	38	ND	ND	ND	ND	
GEW-007	3/5/2018	59	38	ND	ND	ND	ND	
GEW-008	12/13/2017	53	41	ND	3.4	1.5	ND	
GEW-008	1/9/2018	54	42	ND	ND	1.7	ND	
GEW-008	2/6/2018	54	41	ND	3.9	0.55	ND	
GEW-008	3/5/2018	54	41	ND	ND	1.7	ND	
GEW-008	4/2/2018	51	39	1.8	6.2	1.6	ND	See Note 8
GEW-008	4/26/2018	55	41	ND	ND	1.6	ND	
GEW-009	12/13/2017	50	38	ND	11	0.70	ND	
GEW-009	1/9/2018	53	39	ND	6.7	0.60	ND	
GEW-009	2/6/2018	49	37	ND	12	1.1	ND	
GEW-009	3/5/2018	55	40	ND	3.3	1.0	ND	
GEW-009	4/2/2018	54	40	ND	4.3	0.98	ND	
GEW-040	12/13/2017	58	39	ND	ND	ND	ND	
GEW-040	1/9/2018	57	38	ND	4.2	ND	ND	
GEW-040	2/6/2018	56	35	1.4	7.7	ND	ND	
GEW-040	3/6/2018	50	32	3.4	15	ND	ND	See Note 8
GEW-040	3/30/2018	51	32	2.2	14	ND	ND	See Note 4
GEW-040	4/2/2018	55	35	ND	8.8	ND	ND	
GEW-041R	1/9/2018	53	35	ND	12	ND	ND	
GEW-041R	3/6/2018	54	34	ND	12	ND	ND	
GEW-042R	12/13/2017	57	39	ND	ND	ND	ND	
GEW-042R	1/8/2018	58	39	ND	3.1	ND	ND	
GEW-042R	2/6/2018	57	39	ND	3.1	ND	ND	
GEW-042R	3/8/2018	52	35	3.0	10	ND	ND	See Note 8
GEW-042R	3/30/2018	58	38	ND	3.2	ND	ND	
GEW-042R	4/6/2018	55	37	1.7	5.7	ND	ND	See Note 8
GEW-042R	4/26/2018	57	38	ND	ND	ND	ND	
GEW-043R	1/8/2018	56	39	ND	3.9	0.29	ND	
GEW-043R	3/8/2018	56	39	ND	4.5	0.24	ND	

Laboratory Analysis - Bridgeton Landfill

Well Name	Date Sampled	Methane	CO_2	O_2/Argon	Nitrogen	Hydrogen	Carbon Monoxide	Comments
		(%)					(ppm)	
GEW-044	1/8/2018	48	35	ND	16	ND	ND	
GEW-044	3/8/2018	41	26	5.1	28	ND	ND	See Note 8
GEW-044	3/30/2018	54	34	ND	12	ND	ND	
GEW-045R	12/12/2017	61	36	ND	ND	ND	ND	
GEW-045R	1/8/2018	53	37	2.4	8.2	ND	ND	See Note 3
GEW-045R	2/6/2018	56	42	ND	ND	ND	ND	
GEW-045R	3/8/2018	58	38	ND	ND	ND	ND	
GEW-045R	4/6/2018	57	39	ND	ND	ND	ND	
GEW-046R	12/12/2017	57	38	ND	4.2	0.039	ND	
GEW-046R	1/8/2018	47	36	ND	17	0.081	ND	
GEW-046R	2/6/2018	51	36	ND	13	0.085	ND	
GEW-046R	3/8/2018	47	33	2.1	18	0.084	ND	See Note 8
GEW-046R	3/30/2018	53	35	ND	11	0.036	ND	
GEW-046R	4/6/2018	53	35	ND	11	0.051	ND	
GEW-047R	12/12/2017	48	36	1.5	14	0.032	ND	
GEW-047R	1/8/2018	37	31	1.5	30	0.041	ND	
GEW-047R	2/6/2018	48	36	ND	15	ND	ND	
GEW-047R	3/8/2018	45	33	ND	22	0.035	ND	
GEW-047R	4/6/2018	49	35	ND	15	0.061	ND	
GEW-048	12/12/2017	55	38	ND	6.6	ND	ND	
GEW-048	1/8/2018	50	35	ND	13	0.032	ND	
GEW-048	2/6/2018	51	36	ND	13	ND	ND	
GEW-048	3/8/2018	54	36	ND	9.2	ND	ND	
GEW-048	4/6/2018	53	35	2.7	9.3	ND	ND	See Note 8
GEW-048	4/25/2018	58	38	ND	ND	ND	ND	
GEW-049	12/12/2017	53	36	ND	10	0.056	ND	
GEW-049	1/8/2018	47	34	ND	17	0.036	ND	
GEW-049	2/6/2018	47	33	ND	19	ND	ND	
GEW-049	3/8/2018	50	35	ND	14	0.055	ND	
GEW-049	4/6/2018	47	33	1.7	19	ND	ND	See Note 8
GEW-049	4/25/2018	58	38	ND	ND	ND	ND	
GEW-050	1/8/2018	46	32	2.3	19	0.035	ND	See Note 4
GEW-050	3/5/2018	55	35	ND	9.1	0.059	ND	
GEW-051	1/8/2018	55	39	ND	4.1	0.90	ND	
GEW-051	3/5/2018	55	38	ND	4.5	1.1	ND	
GEW-052	1/8/2018	34	30	ND	35	ND	ND	
GEW-052	3/5/2018	55	37	1.6	6.4	0.032	ND	
GEW-053	12/13/2017	51	41	ND	ND	5.1	62	
GEW-053	1/8/2018	49	38	ND	7.7	4.7	57	
GEW-053	2/6/2018	49	39	ND	6.1	4.7	60	
GEW-053	3/5/2018	49	38	ND	6.1	5.4	55	
GEW-053	4/5/2018	51	39	ND	4.7	4.9	60	
GEW-054	12/12/2017	54	41	ND	ND	2.5	ND	
GEW-054	1/9/2018	55	39	ND	3.5	1.5	ND	
GEW-054	2/6/2018	52	39	1.4	6.1	2.1	28	
GEW-054	3/5/2018	52	38	ND	5.8	2.4	ND	
GEW-054	4/5/2018	49	37	2.7	9.6	2.2	ND	See Note 8
GEW-054	4/25/2018	54	40	ND	ND	2.3	ND	
GEW-055	12/12/2017	54	40	ND	3.0	2.1	32	
GEW-055	1/8/2018	50	40	ND	ND	6.5	46	
GEW-055	2/6/2018	50	38	ND	8.7	2.0	30	
GEW-055	3/6/2018	48	37	ND	12	2.0	ND	
GEW-055	4/2/2018	51	39	ND	7.4	2.2	ND	
Flare Station[2]	12/5/2017	42.4	32.4	3.1	21.0	ND	ND	See Note 5
Flare Station[2]	1/3/2018	41.9	31.5	3.2	22.4	ND	ND	See Note 5
Flare Station[2]	2/5/2018	36.1	28.7	4.5	29.6	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]	3/7/2018	35.3	26.5	6.1	31.1	ND	ND	See Note 5
Flare Station[2]	4/5/2018	45.2	35.1	2.1	17.2	0.6	ND	See Note 5

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. (8) Invalid sample due to canister leak; resampled.

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	12/12/2017	57	40	ND	ND	ND	ND	
GEW-010	1/8/2018	56	41	ND	ND	ND	ND	
GEW-010	2/6/2018	56	41	ND	ND	0.25	ND	
GEW-010	3/6/2018	55	41	ND	ND	0.22	ND	
GEW-010	4/3/2018	56	42	ND	ND	ND	ND	
GEW-013A	3/12/2018	9.5	32	9.1	41	8.5	350	See Note 4
GEW-015	3/12/2018	14	44	ND	12	29	1,100	
GEW-016R	3/12/2018	5.5	38	2.8	26	27	1,100	
GEW-018B	3/15/2018	0.66	34	6.0	23	36	1,300	See Note 3
GEW-022R	1/15/2018	2.8	58	ND	2.9	35	2,100	
GEW-022R	3/16/2018	0.42	34	10	36	19	1,400	See Note 4
GEW-038	12/13/2017	0.89	53	ND	ND	42	2,200	
GEW-038	1/8/2018	12	39	5.2	21	22	1,000	See Note 4
GEW-038	2/6/2018	13	46	2.2	7.4	31	1,500	
GEW-038	3/6/2018	1.7	38	6.3	22	32	1,300	See Note 4
GEW-038	4/4/2018	2.1	18	14	51	15	620	See Note 4
GEW-039	12/13/2017	46	48	ND	5.1	ND	ND	
GEW-039	1/8/2018	30	37	2.2	30	0.050	37	
GEW-039	2/6/2018	26	32	4.5	37	0.042	42	
GEW-039	3/6/2018	33	35	2.3	30	0.052	ND	
GEW-039	4/4/2018	24	31	4.2	41	0.038	30	
GEW-056R	12/12/2017	9.9	47	ND	20	22	920	
GEW-056R	1/8/2018	26	45	ND	6.5	21	630	
GEW-056R	2/6/2018	28	43	ND	11	18	570	
GEW-056R	3/6/2018	28	44	ND	7.9	19	530	
GEW-056R	4/3/2018	27	47	ND	ND	23	670	
GEW-057R	1/16/2018	5.4	38	4.6	16	36	1,000	
GEW-057R	3/14/2018	4.7	33	8.7	30	23	510	See Note 4
GEW-057B	3/14/2018	2.3	17	14	51	16	370	See Note 3
GEW-058	1/15/2018	2.5	34	4.4	27	32	1,200	
GEW-058	3/9/2018	4.7	23	6.0	53	13	500	See Note 4
GEW-058A	1/15/2018	1.4	31	5.5	28	34	1,300	See Note 4
GEW-058A	3/9/2018	1.2	34	5.0	23	36	1,300	
GEW-059R	1/10/2018	15	40	ND	5.5	38	1,300	
GEW-059R	3/9/2018	18	37	ND	13	31	960	
GEW-067A	3/15/2018	2.8	31	6.1	35	24	350	See Note 3
GEW-068A	3/14/2018	13	46	2.5	11	27	1,600	
GEW-077	3/15/2018	0.44	45	3.7	13	37	2,000	
GEW-078R	3/14/2018	13	41	1.8	24	19	670	
GEW-081	3/15/2018	0.35	24	12	40	22	690	See Note 4
GEW-082R	1/12/2018	14	37	ND	22	26	910	
GEW-082R	3/14/2018	8.0	32	1.7	35	23	770	
GEW-086	1/15/2018	15	32	5.3	38	10	250	See Note 3
GEW-086	3/12/2018	13	32	6.1	38	12	250	See Note 4
GEW-087	3/12/2018	5.5	13	15	64	2.0	120	See Note 3
GEW-088	3/15/2018	1.4	41	ND	ND	54	980	
GEW-090	1/5/2018	20	42	ND	5.3	31	1,000	
GEW-090	3/8/2018	19	41	ND	8.5	30	860	
GEW-091	3/8/2018	1.1	12	17	60	9.9	150	See Note 3
GEW-100	3/14/2018	1.3	56	2.5	8.6	30	950	
GEW-101	3/14/2018	17	61	2.7	10	8.8	410	
GEW-102	3/14/2018	13	45	2.2	7.5	31	420	
GEW-104	3/14/2018	1.2	53	ND	ND	42	1,300	
GEW-105	3/23/2018	10	37	7.1	30	16	720	See Note 4
GEW-106	3/13/2018	12	33	7.2	35	12	270	See Note 4

Laboratory Analysis - Bridgeton Landfill

Well Name	Date Sampled	Methane	CO_2	O_2/Argon	Nitrogen	Hydrogen	Carbon Monoxide	Comments
		(%)					(ppm)	
GEW-107	1/5/2018	40	51	ND	3.7	4.7	240	
GEW-107	3/9/2018	12	52	2.5	8.6	25	1,300	
GEW-108	3/9/2018	36	47	ND	14	1.3	60	
GEW-109	12/13/2017	26	35	3.1	22	13	340	
GEW-109	1/8/2018	20	32	4.5	33	10	310	
GEW-109	2/6/2018	14	31	2.0	44	9.1	370	
GEW-109	3/6/2018	16	42	ND	24	16	570	
GEW-109	4/4/2018	22	38	2.3	27	11	380	
GEW-110	12/12/2017	12	38	4.2	19	27	990	
GEW-110	1/8/2018	6.5	18	14	52	9.1	340	See Note 4
GEW-110	2/6/2018	11	50	ND	ND	35	1,300	
GEW-110	3/6/2018	17	46	1.9	8.6	26	800	
GEW-110	4/3/2018	21	37	4.6	19	19	550	
GEW-113	3/12/2018	8.9	40	4.6	25	21	1,000	
GEW-116	1/11/2018	5.4	55	2.2	7.4	29	1,400	
GEW-116	3/14/2018	5.0	33	8.5	37	15	680	See Note 4
GEW-117	1/11/2018	44	50	ND	4.2	0.49	140	
GEW-117	3/15/2018	41	44	2.6	12	0.38	87	
GEW-118	1/12/2018	1.5	47	3.2	12	37	1,100	
GEW-118	3/15/2018	1.9	46	3.8	15	32	710	
GEW-120	1/11/2018	14	44	2.2	29	9.4	450	
GEW-120	3/15/2018	15	49	ND	23	12	500	
GEW-121	1/15/2018	5.6	36	2.5	39	17	990	
GEW-121	3/15/2018	6.1	39	3.2	34	17	830	
GEW-122	1/15/2018	12	42	ND	19	27	1,500	
GEW-122	3/15/2018	11	37	2.4	31	18	1,100	
GEW-123	1/15/2018	13	40	ND	35	11	570	
GEW-123	3/15/2018	14	48	ND	24	13	630	
GEW-124	3/15/2018	45	34	4.6	16	0.038	ND	
GEW-125	1/11/2018	4.0	37	5.1	31	22	1,400	See Note 3
GEW-125	3/15/2018	0.78	52	ND	3.5	42	2,000	
GEW-126	1/11/2018	22	45	ND	26	6.3	430	
GEW-126	3/15/2018	15	46	ND	28	8.2	570	
GEW-127	1/11/2018	5.8	37	7.4	36	13	1,200	See Note 4
GEW-127	3/15/2018	3.7	53	4.3	15	23	2,100	
GEW-128	1/11/2018	13	55	ND	17	14	1,400	
GEW-128	3/15/2018	14	48	4.7	21	12	1,000	
GEW-129	1/15/2018	15	59	ND	6.2	18	1,900	
GEW-129	3/15/2018	13	59	ND	8.0	18	1,800	
GEW-130	1/11/2018	4.9	45	4.3	16	29	2,100	
GEW-130	3/15/2018	3.8	47	3.6	16	28	2,100	
GEW-131	1/11/2018	21	42	ND	16	19	1,300	
GEW-131	3/15/2018	21	43	ND	19	16	950	
GEW-132	1/12/2018	2.7	25	8.8	47	16	870	See Note 4
GEW-132	3/15/2018	0.66	37	5.1	26	30	1,700	See Note 4
GEW-133	1/11/2018	0.75	47	ND	ND	49	1,800	
GEW-133	3/14/2018	7.6	47	2.2	19	24	1,000	
GEW-134	1/11/2018	12	41	2.0	29	16	700	
GEW-134	3/14/2018	12	34	4.7	38	11	430	
GEW-135	1/11/2018	9.2	42	2.6	23	23	1,000	
GEW-135	3/12/2018	5.4	38	3.9	30	22	910	
GEW-136	1/11/2018	5.0	21	9.6	50	14	370	See Note 4
GEW-136	3/14/2018	5.2	30	5.7	36	23	650	See Note 4
GEW-137	1/12/2018	35	33	1.6	30	ND	ND	
GEW-137	3/14/2018	32	32	2.8	34	0.19	32	
GEW-138	1/12/2018	9.0	33	ND	45	11	650	

Laboratory Analysis - Bridgeton Landfill

Well Name	Date Sampled	Methane	CO_2	O_2/Argon	Nitrogen	Hydrogen	Carbon Monoxide	Comments
		(%)					(ppm)	
GEW-138	3/14/2018	17	38	ND	28	16	910	
GEW-139	1/15/2018	2.3	52	ND	ND	42	2,700	
GEW-139	3/15/2018	0.56	57	ND	ND	40	3,300	
GEW-140	1/10/2018	13	50	ND	ND	34	1,300	
GEW-140	3/15/2018	0.31	62	ND	ND	34	2,500	
GEW-141	3/15/2018	0.18	27	12	43	17	1,900	See Note 4
GEW-144	1/10/2018	1.5	24	11	37	25	1,200	See Note 4
GEW-144	3/14/2018	9.0	55	ND	3.4	31	1,200	
GEW-145	3/14/2018	6.8	48	ND	ND	41	1,600	
GEW-146	1/11/2018	2.9	6.4	18	72	0.70	ND	
GEW-146	3/12/2018	2.1	5.1	17	75	0.49	ND	See Note 4
GEW-147	1/11/2018	10	39	ND	28	21	810	
GEW-147	3/12/2018	8.7	33	2.4	40	16	600	
GEW-148	1/11/2018	3.2	48	2.9	9.8	36	2,500	
GEW-148	3/12/2018	3.9	46	3.1	10	36	1,900	
GEW-149	1/11/2018	12	27	6.9	48	6.5	240	See Note 4
GEW-149	3/8/2018	9.8	32	5.2	47	6.3	250	
GEW-150	1/10/2018	16	31	8.6	32	12	310	See Note 3
GEW-150	3/14/2018	9.0	33	8.3	35	14	660	See Note 4
GEW-151	1/11/2018	12	38	4.4	25	20	650	
GEW-151	3/15/2018	4.7	47	ND	ND	43	1,400	
GEW-152	1/5/2018	26	42	1.6	6.0	24	1200	
GEW-152	3/9/2018	27	44	ND	4.8	23	1,100	
GEW-153	1/5/2018	34	30	1.4	32	1.7	99	
GEW-153	3/9/2018	43	34	ND	17	4.6	69	
GEW-154	1/10/2018	1.5	6.4	18	70	4.2	200	See Note 4
GEW-154	3/8/2018	0.19	11	16	62	11	580	See Note 3
GEW-155	1/12/2018	6.3	27	2.3	60	4.3	97	
GEW-155	3/14/2018	4.2	25	ND	63	6.6	200	
GEW-156	1/16/2018	11	14	14	58	2.2	70	See Note 4
GEW-156	3/14/2018	34	41	2.3	17	4.5	120	
GEW-157	3/14/2018	11	41	4.4	15	28	990	
GEW-158	1/10/2018	22	49	ND	ND	26	970	
GEW-158	3/13/2018	14	47	3.7	14	21	600	
GEW-159	1/5/2018	38	40	ND	19	1.5	42	
GEW-159	3/9/2018	45	35	2.6	11	6.1	110	
GEW-160	1/5/2018	12	53	ND	ND	31	1,400	
GEW-160	3/8/2018	1.2	2.6	21	74	1.1	76	See Note 3
GEW-161	1/5/2018	0.40	28	9.1	31	31	1,400	See Note 4
GEW-161	3/8/2018	3.7	48	1.5	8.2	38	1,700	
GEW-162	1/5/2018	21	68	ND	4.2	6.1	230	
GEW-162	3/12/2018	12	57	ND	19	10	510	
GEW-163	1/9/2018	2.9	23	13	48	12	500	See Note 4
GEW-163	3/7/2018	11	40	6.3	29	14	520	See Note 3
GEW-164	1/9/2018	20	50	3.5	15	11	640	
GEW-164	3/7/2018	23	55	1.8	7.4	12	720	
GEW-165	1/9/2018	11	63	ND	ND	23	1,200	
GEW-165	3/7/2018	12	62	ND	ND	23	1,000	
GEW-166	1/9/2018	1.2	51	ND	5.0	41	2,600	
GEW-166	3/7/2018	0.58	51	ND	4.1	42	2,600	
GEW-167	1/9/2018	0.43	30	9.1	33	27	1,600	See Note 3
GEW-167	3/7/2018	0.37	52	ND	ND	45	2,600	
GEW-168	1/10/2018	11	54	ND	4.2	29	1,700	
GEW-168	3/7/2018	11	53	1.5	8.4	25	1,300	
GEW-169	1/10/2018	2.4	52	3.0	13	29	2,100	
GEW-169	3/7/2018	4.0	53	3.0	12	28	1,800	

Laboratory Analysis - Bridgeton Landfill

Well Name	Date Sampled	Methane	CO_2	O_2/Argon	Nitrogen	Hydrogen	Carbon Monoxide	Comments
		(%)					(ppm)	
GEW-170	1/11/2018	8.0	39	7.2	31	14	1,000	See Note 4
GEW-170	3/15/2018	7.2	50	4.4	18	20	1,500	
GEW-171	3/15/2018	0.44	25	13	45	16	1,000	See Note 3
GEW-172	1/16/2018	0.45	49	3.0	11	36	2,800	
GEW-172	3/15/2018	4.3	56	ND	ND	35	2,700	
GEW-173	1/16/2018	24	34	1.6	39	0.27	29	
GEW-173	3/15/2018	45	46	ND	6.0	1.7	170	
GEW-174	1/10/2018	20	44	ND	16	19	960	
GEW-174	3/14/2018	20	43	ND	20	15	760	
GEW-175	1/10/2018	21	44	3.7	19	12	430	
GEW-175	3/14/2018	11	33	8.3	36	12	520	See Note 4
GEW-176	1/10/2018	23	34	7.2	30	5.9	180	See Note 4
GEW-176	3/14/2018	15	29	9.7	38	7.6	370	See Note 4
GEW-177	1/15/2018	3.5	59	ND	4.7	31	3,600	
GEW-177	3/15/2018	0.32	63	ND	ND	31	3,600	
GEW-178	3/6/2018	16	59	1.8	11	11	350	
GEW-179	3/15/2018	19	61	2.7	9.3	6.5	180	
GEW-180	3/6/2018	18	51	3.1	10	17	310	
GEW-181	1/23/2018	9.9	61	2.7	9.4	16	1,200	
GEW-181	3/7/2018	11	66	ND	ND	19	1,100	
GEW-182	1/23/2018	7.1	51	2.2	7.5	32	1,400	
GEW-182	3/7/2018	15	40	6.5	26	12	380	See Note 4
GEW-184	1/23/2018	22	40	8.1	30	0.38	96	
GEW-184	3/7/2018	13	24	14	49	0.28	39	
GEW-185	1/23/2018	17	59	ND	4.1	18	940	
GEW-185	3/7/2018	16	62	ND	ND	19	870	
GEW-186	1/23/2018	12	59	1.7	7.2	19	1,900	
GEW-186	3/7/2018	18	39	7.4	29	7.2	480	See Note 4
GEW-187	1/23/2018	10	39	5.8	22	22	1,100	See Note 4
GEW-187	3/6/2018	9.4	55	1.7	5.6	27	1,100	
GEW-188	1/23/2018	0.79	22	12	46	18	800	See Note 4
GEW-188	3/7/2018	1.1	11	16	65	6.9	240	See Note 4
GIW-01	12/12/2017	16	43	6.1	30	5.0	230	See Note 4
GIW-01	1/8/2018	11	53	2.8	12	20	940	
GIW-01	2/5/2018	4.9	61	ND	5.2	27	1,300	
GIW-01	3/5/2018	7.3	60	ND	6.8	25	1,100	
GIW-01	4/3/2018	9.1	55	2.2	10	23	1,000	
GIW-02	12/12/2017	5.7	32	7.3	43	11	550	See Note 4
GIW-02	1/8/2018	13	50	3.4	17	16	690	
GIW-02	2/5/2018	2.5	18	14	61	5.6	380	See Note 4
GIW-02	3/5/2018	7.3	23	9.6	53	6.8	430	See Note 4
GIW-02	4/3/2018	0.98	16	15	60	7.5	480	See Note 4
GIW-03	12/12/2017	1.1	59	ND	ND	37	1,900	
GIW-03	1/8/2018	1.5	54	ND	ND	41	1,700	
GIW-03	2/5/2018	1.4	61	ND	ND	34	1,600	
GIW-03	3/5/2018	9.4	53	ND	13	24	950	
GIW-03	4/3/2018	13	41	3.9	25	16	780	
GIW-04	12/12/2017	0.096	5.6	20	69	6.0	280	See Note 4
GIW-04	1/8/2018	0.53	46	1.5	5.1	46	1,700	
GIW-04	2/5/2018	0.50	36	5.7	20	37	1,200	See Note 4
GIW-04	3/5/2018	9.6	51	ND	5.8	32	850	
GIW-04	4/3/2018	11	44	4.3	15	25	1,100	
GIW-05	12/12/2017	0.32	8.7	18	62	11	120	See Note 4
GIW-05	1/8/2018	0.92	28	10	36	25	350	See Note 3
GIW-05	2/5/2018	0.45	9.7	17	59	14	180	See Note 4
GIW-05	3/5/2018	0.15	3.8	20	70	5.4	46	See Note 4

Laboratory Analysis - Bridgeton Landfill

Well Name	Date Sampled	Methane	CO_2	O_2/Argon	Nitrogen	Hydrogen	Carbon Monoxide	Comments
		(%)					(ppm)	
GIW-05	4/6/2018	0.011	0.23	22	78	ND	ND	See Note 3
GIW-06	12/13/2017	1.7	50	ND	3.5	43	830	
GIW-06	1/8/2018	12	48	ND	9.5	29	560	
GIW-06	2/5/2018	2.6	47	1.6	9.0	39	740	
GIW-06	3/5/2018	16	43	ND	22	17	230	
GIW-06	4/4/2018	15	44	ND	23	17	280	
GIW-07	12/13/2017	19	58	2.6	14	6.3	340	
GIW-07	1/9/2018	30	56	ND	7.1	6.1	350	
GIW-07	2/5/2018	25	56	1.4	11	6.1	310	
GIW-07	3/5/2018	31	54	ND	9.7	4.4	220	
GIW-07	4/4/2018	27	55	2.0	9.4	6.7	410	
GIW-08	12/13/2017	25	51	ND	22	0.68	82	
GIW-08	1/9/2018	29	54	ND	15	0.49	68	
GIW-08	2/5/2018	22	52	ND	25	0.47	64	
GIW-08	3/5/2018	27	55	ND	17	0.26	52	
GIW-08	4/4/2018	33	53	ND	12	0.12	35	
GIW-09	12/13/2017	13	21	5.9	55	5.0	150	See Note 3
GIW-09	1/9/2018	4.9	14	14	65	2.1	120	See Note 4
GIW-09	2/5/2018	3.9	13	12	66	5.0	200	See Note 4
GIW-09	3/5/2018	3.5	19	7.2	63	7.2	220	See Note 3
GIW-09	4/4/2018	2.4	14	13	67	4.1	130	See Note 4
GIW-10	12/12/2017	6.1	42	ND	17	34	660	
GIW-10	1/9/2018	4.9	41	1.8	17	36	650	
GIW-10	2/5/2018	6.9	40	ND	24	28	560	
GIW-10	3/5/2018	8.7	34	ND	40	16	440	
GIW-10	4/4/2018	7.9	30	ND	47	14	410	
GIW-11	12/12/2017	29	46	ND	6.4	18	590	
GIW-11	1/9/2018	9.2	47	ND	20	22	910	
GIW-11	2/5/2018	7.7	44	ND	27	20	860	
GIW-11	3/5/2018	16	44	ND	20	18	730	
GIW-11	4/3/2018	18	41	1.7	25	14	550	
GIW-12	12/12/2017	14	33	6.7	37	9.4	470	See Note 4
GIW-12	1/9/2018	9.9	33	6.0	38	13	730	See Note 4
GIW-12	2/5/2018	9.8	41	2.5	29	18	930	
GIW-12	3/5/2018	9.3	42	3.1	26	19	970	
GIW-12	4/3/2018	9.0	43	4.4	23	20	1,100	
GIW-13	12/12/2017	17	56	ND	5.5	20	610	
GIW-13	1/9/2018	18	58	ND	3.2	20	560	
GIW-13	2/5/2018	18	59	ND	4.1	18	490	
GIW-13	3/5/2018	23	58	ND	3.2	14	370	
GIW-13	4/3/2018	25	54	ND	6.5	13	350	
Flare Station[2]	12/5/2017	11.9	33.8	7.7	35.4	10.5	555	See Note 6
Flare Station[2]	1/3/2018	12.4	33.7	8.1	34.6	10.7	545	See Note 6
Flare Station[2]	2/5/2018	12.2	33.0	7.6	36.2	10.3	505	See Note 6
Flare Station[2]	3/7/2018	11.2	32.8	8.1	37.0	10.2	505	See Note 6
Flare Station[2]	4/5/2018	11.8	34.5	7.4	34.6	10.6	485	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. (8) Invalid sample due to canister leak; resampled.

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.

April 18, 2018

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: Mike Lambrich
13570 St. Charles Rock Rd.
Bridgeton, MO 63044

LABORATORY TEST RESULTS

Project Reference: Bridgeton Landfill
Lab Number: J041005-01/35

Enclosed are results for sample(s) received 4/10/18 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 TNI Standards.
- The enclosed results relate only to the sample(s).

Preliminary results were e-mailed to Mike Lambrich and Erin Fanning; David Randall, Dustin Thoenen and Don Murphy, Weaver Consultants Group; and Jan Feezor, Feezor Engineering on 4/17/18.

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

Sincerely,

Mark Johnson
Operations Manager
MJohnson@AirTechLabs.com

Enclosures

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

AirTECHNOLOGY Laboratories, Inc.

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

CHAIN OF CUSTODY RECORD

TURNAROUND TIME

Standard ☐ 48 hours ☒
Same Day ☐ 72 hours ☐
24 hours ☐ 96 hours ☐
Other: **5 DAY**

DELIVERABLES

EDD ☐
EDF ☐
Level 3 ☐
Level 4 ☐

PAGE: 1 OF 4

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

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

BILLING

P.O. No.:	PO7112802
Bill to:	Republic Services
	Attn: Mike Lambrich
	13570 St. Charles Rock Rd.
	Bridgeton, MO 63044

ANALYSIS REQUEST

LAB USE ONLY	Cannister Pressure ("hg)			SAMPLE IDENTIFICATION	SAMPLE DATE	SAMPLE TIME	CONTAINER QTY/TYPE	MATRIX	PRESERVATION	D1946 + CO, H2					INITIAL PRESS
	Cannister ID	Sample Start	Sample End												
J041005-01	A7654	-20.4	-5	GEW 8	4/2/2018	15:04	C	LFG	NA	X					-4
-02	6159	-20.7	-5	GEW 9	4/2/2018	15:16	C	LFG	NA	X					-4
-03	5900	-20.5	-5	GEW 55	4/2/2018	15:35	C	LFG	NA	X					-4
-04	5909	-20.9	-5	GEW 40	4/2/2018	15:46	C	LFG	NA	X					-4
-05	A7759	-19.5	-5	GEW 10	4/3/2018	10:51	C	LFG	NA	X					-5
-06	A7780	-19.3	-5	GEW 110	4/3/2018	11:14	C	LFG	NA	X					-6
-07	3155	-19.1	-5	GIW 13	4/3/2018	11:24	C	LFG	NA	X					-6
-08	5839	-19.7	-5	GIW 12	4/3/2018	11:33	C	LFG	NA	X					-5
-09	A8080	-19.3	-5	GEW 56R	4/3/2018	11:44	C	LFG	NA	X					-6
-10	3128	-19.7	-5	GIW 11	4/3/2018	11:53	C	LFG	NA	X					-6

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

SAMPLED BY: **Anthony Kimutis** COMPANY: **Republic Services** DATE/TIME **4/2/18-4/3/18**

RELINQUISHED BY	DATE/TIME	RECEIVED BY	DATE/TIME
	4/9/18		
FedEx			
		4/18/18	0900

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

COMMENTS

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

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

AirTECHNOLOGY Laboratories, Inc.

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

CHAIN OF CUSTODY RECORD

TURNAROUND TIME				DELIVERABLES	
Standard	☐	48 hours	☒	EDD	☐
Same Day	☐	72 hours	☐	EDF	☐
24 hours	☐	96 hours	☐	Level 3	☐
Other:	5 DAY			Level 4	☐

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

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

BILLING

P.O. No.:	PO7112802
Bill to:	Republic Services
	Attn: Mike Lambrich
	13570 St. Charles Rock Rd.
	Bridgeton, MO 63044

ANALYSIS REQUEST

LAB USE ONLY	Cannister Pressure ("hg)			SAMPLE IDENTIFICATION	SAMPLE DATE	SAMPLE TIME	CONTAINER QTY/TYPE	MATRIX	PRESERVATION	D1946 + CO, H2					INITIAL & DATE
	Cannister ID	Sample Start	Sample End												
J841005-11	6148	-19.9	-5	GIW 1	4/3/2018	15:15	C	LFG	NA	X					.5
-12	5274	-20	-5	GIW 2	4/3/2018	15:40	C	LFG	NA	X					.5
-13	5309	-19.9	-5	GIW 3	4/3/2018	15:49	C	LFG	NA	X					.5
-14	A8091	-20.1	-5	GIW 4	4/3/2018	15:59	C	LFG	NA	X					.5
-15	3435	-20.2	-5	GEW 42R	4/6/2018	10:23	C	LFG	NA	X					.5
-16	6149	-20.1	-5	GEW 45R	4/6/2018	10:38	C	LFG	NA	X					.5
-17	5271	-20.4	-5	GEW 46R	4/6/2018	13:42	C	LFG	NA	X					.4
-18	A7667	-20.5	-5	GEW 2	4/6/2018	13:58	C	LFG	NA	X					.4
-19	A8054	-20.4	-5	GEW 3	4/6/2018	14:09	C	LFG	NA	X					.4
-20	A7772	-20.4	-5	GEW 4	4/6/2018	14:21	C	LFG	NA	X					.4

AUTHORIZATION TO PERFORM WORK: Dave Penoyer COMPANY: Republic Services

SAMPLED BY: Anthony Kimutis COMPANY: Republic Services DATE/TIME 4/3/18-4/6/18

RELINQUISHED BY	DATE/TIME	RECEIVED BY	DATE/TIME
	4/9/18		
FED EX			
		4/9/18	0900

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

COMMENTS

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

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

AirTECHNOLOGY Laboratories, Inc.

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

CHAIN OF CUSTODY RECORD

TURNAROUND TIME

Standard ☐ 48 hours ☒
Same Day ☐ 72 hours ☐
24 hours ☐ 96 hours ☐
Other: **5 DAY**

DELIVERABLES

EDD ☐
EDF ☐
Level 3 ☐
Level 4 ☐

PAGE: 3 **OF** 4

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

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

BILLING

P.O. No.:	PO7112802
Bill to:	Republic Services
	Attn: Mike Lambrich
	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					INITIAL PRESS
J041005-21	A7797	-20.3	-5	GEW 47R	4/6/2018	14:33	C	LFG	NA	X					-4
-22	5811	-20.5	-5	GEW 5	4/6/2018	15:03	C	LFG	NA	X					-4
-23	A7812	-19.7	-5	GEW 48	4/6/2018	15:16	C	LFG	NA	X					-4
-24	3825	-20.3	-5	GEW 49	4/6/2018	15:29	C	LFG	NA	X					-4
-25	5911	-20.6	-5	GIW 5	4/6/2018	16:07	C	LFG	NA	X					-4
															4 tubes

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

SAMPLED BY: **Anthony Kimutis** COMPANY: **Republic Services** DATE/TIME **4/6/18**

RELINQUISHED BY	DATE/TIME	RECEIVED BY	DATE/TIME
	4/9/18		
FedEx			
		4/6/18	0900

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

COMMENTS

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

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

AirTECHNOLOGY Laboratories, Inc.

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

CHAIN OF CUSTODY RECORD

TURNAROUND TIME

Standard ☐ 48 hours ☒
Same Day ☐ 72 hours ☐
24 hours ☐ 96 hours ☐
Other: **5 DAY**

DELIVERABLES

EDD ☐
EDF ☐
Level 3 ☐
Level 4 ☐

PAGE: 4 OF 4

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

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

BILLING

P.O. No.: PO7112802
Bill to: Republic Services
Attn: Mike Lambrich
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					INITIAL PRESS
J041005-26	5814	-21	-5	GIW 10	4/4/2018	8:54	C	LFG	NA	X					-3
-27	5264	-21	-5	GIW 9	4/4/2018	9:22	C	LFG	NA	X					-3
-28	5307	-21.1	-5	GIW 8	4/4/2018	9:34	C	LFG	NA	X					-3
-29	6158	-21	-5	GIW 7	4/4/2018	9:47	C	LFG	NA	X					-3
-30	5928	-21.1	-5	GIW 6	4/4/2018	10:02	C	LFG	NA	X					-3
-31	5270	-21	-5	GEW 38	4/4/2018	10:55	C	LFG	NA	X					-3
-32	A7799	-21	-5	GEW 109	4/4/2018	11:06	C	LFG	NA	X					-3
-33	A8056	-21.1	-5	GEW 39	4/4/2018	11:18	C	LFG	NA	X					-3
-34	A7763	-20.6	-5	GEW 53	4/5/2018	8:31	C	LFG	NA	X					-4
-35	5829	-19.9	-5	GEW 54	4/5/2018	8:44	C	LFG	NA	X					-4

AUTHORIZATION TO PERFORM WORK: Dave Penoyer COMPANY: Republic Services

SAMPLED BY: Tim Ahrens COMPANY: Cornerstone DATE/TIME 4/4/18-4/5/18

RELINQUISHED BY	DATE/TIME	RECEIVED BY	DATE/TIME
	4/9/18		
FedEx			
			4/16/18 0900

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: Mike Lambrich
Project Name: Bridgeton Landfill
Project No.: NA
Date Received: 04/10/18
Matrix: Air
Reporting Units: % v/v

ASTM D1946

Lab No.:	J041005-01		J041005-02		J041005-03		J041005-04	
Client Sample I.D.:	GEW 8		GEW 9		GEW 55		GEW 40	
Date/Time Sampled:	4/2/18 15:04		4/2/18 15:16		4/2/18 15:35		4/2/18 15:46	
Date/Time Analyzed:	4/12/18 8:39		4/12/18 8:54		4/12/18 9:08		4/12/18 9:23	
QC Batch No.:	180412GC8A1		180412GC8A1		180412GC8A1		180412GC8A1	
Analyst Initials:	AS		AS		AS		AS	
Dilution Factor:	3.0		3.0		3.0		3.0	
ANALYTE	Result % v/v	RL % v/v	Result % v/v	RL % v/v	Result % v/v	RL % v/v	Result % v/v	RL % v/v
Hydrogen	1.6 d	0.030	0.98 d	0.030	2.2 d	0.030	ND d	0.030
Carbon Dioxide	39	0.030	40	0.030	39	0.030	35	0.030
Oxygen/Argon	1.8	1.5	ND	1.5	ND	1.5	ND	1.5
Nitrogen	6.2	3.0	4.3	3.0	7.4	3.0	8.8	3.0
Methane	51	0.0030	54	0.0030	51	0.0030	55	0.0030
Carbon Monoxide	ND	0.0030	ND	0.0030	ND	0.0030	ND	0.0030
Net Heating Value (BTU/ft3)	471	3.0	497	3.0	469	3.0	502	3.0
Gross Heating Value (BTU/ft3)	524	3.0	553	3.0	521	3.0	557	3.0

Results normalized including non-methane hydrocarbons
ND = Not Detected (below RL)
RL = Reporting Limit
d = Reported from a secondary analysis. QC Batch: 180413GC8A1

Reviewed/Approved By: _____ Date 4-17-18

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: Mike Lambrich
Project Name: Bridgeton Landfill
Project No.: NA
Date Received: 04/10/18
Matrix: Air
Reporting Units: % v/v

ASTM D1946

Lab No.:	J041005-05		J041005-06		J041005-07		J041005-08	
Client Sample I.D.:	GEW 10		GEW 110		GIW 13		GIW 12	
Date/Time Sampled:	4/3/18 10:51		4/3/18 11:14		4/3/18 11:24		4/3/18 11:33	
Date/Time Analyzed:	4/12/18 9:43		4/12/18 9:57		4/12/18 10:12		4/12/18 10:26	
QC Batch No.:	180412GC8A1		180412GC8A1		180412GC8A1		180412GC8A1	
Analyst Initials:	AS		AS		AS		AS	
Dilution Factor:	3.2		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	ND d	0.032	19	3.4	13	3.4	20	3.2
Carbon Dioxide	42	0.032	37	0.034	54	0.034	43	0.032
Oxygen/Argon	ND	1.6	4.6	1.7	ND	1.7	4.4	1.6
Nitrogen	ND	3.2	19	3.4	6.5	3.4	23	3.2
Methane	56	0.0032	21	0.0034	25	0.0034	9.0	0.0032
Carbon Monoxide	ND	0.0032	0.055	0.0034	0.035	0.0034	0.11	0.0032

Results normalized including non-methane hydrocarbons
ND = Not Detected (below RL)
RL = Reporting Limit
d = Reported from a secondary analysis. QC Batch: 180413GC8A1

Reviewed/Approved By: _____ Date 4-17-18

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: Mike Lambrich
Project Name: Bridgeton Landfill
Project No.: NA
Date Received: 04/10/18
Matrix: Air
Reporting Units: % v/v

ASTM D1946

Lab No.:	J041005-09		J041005-10		J041005-11		J041005-12	
Client Sample I.D.:	GEW 56R		GIW 11		GIW 1		GIW 2	
Date/Time Sampled:	4/3/18 11:44		4/3/18 11:53		4/3/18 15:15		4/3/18 15:40	
Date/Time Analyzed:	4/12/18 10:41		4/12/18 10:56		4/12/18 11:10		4/12/18 11:25	
QC Batch No.:	180412GC8A1		180412GC8A1		180412GC8A1		180412GC8A1	
Analyst Initials:	AS		AS		AS		AS	
Dilution Factor:	3.4		3.4		3.2		3.1	
ANALYTE	Result % v/v	RL % v/v	Result % v/v	RL % v/v	Result % v/v	RL % v/v	Result % v/v	RL % v/v
Hydrogen	23	3.4	14	3.4	23	3.2	7.5	3.1
Carbon Dioxide	47	0.034	41	0.034	55	0.032	16	0.031
Oxygen/Argon	ND	1.7	1.7	1.7	2.2	1.6	15	1.5
Nitrogen	ND	3.4	25	3.4	10	3.2	60	3.1
Methane	27	0.0034	18	0.0034	9.1	0.0032	0.98	0.0031
Carbon Monoxide	0.067	0.0034	0.055	0.0034	0.10	0.0032	0.048	0.0031

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

Reviewed/Approved By: _____ Date 4-17-18
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: Mike Lambrich
Project Name: Bridgeton Landfill
Project No.: NA
Date Received: 04/10/18
Matrix: Air
Reporting Units: % v/v

ASTM D1946

Lab No.:	J041005-13		J041005-14		J041005-15		J041005-16	
Client Sample I.D.:	GIW 3		GIW 4		GEW 42R		GEW 45R	
Date/Time Sampled:	4/3/18 15:49		4/3/18 15:59		4/6/18 10:23		4/6/18 10:38	
Date/Time Analyzed:	4/12/18 11:39		4/12/18 11:54		4/12/18 12:09		4/12/18 12:23	
QC Batch No.:	180412GC8A1		180412GC8A1		180412GC8A1		180412GC8A1	
Analyst Initials:	AS		AS		AS		AS	
Dilution Factor:	3.2		3.1		3.2		3.2	
ANALYTE	Result % v/v	RL % v/v	Result % v/v	RL % v/v	Result % v/v	RL % v/v	Result % v/v	RL % v/v
Hydrogen	16	3.2	25	3.1	ND d	0.032	ND d	0.032
Carbon Dioxide	41	0.032	44	0.031	37	0.032	39	0.032
Oxygen/Argon	3.9	1.6	4.3	1.5	1.7	1.6	ND	1.6
Nitrogen	25	3.2	15	3.1	5.7	3.2	ND	3.2
Methane	13	0.0032	11	0.0031	55	0.0032	57	0.0032
Carbon Monoxide	0.078	0.0032	0.11	0.0031	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: 180413GC8A1

Reviewed/Approved By: _____ Date 4-17-18
Mark Johnson
Operations Manager

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Client: Republic Services
Attn: Mike Lambrich
Project Name: Bridgeton Landfill
Project No.: NA
Date Received: 04/10/18
Matrix: Air
Reporting Units: % v/v

ASTM D1946

Lab No.:	J041005-17		J041005-18		J041005-19		J041005-20	
Client Sample I.D.:	GEW 46R		GEW 2		GEW 3		GEW 4	
Date/Time Sampled:	4/6/18 13:42		4/6/18 13:58		4/6/18 14:09		4/6/18 14:21	
Date/Time Analyzed:	4/12/18 12:38		4/12/18 12:52		4/12/18 13:07		4/12/18 13:22	
QC Batch No.:	180412GC8A1		180412GC8A1		180412GC8A1		180412GC8A1	
Analyst Initials:	AS		AS		AS		AS	
Dilution Factor:	3.0		3.0		3.0		3.0	
ANALYTE	Result % v/v	RL % v/v	Result % v/v	RL % v/v	Result % v/v	RL % v/v	Result % v/v	RL % v/v
Hydrogen	0.051 d	0.030	ND d	0.030	0.060 d	0.030	0.068 d	0.030
Carbon Dioxide	35	0.030	40	0.030	37	0.030	37	0.030
Oxygen/Argon	ND	1.5	ND	1.5	ND	1.5	ND	1.5
Nitrogen	11	3.0	ND	3.0	12	3.0	9.6	3.0
Methane	53	0.0030	57	0.0030	51	0.0030	53	0.0030
Carbon Monoxide	ND	0.0030	ND	0.0030	ND	0.0030	ND	0.0030

Results normalized including non-methane hydrocarbons
ND = Not Detected (below RL)
RL = Reporting Limit
d = Reported from a secondary analysis. QC Batch: 180413GC8A1

Reviewed/Approved By: _____ Date 4-17-18

Mark Johnson
Operations Manager

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

Client: Republic Services
Attn: Mike Lambrich
Project Name: Bridgeton Landfill
Project No.: NA
Date Received: 04/10/18
Matrix: Air
Reporting Units: % v/v

ASTM D1946

Lab No.:	J041005-21		J041005-22		J041005-23		J041005-24	
Client Sample I.D.:	GEW 47R		GEW 5		GEW 48		GEW 49	
Date/Time Sampled:	4/6/18 14:33		4/6/18 15:03		4/6/18 15:16		4/6/18 15:29	
Date/Time Analyzed:	4/12/18 15:34		4/12/18 15:49		4/12/18 16:03		4/12/18 16:18	
QC Batch No.:	180412GC8A2		180412GC8A2		180412GC8A2		180412GC8A2	
Analyst Initials:	AS		AS		AS		AS	
Dilution Factor:	3.0		3.0		3.0		3.0	
ANALYTE	Result % v/v	RL % v/v	Result % v/v	RL % v/v	Result % v/v	RL % v/v	Result % v/v	RL % v/v
Hydrogen	0.061 d	0.030	ND d	0.030	ND d	0.030	ND d	0.030
Carbon Dioxide	35	0.030	34	0.030	35	0.030	33	0.030
Oxygen/Argon	ND	1.5	ND	1.5	2.7	1.5	1.7	1.5
Nitrogen	15	3.0	16	3.0	9.3	3.0	19	3.0
Methane	49	0.0030	49	0.0030	53	0.0030	47	0.0030
Carbon Monoxide	ND	0.0030	ND	0.0030	ND	0.0030	ND	0.0030

Results normalized including non-methane hydrocarbons
ND = Not Detected (below RL)
RL = Reporting Limit
d = Reported from a secondary analysis. QC Batch: 180413GC8A1

Reviewed/Approved By: _____ Date 4-17-18
Mark Johnson
Operations Manager

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

Client: Republic Services
Attn: Mike Lambrich
Project Name: Bridgeton Landfill
Project No.: NA
Date Received: 04/10/18
Matrix: Air
Reporting Units: % v/v

ASTM D1946

Lab No.:	J041005-25		J041005-26		J041005-27		J041005-28	
Client Sample I.D.:	GIW 5		GIW 10		GIW 9		GIW 8	
Date/Time Sampled:	4/6/18 16:07		4/4/18 8:54		4/4/18 9:22		4/4/18 9:34	
Date/Time Analyzed:	4/12/18 16:33		4/13/18 8:02		4/13/18 8:16		4/13/18 8:31	
QC Batch No.:	180412GC8A2		180412GC8A2		180412GC8A2		180412GC8A2	
Analyst Initials:	AS		AS		AS		AS	
Dilution Factor:	3.0		2.8		2.8		2.8	
ANALYTE	Result % v/v	RL % v/v	Result % v/v	RL % v/v	Result % v/v	RL % v/v	Result % v/v	RL % v/v
Hydrogen	ND d	0.030	14	2.8	4.1	2.8	0.12 d	0.028
Carbon Dioxide	0.23	0.030	30	0.028	14	0.028	53	0.028
Oxygen/Argon	22	1.5	ND	1.4	13	1.4	ND	1.4
Nitrogen	78	3.0	47	2.8	67	2.8	12	2.8
Methane	0.011	0.0030	7.9	0.0028	2.4	0.0028	33	0.0028
Carbon Monoxide	ND	0.0030	0.041	0.0028	0.013	0.0028	0.0035	0.0028

Results normalized including non-methane hydrocarbons
ND = Not Detected (below RL)
RL = Reporting Limit
d = Reported from a secondary analysis. QC Batch:180413GC8A1

Reviewed/Approved By: _____ Date 4-17-18

Mark Johnson
Operations Manager

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

Client: Republic Services
Attn: Mike Lambrich
Project Name: Bridgeton Landfill
Project No.: NA
Date Received: 04/10/18
Matrix: Air
Reporting Units: % v/v

ASTM D1946

Lab No.:	J041005-29		J041005-30		J041005-31		J041005-32	
Client Sample I.D.:	GIW 7		GIW 6		GEW 38		GEW 109	
Date/Time Sampled:	4/4/18 9:47		4/4/18 10:02		4/4/18 10:55		4/4/18 11:06	
Date/Time Analyzed:	4/13/18 8:45		4/13/18 9:00		4/13/18 9:14		4/13/18 9:29	
QC Batch No.:	180412GC8A2		180412GC8A2		180412GC8A2		180412GC8A2	
Analyst Initials:	AS		AS		AS		AS	
Dilution Factor:	2.8		2.8		2.8		2.8	
ANALYTE	Result % v/v	RL % v/v	Result % v/v	RL % v/v	Result % v/v	RL % v/v	Result % v/v	RL % v/v
Hydrogen	6.7	2.8	17	2.8	15	2.8	11	2.8
Carbon Dioxide	55	0.028	44	0.028	18	0.028	38	0.028
Oxygen/Argon	2.0	1.4	ND	1.4	14	1.4	2.3	1.4
Nitrogen	9.4	2.8	23	2.8	51	2.8	27	2.8
Methane	27	0.0028	15	0.0028	2.1	0.0028	22	0.0028
Carbon Monoxide	0.041	0.0028	0.028	0.0028	0.062	0.0028	0.038	0.0028

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

Reviewed/Approved By: _____ Date 4-17-18

Mark Johnson
Operations Manager

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

Client: Republic Services
Attn: Mike Lambrich
Project Name: Bridgeton Landfill
Project No.: NA
Date Received: 04/10/18
Matrix: Air
Reporting Units: % v/v

ASTM D1946

Lab No.:	J041005-33		J041005-34		J041005-35			
Client Sample I.D.:	GEW 39		GEW 53		GEW 54			
Date/Time Sampled:	4/4/18 11:18		4/5/18 8:31		4/5/18 8:44			
Date/Time Analyzed:	4/13/18 9:44		4/13/18 9:58		4/13/18 10:13			
QC Batch No.:	180412GC8A2		180412GC8A2		180412GC8A2			
Analyst Initials:	AS		AS		AS			
Dilution Factor:	2.8		3.0		3.0			
ANALYTE	Result % v/v	RL % v/v	Result % v/v	RL % v/v	Result % v/v	RL % v/v		
Hydrogen	0.038 d	0.028	4.9	3.0	2.2 d	0.030		
Carbon Dioxide	31	0.028	39	0.030	37	0.030		
Oxygen/Argon	4.2	1.4	ND	1.5	2.7	1.5		
Nitrogen	41	2.8	4.7	3.0	9.6	3.0		
Methane	24	0.0028	51	0.0030	49	0.0030		
Carbon Monoxide	0.0030	0.0028	0.0060	0.0030	ND	0.0030		

Results normalized including non-methane hydrocarbons
ND = Not Detected (below RL)
RL = Reporting Limit
d = Reported from a secondary analysis. QC Batch:180413GC8A1

Reviewed/Approved By: _____ Date 4-17-18

Mark Johnson
Operations Manager

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

QC Batch No: 180412GC8A1
Matrix: Air
Reporting Units: % v/v

ASTM D1946
LABORATORY CONTROL SAMPLE SUMMARY

Lab No.:	METHOD BLANK			LCS		LCSD					
Date Analyzed:	4/12/18 8:24			4/11/18 19:52		4/11/18 20:07					
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	4.85	97	4.71	94	2.9	70	130	30
Carbon Dioxide	ND	0.010	10	9.08	91	8.75	87	3.7	70	130	30
Oxygen/Argon	ND	0.50	15	16.1	109	15.5	105	3.6	70	130	30
Nitrogen	ND	1.0	70	71.9	103	69.3	99	3.7	70	130	30
Methane	ND	0.0010	0.10	0.107	107	0.107	107	0.4	70	130	30
Carbon Monoxide	ND	0.0010	0.10	0.0947	95	0.0943	94	0.4	70	130	30

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

Reviewed/Approved By: _____ Date 4-17-18
Mark Johnson
Operations Manager

The cover letter is an integral part of this analytical report

QC Batch No: 180412GC8A2
Matrix: Air
Reporting Units: % v/v

ASTM D1946
LABORATORY CONTROL SAMPLE SUMMARY

Lab No.:	METHOD BLANK			LCS		LCSD					
Date Analyzed:	4/12/18 14:35			4/12/18 15:05		4/12/18 15:20					
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	5.85	117	5.92	118	1.2	70	130	30
Carbon Dioxide	ND	0.010	10	9.39	94	9.50	95	1.2	70	130	30
Oxygen/Argon	ND	0.50	15	15.8	106	16.1	108	2.0	70	130	30
Nitrogen	ND	1.0	70	71.1	102	72.6	104	2.1	70	130	30
Methane	ND	0.0010	0.10	0.118	118	0.118	118	0.1	70	130	30
Carbon Monoxide	ND	0.0010	0.10	0.106	106	0.106	106	0.4	70	130	30

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

Reviewed/Approved By: _____ Date 4-17-18
Mark Johnson
Operations Manager

The cover letter is an integral part of this analytical report

QC Batch # 180413GC8A1
Matrix: Air
Units: % v/v

QC for Low Level Hydrogen Analysis

Lab No.:	Blank		LCS		LCSD			
Date Analyzed:	4/13/2018 13:30		4/13/2018 13:20		4/13/2018 13:25			
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	102	70-130	101	70-130	0.9	<20

ND = Not Detected (Below RL)

RL = PQL X Dilution Factor

Reviewed/Approved By: Mark Johnson
Operations Manager

Date: 4-17-18

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

Air TECHNOLOGY
Laboratories, Inc.

May 2, 2018

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: Mike Lambrich
13570 St. Charles Rock Rd.
Bridgeton, MO 63044

LABORATORY TEST RESULTS

Project Reference: Bridgeton Landfill
Lab Number: J042702-01/05

Enclosed are results for sample(s) received 4/27/18 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 TNI Standards.
- The enclosed results relate only to the sample(s).

Preliminary results were e-mailed to Mike Lambrich and Erin Fanning; David Randall, Dustin Thoenen and Don Murphy, Weaver Consultants Group; and Jan Feezor, Feezor Engineering on 5/01/18.

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:			

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

BILLING

P.O. No.:	PO7112802
Bill to:	Republic Services
	Attn: Mike Lambrich
	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					INITIAL PRESS
J042702-01	A8069	-19.8	-5	GEW-48	4/25/2018	13:54	C	LFG	NA	X					-6
-02	6154	-19.8	-5	GEW-49	4/25/2018	14:07	C	LFG	NA	X					-6
-03	A8081	-19.8	-5	GEW-54	4/25/2018	14:20	C	LFG	NA	X					-6
-04	A8094	-20	-5	GEW-8	4/26/2018	9:26	C	LFG	NA	X					-5
-05	A7648	-20.1	-5	GEW-42R	4/26/2018	9:39	C	LFG	NA	X					-6

AUTHORIZATION TO PERFORM WORK: Dave Penoyer COMPANY: Republic Services

SAMPLED BY: Anthony Kimutis COMPANY: Republic Services DATE/TIME 4/25/18 - 4/26/18

RELINQUISHED BY	DATE/TIME	RECEIVED BY	DATE/TIME
	4/26/18		
FEDEX			
RELINQUISHED BY	DATE/TIME	RECEIVED BY	DATE/TIME
			4/27/18 0858
RELINQUISHED BY	DATE/TIME	RECEIVED BY	DATE/TIME

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

COMMENTS

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

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

Client:	**Republic Services**
Attn:	**Mike Lambrich**
Project Name:	**Bridgeton Landfill**
Project No.:	**NA**
Date Received:	**04/27/18**
Matrix:	**Air**
Reporting Units:	**% v/v**

ASTM D1946

Lab No.:	J042702-01		J042702-02		J042702-03		J042702-04	
Client Sample I.D.:	GEW-48		GEW-49		GEW-54		GEW-8	
Date/Time Sampled:	4/25/18 13:54		4/25/18 14:07		4/25/18 14:20		4/26/18 9:26	
Date/Time Analyzed:	4/27/18 14:53		4/27/18 15:08		4/27/18 15:22		4/27/18 15:37	
QC Batch No.:	180427GC8A2		180427GC8A2		180427GC8A2		180427GC8A2	
Analyst Initials:	AS		AS		AS		AS	
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	ND d	0.034	ND d	0.034	2.3 d	0.034	1.6 d	0.032
Carbon Dioxide	38	0.034	38	0.034	40	0.034	41	0.032
Oxygen/Argon	ND	1.7	ND	1.7	ND	1.7	ND	1.6
Nitrogen	ND	3.4	ND	3.4	ND	3.4	ND	3.2
Methane	58	0.0034	58	0.0034	54	0.0034	55	0.0032
Carbon Monoxide	ND	0.0034	ND	0.0034	ND	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: 180430GC8A2

Reviewed/Approved By: _____ Date 4/30/18

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: Mike Lambrich
Project Name: Bridgeton Landfill
Project No.: NA
Date Received: 04/27/18
Matrix: Air
Reporting Units: % v/v

ASTM D1946

Lab No.:	J042702-05							
Client Sample I.D.:	GEW-42R							
Date/Time Sampled:	4/26/18 9:39							
Date/Time Analyzed:	4/27/18 15:51							
QC Batch No.:	180427GC8A2							
Analyst Initials:	AS							
Dilution Factor:	3.4							
ANALYTE	**Result % v/v**	**RL % v/v**						
Hydrogen	ND d	0.034						
Carbon Dioxide	38	0.034						
Oxygen/Argon	ND	1.7						
Nitrogen	ND	3.4						
Methane	57	0.0034						
Carbon Monoxide	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: 180430GC8A2

Reviewed/Approved By: _____ Date 4/30/18
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: 180427GC8A2
Matrix: Air
Reporting Units: % v/v

ASTM D1946
LABORATORY CONTROL SAMPLE SUMMARY

Lab No.:	METHOD BLANK			LCS		LCSD					
Date Analyzed:	4/27/18 13:54			4/27/18 12:54		4/27/18 13:13					
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	3.73	75	3.67	73	1.6	70	130	30
Carbon Dioxide	ND	0.010	10	8.30	83	8.50	85	2.4	70	130	30
Oxygen/Argon	ND	0.50	15	16.5	111	16.9	114	2.7	70	130	30
Nitrogen	ND	1.0	70	71.3	102	73.2	105	2.6	70	130	30
Methane	ND	0.0010	0.10	0.0996	100	0.0994	99	0.3	70	130	30
Carbon Monoxide	ND	0.0010	0.10	0.0944	94	0.0945	94	0.0	70	130	30

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

Reviewed/Approved By: _____ Date 4/30/18
Mark Johnson
Operations Manager

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QC Batch # 180430GC8A2
Matrix: Air
Units: % v/v

QC for Low Level Hydrogen Analysis

Lab No.:	Blank		LCS		LCSD			
Date Analyzed:	4/30/2018 14:21		4/30/2018 14:12		4/30/2018 14:17			
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	102	70-130	97	70-130	4.2	<20

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

Reviewed/Approved By: _____ Date: 4/30/18
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

April 2018 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	4/6/2018 13:54	56.1	41.6	0.0	2.3	115.6	115.5	19.5	20.0	-0.04	-0.04	-14.1
GEW-002	4/6/2018 14:02	55.9	42.2	0.0	1.9	115.3	115.2	32.0	33.8	-0.1	-0.2	-13.7
GEW-002	4/11/2018 8:34	55.7	42.1	0.0	2.2	114.5	114.5	29.9	26.3	-0.2	-0.2	-12.4
GEW-002	4/18/2018 10:10	56.5	41.9	0.0	1.6	115.7	115.5	15.0	19.0	-0.1	-0.2	-13.2
GEW-002	4/23/2018 11:37	56.3	41.1	0.0	2.6	116.0	116.0	21.4	22.4	0.1	0.1	-15.3
GEW-002	4/23/2018 11:38	55.8	42.7	0.0	1.5	107.5	107.0	8.2	8.6	0.7	0.7	-14.3
GEW-002	4/27/2018 14:31	55.8	41.9	0.0	2.3	79.8	79.9	11.5	11.8	1.7	1.7	-10.8
GEW-002	4/27/2018 14:34	56.3	41.3	0.0	2.4	82.6	82.6	9.2	9.7	1.7	1.7	-9.2
GEW-002	4/30/2018 15:35	56.8	42.8	0.0	0.4	88.6	88.7	11.1	8.8	1.7	1.7	-13.1
GEW-002	4/30/2018 15:38	56.8	41.9	0.0	1.3	98.9	99.1	11.6	14.5	1.5	1.5	-13.5
GEW-003	4/6/2018 14:06	49.0	40.1	0.0	10.9	103.8	103.8	4.2	6.7	-0.1	-0.1	-13.5
GEW-003	4/6/2018 14:13	49.5	39.8	0.0	10.7	103.8	104.0	12.6	12.5	-0.1	-0.1	-13.7
GEW-003	4/11/2018 8:38	50.2	40.6	0.0	9.2	104.0	103.8	8.2	11.2	0.2	0.2	-13.1
GEW-003	4/11/2018 8:40	49.9	40.7	0.0	9.4	104.0	104.0	13.1	12.8	0.2	0.1	-13.1
GEW-003	4/12/2018 11:04	54.0	40.2	0.0	5.8	107.5	107.5	9.3	9.7	0.1	0.1	-12.4
GEW-003	4/12/2018 11:05	53.0	40.9	0.0	6.1	107.5	107.5	14.5	14.3	0.1	0.1	-12.2
GEW-003	4/13/2018 10:32	50.2	40.4	0.0	9.4	105.7	105.8	16.0	16.4	-0.7	-0.7	-12.9
GEW-003	4/13/2018 10:34	49.9	40.5	0.0	9.6	105.7	105.7	8.9	7.6	-0.7	-0.7	-12.9
GEW-003	4/19/2018 9:16	52.7	40.4	0.0	6.9	90.2	90.1	4.6	5.3	-0.6	-0.6	-14.7
GEW-003	4/19/2018 9:17	52.2	40.8	0.0	7.0	87.0	86.7	4.6	4.6	-0.6	-0.6	-14.6
GEW-003	4/26/2018 8:47	55.0	42.6	0.0	2.4	102.1	102.1	6.7	5.5	0.1	0.1	-13.5
GEW-003	4/26/2018 8:49	54.6	43.0	0.0	2.4	102.8	102.8	7.7	9.4	0.1	0.0	-13.5
GEW-003	4/27/2018 10:12	54.5	41.9	0.2	3.4	110.7	110.7	0.0	0.0	0.1	0.1	-10.9
GEW-003	4/27/2018 10:14	54.5	41.4	0.2	3.9	110.6	111.0	0.0	0.0	0.2	0.2	-14.2
GEW-003	4/30/2018 15:42	54.5	39.8	0.1	5.6	115.6	115.6	0.0	0.0	0.7	0.7	-13.4
GEW-003	4/30/2018 15:44	54.2	39.4	0.0	6.4	119.7	119.7	19.0	21.3	0.4	0.4	-13.4
GEW-004	4/6/2018 14:17	51.5	39.7	0.0	8.8	111.5	111.0	10.9	10.9	-0.1	-0.1	-13.9
GEW-004	4/6/2018 14:25	51.6	39.8	0.0	8.6	110.5	110.0	14.2	14.4	-0.1	-0.1	-13.8
GEW-004	4/11/2018 8:43	52.1	41.4	0.0	6.5	112.3	112.2	11.8	15.0	0.1	0.1	-12.9
GEW-004	4/11/2018 8:44	52.3	41.4	0.0	6.3	112.3	112.5	11.5	11.5	0.1	0.1	-12.3
GEW-004	4/12/2018 11:08	53.6	40.6	0.0	5.8	113.7	113.7	3.5	10.3	0.1	0.1	-11.9
GEW-004	4/12/2018 11:09	53.6	41.3	0.0	5.1	114.8	114.6	8.4	8.8	0.0	0.1	-11.8
GEW-004	4/13/2018 10:36	52.5	40.2	0.0	7.3	114.5	114.3	9.2	11.0	-0.6	-0.7	-12.5
GEW-004	4/13/2018 10:37	52.4	40.9	0.0	6.7	114.0	114.0	5.2	12.3	-0.8	-0.8	-12.9
GEW-004	4/19/2018 9:20	54.0	41.1	0.0	4.9	96.5	96.4	23.6	23.5	-0.7	-0.7	-14.8
GEW-004	4/26/2018 8:52	52.6	41.8	0.0	5.6	108.4	108.4	28.4	27.8	-0.1	-0.1	-13.7
GEW-004	4/26/2018 8:54	53.0	41.1	0.0	5.9	108.6	108.7	11.2	11.5	-0.1	-0.1	-13.7
GEW-005	4/5/2018 17:09	55.3	39.5	0.0	5.2	71.8	71.9	6.9	6.9	1.1	1.1	-13.5
GEW-005	4/5/2018 17:11	54.5	39.6	0.0	5.9	70.9	70.7	6.9	8.0	1.1	1.1	-13.0
GEW-005	4/6/2018 15:00	49.3	37.4	0.0	13.3	61.9	62.0	5.4	3.6	0.2	0.2	-14.2
GEW-005	4/6/2018 15:07	49.5	37.8	0.0	12.7	62.1	62.1	9.6	7.2	0.2	0.2	-14.2

April 2018 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-005	4/9/2018 15:14	48.1	35.6	0.0	16.3	63.3	63.4	6.3	6.7	0.0	0.0	-13.9
GEW-005	4/9/2018 15:16	47.9	35.9	0.0	16.2	63.3	63.3	9.1	9.4	0.0	0.0	-13.9
GEW-005	4/10/2018 7:56	44.7	39.6	0.0	15.7	54.6	54.6	9.4	9.9	-0.2	-0.2	-14.8
GEW-005	4/19/2018 9:34	47.0	36.2	0.0	16.8	64.6	64.9	10.1	10.1	-0.5	-0.4	-14.9
GEW-005	4/19/2018 9:35	46.9	35.9	0.0	17.2	64.4	64.4	20.1	20.1	-0.5	-0.5	-14.7
GEW-005	4/26/2018 9:01	50.9	38.2	0.0	10.9	80.5	80.4	10.5	10.9	-0.04	-0.04	-13.7
GEW-006	4/2/2018 9:22	50.9	37.5	0.0	11.6	77.5	77.6	15.2	11.1	-0.1	-0.1	-14.5
GEW-006	4/11/2018 9:24	53.7	39.7	0.0	6.6	84.5	84.4	12.5	12.5	0.1	0.1	-14.0
GEW-006	4/11/2018 9:26	54.2	38.8	0.0	7.0	85.1	85.1	17.6	19.6	0.0	0.1	-13.4
GEW-006	4/12/2018 11:29	56.2	38.4	0.0	5.4	87.7	87.8	15.3	20.4	-0.1	-0.1	-12.5
GEW-006	4/19/2018 9:44	53.0	38.2	0.0	8.8	81.2	81.2	31.1	30.8	-0.8	-0.9	-14.6
GEW-006	4/19/2018 9:45	53.2	38.1	0.0	8.7	80.3	80.3	32.1	31.0	-0.8	-0.8	-14.8
GEW-006	4/26/2018 8:12	55.3	39.7	0.0	5.0	85.4	85.4	14.9	16.4	-0.4	-0.4	-14.6
GEW-007	4/2/2018 14:53	57.7	39.8	0.0	2.5	84.5	84.7	9.1	11.7	-1.0	-1.0	-13.9
GEW-007	4/2/2018 14:54	57.0	40.4	0.0	2.6	84.4	84.0	12.0	10.3	-1.0	-1.0	-14.2
GEW-007	4/10/2018 10:18	57.3	42.2	0.0	0.5	86.5	86.3	7.3	9.5	-2.3	-2.3	-14.5
GEW-007	4/10/2018 10:20	57.2	42.2	0.0	0.6	85.6	85.6	10.3	10.3	-1.8	-1.8	-14.3
GEW-007	4/18/2018 8:39	57.8	42.2	0.0	0.0	84.7	84.7	27.7	27.5	-0.2	-0.2	-13.3
GEW-007	4/25/2018 11:03	57.9	41.3	0.0	0.8	88.5	88.6	8.7	9.1	-1.3	-1.3	-13.6
GEW-008	4/2/2018 15:01	53.0	42.7	0.0	4.3	109.7	109.8	13.7	14.0	-0.3	-0.3	-14.1
GEW-008	4/2/2018 15:08	53.7	42.1	0.0	4.2	110.2	110.9	15.2	15.7	-0.3	-0.3	-14.1
GEW-008	4/10/2018 10:27	52.9	42.5	0.0	4.6	111.5	111.7	10.8	13.2	-0.9	-0.9	-14.4
GEW-008	4/10/2018 10:28	51.7	44.4	0.0	3.9	111.5	111.8	14.8	14.8	-0.9	-0.9	-14.5
GEW-008	4/18/2018 8:42	53.1	43.3	0.0	3.6	112.0	111.7	10.1	14.0	-0.3	-0.3	-13.6
GEW-008	4/26/2018 9:23	53.4	43.4	0.0	3.2	112.9	112.8	13.5	14.5	-0.8	-0.8	-13.7
GEW-008	4/26/2018 9:30	53.1	43.7	0.0	3.2	112.5	112.7	12.9	11.8	-0.8	-0.8	-13.5
GEW-009	4/2/2018 15:12	52.9	41.6	0.0	5.5	117.9	117.9	8.2	7.9	0.1	0.1	-6.3
GEW-009	4/2/2018 15:20	53.0	41.6	0.0	5.4	117.9	117.9	12.0	8.5	0.1	0.1	-5.0
GEW-009	4/3/2018 11:02	50.3	41.2	0.0	8.5	123.1	122.9	8.8	7.0	-0.2	-0.1	-13.4
GEW-009	4/10/2018 10:31	43.9	40.9	0.0	15.2	116.6	116.3	5.4	7.6	-0.3	-0.4	-14.5
GEW-009	4/10/2018 10:33	43.5	40.5	0.0	16.0	115.7	115.8	8.5	10.1	-0.3	-0.3	-14.6
GEW-009	4/18/2018 8:48	50.6	43.1	0.0	6.3	119.7	119.7	10.4	9.3	0.1	0.0	-14.0
GEW-009	4/18/2018 8:50	50.4	42.5	0.0	7.1	120.8	120.8	12.9	14.5	-0.04	-0.04	-13.9
GEW-009	4/25/2018 11:07	46.5	39.5	0.0	14.0	117.6	117.9	21.3	21.2	-0.3	-0.3	-13.7
GEW-009	4/25/2018 11:09	45.9	39.7	0.0	14.4	117.6	117.6	35.7	36.1	-0.3	-0.3	-13.6
GEW-010	4/3/2018 10:47	54.6	43.4	0.0	2.0	66.5	66.5	4.0	3.6	-1.5	-1.5	-18.5
GEW-010	4/3/2018 10:55	54.5	42.5	0.0	3.0	67.7	67.8	4.0	4.0	-1.5	-1.5	-18.6
GEW-010	4/9/2018 10:24	54.5	45.5	0.0	0.0	52.8	52.8	2.8	3.0	-1.7	-1.7	-19.1
GEW-010	4/16/2018 15:43	56.9	42.7	0.1	0.3	59.3	59.2	4.6	4.6	-1.8	-1.8	-19.9
GEW-010	4/23/2018 8:42	54.1	43.4	0.6	1.9	54.7	54.7	3.5	3.5	-1.4	-1.5	-19.9
GEW-013A	4/11/2018 10:01	8.3	32.0	7.3	52.4	128.0	128.6	85.6	84.8	-1.4	-1.4	-15.9

April 2018 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-013A	4/11/2018 10:02	8.2	31.8	7.4	52.6	128.3	128.0	87.2	87.9	-1.4	-1.4	-15.1
GEW-013A	4/20/2018 8:19	3.7	24.1	10.7	61.5	123.9	124.2	91.0	89.7	-1.5	-1.5	-16.2
GEW-013A	4/20/2018 8:22	3.8	25.9	10.3	60.0	125.7	126.4	84.3	83.7	-1.3	-1.3	-16.9
GEW-013A	4/24/2018 15:28	5.5	36.4	7.3	50.8	145.2	144.9	34.4	41.0	-0.9	-0.9	-15.1
GEW-013A	4/24/2018 15:29	5.9	37.0	7.0	50.1	147.3	145.9	37.5	36.1	-0.7	-0.7	-13.6
GEW-015	4/11/2018 10:44	17.0	47.2	0.0	35.8	155.9	155.6	6.0	5.4	-5.8	-5.8	-18.4
GEW-015	4/11/2018 10:47	16.4	48.2	0.0	35.4	155.6	155.6	7.7	5.8	-5.7	-5.7	-18.8
GEW-015	4/20/2018 9:21	16.5	46.9	0.0	36.6	154.0	154.0	5.9	5.0	-6.3	-6.2	-19.7
GEW-015	4/20/2018 9:22	16.5	47.3	0.0	36.2	154.1	154.0	7.3	4.3	-6.2	-6.2	-19.4
GEW-016R	4/11/2018 10:50	7.7	46.5	0.0	45.8	179.7	179.7	NFD		-18.7	-18.6	-18.5
GEW-016R	4/11/2018 10:51	8.0	46.5	0.0	45.5	179.7	179.7	NFD		-18.7	-18.7	-18.5
GEW-016R	4/20/2018 9:31	7.5	44.7	0.2	47.6	179.7	179.7	NFD		-19.4	-19.4	-19.0
GEW-016R	4/20/2018 9:32	7.4	45.1	0.1	47.4	179.7	179.7	NFD		-19.5	-19.5	-19.2
GEW-018B	4/11/2018 13:38	3.0	46.5	1.9	48.6	163.3	163.3	1.0	1.0	-0.1	-0.1	-17.9
GEW-018B	4/11/2018 13:40	3.0	47.0	1.9	48.1	163.0	162.9	1.8	1.0	-0.1	-0.1	-17.7
GEW-018B	4/20/2018 10:09	1.1	43.4	3.2	52.3	152.5	152.5	2.9	2.7	-0.3	-0.2	-18.9
GEW-018B	4/20/2018 10:11	1.1	44.9	3.2	50.8	152.5	152.5	1.5	2.5	-0.3	-0.3	-19.2
GEW-022R	4/12/2018 8:41	1.2	37.1	10.1	51.6	77.5	77.5	5.4	3.0	-20.2	-20.2	-20.1
GEW-022R	4/12/2018 8:43	1.2	39.6	9.5	49.7	76.9	76.8	1.6	2.3	-20.2	-20.2	-20.2
GEW-022R	4/24/2018 11:36	0.7	14.6	17.1	67.6	68.1	67.9	4.0	3.6	-18.7	-18.9	-18.8
GEW-022R	4/24/2018 11:37	0.7	19.3	14.4	65.6	67.0	66.9	4.6	4.0	-18.9	-18.7	-18.9
GEW-038	4/4/2018 10:52	2.3	21.9	13.9	61.9	39.2	39.2	3.1	1.3	-0.9	-0.9	-18.2
GEW-038	4/4/2018 10:58	2.4	20.2	14.0	63.4	40.5	40.5	3.1	3.1	-0.8	-0.8	-17.7
GEW-038	4/9/2018 11:39	2.0	27.9	13.2	56.9	54.5	54.6	2.5	1.2	-0.6	-0.6	-17.9
GEW-038	4/9/2018 11:41	2.1	27.3	13.1	57.5	54.7	54.7	3.3	3.0	-0.5	-0.5	-16.9
GEW-038	4/17/2018 8:56	3.5	31.9	11.3	53.3	52.4	52.5	3.6	4.1	-0.6	-0.6	-16.3
GEW-038	4/17/2018 8:57	3.4	30.6	11.5	54.5	52.6	52.6	3.4	3.4	-0.4	-0.4	-16.7
GEW-038	4/23/2018 10:06	5.6	40.6	7.1	46.7	52.4	52.4	1.8	1.8	-0.8	-0.8	-18.0
GEW-038	4/23/2018 10:07	5.2	42.4	7.1	45.3	51.8	51.8	2.5	2.5	-0.8	-0.8	-17.5
GEW-039	4/4/2018 11:15	23.9	35.4	2.9	37.8	111.4	111.4	27.1	26.3	-1.7	-1.7	-21.0
GEW-039	4/4/2018 11:21	23.8	34.4	3.0	38.8	112.0	111.8	25.3	25.4	-1.7	-1.8	-20.8
GEW-039	4/9/2018 11:50	24.2	38.2	3.3	34.3	116.1	116.1	25.1	22.4	-1.6	-1.6	-19.0
GEW-039	4/9/2018 11:52	24.6	36.8	3.3	35.3	115.3	115.3	23.3	22.9	-1.3	-1.3	-18.7
GEW-039	4/17/2018 9:07	26.8	40.6	2.4	30.2	115.5	115.5	27.3	21.2	-1.4	-1.3	-19.8
GEW-039	4/17/2018 9:08	27.2	39.1	2.5	31.2	115.1	115.1	16.8	22.4	-1.0	-1.0	-20.2
GEW-039	4/23/2018 10:17	28.7	41.5	1.9	27.9	111.0	110.8	20.7	18.8	-0.9	-1.0	-19.8
GEW-040	4/2/2018 15:42	53.1	39.2	0.0	7.7	44.3	44.4	9.0	8.1	-0.5	-0.5	-14.2
GEW-040	4/2/2018 15:49	55.1	36.9	0.0	8.0	44.3	44.3	9.9	10.3	-0.5	-0.5	-14.2
GEW-040	4/10/2018 11:25	51.9	41.3	0.0	6.8	55.7	55.7	6.4	4.3	-0.6	-0.6	-14.2
GEW-040	4/18/2018 9:26	56.2	40.6	0.0	3.2	60.2	60.2	4.0	5.7	-0.6	-0.6	-13.2
GEW-040	4/25/2018 11:41	57.4	40.1	0.0	2.5	75.2	75.2	7.4	7.9	-0.6	-0.6	-13.1

April 2018 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	4/2/2018 10:09	52.1	37.8	0.0	10.1	89.1	89.1	6.4	6.3	-0.3	-0.3	-14.5
GEW-041R	4/10/2018 11:28	51.5	38.6	0.1	9.8	93.0	92.9	9.5	7.8	-0.4	-0.4	-14.3
GEW-041R	4/10/2018 11:30	51.7	38.1	0.1	10.1	92.7	92.7	21.3	23.3	-0.4	-0.4	-14.2
GEW-041R	4/18/2018 9:29	55.5	38.3	0.0	6.2	95.5	95.5	7.8	10.3	-0.1	-0.1	-13.4
GEW-041R	4/25/2018 11:45	55.0	37.7	0.1	7.2	96.7	96.6	7.7	8.7	-0.3	-0.3	-13.1
GEW-041R	4/25/2018 11:46	55.0	37.4	0.1	7.5	96.3	96.2	18.2	17.3	-0.3	-0.3	-13.4
GEW-042R	4/6/2018 10:20	54.5	44.1	0.4	1.0	89.6	89.6	7.3	8.3	-0.3	-0.3	-13.8
GEW-042R	4/6/2018 10:27	55.8	41.6	0.1	2.5	89.1	89.7	17.7	17.6	-0.4	-0.4	-13.8
GEW-042R	4/10/2018 11:33	56.0	42.1	0.2	1.7	88.3	88.9	11.4	11.7	-0.4	-0.4	-14.3
GEW-042R	4/18/2018 9:33	56.3	42.4	0.0	1.3	94.3	94.0	25.7	26.2	-0.2	-0.2	-12.9
GEW-042R	4/26/2018 9:36	55.5	43.2	0.0	1.3	100.4	100.3	27.5	27.7	-0.7	-0.7	-13.4
GEW-042R	4/26/2018 9:43	56.2	41.2	0.1	2.5	100.4	100.4	29.4	29.2	-0.7	-0.7	-13.5
GEW-043R	4/2/2018 10:19	54.3	39.6	0.2	5.9	105.5	109.0	10.1	10.1	-0.1	-0.1	-14.5
GEW-043R	4/2/2018 10:20	54.0	40.6	0.1	5.3	109.7	110.0	25.5	25.5	-0.1	-0.1	-14.4
GEW-043R	4/10/2018 11:38	53.1	42.5	0.5	3.9	111.3	111.5	6.6	6.0	-0.3	-0.3	-14.8
GEW-043R	4/18/2018 9:37	54.8	43.8	0.0	1.4	115.3	115.3	13.5	12.9	0.3	0.2	-13.4
GEW-043R	4/18/2018 9:40	55.0	43.9	0.0	1.1	115.1	115.8	30.9	31.2	0.2	0.2	-13.7
GEW-043R	4/19/2018 8:38	55.8	43.5	0.0	0.7	115.0	115.3	40.6	40.6	-1.1	-1.1	-14.6
GEW-043R	4/19/2018 8:39	56.2	43.2	0.0	0.6	113.5	113.5	33.4	33.8	-1.0	-1.0	-14.9
GEW-043R	4/25/2018 14:29	52.2	41.9	0.7	5.2	117.6	117.8	4.3	8.2	-0.1	-0.1	-13.1
GEW-044	4/2/2018 10:24	50.9	38.1	0.0	11.0	60.7	60.2	2.8	2.8	-0.2	-0.2	-14.3
GEW-044	4/10/2018 11:45	50.5	38.2	0.0	11.3	70.4	70.4	5.6	5.6	-0.3	-0.3	-14.3
GEW-044	4/10/2018 11:46	50.7	38.2	0.0	11.1	72.4	72.4	7.4	7.9	-0.4	-0.4	-14.3
GEW-044	4/18/2018 9:44	56.2	43.1	0.0	0.7	76.3	76.7	7.9	8.0	-0.04	-0.04	-13.2
GEW-044	4/18/2018 9:46	55.4	42.4	0.0	2.2	78.7	78.8	4.8	4.8	-0.1	-0.1	-13.2
GEW-044	4/25/2018 14:34	55.8	40.3	0.0	3.9	88.4	88.4	12.9	12.9	-0.2	-0.2	-13.3
GEW-045R	4/6/2018 10:35	56.3	42.2	0.0	1.5	84.4	84.4	7.8	7.8	-1.4	-1.5	-12.1
GEW-045R	4/6/2018 10:42	56.2	42.6	0.0	1.2	85.1	84.9	7.8	10.7	-1.6	-1.6	-11.9
GEW-045R	4/11/2018 8:11	55.0	45.0	0.0	0.0	81.7	81.9	10.0	11.1	-0.9	-0.9	-12.9
GEW-045R	4/18/2018 9:50	58.7	40.8	0.0	0.5	77.5	77.4	4.8	4.8	-2.5	-2.5	-13.1
GEW-045R	4/25/2018 14:39	57.5	41.9	0.0	0.6	90.1	90.1	6.1	6.7	-1.8	-1.8	-13.0
GEW-045R	4/25/2018 14:40	57.2	42.0	0.0	0.8	89.8	89.9	6.1	6.1	-1.7	-1.7	-13.0
GEW-046R	4/6/2018 13:38	52.2	39.1	0.0	8.7	91.0	91.1	5.9	7.1	-0.3	-0.3	-13.6
GEW-046R	4/6/2018 13:46	52.0	38.6	0.0	9.4	90.7	90.5	2.1	4.4	-0.2	-0.2	-13.8
GEW-046R	4/11/2018 8:14	51.3	40.8	0.0	7.9	89.6	89.4	6.8	6.8	-0.1	-0.1	-13.5
GEW-046R	4/18/2018 9:53	52.9	39.6	0.0	7.5	94.4	94.3	4.8	5.5	-0.1	-0.1	-13.2
GEW-046R	4/25/2018 14:45	54.6	40.6	0.0	4.8	102.5	102.9	15.3	15.4	-0.01	-0.01	-13.0
GEW-046R	4/25/2018 14:47	54.6	40.3	0.0	5.1	103.0	102.7	10.5	10.5	-0.03	-0.03	-13.0
GEW-047R	4/6/2018 14:30	48.0	38.7	0.0	13.3	105.2	105.0	12.6	12.8	0.0	0.0	-14.3
GEW-047R	4/6/2018 14:37	48.4	37.8	0.0	13.8	104.8	104.8	10.7	12.1	-0.1	-0.03	-14.3
GEW-047R	4/11/2018 8:53	49.8	40.3	0.0	9.9	107.0	107.2	6.1	6.1	0.3	0.3	-12.5

April 2018 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-047R	4/11/2018 8:55	49.9	40.3	0.0	9.8	107.0	106.8	5.4	9.0	0.3	0.3	-12.6
GEW-047R	4/12/2018 11:18	51.6	41.6	0.0	6.8	111.1	111.0	27.0	27.7	0.1	0.1	-12.6
GEW-047R	4/12/2018 11:19	52.1	40.5	0.0	7.4	111.2	111.2	28.8	28.5	0.1	0.2	-12.3
GEW-047R	4/13/2018 10:40	50.0	39.6	0.0	10.4	107.2	107.2	6.5	7.5	-0.6	-0.6	-13.2
GEW-047R	4/13/2018 10:42	50.1	39.3	0.0	10.6	107.0	106.9	9.3	8.5	-0.6	-0.6	-13.3
GEW-047R	4/19/2018 9:28	51.2	40.2	0.0	8.6	102.4	102.5	12.9	12.8	-0.6	-0.6	-15.0
GEW-047R	4/19/2018 9:29	52.2	39.1	0.0	8.7	102.3	102.1	12.1	11.5	-0.6	-0.6	-15.3
GEW-047R	4/26/2018 8:57	54.1	40.2	0.0	5.7	109.7	109.7	5.4	6.1	-0.2	-0.2	-13.7
GEW-048	4/5/2018 17:15	58.6	41.1	0.0	0.3	73.2	74.1	2.7	3.9	1.1	1.1	-13.3
GEW-048	4/5/2018 17:17	58.2	41.8	0.0	0.0	73.9	73.9	6.9	7.9	1.1	1.0	-13.5
GEW-048	4/6/2018 15:12	57.8	41.9	0.0	0.3	66.9	67.2	7.2	3.0	0.3	0.4	-14.3
GEW-048	4/6/2018 15:19	57.9	41.2	0.0	0.9	67.6	67.9	5.3	7.0	0.2	0.2	-14.4
GEW-048	4/9/2018 15:19	57.5	40.3	0.0	2.2	71.2	71.4	8.6	8.9	0.1	0.0	-13.8
GEW-048	4/9/2018 15:22	57.4	40.5	0.0	2.1	71.4	70.7	14.0	14.2	0.0	0.0	-13.9
GEW-048	4/10/2018 8:00	57.8	42.1	0.0	0.1	63.9	64.4	13.4	13.4	-0.1	-0.1	-14.8
GEW-048	4/19/2018 9:39	58.6	41.4	0.0	0.0	81.9	82.0	26.4	25.8	-0.5	-0.5	-14.8
GEW-048	4/25/2018 13:50	59.2	40.3	0.0	0.5	93.5	93.6	11.6	12.3	0.3	0.3	-13.9
GEW-048	4/25/2018 13:58	57.9	41.6	0.0	0.5	94.1	94.1	8.5	10.7	0.3	0.3	-13.7
GEW-048	4/26/2018 8:09	55.3	44.7	0.0	0.0	92.2	92.2	9.1	8.3	-0.2	-0.2	-14.3
GEW-049	4/6/2018 15:26	48.1	37.4	0.0	14.5	102.3	101.6	24.5	26.1	-0.1	-0.1	-13.9
GEW-049	4/6/2018 15:34	47.4	37.8	0.0	14.8	101.1	101.3	10.1	12.4	-0.1	-0.1	-13.7
GEW-049	4/11/2018 9:16	52.1	38.9	0.0	9.0	102.5	102.4	9.0	9.4	0.0	0.1	-13.1
GEW-049	4/11/2018 9:17	51.6	39.9	0.0	8.5	102.3	102.4	8.6	10.2	0.1	0.1	-12.5
GEW-049	4/12/2018 11:33	53.8	39.8	0.0	6.4	105.7	105.5	8.9	8.0	0.1	0.1	-12.1
GEW-049	4/12/2018 11:35	53.7	40.3	0.0	6.0	105.5	105.6	6.5	8.0	0.1	0.1	-12.3
GEW-049	4/13/2018 10:45	44.2	36.4	0.0	19.4	103.5	103.2	3.6	6.5	-0.5	-0.5	-12.7
GEW-049	4/13/2018 10:46	43.6	36.3	0.0	20.1	103.5	103.6	7.6	8.9	-0.6	-0.6	-12.9
GEW-049	4/19/2018 9:55	46.4	36.8	0.0	16.8	75.2	75.2	6.1	6.1	-0.5	-0.5	-14.7
GEW-049	4/19/2018 9:57	46.5	37.0	0.0	16.5	75.3	75.7	8.3	6.7	-0.5	-0.5	-14.8
GEW-049	4/25/2018 14:04	56.6	41.1	0.0	2.3	92.9	92.9	11.5	11.6	0.2	0.2	-13.2
GEW-049	4/25/2018 14:12	56.3	41.0	0.0	2.7	93.9	93.4	13.7	13.7	0.2	0.2	-13.1
GEW-049	4/26/2018 8:30	56.2	40.9	0.0	2.9	85.9	85.8	13.0	13.7	-0.02	-0.03	-13.6
GEW-049	4/26/2018 8:32	56.1	40.8	0.0	3.1	87.9	87.8	11.9	13.0	-0.03	-0.03	-12.1
GEW-050	4/2/2018 9:40	49.2	37.5	0.0	13.3	102.8	102.5	14.6	11.5	-0.4	-0.4	-9.7
GEW-050	4/10/2018 8:13	48.5	37.3	0.0	14.2	103.1	103.3	24.9	26.9	-0.6	-0.6	-9.7
GEW-050	4/10/2018 8:15	48.1	38.0	0.0	13.9	102.8	102.5	30.9	33.4	-0.6	-0.5	-12.3
GEW-050	4/18/2018 8:28	55.4	43.8	0.0	0.8	96.4	96.3	7.8	7.8	0.6	0.6	-10.9
GEW-050	4/18/2018 8:30	56.0	41.9	0.0	2.1	96.8	96.8	11.0	7.8	0.5	0.5	-10.3
GEW-050	4/19/2018 8:08	51.6	41.7	0.0	6.7	92.2	92.4	10.5	11.2	-0.7	-0.7	-7.7
GEW-050	4/19/2018 8:10	52.0	39.6	0.0	8.4	92.5	91.4	37.0	37.2	-0.7	-0.6	-10.3
GEW-050	4/25/2018 10:53	56.9	40.4	0.0	2.7	98.7	98.8	14.2	13.4	0.1	0.1	-7.9

April 2018 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-050	4/25/2018 10:55	56.7	40.0	0.0	3.3	98.9	98.8	12.5	12.8	0.0	0.0	-6.7
GEW-050	4/26/2018 8:19	57.0	38.0	0.0	5.0	97.2	96.8	7.2	8.7	-0.1	-0.1	-7.2
GEW-050	4/26/2018 8:20	56.3	39.7	0.0	4.0	96.7	96.7	11.3	10.2	-0.1	-0.1	-8.4
GEW-051	4/2/2018 9:53	54.7	39.6	0.0	5.7	120.2	121.0	22.1	21.5	-0.5	-0.5	-14.2
GEW-051	4/10/2018 10:39	54.3	42.5	0.0	3.2	120.9	121.0	12.3	13.4	-0.7	-0.7	-14.0
GEW-051	4/18/2018 8:56	54.1	43.4	0.0	2.5	114.1	114.0	13.0	11.6	0.7	0.7	-13.9
GEW-051	4/18/2018 8:58	54.0	43.9	0.0	2.1	120.7	120.5	12.9	12.9	0.5	0.5	-13.9
GEW-051	4/19/2018 8:18	56.1	40.4	0.0	3.5	119.2	119.1	13.0	12.8	-1.4	-1.4	-15.0
GEW-051	4/19/2018 8:19	55.7	41.4	0.0	2.9	116.9	116.8	10.6	13.4	-1.3	-1.1	-14.5
GEW-051	4/25/2018 11:13	55.2	42.2	0.0	2.6	120.5	120.5	23.7	23.2	-0.3	-0.3	-13.7
GEW-052	4/2/2018 9:44	37.4	33.3	0.0	29.3	111.6	111.7	6.6	5.4	-0.5	-0.5	-14.5
GEW-052	4/2/2018 9:46	37.2	33.6	0.0	29.2	111.4	111.3	8.5	7.4	-0.4	-0.4	-14.4
GEW-052	4/10/2018 10:12	35.9	32.1	0.0	32.0	110.7	110.7	4.9	6.1	-0.4	-0.4	-14.7
GEW-052	4/10/2018 10:14	35.6	33.1	0.0	31.3	110.7	110.5	18.0	19.5	-0.4	-0.4	-14.5
GEW-052	4/18/2018 8:33	56.7	40.7	0.0	2.6	85.4	85.4	3.9	4.8	0.4	0.4	-13.9
GEW-052	4/18/2018 8:35	56.2	41.6	0.0	2.2	87.9	87.7	5.5	3.9	0.4	0.4	-13.9
GEW-052	4/19/2018 8:13	43.8	35.3	0.0	20.9	81.9	82.1	9.1	5.8	-0.2	-0.2	-14.6
GEW-052	4/19/2018 8:14	43.2	35.3	0.0	21.5	81.9	81.9	9.5	9.5	-0.2	-0.2	-14.3
GEW-052	4/25/2018 10:58	57.3	40.7	0.0	2.0	97.0	97.1	14.9	14.5	0.1	0.0	-13.5
GEW-052	4/25/2018 11:00	56.8	41.3	0.0	1.9	97.9	97.7	13.1	11.9	0.1	0.1	-13.5
GEW-052	4/26/2018 8:23	57.4	40.6	0.0	2.0	94.8	94.8	29.2	29.4	0.1	0.1	-14.3
GEW-052	4/26/2018 8:25	56.8	41.6	0.0	1.6	99.6	99.7	27.9	27.9	0.0	0.0	-15.5
GEW-052	4/27/2018 10:21	55.2	38.7	0.0	6.1	105.5	105.6	29.5	26.9	0.0	0.0	-13.1
GEW-052	4/27/2018 10:25	55.0	39.2	0.0	5.8	105.5	105.4	0.0	0.0	-0.01	-0.01	-13.7
GEW-053	4/5/2018 8:27	51.7	40.2	0.1	8.0	135.3	135.6	17.3	16.5	-0.5	-0.5	-14.8
GEW-053	4/5/2018 8:34	51.9	40.2	0.0	7.9	135.8	135.9	19.4	16.1	-0.5	-0.5	-14.6
GEW-053	4/10/2018 11:06	50.1	43.2	0.0	6.7	139.6	139.7	12.9	13.0	-0.7	-0.7	-14.5
GEW-053	4/10/2018 11:08	49.7	44.0	0.0	6.3	139.6	139.1	10.2	14.7	-0.6	-0.6	-14.7
GEW-053	4/18/2018 9:06	50.5	43.6	0.0	5.9	140.3	140.7	12.4	11.8	0.4	0.4	-13.8
GEW-053	4/18/2018 9:08	50.3	44.1	0.0	5.6	141.5	140.9	12.4	12.4	0.3	0.3	-13.4
GEW-053	4/19/2018 8:32	51.9	41.2	0.0	6.9	139.6	139.9	14.4	12.5	-1.3	-1.3	-14.7
GEW-053	4/19/2018 8:34	50.9	42.7	0.0	6.4	138.3	139.4	14.8	12.6	-1.2	-1.2	-14.8
GEW-053	4/25/2018 11:20	51.5	42.2	0.0	6.3	138.1	138.0	19.6	18.5	-0.5	-0.5	-13.3
GEW-053	4/25/2018 11:22	51.0	43.4	0.0	5.6	138.0	138.0	32.6	32.5	-0.5	-0.5	-13.3
GEW-054	4/5/2018 8:40	53.3	42.2	0.0	4.5	144.5	144.3	36.6	37.2	-3.2	-3.2	-14.7
GEW-054	4/5/2018 15:22	52.9	41.5	0.0	5.6	143.5	143.5	42.6	36.4	-2.7	-2.7	-13.7
GEW-054	4/10/2018 11:11	52.2	44.4	0.0	3.4	140.2	140.1	39.2	39.7	-4.3	-4.3	-14.5
GEW-054	4/10/2018 11:12	52.3	44.5	0.0	3.2	140.1	140.0	40.9	40.9	-4.3	-4.3	-14.7
GEW-054	4/18/2018 9:12	52.5	43.8	0.0	3.7	140.6	140.6	40.8	42.3	-3.5	-3.5	-14.1
GEW-054	4/18/2018 9:13	52.4	44.2	0.0	3.4	140.6	140.6	37.1	41.1	-3.4	-3.4	-13.9
GEW-054	4/25/2018 14:17	53.6	42.3	0.0	4.1	141.9	141.9	34.3	32.9	-3.7	-3.7	-13.5

April 2018 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	4/25/2018 14:23	53.4	43.3	0.0	3.3	141.9	141.9	39.4	38.0	-3.7	-3.7	-13.9
GEW-055	4/2/2018 15:31	49.6	40.8	0.0	9.6	130.3	130.9	14.5	15.2	-0.03	-0.02	-14.4
GEW-055	4/2/2018 15:38	50.0	39.6	0.0	10.4	130.3	130.3	15.7	15.8	-0.1	-0.1	-14.6
GEW-055	4/10/2018 11:20	48.8	42.2	0.3	8.7	132.0	132.3	12.1	12.9	-0.8	-0.8	-14.5
GEW-055	4/10/2018 11:22	48.6	42.4	0.4	8.6	130.6	130.6	9.2	20.2	-0.7	-0.7	-14.7
GEW-055	4/18/2018 9:21	49.5	43.2	0.1	7.2	133.2	132.9	21.7	21.4	-0.1	-0.1	-13.2
GEW-055	4/18/2018 9:23	49.4	43.1	0.0	7.5	133.2	133.4	26.7	26.4	-0.2	-0.2	-13.7
GEW-055	4/25/2018 11:30	50.7	41.0	0.2	8.1	133.2	133.2	27.6	27.5	-0.8	-0.8	-13.1
GEW-055	4/25/2018 11:32	50.7	41.6	0.2	7.5	132.9	132.9	31.1	31.0	-0.7	-0.7	-13.7
GEW-056R	4/3/2018 11:40	26.9	50.6	0.0	22.5	79.1	79.2	3.1	2.6	-0.1	-0.1	-18.1
GEW-056R	4/3/2018 11:47	25.0	49.3	0.0	25.7	85.6	85.4	2.8	2.8	-0.3	-0.3	-18.0
GEW-056R	4/9/2018 10:39	33.3	52.5	0.0	14.2	71.4	71.4	2.7	2.4	-0.3	-0.3	-19.2
GEW-056R	4/16/2018 15:57	34.7	50.1	0.0	15.2	71.8	72.0	2.9	3.2	-0.3	-0.2	-20.1
GEW-056R	4/23/2018 8:56	33.4	50.1	0.0	16.5	67.5	67.7	3.4	3.6	-0.3	-0.4	-20.1
GEW-057B	4/12/2018 14:18	0.8	12.7	15.8	70.7	94.6	94.6	5.5	4.1	-0.1	-0.1	-19.0
GEW-057B	4/12/2018 14:20	0.7	12.0	16.0	71.3	94.8	94.8	5.8	3.8	-0.1	-0.2	-18.9
GEW-057B	4/20/2018 11:40	0.2	12.7	17.7	69.4	70.9	71.2	2.7	4.0	-0.1	-0.1	-19.2
GEW-057B	4/20/2018 11:41	0.3	9.3	17.5	72.9	71.4	71.4	3.8	4.8	-0.1	-0.1	-19.2
GEW-057R	4/12/2018 14:12	11.0	28.2	12.0	48.8	88.9	88.9	2.5	1.1	-18.5	-18.2	-19.1
GEW-057R	4/12/2018 14:14	10.3	27.3	12.4	50.0	88.9	88.9	1.1	2.2	-18.1	-18.2	-19.1
GEW-057R	4/20/2018 11:44	7.8	21.7	14.3	56.2	68.2	68.2	2.6	2.6	-18.6	-18.6	-19.2
GEW-057R	4/20/2018 11:45	7.8	23.6	14.1	54.5	68.8	68.8	2.6	1.2	-18.6	-18.7	-18.9
GEW-058	4/11/2018 11:49	4.7	30.8	2.9	61.6	82.1	82.3	3.5	3.3	-0.7	-0.7	-18.5
GEW-058	4/12/2018 14:27	8.4	37.5	0.6	53.5	92.7	92.7	3.0	2.8	-0.5	-0.5	-18.9
GEW-058A	4/11/2018 11:28	0.6	42.5	6.1	50.8	76.6	76.7	3.1	2.1	-0.5	-0.5	-18.9
GEW-058A	4/11/2018 11:30	0.5	41.7	6.2	51.6	79.4	79.6	2.0	2.0	-0.1	-0.1	-18.9
GEW-058A	4/12/2018 14:30	1.2	50.7	0.0	48.1	91.3	91.5	3.6	3.3	-0.02	-0.02	-19.0
GEW-058A	4/20/2018 13:25	1.1	43.2	3.9	51.8	75.2	75.2	2.7	3.1	-0.2	-0.2	-19.4
GEW-059R	4/11/2018 11:11	14.9	44.4	0.0	40.7	160.6	159.8	8.6	9.0	-12.2	-11.8	-12.5
GEW-059R	4/11/2018 11:13	14.4	46.8	0.0	38.8	159.9	159.0	6.0	7.0	-12.5	-12.5	-12.8
GEW-059R	4/20/2018 13:18	16.8	40.4	0.2	42.6	161.1	161.6	11.0	19.6	-18.5	-18.5	-18.8
GEW-059R	4/20/2018 13:20	16.8	41.7	0.1	41.4	161.7	162.0	23.3	8.1	-19.0	-19.4	-19.4
GEW-067A	4/11/2018 9:00	3.5	22.8	11.9	61.8	91.7	91.7	30.7	31.0	-0.1	-0.2	-19.4
GEW-067A	4/11/2018 9:02	3.3	21.9	11.9	62.9	93.4	93.3	31.0	30.7	-0.2	-0.2	-19.4
GEW-067A	4/20/2018 8:31	1.8	20.9	12.2	65.1	78.7	78.7	21.3	20.7	-0.1	-0.1	-19.6
GEW-067A	4/20/2018 8:33	1.7	20.3	12.3	65.7	79.0	78.9	22.3	22.5	-0.2	-0.2	-14.9
GEW-068A	4/12/2018 13:20	15.3	51.8	0.1	32.8	181.6	181.7	20.7	25.2	-11.9	-11.9	-19.3
GEW-068A	4/12/2018 13:21	15.0	52.2	0.0	32.8	182.1	182.1	21.2	22.2	-11.9	-12.1	-19.2
GEW-068A	4/20/2018 11:51	14.7	59.0	0.0	26.3	181.5	181.5	24.4	24.3	-12.5	-12.3	-19.4
GEW-068A	4/20/2018 11:52	14.3	60.1	0.0	25.6	181.5	181.5	23.7	24.3	-10.5	-10.4	-18.8
GEW-077	4/12/2018 11:21	3.3	52.5	0.8	43.4	125.6	125.6	26.0	28.0	-18.6	-18.8	-18.9

April 2018 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-078R	4/11/2018 11:44	8.9	36.1	0.0	55.0	154.5	154.5	8.9	7.6	-18.2	-18.2	-18.5
GEW-078R	4/11/2018 11:46	9.2	36.4	0.0	54.4	154.8	154.8	8.4	8.6	-18.0	-17.8	-18.4
GEW-078R	4/20/2018 13:06	4.3	32.0	0.1	63.6	155.6	155.6	9.0	18.1	-19.1	-19.5	-19.0
GEW-078R	4/20/2018 13:07	4.1	33.1	0.0	62.8	155.6	155.6	5.0	16.3	-19.0	-19.4	-19.0
GEW-081	4/12/2018 8:19	0.1	14.5	16.2	69.2	74.0	74.0	3.4	3.8	-20.2	-20.1	-20.3
GEW-081	4/12/2018 8:20	0.1	14.4	16.1	69.4	74.1	74.1	1.1	3.0	-20.2	-20.0	-20.1
GEW-081	4/24/2018 11:21	0.5	29.3	10.7	59.5	68.4	68.1	2.3	0.0	-18.7	-18.7	-18.9
GEW-081	4/24/2018 11:23	0.4	29.9	10.6	59.1	67.2	67.1	2.3	2.3	-18.7	-18.8	-18.9
GEW-082R	4/11/2018 13:21	9.3	35.7	0.1	54.9	175.8	175.8	8.3	1.7	-17.3	-17.4	-18.1
GEW-082R	4/11/2018 13:23	9.9	36.8	0.0	53.3	176.4	176.3	5.7	1.0	-17.0	-17.0	-17.9
GEW-082R	4/20/2018 10:04	9.3	34.0	0.3	56.4	173.1	173.1	4.9	3.0	-18.0	-18.0	-19.0
GEW-082R	4/20/2018 10:06	9.3	34.9	0.2	55.6	173.1	173.1	4.2	4.1	-18.0	-18.0	-19.0
GEW-086	4/11/2018 9:08	11.6	27.7	7.3	53.4	71.8	71.7	5.3	7.0	-0.2	-0.2	-19.4
GEW-086	4/11/2018 9:09	11.6	28.0	7.2	53.2	71.6	71.6	6.4	6.4	-0.2	-0.2	-19.5
GEW-086	4/20/2018 8:51	5.0	21.8	8.8	64.4	66.1	66.0	6.4	7.3	-0.2	-0.2	-19.3
GEW-086	4/20/2018 8:53	4.9	22.7	8.7	63.7	66.1	66.1	6.5	6.2	-0.2	-0.2	-19.7
GEW-087	4/11/2018 9:17	6.8	18.3	12.0	62.9	115.6	115.8	NFD		-19.0	-19.2	-19.1
GEW-087	4/11/2018 9:18	6.7	17.5	12.3	63.5	115.9	116.0	NFD		-19.1	-19.2	-19.1
GEW-087	4/20/2018 8:37	5.6	17.2	13.3	63.9	110.8	110.7	NFD		-20.0	-20.0	-19.8
GEW-087	4/20/2018 8:39	5.8	16.4	13.3	64.5	110.6	110.5	NFD		-20.0	-19.9	-19.6
GEW-088	4/19/2018 14:38	1.5	52.0	0.0	46.5	194.3	194.3	31.4	29.6	0.3	0.3	-10.9
GEW-088	4/19/2018 14:48	1.3	54.5	0.0	44.2	194.3	194.3	34.5	34.3	0.1	0.1	-11.5
GEW-088	4/24/2018 15:20	1.5	49.9	0.0	48.6	116.6	116.8	6.1	6.6	1.7	1.7	1.6
GEW-088	4/24/2018 15:21	1.4	51.6	0.0	47.0	118.9	119.2	5.4	5.1	1.6	1.7	1.3
GEW-088	4/25/2018 16:16	1.6	47.2	0.0	51.2	192.7	192.9	2.9	4.1	1.0	1.0	-9.7
GEW-088	4/25/2018 16:18	1.5	50.2	0.0	48.3	197.9	197.9	9.7	9.7	-0.3	-0.2	-10.2
GEW-088	4/27/2018 13:19	3.3	43.6	0.4	52.7	192.9	192.9	6.6	6.4	-0.2	-0.2	-9.9
GEW-088	4/27/2018 13:21	3.3	46.3	0.4	50.0	192.9	192.9	11.7	9.7	-0.4	-0.4	-9.7
GEW-090	4/11/2018 8:42	20.3	41.4	1.9	36.4	152.5	152.5	9.3	8.6	-19.0	-19.0	-19.5
GEW-090	4/11/2018 8:44	19.8	42.4	1.9	35.9	152.5	152.5	8.3	11.4	-18.7	-18.7	-19.4
GEW-090	4/20/2018 14:41	20.9	41.8	1.9	35.4	157.7	157.7	14.3	13.9	-19.6	-19.5	-20.1
GEW-090	4/20/2018 14:43	20.3	42.0	1.8	35.9	157.7	157.7	9.6	10.0	-19.4	-19.4	-19.8
GEW-091	4/11/2018 8:29	1.6	29.1	11.1	58.2	182.6	182.1	6.1	14.9	-14.3	-13.8	-18.1
GEW-091	4/11/2018 8:31	1.7	28.4	11.6	58.3	182.1	181.5	9.2	3.8	-13.8	-13.4	-16.5
GEW-091	4/20/2018 14:32	1.6	14.7	15.1	68.6	158.5	159.0	10.4	12.1	-15.4	-15.3	-17.6
GEW-091	4/20/2018 14:33	1.5	13.7	15.1	69.7	159.0	159.0	11.7	13.5	-15.4	-15.4	-17.4
GEW-100	4/12/2018 10:56	2.6	53.6	1.9	41.9	86.3	86.3	6.0	7.9	-9.1	-9.2	-19.4
GEW-101	4/12/2018 10:59	24.2	53.3	1.5	21.0	85.6	85.6	3.1	2.6	-0.3	-0.3	-19.8
GEW-102	4/17/2018 9:51	14.8	54.8	0.0	30.4	60.1	60.5	5.0	4.0	-18.7	-18.7	-19.7
GEW-104	4/12/2018 13:32	1.7	58.6	0.0	39.7	200.8	200.8	13.8	15.7	19.4	19.3	-12.6
GEW-104	4/12/2018 13:36	1.9	65.2	0.0	32.9	205.4	205.4	15.7	14.5	4.8	4.8	-13.7

April 2018 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-104	4/13/2018 11:34	5.4	65.0	0.1	29.5	200.8	200.8	15.2	13.6	-4.4	-4.5	-14.8
GEW-104	4/13/2018 11:36	5.0	66.5	0.0	28.5	200.8	200.9	20.7	20.7	-4.7	-4.7	-14.4
GEW-104	4/20/2018 11:35	14.1	56.8	0.0	29.1	200.1	199.5	10.1	10.1	-4.7	-4.4	-12.4
GEW-104	4/20/2018 11:36	12.6	59.7	0.0	27.7	199.3	199.3	10.9	9.9	-4.5	-4.4	-8.7
GEW-105	4/6/2018 14:35	10.6	48.7	2.7	38.0	130.6	130.6	10.9	11.8	-20.1	-20.1	-20.7
GEW-106	4/11/2018 11:52	12.4	34.2	7.1	46.3	92.9	92.4	5.9	5.9	-3.2	-3.4	-3.0
GEW-106	4/11/2018 11:54	12.8	34.6	7.0	45.6	87.3	87.2	2.0	2.3	-1.5	-1.5	-4.7
GEW-106	4/20/2018 14:20	4.1	29.1	9.7	57.1	73.9	74.1	1.7	1.2	-0.2	-0.2	-20.0
GEW-106	4/20/2018 14:21	4.0	29.2	9.7	57.1	74.5	74.5	3.1	3.4	-0.2	-0.2	-19.9
GEW-107	4/11/2018 11:18	13.2	64.3	0.0	22.5	148.2	148.8	13.0	14.0	-17.6	-17.6	-18.9
GEW-107	4/11/2018 11:22	13.2	65.8	0.0	21.0	143.8	143.3	12.6	12.6	-8.1	-8.1	-18.6
GEW-107	4/20/2018 14:14	18.4	54.5	0.0	27.1	147.6	147.8	7.3	4.2	-8.2	-8.2	-20.5
GEW-107	4/20/2018 14:16	17.9	55.7	0.0	26.4	148.0	148.0	6.4	8.4	-8.2	-8.2	-20.3
GEW-108	4/11/2018 11:03	33.8	52.0	0.0	14.2	123.1	122.4	3.5	1.8	-13.8	-13.6	-15.3
GEW-109	4/4/2018 11:02	23.9	42.4	0.7	33.0	92.6	92.9	2.0	3.6	-8.8	-8.8	-19.7
GEW-109	4/4/2018 11:09	23.8	42.9	0.6	32.7	93.1	93.1	3.2	1.9	-8.8	-8.8	-20.2
GEW-109	4/9/2018 11:48	22.7	43.4	0.6	33.3	95.1	95.3	2.5	1.6	-9.5	-9.5	-19.0
GEW-109	4/17/2018 9:04	23.5	45.6	0.3	30.6	109.7	109.5	6.5	7.2	-7.8	-7.8	-19.9
GEW-109	4/23/2018 10:14	25.2	42.6	0.3	31.9	87.5	87.2	1.6	2.3	-9.2	-9.0	-19.8
GEW-110	4/3/2018 11:11	21.0	40.5	3.7	34.8	77.0	77.0	1.7	4.2	-0.1	-0.1	-18.5
GEW-110	4/3/2018 11:17	20.5	40.0	3.5	36.0	77.0	76.9	3.1	2.0	-0.1	-0.1	-18.1
GEW-110	4/9/2018 10:31	16.5	41.3	7.4	34.8	61.2	61.3	4.7	2.7	-0.1	-0.1	-19.1
GEW-110	4/9/2018 10:32	16.7	39.9	7.5	35.9	61.6	61.5	5.3	1.7	-0.1	-0.1	-19.1
GEW-110	4/16/2018 15:46	17.3	32.0	7.7	43.0	65.6	65.7	1.5	0.7	-0.2	-0.2	-19.9
GEW-110	4/16/2018 15:47	16.5	33.3	7.8	42.4	65.8	65.8	2.7	1.2	-0.1	-0.2	-19.9
GEW-110	4/23/2018 8:45	17.2	32.2	8.3	42.3	60.9	60.9	2.1	1.7	-0.2	-0.2	-20.3
GEW-110	4/23/2018 8:46	16.9	33.8	8.3	41.0	60.7	60.7	2.1	1.4	-0.2	-0.1	-20.2
GEW-113	4/11/2018 10:55	10.6	47.3	2.0	40.1	151.3	151.3	10.6	7.1	-4.1	-4.1	-18.4
GEW-113	4/11/2018 10:58	11.0	47.6	2.0	39.4	150.6	150.6	8.9	14.0	-3.8	-3.8	-18.2
GEW-113	4/20/2018 9:26	9.2	42.6	3.4	44.8	144.0	144.2	12.1	6.4	-3.6	-3.6	-19.9
GEW-113	4/20/2018 9:28	9.0	43.9	3.4	43.7	144.2	144.2	12.8	12.2	-3.6	-3.6	-19.3
GEW-116	4/11/2018 13:44	21.5	63.1	0.1	15.3	193.0	193.0	7.6	9.2	-1.7	-1.7	-18.5
GEW-116	4/11/2018 13:46	21.6	63.4	0.0	15.0	193.2	193.4	16.0	13.0	-1.4	-1.4	-19.8
GEW-116	4/20/2018 10:24	15.2	63.5	0.1	21.2	193.6	193.6	21.0	7.6	-1.9	-1.9	-20.7
GEW-116	4/20/2018 10:26	15.1	64.1	0.1	20.7	193.6	193.6	3.9	15.0	-1.7	-1.9	-19.4
GEW-117	4/11/2018 13:55	52.3	47.5	0.2	0.0	120.2	120.0	1.8	4.1	-18.5	-18.5	-18.4
GEW-118	4/11/2018 13:28	2.9	60.7	4.2	32.2	193.6	192.9	16.5	17.4	-0.4	-0.4	-19.0
GEW-118	4/11/2018 13:32	2.8	21.5	11.8	63.9	175.8	175.3	11.1	12.0	-0.2	-0.2	-18.9
GEW-118	4/11/2018 13:34	2.7	17.7	12.5	67.1	171.4	171.0	14.2	15.0	-0.3	-0.3	-18.9
GEW-118	4/20/2018 11:36	2.0	54.4	0.0	43.6	197.2	197.2	22.2	22.6	-0.9	-1.0	-19.3
GEW-118	4/20/2018 11:38	1.8	54.8	0.2	43.2	197.2	196.4	28.0	27.3	-1.5	-1.5	-19.8

April 2018 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	4/11/2018 13:58	24.2	47.0	0.3	28.5	159.4	159.4	10.2	9.5	-7.0	-7.0	-18.6
GEW-120	4/11/2018 14:00	25.0	47.8	0.3	26.9	159.3	159.2	7.1	8.2	-7.1	-7.2	-18.6
GEW-120	4/20/2018 11:31	16.3	47.5	0.1	36.1	155.5	155.5	17.6	19.8	-6.8	-6.8	-20.1
GEW-120	4/20/2018 11:33	15.9	49.0	0.0	35.1	155.1	155.1	19.8	18.7	-6.8	-6.8	-19.7
GEW-121	4/12/2018 8:30	6.6	42.3	1.5	49.6	174.2	174.2	26.1	14.0	-16.4	-15.4	-19.5
GEW-121	4/12/2018 8:32	6.4	43.0	1.5	49.1	174.2	174.2	19.9	17.5	-16.3	-15.9	-19.1
GEW-121	4/24/2018 11:27	11.3	47.7	0.7	40.3	173.1	173.1	15.2	19.5	-14.8	-14.8	-18.1
GEW-121	4/24/2018 11:28	11.5	48.3	0.6	39.6	173.1	173.1	11.2	22.5	-14.7	-15.2	-18.2
GEW-122	4/12/2018 8:24	9.8	35.3	1.6	53.3	156.0	156.0	34.9	34.8	-18.8	-18.7	-20.3
GEW-122	4/12/2018 8:25	9.9	36.5	1.5	52.1	156.0	156.0	33.9	33.1	-18.8	-18.8	-20.3
GEW-122	4/24/2018 11:17	9.7	36.0	1.7	52.6	153.7	153.4	32.5	31.6	-17.2	-17.2	-18.7
GEW-122	4/24/2018 11:18	9.6	37.5	1.7	51.2	153.7	153.7	26.2	27.5	-17.6	-17.2	-18.8
GEW-123	4/12/2018 8:36	9.8	41.5	0.5	48.2	155.7	155.6	2.0	12.4	-12.3	-12.1	-20.4
GEW-123	4/12/2018 8:37	9.8	41.6	0.5	48.1	156.0	155.7	1.4	5.7	-12.3	-12.3	-20.2
GEW-123	4/24/2018 11:31	19.5	51.5	0.0	29.0	153.3	152.9	5.0	4.3	-11.3	-11.2	-18.8
GEW-123	4/24/2018 11:33	19.6	51.7	0.0	28.7	152.9	153.3	5.7	6.0	-11.3	-11.3	-18.8
GEW-124	4/10/2018 11:04	53.2	46.8	0.0	0.0	54.6	54.7	4.3	4.1	19.9	19.9	-15.6
GEW-124	4/10/2018 11:08	53.7	46.3	0.0	0.0	53.4	53.4	3.0	3.7	-2.0	-2.0	-16.0
GEW-125	4/12/2018 9:35	1.3	54.1	0.3	44.3	164.3	163.8	9.8	10.1	-0.4	-0.4	-19.2
GEW-125	4/12/2018 9:37	1.4	55.1	0.2	43.3	163.9	163.8	11.2	11.7	-0.4	-0.5	-19.0
GEW-125	4/24/2018 13:26	1.1	52.8	0.5	45.6	144.9	144.7	13.4	9.9	-0.8	-0.6	-17.9
GEW-125	4/24/2018 13:27	1.1	53.3	0.4	45.2	143.6	143.6	14.5	16.8	-0.8	-0.8	-17.9
GEW-126	4/12/2018 9:41	21.5	48.4	1.3	28.8	96.0	96.0	7.0	8.3	-6.2	-6.2	-6.7
GEW-127	4/12/2018 10:04	6.1	61.3	0.0	32.6	186.4		6.9		-0.8		-19.4
GEW-127	4/12/2018 10:06	6.3	61.6	0.0	32.1	186.4	186.4	17.1	21.1	-1.1	-1.3	-19.4
GEW-127	4/24/2018 13:32	5.9	60.8	0.1	33.2	181.5	181.5	10.4	12.3	-0.8	-0.8	-18.4
GEW-127	4/24/2018 13:33	6.2	61.2	0.1	32.5	181.5	181.5	17.0	20.3	-1.1	-1.1	-18.4
GEW-128	4/12/2018 10:16	18.8	48.9	3.4	28.9	145.9	145.9	47.7	45.0	-13.2	-13.0	-18.7
GEW-128	4/12/2018 10:18	19.0	49.3	3.4	28.3	145.9	145.9	46.8	48.0	-12.6	-12.4	-18.7
GEW-128	4/24/2018 13:48	14.5	42.3	7.3	35.9	142.9	143.1	45.2	40.9	-11.9	-11.9	-17.7
GEW-128	4/24/2018 13:50	14.6	41.4	7.4	36.6	144.9	144.9	41.4	44.7	-10.5	-10.4	-18.1
GEW-129	4/12/2018 10:23	17.8	58.2	0.0	24.0	167.1	167.1	13.9	14.7	-10.3	-10.2	-16.4
GEW-129	4/12/2018 10:24	17.5	58.1	0.0	24.4	167.1	167.1	13.6	11.4	-10.3	-10.3	-16.4
GEW-129	4/24/2018 13:54	21.4	57.2	0.0	21.4	162.9	162.9	12.2	10.2	-10.5	-10.5	-15.4
GEW-129	4/24/2018 13:56	20.4	58.9	0.0	20.7	162.9	162.9	14.0	12.8	-10.5	-10.5	-17.4
GEW-130	4/12/2018 9:58	5.3	47.7	2.9	44.1	186.4	186.4	31.8	13.9	-1.8	-1.8	-19.8
GEW-130	4/12/2018 9:59	5.3	49.3	2.8	42.6	186.4	186.4	26.0	5.2	-1.7	-1.7	-19.0
GEW-130	4/24/2018 13:36	6.2	49.1	1.3	43.4	187.0	187.0	13.7	27.7	-1.7	-1.6	-18.3
GEW-130	4/24/2018 13:38	6.7	53.8	1.3	38.2	187.0	187.0	4.0	8.4	-1.8	-1.8	-18.2
GEW-131	4/12/2018 9:50	22.9	40.1	0.0	37.0	158.5	158.5	15.6	14.4	-12.9	-12.9	-20.1
GEW-131	4/12/2018 9:52	23.0	41.9	0.0	35.1	158.5	158.6	15.9	15.6	-12.9	-12.9	-19.8

April 2018 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-131	4/25/2018 8:11	20.9	39.6	0.0	39.5	154.0	154.4	11.2	10.9	-13.3	-13.3	-19.7
GEW-131	4/25/2018 8:12	20.3	40.8	0.0	38.9	154.0	154.4	12.5	13.0	-13.3	-13.2	-19.4
GEW-132	4/11/2018 14:33	2.7	52.4	0.6	44.3	179.7	179.7	7.2	4.9	-0.1	-0.1	-18.9
GEW-132	4/11/2018 14:35	2.9	53.1	0.5	43.5	179.7	179.7	17.7	16.7	-0.2	-0.3	-18.7
GEW-132	4/20/2018 11:42	2.3	35.6	5.6	56.5	169.4	169.2	8.5	8.7	-0.2	-0.1	-19.0
GEW-132	4/20/2018 11:44	2.5	35.9	5.7	55.9	169.9	169.5	2.7	2.9	-0.2	-0.2	-18.8
GEW-133	4/11/2018 13:49	17.0	49.8	0.1	33.1	167.1	167.1	30.6	38.3	-13.7	-13.5	-17.9
GEW-133	4/11/2018 13:51	19.2	49.7	0.1	31.0	167.1	167.1	30.3	31.7	-13.6	-13.5	-17.6
GEW-133	4/25/2018 8:49	12.4	48.3	0.3	39.0	162.0	162.0	37.2	34.3	-14.2	-14.8	-16.2
GEW-133	4/25/2018 8:51	11.9	49.2	0.3	38.6	162.0	162.0	35.2	30.6	-15.0	-14.8	-18.7
GEW-134	4/11/2018 11:17	16.2	40.2	3.1	40.5	139.3	139.0	3.7	3.7	-0.7	-0.7	-18.3
GEW-134	4/11/2018 11:18	16.4	40.0	3.0	40.6	139.9	139.6	3.5	4.5	-0.7	-0.7	-18.9
GEW-134	4/20/2018 10:19	15.4	42.0	2.5	40.1	137.9	137.4	3.0	3.0	-0.6	-0.6	-18.8
GEW-134	4/20/2018 10:21	15.5	42.2	2.4	39.9	137.4	137.6	2.6	2.6	-0.6	-0.6	-18.8
GEW-135	4/11/2018 11:11	8.4	39.9	3.1	48.6	147.0	147.0	22.1	23.1	-4.0	-4.0	-19.0
GEW-135	4/11/2018 11:13	8.4	41.0	3.1	47.5	147.0	147.0	30.8	32.3	-4.6	-4.7	-19.0
GEW-135	4/20/2018 10:14	8.3	41.3	3.5	46.9	145.6	145.6	19.7	21.7	-3.6	-4.0	-19.1
GEW-135	4/20/2018 10:16	8.5	41.0	3.5	47.0	145.3	145.5	18.5	20.0	-3.9	-4.0	-19.1
GEW-136	4/11/2018 11:27	6.2	24.2	10.2	59.4	126.9	126.7	2.7	3.2	-0.1	-0.1	-17.0
GEW-136	4/11/2018 11:28	6.3	23.8	10.2	59.7	126.9	127.2	2.2	3.1	-0.1	-0.1	-17.0
GEW-136	4/20/2018 9:42	4.6	21.8	11.9	61.7	118.8	119.2	4.5	8.7	-0.2	-0.2	-17.1
GEW-136	4/20/2018 9:44	4.5	20.6	12.1	62.8	119.9	120.2	3.1	1.9	-0.2	-0.2	-17.1
GEW-137	4/11/2018 11:34	39.3	37.9	0.3	22.5	97.2	97.2	1.6	2.2	-6.0	-6.0	-18.5
GEW-138	4/11/2018 11:39	7.1	29.3	2.2	61.4	134.1	133.8	2.4	7.6	-0.1	-0.1	-18.5
GEW-138	4/11/2018 11:40	6.9	29.7	2.2	61.2	133.8	134.1	4.3	2.1	-0.1	-0.1	-18.4
GEW-138	4/20/2018 13:11	4.1	26.0	4.8	65.1	126.9	126.4	6.4	6.8	-0.2	-0.2	-19.3
GEW-139	4/12/2018 11:15	6.8	56.0	0.0	37.2	188.9	188.9	12.5	12.5	-3.6	-3.6	-20.1
GEW-139	4/12/2018 11:17	7.1	55.2	0.0	37.7	188.9	188.9	18.6	19.5	-4.1	-4.2	-19.0
GEW-139	4/25/2018 8:16	4.9	53.6	0.0	41.5	187.6	187.6	4.4	12.0	-5.5	-5.4	-20.1
GEW-139	4/25/2018 8:18	4.9	53.4	0.0	41.7	187.6	187.6	6.2	10.0	-5.5	-5.5	-20.4
GEW-140	4/12/2018 11:09	19.2	52.1	0.0	28.7	190.2	190.2	23.2	23.8	-5.6	-5.7	-20.5
GEW-140	4/12/2018 11:11	20.4	53.3	0.0	26.3	189.8	190.0	19.2	20.5	-5.7	-5.6	-20.2
GEW-140	4/25/2018 8:22	25.3	48.6	0.0	26.1	140.9	140.9	11.4	13.6	-14.8	-14.8	-20.2
GEW-140	4/25/2018 8:23	25.6	48.6	0.0	25.8	141.2	141.2	13.9	14.5	-14.7	-14.7	-19.5
GEW-141	4/12/2018 10:34	0.4	11.8	17.9	69.9	81.0	81.0	1.2	1.2	-0.1	-0.1	-19.3
GEW-141	4/12/2018 10:35	0.4	11.0	18.2	70.4	81.2	81.2	0.0	0.0	-0.1	-0.1	-19.4
GEW-141	4/24/2018 14:06	0.5	8.2	18.7	72.6	74.8	74.8	3.6	4.4	-0.2	-0.2	-19.6
GEW-141	4/24/2018 14:08	0.5	7.3	18.7	73.5	74.9	74.9	1.7	1.2	-0.3	-0.3	-19.8
GEW-142	4/12/2018 10:39	0.3	1.3	20.8	77.6	83.3	83.3	2.0	2.0	-6.6	-6.6	-19.4
GEW-142	4/12/2018 10:41	0.3	0.8	20.8	78.1	83.7	83.7	2.3	3.3	-6.6	-6.6	-19.0
GEW-142	4/24/2018 14:11	0.4	3.2	20.1	76.3	73.0	73.2	5.7	1.2	-6.2	-6.2	-19.4

April 2018 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-142	4/24/2018 14:13	0.3	0.8	20.5	78.4	74.1	74.1	11.0	11.9	-6.5	-6.5	-19.4
GEW-143	4/12/2018 10:50	0.3	1.1	20.9	77.7	86.6	86.8	3.1	2.8	-3.1	-3.1	-18.9
GEW-143	4/12/2018 10:52	0.3	0.7	20.9	78.1	87.4	87.9	3.0	4.3	-3.0	-3.0	-19.1
GEW-143	4/24/2018 14:17	0.1	0.5	20.4	79.0	76.3	76.4	8.9	8.1	-3.0	-3.0	-19.0
GEW-143	4/24/2018 14:19	0.1	0.2	20.5	79.2	77.5	77.5	6.7	6.4	-3.1	-3.0	-19.3
GEW-144	4/12/2018 11:03	0.5	2.0	20.7	76.8	78.7	78.7	1.1	2.3	-18.3	-18.3	-19.0
GEW-144	4/12/2018 11:05	0.5	1.0	20.7	77.8	79.3	79.4	4.1	2.3	-18.3	-18.3	-18.9
GEW-144	4/24/2018 14:22	0.1	0.2	20.3	79.4	75.3	75.4	10.4	9.1	-18.8	-18.8	-19.3
GEW-144	4/24/2018 14:24	0.1	0.3	20.4	79.2	75.9	75.9	7.9	7.3	-18.8	-18.8	-19.3
GEW-145	4/12/2018 13:26	7.5	50.2	0.0	42.3	115.3	115.5	5.4	2.8	-15.6	-15.6	-18.7
GEW-146	4/11/2018 10:23	4.4	6.3	17.1	72.2	86.8	86.8	11.6	11.4	-0.02	-0.02	-19.0
GEW-146	4/11/2018 10:25	4.1	5.6	17.2	73.1	87.0	87.0	12.8	13.5	-0.03	-0.03	-19.1
GEW-146	4/20/2018 8:57	1.2	7.3	16.9	74.6	80.0	80.0	14.0	14.2	-0.1	-0.1	-19.7
GEW-146	4/20/2018 8:58	1.2	5.5	17.2	76.1	80.0	80.0	13.6	12.0	-0.1	-0.1	-19.7
GEW-147	4/11/2018 11:04	11.6	39.4	0.5	48.5	162.5	162.4	25.9	25.7	-17.3	-17.2	-18.1
GEW-147	4/11/2018 11:06	12.1	39.5	0.4	48.0	162.8	162.9	26.6	26.1	-17.2	-17.2	-18.2
GEW-147	4/20/2018 9:36	9.3	40.1	0.6	50.0	180.3	180.3	36.7	37.9	-17.6	-17.6	-19.1
GEW-147	4/20/2018 9:38	9.1	39.8	0.6	50.5	180.7	180.8	37.7	36.7	-17.5	-17.5	-19.1
GEW-148	4/11/2018 10:06	4.3	48.7	2.6	44.4	154.8	155.2	1.4	2.0	-6.0	-6.0	-19.3
GEW-148	4/11/2018 10:08	4.8	50.8	1.8	42.6	152.5	152.3	1.5	5.5	-4.4	-4.4	-19.1
GEW-148	4/17/2018 11:04	1.8	60.6	0.0	37.6	169.0	169.0	5.9	3.9	3.1	3.1	-18.7
GEW-148	4/17/2018 11:06	1.7	66.5	0.0	31.8	174.7	174.7	10.8	11.8	-4.2	-4.2	-18.4
GEW-149	4/11/2018 8:54	9.6	33.2	5.3	51.9	126.9	126.9	12.8	14.5	-0.2	-0.2	-2.4
GEW-149	4/11/2018 8:56	9.7	32.1	5.4	52.8	126.4	126.4	14.4	14.8	-0.2	-0.2	-2.6
GEW-149	4/20/2018 8:26	3.5	24.3	8.7	63.5	121.8	121.8	14.3	10.6	-0.2	-0.2	-4.0
GEW-149	4/20/2018 8:28	3.8	26.1	7.2	62.9	123.7	123.4	14.9	18.0	-0.2	-0.1	-4.0
GEW-150	4/13/2018 11:39	9.6	53.9	4.4	32.1	184.6	184.5	3.8	3.0	-0.3	-0.3	-19.5
GEW-150	4/13/2018 11:40	9.9	51.5	4.3	34.3	180.0	179.7	2.4	1.6	-0.1	-0.1	-19.2
GEW-150	4/25/2018 10:05	19.0	54.1	0.0	26.9	185.4	185.7	3.4	1.7	0.1	0.1	-16.9
GEW-150	4/25/2018 10:07	18.2	56.4	0.0	25.4	193.6	193.5	13.6	16.1	-0.4	-0.5	-16.8
GEW-151	4/19/2018 14:32	11.6	51.9	0.5	36.0	148.0	148.0	8.4	8.7	-0.3	-0.3	-11.5
GEW-151	4/19/2018 14:35	11.4	52.9	0.3	35.4	149.5	149.5	6.1	5.5	-0.3	-0.3	-11.5
GEW-151	4/27/2018 13:26	17.2	50.8	0.0	32.0	172.6	172.1	3.3	6.1	-0.4	-0.4	-9.5
GEW-151	4/27/2018 13:28	17.7	51.5	0.0	30.8	172.6	172.6	3.3	7.6	-0.4	-0.4	-9.4
GEW-152	4/11/2018 11:16	21.2	43.8	3.9	31.1	115.5	115.4	2.9	1.5	-7.4	-7.8	-18.6
GEW-153	4/11/2018 11:07	29.6	36.2	0.0	34.2	83.3	83.3	1.6	2.9	-2.2	-2.3	-12.4
GEW-154	4/11/2018 8:37	0.3	6.1	19.8	73.8	62.8	62.8	3.2	3.2	-0.8	-0.8	-17.3
GEW-154	4/11/2018 8:38	0.3	4.1	20.1	75.5	62.8	62.7	3.0	3.2	-0.8	-0.8	-17.4
GEW-154	4/20/2018 14:36	0.3	3.1	19.1	77.5	75.7	75.5	2.1	1.2	-1.0	-1.0	-19.0
GEW-154	4/20/2018 14:38	0.3	1.8	19.2	78.7	73.9	73.8	1.7	1.7	-1.0	-1.0	-18.7
GEW-155	4/11/2018 13:16	0.6	20.2	4.6	74.6	121.5	121.8	10.2	6.3	-0.02	-0.02	-18.7

April 2018 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-156	4/12/2018 14:05	40.9	46.6	0.5	12.0	102.5	102.6	12.3	12.3	-11.2	-11.2	-18.9
GEW-157	4/12/2018 14:23	13.0	46.1	2.6	38.3	124.2	124.2	3.0	3.0	-16.1	-16.0	-18.9
GEW-158	4/17/2018 10:00	15.2	57.7	0.0	27.1	130.6	130.6	9.8	3.1	-3.2	-3.1	-10.5
GEW-159	4/11/2018 10:59	30.3	33.7	1.0	35.0	76.6	76.9	5.6	5.2	0.3	0.3	-15.8
GEW-159	4/11/2018 11:01	31.2	36.7	0.7	31.4	77.9	77.9	7.5	7.5	-0.9	-0.9	-15.5
GEW-160	4/11/2018 8:20	6.2	31.0	8.9	53.9	71.2	71.1	5.5	7.2	-16.4	-16.7	-17.0
GEW-160	4/11/2018 8:21	5.9	31.0	8.6	54.5	71.4	71.4	10.5	2.7	-16.3	-16.5	-17.3
GEW-160	4/20/2018 14:27	12.9	30.4	7.3	49.4	75.0	75.0	6.0	22.7	-18.0	-17.8	-18.0
GEW-160	4/20/2018 14:28	12.4	30.3	7.3	50.0	75.5	75.4	2.7	10.1	-18.5	-18.5	-19.8
GEW-161	4/11/2018 8:24	7.7	48.0	1.2	43.1	89.8	89.8	2.2	3.3	-14.8	-14.8	-18.5
GEW-162	4/11/2018 8:50	13.0	58.2	0.0	28.8	99.9	99.9	5.7	5.0	-7.9	-7.9	-20.1
GEW-163	4/5/2018 9:57	5.7	29.4	14.0	50.9	127.8	128.0	58.4	62.1	-2.7	-2.8	-19.3
GEW-163	4/5/2018 10:00	6.8	22.3	14.4	56.5	123.6	123.8	12.4	13.9	-0.1	-0.2	-19.4
GEW-163	4/10/2018 10:54	2.8	37.7	9.0	50.5	177.5	177.5	16.4	16.7	-0.1	-0.1	-18.4
GEW-163	4/10/2018 10:55	3.0	38.6	9.0	49.4	177.5	177.0	20.9	20.8	-0.1	-0.1	-18.5
GEW-163	4/17/2018 10:11	11.3	48.4	2.3	38.0	182.1	182.1	21.3	22.9	-0.01	-0.01	-18.8
GEW-163	4/17/2018 10:14	11.0	50.4	2.2	36.4	182.1	182.1	27.2	27.9	-0.1	-0.1	-18.8
GEW-163	4/23/2018 10:28	10.6	59.6	0.7	29.1	178.2	177.8	5.8	7.7	-0.1	-0.1	-19.5
GEW-163	4/23/2018 10:30	10.4	62.1	0.7	26.8	181.3	181.0	11.3	12.4	-0.1	-0.1	-19.6
GEW-164	4/5/2018 10:02	23.7	57.3	1.6	17.4	158.5	158.4	28.3	27.9	-0.1	-0.1	-19.7
GEW-164	4/5/2018 10:04	22.7	60.0	1.5	15.8	158.5	158.5	23.7	22.9	-0.2	-0.2	-19.7
GEW-164	4/10/2018 10:58	24.9	50.8	2.6	21.7	158.9	158.5	10.0	29.3	-0.2	-0.2	-18.8
GEW-164	4/10/2018 11:00	25.1	51.2	2.5	21.2	158.5	159.0	19.0	24.5	-0.2	-0.2	-19.4
GEW-164	4/17/2018 10:17	26.7	53.8	0.6	18.9	159.9	159.8	33.9	20.9	-0.2	-0.1	-19.5
GEW-164	4/17/2018 10:18	26.8	53.9	0.5	18.8	159.8	159.8	18.5	13.8	-0.2	-0.1	-19.4
GEW-164	4/23/2018 10:33	22.6	65.5	0.6	11.3	158.5	158.5	16.7	16.5	-0.2	-0.2	-20.2
GEW-164	4/23/2018 10:35	23.6	65.1	0.6	10.7	158.5	158.6	30.3	33.0	-0.2	-0.2	-19.9
GEW-165	4/5/2018 10:07	9.0	54.7	4.7	31.6	175.3	175.3	23.8	21.2	-0.7	-0.7	-12.1
GEW-165	4/5/2018 10:08	8.5	56.7	3.9	30.9	175.8	175.8	29.4	23.6	-0.4	-0.4	-12.1
GEW-165	4/10/2018 11:13	10.8	54.7	2.4	32.1	178.6	178.6	12.0	15.5	-0.4	-0.3	-11.4
GEW-165	4/10/2018 11:14	10.7	56.0	2.2	31.1	178.6	178.6	11.6	14.0	-0.3	-0.3	-10.8
GEW-165	4/17/2018 10:23	12.8	58.3	0.7	28.2	180.3	180.3	23.6	17.9	-0.3	-0.3	-12.0
GEW-165	4/17/2018 10:25	12.9	58.5	0.7	27.9	180.0	180.1	13.1	21.0	-0.4	-0.5	-11.5
GEW-165	4/23/2018 10:38	9.9	65.5	1.1	23.5	178.6	179.0	25.3	22.7	-0.4	-0.4	-12.5
GEW-165	4/23/2018 10:40	9.5	67.8	1.1	21.6	178.7	178.7	23.6	25.2	-0.4	-0.3	-13.5
GEW-166	4/5/2018 10:11	1.2	63.0	0.2	35.6	195.0	195.0	30.2	29.1	-9.8	-9.5	-19.8
GEW-166	4/5/2018 10:13	0.8	65.2	0.3	33.7	195.0	195.0	32.1	28.1	-10.2	-10.2	-19.0
GEW-166	4/10/2018 11:18	1.4	54.0	0.4	44.2	195.6	195.5	16.2	21.5	-6.5	-6.5	-18.5
GEW-166	4/10/2018 11:19	1.3	55.8	0.4	42.5	195.5	195.5	34.1	71.2	-7.0	-6.9	-18.5
GEW-166	4/17/2018 10:28	1.5	53.6	0.2	44.7	195.7	195.7	28.2	31.2	-6.8	-6.8	-18.5
GEW-166	4/17/2018 10:30	1.5	55.6	0.1	42.8	195.7	195.3	54.7	52.9	-7.3	-7.3	-18.8

April 2018 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	4/23/2018 10:45	0.7	64.0	0.2	35.1	195.0	195.0	25.1	28.4	-7.6	-7.4	-19.6
GEW-166	4/23/2018 10:47	0.6	66.0	0.2	33.2	195.0	195.0	27.8	34.5	-7.6	-7.6	-19.6
GEW-167	4/5/2018 10:16	0.3	40.2	8.5	51.0	182.7	182.5	22.8	14.8	-0.5	-0.5	-15.8
GEW-167	4/5/2018 10:18	0.2	37.1	8.6	54.1	179.7	179.7	6.7	5.3	-0.1	-0.1	-18.6
GEW-167	4/10/2018 10:47	0.6	54.6	0.0	44.8	191.6	191.6	7.7	4.0	0.0	0.0	-15.6
GEW-167	4/10/2018 10:49	0.7	56.2	0.0	43.1	192.9	192.9	38.7	40.9	-0.5	-0.5	-14.2
GEW-167	4/17/2018 10:46	1.4	54.7	0.5	43.4	192.9	192.9	11.7	11.4	-0.02	-0.01	-16.0
GEW-167	4/17/2018 10:47	1.6	53.8	0.4	44.2	193.3	193.1	25.4	25.0	-0.2	-0.2	-16.2
GEW-167	4/23/2018 10:50	0.2	60.9	0.2	38.7	192.3	192.0	6.9	4.7	-0.04	-0.03	-17.4
GEW-167	4/23/2018 10:52	0.2	64.3	0.2	35.3	192.9	192.9	10.8	11.2	-0.2	-0.2	-15.3
GEW-168	4/5/2018 10:22	12.2	63.6	0.0	24.2	167.6	167.6	175.9	175.9	-2.1	-2.1	-19.2
GEW-168	4/5/2018 10:23	12.4	64.8	0.0	22.8	168.1	168.1	191.5	190.9	-2.4	-2.4	-19.2
GEW-168	4/10/2018 11:24	16.3	56.3	0.1	27.3	169.0	169.0	4.1	13.9	-1.1	-1.1	-18.3
GEW-168	4/10/2018 11:25	16.4	57.0	0.1	26.5	169.0	169.0	11.5	3.4	-1.1	-1.1	-18.5
GEW-168	4/17/2018 10:52	19.9	54.5	0.0	25.6	154.9	154.8	8.1	6.0	-1.4	-1.4	-18.5
GEW-168	4/17/2018 10:54	19.9	54.4	0.0	25.7	156.5	156.0	7.7	9.1	-1.3	-1.3	-18.4
GEW-168	4/23/2018 10:58	11.6	64.6	0.3	23.5	162.7	162.9	7.7	5.9	-0.4	-0.4	-19.5
GEW-168	4/23/2018 11:00	11.6	65.3	0.3	22.8	165.7	166.1	9.6	10.8	-0.9	-0.9	-19.8
GEW-169	4/5/2018 10:26	3.0	54.5	5.2	37.3	176.9	176.9	13.9	12.2	-2.1	-2.1	-17.9
GEW-169	4/5/2018 10:29	2.8	53.0	5.1	39.1	172.5	171.6	16.3	11.2	-0.7	-0.7	-17.8
GEW-169	4/10/2018 11:29	4.1	62.0	0.0	33.9	180.9	180.9	32.6	30.4	-0.2	-0.2	-18.0
GEW-169	4/10/2018 11:31	4.0	62.5	0.0	33.5	181.0	180.9	51.6	52.5	-0.3	-0.3	-17.8
GEW-169	4/17/2018 10:59	4.8	58.0	0.0	37.2	185.1	185.1	25.2	23.1	-0.1	-0.1	-17.6
GEW-169	4/17/2018 11:01	4.8	60.6	0.0	34.6	185.7	185.7	30.1	32.2	-0.3	-0.3	-17.6
GEW-169	4/23/2018 11:05	2.8	71.7	0.0	25.5	182.1	182.1	46.1	47.3	0.1	0.1	-19.6
GEW-169	4/23/2018 11:06	2.8	74.2	0.0	23.0	184.5	184.5	49.5	50.7	-0.4	-0.4	-19.2
GEW-170	4/12/2018 10:10	12.0	58.0	0.7	29.3	182.7	182.2	11.5	10.7	-1.0	-1.0	-13.4
GEW-170	4/12/2018 10:11	12.2	57.9	0.7	29.2	182.5	182.7	19.6	24.0	-1.1	-1.1	-12.3
GEW-170	4/24/2018 13:42	12.8	54.4	1.3	31.5	180.3	180.4	4.7	4.7	-1.2	-1.2	-11.2
GEW-170	4/24/2018 13:43	12.8	55.4	1.2	30.6	180.5	180.9	9.7	6.2	-1.2	-1.2	-12.4
GEW-171	4/13/2018 11:24	0.2	6.8	19.4	73.6	75.0	75.0	1.9	1.9	-16.2	-16.2	-18.8
GEW-171	4/13/2018 11:26	0.1	8.5	18.8	72.6	74.8	74.8	1.9	1.9	-16.2	-16.2	-18.2
GEW-171	4/25/2018 10:47	1.4	21.3	14.4	62.9	69.3	69.3	6.3	4.0	-6.9	-6.9	-16.8
GEW-171	4/25/2018 10:49	1.5	21.8	14.3	62.4	69.5	69.4	4.0	5.6	-7.0	-7.0	-16.8
GEW-172	4/12/2018 10:46	0.5	45.9	4.6	49.0	90.9	90.9	7.8	5.2	-18.9	-18.8	-19.0
GEW-173	4/12/2018 11:31	32.2	29.5	3.0	35.3	102.3	102.1	4.6	6.6	-0.1	-0.2	-18.7
GEW-174	4/12/2018 11:37	30.5	43.9	0.5	25.1	149.9	149.1	24.4	28.1	-3.4	-3.4	-18.7
GEW-174	4/12/2018 11:38	30.9	44.3	0.8	24.0	149.5	149.8	17.0	34.2	-3.3	-3.4	-18.5
GEW-174	4/25/2018 8:27	23.2	43.5	0.0	33.3	148.0	148.0	31.1	24.8	-4.0	-4.0	-20.0
GEW-174	4/25/2018 8:29	23.0	44.0	0.0	33.0	148.5	148.4	28.3	28.0	-4.0	-4.0	-19.7
GEW-175	4/13/2018 11:43	6.5	46.5	7.8	39.2	174.7	174.7	21.9	20.0	-0.1	-0.1	-18.6

April 2018 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-175	4/13/2018 11:45	6.3	46.3	8.2	39.2	174.7	174.7	23.2	22.1	-0.1	-0.1	-18.6
GEW-175	4/25/2018 10:11	10.2	39.7	7.1	43.0	174.2	174.2	13.0	15.2	-0.1	-0.1	-18.2
GEW-175	4/25/2018 10:13	10.1	40.0	7.1	42.8	174.2	174.2	17.1	17.6	-0.1	-0.1	-17.6
GEW-176	4/13/2018 11:51	20.5	36.2	8.6	34.7	76.1	76.1	3.7	3.7	-0.04	-0.04	-19.5
GEW-176	4/13/2018 11:52	20.9	34.3	8.6	36.2	76.1	76.1	6.2	6.9	-0.04	-0.04	-19.5
GEW-176	4/25/2018 10:17	28.8	35.5	6.3	29.4	74.8	74.8	0.0	1.7	-0.1	-0.1	-18.4
GEW-176	4/25/2018 10:19	28.8	35.1	6.3	29.8	74.8	74.8	5.8	3.9	-0.04	-0.1	-19.0
GEW-177	4/12/2018 10:28	0.7	32.7	11.4	55.2	90.1	90.1	7.4	19.6	-16.9	-17.2	-17.0
GEW-177	4/12/2018 10:29	0.7	33.8	11.5	54.0	90.6	90.3	10.5	16.4	-17.2	-17.2	-17.1
GEW-177	4/24/2018 14:00	5.6	59.5	0.1	34.8	192.3	192.3	25.9	23.6	-12.4	-12.5	-15.1
GEW-177	4/24/2018 14:02	5.7	60.7	0.1	33.5	192.3	192.3	41.8	42.7	-12.9	-13.0	-16.0
GEW-178	4/4/2018 13:16	17.5	49.9	3.4	29.2	84.9	85.4	9.2	7.3	-0.1	-0.1	-19.7
GEW-178	4/4/2018 13:18	17.4	52.5	3.4	26.7	86.0	85.8	7.9	10.9	-0.1	-0.1	-19.1
GEW-178	4/10/2018 8:40	16.4	46.0	5.9	31.7	79.6	79.4	10.9	9.0	-0.2	-0.2	-19.7
GEW-178	4/10/2018 8:42	16.2	46.5	5.9	31.4	79.6	80.0	8.2	10.1	-0.1	-0.2	-19.7
GEW-178	4/17/2018 8:39	14.5	45.2	5.6	34.7	84.9	85.1	8.7	2.6	-0.1	-0.1	-19.0
GEW-178	4/17/2018 8:41	14.3	45.6	5.6	34.5	85.4	84.9	9.2	8.2	-0.1	-0.1	-18.3
GEW-178	4/23/2018 13:34	13.5	51.6	5.9	29.0	86.8	86.8	10.8	4.2	-0.1	-0.1	-20.4
GEW-178	4/23/2018 13:36	13.3	50.8	6.0	29.9	87.2	87.0	10.0	9.9	-0.1	-0.1	-20.4
GEW-179	4/4/2018 13:24	20.1	65.2	0.0	14.7	125.3	125.3	6.7	8.3	-0.7	-0.7	-19.6
GEW-179	4/10/2018 8:46	25.0	63.6	0.6	10.8	93.9	93.7	5.2	8.8	-4.1	-4.1	-19.7
GEW-179	4/17/2018 8:58	24.2	60.5	0.5	14.8	97.2	97.1	8.7	5.2	-5.4	-5.4	-20.0
GEW-179	4/23/2018 13:39	23.4	70.8	0.4	5.4	97.4	97.6	5.6	6.7	-5.5	-5.5	-19.5
GEW-180	4/4/2018 13:31	12.5	64.1	0.0	23.4	129.4	130.0	3.6	8.4	-0.7	-0.7	-19.3
GEW-180	4/10/2018 8:50	0.4	11.9	20.3	67.4	44.5	44.5	6.9	7.3	-19.1	-19.1	-19.4
GEW-180	4/10/2018 8:52	0.4	8.8	20.8	70.0	44.6	44.6	6.2	4.2	-19.1	-19.1	-19.4
GEW-180	4/17/2018 9:03	0.3	13.9	19.4	66.4	49.6	49.6	5.3	6.2	-19.5	-19.4	-19.5
GEW-180	4/17/2018 9:04	0.2	11.6	19.8	68.4	49.8	49.9	3.4	4.1	-19.5	-19.5	-19.5
GEW-180	4/23/2018 13:43	0.2	3.8	20.7	75.3	63.5	63.6	3.3	4.0	-19.4	-19.4	-19.9
GEW-180	4/23/2018 13:45	0.2	1.8	21.0	77.0	63.1	63.0	1.2	1.2	-16.9	-16.9	-19.6
GEW-181	4/4/2018 13:37	14.9	64.6	0.1	20.4	159.0	159.4	13.4	11.7	-1.7	-1.7	-19.7
GEW-181	4/4/2018 13:38	14.9	65.2	0.1	19.8	159.4	159.8	14.4	10.9	-1.5	-1.6	-19.6
GEW-181	4/10/2018 8:57	15.1	63.8	0.3	20.8	159.4	159.0	6.2	4.8	-1.3	-1.3	-20.5
GEW-181	4/10/2018 8:59	14.9	63.7	0.2	21.2	159.4	159.4	9.0	4.9	-1.4	-1.3	-20.6
GEW-181	4/17/2018 9:09	14.8	63.4	0.0	21.8	158.5	158.5	6.5	3.4	-1.4	-1.4	-20.6
GEW-181	4/17/2018 9:10	14.4	62.4	0.0	23.2	158.5	158.5	3.5	8.6	-1.3	-1.4	-20.4
GEW-181	4/23/2018 13:49	14.9	75.7	0.1	9.3	156.9	157.2	16.7	14.6	-0.8	-0.9	-20.6
GEW-181	4/23/2018 13:50	14.4	77.0	0.0	8.6	157.3	157.3	14.2	17.0	-1.0	-0.9	-20.6
GEW-182	4/4/2018 14:25	22.3	37.7	6.0	34.0	128.9	128.9	6.1	17.8	-0.9	-0.8	-9.7
GEW-182	4/4/2018 14:27	21.8	38.1	5.9	34.2	128.6	128.9	15.7	18.5	-0.8	-0.8	-19.6
GEW-182	4/10/2018 9:49	22.6	40.2	5.6	31.6	132.3	132.0	14.7	16.6	-0.7	-0.7	-19.3

April 2018 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-182	4/10/2018 9:50	21.9	41.3	5.5	31.3	131.8	132.1	16.9	17.7	-0.7	-0.7	-19.0
GEW-182	4/17/2018 9:46	18.1	44.9	4.1	32.9	142.5	142.2	16.6	18.1	-0.6	-0.6	-18.5
GEW-182	4/17/2018 9:48	17.6	46.0	4.2	32.2	141.9	142.2	18.0	13.2	-0.6	-0.5	-19.7
GEW-182	4/24/2018 9:10	20.7	43.0	4.9	31.4	138.7	138.8	12.7	13.8	-0.8	-0.8	-20.0
GEW-182	4/24/2018 9:11	20.4	42.7	4.8	32.1	138.4	138.7	17.9	17.8	-0.7	-0.7	-19.8
GEW-184	4/4/2018 14:06	11.9	25.5	13.5	49.1	78.9	78.9	3.5	7.1	-0.1	-0.1	-18.6
GEW-184	4/4/2018 14:08	12.2	24.6	13.6	49.6	78.8	78.8	4.4	8.4	-0.1	-0.1	-19.3
GEW-184	4/10/2018 9:31	10.4	26.2	14.8	48.6	75.7	75.7	4.3	6.0	-0.02	-0.02	-19.0
GEW-184	4/10/2018 9:32	10.6	24.2	15.0	50.2	75.2	75.1	2.7	4.7	-0.04	-0.04	-19.0
GEW-184	4/17/2018 9:42	21.6	48.2	4.2	26.0	83.7	83.7	4.2	2.0	-0.03	-0.04	-19.1
GEW-184	4/24/2018 8:52	14.1	30.1	11.7	44.1	83.8	83.7	2.0	1.7	-0.1	-0.1	-19.4
GEW-184	4/24/2018 8:54	14.2	30.5	11.7	43.6	83.5	83.6	1.2	1.7	-0.1	-0.1	-19.4
GEW-185	4/4/2018 14:12	16.8	60.6	0.0	22.6	158.1	157.7	7.2	3.3	-0.1	-0.1	-19.0
GEW-185	4/4/2018 14:14	16.5	60.8	0.0	22.7	158.4	158.1	3.4	3.6	-0.1	-0.1	-18.9
GEW-185	4/10/2018 9:36	16.8	60.1	0.1	23.0	162.9	162.9	7.2	5.0	-0.04	-0.1	-19.0
GEW-185	4/10/2018 9:37	16.5	60.8	0.0	22.7	162.4	162.4	7.6	1.8	-0.03	-0.04	-19.0
GEW-185	4/17/2018 9:36	18.3	56.6	0.0	25.1	165.2	165.2	4.5	3.1	0.0	0.0	-18.9
GEW-185	4/17/2018 9:38	17.6	59.8	0.0	22.6	167.1	167.6	7.2	7.2	-0.1	-0.1	-19.0
GEW-185	4/24/2018 8:57	17.7	56.5	0.0	25.8	165.7	165.7	3.5	2.5	-0.1	-0.1	-19.4
GEW-185	4/24/2018 8:58	16.8	59.3	0.0	23.9	165.9	166.1	2.7	1.0	-0.1	-0.1	-19.6
GEW-186	4/4/2018 13:47	26.5	48.6	3.5	21.4	135.6	135.5	6.0	2.4	-0.1	-0.1	-19.2
GEW-186	4/4/2018 13:50	27.1	47.3	3.5	22.1	135.0	134.8	6.1	9.4	-0.3	-0.3	-19.4
GEW-186	4/10/2018 9:10	23.3	45.1	4.3	27.3	139.3	139.3	6.8	2.8	-0.1	-0.1	-19.2
GEW-186	4/10/2018 9:12	23.8	46.0	4.3	25.9	139.0	139.0	14.0	14.0	-0.4	-0.4	-19.3
GEW-186	4/17/2018 9:17	18.5	46.6	3.2	31.7	134.7	134.7	8.7	5.0	-0.2	-0.2	-19.1
GEW-186	4/17/2018 9:19	18.7	48.3	3.2	29.8	134.7	134.7	7.5	8.8	-0.2	-0.2	-19.3
GEW-186	4/24/2018 8:22	15.7	46.3	4.5	33.5	123.4	123.7	7.8	9.9	-0.2	-0.3	-19.1
GEW-187	4/4/2018 13:05	15.2	51.8	2.5	30.5	145.4	145.2	2.5	5.6	-5.5	-5.5	-19.6
GEW-187	4/4/2018 13:07	14.7	53.3	2.1	29.9	145.9	145.9	6.9	5.8	-5.5	-5.7	-19.3
GEW-187	4/10/2018 8:16	15.4	53.1	1.9	29.6	149.3	149.5	3.7	6.7	-5.5	-5.5	-19.5
GEW-187	4/10/2018 8:18	15.7	53.1	1.9	29.3	149.4	149.9	3.7	3.1	-5.5	-5.5	-19.9
GEW-187	4/17/2018 11:26	22.5	52.1	1.3	24.1	153.3	152.9	10.2	9.8	-5.8	-5.8	-19.0
GEW-187	4/17/2018 11:27	22.8	54.1	1.4	21.7	152.5	152.5	7.3	8.5	-5.9	-5.8	-19.1
GEW-187	4/23/2018 13:27	17.3	61.9	1.7	19.1	150.6	150.6	9.2	10.6	-6.4	-6.2	-20.5
GEW-187	4/23/2018 13:28	16.8	62.1	1.5	19.6	150.6	150.6	5.5	5.4	-5.9	-6.2	-19.7
GEW-188	4/4/2018 14:18	1.1	14.9	15.7	68.3	59.5	59.5	6.0	5.2	-0.01	-0.02	-18.8
GEW-188	4/4/2018 14:20	1.1	14.2	15.9	68.8	59.3	59.3	5.0	4.2	-0.02	-0.02	-19.0
GEW-188	4/10/2018 9:42	0.3	12.6	18.5	68.6	51.2	51.3	4.8	4.8	0.0	0.0	-18.7
GEW-188	4/10/2018 9:44	0.3	11.6	18.6	69.5	52.1	52.2	7.8	8.1	-0.02	-0.03	-18.9
GEW-188	4/17/2018 9:31	1.2	24.3	12.2	62.3	93.0	93.1	9.5	9.9	-0.03	-0.02	-19.1
GEW-188	4/17/2018 9:32	1.2	24.0	12.2	62.6	94.1	94.4	9.5	9.7	-0.03	-0.03	-19.0

April 2018 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-188	4/24/2018 9:03	3.6	14.9	16.4	65.1	69.9	70.0	7.1	11.0	-0.1	-0.1	-19.7
GEW-188	4/24/2018 9:05	3.6	14.3	16.5	65.6	70.0	70.0	10.0	7.3	-0.1	-0.1	-19.4
GEW-1A	4/2/2018 10:52	0.4	5.0	20.7	73.9	42.4	42.5	5.9	5.7	-14.5	-14.5	-14.5
GEW-1A	4/2/2018 10:53	0.3	2.4	21.4	75.9	42.8	42.8	5.6	4.5	-14.5	-14.5	-14.5
GEW-1A	4/11/2018 8:19	0.2	4.0	20.9	74.9	58.6	58.7	2.6	2.5	-13.9	-12.9	-13.8
GEW-1A	4/11/2018 8:20	0.2	1.3	21.4	77.1	58.8	58.9	3.6	3.6	-13.5	-13.5	-13.1
GEW-1A	4/18/2018 9:58	0.4	2.0	21.3	76.3	64.4	64.4	5.2	4.2	-13.0	-13.0	-13.2
GEW-1A	4/18/2018 10:00	0.2	0.1	21.0	78.7	64.9	64.9	2.9	4.2	-13.0	-13.1	-13.3
GEW-1A	4/27/2018 14:52	11.0	9.2	15.4	64.4	84.2	84.3	4.2	6.6	-11.3	-11.8	-12.3
GEW-1A	4/27/2018 14:54	12.5	9.3	15.7	62.5	85.1	85.1	8.6	6.9	-11.8	-11.7	-11.9
GEW-2S	4/2/2018 11:02	55.7	35.2	1.2	7.9	45.2	45.2	20.6	19.3	-7.7	-7.5	-11.0
GEW-2S	4/2/2018 11:03	55.9	35.3	1.1	7.7	45.7	45.8	15.9	18.8	-7.5	-7.8	-10.6
GEW-2S	4/11/2018 8:29	59.5	37.1	0.4	3.0	60.3	60.4	14.0	14.0	-5.2	-5.2	-7.4
GEW-2S	4/18/2018 10:07	59.8	36.9	0.5	2.8	66.6	66.6	15.5	16.0	-4.7	-4.5	-7.8
GEW-2S	4/23/2018 11:32	64.5	34.4	0.0	1.1	57.2	57.2	11.4	11.4	0.3	0.5	0.0
GEW-2S	4/23/2018 11:34	65.5	32.7	0.0	1.8	57.2	57.2	11.7	11.4	0.7	0.8	0.0
GEW-2S	4/27/2018 14:41	37.3	27.6	6.4	28.7	79.8	79.9	9.2	7.5	-10.2	-10.2	-11.1
GEW-2S	4/27/2018 14:45	39.0	28.0	6.2	26.8	82.3	82.1	19.1	15.0	-11.4	-11.3	-11.9
GEW-2S	4/28/2018 10:19	45.4	30.1	4.9	19.6	61.8	61.8	15.3	16.8	-9.9	-9.4	-12.0
GEW-2S	4/29/2018 10:42	60.2	37.5	0.3	2.0	65.8	65.8	8.3	7.5	-6.3	-6.3	-9.1
GIW-01	4/3/2018 15:11	9.9	57.2	1.0	31.9	168.1	168.1	11.7	10.1	-9.2	-9.1	-19.9
GIW-01	4/3/2018 15:17	9.6	64.7	1.0	24.7	167.6	167.6	9.0	10.0	-8.6	-8.6	-20.3
GIW-01	4/9/2018 10:46	8.4	64.3	1.5	25.8	166.1	166.6	4.5	5.0	-9.8	-9.8	-18.7
GIW-01	4/9/2018 10:48	7.4	69.5	1.0	22.1	155.2	155.2	3.1	2.3	-2.0	-2.0	-18.8
GIW-01	4/16/2018 16:02	7.1	69.4	0.0	23.5	159.4	159.4	3.6	2.3	1.9	1.9	-20.3
GIW-01	4/16/2018 16:04	6.9	73.9	0.0	19.2	169.0	169.0	8.6	7.9	-2.4	-2.4	-20.0
GIW-01	4/23/2018 9:05	7.0	68.1	0.3	24.6	168.1	167.7	5.8	5.9	-1.9	-1.9	-20.8
GIW-01	4/23/2018 9:06	6.6	70.8	0.5	22.1	167.6	168.1	7.7	5.9	-1.8	-1.8	-20.3
GIW-02	4/3/2018 15:36	1.1	22.3	13.2	63.4	52.4	52.4	3.9	4.3	-0.2	-0.2	-19.9
GIW-02	4/3/2018 15:42	0.9	17.5	13.8	67.8	52.1	52.1	1.7	2.1	-0.2	-0.2	-20.0
GIW-02	4/9/2018 10:51	1.2	24.9	14.4	59.5	53.4	53.4	4.3	4.3	-0.1	-0.1	-19.1
GIW-02	4/9/2018 10:52	1.2	20.3	14.9	63.6	53.1	53.1	1.8	1.2	-0.2	-0.2	-18.9
GIW-02	4/16/2018 16:07	0.5	26.2	13.7	59.6	56.7	56.7	5.9	4.9	-0.2	-0.1	-19.9
GIW-02	4/16/2018 16:08	0.5	20.5	14.3	64.7	56.7	56.7	3.7	3.9	-0.2	-0.1	-20.0
GIW-02	4/23/2018 9:10	0.3	20.7	16.3	62.7	54.4	54.2	1.2	1.2	-0.2	-0.2	-20.3
GIW-02	4/23/2018 9:11	0.3	16.3	16.8	66.6	53.4	53.4	1.2	2.5	-0.2	-0.2	-20.2
GIW-03	4/3/2018 15:45	15.0	45.2	2.3	37.5	52.3	52.3	5.4	8.3	-9.6	-9.6	-15.5
GIW-03	4/3/2018 15:52	14.5	45.6	2.3	37.6	52.0	52.0	6.5	6.3	-9.6	-9.6	-14.4
GIW-03	4/9/2018 10:55	9.1	52.4	3.5	35.0	51.0	51.0	3.3	2.8	-4.7	-4.7	-12.8
GIW-03	4/9/2018 10:56	9.0	53.7	3.6	33.7	51.0	51.0	3.9	4.3	-4.4	-4.4	-15.2
GIW-03	4/16/2018 16:10	10.7	47.4	2.9	39.0	56.2	56.2	4.0	1.2	-6.8	-6.8	-15.3

April 2018 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-03	4/23/2018 9:13	10.9	44.2	2.9	42.0	51.7	51.6	6.6	5.0	-7.4	-7.3	-15.0
GIW-04	4/3/2018 15:56	12.5	47.9	3.2	36.4	51.6	51.5	3.8	2.4	-6.2	-6.2	-18.6
GIW-04	4/3/2018 16:02	11.9	47.1	3.4	37.6	50.7	50.7	3.4	1.7	-6.3	-6.3	-18.0
GIW-04	4/9/2018 10:59	4.8	51.2	4.5	39.5	50.5	50.5	3.0	1.2	-4.1	-4.1	-17.4
GIW-04	4/16/2018 16:13	3.2	50.0	4.1	42.7	55.7	55.8	3.2	3.0	-4.2	-4.2	-18.3
GIW-04	4/23/2018 9:16	9.9	58.3	0.2	31.6	50.5	50.5	3.3	3.3	-5.1	-5.1	-18.2
GIW-05	4/4/2018 8:44	0.0	0.5	20.9	78.6	32.3	32.3	6.5	6.5	-2.4	-2.3	-16.7
GIW-05	4/4/2018 8:46	0.0	0.3	20.9	78.8	32.2	32.2	7.1	7.1	-2.8	-2.7	-17.0
GIW-05	4/6/2018 16:03	0.2	4.7	19.8	75.3	49.5	49.7	3.6	3.6	-2.7	-2.6	-19.7
GIW-05	4/6/2018 16:09	0.1	0.7	20.6	78.6	49.9	49.9	5.0	5.4	-0.7	-0.7	-19.3
GIW-05	4/9/2018 11:07	0.0	1.2	21.2	77.6	49.4	49.6	5.2	5.4	-0.1	-0.1	-17.1
GIW-05	4/9/2018 11:08	0.0	0.3	21.4	78.3	49.7	49.7	7.0	7.0	-0.1	-0.1	-16.6
GIW-05	4/17/2018 8:36	0.0	6.7	20.8	72.5	48.2	48.3	0.0	0.0	-0.1	-0.1	-15.0
GIW-05	4/17/2018 8:37	0.0	2.7	21.5	75.8	48.9	48.9	0.0	0.0	-0.1	-0.1	-15.7
GIW-05	4/23/2018 9:20	0.0	9.4	21.0	69.6	50.5	50.5	8.1	8.2	-6.4	-6.4	-17.8
GIW-05	4/23/2018 9:22	0.0	1.3	19.9	78.8	50.7	50.7	2.8	4.0	-6.8	-6.8	-18.5
GIW-06	4/4/2018 9:58	14.9	47.0	0.0	38.1	36.0	36.0	4.9	4.0	-5.6	-5.5	-18.7
GIW-06	4/4/2018 10:05	15.5	47.0	0.0	37.5	36.0	36.0	2.8	3.1	-5.5	-5.5	-18.1
GIW-06	4/9/2018 11:30	13.6	53.3	0.0	33.1	52.3	52.3	4.1	4.1	-5.6	-5.7	-16.6
GIW-06	4/17/2018 8:45	33.0	47.5	0.1	19.4	53.2	53.4	2.2	2.8	-11.6	-11.8	-16.0
GIW-06	4/23/2018 9:58	20.6	46.2	0.2	33.0	51.5	51.5	1.2	1.2	-15.2	-15.2	-18.2
GIW-07	4/4/2018 9:43	27.1	54.1	0.9	17.9	35.9	36.0	0.0	1.3	-5.0	-5.0	-17.4
GIW-07	4/4/2018 9:50	27.4	54.8	1.0	16.8	37.1	37.1	3.8	3.8	-5.0	-5.0	-17.4
GIW-07	4/9/2018 11:34	24.7	63.9	0.7	10.7	52.1	52.1	3.9	4.6	-3.8	-3.8	-16.9
GIW-07	4/17/2018 8:48	30.9	59.5	0.2	9.4	52.1	52.1	3.8	3.4	-3.7	-3.6	-16.6
GIW-07	4/23/2018 10:01	27.9	62.4	0.0	9.7	51.5	51.5	4.1	4.3	-5.0	-5.0	-19.5
GIW-08	4/4/2018 9:31	34.7	54.9	0.0	10.4	34.5	34.5	4.2	3.8	-2.7	-2.7	-16.4
GIW-08	4/4/2018 9:38	33.8	52.9	0.0	13.3	35.2	35.2	4.8	4.4	-2.8	-2.8	-18.2
GIW-08	4/9/2018 11:36	30.6	63.2	0.0	6.2	53.9	53.9	1.2	1.2	-2.4	-2.4	-16.4
GIW-08	4/17/2018 8:53	36.7	55.3	0.0	8.0	58.0	58.1	3.8	3.1	-2.3	-2.3	-16.8
GIW-08	4/23/2018 10:03	34.3	59.8	0.0	5.9	52.0	52.0	3.0	2.1	-2.8	-2.8	-18.1
GIW-09	4/4/2018 9:19	2.9	19.2	11.5	66.4	33.4	33.4	4.3	4.1	-1.0	-1.0	-17.7
GIW-09	4/4/2018 9:26	2.6	16.5	11.8	69.1	34.1	34.1	2.9	1.3	-1.0	-1.1	-16.8
GIW-09	4/9/2018 11:43	1.6	17.2	13.1	68.1	52.3	52.4	2.5	2.1	-0.9	-0.9	-17.2
GIW-09	4/9/2018 11:45	1.6	14.8	13.3	70.3	52.4	52.4	1.2	1.2	-0.8	-0.8	-17.2
GIW-09	4/17/2018 9:00	5.6	28.2	7.3	58.9	55.7	56.2	4.9	4.8	-0.5	-0.5	-16.3
GIW-09	4/17/2018 9:02	5.7	27.2	7.3	59.8	57.5	57.6	5.0	4.8	-0.5	-0.5	-16.7
GIW-09	4/23/2018 10:10	2.5	24.7	9.1	63.7	51.6	51.6	2.1	2.1	-1.0	-1.0	-17.6
GIW-09	4/23/2018 10:11	2.5	22.8	9.2	65.5	51.8	51.7	1.2	2.1	-1.0	-1.0	-16.7
GIW-10	4/4/2018 8:51	8.4	32.9	0.0	58.7	34.5	34.5	4.6	4.8	-4.8	-4.8	-17.2
GIW-10	4/4/2018 8:57	8.8	33.0	0.0	58.2	33.8	33.8	1.3	1.3	-4.8	-4.8	-18.4

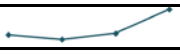
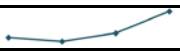
April 2018 Wellfield Monitoring Data - Bridgeton Landfill												
Well Name	Date Sampled	Methane	CO_2	O_2	Balance Gas	Init Temp	Adj Temp	Init Flow	Adj Flow	Init Static Press	Adj Static Press	System Pressure
		(% vol)				°F		scfm		H_2O		
GIW-10	4/9/2018 11:02	8.0	41.8	0.0	50.2	53.1	53.1	2.7	2.1	-4.5	-4.5	-16.6
GIW-10	4/17/2018 8:32	10.1	35.4	0.0	54.5	50.2	50.2	5.3	5.0	-4.1	-4.1	-15.7
GIW-10	4/23/2018 9:01	9.2	37.9	0.0	52.9	52.3	52.3	2.7	0.7	-4.7	-4.7	-18.5
GIW-11	4/3/2018 11:50	18.1	45.6	0.0	36.3	72.1	72.2	2.6	3.5	-1.9	-1.9	-16.3
GIW-11	4/3/2018 11:56	18.2	43.7	0.1	38.0	72.7	72.8	7.0	5.1	-2.0	-2.0	-14.8
GIW-11	4/9/2018 10:42	17.2	45.5	0.6	36.7	51.0	51.0	3.7	3.7	-2.3	-2.3	-17.2
GIW-11	4/16/2018 15:59	17.7	43.2	0.6	38.5	56.7	56.8	7.7	6.7	-2.3	-2.4	-17.7
GIW-11	4/23/2018 8:59	15.1	43.1	0.6	41.2	53.1	53.1	5.8	5.4	-2.6	-2.6	-19.2
GIW-12	4/3/2018 11:30	9.6	47.1	3.2	40.1	68.6	68.6	2.9	3.8	-0.1	-0.2	-16.7
GIW-12	4/3/2018 11:36	8.7	46.6	3.3	41.4	67.7	67.7	3.2	4.3	-0.1	-0.2	-16.1
GIW-12	4/9/2018 10:35	10.5	37.0	8.5	44.0	49.4	49.4	1.3	1.3	-0.2	-0.2	-17.5
GIW-12	4/9/2018 10:36	9.8	37.4	8.5	44.3	49.6	49.6	1.8	1.2	-0.2	-0.2	-18.0
GIW-12	4/16/2018 15:53	10.9	41.0	6.8	41.3	55.0	55.0	3.0	5.1	-0.2	-0.2	-18.6
GIW-12	4/16/2018 15:54	10.7	39.1	6.9	43.3	54.8	54.8	3.1	3.1	-0.2	-0.2	-18.3
GIW-12	4/23/2018 8:52	10.6	36.4	8.7	44.3	53.1	53.1	1.2	1.3	-0.2	-0.2	-18.6
GIW-12	4/23/2018 8:53	10.6	35.0	8.8	45.6	53.1	53.2	2.5	2.5	-0.2	-0.2	-18.8
GIW-13	4/3/2018 11:20	25.7	56.9	0.0	17.4	68.5	68.6	5.1	5.7	-1.2	-1.2	-13.2
GIW-13	4/3/2018 11:26	25.2	53.7	0.0	21.1	70.0	70.0	4.1	3.9	-1.1	-1.1	-12.8
GIW-13	4/9/2018 10:28	28.2	60.0	0.0	11.8	49.0	49.0	1.8	1.8	-1.2	-1.2	-11.9
GIW-13	4/16/2018 15:50	26.8	58.2	0.0	15.0	54.2	54.3	4.1	3.3	-1.1	-1.1	-12.5
GIW-13	4/23/2018 8:49	27.7	57.9	0.0	14.4	52.6	52.6	3.5	3.9	-1.2	-1.2	-12.8
LCS-1D	4/19/2018 8:15	36.7	16.5	10.5	36.3	46.6	46.5	6.5	6.5	-18.0	-17.8	-20.1
LCS-1D	4/19/2018 8:16	33.6	21.4	10.1	34.9	46.4	46.4	4.5	4.2	-17.6	-17.6	-19.6
LCS-2D	4/13/2018 10:08	57.1	40.5	0.0	2.4	72.9	72.9	1.7	1.7	-19.9	-19.8	-20.0
LCS-3D	4/13/2018 10:36	4.6	48.1	1.6	45.7	71.1	71.2	2.3	1.9	-19.9	-19.9	-20.1
LCS-5A	4/2/2018 9:57	53.6	40.0	0.5	5.9	66.5	66.8			-14.6	-14.7	-14.2
LCS-5A	4/12/2018 11:38	56.5	40.7	0.5	2.3	91.5	91.7	5.1	8.3	-11.0	-11.1	-12.0
LCS-5A	4/18/2018 9:02	53.9	43.1	0.5	2.5	74.8	74.9	8.2	9.0	-12.3	-12.3	-13.3
LCS-5A	4/25/2018 11:17	55.1	41.2	0.7	3.0	83.9	84.1	6.6	7.1	-12.2	-12.2	-13.2
LCS-5B	4/2/2018 10:02	53.5	41.6	0.0	4.9	138.3	137.6	17.9	15.5	-14.6	-14.5	-14.2
LCS-5B	4/2/2018 10:03	52.9	42.1	0.0	5.0	139.5	139.5	21.4	21.7	-14.5	-14.5	-14.1
LCS-5B	4/10/2018 11:15	53.4	44.4	0.0	2.2	142.5	142.2	21.8	21.2	-13.9	-13.9	-14.2
LCS-5B	4/10/2018 11:16	53.3	44.1	0.0	2.6	141.9	140.2	11.6	10.0	-13.9	-13.9	-14.2
LCS-5B	4/18/2018 9:16	53.5	43.7	0.0	2.8	141.2	140.9	20.7	21.7	-13.0	-13.0	-13.4
LCS-5B	4/18/2018 9:18	53.6	43.5	0.0	2.9	138.4	139.3	23.9	21.0	-13.0	-13.0	-13.5
LCS-5B	4/25/2018 11:26	54.4	43.0	0.0	2.6	118.1	118.0	12.4	10.1	-12.6	-12.6	-13.1
LCS-6B	4/2/2018 9:33	50.5	38.8	0.0	10.7	63.1	63.0	6.3	7.4	-1.1	-1.1	-14.5
LCS-6B	4/12/2018 11:13	52.7	42.7	0.6	4.0	103.0	102.5	3.5	6.4	-1.7	-1.7	-12.0
LCS-6B	4/12/2018 11:15	54.1	43.9	0.2	1.8	100.6	100.4	7.9	7.5	-0.5	-0.5	-12.5
LCS-6B	4/19/2018 9:24	52.3	41.5	1.1	5.1	64.8	64.7	5.6	5.6	-0.7	-0.7	-14.6
LCS-6B	4/25/2018 14:55	54.9	44.2	0.0	0.9	89.8	89.8	5.4	6.1	-0.2	-0.2	-12.9

April 2018 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	4/2/2018 10:57	59.6	38.0	0.2	2.2	61.1	61.0	16.3	9.6	-8.7	-8.3	-11.0
PGW-60	4/11/2018 8:25	58.3	39.1	0.3	2.3	69.1	69.1	22.0	18.6	-4.8	-5.1	-7.5
PGW-60	4/18/2018 10:03	60.5	36.8	0.3	2.4	72.5	72.5	13.7	13.7	-4.8	-4.8	-8.1
PGW-60	4/23/2018 11:24	55.9	44.1	0.0	0.0	64.2	64.3	10.2	9.6	-12.2	-12.2	-14.3
PGW-60	4/23/2018 11:25	58.4	41.6	0.0	0.0	64.0	63.8	13.1	13.4	3.9	4.0	-14.4
PGW-60	4/23/2018 11:27	58.9	41.1	0.0	0.0	64.0	64.0	17.5	11.8	6.8	6.8	-14.2
PGW-60	4/27/2018 14:49	57.2	36.7	0.2	5.9	79.1	79.5	0.0	7.3	-10.2	-9.8	-11.4
SEW-002	4/17/2018 11:12	11.3	74.7	0.7	13.3	68.8	68.5	10.5	4.7	-0.1	-0.04	-14.4
SEW-003	4/17/2018 11:02	2.4	57.1	4.7	35.8	90.5	90.3	28.3	28.4	-0.2	-0.2	-18.4
T-56	4/2/2018 9:26	47.4	33.4	0.1	19.1	49.1	49.2	16.3	16.4	-0.04	-0.04	-14.0
T-56	4/11/2018 9:30	48.9	35.6	0.0	15.5	52.4	52.4	22.1	22.9	-0.1	-0.1	-13.7
T-56	4/20/2018 8:06	45.1	37.9	0.0	17.0	52.6	52.9	12.2	12.5	-0.1	-0.1	-14.2
T-56	4/26/2018 8:16	54.5	37.6	0.1	7.8	56.2	56.2	15.6	15.6	-0.1	-0.1	-14.1

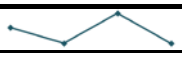
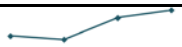
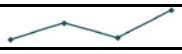
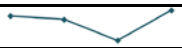
ATTACHMENT E-2

MAXIMUM WELLHEAD TEMPERATURE TABLE

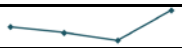
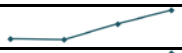
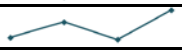
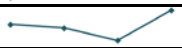
Wellfield Temperature - Bridgeton Landfill

Well Name					Temp Trend	Comments
	January 2018	Febrauary 2018	March 2018	April 2018	><30°F	
GEW-002	115.0	117.4	115.0	116.0		
GEW-003	110.2	114.0	106.0	119.7		
GEW-004	116.3	115.1	112.5	114.8		
GEW-005	88.4	91.7	88.9	80.5		
GEW-006	85.8	87.7	86.6	87.7		
GEW-007	87.7	83.2	84.4	88.5		
GEW-008	111.7	111.7	110.8	112.9		
GEW-009	124.5	118.9	119.9	123.1		
GEW-010	64.4	61.8	50.6	67.7		
GEW-013A	116.3	119.2	122.6	147.3		
GEW-015	166.1	165.2	158.0	155.9		
GEW-016R	180.3	180.2	179.2	179.7		
GEW-018B	163.8	165.4	163.8	163.3		
GEW-022R	79.4	60.8	52.6	77.5		
GEW-038	65.4	60.2	55.3	54.7		
GEW-039	117.6	119.4	116.1	116.1		
GEW-040	62.0	61.4	67.9	75.2		
GEW-041R	97.2	96.7	94.5	96.7		
GEW-042R	108.5	95.0	94.6	100.4		
GEW-043R	117.9	117.3	110.2	117.6		
GEW-044	89.3	84.0	83.8	88.4		
GEW-045R	76.8	86.1	81.6	90.1		
GEW-046R	92.4	90.8	94.3	103.0		
GEW-047R	109.5	113.5	106.8	111.2		
GEW-048	100.8	99.6	98.9	94.1		
GEW-049	106.3	103.8	102.4	105.7		
GEW-050	105.5	103.8	104.8	103.1		
GEW-051	123.4	122.1	122.1	120.9		
GEW-052	112.0	105.7	117.9	111.6		
GEW-053	139.9	136.6	140.1	141.5		
GEW-054	142.9	143.7	144.6	144.5		
GEW-055	140.9	134.1	132.6	133.2		
GEW-056R	90.3	87.0	79.5	85.6		
GEW-057B	61.4	55.5	63.4	94.8		
GEW-057R	59.9	40.5	60.2	88.9		
GEW-058	52.6	46.6	59.2	92.7		
GEW-058A	51.3	43.6	63.6	91.3		
GEW-059R	162.1	162.9	160.7	161.7		

Wellfield Temperature - Bridgeton Landfill

Well Name					Temp Trend	Comments
	January 2018	Febrauary 2018	March 2018	April 2018	><30°F	
GEW-067A	111.5	93.6	128.0	93.4		
GEW-068A	174.2	174.2	182.7	182.1		
GEW-077	91.7	98.2	139.6	125.6		
GEW-078R	160.2	157.7	155.6	155.6		
GEW-081	68.6	63.7	68.2	74.1		
GEW-082R	178.6	176.9	176.4	176.4		
GEW-086	67.7	59.3	68.8	71.8		
GEW-087	136.2	105.0	113.5	115.9		
GEW-088	194.3	193.8	195.0	197.9		
GEW-090	157.7	146.3	157.7	157.7		
GEW-091	96.2	107.0	177.5	182.6		
GEW-100	62.8	49.1	61.6	86.3		
GEW-101	68.5	54.7	80.4	85.6		
GEW-102	60.2	44.8	63.7	60.1		
GEW-104	61.2	40.5	162.8	205.4		
GEW-105	--	--	144.2	130.6		
GEW-106	54.2	76.1	56.7	92.9		
GEW-107	113.2	113.1	170.5	148.2		
GEW-108	122.6	119.9	121.3	123.1		
GEW-109	105.2	90.6	105.5	109.7		
GEW-110	75.0	65.1	58.1	77.0		
GEW-113	152.9	151.7	148.1	151.3		
GEW-116	174.7	121.3	190.9	193.6		
GEW-117	99.6	93.1	108.7	120.2		
GEW-118	194.3	196.4	195.7	197.2		
GEW-120	164.3	160.3	160.7	159.4		
GEW-121	176.4	171.6	173.6	174.2		
GEW-122	160.2	186.3	156.0	156.0		
GEW-123	163.3	160.6	159.8	156.0		
GEW-124	71.0	60.7	69.8	54.6		
GEW-125	174.1	171.1	182.7	163.8		
GEW-126	84.8	75.7	94.6	96.0		
GEW-127	166.1	154.0	79.4	186.4		
GEW-128	169.1	136.8	144.6	145.9		
GEW-129	130.1	170.0	169.5	167.1		
GEW-130	180.0	180.9	187.0	187.0		
GEW-131	165.2	160.2	159.4	158.5		
GEW-132	152.5	174.7	182.7	179.7		

Wellfield Temperature - Bridgeton Landfill

Well Name					Temp Trend	Comments
	January 2018	Febrauary 2018	March 2018	April 2018	><30°F	
GEW-133	61.4	58.0	169.0	167.1		
GEW-134	122.9	117.0	109.2	139.9		
GEW-135	155.6	153.3	148.6	147.0		
GEW-136	101.1	114.3	117.6	126.9		
GEW-137	62.6	64.4	77.7	97.2		
GEW-138	132.1	95.8	135.9	134.1		
GEW-139	147.0	147.3	197.9	188.9		
GEW-140	117.3	116.4	203.9	190.2		
GEW-141	--	51.8	68.6	81.2		
GEW-142	62.4	47.0	75.2	83.7		
GEW-143	63.5	56.4	65.0	87.4		
GEW-144	63.1	45.6	69.5	79.3		
GEW-145	59.0	87.4	93.6	115.3		
GEW-146	82.6	80.5	77.0	87.0		
GEW-147	183.3	181.2	158.4	180.7		
GEW-148	61.6	58.5	120.2	174.7		
GEW-149	96.0	113.5	93.7	126.9		
GEW-150	149.2	186.4	188.0	193.6		
GEW-151	151.3	156.9	172.2	172.6		
GEW-152	115.3	115.5	119.7	115.5		
GEW-153	61.8	44.0	63.5	83.3		
GEW-154	61.1	43.4	48.5	75.7		
GEW-155	90.8	102.3	115.8	121.5		
GEW-156	80.5	69.7	95.8	102.5		
GEW-157	60.7	124.5	98.7	124.2		
GEW-158	129.7	182.1	167.6	130.6		
GEW-159	54.0	59.1	58.0	77.9		
GEW-160	51.9	44.3	49.6	75.5		
GEW-161	42.8	48.2	48.6	89.8		
GEW-162	74.6	67.9	45.9	99.9		
GEW-163	192.9	189.0	173.2	182.1		
GEW-164	152.9	156.5	162.4	159.9		
GEW-165	183.9	182.1	183.3	180.3		
GEW-166	192.9	194.3	195.7	195.7		
GEW-167	194.8	189.6	193.6	193.3		
GEW-168	180.9	172.1	170.1	169.0		
GEW-169	186.7	188.3	186.4	185.7		
GEW-170	167.1	189.6	182.1	182.7		

Wellfield Temperature - Bridgeton Landfill

Well Name					Temp Trend	Comments
	January 2018	Febrauary 2018	March 2018	April 2018	><30°F	
GEW-171	--	80.7	66.4	75.0		
GEW-172	65.8	56.3	158.2	90.9		
GEW-173	97.4	95.5	114.8	102.3		
GEW-174	144.5	143.5	144.3	149.9		
GEW-175	116.9	113.7	164.7	174.7		
GEW-176	54.7	59.2	54.9	76.1		
GEW-177	194.3	54.6	203.9	192.3		
GEW-178	44.0	105.4	100.6	87.2		
GEW-179	38.5	68.6	121.4	125.3		
GEW-180	38.6	118.1	126.7	129.4		
GEW-181	72.6	169.0	169.0	159.4		
GEW-182	162.4	173.9	139.0	142.5		
GEW-184	68.7	112.7	85.0	83.8		
GEW-185	151.3	161.9	159.4	167.1		
GEW-186	67.7	141.5	139.3	139.3		
GEW-187	90.8	174.8	172.6	153.3		
GEW-188	63.3	99.9	82.8	94.1		
GEW-1A	63.5	72.7	51.5	85.1		
GEW-2S	62.2	64.7	65.8	82.3		
GIW-01	171.6	175.8	173.1	169.0		
GIW-02	64.9	68.4	50.2	56.7		
GIW-03	60.3	62.3	47.0	56.2		
GIW-04	64.2	63.3	46.8	55.7		
GIW-05	63.0	61.4	46.5	50.7		
GIW-06	62.6	60.9	46.5	53.2		
GIW-07	63.5	59.4	48.2	52.1		
GIW-08	66.8	65.5	50.2	58.0		
GIW-09	65.0	61.4	53.4	57.5		
GIW-10	64.9	60.7	48.5	53.1		
GIW-11	65.4	62.8	48.4	72.7		
GIW-12	63.7	62.9	48.2	68.6		
GIW-13	65.1	62.3	48.5	70.0		
LCS-1D	75.2	85.1	55.1	46.6		
LCS-2D	--	--	56.9	72.9		
LCS-4B	--	--	--	--		
LCS-5A	82.6	80.0	72.3	91.5		
LCS-5B	142.5	146.4	142.8	142.5		
LCS-6B	123.1	121.3	92.2	103.0		

Wellfield Temperature - Bridgeton Landfill

Well Name					Temp Trend	Comments
	January 2018	Febrauary 2018	March 2018	April 2018	><30°F	
PGW-60	63.4	86.6	80.7	79.1		
SEW-002	53.2	57.2	59.7	68.8		
SEW-003	--	--	88.4	90.5		
T-56	47.0	52.6	50.7	56.2		

-- = 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	1,473,120.83	
6	0.00	1.00	62,290.46	

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 (3-15-2018 to 4-17-2018)
- *4–2018* — *SETTLEMENT FRONT CONTOUR FOR AREA WITH 1.49' PER 33 DAYS FOR CURRENT PERIOD OF DAYS

*NONE FOR APRIL 2018

NOTES:

1. EXISTING CONTOURS DEVELOPED FROM SITE AERIAL TOPOGRAPHIC SURVEY BY COOPER AERIAL SURVEYS CO. ON DECEMBER 1, 2017.
2. FOR CLARITY, NOT ALL SITE FEATURES MAY BE SHOWN.
3. ELEVATION DIFFERENCE DETERMINED BY SUBTRACTING SPOT ELEVATIONS SURVEYED ON 3-15-18 FROM SPOT ELEVATIONS SURVEYED ON 4-17-18.
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.

N

0 200 400 Feet

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

BRIDGETON LANDFILL
SETTLEMENT MONITORING

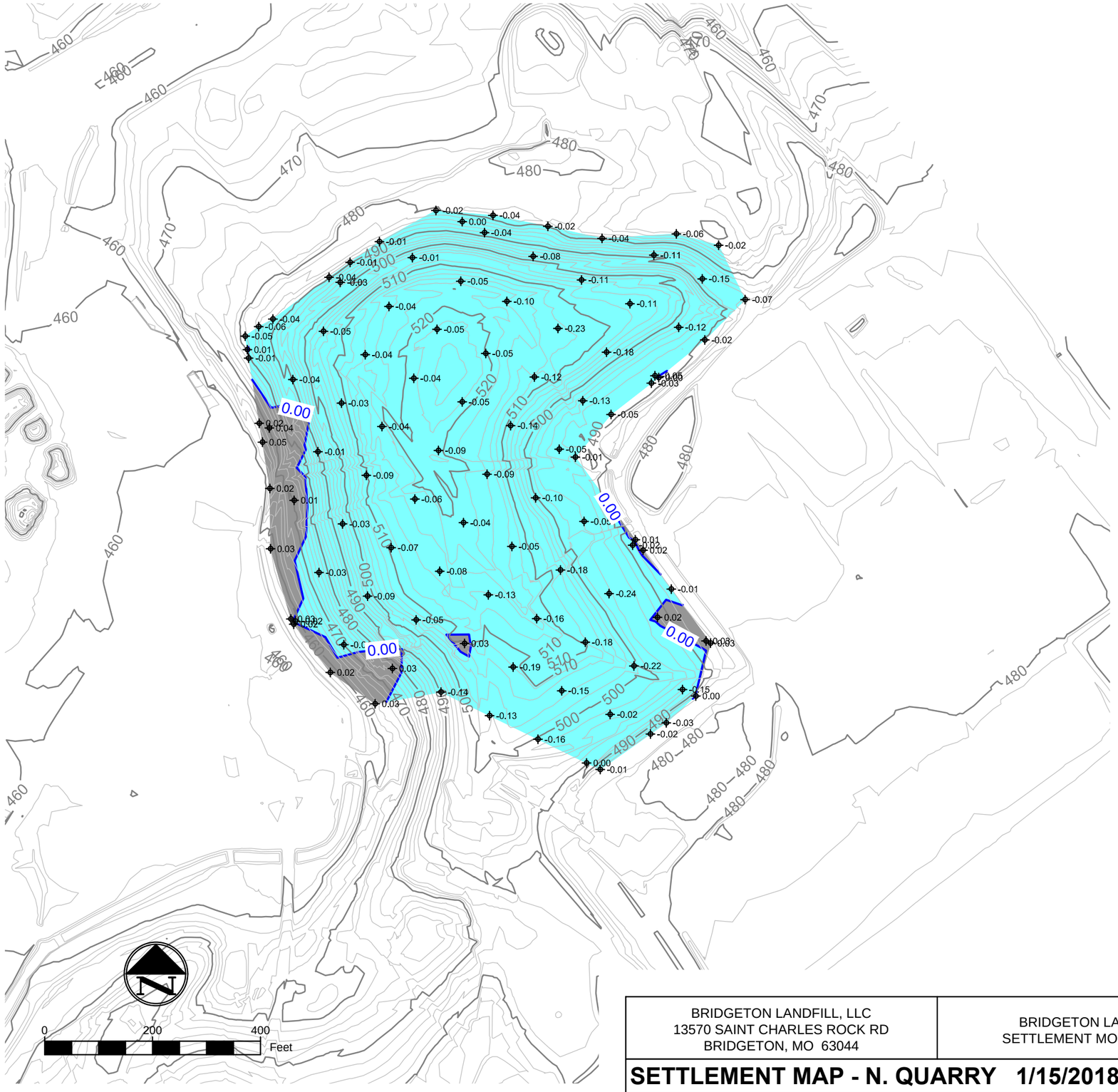
SETTLEMENT MAP 3/15/2018 - 4/17/2018

PROJECT NUMBER: BT-145 | FILE PATH: C:\Users\plinsl\Dropbox (Feezor Engineering)\Bridgeton\100-145\BT-145 (Agreed Order Reporting)\Monthly Reports\04-2018 Report\Draft Site Data\settlement\deliverables\Settlement And Fill 4-17-2018.dwg

Engineering for a Better World
FEEZOR ENGINEERING, INC.

APRIL 2018	
DESIGNED BY: PML	
APPROVED BY: DRF	
REVISION	DATE

DRAWING NO.: 001



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	600,207.33	
6	0.00	1.00	42,010.75	

LEGEND

- 12-1-2017 TOPOGRAPHY (2' CONTOUR)
- 500 — 12-1-2017 TOPOGRAPHY (10' CONTOUR)
- .25 — MINOR ELEVATION CHANGE CONTOUR (0.25 FEET)
- .50 — MAJOR ELEVATION CHANGE CONTOUR (0.50 FEET)
- -.03 — SPOT ELEVATION DIFFERENCE (1-15-2018 to 4-13-2018)
- *4–2018* — *SETTLEMENT FRONT CONTOUR FOR AREA WITH 3.96' PER 88 DAYS FOR CURRENT PERIOD OF DAYS

*NONE FOR 1-15-2018 THROUGH 4-13-2018

NOTES:

1. EXISTING CONTOURS DEVELOPED FROM SITE AERIAL TOPOGRAPHIC SURVEY BY COOPER AERIAL SURVEYS CO. ON DECEMBER 1, 2017.
2. FOR CLARITY, NOT ALL SITE FEATURES MAY BE SHOWN.
3. ELEVATION DIFFERENCE DETERMINED BY SUBTRACTING SPOT ELEVATIONS SURVEYED ON 1-15-18 FROM SPOT ELEVATIONS SURVEYED ON 4-13-18.
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 - N. QUARRY 1/15/2018 - 4/13/2018

PROJECT NUMBER: BT-145

FILE PATH: C:\Users\plins\Dropbox (Feezor Engineering)\Bridgeton\100-149\BT-145 (Agreed Order Reporting)\Quarterly Settlement\04-2018\3_deliverables\NQ Settlement 4-13-18.dwg

Engineering for a Better World
FEEZOR ENGINEERING, INC.

REVISION	DATE

APRIL 2018
DESIGNED BY: PML
APPROVED BY: DRF

DRAWING NO.:
003

ATTACHMENT G

SUMMARY OF ODOR COMPLAINTS

April 1, 2018 – April 30, 2018 / MDNR ODOR COMPLAINTS

Name: N/A

Message: Odor logged April 3, 2018, at 8:04 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. There is no evidence to suggest that this was a Bridgeton Landfill odor.

Name: Rebecca Yeater

Message: Odor logged April 3, 2018, at 7:40 am strength of 5

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 an east southeastern 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: N/A

Message: Odor logged April 3, 2018, at 12:20 pm 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. There is no evidence to suggest that this was a Bridgeton Landfill odor.

Name: Becky Thiemann

Message: Odor logged April 3, 2018, at 2:30 am strength of 8

Follow-up: The following concern has been investigated by Bridgeton Landfill staff. This concern was reported over 11 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. At the time cited in this concern winds were calm. There is no evidence to suggest that this was a Bridgeton Landfill odor.

Name: Bob LBeaume

Message: Odor logged April 6, 2018, at 5:36 am 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 the time cited in this concern winds were of a northern 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: N/A

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

Follow-up: No information was provided in this odor concern received on April 12, 2018, therefore Bridgeton Landfill staff could not investigate.

Name: Karen Nickel

Message: Odor logged April 17, 2018, at 7:00 am strength of 10

Follow-up: The following concern has been investigated by Bridgeton Landfill staff. A strong odor from another known odor source with frequent off-site odor emissions 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. This was not a Bridgeton Landfill odor.

Name: N/A

Message: Odor logged April 17, 2018, at 7:10 am strength of 10

Follow-up: The following concern has been investigated by Bridgeton Landfill staff. This concern was report almost 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. At the time cited in this concern winds were calm. There is no evidence to suggest that this was a Bridgeton Landfill odor.

Name: Amy Z

Message: Odor logged April 17, 2018, at 9:19 am 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. This location is in close proximity to another known odor source with frequent off-site odor emissions. At the time cited in this concern winds were of a northern 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: Amy Z

Message: Odor logged April 17, 2018, at 6:58 am strength of 8

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. This location is in close proximity to another known odor source with frequent off-site odor emissions. At the time cited in this concern winds were calm. There is no evidence to suggest that this was a Bridgeton Landfill odor.

Name: Janet Deidrick

Message: Odor logged April 17, 2018, at 7:00 am strength of 6

Follow-up: The following concern has been investigated by Bridgeton Landfill staff. This concern was reported over 4 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. At the time cited in this concern winds were calm. There is no evidence to suggest that this was a Bridgeton Landfill odor.

Name: Christopher Boylan

Message: Odor logged April 13, 2018, at 3:06 pm strength of 8

Follow-up: The following concern has been investigated by Bridgeton Landfill staff. This concern was reported over 3 days 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: Donna Sparks

Message: Odor logged April 13, 2018, at 10:02 am strength of 7

Follow-up: The following concern has been investigated by Bridgeton Landfill staff. This concern was reported over 4 days 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: Donna Sparks

Message: Odor logged April 17, 2018, at 10:48 pm strength of 5

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: Maggie

Message: Odor logged April 18, 2018, at 7:49 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. There is no evidence to suggest that this was a Bridgeton Landfill odor.

Name: Susan Tohde

Message: Odor logged April 19, 2018, at 8:07 am strength of 10

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

Follow-up: No information was provided in this odor concern received on April 20, 2018, therefore Bridgeton Landfill staff could not investigate.

Name: Susan Rohde

Message: Odor logged April 25, 2018, at 8:01 am strength of 10

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 the time cited in this concern winds were of a northwest origin placing this location directly downwind of another known odor source. This was not a Bridgeton Landfill odor.

Name: Susan Rohde

Message: Odor logged April 25, 2018, at 12:34 pm 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 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.

ATTACHMENT H

LIQUID CHARACTERIZATION DATA AND DISCHARGE LOG

Bridgeton Landfill - Leachate PreTreatment Plant

April 2018

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
4/1/2018	LPTP Activated Sludge/ Permeate	Tank 1 (T1)	MBI	0
4/2/2018				0
4/3/2018				0
4/4/2018				0
4/5/2018				0
4/6/2018				0
4/7/2018				0
4/8/2018				0
4/9/2018				0
4/10/2018				0
4/11/2018				0
4/12/2018				0
4/13/2018				0
4/14/2018				0
4/15/2018				0
4/16/2018				0
4/17/2018				0
4/18/2018				0
4/19/2018				0
4/20/2018				0
4/21/2018				0
4/22/2018				0
4/23/2018				0
4/24/2018				0
4/25/2018				0
4/26/2018				0
4/27/2018				0
4/28/2018				0
4/29/2018				0
4/30/2018				0
			Total	**0**

Direct Discharge to MSD

Date	Waste	Source	Quantity (gal)
4/1/2018	LPTP Permeate	Through Tank AST 97k (MSD Sampling Point 013)	271,640
4/2/2018			257,256
4/3/2018			224,986
4/4/2018			162,408
4/5/2018			166,920
4/6/2018			98,032
4/7/2018			172,672
4/8/2018			205,872
4/9/2018			200,440
4/10/2018			204,392
4/11/2018			200,824
4/12/2018			158,144
4/13/2018			98,648
4/14/2018			133,248
4/15/2018			244,872
4/16/2018			214,264
4/17/2018			167,120
4/18/2018			185,256
4/19/2018			242,616
4/20/2018			163,488
4/21/2018			202,408
4/22/2018			180,288
4/23/2018			118,080
4/24/2018			147,992
4/25/2018			163,760
4/26/2018			142,128
4/27/2018			164,928
4/28/2018			200,616
4/29/2018			134,728
4/30/2018			186,352
		Total	**5,414,378**

ATTACHMENT I

LOW FILL PROJECT AREA

ATTACHMENT I-1

LOW FILL AREA BOUNDARY

LEGEND

BOUNDARY OF FILL AREA FOR 3-15-2018 THROUGH 4-17-2018

(NOTE: NO FILL WAS PLACED BETWEEN 3-15-2018 AND 4-17-2018)

NOTES:

1. SITE AERIAL TOPOGRAPHIC SURVEY BY COOPER AERIAL SURVEYS CO. ON DECEMBER 1, 2017.
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 3/15/2018 - 4/17/2018

PROJECT NUMBER: BT-145

FILE PATH: C:\Users\plins\Dropbox (Feezor Engineering)\Bridgeton\100-149\BT-145 (Agreed Order Reporting)\Monthly Reports\04-2018 Report\Draft Site Data\settlement\deliverables\Settlement And Fill 4-17-2018.dwg

Engineering for a Better World
FEEZOR ENGINEERING, INC.

REVISION	DATE

APRIL 2018
DESIGNED BY: PML
APPROVED BY: DRF

DRAWING NO.:
002