



# CITY OF RIPON

100 Jackson Street • Ripon, Wisconsin 54971-1396



December 7, 2015

Gary A. Edelstein, Waste Management Engineer  
Wisconsin Department of Natural Resources  
Bureau for Remediation and Redevelopment - RR/5  
P.O. Box 7921 Madison, WI 53707

RE: October 2015 Status Report  
Ripon HWY FF/NN Landfill  
License #467, Ripon, WI  
BRRTS #02-20-000915

Dear Mr. Edelstein,

Enclosed is the quarterly status report for the October, 2015 sampling event for the reference site. Tetra Tech will be sending you hard copies of this report. The City has completed connecting the Gaastra and Perry residences to municipal water. If you have any questions please feel free to give me a call.

Sincerely,

Lori Rich  
City Administrator  
City of Ripon

Attach.

cc: Richard Joslin, DNR- ecopy [Richard.Joslin@Wisconsin.gov](mailto:Richard.Joslin@Wisconsin.gov)  
Mary Tierney, EPA - ecopy [tierney.mary@epa.gov](mailto:tierney.mary@epa.gov)  
Mike Noel, Tetra Tech - ecopy [Mike.Noel@tetrattech.com](mailto:Mike.Noel@tetrattech.com)  
Jeff Tracy, Quantum Management Group – ecopy [jtracy@qmg-inc.com](mailto:jtracy@qmg-inc.com)

**STATUS REPORT  
OCTOBER 2015 SAMPLING EVENT  
FF/NN LANDFILL NPL SITE  
Ripon, Wisconsin**

*Prepared for:*

FF/NN Landfill PRP Group  
600 Travis, Suite 5600  
Houston, Texas 77002



*Prepared by:*



Tetra Tech, Inc.  
175 N. Corporate Drive, Suite 100  
Brookfield, WI 53045

December 4, 2015

A handwritten signature in black ink that reads "Michael R. Noel".

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Michael R. Noel, P.G.  
Principal Hydrogeologist, Project Manager

A handwritten signature in black ink that reads "Ashley A. Weimer".

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Ashley A. Weimer  
Senior Project Geologist

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Attachment A	Stratigraphic Grouping Table
Attachment B	Laboratory Analytical Results
Attachment C	Groundwater Sampling Field Forms
Attachment D	Landfill Gas Extraction System Monitoring Field Forms
Attachment E	Groundwater Monitoring Program Approval, April 18, 2013

Note: Table and Chart numbering used for the full list of tables and charts included in the annual report is maintained for the quarterly reports for consistency.



**1. SITE INFORMATION AND CONTACTS**

CONTRACT SF-92-01

SITE NAME/ACTIVITY:

FF/NN Landfill NPL Site  
Ripon, Wisconsin  
Groundwater Monitoring and Corrective Action

WDNR File Ref. No.: 02-20-000915

PREPARED BY:

Mr. Michael R. Noel and Ms. Ashley A. Weimer  
Tetra Tech, Inc.  
175 N. Corporate Drive, Suite 100  
Brookfield, Wisconsin 53045

Tetra Tech Ref No.: 117-2202.040

PREPARED FOR:

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City of Ripon Administrator  
100 Jackson St.  
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Mr. Gary Edelstein, P.E.  
Wisconsin DNR  
P.O. Box 7921  
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Mr. Jeff Tracy  
Quantum Management Group, Inc.  
216 North Green Bay Road, Ste. 201  
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Mr. Rick Joslin  
Wisconsin DNR  
2984 Shawano Avenue  
Green Bay, WI 54313-6727

Ms. Mary Tierney  
U.S. EPA – Region 5  
77 West Jackson Boulevard  
Chicago, IL 60604

DATE:

December 4, 2015

**2. FIELD ACTIVITIES THIS REPORTING PERIOD**

- Groundwater elevations were measured at 13 monitoring wells by Tetra Tech in October 2015. Water levels in Layer 4 wells were measured consecutively to minimize effects from municipal pumping.
- A total of 12 monitoring wells were sampled for volatile organic compounds (VOCs) by Tetra Tech during the October 2015 event. One duplicate sample was collected for quality control. The revised groundwater monitoring program as outlined in the April 18, 2013 conditional approval letter from the Wisconsin Department of Natural Resources (WDNR) was followed for this sampling event (Attachment E).
- Jack Wendler from the City of Ripon conducted biweekly landfill gas monitoring of the extraction system vents and wells for this quarterly report.

### 3. RESULTS OF FIELD ACTIVITIES

#### 3.1. Groundwater Monitoring Event - Monitoring Well Sampling

The revised groundwater monitoring program as outlined in the April 18, 2013 conditional approval letter from WDNR was followed for this sampling event. The groundwater samples were analyzed for VOCs using Environmental Protection Agency (EPA) Method 8260B. Analytical results and field forms are provided in Attachments B and C, respectively. The VOC analytical results for the monitoring wells are tabulated in Table 2. The temporal trends of chlorinated compound concentrations in wells sampled during this event are provided in attached charts.

Natural attenuation parameters were measured on water removed from selected wells during the July 2015 sampling event. The dissolved oxygen (DO), oxygen-reduction potential (ORP), temperature, pH and conductivity were measured using a QED MP20 MicroPurge Flow Cell Meter. Iron II was measured in the field using CHEMetrics analyte-specific Vacu-vials® for photometric analysis using a CHEMetrics Model V-2000 LED photometer.

The contaminants of concern are Trichloroethylene (TCE) and its dechlorination byproducts, 1,2-Dichloroethylene (1,2-DCE) and Vinyl chloride (VC). VC is the only contaminant that exceeds the Wisconsin Administrative Code Chapter NR 140 Enforcement Standard (ES). The following sections present a summary of the July 2015 VOC analytical results as they relate to groundwater standards for each well that was sampled. To better track impacts at various depths, the results are organized according to the four stratigraphic groupings of wells as presented in Attachment A.

##### 3.1.1. Layer 1 Wells

- MW-103 (Chart 38): Not a sufficient volume of water in well to collect sample.
- MW-112 (Chart 44): No detection of any VOC analyzed. None of the contaminants of concern have been detected since 2012.

##### 3.1.2. Layer 2 Wells

- P-103 (Chart 47): No detection of any VOC analyzed. None of the contaminants of concern have been detected since 2012.

##### 3.1.3. Layer 3 Wells

- P-103D (Chart 53): VC exceeded its ES with an estimated concentration of 0.26 J micrograms per liter (ug/L; "J" indicates an estimated concentration). 1,2-DCE (0.33 J ug/L) was detected at a concentration below NR 140 standards. Concentrations of both these compounds have been below 1.0 ug/L and on a slightly decreasing trend since 2009.

- P-111D (Chart 54): VC exceeded its ES at 6.5 ug/L (6.5 ug/L in the duplicate sample collected from this well). 1,2-DCE (2.4 ug/L: 2.2 ug/L in the duplicate sample collected from this well) was detected at concentrations below NR 140 standards. These concentrations are consistent with the historical results and show a stable trend since 2012.
- MW-3B (Chart 55): No detection of any VOC analyzed. None of the contaminants of concern have been detected since 2008.
- P-113B (Chart 56): No detection of any VOC analyzed. None of the contaminants of concern have ever been detected in this well (installed in 2002).
- P-114 (Chart 57): VC exceeded its ES with a concentration of 6.5 ug/L. 1,2-DCE (1.4 ug/L) was detected at a concentration below NR 140 standards. These concentrations are consistent with the historical results and show a stable trend since 2012.
- P-115 (Chart 58): VC exceeded its ES with a concentration of 1.1 ug/L. This concentration is consistent with the historical results and show a stable trend since 2008.
- P-116 (Chart 59): No detection of any VOC analyzed. None of the contaminants of concern have ever been detected in this well (installed in 2001).

### 3.1.4. Layer 4 Wells

- MW-3A (Chart 60): No detection of any VOC analyzed. None of the contaminants of concern have ever been detected in this well (installed in 2002).
- P-107D (Chart 61): VC exceeded its ES with a concentration of 3.1 ug/L and 1,2-DCE (1.2 ug/L) was detected at a concentrations below NR 140 standards. These concentrations are consistent with the historical results and show a relatively stable trend since 1996.
- P-113A (Chart 62): No detection of any VOC analyzed. None of the contaminants of concern have ever been detected in this well (installed in 2002)

### 3.1.5. Natural Attenuation Parameters

Because VC is the sole remaining contaminant of concern exceeding NR 140 standards and because VC reduction is most commonly an aerobic process via direct oxidation, monitored natural attenuation (MNA) parameters were measured to evaluate whether oxidative conditions exist in the groundwater. Based on EPA (1998) guidance, iron II was measured and is indirect evidence of natural attenuation in aerobic environments. The results of the MNA sampling are shown on Table 3 and continue to indicate that the aquifer is marginally aerobic.

### **3.2. Groundwater Monitoring Event - Private Well Sampling**

Historically, eight private wells have been sampled. The Miller and Altnau private wells were abandoned in November, 2002. The Ehster, Wiese, and Hadel private wells were converted into monitoring wells P-114, P-115, and P-116, respectively. The Gaastra, Perry and Rohde private wells are sampled annually in April.

During the week of July 13<sup>th</sup>, 2015 the City connected Mr. Jeff Gaastra's home (W14297 Charles Street) to the City of Ripon's water supply. The Gaastra well was disconnected from the home's internal water piping and is now just supplying the outside faucets. The PRP Group still has the permission and capability to continue sampling from the Gaastra well.

During the week of September 7<sup>th</sup>, 2015 the City connected the Perry's home (W14298 Charles Street) to the City of Ripon's water supply. The Perry private well was disconnected from the home's internal water piping and is now just supplying the outside faucets. The PRP Group still has the permission and capability to continue sampling from the Perry well.

### **3.3. Interim LF Gas Extraction System Performance Monitoring**

Results of the gas monitoring are presented in Table 6.

Current gas extraction is from shallow vent GV-6 and the three deep leachate wells (LC-1, LC-2 and LC-3). The other vents have remained closed to prevent oxygen levels from increasing above 5%. There were a few modifications to the system during this monitoring period based on the oxygen levels observed in the extracted landfill gas:

- 8/10/2015 – Increase run time from 13 hours on to 15 hours on
- 8/24/2015 – Reduce run time from 15 hours on to 14 hours on
- 9/18/2015 – Increase run time from 14 hours on to 15 hours on (based on 9/8/2015 data)
- 9/21/2015 – Reduce run time from 15 hours on to 13 hours on
- 10/5/2015 – No changes made, problems connecting to modem
- 10/19/2015 – No changes made, problems connecting to modem
- 10/26/2015 – Reduce run time from 13 hours on to 11 hours on (based on 10/19/2015 data)

The adjustment delays on September 18<sup>th</sup> and October 26<sup>th</sup> were due to problems connecting to the modem to make changes to the blower run time. Once Tetra Tech was able to connect to modem, changes to the blower run time were made. An electrician subsequently made the necessary repairs by replacing a damaged phone line.

There were no gas samples collected during this reporting period per the changes in the monitoring plan dated April 18, 2013.

Monitoring of the atmosphere in the gas probes and wells outside the limits of fill indicate that the gas extraction system has controlled gas migration from the fill area since its startup in March 2006. Methane in the gas concentrations in all exterior wells and gas probes have been consistently below the methane lower explosive limit (LEL; 5.0%).

### **3.4. Extraction System Pressure Test**

As reported in the April, 2015 progress report, pressure testing of the gas extraction system identified that a leak was present in Leg 1. On October 28, 2015 a confirmation pressure test and soap test were performed to determine if the Leg 1 leak occurred at the manifold connections. This test included isolating Leg 1 at both ends (manifold and LC-1 leachate well connections), applying a soapy Alconox and water mixture to the connections and rerunning the pressure test. Leg 1 failed to hold pressure however, no bubbles indicative of a leak were observed at any of the manifold connections when Leg 1 was pressurized. The results of this test indicate that the leak occurs somewhere along the buried portion of Leg 1.

The leak in Leg 1 does not appear to negatively impact system performance. Leg 1 passed the previous pressure test in 2012 and over the last three years of operation the methane levels at leachate collection well LC-1 have varied seasonally in a manner similar to LC-2 and LC-3. The leak in Leg 1 also does not present any health and safety concerns. Because the system operates under a vacuum, a leak would allow some air into the line but gas would not escape.

### **3.5. Five-Year Review Site Inspection**

A five-year review site inspection was conducted on October 28, 2015. Those present at the site inspection included:

- Mr. Gary Edelstein, Wisconsin Department of Natural Resources;
- Ms. Mary Tierney, U.S. Environmental Protection Agency;
- Mr. Jeff Tracy, Quantum Management Group, Inc., representing the PRP Group;
- Mr. Michael Noel and Ms. Ashley Weimer, Tetra Tech, consultant to the PRP Group; and
- Mr. Chris Liveris and Mr. Jack Wendler, City of Ripon

After the field site inspection was completed, Mr. Tracy, Mr. Noel and Mr. Liveris met with Mr. Edelstein and Ms. Tierney and provided responses to questions from the Agencies to complete the inspection questionnaire.

## **4. UPCOMING ACTIVITIES PLANNED**

- Quarterly groundwater sampling and water level measurements will be conducted in January 2016 in accordance with the monitoring program outlined in the April 18, 2013 conditional approval letter from WDNR.

## *SECTION 4*

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- Jack Wendler from the City of Ripon will conduct biweekly landfill gas monitoring of the extraction system vents and wells.
- Above ground phone and electric lines that service the blower unit will be buried underground to minimize potential damage to these lines in the future.
- A Five-Year Review Report will be prepared by the PRP Group and will be submitted to the WDNR and USEPA for their consideration during their Five Year Review.

**5. PERSONNEL**

Mr. Michael Noel is the Project Manager and Principal Hydrogeologist. Ms. Ashley Weimer is the Senior Project Geologist who oversaw the field activities. The laboratory analyses for October 2015 groundwater samples were completed by Pace Analytical Services, Inc. in Green Bay, Wisconsin.



**TABLES**

**Table 1 - Groundwater Elevations  
FF/NN Landfill  
Ripon, WI**

Well Name	TOC Elevation	Jun-93	Oct-93	Apr-94	Oct-96	May-97	Oct-97	Apr-98	Oct-98	Oct-99	May-00	Oct-00	May-01	Oct-01	Feb-02	May-02	Aug-02	Oct-02
MW-101	884.80	826.56	824.20	824.04	823.41	824.34			822.08	823.17			823.13	824.17	823.18	DRY	DRY	NT
P-101	885.26	826.52	824.24	824.02	823.38	824.33	823.00	820.24	822.04	823.16	822.73	822.66	823.06	824.16	823.19	800.47	814.42	NT
MW-102	843.05	826.83	825.35	824.29	823.57	824.67	823.26			823.52	823.17	823.19		824.38	823.53	818.93	DRY	NT
P-102	842.99	826.89	824.40	824.35	823.64	824.75	823.38	820.77	822.47	823.63	823.25		823.39	824.49	823.69	799.84	814.94	NT
MW-103	872.42	823.08	821.77	819.49	820.56			819.22						821.63	>51.32	819.28	819.34	NT
P-103	872.92	826.29	826.88	823.88	817.43	824.16	822.89	820.25	821.96	823.11	822.70	822.60	823.02	823.87	823.00	801.70	814.74	NT
P-103D	873.08	(Installed December 2003)																
MW-104	875.15	826.32	824.12	824.02	823.14	824.13		820.13	823.87					823.88	>51.28	DRY	DRY	NT
P-104	875.48	826.47	824.25	824.12	823.26	824.24	822.92	820.25	822.06	823.18	822.70	822.64	823.10	824.03	823.12	802.51	814.82	NT
MW-106	878.90	826.67	824.21	824.24	820.96	824.61	823.23		822.42	823.45	823.10	822.96	823.34	Dry	823.50	DRY	DRY	NT
P-106	878.91	826.63	824.09	824.07	823.42	824.51	823.16	820.40	822.33	823.38	823.02	822.89	823.26	824.25	823.39	800.31	814.52	NT
MW-107	871.78	821.02	820.52	818.76	819.17	819.22		817.04	818.70	819.68			819.36	820.12	>52.5	816.72	DRY	DRY
P-107	871.38	820.86	820.37	818.78	819.07	819.24	818.38	817.14	818.72	819.71	818.62	818.62	819.35	820.12	818.86	809.86	813.29	NT
P-107D	871.98			819.13	817.47	819.52	818.29	816.77	817.56	817.78	817.34	818.10	819.04	816.61	817.70	811.80	815.35	816.43
MW-108	845.25		819.00	817.85	818.17	818.31			818.48	817.49			818.32	818.62	>27.7	815.44	815.45	NT
P-108	845.61		822.03	821.09	821.29	821.52	820.55	818.77	820.25	821.18	820.25	820.45	820.97	822.08	820.66	811.84	815.19	NT
MW-111	856.46			817.58	817.93	818.10	817.29	816.29	817.33	818.30	817.28	817.32	818.15	818.74	817.51	813.43	813.59	NT
P-111	856.13			817.09	817.43	817.60	816.78	815.75	816.85	817.83	816.79	816.83	817.68	818.26	817.04	812.54	812.90	NT
P-111D	855.79	(Installed April 2002)																
MW-112	874.55				819.46	819.92	819.02		819.15	820.02	819.20	819.21	819.87	820.52	822.87	814.38	814.47	NT
P-113A	833.09	(Installed September 2002)																
P-113B	833.10	(Installed September 2002)																
P-114	839.35	(Private well converted to monitoring well in 2003)																
P-115	842.71	(Private well converted to monitoring well in 2004)																
P-116	845.34	(Private well converted to monitoring well in 2004)																
MW-3A	850.77	(Water levels taken beginning February 2002)																
MW-3B	851.04	(Water levels taken beginning February 2002)																
LC1	876.15				849.02	847.87	846.99	846.82	846.56		846.27		846.30	Dry	Dry	DRY	DRY	NT
LC2	866.05				847.25	842.91	841.20	840.61	838.31	839.29	839.17	839.28	839.03	838.92	838.97	838.83	838.98	NT
LC3	877.34					845.69					845.82		845.80	Dry	Dry	DRY	DRY	NT

Notes: Blank cells indicate that the water level was below top of pump; unable to measure.  
Measurements are in Feet Above Mean Sea Level (msl)  
">" indicates depth to top of pump (water level was beneath pump)  
NT - Not taken, only measured deep wells  
NM - Well not measured

**Table 1 - Groundwater Elevations  
FF/NN Landfill  
Ripon, WI**

Well Name	TOC Elevation	Dec-02	Apr-03	Oct-03	Feb-04	Apr-04	Jul-04	Oct-04	Jan-05	Apr-05	Jul-05	Oct-05	Jan-06	Mar-06	Apr-06	Jul-06	Oct-06	Jan-07
MW-101	884.80	DRY	DRY	821.24	NM	822.87	825.76	823.36	822.85	823.27	821.11	DRY	820.81	NM	821.41	821.29	820.71	821.43
P-101	885.26	818.91	820.46	821.16	NM	822.86	825.76	823.35	822.84	823.26	821.07	820.23	820.75	NM	821.37	821.22	820.69	821.34
MW-102	843.05	DRY	820.95	821.57	NM	823.34	826.08	823.71	823.34	823.66	821.70	820.65	821.33	NM	821.91	821.75	821.15	821.73
P-102	842.99	819.47	821.08	821.66	NM	823.42	826.17	823.79	823.38	823.75	821.48	820.72	821.41	NM	822.06	821.80	821.25	821.82
MW-103	872.42	DRY	DRY	819.61	NM	821.06	824.54	822.24	820.52	821.60	819.70	819.25	819.24	NM	819.36	819.82	818.82	819.47
P-103	872.92	819.01	820.52	821.12	NM	822.77	825.58	823.23	822.78	823.14	821.09	820.26	820.92	NM	821.42	821.33	820.70	821.39
P-103D	873.08				820.64	821.89	824.39	822.21	821.89	822.08	820.26	819.23	820.24	NM	820.54	820.43	819.88	820.52
MW-104	875.15	DRY	820.37	820.85	NM	822.75	825.49	823.27	822.75	823.16	821.09	820.34	820.65	NM	821.35	821.16	820.61	821.11
P-104	875.48	819.05	820.50	821.43	NM	822.82	825.61	823.36	822.82	823.21	821.20	820.40	820.79	NM	821.45	821.33	820.76	821.29
MW-106	878.90	DRY	DRY	821.58	NM	823.25	826.07	823.60	823.20	823.61	821.42	DRY	821.24	NM	821.85	821.77	821.10	821.78
P-106	878.91	819.18	820.80	821.49	NM	823.17	825.99	823.50	823.10	823.54	821.31	820.50	821.16	NM	821.72	821.67	820.99	821.62
MW-107	871.78	DRY	817.73	818.35	NM	819.63	823.41	821.20	819.89	820.18	818.69	817.85	817.81	NM	818.03	DRY	817.90	818.29
P-107	871.38	816.65	817.74	818.39	NM	819.71	823.34	821.20	820.91	820.20	818.72	817.84	817.80	NM	818.19	818.59	817.89	818.23
P-107D	871.98	816.68	817.26	816.72	NM	818.68	819.78	817.72	817.65	818.77	815.90	814.85	816.33	816.45	816.89	816.83	816.24	817.05
MW-108	845.25	815.79	816.20	816.68	NM	817.86	820.27	819.00	818.17	818.41	816.95	816.27	816.31	NM	816.70	816.88	816.39	816.64
P-108	845.61	817.83	818.57	819.26	NM	820.52	823.39	821.94	820.84	821.05	819.76	819.13	819.04	NM	819.40	819.65	819.41	819.40
MW-111	856.46	815.42	816.14	816.71	NM	818.03	821.40	819.60	817.39	818.69	817.32	816.51	816.31	NM	816.74	817.14	816.58	816.72
P-111	856.13	814.90	815.68	816.27	NM	817.59	821.01	819.16	816.92	818.19	816.82	816.03	815.84	NM	816.24	816.74	816.09	816.23
P-111D	855.79	816.22	818.17	817.95	NM	819.55	821.82	819.77	819.55	819.55	818.11	817.37	818.40	NM	818.62	818.54	818.26	818.48
MW-112	874.55	816.75	817.87	818.54	NM	819.89	823.17	821.14	820.15	820.50	818.82	818.14	818.31	NM	818.66	818.88	818.20	818.52
P-113A	833.09	816.39	816.93	816.20	NM	817.91	818.17	817.32	817.28	818.35	815.50	814.36	816.40	816.04	816.39	816.54	815.81	817.29
P-113B	833.10	816.93	817.25	816.58	816.61	818.30	820.16	818.25	818.13	818.36	816.74	815.47	816.90	NM	817.01	817.57	816.81	816.70
P-114	839.35		817.17	816.93	NM	818.55	820.44	818.71	818.50	818.76	817.02	816.34	817.28	NM	817.38	817.36	816.86	817.36
P-115	842.71				NM	818.61	820.51	818.71	818.55	818.62	817.05	816.05	817.44	NM	817.56	817.50	817.12	817.62
P-116	845.34				NM	817.54	819.31	817.80	817.47	817.74	816.45	815.48	816.02	NM	816.48	816.34	816.00	816.38
MW-3A	850.77	815.99	816.63	815.67	NM	818.03	819.73	817.00	817.15	816.84	816.05	814.87	817.98	815.81	816.29	817.51	816.34	817.49
MW-3B	851.04	817.54	818.31	817.92	NM	819.79	822.01	819.66	819.60	819.45	818.44	817.28	819.15	NM	818.86	819.18	818.27	818.88
LC1	876.15	DRY	DRY	NM	NM	846.45	NM	DRY	DRY	846.39	DRY	NM	NM	NM	843.40	847.60	847.66	NM
LC2	866.05	838.75	839.17	NM	NM	839.27	NM	838.89	DRY	839.05	838.89	838.91	839.01	NM	839.47	839.52	838.45	NM
LC3	877.34	DRY	DRY	NM	NM	DRY	NM	DRY	DRY	DRY	DRY	NM	NM	NM	845.89	845.87	844.68	NM

Notes: Blank cells indicate that the water level was below top of pump; unable to measure.  
 Measurements are in Feet Above Mean Sea Level (msl)  
 ">" indicates depth to top of pump (water level was beneath pump)  
 NT - Not taken, only measured deep wells  
 NM - Well not measured

**Table 1 - Groundwater Elevations  
FF/NN Landfill  
Ripon, WI**

Well Name	TOC Elevation	May-07	Aug-07	Oct-07	Jan-08	May-08	Jul-08	Sep-08	Oct-08	Jan-09	Apr-09	Jul-09	Oct-09	Feb-10	May-10	Sep-10	Jan-11	Mar-11
MW-101	884.80	822.37	822.22	822.74	822.47	824.5	825.1	822.61	822.63	822.93	824.08	823.61	822.68	822.2	823.43	823.29	822.19	NM
P-101	885.26	822.32	822.18	822.68	822.43	824.49	825.07	822.56	822.59	822.91	824.05	823.6	822.63	822.17	823.37	823.25	822.14	NM
MW-102	843.05	822.85	822.55	822.95	822.95	824.9	825.36	822.77	822.83	823.4	824.49	823.85	822.99	822.65	823.77	823.66	822.66	NM
P-102	842.99	822.90	822.63	823.01	823.03	824.95	825.34	822.74	822.81	823.5	824.57	824.11	823.05	822.76	823.8	823.71	822.74	NM
MW-103	872.42	820.39	820.45	820.78	820.46	822.13	823.95	822.05	821.92	821.19	821.99	821.72	820.83	820.27	821.25	821.32	820.29	NM
P-103	872.92	822.31	822.17	822.63	822.86	824.39	825.02	822.57	822.66	822.97	824.06	823.59	822.62	822.24	823.34	823.19	822.26	NM
P-103D	873.08	821.56	821.495	822.015	821.935	823.885	824.425	822.145	822.265	822.475	823.545	822.905	822.055	821.705	822.575	822.35	821.81	821.96
MW-104	875.15	822.17	822.06	822.56	822.25	824.26	824.9	822.54	822.55	822.82	823.92	823.47	822.53	822.06	823.25	823.12	822.1	NM
P-104	875.48	822.29	822.27	822.75	822.44	824.45	825.12	822.78	822.74	822.98	824.06	823.64	822.68	822.22	823.41	823.3	822.26	NM
MW-106	878.90	822.78	822.51	822.76	822.84	824.77	824.98	822.7	822.75	823.31	824.41	823.94	822.96	822.61	823.72	823.6	822.57	NM
P-106	878.91	822.71	822.44	822.7	822.75	824.7	825.25	822.63	822.64	823.25	824.37	823.9	822.85	822.54	823.64	823.52	822.52	NM
MW-107	871.78	818.87	818.97	819.12	818.88	820.34	823.81	821.16	821.04	819.71	820.34	820.25	819.37	818.81	819.59	819.85	818.83	NM
P-107	871.38	818.88	819.01	819.08	818.91	820.27	823.72	821.1	821.09	819.4	820.34	820.26	819.34	818.48	819.62	819.82	818.98	NM
P-107D	871.98	818.27	818.79	819.93	820.32	822.9	823.25	820.9	820.87	820.81	822.24	820.61	819.98	819.88	819.68	818.85	820.47	819.05
MW-108	845.25	817.39	817.96	817.99	817.5	819.15	820.42	819.28	819.23	818.16	818.87	818.58	817.93	817.28	818.27	818.39	817.44	NM
P-108	845.61	820.14	821.45	821.33	820.44	822.15	823.57	822.14	822.05	820.87	821.67	821.73	821.06	820.08	821.53	821.66	820.25	NM
MW-111	856.46	817.40	817.44	817.51	NT	818.85	821.08	819.77	819.75	818.21	818.88	818.71	817.87	817.29	818.07	818.3	817.39	NM
P-111	856.13	816.92	816.95	817.01	816.85	818.4	820.72	819.35	819.23	817.77	818.41	818.3	817.43	816.86	817.61	817.88	816.96	NM
P-111D	855.79	819.84	819.44	819.92	820.14	822.09	822.61	820.74	820.79	820.65	821.71	820.85	820.15	819.91	820.41	820.16	817.15	820.05
MW-112	874.55	819.24	819.39	819.73	819.41	820.97	822.76	821.08	820.99	820.08	820.83	820.62	819.76	819.24	820.13	820.24	819.33	NM
P-113A	833.09	817.78	818.13	819.42	819.91	822.4	822.8	820.45	820.53	820.34	821.81	820.1	819.4	819.57	819.09	818.24	820.05	818.53
P-113B	833.10	818.11	818.26	819.09	819.35	821.36	821.79	820.09	820.1	819.84	820.96	819.81	819.24	819.15	819.27	818.88	819.45	818.97
P-114	839.35	818.48	818.14	818.61	819	820.91	821.45	819.79	819.83	819.5	820.51	819.6	818.99	818.75	819.12	819	819.09	818.85
P-115	842.71	818.72	818.375	818.815	819.185	821.095	821.635	819.965	819.975	819.655	820.725	819.805	819.145	818.935	819.205	819.13	819.265	819.005
P-116	845.34	817.47	816.905	817.475	817.755	819.425	820.385	816.805	818.705	818.375	819.155	818.465	817.755	817.565	818.055	817.85	817.895	817.755
MW-3A	850.77	817.68	819.68	820.7	821.15	823.53	823.87	821.57	821.62	821.62	822.96	821.46	820.87	820.85	819.92	818.91	821.26	819
MW-3B	851.04	819.62	820.24	820.88	821.08	823.09	823.53	821.48	821.5	821.51	822.66	821.74	821.06	820.84	821	820.59	821.04	820.35
LC1	876.15	846.41	NM	NM	NM	845.89	NM	NM	NM	NM	NM	NM	NM	NM	843.73	NM	NM	NM
LC2	866.05	838.63	NM	NM	NM	837.81	NM	NM	NM	NM	NM	NM	NM	NM	838.96	NM	NM	NM
LC3	877.34	846.12	NM	NM	NM	845.28	NM	NM	NM	NM	NM	NM	NM	NM	845.67	NM	NM	NM

Notes: Blank cells indicate that the water level was below top of pump; unable to measure.  
Measurements are in Feet Above Mean Sea Level (msl)  
">" indicates depth to top of pump (water level was beneath pump)  
NT - Not taken, only measured deep wells  
NM - Well not measured

**Table 1 - Groundwater Elevations  
FF/NN Landfill  
Ripon, WI**

Well Name	TOC Elevation	Apr-11	Jul-11	Oct-11	Jan-12	Apr-12	Jul-12	Oct-12	Jan-13	Apr-13	Jul-13	Oct-13	Jan-14	Apr-14	Jul-14	Oct-14	Jan-15
MW-101	884.80	823.66	824.41	822.45	822.93	823.33	823.56	821.86	821.99	823.89	NM	NM	NM	822.32	NM	NM	NM
P-101	885.26	823.6	824.38	822.37	822.87	823.29	823.5	821.82	821.92	823.88	NM	NM	NM	822.29	NM	NM	NM
MW-102	843.05	824.1	824.73	822.67	823.36	823.8	823.89	822.3	822.43	824.38	NM	NM	NM	823.12	NM	NM	NM
P-102	842.99	824.16	824.79	822.67	823.44	823.86	823.96	822.41	822.52	824.45	NM	NM	NM	823.02	NM	NM	NM
MW-103	872.42	821.34	822.45	821.14	820.97	821.24	821.9	820.21	820.09	821.5	NM	819.91	NM	820.12	NM	820.68	NM
P-103	872.92	823.6	824.28	822.34	822.91	823.32	823.48	821.9	822.02	823.88	NM	821.35	NM	822.42	NM	822.55	NM
P-103D	873.08	822.88	823.26	821.64	822.04	822.47	822.43	821.085	821.275	823.135	823.24	820.63	820.85	821.69	822.45	821.73	821.75
MW-104	875.15	823.47	824.19	822.32	822.82	823.22	823.4	821.79	821.87	823.76	NM	NM	NM	822.26	NM	NM	NM
P-104	875.48	823.62	824.37	822.53	822.93	823.22	823.57	821.96	822.02	823.87	NM	NM	NM	822.32	NM	NM	NM
MW-106	878.90	824.02	824.68	822.58	823.33	823.73	823.87	822.27	822.43	824.3	NM	NM	NM	822.84	NM	NM	NM
P-106	878.91	823.94	824.6	822.48	823.24	823.64	825.8	822.18	822.33	824.21	NM	NM	NM	822.75	NM	NM	NM
MW-107	871.78	819.76	821.04	820.04	819.96	819.77	820.68	818.98	818.73	819.87	NM	NM	NM	818.78	NM	NM	NM
P-107	871.38	819.73	821.02	820.02	819.15	819.76	820.7	819	818.71	819.88	NM	NM	NM	818.82	NM	NM	NM
P-107D	871.98	820.29	819.73	818.74	819.38	819.42	818.1	817.78	818.02	820.41	820.56	817.57	817.80	818.53	819.74	818.19	818.35
MW-108	845.25	818.51	819.21	818.48	818.11	818.28	818.74	817.63	817.27	818.74	NM	NM	NM	817.64	NM	NM	NM
P-108	845.61	821.32	822.51	821.45	820.86	821.01	822.09	820.82	820.02	821.52	NM	NM	NM	820.12	NM	NM	NM
MW-111	856.46	818.37	819.45	818.64	818.12	818.32	819.09	817.61	817.25	818.52	NM	NM	NM	817.49	NM	NM	NM
P-111	856.13	817.89	819.01	818.18	817.68	817.87	818.67	817.16	816.81	818.07	NM	NM	NM	817.05	NM	NM	NM
P-111D	855.79	820.83	820.9	819.92	820.33	820.28	820	819.01	819.29	821.07	820.97	818.61	818.85	819.88	820.41	819.68	819.51
MW-112	874.55	820.23	821.36	820.2	819.91	820.15	820.8	819.27	819.15	820.39	NM	819.07	NM	819.18	NM	819.69	NM
P-113A	833.09	819.67	818.78	818.34	818.72	818.51	817.23	817.23	817.5	819.83	819.92	816.76	817.32	817.95	819.09	817.68	817.81
P-113B	833.10	819.64	819.34	819.04	818.87	818.71	818.39	817.96	817.92	820.89	820.02	817.31	817.97	818.87	819.41	818.28	818.17
P-114	839.35	819.75	819.67	819	819.16	819.06	818.46	818.03	818.27	819.94	820.05	816.57	817.93	818.83	819.51	818.46	818.53
P-115	842.71	819.855	819.745	819.145	819.265	819.075	818.805	818.105	818.335	820.025	820.205	817.635	817.89	818.96	819.63	818.57	818.52
P-116	845.34	818.845	818.605	817.985	818.125	818.125	817.575	817.115	817.395	818.855	818.825	816.755	816.92	817.77	818.54	817.54	817.55
MW-3A	850.77	819.85	819.18	819.74	819.6	818.41	818.23	817.6	817.98	820.07	820.25	816.62	817.81	819.50	819.11	818.12	818.04
MW-3B	851.04	821.18	821.1	820.65	820.78	820.27	820.35	819.28	819.48	821.49	821.48	818.59	819.24	820.69	820.61	819.89	819.79
LC1	876.15	843.14	NM	NM	NM	843.21	NM	NM	NM	843.36	NM	NM	NM	843.71	NM	NM	NM
LC2	866.05	838.4	NM	NM	NM	837.87	NM	NM	NM	838.51	NM	NM	NM	840.02	NM	NM	NM
LC3	877.34	845.22	NM	NM	NM	845.63	NM	NM	NM	845.52	NM	NM	NM	846.29	NM	NM	NM

Notes: Blank cells indicate that the water level was below top of pump; unable to measure.  
Measurements are in Feet Above Mean Sea Level (msl)  
">" indicates depth to top of pump (water level was beneath pump)  
NT - Not taken, only measured deep wells  
NM - Well not measured

**Table 1 - Groundwater Elevations  
FF/NN Landfill  
Ripon, WI**

Well Name	TOC Elevation	Apr-15	Jul-15	Oct-15
MW-101	884.80	822.43	NM	NM
P-101	885.26	822.36	NM	NM
MW-102	843.05	822.91	NM	NM
P-102	842.99	822.99	NM	NM
MW-103	872.42	820.27	NM	819.48
P-103	872.92	822.42	NM	820.15
P-103D	873.08	821.55	821.04	821.14
MW-104	875.15	822.36	NM	NM
P-104	875.48	822.40	NM	NM
MW-106	878.90	822.91	NM	NM
P-106	878.91	822.82	NM	NM
MW-107	871.78	818.87	NM	NM
P-107	871.38	818.84	NM	NM
P-107D	871.98	818.08	818.12	817.46
MW-108	845.25	817.39	NM	NM
P-108	845.61	820.07	NM	NM
MW-111	856.46	817.39	NM	NM
P-111	856.13	816.95	NM	NM
P-111D	855.79	819.50	819.21	818.51
MW-112	874.55	819.30	NM	818.77
P-113A	833.09	817.59	817.48	817.02
P-113B	833.10	818.42	818.35	817.73
P-114	839.35	818.46	818.41	817.73
P-115	842.71	818.60	815.48	817.84
P-116	845.34	817.41	817.46	816.67
MW-3A	850.77	818.48	817.86	817.63
MW-3B	851.04	819.95	819.50	818.96
LC1	876.15	843.72	NM	NM
LC2	866.05	839.41	NM	NM
LC3	877.34	845.62	NM	NM

Notes: Blank cells indicate that the water level was below top of pump: unable to measure.  
 Measurements are in Feet Above Mean Sea Level (msl)  
 ">" indicates depth to top of pump (water level was beneath pump)  
 NT - Not taken, only measured deep wells  
 NM - Well not measured







































Table 2. Groundwater VOC Analytical Results for Monitoring Wells  
FF/NN Landfill, Ripon, WI

Sampling Point	Collection Date	Parameters																											
		Acetone <sup>1</sup>	Benzene	Bromomethane	2-Butanone (MEK)	Chlorobenzene	Chloroethane	Chloroform	Chloromethane	1,4-dichlorobenzene	Dichlorodifluoromethane	1,1-Dichloroethane	1,2-dichloroethane	1,1-Dichloroethene	cis-1,2-dichloroethene	trans-1,2-Dichloroethene	1,2-dichloropropane	Ethylbenzene	Methylene chloride	MIBE	Tetrachloroethene	Tetrahydrofuran	Toluene	Trichloroethene	Trichlorofluoromethane	Vinyl Chloride	Total X)/lanes		
WDNR NR140	PAL	200	0.5	1	90	NE	80	0.6	0.3	15	200	85	0.5	0.7	7	20	0.5	140	0.5	12	0.5	10	200	0.5	NE	0.02	1000		
	ES	1000	5	10	460	NE	400	6	3	75	1000	850	5	7	70	100	5	700	5	60	5	50	1000	5	NE	0.2	10000		
P-116 (former Hadel well)	10/9/2001	NR																											
	11/19/2001	NR																											
	2/5/2002	NR																											
	5/22/2002	NR																											
	8/19/2002	NR																											
	08/19/02 Dup	NR																											
	12/3/2002	NR																											
	12/03/02 Dup	NR																											
	4/22/2003																												
	7/30/2003																												
	10/22/2003																												
	2/4/2004																												
	5/11/2004																												
	7/22/2004																												
	10/14/2004																												
	1/27/2005																												
	4/26/2005																												
	8/2/2005																												
	10/26/2005																												
	1/31/2006																												
	01/31/06 Dup																												
	4/24/2006																												
	7/27/2006													0.35 J															
	10/31/2006																												
	2/1/2007																												
	5/1/2007																												
	8/8/2007																												
	10/23/2007																												
	5/6/2008																												
	10/2/2008																												
	4/6/2009																												
	10/29/2009																												
	2/26/2010																					1.1							
	5/25/2010																												
	10/6/2010																					0.44 J							
	1/25/2011																												
	4/13/2011																												
	7/12/2011																					0.46 J							
	10/19/2011																												
	1/23/2012																												
	4/4/2012																												
	7/25/2012																												
	10/17/2012																												
	1/15/2013																												
4/26/2013																													
7/2/2013																													
10/24/2013																													
1/9/2014																													
4/17/2014																													
7/17/2014																													
10/24/2014																													
1/15/2015		4.2 J																											
4/28/2015																													
7/1/2015																													
10/27/2015																													

Results in µg/L

B = analyte found in method blank as well as sample

E = exceeds calibration range

J = estimated value between LOD and LOQ

L = Lab Artifact

& = Laboratory control spike recovery not within control limits

NE = None Established

NA = Not Analyzed; no sample collected for analysis

NR = Value not reported by lab or not recorded during initial evaluation by GeoTrans

PAL = Preventive Action Limit

ES = Enforcement Standard

Underline indicates exceeds NR 140 PAL

Bolding indicates exceeds NR 140 ES

Blank = Sample Collected but No VOCs detected

Historical data for abandoned wells MW-105, P-105, P-109 and MW-110 can be found in reports prior to October 2004

\* Not sampled due to insufficient water for sample collection

<sup>1</sup> The reporting of acetone on an 8260B VOC scan varies with labs. Enchem, which began analyzing samples in April 2003, does report acetone. Acetone has appeared in several wells beginning in October 2003.

<sup>2</sup> MW-103 had low concentrations of isopropyl ether detected in October 1997 and February 2002. Acetone at 27 ppb was detected in April 2004. Carbon disulfide at 2.2J ppb was detected in January 2007

<sup>3</sup> this sample had detections of bromodichloromethane at 0.59 ppb and dibromochloromethane at 0.35 ppb.

<sup>4</sup> this sample in P-116 had 0.18 ppb of 1,1,1-trichloroethane



Table 3. Groundwater Natural Attenuation Parameters  
 FF/N Landfill, Rinon, WI

Well ID	Compound	Nitrate	Nitrite	Iron 2	Sulfate	Sulfide	Methane	ORP**	Dissolved Oxygen	Specific Conductivity	pH	Temperature
		NO <sub>3</sub> <sup>-</sup>	NO <sub>2</sub> <sup>-</sup>	Fe <sup>2+</sup>	SO <sub>4</sub> <sup>2-</sup>	S <sup>2-</sup>	CH <sub>4</sub>					
		0.2 to 1.5*	0.08 to 0.8*	0.1 to 2.5*	8 to 100*	0.2 to 3*						
	Detection Range	>	<	<1	>20	<1	<0.5	>-50	>-0.5			
	Target	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mV	mg/l	uS/cm	Units	°C
MW-101	2/1/2007									558	6.59	7.4
	5/1/2007									1021	6.92	13.1
	5/6/2008									782	7.18	12.4
	4/8/2009									940	6.75	12.5
	10/29/2009	<-0.20	0.39	>2.5	>100	<-0.2	0.015	-98	3.17	914	6.85	11.8
	5/25/2010	<-0.20	0.08	>2.5	>100	<-0.2	0.0192	-73	1.65	961	6.55	25.3
	10/4/2010	0.08			>100		0.0136	-63	2.13	1265	6.95	15.8
	1/26/2011			>2.5				-14	2.51	938	7.39	6.2
	4/11/2011									1020	7.48	14.1
	4/3/2012									960	7.10	13.0
	2/1/2007									2670	6.95	5.7
	5/2/2007									1180	6.64	10.8
	10/18/2007									1609	6.74	13.0
	5/5/2008									1420	7.06	12.2
10/2/2008									1411	6.69	11.3	
4/7/2009									1433	7.17	10.3	
10/28/2009	<-0.20	>0.80	0.42	>100	<-0.2	0.00042	24	4.21	1780	6.79	10.7	
2/25/2010	>-1.5	<-0.08	<-0.1	>100	<-0.2	<-0.0028	55	4.1	2	6.96	8.6	
5/24/2010	>-1.5	<-0.08	0.11	>100	<-0.2	<-0.0028	86	2.84	2110	6.49	17.7	
10/4/2010	>-1.5			>100		0.0235	46	3.33	1920	7.22	12.9	
1/26/2011			0.09				62	4.52	1700	7.22	5.5	
4/11/2011			0.07				136	5.02	1217	6.79	13.8	
7/11/2011			0.13				33	3.54	1660	7.14	18.7	
10/19/2011			<-0.1				171	4.01	1580	6.88	8.7	
1/24/2012			<-0.1				144	3.28	1930	6.98	6.1	
4/3/2012			<-0.1				98	3.25	2130	6.88	12.4	
7/25/2012			0.323				58	2.56	1950	6.71	21.4	
10/17/2012			<-0.1				59	6.02	1690	6.96	12.7	
1/16/2013			<-0.1				36	3.67	1730	7.00	6.6	
4/24/2013			0.394				41	3.29	1454	7.05	11.3	
10/24/2013			0.207				33	5.26	1356	7.10	7.9	
4/16/2014			0.177				85	4.35	1210	7.30	8.3	
10/23/2014			0.25				65	5.3	1387	7.28	10.1	
4/28/2015			0.274				47	4.16	1425	7.41	11.7	
10/19/2011									1312	6.78	9.9	
4/3/2012									1134	6.90	12.3	
10/17/2012									1517	6.71	12.7	
4/24/2013									1396	6.87	12.2	
4/16/2014									1138	7.20	10.4	
4/15/2015									1205	6.92	14.2	
4/21/2003							0.13	185.70	21.27	1021	7.00	9.84
4/22/2003				30				74.10	5.70	1024	7.06	10.32
10/21/2003		3.3		32				79.30	5.80	1211	6.92	9.64
5/1/2007										570	6.93	10.5
10/17/2007										1297	7.09	13.1
5/5/2008										796	7.54	11.5
10/1/2008										1240	6.86	10.1
4/7/2009										1226	7.50	10.2
10/28/2009	>1.5	0.18	0.61	>100	<-0.2	<-0.000180	-1	5.78	956	7.13	11.6	
5/24/2010	>1.5	0.32	1.86	>100	0.71	<-0.0028	61	3.08	1087	6.89	20.7	
10/4/2010	>1.5		0.7	49.95		ND	76	6.38	1650	7.62	10.6	
1/26/2011			0.85				45	4.74	249	7.35	6.0	
4/11/2011									1100	8.12	11.2	
10/18/2011									1225	7.51	10.1	
4/3/2012									983	7.50	11.5	
10/17/2012									1076	7.10	13.0	
4/24/2013									1144	7.34	11.0	
4/16/2014									877	7.61	10.9	
4/15/2015									1078	7.33	12.4	
12/5/2002									866	7.15	7.84	
8/8/2007									920	7.45	11.4	
5/5/2008									732	7.45	11.9	
4/7/2009									867	7.22	10.8	
10/28/2009	>1.5	<-0.08	0.26	>100	<-0.2	0.00031	3	6.66	836	6.66	11.4	
5/24/2010	1.09	0.22	1.39	>100	0.44	<-0.0028	71	2.73	958	6.80	22.7	
10/4/2010	0.99		0.02	>100		ND	85	4.87	995	7.72	9.6	
1/26/2011			0.25				26	4.56	849	7.28	7.6	
4/11/2011									900	7.94	11.2	
4/3/2012									846	7.60	11.7	
7/11/2011			>2.5						951	7.34	16.5	
10/19/2011			>2.5						46	1.12	907	7.01
1/24/2012			>2.5						26	1.32	1060	7.16
4/3/2012			>2.5						77	1.19	1210	6.96
7/25/2012			>2.5						75	1.37	1071	6.89
10/17/2012			>2.5						-113	1.08	992	7.15
1/16/2013			>2.5						-72	1.80	1003	7.10
4/24/2013			>2.5						45	1.56	1052	7.11
10/24/2013			>2.5						42	1.92	982	7.43
4/16/2014			>2.5						-76	0.91	949	7.36
10/23/2014			>2.5						52	1.87	874	7.42
4/28/2015			2.296						61	1.33	1018	7.36
10/28/2015			>2.5						59	1.79	905	6.61
12/4/2002				50					-53.5	0.08	843	7.12
4/22/2003				51					-36.9	0.81	646	7.46
10/23/2003		<-0.058		49					-65.5	0.66	754	7.04
5/1/2007										828	7.57	11.7
3/6/2008										735	7.69	11.3
4/8/2009										749	7.24	11.4
10/29/2009	0.39	0.12	1.84	71.36	<-0.2	0.00059	-108	2.2	880	7.32	11.2	
5/25/2010	<-0.20	<-0.08	1.38	70.81	<-0.2	<-0.0028	-48	1.04	925	6.62	25.5	
10/4/2010	0.08			69.72		ND	-92	1.9	948	7.51	15.0	
1/26/2011			1.24						829	7.26	5.8	
4/11/2011									-31	2.65	840	7.96
4/3/2012										776	7.40	11.6

Table 3. Groundwater Natural Attenuation Parameters  
FF/N Landfill, Ripon, WI

Well ID	Compound	Nitrate	Nitrite	Iron 2	Sulfate	Sulfide	Methane	ORP**	Dissolved Oxygen	Specific Conductivity	pH	Temperature	
		NO <sub>3</sub> <sup>-</sup>	NO <sub>2</sub> <sup>-</sup>	Fe <sup>2+</sup>	SO <sub>4</sub> <sup>2-</sup>	S <sup>2-</sup>	CH <sub>4</sub>						
		0.2 to 1.5*	0.08 to 0.8*	0.1 to 2.5*	8 to 100*	0.2 to 3*							
	Detection Range	>	<	<1	>20	<1	<0.5	>-50	>-0.5				
	Target	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mV	mg/l	uS/cm	Units	°C	
P-103	12/4/2002				54		0.037	-60.50	1.17	956	7.00	9.40	
	4/21/2003				58			-20.90	0.71	388	7.28	10.50	
	10/22/2003	0.41			54			-147.10	0.82	874	7.17	10.06	
	2/1/2007							172	0.53	903	6.86	9.0	
	5/2/2007							206	0.92	896	6.78	9.9	
	8/14/2007							226	0.70	863	7.09	11.4	
	10/18/2007							300	0.51	863	6.35	11.0	
	5/5/2008							30	0.93	956	6.98	10.5	
	10/2/2008							323	1.37	888	6.70	10.8	
	4/7/2009							-95	1.09	813	7.40	9.8	
	10/28/2009	0.45	<0.08	<0.1	78.95	<0.2	0.052	-125	0.85	739	7.19	10.2	
	2/25/2010	>1.5	NM	NM	83.29	<0.2	0.0416	-120	1.62	845	7.25	9.0	
	5/24/2010	<0.20	<0.08	<2.5	89.8	<0.2	0.0489	-104	0.38	815	7.00	11.2	
	10/5/2010	0.08			85.02		0.0562	-128	1.15	874	7.86	10.9	
	1/25/2011				2.5			-69	0.64	776	7.60	9.3	
	4/12/2011				>2.5			-125	1.22	906	7.19	10.0	
	7/11/2011				>2.5			-123	0.83	743	7.92	11.5	
	10/18/2011				>2.5			-76	1.60	737	7.38	10.3	
	1/24/2012				>2.5			-47	0.65	878	7.27	9.0	
	4/4/2012				2.489			-96	0.93	985	7.26	10.2	
	7/25/2012				>2.5			-100	0.67	855	6.94	11.7	
	10/17/2012				>2.5			-101	1.00	808	6.83	10.5	
	1/16/2013				2.102			-123	0.51	824	7.15	9.3	
	4/26/2013				>2.5			-86	0.59	790	7.45	10.4	
	10/24/2013				>2.5			0	1.43	815	6.29	10.0	
	4/16/2014				>2.5			-78	1.71	767	7.56	9.5	
	10/23/2014				>2.5			40	0.96	687	7.16	10.2	
4/28/2015				>2.5			75	0.53	802	7.03	9.9		
10/27/2015				>2.5			33	1.37	731	7.61	10.2		
4/24/2013							-6	3.17	764	7.26	9.8		
4/16/2014							-74	1.40	730	7.67	9.5		
4/15/2015							63	0.57	770	7.25	10.0		
P-106	12/4/2002	NM	NM	NM	66		0.11	-28.00	0.86	791	7.22	9.40	
	4/21/2003				74			37.30	0.76	646	7.43	9.62	
	10/21/2003	<0.058						-70.40	0.92	716	7.18	9.73	
	5/1/2007							240	1.64	840	6.66	9.6	
	10/19/2007							330	1.80	863	6.42	10.7	
	5/5/2008							8	1.50	925	7.50	11.0	
	10/1/2008							350	2.63	923	6.66	10.2	
	4/7/2009							-95	1.75	852	7.34	9.0	
	10/28/2009	<0.20	<0.08	1.68	89.8	<0.2	0.31	-78	1.19	778	7.08	10.9	
	5/24/2010	<0.20	<0.08	1.76	99.39	<0.2	0.383	-70	1.12	869	6.92	13.2	
	10/5/2010	0.06			88.68		0.345	-117	1.84	930	7.86	10.8	
	1/24/2011				1.33			-28	1.82	838	6.73	7.8	
	4/12/2011							-68	1.39	966	7.16	10.1	
	10/18/2011							-49	1.50	796	7.34	10.4	
	4/4/2012							-82	1.64	1051	7.26	10.2	
	10/17/2012							-88	1.55	886	7.28	11.3	
	4/26/2013							-76	2.16	860	7.53	10.8	
	4/16/2014							-69	1.77	847	7.58	8.9	
	4/15/2015							72	1.31	900	7.26	11.0	
	P-107	12/5/2002				44			-88.30	-0.03	639	7.43	9.76
		4/22/2003				39			-74.20	0.67	486	7.71	12.06
		10/22/2003	<0.058			31			-94.00	0.75	566	7.53	9.87
		8/14/2007							118	0.35	580	7.46	11.1
		5/5/2008							65	0.35	614	7.72	10.5
		4/7/2009							-89	0.26	624	7.62	9.1
		10/28/2009	<0.20	<0.08	0.53	64.03	<0.2	0.0085	-140	0.48	616	7.57	10.1
		5/24/2010	<0.20	<0.08	0.61	70.99	<0.2	0.0051	-101	0.24	673	7.25	10.5
10/5/2010		0.06			69.06		0.0065	-131	0.28	715	8.26	10.3	
1/24/2011					0.45			-98	0.58	632	7.35	9.1	
4/13/2011								-53	1.46	683	6.99	9.7	
4/4/2012								-104	0.60	832	7.53	9.9	
12/5/2002					36			-87	-0.11	1248	6.57	9.84	
12/5/2002					36								
4/22/2003					46			-92	0.37	815	7.18	9.86	
10/22/2003		<0.058			43			-161	0.55	662	7.45	9.79	
1/31/2007								140	0.51	710	7.27	8.2	
5/1/2007								125	1.32	703	6.99	9.5	
8/8/2007								-233	0.43	605	7.49	10.3	
10/19/2007								170	0.29	598	6.63	9.8	
5/6/2008								21	1.40	672	7.89	9.7	
10/1/2008								334	1.35	646	6.90	9.7	
4/7/2009								-116	0.20	604	7.48	8.8	
10/28/2009		<0.20	<0.08	0.72	37.68	<0.2	0.098	-230	0.35	567	7.65	9.4	
5/24/2010		<0.20	<0.08	0.78	50.67	<0.2	0.0275	-176	0.17	650	7.27	10.2	
10/5/2010		0.05			43.23		0.0159	-161	0.80	697	8.24	9.9	
1/24/2011					0.66			-109	0.44	614	6.90	8.4	
4/13/2011				0.84			-207	0.52	694	7.65	9.5		
7/12/2011				0.68			-195	0.96	591	7.54	9.9		
10/19/2011				0.71			-171	2.18	604	7.89	9.5		
1/23/2012				0.79			-110	0.28	734	7.37	8.7		
4/4/2012				0.861			-151	1.39	811	7.57	9.3		
7/25/2012				0.681			-231	0.39	693	7.65	11.6		
10/16/2012				0.72			-157	0.42	675	7.36	10.0		
1/15/2013				0.874			-233	1.60	702	7.62	8.9		
4/26/2013				0.85			-158	2.59	681	7.90	9.6		
7/2/2013				0.804			-91	0.35	707	7.34	9.9		
10/24/2013				0.774			-18	0.59	684	7.60	9.4		
1/9/2014				0.911			-10	1.82	640	7.53	8.4		
4/17/2014				0.784			-142	1.01	679	7.91	9.2		
7/17/2014				0.811			-22	0.38	708	7.65	9.9		
10/23/2014				1.219			-189	0.29	622	8.00	9.4		
1/15/2015				0.874			-196	0.48	669	7.96	8.6		
4/28/2015				<0.1			-127	0.84	736	7.30	9.5		
7/1/2015				0.991			-144	0.42	694	7.66	9.6		
10/27/2015				0.997			-114	0.48	667	8.26	9.7		

Table 3. Groundwater Natural Attenuation Parameters  
FFSN Landfill, Bijou, WI

Well ID	Compound	Nitrate	Nitrite	Iron 2	Sulfate	Sulfide	Methane	ORP**	Dissolved Oxygen	Specific Conductivity	pH	Temperature
		NO <sub>3</sub> <sup>-</sup>	NO <sub>2</sub> <sup>-</sup>	Fe <sup>2+</sup>	SO <sub>4</sub> <sup>2-</sup>	S <sup>2-</sup>	CH <sub>4</sub>					
	Detection Range Target	0.2 to 1.5*	0.08 to 0.8*	0.1 to 2.5*	8 to 100*	0.2 to 3*	<0.5	>0	>0.5			
Units	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mV	mg/l	uS/cm	Units	°C
P-103D	5/2/2007							260	0.57	879	6.89	9.9
	10/18/2007							321	0.54	854	6.43	11.2
	5/5/2008							20	0.63	935	7.02	10.8
	10/2/2008							327	3.40	877	6.85	10.7
	4/7/2010							-110	0.45	808	7.61	10.0
	10/28/2009	<0.20	0.17	>2.5	76.38	<0.2	0.098	-146	0.52	746	7.30	10.2
	2/25/2010	<0.08	<2.5	78.05	<0.2	0.0747		-146	0.76	842	7.39	9.2
	5/24/2010	<0.20	<0.08	>2.5	88.88	<0.2	0.0303	-111	0.37	853	7.08	11.1
	10/5/2010	0.11			93.48		0.0659	-147	1.10	898	7.97	10.9
	1/25/2011			>2.5				-71	0.73	781	7.56	9.4
	4/12/2011			>2.5				-132	1.09	906	7.26	10.2
	7/11/2011			>2.5				-138	1.34	751	8.12	11.6
	10/18/2011			>2.5				-82	1.28	768	7.41	10.2
	1/24/2012			>2.5				-64	0.40	895	7.28	9.3
	4/4/2012			>2.5				-114	0.59	1004	7.36	10.2
	7/25/2012			>2.5				-109	0.78	846	6.75	11.4
	10/17/2012			>2.5				-115	1.74	835	7.13	10.4
	1/16/2013			1.715				-129	0.31	832	7.00	9.4
	4/26/2013			>2.5				-97	1.41	806	7.50	10.4
	7/2/2013			>2.5				6	0.57	839	6.56	10.7
	10/24/2013			>2.5				74	0.40	835	6.67	9.9
	1/9/2014			>2.5				62	2.03	754	6.91	8.9
	4/16/2014			>2.5				-103	0.74	784	7.69	9.8
	7/17/2014			0.754				97	0.82	822	6.61	10.8
	10/23/2014			>2.5				68	0.69	701	6.86	10.2
	1/15/2015			>2.5				-42	1.48	754	6.92	9.1
	4/28/2015			>2.5				-38	0.58	823	6.75	10.3
	7/1/2015			>2.5				-20	0.87	782	6.63	10.5
	10/27/2015			>2.5				44	0.39	758	6.48	10.3
	12/5/2002				62			-75.60	-0.02	910	7.32	9.75
4/23/2003				64			-20.50	0.94	706	7.63	9.98	
10/23/2003	<0.058			65			-68.30	0.70	838	7.17	9.78	
1/31/2007							74	0.72	885	7.30	8.9	
5/1/2007							78	3.37	900	7.05	10.0	
8/8/2007							55	0.55	900	7.25	10.9	
10/19/2007							296	0.53	897	6.90	10.7	
5/6/2008							15	0.56	980	7.56	10.6	
10/1/2008							330	2.31	907	7.07	10.0	
4/7/2009							-97	1.98	821	7.52	9.3	
10/28/2009	<0.20	<0.08	1.79	60.63	<0.2	0.33	-171	0.46	764	7.51	10.0	
2/25/2010	0.41	<0.08	1.62	65.7	<0.2	0.123	-125	0.86	871	7.45	6.0	
5/24/2010	<0.20	<0.08	1.83	70.59	0.25	0.31-0.239 Dup	-136	0.24	840	7.21	10.7	
10/5/2010	0.08		1.75	61.2		0.269-0.222 Dup	-148	0.75	886	8.13	10.3	
1/24/2011			1.72				-101	0.77	801	6.83	8.9	
4/13/2011			1.89				-126	0.42	873	7.19	9.9	
7/1/2011			1.87				-178	0.88	799	7.37	11.0	
10/18/2011			1.57				-95	2.43	752	7.71	10.0	
1/23/2012			1.87				-68	0.33	898	7.31	9.3	
4/4/2012			1.693				-128	0.72	1009	7.50	10.0	
7/25/2012			1.227				-171	0.65	850	7.49	11.5	
10/17/2012			1.324				-131	0.51	838	7.56	10.5	
1/16/2013			0.339				-177	1.93	870	7.45	9.4	
4/26/2013			1.486				-114	1.16	838	7.71	10.5	
7/2/2013			1.505				-53	1.38	870	7.27	10.5	
10/24/2013			1.302				31	0.53	853	7.46	9.8	
1/9/2014			1.451				88	2.90	790	6.54	9.0	
4/17/2014			1.495				-106	0.53	839	7.86	9.6	
7/17/2014			<0.1				62	0.37	879	7.51	10.6	
10/23/2014			1.419				-93	0.43	753	7.99	9.9	
1/15/2015			1.227				-179	0.49	814	7.81	9.2	
4/28/2015			0.231				3	0.27	886	7.94	10.0	
7/1/2015			1.157				-103	0.44	842	7.44	10.2	
10/27/2015			1.241				-49	1.37	817	7.72	10.2	
12/3/2002				47			27.20	0.39	960	6.80	10.18	
4/23/2003				56			-54.30	1.05	715	7.22	10.13	
10/22/2003	<0.058			49			-125.40	0.46	616	7.42	10.13	
1/31/2007							109	0.40	620	7.33	8.8	
5/1/2007							113	1.03	625	7.03	10.2	
8/14/2007							110	0.28	618	7.28	11.1	
10/22/2007							252	0.53	629	6.70	10.3	
5/6/2008							-16	0.33	716	7.31	10.3	
10/2/2008							328	2.47	674	7.12	10.6	
4/6/2009							-122	0.40	627	7.54	9.2	
10/29/2009	<0.20	<0.08	0.83	70.14	<0.2	0.057	-187	0.42	579	7.33	10.3	
5/25/2010	<0.20	<0.08	1.19	80.11	<0.2	<0.0028	-145	0.17	646	7.26	10.9	
10/6/2010	0.1		0.98	75.55		ND	-183	0.35	685	8.09	11.0	
1/25/2011			0.9				-86	0.94	619	7.50	9.8	
4/13/2011			1.11				-164	1.11	675	7.44	10.2	
7/12/2011			0.99				-164	0.47	588	7.43	10.5	
10/19/2011			0.94				-118	0.50	588	7.71	10.2	
1/23/2012			0.99				-75	0.29	703	7.57	9.3	
4/4/2012			1.034				-104	0.72	783	7.08	9.7	
7/25/2012			0.947				-167	0.67	668	7.56	11.5	
10/16/2012			0.998				-117	0.43	655	7.51	11.0	
1/15/2013			1.06				-106	0.71	674	7.40	9.2	
4/26/2013			0.938				-125	0.78	651	7.84	10.3	
7/2/2013			1.081				-80	1.01	679	7.41	10.7	
10/24/2013			0.879				-96	1.29	675	7.20	10.6	
1/9/2014			0.955				-25	1.93	614	7.50	9.4	
4/17/2014			<0.1				-94	0.99	642	7.85	9.4	
7/17/2014			<0.1				-18	0.32	675	7.78	10.7	
10/23/2014			0.668				-154	0.43	582	7.84	10.4	
1/15/2015			1.048				-213	0.90	630	7.70	9.7	
4/28/2015			<0.1				-123	1.34	685	7.30	10.1	
7/1/2015			1.058				-120	0.79	647	7.68	10.2	
10/27/2015			1.071				-98	0.27	633	7.35	10.5	

Table 3. Groundwater Natural Attenuation Parameters  
FF/NN Landfill, Ripon, WI

Well ID	Compound	Nitrate	Nitrite	Iron 2	Sulfate	Sulfide	Methane	ORP**	Dissolved Oxygen	Specific Conductivity	pH	Temperature	
		NO <sub>3</sub> <sup>-</sup>	NO <sub>2</sub> <sup>-</sup>	Fe <sup>2+</sup>	SO <sub>4</sub> <sup>2-</sup>	S <sup>2-</sup>	CH <sub>4</sub>						
Detection Range	0.2 to 1.5*	0.08 to 0.8*	0.1 to 2.5*	8 to 100*	0.2 to 3*								
Target	>	<	<1	>20	<1	<0.5	>50	<-0.5					
Units	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mV	mg/l	mg/l	uS/cm	Units	°C	
P-114 (Ehster)	12/3/2002				44				0.85	695	7.71	11.10	
	4/23/2003				63			-117.00	0.85	669	7.71	10.00	
	10/23/2003	<0.058			49			-125.10	0.54	1379	7.31	9.87	
	2/1/2007							151	0.21	674	7.27	9.9	
	5/1/2007							149	0.96	686	7.08	10.2	
	8/8/2007							202	0.34	667	7.45	11.0	
	10/22/2007							313	0.90	670	6.71	10.2	
	5/6/2008							14	0.74	775	7.23	10.2	
	10/2/2008							307	2.34	737	7.01	10.4	
	4/6/2009							-76	0.45	687	7.58	9.5	
	10/29/2009	0.22	<0.08	0.56	50.61	<0.2	0.28	-120	0.44	636	7.41	10.0	
	2/26/2010	0.61	0.11	0.54	49.43	<0.2	0.285	-148	0.35	707	7.62	9.2	
	5/26/2010	<0.20	0.15	0.6	57.47	<0.2	0.138-0.194 Dup	-129	0.66	703	7.27	10.4	
	10/6/2010	0.11		0.72	57.18		0.186-0.224 Dup	-182	0.86	766	8.28	10.6	
	1/25/2011			0.6				-58	0.42	679	7.60	9.3	
	4/13/2011			0.65				-147	0.42	744	7.49	9.9	
	7/12/2011			0.57				-134	1.95	646	7.48	10.5	
	10/19/2011			0.62				-123	1.49	652	7.82	10.0	
	1/23/2012			0.93				-78	0.35	785	7.60	9.1	
	4/4/2012			0.598				-116	0.66	873	7.63	9.8	
	7/25/2012			0.556				-200	0.40	748	7.63	11.0	
	10/17/2012			0.757				-131	0.76	733	7.55	10.5	
	1/16/2013			<0.1				-184	0.43	753	7.55	9.4	
	4/26/2013			0.96				3	1.56	731	7.61	9.7	
	7/2/2013			0.721				-88	0.34	766	7.47	10.5	
	10/24/2013			0.726				-89	0.37	772	7.29	9.9	
	1/9/2014			0.64				-21	1.18	694	7.58	9.2	
	4/17/2014			0.755				-120	0.63	730	7.95	9.7	
	7/17/2014			<0.1				-17	0.33	774	7.86	10.1	
	10/23/2014			1.027				-110	0.27	667	7.91	10.0	
	1/15/2015			0.747				-194	0.37	720	7.93	9.3	
	4/28/2015			<0.1				-38	0.23	775	8.20	9.7	
	7/1/2015			0.806				-113	0.41	744	7.67	10.2	
	10/27/2015			1.863				-119	0.30	731	7.57	10.1	
	P-115 (former Wiese well)	2/1/2007							128	0.29	590	7.35	9.6
		5/1/2007							112	0.85	589	7.12	10.5
		8/14/2007							216	0.43	582	7.44	10.7
		10/22/2007							313	0.54	579	6.74	10.6
		5/6/2008							-16	0.48	690	7.27	10.7
		10/2/2008							315	2.44	654	6.89	10.7
4/6/2009								-72	0.30	605	7.58	9.9	
10/29/2009		<0.20	<0.08	0.92	40.7	<0.2	0.044	-166	0.47	551	7.52	10.2	
2/26/2010		0.36	<0.08	1.48	43.65	<0.2	0.0579	-155	0.35	620	7.64	9.8	
5/26/2010		<0.20	<0.08	1.01	46.07	<0.2	0.049	-135	0.40	608	7.30	10.5	
10/6/2010		0.1		0.95	41.23		0.0562	-175	1.42	646	8.15	10.7	
1/25/2011				0.95				-78	0.42	572	7.68	9.8	
4/13/2011				1.05				-178	0.44	626	7.51	10.5	
7/12/2011				0.86				-143	1.74	546	7.47	10.6	
10/19/2011				0.82				-128	0.55	543	7.87	10.3	
1/23/2012				1.41				-78	0.34	647	7.53	9.6	
4/4/2012				0.804				-126	0.40	724	7.65	10.1	
7/25/2012				0.7				-223	0.39	619	7.72	11.3	
10/17/2012				0.797				-137	1.22	602	7.62	10.8	
1/16/2013				<0.1				-185	1.00	619	7.59	9.9	
4/26/2013				0.866				-30	1.20	597	7.75	10.2	
7/2/2013				0.911				-89	0.48	626	7.57	10.6	
10/24/2013				0.843				-80	0.51	631	7.48	10.2	
1/9/2014				<0.1				-15	1.69	567	7.71	9.7	
4/17/2014				<0.1				-127	0.92	594	7.99	9.8	
7/17/2014				<0.1				-22	0.33	626	7.93	10.7	
10/23/2014				0.879				-95	0.34	542	8.01	10.2	
1/15/2015				0.988				-176	0.30	589	7.99	9.7	
4/28/2015				0.139				-22	0.28	639	8.29	10.3	
7/1/2015				1.254				-121	0.37	608	7.83	10.6	
10/27/2015				2.015				-99	0.26	594	7.62	10.4	
P-116 (former Hadel well)		2/1/2007							171	0.38	528	7.34	8.8
		5/1/2007							142	0.59	528	7.09	10.5
		8/8/2007							202	0.42	523	7.53	12.1
		10/22/2007							301	0.59	522	6.75	10.8
		5/6/2008							38	0.71	603	7.18	12.3
		10/2/2008							295	2.70	559	7.04	11.2
		4/6/2009							-49	0.89	518	7.57	9.5
		10/29/2009	0.33	0.21	0.51	41.29	0.32	0.0031	-96	0.44	476	7.53	10.3
		2/26/2010	0.48	0.23	0.51	41.82	0.4	0.0042	-97	0.44	535	7.64	9.1
	5/25/2010	0.33	0.24	0.73	49.87	0.49	0.004	-75	0.33	530	7.30	12.2	
	10/6/2010	0.45		0.92	58.53		0.0051	-106	0.55	567	8.20	12.1	
	1/25/2011			0.45				37	0.56	506	7.76	9.0	
	4/13/2011			0.51				-109	0.58	556	7.49	10.7	
	7/12/2011			0.35				-91	1.42	485	7.50	11.9	
	10/19/2011			0.37				-77	0.89	482	7.92	10.4	
	1/23/2012			0.52				-21	0.38	576	7.64	8.8	
	4/4/2012			0.353				-56	0.33	646	7.68	10.3	
	7/25/2012			0.305				-150	0.31	546	7.64	12.7	
	10/17/2012			0.351				-87	0.52	535	7.52	11.5	
	1/15/2013			0.517				-187	0.95	549	7.65	9.1	
	4/26/2013			0.257				99	0.52	528	7.51	9.9	
	7/2/2013			0.336				-14	0.39	522	7.56	11.4	
	10/24/2013			0.65				-14	0.46	542	7.95	10.3	
	1/9/2014			<0.1				-9	1.19	495	7.88	8.9	
	4/17/2014			<0.1				-71	0.58	501	7.99	9.8	
	7/17/2014			<0.1				-26	0.35	547	7.86	12.0	
	10/23/2014			1.703				-166	0.40	470	7.96	10.4	
	1/15/2015			1.155				-226	0.48	512	7.98	9.0	
	4/28/2015			1.308				-18	0.27	560	8.29	10.3	
	7/1/2015			>2.5				-117	0.40	530	7.74	11.8	
	10/27/2015			>2.5				-74	0.35	513	7.52	11.0	

Table 3. Groundwater Natural Attenuation Parameters  
 FF/NN Landfill, Ripon, WI

Well ID	Compound	Nitrate	Nitrite	Iron 2	Sulfate	Sulfide	Methane	ORP**	Dissolved Oxygen	Specific Conductivity	pH	Temperature	
		NO <sub>3</sub> <sup>-</sup>	NO <sub>2</sub> <sup>-</sup>	Fe <sup>2+</sup>	SO <sub>4</sub> <sup>2-</sup>	S <sup>2-</sup>	CH <sub>4</sub>						
		0.2 to 1.5*	0.08 to 0.8*	0.1 to 2.5*	8 to 100*	0.2 to 3*							
Detection Range	>	<	<1	>20	<1	<0.5	-50	>0.5					
Target	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l		mV	mg/l	uS/cm	Units	°C	
MW-3A	12/5/2002				20			-312	0.03	589	7.30		
	4/22/2003				26			3	0.66	464	7.52	10.22	
	10/22/2003	<0.058			14			-98	0.87	552	7.29	10.06	
	1/31/2007							163	0.79	556	7.13	6.1	
	5/1/2007							34	1.96	558	6.95	10.2	
	8/8/2007							-144	0.74	549	7.32	12.4	
	10/19/2007							201	1.07	551	6.51	10.5	
	5/6/2008							13	0.33	630	7.55	9.8	
	10/1/2008							297	7.35	591	6.89	9.8	
	10/28/2009	-0.20	-0.08	0.51	14.67	-0.2	0.0073	-236	0.55	505	7.45	9.5	
	5/24/2010	-0.20	0.04	0.49	22.35	0.21	0.0074	-227	0.55	561	7.13	12.5	
	10/5/2010	0.05			15.33		0.0397	-204	1.51	600	8.20	11.3	
	1/24/2011			0.19				-77	0.74	535	7.30	7.2	
	4/13/2011			0.44				-240	1.14	589	7.42	10.8	
	7/12/2011			0.19				-213	1.86	512	7.15	11.3	
	10/19/2011			0.16				-175	1.25	511	7.76	9.7	
	1/23/2012			<0.1				-34	0.70	606	7.09	8.0	
	4/4/2012			0.217				-115	0.47	678	7.37	9.4	
	7/25/2012			0.101				-265	0.67	584	7.50	13.5	
	10/16/2012			<0.1				-175	1.33	564	7.01	10.7	
	1/15/2013			0.144				-267	2.03	579	7.49	7.8	
	4/26/2013			0.131				-171	1.38	560	7.77	10.2	
	7/2/2013			0.127				-126	1.27	582	7.26	10.9	
	10/24/2013			0.124				-140	1.27	582	7.07	9.3	
	1/9/2014			<0.1				10	0.81	524	7.46	7.5	
	4/17/2014			0.126				-114	1.80	551	7.73	9.2	
	7/17/2014			<0.1				-8	0.67	577	7.66	10.4	
	10/23/2014			0.938				-174	1.06	498	7.37	9.6	
	1/15/2015			0.188				-238	1.07	541	7.84	7.7	
	4/28/2015			<0.1				-30	0.46	586	8.15	9.8	
	7/1/2015			<0.1				-128	1.28	548	7.61	10.0	
	10/27/2015			0.166				-138	0.68	536	7.21	11.0	
	P-107D	12/4/2002				19					594	7.64	7.90
		4/21/2003				27					388	7.28	10.50
		10/21/2003	<0.058			19			51.40	1.25	528	7.34	10.05
5/1/2007								113	3.20	583	6.96	12.4	
10/19/2007								261	1.10	581	6.56	10.0	
5/5/2008								61	1.07	653	7.55	10.6	
10/1/2008								354	4.48	607	6.89	10.4	
4/7/2009								-101	2.01	569	7.53	9.1	
10/28/2009		-0.20	-0.08	<0.1	23.84	-0.2	0.073	-188	0.45	528	7.48	10.1	
2/25/2010		0.51	-0.08	<0.1	23.57	-0.2	0.0613	-191	0.74	605	7.50	8.5	
5/24/2010		-0.20	-0.08	0.19	31.82	-0.2	0.163	-147	3.12	618	7.15	11.2	
10/5/2010		0.06		0.03	21.24		0.0737	-132	0.93	619	8.09	10.6	
1/24/2011				0.3				-59	0.79	864	6.62	9.0	
4/12/2011				0.11				-222	0.64	649	7.33	9.9	
7/11/2011				0.12				-211	1.32	2	8.16	11.7	
10/18/2011				0.11				-107	2.61	535	7.69	10.1	
1/23/2012				0.27				-45	0.69	634	7.45	8.9	
4/4/2012				0.235				-105	0.73	740	7.49	9.9	
7/25/2012				<0.1				-207	1.71	627	7.42	12.6	
10/17/2012				0.104				-168	2.13	589	7.53	10.9	
1/16/2013				<0.1				-214	2.30	609	7.46	8.8	
4/26/2013				0.276				-146	2.18	585	7.84	10.3	
7/2/2013				0.123				-75	1.92	606	7.15	11.6	
10/24/2013				0.205				-60	2.51	610	6.89	9.8	
1/9/2014				<0.1				55	2.60	561	7.24	8.0	
4/16/2014				0.236				-68	1.33	603	7.76	9.4	
7/17/2014				<0.1				61	0.46	610	7.37	10.8	
10/23/2014				0.217				-127	0.98	536	8.23	9.9	
1/15/2015				<0.1				-207	0.81	571	7.84	9.0	
4/28/2015				<0.1				-116	1.84	639	7.23	10.2	
7/1/2015				0.132				-76	1.71	581	7.29	10.9	
10/27/2015				0.128				-23	0.84	565	8.03	10.5	
P-113A		12/3/2002				12			111.80	20.00	579	7.26	10.39
		4/23/2003				15			42.00	2.98	465	7.50	10.37
		10/22/2003	0.3			10			-62.60	2.23	576	7.30	10.17
	8/8/2007							-140	0.57	544	7.37	13.3	
	5/6/2008							-88	0.55	620	7.22	10.4	
	4/6/2009							-137	0.74	542	7.42	8.4	
	10/29/2009	0.35	0.16	>2.5	31.67	0.37	0.27	-240	0.87	498	7.41	10.7	
	5/25/2010	0.26	0.21	>2.5	44.79	0.39	0.169	-183	0.96	554	7.16	15.6	
	10/6/2010	0.43			44.48		0.239	-196	0.89	591	7.98	12.8	
	1/25/2011			1.09				-78	1.98	533	7.58	5.9	
	4/13/2011			0.68				-202	1.13	578	7.46	12.8	
	7/12/2011			1.44				-195	1.47	509	7.33	14.3	
	10/19/2011			0.94				-141	0.92	509	7.71	10.6	
	1/23/2012			0.77				-76	1.20	604	7.67	7.3	
	4/4/2012			1.219				-125	0.64	673	7.40	9.9	
	7/25/2012			0.893				-257	0.83	585	7.46	15.4	
	10/16/2012			0.196				-73	3.31	559	7.36	13.1	
	1/15/2013			0.473				-248	1.67	574	7.56	7.0	
	4/26/2013			0.814				-120	1.64	555	7.66	11.8	
	7/2/2013			0.516				-127	1.04	578	7.45	13.6	
	10/24/2013			0.654				-43	0.91	567	7.66	11.6	
	1/9/2014			0.582				0	1.72	521	7.49	6.4	
	4/14/2014			<0.1				-139	1.55	544	7.81	8.9	
	7/17/2014			0.831				-10	1.15	577	7.71	17.5	
	10/23/2014			0.707				-164	0.80	498	7.79	10.9	
	1/15/2015			1				-201	1.81	548	7.66	7.6	
	4/28/2015			0.204				-18	0.63	580	8.14	10.9	
	7/1/2015			1.795				-133	1.06	547	7.57	12.9	
	10/27/2015			0.583				-116	0.94	526	8.67	11.3	

Table 3. Groundwater Natural Attenuation Parameters  
 FF/NN Landfill, Ripon, WI

Well ID	Compound	Nitrate	Nitrite	Iron 2	Sulfate	Sulfide	Methane	ORP**	Dissolved Oxygen	Specific Conductivity	pH	Temperature
		NO <sub>3</sub> <sup>-</sup>	NO <sub>2</sub> <sup>-</sup>	Fe <sup>2+</sup>	SO <sub>4</sub> <sup>2-</sup>	S <sup>2-</sup>	CH <sub>4</sub>					
	Detection Range	0.2 to 1.5*	0.08 to 0.8*	0.1 to 2.5*	8 to 100*	0.2 to 3*						
	Target	>	<	<1	>20	<1	<0.5	>50	0.5			
	Units	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mV	mg/l	uS/cm	Units	°C
Perry/Watkins	10/29/2009	<0.20	<0.08	>2.5	15.18	-0.2	0.0098	-167	3.00	489	7.55	10.8
	2/26/2010	<0.20			16.34	0.42	0.0067	-159	1.57	549	7.70	8.6
	5/26/2010	<0.20	<0.08	1.7	24.6	-0.2	0.0082	-135	0.91	552	7.35	16.7
	10/6/2010	0.1			20.12		0.0081	-183	1.38	582	8.18	14.4
	1/28/2011								2.42		6.93	10.1
	4/18/2011									410	7.17	10.1
	4/3/2012									519	8.00	11.2
	4/26/2013									600	7.47	11.4
	4/15/2014									578	7.59	10.8
	4/15/2015									595	7.18	11.9
Gaanstru	10/29/2009	<0.20	<0.08	0.98	16.04	-0.2	0.01	-163	0.27	490	7.56	10.3
	2/26/2010	<0.20			19.35	-0.2	0.0086	-146	1.22	584	7.45	10.7
	5/26/2010	<0.20	<0.08	2.44	27.28	0.22	0.0121	-156	0.52	553	7.28	17.3
	10/6/2010	0.11			22.65		0.0103	-201	1.14	597	8.22	15.0
	1/26/2011			2.34				33	1.24	552	7.37	7.9
	4/14/2011									620	6.88	13.8
	4/3/2012									538	7.80	11.3
	4/26/2013									585	7.54	11.4
	4/15/2014									528	7.69	13
	7/17/2014									519	8.41	14.3
Rohde	11/4/2009	<0.20	<0.08	0.36	19.88	-0.2	0.0011	-76	0.99	500	7.25	10.0
	2/25/2010	<0.20			21.03	-0.2	-0.0028	0	2.61	606	7.61	9.4
	5/26/2010	<0.20	<0.08	0.25	25.64	-0.2	-0.0028	7	1.19	635	6.42	18.53
	10/6/2010	0.08			26.48		ND	-117	1.91	612	8.08	13.7
	1/26/2011			0				116	3.83	571	7.56	7.36
	4/13/2011									550	6.85	7.5
	4/3/2012									528	7.5	11.5
	4/26/2013									581	7.63	12.7
	4/15/2014									546	7.80	10.7
	4/15/2015									565	7.38	12.8

Indicates that sample was not analyzed for that parameter

mg/L: milligrams per liter

uS/cm: microsiemens per centimeter

ORP: Oxidation-Reduction Potential

\* detection range only applies to samples collected on or after 10/2009

\*\* ORP is believed to be incorrect from 2/2007 to 10/2008 due to equipment malfunction

Table 6a. Landfill Gas Field Parameter Monitoring Results of Active Extraction Points

Active Extraction Points	Time	Date	CH <sub>4</sub> (%) variable	CO <sub>2</sub> (%) variable	O <sub>2</sub> (%) <5	N (%) <40	Comments
							target percentages
							pre-startup
	11:31	3/20/2006	61.5	37.7	0.7	0.1	
	10:02	3/22/2006	43.6	26.3	6.4	23.7	
	15:32	3/22/2006	56.0	33.3	3.8	6.9	
	8:29	3/23/2006	50.1	29.5	4.3	16.1	
	16:35	3/23/2006	44.2	24.6	4.9	26.3	
	15:40	3/24/2006	18.8	11.8	15.9	53.5	
	14:25	3/28/2006	7.0	8.7	10.8	73.5	
	18:58	3/30/2006	15.8	21.0	6.9	56.3	
	13:50	4/5/2006	11.2	17.1	9.8	61.9	
	12:50	4/6/2006	6.2	9.0	13.9	70.9	
	13:10	4/11/2006	9.6	16.7	8.6	65.1	
	10:45	4/14/2006	11.2	17.9	7.2	63.7	
	15:26	4/14/2006	12.2	24.1	4.0	59.7	
	9:58	4/17/2006	16.7	30.2	5.3	47.8	
	19:12	4/27/2006	7.8	17.5	2.9	71.8	
	13:12	5/4/2006	6.1	18.7	2.0	73.2	
	10:17	5/22/2006	5.8	21.6	1.3	71.3	
	12:20	6/2/2006	18.0	22.7	0.6	58.7	
	8:20	6/9/2006	1.1	0.2	20.4	78.3	
	12:34	6/14/2006	3.9	0.6	20.2	75.3	
	10:41	6/22/2006	3.3	7.6	13.8	75.3	
	12:06	7/5/2006	3.7	12.5	10.1	73.7	
	11:31	7/10/2006	3.5	10.9	11.8	73.8	
	10:49	7/17/2006	3.9	10.7	11.8	73.6	
	14:00	7/28/2006	5.0	12.0	10.2	72.8	
	9:46	8/8/2006	2.7	9.5	12.9	74.9	
	7:20	8/16/2006	2.4	6.6	14.5	76.5	
	7:12	8/21/2006	0.1	0.2	15.1	84.6	
	14:07	8/28/2006	2.1	12.5	12.4	73.0	
	11:21	9/13/2006	0.6	0.6	13.3	85.5	
	11:19	9/25/2006	0.0	0.0	16.2	83.8	
	8:18	10/10/2006	2.7	8.4	14.8	74.1	
	8:19	10/23/2006	2.0	1.5	12.8	83.7	
	14:00	11/2/2006	3.8	21.6	1.7	72.9	
	14:54	11/14/2006	7.5	23.0	0.7	68.8	
	11:26	11/27/2006	5.5	23.0	0.4	71.1	
	12:57	12/26/2006	5.0	23.6	0.3	71.1	
	13:57	1/27/2007	9.5	22.8	0.3	67.4	
	11:20	2/24/2007	6.5	23.0	0.8	69.7	
	11:20	3/1/2007	17.5	23.2	1.8	57.5	
	12:28	3/1/2007	16.5	23.2	1.8	58.5	
	14:30	3/1/2007	15.5	22.8	1.6	60.1	
	8:10	3/5/2007		sampling port clogged with ice			adjust blower time, 12 on, 12 off
	8:10	3/24/2007	15.5	23.0	1.8	59.7	
	16:55	3/24/2007	14.0	22.2	2.2	61.6	
	17:10	3/26/2007	11.0	21.6	2.2	65.2	
	7:28	3/27/2007	10.0	22.4	1.7	65.9	
	16:27	3/28/2007	11.0	22.8	1.5	64.7	
	8:04	3/29/2007	11.5	23.0	1.5	64.0	
	17:00	3/29/2007	11.0	22.8	1.5	64.7	
	8:04	3/30/2007	13.0	24.0	1.0	62.0	blower off
	11:34	5/30/2007	43.0	28.0	2.0	27.0	restart and run 24 hrs
	13:35	5/30/2007	40.0	28.2	2.6	31.2	
	10:30	5/31/2007	0.1	0.0	20.7	79.2	reduce to 12 on 12 off
	16:32	6/1/2007	0.1	0.0	20.7	79.2	
	15:30	6/2/2007	20.0	22.8	1.7	55.5	
	16:09	6/3/2007	18.0	22.2	1.9	57.9	
	14:12	6/4/2007	16.5	21.8	2.2	59.5	reduce to 6 on 18 off
	15:10	6/7/2007	17.0	21.6	2.3	59.1	
	17:16	6/12/2007	10.5	21.0	2.1	66.4	
	14:49	6/14/2007	11.0	20.8	2.2	66.0	
	14:40	6/19/2007	10.5	21.0	2.2	66.3	
	14:40	6/21/2007	11.0	21.2	2.0	65.8	
	14:30	7/11/2007	11.5	21.4	2.0	65.1	
	14:00	7/23/2007	12.0	21.8	2.0	64.2	
	14:07	8/8/2007	12.0	21.6	2.2	64.2	
	13:30	8/13/2007	13.5	22.8	2.2	61.5	
	14:10	8/20/2007	10.0	21.4	2.8	65.8	
	14:25	8/28/2007	8.5	20.8	2.7	68.0	
	15:55	8/31/2007	5.5	18.2	4.2	72.1	
	14:55	9/4/2007	4.5	17.2	4.1	74.3	
	13:25	9/17/2007	3.2	15.4	5.1	76.4	
	9:50	9/29/2007	3.0	15.2	5.6	76.2	
	8:45	10/4/2007	3.1	15.2	5.6	76.1	
	9:45	10/7/2007	3.7	15.6	4.8	75.9	
	9:50	10/18/2007	6.0	17.0	3.6	73.4	
	9:00	10/25/2007	5.0	17.2	3.8	74.0	
	9:20	11/1/2007	6.0	18.6	2.2	73.2	
	10:25	11/13/2007	11.5	18.6	3.4	66.5	
	11:30	11/26/2007	4.8	16.2	4.8	74.3	
	11:00	12/10/2007	5.0	16.0	5.4	73.6	
	11:50	12/26/2007	5.5	16.6	4.3	73.6	
	10:15	1/9/2008	6.0	17.0	3.7	73.3	
	12:10	1/23/2008	5.0	15.8	5.2	74.0	
	9:20	2/4/2008	8.0	17.4	3.3	71.3	
	7:50	2/18/2008	12.0	17.6	3.8	66.6	
	7:30	3/4/2008	20.0	18.0	6.0	56.0	
	8:50	3/18/2008	23.0	19.8	3.9	53.3	
	14:30	5/12/2008	14.5	21.0	1.5	63.0	
	9:15	5/19/2008	4.4	17.4	2.4	75.9	
	13:50	5/30/2008	6.5	18.2	1.2	74.1	
	9:20	6/12/2008	3.8	19.0	2.6	74.6	
	9:20	6/25/2008	9.5	21.6	0.5	68.4	
	11:10	7/7/2008	6.0	19.4	1.3	73.3	opened GV-6 to 200 ft/min
	12:25	7/21/2008	6.5	20.6	1.1	71.8	
	9:50	8/5/2008	7.0	20.2	1.7	71.1	
	9:10	8/13/2008	12.5	23.2	0.1	64.2	increase to 12 on 12 off
	8:45	8/19/2008	8.0	21.2	2.2	68.6	
	14:15	9/2/2008	6.5	20.6	1.1	71.8	
	11:41	10/3/2008	8.0	21.6	0.8	69.6	

CH4 = Methane  
 CO2 = Carbon Dioxide  
 O2 = Oxygen  
 N = Nitrogen

Table 6a. Landfill Gas Field Parameter Monitoring Results of Active Extraction Points

Active Extraction Points	Time	Date	CH <sub>4</sub> (%) variable	CO <sub>2</sub> (%) variable	O <sub>2</sub> (%) <5	N (%) <40	Comments target percentages
LC-1	10:40	10/13/2008	9.0	22.4	0.6	68.0	
	9:15	10/28/2008	9.0	23.4	0.0	67.6	
	7:40	11/6/2008	10.5	22.2	0.6	66.7	
	10:25	12/8/2008	7.0	21.4	1.4	70.2	
	10:20	12/24/2008	6.0	20.4	1.2	72.4	decrease to 10 on
	12:00	1/8/2009	5.0	15.4	2.4	77.2	
	11:25	1/18/2009	8.5	23.0	0.3	68.2	
	7:40	1/27/2009	5.0	18.0	4.9	72.1	
	8:40	2/6/2009	4.8	16.4	5.2	73.7	
	11:00	2/23/2009	3.9	17.4	4.5	74.3	decrease to 8 on
	10:20	3/9/2009	8.0	21.2	0.1	70.7	
	10:20	3/20/2009	10.0	21.8	0.6	67.6	
	11:46	4/9/2009	13.0	22.2	0.2	64.6	
	10:45	4/19/2009	5.6	18.2	2.1	74.1	
	8:05	5/4/2009	8.5	16.2	5.5	69.8	
	8:40	5/18/2009	4.3	17.6	3.4	74.8	
	9:35	6/1/2009	7.0	15.4	5.2	72.4	
	9:00	6/14/2009	5.0	18.8	1.5	74.7	
	8:45	7/2/2009	13.5	21.2	1.6	63.7	
	7:30	7/13/2009	7.0	12.6	8.6	71.8	
	8:20	7/22/2009	5.0	20.4	1.3	73.3	
	8:50	8/1/2009	4.6	17.4	4.1	74.0	
	8:45	8/24/2009	4.3	16.8	4.5	74.5	decrease to 6 on 18 off
	9:25	9/8/2009	10.0	21.6	0.6	67.8	
	9:20	9/21/2009	15.0	23.8	0.0	61.2	
	10:15	10/5/2009	15.0	23.8	0.1	61.1	
	11:00	10/28/2009	16.0	23.2	1.3	59.5	
	10:50	11/16/2009	7.5	21.8	0.8	69.9	
	10:00	12/18/2009	24.0	23.8	0.0	52.2	
	9:10	12/28/2009	27.0	27.0	0.0	46.0	
	9:50	1/1/2010	24.0	26.0	0.0	50.0	
	8:30	1/26/2010	26.0	26.0	0.0	48.0	
	12:00	2/25/2010	19.5	24.6	0.0	55.9	
	9:50	3/6/2010	20.0	24.0	0.0	56.0	
	9:25	3/22/2010	18.0	23.0	0.0	59.0	
	9:28	4/5/2010	17.0	23.0	0.0	60.0	
	9:18	4/19/2010	16.5	23	0	60.5	
	9:22	5/3/2010	20.0	23.6	0.0	56.4	
	9:47	5/17/2010	20.0	24.0	0.0	56.0	
	9:10	5/25/2010	10.5	22.8	0.0	66.7	
	9:15	6/24/2010	13.0	21.0	1.4	64.6	
	10:15	7/6/2010	6.0	20.4	1.5	72.1	
	9:08	7/19/2010	7.0	19.6	3.0	70.4	
	9:00	8/2/2010	6.5	19.4	2.2	71.9	
	9:50	8/16/2010	12.5	21.6	1.1	64.8	
	8:52	8/30/2010	21.0	24.2	0.7	54.1	
	9:08	9/13/2010	26.5	25.2	1.1	47.2	
	9:40	9/28/2010	29.5	26.0	1.1	43.4	
	8:05	10/12/2010	24.5	25.2	1.7	48.6	
	9:22	10/25/2010	24.5	25.4	1.1	49.0	
	9:36	11/2/2010	16.0	24.2	1.5	58.3	
	8:49	11/15/2010	15.5	23.4	1.5	59.6	
	9:45	12/10/2010	14.0	22.8	1.5	61.7	
	9:00	12/23/2010	15.5	22.6	1.6	60.3	
	9:18	1/10/2011	11.5	22.2	1.6	64.7	
	12:15	2/11/2011	34.0	24.6	1.7	39.7	
	9:20	3/7/2011	4.9	15.2	6.5	73.5	
	11:50	3/24/2011	19.5	22.2	0.7	57.6	
	8:55	4/6/2011	22.9	23.4	0.3	53.4	
	8:19	4/25/2011	23.5	23.0	0.6	52.9	
	8:52	5/9/2011	34.5	24.6	0.3	40.6	
	9:12	5/23/2011	38.0	25.4	0.3	36.3	
	10:50	6/6/2011	40.0	26.0	0.3	33.7	
	9:08	6/15/2011	41.5	26.2	0.3	32.0	
	9:15	7/5/2011	35.5	26.0	0.3	38.2	
	8:06	7/13/2011	31.0	26.0	0.2	42.8	
	8:20	7/26/2011	32.0	26.6	0.3	41.1	
	8:15	8/8/2011	19.0	24.1	0.3	56.6	
	7:50	8/23/2011	16.0	24.4	0.3	59.3	
	15:19	9/9/2011	28.5	28.0	0.5	43.0	
	16:03	9/15/2011	15.0	25.2	0.8	59.0	
	8:31	9/21/2011	17.5	22.8	2.6	57.1	
	9:38	9/21/2011	14.5	21.5	3.2	60.8	
	9:29	9/22/2011	17.5	24.4	1.6	56.5	
	10:11	9/22/2011	16.0	22.2	3.3	58.5	
	10:57	9/22/2011	16.0	24.2	1.6	58.2	
	10:46	10/3/2011	7.5	21.2	2.4	68.9	
13:55	10/24/2011	11.0	23.0	1.0	65.0		
11:00	10/26/2011	12.0	23.6	1.3	63.1		
10:45	11/7/2011	10.5	23.4	0.5	65.6		
9:20	11/14/2011	14.5	24.0	0.1	61.4		
9:18	12/12/2011	12.7	24.2	0.2	62.9		
10:24	12/27/2011	36.5	27.2	0.2	36.1		
8:45	1/10/2012	24.5	25.4	0.1	50.0		
10:10	1/25/2012	26.0	27.2	0.3	46.5		
9:20	2/20/2012	32.5	26.6	0.6	40.3		
9:10	3/8/2012	30.5	25.4	1.8	42.3		
10:25	4/2/2012	24.0	25.2	0.9	49.9		
9:09	4/16/2012	26.5	25.4	0.9	47.2		
9:00	4/30/2012	16.5	23.0	1.5	59.0		
9:21	5/14/2012	18.0	22.8	1.7	57.5		
9:14	5/29/2012	24.5	24.6	1.1	49.8		
7:57	6/11/2012	27.5	25.4	0.9	46.2		
9:46	6/25/2012	24.5	25.2	1.0	49.3		
9:05	7/9/2012	23.0	25.4	0.9	50.7		
8:40	7/23/2012	7.0	20.2	2.2	70.6		
8:21	7/25/2012	8.0	20.8	2.0	69.2		
9:05	8/6/2012	8.0	21.4	1.7	68.9		
9:31	8/21/2012	9.5	21.6	1.3	67.6		
9:15	9/4/2012	7.0	19.8	2.0	71.2		

CH<sub>4</sub> = Methane  
 CO<sub>2</sub> = Carbon Dioxide  
 O<sub>2</sub> = Oxygen  
 N = Nitrogen



Table 6a. Landfill Gas Field Parameter Monitoring Results of Active Extraction Points

Active Extraction Points	Time	Date	CH <sub>4</sub> (%) variable	CO <sub>2</sub> (%) variable	O <sub>2</sub> (%) <5	N (%) <40	Comments target percentages
LC-1	9:10	10/11/2012	6.0	18.2	4.2	71.6	
	8:30	10/15/2012	4.5	11.4	9.2	75.0	
	7:55	12/6/2012	13.0	21.0	1.3	64.7	
	9:30	12/17/2012	17.0	21.2	0.8	61.0	
	9:00	12/31/2012	24.5	23.6	1.1	50.8	
	8:30	1/9/2013	29.5	24.0	1.1	45.4	
	8:05	1/15/2013	30.0	24.6	0.0	45.4	
	9:11	1/28/2013	27.0	23.4	0.6	49.0	
	10:55	2/11/2013	41.0	27.0	0.0	32.0	
	9:22	2/25/2013	44.5	26.0	0.0	29.5	
	7:40	3/8/2013	48.0	26.4	0.1	25.5	
	8:55	3/22/2013	50.5	26.0	0.1	23.4	
	14:00	4/8/2013	32.0	24.8	0.3	42.9	
	15:20	4/22/2013	12.0	21.6	0.4	66.0	
	9:39	4/29/2013	11.0	20.4	0.1	68.5	
	8:34	5/13/2013	8.0	20.0	0.7	71.3	
	13:40	5/28/2013	9.5	19.4	0.9	70.2	
	8:50	6/7/2013	8.5	19.4	1.1	71.0	
	8:17	6/21/2013	8.0	18.8	1.5	71.7	
	8:50	7/5/2013	7.0	18.8	1.5	72.7	
	7:52	7/22/2013	8.0	19.4	1.6	71.0	
	8:55	8/5/2013	9.5	20.0	1.7	68.8	
	8:24	8/19/2013	11.0	20.2	1.7	67.1	
	8:35	9/5/2013	4.4	8.6	12.6	74.5	
	8:48	9/16/2013	5.0	7.6	14.0	73.4	
	7:40	9/30/2013	14.0	13.4	9.5	63.1	
	7:38	10/14/2013	21.5	17.8	7.5	53.2	
	7:42	10/28/2013	23.5	16.2	9.0	51.3	
	8:10	11/19/2013	34.0	22.2	6.1	37.7	
	7:35	12/2/2013	38.0	23.8	5.0	33.2	
	7:15	12/16/2013	19.0	12.6	12.2	56.2	
	7:06	12/27/2013	48.5	28.0	2.9	20.6	
	7:08	1/13/2014	54.5	28.6	0.7	16.2	
	7:20	1/30/2014	50.0	28.6	0.9	20.5	
	7:35	2/12/2014	51.5	28.2	0.9	19.4	
	7:50	2/24/2014	35.0	25.0	1.2	38.8	
	8:25	3/10/2014	36.0	27.0	1.0	36.0	
	8:15	3/24/2014	14.5	18.8	4.8	61.9	
	7:30	4/7/2014	18.0	21.4	1.6	59.0	
	10:44	4/22/2014	15.0	20.8	1.6	62.6	
	7:45	5/7/2014	18.5	21.8	0.8	58.9	
	7:45	5/19/2014	16.0	21.8	0.5	61.7	
	7:15	5/30/2014	17.5	22.4	0.3	59.8	
	7:36	6/16/2014	8.5	20.4	0.6	70.5	
	7:55	6/30/2014	6.0	18.4	1.7	73.9	
	8:05	7/14/2014	5.0	17.4	2.8	74.8	
	8:05	7/28/2014	3.9	17.0	3.9	75.2	
	8:21	8/11/2014	4.6	16.2	4.4	74.8	
	7:25	8/25/2014	4.3	16.4	4.2	75.2	
	7:45	9/8/2014	4.1	16.0	4.9	75.0	
7:30	9/22/2014	4.3	16.8	4.5	74.5		
7:55	10/7/2014	6.0	17.2	3.4	73.4		
7:50	10/20/2014	7.5	18.4	2.7	71.4		
7:40	11/3/2014	12.5	20.2	2.3	65.0		
7:30	11/17/2014	16.5	21.2	2.9	59.4		
7:35	12/2/2014	19.5	21.2	2.2	57.1		
7:15	12/15/2014	33.0	25.4	0.0	41.6	blower off	
7:19	12/18/2014	28.0	23.2	2.0	46.8		
7:31	1/2/2015	28.0	23.4	2.4	46.2		
7:22	1/16/2015	32.0	22.6	1.6	43.8		
7:30	1/26/2015	36.0	23.2	1.2	39.6		
7:35	2/9/2015	33.5	24.6	1.2	40.7		
8:02	2/24/2015	39.5	24.0	1.4	35.1		
8:28	3/9/2015	24.5	21.2	1.5	52.8		
7:25	3/23/2015	9.0	18.2	2.0	70.8		
7:35	4/6/2015	8.5	18.0	1.7	71.8		
8:27	4/22/2015	7.6	17.4	2.0	73.0		
7:21	5/4/2015	8.5	17.0	1.9	72.6		
7:20	5/18/2015	10.5	18.8	1.5	69.2		
7:25	6/1/2015	7.5	18.2	2.4	71.9		
7:30	6/15/2015	7.0	15.0	4.9	73.1		
7:35	6/29/2015	4.3	8.4	11.8	75.5		
7:28	7/14/2015	9.0	19.0	1.8	70.2		
7:24	7/27/2015	7.0	19.2	1.8	72.0		
7:30	8/10/2015	7.5	18.6	2.2	71.7		
7:25	8/24/2015	6.5	18.6	2.2	72.7		
7:40	9/8/2015	7.0	18.2	2.7	72.1		
7:49	9/21/2015	6.0	19.0	2.6	72.4		
7:30	10/5/2015	7.5	19.4	2.0	71.1		
7:35	10/19/2015	8.5	19.8	1.9	69.8		

CH<sub>4</sub> = Methane  
 CO<sub>2</sub> = Carbon Dioxide  
 O<sub>2</sub> = Oxygen  
 N = Nitrogen

Table 6a. Landfill Gas Field Parameter Monitoring Results of Active Extraction Points

Active Extraction Points	Time	Date	CH <sub>4</sub> (%) variable	CO <sub>2</sub> (%) variable	O <sub>2</sub> (%) <5	N (%) <40	Comments target percentages pre-startup
LC-2	11:09	3/20/2006	61.9	36.8	1.0	0.3	
	9:52	3/22/2006	50.2	28.3	4.9	16.6	
	15:51	3/22/2006	49.9	35.2	7.4	7.5	
	8:52	3/23/2006	45.2	27.1	6.8	20.9	
	16:52	3/23/2006	54.3	32.5	3.5	9.7	
	15:20	3/24/2006	25.5	14.8	15.3	44.4	
	15:10	3/28/2006	18.7	12.0	13.5	55.8	
	19:09	3/30/2006	52.6	28.7	3.7	15.0	
	13:45	4/5/2006	35.5	20.5	8.2	35.8	
	13:25	4/6/2006	33.4	21.0	9.1	36.5	
	13:35	4/11/2006	33.4	21.7	9.9	35.0	
	10:57	4/14/2006	58.5	39.5	2.0	0.0	
	15:56	4/14/2006	33.6	20.0	7.9	38.5	
	10:20	4/17/2006	30.0	20.0	4.3	45.7	
	19:59	4/27/2006	51.7	26.8	4.2	17.3	
	13:28	5/4/2006	43.6	24.8	4.2	27.4	
	12:00	5/22/2006	48.8	28.9	4.3	18.0	
	8:41	6/9/2006	34.2	20.0	10.5	35.3	
	13:05	6/14/2006	30.1	20.2	8.3	41.4	
	11:05	6/22/2006	45.1	35.4	5.1	14.4	
	12:09	7/5/2006	44.4	44.5	5.8	5.3	
	10:50	7/10/2006	0.1	0.2	5.4	94.3	
	10:15	7/17/2006	42.7	32.7	5.8	18.8	
	14:15	7/28/2006	43.6	33.4	4.7	18.3	
	9:51	8/8/2006	45.4	36.2	4.1	14.3	
	9:30	8/16/2006	31.2	24.6	8.6	35.6	
	8:38	8/21/2006	2.4	10.2	3.7	83.7	
	14:22	8/28/2006	20.0	36.2	4.2	39.6	
	11:36	9/13/2006	28.2	37.0	4.0	30.8	
	11:34	9/25/2006	2.4	0.8	5.9	90.9	
	8:32	10/10/2006	49.8	41.7	5.1	3.4	
	8:42	10/23/2006	37.8	29.5	7.6	25.1	
	14:20	11/2/2006	42.5	28.4	3.6	25.5	
	15:16	11/14/2006	39.5	28.2	3.5	28.8	
	11:40	11/27/2006	48.5	33.2	0.3	18.0	
	13:30	12/26/2006	44.0	29.4	2.6	24.0	
	14:10	1/27/2007	44.5	27.6	3.1	24.8	
	11:28	2/24/2007	9.0	0.2	20.5	70.3	
	11:02	3/1/2007	37.2	28.2	1.5	33.1	
	12:26	3/1/2007	36.0	29.0	1.5	33.5	
	14:45	3/1/2007	33.0	27.6	2.1	37.3	
	8:05	3/5/2007	1.1	1.0	19.7	78.3	adjust blower time, 12 on, 12 off
	8:00	3/24/2007	36.0	28.4	1.2	34.4	
	16:45	3/24/2007	36.0	28.0	1.0	35.0	
	17:00	3/28/2007	33.5	27.4	0.9	38.2	
	7:19	3/27/2007	33.5	27.4	1.0	38.1	
	16:35	3/28/2007	36.0	28.2	0.9	34.9	
	7:50	3/29/2007	36.5	28.6	0.8	34.1	
	16:52	3/29/2007	35.5	28.2	0.7	35.6	
	7:56	3/30/2007	11.5	11.0	11.5	66.0	blower off
	11:45	5/30/2007	44.5	27.4	1.9	26.2	restart and run 24 hrs
	13:45	5/30/2007	46.0	28.2	1.5	24.3	
	10:20	5/31/2007	40.0	26.0	1.3	32.7	reduce to 12 on 12 off
	16:25	6/1/2007	40.5	25.4	1.4	32.7	
	15:20	6/2/2007	40.5	25.4	1.2	32.9	
	16:00	6/3/2007	39.5	25.2	1.4	33.9	
	14:04	6/4/2007	39.5	25.2	1.5	33.8	reduce to 6 on 18 off
	14:43	6/7/2007	39.5	25.0	1.4	34.1	
	16:46	6/12/2007	40.5	25.6	1.2	32.7	
	14:20	6/14/2007	40.5	25.4	1.2	32.9	
	13:55	6/19/2007	39.5	25.8	1.2	33.5	
	14:00	6/21/2007	39.5	25.4	1.5	33.6	
	13:50	7/1/2007	38.0	25.8	1.5	34.7	
	13:30	7/23/2007	38.5	26.6	1.4	33.5	
	14:17	8/8/2007	38.5	27.8	1.2	32.5	
	14:00	8/13/2007	38.5	28.2	1.5	31.8	
	13:20	8/20/2007	34.5	25.2	3.1	37.2	
	13:45	8/28/2007	36.5	27.8	1.3	34.4	
	15:30	8/31/2007	30.0	26.0	2.5	41.5	
	14:25	9/4/2007	26.0	26.0	2.0	46.0	
	12:55	9/17/2007	17.5	23.6	3.2	55.7	
	9:15	9/29/2007	17.5	23.8	2.9	55.8	
	8:15	10/4/2007	18.5	25.0	1.8	54.7	
	9:15	10/7/2007	19.0	25.2	1.7	54.1	
	9:30	10/18/2007	17.5	21.4	4.2	56.9	
	8:35	10/25/2007	23.0	25.2	2.3	49.5	
	8:50	11/1/2007	26.5	27.0	1.0	45.5	
	9:55	11/13/2007	28.0	25.8	1.8	44.4	
	11:05	11/26/2007	27.0	25.4	2.0	45.6	
	10:30	12/10/2007	26.0	25.8	2.1	46.1	
	11:15	12/26/2007	26.0	25.0	2.0	47.0	
	9:40	1/9/2008	24.5	21.6	4.7	49.2	
	11:58	1/23/2008	19.0	18.2	7.4	55.4	
	8:50	2/4/2008	17.0	15.4	9.4	58.2	
	7:20	2/18/2008	25.5	20.4	6.3	47.8	
	7:15	3/4/2008	30.5	21.2	7.1	41.2	
	8:25	3/18/2008	32.5	22.6	5.5	39.4	
	13:45	5/12/2008	43.0	25.8	2.5	28.7	
	8:45	5/19/2008	41.0	26.0	2.0	31.0	
	13:20	5/30/2008	31.0	23.6	3.2	42.2	
	8:35	6/12/2008	35.5	20.0	1.3	43.2	
	8:45	6/25/2008	33.0	24.8	3.6	38.6	
	10:45	7/7/2008	32.0	27.0	1.7	39.3	opened GV-6 to 200 ft/min
	12:20	7/21/2008	34.5	28.2	1.5	35.8	
	10:00	8/5/2008	34.5	27.6	2.1	35.8	
	9:20	8/13/2008	36.5	27.8	2.8	32.9	increase to 12 on 12 off
	9:05	8/19/2008	40.0	29.6	0.4	30.0	
	14:40	9/2/2008	34.0	29.6	1.3	35.1	
	11:49	10/3/2008	34.5	29.4	1.8	34.3	
	10:25	10/13/2008	36.5	29.8	1.7	32.0	

CH<sub>4</sub> = Methane  
 CO<sub>2</sub> = Carbon Dioxide  
 O<sub>2</sub> = Oxygen  
 N = Nitrogen

Table 6a. Landfill Gas Field Parameter Monitoring Results of Active Extraction Points

Active Extraction Points	Time	Date	CH <sub>4</sub> (%) variable	CO <sub>2</sub> (%) variable	O <sub>2</sub> (%) <5	N (%) <40	Comments
	9:35	10/28/2008	38.5	30.2	2.4	28.9	
	8:00	11/6/2008	39.0	30.4	1.5	29.1	
	10:55	12/8/2008	41.5	32.2	1.2	25.1	
	9:50	12/24/2008	23.0	20.8	7.0	49.2	decrease to 10 on
	11:20	1/8/2009	25.0	23.4	5.1	46.5	
	11:35	1/18/2009	13.5	19.8	5.5	61.2	
	7:45	1/27/2009	35.5	31.0	0.7	32.8	
	8:15	2/6/2009	26.5	25.2	3.5	44.8	
	10:15	2/23/2009	23.5	25.8	2.0	48.7	decrease to 8 on
	9:50	3/9/2009	23.0	23.8	3.7	49.5	
	9:40	3/20/2009	29.5	28.6	0.5	41.4	
	12:25	4/9/2009	47.0	18.6	2.0	32.4	
	10:15	4/19/2009	35.0	28.2	0.3	36.5	
	8:15	5/4/2009	29.0	27.8	0.3	42.9	
	8:30	5/18/2009	27.5	28.2	0.0	44.3	
	9:45	6/1/2009	23.0	26.8	0.0	50.2	
	9:20	6/14/2009	23.5	27.6	0.0	48.9	
	9:00	7/2/2009	26.5	26.0	1.3	46.2	
	7:45	7/13/2009	32.0	28.6	0.0	39.4	
	8:30	7/22/2009	33.9	28.6	0.0	37.5	
	9:10	8/11/2009	31.0	29.0	0.0	40.0	
	9:00	8/24/2009	27.5	29.0	0.0	43.5	decrease to 6 on 18 off
	9:45	9/8/2009	30.5	29.6	0.0	39.9	
	9:38	9/21/2009	30.5	27.0	1.5	41.0	
	10:40	10/5/2009	38.5	30.8	0.0	30.7	
	10:50	10/28/2009	43.5	31.8	0.0	24.7	
	11:15	11/16/2009	40.0	30.6	0.6	28.8	
	9:50	12/18/2009	44.5	33.0	0.1	22.4	
	8:50	12/28/2009	49.0	33.2	0.0	17.8	
	9:00	1/11/2010	50.0	33.4	0.0	16.6	
	8:39	1/26/2010	55.5	33.6	0.0	10.9	
	11:50	2/25/2010	45.0	27.8	3.3	23.9	
	9:40	3/8/2010	53.5	31.8	0.0	14.7	
	9:10	3/22/2010	52.5	30.8	0.4	16.3	
	9:15	4/5/2010	52.5	30.8	0.2	16.5	
	9:30	4/19/2010	53.5	31.0	0.3	16.5	
	9:30	5/3/2010	52.5	30.8	0.0	16.7	
	10:10	5/17/2010	51.5	30.6	0.4	17.5	
	9:10	5/25/2010	50.0	30.8	0.2	19.0	
	9:30	6/24/2010	41.0	27.8	1.6	29.6	
	10:30	7/6/2010	37.5	27.8	1.6	33.1	
	9:18	7/19/2010	34.5	27.4	1.7	36.4	
	9:20	8/2/2010	32.0	27.4	1.7	38.9	
	10:05	8/16/2010	35.0	29.0	1.1	34.9	
	9:10	8/30/2010	39.5	30.4	0.0	30.1	
	9:26	9/13/2010	41.5	30.6	1.1	26.8	
	10:00	9/28/2010	44.5	31.0	1.1	23.4	
	8:12	10/12/2010	44.5	31.0	1.8	22.7	
	9:37	10/25/2010	48.0	32.2	1.3	18.5	
	9:36	11/2/2010	50.0	32.6	1.6	15.8	
	9:15	11/15/2010	48.0	32.4	1.6	18.0	
	9:55	12/1/2010	44.5	32.2	1.6	21.7	
	9:15	12/23/2010	43.5	32.6	1.6	22.3	
	9:30	1/10/2011	43	31.4	2.3	23.3	
	11:45	2/11/2011	52.0	30.8	1.5	15.7	
	9:30	2/22/2011	12.0	8.4	15.1	64.5	
	9:05	3/7/2011	13.0	9.2	14.5	63.3	
	12:10	3/24/2011	47.5	31.0	0.4	21.1	
	9:15	4/6/2011	49.5	30.8	0.3	19.4	
	8:08	4/25/2011	51.0	29.4	1.3	18.3	
	9:08	5/9/2011	53.5	29.8	0.6	16.1	
	9:31	5/23/2011	46.0	25.8	3.3	24.9	
	11:05	6/6/2011	57.0	30.0	0.6	12.4	
	9:21	6/15/2011	58.0	30.6	0.7	10.7	
	9:30	7/5/2011	60.5	30.2	0.8	8.5	
	8:10	7/13/2011	57.0	28.4	2.0	12.6	
	8:30	7/26/2011	63.5	30.6	0.6	5.3	
	8:30	8/8/2011	60.5	31.4	0.6	7.5	
	8:10	8/23/2011	57.5	31.8	0.7	10	
	15:15	9/9/2011	60.0	33.2	0.9	5.9	
	16:03	9/15/2011	62.0	33.6	1.1	3.3	
	8:40	9/21/2011	58.0	32.4	1.5	8.1	
	9:45	9/21/2011	60.0	34.2	0.8	5	
	9:35	9/22/2011	53.0	31.2	2.7	13.1	
	10:15	9/22/2011	60.0	34.0	1.1	4.9	
	11:04	9/22/2011	53.5	30.2	3.0	13.3	
	10:53	10/3/2011	47.0	33.2	1.1	18.7	
	14:00	10/24/2011	23.0	21.4	4.6	51	
	12:08	10/26/2011	51.8	34.8	0.6	12.8	
	10:59	11/7/2011	44.5	33.8	0.5	21.2	
	9:35	11/14/2011	46.0	33.8	0.2	20	
	9:30	12/12/2011	49.5	34.8	0.3	15.4	
	10:41	12/27/2011	49.0	34.0	0.2	16.8	
	9:00	1/10/2012	52.0	34.4	0.1	13.5	
	10:00	1/25/2012	48.0	34.8	0.4	16.8	
	9:35	2/20/2012	54.5	33.6	0.0	11.9	
	9:30	3/8/2012	53.5	31.6	1.0	13.9	
	10:30	4/2/2012	54.5	31.2	1.1	13.2	
	9:25	4/16/2012	43.0	25.4	4.4	27.2	
	9:30	4/30/2012	47.5	28.2	2.6	21.7	
	9:35	5/14/2012	48.0	28.2	2.4	21.4	
	9:30	5/29/2012	49.5	29.0	1.9	19.6	
	8:04	6/11/2012	51.0	29.2	4.7	15.1	
	9:59	6/25/2012	53.0	29.6	1.5	15.9	
	9:15	7/9/2012	50.5	28.6	2.2	18.7	
	8:55	7/23/2012	43.5	29.2	1.9	25.4	
	8:15	7/25/2012	44.0	29.4	2.0	24.6	
	9:21	8/6/2012	43.0	30.2	1.5	25.3	
	9:50	8/21/2012	40.0	30.0	1.6	28.4	
	9:30	9/4/2012	36.0	29.4	1.9	32.7	
	10:00	10/1/2012	29.5	27.6	2.6	40.3	

LC-2

CH<sub>4</sub> = Methane  
 CO<sub>2</sub> = Carbon Dioxide  
 O<sub>2</sub> = Oxygen  
 N = Nitrogen

Table 6a. Landfill Gas Field Parameter Monitoring Results of Active Extraction Points

Active Extraction Points	Time	Date	CH <sub>4</sub> (%) variable	CO <sub>2</sub> (%) variable	O <sub>2</sub> (%) <5	N (%) <40	Comments target percentages
	8:48	10/15/2012	16.0	15.8	9.7	58.5	
	8:05	12/6/2012	8.5	6.6	17.8	67.1	Using rental meter
	9:15	12/17/2012	7.2	10.0	14.9	67.9	Using rental meter
	9:20	12/31/2012	8.0	6.6	16.4	69	Using rental meter
	8:30	1/9/2013	40.0	27.0	1.9	31.1	
	10:05	1/16/2013	42.0	29.0	1.2	27.8	
	9:30	1/28/2013	57.5	33.8	0.2	8.5	
	11:00	2/11/2013	59.0	35.0	0.6	5.4	
	9:42	2/25/2013	53.5	31.0	2.6	12.9	
	8:00	3/8/2013	63.0	35.8	0.1	1.1	
	9:15	3/22/2013	56.0	34.4	0.6	9.0	
	14:10	4/8/2013	52.0	29.0	0.5	18.5	
	15:30	4/22/2013	49.5	29.4	0.5	20.6	
	9:50	4/29/2013	43.0	27.6	0.5	28.9	
	8:45	5/13/2013	38.0	27.4	1.2	33.4	
	13:59	5/28/2013	33.0	26.0	1.6	39.4	
	9:00	6/7/2013	31.5	25.4	2.1	41.0	
	8:30	6/21/2013	30.5	25.4	1.7	42.4	
	9:00	7/5/2013	29.5	24.8	1.8	43.9	
	8:05	7/22/2013	29.5	25.8	1.5	43.2	
	9:05	8/5/2013	29.5	25.4	2.6	42.5	
	8:35	8/19/2013	31.0	25.8	2.0	41.2	
	8:45	9/5/2013	13.5	11.6	12.5	62.4	
	9:00	9/16/2013	12.5	10.4	13.4	63.7	
	7:50	9/30/2013	19.5	15.2	10.4	54.9	
	7:50	10/14/2013	26.5	20.0	7.7	45.8	
	7:50	10/28/2013	23.0	16.6	9.8	50.6	
	8:25	11/19/2013	32.5	22.8	5.9	38.8	
	7:50	12/2/2013	37.5	24.8	5.0	32.7	
	7:25	12/16/2013	22.0	15.6	11.3	51.1	
	7:13	12/27/2013	44.5	29.2	1.9	24.4	
	7:16	1/13/2014	48.5	29.0	1.0	21.5	
	7:40	1/30/2014	49.5	30.0	1.3	19.2	
	7:45	2/12/2014	51.0	30.6	1.8	16.6	
	8:08	2/24/2014	49.0	28.0	2.1	20.9	
	8:20	3/10/2014	53.0	29.6	1.6	15.8	
	8:30	3/24/2014	43.5	23.4	5.4	27.7	
	7:40	4/7/2014	49.5	26.2	2.5	21.8	
	10:53	4/22/2014	45.5	25.4	2.6	26.5	
	8:05	5/7/2014	48.0	27.8	1.1	23.1	
	8:00	5/19/2014	49.0	27.8	1.1	22.1	
	7:25	5/30/2014	47.5	27.8	1.3	23.4	
	7:50	6/16/2014	42.5	27.2	1.3	29.0	
	8:15	6/30/2014	32.5	26.2	1.2	40.1	
	8:16	7/14/2014	25.0	25.2	1.3	48.6	
	8:19	7/28/2014	22.0	25.6	1.9	50.6	
	8:32	8/11/2014	18.5	24.0	1.9	55.6	
	13:00	8/25/2014	29.5	24.2	1.7	44.6	
	8:00	9/8/2014	18.0	23.6	2.6	55.8	
	7:40	9/22/2014	20.0	24.4	2.5	53.1	
	8:10	10/7/2014	20.5	24.0	2.6	52.9	
	8:05	10/20/2014	24.5	24.6	2.7	48.2	
	7:58	11/3/2014	27.5	25.2	2.7	44.6	
	7:40	11/17/2014	30.0	25.8	2.6	41.6	
	7:46	12/2/2014	35.0	26.6	2.3	36.1	
	7:25	12/15/2014	27.5	22.0	1.5	49.0	Blower Off
	7:32	12/18/2014	37.5	27.8	2.5	32.2	
	7:48	1/2/2015	39.5	28.4	2.8	29.3	
	7:40	1/16/2015	43.0	26.6	2.1	28.3	
	7:45	1/26/2015	44.5	27.2	1.4	26.9	
	7:58	2/9/2015	43.5	28.6	2.1	25.8	
	8:10	2/24/2015	45.5	27.0	1.7	25.9	
	8:45	3/9/2015	47.0	25.4	1.9	25.7	
	7:40	3/23/2015	43.0	24.0	2.9	30.1	
	7:48	4/6/2015	40.0	24.0	2.0	34.0	
	8:19	4/22/2015	32.7	22.8	2.5	42.0	
	7:40	5/4/2015	33.0	22.2	2.3	42.5	
	7:30	5/18/2015	33.0	23.6	1.9	41.6	
	7:40	6/1/2015	32.5	23.4	2.4	41.7	
	7:43	6/15/2015	32.0	23.0	2.0	43.0	
	7:40	6/29/2015	32.0	24.2	1.9	41.9	
	7:40	7/14/2015	30.5	23.8	2.1	43.6	
	7:45	7/27/2015	30.5	24.8	1.5	43.2	
	7:40	8/10/2015	28.5	24.2	1.8	45.5	
	7:40	8/24/2015	28.0	24.6	1.9	45.5	
	7:55	9/8/2015	27.0	24.2	2.4	46.4	
	8:05	9/21/2015	27.0	25.4	2.2	45.4	
	7:40	10/5/2015	27.5	25.4	2.1	45.0	
	7:45	10/19/2015	28.0	25.6	2.1	44.3	

CH<sub>4</sub> = Methane  
 CO<sub>2</sub> = Carbon Dioxide  
 O<sub>2</sub> = Oxygen  
 N = Nitrogen

Table 6a. Landfill Gas Field Parameter Monitoring Results of Active Extraction Points

Active Extraction Points	Time	Date	CH <sub>4</sub> (%) variable	CO <sub>2</sub> (%) variable	O <sub>2</sub> (%) <5	N (%) <40	Comments target percentages
	11:31	3/20/2006	62.3	36.3	0.5	0.9	pre-startup
	10:06	3/22/2006	55.9	33.2	3.5	7.4	
	8:37	3/23/2006	53.5	30.5	3.4	12.6	
	16:30	3/23/2006	59.9	30.5	2.0	7.6	
	14:30	3/24/2006	8.6	6.7	17.0	67.7	
	14:45	3/28/2006	21.1	14.8	12.0	52.1	
	19:21	3/30/2006	51.2	30.4	1.6	16.8	
	13:35	4/5/2006	30.7	22.2	6.6	40.5	
	13:05	4/6/2006	19.0	14.9	11.9	54.2	
	13:20	4/11/2006	36.9	26.6	3.5	33.0	
	10:49	4/14/2006	38.2	27.8	1.0	33.0	
	15:30	4/14/2006	37.7	28.8	1.2	32.3	
	10:10	4/17/2006	10.5	0.6	0.8	88.1	
	19:38	4/27/2006	27.6	23.6	0.5	48.3	
	13:20	5/4/2006	0.0	0.0	8.8	91.2	
	10:25	5/22/2006	9.6	15.7	8.9	65.8	
	14:41	6/2/2006	0.6	0.1	20.4	78.9	
	8:29	6/9/2006	22.5	31.2	4.0	42.3	
	12:42	6/14/2006	20.5	15.6	3.2	60.7	
	10:51	6/22/2006	13.1	28.7	3.5	54.7	
	12:23	7/5/2006	13.0	29.6	1.9	55.5	
	11:38	7/10/2006	0.0	0.0	1.7	98.3	
	10:17	7/17/2006	11.9	28.3	1.8	58.0	
	14:09	7/28/2006	16.3	28.7	1.5	53.5	
	10:02	8/8/2006	11.4	28.8	1.5	58.3	
	9:10	8/16/2006	11.9	28.4	1.4	58.3	
	8:27	8/21/2006	2.4	5.8	1.8	90.0	
	14:14	8/28/2006	12.1	10.2	1.4	76.3	
	11:26	9/13/2006	6.8	11.8	1.7	79.7	
	11:25	9/25/2006	10.1	0.4	1.9	87.6	
	8:25	10/10/2006	10.8	29.6	2.7	56.9	
	8:26	10/23/2006	10.9	29.4	3.9	55.8	
	14:12	11/2/2006	9.5	23.4	0.4	66.7	
	15:09	11/14/2006	2.5	0.0	20.0	77.5	
	12:00	11/27/2006	0.3	1.2	18.9	79.7	
	13:10	12/26/2006	13.5	21.2	3.3	62.0	
	14:20	1/27/2007	13.0	21.4	1.9	63.7	
	11:40	2/24/2007	4.3	0.2	19.7	75.9	
	11:22	3/1/2007	12.0	19.6	4.1	64.3	
	12:30	3/1/2007	11.5	19.2	4.2	65.1	
	14:32	3/1/2007	11.5	18.8	4.1	65.6	
	7:50	3/5/2007	0.3	0.0	20.3	79.5	adjust blower time, 12 on, 12 off
	7:50	3/24/2007	15.0	19.2	4.1	61.7	
	16:34	3/24/2007	14.5	19.2	4.0	62.3	
	16:48	3/26/2007	12.5	18.6	3.6	65.3	
	7:09	3/27/2007	12.0	19.2	3.5	65.3	
	16:45	3/28/2007	13.0	19.8	3.6	63.6	
	7:40	3/29/2007	12.0	19.2	3.7	65.1	
	16:43	3/29/2007	12.0	19.2	3.8	65.0	
	7:45	3/30/2007	7.0	12.6	8.0	72.4	blower off
	11:30	5/30/2007	29.0	22.8	3.0	45.2	restart and run 24 hrs
	13:52	5/30/2007	30.5	22.8	3.2	43.5	
	10:10	5/31/2007	23.5	21.2	2.9	52.4	reduce to 12 on 12 off
	16:10	6/1/2007	21.5	20.8	2.8	54.9	
	15:13	6/2/2007	20.0	19.4	3.6	57.0	
	15:44	6/3/2007	19.0	20.2	2.8	58.0	
	13:45	6/4/2007	18.0	19.8	3.0	59.2	reduce to 6 on 18 off
	14:27	6/7/2007	23.0	22.2	2.8	52.0	
	16:15	6/12/2007	14.0	19.4	3.1	63.5	
	13:58	6/14/2007	14.5	19.2	3.1	63.2	
	13:35	6/19/2007	14.5	19.6	3.0	62.9	
	13:40	6/21/2007	14.0	19.2	3.2	63.6	
	13:20	7/1/2007	14.0	19.2	3.3	63.5	
	13:10	7/23/2007	13.0	19.0	3.4	64.6	
	14:04	8/8/2007	13.0	19.4	3.4	64.2	
	13:50	8/13/2007	14.0	21.6	2.1	62.3	
	13:10	8/20/2007	11.8	19.8	2.7	65.7	
	13:35	8/28/2007	11.5	19.2	2.8	66.5	
	15:20	8/31/2007	8.5	18.0	3.5	70.0	
	14:15	9/4/2007	7.0	17.0	3.9	72.1	
	12:45	9/17/2007	5.5	15.8	4.7	74.0	
	9:05	9/29/2007	5.0	16.2	4.6	74.2	
	8:05	10/4/2007	5.5	16.0	4.6	73.9	
	9:05	10/7/2007	6.0	16.4	4.2	73.4	
	9:20	10/18/2007	7.5	16.8	3.6	72.1	
	8:25	10/25/2007	6.5	16.6	4.2	72.7	
	8:40	11/1/2007	7.5	16.8	4.3	71.4	
	9:45	11/13/2007	11.5	16.2	5.5	66.8	
	10:55	11/26/2007	7.0	14.4	6.4	72.2	
	10:20	12/10/2007	7.0	14.6	6.8	71.6	
	11:05	12/26/2007	7.5	14.4	6.4	71.7	
	9:30	1/9/2008	8.5	14.6	6.6	70.3	
	11:50	1/23/2008	7.5	14.4	7.3	70.8	
	8:40	2/4/2008	10.0	15.6	6.1	68.3	
	7:10	2/18/2008	12.5	15.4	6.8	65.3	
	7:40	3/4/2008	17.5	17.8	7.5	57.2	
	8:15	3/18/2008	20.0	17.6	6.2	56.2	
	13:35	5/12/2008	20.0	19.6	4.5	55.9	
	8:45	5/19/2008	11.5	16.6	5.6	66.3	
	13:10	5/30/2008	10.0	16.2	5.1	68.7	
	8:25	6/12/2008	9.5	17.4	5.2	67.9	
	8:35	6/25/2008	14.5	19.8	4.3	61.4	
	10:35	7/7/2008	10.5	17.0	4.9	67.6	opened GV-6 to 200 ft/min
	12:15	7/21/2008	10.5	19.0	4.1	66.4	
	10:00	8/5/2008	12.5	19.2	4.2	64.1	
	9:15	8/13/2008	13.5	19.6	4.3	62.6	increase to 12 on 12 off
	8:55	8/19/2008	9.5	18.4	4.6	67.5	
	14:25	9/2/2008	11.5	18.4	4.4	65.7	
	12:12	10/3/2008	12.5	19.0	4.8	63.7	
	10:15	10/13/2008	13.0	19.0	4.9	63.1	

CH<sub>4</sub> = Methane  
 CO<sub>2</sub> = Carbon Dioxide  
 O<sub>2</sub> = Oxygen  
 N = Nitrogen

Table 6a. Landfill Gas Field Parameter Monitoring Results of Active Extraction Points

Active Extraction Points	Time	Date	CH <sub>4</sub> (%) variable	CO <sub>2</sub> (%) variable	O <sub>2</sub> (%) <5	N (%) <40	Comments target percentages
	9:25	10/28/2008	13.5	19.6	5.4	61.5	
	7:50	11/6/2008	13.5	19.2	5.1	62.2	
	10:40	12/8/2008	12.0	18.8	5.6	63.6	
	9:40	12/24/2008	10.0	17.4	5.2	67.4	decrease to 10 on
	11:10	1/8/2009	9.5	17.0	5.5	68.0	
	11:45	1/18/2009	29.5	22.6	7.4	40.5	
	8:05	2/6/2009	8.5	16.0	5.8	69.7	1/27/09 ice in port
	10:05	2/23/2009	6.5	16.2	5.7	71.6	decrease to 8 on
	9:40	3/9/2009	11.0	17.0	5.2	66.8	
	9:30	3/20/2009	13.5	17.6	5.3	63.6	
	11:25	4/9/2009	17.5	18.8	4.9	58.8	
	10:10	4/19/2009	11.0	17.2	5.3	66.5	
	8:40	5/4/2009	4.2	17.4	3.3	75.2	
	8:45	5/18/2009	7.5	16.4	5.5	70.6	
	10:10	6/1/2009	3.8	16.0	4.3	76.0	
	9:10	6/14/2009	7.5	16.0	5.3	71.2	
	8:55	7/2/2009	15.8	18.0	4.5	61.7	
	7:35	7/13/2009	15.5	19.0	4.4	61.1	
	8:35	7/22/2009	11.5	18.0	4.8	65.7	
	9:00	8/11/2009	9.0	17.2	4.7	69.1	
	8:50	8/24/2009	7.0	15.8	5.7	71.5	decrease to 6 on 18 off
	9:35	9/8/2009	12.0	17.4	4.8	65.8	
	9:28	9/21/2009	14.5	18.6	4.8	62.1	
	10:25	10/5/2009	16.5	19.2	4.9	59.4	
	11:05	10/28/2009	18.5	20.4	4.7	56.4	
	11:05	11/16/2009	12.5	18.6	5.5	63.4	
	9:35	12/18/2009	25.0	23.2	4.0	47.8	
	9:20	12/28/2009	25.0	22.4	5.0	47.6	
	9:20	1/11/2010	24.5	23.4	4.4	47.7	
	8:20	1/26/2010	27.5	23.6	4.4	44.5	
	11:45	2/25/2010	24.0	23.2	4.3	48.5	
	10:04	3/8/2010	25.0	23.0	3.9	48.1	
	9:30	3/22/2010	24.0	22.0	4.5	49.5	
	9:35	4/5/2010	24.9	22.6	4.0	48.5	
	9:21	4/19/2010	24.5	22.2	4.4	48.9	
	9:31	5/3/2010	26.5	22.6	4.0	46.9	
	8:59	5/17/2010	26.0	22.4	4.3	47.3	
	8:55	5/25/2010	22.0	22.2	3.4	52.4	
	9:20	6/24/2010	22.5	21.0	1.4	55.1	
	10:20	7/6/2010	17.0	19.8	4.5	58.7	
	9:14	7/19/2010	15.5	19.0	4.7	60.8	
	9:10	8/2/2010	10.5	18.6	4.7	65.2	
	10:00	8/16/2010	18.5	19.8	4.2	57.5	
	9:05	8/30/2010	24.5	22.0	3.0	50.5	
	9:15	9/13/2010	27.0	22.4	4.3	46.3	
	9:18	9/28/2010	27.0	22.5	4.7	45.7	
	8:17	10/12/2010	24.5	22.4	5.0	48.1	
	9:30	10/25/2010	24.5	22.2	4.7	48.6	
	9:45	11/2/2010	22.0	21.8	5.4	50.8	
	9:06	11/15/2010	21.5	21.2	1.7	55.6	
	9:50	12/10/2010	20.0	20.6	5.7	53.7	
	9:10	12/23/2010	19.5	21.2	5.9	53.4	
	9:25	1/10/2011	20.5	20.8	6	52.7	
	8:41	1/25/2011	18.5	18.8	7.4	55.3	
	12:30	2/11/2011	29.5	21.6	6.1	42.8	
	10:15	2/22/2011	15.5	17.0	7.7	59.8	
	9:30	3/7/2011	15.5	17.4	7.1	60.0	
	12:00	3/24/2011	23.0	20.6	4.9	51.5	
	9:05	4/6/2011	31.0	21.6	4.9	42.5	
	8:04	4/25/2011	31.0	21.2	5.6	42.2	
	9:00	5/9/2011	37.5	23.0	4.5	35.0	
	9:20	5/23/2011	39.5	24.0	4.2	32.3	
	11:00	6/6/2011	40.5	24.4	4.1	31.0	
	9:15	6/15/2011	40.5	24.4	4.0	31.1	
	9:20	7/5/2011	39.0	24.6	3.6	32.8	
	8:13	7/13/2011	38.5	24.6	3.5	33.4	
	8:15	7/26/2011	37.5	24.4	3.5	34.6	
	8:25	8/8/2011	31.5	23.4	3.4	41.7	
	8:00	8/23/2011	28.5	22.4	3.9	45.2	
	15:21	9/9/2011	34.0	24.6	3.9	37.5	
	16:03	9/15/2011	27.5	23.0	4.7	44.8	
	8:35	9/21/2011	25.0	21.8	4.7	48.5	
	9:42	9/21/2011	25.0	21.4	4.9	48.7	
	9:33	9/22/2011	26.0	22.2	4.8	47.0	
	10:13	9/22/2011	26.0	21.8	5.1	47.1	
	10:59	9/22/2011	27.5	22.6	4.6	45.3	
	10:50	10/3/2011	18.0	20.2	5.1	56.7	
	14:05	10/24/2011	41.0	28.6	3.7	26.7	
	11:08	10/26/2011	24.5	22.0	5.0	48.5	
	10:52	11/7/2011	21.5	21.4	4.7	52.4	
	9:27	11/14/2011	23.5	21.8	4.4	50.3	
	9:37	12/12/2011	23.0	22.2	4.7	50.1	
	10:30	12/27/2011	28.0	23.0	4.2	44.8	
	8:51	1/10/2012	32.5	24.0	4.2	39.3	
	9:55	1/25/2012	33.0	26.0	4.2	36.8	
	9:29	2/20/2012	37.5	25.8	5.0	31.7	
	9:21	3/8/2012	36.5	24.8	5.5	33.2	
	9:00	4/2/2012	32.0	24.4	4.7	38.9	
	9:15	4/16/2012	29.5	22.8	5.0	42.7	
	9:25	4/30/2012	25.0	21.8	5.3	47.9	
	9:25	5/14/2012	27.0	22.2	5.0	45.8	
	9:18	5/29/2012	30.9	23.0	4.5	41.6	
	7:59	6/11/2012	31.5	23.4	4.4	40.7	
	9:53	6/25/2012	33.5	24.4	4.0	38.1	
	9:10	7/9/2012	32.5	24.6	3.5	39.4	
	8:47	7/23/2012	19.0	21.0	4.2	55.8	
	8:11	7/25/2012	19.0	21.0	4.4	55.6	
	9:10	8/6/2012	19.0	21.4	4.2	55.4	
	9:40	8/21/2012	19.0	20.6	4.8	55.6	
	9:21	9/4/2012	14.5	19.8	4.5	61.2	
	8:17	10/1/2012	10.5	16.4	6.6	66.5	reduce from 23 hrs to 16.5 hrs on

CH<sub>4</sub> = Methane  
 CO<sub>2</sub> = Carbon Dioxide  
 O<sub>2</sub> = Oxygen  
 N = Nitrogen

Table 6a. Landfill Gas Field Parameter Monitoring Results of Active Extraction Points

Active Extraction Points	Time	Date	CH <sub>4</sub> (%) variable	CO <sub>2</sub> (%) variable	O <sub>2</sub> (%) <5	N (%) <40	Comments
	8:40	10/15/2012	9.0	12.0	9.9	69.1	reduce from 16.5 hrs to 8.5 hrs on
	7:50	12/6/2012	18.5	20.0	5.2	56.3	reduce from 8.5 hrs to 4 hrs on
	9:10	12/17/2012	22.5	20.2	4.5	52.8	reduce from 4 hrs to 2 hrs on
	9:10	12/31/2012	26.0	22.4	4.5	47.1	
	8:30	1/9/2013	28.0	22.6	4.3	45.1	Increase from 2 hrs to 4 hrs on
	9:40	1/15/2013	29.0	22.6	3.9	44.5	Increase from 4 hrs to 8 hrs on
	9:17	1/28/2013	27.5	22.8	4.3	45.4	Increase from 8 hrs to 12 hrs on
	11:05	2/11/2013	27.0	20.2	7.2	45.6	Reduce from 12 hrs to 9 hrs on
	9:30	2/25/2013	42.0	27.8	3.1	27.1	Increase from 9 hrs to 18 hrs on
	7:50	3/8/2013	53.0	33.0	0.0	14.0	Increase from 18 hrs to 23.5 hrs on
	9:08	3/22/2013	54.5	33.6	0.1	11.8	
	13:55	4/8/2013	30.0	23.4	4.1	42.5	
	15:25	4/22/2013	21.5	4.0	3.9	70.6	
	9:44	4/29/2013	18.5	19.6	4.1	57.8	
	8:37	5/13/2013	16.5	19.0	4.9	59.6	
	13:48	5/28/2013	16.5	18.8	4.4	60.3	
	9:05	6/7/2013	17.0	19.0	4.5	59.5	
	8:25	6/21/2013	16.0	18.4	4.5	61.1	
	8:55	7/5/2013	15.5	18.2	4.5	61.8	
	8:00	7/22/2013	16.0	19.0	4.3	60.7	
	9:00	8/5/2013	16.0	10.4	5.3	68.3	Reduce from 10 hrs to 9 hrs on
	8:30	8/19/2013	17.5	18.8	4.9	58.8	
	8:40	9/5/2013	9.5	10.2	12.3	68.0	Reduce from 9 hrs to 4 hrs on
	8:55	9/16/2013	10.5	10.2	12.8	66.5	Reduce from 4 hrs to 2 hrs on
	7:45	9/30/2013	17.0	14.0	10.2	58.8	Reduce from 2 hrs to 1 hr on
	7:45	10/14/2013	23.5	18.0	8.4	50.1	Reduce from 1 hr to 0.5 hr on
	7:45	10/28/2013	21.5	15.4	10.3	52.8	Reduce from 0.5 hr to 0.25 hr on
	8:17	11/19/2013	31.0	21.8	7.4	39.8	Increase from 0.25 hr to 1 hr on
	7:40	12/2/2013	32.0	22.8	6.6	38.6	Reduce from 1 hr to 0.75 hr on
	7:20	12/16/2013	20.5	16.0	11.1	52.4	Reduce from 0.75 hr to 0.3 hr on
	7:10	12/27/2013	34.5	25.2	5.2	35.1	Reduce from 0.3 hr to 0.25 hr on
	7:12	1/13/2014	39.5	26.4	3.6	30.5	Increase from 0.25 hr to 1 hr on
	7:20	1/30/2014	37.0	26.6	4.2	32.2	Increase from 1 hr to 2 hr on
	7:40	2/12/2014	33.5	25.6	4.3	36.6	Increase from 2 hrs on to 8 hr on
	8:57	2/24/2014	31.0	23.6	5.2	40.2	Reduce from 8 hr on to 7 hr on
	8:30	3/10/2014	33.0	24.2	4.2	38.6	Increase from 7 hr on to 10hr on
	8:20	3/24/2014	23.5	18.8	6.9	50.8	Reduce from 10 hr on to 6 hr on
	7:35	4/7/2014	27.0	21.0	4.5	47.5	Increase from 6 hr on to 7 hr on
	10:50	4/22/2014	23.5	20.2	4.5	51.8	Increase from 7 hr on to 8 hr on
	7:57	5/7/2014	25.5	21.0	4.1	49.4	Increase from 8 hr on to 10 hr on
	7:55	5/19/2014	24.5	21.0	3.8	50.7	Increase from 10 hr on to 14 hr on
	7:20	5/30/2014	25.0	21.6	3.2	50.2	Increase from 14 hr on to 20 hr on
	7:45	6/16/2014	18.5	19.2	3.6	58.7	Increase from 20 hr on to 23.66 hr on
	8:08	6/30/2014	14.0	18.2	3.7	64.1	
	8:10	7/14/2014	11.5	17.2	4.4	66.9	
	8:11	7/28/2014	10.0	17.4	4.8	67.8	
	8:26	8/11/2014	8.0	15.6	5.3	71.1	Reduce from 23.66 hr on to 19.66 hr on
	7:30	8/25/2014	8.5	16.2	5.0	70.3	
	7:54	9/8/2014	8.0	15.2	6.1	70.7	Reduce from 19.66 hr on to 16 hr on
	7:35	9/22/2014	9.0	15.6	6.6	68.8	Reduce from 16 hr on to 12 hr on
	8:03	10/7/2014	9.5	15.2	6.8	68.5	Reduce from 12 hr on to 8 hr on
	8:00	10/20/2014	11.5	16.2	6.4	65.9	Reduce from 8 hr on to 4 hr on
	7:50	11/3/2014	16.5	18.2	5.9	59.4	Reduce from 4 hr on to 3 hr on
	7:35	11/17/2014	20.0	20.2	5.4	54.4	Reduce from 3 hr on to 2 hr on
	7:40	12/2/2014	23.0	20.0	6.3	50.7	Reduce from 2 hr on to 1 hr on
	7:19	12/15/2014	31.0	23.6	3.9	41.5	Blower off
	7:25	12/18/2014	30.0	23.6	4.5	41.9	Increase from 1 hr on to 2 hr on
	7:40	1/2/2015	30.1	24.0	5.0	40.9	Blower not working
	7:30	1/16/2015	24.0	17.6	8.1	50.3	Run 2 hr on
	7:39	1/26/2015	32.5	23.0	4.5	40.0	increase from 2 hr on to 3 hr on
	7:44	2/9/2015	31.0	24.6	4.3	40.1	Increase from 3 hr on to 5 hr on
	8:18	2/24/2015	31.6	23.2	4.1	41.1	Increase from 5 hr on to 8 hr on
	8:35	3/9/2015	26.0	21.0	4.5	48.5	Increase from 8 hr on to 12 hr on
	7:35	3/23/2015	17.0	17.2	5.9	59.9	Reduce from 12 hr on to 10 hr on
	7:43	4/6/2015	17.0	17.8	5.2	60.0	Reduce from 10 hr on to 9 hr on
	8:12	4/22/2015	14.5	16.6	5.8	63.1	Reduce from 9 hr on to 7 hr on
	7:30	5/4/2015	16.0	16.4	5.1	62.5	Reduce from 7 hr on to 6 hr on
	7:25	5/18/2015	17.5	18.4	4.3	59.8	Increase from 6 hr on to 7 hr on
	7:32	6/1/2015	15.5	17.6	5.0	61.9	
	7:35	6/15/2015	16.0	17.8	4.4	61.8	Increase from 7 hr on to 8 hr on
	7:40	6/29/2015	16.0	18.4	4.5	61.1	Increase from 8 hr on to 10 hr on
	7:35	7/14/2015	14.5	18.0	4.5	63.0	Increase from 10 hr on to 12 hr on
	7:38	7/27/2015	13.5	17.8	4.7	64.0	Increase from 12 hr on to 13 hr on
	7:35	8/10/2015	12.5	17.2	4.8	65.5	Increase from 13 hr on to 15 hr on
	7:35	8/24/2015	11.5	16.8	5.1	66.6	Reduce from 15 hr on to 14 hr on
	7:48	9/8/2015	11.5	17.2	4.8	66.5	Increase from 14 hr on to 15 hr on
	8:00	9/21/2015	11.0	17.0	5.5	66.5	Reduce from 15 hr on to 13 hr on
	7:35	10/5/2015	11.0	17.2	5.6	66.2	
	7:40	10/19/2015	11.0	16.8	6.1	66.1	Reduce from 13 hr on to 11 hr on

CH4 = Methane  
 CO2 = Carbon Dioxide  
 O2 = Oxygen  
 N = Nitrogen

Table 6a. Landfill Gas Field Parameter Monitoring Results of Active Extraction Points

Active Extraction Points	Time	Date	CH <sub>4</sub> (%) variable	CO <sub>2</sub> (%) variable	O <sub>2</sub> (%) <5	N (%) <40	Comments target percentages
	11:19	3/20/2006	0.4	0.2	20.9	78.5	pre-startup
	10:00	3/22/2006	45.9	26.6	2.6	24.9	
	15:49	3/22/2006	54.2	31.6	0.9	13.3	
	8:47	3/23/2006	51.5	29.5	1.3	17.7	
	16:50	3/23/2006	45.0	25.4	3.8	25.8	
	15:30	3/24/2006	24.0	13.9	15.0	47.1	
	14:30	3/28/2006	13.2	10.0	12.9	63.9	
	19:00	3/30/2006	34.4	24.9	2.9	37.8	
	13:25	4/5/2006	22.9	18.7	8.2	50.2	
	12:55	4/6/2006	21.9	17.4	7.9	52.8	
	13:10	4/11/2006	23.8	20.2	5.9	50.1	
	10:56	4/14/2006	26.9	23.4	2.3	47.4	
	15:53	4/14/2006	21.3	28.5	5.4	44.8	
	10:00	4/17/2006	31.3	34.0	3.0	31.7	
	19:55	4/27/2006	15.6	19.8	4.0	60.6	
	13:15	5/4/2006	0.0	0.0	2.4	97.6	
	10:19	5/22/2006	16.2	24.6	1.3	57.9	
	8:23	6/9/2006	24.4	32.8	6.2	36.6	
	12:37	6/14/2006	22.8	29.3	5.6	42.3	
	10:46	6/22/2006	12.1	23.0	5.4	59.5	
	12:07	7/5/2006	13.7	24.7	4.9	56.7	
	11:33	7/10/2006	12.6	26.2	4.0	57.2	
	10:54	7/17/2006	12.7	25.6	3.9	57.8	
	14:04	7/28/2006	4.8	24.5	4.4	66.3	
	9:53	8/8/2006	14.8	29.1	2.3	53.8	
	9:06	8/16/2006	14.8	27.1	4.1	54.0	
	8:22	8/21/2006	12.7	8.6	3.8	74.9	
	14:10	8/28/2006	16.6	25.7	5.0	52.7	
	11:24	9/13/2006	8.2	1.4	5.3	85.1	
	11:20	9/25/2006	8.1	0.8	1.8	89.3	
	8:20	10/10/2006	18.1	30.1	3.2	48.6	
	8:21	10/23/2006	12.8	18.1	4.6	64.5	
	14:05	11/2/2006	10.0	22.4	1.3	66.3	
	14:56	11/14/2006	19.0	21.8	4.5	54.7	
	11:27	11/27/2006	9.0	14.6	8.4	68.0	
	13:00	12/26/2006	15.5	22.8	1.5	60.2	
	14:02	1/27/2007	13.5	20.8	1.7	64.0	
	9:32	2/15/2007	0.6	11.4	8.0	80.1	
	11:24	2/24/2007	2.6	12.0	9.6	75.9	
	9:41	3/1/2007	23.0	24.0	0.2	52.8	
	10:15	3/1/2007	13.5	17.8	3.6	65.1	
	10:17	3/1/2007	12.0	19.2	1.3	67.5	
	11:13	3/1/2007	9.0	17.4	2.5	71.1	
	12:22	3/1/2007	7.5	16.6	3.0	72.9	
	13:53	3/1/2007	6.5	15.6	4.3	73.6	
	14:00	3/1/2007	7.0	15.5	4.2	73.3	
	14:40	3/1/2007	6.0	14.4	5.2	74.4	
	8:00	3/5/2007	6.0	14.4	6.4	73.2	adjust blower time, 12 on, 12 off
	8:05	3/24/2007	11.5	20.0	2.8	65.7	
	16:50	3/24/2007	12.0	19.4	2.8	65.8	
	17:05	3/26/2007	9.5	18.4	3.2	68.9	
	7:25	3/27/2007	7.0	17.6	4.1	71.3	
	16:31	3/28/2007	11.0	20.0	1.8	67.2	
	7:59	3/29/2007	8.5	19.8	1.4	70.3	
	16:55	3/29/2007	12.0	20.0	1.3	66.7	
	7:59	3/30/2007	9.0	20.8	0.3	69.9	blower off
	10:45	5/30/2007	31.0	22.6	0.7	45.7	restart and run 24 hrs
	13:40	5/30/2007	36.5	26.2	0.6	36.7	
	10:25	5/31/2007	21.5	22.8	1.5	54.2	reduce to 12 on 12 off
	16:28	6/1/2007	20.5	22.0	1.1	56.4	
	15:25	6/2/2007	20.0	21.8	1.1	57.1	
	16:05	6/3/2007	20.5	22.4	0.5	56.6	
	14:08	6/4/2007	16.5	22.0	0.8	60.7	reduce to 6 on 18 off
	15:04	6/7/2007	19.0	22.6	0.4	58.0	
	17:35	6/12/2007	14.0	21.6	1.7	62.7	
	15:00	6/14/2007	14.0	21.8	0.6	63.6	
	14:30	6/19/2007	13.0	22.8	0.7	63.5	
	14:30	6/21/2007	15.0	21.8	1.4	61.8	
	14:20	7/11/2007	14.0	20.2	3.1	62.7	
	14:20	7/23/2007	15.0	21.0	3.3	60.7	
	14:10	8/8/2007	14.0	20.2	3.8	62.0	
	13:15	8/13/2007	12.0	18.6	5.1	64.3	
	14:20	8/20/2007	9.5	18.0	5.1	67.4	
	14:15	8/28/2007	9.0	18.6	4.4	68.0	
	15:50	8/31/2007	6.0	19.2	2.5	72.3	
	14:45	9/4/2007	6.0	18.2	3.2	72.6	
	13:15	9/17/2007	5.0	16.8	4.3	73.9	
	9:35	9/29/2007	4.7	16.8	4.3	74.2	
	8:35	10/4/2007	4.4	16.2	4.7	74.8	
	9:35	10/7/2007	4.7	17.0	3.6	74.7	
	9:40	10/18/2007	7.5	20.0	0.6	71.9	
	9:10	10/25/2007	7.0	2.0	0.5	90.5	
	9:10	11/1/2007	7.0	20.6	0.2	72.2	
	10:05	11/13/2007	17.5	22.0	0.7	59.8	
	11:20	11/26/2007	6.0	15.6	5.5	72.9	reduce to 12 on 12 off
	10:50	12/10/2007	7.0	16.8	4.8	71.4	reduce to 10 on 14 off
	11:40	12/26/2007	6.5	15.6	4.9	73.0	reduce to 8 on 16 off
	10:05	1/9/2008	6.0	15.6	4.9	73.5	
	12:05	1/23/2008	5.5	13.4	7.3	73.8	
	9:10	2/4/2008	12.5	19.4	0.9	67.2	
	7:40	2/18/2008	17.0	20.4	0.7	61.9	
	7:20	3/4/2008	21.0	21.0	0.9	57.1	
	8:35	3/18/2008	31.0	22.8	0.8	45.4	
	14:15	5/12/2008	14.5	19.6	3.1	62.8	
	9:05	5/19/2008	5.5	14.8	6.4	73.3	
	13:40	5/30/2008	12.0	20.4	0.2	67.4	
	9:15	6/12/2008	5.0	16.8	5.5	72.7	
	9:10	6/25/2008	10.0	23.4	0.6	66.0	
	11:20	7/7/2008	5.5	20.0	0.0	74.5	opened GV-6 to 200 ft/min
	12:25	7/21/2008	7.5	20.8	1.3	70.4	

CH<sub>4</sub> = Methane  
 CO<sub>2</sub> = Carbon Dioxide  
 O<sub>2</sub> = Oxygen  
 N = Nitrogen



Table 6a. Landfill Gas Field Parameter Monitoring Results of Active Extraction Points

Active Extraction Points	Time	Date	CH <sub>4</sub> (%) variable	CO <sub>2</sub> (%) variable	O <sub>2</sub> (%) <5	N (%) <40	Comments target percentages
	9:45	8/5/2008	9.5	21.8	0.5	68.2	
	9:00	8/13/2008	11.5	21.6	1.4	65.5	increase to 12 on 12 off
	8:40	8/19/2008	4.9	15.4	6.8	73.0	
	14:00	9/2/2008	5.5	18.4	2.0	74.1	
	11:46	10/3/2008	3.7	9.6	11.0	75.7	
	10:35	10/13/2008	9.0	20.4	1.8	68.8	
	9:10	10/28/2008	7.0	19.2	2.8	71.0	
	7:30	11/6/2008	10.0	20.2	1.5	68.3	
	10:10	12/24/2008	6.0	15.6	4.5	73.9	12/8/08 meter failure
	11:45	1/8/2009	3.1	13.6	6.5	76.8	1/27/09 ice in port
	11:15	1/18/2009	8.5	19.0	3.2	69.3	
	8:30	2/6/2009	3.2	12.4	7.7	76.8	
	10:45	2/23/2009	1.5	10.8	9.7	78.1	decrease to 8 on
	10:10	3/9/2009	3.0	14.6	3.3	79.1	
	10:10	3/20/2009	4.4	16.8	2.1	76.8	
	12:21	4/9/2009	8.0	18.4	0.0	73.6	
	10:30	4/19/2009	3.6	13.0	6.7	76.7	
	8:30	5/4/2009	1.6	11.4	8.5	78.6	
	8:35	5/18/2009	2.0	12.4	7.2	78.4	
	10:05	6/1/2009	1.3	11.4	7.9	79.4	
	8:50	6/14/2009	1.7	13.8	4.7	79.8	
	8:40	7/2/2009	9.0	20.8	0.3	69.9	
	7:25	7/13/2009	11.5	23.0	0.0	65.5	
	8:25	7/22/2009	4.5	16.2	4.4	74.9	
	8:40	8/11/2009	1.9	11.8	7.7	78.6	
	8:40	8/24/2009	1.8	11.4	7.9	79.0	decrease to 6 on 18 off
	9:15	9/8/2009	7.0	18.4	1.6	73.0	
	9:10	9/21/2009	16.0	22.4	0.4	61.2	
	10:09	10/5/2009	9.5	19.8	2.0	68.7	
	10:55	10/28/2009	12.5	20.8	1.6	65.1	
	10:45	11/16/2009	15.5	4.5	16.0	64.0	
	9:15	12/18/2009	24.0	23.8	0.0	52.2	
	9:00	12/28/2009	21.5	22.4	5.0	51.1	
	9:10	1/11/2010	15.5	20.4	2.8	61.3	
	12:30	2/25/2010	21.2	21.2	0.7	56.9	
	9:45	3/8/2010	18.0	21.2	0.2	60.6	
	9:20	3/22/2010	18.0	21.2	0.3	60.5	
	9:20	4/6/2010	7.0	20.2	1.2	71.6	
	9:12	4/19/2010	14.0	21.0	0.1	64.9	
	9:12	5/3/2010	12.5	21.4	0.0	66.1	
	9:42	5/17/2010	22.5	23.6	0.0	53.9	
	9:04	5/25/2010	5.0	19.8	2.9	72.3	
	9:10	6/24/2010	9.0	19.6	1.7	69.7	
	9:00	7/19/2010	3.4	16.8	2.7	77.1	
	8:50	8/2/2010	4.5	12.0	3.0	80.6	
	9:43	8/16/2010	14.0	22.0	1.2	62.8	
	8:47	8/30/2010	21.5	25.0	1.0	52.5	
	9:00	9/13/2010	30.0	26.6	1.2	42.2	
	9:47	9/28/2010	37.0	28.2	1.2	33.6	
	8:10	10/12/2010	24.0	25.0	1.7	49.3	
	9:12	10/25/2010	35.5	26.8	1.2	36.5	
	9:30	11/2/2010	15.5	22.0	1.9	60.6	
	8:45	11/15/2010	13.5	21.0	1.7	63.8	
	9:40	12/10/2010	9.0	19.2	2.1	69.7	
	8:50	12/23/2010	6.0	18.2	2.8	73.0	
	9:10	1/10/2011	28.0	4.8	15.7	51.5	
	12:00	2/11/2011	30.5	20.8	0.5	48.2	
	9:40	2/22/2011	1.7	7.4	14.2	76.7	
	9:15	3/7/2011	4.4	10.0	11.5	74.1	
	11:45	3/24/2011	7.5	12.2	6.9	73.4	
	8:45	4/6/2011	17.5	19.2	0.9	62.4	
	8:12	4/25/2011	18.6	20.8	0.7	59.9	
	8:45	5/9/2011	29.5	22.8	0.4	47.3	
	9:00	5/23/2011	35.5	24.4	0.4	39.7	
	10:45	6/6/2011	39.5	25.2	0.3	35.0	
	8:59	6/15/2011	41.0	26.8	0.3	31.9	
	9:10	7/5/2011	35.4	26.0	0.6	38.0	
	8:09	7/13/2011	24.0	24.8	0.6	50.6	
	8:10	7/26/2011	35.0	27.4	0.7	36.9	
	8:10	8/8/2011	20.0	23.6	0.5	55.9	
	7:45	8/23/2011	19.0	24.8	0.9	55.3	
	15:17	9/9/2011	29.0	1.2	26.4	43.4	
	16:01	9/15/2011	19.0	24.6	0.5	55.9	
	8:27	9/21/2011	39.5	29.0	0.5	31.0	
	9:35	9/21/2011	20.0	22.1	1.5	56.4	
	9:27	9/22/2011	26.0	22.2	4.8	47.0	
	10:09	9/22/2011	9.9	19.2	2.5	68.4	
	10:55	9/22/2011	11.5	18.8	3.3	66.4	
	10:40	10/3/2011	4.6	13.6	8.1	73.8	
	13:49	10/24/2011	7.5	20.4	1.2	70.9	
	10:55	10/26/2011	7.5	16.4	5.8	70.3	
	10:40	11/7/2011	4.5	14.6	6.6	74.3	
	9:15	11/14/2011	7	17.8	3	72.2	
	10:30	11/14/2011	5	6.8	2.7	85.5	
	9:12	12/12/2011	7.5	16.8	4.3	71.4	
	10:17	12/27/2011	9	7	13.9	70.1	
	8:40	1/10/2012	12	19.6	1	67.4	
	10:05	1/25/2012	11.5	22.6	0.2	65.7	
	9:15	2/20/2012	12.5	14.4	2.1	71	
	9:00	3/8/2012	11	18.4	2.9	67.7	
	10:20	4/2/2012	9.0	18.2	2.6	70.2	
	9:05	4/16/2012	14.9	20.4	1.2	63.5	
	9:10	4/30/2012	17.0	21.0	1.3	60.7	
	9:15	5/14/2012	16.0	21.0	1.3	61.7	
	9:10	5/29/2012	14.5	20.4	1.8	63.3	
	7:45	6/11/2012	23.0	23.8	1.4	51.8	
	9:40	6/25/2012	8.5	16.4	3.3	69.8	
	9:00	7/9/2012	12.0	19.4	3.1	65.5	
	8:33	7/23/2012	3.8	12.0	8.3	76.0	
	8:19	7/25/2012	10.0	18.8	2.8	68.4	

GV-6

CH<sub>4</sub> = Methane  
 CO<sub>2</sub> = Carbon Dioxide  
 O<sub>2</sub> = Oxygen  
 N = Nitrogen

Table 6a. Landfill Gas Field Parameter Monitoring Results of Active Extraction Points

Active Extraction Points	Time	Date	CH <sub>4</sub> (%) variable	CO <sub>2</sub> (%) variable	O <sub>2</sub> (%) <5	N (%) <40	Comments target percentages
	9:00	8/6/2012	4.4	13.6	7.3	74.8	
	9:17	8/21/2012	4.1	13.8	6.5	75.7	
	9:10	9/4/2012	3.2	11.2	8.6	77.1	
	9:05	10/1/2012	2.3	9.4	10.2	78.2	
	8:30	10/15/2012	2.0	10.4	9.0	78.6	
	7:40	12/6/2012	15.0	19.4	1.4	64.2	
	9:00	12/17/2012	9.0	14.2	4.5	72.3	
	8:50	12/31/2012	42.0	2.6	18.7	36.7	1st time O2 over 5% (used rental meter)
	8:30	1/9/2013	28.0	1.8	19.6	50.6	wrong port used for O2 (3.3, 2nd reading)
	8:08	1/15/2013	21.0	20.4	0.3	58.3	
	9:05	1/28/2013	35.5	23.6	3.2	37.7	
	10:45	2/11/2013	18.5	12.8	9.4	59.3	
	9:15	2/25/2013	31.5	21.8	1.7	45.0	
	7:30	3/8/2013	34.5	22.6	0.1	42.8	
	8:50	3/22/2013	41.5	22.2	0.0	36.3	
	13:50	4/8/2013	10.5	15.6	4.3	69.6	
	15:15	4/22/2013	14.0	19.0	1.2	65.8	
	9:35	4/29/2013	4.3	13.2	5.0	77.6	Reduce from 23.5 hrs to 20.5 hrs on
	8:30	5/13/2013	3.4	11.6	7.4	77.7	Reduce from 20.5 hrs to 16 hrs on
	13:36	5/28/2013	4.8	13.2	5.8	76.2	Reduce from 16 hrs to 12 hrs on
	8:45	6/7/2013	3.9	13.0	6.1	77.1	
	8:12	6/21/2013	6.5	15.4	4.8	73.3	
	8:45	7/5/2013	3.6	13.0	6.2	77.2	
	7:48	7/22/2013	5.0	15.2	4.7	75.1	Reduce from 12 hrs to 10 hrs on
	8:50	8/5/2013	10.0	18.6	2.4	69.0	
	8:15	8/19/2013	9.0	17.4	3.1	70.5	
	8:30	9/5/2013	2.4	10.2	10.0	77.5	
	8:45	9/16/2013	3.5	11.4	9.2	75.9	
	7:30	9/30/2013	23.5	21.6	3.5	51.4	
	7:35	10/14/2013	14.5	19.4	4.5	61.6	
	7:39	10/28/2013	12.0	16.2	6.7	65.1	
	8:05	11/19/2013	15.0	18.0	5.8	61.2	
	7:30	12/2/2013	41.5	25.6	1.4	31.5	
	7:10	12/16/2013	22.5	20.0	3.2	54.3	
	7:05	12/27/2013	39.5	24.6	0.6	35.3	
	7:05	1/13/2014	45.5	24.6	0.4	29.5	
	7:15	1/30/2014	39.5	24.0	0.3	36.2	
	7:30	2/12/2014	39.5	21.8	2.5	36.2	
	7:45	2/24/2014	12.5	15.6	4.2	67.7	
	8:15	3/10/2014	42.0	23.6	0.9	33.5	
	8:10	3/24/2014	12.4	14.0	5.7	67.9	
GV-6	7:25	4/7/2014	22.5	18.2	2.2	57.1	
	10:42	4/22/2014	8.5	13.8	5.1	72.6	
	7:40	5/7/2014	20.0	18.2	2.2	59.6	
	7:40	5/19/2014	9.0	16.6	2.9	71.5	
	7:10	5/30/2014	6.0	15.4	4.2	74.4	
	7:25	6/16/2014	3.1	11.6	8.0	77.4	
	7:48	6/30/2014	4.8	12.4	7.8	75.1	
	8:00	7/14/2014	3.0	11.4	8.4	77.2	
	7:48	7/28/2014	1.5	10.2	10.0	78.4	
	8:15	8/11/2014	2.5	11.2	8.4	77.9	
	7:20	8/25/2014	1.1	8.6	10.7	79.7	
	7:40	9/8/2014	1.9	10.4	9.2	78.5	
	7:25	9/22/2014	1.5	9.8	10.4	78.3	
	7:45	10/7/2014	3.0	11.8	7.4	77.9	
	7:40	10/20/2014	6.0	16.0	2.8	75.2	
	7:30	11/3/2014	10.5	16.6	4.2	68.7	
	7:25	11/17/2014	12.5	16.2	4.9	66.4	
	7:30	12/2/2014	9.5	16.2	4.1	70.2	
	7:10	12/15/2014	24.5	20.0	1.7	53.8	Blower off
	7:15	12/18/2014	16.0	18.8	1.6	63.6	
	7:25	1/2/2015	14.5	18.0	2.9	64.6	
	7:18	1/16/2015	12.0	14.5	4.5	69.0	
	7:25	1/26/2015	27.0	19.6	0.6	52.8	
	7:25	2/9/2015	9.0	15.2	4.5	71.3	
	7:55	2/24/2015	19.5	11.4	9.0	60.1	
	8:21	3/9/2015	14.0	16.2	2.2	67.6	
	7:20	3/23/2015	6.5	13.6	3.4	76.5	
	7:30	4/6/2015	7.0	13.8	3.8	75.4	
	8:23	4/22/2015	49.0	9.6	8.7	32.7	
	7:15	5/4/2015	3.7	11.4	5.3	79.7	
	7:20	5/18/2015	7.0	15.6	3.0	74.4	
	7:20	6/1/2015	6.0	15.4	2.9	75.7	
	7:27	6/15/2015	9.5	17.6	1.9	71.0	
	7:30	6/29/2015	12.0	19.0	2.0	67.0	
	7:21	7/14/2015	9.5	18.0	2.5	70.0	
	7:16	7/27/2015	4.6	15.6	3.4	76.4	
	7:22	8/10/2015	5.5	15.4	2.9	76.2	
	7:20	8/24/2015	5.0	15.6	3.4	76.0	
	7:35	9/8/2015	11.5	20.4	1.2	66.9	
	7:45	9/21/2015	2.8	12.4	6.5	78.4	
	7:25	10/5/2015	8.5	19.6	1.3	70.6	
	7:30	10/19/2015	12.0	19.2	1.7	67.1	

CH4 = Methane  
 CO2 = Carbon Dioxide  
 O2 = Oxygen  
 N = Nitrogen

Table 6c. Landfill Gas Field Parameter Monitoring Results of Gas Probes

Monitoring Points	Time	Date	CH <sub>4</sub> (%) variable	CO <sub>2</sub> (%) variable	O <sub>2</sub> (%) <5	N (%) <40	Comments target percentages pre-startup
GP-1	11:03	3/20/2006	18.8	8.1	0.4	72.7	
	15:25	3/22/2006	17.9	8.0	0.4	73.7	
	14:10	3/23/2006	21.4	11.5	0.2	66.9	
	14:00	3/30/2006	0.8	2.4	15.0	81.8	
	13:45	4/6/2006	0.6	1.5	16.8	81.1	
	13:40	4/11/2006	1.2	0.8	19.3	78.7	
	11:33	4/14/2006	0.0	1.9	14.7	83.4	
	10:28	4/17/2006	3.8	4.8	16.8	74.6	
	7:15	4/28/2006	2.5	3.2	18.1	76.2	
	13:30	5/4/2006	0.0	3.4	13.9	82.7	
	10:45	5/22/2006	0.1	1.2	19.3	79.4	
	12:23	6/2/2006	0.1	3.5	12.1	84.3	
	8:02	6/9/2006	2.6	2.0	19.8	75.6	
	12:49	6/14/2006	1.1	3.9	15.4	79.6	
	11:10	6/22/2006	0.7	1.0	18.1	80.2	
	11:47	7/5/2006	0.6	2.4	14.9	82.1	
	11:15	7/10/2006	0.7	4.5	14.1	80.7	
	10:35	7/17/2006	0.8	2.9	15.8	80.5	
	13:42	7/28/2006	2.0	1.7	12.2	84.1	
	10:19	8/8/2006	4.4	8.5	12.9	74.2	
	8:20	8/16/2006	1.4	3.6	15.5	79.5	
	8:05	8/21/2006	0.5	0.6	13.0	85.9	
	13:52	8/28/2006	3.4	7.6	11.2	77.8	
	11:09	9/13/2006	4.6	0.1	12.5	82.8	
	10:28	9/25/2006	0.0	0.0	10.7	89.3	
	8:05	10/10/2006	0.7	2.3	17.6	79.4	
	8:07	10/23/2006	0.7	2.7	19.0	77.6	
	14:35	11/2/2006	0.3	2.6	17.6	79.5	
	13:35	11/14/2006	0.2	2.6	15.9	81.3	
	11:08	11/27/2006	0.2	0.4	19.3	80.2	
	12:20	12/26/2006	0.1	3.6	12.3	84.1	
	13:13	1/27/2007	0.5	2.8	14.6	82.2	
	10:50	2/24/2007	0.4	0.0	20.4	79.3	
	17:29	3/28/2007	0.3	2.4	14.6	82.8	
	10:25	5/1/2007	0.2	2.2	12.6	85.1	
	10:27	5/1/2007	0.1	1.2	16.1	82.6	
	12:00	5/30/2007	2.0	7.2	7.1	83.7	
	16:35	6/6/2007	11.0	10.6	0.8	77.6	
	14:48	6/7/2007	6.0	7.6	5.7	80.7	
	16:59	6/12/2007	1.1	6.0	9.4	83.5	
	14:25	6/14/2007	7.0	10.4	2.1	80.5	
	14:15	6/19/2007	3.5	6.6	9.7	80.3	
	14:10	6/21/2007	0.4	6.0	10.1	83.5	
	14:00	7/11/2007	4.0	8.4	8.3	79.3	
	14:35	7/23/2007	8.5	13.8	2.0	75.7	
	14:25	8/8/2007	9.5	14.8	2.4	73.3	
	11:45	8/13/2007	6.5	12.4	5.6	75.5	
	13:30	8/20/2007	5.5	10.8	9.2	74.5	
	13:55	8/28/2007	12.0	15.8	2.2	70.0	
	15:40	8/31/2007	9.5	14.0	4.2	72.3	
	14:35	9/4/2007	8.0	13.6	4.4	74.0	
	13:05	9/17/2007	0.2	6.0	12.0	81.8	
	9:25	9/29/2007	0.2	4.6	13.9	81.4	
	8:25	10/4/2007	0.4	2.8	17.1	79.7	
	9:25	10/7/2007	0.6	3.4	15.3	80.7	
	10:15	10/18/2007	6.5	12.2	4.2	77.1	
	8:45	10/25/2007	0.1	3.6	15.5	80.8	
	9:00	11/1/2007	0.1	5.4	13.8	80.7	
	9:40	11/13/2007	0.2	3.8	13.7	82.4	
	11:10	11/26/2007	0.3	1.2	19.3	79.3	
	10:40	12/10/2007	0.4	1.2	19.4	79.0	
	11:25	12/26/2007	0.3	1.4	18.6	79.8	
	13:00	1/23/2008	0.3	2.8	13.9	83.0	
	9:55	1/9/2008	0.4	1.0	17.7	81.0	
	13:00	1/23/2008	0.3	2.8	13.9	83.0	
	9:00	2/4/2008	0.1	2.2	14.6	83.1	
	7:30	2/18/2008	0.2	2.0	14.8	83.0	
	7:10	3/4/2008	0.1	1.2	19.1	79.6	
	8:05	3/18/2008	0.1	0.4	19.5	80.0	
	14:00	5/12/2008	0.0	4.8	3.5	91.7	
	8:55	5/19/2008	0.1	5.8	4.5	89.7	
	13:30	5/30/2008	7.0	7.8	0.8	84.4	
	8:55	6/12/2008	0.0	2.2	17.0	80.8	
	8:55	6/25/2008	10.5	10.0	0.0	79.5	
	10:55	7/7/2008	8.5	11.0	0.0	80.5	opened GV-6 to 200 ft/min
	11:50	7/21/2008	13.5	11.8	0.0	74.7	
	9:37	8/5/2008	26.5	13.4	0.0	60.1	
	10:40	8/5/2008	18.0	11.6	2.1	68.3	vent for 1 hour with cap off
	8:55	8/13/2008	22.5	14.4	0.0	63.1	increase to 12 on 12 off
	9:55	8/13/2008	17.5	11.4	3.1	68.0	vent for 1 hour with cap off
	8:35	8/19/2008	7.0	12.6	3.4	77.0	
	10:00	8/19/2008	6.0	14.0	1.3	78.7	vent for 1 hour with cap off
	11:58	10/3/2008	4.2	7.0	11.6	77.3	
	11:12	10/13/2008	1.8	4.4	14.2	79.6	
	9:00	10/28/2008	0.0	4.6	13.6	81.8	
	7:20	11/6/2008	0.4	3.4	15.1	81.1	
	10:15	12/8/2008	0.1	2.6	16.0	81.3	
10:00	12/24/2008	0.0	2.2	15.7	82.1		
11:30	1/8/2009	0.1	3.4	16.8	79.8		
11:05	1/18/2009	0.1	3.6	16.1	80.2		
7:20	1/27/2009	0.2	1.2	20.9	77.7		
8:20	2/6/2009	0.1	0.6	19.8	79.5		
10:30	2/23/2009	0.0	2.2	18.5	79.3		
10:00	3/9/2009	0.0	1.8	17.9	80.3		
10:00	3/20/2009	0.1	1.0	19.6	79.4		
9:35	4/9/2009	0.0	2.8	8.7	88.5		
10:20	4/19/2009	0.0	3.6	5.2	91.2		
8:20	5/4/2009	0.0	3.8	1.8	94.4		
8:25	5/18/2009	0.0	5.0	5.8	89.2		
10:00	6/1/2009	0.0	6.6	6.1	87.3		

CH<sub>4</sub> = Methane  
 CO<sub>2</sub> = Carbon Dioxide  
 O<sub>2</sub> = Oxygen  
 N = Nitrogen

Table 6c. Landfill Gas Field Parameter Monitoring Results of Gas Probes

Monitoring Points	Time	Date	CH <sub>4</sub> (%) variable	CO <sub>2</sub> (%) variable	O <sub>2</sub> (%) <5	N (%) <40	Comments target percentages
GP-1	8:40	6/14/2009	0.4	5.2	8.3	86.1	
	8:30	7/2/2009	0.0	3.2	15.1	81.7	
	7:20	7/13/2009	1.0	7.4	8.9	82.8	
	8:40	7/13/2009	0.0	0.8	18.9	80.3	vent for 1 hour with cap off
	7:20	7/22/2009	0.1	5.8	11.3	82.9	
	8:35	8/11/2009	0.0	3.4	14.7	81.9	
	8:30	8/24/2009	0.0	3.6	14.7	81.7	
	9:05	9/8/2009	2.0	7.8	9.4	80.8	
	9:05	9/21/2009	1.8	6.0	12.1	80.1	
	10:05	10/5/2009	0.0	5.8	12.9	81.3	
	10:30	10/28/2009	0.0	3.8	14.2	82.0	
	10:35	11/16/2009	0.0	2.4	16.5	81.1	
	9:05	12/18/2009	0.0	3.2	14.4	82.4	
	8:40	12/28/2009	0.0	1.0	18.4	80.6	
	8:45	1/11/2010	0.0	3.2	14.1	82.7	
	8:50	1/26/2010	0.3	4.0	9.1	86.7	
	10:32	2/25/2010	0.2	4.2	7.3	88.4	
	9:35	3/8/2010	0.0	5.4	1.0	93.6	
	9:05	3/22/2010	0.0	2.6	7.2	90.2	
	9:08	4/5/2010	0.0	3.8	14.6	81.6	
	9:05	4/19/2010	0.0	4.2	7.0	88.8	
	9:05	5/3/2010	0.0	1.2	17.6	81.2	
	9:35	5/17/2010	0.2	3.4	11.8	84.6	
	13:00	5/25/2010	0.0	4.8	10.7	84.5	
	9:05	6/24/2010	0.1	7.8	8.0	84.2	
	10:05	7/6/2010	0.0	8.8	3.0	88.2	
	8:38	7/19/2010	0.6	6.4	7.8	85.3	
	8:45	8/2/2010	2.6	9.4	3.9	84.1	
	9:35	8/16/2010	3.1	12.6	1.0	83.4	
	8:40	8/30/2010	2.2	9.0	6.6	82.3	
	8:50	9/13/2010	5.5	12.4	1.5	80.6	
	10:40	9/28/2010	3.7	11.2	1.9	83.2	
	6:50	10/12/2010	14.0	15.0	0.0	71.0	
	9:05	10/25/2010	16.5	16.0	0.0	67.5	
	9:20	11/2/2010	0.0	5.4	9.3	85.3	
	8:35	11/15/2010	4.4	9.0	3.8	82.8	
	9:30	12/10/2010	0.0	11.2	0.1	88.7	
	8:35	12/23/2010	0.0	1.2	17.9	80.9	
	9:05	1/10/2011	0.0	2.8	14.4	82.8	
	8:15	1/25/2011	0.2	5.0	8.1	86.7	
	11:35	2/11/2011	0.1	4.0	9.4	86.6	
	9:20	2/22/2011	0.2	1.0	18.1	80.8	
	8:55	3/7/2011	0.1	1.4	13.1	85.4	
	11:30	3/24/2011	0.3	0.2	20.9	78.6	
	8:35	4/6/2011	0.1	0.2	20.1	79.6	
	10:30	4/25/2011	0.1	0.2	20.7	79.0	
	8:35	5/9/2011	0.1	3.2	11.2	85.6	
	8:50	5/23/2011	0.0	5.4	3.8	90.8	
	10:35	6/6/2011	6.4	7.0	4.4	82.2	
	8:50	6/15/2011	15.5	9.6	0.3	74.6	
	9:00	7/5/2011	15.0	6.6	8.7	69.7	
	6:38	7/13/2011	12.0	13.0	0.4	74.6	
	8:00	7/26/2011	13.0	12.0	0.5	74.5	
	8:05	8/8/2011	12.5	12.6	0.3	74.6	
	7:35	8/23/2011	25.0	16.0	0.3	58.7	
	15:30	9/9/2011	26.0	18.2	0.2	55.6	
	15:58	9/15/2011	11.5	15.8	3.1	69.6	
	8:20	9/21/2011	18.5	18.2	0.4	62.9	
	9:25	9/21/2011	13.5	17.4	1.5	67.6	
	9:17	9/22/2011	6.0	10.8	8.1	75.1	
	10:04	9/22/2011	7.0	17.0	1.7	74.3	
	10:50	9/22/2011	3.8	9.6	10.2	76.5	
	10:35	10/3/2011	4.7	9.0	9.1	77.2	
	13:40	10/24/2011	1.9	15.0	2.2	80.9	
	10:45	10/26/2011	1.5	6.0	13.5	79.0	
	10:30	11/7/2011	0.3	4.0	14.8	81.0	
	9:08	11/14/2011	4.7	7.6	1.9	85.8	
	9:05	12/12/2011	0.1	1.6	15.3	83.1	
	10:05	12/27/2011	3.6	4.4	1.5	90.5	
	8:30	1/10/2012	4.6	4.4	0.1	91.0	
	10:15	1/25/2012	0.1	4.6	4.9	90.4	
	9:00	2/20/2012	5.5	3.6	3.1	87.8	
	8:40	3/8/2012	1.6	0.6	17.2	80.7	
	10:10	4/2/2012	0.1	1.2	18.4	80.3	
	8:50	4/16/2012	0.0	0.4	19.7	79.9	
9:04	4/30/2012	0.4	5.6	1.4	92.7		
9:05	5/14/2012	0.0	6.0	3.2	90.8		
8:55	5/29/2012	2.1	10.4	1.1	86.5		
7:35	6/11/2012	0.4	8.4	6.8	84.4		
9:23	6/25/2012	4.6	10.4	4.2	80.8		
8:50	7/9/2012	10.0	14.0	0.8	75.2		
8:15	7/23/2012	2.6	9.2	7.8	80.5		
10:15	7/25/2012	2.1	6.8	10.4	80.8		
8:45	8/6/2012	3.3	10.4	7.3	79.0		
9:05	8/21/2012	0.6	6.2	11.5	81.8		
9:04	9/4/2012	3.3	9.2	8.4	79.1		
8:45	10/1/2012	0.0	3.8	13.9	82.3		
8:21	10/15/2012	0.0	3.8	14.0	82.2		
7:20	12/6/2012	0.0	6.0	13.8	80.2		
8:50	12/17/2012	0.0	3.2	14.4	82.4		
8:35	12/31/2012	0.0	3.2	16.0	80.8		
8:30	1/9/2013	0.0	6.2	12.2	81.6		
10:15	1/15/2013	0.0	3.8	15.7	80.5		
8:50	1/28/2013	0.0	3.4	14.7	81.9		
10:35	2/11/2013	0.0	1.6	16.2	82.2		
9:05	2/25/2013	0.0	1.4	17.7	80.9		
7:18	3/8/2013	0.0	0.6	19.0	80.4		
8:35	3/22/2013	0.0	1.4	17.8	80.8		
13:35	4/8/2013	0.0	0.2	20.9	78.9		
15:05	4/22/2013	0.0	0.0	20.0	80.0		

CH<sub>4</sub> = Methane  
 CO<sub>2</sub> = Carbon Dioxide  
 O<sub>2</sub> = Oxygen  
 N = Nitrogen

Table 6c. Landfill Gas Field Parameter Monitoring Results of Gas Probes

Monitoring Points	Time	Date	CH <sub>4</sub> (%) variable	CO <sub>2</sub> (%) variable	O <sub>2</sub> (%) <5	N (%) <40	Comments target percentages
GP-1	9:30	4/29/2013	0.0	0.2	20.9	78.9	
	8:20	5/13/2013	0.0	1.2	18.8	80.0	
	13:05	5/28/2013	0.0	2.0	17.9	80.1	
	8:35	6/7/2013	0.0	4.8	11.7	83.5	
	8:05	6/21/2013	0.0	6.0	10.7	83.3	
	8:35	7/5/2013	0.0	3.4	9.2	87.4	
	7:40	7/22/2013	0.1	5.8	11.7	82.5	
	8:45	8/5/2013	2.9	8.6	8.0	80.5	
	8:05	8/19/2013	1.5	2.8	17.1	78.6	
	8:20	9/15/2013	0.7	5.4	13.3	80.7	
	8:35	9/16/2013	0.5	4.4	14.6	80.5	
	7:20	9/30/2013	0.6	6.8	11.0	81.6	
	8:05	10/14/2013	1.0	4.2	15.2	79.6	
	7:20	10/28/2013	0.0	3.2	16.1	80.7	
	7:48	11/19/2013	0.0	4.2	15.2	80.6	
	7:20	12/2/2013	0.0	5.0	12.2	82.8	
	7:02	12/16/2013	0.0	5.4	12.7	81.9	
	7:00	12/27/2013	0.0	4.6	14.0	81.4	
	7:01	1/13/2014	0.0	1.2	17.6	81.2	
	7:05	1/30/2014	0.0	0.0	20.9	79.1	
	7:18	2/12/2014	0.0	0.0	20.9	79.1	
	7:35	2/24/2014	0.0	3.6	16.4	80.0	
	8:05	3/10/2014	0.0	2.8	15.6	81.6	
	8:02	3/24/2014	0.0	2.8	7.4	89.8	
	7:17	4/7/2014	0.0	0.2	19.3	80.5	
	7:40	4/22/2014	0.0	0.0	20.9	79.1	
	7:25	5/7/2014	0.0	0.8	18.9	80.3	
	7:35	5/19/2014	0.0	3.0	14.3	82.7	
	7:03	5/30/2014	0.0	4.6	12.1	83.3	
	7:20	6/16/2014	0.0	4.6	11.4	84.0	
	7:35	6/30/2014	0.2	8.4	4.7	86.7	
	7:45	7/14/2014	0.1	0.6	20.9	78.5	
	7:42	7/28/2014	0.0	5.6	13.1	81.3	
	8:10	8/11/2014	4.1	10.2	5.6	80.2	
	8:30	8/12/2014	5.0	11.2	5.3	78.5	
	7:12	8/25/2014	2.3	8.0	8.1	81.6	
	7:35	9/8/2014	0.1	6.2	11.4	82.3	
	7:18	9/22/2014	0.0	4.2	15.8	80.0	
	7:33	10/7/2014	0.0	3.4	16.0	80.6	
	7:32	10/20/2014	0.5	6.0	10.6	83.0	
	7:18	11/3/2014	0.0	8.2	8.0	83.8	
	7:15	11/17/2014	0.0	11.2	2.2	86.6	
	7:18	12/2/2014	0.0	6.8	8.5	84.7	
	7:05	12/15/2014	0.0	3.0	14.4	82.6	Blower Off
	7:08	12/18/2014	1.8	7.4	1.2	89.6	
	7:12	1/2/2015	0.1	1.2	19.2	79.5	
	7:08	1/18/2015	0.0	4.2	9.0	86.8	
	7:18	1/26/2015	0.0	4.0	9.8	86.2	
	7:18	2/9/2015	0.0	3.2	12.9	83.9	
	7:40	2/24/2015	0.0	6.8	5.9	87.3	
	8:10	3/9/2015	0.0	3.0	15.1	81.9	
	7:10	3/23/2015	0.0	2.6	15.5	81.9	
	7:18	4/6/2015	0.0	3.0	15.5	81.5	
	9:05	4/22/2015	0.0	0.0	20.9	79.1	
	7:05	5/4/2015	0.0	0.0	20.9	79.1	
	7:15	5/18/2015	0.0	5.6	9.7	84.7	
	7:04	6/1/2015	0.0	0.8	20.1	79.1	
	7:15	6/15/2015	0.0	1.4	18.4	80.2	
	7:18	6/29/2015	0.0	6.6	9.6	83.8	
	7:12	7/14/2015	0.0	1.0	19.6	79.4	
7:08	7/27/2015	0.1	6.2	10.6	83.1		
7:15	8/10/2015	7.0	12.2	2.3	78.5		
7:12	8/24/2015	0.0	10.8	7.5	81.7		
7:20	9/8/2015	0.6	6.8	9.9	82.7		
7:35	9/21/2015	0.3	6.6	11.0	82.1		
7:13	10/5/2015	3.6	10.4	6.1	79.9		
7:18	10/19/2015	0.0	8.4	10.1	81.5		

CH<sub>4</sub> = Methane  
 CO<sub>2</sub> = Carbon Dioxide  
 O<sub>2</sub> = Oxygen  
 N = Nitrogen

Table 6c. Landfill Gas Field Parameter Monitoring Results of Gas Probes

Monitoring Points	Time	Date	CH <sub>4</sub> (%) variable	CO <sub>2</sub> (%) variable	O <sub>2</sub> (%)	N (%) <5 <40	Comments target percentages
GP-2	9:00	3/22/2006	29.5	27.8	0.5	42.2	pre-startup
	14:40	3/23/2006	29.1	24.5	0.8	45.6	
	14:20	3/30/2006	11.5	13.1	10.7	64.7	
	14:05	4/6/2006	10.3	12.6	10.2	66.9	
	14:15	4/11/2006	5.4	5.7	15.3	73.6	
	11:56	4/14/2006	6.8	12.1	8.7	72.4	
	11:00	4/17/2006	0.0	0.0	20.7	79.3	
	9:55	4/28/2006	0.0	0.1	20.7	79.2	
	14:15	5/4/2006	1.5	18.9	3.0	76.6	
	11:15	5/22/2006	0.0	0.0	20.5	79.5	
	12:49	6/2/2006	1.0	0.1	19.7	79.2	
	9:00	6/9/2006	1.9	0.5	20.4	77.2	
	13:20	6/14/2006	4.8	1.0	20.1	74.1	
	10:00	6/22/2006	0.6	0.2	20.4	78.8	
	12:34	7/5/2006	0.7	1.5	19.9	77.9	
	11:48	7/10/2006	0.7	0.8	19.6	78.9	
	11:15	7/17/2006	0.7	1.2	18.8	79.3	
	13:05	7/28/2006	0.5	0.7	19.1	79.7	
	10:50	8/8/2006	0.6	0.2	19.6	79.6	
	7:53	8/16/2006	0.1	0.0	19.9	80.0	
	7:40	8/21/2006	0.5	0.1	20.4	79.0	
	13:40	8/28/2006	0.0	0.0	20.2	79.8	
	10:50	9/13/2006	0.1	0.1	20.2	79.6	
	10:10	9/25/2006	0.6	9.5	13.7	76.2	
	7:45	10/10/2006	0.7	1.8	19.8	77.7	
	7:46	10/23/2006	0.7	3.9	18.0	77.4	
	13:24	11/2/2006	0.5	0.3	17.6	81.6	
	12:38	11/14/2006	0.1	5.2	15.7	79.1	
	10:51	11/27/2006	0.1	0.6	20.0	79.3	
	13:55	12/26/2006	0.3	6.2	14.5	79.1	
	12:25	1/27/2007	0.3	1.6	19.1	79.1	
	12:15	2/24/2007	0.3	3.6	16.5	79.7	
	16:05	3/28/2007	0.2	2.4	18.0	79.5	
	11:07	5/1/2007	0.0	3.8	15.2	81.0	
	12:17	5/30/2007	0.0	1.2	18.5	80.3	
	13:20	6/19/2007	0.1	7.6	11.5	80.9	
	11:20	8/13/2007	0.0	0.4	20.5	79.1	
	10:54	10/18/2007	0.1	1.0	18.8	80.1	
	13:10	1/23/2008	0.4	1.2	20.2	78.2	
	7:45	6/12/2008	0.0	2.2	18.6	79.2	
	11:05	7/21/2008	0.0	0.6	20.4	79.0	
	12:34	10/3/2008	0.0	0.6	20.9	78.5	
	11:40	10/13/2008	0.0	0.4	20.9	78.7	
	11:15	1/27/2009	0.3	1.8	20.3	77.6	
	10:46	4/9/2009	0.0	0.0	20.1	79.9	
	10:40	7/22/2009	0.0	0.8	18.9	80.3	
	10:05	10/28/2009	0.0	2.2	18.1	79.7	
	10:15	1/26/2010	0.3	3.0	17.1	79.7	
	11:39	5/25/2010	0.0	0.0	19.1	80.9	
	10:10	9/28/2010	0.0	2.4	17.1	80.5	
	11:10	1/25/2011	0.2	0.4	20.0	79.4	
	7:45	4/25/2011	0.2	3.0	17.4	79.4	
	7:37	7/13/2011	0.0	0.8	19.9	79.3	
	7:45	10/26/2011	0.0	1.0	20.0	79.0	
	9:26	1/25/2012	0.1	3.6	17.0	79.4	
	9:35	4/2/2012	0.1	0.4	20.9	78.7	
	11:00	7/25/2012	0.0	3.4	16.3	80.3	
	11:30	10/15/2012	0.0	1.8	17.7	80.5	
	10:10	1/15/2013	0.0	3.2	17.5	79.3	
	7:45	4/29/2013	0.0	1.0	20.4	78.6	
9:35	7/22/2013	0.0	2.4	18.0	79.6		
9:05	10/14/2013	0.0	3.2	18.6	78.2		
11:39	4/22/2014	0.0	3.6	15.8	80.6		
8:00	4/22/2015	0.0	2.6	17.7	79.7		

CH<sub>4</sub> = Methane  
 CO<sub>2</sub> = Carbon Dioxide  
 O<sub>2</sub> = Oxygen  
 N = Nitrogen

Table 6c. Landfill Gas Field Parameter Monitoring Results of Gas Probes

Monitoring Points	Time	Date	CH <sub>4</sub> (%) variable	CO <sub>2</sub> (%) variable	O <sub>2</sub> (%) <5	N (%) <40	Comments target percentages pre-startup
GP-3	7:49	3/22/2006	1.4	1.9	19.9	76.8	
	12:57	3/23/2006	0.6	1.2	19.3	78.9	
	15:20	3/23/2006	2.2	4.5	16.4	76.9	
	14:35	3/30/2006	2.1	7.6	11.5	78.8	
	14:30	4/6/2006	1.6	11.8	7.2	79.4	
	14:40	4/11/2006	0.4	4.0	15.6	80.0	
	12:11	4/14/2006	0.0	1.5	18.1	80.4	
	11:20	4/17/2006	1.4	0.2	20.7	77.7	
	10:50	4/28/2006	0.4	0.1	20.7	78.8	
	15:00	5/4/2006	0.0	0.0	20.4	79.6	
	11:38	5/22/2006	0.2	0.0	2.5	97.3	
	13:18	6/2/2006	0.2	0.0	20.2	79.6	
	9:09	6/9/2006	0.8	0.1	20.5	78.6	
	13:45	6/14/2006	1.1	0.1	20.4	78.4	
	11:25	6/22/2006	0.7	0.0	20.1	79.2	
	11:19	7/5/2006	0.6	0.0	20.0	79.4	
	10:37	7/10/2006	0.6	0.0	19.6	79.8	
	0:57	7/17/2006	0.1	0.0	19.0	80.9	
	12:25	7/28/2006	0.6	0.0	19.7	79.7	
	11:32	8/8/2006	0.6	0.0	19.6	79.8	
	7:35	8/16/2006	0.5	0.0	20.0	79.5	
	7:24	8/21/2006	0.0	0.0	20.3	79.7	
	13:26	8/28/2006	0.1	0.0	19.9	80.0	
	10:31	9/13/2006	0.0	0.3	20.3	79.4	
	9:56	9/25/2006	0.6	3.0	17.6	78.8	
	7:20	10/10/2006	0.5	0.9	19.8	78.8	
	7:36	10/23/2006	0.1	0.0	20.6	79.3	
	13:10	11/2/2006	0.5	0.4	20.8	78.3	
	13:00	11/14/2006	0.1	4.2	16.1	79.6	
	10:39	11/27/2006	0.1	0.4	19.4	80.2	
	13:58	12/26/2006	0.3	0.2	20.0	79.6	
	12:00	1/27/2007	0.1	0.0	19.6	80.4	
	12:30	2/24/2007	0.3	4.6	14.7	80.4	
	15:32	3/28/2007	0.1	0.0	19.9	80.0	
	10:57	5/1/2007	0.1	2.6	16.5	80.8	
	12:33	5/30/2007	0.0	0.4	18.9	80.7	
	13:30	6/19/2007	0.0	0.0	20.9	79.1	
	11:00	8/13/2007	0.0	0.0	20.9	79.1	
	10:00	10/18/2007	0.1	4.0	15.7	80.2	
	13:55	1/23/2008	0.4	0.8	20.6	78.3	
	7:05	6/12/2008	0.0	0.0	20.9	79.1	
	10:30	7/21/2008	0.0	0.0	20.9	79.1	
	12:16	10/3/2008	0.0	0.0	20.9	79.1	
	10:00	10/13/2008	0.0	0.0	20.9	79.1	
	7:50	1/27/2009	0.2	3.6	17.4	78.8	
	11:10	4/9/2009	0.0	0.0	20.2	79.8	
	8:40	7/22/2009	0.0	0.4	19.1	80.5	
	9:24	10/28/2009	0.0	0.2	19.5	80.3	
	8:09	1/26/2010	0.2	0.0	20.4	79.4	
	9:15	5/25/2010	0.0	0.0	19.1	80.9	
	8:50	9/28/2010	0.0	1.8	17.2	81.0	
	8:45	1/25/2011	0.2	0.2	19.8	79.8	
	8:25	4/25/2011	0.2	4.6	14.9	80.3	
	8:15	7/13/2011	0.0	0.0	20.1	79.9	
	11:12	10/26/2011	0.0	0.2	20.4	79.4	
	11:30	1/25/2012	0.1	4.2	15.4	80.3	
	8:50	4/2/2012	0.0	0.0	20.9	79.1	
	8:27	7/25/2012	0.0	2.4	15.4	82.2	
	10:59	10/15/2012	0.0	0.0	19.0	81.0	
	11:00	1/15/2013	0.0	3.8	15.3	80.9	
13:00	4/29/2013	0.0	1.2	19.3	79.5		
9:12	7/22/2013	0.0	2.0	18.3	79.7		
9:15	10/14/2013	0.0	0.6	20.3	79.1		
12:11	4/22/2014	0.0	0.0	20.9	79.1		
11:40	4/22/2015	0.0	0.0	20.9	79.1		

CH<sub>4</sub> = Methane  
 CO<sub>2</sub> = Carbon Dioxide  
 O<sub>2</sub> = Oxygen  
 N = Nitrogen

Table 6c. Landfill Gas Field Parameter Monitoring Results of Gas Probes

Monitoring Points	Time	Date	CH <sub>4</sub> (%) variable	CO <sub>2</sub> (%) variable	O <sub>2</sub> (%) <5	N (%) <40	Comments target percentages
GP-4	9:11	3/22/2006	0.0	1.4	20.4	78.2	pre-startup
	15:35	3/23/2006	0.0	0.8	19.8	79.4	
	15:40	3/30/2006	0.5	0.8	21.8	76.9	
	14:40	4/6/2006	0.8	1.3	18.9	79.0	
	14:35	4/11/2006	0.2	0.9	19.2	78.7	
	12:18	4/14/2006	0.0	1.3	18.1	80.6	
	11:35	4/17/2006	1.3	0.8	20.4	77.5	
	10:40	4/28/2006	0.0	0.5	20.2	79.3	
	15:10	5/4/2006	1.3	0.6	13.2	84.9	
	11:50	5/22/2006	0.1	0.2	20.4	79.3	
	13:10	6/2/2006	0.2	0.8	19.1	79.9	
	9:12	6/9/2006	3.4	1.2	20.2	75.2	
	14:00	6/14/2006	0.0	0.0	19.9	80.1	
	10:39	6/22/2006	6.0	18.8	6.4	68.8	
	11:26	7/5/2006	0.6	0.6	20.0	78.8	
	10:43	7/10/2006	0.4	3.8	19.9	75.9	
	10:08	7/17/2006	0.9	0.6	19.6	78.9	
	12:34	7/28/2006	0.6	0.4	19.6	79.4	
	9:21	8/8/2006	0.6	0.3	19.7	79.4	
	7:42	8/16/2006	0.5	0.7	19.9	78.9	
	7:28	8/21/2006	0.4	0.5	20.0	79.1	
	13:31	8/28/2006	0.5	0.5	20.1	78.9	
	10:35	9/13/2006	0.7	0.6	20.2	78.5	
	9:59	9/25/2006	0.1	0.2	19.1	80.6	
	7:24	10/10/2006	0.6	0.5	20.3	78.6	
	7:40	10/23/2006	0.4	0.0	20.4	79.2	
	13:17	11/2/2006	0.5	0.2	21.0	78.3	
	13:11	11/14/2006	0.2	1.4	19.0	79.5	
	10:42	11/27/2006	0.1	0.6	19.7	79.7	
	14:04	12/26/2006	0.3	0.8	19.6	79.4	
	12:09	1/27/2007	0.1	0.4	19.6	79.9	
	12:38	2/24/2007	0.4	1.0	19.4	79.3	
	15:40	3/28/2007	0.1	0.2	19.8	79.9	
	10:50	5/1/2007	0.0	1.2	18.2	80.6	
	12:37	5/30/2007	0.0	1.8	17.5	80.7	
	13:40	6/19/2007	0.0	0.8	20.0	79.2	
	11:05	8/13/2007	0.0	0.6	20.6	78.8	
	10:10	10/18/2007	0.1	1.2	17.9	80.8	
	13:25	1/23/2008	0.3	0.4	20.9	78.4	
	7:25	6/12/2008	0.0	0.2	20.9	78.9	
	10:45	7/21/2008	0.0	1.2	19.2	79.6	
	11:18	10/3/2008	0.0	0.0	20.9	79.1	
	10:05	10/13/2008	0.0	1.2	19.7	79.1	
	7:05	1/27/2009	0.1	1.4	20.1	78.5	
	11:15	4/9/2009	0.0	0.6	19.4	80.0	
	10:37	7/22/2009	0.0	0.6	18.9	80.5	
	9:33	10/28/2009	0.0	0.6	19.3	80.1	
	8:14	1/26/2010	0.3	0.2	20.5	79.1	
	8:11	5/25/2010	0.1	0.8	18.5	80.7	
	9:05	9/28/2010	0.0	2.2	16.6	81.2	
	7:20	1/25/2011	0.0	0.0	19.6	80.4	
	7:30	4/25/2011	0.2	1.6	18.9	79.3	
	7:18	7/13/2011	0.0	1.0	19.4	79.6	
	11:15	10/26/2011	0.0	0.8	20.4	78.8	
	7:17	1/25/2012	0.1	1.0	19.1	79.8	
	9:15	4/2/2012	0.1	0.0	20.9	79.0	
	7:51	7/25/2012	0.0	1.2	18.2	80.6	
11:08	10/15/2012	0.0	0.6	18.7	80.7		
11:10	1/15/2013	0.0	2.4	18.4	79.2		
8:06	4/29/2013	0.0	2.2	18.7	79.1		
9:20	7/22/2013	0.0	2.2	17.6	80.2		
9:25	10/14/2013	0.0	1.2	20.9	77.9		
12:20	4/22/2014	0.0	1.8	17.9	80.3		
7:45	4/22/2015	0.0	1.2	20.3	78.5		

CH<sub>4</sub> = Methane  
 CO<sub>2</sub> = Carbon Dioxide  
 O<sub>2</sub> = Oxygen  
 N = Nitrogen



Table 6c. Landfill Gas Field Parameter Monitoring Results of Gas Probes

Monitoring Points	Time	Date	CH <sub>4</sub> (%) variable	CO <sub>2</sub> (%) variable	O <sub>2</sub> (%) <5	N (%) <40	Comments target percentages pre-startup
GP-5	9:13	3/22/2006	0.0	4.4	17.6	78.0	
	14:15	3/23/2006	0.0	4.2	17.6	78.2	
	14:05	3/30/2006	1.2	2.5	18.8	77.5	
	13:40	4/6/2006	1.1	3.0	17.9	78.0	
	13:45	4/11/2006	0.7	2.7	17.5	79.1	
	12:50	4/14/2006	0.1	3.5	15.4	81.0	
	10:30	4/17/2006	0.0	3.6	16.2	80.2	
	10:35	4/28/2006	2.2	7.0	13.0	77.8	
	10:40	5/22/2006	1.5	8.5	11.2	78.8	
	12:25	6/2/2006	0.1	7.2	9.4	83.3	
	8:45	6/9/2006	0.1	0.3	10.5	89.1	
	12:18	6/14/2006	0.1	0.0	9.1	90.8	
	11:18	6/22/2006	0.7	10.7	10.5	78.1	
	11:51	7/5/2006	0.6	11.9	11.1	76.4	
	11:17	7/10/2006	0.7	12.0	10.1	77.2	
	10:22	7/17/2006	0.8	11.9	11.1	76.2	
	8:24	7/28/2006	0.6	10.1	11.5	77.8	
	10:16	8/8/2006	0.6	11.8	10.1	77.5	
	8:35	8/16/2006	0.8	10.0	10.5	78.7	
	8:02	8/21/2006	0.5	0.8	10.9	87.8	
	13:54	8/28/2006	0.6	11.3	13.3	74.8	
	11:07	9/13/2006	0.1	0.0	13.4	86.5	
	10:26	9/25/2006	0.0	0.0	13.4	86.6	
	8:52	10/10/2006	0.7	8.9	14.4	76.0	
	8:00	10/23/2006	0.3	1.4	15.5	82.8	
	14:37	11/2/2006	0.3	7.2	14.0	78.5	
	13:25	11/14/2006	0.2	6.0	14.9	78.9	
	11:10	11/27/2006	0.2	5.2	15.7	79.0	
	12:35	12/26/2006	0.1	4.8	15.7	79.5	
	13:09	1/27/2007	0.4	5.4	15.8	78.4	
	10:55	2/24/2007	0.4	4.2	17.3	78.2	
	17:30	3/28/2007	0.3	3.4	16.6	79.8	
	10:22	5/1/2007	0.1	3.4	14.0	82.5	
	12:40	5/30/2007	0.0	6.4	9.9	83.7	
	16:25	6/19/2007	0.0	7.4	12.1	80.5	
	11:39	8/13/2007	0.0	8.4	11.8	79.8	
	10:20	10/18/2007	0.1	9.6	9.4	80.9	
	13:12	1/23/2008	0.3	5.6	15.7	78.4	
	9:00	6/12/2008	0.0	6.0	9.7	84.3	
	12:05	7/21/2008	0.0	10.6	7.7	81.7	
	11:55	10/3/2008	0.0	8.2	12.7	79.1	
	11:08	10/13/2008	0.0	6.6	14.1	79.3	
	7:10	1/27/2009	0.2	3.2	14.0	82.7	
	11:02	4/9/2009	0.0	2.8	16.8	80.4	
	7:30	7/22/2009	0.0	7.8	13.0	79.2	
	10:20	10/28/2009	0.0	5.6	14.4	80.0	
	9:05	1/26/2010	0.3	4.8	16.2	78.8	
	8:40	5/25/2010	0.0	6.4	9.5	84.1	
	11:00	9/28/2010	0.0	8.8	11.6	79.6	
	8:04	1/25/2011	0.2	4.4	17.0	78.4	
10:35	4/25/2011	0.2	3.0	16.0	80.8		
6:28	7/13/2011	0.0	9.4	10.7	79.9		
12:05	10/26/2011	0.0	6.6	15.5	77.9		
10:25	1/25/2012	0.1	4.8	14.9	80.2		
10:48	4/2/2012	0.1	3.8	16.3	79.8		
10:24	7/25/2012	0.0	7.0	11.9	81.1		
9:00	10/15/2012	0.0	4.8	15.2	80.0		
11:18	1/15/2013	0.0	4.6	16.9	78.5		
10:08	4/29/2013	0.0	2.0	16.4	81.6		
8:15	7/22/2013	0.0	9.2	7.4	83.4		
7:54	10/14/2013	0.0	6.8	14.9	78.3		
7:50	4/22/2014	0.0	1.8	17.7	80.5		
9:04	4/22/2015	0.0	2.6	17.6	79.8		

CH<sub>4</sub> = Methane  
 CO<sub>2</sub> = Carbon Dioxide  
 O<sub>2</sub> = Oxygen  
 N = Nitrogen

Table 6c. Landfill Gas Field Parameter Monitoring Results of Gas Probes

Monitoring Points	Time	Date	CH <sub>4</sub> (%) variable	CO <sub>2</sub> (%) variable	O <sub>2</sub> (%) <5	N (%) <40	Comments target percentages pre-startup
GP-6	7:45	3/22/2006	0.0	6.1	13.9	80.0	
	15:55	3/23/2006	0.0	4.9	16.3	78.8	
	15:15	3/30/2006	0.0	1.7	18.3	80.0	
	14:25	4/6/2006	0.0	2.8	16.9	80.3	
	14:30	4/11/2006	0.7	2.8	17.3	79.2	
	12:04	4/14/2006	0.0	3.8	14.6	81.6	
	11:15	4/17/2006	10.4	2.3	17.6	69.7	
	10:30	4/28/2006	0.0	2.5	18.3	79.2	
	14:30	5/4/2006	0.0	2.7	17.9	79.4	
	11:30	5/22/2006	3.8	3.9	18.1	74.2	
	13:04	6/2/2006	0.2	2.4	17.2	80.2	
	9:25	6/9/2006	0.1	0.8	17.7	81.4	
	14:10	6/14/2006	1.3	3.3	16.8	78.6	
	9:50	6/22/2006	0.5	3.1	17.3	79.1	
	11:13	7/5/2006	0.5	3.6	17.1	78.8	
	10:34	7/10/2006	0.6	3.9	16.7	78.8	
	9:58	7/17/2006	0.1	0.6	16.8	82.5	
	12:10	7/28/2006	0.6	3.6	16.5	79.3	
	9:05	8/8/2006	0.6	3.5	17.0	78.9	
	7:29	8/16/2006	0.1	0.0	17.2	82.7	
	7:18	8/21/2006	0.5	3.6	18.1	77.8	
	13:21	8/28/2006	0.0	0.0	18.1	81.9	
	10:20	9/13/2006	0.6	1.0	19.1	79.3	
	11:05	9/25/2006	0.7	2.6	18.5	78.2	
	7:30	10/10/2006	0.8	2.3	19.7	77.2	
	7:34	10/23/2006	0.9	2.4	14.4	82.3	
	13:05	11/2/2006	2.4	0.8	19.7	77.1	
	13:14	11/14/2006	0.2	3.0	17.9	78.9	
	10:35	11/27/2006	0.1	0.6	19.6	79.8	
	14:20	12/26/2006	0.3	3.0	18.0	78.7	
	13:45	1/27/2007	0.2	3.4	17.0	79.5	
	12:45	2/24/2007	0.4	3.0	18.1	78.5	
	16:00	3/28/2007	0.2	2.4	18.0	79.5	
	10:45	5/1/2007	0.1	3.0	16.4	80.5	
	12:23	5/30/2007	0.0	3.2	15.8	81.0	
	16:15	6/19/2007	0.0	2.4	17.8	79.8	
	10:54	8/13/2007	0.1	2.6	18.5	78.9	
	11:14	10/18/2007	0.1	3.4	16.4	80.1	
	11:28	1/23/2008	0.0	3.0	18.0	79.0	
	6:55	6/12/2008	0.0	2.6	17.8	79.6	
	11:00	7/21/2008	0.0	3.0	15.5	81.5	
	12:53	10/3/2008	0.0	3.8	17.7	78.5	
	9:55	10/13/2008	0.0	3.4	18.2	78.4	
	10:05	1/27/2009	0.2	3.0	18.4	78.4	
	10:58	4/9/2009	0.0	3.2	16.6	80.2	
	10:20	7/22/2009	0.0	3.6	17.1	79.3	
	9:10	10/28/2009	0.0	2.6	17.2	80.2	
	8:00	1/28/2010	0.1	3.0	17.4	79.6	
	8:18	5/25/2010	0.0	2.4	16.5	81.1	
	8:42	9/28/2010	0.0	4.2	14.6	81.2	
11:25	1/25/2011	0.2	0.4	20.0	79.4		
7:00	4/25/2011	0.1	3.0	17.2	79.7		
7:32	7/13/2011	0.0	2.8	17.1	80.1		
7:25	10/26/2011	0.0	3.0	18.3	78.7		
7:08	1/25/2012	0.1	1.2	18.8	79.9		
8:40	4/2/2012	0.1	0.2	20.9	78.8		
8:01	7/25/2012	0.0	2.4	17.7	79.9		
10:38	10/15/2012	0.0	1.8	18.1	80.1		
8:50	1/15/2013	0.0	2.8	18.0	79.2		
7:58	4/29/2013	0.0	2.4	17.8	79.8		
9:46	7/22/2013	0.0	3.0	16.7	80.3		
9:45	10/14/2013	0.0	2.4	19.6	78.0		
10:25	4/22/2014	0.0	2.4	17.5	80.1		
7:35	4/22/2015	0.0	2.6	18.9	78.5		

CH<sub>4</sub> = Methane  
CO<sub>2</sub> = Carbon Dioxide  
O<sub>2</sub> = Oxygen  
N = Nitrogen

Table 6c. Landfill Gas Field Parameter Monitoring Results of Gas Probes

Monitoring Points	Time	Date	CH <sub>4</sub> (%) variable	CO <sub>2</sub> (%) variable	O <sub>2</sub> (%) <5	N (%) <40	Comments target percentages pre-startup
GP-7	7:40	3/22/2006	1.0	7.0	13.0	79.0	
	15:50	3/23/2006	0.1	5.0	14.7	80.2	
	15:00	3/30/2006	7.1	4.6	18.2	70.1	
	14:20	4/6/2006	0.1	2.3	17.0	80.6	
	14:25	4/11/2006	0.2	3.2	16.3	80.3	
	12:07	4/14/2006	0.1	5.2	11.8	82.9	
	10:15	4/17/2006	10.5	1.3	18.5	69.7	
	10:25	4/28/2006	0.0	1.7	19.2	79.1	
	14:25	5/4/2006	1.2	2.2	18.8	77.8	
	11:22	5/22/2006	0.0	1.0	19.5	79.5	
	13:00	6/2/2006	0.2	1.6	18.5	79.7	
	9:20	6/9/2006	3.7	2.4	20.0	73.9	
	14:05	6/14/2006	3.1	2.5	19.2	75.2	
	9:45	6/22/2006	0.5	1.7	19.1	78.7	
	11:10	7/5/2006	0.5	1.5	19.3	78.7	
	10:30	7/10/2006	0.0	0.0	18.6	81.4	
	9:55	7/17/2006	0.1	0.0	18.5	81.4	
	12:05	7/28/2006	0.0	3.7	18.5	77.8	
	9:00	8/8/2006	0.6	1.3	19.0	79.1	
	7:25	8/16/2006	0.5	1.5	19.2	78.8	
	7:16	8/21/2006	0.5	1.4	19.8	78.3	
	13:19	8/28/2006	0.4	1.2	19.5	78.9	
	10:19	9/13/2006	0.6	1.3	19.9	78.2	
	11:03	9/25/2006	1.8	2.2	17.7	78.3	
	7:28	10/10/2006	0.7	1.4	19.5	78.4	
	7:32	10/23/2006	3.0	2.8	19.0	75.2	
	13:00	11/2/2006	0.5	1.6	19.8	78.1	
	13:18	11/14/2006	0.2	3.2	17.2	79.4	
	10:30	11/27/2006	0.0	1.2	19.0	79.8	
	14:15	12/26/2006	0.3	2.6	18.0	79.1	
	13:40	1/27/2007	0.1	3.4	16.7	79.9	
	12:40	2/24/2007	0.4	3.2	17.2	79.2	
	15:55	3/28/2007	0.1	1.2	18.9	79.8	
	10:43	5/1/2007	0.1	3.6	15.1	81.2	
	12:26	5/30/2007	0.0	3.6	15.6	80.8	
	16:20	6/19/2007	0.0	2.6	17.5	79.9	
	10:50	8/13/2007	0.1	1.4	19.3	79.3	
	11:10	10/18/2007	0.1	3.6	15.5	80.8	
	11:24	1/23/2008	0.0	3.2	17.6	79.2	
	10:48	6/12/2008	0.0	1.4	18.4	80.2	
	10:55	7/21/2008	0.0	2.6	17.3	80.1	
	12:50	10/3/2008	0.0	1.8	19.6	78.6	
	9:50	10/13/2008	0.1	1.6	19.4	79.0	
	10:00	1/27/2009	0.2	3.0	18.2	78.6	
	10:58	4/9/2009	0.0	3.2	16.6	80.2	
	10:15	7/22/2009	0.0	0.4	19.1	80.5	
	9:05	10/28/2009	0.0	1.4	18.2	80.4	
	7:50	1/26/2010	0.0	0.4	20.0	79.6	
	8:14	5/25/2010	0.0	1.8	17.7	80.5	
	8:35	9/28/2010	0.0	4.0	14.3	81.7	
11:20	1/25/2011	0.2	0.4	20.0	79.4		
6:55	4/25/2011	0.1	3.2	16.6	80.1		
7:29	7/13/2011	0.0	1.4	19.1	79.5		
7:20	10/26/2011	0.0	0.6	19.9	79.5		
7:05	1/25/2012	0.1	2.0	18.0	79.9		
8:35	4/2/2012	0.0	2.4	18.3	79.3		
7:59	7/25/2012	0.0	1.8	17.4	80.8		
10:30	10/15/2012	0.0	1.6	18.0	80.4		
8:37	1/15/2013	0.0	3.2	17.1	79.7		
7:55	4/29/2013	0.0	3.2	16.2	80.6		
9:52	7/22/2013	0.0	2.6	17.6	79.8		
9:40	10/14/2013	0.0	1.4	20.5	78.1		
10:21	4/22/2014	0.0	2.8	16.4	80.8		
7:30	4/22/2015	0.0	2.0	19.0	79.0		

CH<sub>4</sub> = Methane  
 CO<sub>2</sub> = Carbon Dioxide  
 O<sub>2</sub> = Oxygen  
 N = Nitrogen

Table 6c. Landfill Gas Field Parameter Monitoring Results of Gas Probes

Monitoring Points	Time	Date	CH <sub>4</sub> (%) variable	CO <sub>2</sub> (%) variable	O <sub>2</sub> (%) <5	N (%) <40	Comments target percentages
GP-8	9:03	3/22/2006	0.0	2.4	18.6	79.0	pre-startup
	14:50	3/23/2006	0.0	1.9	18.6	79.5	
	14:55	3/30/2006	3.0	7.2	14.8	75.0	
	14:10	4/6/2006	0.0	7.0	10.9	82.1	
	14:20	4/11/2006	0.0	4.8	13.6	81.6	
	12:25	4/14/2006	0.0	5.4	12.2	82.4	
	11:10	4/17/2006	0.0	0.1	20.7	79.2	
	10:00	4/28/2006	0.0	0.2	20.4	79.4	
	14:20	5/4/2006	0.0	0.2	19.3	80.5	
	11:18	5/22/2006	0.6	0.1	20.4	78.9	
	12:55	6/2/2006	0.2	0.7	19.3	79.8	
	9:03	6/9/2006	2.4	0.6	20.3	76.7	
	13:37	6/14/2006	4.0	1.6	19.6	74.8	
	9:55	6/22/2006	0.5	0.5	19.8	79.2	
	12:27	7/5/2006	1.6	0.9	19.6	77.9	
	11:45	7/10/2006	0.7	1.2	19.2	78.9	
	11:10	7/17/2006	0.6	2.3	17.7	79.4	
	12:45	7/28/2006	0.6	0.8	19.0	79.6	
	10:58	8/8/2006	17.8	1.3	19.1	61.8	
	7:47	8/16/2006	0.1	0.2	19.5	80.2	
	7:33	8/21/2006	0.8	1.3	19.6	78.3	
	13:35	8/28/2006	0.0	0.0	19.1	80.9	
	10:47	9/13/2006	0.0	0.0	20.1	79.9	
	10:06	9/25/2006	0.0	0.0	17.5	82.5	
	7:26	10/10/2006	0.1	0.0	19.3	80.6	
	7:44	10/23/2006	0.7	1.4	19.6	78.3	
	13:20	11/2/2006	3.7	0.3	20.5	75.5	
	13:04	11/14/2006	0.1	4.2	15.1	80.6	
	10:45	11/27/2006	0.1	0.6	19.4	79.9	
	14:09	12/26/2006	0.3	0.8	19.2	79.7	
	12:15	1/27/2007	0.2	0.0	19.7	80.1	
	12:20	2/24/2007	0.3	5.2	12.8	81.8	
	15:47	3/28/2007	0.1	0.6	19.6	79.7	
	11:00	5/1/2007	0.0	8.5	7.6	83.9	
	12:20	5/30/2007	0.0	3.4	15.2	81.4	
	13:25	6/19/2007	0.0	0.6	20.2	79.2	
	11:10	8/13/2007	0.0	1.0	19.8	79.2	
	11:05	10/18/2007	0.1	6.0	11.5	82.4	
	11:38	1/23/2008	0.1	1.0	19.2	79.8	
	7:35	6/12/2008	0.0	0.6	20.7	78.7	
	10:50	7/21/2008	0.0	1.0	19.3	79.7	
	12:45	10/3/2008	0.0	0.4	20.9	78.7	
	10:10	10/13/2008	0.0	1.4	19.4	79.2	
	10:10	1/27/2009	0.3	1.8	19.0	78.9	
	10:51	4/9/2009	0.0	0.4	19.4	80.2	
	10:27	7/22/2009	0.0	0.8	18.8	80.4	
	10:00	10/28/2009	0.0	1.8	17.8	80.4	
	9:30	1/26/2010	0.3	0.4	20.0	79.4	
	8:25	5/25/2010	0.0	1.0	18.4	80.6	
	9:11	9/28/2010	0.0	5.4	12.7	81.9	
11:15	1/25/2011	0.2	0.4	20.0	79.4		
7:40	4/25/2011	0.2	4.4	14.4	81.0		
7:23	7/13/2011	0.0	0.8	19.2	80.0		
7:30	10/26/2011	0.0	0.8	20.4	78.8		
7:27	1/25/2012	0.1	1.6	18.7	79.6		
9:25	4/2/2012	0.1	1.0	20.4	78.5		
11:07	7/25/2012	0.0	3.0	16.0	81.0		
11:15	10/15/2012	0.0	1.0	18.3	80.7		
8:59	1/15/2013	0.0	3.2	16.8	80.0		
7:49	4/29/2013	0.0	3.6	15.3	81.1		
9:30	7/22/2013	0.0	3.0	16.5	80.5		
9:10	10/14/2013	0.0	2.2	18.4	79.4		
12:06	4/22/2014	0.0	3.6	15.0	81.4		
7:50	4/22/2015	0.0	3.0	17.2	79.8		

CH<sub>4</sub> = Methane  
CO<sub>2</sub> = Carbon Dioxide  
O<sub>2</sub> = Oxygen  
N = Nitrogen

Table 6c. Landfill Gas Field Parameter Monitoring Results of Gas Probes

Monitoring Points	Time	Date	CH <sub>4</sub> (%) variable	CO <sub>2</sub> (%) variable	O <sub>2</sub> (%) <5	N (%) <40	Comments target percentages		
GP-10	8:58	3/22/2006	0.0	4.5	15.4	80.1	pre-startup		
	14:42	3/23/2006	0.0	4.3	15.5	80.2			
	14:50	3/30/2006	0.0	1.6	18.7	79.7			
	14:15	4/6/2006	0.0	2.3	17.1	80.6			
	13:55	4/11/2006	0.0	1.5	18.3	80.2			
	11:54	4/14/2006	0.0	1.9	17.4	80.7			
	10:50	4/17/2006	0.0	3.0	16.5	80.5			
	9:50	4/28/2006	0.0	3.6	15.0	81.4			
	14:00	5/4/2006	0.0	3.4	15.4	81.2			
	11:04	5/22/2006	0.0	1.3	19.0	79.7			
	12:45	6/2/2006	0.1	1.8	17.6	80.5			
	8:55	6/9/2006	0.7	0.9	19.6	78.8			
	13:15	6/14/2006	0.0	0.0	17.7	82.3			
	10:05	6/22/2006	0.6	0.8	19.9	78.7			
	12:38	7/5/2006	0.6	5.3	14.9	79.2			
	11:50	7/10/2006	0.6	5.5	14.6	79.3			
	11:19	7/17/2006	0.6	1.4	19.4	78.6			
	13:09	7/28/2006	0.6	1.0	19.2	79.2			
	11:11	8/8/2006	0.6	4.7	14.7	80.0			
	7:58	8/16/2006	0.1	0.2	16.4	83.3			
	7:44	8/21/2006	0.4	3.5	17.3	78.8			
	13:42	8/28/2006	0.0	0.0	17.7	82.3			
	10:53	9/13/2006	0.6	2.4	18.6	78.4			
	10:12	9/25/2006	0.7	5.5	16.0	77.8			
	7:48	10/10/2006	0.7	5.3	19.2	74.8			
	7:48	10/23/2006	0.6	5.0	17.5	76.9			
	13:31	11/2/2006	0.6	4.3	17.3	77.8			
	12:35	11/14/2006	0.1	4.2	16.3	79.5			
	10:55	11/27/2006	0.1	4.0	16.8	79.1			
	13:50	12/26/2006	0.3	4.2	16.7	78.9			
	12:35	1/27/2007	0.3	4.0	17.2	78.5			
	12:10	2/24/2007	sampling port clogged with ice						
	16:10	3/28/2007	0.2	3.2	17.5	79.2			
	11:10	5/1/2007	0.0	3.8	15.7	80.5			
	12:15	5/30/2007	0.0	3.4	16.0	80.6			
	13:15	6/19/2007	0.1	1.8	18.7	79.5			
	11:24	8/13/2007	0.0	1.0	19.4	79.6			
	10:50	10/18/2007	0.1	2.4	16.9	80.6			
	14:20	1/23/2008	0.4	2.8	18.8	78.0			
	7:55	6/12/2008	0.0	4.0	16.0	80.0			
	11:15	7/21/2008	0.0	4.6	12.6	82.8			
	12:30	10/3/2008	0.0	5.0	16.4	78.6			
	11:50	10/13/2008	0.0	4.6	16.4	79.0			
	11:30	1/27/2009	0.3	3.4	18.2	78.1			
	10:41	4/9/2009	0.0	3.2	16.6	80.2			
	10:47	7/22/2009	0.0	2.8	17.2	80.0			
	10:05	10/28/2009	0.0	2.8	17.5	79.7			
	10:30	1/26/2010	0.3	0.8	19.6	79.3			
	11:50	5/25/2010	0.0	0.4	19.0	80.6			
	10:16	9/28/2010	0.0	1.8	17.7	80.5			
	11:00	1/25/2011	0.2	0.4	20.0	79.4			
	7:50	4/25/2011	0.2	3.4	17.0	79.4			
	7:41	7/13/2011	0.0	1.4	19.2	79.4			
	7:50	10/26/2011	0.0	2.4	19.2	78.4			
	9:45	1/25/2012	0.1	4.4	16.2	79.3			
	9:45	4/2/2012	0.1	4.2	17.0	78.7			
	10:52	7/25/2012	0.0	4.0	15.7	80.3			
	10:21	10/15/2012	0.0	3.2	15.0	81.8			
	10:20	1/15/2013	0.0	3.0	17.5	79.5			
7:43	4/29/2013	0.0	3.0	17.1	79.9				
8:33	7/22/2013	0.0	4.8	13.5	81.7				
9:00	10/14/2013	0.0	3.6	17.9	78.5				
11:29	4/22/2014	0.0	3.2	17.2	79.6				
7:55	4/22/2015	0.0	3.6	17.1	79.3				

CH<sub>4</sub> = Methane  
 CO<sub>2</sub> = Carbon Dioxide  
 O<sub>2</sub> = Oxygen  
 N = Nitrogen

Table 6c. Landfill Gas Field Parameter Monitoring Results of Gas Probes

Monitoring Points	Time	Date	CH <sub>4</sub> (%) variable	CO <sub>2</sub> (%) variable	O <sub>2</sub> (%) <5	N (%) <40	Comments target percentages
GP-11	9:09	3/22/2006	0.0	3.5	17.6	78.9	pre-startup
	14:27	3/23/2006	0.0	3.4	17.6	79.0	
	14:40	3/30/2006	0.0	0.8	19.7	79.5	
	13:55	4/6/2006	0.0	1.7	18.0	80.3	
	14:00	4/11/2006	0.0	0.7	19.8	79.5	
	11:43	4/14/2006	0.0	0.5	18.9	80.6	
	10:55	4/17/2006	0.3	0.1	20.4	79.2	
	7:30	4/28/2006	0.0	0.7	20.2	79.1	
	14:05	5/4/2006	0.0	0.0	19.9	80.1	
	11:07	5/22/2006	2.6	0.3	20.4	76.7	
	12:34	6/2/2006	1.0	0.1	20.4	78.5	
	9:45	6/9/2006	4.9	0.6	20.2	74.3	
	13:23	6/14/2006	0.8	0.3	20.0	78.9	
	10:10	6/22/2006	0.6	0.0	20.4	79.0	
	12:41	7/5/2006	0.5	1.4	18.5	79.6	
	11:55	7/10/2006	0.6	2.5	18.6	78.3	
	11:21	7/17/2006	0.5	1.5	18.1	79.9	
	13:15	7/28/2006	0.1	0.2	18.2	81.5	
	10:36	8/8/2006	0.6	2.2	17.8	79.4	
	8:01	8/16/2006	0.1	0.0	17.9	82.0	
	7:46	8/21/2006	0.5	2.4	19.0	78.1	
	13:45	8/28/2006	0.6	2.6	18.6	78.2	
	10:55	9/13/2006	0.1	2.7	19.2	78.0	
	10:14	9/25/2006	0.7	2.1	19.0	78.2	
	8:00	10/10/2006	0.7	2.0	18.5	78.8	
	7:52	10/23/2006	0.7	1.0	20.6	77.7	
	13:34	11/2/2006	0.6	1.5	19.8	78.1	
	12:44	11/14/2006	0.1	2.0	18.4	79.6	
	10:58	11/27/2006	0.1	1.0	19.6	79.3	
	13:40	12/26/2006	0.3	2.0	18.4	79.4	
	12:41	1/27/2007	0.4	2.6	18.2	78.9	
	11:10	2/24/2007	0.4	2.6	18.1	78.9	
	16:14	3/28/2007	0.2	2.6	17.8	79.5	
	11:15	5/1/2007	0.0	3.4	15.9	80.7	
	12:06	5/30/2007	0.0	3.0	16.8	80.2	
	13:05	6/19/2007	0.1	2.8	18.3	78.8	
	11:27	8/13/2007	0.0	2.2	18.8	79.0	
	10:34	10/18/2007	0.1	2.8	17.0	80.1	
	12:10	1/23/2008	0.2	2.4	19.2	78.2	
	8:05	6/12/2008	0.0	2.6	18.0	79.4	
	11:20	7/21/2008	0.0	3.4	16.6	80.0	
	12:23	10/3/2008	0.0	2.0	19.4	78.6	
	12:00	10/13/2008	0.0	2.2	19.1	78.7	
	10:45	1/27/2009	0.3	3.0	18.5	78.2	
	9:50	4/9/2009	0.0	3.4	16.8	79.8	
	10:53	7/22/2009	0.0	2.0	18.1	79.9	
	10:11	10/28/2009	0.0	2.4	17.9	79.7	
	9:15	1/26/2010	0.3	2.6	18.5	78.6	
	8:30	5/25/2010	0.0	3.2	16.5	80.3	
	10:25	9/28/2010	0.0	3.0	16.8	80.2	
	10:29	1/25/2011	0.2	3.6	16.6	79.6	
	7:55	4/25/2011	0.2	4.0	17.2	78.6	
	6:47	7/13/2011	0.0	2.8	18.3	78.9	
	10:10	10/26/2011	0.0	3.0	18.5	78.5	
	7:40	1/25/2012	0.1	2.6	18.4	78.9	
	9:55	4/2/2012	0.1	3.6	17.9	78.4	
	10:39	7/25/2012	0.0	1.8	17.9	80.3	
10:05	10/15/2012	0.0	1.6	18.2	80.2		
7:40	1/15/2013	0.0	2.2	19.1	78.7		
7:35	4/29/2013	0.0	2.6	17.4	80.0		
8:40	7/22/2013	0.0	2.4	18.5	79.1		
8:36	10/14/2013	0.0	1.8	20.8	77.4		
11:46	4/22/2014	0.0	3.4	16.8	79.8		
13:05	4/22/2015	0.0	1.8	19.5	78.7		

CH<sub>4</sub> = Methane  
 CO<sub>2</sub> = Carbon Dioxide  
 O<sub>2</sub> = Oxygen  
 N = Nitrogen

Table 6c. Landfill Gas Field Parameter Monitoring Results of Gas Probes

Monitoring Points	Time	Date	CH <sub>4</sub> (%) variable	CO <sub>2</sub> (%) variable	O <sub>2</sub> (%) <5	N (%) <40	Comments target percentages pre-startup
GP-12	9:06	3/22/2006	0.0	5.7	13.0	81.3	
	14:22	3/23/2006	0.0	5.5	13.2	81.3	
	14:20	3/30/2006	0.0	2.6	17.7	79.7	
	13:50	4/6/2006	0.2	2.1	17.3	80.4	
	13:50	4/11/2006	0.0	2.5	17.1	80.4	
	11:40	4/14/2006	0.0	2.5	15.5	82.0	
	10:45	4/17/2006	1.4	3.7	18.4	76.5	
	12:20	4/28/2006	0.0	2.4	18.0	79.6	
	13:54	5/4/2006	0.0	0.0	17.3	82.7	
	11:00	5/22/2006	1.4	2.7	17.5	78.4	
	12:28	6/2/2006	0.1	1.8	17.4	80.7	
	8:50	6/9/2006	0.9	2.1	19.2	77.8	
	13:10	6/14/2006	0.1	0.0	17.5	82.4	
	10:20	6/22/2006	0.5	2.2	18.2	79.1	
	11:57	7/5/2006	0.6	2.2	18.2	79.0	
	11:22	7/10/2006	0.6	2.7	18.2	78.5	
	10:39	7/17/2006	0.7	2.6	17.5	79.2	
	13:28	7/28/2006	0.6	1.5	18.2	79.7	
	11:22	8/8/2006	0.6	2.6	17.5	79.3	
	8:58	8/16/2006	4.1	18.6	10.0	67.3	
	8:44	8/21/2006	0.6	3.2	18.5	77.7	
	14:26	8/28/2006	0.0	0.0	19.4	80.6	
	11:42	9/13/2006	0.1	0.9	17.9	81.1	
	11:40	9/25/2006	0.8	3.4	16.8	79.0	
	8:47	10/10/2006	0.7	3.8	17.6	77.9	
	8:50	10/23/2006	0.7	4.1	16.4	78.8	
	14:55	11/2/2006	3.9	14.0	7.7	74.5	
	15:30	11/14/2006	0.3	3.6	16.7	79.5	
	11:05	11/27/2006	0.2	2.4	18.0	79.5	
	13:35	12/26/2006	0.3	3.8	15.7	80.3	
	13:18	1/27/2007	0.4	3.8	15.7	80.1	
	12:00	2/24/2007	0.2	3.2	16.6	80.0	
	17:40	3/28/2007	0.2	3.4	16.4	80.0	
	10:30	5/1/2007	0.1	2.6	16.1	81.3	
	12:02	5/30/2007	0.0	2.8	16.0	81.2	
	16:30	6/19/2007	0.0	2.8	18.1	79.1	
	11:35	8/13/2007	0.0	2.6	18.3	79.1	
	10:26	10/18/2007	0.1	4.0	15.2	80.7	
	13:08	1/23/2008	0.3	7.2	12.2	80.3	
	9:10	6/12/2008	0.0	2.4	17.1	80.5	
	11:45	7/21/2008	0.0	2.6	17.0	80.4	
	12:00	10/3/2008	0.0	4.0	17.6	78.4	
	11:30	10/13/2008	0.0	3.0	18.0	79.0	
	7:15	1/27/2009	0.2	5.6	15.3	78.9	
	9:44	4/9/2009	0.0	3.4	15.8	80.8	
	7:35	7/22/2009	0.0	2.4	17.9	79.7	
	11:15	10/28/2009	0.0	3.2	16.4	80.4	
	9:10	1/26/2010	0.3	5.2	14.9	79.7	
	11:55	5/25/2010	0.0	2.4	16.1	81.5	
	11:10	9/28/2010	0.0	4.0	15.3	80.7	
8:19	1/25/2011	0.3	5.4	14.6	79.7		
11:00	4/25/2011	0.1	3.2	16.1	80.6		
6:35	7/13/2011	0.0	2.4	17.5	80.1		
11:30	10/26/2011	0.0	3.6	17.8	78.6		
10:35	1/25/2012	0.1	4.6	14.8	80.5		
11:00	4/2/2012	0.1	3.2	16.1	80.6		
10:32	7/25/2012	0.0	2.6	16.9	80.5		
9:08	10/15/2012	0.0	3.2	16.1	80.7		
11:30	1/15/2013	0.0	5.4	13.6	81.0		
8:12	4/29/2013	0.0	3.2	16.0	80.8		
8:24	7/22/2013	0.0	3.2	16.8	80.0		
8:10	10/14/2013	0.0	3.2	18.6	78.2		
7:58	4/22/2014	0.0	2.6	17.8	79.6		
9:15	4/22/2015	0.0	3.4	17.8	78.8		

CH<sub>4</sub> = Methane  
 CO<sub>2</sub> = Carbon Dioxide  
 O<sub>2</sub> = Oxygen  
 N = Nitrogen

Table 6c. Landfill Gas Field Parameter Monitoring Results of Gas Probes

Monitoring Points	Time	Date	CH <sub>4</sub> (%) variable	CO <sub>2</sub> (%) variable	O <sub>2</sub> (%) <5	N (%) <40	Comments target percentages pre-startup
MW-101	9:24	3/23/2006	2.9	18.1	0.8	78.2	
	14:25	3/30/2006	1.0	8.0	10.9	80.1	
	14:00	4/6/2006	0.8	0.2	20.0	79.0	
	14:05	4/11/2006	0.0	0.0	20.3	79.7	
	11:50	4/14/2006	0.0	1.8	17.9	80.3	
	10:58	4/17/2006	2.0	0.3	20.5	77.2	
	7:35	4/28/2006	0.0	0.0	20.7	79.3	
	14:10	5/4/2006	0.0	0.0	20.2	79.8	
	11:10	5/22/2006	0.0	0.0	20.5	79.5	
	12:38	6/2/2006	0.2	0.0	20.4	79.4	
	9:50	6/9/2006	1.1	0.2	20.5	78.2	
	13:48	6/14/2006	4.1	0.3	20.4	75.2	
	10:15	6/22/2006	0.0	0.0	20.4	79.6	
	12:46	7/5/2006	0.6	20.0	20.0	59.4	
	12:00	7/10/2006	0.6	0.0	20.0	79.4	
	11:30	7/17/2006	0.0	0.0	19.8	80.2	
	13:20	7/28/2006	0.6	0.0	19.3	80.1	
	10:41	8/8/2006	0.8	0.0	19.8	79.4	
	8:05	8/16/2006	0.1	0.0	19.6	80.3	
	7:52	8/21/2006	0.9	0.1	20.4	78.6	
	13:47	8/28/2006	0.6	0.1	20.2	79.1	
	10:57	9/13/2006	0.6	0.2	19.8	79.4	
	10:16	9/25/2006	0.6	0.2	20.2	79.0	
	8:03	10/10/2006	0.7	0.2	20.5	78.6	
	7:55	10/23/2006	0.9	0.7	19.8	78.6	
	15:00	11/2/2006	0.3	0.0	20.8	78.9	
	12:48	11/14/2006	0.1	0.4	19.4	80.1	
	11:00	11/27/2006	0.1	0.2	20.0	79.7	
	13:45	12/26/2006	0.3	0.0	19.3	80.5	
	12:45	1/27/2007	0.4	0.6	20.0	79.1	
	11:14	2/24/2007	0.5	0.6	20.1	78.9	
	16:18	3/28/2007	0.2	0.2	20.1	79.5	
	11:19	5/1/2007	0.0	0.2	18.8	81.0	
	12:08	5/30/2007	0.0	0.2	18.9	80.9	
	13:10	6/19/2007	0.1	0.0	20.9	79.1	
	11:30	8/13/2007	0.0	0.0	20.9	79.1	
	10:37	10/18/2007	0.1	0.0	19.6	80.4	
	12:18	1/23/2008	0.2	5.8	14.4	79.6	
	14:45	5/12/2008	0.0	0.0	19.8	80.2	
	8:15	6/12/2008	0.0	0.0	20.9	79.1	
	11:30	7/21/2008	0.0	0.0	20.9	79.1	
	12:20	10/3/2008	0.0	0.4	20.9	78.7	
	12:05	10/13/2008	0.0	0.0	20.9	79.1	
	10:40	1/27/2009	0.3	4.8	15.7	79.3	
	11:57	4/9/2009	0.0	0.0	19.9	80.1	
	10:57	7/22/2009	0.0	0.0	19.4	80.6	
	10:16	10/28/2009	0.0	0.6	19.6	79.8	
	9:20	1/26/2010	0.3	0.8	19.4	79.5	
	8:34	5/25/2010	0.0	0.0	19.3	80.7	
	10:32	9/28/2010	0.0	1.0	17.7	81.3	
10:45	1/25/2011	0.2	0.4	20.0	79.4		
8:00	4/25/2011	0.2	0.4	20.9	78.5		
6:50	7/13/2011	0.0	0.0	20.5	79.5		
10:15	10/26/2011	0.0	0.6	20.4	79.0		
7:38	1/25/2012	0.1	0.6	19.5	79.8		
10:00	4/2/2012	0.1	0.2	20.9	78.8		
10:43	7/25/2012	0.0	0.0	19.1	80.9		
10:15	10/15/2012	0.0	0.4	18.9	80.7		
7:50	1/15/2013	0.0	1.8	18.7	79.5		
7:39	4/29/2013	0.0	0.4	20.9	78.7		
8:45	7/22/2013	0.0	0.0	20.9	79.1		
8:45	10/14/2013	0.0	0.4	20.9	78.7		
11:56	4/22/2014	0.5	0.6	20.1	78.8		
11:30	4/22/2015	0.0	0.4	20.7	78.9		

CH<sub>4</sub> = Methane  
 CO<sub>2</sub> = Carbon Dioxide  
 O<sub>2</sub> = Oxygen  
 N = Nitrogen



Table 6c. Landfill Gas Field Parameter Monitoring Results of Gas Probes

Monitoring Points	Time	Date	CH <sub>4</sub> (%) variable	CO <sub>2</sub> (%) variable	O <sub>2</sub> (%) <5	N (%) <40	Comments target percentages
MW-102	14:20	3/23/2006	0.0	0.7	20.5	78.8	pre-startup
	14:15	3/30/2006	1.0	0.5	20.6	77.9	
	13:35	4/6/2006	1.0	0.6	20.3	78.1	
	13:43	4/11/2006	0.5	0.3	19.7	79.5	
	11:50	4/14/2006	0.0	0.3	18.6	81.1	
	10:34	4/17/2006	0.8	0.7	20.1	78.4	
	14:00	4/28/2006	0.0	0.0	20.7	79.3	
	13:35	5/4/2006	0.0	0.2	20.5	79.3	
	10:42	5/22/2006	0.2	0.1	2.4	97.3	
	8:48	6/9/2006	0.0	0.0	19.8	80.2	
	12:20	6/14/2006	0.1	0.0	19.5	80.4	
	11:20	6/22/2006	0.7	0.1	19.9	79.3	
	11:53	7/5/2006	0.6	0.0	20.0	79.4	
	11:19	7/10/2006	0.6	4.7	15.1	79.6	
	10:20	7/17/2006	0.9	0.8	19.0	79.3	
	12:40	7/28/2006	0.6	0.6	18.6	80.2	
	10:13	8/8/2006	0.6	1.2	18.5	79.7	
	8:42	8/16/2006	0.1	0.0	17.7	82.2	
	8:00	8/21/2006	0.1	0.0	18.5	81.4	
	13:55	8/28/2006	0.6	1.8	18.8	78.8	
	11:05	9/13/2006	0.1	0.0	19.5	80.4	
	10:25	9/25/2006	0.1	0.0	19.2	80.7	
	8:44	10/10/2006	0.7	1.0	19.6	78.7	
	8:05	10/23/2006	0.8	0.4	19.6	79.2	
	14:42	11/2/2006	0.3	0.0	20.8	78.9	
	13:30	11/14/2006	0.2	0.2	20.0	79.6	
	11:12	11/27/2006	0.2	0.0	20.2	79.7	
	12:39	12/26/2006	0.1	0.0	20.0	79.9	
	13:10	1/27/2007	0.4	0.2	20.2	79.2	
	11:00	2/24/2007	0.4	0.2	20.6	78.9	
	17:35	3/28/2007	0.2	0.2	20.0	79.6	
	10:24	5/1/2007	0.0	1.4	17.0	81.6	
	11:57	5/30/2007	0.0	1.4	16.7	81.9	
	16:00	6/19/2007	0.0	0.0	20.6	79.4	
	11:42	8/13/2007	0.0	2.8	16.6	80.6	
	10:24	10/18/2007	0.1	4.2	15.0	80.7	
	14:05	1/23/2008	0.4	1.2	20.9	77.5	
	9:05	6/12/2008	0.0	0.6	18.9	80.5	
	12:10	7/2/2008	0.0	1.6	16.4	82.0	
	11:52	10/3/2008	0.0	3.6	16.8	79.6	
	11:03	10/13/2008	0.0	18.7	1.8	79.5	
	11:00	1/27/2009	0.3	1.0	20.8	78.0	
	9:29	4/9/2009	0.0	0.4	19.1	80.5	
	11:35	7/22/2009	0.0	1.8	16.1	82.1	
	10:25	10/28/2009	0.0	2.6	17.4	80.0	
	10:40	1/26/2010	0.3	2.2	18.4	79.1	
	8:44	5/25/2010	0.0	1.4	16.8	81.8	
	11:05	9/28/2010	0.0	4.6	14.1	81.3	
	8:08	1/25/2011	0.2	1.2	19.2	79.4	
	10:10	4/25/2011	0.1	0.2	20.7	79.0	
	6:30	7/13/2011	0.0	1.8	14.2	84.0	
	12:08	10/26/2011	0.0	2.4	18.4	79.2	
	10:30	1/25/2012	0.1	0.4	17.9	81.6	
	10:37	4/2/2012	0.1	1.4	18.5	80.0	
	10:28	7/25/2012	0.0	3.0	15.0	82.0	
	9:05	10/15/2012	0.0	2.8	16.7	80.5	
	11:21	1/15/2013	0.0	1.6	19.6	78.8	
10:05	4/29/2013	0.0	0.6	19.2	80.2		
8:11	7/22/2013	0.0	2.2	14.3	83.5		
7:59	10/14/2013	0.0	4.0	17.4	78.6		
7:53	4/22/2014	0.0	0.4	20.5	79.1		
9:08	4/22/2015	0.0	1.0	20.9	78.1		

CH<sub>4</sub> = Methane  
CO<sub>2</sub> = Carbon Dioxide  
O<sub>2</sub> = Oxygen  
N = Nitrogen

Table 6c. Landfill Gas Field Parameter Monitoring Results of Gas Probes

Monitoring Points	Time	Date	CH <sub>4</sub> (%) variable	CO <sub>2</sub> (%) variable	O <sub>2</sub> (%) <5	N (%) <4.0	Comments target percentages
MW-103	7:49	3/23/2006	0.0	0.2	21.8	78.0	pre-startup
	15:30	3/30/2006	0.0	1.9	18.2	79.9	
	14:35	4/6/2006	0.4	8.0	9.4	82.2	
	14:40	4/11/2006	0.0	6.4	10.8	82.8	
	12:15	4/14/2006	0.0	3.2	15.6	81.2	
	11:30	4/17/2006	0.0	0.0	20.7	79.3	
	10:45	4/28/2006	0.0	0.0	20.5	79.5	
	15:05	5/4/2006	0.4	0.0	13.5	86.1	
	11:42	5/22/2006	0.2	0.0	20.6	79.2	
	13:14	6/2/2006	0.2	0.0	20.1	79.7	
	9:10	6/9/2006	1.1	0.1	20.5	78.3	
	13:30	6/14/2006	0.6	0.3	20.4	78.7	
	11:28	6/22/2006	0.7	0.0	20.2	79.1	
	11:27	7/5/2006	0.6	0.0	20.4	79.0	
	10:40	7/10/2006	0.0	0.0	19.9	80.1	
	10:06	7/17/2006	0.8	0.4	19.4	79.4	
	12:30	7/28/2006	0.6	0.0	19.9	79.5	
	9:17	8/8/2006	0.6	0.0	19.9	79.5	
	7:34	8/16/2006	0.1	0.0	19.9	80.0	
	7:25	8/21/2006	0.5	0.0	20.1	79.4	
	13:29	8/28/2006	0.1	0.0	20.3	79.6	
	10:34	9/13/2006	0.0	0.0	20.4	79.6	
	9:57	9/25/2006	0.0	0.1	19.3	80.6	
	7:22	10/10/2006	0.5	0.2	20.4	78.9	
	7:38	10/23/2006	0.6	0.0	20.8	78.6	
	13:14	11/2/2006	0.0	0.3	21.0	78.7	
	13:08	11/14/2006	0.2	9.2	11.2	79.5	
	10:40	11/27/2006	0.1	0.0	20.1	79.9	
	14:00	12/26/2006	0.3	0.2	20.1	79.5	
	12:05	1/27/2007	0.1	0.0	19.8	80.2	
	12:34	2/24/2007	0.4	4.2	16.3	79.2	
	15:35	3/28/2007	0.1	0.0	20.0	79.9	
	10:52	5/1/2007	0.1	0.8	18.7	80.4	
	12:40	5/30/2007	0.0	0.4	18.9	80.7	
	13:35	6/19/2007	0.0	0.0	20.9	79.1	
	11:05	8/13/2007	0.0	0.0	20.9	79.1	
	10:05	10/18/2007	0.1	1.2	18.5	80.2	
	13:45	1/23/2008	0.4	0.2	20.9	78.5	
	7:15	6/12/2008	0.0	0.4	20.9	78.7	
	10:40	7/21/2008	0.0	0.0	20.9	79.1	
	11:20	10/3/2008	0.0	0.0	20.9	79.1	
	10:05	10/13/2008	0.0	0.4	20.7	78.9	
	7:00	1/27/2009	0.0	0.0	20.9	79.1	
	11:17	4/9/2009	0.0	0.0	20.0	80.0	
	10:32	7/22/2009	0.0	0.4	19.6	80.0	
	9:27	10/28/2009	0.0	0.0	19.8	80.2	
	8:14	1/26/2010	0.3	2.2	18.0	79.5	
	8:08	5/25/2010	0.0	0.0	19.3	80.7	
	8:57	9/28/2010	0.0	0.0	18.9	81.1	
	7:15	1/25/2011	0.0	0.2	19.4	80.4	
7:25	4/25/2011	0.2	3.0	17.5	79.3		
7:15	7/13/2011	0.0	0.0	20.5	79.5		
7:35	10/26/2011	0.0	0.0	20.9	79.1		
7:14	1/25/2012	0.2	2.6	16.9	80.3		
9:10	4/2/2012	0.0	0.0	20.9	79.1		
7:48	7/25/2012	0.0	3.4	15.5	81.1		
10:50	10/15/2012	0.0	0.2	18.9	80.9		
11:05	1/15/2013	0.0	3.8	16.5	79.7		
8:03	4/29/2013	0.0	0.6	20.9	78.5		
9:15	7/22/2013	0.0	0.6	20.7	78.7		
9:20	10/14/2013	0.0	0.2	20.9	78.9		
12:14	4/22/2014	0.0	0.0	20.9	79.1		
7:40	4/22/2015	0.0	0.0	20.9	79.1		

CH<sub>4</sub> = Methane  
 CO<sub>2</sub> = Carbon Dioxide  
 O<sub>2</sub> = Oxygen  
 N = Nitrogen

Table 6c. Landfill Gas Field Parameter Monitoring Results of Gas Probes

Monitoring Points	Time	Date	CH <sub>4</sub> (%) variable	CO <sub>2</sub> (%) variable	O <sub>2</sub> (%) <5	N (%) <40	Comments target percentages
MW-104	9:29	3/23/2006	12.8	18.5	0.8	67.9	pre-startup
	15:45	3/30/2006	0.0	0.0	20.7	79.3	
	13:10	4/6/2006	6.8	8.9	10.5	73.8	
	14:50	4/11/2006	4.1	7.1	9.2	79.6	
	11:40	4/17/2006	2.0	0.3	21.0	76.7	
	14:10	4/28/2006	0.0	0.0	20.7	79.3	
	15:40	5/4/2006	0.0	0.0	8.1	91.9	
	10:27	5/22/2006	0.0	0.1	19.9	80.0	
	8:32	6/9/2006	0.0	0.0	19.6	80.4	
	12:45	6/14/2006	3.2	0.8	18.8	77.2	
	10:54	6/22/2006	0.8	0.1	19.7	79.4	
	12:19	7/5/2006	0.6	0.0	20.0	79.4	
	11:40	7/10/2006	0.7	0.6	19.8	78.9	
	11:05	7/17/2006	0.1	0.0	19.6	80.3	
	12:38	7/28/2006	0.6	0.0	19.8	79.6	
	9:49	8/8/2006	0.6	0.0	20.0	79.4	
	9:14	8/16/2006	0.7	0.2	19.4	79.7	
	8:30	8/21/2006	0.1	0.3	18.1	81.5	
	14:16	8/28/2006	0.0	0.0	17.6	82.4	
	11:29	9/13/2006	0.7	0.2	16.8	82.3	
	11:27	9/25/2006	0.0	0.2	19.5	80.3	
	8:27	10/10/2006	0.7	13.1	4.3	81.9	
	8:30	10/23/2006	0.7	0.3	16.7	82.3	
	14:14	11/2/2006	0.3	0.0	20.6	79.1	
	15:06	11/14/2006	0.2	0.6	19.4	79.8	
	12:04	11/27/2006	0.2	3.0	17.6	79.2	
	13:15	12/26/2006	0.2	0.0	20.0	79.9	
	14:16	1/27/2007	0.1	0.0	19.4	80.5	
	11:35	2/24/2007	0.5	12.8	5.6	81.1	
	16:55	3/28/2007	0.2	0.2	20.0	79.6	
	11:45	5/1/2007	0.0	0.0	18.9	81.1	
	11:48	5/30/2007	0.0	0.0	19.0	81.0	
	15:30	6/19/2007	0.0	0.0	20.9	79.1	
	12:05	8/13/2007	0.0	0.0	20.9	79.1	
	9:50	10/18/2007	0.1	0.0	19.6	80.3	
	13:20	1/23/2008	0.3	0.6	20.6	78.5	
	9:25	6/12/2008	0.0	0.0	20.9	79.1	
	12:30	7/21/2008	0.0	0.0	20.9	79.1	
	11:37	10/3/2008	0.0	0.0	20.9	79.1	
	10:45	10/13/2008	0.0	0.2	20.9	78.9	
	10:50	1/27/2009	0.2	14.6	3.9	81.3	
	11:40	4/9/2009	0.0	1.2	19.2	79.6	
	7:50	7/22/2009	0.0	0.0	19.6	80.4	
	9:48	10/28/2009	0.0	0.0	20.0	80.0	
	8:25	1/26/2010	0.4	0.2	20.4	79.1	
	11:30	5/25/2010	0.0	0.0	19.3	80.7	
	9:25	9/28/2010	0.0	0.2	18.6	81.2	
	7:45	1/25/2011	0.2	0.6	19.6	79.6	
	8:21	4/25/2011	0.2	0.4	20.5	78.9	
	7:47	7/13/2011	0.0	0.0	20.5	79.5	
	11:05	10/26/2011	0.0	0.2	20.4	79.4	
	7:10	1/25/2012	0.1	1.0	18.5	80.4	
	9:05	4/2/2012	0.0	0.0	20.9	79.1	
	8:07	7/25/2012	0.0	11.0	3.9	85.1	
	8:35	10/15/2012	0.0	0.0	18.1	81.9	
	9:55	1/15/2013	0.0	0.6	20.9	78.5	
	10:00	4/28/2013	0.0	9.4	6.8	83.8	
7:55	7/22/2013	0.0	5.0	14.2	80.8		
7:40	10/14/2013	0.0	2.4	17.4	80.2		
10:47	4/22/2014	0.0	0.2	20.7	79.1		
10:26	4/22/2015	0.0	1.0	20.9	78.1		

CH<sub>4</sub> = Methane  
 CO<sub>2</sub> = Carbon Dioxide  
 O<sub>2</sub> = Oxygen  
 N = Nitrogen

Table 6c. Landfill Gas Field Parameter Monitoring Results of Gas Probes

Monitoring Points	Time	Date	CH <sub>4</sub> (%) variable	CO <sub>2</sub> (%) variable	O <sub>2</sub> (%) <5	N (%) <40	Comments target percentages
	2:00	3/28/2006	4.4	4.0	17.8	73.8	
	12:52	5/4/2006	8.6	14.7	7.4	69.3	
	11:15	6/28/2006	5.9	14.5	9.5	70.1	
	11:45	7/5/2006	6.1	18.7	7.2	68.0	
	11:12	7/10/2006	6.7	21.7	5.1	66.5	
	10:31	7/17/2006	6.2	18.6	6.5	68.7	
	14:24	7/28/2006	2.1	19.2	6.1	72.6	
	10:23	8/8/2006	5.9	18.0	6.8	69.3	
	8:30	8/16/2006	6.8	17.3	7.3	68.6	
	8:07	8/21/2006	6.9	18.0	7.6	67.5	
	14:00	8/28/2006	7.1	18.6	7.3	67.0	
	11:13	9/13/2006	15.2	20.0	8.1	56.7	
	11:37	9/25/2006	14.2	24.3	4.8	56.7	
	8:09	10/10/2006	7.4	19.2	8.2	65.2	
	8:13	10/23/2006	12.8	16.3	9.1	61.8	
	9:00	11/2/2006	5.0	14.0	8.2	72.8	
	13:43	11/14/2006	4.4	10.4	10.6	74.6	
	11:19	11/27/2006	3.8	10.2	10.8	75.2	
	12:31	12/26/2006	6.5	14.8	6.9	71.8	
	13:30	1/27/2007	8.0	15.8	6.4	69.8	
	10:45	2/24/2007	6.0	11.6	10.0	72.4	
	7:35	3/5/2007	0.1	0.2	19.8	79.9	
	8:20	3/24/2007	9.0	12.6	9.7	68.7	
	17:10	3/24/2007	8.5	12.6	9.4	69.5	
	17:25	3/26/2007	6.5	11.4	9.8	72.3	
	7:39	3/27/2007	6.5	11.2	10.2	72.1	
	17:25	3/28/2007	6.5	10.0	11.6	71.9	
	8:16	3/29/2007	5.5	8.8	12.3	73.4	
	17:15	3/29/2007	5.0	8.6	12.3	74.1	
	16:09	6/19/2007	12.5	18.2	4.6	64.7	
	11:55	8/13/2007	13.5	20.2	4.1	62.2	
	9:12	10/19/2007	7.5	16.2	5.0	71.3	
	12:50	1/23/2008	8.5	15.6	7.1	68.8	
	8:55	6/12/2008	8.0	15.2	7.3	69.5	
	12:03	7/21/2008	9.5	17.0	5.6	67.9	
	11:15	10/13/2008	6.5	9.8	12.0	71.7	
	7:20	1/27/2009	3.8	6.4	15.7	74.2	
	9:37	4/9/2009	6.5	7.6	13.3	72.6	
	7:40	7/22/2009	5.0	7.8	12.8	74.4	
	10:35	10/28/2009	6.5	7.4	13.9	72.2	
	7:20	1/27/2009	3.8	6.4	15.7	74.2	
	13:15	5/25/2010	5.0	5.2	15.2	74.6	
	10:45	9/28/2010	6.5	5.4	15.3	72.8	
	8:11	1/25/2011	4.4	4.2	17.1	74.3	
	10:40	4/25/2011	24.0	5.5	16.3	54.2	
	8:24	7/13/2011	5.5	3.8	17.4	73.3	
	16:15	9/15/2011	13.0	13.8	9.9	63.3	
	8:22	9/21/2011	34.0	26.8	2.9	36.3	
	9:28	9/21/2011	18.5	18.4	6.5	56.6	
	9:20	9/22/2011	22.5	22.6	3.7	51.2	
	10:05	9/22/2011	17.0	18.0	7.0	58.0	
	10:51	9/22/2011	18.0	18.8	6.0	57.2	
	10:32	10/3/2011	6.0	8.4	13.9	71.7	
	13:43	10/24/2011	7.5	10.0	12.0	70.5	
	10:50	10/26/2011	7.5	16.4	5.8	70.3	
	10:33	11/7/2011	5.5	7.4	14.6	72.5	
	9:11	11/14/2011	5.0	6.4	14.8	73.8	
	10:20	12/12/2011	7.5	4.8	16.6	71.1	
	10:10	12/27/2011	6.5	5.0	15.8	72.7	
	9:10	1/10/2012	6.0	6.0	14.4	73.6	
	10:17	1/25/2012	3.1	2.4	17.6	76.9	
	9:08	2/20/2012	3.1	3.0	19.3	74.6	
	9:35	3/8/2012	8.0	7.2	14.8	70.0	
	10:15	4/2/2012	4.3	4.4	17.4	73.9	
	8:55	4/16/2012	5.0	4.8	16.4	73.8	
	9:45	4/30/2012	7.5	7.4	13.6	71.5	
	9:08	5/14/2012	7.5	7.6	14.2	70.7	
	9:00	5/29/2012	5.5	5.2	15.7	73.6	
	7:38	6/11/2012	7.0	6.0	15.5	71.5	
	9:35	6/25/2012	4.8	4.6	16.3	74.4	
	8:55	7/9/2012	5.0	5.0	15.6	74.4	
	8:20	7/23/2012	6.0	8.0	13.0	73.0	
	10:17	7/25/2012	7.0	8.9	12.1	72.0	
	8:49	8/6/2012	3.9	5.6	15.0	75.6	
	9:10	8/21/2012	4.7	6.6	14.2	74.6	
	9:07	9/4/2012	4.5	6.8	13.5	75.2	
	8:50	10/1/2012	4.4	7.6	13.0	75.1	
	8:25	10/15/2012	4.8	8.4	12.2	74.7	
	7:25	12/6/2012	8.5	9.8	11.6	70.1	
	9:50	12/17/2012	7.5	7.8	12.4	72.3	
	8:40	12/31/2012	10.5	9.0	12.5	68.0	
	8:30	1/9/2013	12.0	10.6	11.6	65.8	
	9:40	1/16/2013	13.5	9.8	11.3	65.4	
	8:55	1/28/2013	6.5	5.4	17.1	71.0	
	10:25	2/11/2013					have to fix drop tube for readings
	9:10	2/25/2013	1.0	0.8	20.9	77.3	
	7:20	3/8/2013					No readings
	8:40	3/22/2013					No readings
	13:40	4/8/2013	6.0	5.8	15.7	72.5	
	15:10	4/22/2013	6.5	7.2	14.9	71.4	
	9:35	4/29/2013	3.5	4.6	16.3	75.7	
	8:22	5/13/2013	3.0	4.4	16.6	76.0	
	13:08	5/28/2013	3.9	5.6	15.2	75.3	
	8:39	6/7/2013	4.5	6.6	14.3	74.6	
	8:09	6/21/2013	5.5	8.4	12.7	73.4	
	8:40	7/5/2013	4.8	7.8	12.9	74.6	
	7:44	7/22/2013	5.5	8.6	12.4	73.5	
	8:50	8/5/2013	6.5	9.0	12.3	72.2	
	8:08	8/19/2013	6.0	8.6	12.4	73.0	
	8:24	9/5/2013	5.0	7.8	13.6	73.6	
	8:38	9/16/2013	6.5	8.6	13.4	71.5	

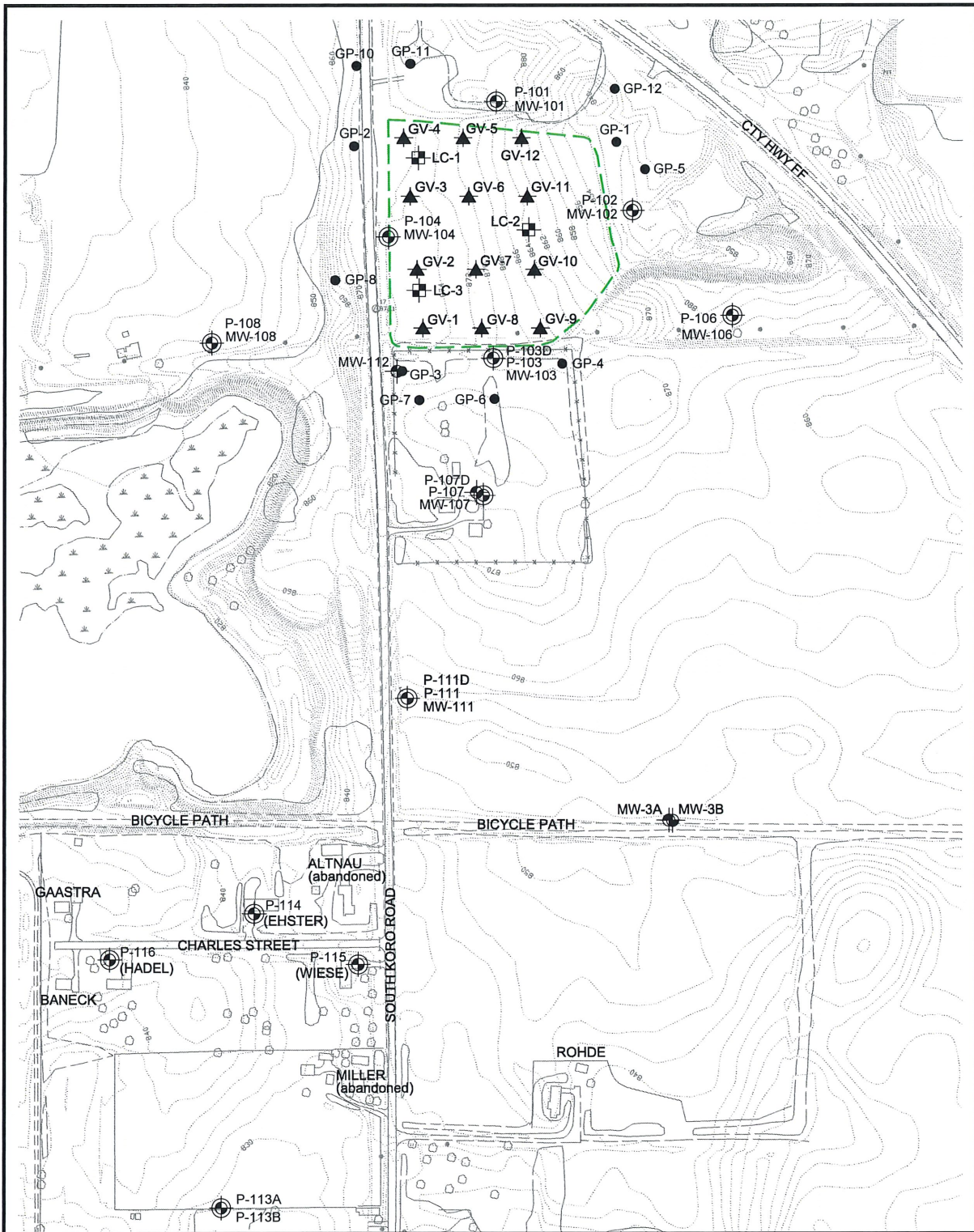
CH<sub>4</sub> = Methane  
 CO<sub>2</sub> = Carbon Dioxide  
 O<sub>2</sub> = Oxygen  
 N = Nitrogen

Table 6c. Landfill Gas Field Parameter Monitoring Results of Gas Probes

Monitoring Points	Time	Date	CH <sub>4</sub> (%) variable	CO <sub>2</sub> (%) variable	O <sub>2</sub> (%) <5	N (%) <40	Comments target percentages
System Exhaust	7:24	9/30/2013	12.0	10.8	11.9	65.3	
	7:24	10/14/2013	11.0	10.2	12.6	66.2	
	8:00	10/28/2013	11.5	9.8	14.0	64.7	
	7:55	11/19/2013	8.5	7.4	15.5	68.6	
	7:23	12/2/2013	11.5	7.8	15.1	65.6	
	7:05	12/16/2013	9.5	7.2	15.3	68.0	
	7:30	12/27/2013					Blower off
	7:02	1/13/2014	12.5	7.8	14.4	65.3	
	7:05	1/30/2014	14.5	9.4	14.0	62.1	
	7:21	2/12/2014	13.0	7.4	14.8	64.8	
	7:40	2/24/2014	8.5	6.2	14.6	70.7	
	8:07	3/10/2014	13.0	8.4	14.1	64.5	
	9:15	3/24/2014	16.0	14.4	8.1	61.5	
	7:45	4/7/2014	11.0	8.6	12.8	67.6	
	7:42	4/22/2014	8.5	9.0	12.5	70.0	
	7:28	5/7/2014	7.5	6.2	14.8	71.5	
	7:38	5/19/2014	4.7	5.0	16.4	74.0	
	7:05	5/30/2014	2.9	3.0	18.2	76.0	
	8:00	6/16/2014	4.0	4.8	15.8	75.5	
	7:40	6/30/2014	4.7	6.6	18.4	70.3	
	7:48	7/14/2014	3.1	6.0	15.8	75.1	
	8:48	7/28/2014	3.0	6.0	15.8	75.2	
	8:05	8/11/2014	3.0	7.0	13.8	76.2	
	13:15	8/25/2014	3.1	7.8	13.2	76.0	
	7:37	9/8/2014	3.5	8.2	12.7	75.7	
	7:23	9/22/2014	3.1	7.0	14.5	75.4	
	7:35	10/7/2014	4.5	9.0	11.2	75.4	
	7:36	10/20/2014	5.5	10.2	10.8	73.5	
	7:21	11/3/2014	6.5	8.6	14.8	70.1	
	7:18	11/17/2014	10.0	11.4	10.3	68.3	
	7:25	12/2/2014	9.0	9.8	11.6	69.6	
	7:50	12/15/2014	NA	NA	NA	NA	Blower off
	8:05	12/18/2014	12.0	11.2	11.3	65.5	
	7:15	1/2/2015	11.5	11.2	11.6	65.7	
	7:12	1/16/2015	8.0	7.2	14.3	70.5	
	7:20	1/26/2015	11.0	14.0	7.8	67.2	
	7:21	2/9/2015	6.5	7.2	14.3	72.0	
	7:45	2/24/2015	13.0	8.4	13.4	65.2	
	8:14	3/9/2015	9.0	8.2	12.7	70.1	
	7:12	3/23/2015	7.5	8.8	11.3	72.4	
	7:22	4/6/2015	7.0	8.2	11.8	73.0	
	9:00	4/22/2015	5.0	8.0	12.7	74.3	
	7:08	5/4/2015	6.5	9.2	10.2	74.1	
	7:15	5/18/2015	8.0	10.6	10.2	71.2	
	7:08	6/1/2015	7.0	10.8	10.0	72.2	
	7:20	6/15/2015	9.0	11.4	9.1	70.5	
	7:21	6/29/2015	8.5	10.8	10.6	70.1	
	7:18	7/14/2015	7.5	11.4	9.8	71.3	
	7:11	7/27/2015	5.5	9.6	11.1	73.8	
	7:18	8/10/2015	6.0	10.0	10.2	73.8	
7:15	8/24/2015	5.0	9.2	10.9	74.9		
7:25	9/8/2015	8.0	12.6	9.1	70.3		
7:40	9/21/2015	4.5	8.6	12.2	74.7		
7:16	10/5/2015	7.0	11.4	10.4	71.2		
7:22	10/19/2015	7.0	10.2	11.3	71.5		

CH<sub>4</sub> = Methane  
 CO<sub>2</sub> = Carbon Dioxide  
 O<sub>2</sub> = Oxygen  
 N = Nitrogen

**FIGURES**



**EXPLANATION**

- P-104  
 MW-104  
 MONITOR WELL, PIEZOMETER  
 LOCATION, DESIGNATION
- LC-2  
 LEACHATE HEAD WELL  
 LOCATION, DESIGNATION
- OUTLINE OF CLOSED LANDFILL
- GP-1  
 GAS PROBE LOCATION  
 AND DESIGNATION
- GV-1  
 GAS VENT LOCATION  
 AND DESIGNATION



SCALE



BASEMAP FROM FOND DU LAC COUNTY PLANNING DIVISION, SPRING 2000.

<b>SITE LAYOUT</b>	DATE: 10/3/13
	DESIGNED: HJW
	CHECKED: MRN
	APPROVED: MRN
	DRAWN: HJW
PROJ.: 117-2202040	



Figure 1

## CHARTS



Chart 53: P-103D  
Layer 3 Well

10' Down gradient

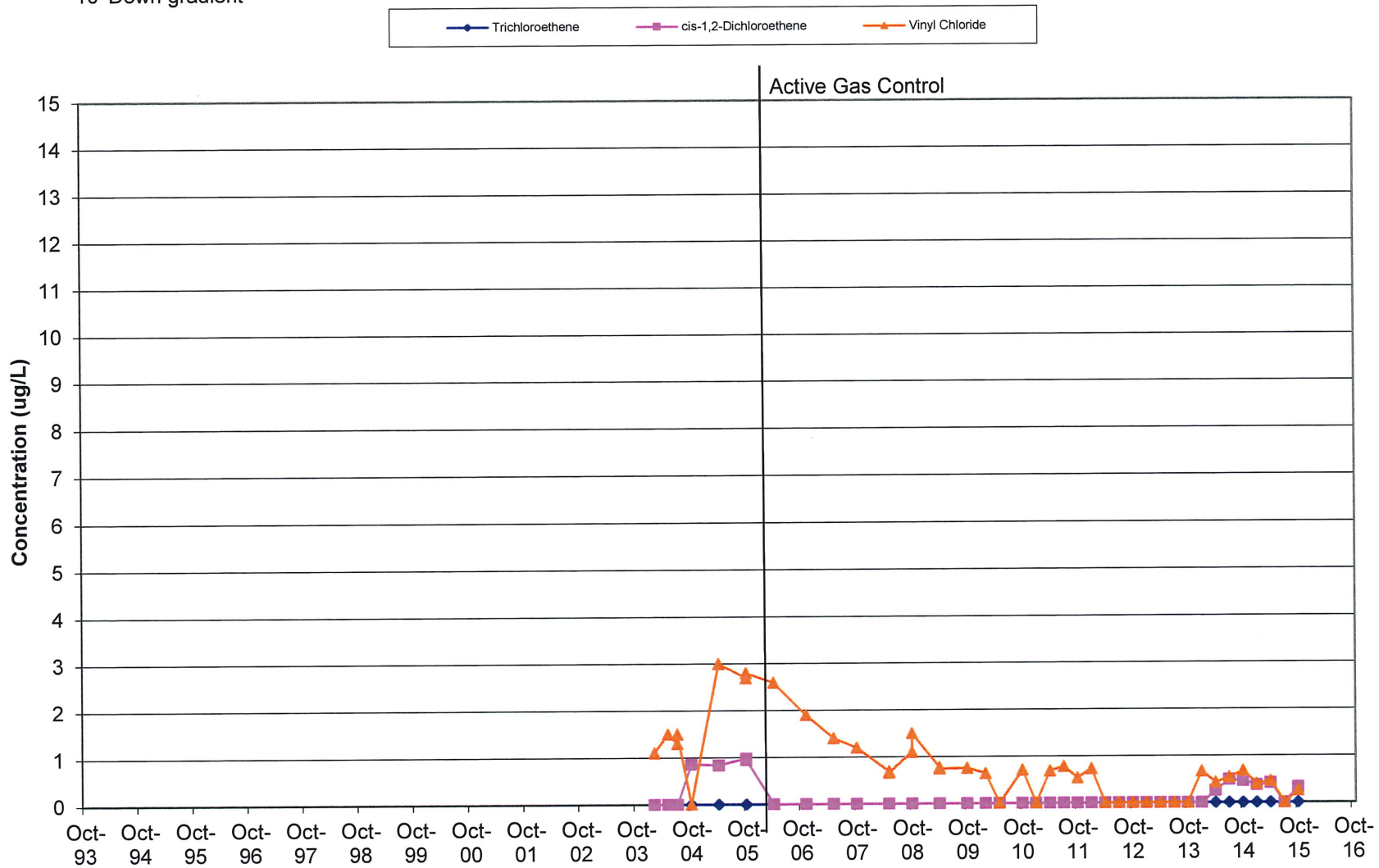


Chart 54: P-111D  
Layer 3 Well

900' Down gradient

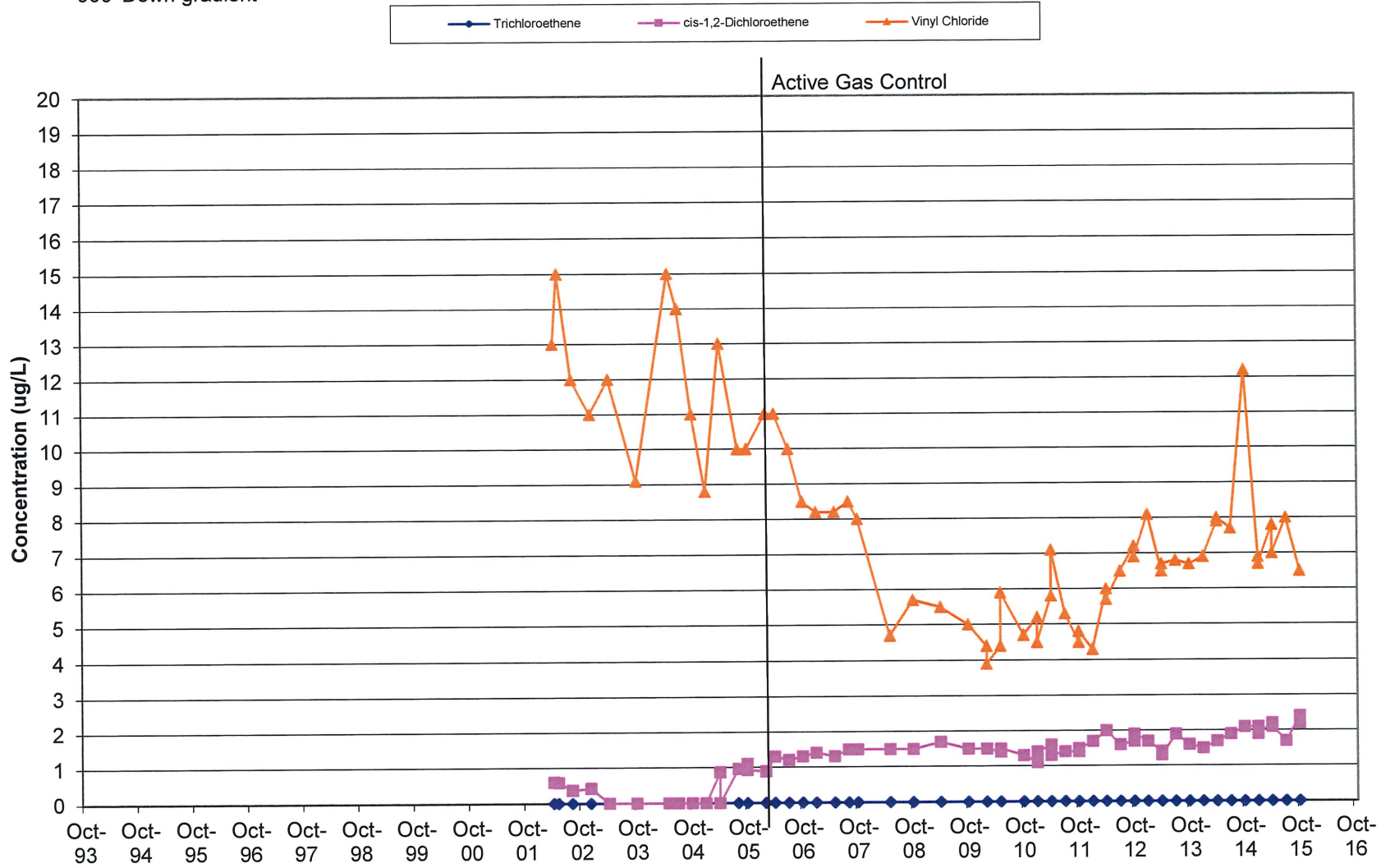


Chart 57: P-114  
Layer 3 Well

1550' Down gradient

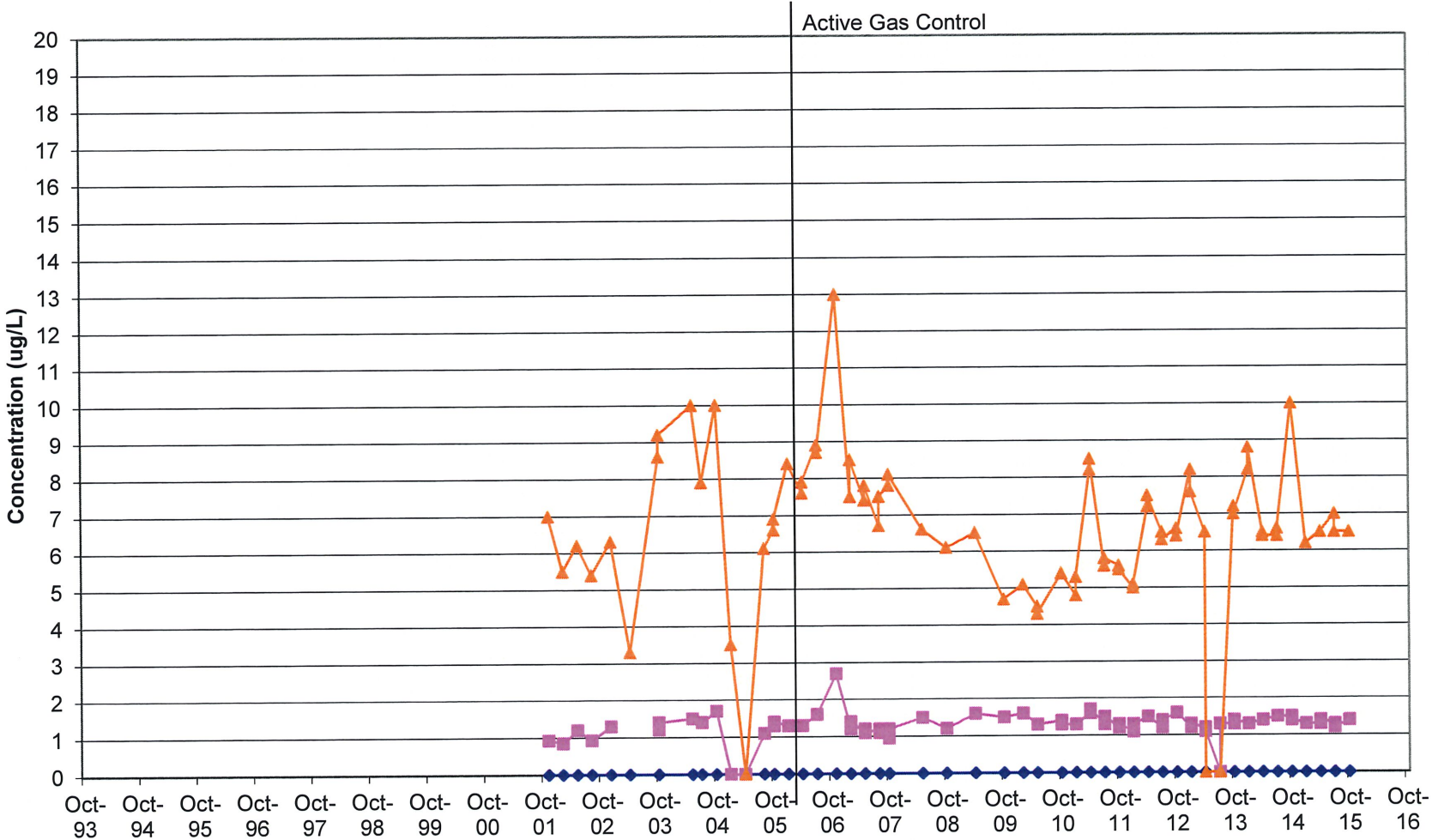
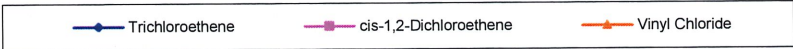


Chart 58: P-115  
Layer 3 Well

1600' Down gradient

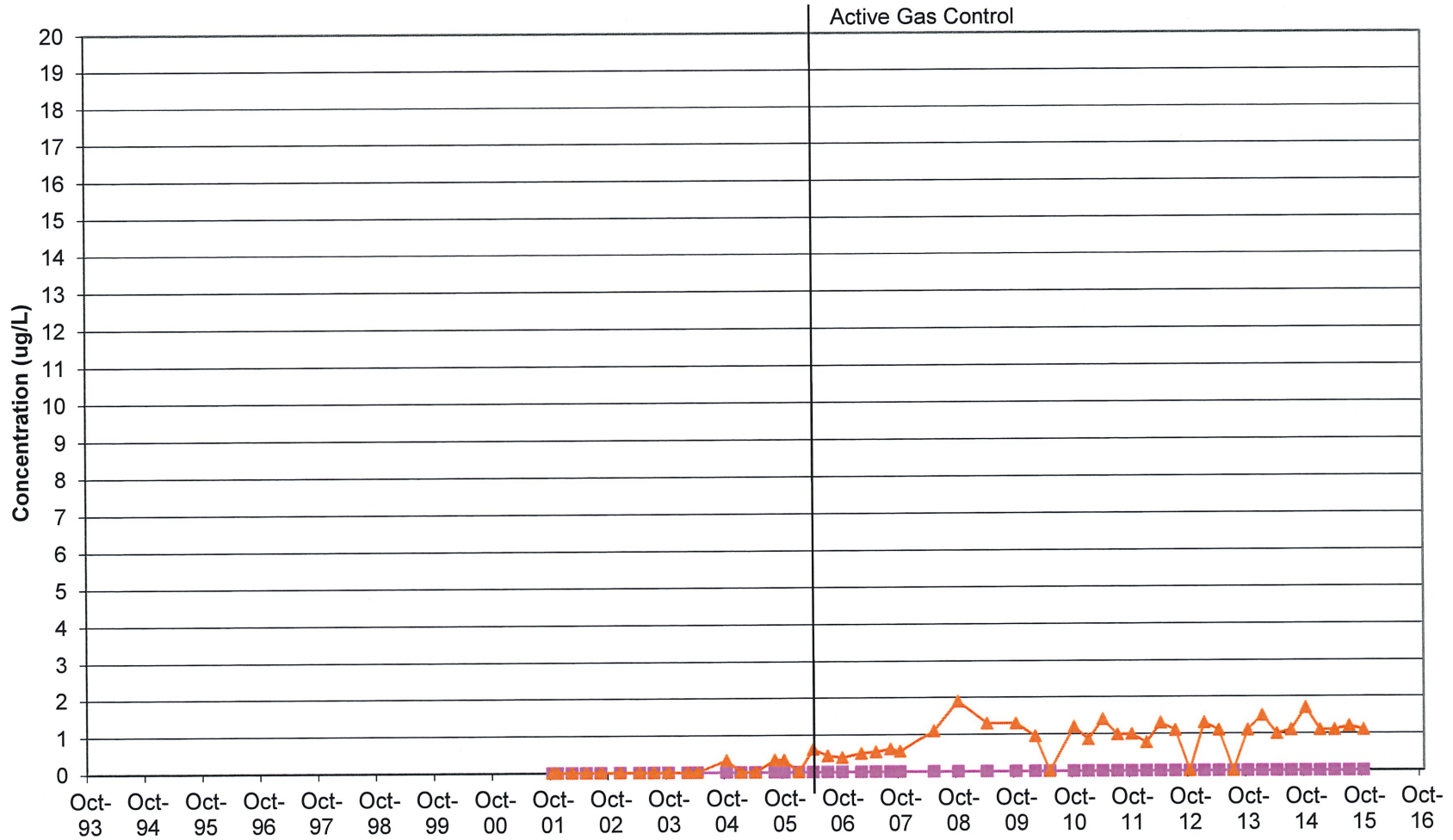
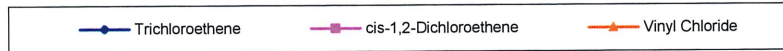
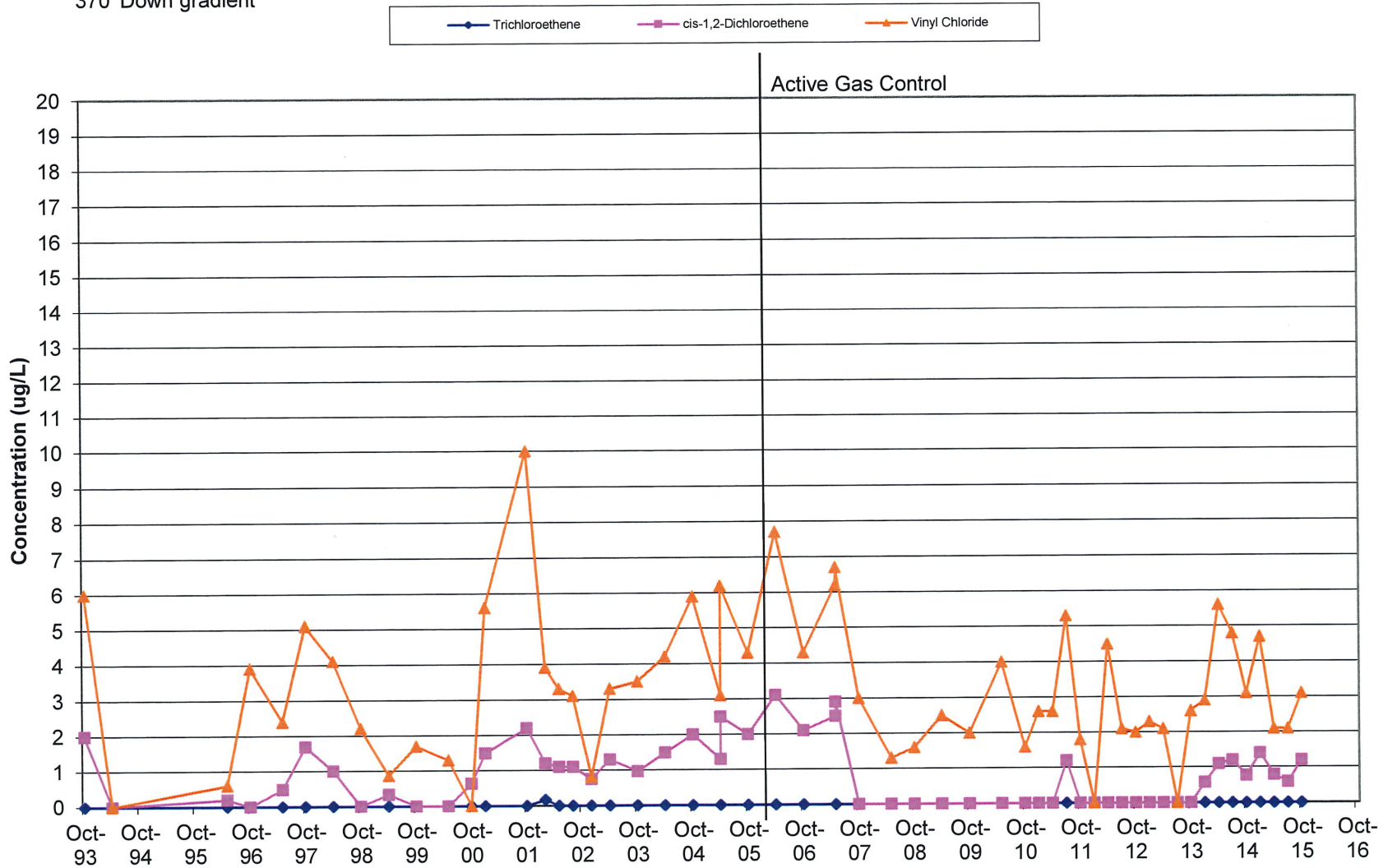


Chart 61: P-107D  
Layer 4 Well

370' Down gradient



**APPENDICES**

**ATTACHMENT A**  
**STRATIGRAPHIC GROUPING TABLE**

**Stratigraphic Groupings of Monitoring Wells  
FF/NN Landfill, Ripon, WI**

<b>Layer</b>	<b>Well ID</b>	<b>Well Screen Elevation (ft msl)</b>	<b>Lithology at Well Screen</b>
Layer 1 Wells	MW-106	821.0	sand
	MW-101	820.4	sand
	MW-104	819.3	sand & gravel
	MW-102	818.9	sand & gravel
	MW-103	818.7	sand
	MW-107	816.5	sand
	MW-108	814.9	sand
	MW-112	814.1	sand
	MW-111	812.3	sand
Layer 2 Wells	P-106	791.7	sand
	P-101	790.0	sand
	P-103	789.9	silt
	P-107	785.6	sand
	P-108	783.5	sand
	P-104	782.0	sand
	P-102	781.3	sand
	P-111	774.2	sand
Layer 3 Wells	P-111D	704.0	sand and gravel
	P-103D	682.08	sandstone
	MW-3B	665.0	sandstone
	P-113B	634.2	sandstone
	P-114	654.4	sandstone
	P-115	662.7	sandstone
	P-116	681.3	sandstone
Layer 4 wells	MW-3A	570.0	sandstone
	P-107D	544.0	granite
	P-113A	507.8	sandstone



**APPENDIX B**  
**LABORATORY ANALYTICAL RESULTS**



November 04, 2015

Mike Noel  
Tetra Tech Geo  
175 NORTH CORPORATE DRIVE  
SUITE 100  
Brookfield, WI 53045

RE: Project: 117-2202040.21 RIPON FF/NN LAN  
Pace Project No.: 40123810

Dear Mike Noel:

Enclosed are the analytical results for sample(s) received by the laboratory on October 30, 2015. The results relate only to the samples included in this report. Results reported herein conform to the most current TNI standards and the laboratory's Quality Assurance Manual, where applicable, unless otherwise noted in the body of the report.

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Brian Basten  
brian.basten@pacelabs.com  
Project Manager

Enclosures

cc: Nelson Olavarria, Cooper Industries



## REPORT OF LABORATORY ANALYSIS

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### CERTIFICATIONS

Project: 117-2202040.21 RIPON FF/NN LAN  
Pace Project No.: 40123810

---

#### Green Bay Certification IDs

1241 Bellevue Street, Green Bay, WI 54302  
Florida/NELAP Certification #: E87948  
Illinois Certification #: 200050  
Kentucky Certification #: 82  
Louisiana Certification #: 04168  
Minnesota Certification #: 055-999-334  
Virginia VELAP ID: 460263

North Dakota Certification #: R-150  
South Carolina Certification #: 83006001  
Texas Certification #: T104704529-14-1  
US Dept of Agriculture #: S-76505  
Virginia VELAP ID: 460263  
Virginia VELAP Certification ID: 460263  
Wisconsin Certification #: 405132750

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### SAMPLE SUMMARY

Project: 117-2202040.21 RIPON FF/NN LAN  
Pace Project No.: 40123810

Lab ID	Sample ID	Matrix	Date Collected	Date Received
40123810001	MW-112	Water	10/28/15 12:25	10/30/15 09:40
40123810002	TRIP BLANK	Water	10/28/15 00:00	10/30/15 09:40

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### SAMPLE ANALYTE COUNT

Project: 117-2202040.21 RIPON FF/NN LAN  
Pace Project No.: 40123810

---

Lab ID	Sample ID	Method	Analysts	Analytes Reported
40123810001	MW-112	EPA 8260	HNW	45
40123810002	TRIP BLANK	EPA 8260	HNW	45

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### ANALYTICAL RESULTS

Project: 117-2202040.21 RIPON FF/NN LAN  
 Pace Project No.: 40123810

Sample: MW-112 Lab ID: 40123810001 Collected: 10/28/15 12:25 Received: 10/30/15 09:40 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
<b>8260 MSV</b>									
Analytical Method: EPA 8260									
1,1,1-Trichloroethane	<0.50	ug/L	1.0	0.50	1		11/03/15 21:31	71-55-6	
1,1,2-Trichloroethane	<0.20	ug/L	1.0	0.20	1		11/03/15 21:31	79-00-5	
1,1-Dichloroethane	<0.24	ug/L	1.0	0.24	1		11/03/15 21:31	75-34-3	
1,1-Dichloroethene	<0.41	ug/L	1.0	0.41	1		11/03/15 21:31	75-35-4	
1,2-Dibromo-3-chloropropane	<2.2	ug/L	5.0	2.2	1		11/03/15 21:31	96-12-8	
1,2-Dibromoethane (EDB)	<0.18	ug/L	1.0	0.18	1		11/03/15 21:31	106-93-4	
1,2-Dichlorobenzene	<0.50	ug/L	1.0	0.50	1		11/03/15 21:31	95-50-1	
1,2-Dichloroethane	<0.17	ug/L	1.0	0.17	1		11/03/15 21:31	107-06-2	
1,2-Dichloropropane	<0.23	ug/L	1.0	0.23	1		11/03/15 21:31	78-87-5	
1,3-Dichlorobenzene	<0.50	ug/L	1.0	0.50	1		11/03/15 21:31	541-73-1	
1,4-Dichlorobenzene	<0.50	ug/L	1.0	0.50	1		11/03/15 21:31	106-46-7	
2-Butanone (MEK)	<3.0	ug/L	20.0	3.0	1		11/03/15 21:31	78-93-3	
Acetone	<3.0	ug/L	20.0	3.0	1		11/03/15 21:31	67-64-1	
Benzene	<0.50	ug/L	1.0	0.50	1		11/03/15 21:31	71-43-2	
Bromodichloromethane	<0.50	ug/L	1.0	0.50	1		11/03/15 21:31	75-27-4	
Bromoform	<0.50	ug/L	1.0	0.50	1		11/03/15 21:31	75-25-2	
Bromomethane	<2.4	ug/L	5.0	2.4	1		11/03/15 21:31	74-83-9	
Carbon disulfide	<0.61	ug/L	5.0	0.61	1		11/03/15 21:31	75-15-0	
Carbon tetrachloride	<0.50	ug/L	1.0	0.50	1		11/03/15 21:31	56-23-5	
Chlorobenzene	<0.50	ug/L	1.0	0.50	1		11/03/15 21:31	108-90-7	
Chloroethane	<0.37	ug/L	1.0	0.37	1		11/03/15 21:31	75-00-3	
Chloroform	<2.5	ug/L	5.0	2.5	1		11/03/15 21:31	67-66-3	
Chloromethane	<0.50	ug/L	1.0	0.50	1		11/03/15 21:31	74-87-3	
Dibromochloromethane	<0.50	ug/L	1.0	0.50	1		11/03/15 21:31	124-48-1	
Dibromomethane	<0.43	ug/L	1.0	0.43	1		11/03/15 21:31	74-95-3	
Dichlorodifluoromethane	<0.22	ug/L	1.0	0.22	1		11/03/15 21:31	75-71-8	
Ethylbenzene	<0.50	ug/L	1.0	0.50	1		11/03/15 21:31	100-41-4	
Methyl-tert-butyl ether	<0.17	ug/L	1.0	0.17	1		11/03/15 21:31	1634-04-4	
Methylene Chloride	<0.23	ug/L	1.0	0.23	1		11/03/15 21:31	75-09-2	
Naphthalene	<2.5	ug/L	5.0	2.5	1		11/03/15 21:31	91-20-3	
Styrene	<0.50	ug/L	1.0	0.50	1		11/03/15 21:31	100-42-5	
Tetrachloroethene	<0.50	ug/L	1.0	0.50	1		11/03/15 21:31	127-18-4	
Tetrahydrofuran	<2.0	ug/L	5.0	2.0	1		11/03/15 21:31	109-99-9	
Toluene	<0.50	ug/L	1.0	0.50	1		11/03/15 21:31	108-88-3	
Trichloroethene	<0.33	ug/L	1.0	0.33	1		11/03/15 21:31	79-01-6	
Trichlorofluoromethane	<0.18	ug/L	1.0	0.18	1		11/03/15 21:31	75-69-4	
Vinyl chloride	<0.18	ug/L	1.0	0.18	1		11/03/15 21:31	75-01-4	
Xylene (Total)	<1.5	ug/L	3.0	1.5	1		11/03/15 21:31	1330-20-7	
cis-1,2-Dichloroethene	<0.26	ug/L	1.0	0.26	1		11/03/15 21:31	156-59-2	
cis-1,3-Dichloropropene	<0.50	ug/L	1.0	0.50	1		11/03/15 21:31	10061-01-5	
trans-1,2-Dichloroethene	<0.26	ug/L	1.0	0.26	1		11/03/15 21:31	156-60-5	
trans-1,3-Dichloropropene	<0.23	ug/L	1.0	0.23	1		11/03/15 21:31	10061-02-6	
<b>Surrogates</b>									
4-Bromofluorobenzene (S)	93	%	70-130		1		11/03/15 21:31	460-00-4	
Dibromofluoromethane (S)	98	%	70-130		1		11/03/15 21:31	1868-53-7	
Toluene-d8 (S)	94	%	70-130		1		11/03/15 21:31	2037-26-5	

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**ANALYTICAL RESULTS**

Project: 117-2202040.21 RIPON FF/NN LAN  
 Pace Project No.: 40123810

Sample: TRIP BLANK Lab ID: 40123810002 Collected: 10/28/15 00:00 Received: 10/30/15 09:40 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
<b>8260 MSV</b>									
Analytical Method: EPA 8260									
1,1,1-Trichloroethane	<0.50	ug/L	1.0	0.50	1		11/03/15 19:38	71-55-6	
1,1,2-Trichloroethane	<0.20	ug/L	1.0	0.20	1		11/03/15 19:38	79-00-5	
1,1-Dichloroethane	<0.24	ug/L	1.0	0.24	1		11/03/15 19:38	75-34-3	
1,1-Dichloroethene	<0.41	ug/L	1.0	0.41	1		11/03/15 19:38	75-35-4	
1,2-Dibromo-3-chloropropane	<2.2	ug/L	5.0	2.2	1		11/03/15 19:38	96-12-8	
1,2-Dibromoethane (EDB)	<0.18	ug/L	1.0	0.18	1		11/03/15 19:38	106-93-4	
1,2-Dichlorobenzene	<0.50	ug/L	1.0	0.50	1		11/03/15 19:38	95-50-1	
1,2-Dichloroethane	<0.17	ug/L	1.0	0.17	1		11/03/15 19:38	107-06-2	
1,2-Dichloropropane	<0.23	ug/L	1.0	0.23	1		11/03/15 19:38	78-87-5	
1,3-Dichlorobenzene	<0.50	ug/L	1.0	0.50	1		11/03/15 19:38	541-73-1	
1,4-Dichlorobenzene	<0.50	ug/L	1.0	0.50	1		11/03/15 19:38	106-46-7	
2-Butanone (MEK)	<3.0	ug/L	20.0	3.0	1		11/03/15 19:38	78-93-3	
Acetone	<3.0	ug/L	20.0	3.0	1		11/03/15 19:38	67-64-1	
Benzene	<0.50	ug/L	1.0	0.50	1		11/03/15 19:38	71-43-2	
Bromodichloromethane	<0.50	ug/L	1.0	0.50	1		11/03/15 19:38	75-27-4	
Bromoform	<0.50	ug/L	1.0	0.50	1		11/03/15 19:38	75-25-2	
Bromomethane	<2.4	ug/L	5.0	2.4	1		11/03/15 19:38	74-83-9	
Carbon disulfide	<0.61	ug/L	5.0	0.61	1		11/03/15 19:38	75-15-0	
Carbon tetrachloride	<0.50	ug/L	1.0	0.50	1		11/03/15 19:38	56-23-5	
Chlorobenzene	<0.50	ug/L	1.0	0.50	1		11/03/15 19:38	108-90-7	
Chloroethane	<0.37	ug/L	1.0	0.37	1		11/03/15 19:38	75-00-3	
Chloroform	<2.5	ug/L	5.0	2.5	1		11/03/15 19:38	67-66-3	
Chloromethane	<0.50	ug/L	1.0	0.50	1		11/03/15 19:38	74-87-3	
Dibromochloromethane	<0.50	ug/L	1.0	0.50	1		11/03/15 19:38	124-48-1	
Dibromomethane	<0.43	ug/L	1.0	0.43	1		11/03/15 19:38	74-95-3	
Dichlorodifluoromethane	<0.22	ug/L	1.0	0.22	1		11/03/15 19:38	75-71-8	
Ethylbenzene	<0.50	ug/L	1.0	0.50	1		11/03/15 19:38	100-41-4	
Methyl-tert-butyl ether	<0.17	ug/L	1.0	0.17	1		11/03/15 19:38	1634-04-4	
Methylene Chloride	<0.23	ug/L	1.0	0.23	1		11/03/15 19:38	75-09-2	
Naphthalene	<2.5	ug/L	5.0	2.5	1		11/03/15 19:38	91-20-3	
Styrene	<0.50	ug/L	1.0	0.50	1		11/03/15 19:38	100-42-5	
Tetrachloroethene	<0.50	ug/L	1.0	0.50	1		11/03/15 19:38	127-18-4	
Tetrahydrofuran	<2.0	ug/L	5.0	2.0	1		11/03/15 19:38	109-99-9	
Toluene	<0.50	ug/L	1.0	0.50	1		11/03/15 19:38	108-88-3	
Trichloroethene	<0.33	ug/L	1.0	0.33	1		11/03/15 19:38	79-01-6	
Trichlorofluoromethane	<0.18	ug/L	1.0	0.18	1		11/03/15 19:38	75-69-4	
Vinyl chloride	<0.18	ug/L	1.0	0.18	1		11/03/15 19:38	75-01-4	
Xylene (Total)	<1.5	ug/L	3.0	1.5	1		11/03/15 19:38	1330-20-7	
cis-1,2-Dichloroethene	<0.26	ug/L	1.0	0.26	1		11/03/15 19:38	156-59-2	
cis-1,3-Dichloropropene	<0.50	ug/L	1.0	0.50	1		11/03/15 19:38	10061-01-5	
trans-1,2-Dichloroethene	<0.26	ug/L	1.0	0.26	1		11/03/15 19:38	156-60-5	
trans-1,3-Dichloropropene	<0.23	ug/L	1.0	0.23	1		11/03/15 19:38	10061-02-6	
<b>Surrogates</b>									
4-Bromofluorobenzene (S)	94	%	70-130		1		11/03/15 19:38	460-00-4	
Dibromofluoromethane (S)	101	%	70-130		1		11/03/15 19:38	1868-53-7	
Toluene-d8 (S)	95	%	70-130		1		11/03/15 19:38	2037-26-5	

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**QUALITY CONTROL DATA**

Project: 117-2202040.21 RIPON FF/NN LAN  
 Pace Project No.: 40123810

QC Batch: MSV/30998 Analysis Method: EPA 8260  
 QC Batch Method: EPA 8260 Analysis Description: 8260 MSV  
 Associated Lab Samples: 40123810001, 40123810002

METHOD BLANK: 1250052 Matrix: Water  
 Associated Lab Samples: 40123810001, 40123810002

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
1,1,1-Trichloroethane	ug/L	<0.50	1.0	11/03/15 06:16	
1,1,2-Trichloroethane	ug/L	<0.20	1.0	11/03/15 06:16	
1,1-Dichloroethane	ug/L	<0.24	1.0	11/03/15 06:16	
1,1-Dichloroethene	ug/L	<0.41	1.0	11/03/15 06:16	
1,2-Dibromo-3-chloropropane	ug/L	<2.2	5.0	11/03/15 06:16	
1,2-Dibromoethane (EDB)	ug/L	<0.18	1.0	11/03/15 06:16	
1,2-Dichlorobenzene	ug/L	<0.50	1.0	11/03/15 06:16	
1,2-Dichloroethane	ug/L	<0.17	1.0	11/03/15 06:16	
1,2-Dichloropropane	ug/L	<0.23	1.0	11/03/15 06:16	
1,3-Dichlorobenzene	ug/L	<0.50	1.0	11/03/15 06:16	
1,4-Dichlorobenzene	ug/L	<0.50	1.0	11/03/15 06:16	
2-Butanone (MEK)	ug/L	<3.0	20.0	11/03/15 06:16	
Acetone	ug/L	<3.0	20.0	11/03/15 06:16	
Benzene	ug/L	<0.50	1.0	11/03/15 06:16	
Bromodichloromethane	ug/L	<0.50	1.0	11/03/15 06:16	
Bromoform	ug/L	<0.50	1.0	11/03/15 06:16	
Bromomethane	ug/L	<2.4	5.0	11/03/15 06:16	
Carbon disulfide	ug/L	<0.61	5.0	11/03/15 06:16	
Carbon tetrachloride	ug/L	<0.50	1.0	11/03/15 06:16	
Chlorobenzene	ug/L	<0.50	1.0	11/03/15 06:16	
Chloroethane	ug/L	<0.37	1.0	11/03/15 06:16	
Chloroform	ug/L	<2.5	5.0	11/03/15 06:16	
Chloromethane	ug/L	<0.50	1.0	11/03/15 06:16	
cis-1,2-Dichloroethene	ug/L	<0.26	1.0	11/03/15 06:16	
cis-1,3-Dichloropropene	ug/L	<0.50	1.0	11/03/15 06:16	
Dibromochloromethane	ug/L	<0.50	1.0	11/03/15 06:16	
Dibromomethane	ug/L	<0.43	1.0	11/03/15 06:16	
Dichlorodifluoromethane	ug/L	<0.22	1.0	11/03/15 06:16	
Ethylbenzene	ug/L	<0.50	1.0	11/03/15 06:16	
Methyl-tert-butyl ether	ug/L	<0.17	1.0	11/03/15 06:16	
Methylene Chloride	ug/L	<0.23	1.0	11/03/15 06:16	
Naphthalene	ug/L	<2.5	5.0	11/03/15 06:16	
Styrene	ug/L	<0.50	1.0	11/03/15 06:16	
Tetrachloroethene	ug/L	<0.50	1.0	11/03/15 06:16	
Tetrahydrofuran	ug/L	<2.0	5.0	11/03/15 06:16	
Toluene	ug/L	<0.50	1.0	11/03/15 06:16	
trans-1,2-Dichloroethene	ug/L	<0.26	1.0	11/03/15 06:16	
trans-1,3-Dichloropropene	ug/L	<0.23	1.0	11/03/15 06:16	
Trichloroethene	ug/L	<0.33	1.0	11/03/15 06:16	
Trichlorofluoromethane	ug/L	<0.18	1.0	11/03/15 06:16	
Vinyl chloride	ug/L	<0.18	1.0	11/03/15 06:16	

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**QUALITY CONTROL DATA**

Project: 117-2202040.21 RIPON FF/NN LAN  
 Pace Project No.: 40123810

METHOD BLANK: 1250052 Matrix: Water  
 Associated Lab Samples: 40123810001, 40123810002

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Xylene (Total)	ug/L	<1.5	3.0	11/03/15 06:16	
4-Bromofluorobenzene (S)	%	95	70-130	11/03/15 06:16	
Dibromofluoromethane (S)	%	97	70-130	11/03/15 06:16	
Toluene-d8 (S)	%	95	70-130	11/03/15 06:16	

LABORATORY CONTROL SAMPLE: 1250053

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,1,1-Trichloroethane	ug/L	50	54.8	110	70-130	
1,1,2-Trichloroethane	ug/L	50	52.2	104	70-130	
1,1-Dichloroethane	ug/L	50	47.6	95	70-130	
1,1-Dichloroethene	ug/L	50	51.3	103	70-130	
1,2-Dibromo-3-chloropropane	ug/L	50	40.3	81	50-150	
1,2-Dibromoethane (EDB)	ug/L	50	50.0	100	70-130	
1,2-Dichlorobenzene	ug/L	50	50.7	101	70-130	
1,2-Dichloroethane	ug/L	50	51.6	103	70-131	
1,2-Dichloropropane	ug/L	50	48.6	97	70-130	
1,3-Dichlorobenzene	ug/L	50	52.1	104	70-130	
1,4-Dichlorobenzene	ug/L	50	51.8	104	70-130	
Benzene	ug/L	50	49.3	99	70-130	
Bromodichloromethane	ug/L	50	53.6	107	70-130	
Bromoform	ug/L	50	48.0	96	68-130	
Bromomethane	ug/L	50	36.1	72	38-137	
Carbon disulfide	ug/L	50	51.2	102	70-154	
Carbon tetrachloride	ug/L	50	51.2	102	70-130	
Chlorobenzene	ug/L	50	55.3	111	70-130	
Chloroethane	ug/L	50	39.4	79	70-136	
Chloroform	ug/L	50	52.0	104	70-130	
Chloromethane	ug/L	50	35.7	71	48-144	
cis-1,2-Dichloroethene	ug/L	50	47.7	95	70-130	
cis-1,3-Dichloropropene	ug/L	50	46.3	93	70-130	
Dibromochloromethane	ug/L	50	49.1	98	70-130	
Dichlorodifluoromethane	ug/L	50	27.8	56	33-157	
Ethylbenzene	ug/L	50	53.4	107	70-132	
Methyl-tert-butyl ether	ug/L	50	45.0	90	48-141	
Methylene Chloride	ug/L	50	48.4	97	70-130	
Styrene	ug/L	50	51.8	104	70-130	
Tetrachloroethene	ug/L	50	55.9	112	70-130	
Toluene	ug/L	50	52.6	105	70-130	
trans-1,2-Dichloroethene	ug/L	50	53.3	107	70-130	
trans-1,3-Dichloropropene	ug/L	50	46.2	92	70-130	
Trichloroethene	ug/L	50	55.6	111	70-130	
Trichlorofluoromethane	ug/L	50	49.9	100	50-150	
Vinyl chloride	ug/L	50	42.2	84	65-142	

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**QUALITY CONTROL DATA**

Project: 117-2202040.21 RIPON FF/NN LAN  
 Pace Project No.: 40123810

LABORATORY CONTROL SAMPLE: 1250053

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Xylene (Total)	ug/L	150	160	107	70-132	
4-Bromofluorobenzene (S)	%			102	70-130	
Dibromofluoromethane (S)	%			97	70-130	
Toluene-d8 (S)	%			98	70-130	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1250938 1250939

Parameter	Units	MS		MSD		MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual	
		40123811007 Result	Spike Conc.	Spike Conc.	MS Result							MSD Result
1,1,1-Trichloroethane	ug/L	<0.50	50	50	54.9	55.0	110	110	70-130	0	20	
1,1,2-Trichloroethane	ug/L	<0.20	50	50	52.7	51.0	105	102	70-130	3	20	
1,1-Dichloroethane	ug/L	<0.24	50	50	48.7	48.2	97	96	70-134	1	20	
1,1-Dichloroethene	ug/L	<0.41	50	50	53.9	53.5	108	107	70-139	1	20	
1,2-Dibromo-3-chloropropane	ug/L	<2.2	50	50	45.4	42.4	91	85	50-150	7	20	
1,2-Dibromoethane (EDB)	ug/L	<0.18	50	50	52.5	49.8	105	100	70-130	5	20	
1,2-Dichlorobenzene	ug/L	<0.50	50	50	53.3	52.3	107	105	70-130	2	20	
1,2-Dichloroethane	ug/L	<0.17	50	50	53.1	51.3	106	103	70-132	3	20	
1,2-Dichloropropane	ug/L	<0.23	50	50	50.8	50.4	102	101	70-130	1	20	
1,3-Dichlorobenzene	ug/L	<0.50	50	50	52.6	52.7	105	105	70-130	0	20	
1,4-Dichlorobenzene	ug/L	<0.50	50	50	52.3	52.1	104	104	70-130	0	20	
Benzene	ug/L	<0.50	50	50	50.1	49.3	100	99	70-130	2	20	
Bromodichloromethane	ug/L	<0.50	50	50	53.7	53.9	107	108	70-132	0	20	
Bromoform	ug/L	<0.50	50	50	48.9	47.1	98	94	68-130	4	20	
Bromomethane	ug/L	<2.4	50	50	44.2	46.8	88	94	38-141	6	20	
Carbon disulfide	ug/L	<0.61	50	50	56.5	56.4	113	113	70-155	0	20	
Carbon tetrachloride	ug/L	<0.50	50	50	53.1	52.4	106	105	70-130	1	20	
Chlorobenzene	ug/L	<0.50	50	50	55.1	53.7	110	107	70-130	2	20	
Chloroethane	ug/L	<0.37	50	50	44.3	43.1	89	86	66-152	3	20	
Chloroform	ug/L	<2.5	50	50	53.3	52.2	107	104	70-130	2	20	
Chloromethane	ug/L	<0.50	50	50	46.5	46.8	93	94	44-151	1	20	
cis-1,2-Dichloroethene	ug/L	<0.26	50	50	49.2	48.9	98	98	70-130	1	20	
cis-1,3-Dichloropropene	ug/L	<0.50	50	50	47.3	47.2	95	94	70-130	0	20	
Dibromochloromethane	ug/L	<0.50	50	50	50.5	48.3	101	97	70-130	4	20	
Dichlorodifluoromethane	ug/L	<0.22	50	50	53.7	52.4	107	105	29-160	2	20	
Ethylbenzene	ug/L	<0.50	50	50	53.1	51.5	106	103	70-132	3	20	
Methyl-tert-butyl ether	ug/L	<0.17	50	50	48.0	46.0	96	92	48-143	4	20	
Methylene Chloride	ug/L	<0.23	50	50	50.6	48.8	101	98	70-130	3	20	
Styrene	ug/L	<0.50	50	50	53.1	52.2	106	104	70-130	2	20	
Tetrachloroethene	ug/L	<0.50	50	50	56.0	54.2	112	108	70-130	3	20	
Toluene	ug/L	<0.50	50	50	52.6	51.1	105	102	70-130	3	20	
trans-1,2-Dichloroethene	ug/L	<0.26	50	50	54.6	54.6	109	109	70-132	0	20	
trans-1,3-Dichloropropene	ug/L	<0.23	50	50	49.2	47.0	98	94	70-130	5	20	
Trichloroethene	ug/L	<0.33	50	50	56.3	55.2	113	110	70-130	2	20	
Trichlorofluoromethane	ug/L	<0.18	50	50	54.2	54.6	108	109	50-153	1	20	

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**QUALITY CONTROL DATA**

Project: 117-2202040.21 RIPON FF/NN LAN  
 Pace Project No.: 40123810

Parameter	Units	1250938		1250939		MS % Rec	MSD % Rec	% Rec	MSD % Rec	% Rec	Limits	Max RPD	Qual
		40123811007 Result	MS Spike Conc.	MSD Spike Conc.	MS Result								
Vinyl chloride	ug/L	<0.18	50	50	51.5	51.7	103	103	60-155	0	20		
Xylene (Total)	ug/L	<1.5	150	150	160	158	106	105	70-132	1	20		
4-Bromofluorobenzene (S)	%						100	99	70-130				
Dibromofluoromethane (S)	%						98	97	70-130				
Toluene-d8 (S)	%						98	97	70-130				

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## QUALIFIERS

Project: 117-2202040.21 RIPON FF/NN LAN  
Pace Project No.: 40123810

---

### DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.

ND - Not Detected at or above LOD.

J - Estimated concentration at or above the LOD and below the LOQ.

LOD - Limit of Detection adjusted for dilution factor and percent moisture.

LOQ - Limit of Quantitation adjusted for dilution factor and percent moisture.

S - Surrogate

1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected at or above the adjusted LOD.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

TNI - The NELAC Institute.

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### QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: 117-2202040.21 RIPON FF/NN LAN  
Pace Project No.: 40123810

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
40123810001	MW-112	EPA 8260	MSV/30998		
40123810002	TRIP BLANK	EPA 8260	MSV/30998		

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UPPER MIDWEST REGION

Page 1 of 14

MN: 612-607-1700 WI: 920-469-2436

40123810

Page 13 of 14

**Company Name:** Tetra Tech  
**Branch/Location:** Brookfield, WI  
**Project Contact:** Mike Noel  
**Phone:** (262) 792-1282  
**Project Number:** 117-2202040.21  
**Project Name:** Ripon FF/NN Landfill  
**Project State:** WI  
**Sampled By (Print):** Ashley A. Weimer  
**Sampled By (Sign):** Ashley A. Weimer  
**PO #:** **Regulatory Program:**



### CHAIN OF CUSTODY

**\*Preservation Codes**  
 A=None B=HCL C=H2SO4 D=HNO3 E=DI Water F=Methanol G=NaOH  
 H=Sodium Bisulfate Solution I=Sodium Thiosulfate J=Other

**FILTERED?**  
(YES/NO)  
**PRESERVATION**  
(CODE)\*

Y/N	Pick Letter	Analyses Requested																
	B	VOCs & 608 B W																
	B																	

**Data Package Options** (billable)  
 EPA Level III  
 EPA Level IV

**MS/MSD**  
 On your sample (billable)  
 NOT needed on your sample

**Matrix Codes**  
 A = Air W = Water  
 B = Biota DW = Drinking Water  
 C = Charcoal GW = Ground Water  
 O = Oil SW = Surface Water  
 S = Soil WW = Waste Water  
 SI = Sludge WP = Wipe

PACE LAB #	CLIENT FIELD ID	COLLECTION		MATRIX
		DATE	TIME	
001	MW-112	10-28-12	12:25	6W
002	TRIP BLANK	-	-	DI

**Quote #:**

**Mail To Contact:** Mike Noel

**Mail To Company:** Tetra Tech

**Mail To Address:** 175 N. CORPORATE DR SUITE 100 BROOKFIELD, WI 53045

**Invoice To Contact:**

**Invoice To Company:**

**Invoice To Address:**

**Invoice To Phone:**

**CLIENT COMMENTS**      **LAB COMMENTS (Lab Use Only)**      **Profile #**

3-40mL<sup>B</sup>  
2-40mL<sup>B</sup>

**Rush Turnaround Time Requested - Prelims**  
(Rush TAT subject to approval/surcharge)  
Date Needed:

Transmit Prelim Rush Results by (complete what you want):

**Email #1:**  
**Email #2:**  
**Telephone:**  
**Fax:**

Samples on HOLD are subject to special pricing and release of liability

**Relinquished By:** Ashley A. Weimer      **Date/Time:** 10-29-15 0800

**Relinquished By:** Mary Jannin      **Date/Time:** 10-29-15 1530

**Relinquished By:** CS Logistics      **Date/Time:** 10/30/15 0940

**Relinquished By:** \_\_\_\_\_      **Date/Time:** \_\_\_\_\_

**Received By:** Mary Jannin      **Date/Time:** 10/29/15 11:40

**Received By:** \_\_\_\_\_      **Date/Time:** \_\_\_\_\_

**Received By:** \_\_\_\_\_      **Date/Time:** \_\_\_\_\_

**Received By:** \_\_\_\_\_      **Date/Time:** \_\_\_\_\_

**PACE Project No.** 40123810

**Receipt Temp =** 801 °C

**Sample Receipt pH** OK / Adjusted

**Seal Custody Seal**  
Present / Not Present  
Intact / Not Intact



Sample Condition Upon Receipt

Pace Analytical Services, Inc.
1241 Bellevue Street, Suite 9
Green Bay, WI 54302

Project #:

WO#: 40123810

Client Name: Tetra Tech

Courier: Fed Ex UPS Client Pace Other: CS Logistics
Tracking #:



Custody Seal on Cooler/Box Present: yes no Seals intact: yes no

Custody Seal on Samples Present: yes no Seals intact: yes no

Packing Material: Bubble Wrap Bubble Bags None Other

Thermometer Used NA Type of Ice: Wet Blue Dry None Samples on ice, cooling process has begun

Cooler Temperature Uncorr: ICorr: ROI Biological Tissue is Frozen: yes no

Temp Blank Present: yes no

Person examining contents:
Date: 10/30/15
Initials: JF

Temp should be above freezing to 6°C for all sample except Biota.
Frozen Biota Samples should be received ≤ 0°C.

Comments:

Table with 15 rows for checklist items (Chain of Custody, Short Hold Time Analysis, Rush Turn Around Time, etc.) and checkboxes for Yes/No/N/A.

Client Notification/ Resolution:

If checked, see attached form for additional comments

Person Contacted: Date/Time:

Comments/ Resolution:

Project Manager Review:

Date: 10-30-15



November 05, 2015

Mike Noel  
Tetra Tech Geo  
175 NORTH CORPORATE DRIVE  
SUITE 100  
Brookfield, WI 53045

RE: Project: 117-2202040.21 RIPON FF/NN LAN  
Pace Project No.: 40123811

Dear Mike Noel:

Enclosed are the analytical results for sample(s) received by the laboratory on October 30, 2015. The results relate only to the samples included in this report. Results reported herein conform to the most current TNI standards and the laboratory's Quality Assurance Manual, where applicable, unless otherwise noted in the body of the report.

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Brian Basten  
brian.basten@pacelabs.com  
Project Manager

Enclosures



## REPORT OF LABORATORY ANALYSIS

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### CERTIFICATIONS

Project: 117-2202040.21 RIPON FF/NN LAN  
Pace Project No.: 40123811

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#### Green Bay Certification IDs

1241 Bellevue Street, Green Bay, WI 54302  
Florida/NELAP Certification #: E87948  
Illinois Certification #: 200050  
Kentucky Certification #: 82  
Louisiana Certification #: 04168  
Minnesota Certification #: 055-999-334  
Virginia VELAP ID: 460263

North Dakota Certification #: R-150  
South Carolina Certification #: 83006001  
Texas Certification #: T104704529-14-1  
US Dept of Agriculture #: S-76505  
Virginia VELAP ID: 460263  
Virginia VELAP Certification ID: 460263  
Wisconsin Certification #: 405132750

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### SAMPLE SUMMARY

Project: 117-2202040.21 RIPON FF/NN LAN  
Pace Project No.: 40123811

Lab ID	Sample ID	Matrix	Date Collected	Date Received
40123811001	P-103	Water	10/27/15 10:35	10/30/15 09:40
40123811002	P-103 D	Water	10/27/15 10:40	10/30/15 09:40
40123811003	P-107D	Water	10/27/15 11:30	10/30/15 09:40
40123811004	P-111D	Water	10/27/15 12:00	10/30/15 09:40
40123811005	P-111D DUP	Water	10/27/15 12:05	10/30/15 09:40
40123811006	MW-3A	Water	10/27/15 12:40	10/30/15 09:40
40123811007	MW-3B	Water	10/27/15 12:45	10/30/15 09:40
40123811008	P-113B	Water	10/27/15 13:45	10/30/15 09:40
40123811009	P-113A	Water	10/27/15 13:50	10/30/15 09:40
40123811010	P-116	Water	10/27/15 14:35	10/30/15 09:40
40123811011	P-114	Water	10/27/15 15:00	10/30/15 09:40
40123811012	P-115	Water	10/27/15 15:25	10/30/15 09:40

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### SAMPLE ANALYTE COUNT

Project: 117-2202040.21 RIPON FF/NN LAN  
Pace Project No.: 40123811

Lab ID	Sample ID	Method	Analysts	Analytes Reported
40123811001	P-103	EPA 8260	HNW	45
40123811002	P-103 D	EPA 8260	HNW	45
40123811003	P-107D	EPA 8260	HNW	45
40123811004	P-111D	EPA 8260	HNW	45
40123811005	P-111D DUP	EPA 8260	HNW	45
40123811006	MW-3A	EPA 8260	HNW	45
40123811007	MW-3B	EPA 8260	HNW	45
40123811008	P-113B	EPA 8260	HNW	45
40123811009	P-113A	EPA 8260	HNW	45
40123811010	P-116	EPA 8260	HNW	45
40123811011	P-114	EPA 8260	HNW	45
40123811012	P-115	EPA 8260	HNW	45

### REPORT OF LABORATORY ANALYSIS

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### ANALYTICAL RESULTS

Project: 117-2202040.21 RIPON FF/NN LAN  
 Pace Project No.: 40123811

Sample: P-103 Lab ID: 40123811001 Collected: 10/27/15 10:35 Received: 10/30/15 09:40 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
<b>8260 MSV</b>									
Analytical Method: EPA 8260									
1,1,1-Trichloroethane	<0.50	ug/L	1.0	0.50	1		11/03/15 10:43	71-55-6	
1,1,2-Trichloroethane	<0.20	ug/L	1.0	0.20	1		11/03/15 10:43	79-00-5	
1,1-Dichloroethane	<0.24	ug/L	1.0	0.24	1		11/03/15 10:43	75-34-3	
1,1-Dichloroethene	<0.41	ug/L	1.0	0.41	1		11/03/15 10:43	75-35-4	
1,2-Dibromo-3-chloropropane	<2.2	ug/L	5.0	2.2	1		11/03/15 10:43	96-12-8	
1,2-Dibromoethane (EDB)	<0.18	ug/L	1.0	0.18	1		11/03/15 10:43	106-93-4	
1,2-Dichlorobenzene	<0.50	ug/L	1.0	0.50	1		11/03/15 10:43	95-50-1	
1,2-Dichloroethane	<0.17	ug/L	1.0	0.17	1		11/03/15 10:43	107-06-2	
1,2-Dichloropropane	<0.23	ug/L	1.0	0.23	1		11/03/15 10:43	78-87-5	
1,3-Dichlorobenzene	<0.50	ug/L	1.0	0.50	1		11/03/15 10:43	541-73-1	
1,4-Dichlorobenzene	<0.50	ug/L	1.0	0.50	1		11/03/15 10:43	106-46-7	
2-Butanone (MEK)	<3.0	ug/L	20.0	3.0	1		11/03/15 10:43	78-93-3	
Acetone	<3.0	ug/L	20.0	3.0	1		11/03/15 10:43	67-64-1	
Benzene	<0.50	ug/L	1.0	0.50	1		11/03/15 10:43	71-43-2	
Bromodichloromethane	<0.50	ug/L	1.0	0.50	1		11/03/15 10:43	75-27-4	
Bromoform	<0.50	ug/L	1.0	0.50	1		11/03/15 10:43	75-25-2	
Bromomethane	<2.4	ug/L	5.0	2.4	1		11/03/15 10:43	74-83-9	
Carbon disulfide	<0.61	ug/L	5.0	0.61	1		11/03/15 10:43	75-15-0	
Carbon tetrachloride	<0.50	ug/L	1.0	0.50	1		11/03/15 10:43	56-23-5	
Chlorobenzene	<0.50	ug/L	1.0	0.50	1		11/03/15 10:43	108-90-7	
Chloroethane	<0.37	ug/L	1.0	0.37	1		11/03/15 10:43	75-00-3	
Chloroform	<2.5	ug/L	5.0	2.5	1		11/03/15 10:43	67-66-3	
Chloromethane	<0.50	ug/L	1.0	0.50	1		11/03/15 10:43	74-87-3	
Dibromochloromethane	<0.50	ug/L	1.0	0.50	1		11/03/15 10:43	124-48-1	
Dibromomethane	<0.43	ug/L	1.0	0.43	1		11/03/15 10:43	74-95-3	
Dichlorodifluoromethane	<0.22	ug/L	1.0	0.22	1		11/03/15 10:43	75-71-8	
Ethylbenzene	<0.50	ug/L	1.0	0.50	1		11/03/15 10:43	100-41-4	
Methyl-tert-butyl ether	<0.17	ug/L	1.0	0.17	1		11/03/15 10:43	1634-04-4	
Methylene Chloride	<0.23	ug/L	1.0	0.23	1		11/03/15 10:43	75-09-2	
Naphthalene	<2.5	ug/L	5.0	2.5	1		11/03/15 10:43	91-20-3	
Styrene	<0.50	ug/L	1.0	0.50	1		11/03/15 10:43	100-42-5	
Tetrachloroethene	<0.50	ug/L	1.0	0.50	1		11/03/15 10:43	127-18-4	
Tetrahydrofuran	<2.0	ug/L	5.0	2.0	1		11/03/15 10:43	109-99-9	
Toluene	<0.50	ug/L	1.0	0.50	1		11/03/15 10:43	108-88-3	
Trichloroethene	<0.33	ug/L	1.0	0.33	1		11/03/15 10:43	79-01-6	
Trichlorofluoromethane	<0.18	ug/L	1.0	0.18	1		11/03/15 10:43	75-69-4	
Vinyl chloride	<0.18	ug/L	1.0	0.18	1		11/03/15 10:43	75-01-4	
Xylene (Total)	<1.5	ug/L	3.0	1.5	1		11/03/15 10:43	1330-20-7	
cis-1,2-Dichloroethene	<0.26	ug/L	1.0	0.26	1		11/03/15 10:43	156-59-2	
cis-1,3-Dichloropropene	<0.50	ug/L	1.0	0.50	1		11/03/15 10:43	10061-01-5	
trans-1,2-Dichloroethene	<0.26	ug/L	1.0	0.26	1		11/03/15 10:43	156-60-5	
trans-1,3-Dichloropropene	<0.23	ug/L	1.0	0.23	1		11/03/15 10:43	10061-02-6	
<b>Surrogates</b>									
4-Bromofluorobenzene (S)	95	%	70-130		1		11/03/15 10:43	460-00-4	
Dibromofluoromethane (S)	100	%	70-130		1		11/03/15 10:43	1868-53-7	
Toluene-d8 (S)	95	%	70-130		1		11/03/15 10:43	2037-26-5	

### REPORT OF LABORATORY ANALYSIS

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### ANALYTICAL RESULTS

Project: 117-2202040.21 RIPON FF/NN LAN  
 Pace Project No.: 40123811

Sample: P-103 D Lab ID: 40123811002 Collected: 10/27/15 10:40 Received: 10/30/15 09:40 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
<b>8260 MSV</b>		Analytical Method: EPA 8260							
1,1,1-Trichloroethane	<0.50	ug/L	1.0	0.50	1		11/03/15 21:54	71-55-6	
1,1,2-Trichloroethane	<0.20	ug/L	1.0	0.20	1		11/03/15 21:54	79-00-5	
1,1-Dichloroethane	<0.24	ug/L	1.0	0.24	1		11/03/15 21:54	75-34-3	
1,1-Dichloroethene	<0.41	ug/L	1.0	0.41	1		11/03/15 21:54	75-35-4	
1,2-Dibromo-3-chloropropane	<2.2	ug/L	5.0	2.2	1		11/03/15 21:54	96-12-8	
1,2-Dibromoethane (EDB)	<0.18	ug/L	1.0	0.18	1		11/03/15 21:54	106-93-4	
1,2-Dichlorobenzene	<0.50	ug/L	1.0	0.50	1		11/03/15 21:54	95-50-1	
1,2-Dichloroethane	<0.17	ug/L	1.0	0.17	1		11/03/15 21:54	107-06-2	
1,2-Dichloropropane	<0.23	ug/L	1.0	0.23	1		11/03/15 21:54	78-87-5	
1,3-Dichlorobenzene	<0.50	ug/L	1.0	0.50	1		11/03/15 21:54	541-73-1	
1,4-Dichlorobenzene	<0.50	ug/L	1.0	0.50	1		11/03/15 21:54	106-46-7	
2-Butanone (MEK)	<3.0	ug/L	20.0	3.0	1		11/03/15 21:54	78-93-3	
Acetone	<3.0	ug/L	20.0	3.0	1		11/03/15 21:54	67-64-1	
Benzene	<0.50	ug/L	1.0	0.50	1		11/03/15 21:54	71-43-2	
Bromodichloromethane	<0.50	ug/L	1.0	0.50	1		11/03/15 21:54	75-27-4	
Bromoform	<0.50	ug/L	1.0	0.50	1		11/03/15 21:54	75-25-2	
Bromomethane	<2.4	ug/L	5.0	2.4	1		11/03/15 21:54	74-83-9	
Carbon disulfide	<0.61	ug/L	5.0	0.61	1		11/03/15 21:54	75-15-0	
Carbon tetrachloride	<0.50	ug/L	1.0	0.50	1		11/03/15 21:54	56-23-5	
Chlorobenzene	<0.50	ug/L	1.0	0.50	1		11/03/15 21:54	108-90-7	
Chloroethane	<0.37	ug/L	1.0	0.37	1		11/03/15 21:54	75-00-3	
Chloroform	<2.5	ug/L	5.0	2.5	1		11/03/15 21:54	67-66-3	
Chloromethane	<0.50	ug/L	1.0	0.50	1		11/03/15 21:54	74-87-3	
Dibromochloromethane	<0.50	ug/L	1.0	0.50	1		11/03/15 21:54	124-48-1	
Dibromomethane	<0.43	ug/L	1.0	0.43	1		11/03/15 21:54	74-95-3	
Dichlorodifluoromethane	<0.22	ug/L	1.0	0.22	1		11/03/15 21:54	75-71-8	
Ethylbenzene	<0.50	ug/L	1.0	0.50	1		11/03/15 21:54	100-41-4	
Methyl-tert-butyl ether	<0.17	ug/L	1.0	0.17	1		11/03/15 21:54	1634-04-4	
Methylene Chloride	<0.23	ug/L	1.0	0.23	1		11/03/15 21:54	75-09-2	
Naphthalene	<2.5	ug/L	5.0	2.5	1		11/03/15 21:54	91-20-3	
Styrene	<0.50	ug/L	1.0	0.50	1		11/03/15 21:54	100-42-5	
Tetrachloroethene	<0.50	ug/L	1.0	0.50	1		11/03/15 21:54	127-18-4	
Tetrahydrofuran	<2.0	ug/L	5.0	2.0	1		11/03/15 21:54	109-99-9	
Toluene	<0.50	ug/L	1.0	0.50	1		11/03/15 21:54	108-88-3	
Trichloroethene	<0.33	ug/L	1.0	0.33	1		11/03/15 21:54	79-01-6	
Trichlorofluoromethane	<0.18	ug/L	1.0	0.18	1		11/03/15 21:54	75-69-4	
Vinyl chloride	0.26J	ug/L	1.0	0.18	1		11/03/15 21:54	75-01-4	
Xylene (Total)	<1.5	ug/L	3.0	1.5	1		11/03/15 21:54	1330-20-7	
cis-1,2-Dichloroethene	0.33J	ug/L	1.0	0.26	1		11/03/15 21:54	156-59-2	
cis-1,3-Dichloropropene	<0.50	ug/L	1.0	0.50	1		11/03/15 21:54	10061-01-5	
trans-1,2-Dichloroethene	<0.26	ug/L	1.0	0.26	1		11/03/15 21:54	156-60-5	
trans-1,3-Dichloropropene	<0.23	ug/L	1.0	0.23	1		11/03/15 21:54	10061-02-6	
<b>Surrogates</b>									
4-Bromofluorobenzene (S)	92	%	70-130		1		11/03/15 21:54	460-00-4	
Dibromofluoromethane (S)	102	%	70-130		1		11/03/15 21:54	1868-53-7	
Toluene-d8 (S)	93	%	70-130		1		11/03/15 21:54	2037-26-5	

### REPORT OF LABORATORY ANALYSIS

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### ANALYTICAL RESULTS

Project: 117-2202040.21 RIPON FF/NN LAN  
 Pace Project No.: 40123811

Sample: P-107D Lab ID: 40123811003 Collected: 10/27/15 11:30 Received: 10/30/15 09:40 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
<b>8260 MSV</b>									
Analytical Method: EPA 8260									
1,1,1-Trichloroethane	<0.50	ug/L	1.0	0.50	1		11/03/15 13:07	71-55-6	
1,1,2-Trichloroethane	<0.20	ug/L	1.0	0.20	1		11/03/15 13:07	79-00-5	
1,1-Dichloroethane	<0.24	ug/L	1.0	0.24	1		11/03/15 13:07	75-34-3	
1,1-Dichloroethene	<0.41	ug/L	1.0	0.41	1		11/03/15 13:07	75-35-4	
1,2-Dibromo-3-chloropropane	<2.2	ug/L	5.0	2.2	1		11/03/15 13:07	96-12-8	
1,2-Dibromoethane (EDB)	<0.18	ug/L	1.0	0.18	1		11/03/15 13:07	106-93-4	
1,2-Dichlorobenzene	<0.50	ug/L	1.0	0.50	1		11/03/15 13:07	95-50-1	
1,2-Dichloroethane	<0.17	ug/L	1.0	0.17	1		11/03/15 13:07	107-06-2	
1,2-Dichloropropane	<0.23	ug/L	1.0	0.23	1		11/03/15 13:07	78-87-5	
1,3-Dichlorobenzene	<0.50	ug/L	1.0	0.50	1		11/03/15 13:07	541-73-1	
1,4-Dichlorobenzene	<0.50	ug/L	1.0	0.50	1		11/03/15 13:07	106-46-7	
2-Butanone (MEK)	<3.0	ug/L	20.0	3.0	1		11/03/15 13:07	78-93-3	
Acetone	<3.0	ug/L	20.0	3.0	1		11/03/15 13:07	67-64-1	
Benzene	<0.50	ug/L	1.0	0.50	1		11/03/15 13:07	71-43-2	
Bromodichloromethane	<0.50	ug/L	1.0	0.50	1		11/03/15 13:07	75-27-4	
Bromoform	<0.50	ug/L	1.0	0.50	1		11/03/15 13:07	75-25-2	
Bromomethane	<2.4	ug/L	5.0	2.4	1		11/03/15 13:07	74-83-9	
Carbon disulfide	<0.61	ug/L	5.0	0.61	1		11/03/15 13:07	75-15-0	
Carbon tetrachloride	<0.50	ug/L	1.0	0.50	1		11/03/15 13:07	56-23-5	
Chlorobenzene	<0.50	ug/L	1.0	0.50	1		11/03/15 13:07	108-90-7	
Chloroethane	<0.37	ug/L	1.0	0.37	1		11/03/15 13:07	75-00-3	
Chloroform	<2.5	ug/L	5.0	2.5	1		11/03/15 13:07	67-66-3	
Chloromethane	<0.50	ug/L	1.0	0.50	1		11/03/15 13:07	74-87-3	
Dibromochloromethane	<0.50	ug/L	1.0	0.50	1		11/03/15 13:07	124-48-1	
Dibromomethane	<0.43	ug/L	1.0	0.43	1		11/03/15 13:07	74-95-3	
Dichlorodifluoromethane	<0.22	ug/L	1.0	0.22	1		11/03/15 13:07	75-71-8	
Ethylbenzene	<0.50	ug/L	1.0	0.50	1		11/03/15 13:07	100-41-4	
Methyl-tert-butyl ether	<0.17	ug/L	1.0	0.17	1		11/03/15 13:07	1634-04-4	
Methylene Chloride	<0.23	ug/L	1.0	0.23	1		11/03/15 13:07	75-09-2	
Naphthalene	<2.5	ug/L	5.0	2.5	1		11/03/15 13:07	91-20-3	
Styrene	<0.50	ug/L	1.0	0.50	1		11/03/15 13:07	100-42-5	
Tetrachloroethene	<0.50	ug/L	1.0	0.50	1		11/03/15 13:07	127-18-4	
Tetrahydrofuran	<2.0	ug/L	5.0	2.0	1		11/03/15 13:07	109-99-9	
Toluene	<0.50	ug/L	1.0	0.50	1		11/03/15 13:07	108-88-3	
Trichloroethene	<0.33	ug/L	1.0	0.33	1		11/03/15 13:07	79-01-6	
Trichlorofluoromethane	<0.18	ug/L	1.0	0.18	1		11/03/15 13:07	75-69-4	
Vinyl chloride	3.1	ug/L	1.0	0.18	1		11/03/15 13:07	75-01-4	
Xylene (Total)	<1.5	ug/L	3.0	1.5	1		11/03/15 13:07	1330-20-7	
cis-1,2-Dichloroethene	1.2	ug/L	1.0	0.26	1		11/03/15 13:07	156-59-2	
cis-1,3-Dichloropropene	<0.50	ug/L	1.0	0.50	1		11/03/15 13:07	10061-01-5	
trans-1,2-Dichloroethene	<0.26	ug/L	1.0	0.26	1		11/03/15 13:07	156-60-5	
trans-1,3-Dichloropropene	<0.23	ug/L	1.0	0.23	1		11/03/15 13:07	10061-02-6	
<b>Surrogates</b>									
4-Bromofluorobenzene (S)	94	%	70-130		1		11/03/15 13:07	460-00-4	
Dibromofluoromethane (S)	102	%	70-130		1		11/03/15 13:07	1868-53-7	
Toluene-d8 (S)	93	%	70-130		1		11/03/15 13:07	2037-26-5	

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### ANALYTICAL RESULTS

Project: 117-2202040.21 RIPON FF/NN LAN  
 Pace Project No.: 40123811

Sample: P-111D Lab ID: 40123811004 Collected: 10/27/15 12:00 Received: 10/30/15 09:40 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
<b>8260 MSV</b>									
Analytical Method: EPA 8260									
1,1,1-Trichloroethane	<0.50	ug/L	1.0	0.50	1		11/03/15 13:29	71-55-6	
1,1,2-Trichloroethane	<0.20	ug/L	1.0	0.20	1		11/03/15 13:29	79-00-5	
1,1-Dichloroethane	<0.24	ug/L	1.0	0.24	1		11/03/15 13:29	75-34-3	
1,1-Dichloroethene	<0.41	ug/L	1.0	0.41	1		11/03/15 13:29	75-35-4	
1,2-Dibromo-3-chloropropane	<2.2	ug/L	5.0	2.2	1		11/03/15 13:29	96-12-8	
1,2-Dibromoethane (EDB)	<0.18	ug/L	1.0	0.18	1		11/03/15 13:29	106-93-4	
1,2-Dichlorobenzene	<0.50	ug/L	1.0	0.50	1		11/03/15 13:29	95-50-1	
1,2-Dichloroethane	<0.17	ug/L	1.0	0.17	1		11/03/15 13:29	107-06-2	
1,2-Dichloropropane	<0.23	ug/L	1.0	0.23	1		11/03/15 13:29	78-87-5	
1,3-Dichlorobenzene	<0.50	ug/L	1.0	0.50	1		11/03/15 13:29	541-73-1	
1,4-Dichlorobenzene	<0.50	ug/L	1.0	0.50	1		11/03/15 13:29	106-46-7	
2-Butanone (MEK)	<3.0	ug/L	20.0	3.0	1		11/03/15 13:29	78-93-3	
Acetone	<3.0	ug/L	20.0	3.0	1		11/03/15 13:29	67-64-1	
Benzene	<0.50	ug/L	1.0	0.50	1		11/03/15 13:29	71-43-2	
Bromodichloromethane	<0.50	ug/L	1.0	0.50	1		11/03/15 13:29	75-27-4	
Bromoform	<0.50	ug/L	1.0	0.50	1		11/03/15 13:29	75-25-2	
Bromomethane	<2.4	ug/L	5.0	2.4	1		11/03/15 13:29	74-83-9	
Carbon disulfide	<0.61	ug/L	5.0	0.61	1		11/03/15 13:29	75-15-0	
Carbon tetrachloride	<0.50	ug/L	1.0	0.50	1		11/03/15 13:29	56-23-5	
Chlorobenzene	<0.50	ug/L	1.0	0.50	1		11/03/15 13:29	108-90-7	
Chloroethane	<0.37	ug/L	1.0	0.37	1		11/03/15 13:29	75-00-3	
Chloroform	<2.5	ug/L	5.0	2.5	1		11/03/15 13:29	67-66-3	
Chloromethane	<0.50	ug/L	1.0	0.50	1		11/03/15 13:29	74-87-3	
Dibromochloromethane	<0.50	ug/L	1.0	0.50	1		11/03/15 13:29	124-48-1	
Dibromomethane	<0.43	ug/L	1.0	0.43	1		11/03/15 13:29	74-95-3	
Dichlorodifluoromethane	<0.22	ug/L	1.0	0.22	1		11/03/15 13:29	75-71-8	
Ethylbenzene	<0.50	ug/L	1.0	0.50	1		11/03/15 13:29	100-41-4	
Methyl-tert-butyl ether	<0.17	ug/L	1.0	0.17	1		11/03/15 13:29	1634-04-4	
Methylene Chloride	<0.23	ug/L	1.0	0.23	1		11/03/15 13:29	75-09-2	
Naphthalene	<2.5	ug/L	5.0	2.5	1		11/03/15 13:29	91-20-3	
Styrene	<0.50	ug/L	1.0	0.50	1		11/03/15 13:29	100-42-5	
Tetrachloroethene	<0.50	ug/L	1.0	0.50	1		11/03/15 13:29	127-18-4	
Tetrahydrofuran	<2.0	ug/L	5.0	2.0	1		11/03/15 13:29	109-99-9	
Toluene	<0.50	ug/L	1.0	0.50	1		11/03/15 13:29	108-88-3	
Trichloroethene	<0.33	ug/L	1.0	0.33	1		11/03/15 13:29	79-01-6	
Trichlorofluoromethane	<0.18	ug/L	1.0	0.18	1		11/03/15 13:29	75-69-4	
Vinyl chloride	6.5	ug/L	1.0	0.18	1		11/03/15 13:29	75-01-4	
Xylene (Total)	<1.5	ug/L	3.0	1.5	1		11/03/15 13:29	1330-20-7	
cis-1,2-Dichloroethene	2.4	ug/L	1.0	0.26	1		11/03/15 13:29	156-59-2	
cis-1,3-Dichloropropene	<0.50	ug/L	1.0	0.50	1		11/03/15 13:29	10061-01-5	
trans-1,2-Dichloroethene	<0.26	ug/L	1.0	0.26	1		11/03/15 13:29	156-60-5	
trans-1,3-Dichloropropene	<0.23	ug/L	1.0	0.23	1		11/03/15 13:29	10061-02-6	
<b>Surrogates</b>									
4-Bromofluorobenzene (S)	96	%	70-130		1		11/03/15 13:29	460-00-4	
Dibromofluoromethane (S)	98	%	70-130		1		11/03/15 13:29	1868-53-7	
Toluene-d8 (S)	96	%	70-130		1		11/03/15 13:29	2037-26-5	

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### ANALYTICAL RESULTS

Project: 117-2202040.21 RIPON FF/NN LAN  
 Pace Project No.: 40123811

Sample: P-111D DUP Lab ID: 40123811005 Collected: 10/27/15 12:05 Received: 10/30/15 09:40 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
<b>8260 MSV</b>									
Analytical Method: EPA 8260									
1,1,1-Trichloroethane	<0.50	ug/L	1.0	0.50	1		11/03/15 13:52	71-55-6	
1,1,2-Trichloroethane	<0.20	ug/L	1.0	0.20	1		11/03/15 13:52	79-00-5	
1,1-Dichloroethane	<0.24	ug/L	1.0	0.24	1		11/03/15 13:52	75-34-3	
1,1-Dichloroethene	<0.41	ug/L	1.0	0.41	1		11/03/15 13:52	75-35-4	
1,2-Dibromo-3-chloropropane	<2.2	ug/L	5.0	2.2	1		11/03/15 13:52	96-12-8	
1,2-Dibromoethane (EDB)	<0.18	ug/L	1.0	0.18	1		11/03/15 13:52	106-93-4	
1,2-Dichlorobenzene	<0.50	ug/L	1.0	0.50	1		11/03/15 13:52	95-50-1	
1,2-Dichloroethane	<0.17	ug/L	1.0	0.17	1		11/03/15 13:52	107-06-2	
1,2-Dichloropropane	<0.23	ug/L	1.0	0.23	1		11/03/15 13:52	78-87-5	
1,3-Dichlorobenzene	<0.50	ug/L	1.0	0.50	1		11/03/15 13:52	541-73-1	
1,4-Dichlorobenzene	<0.50	ug/L	1.0	0.50	1		11/03/15 13:52	106-46-7	
2-Butanone (MEK)	<3.0	ug/L	20.0	3.0	1		11/03/15 13:52	78-93-3	
Acetone	<3.0	ug/L	20.0	3.0	1		11/03/15 13:52	67-64-1	
Benzene	<0.50	ug/L	1.0	0.50	1		11/03/15 13:52	71-43-2	
Bromodichloromethane	<0.50	ug/L	1.0	0.50	1		11/03/15 13:52	75-27-4	
Bromoform	<0.50	ug/L	1.0	0.50	1		11/03/15 13:52	75-25-2	
Bromomethane	<2.4	ug/L	5.0	2.4	1		11/03/15 13:52	74-83-9	
Carbon disulfide	<0.61	ug/L	5.0	0.61	1		11/03/15 13:52	75-15-0	
Carbon tetrachloride	<0.50	ug/L	1.0	0.50	1		11/03/15 13:52	56-23-5	
Chlorobenzene	<0.50	ug/L	1.0	0.50	1		11/03/15 13:52	108-90-7	
Chloroethane	<0.37	ug/L	1.0	0.37	1		11/03/15 13:52	75-00-3	
Chloroform	<2.5	ug/L	5.0	2.5	1		11/03/15 13:52	67-66-3	
Chloromethane	<0.50	ug/L	1.0	0.50	1		11/03/15 13:52	74-87-3	
Dibromochloromethane	<0.50	ug/L	1.0	0.50	1		11/03/15 13:52	124-48-1	
Dibromomethane	<0.43	ug/L	1.0	0.43	1		11/03/15 13:52	74-95-3	
Dichlorodifluoromethane	<0.22	ug/L	1.0	0.22	1		11/03/15 13:52	75-71-8	
Ethylbenzene	<0.50	ug/L	1.0	0.50	1		11/03/15 13:52	100-41-4	
Methyl-tert-butyl ether	<0.17	ug/L	1.0	0.17	1		11/03/15 13:52	1634-04-4	
Methylene Chloride	<0.23	ug/L	1.0	0.23	1		11/03/15 13:52	75-09-2	
Naphthalene	<2.5	ug/L	5.0	2.5	1		11/03/15 13:52	91-20-3	
Styrene	<0.50	ug/L	1.0	0.50	1		11/03/15 13:52	100-42-5	
Tetrachloroethene	<0.50	ug/L	1.0	0.50	1		11/03/15 13:52	127-18-4	
Tetrahydrofuran	<2.0	ug/L	5.0	2.0	1		11/03/15 13:52	109-99-9	
Toluene	<0.50	ug/L	1.0	0.50	1		11/03/15 13:52	108-88-3	
Trichloroethene	<0.33	ug/L	1.0	0.33	1		11/03/15 13:52	79-01-6	
Trichlorofluoromethane	<0.18	ug/L	1.0	0.18	1		11/03/15 13:52	75-69-4	
Vinyl chloride	6.5	ug/L	1.0	0.18	1		11/03/15 13:52	75-01-4	
Xylene (Total)	<1.5	ug/L	3.0	1.5	1		11/03/15 13:52	1330-20-7	
cis-1,2-Dichloroethene	2.2	ug/L	1.0	0.26	1		11/03/15 13:52	156-59-2	
cis-1,3-Dichloropropene	<0.50	ug/L	1.0	0.50	1		11/03/15 13:52	10061-01-5	
trans-1,2-Dichloroethene	<0.26	ug/L	1.0	0.26	1		11/03/15 13:52	156-60-5	
trans-1,3-Dichloropropene	<0.23	ug/L	1.0	0.23	1		11/03/15 13:52	10061-02-6	
<b>Surrogates</b>									
4-Bromofluorobenzene (S)	91	%	70-130		1		11/03/15 13:52	460-00-4	
Dibromofluoromethane (S)	101	%	70-130		1		11/03/15 13:52	1868-53-7	
Toluene-d8 (S)	95	%	70-130		1		11/03/15 13:52	2037-26-5	

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### ANALYTICAL RESULTS

Project: 117-2202040.21 RIPON FF/NN LAN  
 Pace Project No.: 40123811

Sample: MW-3A Lab ID: 40123811006 Collected: 10/27/15 12:40 Received: 10/30/15 09:40 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
<b>8260 MSV</b>									
Analytical Method: EPA 8260									
1,1,1-Trichloroethane	<0.50	ug/L	1.0	0.50	1		11/03/15 14:15	71-55-6	
1,1,2-Trichloroethane	<0.20	ug/L	1.0	0.20	1		11/03/15 14:15	79-00-5	
1,1-Dichloroethane	<0.24	ug/L	1.0	0.24	1		11/03/15 14:15	75-34-3	
1,1-Dichloroethene	<0.41	ug/L	1.0	0.41	1		11/03/15 14:15	75-35-4	
1,2-Dibromo-3-chloropropane	<2.2	ug/L	5.0	2.2	1		11/03/15 14:15	96-12-8	
1,2-Dibromoethane (EDB)	<0.18	ug/L	1.0	0.18	1		11/03/15 14:15	106-93-4	
1,2-Dichlorobenzene	<0.50	ug/L	1.0	0.50	1		11/03/15 14:15	95-50-1	
1,2-Dichloroethane	<0.17	ug/L	1.0	0.17	1		11/03/15 14:15	107-06-2	
1,2-Dichloropropane	<0.23	ug/L	1.0	0.23	1		11/03/15 14:15	78-87-5	
1,3-Dichlorobenzene	<0.50	ug/L	1.0	0.50	1		11/03/15 14:15	541-73-1	
1,4-Dichlorobenzene	<0.50	ug/L	1.0	0.50	1		11/03/15 14:15	106-46-7	
2-Butanone (MEK)	<3.0	ug/L	20.0	3.0	1		11/03/15 14:15	78-93-3	
Acetone	<3.0	ug/L	20.0	3.0	1		11/03/15 14:15	67-64-1	
Benzene	<0.50	ug/L	1.0	0.50	1		11/03/15 14:15	71-43-2	
Bromodichloromethane	<0.50	ug/L	1.0	0.50	1		11/03/15 14:15	75-27-4	
Bromoform	<0.50	ug/L	1.0	0.50	1		11/03/15 14:15	75-25-2	
Bromomethane	<2.4	ug/L	5.0	2.4	1		11/03/15 14:15	74-83-9	
Carbon disulfide	<0.61	ug/L	5.0	0.61	1		11/03/15 14:15	75-15-0	
Carbon tetrachloride	<0.50	ug/L	1.0	0.50	1		11/03/15 14:15	56-23-5	
Chlorobenzene	<0.50	ug/L	1.0	0.50	1		11/03/15 14:15	108-90-7	
Chloroethane	<0.37	ug/L	1.0	0.37	1		11/03/15 14:15	75-00-3	
Chloroform	<2.5	ug/L	5.0	2.5	1		11/03/15 14:15	67-66-3	
Chloromethane	<0.50	ug/L	1.0	0.50	1		11/03/15 14:15	74-87-3	
Dibromochloromethane	<0.50	ug/L	1.0	0.50	1		11/03/15 14:15	124-48-1	
Dibromomethane	<0.43	ug/L	1.0	0.43	1		11/03/15 14:15	74-95-3	
Dichlorodifluoromethane	<0.22	ug/L	1.0	0.22	1		11/03/15 14:15	75-71-8	
Ethylbenzene	<0.50	ug/L	1.0	0.50	1		11/03/15 14:15	100-41-4	
Methyl-tert-butyl ether	<0.17	ug/L	1.0	0.17	1		11/03/15 14:15	1634-04-4	
Methylene Chloride	<0.23	ug/L	1.0	0.23	1		11/03/15 14:15	75-09-2	
Naphthalene	<2.5	ug/L	5.0	2.5	1		11/03/15 14:15	91-20-3	
Styrene	<0.50	ug/L	1.0	0.50	1		11/03/15 14:15	100-42-5	
Tetrachloroethene	<0.50	ug/L	1.0	0.50	1		11/03/15 14:15	127-18-4	
Tetrahydrofuran	<2.0	ug/L	5.0	2.0	1		11/03/15 14:15	109-99-9	
Toluene	<0.50	ug/L	1.0	0.50	1		11/03/15 14:15	108-88-3	
Trichloroethene	<0.33	ug/L	1.0	0.33	1		11/03/15 14:15	79-01-6	
Trichlorofluoromethane	<0.18	ug/L	1.0	0.18	1		11/03/15 14:15	75-69-4	
Vinyl chloride	<0.18	ug/L	1.0	0.18	1		11/03/15 14:15	75-01-4	
Xylene (Total)	<1.5	ug/L	3.0	1.5	1		11/03/15 14:15	1330-20-7	
cis-1,2-Dichloroethene	<0.26	ug/L	1.0	0.26	1		11/03/15 14:15	156-59-2	
cis-1,3-Dichloropropene	<0.50	ug/L	1.0	0.50	1		11/03/15 14:15	10061-01-5	
trans-1,2-Dichloroethene	<0.26	ug/L	1.0	0.26	1		11/03/15 14:15	156-60-5	
trans-1,3-Dichloropropene	<0.23	ug/L	1.0	0.23	1		11/03/15 14:15	10061-02-6	
<b>Surrogates</b>									
4-Bromofluorobenzene (S)	96	%	70-130		1		11/03/15 14:15	460-00-4	
Dibromofluoromethane (S)	105	%	70-130		1		11/03/15 14:15	1868-53-7	
Toluene-d8 (S)	94	%	70-130		1		11/03/15 14:15	2037-26-5	

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### ANALYTICAL RESULTS

Project: 117-2202040.21 RIPON FF/NN LAN  
 Pace Project No.: 40123811

Sample: MW-3B Lab ID: 40123811007 Collected: 10/27/15 12:45 Received: 10/30/15 09:40 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
<b>8260 MSV</b>		Analytical Method: EPA 8260							
1,1,1-Trichloroethane	<0.50	ug/L	1.0	0.50	1		11/03/15 10:20	71-55-6	
1,1,2-Trichloroethane	<0.20	ug/L	1.0	0.20	1		11/03/15 10:20	79-00-5	
1,1-Dichloroethane	<0.24	ug/L	1.0	0.24	1		11/03/15 10:20	75-34-3	
1,1-Dichloroethene	<0.41	ug/L	1.0	0.41	1		11/03/15 10:20	75-35-4	
1,2-Dibromo-3-chloropropane	<2.2	ug/L	5.0	2.2	1		11/03/15 10:20	96-12-8	
1,2-Dibromoethane (EDB)	<0.18	ug/L	1.0	0.18	1		11/03/15 10:20	106-93-4	
1,2-Dichlorobenzene	<0.50	ug/L	1.0	0.50	1		11/03/15 10:20	95-50-1	
1,2-Dichloroethane	<0.17	ug/L	1.0	0.17	1		11/03/15 10:20	107-06-2	
1,2-Dichloropropane	<0.23	ug/L	1.0	0.23	1		11/03/15 10:20	78-87-5	
1,3-Dichlorobenzene	<0.50	ug/L	1.0	0.50	1		11/03/15 10:20	541-73-1	
1,4-Dichlorobenzene	<0.50	ug/L	1.0	0.50	1		11/03/15 10:20	106-46-7	
2-Butanone (MEK)	<3.0	ug/L	20.0	3.0	1		11/03/15 10:20	78-93-3	
Acetone	<3.0	ug/L	20.0	3.0	1		11/03/15 10:20	67-64-1	
Benzene	<0.50	ug/L	1.0	0.50	1		11/03/15 10:20	71-43-2	
Bromodichloromethane	<0.50	ug/L	1.0	0.50	1		11/03/15 10:20	75-27-4	
Bromoform	<0.50	ug/L	1.0	0.50	1		11/03/15 10:20	75-25-2	
Bromomethane	<2.4	ug/L	5.0	2.4	1		11/03/15 10:20	74-83-9	
Carbon disulfide	<0.61	ug/L	5.0	0.61	1		11/03/15 10:20	75-15-0	
Carbon tetrachloride	<0.50	ug/L	1.0	0.50	1		11/03/15 10:20	56-23-5	
Chlorobenzene	<0.50	ug/L	1.0	0.50	1		11/03/15 10:20	108-90-7	
Chloroethane	<0.37	ug/L	1.0	0.37	1		11/03/15 10:20	75-00-3	
Chloroform	<2.5	ug/L	5.0	2.5	1		11/03/15 10:20	67-66-3	
Chloromethane	<0.50	ug/L	1.0	0.50	1		11/03/15 10:20	74-87-3	
Dibromochloromethane	<0.50	ug/L	1.0	0.50	1		11/03/15 10:20	124-48-1	
Dibromomethane	<0.43	ug/L	1.0	0.43	1		11/03/15 10:20	74-95-3	
Dichlorodifluoromethane	<0.22	ug/L	1.0	0.22	1		11/03/15 10:20	75-71-8	
Ethylbenzene	<0.50	ug/L	1.0	0.50	1		11/03/15 10:20	100-41-4	
Methyl-tert-butyl ether	<0.17	ug/L	1.0	0.17	1		11/03/15 10:20	1634-04-4	
Methylene Chloride	<0.23	ug/L	1.0	0.23	1		11/03/15 10:20	75-09-2	
Naphthalene	<2.5	ug/L	5.0	2.5	1		11/03/15 10:20	91-20-3	
Styrene	<0.50	ug/L	1.0	0.50	1		11/03/15 10:20	100-42-5	
Tetrachloroethene	<0.50	ug/L	1.0	0.50	1		11/03/15 10:20	127-18-4	
Tetrahydrofuran	<2.0	ug/L	5.0	2.0	1		11/03/15 10:20	109-99-9	
Toluene	<0.50	ug/L	1.0	0.50	1		11/03/15 10:20	108-88-3	
Trichloroethene	<0.33	ug/L	1.0	0.33	1		11/03/15 10:20	79-01-6	
Trichlorofluoromethane	<0.18	ug/L	1.0	0.18	1		11/03/15 10:20	75-69-4	
Vinyl chloride	<0.18	ug/L	1.0	0.18	1		11/03/15 10:20	75-01-4	
Xylene (Total)	<1.5	ug/L	3.0	1.5	1		11/03/15 10:20	1330-20-7	
cis-1,2-Dichloroethene	<0.26	ug/L	1.0	0.26	1		11/03/15 10:20	156-59-2	
cis-1,3-Dichloropropene	<0.50	ug/L	1.0	0.50	1		11/03/15 10:20	10061-01-5	
trans-1,2-Dichloroethene	<0.26	ug/L	1.0	0.26	1		11/03/15 10:20	156-60-5	
trans-1,3-Dichloropropene	<0.23	ug/L	1.0	0.23	1		11/03/15 10:20	10061-02-6	
<b>Surrogates</b>									
4-Bromofluorobenzene (S)	96	%	70-130		1		11/03/15 10:20	460-00-4	
Dibromofluoromethane (S)	102	%	70-130		1		11/03/15 10:20	1868-53-7	
Toluene-d8 (S)	97	%	70-130		1		11/03/15 10:20	2037-26-5	

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### ANALYTICAL RESULTS

Project: 117-2202040.21 RIPON FF/NN LAN  
 Pace Project No.: 40123811

Sample: P-113B Lab ID: 40123811008 Collected: 10/27/15 13:45 Received: 10/30/15 09:40 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
<b>8260 MSV</b>									
Analytical Method: EPA 8260									
1,1,1-Trichloroethane	<0.50	ug/L	1.0	0.50	1		11/03/15 14:38	71-55-6	
1,1,2-Trichloroethane	<0.20	ug/L	1.0	0.20	1		11/03/15 14:38	79-00-5	
1,1-Dichloroethane	<0.24	ug/L	1.0	0.24	1		11/03/15 14:38	75-34-3	
1,1-Dichloroethene	<0.41	ug/L	1.0	0.41	1		11/03/15 14:38	75-35-4	
1,2-Dibromo-3-chloropropane	<2.2	ug/L	5.0	2.2	1		11/03/15 14:38	96-12-8	
1,2-Dibromoethane (EDB)	<0.18	ug/L	1.0	0.18	1		11/03/15 14:38	106-93-4	
1,2-Dichlorobenzene	<0.50	ug/L	1.0	0.50	1		11/03/15 14:38	95-50-1	
1,2-Dichloroethane	<0.17	ug/L	1.0	0.17	1		11/03/15 14:38	107-06-2	
1,2-Dichloropropane	<0.23	ug/L	1.0	0.23	1		11/03/15 14:38	78-87-5	
1,3-Dichlorobenzene	<0.50	ug/L	1.0	0.50	1		11/03/15 14:38	541-73-1	
1,4-Dichlorobenzene	<0.50	ug/L	1.0	0.50	1		11/03/15 14:38	106-46-7	
2-Butanone (MEK)	<3.0	ug/L	20.0	3.0	1		11/03/15 14:38	78-93-3	
Acetone	<3.0	ug/L	20.0	3.0	1		11/03/15 14:38	67-64-1	
Benzene	<0.50	ug/L	1.0	0.50	1		11/03/15 14:38	71-43-2	
Bromodichloromethane	<0.50	ug/L	1.0	0.50	1		11/03/15 14:38	75-27-4	
Bromoform	<0.50	ug/L	1.0	0.50	1		11/03/15 14:38	75-25-2	
Bromomethane	<2.4	ug/L	5.0	2.4	1		11/03/15 14:38	74-83-9	
Carbon disulfide	<0.61	ug/L	5.0	0.61	1		11/03/15 14:38	75-15-0	
Carbon tetrachloride	<0.50	ug/L	1.0	0.50	1		11/03/15 14:38	56-23-5	
Chlorobenzene	<0.50	ug/L	1.0	0.50	1		11/03/15 14:38	108-90-7	
Chloroethane	<0.37	ug/L	1.0	0.37	1		11/03/15 14:38	75-00-3	
Chloroform	<2.5	ug/L	5.0	2.5	1		11/03/15 14:38	67-66-3	
Chloromethane	<0.50	ug/L	1.0	0.50	1		11/03/15 14:38	74-87-3	
Dibromochloromethane	<0.50	ug/L	1.0	0.50	1		11/03/15 14:38	124-48-1	
Dibromomethane	<0.43	ug/L	1.0	0.43	1		11/03/15 14:38	74-95-3	
Dichlorodifluoromethane	<0.22	ug/L	1.0	0.22	1		11/03/15 14:38	75-71-8	
Ethylbenzene	<0.50	ug/L	1.0	0.50	1		11/03/15 14:38	100-41-4	
Methyl-tert-butyl ether	<0.17	ug/L	1.0	0.17	1		11/03/15 14:38	1634-04-4	
Methylene Chloride	<0.23	ug/L	1.0	0.23	1		11/03/15 14:38	75-09-2	
Naphthalene	<2.5	ug/L	5.0	2.5	1		11/03/15 14:38	91-20-3	
Styrene	<0.50	ug/L	1.0	0.50	1		11/03/15 14:38	100-42-5	
Tetrachloroethene	<0.50	ug/L	1.0	0.50	1		11/03/15 14:38	127-18-4	
Tetrahydrofuran	<2.0	ug/L	5.0	2.0	1		11/03/15 14:38	109-99-9	
Toluene	<0.50	ug/L	1.0	0.50	1		11/03/15 14:38	108-88-3	
Trichloroethene	<0.33	ug/L	1.0	0.33	1		11/03/15 14:38	79-01-6	
Trichlorofluoromethane	<0.18	ug/L	1.0	0.18	1		11/03/15 14:38	75-69-4	
Vinyl chloride	<0.18	ug/L	1.0	0.18	1		11/03/15 14:38	75-01-4	
Xylene (Total)	<1.5	ug/L	3.0	1.5	1		11/03/15 14:38	1330-20-7	
cis-1,2-Dichloroethene	<0.26	ug/L	1.0	0.26	1		11/03/15 14:38	156-59-2	
cis-1,3-Dichloropropene	<0.50	ug/L	1.0	0.50	1		11/03/15 14:38	10061-01-5	
trans-1,2-Dichloroethene	<0.26	ug/L	1.0	0.26	1		11/03/15 14:38	156-60-5	
trans-1,3-Dichloropropene	<0.23	ug/L	1.0	0.23	1		11/03/15 14:38	10061-02-6	
<b>Surrogates</b>									
4-Bromofluorobenzene (S)	94	%	70-130		1		11/03/15 14:38	460-00-4	
Dibromofluoromethane (S)	103	%	70-130		1		11/03/15 14:38	1868-53-7	
Toluene-d8 (S)	95	%	70-130		1		11/03/15 14:38	2037-26-5	

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### ANALYTICAL RESULTS

Project: 117-2202040.21 RIPON FF/NN LAN  
 Pace Project No.: 40123811

Sample: P-113A Lab ID: 40123811009 Collected: 10/27/15 13:50 Received: 10/30/15 09:40 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
<b>8260 MSV</b>		Analytical Method: EPA 8260							
1,1,1-Trichloroethane	<0.50	ug/L	1.0	0.50	1		11/03/15 22:16	71-55-6	
1,1,2-Trichloroethane	<0.20	ug/L	1.0	0.20	1		11/03/15 22:16	79-00-5	
1,1-Dichloroethane	<0.24	ug/L	1.0	0.24	1		11/03/15 22:16	75-34-3	
1,1-Dichloroethene	<0.41	ug/L	1.0	0.41	1		11/03/15 22:16	75-35-4	
1,2-Dibromo-3-chloropropane	<2.2	ug/L	5.0	2.2	1		11/03/15 22:16	96-12-8	
1,2-Dibromoethane (EDB)	<0.18	ug/L	1.0	0.18	1		11/03/15 22:16	106-93-4	
1,2-Dichlorobenzene	<0.50	ug/L	1.0	0.50	1		11/03/15 22:16	95-50-1	
1,2-Dichloroethane	<0.17	ug/L	1.0	0.17	1		11/03/15 22:16	107-06-2	
1,2-Dichloropropane	<0.23	ug/L	1.0	0.23	1		11/03/15 22:16	78-87-5	
1,3-Dichlorobenzene	<0.50	ug/L	1.0	0.50	1		11/03/15 22:16	541-73-1	
1,4-Dichlorobenzene	<0.50	ug/L	1.0	0.50	1		11/03/15 22:16	106-46-7	
2-Butanone (MEK)	<3.0	ug/L	20.0	3.0	1		11/03/15 22:16	78-93-3	
Acetone	<3.0	ug/L	20.0	3.0	1		11/03/15 22:16	67-64-1	
Benzene	<0.50	ug/L	1.0	0.50	1		11/03/15 22:16	71-43-2	
Bromodichloromethane	<0.50	ug/L	1.0	0.50	1		11/03/15 22:16	75-27-4	
Bromoform	<0.50	ug/L	1.0	0.50	1		11/03/15 22:16	75-25-2	
Bromomethane	<2.4	ug/L	5.0	2.4	1		11/03/15 22:16	74-83-9	
Carbon disulfide	<0.61	ug/L	5.0	0.61	1		11/03/15 22:16	75-15-0	
Carbon tetrachloride	<0.50	ug/L	1.0	0.50	1		11/03/15 22:16	56-23-5	
Chlorobenzene	<0.50	ug/L	1.0	0.50	1		11/03/15 22:16	108-90-7	
Chloroethane	<0.37	ug/L	1.0	0.37	1		11/03/15 22:16	75-00-3	
Chloroform	<2.5	ug/L	5.0	2.5	1		11/03/15 22:16	67-66-3	
Chloromethane	<0.50	ug/L	1.0	0.50	1		11/03/15 22:16	74-87-3	
Dibromochloromethane	<0.50	ug/L	1.0	0.50	1		11/03/15 22:16	124-48-1	
Dibromomethane	<0.43	ug/L	1.0	0.43	1		11/03/15 22:16	74-95-3	
Dichlorodifluoromethane	<0.22	ug/L	1.0	0.22	1		11/03/15 22:16	75-71-8	
Ethylbenzene	<0.50	ug/L	1.0	0.50	1		11/03/15 22:16	100-41-4	
Methyl-tert-butyl ether	<0.17	ug/L	1.0	0.17	1		11/03/15 22:16	1634-04-4	
Methylene Chloride	<0.23	ug/L	1.0	0.23	1		11/03/15 22:16	75-09-2	
Naphthalene	<2.5	ug/L	5.0	2.5	1		11/03/15 22:16	91-20-3	
Styrene	<0.50	ug/L	1.0	0.50	1		11/03/15 22:16	100-42-5	
Tetrachloroethene	<0.50	ug/L	1.0	0.50	1		11/03/15 22:16	127-18-4	
Tetrahydrofuran	<2.0	ug/L	5.0	2.0	1		11/03/15 22:16	109-99-9	
Toluene	<0.50	ug/L	1.0	0.50	1		11/03/15 22:16	108-88-3	
Trichloroethene	<0.33	ug/L	1.0	0.33	1		11/03/15 22:16	79-01-6	
Trichlorofluoromethane	<0.18	ug/L	1.0	0.18	1		11/03/15 22:16	75-69-4	
Vinyl chloride	<0.18	ug/L	1.0	0.18	1		11/03/15 22:16	75-01-4	
Xylene (Total)	<1.5	ug/L	3.0	1.5	1		11/03/15 22:16	1330-20-7	
cis-1,2-Dichloroethene	<0.26	ug/L	1.0	0.26	1		11/03/15 22:16	156-59-2	
cis-1,3-Dichloropropene	<0.50	ug/L	1.0	0.50	1		11/03/15 22:16	10061-01-5	
trans-1,2-Dichloroethene	<0.26	ug/L	1.0	0.26	1		11/03/15 22:16	156-60-5	
trans-1,3-Dichloropropene	<0.23	ug/L	1.0	0.23	1		11/03/15 22:16	10061-02-6	
<b>Surrogates</b>									
4-Bromofluorobenzene (S)	93	%	70-130		1		11/03/15 22:16	460-00-4	
Dibromofluoromethane (S)	103	%	70-130		1		11/03/15 22:16	1868-53-7	
Toluene-d8 (S)	94	%	70-130		1		11/03/15 22:16	2037-26-5	

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### ANALYTICAL RESULTS

Project: 117-2202040.21 RIPON FF/NN LAN  
 Pace Project No.: 40123811

Sample: P-116 Lab ID: 40123811010 Collected: 10/27/15 14:35 Received: 10/30/15 09:40 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
<b>8260 MSV</b>									
Analytical Method: EPA 8260									
1,1,1-Trichloroethane	<0.50	ug/L	1.0	0.50	1		11/03/15 22:39	71-55-6	
1,1,2-Trichloroethane	<0.20	ug/L	1.0	0.20	1		11/03/15 22:39	79-00-5	
1,1-Dichloroethane	<0.24	ug/L	1.0	0.24	1		11/03/15 22:39	75-34-3	
1,1-Dichloroethene	<0.41	ug/L	1.0	0.41	1		11/03/15 22:39	75-35-4	
1,2-Dibromo-3-chloropropane	<2.2	ug/L	5.0	2.2	1		11/03/15 22:39	96-12-8	
1,2-Dibromoethane (EDB)	<0.18	ug/L	1.0	0.18	1		11/03/15 22:39	106-93-4	
1,2-Dichlorobenzene	<0.50	ug/L	1.0	0.50	1		11/03/15 22:39	95-50-1	
1,2-Dichloroethane	<0.17	ug/L	1.0	0.17	1		11/03/15 22:39	107-06-2	
1,2-Dichloropropane	<0.23	ug/L	1.0	0.23	1		11/03/15 22:39	78-87-5	
1,3-Dichlorobenzene	<0.50	ug/L	1.0	0.50	1		11/03/15 22:39	541-73-1	
1,4-Dichlorobenzene	<0.50	ug/L	1.0	0.50	1		11/03/15 22:39	106-46-7	
2-Butanone (MEK)	<3.0	ug/L	20.0	3.0	1		11/03/15 22:39	78-93-3	
Acetone	<3.0	ug/L	20.0	3.0	1		11/03/15 22:39	67-64-1	
Benzene	<0.50	ug/L	1.0	0.50	1		11/03/15 22:39	71-43-2	
Bromodichloromethane	<0.50	ug/L	1.0	0.50	1		11/03/15 22:39	75-27-4	
Bromoform	<0.50	ug/L	1.0	0.50	1		11/03/15 22:39	75-25-2	
Bromomethane	<2.4	ug/L	5.0	2.4	1		11/03/15 22:39	74-83-9	
Carbon disulfide	<0.61	ug/L	5.0	0.61	1		11/03/15 22:39	75-15-0	
Carbon tetrachloride	<0.50	ug/L	1.0	0.50	1		11/03/15 22:39	56-23-5	
Chlorobenzene	<0.50	ug/L	1.0	0.50	1		11/03/15 22:39	108-90-7	
Chloroethane	<0.37	ug/L	1.0	0.37	1		11/03/15 22:39	75-00-3	
Chloroform	<2.5	ug/L	5.0	2.5	1		11/03/15 22:39	67-66-3	
Chloromethane	<0.50	ug/L	1.0	0.50	1		11/03/15 22:39	74-87-3	
Dibromochloromethane	<0.50	ug/L	1.0	0.50	1		11/03/15 22:39	124-48-1	
Dibromomethane	<0.43	ug/L	1.0	0.43	1		11/03/15 22:39	74-95-3	
Dichlorodifluoromethane	<0.22	ug/L	1.0	0.22	1		11/03/15 22:39	75-71-8	
Ethylbenzene	<0.50	ug/L	1.0	0.50	1		11/03/15 22:39	100-41-4	
Methyl-tert-butyl ether	<0.17	ug/L	1.0	0.17	1		11/03/15 22:39	1634-04-4	
Methylene Chloride	<0.23	ug/L	1.0	0.23	1		11/03/15 22:39	75-09-2	
Naphthalene	<2.5	ug/L	5.0	2.5	1		11/03/15 22:39	91-20-3	
Styrene	<0.50	ug/L	1.0	0.50	1		11/03/15 22:39	100-42-5	
Tetrachloroethene	<0.50	ug/L	1.0	0.50	1		11/03/15 22:39	127-18-4	
Tetrahydrofuran	<2.0	ug/L	5.0	2.0	1		11/03/15 22:39	109-99-9	
Toluene	<0.50	ug/L	1.0	0.50	1		11/03/15 22:39	108-88-3	
Trichloroethene	<0.33	ug/L	1.0	0.33	1		11/03/15 22:39	79-01-6	
Trichlorofluoromethane	<0.18	ug/L	1.0	0.18	1		11/03/15 22:39	75-69-4	
Vinyl chloride	<0.18	ug/L	1.0	0.18	1		11/03/15 22:39	75-01-4	
Xylene (Total)	<1.5	ug/L	3.0	1.5	1		11/03/15 22:39	1330-20-7	
cis-1,2-Dichloroethene	<0.26	ug/L	1.0	0.26	1		11/03/15 22:39	156-59-2	
cis-1,3-Dichloropropene	<0.50	ug/L	1.0	0.50	1		11/03/15 22:39	10061-01-5	
trans-1,2-Dichloroethene	<0.26	ug/L	1.0	0.26	1		11/03/15 22:39	156-60-5	
trans-1,3-Dichloropropene	<0.23	ug/L	1.0	0.23	1		11/03/15 22:39	10061-02-6	
<b>Surrogates</b>									
4-Bromofluorobenzene (S)	94	%	70-130		1		11/03/15 22:39	460-00-4	
Dibromofluoromethane (S)	102	%	70-130		1		11/03/15 22:39	1868-53-7	
Toluene-d8 (S)	95	%	70-130		1		11/03/15 22:39	2037-26-5	

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**ANALYTICAL RESULTS**

Project: 117-2202040.21 RIPON FF/NN LAN  
 Pace Project No.: 40123811

Sample: P-114 Lab ID: 40123811011 Collected: 10/27/15 15:00 Received: 10/30/15 09:40 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
<b>8260 MSV</b>									
Analytical Method: EPA 8260									
1,1,1-Trichloroethane	<0.50	ug/L	1.0	0.50	1		11/04/15 12:47	71-55-6	
1,1,2-Trichloroethane	<0.20	ug/L	1.0	0.20	1		11/04/15 12:47	79-00-5	
1,1-Dichloroethane	<0.24	ug/L	1.0	0.24	1		11/04/15 12:47	75-34-3	
1,1-Dichloroethene	<0.41	ug/L	1.0	0.41	1		11/04/15 12:47	75-35-4	
1,2-Dibromo-3-chloropropane	<2.2	ug/L	5.0	2.2	1		11/04/15 12:47	96-12-8	
1,2-Dibromoethane (EDB)	<0.18	ug/L	1.0	0.18	1		11/04/15 12:47	106-93-4	
1,2-Dichlorobenzene	<0.50	ug/L	1.0	0.50	1		11/04/15 12:47	95-50-1	
1,2-Dichloroethane	<0.17	ug/L	1.0	0.17	1		11/04/15 12:47	107-06-2	
1,2-Dichloropropane	<0.23	ug/L	1.0	0.23	1		11/04/15 12:47	78-87-5	
1,3-Dichlorobenzene	<0.50	ug/L	1.0	0.50	1		11/04/15 12:47	541-73-1	
1,4-Dichlorobenzene	<0.50	ug/L	1.0	0.50	1		11/04/15 12:47	106-46-7	
2-Butanone (MEK)	<3.0	ug/L	20.0	3.0	1		11/04/15 12:47	78-93-3	
Acetone	<3.0	ug/L	20.0	3.0	1		11/04/15 12:47	67-64-1	
Benzene	<0.50	ug/L	1.0	0.50	1		11/04/15 12:47	71-43-2	
Bromodichloromethane	<0.50	ug/L	1.0	0.50	1		11/04/15 12:47	75-27-4	
Bromoform	<0.50	ug/L	1.0	0.50	1		11/04/15 12:47	75-25-2	
Bromomethane	<2.4	ug/L	5.0	2.4	1		11/04/15 12:47	74-83-9	
Carbon disulfide	<0.61	ug/L	5.0	0.61	1		11/04/15 12:47	75-15-0	
Carbon tetrachloride	<0.50	ug/L	1.0	0.50	1		11/04/15 12:47	56-23-5	
Chlorobenzene	<0.50	ug/L	1.0	0.50	1		11/04/15 12:47	108-90-7	
Chloroethane	<0.37	ug/L	1.0	0.37	1		11/04/15 12:47	75-00-3	
Chloroform	<2.5	ug/L	5.0	2.5	1		11/04/15 12:47	67-66-3	
Chloromethane	<0.50	ug/L	1.0	0.50	1		11/04/15 12:47	74-87-3	
Dibromochloromethane	<0.50	ug/L	1.0	0.50	1		11/04/15 12:47	124-48-1	
Dibromomethane	<0.43	ug/L	1.0	0.43	1		11/04/15 12:47	74-95-3	
Dichlorodifluoromethane	<0.22	ug/L	1.0	0.22	1		11/04/15 12:47	75-71-8	
Ethylbenzene	<0.50	ug/L	1.0	0.50	1		11/04/15 12:47	100-41-4	
Methyl-tert-butyl ether	<0.17	ug/L	1.0	0.17	1		11/04/15 12:47	1634-04-4	
Methylene Chloride	<0.23	ug/L	1.0	0.23	1		11/04/15 12:47	75-09-2	
Naphthalene	<2.5	ug/L	5.0	2.5	1		11/04/15 12:47	91-20-3	
Styrene	<0.50	ug/L	1.0	0.50	1		11/04/15 12:47	100-42-5	
Tetrachloroethene	<0.50	ug/L	1.0	0.50	1		11/04/15 12:47	127-18-4	
Tetrahydrofuran	<2.0	ug/L	5.0	2.0	1		11/04/15 12:47	109-99-9	
Toluene	<0.50	ug/L	1.0	0.50	1		11/04/15 12:47	108-88-3	
Trichloroethene	<0.33	ug/L	1.0	0.33	1		11/04/15 12:47	79-01-6	
Trichlorofluoromethane	<0.18	ug/L	1.0	0.18	1		11/04/15 12:47	75-69-4	
Vinyl chloride	6.5	ug/L	1.0	0.18	1		11/04/15 12:47	75-01-4	
Xylene (Total)	<1.5	ug/L	3.0	1.5	1		11/04/15 12:47	1330-20-7	
cis-1,2-Dichloroethene	1.4	ug/L	1.0	0.26	1		11/04/15 12:47	156-59-2	
cis-1,3-Dichloropropene	<0.50	ug/L	1.0	0.50	1		11/04/15 12:47	10061-01-5	
trans-1,2-Dichloroethene	<0.26	ug/L	1.0	0.26	1		11/04/15 12:47	156-60-5	
trans-1,3-Dichloropropene	<0.23	ug/L	1.0	0.23	1		11/04/15 12:47	10061-02-6	
<b>Surrogates</b>									
4-Bromofluorobenzene (S)	92	%	70-130		1		11/04/15 12:47	460-00-4	
Dibromofluoromethane (S)	101	%	70-130		1		11/04/15 12:47	1868-53-7	
Toluene-d8 (S)	93	%	70-130		1		11/04/15 12:47	2037-26-5	

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### ANALYTICAL RESULTS

Project: 117-2202040.21 RIPON FF/NN LAN  
 Pace Project No.: 40123811

**Sample: P-115**      **Lab ID: 40123811012**      Collected: 10/27/15 15:25      Received: 10/30/15 09:40      Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
<b>8260 MSV</b>									
Analytical Method: EPA 8260									
1,1,1-Trichloroethane	<0.50	ug/L	1.0	0.50	1		11/04/15 13:10	71-55-6	
1,1,2-Trichloroethane	<0.20	ug/L	1.0	0.20	1		11/04/15 13:10	79-00-5	
1,1-Dichloroethane	<0.24	ug/L	1.0	0.24	1		11/04/15 13:10	75-34-3	
1,1-Dichloroethene	<0.41	ug/L	1.0	0.41	1		11/04/15 13:10	75-35-4	
1,2-Dibromo-3-chloropropane	<2.2	ug/L	5.0	2.2	1		11/04/15 13:10	96-12-8	
1,2-Dibromoethane (EDB)	<0.18	ug/L	1.0	0.18	1		11/04/15 13:10	106-93-4	
1,2-Dichlorobenzene	<0.50	ug/L	1.0	0.50	1		11/04/15 13:10	95-50-1	
1,2-Dichloroethane	<0.17	ug/L	1.0	0.17	1		11/04/15 13:10	107-06-2	
1,2-Dichloropropane	<0.23	ug/L	1.0	0.23	1		11/04/15 13:10	78-87-5	
1,3-Dichlorobenzene	<0.50	ug/L	1.0	0.50	1		11/04/15 13:10	541-73-1	
1,4-Dichlorobenzene	<0.50	ug/L	1.0	0.50	1		11/04/15 13:10	106-46-7	
2-Butanone (MEK)	<3.0	ug/L	20.0	3.0	1		11/04/15 13:10	78-93-3	
Acetone	<3.0	ug/L	20.0	3.0	1		11/04/15 13:10	67-64-1	
Benzene	<0.50	ug/L	1.0	0.50	1		11/04/15 13:10	71-43-2	
Bromodichloromethane	<0.50	ug/L	1.0	0.50	1		11/04/15 13:10	75-27-4	
Bromoform	<0.50	ug/L	1.0	0.50	1		11/04/15 13:10	75-25-2	
Bromomethane	<2.4	ug/L	5.0	2.4	1		11/04/15 13:10	74-83-9	
Carbon disulfide	<0.61	ug/L	5.0	0.61	1		11/04/15 13:10	75-15-0	
Carbon tetrachloride	<0.50	ug/L	1.0	0.50	1		11/04/15 13:10	56-23-5	
Chlorobenzene	<0.50	ug/L	1.0	0.50	1		11/04/15 13:10	108-90-7	
Chloroethane	<0.37	ug/L	1.0	0.37	1		11/04/15 13:10	75-00-3	
Chloroform	<2.5	ug/L	5.0	2.5	1		11/04/15 13:10	67-66-3	
Chloromethane	<0.50	ug/L	1.0	0.50	1		11/04/15 13:10	74-87-3	
Dibromochloromethane	<0.50	ug/L	1.0	0.50	1		11/04/15 13:10	124-48-1	
Dibromomethane	<0.43	ug/L	1.0	0.43	1		11/04/15 13:10	74-95-3	
Dichlorodifluoromethane	<0.22	ug/L	1.0	0.22	1		11/04/15 13:10	75-71-8	
Ethylbenzene	<0.50	ug/L	1.0	0.50	1		11/04/15 13:10	100-41-4	
Methyl-tert-butyl ether	<0.17	ug/L	1.0	0.17	1		11/04/15 13:10	1634-04-4	
Methylene Chloride	<0.23	ug/L	1.0	0.23	1		11/04/15 13:10	75-09-2	
Naphthalene	<2.5	ug/L	5.0	2.5	1		11/04/15 13:10	91-20-3	
Styrene	<0.50	ug/L	1.0	0.50	1		11/04/15 13:10	100-42-5	
Tetrachloroethene	<0.50	ug/L	1.0	0.50	1		11/04/15 13:10	127-18-4	
Tetrahydrofuran	<2.0	ug/L	5.0	2.0	1		11/04/15 13:10	109-99-9	
Toluene	<0.50	ug/L	1.0	0.50	1		11/04/15 13:10	108-88-3	
Trichloroethene	<0.33	ug/L	1.0	0.33	1		11/04/15 13:10	79-01-6	
Trichlorofluoromethane	<0.18	ug/L	1.0	0.18	1		11/04/15 13:10	75-69-4	
Vinyl chloride	1.1	ug/L	1.0	0.18	1		11/04/15 13:10	75-01-4	
Xylene (Total)	<1.5	ug/L	3.0	1.5	1		11/04/15 13:10	1330-20-7	
cis-1,2-Dichloroethene	<0.26	ug/L	1.0	0.26	1		11/04/15 13:10	156-59-2	
cis-1,3-Dichloropropene	<0.50	ug/L	1.0	0.50	1		11/04/15 13:10	10061-01-5	
trans-1,2-Dichloroethene	<0.26	ug/L	1.0	0.26	1		11/04/15 13:10	156-60-5	
trans-1,3-Dichloropropene	<0.23	ug/L	1.0	0.23	1		11/04/15 13:10	10061-02-6	
<b>Surrogates</b>									
4-Bromofluorobenzene (S)	93	%	70-130		1		11/04/15 13:10	460-00-4	
Dibromofluoromethane (S)	100	%	70-130		1		11/04/15 13:10	1868-53-7	
Toluene-d8 (S)	95	%	70-130		1		11/04/15 13:10	2037-26-5	

### REPORT OF LABORATORY ANALYSIS

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**QUALITY CONTROL DATA**

Project: 117-2202040.21 RIPON FF/NN LAN  
 Pace Project No.: 40123811

QC Batch: MSV/30998 Analysis Method: EPA 8260  
 QC Batch Method: EPA 8260 Analysis Description: 8260 MSV  
 Associated Lab Samples: 40123811001, 40123811002, 40123811003, 40123811004, 40123811005, 40123811006, 40123811007,  
 40123811008, 40123811009, 40123811010

METHOD BLANK: 1250052 Matrix: Water  
 Associated Lab Samples: 40123811001, 40123811002, 40123811003, 40123811004, 40123811005, 40123811006, 40123811007,  
 40123811008, 40123811009, 40123811010

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
1,1,1-Trichloroethane	ug/L	<0.50	1.0	11/03/15 06:16	
1,1,2-Trichloroethane	ug/L	<0.20	1.0	11/03/15 06:16	
1,1-Dichloroethane	ug/L	<0.24	1.0	11/03/15 06:16	
1,1-Dichloroethene	ug/L	<0.41	1.0	11/03/15 06:16	
1,2-Dibromo-3-chloropropane	ug/L	<2.2	5.0	11/03/15 06:16	
1,2-Dibromoethane (EDB)	ug/L	<0.18	1.0	11/03/15 06:16	
1,2-Dichlorobenzene	ug/L	<0.50	1.0	11/03/15 06:16	
1,2-Dichloroethane	ug/L	<0.17	1.0	11/03/15 06:16	
1,2-Dichloropropane	ug/L	<0.23	1.0	11/03/15 06:16	
1,3-Dichlorobenzene	ug/L	<0.50	1.0	11/03/15 06:16	
1,4-Dichlorobenzene	ug/L	<0.50	1.0	11/03/15 06:16	
2-Butanone (MEK)	ug/L	<3.0	20.0	11/03/15 06:16	
Acetone	ug/L	<3.0	20.0	11/03/15 06:16	
Benzene	ug/L	<0.50	1.0	11/03/15 06:16	
Bromodichloromethane	ug/L	<0.50	1.0	11/03/15 06:16	
Bromoform	ug/L	<0.50	1.0	11/03/15 06:16	
Bromomethane	ug/L	<2.4	5.0	11/03/15 06:16	
Carbon disulfide	ug/L	<0.61	5.0	11/03/15 06:16	
Carbon tetrachloride	ug/L	<0.50	1.0	11/03/15 06:16	
Chlorobenzene	ug/L	<0.50	1.0	11/03/15 06:16	
Chloroethane	ug/L	<0.37	1.0	11/03/15 06:16	
Chloroform	ug/L	<2.5	5.0	11/03/15 06:16	
Chloromethane	ug/L	<0.50	1.0	11/03/15 06:16	
cis-1,2-Dichloroethene	ug/L	<0.26	1.0	11/03/15 06:16	
cis-1,3-Dichloropropene	ug/L	<0.50	1.0	11/03/15 06:16	
Dibromochloromethane	ug/L	<0.50	1.0	11/03/15 06:16	
Dibromomethane	ug/L	<0.43	1.0	11/03/15 06:16	
Dichlorodifluoromethane	ug/L	<0.22	1.0	11/03/15 06:16	
Ethylbenzene	ug/L	<0.50	1.0	11/03/15 06:16	
Methyl-tert-butyl ether	ug/L	<0.17	1.0	11/03/15 06:16	
Methylene Chloride	ug/L	<0.23	1.0	11/03/15 06:16	
Naphthalene	ug/L	<2.5	5.0	11/03/15 06:16	
Styrene	ug/L	<0.50	1.0	11/03/15 06:16	
Tetrachloroethene	ug/L	<0.50	1.0	11/03/15 06:16	
Tetrahydrofuran	ug/L	<2.0	5.0	11/03/15 06:16	
Toluene	ug/L	<0.50	1.0	11/03/15 06:16	
trans-1,2-Dichloroethene	ug/L	<0.26	1.0	11/03/15 06:16	
trans-1,3-Dichloropropene	ug/L	<0.23	1.0	11/03/15 06:16	
Trichloroethene	ug/L	<0.33	1.0	11/03/15 06:16	
Trichlorofluoromethane	ug/L	<0.18	1.0	11/03/15 06:16	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

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### QUALITY CONTROL DATA

Project: 117-2202040.21 RIPON FF/NN LAN  
Pace Project No.: 40123811

METHOD BLANK: 1250052 Matrix: Water  
Associated Lab Samples: 40123811001, 40123811002, 40123811003, 40123811004, 40123811005, 40123811006, 40123811007, 40123811008, 40123811009, 40123811010

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Vinyl chloride	ug/L	<0.18	1.0	11/03/15 06:16	
Xylene (Total)	ug/L	<1.5	3.0	11/03/15 06:16	
4-Bromofluorobenzene (S)	%	95	70-130	11/03/15 06:16	
Dibromofluoromethane (S)	%	97	70-130	11/03/15 06:16	
Toluene-d8 (S)	%	95	70-130	11/03/15 06:16	

LABORATORY CONTROL SAMPLE: 1250053

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,1,1-Trichloroethane	ug/L	50	54.8	110	70-130	
1,1,2-Trichloroethane	ug/L	50	52.2	104	70-130	
1,1-Dichloroethane	ug/L	50	47.6	95	70-130	
1,1-Dichloroethene	ug/L	50	51.3	103	70-130	
1,2-Dibromo-3-chloropropane	ug/L	50	40.3	81	50-150	
1,2-Dibromoethane (EDB)	ug/L	50	50.0	100	70-130	
1,2-Dichlorobenzene	ug/L	50	50.7	101	70-130	
1,2-Dichloroethane	ug/L	50	51.6	103	70-131	
1,2-Dichloropropane	ug/L	50	48.6	97	70-130	
1,3-Dichlorobenzene	ug/L	50	52.1	104	70-130	
1,4-Dichlorobenzene	ug/L	50	51.8	104	70-130	
Benzene	ug/L	50	49.3	99	70-130	
Bromodichloromethane	ug/L	50	53.6	107	70-130	
Bromoform	ug/L	50	48.0	96	68-130	
Bromomethane	ug/L	50	36.1	72	38-137	
Carbon disulfide	ug/L	50	51.2	102	70-154	
Carbon tetrachloride	ug/L	50	51.2	102	70-130	
Chlorobenzene	ug/L	50	55.3	111	70-130	
Chloroethane	ug/L	50	39.4	79	70-136	
Chloroform	ug/L	50	52.0	104	70-130	
Chloromethane	ug/L	50	35.7	71	48-144	
cis-1,2-Dichloroethene	ug/L	50	47.7	95	70-130	
cis-1,3-Dichloropropene	ug/L	50	46.3	93	70-130	
Dibromochloromethane	ug/L	50	49.1	98	70-130	
Dichlorodifluoromethane	ug/L	50	27.8	56	33-157	
Ethylbenzene	ug/L	50	53.4	107	70-132	
Methyl-tert-butyl ether	ug/L	50	45.0	90	48-141	
Methylene Chloride	ug/L	50	48.4	97	70-130	
Styrene	ug/L	50	51.8	104	70-130	
Tetrachloroethene	ug/L	50	55.9	112	70-130	
Toluene	ug/L	50	52.6	105	70-130	
trans-1,2-Dichloroethene	ug/L	50	53.3	107	70-130	
trans-1,3-Dichloropropene	ug/L	50	46.2	92	70-130	
Trichloroethene	ug/L	50	55.6	111	70-130	

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### QUALITY CONTROL DATA

Project: 117-2202040.21 RIPON FF/NN LAN  
 Pace Project No.: 40123811

LABORATORY CONTROL SAMPLE: 1250053

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Trichlorofluoromethane	ug/L	50	49.9	100	50-150	
Vinyl chloride	ug/L	50	42.2	84	65-142	
Xylene (Total)	ug/L	150	160	107	70-132	
4-Bromofluorobenzene (S)	%			102	70-130	
Dibromofluoromethane (S)	%			97	70-130	
Toluene-d8 (S)	%			98	70-130	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1250938 1250939

Parameter	Units	MS		MSD		MS % Rec	MSD % Rec	% Rec Limits	Max RPD	Qual	
		40123811007 Result	Spike Conc.	Spike Conc.	MS Result						MSD Result
1,1,1-Trichloroethane	ug/L	<0.50	50	50	54.9	55.0	110	110	70-130	0	20
1,1,2-Trichloroethane	ug/L	<0.20	50	50	52.7	51.0	105	102	70-130	3	20
1,1-Dichloroethane	ug/L	<0.24	50	50	48.7	48.2	97	96	70-134	1	20
1,1-Dichloroethene	ug/L	<0.41	50	50	53.9	53.5	108	107	70-139	1	20
1,2-Dibromo-3-chloropropane	ug/L	<2.2	50	50	45.4	42.4	91	85	50-150	7	20
1,2-Dibromoethane (EDB)	ug/L	<0.18	50	50	52.5	49.8	105	100	70-130	5	20
1,2-Dichlorobenzene	ug/L	<0.50	50	50	53.3	52.3	107	105	70-130	2	20
1,2-Dichloroethane	ug/L	<0.17	50	50	53.1	51.3	106	103	70-132	3	20
1,2-Dichloropropane	ug/L	<0.23	50	50	50.8	50.4	102	101	70-130	1	20
1,3-Dichlorobenzene	ug/L	<0.50	50	50	52.6	52.7	105	105	70-130	0	20
1,4-Dichlorobenzene	ug/L	<0.50	50	50	52.3	52.1	104	104	70-130	0	20
Benzene	ug/L	<0.50	50	50	50.1	49.3	100	99	70-130	2	20
Bromodichloromethane	ug/L	<0.50	50	50	53.7	53.9	107	108	70-132	0	20
Bromoform	ug/L	<0.50	50	50	48.9	47.1	98	94	68-130	4	20
Bromomethane	ug/L	<2.4	50	50	44.2	46.8	88	94	38-141	6	20
Carbon disulfide	ug/L	<0.61	50	50	56.5	56.4	113	113	70-155	0	20
Carbon tetrachloride	ug/L	<0.50	50	50	53.1	52.4	106	105	70-130	1	20
Chlorobenzene	ug/L	<0.50	50	50	55.1	53.7	110	107	70-130	2	20
Chloroethane	ug/L	<0.37	50	50	44.3	43.1	89	86	66-152	3	20
Chloroform	ug/L	<2.5	50	50	53.3	52.2	107	104	70-130	2	20
Chloromethane	ug/L	<0.50	50	50	46.5	46.8	93	94	44-151	1	20
cis-1,2-Dichloroethene	ug/L	<0.26	50	50	49.2	48.9	98	98	70-130	1	20
cis-1,3-Dichloropropene	ug/L	<0.50	50	50	47.3	47.2	95	94	70-130	0	20
Dibromochloromethane	ug/L	<0.50	50	50	50.5	48.3	101	97	70-130	4	20
Dichlorodifluoromethane	ug/L	<0.22	50	50	53.7	52.4	107	105	29-160	2	20
Ethylbenzene	ug/L	<0.50	50	50	53.1	51.5	106	103	70-132	3	20
Methyl-tert-butyl ether	ug/L	<0.17	50	50	48.0	46.0	96	92	48-143	4	20
Methylene Chloride	ug/L	<0.23	50	50	50.6	48.8	101	98	70-130	3	20
Styrene	ug/L	<0.50	50	50	53.1	52.2	106	104	70-130	2	20
Tetrachloroethene	ug/L	<0.50	50	50	56.0	54.2	112	108	70-130	3	20
Toluene	ug/L	<0.50	50	50	52.6	51.1	105	102	70-130	3	20
trans-1,2-Dichloroethene	ug/L	<0.26	50	50	54.6	54.6	109	109	70-132	0	20
trans-1,3-Dichloropropene	ug/L	<0.23	50	50	49.2	47.0	98	94	70-130	5	20

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**QUALITY CONTROL DATA**

Project: 117-2202040.21 RIPON FF/NN LAN  
 Pace Project No.: 40123811

Parameter	Units	1250938			1250939			% Rec	% Rec	% Rec	Limits	Max RPD	Qual
		40123811007 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec						
Trichloroethene	ug/L	<0.33	50	50	56.3	55.2	113	110	70-130	2	20		
Trichlorofluoromethane	ug/L	<0.18	50	50	54.2	54.6	108	109	50-153	1	20		
Vinyl chloride	ug/L	<0.18	50	50	51.5	51.7	103	103	60-155	0	20		
Xylene (Total)	ug/L	<1.5	150	150	160	158	106	105	70-132	1	20		
4-Bromofluorobenzene (S)	%						100	99	70-130				
Dibromofluoromethane (S)	%						98	97	70-130				
Toluene-d8 (S)	%						98	97	70-130				

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**QUALITY CONTROL DATA**

Project: 117-2202040.21 RIPON FF/NN LAN  
 Pace Project No.: 40123811

QC Batch: MSV/30999 Analysis Method: EPA 8260  
 QC Batch Method: EPA 8260 Analysis Description: 8260 MSV  
 Associated Lab Samples: 40123811011, 40123811012

METHOD BLANK: 1250054 Matrix: Water  
 Associated Lab Samples: 40123811011, 40123811012

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
1,1,1-Trichloroethane	ug/L	<0.50	1.0	11/04/15 06:22	
1,1,2-Trichloroethane	ug/L	<0.20	1.0	11/04/15 06:22	
1,1-Dichloroethane	ug/L	<0.24	1.0	11/04/15 06:22	
1,1-Dichloroethene	ug/L	<0.41	1.0	11/04/15 06:22	
1,2-Dibromo-3-chloropropane	ug/L	<2.2	5.0	11/04/15 06:22	
1,2-Dibromoethane (EDB)	ug/L	<0.18	1.0	11/04/15 06:22	
1,2-Dichlorobenzene	ug/L	<0.50	1.0	11/04/15 06:22	
1,2-Dichloroethane	ug/L	<0.17	1.0	11/04/15 06:22	
1,2-Dichloropropane	ug/L	<0.23	1.0	11/04/15 06:22	
1,3-Dichlorobenzene	ug/L	<0.50	1.0	11/04/15 06:22	
1,4-Dichlorobenzene	ug/L	<0.50	1.0	11/04/15 06:22	
2-Butanone (MEK)	ug/L	<3.0	20.0	11/04/15 06:22	
Acetone	ug/L	<3.0	20.0	11/04/15 06:22	
Benzene	ug/L	<0.50	1.0	11/04/15 06:22	
Bromodichloromethane	ug/L	<0.50	1.0	11/04/15 06:22	
Bromoform	ug/L	<0.50	1.0	11/04/15 06:22	
Bromomethane	ug/L	<2.4	5.0	11/04/15 06:22	
Carbon disulfide	ug/L	<0.61	5.0	11/04/15 06:22	
Carbon tetrachloride	ug/L	<0.50	1.0	11/04/15 06:22	
Chlorobenzene	ug/L	<0.50	1.0	11/04/15 06:22	
Chloroethane	ug/L	<0.37	1.0	11/04/15 06:22	
Chloroform	ug/L	<2.5	5.0	11/04/15 06:22	
Chloromethane	ug/L	<0.50	1.0	11/04/15 06:22	
cis-1,2-Dichloroethene	ug/L	<0.26	1.0	11/04/15 06:22	
cis-1,3-Dichloropropene	ug/L	<0.50	1.0	11/04/15 06:22	
Dibromochloromethane	ug/L	<0.50	1.0	11/04/15 06:22	
Dibromomethane	ug/L	<0.43	1.0	11/04/15 06:22	
Dichlorodifluoromethane	ug/L	<0.22	1.0	11/04/15 06:22	
Ethylbenzene	ug/L	<0.50	1.0	11/04/15 06:22	
Methyl-tert-butyl ether	ug/L	<0.17	1.0	11/04/15 06:22	
Methylene Chloride	ug/L	<0.23	1.0	11/04/15 06:22	
Naphthalene	ug/L	<2.5	5.0	11/04/15 06:22	
Styrene	ug/L	<0.50	1.0	11/04/15 06:22	
Tetrachloroethene	ug/L	<0.50	1.0	11/04/15 06:22	
Tetrahydrofuran	ug/L	<2.0	5.0	11/04/15 06:22	
Toluene	ug/L	<0.50	1.0	11/04/15 06:22	
trans-1,2-Dichloroethene	ug/L	<0.26	1.0	11/04/15 06:22	
trans-1,3-Dichloropropene	ug/L	<0.23	1.0	11/04/15 06:22	
Trichloroethene	ug/L	<0.33	1.0	11/04/15 06:22	
Trichlorofluoromethane	ug/L	<0.18	1.0	11/04/15 06:22	
Vinyl chloride	ug/L	<0.18	1.0	11/04/15 06:22	

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**QUALITY CONTROL DATA**

Project: 117-2202040.21 RIPON FF/NN LAN  
 Pace Project No.: 40123811

METHOD BLANK: 1250054 Matrix: Water

Associated Lab Samples: 40123811011, 40123811012

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Xylene (Total)	ug/L	<1.5	3.0	11/04/15 06:22	
4-Bromofluorobenzene (S)	%	96	70-130	11/04/15 06:22	
Dibromofluoromethane (S)	%	96	70-130	11/04/15 06:22	
Toluene-d8 (S)	%	94	70-130	11/04/15 06:22	

LABORATORY CONTROL SAMPLE: 1250055

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,1,1-Trichloroethane	ug/L	50	56.7	113	70-130	
1,1,2-Trichloroethane	ug/L	50	52.9	106	70-130	
1,1-Dichloroethane	ug/L	50	50.3	101	70-130	
1,1-Dichloroethene	ug/L	50	57.2	114	70-130	
1,2-Dibromo-3-chloropropane	ug/L	50	43.5	87	50-150	
1,2-Dibromoethane (EDB)	ug/L	50	52.5	105	70-130	
1,2-Dichlorobenzene	ug/L	50	52.8	106	70-130	
1,2-Dichloroethane	ug/L	50	55.5	111	70-131	
1,2-Dichloropropane	ug/L	50	51.1	102	70-130	
1,3-Dichlorobenzene	ug/L	50	53.5	107	70-130	
1,4-Dichlorobenzene	ug/L	50	51.9	104	70-130	
Benzene	ug/L	50	51.7	103	70-130	
Bromodichloromethane	ug/L	50	55.5	111	70-130	
Bromoform	ug/L	50	49.7	99	68-130	
Bromomethane	ug/L	50	39.1	78	38-137	
Carbon disulfide	ug/L	50	57.5	115	70-154	
Carbon tetrachloride	ug/L	50	54.9	110	70-130	
Chlorobenzene	ug/L	50	55.3	111	70-130	
Chloroethane	ug/L	50	44.5	89	70-136	
Chloroform	ug/L	50	54.9	110	70-130	
Chloromethane	ug/L	50	44.3	89	48-144	
cis-1,2-Dichloroethene	ug/L	50	49.9	100	70-130	
cis-1,3-Dichloropropene	ug/L	50	48.9	98	70-130	
Dibromochloromethane	ug/L	50	51.1	102	70-130	
Dichlorodifluoromethane	ug/L	50	52.1	104	33-157	
Ethylbenzene	ug/L	50	53.8	108	70-132	
Methyl-tert-butyl ether	ug/L	50	48.6	97	48-141	
Methylene Chloride	ug/L	50	51.4	103	70-130	
Styrene	ug/L	50	53.8	108	70-130	
Tetrachloroethene	ug/L	50	56.9	114	70-130	
Toluene	ug/L	50	52.8	106	70-130	
trans-1,2-Dichloroethene	ug/L	50	56.4	113	70-130	
trans-1,3-Dichloropropene	ug/L	50	48.3	97	70-130	
Trichloroethene	ug/L	50	57.9	116	70-130	
Trichlorofluoromethane	ug/L	50	57.8	116	50-150	
Vinyl chloride	ug/L	50	50.7	101	65-142	

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### QUALITY CONTROL DATA

Project: 117-2202040.21 RIPON FF/NN LAN  
Pace Project No.: 40123811

LABORATORY CONTROL SAMPLE: 1250055

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Xylene (Total)	ug/L	150	164	109	70-132	
4-Bromofluorobenzene (S)	%			100	70-130	
Dibromofluoromethane (S)	%			100	70-130	
Toluene-d8 (S)	%			95	70-130	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1251785 1251786

Parameter	Units	MS		MSD		MS % Rec	MSD % Rec	% Rec Limits	Max RPD	Max RPD	Qual	
		40123832002 Result	Spike Conc.	Spike Conc.	MS Result							MSD Result
1,1,1-Trichloroethane	ug/L	<0.50	50	50	58.1	59.4	116	119	70-130	2	20	
1,1,2-Trichloroethane	ug/L	<0.20	50	50	51.9	52.7	104	105	70-130	1	20	
1,1-Dichloroethane	ug/L	<0.24	50	50	50.3	50.6	101	101	70-134	1	20	
1,1-Dichloroethene	ug/L	<0.41	50	50	56.1	56.0	112	112	70-139	0	20	
1,2-Dibromo-3-chloropropane	ug/L	<2.2	50	50	46.4	45.6	93	91	50-150	2	20	
1,2-Dibromoethane (EDB)	ug/L	<0.18	50	50	51.9	54.1	104	108	70-130	4	20	
1,2-Dichlorobenzene	ug/L	<0.50	50	50	55.2	53.9	110	108	70-130	2	20	
1,2-Dichloroethane	ug/L	<0.17	50	50	53.3	55.8	107	112	70-132	5	20	
1,2-Dichloropropane	ug/L	<0.23	50	50	52.6	51.5	105	103	70-130	2	20	
1,3-Dichlorobenzene	ug/L	<0.50	50	50	55.4	53.1	111	106	70-130	4	20	
1,4-Dichlorobenzene	ug/L	<0.50	50	50	54.2	52.9	108	106	70-130	2	20	
Benzene	ug/L	<0.50	50	50	51.5	53.0	103	106	70-130	3	20	
Bromodichloromethane	ug/L	<0.50	50	50	56.1	55.9	112	112	70-132	0	20	
Bromoform	ug/L	<0.50	50	50	49.4	51.0	99	102	68-130	3	20	
Bromomethane	ug/L	<2.4	50	50	45.9	46.8	92	94	38-141	2	20	
Carbon disulfide	ug/L	<0.61	50	50	58.8	59.5	118	119	70-155	1	20	
Carbon tetrachloride	ug/L	<0.50	50	50	54.2	55.0	108	110	70-130	1	20	
Chlorobenzene	ug/L	<0.50	50	50	55.8	54.9	112	110	70-130	2	20	
Chloroethane	ug/L	<0.37	50	50	45.6	45.5	91	91	66-152	0	20	
Chloroform	ug/L	<2.5	50	50	55.0	55.9	110	112	70-130	2	20	
Chloromethane	ug/L	<0.50	50	50	48.0	49.2	96	98	44-151	2	20	
cis-1,2-Dichloroethene	ug/L	<0.26	50	50	51.7	51.6	103	103	70-130	0	20	
cis-1,3-Dichloropropene	ug/L	<0.50	50	50	48.7	49.5	97	99	70-130	2	20	
Dibromochloromethane	ug/L	<0.50	50	50	50.4	51.2	101	102	70-130	1	20	
Dichlorodifluoromethane	ug/L	<0.22	50	50	58.7	60.3	117	121	29-160	3	20	
Ethylbenzene	ug/L	<0.50	50	50	54.4	53.1	108	106	70-132	2	20	
Methyl-tert-butyl ether	ug/L	<0.17	50	50	47.1	48.2	94	96	48-143	2	20	
Methylene Chloride	ug/L	<0.23	50	50	49.8	51.6	100	103	70-130	3	20	
Styrene	ug/L	<0.50	50	50	55.3	54.0	111	108	70-130	2	20	
Tetrachloroethene	ug/L	<0.50	50	50	56.3	56.6	113	113	70-130	0	20	
Toluene	ug/L	<0.50	50	50	53.0	52.5	106	105	70-130	1	20	
trans-1,2-Dichloroethene	ug/L	<0.26	50	50	54.6	55.6	109	111	70-132	2	20	
trans-1,3-Dichloropropene	ug/L	<0.23	50	50	48.2	48.2	96	96	70-130	0	20	
Trichloroethene	ug/L	<0.33	50	50	58.0	59.1	116	118	70-130	2	20	
Trichlorofluoromethane	ug/L	<0.18	50	50	57.7	56.6	115	113	50-153	2	20	

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**QUALITY CONTROL DATA**

Project: 117-2202040.21 RIPON FF/NN LAN  
Pace Project No.: 40123811

Parameter	Units	1251785		1251786		MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	Max RPD	Qual
		40123832002 Result	MS Spike Conc.	MSD Spike Conc.								
Vinyl chloride	ug/L	<0.18	50	50	53.2	55.0	106	110	60-155	3	20	
Xylene (Total)	ug/L	<1.5	150	150	166	165	110	109	70-132	1	20	
4-Bromofluorobenzene (S)	%							99	101	70-130		
Dibromofluoromethane (S)	%							95	99	70-130		
Toluene-d8 (S)	%							94	95	70-130		

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## QUALIFIERS

Project: 117-2202040.21 RIPON FF/NN LAN  
Pace Project No.: 40123811

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### DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.

ND - Not Detected at or above LOD.

J - Estimated concentration at or above the LOD and below the LOQ.

LOD - Limit of Detection adjusted for dilution factor and percent moisture.

LOQ - Limit of Quantitation adjusted for dilution factor and percent moisture.

S - Surrogate

1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected at or above the adjusted LOD.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

TNI - The NELAC Institute.

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### QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: 117-2202040.21 RIPON FF/NN LAN  
Pace Project No.: 40123811

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
40123811001	P-103	EPA 8260	MSV/30998		
40123811002	P-103 D	EPA 8260	MSV/30998		
40123811003	P-107D	EPA 8260	MSV/30998		
40123811004	P-111D	EPA 8260	MSV/30998		
40123811005	P-111D DUP	EPA 8260	MSV/30998		
40123811006	MW-3A	EPA 8260	MSV/30998		
40123811007	MW-3B	EPA 8260	MSV/30998		
40123811008	P-113B	EPA 8260	MSV/30998		
40123811009	P-113A	EPA 8260	MSV/30998		
40123811010	P-116	EPA 8260	MSV/30998		
40123811011	P-114	EPA 8260	MSV/30999		
40123811012	P-115	EPA 8260	MSV/30999		

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Sample Condition Upon Receipt

Pace Analytical Services, Inc.
1241 Bellevue Street, Suite 9
Green Bay, WI 54302

Project #: WO#: 40123811

Client Name: Tetra Tech

Courier: Fed Ex UPS Client Pace Other: CS Logistics
Tracking #:



Custody Seal on Cooler/Box Present: yes no Seals intact: yes no

Custody Seal on Samples Present: yes no Seals intact: yes no

Packing Material: Bubble Wrap Bubble Bags None Other

Thermometer Used NA Type of Ice: Wet Blue Dry None Samples on ice, cooling process has begun

Cooler Temperature Uncorr: ICorr: R01 Biological Tissue is Frozen: yes no

Temp Blank Present: yes no

Person examining contents:
Date: 10/30/15
Initials: JS

Temp should be above freezing to 6°C for all sample except Biota.
Frozen Biota Samples should be received ≤ 0°C.

Comments:

Table with 15 rows of inspection criteria and checkboxes. Includes items like Chain of Custody Present, Short Hold Time Analysis, Containers Intact, etc.

Client Notification/ Resolution:
Person Contacted: Date/Time:
Comments/ Resolution:

Project Manager Review: [Signature] Date: 10-30-15

**APPENDIX C**  
**GROUNDWATER SAMPLING FIELD FORMS**

**TETRA TECH MULTI-LEVEL MONITOR WELL WATER QUALITY SAMPLING AND ANALYSIS FORM**

PROJECT INFORMATION				INSTRUMENTS					
PROJECT	FF/NN Landfill			Temp. & pH	MP-20 Flow Cell				
PROJECT NO.	117-2202040.21			Conductivity	MP-20 Flow Cell				
LOCATION	Ripon, WI			ORP	MP-20 Flow Cell				
PERSONNEL	Ashley A. Weimer			DO	MP-20 Flow Cell				
<b>MONITOR WELL ID</b>	<b>MW-3A</b>			<b>MW-3B</b>			<b>P-113A</b>		
WATER TYPE	Groundwater			Groundwater			Groundwater		
DATE (month/day/year)	10-27-15			10-27-15			10-27-15		
STATIC WATER LEVEL (feet)*	33.14			32.08			16.07		
WELL DEPTH (feet)*	280.1			185.72			325.31		
PUMP INLET DEPTH (feet)*	67.5			54.5			73.5		
START PURGE TIME (Military)	12:25			12:25			13:15		
END PURGE TIME (Military)	12:40			12:45			13:50		
PURGE VOLUME (gallons)	0.75			2.0			2.5		
SAMPLE TIME (Military)	12:40			12:45			13:50		
STABILIZED INDICATOR PARAMETERS READINGS	1st	2nd	3rd	1st	2nd	3rd	1st	2nd	3rd
TIME (minutes since initial reading)	0:00	1:00	2:00	0:00	1:00	2:00	4:00	6:00	8:00
TEMPERATURE (° C)	10.99	10.97	10.97	9.67	9.65	9.66	11.43	11.35	11.31
ELECTRICAL CONDUCTANCE at 25° C (ms/cm)	0.536	0.536	0.536	0.667	0.668	0.667	0.523	0.525	0.526
DISSOLVED OXYGEN (ppm)	0.77	0.71	0.68	0.57	0.52	0.48	1.12	1.04	0.94
pH	7.21	7.21	7.21	8.37	8.33	8.26	8.72	8.70	8.67
DISSOLVED OXYGEN (% Sat.)	7.0	6.5	6.2	5.0	4.6	4.2	10.2	9.5	8.6
ORP (mV)	-122	-131	-138	-119	-116	-114	-112	-119	-116
COLOR	Clear			Clear			Clear		
ODOR	Rotten Eggs			None			None		
CLARITY	Clear			Clear			Clear		
SAMPLING PARAMETERS	# OF CONTAINERS & VOLUME; CONTAINER TYPE (A=AMBER; G=GLASS; P=PLASTIC); PRESERVATIVE TYPE (L=LAB ADDED; F=FIELD ADDED) OR NEUTRAL; FILTERED (YES or NO)								
VOCs (EPA Method SW 8260B)	3 – 40 ml; G; HCl – L; No			3 – 40 ml; G; HCl – L; No			3 – 40 ml; G; HCl – L; No		
Vacu-Vials <u>Iron 2-</u> Wait 1, then wait 5 min	0.166			0.997			0.583		
NAME OF LABORATORY	Pace Analytical			Pace Analytical			Pace Analytical		
DATE SENT TO LAB	10-29-15			10-29-15			10-29-15		
SAMPLER=S NAME	Ashley A. Weimer			Ashley A. Weimer			Ashley A. Weimer		

\*Measured from top of well casing.



**TETRA TECH MULTI-LEVEL MONITOR WELL WATER QUALITY SAMPLING AND ANALYSIS FORM**

PROJECT INFORMATION				INSTRUMENTS						
PROJECT	FF/NN Landfill			Temp. & pH	MP-20 Flow Cell					
PROJECT NO.	117-2202040.21			Conductivity	MP-20 Flow Cell					
LOCATION	Ripon, WI			ORP	MP-20 Flow Cell					
PERSONNEL	Ashley A. Weimer			DO	MP-20 Flow Cell					
<b>MONITOR WELL ID</b>	<b>P-113B</b>			<b>P-103</b>			<b>P-103D</b>			
WATER TYPE	Groundwater			Groundwater			Groundwater			
DATE (month/day/year)	10-27-15			10-27-15			10-27-15			
STATIC WATER LEVEL (feet)*	15.37			52.77			51.94			
WELL DEPTH (feet)*	198.9			83.02			192.66			
PUMP INLET DEPTH (feet)*	48.5			69.5			87.5			
START PURGE TIME (Military)	13:15			10:15			10:15			
END PURGE TIME (Military)	13:45			10:35			10:40			
PURGE VOLUME (gallons)	3.5			1.5			1.5			
SAMPLE TIME (Military)	13:45			10:35			10:40			
STABILIZED INDICATOR PARAMETERS READINGS	1st	2nd	3rd	1st	2nd	3rd	1st	2nd	3rd	
TIME (minutes since initial reading)	0:00	1:00	2:00	2:00	3:00	4:00	0:00	1:00	2:00	
TEMPERATURE (° C)	10.49	10.48	10.46	10.24	10.23	10.22	10.27	10.28	10.27	
ELECTRICAL CONDUCTANCE at 25° C (ms/cm)	0.633	0.633	0.633	0.738	0.736	0.731	0.757	0.757	0.758	
DISSOLVED OXYGEN (ppm)	0.28	0.27	0.27	1.50	1.45	1.37	0.41	0.40	0.39	
pH	7.36	7.35	7.35	7.53	7.58	7.61	6.43	6.45	6.48	
DISSOLVED OXYGEN (% Sat.)	2.5	2.5	2.4	13.4	12.9	12.3	3.7	3.6	3.5	
ORP (mV)	-98	-98	-98	38	36	33	49	46	44	
COLOR	Clear			Clear			Clear			
ODOR	None			None			None			
CLARITY	Clear			Clear			Clear			
SAMPLING PARAMETERS	# OF CONTAINERS & VOLUME; CONTAINER TYPE (A=AMBER; G=GLASS; P=PLASTIC); PRESERVATIVE TYPE (L=LAB ADDED; F=FIELD ADDED) OR NEUTRAL; FILTERED (YES or NO)									
VOCs (EPA Method SW 8260B)	3 – 40 ml; G; HCl – L; No			3 – 40 ml; G; HCl – L; No			3 – 40 ml; G; HCl – L; No			
Vacu-Vials <u>Iron 2-</u> Wait 1, then wait 5 min	1.071			Over Range			Over Range			
NAME OF LABORATORY	Pace Analytical			Pace Analytical			Pace Analytical			
DATE SENT TO LAB	10-29-15			10-29-15			10-29-15			
SAMPLER=S NAME	Ashley A. Weimer			Ashley A. Weimer			Ashley A. Weimer			

\*Measured from top of well casing.

**TETRA TECH MULTI-LEVEL MONITOR WELL WATER QUALITY SAMPLING AND ANALYSIS FORM**

PROJECT INFORMATION				INSTRUMENTS			
PROJECT	FF/NN Landfill			Temp. & pH	MP-20 Flow Cell		
PROJECT NO.	117-2202040.21			Conductivity	MP-20 Flow Cell		
LOCATION	Ripon, WI			ORP	MP-20 Flow Cell		
PERSONNEL	Ashley A. Weimer			DO	MP-20 Flow Cell		
<b>MONITOR WELL ID</b>	<b>P-111D/Dup</b>			<b>P-107D</b>			
WATER TYPE	Groundwater			Groundwater			
DATE (month/day/year)	10-27-15			10-27-15			
STATIC WATER LEVEL (feet)*	37.28			54.52			
WELL DEPTH (feet)*	151.0			327.95			
PUMP INLET DEPTH (feet)*	151.0			76.5			
START PURGE TIME (Military)	11:45			11:05			
END PURGE TIME (Military)	12:00			11:30			
PURGE VOLUME (gallons)	2.5			3.0			
SAMPLE TIME (Military)	12:00/12:05			11:30			
STABILIZED INDICATOR PARAMETERS READINGS	1st	2nd	3rd	1st	2nd	3rd	
TIME (minutes since initial reading)	2:00	3:00	4:00	6:00	7:00	8:00	
TEMPERATURE (° C)	10.20	10.21	10.20	10.42	10.45	10.50	
ELECTRICAL CONDUCTANCE at 25° C (ms/cm)	0.814	0.824	0.817	0.560	0.562	0.565	
DISSOLVED OXYGEN (ppm)	1.48	1.43	1.37	0.99	0.91	0.84	
pH	7.85	7.77	7.72	8.17	8.15	8.03	
DISSOLVED OXYGEN (% Sat.)	13.3	12.8	12.2	8.9	8.1	7.5	
ORP (mV)	-44	-47	-49	-27	-27	-23	
COLOR	Clear			Clear			
ODOR	None			None			
CLARITY	Clear			Clear			
SAMPLING PARAMETERS	# OF CONTAINERS & VOLUME; CONTAINER TYPE (A=AMBER; G=GLASS; P=PLASTIC); PRESERVATIVE TYPE (L=LAB ADDED; F=FIELD ADDED) OR NEUTRAL; FILTERED (YES or NO)						
VOCs (EPA Method SW 8260B)	3 – 40 ml; G; HCl – L; No			3 – 40 ml; G; HCl – L; No			
Vacu-Vials <u>Iron 2-</u> Wait 1, then wait 5 min	1.241			0.128			
	**TOOK DUP AT 12:05 **						
NAME OF LABORATORY	Pace Analytical			Pace Analytical			
DATE SENT TO LAB	10-29-15			10-29-15			
SAMPLER=S NAME	Ashley A. Weimer			Ashley A. Weimer			

\*Measured from top of well casing.



**TETRA TECH MULTI-LEVEL MONITOR WELL WATER QUALITY SAMPLING AND ANALYSIS FORM**

PROJECT INFORMATION				INSTRUMENTS						
PROJECT	FF/NN Landfill			Temp. & pH	MP-20 Flow Cell					
PROJECT NO.	117-2202040.21			Conductivity	MP-20 Flow Cell					
LOCATION	Ripon, WI			ORP	MP-20 Flow Cell					
PERSONNEL	Ashley A. Weimer			DO	MP-20 Flow Cell					
<b>MONITOR WELL ID</b>	<b>P-114</b>			<b>P-115</b>			<b>P-116</b>			
WATER TYPE	Groundwater			Groundwater			Groundwater			
DATE (month/day/year)	10-27-15			10-27-15			10-27-15			
STATIC WATER LEVEL (feet)*	21.62			24.87			28.67			
WELL DEPTH (feet)*	181.72			179.57			163.19			
PUMP INLET DEPTH (feet)*	53.5			53.5			163			
START PURGE TIME (Military)	14:50			15:10			14:20			
END PURGE TIME (Military)	15:00			15:25			14:35			
PURGE VOLUME (gallons)	1.0			1.0			0.5			
SAMPLE TIME (Military)	15:00			15:25			14:35			
STABILIZED INDICATOR PARAMETERS READINGS	1st	2nd	3rd	1st	2nd	3rd	1st	2nd	3rd	
TIME (minutes since initial reading)	0:00	1:00	2:00	0:00	1:00	2:00	2:00	4:00	6:00	
TEMPERATURE (° C)	10.14	10.12	10.11	10.44	10.45	10.44	11.01	10.98	10.97	
ELECTRICAL CONDUCTANCE at 25° C (ms/cm)	0.729	0.730	0.731	0.595	0.595	0.594	0.514	0.513	0.513	
DISSOLVED OXYGEN (ppm)	0.35	0.33	0.30	0.29	0.29	0.26	0.43	0.40	0.35	
pH	7.59	7.58	7.57	7.65	7.64	7.62	7.54	7.53	7.52	
DISSOLVED OXYGEN (% Sat.)	3.1	2.9	2.7	2.6	2.6	2.4	3.9	3.6	3.1	
ORP (mV)	-119	-120	-119	-96	-98	-99	-62	-71	-74	
COLOR	Clear			Clear			Grayish			
ODOR	None			None			None			
CLARITY	Clear			Clear			Slightly Cloudy			
SAMPLING PARAMETERS	# OF CONTAINERS & VOLUME; CONTAINER TYPE (A=AMBER; G=GLASS; P=PLASTIC); PRESERVATIVE TYPE (L=LAB ADDED; F=FIELD ADDED) OR NEUTRAL; FILTERED (YES or NO)									
VOCs (EPA Method SW 8260B)	3 – 40 ml; G; HCl – L; No			3 – 40 ml; G; HCl – L; No			3 – 40 ml; G; HCl – L; No			
Vacu-Vials Iron 2- Wait 1, then wait 5 min	1.863			2.015			2.606			
NAME OF LABORATORY	Pace Analytical			Pace Analytical			Pace Analytical			
DATE SENT TO LAB	10-29-15			10-29-15			10-29-15			
SAMPLER-S NAME	Ashley A. Weimer			Ashley A. Weimer			Ashley A. Weimer			

\*Measured from top of well casing.



## TETRA TECH FIELD WATER QUALITY SAMPLING AND ANALYSIS FORM

PROJECT INFORMATION			INSTRUMENTS		
PROJECT	FF/NN Landfill		Temp. & pH	MP-20 Flow Cell	
PROJECT NO.	117-2202040.21		Conductivity	MP-20 Flow Cell	
LOCATION	Ripon, WI		ORP	MP-20 Flow Cell	
PERSONNEL	Ashley A. Weimer		DO	MP-20 Flow Cell	
<b>SAMPLE POINT</b>	<b>MW-103</b>	<b>MW-112</b>			
WATER TYPE	Groundwater	Groundwater			
DATE (month/day/year)	NOT	10-28-15			
CLOCK TIME (Military)	SAMPLED	12:25			
DEPTH TO WATER (ft)*	52.94	55.78			
MEASURED WELL DEPTH (ft)*	53.51	60.47			
CASING VOLUME (gallons)	0.09	0.76			
PURGE VOLUME (gallons)	0.09 DRY	3.0 Almost Dry			
DEPTH SAMPLE TAKEN (ft)*	NS	60.0			
SAMPLING DEVICE	Dedicated Bailer	Dedicated Bailer			
FIELD TEMPERATURE (°C)	NS	10.76			
pH	NS	6.61			
ELEC. COND. (uS/cm)	NM	NM	NM		
		NS	0.905		
ORP (mV)	NS	59			
DISSOLVED OXYGEN (ppm)	NS	1.79			
DISSOLVED OXYGEN (% Sat.)	NS	16.1			
COLOR	NS	Clear			
ODOR	NS	None			
CLARITY	NS	Clear			
SAMPLING PARAMETERS	# OF CONTAINERS & VOLUME; CONTAINER TYPE (A = AMBER GLASS; G = GLASS; P = PLASTIC); PRESERVATIVE TYPE (L = LAB ADDED; F = FIELD ADDED) OR NEUTRAL; FILTERED (YES or NO)				
VOCs (8260B)	3 – 40 ml; G; HCl-L; No	3 – 40 ml; G; HCl-L; No			
Vacu-Vials <u>Iron 2</u>	NS	Over Range			
	Not enough volume to sample well, purged dry, let recover but not enough water in well to collect a sample				
NAME OF LABORATORY	Pace Analytical	Pace Analytical			
DATE SENT TO LAB	10-29-15	10-29-15			
SAMPLER=S NAME	Ashley A. Weimer	Ashley A. Weimer			

\*Measured from top of well casing.

**APPENDIX D**  
**LANDFILL GAS EXTRACTION SYSTEM MONITORING**



GAS PROBE DATA MONITORING POINTS

Project: FF/NN Landfill

Location: Ripon, Wisconsin

Personnel: Jack Wendler

Water level in buried knockout tank \_\_\_\_\_ " LEL

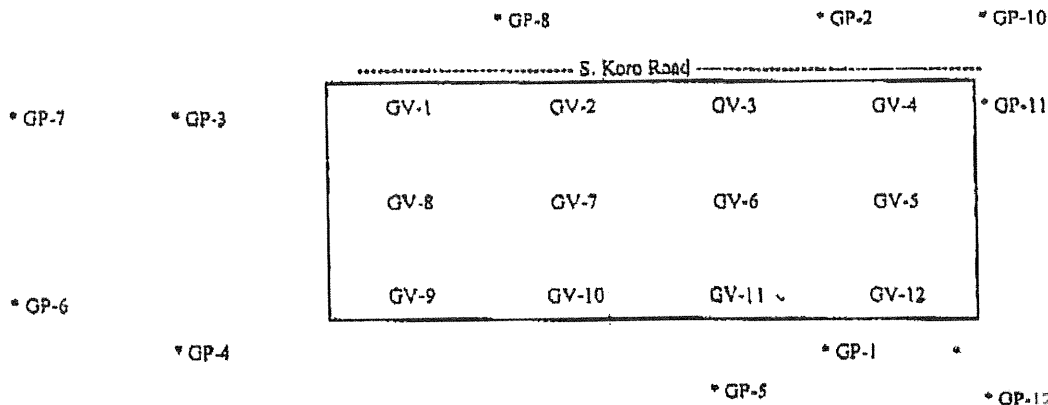
Barometric Pressure: 28.8" Hg

Temperature (ambient): 68° F

Measuring Device:  Eagle

In Traller Vacuum Gage 4 "Hg

Date	Time	Measurement Point	% CH <sub>4</sub>	% CO <sub>2</sub>	% O <sub>2</sub>	Comments
8-10-15	0710	Background	0*	0.0	20.9	
	0730	LC-1	7.5	18.6	2.2	
		LC-2	28.5	24.2	1.8	
	0735	LC-3	12.5	17.2	4.8	
	0722	GV-6	5.5	15.4	2.9	
	0715	GP-1	7.0	12.2	2.3	
	0820	GP-1	9.0	14.0	0.0	2 <sup>nd</sup> Reading
	0718	Exhaust	6.0	10.0	10.2	





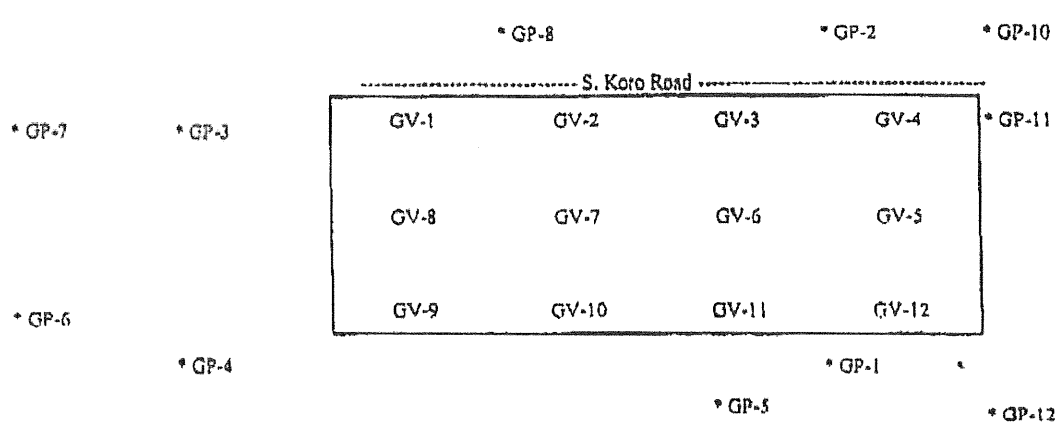
GAS PROBE DATA MONITORING POINTS

Project: FF/NN Landfill  
 Location: Ripon, Wisconsin  
 Personnel: Jehwendler  
 Water level in buried knockout tank \_\_\_\_\_"

Barometric Pressure: 28.8 Hg  
 Temperature (ambient): 54 F  
 Measuring Device: Ecote  
 In Trailer Vacuum Gage: 3.0 "Hg

\* LEL

Date	Time	Measurement Point	% CH <sub>4</sub>	% CO <sub>2</sub>	% O <sub>2</sub>	Comments
8.24.15	0710	Background	0	0.0	20.9	
	0725	LC-1	6.5	18.6	2.2	
	0740	LC-2	28.0	24.4	1.9	
	0735	LC-3	11.5	16.8	5.1	
	0720	GV-6	5.0	15.4	3.4	
	0712	GP-1	0*	10.8	7.5	
	0815	GP-1	0*	12.3	5.6	2 <sup>nd</sup> Reading
	0715	Exhaust	5.0	9.2	10.9	





TETRA TECH GEO

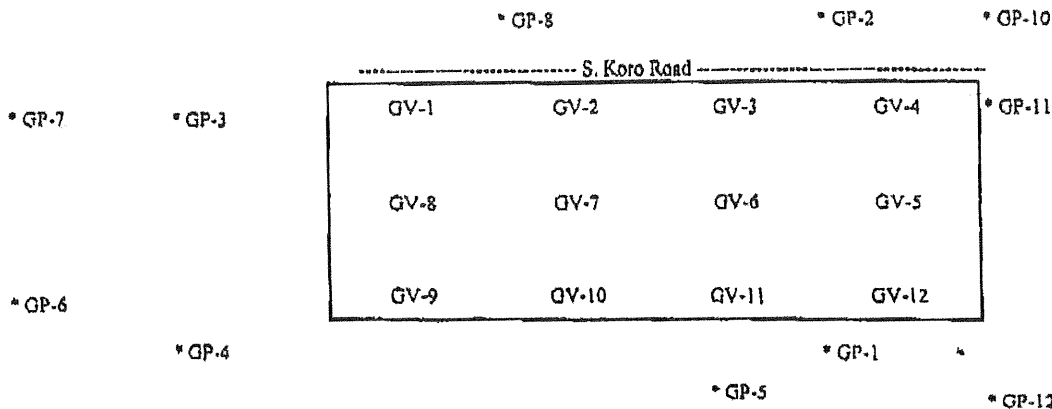
GAS PROBE DATA MONITORING POINTS

Project: FF/NN Landfill  
 Location: Ripon, Wisconsin  
 Personnel: Jack Wendler  
 Water level in buried knockout tank \_\_\_\_\_ "

Barometric Pressure: 28.9 Hg  
 Temperature (ambient): 68° F  
 Measuring Device: Zac Lu  
 In Traller Vacuum Gage 03 "Hg

28.9

Date	Time	Measure-ment Point	% CH <sub>4</sub>	% CO <sub>2</sub>	% O <sub>2</sub>	Comments
9.8.15	0718	Background	0*	0.0	20.9	
	0740	LC-1	7.0	18.2	2.7	
	0755	LC-2	27.0	24.2	2.4	
	0748	LC-3	11.5	9.49 17.2	17.2 4.8	
	0735	GV-6	11.5	20.4	1.2	
	0720	GP-1	12*	6.8	9.9	
		GP-1	42*	15.4	0.0	2 <sup>nd</sup> Reading
	0725	Exhaust	8.0	12.6	9.1	



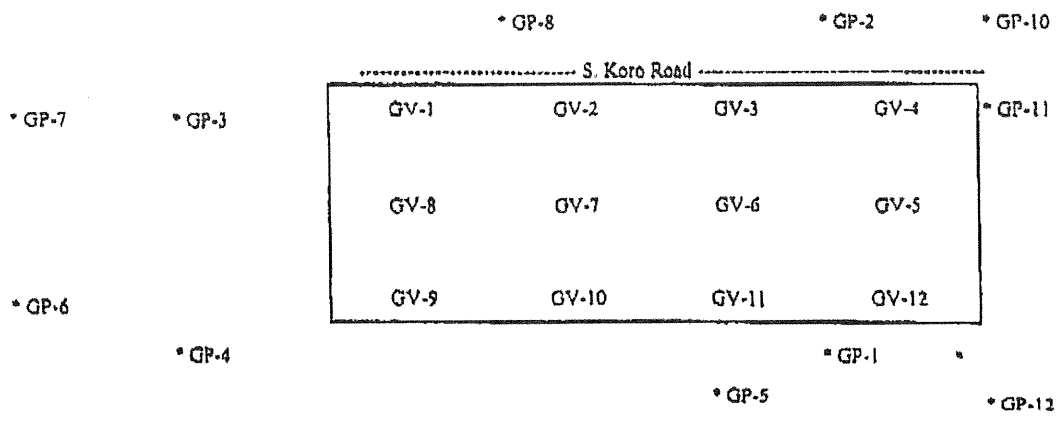


GAS PROBE DATA MONITORING POINTS

Project: FF/NN Landfill  
 Location: Ripon, Wisconsin  
 Personnel: Joh Wandler  
 Water level in buried knockout tank \_\_\_\_\_ " \* LEL

Barometric Pressure: 29.1 Hg  
 Temperature (ambient): 50 F  
 Measuring Device: Eagle  
 In Trailer Vacuum Gage 4 "Hg

Date	Time	Measurement Point	% CH <sub>4</sub>	% CO <sub>2</sub>	% O <sub>2</sub>	Comments
9.21.15	0730	Background	0 #	0.0	20.9	
	0749	LC-1	6.0	19.0	2.6	
	0805	LC-2	27.0	25.4	2.2	
	0800	LC-3	11.0	17.0	5.5	
	0745	GV-6	55 #	12.4	6.5	
	0735	GP-1	6 #	6.6	11.0	
	0840	GP-1	9 #	14.6	0.0	2 <sup>nd</sup> Reading
	0740	Exhaust	90 #	8.6	12.2	





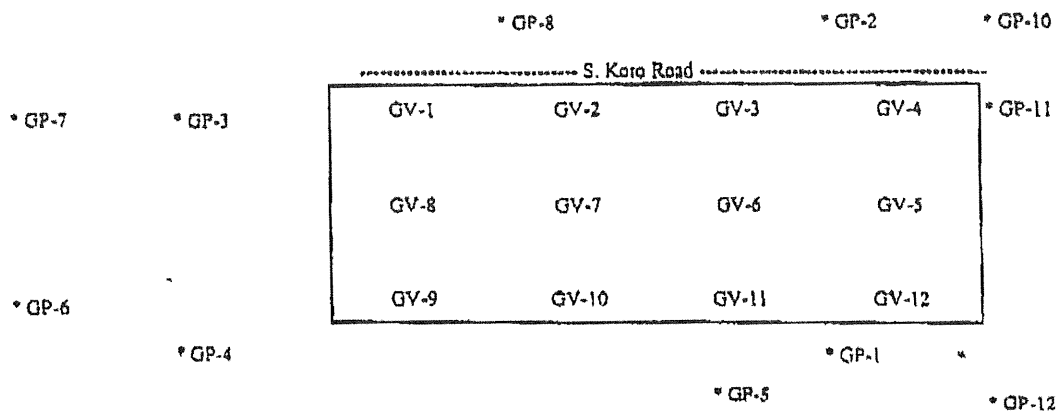
TETRA TECH GEO

GAS PROBE DATA MONITORING POINTS

Project: FF/NN Landfill  
 Location: Ripon, Wisconsin  
 Personnel: Jack Wendler  
 Water level in buried knockout tank \_\_\_\_\_"   
 #

Barometric Pressure: 29.2 Hg  
 Temperature (ambient): 48 F  
 Measuring Device: Eagle  
 In Trailer Vacuum Gage 14 "Hg

Date	Time	Measurement Point	% CH <sub>4</sub>	% CO <sub>2</sub>	% O <sub>2</sub>	Comments
10-5-15	0710	Background	0.2	0.0	20.9	
	0730	LC-1	7.5	19.4	2.0	
	0740	LC-2	27.5	25.4	2.1	
	0735	LC-3	11.0	17.2	5.4	
	0725	GV-6	8.5	19.6	1.3	
	0713	GP-1	72.2	10.4	6.1	
	0820	GP-1	78.2	10.4	7.0	2 <sup>nd</sup> Reading
	0716	Exhaust	7.0	11.4	10.4	





TETRA TECH GEO

GAS PROBE DATA MONITORING POINTS

Project: FF/NN Landfill

Barometric Pressure: 29.1 Hg

Location: Ripon, Wisconsin

Temperature (ambient): 48 F

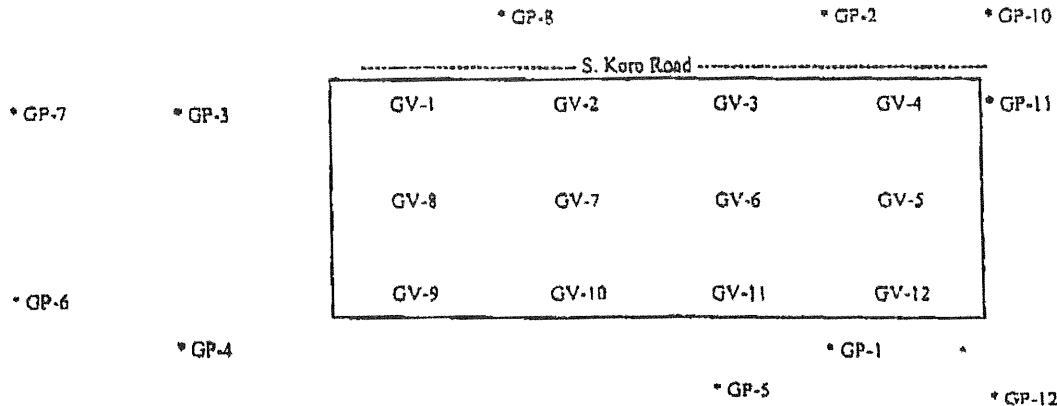
Personnel: Jackwendler

Measuring Device: Eagle

Water level in buried knockout tank \_\_\_\_\_ " *\* LEL*

In Trailer Vacuum Gage 3 "Hg

Date	Time	Measurement Point	% CH <sub>4</sub>	% CO <sub>2</sub>	% O <sub>2</sub>	Comments
10.19.15	0715	Background	0.4	0.0	20.9	
	0735	LC-1	8.5	19.8	1.9	
	0745	LC-2	28.0	25.4	2.1	
	0740	LC-3	11.0	16.8	6.1	
	0730	GV-6	12.0	19.2	1.7	
	0718	GP-1	0.4	8.4	10.1	
	0820	GP-1	0.4	12.0	5.8	2 <sup>nd</sup> Reading
	0722	Exhaust	7.0	10.2	11.3	





**ATTACHMENT E**

**GROUNDWATER MONITORING PROGRAM APPROVAL, APRIL 18, 2013**

State of Wisconsin  
DEPARTMENT OF NATURAL RESOURCES  
101 S. Webster Street  
Box 7921  
Madison WI 53707-7921

Scott Walker, Governor  
Cathy Stepp, Secretary  
Telephone 608-266-2621  
FAX 608-267-3579  
TTY Access via relay - 711



April 18, 2013

Nelson Olavarria (Representative for the Ripon FF/NN Landfill Potentially Responsible Party (PRP) Group)  
Cooper Industries  
600 Travis Street, #5600  
Houston, TX. 77210

SUBJECT: Conditional Approval of Revised Groundwater Monitoring Program for the Ripon HWY  
FF/NN Landfill  
Ripon HWY FF/NN Landfill  
License #467, Ripon, WI  
WDNR BRRTS #02-20-000915

Dear Mr. Olavarria:

The Department and US EPA have completed the review of your request for revisions to the approved groundwater monitoring program, prepared for you by Tetra Tech Inc., received on March 21, 2013 as part of the Status Report and January, 2013 Sampling Event submittal. The Department is approving the revisions subject to the following condition.

The revised monitoring plan shall follow the attached Department revised monitoring schedule table 8 for wells to be sampled, sample parameters and sampling frequency.

The Department appreciates your efforts to restore the environment at this site. Should you have any questions regarding this letter, please call me at (608)267-7563 or email me at [gary.edelstein@wisconsin.gov](mailto:gary.edelstein@wisconsin.gov). Thank you for your cooperation.

Sincerely,

Gary A. Edelstein, P.E.  
Waste Management Engineer  
Remediation & Redevelopment Program

Attach.

cc: Kevin McKnight, DNR - ecopy  
Bernard Schorle, EPA - ecopy - [schorle.bernard@epa.gov](mailto:schorle.bernard@epa.gov)  
Mike Noel, Tetra Tech - ecopy - [Mike.Noel@tetrattech.com](mailto:Mike.Noel@tetrattech.com)  
Lori Rich, City of Ripon - ecopy - [lrich@cityofripon.com](mailto:lrich@cityofripon.com)

Table 3. Groundwater Monitoring Schedule  
 FF/NN Landfill, Ripon, WI

Stratigraphic Layer	Sampling Point	Gradient	Current Plan (4/8/11)			Results	Proposed Plan		
			Water Level	MNA	VOCs		Water Level	MNA	VOCs
Layer 1	MW-101	U	Q		A	ND	A		Drop
Layer 1	MW-102	S	Q		A	ND	A		Drop
Layer 1	MW-103	D	Q	Q	Q	TCE>PALS<ES	SA	SA	SA
Layer 1	MW-104	Within	Q		SA	chlorobenzene <PALS	A		A
Layer 1	MW-106	S	Q		A	ND	A		Drop
Layer 1	MW-107	D	Q		SA	ND	A		A
Layer 1	MW-108	S	Q		A	ND	A		Drop
Layer 1	MW-111	D	Q		A	ND	A		Drop
Layer 1	MW-112	D	Q	Q	Q	VC ND past 6 events	SA	SA	SA
Layer 2	P-101	U	Q		A	ND	A		Drop
Layer 2	P-102	S	Q		A	ND	A		Drop
Layer 2	P-103	D	Q	Q	Q	VC ND past 3 events	SA	SA	SA
Layer 2	P-104	Beneath	Q		A	ND	A		Drop
Layer 2	P-106	S	Q		A	ND	A		A
Layer 2	P-107	D	Q		SA	VC ND last event	A		A
Layer 2	P-108	S	Q		A	ND	A		Drop
Layer 2	P-111	D	Q		A	ND	A		Drop
Layer 3	MW-3B	D	Q	Q	Q	ND	Q	Q	Q
Layer 3	P-103D	D	Q	Q	Q	VC ND past 3 events	Q	Q	Q
Layer 3	P-111D	D	Q	Q	Q	VC>ES	Q	Q	Q
Layer 3	P-113B	D	Q	Q	Q	ND	Q	Q	Q
Layer 3	P-114	D	Q	Q	Q	VC>ES	Q	Q	Q
Layer 3	P-115	D	Q	Q	Q	VC>ES	Q	Q	Q
Layer 3	P-116	D	Q	Q	Q	ND	Q	Q	Q
Layer 4	MW-3A	D	Q	Q	Q	ND	Q	Q	Q
Layer 4	P-107D	D	Q	Q	Q	VC>ES	Q	Q	Q
Layer 4	P-113A	D	Q	Q	Q	ND	Q	Q	Q
Private Wells	Baneck	D			A				A
Private Wells	Gastra	D			A				A
Private Wells	Rohde	D			A				A
Landfill	Leachate LH-1	Within	A		A		A		A
Landfill	Leachate LH-2	Within	A		A		A		A
Landfill	Leachate LH-3	Within	A		A		A		A
Landfill	Gas VOCs LH-1	Within			Q				A
Landfill	Gas VOCs LH-2	Within			Q				A
Landfill	Gas VOCs LH-3	Within			Q				A
Landfill	Gas VOCs GV-6	Within			Q				A
Landfill	Gas VOCs GP-3	D			Q				A
Landfill	Cap Inspection On Landfill	On Landfill			A				A

DNR

Q = Quarterly (Jan, Jul, Oct); A = Annual (Apr) SA = Semi-Annual