CITY OF RIPON

100 Jackson Street • Ripon, Wisconsin 54971-1396

September 19, 2017

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: July 2017 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 July 2017 sampling event for the reference site. Tetra Tech will be sending you hard copies of this report. If you have any questions please feel free to give me a call.

Sincerely,

Lori Rich

Lori Rich
City Administrator
City of Ripon

Attach.

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

STATUS REPORT
JULY 2017 SAMPLING EVENT
FF/NN LANDFILL NPL SITE
Ripon, Wisconsin

Prepared for:

FF/NN Landfill PRP Group
c/o Quantum Management Group, Inc.
216 North Green Bay Road, Suite 201
Thiensville, WI 53092

Prepared by:

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

September 18, 2017

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

Ashley A. Wagner, P.G.
Senior Project Geologist

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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

Contract between the Wisconsin Department of Natural Resources (WDNR) and the FF/NN Landfill Group dated August 7, 1992.

SITE NAME/ACTIVITY:

FF/NN Landfill NPL Site — WDNR File Ref. No.: 02-20-000915
Ripon, Wisconsin
Groundwater Monitoring and Corrective Action

PREPARED BY:

Mr. Michael R. Noel and Mrs. Ashley A. Wagner — Tetra Tech Ref No.:117-2202.040
Tetra Tech, Inc.
175 N. Corporate Drive, Suite 100
Brookfield, Wisconsin 53045

PREPARED FOR:

Ms. Lori Rich
City of Ripon Administrator
100 Jackson St.
Ripon, WI 54971

Mr. Gary Edelstein, P.E.
Wisconsin DNR
P.O. Box 7921
Madison, WI 53707

Mr. Jeff Tracy
Quantum Management Group, Inc.
216 North Green Bay Road, Ste. 201
Thiensville, WI 53092

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:
September 18, 2017

2. FIELD ACTIVITIES THIS REPORTING PERIOD

- Groundwater elevations were measured at 11 Layer 3 and Layer 4 monitoring wells by Tetra Tech in July 2017. The Layer 3 water levels were collected to evaluate the groundwater flow direction using data from P-117, which was installed in November 2016. Water levels in Layer 4 wells were collected for comparison and were measured consecutively to minimize effects from municipal pumping.

- A total of 11 monitoring wells, were sampled for volatile organic compounds (VOCs) by Tetra Tech during the July 2017 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 WDNR was followed for this sampling event (Attachment E).

- Jack Wendler and McKala Kiessling, from the City of Ripon conducted biweekly landfill gas monitoring of the extraction system exhaust, vent GV-6, probe GP-1 and wells LC-1, LC-2 and LC-3 for this quarterly report.

- The installation of the new Layer 3 monitoring well, P-118, was completed on August 11, 2017.

- P-118 was surveyed by Grothman and Associates, SC on September 15, 2017, and survey data will be included in the October status report.

3. RESULTS OF FIELD ACTIVITIES

3.1. Groundwater Monitoring Event – Groundwater Elevations

The groundwater monitoring wells located at the FF/NN Landfill are grouped into four layers based on well screen elevations to better evaluate groundwater quality at discrete depth intervals. Attachment A contains a table showing the wells for each of the four layers.

For the July 2017 sampling event, groundwater elevations were measured in 11 monitoring wells by Ashley Wagner from Tetra Tech. The Layer 3 water levels were collected to evaluate the groundwater flow direction using data from P-117, which was installed in November 2016. Water levels in Layer 4 wells were collected for comparison and were measured consecutively to avoid any effects from municipal pumping. These elevations are provided in Table 1 and shown on Figures 3 and 4. Each layer is discussed separately below.

All 28 monitoring wells are measured annually during the April sampling event.

3.1.1. Layer 3 Wells – Piezometers in Sandstone Bedrock

Layer 3 contains eight wells with screen elevations ranging from 634 feet to 704 feet MSL. Monitoring well P-117 is grouped within this layer. The groundwater potentiometric surface for this layer is displayed on Figure 3 and Chart 3. Compared to the event in July 2016, the water levels that were measured have increased in all of the wells that have historical data. The water levels increased an average of 1.91 feet ranging from 1.61 feet in P-111D to 2.56 feet in P-115.

Historically, the groundwater flow direction in this layer has been to the southwest and becomes west-southwest further downgradient. The July 2017 groundwater flow direction is consistent with the historical results. New monitoring well P-118 is the furthest downgradient Layer 3 monitoring well. Groundwater elevation data from this well will be measured after the well elevation is surveyed.

3.1.2. Layer 4 Wells – Piezometers in Sandstone or Granitic Bedrock

Layer 4 contains three wells with screen elevations ranging from 508 feet to 570 feet MSL. The three wells in this grouping are located 375 to 2300 feet downgradient of the landfill. The groundwater potentiometric surface for this layer is displayed on Figure 4 and Chart 4. Compared to the event in July 2016, the water levels increased in all of the wells: P-107D by 1.69 feet, P-113A by 1.98 feet and MW-3A by 2.46 feet.

When pumping at the City of Ripon Municipal Well # 9 was terminated in May 2007, the flow direction in Layer 4 shifted from the southeast to the west. The City brought Well # 9 back on line in April 2010. The groundwater flow direction in July 2017 is to the west northwest indicating that Well #9 was not likely pumping at the time of measurements.

3.2. 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. Samples designated as quarterly in the April 18, 2013 approval letter were collected during the July 2017 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 VOC concentrations in wells sampled during this event are provided in attached charts.

Natural attenuation parameters were measured on water removed from selected wells as identified in the April 18, 2013 conditional approval letter from WDNR (Attachment F) during the April 2017 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 Parachem Reagents (Ferrous Iron Reagent pillow powders, Method 8008) for colorimetry analysis using a Hach DR900 multi-parameter colorimeter. Historic and current natural attenuation parameters are presented in Table 3.

The contaminants of concern are Trichloroethylene (TCE) and its dechlorination byproducts, cis-1,2-Dichlorothene (1,2-DCE) and Vinyl chloride (VC). VC is the only contaminant detected at concentrations that exceed the Wisconsin Administrative Code Chapter NR 140 Enforcement Standard (ES). The ES for VC is 0.2 micrograms per liter (ug/L). The following sections present a summary of the July 2017 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.

3.2.1. Layer 1 Wells – Water Table Wells in Unconsolidated Sand & Gravel

- No Layer 1 wells were sampled during the July 2017 event.

3.2.2. Layer 2 Wells – Piezometers in Unconsolidated Sand & Silt

- No Layer 2 wells were sampled during the July 2017 event.

3.2.3. Layer 3 Wells – Piezometers in Sandstone Bedrock

- P-103D (Chart 53): 1,2-DCE was detected at an estimated concentration of 0.32 J ("J" indicates the laboratory estimated the concentration; the compound was detected in the sample but at concentrations between the method detection limit and the quantifiable reporting limit) ug/L, which is below its ES of 70 ug/L. 1,2-DCE has been increasing since the startup of the active gas control in 2006. VC was not detected this sampling event. VC has been decreasing since the startup of the active gas control system in 2006.

- P-111D (Chart 54): VC was detected at a concentration of 6.2 ug/L, which exceeds its ES of 0.2 ug/L. 1,2-DCE was detected at a concentration of 3.0 ug/L, which is below its ES. Chloroethane was detected at a concentration of 1.6 ug/L, which is below its ES of 400 ug/L. VC has been decreasing, 1,2-DCE has been increasing, and chloroethane has remained stable since the startup of the active gas control system in 2006.

- MW-3B (Chart 55): No detection of any VOC analyzed. None of the contaminants of concern have been detected since the startup of the active gas control system in 2006, with the exception of a VC detection above its ES in 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 was detected at a concentration of 7.0 ug/L (7.4 ug/L in duplicate sample), which exceeds its ES. 1,2-DCE was detected at a concentration of 1.5 ug/L (1.7 ug/L in duplicate sample), which is below its ES. 1,2-DCE has been stable and VC has been decreasing since the startup of the active gas control system in 2006.

- P-115 (Chart 58): VC was detected at a concentration of 1.0 ug/L, which exceeds its ES. This concentration is consistent with the historical results and shows a stable trend since the startup of the active gas control in 2006.

- 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).

- P-117 (Chart 60): VC was detected at a concentration of 1.4 ug/L, which exceeds its ES. 1,2-DCE was detected at a concentration of 1.1 ug/L, which is below its ES. This is the third time this well has been sampled since it was installed in November 2016, and the results are similar to the previous results.

3.2.4. Layer 4 Wells – Piezometers in Sandstone or Granitic Bedrock

- MW-3A (Chart 61): 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 62): VC was detected at a concentration of 3.8 ug/L, which exceeds its ES. 1,2-DCE was detected at a concentration of 1.7 ug/L, which is below its ES. Chloroethane was detected at a concentration of 1.4 ug/L, which is below its ES. Since the startup of the active gas control in 2006, VC and 1,2-DCE concentrations have been decreasing, chloroethane has been detected periodically since 2004 with similar concentrations.

- P-113A (Chart 63): No detection of any VOC analyzed. None of the contaminants of concern have ever been detected in this well (installed in 2002).

3.2.5. Natural Attenuation Parameters

Both TCE and 1,2-DCE have reductively dechlorinated under anaerobic conditions to the byproduct VC. Because VC is the sole remaining contaminant of concern exceeding the ES 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 guidance (Technical Protocol for Evaluating Natural Attenuation of Chlorinated Solvents in Groundwater 1998), iron II was measured as 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. Where present, VC concentrations show either stable or reducing trends confirming that natural attenuation is occurring.

3.3. Groundwater Monitoring Event - Private Drinking Water Well Sampling

Historically, samples have been collected from eight private drinking water wells. 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, and continue to be sampled as monitoring wells (Section 3.1.3). The Gaastra and Perry wells were disconnected from each home's internal water piping and now just supply the outside faucets. The Rohde private drinking water well is sampled annually in April.

3.4. 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:

- 5/8/2017 – Increase run time from 3.5 hours on to 6.5 hours on.
- 5/22/2017 – Increase run time from 6.5 hours on to 8.5 hours on.
- 6/5/2017 – Increase run time from 8.5 hours on to 14.5 hours on.
- 6/19/2017 – Increase run time from 14.5 hours on to 20.5 hours on.
- 6/23/2017 – 100 gallons of water pumped out of tank, and taken to the City of Ripon Waste Water Treatment Plant for treatment.
- 6/29/2017 - 50 gallons of water pumped out of tank, and taken to the City of Ripon Waste Water Treatment Plant for treatment.
- 7/4/2017 – Increase run time from 20.5 hours on to 23.5 hours on.
- 7/18/2017 – No changes made to runtime.

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 wells and gas probes beyond the landfill limits have been consistently below the methane lower explosive limit (LEL; 5.0%).

3.5. New Well Installation

The new Layer 3 monitoring well, P-118, was installed in accordance with the "New Monitoring Well Installation" work plan dated May 30, 2017 (Tetra-Tech). The well was installed along the bike trail west of S. Koro Road, approximately 900 feet west of the P-117. Cascade Drilling was retained to complete installation using a sonic drill rig. The soil and bedrock cores were logged according to the United Soil Classification System by Ashley Wagner, a Tetra Tech geologist. The soil was screened using a photoionization detector (PID) at a minimum of every 10 feet. The bottom 25 feet of core from the borehole was contained in a 55 gallon drum. The drum is located at the Ripon publicly-owned treatment works (POTW) awaiting proper disposal methods. The remaining soil was thin spread on the ground surface in the vicinity of the well location.

The monitoring well was constructed in accordance with NR141 Wisconsin Administrative Code (WAC) using 2-inch inside diameter (ID), Schedule 80 polyvinyl chloride (PVC) riser and screen. The screen has a slot size of 0.010-inches, and is 5 feet in length. Filter pack was placed 2.0 feet beneath the bottom of the well screen and was extended 2.0 feet above the top of the well screen. The filter pack seal consisted of 1.5 feet of clean fine sand on top of the filter pack, with approximately 6.0 feet bentonite chips on top of the fine sand, with a bentonite slurry to seal the remainder of the annular space to 3 feet below ground surface. Bentonite chips and sand were placed above the bentonite slurry and brought to ground surface. A steel, above grade protective well casing was set in the bentonite chips and sand mixture.

Cascade Drilling completed well development in accordance with NR141.21. Approximately 275 gallons of water was purged from the well. The water was transported and treated at the Ripon POTW. The monitoring well installation and development was completed on August 11, 2017. The well was surveyed by Grothman & Associates, S.C. on September 15, 2017. The survey data will be included in the October status report.

An investigation-derived waste (IDW) sample was submitted for analysis to determine disposal options. It was analyzed for polychlorinated byphenols (PCBs), toxicity characteristic leaching procedure (TCLP) Metals, TCLP Mercury, TCLP semivolatile organic compounds (SVOCs), TCLP VOCs, Total VOCs and percent moisture. There were no detections of any of the parameters analyzed, except for barium, which was detected at a concentration of 0.13 milligrams per liter (mg/L). The soil remains at the Ripon POTW while arrangements are being made for off-site disposal at a solid waste landfill.

4. UPCOMING ACTIVITIES PLANNED

- Semi-annual groundwater sampling and water level measurements will be conducted in October 2017 in accordance with the monitoring program outlined in the April 18, 2013 conditional approval letter from WDNR. Samples will be collected from wells designated as semi-annual.
- Jack Wendler, with the help of McKala Kiessling, from the City of Ripon will conduct biweekly landfill gas monitoring of the extraction system vents and wells.
- Soil IDW generated during installation of P-118 will be properly disposed.

5. PERSONNEL

Mr. Michael Noel is the Project Manager and Principal Hydrogeologist. Ms. Ashley Wagner is the Senior Project Geologist who oversaw the field activities. The laboratory analyses for July 2017 groundwater samples and the August soil 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)														807.70	815.16	816.73
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)																816.09
P-113B	833.10	(Installed September 2002)																816.68
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)																
P-117	834.02	(Installed November 2016)																
MW-3A	850.77	(Water levels taken beginning February 2002)													817.24	810.74	815.18	816.11
MW-3B	851.04	(Water levels taken beginning February 2002)													819.32	807.37	815.34	817.07
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
TOC Elevation = Top of Casing Elevation

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
P-117	834.02																	
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
TOC Elevation = Top of Casing Elevation

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
P-117	834.02																	
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
TOC Elevation = Top of Casing Elevation

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	Apr-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	822.43
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	822.36
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	822.91
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	822.99
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	820.27
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	822.42
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	821.55
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	822.36
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	822.40
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	822.91
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	822.82
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	818.87
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	818.84
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	818.08
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	817.39
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	820.07
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	817.39
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	816.95
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	819.50
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	819.30
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	817.59
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	818.42
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	818.46
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	818.60
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	817.41
P-117	834.02																	
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	818.48
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	819.95
LC1	876.15	843.14	NM	NM	NM	843.21	NM	NM	NM	843.36	NM	NM	NM	843.71	NM	NM	NM	843.72
LC2	866.05	838.4	NM	NM	NM	837.87	NM	NM	NM	838.51	NM	NM	NM	840.02	NM	NM	NM	839.41
LC3	877.34	845.22	NM	NM	NM	845.63	NM	NM	NM	845.52	NM	NM	NM	846.29	NM	NM	NM	845.62

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
TOC Elevation = Top of Casing Elevation

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

Well Name	TOC Elevation	Jul-15	Oct-15	Jan-16	Apr-16	Jul-16	Oct-16	Jan-17	Apr-17	Jul-17
MW-101	884.80	NM	NM	NM	824.20	NM	NM	NM	823.84	NM
P-101	885.26	NM	NM	NM	824.16	NM	NM	NM	823.79	NM
MW-102	843.05	NM	NM	NM	824.71	NM	NM	NM	824.41	NM
P-102	842.99	NM	NM	NM	824.76	NM	NM	NM	824.42	NM
MW-103	872.42	NM	819.48	NM	821.86	NM	820.7	NM	821.57	NM
P-103	872.92	NM	820.15	NM	824.22	NM	822.33	NM	823.83	NM
P-103D	873.08	821.04	821.14	821.82	823.45	822.23	821.49	822.19	823.04	823.86
MW-104	875.15	NM	NM	NM	824.08	NM	NM	NM	823.81	NM
P-104	875.48	NM	NM	NM	824.18	NM	NM	NM	823.84	NM
MW-106	878.90	NM	NM	NM	824.69	NM	NM	NM	824.35	NM
P-106	878.91	NM	NM	NM	824.61	NM	NM	NM	824.23	NM
MW-107	871.78	NM	NM	NM	820.31	NM	NM	NM	820.06	NM
P-107	871.38	NM	NM	NM	820.30	NM	NM	NM	820.08	NM
P-107D	871.98	818.12	817.46	819.25	820.84	818.81	818.31	819.16	820.38	820.50
MW-108	845.25	NM	NM	NM	818.86	NM	NM	NM	818.55	NM
P-108	845.61	NM	NM	NM	821.53	NM	NM	NM	821.2	NM
MW-111	856.46	NM	NM	NM	818.91	NM	NM	NM	818.66	NM
P-111	856.13	NM	NM	NM	818.45	NM	NM	NM	818.22	NM
P-111D	855.79	819.21	818.51	822.95	821.30	820.11	819.59	820.27	820.86	821.72
MW-112	874.55	NM	818.77	NM	820.71	NM	819.69	NM	820.42	NM
P-113A	833.09	817.48	817.02	818.80	820.23	818.16	817.82	818.89	819.78	820.14
P-113B	833.10	818.35	817.73	818.75	820.17	818.66	818.63	819.37	819.76	820.71
P-114	839.35	818.41	817.73	818.72	820.18	818.81	818.59	819.28	819.85	820.72
P-115	842.71	815.48	817.84	818.90	820.33	818.81	818.58	NM	819.99	821.37
P-116	845.34	817.46	816.67	817.57	819.19	817.93	817.67	818.18	818.99	819.58
P-117	834.02							817.90	818.67	819.27
MW-3A	850.77	817.86	817.63	819.10	819.93	818.57	818.53	820.09	820.01	821.03
MW-3B	851.04	819.50	818.96	820.32	821.43	820.36	820.04	821.01	821.25	822.32
LC1	876.15	NM	NM	NM	843.65	NM	NM	NM	842.91	NM
LC2	866.05	NM	NM	NM	838.01	NM	NM	NM	837.42	NM
LC3	877.34	NM	NM	NM	847.13	NM	NM	NM	846.43	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)
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NT - Not taken, only measured deep wells
NM - Well not measured
TOC Elevation = Top of Casing Elevation

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

		Parameters																																		
Sampling Point	Collection Date	Acetone[1]	Benzene	Bromodichloromethane	Bromomethane	2-Butanone (MEK)	sec-Butylbenzene	Carbon Disulfide	Chlorobenzene	Chloroethane	Chloroform	Chloromethane	1,4-dichlorobenzene	Dibromochloromethane	Dichlorodifluoromethane	1,1-Dichloroethane	1,2-dichloroethane	1,1-Dichloroethene	cis-1,2-dichloroethene	trans-1,2-Dichloroethene	1,2-dichloropropane	Ethylbenzene	Isopropyl Ether	Methylene chloride	MTBE	Tetrachloroethene	Tetrahydrofuran	Toluene	1,2,4-Trichlorobenzene	1,1,1-Trichloroethane	Trichloroethene	Trichlorofluoromethane	Vinyl Chloride	Total Xylenes
WDNR	PAL	200	0.5	0.06	1	90	NE	200	NE	80	0.6	0.3	15	6	200	85	0.5	0.7	7	20	0.5	140	NE	0.5	12	0.5	10	200	14		0.5	NE	0.02	1000
NR140	ES	1000	5	0.6	10	460	NE	1000	NE	400	6	3	75	60	1000	850	5	7	70	100	5	700	NE	5	60	5	50	1000	70		5	NE	0.2	10000
MW-3A	04/04/2002	NR				NA																													
	05/22/2002	NR				NA																													
	08/20/02	NR																																	
	12/05/02	NR																																	
	04/22/03																																		
	10/22/03																																		
	05/11/04																																		
	10/14/04																																		
	01/27/05																																		
	04/26/2005																																		
	08/02/05																																		
	10/26/05																																		
	01/31/2006																																		
	04/24/06																																		
	07/27/06											0.35 J																							
	10/31/06																																		
	01/31/07																																		
	5/1/2007																																		
	8/8/2007																																		
	10/19/2007																																		
	5/6/2008																																		
	10/1/2008																																		
	4/7/2009																							0.56J											
	10/28/2009																																		
	5/24/2010																																		
	10/5/2010																							0.49J											
	1/24/2011																																		
	4/13/2011																																		
	7/12/2011																							0.63J											
	10/19/2011											0.66J																							
	1/23/2012																																		
	4/4/2012																																		
	7/25/2012																																		
	10/16/2012																																		
	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	3.1 J																																	
	4/28/2015																																		
	7/1/2015																																		
	10/27/2015																																		
	1/14/2016																																		
	4/13/2016																																		
	7/28/2016																																		
	10/27/2016																																		
	1/20/2017																																		
	4/6/2017																																		
	7/14/2017																																		
MW-3B	04/04/2002	NR				NA																						0.38					**0.31**	
	05/22/2002	NR				NA																					NA								
	8/20/2002	NR																									NA								
	12/5/2002	NR																																	
	4/22/2003																																		
	10/22/2003																																		
	5/11/2004																																**0.2 J**		
	07/22/2004																																		
	10/14/2004																																		
	1/27/2005																																		
	4/26/2005																																		
	8/2/2005																																**0.30 J**		
	10/26/2005																																**0.39 J**		
	01/31/2006																																		
	4/24/2006																																		
	7/27/2006											0.45 J																							
	10/31/2006																																		
	1/31/2007																																		
	5/1/2007																																		
	8/8/2007																																		
	10/19/2007																																		
	5/6/2008																		1.3														**5.4**		
	10/1/2008																																		
	4/7/2009																																		
	10/28/2009											0.42J																							
	5/24/2010																																		
	10/5/2010																																		
	1/24/2011																																		
	4/13/2011																																		
	7/12/2011																							0.81J											
	10/19/2011																																		
	1/23/2012																																		
	4/4/2012																																		
	7/25/2012																																		
	10/16/2012																																		
	1/15/2013																																		
	4/26/2013																																		
	7/2/2013																																		
	10/24/2013																																		
	1/9/2014																																		
	4/17/2014																																		
	7/17/2014																																		
	10/24/2014																																		
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	4/28/2015																																		
	7/1/2015																																		
	10/27/2015																																		
	1/14/2016																																		
	4/13/2016																																		
	7/28/2016																																		
	10/27/2016																																		
	1/20/2017																																		
	4/6/2017																																		
	7/14/2017																																		

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

		Parameters																																		
Sampling Point	Collection Date	Acetone[1]	Benzene	Bromodichloromethane	Bromomethane	2-Butanone (MEK)	sec-Butylbenzene	Carbon Disulfide	Chlorobenzene	Chloroethane	Chloroform	Chloromethane	1,4-dichlorobenzene	Dibromochloromethane	Dichlorodifluoromethane	1,1-Dichloroethane	1,2-dichloroethane	1,1-Dichloroethene	cis-1,2-dichloroethene	trans-1,2-Dichloroethene	1,2-dichloropropane	Ethylbenzene	Isopropyl Ether	Methylene chloride	MTBE	Tetrachloroethene	Tetrahydrofuran	Toluene	1,2,4-Trichlorobenzene	1,1,1-Trichloroethane	Trichloroethene	Trichlorofluoromethane	Vinyl Chloride	Total Xylenes
WDNR	PAL	200	0.5	0.06	1	90	NE	200	NE	80	0.6	0.3	15	6	200	85	0.5	0.7	7	20	0.5	140	NE	0.5	12	0.5	10	200	14		0.5	NE	0.02	1000
NR140	ES	1000	5	0.6	10	460	NE	1000	NE	400	6	3	75	60	1000	850	5	7	70	100	5	700	NE	5	60	5	50	1000	70		5	NE	0.2	10000
MW-101	10/1/1993	NR																								0.7 J								
	04/1/1994	NR																								0.6J								
	05/01/1996	NR																								0.6J								
	10/01/1996	NR										0.89 J														0.72 J								
	05/01/1997	NR																																
	10/01/1997	NR																								0.7								
	04/98*	NR																																
	10/01/1998	NR																																
	04/01/1999	NR																																
	10/01/1999	NR																								0.7								
	05/01/2000	NR																								0.32								
	10/01/2000	NR																								0.38								
	05/01/2002	NR																								0.28								
	10/11/2001	NR																																
	02/05/2002	NR					NA								0.19											0.32	NA				0.16			
	05/21/02 *		NA		NA	NA	NA		NA	NA	NA	NA	NA		NA	NA	NA	NA	NA	NA	NA	NA		NA	NA	NA	NA	NA	NA		NA	NA	NA	NA
	8/19/02 *		NA		NA	NA	NA		NA	NA	NA	NA	NA		NA	NA	NA	NA	NA	NA	NA	NA		NA	NA	NA	NA	NA	NA		NA	NA	NA	NA
	12/5/02 *		NA		NA	NA	NA		NA	NA	NA	NA	NA		NA	NA	NA	NA	NA	NA	NA	NA		NA	NA	NA	NA	NA	NA		NA	NA	NA	NA
	4/21/03 *		NA		NA	NA	NA		NA	NA	NA	NA	NA		NA	NA	NA	NA	NA	NA	NA	NA		NA	NA	NA	NA	NA	NA		NA	NA	NA	NA
	10/23/2003																																	
	4/28/2004																																	
	10/13/2004	11																																
	4/27/2005																																	
	4/28/2006	18																																
	11/1/2006*		NA		NA	NA	NA		NA	NA	NA	NA	NA		NA	NA	NA	NA	NA	NA	NA	NA		NA	NA	NA	NA	NA	NA		NA	NA	NA	NA
	2/1/2007																																	
	5/1/2007	2.4																																
	5/6/2008																																	
	4/8/2009																																	
	10/29/2009																																	
	5/25/2010																																	
	10/4/2010																							0.44J										
	1/26/2011																																	
	4/11/2011																																	
	4/3/2012																																	
P-101	10/01/1993	NR																																
	04/01/94	NR																										0.5J						
	020/5/02	NR				NA																					NA							
	05/22/2002	NR				NA																					NA							
	10/13/2004																																	
	4/27/2005																																	
	10/25/2005																																	
	4/28/2006																																	
	11/1/2006																																	
	5/1/2007																																	
	5/6/2008																																	
	4/8/2009																																	
	11/4/2009											0.75J																						
	5/25/2010																																	
	10/4/2010																							0.44J										
	1/26/2011																																	
	4/11/2011																																	
	4/3/2012																																	
MW-102	10/26/1993	NR																																
	04/11/1994	NR																										3						
	05/08/1996	NR																										0.4J						
	10/30/1996	NR										0.99 J														0.30 J								
	05/12/1997	NR																																
	10/26/1997	NR																																
	04/13/1998	NR																	0.46															
	10/11/2001	NR																																
	05/21/02 *	NA	NA		NA	NA	NA		NA	NA	NA	NA	NA		NA	NA	NA	NA	NA	NA	NA	NA		NA	NA	NA	NA	NA	NA		NA	NA	NA	NA
	08/19/02 *	NA	NA		NA	NA	NA		NA	NA	NA	NA	NA		NA	NA	NA	NA	NA	NA	NA	NA		NA	NA	NA	NA	NA	NA		NA	NA	NA	NA
	12/05/02 *	NA	NA		NA	NA	NA		NA	NA	NA	NA	NA		NA	NA	NA	NA	NA	NA	NA	NA		NA	NA	NA	NA	NA	NA		NA	NA	NA	NA
	07/23/2004																																	
	10/14/2004																																	
	4/27/2005																																	
	10/25/2005																																	
	4/25/2006																																	
	11/1/2006																																	
	5/2/2007																																	
	4/30/2008																																	
	10/2/2008																																	
	4/8/2009																																	
	5/20/2010																																	
	4/11/2011																																	
	4/3/2012																																	

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

		Parameters																																
Sampling Point	Collection Date	Acetone[1]	Benzene	Bromodichloromethane	Bromomethane	2-Butanone (MEK)	sec-Butylbenzene	Carbon Disulfide	Chlorobenzene	Chloroethane	Chloroform	Chloromethane	1,4-dichlorobenzene	Dibromochloromethane	Dichlorodifluoromethane	1,1-Dichloroethane	1,2-dichloroethane	1,1-Dichloroethene	cis-1,2-dichloroethene	trans-1,2-Dichloroethene	1,2-dichloropropane	Ethylbenzene	Isopropyl Ether	Methylene chloride	MTBE	Tetrachloroethene	Tetrahydrofuran	Toluene	1,2,4-Trichlorobenzene	1,1,1-Trichloroethane	Trichloroethene	Trichlorofluoromethane	Vinyl Chloride	Total Xylenes
WDNR	PAL	200	0.5	0.06	1	90	NE	200	NE	80	0.6	0.3	15	6	200	85	0.5	0.7	7	20	0.5	140	NE	0.5	12	0.5	10	200	14		0.5	NE	0.02	1000
NR140	ES	1000	5	0.6	10	460	NE	1000	NE	400	6	3	75	60	1000	850	5	7	70	100	5	700	NE	5	60	5	50	1000	70		5	NE	0.2	10000
P-102	10/26/1993	NR																																
	04/11/1994	NR																																
	10/11/2001	NR																																
	05/21/2002	NR				NA																				NA						**0.33J**	
	08/20/2002	NR																								NA						**0.62**	
	12/04/2002	NR																														**0.68**	
	04/21/2003																							0.48 J&								**0.83**	
	10/22/2003																															**0.96**	
	04/27/2004																															**2.1**	
	10/14/2004											0.5 J																				**0.32**	
	1/27/2005																																
	4/27/2005																																
	8/3/2005																																
	8/3/2005 dup																																
	10/25/2005																																
	2/1/2006																																
	4/27/2006																																
	4/27/2006 dup																																
	7/27/2006											0.66 J																					
	11/1/2006																																
	2/15/2007																																
	5/2/2007																																
	8/14/2007																																
	10/16/2007	2.9 J																																
	5/6/2008																																
	10/2/2008																																
	4/8/2009																																
	11/4/2009																																
	11/4/2009 Dup																																
	5/20/2010																																
	4/11/2011																																
	4/3/2012	9.1 J																																
MW-103[2]	10/27/1993	NR																	**410**													**75**	
	04/11/1994	NR																	**1100**													**440**	
	04/01/94 Dup	NR																	**970**													**410**	
	05/01/1996	NR							7J										**740**	9J										**10J**		**170**	
	05/01/96 Dup	NR							8J			**9 J**							**840**	10J										**11J**		**180**	
	10/01/1996	NR	3.3						8.1 J	1.9		1.1	0.76 J			0.99 J		0.30 J	**520 E**	5	1.9									4.7		**98 E**	
	05/01/1997	NR	4.3						8.5	2.7			0.98			1.2	0.52	0.75	**790**	4.7	1.6				0.27					5.6		**230**	
	10/01/1997	NR	4.2						7.9	2.4			1.4			0.89	0.38		**550J**	5.2	1.5				0.38		3.1			**6.6**		**220J**	
	04/98*	NR																																
	10/01/1998	NR	2						5.7										**260**	3.3										**5.8**		**45**	
	04/01/1999	NR	1.4						4.7										**150**	2.4										3.9		**47**	
	10/01/1999	NR							5.2										**170**	2.6										2.4		**48**	
	05/01/2000	NR	1.8						6.5										**170**	3.4										4.1		**60**	
	10/01/2000	NR	1.6						6.9	3.1			0.84			0.33			**130**	4.5	0.75									**6.6**		**78**	
	05/01/2001	NR	1.2						5.7	1.5			0.92						**94**	3.4	0.54			2.6L			1.1			4.5		**46**	
	10/11/2001	NR	1.1			80			2.6	0.62			0.54						25	2.7				6.4L				0.8				**15**	
	2/4/2002	NR	1.8			NA			6.4	1.1			0.81			0.36			**71**	5.5	0.53			0.28		0.13	NA	0.72		3.1		**40**	
	5/21/2002*	NA	NA		NA	NA	NA		NA	NA	NA	NA	NA		NA	NA	NA	NA	NA	NA	NA	NA		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	8/19/02 *	NA	NA		NA	NA	NA		NA	NA	NA	NA	NA		NA	NA	NA	NA	NA	NA	NA	NA		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	12/05/02 *	NA	NA		NA	NA	NA		NA	NA	NA	NA	NA		NA	NA	NA	NA	NA	NA	NA	NA		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	04/21/03 *	NA	NA		NA	NA	NA		NA	NA	NA	NA	NA		NA	NA	NA	NA	NA	NA	NA	NA		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	10/21/2003		0.8						1.3										58	1.9										1.7		**21**	
	04/28/2004	27	0.61 J			26			0.53 J										16											1.9		**6.7**	
	10/13/2004	56	1.4						1.7			0.52							12	2.5								0.89		0.78		**7.9**	
	4/26/2005		1.2						2.8										1.9	3.0								0.71				**1.8**	
	4/25/2006	31				8.0 J			0.62 J										5.2											0.48 J		**1.8**	
	10/31/2006*	NA	NA		NA	NA	NA		NA	NA	NA	NA	NA		NA	NA	NA	NA	NA	NA	NA	NA		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	2/1/2007					6.1J		2.2 J											10											0.82J		**0.34**	
	5/2/2007								1.7										14											1.7		**0.75**	
	10/18/2007																		26											2.8		**2.2**	
	5/5/2008								0.63J										15.7											3.4			
	10/2/2008								0.43J										12.3											3.8			
	4/7/2009																		7.7											3.1			
	10/28/2009																		4.6											2.4			
	2/25/2010																		2.9											2.1			
	5/24/2010																		4											2.1			
	10/4/2010																		3.5					0.73J						2.4			
	1/26/2011																		2.9											2.7			
	4/11/2011																		2.7											2.1			
	7/11/2011																		4.2					0.74J						2.3			
	10/19/2011																		4.3											3			
	1/24/2012																		3.2											2.6			
	4/3/2012																		2.9											2.3			
	4/3/2012 Dup																		3.3											2.4			
	7/25/2012																		2											2.2			
	10/17/2012																		2.1											1.7			
	1/16/2013																		1.7											2.3			
	4/24/2013																		1.1											1.7			
	10/24/2013																		2											1.6			
	4/16/2014																		0.77J											1.5			
	10/24/2014																		1.1											2			
	4/28/2015																		0.45 J											1.6			
	4/12/2016																		0.35 J											1.4			
	10/27/2016																		0.28 J											1.5			
	4/5/2017																		0.30 J											1.5			

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

		Parameters																																
Sampling Point	Collection Date	Acetone[1]	Benzene	Bromodichloromethane	Bromomethane	2-Butanone (MEK)	sec-Butylbenzene	Carbon Disulfide	Chlorobenzene	Chloroethane	Chloroform	Chloromethane	1,4-dichlorobenzene	Dibromochloromethane	Dichlorodifluoromethane	1,1-Dichloroethane	1,2-dichloroethane	1,1-Dichloroethene	cis-1,2-dichloroethene	trans-1,2-Dichloroethene	1,2-dichloropropane	Ethylbenzene	Isopropyl Ether	Methylene chloride	MTBE	Tetrachloroethene	Tetrahydrofuran	Toluene	1,2,4-Trichlorobenzene	1,1,1-Trichloroethane	Trichloroethene	Trichlorofluoromethane	Vinyl Chloride	Total Xylenes
WDNR	PAL	200	0.5	0.06	1	90	NE	200	NE	80	0.6	0.3	15	6	200	85	0.5	0.7	7	20	0.5	140	NE	0.5	12	0.5	10	200	14		0.5	NE	0.02	1000
NR140	ES	1000	5	0.6	10	460	NE	1000	NE	400	6	3	75	60	1000	850	5	7	70	100	5	700	NE	5	60	5	50	1000	70		5	NE	0.2	10000
P-103	10/27/1993	NR																																
	04/12/1994	NR																																
	05/9/1996	NR																	0.1J									0.1J				0.1J		
	10/31/1996	NR										0.84 J																						
	05/13/1997	NR																																
	10/27/1997	NR																																
	04/13/1998	NR																																
	2/4/2002	NR				NA																					NA							
	05/21/2002	NR				NA													[0.54]								NA							
	10/13/2004											0.52 J																					**1.7**	
	1/26/2005																																	
	1/26/2005 dup																																	
	4/26/2005																																**2.4**	
	8/3/2005																																**3.2**	
	10/26/2005																																**3.2**	
	02/01/2006																																**3.6**	
	4/25/2006																																**2.9**	
	7/28/2006											0.49 J																					**1.6**	
	11/1/2006																																**1.4**	
	2/1/2007																																**1.5**	
	5/2/2007																																**1.6**	
	8/14/2007																																**1.4**	
	10/18/2007																																**1.2**	
	5/5/2008																																**0.74**	
	5/5/2008 Dup																																**0.81**	
	10/2/2008																																**0.81J**	
	10/2/2008 Dup																																**0.89J**	
	4/7/2009																																**0.75J**	
	10/28/2009											0.43J																					**0.58J**	
	2/25/2010											0.52J																					**0.49J**	
	5/24/2010																																	
	10/5/2010																							0.53J									**0.41J**	
	1/25/2011																																**0.34J**	
	4/12/2011																																**0.39J**	
	7/11/2011																																	
	10/18/2011																																**0.29J**	
	1/24/2012																																**0.28J**	
	4/4/2012																																**0.28 J**	
	7/25/2012																																	
	10/17/2012																																	
	1/16/2013																																	
	4/26/2013																																	
	10/24/2013																																	
	4/16/2014																																	
	10/24/2014																																	
	4/28/2015																																	
	10/27/2015																																	
	4/13/2016																																	
	10/27/2016																																	
	4/6/2017																																	
P-103D	02/4/2004					NA																		0.55J			NA						**1.1**	
	05/11/2004																																**1.5**	
	05/11/04 dup																																**1.5**	
	07/23/2004																																**1.3**	
	07/23/04 dup																																**1.5**	
	10/13/2004											0.43 J							0.86 J															
	04/26/2005																		0.84 J														**3.0**	
	10/26/2005																		0.98 J														**2.7**	
	10/26/2005 dup																		0.95 J														**2.8**	
	4/25/2006																																**2.6**	
	11/1/2006																																**1.9**	
	5/2/2007																																**1.4**	
	10/18/2007																																**1.2**	
	5/5/2008																																**0.69**	
	5/5/2008 Dup																																**0.66**	
	10/2/2008																																**1.1**	
	10/2/2008 Dup																																**1.5**	
	4/7/2009																																**0.77J**	
	4/7/2009 Dup																																**0.74J**	
	10/28/2009											1.1																					**0.75J**	
	2/25/2010																																**0.64J**	
	5/24/2010																																	
	10/5/2010																							0.86J									**0.71J**	
	1/25/2011																																	
	4/11/2011																																**0.69J**	
	7/11/2011																																**0.78J**	
	10/18/2011																																**0.54J**	
	1/24/2012																																**0.73J**	
	4/4/2012	10.7 J																															**0.98J**	
	7/25/2012																																	
	10/17/2012																																	
	1/16/2013																																	
	4/26/2013																																	
	7/2/2013																																	
	10/24/2013																																	
	1/9/2014																																**0.67J**	
	4/16/2014																		0.26J														**0.43J**	
	7/17/2014																		0.49 J														**0.54 J**	
	10/24/2014											0.71 J							0.46 J														**0.68 J**	
	1/15/2015	3.0 J																	0.37 J														**0.40 J**	
	4/28/2015																		0.42 J														**0.46 J**	
	7/1/2015																																	
	10/27/2015																		0.33 J														**0.26 J**	
	1/14/2016																																**0.36 J**	
	4/13/2016																		0.27 J														**0.39 J**	
	7/28/2016																		0.44 J															
	10/27/2016																		0.30 J														**0.28 J**	
	1/20/2017																																**0.28 J**	
	4/6/2017																																**0.26 J**	
	7/14/2017																		0.32 J															

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

		Parameters																																		
Sampling Point	Collection Date	Acetone[1]	Benzene	Bromodichloromethane	Bromomethane	2-Butanone (MEK)	sec-Butylbenzene	Carbon Disulfide	Chlorobenzene	Chloroethane	Chloroform	Chloromethane	1,4-dichlorobenzene	Dibromochloromethane	Dichlorodifluoromethane	1,1-Dichloroethane	1,2-dichloroethane	1,1-Dichloroethene	cis-1,2-dichloroethene	trans-1,2-Dichloroethene	1,2-dichloropropane	Ethylbenzene	Isopropyl Ether	Methylene chloride	MTBE	Tetrachloroethene	Tetrahydrofuran	Toluene	1,2,4-Trichlorobenzene	1,1,1-Trichloroethane	Trichloroethene	Trichlorofluoromethane	Vinyl Chloride	Total Xylenes
WDNR	PAL	200	0.5	0.06	1	90	NE	200	NE	80	0.6	0.3	15	6	200	85	0.5	0.7	7	20	0.5	140	NE	0.5	12	0.5	10	200	14		0.5	NE	0.02	1000
NR140	ES	1000	5	0.6	10	460	NE	1000	NE	400	6	3	75	60	1000	850	5	7	70	100	5	700	NE	5	60	5	50	1000	70		5	NE	0.2	10000
MW-104	10/27/1993	NR	2						2				2						1 JB									31						
	4/19/1994	NR	1						1				1						10												0.8J		**6.0**	
	05/9/1996	NR	**6**						5	1		0.3 J				0.2 J			6	0.3 J		0.1J						0.2 J			0.5J		**10**	
	10/30/1996	NR	0.64 J						1.1	0.34 J		0.46 J							3.6	0.22 J		0.80 J									0.31 J		**4.3**	0.77 J
	05/12/1997	NR	4.8						4.5	1.5			0.91						1.1						0.32								**4.5**	
	10/27/1997	NR	0.63						1.3				0.85						7.3														**18**	
	04/13/1998	NR	1.2																**74**	0.67								0.46			3.5		**17**	
	10/13/1998	NR	1.7										0.76						3.3														**15**	4.1
	04/07/1999	NR	3.2						1.4										6.6												0.71		**6.1**	
	10/27/1999	NR	3.5						5.4				0.92						4.5														**2.8**	
	05/2/2000	NR	3						5.7				1.5						0.7									0.13					**1.1**	
	10/30/2000	NR	2						6.2				1.6						2.6									0.12			0.33		**29**	
	05/1/2001	NR	2.5						5.6				2		0.47				7					0.51L			0.81	0.13			0.66		**8.6**	
	10/11/2001	NR	3.1						9.5				2.3					0.85	2					0.39L				0.1					**2.2**	
	02/5/2002	NR	2.7			NA	0.16		8				2		0.19				5.1								NA	0.17			0.73		**13**	
	05/21/02*	NA	NA		NA	NA	NA		NA	NA	NA	NA	NA		NA	NA	NA	NA	NA	NA	NA	NA		NA	NA	NA	NA	NA	NA		NA	NA	NA	NA
	08/19/02 *	NA	NA		NA	NA	NA		NA	NA	NA	NA	NA		NA	NA	NA	NA	NA	NA	NA	NA		NA	NA	NA	NA	NA	NA		NA	NA	NA	NA
	12/05/02 *	NA	NA		NA	NA	NA		NA	NA	NA	NA	NA		NA	NA	NA	NA	NA	NA	NA	NA		NA	NA	NA	NA	NA	NA		NA	NA	NA	NA
	4/21/2003 *	NA	NA		NA	NA	NA		NA	NA	NA	NA	NA		NA	NA	NA	NA	NA	NA	NA	NA		NA	NA	NA	NA	NA	NA		NA	NA	NA	NA
	04/22/2003		1.8			6.9J			3.1										4.6														**6.5**	
	10/23/2003	3.2	4						7.8				1.8						3.3														**8.6**	
	04/28/2004		2.4						6				2.2 J						6.4														**8.7**	
	10/13/2004		2.5						6.5				2.2 J						10														**20**	
	4/27/2005		1.7						5.4				2.1 J																				**0.64**	
	10/25/2005		1.4						6.9				2.5 J						3.9														**13**	
	4/25/2006		1.4			4.6 J			4.9				2.2 J						1.0 J														**1.1**	
	11/2/2006		1.2 J						4.8				1.7 J																					
	11/2/2006 dup		1.3 J						5																									
	5/2/2007		0.8J						4				2.0J																					
	10/18/2007		0.75 J						6				2.0 J																					
	5/6/2008		0.62J						3.3				1.8																					
	10/1/2008		0.52J						3.7				1.9																					
	4/7/2009		0.68J						3.5				2.3																					
	11/4/2009								3.9				1.9																					
	5/20/2010								3.5				2.4																					
	4/11/2011								3.1				1.9																					
	10/19/2011								3.6				2																					
	4/3/2012		0.41J						3.5				1.9																					
	10/17/2012								2.8				1.8																					
	4/24/2013								3				1.8																					
	4/16/2014								2.4				1.8																					
	4/15/2015								2.8				1.7																					
	4/12/2016								2.6				1.5																					
	4/5/2017								3				1.3																					
P-104	10/27/1994	NR																																
	04/19/1994	NR																																
	05/09/1996	NR																																
	10/30/1996	NR										0.20 J																						
	05/12/1997	NR																																
	10/27/1997	NR																																
	04/13/1998	NR																																
	10/11/2001	NR																						0.52L										
	02/5/2002	NR	0.18			NA						0.85															NA							
	5/21/2002	NR				NA																					NA							
	08/20/2002	NR																									NA							
	10/13/2004											0.45 J																						
	10/13/04 Dup																																	
	8/3/2005																																	
	8/3/05 Dup																																	
	7/28/2006																																	
	8/14/2007																																	
	5/5/2008																																	
	4/7/2009																																	
	5/26/2010																																	
	4/12/2011																																	
	4/3/2012																																	
MW-106	10/1/1993	NR																																
	04/01/1994	NR																										11						
	02/04/02	NR				NA																					NA	0.25						
	05/21/02 *	NA	NA		NA	NA	NA		NA	NA	NA	NA	NA		NA	NA	NA	NA	NA	NA	NA	NA		NA	NA	NA	NA	NA	NA		NA	NA	NA	NA
	08/19/02 *	NA	NA		NA	NA	NA		NA	NA	NA	NA	NA		NA	NA	NA	NA	NA	NA	NA	NA		NA	NA	NA	NA	NA	NA		NA	NA	NA	NA
	120/5/02 *	NA	NA		NA	NA	NA		NA	NA	NA	NA	NA		NA	NA	NA	NA	NA	NA	NA	NA		NA	NA	NA	NA	NA	NA		NA	NA	NA	NA
	04/21/03 *	NA	NA		NA	NA	NA		NA	NA	NA	NA	NA		NA	NA	NA	NA	NA	NA	NA	NA		NA	NA	NA	NA	NA	NA		NA	NA	NA	NA
	07/23/2004																																	
	4/27/2005																																	
	4/27/05 Dup																																	
	7/28/06*	NA	NA		NA	NA	NA		NA	NA	NA	NA	NA		NA	NA	NA	NA	NA	NA	NA	NA		NA	NA	NA	NA	NA	NA		NA	NA	NA	NA
	10/31/2006*	NA	NA		NA	NA	NA		NA	NA	NA	NA	NA		NA	NA	NA	NA	NA	NA	NA	NA		NA	NA	NA	NA	NA	NA		NA	NA	NA	NA
	2/15/2007																																	
	8/14/2007																																	
	4/30/2008																																	
	4/8/2009																																	
	5/20/2010																																	
	4/11/2011																																	
	4/3/2012																																	

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

		Parameters																																		
Sampling Point	Collection Date	Acetone[1]	Benzene	Bromodichloromethane	Bromomethane	2-Butanone (MEK)	sec-Butylbenzene	Carbon Disulfide	Chlorobenzene	Chloroethane	Chloroform	Chloromethane	1,4-dichlorobenzene	Dibromochloromethane	Dichlorodifluoromethane	1,1-Dichloroethane	1,2-dichloroethane	1,1-Dichloroethene	cis-1,2-dichloroethene	trans-1,2-Dichloroethene	1,2-dichloropropane	Ethylbenzene	Isopropyl Ether	Methylene chloride	MTBE	Tetrachloroethene	Tetrahydrofuran	Toluene	1,2,4-Trichlorobenzene	1,1,1-Trichloroethane	Trichloroethene	Trichlorofluoromethane	Vinyl Chloride	Total Xylenes
WDNR	PAL	200	0.5	0.06	1	90	NE	200	NE	80	0.6	0.3	15	6	200	85	0.5	0.7	7	20	0.5	140	NE	0.5	12	0.5	10	200	14		0.5	NE	0.02	1000
NR140	ES	1000	5	0.6	10	460	NE	1000	NE	400	6	3	75	60	1000	850	5	7	70	100	5	700	NE	5	60	5	50	1000	70		5	NE	0.2	10000
P-106	10/01/1993	NR																													0.6J			
	04/01/1994	NR																													0.8J			
	05/01/1996	NR																	0.2 J												0.8J			
	10/01/1996	NR										0.62J																			0.22 J			
	05/01/1997	NR																													0.65			
	10/01/1997	NR																													0.67			
	04/01/1998	NR																													0.61			
	10/01/1998	NR																													0.71			
	04/01/1999	NR																													0.58			
	10/1/1999	NR																													0.61			
	05/01/2000	NR																													0.56			
	10/01/2000	NR																													0.6			
	05/01/2001	NR																													0.56			
	10/11/2001	NR																													0.39			
	2/5/2002	NR				NA																					NA				0.6			
	02/05/02 Dup	NR				NA																					NA				0.6			
	05/22/2002	NR				NA																					NA				0.49			
	05/22/02Dup	NR				NA																					NA				0.47 J			
	08/20/2002	NR																									NA				0.43 J			
	12/4/2002	NR																													0.53			
	04/22/2003																														0.55 J			
	10/21/2003																														0.56			
	10/21/03 Dup																																			
	4/27/2004																																			
	10/13/2004											0.9																			0.84 J			
	4/27/2005																																			
	10/25/2005																																			
	4/28/2006																																			
	11/1/2006																																			
	5/1/2007																																			
	10/22/2007																																			
	4/30/2008																																			
	10/1/2008																																			
	4/8/2009																																			
	4/8/2009 Dup																																			
	11/4/2009																																			
	5/26/2010																																			
	4/12/2011																																			
	4/3/2012																																			
	4/24/2013																																			
	4/16/2014																																			
	4/15/2015																																			
	4/12/2016																																			
	4/5/2017																																			
MW-107	10/27/1993	NR																													2			
	4/12/1994	NR																													2			
	5/9/1996	NR																													2			
	10/21/1996	NR										0.80 J																			2.2			
	5/13/1997	NR													0.9																2.6			
	10/27/1997	NR													0.7																2			
	4/14/1998	NR																													2.1			
	10/13/98*	NR																													NA			
	4/6/1999	NR																													1.8			
	10/27/1999	NR																													1.1			
	5/2/2000	NR																													1.6			
	10/31/2000	NR																													1.2			
	5/31/2001	NR													0.47									0.57L							1.8			
	10/11/2001	NR																													0.87			
	2/4/2002	NR				NA									0.35												NA				1.4			
	05/21/2002*	NA	NA		NA	NA	NA		NA	NA	NA	NA	NA		NA	NA	NA	NA	NA	NA	NA	NA		NA	NA	NA	NA	NA	NA		NA	NA	NA	NA
	8/19/2002 *	NA	NA		NA	NA	NA		NA	NA	NA	NA	NA		NA	NA	NA	NA	NA	NA	NA	NA		NA	NA	NA	NA	NA	NA		NA	NA	NA	NA
	12/5/2002 *	NA	NA		NA	NA	NA		NA	NA	NA	NA	NA		NA	NA	NA	NA	NA	NA	NA	NA		NA	NA	NA	NA	NA	NA		NA	NA	NA	NA
	4/21/2003																							0.52 J							1.2			
	10/21/2003																														2.2			
	4/27/2004																														1.9			
	10/13/2004											0.63 J																			0.65 J			
	4/27/2005																														1.1			
	10/27/2005																														0.79 J			
	4/25/2006																							0.49 J							0.55 J			
	10/31/2006																																			
	5/1/2007																														0.86			
	10/17/2007																														0.53 J			
	5/5/2008																																			
	10/1/2008																																			
	4/7/2009																																			
	10/28/2009											1.6																			0.51J			
	5/24/2010																																			
	10/4/2010																							0.70J										
	1/26/2011																																			
	4/11/2011																																			
	10/18/2011																																			
	4/3/2012																																			
	10/17/2012																																			
	4/24/2013																																			
	4/16/2014																																			
	4/15/2015																																			
	4/12/2016																																			
	4/6/2017																																			

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

		Parameters																																
Sampling Point	Collection Date	Acetone[1]	Benzene	Bromodichloromethane	Bromomethane	2-Butanone (MEK)	sec-Butylbenzene	Carbon Disulfide	Chlorobenzene	Chloroethane	Chloroform	Chloromethane	1,4-dichlorobenzene	Dibromochloromethane	Dichlorodifluoromethane	1,1-Dichloroethane	1,2-dichloroethane	1,1-Dichloroethene	cis-1,2-dichloroethene	trans-1,2-Dichloroethene	1,2-dichloropropane	Ethylbenzene	Isopropyl Ether	Methylene chloride	MTBE	Tetrachloroethene	Tetrahydrofuran	Toluene	1,2,4-Trichlorobenzene	1,1,1-Trichloroethane	Trichloroethene	Trichlorofluoromethane	Vinyl Chloride	Total Xylenes
WDNR	PAL	200	0.5	0.06	1	90	NE	200	NE	80	0.6	0.3	15	6	200	85	0.5	0.7	7	20	0.5	140	NE	0.5	12	0.5	10	200	14		0.5	NE	0.02	1000
NR140	ES	1000	5	0.6	10	460	NE	1000	NE	400	6	3	75	60	1000	850	5	7	70	100	5	700	NE	5	60	5	50	1000	70		5	NE	0.2	10000
P-107	10/27/1993	NR																	4														**6**	
	4/12/1994	NR																	2								0.7J						**3**	
	4/12/94 Dup	NR																	2								0.7J						**3**	
	5/9/1996	NR	0.1 J							0.2 J									2								0.1 J			0.1 J			**2**	
	10/23/1996	NR								0.19		0.79 J							1.9														**2.3**	
	10/23/96 Dup	NR								0.21		0.49 J							2.1														**2.7**	
	5/14/1997	NR																	1.3														**2**	
	5/14/97 Dup	NR																	1.1														**1.7**	
	10/27/1997	NR																	2.2														**2.6**	
	10/27/97 DUP	NR																	1.8														**2.3**	
	4/14/1998	NR																	2.3														**2.2**	
	4/14/98 Dup	NR																	2.3														**2.4**	
	10/14/1998	NR																	2.1									0.2					**1.5**	
	10/14/98 DUP	NR																	2.4														**1.7**	
	4/6/1999	NR																	1.5														**0.58**	
	10/27/1999	NR																	1.8															
	10/27/99 Dup	NR																	1.8															
	5/2/2000	NR																	1.5														**1.2**	
	5/02/00 Dup	NR																	1.6														**1.2**	
	10/31/2000	NR																	1.4															
	10/31/00 Dup	NR																	1.4															
	5/9/2001	NR																	0.96					0.52L			0.72			1.8			**0.85**	
	5/9/2001 Dup	NR																	0.97					0.49L			0.79						**0.86**	
	10/11/2001	NR																	1.6														**1.7**	
	10/11/01 Dup	NR																	1.5														**1.7**	
	2/4/2002	NR				NA													1.6								NA						**1.2**	
	5/21/2002	NR				NA													1.8								NA						**1.5**	
	5/21/02 Dup	NR				NA													1.7								NA						**1.4**	
	8/20/2002	NR																	0.84								NA						**0.54J**	
	12/4/2002	NR																	1.3														**1**	
	4/21/2003																		1.5 J														**1**	
	04/21/2003 Dup																		1.3 J															
	10/21/2003																		1.3														**0.93**	
	4/27/2004																		0.96 J														**0.61**	
	10/13/2004																		0.89 J														**0.64**	
	10/13/04 Dup																		1.1 J															
	4/27/2005																																	
	10/27/2005																																	
	4/25/2006																																**0.79**	
	10/31/2006																																**0.33J**	
	5/1/2007																																**0.76**	
	10/19/2007																		0.92 J														**1**	
	5/5/2008																																**0.48J**	
	10/1/2008																																	
	4/7/2009											0.24J																					**0.88J**	
	10/28/2009											1.6																					**0.64J**	
	5/24/2010																																**1.1**	
	10/5/2010																																**0.94J**	
	1/24/2011																																	
	4/12/2011																																**0.84J**	
	10/18/2011																																**0.54J**	
	4/4/2012	10.7 J																															**1.1**	
	10/17/2012																																	
	4/26/2013																																	
	4/16/2014																		0.51J														**0.89J**	
	4/15/2015																		0.48J														**0.57J**	
	4/13/2016																		0.52 J														**0.72 J**	
	4/6/2017																																**0.79 J**	

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

		Parameters																																
Sampling Point	Collection Date	Acetone[1]	Benzene	Bromodichloromethane	Bromomethane	2-Butanone (MEK)	sec-Butylbenzene	Carbon Disulfide	Chlorobenzene	Chloroethane	Chloroform	Chloromethane	1,4-dichlorobenzene	Dibromochloromethane	Dichlorodifluoromethane	1,1-Dichloroethane	1,2-dichloroethane	1,1-Dichloroethene	cis-1,2-dichloroethene	trans-1,2-Dichloroethene	1,2-dichloropropane	Ethylbenzene	Isopropyl Ether	Methylene chloride	MTBE	Tetrachloroethene	Tetrahydrofuran	Toluene	1,2,4-Trichlorobenzene	1,1,1-Trichloroethane	Trichloroethene	Trichlorofluoromethane	Vinyl Chloride	Total Xylenes
WDNR	PAL	200	0.5	0.06	1	90	NE	200	NE	80	0.6	0.3	15	6	200	85	0.5	0.7	7	20	0.5	140	NE	0.5	12	0.5	10	200	14		0.5	NE	0.02	1000
NR140	ES	1000	5	0.6	10	460	NE	1000	NE	400	6	3	75	60	1000	850	5	7	70	100	5	700	NE	5	60	5	50	1000	70		5	NE	0.2	10000
P-107D	10/27/1993	NR																	2B														**6**	
	4/13/1994	NR																																
	5/9/1996	NR	0.1J									0.3J							0.2J									0.3J					**0.6J**	
	10/23/1996	NR										0.44 J																					**3.9**	
	5/14/1997	NR																	0.49														**2.4**	
	10/27/1997	NR																	1.7														**5.1**	
	4/14/1998	NR																	1														**4.1**	
	10/14/1998	NR																															**2.2**	
	4/6/1999	NR																	0.34														**0.87**	
	10/27/1999	NR																															**1.7**	
	5/2/2000	NR																															**1.3**	
	10/31/2000	NR																	0.64															
	01/05/2001	NR			0.33														1.5					0.44L			0.72B						**5.6**	
	10/11/2001	NR																	2.2														**10**	
	2/4/2002	NR				NA													1.2								NA				0.17		**3.9**	
	02/04/02 Dup	NR																	1.2														**3.9**	
	5/21/2002	NR				NA													1.1								NA						**3.3**	
	8/20/2002	NR																	1.1								NA						**3.1**	
	12/4/2002	NR																	0.75														**0.81**	
	4/21/2003																		1.3 J														**3.3**	
	10/21/2003																		0.97														**3.5**	
	4/27/2004																		1.5 J														**4.2**	
	10/13/2004									1.2 J		0.93							2.0 J														**5.9**	
	4/27/2005																		1.3 J														**3.1**	
	4/27/05 Dup									1.9 J									2.5														**6.2**	
	10/27/2005									1.2 J									2.0 J														**4.3**	
	4/25/2006									2.3 J									3.1					0.68 L									**7.7**	
	10/31/2006									2.0 J									2.1 J														**4.3**	
	5/1/2007									1.6J									2.5J														**6.2**	
	5/1/2007 Dup									1.6J									2.9														**6.7**	
	10/19/2007																																**3**	
	5/5/2008																																**1.3**	
	10/1/2008																																**1.6**	
	4/7/2009											0.96J																					**2.5**	
	10/28/2009																																**2**	
	2/25/2010											0.25J																					**1.8**	
	5/24/2010																																**4**	
	10/5/2010																																**1.6**	
	1/24/2011																																**2.6**	
	4/12/2011																																**2.6**	
	7/11/2011																		1.2														**5.3**	
	10/18/2011																																**1.8**	
	1/23/2012																																	
	4/4/2012																																**4.5**	
	7/25/2012																																**2.1**	
	10/17/2012																																**2**	
	1/16/2013																																**2.3**	
	4/26/2013																																**2.1**	
	7/2/2013																																	
	10/24/2013																																**2.6**	
	1/9/2014																		0.57 J														**2.9**	
	4/16/2014									0.60J									1.1														**5.6**	
	7/17/2014									0.75 J									1.2														**4.8**	
	10/24/2014									0.78 J		0.54 J							0.77 J					0.32 J									**3.1**	
	1/15/2015									0.87 J									1.4														**4.7**	
	4/28/2015									1.2									0.79 J														**2.1**	
	7/1/2015																		0.59 J														**2.1**	
	10/27/2015																		1.2														**3.1**	
	1/14/2016									1.3									0.77 J														**2.6**	
	4/13/2016																		1.5														**4.8**	
	7/28/2016																		1.0 J														**1.9**	
	10/27/2016																		0.45 J														**2**	
	1/20/2017									2.4									1.6														**4.3**	
	4/6/2017									0.77 J									0.99 J														**2.2**	
	7/14/2017									1.4									1.7														**3.8**	

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

		Parameters																																
Sampling Point	Collection Date	Acetone[1]	Benzene	Bromodichloromethane	Bromomethane	2-Butanone (MEK)	sec-Butylbenzene	Carbon Disulfide	Chlorobenzene	Chloroethane	Chloroform	Chloromethane	1,4-dichlorobenzene	Dibromochloromethane	Dichlorodifluoromethane	1,1-Dichloroethane	1,2-dichloroethane	1,1-Dichloroethene	cis-1,2-dichloroethene	trans-1,2-Dichloroethene	1,2-dichloropropane	Ethylbenzene	Isopropyl Ether	Methylene chloride	MTBE	Tetrachloroethene	Tetrahydrofuran	Toluene	1,2,4-Trichlorobenzene	1,1,1-Trichloroethane	Trichloroethene	Trichlorofluoromethane	Vinyl Chloride	Total Xylenes
WDNR	PAL	200	0.5	0.06	1	90	NE	200	NE	80	0.6	0.3	15	6	200	85	0.5	0.7	7	20	0.5	140	NE	0.5	12	0.5	10	200	14		0.5	NE	0.02	1000
NR140	ES	1000	5	0.6	10	460	NE	1000	NE	400	6	3	75	60	1000	850	5	7	70	100	5	700	NE	5	60	5	50	1000	70		5	NE	0.2	10000
MW-108	10/18/1993	NR																										11						
	4/13/1994	NR																										2						
	5/8/1996	NR																	0.2 J									0.2 J						
	10/23/1996	NR										0.85 J																						
	5/12/1997	NR																																
	10/27/1997	NR																																
	4/14/1998	NR																																
	10/11/2001	NR																						0.34L										
	05/21/2002*	NA	NA		NA	NA	NA		NA	NA	NA	NA	NA		NA	NA	NA	NA	NA	NA	NA	NA		NA	NA	NA	NA	NA	NA		NA	NA	NA	NA
	8/19/2002 *	NA	NA		NA	NA	NA		NA	NA	NA	NA	NA		NA	NA	NA	NA	NA	NA	NA	NA		NA	NA	NA	NA	NA	NA		NA	NA	NA	NA
	12/5/2002	NR																																
	10/14/2004																		1.2 J												1.3 J		**0.67**	
	4/27/2005																		1.0												0.7		**0.3**	
	8/3/2005																														0.70 J			
	10/25/2005																																	
	02/01/2006																																	
	4/28/2006																																	
	7/27/2006											0.36 J																						
	11/2/2006																																	
	2/1/2007																																	
	5/2/2007																																	
	8/14/2007																																	
	10/16/2007																																	
	5/6/2008	2.7J																																
	10/2/2008																																	
	4/8/2009																																	
	11/4/2009																																	
	11/4/2009 Dup																																	
	5/20/2010																																	
	5/20/2010 Dup																																	
	4/11/2011																																	
	4/11/2011 Dup																																	
	4/2/2012																																	
P-108	10/25/1993	NR																																
	10/25/93 Dup	NR																																
	4/13/1994	NR																																
	4/13/94 Dup	NR																																
	10/11/2001	NR																						0.32L										
	2/5/2002	NR				NA																					NA							
	5/21/2002	NR				NA																					NA							
	10/14/2004											0.45 J																						
	1/28/2005																																	
	10/25/2005																																	
	7/27/2006											0.75 J																						
	8/14/2007														2.7 J																			
	5/6/2008																																	
	4/8/2009																																	
	5/20/2010																																	
	4/11/2011																																	
	4/2/2012																																	
MW-111	4/19/1994	NR																																
	10/11/2001	NR																						0.30L										
	05/21/2002*	NR	NA		NA	NA	NA		NA	NA	NA	NA	NA		NA	NA	NA	NA	NA	NA	NA	NA		NA	NA	NA	NA	NA	NA		NA	NA	NA	NA
	8/19/2002	NR																									NA							
	12/5/2002	NR																																
	10/13/2004																																	
	10/26/2005																																	
	4/24/2006																																	
	8/8/2007																																	
	5/5/2008																																	
	4/7/2009																							0.44J										
	10/28/2009																																	
	5/24/2010																																	
	10/4/2010																							0.80J										
	1/26/2011																																	
	4/11/2011																																	
	4/3/2012																																	

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

		Parameters																																
Sampling Point	Collection Date	Acetone[1]	Benzene	Bromodichloromethane	Bromomethane	2-Butanone (MEK)	sec-Butylbenzene	Carbon Disulfide	Chlorobenzene	Chloroethane	Chloroform	Chloromethane	1,4-dichlorobenzene	Dibromochloromethane	Dichlorodifluoromethane	1,1-Dichloroethane	1,2-dichloroethane	1,1-Dichloroethene	cis-1,2-dichloroethene	trans-1,2-Dichloroethene	1,2-dichloropropane	Ethylbenzene	Isopropyl Ether	Methylene chloride	MTBE	Tetrachloroethene	Tetrahydrofuran	Toluene	1,2,4-Trichlorobenzene	1,1,1-Trichloroethane	Trichloroethene	Trichlorofluoromethane	Vinyl Chloride	Total Xylenes
WDNR	PAL	200	0.5	0.06	1	90	NE	200	NE	80	0.6	0.3	15	6	200	85	0.5	0.7	7	20	0.5	140	NE	0.5	12	0.5	10	200	14		0.5	NE	0.02	1000
NR140	ES	1000	5	0.6	10	460	NE	1000	NE	400	6	3	75	60	1000	850	5	7	70	100	5	700	NE	5	60	5	50	1000	70		5	NE	0.2	10000
P-111	4/19/1994	NR																										2						
	10/11/2001	NR																																
	2/5/2002	NR				NA																					NA							
	5/22/2002	NR				NA																					NA							
	8/19/2002	NR																									NA							
	08/19/02 Dup	NR																									NA							
	12/5/2002	NR																																
	12/05/02 Dup	NR																																
	4/22/2003																																	
	10/22/2003																																	
	4/28/2004																																	
	8/3/2005																																	
	7/27/2006																																	
	8/8/2007																																	
	5/5/2008																																	
	4/7/2009																																	
	10/28/2009																																	
	5/24/2010																																	
	10/5/2010																																	
	1/24/2011																																	
	4/13/2011																																	
	4/4/2012	10.5 J																																
P-111D	4/4/2002	NR																	0.6									0.3					**13**	
	5/22/2002	NR				NA													0.59 J								NA						**15**	
	8/19/2002	NR																	0.37 J								NA						**12**	
	12/5/2002	NR																	0.42 J														**11**	
	4/23/2003																																	**12**
	10/23/2003																																	**9.1**
	5/11/2004									1.4																								**15**
	07/23/2004																																	**14**
	10/13/2004									1.9 J																		1.6 J						**11**
	1/27/2005																																	**8.8**
	4/26/2005									3.7									0.87 J														**13**	
	4/26/05 Dup									3.5																								**13**
	8/3/2005											2.9 J							0.96 J														**10**	
	10/26/2005									3.1 J									1.1 J														**10**	
	10/26/2005 dup									2.7 J									0.93 J														**10**	
	02/01/2006									4.2									0.89 J														**11**	
	4/24/2006									2.8 J									1.3 J														**11**	
	7/27/2006											0.30 J							1.2 J														**10**	
	10/31/2006									1.4 J									1.3 J														**8.5**	
	1/31/2007									3.0J									1.4J														**8.2**	
	5/1/2007									3.1J									1.3J														**8.2**	
	8/8/2007									2.9 J									1.5 J														**8.5**	
	10/17/2007									2.7 J									1.5 J														**8**	
	5/5/2008																		1.5														**4.7**	
	10/2/2008									1.8									1.5														**5.7**	
	4/7/2009									1.4									1.7														**5.5**	
	10/28/2009									1.8									1.5														**5**	
	2/25/2010									1.8									1.5														**4.4**	
	2/25/2010 Dup									1.5									1.5														**3.9**	
	5/24/2010									1.9									1.5														**5.9**	
	5/24/2010 Dup									1.8									1.4														**4.4**	
	10/5/2010									1.5									1.3						0.55J								**4.7**	
	10/5/10 Dup									1.6									1.3						1.2								**4.7**	
	1/24/2011									1.9									1.1														**5.2**	
	1/24/11 Dup									1.7									1.4														**4.5**	
	4/13/2011									2.3									1.6														**5.8**	
	4/13/2011 Dup									2.8									1.3														**7.1**	
	7/11/2011																		1.4						0.88J								**5.3**	
	10/18/2011									1.5									1.4														**4.5**	
	10/18/2011 Dup									1.4									1.5														**4.8**	
	1/23/2012									2									1.7														**4.3**	
	4/4/2012	8.0 J								2.1									2														**6**	
	4/4/2012 Dup	8.3 J								2									2														**5.7**	
	7/25/2012																		1.6														**6.5**	
	10/17/2012									1.3									1.7														**7.2**	
	10/17/2012 Dup									1.8									1.9														**6.9**	
	1/16/2013									2.2									1.7														**8.1**	
	4/26/2013									2.3									1.4														**6.5**	
	4/26/2013 Dup									2.2									1.3														**6.7**	
	7/2/2013									1.9									1.9														**6.8**	
	10/24/2013									1.5									1.6														**6.7**	
	1/9/2014									2.1									1.5														**6.9**	
	4/16/2014									2									1.7														**7.9**	
	4/16/2014 Dup									1.8									1.7														**8**	
	7/17/2014									1.9									1.9														**7.7**	
	10/24/2014									3									2.1														**12.2**	
	1/15/2015	3.3 J								1.9									2.1														**6.9**	
	1/15/2015 Dup	4.3 J								1.7									1.9														**6.7**	
	4/28/2015									1.7									2.2														**7.8**	
	4/28/2015 Dup									2.5									2.1														**7**	
	7/1/2015	11.2 J								1.7									1.7														**8**	
	10/27/2015																		2.4														**6.5**	
	10/27/2015 Dup																		2.2														**6.5**	
	1/14/2016									1.6									2.1														**5.8**	
	4/13/2016									2.2									2.1														**5.1**	
	4/13/2016 Dup									2.2									2														**5.2**	
	7/28/2016																		2.3														**7.4**	
	10/27/2016									1.3									2.1														**6.9**	
	1/20/2017									1.6									2.4														**6.4**	
	4/6/2017									1.7									2.7														**5.9**	
	4/6/2017 Dup									1.3									2.5														**4.9**	
	7/14/2017									1.6									3														**6.2**	

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

		Parameters																																	
Sampling Point	Collection Date	Acetone[1]	Benzene	Bromodichloromethane	Bromomethane	2-Butanone (MEK)	sec-Butylbenzene	Carbon Disulfide	Chlorobenzene	Chloroethane	Chloroform	Chloromethane	1,4-dichlorobenzene	Dibromochloromethane	Dichlorodifluoromethane	1,1-Dichloroethane	1,2-dichloroethane	1,1-Dichloroethene	cis-1,2-dichloroethene	trans-1,2-Dichloroethene	1,2-dichloropropane	Ethylbenzene	Isopropyl Ether	Methylene chloride	MTBE	Tetrachloroethene	Tetrahydrofuran	Toluene	1,2,4-Trichlorobenzene	1,1,1-Trichloroethane	Trichloroethene	Trichlorofluoromethane	Vinyl Chloride	Total Xylenes
WDNR	PAL	200	0.5	0.06	1	90	NE	200	NE	80	0.6	0.3	15	6	200	85	0.5	0.7	7	20	0.5	140	NE	0.5	12	0.5	10	200	14		0.5	NE	0.02	1000
NR140	ES	1000	5	0.6	10	460	NE	1000	NE	400	6	3	75	60	1000	850	5	7	70	100	5	700	NE	5	60	5	50	1000	70		5	NE	0.2	10000
MW-112	11/27/1996	NR	0.6J							2 J									59	1 J											3J		**15**	
	11/27/96 Dup	NR	0.7J							2 J									58	1 J											4J		**16**	
	5/12/1997	NR	0.59						0.27										5.4														**2.2**	
	10/26/1997	NR	0.5						0.29										1.3															
	4/13/1998	NR	0.69							1.4									57	1.3											1.9		**12**	
	10/13/1998	NR	0.76																**80**												1.2		**25**	
	4/6/1999	NR	0.72							1.4									40	0.56											1.7		**7.9**	
	10/27/1999	NR																	7.6												1			
	5/2/2000	NR	0.46																3.4												0.39			
	10/30/2000	NR							0.37										5.6												0.37			
	5/9/2001	NR	0.42						0.42										3.5														**0.98**	
	10/11/2001	NR	0.36						0.39	0.53									27												0.83		**3.7**	
	2/4/2002	NR	0.23			NA			0.48										0.49								NA							
	05/21/2002*	NA	NA		NA	NA	NA		NA	NA	NA	NA	NA		NA	NA	NA	NA	NA	NA	NA	NA		NA	NA	NA	NA	NA	NA		NA	NA	NA	NA
	8/19/2002 *	NA	NA		NA	NA	NA		NA	NA	NA	NA	NA		NA	NA	NA	NA	NA	NA	NA	NA		NA	NA	NA	NA	NA	NA		NA	NA	NA	NA
	12/4/2002																		**150**												2.7 J		**56**	
	4/22/2003		1.2 J							7.4 &									**220**	4.5 J											**5.9**		**45**	
	10/22/2003	2.5	0.88							5.9									60	1.4											1.6		**51**	
	4/28/2004		0.53 J						0.45 J	4									18												1.1 J		**9.9**	
	4/28/04 dup	6.5	0.61 J						0.48 J	4.7									22												1.1 J		**9.3**	
	07/23/2004	110	1.1							23									**140**	2.6	0.58					1					**7.4**		**31**	
	10/13/2004		1.0 J						0.42	14									**110**	2.4 J											2.9		**25**	
	10/13/04 Dup		0.87 J							15		0.56 J							**94**	2.1 J						0.60 J					2.9		**29**	
	1/26/2005		0.76 J							20									**85**	2.3 J													**27**	
	4/26/2005		0.6 J							13									64	1.2 J											1.8		**17**	
	8/3/2005								0.48 J										4.6														**1.5**	
	10/25/2005																		2.5 J														**1.4**	
	02/01/2006		0.41 J						0.45 J	3.2 J									11												0.76 J		**4.9**	
	4/25/2006								0.48 J	0.97 J									5.4														**2.8**	
	7/27/2006								0.43 J			0.24 J							2.9														**1.7**	
	7/27/2006 dup											0.52 J																					**1.5**	
	11/2/2006																		2.3 J														**1.7**	
	2/1/2007								0.46J	1.4J									3.8														**2.5**	
	5/2/2007								0.53J	1.3J									6.1														**2.6**	
	8/14/2007								0.51 J										4.4														**1.8**	
	8/14/2007 dup								0.51 J										4.9														**1.6**	
	10/18/2007								0.49 J										4														**1.2**	
	5/5/2008																		33.3												1.8		**1.3**	
	10/2/2008																		13.3												0.60J		**0.79J**	
	4/7/2009																		5.1												0.57J		**0.56J**	
	11/4/2009																																		
	5/20/2010																		2.7														**0.33J**	
	4/11/2011																		1.8															
	7/11/2011																		5.3					0.60J							1.5		**0.27J**	
	10/19/2011																		1.4															
	1/24/2012																														0.76J			
	4/3/2012																																	
	7/25/2012																		1.5															
	10/17/2012																																	
	1/16/2013																																	
	4/24/2013																																	
	10/24/2013																																	
	4/16/2014																																	
	10/24/2014																																	
	4/28/2015																																	
	10/28/2015																																	
	4/12/2016																																	
	10/27/2016																																	
	4/5/2017																																	

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

		Parameters																																	
Sampling Point	Collection Date	Acetone[1]	Benzene	Bromodichloromethane	Bromomethane	2-Butanone (MEK)	sec-Butylbenzene	Carbon Disulfide	Chlorobenzene	Chloroethane	Chloroform	Chloromethane	1,4-dichlorobenzene	Dibromochloromethane	Dichlorodifluoromethane	1,1-Dichloroethane	1,2-dichloroethane	1,1-Dichloroethene	cis-1,2-dichloroethene	trans-1,2-Dichloroethene	1,2-dichloropropane	Ethylbenzene	Isopropyl Ether	Methylene chloride	MTBE	Tetrachloroethene	Tetrahydrofuran	Toluene	1,2,4-Trichlorobenzene	1,1,1-Trichloroethane	Trichloroethene	Trichlorofluoromethane	Vinyl Chloride	Total Xylenes
WDNR	PAL	200	0.5	0.06	1	90	NE	200	NE	80	0.6	0.3	15	6	200	85	0.5	0.7	7	20	0.5	140	NE	0.5	12	0.5	10	200	14		0.5	NE	0.02	1000
NR140	ES	1000	5	0.6	10	460	NE	1000	NE	400	6	3	75	60	1000	850	5	7	70	100	5	700	NE	5	60	5	50	1000	70		5	NE	0.2	10000
P-113A	9/12/2002	NR									0.37J																	1.0J						
	12/3/2002	NR																																	
	4/23/2003																											2.2						
	10/22/2003																																		
	5/11/2004																																		
	8/2/2005																																		
	7/27/2006											0.84																							
	8/8/2007																																		
	5/6/2008																																		
	4/6/2009																																		
	10/29/2009											0.42J																							
	5/25/2010																																		
	10/6/2010																																		
	1/25/2011																																		
	4/13/2011																																		
	7/12/2011																							1.3											
	10/19/2011																																		
	1/23/2012																																		
	4/4/2012	7.5 J																																	
	7/25/2012																																		
	10/16/2012																																		
	1/15/2013																																		
	4/26/2013																																		
	7/2/2013																																		
	10/24/2013																																		
	1/9/2014																																		
	4/17/2014																																		
	7/17/2014																																		
	10/24/2014																							0.24 J											
	1/15/2015																																		
	4/28/2015																																		
	7/1/2015																																		
	10/27/2015																																		
	1/14/2016																																		
	4/13/2016																																		
	7/28/2016																																		
	10/27/2016																																		
	1/20/2017																																		
	4/6/2017																																		
	7/14/2017																																		
P-113B	9/11/2002	NR		0.59							1			0.35								0.41J						6.6					2.6
	12/3/2002	NR																																	
	4/23/2003																																		
	7/30/2003																																		
	10/22/2003																																		
	2/4/2004																																		
	5/11/2004																																		
	07/22/2004																																		
	10/14/2004											0.49 J																							
	1/27/2005																																		
	4/27/2005																																		
	8/2/2005																																		
	10/26/2005											0.42 J																							
	02/01/2006																																		
	4/24/2006																																		
	7/27/2006											0.49 J																							
	10/31/2006																																		
	1/31/2007																																		
	5/1/2007																																		
	8/8/2007																																		
	10/19/2007																																		
	5/6/2008																																		
	10/1/2008											0.29J																							
	4/6/2009																																		
	4/6/2009 Dup																																		
	10/29/2009																																		
	5/25/2010																																		
	10/6/2010																							0.51J											
	1/25/2011																							1.6											
	4/13/2011																																		
	7/12/2011																							1.3											
	10/19/2011											0.43J																							
	1/23/2012																																		
	4/4/2012																																		
	7/25/2012																																		
	10/16/2012																																		
	1/15/2013																																		
	4/26/2013																																		
	7/2/2013																																		
	10/24/2013																																		
	1/9/2014																																		
	4/17/2014																																		
	7/17/2014	4.0 J																																	
	10/24/2014	3.2 J																																	
	1/15/2015																																		
	4/28/2015																																		
	7/1/2015																																		
	10/27/2015																																		
	1/14/2016																																		
	4/13/2016																																		
	7/28/2016																																		
	10/27/2016																																		
	1/20/2017																																		
	4/6/2017																																		
	7/14/2017																																		

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

		Parameters																																	
Sampling Point	Collection Date	Acetone[1]	Benzene	Bromodichloromethane	Bromomethane	2-Butanone (MEK)	sec-Butylbenzene	Carbon Disulfide	Chlorobenzene	Chloroethane	Chloroform	Chloromethane	1,4-dichlorobenzene	Dibromochloromethane	Dichlorodifluoromethane	1,1-Dichloroethane	1,2-dichloroethane	1,1-Dichloroethene	cis-1,2-dichloroethene	trans-1,2-Dichloroethene	1,2-dichloropropane	Ethylbenzene	Isopropyl Ether	Methylene chloride	MTBE	Tetrachloroethene	Tetrahydrofuran	Toluene	1,2,4-Trichlorobenzene	1,1,1-Trichloroethane	Trichloroethene	Trichlorofluoromethane	Vinyl Chloride	Total Xylenes
WDNR	PAL	200	0.5	0.06	1	90	NE	200	NE	80	0.6	0.3	15	6	200	85	0.5	0.7	7	20	0.5	140	NE	0.5	12	0.5	10	200	14		0.5	NE	0.02	1000
NR140	ES	1000	5	0.6	10	460	NE	1000	NE	400	6	3	75	60	1000	850	5	7	70	100	5	700	NE	5	60	5	50	1000	70		5	NE	0.2	10000
P-114 (former Ehster well)	11/19/2001	NR																	0.93														**7**	
	2/5/2002	NR																	0.85														**5.5**	
	5/22/2002	NR																	1.2														**6.2**	
	8/21/2002	NR																	0.93														**5.4**	
	12/3/2002	NR																	1.3									0.40*J*					**6.3**	
	4/23/2003																																**3.3**	
	10/23/2003																		1.2														**8.6**	
	10/23/03 Dup																		1.4														**9.2**	
	5/11/2004																		1.5 J														**10**	
	07/22/2004																		1.4 J														**7.9**	
	10/13/2004											0.39 J							1.7 J														**10**	
	1/27/2005																																**3.5**	
	4/26/2005																																**3.0**	
	8/2/2005																		1.1 J														**6.1**	
	10/26/2005											0.84							1.3 J														**6.6**	
	10/26/2005 dup											0.49							1.4 J														**6.9**	
	01/31/2006																		1.3 J														**8.4**	
	4/24/2006																		1.3 J														**7.6**	
	4/24/2006 dup																		1.3 J														**7.9**	
	7/27/2006											0.48 J							1.6 J														**8.9**	
	7/27/2006 dup											0.38 J							1.6 J														**8.7**	
	11/2/2006																		2.7 J														**13**	
	11/02/2006 dup																		2.7 J														**13**	
	2/1/2007																		1.2J					0.46J									**7.5**	
	2/1/2007 dup																		1.4J														**8.5**	
	5/1/2007																		1.1J														**7.4**	
	5/1/2007 dup																		1.2J														**7.8**	
	8/8/2007																		1.1 J														**6.7**	
	8/8/2007 dup																		1.2 J														**7.5**	
	10/22/2007																		0.95 J														**7.8**	
	10/22/2007 Dup																		1.2 J														**8.1**	
	5/6/2008																		1.5														**6.6**	
	10/2/2008																		1.2														**6.1**	
	4/6/2009																		1.6					0.47J									**6.5**	
	10/29/2009											1.5							1.5														**4.7**	
	2/26/2010																		1.6														**5.1**	
	5/26/2010																		1.3														**4.5**	
	5/26/2010 Dup																		1.3														**4.3**	
	10/6/2010																		1.4														**5.4**	
	10/6/10 Dup																		1.3														**5.4**	
	1/25/2011																		1.3														**4.8**	
	1/25/11 Dup																		1.3														**5.3**	
	4/13/2011																		1.6														**8.2**	
	4/13/2011 Dup																		1.7														**8.5**	
	7/12/2011																		1.3					0.80*J*									**5.6**	
	7/12/2011 Dup																		1.5					0.67*J*									**5.8**	
	10/19/2011																		1.2														**5.6**	
	10/19/2011 Dup																		1.3														**5.5**	
	1/23/2012																		1.1														**5**	
	1/23/2012 Dup																		1.3														**5.1**	
	4/4/2012																		1.5														**7.2**	
	4/4/2012 Dup																		1.5														**7.5**	
	7/25/2012																		1.2														**6.5**	
	7/25/2012 Dup																		1.4														**6.3**	
	10/17/2012																		1.6														**6.6**	
	10/17/2012 Dup																		1.6														**6.4**	
	1/16/2013																		1.2														**8.2**	
	1/16/13 Dup																		1.3														**7.6**	
	4/26/2013																		1.2														**6.5**	
	4/26/2013 Dup																		1.1															
	7/2/2013																																	
	7/2/2013 Dup																		1.3															
	10/24/2013																		1.3														**7.2**	
	10/24/2013 Dup																		1.4														**7**	
	1/9/2014																		1.3														**8.2**	
	1/9/2014 Dup																		1.3														**8.8**	
	4/17/2014																		1.4														**6.5**	
	4/17/2014 Dup																		1.4														**6.4**	
	7/17/2014																		1.5														**6.4**	
	7/17/2014 Dup																		1.5														**6.6**	
	10/24/2014																		1.5														**10**	
	10/24/2014 Dup																		1.4														**10**	
	1/15/2015																		1.3														**6.2**	
	4/28/2015																		1.3														**6.5**	
	4/28/2015 Dup																		1.4														**6.5**	
	7/1/2015																		1.3														**7**	
	7/1/2015 Dup																		1.2														**6.5**	
	10/27/2015																		1.4														**6.5**	
	1/14/2016																		1.5														**6.1**	
	1/14/2016 Dup																		1.3														**5.9**	
	4/13/2016																		1.4														**7**	
	4/13/2016 Dup																		1.5														**7.5**	
	7/28/2016																		1.6														**7.8**	
	7/28/2016 Dup																		1.4														**8.4**	
	10/27/2016									0.72 J									1.5														**6.4**	
	10/27/2016 Dup									0.72 J									1.6														**7.3**	
	1/20/2017																		1.5														**6.7**	
	1/20/2017 Dup																		1.6														**6.9**	
	4/6/2017																		1.5														**7**	
	4/6/2017 Dup																		1.5														**6.7**	
	7/14/2017																		1.5														7	
	7/14/2017 Dup																		1.7														**7.4**	

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

		Parameters																																		
Sampling Point	Collection Date	Acetone[1]	Benzene	Bromodichloromethane	Bromomethane	2-Butanone (MEK)	sec-Butylbenzene	Carbon Disulfide	Chlorobenzene	Chloroethane	Chloroform	Chloromethane	1,4-dichlorobenzene	Dibromochloromethane	Dichlorodifluoromethane	1,1-Dichloroethane	1,2-dichloroethane	1,1-Dichloroethene	cis-1,2-dichloroethene	trans-1,2-Dichloroethene	1,2-dichloropropane	Ethylbenzene	Isopropyl Ether	Methylene chloride	MTBE	Tetrachloroethene	Tetrahydrofuran	Toluene	1,2,4-Trichlorobenzene	1,1,1-Trichloroethane	Trichloroethene	Trichlorofluoromethane	Vinyl Chloride	Total Xylenes
WDNR	PAL	200	0.5	0.06	1	90	NE	200	NE	80	0.6	0.3	15	6	200	85	0.5	0.7	7	20	0.5	140	NE	0.5	12	0.5	10	200	14		0.5	NE	0.02	1000
NR140	ES	1000	5	0.6	10	460	NE	1000	NE	400	6	3	75	60	1000	850	5	7	70	100	5	700	NE	5	60	5	50	1000	70		5	NE	0.2	10000
P-115 (former Wiese well)	10/9/2001	NR																																	
	10/09/01 Dup	NR																																	
	11/19/2001	NR																																	
	2/5/2002	NR																																	
	5/22/2002	NR																																	
	8/19/2002	NR										0.20J																							
	12/3/2002	NR																																	
	4/22/2003																																		
	7/30/2003																																		
	10/22/2003																																		
	2/4/2004																																		
	4/27/2004																																		
	10/14/2004																																**0.33 J**		
	1/27/2005																																		
	4/26/2005																																		
	8/2/2005																																**0.34 J**		
	10/26/2005											0.24 J																					**0.33 J**		
	1/31/2006																																		
	4/24/2006																																**0.62**		
	7/27/2006																																**0.44 J**		
	10/31/2006																																**0.39J**		
	2/1/2007																																**0.50J**		
	5/1/2007																																**0.54J**		
	8/14/2007																																**0.62**		
	10/22/2007																																**0.49 J**		
	10/22/2007																																**0.55 J**		
	5/6/2008																																**1.1**		
	10/2/2008																																**1.9**		
	4/6/2009																																**1.3**		
	10/29/2009											1.6																					**1.3**		
	2/26/2010											0.30J																					**0.95J**		
	5/26/2010																																		
	10/6/2010																																**1.2**		
	1/25/2011																																**0.86J**		
	4/13/2011																																**1.4**		
	7/12/2011																							0.69J									**0.99J**		
	10/19/2011																																**1**		
	1/23/2012																																**0.77J**		
	4/4/2012	7.2 J																															**1.3**		
	7/25/2012																																**1.1**		
	10/17/2012																																		
	1/16/2013																																**1.3**		
	4/26/2013																																**1.1**		
	7/2/2013																																		
	10/24/2013																																**1.1**		
	1/9/2014																																**1.5**		
	4/17/2014																																**1**		
	7/17/2014																																**1.1**		
	10/24/2014																																**1.7**		
	1/15/2015																																**1.1**		
	4/28/2015																																**1.1**		
	7/1/2015																																**1.2**		
	10/27/2015																																**1.1**		
	1/14/2016																																**0.95 J**		
	4/13/2016																																**1**		
	7/28/2016																																**1.1**		
	10/27/2016																																**0.81 J**		
	4/6/2017																																**1.1**		
	7/14/2017																																**1**		

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

		Parameters																																
Sampling Point	Collection Date	Acetone[1]	Benzene	Bromodichloromethane	Bromomethane	2-Butanone (MEK)	sec-Butylbenzene	Carbon Disulfide	Chlorobenzene	Chloroethane	Chloroform	Chloromethane	1,4-dichlorobenzene	Dibromochloromethane	Dichlorodifluoromethane	1,1-Dichloroethane	1,2-dichloroethane	1,1-Dichloroethene	cis-1,2-dichloroethene	trans-1,2-Dichloroethene	1,2-dichloropropane	Ethylbenzene	Isopropyl Ether	Methylene chloride	MTBE	Tetrachloroethene	Tetrahydrofuran	Toluene	1,2,4-Trichlorobenzene	1,1,1-Trichloroethane	Trichloroethene	Trichlorofluoromethane	Vinyl Chloride	Total Xylenes
WDNR	PAL	200	0.5	0.06	1	90	NE	200	NE	80	0.6	0.3	15	6	200	85	0.5	0.7	7	20	0.5	140	NE	0.5	12	0.5	10	200	14		0.5	NE	0.02	1000
NR140	ES	1000	5	0.6	10	460	NE	1000	NE	400	6	3	75	60	1000	850	5	7	70	100	5	700	NE	5	60	5	50	1000	70		5	NE	0.2	10000
P-116 (former Hadel well)	10/9/2001	NR																																
	11/19/2001	NR																											0.18					
	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																																	
	10/22/2007																																	
	5/6/2008																																	
	10/2/2008																																	
	4/6/2009																																	
	10/29/2009																																	
	2/26/2010																							1.1										
	5/25/2010																																	
	10/6/2010																							0.44J										
	1/25/2011																																	
	4/13/2011																																	
	7/12/2011																							0.46J										
	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																																	
	1/14/2016																																	
	4/13/2016																																	
	7/28/2016																																	
	10/27/2016																																	
	1/20/2017																																	
	4/6/2017																																	
	7/14/2017																																	
P-117	1/20/2017																		0.89 J														**1.4**	
	4/6/2017																		0.98 J														**1.5**	
	7/14/2017																		1.1														**1.4**	
Gaastra[3]	1/14/2016																																	
	4/12/2016																																	
	7/28/2016																																**1.1**	
	10/27/2016																																**1**	
	1/20/2017																																**0.76 J**	
	4/5/2017																																	
Perry [4]	1/14/2016							0.73 J																										
	4/12/2016							1.2 J																										
	7/28/2016																																	
	10/27/2016																																	
	1/20/2017											0.71 J																						
	4/5/2017																																	

Results in µg/L (microgram per liter)

B = analyte found in method blank as well as sample
E = exceeds calibration range
J = estimated value between LOD and LOQ
LOD= Limit of Detection adjusted for dilution factor and percent moisture
LOQ= Limit of Quantitation adjusted for dilution factor and percent moisture
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 Tetra Tech

PAL = Preventive Action Limit
ES = Enforcement Standard
Underline indicates exceeds NR 140 PAL
Bolding indicates exceeds NR 140 ES
Blank = Sample analyzed 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.

[1] 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.

[2] MW-103 had low concentrations of isopropyl ether detected in October 1997 and February 2002.

[3] Gaastra residence connected to city's water supply July 13, 2015. Outside faucet connected to original well for sampling purposes.

[4] Perry residence connected to city's water supply September 7, 2015. Outside faucet connected to original well for sampling purposes.

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_3^-	NO_2^-	Fe^{2+}	SO_4^{2-}	S^{2-}	CH_4					
	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
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
MW-103	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
	4/12/2016			0.361				44	4.77	1392	7.14	11.9
	10/27/2016			0.295				NM	NM	1358	6.86	9.0
	4/5/2017			0.558				91	5.94	1371	7.00	9.3
MW-104	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
	4/12/2016									1130	7.15	12.0
	4/5/2017[1]									1108	6.53	10.4
MW-107	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
	4/12/2016									1067	7.85	11.8
	4/5/2017[1]									996	7.12	9.2
MW-111	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
MW-112	7/11/2011			>2.5				-51	1.49	951	7.34	16.5
	10/19/2011			>2.5				-46	1.12	907	7.01	8.9
	1/24/2012			>2.5				-26	1.32	1060	7.16	8.0
	4/3/2012			>2.5				-77	1.19	1210	6.96	11.7
	7/25/2012			>2.5				-75	1.37	1071	6.89	18.9
	10/17/2012			>2.5				-113	1.08	992	7.15	12.7
	1/16/2013			>2.5				-72	1.80	1003	7.10	7.9
	4/24/2013			>2.5				45	1.56	1052	7.11	12.1
	10/24/2013			>2.5				42	1.92	982	7.43	8.6
	4/16/2014			>2.5				-76	0.91	949	7.36	9.9
	10/23/2014			>2.5				52	1.87	874	7.42	9.9
	4/28/2015			2.296				61	1.33	1018	7.36	13.0
	10/28/2015			>2.5				59	1.79	905	6.61	10.8
	4/12/2016			>2.5				-39	1.39	904	6.97	11.5
	10/27/2016			>2.5				NM	NM	907	6.97	9.7
	4/5/2017			>2.5				-19	1.57	937	7.18	8.8

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_3^-	NO_2^-	Fe^{2+}	SO_4^{2-}	S^{2-}	CH_4					
	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
P-101	12/4/2002				50			-53.5	0.08	843	7.12	9.26
	4/22/2003				51			-36.9	0.81	646	7.46	10.12
	10/23/2003	<0.058			49			-65.5	0.66	754	7.04	10.20
	5/1/2007									828	7.57	11.7
	5/6/2008									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				-31	2.65	829	7.26	5.8
	4/11/2011									840	7.96	12.8
	4/3/2012									776	7.40	11.6
P-103	12/4/2002				54		0.037	-60.50	1.17	956	7.00	9.49
	4/21/2003				58			-29.90	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
	4/13/2016			>2.5				-29	1.37	722	6.81	9.3
	10/27/2016			>2.5				-2	1.50	719	6.70	10.1
	4/6/2017[1]							90	1.13	730	6.28	9.5
P-106	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
	4/12/2016							-46	0.83	681	6.79	9.8
	4/5/2017[1]							-104	1.11	682	7.47	9.7
P-107	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
	4/13/2016							-51	0.95	805	7.32	7.7
	4/6/2017[1]							-70	1.57	813	7.37	9.5
P-111	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

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_3^-	NO_2^-	Fe^{2+}	SO_4^{2-}	S^{2-}	CH_4					
	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
MW-3B	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	0.40	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		0.61	43.23		0.0159	-161	8.80	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
	1/14/2016			0.923				-59	0.28	633	7.21	8.8
	4/13/2016			1.095				-140	0.31	666	7.81	8.8
	7/28/2016			1.19				-234	0.29	584	7.89	10.1
	10/27/2016			1.137				-203	0.44	684	7.50	9.5
	1/20/2017			1.335				-136	0.42	722	7.50	8.9
	4/6/2017[†]			NM				-184	0.31	683	7.67	9.2
	7/14/2017			1.04				-128	0.39	648	7.39	9.8
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
	1/14/2016			>2.5				23	0.76	713	6.47	9.2
	4/13/2016			>2.5				-49	0.41	794	9.03	9.3
	7/28/2016			>2.5				-29	0.76	748	6.85	10.8
	10/27/2016			>2.5				29	0.91	744	6.40	10.1
	1/20/2017			>2.5				61	1.05	752	6.44	9.5
	4/6/2017[†]			NM				-41	1.54	751	7.27	9.7
	7/14/2017			>2.5				-61	0.41	711	7.02	10.4
P-111D	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	0.43	<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
	7/11/2011			1.87				-178	0.88	759	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
	1/14/2016			1.31				-37	0.50	794	7.12	9.1
	4/13/2016			1.493				-97	0.40	827	7.54	9.2
	7/28/2016			1.073				-157	0.43	823	7.60	10.8
	10/27/2016			1.102				-94	0.78	828	7.26	9.9
	1/20/2017			1.309				13	0.59	837	7.19	9.4
	4/6/2017[†]			NM				31	0.54	849	7.24	9.7
	7/14/2017			1.03				-126	0.40	790	7.37	10.2

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_3^-	NO_2^-	Fe^{2+}	SO_4^{2-}	S^{2-}	CH_4					
	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
P-113B	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
	1/14/2016			1.018				-227	0.54	639	8.70	9.4
	4/13/2016			1.098				-135	0.35	626	7.81	9.4
	7/28/2016			0.968				-229	0.46	633	7.79	10.7
	10/27/2016			0.922				-88	0.92	632	7.43	10.1
	1/20/2017			1.341				-118	0.56	668	7.57	9.7
	4/6/2017[1]			NM				-138	0.52	638	7.64	9.8
	7/14/2017			1.04				-154	0.82	605	7.46	10.6
P-114 (Ehster)	12/3/2002				44					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
	1/14/2016			0.691				-72	0.43	697	7.76	9.3
	4/13/2016			0.811				-137	0.30	719	7.86	9.4
	7/28/2016			0.81				-228	0.33	731	7.83	10.5
	10/27/2016			0.749				-167	0.28	732	7.49	10.0
	1/20/2017			1.148				-122	0.26	780	7.56	9.4
	4/6/2017[1]			NM				-134	0.39	745	7.70	9.7
	7/714			0.79				-166	0.27	700	7.48	10.3

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_3^-	NO_2^-	Fe^{2+}	SO_4^{2-}	S^{2-}	CH_4					
	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
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	0.39	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
	1/14/2016			0.828				-60	0.34	569	7.61	9.8
	4/13/2016			1.151				-124	0.33	589	7.93	9.8
	7/28/2016			1.116				-193	0.44	597	7.91	10.7
	10/27/2016			0.748				-127	0.29	596	7.56	10.4
	4/6/2017[1]			NM				-137	1.16	608	7.72	10.2
	7/14/2017			0.84				-143	0.28	575	7.54	10.6
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	552	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
	1/14/2016			0.447				-43	0.38	489	7.50	9.1
	4/13/2016			0.433				-59	0.56	503	7.91	9.6
	7/28/2016			0.665				-151	0.39	507	7.79	12.2
	10/27/2016			0.544				-117	0.40	507	7.53	10.6
	1/20/2017			0.563				17	0.43	522	7.70	9.1
	4/6/2017[1]			NM				18	0.49	516	7.55	10.2
	7/14/2017			0.08				-146	0.32	483	7.54	11.3
P-117	1/20/2017			1.249				16	0.75	748	7.26	9.9
	4/6/2017[1]			NM				-105	0.29	742	7.48	10.1
	7/14/2017			1.29				-112	0.22	701	7.29	10.4
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
	1/14/2016			<0.1				-43	1.03	514	7.22	8.1
	4/13/2016			0.149				-149	0.61	530	7.70	8.4
	7/28/2016			0.154				-267	0.88	531	7.60	12.2
	10/27/2016			0.159				-171	0.62	533	7.35	9.5
	1/20/2017			0.441				-10	0.55	544	7.39	8.6
	4/6/2017[1]			NM				5	0.51	542	7.34	9.6
	7/14/2017			0.04				-116	0.52	505	7.24	10.4

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_3^-	NO_2^-	Fe^{2+}	SO_4^{2-}	S^{2-}	CH_4					
	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
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	564	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
	1/14/2016			<0.1				-25	0.61	537	7.03	8.6
	4/13/2016			0.158				-64	0.86	624	9.12	8.9
	7/28/2016			0.157				-150	5.32	581	7.31	17.7
	10/27/2016			0.165				-124	0.66	557	7.16	9.9
	1/20/2017			0.451				9	1.84	562	7.03	9.1
	4/6/2017[1]			NM				42	2.51	593	7.15	9.5
	7/14/2017			0.08				-139	0.80	539	7.26	10.3
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
	1/14/2016			0.316				-73	0.96	506	7.45	6.8
	4/13/2016			0.815				-158	1.07	525	7.82	8.7
	7/28/2016			0.831				-260	0.94	529	7.70	13.3
	10/27/2016			1.036				-204	0.80	531	7.42	10.5
	1/20/2017			1.253				-21	0.67	542	7.48	8.7
	4/6/2017[1]			NM				7	0.82	539	7.45	10.0
	7/14/2017			0.47				-206	0.68	500	7.40	13.3

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_3^-	NO_2^-	Fe^{2+}	SO_4^{2-}	S^{2-}	CH_4					
	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
	1/14/2016									526	8.22	9.1
	4/12/2016									625	7.85	14.0
	7/28/2016									538	8.07	13.5
	10/27/2016									524	6.74	10.6
	1/20/2017									598	7.04	8.8
	4/5/2017									446	7.72	10.2
Gaastra	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
	1/14/2016									667	7.94	8.6
	4/12/2016									588	8.05	11
	7/28/2016									550	8.19	13.7
	10/27/2016									593	6.86	10.3
	1/20/2017									564	6.81	8
	4/5/2017									547	7.63	9.3
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
	4/12/2016									632	7.98	11.5
	4/5/2017									532	7.46	9.5

indicates that sample was not analyzed for that parameter
mg/L: milligrams per liter
uS/cm: microsiemens per centimeter
mV: millivolts
ORP: Oxidation-Reduction Potential
°C: Degrees Celsius
* 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

1: April 2017 equipment malfunction, in-field iron test not able to be performed.

Active Extraction Points	Time	Date	CH_4 (%) variable	CO_2 (%) variable	O_2 (%) <5	N (%) <40	Comments target percentages
LC-1	11:31	3/20/2006	61.5	37.7	0.7	0.1	pre-startup
	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	26.2	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

Active Extraction Points	Time	Date	CH_4 (%) variable	CO_2 (%) variable	O_2 (%) <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	1/8/2008	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	8/11/2009	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	1/11/2010	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	3/8/2010	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	

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

Active Extraction Points	Time	Date	CH_4 (%) variable	CO_2 (%) variable	O_2 (%) <5	N (%) <40	Comments target percentages
LC-1	9:10	10/1/2012	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	
	7:50	11/2/2015	7.5	19.6	1.8	71.1	
	7:30	11/16/2015	9.5	20.4	1.4	68.7	
	11:00	11/30/2015	10.5	20.6	1.9	67.0	
	7:25	12/15/2015	15.0	21.0	1.1	62.9	
	7:35	12/28/2015	15.0	22.4	0.8	61.8	
	8:16	1/9/2016	17.5	20.8	1.4	60.3	
	7:50	1/25/2016	22.0	23.6	0.6	53.8	
	7:50	2/8/2016	23.0	23.2	1.1	52.7	
	7:35	2/22/2016	23.0	21.0	1.0	55.0	
	7:47	3/7/2016	23.0	20.4	1.0	55.6	
	8:30	3/21/2016	19.5	21.8	0.6	58.1	
	7:50	4/4/2016	14.5	21.2	0.6	63.7	
	8:25	4/18/2016	18.5	21.6	0.6	59.3	
	9:45	5/3/2016	26.5	23.2	0.2	50.1	
	7:50	5/16/2016	28.0	24.0	0.3	47.7	
	7:45	6/2/2016	29.0	24.2	0.1	46.7	
	7:50	6/14/2016	27.0	24.0	0.2	48.8	
	7:50	6/27/2016	22.0	21.6	0.2	56.2	
	10:20	7/14/2016	18.5	22.8	0.2	58.5	
	7:55	7/25/2016	17.5	23.4	0.2	58.9	
	7:45	8/8/2016	17.5	23.8	0.2	58.5	
	8:33	8/25/2016	16.0	24.4	0.0	59.6	
	7:25	9/6/2016	15.5	24.0	0.2	60.3	
	10:00	10/3/2016	10.5	22.6	0.4	66.5	
	8:12	10/19/2016	8.5	21.4	0.7	69.4	
	8:43	10/31/2016	9.5	21.2	1.8	67.5	
	8:04	11/14/2016	13.5	22.0	1.0	63.5	
	8:54	11/28/2016	18.5	22.0	1.8	57.7	
	9:08	12/9/2016	17.0	23.2	1.1	58.7	
	7:55	12/22/2016	22.5	23.2	1.2	53.1	
	8:00	1/4/2017	23.0	21.6	2.3	53.1	
	7:30	1/13/2017	22.9	21.2	2.4	53.5	
	7:25	1/27/2017	37.0	24.8	1.5	36.7	
	7:56	2/13/2017	35.5	21.4	1.9	41.2	
	7:55	2/27/2017	39.5	22.4	2.5	35.6	
	8:20	3/13/2017	44.5	23.6	2.0	29.9	
	7:25	3/28/2017	41.0	24.0	1.8	33.2	
	8:08	4/12/2017	43.5	24.0	1.8	30.7	
	7:45	4/18/2017	40.0	24.2	1.7	34.1	
	7:12	4/25/2017	43.0	25.6	1.5	29.9	
	7:20	5/8/2017	38.0	25.0	1.8	35.2	
	7:30	5/22/2017	32.5	24.4	1.5	41.6	
	7:46	6/5/2017	26.0	24.6	1.4	48.0	
	7:35	6/19/2017	14.5	23.0	1.3	61.2	
	8:27	7/4/2017	14.0	24.0	0.3	61.7	
	7:45	7/18/2017	18.5	25.4	0.0	56.1	

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

Active Extraction Points	Time	Date	CH_4 (%) variable	CO_2 (%) variable	O_2 (%) <5	N (%) <40	Comments target percentages
	11:09	3/20/2006	61.9	36.8	1.0	0.3	pre-startup
	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	3/26/2007	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
LC-2	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	7/11/2007	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	

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

Active Extraction Points	Time	Date	CH_4 (%) variable	CO_2 (%) variable	O_2 (%) <5	N (%) <40	Comments target percentages
	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	
LC-2	9:15	11/15/2010	48.0	32.4	1.6	18.0	
	9:55	12/10/2010	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	

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

Active Extraction Points	Time	Date	CH_4 (%) variable	CO_2 (%) variable	O_2 (%) <5	N (%) <40	Comments target percentages
LC-2	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	48.5	
	8:19	7/28/2014	22.0	25.6	1.9	50.5	
	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	25.8	
	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	41.5	
	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	
	8:00	11/2/2015	27.5	26.0	2.8	43.7	
	7:40	11/16/2015	30.0	25.8	2.0	42.2	
	11:00	11/30/2015	29.5	26.0	2.7	41.8	
	7:35	12/15/2015	35.0	26.8	2.1	36.1	
	7:45	12/28/2015	37.5	28.0	1.4	33.1	
	8:30	1/9/2016	36.5	25.6	2.2	35.7	
	8:00	1/25/2016	41.0	28.8	1.5	28.7	
	8:05	2/8/2016	37.5	26.2	1.9	34.4	
	7:47	2/22/2016	42.5	25.8	1.7	30.0	
	8:02	3/7/2016	41.0	24.4	1.4	33.2	
	8:45	3/21/2016	43.5	27.0	1.0	28.5	
	8:04	4/4/2016	41.5	28.4	1.1	29.0	
	8:18	4/18/2016	41.5	25.6	1.3	31.6	
	9:26	5/3/2016	41.5	25.8	0.7	32.0	
	8:00	5/16/2016	42.9	26.2	0.7	30.2	
	7:55	6/2/2016	43.5	26.4	0.3	29.8	
	8:00	6/14/2016	45.5	27.0	0.3	27.2	
	8:00	6/27/2016	47.0	26.6	0.2	26.2	
	10:25	7/14/2016	46.5	27.2	0.2	26.1	
	8:00	7/25/2016	45.5	28.8	0.2	25.5	
	7:55	8/8/2016	44.0	28.2	0.4	27.4	
	7:50	8/25/2016	42.0	28.6	0.3	29.1	
	7:35	9/6/2016	39.5	28.2	0.8	31.5	
	10:15	10/3/2016	36.0	28.6	0.7	34.7	
	8:25	10/19/2016	33.5	27.8	1.2	37.5	
	8:58	10/31/2016	33.0	27.6	1.7	37.7	
	8:13	11/14/2016	33.5	27.2	2.6	36.7	
	9:04	11/28/2016	33.0	26.4	2.5	38.1	
	9:16	12/9/2016	38.5	29.2	3.1	29.2	
	8:05	12/22/2016	36.5	27.8	2.4	33.3	
	8:05	1/4/2017	31.0	23.8	5.1	40.1	
	7:50	1/13/2017	36.2	26.7	2.6	34.5	
	7:45	1/27/2017	41.5	28.6	2.6	27.3	
	8:16	2/13/2017	43.0	25.8	2.7	28.5	
	8:15	2/27/2017	42.5	24.4	3.5	29.6	
	8:25	3/13/2017	46.0	26.4	2.8	24.8	
	7:45	3/28/2017	44.5	25.8	3.2	26.5	
	8:12	4/12/2017	47.5	26.0	2.5	24.0	
	7:35	4/18/2017	46.0	25.8	2.6	25.6	
	7:25	4/25/2017	48.0	27.2	2.2	22.6	
	7:38	5/8/2017	50.0	27.0	2.4	20.6	
	7:45	5/22/2017	44.0	23.4	4.1	28.5	
	8:00	6/5/2017	50.0	27.0	1.9	21.1	
	7:48	6/19/2017	47.0	27.4	1.6	24.0	
	8:34	7/4/2017	46.5	29.0	0.6	23.9	
	7:52	7/18/2017	44.5	29.6	0.2	25.7	

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

Active Extraction Points	Time	Date	CH_4 (%) variable	CO_2 (%) variable	O_2 (%) <5	N (%) <40	Comments target percentages
LC-3	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	7/11/2007	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	

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

Active Extraction Points	Time	Date	CH_4 (%) variable	CO_2 (%) variable	O_2 (%) <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	
	9:59	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	66.2	
	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	22.6	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	
LC-3	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

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

Active Extraction Points	Time	Date	CH_4 (%) variable	CO_2 (%) variable	O_2 (%) <5	N (%) <40	Comments target percentages
	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	Increae 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
LC-3	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
	7:55	11/2/2015	11.5	17.2	5.7	65.6	Reduce from 11 hr on to 9 hr on
	7:35	11/16/2015	13.5	17.8	5.6	63.1	Reduce from 9 hr on to 7 hr on
	11:05	11/30/2015	15.0	18.8	5.8	60.4	Reduce from 7 hr on to 5 hr on
	7:30	12/15/2015	18.5	19.6	4.7	57.2	Increase from 5 hr on to 7 hr on
	7:40	12/28/2015	20.0	20.6	4.9	54.5	
	8:25	1/9/2016	20.5	19.8	4.9	54.8	
	7:58	1/25/2016	21.5	21.2	5.1	52.2	Reduce from 7 hr on to 6 hr on
	8:00	2/8/2016	21.5	20.0	5.7	52.8	Reduce from 6 hr on to 4 hr on
	7:42	2/22/2016	27.0	21.0	4.7	47.3	Increase from 4 hr on to 6 hr on
	7:55	3/7/2016	25.0	20.2	4.5	50.3	Increase from 6 hr on to 9 hr on
	8:40	3/21/2016	23.0	21.6	4.3	51.1	Increase from 9 hr on to 13 hr on
	7:57	4/4/2016	20.0	19.6	5.6	54.8	Reduce from 13 hr on to 9 hr on
	8:12	4/18/2016	22.5	20.0	5.3	52.2	Reduce from 9 hr on to 7 hr on
	9:24	5/3/2016	25.5	20.8	4.8	48.9	Increase from 7 hr on to 8 hr on
	7:55	5/16/2016	28.5	22.2	4.5	44.8	Increase from 8 hr on to 10 hr on
	7:50	6/2/2016	31.0	23.2	3.6	42.2	Increase from 10 hr on to 15 hr on
	7:55	6/14/2016	29.0	22.8	3.7	44.5	Increase from 15 hr on to 20 hr on
	7:55	6/27/2016	26.5	21.8	4.4	47.3	Increase from 20 hr on to 23.5 hr on
	10:30	7/14/2016	25.0	21.6	3.8	49.6	
	8:00	7/25/2016	24.5	22.4	3.5	49.6	
	7:50	8/8/2016	23.0	21.8	3.8	51.4	
	7:45	8/25/2016	21.5	21.6	3.7	53.2	
	7:30	9/6/2016	18.0	20.4	4.2	57.4	
	10:10	10/3/2016	15.5	19.2	4.8	60.5	
	8:18	10/19/2016	14.5	18.4	5.6	61.5	Reduce from 23.5 hr on to 19.5 hr on
	8:54	10/31/2016	14.5	18.0	6.2	61.3	Reduce from 19.5 hr on to 13.5 hr on
	8:11	11/14/2016	16.0	18.4	6.2	59.4	Reduce from 13.5 hr on to 7.5 hr on
	8:57	11/28/2016	20.0	19.6	5.9	54.5	
	9:13	12/9/2016	22.5	21.4	5.9	50.2	Reduce from 7.5 hr on to 5 hr on
	8:00	12/22/2016	23.5	21.0	6.1	49.4	Reduce from 5 hr on to 3 hr on
	8:10	1/4/2017	22.5	19.8	6.6	51.1	Reduce from 3 hr on to 2 hr on
	7:40	1/13/2017	23.7	21.2	6.2	48.9	Reduce from 2 hr on to 1 hr on
	7:34	1/27/2017	34.5	25.6	4.5	35.4	Increase from 1 hr on to 2 hr on
	8:10	2/13/2017	33.0	23.8	5.0	38.2	Reduce from 2 hr on to 1.5 hr on
	8:05	2/27/2017	33.5	23.2	5.6	37.7	Reduce from 1.5 hr on to 1 hr on
	8:30	3/13/2017	36.5	24.4	5.4	33.7	Reduce from 1 hr on to 0.75 hr on
	7:35	3/28/2017	36.0	24.6	4.7	34.7	Increase from 0.75 hr on to 1 hr on
	8:10	4/12/2017	37.0	25.0	4.8	33.2	Increase from 1 hr on to 3.5 hr on (sampling)
	7:48	4/18/2017	21.0	16.2	9.6	53.2	Reduce from 3.5 hr on to 1.5 hr on
	7:16	4/25/2017	36.0	25.6	4.3	34.1	Increase from 1.5 hr on to 3.5 hr on
	7:27	5/8/2017	35.0	25.2	4.6	35.2	Increase from 3.5 hr on to 6.5 hr on
	7:38	5/22/2017	29.5	22.2	4.8	43.5	Increase from 6.5 hr on to 8.5 hr on
	7:52	6/5/2017	28.0	22.6	3.9	45.5	Increase from 8.5 hr on to 14.5 hr on
	7:40	6/19/2017	23.5	21.8	3.2	51.5	Increase from 14.5 hr on to 20.5 hr on
	8:31	7/4/2017	23.5	22.8	2.7	51.0	Increase from 20.5 hr on to 23.5 hr on
	7:48	7/18/2017	28.0	24.8	2.0	45.2	

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

Active Extraction Points	Time	Date	CH_4 (%) variable	CO_2 (%) variable	O_2 (%) <5	N (%) <40	Comments target percentages
GV-6	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	

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

Active Extraction Points	Time	Date	CH_4 (%) variable	CO_2 (%) variable	O_2 (%) <5	N (%) <40	Comments target percentages
GV-6	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	4/5/2010	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	18.4	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	

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

Active Extraction Points	Time	Date	CH_4 (%) variable	CO_2 (%) variable	O_2 (%) <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	
	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	
GV-6	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	
	7:45	11/2/2015	3.3	12.2	6.6	78.0	
	7:25	11/16/2015	8.5	18.2	1.1	72.2	
	10:55	11/30/2015	7.0	15.0	5.6	72.4	
	7:16	12/15/2015	5.5	14.2	3.7	76.6	
	7:30	12/28/2015	11.0	18.6	1.3	69.1	
	8:11	1/9/2016	8.0	15.0	3.6	73.4	
	7:45	1/25/2016	20.0	20.6	1.3	58.1	
	7:45	2/8/2016	14.5	17.2	2.3	66.0	
	8:27	2/22/2016	12.0	15.8	1.7	70.5	
	7:42	3/7/2016	19.5	16.6	1.9	62.0	
	8:25	3/21/2016	16.5	18.8	1.4	63.3	
	7:45	4/4/2016	1.5	10.4	8.8	79.4	
	8:00	4/18/2016	8.5	15.2	3.1	73.2	
	9:35	5/3/2016	19.5	18.8	2.0	59.7	
	7:45	5/16/2016	20.0	19.4	2.0	58.6	
	7:40	6/2/2016	10.5	16.8	3.2	69.5	
	7:45	6/14/2016	16.5	19.4	2.3	61.8	
	7:40	6/27/2016	7.5	15.2	3.9	73.4	
	10:15	7/14/2016	9.5	17.4	3.8	69.3	
	7:50	7/25/2016	4.3	13.2	6.9	75.6	
	7:40	8/8/2016	5.5	13.8	6.9	73.8	
	7:25	8/25/2016	4.7	13.0	7.4	75.0	
	7:25	9/6/2016	4.9	12.2	8.2	74.8	
	9:55	10/3/2016	5.0	13.2	7.3	74.5	
	8:06	10/19/2016	2.2	9.8	10.1	78.0	
	8:38	10/31/2016	5.5	13.0	7.8	73.7	
	8:07	11/14/2016	6.5	14.6	5.8	73.1	
	9:01	11/28/2016	15.5	18.8	2.2	63.5	
	9:10	12/9/2016	4.5	13.4	6.7	75.4	
	7:50	12/22/2016	7.5	15.4	3.5	73.6	
	7:50	1/4/2017	13.0	16.4	2.9	67.7	
	7:20	1/13/2017	12.1	14.8	3.3	69.8	
	7:16	1/27/2017	24.5	19.6	1.8	54.1	
	7:47	2/13/2017	14.5	14.8	2.5	68.2	
	7:50	2/27/2017	17.0	15.8	3.3	63.9	
	8:15	3/13/2017	36.5	20.8	0.6	42.1	
	7:18	3/28/2017	24.0	17.6	2.8	55.6	
	8:00	4/12/2017	17.5	17.4	2.8	62.3	
	7:40	4/18/2017	25.0	19.4	2.3	53.3	
	7:09	4/25/2017	35.5	21.6	2.0	40.9	
	7:12	5/8/2017	17.5	19.0	2.7	60.8	
	7:22	5/22/2017	17.5	19.2	2.3	61.0	
	7:40	6/5/2017	11.0	17.6	3.2	68.2	
	7:28	6/19/2017	4.8	14.0	5.8	75.5	
	8:24	7/4/2017	6.5	14.8	6.3	72.4	
	7:46	7/18/2017	7.5	16.6	4.4	71.5	

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

Monitoring Points	Time	Date	CH_4 (%) variable	CO_2 (%) variable	O_2 (%) <5	N (%) <40	Comments target percentages
GP-1	11:03	3/20/2006	**18.8**	8.1	0.4	72.7	pre-startup
	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_4 = Methane
CO_2 = Carbon Dioxide
O_2 = Oxygen
N = Nitrogen

Monitoring Points	Time	Date	CH_4 (%) variable	CO_2 (%) variable	O_2 (%) <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_4 = Methane
CO_2 = Carbon Dioxide
O_2 = Oxygen
N = Nitrogen

Monitoring Points	Time	Date	CH_4 (%) variable	CO_2 (%) variable	O_2 (%) <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	1/16/2015	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	
	7:35	11/2/2015	0.0	4.8	14.1	81.1	
	7:17	11/16/2015	0.0	2.8	17.2	80.0	
	10:48	11/30/2015	0.0	1.0	20.5	78.5	
	7:08	12/15/2015	0.0	0.0	20.9	79.1	
	7:10	12/28/2015	0.0	0.0	20.9	79.1	
	8:02	1/9/2016	0.0	0.0	20.8	79.2	
	7:33	1/25/2016	0.0	0.0	20.9	79.1	
	7:30	2/8/2016	0.0	0.8	18.7	80.5	
	7:18	2/22/2016	0.05	0.6	19.0	80.4	
	7:32	3/7/2016	0.0	0.0	20.9	79.1	
	8:15	3/21/2016	0.0	0.0	20.9	79.1	
	7:34	4/4/2016	0.0	0.0	20.9	79.1	
	7:40	4/18/2016	0.0	0.0	20.9	79.1	
	8:47	5/3/2016	0.0	5.0	7.1	87.9	
	7:35	5/16/2016	0.0	6.4	7.3	86.3	
	7:33	6/2/2016	0.0	7.0	7.8	85.2	
	7:35	6/14/2016	0.0	6.2	11.1	82.7	
	7:35	6/27/2016	0.0	8.4	9.8	81.8	
	10:05	7/14/2016	0.1	13.2	3.0	83.7	
	7:29	7/25/2016	0.9	7.6	8.2	83.4	
	7:32	8/8/2016	1.2	7.0	10.1	81.8	
	7:18	8/25/2016	0.0	1.0	20.4	78.6	
	7:18	9/6/2016	0.2	4.8	14.0	81.0	
	9:42	10/3/2016	1.2	7.4	8.5	82.9	
	7:48	10/19/2016	0.0	5.4	12.8	81.8	
	8:26	10/31/2016	0.1	11.2	5.0	83.8	
	7:57	11/14/2016	0.0	7.0	9.0	84.0	
	8:41	11/28/2016	0.0	7.0	7.1	85.9	
	9:00	12/9/2016	0.2	1.4	19.7	78.7	
	7:35	12/22/2016	0.0	12.0	5.2	82.8	
	7:35	1/4/2017	0.0	0.4	20.8	78.8	
	7:11	1/13/2017	0.0	0.2	20.8	79.0	
	7:04	1/27/2017	0.0	0.0	20.9	79.1	
	7:40	2/13/2017	0.0	2.6	7.4	90.0	
	7:35	2/27/2017	0.0	0.0	20.0	80.0	
	8:03	3/13/2017	0.0	0.0	20.9	79.1	
	7:04	3/28/2017	0.0	0.0	20.9	79.1	
	7:46	4/12/2017	0.0	0.0	20.9	79.1	
	6:49	4/18/2017	0.0	0.0	20.9	79.1	
	6:53	4/25/2017	0.0	0.0	20.9	79.1	
	7:03	5/8/2017	0.0	0.0	20.9	79.1	
	7:12	5/22/2017	0.0	7.0	7.2	85.8	
	7:23	6/5/2017	0.0	5.6	11.7	82.7	
	7:18	6/19/2017	0.0	0.8	20.3	78.9	
	8:21	7/4/2017	0.0	6.0	8.5	85.5	
	7:40	7/18/2017	1.6	8.8	5.4	84.2	

$\overline{CH_4}$ = Methane
CO_2 = Carbon Dioxide
O_2 = Oxygen
N = Nitrogen

Monitoring Points	Time	Date	CH_4 (%) variable	CO_2 (%) variable	O_2 (%) <5	N (%) <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	
	9:02	4/18/2016	0.0	0.8	20.2	79.0	
	9:05	4/12/2017	0.0	1.4	19.0	79.6	

CH_4 = Methane
CO_2 = Carbon Dioxide
O_2 = Oxygen
N = Nitrogen

Monitoring Points	Time	Date	CH_4 (%) variable	CO_2 (%) variable	O_2 (%) <5	N (%) <40	Comments target percentages
GP-3	7:49	3/22/2006	1.4	1.9	19.9	76.8	pre-startup
	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	
	9:25	4/18/2016	0.0	1.0	20.1	78.9	
	9:21	4/12/2017	0.0	0.0	20.9	79.1	
	7:50	4/18/2017	0.0	3.6	15.0	81.4	

CH_4 = Methane
CO_2 = Carbon Dioxide
O_2 = Oxygen
N = Nitrogen

Monitoring Points	Time	Date	CH_4 (%) variable	CO_2 (%) variable	O_2 (%) <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	79.7	
	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	
	9:35	4/18/2016	0.05	1.4	19.3	79.3	
	9:27	4/12/2017	0.0	0.6	20.1	79.3	

CH_4 = Methane
CO_2 = Carbon Dioxide
O_2 = Oxygen
N = Nitrogen

Monitoring Points	Time	Date	CH_4 (%) variable	CO_2 (%) variable	O_2 (%) <5	N (%) <40	Comments target percentages
	9:13	3/22/2006	0.0	4.4	17.6	78.0	pre-startup
	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	
GP-5	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	
	8:30	4/18/2016	0.0	2.4	15.6	82.0	
	8:21	4/12/2017	0.0	2.6	16.5	80.9	

CH_4 = Methane
CO_2 = Carbon Dioxide
O_2 = Oxygen
N = Nitrogen

Monitoring Points	Time	Date	CH_4 (%) variable	CO_2 (%) variable	O_2 (%) <5	N (%) <40	Comments target percentages
GP-6	7:45	3/22/2006	0.0	6.1	13.9	80.0	pre-startup
	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	1/26/2010	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	
	9:50	4/18/2016	0.0	2.4	17.8	79.8	
	9:40	4/12/2017	0.0	1.8	19.3	78.9	

CH_4 = Methane
CO_2 = Carbon Dioxide
O_2 = Oxygen
N = Nitrogen

Monitoring Points	Time	Date	CH_4 (%) variable	CO_2 (%) variable	O_2 (%) <5	N (%) <40	Comments target percentages
GP-7	7:40	3/22/2006	1.0	7.0	13.0	79.0	pre-startup
	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	
	9:45	4/18/2016	0.0	1.4	18.8	79.8	
	9:37	4/12/2017	0.0	0.0	20.9	79.1	

CH_4 = Methane
CO_2 = Carbon Dioxide
O_2 = Oxygen
N = Nitrogen

Monitoring Points	Time	Date	CH_4 (%) variable	CO_2 (%) variable	O_2 (%) <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	
	9:20	4/18/2016	0.05	3.0	16.6	80.4	
	9:17	4/12/2017	0.0	4.0	15.9	80.1	

CH_4 = Methane
CO_2 = Carbon Dioxide
O_2 = Oxygen
N = Nitrogen

Monitoring Points	Time	Date	CH_4 (%) variable	CO_2 (%) variable	O_2 (%) <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	
	8:55	4/18/2016	0.0	3.4	16.9	79.7	
	9:03	4/12/2017	0.0	4.2	17.2	78.6	

CH_4 = Methane
CO_2 = Carbon Dioxide
O_2 = Oxygen
N = Nitrogen

Monitoring Points	Time	Date	CH_4 (%) variable	CO_2 (%) variable	O_2 (%) <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	
	8:40	4/18/2016	0.0	2.4	19.0	78.6	
	8:37	4/12/2017	0.0	2.6	18.8	78.6	

CH_4 = Methane
CO_2 = Carbon Dioxide
O_2 = Oxygen
N = Nitrogen

Monitoring Points	Time	Date	CH_4 (%) variable	CO_2 (%) variable	O_2 (%) <5	N (%) <40	Comments target percentages
GP-12	9:06	3/22/2006	0.0	5.7	13.0	81.3	pre-startup
	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	
	8:35	4/18/2016	0.0	2.4	17.1	80.5	
	8:25	4/12/2017	0.0	3.4	16.7	79.9	

CH_4 = Methane
CO_2 = Carbon Dioxide
O_2 = Oxygen
N = Nitrogen

Monitoring Points	Time	Date	CH_4 (%) variable	CO_2 (%) variable	O_2 (%) <5	N (%) <40	Comments target percentages
MW-101	9:24	3/23/2006	2.9	18.1	0.8	78.2	pre-startup
	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	
	8:45	4/18/2016	0.0	0.0	20.9	79.1	
	8:43	4/12/2017	0.0	0.0	20.9	79.1	

CH_4 = Methane
CO_2 = Carbon Dioxide
O_2 = Oxygen
N = Nitrogen

Monitoring Points	Time	Date	CH_4 (%) variable	CO_2 (%) variable	O_2 (%) <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	7/21/2008	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	
	8:22	4/18/2016	0.0	0.4	19.9	79.7	
	8:18	4/12/2017	0.0	0.0	20.9	79.1	

CH_4 = Methane
CO_2 = Carbon Dioxide
O_2 = Oxygen
N = Nitrogen

Monitoring Points	Time	Date	CH_4 (%) variable	CO_2 (%) variable	O_2 (%) <5	N (%) <40	Comments target percentages
	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	
MW-103	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	
	9:30	4/18/2016	0.0	0.6	20.8	78.6	
	9:24	4/12/2017	0.0	0.0	20.9	79.1	

CH_4 = Methane
CO_2 = Carbon Dioxide
O_2 = Oxygen
N = Nitrogen

Monitoring Points	Time	Date	CH_4 (%) variable	CO_2 (%) variable	O_2 (%) <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	4/29/2013	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	
	8:09	4/18/2016	0.0	0.2	20.9	78.9	
	8:06	4/12/2017	0.0	0.0	20.9	79.1	

CH_4 = Methane
CO_2 = Carbon Dioxide
O_2 = Oxygen
N = Nitrogen

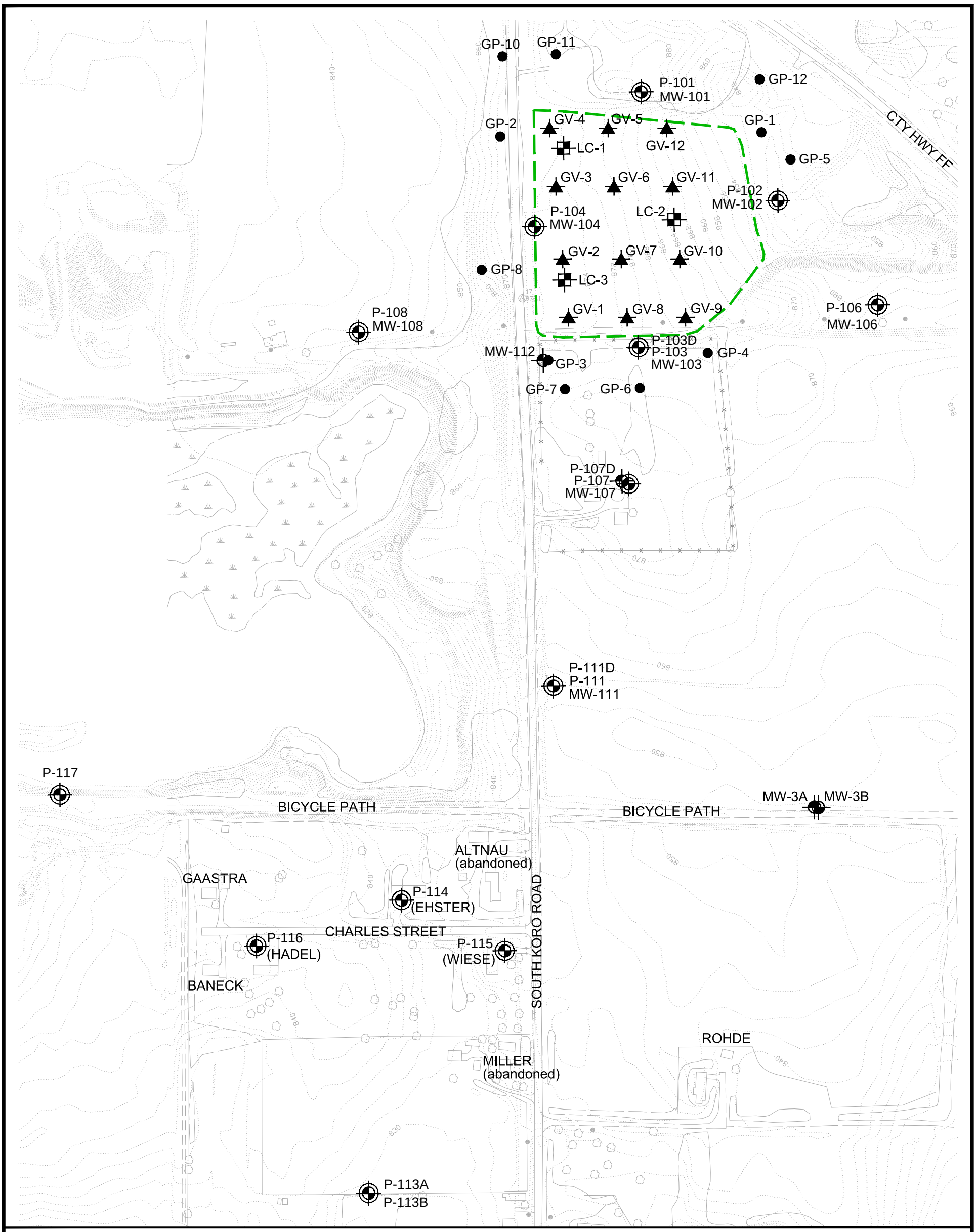
Monitoring Points	Time	Date	CH_4 (%) variable	CO_2 (%) variable	O_2 (%) <5	N (%) <40	Comments target percentages
System Exhaust	2:00	3/28/2006	4.4	4.0	17.8	73.8	
	12:52	5/4/2006	8.6	14.7	7.4	69.3	
	11:15	6/28/2006	5.9	14.5	9.5	70.1	
	11:45	7/5/2006	6.1	18.7	7.2	68.0	
	11:12	7/10/2006	6.7	21.7	5.1	66.5	
	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_4 = Methane
CO_2 = Carbon Dioxide
O_2 = Oxygen
N = Nitrogen

Monitoring Points	Time	Date	CH_4 (%) variable	CO_2 (%) variable	O_2 (%) <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	
	7:38	11/2/2015	4.7	8.4	12.4	74.5	
	7:20	11/16/2015	6.5	10.0	11.3	72.2	
	10:50	11/30/2015	7.4	10.2	12.0	70.4	
	7:10	12/15/2015	4.3	6.8	13.9	75.1	
	7:20	12/28/2015	5.5	7.2	14.3	73.0	
	8:05	1/9/2016	7.0	8.0	12.5	72.5	
	7:40	1/25/2016	6.5	6.2	15.5	71.8	
	7:35	2/8/2016	5.0	5.2	16.0	73.8	
	8:21	2/22/2016	7.0	6.4	14.7	71.9	
	7:35	3/7/2016	9.0	7.2	13.5	70.3	
	8:18	3/21/2016	6.5	6.6	14.7	72.2	
	7:40	4/4/2016	3.8	4.8	16.1	75.4	
	7:45	4/18/2016	3.8	4.0	16.8	75.5	
	8:50	5/3/2016	4.2	3.6	16.9	75.4	
	7:38	5/16/2016	4.0	3.4	17.6	75.1	
	7:35	6/2/2016	2.6	2.8	17.9	76.7	
	7:37	6/14/2016	3.1	3.0	18.0	75.9	
	7:38	6/27/2016	2.2	2.4	18.1	77.4	
	10:10	7/14/2016	2.5	3.0	17.8	76.7	
	7:44	7/25/2016	2.1	3.0	18.0	76.9	
	7:35	8/8/2016	2.7	3.4	17.6	76.4	
	8:00	8/25/2016	2.6	3.6	17.2	76.6	
	7:20	9/6/2016	3.0	3.6	17.4	76.1	
	9:45	10/3/2016	3.4	4.8	16.5	75.3	
	7:50	10/19/2016	2.8	4.4	16.9	76.0	
	8:33	10/31/2016	3.7	16.1	5.4	74.8	
	7:59	11/14/2016	4.1	5.6	16.0	74.3	
	8:49	11/28/2016	6.5	7.4	14.3	71.8	
	9:04	12/9/2016	3.7	4.8	17.2	74.3	
	7:40	12/22/2016	4.6	5.4	15.9	74.1	
	7:40	1/4/2017	6.5	6.0	15.6	71.9	
	7:15	1/13/2017	6.8	6.2	14.8	72.2	
	7:08	1/27/2017	9.5	7.6	14.5	68.4	
	7:43	2/13/2017	7.5	5.8	14.8	71.9	
	7:40	2/27/2017	9.0	6.6	14.2	70.2	
	8:06	3/13/2017	11.5	7.0	15.4	66.1	
	7:07	3/28/2017	11.5	7.4	14.4	66.7	
	7:49	4/12/2017	9.0	7.4	14.8	68.8	
	6:50	4/18/2017	12.5	8.8	13.8	64.9	
	7:04	4/25/2017	12.5	13.9	8.4	65.2	
	7:07	5/8/2017	9.8	7.6	14.7	67.9	
	7:15	5/22/2017	9.0	7.6	13.9	69.5	
	7:26	6/5/2017	7.5	7.6	13.9	71.0	
	7:20	6/19/2017	5.0	6.8	14.6	73.6	
	8:23	7/4/2017	2.9	3.6	17.4	76.2	
	7:42	7/18/2017	1.8	2.4	18.6	77.2	

CH_4 = Methane
CO_2 = Carbon Dioxide
O_2 = 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

N

SCALE

0 500

Feet

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

FF/NN LANDFILL
RIPON, WISCONSIN

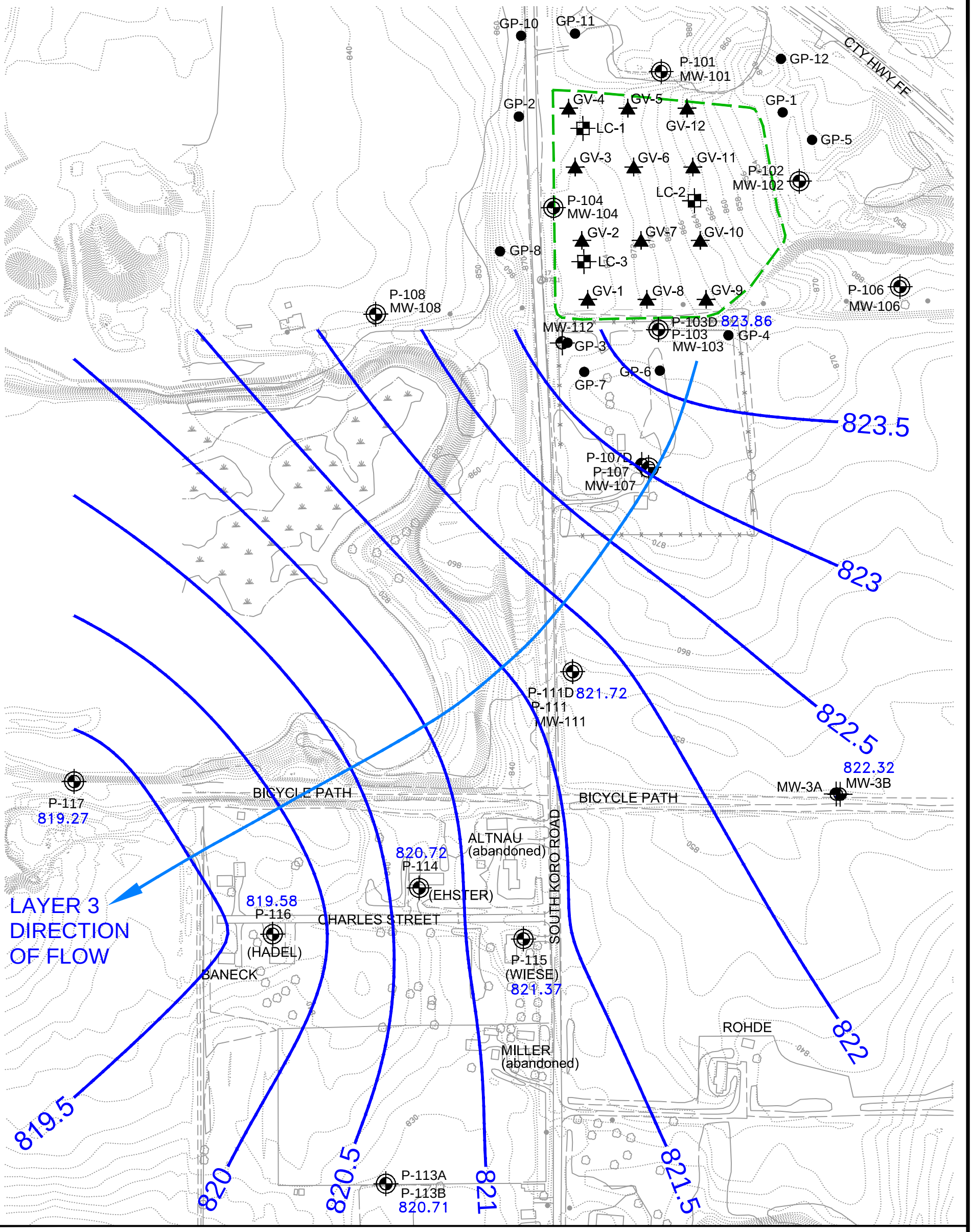
SITE LAYOUT

DATE:	10/3/13
DESIGNED:	HJW
CHECKED:	MRN
APPROVED:	MRN
DRAWN:	HJW
PROJ.:	117-2202040

TETRA TECH

Figure 1

S:\CAD\RIPON\2202.040\SITE LAYOUT.DWG



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
823.45	GROUNDWATER ELEVATION

N

SCALE

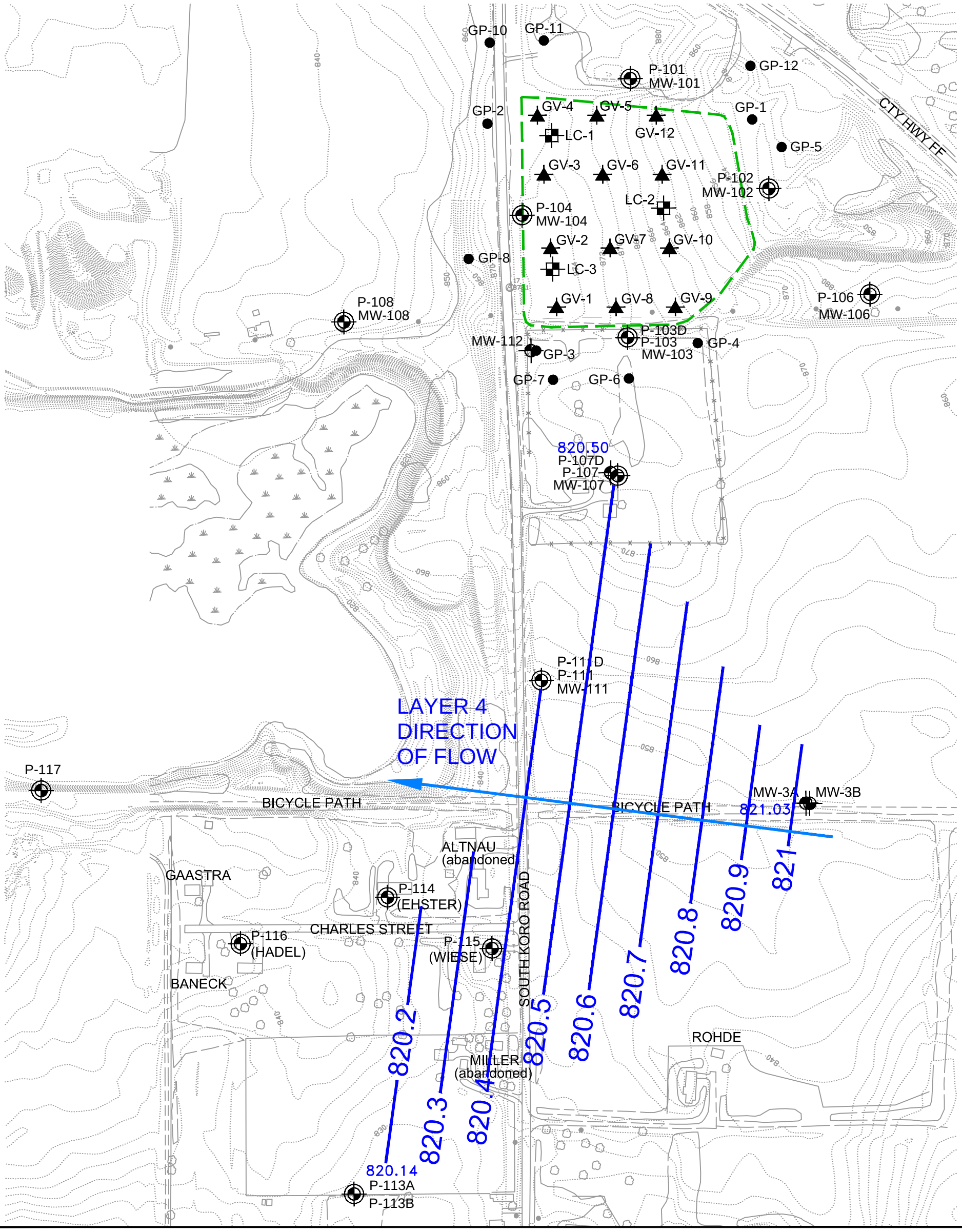
0 500

Feet

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

FF/NN LANDFILL RIPON, WISCONSIN	DATE: 7/26/17
	DESIGNED: HJW
	CHECKED: MRN
	APPROVED: MRN
	DRAWN: HJW
	PROJ.: 117-2202054
GROUNDWATER ELEVATIONS LAYER 3 WELLS JULY 2017	
TETRA TECH	Figure 3

S:\CAD\RIPON\2202.054\7-26-17\2202054FIG3.DWG



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
820.84	GROUNDWATER ELEVATION

N

SCALE

0 500

Feet

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

FF/NN LANDFILL
RIPON, WISCONSIN

GROUNDWATER ELEVATIONS
LAYER 4 WELLS
JULY 2017

DATE:	7/26/17
DESIGNED:	HJW
CHECKED:	MRN
APPROVED:	MRN
DRAWN:	HJW
PROJ.:	117-2202054

TETRA TECH

Figure 4

S:\CAD\RIPON\2202.054\7-26-17\2202054FIG4.DWG

CHARTS

Chart 3: Layer 3 Historic Water Level Data

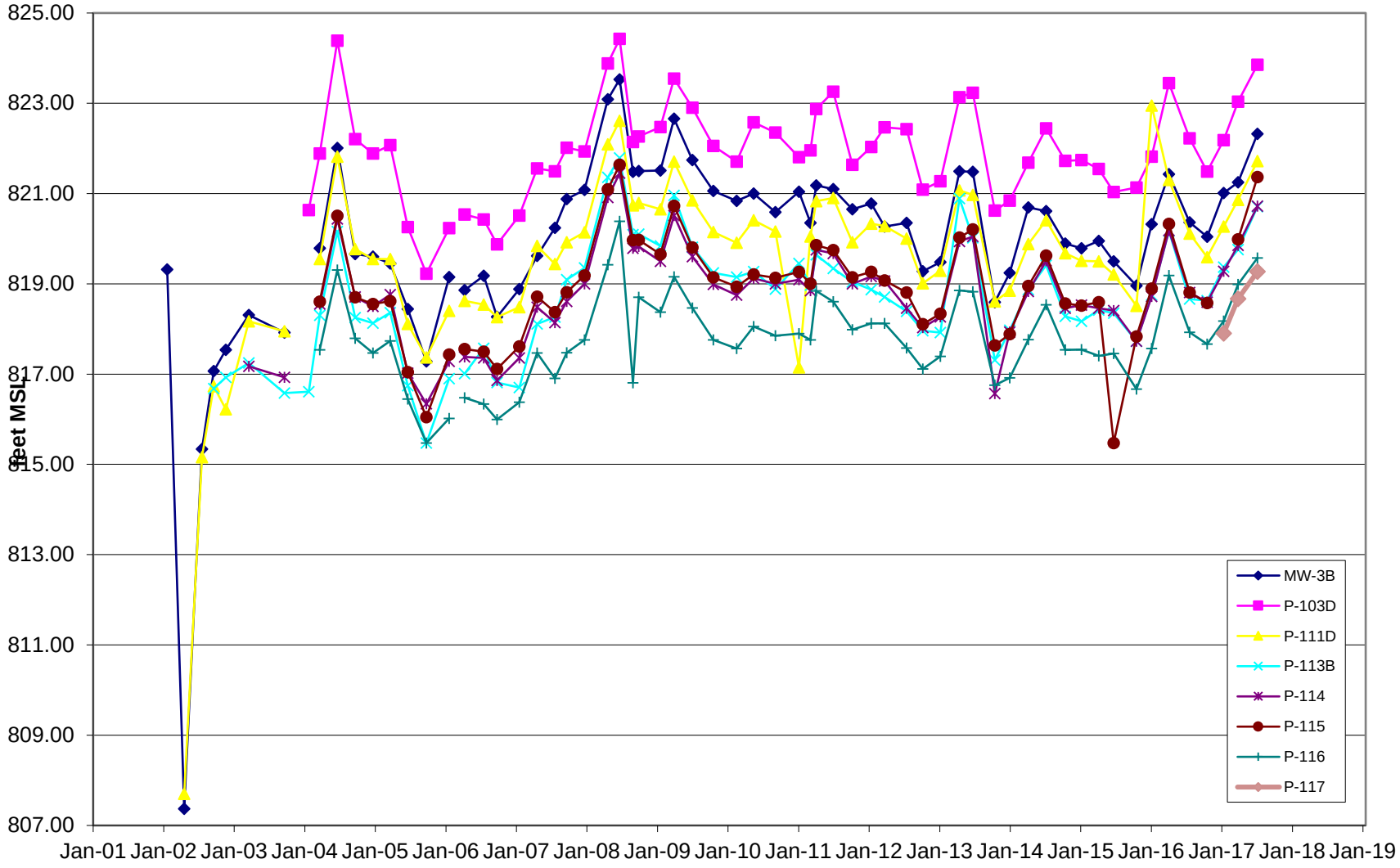


Chart 4: Layer 4 Historic Water Level Data

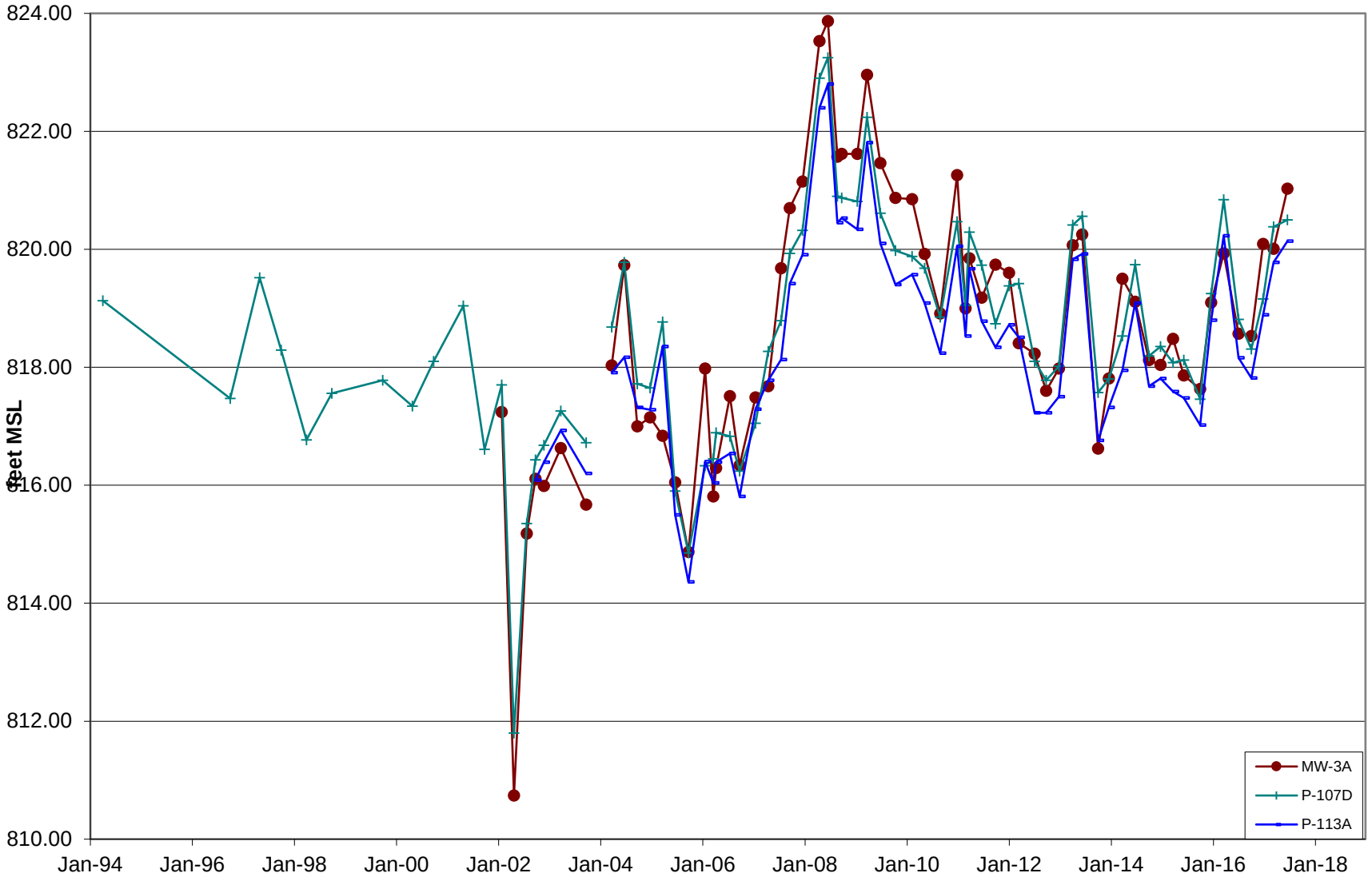


Chart 53: P-103D
Layer 3 Well

10' Down gradient

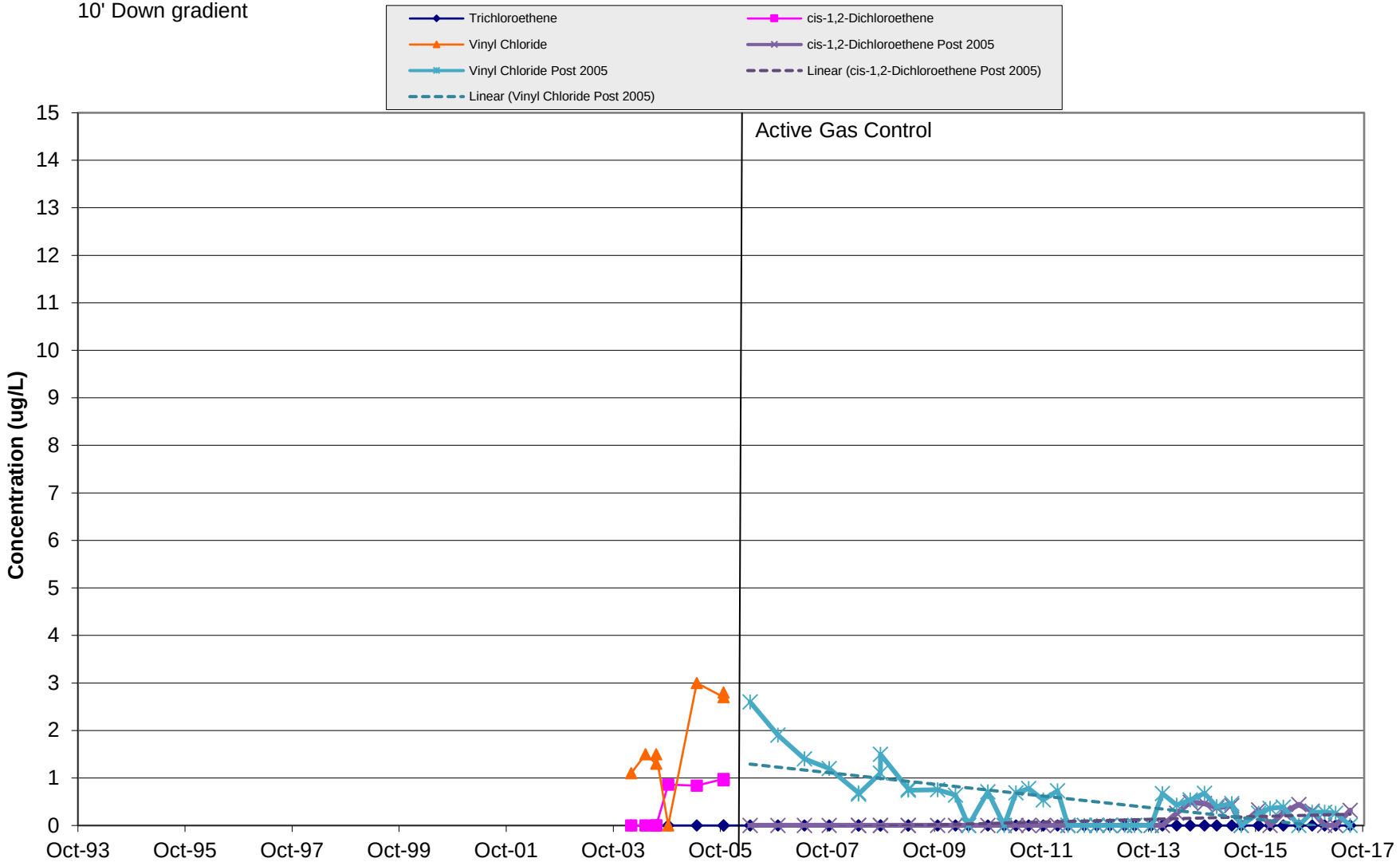


Chart 54: P-111D
Layer 3 Well

900' Down gradient

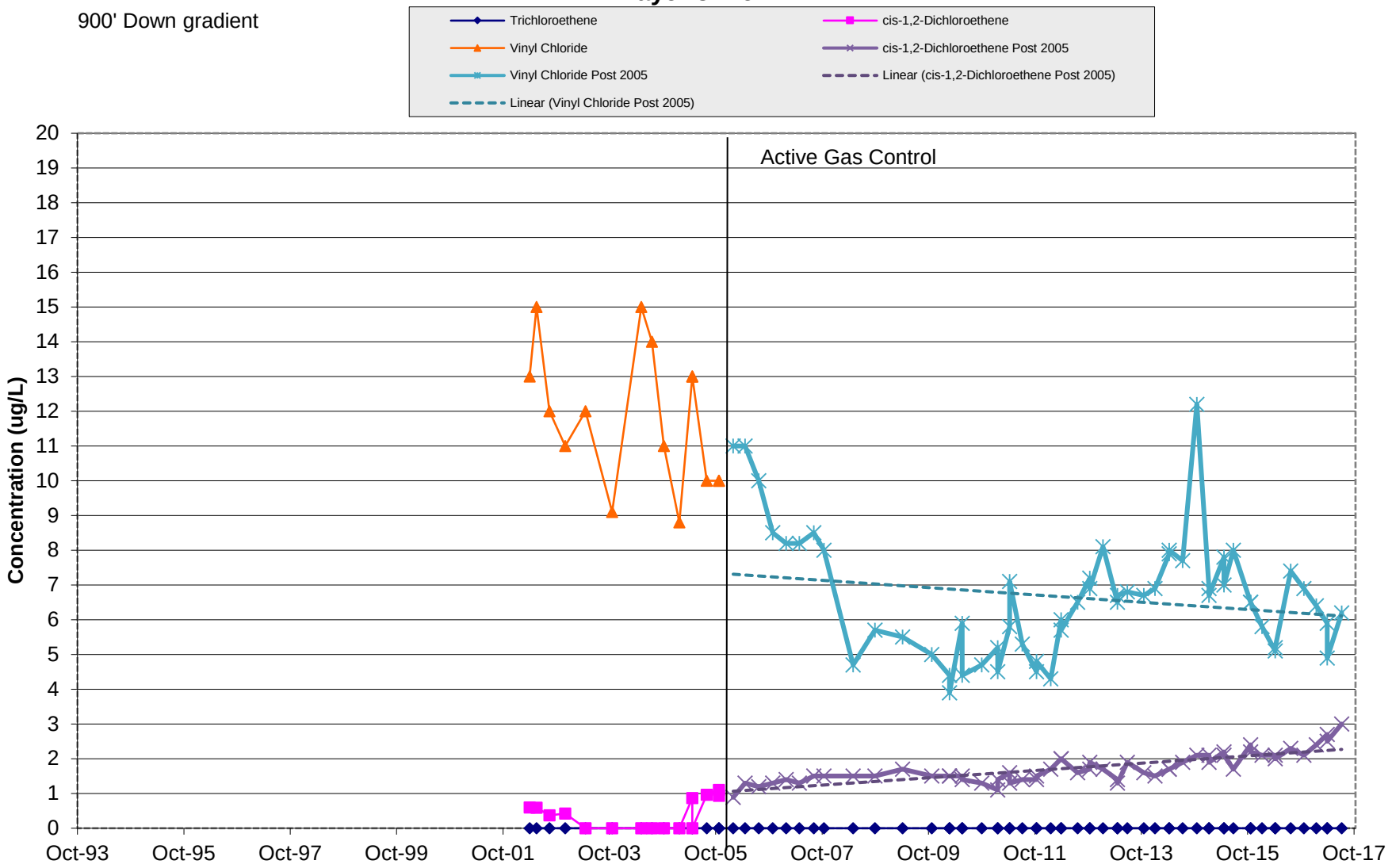


Chart 57: P-114
Layer 3 Well

1550' Down gradient

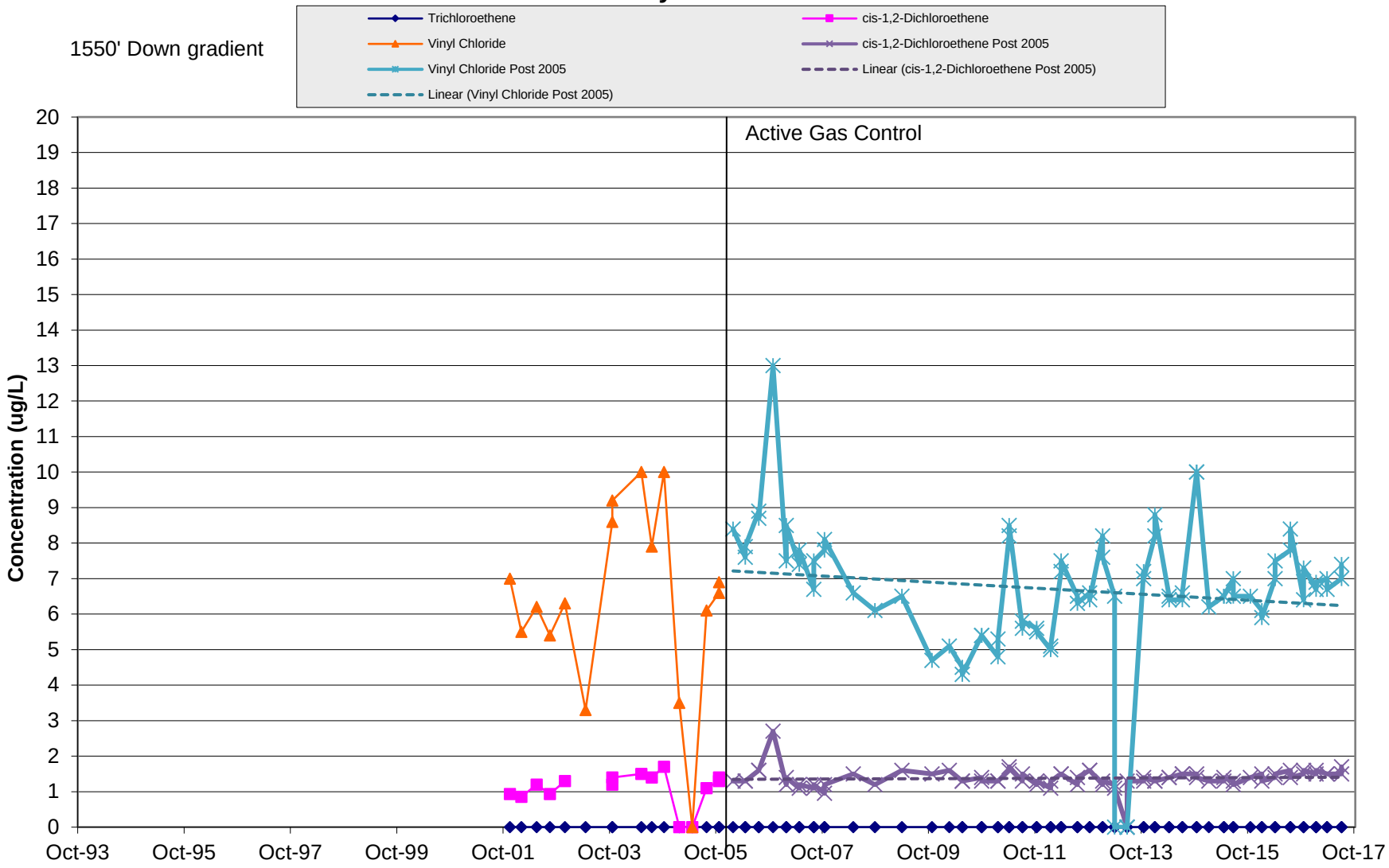
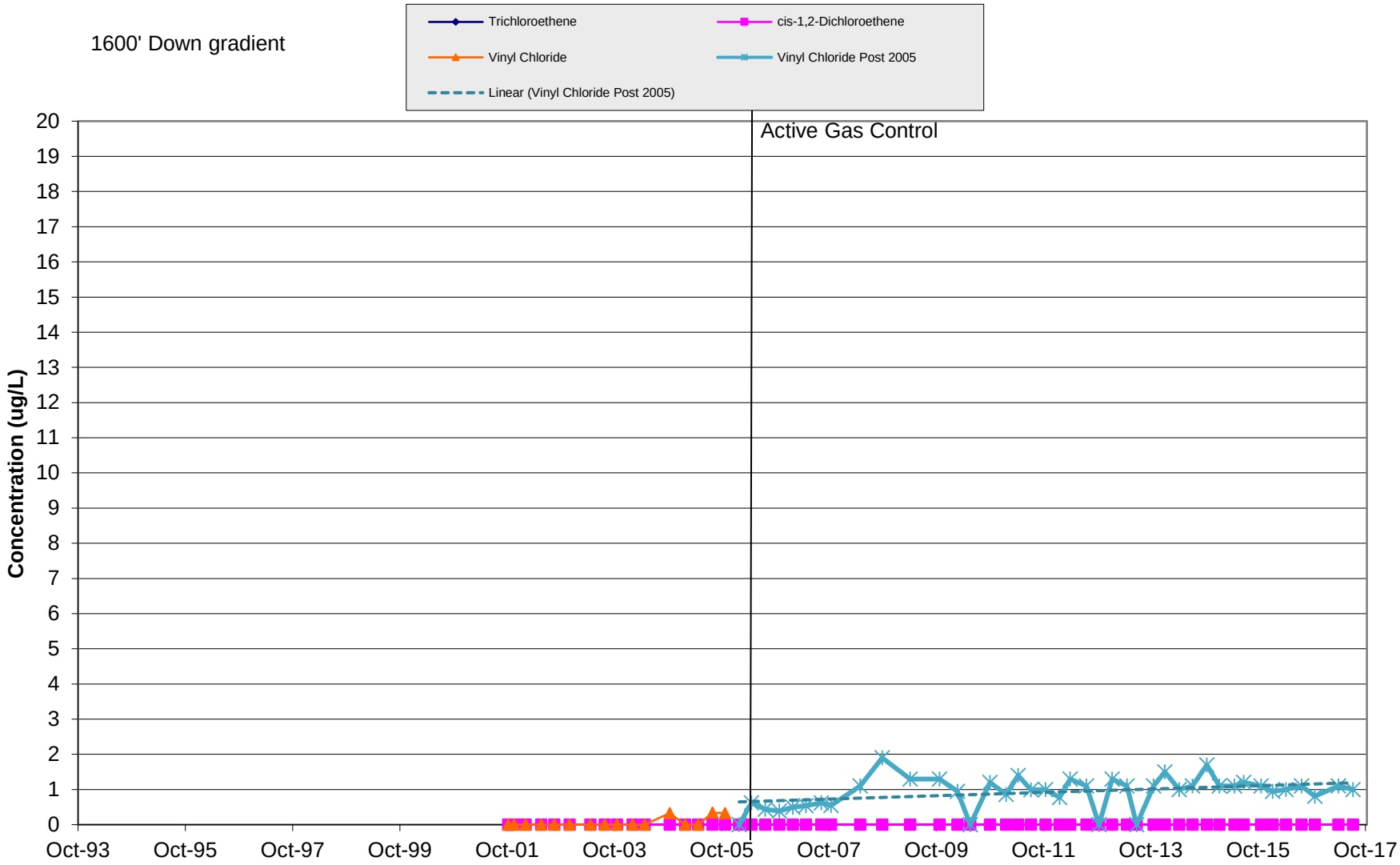


Chart 58: P-115
Layer 3 Well

1600' Down gradient



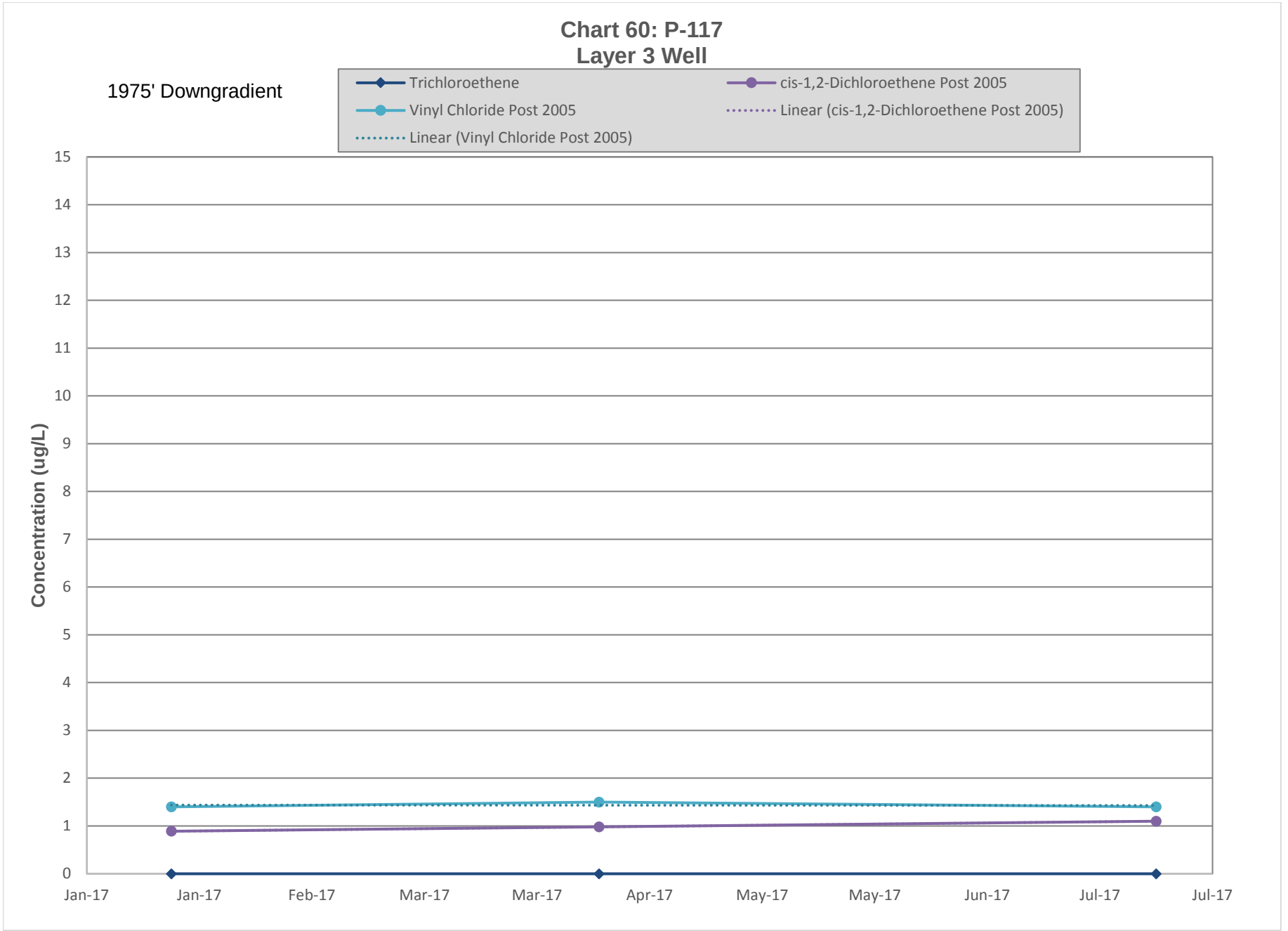
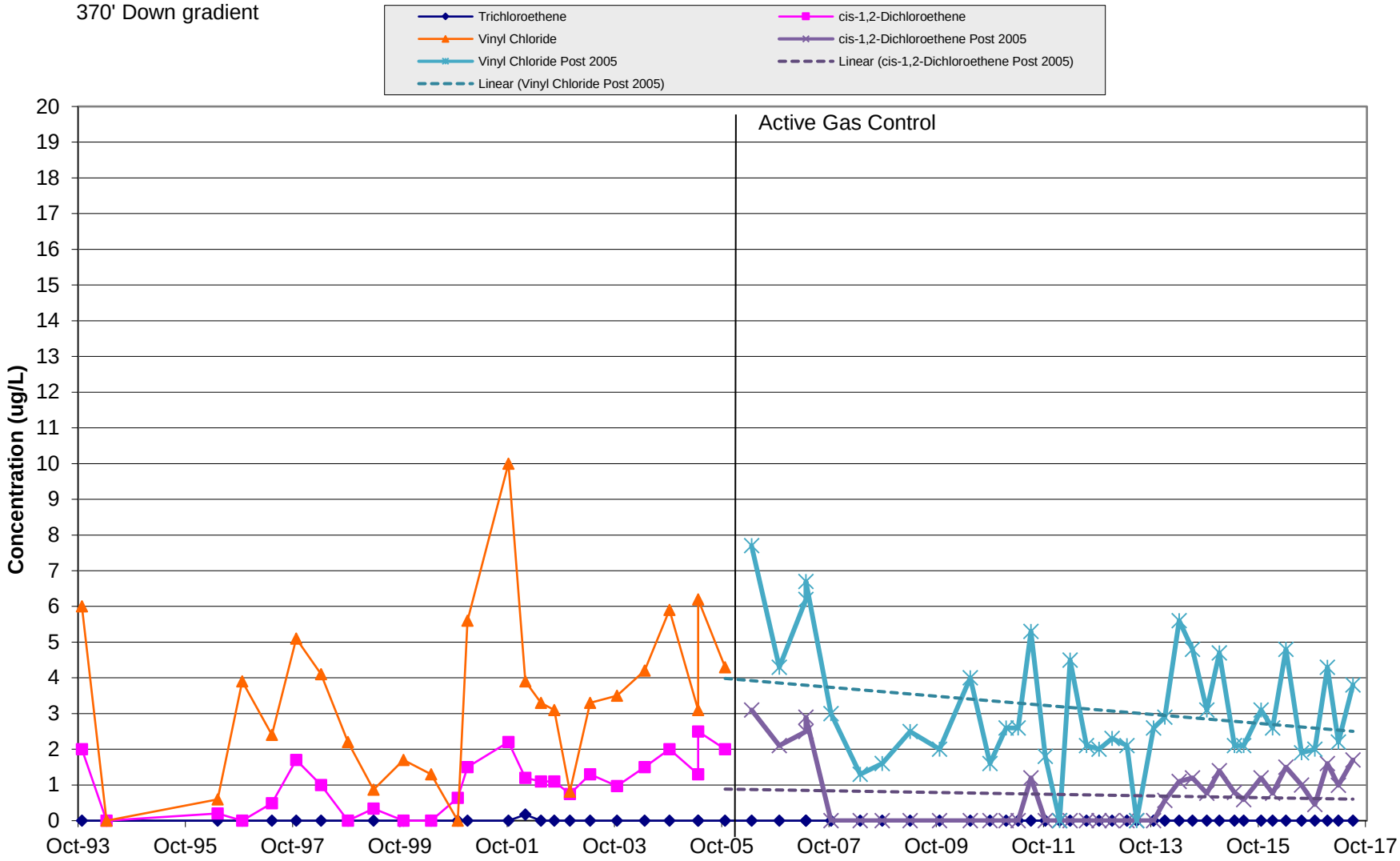


Chart 60: P-117
Layer 3 Well
1975' Downgradient
Trichloroethene
cis-1,2-Dichloroethene Post 2005
Vinyl Chloride Post 2005
Linear (cis-1,2-Dichloroethene Post 2005)
Linear (Vinyl Chloride Post 2005)
Concentration (ug/L)
15
14
13
12
11
10
9
8
7
6
5
4
3
2
1
0
Jan-17
Jan-17
Feb-17
Mar-17
Mar-17
Apr-17
May-17
May-17
Jun-17
Jul-17
Jul-17

Chart 62: P-107D
Layer 4 Well

370' Down gradient



ATTACHMENTS

ATTACHMENT A

STRATIGRAPHIC GROUPING TABLE

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

Layer	Well ID	Well Screen Elevation (ft msl)	Lithology at Well Screen
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

ATTACHMENT B
LABORATORY ANALYTICAL RESULTS

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

July 20, 2017

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

RE: Project: 117-2202058.01 RIPON FF/NN LAN
Pace Project No.: 40153379

Dear Mike Noel:
Enclosed are the analytical results for sample(s) received by the laboratory on July 18, 2017. The results relate only to the samples included in this report. Results reported herein conform to the most current, applicable TNI/NELAC 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
(920)469-2436
Project Manager

Enclosures

cc: Ashley Weimer, Tetra Tech Geo

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CERTIFICATIONS

Project: 117-2202058.01 RIPON FF/NN LAN
Pace Project No.: 40153379

Green Bay Certification IDs

1241 Bellevue Street, Green Bay, WI 54302
Florida/NELAP Certification #: E87948
Illinois Certification #: 200050
Kentucky UST Certification #: 82
Louisiana Certification #: 04168
Minnesota Certification #: 055-999-334
New York Certification #: 12064
North Dakota Certification #: R-150
Virginia VELAP ID: 460263
South Carolina Certification #: 83006001
Texas Certification #: T104704529-14-1
Wisconsin Certification #: 405132750
Wisconsin DATCP Certification #: 105-444
USDA Soil Permit #: P330-16-00157
Federal Fish & Wildlife Permit #: LE51774A-0

REPORT OF LABORATORY ANALYSIS

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SAMPLE SUMMARY

Project: 117-2202058.01 RIPON FF/NN LAN
Pace Project No.: 40153379

Lab ID	Sample ID	Matrix	Date Collected	Date Received
40153379001	**P-103D**	Water	07/14/17 09:50	07/18/17 09:35
40153379002	**P-107D**	Water	07/14/17 10:30	07/18/17 09:35
40153379003	**P-111D**	Water	07/14/17 11:00	07/18/17 09:35
40153379004	**MW-3A**	Water	07/14/17 12:00	07/18/17 09:35
40153379005	**MW-3B**	Water	07/14/17 12:10	07/18/17 09:35
40153379006	**P-117**	Water	07/14/17 12:55	07/18/17 09:35
40153379007	**P-113A**	Water	07/14/17 14:05	07/18/17 09:35
40153379008	**P-113B**	Water	07/14/17 14:20	07/18/17 09:35
40153379009	**P-116**	Water	07/14/17 14:55	07/18/17 09:35
40153379010	**P-114**	Water	07/14/17 15:25	07/18/17 09:35
40153379011	**P-114 DUP**	Water	07/14/17 15:30	07/18/17 09:35
40153379012	**P-115**	Water	07/14/17 16:00	07/18/17 09:35
40153379013	**TRIP BLANK**	Water	07/14/17 00:00	07/18/17 09:35

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SAMPLE ANALYTE COUNT

Project: 117-2202058.01 RIPON FF/NN LAN
Pace Project No.: 40153379

Lab ID	Sample ID	Method	Analysts	Analytes Reported
40153379001	**P-103D**	EPA 8260	LAP	45
40153379002	**P-107D**	EPA 8260	LAP	45
40153379003	**P-111D**	EPA 8260	HNW	45
40153379004	**MW-3A**	EPA 8260	HNW	45
40153379005	**MW-3B**	EPA 8260	HNW	45
40153379006	**P-117**	EPA 8260	LAP	45
40153379007	**P-113A**	EPA 8260	HNW	45
40153379008	**P-113B**	EPA 8260	HNW	45
40153379009	**P-116**	EPA 8260	HNW	45
40153379010	**P-114**	EPA 8260	HNW	45
40153379011	**P-114 DUP**	EPA 8260	HNW	45
40153379012	**P-115**	EPA 8260	HNW	45
40153379013	**TRIP BLANK**	EPA 8260	LAP	45

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ANALYTICAL RESULTS

Project: 117-2202058.01 RIPON FF/NN LAN
Pace Project No.: 40153379

Sample: P-103D **Lab ID: 40153379001** Collected: 07/14/17 09:50 Received: 07/18/17 09:35 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV	Analytical Method: EPA 8260								
1,1,1-Trichloroethane	**<0.50**	ug/L	1.0	0.50	1		07/20/17 07:56	71-55-6	
1,1,2-Trichloroethane	**<0.20**	ug/L	1.0	0.20	1		07/20/17 07:56	79-00-5	
1,1-Dichloroethane	**<0.24**	ug/L	1.0	0.24	1		07/20/17 07:56	75-34-3	
1,1-Dichloroethene	**<0.41**	ug/L	1.0	0.41	1		07/20/17 07:56	75-35-4	
1,2-Dibromo-3-chloropropane	**<2.2**	ug/L	5.0	2.2	1		07/20/17 07:56	96-12-8	
1,2-Dibromoethane (EDB)	**<0.18**	ug/L	1.0	0.18	1		07/20/17 07:56	106-93-4	
1,2-Dichlorobenzene	**<0.50**	ug/L	1.0	0.50	1		07/20/17 07:56	95-50-1	
1,2-Dichloroethane	**<0.17**	ug/L	1.0	0.17	1		07/20/17 07:56	107-06-2	
1,2-Dichloropropane	**<0.23**	ug/L	1.0	0.23	1		07/20/17 07:56	78-87-5	
1,3-Dichlorobenzene	**<0.50**	ug/L	1.0	0.50	1		07/20/17 07:56	541-73-1	
1,4-Dichlorobenzene	**<0.50**	ug/L	1.0	0.50	1		07/20/17 07:56	106-46-7	
2-Butanone (MEK)	**<3.0**	ug/L	20.0	3.0	1		07/20/17 07:56	78-93-3	
Acetone	**<3.0**	ug/L	20.0	3.0	1		07/20/17 07:56	67-64-1	
Benzene	**<0.50**	ug/L	1.0	0.50	1		07/20/17 07:56	71-43-2	
Bromodichloromethane	**<0.50**	ug/L	1.0	0.50	1		07/20/17 07:56	75-27-4	
Bromoform	**<0.50**	ug/L	1.0	0.50	1		07/20/17 07:56	75-25-2	
Bromomethane	**<2.4**	ug/L	5.0	2.4	1		07/20/17 07:56	74-83-9	
Carbon disulfide	**<0.61**	ug/L	5.0	0.61	1		07/20/17 07:56	75-15-0	
Carbon tetrachloride	**<0.50**	ug/L	1.0	0.50	1		07/20/17 07:56	56-23-5	
Chlorobenzene	**<0.50**	ug/L	1.0	0.50	1		07/20/17 07:56	108-90-7	
Chloroethane	**<0.37**	ug/L	1.0	0.37	1		07/20/17 07:56	75-00-3	
Chloroform	**<2.5**	ug/L	5.0	2.5	1		07/20/17 07:56	67-66-3	
Chloromethane	**<0.50**	ug/L	1.0	0.50	1		07/20/17 07:56	74-87-3	
Dibromochloromethane	**<0.50**	ug/L	1.0	0.50	1		07/20/17 07:56	124-48-1	
Dibromomethane	**<0.43**	ug/L	1.0	0.43	1		07/20/17 07:56	74-95-3	
Dichlorodifluoromethane	**<0.22**	ug/L	1.0	0.22	1		07/20/17 07:56	75-71-8	
Ethylbenzene	**<0.50**	ug/L	1.0	0.50	1		07/20/17 07:56	100-41-4	
Methyl-tert-butyl ether	**<0.17**	ug/L	1.0	0.17	1		07/20/17 07:56	1634-04-4	
Methylene Chloride	**<0.23**	ug/L	1.0	0.23	1		07/20/17 07:56	75-09-2	
Naphthalene	**<2.5**	ug/L	5.0	2.5	1		07/20/17 07:56	91-20-3	
Styrene	**<0.50**	ug/L	1.0	0.50	1		07/20/17 07:56	100-42-5	
Tetrachloroethene	**<0.50**	ug/L	1.0	0.50	1		07/20/17 07:56	127-18-4	
Tetrahydrofuran	**<2.0**	ug/L	5.0	2.0	1		07/20/17 07:56	109-99-9	
Toluene	**<0.50**	ug/L	1.0	0.50	1		07/20/17 07:56	108-88-3	
Trichloroethene	**<0.33**	ug/L	1.0	0.33	1		07/20/17 07:56	79-01-6	
Trichlorofluoromethane	**<0.18**	ug/L	1.0	0.18	1		07/20/17 07:56	75-69-4	
Vinyl chloride	**<0.18**	ug/L	1.0	0.18	1		07/20/17 07:56	75-01-4	
Xylene (Total)	**<1.5**	ug/L	3.0	1.5	1		07/20/17 07:56	1330-20-7	
cis-1,2-Dichloroethene	**0.32J**	ug/L	1.0	0.26	1		07/20/17 07:56	156-59-2	
cis-1,3-Dichloropropene	**<0.50**	ug/L	1.0	0.50	1		07/20/17 07:56	10061-01-5	
trans-1,2-Dichloroethene	**<0.26**	ug/L	1.0	0.26	1		07/20/17 07:56	156-60-5	
trans-1,3-Dichloropropene	**<0.23**	ug/L	1.0	0.23	1		07/20/17 07:56	10061-02-6	
Surrogates									
4-Bromofluorobenzene (S)	93	%	61-130		1		07/20/17 07:56	460-00-4	HS
Dibromofluoromethane (S)	104	%	67-130		1		07/20/17 07:56	1868-53-7	
Toluene-d8 (S)	100	%	70-130		1		07/20/17 07:56	2037-26-5	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: 117-2202058.01 RIPON FF/NN LAN
Pace Project No.: 40153379

Sample: P-107D **Lab ID: 40153379002** Collected: 07/14/17 10:30 Received: 07/18/17 09:35 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV	Analytical Method: EPA 8260								
1,1,1-Trichloroethane	**<0.50**	ug/L	1.0	0.50	1		07/20/17 08:40	71-55-6	
1,1,2-Trichloroethane	**<0.20**	ug/L	1.0	0.20	1		07/20/17 08:40	79-00-5	
1,1-Dichloroethane	**<0.24**	ug/L	1.0	0.24	1		07/20/17 08:40	75-34-3	
1,1-Dichloroethene	**<0.41**	ug/L	1.0	0.41	1		07/20/17 08:40	75-35-4	
1,2-Dibromo-3-chloropropane	**<2.2**	ug/L	5.0	2.2	1		07/20/17 08:40	96-12-8	
1,2-Dibromoethane (EDB)	**<0.18**	ug/L	1.0	0.18	1		07/20/17 08:40	106-93-4	
1,2-Dichlorobenzene	**<0.50**	ug/L	1.0	0.50	1		07/20/17 08:40	95-50-1	
1,2-Dichloroethane	**<0.17**	ug/L	1.0	0.17	1		07/20/17 08:40	107-06-2	
1,2-Dichloropropane	**<0.23**	ug/L	1.0	0.23	1		07/20/17 08:40	78-87-5	
1,3-Dichlorobenzene	**<0.50**	ug/L	1.0	0.50	1		07/20/17 08:40	541-73-1	
1,4-Dichlorobenzene	**<0.50**	ug/L	1.0	0.50	1		07/20/17 08:40	106-46-7	
2-Butanone (MEK)	**<3.0**	ug/L	20.0	3.0	1		07/20/17 08:40	78-93-3	
Acetone	**<3.0**	ug/L	20.0	3.0	1		07/20/17 08:40	67-64-1	
Benzene	**<0.50**	ug/L	1.0	0.50	1		07/20/17 08:40	71-43-2	
Bromodichloromethane	**<0.50**	ug/L	1.0	0.50	1		07/20/17 08:40	75-27-4	
Bromoform	**<0.50**	ug/L	1.0	0.50	1		07/20/17 08:40	75-25-2	
Bromomethane	**<2.4**	ug/L	5.0	2.4	1		07/20/17 08:40	74-83-9	
Carbon disulfide	**<0.61**	ug/L	5.0	0.61	1		07/20/17 08:40	75-15-0	
Carbon tetrachloride	**<0.50**	ug/L	1.0	0.50	1		07/20/17 08:40	56-23-5	
Chlorobenzene	**<0.50**	ug/L	1.0	0.50	1		07/20/17 08:40	108-90-7	
Chloroethane	**1.4**	ug/L	1.0	0.37	1		07/20/17 08:40	75-00-3	
Chloroform	**<2.5**	ug/L	5.0	2.5	1		07/20/17 08:40	67-66-3	
Chloromethane	**<0.50**	ug/L	1.0	0.50	1		07/20/17 08:40	74-87-3	
Dibromochloromethane	**<0.50**	ug/L	1.0	0.50	1		07/20/17 08:40	124-48-1	
Dibromomethane	**<0.43**	ug/L	1.0	0.43	1		07/20/17 08:40	74-95-3	
Dichlorodifluoromethane	**<0.22**	ug/L	1.0	0.22	1		07/20/17 08:40	75-71-8	
Ethylbenzene	**<0.50**	ug/L	1.0	0.50	1		07/20/17 08:40	100-41-4	
Methyl-tert-butyl ether	**<0.17**	ug/L	1.0	0.17	1		07/20/17 08:40	1634-04-4	
Methylene Chloride	**<0.23**	ug/L	1.0	0.23	1		07/20/17 08:40	75-09-2	
Naphthalene	**<2.5**	ug/L	5.0	2.5	1		07/20/17 08:40	91-20-3	
Styrene	**<0.50**	ug/L	1.0	0.50	1		07/20/17 08:40	100-42-5	
Tetrachloroethene	**<0.50**	ug/L	1.0	0.50	1		07/20/17 08:40	127-18-4	
Tetrahydrofuran	**<2.0**	ug/L	5.0	2.0	1		07/20/17 08:40	109-99-9	
Toluene	**<0.50**	ug/L	1.0	0.50	1		07/20/17 08:40	108-88-3	
Trichloroethene	**<0.33**	ug/L	1.0	0.33	1		07/20/17 08:40	79-01-6	
Trichlorofluoromethane	**<0.18**	ug/L	1.0	0.18	1		07/20/17 08:40	75-69-4	
Vinyl chloride	**3.8**	ug/L	1.0	0.18	1		07/20/17 08:40	75-01-4	
Xylene (Total)	**<1.5**	ug/L	3.0	1.5	1		07/20/17 08:40	1330-20-7	
cis-1,2-Dichloroethene	**1.7**	ug/L	1.0	0.26	1		07/20/17 08:40	156-59-2	
cis-1,3-Dichloropropene	**<0.50**	ug/L	1.0	0.50	1		07/20/17 08:40	10061-01-5	
trans-1,2-Dichloroethene	**<0.26**	ug/L	1.0	0.26	1		07/20/17 08:40	156-60-5	
trans-1,3-Dichloropropene	**<0.23**	ug/L	1.0	0.23	1		07/20/17 08:40	10061-02-6	
Surrogates									
4-Bromofluorobenzene (S)	97	%	61-130		1		07/20/17 08:40	460-00-4	
Dibromofluoromethane (S)	103	%	67-130		1		07/20/17 08:40	1868-53-7	
Toluene-d8 (S)	102	%	70-130		1		07/20/17 08:40	2037-26-5	

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ANALYTICAL RESULTS

Project: 117-2202058.01 RIPON FF/NN LAN
Pace Project No.: 40153379

Sample: P-111D **Lab ID: 40153379003** Collected: 07/14/17 11:00 Received: 07/18/17 09:35 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV	Analytical Method: EPA 8260								
1,1,1-Trichloroethane	**<0.50**	ug/L	1.0	0.50	1		07/19/17 17:52	71-55-6	
1,1,2-Trichloroethane	**<0.20**	ug/L	1.0	0.20	1		07/19/17 17:52	79-00-5	
1,1-Dichloroethane	**<0.24**	ug/L	1.0	0.24	1		07/19/17 17:52	75-34-3	
1,1-Dichloroethene	**<0.41**	ug/L	1.0	0.41	1		07/19/17 17:52	75-35-4	
1,2-Dibromo-3-chloropropane	**<2.2**	ug/L	5.0	2.2	1		07/19/17 17:52	96-12-8	
1,2-Dibromoethane (EDB)	**<0.18**	ug/L	1.0	0.18	1		07/19/17 17:52	106-93-4	
1,2-Dichlorobenzene	**<0.50**	ug/L	1.0	0.50	1		07/19/17 17:52	95-50-1	
1,2-Dichloroethane	**<0.17**	ug/L	1.0	0.17	1		07/19/17 17:52	107-06-2	
1,2-Dichloropropane	**<0.23**	ug/L	1.0	0.23	1		07/19/17 17:52	78-87-5	
1,3-Dichlorobenzene	**<0.50**	ug/L	1.0	0.50	1		07/19/17 17:52	541-73-1	
1,4-Dichlorobenzene	**<0.50**	ug/L	1.0	0.50	1		07/19/17 17:52	106-46-7	
2-Butanone (MEK)	**<3.0**	ug/L	20.0	3.0	1		07/19/17 17:52	78-93-3	
Acetone	**<3.0**	ug/L	20.0	3.0	1		07/19/17 17:52	67-64-1	
Benzene	**<0.50**	ug/L	1.0	0.50	1		07/19/17 17:52	71-43-2	
Bromodichloromethane	**<0.50**	ug/L	1.0	0.50	1		07/19/17 17:52	75-27-4	
Bromoform	**<0.50**	ug/L	1.0	0.50	1		07/19/17 17:52	75-25-2	
Bromomethane	**<2.4**	ug/L	5.0	2.4	1		07/19/17 17:52	74-83-9	
Carbon disulfide	**<0.61**	ug/L	5.0	0.61	1		07/19/17 17:52	75-15-0	
Carbon tetrachloride	**<0.50**	ug/L	1.0	0.50	1		07/19/17 17:52	56-23-5	
Chlorobenzene	**<0.50**	ug/L	1.0	0.50	1		07/19/17 17:52	108-90-7	
Chloroethane	**1.6**	ug/L	1.0	0.37	1		07/19/17 17:52	75-00-3	
Chloroform	**<2.5**	ug/L	5.0	2.5	1		07/19/17 17:52	67-66-3	
Chloromethane	**<0.50**	ug/L	1.0	0.50	1		07/19/17 17:52	74-87-3	
Dibromochloromethane	**<0.50**	ug/L	1.0	0.50	1		07/19/17 17:52	124-48-1	
Dibromomethane	**<0.43**	ug/L	1.0	0.43	1		07/19/17 17:52	74-95-3	
Dichlorodifluoromethane	**<0.22**	ug/L	1.0	0.22	1		07/19/17 17:52	75-71-8	
Ethylbenzene	**<0.50**	ug/L	1.0	0.50	1		07/19/17 17:52	100-41-4	
Methyl-tert-butyl ether	**<0.17**	ug/L	1.0	0.17	1		07/19/17 17:52	1634-04-4	
Methylene Chloride	**<0.23**	ug/L	1.0	0.23	1		07/19/17 17:52	75-09-2	
Naphthalene	**<2.5**	ug/L	5.0	2.5	1		07/19/17 17:52	91-20-3	
Styrene	**<0.50**	ug/L	1.0	0.50	1		07/19/17 17:52	100-42-5	
Tetrachloroethene	**<0.50**	ug/L	1.0	0.50	1		07/19/17 17:52	127-18-4	
Tetrahydrofuran	**<2.0**	ug/L	5.0	2.0	1		07/19/17 17:52	109-99-9	
Toluene	**<0.50**	ug/L	1.0	0.50	1		07/19/17 17:52	108-88-3	
Trichloroethene	**<0.33**	ug/L	1.0	0.33	1		07/19/17 17:52	79-01-6	
Trichlorofluoromethane	**<0.18**	ug/L	1.0	0.18	1		07/19/17 17:52	75-69-4	
Vinyl chloride	**6.2**	ug/L	1.0	0.18	1		07/19/17 17:52	75-01-4	
Xylene (Total)	**<1.5**	ug/L	3.0	1.5	1		07/19/17 17:52	1330-20-7	
cis-1,2-Dichloroethene	**3.0**	ug/L	1.0	0.26	1		07/19/17 17:52	156-59-2	
cis-1,3-Dichloropropene	**<0.50**	ug/L	1.0	0.50	1		07/19/17 17:52	10061-01-5	
trans-1,2-Dichloroethene	**<0.26**	ug/L	1.0	0.26	1		07/19/17 17:52	156-60-5	
trans-1,3-Dichloropropene	**<0.23**	ug/L	1.0	0.23	1		07/19/17 17:52	10061-02-6	
Surrogates									
4-Bromofluorobenzene (S)	97	%	61-130		1		07/19/17 17:52	460-00-4	
Dibromofluoromethane (S)	103	%	67-130		1		07/19/17 17:52	1868-53-7	
Toluene-d8 (S)	99	%	70-130		1		07/19/17 17:52	2037-26-5	

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(920)469-2436

ANALYTICAL RESULTS

Project: 117-2202058.01 RIPON FF/NN LAN
Pace Project No.: 40153379

Sample: MW-3A **Lab ID: 40153379004** Collected: 07/14/17 12:00 Received: 07/18/17 09:35 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV	Analytical Method: EPA 8260								
1,1,1-Trichloroethane	**<0.50**	ug/L	1.0	0.50	1		07/19/17 18:14	71-55-6	
1,1,2-Trichloroethane	**<0.20**	ug/L	1.0	0.20	1		07/19/17 18:14	79-00-5	
1,1-Dichloroethane	**<0.24**	ug/L	1.0	0.24	1		07/19/17 18:14	75-34-3	
1,1-Dichloroethene	**<0.41**	ug/L	1.0	0.41	1		07/19/17 18:14	75-35-4	
1,2-Dibromo-3-chloropropane	**<2.2**	ug/L	5.0	2.2	1		07/19/17 18:14	96-12-8	
1,2-Dibromoethane (EDB)	**<0.18**	ug/L	1.0	0.18	1		07/19/17 18:14	106-93-4	
1,2-Dichlorobenzene	**<0.50**	ug/L	1.0	0.50	1		07/19/17 18:14	95-50-1	
1,2-Dichloroethane	**<0.17**	ug/L	1.0	0.17	1		07/19/17 18:14	107-06-2	
1,2-Dichloropropane	**<0.23**	ug/L	1.0	0.23	1		07/19/17 18:14	78-87-5	
1,3-Dichlorobenzene	**<0.50**	ug/L	1.0	0.50	1		07/19/17 18:14	541-73-1	
1,4-Dichlorobenzene	**<0.50**	ug/L	1.0	0.50	1		07/19/17 18:14	106-46-7	
2-Butanone (MEK)	**<3.0**	ug/L	20.0	3.0	1		07/19/17 18:14	78-93-3	
Acetone	**<3.0**	ug/L	20.0	3.0	1		07/19/17 18:14	67-64-1	
Benzene	**<0.50**	ug/L	1.0	0.50	1		07/19/17 18:14	71-43-2	
Bromodichloromethane	**<0.50**	ug/L	1.0	0.50	1		07/19/17 18:14	75-27-4	
Bromoform	**<0.50**	ug/L	1.0	0.50	1		07/19/17 18:14	75-25-2	
Bromomethane	**<2.4**	ug/L	5.0	2.4	1		07/19/17 18:14	74-83-9	
Carbon disulfide	**<0.61**	ug/L	5.0	0.61	1		07/19/17 18:14	75-15-0	
Carbon tetrachloride	**<0.50**	ug/L	1.0	0.50	1		07/19/17 18:14	56-23-5	
Chlorobenzene	**<0.50**	ug/L	1.0	0.50	1		07/19/17 18:14	108-90-7	
Chloroethane	**<0.37**	ug/L	1.0	0.37	1		07/19/17 18:14	75-00-3	
Chloroform	**<2.5**	ug/L	5.0	2.5	1		07/19/17 18:14	67-66-3	
Chloromethane	**<0.50**	ug/L	1.0	0.50	1		07/19/17 18:14	74-87-3	
Dibromochloromethane	**<0.50**	ug/L	1.0	0.50	1		07/19/17 18:14	124-48-1	
Dibromomethane	**<0.43**	ug/L	1.0	0.43	1		07/19/17 18:14	74-95-3	
Dichlorodifluoromethane	**<0.22**	ug/L	1.0	0.22	1		07/19/17 18:14	75-71-8	
Ethylbenzene	**<0.50**	ug/L	1.0	0.50	1		07/19/17 18:14	100-41-4	
Methyl-tert-butyl ether	**<0.17**	ug/L	1.0	0.17	1		07/19/17 18:14	1634-04-4	
Methylene Chloride	**<0.23**	ug/L	1.0	0.23	1		07/19/17 18:14	75-09-2	
Naphthalene	**<2.5**	ug/L	5.0	2.5	1		07/19/17 18:14	91-20-3	
Styrene	**<0.50**	ug/L	1.0	0.50	1		07/19/17 18:14	100-42-5	
Tetrachloroethene	**<0.50**	ug/L	1.0	0.50	1		07/19/17 18:14	127-18-4	
Tetrahydrofuran	**<2.0**	ug/L	5.0	2.0	1		07/19/17 18:14	109-99-9	
Toluene	**<0.50**	ug/L	1.0	0.50	1		07/19/17 18:14	108-88-3	
Trichloroethene	**<0.33**	ug/L	1.0	0.33	1		07/19/17 18:14	79-01-6	
Trichlorofluoromethane	**<0.18**	ug/L	1.0	0.18	1		07/19/17 18:14	75-69-4	
Vinyl chloride	**<0.18**	ug/L	1.0	0.18	1		07/19/17 18:14	75-01-4	
Xylene (Total)	**<1.5**	ug/L	3.0	1.5	1		07/19/17 18:14	1330-20-7	
cis-1,2-Dichloroethene	**<0.26**	ug/L	1.0	0.26	1		07/19/17 18:14	156-59-2	
cis-1,3-Dichloropropene	**<0.50**	ug/L	1.0	0.50	1		07/19/17 18:14	10061-01-5	
trans-1,2-Dichloroethene	**<0.26**	ug/L	1.0	0.26	1		07/19/17 18:14	156-60-5	
trans-1,3-Dichloropropene	**<0.23**	ug/L	1.0	0.23	1		07/19/17 18:14	10061-02-6	
Surrogates									
4-Bromofluorobenzene (S)	96	%	61-130		1		07/19/17 18:14	460-00-4	
Dibromofluoromethane (S)	102	%	67-130		1		07/19/17 18:14	1868-53-7	
Toluene-d8 (S)	99	%	70-130		1		07/19/17 18:14	2037-26-5	

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ANALYTICAL RESULTS

Project: 117-2202058.01 RIPON FF/NN LAN
Pace Project No.: 40153379

Sample: MW-3B **Lab ID: 40153379005** Collected: 07/14/17 12:10 Received: 07/18/17 09:35 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV	Analytical Method: EPA 8260								
1,1,1-Trichloroethane	**<0.50**	ug/L	1.0	0.50	1		07/19/17 18:36	71-55-6	
1,1,2-Trichloroethane	**<0.20**	ug/L	1.0	0.20	1		07/19/17 18:36	79-00-5	
1,1-Dichloroethane	**<0.24**	ug/L	1.0	0.24	1		07/19/17 18:36	75-34-3	
1,1-Dichloroethene	**<0.41**	ug/L	1.0	0.41	1		07/19/17 18:36	75-35-4	
1,2-Dibromo-3-chloropropane	**<2.2**	ug/L	5.0	2.2	1		07/19/17 18:36	96-12-8	
1,2-Dibromoethane (EDB)	**<0.18**	ug/L	1.0	0.18	1		07/19/17 18:36	106-93-4	
1,2-Dichlorobenzene	**<0.50**	ug/L	1.0	0.50	1		07/19/17 18:36	95-50-1	
1,2-Dichloroethane	**<0.17**	ug/L	1.0	0.17	1		07/19/17 18:36	107-06-2	
1,2-Dichloropropane	**<0.23**	ug/L	1.0	0.23	1		07/19/17 18:36	78-87-5	
1,3-Dichlorobenzene	**<0.50**	ug/L	1.0	0.50	1		07/19/17 18:36	541-73-1	
1,4-Dichlorobenzene	**<0.50**	ug/L	1.0	0.50	1		07/19/17 18:36	106-46-7	
2-Butanone (MEK)	**<3.0**	ug/L	20.0	3.0	1		07/19/17 18:36	78-93-3	
Acetone	**<3.0**	ug/L	20.0	3.0	1		07/19/17 18:36	67-64-1	
Benzene	**<0.50**	ug/L	1.0	0.50	1		07/19/17 18:36	71-43-2	
Bromodichloromethane	**<0.50**	ug/L	1.0	0.50	1		07/19/17 18:36	75-27-4	
Bromoform	**<0.50**	ug/L	1.0	0.50	1		07/19/17 18:36	75-25-2	
Bromomethane	**<2.4**	ug/L	5.0	2.4	1		07/19/17 18:36	74-83-9	
Carbon disulfide	**<0.61**	ug/L	5.0	0.61	1		07/19/17 18:36	75-15-0	
Carbon tetrachloride	**<0.50**	ug/L	1.0	0.50	1		07/19/17 18:36	56-23-5	
Chlorobenzene	**<0.50**	ug/L	1.0	0.50	1		07/19/17 18:36	108-90-7	
Chloroethane	**<0.37**	ug/L	1.0	0.37	1		07/19/17 18:36	75-00-3	
Chloroform	**<2.5**	ug/L	5.0	2.5	1		07/19/17 18:36	67-66-3	
Chloromethane	**<0.50**	ug/L	1.0	0.50	1		07/19/17 18:36	74-87-3	
Dibromochloromethane	**<0.50**	ug/L	1.0	0.50	1		07/19/17 18:36	124-48-1	
Dibromomethane	**<0.43**	ug/L	1.0	0.43	1		07/19/17 18:36	74-95-3	
Dichlorodifluoromethane	**<0.22**	ug/L	1.0	0.22	1		07/19/17 18:36	75-71-8	
Ethylbenzene	**<0.50**	ug/L	1.0	0.50	1		07/19/17 18:36	100-41-4	
Methyl-tert-butyl ether	**<0.17**	ug/L	1.0	0.17	1		07/19/17 18:36	1634-04-4	
Methylene Chloride	**<0.23**	ug/L	1.0	0.23	1		07/19/17 18:36	75-09-2	
Naphthalene	**<2.5**	ug/L	5.0	2.5	1		07/19/17 18:36	91-20-3	
Styrene	**<0.50**	ug/L	1.0	0.50	1		07/19/17 18:36	100-42-5	
Tetrachloroethene	**<0.50**	ug/L	1.0	0.50	1		07/19/17 18:36	127-18-4	
Tetrahydrofuran	**<2.0**	ug/L	5.0	2.0	1		07/19/17 18:36	109-99-9	
Toluene	**<0.50**	ug/L	1.0	0.50	1		07/19/17 18:36	108-88-3	
Trichloroethene	**<0.33**	ug/L	1.0	0.33	1		07/19/17 18:36	79-01-6	
Trichlorofluoromethane	**<0.18**	ug/L	1.0	0.18	1		07/19/17 18:36	75-69-4	
Vinyl chloride	**<0.18**	ug/L	1.0	0.18	1		07/19/17 18:36	75-01-4	
Xylene (Total)	**<1.5**	ug/L	3.0	1.5	1		07/19/17 18:36	1330-20-7	
cis-1,2-Dichloroethene	**<0.26**	ug/L	1.0	0.26	1		07/19/17 18:36	156-59-2	
cis-1,3-Dichloropropene	**<0.50**	ug/L	1.0	0.50	1		07/19/17 18:36	10061-01-5	
trans-1,2-Dichloroethene	**<0.26**	ug/L	1.0	0.26	1		07/19/17 18:36	156-60-5	
trans-1,3-Dichloropropene	**<0.23**	ug/L	1.0	0.23	1		07/19/17 18:36	10061-02-6	
Surrogates									
4-Bromofluorobenzene (S)	98	%	61-130		1		07/19/17 18:36	460-00-4	
Dibromofluoromethane (S)	104	%	67-130		1		07/19/17 18:36	1868-53-7	
Toluene-d8 (S)	100	%	70-130		1		07/19/17 18:36	2037-26-5	

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ANALYTICAL RESULTS

Project: 117-2202058.01 RIPON FF/NN LAN
Pace Project No.: 40153379

Sample: P-117 **Lab ID: 40153379006** Collected: 07/14/17 12:55 Received: 07/18/17 09:35 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV	Analytical Method: EPA 8260								
1,1,1-Trichloroethane	**<0.50**	ug/L	1.0	0.50	1		07/20/17 09:02	71-55-6	
1,1,2-Trichloroethane	**<0.20**	ug/L	1.0	0.20	1		07/20/17 09:02	79-00-5	
1,1-Dichloroethane	**<0.24**	ug/L	1.0	0.24	1		07/20/17 09:02	75-34-3	
1,1-Dichloroethene	**<0.41**	ug/L	1.0	0.41	1		07/20/17 09:02	75-35-4	
1,2-Dibromo-3-chloropropane	**<2.2**	ug/L	5.0	2.2	1		07/20/17 09:02	96-12-8	
1,2-Dibromoethane (EDB)	**<0.18**	ug/L	1.0	0.18	1		07/20/17 09:02	106-93-4	
1,2-Dichlorobenzene	**<0.50**	ug/L	1.0	0.50	1		07/20/17 09:02	95-50-1	
1,2-Dichloroethane	**<0.17**	ug/L	1.0	0.17	1		07/20/17 09:02	107-06-2	
1,2-Dichloropropane	**<0.23**	ug/L	1.0	0.23	1		07/20/17 09:02	78-87-5	
1,3-Dichlorobenzene	**<0.50**	ug/L	1.0	0.50	1		07/20/17 09:02	541-73-1	
1,4-Dichlorobenzene	**<0.50**	ug/L	1.0	0.50	1		07/20/17 09:02	106-46-7	
2-Butanone (MEK)	**<3.0**	ug/L	20.0	3.0	1		07/20/17 09:02	78-93-3	
Acetone	**<3.0**	ug/L	20.0	3.0	1		07/20/17 09:02	67-64-1	
Benzene	**<0.50**	ug/L	1.0	0.50	1		07/20/17 09:02	71-43-2	
Bromodichloromethane	**<0.50**	ug/L	1.0	0.50	1		07/20/17 09:02	75-27-4	
Bromoform	**<0.50**	ug/L	1.0	0.50	1		07/20/17 09:02	75-25-2	
Bromomethane	**<2.4**	ug/L	5.0	2.4	1		07/20/17 09:02	74-83-9	
Carbon disulfide	**<0.61**	ug/L	5.0	0.61	1		07/20/17 09:02	75-15-0	
Carbon tetrachloride	**<0.50**	ug/L	1.0	0.50	1		07/20/17 09:02	56-23-5	
Chlorobenzene	**<0.50**	ug/L	1.0	0.50	1		07/20/17 09:02	108-90-7	
Chloroethane	**<0.37**	ug/L	1.0	0.37	1		07/20/17 09:02	75-00-3	
Chloroform	**<2.5**	ug/L	5.0	2.5	1		07/20/17 09:02	67-66-3	
Chloromethane	**<0.50**	ug/L	1.0	0.50	1		07/20/17 09:02	74-87-3	
Dibromochloromethane	**<0.50**	ug/L	1.0	0.50	1		07/20/17 09:02	124-48-1	
Dibromomethane	**<0.43**	ug/L	1.0	0.43	1		07/20/17 09:02	74-95-3	
Dichlorodifluoromethane	**<0.22**	ug/L	1.0	0.22	1		07/20/17 09:02	75-71-8	
Ethylbenzene	**<0.50**	ug/L	1.0	0.50	1		07/20/17 09:02	100-41-4	
Methyl-tert-butyl ether	**<0.17**	ug/L	1.0	0.17	1		07/20/17 09:02	1634-04-4	
Methylene Chloride	**<0.23**	ug/L	1.0	0.23	1		07/20/17 09:02	75-09-2	
Naphthalene	**<2.5**	ug/L	5.0	2.5	1		07/20/17 09:02	91-20-3	
Styrene	**<0.50**	ug/L	1.0	0.50	1		07/20/17 09:02	100-42-5	
Tetrachloroethene	**<0.50**	ug/L	1.0	0.50	1		07/20/17 09:02	127-18-4	
Tetrahydrofuran	**<2.0**	ug/L	5.0	2.0	1		07/20/17 09:02	109-99-9	
Toluene	**<0.50**	ug/L	1.0	0.50	1		07/20/17 09:02	108-88-3	
Trichloroethene	**<0.33**	ug/L	1.0	0.33	1		07/20/17 09:02	79-01-6	
Trichlorofluoromethane	**<0.18**	ug/L	1.0	0.18	1		07/20/17 09:02	75-69-4	
Vinyl chloride	**1.4**	ug/L	1.0	0.18	1		07/20/17 09:02	75-01-4	
Xylene (Total)	**<1.5**	ug/L	3.0	1.5	1		07/20/17 09:02	1330-20-7	
cis-1,2-Dichloroethene	**1.1**	ug/L	1.0	0.26	1		07/20/17 09:02	156-59-2	
cis-1,3-Dichloropropene	**<0.50**	ug/L	1.0	0.50	1		07/20/17 09:02	10061-01-5	
trans-1,2-Dichloroethene	**<0.26**	ug/L	1.0	0.26	1		07/20/17 09:02	156-60-5	
trans-1,3-Dichloropropene	**<0.23**	ug/L	1.0	0.23	1		07/20/17 09:02	10061-02-6	
Surrogates									
4-Bromofluorobenzene (S)	96	%	61-130		1		07/20/17 09:02	460-00-4	
Dibromofluoromethane (S)	103	%	67-130		1		07/20/17 09:02	1868-53-7	
Toluene-d8 (S)	102	%	70-130		1		07/20/17 09:02	2037-26-5	

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ANALYTICAL RESULTS

Project: 117-2202058.01 RIPON FF/NN LAN
Pace Project No.: 40153379

Sample: P-113A **Lab ID: 40153379007** Collected: 07/14/17 14:05 Received: 07/18/17 09:35 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV	Analytical Method: EPA 8260								
1,1,1-Trichloroethane	**<0.50**	ug/L	1.0	0.50	1		07/19/17 18:58	71-55-6	
1,1,2-Trichloroethane	**<0.20**	ug/L	1.0	0.20	1		07/19/17 18:58	79-00-5	
1,1-Dichloroethane	**<0.24**	ug/L	1.0	0.24	1		07/19/17 18:58	75-34-3	
1,1-Dichloroethene	**<0.41**	ug/L	1.0	0.41	1		07/19/17 18:58	75-35-4	
1,2-Dibromo-3-chloropropane	**<2.2**	ug/L	5.0	2.2	1		07/19/17 18:58	96-12-8	
1,2-Dibromoethane (EDB)	**<0.18**	ug/L	1.0	0.18	1		07/19/17 18:58	106-93-4	
1,2-Dichlorobenzene	**<0.50**	ug/L	1.0	0.50	1		07/19/17 18:58	95-50-1	
1,2-Dichloroethane	**<0.17**	ug/L	1.0	0.17	1		07/19/17 18:58	107-06-2	
1,2-Dichloropropane	**<0.23**	ug/L	1.0	0.23	1		07/19/17 18:58	78-87-5	
1,3-Dichlorobenzene	**<0.50**	ug/L	1.0	0.50	1		07/19/17 18:58	541-73-1	
1,4-Dichlorobenzene	**<0.50**	ug/L	1.0	0.50	1		07/19/17 18:58	106-46-7	
2-Butanone (MEK)	**<3.0**	ug/L	20.0	3.0	1		07/19/17 18:58	78-93-3	
Acetone	**<3.0**	ug/L	20.0	3.0	1		07/19/17 18:58	67-64-1	
Benzene	**<0.50**	ug/L	1.0	0.50	1		07/19/17 18:58	71-43-2	
Bromodichloromethane	**<0.50**	ug/L	1.0	0.50	1		07/19/17 18:58	75-27-4	
Bromoform	**<0.50**	ug/L	1.0	0.50	1		07/19/17 18:58	75-25-2	
Bromomethane	**<2.4**	ug/L	5.0	2.4	1		07/19/17 18:58	74-83-9	
Carbon disulfide	**<0.61**	ug/L	5.0	0.61	1		07/19/17 18:58	75-15-0	
Carbon tetrachloride	**<0.50**	ug/L	1.0	0.50	1		07/19/17 18:58	56-23-5	
Chlorobenzene	**<0.50**	ug/L	1.0	0.50	1		07/19/17 18:58	108-90-7	
Chloroethane	**<0.37**	ug/L	1.0	0.37	1		07/19/17 18:58	75-00-3	
Chloroform	**<2.5**	ug/L	5.0	2.5	1		07/19/17 18:58	67-66-3	
Chloromethane	**<0.50**	ug/L	1.0	0.50	1		07/19/17 18:58	74-87-3	
Dibromochloromethane	**<0.50**	ug/L	1.0	0.50	1		07/19/17 18:58	124-48-1	
Dibromomethane	**<0.43**	ug/L	1.0	0.43	1		07/19/17 18:58	74-95-3	
Dichlorodifluoromethane	**<0.22**	ug/L	1.0	0.22	1		07/19/17 18:58	75-71-8	
Ethylbenzene	**<0.50**	ug/L	1.0	0.50	1		07/19/17 18:58	100-41-4	
Methyl-tert-butyl ether	**<0.17**	ug/L	1.0	0.17	1		07/19/17 18:58	1634-04-4	
Methylene Chloride	**<0.23**	ug/L	1.0	0.23	1		07/19/17 18:58	75-09-2	
Naphthalene	**<2.5**	ug/L	5.0	2.5	1		07/19/17 18:58	91-20-3	
Styrene	**<0.50**	ug/L	1.0	0.50	1		07/19/17 18:58	100-42-5	
Tetrachloroethene	**<0.50**	ug/L	1.0	0.50	1		07/19/17 18:58	127-18-4	
Tetrahydrofuran	**<2.0**	ug/L	5.0	2.0	1		07/19/17 18:58	109-99-9	
Toluene	**<0.50**	ug/L	1.0	0.50	1		07/19/17 18:58	108-88-3	
Trichloroethene	**<0.33**	ug/L	1.0	0.33	1		07/19/17 18:58	79-01-6	
Trichlorofluoromethane	**<0.18**	ug/L	1.0	0.18	1		07/19/17 18:58	75-69-4	
Vinyl chloride	**<0.18**	ug/L	1.0	0.18	1		07/19/17 18:58	75-01-4	
Xylene (Total)	**<1.5**	ug/L	3.0	1.5	1		07/19/17 18:58	1330-20-7	
cis-1,2-Dichloroethene	**<0.26**	ug/L	1.0	0.26	1		07/19/17 18:58	156-59-2	
cis-1,3-Dichloropropene	**<0.50**	ug/L	1.0	0.50	1		07/19/17 18:58	10061-01-5	
trans-1,2-Dichloroethene	**<0.26**	ug/L	1.0	0.26	1		07/19/17 18:58	156-60-5	
trans-1,3-Dichloropropene	**<0.23**	ug/L	1.0	0.23	1		07/19/17 18:58	10061-02-6	
Surrogates									
4-Bromofluorobenzene (S)	98	%	61-130		1		07/19/17 18:58	460-00-4	
Dibromofluoromethane (S)	105	%	67-130		1		07/19/17 18:58	1868-53-7	
Toluene-d8 (S)	98	%	70-130		1		07/19/17 18:58	2037-26-5	

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ANALYTICAL RESULTS

Project: 117-2202058.01 RIPON FF/NN LAN
Pace Project No.: 40153379

Sample: P-113B **Lab ID: 40153379008** Collected: 07/14/17 14:20 Received: 07/18/17 09:35 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV	Analytical Method: EPA 8260								
1,1,1-Trichloroethane	**<0.50**	ug/L	1.0	0.50	1		07/19/17 19:20	71-55-6	
1,1,2-Trichloroethane	**<0.20**	ug/L	1.0	0.20	1		07/19/17 19:20	79-00-5	
1,1-Dichloroethane	**<0.24**	ug/L	1.0	0.24	1		07/19/17 19:20	75-34-3	
1,1-Dichloroethene	**<0.41**	ug/L	1.0	0.41	1		07/19/17 19:20	75-35-4	
1,2-Dibromo-3-chloropropane	**<2.2**	ug/L	5.0	2.2	1		07/19/17 19:20	96-12-8	
1,2-Dibromoethane (EDB)	**<0.18**	ug/L	1.0	0.18	1		07/19/17 19:20	106-93-4	
1,2-Dichlorobenzene	**<0.50**	ug/L	1.0	0.50	1		07/19/17 19:20	95-50-1	
1,2-Dichloroethane	**<0.17**	ug/L	1.0	0.17	1		07/19/17 19:20	107-06-2	
1,2-Dichloropropane	**<0.23**	ug/L	1.0	0.23	1		07/19/17 19:20	78-87-5	
1,3-Dichlorobenzene	**<0.50**	ug/L	1.0	0.50	1		07/19/17 19:20	541-73-1	
1,4-Dichlorobenzene	**<0.50**	ug/L	1.0	0.50	1		07/19/17 19:20	106-46-7	
2-Butanone (MEK)	**<3.0**	ug/L	20.0	3.0	1		07/19/17 19:20	78-93-3	
Acetone	**<3.0**	ug/L	20.0	3.0	1		07/19/17 19:20	67-64-1	
Benzene	**<0.50**	ug/L	1.0	0.50	1		07/19/17 19:20	71-43-2	
Bromodichloromethane	**<0.50**	ug/L	1.0	0.50	1		07/19/17 19:20	75-27-4	
Bromoform	**<0.50**	ug/L	1.0	0.50	1		07/19/17 19:20	75-25-2	
Bromomethane	**<2.4**	ug/L	5.0	2.4	1		07/19/17 19:20	74-83-9	
Carbon disulfide	**<0.61**	ug/L	5.0	0.61	1		07/19/17 19:20	75-15-0	
Carbon tetrachloride	**<0.50**	ug/L	1.0	0.50	1		07/19/17 19:20	56-23-5	
Chlorobenzene	**<0.50**	ug/L	1.0	0.50	1		07/19/17 19:20	108-90-7	
Chloroethane	**<0.37**	ug/L	1.0	0.37	1		07/19/17 19:20	75-00-3	
Chloroform	**<2.5**	ug/L	5.0	2.5	1		07/19/17 19:20	67-66-3	
Chloromethane	**<0.50**	ug/L	1.0	0.50	1		07/19/17 19:20	74-87-3	
Dibromochloromethane	**<0.50**	ug/L	1.0	0.50	1		07/19/17 19:20	124-48-1	
Dibromomethane	**<0.43**	ug/L	1.0	0.43	1		07/19/17 19:20	74-95-3	
Dichlorodifluoromethane	**<0.22**	ug/L	1.0	0.22	1		07/19/17 19:20	75-71-8	
Ethylbenzene	**<0.50**	ug/L	1.0	0.50	1		07/19/17 19:20	100-41-4	
Methyl-tert-butyl ether	**<0.17**	ug/L	1.0	0.17	1		07/19/17 19:20	1634-04-4	
Methylene Chloride	**<0.23**	ug/L	1.0	0.23	1		07/19/17 19:20	75-09-2	
Naphthalene	**<2.5**	ug/L	5.0	2.5	1		07/19/17 19:20	91-20-3	
Styrene	**<0.50**	ug/L	1.0	0.50	1		07/19/17 19:20	100-42-5	
Tetrachloroethene	**<0.50**	ug/L	1.0	0.50	1		07/19/17 19:20	127-18-4	
Tetrahydrofuran	**<2.0**	ug/L	5.0	2.0	1		07/19/17 19:20	109-99-9	
Toluene	**<0.50**	ug/L	1.0	0.50	1		07/19/17 19:20	108-88-3	
Trichloroethene	**<0.33**	ug/L	1.0	0.33	1		07/19/17 19:20	79-01-6	
Trichlorofluoromethane	**<0.18**	ug/L	1.0	0.18	1		07/19/17 19:20	75-69-4	
Vinyl chloride	**<0.18**	ug/L	1.0	0.18	1		07/19/17 19:20	75-01-4	
Xylene (Total)	**<1.5**	ug/L	3.0	1.5	1		07/19/17 19:20	1330-20-7	
cis-1,2-Dichloroethene	**<0.26**	ug/L	1.0	0.26	1		07/19/17 19:20	156-59-2	
cis-1,3-Dichloropropene	**<0.50**	ug/L	1.0	0.50	1		07/19/17 19:20	10061-01-5	
trans-1,2-Dichloroethene	**<0.26**	ug/L	1.0	0.26	1		07/19/17 19:20	156-60-5	
trans-1,3-Dichloropropene	**<0.23**	ug/L	1.0	0.23	1		07/19/17 19:20	10061-02-6	
Surrogates									
4-Bromofluorobenzene (S)	99	%	61-130		1		07/19/17 19:20	460-00-4	
Dibromofluoromethane (S)	107	%	67-130		1		07/19/17 19:20	1868-53-7	
Toluene-d8 (S)	100	%	70-130		1		07/19/17 19:20	2037-26-5	

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ANALYTICAL RESULTS

Project: 117-2202058.01 RIPON FF/NN LAN
Pace Project No.: 40153379

Sample: P-116 **Lab ID: 40153379009** Collected: 07/14/17 14:55 Received: 07/18/17 09:35 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV	Analytical Method: EPA 8260								
1,1,1-Trichloroethane	**<0.50**	ug/L	1.0	0.50	1		07/19/17 19:42	71-55-6	
1,1,2-Trichloroethane	**<0.20**	ug/L	1.0	0.20	1		07/19/17 19:42	79-00-5	
1,1-Dichloroethane	**<0.24**	ug/L	1.0	0.24	1		07/19/17 19:42	75-34-3	
1,1-Dichloroethene	**<0.41**	ug/L	1.0	0.41	1		07/19/17 19:42	75-35-4	
1,2-Dibromo-3-chloropropane	**<2.2**	ug/L	5.0	2.2	1		07/19/17 19:42	96-12-8	
1,2-Dibromoethane (EDB)	**<0.18**	ug/L	1.0	0.18	1		07/19/17 19:42	106-93-4	
1,2-Dichlorobenzene	**<0.50**	ug/L	1.0	0.50	1		07/19/17 19:42	95-50-1	
1,2-Dichloroethane	**<0.17**	ug/L	1.0	0.17	1		07/19/17 19:42	107-06-2	
1,2-Dichloropropane	**<0.23**	ug/L	1.0	0.23	1		07/19/17 19:42	78-87-5	
1,3-Dichlorobenzene	**<0.50**	ug/L	1.0	0.50	1		07/19/17 19:42	541-73-1	
1,4-Dichlorobenzene	**<0.50**	ug/L	1.0	0.50	1		07/19/17 19:42	106-46-7	
2-Butanone (MEK)	**<3.0**	ug/L	20.0	3.0	1		07/19/17 19:42	78-93-3	
Acetone	**<3.0**	ug/L	20.0	3.0	1		07/19/17 19:42	67-64-1	
Benzene	**<0.50**	ug/L	1.0	0.50	1		07/19/17 19:42	71-43-2	
Bromodichloromethane	**<0.50**	ug/L	1.0	0.50	1		07/19/17 19:42	75-27-4	
Bromoform	**<0.50**	ug/L	1.0	0.50	1		07/19/17 19:42	75-25-2	
Bromomethane	**<2.4**	ug/L	5.0	2.4	1		07/19/17 19:42	74-83-9	
Carbon disulfide	**<0.61**	ug/L	5.0	0.61	1		07/19/17 19:42	75-15-0	
Carbon tetrachloride	**<0.50**	ug/L	1.0	0.50	1		07/19/17 19:42	56-23-5	
Chlorobenzene	**<0.50**	ug/L	1.0	0.50	1		07/19/17 19:42	108-90-7	
Chloroethane	**<0.37**	ug/L	1.0	0.37	1		07/19/17 19:42	75-00-3	
Chloroform	**<2.5**	ug/L	5.0	2.5	1		07/19/17 19:42	67-66-3	
Chloromethane	**<0.50**	ug/L	1.0	0.50	1		07/19/17 19:42	74-87-3	
Dibromochloromethane	**<0.50**	ug/L	1.0	0.50	1		07/19/17 19:42	124-48-1	
Dibromomethane	**<0.43**	ug/L	1.0	0.43	1		07/19/17 19:42	74-95-3	
Dichlorodifluoromethane	**<0.22**	ug/L	1.0	0.22	1		07/19/17 19:42	75-71-8	
Ethylbenzene	**<0.50**	ug/L	1.0	0.50	1		07/19/17 19:42	100-41-4	
Methyl-tert-butyl ether	**<0.17**	ug/L	1.0	0.17	1		07/19/17 19:42	1634-04-4	
Methylene Chloride	**<0.23**	ug/L	1.0	0.23	1		07/19/17 19:42	75-09-2	
Naphthalene	**<2.5**	ug/L	5.0	2.5	1		07/19/17 19:42	91-20-3	
Styrene	**<0.50**	ug/L	1.0	0.50	1		07/19/17 19:42	100-42-5	
Tetrachloroethene	**<0.50**	ug/L	1.0	0.50	1		07/19/17 19:42	127-18-4	
Tetrahydrofuran	**<2.0**	ug/L	5.0	2.0	1		07/19/17 19:42	109-99-9	
Toluene	**<0.50**	ug/L	1.0	0.50	1		07/19/17 19:42	108-88-3	
Trichloroethene	**<0.33**	ug/L	1.0	0.33	1		07/19/17 19:42	79-01-6	
Trichlorofluoromethane	**<0.18**	ug/L	1.0	0.18	1		07/19/17 19:42	75-69-4	
Vinyl chloride	**<0.18**	ug/L	1.0	0.18	1		07/19/17 19:42	75-01-4	
Xylene (Total)	**<1.5**	ug/L	3.0	1.5	1		07/19/17 19:42	1330-20-7	
cis-1,2-Dichloroethene	**<0.26**	ug/L	1.0	0.26	1		07/19/17 19:42	156-59-2	
cis-1,3-Dichloropropene	**<0.50**	ug/L	1.0	0.50	1		07/19/17 19:42	10061-01-5	
trans-1,2-Dichloroethene	**<0.26**	ug/L	1.0	0.26	1		07/19/17 19:42	156-60-5	
trans-1,3-Dichloropropene	**<0.23**	ug/L	1.0	0.23	1		07/19/17 19:42	10061-02-6	
Surrogates									
4-Bromofluorobenzene (S)	91	%	61-130		1		07/19/17 19:42	460-00-4	
Dibromofluoromethane (S)	103	%	67-130		1		07/19/17 19:42	1868-53-7	
Toluene-d8 (S)	98	%	70-130		1		07/19/17 19:42	2037-26-5	

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ANALYTICAL RESULTS

Project: 117-2202058.01 RIPON FF/NN LAN
Pace Project No.: 40153379

Sample: P-114 **Lab ID: 40153379010** Collected: 07/14/17 15:25 Received: 07/18/17 09:35 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV	Analytical Method: EPA 8260								
1,1,1-Trichloroethane	**<0.50**	ug/L	1.0	0.50	1		07/19/17 20:04	71-55-6	
1,1,2-Trichloroethane	**<0.20**	ug/L	1.0	0.20	1		07/19/17 20:04	79-00-5	
1,1-Dichloroethane	**<0.24**	ug/L	1.0	0.24	1		07/19/17 20:04	75-34-3	
1,1-Dichloroethene	**<0.41**	ug/L	1.0	0.41	1		07/19/17 20:04	75-35-4	
1,2-Dibromo-3-chloropropane	**<2.2**	ug/L	5.0	2.2	1		07/19/17 20:04	96-12-8	
1,2-Dibromoethane (EDB)	**<0.18**	ug/L	1.0	0.18	1		07/19/17 20:04	106-93-4	
1,2-Dichlorobenzene	**<0.50**	ug/L	1.0	0.50	1		07/19/17 20:04	95-50-1	
1,2-Dichloroethane	**<0.17**	ug/L	1.0	0.17	1		07/19/17 20:04	107-06-2	
1,2-Dichloropropane	**<0.23**	ug/L	1.0	0.23	1		07/19/17 20:04	78-87-5	
1,3-Dichlorobenzene	**<0.50**	ug/L	1.0	0.50	1		07/19/17 20:04	541-73-1	
1,4-Dichlorobenzene	**<0.50**	ug/L	1.0	0.50	1		07/19/17 20:04	106-46-7	
2-Butanone (MEK)	**<3.0**	ug/L	20.0	3.0	1		07/19/17 20:04	78-93-3	
Acetone	**<3.0**	ug/L	20.0	3.0	1		07/19/17 20:04	67-64-1	
Benzene	**<0.50**	ug/L	1.0	0.50	1		07/19/17 20:04	71-43-2	
Bromodichloromethane	**<0.50**	ug/L	1.0	0.50	1		07/19/17 20:04	75-27-4	
Bromoform	**<0.50**	ug/L	1.0	0.50	1		07/19/17 20:04	75-25-2	
Bromomethane	**<2.4**	ug/L	5.0	2.4	1		07/19/17 20:04	74-83-9	
Carbon disulfide	**<0.61**	ug/L	5.0	0.61	1		07/19/17 20:04	75-15-0	
Carbon tetrachloride	**<0.50**	ug/L	1.0	0.50	1		07/19/17 20:04	56-23-5	
Chlorobenzene	**<0.50**	ug/L	1.0	0.50	1		07/19/17 20:04	108-90-7	
Chloroethane	**<0.37**	ug/L	1.0	0.37	1		07/19/17 20:04	75-00-3	
Chloroform	**<2.5**	ug/L	5.0	2.5	1		07/19/17 20:04	67-66-3	
Chloromethane	**<0.50**	ug/L	1.0	0.50	1		07/19/17 20:04	74-87-3	
Dibromochloromethane	**<0.50**	ug/L	1.0	0.50	1		07/19/17 20:04	124-48-1	
Dibromomethane	**<0.43**	ug/L	1.0	0.43	1		07/19/17 20:04	74-95-3	
Dichlorodifluoromethane	**<0.22**	ug/L	1.0	0.22	1		07/19/17 20:04	75-71-8	
Ethylbenzene	**<0.50**	ug/L	1.0	0.50	1		07/19/17 20:04	100-41-4	
Methyl-tert-butyl ether	**<0.17**	ug/L	1.0	0.17	1		07/19/17 20:04	1634-04-4	
Methylene Chloride	**<0.23**	ug/L	1.0	0.23	1		07/19/17 20:04	75-09-2	
Naphthalene	**<2.5**	ug/L	5.0	2.5	1		07/19/17 20:04	91-20-3	
Styrene	**<0.50**	ug/L	1.0	0.50	1		07/19/17 20:04	100-42-5	
Tetrachloroethene	**<0.50**	ug/L	1.0	0.50	1		07/19/17 20:04	127-18-4	
Tetrahydrofuran	**<2.0**	ug/L	5.0	2.0	1		07/19/17 20:04	109-99-9	
Toluene	**<0.50**	ug/L	1.0	0.50	1		07/19/17 20:04	108-88-3	
Trichloroethene	**<0.33**	ug/L	1.0	0.33	1		07/19/17 20:04	79-01-6	
Trichlorofluoromethane	**<0.18**	ug/L	1.0	0.18	1		07/19/17 20:04	75-69-4	
Vinyl chloride	**7.0**	ug/L	1.0	0.18	1		07/19/17 20:04	75-01-4	
Xylene (Total)	**<1.5**	ug/L	3.0	1.5	1		07/19/17 20:04	1330-20-7	
cis-1,2-Dichloroethene	**1.5**	ug/L	1.0	0.26	1		07/19/17 20:04	156-59-2	
cis-1,3-Dichloropropene	**<0.50**	ug/L	1.0	0.50	1		07/19/17 20:04	10061-01-5	
trans-1,2-Dichloroethene	**<0.26**	ug/L	1.0	0.26	1		07/19/17 20:04	156-60-5	
trans-1,3-Dichloropropene	**<0.23**	ug/L	1.0	0.23	1		07/19/17 20:04	10061-02-6	
Surrogates									
4-Bromofluorobenzene (S)	96	%	61-130		1		07/19/17 20:04	460-00-4	
Dibromofluoromethane (S)	103	%	67-130		1		07/19/17 20:04	1868-53-7	
Toluene-d8 (S)	100	%	70-130		1		07/19/17 20:04	2037-26-5	

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(920)469-2436

ANALYTICAL RESULTS

Project: 117-2202058.01 RIPON FF/NN LAN
Pace Project No.: 40153379

Sample: P-114 DUP **Lab ID: 40153379011** Collected: 07/14/17 15:30 Received: 07/18/17 09:35 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV	Analytical Method: EPA 8260								
1,1,1-Trichloroethane	**<0.50**	ug/L	1.0	0.50	1		07/19/17 20:26	71-55-6	
1,1,2-Trichloroethane	**<0.20**	ug/L	1.0	0.20	1		07/19/17 20:26	79-00-5	
1,1-Dichloroethane	**<0.24**	ug/L	1.0	0.24	1		07/19/17 20:26	75-34-3	
1,1-Dichloroethene	**<0.41**	ug/L	1.0	0.41	1		07/19/17 20:26	75-35-4	
1,2-Dibromo-3-chloropropane	**<2.2**	ug/L	5.0	2.2	1		07/19/17 20:26	96-12-8	
1,2-Dibromoethane (EDB)	**<0.18**	ug/L	1.0	0.18	1		07/19/17 20:26	106-93-4	
1,2-Dichlorobenzene	**<0.50**	ug/L	1.0	0.50	1		07/19/17 20:26	95-50-1	
1,2-Dichloroethane	**<0.17**	ug/L	1.0	0.17	1		07/19/17 20:26	107-06-2	
1,2-Dichloropropane	**<0.23**	ug/L	1.0	0.23	1		07/19/17 20:26	78-87-5	
1,3-Dichlorobenzene	**<0.50**	ug/L	1.0	0.50	1		07/19/17 20:26	541-73-1	
1,4-Dichlorobenzene	**<0.50**	ug/L	1.0	0.50	1		07/19/17 20:26	106-46-7	
2-Butanone (MEK)	**<3.0**	ug/L	20.0	3.0	1		07/19/17 20:26	78-93-3	
Acetone	**<3.0**	ug/L	20.0	3.0	1		07/19/17 20:26	67-64-1	
Benzene	**<0.50**	ug/L	1.0	0.50	1		07/19/17 20:26	71-43-2	
Bromodichloromethane	**<0.50**	ug/L	1.0	0.50	1		07/19/17 20:26	75-27-4	
Bromoform	**<0.50**	ug/L	1.0	0.50	1		07/19/17 20:26	75-25-2	
Bromomethane	**<2.4**	ug/L	5.0	2.4	1		07/19/17 20:26	74-83-9	
Carbon disulfide	**<0.61**	ug/L	5.0	0.61	1		07/19/17 20:26	75-15-0	
Carbon tetrachloride	**<0.50**	ug/L	1.0	0.50	1		07/19/17 20:26	56-23-5	
Chlorobenzene	**<0.50**	ug/L	1.0	0.50	1		07/19/17 20:26	108-90-7	
Chloroethane	**<0.37**	ug/L	1.0	0.37	1		07/19/17 20:26	75-00-3	
Chloroform	**<2.5**	ug/L	5.0	2.5	1		07/19/17 20:26	67-66-3	
Chloromethane	**<0.50**	ug/L	1.0	0.50	1		07/19/17 20:26	74-87-3	
Dibromochloromethane	**<0.50**	ug/L	1.0	0.50	1		07/19/17 20:26	124-48-1	
Dibromomethane	**<0.43**	ug/L	1.0	0.43	1		07/19/17 20:26	74-95-3	
Dichlorodifluoromethane	**<0.22**	ug/L	1.0	0.22	1		07/19/17 20:26	75-71-8	
Ethylbenzene	**<0.50**	ug/L	1.0	0.50	1		07/19/17 20:26	100-41-4	
Methyl-tert-butyl ether	**<0.17**	ug/L	1.0	0.17	1		07/19/17 20:26	1634-04-4	
Methylene Chloride	**<0.23**	ug/L	1.0	0.23	1		07/19/17 20:26	75-09-2	
Naphthalene	**<2.5**	ug/L	5.0	2.5	1		07/19/17 20:26	91-20-3	
Styrene	**<0.50**	ug/L	1.0	0.50	1		07/19/17 20:26	100-42-5	
Tetrachloroethene	**<0.50**	ug/L	1.0	0.50	1		07/19/17 20:26	127-18-4	
Tetrahydrofuran	**<2.0**	ug/L	5.0	2.0	1		07/19/17 20:26	109-99-9	
Toluene	**<0.50**	ug/L	1.0	0.50	1		07/19/17 20:26	108-88-3	
Trichloroethene	**<0.33**	ug/L	1.0	0.33	1		07/19/17 20:26	79-01-6	
Trichlorofluoromethane	**<0.18**	ug/L	1.0	0.18	1		07/19/17 20:26	75-69-4	
Vinyl chloride	**7.4**	ug/L	1.0	0.18	1		07/19/17 20:26	75-01-4	
Xylene (Total)	**<1.5**	ug/L	3.0	1.5	1		07/19/17 20:26	1330-20-7	
cis-1,2-Dichloroethene	**1.7**	ug/L	1.0	0.26	1		07/19/17 20:26	156-59-2	
cis-1,3-Dichloropropene	**<0.50**	ug/L	1.0	0.50	1		07/19/17 20:26	10061-01-5	
trans-1,2-Dichloroethene	**<0.26**	ug/L	1.0	0.26	1		07/19/17 20:26	156-60-5	
trans-1,3-Dichloropropene	**<0.23**	ug/L	1.0	0.23	1		07/19/17 20:26	10061-02-6	
Surrogates									
4-Bromofluorobenzene (S)	96	%	61-130		1		07/19/17 20:26	460-00-4	
Dibromofluoromethane (S)	107	%	67-130		1		07/19/17 20:26	1868-53-7	
Toluene-d8 (S)	98	%	70-130		1		07/19/17 20:26	2037-26-5	

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ANALYTICAL RESULTS

Project: 117-2202058.01 RIPON FF/NN LAN
Pace Project No.: 40153379

Sample: P-115 **Lab ID: 40153379012** Collected: 07/14/17 16:00 Received: 07/18/17 09:35 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV	Analytical Method: EPA 8260								
1,1,1-Trichloroethane	**<0.50**	ug/L	1.0	0.50	1		07/19/17 20:48	71-55-6	
1,1,2-Trichloroethane	**<0.20**	ug/L	1.0	0.20	1		07/19/17 20:48	79-00-5	
1,1-Dichloroethane	**<0.24**	ug/L	1.0	0.24	1		07/19/17 20:48	75-34-3	
1,1-Dichloroethene	**<0.41**	ug/L	1.0	0.41	1		07/19/17 20:48	75-35-4	
1,2-Dibromo-3-chloropropane	**<2.2**	ug/L	5.0	2.2	1		07/19/17 20:48	96-12-8	
1,2-Dibromoethane (EDB)	**<0.18**	ug/L	1.0	0.18	1		07/19/17 20:48	106-93-4	
1,2-Dichlorobenzene	**<0.50**	ug/L	1.0	0.50	1		07/19/17 20:48	95-50-1	
1,2-Dichloroethane	**<0.17**	ug/L	1.0	0.17	1		07/19/17 20:48	107-06-2	
1,2-Dichloropropane	**<0.23**	ug/L	1.0	0.23	1		07/19/17 20:48	78-87-5	
1,3-Dichlorobenzene	**<0.50**	ug/L	1.0	0.50	1		07/19/17 20:48	541-73-1	
1,4-Dichlorobenzene	**<0.50**	ug/L	1.0	0.50	1		07/19/17 20:48	106-46-7	
2-Butanone (MEK)	**<3.0**	ug/L	20.0	3.0	1		07/19/17 20:48	78-93-3	
Acetone	**<3.0**	ug/L	20.0	3.0	1		07/19/17 20:48	67-64-1	
Benzene	**<0.50**	ug/L	1.0	0.50	1		07/19/17 20:48	71-43-2	
Bromodichloromethane	**<0.50**	ug/L	1.0	0.50	1		07/19/17 20:48	75-27-4	
Bromoform	**<0.50**	ug/L	1.0	0.50	1		07/19/17 20:48	75-25-2	
Bromomethane	**<2.4**	ug/L	5.0	2.4	1		07/19/17 20:48	74-83-9	
Carbon disulfide	**<0.61**	ug/L	5.0	0.61	1		07/19/17 20:48	75-15-0	
Carbon tetrachloride	**<0.50**	ug/L	1.0	0.50	1		07/19/17 20:48	56-23-5	
Chlorobenzene	**<0.50**	ug/L	1.0	0.50	1		07/19/17 20:48	108-90-7	
Chloroethane	**<0.37**	ug/L	1.0	0.37	1		07/19/17 20:48	75-00-3	
Chloroform	**<2.5**	ug/L	5.0	2.5	1		07/19/17 20:48	67-66-3	
Chloromethane	**<0.50**	ug/L	1.0	0.50	1		07/19/17 20:48	74-87-3	
Dibromochloromethane	**<0.50**	ug/L	1.0	0.50	1		07/19/17 20:48	124-48-1	
Dibromomethane	**<0.43**	ug/L	1.0	0.43	1		07/19/17 20:48	74-95-3	
Dichlorodifluoromethane	**<0.22**	ug/L	1.0	0.22	1		07/19/17 20:48	75-71-8	
Ethylbenzene	**<0.50**	ug/L	1.0	0.50	1		07/19/17 20:48	100-41-4	
Methyl-tert-butyl ether	**<0.17**	ug/L	1.0	0.17	1		07/19/17 20:48	1634-04-4	
Methylene Chloride	**<0.23**	ug/L	1.0	0.23	1		07/19/17 20:48	75-09-2	
Naphthalene	**<2.5**	ug/L	5.0	2.5	1		07/19/17 20:48	91-20-3	
Styrene	**<0.50**	ug/L	1.0	0.50	1		07/19/17 20:48	100-42-5	
Tetrachloroethene	**<0.50**	ug/L	1.0	0.50	1		07/19/17 20:48	127-18-4	
Tetrahydrofuran	**<2.0**	ug/L	5.0	2.0	1		07/19/17 20:48	109-99-9	
Toluene	**<0.50**	ug/L	1.0	0.50	1		07/19/17 20:48	108-88-3	
Trichloroethene	**<0.33**	ug/L	1.0	0.33	1		07/19/17 20:48	79-01-6	
Trichlorofluoromethane	**<0.18**	ug/L	1.0	0.18	1		07/19/17 20:48	75-69-4	
Vinyl chloride	**1.0**	ug/L	1.0	0.18	1		07/19/17 20:48	75-01-4	
Xylene (Total)	**<1.5**	ug/L	3.0	1.5	1		07/19/17 20:48	1330-20-7	
cis-1,2-Dichloroethene	**<0.26**	ug/L	1.0	0.26	1		07/19/17 20:48	156-59-2	
cis-1,3-Dichloropropene	**<0.50**	ug/L	1.0	0.50	1		07/19/17 20:48	10061-01-5	
trans-1,2-Dichloroethene	**<0.26**	ug/L	1.0	0.26	1		07/19/17 20:48	156-60-5	
trans-1,3-Dichloropropene	**<0.23**	ug/L	1.0	0.23	1		07/19/17 20:48	10061-02-6	
Surrogates									
4-Bromofluorobenzene (S)	95	%	61-130		1		07/19/17 20:48	460-00-4	
Dibromofluoromethane (S)	102	%	67-130		1		07/19/17 20:48	1868-53-7	
Toluene-d8 (S)	95	%	70-130		1		07/19/17 20:48	2037-26-5	

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ANALYTICAL RESULTS

Project: 117-2202058.01 RIPON FF/NN LAN
Pace Project No.: 40153379

Sample: TRIP BLANK **Lab ID: 40153379013** Collected: 07/14/17 00:00 Received: 07/18/17 09:35 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV	Analytical Method: EPA 8260								
1,1,1-Trichloroethane	**<0.50**	ug/L	1.0	0.50	1		07/20/17 08:18	71-55-6	
1,1,2-Trichloroethane	**<0.20**	ug/L	1.0	0.20	1		07/20/17 08:18	79-00-5	
1,1-Dichloroethane	**<0.24**	ug/L	1.0	0.24	1		07/20/17 08:18	75-34-3	
1,1-Dichloroethene	**<0.41**	ug/L	1.0	0.41	1		07/20/17 08:18	75-35-4	
1,2-Dibromo-3-chloropropane	**<2.2**	ug/L	5.0	2.2	1		07/20/17 08:18	96-12-8	
1,2-Dibromoethane (EDB)	**<0.18**	ug/L	1.0	0.18	1		07/20/17 08:18	106-93-4	
1,2-Dichlorobenzene	**<0.50**	ug/L	1.0	0.50	1		07/20/17 08:18	95-50-1	
1,2-Dichloroethane	**<0.17**	ug/L	1.0	0.17	1		07/20/17 08:18	107-06-2	
1,2-Dichloropropane	**<0.23**	ug/L	1.0	0.23	1		07/20/17 08:18	78-87-5	
1,3-Dichlorobenzene	**<0.50**	ug/L	1.0	0.50	1		07/20/17 08:18	541-73-1	
1,4-Dichlorobenzene	**<0.50**	ug/L	1.0	0.50	1		07/20/17 08:18	106-46-7	
2-Butanone (MEK)	**<3.0**	ug/L	20.0	3.0	1		07/20/17 08:18	78-93-3	
Acetone	**<3.0**	ug/L	20.0	3.0	1		07/20/17 08:18	67-64-1	
Benzene	**<0.50**	ug/L	1.0	0.50	1		07/20/17 08:18	71-43-2	
Bromodichloromethane	**<0.50**	ug/L	1.0	0.50	1		07/20/17 08:18	75-27-4	
Bromoform	**<0.50**	ug/L	1.0	0.50	1		07/20/17 08:18	75-25-2	
Bromomethane	**<2.4**	ug/L	5.0	2.4	1		07/20/17 08:18	74-83-9	
Carbon disulfide	**<0.61**	ug/L	5.0	0.61	1		07/20/17 08:18	75-15-0	
Carbon tetrachloride	**<0.50**	ug/L	1.0	0.50	1		07/20/17 08:18	56-23-5	
Chlorobenzene	**<0.50**	ug/L	1.0	0.50	1		07/20/17 08:18	108-90-7	
Chloroethane	**<0.37**	ug/L	1.0	0.37	1		07/20/17 08:18	75-00-3	
Chloroform	**<2.5**	ug/L	5.0	2.5	1		07/20/17 08:18	67-66-3	
Chloromethane	**<0.50**	ug/L	1.0	0.50	1		07/20/17 08:18	74-87-3	
Dibromochloromethane	**<0.50**	ug/L	1.0	0.50	1		07/20/17 08:18	124-48-1	
Dibromomethane	**<0.43**	ug/L	1.0	0.43	1		07/20/17 08:18	74-95-3	
Dichlorodifluoromethane	**<0.22**	ug/L	1.0	0.22	1		07/20/17 08:18	75-71-8	
Ethylbenzene	**<0.50**	ug/L	1.0	0.50	1		07/20/17 08:18	100-41-4	
Methyl-tert-butyl ether	**<0.17**	ug/L	1.0	0.17	1		07/20/17 08:18	1634-04-4	
Methylene Chloride	**<0.23**	ug/L	1.0	0.23	1		07/20/17 08:18	75-09-2	
Naphthalene	**<2.5**	ug/L	5.0	2.5	1		07/20/17 08:18	91-20-3	
Styrene	**<0.50**	ug/L	1.0	0.50	1		07/20/17 08:18	100-42-5	
Tetrachloroethene	**<0.50**	ug/L	1.0	0.50	1		07/20/17 08:18	127-18-4	
Tetrahydrofuran	**<2.0**	ug/L	5.0	2.0	1		07/20/17 08:18	109-99-9	
Toluene	**<0.50**	ug/L	1.0	0.50	1		07/20/17 08:18	108-88-3	
Trichloroethene	**<0.33**	ug/L	1.0	0.33	1		07/20/17 08:18	79-01-6	
Trichlorofluoromethane	**<0.18**	ug/L	1.0	0.18	1		07/20/17 08:18	75-69-4	
Vinyl chloride	**<0.18**	ug/L	1.0	0.18	1		07/20/17 08:18	75-01-4	
Xylene (Total)	**<1.5**	ug/L	3.0	1.5	1		07/20/17 08:18	1330-20-7	
cis-1,2-Dichloroethene	**<0.26**	ug/L	1.0	0.26	1		07/20/17 08:18	156-59-2	
cis-1,3-Dichloropropene	**<0.50**	ug/L	1.0	0.50	1		07/20/17 08:18	10061-01-5	
trans-1,2-Dichloroethene	**<0.26**	ug/L	1.0	0.26	1		07/20/17 08:18	156-60-5	
trans-1,3-Dichloropropene	**<0.23**	ug/L	1.0	0.23	1		07/20/17 08:18	10061-02-6	
Surrogates									
4-Bromofluorobenzene (S)	96	%	61-130		1		07/20/17 08:18	460-00-4	
Dibromofluoromethane (S)	104	%	67-130		1		07/20/17 08:18	1868-53-7	
Toluene-d8 (S)	100	%	70-130		1		07/20/17 08:18	2037-26-5	

REPORT OF LABORATORY ANALYSIS

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Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

QUALITY CONTROL DATA

Project: 117-2202058.01 RIPON FF/NN LAN
Pace Project No.: 40153379

QC Batch: 261854 Analysis Method: EPA 8260
QC Batch Method: EPA 8260 Analysis Description: 8260 MSV
Associated Lab Samples: 40153379001, 40153379002, 40153379003, 40153379004, 40153379005, 40153379006, 40153379007, 40153379008, 40153379009, 40153379010, 40153379011, 40153379012, 40153379013

METHOD BLANK: 1541694 Matrix: Water
Associated Lab Samples: 40153379001, 40153379002, 40153379003, 40153379004, 40153379005, 40153379006, 40153379007, 40153379008, 40153379009, 40153379010, 40153379011, 40153379012, 40153379013

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
1,1,1-Trichloroethane	ug/L	<0.50	1.0	07/19/17 12:03	
1,1,2-Trichloroethane	ug/L	<0.20	1.0	07/19/17 12:03	
1,1-Dichloroethane	ug/L	<0.24	1.0	07/19/17 12:03	
1,1-Dichloroethene	ug/L	<0.41	1.0	07/19/17 12:03	
1,2-Dibromo-3-chloropropane	ug/L	<2.2	5.0	07/19/17 12:03	
1,2-Dibromoethane (EDB)	ug/L	<0.18	1.0	07/19/17 12:03	
1,2-Dichlorobenzene	ug/L	<0.50	1.0	07/19/17 12:03	
1,2-Dichloroethane	ug/L	<0.17	1.0	07/19/17 12:03	
1,2-Dichloropropane	ug/L	<0.23	1.0	07/19/17 12:03	
1,3-Dichlorobenzene	ug/L	<0.50	1.0	07/19/17 12:03	
1,4-Dichlorobenzene	ug/L	<0.50	1.0	07/19/17 12:03	
2-Butanone (MEK)	ug/L	<3.0	20.0	07/19/17 12:03	
Acetone	ug/L	<3.0	20.0	07/19/17 12:03	
Benzene	ug/L	<0.50	1.0	07/19/17 12:03	
Bromodichloromethane	ug/L	<0.50	1.0	07/19/17 12:03	
Bromoform	ug/L	<0.50	1.0	07/19/17 12:03	
Bromomethane	ug/L	<2.4	5.0	07/19/17 12:03	
Carbon disulfide	ug/L	<0.61	5.0	07/19/17 12:03	
Carbon tetrachloride	ug/L	<0.50	1.0	07/19/17 12:03	
Chlorobenzene	ug/L	<0.50	1.0	07/19/17 12:03	
Chloroethane	ug/L	<0.37	1.0	07/19/17 12:03	
Chloroform	ug/L	<2.5	5.0	07/19/17 12:03	
Chloromethane	ug/L	<0.50	1.0	07/19/17 12:03	
cis-1,2-Dichloroethene	ug/L	<0.26	1.0	07/19/17 12:03	
cis-1,3-Dichloropropene	ug/L	<0.50	1.0	07/19/17 12:03	
Dibromochloromethane	ug/L	<0.50	1.0	07/19/17 12:03	
Dibromomethane	ug/L	<0.43	1.0	07/19/17 12:03	
Dichlorodifluoromethane	ug/L	<0.22	1.0	07/19/17 12:03	
Ethylbenzene	ug/L	<0.50	1.0	07/19/17 12:03	
Methyl-tert-butyl ether	ug/L	<0.17	1.0	07/19/17 12:03	
Methylene Chloride	ug/L	<0.23	1.0	07/19/17 12:03	
Naphthalene	ug/L	<2.5	5.0	07/19/17 12:03	
Styrene	ug/L	<0.50	1.0	07/19/17 12:03	
Tetrachloroethene	ug/L	<0.50	1.0	07/19/17 12:03	
Tetrahydrofuran	ug/L	<2.0	5.0	07/19/17 12:03	
Toluene	ug/L	<0.50	1.0	07/19/17 12:03	
trans-1,2-Dichloroethene	ug/L	<0.26	1.0	07/19/17 12:03	
trans-1,3-Dichloropropene	ug/L	<0.23	1.0	07/19/17 12:03	
Trichloroethene	ug/L	<0.33	1.0	07/19/17 12:03	
Trichlorofluoromethane	ug/L	<0.18	1.0	07/19/17 12:03	

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REPORT OF LABORATORY ANALYSIS

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1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

QUALITY CONTROL DATA

Project: 117-2202058.01 RIPON FF/NN LAN
Pace Project No.: 40153379

METHOD BLANK: 1541694 Matrix: Water

Associated Lab Samples: 40153379001, 40153379002, 40153379003, 40153379004, 40153379005, 40153379006, 40153379007, 40153379008, 40153379009, 40153379010, 40153379011, 40153379012, 40153379013

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Vinyl chloride	ug/L	<0.18	1.0	07/19/17 12:03	
Xylene (Total)	ug/L	<1.5	3.0	07/19/17 12:03	
4-Bromofluorobenzene (S)	%	92	61-130	07/19/17 12:03	
Dibromofluoromethane (S)	%	102	67-130	07/19/17 12:03	
Toluene-d8 (S)	%	101	70-130	07/19/17 12:03	

LABORATORY CONTROL SAMPLE: 1541695

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,1,1-Trichloroethane	ug/L	50	55.2	110	70-130	
1,1,2-Trichloroethane	ug/L	50	54.2	108	70-130	
1,1-Dichloroethane	ug/L	50	55.2	110	71-132	
1,1-Dichloroethene	ug/L	50	55.0	110	75-130	
1,2-Dibromo-3-chloropropane	ug/L	50	48.7	97	63-123	
1,2-Dibromoethane (EDB)	ug/L	50	53.8	108	70-130	
1,2-Dichlorobenzene	ug/L	50	56.1	112	70-130	
1,2-Dichloroethane	ug/L	50	51.0	102	70-131	
1,2-Dichloropropane	ug/L	50	52.9	106	80-120	
1,3-Dichlorobenzene	ug/L	50	53.3	107	70-130	
1,4-Dichlorobenzene	ug/L	50	56.1	112	70-130	
Benzene	ug/L	50	53.3	107	73-145	
Bromodichloromethane	ug/L	50	54.7	109	70-130	
Bromoform	ug/L	50	49.1	98	67-130	
Bromomethane	ug/L	50	38.8	78	26-128	
Carbon disulfide	ug/L	50	59.9	120	72-156	
Carbon tetrachloride	ug/L	50	54.7	109	70-133	
Chlorobenzene	ug/L	50	53.2	106	70-130	
Chloroethane	ug/L	50	56.2	112	58-120	
Chloroform	ug/L	50	53.5	107	80-121	
Chloromethane	ug/L	50	34.4	69	40-127	
cis-1,2-Dichloroethene	ug/L	50	54.0	108	70-130	
cis-1,3-Dichloropropene	ug/L	50	53.6	107	70-130	
Dibromochloromethane	ug/L	50	54.6	109	70-130	
Dichlorodifluoromethane	ug/L	50	33.8	68	20-135	
Ethylbenzene	ug/L	50	56.0	112	87-129	
Methyl-tert-butyl ether	ug/L	50	57.5	115	66-143	
Methylene Chloride	ug/L	50	52.3	105	70-130	
Styrene	ug/L	50	57.7	115	70-130	
Tetrachloroethene	ug/L	50	55.8	112	70-130	
Toluene	ug/L	50	54.6	109	82-130	
trans-1,2-Dichloroethene	ug/L	50	56.0	112	75-132	
trans-1,3-Dichloropropene	ug/L	50	51.4	103	70-130	
Trichloroethene	ug/L	50	56.4	113	70-130	

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Green Bay, WI 54302
(920)469-2436

QUALITY CONTROL DATA

Project: 117-2202058.01 RIPON FF/NN LAN
Pace Project No.: 40153379

LABORATORY CONTROL SAMPLE: 1541695

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Trichlorofluoromethane	ug/L	50	55.4	111	76-133	
Vinyl chloride	ug/L	50	50.1	100	57-136	
Xylene (Total)	ug/L	150	166	110	70-130	
4-Bromofluorobenzene (S)	%			101	61-130	
Dibromofluoromethane (S)	%			103	67-130	
Toluene-d8 (S)	%			100	70-130	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1541764 1541765

Parameter	Units	40153379001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
1,1,1-Trichloroethane	ug/L	<0.50	50	50	57.0	55.0	114	110	70-134	4	20	
1,1,2-Trichloroethane	ug/L	<0.20	50	50	52.3	53.6	105	107	70-130	2	20	
1,1-Dichloroethane	ug/L	<0.24	50	50	55.0	54.2	110	108	71-133	1	20	
1,1-Dichloroethene	ug/L	<0.41	50	50	55.5	54.9	111	110	75-136	1	20	
1,2-Dibromo-3-chloropropane	ug/L	<2.2	50	50	46.2	52.5	92	105	63-123	13	20	
1,2-Dibromoethane (EDB)	ug/L	<0.18	50	50	52.2	54.0	104	108	70-130	3	20	
1,2-Dichlorobenzene	ug/L	<0.50	50	50	54.3	54.7	109	109	70-130	1	20	
1,2-Dichloroethane	ug/L	<0.17	50	50	53.1	50.3	106	101	70-131	5	20	
1,2-Dichloropropane	ug/L	<0.23	50	50	51.4	53.3	103	107	80-120	4	20	
1,3-Dichlorobenzene	ug/L	<0.50	50	50	54.1	55.0	108	110	70-130	2	20	
1,4-Dichlorobenzene	ug/L	<0.50	50	50	56.9	57.0	114	114	70-130	0	20	
Benzene	ug/L	<0.50	50	50	53.4	53.2	107	106	73-145	0	20	
Bromodichloromethane	ug/L	<0.50	50	50	53.2	55.9	106	112	70-130	5	20	
Bromoform	ug/L	<0.50	50	50	47.5	49.2	95	98	67-130	4	20	
Bromomethane	ug/L	<2.4	50	50	46.3	42.9	93	86	26-129	8	20	
Carbon disulfide	ug/L	<0.61	50	50	60.9	59.8	122	120	72-156	2	30	
Carbon tetrachloride	ug/L	<0.50	50	50	56.4	54.4	113	109	70-134	4	20	
Chlorobenzene	ug/L	<0.50	50	50	53.7	54.0	107	108	70-130	1	20	
Chloroethane	ug/L	<0.37	50	50	55.8	52.6	112	105	58-120	6	20	
Chloroform	ug/L	<2.5	50	50	53.4	53.8	107	108	80-121	1	20	
Chloromethane	ug/L	<0.50	50	50	33.8	32.1	68	64	40-128	5	20	
cis-1,2-Dichloroethene	ug/L	0.32J	50	50	56.3	54.4	112	108	70-130	3	20	
cis-1,3-Dichloropropene	ug/L	<0.50	50	50	54.2	56.0	108	112	70-130	3	20	
Dibromochloromethane	ug/L	<0.50	50	50	54.2	55.1	108	110	70-130	2	20	
Dichlorodifluoromethane	ug/L	<0.22	50	50	31.0	29.1	62	58	20-146	6	20	
Ethylbenzene	ug/L	<0.50	50	50	54.9	56.2	110	112	87-129	2	20	
Methyl-tert-butyl ether	ug/L	<0.17	50	50	56.5	55.1	113	110	66-143	3	20	
Methylene Chloride	ug/L	<0.23	50	50	53.1	51.7	106	103	70-130	3	20	
Styrene	ug/L	<0.50	50	50	56.2	56.9	112	114	70-130	1	20	
Tetrachloroethene	ug/L	<0.50	50	50	54.7	53.8	109	108	70-130	2	20	
Toluene	ug/L	<0.50	50	50	52.4	54.3	105	109	82-131	4	20	
trans-1,2-Dichloroethene	ug/L	<0.26	50	50	55.6	54.9	111	110	75-135	1	20	
trans-1,3-Dichloropropene	ug/L	<0.23	50	50	49.4	50.7	99	101	70-130	3	20	

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REPORT OF LABORATORY ANALYSIS

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1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

QUALITY CONTROL DATA

Project: 117-2202058.01 RIPON FF/NN LAN
Pace Project No.: 40153379

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1541764 1541765

Parameter	Units	40153379001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Trichloroethene	ug/L	<0.33	50	50	54.9	57.1	110	114	70-130	4	20	
Trichlorofluoromethane	ug/L	<0.18	50	50	55.1	53.7	110	107	76-150	3	20	
Vinyl chloride	ug/L	<0.18	50	50	48.1	45.3	96	91	56-143	6	20	
Xylene (Total)	ug/L	<1.5	150	150	166	169	111	112	70-130	2	20	
4-Bromofluorobenzene (S)	%						100	99	61-130			
Dibromofluoromethane (S)	%						102	102	67-130			
Toluene-d8 (S)	%						102	97	70-130			

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Green Bay, WI 54302
(920)469-2436

QUALIFIERS

Project: 117-2202058.01 RIPON FF/NN LAN
Pace Project No.: 40153379

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.

ANALYTE QUALIFIERS

HS	Results are from sample aliquot taken from VOA vial with headspace (air bubble greater than 6 mm diameter).

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QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: 117-2202058.01 RIPON FF/NN LAN
Pace Project No.: 40153379

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
40153379001	**P-103D**	EPA 8260	261854		
40153379002	**P-107D**	EPA 8260	261854		
40153379003	**P-111D**	EPA 8260	261854		
40153379004	**MW-3A**	EPA 8260	261854		
40153379005	**MW-3B**	EPA 8260	261854		
40153379006	**P-117**	EPA 8260	261854		
40153379007	**P-113A**	EPA 8260	261854		
40153379008	**P-113B**	EPA 8260	261854		
40153379009	**P-116**	EPA 8260	261854		
40153379010	**P-114**	EPA 8260	261854		
40153379011	**P-114 DUP**	EPA 8260	261854		
40153379012	**P-115**	EPA 8260	261854		
40153379013	**TRIP BLANK**	EPA 8260	261854		

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UPPER MIDWEST REGION
MN: 612-607-1700 WI: 920-469-2436

40153379

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

(Please Print Clearly)	
Company Name:	Tetra Tech
Branch/Location:	Brookfield, WI
Project Contact:	Mike Noel/Ashley Wagner
Phone:	(262) 792-1282
Project Number:	117-2202058.01
Project Name:	Ripon FF/NN Landfill
Project State:	WI
Sampled By (Print):	Ashley A. Wagner
Sampled By (Sign):	Ashley A. Wagner
PO #:	Regulatory Program:

Quote #:	
Mail To Contact:	Mike Noel
~~Mail To Company:~~	Ashley Wagner
~~Mail To Address:~~	Chris Liveris Lori Rich
~~Invoice To Contact:~~	Jeff Tracy
Invoice To Company:	Tetra Tech
Invoice To Address:	
Invoice To Phone:	

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
Sl = Sludge	WP = Wipe

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

PACE LAB #	CLIENT FIELD ID 2017	COLLECTION DATE	COLLECTION TIME	MATRIX	Analyses Requested: Y/N	Pick Letter	VOCs 8260B	CLIENT COMMENTS	LAB COMMENTS (Lab Use Only)	Profile #
						N	B			
001	P-103D	7-14	950	GW		3			3-40mLvB	
002	P-107D		1030			3				
003	P-111D		1100			3				
004	MW-3A		1200			3				
005	MW-3B		1210			3				
006	P-117		1255			3				
007	P-113A		1405			3				
008	P-113B		1420			3				
009	P-116		1455			3				
010	P-114		1525			3				
011	P-114 DUP		1530			3				
012	P-115		1600			3				
013	TRIP BLANK	—	—	DI		2		Lab Prepared	2-40mLvB	

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:	Date/Time:	Received By:	Date/Time:
Ashley A Wagner	7-17 0800	Mary Jannin	7/17/17 9:35
Mary Jannin	7/17/17 1445		
CS Logistics	7/18/17 0935	Kimberly Retzlaff Pace	7/18/17 0935

PACE Project No. 40153379
Receipt Temp = R01 °C
Sample Receipt pH OK / Adjusted
Cooler Custody Seal Present / Not Present
Intact / Not Intact

Version 6.0 06/14/06

C019a(27Jun2006)

ORIGINAL

Sample Condition Upon Receipt

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

Pace Analytical™

Project #: WO# : 40153379

40153379

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: 20.1 /Corr: **Biological Tissue is Frozen:** ☐ yes ☐ no

Temp Blank Present: ☐ yes ☑ no

Temp should be above freezing to 6°C.
Biota Samples may be received at ≤ 0°C.

Person examining contents:
Date: 7-18-17
Initials: KR

				Comments:
Chain of Custody Present:	☑Yes	☐No	☐N/A	1.
Chain of Custody Filled Out:	☑Yes	☐No	☐N/A	2.
Chain of Custody Relinquished:	☑Yes	☐No	☐N/A	3.
Sampler Name & Signature on COC:	☑Yes	☐No	☐N/A	4.
Samples Arrived within Hold Time:	☑Yes	☐No	☐N/A	5.
- VOA Samples frozen upon receipt	☐Yes	☐No		Date/Time:
Short Hold Time Analysis (<72hr):	☐Yes	☑No	☐N/A	6.
Rush Turn Around Time Requested:	☐Yes	☑No	☐N/A	7.
Sufficient Volume:	☑Yes	☐No	☐N/A	8.
Correct Containers Used:	☑Yes	☐No	☐N/A	9.
-Pace Containers Used:	☑Yes	☐No	☐N/A	
-Pace IR Containers Used:	☐Yes	☐No	☑N/A	
Containers Intact:	☑Yes	☐No	☐N/A	10.
Filtered volume received for Dissolved tests	☐Yes	☐No	☑N/A	11.
Sample Labels match COC:	☑Yes	☐No	☐N/A	12.
-Includes date/time/ID/Analysis Matrix: W				
All containers needing preservation have been checked. (Non-Compliance noted in 13.)	☐Yes	☐No	☑N/A	13. ☐ HNO3 ☐ H2SO4 ☐ NaOH ☐ NaOH +ZnAct
All containers needing preservation are found to be in compliance with EPA recommendation. (HNO3, H2SO4 ≤2; NaOH+ZnAct ≥9, NaOH ≥12)	☐Yes	☐No	☑N/A	
exceptions: (VOA) coliform, TOC, TOX, TOH, O&G, WIDRO, Phenolics, OTHER:	☑Yes	☐No		Initial when completed / Lab Std #ID of preservative / Date/ Time:
Headspace in VOA Vials (>6mm):	☐Yes	☑No	☐N/A	14.
Trip Blank Present:	☑Yes	☐No	☐N/A	15.
Trip Blank Custody Seals Present	☑Yes	☐No	☐N/A	
Pace Trip Blank Lot # (if purchased): 383				

Client Notification/ Resolution: If checked, see attached form for additional comments ☐

Person Contacted: Date/Time:

Comments/ Resolution:

Project Manager Review: **Date:** 7-18-17

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

August 25, 2017

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

RE: Project: 117-2202058.01 RIPON FF/NN LAN
Pace Project No.: 40154951

Dear Mike Noel:
Enclosed are the analytical results for sample(s) received by the laboratory on August 12, 2017. The results relate only to the samples included in this report. Results reported herein conform to the most current, applicable TNI/NELAC 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
(920)469-2436
Project Manager

Enclosures

cc: Ashley Weimer, Tetra Tech Geo

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CERTIFICATIONS

Project: 117-2202058.01 RIPON FF/NN LAN
Pace Project No.: 40154951

Green Bay Certification IDs

1241 Bellevue Street, Green Bay, WI 54302
Florida/NELAP Certification #: E87948
Illinois Certification #: 200050
Kentucky UST Certification #: 82
Louisiana Certification #: 04168
Minnesota Certification #: 055-999-334
New York Certification #: 12064
North Dakota Certification #: R-150
Virginia VELAP ID: 460263
South Carolina Certification #: 83006001
Texas Certification #: T104704529-14-1
Wisconsin Certification #: 405132750
Wisconsin DATCP Certification #: 105-444
USDA Soil Permit #: P330-16-00157
Federal Fish & Wildlife Permit #: LE51774A-0

REPORT OF LABORATORY ANALYSIS

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Green Bay, WI 54302
(920)469-2436

SAMPLE SUMMARY

Project: 117-2202058.01 RIPON FF/NN LAN
Pace Project No.: 40154951

Lab ID	Sample ID	Matrix	Date Collected	Date Received
40154951001	**P-118 SOIL**	Solid	08/10/17 17:55	08/12/17 09:55

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SAMPLE ANALYTE COUNT

Project: 117-2202058.01 RIPON FF/NN LAN
Pace Project No.: 40154951

Lab ID	Sample ID	Method	Analysts	Analytes Reported
40154951001	**P-118 SOIL**	EPA 8082	BDS	10
		EPA 6010	DLB	7
		EPA 7470	AJT	1
		EPA 8270	RJN	16
		EPA 8260	SMT	64
		EPA 8260	HNW	13
		ASTM D2974-87	SKW	1

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ANALYTICAL RESULTS

Project: 117-2202058.01 RIPON FF/NN LAN
Pace Project No.: 40154951

Sample: P-118 SOIL **Lab ID: 40154951001** Collected: 08/10/17 17:55 Received: 08/12/17 09:55 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8082 GCS PCB	Analytical Method: EPA 8082 Preparation Method: EPA 3541								
PCB-1016 (Aroclor 1016)	**<27.0**	ug/kg	53.9	27.0	1	08/22/17 13:41	08/23/17 17:22	12674-11-2	
PCB-1221 (Aroclor 1221)	**<27.0**	ug/kg	53.9	27.0	1	08/22/17 13:41	08/23/17 17:22	11104-28-2	
PCB-1232 (Aroclor 1232)	**<27.0**	ug/kg	53.9	27.0	1	08/22/17 13:41	08/23/17 17:22	11141-16-5	
PCB-1242 (Aroclor 1242)	**<27.0**	ug/kg	53.9	27.0	1	08/22/17 13:41	08/23/17 17:22	53469-21-9	
PCB-1248 (Aroclor 1248)	**<27.0**	ug/kg	53.9	27.0	1	08/22/17 13:41	08/23/17 17:22	12672-29-6	
PCB-1254 (Aroclor 1254)	**<27.0**	ug/kg	53.9	27.0	1	08/22/17 13:41	08/23/17 17:22	11097-69-1	
PCB-1260 (Aroclor 1260)	**<27.0**	ug/kg	53.9	27.0	1	08/22/17 13:41	08/23/17 17:22	11096-82-5	
PCB, Total	**<27.0**	ug/kg	53.9	27.0	1	08/22/17 13:41	08/23/17 17:22	1336-36-3	
Surrogates									
Tetrachloro-m-xylene (S)	65	%	50-102		1	08/22/17 13:41	08/23/17 17:22	877-09-8	
Decachlorobiphenyl (S)	72	%	53-105		1	08/22/17 13:41	08/23/17 17:22	2051-24-3	
6010 MET ICP, TCLP	Analytical Method: EPA 6010 Preparation Method: EPA 3010 Leachate Method/Date: EPA 1311; 08/15/17 11:57								
Arsenic	**<0.042**	mg/L	0.12	0.042	1	08/17/17 13:41	08/18/17 12:57	7440-38-2	
Barium	**0.13**	mg/L	0.075	0.025	1	08/17/17 13:41	08/18/17 12:57	7440-39-3	
Cadmium	**<0.0066**	mg/L	0.025	0.0066	1	08/17/17 13:41	08/18/17 12:57	7440-43-9	
Chromium	**<0.013**	mg/L	0.050	0.013	1	08/17/17 13:41	08/18/17 12:57	7440-47-3	
Lead	**<0.022**	mg/L	0.065	0.022	1	08/17/17 13:41	08/18/17 12:57	7439-92-1	
Selenium	**<0.083**	mg/L	0.25	0.083	1	08/17/17 13:41	08/18/17 12:57	7782-49-2	
Silver	**<0.017**	mg/L	0.050	0.017	1	08/17/17 13:41	08/18/17 12:57	7440-22-4	
7470 Mercury, TCLP	Analytical Method: EPA 7470 Preparation Method: EPA 7470 Leachate Method/Date: EPA 1311; 08/15/17 11:57								
Mercury	**<0.13**	ug/L	0.42	0.13	1	08/17/17 12:05	08/18/17 08:35	7439-97-6	
8270 MSSV TCLP Sep Funnel	Analytical Method: EPA 8270 Preparation Method: EPA 3510 Leachate Method/Date: EPA 1311; 08/15/17 11:57								
1,4-Dichlorobenzene	**<18.8**	ug/L	62.5	18.8	1	08/23/17 08:30	08/23/17 15:14	106-46-7	
2,4-Dinitrotoluene	**<7.9**	ug/L	26.4	7.9	1	08/23/17 08:30	08/23/17 15:14	121-14-2	
Hexachloro-1,3-butadiene	**<24.6**	ug/L	82.0	24.6	1	08/23/17 08:30	08/23/17 15:14	87-68-3	
Hexachlorobenzene	**<16.9**	ug/L	56.4	16.9	1	08/23/17 08:30	08/23/17 15:14	118-74-1	
Hexachloroethane	**<26.6**	ug/L	88.6	26.6	1	08/23/17 08:30	08/23/17 15:14	67-72-1	
2-Methylphenol(o-Cresol)	**<8.7**	ug/L	28.9	8.7	1	08/23/17 08:30	08/23/17 15:14	95-48-7	
3&4-Methylphenol(m&p Cresol)	**<15.6**	ug/L	52.0	15.6	1	08/23/17 08:30	08/23/17 15:14		
Nitrobenzene	**<14.5**	ug/L	48.3	14.5	1	08/23/17 08:30	08/23/17 15:14	98-95-3	
Pentachlorophenol	**<14.3**	ug/L	47.8	14.3	1	08/23/17 08:30	08/23/17 15:14	87-86-5	
Pyridine	**<17.9**	ug/L	59.6	17.9	1	08/23/17 08:30	08/23/17 15:14	110-86-1	
2,4,5-Trichlorophenol	**<8.4**	ug/L	28.0	8.4	1	08/23/17 08:30	08/23/17 15:14	95-95-4	
2,4,6-Trichlorophenol	**<21.1**	ug/L	70.4	21.1	1	08/23/17 08:30	08/23/17 15:14	88-06-2	
Surrogates									
Nitrobenzene-d5 (S)	85	%	53-100		1	08/23/17 08:30	08/23/17 15:14	4165-60-0	
2-Fluorobiphenyl (S)	71	%	59-109		1	08/23/17 08:30	08/23/17 15:14	321-60-8	
Phenol-d6 (S)	35	%	18-120		1	08/23/17 08:30	08/23/17 15:14	13127-88-3	
2,4,6-Tribromophenol (S)	105	%	65-140		1	08/23/17 08:30	08/23/17 15:14	118-79-6	

REPORT OF LABORATORY ANALYSIS

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(920)469-2436

ANALYTICAL RESULTS

Project: 117-2202058.01 RIPON FF/NN LAN
Pace Project No.: 40154951

Sample: P-118 SOIL **Lab ID: 40154951001** Collected: 08/10/17 17:55 Received: 08/12/17 09:55 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Med Level Normal List	Analytical Method: EPA 8260 Preparation Method: EPA 5035/5030B								
Benzene	**<25.0**	ug/kg	60.0	25.0	1	08/17/17 06:45	08/17/17 21:00	71-43-2	W
Bromobenzene	**<25.0**	ug/kg	60.0	25.0	1	08/17/17 06:45	08/17/17 21:00	108-86-1	W
Bromochloromethane	**<25.0**	ug/kg	60.0	25.0	1	08/17/17 06:45	08/17/17 21:00	74-97-5	W
Bromodichloromethane	**<25.0**	ug/kg	60.0	25.0	1	08/17/17 06:45	08/17/17 21:00	75-27-4	W
Bromoform	**<25.0**	ug/kg	60.0	25.0	1	08/17/17 06:45	08/17/17 21:00	75-25-2	W
Bromomethane	**<69.9**	ug/kg	250	69.9	1	08/17/17 06:45	08/17/17 21:00	74-83-9	W
n-Butylbenzene	**<25.0**	ug/kg	60.0	25.0	1	08/17/17 06:45	08/17/17 21:00	104-51-8	W
sec-Butylbenzene	**<25.0**	ug/kg	60.0	25.0	1	08/17/17 06:45	08/17/17 21:00	135-98-8	W
tert-Butylbenzene	**<25.0**	ug/kg	60.0	25.0	1	08/17/17 06:45	08/17/17 21:00	98-06-6	W
Carbon tetrachloride	**<25.0**	ug/kg	60.0	25.0	1	08/17/17 06:45	08/17/17 21:00	56-23-5	W
Chlorobenzene	**<25.0**	ug/kg	60.0	25.0	1	08/17/17 06:45	08/17/17 21:00	108-90-7	W
Chloroethane	**<67.0**	ug/kg	250	67.0	1	08/17/17 06:45	08/17/17 21:00	75-00-3	W
Chloroform	**<46.4**	ug/kg	250	46.4	1	08/17/17 06:45	08/17/17 21:00	67-66-3	W
Chloromethane	**<25.0**	ug/kg	60.0	25.0	1	08/17/17 06:45	08/17/17 21:00	74-87-3	W
2-Chlorotoluene	**<25.0**	ug/kg	60.0	25.0	1	08/17/17 06:45	08/17/17 21:00	95-49-8	W
4-Chlorotoluene	**<25.0**	ug/kg	60.0	25.0	1	08/17/17 06:45	08/17/17 21:00	106-43-4	W
1,2-Dibromo-3-chloropropane	**<91.2**	ug/kg	250	91.2	1	08/17/17 06:45	08/17/17 21:00	96-12-8	W
Dibromochloromethane	**<25.0**	ug/kg	60.0	25.0	1	08/17/17 06:45	08/17/17 21:00	124-48-1	W
1,2-Dibromoethane (EDB)	**<25.0**	ug/kg	60.0	25.0	1	08/17/17 06:45	08/17/17 21:00	106-93-4	W
Dibromomethane	**<25.0**	ug/kg	60.0	25.0	1	08/17/17 06:45	08/17/17 21:00	74-95-3	W
1,2-Dichlorobenzene	**<25.0**	ug/kg	60.0	25.0	1	08/17/17 06:45	08/17/17 21:00	95-50-1	W
1,3-Dichlorobenzene	**<25.0**	ug/kg	60.0	25.0	1	08/17/17 06:45	08/17/17 21:00	541-73-1	W
1,4-Dichlorobenzene	**<25.0**	ug/kg	60.0	25.0	1	08/17/17 06:45	08/17/17 21:00	106-46-7	W
Dichlorodifluoromethane	**<25.0**	ug/kg	60.0	25.0	1	08/17/17 06:45	08/17/17 21:00	75-71-8	W
1,1-Dichloroethane	**<25.0**	ug/kg	60.0	25.0	1	08/17/17 06:45	08/17/17 21:00	75-34-3	W
1,2-Dichloroethane	**<25.0**	ug/kg	60.0	25.0	1	08/17/17 06:45	08/17/17 21:00	107-06-2	W
1,1-Dichloroethene	**<25.0**	ug/kg	60.0	25.0	1	08/17/17 06:45	08/17/17 21:00	75-35-4	W
cis-1,2-Dichloroethene	**<25.0**	ug/kg	60.0	25.0	1	08/17/17 06:45	08/17/17 21:00	156-59-2	W
trans-1,2-Dichloroethene	**<25.0**	ug/kg	60.0	25.0	1	08/17/17 06:45	08/17/17 21:00	156-60-5	W
1,2-Dichloropropane	**<25.0**	ug/kg	60.0	25.0	1	08/17/17 06:45	08/17/17 21:00	78-87-5	W
1,3-Dichloropropane	**<25.0**	ug/kg	60.0	25.0	1	08/17/17 06:45	08/17/17 21:00	142-28-9	W
2,2-Dichloropropane	**<25.0**	ug/kg	60.0	25.0	1	08/17/17 06:45	08/17/17 21:00	594-20-7	W
1,1-Dichloropropene	**<25.0**	ug/kg	60.0	25.0	1	08/17/17 06:45	08/17/17 21:00	563-58-6	W
cis-1,3-Dichloropropene	**<25.0**	ug/kg	60.0	25.0	1	08/17/17 06:45	08/17/17 21:00	10061-01-5	W
trans-1,3-Dichloropropene	**<25.0**	ug/kg	60.0	25.0	1	08/17/17 06:45	08/17/17 21:00	10061-02-6	W
Diisopropyl ether	**<25.0**	ug/kg	60.0	25.0	1	08/17/17 06:45	08/17/17 21:00	108-20-3	W
Ethylbenzene	**<25.0**	ug/kg	60.0	25.0	1	08/17/17 06:45	08/17/17 21:00	100-41-4	W
Hexachloro-1,3-butadiene	**<25.0**	ug/kg	60.0	25.0	1	08/17/17 06:45	08/17/17 21:00	87-68-3	W
Isopropylbenzene (Cumene)	**<25.0**	ug/kg	60.0	25.0	1	08/17/17 06:45	08/17/17 21:00	98-82-8	W
p-Isopropyltoluene	**<25.0**	ug/kg	60.0	25.0	1	08/17/17 06:45	08/17/17 21:00	99-87-6	W
Methylene Chloride	**<25.0**	ug/kg	60.0	25.0	1	08/17/17 06:45	08/17/17 21:00	75-09-2	W
Methyl-tert-butyl ether	**<25.0**	ug/kg	60.0	25.0	1	08/17/17 06:45	08/17/17 21:00	1634-04-4	W
Naphthalene	**<40.0**	ug/kg	250	40.0	1	08/17/17 06:45	08/17/17 21:00	91-20-3	W
n-Propylbenzene	**<25.0**	ug/kg	60.0	25.0	1	08/17/17 06:45	08/17/17 21:00	103-65-1	W
Styrene	**<25.0**	ug/kg	60.0	25.0	1	08/17/17 06:45	08/17/17 21:00	100-42-5	W

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: 117-2202058.01 RIPON FF/NN LAN
Pace Project No.: 40154951

Sample: P-118 SOIL **Lab ID: 40154951001** Collected: 08/10/17 17:55 Received: 08/12/17 09:55 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Med Level Normal List	Analytical Method: EPA 8260 Preparation Method: EPA 5035/5030B								
1,1,1,2-Tetrachloroethane	**<25.0**	ug/kg	60.0	25.0	1	08/17/17 06:45	08/17/17 21:00	630-20-6	W
1,1,2,2-Tetrachloroethane	**<25.0**	ug/kg	60.0	25.0	1	08/17/17 06:45	08/17/17 21:00	79-34-5	W
Tetrachloroethene	**<25.0**	ug/kg	60.0	25.0	1	08/17/17 06:45	08/17/17 21:00	127-18-4	W
Toluene	**<25.0**	ug/kg	60.0	25.0	1	08/17/17 06:45	08/17/17 21:00	108-88-3	W
1,2,3-Trichlorobenzene	**<25.0**	ug/kg	60.0	25.0	1	08/17/17 06:45	08/17/17 21:00	87-61-6	W
1,2,4-Trichlorobenzene	**<47.6**	ug/kg	250	47.6	1	08/17/17 06:45	08/17/17 21:00	120-82-1	W
1,1,1-Trichloroethane	**<25.0**	ug/kg	60.0	25.0	1	08/17/17 06:45	08/17/17 21:00	71-55-6	W
1,1,2-Trichloroethane	**<25.0**	ug/kg	60.0	25.0	1	08/17/17 06:45	08/17/17 21:00	79-00-5	W
Trichloroethene	**<25.0**	ug/kg	60.0	25.0	1	08/17/17 06:45	08/17/17 21:00	79-01-6	W
Trichlorofluoromethane	**<25.0**	ug/kg	60.0	25.0	1	08/17/17 06:45	08/17/17 21:00	75-69-4	W
1,2,3-Trichloropropane	**<25.0**	ug/kg	60.0	25.0	1	08/17/17 06:45	08/17/17 21:00	96-18-4	W
1,2,4-Trimethylbenzene	**<25.0**	ug/kg	60.0	25.0	1	08/17/17 06:45	08/17/17 21:00	95-63-6	W
1,3,5-Trimethylbenzene	**<25.0**	ug/kg	60.0	25.0	1	08/17/17 06:45	08/17/17 21:00	108-67-8	W
Vinyl chloride	**<25.0**	ug/kg	60.0	25.0	1	08/17/17 06:45	08/17/17 21:00	75-01-4	W
m&p-Xylene	**<50.0**	ug/kg	120	50.0	1	08/17/17 06:45	08/17/17 21:00	179601-23-1	W
o-Xylene	**<25.0**	ug/kg	60.0	25.0	1	08/17/17 06:45	08/17/17 21:00	95-47-6	W
Surrogates									
Dibromofluoromethane (S)	122	%	68-130		1	08/17/17 06:45	08/17/17 21:00	1868-53-7	
Toluene-d8 (S)	113	%	68-149		1	08/17/17 06:45	08/17/17 21:00	2037-26-5	
4-Bromofluorobenzene (S)	97	%	58-141		1	08/17/17 06:45	08/17/17 21:00	460-00-4	
8260 MSV TCLP	Analytical Method: EPA 8260 Leachate Method/Date: EPA 1311; 08/15/17 11:57								
Benzene	**<5.0**	ug/L	10.0	5.0	10		08/16/17 16:03	71-43-2	
2-Butanone (MEK)	**<29.8**	ug/L	200	29.8	10		08/16/17 16:03	78-93-3	
Carbon tetrachloride	**<5.0**	ug/L	10.0	5.0	10		08/16/17 16:03	56-23-5	
Chlorobenzene	**<5.0**	ug/L	10.0	5.0	10		08/16/17 16:03	108-90-7	
Chloroform	**<25.0**	ug/L	50.0	25.0	10		08/16/17 16:03	67-66-3	
1,2-Dichloroethane	**<1.7**	ug/L	10.0	1.7	10		08/16/17 16:03	107-06-2	
1,1-Dichloroethene	**<4.1**	ug/L	10.0	4.1	10		08/16/17 16:03	75-35-4	
Tetrachloroethene	**<5.0**	ug/L	10.0	5.0	10		08/16/17 16:03	127-18-4	
Trichloroethene	**<3.3**	ug/L	10.0	3.3	10		08/16/17 16:03	79-01-6	
Vinyl chloride	**<1.8**	ug/L	10.0	1.8	10		08/16/17 16:03	75-01-4	
Surrogates									
Toluene-d8 (S)	112	%	70-130		10		08/16/17 16:03	2037-26-5	
4-Bromofluorobenzene (S)	96	%	61-130		10		08/16/17 16:03	460-00-4	
Dibromofluoromethane (S)	111	%	67-130		10		08/16/17 16:03	1868-53-7	
Percent Moisture	Analytical Method: ASTM D2974-87								
Percent Moisture	**7.3**	%	0.10	0.10	1		08/14/17 17:18		

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: 117-2202058.01 RIPON FF/NN LAN
Pace Project No.: 40154951

QC Batch: 264885
QC Batch Method: EPA 7470
Analysis Method: EPA 7470
Analysis Description: 7470 Mercury TCLP
Associated Lab Samples: 40154951001

METHOD BLANK: 1558397 Matrix: Water
Associated Lab Samples: 40154951001

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Mercury	ug/L	<0.13	0.42	08/18/17 08:03	

METHOD BLANK: 1556313 Matrix: Water
Associated Lab Samples: 40154951001

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Mercury	ug/L	<0.13	0.42	08/18/17 08:19	

METHOD BLANK: 1556759 Matrix: Water
Associated Lab Samples: 40154951001

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Mercury	ug/L	<0.13	0.42	08/18/17 08:33	

METHOD BLANK: 1556802 Matrix: Water
Associated Lab Samples: 40154951001

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Mercury	ug/L	<0.13	0.42	08/18/17 08:37	

METHOD BLANK: 1557732 Matrix: Water
Associated Lab Samples: 40154951001

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Mercury	ug/L	<0.13	0.42	08/18/17 08:58	

LABORATORY CONTROL SAMPLE: 1558398

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Mercury	ug/L	5	5.1	101	85-115	

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QUALITY CONTROL DATA

Project: 117-2202058.01 RIPON FF/NN LAN
Pace Project No.: 40154951

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1558399 1558400

Parameter	Units	40154925007 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Mercury	ug/L	<0.13	5	5	5.1	4.8	102	97	85-115	5	20	

MATRIX SPIKE SAMPLE: 1558401

Parameter	Units	40154933004 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Mercury	ug/L	<0.00013 mg/L	5	5.0	101	85-115	

MATRIX SPIKE SAMPLE: 1558402

Parameter	Units	40154889001 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Mercury	ug/L	<0.13	5	5.1	102	85-115	

MATRIX SPIKE SAMPLE: 1558713

Parameter	Units	40155040001 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Mercury	ug/L	<0.00025 mg/L	10	10.3	103	85-115	

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QUALITY CONTROL DATA

Project: 117-2202058.01 RIPON FF/NN LAN
Pace Project No.: 40154951

QC Batch: 264927
QC Batch Method: EPA 3010
Analysis Method: EPA 6010
Analysis Description: 6010 MET TCLP
Associated Lab Samples: 40154951001

METHOD BLANK: 1558591 Matrix: Water
Associated Lab Samples: 40154951001

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Arsenic	mg/L	<0.0083	0.025	08/18/17 12:38	
Barium	mg/L	<0.0050	0.015	08/18/17 12:38	
Cadmium	mg/L	<0.0013	0.0050	08/18/17 12:38	
Chromium	mg/L	<0.0025	0.010	08/18/17 12:38	
Lead	mg/L	<0.0043	0.013	08/18/17 12:38	
Selenium	mg/L	<0.017	0.050	08/18/17 12:38	
Silver	mg/L	<0.0033	0.010	08/18/17 12:38	

METHOD BLANK: 1556795 Matrix: Solid
Associated Lab Samples: 40154951001

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Arsenic	mg/L	<0.042	0.12	08/18/17 13:00	
Barium	mg/L	<0.025	0.075	08/18/17 13:00	
Cadmium	mg/L	<0.0066	0.025	08/18/17 13:00	
Chromium	mg/L	<0.013	0.050	08/18/17 13:00	
Lead	mg/L	<0.022	0.065	08/18/17 13:00	
Selenium	mg/L	<0.083	0.25	08/18/17 13:00	
Silver	mg/L	<0.017	0.050	08/18/17 13:00	

METHOD BLANK: 1557543 Matrix: Solid
Associated Lab Samples: 40154951001

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Arsenic	mg/L	<0.042	0.12	08/18/17 13:24	
Barium	mg/L	<0.025	0.075	08/18/17 13:24	
Cadmium	mg/L	<0.0066	0.025	08/18/17 13:24	
Chromium	mg/L	<0.013	0.050	08/18/17 13:24	
Lead	mg/L	<0.022	0.065	08/18/17 13:24	
Selenium	mg/L	<0.083	0.25	08/18/17 13:24	
Silver	mg/L	<0.017	0.050	08/18/17 13:24	

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QUALITY CONTROL DATA

Project: 117-2202058.01 RIPON FF/NN LAN
Pace Project No.: 40154951

METHOD BLANK: 1557544 Matrix: Solid
Associated Lab Samples: 40154951001

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Arsenic	mg/L	<0.0083	0.025	08/18/17 13:47	
Barium	mg/L	<0.0050	0.015	08/18/17 13:47	
Cadmium	mg/L	<0.0013	0.0050	08/18/17 13:47	
Chromium	mg/L	<0.0025	0.010	08/18/17 13:47	
Lead	mg/L	<0.0043	0.013	08/18/17 13:47	
Selenium	mg/L	<0.017	0.050	08/18/17 13:47	
Silver	mg/L	<0.0033	0.010	08/18/17 13:47	

METHOD BLANK: 1557716 Matrix: Solid
Associated Lab Samples: 40154951001

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Arsenic	mg/L	<0.042	0.12	08/18/17 13:29	
Barium	mg/L	<0.025	0.075	08/18/17 13:29	
Cadmium	mg/L	<0.0066	0.025	08/18/17 13:29	
Chromium	mg/L	<0.013	0.050	08/18/17 13:29	
Lead	mg/L	<0.022	0.065	08/18/17 13:29	
Selenium	mg/L	<0.083	0.25	08/18/17 13:29	
Silver	mg/L	<0.017	0.050	08/18/17 13:29	

LABORATORY CONTROL SAMPLE: 1558592

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Arsenic	mg/L	.5	0.48	95	80-120	
Barium	mg/L	.5	0.50	100	80-120	
Cadmium	mg/L	.5	0.49	99	80-120	
Chromium	mg/L	.5	0.50	101	80-120	
Lead	mg/L	.5	0.49	99	80-120	
Selenium	mg/L	.5	0.50	99	80-120	
Silver	mg/L	.25	0.25	99	80-120	

MATRIX SPIKE SAMPLE: 1558596

Parameter	Units	40155040001 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Arsenic	mg/L	<0.042	2.5	2.4	97	75-125	
Barium	mg/L	0.31	2.5	2.8	100	75-125	
Cadmium	mg/L	0.010J	2.5	2.5	99	75-125	
Chromium	mg/L	<0.064	2.5	2.5	102	75-125	
Lead	mg/L	<0.11	2.5	2.6	104	75-125	
Selenium	mg/L	<0.41	2.5	2.5	100	75-125	

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QUALITY CONTROL DATA

Project: 117-2202058.01 RIPON FF/NN LAN
Pace Project No.: 40154951

MATRIX SPIKE SAMPLE: 1558596

Parameter	Units	40155040001 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Silver	mg/L	<0.083	1.2	1.3	101	75-125	

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QUALITY CONTROL DATA

Project: 117-2202058.01 RIPON FF/NN LAN
Pace Project No.: 40154951

QC Batch: 264941
QC Batch Method: EPA 5035/5030B
Analysis Method: EPA 8260
Analysis Description: 8260 MSV Med Level Normal List
Associated Lab Samples: 40154951001

METHOD BLANK: 1558649
Matrix: Solid
Associated Lab Samples: 40154951001

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
1,1,1,2-Tetrachloroethane	ug/kg	<13.7	50.0	08/17/17 08:49	
1,1,1-Trichloroethane	ug/kg	<14.4	50.0	08/17/17 08:49	
1,1,2,2-Tetrachloroethane	ug/kg	<17.5	50.0	08/17/17 08:49	
1,1,2-Trichloroethane	ug/kg	<20.2	50.0	08/17/17 08:49	
1,1-Dichloroethane	ug/kg	<17.6	50.0	08/17/17 08:49	
1,1-Dichloroethene	ug/kg	<17.6	50.0	08/17/17 08:49	
1,1-Dichloropropene	ug/kg	<14.0	50.0	08/17/17 08:49	
1,2,3-Trichlorobenzene	ug/kg	<17.0	50.0	08/17/17 08:49	
1,2,3-Trichloropropane	ug/kg	<22.3	50.0	08/17/17 08:49	
1,2,4-Trichlorobenzene	ug/kg	<47.6	250	08/17/17 08:49	
1,2,4-Trimethylbenzene	ug/kg	<12.2	50.0	08/17/17 08:49	
1,2-Dibromo-3-chloropropane	ug/kg	<91.2	250	08/17/17 08:49	
1,2-Dibromoethane (EDB)	ug/kg	<14.7	50.0	08/17/17 08:49	
1,2-Dichlorobenzene	ug/kg	<16.2	50.0	08/17/17 08:49	
1,2-Dichloroethane	ug/kg	<15.0	50.0	08/17/17 08:49	
1,2-Dichloropropane	ug/kg	<16.8	50.0	08/17/17 08:49	
1,3,5-Trimethylbenzene	ug/kg	<14.5	50.0	08/17/17 08:49	
1,3-Dichlorobenzene	ug/kg	<13.2	50.0	08/17/17 08:49	
1,3-Dichloropropane	ug/kg	<12.0	50.0	08/17/17 08:49	
1,4-Dichlorobenzene	ug/kg	<15.9	50.0	08/17/17 08:49	
2,2-Dichloropropane	ug/kg	<12.6	50.0	08/17/17 08:49	
2-Chlorotoluene	ug/kg	<15.8	50.0	08/17/17 08:49	
4-Chlorotoluene	ug/kg	<13.0	50.0	08/17/17 08:49	
Benzene	ug/kg	<9.2	20.0	08/17/17 08:49	
Bromobenzene	ug/kg	<20.6	50.0	08/17/17 08:49	
Bromochloromethane	ug/kg	<21.4	50.0	08/17/17 08:49	
Bromodichloromethane	ug/kg	<9.8	50.0	08/17/17 08:49	
Bromoform	ug/kg	<19.8	50.0	08/17/17 08:49	
Bromomethane	ug/kg	<69.9	250	08/17/17 08:49	
Carbon tetrachloride	ug/kg	<12.1	50.0	08/17/17 08:49	
Chlorobenzene	ug/kg	<14.8	50.0	08/17/17 08:49	
Chloroethane	ug/kg	<67.0	250	08/17/17 08:49	
Chloroform	ug/kg	<46.4	250	08/17/17 08:49	
Chloromethane	ug/kg	<20.4	50.0	08/17/17 08:49	
cis-1,2-Dichloroethene	ug/kg	<16.6	50.0	08/17/17 08:49	
cis-1,3-Dichloropropene	ug/kg	<16.6	50.0	08/17/17 08:49	
Dibromochloromethane	ug/kg	<17.9	50.0	08/17/17 08:49	
Dibromomethane	ug/kg	<19.3	50.0	08/17/17 08:49	
Dichlorodifluoromethane	ug/kg	<12.3	50.0	08/17/17 08:49	
Diisopropyl ether	ug/kg	<17.7	50.0	08/17/17 08:49	
Ethylbenzene	ug/kg	<12.4	50.0	08/17/17 08:49	

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QUALITY CONTROL DATA

Project: 117-2202058.01 RIPON FF/NN LAN
Pace Project No.: 40154951

METHOD BLANK: 1558649 Matrix: Solid
Associated Lab Samples: 40154951001

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Hexachloro-1,3-butadiene	ug/kg	<24.5	50.0	08/17/17 08:49	
Isopropylbenzene (Cumene)	ug/kg	<12.6	50.0	08/17/17 08:49	
m&p-Xylene	ug/kg	<34.4	100	08/17/17 08:49	
Methyl-tert-butyl ether	ug/kg	<12.7	50.0	08/17/17 08:49	
Methylene Chloride	ug/kg	<16.2	50.0	08/17/17 08:49	
n-Butylbenzene	ug/kg	<10.5	50.0	08/17/17 08:49	
n-Propylbenzene	ug/kg	<11.6	50.0	08/17/17 08:49	
Naphthalene	ug/kg	<40.0	250	08/17/17 08:49	
o-Xylene	ug/kg	<14.0	50.0	08/17/17 08:49	
p-Isopropyltoluene	ug/kg	<12.0	50.0	08/17/17 08:49	
sec-Butylbenzene	ug/kg	<11.9	50.0	08/17/17 08:49	
Styrene	ug/kg	<9.0	50.0	08/17/17 08:49	
tert-Butylbenzene	ug/kg	<9.5	50.0	08/17/17 08:49	
Tetrachloroethene	ug/kg	<12.9	50.0	08/17/17 08:49	
Toluene	ug/kg	<11.2	50.0	08/17/17 08:49	
trans-1,2-Dichloroethene	ug/kg	<16.5	50.0	08/17/17 08:49	
trans-1,3-Dichloropropene	ug/kg	<14.4	50.0	08/17/17 08:49	
Trichloroethene	ug/kg	<23.6	50.0	08/17/17 08:49	
Trichlorofluoromethane	ug/kg	<24.7	50.0	08/17/17 08:49	
Vinyl chloride	ug/kg	<21.1	50.0	08/17/17 08:49	
4-Bromofluorobenzene (S)	%	92	58-141	08/17/17 08:49	
Dibromofluoromethane (S)	%	110	68-130	08/17/17 08:49	
Toluene-d8 (S)	%	104	68-149	08/17/17 08:49	

LABORATORY CONTROL SAMPLE: 1558650

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,1,1-Trichloroethane	ug/kg	2500	2780	111	61-122	
1,1,2,2-Tetrachloroethane	ug/kg	2500	2470	99	73-130	
1,1,2-Trichloroethane	ug/kg	2500	2430	97	70-130	
1,1-Dichloroethane	ug/kg	2500	2710	108	63-124	
1,1-Dichloroethene	ug/kg	2500	2320	93	53-117	
1,2,4-Trichlorobenzene	ug/kg	2500	2340	94	78-130	
1,2-Dibromo-3-chloropropane	ug/kg	2500	2130	85	49-140	
1,2-Dibromoethane (EDB)	ug/kg	2500	2520	101	70-130	
1,2-Dichlorobenzene	ug/kg	2500	2500	100	70-130	
1,2-Dichloroethane	ug/kg	2500	2870	115	56-135	
1,2-Dichloropropane	ug/kg	2500	2700	108	77-122	
1,3-Dichlorobenzene	ug/kg	2500	2520	101	70-130	
1,4-Dichlorobenzene	ug/kg	2500	2450	98	70-130	
Benzene	ug/kg	2500	2760	110	66-130	
Bromodichloromethane	ug/kg	2500	2440	97	62-135	
Bromoform	ug/kg	2500	1960	78	68-130	
Bromomethane	ug/kg	2500	2280	91	29-137	

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QUALITY CONTROL DATA

Project: 117-2202058.01 RIPON FF/NN LAN
Pace Project No.: 40154951

LABORATORY CONTROL SAMPLE: 1558650

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Carbon tetrachloride	ug/kg	2500	2740	110	57-130	
Chlorobenzene	ug/kg	2500	2660	106	70-130	
Chloroethane	ug/kg	2500	3270	131	36-144	
Chloroform	ug/kg	2500	2690	108	69-115	
Chloromethane	ug/kg	2500	2430	97	32-126	
cis-1,2-Dichloroethene	ug/kg	2500	2660	106	65-130	
cis-1,3-Dichloropropene	ug/kg	2500	2480	99	70-130	
Dibromochloromethane	ug/kg	2500	2270	91	70-130	
Dichlorodifluoromethane	ug/kg	2500	1780	71	10-99	
Ethylbenzene	ug/kg	2500	2480	99	82-122	
Isopropylbenzene (Cumene)	ug/kg	2500	2450	98	70-130	
m&p-Xylene	ug/kg	5000	5080	102	70-130	
Methyl-tert-butyl ether	ug/kg	2500	2430	97	63-134	
Methylene Chloride	ug/kg	2500	2580	103	56-123	
o-Xylene	ug/kg	2500	2440	98	70-130	
Styrene	ug/kg	2500	2500	100	70-130	
Tetrachloroethene	ug/kg	2500	2650	106	70-131	
Toluene	ug/kg	2500	2600	104	80-120	
trans-1,2-Dichloroethene	ug/kg	2500	2480	99	66-130	
trans-1,3-Dichloropropene	ug/kg	2500	2310	92	68-130	
Trichloroethene	ug/kg	2500	2660	106	70-130	
Trichlorofluoromethane	ug/kg	2500	2450	98	37-149	
Vinyl chloride	ug/kg	2500	2230	89	43-128	
4-Bromofluorobenzene (S)	%			94	58-141	
Dibromofluoromethane (S)	%			107	68-130	
Toluene-d8 (S)	%			102	68-149	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1558651 1558652

Parameter	Units	40155012005 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
1,1,1-Trichloroethane	ug/kg	<25.0	1320	1320	1320	1210	100	92	57-123	8	20	
1,1,2,2-Tetrachloroethane	ug/kg	<25.0	1320	1320	1310	1440	99	109	73-135	9	20	
1,1,2-Trichloroethane	ug/kg	<25.0	1320	1320	1310	1390	99	105	70-130	6	20	
1,1-Dichloroethane	ug/kg	<25.0	1320	1320	1450	1320	109	99	63-124	9	20	
1,1-Dichloroethene	ug/kg	<25.0	1320	1320	1050	964	79	73	48-117	9	23	
1,2,4-Trichlorobenzene	ug/kg	<47.6	1320	1320	1400	1430	106	108	78-145	2	20	
1,2-Dibromo-3-chloropropane	ug/kg	<91.2	1320	1320	1130	1340	85	102	38-168	17	22	
1,2-Dibromoethane (EDB)	ug/kg	<25.0	1320	1320	1270	1350	96	102	70-130	6	20	
1,2-Dichlorobenzene	ug/kg	<25.0	1320	1320	1390	1410	105	107	70-130	1	20	
1,2-Dichloroethane	ug/kg	<25.0	1320	1320	1590	1540	120	116	56-145	3	20	
1,2-Dichloropropane	ug/kg	<25.0	1320	1320	1440	1440	108	109	77-123	1	20	
1,3-Dichlorobenzene	ug/kg	<25.0	1320	1320	1380	1380	104	104	70-130	0	20	
1,4-Dichlorobenzene	ug/kg	<25.0	1320	1320	1350	1320	102	100	70-130	2	20	

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QUALITY CONTROL DATA

Project: 117-2202058.01 RIPON FF/NN LAN
Pace Project No.: 40154951

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1558651 1558652

Parameter	Units	40155012005 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Benzene	ug/kg	<25.0	1320	1320	1450	1360	110	103	65-130	6	20	
Bromodichloromethane	ug/kg	<25.0	1320	1320	1300	1310	98	99	59-141	1	20	
Bromoform	ug/kg	<25.0	1320	1320	1150	1180	87	89	59-141	3	20	
Bromomethane	ug/kg	<69.9	1320	1320	1160	981	88	74	28-139	17	20	
Carbon tetrachloride	ug/kg	<25.0	1320	1320	1330	1130	100	85	50-130	16	20	
Chlorobenzene	ug/kg	<25.0	1320	1320	1400	1400	106	106	70-130	0	20	
Chloroethane	ug/kg	<67.0	1320	1320	1650	1420	125	108	36-144	15	20	
Chloroform	ug/kg	<46.4	1320	1320	1450	1410	110	106	68-122	3	20	
Chloromethane	ug/kg	<25.0	1320	1320	1160	1100	87	83	30-126	5	20	
cis-1,2-Dichloroethene	ug/kg	<25.0	1320	1320	1460	1340	110	101	63-130	9	20	
cis-1,3-Dichloropropene	ug/kg	<25.0	1320	1320	1250	1290	94	98	70-130	4	20	
Dibromochloromethane	ug/kg	<25.0	1320	1320	1170	1160	88	88	66-136	0	20	
Dichlorodifluoromethane	ug/kg	<25.0	1320	1320	759	729	57	55	10-99	4	33	
Ethylbenzene	ug/kg	<25.0	1320	1320	1250	1210	94	91	80-122	3	20	
Isopropylbenzene (Cumene)	ug/kg	<25.0	1320	1320	1200	1170	91	89	70-130	2	20	
m&p-Xylene	ug/kg	<50.0	2650	2650	2560	2490	97	94	70-130	3	20	
Methyl-tert-butyl ether	ug/kg	<25.0	1320	1320	1300	1320	98	100	63-134	2	20	
Methylene Chloride	ug/kg	<25.0	1320	1320	1430	1330	108	100	56-127	7	20	
o-Xylene	ug/kg	<25.0	1320	1320	1280	1260	97	95	70-130	1	20	
Styrene	ug/kg	<25.0	1320	1320	1270	1330	96	100	70-130	5	20	
Tetrachloroethene	ug/kg	<25.0	1320	1320	1290	1240	97	94	70-131	4	20	
Toluene	ug/kg	<25.0	1320	1320	1320	1300	100	98	80-120	2	20	
trans-1,2-Dichloroethene	ug/kg	<25.0	1320	1320	1320	1270	100	96	60-130	4	20	
trans-1,3-Dichloropropene	ug/kg	<25.0	1320	1320	1180	1280	89	97	68-130	9	20	
Trichloroethene	ug/kg	<25.0	1320	1320	1370	1250	103	95	70-130	9	20	
Trichlorofluoromethane	ug/kg	<25.0	1320	1320	1080	919	82	69	37-149	16	24	
Vinyl chloride	ug/kg	<25.0	1320	1320	986	894	75	68	39-128	10	20	
4-Bromofluorobenzene (S)	%						115	116	58-141			
Dibromofluoromethane (S)	%						137	133	68-130			1q
Toluene-d8 (S)	%						128	125	68-149			

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QUALITY CONTROL DATA

Project: 117-2202058.01 RIPON FF/NN LAN
Pace Project No.: 40154951

QC Batch: 264711
QC Batch Method: EPA 8260
Analysis Method: EPA 8260
Analysis Description: 8260 MSV TCLP
Associated Lab Samples: 40154951001

METHOD BLANK: 1557349 Matrix: Water
Associated Lab Samples: 40154951001

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
1,1-Dichloroethene	ug/L	<0.41	1.0	08/16/17 09:25	
1,2-Dichloroethane	ug/L	<0.17	1.0	08/16/17 09:25	
2-Butanone (MEK)	ug/L	<3.0	20.0	08/16/17 09:25	
Benzene	ug/L	<0.50	1.0	08/16/17 09:25	
Carbon tetrachloride	ug/L	<0.50	1.0	08/16/17 09:25	
Chlorobenzene	ug/L	<0.50	1.0	08/16/17 09:25	
Chloroform	ug/L	<2.5	5.0	08/16/17 09:25	
Tetrachloroethene	ug/L	<0.50	1.0	08/16/17 09:25	
Trichloroethene	ug/L	<0.33	1.0	08/16/17 09:25	
Vinyl chloride	ug/L	<0.18	1.0	08/16/17 09:25	
4-Bromofluorobenzene (S)	%	92	61-130	08/16/17 09:25	
Dibromofluoromethane (S)	%	98	67-130	08/16/17 09:25	
Toluene-d8 (S)	%	107	70-130	08/16/17 09:25	

METHOD BLANK: 1556760 Matrix: Solid
Associated Lab Samples: 40154951001

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
1,1-Dichloroethene	ug/L	<4.1	10.0	08/16/17 15:19	
1,2-Dichloroethane	ug/L	<1.7	10.0	08/16/17 15:19	
2-Butanone (MEK)	ug/L	<29.8	200	08/16/17 15:19	
Benzene	ug/L	<5.0	10.0	08/16/17 15:19	
Carbon tetrachloride	ug/L	<5.0	10.0	08/16/17 15:19	
Chlorobenzene	ug/L	<5.0	10.0	08/16/17 15:19	
Chloroform	ug/L	<25.0	50.0	08/16/17 15:19	
Tetrachloroethene	ug/L	<5.0	10.0	08/16/17 15:19	
Trichloroethene	ug/L	<3.3	10.0	08/16/17 15:19	
Vinyl chloride	ug/L	<1.8	10.0	08/16/17 15:19	
4-Bromofluorobenzene (S)	%	97	61-130	08/16/17 15:19	
Dibromofluoromethane (S)	%	112	67-130	08/16/17 15:19	
Toluene-d8 (S)	%	114	70-130	08/16/17 15:19	

LABORATORY CONTROL SAMPLE: 1557350

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,1-Dichloroethene	ug/L	50	50.5	101	75-130	
1,2-Dichloroethane	ug/L	50	52.6	105	70-131	
Benzene	ug/L	50	52.1	104	73-145	

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QUALITY CONTROL DATA

Project: 117-2202058.01 RIPON FF/NN LAN
Pace Project No.: 40154951

LABORATORY CONTROL SAMPLE: 1557350

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Carbon tetrachloride	ug/L	50	50.0	100	70-133	
Chlorobenzene	ug/L	50	58.9	118	70-130	
Chloroform	ug/L	50	52.2	104	80-121	
Tetrachloroethene	ug/L	50	51.4	103	70-130	
Trichloroethene	ug/L	50	55.0	110	70-130	
Vinyl chloride	ug/L	50	42.2	84	57-136	
4-Bromofluorobenzene (S)	%			98	61-130	
Dibromofluoromethane (S)	%			99	67-130	
Toluene-d8 (S)	%			109	70-130	

MATRIX SPIKE SAMPLE: 1557650

Parameter	Units	40154933004 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
1,1-Dichloroethene	ug/L	<0.0041 mg/L	500	633	127	75-136	
1,2-Dichloroethane	ug/L	<0.0017 mg/L	500	609	122	70-131	
2-Butanone (MEK)	ug/L	<0.030 mg/L		<29.8			
Benzene	ug/L	<0.0050 mg/L	500	577	115	73-145	
Carbon tetrachloride	ug/L	<0.0050 mg/L	500	534	107	70-134	
Chlorobenzene	ug/L	<0.0050 mg/L	500	590	118	70-130	
Chloroform	ug/L	<0.025 mg/L	500	564	112	80-121	
Tetrachloroethene	ug/L	<0.0050 mg/L	500	490	98	70-130	
Trichloroethene	ug/L	<0.0033 mg/L	500	571	114	70-130	
Vinyl chloride	ug/L	<0.0018 mg/L	500	556	111	56-143	
4-Bromofluorobenzene (S)	%				106	61-130	
Dibromofluoromethane (S)	%				105	67-130	
Toluene-d8 (S)	%				114	70-130	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1557704 1557705

Parameter	Units	40154951001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
1,1-Dichloroethene	ug/L	<4.1	500	500	572	619	114	124	75-136	8	20	
1,2-Dichloroethane	ug/L	<1.7	500	500	555	607	111	121	70-131	9	20	
2-Butanone (MEK)	ug/L	<29.8			<29.8	<29.8					20	
Benzene	ug/L	<5.0	500	500	524	569	105	114	73-145	8	20	
Carbon tetrachloride	ug/L	<5.0	500	500	497	526	99	105	70-134	6	20	
Chlorobenzene	ug/L	<5.0	500	500	546	592	109	118	70-130	8	20	
Chloroform	ug/L	<25.0	500	500	519	580	103	116	80-121	11	20	
Tetrachloroethene	ug/L	<5.0	500	500	455	490	91	98	70-130	7	20	
Trichloroethene	ug/L	<3.3	500	500	503	551	101	110	70-130	9	20	
Vinyl chloride	ug/L	<1.8	500	500	510	538	102	108	56-143	5	20	
4-Bromofluorobenzene (S)	%						109	106	61-130			
Dibromofluoromethane (S)	%						109	107	67-130			
Toluene-d8 (S)	%						115	115	70-130			

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QUALITY CONTROL DATA

Project: 117-2202058.01 RIPON FF/NN LAN
Pace Project No.: 40154951

QC Batch: 265402
QC Batch Method: EPA 3541
Analysis Method: EPA 8082
Analysis Description: 8082 GCS PCB
Associated Lab Samples: 40154951001

METHOD BLANK: 1560888 Matrix: Solid
Associated Lab Samples: 40154951001

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
PCB-1016 (Aroclor 1016)	ug/kg	<25.0	50.0	08/23/17 19:39	
PCB-1221 (Aroclor 1221)	ug/kg	<25.0	50.0	08/23/17 19:39	
PCB-1232 (Aroclor 1232)	ug/kg	<25.0	50.0	08/23/17 19:39	
PCB-1242 (Aroclor 1242)	ug/kg	<25.0	50.0	08/23/17 19:39	
PCB-1248 (Aroclor 1248)	ug/kg	<25.0	50.0	08/23/17 19:39	
PCB-1254 (Aroclor 1254)	ug/kg	<25.0	50.0	08/23/17 19:39	
PCB-1260 (Aroclor 1260)	ug/kg	<25.0	50.0	08/23/17 19:39	
Decachlorobiphenyl (S)	%	83	53-105	08/23/17 19:39	
Tetrachloro-m-xylene (S)	%	83	50-102	08/23/17 19:39	

LABORATORY CONTROL SAMPLE: 1560889

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
PCB-1016 (Aroclor 1016)	ug/kg		<25.0			
PCB-1221 (Aroclor 1221)	ug/kg		<25.0			
PCB-1232 (Aroclor 1232)	ug/kg		<25.0			
PCB-1242 (Aroclor 1242)	ug/kg		<25.0			
PCB-1248 (Aroclor 1248)	ug/kg		<25.0			
PCB-1254 (Aroclor 1254)	ug/kg		<25.0			
PCB-1260 (Aroclor 1260)	ug/kg	500	384	77	59-106	
Decachlorobiphenyl (S)	%			83	53-105	
Tetrachloro-m-xylene (S)	%			83	50-102	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1560890 1560891

Parameter	Units	40154928002 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
PCB-1016 (Aroclor 1016)	ug/kg	<26.8			<26.8	<26.8					20	
PCB-1221 (Aroclor 1221)	ug/kg	<26.8			<26.8	<26.8					20	
PCB-1232 (Aroclor 1232)	ug/kg	<26.8			<26.8	<26.8					20	
PCB-1242 (Aroclor 1242)	ug/kg	<26.8			<26.8	<26.8					20	
PCB-1248 (Aroclor 1248)	ug/kg	<26.8			<26.8	<26.8					20	
PCB-1254 (Aroclor 1254)	ug/kg	<26.8			<26.8	<26.8					20	
PCB-1260 (Aroclor 1260)	ug/kg	<26.8	535	535	381	394	71	74	51-109	3	20	
Decachlorobiphenyl (S)	%						75	79	53-105			
Tetrachloro-m-xylene (S)	%						70	75	50-102			

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QUALITY CONTROL DATA

Project: 117-2202058.01 RIPON FF/NN LAN
Pace Project No.: 40154951

QC Batch: 265461 Analysis Method: EPA 8270
QC Batch Method: EPA 3510 Analysis Description: 8270 TCLP MSSV
Associated Lab Samples: 40154951001

METHOD BLANK: 1561097 Matrix: Water
Associated Lab Samples: 40154951001

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
1,4-Dichlorobenzene	ug/L	<3.8	12.5	08/23/17 13:28	
2,4,5-Trichlorophenol	ug/L	<1.7	5.6	08/23/17 13:28	
2,4,6-Trichlorophenol	ug/L	<4.2	14.1	08/23/17 13:28	
2,4-Dinitrotoluene	ug/L	<1.6	5.3	08/23/17 13:28	
2-Methylphenol(o-Cresol)	ug/L	<1.7	5.8	08/23/17 13:28	
3&4-Methylphenol(m&p Cresol)	ug/L	<3.1	10.4	08/23/17 13:28	
Hexachloro-1,3-butadiene	ug/L	<4.9	16.4	08/23/17 13:28	
Hexachlorobenzene	ug/L	<3.4	11.3	08/23/17 13:28	
Hexachloroethane	ug/L	<5.3	17.7	08/23/17 13:28	
Nitrobenzene	ug/L	<2.9	9.7	08/23/17 13:28	
Pentachlorophenol	ug/L	<2.9	9.6	08/23/17 13:28	
Pyridine	ug/L	<3.6	11.9	08/23/17 13:28	
2,4,6-Tribromophenol (S)	%	106	65-140	08/23/17 13:28	
2-Fluorobiphenyl (S)	%	69	59-109	08/23/17 13:28	
Nitrobenzene-d5 (S)	%	91	53-100	08/23/17 13:28	
Phenol-d6 (S)	%	34	18-120	08/23/17 13:28	

METHOD BLANK: 1556758 Matrix: Water
Associated Lab Samples: 40154951001

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
1,4-Dichlorobenzene	ug/L	<18.8	62.5	08/23/17 19:27	
2,4,5-Trichlorophenol	ug/L	<8.4	28.0	08/23/17 19:27	
2,4,6-Trichlorophenol	ug/L	<21.1	70.4	08/23/17 19:27	
2,4-Dinitrotoluene	ug/L	<7.9	26.4	08/23/17 19:27	
2-Methylphenol(o-Cresol)	ug/L	<8.7	28.9	08/23/17 19:27	
3&4-Methylphenol(m&p Cresol)	ug/L	<15.6	52.0	08/23/17 19:27	
Hexachloro-1,3-butadiene	ug/L	<24.6	82.0	08/23/17 19:27	
Hexachlorobenzene	ug/L	<16.9	56.4	08/23/17 19:27	
Hexachloroethane	ug/L	<26.6	88.6	08/23/17 19:27	
Nitrobenzene	ug/L	<14.5	48.3	08/23/17 19:27	
Pentachlorophenol	ug/L	<14.3	47.8	08/23/17 19:27	
Pyridine	ug/L	<17.9	59.6	08/23/17 19:27	
2,4,6-Tribromophenol (S)	%	108	65-140	08/23/17 19:27	
2-Fluorobiphenyl (S)	%	84	59-109	08/23/17 19:27	
Nitrobenzene-d5 (S)	%	83	53-100	08/23/17 19:27	
Phenol-d6 (S)	%	34	18-120	08/23/17 19:27	

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QUALITY CONTROL DATA

Project: 117-2202058.01 RIPON FF/NN LAN
Pace Project No.: 40154951

METHOD BLANK: 1560396 Matrix: Water
Associated Lab Samples: 40154951001

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
1,4-Dichlorobenzene	ug/L	<18.8	62.5	08/23/17 19:48	
2,4,5-Trichlorophenol	ug/L	<8.4	28.0	08/23/17 19:48	
2,4,6-Trichlorophenol	ug/L	<21.1	70.4	08/23/17 19:48	
2,4-Dinitrotoluene	ug/L	<7.9	26.4	08/23/17 19:48	
2-Methylphenol(o-Cresol)	ug/L	<8.7	28.9	08/23/17 19:48	
3&4-Methylphenol(m&p Cresol)	ug/L	<15.6	52.0	08/23/17 19:48	
Hexachloro-1,3-butadiene	ug/L	<24.6	82.0	08/23/17 19:48	
Hexachlorobenzene	ug/L	<16.9	56.4	08/23/17 19:48	
Hexachloroethane	ug/L	<26.6	88.6	08/23/17 19:48	
Nitrobenzene	ug/L	<14.5	48.3	08/23/17 19:48	
Pentachlorophenol	ug/L	<14.3	47.8	08/23/17 19:48	
Pyridine	ug/L	<17.9	59.6	08/23/17 19:48	
2,4,6-Tribromophenol (S)	%	113	65-140	08/23/17 19:48	
2-Fluorobiphenyl (S)	%	88	59-109	08/23/17 19:48	
Nitrobenzene-d5 (S)	%	93	53-100	08/23/17 19:48	
Phenol-d6 (S)	%	38	18-120	08/23/17 19:48	

LABORATORY CONTROL SAMPLE: 1561098

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,4-Dichlorobenzene	ug/L	50	37.5	75	44-84	
2,4,5-Trichlorophenol	ug/L	50	45.6	91	63-127	
2,4,6-Trichlorophenol	ug/L	50	45.8	92	65-125	
2,4-Dinitrotoluene	ug/L	50	52.2	104	68-137	
2-Methylphenol(o-Cresol)	ug/L	50	38.9	78	54-103	
3&4-Methylphenol(m&p Cresol)	ug/L	50	33.7	67	50-95	
Hexachloro-1,3-butadiene	ug/L	50	44.9	90	57-100	
Hexachlorobenzene	ug/L	50	51.0	102	70-130	
Hexachloroethane	ug/L	50	37.1	74	41-130	
Nitrobenzene	ug/L	50	47.0	94	70-130	
Pentachlorophenol	ug/L	50	45.5	91	57-121	
Pyridine	ug/L	50	12.1	24	10-79	
2,4,6-Tribromophenol (S)	%			126	65-140	
2-Fluorobiphenyl (S)	%			100	59-109	
Nitrobenzene-d5 (S)	%			107	53-100	S0
Phenol-d6 (S)	%			40	18-120	

MATRIX SPIKE SAMPLE: 1561099

Parameter	Units	40154951001 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
1,4-Dichlorobenzene	ug/L	<18.8	250	191	77	42-96	
2,4,5-Trichlorophenol	ug/L	<8.4	250	228	91	49-127	

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REPORT OF LABORATORY ANALYSIS

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Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

QUALITY CONTROL DATA

Project: 117-2202058.01 RIPON FF/NN LAN
Pace Project No.: 40154951

MATRIX SPIKE SAMPLE: 1561099

Parameter	Units	40154951001 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
2,4,6-Trichlorophenol	ug/L	<21.1	250	220	88	52-125	
2,4-Dinitrotoluene	ug/L	<7.9	250	263	105	56-137	
2-Methylphenol(o-Cresol)	ug/L	<8.7	250	207	83	29-103	
3&4-Methylphenol(m&p Cresol)	ug/L	<15.6	250	183	73	21-95	
Hexachloro-1,3-butadiene	ug/L	<24.6	250	248	99	52-100	
Hexachlorobenzene	ug/L	<16.9	250	255	102	67-130	
Hexachloroethane	ug/L	<26.6	250	203	81	41-130	
Nitrobenzene	ug/L	<14.5	250	228	91	61-130	
Pentachlorophenol	ug/L	<14.3	250	246	99	44-134	
Pyridine	ug/L	<17.9	250	103	41	10-79	
2,4,6-Tribromophenol (S)	%				118	65-140	
2-Fluorobiphenyl (S)	%				90	59-109	
Nitrobenzene-d5 (S)	%				100	53-100	
Phenol-d6 (S)	%				40	18-120	

MATRIX SPIKE SAMPLE: 1561100

Parameter	Units	40155352001 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
1,4-Dichlorobenzene	ug/L	<18.8	250	192	77	42-96	
2,4,5-Trichlorophenol	ug/L	<8.4	250	235	94	49-127	
2,4,6-Trichlorophenol	ug/L	<21.1	250	231	92	52-125	
2,4-Dinitrotoluene	ug/L	<7.9	250	249	100	56-137	
2-Methylphenol(o-Cresol)	ug/L	183	250	392	84	29-103	
3&4-Methylphenol(m&p Cresol)	ug/L	525	250	692	67	21-95	E
Hexachloro-1,3-butadiene	ug/L	<24.6	250	215	86	52-100	
Hexachlorobenzene	ug/L	<16.9	250	238	95	67-130	
Hexachloroethane	ug/L	<26.6	250	186	74	41-130	
Nitrobenzene	ug/L	<14.5	250	209	84	61-130	
Pentachlorophenol	ug/L	<14.3	250	262	105	44-134	
Pyridine	ug/L	<17.9	250	76.0	30	10-79	
2,4,6-Tribromophenol (S)	%				131	65-140	
2-Fluorobiphenyl (S)	%				88	59-109	
Nitrobenzene-d5 (S)	%				89	53-100	
Phenol-d6 (S)	%				42	18-120	

MATRIX SPIKE SAMPLE: 1561101

Parameter	Units	40155187001 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
1,4-Dichlorobenzene	ug/L	<375	250	<375	87	42-96	
2,4,5-Trichlorophenol	ug/L	<168	250	195J	78	49-127	
2,4,6-Trichlorophenol	ug/L	<423	250	<423	69	52-125	
2,4-Dinitrotoluene	ug/L	<158	250	<158	57	56-137	
2-Methylphenol(o-Cresol)	ug/L	<174	250	208J	83	29-103	
3&4-Methylphenol(m&p Cresol)	ug/L	<312	250	<312	71	21-95	

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Green Bay, WI 54302
(920)469-2436

QUALITY CONTROL DATA

Project: 117-2202058.01 RIPON FF/NN LAN
Pace Project No.: 40154951

MATRIX SPIKE SAMPLE: 1561101

Parameter	Units	40155187001 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Hexachloro-1,3-butadiene	ug/L	<492	250	<492	105	52-100	M6
Hexachlorobenzene	ug/L	<339	250	<339	101	67-130	
Hexachloroethane	ug/L	<532	250	<532	91	41-130	
Nitrobenzene	ug/L	<290	250	<290	87	61-130	
Pentachlorophenol	ug/L	<287	250	<287	46	44-134	
Pyridine	ug/L	<358	250	<358	0	10-79	M6
2,4,6-Tribromophenol (S)	%				90	65-140	
2-Fluorobiphenyl (S)	%				97	59-109	
Nitrobenzene-d5 (S)	%				87	53-100	
Phenol-d6 (S)	%				33	18-120	

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(920)469-2436

QUALITY CONTROL DATA

Project: 117-2202058.01 RIPON FF/NN LAN
Pace Project No.: 40154951

QC Batch: 264565
QC Batch Method: ASTM D2974-87
Associated Lab Samples: 40154951001

Analysis Method: ASTM D2974-87
Analysis Description: Dry Weight/Percent Moisture

SAMPLE DUPLICATE: 1556674

Parameter	Units	40154679001 Result	Dup Result	RPD	Max RPD	Qualifiers
Percent Moisture	%	15.6	15.5	1	10	

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(920)469-2436

QUALIFIERS

Project: 117-2202058.01 RIPON FF/NN LAN
Pace Project No.: 40154951

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.

ANALYTE QUALIFIERS

1q	Surrogate recovery outside laboratory control limits due to matrix interferences (confirmed by similar results from analysis of parent sample that demonstrated similar interference).
E	Analyte concentration exceeded the calibration range. The reported result is estimated.
M6	Matrix spike and Matrix spike duplicate recovery not evaluated against control limits due to sample dilution.
S0	Surrogate recovery outside laboratory control limits.
W	Non-detect results are reported on a wet weight basis.

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(920)469-2436

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: 117-2202058.01 RIPON FF/NN LAN
Pace Project No.: 40154951

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
40154951001	**P-118 SOIL**	EPA 3541	265402	EPA 8082	265404
40154951001	**P-118 SOIL**	EPA 3010	264927	EPA 6010	265050
40154951001	**P-118 SOIL**	EPA 7470	264885	EPA 7470	264968
40154951001	**P-118 SOIL**	EPA 3510	265461	EPA 8270	265561
40154951001	**P-118 SOIL**	EPA 5035/5030B	264941	EPA 8260	264949
40154951001	**P-118 SOIL**	EPA 8260	264711		
40154951001	**P-118 SOIL**	ASTM D2974-87	264565		

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www.pacelabs.com

UPPER MIDWEST REGION
MN: 612-607-1700 WI: 920-469-2436

40154951

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

(Please Print Clearly)	
Company Name:	Tetra Tech
Branch/Location:	Brookfield, WI
Project Contact:	Mike Noel / Ashley Wagner
Phone:	(262) 792-1283
Project Number:	117-220058.05
Project Name:	Ripon FF/NW Landfill
Project State:	WI
Sampled By (Print):	Ashley A. Wagner
Sampled By (Sign):	Ashley Wagner
PO #:	Regulatory Program:

Quote #:	
Mail To Contact:	Mike Noel/Ashley Wagner
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:	

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 2017	COLLECTION DATE	COLLECTION TIME	MATRIX	FILTERED? (YES/NO)	PRESERVATION (CODE)*	Analyses Requested	CLIENT COMMENTS	LAB COMMENTS (Lab Use Only)	Profile #
					Y/N	Pick Letter	TCLP VOCs / TCLP SVOCs / VOCs / PCBs / DW 13+ TCLP RCRA / extra volume			
001	P-118 Soil	8-10	1755	S	N	A	1	For waste characterization for landfill disposal	5-4ozg^A, 1-4ozg^A, 2-40mL vF	
					N	A	1			
					N	F	2			
					N	A	1			
					N	A	1			
					N	A	2			

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:	Date/Time:	Received By:	Date/Time:
Ashley Wagner	8-11-17 1110		
Relinquished By: Fed Ex	Date/Time: 8/12/17 0955	Received By:	Date/Time: 8/12/17 0955
Relinquished By:	Date/Time:	Received By:	Date/Time:
Relinquished By:	Date/Time:	Received By:	Date/Time:
Relinquished By:	Date/Time:	Received By:	Date/Time:

PACE Project No.
40154951

Receipt Temp = 10.1 °C

Sample Receipt pH
OK / Adjusted

Cooler Custody Seal
Present / Not Present
Intact / Not Intact

C019a(27Jun2006)

Version 6.0 06/14/06

ORIGINAL

Sample Condition Upon Receipt

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

Pace Analytical™

Client Name: Tetra Tech

Project #: **WO# : 40154951**

40154951

Courier: ☒ Fed Ex ☐ UPS ☐ Client ☐ Pace Other: _____

Tracking #: 8739 5405 3050

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 N/A **Type of Ice:** Wet Blue Dry None ☒ Samples on ice, cooling process has begun

Cooler Temperature Uncorr: Rcd /Corr: **Biological Tissue is Frozen:** ☐ yes ☐ no

Temp Blank Present: ☐ yes ☒ no

Temp should be above freezing to 6°C.
Biota Samples may be received at ≤ 0°C.

Person examining contents:
Date: 8/12/17
Initials: SSm

		Comments:
Chain of Custody Present:	☒Yes ☐No ☐N/A	1.
Chain of Custody Filled Out:	☒Yes ☐No ☐N/A	2.
Chain of Custody Relinquished:	☒Yes ☐No ☐N/A	3.
Sampler Name & Signature on COC:	☒Yes ☐No ☐N/A	4.
Samples Arrived within Hold Time:	☒Yes ☐No ☐N/A	5.
- VOA Samples frozen upon receipt	☐Yes ☐No	Date/Time:
Short Hold Time Analysis (<72hr):	☐Yes ☒No ☐N/A	6.
Rush Turn Around Time Requested:	☐Yes ☒No ☐N/A	7.
Sufficient Volume:	☐Yes ☒No ☐N/A	8. No MS/MSD vol. SSm 8/14/17
Correct Containers Used:	☒Yes ☐No ☐N/A	9.
-Pace Containers Used:	☒Yes ☐No ☐N/A	
-Pace IR Containers Used:	☐Yes ☐No ☒N/A	
Containers Intact:	☒Yes ☐No ☐N/A	10.
Filtered volume received for Dissolved tests	☐Yes ☐No ☒N/A	11.
Sample Labels match COC:	☒Yes ☐No ☐N/A	12.
-Includes date/time/ID/Analysis Matrix: S		
All containers needing preservation have been checked. (Non-Compliance noted in 13.)	☐Yes ☐No ☒N/A	13. ☐ HNO3 ☐ H2SO4 ☐ NaOH ☐ NaOH +ZnAct
All containers needing preservation are found to be in compliance with EPA recommendation. (HNO3, H2SO4 ≤2; NaOH+ZnAct ≥9, NaOH ≥12)	☐Yes ☐No ☒N/A	
exceptions: VOA, coliform, TOC, TOX, TOH, O&G, WIDROW, Phenolics, OTHER:	☐Yes ☒No	Initial when completed / Lab Std #ID of preservative / Date/ Time:
Headspace in VOA Vials (>6mm):	☐Yes ☐No ☒N/A	14.
Trip Blank Present:	☐Yes ☐No ☒N/A	15.
Trip Blank Custody Seals Present	☐Yes ☐No ☒N/A	
Pace Trip Blank Lot # (if purchased):		

Client Notification/ Resolution: If checked, see attached form for additional comments ☐

Person Contacted: _____ Date/Time: _____

Comments/ Resolution: _____

Project Manager Review: _____ **Date:** 8-14-17

ATTACHMENT 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.	117-2202058.01	Conductivity	MP-20 Flow Cell
LOCATION	Ripon, WI	ORP	MP-20 Flow Cell
PERSONNEL	Ashley A. Wagner	DO	MP-20 Flow Cell

MONITOR WELL ID	MW-3A			MW-3B			P-113A		
WATER TYPE	Groundwater			Groundwater			Groundwater		
DATE (month/day/year)	7-14-17			7-14-17			7-14-17		
STATIC WATER LEVEL (feet)*	29.74			28.72			12.95		
WELL DEPTH (feet)*	280.1			185.72			325.31		
PUMP INLET DEPTH (feet)*	67.5			54.5			73.5		
START PURGE TIME (Military)	11:20			11:20			13:14		
END PURGE TIME (Military)	11:55			12:05			14:00		
PURGE VOLUME (gallons)	3.0			5.0			0.5		
SAMPLE TIME (Military)	12:00			12:10			14:05		
STABILIZED INDICATOR PARAMETERS READINGS	1st	2nd	3rd	1st	2nd	3rd	1st	2nd	3rd
TIME (minutes since initial reading)	24:00	25:00	26:00	3:00	4:00	5:00	2:00	4:00	6:00
TEMPERATURE (° C)	10.19	10.35	10.39	9.84	9.89	9.83	13.35	13.30	13.27
ELECTRICAL CONDUCTANCE at 25° C (ms/cm)	0.503	0.502	0.505	0.646	0.650	0.648	0.500	0.503	0.500
DISSOLVED OXYGEN (ppm)	0.61	0.57	0.52	0.50	0.42	0.39	0.88	0.77	0.68
pH	7.28	7.26	7.24	7.38	7.38	7.39	7.43	7.42	7.40
DISSOLVED OXYGEN (% Sat.)	5.5	5.1	4.7	4.4	3.7	3.4	8.4	7.4	6.5
ORP (mV)	-121	-119	-116	-125	-127	-128	-203	-205	-206
COLOR	Clear			Clear			Clear		
ODOR	Rotten Eggs			Rotten Eggs			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		
Sample Blank (use water from well, zero)	0.00			0.00			0.00		
Iron +2 (mg/L) (Hach DR 900 test 255) using reagent powder pillow (wait 3 min)	0.04			1.04			0.47		
DI water with reagent powder pillow	0.00			0.00			0.00		
NAME OF LABORATORY	Pace Analytical			Pace Analytical			Pace Analytical		
DATE SENT TO LAB	7-17-17			7-17-17			7-17-17		
SAMPLER=S NAME	Ashley A. Wagner			Ashley A. Wagner			Ashley A. Wagner		

***Measured from top of well casing.**

TETRA TECH

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.	117-2202058.01	Conductivity	MP-20 Flow Cell
LOCATION	Ripon, WI	ORP	MP-20 Flow Cell
PERSONNEL	Ashley A. Wagner	DO	MP-20 Flow Cell

MONITOR WELL ID	P-113B			P-103D			P-117		
WATER TYPE	Groundwater			Groundwater			Groundwater		
DATE (month/day/year)	7-14-17			7-14-17			7-14-17		
STATIC WATER LEVEL (feet)*	12.39			49.22			14.75		
WELL DEPTH (feet)*	198.9			192.66			165.54		
PUMP INLET DEPTH (feet)*	48.5			87.5			163.0		
START PURGE TIME (Military)	14:05			09:25			12:35		
END PURGE TIME (Military)	14:18			09:45			12:50		
PURGE VOLUME (gallons)	1.5			2.0			2.5		
SAMPLE TIME (Military)	14:20			09:50			12:55		
STABILIZED INDICATOR PARAMETERS READINGS	1st	2nd	3rd	1st	2nd	3rd	1st	2nd	3rd
TIME (minutes since initial reading)	2:00	3:00	4:00	0:00	1:00	2:00	0:00	1:00	2:00
TEMPERATURE (° C)	10.58	10.59	10.61	10.42	10.42	10.42	10.41	10.40	10.40
ELECTRICAL CONDUCTANCE at 25° C (ms/cm)	0.603	0.606	0.605	0.715	0.711	0.711	0.705	0.699	0.701
DISSOLVED OXYGEN (ppm)	1.00	0.90	0.82	0.44	0.44	0.41	0.24	0.23	0.22
pH	7.46	7.46	7.46	6.99	7.01	7.02	7.28	7.28	7.29
DISSOLVED OXYGEN (% Sat.)	9.0	8.2	7.4	4.0	3.9	3.7	2.2	2.0	2.0
ORP (mV)	-164	-158	-154	-54	-57	-61	-112	-112	-112
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		
Sample Blank (use water from well, zero)	0.00			0.00			0.00		
Iron +2 (mg/L) (Hach DR 900 test 255) using reagent powder pillow (wait 3 min)	1.04			2.94			1.29		
DI water with reagent powder pillow	0.00			0.00			0.00		
NAME OF LABORATORY	Pace Analytical			Pace Analytical			Pace Analytical		
DATE SENT TO LAB	7-17-17			7-17-17			7-17-17		
SAMPLER=S NAME	Ashley A. Wagner			Ashley A. Wagner			Ashley A. Wagner		

***Measured from top of well casing.**

TETRA TECH

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.	117-2202058.01	Conductivity	MP-20 Flow Cell
LOCATION	Ripon, WI	ORP	MP-20 Flow Cell
PERSONNEL	Ashley A. Wagner	DO	MP-20 Flow Cell

MONITOR WELL ID	P-111D			P-107D					
WATER TYPE	Groundwater			Groundwater					
DATE (month/day/year)	7-14-17			7-14-17					
STATIC WATER LEVEL (feet)*	34.07			51.48					
WELL DEPTH (feet)*	151.0			327.95					
PUMP INLET DEPTH (feet)*	151.0			76.5					
START PURGE TIME (Military)	10:47			10:10					
END PURGE TIME (Military)	10:55			10:25					
PURGE VOLUME (gallons)	1.5			2.0					
SAMPLE TIME (Military)	11:00			10:30					
STABILIZED INDICATOR PARAMETERS READINGS	1st	2nd	3rd	1st	2nd	3rd			
TIME (minutes since initial reading)	0:00	1:00	2:00	6:00	7:00	8:00			
TEMPERATURE (° C)	10.27	10.23	10.21	10.33	10.33	10.32			
ELECTRICAL CONDUCTANCE at 25° C (ms/cm)	0.787	0.790	0.790	0.528	0.516	0.539			
DISSOLVED OXYGEN (ppm)	0.51	0.44	0.40	0.99	0.88	0.80			
pH	7.37	7.37	7.37	7.22	7.26	7.26			
DISSOLVED OXYGEN (% Sat.)	4.5	3.9	3.6	8.9	7.9	7.2			
ORP (mV)	-116	-121	-126	-135	-137	-139			
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					
Sample Blank (use water from well, zero)	0.00			0.00					
Iron +2 (mg/L) (Hach DR 900 test 255) using reagent powder pillow (wait 3 min)	1.03			0.08					
DI water with reagent powder pillow	0.00			0.00					
NAME OF LABORATORY	Pace Analytical			Pace Analytical					
DATE SENT TO LAB	7-17-17			7-17-17					
SAMPLER=S NAME	Ashley A. Wagner			Ashley A. Wagner					

***Measured from top of well casing.**

TETRA TECH

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.	117-2202058.01	Conductivity	MP-20 Flow Cell
LOCATION	Ripon, WI	ORP	MP-20 Flow Cell
PERSONNEL	Ashley A. Wagner	DO	MP-20 Flow Cell

MONITOR WELL ID	P-114/Dup			P-115			P-116		
WATER TYPE	Groundwater			Groundwater			Groundwater		
DATE (month/day/year)	7-14-17			7-14-17			7-14-17		
STATIC WATER LEVEL (feet)*	18.63			21.34			25.76		
WELL DEPTH (feet)*	181.72			179.57			163.19		
PUMP INLET DEPTH (feet)*	53.5			53.5			163		
START PURGE TIME (Military)	15:15			15:40			14:43		
END PURGE TIME (Military)	15:25			15:55			14:55		
PURGE VOLUME (gallons)	1.0			1.0			0.5		
SAMPLE TIME (Military)	15:25/15:30			16:00			14:55		
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	0:00	2:00	4:00
TEMPERATURE (° C)	10.32	10.32	10.30	10.61	10.60	10.62	11.55	11.46	11.29
ELECTRICAL CONDUCTANCE at 25° C (ms/cm)	0.699	0.701	0.700	0.573	0.575	0.575	0.481	0.482	0.483
DISSOLVED OXYGEN (ppm)	0.32	0.29	0.27	0.31	0.29	0.28	0.46	0.39	0.32
pH	7.48	7.49	7.48	7.54	7.54	7.54	7.52	7.54	7.54
DISSOLVED OXYGEN (% Sat.)	2.8	2.6	2.4	2.8	2.6	2.6	4.2	3.6	3.0
ORP (mV)	-179	-172	-166	-146	-144	-143	-160	-156	-146
COLOR	Clear			Clear			Tan		
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		
	TOOK DUP AT 15:30								
Sample Blank (use water from well, zero)	0.00			0.00			0.00		
Iron +2 (mg/L) (Hach DR 900 test 255) using reagent powder pillow (wait 3 min)	0.79			0.84			0.08		
DI water with reagent powder pillow	0.00			0.00			0.00		
NAME OF LABORATORY	Pace Analytical			Pace Analytical			Pace Analytical		
DATE SENT TO LAB	7-17-17			7-17-17			7-17-17		
SAMPLER=S NAME	Ashley A. Wagner			Ashley A. Wagner			Ashley A. Wagner		

***Measured from top of well casing.**

TETRA TECH

ATTACHMENT D

LANDFILL GAS EXTRACTION SYSTEM MONITORING

TETRA TECH GEO

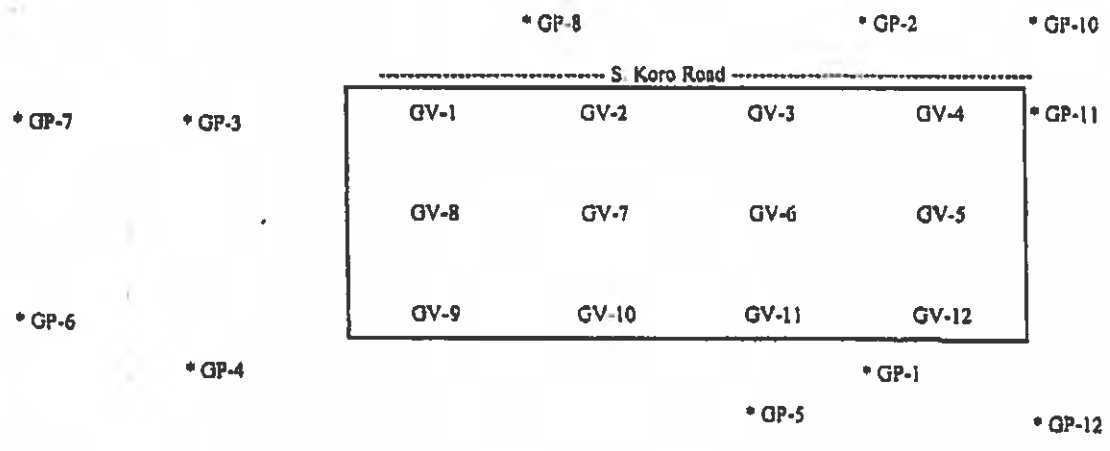
GAS PROBE DATA MONITORING POINTS

Project: FF/NN Landfill
Location: Ripon, Wisconsin
Personnel: [illegible]
Water level in buried knockout tank _____"

Barometric Pressure: 29.1 Hg
Temperature (ambient): 38° F
Measuring Device: Eagle
In Trailer Vacuum Gage 2" "Hg

% LEL

Date	Time	Measure-ment Point	% CH_4	% CO_2	% O_2	Comments
5.8.12	0700	Background	0	0.0	20.9	
	0720	LC-1	38.0	25.0	1.8	
	0738	LC-2	50.0	27.0	2.4	
	0727	LC-3	35.0	25.2	4.40	
	0712	GV-6	17.5	19.0	2.7	
	0703	GP-1	0	0.0	20.9	
	0805	GP-1	0	0.0	20.9	2nd Reading
	0707	Exhaust	9.8	7.6	14.7	



TETRA TECH GEO

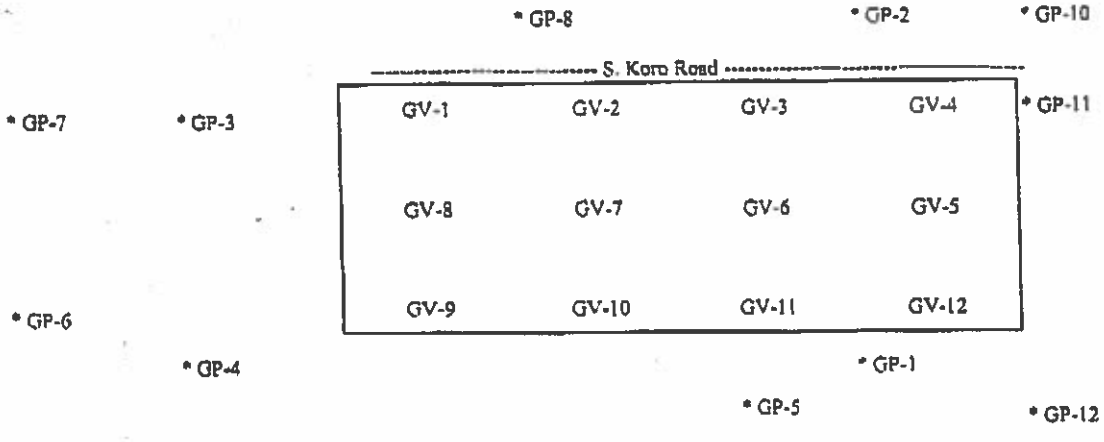
GAS PROBE DATA MONITORING POINTS

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

Barometric Pressure: 28.9 Hg
Temperature (ambient): 48° F
Measuring Device: Eagle
In Trailer Vacuum Gage 0.2 "Hg

% LEL

Date	Time	Measurement Point	% CH_4	% CO_2	% O_2	Comments
5/22/11	0710	Background	0	0.0	20.9	
	0730	LC-1	32.5	24.4	1.5	
	0745	LC-2	44.0	23.4	4.1	
	6738.	LC-3	29.5	22.2	4.8	
	0722	GV-6	17.5	19.2	2.3	
	0712	GP-1	0	7.0	7.2	
	0815	GP-1	0	14.2	14.0	2nd Reading
	0715	Exhaust	9.0	7.6	13.9	



TETRA TECH GEO

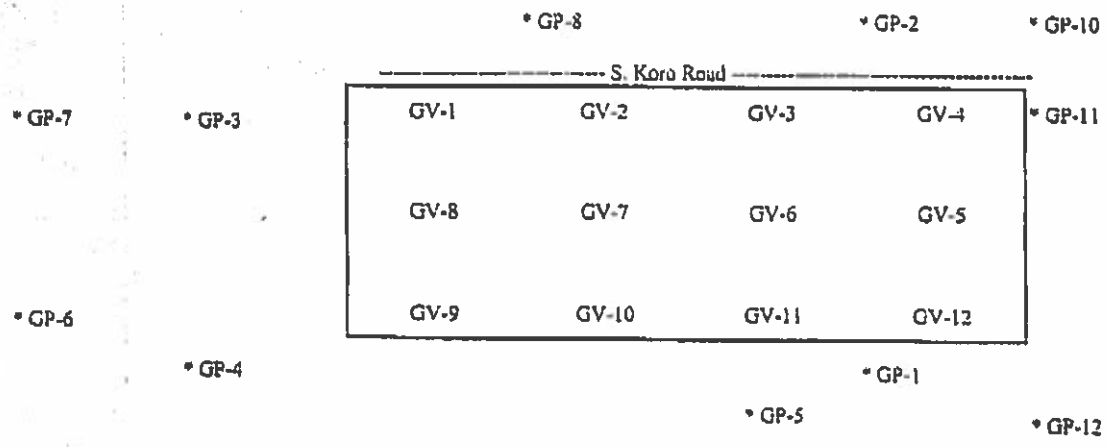
GAS PROBE DATA MONITORING POINTS

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

Barometric Pressure: 28.8 Hg
Temperature (ambient): 60° F
Measuring Device: Eagle
In Trailer Vacuum Gage 1.0 "Hg

#LEL

Date	Time	Measure-ment Point	% CH_4	% CO_2	% O_2	Comments
6-5-17	0720	Background	0	0.0	20.9	
	0746	LC-1	26.0	24.6	1.4	
	0800	LC-2	50.0	27.0	1.9	
	0752	LC-3	28.0	22.6	3.9	
	0740	GV-6	11.0	17.6	3.2	
	0723	GP-1	0*	5.6	11.7	
	0825	GP-1	0*	6.6	10.4	
	0726	Exhaust	7.5	7.6	13.9	



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06/05/2017 07:37 19207482882 WASTEWATER PAGE 01/01

TETRA TECH GEO

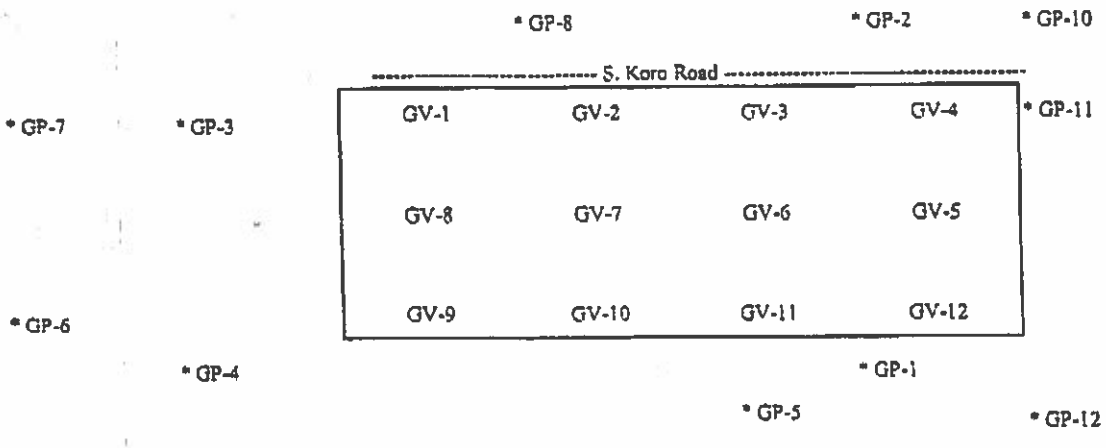
GAS PROBE DATA MONITORING POINTS

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

Barometric Pressure: 28.8 Hg
Temperature (ambient): 68 F
Measuring Device: Eagle
In Trailer Vacuum Gage 2 "Hg

ELEV

Date	Time	Measure-ment Point	% CH_4	% CO_2	% O_2	Comments
12/14/11	0715	Background	0 *	0.0	20.9	
	0735	LC-1	14.5	23.0	1.3	
	0748	LC-2	47.0	27.4	1.4	
	0740	LC-3	23.5	21.8	3.2	
	0728	GV-6	95 *	14.0	5.8	
	0718	GP-1	0 A	0.8	20.3	
	0820	GP-1	0 *	0.0	20.9	2nd Reading
	0720	Exhaust	5.0	6.8	14.6	



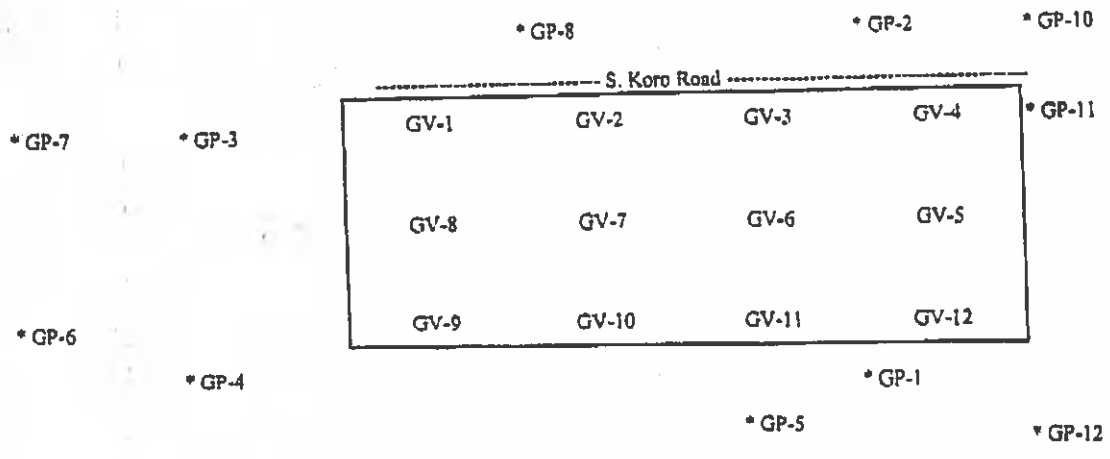
TETRA TECH GEO

GAS PROBE DATA MONITORING POINTS

Project: FF/NN Landfill
Location: Ripon, Wisconsin
Personnel: McKala Kiessling
Water level in buried knockout tank _____"

Barometric Pressure: ~~735~~ 29.1 Hg
Temperature (ambient): ~~735~~ 60's F
Measuring Device: Eagle
In Trailer Vacuum Gage 1 "Hg

Date	Time	Measurement Point	% CH_4 * LEL	% CO_2	% O_2	Comments
7/4/11	0819	Background	0.0 *	0.0	20.9	
	0827	LC-1	14.0	24.0	0.3	
	0834	LC-2	46.5	29.0	0.6	
	0831	LC-3	23.5	22.8	2.7	
	0829	GV-6	6.5	14.8	6.3	
	0821	GP-1	0 *	6.0	8.5	
	0922	GP-1	0 *	11.0	5.4	2nd reading
	0823	Exhaust	57 *	3.6	17.4	



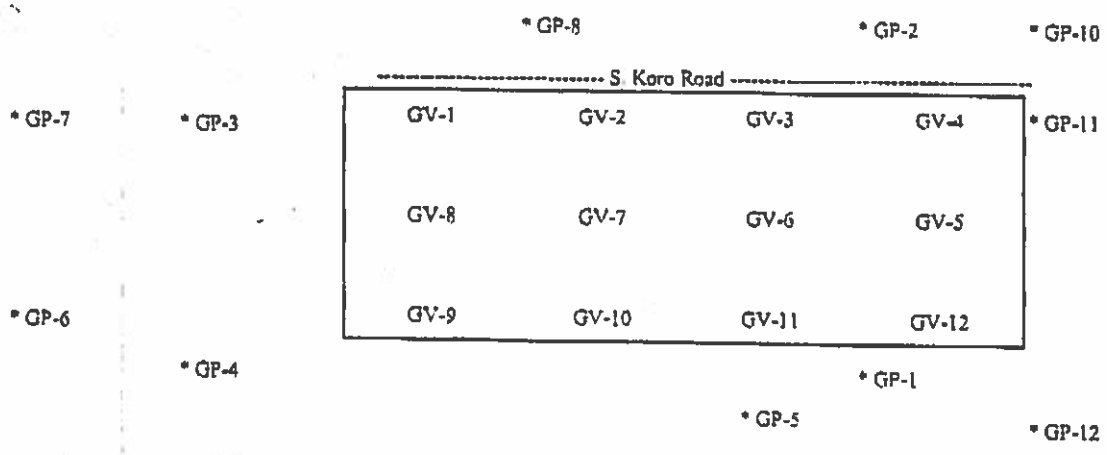
TETRA TECH GEO

GAS PROBE DATA MONITORING POINTS

Project: FF/NN Landfill
Location: Ripon, Wisconsin
Personnel: M. Vala, K. Kiessling
Water level in buried knockout tank 8 "

Barometric Pressure: 29 Hg
Temperature (ambient): 65 F
Measuring Device: Eagle
In Trailer Vacuum Gage 0 "Hg

Date	Time	Measure-ment Point	% CH_4 * LEL	% CO_2	% O_2	Comments
9/18/12	0739	Background	0	0.0	20.9	
	0745	LC-1	18.5	25.4	0.0	
	0752	LC-2	44.5	29.6	0.2	
	0748	LC-3	28.0	24.8	2.0	
	0746	GV-6	7.5	16.6	4.4	
	0740	GP-1	32 *	8.8	5.4	
	0844	GP-1	38 *	12.4	0.0	2nd Reading
	0742	Exhaust	36 *	2.4	18.6	



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. 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
Mike Noel, Tetra Tech – ecopy – Mike.Noel@tetratech.com
Lori Rich, City of Ripon – ecopy – lrich@cityofripon.com

Table 8. Groundwater Monitoring Schedule
FF/NN Landfill, Ripon, WI

DNR

			Current Plan (4/8/11)				Proposed Plan		
Stratigraphic Layer	Sampling Point	Gradient	Water Level	MNA	VOCs	Results	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	Gaastra	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

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

ATTACHMENT F

COMPLETED P-118 WELL LOG, WELL CONSTRUCTION, WELL DEVELOPMENT, AND PHOTO LOG

State of Wisconsin
Department of Natural Resources

SOIL BORING LOG INFORMATION

Form 4400-122 Rev. 7-98

Route To: Watershed/Wastewater ☐ Waste Management ☐
Remediation/Redevelopment ☒ Other ☐

Facility/Project Name	License/Permit/Monitoring Number	Boring Number
FF/NN Landfill	000467	P-118

Boring Drilled By: Name of crew chief (first, last) and Firm	Date Drilling Started	Date Drilling Completed	Drilling Method
Roy Buckenberger Cascade Drilling	8/10/2017	8/11/2017	vibratory

WI Unique Well No.	DNR Well ID No.	Common Well Name	Final Static Water Level	Surface Elevation	Borehole Diameter
PG227	145	P-118	Feet MSL	Feet MSL	6.0 inches

Local Grid Origin ☐ (estimated: ☐) or Boring Location ☒
State Plane N, E S / C / N
NW 1/4 of NW 1/4 of Section 18, T 16 N, R 14 E
Lat ° ' "
Long ° ' "
Local Grid Location ☐ N ☐ E Feet ☐ S Feet ☐ W

Facility ID	County	County Code	Civil Town/City/ or Village
431048200	Fond Du Lac	20	Town of Ripon

Sample Number and Type	Sample Length Att. & Recovered (in)	Blow Counts	Depth In Feet	Soil/Rock Description And Geologic Origin For Each Major Unit	USCS	Graphic Log	Well Diagram	PID/FID	Soil Properties: Compressive Strength	Moisture Content	Liquid Limit	Plasticity Index	P 200	RQD/ Comments
	60 21.6		1	TOPSOIL. Very dark brown to black topsoil with roots present. Dry to moist. Organic odor.				16.8						
			2	SILT. Very dark brown to dark brown silt. Dry to moist. Organic odor.	ML									
			3											
			4	WELL GRADED SAND WITH GRAVEL. Yellowish brown well graded sand with gravel and silt. Fine grained gravel to cobbles. Gravel/cobbles coarsen with depth. Dry to moist. No odor.										
	120 16.8		5					11.2						
			6											
			7											
			8		SW-SM									
			9											
			10											
			11											
			12											

I hereby certify that the information on this form is true and correct to the best of my knowledge.

Signature	Firm	Tel:
Ashley A Wagner	Tetra Tech	Fax:

This form is authorized by Chapters 281, 283, 289, 291, 292, 293, 295, and 299, Wis. Stats. Completion of this form is mandatory. Failure to file this form may result in forfeiture of between $10 and $25,000, or imprisonment for up to one year, depending on the program and conduct involved. Personally identifiable information on this form is not intended to be be used for any other purpose. NOTE: See instructions for more information, including where the completed form should be sent.

State of Wisconsin
Department of Natural Resources

SOIL BORING LOG INFORMATION SUPPLEMENT
Form 4400-122A

Boring Number P-118 Use only as an attachment to Form 4400-122.

Sample Number and Type	Sample Length Att. & Recovered (in)	Blow Counts	Depth In Feet	Soil/Rock Description And Geologic Origin For Each Major Unit	U S C S	Graphic Log	Well Diagram	PID/FID	Soil Properties: Compressive Strength	Moisture Content	Liquid Limit	Plasticity Index	P 200	RQD/ Comments
			13	WELL GRADED SAND WITH GRAVEL. Yellowish brown well graded sand with gravel and silt. Fine grained gravel to cobbles. Gravel/cobbles coarsen with depth. Dry to moist. No odor. *(continued)*	SW-SM									
	120 97.2		14											
			15					12.4						
			16											
			17	SAND. Yellowish brown poorly graded medium grained sand with trace gravel. Wet. No odor.	SP									
			18	POORLY GRADED SAND. Brown poorly graded fine grained sand. Wet. No odor.	SP									
			19	POORLY GRADED SAND. Brown poorly graded medium to coarse grained sand. Wet. No odor.	SP									
			20					20.1						
			21	POORLY GRADED SAND. Brown poorly graded very fine to fine grained sand. Silty/clay lenses throughout. Loose. Wet. No odor.	SP-SC									
			22											
			23	POORLY GRADED SAND. Olive to dark olive poorly graded very fine to fine grained sand. Wet. No odor.	SP									
			24											
			25	POORLY GRADED SAND. Pale brown poorly graded very fine to fine grained sand. Wet. No odor.	SP			19.9						
	120 64.8		26											
			27	WELL GRADED SAND WITH GRAVEL. Olive gray well graded sand with gravel (15%). Wet. No odor.	SW									
			28											
			29											
			30					21.1						
			31											
			32											

State of Wisconsin
Department of Natural Resources

SOIL BORING LOG INFORMATION SUPPLEMENT
Form 4400-122A

Boring Number P-118 Use only as an attachment to Form 4400-122.

Sample				Soil/Rock Description And Geologic Origin For Each Major Unit					Soil Properties					
Number and Type	Length Att. & Recovered (in)	Blow Counts	Depth In Feet		U S C S	Graphic Log	Well Diagram	PID/FID	Compressive Strength	Moisture Content	Liquid Limit	Plasticity Index	P 200	RQD/ Comments
			33	WELL GRADED SAND WITH GRAVEL. Olive gray well graded sand with gravel (15%). Wet. No odor. *(continued)*	SW									
			34	POORLY GRADED SAND. Olive to olive gray poorly graded fine to medium grained sand with few coarse grained sand and trace fine grained gravel. Wet. No odor.	SP									
	240 162		35					22.9						
			36	POORLY GRADED SAND. Olive gray poorly graded fine to very fine grained sand. Wet. No odor.	SP									
			37	POORLY GRADED SAND. Light grayish brown poorly graded fine to very fine grained sand. Wet. No odor.	SP									
			38	POORLY GRADED SAND. Grayish brown poorly graded medium to coarse grained sand. Wet. No odor.	SP									
			39	POORLY GRADED SAND. Light grayish brown to pale brown poorly graded fine grained sand. Wet. No odor.										
			40					27.1						
			41		SP									
			42											
			43	WELL GRADED SAND WITH GRAVEL. Grayish brown well graded sand with coarse grained gravel. Wet. No odor.	SW									
			44	POORLY GRADED SAND WITH SILT. Pale brown poorly graded fine grained sand with silt and some clay. Wet. No odor.	SP-SM									
			45					25.9						
			46	POORLY GRADED SAND. Pale brown poorly graded very fine to fine grained sand with trace silt. Wet. No odor.										
			47											
			48		SP									
			49											
			50					8.8						
			51		CL-ML									
			52											

State of Wisconsin
Department of Natural Resources

SOIL BORING LOG INFORMATION SUPPLEMENT
Form 4400-122A

Boring Number P-118 Use only as an attachment to Form 4400-122.

Sample									Soil Properties					
Number and Type	Length Att. & Recovered (in)	Blow Counts	Depth In Feet	Soil/Rock Description And Geologic Origin For Each Major Unit	U S C S	Graphic Log	Well Diagram	PID/FID	Compressive Strength	Moisture Content	Liquid Limit	Plasticity Index	P 200	RQD/ Comments
			53	SILTY CLAY. Grayish brown mottled reddish brown silty clay. Dense. Low to moderate plasticity. Moist to wet. No odor. *(continued)*										
			54											
	240 219.6		55					19.6						
			56											
			57											
			58											
			59											
			60					22.4						
			61											
			62		CL-ML									
			63											
			64											
			65					22.0						
			66											
			67											
			68											
			69											
			70					21.9						
			71											
			72											

State of Wisconsin
Department of Natural Resources

SOIL BORING LOG INFORMATION SUPPLEMENT
Form 4400-122A

Boring Number P-118 Use only as an attachment to Form 4400-122. Page 5 of 9

Sample Number and Type	Sample Length Att. & Recovered (in)	Blow Counts	Depth In Feet	Soil/Rock Description And Geologic Origin For Each Major Unit	USCS	Graphic Log	Well Diagram	PID/FID	Soil Properties: Compressive Strength	Moisture Content	Liquid Limit	Plasticity Index	P 200	RQD/ Comments
			73	SILTY CLAY. Grayish brown mottled reddish brown silty clay. Dense. Low to moderate plasticity. Moist to wet. No odor. *(continued)*	CL-ML									
			74											
			75											
	240 52.8		76	SILTY CLAY WITH GRAVEL. Grayish brown silty clay with sand, gravel and cobbles.				20.7						
			77											
			78		CL-ML									
			79											
			80											
			81	POORLY GRADED GRAVEL. Grayish brown poorly graded gravel (mostly coarse to medium grained gravel) with coarse grained sand. Wet. No odor.	GP									
			82											
			83	WELL GRADED GRAVEL WITH SAND. Grayish brown well graded gravel with sand. Wet. No odor.										
			84		GW									
			85					22.3						
			86	POORLY GRADED SAND. Grayish brown poorly graded coarse grained sand. Wet no odor.										
			87											
			88		SP									
			89											
			90											
			91		GW									
			92											

Boring Number P-118 Use only as an attachment to Form 4400-122.

Sample									Soil Properties						
Number and Type	Length Att. & Recovered (in)	Blow Counts	Depth In Feet	Soil/Rock Description And Geologic Origin For Each Major Unit	U S C S	Graphic Log	Well Diagram	PID/FID	Compressive Strength	Moisture Content	Liquid Limit	Plasticity Index	P 200	RQD/ Comments
			93	WELL GRADED GRAVEL WITH SAND. Grayish brown well graded gravel with sand and cobbles (cobble to coarse sand sized grains). Very coarse. Wet. No odor. *(continued)*	GW									
			94	POORLY GRADED SAND. Grayish brown poorly graded fine to very fine grained sand. Wet. No odor.	SP									
	240 145.2		95	POORLY GRADED SAND. Light grayish brown poorly graded fine grained sand. Wet. No odor.				15.2						
			96											
			97											
			98											
			99											
			100					25.0						
			101		SP									
			102											
			103											
			104											
			105					22.7						
			106											
			107											
			108	POORLY GRADED SAND. Light grayish brown poorly graded medium to coarse grained sand. Wet. No odor.	SP									
			109	POORLY GRADED GRAVEL. Light grayish brown poorly graded gravel. Mostly fine to medium grained gravel, few coarse grained gravel and cobbles. Wet. No odor.	GP									
			110					33.8						
			111		SP									
			112											

Boring Number P-118 Use only as an attachment to Form 4400-122.

Sample									Soil Properties					
Number and Type	Length Att. & Recovered (in)	Blow Counts	Depth In Feet	Soil/Rock Description And Geologic Origin For Each Major Unit	U S C S	Graphic Log	Well Diagram	PID/FID	Compressive Strength	Moisture Content	Liquid Limit	Plasticity Index	P 200	RQD/ Comments
			113	POORLY GRADED SAND WITH GRAVEL. Light grayish brown poorly graded fine grained sand with coarse grained gravel to cobbles. Wet. No odor. *(continued)*	SP									
	240 112.8		115	POORLY GRADED SAND. Grayish brown poorly graded fine to medium grained sand. Wet. No odor.				27.0						
			116											
			117											
			118											
			119											
			120											
			121											
			122											
			123		SP									
			124											
			125					14.1						
			126											
			127											
			128											
			129											
			130											
			131											
			132											

State of Wisconsin
Department of Natural Resources

SOIL BORING LOG INFORMATION SUPPLEMENT
Form 4400-122A

Boring Number P-118 Use only as an attachment to Form 4400-122. Page 8 of 9

Sample Number and Type	Sample Length Att. & Recovered (in)	Blow Counts	Depth In Feet	Soil/Rock Description And Geologic Origin For Each Major Unit	USCS	Graphic Log	Well Diagram	PID/FID	Soil Properties: Compressive Strength	Moisture Content	Liquid Limit	Plasticity Index	P 200	RQD/ Comments
			133	POORLY GRADED SAND. Grayish brown poorly graded fine to medium grained sand. Wet. No odor. *(continued)*	SP									
			134	WELL GRADED GRAVEL. Grayish brown well graded gravel. Coarse grained gravel to fine grained sand with few cobbles. Wet. No odor.	GW									
	240 159.6		135					9.8						
			136	POORLY GRADED SAND. Grayish brown poorly graded fine grained sand. Wet. No odor.	SP									
			137	WELL GRADED SAND. Grayish brown well graded sand with few coarse grained gravel (~10%). Wet. No odor.	SW SP									
			138	POORLY GRADED SAND WITH GRAVEL. Grayish brown poorly graded fine grained sand with gravel and cobbles. Wet. No odor.										
			139											
			140	WELL GRADED GRAVEL. Grayish brown well graded gravel. Coarse grained gravel to fine grained sand. Wet. No odor.	GW			30.2						
			141											
			142											
			143											
			144	POORLY GRADED SAND. Grayish brown poorly graded sand, mostly fine to medium grained sand, few gravel (~10%). Wet. No odor.	SP									
			145					27.8						
			146											
			147	WELL GRADED SAND. Grayish brown well graded sand with few gravel (10%). Wet. No odor.	SW									
			148											
			149											
			150					24.8						
			151											
			152											

State of Wisconsin
Department of Natural Resources

SOIL BORING LOG INFORMATION SUPPLEMENT
Form 4400-122A

Boring Number P-118 Use only as an attachment to Form 4400-122. Page 9 of 9

Sample Number and Type	Sample Length Att. & Recovered (in)	Blow Counts	Depth In Feet	Soil/Rock Description And Geologic Origin For Each Major Unit	USCS	Graphic Log	Well Diagram	PID/FID	Soil Properties: Compressive Strength	Moisture Content	Liquid Limit	Plasticity Index	P 200	RQD/ Comments
			153	WELL GRADED GRAVEL. Grayish brown well graded gravel. Coarse grained gravel to fine grained sand. Wet. No odor.										
			154											
	120 88.8		155		GW			166						
			156											
			157											
			158	BEDROCK. Black to dark gray dolomite bedrock. Coarse grained. Weathered bedrock mixed with fines at top, becomes more competent with depth.										
			159											
			160					13.6						
			161											
			162		Bedrock									
			163											
			164											
	8.4		165	BEDROCK. Black to dark gray dolomite bedrock. Coarse grained. Poor recovery.										
			166											
			167		Bedrock									
			168											
			169											
			170											

State of Wisconsin
Department of Natural Resources

Route To: Watershed/Wastewater ☐ Waste Management ☐ Remediation/Redevelopment ☒ Other ☐

MONITORING WELL CONSTRUCTION
Form 4400-113A Rev. 7-98

Facility/Project Name: FF/NN Landfill	Local Grid Location of Well: ____ ft. ☐ N. ☐ S. ____ ft. ☐ E. ☐ W.	Well Name: P-118
Facility License, Permit or Monitoring No.: 000467	Local Grid Origin ☐ (estimated: ☐) or Well Location ☒ Lat. ° ' " Long. ° ' " or	Wis. Unique Well No.: PG227 / DNR Well Number: 145
Facility ID: 431048200	St. Plane ____ ft. N, ____ ft. E. S / C / N	Date Well Installed: 08/11/2017
Type of Well: Well Code 72/dp	Section Location of Waste/Source: NW 1/4 of NW 1/4 of Sec. 18, T. 16 N, R. 14 ☒ E ☐ W	Well Installed By: (Person's Name and Firm): Roy Buckenberger / Cascade Drilling
Distance from Waste/Source: 2700 ft. / Enf. Stds. Apply ☒	Location of Well Relative to Waste/Source: u ☐ Upgradient s ☐ Sidegradient d ☒ Downgradient n ☐ Not Known	Gov. Lot Number:

A. Protective pipe, top elevation ____ ft. MSL
B. Well casing, top elevation ____ ft. MSL
C. Land surface elevation ____ ft. MSL
D. Surface seal, bottom ____ ft. MSL or 0.5 ft.

12. USCS classification of soil near screen:
GP ☐ GM ☐ GC ☐ GW ☐ SW ☐ SP ☐
SM ☐ SC ☐ ML ☐ MH ☐ CL ☐ CH ☐
Bedrock ☒

13. Sieve analysis attached? ☐ Yes ☒ No

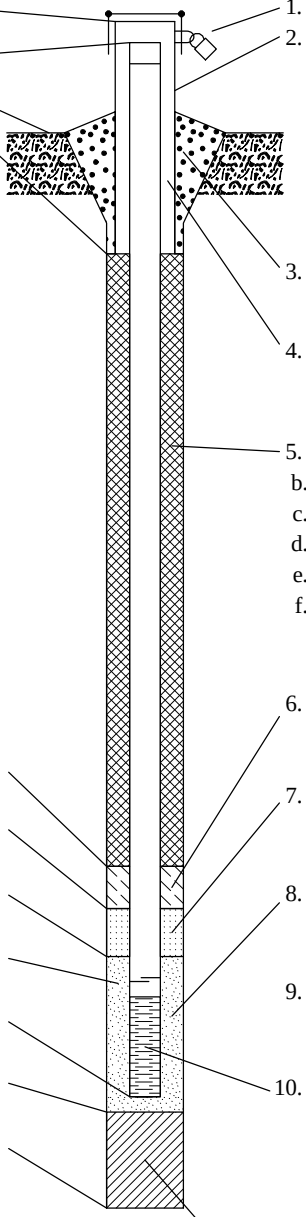
14. Drilling method used: Rotary ☐ 5 0 / Hollow Stem Auger ☐ 4 1 / Sonic / Other ☒

15. Drilling fluid used: Water ☒ 0 2 Air ☐ 0 1 Drilling Mud ☐ 0 3 None ☐ 9 9

16. Drilling additives used? ☐ Yes ☒ No
Describe ____

17. Source of water (attach analysis, if required):
City of Ripon

E. Bentonite seal, top ____ ft. MSL or 151.0 ft.
F. Fine sand, top ____ ft. MSL or 157.0 ft.
G. Filter pack, top ____ ft. MSL or 158.5 ft.
H. Screen joint, top ____ ft. MSL or 160.0 ft.
I. Well bottom ____ ft. MSL or 165.0 ft.
J. Filter pack, bottom ____ ft. MSL or 167.0 ft.
K. Borehole, bottom ____ ft. MSL or 170.0 ft.
L. Borehole, diameter 6.0 in.
M. O.D. well casing 2.37 in.
N. I.D. well casing 2.00 in.



1. Cap and lock? ☒ Yes ☐ No
2. Protective cover pipe:
a. Inside diameter: 4.0 in.
b. Length: 5.0 ft.
c. Material: Steel ☒ 0 4 / Other ☐
d. Additional protection? ☐ Yes ☒ No
If yes, describe: ____
3. Surface seal: Bentonite ☒ 3 0 / Concrete ☐ 0 1 / Other ☐
4. Material between well casing and protective pipe: Bentonite ☒ 3 0 / Bentonite and Sand / Other ☐
5. Annular space seal: a. Granular/Chipped Bentonite ☐ 3 3
b. ____ Lbs/gal mud weight . . . Bentonite-sand slurry ☐ 3 5
c. 3.4 Lbs/gal mud weight . . . Bentonite slurry ☒ 3 1
d. ____ % Bentonite . . . Bentonite-cement grout ☐ 5 0
e. ____ Ft^3 volume added for any of the above
f. How installed: Tremie ☐ 0 1 / Tremie pumped ☒ 0 2 / Gravity ☐ 0 8
6. Bentonite seal: a. Bentonite granules ☐ 3 3
b. ☐ 1/4 in. ☒ 3/8 in. ☐ 1/2 in. Bentonite chips ☒ 3 2
c. ____ Other ☐
7. Fine sand material: Manufacturer, product name & mesh size
a. Premier Silica
b. Volume added 0.375 ft^3
8. Filter pack material: Manufacturer, product name & mesh size
a. Red Flint
b. Volume added 1 ft^3
9. Well casing: Flush threaded PVC schedule 40 ☐ 2 3 / Flush threaded PVC schedule 80 ☒ 2 4 / Other ☐
10. Screen material: PVC
a. Screen Type: Factory cut ☒ 1 1 / Continuous slot ☐ 0 1 / Other ☐
b. Manufacturer ____
c. Slot size: 0.010 in.
d. Slotted length: 5.0 ft.
11. Backfill material (below filter pack): None ☒ 1 4 / Slough / Other ☐

I hereby certify that the information on this form is true and correct to the best of my knowledge.

Signature Ashley A Wagner | Firm Tetra Tech | Tel: | Fax:

Please complete both Forms 4400-113A and 4400-113B and return them to the appropriate DNR office and bureau. Completion of these reports is required by chs. 160, 281, 283, 289, 291, 292, 293, 295, and 299, Wis. Stats., and ch. NR 141, Wis. Adm. Code. In accordance with chs. 281, 289, 291, 292, 293, 295, and 299, Wis. Stats., failure to file these forms may result in a forfeiture of between $10 and $25,000, or imprisonment for up to one year, depending on the program and conduct involved. Personally identifiable information on these forms is not intended to be used for any other purpose. NOTE: See the instructions for more information, including where the completed forms should be sent.

State of Wisconsin
Department of Natural Resources

MONITORING WELL DEVELOPMENT

Form 4400-113B Rev. 7-98

Route To: Watershed/Wastewater ☐ Waste Management ☐
Remediation/Redevelopment ☒ Other ☐

Facility/Project Name	County	Well Name
FF/NN Landfill	Fond Du Lac	P-118

Facility License, Permit or Monitoring Number	County Code	Wis. Unique Well Number	DNR Well Number
000467	20	PG227	145

1. Can this well be purged dry? ☐ Yes ☒ No

2. Well development method:

surged with bailer and bailed	☐	4 1
surged with bailer and pumped	☐	6 1
surged with block and bailed	☐	4 2
surged with block and pumped	☐	6 2
surged with block, bailed, and pumped	☐	7 0
compressed air	☐	2 0
bailed only	☐	1 0
pumped only	☒	5 1
pumped slowly	☐	5 0
other Surged Pump	☒	

3. Time spent developing well 140 min.

4. Depth of well (from top of well casing) 167.8 ft.

5. Inside diameter of well 1.94 in.

6. Volume of water in filter pack and well casing 26.3 gal.

7. Volume of water removed from well 275.0 gal.

8. Volume of water added (if any) 0.0 gal.

9. Source of water added NA

10. Analysis performed on water added? ☐ Yes ☐ No
(If yes, attach results)

		Before Development	After Development
11. Depth to Water (from top of well casing)	a.	6.96 ft.	7.01 ft.
Date	b.	8/11/2017	8/11/2017
Time	c.	08:20 ☒ a.m. ☐ p.m.	10:40 ☒ a.m. ☐ p.m.
12. Sediment in well bottom		0.2 inches	0.0 inches
13. Water clarity		Clear ☐ 1 0 Turbid ☒ 1 5 (Describe) Brown	Clear ☒ 2 0 Turbid ☐ 2 5 (Describe) Clear

Fill in if drilling fluids were used and well is at solid waste facility:

14. Total suspended solids	mg/l	mg/l
15. COD	mg/l	mg/l

16. Well developed by: Person's Name and Firm
Roy Buckenberger
Cascade Drilling

17. Additional comments on development:
Well was developed after filter pack and bentonite chips were in place, but prior to grouting well.

Facility Address or Owner/Responsible Party Address

Name: FF/NN Landfill Group

Firm:

Street:

City/State/Zip:

I hereby certify that the above information is true and correct to the best of my knowledge.

Signature: Ashley A Wagner

Print Name: Ashley Wagner

Firm: Tetra Tech

NOTE: See instructions for more information including a list of county codes and well type codes.

Site Photographs
Ripon Landfill,
P-118 Well Installation

Photo #: 1 **Description:** P-118 Well location in reference to the bike path after trees had been removed. **Date:** August 10, 2017	 

Photo #: 2 **Description:** Drill rig and work zone set up location. **Date:** August 10, 2017	 

Site Photographs
Ripon Landfill,
P-118 Well Installation

Photo #: 3 **Description:** Exclusion zone sign and work zone. **Date:** August 10, 2017	 

Photo #: 4 **Description:** 0-15’ Bags 1 & 2 of 2 (top to the left, will be the same for all pictures) **Date:** August 10, 2017	

Site Photographs
Ripon Landfill,
P-118 Well Installation

Photo #: 5	
Description: 15-25’	
Date: August 10, 2017	

Photo #: 6	
Description: 15-25’ Bag 1 of 3	
Date: August 10, 2017	

Site Photographs
Ripon Landfill,
P-118 Well Installation

Photo #: 7	
Description: 15-25’ Bag 2 of 3	
Date: August 10, 2017	

Photo #: 8	
Description: 15-25’ Bag 3 of 3 (no photos for 25-35’)	
Date: August 10, 2017	

Site Photographs
Ripon Landfill,
P-118 Well Installation

Photo #: 9	
Description: 35-55' Bags 1 & 2 of 4	
Date: August 10, 2017	

Photo #: 10	
Description: 35-55' Bags 3 & 4 of 4	
Date: August 10, 2017	

Site Photographs
Ripon Landfill,
P-118 Well Installation

Photo #: 11	
Description: 55-75' Bag 1 of 4	
Date: August 10, 2017	

Photo #: 12	
Description: 55-75' Bag 2 of 4	
Date: August 10, 2017	

Site Photographs
Ripon Landfill,
P-118 Well Installation

Photo #: 13	
Description: 55-75' Bag 3 of 4	
Date: August 10, 2017	

Photo #: 14	
Description: 55-75' Bag 4 of 4	
Date: August 10, 2017	

Site Photographs
Ripon Landfill,
P-118 Well Installation

Photo #: 15	
Description: 75-95’	
Date: August 10, 2017	

Photo #: 16	
Description: 95-115’ Bag 1 of 5	
Date: August 10, 2017	

Site Photographs
Ripon Landfill,
P-118 Well Installation

Photo #: 17	
Description: 95-115' Bag 2 of 5	
Date: August 10, 2017	

Photo #: 18	
Description: 95-115' Bag 3 of 5	
Date: August 10, 2017	

Site Photographs
Ripon Landfill,
P-118 Well Installation

Photo #: 19	
Description: 95-115' Bag 4 of 5	
Date: August 10, 2017	

Photo #: 20	
Description: 95-115' Bag 5 of 5	
Date: August 10, 2017	

Site Photographs
Ripon Landfill,
P-118 Well Installation

Photo #: 21	
Description: 115-135' Bag 1 of 3	
Date: August 10, 2017	

Photo #: 22	
Description: 115-135' Bag 2 of 3	
Date: August 10, 2017	

Site Photographs
Ripon Landfill,
P-118 Well Installation

Photo #: 23	
Description: 115-135’ Bag 3 of 3	
Date: August 10, 2017	

Photo #: 24	
Description: 135-155’ Bag 1 of 4	
Date: August 10, 2017	

Site Photographs
Ripon Landfill,
P-118 Well Installation

Photo #: 25	
Description: 135-155' Bag 2 of 4	
Date: August 10, 2017	

Photo #: 26	
Description: 135-155' Bag 3 of 4	
Date: August 10, 2017	

Site Photographs
Ripon Landfill,
P-118 Well Installation

Photo #: 27	
Description: 135-155’ Bag 4 of 4	
Date: August 10, 2017	

Photo #: 28	
Description: 155-165’ Bag 1 of 2	
Date: August 10, 2017	

Site Photographs
Ripon Landfill,
P-118 Well Installation

Photo #: 29 **Description:** 155-165' Bag 2 of 2 **Date:** August 10, 2017	

Photo #: 30 **Description:** 155-165' Bag 2 of 2, beginning of more competent bedrock (no photos of 165-170') **Date:** August 10, 2017	

Site Photographs
Ripon Landfill,
P-118 Well Installation

Photo #: 31 **Description:** Drillers building the well. **Date:** August 11, 2017	 

Photo #: 32 **Description:** P-118 before protective casing is installed. **Date:** August 11, 2017	

Site Photographs
Ripon Landfill,
P-118 Well Installation

Photo #: 33 **Description:** View of P-118 inside protective casing. **Date:** August 11, 2017	 

Photo #: 34 **Description:** Completed and locked P-118. **Date:** August 11, 2017