December 21, 2017

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

RE: October 2017 Status Report
Ripon HWY FF/NN Landfill
License #467, Ripon, WI
BRRTS #02-20-000915

Dear Mr. Pelayo,

Enclosed is the quarterly status report for the October 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
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
OCTOBER 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

December 18, 2017

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

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

TABLE OF CONTENTS

LIST OF TABLES

LIST OF FIGURES

LIST OF CHARTS

LIST OF ATTACHMENTS

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

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DATE:
December 18, 2017

2. FIELD ACTIVITIES THIS REPORTING PERIOD

- Groundwater elevations were measured at 15 Layer 3 and Layer 4 monitoring wells by Tetra Tech on October 18, 2017. The Layer 3 water levels were collected to evaluate the groundwater flow direction, including data from P-117 and P-118, which were installed in November 2016 and August 2017, respectively. Water levels in Layer 4 wells were collected for comparison and were measured consecutively to minimize effects from municipal pumping.

- A total of 15 monitoring wells, were sampled for volatile organic compounds (VOCs) by Tetra Tech during the October 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). Samples were collected from the wells listed as quarterly and semi-annual in the WDNR conditional approval letter. In addition, samples were collected from P-117 and P-118, which were installed after the conditional approval letter was issued.

- 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 location and elevation of P-118 was surveyed by Grothman and Associates, SC on September 15, 2017.

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 October 2017 sampling event, groundwater elevations were measured in 15 monitoring wells by Ashley Wagner from Tetra Tech on October 18, 2017. The Layer 3 water levels were collected to evaluate the groundwater flow direction and included data from new wells P-117 and P-118, which were installed in November 2016 and August 2017, respectively. Water levels in Layer 4 wells were collected to evaluate groundwater flow in Layer 4, and the elevations were measured consecutively to limit potential effects from municipal pumping. The elevations are provided in Table 1 and shown on Figures 3 and 4. Each layer is discussed separately below.

Groundwater elevations in 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 nine wells with screen elevations ranging from 634 feet to 704 feet MSL. Monitoring wells P-117 and P-118 are grouped within this layer. The groundwater potentiometric surface for this layer is displayed on Figure 3 and Chart 3. Compared to the event in October 2016, the water levels that were measured have decreased in all of the wells that have historical data, except for P-103D. The water levels that decreased, decreased an average of 0.43 feet ranging from 0.31 feet in P-113B to 0.62 feet in P-111D; P-103D increased by 1.63 feet.

Historically, the groundwater flow direction in this layer has been to the southwest and becomes west-southwest further downgradient. The October 2017 groundwater flow direction is consistent with the historical results. New monitoring well P-118 is the furthest downgradient Layer 3 monitoring well.

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 October 2016, the water levels decreased in wells P-107D by 0.59 feet, P-113A by 0.13 feet, but increased in well MW-3A by 0.18 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 on October 18, 2017 is to the southeast indicating that Well #9 was 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 and semi-annual in the April 18, 2013 approval letter were collected during the October 2017 sampling event. In addition, samples were collected from piezometers P-117 and P-118, which were installed after the conditional approval letter was issued by the WDNR.

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 (COCs) 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 October 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

- MW-103 (Chart 38): TCE was detected at a concentration of 1.7 ug/L, which is below its ES of 5.0 ug/L. 1,2-DCE was detected at an estimated concentration of 0.33 J[1] ug/L, which is below its ES of 70 ug/L. Concentration trends have been decreasing since the startup of the active gas control system in 2006.

- MW-112 (Chart 44): No detection of any VOC analyzed. Concentration trends have decreased since the startup of the active gas control system in 2006 and COCs have not been detected since 2012.

[1] "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

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

- P-103 (Chart 47): No detection of any VOC analyzed. Concentration trends have decreased since the startup of the active gas control system in 2006 and COCs have not been detected since 2012.

3.2.3. Layer 3 Wells – Piezometers in Sandstone Bedrock

- P-103D (Chart 53): 1,2-DCE was detected at an estimated concentration of 0.30 J ug/L, which is below its ES. VC was detected at an estimated concentration of 0.35 J, which exceeds its ES of 0.2 ug/L. 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. 1,2-DCE was detected at a concentration of 2.3 ug/L, which is below its ES. Chloroethane was detected at a concentration of 1.4 ug/L, which is below its ES of 400 ug/L. VC has been decreasing since the startup of the active gas control system in 2006.

- MW-3B (Chart 55): No detection of any VOC analyzed. No COCs 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. No COCs have ever been detected in this well (installed in 2002).

- P-114 (Chart 57): VC was detected at a concentration of 7.6 ug/L (8.8 ug/L in duplicate sample), which exceeds its ES. 1,2-DCE was detected at a concentration of 1.1 ug/L (1.3 ug/L in duplicate sample), which is below its ES. VC has decreased since the startup of the active gas control system in 2006 but has been relatively stable since 2011.

- P-115 (Chart 58): VC was detected at a concentration of 1.4 ug/L, which exceeds its ES. VC has increased since the startup of the active gas control in 2006 but has been relatively stable since 2009.

- P-116 (Chart 59): No detection of any VOC analyzed. No COCs 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 an estimated concentration of 0.79 J ug/L, which is below its ES. This is the fourth sampling event since the well was installed in November 2016, and the October results are similar to the previous quarterly results in 2017.

- P-118 (Chart 61): No detection of any VOC analyzed. This is the first time this well has been sampled since it was installed in August 2017.

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

- MW-3A (Chart 62): No detection of any VOC analyzed. No COCs have ever been detected in this well (installed in 2002).

- P-107D (Chart 63): VC was detected at a concentration of 1.9 ug/L, which exceeds its ES. 1,2-DCE was detected at an estimated concentration of 0.52 J ug/L, which is below its ES. Chloroethane was detected at an estimated concentration of 0.76 J ug/L, which is below its ES. VC has been decreasing since the startup of the active gas control in 2006.

- P-113A (Chart 64): No detection of any VOC analyzed. No COCs 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 declining 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%. The following list describes any changes made to the system during this monitoring period based on the oxygen levels observed in the extracted landfill gas:

- 8/1/2017 – No changes made to runtime, 23.5 hours on.
- 8/14/2017 – No changes made to runtime.
- 8/29/2017 – No changes made to runtime.
- 9/12/2017 – No changes made to runtime.
- 9/25/2017 – No changes made to runtime.
- 10/10/2017 - No changes made to runtime.
- 10/20/2017 – Blower was shut down for approximately 30 minutes to change the oil and belt on the blower.
- 10/23/2017 – 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 elevation and location of the most recently installed well, P-118, was surveyed by Grothman & Associates, S.C. on September 15, 2017. The survey data is presented in Attachment F.

An investigation-derived waste (IDW) sample was submitted for analysis to determine disposal options. The IDW sample 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) which is below the Toxicity Characteristic of 100 mg/L. Based on these results the containerized IDW will be thin spread at the well location.

4. UPCOMING ACTIVITIES PLANNED

- Quarterly groundwater sampling and water level measurements will be conducted in January 2018 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 quarterly and annualy as well as new wells P-117 and P-118.
- 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 thin spread at the well location.

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 October 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)																
P-118	826.93	(Installed August 2017)																
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																	
P-118	826.93																	
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																	
P-118	826.93																	
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																	
P-118	826.93																	
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)
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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	Oct-17
MW-101	884.80	NM	NM	NM	824.20	NM	NM	NM	823.84	NM	NM
P-101	885.26	NM	NM	NM	824.16	NM	NM	NM	823.79	NM	NM
MW-102	843.05	NM	NM	NM	824.71	NM	NM	NM	824.41	NM	NM
P-102	842.99	NM	NM	NM	824.76	NM	NM	NM	824.42	NM	NM
MW-103	872.42	NM	819.48	NM	821.86	NM	820.7	NM	821.57	NM	821.77
P-103	872.92	NM	820.15	NM	824.22	NM	822.33	NM	823.83	NM	823.57
P-103D	873.08	821.04	821.14	821.82	823.45	822.23	821.49	822.19	823.04	823.86	822.62
MW-104	875.15	NM	NM	NM	824.08	NM	NM	NM	823.81	NM	NM
P-104	875.48	NM	NM	NM	824.18	NM	NM	NM	823.84	NM	NM
MW-106	878.90	NM	NM	NM	824.69	NM	NM	NM	824.35	NM	NM
P-106	878.91	NM	NM	NM	824.61	NM	NM	NM	824.23	NM	NM
MW-107	871.78	NM	NM	NM	820.31	NM	NM	NM	820.06	NM	NM
P-107	871.38	NM	NM	NM	820.30	NM	NM	NM	820.08	NM	NM
P-107D	871.98	818.12	817.46	819.25	820.84	818.81	818.31	819.16	820.38	820.50	818.90
MW-108	845.25	NM	NM	NM	818.86	NM	NM	NM	818.55	NM	NM
P-108	845.61	NM	NM	NM	821.53	NM	NM	NM	821.2	NM	NM
MW-111	856.46	NM	NM	NM	818.91	NM	NM	NM	818.66	NM	NM
P-111	856.13	NM	NM	NM	818.45	NM	NM	NM	818.22	NM	NM
P-111D	855.79	819.21	818.51	822.95	821.30	820.11	819.59	820.27	820.86	821.72	820.21
MW-112	874.55	NM	818.77	NM	820.71	NM	819.69	NM	820.42	NM	820.66
P-113A	833.09	817.48	817.02	818.80	820.23	818.16	817.82	818.89	819.78	820.14	817.95
P-113B	833.10	818.35	817.73	818.75	820.17	818.66	818.63	819.37	819.76	820.71	818.94
P-114	839.35	818.41	817.73	818.72	820.18	818.81	818.59	819.28	819.85	820.72	819.02
P-115	842.71	815.48	817.84	818.90	820.33	818.81	818.58	NM	819.99	821.37	819.04
P-116	845.34	817.46	816.67	817.57	819.19	817.93	817.67	818.18	818.99	819.58	818.10
P-117	834.02							817.90	818.67	819.27	818.07
P-118	826.93										818.09
MW-3A	850.77	817.86	817.63	819.10	819.93	818.57	818.53	820.09	820.01	821.03	818.35
MW-3B	851.04	819.50	818.96	820.32	821.43	820.36	820.04	821.01	821.25	822.32	820.39
LC1	876.15	NM	NM	NM	843.65	NM	NM	NM	842.91	NM	NM
LC2	866.05	NM	NM	NM	838.01	NM	NM	NM	837.42	NM	NM
LC3	877.34	NM	NM	NM	847.13	NM	NM	NM	846.43	NM	NM

Notes: Blank cells indicate that the water level was below top of pump; unable to measure.
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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																								0.56J									
	4/7/2009																																	
	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																																	
	10/18/2017																																	
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																																	
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	10/24/2013																																	
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	7/17/2014																																	
	10/24/2014																																	
	1/15/2015																																	
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	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																																	
	10/18/2017																																	

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			
	10/18/2017																		0.33 J												1.7			

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																																	
	10/18/2017																																	
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															
	10/18/2017																		0.30 J														**0.35 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**	
	10/18/2017									0.76 J									0.52 J														**1.9**	

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**	
	10/18/2017									1.4									2.3													**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																																	
	10/18/2017																																	

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																																	
	10/18/2017																																	
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																																	
	10/18/2017																																	

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									0.40J					**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					0.80J									**5.6**	
	7/12/2011 Dup																		1.5					0.67J									**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**	
	10/18/2017																		1.1														**7.6**	
	10/18/2017 Dup																		1.3														**8.8**	

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
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**
	10/18/2017																																**1.4**

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-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																																	
	10/18/2017																																	
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**	
	10/18/2017																		0.79 J														**1.4**	
P-118	10/18/2017																																	
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	^oC
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
	10/18/2017			0.06				17	4.65	1259	7.09	13.6
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
	10/18/2017			>2.5				-74	1.20	1019	7.09	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
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]			NM				90	1.13	730	6.28	9.5
	10/18/2017			>2.5				-76	0.85	789	7.16	10.4
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[1]			NM				-184	0.31	683	7.67	9.2
	7/14/2017			1.04				-128	0.39	648	7.39	9.8
	10/18/2017			1.02				-124	0.29	775	7.45	10.1
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[1]			NM				-41	1.54	751	7.27	9.7
	7/14/2017			>2.5				-61	0.41	711	7.02	10.4
	10/18/2017			>2.5				-55	0.59	810	7.13	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[1]			NM				31	0.54	849	7.24	9.7
	7/14/2017			1.03				-126	0.40	790	7.37	10.2
	10/18/2017			0.75				-93	0.50	920	7.46	10.5

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

Well ID	Compound	Nitrate	Nitrite	Iron 2	Sulfate	Sulfide	Methane	ORP**	Dissolved Oxygen	Specific Conductivity	pH	Temperature
		NO_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
	10/18/2017			0.99				-117	0.48	721	7.53	11.3
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
	7/14/2017			0.79				-166	0.27	700	7.48	10.3
	10/18/2017			0.77				-137	0.51	824	7.63	10.7

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
	10/18/2017			0.80				-130	0.81	703	7.60	11.0
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
	10/18/2017			0.07				-80	0.40	584	7.61	11.9
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
	10/18/2017			1.31				-101	0.27	844	7.34	11.0
P-118	10/18/2017			0.17				-117	0.59	629	7.71	11.4
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
	10/18/2017			0.10				-130	0.74	600	7.48	11.9

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
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
	10/18/2017			0.10				-61	2.35	596	7.33	10.8
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
	10/18/2017							-118	0.49	595	7.42	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	
	7:47	8/1/2017	21.0	26.0	0.0	53.0	
	7:54	8/14/2017	23.0	26.4	0.0	50.6	
	8:08	8/29/2017	23.0	26.8	0.1	50.1	
	7:56	9/12/2017	26.0	27.6	0.0	46.4	
	8:08	9/25/2017	25.0	27.4	0.1	47.5	
	8:11	10/10/2017	22.0	27.2	0.3	50.5	
	7:49	10/23/2017	25.0	26.8	0.1	48.1	

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
LC-2	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
	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
	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	
LC-2	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	
	7:56	8/1/2017	43.5	29.6	0.1	26.8	
	8:03	8/14/2017	44.5	29.8	0.3	25.4	
	8:15	8/29/2017	46.0	30.2	0.1	23.7	
	8:03	9/12/2017	46.5	30.6	0.3	22.6	
	8:15	9/25/2017	47.0	30.8	2.4	19.8	
	8:18	10/10/2017	49.0	31.8	0.7	18.5	
	7:57	10/23/2017	46.5	30.6	0.4	22.5	

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
	11:31	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
LC-3	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
LC-3	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
	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	
	7:53	8/1/2017	29.5	25.6	1.8	43.1	
	7:58	8/14/2017	31.5	26.2	1.4	40.9	
	8:13	8/29/2017	31.0	26.6	1.3	41.1	
	8:01	9/12/2017	31.0	26.8	1.2	41.0	
	8:12	9/25/2017	32.0	27.0	2.6	38.4	
	8:15	10/10/2017	32.0	27.6	1.2	39.2	
	7:54	10/23/2017	31.5	27.0	1.1	40.4	

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	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
GV-6	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	
	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	
	7:50	8/1/2017	10.0	18.0	4.0	68.0	
	7:56	8/14/2017	16.0	21.0	2.8	60.2	
	8:10	8/29/2017	10.0	17.6	4.7	67.7	
	7:58	9/12/2017	17.0	20.8	3.9	58.3	
	8:09	9/25/2017	9.5	16.2	5.7	68.6	
	8:12	10/10/2017	3.4	11.0	9.9	75.7	
	7:52	10/23/2017	13.5	16.4	6.4	63.7	

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	
	7:42	8/1/2017	0.0	8.8	8.1	83.1	
	7:50	8/14/2017	0.2	11.6	6.0	82.3	
	8:01	8/29/2017	3.4	9.4	7.0	80.2	
	7:51	9/12/2017	1.4	8.6	8.3	81.7	
	8:02	9/25/2017	1.7	7.8	9.4	81.2	
	8:05	10/10/2017	0.1	4.4	14.4	81.2	
	7:43	10/23/2017	0.0	4.8	13.7	81.5	

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
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
GP-5	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	
	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	
	7:43	8/1/2017	2.1	2.6	18.5	76.8	
	7:57	8/14/2017	2.5	2.8	18.6	76.2	
	8:04	8/29/2017	2.1	2.6	18.8	76.6	
	7:53	9/12/2017	2.5	2.8	18.8	75.9	
	8:03	9/25/2017	2.2	2.6	18.7	76.6	
	8:07	10/10/2017	1.9	2.2	14.4	81.6	
	7:46	10/23/2017	2.5	2.6	19.5	75.4	

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

FIGURES

N

WASHKOVICK

SCHROEDER

CO TRUNK HWY PP

CTY HWY FF

GP-10 GP-11 P-101 MW-101 GP-12 GP-2 GV-4 GV-5 GP-1 LC-1 GV-12 GP-5 GV-3 GV-6 GV-11 P-102 MW-102 LC-2 P-104 MW-104 GV-2 GV-7 GV-10 GP-8 LC-3 GV-1 GV-8 GV-9 P-106 MW-106 P-108 MW-108 MW-112 P-103D P-103 MW-103 GP-4 GP-3 GP-6 GP-7 P-107D P-107 MW-107 P-111D P-111 MW-111 P-118 P-117 BICYCLE PATH BICYCLE PATH MW-3A MW-3B GAASTRA ALTNAU (abandoned) P-114 (EHSTER) SOUTH KORO ROAD P-116 CHARLES STREET (HADEL) BANECK P-115 (WIESE) ROHDE MILLER (abandoned) P-113A P-113B

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

EXPLANATION

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

SCALE

0 800

Feet

S:\CAD\RIPON\2202.054\10-3-17\2202054FIG1.DWG

FF/NN LANDFILL
RIPON, WISCONSIN

SITE LAYOUT

DATE:	10/21/17
DESIGNED:	HJW
CHECKED:	MRN
APPROVED:	MRN
DRAWN:	HJW
PROJ.:	117-2202054

TETRA TECH

Figure 1

N

WASHKOVICK

SCHROEDER

CO TRUNK HWY PP

CTY HWY FF

BICYCLE PATH

BICYCLE PATH

SOUTH KORO ROAD

CHARLES STREET

GAASTRA

BANECK

ALTNAU (abandoned)

(FEHSTER)

(HADEL)

(WIESE)

(MILLER abandoned)

ROHDE

GP-10 GP-11 GP-12 GP-1 GP-2 GP-5 GP-8 GP-3 GP-4 GP-6 GP-7

P-101 MW-101

GV-4 GV-5 GV-12 LC-1

GV-3 GV-6 GV-11

P-102 MW-102

LC-2

P-104 MW-104

GV-2 GV-7 GV-10 LC-3

GV-1 GV-8 GV-9

P-106 MW-106

P-108 MW-108

MW-112

P-103D 822.62

P-103 MW-103

P-107D

P-107 MW-107

P-111D 820.21

P-111 MW-111

P-117 818.07

P-118 818.09

819.02 P-114

818.10 P-116

P-115 819.04

MW-3A

MW-3B 820.39

P-113A

P-113B 818.94

819 820 821 822 818.5 819.5 820.5 821.5 818

LAYER 3 DIRECTION OF FLOW

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

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
- GROUNDWATER CONTOUR

SCALE

0 800

Feet

S:\CAD\RIPON\2202.058\10-31-17\2202058FIG3.DWG

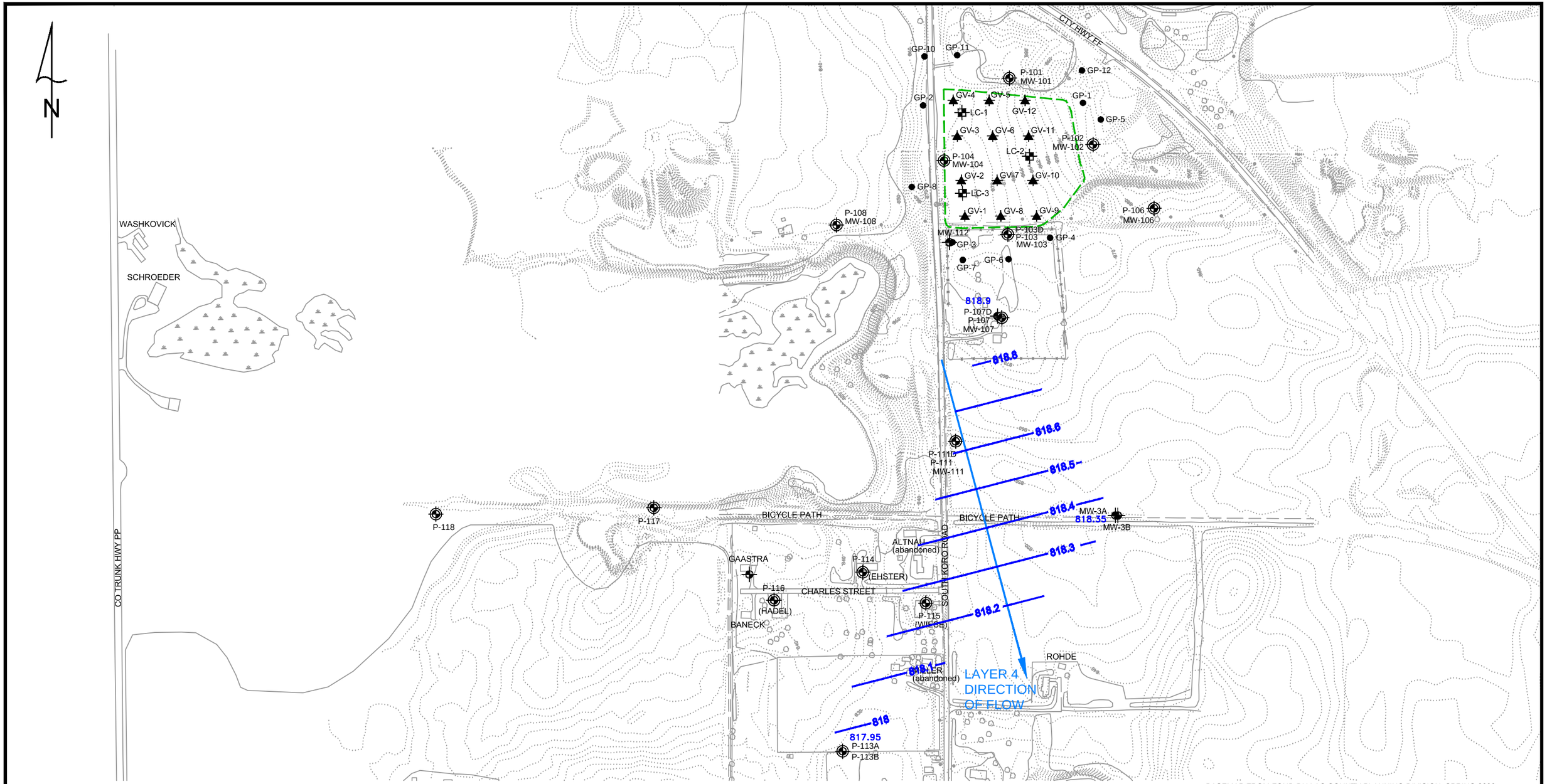
FF/NN LANDFILL
RIPON, WISCONSIN

GROUNDWATER ELEVATIONS
LAYER 3 WELLS
OCTOBER 2017

DATE:	10/31/17
DESIGNED:	AAW
CHECKED:	AAW
APPROVED:	MRN
DRAWN:	HJW
PROJ.:	117-2202058

TETRA TECH

Figure 3



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

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
- GROUNDWATER CONTOUR

SCALE
0 800
Feet

S:\CAD\RIPON\2202.058\10-31-17\2202058FIG4.DWG

FF/NN LANDFILL
RIPON, WISCONSIN

GROUNDWATER ELEVATIONS
LAYER 4 WELLS
OCTOBER 2017

DATE:	10/31/17
DESIGNED:	AAW
CHECKED:	AAW
APPROVED:	MRN
DRAWN:	HJW
PROJ.:	117-2202058

TETRA TECH

Figure 4

CHARTS

Chart 3: Layer 3 Historic Water Level Data

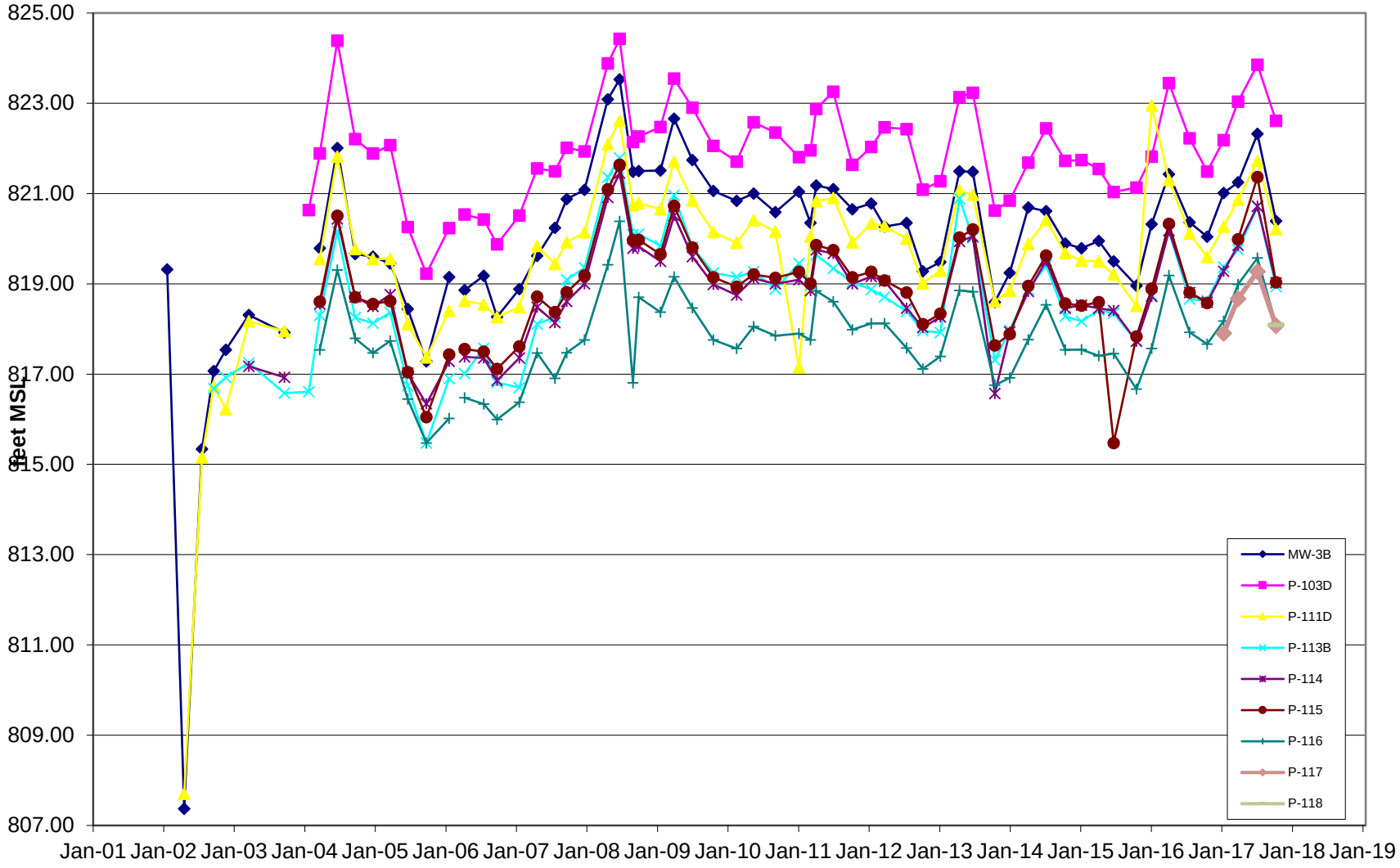


Chart 4: Layer 4 Historic Water Level Data

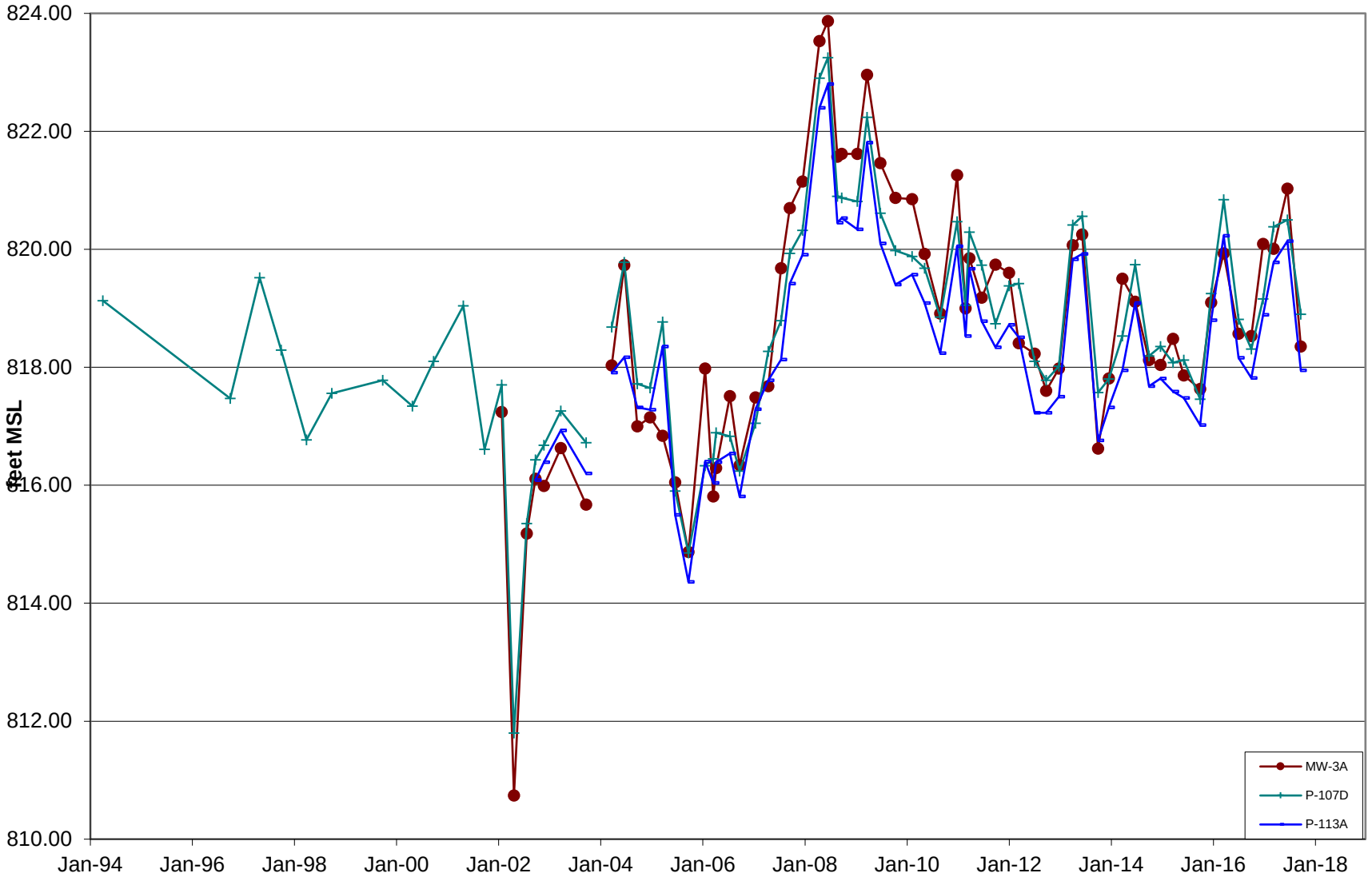


Chart 53: P-103D
Layer 3 Well

10' Down gradient

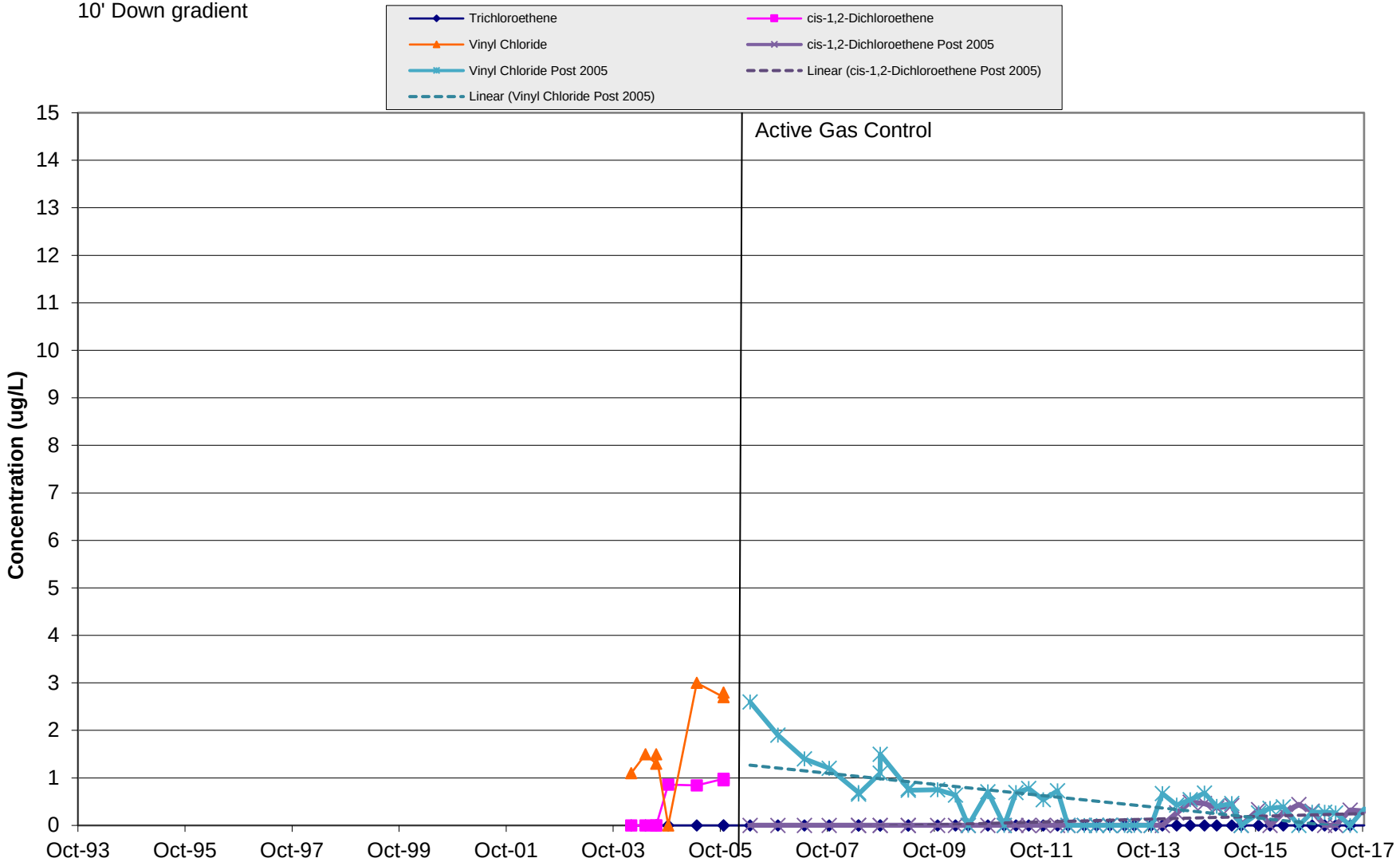


Chart 54: P-111D
Layer 3 Well

900' Down gradient

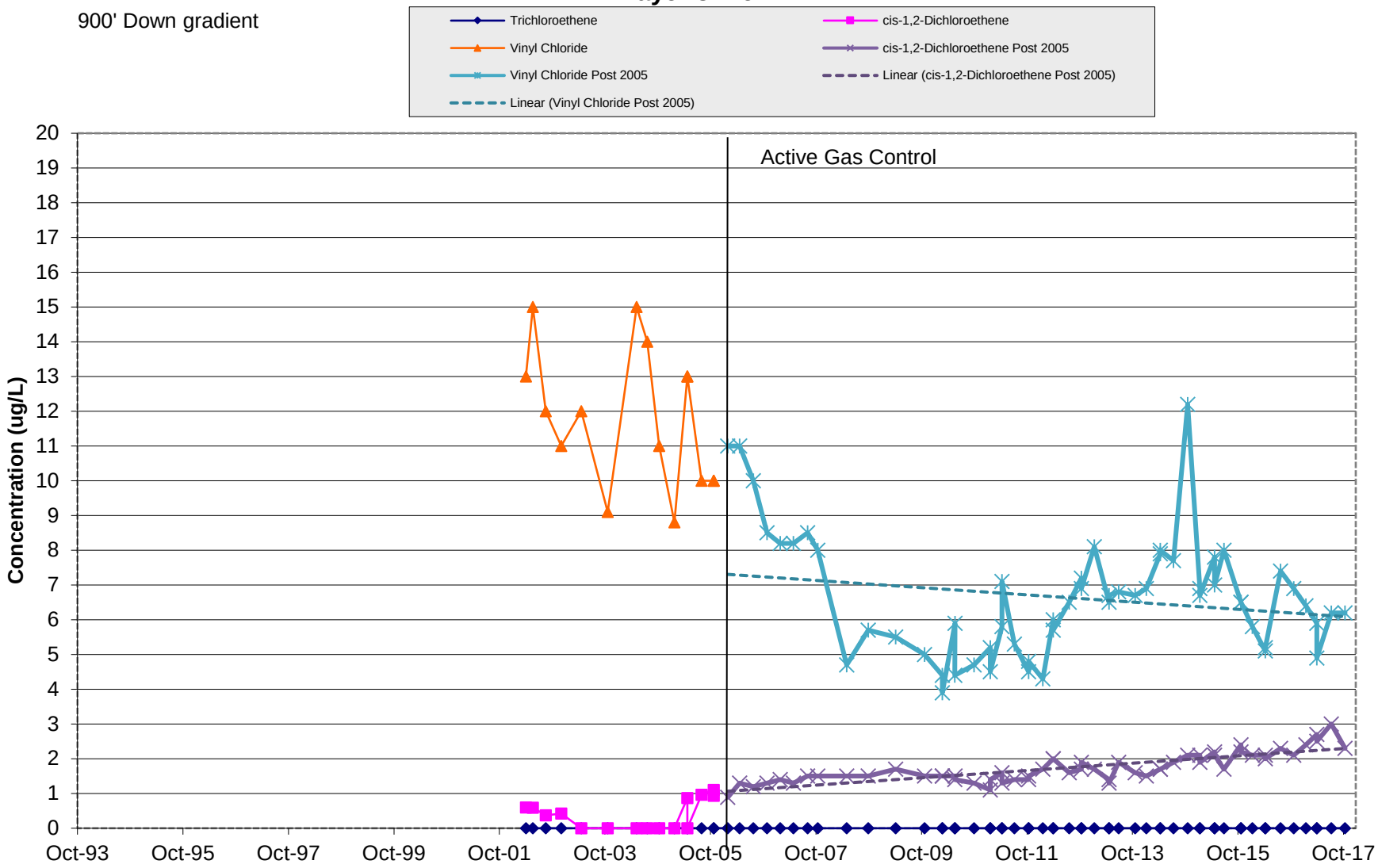


Chart 57: P-114
Layer 3 Well

1550' Down gradient

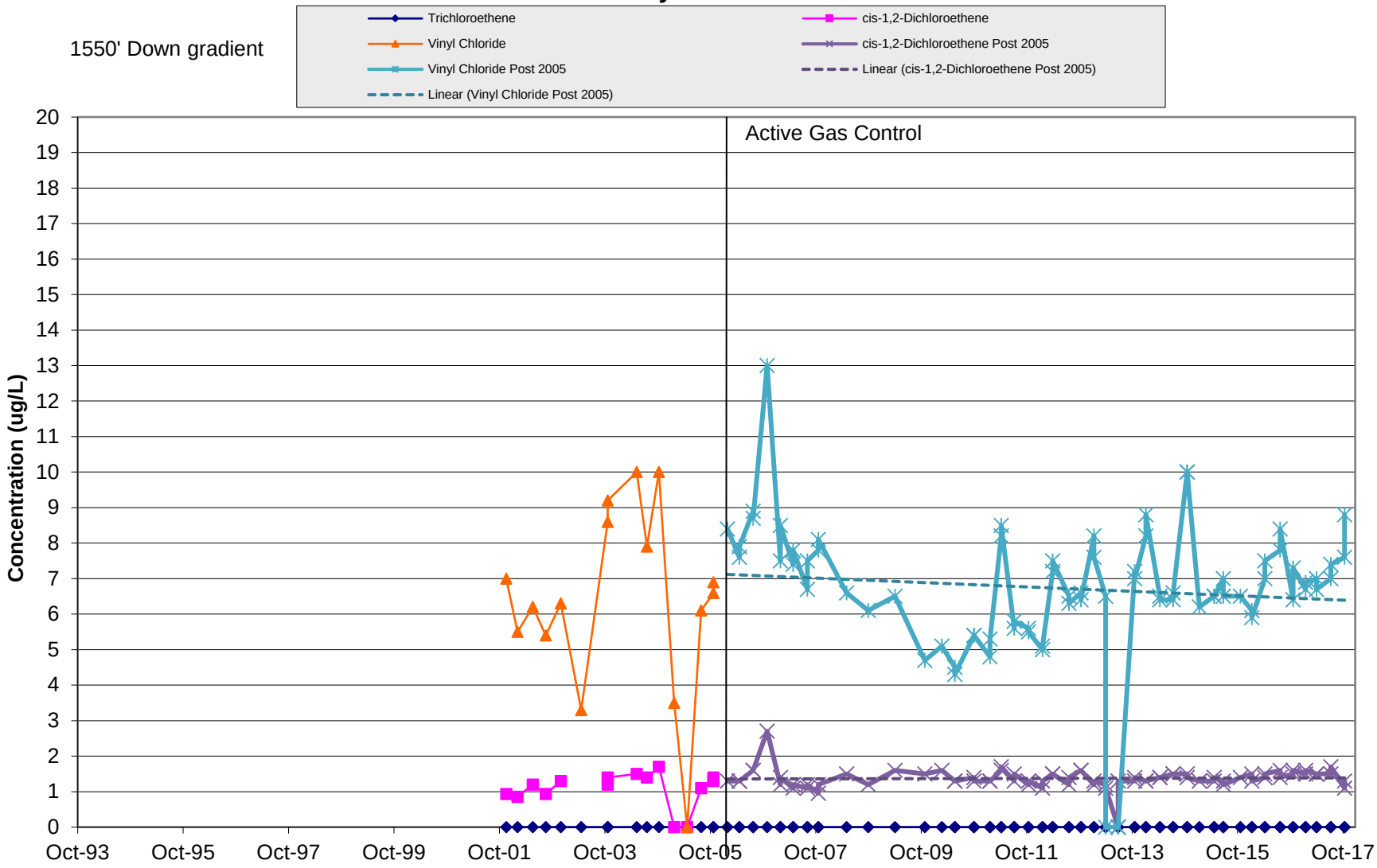
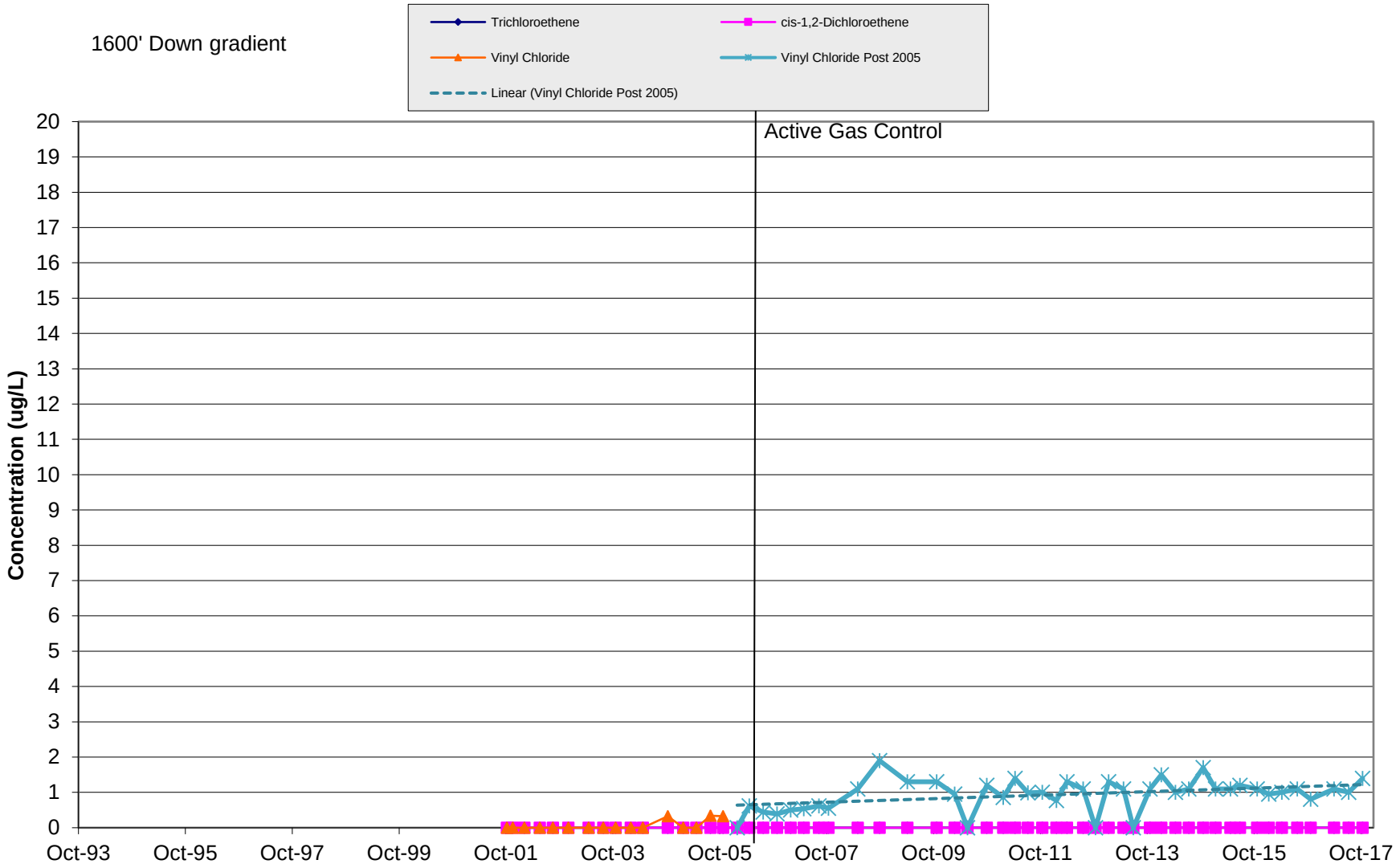


Chart 58: P-115
Layer 3 Well

1600' Down gradient



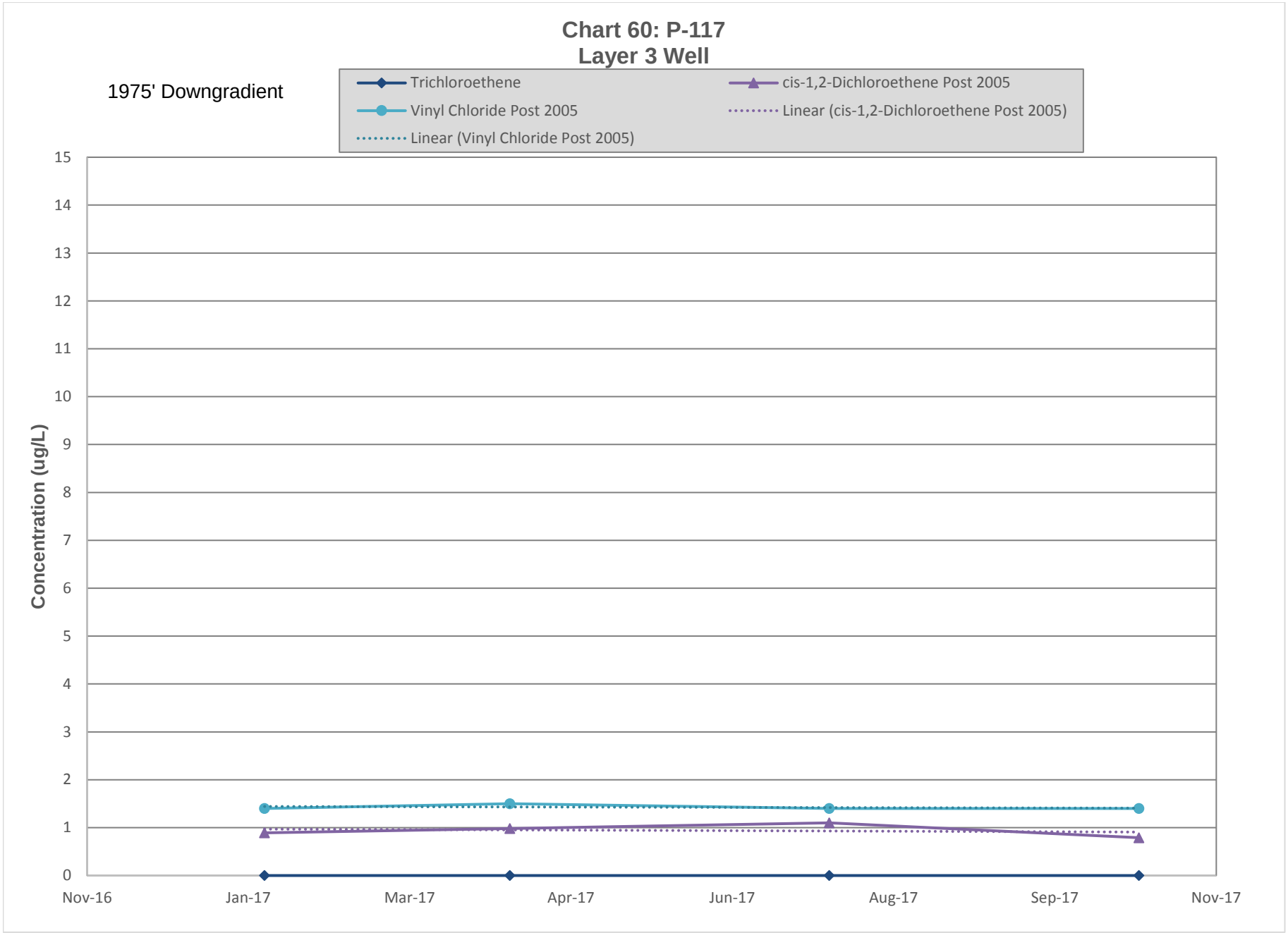
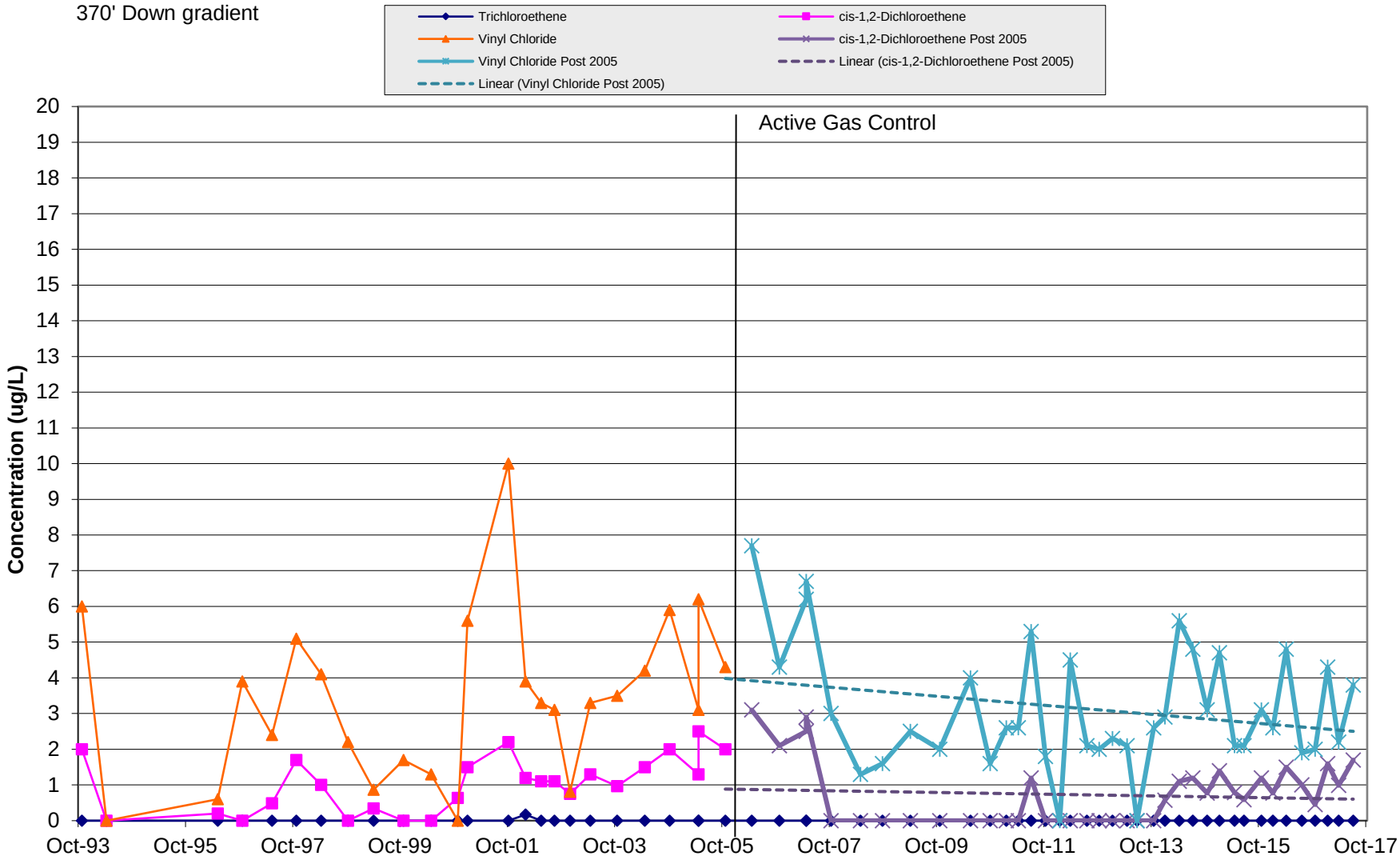


Chart 60: P-117
Layer 3 Well
1975' Downgradient
Trichloroethene
cis-1,2-Dichloroethene Post 2005
Vinyl Chloride Post 2005
Linear (cis-1,2-Dichloroethene Post 2005)
Linear (Vinyl Chloride Post 2005)
Concentration (ug/L)
15
14
13
12
11
10
9
8
7
6
5
4
3
2
1
0
Nov-16
Jan-17
Mar-17
Apr-17
Jun-17
Aug-17
Sep-17
Nov-17

Chart 63: 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
	P-117	673.7	sandstone
	P-118	665.5	dolomite
Layer 4 wells	MW-3A	570.0	sandstone
	P-107D	544.0	granite
	P-113A	507.8	sandstone

p:\ripon landfill\Stratigraphic groupings table.xls, Layers

ATTACHMENT B
LABORATORY ANALYTICAL RESULTS

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

October 25, 2017

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

RE: Project: 117-2202058.01 RIPON FF/ NN LA
Pace Project No.: 40159106

Dear Mike Noel:
Enclosed are the analytical results for sample(s) received by the laboratory on October 20, 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

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

CERTIFICATIONS

Project: 117-2202058.01 RIPON FF/ NN LA
Pace Project No.: 40159106

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

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

SAMPLE SUMMARY

Project: 117-2202058.01 RIPON FF/ NN LA
Pace Project No.: 40159106

Lab ID	Sample ID	Matrix	Date Collected	Date Received
40159106001	**P-103D**	Water	10/18/17 09:40	10/20/17 09:30
40159106002	**P-103**	Water	10/18/17 09:50	10/20/17 09:30
40159106003	**P-107D**	Water	10/18/17 11:05	10/20/17 09:30
40159106004	**P-111D**	Water	10/18/17 11:35	10/20/17 09:30
40159106005	**MW-3A**	Water	10/18/17 12:10	10/20/17 09:30
40159106006	**MW-3B**	Water	10/18/17 12:20	10/20/17 09:30
40159106007	**P-113B**	Water	10/18/17 13:05	10/20/17 09:30
40159106008	**P-113A**	Water	10/18/17 13:20	10/20/17 09:30
40159106009	**P-116**	Water	10/18/17 14:05	10/20/17 09:30
40159106010	**P-114**	Water	10/18/17 14:30	10/20/17 09:30
40159106011	**P-114 DUP**	Water	10/18/17 14:35	10/20/17 09:30
40159106012	**P-115**	Water	10/18/17 15:05	10/20/17 09:30
40159106013	**P-118**	Water	10/18/17 15:35	10/20/17 09:30
40159106014	**P-117**	Water	10/18/17 16:05	10/20/17 09:30
40159106015	**MW-103**	Water	10/18/17 16:25	10/20/17 09:30
40159106016	**MW-112**	Water	10/18/17 16:45	10/20/17 09:30
40159106017	**TRIP BLANK**	Water	10/18/17 00:00	10/20/17 09:30

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

SAMPLE ANALYTE COUNT

Project: 117-2202058.01 RIPON FF/ NN LA
Pace Project No.: 40159106

Lab ID	Sample ID	Method	Analysts	Analytes Reported
40159106001	**P-103D**	EPA 8260	HNW	45
40159106002	**P-103**	EPA 8260	HNW	45
40159106003	**P-107D**	EPA 8260	HNW	45
40159106004	**P-111D**	EPA 8260	HNW	45
40159106005	**MW-3A**	EPA 8260	HNW	45
40159106006	**MW-3B**	EPA 8260	HNW	45
40159106007	**P-113B**	EPA 8260	HNW	45
40159106008	**P-113A**	EPA 8260	HNW	45
40159106009	**P-116**	EPA 8260	HNW	45
40159106010	**P-114**	EPA 8260	HNW	45
40159106011	**P-114 DUP**	EPA 8260	HNW	45
40159106012	**P-115**	EPA 8260	HNW	45
40159106013	**P-118**	EPA 8260	HNW	45
40159106014	**P-117**	EPA 8260	HNW	45
40159106015	**MW-103**	EPA 8260	HNW	45
40159106016	**MW-112**	EPA 8260	HNW	45
40159106017	**TRIP BLANK**	EPA 8260	HNW	45

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

ANALYTICAL RESULTS

Project: 117-2202058.01 RIPON FF/ NN LA
Pace Project No.: 40159106

Sample: P-103D **Lab ID: 40159106001** Collected: 10/18/17 09:40 Received: 10/20/17 09:30 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		10/23/17 10:55	71-55-6	
1,1,2-Trichloroethane	**<0.20**	ug/L	1.0	0.20	1		10/23/17 10:55	79-00-5	
1,1-Dichloroethane	**<0.24**	ug/L	1.0	0.24	1		10/23/17 10:55	75-34-3	
1,1-Dichloroethene	**<0.41**	ug/L	1.0	0.41	1		10/23/17 10:55	75-35-4	
1,2-Dibromo-3-chloropropane	**<2.2**	ug/L	5.0	2.2	1		10/23/17 10:55	96-12-8	L1,M0
1,2-Dibromoethane (EDB)	**<0.18**	ug/L	1.0	0.18	1		10/23/17 10:55	106-93-4	
1,2-Dichlorobenzene	**<0.50**	ug/L	1.0	0.50	1		10/23/17 10:55	95-50-1	
1,2-Dichloroethane	**<0.17**	ug/L	1.0	0.17	1		10/23/17 10:55	107-06-2	
1,2-Dichloropropane	**<0.23**	ug/L	1.0	0.23	1		10/23/17 10:55	78-87-5	
1,3-Dichlorobenzene	**<0.50**	ug/L	1.0	0.50	1		10/23/17 10:55	541-73-1	
1,4-Dichlorobenzene	**<0.50**	ug/L	1.0	0.50	1		10/23/17 10:55	106-46-7	
2-Butanone (MEK)	**<3.0**	ug/L	20.0	3.0	1		10/23/17 10:55	78-93-3	
Acetone	**<3.0**	ug/L	20.0	3.0	1		10/23/17 10:55	67-64-1	
Benzene	**<0.50**	ug/L	1.0	0.50	1		10/23/17 10:55	71-43-2	
Bromodichloromethane	**<0.50**	ug/L	1.0	0.50	1		10/23/17 10:55	75-27-4	
Bromoform	**<0.50**	ug/L	1.0	0.50	1		10/23/17 10:55	75-25-2	
Bromomethane	**<2.4**	ug/L	5.0	2.4	1		10/23/17 10:55	74-83-9	
Carbon disulfide	**<0.61**	ug/L	5.0	0.61	1		10/23/17 10:55	75-15-0	
Carbon tetrachloride	**<0.50**	ug/L	1.0	0.50	1		10/23/17 10:55	56-23-5	
Chlorobenzene	**<0.50**	ug/L	1.0	0.50	1		10/23/17 10:55	108-90-7	
Chloroethane	**<0.37**	ug/L	1.0	0.37	1		10/23/17 10:55	75-00-3	
Chloroform	**<2.5**	ug/L	5.0	2.5	1		10/23/17 10:55	67-66-3	
Chloromethane	**<0.50**	ug/L	1.0	0.50	1		10/23/17 10:55	74-87-3	
Dibromochloromethane	**<0.50**	ug/L	1.0	0.50	1		10/23/17 10:55	124-48-1	
Dibromomethane	**<0.43**	ug/L	1.0	0.43	1		10/23/17 10:55	74-95-3	
Dichlorodifluoromethane	**<0.22**	ug/L	1.0	0.22	1		10/23/17 10:55	75-71-8	
Ethylbenzene	**<0.50**	ug/L	1.0	0.50	1		10/23/17 10:55	100-41-4	
Methyl-tert-butyl ether	**<0.17**	ug/L	1.0	0.17	1		10/23/17 10:55	1634-04-4	
Methylene Chloride	**<0.23**	ug/L	1.0	0.23	1		10/23/17 10:55	75-09-2	
Naphthalene	**<2.5**	ug/L	5.0	2.5	1		10/23/17 10:55	91-20-3	
Styrene	**<0.50**	ug/L	1.0	0.50	1		10/23/17 10:55	100-42-5	
Tetrachloroethene	**<0.50**	ug/L	1.0	0.50	1		10/23/17 10:55	127-18-4	
Tetrahydrofuran	**<2.0**	ug/L	5.0	2.0	1		10/23/17 10:55	109-99-9	
Toluene	**<0.50**	ug/L	1.0	0.50	1		10/23/17 10:55	108-88-3	
Trichloroethene	**<0.33**	ug/L	1.0	0.33	1		10/23/17 10:55	79-01-6	
Trichlorofluoromethane	**<0.18**	ug/L	1.0	0.18	1		10/23/17 10:55	75-69-4	
Vinyl chloride	**0.35J**	ug/L	1.0	0.18	1		10/23/17 10:55	75-01-4	
Xylene (Total)	**<1.5**	ug/L	3.0	1.5	1		10/23/17 10:55	1330-20-7	
cis-1,2-Dichloroethene	**0.30J**	ug/L	1.0	0.26	1		10/23/17 10:55	156-59-2	
cis-1,3-Dichloropropene	**<0.50**	ug/L	1.0	0.50	1		10/23/17 10:55	10061-01-5	
trans-1,2-Dichloroethene	**<0.26**	ug/L	1.0	0.26	1		10/23/17 10:55	156-60-5	
trans-1,3-Dichloropropene	**<0.23**	ug/L	1.0	0.23	1		10/23/17 10:55	10061-02-6	
Surrogates									
4-Bromofluorobenzene (S)	92	%	61-130		1		10/23/17 10:55	460-00-4	
Dibromofluoromethane (S)	95	%	67-130		1		10/23/17 10:55	1868-53-7	
Toluene-d8 (S)	114	%	70-130		1		10/23/17 10:55	2037-26-5	

REPORT OF LABORATORY ANALYSIS

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

ANALYTICAL RESULTS

Project: 117-2202058.01 RIPON FF/ NN LA
Pace Project No.: 40159106

Sample: P-103 **Lab ID: 40159106002** Collected: 10/18/17 09:50 Received: 10/20/17 09:30 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		10/23/17 11:39	71-55-6	
1,1,2-Trichloroethane	**<0.20**	ug/L	1.0	0.20	1		10/23/17 11:39	79-00-5	
1,1-Dichloroethane	**<0.24**	ug/L	1.0	0.24	1		10/23/17 11:39	75-34-3	
1,1-Dichloroethene	**<0.41**	ug/L	1.0	0.41	1		10/23/17 11:39	75-35-4	
1,2-Dibromo-3-chloropropane	**<2.2**	ug/L	5.0	2.2	1		10/23/17 11:39	96-12-8	L1
1,2-Dibromoethane (EDB)	**<0.18**	ug/L	1.0	0.18	1		10/23/17 11:39	106-93-4	
1,2-Dichlorobenzene	**<0.50**	ug/L	1.0	0.50	1		10/23/17 11:39	95-50-1	
1,2-Dichloroethane	**<0.17**	ug/L	1.0	0.17	1		10/23/17 11:39	107-06-2	
1,2-Dichloropropane	**<0.23**	ug/L	1.0	0.23	1		10/23/17 11:39	78-87-5	
1,3-Dichlorobenzene	**<0.50**	ug/L	1.0	0.50	1		10/23/17 11:39	541-73-1	
1,4-Dichlorobenzene	**<0.50**	ug/L	1.0	0.50	1		10/23/17 11:39	106-46-7	
2-Butanone (MEK)	**<3.0**	ug/L	20.0	3.0	1		10/23/17 11:39	78-93-3	
Acetone	**<3.0**	ug/L	20.0	3.0	1		10/23/17 11:39	67-64-1	
Benzene	**<0.50**	ug/L	1.0	0.50	1		10/23/17 11:39	71-43-2	
Bromodichloromethane	**<0.50**	ug/L	1.0	0.50	1		10/23/17 11:39	75-27-4	
Bromoform	**<0.50**	ug/L	1.0	0.50	1		10/23/17 11:39	75-25-2	
Bromomethane	**<2.4**	ug/L	5.0	2.4	1		10/23/17 11:39	74-83-9	
Carbon disulfide	**<0.61**	ug/L	5.0	0.61	1		10/23/17 11:39	75-15-0	
Carbon tetrachloride	**<0.50**	ug/L	1.0	0.50	1		10/23/17 11:39	56-23-5	
Chlorobenzene	**<0.50**	ug/L	1.0	0.50	1		10/23/17 11:39	108-90-7	
Chloroethane	**<0.37**	ug/L	1.0	0.37	1		10/23/17 11:39	75-00-3	
Chloroform	**<2.5**	ug/L	5.0	2.5	1		10/23/17 11:39	67-66-3	
Chloromethane	**<0.50**	ug/L	1.0	0.50	1		10/23/17 11:39	74-87-3	
Dibromochloromethane	**<0.50**	ug/L	1.0	0.50	1		10/23/17 11:39	124-48-1	
Dibromomethane	**<0.43**	ug/L	1.0	0.43	1		10/23/17 11:39	74-95-3	
Dichlorodifluoromethane	**<0.22**	ug/L	1.0	0.22	1		10/23/17 11:39	75-71-8	
Ethylbenzene	**<0.50**	ug/L	1.0	0.50	1		10/23/17 11:39	100-41-4	
Methyl-tert-butyl ether	**<0.17**	ug/L	1.0	0.17	1		10/23/17 11:39	1634-04-4	
Methylene Chloride	**<0.23**	ug/L	1.0	0.23	1		10/23/17 11:39	75-09-2	
Naphthalene	**<2.5**	ug/L	5.0	2.5	1		10/23/17 11:39	91-20-3	
Styrene	**<0.50**	ug/L	1.0	0.50	1		10/23/17 11:39	100-42-5	
Tetrachloroethene	**<0.50**	ug/L	1.0	0.50	1		10/23/17 11:39	127-18-4	
Tetrahydrofuran	**<2.0**	ug/L	5.0	2.0	1		10/23/17 11:39	109-99-9	
Toluene	**<0.50**	ug/L	1.0	0.50	1		10/23/17 11:39	108-88-3	
Trichloroethene	**<0.33**	ug/L	1.0	0.33	1		10/23/17 11:39	79-01-6	
Trichlorofluoromethane	**<0.18**	ug/L	1.0	0.18	1		10/23/17 11:39	75-69-4	
Vinyl chloride	**<0.18**	ug/L	1.0	0.18	1		10/23/17 11:39	75-01-4	
Xylene (Total)	**<1.5**	ug/L	3.0	1.5	1		10/23/17 11:39	1330-20-7	
cis-1,2-Dichloroethene	**<0.26**	ug/L	1.0	0.26	1		10/23/17 11:39	156-59-2	
cis-1,3-Dichloropropene	**<0.50**	ug/L	1.0	0.50	1		10/23/17 11:39	10061-01-5	
trans-1,2-Dichloroethene	**<0.26**	ug/L	1.0	0.26	1		10/23/17 11:39	156-60-5	
trans-1,3-Dichloropropene	**<0.23**	ug/L	1.0	0.23	1		10/23/17 11:39	10061-02-6	
Surrogates									
4-Bromofluorobenzene (S)	88	%	61-130		1		10/23/17 11:39	460-00-4	
Dibromofluoromethane (S)	94	%	67-130		1		10/23/17 11:39	1868-53-7	
Toluene-d8 (S)	114	%	70-130		1		10/23/17 11:39	2037-26-5	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
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ANALYTICAL RESULTS

Project: 117-2202058.01 RIPON FF/ NN LA
Pace Project No.: 40159106

Sample: P-107D **Lab ID: 40159106003** Collected: 10/18/17 11:05 Received: 10/20/17 09:30 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		10/23/17 12:02	71-55-6	
1,1,2-Trichloroethane	**<0.20**	ug/L	1.0	0.20	1		10/23/17 12:02	79-00-5	
1,1-Dichloroethane	**<0.24**	ug/L	1.0	0.24	1		10/23/17 12:02	75-34-3	
1,1-Dichloroethene	**<0.41**	ug/L	1.0	0.41	1		10/23/17 12:02	75-35-4	
1,2-Dibromo-3-chloropropane	**<2.2**	ug/L	5.0	2.2	1		10/23/17 12:02	96-12-8	L1
1,2-Dibromoethane (EDB)	**<0.18**	ug/L	1.0	0.18	1		10/23/17 12:02	106-93-4	
1,2-Dichlorobenzene	**<0.50**	ug/L	1.0	0.50	1		10/23/17 12:02	95-50-1	
1,2-Dichloroethane	**<0.17**	ug/L	1.0	0.17	1		10/23/17 12:02	107-06-2	
1,2-Dichloropropane	**<0.23**	ug/L	1.0	0.23	1		10/23/17 12:02	78-87-5	
1,3-Dichlorobenzene	**<0.50**	ug/L	1.0	0.50	1		10/23/17 12:02	541-73-1	
1,4-Dichlorobenzene	**<0.50**	ug/L	1.0	0.50	1		10/23/17 12:02	106-46-7	
2-Butanone (MEK)	**<3.0**	ug/L	20.0	3.0	1		10/23/17 12:02	78-93-3	
Acetone	**<3.0**	ug/L	20.0	3.0	1		10/23/17 12:02	67-64-1	
Benzene	**<0.50**	ug/L	1.0	0.50	1		10/23/17 12:02	71-43-2	
Bromodichloromethane	**<0.50**	ug/L	1.0	0.50	1		10/23/17 12:02	75-27-4	
Bromoform	**<0.50**	ug/L	1.0	0.50	1		10/23/17 12:02	75-25-2	
Bromomethane	**<2.4**	ug/L	5.0	2.4	1		10/23/17 12:02	74-83-9	
Carbon disulfide	**<0.61**	ug/L	5.0	0.61	1		10/23/17 12:02	75-15-0	
Carbon tetrachloride	**<0.50**	ug/L	1.0	0.50	1		10/23/17 12:02	56-23-5	
Chlorobenzene	**<0.50**	ug/L	1.0	0.50	1		10/23/17 12:02	108-90-7	
Chloroethane	**0.76J**	ug/L	1.0	0.37	1		10/23/17 12:02	75-00-3	
Chloroform	**<2.5**	ug/L	5.0	2.5	1		10/23/17 12:02	67-66-3	
Chloromethane	**<0.50**	ug/L	1.0	0.50	1		10/23/17 12:02	74-87-3	
Dibromochloromethane	**<0.50**	ug/L	1.0	0.50	1		10/23/17 12:02	124-48-1	
Dibromomethane	**<0.43**	ug/L	1.0	0.43	1		10/23/17 12:02	74-95-3	
Dichlorodifluoromethane	**<0.22**	ug/L	1.0	0.22	1		10/23/17 12:02	75-71-8	
Ethylbenzene	**<0.50**	ug/L	1.0	0.50	1		10/23/17 12:02	100-41-4	
Methyl-tert-butyl ether	**<0.17**	ug/L	1.0	0.17	1		10/23/17 12:02	1634-04-4	
Methylene Chloride	**<0.23**	ug/L	1.0	0.23	1		10/23/17 12:02	75-09-2	
Naphthalene	**<2.5**	ug/L	5.0	2.5	1		10/23/17 12:02	91-20-3	
Styrene	**<0.50**	ug/L	1.0	0.50	1		10/23/17 12:02	100-42-5	
Tetrachloroethene	**<0.50**	ug/L	1.0	0.50	1		10/23/17 12:02	127-18-4	
Tetrahydrofuran	**<2.0**	ug/L	5.0	2.0	1		10/23/17 12:02	109-99-9	
Toluene	**<0.50**	ug/L	1.0	0.50	1		10/23/17 12:02	108-88-3	
Trichloroethene	**<0.33**	ug/L	1.0	0.33	1		10/23/17 12:02	79-01-6	
Trichlorofluoromethane	**<0.18**	ug/L	1.0	0.18	1		10/23/17 12:02	75-69-4	
Vinyl chloride	**1.9**	ug/L	1.0	0.18	1		10/23/17 12:02	75-01-4	
Xylene (Total)	**<1.5**	ug/L	3.0	1.5	1		10/23/17 12:02	1330-20-7	
cis-1,2-Dichloroethene	**0.52J**	ug/L	1.0	0.26	1		10/23/17 12:02	156-59-2	
cis-1,3-Dichloropropene	**<0.50**	ug/L	1.0	0.50	1		10/23/17 12:02	10061-01-5	
trans-1,2-Dichloroethene	**<0.26**	ug/L	1.0	0.26	1		10/23/17 12:02	156-60-5	
trans-1,3-Dichloropropene	**<0.23**	ug/L	1.0	0.23	1		10/23/17 12:02	10061-02-6	
Surrogates									
4-Bromofluorobenzene (S)	90	%	61-130		1		10/23/17 12:02	460-00-4	
Dibromofluoromethane (S)	97	%	67-130		1		10/23/17 12:02	1868-53-7	
Toluene-d8 (S)	116	%	70-130		1		10/23/17 12:02	2037-26-5	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
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ANALYTICAL RESULTS

Project: 117-2202058.01 RIPON FF/ NN LA
Pace Project No.: 40159106

Sample: P-111D **Lab ID: 40159106004** Collected: 10/18/17 11:35 Received: 10/20/17 09:30 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		10/23/17 12:24	71-55-6	
1,1,2-Trichloroethane	**<0.20**	ug/L	1.0	0.20	1		10/23/17 12:24	79-00-5	
1,1-Dichloroethane	**<0.24**	ug/L	1.0	0.24	1		10/23/17 12:24	75-34-3	
1,1-Dichloroethene	**<0.41**	ug/L	1.0	0.41	1		10/23/17 12:24	75-35-4	
1,2-Dibromo-3-chloropropane	**<2.2**	ug/L	5.0	2.2	1		10/23/17 12:24	96-12-8	L1
1,2-Dibromoethane (EDB)	**<0.18**	ug/L	1.0	0.18	1		10/23/17 12:24	106-93-4	
1,2-Dichlorobenzene	**<0.50**	ug/L	1.0	0.50	1		10/23/17 12:24	95-50-1	
1,2-Dichloroethane	**<0.17**	ug/L	1.0	0.17	1		10/23/17 12:24	107-06-2	
1,2-Dichloropropane	**<0.23**	ug/L	1.0	0.23	1		10/23/17 12:24	78-87-5	
1,3-Dichlorobenzene	**<0.50**	ug/L	1.0	0.50	1		10/23/17 12:24	541-73-1	
1,4-Dichlorobenzene	**<0.50**	ug/L	1.0	0.50	1		10/23/17 12:24	106-46-7	
2-Butanone (MEK)	**<3.0**	ug/L	20.0	3.0	1		10/23/17 12:24	78-93-3	
Acetone	**<3.0**	ug/L	20.0	3.0	1		10/23/17 12:24	67-64-1	
Benzene	**<0.50**	ug/L	1.0	0.50	1		10/23/17 12:24	71-43-2	
Bromodichloromethane	**<0.50**	ug/L	1.0	0.50	1		10/23/17 12:24	75-27-4	
Bromoform	**<0.50**	ug/L	1.0	0.50	1		10/23/17 12:24	75-25-2	
Bromomethane	**<2.4**	ug/L	5.0	2.4	1		10/23/17 12:24	74-83-9	
Carbon disulfide	**<0.61**	ug/L	5.0	0.61	1		10/23/17 12:24	75-15-0	
Carbon tetrachloride	**<0.50**	ug/L	1.0	0.50	1		10/23/17 12:24	56-23-5	
Chlorobenzene	**<0.50**	ug/L	1.0	0.50	1		10/23/17 12:24	108-90-7	
Chloroethane	**1.4**	ug/L	1.0	0.37	1		10/23/17 12:24	75-00-3	
Chloroform	**<2.5**	ug/L	5.0	2.5	1		10/23/17 12:24	67-66-3	
Chloromethane	**<0.50**	ug/L	1.0	0.50	1		10/23/17 12:24	74-87-3	
Dibromochloromethane	**<0.50**	ug/L	1.0	0.50	1		10/23/17 12:24	124-48-1	
Dibromomethane	**<0.43**	ug/L	1.0	0.43	1		10/23/17 12:24	74-95-3	
Dichlorodifluoromethane	**<0.22**	ug/L	1.0	0.22	1		10/23/17 12:24	75-71-8	
Ethylbenzene	**<0.50**	ug/L	1.0	0.50	1		10/23/17 12:24	100-41-4	
Methyl-tert-butyl ether	**<0.17**	ug/L	1.0	0.17	1		10/23/17 12:24	1634-04-4	
Methylene Chloride	**<0.23**	ug/L	1.0	0.23	1		10/23/17 12:24	75-09-2	
Naphthalene	**<2.5**	ug/L	5.0	2.5	1		10/23/17 12:24	91-20-3	
Styrene	**<0.50**	ug/L	1.0	0.50	1		10/23/17 12:24	100-42-5	
Tetrachloroethene	**<0.50**	ug/L	1.0	0.50	1		10/23/17 12:24	127-18-4	
Tetrahydrofuran	**<2.0**	ug/L	5.0	2.0	1		10/23/17 12:24	109-99-9	
Toluene	**<0.50**	ug/L	1.0	0.50	1		10/23/17 12:24	108-88-3	
Trichloroethene	**<0.33**	ug/L	1.0	0.33	1		10/23/17 12:24	79-01-6	
Trichlorofluoromethane	**<0.18**	ug/L	1.0	0.18	1		10/23/17 12:24	75-69-4	
Vinyl chloride	**6.2**	ug/L	1.0	0.18	1		10/23/17 12:24	75-01-4	
Xylene (Total)	**<1.5**	ug/L	3.0	1.5	1		10/23/17 12:24	1330-20-7	
cis-1,2-Dichloroethene	**2.3**	ug/L	1.0	0.26	1		10/23/17 12:24	156-59-2	
cis-1,3-Dichloropropene	**<0.50**	ug/L	1.0	0.50	1		10/23/17 12:24	10061-01-5	
trans-1,2-Dichloroethene	**<0.26**	ug/L	1.0	0.26	1		10/23/17 12:24	156-60-5	
trans-1,3-Dichloropropene	**<0.23**	ug/L	1.0	0.23	1		10/23/17 12:24	10061-02-6	
Surrogates									
4-Bromofluorobenzene (S)	91	%	61-130		1		10/23/17 12:24	460-00-4	
Dibromofluoromethane (S)	97	%	67-130		1		10/23/17 12:24	1868-53-7	
Toluene-d8 (S)	114	%	70-130		1		10/23/17 12:24	2037-26-5	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: 117-2202058.01 RIPON FF/ NN LA
Pace Project No.: 40159106

Sample: MW-3A **Lab ID: 40159106005** Collected: 10/18/17 12:10 Received: 10/20/17 09:30 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		10/23/17 12:46	71-55-6	
1,1,2-Trichloroethane	**<0.20**	ug/L	1.0	0.20	1		10/23/17 12:46	79-00-5	
1,1-Dichloroethane	**<0.24**	ug/L	1.0	0.24	1		10/23/17 12:46	75-34-3	
1,1-Dichloroethene	**<0.41**	ug/L	1.0	0.41	1		10/23/17 12:46	75-35-4	
1,2-Dibromo-3-chloropropane	**<2.2**	ug/L	5.0	2.2	1		10/23/17 12:46	96-12-8	L1
1,2-Dibromoethane (EDB)	**<0.18**	ug/L	1.0	0.18	1		10/23/17 12:46	106-93-4	
1,2-Dichlorobenzene	**<0.50**	ug/L	1.0	0.50	1		10/23/17 12:46	95-50-1	
1,2-Dichloroethane	**<0.17**	ug/L	1.0	0.17	1		10/23/17 12:46	107-06-2	
1,2-Dichloropropane	**<0.23**	ug/L	1.0	0.23	1		10/23/17 12:46	78-87-5	
1,3-Dichlorobenzene	**<0.50**	ug/L	1.0	0.50	1		10/23/17 12:46	541-73-1	
1,4-Dichlorobenzene	**<0.50**	ug/L	1.0	0.50	1		10/23/17 12:46	106-46-7	
2-Butanone (MEK)	**<3.0**	ug/L	20.0	3.0	1		10/23/17 12:46	78-93-3	
Acetone	**<3.0**	ug/L	20.0	3.0	1		10/23/17 12:46	67-64-1	
Benzene	**<0.50**	ug/L	1.0	0.50	1		10/23/17 12:46	71-43-2	
Bromodichloromethane	**<0.50**	ug/L	1.0	0.50	1		10/23/17 12:46	75-27-4	
Bromoform	**<0.50**	ug/L	1.0	0.50	1		10/23/17 12:46	75-25-2	
Bromomethane	**<2.4**	ug/L	5.0	2.4	1		10/23/17 12:46	74-83-9	
Carbon disulfide	**<0.61**	ug/L	5.0	0.61	1		10/23/17 12:46	75-15-0	
Carbon tetrachloride	**<0.50**	ug/L	1.0	0.50	1		10/23/17 12:46	56-23-5	
Chlorobenzene	**<0.50**	ug/L	1.0	0.50	1		10/23/17 12:46	108-90-7	
Chloroethane	**<0.37**	ug/L	1.0	0.37	1		10/23/17 12:46	75-00-3	
Chloroform	**<2.5**	ug/L	5.0	2.5	1		10/23/17 12:46	67-66-3	
Chloromethane	**<0.50**	ug/L	1.0	0.50	1		10/23/17 12:46	74-87-3	
Dibromochloromethane	**<0.50**	ug/L	1.0	0.50	1		10/23/17 12:46	124-48-1	
Dibromomethane	**<0.43**	ug/L	1.0	0.43	1		10/23/17 12:46	74-95-3	
Dichlorodifluoromethane	**<0.22**	ug/L	1.0	0.22	1		10/23/17 12:46	75-71-8	
Ethylbenzene	**<0.50**	ug/L	1.0	0.50	1		10/23/17 12:46	100-41-4	
Methyl-tert-butyl ether	**<0.17**	ug/L	1.0	0.17	1		10/23/17 12:46	1634-04-4	
Methylene Chloride	**<0.23**	ug/L	1.0	0.23	1		10/23/17 12:46	75-09-2	
Naphthalene	**<2.5**	ug/L	5.0	2.5	1		10/23/17 12:46	91-20-3	
Styrene	**<0.50**	ug/L	1.0	0.50	1		10/23/17 12:46	100-42-5	
Tetrachloroethene	**<0.50**	ug/L	1.0	0.50	1		10/23/17 12:46	127-18-4	
Tetrahydrofuran	**<2.0**	ug/L	5.0	2.0	1		10/23/17 12:46	109-99-9	
Toluene	**<0.50**	ug/L	1.0	0.50	1		10/23/17 12:46	108-88-3	
Trichloroethene	**<0.33**	ug/L	1.0	0.33	1		10/23/17 12:46	79-01-6	
Trichlorofluoromethane	**<0.18**	ug/L	1.0	0.18	1		10/23/17 12:46	75-69-4	
Vinyl chloride	**<0.18**	ug/L	1.0	0.18	1		10/23/17 12:46	75-01-4	
Xylene (Total)	**<1.5**	ug/L	3.0	1.5	1		10/23/17 12:46	1330-20-7	
cis-1,2-Dichloroethene	**<0.26**	ug/L	1.0	0.26	1		10/23/17 12:46	156-59-2	
cis-1,3-Dichloropropene	**<0.50**	ug/L	1.0	0.50	1		10/23/17 12:46	10061-01-5	
trans-1,2-Dichloroethene	**<0.26**	ug/L	1.0	0.26	1		10/23/17 12:46	156-60-5	
trans-1,3-Dichloropropene	**<0.23**	ug/L	1.0	0.23	1		10/23/17 12:46	10061-02-6	
Surrogates									
4-Bromofluorobenzene (S)	90	%	61-130		1		10/23/17 12:46	460-00-4	
Dibromofluoromethane (S)	96	%	67-130		1		10/23/17 12:46	1868-53-7	
Toluene-d8 (S)	119	%	70-130		1		10/23/17 12:46	2037-26-5	

REPORT OF LABORATORY ANALYSIS

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

ANALYTICAL RESULTS

Project: 117-2202058.01 RIPON FF/ NN LA
Pace Project No.: 40159106

Sample: MW-3B **Lab ID: 40159106006** Collected: 10/18/17 12:20 Received: 10/20/17 09:30 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		10/23/17 13:08	71-55-6	
1,1,2-Trichloroethane	**<0.20**	ug/L	1.0	0.20	1		10/23/17 13:08	79-00-5	
1,1-Dichloroethane	**<0.24**	ug/L	1.0	0.24	1		10/23/17 13:08	75-34-3	
1,1-Dichloroethene	**<0.41**	ug/L	1.0	0.41	1		10/23/17 13:08	75-35-4	
1,2-Dibromo-3-chloropropane	**<2.2**	ug/L	5.0	2.2	1		10/23/17 13:08	96-12-8	L1
1,2-Dibromoethane (EDB)	**<0.18**	ug/L	1.0	0.18	1		10/23/17 13:08	106-93-4	
1,2-Dichlorobenzene	**<0.50**	ug/L	1.0	0.50	1		10/23/17 13:08	95-50-1	
1,2-Dichloroethane	**<0.17**	ug/L	1.0	0.17	1		10/23/17 13:08	107-06-2	
1,2-Dichloropropane	**<0.23**	ug/L	1.0	0.23	1		10/23/17 13:08	78-87-5	
1,3-Dichlorobenzene	**<0.50**	ug/L	1.0	0.50	1		10/23/17 13:08	541-73-1	
1,4-Dichlorobenzene	**<0.50**	ug/L	1.0	0.50	1		10/23/17 13:08	106-46-7	
2-Butanone (MEK)	**<3.0**	ug/L	20.0	3.0	1		10/23/17 13:08	78-93-3	
Acetone	**<3.0**	ug/L	20.0	3.0	1		10/23/17 13:08	67-64-1	
Benzene	**<0.50**	ug/L	1.0	0.50	1		10/23/17 13:08	71-43-2	
Bromodichloromethane	**<0.50**	ug/L	1.0	0.50	1		10/23/17 13:08	75-27-4	
Bromoform	**<0.50**	ug/L	1.0	0.50	1		10/23/17 13:08	75-25-2	
Bromomethane	**<2.4**	ug/L	5.0	2.4	1		10/23/17 13:08	74-83-9	
Carbon disulfide	**<0.61**	ug/L	5.0	0.61	1		10/23/17 13:08	75-15-0	
Carbon tetrachloride	**<0.50**	ug/L	1.0	0.50	1		10/23/17 13:08	56-23-5	
Chlorobenzene	**<0.50**	ug/L	1.0	0.50	1		10/23/17 13:08	108-90-7	
Chloroethane	**<0.37**	ug/L	1.0	0.37	1		10/23/17 13:08	75-00-3	
Chloroform	**<2.5**	ug/L	5.0	2.5	1		10/23/17 13:08	67-66-3	
Chloromethane	**<0.50**	ug/L	1.0	0.50	1		10/23/17 13:08	74-87-3	
Dibromochloromethane	**<0.50**	ug/L	1.0	0.50	1		10/23/17 13:08	124-48-1	
Dibromomethane	**<0.43**	ug/L	1.0	0.43	1		10/23/17 13:08	74-95-3	
Dichlorodifluoromethane	**<0.22**	ug/L	1.0	0.22	1		10/23/17 13:08	75-71-8	
Ethylbenzene	**<0.50**	ug/L	1.0	0.50	1		10/23/17 13:08	100-41-4	
Methyl-tert-butyl ether	**<0.17**	ug/L	1.0	0.17	1		10/23/17 13:08	1634-04-4	
Methylene Chloride	**<0.23**	ug/L	1.0	0.23	1		10/23/17 13:08	75-09-2	
Naphthalene	**<2.5**	ug/L	5.0	2.5	1		10/23/17 13:08	91-20-3	
Styrene	**<0.50**	ug/L	1.0	0.50	1		10/23/17 13:08	100-42-5	
Tetrachloroethene	**<0.50**	ug/L	1.0	0.50	1		10/23/17 13:08	127-18-4	
Tetrahydrofuran	**<2.0**	ug/L	5.0	2.0	1		10/23/17 13:08	109-99-9	
Toluene	**<0.50**	ug/L	1.0	0.50	1		10/23/17 13:08	108-88-3	
Trichloroethene	**<0.33**	ug/L	1.0	0.33	1		10/23/17 13:08	79-01-6	
Trichlorofluoromethane	**<0.18**	ug/L	1.0	0.18	1		10/23/17 13:08	75-69-4	
Vinyl chloride	**<0.18**	ug/L	1.0	0.18	1		10/23/17 13:08	75-01-4	
Xylene (Total)	**<1.5**	ug/L	3.0	1.5	1		10/23/17 13:08	1330-20-7	
cis-1,2-Dichloroethene	**<0.26**	ug/L	1.0	0.26	1		10/23/17 13:08	156-59-2	
cis-1,3-Dichloropropene	**<0.50**	ug/L	1.0	0.50	1		10/23/17 13:08	10061-01-5	
trans-1,2-Dichloroethene	**<0.26**	ug/L	1.0	0.26	1		10/23/17 13:08	156-60-5	
trans-1,3-Dichloropropene	**<0.23**	ug/L	1.0	0.23	1		10/23/17 13:08	10061-02-6	
Surrogates									
4-Bromofluorobenzene (S)	87	%	61-130		1		10/23/17 13:08	460-00-4	
Dibromofluoromethane (S)	95	%	67-130		1		10/23/17 13:08	1868-53-7	
Toluene-d8 (S)	113	%	70-130		1		10/23/17 13:08	2037-26-5	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
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ANALYTICAL RESULTS

Project: 117-2202058.01 RIPON FF/ NN LA
Pace Project No.: 40159106

Sample: P-113B **Lab ID: 40159106007** Collected: 10/18/17 13:05 Received: 10/20/17 09:30 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		10/23/17 13:30	71-55-6	
1,1,2-Trichloroethane	**<0.20**	ug/L	1.0	0.20	1		10/23/17 13:30	79-00-5	
1,1-Dichloroethane	**<0.24**	ug/L	1.0	0.24	1		10/23/17 13:30	75-34-3	
1,1-Dichloroethene	**<0.41**	ug/L	1.0	0.41	1		10/23/17 13:30	75-35-4	
1,2-Dibromo-3-chloropropane	**<2.2**	ug/L	5.0	2.2	1		10/23/17 13:30	96-12-8	L1
1,2-Dibromoethane (EDB)	**<0.18**	ug/L	1.0	0.18	1		10/23/17 13:30	106-93-4	
1,2-Dichlorobenzene	**<0.50**	ug/L	1.0	0.50	1		10/23/17 13:30	95-50-1	
1,2-Dichloroethane	**<0.17**	ug/L	1.0	0.17	1		10/23/17 13:30	107-06-2	
1,2-Dichloropropane	**<0.23**	ug/L	1.0	0.23	1		10/23/17 13:30	78-87-5	
1,3-Dichlorobenzene	**<0.50**	ug/L	1.0	0.50	1		10/23/17 13:30	541-73-1	
1,4-Dichlorobenzene	**<0.50**	ug/L	1.0	0.50	1		10/23/17 13:30	106-46-7	
2-Butanone (MEK)	**<3.0**	ug/L	20.0	3.0	1		10/23/17 13:30	78-93-3	
Acetone	**<3.0**	ug/L	20.0	3.0	1		10/23/17 13:30	67-64-1	
Benzene	**<0.50**	ug/L	1.0	0.50	1		10/23/17 13:30	71-43-2	
Bromodichloromethane	**<0.50**	ug/L	1.0	0.50	1		10/23/17 13:30	75-27-4	
Bromoform	**<0.50**	ug/L	1.0	0.50	1		10/23/17 13:30	75-25-2	
Bromomethane	**<2.4**	ug/L	5.0	2.4	1		10/23/17 13:30	74-83-9	
Carbon disulfide	**<0.61**	ug/L	5.0	0.61	1		10/23/17 13:30	75-15-0	
Carbon tetrachloride	**<0.50**	ug/L	1.0	0.50	1		10/23/17 13:30	56-23-5	
Chlorobenzene	**<0.50**	ug/L	1.0	0.50	1		10/23/17 13:30	108-90-7	
Chloroethane	**<0.37**	ug/L	1.0	0.37	1		10/23/17 13:30	75-00-3	
Chloroform	**<2.5**	ug/L	5.0	2.5	1		10/23/17 13:30	67-66-3	
Chloromethane	**<0.50**	ug/L	1.0	0.50	1		10/23/17 13:30	74-87-3	
Dibromochloromethane	**<0.50**	ug/L	1.0	0.50	1		10/23/17 13:30	124-48-1	
Dibromomethane	**<0.43**	ug/L	1.0	0.43	1		10/23/17 13:30	74-95-3	
Dichlorodifluoromethane	**<0.22**	ug/L	1.0	0.22	1		10/23/17 13:30	75-71-8	
Ethylbenzene	**<0.50**	ug/L	1.0	0.50	1		10/23/17 13:30	100-41-4	
Methyl-tert-butyl ether	**<0.17**	ug/L	1.0	0.17	1		10/23/17 13:30	1634-04-4	
Methylene Chloride	**<0.23**	ug/L	1.0	0.23	1		10/23/17 13:30	75-09-2	
Naphthalene	**<2.5**	ug/L	5.0	2.5	1		10/23/17 13:30	91-20-3	
Styrene	**<0.50**	ug/L	1.0	0.50	1		10/23/17 13:30	100-42-5	
Tetrachloroethene	**<0.50**	ug/L	1.0	0.50	1		10/23/17 13:30	127-18-4	
Tetrahydrofuran	**<2.0**	ug/L	5.0	2.0	1		10/23/17 13:30	109-99-9	
Toluene	**<0.50**	ug/L	1.0	0.50	1		10/23/17 13:30	108-88-3	
Trichloroethene	**<0.33**	ug/L	1.0	0.33	1		10/23/17 13:30	79-01-6	
Trichlorofluoromethane	**<0.18**	ug/L	1.0	0.18	1		10/23/17 13:30	75-69-4	
Vinyl chloride	**<0.18**	ug/L	1.0	0.18	1		10/23/17 13:30	75-01-4	
Xylene (Total)	**<1.5**	ug/L	3.0	1.5	1		10/23/17 13:30	1330-20-7	
cis-1,2-Dichloroethene	**<0.26**	ug/L	1.0	0.26	1		10/23/17 13:30	156-59-2	
cis-1,3-Dichloropropene	**<0.50**	ug/L	1.0	0.50	1		10/23/17 13:30	10061-01-5	
trans-1,2-Dichloroethene	**<0.26**	ug/L	1.0	0.26	1		10/23/17 13:30	156-60-5	
trans-1,3-Dichloropropene	**<0.23**	ug/L	1.0	0.23	1		10/23/17 13:30	10061-02-6	
Surrogates									
4-Bromofluorobenzene (S)	92	%	61-130		1		10/23/17 13:30	460-00-4	
Dibromofluoromethane (S)	94	%	67-130		1		10/23/17 13:30	1868-53-7	
Toluene-d8 (S)	116	%	70-130		1		10/23/17 13:30	2037-26-5	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
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ANALYTICAL RESULTS

Project: 117-2202058.01 RIPON FF/ NN LA
Pace Project No.: 40159106

Sample: P-113A **Lab ID: 40159106008** Collected: 10/18/17 13:20 Received: 10/20/17 09:30 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		10/23/17 13:52	71-55-6	
1,1,2-Trichloroethane	**<0.20**	ug/L	1.0	0.20	1		10/23/17 13:52	79-00-5	
1,1-Dichloroethane	**<0.24**	ug/L	1.0	0.24	1		10/23/17 13:52	75-34-3	
1,1-Dichloroethene	**<0.41**	ug/L	1.0	0.41	1		10/23/17 13:52	75-35-4	
1,2-Dibromo-3-chloropropane	**<2.2**	ug/L	5.0	2.2	1		10/23/17 13:52	96-12-8	L1
1,2-Dibromoethane (EDB)	**<0.18**	ug/L	1.0	0.18	1		10/23/17 13:52	106-93-4	
1,2-Dichlorobenzene	**<0.50**	ug/L	1.0	0.50	1		10/23/17 13:52	95-50-1	
1,2-Dichloroethane	**<0.17**	ug/L	1.0	0.17	1		10/23/17 13:52	107-06-2	
1,2-Dichloropropane	**<0.23**	ug/L	1.0	0.23	1		10/23/17 13:52	78-87-5	
1,3-Dichlorobenzene	**<0.50**	ug/L	1.0	0.50	1		10/23/17 13:52	541-73-1	
1,4-Dichlorobenzene	**<0.50**	ug/L	1.0	0.50	1		10/23/17 13:52	106-46-7	
2-Butanone (MEK)	**<3.0**	ug/L	20.0	3.0	1		10/23/17 13:52	78-93-3	
Acetone	**<3.0**	ug/L	20.0	3.0	1		10/23/17 13:52	67-64-1	
Benzene	**<0.50**	ug/L	1.0	0.50	1		10/23/17 13:52	71-43-2	
Bromodichloromethane	**<0.50**	ug/L	1.0	0.50	1		10/23/17 13:52	75-27-4	
Bromoform	**<0.50**	ug/L	1.0	0.50	1		10/23/17 13:52	75-25-2	
Bromomethane	**<2.4**	ug/L	5.0	2.4	1		10/23/17 13:52	74-83-9	
Carbon disulfide	**<0.61**	ug/L	5.0	0.61	1		10/23/17 13:52	75-15-0	
Carbon tetrachloride	**<0.50**	ug/L	1.0	0.50	1		10/23/17 13:52	56-23-5	
Chlorobenzene	**<0.50**	ug/L	1.0	0.50	1		10/23/17 13:52	108-90-7	
Chloroethane	**<0.37**	ug/L	1.0	0.37	1		10/23/17 13:52	75-00-3	
Chloroform	**<2.5**	ug/L	5.0	2.5	1		10/23/17 13:52	67-66-3	
Chloromethane	**<0.50**	ug/L	1.0	0.50	1		10/23/17 13:52	74-87-3	
Dibromochloromethane	**<0.50**	ug/L	1.0	0.50	1		10/23/17 13:52	124-48-1	
Dibromomethane	**<0.43**	ug/L	1.0	0.43	1		10/23/17 13:52	74-95-3	
Dichlorodifluoromethane	**<0.22**	ug/L	1.0	0.22	1		10/23/17 13:52	75-71-8	
Ethylbenzene	**<0.50**	ug/L	1.0	0.50	1		10/23/17 13:52	100-41-4	
Methyl-tert-butyl ether	**<0.17**	ug/L	1.0	0.17	1		10/23/17 13:52	1634-04-4	
Methylene Chloride	**<0.23**	ug/L	1.0	0.23	1		10/23/17 13:52	75-09-2	
Naphthalene	**<2.5**	ug/L	5.0	2.5	1		10/23/17 13:52	91-20-3	
Styrene	**<0.50**	ug/L	1.0	0.50	1		10/23/17 13:52	100-42-5	
Tetrachloroethene	**<0.50**	ug/L	1.0	0.50	1		10/23/17 13:52	127-18-4	
Tetrahydrofuran	**<2.0**	ug/L	5.0	2.0	1		10/23/17 13:52	109-99-9	
Toluene	**<0.50**	ug/L	1.0	0.50	1		10/23/17 13:52	108-88-3	
Trichloroethene	**<0.33**	ug/L	1.0	0.33	1		10/23/17 13:52	79-01-6	
Trichlorofluoromethane	**<0.18**	ug/L	1.0	0.18	1		10/23/17 13:52	75-69-4	
Vinyl chloride	**<0.18**	ug/L	1.0	0.18	1		10/23/17 13:52	75-01-4	
Xylene (Total)	**<1.5**	ug/L	3.0	1.5	1		10/23/17 13:52	1330-20-7	
cis-1,2-Dichloroethene	**<0.26**	ug/L	1.0	0.26	1		10/23/17 13:52	156-59-2	
cis-1,3-Dichloropropene	**<0.50**	ug/L	1.0	0.50	1		10/23/17 13:52	10061-01-5	
trans-1,2-Dichloroethene	**<0.26**	ug/L	1.0	0.26	1		10/23/17 13:52	156-60-5	
trans-1,3-Dichloropropene	**<0.23**	ug/L	1.0	0.23	1		10/23/17 13:52	10061-02-6	
Surrogates									
4-Bromofluorobenzene (S)	90	%	61-130		1		10/23/17 13:52	460-00-4	
Dibromofluoromethane (S)	94	%	67-130		1		10/23/17 13:52	1868-53-7	
Toluene-d8 (S)	114	%	70-130		1		10/23/17 13:52	2037-26-5	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
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ANALYTICAL RESULTS

Project: 117-2202058.01 RIPON FF/ NN LA
Pace Project No.: 40159106

Sample: P-116 **Lab ID: 40159106009** Collected: 10/18/17 14:05 Received: 10/20/17 09:30 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		10/23/17 14:14	71-55-6	
1,1,2-Trichloroethane	**<0.20**	ug/L	1.0	0.20	1		10/23/17 14:14	79-00-5	
1,1-Dichloroethane	**<0.24**	ug/L	1.0	0.24	1		10/23/17 14:14	75-34-3	
1,1-Dichloroethene	**<0.41**	ug/L	1.0	0.41	1		10/23/17 14:14	75-35-4	
1,2-Dibromo-3-chloropropane	**<2.2**	ug/L	5.0	2.2	1		10/23/17 14:14	96-12-8	L1
1,2-Dibromoethane (EDB)	**<0.18**	ug/L	1.0	0.18	1		10/23/17 14:14	106-93-4	
1,2-Dichlorobenzene	**<0.50**	ug/L	1.0	0.50	1		10/23/17 14:14	95-50-1	
1,2-Dichloroethane	**<0.17**	ug/L	1.0	0.17	1		10/23/17 14:14	107-06-2	
1,2-Dichloropropane	**<0.23**	ug/L	1.0	0.23	1		10/23/17 14:14	78-87-5	
1,3-Dichlorobenzene	**<0.50**	ug/L	1.0	0.50	1		10/23/17 14:14	541-73-1	
1,4-Dichlorobenzene	**<0.50**	ug/L	1.0	0.50	1		10/23/17 14:14	106-46-7	
2-Butanone (MEK)	**<3.0**	ug/L	20.0	3.0	1		10/23/17 14:14	78-93-3	
Acetone	**<3.0**	ug/L	20.0	3.0	1		10/23/17 14:14	67-64-1	
Benzene	**<0.50**	ug/L	1.0	0.50	1		10/23/17 14:14	71-43-2	
Bromodichloromethane	**<0.50**	ug/L	1.0	0.50	1		10/23/17 14:14	75-27-4	
Bromoform	**<0.50**	ug/L	1.0	0.50	1		10/23/17 14:14	75-25-2	
Bromomethane	**<2.4**	ug/L	5.0	2.4	1		10/23/17 14:14	74-83-9	
Carbon disulfide	**<0.61**	ug/L	5.0	0.61	1		10/23/17 14:14	75-15-0	
Carbon tetrachloride	**<0.50**	ug/L	1.0	0.50	1		10/23/17 14:14	56-23-5	
Chlorobenzene	**<0.50**	ug/L	1.0	0.50	1		10/23/17 14:14	108-90-7	
Chloroethane	**<0.37**	ug/L	1.0	0.37	1		10/23/17 14:14	75-00-3	
Chloroform	**<2.5**	ug/L	5.0	2.5	1		10/23/17 14:14	67-66-3	
Chloromethane	**<0.50**	ug/L	1.0	0.50	1		10/23/17 14:14	74-87-3	
Dibromochloromethane	**<0.50**	ug/L	1.0	0.50	1		10/23/17 14:14	124-48-1	
Dibromomethane	**<0.43**	ug/L	1.0	0.43	1		10/23/17 14:14	74-95-3	
Dichlorodifluoromethane	**<0.22**	ug/L	1.0	0.22	1		10/23/17 14:14	75-71-8	
Ethylbenzene	**<0.50**	ug/L	1.0	0.50	1		10/23/17 14:14	100-41-4	
Methyl-tert-butyl ether	**<0.17**	ug/L	1.0	0.17	1		10/23/17 14:14	1634-04-4	
Methylene Chloride	**<0.23**	ug/L	1.0	0.23	1		10/23/17 14:14	75-09-2	
Naphthalene	**<2.5**	ug/L	5.0	2.5	1		10/23/17 14:14	91-20-3	
Styrene	**<0.50**	ug/L	1.0	0.50	1		10/23/17 14:14	100-42-5	
Tetrachloroethene	**<0.50**	ug/L	1.0	0.50	1		10/23/17 14:14	127-18-4	
Tetrahydrofuran	**<2.0**	ug/L	5.0	2.0	1		10/23/17 14:14	109-99-9	
Toluene	**<0.50**	ug/L	1.0	0.50	1		10/23/17 14:14	108-88-3	
Trichloroethene	**<0.33**	ug/L	1.0	0.33	1		10/23/17 14:14	79-01-6	
Trichlorofluoromethane	**<0.18**	ug/L	1.0	0.18	1		10/23/17 14:14	75-69-4	
Vinyl chloride	**<0.18**	ug/L	1.0	0.18	1		10/23/17 14:14	75-01-4	
Xylene (Total)	**<1.5**	ug/L	3.0	1.5	1		10/23/17 14:14	1330-20-7	
cis-1,2-Dichloroethene	**<0.26**	ug/L	1.0	0.26	1		10/23/17 14:14	156-59-2	
cis-1,3-Dichloropropene	**<0.50**	ug/L	1.0	0.50	1		10/23/17 14:14	10061-01-5	
trans-1,2-Dichloroethene	**<0.26**	ug/L	1.0	0.26	1		10/23/17 14:14	156-60-5	
trans-1,3-Dichloropropene	**<0.23**	ug/L	1.0	0.23	1		10/23/17 14:14	10061-02-6	
Surrogates									
4-Bromofluorobenzene (S)	92	%	61-130		1		10/23/17 14:14	460-00-4	
Dibromofluoromethane (S)	97	%	67-130		1		10/23/17 14:14	1868-53-7	
Toluene-d8 (S)	114	%	70-130		1		10/23/17 14:14	2037-26-5	

REPORT OF LABORATORY ANALYSIS

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

Project: 117-2202058.01 RIPON FF/ NN LA
Pace Project No.: 40159106

Sample: P-114 **Lab ID: 40159106010** Collected: 10/18/17 14:30 Received: 10/20/17 09:30 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		10/23/17 14:36	71-55-6	
1,1,2-Trichloroethane	**<0.20**	ug/L	1.0	0.20	1		10/23/17 14:36	79-00-5	
1,1-Dichloroethane	**<0.24**	ug/L	1.0	0.24	1		10/23/17 14:36	75-34-3	
1,1-Dichloroethene	**<0.41**	ug/L	1.0	0.41	1		10/23/17 14:36	75-35-4	
1,2-Dibromo-3-chloropropane	**<2.2**	ug/L	5.0	2.2	1		10/23/17 14:36	96-12-8	L1
1,2-Dibromoethane (EDB)	**<0.18**	ug/L	1.0	0.18	1		10/23/17 14:36	106-93-4	
1,2-Dichlorobenzene	**<0.50**	ug/L	1.0	0.50	1		10/23/17 14:36	95-50-1	
1,2-Dichloroethane	**<0.17**	ug/L	1.0	0.17	1		10/23/17 14:36	107-06-2	
1,2-Dichloropropane	**<0.23**	ug/L	1.0	0.23	1		10/23/17 14:36	78-87-5	
1,3-Dichlorobenzene	**<0.50**	ug/L	1.0	0.50	1		10/23/17 14:36	541-73-1	
1,4-Dichlorobenzene	**<0.50**	ug/L	1.0	0.50	1		10/23/17 14:36	106-46-7	
2-Butanone (MEK)	**<3.0**	ug/L	20.0	3.0	1		10/23/17 14:36	78-93-3	
Acetone	**<3.0**	ug/L	20.0	3.0	1		10/23/17 14:36	67-64-1	
Benzene	**<0.50**	ug/L	1.0	0.50	1		10/23/17 14:36	71-43-2	
Bromodichloromethane	**<0.50**	ug/L	1.0	0.50	1		10/23/17 14:36	75-27-4	
Bromoform	**<0.50**	ug/L	1.0	0.50	1		10/23/17 14:36	75-25-2	
Bromomethane	**<2.4**	ug/L	5.0	2.4	1		10/23/17 14:36	74-83-9	
Carbon disulfide	**<0.61**	ug/L	5.0	0.61	1		10/23/17 14:36	75-15-0	
Carbon tetrachloride	**<0.50**	ug/L	1.0	0.50	1		10/23/17 14:36	56-23-5	
Chlorobenzene	**<0.50**	ug/L	1.0	0.50	1		10/23/17 14:36	108-90-7	
Chloroethane	**<0.37**	ug/L	1.0	0.37	1		10/23/17 14:36	75-00-3	
Chloroform	**<2.5**	ug/L	5.0	2.5	1		10/23/17 14:36	67-66-3	
Chloromethane	**<0.50**	ug/L	1.0	0.50	1		10/23/17 14:36	74-87-3	
Dibromochloromethane	**<0.50**	ug/L	1.0	0.50	1		10/23/17 14:36	124-48-1	
Dibromomethane	**<0.43**	ug/L	1.0	0.43	1		10/23/17 14:36	74-95-3	
Dichlorodifluoromethane	**<0.22**	ug/L	1.0	0.22	1		10/23/17 14:36	75-71-8	
Ethylbenzene	**<0.50**	ug/L	1.0	0.50	1		10/23/17 14:36	100-41-4	
Methyl-tert-butyl ether	**<0.17**	ug/L	1.0	0.17	1		10/23/17 14:36	1634-04-4	
Methylene Chloride	**<0.23**	ug/L	1.0	0.23	1		10/23/17 14:36	75-09-2	
Naphthalene	**<2.5**	ug/L	5.0	2.5	1		10/23/17 14:36	91-20-3	
Styrene	**<0.50**	ug/L	1.0	0.50	1		10/23/17 14:36	100-42-5	
Tetrachloroethene	**<0.50**	ug/L	1.0	0.50	1		10/23/17 14:36	127-18-4	
Tetrahydrofuran	**<2.0**	ug/L	5.0	2.0	1		10/23/17 14:36	109-99-9	
Toluene	**<0.50**	ug/L	1.0	0.50	1		10/23/17 14:36	108-88-3	
Trichloroethene	**<0.33**	ug/L	1.0	0.33	1		10/23/17 14:36	79-01-6	
Trichlorofluoromethane	**<0.18**	ug/L	1.0	0.18	1		10/23/17 14:36	75-69-4	
Vinyl chloride	**7.6**	ug/L	1.0	0.18	1		10/23/17 14:36	75-01-4	
Xylene (Total)	**<1.5**	ug/L	3.0	1.5	1		10/23/17 14:36	1330-20-7	
cis-1,2-Dichloroethene	**1.1**	ug/L	1.0	0.26	1		10/23/17 14:36	156-59-2	
cis-1,3-Dichloropropene	**<0.50**	ug/L	1.0	0.50	1		10/23/17 14:36	10061-01-5	
trans-1,2-Dichloroethene	**<0.26**	ug/L	1.0	0.26	1		10/23/17 14:36	156-60-5	
trans-1,3-Dichloropropene	**<0.23**	ug/L	1.0	0.23	1		10/23/17 14:36	10061-02-6	
Surrogates									
4-Bromofluorobenzene (S)	92	%	61-130		1		10/23/17 14:36	460-00-4	
Dibromofluoromethane (S)	93	%	67-130		1		10/23/17 14:36	1868-53-7	
Toluene-d8 (S)	116	%	70-130		1		10/23/17 14:36	2037-26-5	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
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ANALYTICAL RESULTS

Project: 117-2202058.01 RIPON FF/ NN LA
Pace Project No.: 40159106

Sample: P-114 DUP **Lab ID: 40159106011** Collected: 10/18/17 14:35 Received: 10/20/17 09:30 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		10/23/17 11:17	71-55-6	
1,1,2-Trichloroethane	**<0.20**	ug/L	1.0	0.20	1		10/23/17 11:17	79-00-5	
1,1-Dichloroethane	**<0.24**	ug/L	1.0	0.24	1		10/23/17 11:17	75-34-3	
1,1-Dichloroethene	**<0.41**	ug/L	1.0	0.41	1		10/23/17 11:17	75-35-4	
1,2-Dibromo-3-chloropropane	**<2.2**	ug/L	5.0	2.2	1		10/23/17 11:17	96-12-8	L1
1,2-Dibromoethane (EDB)	**<0.18**	ug/L	1.0	0.18	1		10/23/17 11:17	106-93-4	
1,2-Dichlorobenzene	**<0.50**	ug/L	1.0	0.50	1		10/23/17 11:17	95-50-1	
1,2-Dichloroethane	**<0.17**	ug/L	1.0	0.17	1		10/23/17 11:17	107-06-2	
1,2-Dichloropropane	**<0.23**	ug/L	1.0	0.23	1		10/23/17 11:17	78-87-5	
1,3-Dichlorobenzene	**<0.50**	ug/L	1.0	0.50	1		10/23/17 11:17	541-73-1	
1,4-Dichlorobenzene	**<0.50**	ug/L	1.0	0.50	1		10/23/17 11:17	106-46-7	
2-Butanone (MEK)	**<3.0**	ug/L	20.0	3.0	1		10/23/17 11:17	78-93-3	
Acetone	**<3.0**	ug/L	20.0	3.0	1		10/23/17 11:17	67-64-1	
Benzene	**<0.50**	ug/L	1.0	0.50	1		10/23/17 11:17	71-43-2	
Bromodichloromethane	**<0.50**	ug/L	1.0	0.50	1		10/23/17 11:17	75-27-4	
Bromoform	**<0.50**	ug/L	1.0	0.50	1		10/23/17 11:17	75-25-2	
Bromomethane	**<2.4**	ug/L	5.0	2.4	1		10/23/17 11:17	74-83-9	
Carbon disulfide	**<0.61**	ug/L	5.0	0.61	1		10/23/17 11:17	75-15-0	
Carbon tetrachloride	**<0.50**	ug/L	1.0	0.50	1		10/23/17 11:17	56-23-5	
Chlorobenzene	**<0.50**	ug/L	1.0	0.50	1		10/23/17 11:17	108-90-7	
Chloroethane	**<0.37**	ug/L	1.0	0.37	1		10/23/17 11:17	75-00-3	
Chloroform	**<2.5**	ug/L	5.0	2.5	1		10/23/17 11:17	67-66-3	
Chloromethane	**<0.50**	ug/L	1.0	0.50	1		10/23/17 11:17	74-87-3	
Dibromochloromethane	**<0.50**	ug/L	1.0	0.50	1		10/23/17 11:17	124-48-1	
Dibromomethane	**<0.43**	ug/L	1.0	0.43	1		10/23/17 11:17	74-95-3	
Dichlorodifluoromethane	**<0.22**	ug/L	1.0	0.22	1		10/23/17 11:17	75-71-8	
Ethylbenzene	**<0.50**	ug/L	1.0	0.50	1		10/23/17 11:17	100-41-4	
Methyl-tert-butyl ether	**<0.17**	ug/L	1.0	0.17	1		10/23/17 11:17	1634-04-4	
Methylene Chloride	**<0.23**	ug/L	1.0	0.23	1		10/23/17 11:17	75-09-2	
Naphthalene	**<2.5**	ug/L	5.0	2.5	1		10/23/17 11:17	91-20-3	
Styrene	**<0.50**	ug/L	1.0	0.50	1		10/23/17 11:17	100-42-5	
Tetrachloroethene	**<0.50**	ug/L	1.0	0.50	1		10/23/17 11:17	127-18-4	
Tetrahydrofuran	**<2.0**	ug/L	5.0	2.0	1		10/23/17 11:17	109-99-9	
Toluene	**<0.50**	ug/L	1.0	0.50	1		10/23/17 11:17	108-88-3	
Trichloroethene	**<0.33**	ug/L	1.0	0.33	1		10/23/17 11:17	79-01-6	
Trichlorofluoromethane	**<0.18**	ug/L	1.0	0.18	1		10/23/17 11:17	75-69-4	
Vinyl chloride	**8.8**	ug/L	1.0	0.18	1		10/23/17 11:17	75-01-4	
Xylene (Total)	**<1.5**	ug/L	3.0	1.5	1		10/23/17 11:17	1330-20-7	
cis-1,2-Dichloroethene	**1.3**	ug/L	1.0	0.26	1		10/23/17 11:17	156-59-2	
cis-1,3-Dichloropropene	**<0.50**	ug/L	1.0	0.50	1		10/23/17 11:17	10061-01-5	
trans-1,2-Dichloroethene	**<0.26**	ug/L	1.0	0.26	1		10/23/17 11:17	156-60-5	
trans-1,3-Dichloropropene	**<0.23**	ug/L	1.0	0.23	1		10/23/17 11:17	10061-02-6	
Surrogates									
4-Bromofluorobenzene (S)	91	%	61-130		1		10/23/17 11:17	460-00-4	
Dibromofluoromethane (S)	91	%	67-130		1		10/23/17 11:17	1868-53-7	
Toluene-d8 (S)	117	%	70-130		1		10/23/17 11:17	2037-26-5	

REPORT OF LABORATORY ANALYSIS

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

Project: 117-2202058.01 RIPON FF/ NN LA
Pace Project No.: 40159106

Sample: P-115 **Lab ID: 40159106012** Collected: 10/18/17 15:05 Received: 10/20/17 09:30 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		10/23/17 14:58	71-55-6	
1,1,2-Trichloroethane	**<0.20**	ug/L	1.0	0.20	1		10/23/17 14:58	79-00-5	
1,1-Dichloroethane	**<0.24**	ug/L	1.0	0.24	1		10/23/17 14:58	75-34-3	
1,1-Dichloroethene	**<0.41**	ug/L	1.0	0.41	1		10/23/17 14:58	75-35-4	
1,2-Dibromo-3-chloropropane	**<2.2**	ug/L	5.0	2.2	1		10/23/17 14:58	96-12-8	L1
1,2-Dibromoethane (EDB)	**<0.18**	ug/L	1.0	0.18	1		10/23/17 14:58	106-93-4	
1,2-Dichlorobenzene	**<0.50**	ug/L	1.0	0.50	1		10/23/17 14:58	95-50-1	
1,2-Dichloroethane	**<0.17**	ug/L	1.0	0.17	1		10/23/17 14:58	107-06-2	
1,2-Dichloropropane	**<0.23**	ug/L	1.0	0.23	1		10/23/17 14:58	78-87-5	
1,3-Dichlorobenzene	**<0.50**	ug/L	1.0	0.50	1		10/23/17 14:58	541-73-1	
1,4-Dichlorobenzene	**<0.50**	ug/L	1.0	0.50	1		10/23/17 14:58	106-46-7	
2-Butanone (MEK)	**<3.0**	ug/L	20.0	3.0	1		10/23/17 14:58	78-93-3	
Acetone	**<3.0**	ug/L	20.0	3.0	1		10/23/17 14:58	67-64-1	
Benzene	**<0.50**	ug/L	1.0	0.50	1		10/23/17 14:58	71-43-2	
Bromodichloromethane	**<0.50**	ug/L	1.0	0.50	1		10/23/17 14:58	75-27-4	
Bromoform	**<0.50**	ug/L	1.0	0.50	1		10/23/17 14:58	75-25-2	
Bromomethane	**<2.4**	ug/L	5.0	2.4	1		10/23/17 14:58	74-83-9	
Carbon disulfide	**<0.61**	ug/L	5.0	0.61	1		10/23/17 14:58	75-15-0	
Carbon tetrachloride	**<0.50**	ug/L	1.0	0.50	1		10/23/17 14:58	56-23-5	
Chlorobenzene	**<0.50**	ug/L	1.0	0.50	1		10/23/17 14:58	108-90-7	
Chloroethane	**<0.37**	ug/L	1.0	0.37	1		10/23/17 14:58	75-00-3	
Chloroform	**<2.5**	ug/L	5.0	2.5	1		10/23/17 14:58	67-66-3	
Chloromethane	**<0.50**	ug/L	1.0	0.50	1		10/23/17 14:58	74-87-3	
Dibromochloromethane	**<0.50**	ug/L	1.0	0.50	1		10/23/17 14:58	124-48-1	
Dibromomethane	**<0.43**	ug/L	1.0	0.43	1		10/23/17 14:58	74-95-3	
Dichlorodifluoromethane	**<0.22**	ug/L	1.0	0.22	1		10/23/17 14:58	75-71-8	
Ethylbenzene	**<0.50**	ug/L	1.0	0.50	1		10/23/17 14:58	100-41-4	
Methyl-tert-butyl ether	**<0.17**	ug/L	1.0	0.17	1		10/23/17 14:58	1634-04-4	
Methylene Chloride	**<0.23**	ug/L	1.0	0.23	1		10/23/17 14:58	75-09-2	
Naphthalene	**<2.5**	ug/L	5.0	2.5	1		10/23/17 14:58	91-20-3	
Styrene	**<0.50**	ug/L	1.0	0.50	1		10/23/17 14:58	100-42-5	
Tetrachloroethene	**<0.50**	ug/L	1.0	0.50	1		10/23/17 14:58	127-18-4	
Tetrahydrofuran	**<2.0**	ug/L	5.0	2.0	1		10/23/17 14:58	109-99-9	
Toluene	**<0.50**	ug/L	1.0	0.50	1		10/23/17 14:58	108-88-3	
Trichloroethene	**<0.33**	ug/L	1.0	0.33	1		10/23/17 14:58	79-01-6	
Trichlorofluoromethane	**<0.18**	ug/L	1.0	0.18	1		10/23/17 14:58	75-69-4	
Vinyl chloride	**1.4**	ug/L	1.0	0.18	1		10/23/17 14:58	75-01-4	
Xylene (Total)	**<1.5**	ug/L	3.0	1.5	1		10/23/17 14:58	1330-20-7	
cis-1,2-Dichloroethene	**<0.26**	ug/L	1.0	0.26	1		10/23/17 14:58	156-59-2	
cis-1,3-Dichloropropene	**<0.50**	ug/L	1.0	0.50	1		10/23/17 14:58	10061-01-5	
trans-1,2-Dichloroethene	**<0.26**	ug/L	1.0	0.26	1		10/23/17 14:58	156-60-5	
trans-1,3-Dichloropropene	**<0.23**	ug/L	1.0	0.23	1		10/23/17 14:58	10061-02-6	
Surrogates									
4-Bromofluorobenzene (S)	89	%	61-130		1		10/23/17 14:58	460-00-4	
Dibromofluoromethane (S)	94	%	67-130		1		10/23/17 14:58	1868-53-7	
Toluene-d8 (S)	116	%	70-130		1		10/23/17 14:58	2037-26-5	

REPORT OF LABORATORY ANALYSIS

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

Project: 117-2202058.01 RIPON FF/ NN LA
Pace Project No.: 40159106

Sample: P-118 **Lab ID: 40159106013** Collected: 10/18/17 15:35 Received: 10/20/17 09:30 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		10/23/17 17:11	71-55-6	
1,1,2-Trichloroethane	**<0.20**	ug/L	1.0	0.20	1		10/23/17 17:11	79-00-5	
1,1-Dichloroethane	**<0.24**	ug/L	1.0	0.24	1		10/23/17 17:11	75-34-3	
1,1-Dichloroethene	**<0.41**	ug/L	1.0	0.41	1		10/23/17 17:11	75-35-4	
1,2-Dibromo-3-chloropropane	**<2.2**	ug/L	5.0	2.2	1		10/23/17 17:11	96-12-8	L1
1,2-Dibromoethane (EDB)	**<0.18**	ug/L	1.0	0.18	1		10/23/17 17:11	106-93-4	
1,2-Dichlorobenzene	**<0.50**	ug/L	1.0	0.50	1		10/23/17 17:11	95-50-1	
1,2-Dichloroethane	**<0.17**	ug/L	1.0	0.17	1		10/23/17 17:11	107-06-2	
1,2-Dichloropropane	**<0.23**	ug/L	1.0	0.23	1		10/23/17 17:11	78-87-5	
1,3-Dichlorobenzene	**<0.50**	ug/L	1.0	0.50	1		10/23/17 17:11	541-73-1	
1,4-Dichlorobenzene	**<0.50**	ug/L	1.0	0.50	1		10/23/17 17:11	106-46-7	
2-Butanone (MEK)	**<3.0**	ug/L	20.0	3.0	1		10/23/17 17:11	78-93-3	
Acetone	**<3.0**	ug/L	20.0	3.0	1		10/23/17 17:11	67-64-1	
Benzene	**<0.50**	ug/L	1.0	0.50	1		10/23/17 17:11	71-43-2	
Bromodichloromethane	**<0.50**	ug/L	1.0	0.50	1		10/23/17 17:11	75-27-4	
Bromoform	**<0.50**	ug/L	1.0	0.50	1		10/23/17 17:11	75-25-2	
Bromomethane	**<2.4**	ug/L	5.0	2.4	1		10/23/17 17:11	74-83-9	
Carbon disulfide	**<0.61**	ug/L	5.0	0.61	1		10/23/17 17:11	75-15-0	
Carbon tetrachloride	**<0.50**	ug/L	1.0	0.50	1		10/23/17 17:11	56-23-5	
Chlorobenzene	**<0.50**	ug/L	1.0	0.50	1		10/23/17 17:11	108-90-7	
Chloroethane	**<0.37**	ug/L	1.0	0.37	1		10/23/17 17:11	75-00-3	
Chloroform	**<2.5**	ug/L	5.0	2.5	1		10/23/17 17:11	67-66-3	
Chloromethane	**<0.50**	ug/L	1.0	0.50	1		10/23/17 17:11	74-87-3	
Dibromochloromethane	**<0.50**	ug/L	1.0	0.50	1		10/23/17 17:11	124-48-1	
Dibromomethane	**<0.43**	ug/L	1.0	0.43	1		10/23/17 17:11	74-95-3	
Dichlorodifluoromethane	**<0.22**	ug/L	1.0	0.22	1		10/23/17 17:11	75-71-8	
Ethylbenzene	**<0.50**	ug/L	1.0	0.50	1		10/23/17 17:11	100-41-4	
Methyl-tert-butyl ether	**<0.17**	ug/L	1.0	0.17	1		10/23/17 17:11	1634-04-4	
Methylene Chloride	**<0.23**	ug/L	1.0	0.23	1		10/23/17 17:11	75-09-2	
Naphthalene	**<2.5**	ug/L	5.0	2.5	1		10/23/17 17:11	91-20-3	
Styrene	**<0.50**	ug/L	1.0	0.50	1		10/23/17 17:11	100-42-5	
Tetrachloroethene	**<0.50**	ug/L	1.0	0.50	1		10/23/17 17:11	127-18-4	
Tetrahydrofuran	**<2.0**	ug/L	5.0	2.0	1		10/23/17 17:11	109-99-9	
Toluene	**<0.50**	ug/L	1.0	0.50	1		10/23/17 17:11	108-88-3	
Trichloroethene	**<0.33**	ug/L	1.0	0.33	1		10/23/17 17:11	79-01-6	
Trichlorofluoromethane	**<0.18**	ug/L	1.0	0.18	1		10/23/17 17:11	75-69-4	
Vinyl chloride	**<0.18**	ug/L	1.0	0.18	1		10/23/17 17:11	75-01-4	
Xylene (Total)	**<1.5**	ug/L	3.0	1.5	1		10/23/17 17:11	1330-20-7	
cis-1,2-Dichloroethene	**<0.26**	ug/L	1.0	0.26	1		10/23/17 17:11	156-59-2	
cis-1,3-Dichloropropene	**<0.50**	ug/L	1.0	0.50	1		10/23/17 17:11	10061-01-5	
trans-1,2-Dichloroethene	**<0.26**	ug/L	1.0	0.26	1		10/23/17 17:11	156-60-5	
trans-1,3-Dichloropropene	**<0.23**	ug/L	1.0	0.23	1		10/23/17 17:11	10061-02-6	
Surrogates									
4-Bromofluorobenzene (S)	89	%	61-130		1		10/23/17 17:11	460-00-4	
Dibromofluoromethane (S)	94	%	67-130		1		10/23/17 17:11	1868-53-7	
Toluene-d8 (S)	112	%	70-130		1		10/23/17 17:11	2037-26-5	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
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ANALYTICAL RESULTS

Project: 117-2202058.01 RIPON FF/ NN LA
Pace Project No.: 40159106

Sample: P-117 **Lab ID: 40159106014** Collected: 10/18/17 16:05 Received: 10/20/17 09:30 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		10/23/17 17:33	71-55-6	
1,1,2-Trichloroethane	**<0.20**	ug/L	1.0	0.20	1		10/23/17 17:33	79-00-5	
1,1-Dichloroethane	**<0.24**	ug/L	1.0	0.24	1		10/23/17 17:33	75-34-3	
1,1-Dichloroethene	**<0.41**	ug/L	1.0	0.41	1		10/23/17 17:33	75-35-4	
1,2-Dibromo-3-chloropropane	**<2.2**	ug/L	5.0	2.2	1		10/23/17 17:33	96-12-8	L1
1,2-Dibromoethane (EDB)	**<0.18**	ug/L	1.0	0.18	1		10/23/17 17:33	106-93-4	
1,2-Dichlorobenzene	**<0.50**	ug/L	1.0	0.50	1		10/23/17 17:33	95-50-1	
1,2-Dichloroethane	**<0.17**	ug/L	1.0	0.17	1		10/23/17 17:33	107-06-2	
1,2-Dichloropropane	**<0.23**	ug/L	1.0	0.23	1		10/23/17 17:33	78-87-5	
1,3-Dichlorobenzene	**<0.50**	ug/L	1.0	0.50	1		10/23/17 17:33	541-73-1	
1,4-Dichlorobenzene	**<0.50**	ug/L	1.0	0.50	1		10/23/17 17:33	106-46-7	
2-Butanone (MEK)	**<3.0**	ug/L	20.0	3.0	1		10/23/17 17:33	78-93-3	
Acetone	**<3.0**	ug/L	20.0	3.0	1		10/23/17 17:33	67-64-1	
Benzene	**<0.50**	ug/L	1.0	0.50	1		10/23/17 17:33	71-43-2	
Bromodichloromethane	**<0.50**	ug/L	1.0	0.50	1		10/23/17 17:33	75-27-4	
Bromoform	**<0.50**	ug/L	1.0	0.50	1		10/23/17 17:33	75-25-2	
Bromomethane	**<2.4**	ug/L	5.0	2.4	1		10/23/17 17:33	74-83-9	
Carbon disulfide	**<0.61**	ug/L	5.0	0.61	1		10/23/17 17:33	75-15-0	
Carbon tetrachloride	**<0.50**	ug/L	1.0	0.50	1		10/23/17 17:33	56-23-5	
Chlorobenzene	**<0.50**	ug/L	1.0	0.50	1		10/23/17 17:33	108-90-7	
Chloroethane	**<0.37**	ug/L	1.0	0.37	1		10/23/17 17:33	75-00-3	
Chloroform	**<2.5**	ug/L	5.0	2.5	1		10/23/17 17:33	67-66-3	
Chloromethane	**<0.50**	ug/L	1.0	0.50	1		10/23/17 17:33	74-87-3	
Dibromochloromethane	**<0.50**	ug/L	1.0	0.50	1		10/23/17 17:33	124-48-1	
Dibromomethane	**<0.43**	ug/L	1.0	0.43	1		10/23/17 17:33	74-95-3	
Dichlorodifluoromethane	**<0.22**	ug/L	1.0	0.22	1		10/23/17 17:33	75-71-8	
Ethylbenzene	**<0.50**	ug/L	1.0	0.50	1		10/23/17 17:33	100-41-4	
Methyl-tert-butyl ether	**<0.17**	ug/L	1.0	0.17	1		10/23/17 17:33	1634-04-4	
Methylene Chloride	**<0.23**	ug/L	1.0	0.23	1		10/23/17 17:33	75-09-2	
Naphthalene	**<2.5**	ug/L	5.0	2.5	1		10/23/17 17:33	91-20-3	
Styrene	**<0.50**	ug/L	1.0	0.50	1		10/23/17 17:33	100-42-5	
Tetrachloroethene	**<0.50**	ug/L	1.0	0.50	1		10/23/17 17:33	127-18-4	
Tetrahydrofuran	**<2.0**	ug/L	5.0	2.0	1		10/23/17 17:33	109-99-9	
Toluene	**<0.50**	ug/L	1.0	0.50	1		10/23/17 17:33	108-88-3	
Trichloroethene	**<0.33**	ug/L	1.0	0.33	1		10/23/17 17:33	79-01-6	
Trichlorofluoromethane	**<0.18**	ug/L	1.0	0.18	1		10/23/17 17:33	75-69-4	
Vinyl chloride	**1.4**	ug/L	1.0	0.18	1		10/23/17 17:33	75-01-4	
Xylene (Total)	**<1.5**	ug/L	3.0	1.5	1		10/23/17 17:33	1330-20-7	
cis-1,2-Dichloroethene	**0.79J**	ug/L	1.0	0.26	1		10/23/17 17:33	156-59-2	
cis-1,3-Dichloropropene	**<0.50**	ug/L	1.0	0.50	1		10/23/17 17:33	10061-01-5	
trans-1,2-Dichloroethene	**<0.26**	ug/L	1.0	0.26	1		10/23/17 17:33	156-60-5	
trans-1,3-Dichloropropene	**<0.23**	ug/L	1.0	0.23	1		10/23/17 17:33	10061-02-6	
Surrogates									
4-Bromofluorobenzene (S)	89	%	61-130		1		10/23/17 17:33	460-00-4	
Dibromofluoromethane (S)	98	%	67-130		1		10/23/17 17:33	1868-53-7	
Toluene-d8 (S)	114	%	70-130		1		10/23/17 17:33	2037-26-5	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
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ANALYTICAL RESULTS

Project: 117-2202058.01 RIPON FF/ NN LA
Pace Project No.: 40159106

Sample: MW-103 **Lab ID: 40159106015** Collected: 10/18/17 16:25 Received: 10/20/17 09:30 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		10/23/17 15:20	71-55-6	
1,1,2-Trichloroethane	**<0.20**	ug/L	1.0	0.20	1		10/23/17 15:20	79-00-5	
1,1-Dichloroethane	**<0.24**	ug/L	1.0	0.24	1		10/23/17 15:20	75-34-3	
1,1-Dichloroethene	**<0.41**	ug/L	1.0	0.41	1		10/23/17 15:20	75-35-4	
1,2-Dibromo-3-chloropropane	**<2.2**	ug/L	5.0	2.2	1		10/23/17 15:20	96-12-8	L1
1,2-Dibromoethane (EDB)	**<0.18**	ug/L	1.0	0.18	1		10/23/17 15:20	106-93-4	
1,2-Dichlorobenzene	**<0.50**	ug/L	1.0	0.50	1		10/23/17 15:20	95-50-1	
1,2-Dichloroethane	**<0.17**	ug/L	1.0	0.17	1		10/23/17 15:20	107-06-2	
1,2-Dichloropropane	**<0.23**	ug/L	1.0	0.23	1		10/23/17 15:20	78-87-5	
1,3-Dichlorobenzene	**<0.50**	ug/L	1.0	0.50	1		10/23/17 15:20	541-73-1	
1,4-Dichlorobenzene	**<0.50**	ug/L	1.0	0.50	1		10/23/17 15:20	106-46-7	
2-Butanone (MEK)	**<3.0**	ug/L	20.0	3.0	1		10/23/17 15:20	78-93-3	
Acetone	**<3.0**	ug/L	20.0	3.0	1		10/23/17 15:20	67-64-1	
Benzene	**<0.50**	ug/L	1.0	0.50	1		10/23/17 15:20	71-43-2	
Bromodichloromethane	**<0.50**	ug/L	1.0	0.50	1		10/23/17 15:20	75-27-4	
Bromoform	**<0.50**	ug/L	1.0	0.50	1		10/23/17 15:20	75-25-2	
Bromomethane	**<2.4**	ug/L	5.0	2.4	1		10/23/17 15:20	74-83-9	
Carbon disulfide	**<0.61**	ug/L	5.0	0.61	1		10/23/17 15:20	75-15-0	
Carbon tetrachloride	**<0.50**	ug/L	1.0	0.50	1		10/23/17 15:20	56-23-5	
Chlorobenzene	**<0.50**	ug/L	1.0	0.50	1		10/23/17 15:20	108-90-7	
Chloroethane	**<0.37**	ug/L	1.0	0.37	1		10/23/17 15:20	75-00-3	
Chloroform	**<2.5**	ug/L	5.0	2.5	1		10/23/17 15:20	67-66-3	
Chloromethane	**<0.50**	ug/L	1.0	0.50	1		10/23/17 15:20	74-87-3	
Dibromochloromethane	**<0.50**	ug/L	1.0	0.50	1		10/23/17 15:20	124-48-1	
Dibromomethane	**<0.43**	ug/L	1.0	0.43	1		10/23/17 15:20	74-95-3	
Dichlorodifluoromethane	**<0.22**	ug/L	1.0	0.22	1		10/23/17 15:20	75-71-8	
Ethylbenzene	**<0.50**	ug/L	1.0	0.50	1		10/23/17 15:20	100-41-4	
Methyl-tert-butyl ether	**<0.17**	ug/L	1.0	0.17	1		10/23/17 15:20	1634-04-4	
Methylene Chloride	**<0.23**	ug/L	1.0	0.23	1		10/23/17 15:20	75-09-2	
Naphthalene	**<2.5**	ug/L	5.0	2.5	1		10/23/17 15:20	91-20-3	
Styrene	**<0.50**	ug/L	1.0	0.50	1		10/23/17 15:20	100-42-5	
Tetrachloroethene	**<0.50**	ug/L	1.0	0.50	1		10/23/17 15:20	127-18-4	
Tetrahydrofuran	**<2.0**	ug/L	5.0	2.0	1		10/23/17 15:20	109-99-9	
Toluene	**<0.50**	ug/L	1.0	0.50	1		10/23/17 15:20	108-88-3	
Trichloroethene	**1.7**	ug/L	1.0	0.33	1		10/23/17 15:20	79-01-6	
Trichlorofluoromethane	**<0.18**	ug/L	1.0	0.18	1		10/23/17 15:20	75-69-4	
Vinyl chloride	**<0.18**	ug/L	1.0	0.18	1		10/23/17 15:20	75-01-4	
Xylene (Total)	**<1.5**	ug/L	3.0	1.5	1		10/23/17 15:20	1330-20-7	
cis-1,2-Dichloroethene	**0.33J**	ug/L	1.0	0.26	1		10/23/17 15:20	156-59-2	
cis-1,3-Dichloropropene	**<0.50**	ug/L	1.0	0.50	1		10/23/17 15:20	10061-01-5	
trans-1,2-Dichloroethene	**<0.26**	ug/L	1.0	0.26	1		10/23/17 15:20	156-60-5	
trans-1,3-Dichloropropene	**<0.23**	ug/L	1.0	0.23	1		10/23/17 15:20	10061-02-6	
Surrogates									
4-Bromofluorobenzene (S)	87	%	61-130		1		10/23/17 15:20	460-00-4	
Dibromofluoromethane (S)	94	%	67-130		1		10/23/17 15:20	1868-53-7	
Toluene-d8 (S)	114	%	70-130		1		10/23/17 15:20	2037-26-5	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
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ANALYTICAL RESULTS

Project: 117-2202058.01 RIPON FF/ NN LA
Pace Project No.: 40159106

Sample: MW-112 **Lab ID: 40159106016** Collected: 10/18/17 16:45 Received: 10/20/17 09:30 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		10/23/17 15:42	71-55-6	
1,1,2-Trichloroethane	**<0.20**	ug/L	1.0	0.20	1		10/23/17 15:42	79-00-5	
1,1-Dichloroethane	**<0.24**	ug/L	1.0	0.24	1		10/23/17 15:42	75-34-3	
1,1-Dichloroethene	**<0.41**	ug/L	1.0	0.41	1		10/23/17 15:42	75-35-4	
1,2-Dibromo-3-chloropropane	**<2.2**	ug/L	5.0	2.2	1		10/23/17 15:42	96-12-8	L1
1,2-Dibromoethane (EDB)	**<0.18**	ug/L	1.0	0.18	1		10/23/17 15:42	106-93-4	
1,2-Dichlorobenzene	**<0.50**	ug/L	1.0	0.50	1		10/23/17 15:42	95-50-1	
1,2-Dichloroethane	**<0.17**	ug/L	1.0	0.17	1		10/23/17 15:42	107-06-2	
1,2-Dichloropropane	**<0.23**	ug/L	1.0	0.23	1		10/23/17 15:42	78-87-5	
1,3-Dichlorobenzene	**<0.50**	ug/L	1.0	0.50	1		10/23/17 15:42	541-73-1	
1,4-Dichlorobenzene	**<0.50**	ug/L	1.0	0.50	1		10/23/17 15:42	106-46-7	
2-Butanone (MEK)	**<3.0**	ug/L	20.0	3.0	1		10/23/17 15:42	78-93-3	
Acetone	**<3.0**	ug/L	20.0	3.0	1		10/23/17 15:42	67-64-1	
Benzene	**<0.50**	ug/L	1.0	0.50	1		10/23/17 15:42	71-43-2	
Bromodichloromethane	**<0.50**	ug/L	1.0	0.50	1		10/23/17 15:42	75-27-4	
Bromoform	**<0.50**	ug/L	1.0	0.50	1		10/23/17 15:42	75-25-2	
Bromomethane	**<2.4**	ug/L	5.0	2.4	1		10/23/17 15:42	74-83-9	
Carbon disulfide	**<0.61**	ug/L	5.0	0.61	1		10/23/17 15:42	75-15-0	
Carbon tetrachloride	**<0.50**	ug/L	1.0	0.50	1		10/23/17 15:42	56-23-5	
Chlorobenzene	**<0.50**	ug/L	1.0	0.50	1		10/23/17 15:42	108-90-7	
Chloroethane	**<0.37**	ug/L	1.0	0.37	1		10/23/17 15:42	75-00-3	
Chloroform	**<2.5**	ug/L	5.0	2.5	1		10/23/17 15:42	67-66-3	
Chloromethane	**<0.50**	ug/L	1.0	0.50	1		10/23/17 15:42	74-87-3	
Dibromochloromethane	**<0.50**	ug/L	1.0	0.50	1		10/23/17 15:42	124-48-1	
Dibromomethane	**<0.43**	ug/L	1.0	0.43	1		10/23/17 15:42	74-95-3	
Dichlorodifluoromethane	**<0.22**	ug/L	1.0	0.22	1		10/23/17 15:42	75-71-8	
Ethylbenzene	**<0.50**	ug/L	1.0	0.50	1		10/23/17 15:42	100-41-4	
Methyl-tert-butyl ether	**<0.17**	ug/L	1.0	0.17	1		10/23/17 15:42	1634-04-4	
Methylene Chloride	**<0.23**	ug/L	1.0	0.23	1		10/23/17 15:42	75-09-2	
Naphthalene	**<2.5**	ug/L	5.0	2.5	1		10/23/17 15:42	91-20-3	
Styrene	**<0.50**	ug/L	1.0	0.50	1		10/23/17 15:42	100-42-5	
Tetrachloroethene	**<0.50**	ug/L	1.0	0.50	1		10/23/17 15:42	127-18-4	
Tetrahydrofuran	**<2.0**	ug/L	5.0	2.0	1		10/23/17 15:42	109-99-9	
Toluene	**<0.50**	ug/L	1.0	0.50	1		10/23/17 15:42	108-88-3	
Trichloroethene	**<0.33**	ug/L	1.0	0.33	1		10/23/17 15:42	79-01-6	
Trichlorofluoromethane	**<0.18**	ug/L	1.0	0.18	1		10/23/17 15:42	75-69-4	
Vinyl chloride	**<0.18**	ug/L	1.0	0.18	1		10/23/17 15:42	75-01-4	
Xylene (Total)	**<1.5**	ug/L	3.0	1.5	1		10/23/17 15:42	1330-20-7	
cis-1,2-Dichloroethene	**<0.26**	ug/L	1.0	0.26	1		10/23/17 15:42	156-59-2	
cis-1,3-Dichloropropene	**<0.50**	ug/L	1.0	0.50	1		10/23/17 15:42	10061-01-5	
trans-1,2-Dichloroethene	**<0.26**	ug/L	1.0	0.26	1		10/23/17 15:42	156-60-5	
trans-1,3-Dichloropropene	**<0.23**	ug/L	1.0	0.23	1		10/23/17 15:42	10061-02-6	
Surrogates									
4-Bromofluorobenzene (S)	88	%	61-130		1		10/23/17 15:42	460-00-4	
Dibromofluoromethane (S)	93	%	67-130		1		10/23/17 15:42	1868-53-7	
Toluene-d8 (S)	113	%	70-130		1		10/23/17 15:42	2037-26-5	

REPORT OF LABORATORY ANALYSIS

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

ANALYTICAL RESULTS

Project: 117-2202058.01 RIPON FF/ NN LA
Pace Project No.: 40159106

Sample: TRIP BLANK **Lab ID: 40159106017** Collected: 10/18/17 00:00 Received: 10/20/17 09:30 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		10/23/17 17:55	71-55-6	
1,1,2-Trichloroethane	**<0.20**	ug/L	1.0	0.20	1		10/23/17 17:55	79-00-5	
1,1-Dichloroethane	**<0.24**	ug/L	1.0	0.24	1		10/23/17 17:55	75-34-3	
1,1-Dichloroethene	**<0.41**	ug/L	1.0	0.41	1		10/23/17 17:55	75-35-4	
1,2-Dibromo-3-chloropropane	**<2.2**	ug/L	5.0	2.2	1		10/23/17 17:55	96-12-8	L1
1,2-Dibromoethane (EDB)	**<0.18**	ug/L	1.0	0.18	1		10/23/17 17:55	106-93-4	
1,2-Dichlorobenzene	**<0.50**	ug/L	1.0	0.50	1		10/23/17 17:55	95-50-1	
1,2-Dichloroethane	**<0.17**	ug/L	1.0	0.17	1		10/23/17 17:55	107-06-2	
1,2-Dichloropropane	**<0.23**	ug/L	1.0	0.23	1		10/23/17 17:55	78-87-5	
1,3-Dichlorobenzene	**<0.50**	ug/L	1.0	0.50	1		10/23/17 17:55	541-73-1	
1,4-Dichlorobenzene	**<0.50**	ug/L	1.0	0.50	1		10/23/17 17:55	106-46-7	
2-Butanone (MEK)	**<3.0**	ug/L	20.0	3.0	1		10/23/17 17:55	78-93-3	
Acetone	**<3.0**	ug/L	20.0	3.0	1		10/23/17 17:55	67-64-1	
Benzene	**<0.50**	ug/L	1.0	0.50	1		10/23/17 17:55	71-43-2	
Bromodichloromethane	**<0.50**	ug/L	1.0	0.50	1		10/23/17 17:55	75-27-4	
Bromoform	**<0.50**	ug/L	1.0	0.50	1		10/23/17 17:55	75-25-2	
Bromomethane	**<2.4**	ug/L	5.0	2.4	1		10/23/17 17:55	74-83-9	
Carbon disulfide	**<0.61**	ug/L	5.0	0.61	1		10/23/17 17:55	75-15-0	
Carbon tetrachloride	**<0.50**	ug/L	1.0	0.50	1		10/23/17 17:55	56-23-5	
Chlorobenzene	**<0.50**	ug/L	1.0	0.50	1		10/23/17 17:55	108-90-7	
Chloroethane	**<0.37**	ug/L	1.0	0.37	1		10/23/17 17:55	75-00-3	
Chloroform	**<2.5**	ug/L	5.0	2.5	1		10/23/17 17:55	67-66-3	
Chloromethane	**<0.50**	ug/L	1.0	0.50	1		10/23/17 17:55	74-87-3	
Dibromochloromethane	**<0.50**	ug/L	1.0	0.50	1		10/23/17 17:55	124-48-1	
Dibromomethane	**<0.43**	ug/L	1.0	0.43	1		10/23/17 17:55	74-95-3	
Dichlorodifluoromethane	**<0.22**	ug/L	1.0	0.22	1		10/23/17 17:55	75-71-8	
Ethylbenzene	**<0.50**	ug/L	1.0	0.50	1		10/23/17 17:55	100-41-4	
Methyl-tert-butyl ether	**<0.17**	ug/L	1.0	0.17	1		10/23/17 17:55	1634-04-4	
Methylene Chloride	**<0.23**	ug/L	1.0	0.23	1		10/23/17 17:55	75-09-2	
Naphthalene	**<2.5**	ug/L	5.0	2.5	1		10/23/17 17:55	91-20-3	
Styrene	**<0.50**	ug/L	1.0	0.50	1		10/23/17 17:55	100-42-5	
Tetrachloroethene	**<0.50**	ug/L	1.0	0.50	1		10/23/17 17:55	127-18-4	
Tetrahydrofuran	**<2.0**	ug/L	5.0	2.0	1		10/23/17 17:55	109-99-9	
Toluene	**<0.50**	ug/L	1.0	0.50	1		10/23/17 17:55	108-88-3	
Trichloroethene	**<0.33**	ug/L	1.0	0.33	1		10/23/17 17:55	79-01-6	
Trichlorofluoromethane	**<0.18**	ug/L	1.0	0.18	1		10/23/17 17:55	75-69-4	
Vinyl chloride	**<0.18**	ug/L	1.0	0.18	1		10/23/17 17:55	75-01-4	
Xylene (Total)	**<1.5**	ug/L	3.0	1.5	1		10/23/17 17:55	1330-20-7	
cis-1,2-Dichloroethene	**<0.26**	ug/L	1.0	0.26	1		10/23/17 17:55	156-59-2	
cis-1,3-Dichloropropene	**<0.50**	ug/L	1.0	0.50	1		10/23/17 17:55	10061-01-5	
trans-1,2-Dichloroethene	**<0.26**	ug/L	1.0	0.26	1		10/23/17 17:55	156-60-5	
trans-1,3-Dichloropropene	**<0.23**	ug/L	1.0	0.23	1		10/23/17 17:55	10061-02-6	
Surrogates									
4-Bromofluorobenzene (S)	91	%	61-130		1		10/23/17 17:55	460-00-4	
Dibromofluoromethane (S)	98	%	67-130		1		10/23/17 17:55	1868-53-7	
Toluene-d8 (S)	114	%	70-130		1		10/23/17 17:55	2037-26-5	

REPORT OF LABORATORY ANALYSIS

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 LA
Pace Project No.: 40159106

QC Batch: 271410 Analysis Method: EPA 8260
QC Batch Method: EPA 8260 Analysis Description: 8260 MSV
Associated Lab Samples: 40159106001, 40159106002, 40159106003, 40159106004, 40159106005, 40159106006, 40159106007, 40159106008, 40159106009, 40159106010, 40159106011, 40159106012, 40159106013, 40159106014, 40159106015, 40159106016, 40159106017

METHOD BLANK: 1596367 Matrix: Water
Associated Lab Samples: 40159106001, 40159106002, 40159106003, 40159106004, 40159106005, 40159106006, 40159106007, 40159106008, 40159106009, 40159106010, 40159106011, 40159106012, 40159106013, 40159106014, 40159106015, 40159106016, 40159106017

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
1,1,1-Trichloroethane	ug/L	<0.50	1.0	10/23/17 09:27	
1,1,2-Trichloroethane	ug/L	<0.20	1.0	10/23/17 09:27	
1,1-Dichloroethane	ug/L	<0.24	1.0	10/23/17 09:27	
1,1-Dichloroethene	ug/L	<0.41	1.0	10/23/17 09:27	
1,2-Dibromo-3-chloropropane	ug/L	<2.2	5.0	10/23/17 09:27	
1,2-Dibromoethane (EDB)	ug/L	<0.18	1.0	10/23/17 09:27	
1,2-Dichlorobenzene	ug/L	<0.50	1.0	10/23/17 09:27	
1,2-Dichloroethane	ug/L	<0.17	1.0	10/23/17 09:27	
1,2-Dichloropropane	ug/L	<0.23	1.0	10/23/17 09:27	
1,3-Dichlorobenzene	ug/L	<0.50	1.0	10/23/17 09:27	
1,4-Dichlorobenzene	ug/L	<0.50	1.0	10/23/17 09:27	
2-Butanone (MEK)	ug/L	<3.0	20.0	10/23/17 09:27	
Acetone	ug/L	<3.0	20.0	10/23/17 09:27	
Benzene	ug/L	<0.50	1.0	10/23/17 09:27	
Bromodichloromethane	ug/L	<0.50	1.0	10/23/17 09:27	
Bromoform	ug/L	<0.50	1.0	10/23/17 09:27	
Bromomethane	ug/L	<2.4	5.0	10/23/17 09:27	
Carbon disulfide	ug/L	<0.61	5.0	10/23/17 09:27	
Carbon tetrachloride	ug/L	<0.50	1.0	10/23/17 09:27	
Chlorobenzene	ug/L	<0.50	1.0	10/23/17 09:27	
Chloroethane	ug/L	<0.37	1.0	10/23/17 09:27	
Chloroform	ug/L	<2.5	5.0	10/23/17 09:27	
Chloromethane	ug/L	<0.50	1.0	10/23/17 09:27	
cis-1,2-Dichloroethene	ug/L	<0.26	1.0	10/23/17 09:27	
cis-1,3-Dichloropropene	ug/L	<0.50	1.0	10/23/17 09:27	
Dibromochloromethane	ug/L	<0.50	1.0	10/23/17 09:27	
Dibromomethane	ug/L	<0.43	1.0	10/23/17 09:27	
Dichlorodifluoromethane	ug/L	<0.22	1.0	10/23/17 09:27	
Ethylbenzene	ug/L	<0.50	1.0	10/23/17 09:27	
Methyl-tert-butyl ether	ug/L	<0.17	1.0	10/23/17 09:27	
Methylene Chloride	ug/L	<0.23	1.0	10/23/17 09:27	
Naphthalene	ug/L	<2.5	5.0	10/23/17 09:27	
Styrene	ug/L	<0.50	1.0	10/23/17 09:27	
Tetrachloroethene	ug/L	<0.50	1.0	10/23/17 09:27	
Tetrahydrofuran	ug/L	<2.0	5.0	10/23/17 09:27	
Toluene	ug/L	<0.50	1.0	10/23/17 09:27	
trans-1,2-Dichloroethene	ug/L	<0.26	1.0	10/23/17 09:27	
trans-1,3-Dichloropropene	ug/L	<0.23	1.0	10/23/17 09:27	

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

REPORT OF LABORATORY ANALYSIS

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 LA
Pace Project No.: 40159106

METHOD BLANK: 1596367 Matrix: Water

Associated Lab Samples: 40159106001, 40159106002, 40159106003, 40159106004, 40159106005, 40159106006, 40159106007, 40159106008, 40159106009, 40159106010, 40159106011, 40159106012, 40159106013, 40159106014, 40159106015, 40159106016, 40159106017

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Trichloroethene	ug/L	<0.33	1.0	10/23/17 09:27	
Trichlorofluoromethane	ug/L	<0.18	1.0	10/23/17 09:27	
Vinyl chloride	ug/L	<0.18	1.0	10/23/17 09:27	
Xylene (Total)	ug/L	<1.5	3.0	10/23/17 09:27	
4-Bromofluorobenzene (S)	%	92	61-130	10/23/17 09:27	
Dibromofluoromethane (S)	%	93	67-130	10/23/17 09:27	
Toluene-d8 (S)	%	113	70-130	10/23/17 09:27	

LABORATORY CONTROL SAMPLE: 1596368

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,1,1-Trichloroethane	ug/L	49.6	49.1	99	70-130	
1,1,2-Trichloroethane	ug/L	49.6	59.3	120	70-130	
1,1-Dichloroethane	ug/L	49.6	59.3	119	71-132	
1,1-Dichloroethene	ug/L	49.6	58.8	119	75-130	
1,2-Dibromo-3-chloropropane	ug/L	49.6	68.4	138	63-123	L1
1,2-Dibromoethane (EDB)	ug/L	49.6	58.6	118	70-130	
1,2-Dichlorobenzene	ug/L	49.6	53.7	108	70-130	
1,2-Dichloroethane	ug/L	49.6	56.6	114	70-131	
1,2-Dichloropropane	ug/L	49.6	49.1	99	80-120	
1,3-Dichlorobenzene	ug/L	49.6	54.5	110	70-130	
1,4-Dichlorobenzene	ug/L	49.6	52.6	106	70-130	
Benzene	ug/L	49.6	49.7	100	73-145	
Bromodichloromethane	ug/L	49.6	49.8	100	70-130	
Bromoform	ug/L	49.6	52.8	106	67-130	
Bromomethane	ug/L	50	47.6	95	26-128	
Carbon disulfide	ug/L	49.6	64.7	130	72-156	
Carbon tetrachloride	ug/L	49.6	43.4	88	70-133	
Chlorobenzene	ug/L	49.6	51.2	103	70-130	
Chloroethane	ug/L	50	58.4	117	58-120	
Chloroform	ug/L	49.6	48.2	97	80-121	
Chloromethane	ug/L	50	45.1	90	40-127	
cis-1,2-Dichloroethene	ug/L	49.6	46.3	93	70-130	
cis-1,3-Dichloropropene	ug/L	49.6	51.1	103	70-130	
Dibromochloromethane	ug/L	49.6	48.6	98	70-130	
Dichlorodifluoromethane	ug/L	50	48.3	97	20-135	
Ethylbenzene	ug/L	49.6	56.0	113	87-129	
Methyl-tert-butyl ether	ug/L	49.6	65.2	131	66-143	
Methylene Chloride	ug/L	49.6	63.1	127	70-130	
Styrene	ug/L	49.6	57.7	116	70-130	
Tetrachloroethene	ug/L	49.6	51.5	104	70-130	
Toluene	ug/L	49.6	52.6	106	82-130	

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

REPORT OF LABORATORY ANALYSIS

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 LA
Pace Project No.: 40159106

LABORATORY CONTROL SAMPLE: 1596368

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
trans-1,2-Dichloroethene	ug/L	49.6	57.5	116	75-132	
trans-1,3-Dichloropropene	ug/L	49.6	55.4	112	70-130	
Trichloroethene	ug/L	49.6	48.3	97	70-130	
Trichlorofluoromethane	ug/L	50	62.0	124	76-133	
Vinyl chloride	ug/L	50	60.6	121	57-136	
Xylene (Total)	ug/L	149	172	115	70-130	
4-Bromofluorobenzene (S)	%			111	61-130	
Dibromofluoromethane (S)	%			101	67-130	
Toluene-d8 (S)	%			106	70-130	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1596471 1596472

Parameter	Units	40159106001 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	49.6	49.6	41.6	41.5	84	84	70-134	0	20	
1,1,2-Trichloroethane	ug/L	<0.20	49.6	49.6	54.5	56.1	110	113	70-130	3	20	
1,1-Dichloroethane	ug/L	<0.24	49.6	49.6	50.7	50.6	102	102	71-133	0	20	
1,1-Dichloroethene	ug/L	<0.41	49.6	49.6	49.7	50.1	100	101	75-136	1	20	
1,2-Dibromo-3-chloropropane	ug/L	<2.2	49.6	49.6	64.0	68.8	129	139	63-123	7	20	M0
1,2-Dibromoethane (EDB)	ug/L	<0.18	49.6	49.6	55.3	55.2	111	111	70-130	0	20	
1,2-Dichlorobenzene	ug/L	<0.50	49.6	49.6	51.5	53.8	104	108	70-130	4	20	
1,2-Dichloroethane	ug/L	<0.17	49.6	49.6	48.4	47.7	97	96	70-131	1	20	
1,2-Dichloropropane	ug/L	<0.23	49.6	49.6	44.9	45.0	91	91	80-120	0	20	
1,3-Dichlorobenzene	ug/L	<0.50	49.6	49.6	51.9	53.5	105	108	70-130	3	20	
1,4-Dichlorobenzene	ug/L	<0.50	49.6	49.6	51.4	51.6	103	103	70-130	0	20	
Benzene	ug/L	<0.50	49.6	49.6	43.0	43.1	87	87	73-145	0	20	
Bromodichloromethane	ug/L	<0.50	49.6	49.6	44.7	45.9	90	93	70-130	3	20	
Bromoform	ug/L	<0.50	49.6	49.6	50.1	50.7	101	102	67-130	1	20	
Bromomethane	ug/L	<2.4	50	50	41.7	40.4	83	81	26-129	3	20	
Carbon disulfide	ug/L	<0.61	49.6	49.6	55.2	55.0	111	110	72-156	0	30	
Carbon tetrachloride	ug/L	<0.50	49.6	49.6	37.2	36.2	75	73	70-134	3	20	
Chlorobenzene	ug/L	<0.50	49.6	49.6	48.9	49.1	99	99	70-130	0	20	
Chloroethane	ug/L	<0.37	50	50	48.7	48.2	97	96	58-120	1	20	
Chloroform	ug/L	<2.5	49.6	49.6	41.4	41.1	83	83	80-121	0	20	
Chloromethane	ug/L	<0.50	50	50	39.0	37.3	78	75	40-128	5	20	
cis-1,2-Dichloroethene	ug/L	0.30J	49.6	49.6	39.5	38.7	79	77	70-130	2	20	
cis-1,3-Dichloropropene	ug/L	<0.50	49.6	49.6	45.8	46.1	92	93	70-130	1	20	
Dibromochloromethane	ug/L	<0.50	49.6	49.6	46.6	47.0	94	95	70-130	1	20	
Dichlorodifluoromethane	ug/L	<0.22	50	50	41.1	40.4	82	81	20-146	2	20	
Ethylbenzene	ug/L	<0.50	49.6	49.6	53.9	53.5	109	108	87-129	1	20	
Methyl-tert-butyl ether	ug/L	<0.17	49.6	49.6	54.4	55.9	110	113	66-143	3	20	
Methylene Chloride	ug/L	<0.23	49.6	49.6	51.8	51.4	104	104	70-130	1	20	
Styrene	ug/L	<0.50	49.6	49.6	54.7	54.1	110	109	70-130	1	20	
Tetrachloroethene	ug/L	<0.50	49.6	49.6	47.8	48.4	96	97	70-130	1	20	

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

REPORT OF LABORATORY ANALYSIS

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 LA
Pace Project No.: 40159106

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1596471 1596472

Parameter	Units	40159106001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Toluene	ug/L	<0.50	49.6	49.6	51.8	51.0	104	103	82-131	2	20	
trans-1,2-Dichloroethene	ug/L	<0.26	49.6	49.6	49.7	50.1	100	101	75-135	1	20	
trans-1,3-Dichloropropene	ug/L	<0.23	49.6	49.6	54.2	52.5	109	106	70-130	3	20	
Trichloroethene	ug/L	<0.33	49.6	49.6	43.2	44.3	87	89	70-130	2	20	
Trichlorofluoromethane	ug/L	<0.18	50	50	53.8	54.4	108	109	76-150	1	20	
Vinyl chloride	ug/L	0.35J	50	50	52.1	50.7	103	101	56-143	3	20	
Xylene (Total)	ug/L	<1.5	149	149	164	160	110	107	70-130	3	20	
4-Bromofluorobenzene (S)	%						106	106	61-130			
Dibromofluoromethane (S)	%						97	96	67-130			
Toluene-d8 (S)	%						112	112	70-130			

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

REPORT OF LABORATORY ANALYSIS

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

QUALIFIERS

Project: 117-2202058.01 RIPON FF/ NN LA
Pace Project No.: 40159106

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

L1	Analyte recovery in the laboratory control sample (LCS) was above QC limits. Results may be biased high.
M0	Matrix spike recovery and/or matrix spike duplicate recovery was outside laboratory control limits.

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

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: 117-2202058.01 RIPON FF/ NN LA
Pace Project No.: 40159106

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
40159106001	**P-103D**	EPA 8260	271410		
40159106002	**P-103**	EPA 8260	271410		
40159106003	**P-107D**	EPA 8260	271410		
40159106004	**P-111D**	EPA 8260	271410		
40159106005	**MW-3A**	EPA 8260	271410		
40159106006	**MW-3B**	EPA 8260	271410		
40159106007	**P-113B**	EPA 8260	271410		
40159106008	**P-113A**	EPA 8260	271410		
40159106009	**P-116**	EPA 8260	271410		
40159106010	**P-114**	EPA 8260	271410		
40159106011	**P-114 DUP**	EPA 8260	271410		
40159106012	**P-115**	EPA 8260	271410		
40159106013	**P-118**	EPA 8260	271410		
40159106014	**P-117**	EPA 8260	271410		
40159106015	**MW-103**	EPA 8260	271410		
40159106016	**MW-112**	EPA 8260	271410		
40159106017	**TRIP BLANK**	EPA 8260	271410		

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

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CHAIN OF CUSTODY

40159106

*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:	117-2002058.01
Project Name:	Ripon FF/NW Landfill
Project State:	WI
Sampled By (Print):	Ashley Wagner
Sampled By (Sign):	Ashley Wagner
PO #:	Regulatory Program:

Quote #:	
Mail To Contact:	Mike Noel
Mail To Company:	Ashley Wagner
Mail To Address:	Lori Rich Chris Liveris
~~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
SI = Sludge	WP = Wipe

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

PACE LAB #	CLIENT FIELD ID 2017	COLLECTION DATE	COLLECTION TIME	MATRIX	Y/N	Pick Letter	Analyses Requested: VOCs 8260B							CLIENT COMMENTS	LAB COMMENTS (Lab Use Only)	Profile #
001	P-103D	10-18	0940	GW	N	B	3							3-40mL VB		
002	P-103		0950				3									
003	P-107D		1105				3									
004	P-111D		1135				3									
005	MW-3A		1210				3									
006	MW-3B		1220				3									
007	P-113B		1305				3									
008	P-113A		1320				3									
009	P-116		1405				3									
010	P-114		1430				3									
011	P-114 Dup		1435				3									
012	P-115		1505				3									
013	P-118		1535				3									

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	10.19.17 0800	Mary Fannin	10/19/17 2511
Mary Fannin	10/19/17 1610		
CS Logistics	10/20/17 0930	FEDEX WS Rec	10/20/17 0530

PACE Project No.: 40159106

Receipt Temp = 2.0 °C

Sample Receipt pH OK / Adjusted

Cooler Custody Seal Present / Not Present
Intact / Not Intact

Version 6.0 06/14/06

C019a(27Jun2006)

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Page 1 of

CHAIN OF CUSTODY

40159/06

(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 State:	Ripon FF/NN (and 611) WI
Sampled By (Print):	Ashley Wagner
Sampled By (Sign):	Ashley Wagner
PO #:	Regulatory Program:

*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

Quote #:	
Mail To Contact:	Mike Noel
Mail To Company:	Ashley Wagner
Mail To Address:	Lori Rich Chris Liveris
~~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

PACE LAB #	CLIENT FIELD ID 2017	COLLECTION DATE	COLLECTION TIME	MATRIX	FILTERED? (YES/NO)	PRESERVATION (CODE)*	Analyses Requested: VOCs 8260B	CLIENT COMMENTS	LAB COMMENTS (Lab Use Only)	Profile #
014	P-117	10.18	1605	GW	N	B	3		3-40mL V B	
015	MW-103	↓	1625	↓					↓	
016	MW-112	↓	1645	↓						
017	TRIP Blank	—	—	DI			2	Lab Prepared	2-40mL V B	

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	10-19-17 1200	Mary Jamin	10/19/17 1511
Mary Jamin	10/19/17 1610		
CS Logistics	10/20/17 0930	Rocke WS Pace	10/20/17 0930

PACE Project No. 40159/06

Receipt Temp = 2.01 °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

Project #: **WO# : 40159106**

40159106

Client Name: Tetra Tech Brookfield

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

Cooler Temperature Uncorr: /Corr: R01 **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: 10/20/17
Initials: RMN

		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 RMN 10/20/17
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: 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, 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): 357		

Client Notification/ Resolution:

Person Contacted: Date/Time:

If checked, see attached form for additional comments ☐

Comments/ Resolution:

Project Manager Review: Date: 10-20-17

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

November 01, 2017

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

RE: Project: 117-2202058.05 RIPON FF/ NN LA
Pace Project No.: 40159091

Dear Mike Noel:
Enclosed are the analytical results for sample(s) received by the laboratory on October 20, 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,

Steven Mleczko for
Brian Basten
brian.basten@pacelabs.com
(920)469-2436
Project Manager

Enclosures

cc: Ashley Weimer, Tetra Tech Geo

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

CERTIFICATIONS

Project: 117-2202058.05 RIPON FF/ NN LA
Pace Project No.: 40159091

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

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

SAMPLE SUMMARY

Project: 117-2202058.05 RIPON FF/ NN LA
Pace Project No.: 40159091

Lab ID	Sample ID	Matrix	Date Collected	Date Received
40159091001	**P-117 SOIL RESAMPLE**	Solid	10/18/17 15:55	10/20/17 09:30
40159091002	**TRIP BLANK**	Solid	10/18/17 00:00	10/20/17 09:30

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(920)469-2436

SAMPLE ANALYTE COUNT

Project: 117-2202058.05 RIPON FF/ NN LA
Pace Project No.: 40159091

Lab ID	Sample ID	Method	Analysts	Analytes Reported
40159091001	**P-117 SOIL RESAMPLE**	EPA 8082	BLM	10
		EPA 6010	JLD	7
		EPA 6010	JLD	7
		EPA 7470	AJT	1
		EPA 7471	AJT	1
		EPA 8270	RJN	70
		EPA 8270	RJN	16
		EPA 8260	SMT	64
		EPA 8260	HNW	13
		ASTM D2974-87	SKW	1
40159091002	**TRIP BLANK**	EPA 8260	SMT	64

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ANALYTICAL RESULTS

Project: 117-2202058.05 RIPON FF/ NN LA
Pace Project No.: 40159091

Sample: P-117 SOIL RESAMPLE **Lab ID: 40159091001** Collected: 10/18/17 15:55 Received: 10/20/17 09:30 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)	**<27.9**	ug/kg	55.8	27.9	1	10/23/17 10:41	10/24/17 10:59	12674-11-2	
PCB-1221 (Aroclor 1221)	**<27.9**	ug/kg	55.8	27.9	1	10/23/17 10:41	10/24/17 10:59	11104-28-2	
PCB-1232 (Aroclor 1232)	**<27.9**	ug/kg	55.8	27.9	1	10/23/17 10:41	10/24/17 10:59	11141-16-5	
PCB-1242 (Aroclor 1242)	**<27.9**	ug/kg	55.8	27.9	1	10/23/17 10:41	10/24/17 10:59	53469-21-9	
PCB-1248 (Aroclor 1248)	**<27.9**	ug/kg	55.8	27.9	1	10/23/17 10:41	10/24/17 10:59	12672-29-6	
PCB-1254 (Aroclor 1254)	**<27.9**	ug/kg	55.8	27.9	1	10/23/17 10:41	10/24/17 10:59	11097-69-1	
PCB-1260 (Aroclor 1260)	**<27.9**	ug/kg	55.8	27.9	1	10/23/17 10:41	10/24/17 10:59	11096-82-5	
PCB, Total	**<27.9**	ug/kg	55.8	27.9	1	10/23/17 10:41	10/24/17 10:59	1336-36-3	
Surrogates									
Tetrachloro-m-xylene (S)	84	%	50-102		1	10/23/17 10:41	10/24/17 10:59	877-09-8	
Decachlorobiphenyl (S)	84	%	53-105		1	10/23/17 10:41	10/24/17 10:59	2051-24-3	
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3050								
Arsenic	**2.3J**	mg/kg	5.3	1.1	1	10/24/17 13:55	10/25/17 19:35	7440-38-2	
Barium	**7.1**	mg/kg	0.53	0.16	1	10/24/17 13:55	10/25/17 19:35	7440-39-3	
Cadmium	**<0.14**	mg/kg	0.53	0.14	1	10/24/17 13:55	10/25/17 19:35	7440-43-9	
Chromium	**4.2**	mg/kg	1.1	0.30	1	10/24/17 13:55	10/25/17 19:35	7440-47-3	
Lead	**2.5**	mg/kg	1.4	0.46	1	10/24/17 13:55	10/25/17 19:35	7439-92-1	
Selenium	**<1.2**	mg/kg	5.3	1.2	1	10/24/17 13:55	10/25/17 19:35	7782-49-2	
Silver	**<0.37**	mg/kg	1.1	0.37	1	10/24/17 13:55	10/25/17 19:35	7440-22-4	
6010 MET ICP, TCLP	Analytical Method: EPA 6010 Preparation Method: EPA 3010 Leachate Method/Date: EPA 1311; 10/23/17 12:10								
Arsenic	**<0.042**	mg/L	0.12	0.042	1	10/24/17 16:48	10/26/17 18:43	7440-38-2	
Barium	**0.083**	mg/L	0.075	0.025	1	10/24/17 16:48	10/26/17 18:43	7440-39-3	
Cadmium	**<0.0066**	mg/L	0.025	0.0066	1	10/24/17 16:48	10/26/17 18:43	7440-43-9	
Chromium	**<0.013**	mg/L	0.050	0.013	1	10/24/17 16:48	10/26/17 18:43	7440-47-3	
Lead	**<0.022**	mg/L	0.065	0.022	1	10/24/17 16:48	10/26/17 18:43	7439-92-1	
Selenium	**<0.083**	mg/L	0.25	0.083	1	10/24/17 16:48	10/26/17 18:43	7782-49-2	
Silver	**<0.017**	mg/L	0.050	0.017	1	10/24/17 16:48	10/26/17 18:43	7440-22-4	
7470 Mercury, TCLP	Analytical Method: EPA 7470 Preparation Method: EPA 7470 Leachate Method/Date: EPA 1311; 10/23/17 00:00								
Mercury	**0.25J**	ug/L	0.42	0.13	1	10/26/17 12:40	10/27/17 09:15	7439-97-6	
7471 Mercury	Analytical Method: EPA 7471 Preparation Method: EPA 7471								
Mercury	**0.015J**	mg/kg	0.041	0.012	1	10/31/17 06:19	10/31/17 10:11	7439-97-6	B
8270 MSSV FULL LIST MICROWAVE	Analytical Method: EPA 8270 Preparation Method: EPA 3546								
1,2,4-Trichlorobenzene	**<21.1**	ug/kg	70.3	21.1	1	10/24/17 14:18	10/26/17 13:34	120-82-1	
1,2-Dichlorobenzene	**<58.6**	ug/kg	195	58.6	1	10/24/17 14:18	10/26/17 13:34	95-50-1	
1,3-Dichlorobenzene	**<25.8**	ug/kg	86.1	25.8	1	10/24/17 14:18	10/26/17 13:34	541-73-1	
1,4-Dichlorobenzene	**<26.0**	ug/kg	86.6	26.0	1	10/24/17 14:18	10/26/17 13:34	106-46-7	
2,2'-Oxybis(1-chloropropane)	**<48.1**	ug/kg	160	48.1	1	10/24/17 14:18	10/26/17 13:34	108-60-1	
2,4,5-Trichlorophenol	**<32.9**	ug/kg	110	32.9	1	10/24/17 14:18	10/26/17 13:34	95-95-4	

REPORT OF LABORATORY ANALYSIS

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

ANALYTICAL RESULTS

Project: 117-2202058.05 RIPON FF/ NN LA
Pace Project No.: 40159091

Sample: P-117 SOIL RESAMPLE **Lab ID: 40159091001** Collected: 10/18/17 15:55 Received: 10/20/17 09:30 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
8270 MSSV FULL LIST MICROWAVE	Analytical Method: EPA 8270 Preparation Method: EPA 3546								
2,4,6-Trichlorophenol	**<28.4**	ug/kg	94.7	28.4	1	10/24/17 14:18	10/26/17 13:34	88-06-2	
2,4-Dichlorophenol	**<49.8**	ug/kg	166	49.8	1	10/24/17 14:18	10/26/17 13:34	120-83-2	
2,4-Dimethylphenol	**<36.9**	ug/kg	123	36.9	1	10/24/17 14:18	10/26/17 13:34	105-67-9	
2,4-Dinitrophenol	**<56.8**	ug/kg	189	56.8	1	10/24/17 14:18	10/26/17 13:34	51-28-5	
2,4-Dinitrotoluene	**<26.7**	ug/kg	88.9	26.7	1	10/24/17 14:18	10/26/17 13:34	121-14-2	
2,6-Dinitrotoluene	**<35.4**	ug/kg	118	35.4	1	10/24/17 14:18	10/26/17 13:34	606-20-2	
2-Chloronaphthalene	**<23.9**	ug/kg	79.8	23.9	1	10/24/17 14:18	10/26/17 13:34	91-58-7	
2-Chlorophenol	**<46.5**	ug/kg	155	46.5	1	10/24/17 14:18	10/26/17 13:34	95-57-8	
2-Methylnaphthalene	**<48.4**	ug/kg	161	48.4	1	10/24/17 14:18	10/26/17 13:34	91-57-6	
2-Methylphenol(o-Cresol)	**<33.9**	ug/kg	113	33.9	1	10/24/17 14:18	10/26/17 13:34	95-48-7	
2-Nitroaniline	**<53.1**	ug/kg	177	53.1	1	10/24/17 14:18	10/26/17 13:34	88-74-4	
2-Nitrophenol	**<58.8**	ug/kg	196	58.8	1	10/24/17 14:18	10/26/17 13:34	88-75-5	
3&4-Methylphenol(m&p Cresol)	**<34.2**	ug/kg	114	34.2	1	10/24/17 14:18	10/26/17 13:34		
3,3'-Dichlorobenzidine	**<50.6**	ug/kg	169	50.6	1	10/24/17 14:18	10/26/17 13:34	91-94-1	
3-Nitroaniline	**<31.7**	ug/kg	106	31.7	1	10/24/17 14:18	10/26/17 13:34	99-09-2	
4,6-Dinitro-2-methylphenol	**<57.5**	ug/kg	192	57.5	1	10/24/17 14:18	10/26/17 13:34	534-52-1	
4-Bromophenylphenyl ether	**<39.0**	ug/kg	130	39.0	1	10/24/17 14:18	10/26/17 13:34	101-55-3	
4-Chloro-3-methylphenol	**<58.0**	ug/kg	193	58.0	1	10/24/17 14:18	10/26/17 13:34	59-50-7	
4-Chloroaniline	**<30.6**	ug/kg	102	30.6	1	10/24/17 14:18	10/26/17 13:34	106-47-8	
4-Chlorophenylphenyl ether	**<34.7**	ug/kg	116	34.7	1	10/24/17 14:18	10/26/17 13:34	7005-72-3	
4-Nitroaniline	**<77.4**	ug/kg	258	77.4	1	10/24/17 14:18	10/26/17 13:34	100-01-6	
4-Nitrophenol	**<46.9**	ug/kg	156	46.9	1	10/24/17 14:18	10/26/17 13:34	100-02-7	
Acenaphthene	**<66.1**	ug/kg	220	66.1	1	10/24/17 14:18	10/26/17 13:34	83-32-9	
Acenaphthylene	**<66.5**	ug/kg	222	66.5	1	10/24/17 14:18	10/26/17 13:34	208-96-8	
Anthracene	**<29.8**	ug/kg	99.3	29.8	1	10/24/17 14:18	10/26/17 13:34	120-12-7	
Benzo(a)anthracene	**<28.9**	ug/kg	96.2	28.9	1	10/24/17 14:18	10/26/17 13:34	56-55-3	
Benzo(a)pyrene	**<28.1**	ug/kg	93.5	28.1	1	10/24/17 14:18	10/26/17 13:34	50-32-8	
Benzo(b)fluoranthene	**<32.0**	ug/kg	107	32.0	1	10/24/17 14:18	10/26/17 13:34	205-99-2	
Benzo(g,h,i)perylene	**<48.8**	ug/kg	163	48.8	1	10/24/17 14:18	10/26/17 13:34	191-24-2	
Benzo(k)fluoranthene	**<44.6**	ug/kg	149	44.6	1	10/24/17 14:18	10/26/17 13:34	207-08-9	
Butylbenzylphthalate	**<29.9**	ug/kg	99.7	29.9	1	10/24/17 14:18	10/26/17 13:34	85-68-7	
Carbazole	**<29.2**	ug/kg	97.3	29.2	1	10/24/17 14:18	10/26/17 13:34	86-74-8	
Chrysene	**<27.9**	ug/kg	92.9	27.9	1	10/24/17 14:18	10/26/17 13:34	218-01-9	
Di-n-butylphthalate	**<27.9**	ug/kg	92.9	27.9	1	10/24/17 14:18	10/26/17 13:34	84-74-2	
Di-n-octylphthalate	**<41.9**	ug/kg	140	41.9	1	10/24/17 14:18	10/26/17 13:34	117-84-0	
Dibenz(a,h)anthracene	**<50.6**	ug/kg	169	50.6	1	10/24/17 14:18	10/26/17 13:34	53-70-3	
Dibenzofuran	**<22.6**	ug/kg	75.2	22.6	1	10/24/17 14:18	10/26/17 13:34	132-64-9	
Diethylphthalate	**<30.9**	ug/kg	103	30.9	1	10/24/17 14:18	10/26/17 13:34	84-66-2	
Dimethylphthalate	**<24.3**	ug/kg	80.8	24.3	1	10/24/17 14:18	10/26/17 13:34	131-11-3	
Fluoranthene	**<26.4**	ug/kg	87.9	26.4	1	10/24/17 14:18	10/26/17 13:34	206-44-0	
Fluorene	**<21.8**	ug/kg	72.6	21.8	1	10/24/17 14:18	10/26/17 13:34	86-73-7	
Hexachloro-1,3-butadiene	**<47.5**	ug/kg	158	47.5	1	10/24/17 14:18	10/26/17 13:34	87-68-3	
Hexachlorobenzene	**<31.4**	ug/kg	105	31.4	1	10/24/17 14:18	10/26/17 13:34	118-74-1	
Hexachlorocyclopentadiene	**<44.1**	ug/kg	147	44.1	1	10/24/17 14:18	10/26/17 13:34	77-47-4	
Hexachloroethane	**<29.8**	ug/kg	99.4	29.8	1	10/24/17 14:18	10/26/17 13:34	67-72-1	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: 117-2202058.05 RIPON FF/ NN LA
Pace Project No.: 40159091

Sample: P-117 SOIL RESAMPLE **Lab ID: 40159091001** Collected: 10/18/17 15:55 Received: 10/20/17 09:30 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
8270 MSSV FULL LIST MICROWAVE	Analytical Method: EPA 8270 Preparation Method: EPA 3546								
Indeno(1,2,3-cd)pyrene	**<40.3**	ug/kg	134	40.3	1	10/24/17 14:18	10/26/17 13:34	193-39-5	
Isophorone	**<28.7**	ug/kg	95.5	28.7	1	10/24/17 14:18	10/26/17 13:34	78-59-1	
N-Nitroso-di-n-propylamine	**<29.6**	ug/kg	98.6	29.6	1	10/24/17 14:18	10/26/17 13:34	621-64-7	
N-Nitrosodiphenylamine	**<253**	ug/kg	843	253	1	10/24/17 14:18	10/26/17 13:34	86-30-6	
Naphthalene	**<65.2**	ug/kg	217	65.2	1	10/24/17 14:18	10/26/17 13:34	91-20-3	
Nitrobenzene	**<37.8**	ug/kg	126	37.8	1	10/24/17 14:18	10/26/17 13:34	98-95-3	
Pentachlorophenol	**<41.1**	ug/kg	137	41.1	1	10/24/17 14:18	10/26/17 13:34	87-86-5	
Phenanthrene	**<23.9**	ug/kg	79.7	23.9	1	10/24/17 14:18	10/26/17 13:34	85-01-8	
Phenol	**<44.2**	ug/kg	147	44.2	1	10/24/17 14:18	10/26/17 13:34	108-95-2	
Pyrene	**<41.3**	ug/kg	138	41.3	1	10/24/17 14:18	10/26/17 13:34	129-00-0	
bis(2-Chloroethoxy)methane	**<50.2**	ug/kg	167	50.2	1	10/24/17 14:18	10/26/17 13:34	111-91-1	
bis(2-Chloroethyl) ether	**<58.2**	ug/kg	194	58.2	1	10/24/17 14:18	10/26/17 13:34	111-44-4	
bis(2-Ethylhexyl)phthalate	**<31.0**	ug/kg	103	31.0	1	10/24/17 14:18	10/26/17 13:34	117-81-7	
Surrogates									
Nitrobenzene-d5 (S)	72	%	13-114		1	10/24/17 14:18	10/26/17 13:34	4165-60-0	
2-Fluorobiphenyl (S)	75	%	18-127		1	10/24/17 14:18	10/26/17 13:34	321-60-8	
Terphenyl-d14 (S)	83	%	41-109		1	10/24/17 14:18	10/26/17 13:34	1718-51-0	
Phenol-d6 (S)	73	%	30-97		1	10/24/17 14:18	10/26/17 13:34	13127-88-3	
2-Fluorophenol (S)	74	%	16-103		1	10/24/17 14:18	10/26/17 13:34	367-12-4	
2,4,6-Tribromophenol (S)	89	%	13-143		1	10/24/17 14:18	10/26/17 13:34	118-79-6	
8270 MSSV TCLP Sep Funnel	Analytical Method: EPA 8270 Preparation Method: EPA 3510 Leachate Method/Date: EPA 1311; 10/23/17 00:00								
1,4-Dichlorobenzene	**<18.8**	ug/L	62.5	18.8	1	10/25/17 08:15	10/27/17 08:20	106-46-7	
2,4,5-Trichlorophenol	**<8.4**	ug/L	28.0	8.4	1	10/25/17 08:15	10/27/17 08:20	95-95-4	
2,4,6-Trichlorophenol	**<21.1**	ug/L	70.4	21.1	1	10/25/17 08:15	10/27/17 08:20	88-06-2	
2,4-Dinitrotoluene	**<7.9**	ug/L	26.4	7.9	1	10/25/17 08:15	10/27/17 08:20	121-14-2	
2-Methylphenol(o-Cresol)	**<8.7**	ug/L	28.9	8.7	1	10/25/17 08:15	10/27/17 08:20	95-48-7	
3&4-Methylphenol(m&p Cresol)	**<15.6**	ug/L	52.0	15.6	1	10/25/17 08:15	10/27/17 08:20		
Hexachloro-1,3-butadiene	**<24.6**	ug/L	82.0	24.6	1	10/25/17 08:15	10/27/17 08:20	87-68-3	
Hexachlorobenzene	**<16.9**	ug/L	56.4	16.9	1	10/25/17 08:15	10/27/17 08:20	118-74-1	
Hexachloroethane	**<26.6**	ug/L	88.6	26.6	1	10/25/17 08:15	10/27/17 08:20	67-72-1	
Nitrobenzene	**<14.5**	ug/L	48.3	14.5	1	10/25/17 08:15	10/27/17 08:20	98-95-3	
Pentachlorophenol	**<14.3**	ug/L	47.8	14.3	1	10/25/17 08:15	10/27/17 08:20	87-86-5	
Pyridine	**<17.9**	ug/L	59.6	17.9	1	10/25/17 08:15	10/27/17 08:20	110-86-1	
Surrogates									
Nitrobenzene-d5 (S)	84	%	53-100		1	10/25/17 08:15	10/27/17 08:20	4165-60-0	
2-Fluorobiphenyl (S)	88	%	59-109		1	10/25/17 08:15	10/27/17 08:20	321-60-8	
Phenol-d6 (S)	31	%	18-120		1	10/25/17 08:15	10/27/17 08:20	13127-88-3	
2,4,6-Tribromophenol (S)	93	%	65-140		1	10/25/17 08:15	10/27/17 08:20	118-79-6	
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	10/24/17 08:30	10/24/17 14:06	71-43-2	W
Bromobenzene	**<25.0**	ug/kg	60.0	25.0	1	10/24/17 08:30	10/24/17 14:06	108-86-1	W
Bromochloromethane	**<25.0**	ug/kg	60.0	25.0	1	10/24/17 08:30	10/24/17 14:06	74-97-5	W

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: 117-2202058.05 RIPON FF/ NN LA
Pace Project No.: 40159091

Sample: P-117 SOIL RESAMPLE **Lab ID: 40159091001** Collected: 10/18/17 15:55 Received: 10/20/17 09:30 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								
Bromodichloromethane	**<25.0**	ug/kg	60.0	25.0	1	10/24/17 08:30	10/24/17 14:06	75-27-4	W
Bromoform	**<25.0**	ug/kg	60.0	25.0	1	10/24/17 08:30	10/24/17 14:06	75-25-2	W
Bromomethane	**<69.9**	ug/kg	250	69.9	1	10/24/17 08:30	10/24/17 14:06	74-83-9	W
n-Butylbenzene	**<25.0**	ug/kg	60.0	25.0	1	10/24/17 08:30	10/24/17 14:06	104-51-8	W
sec-Butylbenzene	**<25.0**	ug/kg	60.0	25.0	1	10/24/17 08:30	10/24/17 14:06	135-98-8	W
tert-Butylbenzene	**<25.0**	ug/kg	60.0	25.0	1	10/24/17 08:30	10/24/17 14:06	98-06-6	W
Carbon tetrachloride	**<25.0**	ug/kg	60.0	25.0	1	10/24/17 08:30	10/24/17 14:06	56-23-5	W
Chlorobenzene	**<25.0**	ug/kg	60.0	25.0	1	10/24/17 08:30	10/24/17 14:06	108-90-7	W
Chloroethane	**<67.0**	ug/kg	250	67.0	1	10/24/17 08:30	10/24/17 14:06	75-00-3	W
Chloroform	**<46.4**	ug/kg	250	46.4	1	10/24/17 08:30	10/24/17 14:06	67-66-3	W
Chloromethane	**<25.0**	ug/kg	60.0	25.0	1	10/24/17 08:30	10/24/17 14:06	74-87-3	W
2-Chlorotoluene	**<25.0**	ug/kg	60.0	25.0	1	10/24/17 08:30	10/24/17 14:06	95-49-8	W
4-Chlorotoluene	**<25.0**	ug/kg	60.0	25.0	1	10/24/17 08:30	10/24/17 14:06	106-43-4	W
1,2-Dibromo-3-chloropropane	**<91.2**	ug/kg	250	91.2	1	10/24/17 08:30	10/24/17 14:06	96-12-8	W
Dibromochloromethane	**<25.0**	ug/kg	60.0	25.0	1	10/24/17 08:30	10/24/17 14:06	124-48-1	W
1,2-Dibromoethane (EDB)	**<25.0**	ug/kg	60.0	25.0	1	10/24/17 08:30	10/24/17 14:06	106-93-4	W
Dibromomethane	**<25.0**	ug/kg	60.0	25.0	1	10/24/17 08:30	10/24/17 14:06	74-95-3	W
1,2-Dichlorobenzene	**<25.0**	ug/kg	60.0	25.0	1	10/24/17 08:30	10/24/17 14:06	95-50-1	W
1,3-Dichlorobenzene	**<25.0**	ug/kg	60.0	25.0	1	10/24/17 08:30	10/24/17 14:06	541-73-1	W
1,4-Dichlorobenzene	**<25.0**	ug/kg	60.0	25.0	1	10/24/17 08:30	10/24/17 14:06	106-46-7	W
Dichlorodifluoromethane	**<25.0**	ug/kg	60.0	25.0	1	10/24/17 08:30	10/24/17 14:06	75-71-8	W
1,1-Dichloroethane	**<25.0**	ug/kg	60.0	25.0	1	10/24/17 08:30	10/24/17 14:06	75-34-3	W
1,2-Dichloroethane	**<25.0**	ug/kg	60.0	25.0	1	10/24/17 08:30	10/24/17 14:06	107-06-2	W
1,1-Dichloroethene	**<25.0**	ug/kg	60.0	25.0	1	10/24/17 08:30	10/24/17 14:06	75-35-4	W
cis-1,2-Dichloroethene	**<25.0**	ug/kg	60.0	25.0	1	10/24/17 08:30	10/24/17 14:06	156-59-2	W
trans-1,2-Dichloroethene	**<25.0**	ug/kg	60.0	25.0	1	10/24/17 08:30	10/24/17 14:06	156-60-5	W
1,2-Dichloropropane	**<25.0**	ug/kg	60.0	25.0	1	10/24/17 08:30	10/24/17 14:06	78-87-5	W
1,3-Dichloropropane	**<25.0**	ug/kg	60.0	25.0	1	10/24/17 08:30	10/24/17 14:06	142-28-9	W
2,2-Dichloropropane	**<25.0**	ug/kg	60.0	25.0	1	10/24/17 08:30	10/24/17 14:06	594-20-7	W
1,1-Dichloropropene	**<25.0**	ug/kg	60.0	25.0	1	10/24/17 08:30	10/24/17 14:06	563-58-6	W
cis-1,3-Dichloropropene	**<25.0**	ug/kg	60.0	25.0	1	10/24/17 08:30	10/24/17 14:06	10061-01-5	W
trans-1,3-Dichloropropene	**<25.0**	ug/kg	60.0	25.0	1	10/24/17 08:30	10/24/17 14:06	10061-02-6	W
Diisopropyl ether	**<25.0**	ug/kg	60.0	25.0	1	10/24/17 08:30	10/24/17 14:06	108-20-3	W
Ethylbenzene	**<25.0**	ug/kg	60.0	25.0	1	10/24/17 08:30	10/24/17 14:06	100-41-4	W
Hexachloro-1,3-butadiene	**<25.0**	ug/kg	60.0	25.0	1	10/24/17 08:30	10/24/17 14:06	87-68-3	W
Isopropylbenzene (Cumene)	**<25.0**	ug/kg	60.0	25.0	1	10/24/17 08:30	10/24/17 14:06	98-82-8	W
p-Isopropyltoluene	**<25.0**	ug/kg	60.0	25.0	1	10/24/17 08:30	10/24/17 14:06	99-87-6	W
Methylene Chloride	**<25.0**	ug/kg	60.0	25.0	1	10/24/17 08:30	10/24/17 14:06	75-09-2	W
Methyl-tert-butyl ether	**<25.0**	ug/kg	60.0	25.0	1	10/24/17 08:30	10/24/17 14:06	1634-04-4	W
Naphthalene	**<40.0**	ug/kg	250	40.0	1	10/24/17 08:30	10/24/17 14:06	91-20-3	W
n-Propylbenzene	**<25.0**	ug/kg	60.0	25.0	1	10/24/17 08:30	10/24/17 14:06	103-65-1	W
Styrene	**<25.0**	ug/kg	60.0	25.0	1	10/24/17 08:30	10/24/17 14:06	100-42-5	W
1,1,1,2-Tetrachloroethane	**<25.0**	ug/kg	60.0	25.0	1	10/24/17 08:30	10/24/17 14:06	630-20-6	W
1,1,2,2-Tetrachloroethane	**<25.0**	ug/kg	60.0	25.0	1	10/24/17 08:30	10/24/17 14:06	79-34-5	W
Tetrachloroethene	**<25.0**	ug/kg	60.0	25.0	1	10/24/17 08:30	10/24/17 14:06	127-18-4	W

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ANALYTICAL RESULTS

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Pace Project No.: 40159091

Sample: P-117 SOIL RESAMPLE **Lab ID: 40159091001** Collected: 10/18/17 15:55 Received: 10/20/17 09:30 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								
Toluene	**<25.0**	ug/kg	60.0	25.0	1	10/24/17 08:30	10/24/17 14:06	108-88-3	W
1,2,3-Trichlorobenzene	**<25.0**	ug/kg	60.0	25.0	1	10/24/17 08:30	10/24/17 14:06	87-61-6	W
1,2,4-Trichlorobenzene	**<47.6**	ug/kg	250	47.6	1	10/24/17 08:30	10/24/17 14:06	120-82-1	W
1,1,1-Trichloroethane	**<25.0**	ug/kg	60.0	25.0	1	10/24/17 08:30	10/24/17 14:06	71-55-6	W
1,1,2-Trichloroethane	**<25.0**	ug/kg	60.0	25.0	1	10/24/17 08:30	10/24/17 14:06	79-00-5	W
Trichloroethene	**<25.0**	ug/kg	60.0	25.0	1	10/24/17 08:30	10/24/17 14:06	79-01-6	W
Trichlorofluoromethane	**<25.0**	ug/kg	60.0	25.0	1	10/24/17 08:30	10/24/17 14:06	75-69-4	W
1,2,3-Trichloropropane	**<25.0**	ug/kg	60.0	25.0	1	10/24/17 08:30	10/24/17 14:06	96-18-4	W
1,2,4-Trimethylbenzene	**<25.0**	ug/kg	60.0	25.0	1	10/24/17 08:30	10/24/17 14:06	95-63-6	W
1,3,5-Trimethylbenzene	**<25.0**	ug/kg	60.0	25.0	1	10/24/17 08:30	10/24/17 14:06	108-67-8	W
Vinyl chloride	**<25.0**	ug/kg	60.0	25.0	1	10/24/17 08:30	10/24/17 14:06	75-01-4	W
m&p-Xylene	**<50.0**	ug/kg	120	50.0	1	10/24/17 08:30	10/24/17 14:06	179601-23-1	W
o-Xylene	**<25.0**	ug/kg	60.0	25.0	1	10/24/17 08:30	10/24/17 14:06	95-47-6	W
Surrogates									
Dibromofluoromethane (S)	97	%	68-130		1	10/24/17 08:30	10/24/17 14:06	1868-53-7	
Toluene-d8 (S)	101	%	68-149		1	10/24/17 08:30	10/24/17 14:06	2037-26-5	
4-Bromofluorobenzene (S)	91	%	58-141		1	10/24/17 08:30	10/24/17 14:06	460-00-4	
8260 MSV TCLP	Analytical Method: EPA 8260 Leachate Method/Date: EPA 1311; 10/23/17 00:00								
Benzene	**<5.0**	ug/L	10.0	5.0	10		10/25/17 09:57	71-43-2	
2-Butanone (MEK)	**<29.8**	ug/L	200	29.8	10		10/25/17 09:57	78-93-3	
Carbon tetrachloride	**<5.0**	ug/L	10.0	5.0	10		10/25/17 09:57	56-23-5	
Chlorobenzene	**<5.0**	ug/L	10.0	5.0	10		10/25/17 09:57	108-90-7	
Chloroform	**<25.0**	ug/L	50.0	25.0	10		10/25/17 09:57	67-66-3	
1,2-Dichloroethane	**<1.7**	ug/L	10.0	1.7	10		10/25/17 09:57	107-06-2	
1,1-Dichloroethene	**<4.1**	ug/L	10.0	4.1	10		10/25/17 09:57	75-35-4	
Tetrachloroethene	**<5.0**	ug/L	10.0	5.0	10		10/25/17 09:57	127-18-4	
Trichloroethene	**<3.3**	ug/L	10.0	3.3	10		10/25/17 09:57	79-01-6	
Vinyl chloride	**<1.8**	ug/L	10.0	1.8	10		10/25/17 09:57	75-01-4	
Surrogates									
Toluene-d8 (S)	102	%	70-130		10		10/25/17 09:57	2037-26-5	
4-Bromofluorobenzene (S)	88	%	61-130		10		10/25/17 09:57	460-00-4	
Dibromofluoromethane (S)	119	%	67-130		10		10/25/17 09:57	1868-53-7	
Percent Moisture	Analytical Method: ASTM D2974-87								
Percent Moisture	**10.4**	%	0.10	0.10	1		10/24/17 08:27		

REPORT OF LABORATORY ANALYSIS

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

ANALYTICAL RESULTS

Project: 117-2202058.05 RIPON FF/ NN LA
Pace Project No.: 40159091

Sample: TRIP BLANK **Lab ID: 40159091002** Collected: 10/18/17 00:00 Received: 10/20/17 09:30 Matrix: Solid

Results reported on a "wet-weight" basis

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	10/23/17 08:30	10/23/17 13:20	630-20-6	W
1,1,1-Trichloroethane	**<25.0**	ug/kg	60.0	25.0	1	10/23/17 08:30	10/23/17 13:20	71-55-6	W
1,1,2,2-Tetrachloroethane	**<25.0**	ug/kg	60.0	25.0	1	10/23/17 08:30	10/23/17 13:20	79-34-5	W
1,1,2-Trichloroethane	**<25.0**	ug/kg	60.0	25.0	1	10/23/17 08:30	10/23/17 13:20	79-00-5	W
1,1-Dichloroethane	**<25.0**	ug/kg	60.0	25.0	1	10/23/17 08:30	10/23/17 13:20	75-34-3	W
1,1-Dichloroethene	**<25.0**	ug/kg	60.0	25.0	1	10/23/17 08:30	10/23/17 13:20	75-35-4	W
1,1-Dichloropropene	**<25.0**	ug/kg	60.0	25.0	1	10/23/17 08:30	10/23/17 13:20	563-58-6	W
1,2,3-Trichlorobenzene	**<25.0**	ug/kg	60.0	25.0	1	10/23/17 08:30	10/23/17 13:20	87-61-6	W
1,2,3-Trichloropropane	**<25.0**	ug/kg	60.0	25.0	1	10/23/17 08:30	10/23/17 13:20	96-18-4	W
1,2,4-Trichlorobenzene	**<47.6**	ug/kg	250	47.6	1	10/23/17 08:30	10/23/17 13:20	120-82-1	W
1,2,4-Trimethylbenzene	**<25.0**	ug/kg	60.0	25.0	1	10/23/17 08:30	10/23/17 13:20	95-63-6	W
1,2-Dibromo-3-chloropropane	**<91.2**	ug/kg	250	91.2	1	10/23/17 08:30	10/23/17 13:20	96-12-8	W
1,2-Dibromoethane (EDB)	**<25.0**	ug/kg	60.0	25.0	1	10/23/17 08:30	10/23/17 13:20	106-93-4	W
1,2-Dichlorobenzene	**<25.0**	ug/kg	60.0	25.0	1	10/23/17 08:30	10/23/17 13:20	95-50-1	W
1,2-Dichloroethane	**<25.0**	ug/kg	60.0	25.0	1	10/23/17 08:30	10/23/17 13:20	107-06-2	W
1,2-Dichloropropane	**<25.0**	ug/kg	60.0	25.0	1	10/23/17 08:30	10/23/17 13:20	78-87-5	W
1,3,5-Trimethylbenzene	**<25.0**	ug/kg	60.0	25.0	1	10/23/17 08:30	10/23/17 13:20	108-67-8	W
1,3-Dichlorobenzene	**<25.0**	ug/kg	60.0	25.0	1	10/23/17 08:30	10/23/17 13:20	541-73-1	W
1,3-Dichloropropane	**<25.0**	ug/kg	60.0	25.0	1	10/23/17 08:30	10/23/17 13:20	142-28-9	W
1,4-Dichlorobenzene	**<25.0**	ug/kg	60.0	25.0	1	10/23/17 08:30	10/23/17 13:20	106-46-7	W
2,2-Dichloropropane	**<25.0**	ug/kg	60.0	25.0	1	10/23/17 08:30	10/23/17 13:20	594-20-7	W
2-Chlorotoluene	**<25.0**	ug/kg	60.0	25.0	1	10/23/17 08:30	10/23/17 13:20	95-49-8	W
4-Chlorotoluene	**<25.0**	ug/kg	60.0	25.0	1	10/23/17 08:30	10/23/17 13:20	106-43-4	W
Benzene	**<25.0**	ug/kg	60.0	25.0	1	10/23/17 08:30	10/23/17 13:20	71-43-2	W
Bromobenzene	**<25.0**	ug/kg	60.0	25.0	1	10/23/17 08:30	10/23/17 13:20	108-86-1	W
Bromochloromethane	**<25.0**	ug/kg	60.0	25.0	1	10/23/17 08:30	10/23/17 13:20	74-97-5	W
Bromodichloromethane	**<25.0**	ug/kg	60.0	25.0	1	10/23/17 08:30	10/23/17 13:20	75-27-4	W
Bromoform	**<25.0**	ug/kg	60.0	25.0	1	10/23/17 08:30	10/23/17 13:20	75-25-2	W
Bromomethane	**<69.9**	ug/kg	250	69.9	1	10/23/17 08:30	10/23/17 13:20	74-83-9	W
Carbon tetrachloride	**<25.0**	ug/kg	60.0	25.0	1	10/23/17 08:30	10/23/17 13:20	56-23-5	W
Chlorobenzene	**<25.0**	ug/kg	60.0	25.0	1	10/23/17 08:30	10/23/17 13:20	108-90-7	W
Chloroethane	**<67.0**	ug/kg	250	67.0	1	10/23/17 08:30	10/23/17 13:20	75-00-3	W
Chloroform	**<46.4**	ug/kg	250	46.4	1	10/23/17 08:30	10/23/17 13:20	67-66-3	W
Chloromethane	**<25.0**	ug/kg	60.0	25.0	1	10/23/17 08:30	10/23/17 13:20	74-87-3	W
Dibromochloromethane	**<25.0**	ug/kg	60.0	25.0	1	10/23/17 08:30	10/23/17 13:20	124-48-1	W
Dibromomethane	**<25.0**	ug/kg	60.0	25.0	1	10/23/17 08:30	10/23/17 13:20	74-95-3	W
Dichlorodifluoromethane	**<25.0**	ug/kg	60.0	25.0	1	10/23/17 08:30	10/23/17 13:20	75-71-8	W
Diisopropyl ether	**<25.0**	ug/kg	60.0	25.0	1	10/23/17 08:30	10/23/17 13:20	108-20-3	W
Ethylbenzene	**<25.0**	ug/kg	60.0	25.0	1	10/23/17 08:30	10/23/17 13:20	100-41-4	W
Hexachloro-1,3-butadiene	**<25.0**	ug/kg	60.0	25.0	1	10/23/17 08:30	10/23/17 13:20	87-68-3	W
Isopropylbenzene (Cumene)	**<25.0**	ug/kg	60.0	25.0	1	10/23/17 08:30	10/23/17 13:20	98-82-8	W
Methyl-tert-butyl ether	**<25.0**	ug/kg	60.0	25.0	1	10/23/17 08:30	10/23/17 13:20	1634-04-4	W
Methylene Chloride	**29.6J**	ug/kg	60.0	25.0	1	10/23/17 08:30	10/23/17 13:20	75-09-2	
Naphthalene	**<40.0**	ug/kg	250	40.0	1	10/23/17 08:30	10/23/17 13:20	91-20-3	W
Styrene	**<25.0**	ug/kg	60.0	25.0	1	10/23/17 08:30	10/23/17 13:20	100-42-5	W

REPORT OF LABORATORY ANALYSIS

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

ANALYTICAL RESULTS

Project: 117-2202058.05 RIPON FF/ NN LA
Pace Project No.: 40159091

Sample: TRIP BLANK **Lab ID: 40159091002** Collected: 10/18/17 00:00 Received: 10/20/17 09:30 Matrix: Solid

Results reported on a "wet-weight" basis

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								
Tetrachloroethene	**<25.0**	ug/kg	60.0	25.0	1	10/23/17 08:30	10/23/17 13:20	127-18-4	W
Toluene	**<25.0**	ug/kg	60.0	25.0	1	10/23/17 08:30	10/23/17 13:20	108-88-3	W
Trichloroethene	**<25.0**	ug/kg	60.0	25.0	1	10/23/17 08:30	10/23/17 13:20	79-01-6	W
Trichlorofluoromethane	**<25.0**	ug/kg	60.0	25.0	1	10/23/17 08:30	10/23/17 13:20	75-69-4	W
Vinyl chloride	**<25.0**	ug/kg	60.0	25.0	1	10/23/17 08:30	10/23/17 13:20	75-01-4	W
cis-1,2-Dichloroethene	**<25.0**	ug/kg	60.0	25.0	1	10/23/17 08:30	10/23/17 13:20	156-59-2	W
cis-1,3-Dichloropropene	**<25.0**	ug/kg	60.0	25.0	1	10/23/17 08:30	10/23/17 13:20	10061-01-5	W
m&p-Xylene	**<50.0**	ug/kg	120	50.0	1	10/23/17 08:30	10/23/17 13:20	179601-23-1	W
n-Butylbenzene	**<25.0**	ug/kg	60.0	25.0	1	10/23/17 08:30	10/23/17 13:20	104-51-8	W
n-Propylbenzene	**<25.0**	ug/kg	60.0	25.0	1	10/23/17 08:30	10/23/17 13:20	103-65-1	W
o-Xylene	**<25.0**	ug/kg	60.0	25.0	1	10/23/17 08:30	10/23/17 13:20	95-47-6	W
p-Isopropyltoluene	**<25.0**	ug/kg	60.0	25.0	1	10/23/17 08:30	10/23/17 13:20	99-87-6	W
sec-Butylbenzene	**<25.0**	ug/kg	60.0	25.0	1	10/23/17 08:30	10/23/17 13:20	135-98-8	W
tert-Butylbenzene	**<25.0**	ug/kg	60.0	25.0	1	10/23/17 08:30	10/23/17 13:20	98-06-6	W
trans-1,2-Dichloroethene	**<25.0**	ug/kg	60.0	25.0	1	10/23/17 08:30	10/23/17 13:20	156-60-5	W
trans-1,3-Dichloropropene	**<25.0**	ug/kg	60.0	25.0	1	10/23/17 08:30	10/23/17 13:20	10061-02-6	W
Surrogates									
Dibromofluoromethane (S)	103	%	68-130		1	10/23/17 08:30	10/23/17 13:20	1868-53-7	
Toluene-d8 (S)	99	%	68-149		1	10/23/17 08:30	10/23/17 13:20	2037-26-5	
4-Bromofluorobenzene (S)	94	%	58-141		1	10/23/17 08:30	10/23/17 13:20	460-00-4	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
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QUALITY CONTROL DATA

Project: 117-2202058.05 RIPON FF/ NN LA
Pace Project No.: 40159091

QC Batch: 271992
QC Batch Method: EPA 7470
Analysis Method: EPA 7470
Analysis Description: 7470 Mercury TCLP
Associated Lab Samples: 40159091001

METHOD BLANK: 1599397 Matrix: Water
Associated Lab Samples: 40159091001

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Mercury	ug/L	<0.13	0.42	10/27/17 08:26	

METHOD BLANK: 1596385 Matrix: Water
Associated Lab Samples: 40159091001

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Mercury	ug/L	<0.13	0.42	10/27/17 09:17	

METHOD BLANK: 1598018 Matrix: Water
Associated Lab Samples: 40159091001

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Mercury	ug/L	<0.13	0.42	10/27/17 08:59	

METHOD BLANK: 1598100 Matrix: Water
Associated Lab Samples: 40159091001

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Mercury	ug/L	<0.13	0.42	10/27/17 09:08	

LABORATORY CONTROL SAMPLE: 1599398

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Mercury	ug/L	5	5.6	112	85-115	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1599399 1599400

Parameter	Units	40158566013 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Mercury	ug/L	<0.00013 mg/L	5	5	7.1	7.3	141	144	85-115	2	20	M0

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
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(920)469-2436

QUALITY CONTROL DATA

Project: 117-2202058.05 RIPON FF/ NN LA
Pace Project No.: 40159091

MATRIX SPIKE SAMPLE: 1599401

Parameter	Units	40158972001 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Mercury	ug/L	<12.6	500	558	112	85-115	

MATRIX SPIKE SAMPLE: 1599402

Parameter	Units	40159283001 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Mercury	ug/L	0.00030J mg/L	5	7.4	142	85-115	M0

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REPORT OF LABORATORY ANALYSIS

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(920)469-2436

QUALITY CONTROL DATA

Project: 117-2202058.05 RIPON FF/ NN LA
Pace Project No.: 40159091

QC Batch: 272351 Analysis Method: EPA 7471
QC Batch Method: EPA 7471 Analysis Description: 7471 Mercury
Associated Lab Samples: 40159091001

METHOD BLANK: 1601944 Matrix: Solid
Associated Lab Samples: 40159091001

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Mercury	mg/kg	0.012J	0.037	10/31/17 09:41	

LABORATORY CONTROL SAMPLE: 1601945

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Mercury	mg/kg	.83	0.88	105	85-115	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1601946 1601947

Parameter	Units	40159605001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Mercury	mg/kg	3.8	1.1	1.1	1.8	1.7	-187	-191	85-115	3	20	M0

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: 117-2202058.05 RIPON FF/ NN LA
Pace Project No.: 40159091

QC Batch: 271650
QC Batch Method: EPA 3050
Analysis Method: EPA 6010
Analysis Description: 6010 MET
Associated Lab Samples: 40159091001

METHOD BLANK: 1597122
Matrix: Solid
Associated Lab Samples: 40159091001

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Arsenic	mg/kg	<1.0	5.0	10/25/17 18:47	
Barium	mg/kg	<0.15	0.50	10/25/17 18:47	
Cadmium	mg/kg	<0.13	0.50	10/25/17 18:47	
Chromium	mg/kg	<0.28	1.0	10/25/17 18:47	
Lead	mg/kg	<0.43	1.3	10/25/17 18:47	
Selenium	mg/kg	<1.1	5.0	10/25/17 18:47	
Silver	mg/kg	<0.34	1.0	10/25/17 18:47	

LABORATORY CONTROL SAMPLE: 1597123

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Arsenic	mg/kg	50	51.3	103	80-120	
Barium	mg/kg	50	52.4	105	80-120	
Cadmium	mg/kg	50	52.2	104	80-120	
Chromium	mg/kg	50	51.5	103	80-120	
Lead	mg/kg	50	51.1	102	80-120	
Selenium	mg/kg	50	52.9	106	80-120	
Silver	mg/kg	25	25.9	104	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1597124 1597125

Parameter	Units	40159139005 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Arsenic	mg/kg	5.5J	63.3	63.1	64.2	63.7	93	92	75-125	1	20	
Barium	mg/kg	82.0	63.3	63.1	170	159	138	122	75-125	6	20	M0
Cadmium	mg/kg	0.23J	63.3	63.1	63.4	62.0	100	98	75-125	2	20	
Chromium	mg/kg	23.0	63.3	63.1	86.0	82.8	100	95	75-125	4	20	
Lead	mg/kg	9.7	63.3	63.1	69.1	67.1	94	91	75-125	3	20	
Selenium	mg/kg	7.1	63.3	63.1	65.7	69.7	93	99	75-125	6	20	
Silver	mg/kg	<0.44	31.6	31.6	32.0	31.0	101	98	75-125	3	20	

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REPORT OF LABORATORY ANALYSIS

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

QUALITY CONTROL DATA

Project: 117-2202058.05 RIPON FF/ NN LA
Pace Project No.: 40159091

QC Batch: 271737 Analysis Method: EPA 6010
QC Batch Method: EPA 3010 Analysis Description: 6010 MET TCLP
Associated Lab Samples: 40159091001

METHOD BLANK: 1597517 Matrix: Water
Associated Lab Samples: 40159091001

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Arsenic	mg/L	<0.0083	0.025	10/26/17 18:31	
Barium	mg/L	<0.0050	0.015	10/26/17 18:31	
Cadmium	mg/L	<0.0013	0.0050	10/26/17 18:31	
Chromium	mg/L	<0.0025	0.010	10/26/17 18:31	
Lead	mg/L	<0.0043	0.013	10/26/17 18:31	
Selenium	mg/L	<0.017	0.050	10/26/17 18:31	
Silver	mg/L	<0.0033	0.010	10/26/17 18:31	

METHOD BLANK: 1596380 Matrix: Solid
Associated Lab Samples: 40159091001

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Arsenic	mg/L	<0.042	0.12	10/26/17 18:47	
Barium	mg/L	<0.025	0.075	10/26/17 18:47	
Cadmium	mg/L	<0.0066	0.025	10/26/17 18:47	
Chromium	mg/L	<0.013	0.050	10/26/17 18:47	
Lead	mg/L	<0.022	0.065	10/26/17 18:47	
Selenium	mg/L	<0.083	0.25	10/26/17 18:47	
Silver	mg/L	<0.017	0.050	10/26/17 18:47	

LABORATORY CONTROL SAMPLE: 1597518

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Arsenic	mg/L	.5	0.51	101	80-120	
Barium	mg/L	.5	0.51	102	80-120	
Cadmium	mg/L	.5	0.52	104	80-120	
Chromium	mg/L	.5	0.51	102	80-120	
Lead	mg/L	.5	0.53	106	80-120	
Selenium	mg/L	.5	0.54	108	80-120	
Silver	mg/L	.25	0.26	105	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1597519 1597520

Parameter	Units	40158972001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Arsenic	mg/L	<0.042	2.5	2.5	2.7	2.6	109	104	75-125	5	20	

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REPORT OF LABORATORY ANALYSIS

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

QUALITY CONTROL DATA

Project: 117-2202058.05 RIPON FF/ NN LA
Pace Project No.: 40159091

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1597519 1597520

Parameter	Units	40158972001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Barium	mg/L	0.58	2.5	2.5	3.3	3.2	109	106	75-125	2	20	
Cadmium	mg/L	<0.0066	2.5	2.5	2.8	2.6	111	105	75-125	5	20	
Chromium	mg/L	0.37	2.5	2.5	3.1	3.1	107	110	75-125	2	20	
Lead	mg/L	0.051J	2.5	2.5	2.7	2.7	105	105	75-125	1	20	
Selenium	mg/L	<0.083	2.5	2.5	3.0	2.8	122	112	75-125	8	20	
Silver	mg/L	<0.017	1.2	1.2	1.4	1.3	111	108	75-125	3	20	

MATRIX SPIKE SAMPLE: 1597521

Parameter	Units	40159091001 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Arsenic	mg/L	<0.042	2.5	2.5	100	75-125	
Barium	mg/L	0.083	2.5	2.6	103	75-125	
Cadmium	mg/L	<0.0066	2.5	2.6	103	75-125	
Chromium	mg/L	<0.013	2.5	2.7	107	75-125	
Lead	mg/L	<0.022	2.5	2.6	105	75-125	
Selenium	mg/L	<0.083	2.5	2.7	107	75-125	
Silver	mg/L	<0.017	1.2	1.3	106	75-125	

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: 117-2202058.05 RIPON FF/ NN LA
Pace Project No.: 40159091

QC Batch: 271535
QC Batch Method: EPA 5035/5030B
Analysis Method: EPA 8260
Analysis Description: 8260 MSV Med Level Normal List
Associated Lab Samples: 40159091002

METHOD BLANK: 1596740
Matrix: Solid
Associated Lab Samples: 40159091002

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
1,1,1,2-Tetrachloroethane	ug/kg	<13.7	50.0	10/23/17 09:40	
1,1,1-Trichloroethane	ug/kg	<14.4	50.0	10/23/17 09:40	
1,1,2,2-Tetrachloroethane	ug/kg	<17.5	50.0	10/23/17 09:40	
1,1,2-Trichloroethane	ug/kg	<20.2	50.0	10/23/17 09:40	
1,1-Dichloroethane	ug/kg	<17.6	50.0	10/23/17 09:40	
1,1-Dichloroethene	ug/kg	<17.6	50.0	10/23/17 09:40	
1,1-Dichloropropene	ug/kg	<14.0	50.0	10/23/17 09:40	
1,2,3-Trichlorobenzene	ug/kg	<17.0	50.0	10/23/17 09:40	
1,2,3-Trichloropropane	ug/kg	<22.3	50.0	10/23/17 09:40	
1,2,4-Trichlorobenzene	ug/kg	<47.6	250	10/23/17 09:40	
1,2,4-Trimethylbenzene	ug/kg	<12.2	50.0	10/23/17 09:40	
1,2-Dibromo-3-chloropropane	ug/kg	<91.2	250	10/23/17 09:40	
1,2-Dibromoethane (EDB)	ug/kg	<14.7	50.0	10/23/17 09:40	
1,2-Dichlorobenzene	ug/kg	<16.2	50.0	10/23/17 09:40	
1,2-Dichloroethane	ug/kg	<15.0	50.0	10/23/17 09:40	
1,2-Dichloropropane	ug/kg	<16.8	50.0	10/23/17 09:40	
1,3,5-Trimethylbenzene	ug/kg	<14.5	50.0	10/23/17 09:40	
1,3-Dichlorobenzene	ug/kg	<13.2	50.0	10/23/17 09:40	
1,3-Dichloropropane	ug/kg	<12.0	50.0	10/23/17 09:40	
1,4-Dichlorobenzene	ug/kg	<15.9	50.0	10/23/17 09:40	
2,2-Dichloropropane	ug/kg	<12.6	50.0	10/23/17 09:40	
2-Chlorotoluene	ug/kg	<15.8	50.0	10/23/17 09:40	
4-Chlorotoluene	ug/kg	<13.0	50.0	10/23/17 09:40	
Benzene	ug/kg	<9.2	20.0	10/23/17 09:40	
Bromobenzene	ug/kg	<20.6	50.0	10/23/17 09:40	
Bromochloromethane	ug/kg	<21.4	50.0	10/23/17 09:40	
Bromodichloromethane	ug/kg	<9.8	50.0	10/23/17 09:40	
Bromoform	ug/kg	<19.8	50.0	10/23/17 09:40	
Bromomethane	ug/kg	<69.9	250	10/23/17 09:40	
Carbon tetrachloride	ug/kg	<12.1	50.0	10/23/17 09:40	
Chlorobenzene	ug/kg	<14.8	50.0	10/23/17 09:40	
Chloroethane	ug/kg	<67.0	250	10/23/17 09:40	
Chloroform	ug/kg	<46.4	250	10/23/17 09:40	
Chloromethane	ug/kg	<20.4	50.0	10/23/17 09:40	
cis-1,2-Dichloroethene	ug/kg	<16.6	50.0	10/23/17 09:40	
cis-1,3-Dichloropropene	ug/kg	<16.6	50.0	10/23/17 09:40	
Dibromochloromethane	ug/kg	<17.9	50.0	10/23/17 09:40	
Dibromomethane	ug/kg	<19.3	50.0	10/23/17 09:40	
Dichlorodifluoromethane	ug/kg	<12.3	50.0	10/23/17 09:40	
Diisopropyl ether	ug/kg	<17.7	50.0	10/23/17 09:40	
Ethylbenzene	ug/kg	<12.4	50.0	10/23/17 09:40	

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
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(920)469-2436

QUALITY CONTROL DATA

Project: 117-2202058.05 RIPON FF/ NN LA
Pace Project No.: 40159091

METHOD BLANK: 1596740 Matrix: Solid
Associated Lab Samples: 40159091002

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Hexachloro-1,3-butadiene	ug/kg	<24.5	50.0	10/23/17 09:40	
Isopropylbenzene (Cumene)	ug/kg	<12.6	50.0	10/23/17 09:40	
m&p-Xylene	ug/kg	<34.4	100	10/23/17 09:40	
Methyl-tert-butyl ether	ug/kg	<12.7	50.0	10/23/17 09:40	
Methylene Chloride	ug/kg	<16.2	50.0	10/23/17 09:40	
n-Butylbenzene	ug/kg	<10.5	50.0	10/23/17 09:40	
n-Propylbenzene	ug/kg	<11.6	50.0	10/23/17 09:40	
Naphthalene	ug/kg	<40.0	250	10/23/17 09:40	
o-Xylene	ug/kg	<14.0	50.0	10/23/17 09:40	
p-Isopropyltoluene	ug/kg	<12.0	50.0	10/23/17 09:40	
sec-Butylbenzene	ug/kg	<11.9	50.0	10/23/17 09:40	
Styrene	ug/kg	<9.0	50.0	10/23/17 09:40	
tert-Butylbenzene	ug/kg	<9.5	50.0	10/23/17 09:40	
Tetrachloroethene	ug/kg	<12.9	50.0	10/23/17 09:40	
Toluene	ug/kg	<11.2	50.0	10/23/17 09:40	
trans-1,2-Dichloroethene	ug/kg	<16.5	50.0	10/23/17 09:40	
trans-1,3-Dichloropropene	ug/kg	<14.4	50.0	10/23/17 09:40	
Trichloroethene	ug/kg	<23.6	50.0	10/23/17 09:40	
Trichlorofluoromethane	ug/kg	<24.7	50.0	10/23/17 09:40	
Vinyl chloride	ug/kg	<21.1	50.0	10/23/17 09:40	
4-Bromofluorobenzene (S)	%	84	58-141	10/23/17 09:40	
Dibromofluoromethane (S)	%	99	68-130	10/23/17 09:40	
Toluene-d8 (S)	%	95	68-149	10/23/17 09:40	

LABORATORY CONTROL SAMPLE: 1596741

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,1,1-Trichloroethane	ug/kg	2500	2530	101	61-122	
1,1,2,2-Tetrachloroethane	ug/kg	2500	2690	108	73-130	
1,1,2-Trichloroethane	ug/kg	2500	2630	105	70-130	
1,1-Dichloroethane	ug/kg	2500	2690	108	63-124	
1,1-Dichloroethene	ug/kg	2500	2510	100	53-117	
1,2,4-Trichlorobenzene	ug/kg	2500	2480	99	78-130	
1,2-Dibromo-3-chloropropane	ug/kg	2500	2450	98	49-140	
1,2-Dibromoethane (EDB)	ug/kg	2500	2690	107	70-130	
1,2-Dichlorobenzene	ug/kg	2500	2650	106	70-130	
1,2-Dichloroethane	ug/kg	2500	2780	111	56-135	
1,2-Dichloropropane	ug/kg	2500	2620	105	77-122	
1,3-Dichlorobenzene	ug/kg	2500	2620	105	70-130	
1,4-Dichlorobenzene	ug/kg	2500	2540	102	70-130	
Benzene	ug/kg	2500	2750	110	66-130	
Bromodichloromethane	ug/kg	2500	2540	102	62-135	
Bromoform	ug/kg	2500	2200	88	68-130	
Bromomethane	ug/kg	2500	2660	106	29-137	

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
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(920)469-2436

QUALITY CONTROL DATA

Project: 117-2202058.05 RIPON FF/ NN LA
Pace Project No.: 40159091

LABORATORY CONTROL SAMPLE: 1596741

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Carbon tetrachloride	ug/kg	2500	2560	103	57-130	
Chlorobenzene	ug/kg	2500	2690	108	70-130	
Chloroethane	ug/kg	2500	2490	99	36-144	
Chloroform	ug/kg	2500	2610	104	69-115	
Chloromethane	ug/kg	2500	1930	77	32-126	
cis-1,2-Dichloroethene	ug/kg	2500	2620	105	65-130	
cis-1,3-Dichloropropene	ug/kg	2500	2520	101	70-130	
Dibromochloromethane	ug/kg	2500	2310	92	70-130	
Dichlorodifluoromethane	ug/kg	2500	1490	60	10-99	
Ethylbenzene	ug/kg	2500	2530	101	82-122	
Isopropylbenzene (Cumene)	ug/kg	2500	2480	99	70-130	
m&p-Xylene	ug/kg	5000	5030	101	70-130	
Methyl-tert-butyl ether	ug/kg	2500	2580	103	63-134	
Methylene Chloride	ug/kg	2500	2520	101	56-123	
o-Xylene	ug/kg	2500	2560	102	70-130	
Styrene	ug/kg	2500	2550	102	70-130	
Tetrachloroethene	ug/kg	2500	2510	101	70-131	
Toluene	ug/kg	2500	2570	103	80-120	
trans-1,2-Dichloroethene	ug/kg	2500	2680	107	66-130	
trans-1,3-Dichloropropene	ug/kg	2500	2260	90	68-130	
Trichloroethene	ug/kg	2500	2640	106	70-130	
Trichlorofluoromethane	ug/kg	2500	2430	97	37-149	
Vinyl chloride	ug/kg	2500	2330	93	43-128	
4-Bromofluorobenzene (S)	%			90	58-141	
Dibromofluoromethane (S)	%			104	68-130	
Toluene-d8 (S)	%			98	68-149	

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
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QUALITY CONTROL DATA

Project: 117-2202058.05 RIPON FF/ NN LA
Pace Project No.: 40159091

QC Batch: 271671
QC Batch Method: EPA 5035/5030B
Analysis Method: EPA 8260
Analysis Description: 8260 MSV Med Level Normal List
Associated Lab Samples: 40159091001

METHOD BLANK: 1597178
Matrix: Solid
Associated Lab Samples: 40159091001

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
1,1,1,2-Tetrachloroethane	ug/kg	<13.7	50.0	10/24/17 11:00	
1,1,1-Trichloroethane	ug/kg	<14.4	50.0	10/24/17 11:00	
1,1,2,2-Tetrachloroethane	ug/kg	<17.5	50.0	10/24/17 11:00	
1,1,2-Trichloroethane	ug/kg	<20.2	50.0	10/24/17 11:00	
1,1-Dichloroethane	ug/kg	<17.6	50.0	10/24/17 11:00	
1,1-Dichloroethene	ug/kg	<17.6	50.0	10/24/17 11:00	
1,1-Dichloropropene	ug/kg	<14.0	50.0	10/24/17 11:00	
1,2,3-Trichlorobenzene	ug/kg	18.1J	50.0	10/24/17 11:00	
1,2,3-Trichloropropane	ug/kg	<22.3	50.0	10/24/17 11:00	
1,2,4-Trichlorobenzene	ug/kg	<47.6	250	10/24/17 11:00	
1,2,4-Trimethylbenzene	ug/kg	<12.2	50.0	10/24/17 11:00	
1,2-Dibromo-3-chloropropane	ug/kg	<91.2	250	10/24/17 11:00	
1,2-Dibromoethane (EDB)	ug/kg	<14.7	50.0	10/24/17 11:00	
1,2-Dichlorobenzene	ug/kg	<16.2	50.0	10/24/17 11:00	
1,2-Dichloroethane	ug/kg	<15.0	50.0	10/24/17 11:00	
1,2-Dichloropropane	ug/kg	<16.8	50.0	10/24/17 11:00	
1,3,5-Trimethylbenzene	ug/kg	<14.5	50.0	10/24/17 11:00	
1,3-Dichlorobenzene	ug/kg	<13.2	50.0	10/24/17 11:00	
1,3-Dichloropropane	ug/kg	<12.0	50.0	10/24/17 11:00	
1,4-Dichlorobenzene	ug/kg	<15.9	50.0	10/24/17 11:00	
2,2-Dichloropropane	ug/kg	<12.6	50.0	10/24/17 11:00	
2-Chlorotoluene	ug/kg	<15.8	50.0	10/24/17 11:00	
4-Chlorotoluene	ug/kg	<13.0	50.0	10/24/17 11:00	
Benzene	ug/kg	<9.2	20.0	10/24/17 11:00	
Bromobenzene	ug/kg	<20.6	50.0	10/24/17 11:00	
Bromochloromethane	ug/kg	<21.4	50.0	10/24/17 11:00	
Bromodichloromethane	ug/kg	<9.8	50.0	10/24/17 11:00	
Bromoform	ug/kg	<19.8	50.0	10/24/17 11:00	
Bromomethane	ug/kg	<69.9	250	10/24/17 11:00	
Carbon tetrachloride	ug/kg	<12.1	50.0	10/24/17 11:00	
Chlorobenzene	ug/kg	<14.8	50.0	10/24/17 11:00	
Chloroethane	ug/kg	<67.0	250	10/24/17 11:00	
Chloroform	ug/kg	<46.4	250	10/24/17 11:00	
Chloromethane	ug/kg	<20.4	50.0	10/24/17 11:00	
cis-1,2-Dichloroethene	ug/kg	<16.6	50.0	10/24/17 11:00	
cis-1,3-Dichloropropene	ug/kg	<16.6	50.0	10/24/17 11:00	
Dibromochloromethane	ug/kg	<17.9	50.0	10/24/17 11:00	
Dibromomethane	ug/kg	<19.3	50.0	10/24/17 11:00	
Dichlorodifluoromethane	ug/kg	<12.3	50.0	10/24/17 11:00	
Diisopropyl ether	ug/kg	<17.7	50.0	10/24/17 11:00	
Ethylbenzene	ug/kg	<12.4	50.0	10/24/17 11:00	

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REPORT OF LABORATORY ANALYSIS

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(920)469-2436

QUALITY CONTROL DATA

Project: 117-2202058.05 RIPON FF/ NN LA
Pace Project No.: 40159091

METHOD BLANK: 1597178 Matrix: Solid
Associated Lab Samples: 40159091001

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Hexachloro-1,3-butadiene	ug/kg	<24.5	50.0	10/24/17 11:00	
Isopropylbenzene (Cumene)	ug/kg	<12.6	50.0	10/24/17 11:00	
m&p-Xylene	ug/kg	<34.4	100	10/24/17 11:00	
Methyl-tert-butyl ether	ug/kg	<12.7	50.0	10/24/17 11:00	
Methylene Chloride	ug/kg	<16.2	50.0	10/24/17 11:00	
n-Butylbenzene	ug/kg	12.4J	50.0	10/24/17 11:00	
n-Propylbenzene	ug/kg	<11.6	50.0	10/24/17 11:00	
Naphthalene	ug/kg	<40.0	250	10/24/17 11:00	
o-Xylene	ug/kg	<14.0	50.0	10/24/17 11:00	
p-Isopropyltoluene	ug/kg	<12.0	50.0	10/24/17 11:00	
sec-Butylbenzene	ug/kg	<11.9	50.0	10/24/17 11:00	
Styrene	ug/kg	<9.0	50.0	10/24/17 11:00	
tert-Butylbenzene	ug/kg	<9.5	50.0	10/24/17 11:00	
Tetrachloroethene	ug/kg	<12.9	50.0	10/24/17 11:00	
Toluene	ug/kg	<11.2	50.0	10/24/17 11:00	
trans-1,2-Dichloroethene	ug/kg	<16.5	50.0	10/24/17 11:00	
trans-1,3-Dichloropropene	ug/kg	<14.4	50.0	10/24/17 11:00	
Trichloroethene	ug/kg	<23.6	50.0	10/24/17 11:00	
Trichlorofluoromethane	ug/kg	<24.7	50.0	10/24/17 11:00	
Vinyl chloride	ug/kg	<21.1	50.0	10/24/17 11:00	
4-Bromofluorobenzene (S)	%	81	58-141	10/24/17 11:00	
Dibromofluoromethane (S)	%	85	68-130	10/24/17 11:00	
Toluene-d8 (S)	%	90	68-149	10/24/17 11:00	

LABORATORY CONTROL SAMPLE: 1597179

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,1,1-Trichloroethane	ug/kg	2500	2230	89	61-122	
1,1,2,2-Tetrachloroethane	ug/kg	2500	2150	86	73-130	
1,1,2-Trichloroethane	ug/kg	2500	2290	92	70-130	
1,1-Dichloroethane	ug/kg	2500	2070	83	63-124	
1,1-Dichloroethene	ug/kg	2500	2250	90	53-117	
1,2,4-Trichlorobenzene	ug/kg	2500	1990	80	78-130	
1,2-Dibromo-3-chloropropane	ug/kg	2500	1740	69	49-140	
1,2-Dibromoethane (EDB)	ug/kg	2500	2320	93	70-130	
1,2-Dichlorobenzene	ug/kg	2500	2290	92	70-130	
1,2-Dichloroethane	ug/kg	2500	1940	78	56-135	
1,2-Dichloropropane	ug/kg	2500	2130	85	77-122	
1,3-Dichlorobenzene	ug/kg	2500	2320	93	70-130	
1,4-Dichlorobenzene	ug/kg	2500	2370	95	70-130	
Benzene	ug/kg	2500	2270	91	66-130	
Bromodichloromethane	ug/kg	2500	2300	92	62-135	
Bromoform	ug/kg	2500	1960	78	68-130	
Bromomethane	ug/kg	2500	2190	88	29-137	

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: 117-2202058.05 RIPON FF/ NN LA
Pace Project No.: 40159091

LABORATORY CONTROL SAMPLE: 1597179

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Carbon tetrachloride	ug/kg	2500	2290	91	57-130	
Chlorobenzene	ug/kg	2500	2310	92	70-130	
Chloroethane	ug/kg	2500	2180	87	36-144	
Chloroform	ug/kg	2500	2180	87	69-115	
Chloromethane	ug/kg	2500	1350	54	32-126	
cis-1,2-Dichloroethene	ug/kg	2500	2210	89	65-130	
cis-1,3-Dichloropropene	ug/kg	2500	2100	84	70-130	
Dibromochloromethane	ug/kg	2500	2010	80	70-130	
Dichlorodifluoromethane	ug/kg	2500	1060	43	10-99	
Ethylbenzene	ug/kg	2500	2310	92	82-122	
Isopropylbenzene (Cumene)	ug/kg	2500	2420	97	70-130	
m&p-Xylene	ug/kg	5000	4840	97	70-130	
Methyl-tert-butyl ether	ug/kg	2500	2140	86	63-134	
Methylene Chloride	ug/kg	2500	2120	85	56-123	
o-Xylene	ug/kg	2500	2400	96	70-130	
Styrene	ug/kg	2500	2430	97	70-130	
Tetrachloroethene	ug/kg	2500	2270	91	70-131	
Toluene	ug/kg	2500	2370	95	80-120	
trans-1,2-Dichloroethene	ug/kg	2500	2320	93	66-130	
trans-1,3-Dichloropropene	ug/kg	2500	2020	81	68-130	
Trichloroethene	ug/kg	2500	2320	93	70-130	
Trichlorofluoromethane	ug/kg	2500	2160	87	37-149	
Vinyl chloride	ug/kg	2500	1670	67	43-128	
4-Bromofluorobenzene (S)	%			85	58-141	
Dibromofluoromethane (S)	%			85	68-130	
Toluene-d8 (S)	%			89	68-149	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1597180 1597181

Parameter	Units	40159091001 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	1400	1400	1130	1100	81	79	57-123	3	20	
1,1,2,2-Tetrachloroethane	ug/kg	<25.0	1400	1400	1310	1270	94	91	73-135	3	20	
1,1,2-Trichloroethane	ug/kg	<25.0	1400	1400	1360	1280	97	91	70-130	6	20	
1,1-Dichloroethane	ug/kg	<25.0	1400	1400	1100	1100	79	79	63-124	0	20	
1,1-Dichloroethene	ug/kg	<25.0	1400	1400	1010	1030	72	74	48-117	2	23	
1,2,4-Trichlorobenzene	ug/kg	<47.6	1400	1400	1320	1200	94	85	78-145	10	20	
1,2-Dibromo-3-chloropropane	ug/kg	<91.2	1400	1400	1140	1040	82	74	38-168	10	22	
1,2-Dibromoethane (EDB)	ug/kg	<25.0	1400	1400	1280	1210	92	87	70-130	5	20	
1,2-Dichlorobenzene	ug/kg	<25.0	1400	1400	1380	1280	99	92	70-130	7	20	
1,2-Dichloroethane	ug/kg	<25.0	1400	1400	1090	1040	78	74	56-145	5	20	
1,2-Dichloropropane	ug/kg	<25.0	1400	1400	1210	1160	87	83	77-123	4	20	
1,3-Dichlorobenzene	ug/kg	<25.0	1400	1400	1380	1270	99	91	70-130	8	20	
1,4-Dichlorobenzene	ug/kg	<25.0	1400	1400	1390	1340	100	96	70-130	4	20	

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REPORT OF LABORATORY ANALYSIS

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

QUALITY CONTROL DATA

Project: 117-2202058.05 RIPON FF/ NN LA
Pace Project No.: 40159091

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1597180 1597181

Parameter	Units	40159091001 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	1400	1400	1240	1210	89	87	65-130	2	20	
Bromodichloromethane	ug/kg	<25.0	1400	1400	1200	1180	86	84	59-141	2	20	
Bromoform	ug/kg	<25.0	1400	1400	1180	1180	85	84	59-141	0	20	
Bromomethane	ug/kg	<69.9	1400	1400	1110	1090	79	78	28-139	1	20	
Carbon tetrachloride	ug/kg	<25.0	1400	1400	1040	1120	74	80	50-130	7	20	
Chlorobenzene	ug/kg	<25.0	1400	1400	1290	1220	92	88	70-130	5	20	
Chloroethane	ug/kg	<67.0	1400	1400	1070	1070	77	76	36-144	1	20	
Chloroform	ug/kg	<46.4	1400	1400	1210	1180	87	84	68-122	3	20	
Chloromethane	ug/kg	<25.0	1400	1400	622	614	45	44	30-126	1	20	
cis-1,2-Dichloroethene	ug/kg	<25.0	1400	1400	1220	1180	87	84	63-130	4	20	
cis-1,3-Dichloropropene	ug/kg	<25.0	1400	1400	1190	1140	85	81	70-130	5	20	
Dibromochloromethane	ug/kg	<25.0	1400	1400	1170	1110	84	80	66-136	5	20	
Dichlorodifluoromethane	ug/kg	<25.0	1400	1400	370	403	27	29	10-99	8	33	
Ethylbenzene	ug/kg	<25.0	1400	1400	1220	1160	87	83	80-122	5	20	
Isopropylbenzene (Cumene)	ug/kg	<25.0	1400	1400	1230	1200	88	86	70-130	2	20	
m&p-Xylene	ug/kg	<50.0	2790	2790	2590	2510	93	90	70-130	3	20	
Methyl-tert-butyl ether	ug/kg	<25.0	1400	1400	1200	1150	86	82	63-134	5	20	
Methylene Chloride	ug/kg	<25.0	1400	1400	1210	1160	86	83	56-127	4	20	
o-Xylene	ug/kg	<25.0	1400	1400	1290	1250	93	89	70-130	4	20	
Styrene	ug/kg	<25.0	1400	1400	1340	1280	96	92	70-130	5	20	
Tetrachloroethene	ug/kg	<25.0	1400	1400	1200	1180	86	85	70-131	1	20	
Toluene	ug/kg	<25.0	1400	1400	1260	1220	90	87	80-120	3	20	
trans-1,2-Dichloroethene	ug/kg	<25.0	1400	1400	1250	1230	89	88	60-130	2	20	
trans-1,3-Dichloropropene	ug/kg	<25.0	1400	1400	1190	1090	85	78	68-130	8	20	
Trichloroethene	ug/kg	<25.0	1400	1400	1180	1160	85	83	70-130	2	20	
Trichlorofluoromethane	ug/kg	<25.0	1400	1400	945	985	68	71	37-149	4	24	
Vinyl chloride	ug/kg	<25.0	1400	1400	678	675	49	48	39-128	0	20	
4-Bromofluorobenzene (S)	%						100	94	58-141			
Dibromofluoromethane (S)	%						99	97	68-130			
Toluene-d8 (S)	%						100	98	68-149			

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
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(920)469-2436

QUALITY CONTROL DATA

Project: 117-2202058.05 RIPON FF/ NN LA
Pace Project No.: 40159091

QC Batch: 271612
QC Batch Method: EPA 8260
Analysis Method: EPA 8260
Analysis Description: 8260 MSV TCLP
Associated Lab Samples: 40159091001

METHOD BLANK: 1596996 Matrix: Water
Associated Lab Samples: 40159091001

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
1,1-Dichloroethene	ug/L	<0.41	1.0	10/25/17 06:35	
1,2-Dichloroethane	ug/L	<0.17	1.0	10/25/17 06:35	
2-Butanone (MEK)	ug/L	<3.0	20.0	10/25/17 06:35	
Benzene	ug/L	<0.50	1.0	10/25/17 06:35	
Carbon tetrachloride	ug/L	<0.50	1.0	10/25/17 06:35	
Chlorobenzene	ug/L	<0.50	1.0	10/25/17 06:35	
Chloroform	ug/L	<2.5	5.0	10/25/17 06:35	
Tetrachloroethene	ug/L	<0.50	1.0	10/25/17 06:35	
Trichloroethene	ug/L	<0.33	1.0	10/25/17 06:35	
Vinyl chloride	ug/L	<0.18	1.0	10/25/17 06:35	
4-Bromofluorobenzene (S)	%	87	61-130	10/25/17 06:35	
Dibromofluoromethane (S)	%	115	67-130	10/25/17 06:35	
Toluene-d8 (S)	%	99	70-130	10/25/17 06:35	

METHOD BLANK: 1596386 Matrix: Solid
Associated Lab Samples: 40159091001

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
1,1-Dichloroethene	ug/L	<4.1	10.0	10/25/17 10:19	
1,2-Dichloroethane	ug/L	<1.7	10.0	10/25/17 10:19	
2-Butanone (MEK)	ug/L	<29.8	200	10/25/17 10:19	
Benzene	ug/L	<5.0	10.0	10/25/17 10:19	
Carbon tetrachloride	ug/L	<5.0	10.0	10/25/17 10:19	
Chlorobenzene	ug/L	<5.0	10.0	10/25/17 10:19	
Chloroform	ug/L	<25.0	50.0	10/25/17 10:19	
Tetrachloroethene	ug/L	<5.0	10.0	10/25/17 10:19	
Trichloroethene	ug/L	<3.3	10.0	10/25/17 10:19	
Vinyl chloride	ug/L	<1.8	10.0	10/25/17 10:19	
4-Bromofluorobenzene (S)	%	88	61-130	10/25/17 10:19	
Dibromofluoromethane (S)	%	119	67-130	10/25/17 10:19	
Toluene-d8 (S)	%	103	70-130	10/25/17 10:19	

LABORATORY CONTROL SAMPLE: 1596997

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,1-Dichloroethene	ug/L	19.8	19.9	100	75-130	
1,2-Dichloroethane	ug/L	19.8	23.4	118	70-131	
Benzene	ug/L	19.8	19.5	98	73-145	

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QUALITY CONTROL DATA

Project: 117-2202058.05 RIPON FF/ NN LA
Pace Project No.: 40159091

LABORATORY CONTROL SAMPLE: 1596997

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Carbon tetrachloride	ug/L	19.8	21.3	108	70-133	
Chlorobenzene	ug/L	19.8	21.0	106	70-130	
Chloroform	ug/L	19.8	21.6	109	80-121	
Tetrachloroethene	ug/L	19.8	20.7	104	70-130	
Trichloroethene	ug/L	19.8	20.0	101	70-130	
Vinyl chloride	ug/L	20	18.8	94	57-136	
4-Bromofluorobenzene (S)	%			103	61-130	
Dibromofluoromethane (S)	%			108	67-130	
Toluene-d8 (S)	%			102	70-130	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1597967 1597968

Parameter	Units	40158993001 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	496	496	523	544	105	110	75-136	4	20	
1,2-Dichloroethane	ug/L	<1.7	496	496	578	598	116	121	70-131	3	20	
2-Butanone (MEK)	ug/L	<29.8			<29.8	<29.8					20	
Benzene	ug/L	<5.0	496	496	513	533	103	107	73-145	4	20	
Carbon tetrachloride	ug/L	<5.0	496	496	564	578	114	117	70-134	2	20	
Chlorobenzene	ug/L	<5.0	496	496	521	546	105	110	70-130	5	20	
Chloroform	ug/L	<25.0	496	496	542	560	109	112	80-121	3	20	
Tetrachloroethene	ug/L	12.0	496	496	538	560	106	110	70-130	4	20	
Trichloroethene	ug/L	<3.3	496	496	517	541	104	109	70-130	5	20	
Vinyl chloride	ug/L	<1.8	500	500	502	523	100	105	56-143	4	20	
4-Bromofluorobenzene (S)	%						101	103	61-130			
Dibromofluoromethane (S)	%						109	110	67-130			
Toluene-d8 (S)	%						101	101	70-130			

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: 117-2202058.05 RIPON FF/ NN LA
Pace Project No.: 40159091

QC Batch: 271464
QC Batch Method: EPA 3541
Analysis Method: EPA 8082
Analysis Description: 8082 GCS PCB
Associated Lab Samples: 40159091001

METHOD BLANK: 1596571 Matrix: Solid
Associated Lab Samples: 40159091001

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
PCB-1016 (Aroclor 1016)	ug/kg	<25.0	50.0	10/24/17 08:33	
PCB-1221 (Aroclor 1221)	ug/kg	<25.0	50.0	10/24/17 08:33	
PCB-1232 (Aroclor 1232)	ug/kg	<25.0	50.0	10/24/17 08:33	
PCB-1242 (Aroclor 1242)	ug/kg	<25.0	50.0	10/24/17 08:33	
PCB-1248 (Aroclor 1248)	ug/kg	<25.0	50.0	10/24/17 08:33	
PCB-1254 (Aroclor 1254)	ug/kg	<25.0	50.0	10/24/17 08:33	
PCB-1260 (Aroclor 1260)	ug/kg	<25.0	50.0	10/24/17 08:33	
Decachlorobiphenyl (S)	%	92	53-105	10/24/17 08:33	
Tetrachloro-m-xylene (S)	%	83	50-102	10/24/17 08:33	

LABORATORY CONTROL SAMPLE: 1596572

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	397	79	59-106	
Decachlorobiphenyl (S)	%			92	53-105	
Tetrachloro-m-xylene (S)	%			85	50-102	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1596573 1596574

Parameter	Units	40159143001 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	<28.9			<28.9	<28.9					20	
PCB-1221 (Aroclor 1221)	ug/kg	<28.9			<28.9	<28.9					20	
PCB-1232 (Aroclor 1232)	ug/kg	<28.9			<28.9	<28.9					20	
PCB-1242 (Aroclor 1242)	ug/kg	56.6J			92.9	91.7				1	20	
PCB-1248 (Aroclor 1248)	ug/kg	<28.9			<28.9	<28.9					20	
PCB-1254 (Aroclor 1254)	ug/kg	<28.9			<28.9	<28.9					20	
PCB-1260 (Aroclor 1260)	ug/kg	<28.9	579	579	422	404	73	70	51-109	4	20	
Decachlorobiphenyl (S)	%						76	74	53-105			
Tetrachloro-m-xylene (S)	%						76	73	50-102			

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: 117-2202058.05 RIPON FF/ NN LA
Pace Project No.: 40159091

QC Batch: 271618
QC Batch Method: EPA 3546
Analysis Method: EPA 8270
Analysis Description: 8270 Solid MSSV Microwave
Associated Lab Samples: 40159091001

METHOD BLANK: 1597012
Matrix: Solid
Associated Lab Samples: 40159091001

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
1,2,4-Trichlorobenzene	ug/kg	<18.9	63.0	10/25/17 09:29	
1,2-Dichlorobenzene	ug/kg	<52.5	175	10/25/17 09:29	
1,3-Dichlorobenzene	ug/kg	<23.1	77.1	10/25/17 09:29	
1,4-Dichlorobenzene	ug/kg	<23.3	77.6	10/25/17 09:29	
2,2'-Oxybis(1-chloropropane)	ug/kg	<43.1	144	10/25/17 09:29	
2,4,5-Trichlorophenol	ug/kg	<29.5	98.4	10/25/17 09:29	
2,4,6-Trichlorophenol	ug/kg	<25.5	84.9	10/25/17 09:29	
2,4-Dichlorophenol	ug/kg	<44.7	149	10/25/17 09:29	
2,4-Dimethylphenol	ug/kg	<33.0	110	10/25/17 09:29	
2,4-Dinitrophenol	ug/kg	<50.9	170	10/25/17 09:29	
2,4-Dinitrotoluene	ug/kg	<23.9	79.6	10/25/17 09:29	
2,6-Dinitrotoluene	ug/kg	<31.7	106	10/25/17 09:29	
2-Chloronaphthalene	ug/kg	<21.5	71.5	10/25/17 09:29	
2-Chlorophenol	ug/kg	<41.7	139	10/25/17 09:29	
2-Methylnaphthalene	ug/kg	<43.4	145	10/25/17 09:29	
2-Methylphenol(o-Cresol)	ug/kg	<30.4	101	10/25/17 09:29	
2-Nitroaniline	ug/kg	<47.6	159	10/25/17 09:29	
2-Nitrophenol	ug/kg	<52.7	176	10/25/17 09:29	
3&4-Methylphenol(m&p Cresol)	ug/kg	<30.6	102	10/25/17 09:29	
3,3'-Dichlorobenzidine	ug/kg	<45.3	151	10/25/17 09:29	
3-Nitroaniline	ug/kg	<28.4	94.7	10/25/17 09:29	
4,6-Dinitro-2-methylphenol	ug/kg	<51.5	172	10/25/17 09:29	
4-Bromophenylphenyl ether	ug/kg	<35.0	117	10/25/17 09:29	
4-Chloro-3-methylphenol	ug/kg	<52.0	173	10/25/17 09:29	
4-Chloroaniline	ug/kg	<27.5	91.5	10/25/17 09:29	
4-Chlorophenylphenyl ether	ug/kg	<31.1	104	10/25/17 09:29	
4-Nitroaniline	ug/kg	<69.3	231	10/25/17 09:29	
4-Nitrophenol	ug/kg	<42.1	140	10/25/17 09:29	
Acenaphthene	ug/kg	<59.3	198	10/25/17 09:29	
Acenaphthylene	ug/kg	<59.6	199	10/25/17 09:29	
Anthracene	ug/kg	<26.7	89.0	10/25/17 09:29	
Benzo(a)anthracene	ug/kg	<25.9	86.3	10/25/17 09:29	
Benzo(a)pyrene	ug/kg	<25.1	83.8	10/25/17 09:29	
Benzo(b)fluoranthene	ug/kg	<28.7	95.7	10/25/17 09:29	
Benzo(g,h,i)perylene	ug/kg	<43.7	146	10/25/17 09:29	
Benzo(k)fluoranthene	ug/kg	<40.0	133	10/25/17 09:29	
bis(2-Chloroethoxy)methane	ug/kg	<45.0	150	10/25/17 09:29	
bis(2-Chloroethyl) ether	ug/kg	<52.2	174	10/25/17 09:29	
bis(2-Ethylhexyl)phthalate	ug/kg	<27.8	92.6	10/25/17 09:29	
Butylbenzylphthalate	ug/kg	<26.8	89.3	10/25/17 09:29	
Carbazole	ug/kg	<26.2	87.2	10/25/17 09:29	

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(920)469-2436

QUALITY CONTROL DATA

Project: 117-2202058.05 RIPON FF/ NN LA
Pace Project No.: 40159091

METHOD BLANK: 1597012 Matrix: Solid
Associated Lab Samples: 40159091001

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Chrysene	ug/kg	<25.0	83.3	10/25/17 09:29	
Di-n-butylphthalate	ug/kg	<25.0	83.2	10/25/17 09:29	
Di-n-octylphthalate	ug/kg	<37.6	125	10/25/17 09:29	
Dibenz(a,h)anthracene	ug/kg	<45.4	151	10/25/17 09:29	
Dibenzofuran	ug/kg	<20.2	67.4	10/25/17 09:29	
Diethylphthalate	ug/kg	<27.7	92.4	10/25/17 09:29	
Dimethylphthalate	ug/kg	<21.7	72.5	10/25/17 09:29	
Fluoranthene	ug/kg	<23.6	78.8	10/25/17 09:29	
Fluorene	ug/kg	<19.5	65.1	10/25/17 09:29	
Hexachloro-1,3-butadiene	ug/kg	<42.6	142	10/25/17 09:29	
Hexachlorobenzene	ug/kg	<28.1	93.7	10/25/17 09:29	
Hexachlorocyclopentadiene	ug/kg	<39.5	132	10/25/17 09:29	
Hexachloroethane	ug/kg	<26.7	89.1	10/25/17 09:29	
Indeno(1,2,3-cd)pyrene	ug/kg	<36.2	121	10/25/17 09:29	
Isophorone	ug/kg	<25.7	85.6	10/25/17 09:29	
N-Nitroso-di-n-propylamine	ug/kg	<26.5	88.3	10/25/17 09:29	
N-Nitrosodiphenylamine	ug/kg	<227	756	10/25/17 09:29	
Naphthalene	ug/kg	<58.4	195	10/25/17 09:29	
Nitrobenzene	ug/kg	<33.9	113	10/25/17 09:29	
Pentachlorophenol	ug/kg	<36.8	123	10/25/17 09:29	
Phenanthrene	ug/kg	<21.4	71.5	10/25/17 09:29	
Phenol	ug/kg	<39.7	132	10/25/17 09:29	
Pyrene	ug/kg	<37.0	123	10/25/17 09:29	
2,4,6-Tribromophenol (S)	%	85	13-143	10/25/17 09:29	
2-Fluorobiphenyl (S)	%	81	18-127	10/25/17 09:29	
2-Fluorophenol (S)	%	70	16-103	10/25/17 09:29	
Nitrobenzene-d5 (S)	%	67	13-114	10/25/17 09:29	
Phenol-d6 (S)	%	68	30-97	10/25/17 09:29	
Terphenyl-d14 (S)	%	86	41-109	10/25/17 09:29	

LABORATORY CONTROL SAMPLE: 1597013

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,2,4-Trichlorobenzene	ug/kg	1670	1460	88	65-130	
1,2-Dichlorobenzene	ug/kg	1670	1400	84	53-130	
1,3-Dichlorobenzene	ug/kg	1670	1360	82	51-99	
1,4-Dichlorobenzene	ug/kg	1670	1400	84	52-101	
2,2'-Oxybis(1-chloropropane)	ug/kg	1670	1130	68	54-105	
2,4,5-Trichlorophenol	ug/kg	1670	1360	82	60-119	
2,4,6-Trichlorophenol	ug/kg	1670	1410	85	64-115	
2,4-Dichlorophenol	ug/kg	1670	1390	84	66-99	
2,4-Dimethylphenol	ug/kg	1670	1370	82	70-121	
2,4-Dinitrophenol	ug/kg	1670	765	46	23-72	
2,4-Dinitrotoluene	ug/kg	1670	1500	90	58-131	

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REPORT OF LABORATORY ANALYSIS

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

QUALITY CONTROL DATA

Project: 117-2202058.05 RIPON FF/ NN LA
Pace Project No.: 40159091

LABORATORY CONTROL SAMPLE: 1597013

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
2,6-Dinitrotoluene	ug/kg	1670	1520	92	60-125	
2-Chloronaphthalene	ug/kg	1670	1480	89	64-111	
2-Chlorophenol	ug/kg	1670	1380	83	57-130	
2-Methylnaphthalene	ug/kg	1670	1460	88	67-130	
2-Methylphenol(o-Cresol)	ug/kg	1670	1390	84	64-106	
2-Nitroaniline	ug/kg	1670	1360	82	60-124	
2-Nitrophenol	ug/kg	1670	1370	82	63-107	
3&4-Methylphenol(m&p Cresol)	ug/kg	1670	1390	84	62-106	
3,3'-Dichlorobenzidine	ug/kg	1670	1090	65	39-100	
3-Nitroaniline	ug/kg	1670	1440	87	53-119	
4,6-Dinitro-2-methylphenol	ug/kg	1670	1210	73	49-115	
4-Bromophenylphenyl ether	ug/kg	1670	1650	99	70-130	
4-Chloro-3-methylphenol	ug/kg	1670	1420	85	68-101	
4-Chloroaniline	ug/kg	1670	1390	83	62-126	
4-Chlorophenylphenyl ether	ug/kg	1670	1640	99	67-116	
4-Nitroaniline	ug/kg	1670	1300	78	48-130	
4-Nitrophenol	ug/kg	1670	1010	60	38-118	
Acenaphthene	ug/kg	1670	1470	89	65-116	
Acenaphthylene	ug/kg	1670	1420	85	63-119	
Anthracene	ug/kg	1670	1690	101	70-122	
Benzo(a)anthracene	ug/kg	1670	1430	86	68-111	
Benzo(a)pyrene	ug/kg	1670	1500	90	69-106	
Benzo(b)fluoranthene	ug/kg	1670	1470	89	62-104	
Benzo(g,h,i)perylene	ug/kg	1670	1310	79	55-114	
Benzo(k)fluoranthene	ug/kg	1670	1500	90	64-104	
bis(2-Chloroethoxy)methane	ug/kg	1670	1590	96	70-130	
bis(2-Chloroethyl) ether	ug/kg	1670	1410	85	55-130	
bis(2-Ethylhexyl)phthalate	ug/kg	1670	1450	87	56-117	
Butylbenzylphthalate	ug/kg	1670	1430	86	57-118	
Carbazole	ug/kg	1670	1550	93	70-125	
Chrysene	ug/kg	1670	1430	86	49-121	
Di-n-butylphthalate	ug/kg	1670	1530	92	68-113	
Di-n-octylphthalate	ug/kg	1670	1430	86	48-123	
Dibenz(a,h)anthracene	ug/kg	1670	1330	80	10-124	
Dibenzofuran	ug/kg	1670	1560	94	67-118	
Diethylphthalate	ug/kg	1670	1480	89	68-117	
Dimethylphthalate	ug/kg	1670	1530	92	68-115	
Fluoranthene	ug/kg	1670	1520	91	72-117	
Fluorene	ug/kg	1670	1480	89	64-123	
Hexachloro-1,3-butadiene	ug/kg	1670	1490	90	62-106	
Hexachlorobenzene	ug/kg	1670	1550	93	70-130	
Hexachlorocyclopentadiene	ug/kg	1670	884	53	41-114	
Hexachloroethane	ug/kg	1670	1320	79	51-96	
Indeno(1,2,3-cd)pyrene	ug/kg	1670	1230	74	47-116	
Isophorone	ug/kg	1670	1320	79	67-130	
N-Nitroso-di-n-propylamine	ug/kg	1670	1560	94	61-130	
N-Nitrosodiphenylamine	ug/kg	1670	1570	94	73-115	

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REPORT OF LABORATORY ANALYSIS

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

QUALITY CONTROL DATA

Project: 117-2202058.05 RIPON FF/ NN LA
Pace Project No.: 40159091

LABORATORY CONTROL SAMPLE: 1597013

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Naphthalene	ug/kg	1670	1420	85	65-130	
Nitrobenzene	ug/kg	1670	1310	79	64-130	
Pentachlorophenol	ug/kg	1670	1250	75	50-111	
Phenanthrene	ug/kg	1670	1550	93	70-111	
Phenol	ug/kg	1670	1320	79	56-103	
Pyrene	ug/kg	1670	1440	87	69-118	
2,4,6-Tribromophenol (S)	%			88	13-143	
2-Fluorobiphenyl (S)	%			90	18-127	
2-Fluorophenol (S)	%			76	16-103	
Nitrobenzene-d5 (S)	%			80	13-114	
Phenol-d6 (S)	%			80	30-97	
Terphenyl-d14 (S)	%			88	41-109	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1597014 1597015

Parameter	Units	40158727016 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
2,4-Dimethylphenol	ug/kg	<37.5	1890	1900	1660	1720	88	90	47-121	3	35	
2-Methylphenol(o-Cresol)	ug/kg	<34.5	1890	1900	1610	1470	85	77	46-106	9	32	
3&4-Methylphenol(m&p Cresol)	ug/kg	<34.8	1890	1900	1470	1520	77	80	42-106	3	33	
Carbazole	ug/kg	<29.7	1890	1900	1780	1880	94	99	35-125	5	38	
Dibenzofuran	ug/kg	26.6J	1890	1900	1770	1880	92	98	48-118	6	27	
Phenol	ug/kg	<45.0	1890	1900	1320	1300	69	68	39-103	2	30	
2,4,6-Tribromophenol (S)	%						60	69	13-143			
2-Fluorobiphenyl (S)	%						85	90	18-127			
2-Fluorophenol (S)	%						67	63	16-103			
Nitrobenzene-d5 (S)	%						81	80	13-114			
Phenol-d6 (S)	%						73	73	30-97			
Terphenyl-d14 (S)	%						84	85	41-109			

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REPORT OF LABORATORY ANALYSIS

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(920)469-2436

QUALITY CONTROL DATA

Project: 117-2202058.05 RIPON FF/ NN LA
Pace Project No.: 40159091

QC Batch: 271779
QC Batch Method: EPA 3510
Analysis Method: EPA 8270
Analysis Description: 8270 TCLP MSSV
Associated Lab Samples: 40159091001

METHOD BLANK: 1598003 Matrix: Water
Associated Lab Samples: 40159091001

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
1,4-Dichlorobenzene	ug/L	<3.8	12.5	10/25/17 15:56	
2,4,5-Trichlorophenol	ug/L	<1.7	5.6	10/25/17 15:56	
2,4,6-Trichlorophenol	ug/L	<4.2	14.1	10/25/17 15:56	
2,4-Dinitrotoluene	ug/L	<1.6	5.3	10/25/17 15:56	
2-Methylphenol(o-Cresol)	ug/L	<1.7	5.8	10/25/17 15:56	
3&4-Methylphenol(m&p Cresol)	ug/L	<3.1	10.4	10/25/17 15:56	
Hexachloro-1,3-butadiene	ug/L	<4.9	16.4	10/25/17 15:56	
Hexachlorobenzene	ug/L	<3.4	11.3	10/25/17 15:56	
Hexachloroethane	ug/L	<5.3	17.7	10/25/17 15:56	
Nitrobenzene	ug/L	<2.9	9.7	10/25/17 15:56	
Pentachlorophenol	ug/L	<2.9	9.6	10/25/17 15:56	
Pyridine	ug/L	<3.6	11.9	10/25/17 15:56	
2,4,6-Tribromophenol (S)	%	97	65-140	10/25/17 15:56	
2-Fluorobiphenyl (S)	%	82	59-109	10/25/17 15:56	
Nitrobenzene-d5 (S)	%	83	53-100	10/25/17 15:56	
Phenol-d6 (S)	%	33	18-120	10/25/17 15:56	

METHOD BLANK: 1596384 Matrix: Water
Associated Lab Samples: 40159091001

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
1,4-Dichlorobenzene	ug/L	<18.8	62.5	10/27/17 08:41	
2,4,5-Trichlorophenol	ug/L	<8.4	28.0	10/27/17 08:41	
2,4,6-Trichlorophenol	ug/L	<21.1	70.4	10/27/17 08:41	
2,4-Dinitrotoluene	ug/L	<7.9	26.4	10/27/17 08:41	
2-Methylphenol(o-Cresol)	ug/L	<8.7	28.9	10/27/17 08:41	
3&4-Methylphenol(m&p Cresol)	ug/L	<15.6	52.0	10/27/17 08:41	
Hexachloro-1,3-butadiene	ug/L	<24.6	82.0	10/27/17 08:41	
Hexachlorobenzene	ug/L	<16.9	56.4	10/27/17 08:41	
Hexachloroethane	ug/L	<26.6	88.6	10/27/17 08:41	
Nitrobenzene	ug/L	<14.5	48.3	10/27/17 08:41	
Pentachlorophenol	ug/L	<14.3	47.8	10/27/17 08:41	
Pyridine	ug/L	<17.9	59.6	10/27/17 08:41	
2,4,6-Tribromophenol (S)	%	99	65-140	10/27/17 08:41	
2-Fluorobiphenyl (S)	%	87	59-109	10/27/17 08:41	
Nitrobenzene-d5 (S)	%	85	53-100	10/27/17 08:41	
Phenol-d6 (S)	%	31	18-120	10/27/17 08:41	

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REPORT OF LABORATORY ANALYSIS

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

QUALITY CONTROL DATA

Project: 117-2202058.05 RIPON FF/ NN LA
Pace Project No.: 40159091

LABORATORY CONTROL SAMPLE: 1598004

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,4-Dichlorobenzene	ug/L	50	34.4	69	44-84	
2,4,5-Trichlorophenol	ug/L	50	45.3	91	63-127	
2,4,6-Trichlorophenol	ug/L	50	44.5	89	65-125	
2,4-Dinitrotoluene	ug/L	50	47.5	95	68-137	
2-Methylphenol(o-Cresol)	ug/L	50	35.1	70	54-103	
3&4-Methylphenol(m&p Cresol)	ug/L	50	31.5	63	50-95	
Hexachloro-1,3-butadiene	ug/L	50	43.6	87	57-100	
Hexachlorobenzene	ug/L	50	49.3	99	70-130	
Hexachloroethane	ug/L	50	31.7	63	41-130	
Nitrobenzene	ug/L	50	42.7	85	70-130	
Pentachlorophenol	ug/L	50	39.4	79	57-121	
Pyridine	ug/L	50	12.7	25	10-79	
2,4,6-Tribromophenol (S)	%			92	65-140	
2-Fluorobiphenyl (S)	%			85	59-109	
Nitrobenzene-d5 (S)	%			82	53-100	
Phenol-d6 (S)	%			34	18-120	

MATRIX SPIKE SAMPLE: 1598005

Parameter	Units	40158993001 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
1,4-Dichlorobenzene	ug/L	<18.8	250	196	78	42-96	
2,4,5-Trichlorophenol	ug/L	<8.4	250	211	84	49-127	
2,4,6-Trichlorophenol	ug/L	<21.1	250	224	89	52-125	
2,4-Dinitrotoluene	ug/L	<7.9	250	247	99	56-137	
2-Methylphenol(o-Cresol)	ug/L	<8.7	250	168	67	29-103	
3&4-Methylphenol(m&p Cresol)	ug/L	<15.6	250	145	58	21-95	
Hexachloro-1,3-butadiene	ug/L	<24.6	250	232	93	52-100	
Hexachlorobenzene	ug/L	<16.9	250	244	98	67-130	
Hexachloroethane	ug/L	<26.6	250	181	72	41-130	
Nitrobenzene	ug/L	<14.5	250	219	88	61-130	
Pentachlorophenol	ug/L	<14.3	250	205	82	44-134	
Pyridine	ug/L	<17.9	250	128	51	10-79	
2,4,6-Tribromophenol (S)	%				95	65-140	
2-Fluorobiphenyl (S)	%				86	59-109	
Nitrobenzene-d5 (S)	%				87	53-100	
Phenol-d6 (S)	%				34	18-120	

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REPORT OF LABORATORY ANALYSIS

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

QUALITY CONTROL DATA

Project: 117-2202058.05 RIPON FF/ NN LA
Pace Project No.: 40159091

QC Batch: 271620
QC Batch Method: ASTM D2974-87
Associated Lab Samples: 40159091001

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

SAMPLE DUPLICATE: 1597023

Parameter	Units	40158941011 Result	Dup Result	RPD	Max RPD	Qualifiers
Percent Moisture	%	16.0	15.7	2	10	

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REPORT OF LABORATORY ANALYSIS

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QUALIFIERS

Project: 117-2202058.05 RIPON FF/ NN LA
Pace Project No.: 40159091

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

B	Analyte was detected in the associated method blank.
M0	Matrix spike recovery and/or matrix spike duplicate recovery was outside laboratory control limits.
W	Non-detect results are reported on a wet weight basis.

Pace Analytical Services, LLC
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QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: 117-2202058.05 RIPON FF/ NN LA
Pace Project No.: 40159091

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
40159091001	**P-117 SOIL RESAMPLE**	EPA 3541	271464	EPA 8082	271466
40159091001	**P-117 SOIL RESAMPLE**	EPA 3050	271650	EPA 6010	271894
40159091001	**P-117 SOIL RESAMPLE**	EPA 3010	271737	EPA 6010	272045
40159091001	**P-117 SOIL RESAMPLE**	EPA 7470	271992	EPA 7470	272078
40159091001	**P-117 SOIL RESAMPLE**	EPA 7471	272351	EPA 7471	272422
40159091001	**P-117 SOIL RESAMPLE**	EPA 3546	271618	EPA 8270	271727
40159091001	**P-117 SOIL RESAMPLE**	EPA 3510	271779	EPA 8270	271887
40159091001	**P-117 SOIL RESAMPLE**	EPA 5035/5030B	271671	EPA 8260	271697
40159091002	**TRIP BLANK**	EPA 5035/5030B	271535	EPA 8260	271540
40159091001	**P-117 SOIL RESAMPLE**	EPA 8260	271612		
40159091001	**P-117 SOIL RESAMPLE**	ASTM D2974-87	271620		

(Please Print Clearly)

Company Name:	Tetra Tech
Branch/Location:	Brookfield, WI
Project Contact:	Mike Noel/Ashley Wagner
Phone:	(262)792-1282
Project Number:	117-2202058.05
Project Name:	Ripon FF/NN Landfill
Project State:	WI
Sampled By (Print):	Ashley Wagner
Sampled By (Sign):	Ashley Wagner
PO #:	
Regulatory Program:	

Pace Analytical®
www.pacelabs.com

CHAIN OF CUSTODY

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

40159091

*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

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:	Pace GB
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, B = Biota, C = Charcoal, O = Oil, S = Soil, Sl = Sludge
W = Water, DW = Drinking Water, GW = Ground Water, SW = Surface Water, WW = Waste Water, WP = Wipe

FILTERED? (YES/NO)					Y/N	N	N	N	N	N					
PRESERVATION (CODE)*					Pick Letter	F	A	A	A	A					
					Analyses Requested	VOCS Total + TCLP	SVOCS TCLP	Moisture/ Dry Weight	RCRA Metals	PCBS					
PACE LAB #	CLIENT FIELD ID 2017	COLLECTION DATE	COLLECTION TIME	MATRIX										CLIENT COMMENTS	LAB COMMENTS (Lab Use Only) / Profile # RW 10/20/17
001	P-117 Soil ReSample	10-18	15:55	S		✓	✓	✓	✓	✓				2-4oz ag A	2-4oz p A 2 3-40mL FFF
002	(1) Trip Blank													1-40mL F	

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	10-19-17 0800	Mary Fannin	10/19/17 1511
Mary Fannin	10/19/17 1610		
CS Logistics	10/20/17 0930	R000 w Pace	10/20/17 0930

PACE Project No. 40159091
Receipt Temp = ROI °C
Sample Receipt pH OK / Adjusted
Cooler Custody Seal
Present / Not Present
Intact / Not Intact (circled: Not Intact)

(1) Trip Blank added by lab RW 10/20/17

Version 6.0 06/14/06

ORIGINAL

Pace Analytical™

Sample Condition Upon Receipt

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

Client Name: Tetra Tech Brookfield

Project #: **WO#: 40159091**

40159091

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

Cooler Temperature Uncorr: /Corr: R01 **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: 10/20/19
Initials: RMW

		Comments:
Chain of Custody Present:	☑Yes ☐No ☐N/A	1.
Chain of Custody Filled Out:	☑Yes ☑No ☐N/A	2. TRIP BLANK added by ICW RMW 10/20/19
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 RMW 10/20/19
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. RMW 10/20/19
Trip Blank Custody Seals Present	☐Yes ☐No ☑N/A	
Pace Trip Blank Lot # (if purchased):		

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

If checked, see attached form for additional comments ☐

Project Manager Review: Date: 10-20-19

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)	10-18-17			10-18-17			10-18-17		
STATIC WATER LEVEL (feet)*	32.42			30.65			15.14		
WELL DEPTH (feet)*	280.1			185.72			325.31		
PUMP INLET DEPTH (feet)*	67.5			54.5			73.5		
START PURGE TIME (Military)	11:50			11:50			12:55		
END PURGE TIME (Military)	12:10			12:20			13:20		
PURGE VOLUME (gallons)	0.75			3.0			0.75		
SAMPLE TIME (Military)	12:10			12:20			13:20		
STABILIZED INDICATOR PARAMETERS READINGS	1st	2nd	3rd	1st	2nd	3rd	1st	2nd	3rd
TIME (minutes since initial reading)	6:00	7:00	8:00	0:00	1:00	2:00	0:00	2:00	4:00
TEMPERATURE (° C)	11.90	11.96	11.94	10.08	10.09	10.08	13.33	13.38	13.31
ELECTRICAL CONDUCTANCE at 25° C (ms/cm)	0.586	0.594	0.600	0.764	0.757	0.775	0.599	0.584	0.595
DISSOLVED OXYGEN (ppm)	0.91	0.82	0.74	0.29	0.25	0.29	0.64	0.55	0.49
pH	7.50	7.46	7.48	7.46	7.48	7.45	7.48	7.46	7.42
DISSOLVED OXYGEN (% Sat.)	8.5	7.6	6.8	2.6	2.3	2.6	6.2	5.3	4.7
ORP (mV)	-123	-127	-130	-124	-124	-124	-114	-118	-118
COLOR	Clear			Clear			Clear		
ODOR	Rotten Eggs			Weak			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)	0.10			1.02			0.56		
DI water with reagent powder pillow	0.02			--			--		
July results:	0.04			1.04			0.47		
NAME OF LABORATORY	Pace Analytical			Pace Analytical			Pace Analytical		
DATE SENT TO LAB	10-19-17			10-19-17			10-19-17		
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-103			P-103D		
WATER TYPE	Groundwater			Groundwater			Groundwater		
DATE (month/day/year)	10-18-17			10-18-17			10-18-17		
STATIC WATER LEVEL (feet)*	14.46			49.35			50.46		
WELL DEPTH (feet)*	198.9			83.02			192.66		
PUMP INLET DEPTH (feet)*	48.5			69.5			87.5		
START PURGE TIME (Military)	12:55			09:30			09:25		
END PURGE TIME (Military)	13:05			09:45			09:40		
PURGE VOLUME (gallons)	1.0			3.0			1.75		
SAMPLE TIME (Military)	13:05			09:50			09:40		
STABILIZED INDICATOR PARAMETERS READINGS	1st	2nd	3rd	1st	2nd	3rd	1st	2nd	3rd
TIME (minutes since initial reading)	0:00	1:00	2:00	0:00	1:00	2:00	2:00	3:00	4:00
TEMPERATURE (° C)	11.24	11.26	11.26	10.37	10.36	10.36	10.35	10.35	10.35
ELECTRICAL CONDUCTANCE at 25° C (ms/cm)	0.697	0.718	0.721	0.816	0.802	0.789	0.820	0.820	0.810
DISSOLVED OXYGEN (ppm)	0.58	0.53	0.48	1.04	0.93	0.85	0.65	0.62	0.59
pH	7.50	7.53	7.53	7.14	7.15	7.16	7.09	7.11	7.13
DISSOLVED OXYGEN (% Sat.)	5.3	4.8	4.4	9.3	8.3	7.6	5.9	5.6	5.3
ORP (mV)	-117	-116	-117	-70	-73	-76	-37	-47	-55
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)	0.99			2.52			2.98		
DI water with reagent powder pillow	--			0.02			0.00		
July results:	1.04			--			2.94		
NAME OF LABORATORY	Pace Analytical			Pace Analytical			Pace Analytical		
DATE SENT TO LAB	10-19-17			10-19-17			10-19-17		
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)	10-18-17			10-18-17					
STATIC WATER LEVEL (feet)*	35.58			53.08					
WELL DEPTH (feet)*	151.0			327.95					
PUMP INLET DEPTH (feet)*	151.0			76.5					
START PURGE TIME (Military)	11:20			10:45					
END PURGE TIME (Military)	11:30			11:00					
PURGE VOLUME (gallons)	1.5			1.5					
SAMPLE TIME (Military)	11:35			11:05					
STABILIZED INDICATOR PARAMETERS READINGS	1st	2nd	3rd	1st	2nd	3rd			
TIME (minutes since initial reading)	0:00	1:00	2:00	0:00	1:00	2:00			
TEMPERATURE (° C)	10.51	10.49	10.46	10.80	10.85	10.77			
ELECTRICAL CONDUCTANCE at 25° C (ms/cm)	0.919	0.935	0.920	0.640	0.628	0.596			
DISSOLVED OXYGEN (ppm)	0.66	0.57	0.50	2.49	2.50	2.35			
pH	7.46	7.47	7.46	7.36	7.34	7.33			
DISSOLVED OXYGEN (% Sat.)	5.9	5.2	4.5	22.6	22.6	21.3			
ORP (mV)	-82	-88	-93	-60	-60	-61			
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)	0.75			0.10					
DI water with reagent powder pillow	0.02			0.01					
July results:	1.03			0.08					
NAME OF LABORATORY	Pace Analytical			Pace Analytical					
DATE SENT TO LAB	10-19-17			10-19-17					
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)	10-18-17			10-18-17			10-18-17		
STATIC WATER LEVEL (feet)*	20.33			23.67			27.24		
WELL DEPTH (feet)*	181.72			179.57			163.19		
PUMP INLET DEPTH (feet)*	53.5			53.5			163		
START PURGE TIME (Military)	14:23			14:50			13:45		
END PURGE TIME (Military)	14:30			15:00			14:00		
PURGE VOLUME (gallons)	1.0			1.0			1.0		
SAMPLE TIME (Military)	14:30/14:45			15:05			14:05		
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)	10.67	10.68	10.68	11.03	11.01	11.01	12.01	11.95	11.90
ELECTRICAL CONDUCTANCE at 25° C (ms/cm)	0.837	0.827	0.824	0.679	0.688	0.703	0.585	0.580	0.584
DISSOLVED OXYGEN (ppm)	0.71	0.58	0.51	0.96	0.87	0.81	0.45	0.43	0.40
pH	7.79	7.70	7.63	7.58	7.61	7.60	7.58	7.61	7.61
DISSOLVED OXYGEN (% Sat.)	6.4	5.2	4.6	8.7	7.9	7.4	4.2	4.0	3.6
ORP (mV)	-144	-140	-137	-130	-130	-130	-93	-88	-80
COLOR	Clear			Clear			Pinkish		
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		
	**TOOK DUP AT 14:45 **								
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)	0.77			0.80			0.07		
DI water with reagent powder pillow	--			--			--		
July results:	0.79			0.84			0.08		
NAME OF LABORATORY	Pace Analytical			Pace Analytical			Pace Analytical		
DATE SENT TO LAB	10-19-17			10-19-17			10-19-17		
SAMPLER=S NAME	Ashley A. Wagner			Ashley A. Wagner			Ashley A. Wagner		

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-117			P-118					
WATER TYPE	Groundwater			Groundwater					
DATE (month/day/year)	10-18-17			10-18-17					
STATIC WATER LEVEL (feet)*	15.95			8.84					
WELL DEPTH (feet)*	165.54			167.8					
PUMP INLET DEPTH (feet)*	163			165					
START PURGE TIME (Military)	15:45			15:15					
END PURGE TIME (Military)	16:00			15:30					
PURGE VOLUME (gallons)	2.0			2.0					
SAMPLE TIME (Military)	16:05			15:35					
STABILIZED INDICATOR PARAMETERS READINGS	1st	2nd	3rd	1st	2nd	3rd			
TIME (minutes since initial reading)	0:00	1:00	2:00	0:00	1:00	2:00			
TEMPERATURE (° C)	11.27	11.06	11.04	11.40	11.41	11.44			
ELECTRICAL CONDUCTANCE at 25° C (ms/cm)	0.841	0.831	0.844	0.645	0.635	0.629			
DISSOLVED OXYGEN (ppm)	0.31	0.30	0.27	0.67	0.61	0.59			
pH	7.41	7.39	7.34	7.79	7.74	7.71			
DISSOLVED OXYGEN (% Sat.)	2.8	2.7	2.4	6.1	5.6	5.5			
ORP (mV)	-102	-102	-101	-119	-119	-117			
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)	1.31			0.17					
DI water with reagent powder pillow	--			--					
July results:	1.29			--					
NAME OF LABORATORY	Pace Analytical			Pace Analytical					
DATE SENT TO LAB	10-19-17			10-19-17					
SAMPLER=S NAME	Ashley A. Wagner			Ashley A. Wagner					

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

TETRA TECH

TETRA TECH FIELD WATER QUALITY SAMPLING AND ANALYSIS FORM

PROJECT INFORMATION		INSTRUMENTS	
PROJECT	FF/NN Landfill	Temp. & pH	MP-20 Flow Cell
PROJECT NO.	117-2202058.01	Conductivity	MP-20 Flow Cell
LOCATION	Ripon, WI	ORP	MP-20 Flow Cell
PERSONNEL	Ashley A. Wagner	DO	MP-20 Flow Cell

SAMPLE POINT		MW-103	MW-112			
WATER TYPE		Groundwater	Groundwater			
DATE (month/day/year)		10-18-17	10-18-17			
CLOCK TIME (Military)		16:25	16:45			
DEPTH TO WATER (ft)*		50.65	53.89			
MEASURED WELL DEPTH (ft)*		53.69	60.47			
CASING VOLUME (gallons)		0.50	1.07			
PURGE VOLUME (gallons)		2.0	4.5			
DEPTH SAMPLE TAKEN (ft)*		53.0	60.0			
SAMPLING DEVICE		Dedicated Bailer	Dedicated Bailer			
FIELD TEMPERATURE (^{o}C)		13.55	13.28			
pH		7.09	7.09			
ELEC. COND. (mS/cm)	Measured	NM	NM			
	at 25^{o} C	1.259	1.019			
ORP (mV)		17	-74			
DISSOLVED OXYGEN (ppm)		4.65	1.20			
DISSOLVED OXYGEN (% Sat.)		44.9	11.5			
COLOR		Clear	Clear			
ODOR		None	None			
CLARITY		Clear	Clear			
SAMPLING PARAMETERS		# OF CONTAINERS & VOLUME; CONTAINER TYPE (A = AMBER GLASS; G = GLASS; P = PLASTIC); PRESERVATIVE TYPE (L = LAB ADDED; F = FIELD ADDED) OR NEUTRAL; FILTERED (YES or NO)				
VOCs (8260B)		3 – 40 ml; G; HCl-L; No	3 – 40 ml; G; HCl-L; No			
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)		0.06	2.93			
DI water with reagent powder pillow		--	--			
NAME OF LABORATORY		Pace Analytical	Pace Analytical			
DATE SENT TO LAB		10-19-17	10-19 -17			
SAMPLER=S NAME		Ashley A. Wagner	Ashley A. Wagner			

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

TETRA TECH

ATTACHMENT D

LANDFILL GAS EXTRACTION SYSTEM MONITORING

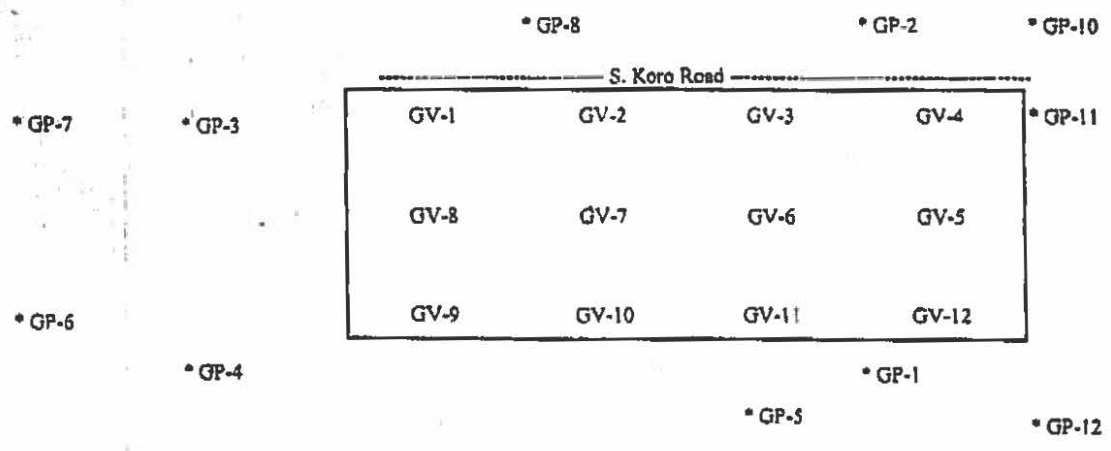
TETRATECH GEO

GAS PROBE DATA MONITORING POINTS

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

Barometric Pressure: 29 Hg
Temperature (ambient): 60 F
Measuring Device: Eagle
In Trailer Vacuum Gage 0 "Hg

Date	Time	Measurement Point	% CH_4 (*LEL)	% CO_2	% O_2	Comments
8-1-17	0740	Background	0*	0.0	20.9	
	0747	LC-1	21.0	26.0	0.0	
	0756	LC-2	43.5	29.6	0.1	
	0753	LC-3	29.5	25.6	1.8	
	0750	GV-6	10.0	18.0	4.0	
	0747	GP-1	0*	8.8	8.1	
	0844	GP-1	0*	15.6	1.2	2nd Reading
*	0743	Exhaust	42*	2.6	18.5	



TETRA TECH GEO

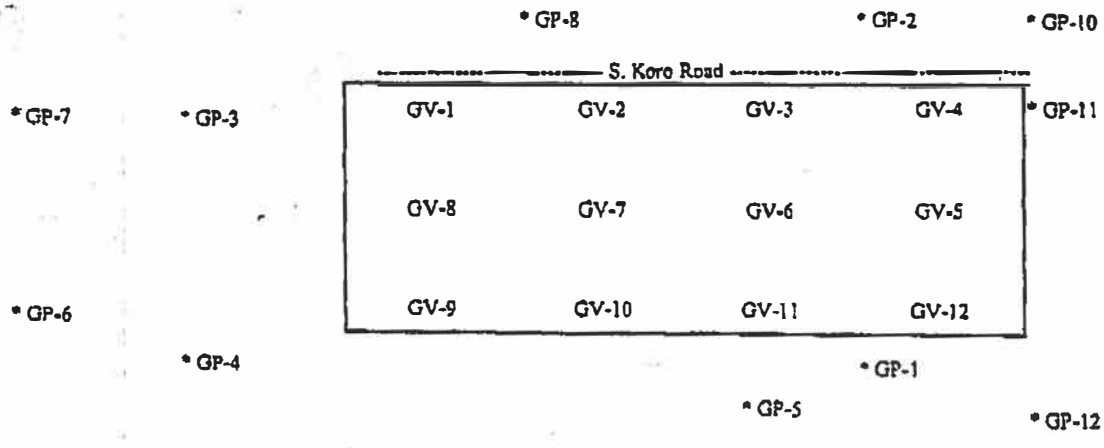
GAS PROBE DATA MONITORING POINTS

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

Barometric Pressure: 29 Hg
Temperature (ambient): 60 F
Measuring Device: Eagle
In Trailer Vacuum Gage 0 "Hg

* LEL

Date	Time	Measurement Point	% CH_4	% CO_2	% O_2	Comments
8/14/12	0748	Background	0 *	0.0	20.9	
	0754	LC-1	23.0	26.4	0.0	
	0803	LC-2	44.5	29.8	0.3	
	0758	LC-3	31.5	26.2	1.4	
	0756	GV-6	110.0	21.0	2.8	
	0851	GP-1	1 *	2.0	18.6	2nd Reading
	0750	GP-1	3 *	11.6	16.0	2nd Reading
						0
	0751	Exhaust	49 *	2.8	18.6	



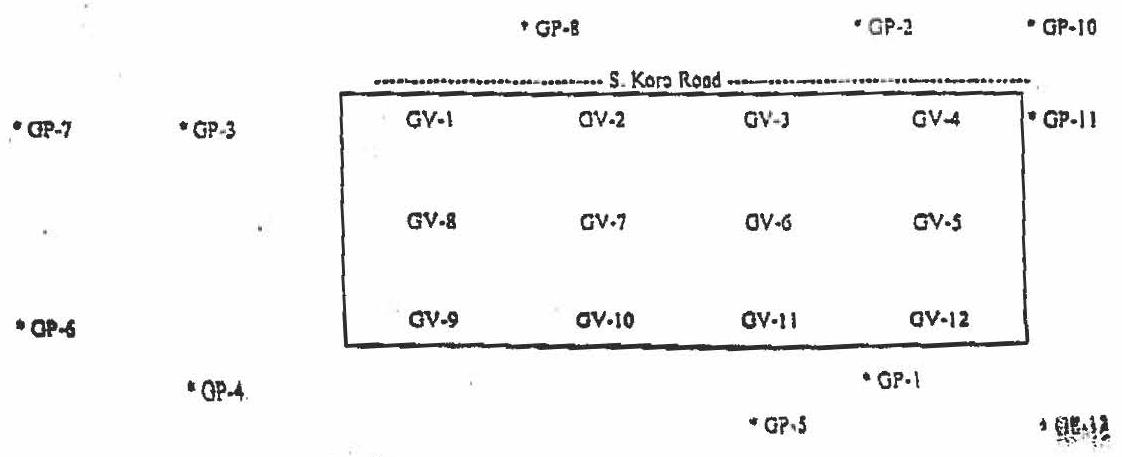
TETRA TECH GEO

GAS PROBE DATA MONITORING POINTS

Project: FF/NN Landfill
Location: Rinon, Wisconsin
Personnel: McKala Kiessling
Water level in buried knockout tank 0 " #LEL

Barometric Pressure: 29.1 Hg
Temperature (ambient): 51e F
Measuring Device: Eagle
In Trailer Vacuum Gage 1 "Hg

Date	Time	Measure-ment Point	% CH_4	% CO_2	% O_2	Comments
8/29/17	0800	Background	0 *	0.0	20.9	
	0808	LC-1	23.0	26.8	0.1	
	0815	LC-2	46.0	30.2	0.1	
	0813	LC-3	31.0	26.6	1.3	
	0810	GV-6	10.0	17.6	4.7	
	0801	GP-1	68 *	9.4	7.0	
	0902	GP-1	58 *	7.8	10.2	2nd Reading
	0804	Exhaust	41 *	2.6	18.8	



TETRA TECH GEO

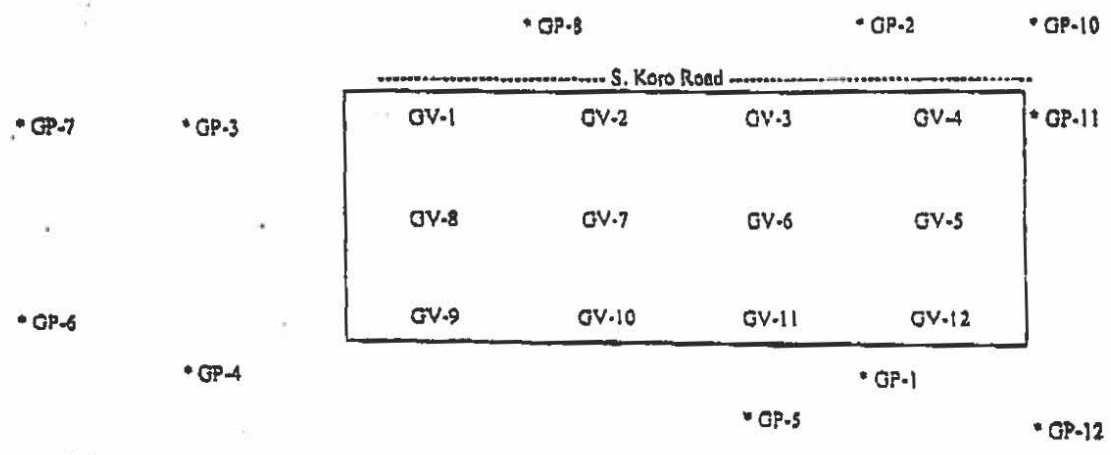
GAS PROBE DATA MONITORING POINTS

Project: FF/NN Landfill
Location: Ripon, Wisconsin
Personnel: McKala Kiessling
Water level in buried knockout tank 0 "

Barometric Pressure: 29.1" Hg
Temperature (ambient): 54 F
Measuring Device: Eagle
In Trailer Vacuum Gage 0 "Hg

* LEL

Date	Time	Measure-ment Point	% CH_4	% CO_2	% O_2	Comments
9/12/11	0750	Background	0.0*	0.0	20.9	
	0756	LC-1	26.0	27.6	20.0	
	0803	LC-2	46.5	30.6	0.3	
	0801	LC-3	31.0	26.8	1.2	
	0758	GV-6	17.0	20.8	3.9	
	0751	GP-1	28*	8.6	8.3	
	0852	GP-1	39*	14.8	0.0	2nd Reading
	0753	Exhaust	50*	2.8	18.8	



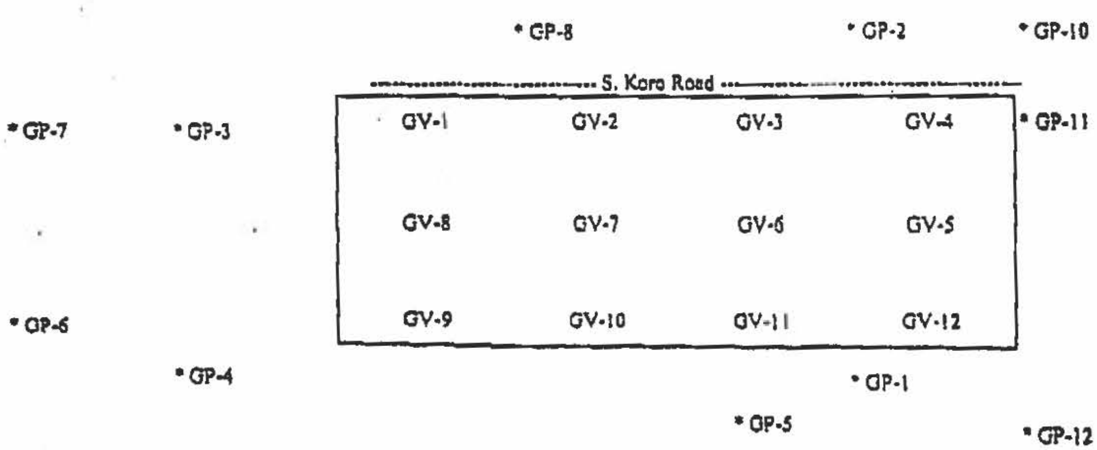
TETRA TECH GEO

GAS PROBE DATA MONITORING POINTS

Project: FF/NN Landfill
Location: Ripon, Wisconsin
Personnel: McKala Kiessling
Water level in buried knockout tank 0 "

Barometric Pressure: 28.9" Hg
Temperature (ambient): 68 F
Measuring Device: Eagle
In Trailer Vacuum Gage 0.0 "Hg

Date	Time	Measurement Point	% CH_4	% CO_2	% O_2	Comments
9/25/17	0800	Background	0*	0.0	20.9	
	0808	LC-1	25	27.4	0.1	
	0815	LC-2	47	30.8	2.4	
	0812	LC-3	32	27.0	2.6	
	0809	GV-6	9.5	16.2	5.7	
	0802	GP-1	33*	7.8	9.4	
	0905	GP-1	53*	15.4	0.1	2nd Reading
	0803	Exhaust	43*	2.6	18.7	



TETRA TECH GEO

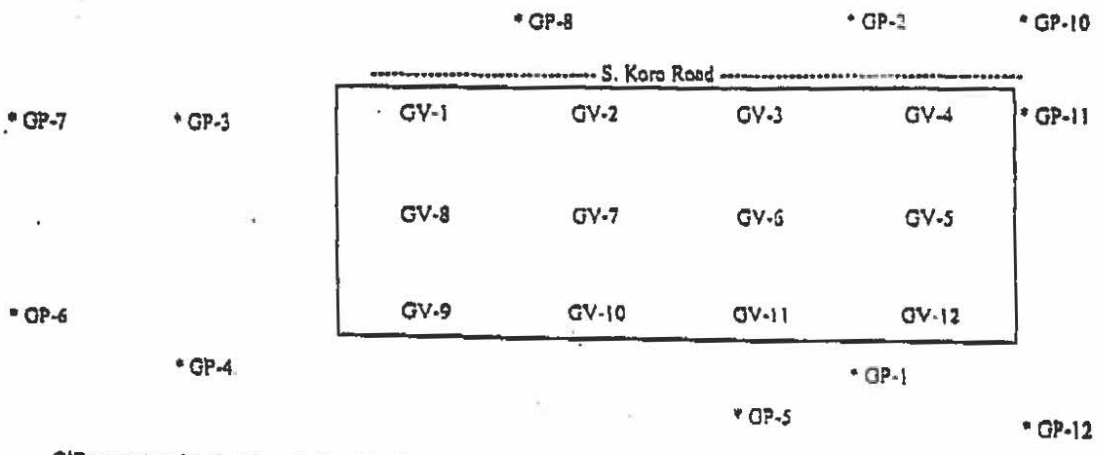
GAS PROBE DATA MONITORING POINTS

Project: FF/NN Landfill
Location: Rinon, Wisconsin
Personnel: McKala Kiessling
Water level in buried knockout tank 0 1 "

Barometric Pressure: 29.1 Hg
Temperature (ambient): 46 F
Measuring Device: Eagle
In Trailer Vacuum Gage D "Hg

#1 EL

Date	Time	Measure-ment Point	% CH_4	% CO_2	% O_2	Comments
10/10/17	0804	Background	0 *	0.0	20.9	
	0811	LC-1	22	27.2	0.3	
	0818	LC-2	49	31.8	0.7	
	0815	LC-3	32	27.6	1.2	
	0812	GV-6	68*	11.0	9.9	
	0805	GP-1	1*	4.4	14.4	
	0926	GP-1	1*	5.8	13.1	2nd Reading
	0807	Exhaust	37*	2.2	19.4	



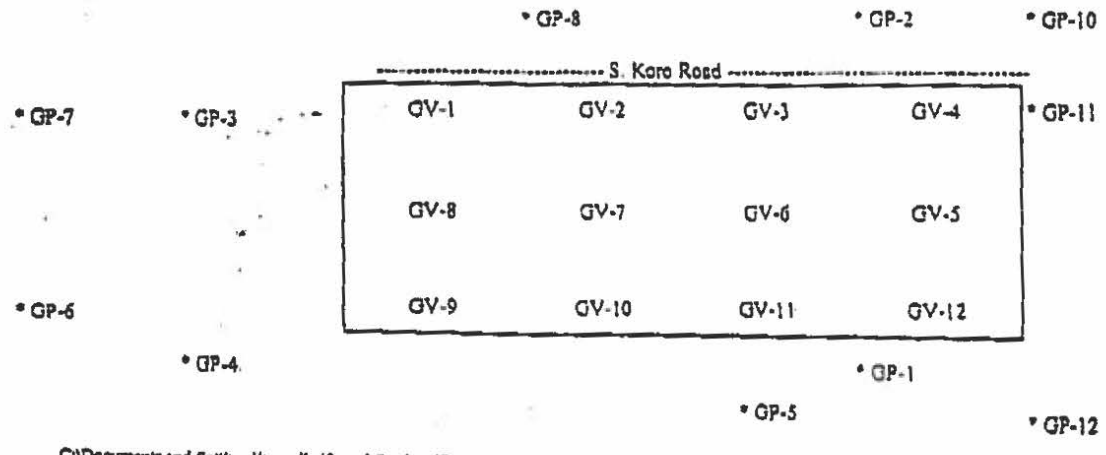
TETRA TECH GEO

GAS PROBE DATA MONITORING POINTS

Project: FF/NN Landfill
Location: Rinon, Wisconsin
Personnel: McKala Kiessling
Water level in buried knockout tank ~ " *LEL

Barometric Pressure: 28.9 Hg
Temperature (ambient): 37 F
Measuring Device: Eagle
In Trailer Vacuum Gage 0 1 "Hg

Date	Time	Measure-ment Point	% CH_4	% CO_2	% O_2	Comments
10/23/11	0742	Background	0*	0.0	20.9	
	0749	LC-1	25	26.8	0.1	
	0757	LC-2	46.5	30.6	0.4	
	0754	LC-3	31.5	27.0	1.1	
	0752	GV-6	13.5	11.4	6.4	
	0743	GP-1	0.0*	4.8	13.7	
	0746	GP-1	0*	3.4	15.9	2nd Reading
	0746	Exhaust	50*	2.6	19.5	



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

P-118 SURVEY DATA

September 15, 2017

GROTHMAN ASSOCIATES, SC
PO Box 373
Portage, WI 53901

File No. 817-463

	Natural Ground	Top of 4 x 4	Top 2 in.	Local System		WGS	84
Location	Elevation	Steel casing	PVC	North	East	Latitued	Longitude
P - 118		(Open Cap)					
New location South							
of Rail Trail	824.45	826.96	826.93	2264142.2	680960.0	43°51'46.03"	88°52'49.11"

TETRA TECH
Town of Ripon, Fond du Lac County, WI

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 2,264,142 ft. N, 680,960 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 826.96 ft. MSL
B. Well casing, top elevation 826.93 ft. MSL
C. Land surface elevation 825.5 ft. MSL
D. Surface seal, bottom 825.0 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 ☒

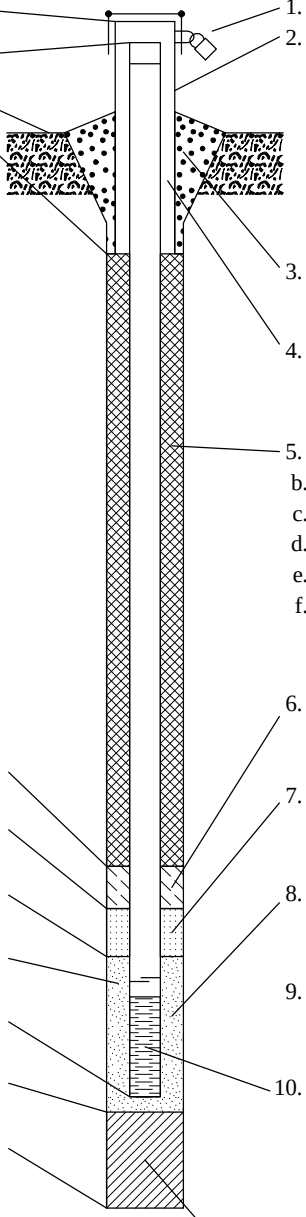
15. Drilling fluid used: Water ☒ 0 2 Air ☐ 0 1 Drilling Mud ☐ 0 3 None ☐ 9 9

16. Drilling additives used? ☐ Yes ☒ No

Describe

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

E. Bentonite seal, top 674.5 ft. MSL or 151.0 ft.
F. Fine sand, top 668.5 ft. MSL or 157.0 ft.
G. Filter pack, top 667.0 ft. MSL or 158.5 ft.
H. Screen joint, top 665.5 ft. MSL or 160.0 ft.
I. Well bottom 660.5 ft. MSL or 165.0 ft.
J. Filter pack, bottom 658.5 ft. MSL or 167.0 ft.
K. Borehole, bottom 655.5 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 | 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.