Quarterly Progress Report

Third Quarter 2019 Reporting Period

December 2019

FF/NN Landfill NPL Site
Ripon, Wisconsin

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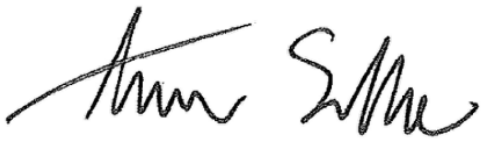

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1.0 Introduction

In April 2019, TRC was retained by the FF/NN Landfill PRP Group (Group) to conduct operations and maintenance (O&M) and quarterly monitoring activities at the FF/NN Landfill NPL Site (Site), in Ripon, Wisconsin (Figure 1). This Quarterly Progress Report presents site activities during the Third Quarter of 2019 and is intended to fulfill applicable portions of reporting requirements specified in the Revised Groundwater Monitoring Program (GMP) as outlined in the April 18, 2013 conditional approval letter (as amended on June 8, 2017) (WDNR, 2013; 2017). This Quarterly Progress Report is supplemented by other submittals associated with the operating period addressed in this report, as summarized in Section 2.4.

2.0 Activity This Period

This section describes the primary technical and administrative activities conducted on the project during this reporting period (Third Quarter 2019). Groundwater monitoring efforts continued on a quarterly basis throughout the reporting period. TRC performed the Third Quarter (Q3) 2019 sampling event during July 2019. In addition, the landfill gas extraction system operated consistently during this reporting period. Operational run-time of the system was increased to alleviate methane detections in off-site monitoring points. Figure 2 illustrates the location of all monitoring points included at the Site.

2.1 Site Work

The following routine operational tasks were completed during this period. Details of these tasks are discussed in Section 3.

- The landfill gas extraction system operated throughout the entire Third Quarter 2019. Landfill gas was initially extracted from gas vent GV-6 and leachate collection wells LC-1, LC-2 and LC-3. On September 5, 2019 gas vent GV-4 was reconnected to the system.
- Groundwater elevations were measured, and samples collected from 15 monitoring wells by TRC between July 22-23, 2019 in accordance with the GMP (WDNR, 2013; 2017).
- Gas measurements (% oxygen, methane, and carbon dioxide) were collected from gas probes (GP-1 through GP-7 and GP-10 through GP-12) on August 20, September 3, and September 17, 2019. Gas measurements were collected from all available gas vents on September 5, 2019.
- Jeremy Jess, wastewater treatment plant laboratory technician for the City of Ripon, performed landfill gas monitoring from the extraction system exhaust, gas vent GV-6, gas probe GP-1, and leachate collection wells LC-1, LC-2, and LC-3 on a biweekly basis during July. Starting in mid-August, gas vent GV-4 and gas probe GP-02 were added to the biweekly measurements.
- The annual landfill cap inspection occurred on July 23, 2019. The landfill venting system; leachate monitoring wells; groundwater monitoring and observation wells; and gas probes were inspected during routine monitoring activities. Section 2.5 discusses the results of the inspection.

The following maintenance tasks or additional tasks were completed during this period:

- On-site meeting completed with Environmental Protection Agency (EPA), Wisconsin Department of Natural Resources (WDNR) personnel, TRC, City of Ripon and Group personnel was held at the Site on August 14, 2019. The purpose of the meeting was to perform a walkthrough with new agency personnel to obtain information on the current status of the Site.
- Integrity assessments of the gas extraction system and vertical profile landfill gas measurements occurred at LC-1 on July 23 and August 20, 2019. A break in the extraction piping was found near GV-4. Repair of the break occurred on August 20, 2019. See Section 3.3.1 for all the actions completed.
- The vapor extraction system was almost fully operational between July through September 2019. Initially, the system ran for 4 hours per day / 7 days a week. After methane was detected in the off-site gas probe GP-2 on August 20, 2019, system operation was extended to 24 hours per day / 7 days a week.
- From mid-August through mid-September 2019 the City of Ripon visited the Site on weekdays to collect gas measurements from GP-02.
- No fence repairs were required during this time period.
- The Site was mowed on July 18, August 22, and September 19, 2019.

2.2 Monitoring Program Modifications

Environmental monitoring at the Site began in 1992. Quarterly monitoring at select wells has been ongoing since active system operations began in 2005. Since that time, the monitoring program has been periodically modified based on data observations and field conditions. The current monitoring program is performed in accordance with the GMP (WDNR, 2013; 2017).

On March 6, 2019, Mr. Aristeo (Resty) Pelayo of the WDNR and Mr. Jeff Tracy on behalf of the Group discussed installing an additional sentinel well west of existing sentinel well P-118 due to periodic detections of vinyl chloride above the Preventive Action Level (PAL) in P-118. The exceedances were discovered when the laboratory detection limits were changed at the request of the WDNR to EPA Method 8260C. EPA Method 8260C has a lower detection limit (0.019 micrograms per liter [µg/L]) than the previous method, SW-846 Method 8260 SIM (0.18 µg/L).

On June 28, 2019, TRC submitted a letter to Mr. Bruce J. (B.J.) LeRoy with the WDNR proposing to leave P-118 as the sentinel well as the considered new sentinel location is adjacent to a closed landfill – Ripon Landfill HWY 23 (PP) BRRTS #02-20-000916 (HWY 23 Landfill). The WDNR responded on July 1, 2019 indicating that that the need for a new sentinel well will be evaluated after sufficient groundwater data had been collected that could establish a discernable trend. Mr. LeRoy requested a contaminant isoconcentration map be included in the next quarterly report. Figure 5 is included in response to that request.

During the Third Quarter of 2019, environmental monitoring was conducted in accordance with the current approved GMP (WDNR, 2013; 2017). No modifications of the monitoring program occurred during this quarter. A site walkover occurred on August 14, 2019 attended by

representatives of the Environmental Protection Agency (EPA), Wisconsin Department of Natural Resources (WDNR) personnel, TRC, City of Ripon and Group personnel.

2.3 Sampling Events

Groundwater monitoring was conducted on July 22, 2019 in accordance with the approved analytical programs referenced in Section 2.2. Quarterly monitoring results are further discussed in Section 3.2. Extraction system landfill gas monitoring was performed at a more frequent interval during the Third Quarter of 2019 as personnel investigated system performance and worked to control off-site migration of methane as further discussed in Subsection 3.3.2. Data collected during this reporting period was submitted to the WDNR's Groundwater and Environmental Monitoring System (GEMS) on August 27, 2019.

2.4 Deliverables, Correspondence, and Meetings

- July 1, 2019 — Email Response from WDNR to the Group regarding the Sentinel Well Proposal.
- August 14, 2019 — Meeting with the Group, WDNR, TRC, and EPA at the Site.
- August 19, 2019 — Delivery of First and Second Quarter 2019 Quarterly Progress Report to WDNR
- August 27, 2019 — GEMS Transmittal – Third Quarter 2019 monitoring data.
- September 3, 2019 — Letter from City of Ripon to Mrs. Hubert Rohde, *Water Supply Well Sample Results for N8745 S. Koro Rd. Property, Ripon, WI*

Contacts with the local community (i.e. homeowners with monitoring wells on their property) occurred during the July monitoring well sampling. TRC notified the homeowners that personnel would be collecting groundwater samples before entering the properties to collect the samples.

2.5 Landfill Site Inspections

The WDNR-approved Remedial Design (HIS GeoTrans, 1997) requires annual inspections of the FF/NN Landfill cap. The annual landfill cap inspection was conducted by TRC on July 23, 2019. Overall, the cap was in good condition and no repairs are necessary. A wet area was identified on the southeast corner of the cap. Based on additional inspection, overland flow of rainwater appears to be accumulating in a low spot. The vegetation density was good, and no evidence of erosion was observed. All wells were noted to be in good condition with the exception of monitoring well P-104 where the upper steel protective casing was observed to be disconnected and resting on the tubing and pump connections. The steel protective casing was repaired in mid-August 2019 by the City of Ripon. A copy of the Cap Inspection Record is provided in Appendix A.

2.6 Personnel Changes

No personnel changes occurred between July and September of 2019.

3.0 Summary of Observation and Monitoring Data

3.1 Water Elevation Measurements

Groundwater monitoring wells associated with the FF/NN Landfill site are grouped into four hydrostratigraphic units (Layer 1, Layer 2, Layer 3, and Layer 4) based on well screen elevations to better evaluate groundwater quality at discrete intervals. Table 1 notes the grouping of wells in their respective layers. Figure 2 shows the layout of the monitoring well network.

In accordance with the GMP (WDNR 2013; 2017), groundwater elevations were measured at 15 monitoring wells associated with the Site on July 22, 2019. Field forms from the Third Quarter 2019 measurement event are included in Appendix B. Elevations are summarized in Table 1.

3.1.1 Layer 1 Groundwater Elevations

Layer 1 contains nine monitoring wells with screen midpoint elevations ranging from 817 to 825 feet (ft) Above Mean Sea Level (AMSL) screened within unconsolidated sand and gravel. Two wells in Layer 1 (MW-103 and MW-112) were gauged during the Third Quarter 2019. The groundwater surface elevations were noted as 0.86 ft to 1.06 ft higher than measured during the Second Quarter 2018. Historical groundwater flow direction within Layer 1 is toward the southwest. Insufficient data are collected during the Third Quarter to prepare a potentiometric surface map or assess the groundwater flow direction in Layer 1.

3.1.2 Layer 2 Groundwater Elevations

Layer 2 contains eight monitoring wells with screen midpoint elevations ranging from 777 ft to 794 ft AMSL screened within unconsolidated sand and silt. One monitoring well in Layer 2 (P-103) was gauged during the Third Quarter 2019. The groundwater elevation at P-103 was noted as 0.28 ft higher than that noted during the Second Quarter 2018. Historical groundwater flow direction within Layer 2 is toward the south-southwest. Insufficient data was collected during the Third Quarter to prepare a potentiometric surface map or assess the groundwater flow direction.

3.1.3 Layer 3 Groundwater Elevations

Layer 3 contains nine monitoring wells with screen midpoint elevations ranging from 637 to 707 ft AMSL and screened within sandstone bedrock. All wells within this layer were gauged during the Third Quarter 2019. Potentiometric surface elevations were noted to be between 0.05 feet lower to 1.26 feet higher than that measured during Third Quarter 2018. Historical groundwater flow in this layer has been to the southwest and becomes west-southwest further downgradient. Figure 3 depicts the groundwater flow direction in Layer 3. The groundwater flow direction in Layer 3 during the Third Quarter 2019 is consistent with the historical results.

3.1.4 Layer 4 Groundwater Elevations

Layer 4 contains three wells with screen midpoint elevations from 510 ft to 575 ft AMSL and screened within sandstone or granitic bedrock. All wells within this layer were gauged during the Third Quarter 2019. Potentiometric surface elevations were noted to between 0.89 to 1.20 feet higher than that observed during the Third Quarter 2018 sampling event.

Figure 4 depicts the groundwater flow direction in Layer 4 from the Third Quarter 2019. The City of Ripon occasionally pumps from Municipal Well #9, which influences the groundwater flow direction in Layer 4. When Well #9 is not operational, groundwater flow is toward the west. When Well #9 is operational, groundwater flow is toward the southeast. Conversations with Mr. Chris Liveris, Utility Manager for the City of Ripon, confirmed that Well #9 was in operation during the Third Quarter 2019 sampling event. The southeasterly flow direction observed in Layer 4 during the Third Quarter of 2019 is consistent with historic elevations and the influence of Well #9.

3.2 Groundwater Quality Monitoring

This subsection includes an evaluation of the groundwater quality for the Third Quarter 2019 reporting period. The locations of the monitoring well network, including residential wells and site monitoring wells, are shown on Figure 2.

3.2.1 Third Quarter 2019

Groundwater samples were collected using low-flow sampling methods from 15 monitoring wells on July 22-23, 2019 by TRC. Groundwater samples were analyzed by CT Laboratories for VOCs using EPA Method 8260C. Field forms are included in Appendix B. Analytical results are included in Appendix C. VOC results exceeding the Wisconsin Administrative Code Chapter NR 140 Enforcement Standard (ES) and the Preventive Action Limits (PAL) are included in Table 2.

Select monitoring wells were also sampled and analyzed for monitored natural attenuation (MNA) parameters including: nitrate + nitrite as nitrogen, sulfate, and manganese. Sampling included analysis for these parameters, and a summary table of natural attenuation parameters are included in Table 3.

Field parameters were measured at all monitoring wells including: dissolved oxygen (DO), oxygen-reduction potential (ORP), temperature, pH, and specific conductance. Field parameters were measured during sampling using a QED Mp20 MicroPurge Flow Cell meter.

Contaminants of concern at the Site include TCE and its dechlorination byproducts; cis-1,2-DCE and VC. In the 15 wells sampled during the Third Quarter 2019, VC was the only compound detected exceeding the ES and PAL. TCE was detected at concentrations exceeding the PAL, but not the ES. The following summarizes the distribution of VOCs detected in each hydrostratigraphic unit:

- Two wells in Layer 1 (MW-103 and MW-112) and one well in Layer 2 (P-103) were sampled. Both Layer 1 wells had concentrations of TCE exceeding PAL. MW-112 and P-103 had concentrations of VC exceeding the PAL. Due to the limited number of samples collected from Layers 1 and 2, no groundwater plume maps were created for this layer.
- Nine monitoring wells were sampled in Layer 3. VC was detected in wells P-111D, P-115, and P-117 at concentrations exceeding the ES. VC was detected in P-103D, P-114, MW-3B, and P-118 at concentrations exceeding the PAL. Figure 5 depicts the VC plume extent during the Third Quarter 2019 in Layer 3.

- Three monitoring wells were sampled in Layer 4. VC was detected only in P-107D at a level exceeding the ES. This concentration is higher than the reported analytical results from the Third Quarter 2018. Due to the limited number of samples collected from Layer 4, no groundwater plume map was created for this layer.
- Other VOC detections were at concentrations below their respective PALs. Detections of note included:
  - Chlorinated compounds including, chloroethane, chloromethane, and cis-1,2-DCE were noted at low levels in some wells containing TCE or VC.
  - Low level detections of acetone were noted in most samples and in the trip blank. These detections are likely due to laboratory or transport contamination.
  - Methylene chloride was only noted in the trip blanks. These detections and are likely due to laboratory or transport contamination.

Manganese occurs naturally in the environment and is not a constituent of concern at the Site but is commonly collected to evaluate MNA in groundwater. Manganese was detected in all samples except one collected during the Q3 sampling event for the Site. Although the manganese concentrations exceeded the ES or the PAL, the manganese concentrations detected in the samples reflect naturally occurring manganese in the aquifer and changes in aquifer geochemistry associated with bioactivity within the landfill.

Nitrogen ion concentrations exceeded the ES or the PAL in the two sampled Layer 1 wells (MW-103 and MW-112) located near the landfill. Nitrogen ions (nitrate and nitrite) are also naturally occurring ions found in groundwater. Nitrate is often found at concentrations above regulatory standards in agricultural areas due to the application of fertilizers and from human and animal wastes. Nitrate may serve as an electron acceptor in the biotic dichlorination of TCE.

3.2.2 VOC Trends

TRC is monitoring select groundwater concentrations over time along the primary CVOC plume axis. Concentration trends from the following wells were prepared (Appendix D): MW-103 in Layer 1; P-103 in Layer 2; P-103D, P-111D, P-114, P-117, and P-118 in Layer 3; and P-107D in Layer 4.

At MW-103 (Layer 1), startup of the active gas control system in 2005 shows a corresponding decrease in CVOC concentrations. CVOC concentrations are stable to decreasing in MW-103 since that initial decrease.

At P-103 (Layer 2) concentrations of CVOCs have been non-detect from April 2012 until October 2018. Since then, low concentrations of VC have been detected during each sampling event. This detection is not likely indicative of increasing CVOC concentrations but is likely due to consistent low concentrations present in groundwater that are now detectable due to the switch to the more sensitive analytical method (see discussion in Section 2.2). The overall CVOC concentration trend at this well is decreasing.

At P-103D and P-111D (Layer 3) concentrations of vinyl chloride are decreasing over time. Concentrations of cis-1,2-DCE at P-111D appear to be slightly increasing over time despite concentrations of vinyl chloride clearly decreasing. At P-114 CVOC concentrations are stable-to-

decreasing and at P-117 concentrations appear to be stable. Concentrations detected at P-118 appear to be indicative of the plume edge with concentrations fluctuating above and below the PAL.

At P-107D (Layer 4) concentrations of CVOCs are stable to decreasing. This monitoring point, which is on City of Ripon property adjacent to the southern border of the Site, is the only location in Layer 4 with concentrations that exceed the ES and the PAL.

3.2.3 Preliminary Monitored Natural Attenuation Evaluation

A comprehensive evaluation of MNA has not been not been conducted at this Site; however, initial review of the data suggests that MNA is a viable remedial alternative. Current lines of evidence include an anoxic environment with a continued source of organic carbon in the form of landfill leachate. Additional discussion of progress toward MNA will be discussed in the report summarizing the Second Quarter of 2020 once eight rounds of MNA parameters have been completed.

3.3 Landfill Gas Extraction System Operations

The landfill gas treatment system has been operational since 2005 (GeoTrans, 2005). Landfill gas is extracted from gas vent GV-6 and the three deeper leachate collection wells (LC-1, LC-2, and LC-3). On September 5, 2019 GV-4 was reconnected to the system. The other gas vents have remained closed to prevent oxygen levels from increasing above 5%. This subsection includes a discussion of system repairs and an evaluation of landfill gas monitoring results at the Site during Third Quarter of 2019. The locations of the gas vents and gas probes are shown on Figure 2. Table 4 summarizes the results of landfill gas monitoring during the reporting period.

3.3.1 Landfill Gas Extraction System Troubleshooting and Repairs

The sections below discuss efforts to identify a suspected system leak and actions taken to repair identified issues.

3.3.1.1 Leachate Collection Well LC-1 Leak Assessment

In May 2018, Tetra Tech noted a change in the oxygen, carbon dioxide and methane concentrations, which were indicative of a potential leak, at LC-1. Reportedly, the levels of oxygen increased, while the levels of methane and carbon dioxide decreased, suggesting that ambient air was entering into the well. Tetra Tech performed a soap bubble leak test in August 2018. A leak was not identified during the soap test. Tetra Tech also completed a vertical gas measurement profile comparison between LC-1 and LC-2 in December 2018 that concluded there was a noticeable change in methane concentrations in LC-1 approximately 1 foot below ground surface, suggesting that the well casing may be damaged.

The FF/NN Landfill Group (Group) requested TRC evaluate conditions at LC-1, determine if a leak is present, and provide recommendations for repair. Between June and September 2019, TRC performed multiple assessments of LC-1 and the extraction system to assess the integrity of the system and make repairs as needed to optimize operation. Results of a downhole camera inspection of LC-1 and vertical gas measurement profile comparison between LC-1 and LC-2 were presented in the previous Quarterly Progress Report (TRC 2019).

The exterior of LC-1 was further inspected on July 23, 2019 by removing the bentonite/soil mix around the well casing. The boot around the well casing appears to be intact and no tears were observed below grade. The area around the boot was tested for methane using field instruments and no change from ambient air readings was observed. Following the inspection, a depression around LC-1 was filled with bentonite chips.

TRC completed further leak testing at LC-1 and the extraction system on August 20, 2019 to further evaluate why elevated oxygen concentrations were detected at LC-1. TRC hand excavated the material around the well and conducted a soap bubble leak test on the above grade piping and boot/geomembrane just below grade while the system was operating. No obvious leaks were observed. TRC also performed a vertical gas measurement profile comparison between LC-1 and LC-3, similar to that performed during May 2019. Gas measurements were collected from LC-1 a depth of 10 feet (ft) below ground surface (bgs). LC-1 was again monitored following four hours of system operation. Results of the comparison between LC-1 and LC-3 noted that methane concentrations are consistently lower and oxygen concentrations are higher throughout LC-1 when compared to LC-3. Overall, LC-3 appeared to be extracting subsurface vapors indicative of landfill gas, but the higher oxygen concentrations noted at LC-1 suggested intrusion of ambient air. Comparison of the LC-1 measurements before and after 4 hours of operation did not show a significant change in measured methane and oxygen concentrations.

Vacuum readings were also collected at each extraction wellhead and at the blower to assess a potential leak in the system and to assess its operational capabilities. Each extraction wellhead was tested during system operation and a vacuum between -0.15 and -5.5 inches of water column (in. H2O) was observed. An excessive vacuum hissing noise was observed near gas vent GV-4. Upon inspection, it was determined that the above-grade portion of the extraction piping, previously connected to GV-4, was broken. TRC removed soil around the pipe and determined that the pipe was broken off at the 90-degree elbow approximately 8 to 12 inches bgs and was pulling ambient air into the system. This likely caused a significant decrease in vacuum at the individual extraction wellheads, most significantly impacting LC-1. The extraction piping for GV-4 and LC-1 are all connected to the same extraction leg and piped to the blower area.

TRC repaired the extraction pipe leak near GV-4 and restarted the blower. Vacuum at each wellhead immediately increased to between -4.0 and -18.0 in. H2O.

3.3.1.2 System Repairs

The repair of the system breach at GV-4 greatly improved system operations. Once system vacuum had increased, an obvious leak was identified within the above grade portion of the LC-1 wellhead that had not been previously detectable due to the low vacuum on the system leg due to the breach at GV-4. TRC identified a seal breach near one of the flexible connections, dismantled that portion of the wellhead, then reassembled the header so that there was an improved seal between the outer casing and the well and added a new seal between the well riser and the extraction header. The repair at the piping near GV-4 and at LC-1 immediately reduced the oxygen and increased the methane recovery at extraction well LC-1.

TRC further inspected the other extraction wells for leaks with the system now operating with greater integrity. Minor leaks were found at the two sample ports on LC-2. TRC resealed the outer seam on one sample port with silicone and capped the other sample port to reduce ambient air from being pulled into the header. No other leaks from the extraction headers were observed.

The blower and knockout tanks were inspected after the repair to piping at GV-4. The below grade exterior knockout tank was noted to have a leak as a vacuum noise was heard coming from the vault. A follow-up inspection performed on September 17, 2019 found that the stick-up pipe was not properly sealed at the connection to the tank. The City repaired the seal on September 18, 2019, but the hissing sound persists. Work to remove water noted as accumulating within the tank and vault and repair of the leak is ongoing.

On September 5, 2019, TRC found that the electrical motor for the blower was loose and the belt had broken. The motor was tightened, a new belt was installed, and the blower system was returned to operation.

3.3.2 Landfill Gas Measurements

Sections below discuss observations noted during landfill gas monitoring and subsequent adjustments made to the system to improve treatment performance.

3.3.2.1 Gas Probe Monitoring

After repair of the breach at GV-4 and repair of subsequent identified system leaks, TRC monitored the gas levels (oxygen, methane, and carbon dioxide) in the 10 operational gas probes (GP) surrounding the fill limits of the closed landfill on August 20, 2019. Figure 2 shows the location of the gas probes. GP-8 could not be located by TRC and appears to have been lost or covered. Of the ten GP locations measured on August 20, only GP-2 (located off-site to the west) contained noticeable methane at concentrations ranging from 2.2% to 12.3% methane by volume.

Based on measured concentrations of methane offsite at GP-2 and the potential for offsite methane migration to the west/northwest of the landfill limits, TRC adjusted the operational time for the blower from 4 hours per day to 24 hours per day. The City of Ripon performed checks of methane concentrations at GP-2 on a weekday basis between August 20 and September 4, 2019. Results showed variability in methane detected using the City of Ripon's meter.

On September 5, 2019, TRC collected another round of gas readings from the surrounding gas probes and GP-1 and GP-2 contained very low measurable concentrations of methane, at approximately 0.1% methane by volume.

Based on the continued detection of methane concentrations at GP-2, TRC reconnected gas vent GV-4 to the extraction system on September 5, 2019. The goal of reconnection of this extraction point was to control potential offsite methane migration. Methane measurements at GP-2 after restart of the system were higher than that noted earlier in the day, with a methane concentration of 6.2% by volume. TRC reevaluated the vacuums at all the extraction points once GV-4 was brought online and made valving adjustments as needed to balance out the extraction system.

3.3.2.2 System Performance Post Reconnection of GV-4

The City of Ripon returned to the Site frequently from September 6 through September 16, 2019 to monitor gas concentrations at GP-2 following blower operation adjustments and system repairs/modification. After reconnection of GV-4 to the system, methane concentrations in GP-2 remained below 5% by volume.

TRC collected operational data from the gas extraction system and from the surrounding gas probes on September 9 and September 17, 2019. Higher vacuums were placed on LC-1 through LC-3 where high methane and low oxygen has been observed. No methane was observed in any of the 10 gas probes during these visits. Based on the measurement of low methane concentrations in GP-2 monitoring returned to a biweekly monitoring schedule.

Vacuum readings since fixing the breach near GV-4 indicate that the system continues to effectively remove landfill gases from the subsurface.

3.3.3 Landfill Gas Analytical Results

No landfill gas samples were collected for analysis during the Third Quarter of 2019 monitoring event. Sampling is planned during the Fourth Quarter of 2019 to assess landfill gas analytical concentrations now that the system has been consistently operating since May 22, 2019 and the system was repaired.

4.0 References

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Table 1: Water Levels
FF/NN Landfill
Ripon, Wisconsin
Third Quarter 2019

Well Name	GW Layer	TOC Elevation (feet AMSL)	Q3 Depth to Water (feet) 7/22/2019	Q3 GW Elevation (feet AMSL) 7/22/2019
MW-101	1	884.73	NM	NM
P-101	2	885.39	NM	NM
MW-102	1	842.90	NM	NM
P-102	2	842.85	NM	NM
MW-103	1	872.30	49.77	822.53
P-103	2	872.74	48.46	824.28
P-103D	3	872.91	49.72	823.19
MW-104	1	875.20	NM	NM
P-104	2	875.40	NM	NM
MW-106	1	878.75	NM	NM
P-106	2	878.80	NM	NM
MW-107	1	871.69	NM	NM
P-107	2	871.33	NM	NM
P-107D	4	871.90	52.69	819.21
MW-108	1	845.08	NM	NM
P-108	2	845.48	NM	NM
MW-111	1	856.09	NM	NM
P-111	2	856.28	NM	NM
P-111D	3	855.56	34.92	820.64
MW-112	1	874.70	53.02	821.68
P-113A	4	833.16	14.26	818.90
P-113B	3	833.16	13.24	819.92
P-114	3	839.36	19.33	820.03
P-115	3	842.67	22.52	820.15
P-116	3	845.86	26.39	819.47
P-117	3	833.96	15.29	818.67
P-118	3	826.74	8.15	818.59
MW-3A	4	850.60	31.69	818.91
MW-3B	3	850.89	29.69	821.20
LC-1	1	876.15	NM	NM
LC-2	1	866.05	NM	NM
LC-3	1	877.34	NM	NM

Notes:
GW - Groundwater
TOC - Top of Casing
AMSL - Above Mean Sea Level
NM = Well not measured

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Table 2: Parameters That Exceed Current NR140 Standards
FF/NN Landfill
Ripon, Wisconsin
Third Quarter 2019

Chemical Parameter	Units	NR140 PAL	NR140 ES	Well ID	Date	Result	Data Flags	Exceedance
Manganese, total	µg/L	25	50	MW-003A	7/22/2019	**425**		ES
				MW-003B	7/22/2019	**69.9**		ES
				MW-103	7/22/2019	**73**		ES
				MW-112	7/22/2019	**359**		ES
				P-103	7/23/2019	**113**		ES
				P-103D	7/23/2019	**96.4**		ES
				P-107D	7/23/2019	**241**		ES
				P-111D	7/23/2019	*33.8*		PAL
				P-113B	7/22/2019	*33.9*		PAL
				P-114	7/22/2019	**68.1**		ES
				P-114 DUP	7/22/2019	**67.9**		ES
				P-115 (WIESE)	7/22/2019	**115**		ES
				P-116 (HADEL)	7/22/2019	**134**		ES
				P-117	7/22/2019	**224**		ES
				P-118	7/22/2019	**94.9**		ES
Methylene chloride	µg/L	0.5	5	TRIP BLANK	7/22/2019	*1.3*		PAL
				TRIP BLANK	7/23/2019	*1.1*		PAL
Nitrogen, nitrate + nitrite, total	mg/L	2	10	MW-103	7/22/2019	**16**	j	ES
				MW-112	7/22/2019	*2.4*	j	PAL
Trichloroethene	µg/L	0.5	5	MW-103	7/22/2019	*1.6*		PAL
				MW-112	7/22/2019	*0.74*		PAL
Vinyl chloride	µg/L	0.02	0.2	MW-003B	7/22/2019	*0.065*		PAL
				MW-112	7/22/2019	*0.04*	J	PAL
				P-103	7/23/2019	*0.038*	J	PAL
				P-103D	7/23/2019	*0.17*		PAL
				P-107D	7/23/2019	**4.4**		ES
				P-111D	7/23/2019	**4.6**		ES
				P-114	7/22/2019	**6.9**		ES
				P-114 DUP	7/22/2019	**6.4**		ES
				P-115 (WIESE)	7/22/2019	**0.91**		ES
				P-117	7/22/2019	**1.3**		ES
				P-118	7/22/2019	*0.064*		PAL

Notes:

Created by: P. Popp

Checked by: M. Stollenwerk (10/27/2019)

1. µg/l = micrograms per liter (ppb).
2. mg/L = milligrams per liter (ppm).
2. NR 140 ES = Wisconsin Administrative Code Chapter NR 140 Enforcement Standard.
3. NR 140 PAL = Wisconsin Administrative Code Chapter NR 140 Preventive Action Limit.
4. **BOLD** = Exceedence (or potential exceedence if J- or B-flagged) of the NR 140, WAC ES.
5. *Italics* = Exceedence (or potential exceedence if J- or B-flagged) of the NR 140, WAC PAL.
6. J = Reported concentration is estimated, between the Limit of Detection (LOD) and the Limit Of Quantitation (LOQ).
7. j = Estimated Result, As Qualified By Data Validation

Table 3: Detected Parameters in Groundwater
FF/NN Landfill
Ripon, Wisconsin
Third Quarter 2019

Parameter	Units	NR140 ES	NR140 PAL	MW-003A 7/22/2019 307914	MW-003B 7/22/2019 307915	MW-103 7/22/2019 308539	MW-112 7/22/2019 308538	P-103 7/23/2019 308543	P-103D 7/23/2019 308542	P-107D 7/23/2019 308541	P-111D 7/23/2019 308540	P-113A 7/22/2019 307909
Depth to water	Feet			31.69	29.69	49.77	53.02	48.46	49.72	52.69	34.92	14.26
Water elevation	Feet			818.91	821.2	822.53	821.68	824.28	823.27	819.21	820.69	818.9
pH, field	SU			7.40	7.31	7.2	7.09	6.99	6.89	7.43	7.12	7.14
Conductance, specific	µmhos/cm			573.7	726.0	1102	955.0	761.6	788.7	597.5	897.4	561.4
ORP	mV			-5.7	-52.9	-2.4	19.5	1.5	13.9	12.5	34.0	69.9
Oxygen, dissolved	mg/L			0.22	0.23	5.64	3.15	0.73	0.40	2.41	0.20	1.74
Turbidity, field				NONE	SLIGHT	SLIGHT	SLIGHT	NONE	NONE	NONE	NONE	NONE
Temperature	Deg C			10.95	11.01	12.99	13.26	12.44	12.76	12.31	10.95	10.87
Color, field				NONE	V LT BLA	LT BRWN	LT BRWN	NONE	NONE	NONE	NONE	NONE
Odor, field				NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE
Nitrogen, nitrate + nitrite, total	mg/L	10	2	< 0.12	0.2 J	**16 j**	*2.4 j*	0.12 Jj	0.22 Jj	0.18 Jj	0.24 Jj	< 0.12
Sulfate, total	mg/L	250	125	20	67	120	65	70	71	28	62	10
Manganese, total	µg/L	50	25	**425**	**69.9**	**73**	**359**	**113**	**96.4**	**241**	*33.8*	*10.3 J*
Acetone	µg/L	9000	1800	0.35 Ju	0.84 Ju	0.88 Ju	< 0.3	0.4 Ju	0.41 Ju	0.61 Ju	0.63 Ju	< 0.3
Benzene	µg/L	5	0.5	< 0.018	< 0.018	< 0.018	< 0.018	< 0.018	0.042 J	< 0.018	< 0.018	< 0.018
Chlorobenzene	µg/L	100	20	< 0.04	< 0.04	< 0.04	0.1 J	< 0.04	< 0.04	< 0.04	< 0.04	< 0.04
Chloroethane	µg/L	400	80	< 0.07	< 0.07	< 0.07	< 0.07	< 0.07	< 0.07	1.4	0.89	< 0.07
Chloromethane	µg/L	30	3	< 0.04	< 0.04	< 0.04	< 0.04	< 0.04	< 0.04	< 0.04	0.04 J	< 0.04
cis-1,2-Dichloroethene	µg/L	70	7	< 0.07	< 0.07	0.31	0.21 J	< 0.07	0.24	1.9	3.3	< 0.07
Methylene chloride	µg/L	5	0.5	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Tetrachloroethene	µg/L	5	0.5	< 0.05	< 0.05	0.29	0.16 J	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Toluene	µg/L	800	160	< 0.04	< 0.04	< 0.04	< 0.04	< 0.04	< 0.04	< 0.04	< 0.04	< 0.04
trans-1,2-dichloroethene	µg/L	100	10	< 0.04	< 0.04	0.052 J	< 0.04	< 0.04	< 0.04	< 0.04	< 0.019	< 0.04
Trichloroethene	µg/L	5	0.5	< 0.05	< 0.05	*1.6*	*0.74*	< 0.05	0.1 J	0.14 J	< 0.05	< 0.05
Vinyl chloride	µg/L	0.2	0.02	< 0.019	*0.065*	< 0.019	*0.04 J*	*0.038 J*	*0.17*	**4.4**	**4.6**	< 0.019

Notes:

Created by: P. Popp
Checked by: M. Stollenwerk (10/27/2019)

1. µg/l = micrograms per liter (ppb).
2. SU = Standard Units
3. µmhos/cm = microSiemens per centimeter
4. Deg C = Degrees Celcius
5. mV = millivolts
6. mg/L = milligrams per liter (ppm).
7. Metals analyzed using EPA Method 6010.
8. NR 140 ES = Wisconsin Administrative Code Chapter NR 140 Enforcement Standard.
9. NR 140 PAL = Wisconsin Administrative Code Chapter NR 140 Preventive Action Limit.
10. **BOLD** = Exceedence (or potential exceedence if J- or B-flagged) of the NR 140, WAC ES.
11. *Italics* = Exceedence (or potential exceedence if J- or B-flagged) of the NR 140, WAC PAL.
12. ORP - Oxidation Reduction Potential
13. Some wells were gauged on 7/22/2019 and sampled on 7/23/2019 including P-103, P-103D, P-107D, and P-111D.

Table 3: Detected Parameters in Groundwater
FF/NN Landfill
Ripon, Wisconsin
Third Quarter 2019

Parameter	Units	NR140 ES	NR140 PAL	P-113B 7/22/2019 307910	P-114 7/22/2019 307912	P-114 DUP 7/22/2019 307916	P-115 (Wiese) 7/22/2019 307911	P-116 (Hadel) 7/22/2019 307913	P-117 7/22/2019 308536	P-118 7/22/2019 308537	Trip Blank 7/22/2019 307917	Trip Blank 7/23/2019 308544
Depth to water	Feet			13.24	19.33		22.52	26.39	15.29	8.15		
Water elevation	Feet			819.92	820.03		820.15	819.47	818.67	818.59		
pH, field	SU			6.99	7.16		7.17	7.60	7.21	7.49		
Conductance, specific	µmhos/cm			685.5	810.9		653.0	540.0	799.2	602.8		
ORP	mV			39.8	-45.4		-12.9	-19.1	-13.9	-9.9		
Oxygen, dissolved	mg/L			0.32	0.09		0.40	0.71	0.42	0.19		
Turbidity, field				NONE	NONE		SLIGHT	VERY	NONE	NONE		
Temperature	Deg C			10.75	10.35		10.74	12.43	10.87	11.74		
Color, field				NONE	NONE		LT TAN	RUST	NONE	NONE		
Odor, field				NONE	NONE		NONE	NONE	NONE	NONE		
Nitrogen, nitrate + nitrite, total	mg/L	10	2	0.18 J	0.22 J	< 0.12	< 0.12	0.13 J	0.21 Jj	0.17 Jj		
Sulfate, total	mg/L	250	125	73	62	62	39	14	66	23		
Manganese, total	µg/L	50	25	*33.9*	**68.1**	**67.9**	**115**	**134**	**224**	**94.9**		
Acetone	µg/L	9000	1800	0.32 Ju	0.72 Ju	0.52 Ju	0.71 Ju	0.59 Ju	< 0.3	< 0.3	1.1	1.2
Benzene	µg/L	5	0.5	< 0.018	< 0.018	< 0.018	< 0.018	< 0.018	< 0.018	< 0.018	< 0.018	< 0.018
Chlorobenzene	µg/L	100	20	< 0.04	< 0.04	< 0.04	< 0.04	< 0.04	< 0.04	< 0.04	< 0.04	< 0.04
Chloroethane	µg/L	400	80	< 0.07	0.29	0.36	< 0.07	< 0.07	0.36	< 0.07	< 0.07	< 0.07
Chloromethane	µg/L	30	3	< 0.04	< 0.04	< 0.04	< 0.04	< 0.04	< 0.04	< 0.04	< 0.04	< 0.04
cis-1,2-Dichloroethene	µg/L	70	7	< 0.07	2.1	2.1	0.14 J	< 0.07	0.84	< 0.07	< 0.07	< 0.07
Methylene chloride	µg/L	5	0.5	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	*1.3*	*1.1*
Tetrachloroethene	µg/L	5	0.5	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Toluene	µg/L	800	160	< 0.04	< 0.04	< 0.04	< 0.04	< 0.04	< 0.04	0.055 J	< 0.04	< 0.04
trans-1,2-dichloroethene	µg/L	100	10	< 0.04	< 0.04	< 0.04	< 0.04	< 0.04	< 0.04	< 0.04	< 0.04	< 0.04
Trichloroethene	µg/L	5	0.5	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	0.061 J	< 0.05	< 0.05	< 0.05
Vinyl chloride	µg/L	0.2	0.02	< 0.019	**6.9**	**6.4**	**0.91**	< 0.019	**1.3**	*0.064*	< 0.019	< 0.019

Notes:

Created by: P. Popp
Checked by: M. Stollenwerk (10/27/2019)

1. µg/l = micrograms per liter (ppb).
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3. µmhos/cm = microSiemens per centimeter
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12. ORP - Oxidation Reduction Potential
13. Some wells were gauged on 7/22/2019 and sampled on 7/23/2019 including P-103, P-103D, P-107D, and P-111D.

Table 4: Landfill Gas Field Parameter Monitoring Results
FF/NN Landfill
Ripon, Wisconsin
Third Quarter 2019

Monitoring Point	Time	Date	CH_4 (%)	CO_2 (%)	O_2 (%)	N (%)	Comments
Background*	--	7/9/2019	0.0	0.0	20.9	79.1	No time recorded
	7:17	7/23/2019	0.0	0.0	20.9	79.1	
	7:26	8/15/2019	0.0	0.0	20.9	79.1	
	10:04	9/9/2019	0.0	0.0	20.9	79.1	
LC-1	--	7/9/2019	7.0	4.4	17.8	70.8	No time recorded
	7:24	7/23/2019	6.5	4.2	17.3	72.0	
	7:32	8/15/2019	7.5	4.8	17.4	70.3	
	6:15	8/20/2019	15.5	9.1	14.8	60.6	Prior to daily system operation
	8:05	8/20/2019	11.5	6.4	16.7	65.4	During daily system operation
	15:06	8/20/2019	58.4	33.2	0.1	8.3	Following system breach repair on 8/20/2019
	10:15	9/5/2019	27.6	31.1	0.0	41.3	System breach repaired on 8/20/19. GV-4 reconnected to system on 9/5/19
	10:18	9/9/2019	13.5	26.0	0.8	59.7	
	10:01	9/17/2019	9.7	25.5	0.0	64.8	
LC-2	--	7/9/2019	9.5	5.4	16.7	68.4	No time recorded
	7:29	7/23/2019	5.5	3.2	19.0	72.3	
	7:38	8/15/2019	36.0	19.2	7.7	37.1	
	8:20	8/20/2019	62.4	30.0	1.0	6.6	During daily system operation
	15:09	8/20/2019	62.0	30.2	0.5	7.3	Following system breach repair on 8/20/2019
	11:07	9/5/2019	59.4	31.4	0.4	8.8	System breach repaired on 8/20/19. GV-4 reconnected to system on 9/5/19
	10:49	9/9/2019	56.0	30.0	2.0	12.0	
	9:53	9/17/2019	59.2	30.9	0.8	9.1	
LC-3	--	7/9/2019	43.0	28.6	3.3	25.1	No time recorded
	7:26	7/23/2019	45.0	30.4	2.3	22.3	
	7:36	8/15/2019	44.5	30.8	1.9	22.8	
	6:50	8/20/2019	56.1	36.7	0.0	7.2	Prior to daily system operation
	8:15	8/20/2019	50.1	33.3	1.7	14.9	During daily system operation
	15:21	8/20/2019	48.5	32.7	17.4	1.4	Following system breach repair on 8/20/2019
	10:18	9/5/2019	38.3	28.2	1.3	32.2	System breach repaired on 8/20/19. GV-4 reconnected to system on 9/5/19
	10:45	9/9/2019	29.5	24.0	3.1	43.4	
	9:57	9/17/2019	31.3	25.6	0.9	42.2	
GV-1	11:22	9/5/2019	0.0	0.0	20.6	79.4	
GV-2	10:46	9/5/2019	0.0	0.1	20.5	79.4	
GV-3	10:39	9/5/2019	32.5	28.0	2.4	37.1	
GV-4	12:20	9/5/2019	1.8	5.7	0.3	92.2	System breach repaired on 8/20/19 and GV-4 reconnected to system on 9/5/19.
	10:24	9/9/2019	10.0	13.8	7.8	68.4	Extraction well side
	10:27	9/9/2019	9.5	15.0	7.9	67.6	Extraction header side
	10:03	9/17/2019	6.9	13.0	8.7	71.4	Extraction header side
GV-5	10:59	9/5/2019	2.2	5.2	16.0	76.6	
GV-6	--	7/9/2019	42.0	25.8	2.2	30.0	No time recorded
	7:25	7/23/2019	36.5	25.2	2.6	35.7	
	7:34	8/15/2019	42.5	27.6	2.0	27.9	
	8:10	8/20/2019	37.4	25.3	4.4	32.9	During daily system operation
	15:20	8/20/2019	46.2	29.7	0.1	24.0	Following system breach repair on 8/20/2019
	10:53	9/5/2019	3.6	7.0	14.7	74.7	System breach repaired on 9/5/19.
	10:32	9/9/2019	7.0	5.6	16.4	71.0	
	10:09	9/17/2019	14.2	13.5	9.9	62.4	
GV-7	11:22	9/5/2019	0.0	0.0	20.6	79.4	Open to atm
GV-8	*No monitoring ports available*						
GV-9	11:16	9/5/2019	1.9	5.4	14.5	78.2	
GV-10	11:11	9/5/2019	7.6	8.5	13.5	70.4	
GV-11	11:03	9/5/2019	15.1	18.0	5.2	61.7	
GV-12	11:38	9/5/2019	0.0	0.0	20.6	79.4	Open to atm

Table 4: Landfill Gas Field Parameter Monitoring Results
FF/NN Landfill
Ripon, Wisconsin
Third Quarter 2019

Monitoring Point	Time	Date	CH_4 (%)	CO_2 (%)	O_2 (%)	N (%)	Comments
GP-1*	7:18	7/9/2019	0.0	5.4	9.4	85.2	
	8:18	7/9/2019	0.0	9.0	2.4	88.6	
	7:18	7/23/2019	0.4	7.2	8.1	84.4	First Reading
	8:18	7/23/2019	0.4	7.8	7.1	84.7	Second Reading
	7:27	8/15/2019	0.9	7.8	6.3	85.1	First Reading
	8:27	8/15/2019	0.9	7.6	6.7	84.8	Second Reading
	7:56	8/20/2019	0.1	7.9	8.5	83.5	
	10:09	8/20/2019	0.0	8.4	7.1	84.5	
	7:07	9/5/2019	0.1	7.4	10.6	81.9	
	10:04	9/9/2019	1.0	7.4	8.0	83.7	First Reading
	11:14	9/9/2019	1.3	8.8	6.4	83.5	Second Reading
	8:42	9/17/2019	0.0	5.1	10.8	84.1	
	9:36	9/17/2019	0.0	6.1	9.1	84.8	
GP-2*	9:47	8/20/2019	2.2	8.5	11.7	77.6	
	9:49	8/20/2019	11.6	20.6	0.3	67.5	
	9:55	8/20/2019	12.3	21.0	0.0	66.7	
	9:47	8/21/2019	1.2	5.6	15.2	78.0	
	13:52	8/22/2019	0.0	2.4	19.0	78.6	
	13:45	8/23/2019	12	1.6	19.5	66.9	
	11:12	8/26/2019	4.3	10.8	8.0	76.9	
	11:15	8/26/2019	9.0	19.6	0.7	70.7	
	11:25	8/27/2019	10.5	17.4	2.3	69.8	
	13:52	8/28/2019	9.0	20.0	0.3	70.7	
	13:58	8/29/2019	9.5	19.4	0.7	70.4	
	11:32	8/30/2019	6.5	1.0	19.0	73.5	
	11:20	9/3/2019	7.0	19.6	0.5	72.9	
	12:57	9/4/2019	2.2	17.4	2.0	78.4	
	6:34	9/5/2019	0.1	3.6	17.5	78.8	
	14:02	9/5/2019	6.2	20.2	0.1	73.5	
	13:25	9/6/2019	1.1	16.2	2.6	80.1	
	10:58	9/9/2019	0.0	10.4	9.6	80.0	
	11:22	9/10/2019	0.0	11.8	7.7	80.5	
	10:57	9/11/2019	0.4	12.6	5.2	81.8	
	11:04	9/12/2019	0.05	10.4	9.4	80.2	
	13:09	9/13/2019	0.2	12.6	5.1	82.1	
	14:37	9/16/2019	3.25	11.4	6.5	78.9	
	9:12	9/17/2019	0.0	0.6	19.9	79.5	
GP-3	10:25	8/20/2019	0.0	0.8	19.0	80.2	Fix breach in system piping 8/20/19.
	6:13	9/5/2019	0.0	1.0	20.3	78.7	Reconnect GV-4 to the extraction system.
	8:30	9/17/2019	0.0	0.0	20.4	79.6	
GP-4	10:30	8/20/2019	0.0	2.2	17.6	80.2	Fix breach in system piping 8/20/19.
	6:23	9/5/2019	0.0	2.3	19.6	78.1	Reconnect GV-4 to the extraction system.
	8:34	9/17/2019	0.0	1.3	18.7	80.0	
GP-5	10:01	8/20/2019	0.0	9.4	10.8	79.8	Fix breach in system piping 8/20/19.
	7:13	9/5/2019	0.0	8.7	14.1	77.2	Reconnect GV-4 to the extraction system.
	8:44	9/17/2019	0.0	5.9	14.7	79.4	
GP-6	10:20	8/20/2019	0.0	1.8	17.8	80.4	Fix breach in system piping 8/20/19.
	6:04	9/5/2019	0.0	2.3	19.1	78.6	Reconnect GV-4 to the extraction system.
	8:24	9/17/2019	0.0	0.9	19.3	79.8	
GP-7	10:16	8/20/2019	0.0	1.0	18.9	80.1	Fix breach in system piping 8/20/19.
	5:59	9/5/2019	0.0	2.3	19.1	78.6	Reconnect GV-4 to the extraction system.
	8:19	9/17/2019	0.0	0.1	20.4	79.5	
GP-8	Gas Probe Not Located - Assumed Lost						
GP-10	9:43	8/20/2019	0.0	5.8	12.4	81.8	Fix breach in system piping 8/20/19.
	6:42	9/5/2019	0.0	6.0	14.6	79.4	Reconnect GV-4 to the extraction system.
	9:08	9/17/2019	0.0	0.6	12.8	86.6	

Table 4: Landfill Gas Field Parameter Monitoring Results
FF/NN Landfill
Ripon, Wisconsin
Third Quarter 2019

Monitoring Point	Time	Date	CH_4 (%)	CO_2 (%)	O_2 (%)	N (%)	Comments
GP-11	9:30	8/20/2019	0.0	3.7	17.4	78.9	Fix breach in system piping 8/20/19.
	6:53	9/5/2019	0.0	2.5	19.4	78.1	Reconnect GV-4 to the extraction system.
	9:00	9/17/2019	0.0	2.4	18.0	79.6	
GP-12	10:04	8/20/2019	0.0	3.2	17.4	79.4	Fix breach in system piping 8/20/19.
	7:01	9/5/2019	0.0	3.4	18.4	78.2	Reconnect GV-4 to the extraction system.
	8:55	9/17/2019	0.0	1.7	18.5	79.8	
Exhaust*	--	7/9/2019	5.0	3.6	18.4	73.0	No time recorded
	7:20	7/23/2019	4.4	3.2	18.5	74.0	
	7:29	8/15/2019	5.0	3.6	18.1	73.3	
	8:25	8/20/2019	5.5	3.8	18.2	72.5	During daily system operation
	15:23	8/20/2019	15.4	10.1	13.6	60.9	Following system breach repair on 8/20/2019
	11:55	9/5/2019	8.1	7.4	14.6	69.9	Fix breach in system piping 8/20/19. Reconnect GV-4 to the extraction system.
	10:13	9/9/2019	7.5	5.0	13.4	74.1	
	9:26	9/17/2019	5.7	8.9	13.0	72.4	
	10:50	10/7/2019	4.8	8.2	13.6	73.4	

Notes:

* = Methane concentration noted in percent lower explosive limit

-- = Data not recorded

LEL = Lower Explosive Limit

CH_4 = Methane

CO_2 = Carbon Dioxide

O_2 = Oxygen

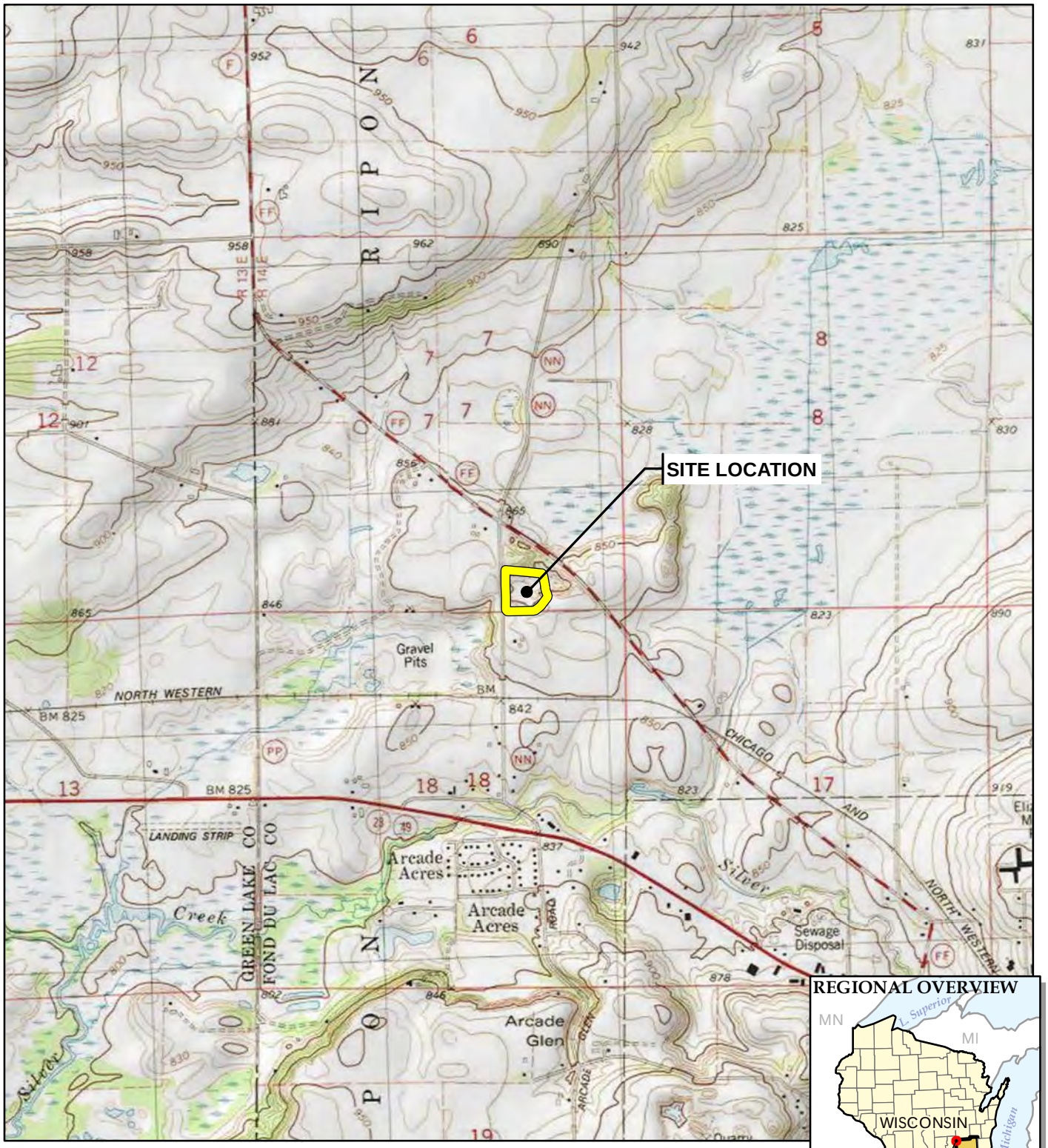
N = Nitrogen

% = Percent

Created By: M. Stollenwerk 11/1/2019

Updated/Checked By: A. Stehn 11/1/2019

Final Check By: T. Perkins 11/1/2019



BASE MAP FROM USGS 7.5 MINUTE TOPOGRAPHIC QUADRANGLE SERIES.

N

1 " = 2,000 '
1:24,000

0 2,000 4,000
FEET

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Brookfield, WI 53045
Phone: 262.879.1212
TRC - GIS

PROJECT:

FF/NN LANDFILL NPL SITE
RIPON, WI
THIRD QUARTER 2019 REPORTING

TITLE:

SITE LOCATION MAP

DRAWN BY:	A. ADAIR
CHECKED BY:	M. STOLLENWERK
APPROVED BY:	J. WEDEKIND
DATE:	DECEMBER 2019
PROJ. NO.:	327275
FILE:	Fig1_327275_Q31_SLM.mxd

FIGURE 1

S:\1-PROJECTS\Ripon\Fig1_327275_Q31_SLM.mxd -- Saved By: AADAIR on 12/17/2019, 08:28:34 AM

LEGEND

- GAS PROBE
- GAS PROBE (LOST)
- GAS VENT
- LEACHATE HEAD WELL
- MONTIORING WELL, PIEZOMETER LOCATION
- PRIVATE WELL USED FOR POTABLE PURPOSES
- PRIVATE WELL NOT USED FOR POTABLE PURPOSES
- RIPON FF/NN LANDFILL SITE

NOTES

1. BASE MAP IMAGERY FROM GOOGLE EARTH PRO., (4/21/2017).

0 200 400 Feet

1 " = 400 '

1:4,800

PROJECT:
FF/NN LANDFILL NPL SITE
RIPON, WI
THIRD QUARTER 2019 REPORTING

TITLE:
SITE LAYOUT MAP

DRAWN BY:	A. ADAIR	PROJ. NO.:	327275
CHECKED BY:	M. STOLLENWERK		
APPROVED BY:	J. WEDEKIND		**FIGURE 2**
DATE:	DECEMBER 2019		

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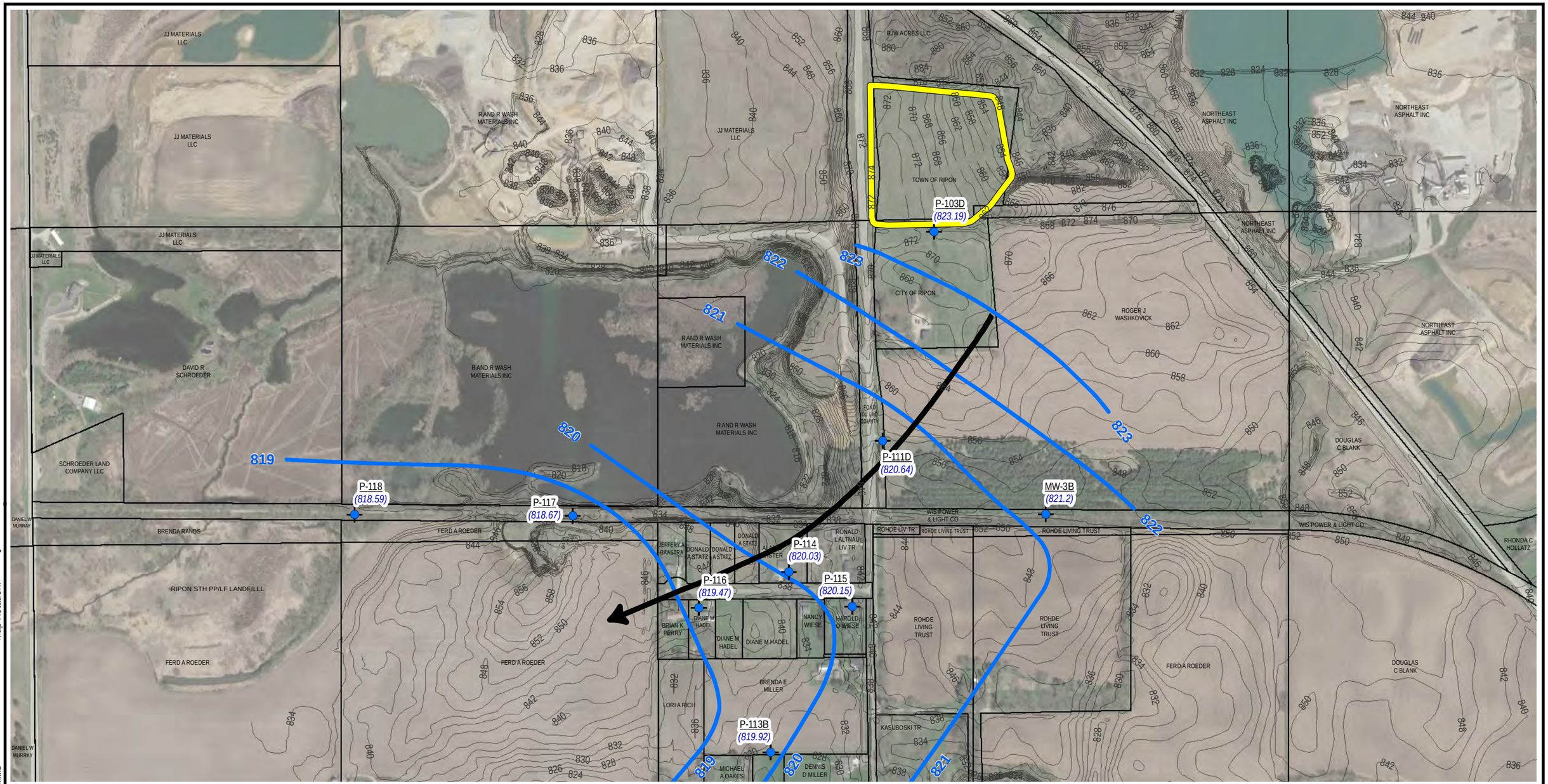
FILE NO.: Fig2_327275_Q32_SLP.mxd

TRC - GIS
Coordinate System: NAD 1983 StatePlane Wisconsin South FIPS 4803 Feet (Foot US)
Map Rotation: 0
Plot Date: 12/17/2019, 09:26:56 AM by AADAIR -- LAYOUT: ANSI B (11"x17")
Path: S:\11-PROJECTS\Ripon\Fig2_327275_Q32_SLP.mxd



LEGEND

- MW-112 (821.71) — MONITORING WELL, PIEZOMETER LOCATION WITH GROUNDWATER ELEVATION
- GROUNDWATER FLOW DIRECTION
- GROUNDWATER ELEVATION CONTOUR
- TOPOGRAPHIC CONTOUR (CONTOUR INTERVAL 2')
- TAX PARCEL
- RIPON FF/NN LANDFILL SITE

NOTES

1. BASE MAP IMAGERY FROM GOOGLE EARTH PRO., (4/21/2017).

0 200 400 Feet

1 " = 400 '

1:4,800

PROJECT:
FF/NN LANDFILL NPL SITE
RIPON, WI
THIRD QUARTER 2019 REPORTING

TITLE:
GROUNDWATER ELEVATION MAP
QUARTER 3 LAYER 3 WELLS
JULY 22, 2019

DRAWN BY:	A. ADAIR	PROJ. NO.:	327275
CHECKED BY:	A. SOBBE		
APPROVED BY:	M. STOLLENWERK		**FIGURE 3**
DATE:	DECEMBER 2019		

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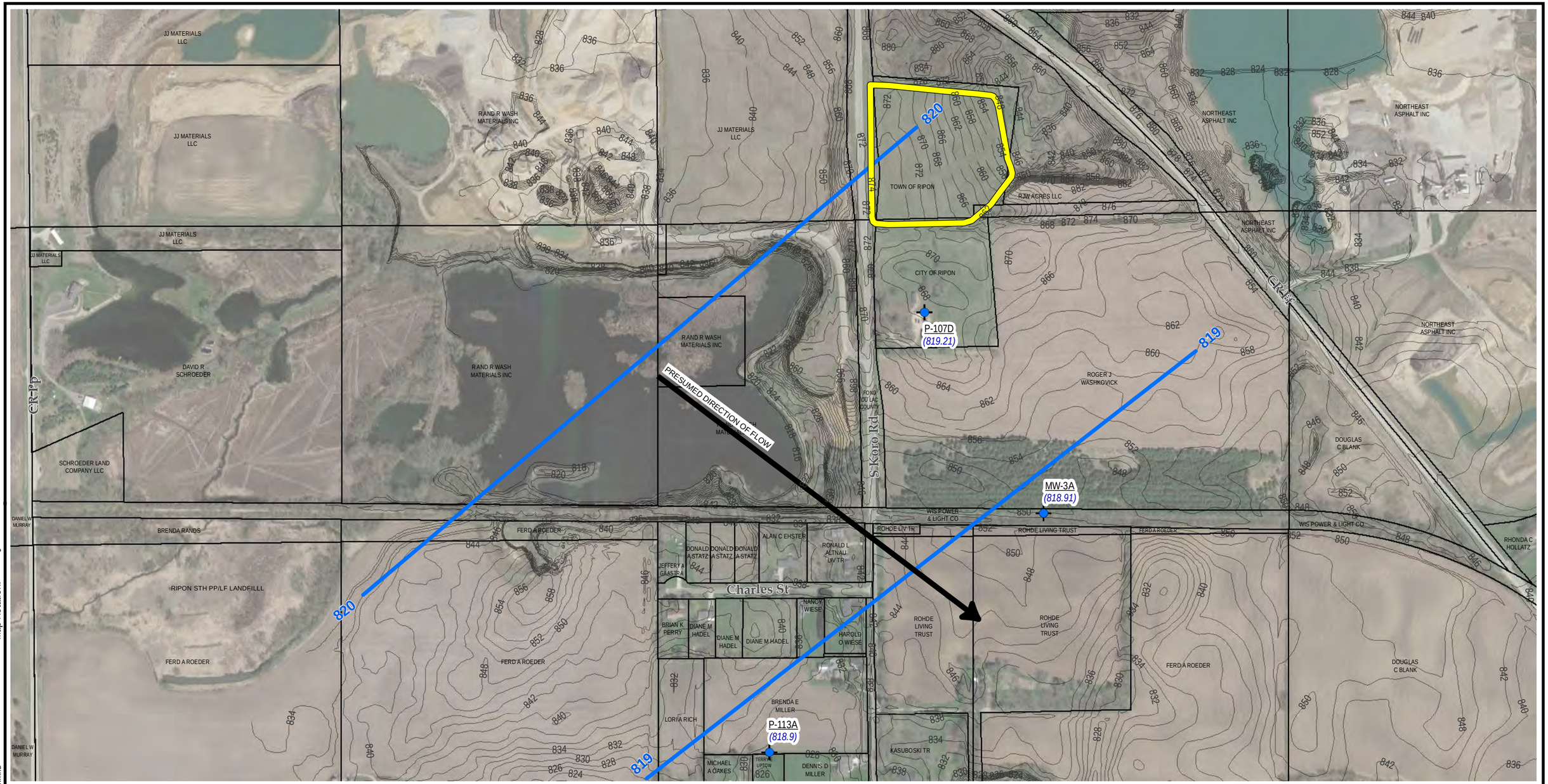
FILE NO.: Fig3_327275_Q33_Layer3.mxd

TRC - GIS
Coordinate System: NAD 1983 StatePlane Wisconsin South FIPS 4803 Feet (Foot US)
Map Rotation: 0
Plot Date: 12/17/2019, 09:29:17 AM by AADAIR -- LAYOUT: ANSI B(11"x17")
Path: S:\1-PROJECTS\Ripon\Fig3_327275_Q33_Layer3.mxd



Coordinate System: NAD 1983 StatePlane Wisconsin South FIPS 4803 Feet (Foot US)
Map Rotation: 0

Plot Date: 12/17/2019, 09:30:20 AM by AADAIR - - LAYOUT: ANSI B (11"x17")
Path: S:\1-PROJECTS\Ripon\Fig4_327275_Q34_Layer4.mxd

TRC - GIS

LEGEND

- MW-112 (821.71) — MONITORING WELL, PIEZOMETER LOCATION WITH GROUNDWATER ELEVATION
- PRESUMED GROUNDWATER FLOW DIRECTION
- GROUNDWATER ELEVATION CONTOUR
- TOPOGRAPHIC CONTOUR (CONTOUR INTERVAL 2')
- TAX PARCEL
- RIPON FF/NN LANDFILL SITE

NOTES

1. BASE MAP IMAGERY FROM GOOGLE EARTH PRO., (4/21/2017).

N

0 200 400 Feet

1 " = 400 '

1:4,800

PROJECT:	FF/NN LANDFILL NPL SITE RIPON, WI THIRD QUARTER 2019 REPORTING
TITLE:	GROUNDWATER ELEVATION MAP QUARTER 3 LAYER 4 WELLS JULY 22, 2019
DRAWN BY: A. ADAIR	PROJ. NO.: 327275
CHECKED BY: A. SOBBE	
APPROVED BY: M. STOLLENWERK	FIGURE 4
DATE: DECEMBER 2019	

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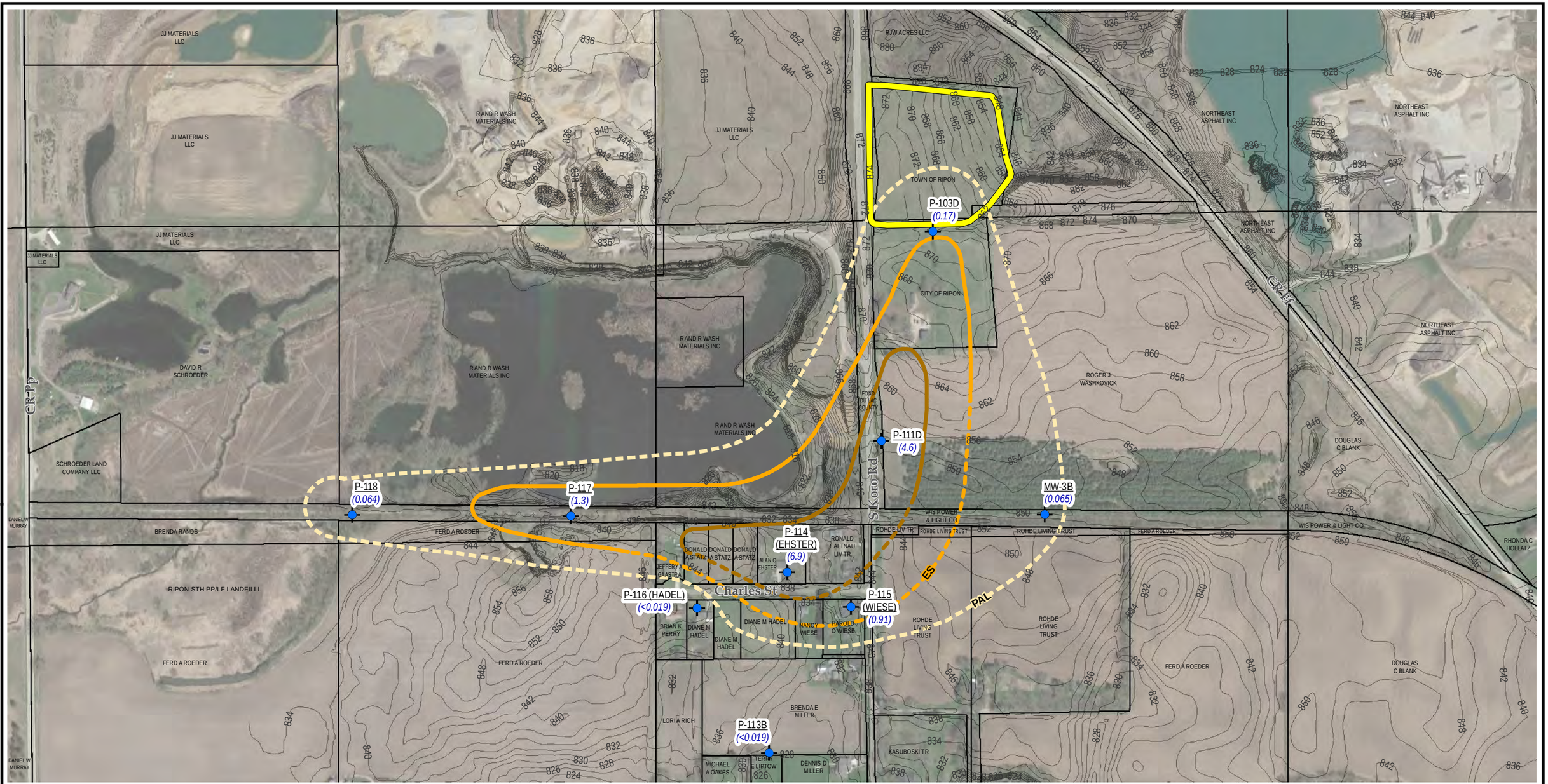
FILE NO.: Fig4_327275_Q34_Layer4.mxd



LEGEND

- P-117 (1.2) — MONITORING WELL, PIEZOMETER LOCATION WITH VINYL CHLORIDE CONCENTRATION
- INFERRED PREVENTATIVE ACTION LEVEL VINYL CHLORIDE ISOCONTOUR 0.02 UG/L
- ENFORCEMENT STANDARD VINYL CHLORIDE ISOCONTOUR 0.2 UG/L (DASHED WHERE INFERRED)
- VINYL CHLORIDE ISOCONTOUR 2.0 UG/L (DASHED WHERE INFERRED)
- TOPOGRAPHIC CONTOUR (CONTOUR INTERVAL 2')
- TAX PARCEL
- RIPON FF/NN LANDFILL SITE

NOTES

1. BASE MAP IMAGERY FROM GOOGLE EARTH PRO., (4/21/2017).

0 200 400 Feet

1 " = 400 '

1:4,800

PROJECT: FF/NN LANDFILL NPL SITE
RIPON, WI
THIRD QUARTER 2019 REPORTING

TITLE: VINYL CHLORIDE ISOCONCENTRATION MAP
QUARTER 3 LAYER 3 WELLS
JULY 2019

DRAWN BY:	A. ADAIR	PROJ. NO.:	327275
CHECKED BY:	A. SOBBE		
APPROVED BY:	M. STOLLENWERK		FIGURE 5
DATE:	DECEMBER 2019		

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FILE NO.: Fig5_327275_Q35_Layer3_Plume.mxd

TRC - GIS
Coordinate System: NAD 1983 StatePlane Wisconsin South FIPS 4803 Feet (Foot US)
Map Rotation: 0
Plot Date: 12/17/2019, 12:16:17 PM by AADAIR -- LAYOUT: ANSI B (11"X17")
Path: S:\1-PROJECTS\Ripon\Fig5_327275_Q35_Layer3_Plume.mxd

Appendix A: Cap Inspection Documentation

Ripon Landfill Cover
Inspection Record

Date	Name of Inspector
7/23/19	S. Roelke

Description of Weather

Time	Temperature	Barometric Pressure	Precipitation
1300	77 °F	30.05" Hg	0.0"

Weather Conditions	Ground Conditions	General Past 7-Day Weather Conditions
Sunny	moist	Sunny

Landfill Vegetation Cover

General Health of Vegetation

Healthy ☒ Stressed ☐ Barren ☐

Comments

Density of Vegetation

Good ☒ Fair ☐ Poor ☐

Comments

Grass is planned to be cut during the week of 7/22/19.
Tree located at the South end of the landfill should be removed.

Evidence of Burrowing Animals		Comments
No ☐	Yes ☒	Located at the East end of the landfill See photo.
Erosion of Landfill Cap		**Comments**
No ☒	Yes ☐	
Settlement of Landfill Cap		**Comments**
No ☒	Yes ☐	
Drainage Ditch Erosion		**Comments**
No ☒	Yes ☐	
Seeps Identified		**Comments**
~~No ☒~~	Yes ☒	Located at the South East corner of the landfill. See photo

SAR

Location of Erosion on Landfill Cap

- NONE

Location of Settlement of Landfill Cap

- NONE

Location of Drainage Ditch Erosion

- NONE

Location of Seeps

- SouthEast Corner

Locations	Erosion		Comments
GV-1	Yes ☐	No ☒	
GV-2	Yes ☐	No ☒	
GV-3	Yes ☐	No ☒	
GV-4	Yes ☐	No ☒	
GV-5	Yes ☐	No ☒	
GV-6	Yes ☐	No ☒	
GV-7	Yes ☐	No ☒	
GV-8	Yes ☐	No ☒	
GV-9	Yes ☐	No ☒	
LC-1	Yes ☐	No ☒	
LC-2	Yes ☐	No ☒	
LC-3	Yes ☐	No ☒	
P-104	Yes ☐	No ☒	Casing is interfering with (see photo) fluid discharge tube
MW-104	Yes ☐	No ☒	

Seep: Located at South East corner of the landfill

Seep drains towards the blower building

P-104, casing should be extended. It is damaging the well's discharge tubing.

Appendix B: Site Inspection Reports

TRC

PROJECT NAME:	Ripon FF/NN Landffill
PROJECT NUMBER:	327275.0001.0003
PROJECT MANAGER:	Marita Stollenwerk
SITE LOCATION:	Ripon, WI
DATES OF FIELDWORK:	7/22-23/19
PURPOSE OF FIELDWORK:	Groundwater Sampling
WORK PERFORMED BY:	J. Roelke

Joel Keller 7/25/19

SIGNED DATE CHECKED BY DATE

TRC

CALIBRATION LOG

PROJECT NAME: Ripon FF/NN Landfill	MODEL: In Situ	SAMPLER: J. Roelke
PROJECT NO.: 327275.0001.0003	SERIAL #: 442279	DATE: 7/22-23 /19

PH CALIBRATION CHECK

PH 7 (LOT NUMBER): 8G5877	PH 4 / 10 (LOT NUMBER): 9GA501	TIME
7.00 / 6.92	4.00 / 4.15	635 / 638 (7-22)
/ 7.10	/ 4.21	1821 / 1823 (7-22)
/ 6.94	/ 4.25	818 / [illegible] (7-23)
/ 7.19	/ 4.19	1241 / 1243

SPECIFIC CONDUCTIVITY CALIBRATION CHECK

CALIBRATION READING (LOT NUMBER): 9GA501	TEMPERATURE (°CELSIUS)	CORRECTED CONDUCTIVITY (umhos/cm)	TIME
4490 / 4409	24.1		640 (7-22)
/ 4499	21.73		1823 (7-22)
/ 4406	21.4		823 (7-23)
/ 4515	22.89		1244 (7-23)

D.O. CALIBRATION CHECK

CALIBRATION READING (mg/L)	TIME
7.96	655 (7-22)
8.27	1830 (7-22)
8.86	832 (7-23)
8.57	1251 (7-23

TURBIDITY CALIBRATION CHECK

CALIBRATION READING (LOT #): / (LOT #):	TIME
/ /	
/ /	
/ /	
/ /	

OXIDATION / REDUCTION POTENTIAL CALIBRATION CHECK

20th 19A1007705

CALIBRATION READING (LOT NUMBER): ~~1851005777~~	TEMPERATURE (°CELSIUS)	CORRECTED ORP (mV)	TIME
~~230~~ / ~~209.2~~	~~24.1~~		~~(7-22)~~
230 / 221.5	24.1		643 ~~1826~~ SAK
/ 217.4	21.91		1826 (7-22)
/ ~~223.3~~ 214.9	~~21.6~~ 23.83		~~827 (7-23)~~ 1247 7-23

SAR

PROBLEMS ENCOUNTERED	CORRECTIVE ACTIONS
Redox solution - Cal read low	made new cal solution

SIGNED [signature] DATE 7/23/19

CHECKED BY DATE

REVISED 07/2005

TRC

WATER LEVEL DATA

PROJECT NAME: Ripon FF/NN Landfill				DATE: 7 / 22 /19	
PROJECT NUMBER 327275.0001.0003				AUTHOR: J. Roelke	
WELL LOCATION	**TIME**	**REFERENCE**	**DEPTH TO WATER (FEET)**	**DEPTH TO BOTTOM (FEET)**	**WATER ELEVATION**
MW-101		884.73		64.50	
P-101		885.39		96.49	
MW-102		842.9		24.00	
P-102		842.85		61.15	
MW-103	1538	872.30	49.77	53.69	
P-103	1539	872.74	48.46	83.02	
P-103D	1540	872.91	49.72	192.66	
MW-104		875.20		54.90	
P-104		875.40		92.80	
MW-106		878.90		57.35	
P-106		878.91		87.30	
MW-107		871.69		55.29	
P-107		871.33		87.13	
P-107D	1548	871.9	52.69	322.7	
MW-108		845.08		30.28	
P-108		845.48		62.48	
MW-111		856.09		43.79	
P-111		856.28		82.68	
P-111D	1554	855.56	34.92	148.46	
MW-112	1537	874.7	53.02	60.47	
P-113A	750	833.16	14.26	325.31	
P-113B	838	833.16	13.24	198.9	
P-114	1046	839.36	19.33	181.72	
P-115	9.33	842.67	22.52	179.57	
P-116	1208	845.86	36.39	163.19	
P-117	1607	833.96	15.29	165.54	
P-118	16.51	826.74	8.15	167.44	
MW-3A	1302	850.60	31.69	280.10	
MW-3B	1347	850.89	29.69	185.72	
Rohde		844.98		228.00	
LC-1		876.15		27.70	
LC-2		866.05		27.91	
LC-3		877.34		26.14	

ALL WATER LEVELS MUST INCLUDE REFERENCE POINT AND TAPE CORRECTION FACTOR
(E.G., 1.1 + 0.00 T/PVC)

7/22/19

SIGNED DATE: CHECKED DATE

SAR 7/25/19

TRC

WATER SAMPLE LOG

PROJECT NAME:	Ripon FF/NN Landfill	PREPARED		CHECKED	
PROJECT NUMBER:	327275.0001.0003	BY: JAR	DATE: 7/22/19	BY:	DATE:

SAMPLE ID: MW-103 WELL DIAMETER: ☑ 2" ☐ 4" ☐ 6" ☐ OTHER

WELL MATERIAL: ☑ PVC ☐ SS ☐ IRON ☐ OTHER

SAMPLE TYPE: ☑ GW ☐ WW ☐ SW ☐ DI ☐ LEACHATE ☐ OTHER

PURGING	TIME: 1800	DATE: 7/22/19	SAMPLE	TIME: 1809	DATE: 7/22/19
PURGE METHOD: ☑ PUMP BLADDER PUMP (QED) ☐ BAILER BAILER (DISPOSABLE)			PH: 7.2 SU	CONDUCTIVITY: 1102 umhos/cm	
DEPTH TO WATER: 49.77 T/ PVC			ORP: -21.4 mv	DO: 5.64 mg/L	
DEPTH TO BOTTOM: 53.69 T/ PVC			TURBIDITY: NA NTU		
WELL VOLUME: ~~NA~~ 0.64 ☐ LITERS ☐ GALLONS			☐ NONE ☒ SLIGHT ☐ MODERATE ☐ VERY		
VOLUME REMOVED: 2 ☐ LITERS ☑ GALLONS			TEMPERATURE: 12.99 °C	OTHER:	
COLOR: Lt Brn	ODOR: NONE		COLOR: Lt. Brn	ODOR: NONE	
TURBIDITY: NA			FILTRATE (0.45 um) ☐ YES ☑ NO		
☐ NONE ☒ SLIGHT ☐ MODERATE ☐ VERY			FILTRATE COLOR:	FILTRATE ODOR:	
DISPOSAL METHOD: ☐ GROUND ☐ DRUM ☑ OTHER			QC SAMPLE: ☐ MS/MSD ☐ DUP-1		
			COMMENTS:		

SAR 7/22/19

TIME	PURGE RATE (ML/MIN)	PH (SU)	CONDUCTIVITY (umhos/cm)	ORP (mV)	D.O. (mg/L)	TURBIDITY (NTU)	TEMPERATURE (°C)	WATER LEVEL (FEET)	CUMULATIVE PURGE VOLUME (GAL OR L)
									INITIAL

NOTE: STABILIZATION TEST IS COMPLETE WHEN 3 SUCCESSIVE READINGS ARE WITHIN THE FOLLOWING LIMITS:

pH: +/- **0.1** COND.: % ORP: +/- **10** D.O.: % **10** TURB: +/- **10** ORP +/- **10** TEMP.: %

BOTTLES FILLED

PRESERVATIVE CODES: A - NONE B - HNO3 C - H2SO4 D - NaOH E - HCL F - _____

NUMBER	SIZE	TYPE	PRESERVATIVE	FILTERED	NUMBER	SIZE	TYPE	PRESERVATIVE	FILTERED
3	40 mL	VOA	E	☐ Y ☑ N					☐ Y ☐ N
1	250 mL	PLASTIC	A	☐ Y ☑ N					☐ Y ☐ N
1	250 mL	PLASTIC	B	☐ Y ☑ N					☐ Y ☐ N

SHIPPING METHOD:	Fed Ex	DATE SHIPPED:	7/23/19	AIRBILL NUMBER:	—
COC NUMBER:	—	SIGNATURE:		DATE SIGNED:	7/22/19

TRC

WATER SAMPLE LOG

PROJECT NAME:	Ripon FF/NN Landfill	PREPARED		CHECKED	
PROJECT NUMBER:	327275.0001.0003	BY: JAR	DATE: 7/23/19	BY:	DATE:

SAMPLE ID: P-103 WELL DIAMETER: ☑ 2" ☐ 4" ☐ 6" ☐ OTHER

WELL MATERIAL: ☑ PVC ☐ SS ☐ IRON ☐ OTHER

SAMPLE TYPE: ☑ GW ☐ WW ☐ SW ☐ DI ☐ LEACHATE ☐ OTHER

PURGING	TIME: 1142	DATE: 7/23/19	SAMPLE	TIME: 1217	DATE: 7/23/19
PURGE METHOD: ☑ PUMP BLADDER PUMP (QED) ☐ BAILER BAILER (DISPOSABLE)			PH: 6.99 SU	CONDUCTIVITY: 761.6 umhos/cm	
			ORP: 1.5 mv	DO: 0.73 mg/L	
DEPTH TO WATER: 48.46 T/ PVC			TURBIDITY: NA NTU		
DEPTH TO BOTTOM: 83.02 T/ PVC			☒ NONE ☐ SLIGHT ☐ MODERATE ☐ VERY		
WELL VOLUME: NA ☐ LITERS ☐ GALLONS			TEMPERATURE: 12.44 °C	OTHER:	
VOLUME REMOVED: ~3 ☐ LITERS ☑ GALLONS			COLOR: Clear	ODOR: NONE	
COLOR: Clear	ODOR: NONE		FILTRATE (0.45 um) ☐ YES ☑ NO		
TURBIDITY: NA			FILTRATE COLOR:	FILTRATE ODOR:	
☒ NONE ☐ SLIGHT ☐ MODERATE ☐ VERY			QC SAMPLE: ☐ MS/MSD ☐ DUP-1		
DISPOSAL METHOD: ☐ GROUND ☐ DRUM ☑ OTHER			COMMENTS:		

TIME	PURGE RATE (ML/MIN)	PH (SU)	CONDUCTIVITY (umhos/cm)	ORP (mV)	D.O. (mg/L)	TURBIDITY (NTU)	TEMPERATURE (°C)	WATER LEVEL (FEET)	CUMULATIVE PURGE VOLUME (GAL OR L)
1142	300	7.10	745.9	7.6	6.75	NA	12.67	48.46	INITIAL
1147	300	7.12	762.9	9.7	3.05	NA	12.22	48.62	
1157	300	6.98	763.7	7.3	1.12	NA	12.03	48.62	
1202	300	6.98	761.6	5.0	1.00	NA	12.25	48.62	
1207	300	6.98	761.7	3.6	0.86	NA	12.38	48.62	
1212	300	6.99	764.0	2.2	0.81	NA	12.40	48.62	
1217	300	6.99	761.6	1.5	0.73	NA	12.44	48.62	

NOTE: STABILIZATION TEST IS COMPLETE WHEN 3 SUCCESSIVE READINGS ARE WITHIN THE FOLLOWING LIMITS:

pH: +/- **0.1** COND.: % ORP: +/- **10** D.O.: % **10** TURB: +/- **10** ORP +/- **10** TEMP.: %

BOTTLES FILLED

PRESERVATIVE CODES: A - NONE B - HNO3 C - H2SO4 D - NaOH E - HCL F - _____

NUMBER	SIZE	TYPE	PRESERVATIVE	FILTERED	NUMBER	SIZE	TYPE	PRESERVATIVE	FILTERED
3	40 mL	VOA	E	☐ Y ☑ N					☐ Y ☐ N
1	250 mL	PLASTIC	A	☐ Y ☑ N					☐ Y ☐ N
1	250 mL	PLASTIC	B	☐ Y ☑ N					☐ Y ☐ N

SHIPPING METHOD: Fed Ex DATE SHIPPED: 7/23/19 AIRBILL NUMBER: —

COC NUMBER: — SIGNATURE: [signature] DATE SIGNED: 7/23/19

TRC

WATER SAMPLE LOG

PROJECT NAME:	Ripon FF/NN Landfill	PREPARED		CHECKED	
PROJECT NUMBER:	327275.0001.0003	BY: JAR	DATE: 7/23/19	BY:	DATE:

SAMPLE ID: P-103D WELL DIAMETER: ☑ 2" ☐ 4" ☐ 6" ☐ OTHER

WELL MATERIAL: ☑ PVC ☐ SS ☐ IRON ☐ OTHER

SAMPLE TYPE: ☑ GW ☐ WW ☐ SW ☐ DI ☐ LEACHATE ☐ OTHER

PURGING	TIME: 1057	DATE: 7/23/19	SAMPLE	TIME: 1127	DATE: 7/23/19
PURGE METHOD:	☑ PUMP BLADDER PUMP (QED) ☐ BAILER BAILER (DISPOSABLE)		PH: 6.89 SU	CONDUCTIVITY: 788.7 umhos/cm	
DEPTH TO WATER:	49.64 T/ PVC		ORP: 13.9 mv	DO: 0.40 mg/L	
DEPTH TO BOTTOM:	192.66 T/ PVC		TURBIDITY: NA NTU		
WELL VOLUME:	NA ☐ LITERS ☐ GALLONS		☒ NONE ☐ SLIGHT ☐ MODERATE ☐ VERY		
VOLUME REMOVED:	~3 ☐ LITERS ☑ GALLONS		TEMPERATURE: 12.76 °C	OTHER:	
COLOR:	Clear ODOR: NONE		COLOR: Clear	ODOR: NONE	
TURBIDITY: NA			FILTRATE (0.45 um) ☐ YES ☑ NO		
☒ NONE ☐ SLIGHT ☐ MODERATE ☐ VERY			FILTRATE COLOR:	FILTRATE ODOR:	
DISPOSAL METHOD: ☐ GROUND ☐ DRUM ☑ OTHER			QC SAMPLE: ☐ MS/MSD ☐ DUP-1		
			COMMENTS:		

TIME	PURGE RATE (ML/MIN)	PH (SU)	CONDUCTIVITY (umhos/cm)	ORP (mV)	D.O. (mg/L)	TURBIDITY (NTU)	TEMPERATURE (°C)	WATER LEVEL (FEET)	CUMULATIVE PURGE VOLUME (GAL OR L)
1057	300	7.47	778.0	34.3	2.64	NA	12.62	49.64	INITIAL
1102	300	7.05	792.9	32.5	0.40	NA	11.4	49.87	
1112	300	6.88	790.7	22.6	0.38	NA	12.49	49.87	
1117	300	6.88	789.6	18.5	0.39	NA	12.49	49.87	
1122	300	6.88	790.2	15.0	0.40	NA	12.74	49.87	
1127	300	6.89	788.7	13.9	0.40	NA	12.76	49.87	

NOTE: STABILIZATION TEST IS COMPLETE WHEN 3 SUCCESSIVE READINGS ARE WITHIN THE FOLLOWING LIMITS:

pH: +/- **0.1** COND.: % ORP: +/- **10** D.O.: % **10** TURB: +/- **10** ORP +/- **10** TEMP.: %

BOTTLES FILLED

PRESERVATIVE CODES: A - NONE B - HNO3 C - H2SO4 D - NaOH E - HCL F - _____

NUMBER	SIZE	TYPE	PRESERVATIVE	FILTERED	NUMBER	SIZE	TYPE	PRESERVATIVE	FILTERED
3	40 mL	VOA	E	☐ Y ☑ N					☐ Y ☐ N
1	250 mL	PLASTIC	A	☐ Y ☑ N					☐ Y ☐ N
1	250 mL	PLASTIC	B	☐ Y ☑ N					☐ Y ☐ N

SHIPPING METHOD:	Fed Ex	DATE SHIPPED: 7/23/19	AIRBILL NUMBER: —
COC NUMBER:	—	SIGNATURE:	DATE SIGNED: 7/23/19

2/25/19

TRC

WATER SAMPLE LOG

PROJECT NAME:	Ripon FF/NN Landfill	PREPARED		CHECKED	
PROJECT NUMBER:	327275.0001.0003	BY: JAR	DATE: 7/23/19	BY:	DATE:

SAMPLE ID: P-107D WELL DIAMETER: ☑ 2" ☐ 4" ☐ 6" ☐ OTHER

WELL MATERIAL: ☑ PVC ☐ SS ☐ IRON ☐ OTHER

SAMPLE TYPE: ☑ GW ☐ WW ☐ SW ☐ DI ☐ LEACHATE ☐ OTHER

PURGING	TIME: 1007	DATE: 7/23/19	SAMPLE	TIME: 1037	DATE: 7/23/19
PURGE METHOD:	☑ PUMP BLADDER PUMP (QED) ☐ BAILER BAILER (DISPOSABLE)		PH: 7.43 SU	CONDUCTIVITY: 597.5 umhos/cm	
			ORP: 12.5 mv	DO: 2.41 mg/L	
DEPTH TO WATER: 52.69 T/ PVC			TURBIDITY: NA NTU		
DEPTH TO BOTTOM: 327.95 T/ PVC			☒ NONE ☐ SLIGHT ☐ MODERATE ☐ VERY		
WELL VOLUME: NA ☐ LITERS ☐ GALLONS			TEMPERATURE: 12.31 °C	OTHER:	
VOLUME REMOVED: ~3 ☐ LITERS ☑ GALLONS			COLOR: clear	ODOR: none	
COLOR: clear	ODOR: none		FILTRATE (0.45 um) ☐ YES ☑ NO		
TURBIDITY: NA			FILTRATE COLOR:	FILTRATE ODOR:	
☒ NONE ☐ SLIGHT ☐ MODERATE ☐ VERY			QC SAMPLE: ☐ MS/MSD ☐ DUP-1		
DISPOSAL METHOD: ☐ GROUND ☐ DRUM ☑ OTHER			COMMENTS:		

TIME	PURGE RATE (ML/MIN)	PH (SU)	CONDUCTIVITY (umhos/cm)	ORP (mV)	D.O. (mg/L)	TURBIDITY (NTU)	TEMPERATURE (°C)	WATER LEVEL (FEET)	CUMULATIVE PURGE VOLUME (GAL OR L)
1007	200	7.71	616.4	15.7	4.79	NA	13.22	52.69	INITIAL
1012	200	7.60	596.0	17.0	2.74	NA	11.71	52.71	
1022	200	7.47	598.0	11.4	2.46	NA	12.38	52.71	
1027	200	7.45	597.0	12.8	2.46	NA	12.35	52.71	
1032	200	7.44	597.0	12.4	2.45	NA	12.31	52.71	
1037	200	7.43	597.5	12.5	2.41	NA	12.31	52.71	

NOTE: STABILIZATION TEST IS COMPLETE WHEN 3 SUCCESSIVE READINGS ARE WITHIN THE FOLLOWING LIMITS:

pH: +/- **0.1** COND.: % ORP: +/- **10** D.O.: % **10** TURB: +/- **10** ORP +/- **10** TEMP.: %

BOTTLES FILLED

PRESERVATIVE CODES: A - NONE B - HNO3 C - H2SO4 D - NaOH E - HCL F - _____

NUMBER	SIZE	TYPE	PRESERVATIVE	FILTERED	NUMBER	SIZE	TYPE	PRESERVATIVE	FILTERED
3	40 mL	VOA	E	☐ Y ☑ N					☐ Y ☐ N
1	250 mL	PLASTIC	A	☐ Y ☑ N					☐ Y ☐ N
1	250 mL	PLASTIC	B	☐ Y ☑ N					☐ Y ☐ N

SHIPPING METHOD: Fed Ex	DATE SHIPPED: 7/23/19	AIRBILL NUMBER: —
COC NUMBER: —	SIGNATURE: [signature]	DATE SIGNED: 7/23/19

TRC

WATER SAMPLE LOG

PROJECT NAME:	Ripon FF/NN Landfill	PREPARED		CHECKED	
PROJECT NUMBER:	327275.0001.0003	BY: JAR	DATE: 7/23/19	BY:	DATE:

SAMPLE ID: P-111D WELL DIAMETER: ☑ 2" ☐ 4" ☐ 6" ☐ OTHER

WELL MATERIAL: ☑ PVC ☐ SS ☐ IRON ☐ OTHER

SAMPLE TYPE: ☑ GW ☐ WW ☐ SW ☐ DI ☐ LEACHATE ☐ OTHER

PURGING	TIME: 838	DATE: 7/23/19	SAMPLE	TIME: 928	DATE: 7/23/19
PURGE METHOD:	☑ PUMP BLADDER PUMP (QED) ☐ BAILER BAILER (DISPOSABLE)		PH: 7.12 SU	CONDUCTIVITY: 897.4 umhos/cm	
DEPTH TO WATER:	34.87 T/ PVC		ORP: 34.0 mv	DO: 0.20 mg/L	
DEPTH TO BOTTOM:	151.00 T/ PVC		TURBIDITY: NA NTU		
WELL VOLUME:	NA ☐ LITERS ☐ GALLONS		☒ NONE ☐ SLIGHT ☐ MODERATE ☐ VERY		
VOLUME REMOVED:	~5 ☐ LITERS ☑ GALLONS		TEMPERATURE: 10.95 °C	OTHER:	
COLOR:	Clear ODOR: NONE		COLOR: Clear	ODOR: NONE	
TURBIDITY: NA			FILTRATE (0.45 um) ☐ YES ☑ NO		
☒ NONE ☐ SLIGHT ☐ MODERATE ☐ VERY			FILTRATE COLOR:	FILTRATE ODOR:	
DISPOSAL METHOD:	☐ GROUND ☐ DRUM ☑ OTHER		QC SAMPLE: ☐ MS/MSD ☐ DUP-1		
			COMMENTS:		

TIME	PURGE RATE (ML/MIN)	PH (SU)	CONDUCTIVITY (umhos/cm)	ORP (mV)	D.O. (mg/L)	TURBIDITY (NTU)	TEMPERATURE (°C)	WATER LEVEL (FEET)	CUMULATIVE PURGE VOLUME (GAL OR L)
838	250	6.51	868.7	93.6	1.77	NA	12.51	34.87	INITIAL
843	250	6.68	882.4	86.9	0.92	NA	11.39	35.11	
848	250	6.89	887.7	78.0	0.62	NA	10.94	35.11	
853	250	6.99	889.6	70.8	0.52	NA	10.92	35.11	
858	250	7.07	894.1	58.4	0.36	NA	10.87	35.11	
918	250	7.11	897.9	34.7	0.21	NA	10.92	35.11	
923	250	7.12	897.2	34.2	0.21	NA	10.90	35.11	
928	250	7.12	897.4	34.0	0.20	NA	10.95	35.11	

NOTE: STABILIZATION TEST IS COMPLETE WHEN 3 SUCCESSIVE READINGS ARE WITHIN THE FOLLOWING LIMITS:

pH: +/- **0.1** COND.: % ORP: +/- **10** D.O.: % **10** TURB: +/- **10** ORP +/- **10** TEMP.: %

BOTTLES FILLED

PRESERVATIVE CODES: A - NONE B - HNO3 C - H2SO4 D - NaOH E - HCL F - _____

NUMBER	SIZE	TYPE	PRESERVATIVE	FILTERED	NUMBER	SIZE	TYPE	PRESERVATIVE	FILTERED
3	40 mL	VOA	E	☐ Y ☑ N					☐ Y ☐ N
1	250 mL	PLASTIC	A	☐ Y ☑ N					☐ Y ☐ N
1	250 mL	PLASTIC	B	☐ Y ☑ N					☐ Y ☐ N

SHIPPING METHOD:	Fed Ex	DATE SHIPPED:	7/23/19	AIRBILL NUMBER:	—
COC NUMBER:	—	SIGNATURE:		DATE SIGNED:	7/23/19

SAR 7/25/19

TRC

WATER SAMPLE LOG

PROJECT NAME:	Ripon FF/NN Landfill	PREPARED		CHECKED	
PROJECT NUMBER:	327275.0001.0003	BY: JAR	DATE: 7/22/19	BY:	DATE:

SAMPLE ID: MW-112 WELL DIAMETER: ☑ 2" ☐ 4" ☐ 6" ☐ OTHER

WELL MATERIAL: ☑ PVC ☐ SS ☐ IRON ☐ OTHER

SAMPLE TYPE: ☑ GW ~~☐ WW~~ ☐ SW ☐ DI ☐ LEACHATE ☐ OTHER 1741

PURGING	TIME: ~~1529~~ 1729	DATE: ~~7~~ 7/22/19	SAMPLE	TIME: ~~1541~~ 1741	DATE: 7/22/19

PURGE METHOD: ☑ ~~PUMP~~ BLADDER PUMP (QED)	PH: 7.09 SU CONDUCTIVITY: 955.0 umhos/cm
☒ BAILER BAILER (DISPOSABLE)	ORP: 19.5 mv DO: 3.15 mg/L
DEPTH TO WATER: 53.02 PVC	TURBIDITY: NA NTU
DEPTH TO BOTTOM: 60.47 T/ PVC	☐ NONE ☒ SLIGHT ☐ MODERATE ☐ VERY
WELL VOLUME: ~~NA~~ 1.29 ☐ LITERS ☐ GALLONS	TEMPERATURE: 13.26 °C OTHER:
VOLUME REMOVED: 24 ☐ LITERS ☑ GALLONS	COLOR: Lt Brown ODOR: WINE
COLOR: Lt Brown ODOR: NONE	FILTRATE (0.45 um) ☐ YES ☑ NO
TURBIDITY: NA	FILTRATE COLOR: FILTRATE ODOR:
☐ NONE ☒ SLIGHT ☐ MODERATE ☐ VERY	QC SAMPLE: ☐ MS/MSD ☐ DUP-1
DISPOSAL METHOD: ☐ GROUND ☐ DRUM ☑ OTHER	COMMENTS:

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TIME	PURGE RATE (ML/MIN)	PH (SU)	CONDUCTIVITY (umhos/cm)	ORP (mV)	D.O. (mg/L)	TURBIDITY (NTU)	TEMPERATURE (°C)	WATER LEVEL (FEET)	CUMULATIVE PURGE VOLUME (GAL OR L)
									INITIAL

NOTE: STABILIZATION TEST IS COMPLETE WHEN 3 SUCCESSIVE READINGS ARE WITHIN THE FOLLOWING LIMITS:

pH: +/- **0.1** COND.: % ORP: +/- **10** D.O.: % **10** TURB: +/- **10** ORP +/- **10** TEMP.: %

BOTTLES FILLED		PRESERVATIVE CODES A - NONE B - HNO3 C - H2SO4 D - NaOH E - HCL F -							
NUMBER	SIZE	TYPE	PRESERVATIVE	FILTERED	NUMBER	SIZE	TYPE	PRESERVATIVE	FILTERED
3	40 mL	VOA	E	☐ Y ☑ N					☐ Y ☐ N
1	250 mL	PLASTIC	A	☐ Y ☑ N					☐ Y ☐ N
1	250 mL	PLASTIC	B	☐ Y ☑ N					☐ Y ☐ N

SHIPPING METHOD:	Fed Ex	DATE SHIPPED:	7/23/19	AIRBILL NUMBER:	—
COC NUMBER:	—	SIGNATURE:		DATE SIGNED:	7/22/19

TRC

WATER SAMPLE LOG

PROJECT NAME:	Ripon FF/NN Landfill	PREPARED		CHECKED	
PROJECT NUMBER:	327275.0001.0003	BY: JAR	DATE: 7/22/19	BY:	DATE:

SAMPLE ID: P-113A WELL DIAMETER: ☑ 2" ☐ 4" ☐ 6" ☐ OTHER

WELL MATERIAL: ☑ PVC ☐ SS ☐ IRON ☐ OTHER

SAMPLE TYPE: ☑ GW ☐ WW ☐ SW ☐ DI ☐ LEACHATE ☐ OTHER

PURGING	TIME: 750	DATE: /22/19	SAMPLE	TIME: 828	DATE: /22/19
PURGE METHOD:	☑ PUMP BLADDER PUMP (QED) ☐ BAILER BAILER (DISPOSABLE)		PH: 7.14 SU	CONDUCTIVITY: 561.4 umhos/cm	
DEPTH TO WATER:	14.26 T/ PVC		ORP: 69.9 mv	DO: 1.74 mg/L	
DEPTH TO BOTTOM:	325.31 T/ PVC		TURBIDITY: NA NTU		
WELL VOLUME:	NA ☐ LITERS ☐ GALLONS		☒ NONE ☐ SLIGHT ☐ MODERATE ☐ VERY		
VOLUME REMOVED:	~5.0 ☐ LITERS ☑ GALLONS		TEMPERATURE: 10.87 °C	OTHER:	
COLOR:	Clear ODOR: NONE		COLOR: Clear	ODOR: NONE	
TURBIDITY: NA			FILTRATE (0.45 um) ☐ YES	☑ NO	
☒ NONE ☐ SLIGHT ☐ MODERATE ☐ VERY			FILTRATE COLOR:	FILTRATE ODOR:	
DISPOSAL METHOD:	☐ GROUND ☐ DRUM ☑ OTHER		QC SAMPLE: ☐ MS/MSD	☐ DUP-1	
			COMMENTS:		

TIME	PURGE RATE (ML/MIN)	PH (SU)	CONDUCTIVITY (umhos/cm)	ORP (mV)	D.O. (mg/L)	TURBIDITY (NTU)	TEMPERATURE (°C)	WATER LEVEL (FEET)	CUMULATIVE PURGE VOLUME (GAL OR L)
750	300	6.98	563.5	75.0	0.97	NA	10.83	~~7.92~~	INITIAL 14.26 TOR
755	300	7.03	562.4	73.8	1.30	NA	10.85	~~17.24~~	16.24
817	300	7.13	561.6	70.6	1.69	NA	10.87	16.24	
823	300	7.11	561.0	70.1	1.70	NA	10.87	16.24	
828	300	7.14	561.4	69.9	1.74	NA	10.87	16.24	

NOTE: STABILIZATION TEST IS COMPLETE WHEN 3 SUCCESSIVE READINGS ARE WITHIN THE FOLLOWING LIMITS:

pH: +/- **0.1** COND.: % ORP: +/- **10** D.O.: % **10** TURB: +/- **10** ORP +/- **10** TEMP.: %

BOTTLES FILLED

PRESERVATIVE CODES: A - NONE B - HNO3 C - H2SO4 D - NaOH E - HCL F - _____

NUMBER	SIZE	TYPE	PRESERVATIVE	FILTERED	NUMBER	SIZE	TYPE	PRESERVATIVE	FILTERED
3	40 mL	VOA	E	☐ Y ☑ N					☐ Y ☐ N
1	250 mL	PLASTIC	A	☐ Y ☑ N					☐ Y ☐ N
1	250 mL	PLASTIC	B	☐ Y ☑ N					☐ Y ☐ N

SHIPPING METHOD:	Fed Ex	DATE SHIPPED:	7/22/19	AIRBILL NUMBER:	—
COC NUMBER:	—	SIGNATURE:		DATE SIGNED:	7/22/19

TRC

WATER SAMPLE LOG

PROJECT NAME:	Ripon FF/NN Landfill	PREPARED	CHECKED
PROJECT NUMBER:	327275.0001.0003	BY: JAR DATE: 7/22/19	BY: DATE:

SAMPLE ID: P-113B WELL DIAMETER: ☑ 2" ☐ 4" ☐ 6" ☐ OTHER

WELL MATERIAL: ☑ PVC ☐ SS ☐ IRON ☐ OTHER

SAMPLE TYPE: ☑ GW ☐ WW ☐ SW ☐ DI ☐ LEACHATE ☐ OTHER

PURGING	TIME: 838	DATE: 7/22/19

PURGE METHOD: ☑ PUMP BLADDER PUMP (QED) ☐ BAILER BAILER (DISPOSABLE)

DEPTH TO WATER: 13.24 T/ PVC

DEPTH TO BOTTOM: 198.90 T/ PVC

WELL VOLUME: NA ☐ LITERS ☐ GALLONS

VOLUME REMOVED: 3.0 ☐ LITERS ☑ GALLONS

COLOR: Clear ODOR: NONE

TURBIDITY: NA

☒ NONE ☐ SLIGHT ☐ MODERATE ☐ VERY

DISPOSAL METHOD: ☐ GROUND ☐ DRUM ☑ OTHER

SAMPLE	TIME: 903	DATE: 7/22/19

PH: 6.99 SU CONDUCTIVITY: 685.5 umhos/cm

ORP: 39.8 mv DO: 0.32 mg/L

TURBIDITY: NA NTU

☒ NONE ☐ SLIGHT ☐ MODERATE ☐ VERY

TEMPERATURE: 10.75 °C OTHER:

COLOR: Clear ODOR: NONE

FILTRATE (0.45 um) ☐ YES ☑ NO

FILTRATE COLOR: FILTRATE ODOR:

QC SAMPLE: ☐ MS/MSD ☐ DUP-1

COMMENTS:

TIME	PURGE RATE (ML/MIN)	PH (SU)	CONDUCTIVITY (umhos/cm)	ORP (mV)	D.O. (mg/L)	TURBIDITY (NTU)	TEMPERATURE (°C)	WATER LEVEL (FEET)	CUMULATIVE PURGE VOLUME (GAL OR L)
838	300	7.26	674.4	64.1	2.45	NA	11.66	13.24	INITIAL
843	300	7.13	685.2	55.8	0.48	NA	10.85	13.41	
848	300	7.05	685.6	48.3	0.39	NA	10.73	13.41	
853	300	7.02	686.0	42.9	0.34	NA	10.78	13.41	
858	300	6.99	685.1	40.0	0.33	NA	10.78	13.41	
903	300	6.99	685.5	39.8	0.32	NA	10.75	13.41	

NOTE: STABILIZATION TEST IS COMPLETE WHEN 3 SUCCESSIVE READINGS ARE WITHIN THE FOLLOWING LIMITS:

pH: +/- **0.1** COND.: % ORP: +/- **10** D.O.: % **10** TURB: +/- **10** ORP +/- **10** TEMP.: %

BOTTLES FILLED

PRESERVATIVE CODES: A - NONE B - HNO3 C - H2SO4 D - NaOH E - HCL F - _____

NUMBER	SIZE	TYPE	PRESERVATIVE	FILTERED	NUMBER	SIZE	TYPE	PRESERVATIVE	FILTERED
3	40 mL	VOA	E	☐ Y ☑ N					☐ Y ☐ N
1	250 mL	PLASTIC	A	☐ Y ☑ N					☐ Y ☐ N
1	250 mL	PLASTIC	B	☐ Y ☑ N					☐ Y ☐ N

SHIPPING METHOD:	Fed Ex	DATE SHIPPED:	7/22/19	AIRBILL NUMBER:	—
COC NUMBER:	—	SIGNATURE:		DATE SIGNED:	7/22/19

TRC

WATER SAMPLE LOG

PROJECT NAME:	Ripon FF/NN Landfill	PREPARED		CHECKED	
PROJECT NUMBER:	327275.0001.0003	BY: JAR	DATE: 7/22/19	BY:	DATE:

SAMPLE ID: P-114 WELL DIAMETER: ☑ 2" ☐ 4" ☐ 6" ☐ OTHER

WELL MATERIAL: ☑ PVC ☐ SS ☐ IRON ☐ OTHER

SAMPLE TYPE: ☑ GW ☐ WW ☐ SW ☐ DI ☐ LEACHATE ☐ OTHER

PURGING	TIME: ~~1046~~ ~~1053~~	DATE: 7/22/19	SAMPLE	TIME: 1120	DATE: 7/22/19
PURGE METHOD:	☑ PUMP BLADDER PUMP (QED)		PH: 7.16 SU	CONDUCTIVITY: 810.9	umhos/cm
	☐ BAILER BAILER (DISPOSABLE)		ORP: -45.4 mv	DO: 0.09	mg/L
DEPTH TO WATER: ~~22.52~~ T/ PVC	19.33 SAT	7/22/19	TURBIDITY: NA	NTU	
DEPTH TO BOTTOM: 181.72 T/ PVC			☒ NONE ☐ SLIGHT ☐ MODERATE ☐ VERY		
WELL VOLUME: NA ☐ LITERS ☐ GALLONS			TEMPERATURE: 10.35	°C OTHER:	
VOLUME REMOVED: ~4 ☐ LITERS ☑ GALLONS			COLOR: Clear	ODOR: NONE	
COLOR: Clear	ODOR: NONE		FILTRATE (0.45 um) ☐ YES ☑ NO		
TURBIDITY: NA			FILTRATE COLOR:	FILTRATE ODOR:	
☒ NONE ☐ SLIGHT ☐ MODERATE ☐ VERY			QC SAMPLE: ☐ MS/MSD	☒ DUP-1	
DISPOSAL METHOD: ☐ GROUND ☐ DRUM ☑ OTHER			COMMENTS:		

TIME	PURGE RATE (ML/MIN)	PH (SU)	CONDUCTIVITY (umhos/cm)	ORP (mV)	D.O. (mg/L)	TURBIDITY (NTU)	TEMPERATURE (°C)	WATER LEVEL (FEET)	CUMULATIVE PURGE VOLUME (GAL OR L)
~~1046~~	300	7.27	796.0	-19.2	0.12	NA	10.42	~~22.52~~	INITIAL 19.33
~~1053~~	300	7.23	799.8	-21.9	0.10	NA	10.36	19.61	
1100	300	7.17	805.7	-27.0	0.09	NA	10.36	19.61	
1105	300	7.17	805.8	-36.5	0.09	NA	10.35	19.61	
1110	300	7.15	810.9	-42.3	0.09	NA	10.35	19.61	
1115	300	7.16	810.8	-45.2	0.09	NA	10.35	19.61	
1120	300	7.16	810.9	-45.4	0.09	NA	10.35	19.61	

* DUP-1

NOTE: STABILIZATION TEST IS COMPLETE WHEN 3 SUCCESSIVE READINGS ARE WITHIN THE FOLLOWING LIMITS:

pH: +/- **0.1** COND.: % ORP: +/- **10** D.O.: % **10** TURB: +/- **10** ORP +/- **10** TEMP.: %

BOTTLES FILLED		PRESERVATIVE CODES A - NONE B - HNO3 C - H2SO4 D - NaOH E - HCL F -							
NUMBER	SIZE	TYPE	PRESERVATIVE	FILTERED	NUMBER	SIZE	TYPE	PRESERVATIVE	FILTERED
3	40 mL	VOA	E	☐ Y ☑ N					☐ Y ☐ N
1	250 mL	PLASTIC	A	☐ Y ☑ N					☐ Y ☐ N
1	250 mL	PLASTIC	B	☐ Y ☑ N					☐ Y ☐ N

SHIPPING METHOD:	Fed Ex	DATE SHIPPED: 7/22/19	AIRBILL NUMBER: —
COC NUMBER:	—	SIGNATURE:	DATE SIGNED: 7/22/19

JAR 7/25/19

TRC

WATER SAMPLE LOG

PROJECT NAME:	Ripon FF/NN Landfill	PREPARED		CHECKED	
PROJECT NUMBER:	327275.0001.0003	BY: JAR	DATE: 7/22/19	BY:	DATE:

SAMPLE ID: P-115 WELL DIAMETER: ☑ 2" ☐ 4" ☐ 6" ☐ OTHER

WELL MATERIAL: ☑ PVC ☐ SS ☐ IRON ☐ OTHER

SAMPLE TYPE: ☑ GW ☐ WW ☐ SW ☐ DI ☐ LEACHATE ☐ OTHER

PURGING	TIME: 933/941	DATE: 7/22/19	SAMPLE	TIME: 1021	DATE: 7/22/19
PURGE METHOD: ☑ PUMP BLADDER PUMP (QED) ☐ BAILER BAILER (DISPOSABLE)			PH: 7.17 SU	CONDUCTIVITY: 653.0 umhos/cm	
DEPTH TO WATER: 22.52 T/ PVC			ORP: -12.9 mv	DO: 0.40 mg/L	
DEPTH TO BOTTOM: 179.57 T/ PVC			TURBIDITY: NA NTU		
WELL VOLUME: NA ☐ LITERS ☐ GALLONS			☒ NONE ☑ SLIGHT ☐ MODERATE ☐ VERY		
VOLUME REMOVED: ~3 ☐ LITERS ☑ GALLONS			TEMPERATURE: 10.74 °C	OTHER:	
COLOR: Lt Tan	ODOR: NONE		COLOR: Lt Tan	ODOR: NONE	
TURBIDITY: NA ☐ NONE ☒ SLIGHT ☐ MODERATE ☐ VERY			FILTRATE (0.45 um) ☐ YES ☑ NO		
			FILTRATE COLOR:	FILTRATE ODOR:	
			QC SAMPLE: ☐ MS/MSD ☐ DUP-1		
DISPOSAL METHOD: ☐ GROUND ☐ DRUM ☑ OTHER			COMMENTS:		

TIME	PURGE RATE (ML/MIN)	PH (SU)	CONDUCTIVITY (umhos/cm)	ORP (mV)	D.O. (mg/L)	TURBIDITY (NTU)	TEMPERATURE (°C)	WATER LEVEL (FEET)	CUMULATIVE PURGE VOLUME (GAL OR L)
941	300	7.31	654.9	15.7	0.55	NA	7.33	22.52	INITIAL
946	300	7.22	653.0	11.6	0.48	NA	10.74	22.72	
951	300	7.21	653.1	6.8	0.46	NA	10.71	22.72	
956	300	7.20	653.2	-2.1	0.41	NA	10.69	22.72	
1006	300	7.19	653.9	-7.4	0.25	NA	10.69	22.72	
1011	300	7.18	652.4	-12.2	0.46	NA	10.73	22.72	
1016	300	7.18	653.4	-12.7	0.43	NA	10.73	22.72	
1021	300	7.17	653.0	-12.9	0.40	NA	10.74	22.72	

* Samples had black specs in them

NOTE: STABILIZATION TEST IS COMPLETE WHEN 3 SUCCESSIVE READINGS ARE WITHIN THE FOLLOWING LIMITS:

pH: +/- **0.1** COND.: % ORP: +/- **10** D.O.: % **10** TURB: +/- **10** ORP +/- **10** TEMP.: %

BOTTLES FILLED

PRESERVATIVE CODES: A - NONE B - HNO3 C - H2SO4 D - NaOH E - HCL F - _____

NUMBER	SIZE	TYPE	PRESERVATIVE	FILTERED	NUMBER	SIZE	TYPE	PRESERVATIVE	FILTERED
3	40 mL	VOA	E	☐ Y ☑ N					☐ Y ☐ N
1	250 mL	PLASTIC	A	☐ Y ☑ N					☐ Y ☐ N
1	250 mL	PLASTIC	B	☐ Y ☑ N					☐ Y ☐ N

SHIPPING METHOD:	Fed Ex	DATE SHIPPED: 7/22/19	AIRBILL NUMBER: —
COC NUMBER:	—	SIGNATURE:	DATE SIGNED: 7/22/19

3OR 7/25/19

TRC

WATER SAMPLE LOG

PROJECT NAME:	Ripon FF/NN Landfill	PREPARED		CHECKED	
PROJECT NUMBER:	327275.0001.0003	BY: JAR	DATE: 7/22/19	BY:	DATE:

SAMPLE ID: P-116 WELL DIAMETER: ☑ 2" ☐ 4" ☐ 6" ☐ OTHER

WELL MATERIAL: ☑ PVC ☐ SS ☐ IRON ☐ OTHER

SAMPLE TYPE: ☑ GW ☐ WW ☐ SW ☐ DI ☐ LEACHATE ☐ OTHER

PURGING	TIME: 1208	DATE: 7/22/19	SAMPLE	TIME: 1238	DATE: 7/22/19
PURGE METHOD:	☑ PUMP BLADDER PUMP (QED)		PH: 7.60 SU	CONDUCTIVITY: 540.0 umhos/cm	
	☐ BAILER BAILER (DISPOSABLE)		ORP: -19.1 mv	DO: 0.71 mg/L	
DEPTH TO WATER: 26.39 T/ PVC			TURBIDITY: NA NTU		
DEPTH TO BOTTOM: 163.19 T/ PVC			☐ NONE ☐ SLIGHT ☐ MODERATE ☒ VERY		
WELL VOLUME: NA ☐ LITERS ☐ GALLONS			TEMPERATURE: 12.43 °C	OTHER:	
VOLUME REMOVED: ~2.5 ☐ LITERS ☑ GALLONS			COLOR: Reddish Brown	ODOR: NONE	
COLOR: Dark Brown	ODOR: NONE		FILTRATE (0.45 um) ☐ YES ☑ NO		
TURBIDITY: NA			FILTRATE COLOR:	FILTRATE ODOR:	
☐ NONE ☐ SLIGHT ☐ MODERATE ☒ VERY			QC SAMPLE: ☐ MS/MSD ☐ DUP-1		
DISPOSAL METHOD: ☐ GROUND ☐ DRUM ☑ OTHER			COMMENTS:		

TIME	PURGE RATE (ML/MIN)	PH (SU)	CONDUCTIVITY (umhos/cm)	ORP (mV)	D.O. (mg/L)	TURBIDITY (NTU)	TEMPERATURE (°C)	WATER LEVEL (FEET)	CUMULATIVE PURGE VOLUME (GAL OR L)
1208	150	7.72	546.8	-26.8	4.06	NA	12.60	26.39	INITIAL
1213	150	7.67	544.8	-23.9	1.99	NA	12.12	27.01	
1218	150	7.64	542.2	-22.6	1.11	NA	12.62	27.01	
1223	150	7.61	542.0	-21.3	0.88	NA	12.40	27.01	
1228	150	7.60	541.3	-20.2	0.78	NA	12.40	27.01	
1233	150	7.60	539.7	-19.3	0.72	NA	12.42	27.01	
1238	150	7.60	540.0	-19.1	0.71	NA	12.43	27.01	

NOTE: STABILIZATION TEST IS COMPLETE WHEN 3 SUCCESSIVE READINGS ARE WITHIN THE FOLLOWING LIMITS:

pH: +/- **0.1** COND.: % ORP: +/- **10** D.O.: % **10** TURB: +/- **10** ORP +/- **10** TEMP.: %

BOTTLES FILLED

PRESERVATIVE CODES: A - NONE B - HNO3 C - H2SO4 D - NaOH E - HCL F - _____

NUMBER	SIZE	TYPE	PRESERVATIVE	FILTERED	NUMBER	SIZE	TYPE	PRESERVATIVE	FILTERED
3	40 mL	VOA	E	☐ Y ☑ N					☐ Y ☐ N
1	250 mL	PLASTIC	A	☐ Y ☑ N					☐ Y ☐ N
1	250 mL	PLASTIC	B	☐ Y ☑ N					☐ Y ☐ N

SHIPPING METHOD:	Fed Ex	DATE SHIPPED:	7/22/19	AIRBILL NUMBER:	—
COC NUMBER:	—	SIGNATURE:	[signature]	DATE SIGNED:	7/22/19

TRC

WATER SAMPLE LOG

PROJECT NAME:	Ripon FF/NN Landfill	PREPARED		CHECKED	
PROJECT NUMBER:	327275.0001.0003	BY: JAR	DATE: 7/22/19	BY:	DATE:

SAMPLE ID: P-117 WELL DIAMETER: ☑ 2" ☐ 4" ☐ 6" ☐ OTHER

WELL MATERIAL: ☑ PVC ☐ SS ☐ IRON ☐ OTHER

SAMPLE TYPE: ☑ GW ☐ WW ☐ SW ☐ DI ☐ LEACHATE ☐ OTHER

PURGING	TIME: 1607	DATE: 7/22/19	SAMPLE	TIME: 1642	DATE: 7/22/19
PURGE METHOD: ☑ PUMP BLADDER PUMP (QED) ☐ BAILER BAILER (DISPOSABLE)			PH: 7.21 SU	CONDUCTIVITY: 799.2 umhos/cm	
DEPTH TO WATER: 15.29 T/ PVC			ORP: -13.9 mv	DO: 0.42 mg/L	
DEPTH TO BOTTOM: 165.54 T/ PVC			TURBIDITY: NA NTU		
WELL VOLUME: NA ☐ LITERS ☐ GALLONS			☒ NONE ☐ SLIGHT ☐ MODERATE ☐ VERY		
VOLUME REMOVED: 24 ☐ LITERS ☑ GALLONS			TEMPERATURE: 10.87 °C	OTHER:	
COLOR: Clear	ODOR: none		COLOR: Clear	ODOR: none	
TURBIDITY: NA			FILTRATE (0.45 um) ☐ YES ☑ NO		
☒ NONE ☐ SLIGHT ☐ MODERATE ☐ VERY			FILTRATE COLOR:	FILTRATE ODOR:	
DISPOSAL METHOD: ☐ GROUND ☐ DRUM ☑ OTHER			QC SAMPLE: ☐ MS/MSD ☐ DUP-1		
			COMMENTS:		

TIME	PURGE RATE (ML/MIN)	PH (SU)	CONDUCTIVITY (umhos/cm)	ORP (mV)	D.O. (mg/L)	TURBIDITY (NTU)	TEMPERATURE (°C)	WATER LEVEL (FEET)	CUMULATIVE PURGE VOLUME (GAL OR L)
1607	300	7.65	774.3	2.3	1.16	NA	11.57	160	INITIAL 15.29
1612	300	7.41	797.9	-1.7	0.68	NA	11.06	15.49	
1617	300	7.31	798.6	-4.8	0.57	NA	10.95	15.49	
1622	300	7.25	799.2	-7.3	0.51	NA	10.92	15.49	
1627	300	7.23	799.9	-10.0	0.49	NA	10.92	15.49	
1632	300	7.22	799.7	-11.9	0.45	NA	10.89	15.49	
1637	300	7.21	799.5	-13.8	0.43	NA	10.86	15.49	
1642	300	7.21	799.2	-13.9	0.42	NA	10.87	15.49	

JAR 7/22/19

NOTE: STABILIZATION TEST IS COMPLETE WHEN 3 SUCCESSIVE READINGS ARE WITHIN THE FOLLOWING LIMITS:

pH: +/- **0.1** COND.: % ORP: +/- **10** D.O.: % **10** TURB: +/- **10** ORP +/- **10** TEMP.: %

BOTTLES FILLED

PRESERVATIVE CODES: A - NONE B - HNO3 C - H2SO4 D - NaOH E - HCL F - _____

NUMBER	SIZE	TYPE	PRESERVATIVE	FILTERED	NUMBER	SIZE	TYPE	PRESERVATIVE	FILTERED
3	40 mL	VOA	E	☐ Y ☑ N					☐ Y ☐ N
1	250 mL	PLASTIC	A	☐ Y ☑ N					☐ Y ☐ N
1	250 mL	PLASTIC	B	☐ Y ☑ N					☐ Y ☐ N

SHIPPING METHOD:	Fed Ex	DATE SHIPPED:	7/23/19	AIRBILL NUMBER:	—
COC NUMBER:	—	SIGNATURE:		DATE SIGNED:	7/22/19

TRC

WATER SAMPLE LOG

PROJECT NAME:	Ripon FF/NN Landfill	PREPARED		CHECKED	
PROJECT NUMBER:	327275.0001.0003	BY: JAR	DATE: 7/22/19	BY:	DATE:

SAMPLE ID: P-118 WELL DIAMETER: ☑ 2" ☐ 4" ☐ 6" ☐ OTHER

WELL MATERIAL: ☑ PVC ☐ SS ☐ IRON ☐ OTHER

SAMPLE TYPE: ☑ GW ☐ WW ☐ SW ☐ DI ☐ LEACHATE ☐ OTHER

PURGING	TIME: 1651	DATE: 7/22/19	SAMPLE	TIME: 1711	DATE: 7/22/19
PURGE METHOD:	☑ PUMP BLADDER PUMP (QED) ☐ BAILER BAILER (DISPOSABLE)		PH: 7.49 SU	CONDUCTIVITY: 602.8 umhos/cm	
DEPTH TO WATER:	8.15 T/ PVC		ORP: -9.9 mv	DO: 0.19 mg/L	
DEPTH TO BOTTOM:	167.80 T/ PVC		TURBIDITY: NA NTU		
WELL VOLUME:	NA ☐ LITERS ☐ GALLONS		☒ NONE ☐ SLIGHT ☐ MODERATE ☐ VERY		
VOLUME REMOVED:	~4 ☐ LITERS ☑ GALLONS		TEMPERATURE: °C	OTHER:	
COLOR:	Clear ODOR: NONE		COLOR: Clear	ODOR: NONE	
TURBIDITY: NA			FILTRATE (0.45 um) ☐ YES ☑ NO		
☒ NONE ☐ SLIGHT ☐ MODERATE ☐ VERY			FILTRATE COLOR:	FILTRATE ODOR:	
DISPOSAL METHOD:	☐ GROUND ☐ DRUM ☑ OTHER		QC SAMPLE: ☐ MS/MSD ☐ DUP-1		
			COMMENTS:		

TIME	PURGE RATE (ML/MIN)	PH (SU)	CONDUCTIVITY (umhos/cm)	ORP (mV)	D.O. (mg/L)	TURBIDITY (NTU)	TEMPERATURE (°C)	WATER LEVEL (FEET)	CUMULATIVE PURGE VOLUME (GAL OR L)
1651	300	7.29	804.9	-10.8	0.75	NA	11.99	8.15	INITIAL
1656	300	7.49	601.0	-15.3	0.26	NA	11.89	8.17	
1701	300	7.49	603.0	-11.3	0.19	NA	11.75	8.17	
1706	300	7.50	602.7	-10.1	0.10	NA	11.75	8.17	
1711	300	7.49	602.8	-9.9	0.19	NA	11.74	8.17	

NOTE: STABILIZATION TEST IS COMPLETE WHEN 3 SUCCESSIVE READINGS ARE WITHIN THE FOLLOWING LIMITS:

pH: +/- **0.1** COND.: % ORP: +/- **10** D.O.: % **10** TURB: +/- **10** ORP +/- **10** TEMP.: %

BOTTLES FILLED

PRESERVATIVE CODES: A - NONE B - HNO3 C - H2SO4 D - NaOH E - HCL F - _____

NUMBER	SIZE	TYPE	PRESERVATIVE	FILTERED	NUMBER	SIZE	TYPE	PRESERVATIVE	FILTERED
3	40 mL	VOA	E	☐ Y ☑ N					☐ Y ☐ N
1	250 mL	PLASTIC	A	☐ Y ☑ N					☐ Y ☐ N
1	250 mL	PLASTIC	B	☐ Y ☑ N					☐ Y ☐ N

SHIPPING METHOD:	Fed Ex	DATE SHIPPED:	7/23/19	AIRBILL NUMBER:	—
COC NUMBER:	—	SIGNATURE:		DATE SIGNED:	7/22/19

JM 7/25/19

TRC

WATER SAMPLE LOG

PROJECT NAME:	Ripon FF/NN Landfill	PREPARED		CHECKED	
PROJECT NUMBER:	327275.0001.0003	BY: JAR	DATE: 7/22/19	BY:	DATE:

SAMPLE ID: MW-3A WELL DIAMETER: ☑ 2" ☐ 4" ☐ 6" ☐ OTHER

WELL MATERIAL: ☑ PVC ☐ SS ☐ IRON ☐ OTHER

SAMPLE TYPE: ☑ GW ☐ WW ☐ SW ☐ DI ☐ LEACHATE ☐ OTHER

PURGING	TIME: 1302	DATE: 7/22/19	SAMPLE	TIME: 1332	DATE: 7/22/19
PURGE METHOD:	☑ PUMP BLADDER PUMP (QED)		PH: 7.40 SU	CONDUCTIVITY: 573.7 umhos/cm	
	☐ BAILER BAILER (DISPOSABLE)		ORP: -5.7 mv	DO: 0.22 mg/L	
DEPTH TO WATER: 31.69 T/ PVC			TURBIDITY: NA NTU		
DEPTH TO BOTTOM: 280.10 T/ PVC			☒ NONE ☐ SLIGHT ☐ MODERATE ☐ VERY		
WELL VOLUME: NA	☐ LITERS ☐ GALLONS		TEMPERATURE: 10.95 °C	OTHER:	
VOLUME REMOVED: ~3	☐ LITERS ☑ GALLONS		COLOR: clear	ODOR: none/F	
COLOR: clear	ODOR: none/F		FILTRATE (0.45 um) ☐ YES	☑ NO	
TURBIDITY: NA			FILTRATE COLOR:	FILTRATE ODOR:	
☒ NONE ☐ SLIGHT ☐ MODERATE ☐ VERY			QC SAMPLE: ☐ MS/MSD	☐ DUP-1	
DISPOSAL METHOD: ☐ GROUND ☐ DRUM ☑ OTHER			COMMENTS:		

TIME	PURGE RATE (ML/MIN)	PH (SU)	CONDUCTIVITY (umhos/cm)	ORP (mV)	D.O. (mg/L)	TURBIDITY (NTU)	TEMPERATURE (°C)	WATER LEVEL (FEET)	CUMULATIVE PURGE VOLUME (GAL OR L)
1302	200	7.83	558.6	-8.8	1.79	NA	11.94	31.69	INITIAL
1312	200	7.52	572.6	-8.3	0.33	NA	11.10	32.44	
1317	200	7.47	574.3	-7.4	0.26	NA	11.06	32.44	
1322	200	7.45	573.0	-6.4	0.24	NA	10.99	32.44	
1327	200	7.40	573.8	-5.8	0.22	NA	10.92	32.44	
1332	200	7.40	573.7	-5.7	0.22	NA	10.95	32.44	

NOTE: STABILIZATION TEST IS COMPLETE WHEN 3 SUCCESSIVE READINGS ARE WITHIN THE FOLLOWING LIMITS:

pH: +/- **0.1** COND.: % ORP: +/- **10** D.O.: % **10** TURB: +/- **10** ORP +/- **10** TEMP.: %

BOTTLES FILLED

PRESERVATIVE CODES: A - NONE B - HNO3 C - H2SO4 D - NaOH E - HCL F - _____

NUMBER	SIZE	TYPE	PRESERVATIVE	FILTERED	NUMBER	SIZE	TYPE	PRESERVATIVE	FILTERED
3	40 mL	VOA	E	☐ Y ☑ N					☐ Y ☐ N
1	250 mL	PLASTIC	A	☐ Y ☑ N					☐ Y ☐ N
1	250 mL	PLASTIC	B	☐ Y ☑ N					☐ Y ☐ N

SHIPPING METHOD:	Fed Ex	DATE SHIPPED: 7/22/19	AIRBILL NUMBER:	—
COC NUMBER:	—	SIGNATURE:	DATE SIGNED:	7/22/19

JMH 7/25/19

TRC

WATER SAMPLE LOG

PROJECT NAME:	Ripon FF/NN Landfill	PREPARED		CHECKED	
PROJECT NUMBER:	327275.0001.0003	BY: JAR	DATE: 7/22/19	BY:	DATE:

SAMPLE ID: MW-3B WELL DIAMETER: ☑ 2" ☐ 4" ☐ 6" ☐ OTHER

WELL MATERIAL: ☑ PVC ☐ SS ☐ IRON ☐ OTHER

SAMPLE TYPE: ☑ GW ☐ WW ☐ SW ☐ DI ☐ LEACHATE ☐ OTHER

PURGING	TIME: 1347	DATE: 7/22/19

PURGE METHOD: ☑ PUMP BLADDER PUMP (QED) ☐ BAILER BAILER (DISPOSABLE)

DEPTH TO WATER: 29.69 T/ PVC

DEPTH TO BOTTOM: 185.72 T/ PVC

WELL VOLUME: NA ☐ LITERS ☐ GALLONS

VOLUME REMOVED: ☐ LITERS ☑ GALLONS

COLOR: Lt Black ODOR: NONE

TURBIDITY: NA

☐ NONE ☐ SLIGHT ☒ MODERATE ☐ VERY

DISPOSAL METHOD: ☐ GROUND ☐ DRUM ☑ OTHER

SAMPLE	TIME: 1412	DATE: 7/22/19

PH: 7.31 SU CONDUCTIVITY: 726.6 umhos/cm

ORP: -52.9 mv DO: 0.23 mg/L

TURBIDITY: NA NTU

☐ NONE ☒ SLIGHT ☐ MODERATE ☐ VERY

TEMPERATURE: 11.01 °C OTHER:

COLOR: Lt Lt Black ODOR: NONE

FILTRATE (0.45 um) ☐ YES ☑ NO

FILTRATE COLOR: FILTRATE ODOR:

QC SAMPLE: ☐ MS/MSD ☐ DUP-1

COMMENTS:

TIME	PURGE RATE (ML/MIN)	PH (SU)	CONDUCTIVITY (umhos/cm)	ORP (mV)	D.O. (mg/L)	TURBIDITY (NTU)	TEMPERATURE (°C)	WATER LEVEL (FEET)	CUMULATIVE PURGE VOLUME (GAL OR L)
1347	200	7.72	667.3	-46.0	0.53	NA	10.97	29.69	INITIAL
1352	200	7.46	726.3	-54.7	0.39	NA	10.92	29.94	
1357	200	7.38	726.5	-54.5	0.31	NA	10.92	29.94	
1402	200	7.34	726.9	-53.6	0.28	NA	10.93	29.94	
1407	200	7.32	725.9	-53.0	0.24	NA	11.01	29.94	
1412	200	7.31	726.0	-52.9	0.23	NA	11.01	29.94	

NOTE: STABILIZATION TEST IS COMPLETE WHEN 3 SUCCESSIVE READINGS ARE WITHIN THE FOLLOWING LIMITS:

pH: +/- **0.1** COND.: % ORP: +/- **10** D.O.: % **10** TURB: +/- **10** ORP +/- **10** TEMP.: %

BOTTLES FILLED

PRESERVATIVE CODES: A - NONE B - HNO3 C - H2SO4 D - NaOH E - HCL F - _____

NUMBER	SIZE	TYPE	PRESERVATIVE	FILTERED	NUMBER	SIZE	TYPE	PRESERVATIVE	FILTERED
3	40 mL	VOA	E	☐ Y ☑ N					☐ Y ☐ N
1	250 mL	PLASTIC	A	☐ Y ☑ N					☐ Y ☐ N
1	250 mL	PLASTIC	B	☐ Y ☑ N					☐ Y ☐ N

SHIPPING METHOD: Fed Ex DATE SHIPPED: 7/22/19 AIRBILL NUMBER: —

COC NUMBER: — SIGNATURE: [signature] DATE SIGNED: 7/22/19

Rev. 02/2017

CHAIN OF CUSTODY

Page 1 of 2

Company: TRC
Project Contact: Marita Stollenwerk
Telephone: (262) 901-2158
Project Name: FF/WW Ripon LF
Project #: 327275.0001.0003
Location: Ripon WI
Sampled By: J. Roell

CT LABORATORIES
1230 Lange Court, Baraboo, WI 53913
608-356-2760 Fax 608-356-2766
www.ctlaboratories.com

Lab Use Only
Place Header Sticker Here:

Program:
QSM RCRA SDWA NPDES
Solid Waste Other _____

PO # 138000

Report To:
EMAIL: ppopp@trccompanies.com
Company: TRC
Address: 708 Heartland Tr. Suite 3000 Madison WI 53717

Invoice To:*
EMAIL: mstollenwerk@trccompanies.com
Company: TRC
Address: 150 N. Patrick Blvd. Suite 180 Brookfield WI 53045

**Party listed is responsible for payment of invoice as per CT Laboratories' terms and conditions*

Client Special Instructions Send report to:
- marita Stollenwerk@mstollenwerk@trccompanies.com
- James WedeKind@jwedekind@trccompanies.com

Matrix:
GW – groundwater SW - surface water WW - wastewater DW - drinking water
S - soil/sediment SL - sludge A - air M - misc/waste

Turnaround Time
Normal RUSH*
Date Needed: _____
Rush analysis requires prior CT Laboratories' approval
Surcharges:
24 hr 200%
2-3 days 100%
4-9 days 50%

Collection Date	Collection Time	Matrix	Grab/ Comp	Sample #	Sample ID Description	Filtered? Y/N	ANALYSES REQUESTED: Total MN	Nitrate-Nitrite	Sulfate	VOC's 8260	Total # Containers	Designated MS/MSD	CT Lab ID # (Lab use only)
7/22/19	828	GW	Grab	5	P-113A	N	X	X	X				
	903				P-113B								
	1021				P-115								
	1120				P-114								
	1238				P-116								
	1332				MW-3A								
	1412				MW-3B								
	~~1642~~				~~P-117~~								
	~~1711~~				~~P-118~~								
7-23-19	~~0~~			5	DUP-1	N	X	X	X				
—	—			2	TripBlank	N			X				

Fill in Spaces with Bottles per Test

Relinquished By:	Date/Time	Received By:	Date/Time
	~~7/22/19 1545~~ 7/22/19		
Received by:	**Date/Time**	**Received for Laboratory by:**	**Date/Time**

Lab Use Only
Ice Present Yes No
Temp _____ IR Gun _____
Cooler # _____

Rev. 2/2013

CHAIN OF CUSTODY

Page 2 of 2

20 of 20

Company: TRC
Project Contact: Marita Stollenwerk
Telephone: ~~(608)~~ (262)901-2158
Project Name: FF/NN Landfill
Project #: 327275.0001.0003 R.Pon
Location: Ripon WI
Sampled By: J. Roelke

CT LABORATORIES
1230 Lange Court, Baraboo, WI 53913
608-356-2760 Fax 608-356-2766
www.ctlaboratories.com

Lab Use Only
Place Header Sticker Here:

Program:
QSM RCRA SDWA NPDES
Solid Waste Other _____

PO #
138000

Report To:
EMAIL: ppopp@trccompanies.com
Company: TRC
Address: 708 Heartland Tr. Suite 3000 Madison WI 53717

Invoice To:*
EMAIL: mstollenwerk@trccompanies.com
Company: TRC
Address: 150 N. Patrick Blvd Suite 120 Brookfield, WI 53045

**Party listed is responsible for payment of invoice as per CT Laboratories' terms and conditions*

Client Special Instructions Send report to:
- Marita Stollenwerk @ mstollenwerk@trccompanies.com
- James Wedekind jwedekind@trccompanies.com

Matrix:
GW – groundwater SW - surface water WW - wastewater DW - drinking water
S - soil/sediment SL - sludge A - air M - misc/waste

Turnaround Time
Normal RUSH*
Date Needed: _____
Rush analysis requires prior CT Laboratories' approval
Surcharges:
24 hr 200%
2-3 days 100%
4-9 days 50%

Collection Date	Collection Time	Matrix	Grab/ Comp	Sample #	Sample ID Description	Filtered? Y/N	ANALYSES REQUESTED: Total MN, Nitrate/Nitrite, Sulfate	ANALYSES REQUESTED: VOCs 8260	Total # Containers	Designated MS/MSD	CT Lab ID # (Lab use only)
					Fill in Spaces with Bottles per Test						
7/22/19	1642	GW	Grab	5	P-117	N	X	X			
	1711				P-118						
	1741				MW-112						
	1809				MW-103						
7/23/19	928				P-111D						
	1037				P-107D						
	1127				P-103D						
	1217			↓	P-103		↓	↓			
7/2/19	–	↓	↓	2	Trip Blank	↓		X			

Relinquished By:	Date/Time	Received By:	Date/Time
	7/23/19 1700		
Received by:	Date/Time	Received for Laboratory by:	Date/Time

Lab Use Only
Ice Present Yes No
Temperature _____
Cooler # _____

Appendix C: Analytical Data

CT LABORATORIES

delivering more than data from your environmental analyses

ANALYTICAL REPORT

This report at a minimum contains the following information:

- Analytical Report of Test Results
- Description of QC Qualifiers
- Chain of Custody (copy)
- Quality Control Summary
- Case Narrative (if applicable)
- Correspondence with Client (if applicable)

Data assessment (CT Laboratories, Baraboo, WI;Folder #:146752):
All holding times, laboratory qc, and method blanks met criteria, except as specified below.

Sample detections <5x blank value were flagged as nondetect ('u') at the reported limit.
Analytes in method blanks: Acetone (0.928 µg/L); Methylene chloride (0.158 µg/L)
Analytes in trip blanks:
Acetone (1.1 µg/L; 1.2 µg/L)
Methylene chloride (1.3 µg/L; 1.1 µg/L) No sample detections.

MS/MSD/LCS
1,4-Dioxane: LCS RPD above control limits; detections considered estimated and qualified with "j" (no sample detections)
Bromomethane

Data has been reviewed per TRC data usability guidelines and is usable with the above notations.
P Popp, 8/15/2019

CT LABORATORIES
delivering more than data from your environmental analyses

CT Laboratories LLC • 1230 Lange Ct • Baraboo, WI 53913
608-356-2760 • www.ctlaboratories.com

ANALYTICAL REPORT

TRC ENVIRONMENTAL
JAMES WEDEKIND
708 HEARTLAND TRAIL
SUITE 3000
MADISON, WI 53717

Copy: mstollenwerk@trccompanies.com

Project Name: RIPON FF/NN LANDFILL
Project Phase: RIPON, WI
Project #: 327275.0001.0003
Folder #: 146752
Purchase Order #: 138000
Contract #: 3276

Arrival Temperature: 2.2
Report Date: 08/08/2019
Date Received: 07/23/2019
Reprint Date: 08/08/2019

CT LAB#: 307909 Sample Description: P-113A License/Well #: 00467/136 Sampled: 07/22/2019 0828

Analyte	Result	Units	LOD	LOQ	Dilution	Qualifier	Prep Date/Time	Analysis Date/Time	Analyst	Method
Inorganic Results										
Nitrate+Nitrite Nitrogen Total	<0.12	mg/L	0.12	0.40	1			07/23/2019 12:14	TMG	EPA 9056A
Total Sulfate	10	mg/L	0.80	2.5	1			07/23/2019 12:14	TMG	EPA 9056A
Metals Results										
Total Manganese	10.3	ug/L	3.4 *	11	1		07/24/2019 10:53	07/25/2019 17:40	NAH	EPA 6010C
Organic Results										
1,1,1,2-Tetrachloroethane	<0.040	ug/L	0.040	0.13	1			07/31/2019 10:38	RLD	EPA 8260C
1,1,1-Trichloroethane	<0.050	ug/L	0.050	0.17	1			07/31/2019 10:38	RLD	EPA 8260C
1,1,2,2-Tetrachloroethane	<0.017	ug/L	0.017	0.057	1			07/31/2019 10:38	RLD	EPA 8260C
1,1,2-Trichloroethane	<0.050	ug/L	0.050	0.16	1			07/31/2019 10:38	RLD	EPA 8260C
1,1-Dichloroethane	<0.060	ug/L	0.060	0.19	1			07/31/2019 10:38	RLD	EPA 8260C
1,1-Dichloroethene	<0.060	ug/L	0.060	0.20	1			07/31/2019 10:38	RLD	EPA 8260C
1,1-Dichloropropene	<0.060	ug/L	0.060	0.19	1			07/31/2019 10:38	RLD	EPA 8260C
1,2,3-Trichlorobenzene	<0.040	ug/L	0.040	0.13	1			07/31/2019 10:38	RLD	EPA 8260C
1,2,3-Trichloropropane	<0.040	ug/L	0.040	0.14	1			07/31/2019 10:38	RLD	EPA 8260C
1,2,4-Trichlorobenzene	<0.040	ug/L	0.040	0.12	1			07/31/2019 10:38	RLD	EPA 8260C
1,2,4-Trimethylbenzene	<0.040	ug/L	0.040	0.12	1			07/31/2019 10:38	RLD	EPA 8260C

Unless specifically stated to the contrary, soil/sediment/sludge sample results/LOD/LOQ/RLs were reported on a Dry Weight Basis

CT LAB#: 307909 Sample Description: P-113A License/Well #: 00467/136 Sampled: 07/22/2019 0828

Analyte	Result	Units	LOD	LOQ	Dilution	Qualifier	Prep Date/Time	Analysis Date/Time	Analyst	Method
1,2-Dibromo-3-chloropropane	<0.090	ug/L	0.090	0.29	1			07/31/2019 10:38	RLD	EPA 8260C
1,2-Dibromoethane	<0.070	ug/L	0.070	0.23	1			07/31/2019 10:38	RLD	EPA 8260C
1,2-Dichlorobenzene	<0.040	ug/L	0.040	0.13	1			07/31/2019 10:38	RLD	EPA 8260C
1,2-Dichloroethane	<0.050	ug/L	0.050	0.18	1			07/31/2019 10:38	RLD	EPA 8260C
1,2-Dichloropropane	<0.070	ug/L	0.070	0.23	1			07/31/2019 10:38	RLD	EPA 8260C
1,3,5-Trimethylbenzene	<0.050	ug/L	0.050	0.16	1			07/31/2019 10:38	RLD	EPA 8260C
1,3-Dichlorobenzene	<0.040	ug/L	0.040	0.13	1			07/31/2019 10:38	RLD	EPA 8260C
1,3-Dichloropropane	<0.040	ug/L	0.040	0.13	1			07/31/2019 10:38	RLD	EPA 8260C
1,4-Dichlorobenzene	<0.040	ug/L	0.040	0.13	1			07/31/2019 10:38	RLD	EPA 8260C
1,4-Dioxane	<7.0	ug/L	7.0	23	1	Y		07/31/2019 10:38	RLD	EPA 8260C
2,2-Dichloropropane	<0.050	ug/L	0.050	0.15	1			07/31/2019 10:38	RLD	EPA 8260C
2-Butanone	<0.50	ug/L	0.50	1.5	1			07/31/2019 10:38	RLD	EPA 8260C
2-Chlorotoluene	<0.030	ug/L	0.030	0.11	1			07/31/2019 10:38	RLD	EPA 8260C
2-Hexanone	<0.24	ug/L	0.24	0.81	1			07/31/2019 10:38	RLD	EPA 8260C
4-Chlorotoluene	<0.040	ug/L	0.040	0.12	1			07/31/2019 10:38	RLD	EPA 8260C
4-Methyl-2-pentanone	<0.24	ug/L	0.24	0.82	1			07/31/2019 10:38	RLD	EPA 8260C
Acetone	<0.30	ug/L	0.30	1.0	1			07/31/2019 10:38	RLD	EPA 8260C
Benzene	<0.018	ug/L	0.018	0.059	1			07/31/2019 10:38	RLD	EPA 8260C
Bromobenzene	<0.040	ug/L	0.040	0.15	1			07/31/2019 10:38	RLD	EPA 8260C
Bromochloromethane	<0.030	ug/L	0.030	0.099	1			07/31/2019 10:38	RLD	EPA 8260C
Bromodichloromethane	<0.016	ug/L	0.016	0.054	1			07/31/2019 10:38	RLD	EPA 8260C
Bromoform	<0.040	ug/L	0.040	0.12	1			07/31/2019 10:38	RLD	EPA 8260C
Bromomethane	<0.080	ug/L	0.080	0.28	1	Y		07/31/2019 10:38	RLD	EPA 8260C
Carbon disulfide	<0.070	ug/L	0.070	0.25	1			07/31/2019 10:38	RLD	EPA 8260C
Carbon tetrachloride	<0.050	ug/L	0.050	0.18	1			07/31/2019 10:38	RLD	EPA 8260C
Chlorobenzene	<0.040	ug/L	0.040	0.15	1			07/31/2019 10:38	RLD	EPA 8260C
Chloroethane	<0.070	ug/L	0.070	0.23	1			07/31/2019 10:38	RLD	EPA 8260C

Unless specifically stated to the contrary, soil/sediment/sludge sample results/LOD/LOQ/RLs were reported on a Dry Weight Basis

CT LAB#: 307909 Sample Description: P-113A License/Well #: 00467/136 Sampled: 07/22/2019 0828

Analyte	Result	Units	LOD	LOQ	Dilution	Qualifier	Prep Date/Time	Analysis Date/Time	Analyst	Method
Chloroform	<0.030	ug/L	0.030	0.11	1			07/31/2019 10:38	RLD	EPA 8260C
Chloromethane	<0.040	ug/L	0.040	0.13	1			07/31/2019 10:38	RLD	EPA 8260C
cis-1,2-Dichloroethene	<0.070	ug/L	0.070	0.23	1			07/31/2019 10:38	RLD	EPA 8260C
cis-1,3-Dichloropropene	<0.011	ug/L	0.011	0.038	1			07/31/2019 10:38	RLD	EPA 8260C
Dibromochloromethane	<0.030	ug/L	0.030	0.10	1			07/31/2019 10:38	RLD	EPA 8260C
Dibromomethane	<0.050	ug/L	0.050	0.17	1			07/31/2019 10:38	RLD	EPA 8260C
Dichlorodifluoromethane	<0.060	ug/L	0.060	0.19	1			07/31/2019 10:38	RLD	EPA 8260C
Diisopropyl ether	<0.040	ug/L	0.040	0.14	1			07/31/2019 10:38	RLD	EPA 8260C
Ethylbenzene	<0.040	ug/L	0.040	0.15	1			07/31/2019 10:38	RLD	EPA 8260C
Hexachlorobutadiene	<0.050	ug/L	0.050	0.16	1			07/31/2019 10:38	RLD	EPA 8260C
Isopropylbenzene	<0.040	ug/L	0.040	0.12	1			07/31/2019 10:38	RLD	EPA 8260C
m & p-Xylene	<0.070	ug/L	0.070	0.23	1			07/31/2019 10:38	RLD	EPA 8260C
Methyl tert-butyl ether	<0.040	ug/L	0.040	0.12	1			07/31/2019 10:38	RLD	EPA 8260C
Methylene chloride	<0.050	ug/L	0.050	0.16	1			07/31/2019 10:38	RLD	EPA 8260C
n-Butylbenzene	<0.030	ug/L	0.030	0.11	1			07/31/2019 10:38	RLD	EPA 8260C
n-Propylbenzene	<0.040	ug/L	0.040	0.13	1			07/31/2019 10:38	RLD	EPA 8260C
Naphthalene	<0.030	ug/L	0.030	0.10	1			07/31/2019 10:38	RLD	EPA 8260C
o-Xylene	<0.040	ug/L	0.040	0.14	1			07/31/2019 10:38	RLD	EPA 8260C
p-Isopropyltoluene	<0.040	ug/L	0.040	0.13	1			07/31/2019 10:38	RLD	EPA 8260C
sec-Butylbenzene	<0.050	ug/L	0.050	0.16	1			07/31/2019 10:38	RLD	EPA 8260C
Styrene	<0.030	ug/L	0.030	0.11	1			07/31/2019 10:38	RLD	EPA 8260C
tert-Butylbenzene	<0.040	ug/L	0.040	0.14	1			07/31/2019 10:38	RLD	EPA 8260C
Tetrachloroethene	<0.050	ug/L	0.050	0.18	1			07/31/2019 10:38	RLD	EPA 8260C
Tetrahydrofuran	<0.40	ug/L	0.40	1.5	1			07/31/2019 10:38	RLD	EPA 8260C
Toluene	<0.040	ug/L	0.040	0.13	1			07/31/2019 10:38	RLD	EPA 8260C
trans-1,2-Dichloroethene	<0.040	ug/L	0.040	0.14	1			07/31/2019 10:38	RLD	EPA 8260C
trans-1,3-Dichloropropene	<0.019	ug/L	0.019	0.063	1			07/31/2019 10:38	RLD	EPA 8260C

Unless specifically stated to the contrary, soil/sediment/sludge sample results/LOD/LOQ/RLs were reported on a Dry Weight Basis

CT LAB#: 307909 Sample Description: P-113A License/Well #: 00467/136 Sampled: 07/22/2019 0828

Analyte	Result	Units	LOD	LOQ	Dilution	Qualifier	Prep Date/Time	Analysis Date/Time	Analyst	Method
Trichloroethene	<0.050	ug/L	0.050	0.17	1			07/31/2019 10:38	RLD	EPA 8260C
Trichlorofluoromethane	<0.090	ug/L	0.090	0.14	1			07/31/2019 10:38	RLD	EPA 8260C
Vinyl acetate	<0.22	ug/L	0.22	0.73	1			07/31/2019 10:38	RLD	EPA 8260C
Vinyl chloride	<0.019	ug/L	0.019	0.064	1			07/31/2019 10:38	RLD	EPA 8260C
1,2 Dichloroethane-d4	91	% Recovery	86.0	106	1			07/31/2019 10:38	RLD	EPA 8260C
Bromofluorobenzene	91	% Recovery	75.0	124	1			07/31/2019 10:38	RLD	EPA 8260C
d8-Toluene	102	% Recovery	94.0	105	1			07/31/2019 10:38	RLD	EPA 8260C
Dibromofluoromethane	102	% Recovery	94.0	105	1			07/31/2019 10:38	RLD	EPA 8260C

CT LAB#: 307910 Sample Description: P-113B License/Well #: 00467/138 Sampled: 07/22/2019 0903

Analyte	Result	Units	LOD	LOQ	Dilution	Qualifier	Prep Date/Time	Analysis Date/Time	Analyst	Method
Inorganic Results										
Nitrate+Nitrite Nitrogen Total	0.18	mg/L	0.12 *	0.40	1			07/23/2019 12:34	TMG	EPA 9056A
Total Sulfate	73	mg/L	4.0	13	5			07/23/2019 18:55	TMG	EPA 9056A
Metals Results										
Total Manganese	33.9	ug/L	3.4	11	1		07/24/2019 10:53	07/25/2019 18:22	NAH	EPA 6010C
Organic Results										
1,1,1,2-Tetrachloroethane	<0.040	ug/L	0.040	0.13	1			07/31/2019 11:06	RLD	EPA 8260C
1,1,1-Trichloroethane	<0.050	ug/L	0.050	0.17	1			07/31/2019 11:06	RLD	EPA 8260C
1,1,2,2-Tetrachloroethane	<0.017	ug/L	0.017	0.057	1			07/31/2019 11:06	RLD	EPA 8260C
1,1,2-Trichloroethane	<0.050	ug/L	0.050	0.16	1			07/31/2019 11:06	RLD	EPA 8260C
1,1-Dichloroethane	<0.060	ug/L	0.060	0.19	1			07/31/2019 11:06	RLD	EPA 8260C
1,1-Dichloroethene	<0.060	ug/L	0.060	0.20	1			07/31/2019 11:06	RLD	EPA 8260C
1,1-Dichloropropene	<0.060	ug/L	0.060	0.19	1			07/31/2019 11:06	RLD	EPA 8260C
1,2,3-Trichlorobenzene	<0.040	ug/L	0.040	0.13	1			07/31/2019 11:06	RLD	EPA 8260C
1,2,3-Trichloropropane	<0.040	ug/L	0.040	0.14	1			07/31/2019 11:06	RLD	EPA 8260C
1,2,4-Trichlorobenzene	<0.040	ug/L	0.040	0.12	1			07/31/2019 11:06	RLD	EPA 8260C
1,2,4-Trimethylbenzene	<0.040	ug/L	0.040	0.12	1			07/31/2019 11:06	RLD	EPA 8260C
1,2-Dibromo-3-chloropropane	<0.090	ug/L	0.090	0.29	1			07/31/2019 11:06	RLD	EPA 8260C
1,2-Dibromoethane	<0.070	ug/L	0.070	0.23	1			07/31/2019 11:06	RLD	EPA 8260C
1,2-Dichlorobenzene	<0.040	ug/L	0.040	0.13	1			07/31/2019 11:06	RLD	EPA 8260C
1,2-Dichloroethane	<0.050	ug/L	0.050	0.18	1			07/31/2019 11:06	RLD	EPA 8260C
1,2-Dichloropropane	<0.070	ug/L	0.070	0.23	1			07/31/2019 11:06	RLD	EPA 8260C
1,3,5-Trimethylbenzene	<0.050	ug/L	0.050	0.16	1			07/31/2019 11:06	RLD	EPA 8260C
1,3-Dichlorobenzene	<0.040	ug/L	0.040	0.13	1			07/31/2019 11:06	RLD	EPA 8260C
1,3-Dichloropropane	<0.040	ug/L	0.040	0.13	1			07/31/2019 11:06	RLD	EPA 8260C
1,4-Dichlorobenzene	<0.040	ug/L	0.040	0.13	1			07/31/2019 11:06	RLD	EPA 8260C

Unless specifically stated to the contrary, soil/sediment/sludge sample results/LOD/LOQ/RLs were reported on a Dry Weight Basis

CT LAB#: 307910 Sample Description: P-113B License/Well #: 00467/138 Sampled: 07/22/2019 0903

Analyte	Result	Units	LOD	LOQ	Dilution	Qualifier	Prep Date/Time	Analysis Date/Time	Analyst	Method
1,4-Dioxane	<7.0	ug/L	7.0	23	1	Y		07/31/2019 11:06	RLD	EPA 8260C
2,2-Dichloropropane	<0.050	ug/L	0.050	0.15	1			07/31/2019 11:06	RLD	EPA 8260C
2-Butanone	<0.50	ug/L	0.50	1.5	1			07/31/2019 11:06	RLD	EPA 8260C
2-Chlorotoluene	<0.030	ug/L	0.030	0.11	1			07/31/2019 11:06	RLD	EPA 8260C
2-Hexanone	<0.24	ug/L	0.24	0.81	1			07/31/2019 11:06	RLD	EPA 8260C
4-Chlorotoluene	<0.040	ug/L	0.040	0.12	1			07/31/2019 11:06	RLD	EPA 8260C
4-Methyl-2-pentanone	<0.24	ug/L	0.24	0.82	1			07/31/2019 11:06	RLD	EPA 8260C
Acetone	0.32	ug/L	0.30 *	1.0	1	B		07/31/2019 11:06	RLD	EPA 8260C
Benzene	<0.018	ug/L	0.018	0.059	1			07/31/2019 11:06	RLD	EPA 8260C
Bromobenzene	<0.040	ug/L	0.040	0.15	1			07/31/2019 11:06	RLD	EPA 8260C
Bromochloromethane	<0.030	ug/L	0.030	0.099	1			07/31/2019 11:06	RLD	EPA 8260C
Bromodichloromethane	<0.016	ug/L	0.016	0.054	1			07/31/2019 11:06	RLD	EPA 8260C
Bromoform	<0.040	ug/L	0.040	0.12	1			07/31/2019 11:06	RLD	EPA 8260C
Bromomethane	<0.080	ug/L	0.080	0.28	1	Y		07/31/2019 11:06	RLD	EPA 8260C
Carbon disulfide	<0.070	ug/L	0.070	0.25	1			07/31/2019 11:06	RLD	EPA 8260C
Carbon tetrachloride	<0.050	ug/L	0.050	0.18	1			07/31/2019 11:06	RLD	EPA 8260C
Chlorobenzene	<0.040	ug/L	0.040	0.15	1			07/31/2019 11:06	RLD	EPA 8260C
Chloroethane	<0.070	ug/L	0.070	0.23	1			07/31/2019 11:06	RLD	EPA 8260C
Chloroform	<0.030	ug/L	0.030	0.11	1			07/31/2019 11:06	RLD	EPA 8260C
Chloromethane	<0.040	ug/L	0.040	0.13	1			07/31/2019 11:06	RLD	EPA 8260C
cis-1,2-Dichloroethene	<0.070	ug/L	0.070	0.23	1			07/31/2019 11:06	RLD	EPA 8260C
cis-1,3-Dichloropropene	<0.011	ug/L	0.011	0.038	1			07/31/2019 11:06	RLD	EPA 8260C
Dibromochloromethane	<0.030	ug/L	0.030	0.10	1			07/31/2019 11:06	RLD	EPA 8260C
Dibromomethane	<0.050	ug/L	0.050	0.17	1			07/31/2019 11:06	RLD	EPA 8260C
Dichlorodifluoromethane	<0.060	ug/L	0.060	0.19	1			07/31/2019 11:06	RLD	EPA 8260C
Diisopropyl ether	<0.040	ug/L	0.040	0.14	1			07/31/2019 11:06	RLD	EPA 8260C
Ethylbenzene	<0.040	ug/L	0.040	0.15	1			07/31/2019 11:06	RLD	EPA 8260C

Unless specifically stated to the contrary, soil/sediment/sludge sample results/LOD/LOQ/RLs were reported on a Dry Weight Basis

CT LAB#: 307910 Sample Description: P-113B License/Well #: 00467/138 Sampled: 07/22/2019 0903

Analyte	Result	Units	LOD	LOQ	Dilution	Qualifier	Prep Date/Time	Analysis Date/Time	Analyst	Method
Hexachlorobutadiene	<0.050	ug/L	0.050	0.16	1			07/31/2019 11:06	RLD	EPA 8260C
Isopropylbenzene	<0.040	ug/L	0.040	0.12	1			07/31/2019 11:06	RLD	EPA 8260C
m & p-Xylene	<0.070	ug/L	0.070	0.23	1			07/31/2019 11:06	RLD	EPA 8260C
Methyl tert-butyl ether	<0.040	ug/L	0.040	0.12	1			07/31/2019 11:06	RLD	EPA 8260C
Methylene chloride	<0.050	ug/L	0.050	0.16	1			07/31/2019 11:06	RLD	EPA 8260C
n-Butylbenzene	<0.030	ug/L	0.030	0.11	1			07/31/2019 11:06	RLD	EPA 8260C
n-Propylbenzene	<0.040	ug/L	0.040	0.13	1			07/31/2019 11:06	RLD	EPA 8260C
Naphthalene	<0.030	ug/L	0.030	0.10	1			07/31/2019 11:06	RLD	EPA 8260C
o-Xylene	<0.040	ug/L	0.040	0.14	1			07/31/2019 11:06	RLD	EPA 8260C
p-Isopropyltoluene	<0.040	ug/L	0.040	0.13	1			07/31/2019 11:06	RLD	EPA 8260C
sec-Butylbenzene	<0.050	ug/L	0.050	0.16	1			07/31/2019 11:06	RLD	EPA 8260C
Styrene	<0.030	ug/L	0.030	0.11	1			07/31/2019 11:06	RLD	EPA 8260C
tert-Butylbenzene	<0.040	ug/L	0.040	0.14	1			07/31/2019 11:06	RLD	EPA 8260C
Tetrachloroethene	<0.050	ug/L	0.050	0.18	1			07/31/2019 11:06	RLD	EPA 8260C
Tetrahydrofuran	<0.40	ug/L	0.40	1.5	1			07/31/2019 11:06	RLD	EPA 8260C
Toluene	<0.040	ug/L	0.040	0.13	1			07/31/2019 11:06	RLD	EPA 8260C
trans-1,2-Dichloroethene	<0.040	ug/L	0.040	0.14	1			07/31/2019 11:06	RLD	EPA 8260C
trans-1,3-Dichloropropene	<0.019	ug/L	0.019	0.063	1			07/31/2019 11:06	RLD	EPA 8260C
Trichloroethene	<0.050	ug/L	0.050	0.17	1			07/31/2019 11:06	RLD	EPA 8260C
Trichlorofluoromethane	<0.090	ug/L	0.090	0.14	1			07/31/2019 11:06	RLD	EPA 8260C
Vinyl acetate	<0.22	ug/L	0.22	0.73	1			07/31/2019 11:06	RLD	EPA 8260C
Vinyl chloride	<0.019	ug/L	0.019	0.064	1			07/31/2019 11:06	RLD	EPA 8260C
1,2 Dichloroethane-d4	94	% Recovery	86.0	106	1			07/31/2019 11:06	RLD	EPA 8260C
Bromofluorobenzene	94	% Recovery	75.0	124	1			07/31/2019 11:06	RLD	EPA 8260C
d8-Toluene	103	% Recovery	94.0	105	1			07/31/2019 11:06	RLD	EPA 8260C
Dibromofluoromethane	105	% Recovery	94.0	105	1			07/31/2019 11:06	RLD	EPA 8260C

Unless specifically stated to the contrary, soil/sediment/sludge sample results/LOD/LOQ/RLs were reported on a Dry Weight Basis

CT LAB#: 307911 Sample Description: P-115 License/Well #: 00467/142 Sampled: 07/22/2019 1021

Analyte	Result	Units	LOD	LOQ	Dilution	Qualifier	Prep Date/Time	Analysis Date/Time	Analyst	Method
Inorganic Results										
Nitrate+Nitrite Nitrogen Total	<0.12	mg/L	0.12	0.40	1			07/23/2019 12:54	TMG	EPA 9056A
Total Sulfate	39	mg/L	0.80	2.5	1			07/23/2019 12:54	TMG	EPA 9056A
Metals Results										
Total Manganese	115	ug/L	3.4	11	1		07/24/2019 10:53	07/25/2019 18:29	NAH	EPA 6010C
Organic Results										
1,1,1,2-Tetrachloroethane	<0.040	ug/L	0.040	0.13	1			07/31/2019 11:35	RLD	EPA 8260C
1,1,1-Trichloroethane	<0.050	ug/L	0.050	0.17	1			07/31/2019 11:35	RLD	EPA 8260C
1,1,2,2-Tetrachloroethane	<0.017	ug/L	0.017	0.057	1			07/31/2019 11:35	RLD	EPA 8260C
1,1,2-Trichloroethane	<0.050	ug/L	0.050	0.16	1			07/31/2019 11:35	RLD	EPA 8260C
1,1-Dichloroethane	<0.060	ug/L	0.060	0.19	1			07/31/2019 11:35	RLD	EPA 8260C
1,1-Dichloroethene	<0.060	ug/L	0.060	0.20	1			07/31/2019 11:35	RLD	EPA 8260C
1,1-Dichloropropene	<0.060	ug/L	0.060	0.19	1			07/31/2019 11:35	RLD	EPA 8260C
1,2,3-Trichlorobenzene	<0.040	ug/L	0.040	0.13	1			07/31/2019 11:35	RLD	EPA 8260C
1,2,3-Trichloropropane	<0.040	ug/L	0.040	0.14	1			07/31/2019 11:35	RLD	EPA 8260C
1,2,4-Trichlorobenzene	<0.040	ug/L	0.040	0.12	1			07/31/2019 11:35	RLD	EPA 8260C
1,2,4-Trimethylbenzene	<0.040	ug/L	0.040	0.12	1			07/31/2019 11:35	RLD	EPA 8260C
1,2-Dibromo-3-chloropropane	<0.090	ug/L	0.090	0.29	1			07/31/2019 11:35	RLD	EPA 8260C
1,2-Dibromoethane	<0.070	ug/L	0.070	0.23	1			07/31/2019 11:35	RLD	EPA 8260C
1,2-Dichlorobenzene	<0.040	ug/L	0.040	0.13	1			07/31/2019 11:35	RLD	EPA 8260C
1,2-Dichloroethane	<0.050	ug/L	0.050	0.18	1			07/31/2019 11:35	RLD	EPA 8260C
1,2-Dichloropropane	<0.070	ug/L	0.070	0.23	1			07/31/2019 11:35	RLD	EPA 8260C
1,3,5-Trimethylbenzene	<0.050	ug/L	0.050	0.16	1			07/31/2019 11:35	RLD	EPA 8260C
1,3-Dichlorobenzene	<0.040	ug/L	0.040	0.13	1			07/31/2019 11:35	RLD	EPA 8260C
1,3-Dichloropropane	<0.040	ug/L	0.040	0.13	1			07/31/2019 11:35	RLD	EPA 8260C
1,4-Dichlorobenzene	<0.040	ug/L	0.040	0.13	1			07/31/2019 11:35	RLD	EPA 8260C

Unless specifically stated to the contrary, soil/sediment/sludge sample results/LOD/LOQ/RLs were reported on a Dry Weight Basis

CT LAB#: 307911 Sample Description: P-115 License/Well #: 00467/142 Sampled: 07/22/2019 1021

Analyte	Result	Units	LOD	LOQ	Dilution	Qualifier	Prep Date/Time	Analysis Date/Time	Analyst	Method
1,4-Dioxane	<7.0	ug/L	7.0	23	1	Y		07/31/2019 11:35	RLD	EPA 8260C
2,2-Dichloropropane	<0.050	ug/L	0.050	0.15	1			07/31/2019 11:35	RLD	EPA 8260C
2-Butanone	<0.50	ug/L	0.50	1.5	1			07/31/2019 11:35	RLD	EPA 8260C
2-Chlorotoluene	<0.030	ug/L	0.030	0.11	1			07/31/2019 11:35	RLD	EPA 8260C
2-Hexanone	<0.24	ug/L	0.24	0.81	1			07/31/2019 11:35	RLD	EPA 8260C
4-Chlorotoluene	<0.040	ug/L	0.040	0.12	1			07/31/2019 11:35	RLD	EPA 8260C
4-Methyl-2-pentanone	<0.24	ug/L	0.24	0.82	1			07/31/2019 11:35	RLD	EPA 8260C
Acetone	0.71	ug/L	0.30 *	1.0	1	B		07/31/2019 11:35	RLD	EPA 8260C
Benzene	<0.018	ug/L	0.018	0.059	1			07/31/2019 11:35	RLD	EPA 8260C
Bromobenzene	<0.040	ug/L	0.040	0.15	1			07/31/2019 11:35	RLD	EPA 8260C
Bromochloromethane	<0.030	ug/L	0.030	0.099	1			07/31/2019 11:35	RLD	EPA 8260C
Bromodichloromethane	<0.016	ug/L	0.016	0.054	1			07/31/2019 11:35	RLD	EPA 8260C
Bromoform	<0.040	ug/L	0.040	0.12	1			07/31/2019 11:35	RLD	EPA 8260C
Bromomethane	<0.080	ug/L	0.080	0.28	1	Y		07/31/2019 11:35	RLD	EPA 8260C
Carbon disulfide	<0.070	ug/L	0.070	0.25	1			07/31/2019 11:35	RLD	EPA 8260C
Carbon tetrachloride	<0.050	ug/L	0.050	0.18	1			07/31/2019 11:35	RLD	EPA 8260C
Chlorobenzene	<0.040	ug/L	0.040	0.15	1			07/31/2019 11:35	RLD	EPA 8260C
Chloroethane	<0.070	ug/L	0.070	0.23	1			07/31/2019 11:35	RLD	EPA 8260C
Chloroform	<0.030	ug/L	0.030	0.11	1			07/31/2019 11:35	RLD	EPA 8260C
Chloromethane	<0.040	ug/L	0.040	0.13	1			07/31/2019 11:35	RLD	EPA 8260C
cis-1,2-Dichloroethene	0.14	ug/L	0.070 *	0.23	1			07/31/2019 11:35	RLD	EPA 8260C
cis-1,3-Dichloropropene	<0.011	ug/L	0.011	0.038	1			07/31/2019 11:35	RLD	EPA 8260C
Dibromochloromethane	<0.030	ug/L	0.030	0.10	1			07/31/2019 11:35	RLD	EPA 8260C
Dibromomethane	<0.050	ug/L	0.050	0.17	1			07/31/2019 11:35	RLD	EPA 8260C
Dichlorodifluoromethane	<0.060	ug/L	0.060	0.19	1			07/31/2019 11:35	RLD	EPA 8260C
Diisopropyl ether	<0.040	ug/L	0.040	0.14	1			07/31/2019 11:35	RLD	EPA 8260C
Ethylbenzene	<0.040	ug/L	0.040	0.15	1			07/31/2019 11:35	RLD	EPA 8260C

Unless specifically stated to the contrary, soil/sediment/sludge sample results/LOD/LOQ/RLs were reported on a Dry Weight Basis

CT LAB#: 307911 Sample Description: P-115 License/Well #: 00467/142 Sampled: 07/22/2019 1021

Analyte	Result	Units	LOD	LOQ	Dilution	Qualifier	Prep Date/Time	Analysis Date/Time	Analyst	Method
Hexachlorobutadiene	<0.050	ug/L	0.050	0.16	1			07/31/2019 11:35	RLD	EPA 8260C
Isopropylbenzene	<0.040	ug/L	0.040	0.12	1			07/31/2019 11:35	RLD	EPA 8260C
m & p-Xylene	<0.070	ug/L	0.070	0.23	1			07/31/2019 11:35	RLD	EPA 8260C
Methyl tert-butyl ether	<0.040	ug/L	0.040	0.12	1			07/31/2019 11:35	RLD	EPA 8260C
Methylene chloride	<0.050	ug/L	0.050	0.16	1			07/31/2019 11:35	RLD	EPA 8260C
n-Butylbenzene	<0.030	ug/L	0.030	0.11	1			07/31/2019 11:35	RLD	EPA 8260C
n-Propylbenzene	<0.040	ug/L	0.040	0.13	1			07/31/2019 11:35	RLD	EPA 8260C
Naphthalene	<0.030	ug/L	0.030	0.10	1			07/31/2019 11:35	RLD	EPA 8260C
o-Xylene	<0.040	ug/L	0.040	0.14	1			07/31/2019 11:35	RLD	EPA 8260C
p-Isopropyltoluene	<0.040	ug/L	0.040	0.13	1			07/31/2019 11:35	RLD	EPA 8260C
sec-Butylbenzene	<0.050	ug/L	0.050	0.16	1			07/31/2019 11:35	RLD	EPA 8260C
Styrene	<0.030	ug/L	0.030	0.11	1			07/31/2019 11:35	RLD	EPA 8260C
tert-Butylbenzene	<0.040	ug/L	0.040	0.14	1			07/31/2019 11:35	RLD	EPA 8260C
Tetrachloroethene	<0.050	ug/L	0.050	0.18	1			07/31/2019 11:35	RLD	EPA 8260C
Tetrahydrofuran	<0.40	ug/L	0.40	1.5	1			07/31/2019 11:35	RLD	EPA 8260C
Toluene	<0.040	ug/L	0.040	0.13	1			07/31/2019 11:35	RLD	EPA 8260C
trans-1,2-Dichloroethene	<0.040	ug/L	0.040	0.14	1			07/31/2019 11:35	RLD	EPA 8260C
trans-1,3-Dichloropropene	<0.019	ug/L	0.019	0.063	1			07/31/2019 11:35	RLD	EPA 8260C
Trichloroethene	<0.050	ug/L	0.050	0.17	1			07/31/2019 11:35	RLD	EPA 8260C
Trichlorofluoromethane	<0.090	ug/L	0.090	0.14	1			07/31/2019 11:35	RLD	EPA 8260C
Vinyl acetate	<0.22	ug/L	0.22	0.73	1			07/31/2019 11:35	RLD	EPA 8260C
Vinyl chloride	0.91	ug/L	0.019	0.064	1			07/31/2019 11:35	RLD	EPA 8260C
1,2 Dichloroethane-d4	99	% Recovery	86.0	106	1			07/31/2019 11:35	RLD	EPA 8260C
Bromofluorobenzene	89	% Recovery	75.0	124	1			07/31/2019 11:35	RLD	EPA 8260C
d8-Toluene	105	% Recovery	94.0	105	1			07/31/2019 11:35	RLD	EPA 8260C
Dibromofluoromethane	102	% Recovery	94.0	105	1			07/31/2019 11:35	RLD	EPA 8260C

Unless specifically stated to the contrary, soil/sediment/sludge sample results/LOD/LOQ/RLs were reported on a Dry Weight Basis

CT LAB#: 307912 Sample Description: P-114 License/Well #: 00467/140 Sampled: 07/22/2019 1120

Analyte	Result	Units	LOD	LOQ	Dilution	Qualifier	Prep Date/Time	Analysis Date/Time	Analyst	Method
Inorganic Results										
Nitrate+Nitrite Nitrogen Total	0.22	mg/L	0.12 *	0.40	1			07/23/2019 13:14	TMG	EPA 9056A
Total Sulfate	62	mg/L	0.80	2.5	1			07/23/2019 13:14	TMG	EPA 9056A
Metals Results										
Total Manganese	68.1	ug/L	3.4	11	1		07/24/2019 10:53	07/25/2019 18:35	NAH	EPA 6010C
Organic Results										
1,1,1,2-Tetrachloroethane	<0.040	ug/L	0.040	0.13	1			07/31/2019 12:03	RLD	EPA 8260C
1,1,1-Trichloroethane	<0.050	ug/L	0.050	0.17	1			07/31/2019 12:03	RLD	EPA 8260C
1,1,2,2-Tetrachloroethane	<0.017	ug/L	0.017	0.057	1			07/31/2019 12:03	RLD	EPA 8260C
1,1,2-Trichloroethane	<0.050	ug/L	0.050	0.16	1			07/31/2019 12:03	RLD	EPA 8260C
1,1-Dichloroethane	<0.060	ug/L	0.060	0.19	1			07/31/2019 12:03	RLD	EPA 8260C
1,1-Dichloroethene	<0.060	ug/L	0.060	0.20	1			07/31/2019 12:03	RLD	EPA 8260C
1,1-Dichloropropene	<0.060	ug/L	0.060	0.19	1			07/31/2019 12:03	RLD	EPA 8260C
1,2,3-Trichlorobenzene	<0.040	ug/L	0.040	0.13	1			07/31/2019 12:03	RLD	EPA 8260C
1,2,3-Trichloropropane	<0.040	ug/L	0.040	0.14	1			07/31/2019 12:03	RLD	EPA 8260C
1,2,4-Trichlorobenzene	<0.040	ug/L	0.040	0.12	1			07/31/2019 12:03	RLD	EPA 8260C
1,2,4-Trimethylbenzene	<0.040	ug/L	0.040	0.12	1			07/31/2019 12:03	RLD	EPA 8260C
1,2-Dibromo-3-chloropropane	<0.090	ug/L	0.090	0.29	1			07/31/2019 12:03	RLD	EPA 8260C
1,2-Dibromoethane	<0.070	ug/L	0.070	0.23	1			07/31/2019 12:03	RLD	EPA 8260C
1,2-Dichlorobenzene	<0.040	ug/L	0.040	0.13	1			07/31/2019 12:03	RLD	EPA 8260C
1,2-Dichloroethane	<0.050	ug/L	0.050	0.18	1			07/31/2019 12:03	RLD	EPA 8260C
1,2-Dichloropropane	<0.070	ug/L	0.070	0.23	1			07/31/2019 12:03	RLD	EPA 8260C
1,3,5-Trimethylbenzene	<0.050	ug/L	0.050	0.16	1			07/31/2019 12:03	RLD	EPA 8260C
1,3-Dichlorobenzene	<0.040	ug/L	0.040	0.13	1			07/31/2019 12:03	RLD	EPA 8260C
1,3-Dichloropropane	<0.040	ug/L	0.040	0.13	1			07/31/2019 12:03	RLD	EPA 8260C
1,4-Dichlorobenzene	<0.040	ug/L	0.040	0.13	1			07/31/2019 12:03	RLD	EPA 8260C

Unless specifically stated to the contrary, soil/sediment/sludge sample results/LOD/LOQ/RLs were reported on a Dry Weight Basis

CT LAB#: 307912 Sample Description: P-114 License/Well #: 00467/140 Sampled: 07/22/2019 1120

Analyte	Result	Units	LOD	LOQ	Dilution	Qualifier	Prep Date/Time	Analysis Date/Time	Analyst	Method
1,4-Dioxane	<7.0	ug/L	7.0	23	1	Y		07/31/2019 12:03	RLD	EPA 8260C
2,2-Dichloropropane	<0.050	ug/L	0.050	0.15	1			07/31/2019 12:03	RLD	EPA 8260C
2-Butanone	<0.50	ug/L	0.50	1.5	1			07/31/2019 12:03	RLD	EPA 8260C
2-Chlorotoluene	<0.030	ug/L	0.030	0.11	1			07/31/2019 12:03	RLD	EPA 8260C
2-Hexanone	<0.24	ug/L	0.24	0.81	1			07/31/2019 12:03	RLD	EPA 8260C
4-Chlorotoluene	<0.040	ug/L	0.040	0.12	1			07/31/2019 12:03	RLD	EPA 8260C
4-Methyl-2-pentanone	<0.24	ug/L	0.24	0.82	1			07/31/2019 12:03	RLD	EPA 8260C
Acetone	0.72	ug/L	0.30 *	1.0	1	B		07/31/2019 12:03	RLD	EPA 8260C
Benzene	<0.018	ug/L	0.018	0.059	1			07/31/2019 12:03	RLD	EPA 8260C
Bromobenzene	<0.040	ug/L	0.040	0.15	1			07/31/2019 12:03	RLD	EPA 8260C
Bromochloromethane	<0.030	ug/L	0.030	0.099	1			07/31/2019 12:03	RLD	EPA 8260C
Bromodichloromethane	<0.016	ug/L	0.016	0.054	1			07/31/2019 12:03	RLD	EPA 8260C
Bromoform	<0.040	ug/L	0.040	0.12	1			07/31/2019 12:03	RLD	EPA 8260C
Bromomethane	<0.080	ug/L	0.080	0.28	1	Y		07/31/2019 12:03	RLD	EPA 8260C
Carbon disulfide	<0.070	ug/L	0.070	0.25	1			07/31/2019 12:03	RLD	EPA 8260C
Carbon tetrachloride	<0.050	ug/L	0.050	0.18	1			07/31/2019 12:03	RLD	EPA 8260C
Chlorobenzene	<0.040	ug/L	0.040	0.15	1			07/31/2019 12:03	RLD	EPA 8260C
Chloroethane	0.29	ug/L	0.070	0.23	1			07/31/2019 12:03	RLD	EPA 8260C
Chloroform	<0.030	ug/L	0.030	0.11	1			07/31/2019 12:03	RLD	EPA 8260C
Chloromethane	<0.040	ug/L	0.040	0.13	1			07/31/2019 12:03	RLD	EPA 8260C
cis-1,2-Dichloroethene	2.1	ug/L	0.070	0.23	1			07/31/2019 12:03	RLD	EPA 8260C
cis-1,3-Dichloropropene	<0.011	ug/L	0.011	0.038	1			07/31/2019 12:03	RLD	EPA 8260C
Dibromochloromethane	<0.030	ug/L	0.030	0.10	1			07/31/2019 12:03	RLD	EPA 8260C
Dibromomethane	<0.050	ug/L	0.050	0.17	1			07/31/2019 12:03	RLD	EPA 8260C
Dichlorodifluoromethane	<0.060	ug/L	0.060	0.19	1			07/31/2019 12:03	RLD	EPA 8260C
Diisopropyl ether	<0.040	ug/L	0.040	0.14	1			07/31/2019 12:03	RLD	EPA 8260C
Ethylbenzene	<0.040	ug/L	0.040	0.15	1			07/31/2019 12:03	RLD	EPA 8260C

Unless specifically stated to the contrary, soil/sediment/sludge sample results/LOD/LOQ/RLs were reported on a Dry Weight Basis

CT LAB#: 307912 Sample Description: P-114 License/Well #: 00467/140 Sampled: 07/22/2019 1120

Analyte	Result	Units	LOD	LOQ	Dilution	Qualifier	Prep Date/Time	Analysis Date/Time	Analyst	Method
Hexachlorobutadiene	<0.050	ug/L	0.050	0.16	1			07/31/2019 12:03	RLD	EPA 8260C
Isopropylbenzene	<0.040	ug/L	0.040	0.12	1			07/31/2019 12:03	RLD	EPA 8260C
m & p-Xylene	<0.070	ug/L	0.070	0.23	1			07/31/2019 12:03	RLD	EPA 8260C
Methyl tert-butyl ether	<0.040	ug/L	0.040	0.12	1			07/31/2019 12:03	RLD	EPA 8260C
Methylene chloride	<0.050	ug/L	0.050	0.16	1			07/31/2019 12:03	RLD	EPA 8260C
n-Butylbenzene	<0.030	ug/L	0.030	0.11	1			07/31/2019 12:03	RLD	EPA 8260C
n-Propylbenzene	<0.040	ug/L	0.040	0.13	1			07/31/2019 12:03	RLD	EPA 8260C
Naphthalene	<0.030	ug/L	0.030	0.10	1			07/31/2019 12:03	RLD	EPA 8260C
o-Xylene	<0.040	ug/L	0.040	0.14	1			07/31/2019 12:03	RLD	EPA 8260C
p-Isopropyltoluene	<0.040	ug/L	0.040	0.13	1			07/31/2019 12:03	RLD	EPA 8260C
sec-Butylbenzene	<0.050	ug/L	0.050	0.16	1			07/31/2019 12:03	RLD	EPA 8260C
Styrene	<0.030	ug/L	0.030	0.11	1			07/31/2019 12:03	RLD	EPA 8260C
tert-Butylbenzene	<0.040	ug/L	0.040	0.14	1			07/31/2019 12:03	RLD	EPA 8260C
Tetrachloroethene	<0.050	ug/L	0.050	0.18	1			07/31/2019 12:03	RLD	EPA 8260C
Tetrahydrofuran	<0.40	ug/L	0.40	1.5	1			07/31/2019 12:03	RLD	EPA 8260C
Toluene	<0.040	ug/L	0.040	0.13	1			07/31/2019 12:03	RLD	EPA 8260C
trans-1,2-Dichloroethene	<0.040	ug/L	0.040	0.14	1			07/31/2019 12:03	RLD	EPA 8260C
trans-1,3-Dichloropropene	<0.019	ug/L	0.019	0.063	1			07/31/2019 12:03	RLD	EPA 8260C
Trichloroethene	<0.050	ug/L	0.050	0.17	1			07/31/2019 12:03	RLD	EPA 8260C
Trichlorofluoromethane	<0.090	ug/L	0.090	0.14	1			07/31/2019 12:03	RLD	EPA 8260C
Vinyl acetate	<0.22	ug/L	0.22	0.73	1			07/31/2019 12:03	RLD	EPA 8260C
Vinyl chloride	6.9	ug/L	0.019	0.064	1			07/31/2019 12:03	RLD	EPA 8260C
1,2 Dichloroethane-d4	87	% Recovery	86.0	106	1			07/31/2019 12:03	RLD	EPA 8260C
Bromofluorobenzene	90	% Recovery	75.0	124	1			07/31/2019 12:03	RLD	EPA 8260C
d8-Toluene	104	% Recovery	94.0	105	1			07/31/2019 12:03	RLD	EPA 8260C
Dibromofluoromethane	103	% Recovery	94.0	105	1			07/31/2019 12:03	RLD	EPA 8260C

Unless specifically stated to the contrary, soil/sediment/sludge sample results/LOD/LOQ/RLs were reported on a Dry Weight Basis

CT LAB#: 307913 Sample Description: P-116 License/Well #: 00467/143 Sampled: 07/22/2019 1238

Analyte	Result	Units	LOD	LOQ	Dilution	Qualifier	Prep Date/Time	Analysis Date/Time	Analyst	Method
Inorganic Results										
Nitrate+Nitrite Nitrogen Total	0.13	mg/L	0.12 *	0.40	1			07/23/2019 13:34	TMG	EPA 9056A
Total Sulfate	14	mg/L	0.80	2.5	1			07/23/2019 13:34	TMG	EPA 9056A
Metals Results										
Total Manganese	134	ug/L	3.4	11	1		07/24/2019 10:53	07/25/2019 18:41	NAH	EPA 6010C
Organic Results										
1,1,1,2-Tetrachloroethane	<0.040	ug/L	0.040	0.13	1			07/31/2019 12:31	RLD	EPA 8260C
1,1,1-Trichloroethane	<0.050	ug/L	0.050	0.17	1			07/31/2019 12:31	RLD	EPA 8260C
1,1,2,2-Tetrachloroethane	<0.017	ug/L	0.017	0.057	1			07/31/2019 12:31	RLD	EPA 8260C
1,1,2-Trichloroethane	<0.050	ug/L	0.050	0.16	1			07/31/2019 12:31	RLD	EPA 8260C
1,1-Dichloroethane	<0.060	ug/L	0.060	0.19	1			07/31/2019 12:31	RLD	EPA 8260C
1,1-Dichloroethene	<0.060	ug/L	0.060	0.20	1			07/31/2019 12:31	RLD	EPA 8260C
1,1-Dichloropropene	<0.060	ug/L	0.060	0.19	1			07/31/2019 12:31	RLD	EPA 8260C
1,2,3-Trichlorobenzene	<0.040	ug/L	0.040	0.13	1			07/31/2019 12:31	RLD	EPA 8260C
1,2,3-Trichloropropane	<0.040	ug/L	0.040	0.14	1			07/31/2019 12:31	RLD	EPA 8260C
1,2,4-Trichlorobenzene	<0.040	ug/L	0.040	0.12	1			07/31/2019 12:31	RLD	EPA 8260C
1,2,4-Trimethylbenzene	<0.040	ug/L	0.040	0.12	1			07/31/2019 12:31	RLD	EPA 8260C
1,2-Dibromo-3-chloropropane	<0.090	ug/L	0.090	0.29	1			07/31/2019 12:31	RLD	EPA 8260C
1,2-Dibromoethane	<0.070	ug/L	0.070	0.23	1			07/31/2019 12:31	RLD	EPA 8260C
1,2-Dichlorobenzene	<0.040	ug/L	0.040	0.13	1			07/31/2019 12:31	RLD	EPA 8260C
1,2-Dichloroethane	<0.050	ug/L	0.050	0.18	1			07/31/2019 12:31	RLD	EPA 8260C
1,2-Dichloropropane	<0.070	ug/L	0.070	0.23	1			07/31/2019 12:31	RLD	EPA 8260C
1,3,5-Trimethylbenzene	<0.050	ug/L	0.050	0.16	1			07/31/2019 12:31	RLD	EPA 8260C
1,3-Dichlorobenzene	<0.040	ug/L	0.040	0.13	1			07/31/2019 12:31	RLD	EPA 8260C
1,3-Dichloropropane	<0.040	ug/L	0.040	0.13	1			07/31/2019 12:31	RLD	EPA 8260C
1,4-Dichlorobenzene	<0.040	ug/L	0.040	0.13	1			07/31/2019 12:31	RLD	EPA 8260C

Unless specifically stated to the contrary, soil/sediment/sludge sample results/LOD/LOQ/RLs were reported on a Dry Weight Basis

CT LAB#: 307913 Sample Description: P-116 License/Well #: 00467/143 Sampled: 07/22/2019 1238

Analyte	Result	Units	LOD	LOQ	Dilution	Qualifier	Prep Date/Time	Analysis Date/Time	Analyst	Method
1,4-Dioxane	<7.0	ug/L	7.0	23	1	Y		07/31/2019 12:31	RLD	EPA 8260C
2,2-Dichloropropane	<0.050	ug/L	0.050	0.15	1			07/31/2019 12:31	RLD	EPA 8260C
2-Butanone	<0.50	ug/L	0.50	1.5	1			07/31/2019 12:31	RLD	EPA 8260C
2-Chlorotoluene	<0.030	ug/L	0.030	0.11	1			07/31/2019 12:31	RLD	EPA 8260C
2-Hexanone	<0.24	ug/L	0.24	0.81	1			07/31/2019 12:31	RLD	EPA 8260C
4-Chlorotoluene	<0.040	ug/L	0.040	0.12	1			07/31/2019 12:31	RLD	EPA 8260C
4-Methyl-2-pentanone	<0.24	ug/L	0.24	0.82	1			07/31/2019 12:31	RLD	EPA 8260C
Acetone	0.59	ug/L	0.30 *	1.0	1	B		07/31/2019 12:31	RLD	EPA 8260C
Benzene	<0.018	ug/L	0.018	0.059	1			07/31/2019 12:31	RLD	EPA 8260C
Bromobenzene	<0.040	ug/L	0.040	0.15	1			07/31/2019 12:31	RLD	EPA 8260C
Bromochloromethane	<0.030	ug/L	0.030	0.099	1			07/31/2019 12:31	RLD	EPA 8260C
Bromodichloromethane	<0.016	ug/L	0.016	0.054	1			07/31/2019 12:31	RLD	EPA 8260C
Bromoform	<0.040	ug/L	0.040	0.12	1			07/31/2019 12:31	RLD	EPA 8260C
Bromomethane	<0.080	ug/L	0.080	0.28	1	Y		07/31/2019 12:31	RLD	EPA 8260C
Carbon disulfide	<0.070	ug/L	0.070	0.25	1			07/31/2019 12:31	RLD	EPA 8260C
Carbon tetrachloride	<0.050	ug/L	0.050	0.18	1			07/31/2019 12:31	RLD	EPA 8260C
Chlorobenzene	<0.040	ug/L	0.040	0.15	1			07/31/2019 12:31	RLD	EPA 8260C
Chloroethane	<0.070	ug/L	0.070	0.23	1			07/31/2019 12:31	RLD	EPA 8260C
Chloroform	<0.030	ug/L	0.030	0.11	1			07/31/2019 12:31	RLD	EPA 8260C
Chloromethane	<0.040	ug/L	0.040	0.13	1			07/31/2019 12:31	RLD	EPA 8260C
cis-1,2-Dichloroethene	<0.070	ug/L	0.070	0.23	1			07/31/2019 12:31	RLD	EPA 8260C
cis-1,3-Dichloropropene	<0.011	ug/L	0.011	0.038	1			07/31/2019 12:31	RLD	EPA 8260C
Dibromochloromethane	<0.030	ug/L	0.030	0.10	1			07/31/2019 12:31	RLD	EPA 8260C
Dibromomethane	<0.050	ug/L	0.050	0.17	1			07/31/2019 12:31	RLD	EPA 8260C
Dichlorodifluoromethane	<0.060	ug/L	0.060	0.19	1			07/31/2019 12:31	RLD	EPA 8260C
Diisopropyl ether	<0.040	ug/L	0.040	0.14	1			07/31/2019 12:31	RLD	EPA 8260C
Ethylbenzene	<0.040	ug/L	0.040	0.15	1			07/31/2019 12:31	RLD	EPA 8260C

Unless specifically stated to the contrary, soil/sediment/sludge sample results/LOD/LOQ/RLs were reported on a Dry Weight Basis

CT LAB#: 307913 Sample Description: P-116 License/Well #: 00467/143 Sampled: 07/22/2019 1238

Analyte	Result	Units	LOD	LOQ	Dilution	Qualifier	Prep Date/Time	Analysis Date/Time	Analyst	Method
Hexachlorobutadiene	<0.050	ug/L	0.050	0.16	1			07/31/2019 12:31	RLD	EPA 8260C
Isopropylbenzene	<0.040	ug/L	0.040	0.12	1			07/31/2019 12:31	RLD	EPA 8260C
m & p-Xylene	<0.070	ug/L	0.070	0.23	1			07/31/2019 12:31	RLD	EPA 8260C
Methyl tert-butyl ether	<0.040	ug/L	0.040	0.12	1			07/31/2019 12:31	RLD	EPA 8260C
Methylene chloride	<0.050	ug/L	0.050	0.16	1			07/31/2019 12:31	RLD	EPA 8260C
n-Butylbenzene	<0.030	ug/L	0.030	0.11	1			07/31/2019 12:31	RLD	EPA 8260C
n-Propylbenzene	<0.040	ug/L	0.040	0.13	1			07/31/2019 12:31	RLD	EPA 8260C
Naphthalene	<0.030	ug/L	0.030	0.10	1			07/31/2019 12:31	RLD	EPA 8260C
o-Xylene	<0.040	ug/L	0.040	0.14	1			07/31/2019 12:31	RLD	EPA 8260C
p-Isopropyltoluene	<0.040	ug/L	0.040	0.13	1			07/31/2019 12:31	RLD	EPA 8260C
sec-Butylbenzene	<0.050	ug/L	0.050	0.16	1			07/31/2019 12:31	RLD	EPA 8260C
Styrene	<0.030	ug/L	0.030	0.11	1			07/31/2019 12:31	RLD	EPA 8260C
tert-Butylbenzene	<0.040	ug/L	0.040	0.14	1			07/31/2019 12:31	RLD	EPA 8260C
Tetrachloroethene	<0.050	ug/L	0.050	0.18	1			07/31/2019 12:31	RLD	EPA 8260C
Tetrahydrofuran	<0.40	ug/L	0.40	1.5	1			07/31/2019 12:31	RLD	EPA 8260C
Toluene	<0.040	ug/L	0.040	0.13	1			07/31/2019 12:31	RLD	EPA 8260C
trans-1,2-Dichloroethene	<0.040	ug/L	0.040	0.14	1			07/31/2019 12:31	RLD	EPA 8260C
trans-1,3-Dichloropropene	<0.019	ug/L	0.019	0.063	1			07/31/2019 12:31	RLD	EPA 8260C
Trichloroethene	<0.050	ug/L	0.050	0.17	1			07/31/2019 12:31	RLD	EPA 8260C
Trichlorofluoromethane	<0.090	ug/L	0.090	0.14	1			07/31/2019 12:31	RLD	EPA 8260C
Vinyl acetate	<0.22	ug/L	0.22	0.73	1			07/31/2019 12:31	RLD	EPA 8260C
Vinyl chloride	<0.019	ug/L	0.019	0.064	1			07/31/2019 12:31	RLD	EPA 8260C
1,2 Dichloroethane-d4	94	% Recovery	86.0	106	1			07/31/2019 12:31	RLD	EPA 8260C
Bromofluorobenzene	92	% Recovery	75.0	124	1			07/31/2019 12:31	RLD	EPA 8260C
d8-Toluene	106	% Recovery	94.0	105	1	S	High recov; possible high bias	07/31/2019 12:31	RLD	EPA 8260C
Dibromofluoromethane	102	% Recovery	94.0	105	1			07/31/2019 12:31	RLD	EPA 8260C

Unless specifically stated to the contrary, soil/sediment/sludge sample results/LOD/LOQ/RLs were reported on a Dry Weight Basis

CT LAB#: 307914 Sample Description: MW-3A License/Well #: 00467/133 Sampled: 07/22/2019 1332

Analyte	Result	Units	LOD	LOQ	Dilution	Qualifier	Prep Date/Time	Analysis Date/Time	Analyst	Method
Inorganic Results										
Nitrate+Nitrite Nitrogen Total	<0.12	mg/L	0.12	0.40	1			07/23/2019 13:54	TMG	EPA 9056A
Total Sulfate	20	mg/L	0.80	2.5	1			07/23/2019 13:54	TMG	EPA 9056A
Metals Results										
Total Manganese	425	ug/L	3.4	11	1		07/24/2019 10:53	07/25/2019 18:48	NAH	EPA 6010C
Organic Results										
1,1,1,2-Tetrachloroethane	<0.040	ug/L	0.040	0.13	1			07/31/2019 12:59	RLD	EPA 8260C
1,1,1-Trichloroethane	<0.050	ug/L	0.050	0.17	1			07/31/2019 12:59	RLD	EPA 8260C
1,1,2,2-Tetrachloroethane	<0.017	ug/L	0.017	0.057	1			07/31/2019 12:59	RLD	EPA 8260C
1,1,2-Trichloroethane	<0.050	ug/L	0.050	0.16	1			07/31/2019 12:59	RLD	EPA 8260C
1,1-Dichloroethane	<0.060	ug/L	0.060	0.19	1			07/31/2019 12:59	RLD	EPA 8260C
1,1-Dichloroethene	<0.060	ug/L	0.060	0.20	1			07/31/2019 12:59	RLD	EPA 8260C
1,1-Dichloropropene	<0.060	ug/L	0.060	0.19	1			07/31/2019 12:59	RLD	EPA 8260C
1,2,3-Trichlorobenzene	<0.040	ug/L	0.040	0.13	1			07/31/2019 12:59	RLD	EPA 8260C
1,2,3-Trichloropropane	<0.040	ug/L	0.040	0.14	1			07/31/2019 12:59	RLD	EPA 8260C
1,2,4-Trichlorobenzene	<0.040	ug/L	0.040	0.12	1			07/31/2019 12:59	RLD	EPA 8260C
1,2,4-Trimethylbenzene	<0.040	ug/L	0.040	0.12	1			07/31/2019 12:59	RLD	EPA 8260C
1,2-Dibromo-3-chloropropane	<0.090	ug/L	0.090	0.29	1			07/31/2019 12:59	RLD	EPA 8260C
1,2-Dibromoethane	<0.070	ug/L	0.070	0.23	1			07/31/2019 12:59	RLD	EPA 8260C
1,2-Dichlorobenzene	<0.040	ug/L	0.040	0.13	1			07/31/2019 12:59	RLD	EPA 8260C
1,2-Dichloroethane	<0.050	ug/L	0.050	0.18	1			07/31/2019 12:59	RLD	EPA 8260C
1,2-Dichloropropane	<0.070	ug/L	0.070	0.23	1			07/31/2019 12:59	RLD	EPA 8260C
1,3,5-Trimethylbenzene	<0.050	ug/L	0.050	0.16	1			07/31/2019 12:59	RLD	EPA 8260C
1,3-Dichlorobenzene	<0.040	ug/L	0.040	0.13	1			07/31/2019 12:59	RLD	EPA 8260C
1,3-Dichloropropane	<0.040	ug/L	0.040	0.13	1			07/31/2019 12:59	RLD	EPA 8260C
1,4-Dichlorobenzene	<0.040	ug/L	0.040	0.13	1			07/31/2019 12:59	RLD	EPA 8260C

Unless specifically stated to the contrary, soil/sediment/sludge sample results/LOD/LOQ/RLs were reported on a Dry Weight Basis

CT LAB#: 307914 Sample Description: MW-3A License/Well #: 00467/133 Sampled: 07/22/2019 1332

Analyte	Result	Units	LOD	LOQ	Dilution	Qualifier	Prep Date/Time	Analysis Date/Time	Analyst	Method
1,4-Dioxane	<7.0	ug/L	7.0	23	1	Y		07/31/2019 12:59	RLD	EPA 8260C
2,2-Dichloropropane	<0.050	ug/L	0.050	0.15	1			07/31/2019 12:59	RLD	EPA 8260C
2-Butanone	<0.50	ug/L	0.50	1.5	1			07/31/2019 12:59	RLD	EPA 8260C
2-Chlorotoluene	<0.030	ug/L	0.030	0.11	1			07/31/2019 12:59	RLD	EPA 8260C
2-Hexanone	<0.24	ug/L	0.24	0.81	1			07/31/2019 12:59	RLD	EPA 8260C
4-Chlorotoluene	<0.040	ug/L	0.040	0.12	1			07/31/2019 12:59	RLD	EPA 8260C
4-Methyl-2-pentanone	<0.24	ug/L	0.24	0.82	1			07/31/2019 12:59	RLD	EPA 8260C
Acetone	0.35	ug/L	0.30 *	1.0	1	B		07/31/2019 12:59	RLD	EPA 8260C
Benzene	<0.018	ug/L	0.018	0.059	1			07/31/2019 12:59	RLD	EPA 8260C
Bromobenzene	<0.040	ug/L	0.040	0.15	1			07/31/2019 12:59	RLD	EPA 8260C
Bromochloromethane	<0.030	ug/L	0.030	0.099	1			07/31/2019 12:59	RLD	EPA 8260C
Bromodichloromethane	<0.016	ug/L	0.016	0.054	1			07/31/2019 12:59	RLD	EPA 8260C
Bromoform	<0.040	ug/L	0.040	0.12	1			07/31/2019 12:59	RLD	EPA 8260C
Bromomethane	<0.080	ug/L	0.080	0.28	1	Y		07/31/2019 12:59	RLD	EPA 8260C
Carbon disulfide	<0.070	ug/L	0.070	0.25	1			07/31/2019 12:59	RLD	EPA 8260C
Carbon tetrachloride	<0.050	ug/L	0.050	0.18	1			07/31/2019 12:59	RLD	EPA 8260C
Chlorobenzene	<0.040	ug/L	0.040	0.15	1			07/31/2019 12:59	RLD	EPA 8260C
Chloroethane	<0.070	ug/L	0.070	0.23	1			07/31/2019 12:59	RLD	EPA 8260C
Chloroform	<0.030	ug/L	0.030	0.11	1			07/31/2019 12:59	RLD	EPA 8260C
Chloromethane	<0.040	ug/L	0.040	0.13	1			07/31/2019 12:59	RLD	EPA 8260C
cis-1,2-Dichloroethene	<0.070	ug/L	0.070	0.23	1			07/31/2019 12:59	RLD	EPA 8260C
cis-1,3-Dichloropropene	<0.011	ug/L	0.011	0.038	1			07/31/2019 12:59	RLD	EPA 8260C
Dibromochloromethane	<0.030	ug/L	0.030	0.10	1			07/31/2019 12:59	RLD	EPA 8260C
Dibromomethane	<0.050	ug/L	0.050	0.17	1			07/31/2019 12:59	RLD	EPA 8260C
Dichlorodifluoromethane	<0.060	ug/L	0.060	0.19	1			07/31/2019 12:59	RLD	EPA 8260C
Diisopropyl ether	<0.040	ug/L	0.040	0.14	1			07/31/2019 12:59	RLD	EPA 8260C
Ethylbenzene	<0.040	ug/L	0.040	0.15	1			07/31/2019 12:59	RLD	EPA 8260C

Unless specifically stated to the contrary, soil/sediment/sludge sample results/LOD/LOQ/RLs were reported on a Dry Weight Basis

CT LAB#: 307914 Sample Description: MW-3A License/Well #: 00467/133 Sampled: 07/22/2019 1332

Analyte	Result	Units	LOD	LOQ	Dilution	Qualifier	Prep Date/Time	Analysis Date/Time	Analyst	Method
Hexachlorobutadiene	<0.050	ug/L	0.050	0.16	1			07/31/2019 12:59	RLD	EPA 8260C
Isopropylbenzene	<0.040	ug/L	0.040	0.12	1			07/31/2019 12:59	RLD	EPA 8260C
m & p-Xylene	<0.070	ug/L	0.070	0.23	1			07/31/2019 12:59	RLD	EPA 8260C
Methyl tert-butyl ether	<0.040	ug/L	0.040	0.12	1			07/31/2019 12:59	RLD	EPA 8260C
Methylene chloride	<0.050	ug/L	0.050	0.16	1			07/31/2019 12:59	RLD	EPA 8260C
n-Butylbenzene	<0.030	ug/L	0.030	0.11	1			07/31/2019 12:59	RLD	EPA 8260C
n-Propylbenzene	<0.040	ug/L	0.040	0.13	1			07/31/2019 12:59	RLD	EPA 8260C
Naphthalene	<0.030	ug/L	0.030	0.10	1			07/31/2019 12:59	RLD	EPA 8260C
o-Xylene	<0.040	ug/L	0.040	0.14	1			07/31/2019 12:59	RLD	EPA 8260C
p-Isopropyltoluene	<0.040	ug/L	0.040	0.13	1			07/31/2019 12:59	RLD	EPA 8260C
sec-Butylbenzene	<0.050	ug/L	0.050	0.16	1			07/31/2019 12:59	RLD	EPA 8260C
Styrene	<0.030	ug/L	0.030	0.11	1			07/31/2019 12:59	RLD	EPA 8260C
tert-Butylbenzene	<0.040	ug/L	0.040	0.14	1			07/31/2019 12:59	RLD	EPA 8260C
Tetrachloroethene	<0.050	ug/L	0.050	0.18	1			07/31/2019 12:59	RLD	EPA 8260C
Tetrahydrofuran	<0.40	ug/L	0.40	1.5	1			07/31/2019 12:59	RLD	EPA 8260C
Toluene	<0.040	ug/L	0.040	0.13	1			07/31/2019 12:59	RLD	EPA 8260C
trans-1,2-Dichloroethene	<0.040	ug/L	0.040	0.14	1			07/31/2019 12:59	RLD	EPA 8260C
trans-1,3-Dichloropropene	<0.019	ug/L	0.019	0.063	1			07/31/2019 12:59	RLD	EPA 8260C
Trichloroethene	<0.050	ug/L	0.050	0.17	1			07/31/2019 12:59	RLD	EPA 8260C
Trichlorofluoromethane	<0.090	ug/L	0.090	0.14	1			07/31/2019 12:59	RLD	EPA 8260C
Vinyl acetate	<0.22	ug/L	0.22	0.73	1			07/31/2019 12:59	RLD	EPA 8260C
Vinyl chloride	<0.019	ug/L	0.019	0.064	1			07/31/2019 12:59	RLD	EPA 8260C
1,2 Dichloroethane-d4	92	% Recovery	86.0	106	1			07/31/2019 12:59	RLD	EPA 8260C
Bromofluorobenzene	88	% Recovery	75.0	124	1			07/31/2019 12:59	RLD	EPA 8260C
d8-Toluene	105	% Recovery	94.0	105	1			07/31/2019 12:59	RLD	EPA 8260C
Dibromofluoromethane	105	% Recovery	94.0	105	1			07/31/2019 12:59	RLD	EPA 8260C

Unless specifically stated to the contrary, soil/sediment/sludge sample results/LOD/LOQ/RLs were reported on a Dry Weight Basis

CT LAB#: 307915 Sample Description: MW-3B License/Well #: 00467/134 Sampled: 07/22/2019 1412

Analyte	Result	Units	LOD	LOQ	Dilution	Qualifier	Prep Date/Time	Analysis Date/Time	Analyst	Method
Inorganic Results										
Nitrate+Nitrite Nitrogen Total	0.20	mg/L	0.12 *	0.40	1			07/23/2019 14:54	TMG	EPA 9056A
Total Sulfate	67	mg/L	0.80	2.5	1			07/23/2019 14:54	TMG	EPA 9056A
Metals Results										
Total Manganese	69.9	ug/L	3.4	11	1		07/24/2019 10:53	07/25/2019 18:54	NAH	EPA 6010C
Organic Results										
1,1,1,2-Tetrachloroethane	<0.040	ug/L	0.040	0.13	1			07/31/2019 13:27	RLD	EPA 8260C
1,1,1-Trichloroethane	<0.050	ug/L	0.050	0.17	1			07/31/2019 13:27	RLD	EPA 8260C
1,1,2,2-Tetrachloroethane	<0.017	ug/L	0.017	0.057	1			07/31/2019 13:27	RLD	EPA 8260C
1,1,2-Trichloroethane	<0.050	ug/L	0.050	0.16	1			07/31/2019 13:27	RLD	EPA 8260C
1,1-Dichloroethane	<0.060	ug/L	0.060	0.19	1			07/31/2019 13:27	RLD	EPA 8260C
1,1-Dichloroethene	<0.060	ug/L	0.060	0.20	1			07/31/2019 13:27	RLD	EPA 8260C
1,1-Dichloropropene	<0.060	ug/L	0.060	0.19	1			07/31/2019 13:27	RLD	EPA 8260C
1,2,3-Trichlorobenzene	<0.040	ug/L	0.040	0.13	1			07/31/2019 13:27	RLD	EPA 8260C
1,2,3-Trichloropropane	<0.040	ug/L	0.040	0.14	1			07/31/2019 13:27	RLD	EPA 8260C
1,2,4-Trichlorobenzene	<0.040	ug/L	0.040	0.12	1			07/31/2019 13:27	RLD	EPA 8260C
1,2,4-Trimethylbenzene	<0.040	ug/L	0.040	0.12	1			07/31/2019 13:27	RLD	EPA 8260C
1,2-Dibromo-3-chloropropane	<0.090	ug/L	0.090	0.29	1			07/31/2019 13:27	RLD	EPA 8260C
1,2-Dibromoethane	<0.070	ug/L	0.070	0.23	1			07/31/2019 13:27	RLD	EPA 8260C
1,2-Dichlorobenzene	<0.040	ug/L	0.040	0.13	1			07/31/2019 13:27	RLD	EPA 8260C
1,2-Dichloroethane	<0.050	ug/L	0.050	0.18	1			07/31/2019 13:27	RLD	EPA 8260C
1,2-Dichloropropane	<0.070	ug/L	0.070	0.23	1			07/31/2019 13:27	RLD	EPA 8260C
1,3,5-Trimethylbenzene	<0.050	ug/L	0.050	0.16	1			07/31/2019 13:27	RLD	EPA 8260C
1,3-Dichlorobenzene	<0.040	ug/L	0.040	0.13	1			07/31/2019 13:27	RLD	EPA 8260C
1,3-Dichloropropane	<0.040	ug/L	0.040	0.13	1			07/31/2019 13:27	RLD	EPA 8260C
1,4-Dichlorobenzene	<0.040	ug/L	0.040	0.13	1			07/31/2019 13:27	RLD	EPA 8260C

Unless specifically stated to the contrary, soil/sediment/sludge sample results/LOD/LOQ/RLs were reported on a Dry Weight Basis

CT LAB#: 307915 Sample Description: MW-3B License/Well #: 00467/134 Sampled: 07/22/2019 1412

Analyte	Result	Units	LOD	LOQ	Dilution	Qualifier	Prep Date/Time	Analysis Date/Time	Analyst	Method
1,4-Dioxane	<7.0	ug/L	7.0	23	1	Y		07/31/2019 13:27	RLD	EPA 8260C
2,2-Dichloropropane	<0.050	ug/L	0.050	0.15	1			07/31/2019 13:27	RLD	EPA 8260C
2-Butanone	<0.50	ug/L	0.50	1.5	1			07/31/2019 13:27	RLD	EPA 8260C
2-Chlorotoluene	<0.030	ug/L	0.030	0.11	1			07/31/2019 13:27	RLD	EPA 8260C
2-Hexanone	<0.24	ug/L	0.24	0.81	1			07/31/2019 13:27	RLD	EPA 8260C
4-Chlorotoluene	<0.040	ug/L	0.040	0.12	1			07/31/2019 13:27	RLD	EPA 8260C
4-Methyl-2-pentanone	<0.24	ug/L	0.24	0.82	1			07/31/2019 13:27	RLD	EPA 8260C
Acetone	0.84	ug/L	0.30 *	1.0	1	B		07/31/2019 13:27	RLD	EPA 8260C
Benzene	<0.018	ug/L	0.018	0.059	1			07/31/2019 13:27	RLD	EPA 8260C
Bromobenzene	<0.040	ug/L	0.040	0.15	1			07/31/2019 13:27	RLD	EPA 8260C
Bromochloromethane	<0.030	ug/L	0.030	0.099	1			07/31/2019 13:27	RLD	EPA 8260C
Bromodichloromethane	<0.016	ug/L	0.016	0.054	1			07/31/2019 13:27	RLD	EPA 8260C
Bromoform	<0.040	ug/L	0.040	0.12	1			07/31/2019 13:27	RLD	EPA 8260C
Bromomethane	<0.080	ug/L	0.080	0.28	1	Y		07/31/2019 13:27	RLD	EPA 8260C
Carbon disulfide	<0.070	ug/L	0.070	0.25	1			07/31/2019 13:27	RLD	EPA 8260C
Carbon tetrachloride	<0.050	ug/L	0.050	0.18	1			07/31/2019 13:27	RLD	EPA 8260C
Chlorobenzene	<0.040	ug/L	0.040	0.15	1			07/31/2019 13:27	RLD	EPA 8260C
Chloroethane	<0.070	ug/L	0.070	0.23	1			07/31/2019 13:27	RLD	EPA 8260C
Chloroform	<0.030	ug/L	0.030	0.11	1			07/31/2019 13:27	RLD	EPA 8260C
Chloromethane	<0.040	ug/L	0.040	0.13	1			07/31/2019 13:27	RLD	EPA 8260C
cis-1,2-Dichloroethene	<0.070	ug/L	0.070	0.23	1			07/31/2019 13:27	RLD	EPA 8260C
cis-1,3-Dichloropropene	<0.011	ug/L	0.011	0.038	1			07/31/2019 13:27	RLD	EPA 8260C
Dibromochloromethane	<0.030	ug/L	0.030	0.10	1			07/31/2019 13:27	RLD	EPA 8260C
Dibromomethane	<0.050	ug/L	0.050	0.17	1			07/31/2019 13:27	RLD	EPA 8260C
Dichlorodifluoromethane	<0.060	ug/L	0.060	0.19	1			07/31/2019 13:27	RLD	EPA 8260C
Diisopropyl ether	<0.040	ug/L	0.040	0.14	1			07/31/2019 13:27	RLD	EPA 8260C
Ethylbenzene	<0.040	ug/L	0.040	0.15	1			07/31/2019 13:27	RLD	EPA 8260C

Unless specifically stated to the contrary, soil/sediment/sludge sample results/LOD/LOQ/RLs were reported on a Dry Weight Basis

CT LAB#: 307915 Sample Description: MW-3B License/Well #: 00467/134 Sampled: 07/22/2019 1412

Analyte	Result	Units	LOD	LOQ	Dilution	Qualifier	Prep Date/Time	Analysis Date/Time	Analyst	Method
Hexachlorobutadiene	<0.050	ug/L	0.050	0.16	1			07/31/2019 13:27	RLD	EPA 8260C
Isopropylbenzene	<0.040	ug/L	0.040	0.12	1			07/31/2019 13:27	RLD	EPA 8260C
m & p-Xylene	<0.070	ug/L	0.070	0.23	1			07/31/2019 13:27	RLD	EPA 8260C
Methyl tert-butyl ether	<0.040	ug/L	0.040	0.12	1			07/31/2019 13:27	RLD	EPA 8260C
Methylene chloride	<0.050	ug/L	0.050	0.16	1			07/31/2019 13:27	RLD	EPA 8260C
n-Butylbenzene	<0.030	ug/L	0.030	0.11	1			07/31/2019 13:27	RLD	EPA 8260C
n-Propylbenzene	<0.040	ug/L	0.040	0.13	1			07/31/2019 13:27	RLD	EPA 8260C
Naphthalene	<0.030	ug/L	0.030	0.10	1			07/31/2019 13:27	RLD	EPA 8260C
o-Xylene	<0.040	ug/L	0.040	0.14	1			07/31/2019 13:27	RLD	EPA 8260C
p-Isopropyltoluene	<0.040	ug/L	0.040	0.13	1			07/31/2019 13:27	RLD	EPA 8260C
sec-Butylbenzene	<0.050	ug/L	0.050	0.16	1			07/31/2019 13:27	RLD	EPA 8260C
Styrene	<0.030	ug/L	0.030	0.11	1			07/31/2019 13:27	RLD	EPA 8260C
tert-Butylbenzene	<0.040	ug/L	0.040	0.14	1			07/31/2019 13:27	RLD	EPA 8260C
Tetrachloroethene	<0.050	ug/L	0.050	0.18	1			07/31/2019 13:27	RLD	EPA 8260C
Tetrahydrofuran	<0.40	ug/L	0.40	1.5	1			07/31/2019 13:27	RLD	EPA 8260C
Toluene	<0.040	ug/L	0.040	0.13	1			07/31/2019 13:27	RLD	EPA 8260C
trans-1,2-Dichloroethene	<0.040	ug/L	0.040	0.14	1			07/31/2019 13:27	RLD	EPA 8260C
trans-1,3-Dichloropropene	<0.019	ug/L	0.019	0.063	1			07/31/2019 13:27	RLD	EPA 8260C
Trichloroethene	<0.050	ug/L	0.050	0.17	1			07/31/2019 13:27	RLD	EPA 8260C
Trichlorofluoromethane	<0.090	ug/L	0.090	0.14	1			07/31/2019 13:27	RLD	EPA 8260C
Vinyl acetate	<0.22	ug/L	0.22	0.73	1			07/31/2019 13:27	RLD	EPA 8260C
Vinyl chloride	0.065	ug/L	0.019	0.064	1			07/31/2019 13:27	RLD	EPA 8260C
1,2 Dichloroethane-d4	94	% Recovery	86.0	106	1			07/31/2019 13:27	RLD	EPA 8260C
Bromofluorobenzene	90	% Recovery	75.0	124	1			07/31/2019 13:27	RLD	EPA 8260C
d8-Toluene	106	% Recovery	94.0	105	1	S		07/31/2019 13:27	RLD	EPA 8260C
Dibromofluoromethane	106	% Recovery	94.0	105	1	S		07/31/2019 13:27	RLD	EPA 8260C

high reovery; potential high bias

Unless specifically stated to the contrary, soil/sediment/sludge sample results/LOD/LOQ/RLs were reported on a Dry Weight Basis

CT LAB#: 307916 Sample Description: DUP-1 License #:00467 Sampled: 07/22/2019

Analyte	Result	Units	LOD	LOQ	Dilution	Qualifier	Prep Date/Time	Analysis Date/Time	Analyst	Method
Inorganic Results										
Nitrate+Nitrite Nitrogen Total	<0.12	mg/L	0.12	0.40	1			07/23/2019 15:14	TMG	EPA 9056A
Total Sulfate	62	mg/L	0.80	2.5	1			07/23/2019 15:14	TMG	EPA 9056A
Metals Results										
Total Manganese	67.9	ug/L	3.4	11	1		07/24/2019 10:53	07/25/2019 19:00	NAH	EPA 6010C
Organic Results										
1,1,1,2-Tetrachloroethane	<0.040	ug/L	0.040	0.13	1			07/31/2019 13:55	RLD	EPA 8260C
1,1,1-Trichloroethane	<0.050	ug/L	0.050	0.17	1			07/31/2019 13:55	RLD	EPA 8260C
1,1,2,2-Tetrachloroethane	<0.017	ug/L	0.017	0.057	1			07/31/2019 13:55	RLD	EPA 8260C
1,1,2-Trichloroethane	<0.050	ug/L	0.050	0.16	1			07/31/2019 13:55	RLD	EPA 8260C
1,1-Dichloroethane	<0.060	ug/L	0.060	0.19	1			07/31/2019 13:55	RLD	EPA 8260C
1,1-Dichloroethene	<0.060	ug/L	0.060	0.20	1			07/31/2019 13:55	RLD	EPA 8260C
1,1-Dichloropropene	<0.060	ug/L	0.060	0.19	1			07/31/2019 13:55	RLD	EPA 8260C
1,2,3-Trichlorobenzene	<0.040	ug/L	0.040	0.13	1			07/31/2019 13:55	RLD	EPA 8260C
1,2,3-Trichloropropane	<0.040	ug/L	0.040	0.14	1			07/31/2019 13:55	RLD	EPA 8260C
1,2,4-Trichlorobenzene	<0.040	ug/L	0.040	0.12	1			07/31/2019 13:55	RLD	EPA 8260C
1,2,4-Trimethylbenzene	<0.040	ug/L	0.040	0.12	1			07/31/2019 13:55	RLD	EPA 8260C
1,2-Dibromo-3-chloropropane	<0.090	ug/L	0.090	0.29	1			07/31/2019 13:55	RLD	EPA 8260C
1,2-Dibromoethane	<0.070	ug/L	0.070	0.23	1			07/31/2019 13:55	RLD	EPA 8260C
1,2-Dichlorobenzene	<0.040	ug/L	0.040	0.13	1			07/31/2019 13:55	RLD	EPA 8260C
1,2-Dichloroethane	<0.050	ug/L	0.050	0.18	1			07/31/2019 13:55	RLD	EPA 8260C
1,2-Dichloropropane	<0.070	ug/L	0.070	0.23	1			07/31/2019 13:55	RLD	EPA 8260C
1,3,5-Trimethylbenzene	<0.050	ug/L	0.050	0.16	1			07/31/2019 13:55	RLD	EPA 8260C
1,3-Dichlorobenzene	<0.040	ug/L	0.040	0.13	1			07/31/2019 13:55	RLD	EPA 8260C
1,3-Dichloropropane	<0.040	ug/L	0.040	0.13	1			07/31/2019 13:55	RLD	EPA 8260C
1,4-Dichlorobenzene	<0.040	ug/L	0.040	0.13	1			07/31/2019 13:55	RLD	EPA 8260C

Unless specifically stated to the contrary, soil/sediment/sludge sample results/LOD/LOQ/RLs were reported on a Dry Weight Basis

CT LAB#: 307916 Sample Description: DUP-1 License #:00467 Sampled: 07/22/2019

Analyte	Result	Units	LOD	LOQ	Dilution	Qualifier	Prep Date/Time	Analysis Date/Time	Analyst	Method
1,4-Dioxane	<7.0	ug/L	7.0	23	1	Y		07/31/2019 13:55	RLD	EPA 8260C
2,2-Dichloropropane	<0.050	ug/L	0.050	0.15	1			07/31/2019 13:55	RLD	EPA 8260C
2-Butanone	<0.50	ug/L	0.50	1.5	1			07/31/2019 13:55	RLD	EPA 8260C
2-Chlorotoluene	<0.030	ug/L	0.030	0.11	1			07/31/2019 13:55	RLD	EPA 8260C
2-Hexanone	<0.24	ug/L	0.24	0.81	1			07/31/2019 13:55	RLD	EPA 8260C
4-Chlorotoluene	<0.040	ug/L	0.040	0.12	1			07/31/2019 13:55	RLD	EPA 8260C
4-Methyl-2-pentanone	<0.24	ug/L	0.24	0.82	1			07/31/2019 13:55	RLD	EPA 8260C
Acetone	0.52	ug/L	0.30 *	1.0	1	B		07/31/2019 13:55	RLD	EPA 8260C
Benzene	<0.018	ug/L	0.018	0.059	1			07/31/2019 13:55	RLD	EPA 8260C
Bromobenzene	<0.040	ug/L	0.040	0.15	1			07/31/2019 13:55	RLD	EPA 8260C
Bromochloromethane	<0.030	ug/L	0.030	0.099	1			07/31/2019 13:55	RLD	EPA 8260C
Bromodichloromethane	<0.016	ug/L	0.016	0.054	1			07/31/2019 13:55	RLD	EPA 8260C
Bromoform	<0.040	ug/L	0.040	0.12	1			07/31/2019 13:55	RLD	EPA 8260C
Bromomethane	<0.080	ug/L	0.080	0.28	1	Y		07/31/2019 13:55	RLD	EPA 8260C
Carbon disulfide	<0.070	ug/L	0.070	0.25	1			07/31/2019 13:55	RLD	EPA 8260C
Carbon tetrachloride	<0.050	ug/L	0.050	0.18	1			07/31/2019 13:55	RLD	EPA 8260C
Chlorobenzene	<0.040	ug/L	0.040	0.15	1			07/31/2019 13:55	RLD	EPA 8260C
Chloroethane	0.36	ug/L	0.070	0.23	1			07/31/2019 13:55	RLD	EPA 8260C
Chloroform	<0.030	ug/L	0.030	0.11	1			07/31/2019 13:55	RLD	EPA 8260C
Chloromethane	<0.040	ug/L	0.040	0.13	1			07/31/2019 13:55	RLD	EPA 8260C
cis-1,2-Dichloroethene	2.1	ug/L	0.070	0.23	1			07/31/2019 13:55	RLD	EPA 8260C
cis-1,3-Dichloropropene	<0.011	ug/L	0.011	0.038	1			07/31/2019 13:55	RLD	EPA 8260C
Dibromochloromethane	<0.030	ug/L	0.030	0.10	1			07/31/2019 13:55	RLD	EPA 8260C
Dibromomethane	<0.050	ug/L	0.050	0.17	1			07/31/2019 13:55	RLD	EPA 8260C
Dichlorodifluoromethane	<0.060	ug/L	0.060	0.19	1			07/31/2019 13:55	RLD	EPA 8260C
Diisopropyl ether	<0.040	ug/L	0.040	0.14	1			07/31/2019 13:55	RLD	EPA 8260C
Ethylbenzene	<0.040	ug/L	0.040	0.15	1			07/31/2019 13:55	RLD	EPA 8260C

Unless specifically stated to the contrary, soil/sediment/sludge sample results/LOD/LOQ/RLs were reported on a Dry Weight Basis

CT LAB#: 307916 Sample Description: DUP-1 License #:00467 Sampled: 07/22/2019

Analyte	Result	Units	LOD	LOQ	Dilution	Qualifier	Prep Date/Time	Analysis Date/Time	Analyst	Method
Hexachlorobutadiene	<0.050	ug/L	0.050	0.16	1			07/31/2019 13:55	RLD	EPA 8260C
Isopropylbenzene	<0.040	ug/L	0.040	0.12	1			07/31/2019 13:55	RLD	EPA 8260C
m & p-Xylene	<0.070	ug/L	0.070	0.23	1			07/31/2019 13:55	RLD	EPA 8260C
Methyl tert-butyl ether	<0.040	ug/L	0.040	0.12	1			07/31/2019 13:55	RLD	EPA 8260C
Methylene chloride	<0.050	ug/L	0.050	0.16	1			07/31/2019 13:55	RLD	EPA 8260C
n-Butylbenzene	<0.030	ug/L	0.030	0.11	1			07/31/2019 13:55	RLD	EPA 8260C
n-Propylbenzene	<0.040	ug/L	0.040	0.13	1			07/31/2019 13:55	RLD	EPA 8260C
Naphthalene	<0.030	ug/L	0.030	0.10	1			07/31/2019 13:55	RLD	EPA 8260C
o-Xylene	<0.040	ug/L	0.040	0.14	1			07/31/2019 13:55	RLD	EPA 8260C
p-Isopropyltoluene	<0.040	ug/L	0.040	0.13	1			07/31/2019 13:55	RLD	EPA 8260C
sec-Butylbenzene	<0.050	ug/L	0.050	0.16	1			07/31/2019 13:55	RLD	EPA 8260C
Styrene	<0.030	ug/L	0.030	0.11	1			07/31/2019 13:55	RLD	EPA 8260C
tert-Butylbenzene	<0.040	ug/L	0.040	0.14	1			07/31/2019 13:55	RLD	EPA 8260C
Tetrachloroethene	<0.050	ug/L	0.050	0.18	1			07/31/2019 13:55	RLD	EPA 8260C
Tetrahydrofuran	<0.40	ug/L	0.40	1.5	1			07/31/2019 13:55	RLD	EPA 8260C
Toluene	<0.040	ug/L	0.040	0.13	1			07/31/2019 13:55	RLD	EPA 8260C
trans-1,2-Dichloroethene	<0.040	ug/L	0.040	0.14	1			07/31/2019 13:55	RLD	EPA 8260C
trans-1,3-Dichloropropene	<0.019	ug/L	0.019	0.063	1			07/31/2019 13:55	RLD	EPA 8260C
Trichloroethene	<0.050	ug/L	0.050	0.17	1			07/31/2019 13:55	RLD	EPA 8260C
Trichlorofluoromethane	<0.090	ug/L	0.090	0.14	1			07/31/2019 13:55	RLD	EPA 8260C
Vinyl acetate	<0.22	ug/L	0.22	0.73	1			07/31/2019 13:55	RLD	EPA 8260C
Vinyl chloride	6.4	ug/L	0.019	0.064	1			07/31/2019 13:55	RLD	EPA 8260C
1,2 Dichloroethane-d4	95	% Recovery	86.0	106	1			07/31/2019 13:55	RLD	EPA 8260C
Bromofluorobenzene	91	% Recovery	75.0	124	1			07/31/2019 13:55	RLD	EPA 8260C
d8-Toluene	105	% Recovery	94.0	105	1			07/31/2019 13:55	RLD	EPA 8260C
Dibromofluoromethane	106	% Recovery	94.0	105	1	S		07/31/2019 13:55	RLD	EPA 8260C

high recovery, potential high bias

Unless specifically stated to the contrary, soil/sediment/sludge sample results/LOD/LOQ/RLs were reported on a Dry Weight Basis

CT LAB#: 307917 Sample Description: TRIP BLANK License/Well #: 00467/999 Sampled: 07/21/2019

Analyte	Result	Units	LOD	LOQ	Dilution	Qualifier	Prep Date/Time	Analysis Date/Time	Analyst	Method
Organic Results										
1,1,1,2-Tetrachloroethane	<0.040	ug/L	0.040	0.13	1			07/31/2019 10:10	RLD	EPA 8260C
1,1,1-Trichloroethane	<0.050	ug/L	0.050	0.17	1			07/31/2019 10:10	RLD	EPA 8260C
1,1,2,2-Tetrachloroethane	<0.017	ug/L	0.017	0.057	1			07/31/2019 10:10	RLD	EPA 8260C
1,1,2-Trichloroethane	<0.050	ug/L	0.050	0.16	1			07/31/2019 10:10	RLD	EPA 8260C
1,1-Dichloroethane	<0.060	ug/L	0.060	0.19	1			07/31/2019 10:10	RLD	EPA 8260C
1,1-Dichloroethene	<0.060	ug/L	0.060	0.20	1			07/31/2019 10:10	RLD	EPA 8260C
1,1-Dichloropropene	<0.060	ug/L	0.060	0.19	1			07/31/2019 10:10	RLD	EPA 8260C
1,2,3-Trichlorobenzene	<0.040	ug/L	0.040	0.13	1			07/31/2019 10:10	RLD	EPA 8260C
1,2,3-Trichloropropane	<0.040	ug/L	0.040	0.14	1			07/31/2019 10:10	RLD	EPA 8260C
1,2,4-Trichlorobenzene	<0.040	ug/L	0.040	0.12	1			07/31/2019 10:10	RLD	EPA 8260C
1,2,4-Trimethylbenzene	<0.040	ug/L	0.040	0.12	1			07/31/2019 10:10	RLD	EPA 8260C
1,2-Dibromo-3-chloropropane	<0.090	ug/L	0.090	0.29	1			07/31/2019 10:10	RLD	EPA 8260C
1,2-Dibromoethane	<0.070	ug/L	0.070	0.23	1			07/31/2019 10:10	RLD	EPA 8260C
1,2-Dichlorobenzene	<0.040	ug/L	0.040	0.13	1			07/31/2019 10:10	RLD	EPA 8260C
1,2-Dichloroethane	<0.050	ug/L	0.050	0.18	1			07/31/2019 10:10	RLD	EPA 8260C
1,2-Dichloropropane	<0.070	ug/L	0.070	0.23	1			07/31/2019 10:10	RLD	EPA 8260C
1,3,5-Trimethylbenzene	<0.050	ug/L	0.050	0.16	1			07/31/2019 10:10	RLD	EPA 8260C
1,3-Dichlorobenzene	<0.040	ug/L	0.040	0.13	1			07/31/2019 10:10	RLD	EPA 8260C
1,3-Dichloropropane	<0.040	ug/L	0.040	0.13	1			07/31/2019 10:10	RLD	EPA 8260C
1,4-Dichlorobenzene	<0.040	ug/L	0.040	0.13	1			07/31/2019 10:10	RLD	EPA 8260C
1,4-Dioxane	<7.0	ug/L	7.0	23	1	Y		07/31/2019 10:10	RLD	EPA 8260C
2,2-Dichloropropane	<0.050	ug/L	0.050	0.15	1			07/31/2019 10:10	RLD	EPA 8260C
2-Butanone	<0.50	ug/L	0.50	1.5	1			07/31/2019 10:10	RLD	EPA 8260C
2-Chlorotoluene	<0.030	ug/L	0.030	0.11	1			07/31/2019 10:10	RLD	EPA 8260C
2-Hexanone	<0.24	ug/L	0.24	0.81	1			07/31/2019 10:10	RLD	EPA 8260C
4-Chlorotoluene	<0.040	ug/L	0.040	0.12	1			07/31/2019 10:10	RLD	EPA 8260C

Unless specifically stated to the contrary, soil/sediment/sludge sample results/LOD/LOQ/RLs were reported on a Dry Weight Basis

CT LAB#: 307917 Sample Description: TRIP BLANK License/Well #: 00467/999 Sampled: 07/21/2019

Analyte	Result	Units	LOD	LOQ	Dilution	Qualifier	Prep Date/Time	Analysis Date/Time	Analyst	Method
4-Methyl-2-pentanone	<0.24	ug/L	0.24	0.82	1			07/31/2019 10:10	RLD	EPA 8260C
Acetone	1.1	ug/L	0.30	1.0	1	B		07/31/2019 10:10	RLD	EPA 8260C
Benzene	<0.018	ug/L	0.018	0.059	1			07/31/2019 10:10	RLD	EPA 8260C
Bromobenzene	<0.040	ug/L	0.040	0.15	1			07/31/2019 10:10	RLD	EPA 8260C
Bromochloromethane	<0.030	ug/L	0.030	0.099	1			07/31/2019 10:10	RLD	EPA 8260C
Bromodichloromethane	<0.016	ug/L	0.016	0.054	1			07/31/2019 10:10	RLD	EPA 8260C
Bromoform	<0.040	ug/L	0.040	0.12	1			07/31/2019 10:10	RLD	EPA 8260C
Bromomethane	<0.080	ug/L	0.080	0.28	1	Y		07/31/2019 10:10	RLD	EPA 8260C
Carbon disulfide	<0.070	ug/L	0.070	0.25	1			07/31/2019 10:10	RLD	EPA 8260C
Carbon tetrachloride	<0.050	ug/L	0.050	0.18	1			07/31/2019 10:10	RLD	EPA 8260C
Chlorobenzene	<0.040	ug/L	0.040	0.15	1			07/31/2019 10:10	RLD	EPA 8260C
Chloroethane	<0.070	ug/L	0.070	0.23	1			07/31/2019 10:10	RLD	EPA 8260C
Chloroform	<0.030	ug/L	0.030	0.11	1			07/31/2019 10:10	RLD	EPA 8260C
Chloromethane	<0.040	ug/L	0.040	0.13	1			07/31/2019 10:10	RLD	EPA 8260C
cis-1,2-Dichloroethene	<0.070	ug/L	0.070	0.23	1			07/31/2019 10:10	RLD	EPA 8260C
cis-1,3-Dichloropropene	<0.011	ug/L	0.011	0.038	1			07/31/2019 10:10	RLD	EPA 8260C
Dibromochloromethane	<0.030	ug/L	0.030	0.10	1			07/31/2019 10:10	RLD	EPA 8260C
Dibromomethane	<0.050	ug/L	0.050	0.17	1			07/31/2019 10:10	RLD	EPA 8260C
Dichlorodifluoromethane	<0.060	ug/L	0.060	0.19	1			07/31/2019 10:10	RLD	EPA 8260C
Diisopropyl ether	<0.040	ug/L	0.040	0.14	1			07/31/2019 10:10	RLD	EPA 8260C
Ethylbenzene	<0.040	ug/L	0.040	0.15	1			07/31/2019 10:10	RLD	EPA 8260C
Hexachlorobutadiene	<0.050	ug/L	0.050	0.16	1			07/31/2019 10:10	RLD	EPA 8260C
Isopropylbenzene	<0.040	ug/L	0.040	0.12	1			07/31/2019 10:10	RLD	EPA 8260C
m & p-Xylene	<0.070	ug/L	0.070	0.23	1			07/31/2019 10:10	RLD	EPA 8260C
Methyl tert-butyl ether	<0.040	ug/L	0.040	0.12	1			07/31/2019 10:10	RLD	EPA 8260C
Methylene chloride	1.3	ug/L	0.050	0.16	1	B		07/31/2019 10:10	RLD	EPA 8260C
n-Butylbenzene	<0.030	ug/L	0.030	0.11	1			07/31/2019 10:10	RLD	EPA 8260C

Unless specifically stated to the contrary, soil/sediment/sludge sample results/LOD/LOQ/RLs were reported on a Dry Weight Basis

CT LAB#: 307917 Sample Description: TRIP BLANK License/Well #: 00467/999 Sampled: 07/21/2019

Analyte	Result	Units	LOD	LOQ	Dilution	Qualifier	Prep Date/Time	Analysis Date/Time	Analyst	Method
n-Propylbenzene	<0.040	ug/L	0.040	0.13	1			07/31/2019 10:10	RLD	EPA 8260C
Naphthalene	<0.030	ug/L	0.030	0.10	1			07/31/2019 10:10	RLD	EPA 8260C
o-Xylene	<0.040	ug/L	0.040	0.14	1			07/31/2019 10:10	RLD	EPA 8260C
p-Isopropyltoluene	<0.040	ug/L	0.040	0.13	1			07/31/2019 10:10	RLD	EPA 8260C
sec-Butylbenzene	<0.050	ug/L	0.050	0.16	1			07/31/2019 10:10	RLD	EPA 8260C
Styrene	<0.030	ug/L	0.030	0.11	1			07/31/2019 10:10	RLD	EPA 8260C
tert-Butylbenzene	<0.040	ug/L	0.040	0.14	1			07/31/2019 10:10	RLD	EPA 8260C
Tetrachloroethene	<0.050	ug/L	0.050	0.18	1			07/31/2019 10:10	RLD	EPA 8260C
Tetrahydrofuran	<0.40	ug/L	0.40	1.5	1			07/31/2019 10:10	RLD	EPA 8260C
Toluene	<0.040	ug/L	0.040	0.13	1			07/31/2019 10:10	RLD	EPA 8260C
trans-1,2-Dichloroethene	<0.040	ug/L	0.040	0.14	1			07/31/2019 10:10	RLD	EPA 8260C
trans-1,3-Dichloropropene	<0.019	ug/L	0.019	0.063	1			07/31/2019 10:10	RLD	EPA 8260C
Trichloroethene	<0.050	ug/L	0.050	0.17	1			07/31/2019 10:10	RLD	EPA 8260C
Trichlorofluoromethane	<0.090	ug/L	0.090	0.14	1			07/31/2019 10:10	RLD	EPA 8260C
Vinyl acetate	<0.22	ug/L	0.22	0.73	1			07/31/2019 10:10	RLD	EPA 8260C
Vinyl chloride	<0.019	ug/L	0.019	0.064	1			07/31/2019 10:10	RLD	EPA 8260C
1,2 Dichloroethane-d4	98	% Recovery	86.0	106	1			07/31/2019 10:10	RLD	EPA 8260C
Bromofluorobenzene	87	% Recovery	75.0	124	1			07/31/2019 10:10	RLD	EPA 8260C
d8-Toluene	103	% Recovery	94.0	105	1			07/31/2019 10:10	RLD	EPA 8260C
Dibromofluoromethane	103	% Recovery	94.0	105	1			07/31/2019 10:10	RLD	EPA 8260C

Unless specifically stated to the contrary, soil/sediment/sludge sample results/LOD/LOQ/RLs were reported on a Dry Weight Basis

Notes: * Indicates Value in between the LOD (limit of detection) and the LOQ (limit of quantitation). All LOD/LOQs are adjusted to reflect dilution, percent solids, and any differences in the sample weight / volume as compared to standard amounts.

All samples were received intact and properly preserved unless otherwise noted. The results reported relate only to the samples tested.
This report shall not be reproduced, except in full, without written approval of this laboratory. The Chain of Custody is attached. This report has been specifically prepared to satisfy project or program requirements.

Submitted by: Brett M. Szymanski
Project Manager
608-356-2760

QC Qualifiers

Code	Description
B	Analyte detected in the associated Method Blank.
C	Toxicity present in BOD sample.
D	Diluted Out.
E	Safe, No Total Coliform detected.
F	Unsafe, Total Coliform detected, no E. Coli detected.
G	Unsafe, Total Coliform detected and E. Coli detected.
H	Holding time exceeded.
I	Incubator temperature was outside acceptance limits during test period.
J	Estimated value.
L	Significant peaks were detected outside the chromatographic window.
M	Matrix spike and/or Matrix Spike Duplicate recovery outside acceptance limits.
N	Insufficient BOD oxygen depletion.
O	Complete BOD oxygen depletion.
P	Concentration of analyte differs more than 40% between primary and confirmation analysis.
Q	Laboratory Control Sample outside acceptance limits.
R	See Narrative at end of report.
S	Surrogate standard recovery outside acceptance limits due to apparent matrix effects.
T	Sample received with improper preservation or temperature.
U	Analyte concentration was below detection limit.
V	Raised Quantitation or Reporting Limit due to limited sample amount or dilution for matrix background interference.
W	Sample amount received was below program minimum.
X	Analyte exceeded calibration range.
Y	Replicate/Duplicate precision outside acceptance limits.
Z	Specified calibration criteria was not met.

Current CT Laboratories Certifications

Wisconsin (WDNR) Chemistry ID# 157066030
Wisconsin (DATCP) Bacteriology ID# 105-289
Louisiana NELAP (primary) ID# ACC20160002
Illinois NELAP Lab ID# 200073
Kansas NELAP Lab ID# E-10368
Virginia NELAP Lab ID# 460203
Maryland Lab ID# WI00061
ISO/IEC 17025-2005 A2LA Cert # 3806.01
DoD-ELAP A2LA 3806.01
GA EPD Stipulation ID ACC20160002

Preventative Action Limit (PAL) Exceedances

08/08/2019

Location/Landfill: RIPON FF/NN LANDFILL **License #: 00467**

Well Description: *MW-3A*	**Well #: *133***	GROUND WATER			**Sample Date**	**07/22/2019**
Parameter	DNR Parameter #	Result	PAL	ES	LOD	Units
Total Manganese	01055	425	60	300	3.4	ug/L

Well Description: *MW-3B*	**Well #: *134***	GROUND WATER			**Sample Date**	**07/22/2019**
Parameter	DNR Parameter #	Result	PAL	ES	LOD	Units
Total Manganese	01055	69.9	60	300	3.4	ug/L
Vinyl chloride	39175	0.065	0.02	0.20	0.019	ug/L

Well Description: *P-114*	**Well #: *140***	GROUND WATER			**Sample Date**	**07/22/2019**
Parameter	DNR Parameter #	Result	PAL	ES	LOD	Units
Total Manganese	01055	68.1	60	300	3.4	ug/L
Vinyl chloride	39175	6.9	0.02	0.20	0.019	ug/L

Well Description: *P-115*	**Well #: *142***	GROUND WATER			**Sample Date**	**07/22/2019**
Parameter	DNR Parameter #	Result	PAL	ES	LOD	Units
Total Manganese	01055	115	60	300	3.4	ug/L
Vinyl chloride	39175	0.91	0.02	0.20	0.019	ug/L

Well Description: *P-116*	**Well #: *143***	GROUND WATER			**Sample Date**	**07/22/2019**
Parameter	DNR Parameter #	Result	PAL	ES	LOD	Units
Total Manganese	01055	134	60	300	3.4	ug/L

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QC SUMMARY REPORT

TRC ENVIRONMENTAL **Project Name: RIPON FF/NN LANDFILL**

SDG #: 0 **Folder #: 146752** **Project #: 327275.0001.0003**

Duplicate

Analytical Run #:	162889	Analysis Date:	07/23/2019	Prep Batch #:		Matrix:	GROUND WATER
CTLab #:	308998	Analysis Time:	17:35	Prep Date/Time:		Method:	SW9056A
Parent Sample #:	307909	Analyst:	TMG	Prep Analyst:			

Analyte	QC sample result	Units	Parent sample result	Qualifier(s)	Spike Amount Added	% Recovery	Control Limits	RPD	RPD Limit
Nitrate+Nitrite Nitrogen Total	0.120	mg/L	0	U				0	20
Total Sulfate	10.4	mg/L	10					4	10

Lab Control Spike Water

Analytical Run #:	162889	Analysis Date:	07/23/2019	Prep Batch #:		Matrix:	LIQUID
CTLab #:	308987	Analysis Time:	10:13	Prep Date/Time:		Method:	SW9056A
Parent Sample #:		Analyst:	TMG	Prep Analyst:			

Analyte	QC sample result	Units	Parent sample result	Qualifier(s)	Spike Amount Added	% Recovery	Control Limits	RPD	RPD Limit
Sulfate	24.74	mg/L			25.00	99	80 --- 120		

Method Blank Water

Analytical Run #:	162889	Analysis Date:	07/23/2019	Prep Batch #:		Matrix:	LIQUID
CTLab #:	308986	Analysis Time:	10:33	Prep Date/Time:		Method:	SW9056A
Parent Sample #:		Analyst:	TMG	Prep Analyst:			

Analyte	QC sample result	Units	Parent sample result	Qualifier(s)	Spike Amount Added	% Recovery	Control Limits	RPD	RPD Limit
Sulfate	0.8	mg/L		U	0		0.8		

Matrix Spike Water

Analytical Run #:	162889	Analysis Date:	07/23/2019	Prep Batch #:		Matrix:	GROUND WATER
CTLab #:	308995	Analysis Time:	17:55	Prep Date/Time:		Method:	SW9056A
Parent Sample #:	307909	Analyst:	TMG	Prep Analyst:			

Analyte	QC sample result	Units	Parent sample result	Qualifier(s)	Spike Amount Added	% Recovery	Control Limits	RPD	RPD Limit
Nitrate+Nitrite Nitrogen Total	4.22	mg/L	0.22		4.00	100	80 --- 120		20
Total Sulfate	17.8	mg/L	10		8.00	98	49 --- 120		20

Lab Control Spike Water

Analytical Run #:	162935	Analysis Date:	07/25/2019	Prep Batch #:	72883	Matrix:	LIQUID
CTLab #:	308282	Analysis Time:	17:27	Prep Date/Time:	07/24/2019 10:53	Method:	SW6010
Parent Sample #:		Analyst:	NAH	Prep Analyst:	NAH		

Analyte	QC sample result	Units	Parent sample result	Qualifier(s)	Spike Amount Added	% Recovery	Control Limits	RPD	RPD Limit
Manganese	196.0	ug/L			200.0	98	80 --- 120		

Method Blank Water

Analytical Run #:	162935	Analysis Date:	07/25/2019	Prep Batch #:	72883	Matrix:	LIQUID
CTLab #:	308281	Analysis Time:	17:33	Prep Date/Time:	07/24/2019 10:53	Method:	SW6010
Parent Sample #:		Analyst:	NAH	Prep Analyst:	NAH		

Analyte	QC sample result	Units	Parent sample result	Qualifier(s)	Spike Amount Added	% Recovery	Control Limits	RPD	RPD Limit
Manganese	3.4	ug/L		U	0		3.4		

Matrix Spike Duplicate Water

Analytical Run #:	162935	Analysis Date:	07/25/2019	Prep Batch #:	72883	Matrix:	GROUND WATER
CTLab #:	308284	Analysis Time:	18:10	Prep Date/Time:	07/24/2019 10:53	Method:	SW6010
Parent Sample #:	308283	Analyst:	NAH	Prep Analyst:	NAH		

Analyte	QC sample result	Units	Parent sample result	Qualifier(s)	Spike Amount Added	% Recovery	Control Limits	RPD	RPD Limit
Manganese	200	ug/L	10.3		200	95	84 --- 111	0	7

Matrix Spike Water

Analytical Run #:	162935	Analysis Date:	07/25/2019	Prep Batch #:	72883	Matrix:	GROUND WATER
CTLab #:	308283	Analysis Time:	18:04	Prep Date/Time:	07/24/2019 10:53	Method:	SW6010
Parent Sample #:	307909	Analyst:	NAH	Prep Analyst:	NAH		

Analyte	QC sample result	Units	Parent sample result	Qualifier(s)	Spike Amount Added	% Recovery	Control Limits	RPD	RPD Limit
Manganese	200	ug/L	10.3		200	95	84 --- 111		

Lab Control Spike Duplicate Water

Analytical Run #:	163053	Analysis Date:	07/31/2019	Prep Batch #:		Matrix:	LIQUID
CTLab #:	311352	Analysis Time:	14:23	Prep Date/Time:		Method:	SW8260C
Parent Sample #:	311146	Analyst:	RLD	Prep Analyst:			

Analyte	QC sample result	Units	Parent sample result	Qualifier(s)	Spike Amount Added	% Recovery	Control Limits			RPD	RPD Limit
1,1,1,2-Tetrachloroethane	3.96	ug/L	4.33		4.00	99	78	---	121	9	20
1,1,1-Trichloroethane	4.57	ug/L	4.72		4.00	114	82	---	122	3	20
1,1,2,2-Tetrachloroethane	3.59	ug/L	3.90		4.00	90	68	---	128	8	20
1,1,2-Trichloroethane	4.50	ug/L	4.47		4.00	112	84	---	114	1	20
1,1-Dichloroethane	4.60	ug/L	4.72		4.00	115	76	---	122	3	20
1,1-Dichloroethene	4.41	ug/L	4.47		4.00	110	83	---	123	1	20
1,1-Dichloropropene	4.52	ug/L	4.06		4.00	113	85	---	120	11	20
1,2 Dichloroethane-d4	92.0	% Recovery			100	92.0	87	---	107		
1,2,3-Trichlorobenzene	3.67	ug/L	4.01		4.00	92	78	---	121	9	20
1,2,3-Trichloropropane	3.03	ug/L	3.55		4.00	76	62	---	129	16	20
1,2,4-Trichlorobenzene	3.67	ug/L	4.05		4.00	92	80	---	120	10	20
1,2,4-Trimethylbenzene	3.66	ug/L	4.00		4.00	92	76	---	125	9	20
1,2-Dibromo-3-chloropropane	3.06	ug/L	3.49		4.00	76	69	---	125	13	20
1,2-Dibromoethane	3.97	ug/L	4.26		4.00	99	80	---	118	7	20
1,2-Dichlorobenzene	3.84	ug/L	4.19		4.00	96	80	---	117	9	20
1,2-Dichloroethane	4.69	ug/L	4.65		4.00	117	78	---	118	1	20
1,2-Dichloropropane	4.72	ug/L	4.58		4.00	118	78	---	121	3	20
1,3,5-Trimethylbenzene	3.60	ug/L	3.92		4.00	90	76	---	126	9	20
1,3-Dichlorobenzene	3.79	ug/L	4.07		4.00	95	78	---	119	7	20
1,3-Dichloropropane	4.67	ug/L	4.48		4.00	117	82	---	117	4	20
1,4-Dichlorobenzene	3.77	ug/L	4.10		4.00	94	77	---	118	8	20
1,4-Dioxane	241	ug/L	196		200	120	11	---	220	21	20
2,2-Dichloropropane	4.16	ug/L	4.64		4.00	104	71	---	133	11	20
2-Butanone	45.5	ug/L	46.1		40.0	114	80	---	120	1	20
2-Chlorotoluene	3.45	ug/L	3.88		4.00	86	73	---	124	12	20
2-Hexanone	40.4	ug/L	42.8		40.0	101	73	---	127	6	20
4-Chlorotoluene	3.55	ug/L	3.89		4.00	89	74	---	125	9	20
4-Methyl-2-pentanone	47.3	ug/L	47.9		40.0	118	77	---	125	1	20
Acetone	41.0	ug/L	40.9		40.0	102	72	---	117	0	20
Benzene	4.55	ug/L	4.61		4.00	114	82	---	118	1	20
Bromobenzene	3.70	ug/L	4.04		4.00	92	77	---	118	9	20
Bromochloromethane	4.72	ug/L	4.59		4.00	118	81	---	116	3	20
Bromodichloromethane	4.50	ug/L	4.57		4.00	112	80	---	122	2	20
Bromofluorobenzene	86.0	% Recovery		S	100	86.0	90	---	108		
Bromoform	3.49	ug/L	4.05		4.00	87	72	---	124	15	20
Bromomethane	2.03	ug/L	3.19		4.00	51	25	---	156	44	20
Carbon disulfide	9.12	ug/L	9.40		8.00	114	81	---	124	3	20
Carbon tetrachloride	4.35	ug/L	4.01		4.00	109	87	---	129	8	20
Chlorobenzene	4.24	ug/L	4.63		4.00	106	78	---	118	9	20
Chloroethane	3.98	ug/L	4.03		4.00	100	73	---	126	1	20
Chloroform	4.65	ug/L	4.65		4.00	116	76	---	119	0	20
Chloromethane	3.78	ug/L	4.14		4.00	94	70	---	121	9	20

Lab Control Spike Duplicate Water

Analytical Run #:	163053	Analysis Date:	07/31/2019	Prep Batch #:		Matrix:	LIQUID
CTLab #:	311352	Analysis Time:	14:23	Prep Date/Time:		Method:	SW8260C
Parent Sample #:	311146	Analyst:	RLD	Prep Analyst:			

Analyte	QC sample result	Units	Parent sample result	Qualifier(s)	Spike Amount Added	% Recovery	Control Limits	RPD	RPD Limit
cis-1,2-Dichloroethene	4.53	ug/L	4.61		4.00	113	82 --- 118	2	20
cis-1,3-Dichloropropene	4.50	ug/L	4.70		4.00	112	81 --- 123	4	20
d8-Toluene	107	% Recovery			100	107	93 --- 108		
Dibromochloromethane	3.84	ug/L	4.38		4.00	96	76 --- 124	13	20
Dibromofluoromethane	104	% Recovery			100	104	93 --- 106		
Dibromomethane	4.67	ug/L	4.67		4.00	117	83 --- 115	0	20
Dichlorodifluoromethane	4.33	ug/L	4.55		4.00	108	78 --- 126	5	20
Diisopropyl ether	4.59	ug/L	4.55		4.00	115	75 --- 125	1	20
Ethylbenzene	4.06	ug/L	4.43		4.00	102	78 --- 125	9	20
Hexachlorobutadiene	3.75	ug/L	4.17		4.00	94	79 --- 123	11	20
Isopropylbenzene	4.11	ug/L	4.50		4.00	103	81 --- 124	9	20
m & p-Xylene	8.43	ug/L	9.15		8.00	105	80 --- 123	8	20
Methyl tert-butyl ether	4.11	ug/L	4.23		4.00	103	82 --- 116	3	20
Methylene chloride	4.67	ug/L	4.27		4.00	117	73 --- 128	9	20
n-Butylbenzene	3.77	ug/L	4.13		4.00	94	76 --- 127	9	20
n-Propylbenzene	3.69	ug/L	4.02		4.00	92	75 --- 129	9	20
Naphthalene	3.37	ug/L	3.62		4.00	84	64 --- 129	7	20
o-Xylene	4.09	ug/L	4.39		4.00	102	81 --- 121	7	20
p-Isopropyltoluene	3.82	ug/L	4.23		4.00	96	79 --- 126	10	20
sec-Butylbenzene	3.82	ug/L	4.17		4.00	96	76 --- 128	9	20
Styrene	4.01	ug/L	4.32		4.00	100	81 --- 122	7	20
tert-Butylbenzene	3.72	ug/L	4.13		4.00	93	76 --- 125	10	20
Tetrachloroethene	4.60	ug/L	4.20		4.00	115	82 --- 123	9	20
Tetrahydrofuran	43.1	ug/L	42.3		40.0	108	69 --- 122	2	20
Toluene	4.56	ug/L	4.63		4.00	114	82 --- 119	2	20
trans-1,2-Dichloroethene	4.49	ug/L	4.45		4.00	112	80 --- 122	1	20
trans-1,3-Dichloropropene	4.30	ug/L	4.58		4.00	108	83 --- 119	6	20
Trichloroethene	4.45	ug/L	4.58		4.00	111	82 --- 120	3	20
Trichlorofluoromethane	4.77	ug/L	4.20		4.00	119	78 --- 130	13	20
Vinyl acetate	46.2	ug/L	46.9		40.0	116	63 --- 136	2	20
Vinyl chloride	4.13	ug/L	4.32		4.00	103	73 --- 127	4	20

Lab Control Spike Water

Analytical Run #:	163053	Analysis Date:	07/31/2019	Prep Batch #:		Matrix:	LIQUID
CTLab #:	311146	Analysis Time:	07:49	Prep Date/Time:		Method:	SW8260C
Parent Sample #:		Analyst:	RLD	Prep Analyst:			

Analyte	QC sample result	Units	Parent sample result	Qualifier(s)	Spike Amount Added	% Recovery	Control Limits			RPD	RPD Limit
1,1,1,2-Tetrachloroethane	4.33	ug/L			4.00	108	78	---	121		20
1,1,1-Trichloroethane	4.72	ug/L			4.00	118	82	---	122		20
1,1,2,2-Tetrachloroethane	3.90	ug/L			4.00	98	68	---	128		20
1,1,2-Trichloroethane	4.47	ug/L			4.00	112	84	---	114		20
1,1-Dichloroethane	4.72	ug/L			4.00	118	76	---	122		20
1,1-Dichloroethene	4.47	ug/L			4.00	112	83	---	123		20
1,1-Dichloropropene	4.06	ug/L			4.00	102	85	---	120		20
1,2 Dichloroethane-d4	97.0	% Recovery			100	97.0	87	---	107		
1,2,3-Trichlorobenzene	4.01	ug/L			4.00	100	78	---	121		20
1,2,3-Trichloropropane	3.55	ug/L			4.00	89	62	---	129		20
1,2,4-Trichlorobenzene	4.05	ug/L			4.00	101	80	---	120		20
1,2,4-Trimethylbenzene	4.00	ug/L			4.00	100	76	---	125		20
1,2-Dibromo-3-chloropropane	3.49	ug/L			4.00	87	69	---	125		20
1,2-Dibromoethane	4.26	ug/L			4.00	106	80	---	118		20
1,2-Dichlorobenzene	4.19	ug/L			4.00	105	80	---	117		20
1,2-Dichloroethane	4.65	ug/L			4.00	116	78	---	118		20
1,2-Dichloropropane	4.58	ug/L			4.00	114	78	---	121		20
1,3,5-Trimethylbenzene	3.92	ug/L			4.00	98	76	---	126		20
1,3-Dichlorobenzene	4.07	ug/L			4.00	102	78	---	119		20
1,3-Dichloropropane	4.48	ug/L			4.00	112	82	---	117		20
1,4-Dichlorobenzene	4.10	ug/L			4.00	102	77	---	118		20
1,4-Dioxane	196	ug/L			200	98	11	---	220		20
2,2-Dichloropropane	4.64	ug/L			4.00	116	71	---	133		20
2-Butanone	46.1	ug/L			40.0	115	80	---	120		20
2-Chlorotoluene	3.88	ug/L			4.00	97	73	---	124		20
2-Hexanone	42.8	ug/L			40.0	107	73	---	127		20
4-Chlorotoluene	3.89	ug/L			4.00	97	74	---	125		20
4-Methyl-2-pentanone	47.9	ug/L			40.0	120	77	---	125		20
Acetone	40.9	ug/L			40.0	102	72	---	117		20
Benzene	4.61	ug/L			4.00	115	82	---	118		20
Bromobenzene	4.04	ug/L			4.00	101	77	---	118		20
Bromochloromethane	4.59	ug/L			4.00	115	81	---	116		20
Bromodichloromethane	4.57	ug/L			4.00	114	80	---	122		20
Bromofluorobenzene	88.0	% Recovery		S	100	88.0	90	---	108		
Bromoform	4.05	ug/L			4.00	101	72	---	124		20
Bromomethane	3.19	ug/L			4.00	80	25	---	156		20
Carbon disulfide	9.40	ug/L			8.00	118	81	---	124		20
Carbon tetrachloride	4.01	ug/L			4.00	100	87	---	129		20
Chlorobenzene	4.63	ug/L			4.00	116	78	---	118		20
Chloroethane	4.03	ug/L			4.00	101	73	---	126		20
Chloroform	4.65	ug/L			4.00	116	76	---	119		20
Chloromethane	4.14	ug/L			4.00	104	70	---	121		20

Lab Control Spike Water

Analytical Run #:	163053	Analysis Date:	07/31/2019	Prep Batch #:		Matrix:	LIQUID
CTLab #:	311146	Analysis Time:	07:49	Prep Date/Time:		Method:	SW8260C
Parent Sample #:		Analyst:	RLD	Prep Analyst:			

Analyte	QC sample result	Units	Parent sample result	Qualifier(s)	Spike Amount Added	% Recovery	Control Limits	RPD	RPD Limit
cis-1,2-Dichloroethene	4.61	ug/L			4.00	115	82 --- 118		20
cis-1,3-Dichloropropene	4.70	ug/L			4.00	118	81 --- 123		20
d8-Toluene	103	% Recovery			100	103	93 --- 108		
Dibromochloromethane	4.38	ug/L			4.00	110	76 --- 124		20
Dibromofluoromethane	105	% Recovery			100	105	93 --- 106		
Dibromomethane	4.67	ug/L			4.00	117	83 --- 115		20
Dichlorodifluoromethane	4.55	ug/L			4.00	114	78 --- 126		20
Diisopropyl ether	4.55	ug/L			4.00	114	75 --- 125		20
Ethylbenzene	4.43	ug/L			4.00	111	78 --- 125		20
Hexachlorobutadiene	4.17	ug/L			4.00	104	79 --- 123		20
Isopropylbenzene	4.50	ug/L			4.00	112	81 --- 124		20
m & p-Xylene	9.15	ug/L			8.00	114	80 --- 123		20
Methyl tert-butyl ether	4.23	ug/L			4.00	106	82 --- 116		20
Methylene chloride	4.27	ug/L			4.00	107	73 --- 128		20
n-Butylbenzene	4.13	ug/L			4.00	103	76 --- 127		20
n-Propylbenzene	4.02	ug/L			4.00	100	75 --- 129		20
Naphthalene	3.62	ug/L			4.00	90	64 --- 129		20
o-Xylene	4.39	ug/L			4.00	110	81 --- 121		20
p-Isopropyltoluene	4.23	ug/L			4.00	106	79 --- 126		20
sec-Butylbenzene	4.17	ug/L			4.00	104	76 --- 128		20
Styrene	4.32	ug/L			4.00	108	81 --- 122		20
tert-Butylbenzene	4.13	ug/L			4.00	103	76 --- 125		20
Tetrachloroethene	4.20	ug/L			4.00	105	82 --- 123		20
Tetrahydrofuran	42.3	ug/L			40.0	106	69 --- 122		20
Toluene	4.63	ug/L			4.00	116	82 --- 119		20
trans-1,2-Dichloroethene	4.45	ug/L			4.00	111	80 --- 122		20
trans-1,3-Dichloropropene	4.58	ug/L			4.00	114	83 --- 119		20
Trichloroethene	4.58	ug/L			4.00	114	82 --- 120		20
Trichlorofluoromethane	4.20	ug/L			4.00	105	78 --- 130		20
Vinyl acetate	46.9	ug/L			40.0	117	63 --- 136		20
Vinyl chloride	4.32	ug/L			4.00	108	73 --- 127		20

Method Blank Water

Analytical Run #:	163053	Analysis Date:	07/31/2019	Prep Batch #:		Matrix:	LIQUID
CTLab #:	311181	Analysis Time:	09:41	Prep Date/Time:		Method:	SW8260C
Parent Sample #:		Analyst:	RLD	Prep Analyst:			

Analyte	QC sample result	Units	Parent sample result	Qualifier(s)	Spike Amount Added	% Recovery	Control Limits	RPD	RPD Limit
1,1,1,2-Tetrachloroethane	0.04	ug/L		U	0		0.04		
1,1,1-Trichloroethane	0.05	ug/L		U	0		0.05		
1,1,2,2-Tetrachloroethane	0.017	ug/L		U	0		0.017		
1,1,2-Trichloroethane	0.05	ug/L		U	0		0.05		
1,1-Dichloroethane	0.06	ug/L		U	0		0.06		
1,1-Dichloroethene	0.06	ug/L		U	0		0.06		
1,1-Dichloropropene	0.06	ug/L		U	0		0.06		
1,2 Dichloroethane-d4	99.0	% Recovery			100	99.0	68 --- 120		
1,2,3-Trichlorobenzene	0.04	ug/L		U	0		0.04		
1,2,3-Trichloropropane	0.04	ug/L		U	0		0.04		
1,2,4-Trichlorobenzene	0.04	ug/L		U	0		0.04		
1,2,4-Trimethylbenzene	0.04	ug/L		U	0		0.04		
1,2-Dibromo-3-chloropropane	0.09	ug/L		U	0		0.09		
1,2-Dibromoethane	0.07	ug/L		U	0		0.07		
1,2-Dichlorobenzene	0.04	ug/L		U	0		0.04		
1,2-Dichloroethane	0.05	ug/L		U	0		0.05		
1,2-Dichloropropane	0.07	ug/L		U	0		0.07		
1,3,5-Trimethylbenzene	0.05	ug/L		U	0		0.05		
1,3-Dichlorobenzene	0.04	ug/L		U	0		0.04		
1,3-Dichloropropane	0.04	ug/L		U	0		0.04		
1,4-Dichlorobenzene	0.04	ug/L		U	0		0.04		
1,4-Dioxane	7	ug/L		U	0		7		
2,2-Dichloropropane	0.05	ug/L		U	0		0.05		
2-Butanone	0.5	ug/L		U	0		0.5		
2-Chlorotoluene	0.03	ug/L		U	0		0.03		
2-Hexanone	0.24	ug/L		U	0		0.24		
4-Chlorotoluene	0.04	ug/L		U	0		0.04		
4-Methyl-2-pentanone	0.24	ug/L		U	0		0.24		
Acetone	0.928	ug/L			0		0.30		
Benzene	0.018	ug/L		U	0		0.018		
Bromobenzene	0.04	ug/L		U	0		0.04		
Bromochloromethane	0.030	ug/L		U	0		0.030		
Bromodichloromethane	0.016	ug/L		U	0		0.016		
Bromofluorobenzene	91.0	% Recovery			100	91.0	68 --- 120		
Bromoform	0.04	ug/L		U	0		0.04		
Bromomethane	0.08	ug/L		U	0		0.08		
Carbon disulfide	0.07	ug/L		U	0		0.07		
Carbon tetrachloride	0.05	ug/L		U	0		0.05		
Chlorobenzene	0.04	ug/L		U	0		0.04		
Chloroethane	0.07	ug/L		U	0		0.07		
Chloroform	0.03	ug/L		U	0		0.03		
Chloromethane	0.04	ug/L		U	0		0.04		

Method Blank Water

Analytical Run #:	163053	Analysis Date:	07/31/2019	Prep Batch #:		Matrix:	LIQUID
CTLab #:	311181	Analysis Time:	09:41	Prep Date/Time:		Method:	SW8260C
Parent Sample #:		Analyst:	RLD	Prep Analyst:			

Analyte	QC sample result	Units	Parent sample result	Qualifier(s)	Spike Amount Added	% Recovery	Control Limits	RPD	RPD Limit
cis-1,2-Dichloroethene	0.07	ug/L		U	0		0.07		
cis-1,3-Dichloropropene	0.011	ug/L		U	0		0.011		
d8-Toluene	103	% Recovery			100	103	71 --- 117		
Dibromochloromethane	0.03	ug/L		U	0		0.03		
Dibromofluoromethane	104	% Recovery			100	104	67 --- 122		
Dibromomethane	0.05	ug/L		U	0		0.05		
Dichlorodifluoromethane	0.06	ug/L		U	0		0.06		
Diisopropyl ether	0.04	ug/L		U	0		0.04		
Ethylbenzene	0.04	ug/L		U	0		0.04		
Hexachlorobutadiene	0.05	ug/L		U	0		0.05		
Isopropylbenzene	0.04	ug/L		U	0		0.04		
m & p-Xylene	0.07	ug/L		U	0		0.07		
Methyl tert-butyl ether	0.04	ug/L		U	0		0.04		
Methylene chloride	0.158	ug/L			0		0.05		
n-Butylbenzene	0.03	ug/L		U	0		0.03		
n-Propylbenzene	0.04	ug/L		U	0		0.04		
Naphthalene	0.03	ug/L		U	0		0.03		
o-Xylene	0.04	ug/L		U	0		0.04		
p-Isopropyltoluene	0.04	ug/L		U	0		0.04		
sec-Butylbenzene	0.05	ug/L		U	0		0.05		
Styrene	0.03	ug/L		U	0		0.03		
tert-Butylbenzene	0.04	ug/L		U	0		0.04		
Tetrachloroethene	0.05	ug/L		U	0		0.05		
Tetrahydrofuran	0.4	ug/L		U	0		0.4		
Toluene	0.04	ug/L		U	0		0.04		
trans-1,2-Dichloroethene	0.04	ug/L		U	0		0.04		
trans-1,3-Dichloropropene	0.019	ug/L		U	0		0.019		
Trichloroethene	0.05	ug/L		U	0		0.05		
Trichlorofluoromethane	0.09	ug/L		U	0		0.09		
Vinyl acetate	0.22	ug/L		U	0		0.22		
Vinyl chloride	0.019	ug/L		U	0		0.019		

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Sample Condition Report

Folder #: 146752
Client: TRC ENVIRONMENTAL

Print Date / Time: 07/24/2019 09:02
Received Date / Time / By: 07/23/2019 09:45 JLS

Project Name: RIPON FF/NN LANDFILL
Project Phase: RIPON, WI

Log-In Date / Time / By: 07/23/2019 10:24 JRB
Project #: 327275.0001.0003 PM: BMS

Coolers: 5897
Custody Seals Present :

Temperature: 2.2 C On Ice: **Y**
COC Present:? **Y** Complete? **Y**

Seal Intact?
Ship Method: FEDEX EXPRESS
Adequate Packaging: **Y**

Numbers:
Tracking Number:
Temp Blank Enclosed? **Y**

Notes: THE SAMPLES WERE RECEIVED IN GOOD CONDITION ON ICE.

Sample ID / Description	Container Type	Cond. Code	pH OK?/Filtered?	Tests
307909 P-113A				
	UNPRES PL	1	/	Anions
	Total # of Containers of Type (*UNPRES PL*) = 1			
307909 P-113A				
	HNO3	1	Y /	ICP
	Total # of Containers of Type (*HNO3*) = 1			
307909 P-113A				
	VOA HCL	1	/	VOC
	VOA HCL	1	/	VOC
	VOA HCL	1	/	VOC
	Total # of Containers of Type (*VOA HCL*) = 3			

Sample ID / Description	Container Type	Cond. Code	pH OK?/Filtered?	Tests
307910 P-113B				
	UNPRES PL	1	/	Anions
	Total # of Containers of Type (*UNPRES PL*) = 1			
307910 P-113B				
	HNO3	1	Y /	ICP
	Total # of Containers of Type (*HNO3*) = 1			
307910 P-113B				
	VOA HCL	1	/	VOC
	VOA HCL	1	/	VOC
	VOA HCL	1	/	VOC
	Total # of Containers of Type (*VOA HCL*) = 3			

Sample ID / Description	Container Type	Cond. Code	pH OK?/Filtered?	Tests
307911 P-115				
	UNPRES PL	1	/	Anions
	Total # of Containers of Type (*UNPRES PL*) = 1			
307911 P-115				

	HNO3	1	Y	/	ICP

Total # of Containers of Type (*HNO3*) = 1

307911 P-115

VOA HCL	1	/	VOC
VOA HCL	1	/	VOC
VOA HCL	1	/	VOC

Total # of Containers of Type (*VOA HCL*) = 3

Sample ID / Description	Container Type	Cond. Code	pH OK?/Filtered?	Tests

307912 P-114

UNPRES PL	1	/	Anions

Total # of Containers of Type (*UNPRES PL*) = 1

307912 P-114

HNO3	1	Y	/	ICP

Total # of Containers of Type (*HNO3*) = 1

307912 P-114

VOA HCL	1	/	VOC
VOA HCL	1	/	VOC
VOA HCL	1	/	VOC

Total # of Containers of Type (*VOA HCL*) = 3

Sample ID / Description	Container Type	Cond. Code	pH OK?/Filtered?	Tests

307913 P-116

UNPRES PL	1	/	Anions

Total # of Containers of Type (*UNPRES PL*) = 1

307913 P-116

HNO3	1	Y	/	ICP

Total # of Containers of Type (*HNO3*) = 1

307913 P-116

VOA HCL	1	/	VOC
VOA HCL	1	/	VOC
VOA HCL	1	/	VOC

Total # of Containers of Type (*VOA HCL*) = 3

Sample ID / Description	Container Type	Cond. Code	pH OK?/Filtered?	Tests

307914 MW-3A

UNPRES PL	1	/	Anions

Total # of Containers of Type (*UNPRES PL*) = 1

307914 MW-3A

HNO3	1	Y	/	ICP

Total # of Containers of Type (*HNO3*) = 1

307914 MW-3A

VOA HCL	1	/	VOC
VOA HCL	1	/	VOC
VOA HCL	1	/	VOC

Total # of Containers of Type (*VOA HCL*) = 3

Sample ID / Description	Container Type	Cond. Code	pH OK?/Filtered?	Tests

307915 MW-3B

UNPRES PL	1	/	Anions

Total # of Containers of Type (*UNPRES PL*) = 1

307915	MW-3B				
		HNO3	1	Y /	ICP
		Total # of Containers of Type	**(*HNO3*) =**	**1**	
307915	MW-3B				
		VOA HCL	1	/	VOC
		VOA HCL	1	/	VOC
		VOA HCL	1	/	VOC
		Total # of Containers of Type	**(*VOA HCL*) =**	**3**	

Sample ID / Description	Container Type	Cond. Code	pH OK?/Filtered?	Tests
307916 DUP-1				
	UNPRES PL	1	/	Anions
	Total # of Containers of Type	**(*UNPRES PL*) =**	**1**	
307916 DUP-1				
	HNO3	1	Y /	ICP
	Total # of Containers of Type	**(*HNO3*) =**	**1**	
307916 DUP-1				
	VOA HCL	1	/	VOC
	VOA HCL	1	/	VOC
	VOA HCL	1	/	VOC
	Total # of Containers of Type	**(*VOA HCL*) =**	**3**	

Sample ID / Description	Container Type	Cond. Code	pH OK?/Filtered?	Tests
307917 TRIP BLANK				
	Trip Blank	1	/	VOC
	Trip Blank	1	/	VOC
	Total # of Containers of Type	**(*Trip Blank*) =**	**2**	

Condition Code	*Condition Description*
1	Sample Received OK

Rev. 2/2013

CHAIN OF CUSTODY

Page _____ of _____

Company: TRC
Project Contact: marita Stollenwerk
Telephone: ~~(608)~~ (262)901-2158
Project Name: FF/NW Landfill R:pon
Project #: 327275.0001.0003
Location: R:pon WI
Sampled By: J. Roelke

CT LABORATORIES
1230 Lange Court, Baraboo, WI 53913
608-356-2760 Fax 608-356-2766
www.ctlaboratories.com

Folder # 146752
Company: TRC ENVIRONMENTA
Project: RIPON SUPERFUND LF
Logged By: JRB PM: BM

Program:
QSM RCRA SDWA NPDES
Solid Waste Other _____

PO # 138000

Report To:
EMAIL: ppopp@trccompanies.com
Company: TRC
Address: 708 Heartland Tr. Suite 3000 madison WI

Invoice To:*
EMAIL: mstollenwerk@trccompanies.com
Company: TRC
Address: 150 N. Patrick Blvd Suite 180 Brookfield, WI 53045

*Party listed is responsible for payment of invoice as per CT Laboratories' terms and conditions

Client Special Instructions Send report to:
- marita Stollenwerk @ mstollenwerk@trccompanies.com
- James Wedekind jwedekind@trccompanies.com

Matrix:
GW – groundwater SW - surface water WW - wastewater DW - drinking water
S - soil/sediment SL - sludge A - air M - misc/waste

ANALYSES REQUESTED

Collection Date	Collection Time	Matrix	Grab/ Comp	Sample #	Sample ID Description	Filtered? Y/N	Total Mn, Nitrate/Nitrite, Sulfate	VOCs 8260	Total # Containers	Designated MS/MSD	CT Lab ID # (Lab use only)
7/22/19	828	GW	Grab	5	P-113A	W	X X	X			307909
	903				P-113B		X X	X			307910
	1021				P-115		X X	X			307911
	1120				P-114		X X	X			307912
	1238				P-116		X X	X			307913
	1332				MW-3A		X X	X			307914
	1412				MW-3B		X X	X			307915
	–				DUP-1		X X	X			307916
7/22/19	7/22/19 Trip			#2	Trip Blank			X			307917

Fill in Spaces with Bottles per Test

Relinquished By:	Date/Time	Received By:	Date/Time
	7/22/19 1445		7/23/19 0945
Received by:	Date/Time	Received for Laboratory by:	Date/Time
		SRB	7/23/19 1024

Lab Use Only
Ice Present (Yes) No
Temperature 2.2
Cooler # 5897

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ANALYTICAL REPORT

This report at a minimum contains the following information:

- Analytical Report of Test Results
- Description of QC Qualifiers
- Chain of Custody (copy)
- Quality Control Summary
- Case Narrative (if applicable)
- Correspondence with Client (if applicable)

Data assessment (CT Laboratories, Baraboo, WI; Folder #: 146780):
All holding times, laboratory qc, and method blanks met criteria, except as specified below.

Nitrate+Nitrite Nitrogen Total samples analysed past hold time. Results qualified as estimated ("j")

BLANKS
Sample detections <5x blank value were flagged as nondetect ('u') at the reported limit.
Analytes in method blanks: Acetone (0.775 µg/L); Methylene chloride (0.102 µg/L)
Analytes in trip blanks: Acetone (1.1 µg/L; 1.2 µg/L); Methylene chloride (1.3 µg/L; 1.1 µg/L) No sample detections.

MS/MSD/LCS
Bromomethane: LCS RPD above control limits; detections considered estimated and detections qualified with "j" (no sample detections)
Dibromomethane: LCSD recovery above control limits, possible high bias and detections qualified "j+" (no sample detections)

Data has been reviewed per TRC data usability guidelines and is usable with the above notations.
P Popp, 8/15/2019

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CT Laboratories LLC • 1230 Lange Ct • Baraboo, WI 53913
608-356-2760 • www.ctlaboratories.com

ANALYTICAL REPORT

TRC ENVIRONMENTAL
JAMES WEDEKIND
708 HEARTLAND TRAIL
SUITE 3000
MADISON, WI 53717

Copy: mstollenwerk@trccompanies.com

Project Name: RIPON FF/NN LANDFILL
Project Phase: RIPON, WI
Project #: 327275.0001.0003
Folder #: 146780
Purchase Order #: 138000
Contract #: 3276

Arrival Temperature: 3.3
Report Date: 08/05/2019
Date Received: 07/24/2019
Reprint Date: 08/08/2019

CT LAB#: 308536 Sample Description: P-117 License/Well #: 00467/144 Sampled: 07/22/2019 1642

Analyte	Result	Units	LOD	LOQ	Dilution	Qualifier	Prep Date/Time	Analysis Date/Time	Analyst	Method
Inorganic Results										
Nitrate+Nitrite Nitrogen Total	0.21	mg/L	0.12 *	0.40	1	H		07/25/2019 10:39	TMG	EPA 9056A
Total Sulfate	66	mg/L	0.80	2.5	1			07/25/2019 10:39	TMG	EPA 9056A
Metals Results										
Total Manganese	224	ug/L	3.4	11	1		07/25/2019 10:14	07/29/2019 23:05	NAH	EPA 6010C
Organic Results										
1,1,1,2-Tetrachloroethane	<0.040	ug/L	0.040	0.13	1			07/30/2019 15:23	RLD	EPA 8260C
1,1,1-Trichloroethane	<0.050	ug/L	0.050	0.17	1			07/30/2019 15:23	RLD	EPA 8260C
1,1,2,2-Tetrachloroethane	<0.017	ug/L	0.017	0.057	1			07/30/2019 15:23	RLD	EPA 8260C
1,1,2-Trichloroethane	<0.050	ug/L	0.050	0.16	1			07/30/2019 15:23	RLD	EPA 8260C
1,1-Dichloroethane	<0.060	ug/L	0.060	0.19	1			07/30/2019 15:23	RLD	EPA 8260C
1,1-Dichloroethene	<0.060	ug/L	0.060	0.20	1			07/30/2019 15:23	RLD	EPA 8260C
1,1-Dichloropropene	<0.060	ug/L	0.060	0.19	1			07/30/2019 15:23	RLD	EPA 8260C
1,2,3-Trichlorobenzene	<0.040	ug/L	0.040	0.13	1			07/30/2019 15:23	RLD	EPA 8260C
1,2,3-Trichloropropane	<0.040	ug/L	0.040	0.14	1			07/30/2019 15:23	RLD	EPA 8260C
1,2,4-Trichlorobenzene	<0.040	ug/L	0.040	0.12	1			07/30/2019 15:23	RLD	EPA 8260C
1,2,4-Trimethylbenzene	<0.040	ug/L	0.040	0.12	1			07/30/2019 15:23	RLD	EPA 8260C

Unless specifically stated to the contrary, soil/sediment/sludge sample results/LOD/LOQ/RLs were reported on a Dry Weight Basis

CT LAB#: 308536 Sample Description: P-117 License/Well #: 00467/144 Sampled: 07/22/2019 1642

Analyte	Result	Units	LOD	LOQ	Dilution	Qualifier	Prep Date/Time	Analysis Date/Time	Analyst	Method
1,2-Dibromo-3-chloropropane	<0.090	ug/L	0.090	0.29	1			07/30/2019 15:23	RLD	EPA 8260C
1,2-Dibromoethane	<0.070	ug/L	0.070	0.23	1			07/30/2019 15:23	RLD	EPA 8260C
1,2-Dichlorobenzene	<0.040	ug/L	0.040	0.13	1			07/30/2019 15:23	RLD	EPA 8260C
1,2-Dichloroethane	<0.050	ug/L	0.050	0.18	1			07/30/2019 15:23	RLD	EPA 8260C
1,2-Dichloropropane	<0.070	ug/L	0.070	0.23	1			07/30/2019 15:23	RLD	EPA 8260C
1,3,5-Trimethylbenzene	<0.050	ug/L	0.050	0.16	1			07/30/2019 15:23	RLD	EPA 8260C
1,3-Dichlorobenzene	<0.040	ug/L	0.040	0.13	1			07/30/2019 15:23	RLD	EPA 8260C
1,3-Dichloropropane	<0.040	ug/L	0.040	0.13	1			07/30/2019 15:23	RLD	EPA 8260C
1,4-Dichlorobenzene	<0.040	ug/L	0.040	0.13	1			07/30/2019 15:23	RLD	EPA 8260C
1,4-Dioxane	<7.0	ug/L	7.0	23	1			07/30/2019 15:23	RLD	EPA 8260C
2,2-Dichloropropane	<0.050	ug/L	0.050	0.15	1			07/30/2019 15:23	RLD	EPA 8260C
2-Butanone	<0.50	ug/L	0.50	1.5	1			07/30/2019 15:23	RLD	EPA 8260C
2-Chlorotoluene	<0.030	ug/L	0.030	0.11	1			07/30/2019 15:23	RLD	EPA 8260C
2-Hexanone	<0.24	ug/L	0.24	0.81	1			07/30/2019 15:23	RLD	EPA 8260C
4-Chlorotoluene	<0.040	ug/L	0.040	0.12	1			07/30/2019 15:23	RLD	EPA 8260C
4-Methyl-2-pentanone	<0.24	ug/L	0.24	0.82	1			07/30/2019 15:23	RLD	EPA 8260C
Acetone	<0.30	ug/L	0.30	1.0	1			07/30/2019 15:23	RLD	EPA 8260C
Benzene	<0.018	ug/L	0.018	0.059	1			07/30/2019 15:23	RLD	EPA 8260C
Bromobenzene	<0.040	ug/L	0.040	0.15	1			07/30/2019 15:23	RLD	EPA 8260C
Bromochloromethane	<0.030	ug/L	0.030	0.099	1			07/30/2019 15:23	RLD	EPA 8260C
Bromodichloromethane	<0.016	ug/L	0.016	0.054	1			07/30/2019 15:23	RLD	EPA 8260C
Bromoform	<0.040	ug/L	0.040	0.12	1			07/30/2019 15:23	RLD	EPA 8260C
Bromomethane	<0.080	ug/L	0.080	0.28	1	Z,Y		07/30/2019 15:23	RLD	EPA 8260C
Carbon disulfide	<0.070	ug/L	0.070	0.25	1			07/30/2019 15:23	RLD	EPA 8260C
Carbon tetrachloride	<0.050	ug/L	0.050	0.18	1			07/30/2019 15:23	RLD	EPA 8260C
Chlorobenzene	<0.040	ug/L	0.040	0.15	1			07/30/2019 15:23	RLD	EPA 8260C
Chloroethane	0.36	ug/L	0.070	0.23	1			07/30/2019 15:23	RLD	EPA 8260C

Unless specifically stated to the contrary, soil/sediment/sludge sample results/LOD/LOQ/RLs were reported on a Dry Weight Basis

CT LAB#: 308536 Sample Description: P-117 License/Well #: 00467/144 Sampled: 07/22/2019 1642

Analyte	Result	Units	LOD	LOQ	Dilution	Qualifier	Prep Date/Time	Analysis Date/Time	Analyst	Method
Chloroform	<0.030	ug/L	0.030	0.11	1			07/30/2019 15:23	RLD	EPA 8260C
Chloromethane	<0.040	ug/L	0.040	0.13	1			07/30/2019 15:23	RLD	EPA 8260C
cis-1,2-Dichloroethene	0.84	ug/L	0.070	0.23	1			07/30/2019 15:23	RLD	EPA 8260C
cis-1,3-Dichloropropene	<0.011	ug/L	0.011	0.038	1			07/30/2019 15:23	RLD	EPA 8260C
Dibromochloromethane	<0.030	ug/L	0.030	0.10	1			07/30/2019 15:23	RLD	EPA 8260C
Dibromomethane	<0.050	ug/L	0.050	0.17	1	Q		07/30/2019 15:23	RLD	EPA 8260C
Dichlorodifluoromethane	<0.060	ug/L	0.060	0.19	1			07/30/2019 15:23	RLD	EPA 8260C
Diisopropyl ether	<0.040	ug/L	0.040	0.14	1			07/30/2019 15:23	RLD	EPA 8260C
Ethylbenzene	<0.040	ug/L	0.040	0.15	1			07/30/2019 15:23	RLD	EPA 8260C
Hexachlorobutadiene	<0.050	ug/L	0.050	0.16	1			07/30/2019 15:23	RLD	EPA 8260C
Isopropylbenzene	<0.040	ug/L	0.040	0.12	1			07/30/2019 15:23	RLD	EPA 8260C
m & p-Xylene	<0.070	ug/L	0.070	0.23	1			07/30/2019 15:23	RLD	EPA 8260C
Methyl tert-butyl ether	<0.040	ug/L	0.040	0.12	1			07/30/2019 15:23	RLD	EPA 8260C
Methylene chloride	<0.050	ug/L	0.050	0.16	1			07/30/2019 15:23	RLD	EPA 8260C
n-Butylbenzene	<0.030	ug/L	0.030	0.11	1			07/30/2019 15:23	RLD	EPA 8260C
n-Propylbenzene	<0.040	ug/L	0.040	0.13	1			07/30/2019 15:23	RLD	EPA 8260C
Naphthalene	<0.030	ug/L	0.030	0.10	1			07/30/2019 15:23	RLD	EPA 8260C
o-Xylene	<0.040	ug/L	0.040	0.14	1			07/30/2019 15:23	RLD	EPA 8260C
p-Isopropyltoluene	<0.040	ug/L	0.040	0.13	1			07/30/2019 15:23	RLD	EPA 8260C
sec-Butylbenzene	<0.050	ug/L	0.050	0.16	1			07/30/2019 15:23	RLD	EPA 8260C
Styrene	<0.030	ug/L	0.030	0.11	1			07/30/2019 15:23	RLD	EPA 8260C
tert-Butylbenzene	<0.040	ug/L	0.040	0.14	1			07/30/2019 15:23	RLD	EPA 8260C
Tetrachloroethene	<0.050	ug/L	0.050	0.18	1			07/30/2019 15:23	RLD	EPA 8260C
Tetrahydrofuran	<0.40	ug/L	0.40	1.5	1			07/30/2019 15:23	RLD	EPA 8260C
Toluene	<0.040	ug/L	0.040	0.13	1			07/30/2019 15:23	RLD	EPA 8260C
trans-1,2-Dichloroethene	<0.040	ug/L	0.040	0.14	1			07/30/2019 15:23	RLD	EPA 8260C
trans-1,3-Dichloropropene	<0.019	ug/L	0.019	0.063	1			07/30/2019 15:23	RLD	EPA 8260C

Unless specifically stated to the contrary, soil/sediment/sludge sample results/LOD/LOQ/RLs were reported on a Dry Weight Basis

CT LAB#: 308536 Sample Description: P-117 License/Well #: 00467/144 Sampled: 07/22/2019 1642

Analyte	Result	Units	LOD	LOQ	Dilution	Qualifier	Prep Date/Time	Analysis Date/Time	Analyst	Method
Trichloroethene	0.061	ug/L	0.050 *	0.17	1			07/30/2019 15:23	RLD	EPA 8260C
Trichlorofluoromethane	<0.090	ug/L	0.090	0.14	1			07/30/2019 15:23	RLD	EPA 8260C
Vinyl acetate	<0.22	ug/L	0.22	0.73	1			07/30/2019 15:23	RLD	EPA 8260C
Vinyl chloride	1.3	ug/L	0.019	0.064	1			07/30/2019 15:23	RLD	EPA 8260C
1,2 Dichloroethane-d4	98	% Recovery	86.0	106	1			07/30/2019 15:23	RLD	EPA 8260C
Bromofluorobenzene	94	% Recovery	75.0	124	1			07/30/2019 15:23	RLD	EPA 8260C
d8-Toluene	104	% Recovery	94.0	105	1			07/30/2019 15:23	RLD	EPA 8260C
Dibromofluoromethane	103	% Recovery	94.0	105	1			07/30/2019 15:23	RLD	EPA 8260C

CT LAB#: 308537 Sample Description: P-118 License/Well #: 00467/145 Sampled: 07/22/2019 1711

Analyte	Result	Units	LOD	LOQ	Dilution	Qualifier	Prep Date/Time	Analysis Date/Time	Analyst	Method
Inorganic Results										
Nitrate+Nitrite Nitrogen Total	0.17	mg/L	0.12 *	0.40	1	H		07/25/2019 10:59	TMG	EPA 9056A
Total Sulfate	23	mg/L	0.80	2.5	1			07/25/2019 10:59	TMG	EPA 9056A
Metals Results										
Total Manganese	94.9	ug/L	3.4	11	1		07/25/2019 10:14	07/29/2019 23:48	NAH	EPA 6010C
Organic Results										
1,1,1,2-Tetrachloroethane	<0.040	ug/L	0.040	0.13	1			07/30/2019 15:51	RLD	EPA 8260C
1,1,1-Trichloroethane	<0.050	ug/L	0.050	0.17	1			07/30/2019 15:51	RLD	EPA 8260C
1,1,2,2-Tetrachloroethane	<0.017	ug/L	0.017	0.057	1			07/30/2019 15:51	RLD	EPA 8260C
1,1,2-Trichloroethane	<0.050	ug/L	0.050	0.16	1			07/30/2019 15:51	RLD	EPA 8260C
1,1-Dichloroethane	<0.060	ug/L	0.060	0.19	1			07/30/2019 15:51	RLD	EPA 8260C
1,1-Dichloroethene	<0.060	ug/L	0.060	0.20	1			07/30/2019 15:51	RLD	EPA 8260C
1,1-Dichloropropene	<0.060	ug/L	0.060	0.19	1			07/30/2019 15:51	RLD	EPA 8260C
1,2,3-Trichlorobenzene	<0.040	ug/L	0.040	0.13	1			07/30/2019 15:51	RLD	EPA 8260C
1,2,3-Trichloropropane	<0.040	ug/L	0.040	0.14	1			07/30/2019 15:51	RLD	EPA 8260C
1,2,4-Trichlorobenzene	<0.040	ug/L	0.040	0.12	1			07/30/2019 15:51	RLD	EPA 8260C
1,2,4-Trimethylbenzene	<0.040	ug/L	0.040	0.12	1			07/30/2019 15:51	RLD	EPA 8260C
1,2-Dibromo-3-chloropropane	<0.090	ug/L	0.090	0.29	1			07/30/2019 15:51	RLD	EPA 8260C
1,2-Dibromoethane	<0.070	ug/L	0.070	0.23	1			07/30/2019 15:51	RLD	EPA 8260C
1,2-Dichlorobenzene	<0.040	ug/L	0.040	0.13	1			07/30/2019 15:51	RLD	EPA 8260C
1,2-Dichloroethane	<0.050	ug/L	0.050	0.18	1			07/30/2019 15:51	RLD	EPA 8260C
1,2-Dichloropropane	<0.070	ug/L	0.070	0.23	1			07/30/2019 15:51	RLD	EPA 8260C
1,3,5-Trimethylbenzene	<0.050	ug/L	0.050	0.16	1			07/30/2019 15:51	RLD	EPA 8260C
1,3-Dichlorobenzene	<0.040	ug/L	0.040	0.13	1			07/30/2019 15:51	RLD	EPA 8260C
1,3-Dichloropropane	<0.040	ug/L	0.040	0.13	1			07/30/2019 15:51	RLD	EPA 8260C
1,4-Dichlorobenzene	<0.040	ug/L	0.040	0.13	1			07/30/2019 15:51	RLD	EPA 8260C

Unless specifically stated to the contrary, soil/sediment/sludge sample results/LOD/LOQ/RLs were reported on a Dry Weight Basis

CT LAB#: 308537 Sample Description: P-118 License/Well #: 00467/145 Sampled: 07/22/2019 1711

Analyte	Result	Units	LOD	LOQ	Dilution	Qualifier	Prep Date/Time	Analysis Date/Time	Analyst	Method
1,4-Dioxane	<7.0	ug/L	7.0	23	1			07/30/2019 15:51	RLD	EPA 8260C
2,2-Dichloropropane	<0.050	ug/L	0.050	0.15	1			07/30/2019 15:51	RLD	EPA 8260C
2-Butanone	<0.50	ug/L	0.50	1.5	1			07/30/2019 15:51	RLD	EPA 8260C
2-Chlorotoluene	<0.030	ug/L	0.030	0.11	1			07/30/2019 15:51	RLD	EPA 8260C
2-Hexanone	<0.24	ug/L	0.24	0.81	1			07/30/2019 15:51	RLD	EPA 8260C
4-Chlorotoluene	<0.040	ug/L	0.040	0.12	1			07/30/2019 15:51	RLD	EPA 8260C
4-Methyl-2-pentanone	<0.24	ug/L	0.24	0.82	1			07/30/2019 15:51	RLD	EPA 8260C
Acetone	<0.30	ug/L	0.30	1.0	1			07/30/2019 15:51	RLD	EPA 8260C
Benzene	<0.018	ug/L	0.018	0.059	1			07/30/2019 15:51	RLD	EPA 8260C
Bromobenzene	<0.040	ug/L	0.040	0.15	1			07/30/2019 15:51	RLD	EPA 8260C
Bromochloromethane	<0.030	ug/L	0.030	0.099	1			07/30/2019 15:51	RLD	EPA 8260C
Bromodichloromethane	<0.016	ug/L	0.016	0.054	1			07/30/2019 15:51	RLD	EPA 8260C
Bromoform	<0.040	ug/L	0.040	0.12	1			07/30/2019 15:51	RLD	EPA 8260C
Bromomethane	<0.080	ug/L	0.080	0.28	1	Z,Y		07/30/2019 15:51	RLD	EPA 8260C
Carbon disulfide	<0.070	ug/L	0.070	0.25	1			07/30/2019 15:51	RLD	EPA 8260C
Carbon tetrachloride	<0.050	ug/L	0.050	0.18	1			07/30/2019 15:51	RLD	EPA 8260C
Chlorobenzene	<0.040	ug/L	0.040	0.15	1			07/30/2019 15:51	RLD	EPA 8260C
Chloroethane	<0.070	ug/L	0.070	0.23	1			07/30/2019 15:51	RLD	EPA 8260C
Chloroform	<0.030	ug/L	0.030	0.11	1			07/30/2019 15:51	RLD	EPA 8260C
Chloromethane	<0.040	ug/L	0.040	0.13	1			07/30/2019 15:51	RLD	EPA 8260C
cis-1,2-Dichloroethene	<0.070	ug/L	0.070	0.23	1			07/30/2019 15:51	RLD	EPA 8260C
cis-1,3-Dichloropropene	<0.011	ug/L	0.011	0.038	1			07/30/2019 15:51	RLD	EPA 8260C
Dibromochloromethane	<0.030	ug/L	0.030	0.10	1			07/30/2019 15:51	RLD	EPA 8260C
Dibromomethane	<0.050	ug/L	0.050	0.17	1	Q		07/30/2019 15:51	RLD	EPA 8260C
Dichlorodifluoromethane	<0.060	ug/L	0.060	0.19	1			07/30/2019 15:51	RLD	EPA 8260C
Diisopropyl ether	<0.040	ug/L	0.040	0.14	1			07/30/2019 15:51	RLD	EPA 8260C
Ethylbenzene	<0.040	ug/L	0.040	0.15	1			07/30/2019 15:51	RLD	EPA 8260C

Unless specifically stated to the contrary, soil/sediment/sludge sample results/LOD/LOQ/RLs were reported on a Dry Weight Basis

CT LAB#: 308537 Sample Description: P-118 License/Well #: 00467/145 Sampled: 07/22/2019 1711

Analyte	Result	Units	LOD	LOQ	Dilution	Qualifier	Prep Date/Time	Analysis Date/Time	Analyst	Method
Hexachlorobutadiene	<0.050	ug/L	0.050	0.16	1			07/30/2019 15:51	RLD	EPA 8260C
Isopropylbenzene	<0.040	ug/L	0.040	0.12	1			07/30/2019 15:51	RLD	EPA 8260C
m & p-Xylene	<0.070	ug/L	0.070	0.23	1			07/30/2019 15:51	RLD	EPA 8260C
Methyl tert-butyl ether	<0.040	ug/L	0.040	0.12	1			07/30/2019 15:51	RLD	EPA 8260C
Methylene chloride	<0.050	ug/L	0.050	0.16	1			07/30/2019 15:51	RLD	EPA 8260C
n-Butylbenzene	<0.030	ug/L	0.030	0.11	1			07/30/2019 15:51	RLD	EPA 8260C
n-Propylbenzene	<0.040	ug/L	0.040	0.13	1			07/30/2019 15:51	RLD	EPA 8260C
Naphthalene	<0.030	ug/L	0.030	0.10	1			07/30/2019 15:51	RLD	EPA 8260C
o-Xylene	<0.040	ug/L	0.040	0.14	1			07/30/2019 15:51	RLD	EPA 8260C
p-Isopropyltoluene	<0.040	ug/L	0.040	0.13	1			07/30/2019 15:51	RLD	EPA 8260C
sec-Butylbenzene	<0.050	ug/L	0.050	0.16	1			07/30/2019 15:51	RLD	EPA 8260C
Styrene	<0.030	ug/L	0.030	0.11	1			07/30/2019 15:51	RLD	EPA 8260C
tert-Butylbenzene	<0.040	ug/L	0.040	0.14	1			07/30/2019 15:51	RLD	EPA 8260C
Tetrachloroethene	<0.050	ug/L	0.050	0.18	1			07/30/2019 15:51	RLD	EPA 8260C
Tetrahydrofuran	<0.40	ug/L	0.40	1.5	1			07/30/2019 15:51	RLD	EPA 8260C
Toluene	0.055	ug/L	0.040 *	0.13	1			07/30/2019 15:51	RLD	EPA 8260C
trans-1,2-Dichloroethene	<0.040	ug/L	0.040	0.14	1			07/30/2019 15:51	RLD	EPA 8260C
trans-1,3-Dichloropropene	<0.019	ug/L	0.019	0.063	1			07/30/2019 15:51	RLD	EPA 8260C
Trichloroethene	<0.050	ug/L	0.050	0.17	1			07/30/2019 15:51	RLD	EPA 8260C
Trichlorofluoromethane	<0.090	ug/L	0.090	0.14	1			07/30/2019 15:51	RLD	EPA 8260C
Vinyl acetate	<0.22	ug/L	0.22	0.73	1			07/30/2019 15:51	RLD	EPA 8260C
Vinyl chloride	0.064	ug/L	0.019	0.064	1			07/30/2019 15:51	RLD	EPA 8260C
1,2 Dichloroethane-d4	94	% Recovery	86.0	106	1			07/30/2019 15:51	RLD	EPA 8260C
Bromofluorobenzene	94	% Recovery	75.0	124	1			07/30/2019 15:51	RLD	EPA 8260C
d8-Toluene	103	% Recovery	94.0	105	1			07/30/2019 15:51	RLD	EPA 8260C
Dibromofluoromethane	103	% Recovery	94.0	105	1			07/30/2019 15:51	RLD	EPA 8260C

Unless specifically stated to the contrary, soil/sediment/sludge sample results/LOD/LOQ/RLs were reported on a Dry Weight Basis

CT LAB#: 308538 Sample Description: MW-112 License/Well #: 00467/121 Sampled: 07/22/2019 1741

Analyte	Result	Units	LOD	LOQ	Dilution	Qualifier	Prep Date/Time	Analysis Date/Time	Analyst	Method
Inorganic Results										
Nitrate+Nitrite Nitrogen Total	2.4	mg/L	0.12	0.40	1	H		07/25/2019 11:19	TMG	EPA 9056A
Total Sulfate	65	mg/L	4.0	13	5			07/24/2019 21:49	TMG	EPA 9056A
Metals Results										
Total Manganese	359	ug/L	3.4	11	1		07/25/2019 10:14	07/29/2019 23:54	NAH	EPA 6010C
Organic Results										
1,1,1,2-Tetrachloroethane	<0.040	ug/L	0.040	0.13	1			07/30/2019 16:20	RLD	EPA 8260C
1,1,1-Trichloroethane	<0.050	ug/L	0.050	0.17	1			07/30/2019 16:20	RLD	EPA 8260C
1,1,2,2-Tetrachloroethane	<0.017	ug/L	0.017	0.057	1			07/30/2019 16:20	RLD	EPA 8260C
1,1,2-Trichloroethane	<0.050	ug/L	0.050	0.16	1			07/30/2019 16:20	RLD	EPA 8260C
1,1-Dichloroethane	<0.060	ug/L	0.060	0.19	1			07/30/2019 16:20	RLD	EPA 8260C
1,1-Dichloroethene	<0.060	ug/L	0.060	0.20	1			07/30/2019 16:20	RLD	EPA 8260C
1,1-Dichloropropene	<0.060	ug/L	0.060	0.19	1			07/30/2019 16:20	RLD	EPA 8260C
1,2,3-Trichlorobenzene	<0.040	ug/L	0.040	0.13	1			07/30/2019 16:20	RLD	EPA 8260C
1,2,3-Trichloropropane	<0.040	ug/L	0.040	0.14	1			07/30/2019 16:20	RLD	EPA 8260C
1,2,4-Trichlorobenzene	<0.040	ug/L	0.040	0.12	1			07/30/2019 16:20	RLD	EPA 8260C
1,2,4-Trimethylbenzene	<0.040	ug/L	0.040	0.12	1			07/30/2019 16:20	RLD	EPA 8260C
1,2-Dibromo-3-chloropropane	<0.090	ug/L	0.090	0.29	1			07/30/2019 16:20	RLD	EPA 8260C
1,2-Dibromoethane	<0.070	ug/L	0.070	0.23	1			07/30/2019 16:20	RLD	EPA 8260C
1,2-Dichlorobenzene	<0.040	ug/L	0.040	0.13	1			07/30/2019 16:20	RLD	EPA 8260C
1,2-Dichloroethane	<0.050	ug/L	0.050	0.18	1			07/30/2019 16:20	RLD	EPA 8260C
1,2-Dichloropropane	<0.070	ug/L	0.070	0.23	1			07/30/2019 16:20	RLD	EPA 8260C
1,3,5-Trimethylbenzene	<0.050	ug/L	0.050	0.16	1			07/30/2019 16:20	RLD	EPA 8260C
1,3-Dichlorobenzene	<0.040	ug/L	0.040	0.13	1			07/30/2019 16:20	RLD	EPA 8260C
1,3-Dichloropropane	<0.040	ug/L	0.040	0.13	1			07/30/2019 16:20	RLD	EPA 8260C
1,4-Dichlorobenzene	<0.040	ug/L	0.040	0.13	1			07/30/2019 16:20	RLD	EPA 8260C

Unless specifically stated to the contrary, soil/sediment/sludge sample results/LOD/LOQ/RLs were reported on a Dry Weight Basis

CT LAB#: 308538 Sample Description: MW-112 License/Well #: 00467/121 Sampled: 07/22/2019 1741

Analyte	Result	Units	LOD	LOQ	Dilution	Qualifier	Prep Date/Time	Analysis Date/Time	Analyst	Method
1,4-Dioxane	<7.0	ug/L	7.0	23	1			07/30/2019 16:20	RLD	EPA 8260C
2,2-Dichloropropane	<0.050	ug/L	0.050	0.15	1			07/30/2019 16:20	RLD	EPA 8260C
2-Butanone	<0.50	ug/L	0.50	1.5	1			07/30/2019 16:20	RLD	EPA 8260C
2-Chlorotoluene	<0.030	ug/L	0.030	0.11	1			07/30/2019 16:20	RLD	EPA 8260C
2-Hexanone	<0.24	ug/L	0.24	0.81	1			07/30/2019 16:20	RLD	EPA 8260C
4-Chlorotoluene	<0.040	ug/L	0.040	0.12	1			07/30/2019 16:20	RLD	EPA 8260C
4-Methyl-2-pentanone	<0.24	ug/L	0.24	0.82	1			07/30/2019 16:20	RLD	EPA 8260C
Acetone	<0.30	ug/L	0.30	1.0	1			07/30/2019 16:20	RLD	EPA 8260C
Benzene	<0.018	ug/L	0.018	0.059	1			07/30/2019 16:20	RLD	EPA 8260C
Bromobenzene	<0.040	ug/L	0.040	0.15	1			07/30/2019 16:20	RLD	EPA 8260C
Bromochloromethane	<0.030	ug/L	0.030	0.099	1			07/30/2019 16:20	RLD	EPA 8260C
Bromodichloromethane	<0.016	ug/L	0.016	0.054	1			07/30/2019 16:20	RLD	EPA 8260C
Bromoform	<0.040	ug/L	0.040	0.12	1			07/30/2019 16:20	RLD	EPA 8260C
Bromomethane	<0.080	ug/L	0.080	0.28	1	Z,Y		07/30/2019 16:20	RLD	EPA 8260C
Carbon disulfide	<0.070	ug/L	0.070	0.25	1			07/30/2019 16:20	RLD	EPA 8260C
Carbon tetrachloride	<0.050	ug/L	0.050	0.18	1			07/30/2019 16:20	RLD	EPA 8260C
Chlorobenzene	0.10	ug/L	0.040 *	0.15	1			07/30/2019 16:20	RLD	EPA 8260C
Chloroethane	<0.070	ug/L	0.070	0.23	1			07/30/2019 16:20	RLD	EPA 8260C
Chloroform	<0.030	ug/L	0.030	0.11	1			07/30/2019 16:20	RLD	EPA 8260C
Chloromethane	<0.040	ug/L	0.040	0.13	1			07/30/2019 16:20	RLD	EPA 8260C
cis-1,2-Dichloroethene	0.21	ug/L	0.070 *	0.23	1			07/30/2019 16:20	RLD	EPA 8260C
cis-1,3-Dichloropropene	<0.011	ug/L	0.011	0.038	1			07/30/2019 16:20	RLD	EPA 8260C
Dibromochloromethane	<0.030	ug/L	0.030	0.10	1			07/30/2019 16:20	RLD	EPA 8260C
Dibromomethane	<0.050	ug/L	0.050	0.17	1	Q		07/30/2019 16:20	RLD	EPA 8260C
Dichlorodifluoromethane	<0.060	ug/L	0.060	0.19	1			07/30/2019 16:20	RLD	EPA 8260C
Diisopropyl ether	<0.040	ug/L	0.040	0.14	1			07/30/2019 16:20	RLD	EPA 8260C
Ethylbenzene	<0.040	ug/L	0.040	0.15	1			07/30/2019 16:20	RLD	EPA 8260C

Unless specifically stated to the contrary, soil/sediment/sludge sample results/LOD/LOQ/RLs were reported on a Dry Weight Basis

CT LAB#: 308538 Sample Description: MW-112 License/Well #: 00467/121 Sampled: 07/22/2019 1741

Analyte	Result	Units	LOD	LOQ	Dilution	Qualifier	Prep Date/Time	Analysis Date/Time	Analyst	Method
Hexachlorobutadiene	<0.050	ug/L	0.050	0.16	1			07/30/2019 16:20	RLD	EPA 8260C
Isopropylbenzene	<0.040	ug/L	0.040	0.12	1			07/30/2019 16:20	RLD	EPA 8260C
m & p-Xylene	<0.070	ug/L	0.070	0.23	1			07/30/2019 16:20	RLD	EPA 8260C
Methyl tert-butyl ether	<0.040	ug/L	0.040	0.12	1			07/30/2019 16:20	RLD	EPA 8260C
Methylene chloride	<0.050	ug/L	0.050	0.16	1			07/30/2019 16:20	RLD	EPA 8260C
n-Butylbenzene	<0.030	ug/L	0.030	0.11	1			07/30/2019 16:20	RLD	EPA 8260C
n-Propylbenzene	<0.040	ug/L	0.040	0.13	1			07/30/2019 16:20	RLD	EPA 8260C
Naphthalene	<0.030	ug/L	0.030	0.10	1			07/30/2019 16:20	RLD	EPA 8260C
o-Xylene	<0.040	ug/L	0.040	0.14	1			07/30/2019 16:20	RLD	EPA 8260C
p-Isopropyltoluene	<0.040	ug/L	0.040	0.13	1			07/30/2019 16:20	RLD	EPA 8260C
sec-Butylbenzene	<0.050	ug/L	0.050	0.16	1			07/30/2019 16:20	RLD	EPA 8260C
Styrene	<0.030	ug/L	0.030	0.11	1			07/30/2019 16:20	RLD	EPA 8260C
tert-Butylbenzene	<0.040	ug/L	0.040	0.14	1			07/30/2019 16:20	RLD	EPA 8260C
Tetrachloroethene	0.16	ug/L	0.050 *	0.18	1			07/30/2019 16:20	RLD	EPA 8260C
Tetrahydrofuran	<0.40	ug/L	0.40	1.5	1			07/30/2019 16:20	RLD	EPA 8260C
Toluene	<0.040	ug/L	0.040	0.13	1			07/30/2019 16:20	RLD	EPA 8260C
trans-1,2-Dichloroethene	<0.040	ug/L	0.040	0.14	1			07/30/2019 16:20	RLD	EPA 8260C
trans-1,3-Dichloropropene	<0.019	ug/L	0.019	0.063	1			07/30/2019 16:20	RLD	EPA 8260C
Trichloroethene	0.74	ug/L	0.050	0.17	1			07/30/2019 16:20	RLD	EPA 8260C
Trichlorofluoromethane	<0.090	ug/L	0.090	0.14	1			07/30/2019 16:20	RLD	EPA 8260C
Vinyl acetate	<0.22	ug/L	0.22	0.73	1			07/30/2019 16:20	RLD	EPA 8260C
Vinyl chloride	0.040	ug/L	0.019 *	0.064	1			07/30/2019 16:20	RLD	EPA 8260C
1,2 Dichloroethane-d4	95	% Recovery	86.0	106	1			07/30/2019 16:20	RLD	EPA 8260C
Bromofluorobenzene	93	% Recovery	75.0	124	1			07/30/2019 16:20	RLD	EPA 8260C
d8-Toluene	103	% Recovery	94.0	105	1			07/30/2019 16:20	RLD	EPA 8260C
Dibromofluoromethane	104	% Recovery	94.0	105	1			07/30/2019 16:20	RLD	EPA 8260C

Unless specifically stated to the contrary, soil/sediment/sludge sample results/LOD/LOQ/RLs were reported on a Dry Weight Basis

CT LAB#: 308539 Sample Description: MW-103 License/Well #: 00467/112 Sampled: 07/22/2019 1809

Analyte	Result	Units	LOD	LOQ	Dilution	Qualifier	Prep Date/Time	Analysis Date/Time	Analyst	Method
Inorganic Results										
Nitrate+Nitrite Nitrogen Total	16	mg/L	0.60	2.0	1	H		07/25/2019 11:39	TMG	EPA 9056A
Total Sulfate	120	mg/L	4.0	13	5			07/25/2019 12:39	TMG	EPA 9056A
Metals Results										
Total Manganese	73.0	ug/L	3.4	11	1		07/25/2019 10:14	07/30/2019 00:00	NAH	EPA 6010C
Organic Results										
1,1,1,2-Tetrachloroethane	<0.040	ug/L	0.040	0.13	1			07/30/2019 16:48	RLD	EPA 8260C
1,1,1-Trichloroethane	<0.050	ug/L	0.050	0.17	1			07/30/2019 16:48	RLD	EPA 8260C
1,1,2,2-Tetrachloroethane	<0.017	ug/L	0.017	0.057	1			07/30/2019 16:48	RLD	EPA 8260C
1,1,2-Trichloroethane	<0.050	ug/L	0.050	0.16	1			07/30/2019 16:48	RLD	EPA 8260C
1,1-Dichloroethane	<0.060	ug/L	0.060	0.19	1			07/30/2019 16:48	RLD	EPA 8260C
1,1-Dichloroethene	<0.060	ug/L	0.060	0.20	1			07/30/2019 16:48	RLD	EPA 8260C
1,1-Dichloropropene	<0.060	ug/L	0.060	0.19	1			07/30/2019 16:48	RLD	EPA 8260C
1,2,3-Trichlorobenzene	<0.040	ug/L	0.040	0.13	1			07/30/2019 16:48	RLD	EPA 8260C
1,2,3-Trichloropropane	<0.040	ug/L	0.040	0.14	1			07/30/2019 16:48	RLD	EPA 8260C
1,2,4-Trichlorobenzene	<0.040	ug/L	0.040	0.12	1			07/30/2019 16:48	RLD	EPA 8260C
1,2,4-Trimethylbenzene	<0.040	ug/L	0.040	0.12	1			07/30/2019 16:48	RLD	EPA 8260C
1,2-Dibromo-3-chloropropane	<0.090	ug/L	0.090	0.29	1			07/30/2019 16:48	RLD	EPA 8260C
1,2-Dibromoethane	<0.070	ug/L	0.070	0.23	1			07/30/2019 16:48	RLD	EPA 8260C
1,2-Dichlorobenzene	<0.040	ug/L	0.040	0.13	1			07/30/2019 16:48	RLD	EPA 8260C
1,2-Dichloroethane	<0.050	ug/L	0.050	0.18	1			07/30/2019 16:48	RLD	EPA 8260C
1,2-Dichloropropane	<0.070	ug/L	0.070	0.23	1			07/30/2019 16:48	RLD	EPA 8260C
1,3,5-Trimethylbenzene	<0.050	ug/L	0.050	0.16	1			07/30/2019 16:48	RLD	EPA 8260C
1,3-Dichlorobenzene	<0.040	ug/L	0.040	0.13	1			07/30/2019 16:48	RLD	EPA 8260C
1,3-Dichloropropane	<0.040	ug/L	0.040	0.13	1			07/30/2019 16:48	RLD	EPA 8260C
1,4-Dichlorobenzene	<0.040	ug/L	0.040	0.13	1			07/30/2019 16:48	RLD	EPA 8260C

Unless specifically stated to the contrary, soil/sediment/sludge sample results/LOD/LOQ/RLs were reported on a Dry Weight Basis

CT LAB#: 308539 Sample Description: MW-103 License/Well #: 00467/112 Sampled: 07/22/2019 1809

Analyte	Result	Units	LOD	LOQ	Dilution	Qualifier	Prep Date/Time	Analysis Date/Time	Analyst	Method
1,4-Dioxane	<7.0	ug/L	7.0	23	1			07/30/2019 16:48	RLD	EPA 8260C
2,2-Dichloropropane	<0.050	ug/L	0.050	0.15	1			07/30/2019 16:48	RLD	EPA 8260C
2-Butanone	<0.50	ug/L	0.50	1.5	1			07/30/2019 16:48	RLD	EPA 8260C
2-Chlorotoluene	<0.030	ug/L	0.030	0.11	1			07/30/2019 16:48	RLD	EPA 8260C
2-Hexanone	<0.24	ug/L	0.24	0.81	1			07/30/2019 16:48	RLD	EPA 8260C
4-Chlorotoluene	<0.040	ug/L	0.040	0.12	1			07/30/2019 16:48	RLD	EPA 8260C
4-Methyl-2-pentanone	<0.24	ug/L	0.24	0.82	1			07/30/2019 16:48	RLD	EPA 8260C
Acetone	0.88	ug/L	0.30 *	1.0	1	B		07/30/2019 16:48	RLD	EPA 8260C
Benzene	<0.018	ug/L	0.018	0.059	1			07/30/2019 16:48	RLD	EPA 8260C
Bromobenzene	<0.040	ug/L	0.040	0.15	1			07/30/2019 16:48	RLD	EPA 8260C
Bromochloromethane	<0.030	ug/L	0.030	0.099	1			07/30/2019 16:48	RLD	EPA 8260C
Bromodichloromethane	<0.016	ug/L	0.016	0.054	1			07/30/2019 16:48	RLD	EPA 8260C
Bromoform	<0.040	ug/L	0.040	0.12	1			07/30/2019 16:48	RLD	EPA 8260C
Bromomethane	<0.080	ug/L	0.080	0.28	1	Z,Y		07/30/2019 16:48	RLD	EPA 8260C
Carbon disulfide	<0.070	ug/L	0.070	0.25	1			07/30/2019 16:48	RLD	EPA 8260C
Carbon tetrachloride	<0.050	ug/L	0.050	0.18	1			07/30/2019 16:48	RLD	EPA 8260C
Chlorobenzene	<0.040	ug/L	0.040	0.15	1			07/30/2019 16:48	RLD	EPA 8260C
Chloroethane	<0.070	ug/L	0.070	0.23	1			07/30/2019 16:48	RLD	EPA 8260C
Chloroform	<0.030	ug/L	0.030	0.11	1			07/30/2019 16:48	RLD	EPA 8260C
Chloromethane	<0.040	ug/L	0.040	0.13	1			07/30/2019 16:48	RLD	EPA 8260C
cis-1,2-Dichloroethene	0.31	ug/L	0.070	0.23	1			07/30/2019 16:48	RLD	EPA 8260C
cis-1,3-Dichloropropene	<0.011	ug/L	0.011	0.038	1			07/30/2019 16:48	RLD	EPA 8260C
Dibromochloromethane	<0.030	ug/L	0.030	0.10	1			07/30/2019 16:48	RLD	EPA 8260C
Dibromomethane	<0.050	ug/L	0.050	0.17	1	Q		07/30/2019 16:48	RLD	EPA 8260C
Dichlorodifluoromethane	<0.060	ug/L	0.060	0.19	1			07/30/2019 16:48	RLD	EPA 8260C
Diisopropyl ether	<0.040	ug/L	0.040	0.14	1			07/30/2019 16:48	RLD	EPA 8260C
Ethylbenzene	<0.040	ug/L	0.040	0.15	1			07/30/2019 16:48	RLD	EPA 8260C

Unless specifically stated to the contrary, soil/sediment/sludge sample results/LOD/LOQ/RLs were reported on a Dry Weight Basis

CT LAB#: 308539 Sample Description: MW-103 License/Well #: 00467/112 Sampled: 07/22/2019 1809

Analyte	Result	Units	LOD	LOQ	Dilution	Qualifier	Prep Date/Time	Analysis Date/Time	Analyst	Method
Hexachlorobutadiene	<0.050	ug/L	0.050	0.16	1			07/30/2019 16:48	RLD	EPA 8260C
Isopropylbenzene	<0.040	ug/L	0.040	0.12	1			07/30/2019 16:48	RLD	EPA 8260C
m & p-Xylene	<0.070	ug/L	0.070	0.23	1			07/30/2019 16:48	RLD	EPA 8260C
Methyl tert-butyl ether	<0.040	ug/L	0.040	0.12	1			07/30/2019 16:48	RLD	EPA 8260C
Methylene chloride	<0.050	ug/L	0.050	0.16	1			07/30/2019 16:48	RLD	EPA 8260C
n-Butylbenzene	<0.030	ug/L	0.030	0.11	1			07/30/2019 16:48	RLD	EPA 8260C
n-Propylbenzene	<0.040	ug/L	0.040	0.13	1			07/30/2019 16:48	RLD	EPA 8260C
Naphthalene	<0.030	ug/L	0.030	0.10	1			07/30/2019 16:48	RLD	EPA 8260C
o-Xylene	<0.040	ug/L	0.040	0.14	1			07/30/2019 16:48	RLD	EPA 8260C
p-Isopropyltoluene	<0.040	ug/L	0.040	0.13	1			07/30/2019 16:48	RLD	EPA 8260C
sec-Butylbenzene	<0.050	ug/L	0.050	0.16	1			07/30/2019 16:48	RLD	EPA 8260C
Styrene	<0.030	ug/L	0.030	0.11	1			07/30/2019 16:48	RLD	EPA 8260C
tert-Butylbenzene	<0.040	ug/L	0.040	0.14	1			07/30/2019 16:48	RLD	EPA 8260C
Tetrachloroethene	0.29	ug/L	0.050	0.18	1			07/30/2019 16:48	RLD	EPA 8260C
Tetrahydrofuran	<0.40	ug/L	0.40	1.5	1			07/30/2019 16:48	RLD	EPA 8260C
Toluene	<0.040	ug/L	0.040	0.13	1			07/30/2019 16:48	RLD	EPA 8260C
trans-1,2-Dichloroethene	0.052	ug/L	0.040 *	0.14	1			07/30/2019 16:48	RLD	EPA 8260C
trans-1,3-Dichloropropene	<0.019	ug/L	0.019	0.063	1			07/30/2019 16:48	RLD	EPA 8260C
Trichloroethene	1.6	ug/L	0.050	0.17	1			07/30/2019 16:48	RLD	EPA 8260C
Trichlorofluoromethane	<0.090	ug/L	0.090	0.14	1			07/30/2019 16:48	RLD	EPA 8260C
Vinyl acetate	<0.22	ug/L	0.22	0.73	1			07/30/2019 16:48	RLD	EPA 8260C
Vinyl chloride	<0.019	ug/L	0.019	0.064	1			07/30/2019 16:48	RLD	EPA 8260C
1,2 Dichloroethane-d4	95	% Recovery	86.0	106	1			07/30/2019 16:48	RLD	EPA 8260C
Bromofluorobenzene	94	% Recovery	75.0	124	1			07/30/2019 16:48	RLD	EPA 8260C
d8-Toluene	101	% Recovery	94.0	105	1			07/30/2019 16:48	RLD	EPA 8260C
Dibromofluoromethane	105	% Recovery	94.0	105	1			07/30/2019 16:48	RLD	EPA 8260C

Unless specifically stated to the contrary, soil/sediment/sludge sample results/LOD/LOQ/RLs were reported on a Dry Weight Basis

CT LAB#: 308540 Sample Description: P-111D License/Well #: 00467/130 Sampled: 07/23/2019 0928

Analyte	Result	Units	LOD	LOQ	Dilution	Qualifier	Prep Date/Time	Analysis Date/Time	Analyst	Method
Inorganic Results										
Nitrate+Nitrite Nitrogen Total	0.24	mg/L	0.12 *	0.40	1			07/25/2019 08:59	TMG	EPA 9056A
Total Sulfate	62	mg/L	0.80	2.5	1			07/25/2019 08:59	TMG	EPA 9056A
Metals Results										
Total Manganese	33.8	ug/L	3.4	11	1		07/25/2019 10:14	07/30/2019 00:06	NAH	EPA 6010C
Organic Results										
1,1,1,2-Tetrachloroethane	<0.040	ug/L	0.040	0.13	1			07/30/2019 17:16	RLD	EPA 8260C
1,1,1-Trichloroethane	<0.050	ug/L	0.050	0.17	1			07/30/2019 17:16	RLD	EPA 8260C
1,1,2,2-Tetrachloroethane	<0.017	ug/L	0.017	0.057	1			07/30/2019 17:16	RLD	EPA 8260C
1,1,2-Trichloroethane	<0.050	ug/L	0.050	0.16	1			07/30/2019 17:16	RLD	EPA 8260C
1,1-Dichloroethane	<0.060	ug/L	0.060	0.19	1			07/30/2019 17:16	RLD	EPA 8260C
1,1-Dichloroethene	<0.060	ug/L	0.060	0.20	1			07/30/2019 17:16	RLD	EPA 8260C
1,1-Dichloropropene	<0.060	ug/L	0.060	0.19	1			07/30/2019 17:16	RLD	EPA 8260C
1,2,3-Trichlorobenzene	<0.040	ug/L	0.040	0.13	1			07/30/2019 17:16	RLD	EPA 8260C
1,2,3-Trichloropropane	<0.040	ug/L	0.040	0.14	1			07/30/2019 17:16	RLD	EPA 8260C
1,2,4-Trichlorobenzene	<0.040	ug/L	0.040	0.12	1			07/30/2019 17:16	RLD	EPA 8260C
1,2,4-Trimethylbenzene	<0.040	ug/L	0.040	0.12	1			07/30/2019 17:16	RLD	EPA 8260C
1,2-Dibromo-3-chloropropane	<0.090	ug/L	0.090	0.29	1			07/30/2019 17:16	RLD	EPA 8260C
1,2-Dibromoethane	<0.070	ug/L	0.070	0.23	1			07/30/2019 17:16	RLD	EPA 8260C
1,2-Dichlorobenzene	<0.040	ug/L	0.040	0.13	1			07/30/2019 17:16	RLD	EPA 8260C
1,2-Dichloroethane	<0.050	ug/L	0.050	0.18	1			07/30/2019 17:16	RLD	EPA 8260C
1,2-Dichloropropane	<0.070	ug/L	0.070	0.23	1			07/30/2019 17:16	RLD	EPA 8260C
1,3,5-Trimethylbenzene	<0.050	ug/L	0.050	0.16	1			07/30/2019 17:16	RLD	EPA 8260C
1,3-Dichlorobenzene	<0.040	ug/L	0.040	0.13	1			07/30/2019 17:16	RLD	EPA 8260C
1,3-Dichloropropane	<0.040	ug/L	0.040	0.13	1			07/30/2019 17:16	RLD	EPA 8260C
1,4-Dichlorobenzene	<0.040	ug/L	0.040	0.13	1			07/30/2019 17:16	RLD	EPA 8260C

Unless specifically stated to the contrary, soil/sediment/sludge sample results/LOD/LOQ/RLs were reported on a Dry Weight Basis

CT LAB#: 308540 Sample Description: P-111D License/Well #: 00467/130 Sampled: 07/23/2019 0928

Analyte	Result	Units	LOD	LOQ	Dilution	Qualifier	Prep Date/Time	Analysis Date/Time	Analyst	Method
1,4-Dioxane	<7.0	ug/L	7.0	23	1			07/30/2019 17:16	RLD	EPA 8260C
2,2-Dichloropropane	<0.050	ug/L	0.050	0.15	1			07/30/2019 17:16	RLD	EPA 8260C
2-Butanone	<0.50	ug/L	0.50	1.5	1			07/30/2019 17:16	RLD	EPA 8260C
2-Chlorotoluene	<0.030	ug/L	0.030	0.11	1			07/30/2019 17:16	RLD	EPA 8260C
2-Hexanone	<0.24	ug/L	0.24	0.81	1			07/30/2019 17:16	RLD	EPA 8260C
4-Chlorotoluene	<0.040	ug/L	0.040	0.12	1			07/30/2019 17:16	RLD	EPA 8260C
4-Methyl-2-pentanone	<0.24	ug/L	0.24	0.82	1			07/30/2019 17:16	RLD	EPA 8260C
Acetone	0.63	ug/L	0.30 *	1.0	1	B		07/30/2019 17:16	RLD	EPA 8260C
Benzene	<0.018	ug/L	0.018	0.059	1			07/30/2019 17:16	RLD	EPA 8260C
Bromobenzene	<0.040	ug/L	0.040	0.15	1			07/30/2019 17:16	RLD	EPA 8260C
Bromochloromethane	<0.030	ug/L	0.030	0.099	1			07/30/2019 17:16	RLD	EPA 8260C
Bromodichloromethane	<0.016	ug/L	0.016	0.054	1			07/30/2019 17:16	RLD	EPA 8260C
Bromoform	<0.040	ug/L	0.040	0.12	1			07/30/2019 17:16	RLD	EPA 8260C
Bromomethane	<0.080	ug/L	0.080	0.28	1	Z,Y		07/30/2019 17:16	RLD	EPA 8260C
Carbon disulfide	<0.070	ug/L	0.070	0.25	1			07/30/2019 17:16	RLD	EPA 8260C
Carbon tetrachloride	<0.050	ug/L	0.050	0.18	1			07/30/2019 17:16	RLD	EPA 8260C
Chlorobenzene	<0.040	ug/L	0.040	0.15	1			07/30/2019 17:16	RLD	EPA 8260C
Chloroethane	0.89	ug/L	0.070	0.23	1			07/30/2019 17:16	RLD	EPA 8260C
Chloroform	<0.030	ug/L	0.030	0.11	1			07/30/2019 17:16	RLD	EPA 8260C
Chloromethane	0.040	ug/L	0.040 *	0.13	1			07/30/2019 17:16	RLD	EPA 8260C
cis-1,2-Dichloroethene	3.3	ug/L	0.070	0.23	1			07/30/2019 17:16	RLD	EPA 8260C
cis-1,3-Dichloropropene	<0.011	ug/L	0.011	0.038	1			07/30/2019 17:16	RLD	EPA 8260C
Dibromochloromethane	<0.030	ug/L	0.030	0.10	1			07/30/2019 17:16	RLD	EPA 8260C
Dibromomethane	<0.050	ug/L	0.050	0.17	1	Q		07/30/2019 17:16	RLD	EPA 8260C
Dichlorodifluoromethane	<0.060	ug/L	0.060	0.19	1			07/30/2019 17:16	RLD	EPA 8260C
Diisopropyl ether	<0.040	ug/L	0.040	0.14	1			07/30/2019 17:16	RLD	EPA 8260C
Ethylbenzene	<0.040	ug/L	0.040	0.15	1			07/30/2019 17:16	RLD	EPA 8260C

Unless specifically stated to the contrary, soil/sediment/sludge sample results/LOD/LOQ/RLs were reported on a Dry Weight Basis

CT LAB#: 308540 Sample Description: P-111D License/Well #: 00467/130 Sampled: 07/23/2019 0928

Analyte	Result	Units	LOD	LOQ	Dilution	Qualifier	Prep Date/Time	Analysis Date/Time	Analyst	Method
Hexachlorobutadiene	<0.050	ug/L	0.050	0.16	1			07/30/2019 17:16	RLD	EPA 8260C
Isopropylbenzene	<0.040	ug/L	0.040	0.12	1			07/30/2019 17:16	RLD	EPA 8260C
m & p-Xylene	<0.070	ug/L	0.070	0.23	1			07/30/2019 17:16	RLD	EPA 8260C
Methyl tert-butyl ether	<0.040	ug/L	0.040	0.12	1			07/30/2019 17:16	RLD	EPA 8260C
Methylene chloride	<0.050	ug/L	0.050	0.16	1			07/30/2019 17:16	RLD	EPA 8260C
n-Butylbenzene	<0.030	ug/L	0.030	0.11	1			07/30/2019 17:16	RLD	EPA 8260C
n-Propylbenzene	<0.040	ug/L	0.040	0.13	1			07/30/2019 17:16	RLD	EPA 8260C
Naphthalene	<0.030	ug/L	0.030	0.10	1			07/30/2019 17:16	RLD	EPA 8260C
o-Xylene	<0.040	ug/L	0.040	0.14	1			07/30/2019 17:16	RLD	EPA 8260C
p-Isopropyltoluene	<0.040	ug/L	0.040	0.13	1			07/30/2019 17:16	RLD	EPA 8260C
sec-Butylbenzene	<0.050	ug/L	0.050	0.16	1			07/30/2019 17:16	RLD	EPA 8260C
Styrene	<0.030	ug/L	0.030	0.11	1			07/30/2019 17:16	RLD	EPA 8260C
tert-Butylbenzene	<0.040	ug/L	0.040	0.14	1			07/30/2019 17:16	RLD	EPA 8260C
Tetrachloroethene	<0.050	ug/L	0.050	0.18	1			07/30/2019 17:16	RLD	EPA 8260C
Tetrahydrofuran	<0.40	ug/L	0.40	1.5	1			07/30/2019 17:16	RLD	EPA 8260C
Toluene	<0.040	ug/L	0.040	0.13	1			07/30/2019 17:16	RLD	EPA 8260C
trans-1,2-Dichloroethene	<0.040	ug/L	0.040	0.14	1			07/30/2019 17:16	RLD	EPA 8260C
trans-1,3-Dichloropropene	<0.019	ug/L	0.019	0.063	1			07/30/2019 17:16	RLD	EPA 8260C
Trichloroethene	<0.050	ug/L	0.050	0.17	1			07/30/2019 17:16	RLD	EPA 8260C
Trichlorofluoromethane	<0.090	ug/L	0.090	0.14	1			07/30/2019 17:16	RLD	EPA 8260C
Vinyl acetate	<0.22	ug/L	0.22	0.73	1			07/30/2019 17:16	RLD	EPA 8260C
Vinyl chloride	4.6	ug/L	0.019	0.064	1			07/30/2019 17:16	RLD	EPA 8260C
1,2 Dichloroethane-d4	90	% Recovery	86.0	106	1			07/30/2019 17:16	RLD	EPA 8260C
Bromofluorobenzene	93	% Recovery	75.0	124	1			07/30/2019 17:16	RLD	EPA 8260C
d8-Toluene	101	% Recovery	94.0	105	1			07/30/2019 17:16	RLD	EPA 8260C
Dibromofluoromethane	103	% Recovery	94.0	105	1			07/30/2019 17:16	RLD	EPA 8260C

Unless specifically stated to the contrary, soil/sediment/sludge sample results/LOD/LOQ/RLs were reported on a Dry Weight Basis

CT LAB#: 308541 Sample Description: P-107D License/Well #: 00467/119 Sampled: 07/23/2019 1037

Analyte	Result	Units	LOD	LOQ	Dilution	Qualifier	Prep Date/Time	Analysis Date/Time	Analyst	Method
Inorganic Results										
Nitrate+Nitrite Nitrogen Total	0.18	mg/L	0.12 *	0.40	1			07/25/2019 09:19	TMG	EPA 9056A
Total Sulfate	28	mg/L	0.80	2.5	1			07/25/2019 09:19	TMG	EPA 9056A
Metals Results										
Total Manganese	241	ug/L	3.4	11	1		07/25/2019 10:14	07/30/2019 00:13	NAH	EPA 6010C
Organic Results										
1,1,1,2-Tetrachloroethane	<0.040	ug/L	0.040	0.13	1			07/30/2019 17:44	RLD	EPA 8260C
1,1,1-Trichloroethane	<0.050	ug/L	0.050	0.17	1			07/30/2019 17:44	RLD	EPA 8260C
1,1,2,2-Tetrachloroethane	<0.017	ug/L	0.017	0.057	1			07/30/2019 17:44	RLD	EPA 8260C
1,1,2-Trichloroethane	<0.050	ug/L	0.050	0.16	1			07/30/2019 17:44	RLD	EPA 8260C
1,1-Dichloroethane	<0.060	ug/L	0.060	0.19	1			07/30/2019 17:44	RLD	EPA 8260C
1,1-Dichloroethene	<0.060	ug/L	0.060	0.20	1			07/30/2019 17:44	RLD	EPA 8260C
1,1-Dichloropropene	<0.060	ug/L	0.060	0.19	1			07/30/2019 17:44	RLD	EPA 8260C
1,2,3-Trichlorobenzene	<0.040	ug/L	0.040	0.13	1			07/30/2019 17:44	RLD	EPA 8260C
1,2,3-Trichloropropane	<0.040	ug/L	0.040	0.14	1			07/30/2019 17:44	RLD	EPA 8260C
1,2,4-Trichlorobenzene	<0.040	ug/L	0.040	0.12	1			07/30/2019 17:44	RLD	EPA 8260C
1,2,4-Trimethylbenzene	<0.040	ug/L	0.040	0.12	1			07/30/2019 17:44	RLD	EPA 8260C
1,2-Dibromo-3-chloropropane	<0.090	ug/L	0.090	0.29	1			07/30/2019 17:44	RLD	EPA 8260C
1,2-Dibromoethane	<0.070	ug/L	0.070	0.23	1			07/30/2019 17:44	RLD	EPA 8260C
1,2-Dichlorobenzene	<0.040	ug/L	0.040	0.13	1			07/30/2019 17:44	RLD	EPA 8260C
1,2-Dichloroethane	<0.050	ug/L	0.050	0.18	1			07/30/2019 17:44	RLD	EPA 8260C
1,2-Dichloropropane	<0.070	ug/L	0.070	0.23	1			07/30/2019 17:44	RLD	EPA 8260C
1,3,5-Trimethylbenzene	<0.050	ug/L	0.050	0.16	1			07/30/2019 17:44	RLD	EPA 8260C
1,3-Dichlorobenzene	<0.040	ug/L	0.040	0.13	1			07/30/2019 17:44	RLD	EPA 8260C
1,3-Dichloropropane	<0.040	ug/L	0.040	0.13	1			07/30/2019 17:44	RLD	EPA 8260C
1,4-Dichlorobenzene	<0.040	ug/L	0.040	0.13	1			07/30/2019 17:44	RLD	EPA 8260C

Unless specifically stated to the contrary, soil/sediment/sludge sample results/LOD/LOQ/RLs were reported on a Dry Weight Basis

CT LAB#: 308541 Sample Description: P-107D License/Well #: 00467/119 Sampled: 07/23/2019 1037

Analyte	Result	Units	LOD	LOQ	Dilution	Qualifier	Prep Date/Time	Analysis Date/Time	Analyst	Method
1,4-Dioxane	<7.0	ug/L	7.0	23	1			07/30/2019 17:44	RLD	EPA 8260C
2,2-Dichloropropane	<0.050	ug/L	0.050	0.15	1			07/30/2019 17:44	RLD	EPA 8260C
2-Butanone	<0.50	ug/L	0.50	1.5	1			07/30/2019 17:44	RLD	EPA 8260C
2-Chlorotoluene	<0.030	ug/L	0.030	0.11	1			07/30/2019 17:44	RLD	EPA 8260C
2-Hexanone	<0.24	ug/L	0.24	0.81	1			07/30/2019 17:44	RLD	EPA 8260C
4-Chlorotoluene	<0.040	ug/L	0.040	0.12	1			07/30/2019 17:44	RLD	EPA 8260C
4-Methyl-2-pentanone	<0.24	ug/L	0.24	0.82	1			07/30/2019 17:44	RLD	EPA 8260C
Acetone	0.61	ug/L	0.30 *	1.0	1	B		07/30/2019 17:44	RLD	EPA 8260C
Benzene	<0.018	ug/L	0.018	0.059	1			07/30/2019 17:44	RLD	EPA 8260C
Bromobenzene	<0.040	ug/L	0.040	0.15	1			07/30/2019 17:44	RLD	EPA 8260C
Bromochloromethane	<0.030	ug/L	0.030	0.099	1			07/30/2019 17:44	RLD	EPA 8260C
Bromodichloromethane	<0.016	ug/L	0.016	0.054	1			07/30/2019 17:44	RLD	EPA 8260C
Bromoform	<0.040	ug/L	0.040	0.12	1			07/30/2019 17:44	RLD	EPA 8260C
Bromomethane	<0.080	ug/L	0.080	0.28	1	Z,Y		07/30/2019 17:44	RLD	EPA 8260C
Carbon disulfide	<0.070	ug/L	0.070	0.25	1			07/30/2019 17:44	RLD	EPA 8260C
Carbon tetrachloride	<0.050	ug/L	0.050	0.18	1			07/30/2019 17:44	RLD	EPA 8260C
Chlorobenzene	<0.040	ug/L	0.040	0.15	1			07/30/2019 17:44	RLD	EPA 8260C
Chloroethane	1.4	ug/L	0.070	0.23	1			07/30/2019 17:44	RLD	EPA 8260C
Chloroform	<0.030	ug/L	0.030	0.11	1			07/30/2019 17:44	RLD	EPA 8260C
Chloromethane	<0.040	ug/L	0.040	0.13	1			07/30/2019 17:44	RLD	EPA 8260C
cis-1,2-Dichloroethene	1.9	ug/L	0.070	0.23	1			07/30/2019 17:44	RLD	EPA 8260C
cis-1,3-Dichloropropene	<0.011	ug/L	0.011	0.038	1			07/30/2019 17:44	RLD	EPA 8260C
Dibromochloromethane	<0.030	ug/L	0.030	0.10	1			07/30/2019 17:44	RLD	EPA 8260C
Dibromomethane	<0.050	ug/L	0.050	0.17	1	Q		07/30/2019 17:44	RLD	EPA 8260C
Dichlorodifluoromethane	<0.060	ug/L	0.060	0.19	1			07/30/2019 17:44	RLD	EPA 8260C
Diisopropyl ether	<0.040	ug/L	0.040	0.14	1			07/30/2019 17:44	RLD	EPA 8260C
Ethylbenzene	<0.040	ug/L	0.040	0.15	1			07/30/2019 17:44	RLD	EPA 8260C

Unless specifically stated to the contrary, soil/sediment/sludge sample results/LOD/LOQ/RLs were reported on a Dry Weight Basis

CT LAB#: 308541 Sample Description: P-107D License/Well #: 00467/119 Sampled: 07/23/2019 1037

Analyte	Result	Units	LOD	LOQ	Dilution	Qualifier	Prep Date/Time	Analysis Date/Time	Analyst	Method
Hexachlorobutadiene	<0.050	ug/L	0.050	0.16	1			07/30/2019 17:44	RLD	EPA 8260C
Isopropylbenzene	<0.040	ug/L	0.040	0.12	1			07/30/2019 17:44	RLD	EPA 8260C
m & p-Xylene	<0.070	ug/L	0.070	0.23	1			07/30/2019 17:44	RLD	EPA 8260C
Methyl tert-butyl ether	<0.040	ug/L	0.040	0.12	1			07/30/2019 17:44	RLD	EPA 8260C
Methylene chloride	<0.050	ug/L	0.050	0.16	1			07/30/2019 17:44	RLD	EPA 8260C
n-Butylbenzene	<0.030	ug/L	0.030	0.11	1			07/30/2019 17:44	RLD	EPA 8260C
n-Propylbenzene	<0.040	ug/L	0.040	0.13	1			07/30/2019 17:44	RLD	EPA 8260C
Naphthalene	<0.030	ug/L	0.030	0.10	1			07/30/2019 17:44	RLD	EPA 8260C
o-Xylene	<0.040	ug/L	0.040	0.14	1			07/30/2019 17:44	RLD	EPA 8260C
p-Isopropyltoluene	<0.040	ug/L	0.040	0.13	1			07/30/2019 17:44	RLD	EPA 8260C
sec-Butylbenzene	<0.050	ug/L	0.050	0.16	1			07/30/2019 17:44	RLD	EPA 8260C
Styrene	<0.030	ug/L	0.030	0.11	1			07/30/2019 17:44	RLD	EPA 8260C
tert-Butylbenzene	<0.040	ug/L	0.040	0.14	1			07/30/2019 17:44	RLD	EPA 8260C
Tetrachloroethene	<0.050	ug/L	0.050	0.18	1			07/30/2019 17:44	RLD	EPA 8260C
Tetrahydrofuran	<0.40	ug/L	0.40	1.5	1			07/30/2019 17:44	RLD	EPA 8260C
Toluene	<0.040	ug/L	0.040	0.13	1			07/30/2019 17:44	RLD	EPA 8260C
trans-1,2-Dichloroethene	<0.040	ug/L	0.040	0.14	1			07/30/2019 17:44	RLD	EPA 8260C
trans-1,3-Dichloropropene	<0.019	ug/L	0.019	0.063	1			07/30/2019 17:44	RLD	EPA 8260C
Trichloroethene	0.14	ug/L	0.050 *	0.17	1			07/30/2019 17:44	RLD	EPA 8260C
Trichlorofluoromethane	<0.090	ug/L	0.090	0.14	1			07/30/2019 17:44	RLD	EPA 8260C
Vinyl acetate	<0.22	ug/L	0.22	0.73	1			07/30/2019 17:44	RLD	EPA 8260C
Vinyl chloride	4.4	ug/L	0.019	0.064	1			07/30/2019 17:44	RLD	EPA 8260C
1,2 Dichloroethane-d4	98	% Recovery	86.0	106	1			07/30/2019 17:44	RLD	EPA 8260C
Bromofluorobenzene	94	% Recovery	75.0	124	1			07/30/2019 17:44	RLD	EPA 8260C
d8-Toluene	102	% Recovery	94.0	105	1			07/30/2019 17:44	RLD	EPA 8260C
Dibromofluoromethane	103	% Recovery	94.0	105	1			07/30/2019 17:44	RLD	EPA 8260C

Unless specifically stated to the contrary, soil/sediment/sludge sample results/LOD/LOQ/RLs were reported on a Dry Weight Basis

CT LAB#: 308542 Sample Description: P-103D License/Well #: 00467/141 Sampled: 07/23/2019 1127

Analyte	Result	Units	LOD	LOQ	Dilution	Qualifier	Prep Date/Time	Analysis Date/Time	Analyst	Method
Inorganic Results										
Nitrate+Nitrite Nitrogen Total	0.22	mg/L	0.12 *	0.40	1			07/25/2019 09:39	TMG	EPA 9056A
Total Sulfate	71	mg/L	4.0	13	5			07/24/2019 22:09	TMG	EPA 9056A
Metals Results										
Total Manganese	96.4	ug/L	3.4	11	1		07/25/2019 10:14	07/30/2019 00:19	NAH	EPA 6010C
Organic Results										
1,1,1,2-Tetrachloroethane	<0.040	ug/L	0.040	0.13	1			07/30/2019 18:13	RLD	EPA 8260C
1,1,1-Trichloroethane	<0.050	ug/L	0.050	0.17	1			07/30/2019 18:13	RLD	EPA 8260C
1,1,2,2-Tetrachloroethane	<0.017	ug/L	0.017	0.057	1			07/30/2019 18:13	RLD	EPA 8260C
1,1,2-Trichloroethane	<0.050	ug/L	0.050	0.16	1			07/30/2019 18:13	RLD	EPA 8260C
1,1-Dichloroethane	<0.060	ug/L	0.060	0.19	1			07/30/2019 18:13	RLD	EPA 8260C
1,1-Dichloroethene	<0.060	ug/L	0.060	0.20	1			07/30/2019 18:13	RLD	EPA 8260C
1,1-Dichloropropene	<0.060	ug/L	0.060	0.19	1			07/30/2019 18:13	RLD	EPA 8260C
1,2,3-Trichlorobenzene	<0.040	ug/L	0.040	0.13	1			07/30/2019 18:13	RLD	EPA 8260C
1,2,3-Trichloropropane	<0.040	ug/L	0.040	0.14	1			07/30/2019 18:13	RLD	EPA 8260C
1,2,4-Trichlorobenzene	<0.040	ug/L	0.040	0.12	1			07/30/2019 18:13	RLD	EPA 8260C
1,2,4-Trimethylbenzene	<0.040	ug/L	0.040	0.12	1			07/30/2019 18:13	RLD	EPA 8260C
1,2-Dibromo-3-chloropropane	<0.090	ug/L	0.090	0.29	1			07/30/2019 18:13	RLD	EPA 8260C
1,2-Dibromoethane	<0.070	ug/L	0.070	0.23	1			07/30/2019 18:13	RLD	EPA 8260C
1,2-Dichlorobenzene	<0.040	ug/L	0.040	0.13	1			07/30/2019 18:13	RLD	EPA 8260C
1,2-Dichloroethane	<0.050	ug/L	0.050	0.18	1			07/30/2019 18:13	RLD	EPA 8260C
1,2-Dichloropropane	<0.070	ug/L	0.070	0.23	1			07/30/2019 18:13	RLD	EPA 8260C
1,3,5-Trimethylbenzene	<0.050	ug/L	0.050	0.16	1			07/30/2019 18:13	RLD	EPA 8260C
1,3-Dichlorobenzene	<0.040	ug/L	0.040	0.13	1			07/30/2019 18:13	RLD	EPA 8260C
1,3-Dichloropropane	<0.040	ug/L	0.040	0.13	1			07/30/2019 18:13	RLD	EPA 8260C
1,4-Dichlorobenzene	<0.040	ug/L	0.040	0.13	1			07/30/2019 18:13	RLD	EPA 8260C

Unless specifically stated to the contrary, soil/sediment/sludge sample results/LOD/LOQ/RLs were reported on a Dry Weight Basis

CT LAB#: 308542 Sample Description: P-103D License/Well #: 00467/141 Sampled: 07/23/2019 1127

Analyte	Result	Units	LOD	LOQ	Dilution	Qualifier	Prep Date/Time	Analysis Date/Time	Analyst	Method
1,4-Dioxane	<7.0	ug/L	7.0	23	1			07/30/2019 18:13	RLD	EPA 8260C
2,2-Dichloropropane	<0.050	ug/L	0.050	0.15	1			07/30/2019 18:13	RLD	EPA 8260C
2-Butanone	<0.50	ug/L	0.50	1.5	1			07/30/2019 18:13	RLD	EPA 8260C
2-Chlorotoluene	<0.030	ug/L	0.030	0.11	1			07/30/2019 18:13	RLD	EPA 8260C
2-Hexanone	<0.24	ug/L	0.24	0.81	1			07/30/2019 18:13	RLD	EPA 8260C
4-Chlorotoluene	<0.040	ug/L	0.040	0.12	1			07/30/2019 18:13	RLD	EPA 8260C
4-Methyl-2-pentanone	<0.24	ug/L	0.24	0.82	1			07/30/2019 18:13	RLD	EPA 8260C
Acetone	0.41	ug/L	0.30 *	1.0	1	B		07/30/2019 18:13	RLD	EPA 8260C
Benzene	0.042	ug/L	0.018 *	0.059	1			07/30/2019 18:13	RLD	EPA 8260C
Bromobenzene	<0.040	ug/L	0.040	0.15	1			07/30/2019 18:13	RLD	EPA 8260C
Bromochloromethane	<0.030	ug/L	0.030	0.099	1			07/30/2019 18:13	RLD	EPA 8260C
Bromodichloromethane	<0.016	ug/L	0.016	0.054	1			07/30/2019 18:13	RLD	EPA 8260C
Bromoform	<0.040	ug/L	0.040	0.12	1			07/30/2019 18:13	RLD	EPA 8260C
Bromomethane	<0.080	ug/L	0.080	0.28	1	Z,Y		07/30/2019 18:13	RLD	EPA 8260C
Carbon disulfide	<0.070	ug/L	0.070	0.25	1			07/30/2019 18:13	RLD	EPA 8260C
Carbon tetrachloride	<0.050	ug/L	0.050	0.18	1			07/30/2019 18:13	RLD	EPA 8260C
Chlorobenzene	<0.040	ug/L	0.040	0.15	1			07/30/2019 18:13	RLD	EPA 8260C
Chloroethane	<0.070	ug/L	0.070	0.23	1			07/30/2019 18:13	RLD	EPA 8260C
Chloroform	<0.030	ug/L	0.030	0.11	1			07/30/2019 18:13	RLD	EPA 8260C
Chloromethane	<0.040	ug/L	0.040	0.13	1			07/30/2019 18:13	RLD	EPA 8260C
cis-1,2-Dichloroethene	0.24	ug/L	0.070	0.23	1			07/30/2019 18:13	RLD	EPA 8260C
cis-1,3-Dichloropropene	<0.011	ug/L	0.011	0.038	1			07/30/2019 18:13	RLD	EPA 8260C
Dibromochloromethane	<0.030	ug/L	0.030	0.10	1			07/30/2019 18:13	RLD	EPA 8260C
Dibromomethane	<0.050	ug/L	0.050	0.17	1	Q		07/30/2019 18:13	RLD	EPA 8260C
Dichlorodifluoromethane	<0.060	ug/L	0.060	0.19	1			07/30/2019 18:13	RLD	EPA 8260C
Diisopropyl ether	<0.040	ug/L	0.040	0.14	1			07/30/2019 18:13	RLD	EPA 8260C
Ethylbenzene	<0.040	ug/L	0.040	0.15	1			07/30/2019 18:13	RLD	EPA 8260C

Unless specifically stated to the contrary, soil/sediment/sludge sample results/LOD/LOQ/RLs were reported on a Dry Weight Basis

CT LAB#: 308542 Sample Description: P-103D License/Well #: 00467/141 Sampled: 07/23/2019 1127

Analyte	Result	Units	LOD	LOQ	Dilution	Qualifier	Prep Date/Time	Analysis Date/Time	Analyst	Method
Hexachlorobutadiene	<0.050	ug/L	0.050	0.16	1			07/30/2019 18:13	RLD	EPA 8260C
Isopropylbenzene	<0.040	ug/L	0.040	0.12	1			07/30/2019 18:13	RLD	EPA 8260C
m & p-Xylene	<0.070	ug/L	0.070	0.23	1			07/30/2019 18:13	RLD	EPA 8260C
Methyl tert-butyl ether	<0.040	ug/L	0.040	0.12	1			07/30/2019 18:13	RLD	EPA 8260C
Methylene chloride	<0.050	ug/L	0.050	0.16	1			07/30/2019 18:13	RLD	EPA 8260C
n-Butylbenzene	<0.030	ug/L	0.030	0.11	1			07/30/2019 18:13	RLD	EPA 8260C
n-Propylbenzene	<0.040	ug/L	0.040	0.13	1			07/30/2019 18:13	RLD	EPA 8260C
Naphthalene	<0.030	ug/L	0.030	0.10	1			07/30/2019 18:13	RLD	EPA 8260C
o-Xylene	<0.040	ug/L	0.040	0.14	1			07/30/2019 18:13	RLD	EPA 8260C
p-Isopropyltoluene	<0.040	ug/L	0.040	0.13	1			07/30/2019 18:13	RLD	EPA 8260C
sec-Butylbenzene	<0.050	ug/L	0.050	0.16	1			07/30/2019 18:13	RLD	EPA 8260C
Styrene	<0.030	ug/L	0.030	0.11	1			07/30/2019 18:13	RLD	EPA 8260C
tert-Butylbenzene	<0.040	ug/L	0.040	0.14	1			07/30/2019 18:13	RLD	EPA 8260C
Tetrachloroethene	<0.050	ug/L	0.050	0.18	1			07/30/2019 18:13	RLD	EPA 8260C
Tetrahydrofuran	<0.40	ug/L	0.40	1.5	1			07/30/2019 18:13	RLD	EPA 8260C
Toluene	<0.040	ug/L	0.040	0.13	1			07/30/2019 18:13	RLD	EPA 8260C
trans-1,2-Dichloroethene	<0.040	ug/L	0.040	0.14	1			07/30/2019 18:13	RLD	EPA 8260C
trans-1,3-Dichloropropene	<0.019	ug/L	0.019	0.063	1			07/30/2019 18:13	RLD	EPA 8260C
Trichloroethene	0.10	ug/L	0.050	0.17	1	*		07/30/2019 18:13	RLD	EPA 8260C
Trichlorofluoromethane	<0.090	ug/L	0.090	0.14	1			07/30/2019 18:13	RLD	EPA 8260C
Vinyl acetate	<0.22	ug/L	0.22	0.73	1			07/30/2019 18:13	RLD	EPA 8260C
Vinyl chloride	0.17	ug/L	0.019	0.064	1			07/30/2019 18:13	RLD	EPA 8260C
1,2 Dichloroethane-d4	88	% Recovery	86.0	106	1			07/30/2019 18:13	RLD	EPA 8260C
Bromofluorobenzene	93	% Recovery	75.0	124	1			07/30/2019 18:13	RLD	EPA 8260C
d8-Toluene	103	% Recovery	94.0	105	1			07/30/2019 18:13	RLD	EPA 8260C
Dibromofluoromethane	105	% Recovery	94.0	105	1			07/30/2019 18:13	RLD	EPA 8260C

Unless specifically stated to the contrary, soil/sediment/sludge sample results/LOD/LOQ/RLs were reported on a Dry Weight Basis

CT LAB#: 308543 Sample Description: P-103 License/Well #: 00467/114 Sampled: 07/23/2019 1217

Analyte	Result	Units	LOD	LOQ	Dilution	Qualifier	Prep Date/Time	Analysis Date/Time	Analyst	Method
Inorganic Results										
Nitrate+Nitrite Nitrogen Total	0.12	mg/L	0.12 *	0.40	1			07/25/2019 09:59	TMG	EPA 9056A
Total Sulfate	70	mg/L	4.0	13	5			07/25/2019 13:00	TMG	EPA 9056A
Metals Results										
Total Manganese	113	ug/L	3.4	11	1		07/25/2019 10:14	07/30/2019 00:25	NAH	EPA 6010C
Organic Results										
1,1,1,2-Tetrachloroethane	<0.040	ug/L	0.040	0.13	1			07/30/2019 18:41	RLD	EPA 8260C
1,1,1-Trichloroethane	<0.050	ug/L	0.050	0.17	1			07/30/2019 18:41	RLD	EPA 8260C
1,1,2,2-Tetrachloroethane	<0.017	ug/L	0.017	0.057	1			07/30/2019 18:41	RLD	EPA 8260C
1,1,2-Trichloroethane	<0.050	ug/L	0.050	0.16	1			07/30/2019 18:41	RLD	EPA 8260C
1,1-Dichloroethane	<0.060	ug/L	0.060	0.19	1			07/30/2019 18:41	RLD	EPA 8260C
1,1-Dichloroethene	<0.060	ug/L	0.060	0.20	1			07/30/2019 18:41	RLD	EPA 8260C
1,1-Dichloropropene	<0.060	ug/L	0.060	0.19	1			07/30/2019 18:41	RLD	EPA 8260C
1,2,3-Trichlorobenzene	<0.040	ug/L	0.040	0.13	1			07/30/2019 18:41	RLD	EPA 8260C
1,2,3-Trichloropropane	<0.040	ug/L	0.040	0.14	1			07/30/2019 18:41	RLD	EPA 8260C
1,2,4-Trichlorobenzene	<0.040	ug/L	0.040	0.12	1			07/30/2019 18:41	RLD	EPA 8260C
1,2,4-Trimethylbenzene	<0.040	ug/L	0.040	0.12	1			07/30/2019 18:41	RLD	EPA 8260C
1,2-Dibromo-3-chloropropane	<0.090	ug/L	0.090	0.29	1			07/30/2019 18:41	RLD	EPA 8260C
1,2-Dibromoethane	<0.070	ug/L	0.070	0.23	1			07/30/2019 18:41	RLD	EPA 8260C
1,2-Dichlorobenzene	<0.040	ug/L	0.040	0.13	1			07/30/2019 18:41	RLD	EPA 8260C
1,2-Dichloroethane	<0.050	ug/L	0.050	0.18	1			07/30/2019 18:41	RLD	EPA 8260C
1,2-Dichloropropane	<0.070	ug/L	0.070	0.23	1			07/30/2019 18:41	RLD	EPA 8260C
1,3,5-Trimethylbenzene	<0.050	ug/L	0.050	0.16	1			07/30/2019 18:41	RLD	EPA 8260C
1,3-Dichlorobenzene	<0.040	ug/L	0.040	0.13	1			07/30/2019 18:41	RLD	EPA 8260C
1,3-Dichloropropane	<0.040	ug/L	0.040	0.13	1			07/30/2019 18:41	RLD	EPA 8260C
1,4-Dichlorobenzene	<0.040	ug/L	0.040	0.13	1			07/30/2019 18:41	RLD	EPA 8260C

Unless specifically stated to the contrary, soil/sediment/sludge sample results/LOD/LOQ/RLs were reported on a Dry Weight Basis

CT LAB#: 308543 Sample Description: P-103 License/Well #: 00467/114 Sampled: 07/23/2019 1217

Analyte	Result	Units	LOD	LOQ	Dilution	Qualifier	Prep Date/Time	Analysis Date/Time	Analyst	Method
1,4-Dioxane	<7.0	ug/L	7.0	23	1			07/30/2019 18:41	RLD	EPA 8260C
2,2-Dichloropropane	<0.050	ug/L	0.050	0.15	1			07/30/2019 18:41	RLD	EPA 8260C
2-Butanone	<0.50	ug/L	0.50	1.5	1			07/30/2019 18:41	RLD	EPA 8260C
2-Chlorotoluene	<0.030	ug/L	0.030	0.11	1			07/30/2019 18:41	RLD	EPA 8260C
2-Hexanone	<0.24	ug/L	0.24	0.81	1			07/30/2019 18:41	RLD	EPA 8260C
4-Chlorotoluene	<0.040	ug/L	0.040	0.12	1			07/30/2019 18:41	RLD	EPA 8260C
4-Methyl-2-pentanone	<0.24	ug/L	0.24	0.82	1			07/30/2019 18:41	RLD	EPA 8260C
Acetone	0.40	ug/L	0.30 *	1.0	1	B		07/30/2019 18:41	RLD	EPA 8260C
Benzene	<0.018	ug/L	0.018	0.059	1			07/30/2019 18:41	RLD	EPA 8260C
Bromobenzene	<0.040	ug/L	0.040	0.15	1			07/30/2019 18:41	RLD	EPA 8260C
Bromochloromethane	<0.030	ug/L	0.030	0.099	1			07/30/2019 18:41	RLD	EPA 8260C
Bromodichloromethane	<0.016	ug/L	0.016	0.054	1			07/30/2019 18:41	RLD	EPA 8260C
Bromoform	<0.040	ug/L	0.040	0.12	1			07/30/2019 18:41	RLD	EPA 8260C
Bromomethane	<0.080	ug/L	0.080	0.28	1	Z,Y		07/30/2019 18:41	RLD	EPA 8260C
Carbon disulfide	<0.070	ug/L	0.070	0.25	1			07/30/2019 18:41	RLD	EPA 8260C
Carbon tetrachloride	<0.050	ug/L	0.050	0.18	1			07/30/2019 18:41	RLD	EPA 8260C
Chlorobenzene	<0.040	ug/L	0.040	0.15	1			07/30/2019 18:41	RLD	EPA 8260C
Chloroethane	<0.070	ug/L	0.070	0.23	1			07/30/2019 18:41	RLD	EPA 8260C
Chloroform	<0.030	ug/L	0.030	0.11	1			07/30/2019 18:41	RLD	EPA 8260C
Chloromethane	<0.040	ug/L	0.040	0.13	1			07/30/2019 18:41	RLD	EPA 8260C
cis-1,2-Dichloroethene	<0.070	ug/L	0.070	0.23	1			07/30/2019 18:41	RLD	EPA 8260C
cis-1,3-Dichloropropene	<0.011	ug/L	0.011	0.038	1			07/30/2019 18:41	RLD	EPA 8260C
Dibromochloromethane	<0.030	ug/L	0.030	0.10	1			07/30/2019 18:41	RLD	EPA 8260C
Dibromomethane	<0.050	ug/L	0.050	0.17	1	Q		07/30/2019 18:41	RLD	EPA 8260C
Dichlorodifluoromethane	<0.060	ug/L	0.060	0.19	1			07/30/2019 18:41	RLD	EPA 8260C
Diisopropyl ether	<0.040	ug/L	0.040	0.14	1			07/30/2019 18:41	RLD	EPA 8260C
Ethylbenzene	<0.040	ug/L	0.040	0.15	1			07/30/2019 18:41	RLD	EPA 8260C

Unless specifically stated to the contrary, soil/sediment/sludge sample results/LOD/LOQ/RLs were reported on a Dry Weight Basis

CT LAB#: 308543 Sample Description: P-103 License/Well #: 00467/114 Sampled: 07/23/2019 1217

Analyte	Result	Units	LOD	LOQ	Dilution	Qualifier	Prep Date/Time	Analysis Date/Time	Analyst	Method
Hexachlorobutadiene	<0.050	ug/L	0.050	0.16	1			07/30/2019 18:41	RLD	EPA 8260C
Isopropylbenzene	<0.040	ug/L	0.040	0.12	1			07/30/2019 18:41	RLD	EPA 8260C
m & p-Xylene	<0.070	ug/L	0.070	0.23	1			07/30/2019 18:41	RLD	EPA 8260C
Methyl tert-butyl ether	<0.040	ug/L	0.040	0.12	1			07/30/2019 18:41	RLD	EPA 8260C
Methylene chloride	<0.050	ug/L	0.050	0.16	1			07/30/2019 18:41	RLD	EPA 8260C
n-Butylbenzene	<0.030	ug/L	0.030	0.11	1			07/30/2019 18:41	RLD	EPA 8260C
n-Propylbenzene	<0.040	ug/L	0.040	0.13	1			07/30/2019 18:41	RLD	EPA 8260C
Naphthalene	<0.030	ug/L	0.030	0.10	1			07/30/2019 18:41	RLD	EPA 8260C
o-Xylene	<0.040	ug/L	0.040	0.14	1			07/30/2019 18:41	RLD	EPA 8260C
p-Isopropyltoluene	<0.040	ug/L	0.040	0.13	1			07/30/2019 18:41	RLD	EPA 8260C
sec-Butylbenzene	<0.050	ug/L	0.050	0.16	1			07/30/2019 18:41	RLD	EPA 8260C
Styrene	<0.030	ug/L	0.030	0.11	1			07/30/2019 18:41	RLD	EPA 8260C
tert-Butylbenzene	<0.040	ug/L	0.040	0.14	1			07/30/2019 18:41	RLD	EPA 8260C
Tetrachloroethene	<0.050	ug/L	0.050	0.18	1			07/30/2019 18:41	RLD	EPA 8260C
Tetrahydrofuran	<0.40	ug/L	0.40	1.5	1			07/30/2019 18:41	RLD	EPA 8260C
Toluene	<0.040	ug/L	0.040	0.13	1			07/30/2019 18:41	RLD	EPA 8260C
trans-1,2-Dichloroethene	<0.040	ug/L	0.040	0.14	1			07/30/2019 18:41	RLD	EPA 8260C
trans-1,3-Dichloropropene	<0.019	ug/L	0.019	0.063	1			07/30/2019 18:41	RLD	EPA 8260C
Trichloroethene	<0.050	ug/L	0.050	0.17	1			07/30/2019 18:41	RLD	EPA 8260C
Trichlorofluoromethane	<0.090	ug/L	0.090	0.14	1			07/30/2019 18:41	RLD	EPA 8260C
Vinyl acetate	<0.22	ug/L	0.22	0.73	1			07/30/2019 18:41	RLD	EPA 8260C
Vinyl chloride	0.038	ug/L	0.019 *	0.064	1			07/30/2019 18:41	RLD	EPA 8260C
1,2 Dichloroethane-d4	91	% Recovery	86.0	106	1			07/30/2019 18:41	RLD	EPA 8260C
Bromofluorobenzene	95	% Recovery	75.0	124	1			07/30/2019 18:41	RLD	EPA 8260C
d8-Toluene	101	% Recovery	94.0	105	1			07/30/2019 18:41	RLD	EPA 8260C
Dibromofluoromethane	100	% Recovery	94.0	105	1			07/30/2019 18:41	RLD	EPA 8260C

Unless specifically stated to the contrary, soil/sediment/sludge sample results/LOD/LOQ/RLs were reported on a Dry Weight Basis

CT LAB#: 308544 Sample Description: TRIP BLANK License/Well #: 00467/999 Sampled: 07/02/2019

Analyte	Result	Units	LOD	LOQ	Dilution	Qualifier	Prep Date/Time	Analysis Date/Time	Analyst	Method
Organic Results										
1,1,1,2-Tetrachloroethane	<0.040	ug/L	0.040	0.13	1			07/30/2019 12:06	RLD	EPA 8260C
1,1,1-Trichloroethane	<0.050	ug/L	0.050	0.17	1			07/30/2019 12:06	RLD	EPA 8260C
1,1,2,2-Tetrachloroethane	<0.017	ug/L	0.017	0.057	1			07/30/2019 12:06	RLD	EPA 8260C
1,1,2-Trichloroethane	<0.050	ug/L	0.050	0.16	1			07/30/2019 12:06	RLD	EPA 8260C
1,1-Dichloroethane	<0.060	ug/L	0.060	0.19	1			07/30/2019 12:06	RLD	EPA 8260C
1,1-Dichloroethene	<0.060	ug/L	0.060	0.20	1			07/30/2019 12:06	RLD	EPA 8260C
1,1-Dichloropropene	<0.060	ug/L	0.060	0.19	1			07/30/2019 12:06	RLD	EPA 8260C
1,2,3-Trichlorobenzene	<0.040	ug/L	0.040	0.13	1			07/30/2019 12:06	RLD	EPA 8260C
1,2,3-Trichloropropane	<0.040	ug/L	0.040	0.14	1			07/30/2019 12:06	RLD	EPA 8260C
1,2,4-Trichlorobenzene	<0.040	ug/L	0.040	0.12	1			07/30/2019 12:06	RLD	EPA 8260C
1,2,4-Trimethylbenzene	<0.040	ug/L	0.040	0.12	1			07/30/2019 12:06	RLD	EPA 8260C
1,2-Dibromo-3-chloropropane	<0.090	ug/L	0.090	0.29	1			07/30/2019 12:06	RLD	EPA 8260C
1,2-Dibromoethane	<0.070	ug/L	0.070	0.23	1			07/30/2019 12:06	RLD	EPA 8260C
1,2-Dichlorobenzene	<0.040	ug/L	0.040	0.13	1			07/30/2019 12:06	RLD	EPA 8260C
1,2-Dichloroethane	<0.050	ug/L	0.050	0.18	1			07/30/2019 12:06	RLD	EPA 8260C
1,2-Dichloropropane	<0.070	ug/L	0.070	0.23	1			07/30/2019 12:06	RLD	EPA 8260C
1,3,5-Trimethylbenzene	<0.050	ug/L	0.050	0.16	1			07/30/2019 12:06	RLD	EPA 8260C
1,3-Dichlorobenzene	<0.040	ug/L	0.040	0.13	1			07/30/2019 12:06	RLD	EPA 8260C
1,3-Dichloropropane	<0.040	ug/L	0.040	0.13	1			07/30/2019 12:06	RLD	EPA 8260C
1,4-Dichlorobenzene	<0.040	ug/L	0.040	0.13	1			07/30/2019 12:06	RLD	EPA 8260C
1,4-Dioxane	<7.0	ug/L	7.0	23	1			07/30/2019 12:06	RLD	EPA 8260C
2,2-Dichloropropane	<0.050	ug/L	0.050	0.15	1			07/30/2019 12:06	RLD	EPA 8260C
2-Butanone	<0.50	ug/L	0.50	1.5	1			07/30/2019 12:06	RLD	EPA 8260C
2-Chlorotoluene	<0.030	ug/L	0.030	0.11	1			07/30/2019 12:06	RLD	EPA 8260C
2-Hexanone	<0.24	ug/L	0.24	0.81	1			07/30/2019 12:06	RLD	EPA 8260C
4-Chlorotoluene	<0.040	ug/L	0.040	0.12	1			07/30/2019 12:06	RLD	EPA 8260C

Unless specifically stated to the contrary, soil/sediment/sludge sample results/LOD/LOQ/RLs were reported on a Dry Weight Basis

CT LAB#: 308544 Sample Description: TRIP BLANK License/Well #: 00467/999 Sampled: 07/02/2019

Analyte	Result	Units	LOD	LOQ	Dilution	Qualifier	Prep Date/Time	Analysis Date/Time	Analyst	Method
4-Methyl-2-pentanone	<0.24	ug/L	0.24	0.82	1			07/30/2019 12:06	RLD	EPA 8260C
Acetone	1.2	ug/L	0.30	1.0	1	B		07/30/2019 12:06	RLD	EPA 8260C
Benzene	<0.018	ug/L	0.018	0.059	1			07/30/2019 12:06	RLD	EPA 8260C
Bromobenzene	<0.040	ug/L	0.040	0.15	1			07/30/2019 12:06	RLD	EPA 8260C
Bromochloromethane	<0.030	ug/L	0.030	0.099	1			07/30/2019 12:06	RLD	EPA 8260C
Bromodichloromethane	<0.016	ug/L	0.016	0.054	1			07/30/2019 12:06	RLD	EPA 8260C
Bromoform	<0.040	ug/L	0.040	0.12	1			07/30/2019 12:06	RLD	EPA 8260C
Bromomethane	<0.080	ug/L	0.080	0.28	1	Z,Y		07/30/2019 12:06	RLD	EPA 8260C
Carbon disulfide	<0.070	ug/L	0.070	0.25	1			07/30/2019 12:06	RLD	EPA 8260C
Carbon tetrachloride	<0.050	ug/L	0.050	0.18	1			07/30/2019 12:06	RLD	EPA 8260C
Chlorobenzene	<0.040	ug/L	0.040	0.15	1			07/30/2019 12:06	RLD	EPA 8260C
Chloroethane	<0.070	ug/L	0.070	0.23	1			07/30/2019 12:06	RLD	EPA 8260C
Chloroform	<0.030	ug/L	0.030	0.11	1			07/30/2019 12:06	RLD	EPA 8260C
Chloromethane	<0.040	ug/L	0.040	0.13	1			07/30/2019 12:06	RLD	EPA 8260C
cis-1,2-Dichloroethene	<0.070	ug/L	0.070	0.23	1			07/30/2019 12:06	RLD	EPA 8260C
cis-1,3-Dichloropropene	<0.011	ug/L	0.011	0.038	1			07/30/2019 12:06	RLD	EPA 8260C
Dibromochloromethane	<0.030	ug/L	0.030	0.10	1			07/30/2019 12:06	RLD	EPA 8260C
Dibromomethane	<0.050	ug/L	0.050	0.17	1	Q		07/30/2019 12:06	RLD	EPA 8260C
Dichlorodifluoromethane	<0.060	ug/L	0.060	0.19	1			07/30/2019 12:06	RLD	EPA 8260C
Diisopropyl ether	<0.040	ug/L	0.040	0.14	1			07/30/2019 12:06	RLD	EPA 8260C
Ethylbenzene	<0.040	ug/L	0.040	0.15	1			07/30/2019 12:06	RLD	EPA 8260C
Hexachlorobutadiene	<0.050	ug/L	0.050	0.16	1			07/30/2019 12:06	RLD	EPA 8260C
Isopropylbenzene	<0.040	ug/L	0.040	0.12	1			07/30/2019 12:06	RLD	EPA 8260C
m & p-Xylene	<0.070	ug/L	0.070	0.23	1			07/30/2019 12:06	RLD	EPA 8260C
Methyl tert-butyl ether	<0.040	ug/L	0.040	0.12	1			07/30/2019 12:06	RLD	EPA 8260C
Methylene chloride	1.1	ug/L	0.050	0.16	1	B		07/30/2019 12:06	RLD	EPA 8260C
n-Butylbenzene	<0.030	ug/L	0.030	0.11	1			07/30/2019 12:06	RLD	EPA 8260C

Unless specifically stated to the contrary, soil/sediment/sludge sample results/LOD/LOQ/RLs were reported on a Dry Weight Basis

CT LAB#: 308544 Sample Description: TRIP BLANK License/Well #: 00467/999 Sampled: 07/02/2019

Analyte	Result	Units	LOD	LOQ	Dilution	Qualifier	Prep Date/Time	Analysis Date/Time	Analyst	Method
n-Propylbenzene	<0.040	ug/L	0.040	0.13	1			07/30/2019 12:06	RLD	EPA 8260C
Naphthalene	<0.030	ug/L	0.030	0.10	1			07/30/2019 12:06	RLD	EPA 8260C
o-Xylene	<0.040	ug/L	0.040	0.14	1			07/30/2019 12:06	RLD	EPA 8260C
p-Isopropyltoluene	<0.040	ug/L	0.040	0.13	1			07/30/2019 12:06	RLD	EPA 8260C
sec-Butylbenzene	<0.050	ug/L	0.050	0.16	1			07/30/2019 12:06	RLD	EPA 8260C
Styrene	<0.030	ug/L	0.030	0.11	1			07/30/2019 12:06	RLD	EPA 8260C
tert-Butylbenzene	<0.040	ug/L	0.040	0.14	1			07/30/2019 12:06	RLD	EPA 8260C
Tetrachloroethene	<0.050	ug/L	0.050	0.18	1			07/30/2019 12:06	RLD	EPA 8260C
Tetrahydrofuran	<0.40	ug/L	0.40	1.5	1			07/30/2019 12:06	RLD	EPA 8260C
Toluene	<0.040	ug/L	0.040	0.13	1			07/30/2019 12:06	RLD	EPA 8260C
trans-1,2-Dichloroethene	<0.040	ug/L	0.040	0.14	1			07/30/2019 12:06	RLD	EPA 8260C
trans-1,3-Dichloropropene	<0.019	ug/L	0.019	0.063	1			07/30/2019 12:06	RLD	EPA 8260C
Trichloroethene	<0.050	ug/L	0.050	0.17	1			07/30/2019 12:06	RLD	EPA 8260C
Trichlorofluoromethane	<0.090	ug/L	0.090	0.14	1			07/30/2019 12:06	RLD	EPA 8260C
Vinyl acetate	<0.22	ug/L	0.22	0.73	1			07/30/2019 12:06	RLD	EPA 8260C
Vinyl chloride	<0.019	ug/L	0.019	0.064	1			07/30/2019 12:06	RLD	EPA 8260C
1,2 Dichloroethane-d4	97	% Recovery	86.0	106	1			07/30/2019 12:06	RLD	EPA 8260C
Bromofluorobenzene	93	% Recovery	75.0	124	1			07/30/2019 12:06	RLD	EPA 8260C
d8-Toluene	102	% Recovery	94.0	105	1			07/30/2019 12:06	RLD	EPA 8260C
Dibromofluoromethane	105	% Recovery	94.0	105	1			07/30/2019 12:06	RLD	EPA 8260C

Unless specifically stated to the contrary, soil/sediment/sludge sample results/LOD/LOQ/RLs were reported on a Dry Weight Basis

Notes: * Indicates Value in between the LOD (limit of detection) and the LOQ (limit of quantitation). All LOD/LOQs are adjusted to reflect dilution, percent solids, and any differences in the sample weight / volume as compared to standard amounts.

All samples were received intact and properly preserved unless otherwise noted. The results reported relate only to the samples tested.
This report shall not be reproduced, except in full, without written approval of this laboratory. The Chain of Custody is attached. This report has been specifically prepared to satisfy project or program requirements.

Submitted by: Brett M. Szymanski
Project Manager
608-356-2760

QC Qualifiers

Code	Description
B	Analyte detected in the associated Method Blank.
C	Toxicity present in BOD sample.
D	Diluted Out.
E	Safe, No Total Coliform detected.
F	Unsafe, Total Coliform detected, no E. Coli detected.
G	Unsafe, Total Coliform detected and E. Coli detected.
H	Holding time exceeded.
I	Incubator temperature was outside acceptance limits during test period.
J	Estimated value.
L	Significant peaks were detected outside the chromatographic window.
M	Matrix spike and/or Matrix Spike Duplicate recovery outside acceptance limits.
N	Insufficient BOD oxygen depletion.
O	Complete BOD oxygen depletion.
P	Concentration of analyte differs more than 40% between primary and confirmation analysis.
Q	Laboratory Control Sample outside acceptance limits.
R	See Narrative at end of report.
S	Surrogate standard recovery outside acceptance limits due to apparent matrix effects.
T	Sample received with improper preservation or temperature.
U	Analyte concentration was below detection limit.
V	Raised Quantitation or Reporting Limit due to limited sample amount or dilution for matrix background interference.
W	Sample amount received was below program minimum.
X	Analyte exceeded calibration range.
Y	Replicate/Duplicate precision outside acceptance limits.
Z	Specified calibration criteria was not met.

Current CT Laboratories Certifications

Wisconsin (WDNR) Chemistry ID# 157066030
Wisconsin (DATCP) Bacteriology ID# 105-289
Louisiana NELAP (primary) ID# ACC20160002
Illinois NELAP Lab ID# 200073
Kansas NELAP Lab ID# E-10368
Virginia NELAP Lab ID# 460203
Maryland Lab ID# WI00061
ISO/IEC 17025-2005 A2LA Cert # 3806.01
DoD-ELAP A2LA 3806.01
GA EPD Stipulation ID ACC20160002

Preventative Action Limit (PAL) Exceedances

08/08/2019

Location/Landfill: RIPON FF/NN LANDFILL **License #: 00467**

Well Description: *MW-103*	**Well #: *112***	GROUND WATER			**Sample Date**	**07/22/2019**
Parameter	DNR Parameter #	Result	PAL	ES	LOD	Units
Nitrate+Nitrite Nitrogen Total	00630	16	2	10	0.60	mg/L
Total Manganese	01055	73.0	60	300	3.4	ug/L
Trichloroethene	39180	1.6	0.5	5	0.050	ug/L

Well Description: *MW-112*	**Well #: *121***	GROUND WATER			**Sample Date**	**07/22/2019**
Parameter	DNR Parameter #	Result	PAL	ES	LOD	Units
Nitrate+Nitrite Nitrogen Total	00630	2.4	2	10	0.12	mg/L
Total Manganese	01055	359	60	300	3.4	ug/L
Trichloroethene	39180	0.74	0.5	5	0.050	ug/L
Vinyl chloride	39175	0.040	0.02	0.20	0.019	ug/L

Well Description: *P-103*	**Well #: *114***	GROUND WATER			**Sample Date**	**07/23/2019**
Parameter	DNR Parameter #	Result	PAL	ES	LOD	Units
Total Manganese	01055	113	60	300	3.4	ug/L
Vinyl chloride	39175	0.038	0.02	0.20	0.019	ug/L

Well Description: *P-103D*	**Well #: *141***	GROUND WATER			**Sample Date**	**07/23/2019**
Parameter	DNR Parameter #	Result	PAL	ES	LOD	Units
Total Manganese	01055	96.4	60	300	3.4	ug/L
Vinyl chloride	39175	0.17	0.02	0.20	0.019	ug/L

Well Description: *P-107D*	**Well #: *119***	GROUND WATER			**Sample Date**	**07/23/2019**
Parameter	DNR Parameter #	Result	PAL	ES	LOD	Units
Total Manganese	01055	241	60	300	3.4	ug/L
Vinyl chloride	39175	4.4	0.02	0.20	0.019	ug/L

Well Description: *P-111D*	**Well #: *130***	GROUND WATER			**Sample Date**	**07/23/2019**
Parameter	DNR Parameter #	Result	PAL	ES	LOD	Units
Vinyl chloride	39175	4.6	0.02	0.20	0.019	ug/L

Well Description: *P-117*	**Well #: *144***	GROUND WATER			**Sample Date**	**07/22/2019**
Parameter	DNR Parameter #	Result	PAL	ES	LOD	Units
Total Manganese	01055	224	60	300	3.4	ug/L
Vinyl chloride	39175	1.3	0.02	0.20	0.019	ug/L

Well Description: *P-118*	**Well #: *145***	GROUND WATER			**Sample Date**	**07/22/2019**
Parameter	DNR Parameter #	Result	PAL	ES	LOD	Units
Total Manganese	01055	94.9	60	300	3.4	ug/L
Vinyl chloride	39175	0.064	0.02	0.20	0.019	ug/L

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QC SUMMARY REPORT

TRC ENVIRONMENTAL **Project Name: RIPON FF/NN LANDFILL**

SDG #: 0 **Folder #: 146780** **Project #: 327275.0001.0003**

Duplicate

Analytical Run #:	162953	Analysis Date:	07/24/2019	Prep Batch #:		Matrix:	GROUND WATER
CTLab #:	309725	Analysis Time:	22:29	Prep Date/Time:		Method:	SW9056A
Parent Sample #:	308541	Analyst:	TMG	Prep Analyst:			

Analyte	QC sample result	Units	Parent sample result	Qualifier(s)	Spike Amount Added	% Recovery	Control Limits	RPD	RPD Limit
Nitrate+Nitrite Nitrogen Total	0.160	mg/L	0.18					12	20
Total Sulfate	27.6	mg/L	28					1	10

Lab Control Spike Water

Analytical Run #:	162953	Analysis Date:	07/24/2019	Prep Batch #:		Matrix:	LIQUID
CTLab #:	309733	Analysis Time:	11:28	Prep Date/Time:		Method:	SW9056A
Parent Sample #:		Analyst:	TMG	Prep Analyst:			

Analyte	QC sample result	Units	Parent sample result	Qualifier(s)	Spike Amount Added	% Recovery	Control Limits	RPD	RPD Limit
Sulfate	24.73	mg/L			25.00	99	80 --- 120		

Method Blank Water

Analytical Run #:	162953	Analysis Date:	07/24/2019	Prep Batch #:		Matrix:	LIQUID
CTLab #:	309732	Analysis Time:	11:48	Prep Date/Time:		Method:	SW9056A
Parent Sample #:		Analyst:	TMG	Prep Analyst:			

Analyte	QC sample result	Units	Parent sample result	Qualifier(s)	Spike Amount Added	% Recovery	Control Limits	RPD	RPD Limit
Sulfate	0.8	mg/L		U	0		0.8		

Matrix Spike Water

Analytical Run #:	162953	Analysis Date:	07/24/2019	Prep Batch #:		Matrix:	GROUND WATER
CTLab #:	309723	Analysis Time:	22:49	Prep Date/Time:		Method:	SW9056A
Parent Sample #:	308541	Analyst:	TMG	Prep Analyst:			

Analyte	QC sample result	Units	Parent sample result	Qualifier(s)	Spike Amount Added	% Recovery	Control Limits	RPD	RPD Limit
Nitrate+Nitrite Nitrogen Total	4.21	mg/L	0.18		4.00	101	80 --- 120		20
Total Sulfate	34.4	mg/L	28		8.00	80	49 --- 120		20

Lab Control Spike Water

Analytical Run #:	162967	Analysis Date:	07/29/2019	Prep Batch #:	72896	Matrix:	LIQUID
CTLab #:	308758	Analysis Time:	22:53	Prep Date/Time:	07/25/2019 10:14	Method:	SW6010
Parent Sample #:		Analyst:	NAH	Prep Analyst:	NAH		

Analyte	QC sample result	Units	Parent sample result	Qualifier(s)	Spike Amount Added	% Recovery	Control Limits	RPD	RPD Limit
Manganese	208.0	ug/L			200.0	104	80 --- 120		

Method Blank Water

Analytical Run #:	162967	Analysis Date:	07/29/2019	Prep Batch #:	72896	Matrix:	LIQUID
CTLab #:	308757	Analysis Time:	22:58	Prep Date/Time:	07/25/2019 10:14	Method:	SW6010
Parent Sample #:		Analyst:	NAH	Prep Analyst:	NAH		

Analyte	QC sample result	Units	Parent sample result	Qualifier(s)	Spike Amount Added	% Recovery	Control Limits	RPD	RPD Limit
Manganese	3.4	ug/L		U	0		3.4		

Matrix Spike Duplicate Water

Analytical Run #:	162967	Analysis Date:	07/29/2019	Prep Batch #:	72896	Matrix:	GROUND WATER
CTLab #:	308760	Analysis Time:	23:35	Prep Date/Time:	07/25/2019 10:14	Method:	SW6010
Parent Sample #:	308759	Analyst:	NAH	Prep Analyst:	NAH		

Analyte	QC sample result	Units	Parent sample result	Qualifier(s)	Spike Amount Added	% Recovery	Control Limits	RPD	RPD Limit
Manganese	422	ug/L	224		200	99	84 --- 111	2	7

Matrix Spike Water

Analytical Run #:	162967	Analysis Date:	07/29/2019	Prep Batch #:	72896	Matrix:	GROUND WATER
CTLab #:	308759	Analysis Time:	23:29	Prep Date/Time:	07/25/2019 10:14	Method:	SW6010
Parent Sample #:	308536	Analyst:	NAH	Prep Analyst:	NAH		

Analyte	QC sample result	Units	Parent sample result	Qualifier(s)	Spike Amount Added	% Recovery	Control Limits	RPD	RPD Limit
Manganese	429	ug/L	224		200	102	84 --- 111		

Lab Control Spike Duplicate Water

Analytical Run #:	163054	Analysis Date:	07/30/2019	Prep Batch #:		Matrix:	LIQUID
CTLab #:	310984	Analysis Time:	19:37	Prep Date/Time:		Method:	SW8260C
Parent Sample #:	311010	Analyst:	RLD	Prep Analyst:			

Analyte	QC sample result	Units	Parent sample result	Qualifier(s)	Spike Amount Added	% Recovery	Control Limits	RPD	RPD Limit
1,1,1,2-Tetrachloroethane	8.24	ug/L	8.32		8.00	103	78 --- 121	1	20
1,1,1-Trichloroethane	8.90	ug/L	8.78		8.00	111	82 --- 122	1	20
1,1,2,2-Tetrachloroethane	7.44	ug/L	7.43		8.00	93	68 --- 128	0	20
1,1,2-Trichloroethane	8.86	ug/L	8.20		8.00	111	84 --- 114	8	20
1,1-Dichloroethane	8.97	ug/L	8.85		8.00	112	76 --- 122	1	20
1,1-Dichloroethene	8.33	ug/L	8.41		8.00	104	83 --- 123	1	20
1,1-Dichloropropene	9.44	ug/L	9.33		8.00	118	85 --- 120	1	20
1,2 Dichloroethane-d4	95.0	% Recovery			100	95.0	87 --- 107		
1,2,3-Trichlorobenzene	8.23	ug/L	8.34		8.00	103	78 --- 121	1	20
1,2,3-Trichloropropane	7.35	ug/L	7.67		8.00	92	62 --- 129	4	20
1,2,4-Trichlorobenzene	8.42	ug/L	8.53		8.00	105	80 --- 120	1	20
1,2,4-Trimethylbenzene	7.82	ug/L	7.82		8.00	98	76 --- 125	0	20
1,2-Dibromo-3-chloropropane	6.38	ug/L	6.96		8.00	80	69 --- 125	9	20
1,2-Dibromoethane	8.46	ug/L	8.14		8.00	106	80 --- 118	4	20
1,2-Dichlorobenzene	7.97	ug/L	7.93		8.00	100	80 --- 117	1	20
1,2-Dichloroethane	9.43	ug/L	9.04		8.00	118	78 --- 118	4	20
1,2-Dichloropropane	9.01	ug/L	8.59		8.00	113	78 --- 121	5	20
1,3,5-Trimethylbenzene	7.71	ug/L	7.62		8.00	96	76 --- 126	1	20
1,3-Dichlorobenzene	8.10	ug/L	8.19		8.00	101	78 --- 119	1	20
1,3-Dichloropropane	9.19	ug/L	9.03		8.00	115	82 --- 117	2	20
1,4-Dichlorobenzene	8.17	ug/L	8.08		8.00	102	77 --- 118	1	20
1,4-Dioxane	470	ug/L	443		400	118	11 --- 220	6	20
2,2-Dichloropropane	8.16	ug/L	8.84		8.00	102	71 --- 133	8	20
2-Butanone	94.6	ug/L	94.1		80.0	118	80 --- 120	1	20
2-Chlorotoluene	7.50	ug/L	7.52		8.00	94	73 --- 124	0	20
2-Hexanone	87.3	ug/L	84.8		80.0	109	73 --- 127	3	20
4-Chlorotoluene	7.80	ug/L	7.69		8.00	98	74 --- 125	1	20
4-Methyl-2-pentanone	91.4	ug/L	89.4		80.0	114	77 --- 125	2	20
Acetone	81.8	ug/L	84.0		80.0	102	72 --- 117	3	20
Benzene	8.82	ug/L	8.57		8.00	110	82 --- 118	3	20
Bromobenzene	7.87	ug/L	7.95		8.00	98	77 --- 118	1	20
Bromochloromethane	9.31	ug/L	9.26		8.00	116	81 --- 116	1	20
Bromodichloromethane	8.94	ug/L	8.92		8.00	112	80 --- 122	0	20
Bromofluorobenzene	91.0	% Recovery			100	91.0	90 --- 108		
Bromoform	7.75	ug/L	8.46		8.00	97	72 --- 124	9	20
Bromomethane	4.66	ug/L	6.15		8.00	58	25 --- 156	28	20
Carbon disulfide	17.7	ug/L	17.3		16.0	111	81 --- 124	2	20
Carbon tetrachloride	9.21	ug/L	9.52		8.00	115	87 --- 129	3	20
Chlorobenzene	8.72	ug/L	8.47		8.00	109	78 --- 118	3	20
Chloroethane	7.82	ug/L	7.60		8.00	98	73 --- 126	3	20
Chloroform	8.96	ug/L	8.71		8.00	112	76 --- 119	3	20
Chloromethane	7.65	ug/L	7.76		8.00	96	70 --- 121	1	20

Lab Control Spike Duplicate Water

Analytical Run #:	163054	Analysis Date:	07/30/2019	Prep Batch #:		Matrix:	LIQUID
CTLab #:	310984	Analysis Time:	19:37	Prep Date/Time:		Method:	SW8260C
Parent Sample #:	311010	Analyst:	RLD	Prep Analyst:			

Analyte	QC sample result	Units	Parent sample result	Qualifier(s)	Spike Amount Added	% Recovery	Control Limits			RPD	RPD Limit
cis-1,2-Dichloroethene	8.83	ug/L	8.55		8.00	110	82	---	118	3	20
cis-1,3-Dichloropropene	8.87	ug/L	9.06		8.00	111	81	---	123	2	20
d8-Toluene	106	% Recovery			100	106	93	---	108		
Dibromochloromethane	8.09	ug/L	8.36		8.00	101	76	---	124	3	20
Dibromofluoromethane	103	% Recovery			100	103	93	---	106		
Dibromomethane	9.45	ug/L	8.80		8.00	118	83	---	115	7	20
Dichlorodifluoromethane	8.60	ug/L	8.51		8.00	108	78	---	126	1	20
Diisopropyl ether	8.72	ug/L	8.41		8.00	109	75	---	125	4	20
Ethylbenzene	8.45	ug/L	8.15		8.00	106	78	---	125	4	20
Hexachlorobutadiene	8.34	ug/L	8.54		8.00	104	79	---	123	2	20
Isopropylbenzene	8.39	ug/L	8.23		8.00	105	81	---	124	2	20
m & p-Xylene	17.3	ug/L	16.9		16.0	108	80	---	123	2	20
Methyl tert-butyl ether	8.24	ug/L	8.15		8.00	103	82	---	116	1	20
Methylene chloride	8.50	ug/L	8.21		8.00	106	73	---	128	3	20
n-Butylbenzene	8.30	ug/L	8.23		8.00	104	76	---	127	1	20
n-Propylbenzene	7.74	ug/L	7.75		8.00	97	75	---	129	0	20
Naphthalene	7.61	ug/L	7.77		8.00	95	64	---	129	2	20
o-Xylene	8.41	ug/L	8.18		8.00	105	81	---	121	3	20
p-Isopropyltoluene	8.33	ug/L	8.38		8.00	104	79	---	126	1	20
sec-Butylbenzene	8.14	ug/L	8.02		8.00	102	76	---	128	1	20
Styrene	8.45	ug/L	8.19		8.00	106	81	---	122	3	20
tert-Butylbenzene	7.96	ug/L	7.99		8.00	100	76	---	125	0	20
Tetrachloroethene	9.15	ug/L	9.19		8.00	114	82	---	123	0	20
Tetrahydrofuran	87.7	ug/L	84.8		80.0	110	69	---	122	3	20
Toluene	8.83	ug/L	8.67		8.00	110	82	---	119	2	20
trans-1,2-Dichloroethene	8.69	ug/L	8.48		8.00	109	80	---	122	2	20
trans-1,3-Dichloropropene	8.87	ug/L	9.07		8.00	111	83	---	119	2	20
Trichloroethene	9.03	ug/L	8.69		8.00	113	82	---	120	4	20
Trichlorofluoromethane	9.61	ug/L	9.79		8.00	120	78	---	130	2	20
Vinyl acetate	75.1	ug/L	82.0		80.0	94	63	---	136	9	20
Vinyl chloride	8.19	ug/L	8.25		8.00	102	73	---	127	1	20

Lab Control Spike Water

Analytical Run #:	163054	Analysis Date:	07/30/2019	Prep Batch #:		Matrix:	LIQUID
CTLab #:	311010	Analysis Time:	09:45	Prep Date/Time:		Method:	SW8260C
Parent Sample #:		Analyst:	RLD	Prep Analyst:			

Analyte	QC sample result	Units	Parent sample result	Qualifier(s)	Spike Amount Added	% Recovery	Control Limits	RPD	RPD Limit
1,1,1,2-Tetrachloroethane	8.32	ug/L			8.00	104	78 --- 121		20
1,1,1-Trichloroethane	8.78	ug/L			8.00	110	82 --- 122		20
1,1,2,2-Tetrachloroethane	7.43	ug/L			8.00	93	68 --- 128		20
1,1,2-Trichloroethane	8.20	ug/L			8.00	102	84 --- 114		20
1,1-Dichloroethane	8.85	ug/L			8.00	111	76 --- 122		20
1,1-Dichloroethene	8.41	ug/L			8.00	105	83 --- 123		20
1,1-Dichloropropene	9.33	ug/L			8.00	117	85 --- 120		20
1,2 Dichloroethane-d4	107	% Recovery			100	107	87 --- 107		
1,2,3-Trichlorobenzene	8.34	ug/L			8.00	104	78 --- 121		20
1,2,3-Trichloropropane	7.67	ug/L			8.00	96	62 --- 129		20
1,2,4-Trichlorobenzene	8.53	ug/L			8.00	107	80 --- 120		20
1,2,4-Trimethylbenzene	7.82	ug/L			8.00	98	76 --- 125		20
1,2-Dibromo-3-chloropropane	6.96	ug/L			8.00	87	69 --- 125		20
1,2-Dibromoethane	8.14	ug/L			8.00	102	80 --- 118		20
1,2-Dichlorobenzene	7.93	ug/L			8.00	99	80 --- 117		20
1,2-Dichloroethane	9.04	ug/L			8.00	113	78 --- 118		20
1,2-Dichloropropane	8.59	ug/L			8.00	107	78 --- 121		20
1,3,5-Trimethylbenzene	7.62	ug/L			8.00	95	76 --- 126		20
1,3-Dichlorobenzene	8.19	ug/L			8.00	102	78 --- 119		20
1,3-Dichloropropane	9.03	ug/L			8.00	113	82 --- 117		20
1,4-Dichlorobenzene	8.08	ug/L			8.00	101	77 --- 118		20
1,4-Dioxane	443	ug/L			400	111	11 --- 220		20
2,2-Dichloropropane	8.84	ug/L			8.00	110	71 --- 133		20
2-Butanone	94.1	ug/L			80.0	118	80 --- 120		20
2-Chlorotoluene	7.52	ug/L			8.00	94	73 --- 124		20
2-Hexanone	84.8	ug/L			80.0	106	73 --- 127		20
4-Chlorotoluene	7.69	ug/L			8.00	96	74 --- 125		20
4-Methyl-2-pentanone	89.4	ug/L			80.0	112	77 --- 125		20
Acetone	84.0	ug/L			80.0	105	72 --- 117		20
Benzene	8.57	ug/L			8.00	107	82 --- 118		20
Bromobenzene	7.95	ug/L			8.00	99	77 --- 118		20
Bromochloromethane	9.26	ug/L			8.00	116	81 --- 116		20
Bromodichloromethane	8.92	ug/L			8.00	112	80 --- 122		20
Bromofluorobenzene	91.0	% Recovery			100	91.0	90 --- 108		
Bromoform	8.46	ug/L			8.00	106	72 --- 124		20
Bromomethane	6.15	ug/L			8.00	77	25 --- 156		20
Carbon disulfide	17.3	ug/L			16.0	108	81 --- 124		20
Carbon tetrachloride	9.52	ug/L			8.00	119	87 --- 129		20
Chlorobenzene	8.47	ug/L			8.00	106	78 --- 118		20
Chloroethane	7.60	ug/L			8.00	95	73 --- 126		20
Chloroform	8.71	ug/L			8.00	109	76 --- 119		20
Chloromethane	7.76	ug/L			8.00	97	70 --- 121		20

Lab Control Spike Water

Analytical Run #:	163054	Analysis Date:	07/30/2019	Prep Batch #:		Matrix:	LIQUID
CTLab #:	311010	Analysis Time:	09:45	Prep Date/Time:		Method:	SW8260C
Parent Sample #:		Analyst:	RLD	Prep Analyst:			

Analyte	QC sample result	Units	Parent sample result	Qualifier(s)	Spike Amount Added	% Recovery	Control Limits	RPD	RPD Limit
cis-1,2-Dichloroethene	8.55	ug/L			8.00	107	82 --- 118		20
cis-1,3-Dichloropropene	9.06	ug/L			8.00	113	81 --- 123		20
d8-Toluene	105	% Recovery			100	105	93 --- 108		
Dibromochloromethane	8.36	ug/L			8.00	104	76 --- 124		20
Dibromofluoromethane	107	% Recovery		S	100	107	93 --- 106		
Dibromomethane	8.80	ug/L			8.00	110	83 --- 115		20
Dichlorodifluoromethane	8.51	ug/L			8.00	106	78 --- 126		20
Diisopropyl ether	8.41	ug/L			8.00	105	75 --- 125		20
Ethylbenzene	8.15	ug/L			8.00	102	78 --- 125		20
Hexachlorobutadiene	8.54	ug/L			8.00	107	79 --- 123		20
Isopropylbenzene	8.23	ug/L			8.00	103	81 --- 124		20
m & p-Xylene	16.9	ug/L			16.0	106	80 --- 123		20
Methyl tert-butyl ether	8.15	ug/L			8.00	102	82 --- 116		20
Methylene chloride	8.21	ug/L			8.00	103	73 --- 128		20
n-Butylbenzene	8.23	ug/L			8.00	103	76 --- 127		20
n-Propylbenzene	7.75	ug/L			8.00	97	75 --- 129		20
Naphthalene	7.77	ug/L			8.00	97	64 --- 129		20
o-Xylene	8.18	ug/L			8.00	102	81 --- 121		20
p-Isopropyltoluene	8.38	ug/L			8.00	105	79 --- 126		20
sec-Butylbenzene	8.02	ug/L			8.00	100	76 --- 128		20
Styrene	8.19	ug/L			8.00	102	81 --- 122		20
tert-Butylbenzene	7.99	ug/L			8.00	100	76 --- 125		20
Tetrachloroethene	9.19	ug/L			8.00	115	82 --- 123		20
Tetrahydrofuran	84.8	ug/L			80.0	106	69 --- 122		20
Toluene	8.67	ug/L			8.00	108	82 --- 119		20
trans-1,2-Dichloroethene	8.48	ug/L			8.00	106	80 --- 122		20
trans-1,3-Dichloropropene	9.07	ug/L			8.00	113	83 --- 119		20
Trichloroethene	8.69	ug/L			8.00	109	82 --- 120		20
Trichlorofluoromethane	9.79	ug/L			8.00	122	78 --- 130		20
Vinyl acetate	82.0	ug/L			80.0	102	63 --- 136		20
Vinyl chloride	8.25	ug/L			8.00	103	73 --- 127		20

Method Blank Water

Analytical Run #:	163054	Analysis Date:	07/30/2019	Prep Batch #:		Matrix:	LIQUID
CTLab #:	310732	Analysis Time:	11:10	Prep Date/Time:		Method:	SW8260C
Parent Sample #:		Analyst:	RLD	Prep Analyst:			

Analyte	QC sample result	Units	Parent sample result	Qualifier(s)	Spike Amount Added	% Recovery	Control Limits	RPD	RPD Limit
1,1,1,2-Tetrachloroethane	0.04	ug/L		U	0		0.04		
1,1,1-Trichloroethane	0.05	ug/L		U	0		0.05		
1,1,2,2-Tetrachloroethane	0.017	ug/L		U	0		0.017		
1,1,2-Trichloroethane	0.05	ug/L		U	0		0.05		
1,1-Dichloroethane	0.06	ug/L		U	0		0.06		
1,1-Dichloroethene	0.06	ug/L		U	0		0.06		
1,1-Dichloropropene	0.06	ug/L		U	0		0.06		
1,2 Dichloroethane-d4	100	% Recovery			100	100	68 --- 120		
1,2,3-Trichlorobenzene	0.04	ug/L		U	0		0.04		
1,2,3-Trichloropropane	0.04	ug/L		U	0		0.04		
1,2,4-Trichlorobenzene	0.04	ug/L		U	0		0.04		
1,2,4-Trimethylbenzene	0.04	ug/L		U	0		0.04		
1,2-Dibromo-3-chloropropane	0.09	ug/L		U	0		0.09		
1,2-Dibromoethane	0.07	ug/L		U	0		0.07		
1,2-Dichlorobenzene	0.04	ug/L		U	0		0.04		
1,2-Dichloroethane	0.05	ug/L		U	0		0.05		
1,2-Dichloropropane	0.07	ug/L		U	0		0.07		
1,3,5-Trimethylbenzene	0.05	ug/L		U	0		0.05		
1,3-Dichlorobenzene	0.04	ug/L		U	0		0.04		
1,3-Dichloropropane	0.04	ug/L		U	0		0.04		
1,4-Dichlorobenzene	0.04	ug/L		U	0		0.04		
1,4-Dioxane	7	ug/L		U	0		7		
2,2-Dichloropropane	0.05	ug/L		U	0		0.05		
2-Butanone	0.5	ug/L		U	0		0.5		
2-Chlorotoluene	0.03	ug/L		U	0		0.03		
2-Hexanone	0.24	ug/L		U	0		0.24		
4-Chlorotoluene	0.04	ug/L		U	0		0.04		
4-Methyl-2-pentanone	0.24	ug/L		U	0		0.24		
Acetone	0.775	ug/L			0		0.30		
Benzene	0.018	ug/L		U	0		0.018		
Bromobenzene	0.04	ug/L		U	0		0.04		
Bromochloromethane	0.030	ug/L		U	0		0.030		
Bromodichloromethane	0.016	ug/L		U	0		0.016		
Bromofluorobenzene	95.0	% Recovery			100	95.0	68 --- 120		
Bromoform	0.04	ug/L		U	0		0.04		
Bromomethane	0.08	ug/L		U	0		0.08		
Carbon disulfide	0.07	ug/L		U	0		0.07		
Carbon tetrachloride	0.05	ug/L		U	0		0.05		
Chlorobenzene	0.04	ug/L		U	0		0.04		
Chloroethane	0.07	ug/L		U	0		0.07		
Chloroform	0.03	ug/L		U	0		0.03		
Chloromethane	0.04	ug/L		U	0		0.04		

Method Blank Water

Analytical Run #:	163054	Analysis Date:	07/30/2019	Prep Batch #:		Matrix:	LIQUID
CTLab #:	310732	Analysis Time:	11:10	Prep Date/Time:		Method:	SW8260C
Parent Sample #:		Analyst:	RLD	Prep Analyst:			

Analyte	QC sample result	Units	Parent sample result	Qualifier(s)	Spike Amount Added	% Recovery	Control Limits	RPD	RPD Limit
cis-1,2-Dichloroethene	0.07	ug/L		U	0		0.07		
cis-1,3-Dichloropropene	0.011	ug/L		U	0		0.011		
d8-Toluene	101	% Recovery			100	101	71 --- 117		
Dibromochloromethane	0.03	ug/L		U	0		0.03		
Dibromofluoromethane	104	% Recovery			100	104	67 --- 122		
Dibromomethane	0.05	ug/L		U	0		0.05		
Dichlorodifluoromethane	0.06	ug/L		U	0		0.06		
Diisopropyl ether	0.04	ug/L		U	0		0.04		
Ethylbenzene	0.04	ug/L		U	0		0.04		
Hexachlorobutadiene	0.05	ug/L		U	0		0.05		
Isopropylbenzene	0.04	ug/L		U	0		0.04		
m & p-Xylene	0.07	ug/L		U	0		0.07		
Methyl tert-butyl ether	0.04	ug/L		U	0		0.04		
Methylene chloride	0.102	ug/L			0		0.05		
n-Butylbenzene	0.03	ug/L		U	0		0.03		
n-Propylbenzene	0.04	ug/L		U	0		0.04		
Naphthalene	0.03	ug/L		U	0		0.03		
o-Xylene	0.04	ug/L		U	0		0.04		
p-Isopropyltoluene	0.04	ug/L		U	0		0.04		
sec-Butylbenzene	0.05	ug/L		U	0		0.05		
Styrene	0.03	ug/L		U	0		0.03		
tert-Butylbenzene	0.04	ug/L		U	0		0.04		
Tetrachloroethene	0.05	ug/L		U	0		0.05		
Tetrahydrofuran	0.4	ug/L		U	0		0.4		
Toluene	0.04	ug/L		U	0		0.04		
trans-1,2-Dichloroethene	0.04	ug/L		U	0		0.04		
trans-1,3-Dichloropropene	0.019	ug/L		U	0		0.019		
Trichloroethene	0.05	ug/L		U	0		0.05		
Trichlorofluoromethane	0.09	ug/L		U	0		0.09		
Vinyl acetate	0.22	ug/L		U	0		0.22		
Vinyl chloride	0.019	ug/L		U	0		0.019		

CT LABORATORIES
delivering more than data from your environmental analyses

Sample Condition Report

Folder #: 146780
Client: TRC ENVIRONMENTAL

Print Date / Time: 07/25/2019 08:51
Received Date / Time / By: 07/24/2019 09:15 JRB

Project Name: RIPON FF/NN LANDFILL
Project Phase: RIPON, WI

Log-In Date / Time / By: 07/24/2019 10:20 JRB
Project #: 327275.0001.0003 PM: BMS

Coolers: 6355
Custody Seals Present :

Temperature: 3.3 C On Ice: **Y**
COC Present:? **Y** Complete? **Y**

Seal Intact?
Ship Method: FEDEX EXPRESS
Adequate Packaging: **Y**

Numbers:
Tracking Number:
Temp Blank Enclosed? **Y**

Notes: THE SAMPLES WERE RECEIVED IN GOOD CONDITION ON ICE.

Sample ID / Description	Container Type	Cond. Code	pH OK?/Filtered?	Tests
308536 P-117				
	UNPRES PL	1	/	Anions
	Total # of Containers of Type (*UNPRES PL*) = 1			
308536 P-117				
	HNO3	1	Y /	ICP
	Total # of Containers of Type (*HNO3*) = 1			
308536 P-117				
	VOA HCL	1	/	VOC
	VOA HCL	1	/	VOC
	VOA HCL	1	/	VOC
	Total # of Containers of Type (*VOA HCL*) = 3			

Sample ID / Description	Container Type	Cond. Code	pH OK?/Filtered?	Tests
308537 P-118				
	UNPRES PL	1	/	Anions
	Total # of Containers of Type (*UNPRES PL*) = 1			
308537 P-118				
	HNO3	1	Y /	ICP
	Total # of Containers of Type (*HNO3*) = 1			
308537 P-118				
	VOA HCL	1	/	VOC
	VOA HCL	1	/	VOC
	VOA HCL	1	/	VOC
	Total # of Containers of Type (*VOA HCL*) = 3			

Sample ID / Description	Container Type	Cond. Code	pH OK?/Filtered?	Tests
308538 MW-112				
	UNPRES PL	1	/	Anions
	Total # of Containers of Type (*UNPRES PL*) = 1			
308538 MW-112				

		HNO3	1	Y /	ICP
		Total # of Containers of Type	**(*HNO3*) =**	**1**	

308538 MW-112

	VOA HCL	1	/	VOC
	VOA HCL	1	/	VOC
	VOA HCL	1	/	VOC
	Total # of Containers of Type	**(*VOA HCL*) =**	**3**	

Sample ID / Description	Container Type	Cond. Code	pH OK?/Filtered?	Tests

308539 MW-103

	UNPRES PL	1	/	Anions
	Total # of Containers of Type	**(*UNPRES PL*) =**	**1**	

308539 MW-103

	HNO3	1	Y /	ICP
	Total # of Containers of Type	**(*HNO3*) =**	**1**	

308539 MW-103

	VOA HCL	1	/	VOC
	VOA HCL	1	/	VOC
	VOA HCL	1	/	VOC
	Total # of Containers of Type	**(*VOA HCL*) =**	**3**	

Sample ID / Description	Container Type	Cond. Code	pH OK?/Filtered?	Tests

308540 P-111D

	UNPRES PL	1	/	Anions
	Total # of Containers of Type	**(*UNPRES PL*) =**	**1**	

308540 P-111D

	HNO3	1	Y /	ICP
	Total # of Containers of Type	**(*HNO3*) =**	**1**	

308540 P-111D

	VOA HCL	1	/	VOC
	VOA HCL	1	/	VOC
	VOA HCL	1	/	VOC
	Total # of Containers of Type	**(*VOA HCL*) =**	**3**	

Sample ID / Description	Container Type	Cond. Code	pH OK?/Filtered?	Tests

308541 P-107D

	UNPRES PL	1	/	Anions
	Total # of Containers of Type	**(*UNPRES PL*) =**	**1**	

308541 P-107D

	HNO3	1	Y /	ICP
	Total # of Containers of Type	**(*HNO3*) =**	**1**	

308541 P-107D

	VOA HCL	1	/	VOC
	VOA HCL	1	/	VOC
	VOA HCL	1	/	VOC
	Total # of Containers of Type	**(*VOA HCL*) =**	**3**	

Sample ID / Description	Container Type	Cond. Code	pH OK?/Filtered?	Tests

308542 P-103D

	UNPRES PL	1	/	Anions
	Total # of Containers of Type	**(*UNPRES PL*) =**	**1**	

308542 P-103D

HNO3	1	Y	/	ICP
Total # of Containers of Type	**(*HNO3*) =**	**1**		

308542 P-103D

VOA HCL	1		/	VOC
VOA HCL	1		/	VOC
VOA HCL	1		/	VOC
Total # of Containers of Type	**(*VOA HCL*) =**	**3**		

Sample ID / Description	Container Type	Cond. Code	pH OK?/Filtered?	Tests

308543 P-103

UNPRES PL	1		/	Anions
Total # of Containers of Type	**(*UNPRES PL*) =**	**1**		

308543 P-103

HNO3	1	Y	/	ICP
Total # of Containers of Type	**(*HNO3*) =**	**1**		

308543 P-103

VOA HCL	1		/	VOC
VOA HCL	1		/	VOC
VOA HCL	1		/	VOC
Total # of Containers of Type	**(*VOA HCL*) =**	**3**		

Sample ID / Description	Container Type	Cond. Code	pH OK?/Filtered?	Tests

308544 TRIP BLANK

Trip Blank	1		/	VOC
Trip Blank	1		/	VOC
Trip Blank	1		/	VOC
Total # of Containers of Type	**(*Trip Blank*) =**	**3**		

Condition Code	*Condition Description*
1	Sample Received OK

146780

Rev. 02/2017

CHAIN OF CUSTODY

Page 2 of 2

Company: TRC
Project Contact: marita Stollenwerk
Telephone: (262) 901-2158
Project Name: FF/WW Ripon LF
Project #: 327275.0001.0003
Location: Ripon WI
Sampled By: J. Roelke

CT LABORATORIES

1230 Lange Court, Baraboo, WI 53913
608-356-2760 Fax 608-356-2766
www.ctlaboratories.com

Folder #: 146780
Company: TRC ENVIRONMENTA
Project: RIPON SUPERFUND LF
Logged By: JRB PM: BM

gram:
VI RCRA SDWA NPDES
id Waste Other _____

#
138000

Report To:
EMAIL: ppopp@trccompanies.com
Company: TRC
Address: 708 Heartland Tr, Suite 3000 Madison WI 53717

Invoice To:*
EMAIL: mstollenwerk@trccompanies.com
Company: TRC
Address: 150 N. Patrick Blvd Suite 180 Brookfield, WI 53045

*Party listed is responsible for payment of invoice as per CT Laboratories' terms and conditions

Client Special Instructions Send Report To:
- marita Stollenwerk@mstollenwerk@trccompanies.com
- James Wedekind@jwedekind@trccompanies.com

Matrix:
GW – groundwater SW - surface water WW - wastewater DW - drinking water
S - soil/sediment SL - sludge A - air M - misc/waste

ANALYSES REQUESTED

Turnaround Time
Normal RUSH*
Date Needed: _____
Rush analysis requires prior CT Laboratories' approval
Surcharges:
24 hr 200%
2-3 days 100%
4-9 days 50%

Collection Date	Collection Time	Matrix	Grab/ Comp	Sample #	Sample ID Description	Filtered? Y/N	Total Mn	Nitrate/Nitrite Sulfate	VOCs 8260	Total # Containers	Designated MS/MSD	CT Lab ID # (Lab use only)
					Fill in Spaces with Bottles per Test							
7/22/19	1642	GW	Grab	5	P-117	N	X	X	X			308536
	1711				P-118							308537
	1741				MW-112							308538
	1809				MW-103							308539
7/23/19	920				~~P-111D~~ P-111D (per 7/23/19)							308540
	1037				P-107D							308541
	1127				P-103D							308542
	1217				P-103							308543
7/24/19	~			2	Trip Blank				X			308544

Relinquished By:	Date/Time	Received By:	Date/Time
J. Roelke	7/23/19 1700	JRB	7/24/19 915
Received by:	Date/Time	Received for Laboratory by:	Date/Time
		JRB	7/24/19 1020

Lab Use Only
Ice Present Yes No
Temp 3.3 IR Gun 24
Cooler # 0355

CT Laboratories Terms and Conditions

Where a purchaser (Client) places an order for laboratory, consulting or sampling services from CT Laboratories (CTL), CTL shall provide the ordered services pursuant to these Terms and Conditions, and the related Quotation, or as agreed in a negotiated contract. In the absence of a written agreement to the contrary, the Order constitutes an acceptance by the Client of CTL's offer to do business under these Terms and Conditions, and an agreement to be bound by these Terms and Conditions. No contrary or additional terms and conditions expressed in a Client's document shall be deemed to become a part of the contract created upon acceptance of these Terms and Conditions, unless accepted by CTL in advance of the start of the project and in writing.

1. ORDERS AND RECEIPT OF SAMPLES (Sample Acceptance Policy)

1.1 The Client may place the Order (i.e., specify a Scope of Work) either by submitting a purchase order to CTL in writing, by telephone (confirmed in writing) or by negotiated contract. Whichever option the Client selects for placing the Order, the Order shall not be valid unless it contains sufficient information to enable CTL to carry out the Client's requirements. It is the policy of CTL that samples not meeting the acceptance criteria, outlined in the NELAC standards and Section 5.8.3.2 of the DOD QSM, will not be accepted by the laboratory or will be qualified on the final report. All samples submitted to the laboratory must: (a) be accompanied by proper, full and complete documentation, including sample identification, location, date and time of collection, the collector's name, type of preservation (if any), type of sample, any special comments concerning the sample and any additional pertinent fields on the chain-of-custody. In the absence of any of the required information, the laboratory will attempt to contact the client to obtain the information; if unable to obtain the necessary information, the final report will be qualified. (b) samples must be labeled appropriately with a unique sample identification written with indelible ink on water resistant labels. If the laboratory cannot determine the identity of a sample, it may be rejected and the client will be contacted for further instructions or resampling. (c) samples must be in an appropriate sample container. If the container is inappropriate, the client will be contacted for further instructions or resampling. If analysis is possible, the final report will be qualified. CTL can provide a sampling guide containing approved containers and preservations for analytical methods requested. (d) adhere to method specified holding times. If samples are received with less than ½ the holding time remaining for the requested test, CTL will make its best effort to analyze the samples and notify the client. If holding times are exceeded, the final report will be qualified. (e) contain adequate sample volume to perform the necessary testing. If sufficient volume is not present, the sample may be rejected and the client will be contacted for further instructions or resampling. If samples show signs of damage, contamination or inadequate preservation, the client will be notified. If analysis can be performed, the final report will be qualified. If not, the samples will be rejected and the client notified for further instructions or resampling. It is the Client's responsibility to understand and package samples correctly and provide the proper amount of temperature control (ice) suitable to current weather conditions.

1.2 CTL must be supplied with complete written disclosure of the known or suspected presence of any hazardous substances, as defined by applicable federal or state law. Where any samples which were not accompanied by the required disclosure, cause interruptions in the lab's ability to process work due to contamination of instruments or work areas, the Client will be responsible for the costs of clean up and recovery.

1.3 Prior to Sample Acceptance, the entire risk of loss or damage to samples remains with the Client. In no event will CTL have any responsibility or liability for the action or inaction of any carrier shipping or delivering any sample to or from CTL's premises. Client is responsible to assure that any sample containing any hazardous substance which is to be delivered to CTL's premises will be packaged, labeled, transported and delivered properly and in accordance with applicable laws.

1.4 Clients using CTL's shipping account(s) do so at their own risk and must purchase separate insurance if they do not wish to assume risk of loss. CTL will not assume any risk whatsoever for any samples outside of CTL's control and not successfully delivered to the laboratory within specified hold times.

1.5 CTL will not accept liability for any sample(s), except sample(s) damaged or broken by log-in staff prior to successful log-in of the sample(s) into the CTL- LIMS system. This includes, but may not be limited to: complete, valid COC documentation, all sample receiving issues being resolved from a delay caused by the Client in CTL's ability to log-in samples, including missed turnaround and hold times, delay in processing and, ultimately, additional charges to the Client.

1.6 CTL will only reject samples per directions from the Client. CTL's sole liability is to inform the Client of any sample receipt issues, and may provide an indication how proceeding with the analysis may affect results and final acceptance by the regulating agency. Ultimately, suitability for use is between the Client and the regulating agency(s).

1.7 Signing of this COC by the Client or Client's representative, or directions to CTL via email or Fax constitutes acceptance of these Terms and Conditions, and guarantees payment by the Client to CTL.

2. PAYMENT TERMS

2.1 Services performed by CTL will be in accordance with prices quoted and later confirmed in writing or as stated in the Price Schedule. Invoices may be submitted to Client upon completion of any sample delivery group. Payment in advance is required for all Clients except those whose credit has been established with CTL. For Clients with approved credit, payment terms are net 30 days from the date of invoice by CTL. All overdue payments are subject to an additional interest and service charge of one and one-half percent (1.5%) or the maximum rate permissible by law, per month or portion thereof from the due date until the date of payment. All fees are charged or billed directly to the Client. The billing of a third party will not be accepted without a statement, signed by the third party that acknowledges and accepts payment responsibility. CTL may suspend work and withhold delivery of data under this order at any time in the event Client fails to make timely payment of its invoices. Client shall be responsible for all costs and expenses of collection including reasonable attorney's fees. CTL reserves the right to refuse to proceed with work at any time based upon an unfavorable Client credit report.

3. CHANGE ORDERS, TERMINATION

3.1 Changes to the Scope of Work, price, or result delivery date may be initiated by CTL after Sample Acceptance due to any condition which conflicts with analytical, QA or other protocols warranted in these Terms and Conditions. CTL will not proceed with such changes until an agreement with the Client is reached on the amount of any cost, schedule change or technical change to the Scope of Work, and such agreement is documented in writing.

3.2 Changes to the Scope of Work, including but not limited to increasing or decreasing the work, changing test and analysis specification or acceleration in the performance of the work may be initiated by the Client after sample acceptance. Such a change will be documented in writing and may result in a change in cost and turnaround time commitment. CTL's acceptance of such changes is contingent upon technical feasibility and operational capacity.

3.3 Suspension or termination of all or any part of the work may be initiated by the Client. CTL will be compensated consistent with Section 2 of these Terms and Conditions. CTL will complete all work in progress and be paid in full for all work completed.

4. WARRANTIES AND LIABILITY

4.1 Where applicable, CTL will use analytical methodologies which are in substantial conformity with published test methods. CTL has implemented these methods in its Laboratory Quality Manuals and referenced Standard Operating Procedures and where the nature or composition of the sample requires it, CTL reserves the right to deviate from these methodologies as necessary or appropriate, based on the reasonable judgment of CTL, which deviations, if any, will be made on a basis consistent with recognized standards of the industry and/or CTL's Laboratory Quality Manuals. Client may request that CTL perform according to a mutually agreed Quality Assurance Project Plan (QAPP). In the event that samples arrive prior to agreement on a QAPP, CTL will proceed with analyses under its standard Quality Manuals then in effect, and CTL will not be responsible for any resampling or other charges if work must be repeated to comply with a subsequently finalized QAPP.

4.2 CTL shall start preparation and/or analysis within holding times provided that Sample Acceptance occurs within 48 hours of sampling or 1/2 of the holding time for the test, whichever is less. Samples received that do not meet this provision will be charged as expedited samples and the appropriate rate will be added accordingly. Where resolution of inconsistencies leading to Sample Acceptance does not occur within this period, CTL will use its best efforts to meet holding times and will proceed with the work provided that, in CTL's judgment, the chain-of-custody or definition of the Scope of Work provide sufficient guidance. Reanalysis of samples to comply with CTL's Quality Manuals will be deemed to have met holding times provided the initial analysis was performed within the applicable holding time. Where reanalysis demonstrates that sample matrix interference is the cause of failure to meet any Quality Manual requirements, the warranty will be deemed to have been met.

4.3 CTL warrants that it possesses and maintains all licenses and certifications which are required to perform services under these Terms and Conditions provided that such requirements are specified in writing to CTL prior to Sample Acceptance. CTL will notify the Client in writing of any decertification or revocation of any license, or notice of either, which affects work in progress.

4.4 The warranty obligations set forth in Sections 4.1, 4.2 and 4.3 are the sole and exclusive warranties given by CTL in connection with any services performed by CTL or any Results generated from such services, and CTL gives and makes NO OTHER REPRESENTATION OR WARRANTY OF ANY KIND, EXPRESS OR IMPLIED. No representative of CTL is authorized to give or make any other representation or warranty or modify this warranty in any way.

4.5 Client's sole and exclusive remedy for the breach of warranty in connection with any services performed by CTL, will be limited to repeating any services performed, contingent on the Client's providing, at the request of CTL and at the Client's expense, additional sample(s) if necessary. Any reanalysis requested by the Client generating Results consistent with the original Results will be at the Client's expense. If resampling is necessary, CTL's liability for resampling costs will be limited to actual cost or one hundred or one hundred fifty dollars ($150) per sample, whichever is less.

4.6 CTL's liability for any and all causes of action arising hereunder, whether based in contract, tort, warranty, negligence or otherwise, shall be limited to the lesser amount of compensation for the services performed or $100,000. All claims, including those for negligence, shall be deemed waived unless suit thereon is filed within one year after CTL's completion of the services. Under no circumstances, whether arising in contract, tort (including negligence), or otherwise, shall CTL be responsible for loss of use, loss of profits, or for any special, indirect, incidental or consequential damages occasioned by the services performed or by application or use of the reports prepared.

4.7 In no event shall CTL have any responsibility or liability to the Client for any failure or delay in performance by CTL which results, directly or indirectly, in whole or in part, from any cause or circumstance beyond the reasonable control of CTL. Such causes and circumstances shall include, but not be limited to, acts of God, acts of Client, acts or orders of any governmental authority, strikes or other labor disputes, natural disasters, accidents, wars, civil disturbances, equipment breakdown, matrix interference or unknown highly contaminated samples that impact instrument operation, unavailability of supplies from usual suppliers, difficulties or delays in transportation, mail or delivery services, or any other cause beyond CTL's reasonable control.

5. RESULTS, WORK PRODUCT

5.1 Data or information provided to CTL or generated by services performed under this agreement shall only become the property of the Client upon receipt in full by CTL of payment for the whole Order. Ownership of any analytical method, QA/QC protocols, software programs or equipment developed by CTL for performance of work will be retained by CTL, and Client shall not disclose such information to any third party.

5.2 Data and sample materials provided by Client or at Client's request, and the result obtained by CTL shall be held in confidence (unless such information is generally available to the public or is in the public domain or Client has failed to pay CTL for all services rendered or is otherwise in breach of these Terms and Conditions), subject to any disclosure required by law or legal process.

5.3 Should the Results delivered by CTL be used by the Client or Client's client, even though subsequently determined not to meet the warranties described in these Terms and Conditions, then the compensation will be adjusted based upon mutual agreement. In no case shall the Client unreasonably withhold CTL's right to independently defend its data.

5.4 CTL reserves the right to subcontract services ordered by the Client to another laboratory or laboratories, if, in CTL's sole judgment, it is reasonably necessary, appropriate or advisable to do so, and with the Client's permission. CTL will in no way be liable for any subcontracted services and all applicable warranties, guarantees and insurance are those of the subcontracted laboratory.

5.5 CTL shall dispose of the Client's samples and extracts 30 days after the analytical report is issued, unless instructed to store them for an alternate period of time or to return such samples to the Client, in a manner consistent with U.S. Environmental Protection Agency regulations or other applicable Federal, state or local requirements. Additional charges will apply for samples or extracts stored longer than 30 days at the Clients request. Any samples for projects that are canceled or not accepted, or for which return was requested, will be returned to the Client at Client expense. CTL reserves the right to return to the Client any sample or unused portion of a sample that is not within CTL's permitted capability or the capabilities of CTL's designated waste disposal vendor(s), or will make arrangements to dispose of these samples at Client direction and expense.

5.6 Unless a different time period is agreed to in any order under these Terms and Conditions, CTL agrees to retain all records for five (5) years.

5.7 In the event that CTL is required to respond to legal process related to services for Client, Client agrees to reimburse CTL for hourly charges for personnel involved in the response and attorney fees reasonably incurred in obtaining advice concerning the response, preparation to testify, and appearances related to the legal process, travel and all reasonable expenses associated with the litigation.

6. INSURANCE

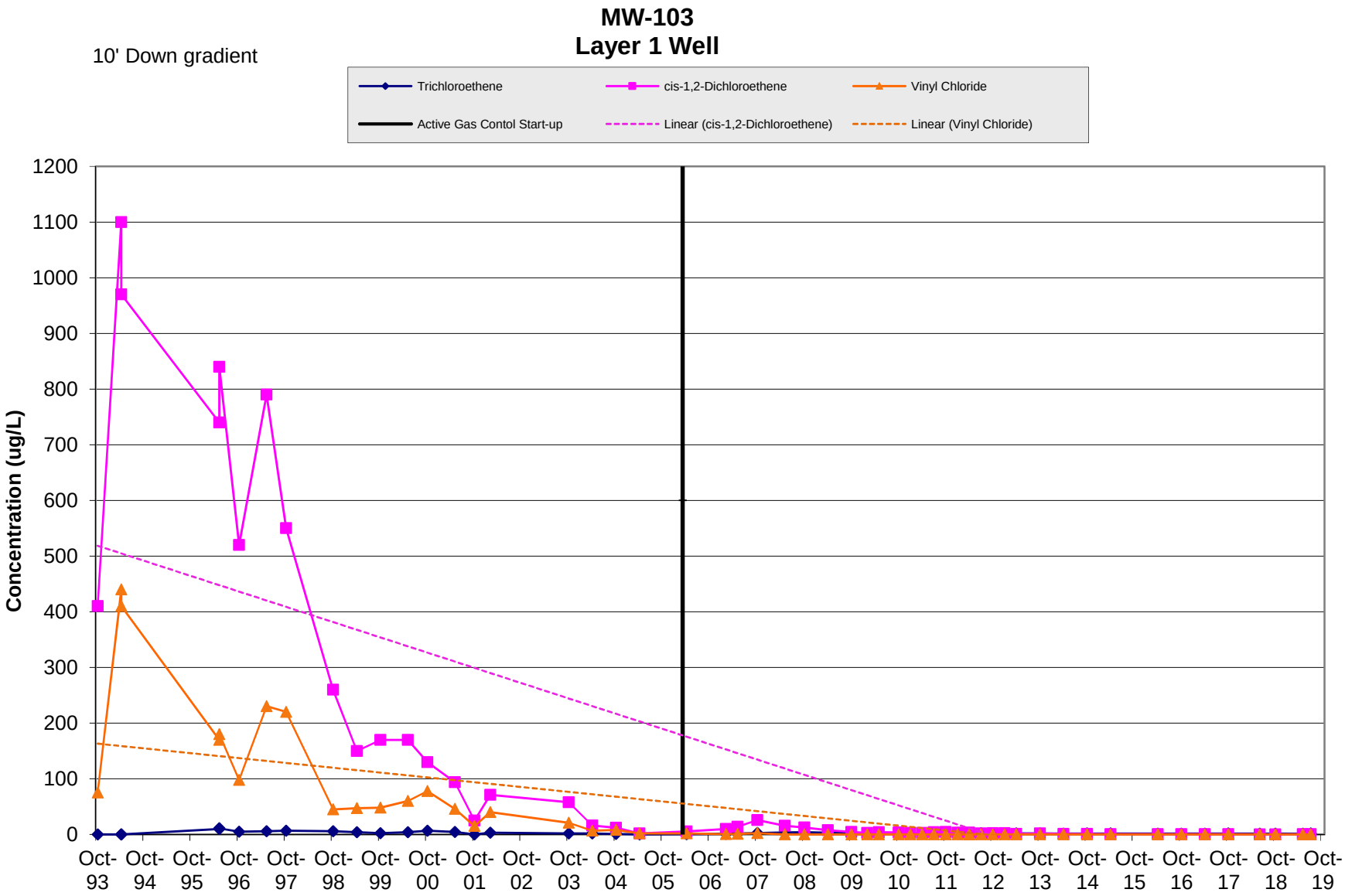
6.1 CTL shall maintain in force during the performance of services under these Terms and Conditions, Workers' Compensation and Employer's Liability Insurance in accordance with the laws of the states having jurisdiction over CTL's employees who are engaged in the performance of the work. CTL shall also maintain during such period, Comprehensive General and Contractual Liability (limit of $2,000,000 per occurrence/ aggregate), Comprehensive Automobile Liability, owned and hired, ($1,000,000 combined single limit), and Professional/Pollution Liability Insurance (limit of $5,000,000 per occurrence/aggregate). Any Client required changes to these limits or conditions will result in a change in cost to the Client.

7. AUDIT

7.1 Upon prior notice to CTL, the Client may audit and inspect CTL's records and accounts covering reimbursable costs related to work done for the Client, for a period of one (1) year after completion of the work. The purpose of any such audit shall be only for verification of such costs, and CTL shall not be required to provide access to cost records where prices are expressed as fixed fees or published unit prices.

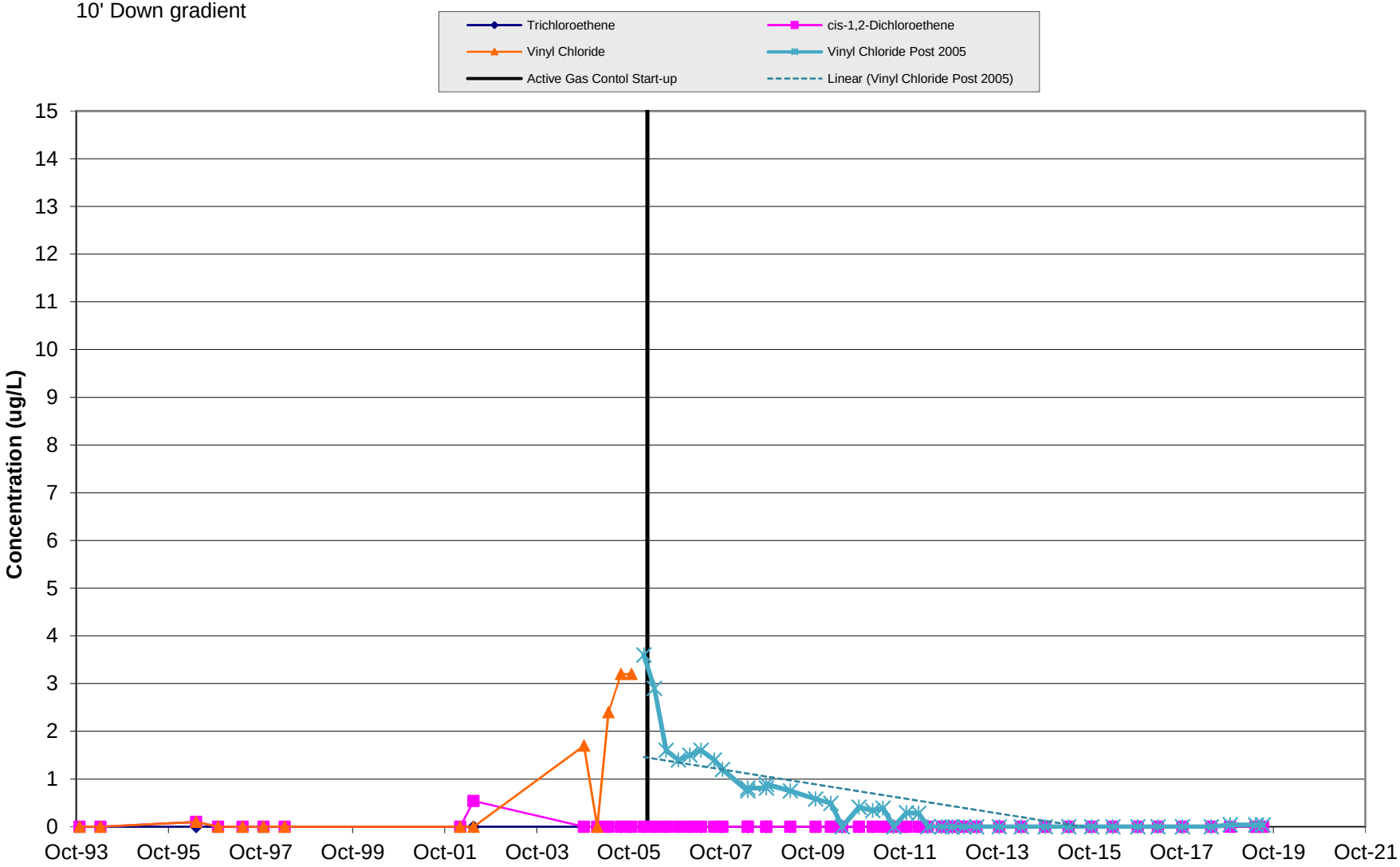
Appendix D: Groundwater Concentration Trend Graphs

10' Down gradient



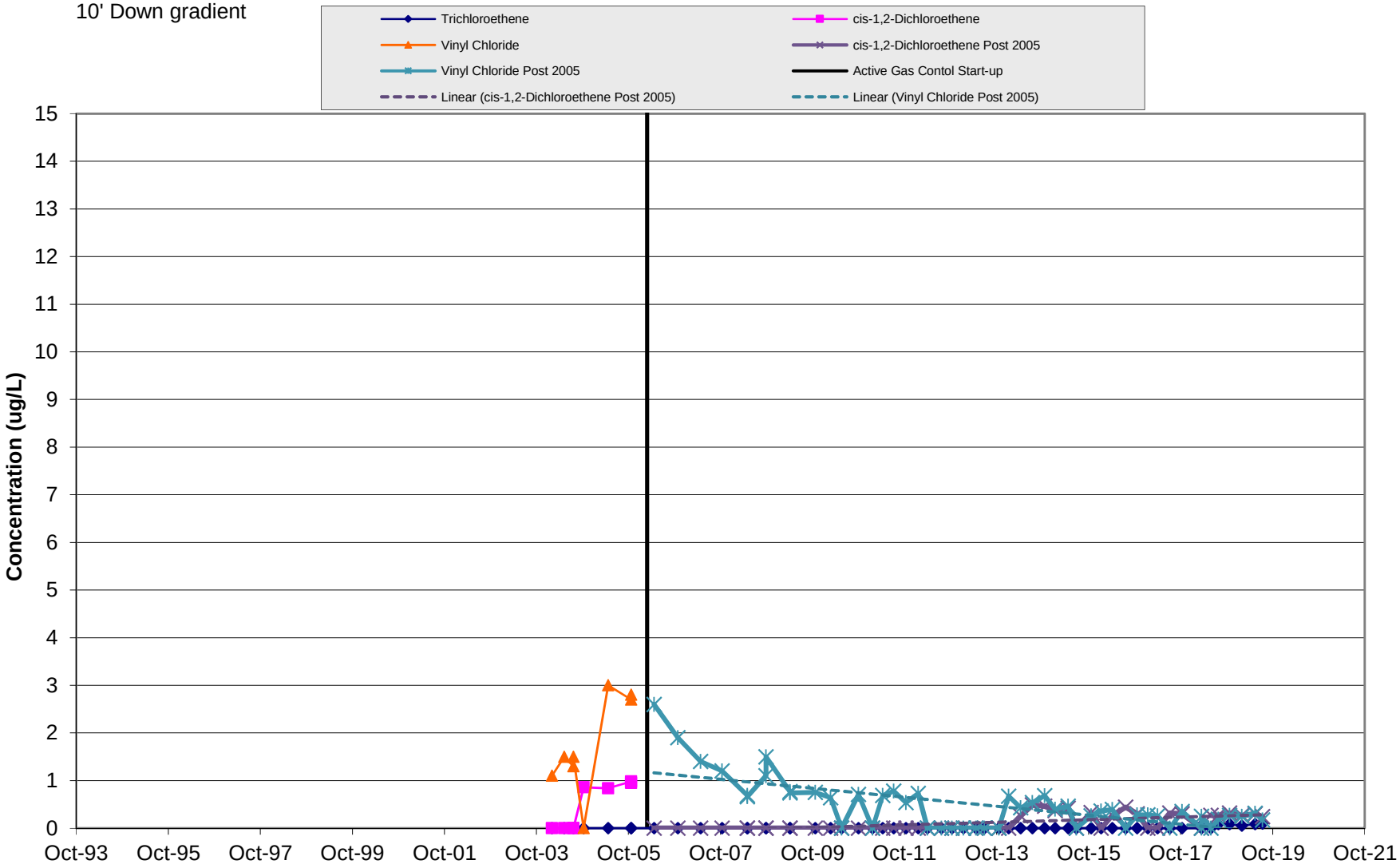
P-103
Layer 2 Well

10' Down gradient



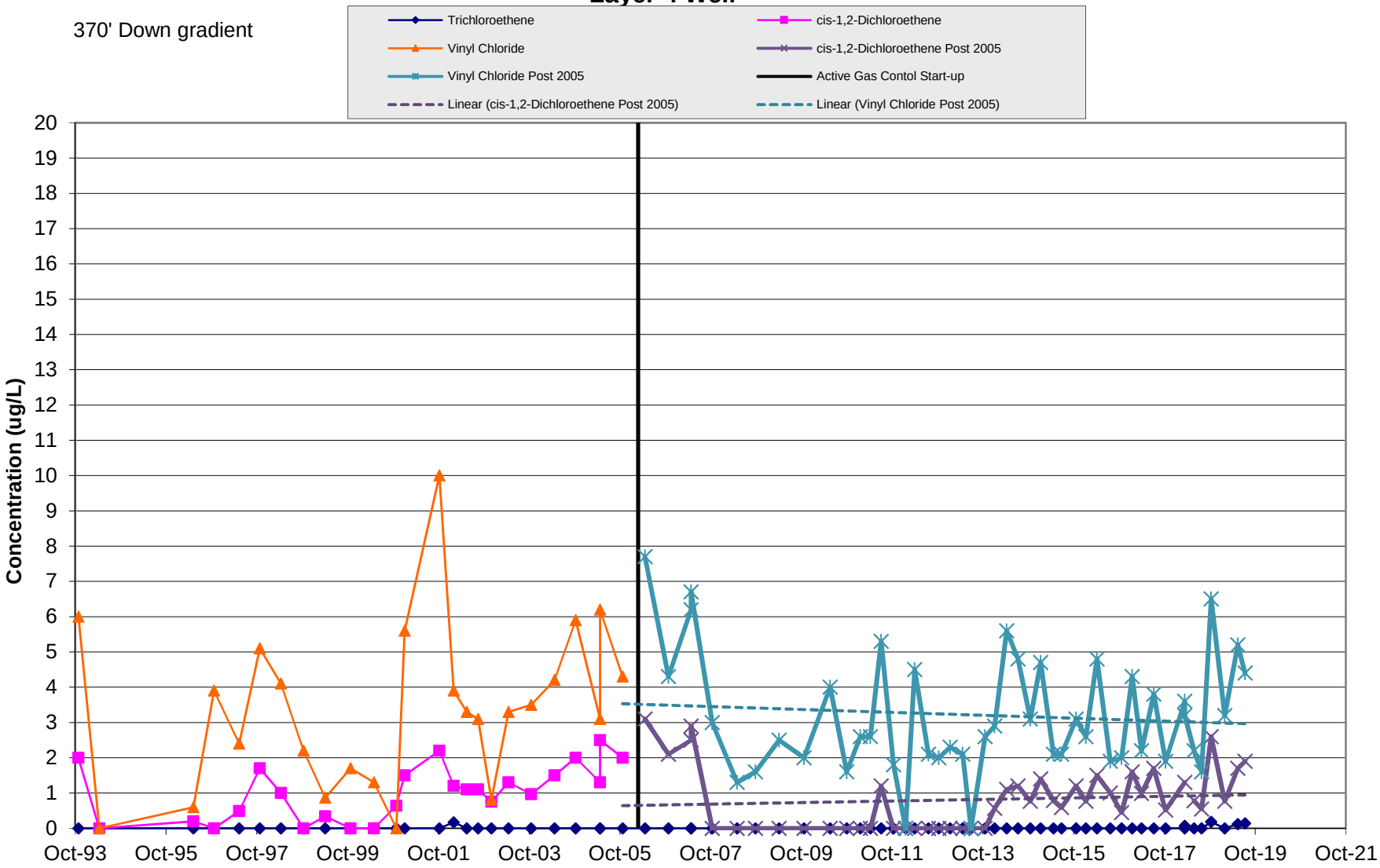
P-103D
Layer 3 Well

10' Down gradient



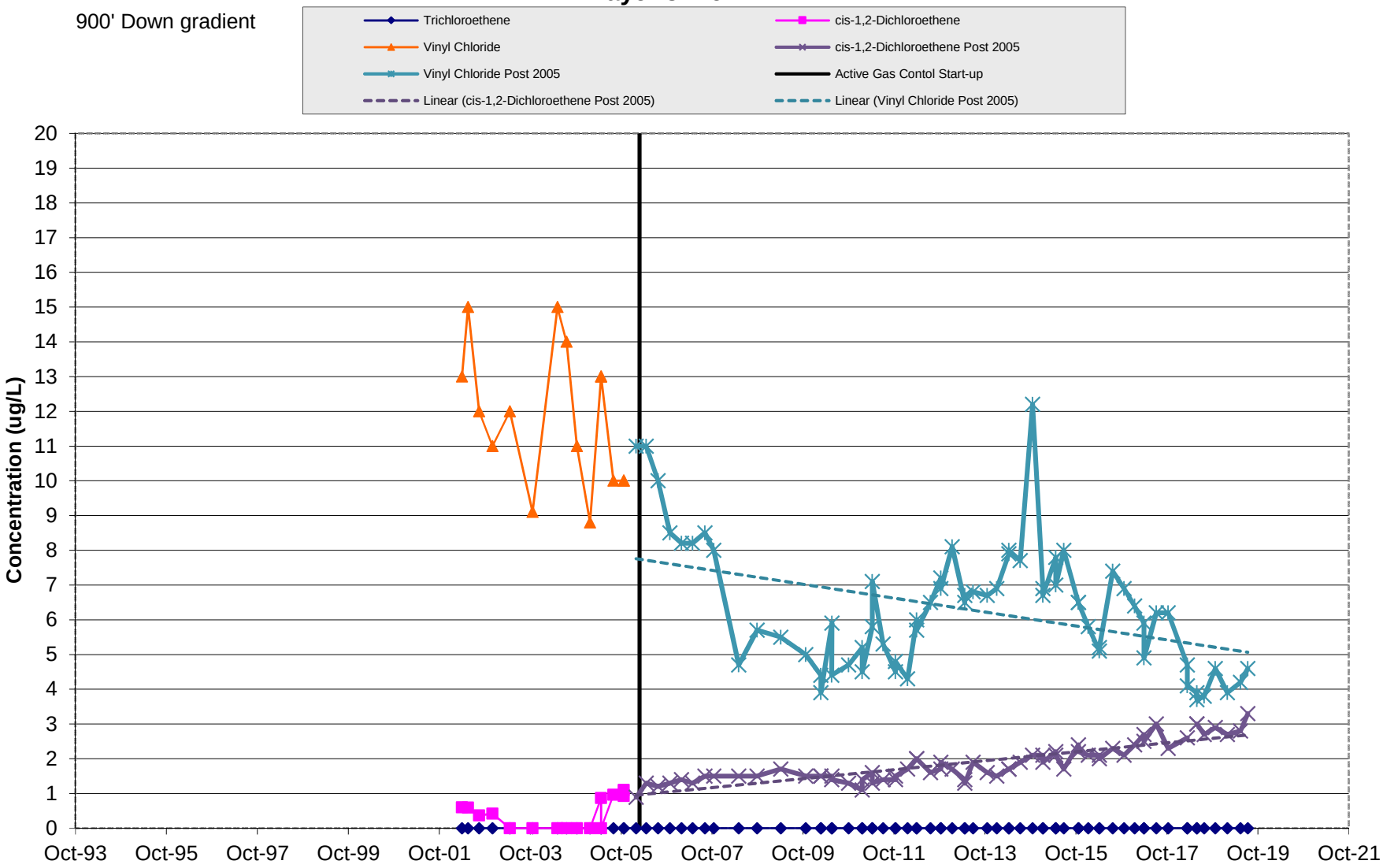
P-107D
Layer 4 Well

370' Down gradient



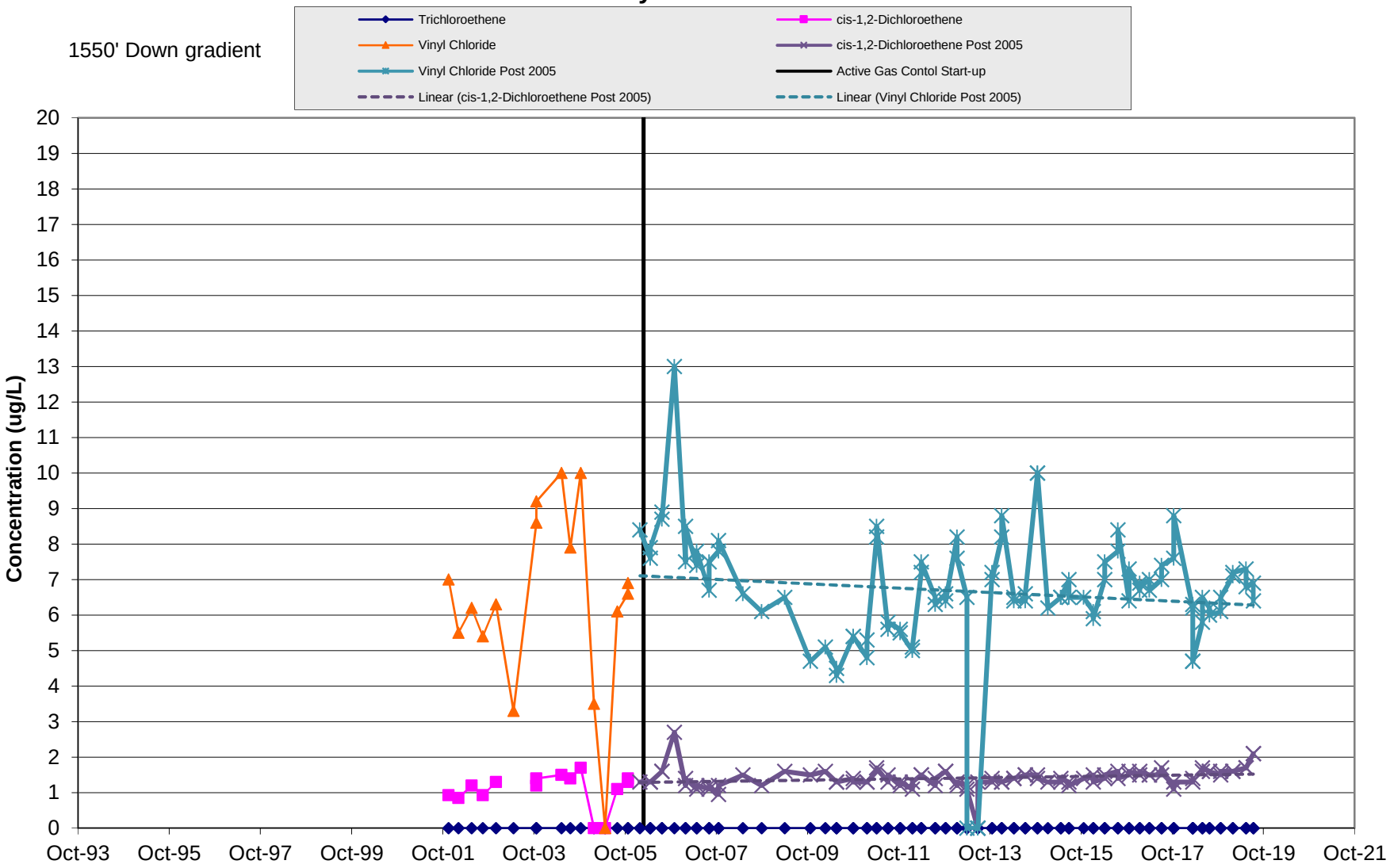
P-111D
Layer 3 Well

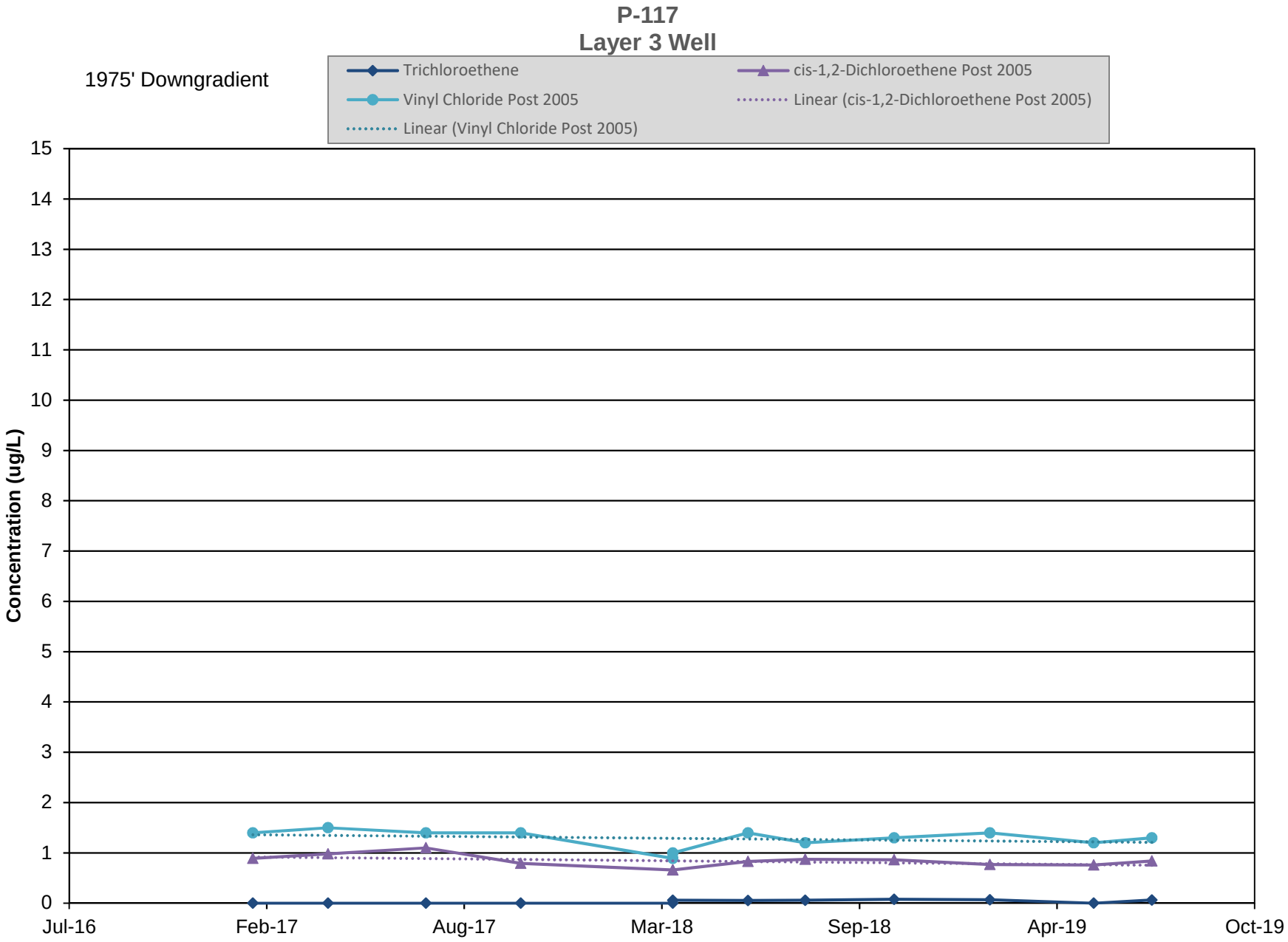
900' Down gradient

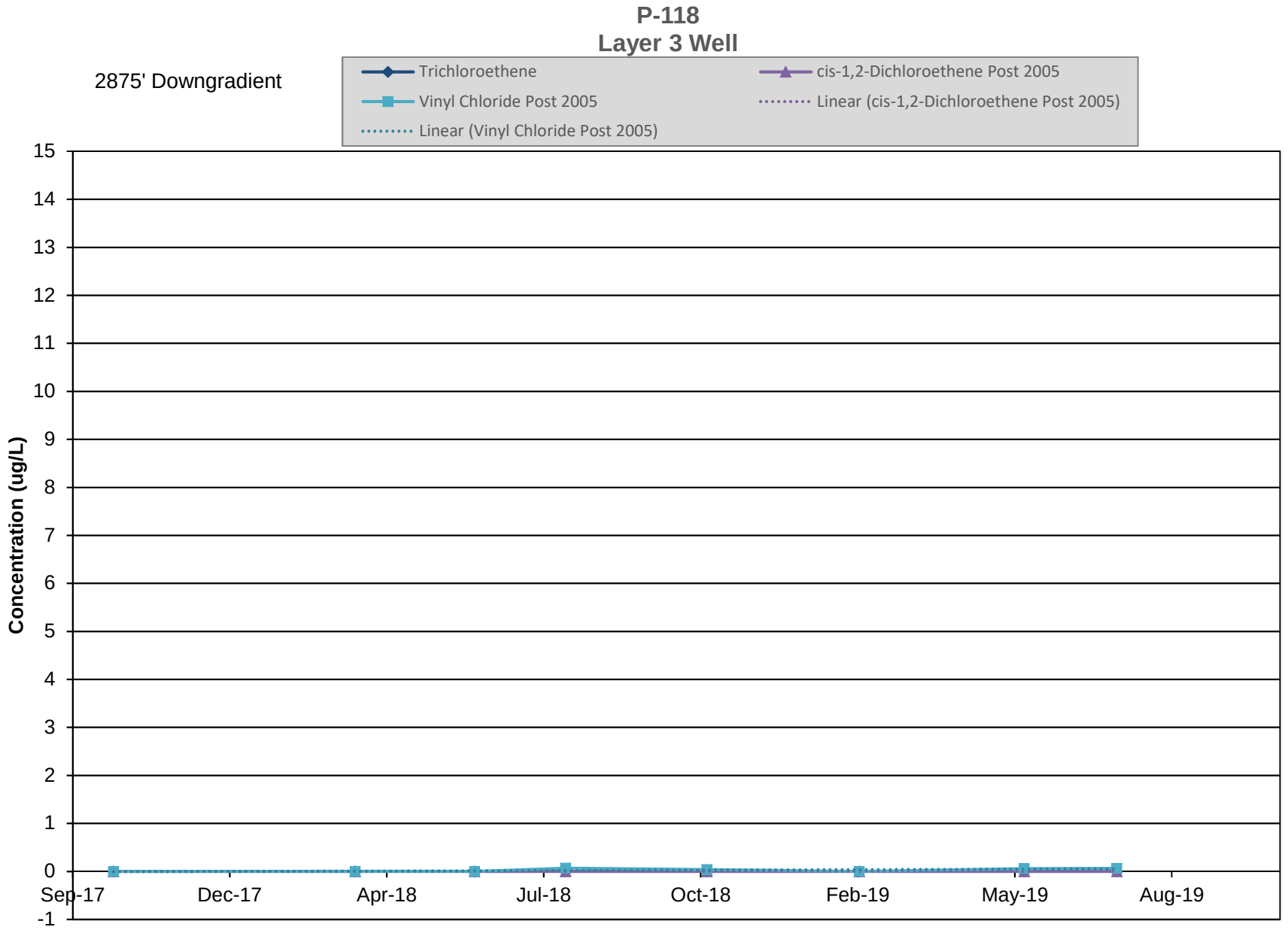


P-114
Layer 3 Well

1550' Down gradient




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
Jul-16
Feb-17
Aug-17
Mar-18
Sep-18
Apr-19
Oct-19


P-118
Layer 3 Well
2875' 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
-1
Sep-17
Dec-17
Apr-18
Jul-18
Oct-18
Feb-19
May-19
Aug-19