Quarterly Progress Report

Fourth Quarter 2019 Reporting Period

March 23, 2020

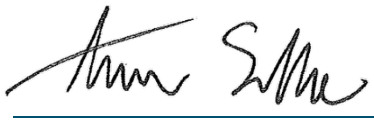
FF/NN Landfill NPL Site
Ripon, Wisconsin

Prepared For:

FF/NN Landfill PRP Group
c/o Geosyntec Consultants, Inc.
10600 N. Port Washington Road, Suite 100
Mequon, Wisconsin 53092

Prepared By:

TRC
150 N. Patrick Blvd., Suite 180
Brookfield, Wisconsin 53045



Prepared by:
Aaron Sobbe
Staff Engineer

Reviewed and Approved by
Marita Stollenwerk, P.G.
Senior Project Manager

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1.0 Introduction

In April 2019, TRC was retained by the FF/NN Landfill Potentially Responsible Party (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 Fourth Quarter (Q4) 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 (Q4 2019). Groundwater monitoring efforts continued on a quarterly basis throughout the reporting period. TRC performed the Q4 2019 sampling event during October 2019. Vapor samples were collected for analysis during November 2019. The landfill gas extraction system operated continuously during this reporting period, except on October 1 through 4, December 1 and 2, and December 29 and 30, 2019. The downtime was due to high water level in the blower knockout tank. 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 Q4 2019. Landfill gas was extracted from gas vent GV-6 and GV-4 and leachate collection wells LC-1, LC-2 and LC-3. The system was nonoperational on October 1 through 4 and December 1 and 2 and 30 and 31, 2019 due to high water level in the blower knockout tank.
- Groundwater elevations were measured, and samples collected from 12 monitoring wells by TRC on October 21, 2019 in accordance with the GMP (WDNR, 2013; 2017).
- Vapor samples were collected for analysis from GP-3, GV-6, LC-1, LC-2, and LC-3 on November 5, 2019.
- Gas measurements (% oxygen, methane, and carbon dioxide) were collected from gas probes (GP-1 through GP-7 and GP-10 through GP-12) on October 21, November 5, and December 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, GV-4, gas probe GP-1, GP-2, and leachate collection wells LC-1, LC-2, and LC-3 on a biweekly basis during Q4 2019.
- Research into the potential for vapor intrusion (summarized in a separate letter dated January 3, 2020).

- Documentation of the status and condition of institutional controls (See Section 4.0).

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

- The vapor extraction system was almost fully operational between October through December 2019. System operation runtime was maintained at 24 hours per day / 7 days a week with the exception of the periods of system shutdown noted above.
- The City of Ripon removed water from the blower knockout tank on October 4 and December 2, 2019. The water was trucked to the city water treatment facility and disposed.
- No fence repairs were required during this time period.
- The Site was not mowed during the Q4 2019.

2.2 Monitoring Program Modifications

Environmental monitoring at the Site began in 1992. Quarterly monitoring at select wells has been ongoing since active vapor extraction 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). No modifications of the monitoring program occurred during this quarter.

2.3 Sampling Events

Groundwater monitoring was conducted on October 21, 2019 in accordance with the approved GMP. Analytical results are discussed in Section 3.2. A landfill gas vapor sampling event was completed on November 5, 2019. Extraction system landfill gas monitoring was performed monthly during the Q4 2019 as personnel investigated system performance and worked to control off-site migration of methane detected in Third Quarter (Q3) 2019. Data collected during this reporting period was submitted to the WDNR Groundwater and Environmental Monitoring System (GEMS) on January 24, 2020.

2.4 Deliverables, Correspondence, and Meetings

- December 16, 2019 — Third Quarter 2019 Quarterly Progress Report submitted to WDNR

Contacts with the local community (*i.e.,* homeowners with monitoring wells on their property) occurred during the October 2019 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 (HSI GeoTran, 1997) requires annual inspections of the FF/NN Landfill cap. The annual landfill cap inspection occurred during the Q3 2019. Weekly drive-by inspections were performed by the City of Ripon during this reporting period.

2.6 Personnel Changes

No personnel changes occurred between October and December 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 October 21, 2019. Field forms from the Q4 2019 measurement event are included in Appendix A. 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. Wells in Layer 1 were not gauged during the Q4 2019. Historical groundwater flow direction within Layer 1 is toward the southwest.

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. Wells in Layer 2 were not gauged during the Q4 2019. Historical groundwater flow direction within Layer 2 is toward the south-southwest.

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 Q4 2019. Potentiometric surface elevations were noted to be between 0.56 feet lower to 0.80 feet higher than that measured during Fourth 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 Q4 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 Q4 2019. Potentiometric surface elevations were noted to between 0.73 to 1.32 feet higher than that observed during the Q4 2018 sampling event.

Figure 4 depicts the estimated groundwater flow direction in Layer 4 from the Q4 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 Q4 2019 sampling event. The southeasterly flow direction observed in Layer 4 during the Q4 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 Q4 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 Fourth Quarter 2019

Groundwater samples were collected using low-flow sampling methods from 12 monitoring wells on October 21, 2019 by TRC. Groundwater samples were analyzed by CT Laboratories for VOCs using EPA Method 8260C. Field forms are included in Appendix A. Analytical results are included in Appendix B. VOC results exceeding the Wisconsin Administrative Code (WAC) 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 (EPA 353.2), sulfate (EPA 9056A), and manganese (EPA 6010C). 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 an In-Situ Smart Troll MP flow cell meter.

3.2.1.1 Constituents of Concern

Contaminants of concern at the Site include chlorinated VOCs (CVOCs) trichloroethene (TCE) and its dechlorination products; cis-1,2-dichloroethene (cis-1,2-DCE) and VC. In the 12 wells sampled during the Q4 2019, VC was the only organic compound detected exceeding its associated ES (2 micrograms per liter [µg/L]) and PAL (0.2 µg/L). TCE was detected at concentrations below its associated PAL (0.5 µg/L). The following summarizes the distribution of VOCs detected in each hydrostratigraphic unit:

- No wells in Layer 1 nor Layer 2 were sampled, thus no groundwater isoconcentration maps were created for these layers.
- Nine monitoring wells were sampled in Layer 3. VC was detected in wells P-103D, P-111D, P-114, P-115, and P-117 at concentrations exceeding the ES. VC was detected in MW-3B and P-118 at concentrations exceeding the PAL. Figure 5 depicts the VC plume extent during the Q4 2019 in Layer 3. The extent of VC is unchanged from previous data and interpretations.

- Three monitoring wells were sampled in Layer 4. VC was detected only in P-107D at a concentration exceeding the ES. This detection is within the historic range of concentrations detected at this well. Due to the limited number of samples collected from Layer 4, no groundwater isoconcentration 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, 1,1-dichloroethane (1,1-DCA), cis-1,2-DCE, trans-1,2-DCE, TCE and dichlorodifluoromethane were noted at low levels in some wells containing VC.
  - Acetone, chloromethane, and methylene chloride were detected in the trip blank. These detections are likely due to laboratory or transport contamination.

3.2.1.2 MNA Parameters

Groundwater geochemistry gives indirect evidence of bioactivity in an aquifer during the breakdown of hydrocarbons by bacteria. Inorganic constituents such as iron, nitrate and sulfate can be used by bacteria as electron acceptors to oxidize CVOCs. These parameters are included in the analytical program to document bioactivity in the aquifer. Concentrations of these constituents are compared to health and aesthetic-based standards as listed in WDNR WAC NR 140 for illustrative purposes, but theses constituents are not considered constituents of concern.

Manganese was detected in all samples during the Q4 2019 sampling event at concentrations that ranged from 424 milligrams per liter (mg/L) at MW-003A to 8.4J mg/L at P-113A.

Sulfate was detected in all samples, but below the PAL and ES. Sulfate concentrations ranged from 11 mg/L at P-113A to 74 mg/L at P-113B.

Nitrogen ion concentrations were not detected in any wells sampled during the Q4 2019 sampling event. Nitrogen ions (nitrate and nitrite) are also naturally occurring ions found in groundwater. The lack of nitrate at detectable concentrations may indicate nitrate reduction from microbial activity.

DO concentrations indicate anaerobic conditions prevail throughout the deeper aquifer with values greater than 1 part per million (ppm) at all wells except MW-107D (2.11 ppm) and P-113A (1.82 ppm) with a mean value of 0.58 ppm. ORP values are low with values that range from -55.9 millivolts (mV) at MW-3B to 72.9 mV at P-113B.

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): P-103D, P-111D, P-114, P-117, and P-118 in Layer 3; and P-107D in Layer 4.

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 slowly increasing over time, however the concentrations are well below the PAL. An increase of cis-1,2-DCE is likely indicative of TCE

degradation. 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. 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 CVOC (only VC) 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 suggest an anaerobic environment with a continued source of organic carbon in the form of landfill leachate. Depleted nitrogen coupled with elevated sulfate suggests the aquifer is moderately reducing owing to the low concentrations of VOCs. Additional discussion of progress toward MNA will be discussed in the report summarizing the Second Quarter of 2020 once eight rounds of additional 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 the Q4 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 this reporting period.

3.3.1 Landfill Gas Extraction System Troubleshooting and Repairs

3.3.1.1 System Repairs

A site-wide inspection of all the gas probes and gas vents was completed on December 5, 2019. During this inspection, gas vents GV-7 and GV-12 contained an open hole in the well casings that was noted as missing a plug. The absence of a plug at these gas vents allowed these wells to be open to the atmosphere, pulling air into the subsurface. This short circuit of air into the subsurface could reduce removal of subsurface organic vapors by the gas extraction system. The openings were plugged to seal these entry points during the December 5, 2019 site visit.

TRC continues to assess the condition of the below grade condensate tank, located just upgradient of the blower system. No leaks were visually apparent during the December 5, 2019 site visit; however, TRC suspects that a leak may be present along the tank's sidewall or base due to visual observation of water between the concrete manhole sidewall and the condensate tank. In addition, a notable hissing sound while the blower is operating suggests there is a vacuum loss occurring from this portion of the system. TRC is developing an approach to assess the leak location which will include testing the surface seal of the tank for leaks. The current leak does not appear to significantly impact system performance as vacuum remains present at each extraction point.

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 Extraction Well Monitoring

TRC or the City of Ripon personnel were onsite on a biweekly basis between October 7 and December 19, 2019 to inspect and monitor the landfill gas extraction system. Gas measurements (% oxygen, methane, and carbon dioxide) and vacuum readings were collected from the five gas extraction points (LC-1, LC-2, LC-3, GV-4, and GV-6). In addition, gas measurements were collected from gas probes GP-1 and GP-2, the blower exhaust, and ambient air (background) for comparison purposes. TRC adjusted valve positioning on the extraction well headers to optimize the landfill gas extraction system, as needed. Repositioning was based on measured methane and oxygen concentrations and vacuum readings recorded during the monitoring events. A summary of the monitoring data from each visit are included in Table 4.

3.3.2.2 Gas Probe Monitoring

TRC personnel were onsite on a monthly basis between October 21 and December 5, 2019 to collect gas measurements (% oxygen, methane, and carbon dioxide) from the 10 existing gas probes (GP) including GP-1 through GP-7 and GP-10 through GP-12 located surrounding the landfill. Figure 2 shows the location of the gas probes and a summary of the measurements are included in Table 4. GP-8 could not be located by TRC and appears to have been lost or covered.

During the Q3 2019, GP-2 contained methane concentrations ranging from 2.2% to 12.3% methane by volume. During the Q4 2019, GP-2 contained 0.0% methane by volume during the three monitoring events conducted by TRC. The reconnection of GV-4 to the extraction system and repairs to LC-1 achieved its goal this quarter by controlling offsite methane migration at GP-2. The only gas probe noted to have measurable methane during Q4 2019 was GP-12 with a methane concentration of 0.2% by volume on November 5, 2019. Subsequent monitoring completed on December 5, 2019 measured no methane at this gas probe. The probe will continue to be monitored to confirm that methane migration has been mitigated. Based on the results of the monthly gas probe monitoring during Q4 2019, monitoring frequency of all the gas probes will occur on a quarterly basis during 2020 unless significant methane is detected in gas probes or system operations become compromised.

3.3.2.3 System Performance Post-Reconnection of GV-4 and LC-1 Repair

The City of Ripon or TRC visited the Site to evaluate the gas extraction system performance on biweekly basis as discussed in Section 3.3.2.1. Vacuum readings and gas concentrations, since the August 2019 repairs, indicate that the system continues to effectively remove landfill gases from the landfill and mitigate offsite migration.

3.3.3 Landfill Gas Analytical Results

During the Second Quarter (Q2) 2019, landfill gas samples were collected after the system had not been operating at optimal capacity. TRC recommended repeating the landfill gas sampling

during the Q4 2019 in order to assess landfill gas concentrations after a period of sustained system operation.

During the Q4 2019 Monitoring Event, landfill gas samples were collected for analysis of VOCs using EPA Method TO-15 from LC-1, LC-2, LC-3, GV-6, and GP-3. Samples were collected on November 5, 2019 and were analyzed by ALS Environmental. Landfill gas analytical results are summarized in Table 5.

Historically, the sum of select VOCs was used to calculate a total VOC value and compared those values over time. Graphs depicting this are included in Appendix D. Results from the 2019 vapor analysis of landfill gas are generally consistent within the same order of magnitude as previous sampling events. However, an increase in total VOCs, by two orders of magnitude, was reported during the November 2019 monitoring event for leachate well LC-2 and a one order of magnitude increase was reported at LC-1. This increase was expected as it demonstrates that recent system repairs and a more aggressive daily system operation (previously operating 4 hours per day, to now operating 24 hours per day) has resulted in removal of increased concentrations of VOCs. Total VOCs at GV-6 and GP-3 were similar to recent historical monitoring events and LC-3 showed a one to two orders of magnitude decrease from 2018. Additional monitoring in 2020 will provide a better understanding on gas removal and the gas extraction system's continued effectiveness.

4.0 Institutional Control Documentation

This section documents the protectiveness of institutional controls (ICs) as required in the February 24, 2011 Institutional Control Study/Plan (IC Plan) prepared by Tetra Tech GEO. According to the IC Plan, the initial Record of Decision (ROD) for the FF/NN Landfill (EPA 1996) called for the placement of a deed restriction that prohibited disturbing the landfill cap (except for maintenance) and that Wisconsin Administrative Code (WAC) Chapter NR 812.08 forbids the construction of a potable or non-potable water supply well within 1,200 feet of the landfill. In 2004, the WDNR imposed a well advisory area that specifies potable wells must be constructed or reconstructed to more stringent standards. The Second 5-Year Review completed by the U.S. Environmental Protection Agency (USEPA) in 2006 found that the ICs at the landfill were protective of the site remedy, but for properties near the landfill, the IC mechanisms were not sufficient to protect against human and environmental exposures. Identification of enforceable legal and administrative controls was required by USEPA to provide the mechanisms necessary to appropriately protect the site remedies and to minimize the potential for human and environmental exposure to site contaminants. The 2011 IC Study / Plan identified four types of ICs: Government Controls, Proprietary Controls, Enforcement Tools, and Informational Devices. This section documents the verification of IC effectiveness within this reporting period.

4.1 Governmental Controls

4.1.1 Landfill Cap

WAC NR 504.07(9) prohibits the following: 1) use of the waste disposal area for agricultural purposes, 2) establishment or construction of any buildings over the waste disposal area, or 3) excavation of the final cover or any waste materials. TRC confirmed that none of these activities occurred during this reporting period.

4.1.2 Landfill Setback

WAC NR 812.08(4)(g)1 requires a separation distance of 1,200 feet between the landfill and any new potable or nonpotable water supply wells, reservoirs, or springs. Based on TRC review of information detailed in Section 4.4.2 below, no new water supply wells, reservoirs, or springs have been noted during this reporting period.

4.1.3 Municipal Water Connection Within City Limits

Chapter 10.24 of the Ripon Municipal Code (RMC) requires all private water supply wells located on property served by water utility within the City of Ripon are to be abandoned in accordance with the terms of this chapter and WAC NR 812 no later than one year from the date of connection to the municipal water system unless a well operation permit has been obtained. As of the date of this report, the City of Ripon City Limits remain outside the WDNR Well Advisory Areas.

4.2 Proprietary Controls

4.2.1 Municipal Water Connection Outside the City Limits

In 2002, municipal water was extended outside the City limits to residents located along South Koro Road and Charles Street in the Town of Ripon. As part of this agreement, homeowners that connected to municipal water were required to have their water supply well abandoned or converted to a groundwater monitoring well. The wells located at the Gaastra and Perry residences at W14297 Charles Street and W14298 Charles Street, respectively, were connected to public water in 2013. Until 2015 these wells were part of the monitoring program but sampling was discontinued after the wells were connected to the public water supply during the summer of 2015. Quarterly sampling continued until April 2017. During the summer of 2018, the WDNR determined that the Gaastra and Perry wells were not appropriate for groundwater monitoring because the long open intervals did not meet the monitoring well screen specification requirements of NR 141.09 (well screens no longer than 5 feet for piezometers); therefore, these wells are no longer sampled. These two wells have not yet been abandoned. TRC did not observe additional wells within this area that are not used as part of the monitoring well network within this reporting period.

4.3 Enforcement Tools

4.3.1 Record of Decision

The 1996 U.S. EPA ROD contains governmental controls as “applicable or relevant and appropriate requirements” (ARARs) that restrict land and groundwater use, set cleanup standards, and incorporate the IC requirements. To date, these requirements are being met including ongoing quarterly groundwater monitoring, annual sampling of private drinking water supply wells within the WDNR Well Advisory Areas, monitoring of the gas probes on a regular basis, maintenance of the landfill cap as needed, active deed restriction prohibiting landfill cap disturbance except for maintenance, maintenance of fencing, and five year reviews. The USEPA Fifth Five Year Review for the Site is due to be completed by the DNR in 2021. TRC confirmed with the City and Town of Ripon that no new wells have been installed within the well advisory area.

4.4 Informational Devices

4.4.1 Deed Restrictions

The deed restriction filed in 1997 lists the limitations and restrictive covenants for the landfill property including:

1. No water wells other than groundwater monitoring wells or leachate extraction wells are to be located on the landfill property.
2. Certain activities are prohibited unless written prior approval from the WDNR is granted including excavation of the landfill cover or wastes, grading, or filling on the capped area except as needed to maintain the cover, use of the waste disposal area for agricultural purposes, and construction of buildings or other structures over the waste disposal area.
3. Property owner shall not use the landfill area or take any action that may damage or impair the effectiveness of the remedial action components constructed for or installed pursuant to the ROD or interfere with performance of the remedial work required by the ROD.

The City of Ripon and the Town of Ripon are both members of the PRP group. Since February 2004, the City and Town of Ripon are the owners and possess control over the landfill property. No changes to these deed restrictions were noted within this reporting period and no actions were performed in violation to these limitations and restrictive covenants within this reporting period.

4.4.2 WDNR Well Advisory Area

Through two memorandums dated July 15, 2004 to Wisconsin Licensed well drillers, pursuant to WAC NR 812.12(3), a “Special Well Casing Pipe Depth Area” for an area surrounding and containing the landfill covers approximately 1.5 square miles. This well advisory area is subdivided into two segments in the IC plan, an “Outer Area” located within Sections 7, 8, 17, and 18, T16N, R14E, Town of Ripon, Fond du Lac and an “Inner Area” located within Sections 7 and 18, T16N, R14E. Refer to Section 3.4.4.2 of the 2011 IC Plan for details on the restrictions in the Well Advisory Area. During this reporting period, TRC confirmed that the Well Advisory remains in place, and based on review of the WDNR Drinking Water System, no wells have been installed in any parcel included in the Inner or Outer Areas since 2012.

4.4.3 Town of Ripon Building Permit

Section 13.2 of Article XIII of the Town of Ripon zoning ordinance requires a permit for any building structure or mobile home. In 2011 the PRP Group requested to be notified if an application for a building permit was received for any parcel with in the south ½ of Section 7 or the north ½ of Section 18, T16N, R14E. No notifications have been received by the PRP group from the Town of Ripon during this reporting period. TRC contacted Mr. Barry VandeBrink, Chairman of the Town of Ripon, to verify whether any building permits were received within this reporting period. Mr. VandeBrink noted that no permits of any kind were issued in this area during the reporting period.

4.4.4 Town of Ripon Special Use Permit

Sections 6.4 and 11.2 of the Town of Ripon zoning ordinance require a permit when requesting a use not permitted by an Ordinance in a Zoning District. In 2011 the PRP Group requested to be notified if an application for special use was received for any parcel within Sections 7, 8, 17, or 18 T16N, R14E that involves surface water or groundwater dewatering activities such as mineral extraction operations. No notifications have been received by the PRP group from the Town of Ripon during this reporting period. TRC contacted Mr. Barry VandeBrink, Chairman of the Town of Ripon, to verify whether any special use applications noted above were received within this reporting period. Mr. VandeBrink noted that no permits of any kind were issued in this area during the reporting period.

4.4.5 WPDES Permit for Non-Metallic Mining Operations

Submittal of a completed Notice of Intent (NOI) Information Summary for Nonmetallic Mining Operations (Form 3400-179) to the WDNR is mandatory for any owner /operator of a nonmetallic mining operation that must apply for a permit in accordance with 40 CFR Part 122 or Chapter 283, WI Statues. TRC reviewed the Wisconsin Pollutant Discharge Elimination System (WPDES) Permits on Public Notice webpage and did not identify permits submitted within the Advisory Area extent. In addition, TRC contacted Mr. David Haas, Wastewater Specialist with the WDNR to confirm whether any WPDES NOIs or permits were received for any parcel within Section 7, 8, 17, or 18 T16N, R14E. Mr. Haas indicated none had been received.

In addition, the Northeast Asphalt, Inc. (NEA), located east of the FF/NN Landfill, has a general permit. Events of extensive dewatering in 2002 and 2008 led to the WDNR notifying NEA that by pumping the surface water from their on-site pit at high levels over a period of time and altering the groundwater flow, they could become part of the PRP Group. TRC requested copies of the 2019 discharge monitoring report (DMR) for the NEA Ripon Gravel Site, Permit No. WI-0046515-04. Review of the 2019 NEA DMR indicates that between July and September the facility discharged 100 gallons per day for 44 days.

4.4.6 GIS Registry

The FF/NN Landfill is identified on the WDNR GIS Registry with continuing obligations (CO). The COs noted include appropriate management of contaminated soils, WDNR approval if a water supply well is constructed or reconstructed, and maintenance of a cap over the contaminated area. The GIS registry depicts the extent of the landfill cover but does not currently depict the extent of the groundwater plume. The GIS Registry listing includes a link to the Ripon City Landfill EPA Superfund NPL / Superfund Alternative Approach (SAA) Website.

5.0 References

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

Well Name	GW Layer	TOC Elevation Feet AMSL	Q4 Depth to Water (Feet) 10/21/2019	Q4 GW Elevation (Feet AMSL) 10/21/2019
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	NM	NM
P-103	2	872.74	NM	NM
P-103D	3	872.91	49.11	823.80
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	50.70	821.20
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	33.98	821.58
MW-112	1	874.70	NM	NM
P-113A	4	833.16	12.36	820.80
P-113B	3	833.16	12.32	820.84
P-114	3	839.36	18.67	820.69
P-115	3	842.67	22.25	820.42
P-116	3	845.86	26.76	819.10
P-117	3	833.96	14.68	819.28
P-118	3	826.74	7.55	819.19
MW-3A	4	850.60	29.77	820.83
MW-3B	3	850.89	28.94	821.95
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

Created by: A. Sobbe 12/13/2019
Checked by: M. Stollenwerk 02/10/2020

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

Chemical Parameter	Units	NR140 PAL	NR140 ES	Well ID	Date	Result	Data Flags	Exceedance
Manganese, total	µg/L	25	50	MW-003A	10/21/2019	**424**		ES
				MW-003B	10/21/2019	**58.9**		ES
				P-103D	10/21/2019	**87.3**		ES
				P-107D	10/21/2019	**193**		ES
				P-111D	10/21/2019	*31.8*		PAL
				P-113B	10/21/2019	*45.4*		PAL
				P-114	10/21/2019	**61.3**		ES
				P-114 DUP	10/21/2019	**59.6**		ES
				P-115 (WIESE)	10/21/2019	**115**		ES
				P-116 (HADEL)	10/21/2019	**135**		ES
				P-117	10/21/2019	**213**		ES
				P-118	10/21/2019	**70.1**		ES
Vinyl chloride	µg/L	0.02	0.2	MW-003B	10/21/2019	*0.051*		PAL
				P-103D	10/21/2019	**0.27**		ES
				P-107D	10/21/2019	**7.6**		ES
				P-111D	10/21/2019	**4.6**		ES
				P-114	10/21/2019	**8**		ES
				P-114 DUP	10/21/2019	**8.3**		ES
				P-115 (WIESE)	10/21/2019	**0.96**		ES
				P-117	10/21/2019	**1.5**		ES
				P-118	10/21/2019	*0.079*		PAL

Notes:

Created by: P. Popp

Checked by: A. Sobbe 12/18/2019

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
Fourth Quarter 2019

Parameter	Units	NR140 ES	NR 140 PAL	MW-003A 10/21/2019 345923	MW-003B 10/21/2019 345922	P-103D 10/21/2019 345928	P-107D 10/21/2019 345926	P-111D 10/21/2019 345927	P-113A 10/21/2019 345913	P-113B 10/21/2019 345917
Field Parameters										
Depth to water	Feet			29.77	28.94	49.11	50.70	33.98	12.36	12.32
Water elevation	Feet			820.83	821.95	823.80	821.20	821.58	820.80	820.84
pH, field	SU			7.66	7.65	7.54	7.68	7.61	7.05	7.16
Conductance, specific	µmhos/cm			577.80	723.50	798.9	608.4	898.9	566.80	687.80
ORP	mV			-25.30	-55.90	-4.40	-17.1	-33.9	77.90	39.10
Oxygen, dissolved	mg/L			0.17	0.12	0.38	2.11	0.98	1.82	0.17
Turbidity, field				SLIGHT	NONE	NONE	NONE	NONE	NONE	NONE
Temperature	Deg C			10.08	9.94	10.78	10.62	10.71	10.41	11.01
Color, field				NONE	NONE	NONE	NONE	NONE	NONE	NONE
Odor, field				NONE	SULFUR	NONE	NONE	NONE	NONE	SULFUR
Inorganic Analytes										
Sulfate, total	mg/L	250	125	22	64	72	31	58	11	74
Manganese, total	µg/L	50	25	**424**	**58.9**	**87.3**	**193**	*31.8*	8.4 J	*45.4*
Organic Analytes										
1,1-Dichloroethane	µg/L	850	85	< 0.015	< 0.015	< 0.015	0.029 J	< 0.015	< 0.015	< 0.015
Acetone	µg/L	9000	1800	< 0.8	< 0.8	< 0.8	< 0.8	< 0.8	< 0.8	< 0.8
Chloroethane	µg/L	400	80	< 0.023	< 0.023	< 0.023	2	0.86	< 0.023	< 0.023
Chloromethane	µg/L	30	3	0.03 Ju	< 0.03	< 0.03	< 0.03	< 0.03	< 0.03	0.03 Ju
cis-1,2-Dichloroethene	µg/L	70	7	< 0.027	< 0.027	0.25	2.1	2.9	< 0.027	< 0.027
Dichlorodifluoromethane	µg/L	1000	200	< 0.03	< 0.03	< 0.03	0.17	0.16	< 0.03	< 0.03
Methylene chloride	µg/L	5	0.5	< 0.03	< 0.03	< 0.03	< 0.03	< 0.03	< 0.03	< 0.03
Naphthalene	µg/L	100	10	< 0.022	< 0.022	< 0.022	< 0.022	< 0.022	< 0.022	< 0.022
Toluene	µg/L	800	160	< 0.017	< 0.017	< 0.017	< 0.017	< 0.017	< 0.017	< 0.017
trans-1,2-dichloroethene	µg/L	100	20	< 0.029	< 0.029	< 0.029	< 0.029	0.042 J	< 0.029	< 0.029
Trichloroethene	µg/L	5	0.5	< 0.025	< 0.025	0.05 J	0.12	< 0.025	< 0.025	< 0.025
Vinyl chloride	µg/L	0.2	0.02	< 0.013	*0.051*	**0.27**	**7.6**	**4.6**	< 0.013	< 0.013

Notes:

Created by: P. Popp

Checked by: A. Sobbe 12/18/2019

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

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

Parameter	Units	NR140 ES	NR 140 PAL	P-114 10/21/2019 345918	P-114 DUP 10/21/2019 345920	P-115 (Wiese) 10/21/2019 345921	P-116 (Hadel) 10/21/2019 345919	P-117 10/21/2019 345924	P-118 10/21/2019 345925	Trip Blank 10/21/2019 345967
Field Parameters										
Depth to water	Feet			18.67		22.25	26.76	14.68	7.55	
Water elevation	Feet			820.69		820.42	819.10	819.28	819.19	
pH, field	SU			7.56		7.54	7.48	7.43	7.61	
Conductance, specific	µmhos/cm			804.30		654.70	550.40	789.30	607.4	
ORP	mV			26.10		1.30	35.20	-13.70	-18.5	
Oxygen, dissolved	mg/L			0.16		0.16	0.37	0.25	0.23	
Turbidity, field				SLIGHT		SLIGHT	MOD	NONE	NONE	
Temperature	Deg C			10.59		10.54	11.29	11.25	12.33	
Color, field				BROWN		NONE	BROWN	NONE	NONE	
Odor, field				NONE		NONE	NONE	NONE	NONE	
Inorganic Analytes										
Sulfate, total	mg/L	250	125	58	65	41	15	60	24	
Manganese, total	µg/L	50	25	**61.3**	**59.6**	**115**	**135**	**213**	**70.1**	
Organic Analytes										
1,1-Dichloroethane	µg/L	850	85	< 0.015	< 0.015	< 0.015	< 0.015	< 0.015	< 0.015	< 0.015
Acetone	µg/L	9000	1800	< 0.8	< 0.8	< 0.8	< 0.8	< 0.8	< 0.8	3.3
Chloroethane	µg/L	400	80	0.24	0.26	< 0.023	< 0.023	0.38	< 0.023	< 0.023
Chloromethane	µg/L	30	3	< 0.03	< 0.03	< 0.03	< 0.03	< 0.03	< 0.03	0.046 J
cis-1,2-Dichloroethene	µg/L	70	7	1.6	1.6	0.15	< 0.027	0.78	< 0.027	< 0.027
Dichlorodifluoromethane	µg/L	1000	200	0.15	0.16	< 0.03	< 0.03	0.12	< 0.03	< 0.03
Methylene chloride	µg/L	5	0.5	< 0.03	< 0.03	< 0.03	< 0.03	< 0.03	< 0.03	0.2
Naphthalene	µg/L	100	10	< 0.022	< 0.022	< 0.022	< 0.022	< 0.022	0.026 J	< 0.022
Toluene	µg/L	800	160	< 0.017	< 0.017	< 0.017	< 0.017	< 0.017	0.038 J	< 0.017
trans-1,2-dichloroethene	µg/L	100	20	< 0.029	< 0.029	< 0.029	< 0.029	< 0.029	< 0.029	< 0.029
Trichloroethene	µg/L	5	0.5	< 0.025	< 0.025	< 0.025	< 0.025	0.061 J	< 0.025	< 0.025
Vinyl chloride	µg/L	0.2	0.02	**8**	**8.3**	**0.96**	< 0.013	**1.5**	*0.079*	< 0.013

Notes:

Created by: P. Popp

Checked by: A. Sobbe 12/18/2019

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

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

Monitoring Point	Time	Date	CH_4 (%)	CO_2 (%)	O_2 (%)	N (%)	Comments
Background*	10:47	10/7/2019	0.0	0.0	20.9	79.1	
	8:11	11/5/2019	0.0	0.1	20.8	79.1	
	13:06	11/20/2019	0.0	0.1	20.6	79.3	
	8:25	12/5/2019	0.0	0.2	20.9	78.9	
	10:00	12/19/2019	0.0	0.0	21.5	78.5	
LC-1	10:54	10/7/2019	7.2	21.5	2.2	69.1	
	13:45	10/21/2019	14.0	24.8	0.1	61.1	
	8:58	11/5/2019	12.7	24.8	0.6	61.9	
	13:23	11/20/2019	12.7	21.7	1.9	63.7	
	9:58	12/5/2019	6.7	23.8	0.1	69.4	
	10:03	12/19/2019	4.9	21.4	0.9	72.8	
LC-2	11:12	10/7/2019	43.0	27.4	2.8	26.8	
	14:45	10/21/2019	44.0	32.5	0.6	22.9	
	8:52	11/5/2019	41.2	31.7	1.3	25.8	
	13:33	11/20/2019	40.1	27.9	2.4	30.3	
	9:48	12/5/2019	42.8	32.9	0.8	23.5	
	10:25	12/19/2019	34.1	28.8	1.7	35.4	
LC-3	11:07	10/7/2019	21.4	18.5	4.0	56.1	
	14:01	10/21/2019	23.5	25.5	0.5	50.5	
	8:48	11/5/2019	27.1	27.0	1.1	44.8	
	13:30	11/20/2019	27.0	23.9	2.4	46.7	
	9:55	12/5/2019	15.6	19.7	6.2	58.5	
	10:22	12/19/2019	5.3	7.5	14.8	72.4	
GV-4	--	10/7/2019	4.8	11.7	10.0	73.5	
	13:25	10/21/2019	9.7	16.8	1.0	72.5	
	9:01	11/5/2019	3.2	11.4	10.5	74.9	
	13:20	11/20/2019	7.3	13.7	7.7	71.3	
	10:00	12/5/2019	3.4	11.8	10.8	74	
	10:35	12/19/2019	2.0	9.3	12.5	76.2	
GV-6	11:03	10/7/2019	10.0	10.7	11.9	67.4	
	14:05	10/21/2019	12.9	14.6	10.4	62.1	
	8:54	11/5/2019	3.1	6.5	15.4	75.0	
	13:26	11/20/2019	0.03	0.9	20.2	78.9	
	9:25	12/5/2019	12.4	19.0	6.0	62.6	
	10:19	12/19/2019	8.4	15.1	7.6	68.9	
GP-1*	10:48	10/7/2019	0.0	0.9	20.2	78.9	
	11:50	10/21/2019	0.0	4.8	8.8	86.4	
	8:17	11/5/2019	0.0	0.7	19.3	80.0	
	13:08	11/20/2019	0.0	0.3	20.5	79.2	
	9:32	12/5/2019	0.0	0.5	20.7	78.8	
	10:01	12/19/2019	0.0	0.3	21.4	78.3	
GP-2*	11:25	10/7/2019	0.0	0.2	20.6	79.2	
	13:58	10/21/2019	0	0.6	20.7	78.7	
	13:21	11/5/2019	0	0.9	19.1	80.0	
	14:17	11/20/2019	0	0.6	20.0	79.4	
	10:29	12/5/2019	0.0	0.2	20.9	78.9	
	11:17	12/19/2019	0.0	0.5	20.5	79.0	
GP-3	14:21	10/21/2019	0.0	4.3	15.0	80.7	
	13:32	11/5/2019	0.0	0.4	20.0	79.6	
	10:41	12/5/2019	0.0	0.3	20.8	78.9	
GP-4	14:25	10/21/2019	0.0	2.9	17.5	79.6	
	9:48	11/5/2019	0.0	0.9	20.3	78.8	
	10:45	12/5/2019	0.0	0.7	20.5	78.8	
GP-5	11:52	10/21/2019	0.0	5.5	14.2	80.3	
	8:24	11/5/2019	0.0	3.5	17.0	79.5	
	9:36	12/5/2019	0.0	3.8	18.2	78.0	

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

Monitoring Point	Time	Date	CH_4 (%)	CO_2 (%)	O_2 (%)	N (%)	Comments
GP-6	14:36	10/21/2019	0.0	0.1	20.1	79.8	
	9:40	10/21/2019	0.0	2.7	18.2	79.1	
	10:57	12/5/2019	0.0	1.7	19.9	78.4	
GP-7	14:31	10/21/2019	0.0	0.2	20.1	79.7	
	9:36	11/5/2019	0.0	0.1	20.7	79.2	
	10:52	12/5/2019	0.0	0.3	20.8	78.9	
GP-8	*Gas Probe Not Located - Assumed Lost*						
GP-10	14:09	10/21/2019	0.0	6.3	12.1	81.6	
	9:20	11/5/2019	0.0	6.1	13.7	80.2	
	10:22	12/5/2019	0.0	5.6	16.5	77.9	
GP-11	13:21	10/21/2019	0.0	3.2	18.3	78.5	
	9:05	11/5/2019	0.0	2.5	19.4	80.2	
	10:15	12/5/2019	0.0	2.4	19.6	78.0	
GP-12	11:56	10/21/2019	0.0	5.6	14.9	79.5	
	8:13	11/5/2019	0.2	5.6	14.2	80.0	
	9:04	12/5/2019	0.0	5.4	15.2	79.4	
Exhaust*	10:50	10/7/2019	4.8	8.2	13.6	73.4	
	8:20	11/5/2019	1.1	3.3	17.8	77.8	
	13:10	11/20/2019	0.1	4.3	16.8	78.9	
	8:53	12/5/2019	4.2	8.8	14.3	72.7	
	10:03	12/19/2019	3.3	7.5	14.1	75.1	

Notes:

Updated By: M. Stollenwerk 02/05/2020

Checked By: A. Stehn 2/6/2020

* = 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

Table 5
Detected Parameters in Landfill Gas Vapor
FF/NN Landfill
Ripon, Wisconsin
Fourth Quarter 2019

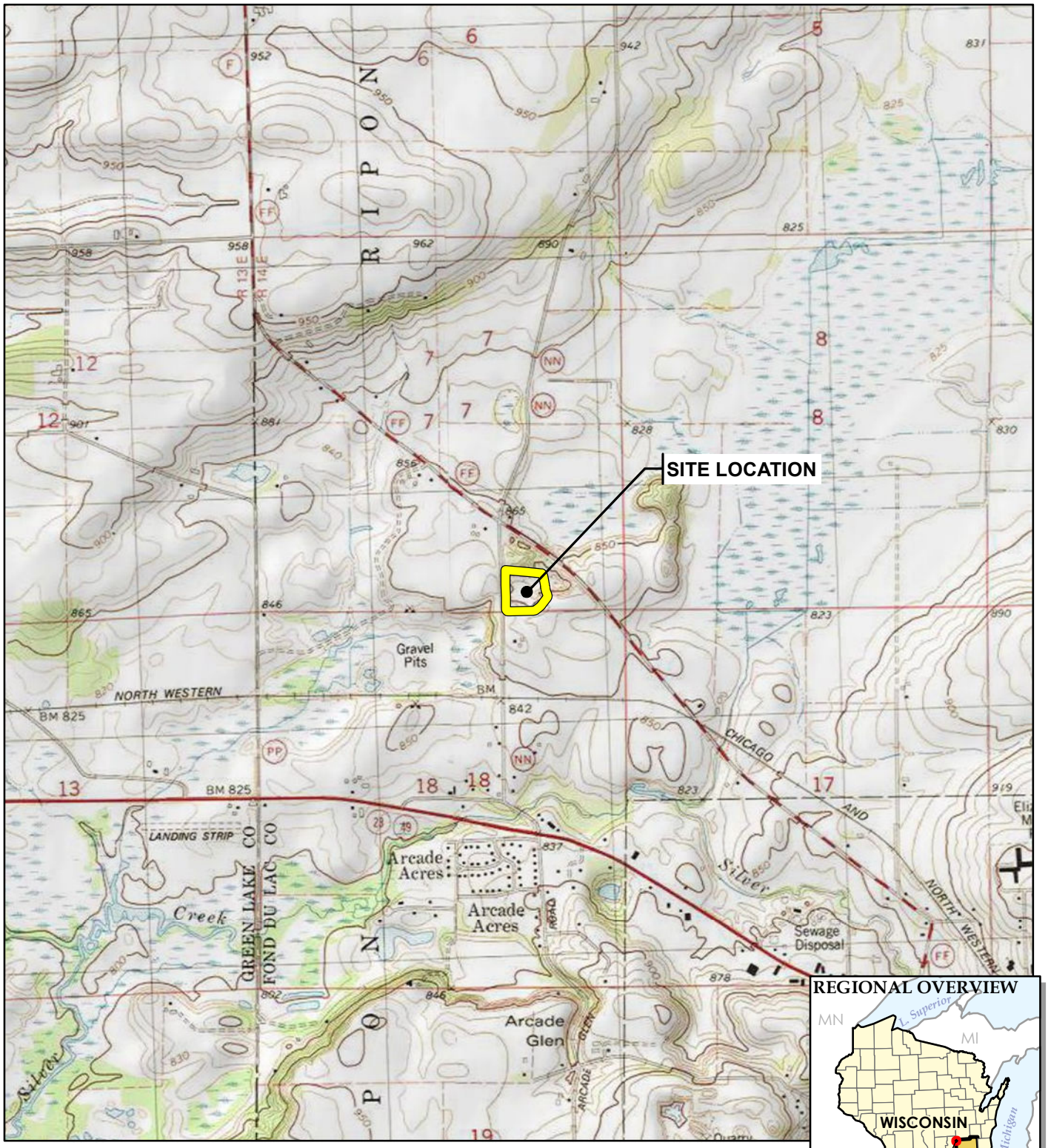
Parameter	Units	GP-03 11/5/2019 P1906817-001	GV-06 11/5/2019 P1906817-004	LC-1 11/5/2019 P1906817-005	LC-2 11/5/2019 P1906817-003	LC-3 11/5/2019 P1906817-002
1,1-Dichloroethane	ppbV	< 0.65	1.6	2.8	4.7	< 0.51
1,2,4-Trimethylbenzene	ppbV	< 0.53	< 0.41	2.5	83	< 0.41
1,3,5-Trimethylbenzene	ppbV	< 0.52	< 0.40	1.6	29	< 0.40
1-Ethyl-4-methylbenzene	ppbV	< 0.53	< 0.41	0.72	27	< 0.41
2-Butanone	ppbV	2.0	< 1.4	2.0	< 11	< 1.4
Acetone	ppbV	14	< 8.4	8.6	< 67	< 8.3
Benzene	ppbV	< 0.80	4.2	66	220	< 0.62
Carbon disulfide	ppbV	2.4	< 1.3	< 1.4	< 11	< 1.3
Chlorobenzene	ppbV	< 0.56	3.0	7.5	150	< 0.44
Chloroethane	ppbV	< 0.98	11	15	170	< 0.76
cis-1,2-Dichloroethene	ppbV	< 0.64	< 0.50	1.7	< 4.0	< 0.50
Cyclohexane	ppbV	< 1.5	53	82	390	< 1.2
Dichlorodifluoromethane	ppbV	< 0.51	33	72	200	0.49
Ethylbenzene	ppbV	< 0.60	3.7	40	130	< 0.46
Fluorotrichloromethane	ppbV	< 0.45	0.68	< 0.36	< 2.8	< 0.35
Heptane	ppbV	< 0.63	39	96	700	< 0.49
Isopropylbenzene	ppbV	< 0.53	1.4	1.4	70	< 0.41
n-Hexane	ppbV	< 0.74	110	150 D	1400 D	< 0.57
n-Nonane	ppbV	< 0.49	< 0.39	19	160	< 0.38
n-Octane	ppbV	< 0.56	13	67	260	< 0.43
n-Propylbenzene	ppbV	< 0.53	< 0.41	1.0	46	< 0.41
Propylene	ppbV	< 1.5	230 D	220 D	< 9.2	< 1.1
Tetrahydrofuran	ppbV	< 0.90	0.94	10	60	< 0.69
Toluene	ppbV	< 0.69	< 0.54	16	69	< 0.53
Trichloroethene	ppbV	< 0.48	1.2	1.7	< 3.0	< 0.37
Vinyl chloride	ppbV	< 1.0	6.5	3.6	< 6.3	< 0.79
Xylene, M + P	ppbV	< 1.2	9.7	69	1200	< 0.94
Xylene, O	ppbV	< 0.60	< 0.47	7.0	41	< 0.46

Notes:

1. ppbV = parts per billion by volume.
2. D = Reported result is from a dilution.

Created by: P. Popp

Checked by: A. Sobbe 12/18/2019



BASE MAP FROM USGS 7.5 MINUTE TOPOGRAPHIC QUADRANGLE SERIES.

N

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

0 2,000 4,000
FEET

TRC
150 North Patrick Blvd.
Suite 180
Brookfield, WI 53045
Phone: 262.879.1212
TRC - GIS

PROJECT:

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

TITLE:

SITE LOCATION MAP

DRAWN BY:	A. ADAIR
CHECKED BY:	M. STOLLENWERK
APPROVED BY:	J. WEDEKIND
DATE:	FEBRUARY 2020
PROJ. NO.:	327275
FILE:	Fig1_327275_Q41_SLM.mxd

FIGURE 1

S:\1-PROJECTS\Ripon\Fig1_327275_Q41_SLM.mxd -- Saved By: AADAIR on 2/11/2020, 09:07:58 AM

TRC - GIS

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

Plot Date: 3/23/2020, 14:53:12 PM by AADAIR -- LAYOUT: ANSI B (11"x17")
Path: S:\11-PROJECTS\Ripon\Fig2_327275_Q42_SLP.mxd

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

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
FOURTH QUARTER 2019 REPORTING

TITLE:
SITE LAYOUT MAP

DRAWN BY:	A. ADAIR	PROJ. NO.:	327275
CHECKED BY:	M. STOLLENWERK		
APPROVED BY:	J. WEDEKIND		
DATE:	MARCH 2020		

FIGURE 2

TRC
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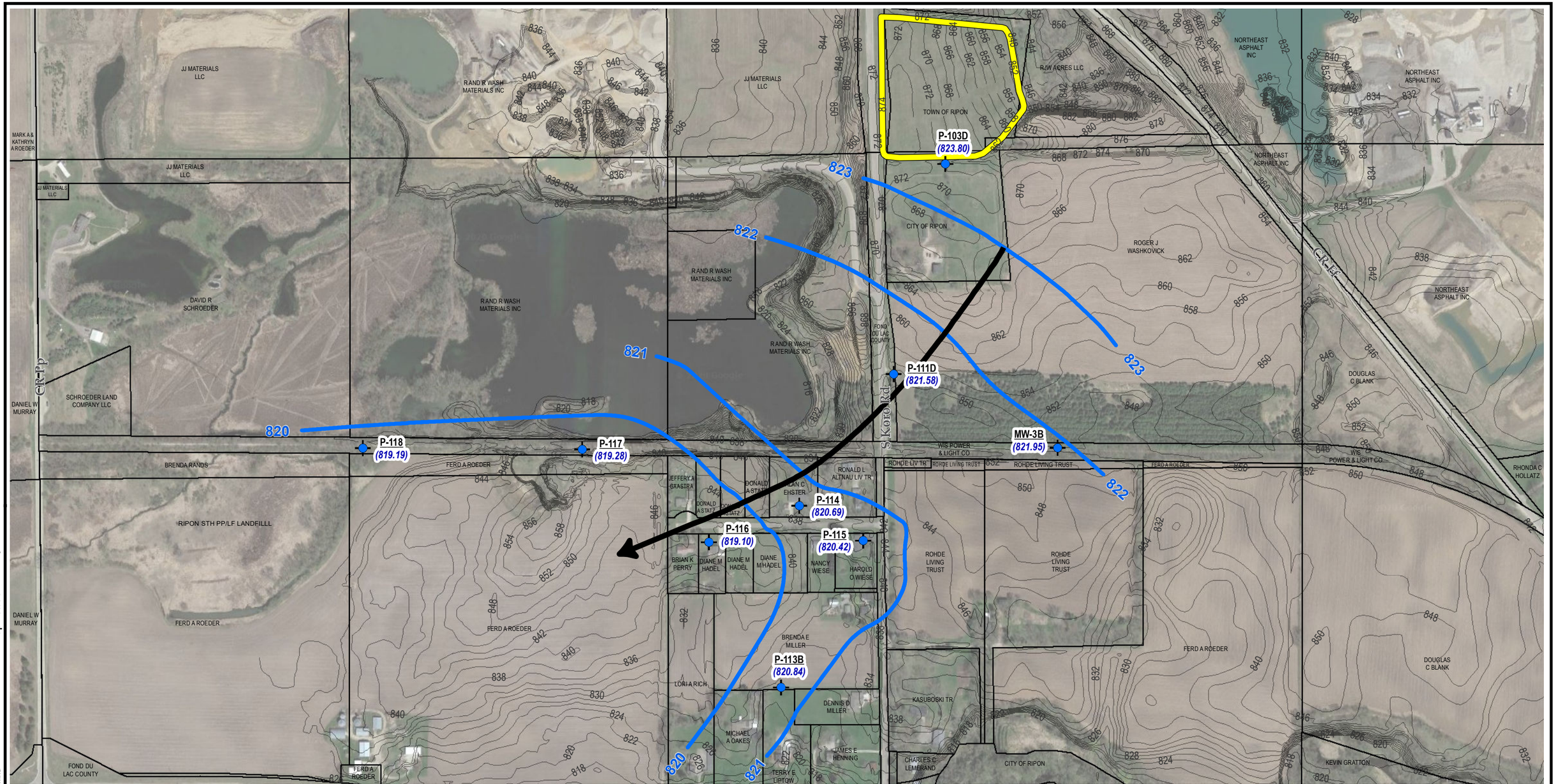
Brookfield, WI 53045
Phone: 262.879.1212
www.trcsolutions.com

FILE NO.: Fig2_327275_Q42_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

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
FOURTH QUARTER 2019 REPORTING

TITLE:
GROUNDWATER ELEVATION MAP
QUARTER 4 LAYER 3 WELLS
OCTOBER 21, 2019

DRAWN BY:	A. ADAIR	PROJ. NO.:	327275
CHECKED BY:	J. WEDEKIND		
APPROVED BY:	M. STOLLENWERK		**FIGURE 3**
DATE:	MARCH 2020		

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Phone: 262.879.1212
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FILE NO.: Fig14_327275_Q4_Layer3.mxd

Plot Date: 3/23/2020, 14:52:10 PM by AADAIR -- LAYOUT: ANSI B (11"x17")
Path: S:\1-PROJECTS\Ripon\Fig14_327275_Q4_Layer3.mxd
Coordinate System: NAD 1983 StatePlane Wisconsin South FIPS 4803 Feet (Foot US)
Map Rotation: 0

TRC - GIS

TRC - GIS

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

Plot Date: 3/23/2020, 14:50:57 PM by AADAIR -- LAYOUT: ANSI B(11"x17")
Path: S:\1-PROJECTS\Ripon\Fig15_327275_Q4_Layer4.mxd

P-107D (821.20)

MW-3A (820.83)

P-113A (820.20)

821

820

PRESUMED DIRECTION OF FLOW

S Koro Rd

Charles St

CR FP

CR FK

JJ MATERIALS LLC

RAND R WASH MATERIALS INC

TOWN OF RIPON

CITY OF RIPON

RJW ACRES LLC

NORTHEAST ASPHALT INC

ROGER J WASHKOVICK

FOND DU LAC COUNTY

WIS POWER & LIGHT CO

ROHDE LIV TR

ROHDE LIVING TRUST

FERD A ROEDER

DOUGLAS C BLANK

RHONDA C HOLLATZ

MARK A & KATHRYN A ROEDER

DAVID R SCHROEDER

SCHROEDER LAND COMPANY LLC

DANIEL W MURRAY

BRENDA RANDS

RIPON STH PP/LF LANDFILLL

JEFFERY A GAASTRA

DONALD A STATZ

ALAN G EHSTER

RONALD L ALTNAU LIV TR

BRIAN K PERRY

DIANE M HADEL

NANCY WIESE

HAROLD O WIESE

BRENDA E MILLER

LORI A RICH

DENNIS D MILLER

TERRY E LIPTOW

MICHAEL A OAKES

JAMES E HENNING

KASUBOSKI TR

CHARLES C LEMERAND

KEVIN GRATTON

FOND DU LAC COUNTY

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

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
FOURTH QUARTER 2019 REPORTING

TITLE:
GROUNDWATER ELEVATION MAP
QUARTER 4 LAYER 4 WELLS
OCTOBER 21, 2019

DRAWN BY:	A. ADAIR	PROJ. NO.:	327275
CHECKED BY:	J. WEDEKIND		
APPROVED BY:	M. STOLLENWERK		**FIGURE 4**
DATE:	MARCH 2020		

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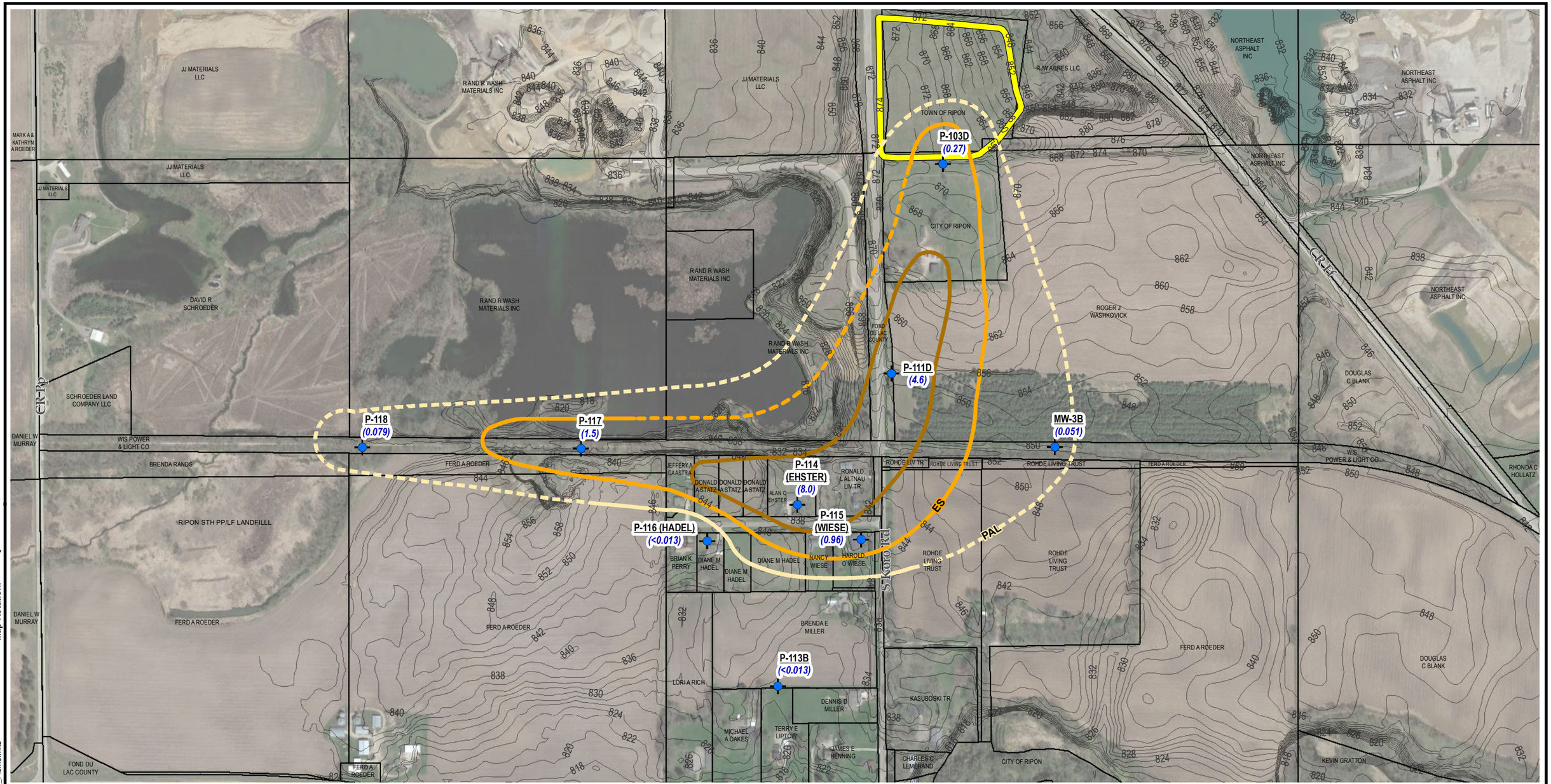
FILE NO.: Fig15_327275_Q4_Layer4.mxd

TRC - GIS

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

Plot Date: 3/23/2020, 14:51:37 PM by AADAIR -- LAYOUT: ANSI B(11"x17")
Path: S:\1-PROJECTS\Ripon\Fig16_327275_Q4_Layer3_Plume.mxd



LEGEND

- **P-117** *(1.2)* MONITORING WELL, PIEZOMETER LOCATION WITH VINYL CHLORIDE LEVEL
- 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

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
FOURTH QUARTER 2019 REPORTING

TITLE: **VINYL CHLORIDE ISOCONCENTRATION MAP QUARTER 4 LAYER 3 WELLS OCTOBER 21, 2019**

DRAWN BY:	A. ADAIR	PROJ. NO.:	327275
CHECKED BY:	J. WEDEKIND		
APPROVED BY:	M. STOLLENWERK		**FIGURE 5**
DATE:	MARCH 2020		

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FILE NO.: Fig16_327275_Q4_Layer3_Plume.mxd

Appendix A: Site Inspection Reports

PROJECT NAME:	FF/NN Ripon Landfill
PROJECT NUMBER:	327275..0001.0004
PROJECT MANAGER:	Marita Stollenwerk
SITE LOCATION:	Ripon, WI
DATES OF FIELDWORK:	10/21/2019
PURPOSE OF FIELDWORK:	Quarter Four Groundwater Sampling
WORK PERFORMED BY:	J. Roelke / A. Sobbe

SIGNED 10/22/19 DATE

CHECKED BY DATE

TRC

CALIBRATION LOG

PROJECT NAME:	Ripon FF/NN Landfill	MODEL:	Insitu	SAMPLER:	J. Roelke
PROJECT NO.:	327275.0001.0004	SERIAL #:	653586	DATE:	10/ 21 /19

PH CALIBRATION CHECK

PH 7 (LOT NUMBER): 8G1213	PH 4 / 10 (LOT NUMBER): 9GE142	TIME
7.00 / 7.02	4.00 / 4.09	0640 10/21/19
/ 7.13	/ 4.13	1625 "
/	/	1628 "
/	/	

SPECIFIC CONDUCTIVITY CALIBRATION CHECK

CALIBRATION READING (LOT NUMBER): 9GE142	TEMPERATURE (°CELSIUS)	CORRECTED CONDUCTIVITY (umhos/cm)	TIME
4490 / 4404	18.6		0647 10/21/19
/ 4497	16.6		1629 "
/			
/			

D.O. CALIBRATION CHECK

CALIBRATION READING (mg/L)	TIME
93.6	0607 10/21/19
91.8	1645 "

TURBIDITY CALIBRATION CHECK

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

OXIDATION / REDUCTION POTENTIAL CALIBRATION CHECK (mV)

CALIBRATION READING (LOT NUMBER): 061320	TEMPERATURE (°CELSIUS)	CORRECTED ORP (mV)	TIME
237236 / 218.1	19.5		0651 10/21/19
/ 210.4	17.1		1636 "
/			
/			

PROBLEMS ENCOUNTERED	CORRECTIVE ACTIONS

SIGNED [signature] 10/21/19 DATE

CHECKED BY DATE

REVISED 07/2005

TRC

WATER LEVEL DATA

PROJECT NAME: Ripon FF/NN Landfill				DATE: 10/21/19	
PROJECT NUMBER 327275.0001.0004				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		872.30		53.69	
P-103		872.74		83.02	
P-103D	1736	872.91	49.11	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	1559	871.9	50.70	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	1646	855.56	33.98	148.46	
MW-112		874.7		60.47	
P-113A	730	833.16	12.36	325.31	
P-113B	833	833.16	12.32	198.9	
P-114	1028	839.36	18.67	181.72	
P-115	1130	842.67	22.25	179.57	
P-116	924	845.86	26.76	163.19	
P-117	1426	833.96	14.68	165.54	
P-118	1511	826.74	7.55	167.44	
MW-3A	1326	850.60	29.77	280.10	
MW-3B	1243	850.89	28.94	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)

SIGNED 10/22/19 DATE: CHECKED DATE:

WATER SAMPLE LOG

PROJECT NAME:	Ripon FF/NN Landfill	PREPARED		CHECKED	
PROJECT NUMBER:	327275.0001.0004	BY: JAR	DATE: 10/24/19	BY:	DATE:

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

WELL MATERIAL: ☑ PVC ☐ SS ☐ IRON ☐ OTHER NA

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

PURGING	TIME: 1326	DATE: 10/21/19	SAMPLE	TIME: 1451	DATE: 10/21/19

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

DEPTH TO WATER: 29.77 T/ PVC

DEPTH TO BOTTOM: 280.1 T/ PVC

WELL VOLUME: N/A ☐ LITERS ☑ GALLONS

VOLUME REMOVED: ☐ LITERS ☑ GALLONS

COLOR: Clear ODOR: NONE

TURBIDITY:

☒ NONE ☐ SLIGHT ☐ MODERATE ☐ VERY

DISPOSAL METHOD: ☐ GROUND ☐ DRUM ☑ OTHER

PH: 7.66 SU CONDUCTIVITY: 577.80 umhos/cm

ORP: -25.30 mv DO: 0.17 mg/L

TURBIDITY: N/A NTU

☐ NONE ☒ SLIGHT ☐ MODERATE ☐ VERY

TEMPERATURE: 10.08 °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)
1326	300	7.80	569.9	-53.3	1.69	N/A	10.68	29.77	INITIAL
1331	300	7.77	575.90	-49.60	0.32		10.08	30.79	1.5
1336	300	7.73	576.50	-42.00	0.21		10.08	30.79	3.0
1441	300	7.70	577.10	-34.90	0.18		10.03	30.79	4.5
1446	300	7.67	577.40	-29.40	0.17		10.06	30.79	6.0
1451	300	7.66	577.80	-25.30	0.17		10.08	30.80	7.5

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
1	125 mL	PLASTIC	C	☐ Y ☑ N	3	40 mL	VOA	E	☐ Y ☑ N
1	125 mL	PLASTIC	A	☐ Y ☑ N					☐ Y ☐ N
1	250 mL	PLASTIC	B	☐ Y ☑ N					☐ Y ☐ N

SHIPPING METHOD: ~~Fed Ex~~ PACE DATE SHIPPED: 10/22/19 ~~AIRBILL NUMBER:~~

COC NUMBER: _____ SIGNATURE: [signature] DATE SIGNED: 10/22/19

TRC

WATER SAMPLE LOG

PROJECT NAME:	Ripon FF/NN Landfill	PREPARED		CHECKED	
PROJECT NUMBER:	327275.0001.00084	BY: JAR	DATE: 10 / 21/19	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: 1243	DATE: 10 / 21 /19	SAMPLE	TIME: 1303	DATE: 10 / 21 /19

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

DEPTH TO WATER: 28.94 T/ PVC

DEPTH TO BOTTOM: 185.72 T/ PVC

WELL VOLUME: NA ☐ LITERS ☐ GALLONS

VOLUME REMOVED: ☐ LITERS ☑ GALLONS

COLOR: Clear ODOR: Sulfur

TURBIDITY: NA

☒ NONE ☐ SLIGHT ☐ MODERATE ☐ VERY

DISPOSAL METHOD: ☐ GROUND ☐ DRUM ☑ OTHER

PH: 7.65 SU CONDUCTIVITY: 723.50 umhos/cm

ORP: -55.90 mv DO: 0.12 mg/L

TURBIDITY: (NA) NTU

☒ NONE ☐ SLIGHT ☐ MODERATE ☐ VERY

TEMPERATURE: 9.94 °C OTHER:

COLOR: now ODOR: Sulfur

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)
1243	375	7.90	482.7	-26.2	0.49	N/A	10.51	28.94	INITIAL
1248	375	7.82	708.90	-55.40	0.19		9.94	29.14	1.86
1253	375	7.73	724.00	-57.57	0.14		9.92	29.06	3.72
1258	375	7.68	723.90	-56.70	0.13		9.93	29.18	5.58
1303	375	7.65	723.50	-55.90	0.12		9.94	29.01	7.44

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~~ PACE DATE SHIPPED: 10 / 22 /19 AIRBILL NUMBER: —

COC NUMBER: — SIGNATURE: [signature] DATE SIGNED: 10/22/19

TRC

WATER SAMPLE LOG

PROJECT NAME:	Ripon FF/NN Landfill	PREPARED		CHECKED	
PROJECT NUMBER:	327275.0001.0004	BY: JAR	DATE: 10/21/19	BY:	DATE:

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

WELL MATERIAL: ☑ PVC ☐ SS ☐ IRON ☐ OTHER NA

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

PURGING	TIME: 1736	DATE: 10/21/19	SAMPLE	TIME: 1801	DATE: 10/21/19
PURGE METHOD:	☑ PUMP BLADDER PUMP (QED)		PH: 7.54 SU	CONDUCTIVITY: 798.9 umhos/cm	
	☐ BAILER BAILER (DISPOSABLE)		ORP: -4.40 mv	DO: 0.38 mg/L	
DEPTH TO WATER: 49.11 T/ PVC			TURBIDITY: NM NTU		
DEPTH TO BOTTOM: 192.66 T/ PVC			☑ NONE ☐ SLIGHT ☐ MODERATE ☐ VERY		
WELL VOLUME: NM ☐ LITERS ☑ GALLONS			TEMPERATURE: 10.78 °C	OTHER:	
VOLUME REMOVED: ~1.75 ☐ LITERS ☑ GALLONS			COLOR: Clear	ODOR: none	
COLOR: Clear ODOR: none			FILTRATE (0.45 um) ☐ YES ☑ NO		
TURBIDITY: NM			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)
1736	250	7.81	775.4	-16.8	5.92	NM	12.12	49.11	INITIAL
1741	250	7.75	792.1	-7.70	1.90	NM	11.24	49.17	
1746	250	7.68	797.3	-4.40	0.73	NM	11.04	49.22	
1751	250	7.62	798.2	-3.50	0.50	NM	10.92	49.25	
1756	250	7.58	799.0	-3.80	0.42	NM	10.86	49.25	
1801	250	7.54	798.9	-4.40	0.38	NM	10.78	49.25	~1.75
				3BV					
				10/21/19					

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
1	125 mL	PLASTIC	C	☐ Y ☑ N	3	40 mL	VOA	E	☐ Y ☑ N
1	125 mL	PLASTIC	A	☐ Y ☑ N					☐ Y ☐ N
1	250 mL	PLASTIC	B	☐ Y ☑ N					☐ Y ☐ N

SHIPPING METHOD: ~~Fed Ex~~ PACE	DATE SHIPPED: 10/22/19	AIRBILL NUMBER: —
COC NUMBER: —	SIGNATURE:	DATE SIGNED: 10/22/19

WATER SAMPLE LOG

PROJECT NAME:	Ripon FF/NN Landfill	PREPARED		CHECKED	
PROJECT NUMBER:	327275.0001.0004	BY: JAR	DATE: 10/ 21 /19	BY:	DATE:

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

WELL MATERIAL: ☑ PVC ☐ SS ☐ IRON ☐ OTHER NA

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

PURGING	TIME: 1559	DATE: 10/ 21 /19	SAMPLE	TIME: 1629	DATE: 10/ 21 /19
PURGE METHOD:	☑ PUMP BLADDER PUMP (QED) ☐ BAILER BAILER (DISPOSABLE)		PH: 7.68 SU	CONDUCTIVITY: 608.4 umhos/cm	
			ORP: -17.1 mv	DO: 2.11 mg/L	
DEPTH TO WATER:	50.70 T/ PVC		TURBIDITY: NM NTU		
DEPTH TO BOTTOM:	322.7 T/ PVC		☒ NONE ☐ SLIGHT ☐ MODERATE ☐ VERY		
WELL VOLUME:	NA ☐ LITERS ☑ GALLONS		TEMPERATURE: 10.62 °C	OTHER:	
VOLUME REMOVED:	~2.0 ☐ LITERS ☑ GALLONS		COLOR: Clear	ODOR: NONE	
COLOR:	Clear ODOR: NONE		FILTRATE (0.45 um) ☐ YES ☒ NO		
TURBIDITY:	NM		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)
1559	250	7.75	633.9	-5.2	4.02	NM	11.48	50.70	INITIAL
1604	250	7.74	623.4	-6.6	2.83	NM	11.09	50.72	
1609	250	7.72	638.5	-12.3	2.16	NM	10.73	50.72	
1614	250	7.72	612.3	-20.3	2.15	NM	10.62	50.72	
1619	250	7.69	601.1	-18.3	2.09	NM	10.64	50.72	
1624	250	7.67	607.9	-17.4	2.17	NM	10.62	50.72	
1629	250	7.68	608.4	-17.1	2.11	NM	10.62	50.72	~2.0

JAR 10/21/19

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
1	125 mL	PLASTIC	C	☐ Y ☑ N	3	40 mL	VOA	E	☐ Y ☑ N
1	125 mL	PLASTIC	A	☐ Y ☑ N					☐ Y ☐ N
1	250 mL	PLASTIC	B	☐ Y ☑ N					☐ Y ☐ N

SHIPPING METHOD: ~~Fed Ex~~ PACE	DATE SHIPPED: 10/ 22 /19	AIRBILL NUMBER: _____
COC NUMBER: _____	SIGNATURE:	DATE SIGNED: 10/22/19

TRC

WATER SAMPLE LOG

PROJECT NAME:	Ripon FF/NN Landfill	PREPARED		CHECKED	
PROJECT NUMBER:	327275.0001.0004	BY: JAR	DATE: 10/21/19	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: 1646	DATE: 10/ /19

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

DEPTH TO WATER: 33.98 T/ PVC

DEPTH TO BOTTOM: 148.46 T/ PVC

WELL VOLUME: NA ☐ LITERS ☐ GALLONS

VOLUME REMOVED: 2 1.75 ☐ LITERS ☑ GALLONS

COLOR: Clear ODOR: NONE

TURBIDITY: NA

☒ NONE ☐ SLIGHT ☐ MODERATE ☐ VERY

DISPOSAL METHOD: ☐ GROUND ☐ DRUM ☑ OTHER

SAMPLE	TIME: 1711	DATE: 10/21/19

PH: 7.61 SU CONDUCTIVITY: 898.9 umhos/cm

ORP: -33.9 mv DO: 0.98 mg/L

TURBIDITY: NA NTU

☒ NONE ☐ SLIGHT ☐ MODERATE ☐ VERY

TEMPERATURE: 10.71 °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)
1646	250	7.60	804.7	-9.7	9.04	NM	13.93	33.98	INITIAL
1651	250	7.63	889.6	-20.3	1.98	NM	11.53	34.05	
1656	250	7.63	895.6	-26.6	1.41	NM	11.02	34.18	
1701	250	7.62	896.5	-30.2	1.18	NM	10.86	34.18	
1706	250	7.61	898.2	-33.6	1.01	NM	10.74	34.18	
1711	250	7.61	898.9	-33.9	0.98	NM	10.71	34.18	~1.75

SMR 10/21/19

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
1	125 mL	PLASTIC	C	☐ Y ☑ N	3	40 mL	VOA	E	☐ Y ☑ N
1	125 mL	PLASTIC	A	☐ Y ☑ N					☐ Y ☐ N
1	250 mL	PLASTIC	B	☐ Y ☑ N					☐ Y ☐ N

SHIPPING METHOD: ~~Fed Ex~~ PACE	DATE SHIPPED: 10/22/19	AIRBILL NUMBER: —
COC NUMBER: —	SIGNATURE:	DATE SIGNED: 10/22/19

WATER SAMPLE LOG

PROJECT NAME:	Ripon FF/NN Landfill	PREPARED		CHECKED	
PROJECT NUMBER:	327275.0001.0004	BY: JAR	DATE: 10/21/19	BY:	DATE:

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

WELL MATERIAL: ☑ PVC ☐ SS ☐ IRON ☐ OTHER NA

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

PURGING	TIME: 730	DATE: 10/21/19	SAMPLE	TIME: 818	DATE: 10/21/19

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

DEPTH TO WATER: 12.36 T/ PVC

DEPTH TO BOTTOM: 198.9 T/ PVC

WELL VOLUME: ~~30.99~~ ☐ LITERS ☑ GALLONS

VOLUME REMOVED: ☐ LITERS ☑ GALLONS

COLOR: none ODOR: none

TURBIDITY: N/A

☒ NONE ☐ SLIGHT ☐ MODERATE ☐ VERY

DISPOSAL METHOD: ☐ GROUND ☐ DRUM ☑ OTHER

PH: 7.05 SU CONDUCTIVITY: 566.80 umhos/cm

ORP: 77.90 mv DO: 1.82 mg/L

TURBIDITY: N/A NTU

☒ NONE ☐ SLIGHT ☐ MODERATE ☐ VERY

TEMPERATURE: 10.41 °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)
7:30	350	6.08	572.3	87.6	0.18	N/A	10.54	15.14	INITIAL
7:38	350	6.34	572.0	85.4	0.35		10.50	15.43	1.75
7:43	350	6.50	571.1	84.0	0.65		10.50	15.52	3.50
7:48	350	6.61	570.2	82.5	0.90		10.49	15.41	5.25
7:53	350	6.71	569.90	81.70	1.10		10.50	15.52	7.00
8:03	350	6.88	568.20	80.00	1.48		10.45	15.45	9.50
8:08	350	6.95	567.41	79.00	1.61		10.45	15.50	11.25
8:13	350	7.00	567.40	78.50	1.72		10.41	15.52	13.00
8:18	350	7.05	566.80	77.90	1.82		10.41	15.51	14.75

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
1	125 mL	PLASTIC	C	☐ Y ☑ N	3	40 mL	VOA	E	☐ Y ☑ N
1	125 mL	PLASTIC	A	☐ Y ☑ N					☐ Y ☐ N
1	250 mL	PLASTIC	B	☐ Y ☑ N					☐ Y ☐ N

SHIPPING METHOD: ~~Fed Ex~~ PACE	DATE SHIPPED: 10/22/19	AIRBILL NUMBER: —
COC NUMBER: —	SIGNATURE:	DATE SIGNED: 10/22/19

WATER SAMPLE LOG

PROJECT NAME:	Ripon FF/NN Landfill	PREPARED		CHECKED	
PROJECT NUMBER:	327275.0001.0004	BY: JAR	DATE: 10/21/19	BY:	DATE:

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

WELL MATERIAL: ☑ PVC ☐ SS ☐ IRON ☐ OTHER NA

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

PURGING	TIME: 8:33	DATE: 10/21/19	SAMPLE	TIME: 8:53	DATE: 10/21/19

PURGE METHOD: ☑ PUMP BLADDER PUMP (QED) ☐ BAILER BAILER (DISPOSABLE)	PH: 7.16 SU — CONDUCTIVITY: 687.80 umhos/cm
DEPTH TO WATER: 12.32 T/ PVC	ORP: 39.10 mv — DO: 0.17 mg/L
DEPTH TO BOTTOM: 325.31 T/ PVC	TURBIDITY: N/A NTU
WELL VOLUME: 51.08 ☐ LITERS ☑ GALLONS	☑ NONE ☐ SLIGHT ☐ MODERATE ☐ VERY
VOLUME REMOVED: ☐ LITERS ☑ GALLONS	TEMPERATURE: 11.01 °C — OTHER:
COLOR: None — ODOR: Sulfur	COLOR: clear — ODOR: Sulfur
TURBIDITY: N/A	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)
8:33	~~125~~ MP 150	~~7.67~~ 7.14	695.0	60.6	0.13	N/A	10.50	12.32	INITIAL
8:38	150	7.13	690.00	54.00	0.11	N/A	10.48	12.40	.75
8:43	150	7.14	691.30	47.0	0.15	N/A	10.92	12.42	1.50
8:48	150	7.14	687.80	43.50	0.16	N/A	11.01	12.43	2.25
8:53	150	7.16	687.80	39.10	0.17	N/A	11.01	12.45	3.00

AS 10-21-19

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
1	125 mL	PLASTIC	C	☐ Y ☑ N	3	40 mL	VOA	E	☐ Y ☑ N
1	125 mL	PLASTIC	A	☐ Y ☑ N					☐ Y ☐ N
1	250 mL	PLASTIC	B	☐ Y ☑ N					☐ Y ☐ N

SHIPPING METHOD: ~~Fed Ex~~ PACE		DATE SHIPPED: 10/22/19		AIRBILL NUMBER: —	
COC NUMBER: —		SIGNATURE:		DATE SIGNED:	10/22/19

TRC

WATER SAMPLE LOG

PROJECT NAME:	Ripon FF/NN Landfill	PREPARED		CHECKED	
PROJECT NUMBER:	327275.0001.0004	BY: JAR	DATE: 10/21/19	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: 1028	DATE: 10/21/19	SAMPLE	TIME: 1048	DATE: / /19
PURGE METHOD:	☑ PUMP BLADDER PUMP (QED) ☐ BAILER BAILER (DISPOSABLE)		PH: 7.56 SU	CONDUCTIVITY: 804.30 umhos/cm	
DEPTH TO WATER:	18.67 T/ PVC		ORP: 26.10 mv	DO: 0.16 mg/L	
DEPTH TO BOTTOM:	181.72 T/ PVC		TURBIDITY: NA NTU		
WELL VOLUME:	NA ☐ LITERS ☐ GALLONS		☐ NONE ☑ SLIGHT ☐ MODERATE ☐ VERY		
VOLUME REMOVED:	☐ LITERS ☑ GALLONS		TEMPERATURE: ~~15~~ 10.59 °C	OTHER:	
COLOR:	brown	ODOR: none	COLOR: brown	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)
1028	250	7.65	801.1	49.0	1.22	N/A	11.43	18.67	INITIAL
1032	250	7.63	808.5	40.10	0.32	|	10.73	18.68	1.25
1038	250	7.60	805.3	34.10	0.22	|	10.64	18.75	2.50
1043	250	7.58	803.60	29.60	0.18	|	10.62	18.70	3.75
1048	250	7.56	804.30	26.10	0.16	|	10.59	18.70	4.00

AS 10-21-19

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	1	125	PL	C	☐ Y ☒ N
1	~~250 mL~~ 125	PLASTIC	A	☐ Y ☑ N					☐ Y ☐ N
1	~~250 mL~~ 250	PLASTIC	B	☐ Y ☑ N					☐ Y ☐ N

SHIPPING METHOD:	~~Fed Ex~~ PACE	DATE SHIPPED:	10/22/19	AIRBILL NUMBER:	—
COC NUMBER:	—	SIGNATURE:		DATE SIGNED:	10/22/19

TRC

WATER SAMPLE LOG

PROJECT NAME:	Ripon FF/NN Landfill	PREPARED		CHECKED	
PROJECT NUMBER:	327275.0001.0002 4/	BY: JAR	DATE: 10 /21 /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: 11:30	DATE: / 21 /19	SAMPLE	TIME: 11:50 AS	DATE: 10 / 21 /19
PURGE METHOD:	☑ PUMP BLADDER PUMP (QED) ☐ BAILER BAILER (DISPOSABLE)		PH: 7.54 SU	CONDUCTIVITY: ~~654.70~~ umhos/cm	
DEPTH TO WATER: 22.25 T/ PVC			ORP: 1.30 mv	DO: 0.16 mg/L	
DEPTH TO BOTTOM: 179.57 T/ PVC			TURBIDITY: (NA) NTU		
WELL VOLUME: NA ☐ LITERS ☐ GALLONS			☐ NONE ☒ SLIGHT ☐ MODERATE ☐ VERY		
VOLUME REMOVED: ☐ LITERS ☑ GALLONS			TEMPERATURE: 10.54 °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)
11:30	300	7.61	655.5	9.7	0.22	N/A	10.70	22.25	INITIAL
11:35	300	7.58	655.40	5.00	0.19		10.61	22.08	1.5
11:40	300	7.57	655.10	4.30	0.17		10.57	22.10	3
11:45	300	7.55	655.1	2.7	0.16		10.55	22.09	4.5
11:50	300	7.54	654.70	1.30	0.16		10.54	22.09	6

AS
10-21-19

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	1	125	Plastic	C	☐ Y ☒ N
1	~~250~~ 125 mL	PLASTIC	A	☐ Y ☑ N					☐ Y ☐ N
1	250 mL	PLASTIC	B	☐ Y ☑ N					☐ Y ☐ N

SHIPPING METHOD: ~~Fed Ex~~ PAC	DATE SHIPPED: 10 /22 /19	AIRBILL NUMBER: —
COC NUMBER: —	SIGNATURE:	DATE SIGNED: 10/22/19

TRC

WATER SAMPLE LOG

PROJECT NAME:	Ripon FF/NN Landfill	PREPARED		CHECKED	
PROJECT NUMBER:	327275.0001.0004	BY: JAR	DATE: 10/21/19	BY:	DATE:

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

WELL MATERIAL: ☑ PVC ☐ SS ☐ IRON ☐ OTHER NA

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

PURGING	TIME: 9:24	DATE: 10/21/19	SAMPLE	TIME: 9:44	DATE: 10/21/19

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

DEPTH TO WATER: 26.76 T/ PVC

DEPTH TO BOTTOM: 163.19 T/ PVC

WELL VOLUME: ~~22.26~~ ☐ LITERS ☑ GALLONS

VOLUME REMOVED: ☐ LITERS ☑ GALLONS

COLOR: brown ODOR: none

TURBIDITY: N/A

☐ NONE ☐ SLIGHT ☒ MODERATE ☐ VERY

DISPOSAL METHOD: ☐ GROUND ☐ DRUM ☑ OTHER

PH: 7.48 SU CONDUCTIVITY: 550.40 umhos/cm

ORP: 35.20 mv DO: 0.37 mg/L

TURBIDITY: N/A NTU

☐ NONE ☐ SLIGHT ☒ MODERATE ☐ VERY

TEMPERATURE: 11.29 °C OTHER:

COLOR: brown 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)
9:24	215	7.36	542.4	35.7	0.64	N/A	11.52	26.76	INITIAL
9:29	215	7.40	547.70	36.10	1.55	N/A	10.86	26.56	1.08
9:34	215	7.43	551.70	37.60	0.46	N/A	10.83	26.42	2.16
9:39	215	7.46	550.70	36.00	0.31	N/A	10.91	26.05	3.24
9.44	215	7.48	550.40	35.20	0.37	N/A	11.29	26.06	4.32
				AS	10-21-19				

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
1	125 mL	PLASTIC	C	☐ Y ☑ N	3	40 mL	VOA	E	☐ Y ☑ N
1	125 mL	PLASTIC	A	☐ Y ☑ N					☐ Y ☐ N
1	250 mL	PLASTIC	B	☐ Y ☑ N					☐ Y ☐ N

SHIPPING METHOD: ~~Fed Ex~~ PACE	DATE SHIPPED: 10/22/19	AIRBILL NUMBER: —
COC NUMBER: —	SIGNATURE: [signature]	DATE SIGNED: 10/22/19

WATER SAMPLE LOG

PROJECT NAME:	Ripon FF/NN Landfill	PREPARED		CHECKED	
PROJECT NUMBER:	327275.0001.0004	BY: JAR	DATE: 10/ 21 /19	BY:	DATE:

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

WELL MATERIAL: ☑ PVC ☐ SS ☐ IRON ☐ OTHER NA

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

PURGING	TIME: 1426	DATE: 10/ 21 /19	SAMPLE	TIME: 1446	DATE: 10/ 21 /19
PURGE METHOD:	☑ PUMP BLADDER PUMP (QED)		PH: 7.43 SU	CONDUCTIVITY: 789.30	umhos/cm
	☐ BAILER BAILER (DISPOSABLE)		ORP: -13.70 mv	DO: 0.25	mg/L
DEPTH TO WATER: 14.68 T/ PVC			TURBIDITY: NA NTU		
DEPTH TO BOTTOM: 165.54 T/ PVC			☑ NONE ☐ SLIGHT ☐ MODERATE ☐ VERY		
WELL VOLUME: NA ☐ LITERS ☑ GALLONS			TEMPERATURE: 11.25 °C	OTHER:	
VOLUME REMOVED: ☐ LITERS ☑ GALLONS			COLOR: Clear	ODOR: none	
COLOR: Clear ODOR: none			FILTRATE (0.45 um) ☐ YES ☒ NO		
TURBIDITY: N/A			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)
1426	225	7.45	782.9	4.2	4.81	N/A	12.41	14.68	INITIAL
1431	225	7.48	791.20	-5.30	0.58	N/A	11.51	14.77	1.12
1436	225	7.46	789.7	-9.50	0.35	N/A	11.38	14.77	2.24
1441	225	7.44	788.40	-12.00	0.29	N/A	11.33	14.90	3.36
1446	225	7.43	789.30	-13.70	0.25	N/A	11.25	14.77	4.48
				AS 10-21-19					

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
1	125 mL	PLASTIC	C	☐ Y ☑ N	3	40 mL	VOA	E	☐ Y ☑ N
1	125 mL	PLASTIC	A	☐ Y ☑ N					☐ Y ☐ N
1	250 mL	PLASTIC	B	☐ Y ☑ N					☐ Y ☐ N

SHIPPING METHOD: ~~Fed Ex~~ PACE	DATE SHIPPED: 10/22/19	AIRBILL NUMBER: —
COC NUMBER: —	SIGNATURE:	DATE SIGNED: 10/22/19

TRC

WATER SAMPLE LOG

PROJECT NAME:	Ripon FF/NN Landfill	PREPARED		CHECKED	
PROJECT NUMBER:	327275.0001.0004	BY: JAR	DATE: 10/21/19	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: 1512	DATE: 10/21/19	SAMPLE	TIME: 1531	DATE: 10/21/19

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

DEPTH TO WATER: 7.50 T/ PVC

DEPTH TO BOTTOM: 167.44 T/ PVC

WELL VOLUME: NA ☐ LITERS ☐ GALLONS

VOLUME REMOVED: ~1.5 ☐ LITERS ☑ GALLONS

COLOR: Clear ODOR: none

TURBIDITY: NA

☒ NONE ☐ SLIGHT ☐ MODERATE ☐ VERY

DISPOSAL METHOD: ☐ GROUND ☐ DRUM ☑ OTHER

PH: 7.61 SU CONDUCTIVITY: 607.4 umhos/cm

ORP: -18.5 mv DO: 0.23 mg/L

TURBIDITY: NA NTU

☒ NONE ☐ SLIGHT ☐ MODERATE ☐ VERY

TEMPERATURE: 12.33 °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)
1511	250	7.57	606.4	-27.5	0.77	NM	12.53	7.50	INITIAL
1516	250	7.58	606.1	-26.2	0.38	NM	12.55	7.52	
1521	250	7.60	606.7	-22.0	0.25	NM	12.44	7.52	
1526	250	7.61	607.9	-18.9	0.22	NM	12.35	7.52	
1531	250	7.61	607.4	-18.5	0.23	NM	12.33	7.52	~1.5
				SAR 10/21/19					

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
1	125 mL	PLASTIC	C	☐ Y ☑ N	3	40 mL	VOA	E	☐ Y ☑ N
1	125 mL	PLASTIC	A	☐ Y ☑ N					☐ Y ☐ N
1	250 mL	PLASTIC	B	☐ Y ☑ N					☐ Y ☐ N

SHIPPING METHOD: ~~Fed Ex~~ PACE	DATE SHIPPED: 10/22/19	AIRBILL NUMBER: —
COC NUMBER: —	SIGNATURE:	DATE SIGNED: 10/22/19

Rev. 02/2017

CHAIN OF CUSTODY

Company: TRC
Project Contact: Marita Stollenwerk
Telephone:
Project Name: Ripon MW/FF Landfill
Project #: 327275.0001.0004
Location: Ripon WI
Sampled By: A. Sobbe/S. 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 #

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

Invoice To:* TRC
EMAIL:
Company:
Address: Same

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

Client Special Instructions

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	Nitrate + Nitrite (EPA 353.2)	Sulfate (9056A)	T. Mg (6010C)	VOC Landfill (8260C)	Total # Containers	Designated MS/MSD	CT Lab ID # (Lab use only)
							Fill in Spaces with Bottles per Test						
10/21/19	8:18	FW	Grab	6	P-113A	N	X	X	X	X			
	8:33				P-113B								
	10:28				P-114								
	9:24				P-116								
	—				Dup-1								
	11:30				P-115								
	13:03				MW-3B								
	13:26				MW-3A								
	14:46				P-117								
	15:31				P-118								
	16:29				P-107D								
↓	17:16	↓	↓	↓	P-111D	↓	↓	↓	↓	↓			

Relinquished By:	Date/Time	Received By:	Date/Time
	1400 10/22/19		
Received by:	Date/Time	Received for Laboratory by:	Date/Time

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

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Rev. 02/2017

CHAIN OF CUSTODY

Page 2 of 2

Company: TRC
Project Contact:
Telephone:
Project Name: Ripon WWTF LF
Project #: 327275.0001.0000
Location: Ripon
Sampled By: J. Reike

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 #

Report To:
EMAIL:
Company:
Address:

Invoice To:*
EMAIL:
Company:
Address:

**Client Special Instructions*

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

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

Collection Date	Collection Time	Matrix	Grab/ Comp	Sample #	Sample ID Description	Filtered? Y/N	ANALYSES REQUESTED: Nitrate & Nitrite	Sulfate	T. Mg	VOCs	Total # Containers	Designated MS/MSD
10/21/19	1901	GW	Comp	6	P-103D	N	X	X	X	X		

Fill in Spaces with Bottles per Test

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%

CT Lab ID #
Lab use only

Relinquished By:	Date/Time	Received By:	Date/Time
	10/22/19 1400		
Received by:	Date/Time	Received for Laboratory by:	Date/Time

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

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Appendix B: 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)

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 #: 327275.0001.0004
Folder #: 149068
Purchase Order #: 138000
Contract #: 3276

Arrival Temperature: 1.8
Report Date: 11/19/2019
Date Received: 10/23/2019
Reprint Date: 11/20/2019

CT LAB#: 345913 Sample Description: P-113A License/Well #: 00467/136 Sampled: 10/21/2019 0818

Analyte	Result	Units	LOD	LOQ	Dilution	Qualifier	Prep Date/Time	Analysis Date/Time	Analyst	Method
Inorganic Results										
Total Sulfate	11	mg/L	0.80	2.5	1			10/26/2019 02:01	TMG	EPA 9056A
Nitrate+Nitrite Nitrogen Total	<0.057	mg/L	0.057	0.19	1			10/29/2019 14:09	HLB	EPA 353.2
Metals Results										
Total Manganese	8.4	ug/L	3.4 *	11	1		10/24/2019 11:03	11/08/2019 06:17	NAH	EPA 6010C
Organic Results										
1,1,1,2-Tetrachloroethane	<0.018	ug/L	0.018	0.059	1			10/31/2019 00:23	RLD	EPA 8260C
1,1,1-Trichloroethane	<0.018	ug/L	0.018	0.060	1			10/31/2019 00:23	RLD	EPA 8260C
1,1,2,2-Tetrachloroethane	<0.014	ug/L	0.014	0.048	1			10/31/2019 00:23	RLD	EPA 8260C
1,1,2-Trichloroethane	<0.019	ug/L	0.019	0.062	1			10/31/2019 00:23	RLD	EPA 8260C
1,1-Dichloroethane	<0.015	ug/L	0.015	0.050	1			10/31/2019 00:23	RLD	EPA 8260C
1,1-Dichloroethene	<0.040	ug/L	0.040	0.12	1			10/31/2019 00:23	RLD	EPA 8260C
1,1-Dichloropropene	<0.030	ug/L	0.030	0.10	1			10/31/2019 00:23	RLD	EPA 8260C
1,2,3-Trichlorobenzene	<0.012	ug/L	0.012	0.040	1			10/31/2019 00:23	RLD	EPA 8260C
1,2,3-Trichloropropane	<0.070	ug/L	0.070	0.24	1			10/31/2019 00:23	RLD	EPA 8260C
1,2,4-Trichlorobenzene	<0.012	ug/L	0.012	0.040	1			10/31/2019 00:23	RLD	EPA 8260C
1,2,4-Trimethylbenzene	<0.020	ug/L	0.020	0.065	1			10/31/2019 00:23	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#: 345913 Sample Description: P-113A License/Well #: 00467/136 Sampled: 10/21/2019 0818

Analyte	Result	Units	LOD	LOQ	Dilution	Qualifier	Prep Date/Time	Analysis Date/Time	Analyst	Method
1,2-Dibromo-3-chloropropane	<0.070	ug/L	0.070	0.23	1			10/31/2019 00:23	RLD	EPA 8260C
1,2-Dibromoethane	<0.040	ug/L	0.040	0.12	1			10/31/2019 00:23	RLD	EPA 8260C
1,2-Dichlorobenzene	<0.022	ug/L	0.022	0.074	1			10/31/2019 00:23	RLD	EPA 8260C
1,2-Dichloroethane	<0.024	ug/L	0.024	0.080	1			10/31/2019 00:23	RLD	EPA 8260C
1,2-Dichloropropane	<0.024	ug/L	0.024	0.079	1			10/31/2019 00:23	RLD	EPA 8260C
1,3,5-Trimethylbenzene	<0.016	ug/L	0.016	0.054	1			10/31/2019 00:23	RLD	EPA 8260C
1,3-Dichlorobenzene	<0.020	ug/L	0.020	0.066	1			10/31/2019 00:23	RLD	EPA 8260C
1,3-Dichloropropane	<0.030	ug/L	0.030	0.10	1			10/31/2019 00:23	RLD	EPA 8260C
1,4-Dichlorobenzene	<0.017	ug/L	0.017	0.056	1			10/31/2019 00:23	RLD	EPA 8260C
1,4-Dioxane	<7.0	ug/L	7.0	22	1	Y		10/31/2019 00:23	RLD	EPA 8260C
2,2-Dichloropropane	<0.015	ug/L	0.015	0.050	1			10/31/2019 00:23	RLD	EPA 8260C
2-Butanone	<0.50	ug/L	0.50	1.6	1			10/31/2019 00:23	RLD	EPA 8260C
2-Chlorotoluene	<0.024	ug/L	0.024	0.080	1			10/31/2019 00:23	RLD	EPA 8260C
2-Hexanone	<0.30	ug/L	0.30	1.0	1			10/31/2019 00:23	RLD	EPA 8260C
4-Chlorotoluene	<0.017	ug/L	0.017	0.057	1			10/31/2019 00:23	RLD	EPA 8260C
4-Methyl-2-pentanone	<0.22	ug/L	0.22	0.74	1			10/31/2019 00:23	RLD	EPA 8260C
Acetone	<0.80	ug/L	0.80	2.6	1			10/31/2019 00:23	RLD	EPA 8260C
Benzene	<0.019	ug/L	0.019	0.062	1			10/31/2019 00:23	RLD	EPA 8260C
Bromobenzene	<0.018	ug/L	0.018	0.060	1			10/31/2019 00:23	RLD	EPA 8260C
Bromochloromethane	<0.040	ug/L	0.040	0.15	1			10/31/2019 00:23	RLD	EPA 8260C
Bromodichloromethane	<0.028	ug/L	0.028	0.093	1			10/31/2019 00:23	RLD	EPA 8260C
Bromoform	<0.030	ug/L	0.030	0.10	1			10/31/2019 00:23	RLD	EPA 8260C
Bromomethane	<0.060	ug/L	0.060	0.19	1	Y		10/31/2019 00:23	RLD	EPA 8260C
Carbon disulfide	<0.014	ug/L	0.014	0.046	1			10/31/2019 00:23	RLD	EPA 8260C
Carbon tetrachloride	<0.029	ug/L	0.029	0.095	1			10/31/2019 00:23	RLD	EPA 8260C
Chlorobenzene	<0.015	ug/L	0.015	0.049	1			10/31/2019 00:23	RLD	EPA 8260C
Chloroethane	<0.023	ug/L	0.023	0.077	1			10/31/2019 00:23	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#: 345913 Sample Description: P-113A License/Well #: 00467/136 Sampled: 10/21/2019 0818

Analyte	Result	Units	LOD	LOQ	Dilution	Qualifier	Prep Date/Time	Analysis Date/Time	Analyst	Method
Chloroform	<0.023	ug/L	0.023	0.076	1			10/31/2019 00:23	RLD	EPA 8260C
Chloromethane	<0.030	ug/L	0.030	0.11	1			10/31/2019 00:23	RLD	EPA 8260C
cis-1,2-Dichloroethene	<0.027	ug/L	0.027	0.090	1			10/31/2019 00:23	RLD	EPA 8260C
cis-1,3-Dichloropropene	<0.020	ug/L	0.020	0.067	1			10/31/2019 00:23	RLD	EPA 8260C
Dibromochloromethane	<0.030	ug/L	0.030	0.10	1			10/31/2019 00:23	RLD	EPA 8260C
Dibromomethane	<0.030	ug/L	0.030	0.11	1			10/31/2019 00:23	RLD	EPA 8260C
Dichlorodifluoromethane	<0.030	ug/L	0.030	0.10	1			10/31/2019 00:23	RLD	EPA 8260C
Diisopropyl ether	<0.02	ug/L	0.02	0.05	1			10/31/2019 00:23	RLD	EPA 8260C
Ethylbenzene	<0.016	ug/L	0.016	0.053	1			10/31/2019 00:23	RLD	EPA 8260C
Hexachlorobutadiene	<0.030	ug/L	0.030	0.10	1			10/31/2019 00:23	RLD	EPA 8260C
Isopropylbenzene	<0.018	ug/L	0.018	0.059	1			10/31/2019 00:23	RLD	EPA 8260C
m & p-Xylene	<0.030	ug/L	0.030	0.11	1			10/31/2019 00:23	RLD	EPA 8260C
Methyl tert-butyl ether	<0.017	ug/L	0.017	0.055	1			10/31/2019 00:23	RLD	EPA 8260C
Methylene chloride	<0.030	ug/L	0.030	0.12	1			10/31/2019 00:23	RLD	EPA 8260C
n-Butylbenzene	<0.014	ug/L	0.014	0.048	1			10/31/2019 00:23	RLD	EPA 8260C
n-Propylbenzene	<0.020	ug/L	0.020	0.068	1			10/31/2019 00:23	RLD	EPA 8260C
Naphthalene	<0.022	ug/L	0.022	0.072	1			10/31/2019 00:23	RLD	EPA 8260C
o-Xylene	<0.017	ug/L	0.017	0.058	1			10/31/2019 00:23	RLD	EPA 8260C
p-Isopropyltoluene	<0.018	ug/L	0.018	0.059	1			10/31/2019 00:23	RLD	EPA 8260C
sec-Butylbenzene	<0.014	ug/L	0.014	0.046	1			10/31/2019 00:23	RLD	EPA 8260C
Styrene	<0.011	ug/L	0.011	0.035	1			10/31/2019 00:23	RLD	EPA 8260C
tert-Butylbenzene	<0.013	ug/L	0.013	0.042	1			10/31/2019 00:23	RLD	EPA 8260C
Tetrachloroethene	<0.023	ug/L	0.023	0.077	1			10/31/2019 00:23	RLD	EPA 8260C
Tetrahydrofuran	<0.28	ug/L	0.28	0.95	1			10/31/2019 00:23	RLD	EPA 8260C
Toluene	<0.017	ug/L	0.017	0.056	1			10/31/2019 00:23	RLD	EPA 8260C
trans-1,2-Dichloroethene	<0.029	ug/L	0.029	0.098	1			10/31/2019 00:23	RLD	EPA 8260C
trans-1,3-Dichloropropene	<0.030	ug/L	0.030	0.11	1			10/31/2019 00:23	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#: 345913 Sample Description: P-113A License/Well #: 00467/136 Sampled: 10/21/2019 0818

Analyte	Result	Units	LOD	LOQ	Dilution	Qualifier	Prep Date/Time	Analysis Date/Time	Analyst	Method
Trichloroethene	<0.025	ug/L	0.025	0.084	1			10/31/2019 00:23	RLD	EPA 8260C
Trichlorofluoromethane	<0.029	ug/L	0.029	0.095	1			10/31/2019 00:23	RLD	EPA 8260C
Vinyl acetate	<0.40	ug/L	0.40	1.4	1			10/31/2019 00:23	RLD	EPA 8260C
Vinyl chloride	<0.013	ug/L	0.013	0.043	1			10/31/2019 00:23	RLD	EPA 8260C
1,2 Dichloroethane-d4	94	% Recovery	70.0	130	1			10/31/2019 00:23	RLD	EPA 8260C
Bromofluorobenzene	107	% Recovery	70.0	130	1			10/31/2019 00:23	RLD	EPA 8260C
d8-Toluene	97	% Recovery	70.0	130	1			10/31/2019 00:23	RLD	EPA 8260C
Dibromofluoromethane	95	% Recovery	70.0	130	1			10/31/2019 00:23	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#: 345917 Sample Description: P-113B License/Well #: 00467/138 Sampled: 10/21/2019 0833

Analyte	Result	Units	LOD	LOQ	Dilution	Qualifier	Prep Date/Time	Analysis Date/Time	Analyst	Method
Inorganic Results										
Total Sulfate	74	mg/L	4.0	13	5			10/26/2019 02:21	TMG	EPA 9056A
Nitrate+Nitrite Nitrogen Total	<0.057	mg/L	0.057	0.19	1			10/29/2019 14:12	HLB	EPA 353.2
Metals Results										
Total Manganese	45.4	ug/L	3.4	11	1		10/24/2019 11:03	11/08/2019 07:00	NAH	EPA 6010C
Organic Results										
1,1,1,2-Tetrachloroethane	<0.018	ug/L	0.018	0.059	1			10/31/2019 00:51	RLD	EPA 8260C
1,1,1-Trichloroethane	<0.018	ug/L	0.018	0.060	1			10/31/2019 00:51	RLD	EPA 8260C
1,1,2,2-Tetrachloroethane	<0.014	ug/L	0.014	0.048	1			10/31/2019 00:51	RLD	EPA 8260C
1,1,2-Trichloroethane	<0.019	ug/L	0.019	0.062	1			10/31/2019 00:51	RLD	EPA 8260C
1,1-Dichloroethane	<0.015	ug/L	0.015	0.050	1			10/31/2019 00:51	RLD	EPA 8260C
1,1-Dichloroethene	<0.040	ug/L	0.040	0.12	1			10/31/2019 00:51	RLD	EPA 8260C
1,1-Dichloropropene	<0.030	ug/L	0.030	0.10	1			10/31/2019 00:51	RLD	EPA 8260C
1,2,3-Trichlorobenzene	<0.012	ug/L	0.012	0.040	1			10/31/2019 00:51	RLD	EPA 8260C
1,2,3-Trichloropropane	<0.070	ug/L	0.070	0.24	1			10/31/2019 00:51	RLD	EPA 8260C
1,2,4-Trichlorobenzene	<0.012	ug/L	0.012	0.040	1			10/31/2019 00:51	RLD	EPA 8260C
1,2,4-Trimethylbenzene	<0.020	ug/L	0.020	0.065	1			10/31/2019 00:51	RLD	EPA 8260C
1,2-Dibromo-3-chloropropane	<0.070	ug/L	0.070	0.23	1			10/31/2019 00:51	RLD	EPA 8260C
1,2-Dibromoethane	<0.040	ug/L	0.040	0.12	1			10/31/2019 00:51	RLD	EPA 8260C
1,2-Dichlorobenzene	<0.022	ug/L	0.022	0.074	1			10/31/2019 00:51	RLD	EPA 8260C
1,2-Dichloroethane	<0.024	ug/L	0.024	0.080	1			10/31/2019 00:51	RLD	EPA 8260C
1,2-Dichloropropane	<0.024	ug/L	0.024	0.079	1			10/31/2019 00:51	RLD	EPA 8260C
1,3,5-Trimethylbenzene	<0.016	ug/L	0.016	0.054	1			10/31/2019 00:51	RLD	EPA 8260C
1,3-Dichlorobenzene	<0.020	ug/L	0.020	0.066	1			10/31/2019 00:51	RLD	EPA 8260C
1,3-Dichloropropane	<0.030	ug/L	0.030	0.10	1			10/31/2019 00:51	RLD	EPA 8260C
1,4-Dichlorobenzene	<0.017	ug/L	0.017	0.056	1			10/31/2019 00:51	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#: 345917 Sample Description: P-113B License/Well #: 00467/138 Sampled: 10/21/2019 0833

Analyte	Result	Units	LOD	LOQ	Dilution	Qualifier	Prep Date/Time	Analysis Date/Time	Analyst	Method
1,4-Dioxane	<7.0	ug/L	7.0	22	1	Y		10/31/2019 00:51	RLD	EPA 8260C
2,2-Dichloropropane	<0.015	ug/L	0.015	0.050	1			10/31/2019 00:51	RLD	EPA 8260C
2-Butanone	<0.50	ug/L	0.50	1.6	1			10/31/2019 00:51	RLD	EPA 8260C
2-Chlorotoluene	<0.024	ug/L	0.024	0.080	1			10/31/2019 00:51	RLD	EPA 8260C
2-Hexanone	<0.30	ug/L	0.30	1.0	1			10/31/2019 00:51	RLD	EPA 8260C
4-Chlorotoluene	<0.017	ug/L	0.017	0.057	1			10/31/2019 00:51	RLD	EPA 8260C
4-Methyl-2-pentanone	<0.22	ug/L	0.22	0.74	1			10/31/2019 00:51	RLD	EPA 8260C
Acetone	<0.80	ug/L	0.80	2.6	1			10/31/2019 00:51	RLD	EPA 8260C
Benzene	<0.019	ug/L	0.019	0.062	1			10/31/2019 00:51	RLD	EPA 8260C
Bromobenzene	<0.018	ug/L	0.018	0.060	1			10/31/2019 00:51	RLD	EPA 8260C
Bromochloromethane	<0.040	ug/L	0.040	0.15	1			10/31/2019 00:51	RLD	EPA 8260C
Bromodichloromethane	<0.028	ug/L	0.028	0.093	1			10/31/2019 00:51	RLD	EPA 8260C
Bromoform	<0.030	ug/L	0.030	0.10	1			10/31/2019 00:51	RLD	EPA 8260C
Bromomethane	<0.060	ug/L	0.060	0.19	1	Y		10/31/2019 00:51	RLD	EPA 8260C
Carbon disulfide	0.025	ug/L	0.014 *	0.046	1			10/31/2019 00:51	RLD	EPA 8260C
Carbon tetrachloride	<0.029	ug/L	0.029	0.095	1			10/31/2019 00:51	RLD	EPA 8260C
Chlorobenzene	<0.015	ug/L	0.015	0.049	1			10/31/2019 00:51	RLD	EPA 8260C
Chloroethane	<0.023	ug/L	0.023	0.077	1			10/31/2019 00:51	RLD	EPA 8260C
Chloroform	<0.023	ug/L	0.023	0.076	1			10/31/2019 00:51	RLD	EPA 8260C
Chloromethane	0.030	ug/L	0.030 *	0.11	1			10/31/2019 00:51	RLD	EPA 8260C
cis-1,2-Dichloroethene	<0.027	ug/L	0.027	0.090	1			10/31/2019 00:51	RLD	EPA 8260C
cis-1,3-Dichloropropene	<0.020	ug/L	0.020	0.067	1			10/31/2019 00:51	RLD	EPA 8260C
Dibromochloromethane	<0.030	ug/L	0.030	0.10	1			10/31/2019 00:51	RLD	EPA 8260C
Dibromomethane	<0.030	ug/L	0.030	0.11	1			10/31/2019 00:51	RLD	EPA 8260C
Dichlorodifluoromethane	<0.030	ug/L	0.030	0.10	1			10/31/2019 00:51	RLD	EPA 8260C
Diisopropyl ether	<0.02	ug/L	0.02	0.05	1			10/31/2019 00:51	RLD	EPA 8260C
Ethylbenzene	<0.016	ug/L	0.016	0.053	1			10/31/2019 00:51	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#: 345917 Sample Description: P-113B License/Well #: 00467/138 Sampled: 10/21/2019 0833

Analyte	Result	Units	LOD	LOQ	Dilution	Qualifier	Prep Date/Time	Analysis Date/Time	Analyst	Method
Hexachlorobutadiene	<0.030	ug/L	0.030	0.10	1			10/31/2019 00:51	RLD	EPA 8260C
Isopropylbenzene	<0.018	ug/L	0.018	0.059	1			10/31/2019 00:51	RLD	EPA 8260C
m & p-Xylene	<0.030	ug/L	0.030	0.11	1			10/31/2019 00:51	RLD	EPA 8260C
Methyl tert-butyl ether	<0.017	ug/L	0.017	0.055	1			10/31/2019 00:51	RLD	EPA 8260C
Methylene chloride	<0.030	ug/L	0.030	0.12	1			10/31/2019 00:51	RLD	EPA 8260C
n-Butylbenzene	<0.014	ug/L	0.014	0.048	1			10/31/2019 00:51	RLD	EPA 8260C
n-Propylbenzene	<0.020	ug/L	0.020	0.068	1			10/31/2019 00:51	RLD	EPA 8260C
Naphthalene	<0.022	ug/L	0.022	0.072	1			10/31/2019 00:51	RLD	EPA 8260C
o-Xylene	<0.017	ug/L	0.017	0.058	1			10/31/2019 00:51	RLD	EPA 8260C
p-Isopropyltoluene	<0.018	ug/L	0.018	0.059	1			10/31/2019 00:51	RLD	EPA 8260C
sec-Butylbenzene	<0.014	ug/L	0.014	0.046	1			10/31/2019 00:51	RLD	EPA 8260C
Styrene	<0.011	ug/L	0.011	0.035	1			10/31/2019 00:51	RLD	EPA 8260C
tert-Butylbenzene	<0.013	ug/L	0.013	0.042	1			10/31/2019 00:51	RLD	EPA 8260C
Tetrachloroethene	<0.023	ug/L	0.023	0.077	1			10/31/2019 00:51	RLD	EPA 8260C
Tetrahydrofuran	<0.28	ug/L	0.28	0.95	1			10/31/2019 00:51	RLD	EPA 8260C
Toluene	<0.017	ug/L	0.017	0.056	1			10/31/2019 00:51	RLD	EPA 8260C
trans-1,2-Dichloroethene	<0.029	ug/L	0.029	0.098	1			10/31/2019 00:51	RLD	EPA 8260C
trans-1,3-Dichloropropene	<0.030	ug/L	0.030	0.11	1			10/31/2019 00:51	RLD	EPA 8260C
Trichloroethene	<0.025	ug/L	0.025	0.084	1			10/31/2019 00:51	RLD	EPA 8260C
Trichlorofluoromethane	<0.029	ug/L	0.029	0.095	1			10/31/2019 00:51	RLD	EPA 8260C
Vinyl acetate	<0.40	ug/L	0.40	1.4	1			10/31/2019 00:51	RLD	EPA 8260C
Vinyl chloride	<0.013	ug/L	0.013	0.043	1			10/31/2019 00:51	RLD	EPA 8260C
1,2 Dichloroethane-d4	100	% Recovery	70.0	130	1			10/31/2019 00:51	RLD	EPA 8260C
Bromofluorobenzene	104	% Recovery	70.0	130	1			10/31/2019 00:51	RLD	EPA 8260C
d8-Toluene	97	% Recovery	70.0	130	1			10/31/2019 00:51	RLD	EPA 8260C
Dibromofluoromethane	96	% Recovery	70.0	130	1			10/31/2019 00:51	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#: 345918 Sample Description: P-114 License/Well #: 00467/140 Sampled: 10/21/2019 1028

Analyte	Result	Units	LOD	LOQ	Dilution	Qualifier	Prep Date/Time	Analysis Date/Time	Analyst	Method
Inorganic Results										
Total Sulfate	58	mg/L	4.0	13	5			10/26/2019 02:40	TMG	EPA 9056A
Nitrate+Nitrite Nitrogen Total	<0.057	mg/L	0.057	0.19	1			10/29/2019 17:19	HLB	EPA 353.2
Metals Results										
Total Manganese	61.3	ug/L	3.4	11	1		10/24/2019 11:03	11/08/2019 07:07	NAH	EPA 6010C
Organic Results										
1,1,1,2-Tetrachloroethane	<0.018	ug/L	0.018	0.059	1			10/31/2019 01:20	RLD	EPA 8260C
1,1,1-Trichloroethane	<0.018	ug/L	0.018	0.060	1			10/31/2019 01:20	RLD	EPA 8260C
1,1,2,2-Tetrachloroethane	<0.014	ug/L	0.014	0.048	1			10/31/2019 01:20	RLD	EPA 8260C
1,1,2-Trichloroethane	<0.019	ug/L	0.019	0.062	1			10/31/2019 01:20	RLD	EPA 8260C
1,1-Dichloroethane	<0.015	ug/L	0.015	0.050	1			10/31/2019 01:20	RLD	EPA 8260C
1,1-Dichloroethene	<0.040	ug/L	0.040	0.12	1			10/31/2019 01:20	RLD	EPA 8260C
1,1-Dichloropropene	<0.030	ug/L	0.030	0.10	1			10/31/2019 01:20	RLD	EPA 8260C
1,2,3-Trichlorobenzene	<0.012	ug/L	0.012	0.040	1			10/31/2019 01:20	RLD	EPA 8260C
1,2,3-Trichloropropane	<0.070	ug/L	0.070	0.24	1			10/31/2019 01:20	RLD	EPA 8260C
1,2,4-Trichlorobenzene	<0.012	ug/L	0.012	0.040	1			10/31/2019 01:20	RLD	EPA 8260C
1,2,4-Trimethylbenzene	<0.020	ug/L	0.020	0.065	1			10/31/2019 01:20	RLD	EPA 8260C
1,2-Dibromo-3-chloropropane	<0.070	ug/L	0.070	0.23	1			10/31/2019 01:20	RLD	EPA 8260C
1,2-Dibromoethane	<0.040	ug/L	0.040	0.12	1			10/31/2019 01:20	RLD	EPA 8260C
1,2-Dichlorobenzene	<0.022	ug/L	0.022	0.074	1			10/31/2019 01:20	RLD	EPA 8260C
1,2-Dichloroethane	<0.024	ug/L	0.024	0.080	1			10/31/2019 01:20	RLD	EPA 8260C
1,2-Dichloropropane	<0.024	ug/L	0.024	0.079	1			10/31/2019 01:20	RLD	EPA 8260C
1,3,5-Trimethylbenzene	<0.016	ug/L	0.016	0.054	1			10/31/2019 01:20	RLD	EPA 8260C
1,3-Dichlorobenzene	<0.020	ug/L	0.020	0.066	1			10/31/2019 01:20	RLD	EPA 8260C
1,3-Dichloropropane	<0.030	ug/L	0.030	0.10	1			10/31/2019 01:20	RLD	EPA 8260C
1,4-Dichlorobenzene	<0.017	ug/L	0.017	0.056	1			10/31/2019 01:20	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#: 345918 Sample Description: P-114 License/Well #: 00467/140 Sampled: 10/21/2019 1028

Analyte	Result	Units	LOD	LOQ	Dilution	Qualifier	Prep Date/Time	Analysis Date/Time	Analyst	Method
1,4-Dioxane	<7.0	ug/L	7.0	22	1	Y		10/31/2019 01:20	RLD	EPA 8260C
2,2-Dichloropropane	<0.015	ug/L	0.015	0.050	1			10/31/2019 01:20	RLD	EPA 8260C
2-Butanone	<0.50	ug/L	0.50	1.6	1			10/31/2019 01:20	RLD	EPA 8260C
2-Chlorotoluene	<0.024	ug/L	0.024	0.080	1			10/31/2019 01:20	RLD	EPA 8260C
2-Hexanone	<0.30	ug/L	0.30	1.0	1			10/31/2019 01:20	RLD	EPA 8260C
4-Chlorotoluene	<0.017	ug/L	0.017	0.057	1			10/31/2019 01:20	RLD	EPA 8260C
4-Methyl-2-pentanone	<0.22	ug/L	0.22	0.74	1			10/31/2019 01:20	RLD	EPA 8260C
Acetone	<0.80	ug/L	0.80	2.6	1			10/31/2019 01:20	RLD	EPA 8260C
Benzene	<0.019	ug/L	0.019	0.062	1			10/31/2019 01:20	RLD	EPA 8260C
Bromobenzene	<0.018	ug/L	0.018	0.060	1			10/31/2019 01:20	RLD	EPA 8260C
Bromochloromethane	<0.040	ug/L	0.040	0.15	1			10/31/2019 01:20	RLD	EPA 8260C
Bromodichloromethane	<0.028	ug/L	0.028	0.093	1			10/31/2019 01:20	RLD	EPA 8260C
Bromoform	<0.030	ug/L	0.030	0.10	1			10/31/2019 01:20	RLD	EPA 8260C
Bromomethane	<0.060	ug/L	0.060	0.19	1	Y		10/31/2019 01:20	RLD	EPA 8260C
Carbon disulfide	0.021	ug/L	0.014 *	0.046	1			10/31/2019 01:20	RLD	EPA 8260C
Carbon tetrachloride	<0.029	ug/L	0.029	0.095	1			10/31/2019 01:20	RLD	EPA 8260C
Chlorobenzene	<0.015	ug/L	0.015	0.049	1			10/31/2019 01:20	RLD	EPA 8260C
Chloroethane	0.24	ug/L	0.023	0.077	1			10/31/2019 01:20	RLD	EPA 8260C
Chloroform	<0.023	ug/L	0.023	0.076	1			10/31/2019 01:20	RLD	EPA 8260C
Chloromethane	<0.030	ug/L	0.030	0.11	1			10/31/2019 01:20	RLD	EPA 8260C
cis-1,2-Dichloroethene	1.6	ug/L	0.027	0.090	1			10/31/2019 01:20	RLD	EPA 8260C
cis-1,3-Dichloropropene	<0.020	ug/L	0.020	0.067	1			10/31/2019 01:20	RLD	EPA 8260C
Dibromochloromethane	<0.030	ug/L	0.030	0.10	1			10/31/2019 01:20	RLD	EPA 8260C
Dibromomethane	<0.030	ug/L	0.030	0.11	1			10/31/2019 01:20	RLD	EPA 8260C
Dichlorodifluoromethane	0.15	ug/L	0.030	0.10	1			10/31/2019 01:20	RLD	EPA 8260C
Diisopropyl ether	<0.02	ug/L	0.02	0.05	1			10/31/2019 01:20	RLD	EPA 8260C
Ethylbenzene	<0.016	ug/L	0.016	0.053	1			10/31/2019 01:20	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#: 345918 Sample Description: P-114 License/Well #: 00467/140 Sampled: 10/21/2019 1028

Analyte	Result	Units	LOD	LOQ	Dilution	Qualifier	Prep Date/Time	Analysis Date/Time	Analyst	Method
Hexachlorobutadiene	<0.030	ug/L	0.030	0.10	1			10/31/2019 01:20	RLD	EPA 8260C
Isopropylbenzene	<0.018	ug/L	0.018	0.059	1			10/31/2019 01:20	RLD	EPA 8260C
m & p-Xylene	<0.030	ug/L	0.030	0.11	1			10/31/2019 01:20	RLD	EPA 8260C
Methyl tert-butyl ether	<0.017	ug/L	0.017	0.055	1			10/31/2019 01:20	RLD	EPA 8260C
Methylene chloride	<0.030	ug/L	0.030	0.12	1			10/31/2019 01:20	RLD	EPA 8260C
n-Butylbenzene	<0.014	ug/L	0.014	0.048	1			10/31/2019 01:20	RLD	EPA 8260C
n-Propylbenzene	<0.020	ug/L	0.020	0.068	1			10/31/2019 01:20	RLD	EPA 8260C
Naphthalene	<0.022	ug/L	0.022	0.072	1			10/31/2019 01:20	RLD	EPA 8260C
o-Xylene	<0.017	ug/L	0.017	0.058	1			10/31/2019 01:20	RLD	EPA 8260C
p-Isopropyltoluene	<0.018	ug/L	0.018	0.059	1			10/31/2019 01:20	RLD	EPA 8260C
sec-Butylbenzene	<0.014	ug/L	0.014	0.046	1			10/31/2019 01:20	RLD	EPA 8260C
Styrene	<0.011	ug/L	0.011	0.035	1			10/31/2019 01:20	RLD	EPA 8260C
tert-Butylbenzene	<0.013	ug/L	0.013	0.042	1			10/31/2019 01:20	RLD	EPA 8260C
Tetrachloroethene	<0.023	ug/L	0.023	0.077	1			10/31/2019 01:20	RLD	EPA 8260C
Tetrahydrofuran	<0.28	ug/L	0.28	0.95	1			10/31/2019 01:20	RLD	EPA 8260C
Toluene	<0.017	ug/L	0.017	0.056	1			10/31/2019 01:20	RLD	EPA 8260C
trans-1,2-Dichloroethene	<0.029	ug/L	0.029	0.098	1			10/31/2019 01:20	RLD	EPA 8260C
trans-1,3-Dichloropropene	<0.030	ug/L	0.030	0.11	1			10/31/2019 01:20	RLD	EPA 8260C
Trichloroethene	<0.025	ug/L	0.025	0.084	1			10/31/2019 01:20	RLD	EPA 8260C
Trichlorofluoromethane	<0.029	ug/L	0.029	0.095	1			10/31/2019 01:20	RLD	EPA 8260C
Vinyl acetate	<0.40	ug/L	0.40	1.4	1			10/31/2019 01:20	RLD	EPA 8260C
Vinyl chloride	8.0	ug/L	0.013	0.043	1			10/31/2019 01:20	RLD	EPA 8260C
1,2 Dichloroethane-d4	93	% Recovery	70.0	130	1			10/31/2019 01:20	RLD	EPA 8260C
Bromofluorobenzene	107	% Recovery	70.0	130	1			10/31/2019 01:20	RLD	EPA 8260C
d8-Toluene	96	% Recovery	70.0	130	1			10/31/2019 01:20	RLD	EPA 8260C
Dibromofluoromethane	97	% Recovery	70.0	130	1			10/31/2019 01:20	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#: 345919 Sample Description: P-116 License/Well #: 00467/143 Sampled: 10/21/2019 0924

Analyte	Result	Units	LOD	LOQ	Dilution	Qualifier	Prep Date/Time	Analysis Date/Time	Analyst	Method
Inorganic Results										
Total Sulfate	15	mg/L	0.80	2.5	1			10/26/2019 02:59	TMG	EPA 9056A
Nitrate+Nitrite Nitrogen Total	<0.057	mg/L	0.057	0.19	1			10/29/2019 17:20	HLB	EPA 353.2
Metals Results										
Total Manganese	135	ug/L	3.4	11	1		10/24/2019 11:03	11/08/2019 07:14	NAH	EPA 6010C
Organic Results										
1,1,1,2-Tetrachloroethane	<0.018	ug/L	0.018	0.059	1			10/31/2019 01:48	RLD	EPA 8260C
1,1,1-Trichloroethane	<0.018	ug/L	0.018	0.060	1			10/31/2019 01:48	RLD	EPA 8260C
1,1,2,2-Tetrachloroethane	<0.014	ug/L	0.014	0.048	1			10/31/2019 01:48	RLD	EPA 8260C
1,1,2-Trichloroethane	<0.019	ug/L	0.019	0.062	1			10/31/2019 01:48	RLD	EPA 8260C
1,1-Dichloroethane	<0.015	ug/L	0.015	0.050	1			10/31/2019 01:48	RLD	EPA 8260C
1,1-Dichloroethene	<0.040	ug/L	0.040	0.12	1			10/31/2019 01:48	RLD	EPA 8260C
1,1-Dichloropropene	<0.030	ug/L	0.030	0.10	1			10/31/2019 01:48	RLD	EPA 8260C
1,2,3-Trichlorobenzene	<0.012	ug/L	0.012	0.040	1			10/31/2019 01:48	RLD	EPA 8260C
1,2,3-Trichloropropane	<0.070	ug/L	0.070	0.24	1			10/31/2019 01:48	RLD	EPA 8260C
1,2,4-Trichlorobenzene	<0.012	ug/L	0.012	0.040	1			10/31/2019 01:48	RLD	EPA 8260C
1,2,4-Trimethylbenzene	<0.020	ug/L	0.020	0.065	1			10/31/2019 01:48	RLD	EPA 8260C
1,2-Dibromo-3-chloropropane	<0.070	ug/L	0.070	0.23	1			10/31/2019 01:48	RLD	EPA 8260C
1,2-Dibromoethane	<0.040	ug/L	0.040	0.12	1			10/31/2019 01:48	RLD	EPA 8260C
1,2-Dichlorobenzene	<0.022	ug/L	0.022	0.074	1			10/31/2019 01:48	RLD	EPA 8260C
1,2-Dichloroethane	<0.024	ug/L	0.024	0.080	1			10/31/2019 01:48	RLD	EPA 8260C
1,2-Dichloropropane	<0.024	ug/L	0.024	0.079	1			10/31/2019 01:48	RLD	EPA 8260C
1,3,5-Trimethylbenzene	<0.016	ug/L	0.016	0.054	1			10/31/2019 01:48	RLD	EPA 8260C
1,3-Dichlorobenzene	<0.020	ug/L	0.020	0.066	1			10/31/2019 01:48	RLD	EPA 8260C
1,3-Dichloropropane	<0.030	ug/L	0.030	0.10	1			10/31/2019 01:48	RLD	EPA 8260C
1,4-Dichlorobenzene	<0.017	ug/L	0.017	0.056	1			10/31/2019 01:48	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#: 345919 Sample Description: P-116 License/Well #: 00467/143 Sampled: 10/21/2019 0924

Analyte	Result	Units	LOD	LOQ	Dilution	Qualifier	Prep Date/Time	Analysis Date/Time	Analyst	Method
1,4-Dioxane	<7.0	ug/L	7.0	22	1	Y		10/31/2019 01:48	RLD	EPA 8260C
2,2-Dichloropropane	<0.015	ug/L	0.015	0.050	1			10/31/2019 01:48	RLD	EPA 8260C
2-Butanone	<0.50	ug/L	0.50	1.6	1			10/31/2019 01:48	RLD	EPA 8260C
2-Chlorotoluene	<0.024	ug/L	0.024	0.080	1			10/31/2019 01:48	RLD	EPA 8260C
2-Hexanone	<0.30	ug/L	0.30	1.0	1			10/31/2019 01:48	RLD	EPA 8260C
4-Chlorotoluene	<0.017	ug/L	0.017	0.057	1			10/31/2019 01:48	RLD	EPA 8260C
4-Methyl-2-pentanone	<0.22	ug/L	0.22	0.74	1			10/31/2019 01:48	RLD	EPA 8260C
Acetone	<0.80	ug/L	0.80	2.6	1			10/31/2019 01:48	RLD	EPA 8260C
Benzene	<0.019	ug/L	0.019	0.062	1			10/31/2019 01:48	RLD	EPA 8260C
Bromobenzene	<0.018	ug/L	0.018	0.060	1			10/31/2019 01:48	RLD	EPA 8260C
Bromochloromethane	<0.040	ug/L	0.040	0.15	1			10/31/2019 01:48	RLD	EPA 8260C
Bromodichloromethane	<0.028	ug/L	0.028	0.093	1			10/31/2019 01:48	RLD	EPA 8260C
Bromoform	<0.030	ug/L	0.030	0.10	1			10/31/2019 01:48	RLD	EPA 8260C
Bromomethane	<0.060	ug/L	0.060	0.19	1	Y		10/31/2019 01:48	RLD	EPA 8260C
Carbon disulfide	0.049	ug/L	0.014	0.046	1			10/31/2019 01:48	RLD	EPA 8260C
Carbon tetrachloride	<0.029	ug/L	0.029	0.095	1			10/31/2019 01:48	RLD	EPA 8260C
Chlorobenzene	<0.015	ug/L	0.015	0.049	1			10/31/2019 01:48	RLD	EPA 8260C
Chloroethane	<0.023	ug/L	0.023	0.077	1			10/31/2019 01:48	RLD	EPA 8260C
Chloroform	<0.023	ug/L	0.023	0.076	1			10/31/2019 01:48	RLD	EPA 8260C
Chloromethane	<0.030	ug/L	0.030	0.11	1			10/31/2019 01:48	RLD	EPA 8260C
cis-1,2-Dichloroethene	<0.027	ug/L	0.027	0.090	1			10/31/2019 01:48	RLD	EPA 8260C
cis-1,3-Dichloropropene	<0.020	ug/L	0.020	0.067	1			10/31/2019 01:48	RLD	EPA 8260C
Dibromochloromethane	<0.030	ug/L	0.030	0.10	1			10/31/2019 01:48	RLD	EPA 8260C
Dibromomethane	<0.030	ug/L	0.030	0.11	1			10/31/2019 01:48	RLD	EPA 8260C
Dichlorodifluoromethane	<0.030	ug/L	0.030	0.10	1			10/31/2019 01:48	RLD	EPA 8260C
Diisopropyl ether	<0.02	ug/L	0.02	0.05	1			10/31/2019 01:48	RLD	EPA 8260C
Ethylbenzene	<0.016	ug/L	0.016	0.053	1			10/31/2019 01:48	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#: 345919 Sample Description: P-116 License/Well #: 00467/143 Sampled: 10/21/2019 0924

Analyte	Result	Units	LOD	LOQ	Dilution	Qualifier	Prep Date/Time	Analysis Date/Time	Analyst	Method
Hexachlorobutadiene	<0.030	ug/L	0.030	0.10	1			10/31/2019 01:48	RLD	EPA 8260C
Isopropylbenzene	<0.018	ug/L	0.018	0.059	1			10/31/2019 01:48	RLD	EPA 8260C
m & p-Xylene	<0.030	ug/L	0.030	0.11	1			10/31/2019 01:48	RLD	EPA 8260C
Methyl tert-butyl ether	<0.017	ug/L	0.017	0.055	1			10/31/2019 01:48	RLD	EPA 8260C
Methylene chloride	<0.030	ug/L	0.030	0.12	1			10/31/2019 01:48	RLD	EPA 8260C
n-Butylbenzene	<0.014	ug/L	0.014	0.048	1			10/31/2019 01:48	RLD	EPA 8260C
n-Propylbenzene	<0.020	ug/L	0.020	0.068	1			10/31/2019 01:48	RLD	EPA 8260C
Naphthalene	<0.022	ug/L	0.022	0.072	1			10/31/2019 01:48	RLD	EPA 8260C
o-Xylene	<0.017	ug/L	0.017	0.058	1			10/31/2019 01:48	RLD	EPA 8260C
p-Isopropyltoluene	<0.018	ug/L	0.018	0.059	1			10/31/2019 01:48	RLD	EPA 8260C
sec-Butylbenzene	<0.014	ug/L	0.014	0.046	1			10/31/2019 01:48	RLD	EPA 8260C
Styrene	<0.011	ug/L	0.011	0.035	1			10/31/2019 01:48	RLD	EPA 8260C
tert-Butylbenzene	<0.013	ug/L	0.013	0.042	1			10/31/2019 01:48	RLD	EPA 8260C
Tetrachloroethene	<0.023	ug/L	0.023	0.077	1			10/31/2019 01:48	RLD	EPA 8260C
Tetrahydrofuran	<0.28	ug/L	0.28	0.95	1			10/31/2019 01:48	RLD	EPA 8260C
Toluene	<0.017	ug/L	0.017	0.056	1			10/31/2019 01:48	RLD	EPA 8260C
trans-1,2-Dichloroethene	<0.029	ug/L	0.029	0.098	1			10/31/2019 01:48	RLD	EPA 8260C
trans-1,3-Dichloropropene	<0.030	ug/L	0.030	0.11	1			10/31/2019 01:48	RLD	EPA 8260C
Trichloroethene	<0.025	ug/L	0.025	0.084	1			10/31/2019 01:48	RLD	EPA 8260C
Trichlorofluoromethane	<0.029	ug/L	0.029	0.095	1			10/31/2019 01:48	RLD	EPA 8260C
Vinyl acetate	<0.40	ug/L	0.40	1.4	1			10/31/2019 01:48	RLD	EPA 8260C
Vinyl chloride	<0.013	ug/L	0.013	0.043	1			10/31/2019 01:48	RLD	EPA 8260C
1,2 Dichloroethane-d4	100	% Recovery	70.0	130	1			10/31/2019 01:48	RLD	EPA 8260C
Bromofluorobenzene	106	% Recovery	70.0	130	1			10/31/2019 01:48	RLD	EPA 8260C
d8-Toluene	97	% Recovery	70.0	130	1			10/31/2019 01:48	RLD	EPA 8260C
Dibromofluoromethane	99	% Recovery	70.0	130	1			10/31/2019 01:48	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#: 345920 Sample Description: DUP-1 License #:00467 Sampled: 10/21/2019

Analyte	Result	Units	LOD	LOQ	Dilution	Qualifier	Prep Date/Time	Analysis Date/Time	Analyst	Method
Inorganic Results										
Total Sulfate	65	mg/L	0.80	2.5	1			10/26/2019 03:18	TMG	EPA 9056A
Nitrate+Nitrite Nitrogen Total	<0.057	mg/L	0.057	0.19	1			10/29/2019 17:22	HLB	EPA 353.2
Metals Results										
Total Manganese	59.6	ug/L	3.4	11	1		10/24/2019 11:03	11/08/2019 07:20	NAH	EPA 6010C
Organic Results										
1,1,1,2-Tetrachloroethane	<0.018	ug/L	0.018	0.059	1			10/31/2019 02:16	RLD	EPA 8260C
1,1,1-Trichloroethane	<0.018	ug/L	0.018	0.060	1			10/31/2019 02:16	RLD	EPA 8260C
1,1,2,2-Tetrachloroethane	<0.014	ug/L	0.014	0.048	1			10/31/2019 02:16	RLD	EPA 8260C
1,1,2-Trichloroethane	<0.019	ug/L	0.019	0.062	1			10/31/2019 02:16	RLD	EPA 8260C
1,1-Dichloroethane	<0.015	ug/L	0.015	0.050	1			10/31/2019 02:16	RLD	EPA 8260C
1,1-Dichloroethene	<0.040	ug/L	0.040	0.12	1			10/31/2019 02:16	RLD	EPA 8260C
1,1-Dichloropropene	<0.030	ug/L	0.030	0.10	1			10/31/2019 02:16	RLD	EPA 8260C
1,2,3-Trichlorobenzene	<0.012	ug/L	0.012	0.040	1			10/31/2019 02:16	RLD	EPA 8260C
1,2,3-Trichloropropane	<0.070	ug/L	0.070	0.24	1			10/31/2019 02:16	RLD	EPA 8260C
1,2,4-Trichlorobenzene	<0.012	ug/L	0.012	0.040	1			10/31/2019 02:16	RLD	EPA 8260C
1,2,4-Trimethylbenzene	<0.020	ug/L	0.020	0.065	1			10/31/2019 02:16	RLD	EPA 8260C
1,2-Dibromo-3-chloropropane	<0.070	ug/L	0.070	0.23	1			10/31/2019 02:16	RLD	EPA 8260C
1,2-Dibromoethane	<0.040	ug/L	0.040	0.12	1			10/31/2019 02:16	RLD	EPA 8260C
1,2-Dichlorobenzene	<0.022	ug/L	0.022	0.074	1			10/31/2019 02:16	RLD	EPA 8260C
1,2-Dichloroethane	<0.024	ug/L	0.024	0.080	1			10/31/2019 02:16	RLD	EPA 8260C
1,2-Dichloropropane	<0.024	ug/L	0.024	0.079	1			10/31/2019 02:16	RLD	EPA 8260C
1,3,5-Trimethylbenzene	<0.016	ug/L	0.016	0.054	1			10/31/2019 02:16	RLD	EPA 8260C
1,3-Dichlorobenzene	<0.020	ug/L	0.020	0.066	1			10/31/2019 02:16	RLD	EPA 8260C
1,3-Dichloropropane	<0.030	ug/L	0.030	0.10	1			10/31/2019 02:16	RLD	EPA 8260C
1,4-Dichlorobenzene	<0.017	ug/L	0.017	0.056	1			10/31/2019 02:16	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#: 345920 Sample Description: DUP-1 License #:00467 Sampled: 10/21/2019

Analyte	Result	Units	LOD	LOQ	Dilution	Qualifier	Prep Date/Time	Analysis Date/Time	Analyst	Method
1,4-Dioxane	<7.0	ug/L	7.0	22	1	Y		10/31/2019 02:16	RLD	EPA 8260C
2,2-Dichloropropane	<0.015	ug/L	0.015	0.050	1			10/31/2019 02:16	RLD	EPA 8260C
2-Butanone	<0.50	ug/L	0.50	1.6	1			10/31/2019 02:16	RLD	EPA 8260C
2-Chlorotoluene	<0.024	ug/L	0.024	0.080	1			10/31/2019 02:16	RLD	EPA 8260C
2-Hexanone	<0.30	ug/L	0.30	1.0	1			10/31/2019 02:16	RLD	EPA 8260C
4-Chlorotoluene	<0.017	ug/L	0.017	0.057	1			10/31/2019 02:16	RLD	EPA 8260C
4-Methyl-2-pentanone	<0.22	ug/L	0.22	0.74	1			10/31/2019 02:16	RLD	EPA 8260C
Acetone	<0.80	ug/L	0.80	2.6	1			10/31/2019 02:16	RLD	EPA 8260C
Benzene	<0.019	ug/L	0.019	0.062	1			10/31/2019 02:16	RLD	EPA 8260C
Bromobenzene	<0.018	ug/L	0.018	0.060	1			10/31/2019 02:16	RLD	EPA 8260C
Bromochloromethane	<0.040	ug/L	0.040	0.15	1			10/31/2019 02:16	RLD	EPA 8260C
Bromodichloromethane	<0.028	ug/L	0.028	0.093	1			10/31/2019 02:16	RLD	EPA 8260C
Bromoform	<0.030	ug/L	0.030	0.10	1			10/31/2019 02:16	RLD	EPA 8260C
Bromomethane	<0.060	ug/L	0.060	0.19	1	Y		10/31/2019 02:16	RLD	EPA 8260C
Carbon disulfide	0.022	ug/L	0.014 *	0.046	1			10/31/2019 02:16	RLD	EPA 8260C
Carbon tetrachloride	<0.029	ug/L	0.029	0.095	1			10/31/2019 02:16	RLD	EPA 8260C
Chlorobenzene	<0.015	ug/L	0.015	0.049	1			10/31/2019 02:16	RLD	EPA 8260C
Chloroethane	0.26	ug/L	0.023	0.077	1			10/31/2019 02:16	RLD	EPA 8260C
Chloroform	<0.023	ug/L	0.023	0.076	1			10/31/2019 02:16	RLD	EPA 8260C
Chloromethane	<0.030	ug/L	0.030	0.11	1			10/31/2019 02:16	RLD	EPA 8260C
cis-1,2-Dichloroethene	1.6	ug/L	0.027	0.090	1			10/31/2019 02:16	RLD	EPA 8260C
cis-1,3-Dichloropropene	<0.020	ug/L	0.020	0.067	1			10/31/2019 02:16	RLD	EPA 8260C
Dibromochloromethane	<0.030	ug/L	0.030	0.10	1			10/31/2019 02:16	RLD	EPA 8260C
Dibromomethane	<0.030	ug/L	0.030	0.11	1			10/31/2019 02:16	RLD	EPA 8260C
Dichlorodifluoromethane	0.16	ug/L	0.030	0.10	1			10/31/2019 02:16	RLD	EPA 8260C
Diisopropyl ether	<0.02	ug/L	0.02	0.05	1			10/31/2019 02:16	RLD	EPA 8260C
Ethylbenzene	<0.016	ug/L	0.016	0.053	1			10/31/2019 02:16	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#: 345920 Sample Description: DUP-1 License #:00467 Sampled: 10/21/2019

Analyte	Result	Units	LOD	LOQ	Dilution	Qualifier	Prep Date/Time	Analysis Date/Time	Analyst	Method
Hexachlorobutadiene	<0.030	ug/L	0.030	0.10	1			10/31/2019 02:16	RLD	EPA 8260C
Isopropylbenzene	<0.018	ug/L	0.018	0.059	1			10/31/2019 02:16	RLD	EPA 8260C
m & p-Xylene	<0.030	ug/L	0.030	0.11	1			10/31/2019 02:16	RLD	EPA 8260C
Methyl tert-butyl ether	<0.017	ug/L	0.017	0.055	1			10/31/2019 02:16	RLD	EPA 8260C
Methylene chloride	<0.030	ug/L	0.030	0.12	1			10/31/2019 02:16	RLD	EPA 8260C
n-Butylbenzene	<0.014	ug/L	0.014	0.048	1			10/31/2019 02:16	RLD	EPA 8260C
n-Propylbenzene	<0.020	ug/L	0.020	0.068	1			10/31/2019 02:16	RLD	EPA 8260C
Naphthalene	<0.022	ug/L	0.022	0.072	1			10/31/2019 02:16	RLD	EPA 8260C
o-Xylene	<0.017	ug/L	0.017	0.058	1			10/31/2019 02:16	RLD	EPA 8260C
p-Isopropyltoluene	<0.018	ug/L	0.018	0.059	1			10/31/2019 02:16	RLD	EPA 8260C
sec-Butylbenzene	<0.014	ug/L	0.014	0.046	1			10/31/2019 02:16	RLD	EPA 8260C
Styrene	<0.011	ug/L	0.011	0.035	1			10/31/2019 02:16	RLD	EPA 8260C
tert-Butylbenzene	<0.013	ug/L	0.013	0.042	1			10/31/2019 02:16	RLD	EPA 8260C
Tetrachloroethene	<0.023	ug/L	0.023	0.077	1			10/31/2019 02:16	RLD	EPA 8260C
Tetrahydrofuran	<0.28	ug/L	0.28	0.95	1			10/31/2019 02:16	RLD	EPA 8260C
Toluene	<0.017	ug/L	0.017	0.056	1			10/31/2019 02:16	RLD	EPA 8260C
trans-1,2-Dichloroethene	<0.029	ug/L	0.029	0.098	1			10/31/2019 02:16	RLD	EPA 8260C
trans-1,3-Dichloropropene	<0.030	ug/L	0.030	0.11	1			10/31/2019 02:16	RLD	EPA 8260C
Trichloroethene	<0.025	ug/L	0.025	0.084	1			10/31/2019 02:16	RLD	EPA 8260C
Trichlorofluoromethane	<0.029	ug/L	0.029	0.095	1			10/31/2019 02:16	RLD	EPA 8260C
Vinyl acetate	<0.40	ug/L	0.40	1.4	1			10/31/2019 02:16	RLD	EPA 8260C
Vinyl chloride	8.3	ug/L	0.013	0.043	1			10/31/2019 02:16	RLD	EPA 8260C
1,2 Dichloroethane-d4	95	% Recovery	70.0	130	1			10/31/2019 02:16	RLD	EPA 8260C
Bromofluorobenzene	106	% Recovery	70.0	130	1			10/31/2019 02:16	RLD	EPA 8260C
d8-Toluene	95	% Recovery	70.0	130	1			10/31/2019 02:16	RLD	EPA 8260C
Dibromofluoromethane	96	% Recovery	70.0	130	1			10/31/2019 02:16	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#: 345921 Sample Description: P-115 License/Well #: 00467/142 Sampled: 10/21/2019 1130

Analyte	Result	Units	LOD	LOQ	Dilution	Qualifier	Prep Date/Time	Analysis Date/Time	Analyst	Method
Inorganic Results										
Total Sulfate	41	mg/L	0.80	2.5	1			10/26/2019 03:38	TMG	EPA 9056A
Nitrate+Nitrite Nitrogen Total	<0.057	mg/L	0.057	0.19	1			10/29/2019 17:23	HLB	EPA 353.2
Metals Results										
Total Manganese	115	ug/L	3.4	11	1		10/24/2019 11:03	11/08/2019 07:27	NAH	EPA 6010C
Organic Results										
1,1,1,2-Tetrachloroethane	<0.018	ug/L	0.018	0.059	1			10/31/2019 02:44	RLD	EPA 8260C
1,1,1-Trichloroethane	<0.018	ug/L	0.018	0.060	1			10/31/2019 02:44	RLD	EPA 8260C
1,1,2,2-Tetrachloroethane	<0.014	ug/L	0.014	0.048	1			10/31/2019 02:44	RLD	EPA 8260C
1,1,2-Trichloroethane	<0.019	ug/L	0.019	0.062	1			10/31/2019 02:44	RLD	EPA 8260C
1,1-Dichloroethane	<0.015	ug/L	0.015	0.050	1			10/31/2019 02:44	RLD	EPA 8260C
1,1-Dichloroethene	<0.040	ug/L	0.040	0.12	1			10/31/2019 02:44	RLD	EPA 8260C
1,1-Dichloropropene	<0.030	ug/L	0.030	0.10	1			10/31/2019 02:44	RLD	EPA 8260C
1,2,3-Trichlorobenzene	<0.012	ug/L	0.012	0.040	1			10/31/2019 02:44	RLD	EPA 8260C
1,2,3-Trichloropropane	<0.070	ug/L	0.070	0.24	1			10/31/2019 02:44	RLD	EPA 8260C
1,2,4-Trichlorobenzene	<0.012	ug/L	0.012	0.040	1			10/31/2019 02:44	RLD	EPA 8260C
1,2,4-Trimethylbenzene	<0.020	ug/L	0.020	0.065	1			10/31/2019 02:44	RLD	EPA 8260C
1,2-Dibromo-3-chloropropane	<0.070	ug/L	0.070	0.23	1			10/31/2019 02:44	RLD	EPA 8260C
1,2-Dibromoethane	<0.040	ug/L	0.040	0.12	1			10/31/2019 02:44	RLD	EPA 8260C
1,2-Dichlorobenzene	<0.022	ug/L	0.022	0.074	1			10/31/2019 02:44	RLD	EPA 8260C
1,2-Dichloroethane	<0.024	ug/L	0.024	0.080	1			10/31/2019 02:44	RLD	EPA 8260C
1,2-Dichloropropane	<0.024	ug/L	0.024	0.079	1			10/31/2019 02:44	RLD	EPA 8260C
1,3,5-Trimethylbenzene	<0.016	ug/L	0.016	0.054	1			10/31/2019 02:44	RLD	EPA 8260C
1,3-Dichlorobenzene	<0.020	ug/L	0.020	0.066	1			10/31/2019 02:44	RLD	EPA 8260C
1,3-Dichloropropane	<0.030	ug/L	0.030	0.10	1			10/31/2019 02:44	RLD	EPA 8260C
1,4-Dichlorobenzene	<0.017	ug/L	0.017	0.056	1			10/31/2019 02:44	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#: 345921 Sample Description: P-115 License/Well #: 00467/142 Sampled: 10/21/2019 1130

Analyte	Result	Units	LOD	LOQ	Dilution	Qualifier	Prep Date/Time	Analysis Date/Time	Analyst	Method
1,4-Dioxane	<7.0	ug/L	7.0	22	1	Y		10/31/2019 02:44	RLD	EPA 8260C
2,2-Dichloropropane	<0.015	ug/L	0.015	0.050	1			10/31/2019 02:44	RLD	EPA 8260C
2-Butanone	<0.50	ug/L	0.50	1.6	1			10/31/2019 02:44	RLD	EPA 8260C
2-Chlorotoluene	<0.024	ug/L	0.024	0.080	1			10/31/2019 02:44	RLD	EPA 8260C
2-Hexanone	<0.30	ug/L	0.30	1.0	1			10/31/2019 02:44	RLD	EPA 8260C
4-Chlorotoluene	<0.017	ug/L	0.017	0.057	1			10/31/2019 02:44	RLD	EPA 8260C
4-Methyl-2-pentanone	<0.22	ug/L	0.22	0.74	1			10/31/2019 02:44	RLD	EPA 8260C
Acetone	<0.80	ug/L	0.80	2.6	1			10/31/2019 02:44	RLD	EPA 8260C
Benzene	<0.019	ug/L	0.019	0.062	1			10/31/2019 02:44	RLD	EPA 8260C
Bromobenzene	<0.018	ug/L	0.018	0.060	1			10/31/2019 02:44	RLD	EPA 8260C
Bromochloromethane	<0.040	ug/L	0.040	0.15	1			10/31/2019 02:44	RLD	EPA 8260C
Bromodichloromethane	<0.028	ug/L	0.028	0.093	1			10/31/2019 02:44	RLD	EPA 8260C
Bromoform	<0.030	ug/L	0.030	0.10	1			10/31/2019 02:44	RLD	EPA 8260C
Bromomethane	<0.060	ug/L	0.060	0.19	1	Y		10/31/2019 02:44	RLD	EPA 8260C
Carbon disulfide	0.025	ug/L	0.014 *	0.046	1			10/31/2019 02:44	RLD	EPA 8260C
Carbon tetrachloride	<0.029	ug/L	0.029	0.095	1			10/31/2019 02:44	RLD	EPA 8260C
Chlorobenzene	<0.015	ug/L	0.015	0.049	1			10/31/2019 02:44	RLD	EPA 8260C
Chloroethane	<0.023	ug/L	0.023	0.077	1			10/31/2019 02:44	RLD	EPA 8260C
Chloroform	<0.023	ug/L	0.023	0.076	1			10/31/2019 02:44	RLD	EPA 8260C
Chloromethane	<0.030	ug/L	0.030	0.11	1			10/31/2019 02:44	RLD	EPA 8260C
cis-1,2-Dichloroethene	0.15	ug/L	0.027	0.090	1			10/31/2019 02:44	RLD	EPA 8260C
cis-1,3-Dichloropropene	<0.020	ug/L	0.020	0.067	1			10/31/2019 02:44	RLD	EPA 8260C
Dibromochloromethane	<0.030	ug/L	0.030	0.10	1			10/31/2019 02:44	RLD	EPA 8260C
Dibromomethane	<0.030	ug/L	0.030	0.11	1			10/31/2019 02:44	RLD	EPA 8260C
Dichlorodifluoromethane	<0.030	ug/L	0.030	0.10	1			10/31/2019 02:44	RLD	EPA 8260C
Diisopropyl ether	<0.02	ug/L	0.02	0.05	1			10/31/2019 02:44	RLD	EPA 8260C
Ethylbenzene	<0.016	ug/L	0.016	0.053	1			10/31/2019 02:44	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#: 345921 Sample Description: P-115 License/Well #: 00467/142 Sampled: 10/21/2019 1130

Analyte	Result	Units	LOD	LOQ	Dilution	Qualifier	Prep Date/Time	Analysis Date/Time	Analyst	Method
Hexachlorobutadiene	<0.030	ug/L	0.030	0.10	1			10/31/2019 02:44	RLD	EPA 8260C
Isopropylbenzene	<0.018	ug/L	0.018	0.059	1			10/31/2019 02:44	RLD	EPA 8260C
m & p-Xylene	<0.030	ug/L	0.030	0.11	1			10/31/2019 02:44	RLD	EPA 8260C
Methyl tert-butyl ether	<0.017	ug/L	0.017	0.055	1			10/31/2019 02:44	RLD	EPA 8260C
Methylene chloride	<0.030	ug/L	0.030	0.12	1			10/31/2019 02:44	RLD	EPA 8260C
n-Butylbenzene	<0.014	ug/L	0.014	0.048	1			10/31/2019 02:44	RLD	EPA 8260C
n-Propylbenzene	<0.020	ug/L	0.020	0.068	1			10/31/2019 02:44	RLD	EPA 8260C
Naphthalene	<0.022	ug/L	0.022	0.072	1			10/31/2019 02:44	RLD	EPA 8260C
o-Xylene	<0.017	ug/L	0.017	0.058	1			10/31/2019 02:44	RLD	EPA 8260C
p-Isopropyltoluene	<0.018	ug/L	0.018	0.059	1			10/31/2019 02:44	RLD	EPA 8260C
sec-Butylbenzene	<0.014	ug/L	0.014	0.046	1			10/31/2019 02:44	RLD	EPA 8260C
Styrene	<0.011	ug/L	0.011	0.035	1			10/31/2019 02:44	RLD	EPA 8260C
tert-Butylbenzene	<0.013	ug/L	0.013	0.042	1			10/31/2019 02:44	RLD	EPA 8260C
Tetrachloroethene	<0.023	ug/L	0.023	0.077	1			10/31/2019 02:44	RLD	EPA 8260C
Tetrahydrofuran	<0.28	ug/L	0.28	0.95	1			10/31/2019 02:44	RLD	EPA 8260C
Toluene	<0.017	ug/L	0.017	0.056	1			10/31/2019 02:44	RLD	EPA 8260C
trans-1,2-Dichloroethene	<0.029	ug/L	0.029	0.098	1			10/31/2019 02:44	RLD	EPA 8260C
trans-1,3-Dichloropropene	<0.030	ug/L	0.030	0.11	1			10/31/2019 02:44	RLD	EPA 8260C
Trichloroethene	<0.025	ug/L	0.025	0.084	1			10/31/2019 02:44	RLD	EPA 8260C
Trichlorofluoromethane	<0.029	ug/L	0.029	0.095	1			10/31/2019 02:44	RLD	EPA 8260C
Vinyl acetate	<0.40	ug/L	0.40	1.4	1			10/31/2019 02:44	RLD	EPA 8260C
Vinyl chloride	0.96	ug/L	0.013	0.043	1			10/31/2019 02:44	RLD	EPA 8260C
1,2 Dichloroethane-d4	93	% Recovery	70.0	130	1			10/31/2019 02:44	RLD	EPA 8260C
Bromofluorobenzene	104	% Recovery	70.0	130	1			10/31/2019 02:44	RLD	EPA 8260C
d8-Toluene	98	% Recovery	70.0	130	1			10/31/2019 02:44	RLD	EPA 8260C
Dibromofluoromethane	97	% Recovery	70.0	130	1			10/31/2019 02:44	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#: 345922 Sample Description: MW-3B License/Well #: 00467/134 Sampled: 10/21/2019 1303

Analyte	Result	Units	LOD	LOQ	Dilution	Qualifier	Prep Date/Time	Analysis Date/Time	Analyst	Method
Inorganic Results										
Total Sulfate	64	mg/L	4.0	13	5			10/26/2019 03:57	TMG	EPA 9056A
Nitrate+Nitrite Nitrogen Total	<0.057	mg/L	0.057	0.19	1			10/29/2019 17:24	HLB	EPA 353.2
Metals Results										
Total Manganese	58.9	ug/L	3.4	11	1		10/24/2019 11:03	11/08/2019 07:34	NAH	EPA 6010C
Organic Results										
1,1,1,2-Tetrachloroethane	<0.018	ug/L	0.018	0.059	1			10/31/2019 03:13	RLD	EPA 8260C
1,1,1-Trichloroethane	<0.018	ug/L	0.018	0.060	1			10/31/2019 03:13	RLD	EPA 8260C
1,1,2,2-Tetrachloroethane	<0.014	ug/L	0.014	0.048	1			10/31/2019 03:13	RLD	EPA 8260C
1,1,2-Trichloroethane	<0.019	ug/L	0.019	0.062	1			10/31/2019 03:13	RLD	EPA 8260C
1,1-Dichloroethane	<0.015	ug/L	0.015	0.050	1			10/31/2019 03:13	RLD	EPA 8260C
1,1-Dichloroethene	<0.040	ug/L	0.040	0.12	1			10/31/2019 03:13	RLD	EPA 8260C
1,1-Dichloropropene	<0.030	ug/L	0.030	0.10	1			10/31/2019 03:13	RLD	EPA 8260C
1,2,3-Trichlorobenzene	<0.012	ug/L	0.012	0.040	1			10/31/2019 03:13	RLD	EPA 8260C
1,2,3-Trichloropropane	<0.070	ug/L	0.070	0.24	1			10/31/2019 03:13	RLD	EPA 8260C
1,2,4-Trichlorobenzene	<0.012	ug/L	0.012	0.040	1			10/31/2019 03:13	RLD	EPA 8260C
1,2,4-Trimethylbenzene	<0.020	ug/L	0.020	0.065	1			10/31/2019 03:13	RLD	EPA 8260C
1,2-Dibromo-3-chloropropane	<0.070	ug/L	0.070	0.23	1			10/31/2019 03:13	RLD	EPA 8260C
1,2-Dibromoethane	<0.040	ug/L	0.040	0.12	1			10/31/2019 03:13	RLD	EPA 8260C
1,2-Dichlorobenzene	<0.022	ug/L	0.022	0.074	1			10/31/2019 03:13	RLD	EPA 8260C
1,2-Dichloroethane	<0.024	ug/L	0.024	0.080	1			10/31/2019 03:13	RLD	EPA 8260C
1,2-Dichloropropane	<0.024	ug/L	0.024	0.079	1			10/31/2019 03:13	RLD	EPA 8260C
1,3,5-Trimethylbenzene	<0.016	ug/L	0.016	0.054	1			10/31/2019 03:13	RLD	EPA 8260C
1,3-Dichlorobenzene	<0.020	ug/L	0.020	0.066	1			10/31/2019 03:13	RLD	EPA 8260C
1,3-Dichloropropane	<0.030	ug/L	0.030	0.10	1			10/31/2019 03:13	RLD	EPA 8260C
1,4-Dichlorobenzene	<0.017	ug/L	0.017	0.056	1			10/31/2019 03:13	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#: 345922 Sample Description: MW-3B License/Well #: 00467/134 Sampled: 10/21/2019 1303

Analyte	Result	Units	LOD	LOQ	Dilution	Qualifier	Prep Date/Time	Analysis Date/Time	Analyst	Method
1,4-Dioxane	<7.0	ug/L	7.0	22	1	Y		10/31/2019 03:13	RLD	EPA 8260C
2,2-Dichloropropane	<0.015	ug/L	0.015	0.050	1			10/31/2019 03:13	RLD	EPA 8260C
2-Butanone	<0.50	ug/L	0.50	1.6	1			10/31/2019 03:13	RLD	EPA 8260C
2-Chlorotoluene	<0.024	ug/L	0.024	0.080	1			10/31/2019 03:13	RLD	EPA 8260C
2-Hexanone	<0.30	ug/L	0.30	1.0	1			10/31/2019 03:13	RLD	EPA 8260C
4-Chlorotoluene	<0.017	ug/L	0.017	0.057	1			10/31/2019 03:13	RLD	EPA 8260C
4-Methyl-2-pentanone	<0.22	ug/L	0.22	0.74	1			10/31/2019 03:13	RLD	EPA 8260C
Acetone	<0.80	ug/L	0.80	2.6	1			10/31/2019 03:13	RLD	EPA 8260C
Benzene	<0.019	ug/L	0.019	0.062	1			10/31/2019 03:13	RLD	EPA 8260C
Bromobenzene	<0.018	ug/L	0.018	0.060	1			10/31/2019 03:13	RLD	EPA 8260C
Bromochloromethane	<0.040	ug/L	0.040	0.15	1			10/31/2019 03:13	RLD	EPA 8260C
Bromodichloromethane	<0.028	ug/L	0.028	0.093	1			10/31/2019 03:13	RLD	EPA 8260C
Bromoform	<0.030	ug/L	0.030	0.10	1			10/31/2019 03:13	RLD	EPA 8260C
Bromomethane	<0.060	ug/L	0.060	0.19	1	Y		10/31/2019 03:13	RLD	EPA 8260C
Carbon disulfide	0.027	ug/L	0.014 *	0.046	1			10/31/2019 03:13	RLD	EPA 8260C
Carbon tetrachloride	<0.029	ug/L	0.029	0.095	1			10/31/2019 03:13	RLD	EPA 8260C
Chlorobenzene	<0.015	ug/L	0.015	0.049	1			10/31/2019 03:13	RLD	EPA 8260C
Chloroethane	<0.023	ug/L	0.023	0.077	1			10/31/2019 03:13	RLD	EPA 8260C
Chloroform	<0.023	ug/L	0.023	0.076	1			10/31/2019 03:13	RLD	EPA 8260C
Chloromethane	<0.030	ug/L	0.030	0.11	1			10/31/2019 03:13	RLD	EPA 8260C
cis-1,2-Dichloroethene	<0.027	ug/L	0.027	0.090	1			10/31/2019 03:13	RLD	EPA 8260C
cis-1,3-Dichloropropene	<0.020	ug/L	0.020	0.067	1			10/31/2019 03:13	RLD	EPA 8260C
Dibromochloromethane	<0.030	ug/L	0.030	0.10	1			10/31/2019 03:13	RLD	EPA 8260C
Dibromomethane	<0.030	ug/L	0.030	0.11	1			10/31/2019 03:13	RLD	EPA 8260C
Dichlorodifluoromethane	<0.030	ug/L	0.030	0.10	1			10/31/2019 03:13	RLD	EPA 8260C
Diisopropyl ether	<0.02	ug/L	0.02	0.05	1			10/31/2019 03:13	RLD	EPA 8260C
Ethylbenzene	<0.016	ug/L	0.016	0.053	1			10/31/2019 03:13	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#: 345922 Sample Description: MW-3B License/Well #: 00467/134 Sampled: 10/21/2019 1303

Analyte	Result	Units	LOD	LOQ	Dilution	Qualifier	Prep Date/Time	Analysis Date/Time	Analyst	Method
Hexachlorobutadiene	<0.030	ug/L	0.030	0.10	1			10/31/2019 03:13	RLD	EPA 8260C
Isopropylbenzene	<0.018	ug/L	0.018	0.059	1			10/31/2019 03:13	RLD	EPA 8260C
m & p-Xylene	<0.030	ug/L	0.030	0.11	1			10/31/2019 03:13	RLD	EPA 8260C
Methyl tert-butyl ether	<0.017	ug/L	0.017	0.055	1			10/31/2019 03:13	RLD	EPA 8260C
Methylene chloride	<0.030	ug/L	0.030	0.12	1			10/31/2019 03:13	RLD	EPA 8260C
n-Butylbenzene	<0.014	ug/L	0.014	0.048	1			10/31/2019 03:13	RLD	EPA 8260C
n-Propylbenzene	<0.020	ug/L	0.020	0.068	1			10/31/2019 03:13	RLD	EPA 8260C
Naphthalene	<0.022	ug/L	0.022	0.072	1			10/31/2019 03:13	RLD	EPA 8260C
o-Xylene	<0.017	ug/L	0.017	0.058	1			10/31/2019 03:13	RLD	EPA 8260C
p-Isopropyltoluene	<0.018	ug/L	0.018	0.059	1			10/31/2019 03:13	RLD	EPA 8260C
sec-Butylbenzene	<0.014	ug/L	0.014	0.046	1			10/31/2019 03:13	RLD	EPA 8260C
Styrene	<0.011	ug/L	0.011	0.035	1			10/31/2019 03:13	RLD	EPA 8260C
tert-Butylbenzene	<0.013	ug/L	0.013	0.042	1			10/31/2019 03:13	RLD	EPA 8260C
Tetrachloroethene	<0.023	ug/L	0.023	0.077	1			10/31/2019 03:13	RLD	EPA 8260C
Tetrahydrofuran	<0.28	ug/L	0.28	0.95	1			10/31/2019 03:13	RLD	EPA 8260C
Toluene	<0.017	ug/L	0.017	0.056	1			10/31/2019 03:13	RLD	EPA 8260C
trans-1,2-Dichloroethene	<0.029	ug/L	0.029	0.098	1			10/31/2019 03:13	RLD	EPA 8260C
trans-1,3-Dichloropropene	<0.030	ug/L	0.030	0.11	1			10/31/2019 03:13	RLD	EPA 8260C
Trichloroethene	<0.025	ug/L	0.025	0.084	1			10/31/2019 03:13	RLD	EPA 8260C
Trichlorofluoromethane	<0.029	ug/L	0.029	0.095	1			10/31/2019 03:13	RLD	EPA 8260C
Vinyl acetate	<0.40	ug/L	0.40	1.4	1			10/31/2019 03:13	RLD	EPA 8260C
Vinyl chloride	0.051	ug/L	0.013	0.043	1			10/31/2019 03:13	RLD	EPA 8260C
1,2 Dichloroethane-d4	89	% Recovery	70.0	130	1			10/31/2019 03:13	RLD	EPA 8260C
Bromofluorobenzene	102	% Recovery	70.0	130	1			10/31/2019 03:13	RLD	EPA 8260C
d8-Toluene	102	% Recovery	70.0	130	1			10/31/2019 03:13	RLD	EPA 8260C
Dibromofluoromethane	102	% Recovery	70.0	130	1			10/31/2019 03:13	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#: 345923 Sample Description: MW-3A License/Well #: 00467/133 Sampled: 10/21/2019 1326

Analyte	Result	Units	LOD	LOQ	Dilution	Qualifier	Prep Date/Time	Analysis Date/Time	Analyst	Method
Inorganic Results										
Total Sulfate	22	mg/L	0.80	2.5	1			10/26/2019 04:16	TMG	EPA 9056A
Nitrate+Nitrite Nitrogen Total	<0.057	mg/L	0.057	0.19	1			10/29/2019 17:25	HLB	EPA 353.2
Metals Results										
Total Manganese	424	ug/L	3.4	11	1		10/24/2019 11:03	11/08/2019 07:40	NAH	EPA 6010C
Organic Results										
1,1,1,2-Tetrachloroethane	<0.018	ug/L	0.018	0.059	1			10/31/2019 03:41	RLD	EPA 8260C
1,1,1-Trichloroethane	<0.018	ug/L	0.018	0.060	1			10/31/2019 03:41	RLD	EPA 8260C
1,1,2,2-Tetrachloroethane	<0.014	ug/L	0.014	0.048	1			10/31/2019 03:41	RLD	EPA 8260C
1,1,2-Trichloroethane	<0.019	ug/L	0.019	0.062	1			10/31/2019 03:41	RLD	EPA 8260C
1,1-Dichloroethane	<0.015	ug/L	0.015	0.050	1			10/31/2019 03:41	RLD	EPA 8260C
1,1-Dichloroethene	<0.040	ug/L	0.040	0.12	1			10/31/2019 03:41	RLD	EPA 8260C
1,1-Dichloropropene	<0.030	ug/L	0.030	0.10	1			10/31/2019 03:41	RLD	EPA 8260C
1,2,3-Trichlorobenzene	<0.012	ug/L	0.012	0.040	1			10/31/2019 03:41	RLD	EPA 8260C
1,2,3-Trichloropropane	<0.070	ug/L	0.070	0.24	1			10/31/2019 03:41	RLD	EPA 8260C
1,2,4-Trichlorobenzene	<0.012	ug/L	0.012	0.040	1			10/31/2019 03:41	RLD	EPA 8260C
1,2,4-Trimethylbenzene	<0.020	ug/L	0.020	0.065	1			10/31/2019 03:41	RLD	EPA 8260C
1,2-Dibromo-3-chloropropane	<0.070	ug/L	0.070	0.23	1			10/31/2019 03:41	RLD	EPA 8260C
1,2-Dibromoethane	<0.040	ug/L	0.040	0.12	1			10/31/2019 03:41	RLD	EPA 8260C
1,2-Dichlorobenzene	<0.022	ug/L	0.022	0.074	1			10/31/2019 03:41	RLD	EPA 8260C
1,2-Dichloroethane	<0.024	ug/L	0.024	0.080	1			10/31/2019 03:41	RLD	EPA 8260C
1,2-Dichloropropane	<0.024	ug/L	0.024	0.079	1			10/31/2019 03:41	RLD	EPA 8260C
1,3,5-Trimethylbenzene	<0.016	ug/L	0.016	0.054	1			10/31/2019 03:41	RLD	EPA 8260C
1,3-Dichlorobenzene	<0.020	ug/L	0.020	0.066	1			10/31/2019 03:41	RLD	EPA 8260C
1,3-Dichloropropane	<0.030	ug/L	0.030	0.10	1			10/31/2019 03:41	RLD	EPA 8260C
1,4-Dichlorobenzene	<0.017	ug/L	0.017	0.056	1			10/31/2019 03:41	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#: 345923 Sample Description: MW-3A License/Well #: 00467/133 Sampled: 10/21/2019 1326

Analyte	Result	Units	LOD	LOQ	Dilution	Qualifier	Prep Date/Time	Analysis Date/Time	Analyst	Method
1,4-Dioxane	<7.0	ug/L	7.0	22	1	Y		10/31/2019 03:41	RLD	EPA 8260C
2,2-Dichloropropane	<0.015	ug/L	0.015	0.050	1			10/31/2019 03:41	RLD	EPA 8260C
2-Butanone	<0.50	ug/L	0.50	1.6	1			10/31/2019 03:41	RLD	EPA 8260C
2-Chlorotoluene	<0.024	ug/L	0.024	0.080	1			10/31/2019 03:41	RLD	EPA 8260C
2-Hexanone	<0.30	ug/L	0.30	1.0	1			10/31/2019 03:41	RLD	EPA 8260C
4-Chlorotoluene	<0.017	ug/L	0.017	0.057	1			10/31/2019 03:41	RLD	EPA 8260C
4-Methyl-2-pentanone	<0.22	ug/L	0.22	0.74	1			10/31/2019 03:41	RLD	EPA 8260C
Acetone	<0.80	ug/L	0.80	2.6	1			10/31/2019 03:41	RLD	EPA 8260C
Benzene	<0.019	ug/L	0.019	0.062	1			10/31/2019 03:41	RLD	EPA 8260C
Bromobenzene	<0.018	ug/L	0.018	0.060	1			10/31/2019 03:41	RLD	EPA 8260C
Bromochloromethane	<0.040	ug/L	0.040	0.15	1			10/31/2019 03:41	RLD	EPA 8260C
Bromodichloromethane	<0.028	ug/L	0.028	0.093	1			10/31/2019 03:41	RLD	EPA 8260C
Bromoform	<0.030	ug/L	0.030	0.10	1			10/31/2019 03:41	RLD	EPA 8260C
Bromomethane	<0.060	ug/L	0.060	0.19	1	Y		10/31/2019 03:41	RLD	EPA 8260C
Carbon disulfide	0.025	ug/L	0.014 *	0.046	1			10/31/2019 03:41	RLD	EPA 8260C
Carbon tetrachloride	<0.029	ug/L	0.029	0.095	1			10/31/2019 03:41	RLD	EPA 8260C
Chlorobenzene	<0.015	ug/L	0.015	0.049	1			10/31/2019 03:41	RLD	EPA 8260C
Chloroethane	<0.023	ug/L	0.023	0.077	1			10/31/2019 03:41	RLD	EPA 8260C
Chloroform	<0.023	ug/L	0.023	0.076	1			10/31/2019 03:41	RLD	EPA 8260C
Chloromethane	0.030	ug/L	0.030 *	0.11	1			10/31/2019 03:41	RLD	EPA 8260C
cis-1,2-Dichloroethene	<0.027	ug/L	0.027	0.090	1			10/31/2019 03:41	RLD	EPA 8260C
cis-1,3-Dichloropropene	<0.020	ug/L	0.020	0.067	1			10/31/2019 03:41	RLD	EPA 8260C
Dibromochloromethane	<0.030	ug/L	0.030	0.10	1			10/31/2019 03:41	RLD	EPA 8260C
Dibromomethane	<0.030	ug/L	0.030	0.11	1			10/31/2019 03:41	RLD	EPA 8260C
Dichlorodifluoromethane	<0.030	ug/L	0.030	0.10	1			10/31/2019 03:41	RLD	EPA 8260C
Diisopropyl ether	<0.02	ug/L	0.02	0.05	1			10/31/2019 03:41	RLD	EPA 8260C
Ethylbenzene	<0.016	ug/L	0.016	0.053	1			10/31/2019 03:41	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#: 345923 Sample Description: MW-3A License/Well #: 00467/133 Sampled: 10/21/2019 1326

Analyte	Result	Units	LOD	LOQ	Dilution	Qualifier	Prep Date/Time	Analysis Date/Time	Analyst	Method
Hexachlorobutadiene	<0.030	ug/L	0.030	0.10	1			10/31/2019 03:41	RLD	EPA 8260C
Isopropylbenzene	<0.018	ug/L	0.018	0.059	1			10/31/2019 03:41	RLD	EPA 8260C
m & p-Xylene	<0.030	ug/L	0.030	0.11	1			10/31/2019 03:41	RLD	EPA 8260C
Methyl tert-butyl ether	<0.017	ug/L	0.017	0.055	1			10/31/2019 03:41	RLD	EPA 8260C
Methylene chloride	<0.030	ug/L	0.030	0.12	1			10/31/2019 03:41	RLD	EPA 8260C
n-Butylbenzene	<0.014	ug/L	0.014	0.048	1			10/31/2019 03:41	RLD	EPA 8260C
n-Propylbenzene	<0.020	ug/L	0.020	0.068	1			10/31/2019 03:41	RLD	EPA 8260C
Naphthalene	<0.022	ug/L	0.022	0.072	1			10/31/2019 03:41	RLD	EPA 8260C
o-Xylene	<0.017	ug/L	0.017	0.058	1			10/31/2019 03:41	RLD	EPA 8260C
p-Isopropyltoluene	<0.018	ug/L	0.018	0.059	1			10/31/2019 03:41	RLD	EPA 8260C
sec-Butylbenzene	<0.014	ug/L	0.014	0.046	1			10/31/2019 03:41	RLD	EPA 8260C
Styrene	<0.011	ug/L	0.011	0.035	1			10/31/2019 03:41	RLD	EPA 8260C
tert-Butylbenzene	<0.013	ug/L	0.013	0.042	1			10/31/2019 03:41	RLD	EPA 8260C
Tetrachloroethene	<0.023	ug/L	0.023	0.077	1			10/31/2019 03:41	RLD	EPA 8260C
Tetrahydrofuran	<0.28	ug/L	0.28	0.95	1			10/31/2019 03:41	RLD	EPA 8260C
Toluene	<0.017	ug/L	0.017	0.056	1			10/31/2019 03:41	RLD	EPA 8260C
trans-1,2-Dichloroethene	<0.029	ug/L	0.029	0.098	1			10/31/2019 03:41	RLD	EPA 8260C
trans-1,3-Dichloropropene	<0.030	ug/L	0.030	0.11	1			10/31/2019 03:41	RLD	EPA 8260C
Trichloroethene	<0.025	ug/L	0.025	0.084	1			10/31/2019 03:41	RLD	EPA 8260C
Trichlorofluoromethane	<0.029	ug/L	0.029	0.095	1			10/31/2019 03:41	RLD	EPA 8260C
Vinyl acetate	<0.40	ug/L	0.40	1.4	1			10/31/2019 03:41	RLD	EPA 8260C
Vinyl chloride	<0.013	ug/L	0.013	0.043	1			10/31/2019 03:41	RLD	EPA 8260C
1,2 Dichloroethane-d4	94	% Recovery	70.0	130	1			10/31/2019 03:41	RLD	EPA 8260C
Bromofluorobenzene	105	% Recovery	70.0	130	1			10/31/2019 03:41	RLD	EPA 8260C
d8-Toluene	97	% Recovery	70.0	130	1			10/31/2019 03:41	RLD	EPA 8260C
Dibromofluoromethane	96	% Recovery	70.0	130	1			10/31/2019 03:41	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#: 345924 Sample Description: P-117 License/Well #: 00467/144 Sampled: 10/21/2019 1446

Analyte	Result	Units	LOD	LOQ	Dilution	Qualifier	Prep Date/Time	Analysis Date/Time	Analyst	Method
Inorganic Results										
Total Sulfate	60	mg/L	4.0	13	5			10/26/2019 04:35	TMG	EPA 9056A
Nitrate+Nitrite Nitrogen Total	<0.057	mg/L	0.057	0.19	1			10/29/2019 17:27	HLB	EPA 353.2
Metals Results										
Total Manganese	213	ug/L	3.4	11	1		10/24/2019 11:03	11/08/2019 07:47	NAH	EPA 6010C
Organic Results										
1,1,1,2-Tetrachloroethane	<0.018	ug/L	0.018	0.059	1			10/31/2019 04:09	RLD	EPA 8260C
1,1,1-Trichloroethane	<0.018	ug/L	0.018	0.060	1			10/31/2019 04:09	RLD	EPA 8260C
1,1,2,2-Tetrachloroethane	<0.014	ug/L	0.014	0.048	1			10/31/2019 04:09	RLD	EPA 8260C
1,1,2-Trichloroethane	<0.019	ug/L	0.019	0.062	1			10/31/2019 04:09	RLD	EPA 8260C
1,1-Dichloroethane	<0.015	ug/L	0.015	0.050	1			10/31/2019 04:09	RLD	EPA 8260C
1,1-Dichloroethene	<0.040	ug/L	0.040	0.12	1			10/31/2019 04:09	RLD	EPA 8260C
1,1-Dichloropropene	<0.030	ug/L	0.030	0.10	1			10/31/2019 04:09	RLD	EPA 8260C
1,2,3-Trichlorobenzene	<0.012	ug/L	0.012	0.040	1			10/31/2019 04:09	RLD	EPA 8260C
1,2,3-Trichloropropane	<0.070	ug/L	0.070	0.24	1			10/31/2019 04:09	RLD	EPA 8260C
1,2,4-Trichlorobenzene	<0.012	ug/L	0.012	0.040	1			10/31/2019 04:09	RLD	EPA 8260C
1,2,4-Trimethylbenzene	<0.020	ug/L	0.020	0.065	1			10/31/2019 04:09	RLD	EPA 8260C
1,2-Dibromo-3-chloropropane	<0.070	ug/L	0.070	0.23	1			10/31/2019 04:09	RLD	EPA 8260C
1,2-Dibromoethane	<0.040	ug/L	0.040	0.12	1			10/31/2019 04:09	RLD	EPA 8260C
1,2-Dichlorobenzene	<0.022	ug/L	0.022	0.074	1			10/31/2019 04:09	RLD	EPA 8260C
1,2-Dichloroethane	<0.024	ug/L	0.024	0.080	1			10/31/2019 04:09	RLD	EPA 8260C
1,2-Dichloropropane	<0.024	ug/L	0.024	0.079	1			10/31/2019 04:09	RLD	EPA 8260C
1,3,5-Trimethylbenzene	<0.016	ug/L	0.016	0.054	1			10/31/2019 04:09	RLD	EPA 8260C
1,3-Dichlorobenzene	<0.020	ug/L	0.020	0.066	1			10/31/2019 04:09	RLD	EPA 8260C
1,3-Dichloropropane	<0.030	ug/L	0.030	0.10	1			10/31/2019 04:09	RLD	EPA 8260C
1,4-Dichlorobenzene	<0.017	ug/L	0.017	0.056	1			10/31/2019 04:09	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#: 345924 Sample Description: P-117 License/Well #: 00467/144 Sampled: 10/21/2019 1446

Analyte	Result	Units	LOD	LOQ	Dilution	Qualifier	Prep Date/Time	Analysis Date/Time	Analyst	Method
1,4-Dioxane	<7.0	ug/L	7.0	22	1	Y		10/31/2019 04:09	RLD	EPA 8260C
2,2-Dichloropropane	<0.015	ug/L	0.015	0.050	1			10/31/2019 04:09	RLD	EPA 8260C
2-Butanone	<0.50	ug/L	0.50	1.6	1			10/31/2019 04:09	RLD	EPA 8260C
2-Chlorotoluene	<0.024	ug/L	0.024	0.080	1			10/31/2019 04:09	RLD	EPA 8260C
2-Hexanone	<0.30	ug/L	0.30	1.0	1			10/31/2019 04:09	RLD	EPA 8260C
4-Chlorotoluene	<0.017	ug/L	0.017	0.057	1			10/31/2019 04:09	RLD	EPA 8260C
4-Methyl-2-pentanone	<0.22	ug/L	0.22	0.74	1			10/31/2019 04:09	RLD	EPA 8260C
Acetone	<0.80	ug/L	0.80	2.6	1			10/31/2019 04:09	RLD	EPA 8260C
Benzene	<0.019	ug/L	0.019	0.062	1			10/31/2019 04:09	RLD	EPA 8260C
Bromobenzene	<0.018	ug/L	0.018	0.060	1			10/31/2019 04:09	RLD	EPA 8260C
Bromochloromethane	<0.040	ug/L	0.040	0.15	1			10/31/2019 04:09	RLD	EPA 8260C
Bromodichloromethane	<0.028	ug/L	0.028	0.093	1			10/31/2019 04:09	RLD	EPA 8260C
Bromoform	<0.030	ug/L	0.030	0.10	1			10/31/2019 04:09	RLD	EPA 8260C
Bromomethane	<0.060	ug/L	0.060	0.19	1	Y		10/31/2019 04:09	RLD	EPA 8260C
Carbon disulfide	<0.014	ug/L	0.014	0.046	1			10/31/2019 04:09	RLD	EPA 8260C
Carbon tetrachloride	<0.029	ug/L	0.029	0.095	1			10/31/2019 04:09	RLD	EPA 8260C
Chlorobenzene	<0.015	ug/L	0.015	0.049	1			10/31/2019 04:09	RLD	EPA 8260C
Chloroethane	0.38	ug/L	0.023	0.077	1			10/31/2019 04:09	RLD	EPA 8260C
Chloroform	<0.023	ug/L	0.023	0.076	1			10/31/2019 04:09	RLD	EPA 8260C
Chloromethane	<0.030	ug/L	0.030	0.11	1			10/31/2019 04:09	RLD	EPA 8260C
cis-1,2-Dichloroethene	0.78	ug/L	0.027	0.090	1			10/31/2019 04:09	RLD	EPA 8260C
cis-1,3-Dichloropropene	<0.020	ug/L	0.020	0.067	1			10/31/2019 04:09	RLD	EPA 8260C
Dibromochloromethane	<0.030	ug/L	0.030	0.10	1			10/31/2019 04:09	RLD	EPA 8260C
Dibromomethane	<0.030	ug/L	0.030	0.11	1			10/31/2019 04:09	RLD	EPA 8260C
Dichlorodifluoromethane	0.12	ug/L	0.030	0.10	1			10/31/2019 04:09	RLD	EPA 8260C
Diisopropyl ether	<0.02	ug/L	0.02	0.05	1			10/31/2019 04:09	RLD	EPA 8260C
Ethylbenzene	<0.016	ug/L	0.016	0.053	1			10/31/2019 04:09	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#: 345924 Sample Description: P-117 License/Well #: 00467/144 Sampled: 10/21/2019 1446

Analyte	Result	Units	LOD	LOQ	Dilution	Qualifier	Prep Date/Time	Analysis Date/Time	Analyst	Method
Hexachlorobutadiene	<0.030	ug/L	0.030	0.10	1			10/31/2019 04:09	RLD	EPA 8260C
Isopropylbenzene	<0.018	ug/L	0.018	0.059	1			10/31/2019 04:09	RLD	EPA 8260C
m & p-Xylene	<0.030	ug/L	0.030	0.11	1			10/31/2019 04:09	RLD	EPA 8260C
Methyl tert-butyl ether	<0.017	ug/L	0.017	0.055	1			10/31/2019 04:09	RLD	EPA 8260C
Methylene chloride	<0.030	ug/L	0.030	0.12	1			10/31/2019 04:09	RLD	EPA 8260C
n-Butylbenzene	<0.014	ug/L	0.014	0.048	1			10/31/2019 04:09	RLD	EPA 8260C
n-Propylbenzene	<0.020	ug/L	0.020	0.068	1			10/31/2019 04:09	RLD	EPA 8260C
Naphthalene	<0.022	ug/L	0.022	0.072	1			10/31/2019 04:09	RLD	EPA 8260C
o-Xylene	<0.017	ug/L	0.017	0.058	1			10/31/2019 04:09	RLD	EPA 8260C
p-Isopropyltoluene	<0.018	ug/L	0.018	0.059	1			10/31/2019 04:09	RLD	EPA 8260C
sec-Butylbenzene	<0.014	ug/L	0.014	0.046	1			10/31/2019 04:09	RLD	EPA 8260C
Styrene	<0.011	ug/L	0.011	0.035	1			10/31/2019 04:09	RLD	EPA 8260C
tert-Butylbenzene	<0.013	ug/L	0.013	0.042	1			10/31/2019 04:09	RLD	EPA 8260C
Tetrachloroethene	<0.023	ug/L	0.023	0.077	1			10/31/2019 04:09	RLD	EPA 8260C
Tetrahydrofuran	<0.28	ug/L	0.28	0.95	1			10/31/2019 04:09	RLD	EPA 8260C
Toluene	<0.017	ug/L	0.017	0.056	1			10/31/2019 04:09	RLD	EPA 8260C
trans-1,2-Dichloroethene	<0.029	ug/L	0.029	0.098	1			10/31/2019 04:09	RLD	EPA 8260C
trans-1,3-Dichloropropene	<0.030	ug/L	0.030	0.11	1			10/31/2019 04:09	RLD	EPA 8260C
Trichloroethene	0.061	ug/L	0.025	* 0.084	1			10/31/2019 04:09	RLD	EPA 8260C
Trichlorofluoromethane	<0.029	ug/L	0.029	0.095	1			10/31/2019 04:09	RLD	EPA 8260C
Vinyl acetate	<0.40	ug/L	0.40	1.4	1			10/31/2019 04:09	RLD	EPA 8260C
Vinyl chloride	1.5	ug/L	0.013	0.043	1			10/31/2019 04:09	RLD	EPA 8260C
1,2 Dichloroethane-d4	95	% Recovery	70.0	130	1			10/31/2019 04:09	RLD	EPA 8260C
Bromofluorobenzene	104	% Recovery	70.0	130	1			10/31/2019 04:09	RLD	EPA 8260C
d8-Toluene	101	% Recovery	70.0	130	1			10/31/2019 04:09	RLD	EPA 8260C
Dibromofluoromethane	97	% Recovery	70.0	130	1			10/31/2019 04:09	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#: 345925 Sample Description: P-118 License/Well #: 00467/145 Sampled: 10/21/2019 1531

Analyte	Result	Units	LOD	LOQ	Dilution	Qualifier	Prep Date/Time	Analysis Date/Time	Analyst	Method
Inorganic Results										
Total Sulfate	24	mg/L	0.80	2.5	1			11/05/2019 16:58	TMG	EPA 9056A
Nitrate+Nitrite Nitrogen Total	<0.057	mg/L	0.057	0.19	1			10/29/2019 17:28	HLB	EPA 353.2
Metals Results										
Total Manganese	70.1	ug/L	3.4	11	1		10/24/2019 11:03	11/08/2019 07:54	NAH	EPA 6010C
Organic Results										
1,1,1,2-Tetrachloroethane	<0.018	ug/L	0.018	0.059	1			10/31/2019 04:38	RLD	EPA 8260C
1,1,1-Trichloroethane	<0.018	ug/L	0.018	0.060	1			10/31/2019 04:38	RLD	EPA 8260C
1,1,2,2-Tetrachloroethane	<0.014	ug/L	0.014	0.048	1			10/31/2019 04:38	RLD	EPA 8260C
1,1,2-Trichloroethane	<0.019	ug/L	0.019	0.062	1			10/31/2019 04:38	RLD	EPA 8260C
1,1-Dichloroethane	<0.015	ug/L	0.015	0.050	1			10/31/2019 04:38	RLD	EPA 8260C
1,1-Dichloroethene	<0.040	ug/L	0.040	0.12	1			10/31/2019 04:38	RLD	EPA 8260C
1,1-Dichloropropene	<0.030	ug/L	0.030	0.10	1			10/31/2019 04:38	RLD	EPA 8260C
1,2,3-Trichlorobenzene	<0.012	ug/L	0.012	0.040	1			10/31/2019 04:38	RLD	EPA 8260C
1,2,3-Trichloropropane	<0.070	ug/L	0.070	0.24	1			10/31/2019 04:38	RLD	EPA 8260C
1,2,4-Trichlorobenzene	<0.012	ug/L	0.012	0.040	1			10/31/2019 04:38	RLD	EPA 8260C
1,2,4-Trimethylbenzene	<0.020	ug/L	0.020	0.065	1			10/31/2019 04:38	RLD	EPA 8260C
1,2-Dibromo-3-chloropropane	<0.070	ug/L	0.070	0.23	1			10/31/2019 04:38	RLD	EPA 8260C
1,2-Dibromoethane	<0.040	ug/L	0.040	0.12	1			10/31/2019 04:38	RLD	EPA 8260C
1,2-Dichlorobenzene	<0.022	ug/L	0.022	0.074	1			10/31/2019 04:38	RLD	EPA 8260C
1,2-Dichloroethane	<0.024	ug/L	0.024	0.080	1			10/31/2019 04:38	RLD	EPA 8260C
1,2-Dichloropropane	<0.024	ug/L	0.024	0.079	1			10/31/2019 04:38	RLD	EPA 8260C
1,3,5-Trimethylbenzene	<0.016	ug/L	0.016	0.054	1			10/31/2019 04:38	RLD	EPA 8260C
1,3-Dichlorobenzene	<0.020	ug/L	0.020	0.066	1			10/31/2019 04:38	RLD	EPA 8260C
1,3-Dichloropropane	<0.030	ug/L	0.030	0.10	1			10/31/2019 04:38	RLD	EPA 8260C
1,4-Dichlorobenzene	<0.017	ug/L	0.017	0.056	1			10/31/2019 04:38	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#: 345925 Sample Description: P-118 License/Well #: 00467/145 Sampled: 10/21/2019 1531

Analyte	Result	Units	LOD	LOQ	Dilution	Qualifier	Prep Date/Time	Analysis Date/Time	Analyst	Method
1,4-Dioxane	<7.0	ug/L	7.0	22	1	Y		10/31/2019 04:38	RLD	EPA 8260C
2,2-Dichloropropane	<0.015	ug/L	0.015	0.050	1			10/31/2019 04:38	RLD	EPA 8260C
2-Butanone	<0.50	ug/L	0.50	1.6	1			10/31/2019 04:38	RLD	EPA 8260C
2-Chlorotoluene	<0.024	ug/L	0.024	0.080	1			10/31/2019 04:38	RLD	EPA 8260C
2-Hexanone	<0.30	ug/L	0.30	1.0	1			10/31/2019 04:38	RLD	EPA 8260C
4-Chlorotoluene	<0.017	ug/L	0.017	0.057	1			10/31/2019 04:38	RLD	EPA 8260C
4-Methyl-2-pentanone	<0.22	ug/L	0.22	0.74	1			10/31/2019 04:38	RLD	EPA 8260C
Acetone	<0.80	ug/L	0.80	2.6	1			10/31/2019 04:38	RLD	EPA 8260C
Benzene	<0.019	ug/L	0.019	0.062	1			10/31/2019 04:38	RLD	EPA 8260C
Bromobenzene	<0.018	ug/L	0.018	0.060	1			10/31/2019 04:38	RLD	EPA 8260C
Bromochloromethane	<0.040	ug/L	0.040	0.15	1			10/31/2019 04:38	RLD	EPA 8260C
Bromodichloromethane	<0.028	ug/L	0.028	0.093	1			10/31/2019 04:38	RLD	EPA 8260C
Bromoform	<0.030	ug/L	0.030	0.10	1			10/31/2019 04:38	RLD	EPA 8260C
Bromomethane	<0.060	ug/L	0.060	0.19	1	Y		10/31/2019 04:38	RLD	EPA 8260C
Carbon disulfide	0.054	ug/L	0.014	0.046	1			10/31/2019 04:38	RLD	EPA 8260C
Carbon tetrachloride	<0.029	ug/L	0.029	0.095	1			10/31/2019 04:38	RLD	EPA 8260C
Chlorobenzene	<0.015	ug/L	0.015	0.049	1			10/31/2019 04:38	RLD	EPA 8260C
Chloroethane	<0.023	ug/L	0.023	0.077	1			10/31/2019 04:38	RLD	EPA 8260C
Chloroform	<0.023	ug/L	0.023	0.076	1			10/31/2019 04:38	RLD	EPA 8260C
Chloromethane	<0.030	ug/L	0.030	0.11	1			10/31/2019 04:38	RLD	EPA 8260C
cis-1,2-Dichloroethene	<0.027	ug/L	0.027	0.090	1			10/31/2019 04:38	RLD	EPA 8260C
cis-1,3-Dichloropropene	<0.020	ug/L	0.020	0.067	1			10/31/2019 04:38	RLD	EPA 8260C
Dibromochloromethane	<0.030	ug/L	0.030	0.10	1			10/31/2019 04:38	RLD	EPA 8260C
Dibromomethane	<0.030	ug/L	0.030	0.11	1			10/31/2019 04:38	RLD	EPA 8260C
Dichlorodifluoromethane	<0.030	ug/L	0.030	0.10	1			10/31/2019 04:38	RLD	EPA 8260C
Diisopropyl ether	<0.02	ug/L	0.02	0.05	1			10/31/2019 04:38	RLD	EPA 8260C
Ethylbenzene	<0.016	ug/L	0.016	0.053	1			10/31/2019 04:38	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#: 345925 Sample Description: P-118 License/Well #: 00467/145 Sampled: 10/21/2019 1531

Analyte	Result	Units	LOD	LOQ	Dilution	Qualifier	Prep Date/Time	Analysis Date/Time	Analyst	Method
Hexachlorobutadiene	<0.030	ug/L	0.030	0.10	1			10/31/2019 04:38	RLD	EPA 8260C
Isopropylbenzene	<0.018	ug/L	0.018	0.059	1			10/31/2019 04:38	RLD	EPA 8260C
m & p-Xylene	<0.030	ug/L	0.030	0.11	1			10/31/2019 04:38	RLD	EPA 8260C
Methyl tert-butyl ether	<0.017	ug/L	0.017	0.055	1			10/31/2019 04:38	RLD	EPA 8260C
Methylene chloride	<0.030	ug/L	0.030	0.12	1			10/31/2019 04:38	RLD	EPA 8260C
n-Butylbenzene	<0.014	ug/L	0.014	0.048	1			10/31/2019 04:38	RLD	EPA 8260C
n-Propylbenzene	<0.020	ug/L	0.020	0.068	1			10/31/2019 04:38	RLD	EPA 8260C
Naphthalene	0.026	ug/L	0.022 *	0.072	1			10/31/2019 04:38	RLD	EPA 8260C
o-Xylene	<0.017	ug/L	0.017	0.058	1			10/31/2019 04:38	RLD	EPA 8260C
p-Isopropyltoluene	<0.018	ug/L	0.018	0.059	1			10/31/2019 04:38	RLD	EPA 8260C
sec-Butylbenzene	<0.014	ug/L	0.014	0.046	1			10/31/2019 04:38	RLD	EPA 8260C
Styrene	<0.011	ug/L	0.011	0.035	1			10/31/2019 04:38	RLD	EPA 8260C
tert-Butylbenzene	<0.013	ug/L	0.013	0.042	1			10/31/2019 04:38	RLD	EPA 8260C
Tetrachloroethene	<0.023	ug/L	0.023	0.077	1			10/31/2019 04:38	RLD	EPA 8260C
Tetrahydrofuran	<0.28	ug/L	0.28	0.95	1			10/31/2019 04:38	RLD	EPA 8260C
Toluene	0.038	ug/L	0.017 *	0.056	1			10/31/2019 04:38	RLD	EPA 8260C
trans-1,2-Dichloroethene	<0.029	ug/L	0.029	0.098	1			10/31/2019 04:38	RLD	EPA 8260C
trans-1,3-Dichloropropene	<0.030	ug/L	0.030	0.11	1			10/31/2019 04:38	RLD	EPA 8260C
Trichloroethene	<0.025	ug/L	0.025	0.084	1			10/31/2019 04:38	RLD	EPA 8260C
Trichlorofluoromethane	<0.029	ug/L	0.029	0.095	1			10/31/2019 04:38	RLD	EPA 8260C
Vinyl acetate	<0.40	ug/L	0.40	1.4	1			10/31/2019 04:38	RLD	EPA 8260C
Vinyl chloride	0.079	ug/L	0.013	0.043	1			10/31/2019 04:38	RLD	EPA 8260C
1,2 Dichloroethane-d4	95	% Recovery	70.0	130	1			10/31/2019 04:38	RLD	EPA 8260C
Bromofluorobenzene	106	% Recovery	70.0	130	1			10/31/2019 04:38	RLD	EPA 8260C
d8-Toluene	98	% Recovery	70.0	130	1			10/31/2019 04:38	RLD	EPA 8260C
Dibromofluoromethane	97	% Recovery	70.0	130	1			10/31/2019 04:38	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#: 345926 Sample Description: P-107D License/Well #: 00467/119 Sampled: 10/21/2019 1629

Analyte	Result	Units	LOD	LOQ	Dilution	Qualifier	Prep Date/Time	Analysis Date/Time	Analyst	Method
Inorganic Results										
Total Sulfate	31	mg/L	0.80	2.5	1			11/05/2019 17:17	TMG	EPA 9056A
Nitrate+Nitrite Nitrogen Total	<0.057	mg/L	0.057	0.19	1			10/29/2019 17:29	HLB	EPA 353.2
Metals Results										
Total Manganese	193	ug/L	3.4	11	1		10/24/2019 11:03	11/08/2019 08:00	NAH	EPA 6010C
Organic Results										
1,1,1,2-Tetrachloroethane	<0.018	ug/L	0.018	0.059	1			10/31/2019 05:06	RLD	EPA 8260C
1,1,1-Trichloroethane	<0.018	ug/L	0.018	0.060	1			10/31/2019 05:06	RLD	EPA 8260C
1,1,2,2-Tetrachloroethane	<0.014	ug/L	0.014	0.048	1			10/31/2019 05:06	RLD	EPA 8260C
1,1,2-Trichloroethane	<0.019	ug/L	0.019	0.062	1			10/31/2019 05:06	RLD	EPA 8260C
1,1-Dichloroethane	0.029	ug/L	0.015 *	0.050	1			10/31/2019 05:06	RLD	EPA 8260C
1,1-Dichloroethene	<0.040	ug/L	0.040	0.12	1			10/31/2019 05:06	RLD	EPA 8260C
1,1-Dichloropropene	<0.030	ug/L	0.030	0.10	1			10/31/2019 05:06	RLD	EPA 8260C
1,2,3-Trichlorobenzene	<0.012	ug/L	0.012	0.040	1			10/31/2019 05:06	RLD	EPA 8260C
1,2,3-Trichloropropane	<0.070	ug/L	0.070	0.24	1			10/31/2019 05:06	RLD	EPA 8260C
1,2,4-Trichlorobenzene	<0.012	ug/L	0.012	0.040	1			10/31/2019 05:06	RLD	EPA 8260C
1,2,4-Trimethylbenzene	<0.020	ug/L	0.020	0.065	1			10/31/2019 05:06	RLD	EPA 8260C
1,2-Dibromo-3-chloropropane	<0.070	ug/L	0.070	0.23	1			10/31/2019 05:06	RLD	EPA 8260C
1,2-Dibromoethane	<0.040	ug/L	0.040	0.12	1			10/31/2019 05:06	RLD	EPA 8260C
1,2-Dichlorobenzene	<0.022	ug/L	0.022	0.074	1			10/31/2019 05:06	RLD	EPA 8260C
1,2-Dichloroethane	<0.024	ug/L	0.024	0.080	1			10/31/2019 05:06	RLD	EPA 8260C
1,2-Dichloropropane	<0.024	ug/L	0.024	0.079	1			10/31/2019 05:06	RLD	EPA 8260C
1,3,5-Trimethylbenzene	<0.016	ug/L	0.016	0.054	1			10/31/2019 05:06	RLD	EPA 8260C
1,3-Dichlorobenzene	<0.020	ug/L	0.020	0.066	1			10/31/2019 05:06	RLD	EPA 8260C
1,3-Dichloropropane	<0.030	ug/L	0.030	0.10	1			10/31/2019 05:06	RLD	EPA 8260C
1,4-Dichlorobenzene	<0.017	ug/L	0.017	0.056	1			10/31/2019 05:06	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#: 345926 Sample Description: P-107D License/Well #: 00467/119 Sampled: 10/21/2019 1629

Analyte	Result	Units	LOD	LOQ	Dilution	Qualifier	Prep Date/Time	Analysis Date/Time	Analyst	Method
1,4-Dioxane	<7.0	ug/L	7.0	22	1	Y		10/31/2019 05:06	RLD	EPA 8260C
2,2-Dichloropropane	<0.015	ug/L	0.015	0.050	1			10/31/2019 05:06	RLD	EPA 8260C
2-Butanone	<0.50	ug/L	0.50	1.6	1			10/31/2019 05:06	RLD	EPA 8260C
2-Chlorotoluene	<0.024	ug/L	0.024	0.080	1			10/31/2019 05:06	RLD	EPA 8260C
2-Hexanone	<0.30	ug/L	0.30	1.0	1			10/31/2019 05:06	RLD	EPA 8260C
4-Chlorotoluene	<0.017	ug/L	0.017	0.057	1			10/31/2019 05:06	RLD	EPA 8260C
4-Methyl-2-pentanone	<0.22	ug/L	0.22	0.74	1			10/31/2019 05:06	RLD	EPA 8260C
Acetone	<0.80	ug/L	0.80	2.6	1			10/31/2019 05:06	RLD	EPA 8260C
Benzene	<0.019	ug/L	0.019	0.062	1			10/31/2019 05:06	RLD	EPA 8260C
Bromobenzene	<0.018	ug/L	0.018	0.060	1			10/31/2019 05:06	RLD	EPA 8260C
Bromochloromethane	<0.040	ug/L	0.040	0.15	1			10/31/2019 05:06	RLD	EPA 8260C
Bromodichloromethane	<0.028	ug/L	0.028	0.093	1			10/31/2019 05:06	RLD	EPA 8260C
Bromoform	<0.030	ug/L	0.030	0.10	1			10/31/2019 05:06	RLD	EPA 8260C
Bromomethane	<0.060	ug/L	0.060	0.19	1	Y		10/31/2019 05:06	RLD	EPA 8260C
Carbon disulfide	0.036	ug/L	0.014 *	0.046	1			10/31/2019 05:06	RLD	EPA 8260C
Carbon tetrachloride	<0.029	ug/L	0.029	0.095	1			10/31/2019 05:06	RLD	EPA 8260C
Chlorobenzene	<0.015	ug/L	0.015	0.049	1			10/31/2019 05:06	RLD	EPA 8260C
Chloroethane	2.0	ug/L	0.023	0.077	1			10/31/2019 05:06	RLD	EPA 8260C
Chloroform	<0.023	ug/L	0.023	0.076	1			10/31/2019 05:06	RLD	EPA 8260C
Chloromethane	<0.030	ug/L	0.030	0.11	1			10/31/2019 05:06	RLD	EPA 8260C
cis-1,2-Dichloroethene	2.1	ug/L	0.027	0.090	1			10/31/2019 05:06	RLD	EPA 8260C
cis-1,3-Dichloropropene	<0.020	ug/L	0.020	0.067	1			10/31/2019 05:06	RLD	EPA 8260C
Dibromochloromethane	<0.030	ug/L	0.030	0.10	1			10/31/2019 05:06	RLD	EPA 8260C
Dibromomethane	<0.030	ug/L	0.030	0.11	1			10/31/2019 05:06	RLD	EPA 8260C
Dichlorodifluoromethane	0.17	ug/L	0.030	0.10	1			10/31/2019 05:06	RLD	EPA 8260C
Diisopropyl ether	<0.02	ug/L	0.02	0.05	1			10/31/2019 05:06	RLD	EPA 8260C
Ethylbenzene	<0.016	ug/L	0.016	0.053	1			10/31/2019 05:06	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#: 345926 Sample Description: P-107D License/Well #: 00467/119 Sampled: 10/21/2019 1629

Analyte	Result	Units	LOD	LOQ	Dilution	Qualifier	Prep Date/Time	Analysis Date/Time	Analyst	Method
Hexachlorobutadiene	<0.030	ug/L	0.030	0.10	1			10/31/2019 05:06	RLD	EPA 8260C
Isopropylbenzene	<0.018	ug/L	0.018	0.059	1			10/31/2019 05:06	RLD	EPA 8260C
m & p-Xylene	<0.030	ug/L	0.030	0.11	1			10/31/2019 05:06	RLD	EPA 8260C
Methyl tert-butyl ether	<0.017	ug/L	0.017	0.055	1			10/31/2019 05:06	RLD	EPA 8260C
Methylene chloride	<0.030	ug/L	0.030	0.12	1			10/31/2019 05:06	RLD	EPA 8260C
n-Butylbenzene	<0.014	ug/L	0.014	0.048	1			10/31/2019 05:06	RLD	EPA 8260C
n-Propylbenzene	<0.020	ug/L	0.020	0.068	1			10/31/2019 05:06	RLD	EPA 8260C
Naphthalene	<0.022	ug/L	0.022	0.072	1			10/31/2019 05:06	RLD	EPA 8260C
o-Xylene	<0.017	ug/L	0.017	0.058	1			10/31/2019 05:06	RLD	EPA 8260C
p-Isopropyltoluene	<0.018	ug/L	0.018	0.059	1			10/31/2019 05:06	RLD	EPA 8260C
sec-Butylbenzene	<0.014	ug/L	0.014	0.046	1			10/31/2019 05:06	RLD	EPA 8260C
Styrene	<0.011	ug/L	0.011	0.035	1			10/31/2019 05:06	RLD	EPA 8260C
tert-Butylbenzene	<0.013	ug/L	0.013	0.042	1			10/31/2019 05:06	RLD	EPA 8260C
Tetrachloroethene	<0.023	ug/L	0.023	0.077	1			10/31/2019 05:06	RLD	EPA 8260C
Tetrahydrofuran	<0.28	ug/L	0.28	0.95	1			10/31/2019 05:06	RLD	EPA 8260C
Toluene	<0.017	ug/L	0.017	0.056	1			10/31/2019 05:06	RLD	EPA 8260C
trans-1,2-Dichloroethene	<0.029	ug/L	0.029	0.098	1			10/31/2019 05:06	RLD	EPA 8260C
trans-1,3-Dichloropropene	<0.030	ug/L	0.030	0.11	1			10/31/2019 05:06	RLD	EPA 8260C
Trichloroethene	0.12	ug/L	0.025	0.084	1			10/31/2019 05:06	RLD	EPA 8260C
Trichlorofluoromethane	<0.029	ug/L	0.029	0.095	1			10/31/2019 05:06	RLD	EPA 8260C
Vinyl acetate	<0.40	ug/L	0.40	1.4	1			10/31/2019 05:06	RLD	EPA 8260C
Vinyl chloride	7.6	ug/L	0.013	0.043	1			10/31/2019 05:06	RLD	EPA 8260C
1,2 Dichloroethane-d4	93	% Recovery	70.0	130	1			10/31/2019 05:06	RLD	EPA 8260C
Bromofluorobenzene	105	% Recovery	70.0	130	1			10/31/2019 05:06	RLD	EPA 8260C
d8-Toluene	97	% Recovery	70.0	130	1			10/31/2019 05:06	RLD	EPA 8260C
Dibromofluoromethane	96	% Recovery	70.0	130	1			10/31/2019 05:06	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#: 345927 Sample Description: P-111D License/Well #: 00467/130 Sampled: 10/21/2019 1716

Analyte	Result	Units	LOD	LOQ	Dilution	Qualifier	Prep Date/Time	Analysis Date/Time	Analyst	Method
Inorganic Results										
Total Sulfate	58	mg/L	4.0	13	5			11/05/2019 17:36	TMG	EPA 9056A
Nitrate+Nitrite Nitrogen Total	<0.057	mg/L	0.057	0.19	1			10/29/2019 17:35	HLB	EPA 353.2
Metals Results										
Total Manganese	31.8	ug/L	3.4	11	1		10/24/2019 11:03	11/08/2019 08:26	NAH	EPA 6010C
Organic Results										
1,1,1,2-Tetrachloroethane	<0.018	ug/L	0.018	0.059	1			10/31/2019 05:35	RLD	EPA 8260C
1,1,1-Trichloroethane	<0.018	ug/L	0.018	0.060	1			10/31/2019 05:35	RLD	EPA 8260C
1,1,2,2-Tetrachloroethane	<0.014	ug/L	0.014	0.048	1			10/31/2019 05:35	RLD	EPA 8260C
1,1,2-Trichloroethane	<0.019	ug/L	0.019	0.062	1			10/31/2019 05:35	RLD	EPA 8260C
1,1-Dichloroethane	<0.015	ug/L	0.015	0.050	1			10/31/2019 05:35	RLD	EPA 8260C
1,1-Dichloroethene	<0.040	ug/L	0.040	0.12	1			10/31/2019 05:35	RLD	EPA 8260C
1,1-Dichloropropene	<0.030	ug/L	0.030	0.10	1			10/31/2019 05:35	RLD	EPA 8260C
1,2,3-Trichlorobenzene	<0.012	ug/L	0.012	0.040	1			10/31/2019 05:35	RLD	EPA 8260C
1,2,3-Trichloropropane	<0.070	ug/L	0.070	0.24	1			10/31/2019 05:35	RLD	EPA 8260C
1,2,4-Trichlorobenzene	<0.012	ug/L	0.012	0.040	1			10/31/2019 05:35	RLD	EPA 8260C
1,2,4-Trimethylbenzene	<0.020	ug/L	0.020	0.065	1			10/31/2019 05:35	RLD	EPA 8260C
1,2-Dibromo-3-chloropropane	<0.070	ug/L	0.070	0.23	1			10/31/2019 05:35	RLD	EPA 8260C
1,2-Dibromoethane	<0.040	ug/L	0.040	0.12	1			10/31/2019 05:35	RLD	EPA 8260C
1,2-Dichlorobenzene	<0.022	ug/L	0.022	0.074	1			10/31/2019 05:35	RLD	EPA 8260C
1,2-Dichloroethane	<0.024	ug/L	0.024	0.080	1			10/31/2019 05:35	RLD	EPA 8260C
1,2-Dichloropropane	<0.024	ug/L	0.024	0.079	1			10/31/2019 05:35	RLD	EPA 8260C
1,3,5-Trimethylbenzene	<0.016	ug/L	0.016	0.054	1			10/31/2019 05:35	RLD	EPA 8260C
1,3-Dichlorobenzene	<0.020	ug/L	0.020	0.066	1			10/31/2019 05:35	RLD	EPA 8260C
1,3-Dichloropropane	<0.030	ug/L	0.030	0.10	1			10/31/2019 05:35	RLD	EPA 8260C
1,4-Dichlorobenzene	<0.017	ug/L	0.017	0.056	1			10/31/2019 05:35	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#: 345927 Sample Description: P-111D License/Well #: 00467/130 Sampled: 10/21/2019 1716

Analyte	Result	Units	LOD	LOQ	Dilution	Qualifier	Prep Date/Time	Analysis Date/Time	Analyst	Method
1,4-Dioxane	<7.0	ug/L	7.0	22	1	Y		10/31/2019 05:35	RLD	EPA 8260C
2,2-Dichloropropane	<0.015	ug/L	0.015	0.050	1			10/31/2019 05:35	RLD	EPA 8260C
2-Butanone	<0.50	ug/L	0.50	1.6	1			10/31/2019 05:35	RLD	EPA 8260C
2-Chlorotoluene	<0.024	ug/L	0.024	0.080	1			10/31/2019 05:35	RLD	EPA 8260C
2-Hexanone	<0.30	ug/L	0.30	1.0	1			10/31/2019 05:35	RLD	EPA 8260C
4-Chlorotoluene	<0.017	ug/L	0.017	0.057	1			10/31/2019 05:35	RLD	EPA 8260C
4-Methyl-2-pentanone	<0.22	ug/L	0.22	0.74	1			10/31/2019 05:35	RLD	EPA 8260C
Acetone	<0.80	ug/L	0.80	2.6	1			10/31/2019 05:35	RLD	EPA 8260C
Benzene	<0.019	ug/L	0.019	0.062	1			10/31/2019 05:35	RLD	EPA 8260C
Bromobenzene	<0.018	ug/L	0.018	0.060	1			10/31/2019 05:35	RLD	EPA 8260C
Bromochloromethane	<0.040	ug/L	0.040	0.15	1			10/31/2019 05:35	RLD	EPA 8260C
Bromodichloromethane	<0.028	ug/L	0.028	0.093	1			10/31/2019 05:35	RLD	EPA 8260C
Bromoform	<0.030	ug/L	0.030	0.10	1			10/31/2019 05:35	RLD	EPA 8260C
Bromomethane	<0.060	ug/L	0.060	0.19	1	Y		10/31/2019 05:35	RLD	EPA 8260C
Carbon disulfide	0.043	ug/L	0.014 *	0.046	1			10/31/2019 05:35	RLD	EPA 8260C
Carbon tetrachloride	<0.029	ug/L	0.029	0.095	1			10/31/2019 05:35	RLD	EPA 8260C
Chlorobenzene	<0.015	ug/L	0.015	0.049	1			10/31/2019 05:35	RLD	EPA 8260C
Chloroethane	0.86	ug/L	0.023	0.077	1			10/31/2019 05:35	RLD	EPA 8260C
Chloroform	<0.023	ug/L	0.023	0.076	1			10/31/2019 05:35	RLD	EPA 8260C
Chloromethane	<0.030	ug/L	0.030	0.11	1			10/31/2019 05:35	RLD	EPA 8260C
cis-1,2-Dichloroethene	2.9	ug/L	0.027	0.090	1			10/31/2019 05:35	RLD	EPA 8260C
cis-1,3-Dichloropropene	<0.020	ug/L	0.020	0.067	1			10/31/2019 05:35	RLD	EPA 8260C
Dibromochloromethane	<0.030	ug/L	0.030	0.10	1			10/31/2019 05:35	RLD	EPA 8260C
Dibromomethane	<0.030	ug/L	0.030	0.11	1			10/31/2019 05:35	RLD	EPA 8260C
Dichlorodifluoromethane	0.16	ug/L	0.030	0.10	1			10/31/2019 05:35	RLD	EPA 8260C
Diisopropyl ether	<0.02	ug/L	0.02	0.05	1			10/31/2019 05:35	RLD	EPA 8260C
Ethylbenzene	<0.016	ug/L	0.016	0.053	1			10/31/2019 05:35	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#: 345927 Sample Description: P-111D License/Well #: 00467/130 Sampled: 10/21/2019 1716

Analyte	Result	Units	LOD	LOQ	Dilution	Qualifier	Prep Date/Time	Analysis Date/Time	Analyst	Method
Hexachlorobutadiene	<0.030	ug/L	0.030	0.10	1			10/31/2019 05:35	RLD	EPA 8260C
Isopropylbenzene	<0.018	ug/L	0.018	0.059	1			10/31/2019 05:35	RLD	EPA 8260C
m & p-Xylene	<0.030	ug/L	0.030	0.11	1			10/31/2019 05:35	RLD	EPA 8260C
Methyl tert-butyl ether	<0.017	ug/L	0.017	0.055	1			10/31/2019 05:35	RLD	EPA 8260C
Methylene chloride	<0.030	ug/L	0.030	0.12	1			10/31/2019 05:35	RLD	EPA 8260C
n-Butylbenzene	<0.014	ug/L	0.014	0.048	1			10/31/2019 05:35	RLD	EPA 8260C
n-Propylbenzene	<0.020	ug/L	0.020	0.068	1			10/31/2019 05:35	RLD	EPA 8260C
Naphthalene	<0.022	ug/L	0.022	0.072	1			10/31/2019 05:35	RLD	EPA 8260C
o-Xylene	<0.017	ug/L	0.017	0.058	1			10/31/2019 05:35	RLD	EPA 8260C
p-Isopropyltoluene	<0.018	ug/L	0.018	0.059	1			10/31/2019 05:35	RLD	EPA 8260C
sec-Butylbenzene	<0.014	ug/L	0.014	0.046	1			10/31/2019 05:35	RLD	EPA 8260C
Styrene	<0.011	ug/L	0.011	0.035	1			10/31/2019 05:35	RLD	EPA 8260C
tert-Butylbenzene	<0.013	ug/L	0.013	0.042	1			10/31/2019 05:35	RLD	EPA 8260C
Tetrachloroethene	<0.023	ug/L	0.023	0.077	1			10/31/2019 05:35	RLD	EPA 8260C
Tetrahydrofuran	<0.28	ug/L	0.28	0.95	1			10/31/2019 05:35	RLD	EPA 8260C
Toluene	<0.017	ug/L	0.017	0.056	1			10/31/2019 05:35	RLD	EPA 8260C
trans-1,2-Dichloroethene	0.042	ug/L	0.029	0.098	1	*		10/31/2019 05:35	RLD	EPA 8260C
trans-1,3-Dichloropropene	<0.030	ug/L	0.030	0.11	1			10/31/2019 05:35	RLD	EPA 8260C
Trichloroethene	<0.025	ug/L	0.025	0.084	1			10/31/2019 05:35	RLD	EPA 8260C
Trichlorofluoromethane	<0.029	ug/L	0.029	0.095	1			10/31/2019 05:35	RLD	EPA 8260C
Vinyl acetate	<0.40	ug/L	0.40	1.4	1			10/31/2019 05:35	RLD	EPA 8260C
Vinyl chloride	4.6	ug/L	0.013	0.043	1			10/31/2019 05:35	RLD	EPA 8260C
1,2 Dichloroethane-d4	93	% Recovery	70.0	130	1			10/31/2019 05:35	RLD	EPA 8260C
Bromofluorobenzene	102	% Recovery	70.0	130	1			10/31/2019 05:35	RLD	EPA 8260C
d8-Toluene	96	% Recovery	70.0	130	1			10/31/2019 05:35	RLD	EPA 8260C
Dibromofluoromethane	94	% Recovery	70.0	130	1			10/31/2019 05:35	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#: 345928 Sample Description: P-103D License/Well #: 00467/141 Sampled: 10/21/2019 1801

Analyte	Result	Units	LOD	LOQ	Dilution	Qualifier	Prep Date/Time	Analysis Date/Time	Analyst	Method
Inorganic Results										
Total Sulfate	72	mg/L	4.0	13	5			11/05/2019 18:34	TMG	EPA 9056A
Nitrate+Nitrite Nitrogen Total	<0.057	mg/L	0.057	0.19	1			10/29/2019 17:36	HLB	EPA 353.2
Metals Results										
Total Manganese	87.3	ug/L	3.4	11	1		10/24/2019 11:03	11/08/2019 08:32	NAH	EPA 6010C
Organic Results										
1,1,1,2-Tetrachloroethane	<0.018	ug/L	0.018	0.059	1			10/31/2019 06:03	RLD	EPA 8260C
1,1,1-Trichloroethane	<0.018	ug/L	0.018	0.060	1			10/31/2019 06:03	RLD	EPA 8260C
1,1,2,2-Tetrachloroethane	<0.014	ug/L	0.014	0.048	1			10/31/2019 06:03	RLD	EPA 8260C
1,1,2-Trichloroethane	<0.019	ug/L	0.019	0.062	1			10/31/2019 06:03	RLD	EPA 8260C
1,1-Dichloroethane	<0.015	ug/L	0.015	0.050	1			10/31/2019 06:03	RLD	EPA 8260C
1,1-Dichloroethene	<0.040	ug/L	0.040	0.12	1			10/31/2019 06:03	RLD	EPA 8260C
1,1-Dichloropropene	<0.030	ug/L	0.030	0.10	1			10/31/2019 06:03	RLD	EPA 8260C
1,2,3-Trichlorobenzene	<0.012	ug/L	0.012	0.040	1			10/31/2019 06:03	RLD	EPA 8260C
1,2,3-Trichloropropane	<0.070	ug/L	0.070	0.24	1			10/31/2019 06:03	RLD	EPA 8260C
1,2,4-Trichlorobenzene	<0.012	ug/L	0.012	0.040	1			10/31/2019 06:03	RLD	EPA 8260C
1,2,4-Trimethylbenzene	<0.020	ug/L	0.020	0.065	1			10/31/2019 06:03	RLD	EPA 8260C
1,2-Dibromo-3-chloropropane	<0.070	ug/L	0.070	0.23	1			10/31/2019 06:03	RLD	EPA 8260C
1,2-Dibromoethane	<0.040	ug/L	0.040	0.12	1			10/31/2019 06:03	RLD	EPA 8260C
1,2-Dichlorobenzene	<0.022	ug/L	0.022	0.074	1			10/31/2019 06:03	RLD	EPA 8260C
1,2-Dichloroethane	<0.024	ug/L	0.024	0.080	1			10/31/2019 06:03	RLD	EPA 8260C
1,2-Dichloropropane	<0.024	ug/L	0.024	0.079	1			10/31/2019 06:03	RLD	EPA 8260C
1,3,5-Trimethylbenzene	<0.016	ug/L	0.016	0.054	1			10/31/2019 06:03	RLD	EPA 8260C
1,3-Dichlorobenzene	<0.020	ug/L	0.020	0.066	1			10/31/2019 06:03	RLD	EPA 8260C
1,3-Dichloropropane	<0.030	ug/L	0.030	0.10	1			10/31/2019 06:03	RLD	EPA 8260C
1,4-Dichlorobenzene	<0.017	ug/L	0.017	0.056	1			10/31/2019 06:03	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#: 345928 Sample Description: P-103D License/Well #: 00467/141 Sampled: 10/21/2019 1801

Analyte	Result	Units	LOD	LOQ	Dilution	Qualifier	Prep Date/Time	Analysis Date/Time	Analyst	Method
1,4-Dioxane	<7.0	ug/L	7.0	22	1	Y		10/31/2019 06:03	RLD	EPA 8260C
2,2-Dichloropropane	<0.015	ug/L	0.015	0.050	1			10/31/2019 06:03	RLD	EPA 8260C
2-Butanone	<0.50	ug/L	0.50	1.6	1			10/31/2019 06:03	RLD	EPA 8260C
2-Chlorotoluene	<0.024	ug/L	0.024	0.080	1			10/31/2019 06:03	RLD	EPA 8260C
2-Hexanone	<0.30	ug/L	0.30	1.0	1			10/31/2019 06:03	RLD	EPA 8260C
4-Chlorotoluene	<0.017	ug/L	0.017	0.057	1			10/31/2019 06:03	RLD	EPA 8260C
4-Methyl-2-pentanone	<0.22	ug/L	0.22	0.74	1			10/31/2019 06:03	RLD	EPA 8260C
Acetone	<0.80	ug/L	0.80	2.6	1			10/31/2019 06:03	RLD	EPA 8260C
Benzene	<0.019	ug/L	0.019	0.062	1			10/31/2019 06:03	RLD	EPA 8260C
Bromobenzene	<0.018	ug/L	0.018	0.060	1			10/31/2019 06:03	RLD	EPA 8260C
Bromochloromethane	<0.040	ug/L	0.040	0.15	1			10/31/2019 06:03	RLD	EPA 8260C
Bromodichloromethane	<0.028	ug/L	0.028	0.093	1			10/31/2019 06:03	RLD	EPA 8260C
Bromoform	<0.030	ug/L	0.030	0.10	1			10/31/2019 06:03	RLD	EPA 8260C
Bromomethane	<0.060	ug/L	0.060	0.19	1	Y		10/31/2019 06:03	RLD	EPA 8260C
Carbon disulfide	<0.014	ug/L	0.014	0.046	1			10/31/2019 06:03	RLD	EPA 8260C
Carbon tetrachloride	<0.029	ug/L	0.029	0.095	1			10/31/2019 06:03	RLD	EPA 8260C
Chlorobenzene	<0.015	ug/L	0.015	0.049	1			10/31/2019 06:03	RLD	EPA 8260C
Chloroethane	<0.023	ug/L	0.023	0.077	1			10/31/2019 06:03	RLD	EPA 8260C
Chloroform	<0.023	ug/L	0.023	0.076	1			10/31/2019 06:03	RLD	EPA 8260C
Chloromethane	<0.030	ug/L	0.030	0.11	1			10/31/2019 06:03	RLD	EPA 8260C
cis-1,2-Dichloroethene	0.25	ug/L	0.027	0.090	1			10/31/2019 06:03	RLD	EPA 8260C
cis-1,3-Dichloropropene	<0.020	ug/L	0.020	0.067	1			10/31/2019 06:03	RLD	EPA 8260C
Dibromochloromethane	<0.030	ug/L	0.030	0.10	1			10/31/2019 06:03	RLD	EPA 8260C
Dibromomethane	<0.030	ug/L	0.030	0.11	1			10/31/2019 06:03	RLD	EPA 8260C
Dichlorodifluoromethane	<0.030	ug/L	0.030	0.10	1			10/31/2019 06:03	RLD	EPA 8260C
Diisopropyl ether	<0.02	ug/L	0.02	0.05	1			10/31/2019 06:03	RLD	EPA 8260C
Ethylbenzene	<0.016	ug/L	0.016	0.053	1			10/31/2019 06:03	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#: 345928 Sample Description: P-103D License/Well #: 00467/141 Sampled: 10/21/2019 1801

Analyte	Result	Units	LOD	LOQ	Dilution	Qualifier	Prep Date/Time	Analysis Date/Time	Analyst	Method
Hexachlorobutadiene	<0.030	ug/L	0.030	0.10	1			10/31/2019 06:03	RLD	EPA 8260C
Isopropylbenzene	<0.018	ug/L	0.018	0.059	1			10/31/2019 06:03	RLD	EPA 8260C
m & p-Xylene	<0.030	ug/L	0.030	0.11	1			10/31/2019 06:03	RLD	EPA 8260C
Methyl tert-butyl ether	<0.017	ug/L	0.017	0.055	1			10/31/2019 06:03	RLD	EPA 8260C
Methylene chloride	<0.030	ug/L	0.030	0.12	1			10/31/2019 06:03	RLD	EPA 8260C
n-Butylbenzene	<0.014	ug/L	0.014	0.048	1			10/31/2019 06:03	RLD	EPA 8260C
n-Propylbenzene	<0.020	ug/L	0.020	0.068	1			10/31/2019 06:03	RLD	EPA 8260C
Naphthalene	<0.022	ug/L	0.022	0.072	1			10/31/2019 06:03	RLD	EPA 8260C
o-Xylene	<0.017	ug/L	0.017	0.058	1			10/31/2019 06:03	RLD	EPA 8260C
p-Isopropyltoluene	<0.018	ug/L	0.018	0.059	1			10/31/2019 06:03	RLD	EPA 8260C
sec-Butylbenzene	<0.014	ug/L	0.014	0.046	1			10/31/2019 06:03	RLD	EPA 8260C
Styrene	<0.011	ug/L	0.011	0.035	1			10/31/2019 06:03	RLD	EPA 8260C
tert-Butylbenzene	<0.013	ug/L	0.013	0.042	1			10/31/2019 06:03	RLD	EPA 8260C
Tetrachloroethene	<0.023	ug/L	0.023	0.077	1			10/31/2019 06:03	RLD	EPA 8260C
Tetrahydrofuran	<0.28	ug/L	0.28	0.95	1			10/31/2019 06:03	RLD	EPA 8260C
Toluene	<0.017	ug/L	0.017	0.056	1			10/31/2019 06:03	RLD	EPA 8260C
trans-1,2-Dichloroethene	<0.029	ug/L	0.029	0.098	1			10/31/2019 06:03	RLD	EPA 8260C
trans-1,3-Dichloropropene	<0.030	ug/L	0.030	0.11	1			10/31/2019 06:03	RLD	EPA 8260C
Trichloroethene	0.050	ug/L	0.025	* 0.084	1			10/31/2019 06:03	RLD	EPA 8260C
Trichlorofluoromethane	<0.029	ug/L	0.029	0.095	1			10/31/2019 06:03	RLD	EPA 8260C
Vinyl acetate	<0.40	ug/L	0.40	1.4	1			10/31/2019 06:03	RLD	EPA 8260C
Vinyl chloride	0.27	ug/L	0.013	0.043	1			10/31/2019 06:03	RLD	EPA 8260C
1,2 Dichloroethane-d4	100	% Recovery	70.0	130	1			10/31/2019 06:03	RLD	EPA 8260C
Bromofluorobenzene	106	% Recovery	70.0	130	1			10/31/2019 06:03	RLD	EPA 8260C
d8-Toluene	99	% Recovery	70.0	130	1			10/31/2019 06:03	RLD	EPA 8260C
Dibromofluoromethane	97	% Recovery	70.0	130	1			10/31/2019 06:03	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#: 345967 Sample Description: TRIP BLANK License/Well #: 00467/999 Sampled: 10/21/2019

Analyte	Result	Units	LOD	LOQ	Dilution	Qualifier	Prep Date/Time	Analysis Date/Time	Analyst	Method
Organic Results										
1,1,1,2-Tetrachloroethane	<0.018	ug/L	0.018	0.059	1			10/30/2019 22:58	RLD	EPA 8260C
1,1,1-Trichloroethane	<0.018	ug/L	0.018	0.060	1			10/30/2019 22:58	RLD	EPA 8260C
1,1,2,2-Tetrachloroethane	<0.014	ug/L	0.014	0.048	1			10/30/2019 22:58	RLD	EPA 8260C
1,1,2-Trichloroethane	<0.019	ug/L	0.019	0.062	1			10/30/2019 22:58	RLD	EPA 8260C
1,1-Dichloroethane	<0.015	ug/L	0.015	0.050	1			10/30/2019 22:58	RLD	EPA 8260C
1,1-Dichloroethene	<0.040	ug/L	0.040	0.12	1			10/30/2019 22:58	RLD	EPA 8260C
1,1-Dichloropropene	<0.030	ug/L	0.030	0.10	1			10/30/2019 22:58	RLD	EPA 8260C
1,2,3-Trichlorobenzene	<0.012	ug/L	0.012	0.040	1			10/30/2019 22:58	RLD	EPA 8260C
1,2,3-Trichloropropane	<0.070	ug/L	0.070	0.24	1			10/30/2019 22:58	RLD	EPA 8260C
1,2,4-Trichlorobenzene	<0.012	ug/L	0.012	0.040	1			10/30/2019 22:58	RLD	EPA 8260C
1,2,4-Trimethylbenzene	<0.020	ug/L	0.020	0.065	1			10/30/2019 22:58	RLD	EPA 8260C
1,2-Dibromo-3-chloropropane	<0.070	ug/L	0.070	0.23	1			10/30/2019 22:58	RLD	EPA 8260C
1,2-Dibromoethane	<0.040	ug/L	0.040	0.12	1			10/30/2019 22:58	RLD	EPA 8260C
1,2-Dichlorobenzene	<0.022	ug/L	0.022	0.074	1			10/30/2019 22:58	RLD	EPA 8260C
1,2-Dichloroethane	<0.024	ug/L	0.024	0.080	1			10/30/2019 22:58	RLD	EPA 8260C
1,2-Dichloropropane	<0.024	ug/L	0.024	0.079	1			10/30/2019 22:58	RLD	EPA 8260C
1,3,5-Trimethylbenzene	<0.016	ug/L	0.016	0.054	1			10/30/2019 22:58	RLD	EPA 8260C
1,3-Dichlorobenzene	<0.020	ug/L	0.020	0.066	1			10/30/2019 22:58	RLD	EPA 8260C
1,3-Dichloropropane	<0.030	ug/L	0.030	0.10	1			10/30/2019 22:58	RLD	EPA 8260C
1,4-Dichlorobenzene	<0.017	ug/L	0.017	0.056	1			10/30/2019 22:58	RLD	EPA 8260C
1,4-Dioxane	<7.0	ug/L	7.0	22	1	Y		10/30/2019 22:58	RLD	EPA 8260C
2,2-Dichloropropane	<0.015	ug/L	0.015	0.050	1			10/30/2019 22:58	RLD	EPA 8260C
2-Butanone	<0.50	ug/L	0.50	1.6	1			10/30/2019 22:58	RLD	EPA 8260C
2-Chlorotoluene	<0.024	ug/L	0.024	0.080	1			10/30/2019 22:58	RLD	EPA 8260C
2-Hexanone	<0.30	ug/L	0.30	1.0	1			10/30/2019 22:58	RLD	EPA 8260C
4-Chlorotoluene	<0.017	ug/L	0.017	0.057	1			10/30/2019 22:58	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#: 345967 Sample Description: TRIP BLANK License/Well #: 00467/999 Sampled: 10/21/2019

Analyte	Result	Units	LOD	LOQ	Dilution	Qualifier	Prep Date/Time	Analysis Date/Time	Analyst	Method
4-Methyl-2-pentanone	<0.22	ug/L	0.22	0.74	1			10/30/2019 22:58	RLD	EPA 8260C
Acetone	3.3	ug/L	0.80	2.6	1			10/30/2019 22:58	RLD	EPA 8260C
Benzene	<0.019	ug/L	0.019	0.062	1			10/30/2019 22:58	RLD	EPA 8260C
Bromobenzene	<0.018	ug/L	0.018	0.060	1			10/30/2019 22:58	RLD	EPA 8260C
Bromochloromethane	<0.040	ug/L	0.040	0.15	1			10/30/2019 22:58	RLD	EPA 8260C
Bromodichloromethane	<0.028	ug/L	0.028	0.093	1			10/30/2019 22:58	RLD	EPA 8260C
Bromoform	<0.030	ug/L	0.030	0.10	1			10/30/2019 22:58	RLD	EPA 8260C
Bromomethane	<0.060	ug/L	0.060	0.19	1	Y		10/30/2019 22:58	RLD	EPA 8260C
Carbon disulfide	0.021	ug/L	0.014 *	0.046	1			10/30/2019 22:58	RLD	EPA 8260C
Carbon tetrachloride	<0.029	ug/L	0.029	0.095	1			10/30/2019 22:58	RLD	EPA 8260C
Chlorobenzene	<0.015	ug/L	0.015	0.049	1			10/30/2019 22:58	RLD	EPA 8260C
Chloroethane	<0.023	ug/L	0.023	0.077	1			10/30/2019 22:58	RLD	EPA 8260C
Chloroform	<0.023	ug/L	0.023	0.076	1			10/30/2019 22:58	RLD	EPA 8260C
Chloromethane	0.046	ug/L	0.030 *	0.11	1			10/30/2019 22:58	RLD	EPA 8260C
cis-1,2-Dichloroethene	<0.027	ug/L	0.027	0.090	1			10/30/2019 22:58	RLD	EPA 8260C
cis-1,3-Dichloropropene	<0.020	ug/L	0.020	0.067	1			10/30/2019 22:58	RLD	EPA 8260C
Dibromochloromethane	<0.030	ug/L	0.030	0.10	1			10/30/2019 22:58	RLD	EPA 8260C
Dibromomethane	<0.030	ug/L	0.030	0.11	1			10/30/2019 22:58	RLD	EPA 8260C
Dichlorodifluoromethane	<0.030	ug/L	0.030	0.10	1			10/30/2019 22:58	RLD	EPA 8260C
Diisopropyl ether	<0.02	ug/L	0.02	0.05	1			10/30/2019 22:58	RLD	EPA 8260C
Ethylbenzene	<0.016	ug/L	0.016	0.053	1			10/30/2019 22:58	RLD	EPA 8260C
Hexachlorobutadiene	<0.030	ug/L	0.030	0.10	1			10/30/2019 22:58	RLD	EPA 8260C
Isopropylbenzene	<0.018	ug/L	0.018	0.059	1			10/30/2019 22:58	RLD	EPA 8260C
m & p-Xylene	<0.030	ug/L	0.030	0.11	1			10/30/2019 22:58	RLD	EPA 8260C
Methyl tert-butyl ether	<0.017	ug/L	0.017	0.055	1			10/30/2019 22:58	RLD	EPA 8260C
Methylene chloride	0.20	ug/L	0.030	0.12	1			10/30/2019 22:58	RLD	EPA 8260C
n-Butylbenzene	<0.014	ug/L	0.014	0.048	1			10/30/2019 22:58	RLD	EPA 8260C

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CT LAB#: 345967 Sample Description: TRIP BLANK License/Well #: 00467/999 Sampled: 10/21/2019

Analyte	Result	Units	LOD	LOQ	Dilution	Qualifier	Prep Date/Time	Analysis Date/Time	Analyst	Method
n-Propylbenzene	<0.020	ug/L	0.020	0.068	1			10/30/2019 22:58	RLD	EPA 8260C
Naphthalene	<0.022	ug/L	0.022	0.072	1			10/30/2019 22:58	RLD	EPA 8260C
o-Xylene	<0.017	ug/L	0.017	0.058	1			10/30/2019 22:58	RLD	EPA 8260C
p-Isopropyltoluene	<0.018	ug/L	0.018	0.059	1			10/30/2019 22:58	RLD	EPA 8260C
sec-Butylbenzene	<0.014	ug/L	0.014	0.046	1			10/30/2019 22:58	RLD	EPA 8260C
Styrene	<0.011	ug/L	0.011	0.035	1			10/30/2019 22:58	RLD	EPA 8260C
tert-Butylbenzene	<0.013	ug/L	0.013	0.042	1			10/30/2019 22:58	RLD	EPA 8260C
Tetrachloroethene	<0.023	ug/L	0.023	0.077	1			10/30/2019 22:58	RLD	EPA 8260C
Tetrahydrofuran	<0.28	ug/L	0.28	0.95	1			10/30/2019 22:58	RLD	EPA 8260C
Toluene	<0.017	ug/L	0.017	0.056	1			10/30/2019 22:58	RLD	EPA 8260C
trans-1,2-Dichloroethene	<0.029	ug/L	0.029	0.098	1			10/30/2019 22:58	RLD	EPA 8260C
trans-1,3-Dichloropropene	<0.030	ug/L	0.030	0.11	1			10/30/2019 22:58	RLD	EPA 8260C
Trichloroethene	<0.025	ug/L	0.025	0.084	1			10/30/2019 22:58	RLD	EPA 8260C
Trichlorofluoromethane	<0.029	ug/L	0.029	0.095	1			10/30/2019 22:58	RLD	EPA 8260C
Vinyl acetate	<0.40	ug/L	0.40	1.4	1			10/30/2019 22:58	RLD	EPA 8260C
Vinyl chloride	<0.013	ug/L	0.013	0.043	1			10/30/2019 22:58	RLD	EPA 8260C
1,2 Dichloroethane-d4	96	% Recovery	70.0	130	1			10/30/2019 22:58	RLD	EPA 8260C
Bromofluorobenzene	104	% Recovery	70.0	130	1			10/30/2019 22:58	RLD	EPA 8260C
d8-Toluene	95	% Recovery	70.0	130	1			10/30/2019 22:58	RLD	EPA 8260C
Dibromofluoromethane	97	% Recovery	70.0	130	1			10/30/2019 22:58	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# 289
Louisiana NELAP (primary) ID# ACC20190002
Illinois NELAP Lab ID# 200073
Kansas NELAP Lab ID# E-10368
Virginia NELAP Lab ID# 460203
Maryland Lab ID# 344
ISO/IEC 17025-2005 A2LA Cert # 3806.01
DoD-ELAP A2LA 3806.01
GA EPD Stipulation ID ACC20190002

Preventative Action Limit (PAL) Exceedances

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

Well Description: *MW-3A*	**Well #: *133***	GROUND WATER			**Sample Date**	**10/21/2019**
Parameter	DNR Parameter #	Result	PAL	ES	LOD	Units
Total Manganese	01055	424	60	300	3.4	ug/L

Well Description: *MW-3B*	**Well #: *134***	GROUND WATER			**Sample Date**	**10/21/2019**
Parameter	DNR Parameter #	Result	PAL	ES	LOD	Units
Vinyl chloride	39175	0.051	0.02	0.20	0.013	ug/L

Well Description: *P-103D*	**Well #: *141***	GROUND WATER			**Sample Date**	**10/21/2019**
Parameter	DNR Parameter #	Result	PAL	ES	LOD	Units
Total Manganese	01055	87.3	60	300	3.4	ug/L
Vinyl chloride	39175	0.27	0.02	0.20	0.013	ug/L

Well Description: *P-107D*	**Well #: *119***	GROUND WATER			**Sample Date**	**10/21/2019**
Parameter	DNR Parameter #	Result	PAL	ES	LOD	Units
Total Manganese	01055	193	60	300	3.4	ug/L
Vinyl chloride	39175	7.6	0.02	0.20	0.013	ug/L

Well Description: *P-111D*	**Well #: *130***	GROUND WATER			**Sample Date**	**10/21/2019**
Parameter	DNR Parameter #	Result	PAL	ES	LOD	Units
Vinyl chloride	39175	4.6	0.02	0.20	0.013	ug/L

Well Description: *P-114*	**Well #: *140***	GROUND WATER			**Sample Date**	**10/21/2019**
Parameter	DNR Parameter #	Result	PAL	ES	LOD	Units
Total Manganese	01055	61.3	60	300	3.4	ug/L
Vinyl chloride	39175	8.0	0.02	0.20	0.013	ug/L

Well Description: *P-115*	**Well #: *142***	GROUND WATER			**Sample Date**	**10/21/2019**
Parameter	DNR Parameter #	Result	PAL	ES	LOD	Units
Total Manganese	01055	115	60	300	3.4	ug/L
Vinyl chloride	39175	0.96	0.02	0.20	0.013	ug/L

Well Description: *P-116*	**Well #: *143***	GROUND WATER			**Sample Date**	**10/21/2019**
Parameter	DNR Parameter #	Result	PAL	ES	LOD	Units
Total Manganese	01055	135	60	300	3.4	ug/L

Well Description: *P-117*	**Well #: *144***	GROUND WATER			**Sample Date**	**10/21/2019**
Parameter	DNR Parameter #	Result	PAL	ES	LOD	Units
Total Manganese	01055	213	60	300	3.4	ug/L

Preventative Action Limit (PAL) Exceedances

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

Well Description: ***P-117***	**Well #:** ***144***	GROUND WATER			**Sample Date**	**10/21/2019**
Parameter	DNR Parameter #	Result	PAL	ES	LOD	Units
Vinyl chloride	39175	1.5	0.02	0.20	0.013	ug/L

Well Description: ***P-118***	**Well #:** ***145***	GROUND WATER			**Sample Date**	**10/21/2019**
Parameter	DNR Parameter #	Result	PAL	ES	LOD	Units
Total Manganese	01055	70.1	60	300	3.4	ug/L
Vinyl chloride	39175	0.079	0.02	0.20	0.013	ug/L

Well Description: ***DUP-1*** **Well #:**

Parameter	Sample Date		
	10/21/2019	7/22/2019	5/22/2019
Acetone		0.52	0.38
Carbon disulfide	0.022		
Chloroethane	0.26	0.36	0.28
cis-1,2-Dichloroethene	1.6	2.1	1.7
Dichlorodifluoromethane	0.16		
p-Isopropyltoluene			0.15
Vinyl chloride	8.3	6.4	3.7

Well Description: ***MW-103*** **Well #:** ***112***

Parameter	Sample Date	
	7/22/2019	5/22/2019
Acetone	0.88	3.3
cis-1,2-Dichloroethene	0.31	0.34
Tetrachloroethene	0.29	0.27
trans-1,2-Dichloroethene	0.052	0.040
Trichloroethene	1.6	1.4

Well Description: ***MW-104*** **Well #:** ***113***

Parameter	Sample Date
	5/22/2019
1,4-Dichlorobenzene	1.6
Acetone	2.2
Benzene	0.15
Carbon disulfide	0.16
Chlorobenzene	3.6
cis-1,2-Dichloroethene	0.20
Isopropylbenzene	0.17
Methyl tert-butyl ether	0.054
sec-Butylbenzene	0.061
Toluene	0.041
Trichloroethene	0.054
Vinyl chloride	0.72

Well Description: ***P-103*** **Well #:** ***114***

Parameter	Sample Date	
	7/23/2019	5/22/2019
Acetone	0.40	0.36
Vinyl chloride	0.038	0.036

Well Description: ***P-106*** **Well #:** ***116***

Parameter	Sample Date
	5/22/2019
Trichloroethene	0.15

Well Description: ***MW-107*** **Well #:** ***117***

Parameter	Sample Date
	5/21/2019
Acetone	1.3

Well Description: ***P-107*** **Well #:** ***118***

Parameter	Sample Date
	5/21/2019
Acetone	0.60
Chloroethane	0.081
cis-1,2-Dichloroethene	0.28
Trichloroethene	0.074
Vinyl chloride	0.95

Well Description: ***P-107D*** **Well #:** ***119***

Parameter	Sample Date		
	10/21/2019	7/23/2019	5/21/2019
1,1-Dichloroethane	0.029		
Acetone		0.61	0.87
Carbon disulfide	0.036		
Chloroethane	2.0	1.4	1.3
cis-1,2-Dichloroethene	2.1	1.9	1.7
Dichlorodifluoromethane	0.17		
Trichloroethene	0.12	0.14	0.12
Vinyl chloride	7.6	4.4	5.2

Well Description: ***MW-112*** **Well #:** ***121***

Parameter	Sample Date 7/22/2019	5/22/2019
Acetone		0.64
Chlorobenzene	0.10	0.058
cis-1,2-Dichloroethene	0.21	0.28
Tetrachloroethene	0.16	0.25
Trichloroethene	0.74	0.99
Vinyl chloride	0.040	0.031

Well Description: ***P-111D*** **Well #:** ***130***

Parameter	Sample Date		
	10/21/2019	7/23/2019	5/22/2019
Acetone		0.63	0.45
Carbon disulfide	0.043		
Chloroethane	0.86	0.89	0.93
Chloromethane		0.040	
cis-1,2-Dichloroethene	2.9	3.3	2.8
Dichlorodifluoromethane	0.16		0.066
trans-1,2-Dichloroethene	0.042		
Vinyl chloride	4.6	4.6	4.2

Well Description: ***MW-3A*** **Well #:** ***133***

Parameter	Sample Date	
	10/21/2019	7/22/2019
Acetone		0.35
Carbon disulfide	0.025	
Chloromethane	0.030	

Well Description: ***MW-3B*** **Well #:** ***134***

Parameter	Sample Date		
	10/21/2019	7/22/2019	5/21/2019
Acetone		0.84	0.44
Carbon disulfide	0.027		
Vinyl chloride	0.051	0.065	0.058

Well Description: ***P-113B*** **Well #:** ***138***

Parameter	Sample Date		
	10/21/2019	7/22/2019	5/21/2019
Acetone		0.32	0.33
Carbon disulfide	0.025		
Chloromethane	0.030		

Well Description: ***P-114*** **Well #:** ***140***

Parameter	Sample Date		
	10/21/2019	7/22/2019	5/22/2019
Acetone		0.72	0.47
Carbon disulfide	0.021		
Chloroethane	0.24	0.29	0.27
cis-1,2-Dichloroethene	1.6	2.1	1.7
Dichlorodifluoromethane	0.15		
p-Isopropyltoluene			0.15
Vinyl chloride	8.0	6.9	7.3

Well Description: ***P-103D*** **Well #:** ***141***

Parameter	Sample Date		
	10/21/2019	7/23/2019	5/22/2019
Acetone		0.41	0.32
Benzene		0.042	
cis-1,2-Dichloroethene	0.25	0.24	0.30
Trichloroethene	0.050	0.10	0.086
Vinyl chloride	0.27	0.17	0.31

Well Description: ***P-115*** **Well #:** ***142***

Parameter	Sample Date		
	10/21/2019	7/22/2019	5/22/2019
Acetone		0.71	0.55
Carbon disulfide	0.025		0.074
cis-1,2-Dichloroethene	0.15	0.14	0.14
Vinyl chloride	0.96	0.91	0.94

Well Description: ***P-116*** **Well #:** ***143***

Parameter	Sample Date		
	10/21/2019	7/22/2019	5/22/2019
Acetone		0.59	0.75
Carbon disulfide	0.049		
Toluene			0.040

Well Description: ***P-117*** **Well #:** ***144***

Parameter	Sample Date		
	10/21/2019	7/22/2019	5/21/2019
Acetone			0.55
Chloroethane	0.38	0.36	0.32
cis-1,2-Dichloroethene	0.78	0.84	0.76
Dichlorodifluoromethane	0.12		
Trichloroethene	0.061	0.061	
Vinyl chloride	1.5	1.3	1.2

Well Description: ***P-118*** **Well #:** ***145***

Parameter	Sample Date		
	10/21/2019	7/22/2019	5/21/2019
Acetone			0.57
Carbon disulfide	0.054		
Naphthalene	0.026		0.044
Toluene	0.038	0.055	0.040
Vinyl chloride	0.079	0.064	0.057

Well Description: ***LC-1*** **Well #:** ***301***

Parameter	Sample Date
	5/21/2019
1,1,2,2-Tetrachloroethane	30
1,2,4-Trimethylbenzene	110
1,3,5-Trimethylbenzene	44
Ethylbenzene	29
Isopropylbenzene	11
m & p-Xylene	200
Naphthalene	100
o-Xylene	8.5
p-Isopropyltoluene	41
sec-Butylbenzene	11
Tetrahydrofuran	130

Well Description: ***LC-2*** **Well #:** ***302***

Parameter	Sample Date
	5/21/2019
1,2,4-Trimethylbenzene	85
1,3,5-Trimethylbenzene	19
1,4-Dichlorobenzene	23
Acetone	94
Benzene	18
Chlorobenzene	170
Ethylbenzene	8.5
Isopropylbenzene	13
m & p-Xylene	430
Naphthalene	16
n-Propylbenzene	10
p-Isopropyltoluene	9.8
Tetrahydrofuran	110
Toluene	3.2

Well Description: ***LC-3*** **Well #:** ***303***

Parameter	Sample Date
	5/21/2019
1,2,4-Trimethylbenzene	5.8
1,3,5-Trimethylbenzene	5.0
2-Butanone	280
Acetone	1800
Benzene	4.1
Bromomethane	8.9
Carbon disulfide	75
cis-1,2-Dichloroethene	170
Ethylbenzene	69
m & p-Xylene	310
o-Xylene	78
Tetrahydrofuran	82
Toluene	260
Trichloroethene	14

Well Description: ***TRIP BLANK*** **Well #:** ***999***

Parameter	Sample Date			
	10/21/2019	7/21/2019	7/2/2019	5/22/2019
Acetone	3.3	1.1	1.2	0.57
Carbon disulfide	0.021			
Chloromethane	0.046			
Methylene chloride	0.20	1.3	1.1	

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QC SUMMARY REPORT

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

SDG #: 0 **Folder #: 149068** **Project #: 327275.0001.0004**

Lab Control Spike Water

Analytical Run #:	165927	Analysis Date:	10/25/2019	Prep Batch #:		Matrix:	LIQUID
CTLab #:	352593	Analysis Time:	17:22	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	24.78	mg/L			25.00	99	80 --- 120		

Method Blank Water

Analytical Run #:	165927	Analysis Date:	10/25/2019	Prep Batch #:		Matrix:	LIQUID
CTLab #:	352594	Analysis Time:	17:41	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		

Lab Control Spike Water

Analytical Run #:	166002	Analysis Date:	10/29/2019	Prep Batch #:		Matrix:	LIQUID
CTLab #:	349238	Analysis Time:	14:01	Prep Date/Time:		Method:	
Parent Sample #:		Analyst:	HLB	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	5.350	mg/L			5.000	107	90 --- 110		
Nitrate+Nitrite Nitrogen,Diss	5.350	mg/L			5.000	107	90 --- 110		

Method Blank Water

Analytical Run #:	166002	Analysis Date:	10/29/2019	Prep Batch #:		Matrix:	LIQUID
CTLab #:	349239	Analysis Time:	14:02	Prep Date/Time:		Method:	
Parent Sample #:		Analyst:	HLB	Prep Analyst:			

Analyte	QC sample result	Units	Parent sample result	Qualifier(s)	Spike Amount Added	% Recovery	Control Limits	RPD	RPD Limit
Nitrate+Nitrite Nitrogen	0.057	mg/L		U	0		0.057		

Matrix Spike Duplicate Water

Analytical Run #:	166002	Analysis Date:	10/29/2019	Prep Batch #:		Matrix:	GROUND WATER
CTLab #:	351878	Analysis Time:	14:11	Prep Date/Time:		Method:	
Parent Sample #:	351877	Analyst:	DC	Prep Analyst:			

Analyte	QC sample result	Units	Parent sample result	Qualifier(s)	Spike Amount Added	% Recovery	Control Limits	RPD	RPD Limit
Nitrate+Nitrite Nitrogen	1.96	mg/L	BDL		2.00	98	90 --- 110	12	20

Matrix Spike Water

Analytical Run #:	166002	Analysis Date:	10/29/2019	Prep Batch #:		Matrix:	GROUND WATER
CTLab #:	351877	Analysis Time:	14:10	Prep Date/Time:		Method:	
Parent Sample #:	345913	Analyst:	DC	Prep Analyst:			

Analyte	QC sample result	Units	Parent sample result	Qualifier(s)	Spike Amount Added	% Recovery	Control Limits	RPD	RPD Limit
Nitrate+Nitrite Nitrogen	2.22	mg/L	BDL		2.00	111	90 --- 110		20

Lab Control Spike Water

Analytical Run #:	166288	Analysis Date:	11/05/2019	Prep Batch #:		Matrix:	LIQUID
CTLab #:	354125	Analysis Time:	14:04	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	24.91	mg/L			25.00	100	80 --- 120		

Method Blank Water

Analytical Run #:	166288	Analysis Date:	11/05/2019	Prep Batch #:		Matrix:	LIQUID
CTLab #:	354126	Analysis Time:	14:24	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		

Lab Control Spike Water

Analytical Run #:	165920	Analysis Date:	11/08/2019	Prep Batch #:	74118	Matrix:	LIQUID
CTLab #:	346740	Analysis Time:	06:04	Prep Date/Time:	10/24/2019 11:03	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	190.0	ug/L			200.0	95	80 --- 120		

Method Blank Water

Analytical Run #:	165920	Analysis Date:	11/08/2019	Prep Batch #:	74118	Matrix:	LIQUID
CTLab #:	346739	Analysis Time:	06:11	Prep Date/Time:	10/24/2019 11:03	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 #:	165920	Analysis Date:	11/08/2019	Prep Batch #:	74118	Matrix:	GROUND WATER
CTLab #:	346742	Analysis Time:	06:30	Prep Date/Time:	10/24/2019 11:03	Method:	SW6010
Parent Sample #:	346741	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	199	ug/L	8.4		200	95	84 --- 111	0	7

Matrix Spike Water

Analytical Run #:	165920	Analysis Date:	11/08/2019	Prep Batch #:	74118	Matrix:	GROUND WATER
CTLab #:	346741	Analysis Time:	06:24	Prep Date/Time:	10/24/2019 11:03	Method:	SW6010
Parent Sample #:	345913	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	199	ug/L	8.4		200	95	84 --- 111		

Lab Control Spike Duplicate Water

Analytical Run #:	165850	Analysis Date:	10/31/2019	Prep Batch #:		Matrix:	LIQUID
CTLab #:	350957	Analysis Time:	06:32	Prep Date/Time:		Method:	SW8260C
Parent Sample #:	350949	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	4.14	ug/L	4.02		4.00	104	78 --- 121	3	20
1,1,1-Trichloroethane	4.54	ug/L	4.37		4.00	114	82 --- 122	4	20
1,1,2,2-Tetrachloroethane	4.59	ug/L	4.55		4.00	115	68 --- 128	1	20
1,1,2-Trichloroethane	4.16	ug/L	3.83		4.00	104	84 --- 114	8	20
1,1-Dichloroethane	4.37	ug/L	4.24		4.00	109	76 --- 122	3	20
1,1-Dichloroethene	4.47	ug/L	4.44		4.00	112	83 --- 123	1	20
1,1-Dichloropropene	4.45	ug/L	4.43		4.00	111	85 --- 120	0	20
1,2 Dichloroethane-d4	90.0	% Recovery			100	90.0	87 --- 107		
1,2,3-Trichlorobenzene	4.14	ug/L	4.03		4.00	104	78 --- 121	3	20
1,2,3-Trichloropropane	4.19	ug/L	3.70		4.00	105	62 --- 129	12	20
1,2,4-Trichlorobenzene	4.05	ug/L	4.25		4.00	101	80 --- 120	5	20
1,2,4-Trimethylbenzene	4.63	ug/L	4.59		4.00	116	76 --- 125	1	20
1,2-Dibromo-3-chloropropane	3.92	ug/L	4.00		4.00	98	69 --- 125	2	20
1,2-Dibromoethane	4.31	ug/L	3.88		4.00	108	80 --- 118	11	20
1,2-Dichlorobenzene	4.15	ug/L	4.07		4.00	104	80 --- 117	2	20
1,2-Dichloroethane	4.16	ug/L	4.00		4.00	104	78 --- 118	4	20
1,2-Dichloropropane	4.24	ug/L	4.21		4.00	106	78 --- 121	1	20
1,3,5-Trimethylbenzene	4.73	ug/L	4.64		4.00	118	76 --- 126	2	20
1,3-Dichlorobenzene	4.35	ug/L	4.22		4.00	109	78 --- 119	3	20
1,3-Dichloropropane	4.23	ug/L	3.94		4.00	106	82 --- 117	7	20
1,4-Dichlorobenzene	4.10	ug/L	4.14		4.00	102	77 --- 118	1	20
1,4-Dioxane	224	ug/L	178		200	112	11 --- 220	23	20
2,2-Dichloropropane	4.75	ug/L	4.26		4.00	119	71 --- 133	11	20
2-Butanone	40.0	ug/L	36.6		40.0	100	80 --- 120	9	20
2-Chlorotoluene	4.65	ug/L	4.57		4.00	116	73 --- 124	2	20
2-Hexanone	48.8	ug/L	44.2		40.0	122	73 --- 127	10	20
4-Chlorotoluene	4.85	ug/L	4.77		4.00	121	74 --- 125	2	20
4-Methyl-2-pentanone	46.5	ug/L	41.9		40.0	116	77 --- 125	10	20
Acetone	39.2	ug/L	36.8		40.0	98	72 --- 117	6	20
Benzene	4.41	ug/L	4.33		4.00	110	82 --- 118	2	20
Bromobenzene	4.12	ug/L	4.11		4.00	103	77 --- 118	0	20
Bromochloromethane	4.05	ug/L	3.95		4.00	101	81 --- 116	2	20
Bromodichloromethane	4.20	ug/L	4.11		4.00	105	80 --- 122	2	20
Bromofluorobenzene	107	% Recovery			100	107	90 --- 108		
Bromoform	3.27	ug/L	3.33		4.00	82	72 --- 124	2	20
Bromomethane	2.56	ug/L	4.21		4.00	64	25 --- 156	49	20
Carbon disulfide	9.18	ug/L	9.09		8.00	115	81 --- 124	1	20
Carbon tetrachloride	4.42	ug/L	4.49		4.00	110	87 --- 129	2	20
Chlorobenzene	4.18	ug/L	4.12		4.00	104	78 --- 118	1	20
Chloroethane	4.74	ug/L	4.56		4.00	118	73 --- 126	4	20
Chloroform	4.31	ug/L	4.21		4.00	108	76 --- 119	2	20
Chloromethane	4.17	ug/L	4.16		4.00	104	70 --- 121	0	20

Lab Control Spike Duplicate Water

Analytical Run #:	165850	Analysis Date:	10/31/2019	Prep Batch #:		Matrix:	LIQUID
CTLab #:	350957	Analysis Time:	06:32	Prep Date/Time:		Method:	SW8260C
Parent Sample #:	350949	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	4.17	ug/L	4.14		4.00	104	82 --- 118	1	20
cis-1,3-Dichloropropene	4.22	ug/L	4.09		4.00	106	81 --- 123	3	20
d8-Toluene	98.0	% Recovery			100	98.0	93 --- 108		
Dibromochloromethane	3.82	ug/L	3.95		4.00	96	76 --- 124	3	20
Dibromofluoromethane	99.0	% Recovery			100	99.0	93 --- 106		
Dibromomethane	4.10	ug/L	3.87		4.00	102	83 --- 115	6	20
Dichlorodifluoromethane	4.66	ug/L	4.68		4.00	116	78 --- 126	0	20
Diisopropyl ether	4.56	ug/L	4.22		4.00	114	75 --- 125	8	20
Ethylbenzene	4.65	ug/L	4.55		4.00	116	78 --- 125	2	20
Hexachlorobutadiene	4.36	ug/L	4.33		4.00	109	79 --- 123	1	20
Isopropylbenzene	4.55	ug/L	4.53		4.00	114	81 --- 124	0	20
m & p-Xylene	8.79	ug/L	8.73		8.00	110	80 --- 123	1	20
Methyl tert-butyl ether	3.97	ug/L	3.78		4.00	99	82 --- 116	5	20
Methylene chloride	4.39	ug/L	4.12		4.00	110	73 --- 128	6	20
n-Butylbenzene	5.13	ug/L	4.57		4.00	128	76 --- 127	12	20
n-Propylbenzene	4.97	ug/L	4.91		4.00	124	75 --- 129	1	20
Naphthalene	4.31	ug/L	4.06		4.00	108	64 --- 129	6	20
o-Xylene	4.28	ug/L	4.24		4.00	107	81 --- 121	1	20
p-Isopropyltoluene	4.79	ug/L	4.72		4.00	120	79 --- 126	1	20
sec-Butylbenzene	4.96	ug/L	4.40		4.00	124	76 --- 128	12	20
Styrene	4.38	ug/L	4.32		4.00	110	81 --- 122	1	20
tert-Butylbenzene	4.61	ug/L	4.63		4.00	115	76 --- 125	0	20
Tetrachloroethene	4.21	ug/L	4.10		4.00	105	82 --- 123	3	20
Tetrahydrofuran	45.1	ug/L	39.1		40.0	113	69 --- 122	14	20
Toluene	4.36	ug/L	4.21		4.00	109	82 --- 119	4	20
trans-1,2-Dichloroethene	4.30	ug/L	4.28		4.00	108	80 --- 122	0	20
trans-1,3-Dichloropropene	4.22	ug/L	4.13		4.00	106	83 --- 119	2	20
Trichloroethene	4.15	ug/L	3.97		4.00	104	82 --- 120	4	20
Trichlorofluoromethane	4.75	ug/L	4.70		4.00	119	78 --- 130	1	20
Vinyl acetate	52.9	ug/L	45.2		40.0	132	63 --- 136	16	20
Vinyl chloride	4.75	ug/L	4.61		4.00	119	73 --- 127	3	20

Lab Control Spike Water

Analytical Run #:	165850	Analysis Date:	10/30/2019	Prep Batch #:		Matrix:	LIQUID
CTLab #:	350949	Analysis Time:	20:08	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	4.02	ug/L			4.00	100	78 --- 121		20
1,1,1-Trichloroethane	4.37	ug/L			4.00	109	82 --- 122		20
1,1,2,2-Tetrachloroethane	4.55	ug/L			4.00	114	68 --- 128		20
1,1,2-Trichloroethane	3.83	ug/L			4.00	96	84 --- 114		20
1,1-Dichloroethane	4.24	ug/L			4.00	106	76 --- 122		20
1,1-Dichloroethene	4.44	ug/L			4.00	111	83 --- 123		20
1,1-Dichloropropene	4.43	ug/L			4.00	111	85 --- 120		20
1,2 Dichloroethane-d4	86.0	% Recovery		S	100	86.0	87 --- 107		
1,2,3-Trichlorobenzene	4.03	ug/L			4.00	101	78 --- 121		20
1,2,3-Trichloropropane	3.70	ug/L			4.00	92	62 --- 129		20
1,2,4-Trichlorobenzene	4.25	ug/L			4.00	106	80 --- 120		20
1,2,4-Trimethylbenzene	4.59	ug/L			4.00	115	76 --- 125		20
1,2-Dibromo-3-chloropropane	4.00	ug/L			4.00	100	69 --- 125		20
1,2-Dibromoethane	3.88	ug/L			4.00	97	80 --- 118		20
1,2-Dichlorobenzene	4.07	ug/L			4.00	102	80 --- 117		20
1,2-Dichloroethane	4.00	ug/L			4.00	100	78 --- 118		20
1,2-Dichloropropane	4.21	ug/L			4.00	105	78 --- 121		20
1,3,5-Trimethylbenzene	4.64	ug/L			4.00	116	76 --- 126		20
1,3-Dichlorobenzene	4.22	ug/L			4.00	106	78 --- 119		20
1,3-Dichloropropane	3.94	ug/L			4.00	98	82 --- 117		20
1,4-Dichlorobenzene	4.14	ug/L			4.00	104	77 --- 118		20
1,4-Dioxane	178	ug/L			200	89	11 --- 220		20
2,2-Dichloropropane	4.26	ug/L			4.00	106	71 --- 133		20
2-Butanone	36.6	ug/L			40.0	92	80 --- 120		20
2-Chlorotoluene	4.57	ug/L			4.00	114	73 --- 124		20
2-Hexanone	44.2	ug/L			40.0	110	73 --- 127		20
4-Chlorotoluene	4.77	ug/L			4.00	119	74 --- 125		20
4-Methyl-2-pentanone	41.9	ug/L			40.0	105	77 --- 125		20
Acetone	36.8	ug/L			40.0	92	72 --- 117		20
Benzene	4.33	ug/L			4.00	108	82 --- 118		20
Bromobenzene	4.11	ug/L			4.00	103	77 --- 118		20
Bromochloromethane	3.95	ug/L			4.00	99	81 --- 116		20
Bromodichloromethane	4.11	ug/L			4.00	103	80 --- 122		20
Bromofluorobenzene	108	% Recovery			100	108	90 --- 108		
Bromoform	3.33	ug/L			4.00	83	72 --- 124		20
Bromomethane	4.21	ug/L			4.00	105	25 --- 156		20
Carbon disulfide	9.09	ug/L			8.00	114	81 --- 124		20
Carbon tetrachloride	4.49	ug/L			4.00	112	87 --- 129		20
Chlorobenzene	4.12	ug/L			4.00	103	78 --- 118		20
Chloroethane	4.56	ug/L			4.00	114	73 --- 126		20
Chloroform	4.21	ug/L			4.00	105	76 --- 119		20
Chloromethane	4.16	ug/L			4.00	104	70 --- 121		20

Lab Control Spike Water

Analytical Run #:	165850	Analysis Date:	10/30/2019	Prep Batch #:		Matrix:	LIQUID
CTLab #:	350949	Analysis Time:	20:08	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	4.14	ug/L			4.00	104	82 --- 118		20
cis-1,3-Dichloropropene	4.09	ug/L			4.00	102	81 --- 123		20
d8-Toluene	97.0	% Recovery			100	97.0	93 --- 108		
Dibromochloromethane	3.95	ug/L			4.00	99	76 --- 124		20
Dibromofluoromethane	94.0	% Recovery			100	94.0	93 --- 106		
Dibromomethane	3.87	ug/L			4.00	97	83 --- 115		20
Dichlorodifluoromethane	4.68	ug/L			4.00	117	78 --- 126		20
Diisopropyl ether	4.22	ug/L			4.00	106	75 --- 125		20
Ethylbenzene	4.55	ug/L			4.00	114	78 --- 125		20
Hexachlorobutadiene	4.33	ug/L			4.00	108	79 --- 123		20
Isopropylbenzene	4.53	ug/L			4.00	113	81 --- 124		20
m & p-Xylene	8.73	ug/L			8.00	109	80 --- 123		20
Methyl tert-butyl ether	3.78	ug/L			4.00	94	82 --- 116		20
Methylene chloride	4.12	ug/L			4.00	103	73 --- 128		20
n-Butylbenzene	4.57	ug/L			4.00	114	76 --- 127		20
n-Propylbenzene	4.91	ug/L			4.00	123	75 --- 129		20
Naphthalene	4.06	ug/L			4.00	102	64 --- 129		20
o-Xylene	4.24	ug/L			4.00	106	81 --- 121		20
p-Isopropyltoluene	4.72	ug/L			4.00	118	79 --- 126		20
sec-Butylbenzene	4.40	ug/L			4.00	110	76 --- 128		20
Styrene	4.32	ug/L			4.00	108	81 --- 122		20
tert-Butylbenzene	4.63	ug/L			4.00	116	76 --- 125		20
Tetrachloroethene	4.10	ug/L			4.00	102	82 --- 123		20
Tetrahydrofuran	39.1	ug/L			40.0	98	69 --- 122		20
Toluene	4.21	ug/L			4.00	105	82 --- 119		20
trans-1,2-Dichloroethene	4.28	ug/L			4.00	107	80 --- 122		20
trans-1,3-Dichloropropene	4.13	ug/L			4.00	103	83 --- 119		20
Trichloroethene	3.97	ug/L			4.00	99	82 --- 120		20
Trichlorofluoromethane	4.70	ug/L			4.00	118	78 --- 130		20
Vinyl acetate	45.2	ug/L			40.0	113	63 --- 136		20
Vinyl chloride	4.61	ug/L			4.00	115	73 --- 127		20

Method Blank Water

Analytical Run #:	165850	Analysis Date:	10/30/2019	Prep Batch #:		Matrix:	LIQUID
CTLab #:	350952	Analysis Time:	22:30	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	0.018	ug/L		U	0		0.018		
1,1,1-Trichloroethane	0.018	ug/L		U	0		0.018		
1,1,2,2-Tetrachloroethane	0.014	ug/L		U	0		0.014		
1,1,2-Trichloroethane	0.019	ug/L		U	0		0.019		
1,1-Dichloroethane	0.015	ug/L		U	0		0.015		
1,1-Dichloroethene	0.04	ug/L		U	0		0.04		
1,1-Dichloropropene	0.03	ug/L		U	0		0.03		
1,2 Dichloroethane-d4	92.0	% Recovery			100	92.0	68 --- 120		
1,2,3-Trichlorobenzene	0.012	ug/L		U	0		0.012		
1,2,3-Trichloropropane	0.07	ug/L		U	0		0.07		
1,2,4-Trichlorobenzene	0.012	ug/L		U	0		0.012		
1,2,4-Trimethylbenzene	0.020	ug/L		U	0		0.020		
1,2-Dibromo-3-chloropropane	0.07	ug/L		U	0		0.07		
1,2-Dibromoethane	0.04	ug/L		U	0		0.04		
1,2-Dichlorobenzene	0.022	ug/L		U	0		0.022		
1,2-Dichloroethane	0.024	ug/L		U	0		0.024		
1,2-Dichloropropane	0.024	ug/L		U	0		0.024		
1,3,5-Trimethylbenzene	0.016	ug/L		U	0		0.016		
1,3-Dichlorobenzene	0.020	ug/L		U	0		0.020		
1,3-Dichloropropane	0.09	ug/L		U	0		0.09		
1,4-Dichlorobenzene	0.017	ug/L		U	0		0.017		
1,4-Dioxane	7	ug/L		U	0		7		
2,2-Dichloropropane	0.015	ug/L		U	0		0.015		
2-Butanone	0.5	ug/L		U	0		0.5		
2-Chlorotoluene	0.024	ug/L		U	0		0.024		
2-Hexanone	0.3	ug/L		U	0		0.3		
4-Chlorotoluene	0.017	ug/L		U	0		0.017		
4-Methyl-2-pentanone	0.22	ug/L		U	0		0.22		
Acetone	0.8	ug/L		U	0		0.8		
Benzene	0.019	ug/L		U	0		0.019		
Bromobenzene	0.018	ug/L		U	0		0.018		
Bromochloromethane	0.04	ug/L		U	0		0.04		
Bromodichloromethane	0.028	ug/L		U	0		0.028		
Bromofluorobenzene	107	% Recovery			100	107	68 --- 120		
Bromoform	0.03	ug/L		U	0		0.03		
Bromomethane	0.06	ug/L		U	0		0.06		
Carbon disulfide	0.014	ug/L		U	0		0.014		
Carbon tetrachloride	0.029	ug/L		U	0		0.029		
Chlorobenzene	0.015	ug/L		U	0		0.015		
Chloroethane	0.023	ug/L		U	0		0.023		
Chloroform	0.023	ug/L		U	0		0.023		
Chloromethane	0.03	ug/L		U	0		0.03		

Method Blank Water

Analytical Run #:	165850	Analysis Date:	10/30/2019	Prep Batch #:		Matrix:	LIQUID
CTLab #:	350952	Analysis Time:	22:30	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	0.027	ug/L		U	0		0.027		
cis-1,3-Dichloropropene	0.020	ug/L		U	0		0.020		
d8-Toluene	95.0	% Recovery			100	95.0	71 --- 117		
Dibromochloromethane	0.03	ug/L		U	0		0.03		
Dibromofluoromethane	97.0	% Recovery			100	97.0	67 --- 122		
Dibromomethane	0.03	ug/L		U	0		0.03		
Dichlorodifluoromethane	0.03	ug/L		U	0		0.03		
Diisopropyl ether	0.016	ug/L		U	0		0.016		
Ethylbenzene	0.016	ug/L		U	0		0.016		
Hexachlorobutadiene	0.03	ug/L		U	0		0.03		
Isopropylbenzene	0.018	ug/L		U	0		0.018		
m & p-Xylene	0.03	ug/L		U	0		0.03		
Methyl tert-butyl ether	0.017	ug/L		U	0		0.017		
Methylene chloride	0.03	ug/L		U	0		0.03		
n-Butylbenzene	0.014	ug/L		U	0		0.014		
n-Propylbenzene	0.020	ug/L		U	0		0.020		
Naphthalene	0.022	ug/L		U	0		0.022		
o-Xylene	0.017	ug/L		U	0		0.017		
p-Isopropyltoluene	0.018	ug/L		U	0		0.018		
sec-Butylbenzene	0.014	ug/L		U	0		0.014		
Styrene	0.011	ug/L		U	0		0.011		
tert-Butylbenzene	0.013	ug/L		U	0		0.013		
Tetrachloroethene	0.023	ug/L		U	0		0.023		
Tetrahydrofuran	0.28	ug/L		U	0		0.28		
Toluene	0.017	ug/L		U	0		0.017		
trans-1,2-Dichloroethene	0.029	ug/L		U	0		0.029		
trans-1,3-Dichloropropene	0.03	ug/L		U	0		0.03		
Trichloroethene	0.025	ug/L		U	0		0.025		
Trichlorofluoromethane	0.029	ug/L		U	0		0.029		
Vinyl acetate	0.4	ug/L		U	0		0.4		
Vinyl chloride	0.013	ug/L		U	0		0.013		

CT LABORATORIES
delivering more than data from your environmental analyses

Sample Condition Report

Folder #: 149068
Client: TRC ENVIRONMENTAL

Print Date / Time: 10/24/2019 13:41
Received Date / Time / By: 10/23/2019 08:00 CHB

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

Log-In Date / Time / By: 10/23/2019 09:14 JRB
Project #: 327275.0001.0004 PM: BMS

Coolers: 6091
Custody Seals Present :

Temperature: 1.8 C On Ice: **Y**
COC Present:? **Y** Complete? **Y**

Seal Intact?
Ship Method: LAB PICK-UP
Adequate Packaging: **Y**

Numbers: N/A
Tracking Number: N/A
Temp Blank Enclosed? **Y**

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

THERE WAS NOT A METALS BOTTLE RECEIVED THAT WAS LABELED FOR P-114; HOWEVER, THERE WERE TWO METALS BOTTLES RECEIVED THAT WERE LABELED FOR DUP-1. THE CLIENT CONFIRMED THAT DUP-1 WAS COLLECTED FROM P-114 AND ADVISED THE LAB TO USE ONE OF THE DUP-1 METALS BOTTLES FOR THE TOTAL MANGANESE ANALYSIS ON P-114.

Sample ID / Description	Container Type	Cond. Code	pH OK?/Filtered?	Tests
345913 P-113A				
	UNPRES PL	1	/	Anions
	Total # of Containers of Type	(***UNPRES PL***) = **1**		
345913 P-113A				
	HNO3	1	/	ICP
	Total # of Containers of Type	(***HNO3***) = **1**		
345913 P-113A				
	H2SO4 PL	1	/	NO23
	Total # of Containers of Type	(***H2SO4 PL***) = **1**		
345913 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
345917 P-113B				
	UNPRES PL	1	/	Anions
	Total # of Containers of Type	(***UNPRES PL***) = **1**		
345917 P-113B				
	HNO3	1	/	ICP
	Total # of Containers of Type	(***HNO3***) = **1**		
345917 P-113B				
	H2SO4 PL	1	/	NO23
	Total # of Containers of Type	(***H2SO4 PL***) = **1**		
345917 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
345918 P-114				
	UNPRES PL	1	/	Anions
	Total # of Containers of Type	(***UNPRES PL***) = **1**		
345918 P-114				
	HNO3	1	/	ICP
	Total # of Containers of Type	(***HNO3***) = **1**		
345918 P-114				
	H2SO4 PL	1	/	NO23
	Total # of Containers of Type	(***H2SO4 PL***) = **1**		
345918 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
345919 P-116				
	UNPRES PL	1	/	Anions
	Total # of Containers of Type	(***UNPRES PL***) = **1**		
345919 P-116				
	HNO3	1	/	ICP
	Total # of Containers of Type	(***HNO3***) = **1**		
345919 P-116				
	H2SO4 PL	1	/	NO23
	Total # of Containers of Type	(***H2SO4 PL***) = **1**		
345919 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
345920 DUP-1				
	UNPRES PL	1	/	Anions
	Total # of Containers of Type	(***UNPRES PL***) = **1**		
345920 DUP-1				
	HNO3	1	/	ICP
	Total # of Containers of Type	(***HNO3***) = **1**		
345920 DUP-1				
	H2SO4 PL	1	/	NO23
	Total # of Containers of Type	(***H2SO4 PL***) = **1**		
345920 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

345921 P-115

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

345921 P-115

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

345921 P-115

H2SO4 PL	1	/	NO23
Total # of Containers of Type	**(*H2SO4 PL*) = 1**		

345921 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

345922 MW-3B

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

345922 MW-3B

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

345922 MW-3B

H2SO4 PL	1	/	NO23
Total # of Containers of Type	**(*H2SO4 PL*) = 1**		

345922 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

345923 MW-3A

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

345923 MW-3A

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

345923 MW-3A

H2SO4 PL	1	/	NO23
Total # of Containers of Type	**(*H2SO4 PL*) = 1**		

345923 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

345924 P-117

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

345924 P-117

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

345924 P-117

H2SO4 PL	1	/	NO23
Total # of Containers of Type	**(*H2SO4 PL*) = 1**		

345924 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

345925 P-118

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

345925 P-118

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

345925 P-118

H2SO4 PL	1	/	NO23
Total # of Containers of Type	**(*H2SO4 PL*) = 1**		

345925 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

345926 P-107D

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

345926 P-107D

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

345926 P-107D

H2SO4 PL	1	/	NO23
Total # of Containers of Type	**(*H2SO4 PL*) = 1**		

345926 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

345927 P-111D

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

345927	P-111D			
	HNO3	1	/	ICP
	Total # of Containers of Type	(***HNO3***) = **1**		
345927	P-111D			
	H2SO4 PL	1	/	NO23
	Total # of Containers of Type	(***H2SO4 PL***) = **1**		
345927	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**
345928 P-103D				
	UNPRES PL	1	/	Anions
	Total # of Containers of Type	(***UNPRES PL***) = **1**		
345928 P-103D				
	HNO3	1	/	ICP
	Total # of Containers of Type	(***HNO3***) = **1**		
345928 P-103D				
	H2SO4 PL	1	/	NO23
	Total # of Containers of Type	(***H2SO4 PL***) = **1**		
345928 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**
345967 TRIP BLANK				
	Trip Blank	1	/	VOC
	Trip Blank	1	/	VOC
	Trip Blank	1	/	VOC
	TRIP BLANK	1	/	VOC
	Total # of Containers of Type	(***TRIP BLANK***) = **4**		

Condition Code	*Condition Description*
1	Sample Received OK

Rev. 02/2017

CHAIN OF CUSTODY

Page 1 of 2

Company: TRC
Project Contact: Marita Stollenwerk
Telephone:
Project Name: Ripon NW/FF Landfill
Project #: 327275.0001.0004
Location: Ripon WI
Sampled By: A. Sobba/S. Roelke

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

Folder #: 149068
Company: TRC ENVIRONMENTA
Project: RIPON SUPERFUND LF
Logged By: JRB PM: BM

gram:
1 RCRA SDWA NPDES
l Waste Other _____
#

Report To: Marita Stollenwerk
EMAIL: mstollenwerk@trcompanies.com
Company: TRC
Address: 150 N. Patrick Blvd, Suite 180 Brookfield WI 53045
Invoice To:* TRC
EMAIL:
Company:
Address: Same

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

Client Special Instructions

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	Nitrate+Nitrite (EPA 353.2)	Sulfate (9056A)	T.Mn (6010C)	VOC Low Level (8260C)	Total # Containers	Designated MS/MSD	CT Lab ID # (Lab use only)
					Fill in Spaces with Bottles per Test								
10/21/19	8:18	FW	Grab	6	P-113A	W	X	X	X	X			345913
	8:33				P-113B								917
	10:28				P-114								918
	9:24				P-116								919
	—				Dup-1								920
	11:30				P-115								921
	13:03				MW-3B								922
	13:26				MW-3A								923
	14:46				P-117								924
	15:31				P-118								925
	16:29				P-1070								926
	17:16				P-111D								~~926~~ 927

Relinquished By:	Date/Time	Received By:	Date/Time
	10/22/19 1400	JRB	10/22/19 918
Received by:	Date/Time	Received for Laboratory by:	Date/Time
			10/22/19 800

Lab Use Only
Ice Present (Yes) No
Temp 1.8 IR Gun 27
Cooler # 6091

Rev. 02/2017

CHAIN OF CUSTODY

Page 2 of 2

Company: TRC
Project Contact:
Telephone:
Project Name: Ripon WWTF-LF
Project #: 327275.0001.0054
Location: Ripon WI
Sampled By: I. 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 #

Report To:
EMAIL:
Company:
Address:

Invoice To:*
EMAIL:
Company:
Address:

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

Client Special Instructions

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

Collection Date	Collection Time	Matrix	Grab/ Comp	Sample #	Sample ID Description	Filtered? Y/N	Nitrate (E) Nitrite	Sulfate	T. Mg	VOCs												Total # Containers	Designated MS/MSD	CT Lab ID # (Lab use only)
							Fill in Spaces with Bottles per Test																		
10/21/19	1801	GW	Grab	6	P-103D	N	X	X	X	X														345928
10/21/19		TB			TRIP BLANK					X														345967

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%

Relinquished By:	Date/Time	Received By:	Date/Time
	10/22/19 1400	JRB	10/22/19 918
Received by:	Date/Time	Received for Laboratory by:	Date/Time
		JRB CHB	10/22/19 800

Lab Use Only
Ice Present (Yes) No
Temp 1.8 IR Gun 27
Cooler # 6091

2655 Park Center Dr., Suite A
Simi Valley, CA 93065
T: +1 805 526 7161
www.alsglobal.com

LABORATORY REPORT

December 2, 2019

Dennis Linley
CT Laboratories
1230 Lange Court
Baraboo, WI 53913

RE: Ripon FF/NN Landfill / 327275.0001.0004

Dear Dennis:

Enclosed are the results of the samples submitted to our laboratory on November 7, 2019. For your reference, these analyses have been assigned our service request number P1906817.

All analyses were performed according to our laboratory's NELAP and DoD-ELAP-approved quality assurance program. The test results meet requirements of the current NELAP and DoD-ELAP standards, where applicable, and except as noted in the laboratory case narrative provided. For a specific list of NELAP and DoD-ELAP-accredited analytes, refer to the certifications section at www.alsglobal.com. Results are intended to be considered in their entirety and apply only to the samples analyzed and reported herein.

If you have any questions, please call me at (805) 526-7161.

Respectfully submitted,

ALS | Environmental

By Sue Anderson at 3:42 pm, Dec 02, 2019

Sue Anderson
Project Manager

2655 Park Center Dr., Suite A
Simi Valley, CA 93065
T: +1 805 526 7161
www.alsglobal.com

Client: CT Laboratories Service Request No: P1906817
Project: Ripon FF/NN Landfill / 327275.0001.0004

CASE NARRATIVE

The samples were received intact under chain of custody on November 7, 2019 and were stored in accordance with the analytical method requirements. Please refer to the sample acceptance check form for additional information. The results reported herein are applicable only to the condition of the samples at the time of sample receipt.

Volatile Organic Compound Analysis

The samples were analyzed for volatile organic compounds in accordance with EPA Method TO-15 from the Compendium of Methods for the Determination of Toxic Organic Compounds in Ambient Air, Second Edition (EPA/625/R-96/010b), January, 1999. This procedure is described in laboratory SOP VOA-TO15. The analytical system was comprised of a gas chromatograph / mass spectrometer (GC/MS) interfaced to a whole-air preconcentrator. This method is included on the laboratory's NELAP and DoD-ELAP scope of accreditation. Any analytes flagged with an X are not included on the NELAP or DoD-ELAP accreditation.

The containers were cleaned, prior to sampling, down to the method reporting limit (MRL) reported for this project. For projects requiring DoD QSM 5.1 compliance canisters were cleaned to <1/2 the MRL. Please note, projects which require reporting below the MRL could have results between the MRL and method detection limit (MDL) that are biased high.

2655 Park Center Dr., Suite A
Simi Valley, CA 93065
T: +1 805 526 7161
www.alsglobal.com

ALS Environmental – Simi Valley

CERTIFICATIONS, ACCREDITATIONS, AND REGISTRATIONS

Agency	Web Site	Number
Alaska DEC	http://dec.alaska.gov/eh/lab.aspx	17-019
Arizona DHS	http://www.azdhs.gov/preparedness/state-laboratory/lab-licensure-certification/index.php#laboratory-licensure-home	AZ0694
Florida DOH (NELAP)	http://www.floridahealth.gov/licensing-and-regulation/environmental-laboratories/index.html	E871020
Louisiana DEQ (NELAP)	http://www.deq.louisiana.gov/page/la-lab-accreditation	05071
Maine DHHS	http://www.maine.gov/dhhs/mecdc/environmental-health/dwp/professionals/labCert.shtml	2018027
Minnesota DOH (NELAP)	http://www.health.state.mn.us/accreditation	1521096
New Jersey DEP (NELAP)	http://www.nj.gov/dep/enforcement/oqa.html	CA009
New York DOH (NELAP)	http://www.wadsworth.org/labcert/elap/elap.html	11221
Oregon PHD (NELAP)	http://www.oregon.gov/oha/ph/LaboratoryServices/EnvironmentalLaboratoryAccreditation/Pages/index.aspx	4068-006
Pennsylvania DEP	http://www.dep.pa.gov/Business/OtherPrograms/Labs/Pages/Laboratory-Accreditation-Program.aspx	68-03307 (Registration)
PJLA (DoD ELAP)	http://www.pjlabs.com/search-accredited-labs	65818 (Testing)
Texas CEQ (NELAP)	http://www.tceq.texas.gov/agency/qa/env_lab_accreditation.html	T104704413-19-10
Utah DOH (NELAP)	http://health.utah.gov/lab/lab_cert_env	CA016272019-10
Washington DOE	http://www.ecy.wa.gov/programs/eap/labs/lab-accreditation.html	C946

Analyses were performed according to our laboratory's NELAP and DoD-ELAP approved quality assurance program. A complete listing of specific NELAP and DoD-ELAP certified analytes can be found in the certifications section at www.alsglobal.com, or at the accreditation body's website.

Each of the certifications listed above have an explicit Scope of Accreditation that applies to specific matrices/methods/analytes; therefore, please contact the laboratory for information corresponding to a particular certification.

ALS ENVIRONMENTAL

DETAIL SUMMARY REPORT

Client: CT Laboratories Service Request: P1906817

Project ID: Ripon FF/NN Landfill / 327275.0001.0004

Date Received: 11/7/2019

Time Received: 09:15

Client Sample ID	Lab Code	Matrix	Date Collected	Time Collected	Container ID	Pi1 (psig)	Pf1 (psig)	TO-15 - VOC Cans
GP-3	P1906817-001	Air	11/5/2019	11:35	1SC00702	-1.64	10.39	X
LC-3	P1906817-002	Air	11/5/2019	11:50	1SS00518	-1.22	5.39	X
LC-2	P1906817-003	Air	11/5/2019	12:02	1SS00019	-1.02	5.83	X
GV-6	P1906817-004	Air	11/5/2019	12:13	1SS00935	-1.39	5.30	X
LC-1	P1906817-005	Air	11/5/2019	12:54	1SS00052	-1.77	5.04	X

Air - Chain of Custody Record & Analytical Service Request

2655 Park Center Drive, Suite A
Simi Valley, California 93065
Phone (805) 526-7161

Requested Turnaround Time in Business Days (Surcharges) please circle
1 Day (100%) 2 Day (75%) 3 Day (50%) 4 Day (35%) 5 Day (25%) 10 Day-Standard

ALS Project No. P1906817

ALS Contact:

Company Name & Address (Reporting Information)	Project Name	Analysis Method
TRC Companies 700 Heartland Tr Madison WI 53717	Ryan FF/NW Landfill	
	Project Number 327275.0001.0004	
Project Manager Marita Stallenwerk	P.O. # / Billing Information 138000	
Phone (262) 879-1220	Fax	
Email Address for Result Reporting rpoppe@trccompanies.com	Sampler (Print & Sign) John Roelke	

Client Sample ID	Laboratory ID Number	Date Collected	Time Collected	Canister ID (Bar code # - AC, SC, etc.)	Flow Controller ID (Bar code # - FC #)	Canister Start Pressure "Hg	Canister End Pressure "Hg/psig	Sample Volume	Analysis Method		Comments e.g. Actual Preservative or specific instructions
GP-3	1	11/5/19	11:35	004155	01C00905	-28.49	-5.34	23.15	TO-15		
LC-3	2	"	11:50	15500518	01C00531	-28.84	-4.97	-23.87	TO-15		
LC-2	3	"	12:02	15500019	01C01460	-28.77	-4.94	-23.83	TO-15		
GV-6	4	"	12:13	15500935	AV605148	-28.67	-4.98	23.69	TO-15		
LC-1	5	"	12:54	15500053	01C01876	-28.79	-5.57	-23.22	TO-15		

5 of 34

Report Tier Levels - please select

Tier I - Results (Default if not specified) ____ Tier III (Results + QC & Calibration Summaries) ____
Tier II (Results + QC Summaries) ____ Tier IV (Data Validation Package) 10% Surcharge ____

EDD required Yes / No
Type: _____ Units: _____

Chain of Custody Seal: (Circle)
INTACT BROKEN ABSENT

Project Requirements (MRLs, QAPP)

Relinquished by: (Signature)	Date:	Time:	Received by: (Signature)	Date:	Time:
	11/5/19	1500		11/7/19	915
Relinquished by: (Signature)	Date:	Time:	Received by: (Signature)	Date:	Time:

Cooler / Blank Temperature ____ °C

ALS Environmental
Sample Acceptance Check Form

Client: CT Laboratories Work order: P1906817

Project: Ripon FF/NN Landfill / 327275.0001.0004

Sample(s) received on: 11/7/19 Date opened: 11/7/19 by: DENISE.POSADA

Note: This form is used for all samples received by ALS. The use of this form for custody seals is strictly meant to indicate presence/absence and not as an indication of compliance or nonconformity. Thermal preservation and pH will only be evaluated either at the request of the client and/or as required by the method/SOP.

		Yes	No	N/A
1	Were **sample containers** properly marked with client sample ID?	☒	☐	☐
2	Did **sample containers** arrive in good condition?	☒	☐	☐
3	Were **chain-of-custody** papers used and filled out?	☒	☐	☐
4	Did **sample container labels** and/or tags agree with custody papers?	☒	☐	☐
5	Was **sample volume** received adequate for analysis?	☒	☐	☐
6	Are samples within specified holding times?	☒	☐	☐
7	Was proper **temperature** (thermal preservation) of cooler at receipt adhered to?	☐	☐	☒
8	Were **custody seals** on outside of cooler/Box/Container?	☐	☐	☒
	Location of seal(s)? _____ Sealing Lid?	☐	☐	☒
	Were signature and date included?	☐	☐	☒
	Were seals intact?	☐	☐	☒
9	Do containers have appropriate **preservation**, according to method/SOP or Client specified information?	☐	☐	☒
	Is there a client indication that the submitted samples are **pH** preserved?	☐	☐	☒
	Were **VOA vials** checked for presence/absence of air bubbles?	☐	☐	☒
	Does the client/method/SOP require that the analyst check the sample pH and if necessary alter it?	☐	☐	☒
10	**Tubes:** Are the tubes capped and intact?	☐	☐	☒
11	**Badges:** Are the badges properly capped and intact?	☐	☐	☒
	Are dual bed badges separated and individually capped and intact?	☐	☐	☒

Lab Sample ID	Container Description	Required pH *	Received pH	Adjusted pH	VOA Headspace (Presence/Absence)	Receipt / Preservation Comments
P1906817-001.01	1.0 L Source Can					
P1906817-002.01	1.0 L Source Silonite Canister					
P1906817-003.01	1.0 L Source Silonite Canister					
P1906817-004.01	1.0 L Source Silonite Canister					
P1906817-005.01	1.0 L Source Silonite Canister					

Explain any discrepancies: (include lab sample ID numbers): _____

RSK - MEEPP, HCL (pH<2); RSK - CO2, (pH 5-8); Sulfur (pH>4)

ALS ENVIRONMENTAL

RESULTS OF ANALYSIS

Client: **CT Laboratories**
Client Sample ID: **GP-3** ALS Project ID: P1906817
Client Project ID: **Ripon FF/NN Landfill / 327275.0001.0004** ALS Sample ID: P1906817-001

Test Code: EPA TO-15 Date Collected: 11/5/19
Instrument ID: Tekmar AUTOCAN/Agilent 5973inert/6890N/MS9 Date Received: 11/7/19
Analyst: Simon Cao Date Analyzed: 11/27/19
Sample Type: 1.0 L Summa Canister Volume(s) Analyzed: 0.40 Liter(s)
Test Notes:
Container ID: 1SC00702

Initial Pressure (psig): -1.64 Final Pressure (psig): 10.39

Canister Dilution Factor: 1.92

CAS #	Compound	Result µg/m³	MRL µg/m³	Result ppbV	MRL ppbV	Data Qualifier
115-07-1	Propene	ND	2.5	ND	1.5	
75-71-8	Dichlorodifluoromethane (CFC 12)	ND	2.5	ND	0.51	
74-87-3	Chloromethane	ND	2.5	ND	1.2	
76-14-2	1,2-Dichloro-1,1,2,2-tetrafluoroethane (CFC 114)	ND	2.5	ND	0.36	
75-01-4	Vinyl Chloride	ND	2.6	ND	1.0	
106-99-0	1,3-Butadiene	ND	2.5	ND	1.2	
74-83-9	Bromomethane	ND	2.6	ND	0.67	
75-00-3	Chloroethane	ND	2.6	ND	0.98	
64-17-5	Ethanol	ND	25	ND	13	
75-05-8	Acetonitrile	ND	2.5	ND	1.5	
107-02-8	Acrolein	ND	4.8	ND	2.1	
67-64-1	Acetone	**33**	25	**14**	11	
75-69-4	Trichlorofluoromethane (CFC 11)	ND	2.5	ND	0.45	
67-63-0	2-Propanol (Isopropyl Alcohol)	ND	10	ND	4.1	
107-13-1	Acrylonitrile	ND	2.5	ND	1.2	
75-35-4	1,1-Dichloroethene	ND	2.6	ND	0.65	
75-09-2	Methylene Chloride	ND	2.5	ND	0.73	
107-05-1	3-Chloro-1-propene (Allyl Chloride)	ND	2.6	ND	0.83	
76-13-1	Trichlorotrifluoroethane (CFC 113)	ND	2.6	ND	0.34	
75-15-0	Carbon Disulfide	**7.5**	5.3	**2.4**	1.7	
156-60-5	trans-1,2-Dichloroethene	ND	2.6	ND	0.65	
75-34-3	1,1-Dichloroethane	ND	2.6	ND	0.65	
1634-04-4	Methyl tert-Butyl Ether	ND	2.6	ND	0.72	
108-05-4	Vinyl Acetate	ND	26	ND	7.4	
78-93-3	2-Butanone (MEK)	**6.0**	5.3	**2.0**	1.8	

ND = Compound was analyzed for, but not detected above the laboratory reporting limit.
MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

Client: **CT Laboratories**
Client Sample ID: **GP-3** ALS Project ID: P1906817
Client Project ID: **Ripon FF/NN Landfill / 327275.0001.0004** ALS Sample ID: P1906817-001

Test Code: EPA TO-15 Date Collected: 11/5/19
Instrument ID: Tekmar AUTOCAN/Agilent 5973inert/6890N/MS9 Date Received: 11/7/19
Analyst: Simon Cao Date Analyzed: 11/27/19
Sample Type: 1.0 L Summa Canister Volume(s) Analyzed: 0.40 Liter(s)
Test Notes:
Container ID: 1SC00702

Initial Pressure (psig): -1.64 Final Pressure (psig): 10.39

Canister Dilution Factor: 1.92

CAS #	Compound	Result µg/m³	MRL µg/m³	Result ppbV	MRL ppbV	Data Qualifier
156-59-2	cis-1,2-Dichloroethene	ND	2.5	ND	0.64	
141-78-6	Ethyl Acetate	ND	5.3	ND	1.5	
110-54-3	n-Hexane	ND	2.6	ND	0.74	
67-66-3	Chloroform	ND	2.6	ND	0.53	
109-99-9	Tetrahydrofuran (THF)	ND	2.6	ND	0.90	
107-06-2	1,2-Dichloroethane	ND	2.6	ND	0.64	
71-55-6	1,1,1-Trichloroethane	ND	2.6	ND	0.48	
71-43-2	Benzene	ND	2.5	ND	0.80	
56-23-5	Carbon Tetrachloride	ND	2.5	ND	0.40	
110-82-7	Cyclohexane	ND	5.3	ND	1.5	
78-87-5	1,2-Dichloropropane	ND	2.6	ND	0.56	
75-27-4	Bromodichloromethane	ND	2.6	ND	0.39	
79-01-6	Trichloroethene	ND	2.6	ND	0.48	
123-91-1	1,4-Dioxane	ND	2.6	ND	0.72	
80-62-6	Methyl Methacrylate	ND	5.3	ND	1.3	
142-82-5	n-Heptane	ND	2.6	ND	0.63	
10061-01-5	cis-1,3-Dichloropropene	ND	2.5	ND	0.55	
108-10-1	4-Methyl-2-pentanone	ND	2.5	ND	0.62	
10061-02-6	trans-1,3-Dichloropropene	ND	2.5	ND	0.56	
79-00-5	1,1,2-Trichloroethane	ND	2.6	ND	0.48	
108-88-3	Toluene	ND	2.6	ND	0.69	
591-78-6	2-Hexanone	ND	2.6	ND	0.63	
124-48-1	Dibromochloromethane	ND	2.6	ND	0.30	
106-93-4	1,2-Dibromoethane	ND	2.6	ND	0.34	
123-86-4	n-Butyl Acetate	ND	2.6	ND	0.56	

ND = Compound was analyzed for, but not detected above the laboratory reporting limit.
MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

ALS ENVIRONMENTAL

RESULTS OF ANALYSIS

Client: **CT Laboratories**
Client Sample ID: **GP-3** ALS Project ID: P1906817
Client Project ID: **Ripon FF/NN Landfill / 327275.0001.0004** ALS Sample ID: P1906817-001

Test Code: EPA TO-15 Date Collected: 11/5/19
Instrument ID: Tekmar AUTOCAN/Agilent 5973inert/6890N/MS9 Date Received: 11/7/19
Analyst: Simon Cao Date Analyzed: 11/27/19
Sample Type: 1.0 L Summa Canister Volume(s) Analyzed: 0.40 Liter(s)
Test Notes:
Container ID: 1SC00702

Initial Pressure (psig): -1.64 Final Pressure (psig): 10.39

Canister Dilution Factor: 1.92

CAS #	Compound	Result µg/m³	MRL µg/m³	Result ppbV	MRL ppbV	Data Qualifier
111-65-9	n-Octane	ND	2.6	ND	0.56	
127-18-4	Tetrachloroethene	ND	2.5	ND	0.37	
108-90-7	Chlorobenzene	ND	2.6	ND	0.56	
100-41-4	Ethylbenzene	ND	2.6	ND	0.60	
179601-23-1	m,p-Xylenes	ND	5.3	ND	1.2	
75-25-2	Bromoform	ND	2.6	ND	0.25	
100-42-5	Styrene	ND	2.5	ND	0.60	
95-47-6	o-Xylene	ND	2.6	ND	0.60	
111-84-2	n-Nonane	ND	2.6	ND	0.49	
79-34-5	1,1,2,2-Tetrachloroethane	ND	2.6	ND	0.38	
98-82-8	Cumene	ND	2.6	ND	0.53	
80-56-8	alpha-Pinene	ND	2.6	ND	0.47	
103-65-1	n-Propylbenzene	ND	2.6	ND	0.53	
622-96-8	4-Ethyltoluene	ND	2.6	ND	0.53	
108-67-8	1,3,5-Trimethylbenzene	ND	2.5	ND	0.52	
95-63-6	1,2,4-Trimethylbenzene	ND	2.6	ND	0.53	
100-44-7	Benzyl Chloride	ND	5.3	ND	1.0	
541-73-1	1,3-Dichlorobenzene	ND	2.6	ND	0.43	
106-46-7	1,4-Dichlorobenzene	ND	2.6	ND	0.43	
95-50-1	1,2-Dichlorobenzene	ND	2.6	ND	0.43	
5989-27-5	d-Limonene	ND	2.6	ND	0.47	
96-12-8	1,2-Dibromo-3-chloropropane	ND	2.5	ND	0.26	
120-82-1	1,2,4-Trichlorobenzene	ND	2.6	ND	0.35	
91-20-3	Naphthalene	ND	2.5	ND	0.48	
87-68-3	Hexachlorobutadiene	ND	2.5	ND	0.24	

ND = Compound was analyzed for, but not detected above the laboratory reporting limit.
MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

ALS ENVIRONMENTAL

RESULTS OF ANALYSIS

Client: **CT Laboratories**
Client Sample ID: **LC-3** ALS Project ID: P1906817
Client Project ID: **Ripon FF/NN Landfill / 327275.0001.0004** ALS Sample ID: P1906817-002

Test Code: EPA TO-15 Date Collected: 11/5/19
Instrument ID: Tekmar AUTOCAN/Agilent 5973inert/6890N/MS9 Date Received: 11/7/19
Analyst: Simon Cao Date Analyzed: 11/27/19
Sample Type: 1.0 L Silonite Summa Canister Volume(s) Analyzed: 0.40 Liter(s)
Test Notes:
Container ID: 1SS00518

Initial Pressure (psig): -1.22 Final Pressure (psig): 5.39

Canister Dilution Factor: 1.49

CAS #	Compound	Result µg/m³	MRL µg/m³	Result ppbV	MRL ppbV	Data Qualifier
115-07-1	Propene	ND	2.0	ND	1.1	
75-71-8	Dichlorodifluoromethane (CFC 12)	**2.4**	2.0	**0.49**	0.40	
74-87-3	Chloromethane	ND	2.0	ND	0.96	
76-14-2	1,2-Dichloro-1,1,2,2-tetrafluoroethane (CFC 114)	ND	2.0	ND	0.28	
75-01-4	Vinyl Chloride	ND	2.0	ND	0.79	
106-99-0	1,3-Butadiene	ND	2.0	ND	0.89	
74-83-9	Bromomethane	ND	2.0	ND	0.52	
75-00-3	Chloroethane	ND	2.0	ND	0.76	
64-17-5	Ethanol	ND	19	ND	10	
75-05-8	Acetonitrile	ND	2.0	ND	1.2	
107-02-8	Acrolein	ND	3.7	ND	1.6	
67-64-1	Acetone	ND	20	ND	8.3	
75-69-4	Trichlorofluoromethane (CFC 11)	ND	2.0	ND	0.35	
67-63-0	2-Propanol (Isopropyl Alcohol)	ND	7.8	ND	3.2	
107-13-1	Acrylonitrile	ND	2.0	ND	0.91	
75-35-4	1,1-Dichloroethene	ND	2.0	ND	0.51	
75-09-2	Methylene Chloride	ND	2.0	ND	0.57	
107-05-1	3-Chloro-1-propene (Allyl Chloride)	ND	2.0	ND	0.64	
76-13-1	Trichlorotrifluoroethane (CFC 113)	ND	2.0	ND	0.26	
75-15-0	Carbon Disulfide	ND	4.1	ND	1.3	
156-60-5	trans-1,2-Dichloroethene	ND	2.0	ND	0.51	
75-34-3	1,1-Dichloroethane	ND	2.0	ND	0.51	
1634-04-4	Methyl tert-Butyl Ether	ND	2.0	ND	0.56	
108-05-4	Vinyl Acetate	ND	20	ND	5.7	
78-93-3	2-Butanone (MEK)	ND	4.1	ND	1.4	

ND = Compound was analyzed for, but not detected above the laboratory reporting limit.
MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

ALS ENVIRONMENTAL

RESULTS OF ANALYSIS

Client: **CT Laboratories**
Client Sample ID: **LC-3** ALS Project ID: P1906817
Client Project ID: **Ripon FF/NN Landfill / 327275.0001.0004** ALS Sample ID: P1906817-002

Test Code: EPA TO-15 Date Collected: 11/5/19
Instrument ID: Tekmar AUTOCAN/Agilent 5973inert/6890N/MS9 Date Received: 11/7/19
Analyst: Simon Cao Date Analyzed: 11/27/19
Sample Type: 1.0 L Silonite Summa Canister Volume(s) Analyzed: 0.40 Liter(s)
Test Notes:
Container ID: 1SS00518

Initial Pressure (psig): -1.22 Final Pressure (psig): 5.39

Canister Dilution Factor: 1.49

CAS #	Compound	Result µg/m³	MRL µg/m³	Result ppbV	MRL ppbV	Data Qualifier
156-59-2	cis-1,2-Dichloroethene	ND	2.0	ND	0.50	
141-78-6	Ethyl Acetate	ND	4.1	ND	1.1	
110-54-3	n-Hexane	ND	2.0	ND	0.57	
67-66-3	Chloroform	ND	2.0	ND	0.41	
109-99-9	Tetrahydrofuran (THF)	ND	2.0	ND	0.69	
107-06-2	1,2-Dichloroethane	ND	2.0	ND	0.50	
71-55-6	1,1,1-Trichloroethane	ND	2.0	ND	0.37	
71-43-2	Benzene	ND	2.0	ND	0.62	
56-23-5	Carbon Tetrachloride	ND	2.0	ND	0.31	
110-82-7	Cyclohexane	ND	4.1	ND	1.2	
78-87-5	1,2-Dichloropropane	ND	2.0	ND	0.44	
75-27-4	Bromodichloromethane	ND	2.0	ND	0.30	
79-01-6	Trichloroethene	ND	2.0	ND	0.37	
123-91-1	1,4-Dioxane	ND	2.0	ND	0.56	
80-62-6	Methyl Methacrylate	ND	4.1	ND	1.0	
142-82-5	n-Heptane	ND	2.0	ND	0.49	
10061-01-5	cis-1,3-Dichloropropene	ND	1.9	ND	0.43	
108-10-1	4-Methyl-2-pentanone	ND	2.0	ND	0.48	
10061-02-6	trans-1,3-Dichloropropene	ND	2.0	ND	0.44	
79-00-5	1,1,2-Trichloroethane	ND	2.0	ND	0.37	
108-88-3	Toluene	ND	2.0	ND	0.53	
591-78-6	2-Hexanone	ND	2.0	ND	0.49	
124-48-1	Dibromochloromethane	ND	2.0	ND	0.24	
106-93-4	1,2-Dibromoethane	ND	2.0	ND	0.26	
123-86-4	n-Butyl Acetate	ND	2.0	ND	0.43	

ND = Compound was analyzed for, but not detected above the laboratory reporting limit.
MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

ALS ENVIRONMENTAL

RESULTS OF ANALYSIS

Client: **CT Laboratories**
Client Sample ID: **LC-3** ALS Project ID: P1906817
Client Project ID: **Ripon FF/NN Landfill / 327275.0001.0004** ALS Sample ID: P1906817-002

Test Code: EPA TO-15 Date Collected: 11/5/19
Instrument ID: Tekmar AUTOCAN/Agilent 5973inert/6890N/MS9 Date Received: 11/7/19
Analyst: Simon Cao Date Analyzed: 11/27/19
Sample Type: 1.0 L Silonite Summa Canister Volume(s) Analyzed: 0.40 Liter(s)
Test Notes:
Container ID: 1SS00518

Initial Pressure (psig): -1.22 Final Pressure (psig): 5.39

Canister Dilution Factor: 1.49

CAS #	Compound	Result µg/m³	MRL µg/m³	Result ppbV	MRL ppbV	Data Qualifier
111-65-9	n-Octane	ND	2.0	ND	0.43	
127-18-4	Tetrachloroethene	ND	1.9	ND	0.29	
108-90-7	Chlorobenzene	ND	2.0	ND	0.44	
100-41-4	Ethylbenzene	ND	2.0	ND	0.46	
179601-23-1	m,p-Xylenes	ND	4.1	ND	0.94	
75-25-2	Bromoform	ND	2.0	ND	0.19	
100-42-5	Styrene	ND	2.0	ND	0.46	
95-47-6	o-Xylene	ND	2.0	ND	0.46	
111-84-2	n-Nonane	ND	2.0	ND	0.38	
79-34-5	1,1,2,2-Tetrachloroethane	ND	2.0	ND	0.29	
98-82-8	Cumene	ND	2.0	ND	0.41	
80-56-8	alpha-Pinene	ND	2.0	ND	0.36	
103-65-1	n-Propylbenzene	ND	2.0	ND	0.41	
622-96-8	4-Ethyltoluene	ND	2.0	ND	0.41	
108-67-8	1,3,5-Trimethylbenzene	ND	2.0	ND	0.40	
95-63-6	1,2,4-Trimethylbenzene	ND	2.0	ND	0.41	
100-44-7	Benzyl Chloride	ND	4.1	ND	0.79	
541-73-1	1,3-Dichlorobenzene	ND	2.0	ND	0.33	
106-46-7	1,4-Dichlorobenzene	ND	2.0	ND	0.33	
95-50-1	1,2-Dichlorobenzene	ND	2.0	ND	0.33	
5989-27-5	d-Limonene	ND	2.0	ND	0.36	
96-12-8	1,2-Dibromo-3-chloropropane	ND	2.0	ND	0.20	
120-82-1	1,2,4-Trichlorobenzene	ND	2.0	ND	0.27	
91-20-3	Naphthalene	ND	1.9	ND	0.37	
87-68-3	Hexachlorobutadiene	ND	2.0	ND	0.19	

ND = Compound was analyzed for, but not detected above the laboratory reporting limit.
MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

ALS ENVIRONMENTAL

RESULTS OF ANALYSIS

Client: **CT Laboratories**
Client Sample ID: **LC-2** ALS Project ID: P1906817
Client Project ID: **Ripon FF/NN Landfill / 327275.0001.0004** ALS Sample ID: P1906817-003

Test Code: EPA TO-15 Date Collected: 11/5/19
Instrument ID: Tekmar AUTOCAN/Agilent 5973inert/6890N/MS9 Date Received: 11/7/19
Analyst: Simon Cao/Wida Ang Date Analyzed: 11/27/19 & 12/1/19
Sample Type: 1.0 L Silonite Summa Canister Volume(s) Analyzed: 0.050 Liter(s)
Test Notes: 0.015 Liter(s)
Container ID: 1SS00019

Initial Pressure (psig): -1.02 Final Pressure (psig): 5.83

Canister Dilution Factor: 1.50

CAS #	Compound	Result µg/m³	MRL µg/m³	Result ppbV	MRL ppbV	Data Qualifier
115-07-1	Propene	ND	16	ND	9.2	
75-71-8	Dichlorodifluoromethane (CFC 12)	**970**	16	**200**	3.2	
74-87-3	Chloromethane	ND	16	ND	7.7	
76-14-2	1,2-Dichloro-1,1,2,2-tetrafluoroethane (CFC 114)	ND	16	ND	2.3	
75-01-4	Vinyl Chloride	ND	16	ND	6.3	
106-99-0	1,3-Butadiene	ND	16	ND	7.2	
74-83-9	Bromomethane	ND	16	ND	4.2	
75-00-3	Chloroethane	**440**	16	**170**	6.1	
64-17-5	Ethanol	ND	160	ND	83	
75-05-8	Acetonitrile	ND	16	ND	9.5	
107-02-8	Acrolein	ND	30	ND	13	
67-64-1	Acetone	ND	160	ND	67	
75-69-4	Trichlorofluoromethane (CFC 11)	ND	16	ND	2.8	
67-63-0	2-Propanol (Isopropyl Alcohol)	ND	63	ND	26	
107-13-1	Acrylonitrile	ND	16	ND	7.3	
75-35-4	1,1-Dichloroethene	ND	16	ND	4.1	
75-09-2	Methylene Chloride	ND	16	ND	4.6	
107-05-1	3-Chloro-1-propene (Allyl Chloride)	ND	16	ND	5.2	
76-13-1	Trichlorotrifluoroethane (CFC 113)	ND	16	ND	2.1	
75-15-0	Carbon Disulfide	ND	33	ND	11	
156-60-5	trans-1,2-Dichloroethene	ND	16	ND	4.1	
75-34-3	1,1-Dichloroethane	**19**	17	**4.7**	4.1	
1634-04-4	Methyl tert-Butyl Ether	ND	16	ND	4.5	
108-05-4	Vinyl Acetate	ND	160	ND	46	
78-93-3	2-Butanone (MEK)	ND	33	ND	11	

ND = Compound was analyzed for, but not detected above the laboratory reporting limit.
MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

ALS ENVIRONMENTAL

RESULTS OF ANALYSIS

Client: **CT Laboratories**
Client Sample ID: **LC-2** ALS Project ID: P1906817
Client Project ID: **Ripon FF/NN Landfill / 327275.0001.0004** ALS Sample ID: P1906817-003

Test Code: EPA TO-15 Date Collected: 11/5/19
Instrument ID: Tekmar AUTOCAN/Agilent 5973inert/6890N/MS9 Date Received: 11/7/19
Analyst: Simon Cao/Wida Ang Date Analyzed: 11/27/19 & 12/1/19
Sample Type: 1.0 L Silonite Summa Canister Volume(s) Analyzed: 0.050 Liter(s)
Test Notes: 0.015 Liter(s)
Container ID: 1SS00019

Initial Pressure (psig): -1.02 Final Pressure (psig): 5.83

Canister Dilution Factor: 1.50

CAS #	Compound	Result µg/m³	MRL µg/m³	Result ppbV	MRL ppbV	Data Qualifier
156-59-2	cis-1,2-Dichloroethene	ND	16	ND	4.0	
141-78-6	Ethyl Acetate	ND	33	ND	9.2	
110-54-3	n-Hexane	**4,800**	54	**1,400**	15	**D**
67-66-3	Chloroform	ND	16	ND	3.3	
109-99-9	Tetrahydrofuran (THF)	**180**	17	**60**	5.6	
107-06-2	1,2-Dichloroethane	ND	16	ND	4.0	
71-55-6	1,1,1-Trichloroethane	ND	16	ND	3.0	
71-43-2	Benzene	**710**	16	**220**	5.0	
56-23-5	Carbon Tetrachloride	ND	16	ND	2.5	
110-82-7	Cyclohexane	**1,300**	33	**390**	9.6	
78-87-5	1,2-Dichloropropane	ND	16	ND	3.5	
75-27-4	Bromodichloromethane	ND	16	ND	2.4	
79-01-6	Trichloroethene	ND	16	ND	3.0	
123-91-1	1,4-Dioxane	ND	16	ND	4.5	
80-62-6	Methyl Methacrylate	ND	33	ND	8.1	
142-82-5	n-Heptane	**2,900**	16	**700**	4.0	
10061-01-5	cis-1,3-Dichloropropene	ND	16	ND	3.4	
108-10-1	4-Methyl-2-pentanone	ND	16	ND	3.9	
10061-02-6	trans-1,3-Dichloropropene	ND	16	ND	3.5	
79-00-5	1,1,2-Trichloroethane	ND	16	ND	3.0	
108-88-3	Toluene	**260**	16	**69**	4.3	
591-78-6	2-Hexanone	ND	16	ND	4.0	
124-48-1	Dibromochloromethane	ND	16	ND	1.9	
106-93-4	1,2-Dibromoethane	ND	16	ND	2.1	
123-86-4	n-Butyl Acetate	ND	17	ND	3.5	

ND = Compound was analyzed for, but not detected above the laboratory reporting limit.
MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

D = The reported result is from a dilution.

Client: **CT Laboratories**
Client Sample ID: **LC-2** ALS Project ID: P1906817
Client Project ID: **Ripon FF/NN Landfill / 327275.0001.0004** ALS Sample ID: P1906817-003

Test Code: EPA TO-15 Date Collected: 11/5/19
Instrument ID: Tekmar AUTOCAN/Agilent 5973inert/6890N/MS9 Date Received: 11/7/19
Analyst: Simon Cao/Wida Ang Date Analyzed: 11/27/19 & 12/1/19
Sample Type: 1.0 L Silonite Summa Canister Volume(s) Analyzed: 0.050 Liter(s)
Test Notes: 0.015 Liter(s)
Container ID: 1SS00019

Initial Pressure (psig): -1.02 Final Pressure (psig): 5.83

Canister Dilution Factor: 1.50

CAS #	Compound	Result µg/m³	MRL µg/m³	Result ppbV	MRL ppbV	Data Qualifier
111-65-9	n-Octane	**1,200**	16	**260**	3.5	
127-18-4	Tetrachloroethene	ND	16	ND	2.3	
108-90-7	Chlorobenzene	**680**	16	**150**	3.5	
100-41-4	Ethylbenzene	**550**	16	**130**	3.7	
179601-23-1	m,p-Xylenes	**5,300**	33	**1,200**	7.6	
75-25-2	Bromoform	ND	16	ND	1.6	
100-42-5	Styrene	ND	16	ND	3.7	
95-47-6	o-Xylene	**180**	16	**41**	3.7	
111-84-2	n-Nonane	**840**	16	**160**	3.1	
79-34-5	1,1,2,2-Tetrachloroethane	ND	16	ND	2.4	
98-82-8	Cumene	**340**	16	**70**	3.3	
80-56-8	alpha-Pinene	ND	16	ND	2.9	
103-65-1	n-Propylbenzene	**230**	16	**46**	3.3	
622-96-8	4-Ethyltoluene	**130**	16	**27**	3.3	
108-67-8	1,3,5-Trimethylbenzene	**140**	16	**29**	3.2	
95-63-6	1,2,4-Trimethylbenzene	**410**	16	**83**	3.3	
100-44-7	Benzyl Chloride	ND	33	ND	6.4	
541-73-1	1,3-Dichlorobenzene	ND	16	ND	2.7	
106-46-7	1,4-Dichlorobenzene	ND	16	ND	2.7	
95-50-1	1,2-Dichlorobenzene	ND	16	ND	2.7	
5989-27-5	d-Limonene	ND	16	ND	2.9	
96-12-8	1,2-Dibromo-3-chloropropane	ND	16	ND	1.6	
120-82-1	1,2,4-Trichlorobenzene	ND	16	ND	2.2	
91-20-3	Naphthalene	ND	16	ND	3.0	
87-68-3	Hexachlorobutadiene	ND	16	ND	1.5	

ND = Compound was analyzed for, but not detected above the laboratory reporting limit.
MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

ALS ENVIRONMENTAL

RESULTS OF ANALYSIS

Client: **CT Laboratories**
Client Sample ID: **GV-6** ALS Project ID: P1906817
Client Project ID: **Ripon FF/NN Landfill / 327275.0001.0004** ALS Sample ID: P1906817-004

Test Code: EPA TO-15 Date Collected: 11/5/19
Instrument ID: Tekmar AUTOCAN/Agilent 5973inert/6890N/MS9 Date Received: 11/7/19
Analyst: Simon Cao/Wida Ang Date Analyzed: 11/27/19 & 12/1/19
Sample Type: 1.0 L Silonite Summa Canister Volume(s) Analyzed: 0.40 Liter(s)
Test Notes: 0.040 Liter(s)
Container ID: 1SS00935

Initial Pressure (psig): -1.39 Final Pressure (psig): 5.30

Canister Dilution Factor: 1.50

CAS #	Compound	Result µg/m³	MRL µg/m³	Result ppbV	MRL ppbV	Data Qualifier
115-07-1	Propene	**400**	20	**230**	12	**D**
75-71-8	Dichlorodifluoromethane (CFC 12)	**160**	2.0	**33**	0.40	
74-87-3	Chloromethane	ND	2.0	ND	0.96	
76-14-2	1,2-Dichloro-1,1,2,2-tetrafluoroethane (CFC 114)	ND	2.0	ND	0.28	
75-01-4	Vinyl Chloride	**17**	2.0	**6.5**	0.79	
106-99-0	1,3-Butadiene	ND	2.0	ND	0.90	
74-83-9	Bromomethane	ND	2.0	ND	0.52	
75-00-3	Chloroethane	**29**	2.0	**11**	0.77	
64-17-5	Ethanol	ND	20	ND	10	
75-05-8	Acetonitrile	ND	2.0	ND	1.2	
107-02-8	Acrolein	ND	3.8	ND	1.6	
67-64-1	Acetone	ND	20	ND	8.4	
75-69-4	Trichlorofluoromethane (CFC 11)	**3.8**	2.0	**0.68**	0.35	
67-63-0	2-Propanol (Isopropyl Alcohol)	ND	7.9	ND	3.2	
107-13-1	Acrylonitrile	ND	2.0	ND	0.92	
75-35-4	1,1-Dichloroethene	ND	2.0	ND	0.51	
75-09-2	Methylene Chloride	ND	2.0	ND	0.57	
107-05-1	3-Chloro-1-propene (Allyl Chloride)	ND	2.0	ND	0.65	
76-13-1	Trichlorotrifluoroethane (CFC 113)	ND	2.0	ND	0.26	
75-15-0	Carbon Disulfide	ND	4.1	ND	1.3	
156-60-5	trans-1,2-Dichloroethene	ND	2.0	ND	0.51	
75-34-3	1,1-Dichloroethane	**6.6**	2.1	**1.6**	0.51	
1634-04-4	Methyl tert-Butyl Ether	ND	2.0	ND	0.56	
108-05-4	Vinyl Acetate	ND	20	ND	5.8	
78-93-3	2-Butanone (MEK)	ND	4.1	ND	1.4	

ND = Compound was analyzed for, but not detected above the laboratory reporting limit.
MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

D = The reported result is from a dilution.

Client: **CT Laboratories**
Client Sample ID: **GV-6** ALS Project ID: P1906817
Client Project ID: **Ripon FF/NN Landfill / 327275.0001.0004** ALS Sample ID: P1906817-004

Test Code: EPA TO-15 Date Collected: 11/5/19
Instrument ID: Tekmar AUTOCAN/Agilent 5973inert/6890N/MS9 Date Received: 11/7/19
Analyst: Simon Cao/Wida Ang Date Analyzed: 11/27/19 & 12/1/19
Sample Type: 1.0 L Silonite Summa Canister Volume(s) Analyzed: 0.40 Liter(s)
Test Notes: 0.040 Liter(s)
Container ID: 1SS00935

Initial Pressure (psig): -1.39 Final Pressure (psig): 5.30

Canister Dilution Factor: 1.50

CAS #	Compound	Result µg/m³	MRL µg/m³	Result ppbV	MRL ppbV	Data Qualifier
156-59-2	cis-1,2-Dichloroethene	ND	2.0	ND	0.50	
141-78-6	Ethyl Acetate	ND	4.1	ND	1.1	
110-54-3	n-Hexane	**380**	2.0	**110**	0.57	
67-66-3	Chloroform	ND	2.0	ND	0.41	
109-99-9	Tetrahydrofuran (THF)	**2.8**	2.1	**0.94**	0.70	
107-06-2	1,2-Dichloroethane	ND	2.0	ND	0.50	
71-55-6	1,1,1-Trichloroethane	ND	2.0	ND	0.37	
71-43-2	Benzene	**13**	2.0	**4.2**	0.62	
56-23-5	Carbon Tetrachloride	ND	2.0	ND	0.32	
110-82-7	Cyclohexane	**180**	4.1	**53**	1.2	
78-87-5	1,2-Dichloropropane	ND	2.0	ND	0.44	
75-27-4	Bromodichloromethane	ND	2.0	ND	0.30	
79-01-6	Trichloroethene	**6.3**	2.0	**1.2**	0.38	
123-91-1	1,4-Dioxane	ND	2.0	ND	0.56	
80-62-6	Methyl Methacrylate	ND	4.1	ND	1.0	
142-82-5	n-Heptane	**160**	2.0	**39**	0.49	
10061-01-5	cis-1,3-Dichloropropene	ND	2.0	ND	0.43	
108-10-1	4-Methyl-2-pentanone	ND	2.0	ND	0.49	
10061-02-6	trans-1,3-Dichloropropene	ND	2.0	ND	0.44	
79-00-5	1,1,2-Trichloroethane	ND	2.0	ND	0.37	
108-88-3	Toluene	ND	2.0	ND	0.54	
591-78-6	2-Hexanone	ND	2.0	ND	0.49	
124-48-1	Dibromochloromethane	ND	2.0	ND	0.24	
106-93-4	1,2-Dibromoethane	ND	2.0	ND	0.26	
123-86-4	n-Butyl Acetate	ND	2.1	ND	0.43	

ND = Compound was analyzed for, but not detected above the laboratory reporting limit.
MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

ALS ENVIRONMENTAL

RESULTS OF ANALYSIS

Client: **CT Laboratories**
Client Sample ID: **GV-6** ALS Project ID: P1906817
Client Project ID: **Ripon FF/NN Landfill / 327275.0001.0004** ALS Sample ID: P1906817-004

Test Code: EPA TO-15 Date Collected: 11/5/19
Instrument ID: Tekmar AUTOCAN/Agilent 5973inert/6890N/MS9 Date Received: 11/7/19
Analyst: Simon Cao/Wida Ang Date Analyzed: 11/27/19 & 12/1/19
Sample Type: 1.0 L Silonite Summa Canister Volume(s) Analyzed: 0.40 Liter(s)
Test Notes: 0.040 Liter(s)
Container ID: 1SS00935

Initial Pressure (psig): -1.39 Final Pressure (psig): 5.30

Canister Dilution Factor: 1.50

CAS #	Compound	Result µg/m³	MRL µg/m³	Result ppbV	MRL ppbV	Data Qualifier
111-65-9	n-Octane	**61**	2.0	**13**	0.43	
127-18-4	Tetrachloroethene	ND	2.0	ND	0.29	
108-90-7	Chlorobenzene	**14**	2.0	**3.0**	0.44	
100-41-4	Ethylbenzene	**16**	2.0	**3.7**	0.47	
179601-23-1	m,p-Xylenes	**42**	4.1	**9.7**	0.95	
75-25-2	Bromoform	ND	2.0	ND	0.20	
100-42-5	Styrene	ND	2.0	ND	0.47	
95-47-6	o-Xylene	ND	2.0	ND	0.47	
111-84-2	n-Nonane	ND	2.0	ND	0.39	
79-34-5	1,1,2,2-Tetrachloroethane	ND	2.0	ND	0.30	
98-82-8	Cumene	**6.7**	2.0	**1.4**	0.41	
80-56-8	alpha-Pinene	ND	2.0	ND	0.36	
103-65-1	n-Propylbenzene	ND	2.0	ND	0.41	
622-96-8	4-Ethyltoluene	ND	2.0	ND	0.41	
108-67-8	1,3,5-Trimethylbenzene	ND	2.0	ND	0.40	
95-63-6	1,2,4-Trimethylbenzene	ND	2.0	ND	0.41	
100-44-7	Benzyl Chloride	ND	4.1	ND	0.80	
541-73-1	1,3-Dichlorobenzene	ND	2.0	ND	0.34	
106-46-7	1,4-Dichlorobenzene	ND	2.0	ND	0.34	
95-50-1	1,2-Dichlorobenzene	ND	2.0	ND	0.34	
5989-27-5	d-Limonene	ND	2.0	ND	0.36	
96-12-8	1,2-Dibromo-3-chloropropane	ND	2.0	ND	0.21	
120-82-1	1,2,4-Trichlorobenzene	ND	2.0	ND	0.27	
91-20-3	Naphthalene	ND	2.0	ND	0.37	
87-68-3	Hexachlorobutadiene	ND	2.0	ND	0.19	

ND = Compound was analyzed for, but not detected above the laboratory reporting limit.
MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

ALS ENVIRONMENTAL

RESULTS OF ANALYSIS

Client: **CT Laboratories**
Client Sample ID: **LC-1** ALS Project ID: P1906817
Client Project ID: **Ripon FF/NN Landfill / 327275.0001.0004** ALS Sample ID: P1906817-005

Test Code: EPA TO-15 Date Collected: 11/5/19
Instrument ID: Tekmar AUTOCAN/Agilent 5973inert/6890N/MS9 Date Received: 11/7/19
Analyst: Simon Cao/Wida Ang Date Analyzed: 11/27/19 & 12/1/19
Sample Type: 1.0 L Silonite Summa Canister Volume(s) Analyzed: 0.40 Liter(s)
Test Notes: 0.040 Liter(s)
Container ID: 1SS00052

Initial Pressure (psig): -1.77 Final Pressure (psig): 5.04

Canister Dilution Factor: 1.53

CAS #	Compound	Result µg/m³	MRL µg/m³	Result ppbV	MRL ppbV	Data Qualifier
115-07-1	Propene	**380**	20	**220**	12	**D**
75-71-8	Dichlorodifluoromethane (CFC 12)	**350**	2.0	**72**	0.41	
74-87-3	Chloromethane	ND	2.0	ND	0.98	
76-14-2	1,2-Dichloro-1,1,2,2-tetrafluoroethane (CFC 114)	ND	2.0	ND	0.29	
75-01-4	Vinyl Chloride	**9.1**	2.1	**3.6**	0.81	
106-99-0	1,3-Butadiene	ND	2.0	ND	0.92	
74-83-9	Bromomethane	ND	2.1	ND	0.53	
75-00-3	Chloroethane	**41**	2.1	**15**	0.78	
64-17-5	Ethanol	ND	20	ND	11	
75-05-8	Acetonitrile	ND	2.0	ND	1.2	
107-02-8	Acrolein	ND	3.8	ND	1.7	
67-64-1	Acetone	**20**	20	**8.6**	8.5	
75-69-4	Trichlorofluoromethane (CFC 11)	ND	2.0	ND	0.36	
67-63-0	2-Propanol (Isopropyl Alcohol)	ND	8.0	ND	3.3	
107-13-1	Acrylonitrile	ND	2.0	ND	0.93	
75-35-4	1,1-Dichloroethene	ND	2.1	ND	0.52	
75-09-2	Methylene Chloride	ND	2.0	ND	0.58	
107-05-1	3-Chloro-1-propene (Allyl Chloride)	ND	2.1	ND	0.66	
76-13-1	Trichlorotrifluoroethane (CFC 113)	ND	2.1	ND	0.27	
75-15-0	Carbon Disulfide	ND	4.2	ND	1.4	
156-60-5	trans-1,2-Dichloroethene	ND	2.1	ND	0.52	
75-34-3	1,1-Dichloroethane	**11**	2.1	**2.8**	0.52	
1634-04-4	Methyl tert-Butyl Ether	ND	2.1	ND	0.57	
108-05-4	Vinyl Acetate	ND	21	ND	5.9	
78-93-3	2-Butanone (MEK)	**5.8**	4.2	**2.0**	1.4	

ND = Compound was analyzed for, but not detected above the laboratory reporting limit.
MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

D = The reported result is from a dilution.

Client: **CT Laboratories**

Client Sample ID: **LC-1** ALS Project ID: P1906817

Client Project ID: **Ripon FF/NN Landfill / 327275.0001.0004** ALS Sample ID: P1906817-005

Test Code:	EPA TO-15	Date Collected:	11/5/19
Instrument ID:	Tekmar AUTOCAN/Agilent 5973inert/6890N/MS9	Date Received:	11/7/19
Analyst:	Simon Cao/Wida Ang	Date Analyzed:	11/27/19 & 12/1/19
Sample Type:	1.0 L Silonite Summa Canister	Volume(s) Analyzed:	0.40 Liter(s)
Test Notes:			0.040 Liter(s)
Container ID:	1SS00052		

Initial Pressure (psig): -1.77 Final Pressure (psig): 5.04

Canister Dilution Factor: 1.53

CAS #	Compound	Result µg/m³	MRL µg/m³	Result ppbV	MRL ppbV	Data Qualifier
156-59-2	cis-1,2-Dichloroethene	**6.9**	2.0	**1.7**	0.51	
141-78-6	Ethyl Acetate	ND	4.2	ND	1.2	
110-54-3	n-Hexane	**530**	21	**150**	5.9	**D**
67-66-3	Chloroform	ND	2.1	ND	0.42	
109-99-9	Tetrahydrofuran (THF)	**30**	2.1	**10**	0.71	
107-06-2	1,2-Dichloroethane	ND	2.1	ND	0.51	
71-55-6	1,1,1-Trichloroethane	ND	2.1	ND	0.38	
71-43-2	Benzene	**210**	2.0	**66**	0.63	
56-23-5	Carbon Tetrachloride	ND	2.0	ND	0.32	
110-82-7	Cyclohexane	**280**	4.2	**82**	1.2	
78-87-5	1,2-Dichloropropane	ND	2.1	ND	0.45	
75-27-4	Bromodichloromethane	ND	2.1	ND	0.31	
79-01-6	Trichloroethene	**9.2**	2.1	**1.7**	0.38	
123-91-1	1,4-Dioxane	ND	2.1	ND	0.57	
80-62-6	Methyl Methacrylate	ND	4.2	ND	1.0	
142-82-5	n-Heptane	**390**	2.1	**96**	0.50	
10061-01-5	cis-1,3-Dichloropropene	ND	2.0	ND	0.44	
108-10-1	4-Methyl-2-pentanone	ND	2.0	ND	0.49	
10061-02-6	trans-1,3-Dichloropropene	ND	2.0	ND	0.45	
79-00-5	1,1,2-Trichloroethane	ND	2.1	ND	0.38	
108-88-3	Toluene	**61**	2.1	**16**	0.55	
591-78-6	2-Hexanone	ND	2.1	ND	0.50	
124-48-1	Dibromochloromethane	ND	2.1	ND	0.24	
106-93-4	1,2-Dibromoethane	ND	2.1	ND	0.27	
123-86-4	n-Butyl Acetate	ND	2.1	ND	0.44	

ND = Compound was analyzed for, but not detected above the laboratory reporting limit.

MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

D = The reported result is from a dilution.

ALS ENVIRONMENTAL

RESULTS OF ANALYSIS

Client: **CT Laboratories**
Client Sample ID: **LC-1** ALS Project ID: P1906817
Client Project ID: **Ripon FF/NN Landfill / 327275.0001.0004** ALS Sample ID: P1906817-005

Test Code: EPA TO-15 Date Collected: 11/5/19
Instrument ID: Tekmar AUTOCAN/Agilent 5973inert/6890N/MS9 Date Received: 11/7/19
Analyst: Simon Cao/Wida Ang Date Analyzed: 11/27/19 & 12/1/19
Sample Type: 1.0 L Silonite Summa Canister Volume(s) Analyzed: 0.40 Liter(s)
Test Notes: 0.040 Liter(s)
Container ID: 1SS00052

Initial Pressure (psig): -1.77 Final Pressure (psig): 5.04

Canister Dilution Factor: 1.53

CAS #	Compound	Result µg/m³	MRL µg/m³	Result ppbV	MRL ppbV	Data Qualifier
111-65-9	n-Octane	**310**	2.1	**67**	0.44	
127-18-4	Tetrachloroethene	ND	2.0	ND	0.29	
108-90-7	Chlorobenzene	**34**	2.1	**7.5**	0.45	
100-41-4	Ethylbenzene	**170**	2.1	**40**	0.48	
179601-23-1	m,p-Xylenes	**300**	4.2	**69**	0.97	
75-25-2	Bromoform	ND	2.1	ND	0.20	
100-42-5	Styrene	ND	2.0	ND	0.48	
95-47-6	o-Xylene	**31**	2.1	**7.0**	0.48	
111-84-2	n-Nonane	**98**	2.1	**19**	0.39	
79-34-5	1,1,2,2-Tetrachloroethane	ND	2.1	ND	0.30	
98-82-8	Cumene	**7.1**	2.1	**1.4**	0.42	
80-56-8	alpha-Pinene	ND	2.1	ND	0.37	
103-65-1	n-Propylbenzene	**5.0**	2.1	**1.0**	0.42	
622-96-8	4-Ethyltoluene	**3.5**	2.1	**0.72**	0.42	
108-67-8	1,3,5-Trimethylbenzene	**8.0**	2.0	**1.6**	0.41	
95-63-6	1,2,4-Trimethylbenzene	**12**	2.1	**2.5**	0.42	
100-44-7	Benzyl Chloride	ND	4.2	ND	0.81	
541-73-1	1,3-Dichlorobenzene	ND	2.1	ND	0.34	
106-46-7	1,4-Dichlorobenzene	ND	2.1	ND	0.34	
95-50-1	1,2-Dichlorobenzene	ND	2.1	ND	0.34	
5989-27-5	d-Limonene	ND	2.1	ND	0.37	
96-12-8	1,2-Dibromo-3-chloropropane	ND	2.0	ND	0.21	
120-82-1	1,2,4-Trichlorobenzene	ND	2.1	ND	0.28	
91-20-3	Naphthalene	ND	2.0	ND	0.38	
87-68-3	Hexachlorobutadiene	ND	2.0	ND	0.19	

ND = Compound was analyzed for, but not detected above the laboratory reporting limit.
MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

ALS ENVIRONMENTAL

RESULTS OF ANALYSIS

Client: **CT Laboratories**

Client Sample ID: **Method Blank**

Client Project ID: **Ripon FF/NN Landfill / 327275.0001.0004**

ALS Project ID: P1906817

ALS Sample ID: P191127-MB

Test Code: EPA TO-15

Instrument ID: Tekmar AUTOCAN/Agilent 5973inert/6890N/MS9

Analyst: Simon Cao

Sample Type: 1.0 L Summa Canister

Test Notes:

Date Collected: NA

Date Received: NA

Date Analyzed: 11/27/19

Volume(s) Analyzed: 1.00 Liter(s)

Canister Dilution Factor: 1.00

CAS #	Compound	Result µg/m³	MRL µg/m³	Result ppbV	MRL ppbV	Data Qualifier
115-07-1	Propene	ND	0.53	ND	0.31	
75-71-8	Dichlorodifluoromethane (CFC 12)	ND	0.53	ND	0.11	
74-87-3	Chloromethane	ND	0.53	ND	0.26	
76-14-2	1,2-Dichloro-1,1,2,2-tetrafluoroethane (CFC 114)	ND	0.53	ND	0.076	
75-01-4	Vinyl Chloride	ND	0.54	ND	0.21	
106-99-0	1,3-Butadiene	ND	0.53	ND	0.24	
74-83-9	Bromomethane	ND	0.54	ND	0.14	
75-00-3	Chloroethane	ND	0.54	ND	0.20	
64-17-5	Ethanol	ND	5.2	ND	2.8	
75-05-8	Acetonitrile	ND	0.53	ND	0.32	
107-02-8	Acrolein	ND	1.0	ND	0.44	
67-64-1	Acetone	ND	5.3	ND	2.2	
75-69-4	Trichlorofluoromethane (CFC 11)	ND	0.53	ND	0.094	
67-63-0	2-Propanol (Isopropyl Alcohol)	ND	2.1	ND	0.85	
107-13-1	Acrylonitrile	ND	0.53	ND	0.24	
75-35-4	1,1-Dichloroethene	ND	0.54	ND	0.14	
75-09-2	Methylene Chloride	ND	0.53	ND	0.15	
107-05-1	3-Chloro-1-propene (Allyl Chloride)	ND	0.54	ND	0.17	
76-13-1	Trichlorotrifluoroethane (CFC 113)	ND	0.54	ND	0.070	
75-15-0	Carbon Disulfide	ND	1.1	ND	0.35	
156-60-5	trans-1,2-Dichloroethene	ND	0.54	ND	0.14	
75-34-3	1,1-Dichloroethane	ND	0.55	ND	0.14	
1634-04-4	Methyl tert-Butyl Ether	ND	0.54	ND	0.15	
108-05-4	Vinyl Acetate	ND	5.4	ND	1.5	
78-93-3	2-Butanone (MEK)	ND	1.1	ND	0.37	

ND = Compound was analyzed for, but not detected above the laboratory reporting limit.

MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

Client: **CT Laboratories**

Client Sample ID: **Method Blank** ALS Project ID: P1906817

Client Project ID: **Ripon FF/NN Landfill / 327275.0001.0004** ALS Sample ID: P191127-MB

Test Code: EPA TO-15 Date Collected: NA

Instrument ID: Tekmar AUTOCAN/Agilent 5973inert/6890N/MS9 Date Received: NA

Analyst: Simon Cao Date Analyzed: 11/27/19

Sample Type: 1.0 L Summa Canister Volume(s) Analyzed: 1.00 Liter(s)

Test Notes:

Canister Dilution Factor: 1.00

CAS #	Compound	Result µg/m³	MRL µg/m³	Result ppbV	MRL ppbV	Data Qualifier
156-59-2	cis-1,2-Dichloroethene	ND	0.53	ND	0.13	
141-78-6	Ethyl Acetate	ND	1.1	ND	0.31	
110-54-3	n-Hexane	ND	0.54	ND	0.15	
67-66-3	Chloroform	ND	0.54	ND	0.11	
109-99-9	Tetrahydrofuran (THF)	ND	0.55	ND	0.19	
107-06-2	1,2-Dichloroethane	ND	0.54	ND	0.13	
71-55-6	1,1,1-Trichloroethane	ND	0.54	ND	0.099	
71-43-2	Benzene	ND	0.53	ND	0.17	
56-23-5	Carbon Tetrachloride	ND	0.53	ND	0.084	
110-82-7	Cyclohexane	ND	1.1	ND	0.32	
78-87-5	1,2-Dichloropropane	ND	0.54	ND	0.12	
75-27-4	Bromodichloromethane	ND	0.54	ND	0.081	
79-01-6	Trichloroethene	ND	0.54	ND	0.10	
123-91-1	1,4-Dioxane	ND	0.54	ND	0.15	
80-62-6	Methyl Methacrylate	ND	1.1	ND	0.27	
142-82-5	n-Heptane	ND	0.54	ND	0.13	
10061-01-5	cis-1,3-Dichloropropene	ND	0.52	ND	0.11	
108-10-1	4-Methyl-2-pentanone	ND	0.53	ND	0.13	
10061-02-6	trans-1,3-Dichloropropene	ND	0.53	ND	0.12	
79-00-5	1,1,2-Trichloroethane	ND	0.54	ND	0.099	
108-88-3	Toluene	ND	0.54	ND	0.14	
591-78-6	2-Hexanone	ND	0.54	ND	0.13	
124-48-1	Dibromochloromethane	ND	0.54	ND	0.063	
106-93-4	1,2-Dibromoethane	ND	0.54	ND	0.070	
123-86-4	n-Butyl Acetate	ND	0.55	ND	0.12	

ND = Compound was analyzed for, but not detected above the laboratory reporting limit.

MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

Client: **CT Laboratories**

Client Sample ID: **Method Blank** ALS Project ID: P1906817

Client Project ID: **Ripon FF/NN Landfill / 327275.0001.0004** ALS Sample ID: P191127-MB

Test Code: EPA TO-15 Date Collected: NA

Instrument ID: Tekmar AUTOCAN/Agilent 5973inert/6890N/MS9 Date Received: NA

Analyst: Simon Cao Date Analyzed: 11/27/19

Sample Type: 1.0 L Summa Canister Volume(s) Analyzed: 1.00 Liter(s)

Test Notes:

Canister Dilution Factor: 1.00

CAS #	Compound	**Result µg/m³**	MRL µg/m³	**Result ppbV**	MRL ppbV	**Data Qualifier**
111-65-9	n-Octane	ND	0.54	ND	0.12	
127-18-4	Tetrachloroethene	ND	0.52	ND	0.077	
108-90-7	Chlorobenzene	ND	0.54	ND	0.12	
100-41-4	Ethylbenzene	ND	0.54	ND	0.12	
179601-23-1	m,p-Xylenes	ND	1.1	ND	0.25	
75-25-2	Bromoform	ND	0.54	ND	0.052	
100-42-5	Styrene	ND	0.53	ND	0.12	
95-47-6	o-Xylene	ND	0.54	ND	0.12	
111-84-2	n-Nonane	ND	0.54	ND	0.10	
79-34-5	1,1,2,2-Tetrachloroethane	ND	0.54	ND	0.079	
98-82-8	Cumene	ND	0.54	ND	0.11	
80-56-8	alpha-Pinene	ND	0.54	ND	0.097	
103-65-1	n-Propylbenzene	ND	0.54	ND	0.11	
622-96-8	4-Ethyltoluene	ND	0.54	ND	0.11	
108-67-8	1,3,5-Trimethylbenzene	ND	0.53	ND	0.11	
95-63-6	1,2,4-Trimethylbenzene	ND	0.54	ND	0.11	
100-44-7	Benzyl Chloride	ND	1.1	ND	0.21	
541-73-1	1,3-Dichlorobenzene	ND	0.54	ND	0.090	
106-46-7	1,4-Dichlorobenzene	ND	0.54	ND	0.090	
95-50-1	1,2-Dichlorobenzene	ND	0.54	ND	0.090	
5989-27-5	d-Limonene	ND	0.54	ND	0.097	
96-12-8	1,2-Dibromo-3-chloropropane	ND	0.53	ND	0.055	
120-82-1	1,2,4-Trichlorobenzene	ND	0.54	ND	0.073	
91-20-3	Naphthalene	ND	0.52	ND	0.099	
87-68-3	Hexachlorobutadiene	ND	0.53	ND	0.050	

ND = Compound was analyzed for, but not detected above the laboratory reporting limit.

MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

ALS ENVIRONMENTAL

RESULTS OF ANALYSIS

Client: **CT Laboratories**
Client Sample ID: **Method Blank** ALS Project ID: P1906817
Client Project ID: **Ripon FF/NN Landfill / 327275.0001.0004** ALS Sample ID: P191201-MB

Test Code: EPA TO-15 Date Collected: NA
Instrument ID: Tekmar AUTOCAN/Agilent 5973inert/6890N/MS9 Date Received: NA
Analyst: Wida Ang Date Analyzed: 12/1/19
Sample Type: 1.0 L Silonite Summa Canister Volume(s) Analyzed: 1.00 Liter(s)
Test Notes:

Canister Dilution Factor: 1.00

CAS #	Compound	Result µg/m³	MRL µg/m³	Result ppbV	MRL ppbV	Data Qualifier
115-07-1	Propene	ND	0.53	ND	0.31	
75-71-8	Dichlorodifluoromethane (CFC 12)	ND	0.53	ND	0.11	
74-87-3	Chloromethane	ND	0.53	ND	0.26	
76-14-2	1,2-Dichloro-1,1,2,2-tetrafluoroethane (CFC 114)	ND	0.53	ND	0.076	
75-01-4	Vinyl Chloride	ND	0.54	ND	0.21	
106-99-0	1,3-Butadiene	ND	0.53	ND	0.24	
74-83-9	Bromomethane	ND	0.54	ND	0.14	
75-00-3	Chloroethane	ND	0.54	ND	0.20	
64-17-5	Ethanol	ND	5.2	ND	2.8	
75-05-8	Acetonitrile	ND	0.53	ND	0.32	
107-02-8	Acrolein	ND	1.0	ND	0.44	
67-64-1	Acetone	ND	5.3	ND	2.2	
75-69-4	Trichlorofluoromethane (CFC 11)	ND	0.53	ND	0.094	
67-63-0	2-Propanol (Isopropyl Alcohol)	ND	2.1	ND	0.85	
107-13-1	Acrylonitrile	ND	0.53	ND	0.24	
75-35-4	1,1-Dichloroethene	ND	0.54	ND	0.14	
75-09-2	Methylene Chloride	ND	0.53	ND	0.15	
107-05-1	3-Chloro-1-propene (Allyl Chloride)	ND	0.54	ND	0.17	
76-13-1	Trichlorotrifluoroethane (CFC 113)	ND	0.54	ND	0.070	
75-15-0	Carbon Disulfide	ND	1.1	ND	0.35	
156-60-5	trans-1,2-Dichloroethene	ND	0.54	ND	0.14	
75-34-3	1,1-Dichloroethane	ND	0.55	ND	0.14	
1634-04-4	Methyl tert-Butyl Ether	ND	0.54	ND	0.15	
108-05-4	Vinyl Acetate	ND	5.4	ND	1.5	
78-93-3	2-Butanone (MEK)	ND	1.1	ND	0.37	

ND = Compound was analyzed for, but not detected above the laboratory reporting limit.
MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

Client: **CT Laboratories**

Client Sample ID: **Method Blank** ALS Project ID: P1906817

Client Project ID: **Ripon FF/NN Landfill / 327275.0001.0004** ALS Sample ID: P191201-MB

Test Code: EPA TO-15 Date Collected: NA

Instrument ID: Tekmar AUTOCAN/Agilent 5973inert/6890N/MS9 Date Received: NA

Analyst: Wida Ang Date Analyzed: 12/1/19

Sample Type: 1.0 L Silonite Summa Canister Volume(s) Analyzed: 1.00 Liter(s)

Test Notes:

Canister Dilution Factor: 1.00

CAS #	Compound	Result µg/m³	MRL µg/m³	Result ppbV	MRL ppbV	Data Qualifier
156-59-2	cis-1,2-Dichloroethene	ND	0.53	ND	0.13	
141-78-6	Ethyl Acetate	ND	1.1	ND	0.31	
110-54-3	n-Hexane	ND	0.54	ND	0.15	
67-66-3	Chloroform	ND	0.54	ND	0.11	
109-99-9	Tetrahydrofuran (THF)	ND	0.55	ND	0.19	
107-06-2	1,2-Dichloroethane	ND	0.54	ND	0.13	
71-55-6	1,1,1-Trichloroethane	ND	0.54	ND	0.099	
71-43-2	Benzene	ND	0.53	ND	0.17	
56-23-5	Carbon Tetrachloride	ND	0.53	ND	0.084	
110-82-7	Cyclohexane	ND	1.1	ND	0.32	
78-87-5	1,2-Dichloropropane	ND	0.54	ND	0.12	
75-27-4	Bromodichloromethane	ND	0.54	ND	0.081	
79-01-6	Trichloroethene	ND	0.54	ND	0.10	
123-91-1	1,4-Dioxane	ND	0.54	ND	0.15	
80-62-6	Methyl Methacrylate	ND	1.1	ND	0.27	
142-82-5	n-Heptane	ND	0.54	ND	0.13	
10061-01-5	cis-1,3-Dichloropropene	ND	0.52	ND	0.11	
108-10-1	4-Methyl-2-pentanone	ND	0.53	ND	0.13	
10061-02-6	trans-1,3-Dichloropropene	ND	0.53	ND	0.12	
79-00-5	1,1,2-Trichloroethane	ND	0.54	ND	0.099	
108-88-3	Toluene	ND	0.54	ND	0.14	
591-78-6	2-Hexanone	ND	0.54	ND	0.13	
124-48-1	Dibromochloromethane	ND	0.54	ND	0.063	
106-93-4	1,2-Dibromoethane	ND	0.54	ND	0.070	
123-86-4	n-Butyl Acetate	ND	0.55	ND	0.12	

ND = Compound was analyzed for, but not detected above the laboratory reporting limit.

MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

Client: **CT Laboratories**

Client Sample ID: **Method Blank** ALS Project ID: P1906817

Client Project ID: **Ripon FF/NN Landfill / 327275.0001.0004** ALS Sample ID: P191201-MB

Test Code:	EPA TO-15	Date Collected:	NA
Instrument ID:	Tekmar AUTOCAN/Agilent 5973inert/6890N/MS9	Date Received:	NA
Analyst:	Wida Ang	Date Analyzed:	12/1/19
Sample Type:	1.0 L Silonite Summa Canister	Volume(s) Analyzed:	1.00 Liter(s)
Test Notes:			

Canister Dilution Factor: 1.00

CAS #	Compound	Result µg/m³	MRL µg/m³	Result ppbV	MRL ppbV	Data Qualifier
111-65-9	n-Octane	ND	0.54	ND	0.12	
127-18-4	Tetrachloroethene	ND	0.52	ND	0.077	
108-90-7	Chlorobenzene	ND	0.54	ND	0.12	
100-41-4	Ethylbenzene	ND	0.54	ND	0.12	
179601-23-1	m,p-Xylenes	ND	1.1	ND	0.25	
75-25-2	Bromoform	ND	0.54	ND	0.052	
100-42-5	Styrene	ND	0.53	ND	0.12	
95-47-6	o-Xylene	ND	0.54	ND	0.12	
111-84-2	n-Nonane	ND	0.54	ND	0.10	
79-34-5	1,1,2,2-Tetrachloroethane	ND	0.54	ND	0.079	
98-82-8	Cumene	ND	0.54	ND	0.11	
80-56-8	alpha-Pinene	ND	0.54	ND	0.097	
103-65-1	n-Propylbenzene	ND	0.54	ND	0.11	
622-96-8	4-Ethyltoluene	ND	0.54	ND	0.11	
108-67-8	1,3,5-Trimethylbenzene	ND	0.53	ND	0.11	
95-63-6	1,2,4-Trimethylbenzene	ND	0.54	ND	0.11	
100-44-7	Benzyl Chloride	ND	1.1	ND	0.21	
541-73-1	1,3-Dichlorobenzene	ND	0.54	ND	0.090	
106-46-7	1,4-Dichlorobenzene	ND	0.54	ND	0.090	
95-50-1	1,2-Dichlorobenzene	ND	0.54	ND	0.090	
5989-27-5	d-Limonene	ND	0.54	ND	0.097	
96-12-8	1,2-Dibromo-3-chloropropane	ND	0.53	ND	0.055	
120-82-1	1,2,4-Trichlorobenzene	ND	0.54	ND	0.073	
91-20-3	Naphthalene	ND	0.52	ND	0.099	
87-68-3	Hexachlorobutadiene	ND	0.53	ND	0.050	

ND = Compound was analyzed for, but not detected above the laboratory reporting limit.

MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

ALS ENVIRONMENTAL

SURROGATE SPIKE RECOVERY RESULTS

Client: **CT Laboratories**
Client Project ID: **Ripon FF/NN Landfill / 327275.0001.0004** ALS Project ID: P1906817

Test Code: EPA TO-15
Instrument ID: Tekmar AUTOCAN/Agilent 5973inert/6890N/MS9 Date(s) Collected: 11/5/19
Analyst: Simon Cao/Wida Ang Date(s) Received: 11/7/19
Sample Type: 1.0 L Summa Canister(s) / 1.0 L Silonite Summa Canister(s) Date(s) Analyzed: 11/27 - 12/1/19
Test Notes:

Client Sample ID	ALS Sample ID	1,2-Dichloroethane-d4 Percent Recovered	Toluene-d8 Percent Recovered	Bromofluorobenzene Percent Recovered	Acceptance Limits	Data Qualifier
Method Blank	P191127-MB	**101**	**101**	**101**	70-130	
Method Blank	P191201-MB	**99**	**103**	**101**	70-130	
Lab Control Sample	P191127-LCS	**98**	**100**	**102**	70-130	
Lab Control Sample	P191201-LCS	**97**	**103**	**103**	70-130	
GP-3	P1906817-001	**99**	**100**	**101**	70-130	
LC-3	P1906817-002	**99**	**101**	**102**	70-130	
LC-2	P1906817-003	**98**	**88**	**88**	70-130	
GV-6	P1906817-004	**96**	**82**	**84**	70-130	
LC-1	P1906817-005	**95**	**82**	**84**	70-130	

Surrogate percent recovery is verified and accepted based on the on-column result.
Reported results are shown in concentration units and as a result of the calculation, may vary slightly from the on-column percent recovery.

ALS ENVIRONMENTAL

LABORATORY CONTROL SAMPLE SUMMARY

Client: **CT Laboratories**
Client Sample ID: **Lab Control Sample** ALS Project ID: P1906817
Client Project ID: **Ripon FF/NN Landfill / 327275.0001.0004** ALS Sample ID: P191127-LCS

Test Code: EPA TO-15 Date Collected: NA
Instrument ID: Tekmar AUTOCAN/Agilent 5973inert/6890N/MS9 Date Received: NA
Analyst: Simon Cao Date Analyzed: 11/27/19
Sample Type: 1.0 L Summa Canister Volume(s) Analyzed: 0.125 Liter(s)
Test Notes:

CAS #	Compound	Spike Amount µg/m³	Result µg/m³	% Recovery	ALS Acceptance Limits	Data Qualifier
115-07-1	Propene	210	**187**	**89**	53-112	
75-71-8	Dichlorodifluoromethane (CFC 12)	210	**209**	**100**	62-103	
74-87-3	Chloromethane	212	**194**	**92**	51-121	
76-14-2	1,2-Dichloro-1,1,2,2-tetrafluoroethane (CFC 114)	206	**201**	**98**	56-111	
75-01-4	Vinyl Chloride	212	**203**	**96**	57-117	
106-99-0	1,3-Butadiene	212	**208**	**98**	53-134	
74-83-9	Bromomethane	212	**206**	**97**	65-110	
75-00-3	Chloroethane	214	**195**	**91**	64-111	
64-17-5	Ethanol	1,060	**987**	**93**	57-124	
75-05-8	Acetonitrile	214	**185**	**86**	57-126	
107-02-8	Acrolein	206	**191**	**93**	62-121	
67-64-1	Acetone	1,070	**979**	**91**	60-113	
75-69-4	Trichlorofluoromethane (CFC 11)	212	**209**	**99**	63-104	
67-63-0	2-Propanol (Isopropyl Alcohol)	422	**401**	**95**	60-124	
107-13-1	Acrylonitrile	212	**199**	**94**	66-125	
75-35-4	1,1-Dichloroethene	214	**208**	**97**	68-107	
75-09-2	Methylene Chloride	210	**209**	**100**	66-105	
107-05-1	3-Chloro-1-propene (Allyl Chloride)	214	**195**	**91**	63-127	
76-13-1	Trichlorotrifluoroethane (CFC 113)	216	**217**	**100**	59-109	
75-15-0	Carbon Disulfide	212	**210**	**99**	67-109	
156-60-5	trans-1,2-Dichloroethene	214	**220**	**103**	70-115	
75-34-3	1,1-Dichloroethane	212	**201**	**95**	66-106	
1634-04-4	Methyl tert-Butyl Ether	214	**213**	**100**	67-109	
108-05-4	Vinyl Acetate	1,070	**1140**	**107**	68-136	
78-93-3	2-Butanone (MEK)	212	**217**	**102**	71-116	

Laboratory Control Sample percent recovery is verified and accepted based on the on-column result.
Reported results are shown in concentration units and as a result of the calculation, may vary slightly.

Client: **CT Laboratories**
Client Sample ID: **Lab Control Sample** ALS Project ID: P1906817
Client Project ID: **Ripon FF/NN Landfill / 327275.0001.0004** ALS Sample ID: P191127-LCS

Test Code: EPA TO-15 Date Collected: NA
Instrument ID: Tekmar AUTOCAN/Agilent 5973inert/6890N/MS9 Date Received: NA
Analyst: Simon Cao Date Analyzed: 11/27/19
Sample Type: 1.0 L Summa Canister Volume(s) Analyzed: 0.125 Liter(s)
Test Notes:

CAS #	Compound	Spike Amount µg/m³	**Result µg/m³**	**% Recovery**	ALS Acceptance Limits	**Data Qualifier**
156-59-2	cis-1,2-Dichloroethene	212	**199**	**94**	67-110	
141-78-6	Ethyl Acetate	432	**457**	**106**	64-127	
110-54-3	n-Hexane	216	**208**	**96**	60-115	
67-66-3	Chloroform	214	**210**	**98**	66-105	
109-99-9	Tetrahydrofuran (THF)	220	**215**	**98**	65-110	
107-06-2	1,2-Dichloroethane	214	**215**	**100**	60-110	
71-55-6	1,1,1-Trichloroethane	214	**222**	**104**	64-108	
71-43-2	Benzene	210	**203**	**97**	67-106	
56-23-5	Carbon Tetrachloride	208	**216**	**104**	64-112	
110-82-7	Cyclohexane	422	**424**	**100**	67-110	
78-87-5	1,2-Dichloropropane	214	**212**	**99**	66-112	
75-27-4	Bromodichloromethane	218	**220**	**101**	67-113	
79-01-6	Trichloroethene	216	**218**	**101**	66-108	
123-91-1	1,4-Dioxane	216	**225**	**104**	70-116	
80-62-6	Methyl Methacrylate	430	**464**	**108**	73-118	
142-82-5	n-Heptane	214	**212**	**99**	66-110	
10061-01-5	cis-1,3-Dichloropropene	214	**232**	**108**	75-120	
108-10-1	4-Methyl-2-pentanone	212	**215**	**101**	65-124	
10061-02-6	trans-1,3-Dichloropropene	212	**232**	**109**	77-123	
79-00-5	1,1,2-Trichloroethane	214	**218**	**102**	68-112	
108-88-3	Toluene	212	**212**	**100**	62-111	
591-78-6	2-Hexanone	216	**214**	**99**	59-128	
124-48-1	Dibromochloromethane	214	**231**	**108**	67-123	
106-93-4	1,2-Dibromoethane	214	**229**	**107**	66-122	
123-86-4	n-Butyl Acetate	218	**226**	**104**	64-128	

Laboratory Control Sample percent recovery is verified and accepted based on the on-column result.
Reported results are shown in concentration units and as a result of the calculation, may vary slightly.

Client: **CT Laboratories**
Client Sample ID: **Lab Control Sample** ALS Project ID: P1906817
Client Project ID: **Ripon FF/NN Landfill / 327275.0001.0004** ALS Sample ID: P191127-LCS

Test Code: EPA TO-15 Date Collected: NA
Instrument ID: Tekmar AUTOCAN/Agilent 5973inert/6890N/MS9 Date Received: NA
Analyst: Simon Cao Date Analyzed: 11/27/19
Sample Type: 1.0 L Summa Canister Volume(s) Analyzed: 0.125 Liter(s)
Test Notes:

CAS #	Compound	Spike Amount µg/m³	**Result µg/m³**	**% Recovery**	ALS Acceptance Limits	**Data Qualifier**
111-65-9	n-Octane	216	**205**	**95**	65-114	
127-18-4	Tetrachloroethene	208	**211**	**101**	55-120	
108-90-7	Chlorobenzene	214	**213**	**100**	61-114	
100-41-4	Ethylbenzene	212	**215**	**101**	64-113	
179601-23-1	m,p-Xylenes	426	**433**	**102**	64-114	
75-25-2	Bromoform	214	**240**	**112**	65-132	
100-42-5	Styrene	212	**221**	**104**	67-124	
95-47-6	o-Xylene	214	**215**	**100**	65-114	
111-84-2	n-Nonane	214	**199**	**93**	64-117	
79-34-5	1,1,2,2-Tetrachloroethane	214	**221**	**103**	66-119	
98-82-8	Cumene	214	**217**	**101**	61-116	
80-56-8	alpha-Pinene	212	**226**	**107**	65-120	
103-65-1	n-Propylbenzene	214	**218**	**102**	63-117	
622-96-8	4-Ethyltoluene	210	**206**	**98**	63-124	
108-67-8	1,3,5-Trimethylbenzene	212	**213**	**100**	60-117	
95-63-6	1,2,4-Trimethylbenzene	212	**224**	**106**	61-122	
100-44-7	Benzyl Chloride	214	**241**	**113**	77-142	
541-73-1	1,3-Dichlorobenzene	214	**225**	**105**	61-125	
106-46-7	1,4-Dichlorobenzene	214	**221**	**103**	59-123	
95-50-1	1,2-Dichlorobenzene	214	**225**	**105**	61-126	
5989-27-5	d-Limonene	212	**211**	**100**	66-124	
96-12-8	1,2-Dibromo-3-chloropropane	214	**233**	**109**	67-138	
120-82-1	1,2,4-Trichlorobenzene	216	**233**	**108**	62-141	
91-20-3	Naphthalene	212	**236**	**111**	62-145	
87-68-3	Hexachlorobutadiene	214	**216**	**101**	49-131	

Laboratory Control Sample percent recovery is verified and accepted based on the on-column result.
Reported results are shown in concentration units and as a result of the calculation, may vary slightly.

ALS ENVIRONMENTAL

LABORATORY CONTROL SAMPLE SUMMARY

Client: **CT Laboratories**
Client Sample ID: **Lab Control Sample** ALS Project ID: P1906817
Client Project ID: **Ripon FF/NN Landfill / 327275.0001.0004** ALS Sample ID: P191201-LCS

Test Code: EPA TO-15 Date Collected: NA
Instrument ID: Tekmar AUTOCAN/Agilent 5973inert/6890N/MS9 Date Received: NA
Analyst: Wida Ang Date Analyzed: 12/1/19
Sample Type: 1.0 L Silonite Summa Canister Volume(s) Analyzed: 0.125 Liter(s)
Test Notes:

CAS #	Compound	Spike Amount µg/m³	**Result µg/m³**	**% Recovery**	ALS Acceptance Limits	**Data Qualifier**
115-07-1	Propene	210	**179**	**85**	53-112	
75-71-8	Dichlorodifluoromethane (CFC 12)	210	**207**	**99**	62-103	
74-87-3	Chloromethane	212	**183**	**86**	51-121	
76-14-2	1,2-Dichloro-1,1,2,2-tetrafluoroethane (CFC 114)	206	**201**	**98**	56-111	
75-01-4	Vinyl Chloride	212	**196**	**92**	57-117	
106-99-0	1,3-Butadiene	212	**199**	**94**	53-134	
74-83-9	Bromomethane	212	**205**	**97**	65-110	
75-00-3	Chloroethane	214	**189**	**88**	64-111	
64-17-5	Ethanol	1,060	**942**	**89**	57-124	
75-05-8	Acetonitrile	214	**177**	**83**	57-126	
107-02-8	Acrolein	206	**184**	**89**	62-121	
67-64-1	Acetone	1,070	**947**	**89**	60-113	
75-69-4	Trichlorofluoromethane (CFC 11)	212	**207**	**98**	63-104	
67-63-0	2-Propanol (Isopropyl Alcohol)	422	**385**	**91**	60-124	
107-13-1	Acrylonitrile	212	**192**	**91**	66-125	
75-35-4	1,1-Dichloroethene	214	**207**	**97**	68-107	
75-09-2	Methylene Chloride	210	**205**	**98**	66-105	
107-05-1	3-Chloro-1-propene (Allyl Chloride)	214	**185**	**86**	63-127	
76-13-1	Trichlorotrifluoroethane (CFC 113)	216	**218**	**101**	59-109	
75-15-0	Carbon Disulfide	212	**207**	**98**	67-109	
156-60-5	trans-1,2-Dichloroethene	214	**213**	**100**	70-115	
75-34-3	1,1-Dichloroethane	212	**196**	**92**	66-106	
1634-04-4	Methyl tert-Butyl Ether	214	**209**	**98**	67-109	
108-05-4	Vinyl Acetate	1,070	**1110**	**104**	68-136	
78-93-3	2-Butanone (MEK)	212	**211**	**100**	71-116	

Laboratory Control Sample percent recovery is verified and accepted based on the on-column result.
Reported results are shown in concentration units and as a result of the calculation, may vary slightly.

Client: **CT Laboratories**
Client Sample ID: **Lab Control Sample** ALS Project ID: P1906817
Client Project ID: **Ripon FF/NN Landfill / 327275.0001.0004** ALS Sample ID: P191201-LCS

Test Code: EPA TO-15 Date Collected: NA
Instrument ID: Tekmar AUTOCAN/Agilent 5973inert/6890N/MS9 Date Received: NA
Analyst: Wida Ang Date Analyzed: 12/1/19
Sample Type: 1.0 L Silonite Summa Canister Volume(s) Analyzed: 0.125 Liter(s)
Test Notes:

CAS #	Compound	Spike Amount µg/m³	**Result µg/m³**	**% Recovery**	ALS Acceptance Limits	**Data Qualifier**
156-59-2	cis-1,2-Dichloroethene	212	**193**	**91**	67-110	
141-78-6	Ethyl Acetate	432	**441**	**102**	64-127	
110-54-3	n-Hexane	216	**201**	**93**	60-115	
67-66-3	Chloroform	214	**207**	**97**	66-105	
109-99-9	Tetrahydrofuran (THF)	220	**210**	**95**	65-110	
107-06-2	1,2-Dichloroethane	214	**210**	**98**	60-110	
71-55-6	1,1,1-Trichloroethane	214	**218**	**102**	64-108	
71-43-2	Benzene	210	**196**	**93**	67-106	
56-23-5	Carbon Tetrachloride	208	**211**	**101**	64-112	
110-82-7	Cyclohexane	422	**412**	**98**	67-110	
78-87-5	1,2-Dichloropropane	214	**203**	**95**	66-112	
75-27-4	Bromodichloromethane	218	**213**	**98**	67-113	
79-01-6	Trichloroethene	216	**216**	**100**	66-108	
123-91-1	1,4-Dioxane	216	**219**	**101**	70-116	
80-62-6	Methyl Methacrylate	430	**454**	**106**	73-118	
142-82-5	n-Heptane	214	**205**	**96**	66-110	
10061-01-5	cis-1,3-Dichloropropene	214	**223**	**104**	75-120	
108-10-1	4-Methyl-2-pentanone	212	**206**	**97**	65-124	
10061-02-6	trans-1,3-Dichloropropene	212	**223**	**105**	77-123	
79-00-5	1,1,2-Trichloroethane	214	**214**	**100**	68-112	
108-88-3	Toluene	212	**219**	**103**	62-111	
591-78-6	2-Hexanone	216	**212**	**98**	59-128	
124-48-1	Dibromochloromethane	214	**239**	**112**	67-123	
106-93-4	1,2-Dibromoethane	214	**237**	**111**	66-122	
123-86-4	n-Butyl Acetate	218	**224**	**103**	64-128	

Laboratory Control Sample percent recovery is verified and accepted based on the on-column result.
Reported results are shown in concentration units and as a result of the calculation, may vary slightly.

ALS ENVIRONMENTAL

LABORATORY CONTROL SAMPLE SUMMARY

Client: **CT Laboratories**
Client Sample ID: **Lab Control Sample** ALS Project ID: P1906817
Client Project ID: **Ripon FF/NN Landfill / 327275.0001.0004** ALS Sample ID: P191201-LCS

Test Code: EPA TO-15 Date Collected: NA
Instrument ID: Tekmar AUTOCAN/Agilent 5973inert/6890N/MS9 Date Received: NA
Analyst: Wida Ang Date Analyzed: 12/1/19
Sample Type: 1.0 L Silonite Summa Canister Volume(s) Analyzed: 0.125 Liter(s)
Test Notes:

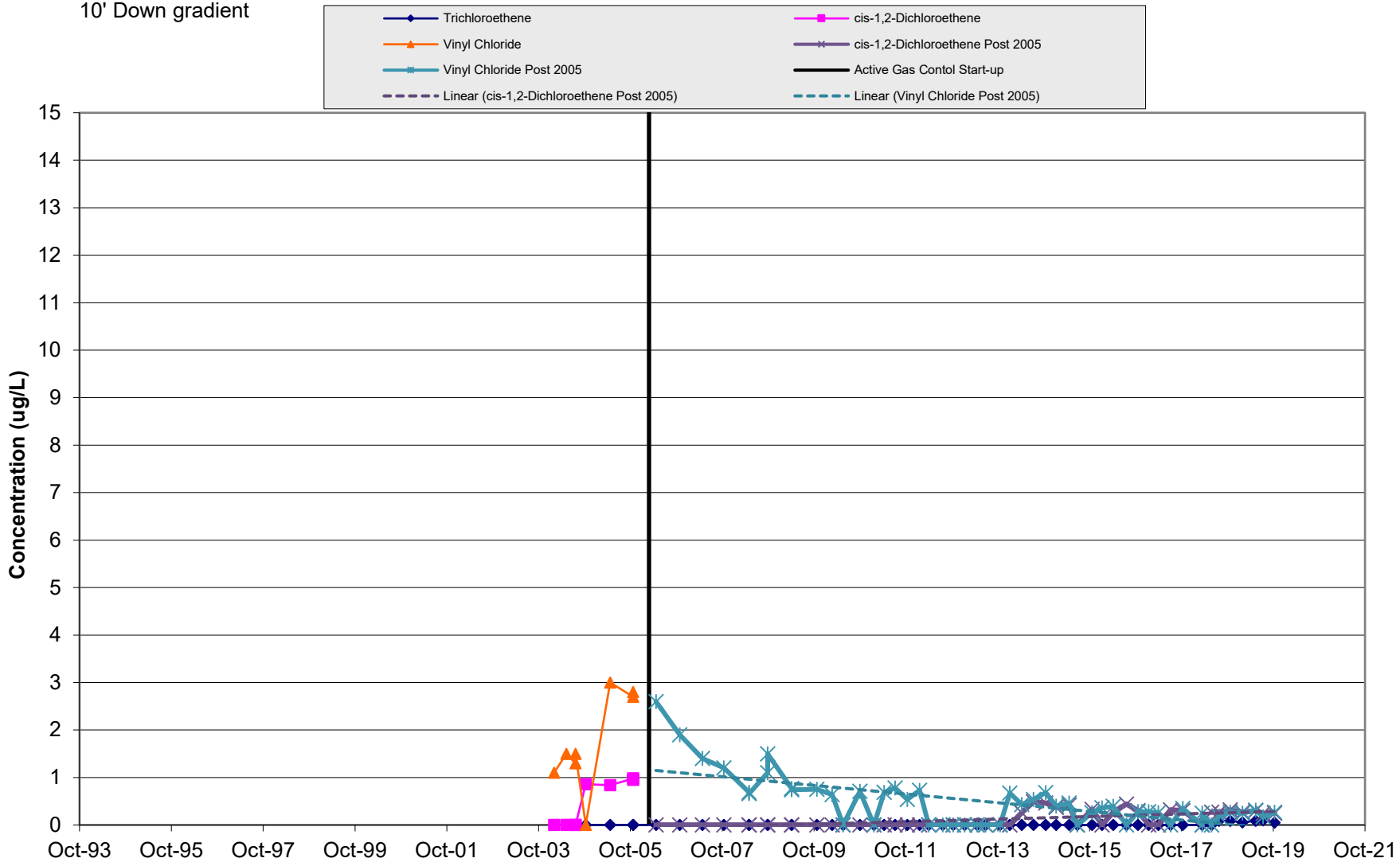
CAS #	Compound	Spike Amount µg/m³	Result µg/m³	% Recovery	ALS Acceptance Limits	Data Qualifier
111-65-9	n-Octane	216	**206**	**95**	65-114	
127-18-4	Tetrachloroethene	208	**221**	**106**	55-120	
108-90-7	Chlorobenzene	214	**219**	**102**	61-114	
100-41-4	Ethylbenzene	212	**221**	**104**	64-113	
179601-23-1	m,p-Xylenes	426	**444**	**104**	64-114	
75-25-2	Bromoform	214	**251**	**117**	65-132	
100-42-5	Styrene	212	**226**	**107**	67-124	
95-47-6	o-Xylene	214	**220**	**103**	65-114	
111-84-2	n-Nonane	214	**198**	**93**	64-117	
79-34-5	1,1,2,2-Tetrachloroethane	214	**224**	**105**	66-119	
98-82-8	Cumene	214	**223**	**104**	61-116	
80-56-8	alpha-Pinene	212	**230**	**108**	65-120	
103-65-1	n-Propylbenzene	214	**222**	**104**	63-117	
622-96-8	4-Ethyltoluene	210	**224**	**107**	63-124	
108-67-8	1,3,5-Trimethylbenzene	212	**219**	**103**	60-117	
95-63-6	1,2,4-Trimethylbenzene	212	**229**	**108**	61-122	
100-44-7	Benzyl Chloride	214	**243**	**114**	77-142	
541-73-1	1,3-Dichlorobenzene	214	**231**	**108**	61-125	
106-46-7	1,4-Dichlorobenzene	214	**227**	**106**	59-123	
95-50-1	1,2-Dichlorobenzene	214	**233**	**109**	61-126	
5989-27-5	d-Limonene	212	**210**	**99**	66-124	
96-12-8	1,2-Dibromo-3-chloropropane	214	**240**	**112**	67-138	
120-82-1	1,2,4-Trichlorobenzene	216	**237**	**110**	62-141	
91-20-3	Naphthalene	212	**236**	**111**	62-145	
87-68-3	Hexachlorobutadiene	214	**224**	**105**	49-131	

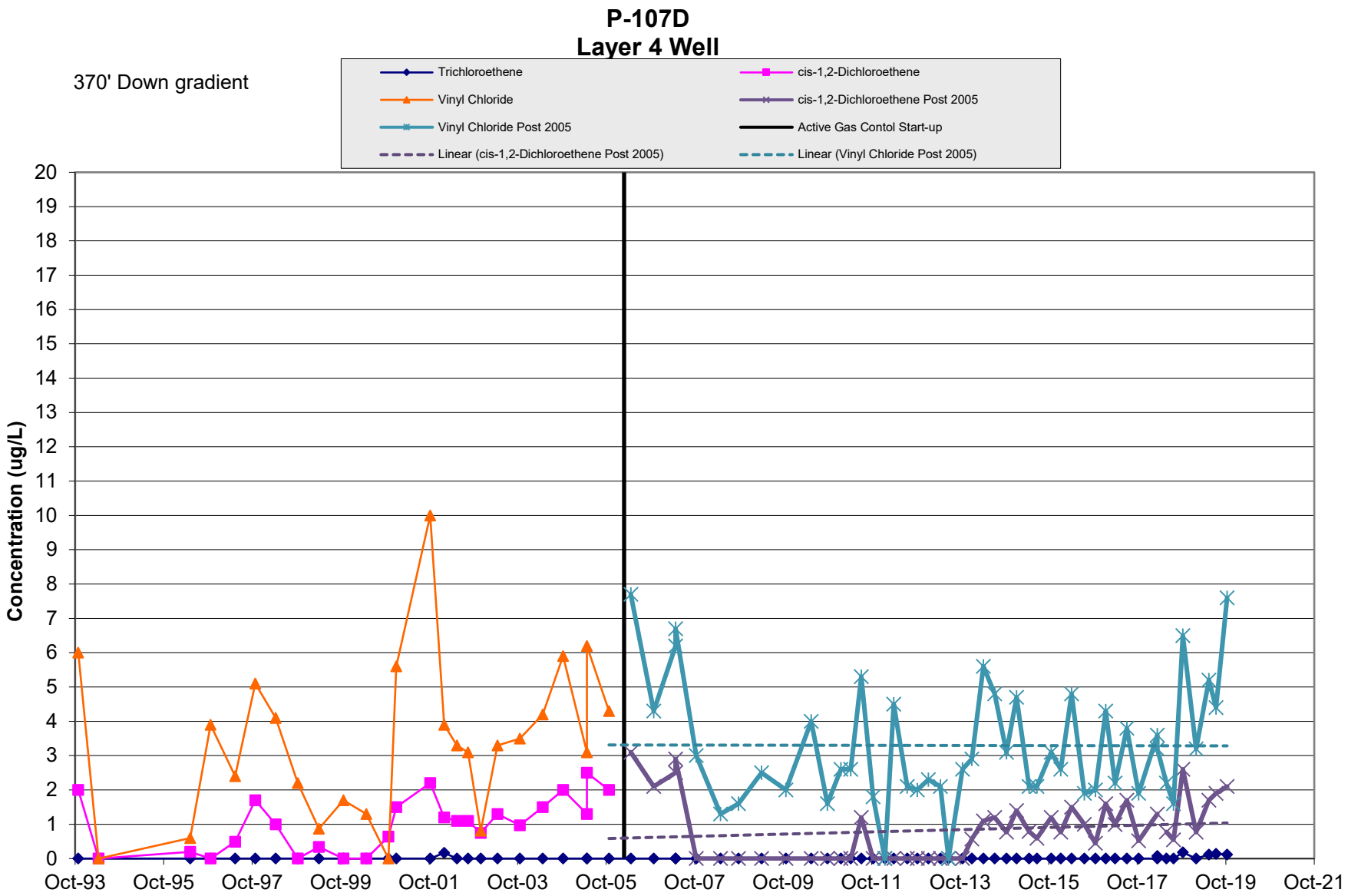
Laboratory Control Sample percent recovery is verified and accepted based on the on-column result.
Reported results are shown in concentration units and as a result of the calculation, may vary slightly.

Appendix C: Groundwater Concentration Trend Graphs

P-103D
Layer 3 Well

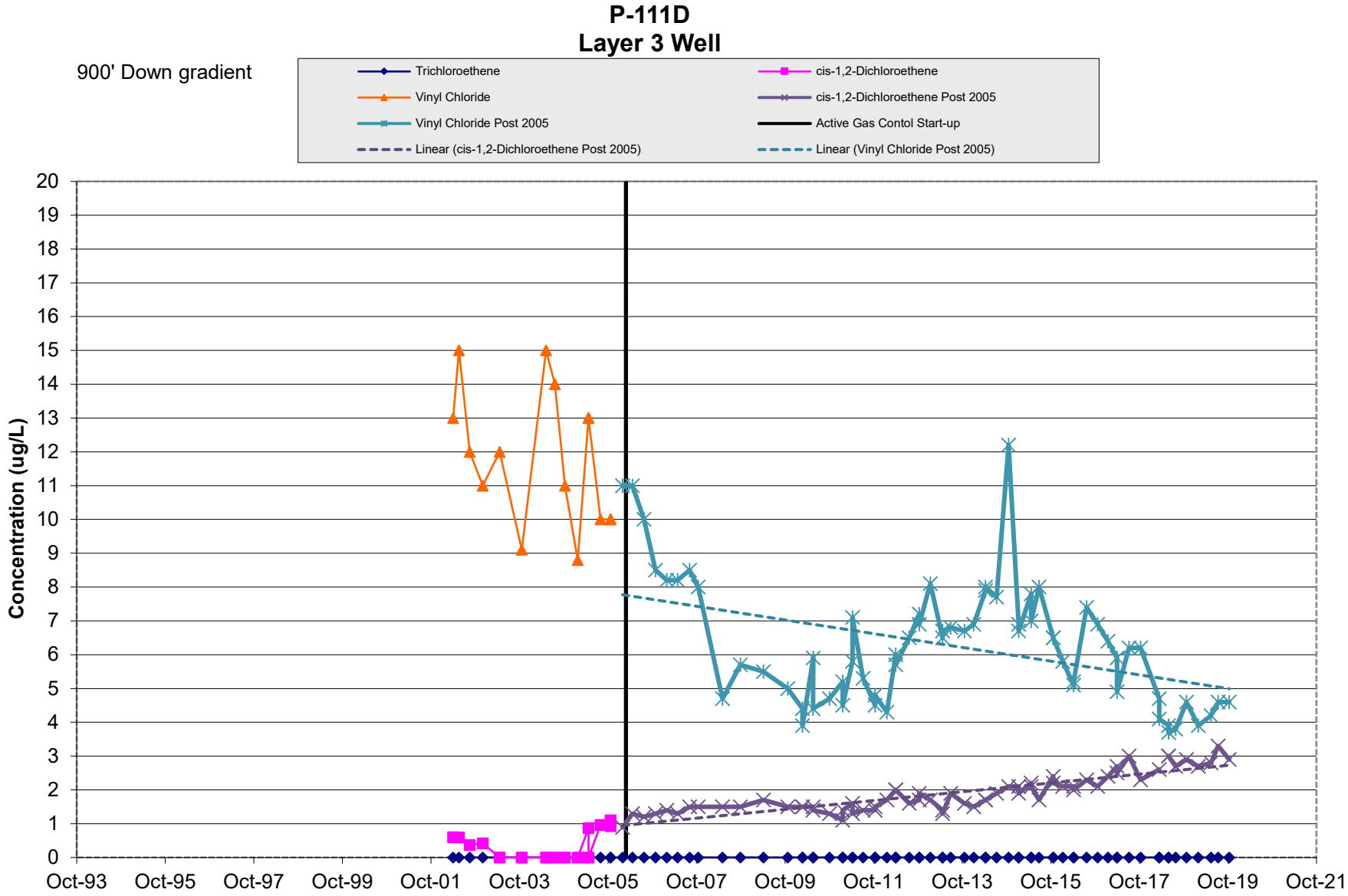
10' Down gradient




P-107D
Layer 4 Well
370' Down gradient
Trichloroethene
cis-1,2-Dichloroethene
Vinyl Chloride
cis-1,2-Dichloroethene Post 2005
Vinyl Chloride Post 2005
Active Gas Contol Start-up
Linear (cis-1,2-Dichloroethene Post 2005)
Linear (Vinyl Chloride Post 2005)
Concentration (ug/L)
20
19
18
17
16
15
14
13
12
11
10
9
8
7
6
5
4
3
2
1
0
Oct-93
Oct-95
Oct-97
Oct-99
Oct-01
Oct-03
Oct-05
Oct-07
Oct-09
Oct-11
Oct-13
Oct-15
Oct-17
Oct-19
Oct-21

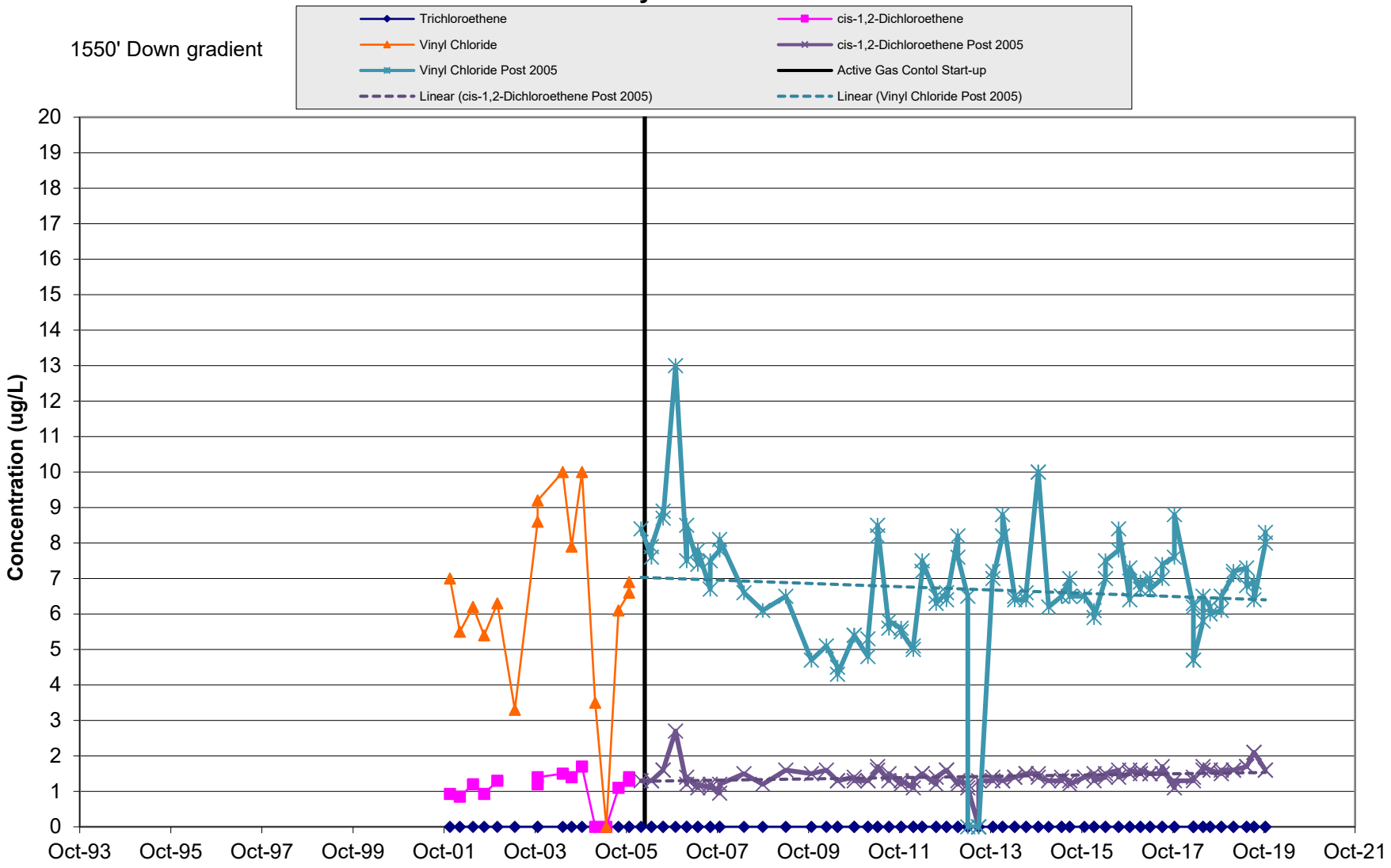
P-111D
Layer 3 Well

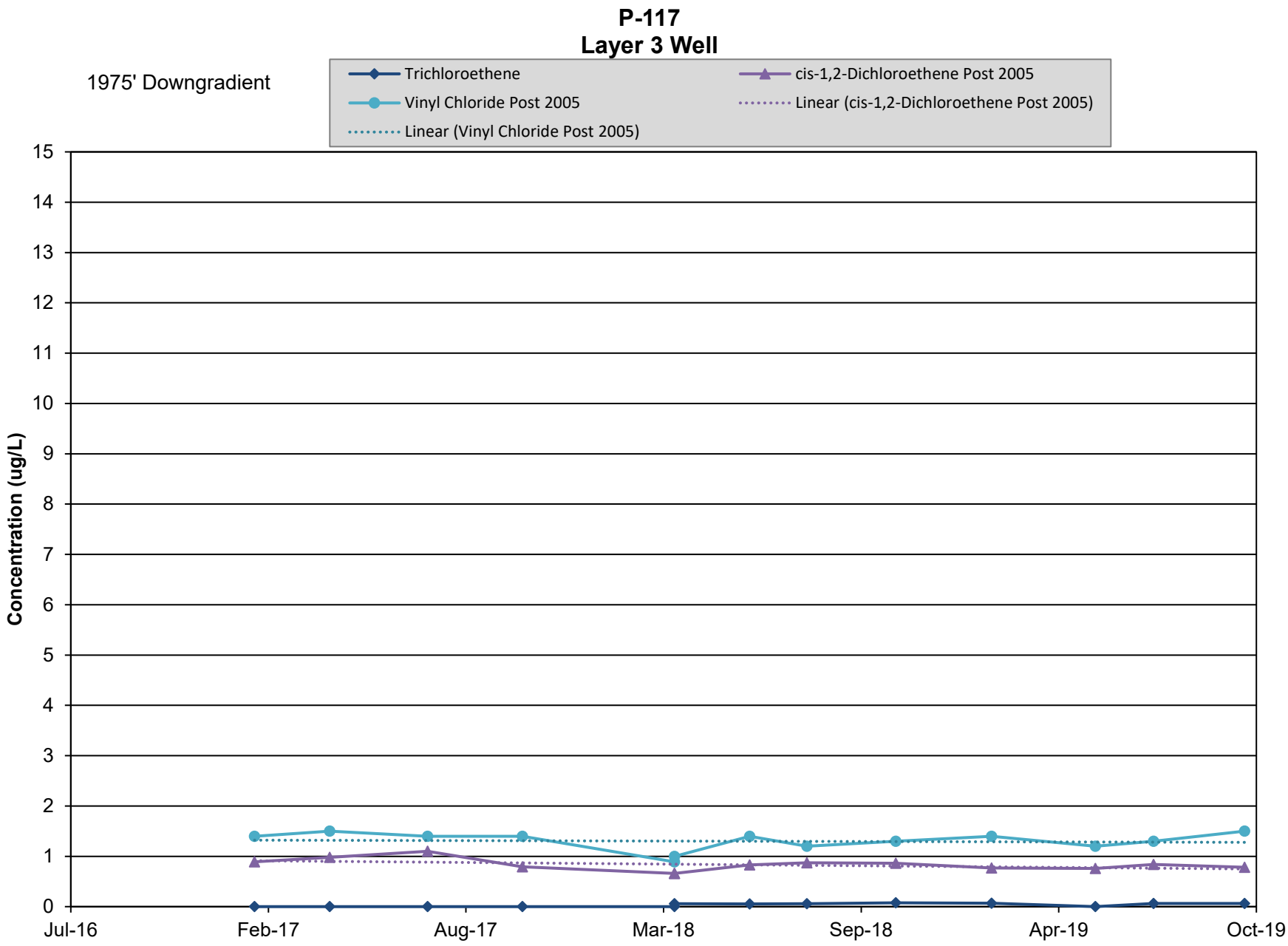
900' Down gradient

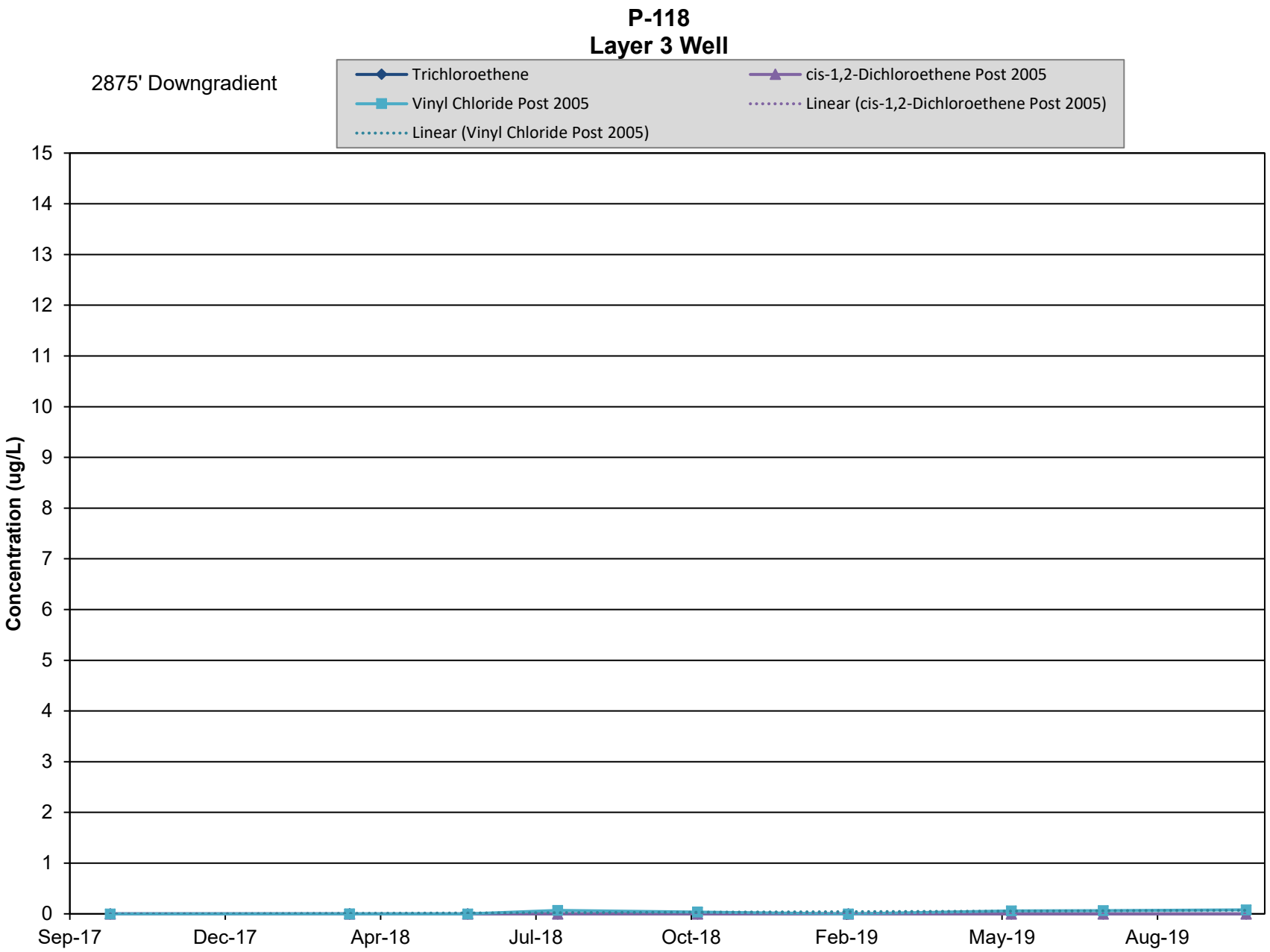


P-114
Layer 3 Well

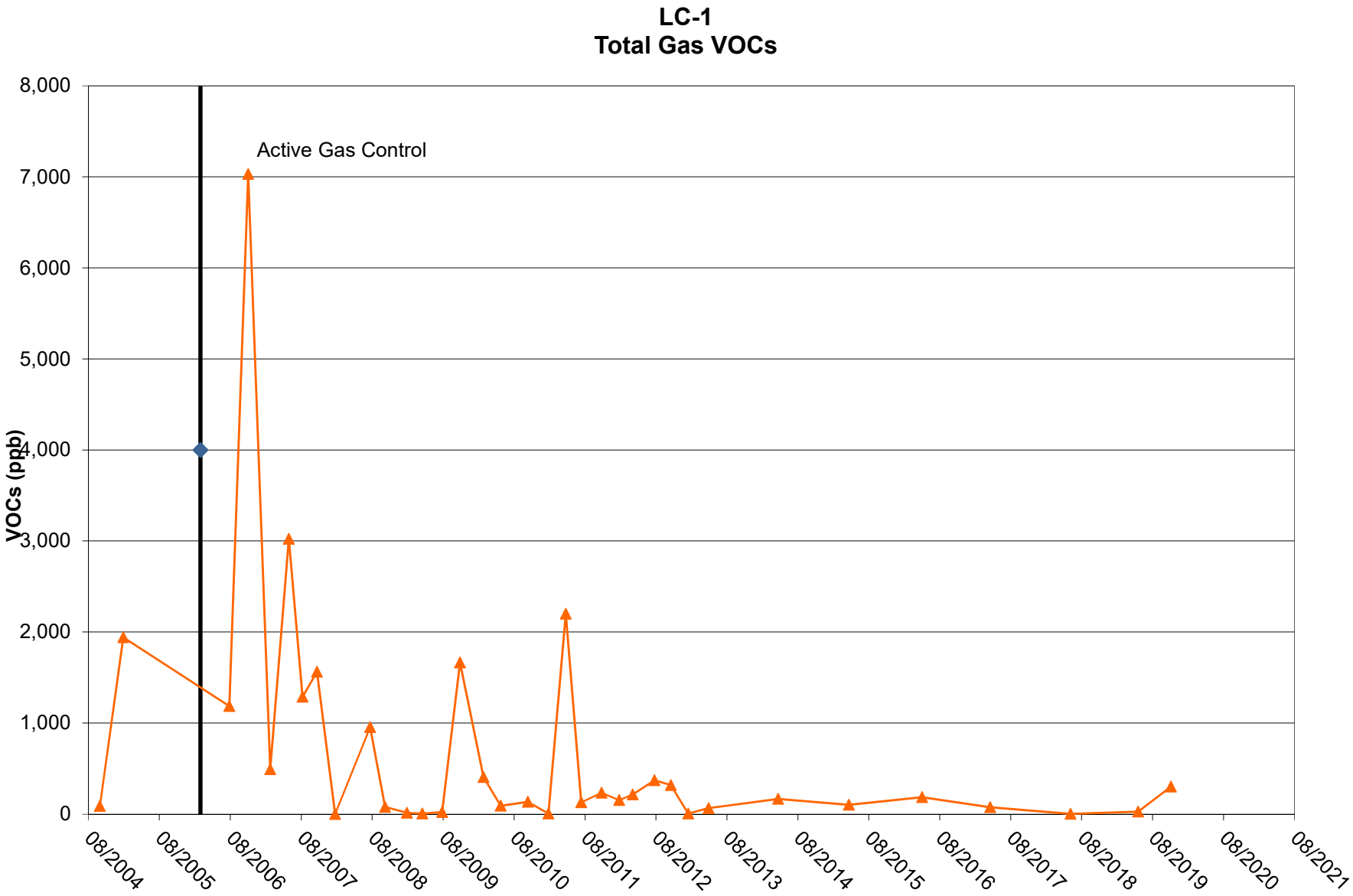
1550' Down gradient

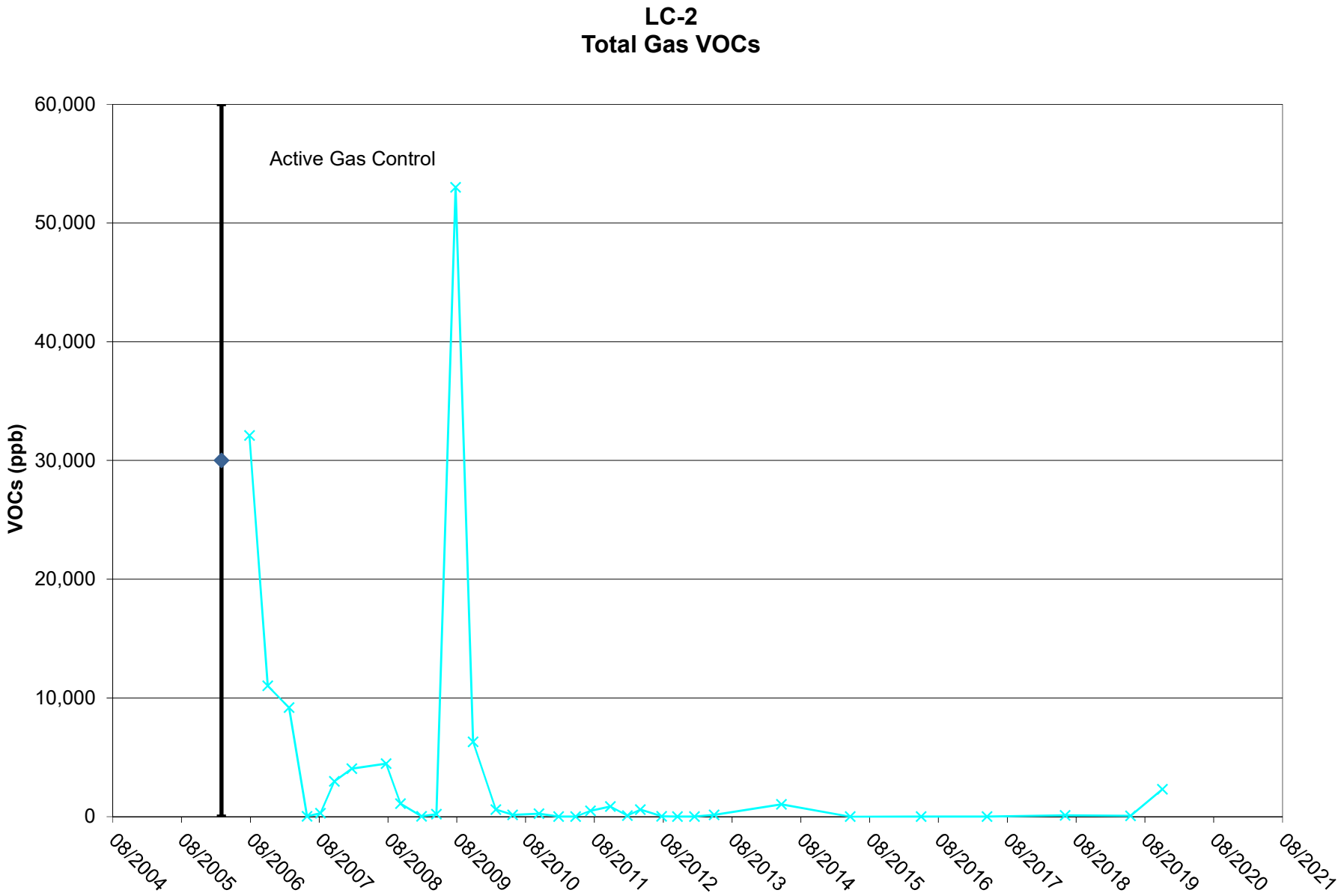


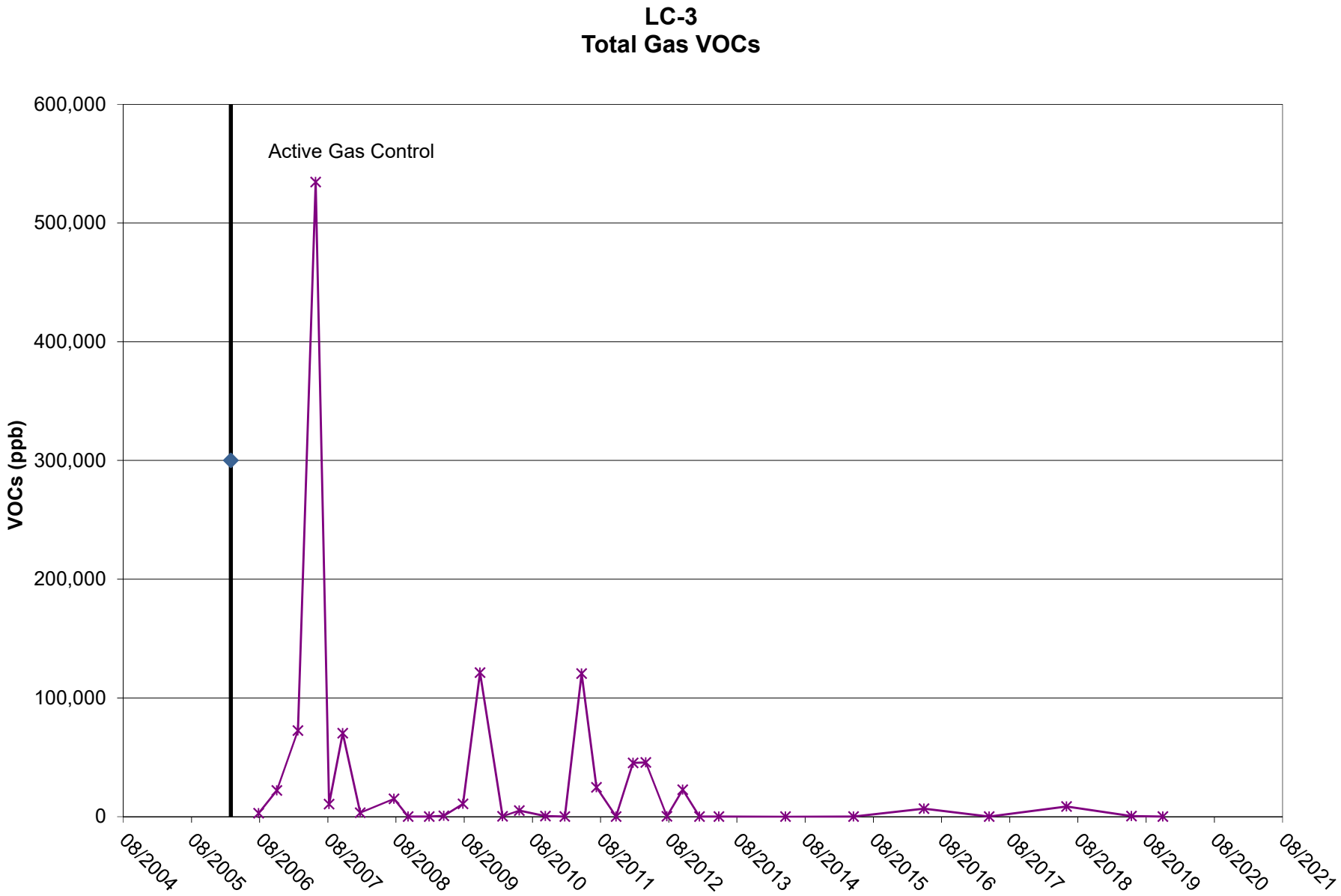

P-117
Layer 3 Well
1975' Downgradient
Trichloroethene
cis-1,2-Dichloroethene Post 2005
Vinyl Chloride Post 2005
Linear (cis-1,2-Dichloroethene Post 2005)
Linear (Vinyl Chloride Post 2005)
Concentration (ug/L)
15
14
13
12
11
10
9
8
7
6
5
4
3
2
1
0
Jul-16
Feb-17
Aug-17
Mar-18
Sep-18
Apr-19
Oct-19

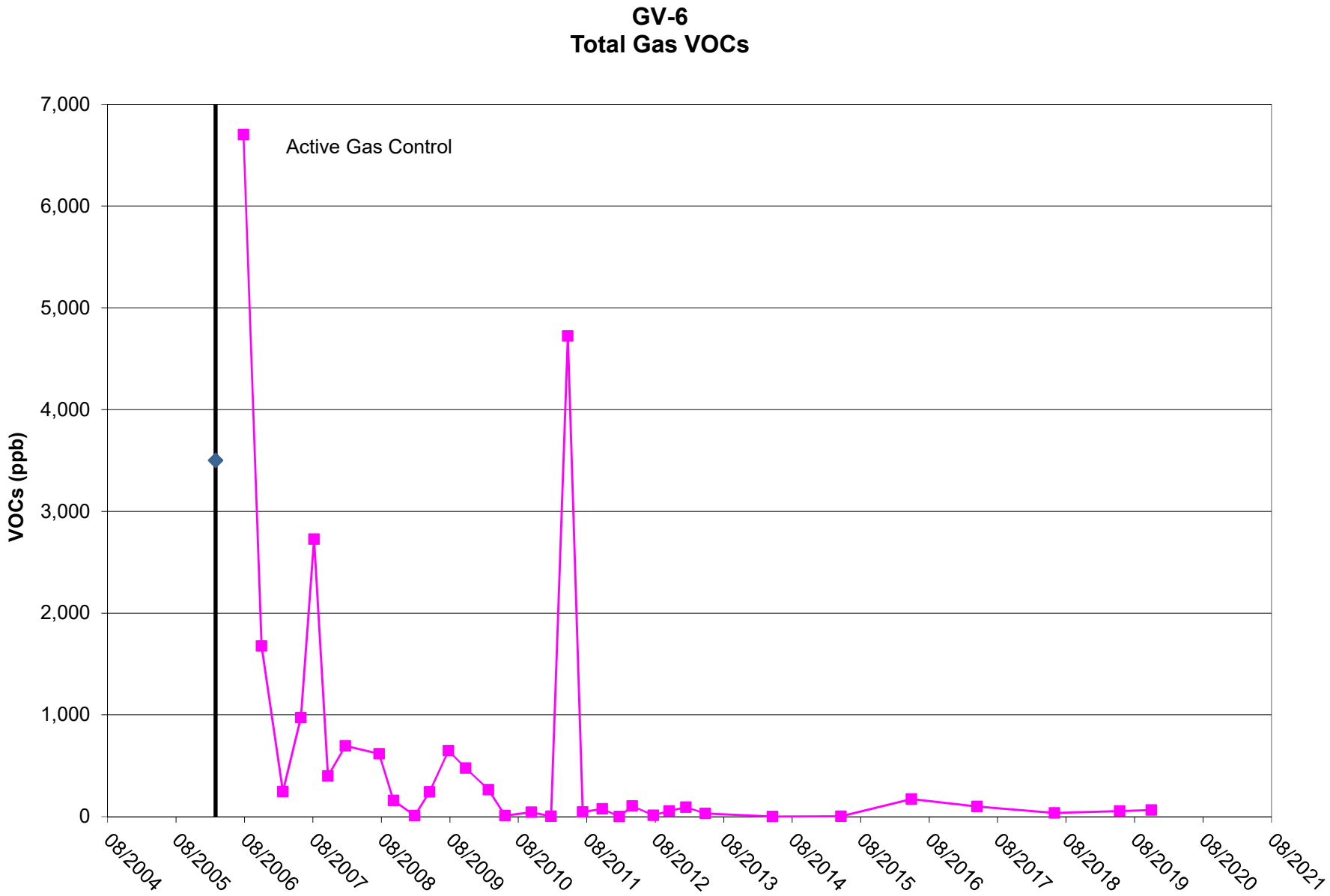

P-118
Layer 3 Well
2875' Downgradient
Trichloroethene
cis-1,2-Dichloroethene Post 2005
Vinyl Chloride Post 2005
Linear (cis-1,2-Dichloroethene Post 2005)
Linear (Vinyl Chloride Post 2005)
Concentration (ug/L)
15
14
13
12
11
10
9
8
7
6
5
4
3
2
1
0
Sep-17
Dec-17
Apr-18
Jul-18
Oct-18
Feb-19
May-19
Aug-19

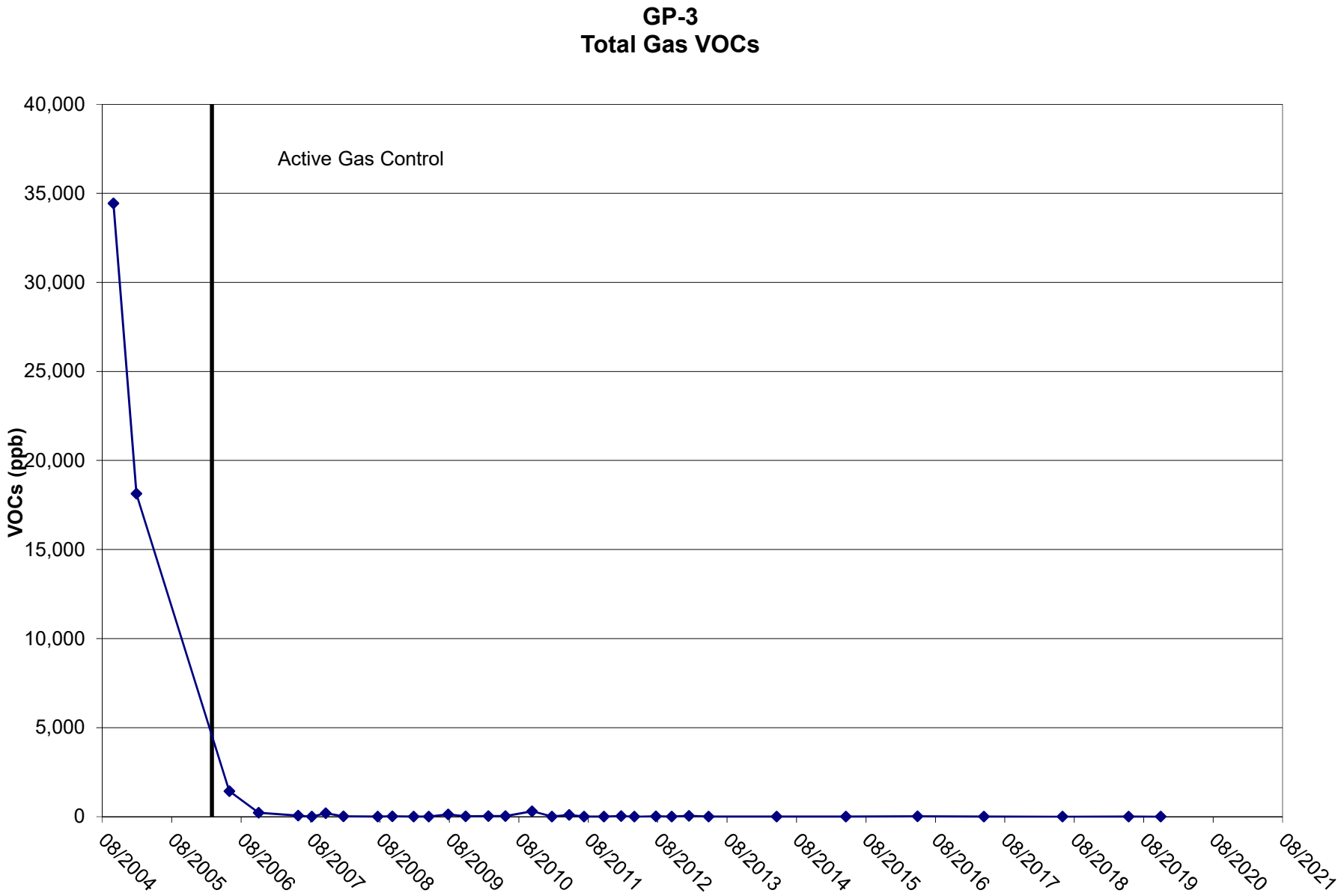
Appendix D: Vapor Concentration Trend Graphs


LC-1
Total Gas VOCs
Active Gas Control
VOCs (ppb)
8,000
7,000
6,000
5,000
4,000
3,000
2,000
1,000
0
08/2004
08/2005
08/2006
08/2007
08/2008
08/2009
08/2010
08/2011
08/2012
08/2013
08/2014
08/2015
08/2016
08/2017
08/2018
08/2019
08/2020
08/2021


LC-2
Total Gas VOCs
Active Gas Control
VOCs (ppb)
60,000
50,000
40,000
30,000
20,000
10,000
0
08/2004
08/2005
08/2006
08/2007
08/2008
08/2009
08/2010
08/2011
08/2012
08/2013
08/2014
08/2015
08/2016
08/2017
08/2018
08/2019
08/2020
08/2021


LC-3
Total Gas VOCs
Active Gas Control
VOCs (ppb)
600,000
500,000
400,000
300,000
200,000
100,000
0
08/2004
08/2005
08/2006
08/2007
08/2008
08/2009
08/2010
08/2011
08/2012
08/2013
08/2014
08/2015
08/2016
08/2017
08/2018
08/2019
08/2020
08/2021


GV-6
Total Gas VOCs
Active Gas Control
VOCs (ppb)
7,000
6,000
5,000
4,000
3,000
2,000
1,000
0
08/2004
08/2005
08/2006
08/2007
08/2008
08/2009
08/2010
08/2011
08/2012
08/2013
08/2014
08/2015
08/2016
08/2017
08/2018
08/2019
08/2020
08/2021


GP-3
Total Gas VOCs
Active Gas Control
VOCs (ppb)
40,000
35,000
30,000
25,000
20,000
15,000
10,000
5,000
0
08/2004
08/2005
08/2006
08/2007
08/2008
08/2009
08/2010
08/2011
08/2012
08/2013
08/2014
08/2015
08/2016
08/2017
08/2018
08/2019
08/2020
08/2021