May 29, 2020
File No. 25220008.02

Mr. Trevor Bannister
Wisconsin Department of Natural Resources
3911 Fish Hatchery Road
Fitchburg, WI 53711

Subject: 2019 Annual Report
Land & Gas Reclamation Landfill/Hechimovich Sanitary Landfill Site
Dodge County, Wisconsin
BRRTS #02-14-000906

Dear Mr. Bannister:

On behalf of Advanced Disposal Services Glacier Ridge Landfill, LLC (Advanced), SCS Engineers (SCS) is submitting this report summarizing the results of groundwater sampling completed in 2019 related to off-site investigation of chlorinated volatile organic compounds (CVOCs) in bedrock at Land & Gas Reclamation Landfill (LGRL). The groundwater sampling completed in 2019 was recommended in the May 10, 2018 Phase 3 Investigation Report.

In response to Recommendation #5 in the Fifth 5-Year Review Report prepared by the Wisconsin Department of Natural Resources (WDNR), the annual report for the off-site investigation has been expanded to include groundwater monitoring performed for LGRL under the solid waste program.

BACKGROUND

LGRL is a Superfund site (EPA ID #WID052906088) located south of Mayville, Wisconsin. LGRL was formerly known as the Hechimovich Sanitary Landfill, and the Superfund list continues to refer to LGRL by that name. In 2014 through 2016, the waste that had been disposed of in LGRL was exhumed and relocated to the active Glacier Ridge Landfill (GRL). The GRL Southeast Expansion was then constructed in the area of the former LGRL. Advanced is part of the group of potentially responsible parties (PRPs) responsible for remediation and monitoring of the LGRL site, along with John Deere, Mercury Marine, and several other area businesses that disposed of waste in LGRL.

The Fifth Five-Year Review Report for the site was prepared by the WDNR and was signed by the Director of the Superfund and Emergency Management Division of the United States Environmental Protection Agency (USEPA) on June 10, 2019. On behalf of Advanced, SCS submitted a response to the Five-Year Review Report recommendations in a letter to WDNR dated April 15, 2020, including suggested clarifications and corrections to the Five-Year Review Report. The WDNR report and response letter provide additional site background information.

Although the waste exhumation project effectively removed LGRL, the site continues to be regulated under the WDNR Waste and Materials Management (WMM) program under WDNR Landfill License #1118. The approved groundwater monitoring plan under the solid waste program requires monitoring of several water table monitoring wells and piezometers for inorganic parameters and

volatile organic compounds (VOCs). All wells sampled under the solid waste program approval are installed in the shallow unconsolidated aquifer.

After CVOCs were detected in the bedrock aquifer downgradient from LGRL in 2009, the WDNR requested additional investigation. The bedrock groundwater investigation has been implemented in accordance with work plans approved by the WDNR Remediation and Redevelopment (R&R) program. The objectives of the investigation have been to evaluate the vertical and horizontal extent of CVOCs in the bedrock aquifer and to characterize the flow directions and pathways in the bedrock. Investigation Phases 1, 2, and 3, which have been completed, evaluated the vertical, horizontal, and downgradient extents of the CVOC plume, respectively. A summary of the previous investigation work completed during Phases 1 through 3 was submitted to WDNR as part of the Phase 3 Investigation Update on May 10, 2018. An annual update on the bedrock investigation monitoring was submitted on March 29, 2019.

GEOLOGY AND HYDROGEOLOGY

The geology in the site vicinity includes four major units: the shallow unconsolidated sediments, the Maquoketa shale, the Ordovician and Cambrian dolomite and sandstone bedrock, and the underlying Precambrian crystalline bedrock. The unconsolidated sediments above bedrock in the vicinity of the site consist primarily of silty sand and sandy silt deposited as glacial till. The shallow deposits in the wetlands around the drumlin include peat and organic clay. Based on water supply well logs, the thickness of the unconsolidated sediments near the site ranges from approximately 25 to 140 feet.

The uppermost bedrock unit beneath the site is the Maquoketa Shale, which consists of Ordovician blue-gray shale with dolomitic beds as much as 25 feet thick near the top of the unit. The bedrock units below the Maquoketa shale include the Sinnipee Group (primarily dolomite) and the underlying St. Peter Sandstone. The bedrock investigation wells are installed in the dolomite and sandstone units.

Monitoring well and water supply well locations are shown on **Figure 1**. Cross sections showing the site geology and well construction were developed along the cross section lines shown on **Figure 2**. Cross sections A-A' (**Figure 3**) and B-B' (**Figure 4**) show the bedrock geology and depths of monitoring wells and water supply wells. Cross section A-A' is oriented north-south, and cross section B-B' is oriented southwest-northeast, in the general direction of flow and CVOC impacts. Cross section C-C' (**Figure 5**) shows the monitoring well depths in the shallow unconsolidated aquifer along the general direction of flow and VOC impacts north of LGRL.

2019 MONITORING PROGRAMS

During 2019, groundwater monitoring continued under the plans approved by the WDNR WMM program for the shallow aquifer and by the WDNR R&R program for bedrock aquifer. The bedrock investigation monitoring program also includes two deep piezometers installed at the base of the unconsolidated aquifer, just above the shale (MW-1B and P-422B).

Results of the monitoring performed under the WMM program have been reported semiannually to WDNR and the results have been submitted electronically as required for upload to the Groundwater and Environmental Monitoring System (GEMS) database. A summary of the 2016 to 2019 results for the LGRL shallow aquifer monitoring program is provided in **Attachment A**.

Monitoring is also performed under the WMM program for the active GRL site, which is not part of the Superfund site. Some of the monitoring results for GRL are useful for the LGRL groundwater evaluation, either because they are in locations affected by the former LGRL site (impacted wells), or because they define the limits of impacts from LGRL (clean wells). Monitoring results for 2016 through 2019 for selected GRL monitoring wells in the shallow aquifer are provided in **Attachment B**.

For the bedrock groundwater investigation, the monitoring program during 2019 included the following wells (same program as 2018):

- Monthly water supply well: PW-21RR
- Semiannual water supply wells: PW-19, PW-20, PW-23, PW-28, PW-32, PW-38
- Annual water supply wells: PW-42, PW-43, PW-44
- Semiannual bedrock monitoring wells: P401D, P402E, P423D, P424D, P424SS, P426D, P429SS
- Semiannual deep unconsolidated aquifer monitoring wells: MW-1B, P-422B

Laboratory reports for water supply well sampling were previously submitted to the WDNR following each sampling event. Monitoring results for the bedrock investigation wells were reported to the R&R program on June 29, 2019, for the April 2019 monitoring event. Laboratory reports not previously submitted to WDNR (October 2019 monitoring wells) are included in **Appendix C**.

WATER LEVEL MONITORING AND GROUNDWATER FLOW

Shallow Groundwater Flow

Water level monitoring results obtained as part of the approved monitoring programs under the WMM program were used to evaluate the groundwater flow direction in the shallow aquifer. The water table map for October 2019 is shown on **Figure 6**. The water table map incorporates data from the LGRL and GRL water table monitoring wells. Groundwater flow in the LGRL area is generally to the north-northeast. Groundwater elevations for the LGRL monitoring wells are included in the historical results summary in **Appendix A.**

Bedrock Groundwater Flow

As part of the bedrock groundwater investigation, water level monitoring was performed to evaluate the groundwater flow direction in the upper dolomite and measure the vertical gradient between the dolomite and the deeper sandstone. Water level measurements and elevations in the monitoring wells are summarized in **Table 1**. Measured water elevations have ranged over about 7 feet in the period from 2010 through 2019.

The groundwater elevations measured in the upper dolomite monitoring wells in October 2019, and contours of the corresponding potentiometric surface, are shown on **Figure 7**. The October 2019 water levels in the upper dolomite indicate a flow direction to the northeast, consistent with the apparent northeast to east flow direction indicated by the VOC distribution. The April 2019 potentiometric surface map for the upper dolomite, included in the semiannual report submitted to the WDNR on June 30, 2019, indicated that flow from the LGRL area was generally to the northeast, with flow to the east-southeast between piezometers P426D and P423D. Water levels during all previous sampling events have indicated a northeastern flow direction, with the exception of October

2018 when groundwater flow direction was toward the southwest. The apparent horizontal hydraulic gradient between LGRL (P401D) and downgradient well P424D was 0.0007 to the northeast in October 2019.

There appears to be relatively little head difference between the dolomite and upper sandstone aquifers on the All-Line property. The head in the dolomite was slightly higher than the sandstone during both measurement events in 2019, consistent with historical data. The vertical gradient between the dolomite well P424D and the sandstone well P424SS, with a vertical separation of screen midpoints of 206 feet, was approximately 0.003 in April and October 2019. Given the apparent low hydraulic conductivity of the lower dolomite and the small vertical gradient, there appears to be limited potential for vertical groundwater flow between the upper dolomite and sandstone in the vicinity of the P424 well nest.

MONITORING WELL SAMPLING AND ANALYSIS

Shallow Monitoring Wells

During 2019, Environmental Sampling Corporation (ESC) collected groundwater samples from the existing shallow water table monitoring wells semiannually in April and October. The MW-210 nest was not accessible due to standing water in April or October, but was sampled in July 2019.

The two primary CVOCs detected in the shallow plume are cis-1,2-dichloroethene (DCE) and vinyl chloride. These CVOCs are typically formed as breakdown products in the natural degradation of trichloroethene (TCE) and tetrachloroethene (also known as perchoroethylene or PCE), which were common solvents that were likely disposed of historically at LGRL. The concentrations of DCE and vinyl chloride detected in October 2019, and the approximate extent of the CVOC contamination plume the shallow groundwater, are shown on **Figure 8**. Results are shown for LGRL monitoring wells in the shallow aquifer, including routine monitoring wells and the two deep unconsolidated aquifer investigation wells, and selected GRL monitoring wells that help define the limits of the LGRL CVOC impacts. In addition to DCE and vinyl chloride, TCE and PCE are shown for wells where they were detected.

The concentration trends for DCE and vinyl chloride in shallow water table monitoring wells are shown in **Figures G1** through **G3**. The graphs in **Figure G1** show concentration trends along the flow direction of the plume at the level of the "A" wells, which have the highest concentrations at each nest. The graphs in **Figure G2** and **Figure G3** show concentration trends at well nests in the source area and downgradient.

The findings from the 2019 monitoring well sampling include the following:

- The area of CVOC concentrations exceeding enforcement standards (ESs) in shallow groundwater is limited to the immediate vicinity of LGRL and an area extending to the north through well nests MW1RR/AR/B, W3R/AR, MW210/A/B, and MW214/A (**Figure 8**).

- Among mid-depth wells along the plume extending to the north of LGRL (MW1AR, MW210A, and MW214A), DCE and vinyl chloride concentrations decrease with distance from LGRL (**Figure G1**).

- At the two well nests closest to the source area (MW1RR/AR/B and W3R/AR), CVOCs are generally highest in the mid-depth ("A") wells and have generally decreased with time (**Figure G2**).

  – Prior to 2008, concentrations of DCE and vinyl chloride were similar at MW1RR and MW1AR. Concentrations at MW1RR decreased and have been lower than concentrations at MW1AR since 2008. Changes at this well nest beginning in 2008 are likely due at least in part due to the construction and operation of the groundwater control trench between LGRL and the GRL South Expansion. DCE concentrations at MW1AR have continued to decrease over time.

  – At deep piezometer MW1B, vinyl chloride concentrations have increased gradually, but are still very low in comparison to vinyl chloride results for MW1AR.

  – Concentrations of both DCE and vinyl chloride have decreased over time at W3AR.

  – Vinyl chloride concentrations detected at W3AR in 2019 were consistent with the historical decreasing trend. Concentrations at W3R increased slightly in 2019 and were similar to those detected at W3AR.

- At the two well nests further downgradient from LGRL (MW210/A/B and MW214/A), CVOCs are generally highest in the mid-depth ("A") wells and the results show the changes in the CVOC plume with time (**Figure G3**). At MW210A, concentrations of DCE and vinyl chloride have decreased significantly since the 1990's and have been relatively stable since about 2004. At MW214A, concentrations of vinyl chloride began increasing in about 2007, and in the last 5 years appear to have leveled off at a concentration similar to those observed recently at MW210A.

- CVOCs were also detected at GRL monitoring wells adjacent to the former LGRL footprint, including at least one result above the ES at wells P403A, P406A/P406B, and MW428. CVOC concentrations at the wells on the east side of LGRL (403 and 406 well nests) are much lower than those on the north side of LGRL. At monitoring well MW428, which was installed in 2018 on the south side of LGRL and is monitored as part of the GRL monitoring program, DCE and PCE concentrations exceeded the applicable PALs, and TCE exceeded the ES. The CVOCs detected at this well are similar to those previously detected at former well MW407, which was in the same general area and was abandoned due to cell construction.

Bedrock Monitoring Wells

During 2019, ESC collected groundwater samples from the existing bedrock monitoring wells semiannually in April and October.

The two primary CVOCs detected above NR 140 ESs in the offsite wells are DCE and vinyl chloride. Bedrock monitoring well analytical data is summarized in **Table 2**. The concentrations of DCE and vinyl chloride detected in October 2019, and the approximate extent of the CVOC contamination plume in bedrock, are shown on **Figure 9**. Concentration trends of DCE and vinyl chloride in bedrock monitoring wells are shown on **Figures G4** and **G5.**

The findings from the 2019 monitoring well sampling include the following:

- The highest CVOC concentrations detected in the bedrock aquifer in 2019 were detected in samples from monitoring well P402E, located near the northeast corner of the former LGRL site.
  - Concentrations of DCE and vinyl chloride in this well have consistently exceeded the NR 140 ES.
  - Concentrations of TCE exceeded the ES at this well prior to October 2015. Since October 2015, concentrations of TCE at this well have been below the ES but have exceeded the preventive action limit (PAL). The reported TCE concentrations in 2019 were estimated results below the laboratory's limit of quantitation (LOQ).
  - The CVOC concentrations detected in this well increased initially when the well was first sampled in 2010, but have since followed a decreasing or stable trend. It is possible that the initial increase following well installation represents equilibration of the well with the aquifer, with the initial sample results lower than true groundwater quality due to short-term effects of drilling with air to install the well.
- Monitoring well P424D, located on the All-Line property, contains concentrations of DCE and vinyl chloride greater than the corresponding ESs. The CVOC concentration trends at P424D have been generally stable over the last several years. The 2019 vinyl chloride results showed a slight decrease since 2018, and the results were within the range previously observed at this well. The DCE concentration increased slightly in April and October 2019 relative to the October 2018 result, but the 2019 results were within the range of previously observed at this well.
- Monitoring well P423D, located on the Andrew Oechsner farm property, has detectable concentrations of several CVOCs. DCE and vinyl chloride concentrations exceeded the corresponding ESs in the April and October 2019 samples collected from this well. DCE and vinyl chloride concentrations at this well decreased slightly in 2019 relative to concentrations detected in 2018, and were within the range of previous concentrations at this well.
- CVOCs were not detected at the following wells in 2019, consistent with historical results:
  - Monitoring well P401D, located on the east side of the former LGRL site and south of P402E.
  - Monitoring well P426D, installed to define the northern limit of the CVOC plume.
  - Monitoring well P424SS, open to the sandstone bedrock below the dolomite on the All-Line property.
  - Monitoring well P429SS, screened at the top of the sandstone unit northeast of P423D and PW21RR.

WATER SUPPLY WELL SAMPLING AND ANALYSIS

LGRL Water Supply Well Monitoring Program Wells

Selected water supply wells have been sampled on a regular basis in accordance with the work plan. Water supply well sampling results are summarized in **Table 4**, and concentration trends for DCE and vinyl chloride are shown on **Figures G6** and **G7**.

The findings of the water supply well sampling include the following:

- The replacement water supply well for the Oechsner farm (PW-21RR) has been sampled monthly since October 2010.
  - The DCE concentrations for PW-21RR (**Figure G6**) initially increased from October 2010 through mid-2012, dropped slightly into the end of 2012, and then followed a gradual increasing trend before appearing to stabilize in the last 3 years.
  - Vinyl chloride concentrations in samples from PW-21RR have decreased slightly since mid-2012 (**Figure G7**), and have been generally stable in the last 5 years.
  - PW-21RR has a groundwater treatment system, and post-treatment samples demonstrate that the system is effectively removing vinyl chloride and DCE, with treated water concentrations well below the drinking water maximum contaminant levels (MCLs) (**Table 4**).
- The DCE concentrations in samples from PW-28 have shown a very gradually increasing trend since 2011. The detected DCE concentrations are still below the NR 140 PAL of 7 micrograms per liter (µg/L) and well below the MCL of 70 µg/L. No other CVOCs have been detected in this well. This well is open to both the dolomite and sandstone units.
- Samples from PW-19 also contain DCE at concentrations below the PAL and well below the ES and MCL. The 2019 DCE results show a slight increase from previously observed concentrations.
- Trace concentrations of DCE have also been detected in some of the samples collected from the J. Oechsner well (PW-32). The DCE concentrations detected at this well in April 2019 was below the laboratory limit of quantitation, and DCE was not detected in the October 2019 sample.
- None of the other six water supply wells that were sampled in 2019 as part of the LGRL bedrock investigation (private wells PW-20, PW-23, PW-38, PW-42, PW-43, and PW-44) contained detectable concentrations of CVOCs.

Well PW-J

Water supply well PW-J, which is owned by Advanced Disposal, is part of the routine monitoring program for GRL. Results for this well are included in this LGRL annual report (**Appendix B**) because DCE has been detected in samples from this well. Although DCE is one of the primary CVOCs

associated with the LGRL groundwater impacts, it has not been determined conclusively whether LGRL is the source of DCE at PW-J. During 2019, PW-J was sampled in May, July, and October, with a duplicate sample collected for the October event. The DCE concentrations for three of the four samples were slightly above the PAL. Vinyl chloride was not detected.

CONCLUSIONS AND RECOMMENDATIONS

Conclusions

Conclusions related to the 2019 shallow aquifer monitoring activities include the following:

- The primary CVOC plume in the shallow aquifer extends north-northeast from the north end of LGRL. CVOCs have also been detected at lower concentrations in monitoring wells adjacent to the east and south limits of the former LGRL.

- CVOC concentrations within the shallow plume continue to indicate that the overall mass of CVOCs in the groundwater has decreased with time, particularly in the source area.

- Vinyl chloride concentrations at the furthest downgradient mid-depth piezometer (MW214A) increased beginning in 2008, but now appear to have leveled off. This well nest is located approximately 1500 feet from the downgradient property line.

Conclusions related to the 2019 bedrock groundwater investigation activities include the following:

- Groundwater flow direction in the bedrock aquifer in 2019 was to the northeast, consistent with the northeastern flow direction observed during all previous monitoring events with the exception of October 2018.

- The lack of CVOCs in groundwater samples from monitoring well P429SS suggests that CVOC contamination in the sandstone aquifer does not extend to the northeast beyond the Andrew Oechsner property.

- Hydrogeologic and laboratory analytical data from the P424D/P424SS monitoring well nest on the All-Line property continue to support that horizontal movement of the CVOCs away from LGRL in groundwater is primarily occurring in the upper, fractured zone of the dolomite.

- Given the apparently low hydraulic conductivity of the lower portion of the dolomite and the low vertical hydraulic gradient across the lower dolomite observed at the P424 well nest, there appears to be little potential for significant vertical flow within the dolomite under ambient conditions.

- CVOC concentrations in the monitoring wells along the center of the bedrock plume, including P402E, P424D, and P423D, continue to show mostly stable or decreasing long-term concentration trends, with continuing decreasing concentrations in 2019.

- The slight increasing trend of DCE concentrations in PW-28, and the consistent presence of low concentrations of DCE in PW-19 with a slight increase in DCE in 2019, suggest

that the leading edge of the dissolved CVOC plume may be continuing to migrate; however, vinyl chloride has not been detected in these wells, and the DCE concentrations remain well below the NR 140 PAL.

Additional Investigation Recommendations

Additional investigation of the bedrock aquifer will include P-426SS and investigation of PW-J. Recommended investigation activities were detailed in the April 15, 2020 Response to Recommendations in Fifth 5-Year Review Report, and include:

- Install a monitoring well in the sandstone aquifer in a nest with dolomite monitoring well P-426D.
  - Install the well near the top of the sandstone unit, below the dolomite.
  - Use data from this well to assess the groundwater flow direction within the sandstone aquifer and whether VOCs are present in the sandstone aquifer north-northeast of the source area.

- Complete downhole geophysical logging of PW-J, then install a bedrock monitoring well or well nest.
  - Perform geophysical logging including borehole diameter, fluid temperature and conductivity, natural gamma radiation, and vertical flow (measured with a heat-pulse flow meter) under ambient and pumped conditions. Geophysical data will be used to assess the primary flow zone(s) within the open interval.
  - Install a monitoring well or well nest in the PW-J borehole or in a borehole drilled adjacent to it.
  - Collect initial samples from the well(s) approximately 2 to 4 weeks after installation, then include the well(s) in routine semiannual sampling events for the VOC investigation wells.

More detailed plans for each of these investigation tasks will be provided to WDNR for review prior to implementation.

Groundwater Monitoring Recommendations

We recommend continued groundwater monitoring to evaluate the groundwater conditions at the site. For the bedrock aquifer, we recommend continuing the routine bedrock monitoring program during 2020, including the following wells:

- Monthly water supply well: PW-21RR
- Semiannual water supply wells: PW-19, PW-20, PW-23, PW-28, PW-32, PW-38
- Annual water supply wells: PW-42, PW-43, PW-44
- Semiannual monitoring wells: P401D, P402E, P423D, P424D, P424SS, P426D, P429SS
- Annual deep unconsolidated aquifer monitoring wells: MW-1B, P-422B

Wells will continue to be sampled for VOCs, alkalinity, hardness, chloride, and field parameters.

Private well monitoring results will continue to be provided to the WDNR within 10 days of receipt of the results, and an annual update report for 2020 will be submitted by April 30, 2021.

Monitoring of the shallow groundwater plume will continue under the sampling programs approved by the solid waste program for LGRL (License 1118), with supplemental information obtained from selected wells in the monitoring program for GRL (License 3068). Recommendations for additional voluntary shallow well monitoring in 2020 include sampling the following additional wells for VOCs in October 2020:

LGRL Wells
- MW-6R
- MW-7R
- MW-201, MW-201A, MW-201B

GRL Wells
- W-38

These wells are in the routine LGRL and GRL monitoring programs, but are not required to be sampled for VOCs. Sampling these wells will provide additional data to confirm the extent of shallow groundwater impacts east and northeast of the former LGRL.

An additional recommendation for the shallow aquifer monitoring program is to improve access to the MW-210 well nest. Standing water in the area of this well nest has made it inaccessible for monitoring during recent April and October monitoring events. To allow continued trend monitoring at this location, placement of fill to allow access to this well nest is recommended, pending resolution of any applicable wetland permitting requirements.

Please do not hesitate to contact us at (608) 224-2830 if you have any questions or would like to discuss the investigation findings and recommendations.

Sincerely,

Sherren Clark, PE, PG
Project Director
SCS Engineers

Eric Oelkers, PG
Senior Hydrogeologist
SCS Engineers

NDK/MDB/AJR_lmh/SCC/EO

cc: Jake Margelofsky, Advanced Disposal Services (2 copies)
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cc via email: Tim Curry, Advanced Disposal Services
Mark Torresani, Cornerstone Environmental Group
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Drew Zeratsky, National Rivet & Manufacturing Co.
Nathan Kempke, City of Mayville
Paul Rosenfeldt, Edgarton, St. Peter, Petak & Rosenfeldt (for Mayville Engineering Corp.)

Encl. Table 1 – Water Level Summary-Bedrock Wells
Table 2 – LGRL VOC Investigation Bedrock Well Sample Results - Through October 2019
Table 3 – LGRL VOC Investigation Deep Unconsolidated Well Sample Results - Through October 2019
Table 4 – LGRL VOC Investigation Water Supply Well Sample Results - Through December 2019

Figure 1 – Monitoring Well and Private Well Locations
Figure 2 – Cross Section Location Map
Figure 3 – Cross Section A-A'
Figure 4 – Cross Section B-B'
Figure 5 – Cross Section C-C'
Figure 6 – Shallow Groundwater Elevations and Water Table – October 2019
Figure 7 – Dolomite Bedrock Groundwater Elevations and Potentiometric Surface Contours – October 2019
Figure 8 – VOCs in Shallow Groundwater – October 2019
Figure 9 – VOCs in Bedrock Groundwater – October 2019

Figure G1 – Time Series Graphs for Mid-Depth Wells Along the Shallow Plume (MW-1AR, MW-210A, MW-214A)
Figure G2 – Time Series Graphs for Source Area Well Nests (MW-1 and W-3)
Figure G3 – Time Series Graphs for Downgradient Well Nests (MW-210 and MW-214)
Figure G4 – Time Series Graph for cis-1,2-DCE in Bedrock Monitoring Wells
Figure G5 – Time Series Graph for Vinyl Chloride in Bedrock Monitoring Wells
Figure G6 – Time Series Graph for Cis-1,2-Dichloroethylene in Water Supply Wells Downgradient from LGRL
Figure G7 – Time Series Graph for Vinyl Chloride at PW-21RR Samples (Before Treatment System)

Attachment A – LGRL Solid Waste Program Monitoring Results: 2016-2019
Attachment B – Selected GRL Solid Waste Program Monitoring Results: 2016-2019
Attachment C – Bedrock Investigation Laboratory Report (October 2019)

Tables

Table 1. Water Level Summary - Bedrock Wells
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Raw Data	Depth to Water in feet below top of well casing									
	P401D	P402E	P423D	Office Well	PW18	PW27	P424D	P424SS	P426D	P429SS
Measurement Date										
March 12, 2010	76.87	73.58		53.82	108.25	91.44				
April 8, 2011	76.96	73.67	95.30							
October 6-7, 2011	81.26	78.00	100.50							
April 13, 2012	77.60	74.40	96.00							
October 3-5, 2012	81.70	78.43	99.72							
December 17, 2012	82.16	78.95	100.50			96.90	93.40	92.90		
February 20, 2013	82.11	78.88	99.55			96.20	92.75	92.10		
April 1, 2013	81.20	77.70	98.60				91.75	91.20		
September 30, 2013	83.33	80.09	101.30				94.80	94.22		
April 7, 2014	80.00	76.80	97.87				91.04	90.65		
October 6, 2014	80.35	77.15	98.75				91.91	91.55		
April 17, 2015	78.75	75.45	96.88				90.10	89.72		
May 20, 2015	78.93	75.72	97.27				90.42	90.06	104.15	
June 3, 2015	78.85	75.65	97.00				90.14	89.80	103.65	
October 9, 2015	83.10	79.90	100.80				93.80	93.50	107.50	
April 4, 2016	77.92	74.76	95.65				88.90	89.40	102.34	
October 7, 2016	80.35	77.5	98.60				91.6	91.3	105.3	
April 7, 2017	75.80	72.52	94.30				87.33	87.10	101.00	
October 6, 2017	79.56	76.35	98.12				91.10	90.85	103.82	
November 30, 2017										156.90
December 28, 2017	77.65									
February 1, 2018										155.80
April 5-6, 2018	78.60	75.50	96.90				89.90	89.62	103.65	
April 25, 2018										157.00
October 4, 2018							90.38	90.20		
October 30, 2018	79.70	76.30	95.40						102.20	
January 9, 2019										158.20
April 1, 2019	75.50	73.10	94.55				87.20	87.05	99.55	150.35
October 28-29, 2019	76.70	73.60	94.95				88.20	88.05	101.75	152.50

Table 1. Water Level Summary - Bedrock Wells
Land and Gas Reclamation Landfill / File No. 25220008.02

Ground Water Elevation in feet above mean sea level (amsl)										
Well Number	**P401D**	**P402E**	**P423D**	**Office Well**	**PW18**	**PW27**	**P424D**	**P424SS**	**P426D**	**P429SS**
Top of Casing Elevation (feet amsl)	932.30	929.08	948.99	958.14	947.56	946.15	942.60	941.88	955.64	999.24
Screen/Open Hole Length (ft)	15.00	20.00	18.00	46.00	60.00	43.00	20.00	20.00	20.00	15.00
Total Depth (ft from top of casing)	147.40	177.98	225.01	202.00	247.00	205.00	206.10	411.45	221.80	460.00
Top of Screen / Open Hole Elevation (ft)	799.90	771.10	205.01	802.14	760.56	784.15	756.50	550.43	753.84	554.24
Measurement Date										
March 12, 2010	855.43	855.50		904.32	839.31	854.71				
April 8, 2011	855.34	855.41	853.69							
October 6-7, 2011	851.04	851.08	848.49							
April 13, 2012	854.70	854.68	852.99							
October 3-5, 2012	850.60	850.65	849.27							
December 17, 2012	850.14	850.13	848.49			849.25	849.20	848.98		
February 20, 2013	850.19	850.20	849.44			849.95	849.85	849.78		
April 1, 2013	851.10	851.38	850.39				850.85	850.68		
September 30, 2013	848.97	848.99	847.69				847.80	847.66		
April 7, 2014	852.30	852.28	851.12				851.56	851.23		
October 6, 2014	851.95	851.93	850.24				850.69	850.33		
April 17, 2015	853.55	853.63	852.11				852.50	852.16		
May 20, 2015	853.37	853.36	851.72				852.18	851.82	851.49	
June 3, 2015	853.45	853.43	851.99				852.46	852.08	851.99	
October 9, 2015	849.20	849.18	848.19				848.80	848.38	848.14	
April 4, 2016	854.38	854.32	853.34				853.70	852.48	853.30	
October 7, 2016	851.95	851.58	850.39				851.00	850.58	850.34	
April 7, 2017	856.50	856.56	854.69				855.27	854.78	854.64	
October 6, 2017	852.74	852.73	850.87				851.50	851.03	851.82	
November 30, 2017										842.34
December 28, 2017	854.65									
February 1, 2018										843.44
April 5-6, 2018	853.70	853.58	852.09				852.70	852.26	851.99	
April 25, 2018										842.24
October 4, 2018							852.22	851.68		Well
October 30, 2018	852.60	852.78	853.59						853.44	Inaccessible
January 9, 2019										841.04
April 1, 2019	856.80	855.98	854.44				855.40	854.83	856.09	848.89
October 28-29, 2019	855.60	855.48	854.04				854.40	853.83	853.89	846.74
Bottom of Well Elevation (ft)	784.90	751.10	723.98	756.14	700.56	741.15	736.50	530.43	733.84	539.24

Created by: EO Date: 3/16/2010
Last revision by: AJR Date: 12/13/2019
Checked by: JSN Date: 4/21/2020

Table 2. LGRL VOC Investigation Bedrock Well Sample Results - Through October 2019
Land and Gas Reclamation Landfill / File No. 25220008.02
(Results are in µg/L, except where otherwise noted)

Note: See last page for abbreviations, notes, and groundwater standards.

Well Number	Sample Date	Lab	Chloride (mg/L)	Alkalinity (mg/L)	Hardness (mg/L)	Chloroethane	Chloromethane	1,1-Dichloroethane	1,1-Dichloroethene	cis-1,2-Dichloroethene	trans-1,2-Dichloroethene	Tetrachloroethene	Trichloroethene	Vinyl Chloride	Other VOCs
P-401D	10/7/2009	Siemens	**6.37**	**452**	**194**	<0.70	<0.40	<0.40	<0.40	<0.4	<0.50	<0.30	<0.4	<0.2	ND
	4/6/2010	Siemens	**12.3**	**400**	**278**	<0.70	<0.40	<0.40	<0.40	<0.4	<0.50	<0.10	<0.4	<0.2	o-Xylene **0.22** J
	10/27/2010	Siemens	**10.4**	**345**	**277**	<0.70	<0.40	<0.40	<0.40	<0.4	<0.50	<0.30	<0.4	<0.2	ND
	11/29/2010	Siemens	**11.6**	**340**	--	<0.70	<0.40	<0.30	<0.40	<0.4	<0.50	<0.30	<0.4	<0.2	ND
	4/8/2011	Siemens	**9.4**	**356**	**281**	<0.70	<0.40	<0.40	<0.40	<0.4	<0.50	<0.30	<0.4	<0.2	cis-1,3-Dichloropropylene **0.25** J
	10/6/2011	Siemens	**9.36**	**332**	**273**	<0.70	<0.40	<0.40	<0.40	<0.4	<0.50	<0.30	<0.4	<0.2	Carbon Disulfide **28.8**
	4/13/2012	Siemens	**9.44**	**365**	**226**	<0.70	<0.40	<0.40	<0.40	<0.4	<0.50	<0.30	<0.4	<0.2	ND
	10/4/2012	Pace	**9.4**	**359**	**219**	<0.97	<0.24	<0.75	<0.57	<0.83	<0.89	<0.45	<0.48	<0.18	ND
	10/4/2013	Pace	**12.6**	**360**	**251**	<0.44	<0.39	<0.28	<0.43	<0.42	<0.37	<0.47	<0.36	<0.18	ND
	4/7/2014	Pace	**10.9**	**362**	**255**	<0.37	<0.50	<0.16	<0.41	<0.26	<0.24	<0.50	<0.33	<0.18	ND
	10/17/2014	Pace	**12.4**	**340**	**280**	<0.37	<0.50	<0.24	<0.41	<0.26	<0.26	<0.50	<0.33	<0.18	ND
	4/17/2015	Pace	**12.0**	**348**	**251**	<0.37	<0.50	<0.24	<0.41	<0.26	<0.26	<0.50	<0.33	<0.18	ND
	10/9/2015	Pace	**12.6**	**350**	**289**	<0.37	<0.50	<0.24	<0.41	**11.0**	**0.43** J	<0.50	**0.41** J	<0.18	Acetone **21.2**
	4/7/2016	Pace	**12.5**	**344**	**273**	<0.37	<0.50	<0.24	<0.41	**1.7**	<0.26	<0.50	<0.33	<0.18	Acetone **3.0** J
	12/28/2017	Pace	**16.4**	**340**	**323**	<0.37	<0.50	<0.24	<0.41	<0.26	<0.26	<0.50	<0.33	<0.18	ND
	4/6/2018	Pace	**17.2**	**348**	**357**	<0.37 L1	<0.50	<0.24	<0.41	<0.26	<0.26	<0.50	<0.33	<0.18	Acetone **3.0** J1
	10/30/2018	Pace	**16.8**	**332**	**322**	<1.3	<2.2	<0.27	<0.24	**0.33** J1	<1.1	<0.33	<0.26	<0.17	Acetone **10.6** J1
	10/30/2018 (DUP)	Pace	**16.9**	**336**	**309**	<1.3	<2.2	<0.27	<0.24	**0.61** J1	<1.1	<0.33	<0.26	<0.17	Acetone **7.3** J1
	4/4/2019	Pace	**16.8**	**333**	**304**	<1.3	<2.2	<0.27	<0.24	<0.27	<1.1	<0.33	<0.26	<0.17	ND
	10/28/2019	Pace	**15.7**	**321**	**320**	<1.3	<2.2	<0.27	<0.24	<0.27	<1.1	<0.33	<0.26	<0.17	Acetone **9.2** J1
P-402D (Abandoned)	10/7/2009	Siemens	**60.9**	**381**	**1,050**	<0.70	<0.40	<0.40	<0.40	<0.40	<0.50	<0.30	<0.40	<0.20	Toluene **0.43** J
P-402E	1/22/2010	Siemens	**47.3**	**439**	**516**	**2.6** CSH	**0.53** J	**2.9**	**0.5** J	**120**	**4.18**	<0.30	**2.71**	**23.6**	
	2/24/2010	Siemens	**72.4**	484	--	<3.50	<2.00	<2.00	<2.00	**176**	**7.38**	<1.50	**2.66**	**26.6**	ND
	2/24/2010	TA	--	--	--	**3.9**	<0.30	**1.9**	**0.61**	**200**	**8**	<0.50	**1.9**	**35**	
	4/7/2010	Siemens	**68.5**	**414**	**486**	**7.25** J	<4.0	<4.0	<4.0	**395**	**12.4** J	<3.0	**4.84** J	**48.8**	ND

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Land and Gas Reclamation Landfill / File No. 25220008.02
(Results are in µg/L, except where otherwise noted)

Note: See last page for abbreviations, notes, and groundwater standards.

Well Number	Sample Date	Lab	Chloride (mg/L)	Alkalinity (mg/L)	Hardness (mg/L)	Chloroethane	Chloromethane	1,1-Dichloroethane	1,1-Dichloroethene	cis-1,2-Dichloroethene	trans-1,2-Dichloroethene	Tetrachloroethene	Trichloroethene	Vinyl Chloride	Other VOCs	
P-402E	10/27/2010	Siemens	**78.4**	**403**	**505**	<7.0	<4.0	<4.0	<4.0	**459**	**14.8** J	<3.0	**11.1** J	**39.4**	Methylene Chloride	**8.47** J
(cont.)	11/29/2010	Siemens	**83.6**	**410**	--	<7.0	<4.0	<4.0	<4.0	**346**	**10.9** J	<3.0	**9.16** J	**40.6**	ND	
	4/8/2011	Siemens	**87.7**	**404**	**483**	**7.64**	<0.40	**1.41**	**1.65**	**499**	**18.8**	<0.30	**15.7**	**53.5**	Tetrahydrofuran	**4.95** J
	10/7/2011	Siemens	**73**	**392**	**502**	**5.87**	<0.40	**1.47**	**1.23** J	**344**	**11.8**	<0.30	**13.6**	**41.9**	Carbon Disulfide Tetrahydrofuran	**3.30** J **2.77** J
	4/13/2012	Siemens	**75.9**	**412**	**496**	<7	<4	<4	<4	**412**	**11.6** J	<3	**11.5 J**	**41.4**	ND	
	10/4/2012	Pace	**68.8**	**344**	**466**	**5.0**	<0.24	**1.3**	**1.2**	**360**	**13.0**	<0.45	**12.5**	**39.3**	Tetrahydrofuran	**2.7** J
	4/5/2013	Pace	**60.2**	**397**	**566**	**5.8**	<0.96	<3.0	<2.3	**330**	**11.2**	<1.8	**10.2**	**35.5**	ND	
	10/4/2013	Pace	**61.6**	**397**	**456**	**4.5**	<0.78	**1.3** J	<0.85	**301**	**20.5**	<0.94	**8.3**	**25.3**	ND	
	4/7/2014	Pace	**61.5**	**399**	**470**	**8.0**	<2.0	**1.2** J	<1.6	**326**	**12.0**	<2.0	**8.3**	**42.6**	ND	
	10/15/2014	Pace	**61.7**	**373**	**453**	**5.0**	<2.5	<1.2	<2.1	**283**	**17.9**	<2.5	**6.5**	**28.3**	ND	
	4/17/2015	Pace	**62.8**	**383**	**450**	**4.8**	<1.2	**0.82** J	<1.0	**298**	**8.5**	<5.1	**5.5**	**27.6**	ND	
	10/9/2015	Pace	**64.5**	**389**	**465**	**5.2**	<1.2	<0.60	<1.0	**287**	**8.4**	<1.2	**4.8**	**25.2**	Acetone	**19.6** J
	4/7/2016	Pace	**63.5**	**364**	**450**	**7.9**	<1.2	**1.1** J	<1.0	**315**	**20.3**	<1.2	**4.4**	**28.8**	ND	
	10/7/2016	Pace	**56.8**	**376**	**475**	**7.4**	<2.0	<0.97	<1.6	**309**	**9.4**	<2.0	**3.8** J	**26.9**	ND	
	4/7/2017	Pace	**65.3**	**392**	**442**	**7.1**	<1.2	**1.1** J	<1.0	**324**	**14.3**	<1.2	**3.3**	**29.7**	ND	
	10/6/2017	Pace	**58.4**	**379**	**452**	**5.2**	<1.2	0.78 J	1.5 J	**290**	**11.5**	<1.2	**3.5**	**27.2**	ND	
	4/6/2018	Pace	**54.9**	**388** M0	**478**	<0.94 L1	<1.2	**1.2** J1	<1.0	**337**	<0.64	<1.2	**2.4** J1	**25.7**	ND	
	4/6/2018 (DUP)	Pace	**55.3**	**366**	**482**	**3.1** L1	<0.50	**1.2**	**1.1**	**324**	**4.5**	<0.50	**2.5**	**27.2**	Acetone Tetrahydrofuran	**7.2** J1 3.2 J1
	10/30/2018	Pace	**53.5**	**377**	**436**	**4.7** J1	<5.5	**0.81** J1	<0.61	**268**	**8.9** J1	<0.82	**2.1** J1	**27.9**	ND	
	4/4/2019	Pace	**53.3**	**362**	**445**	**4.6** J1	<5.5	**0.94** J1	<0.61	**231**	**7.2** J1	**1.5** J1	**1.7** J1	**25.5**	ND	
	10/28/2019	Pace	**50.3**	**368**	**466**	**4.4** J1	<5.5	**0.73** J1	**0.74** J1	**237**	**6.7** J1	<0.82	**1.3** J1	**29**	Acetone	11 J1

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Well Number	Sample Date	Lab	Chloride (mg/L)	Alkalinity (mg/L)	Hardness (mg/L)	Chloroethane	Chloromethane	1,1-Dichloroethane	1,1-Dichloroethene	cis-1,2-Dichloroethene	trans-1,2-Dichloroethene	Tetrachloroethene	Trichloroethene	Vinyl Chloride	Other VOCs	
P-423D	12/16/2010	Siemens	**34.6**	**394**	--	**2.13** J	<0.40	**0.60** J	<0.40	**62.1**	**2.6**	<0.30	**0.9** J	**2.53**	ND	
	4/8/2011	Siemens	**29.7**	**360**	**427**	**1.38** J	<0.40	**0.59** J	<0.40	**52**	**2.04**	<0.30	**0.73** J	**1.2**		
	10/7/2011	Siemens	**32.1**	**373**	**441**	**1.57** J	<0.40	**0.44** J	<0.40	**44.9**	**1.64** J	<0.30	**0.74** J	**2.19**	Carbon Disulfide	**1.99** J
	4/13/2012	Siemens	**28.2**	**348**	**432**	**1.36** J	<0.40	**0.59** J	<0.40	**61.9**	**2.75**	<0.30	**0.92** J	**0.91** J	ND	
	10/5/2012	Pace	**8.8**	**364**	**227**	**1.1**	<0.24	<0.75	<0.57	**51.8**	**2.5**	<0.45	**0.68** J	**1.5**	ND	
	4/5/2013	Pace	**25.6**	**364**	**487**	**1.5**	<0.24	<0.75	<0.57	**59.4**	**2.6**	<0.45	**0.72** J	**2.1**	ND	
	10/3/2013	Pace	**30.6**	**356**	**413**	**1.1**	<0.39	<0.28	<0.43	**59.3**	**2.4**	<0.47	**0.74** J	**1.1**	ND	
	4/7/2014	Pace	**29.9**	**366**	**420**	**1.5**	<0.50	**0.41** J	<0.41	**53.6**	**2.6**	<0.50	**0.75** J	**1.0** J	ND	
	10/16/2014	Pace	**32.4**	**347**	**410**	**0.95** J	<0.50	**0.37** J	<0.41	**51.2**	**2.5**	<0.50	**0.66** J	**0.91** J	ND	
	4/17/2015	Pace	**33.8**	**357**	**408**	**0.97** J	<0.50	**0.35** J	<0.41	**47.7**	**2.2**	<0.50	**0.66** J	**1.1**	ND	
	10/9/2015	Pace	**40.3**	**370**	**430**	**1.3**	<0.50	**0.32** J	<0.41	**45.5**	**2.0**	<0.50	**0.60** J	**1.1**	ND	
	4/8/2016	Pace	**37.5**	**355**	**432**	**0.62** J	<0.50	<0.24	<0.41	**29.7**	**1.2**	<0.50	**0.47** J	<0.18	ND	
	10/7/2016	Pace	**43.4**	**372**	**447**	**1.9**	<0.50	**0.38** J	<0.41	**43.9**	**2.0**	<0.50	**0.57** J	**1.1**	ND	
	4/7/2017	Pace	**43.0**	**364**	**430**	**1.7**	<0.50	**0.44** J	<0.41	**47.9**	**2.6**	<0.50	**0.73** J	**1.1**	ND	
	10/6/2017	Pace	**34.8**	**354**	**432**	**2.1**	<0.50	0.38 J	<0.41	**58.6**	**3.1**	<0.50	**0.59** J	**2.5**	ND	
	4/6/2018	Pace	**41.0**	**365**	**472**	<0.37 L1	<0.50	**0.65** J1	<0.41	**92.4**	<0.26	<0.50	**0.74** J1	**3.3**	ND	
	10/30/2018	Pace	**39.2**	**371**	**437**	**2.8** J1	<2.2	**0.56** J1	<0.24	**82.5**	**3.6** J1	<0.33	**0.70** J1	**2.9**	Acetone	**3.6** J1
	4/4/2019	Pace	**36.3**	**358**	**428**	**2.8** J1	<2.2	**0.66** J1	<0.24	**80.4**	**4.1**	<0.33	**0.59** J1	**2.5**	Acetone	**7.7** J1
	10/29/2019	Pace	**28.6**	**336**	**434**	**1.8** J1	<2.2	**0.53** J1	<0.24	**71.8**	**3.3** J1	<0.33	**0.71** J1	**2.1**	2-Butanone (MEK) Acetone	**11.1** J1 **5.4** J1
P-424D	12/17/2012	Pace	**33.8**	**357**	**409**	**2.5**	<0.48	<1.5	<1.1	**91.2**	**3.5**	<0.90	**1.7** J	**7.0**	ND	
	2/20/2013	Pace	**32.6**	**382**	**432**	**2.6**	<0.24	**0.92** J	<0.57	**105**	**3.2**	<0.45	**2.5**	**5.8**	ND	
	10/3/2013	Pace	**38.5**	**379**	**444**	**2.6**	<0.39	**1.1**	<0.43	**124**	**3.5**	<0.47	**3.2**	**10.1**	ND	
	4/7/2014	Pace	**34.8**	**369**	**427**	**3.1**	<0.50	**0.98** J	**0.42** J	**114**	**4**	<0.50	**3**	**7.6**	Acetone	**3.1** J
	10/16/2014	Pace	**40.7**	**358**	**424**	**3.3**	<1.0	**0.92** J	<0.82	**122**	**4.9**	<1.0	**2.4**	**7.7**	ND	
	4/17/2015	Pace	**37.7**	**363**	**409**	**1.8**	<0.50	**0.54** J	<0.41	**79.6**	**2.5**	<0.50	**2.3**	**2.6**	ND	

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Well Number	Sample Date	Lab	Chloride (mg/L)	Alkalinity (mg/L)	Hardness (mg/L)	Chloroethane	Chloromethane	1,1-Dichloroethane	1,1-Dichloroethene	cis-1,2-Dichloroethene	trans-1,2-Dichloroethene	Tetrachloroethene	Trichloroethene	Vinyl Chloride	Other VOCs	
P-424D	10/9/2015	Pace	**48.6**	**384**	**449**	**3.5**	<0.50	**0.88** J	<0.41	**120**	**3.8**	<0.50	**2.2**	**11.4**	ND	
(cont.)	4/8/2016	Pace	**40.7**	**369**	**432**	**2.9**	<0.50	**0.82** J	<0.41	**111**	**3.4**	<0.50	**2.3**	**5.3**	ND	
	10/7/2016	Pace	**45.1**	**370**	**485**	**4.1**	<1.2	**0.94** J	<1.0	**125**	**4.3**	<1.2	**2.3** J	**9.9**	ND	
	4/7/2017	Pace	**43.2**	**374**	**422**	**3.6**	<0.50	**0.84** J	<0.41	**119**	**4.0**	<0.50	**2.1**	**7.6**	ND	
	10/6/2017	Pace	**43.2**	**369**	**452**	**3.1**	<0.50	**1**	**0.51** J	**151**	**4.7**	<0.50	**2**	**9.4**	ND	
	4/6/2018	Pace	**41.1**	**371**	**466**	**0.41** J1,L1	<0.50	<0.24	**0.54** J1	**156**	<0.26	<0.50	**2.0**	**9.7**	Tetrahydrofuran	**2.6** J1
	10/5/2018	Pace	**36.1**	**366**	**457**	**3.3** J1	<2.2	**0.66** J1	**0.41** J1	**104**	**3.4** J1	<0.33	**2.0**	**10.5**	ND	
	4/4/2019	Pace	**38.1**	**356**	**436**	**2.9** J1	<2.2	**0.82** J1	**0.41** J1	**115**	**3.6** J1	<0.33	**1.9**	**8.4**	Acetone	**3.5** J1
	10/28/2019	Pace	**36**	**357**	**452**	**2.4** J1	<2.2	**0.82** J1	**0.33** J1	**114**	**3.6** J1	<0.33	**1.9**	**8.3**	Acetone	**5.8** J1
P-424SS	12/17/2012	Pace	<2.0	**303**	**287**	<0.97	<0.24	<0.75	<0.57	<0.83	<0.89	<0.45	<0.48	<0.18	ND	
	2/20/2013	Pace	**2.1** J	**309**	**298**	<0.97	<0.24	<0.75	<0.57	<0.83	<0.89	<0.45	<0.48	<0.18	ND	
	10/3/2013	Pace	**2.8** J	**320**	**298**	<0.44	<0.39	<0.28	<0.43	<0.42	<0.37	<0.47	<0.36	<0.18	ND	
	4/7/2014	Pace	**2.5** J	**311**	**290**	<0.37	<0.50	<0.16	<0.41	<0.26	<0.24	<0.50	<0.33	<0.18	ND	
	10/16/2014	Pace	**2.8** J	**303**	**283**	<0.37	<0.50	<0.24	<0.41	<0.26	<0.26	<0.50	<0.33	<0.18	ND	
	4/17/2015	Pace	**2.8** J	**314**	**276**	<0.37	<0.50	<0.24	<0.41	<0.26	<0.26	<0.50	<0.33	<0.18	Acetone	**3.7** J
	10/9/2015	Pace	**2.4** J	**323**	**295**	<0.37	<0.50	<0.24	<0.41	<0.26	<0.26	<0.50	<0.33	<0.18	ND	
	4/8/2016	Pace	**2.7** J	**309**	**293**	<0.37	<0.50	<0.24	<0.41	<0.26	<0.26	<0.50	<0.33	<0.18	ND	
	10/7/2016	Pace	**1.0** JB	**307**	**294**	<0.37	<0.50	<0.24	<0.41	<0.26	<0.26	<0.50	<0.33	<0.18	ND	
	4/7/2017	Pace	**0.92** J	**314**	**288**	<0.37	<0.50	<0.24	<0.41	<0.26	<0.26	<0.50	<0.33	<0.18	ND	
	4/7/2017 DUP	Pace	**0.91** J	**317**	**284**	<0.37	<0.50	<0.24	<0.41	<0.26	<0.26	<0.50	<0.33	<0.18	ND	
	10/6/2017	Pace	**0.80** J	**310**	**306**	<0.37	<0.50	<0.24	<0.41	<0.26	<0.26	<0.50	<0.33	<0.18	ND	
	4/6/2018	Pace	**0.72** J1	**318**	**329**	<0.37 L1	<0.50	<0.24	<0.41	<0.26	<0.26	<0.50	<0.33	<0.18	Acetone	**3.0** J1
	10/5/2018	Pace	**0.96** J1	**307** M0	**326**	<1.3	<2.2	<0.27	<0.24	<0.27	<1.1	<0.33	<0.26	<0.17	ND	
	4/4/2019	Pace	**0.76** J1	**301**	**312**	<1.3	<2.2	<0.27	<0.24	<0.27	<1.1	<0.33	<0.26	<0.17	Acetone	**5.9** J1
	10/28/2019	Pace	**1.0** J1	**291**	**318**	<1.3	<2.2 R1	<0.27	<0.24	<0.27	<1.1	<0.33	<0.26	<0.17	Acetone	**5.5** J1

Table 2. LGRL VOC Investigation Bedrock Well Sample Results - Through October 2019
Land and Gas Reclamation Landfill / File No. 25220008.02
(Results are in µg/L, except where otherwise noted)

Note: See last page for abbreviations, notes, and groundwater standards.

Well Number	Sample Date	Lab	Chloride (mg/L)	Alkalinity (mg/L)	Hardness (mg/L)	Chloroethane	Chloromethane	1,1-Dichloroethane	1,1-Dichloroethene	cis-1,2-Dichloroethene	trans-1,2-Dichloroethene	Tetrachloroethene	Trichloroethene	Vinyl Chloride	Other VOCs
P-426D	6/3/2015	Pace	--	--	--	<0.37	<0.50	<0.24	<0.41	<0.26	<0.26	<0.50	<0.33	<0.18	ND
	8/12/2015	Pace	**21.5**	**337**	**405**	<0.37	<0.50	<0.24	<0.41	<0.26	<0.26	<0.50	<0.33	<0.18	ND
	10/9/2015	Pace	**59.6**	**369**	**499**	<0.37	<0.50	<0.24	<0.41	<0.26	<0.26	<0.50	<0.33	<0.18	Acetone **18.6** J
	4/8/2016	Pace	**27.7**	**331**	**408**	<0.37	<0.50	<0.24	<0.41	<0.26	<0.26	<0.50	<0.33	<0.18	ND
	10/7/2016	Pace	**55**	**362**	**532**	<0.37	<0.50	<0.24	<0.41	<0.26	<0.26	<0.50	<0.33	<0.18	ND
	4/7/2017	Pace	**37.0**	**349**	**413**	<0.37	<0.50	<0.24	<0.41	<0.26	<0.26	<0.50	<0.33	<0.18	ND
	10/27/2017	Pace	**44.4**	**334**	**480**	<0.37	<0.50	<0.24	<0.41	<0.26	<0.26	<0.50	<0.33	<0.18	ND
	4/6/2018	Pace	**43.9**	**349**	**499**	<0.37 L1	<0.50	<0.24	<0.41	<0.26	<0.26	<0.50	<0.33	<0.18	ND
	10/30/2018	Pace	**59.2**	**356**	**492**	<1.3	<2.2	<0.27	<0.24	<0.27	<1.1	<0.33	<0.26	<0.17	ND
	4/5/2019	Pace	**36.2**	**319**	**437**	<1.3	<2.2	<0.27	<0.24	<0.27	<1.1	<0.33	<0.26	<0.17	ND
	10/29/2019	Pace	**60.6**	**350**	**536**	<1.3	<2.2	<0.27	<0.24	<0.27	<1.1	<0.33	<0.26	<0.17	Acetone **6.5** J1
P-429SS	11/30/2017	Pace	--	--	--	<0.37	<0.50	<0.24	<0.41	<0.26	<0.26	<0.50	<0.33	<0.18	ND
	2/1/2018	Pace	**1.3** J	**318**	**322**	<0.37	<0.50	<0.24	<0.41	<0.26	<0.26	<0.50	<0.33	<0.18	ND
	4/25/2018	Pace	**1.1** J1	**313**	**314**	<0.37	<0.50	<0.24	<0.41	<0.26	<0.26	<0.50	<0.33	<0.18	ND
	1/9/2019	Pace	**2.5**	**296**	**320**	<1.3	<2.2	<0.27	<0.24	<0.27	<1.1	<0.33	<0.26	<0.17	Acetone **4.3** J
	4/26/2019	Pace	**1.2** J	**317**	**328**	<1.3	<2.2	<0.27	<0.24	<0.27	<1.1	<0.33	<0.26	<0.17	Acetone **40.8**
	10/29/2019	Pace	**1.5** J1,B	**306** M0	**336**	<1.3	<2.2	<0.27	<0.24	<0.27	<1.1	<0.33	<0.26	<0.17	Acetone **11.9** J1
Trip Blank	1/22/2010	Siemens	--	--	--	<0.70	<0.40	<0.40	<0.40	<0.40	<0.50	<0.30	<0.40	<0.20	ND
	2/24/2010	TA	--	--	--	<1.0	<0.30	<0.50	<0.50	<0.50	<0.50	<0.50	<0.20	<0.20	ND
	2/24/2010	Siemens	--	--	--	<0.70	<0.40	<0.40	<0.40	<0.40	<0.50	<0.30	<0.40	<0.20	ND
	11/29/2010	Siemens	--	--	--	<0.70	<0.40	<0.40	<0.40	<0.40	<0.50	<0.30	<0.40	<0.20	ND
	12/16/2010	Siemens	--	--	--	<0.70	<0.40	<0.40	<0.40	<0.40	<0.50	<0.30	<0.40	<0.20	ND
	10/6/2011	Siemens	--	--	--	<0.70	<0.40	<0.40	<0.40	<0.40	<0.50	<0.30	<0.40	<0.20	ND
	10/7/2011	Siemens	--	--	--	<0.70	<0.40	<0.40	<0.40	<0.40	<0.50	<0.30	<0.40	<0.20	ND
	4/13/2012	Siemens	--	--	--	<0.70	<0.40	<0.40	<0.40	<0.40	<0.50	<0.30	<0.40	<0.20	ND

Table 2. LGRL VOC Investigation Bedrock Well Sample Results - Through October 2019
Land and Gas Reclamation Landfill / File No. 25220008.02
(Results are in µg/L, except where otherwise noted)

Note: See last page for abbreviations, notes, and groundwater standards.

Well Number	Sample Date	Lab	Chloride (mg/L)	Alkalinity (mg/L)	Hardness (mg/L)	Chloroethane	Chloromethane	1,1-Dichloroethane	1,1-Dichloroethene	cis-1,2-Dichloroethene	trans-1,2-Dichloroethene	Tetrachloroethene	Trichloroethene	Vinyl Chloride	Other VOCs	
Trip Blank	10/4/2012	Pace	--	--	--	<0.97	<0.24	<0.75	<0.57	<0.83	<0.89	<0.45	<0.48	<0.18	ND	
(cont.)	10/5/2012	Pace	--	--	--	<0.97	<0.24	<0.75	<0.57	<0.83	<0.89	<0.45	<0.48	<0.18	Methylene Chloride Acetone	**1.0** **6.8** J
	12/17/2012	Pace	--	--	--	<0.97	<0.24	<0.75	<0.57	<0.83	<0.89	<0.45	<0.48	<0.18	ND	
	10/3/2013	Pace	--	--	--	<0.44	<0.39	<0.28	<0.43	<0.42	<0.37	<0.47	<0.36	<0.18	ND	
	4/7/2014	Pace	--	--	--	<0.37	<0.50	<0.16	<0.41	<0.26	<0.24	<0.50	<0.33	<0.18	Methylene Chloride	**0.25** J
	10/15/2014	Pace	--	--	--	<0.37	<0.50	<0.24	<0.41	<0.26	<0.26	<0.50	<0.33	<0.18	ND	
	4/17/2015	Pace	--	--	--	<0.37	<0.50	<0.24	<0.41	<0.26	<0.26	<0.50	<0.33	<0.18	Acetone	**8.5** J
	6/3/2015	Pace	--	--	--	<0.37	<0.50	<0.24	<0.41	<0.26	<0.26	<0.50	<0.33	<0.18	ND	
	8/12/2015	Pace	--	--	--	<0.37	<0.50	<0.24	<0.41	<0.26	<0.26	<0.50	<0.33	<0.18	Methylene Chloride	**0.28** J
	10/9/2015	Pace	--	--	--	<0.37	<0.50	<0.24	<0.41	<0.26	<0.26	<0.50	<0.33	<0.18	ND	
	4/7/2016	Pace	--	--	--	<0.37	<0.50	<0.24	<0.41	<0.26	<0.26	<0.50	<0.33	<0.18	ND	
	4/8/2016	Pace	--	--	--	<0.37	<0.50	<0.24	<0.41	<0.26	<0.26	<0.50	<0.33	<0.18	ND	
	10/5/2017	Pace	--	--	--	<0.37	<0.50	<0.24	<0.41	<0.26	<0.26	<0.50	<0.33	<0.18	ND	
	4/6/2018	Pace	--	--	--	<0.37	<0.50	<0.24	<0.41	<0.26	<0.26	<0.50	<0.33	<0.18	ND	
	4/25/2018	Pace	--	--	--	<0.37	<0.50	<0.24	<0.41	<0.26	<0.26	<0.50	<0.33	<0.18	ND	
	10/5/2018	Pace	--	--	--	<1.3	<2.2	<0.27	<0.24	<0.27	<1.1	<0.33	<0.26	<0.17	ND	
	10/30/2018	Pace	--	--	--	<1.3	<2.2	<0.27	<0.24	<0.27	<1.1	<0.33	<0.26	<0.17	ND	
	4/4/2019	Pace	--	--	--	<1.3	<2.2	<0.27	<0.24	<0.27	<1.1	<0.33	<0.26	<0.17	ND	
	4/26/2019	Pace	--	--	--	<1.3	<2.2	<0.27	<0.24	<0.27	<1.1	<0.33	<0.26	<0.17	ND	
NR 140 Groundwater Enforcement Standard			250	NS	NS	400	30	850	7	70	100	5	5	0.2	1,4 Dichlorobenzene Acetone Carbon Disulfide Chloroform Methylene Chloride Tetrahydrofuran Toluene Xylenes	75 9,000 1,000 6 5 50 800 2,000

Table 2. LGRL VOC Investigation Bedrock Well Sample Results - Through October 2019
Land and Gas Reclamation Landfill / File No. 25220008.02
(Results are in µg/L, except where otherwise noted)

Note: See last page for abbreviations, notes, and groundwater standards.

Well Number	Sample Date	Lab	Chloride (mg/L)	Alkalinity (mg/L)	Hardness (mg/L)	Chloroethane	Chloromethane	1,1-Dichloroethane	1,1-Dichloroethene	cis-1,2-Dichloroethene	trans-1,2-Dichloroethene	Tetrachloroethene	Trichloroethene	Vinyl Chloride	Other VOCs	
NR 140 Preventive Action Limit			125	NS	NS	80	3	85	0.7	7	20	0.5	0.5	0.02	1,4 Dichlorobenzene	15
															Acetone	1,800
															Carbon Disulfide	200
															Chloroform	0.6
															Methylene Chloride	0.5
															Tetrahydrofuran	10
															Toluene	160
															Xylenes	400

Table 2. LGRL VOC Investigation Bedrock Well Sample Results - Through October 2019
Land and Gas Reclamation Landfill / File No. 25219008.02

Abbreviations:
ND = Not detected
NS = No standard established
mg/L = Milligrams per Liter
µg/L = Micrograms per Liter
Siemens = Siemens Water Technologies
TA = TestAmerica, Watertown, WI
Pace = Pace Analytical Services, Inc., Green Bay, WI
-- = Not Analyzed

Bold indicates detected compound.
Bold and underline indicates result above drinking water standard.

Lab Notes/Qualifiers:
B = Analyte was detected in the associated method blank.
CSH = Check standard for this analyte exhibited a high bias. Sample results may also be biased high.
J = Estimated value below laboratory limit of quantitation.
J1 = Estimated concentration at or above the Limit of Detection (LOD) and below the Limit of Quantitation (LOQ).
L1 = Analyte recovery in the laboratory control sample (LCS) was above QC limits. Results may be biased high.
M0 = Matrix spike recovery and/or matrix spike duplicate recovery was outside laboratory contorl limits.
R1 = Relative Percent Difference value was outside control limits.

Created by:	MOB	Date:	9/5/2012
Last revision by:	AJR	Date:	12/13/2019
Checked by:	JSN	Date:	4/21/2020
Proj Mgr QA/QC:	SCC	Date:	5/26/2020

Table 3. LGRL VOC Investigation Deep Unconsolidated Well Sample Results - Through October 2019
Land and Gas Reclamation Landfill / File No. 25220008.02
(Results are in µg/L, except where otherwise noted)

Well Number	Sample Date	Lab	Chloride (mg/L)	Alkalinity (mg/L)	Hardness (mg/L)	Chloroethane	Chloromethane	1,1-Dichloroethane	1,1-Dichloroethene	cis-1,2-Dichloroethene	trans-1,2-Dichloroethene	Tetrachloroethene	Trichloroethene	Vinyl Chloride	Other VOCs	
MW-1B	10/27/2010	Siemens	**53.1**	**231**	**251**	<0.7	<0.4	<0.4	<0.4	**4.02**	<0.5	<0.30	<0.4	**0.33 J**	o-xylene	**0.28** J
	4/7/2011	Siemens	**72.3**	**174**	**271**	<0.7	<0.4	<0.4	<0.4	<0.4	<0.5	<0.30	<0.4	<0.20	ND	
	10/7/2011	Siemens	**78.1**	**200**	**292**	<0.7	<0.4	<0.4	<0.4	<0.4	<0.5	<0.30	<0.4	**0.58 J**	Carbon Disulfide	**2.77** J
	4/13/2012	Siemens	**84.3**	**186**	**291**	<0.7	<0.4	<0.4	<0.4	<0.4	<0.5	<0.30	<0.4	<0.20	Acetone	**7.88** J
	10/4/2012	Siemens	**71.6**	**196**	**276**	<0.97	<0.24	<0.75	<0.57	<0.83	<0.89	<0.45	<0.48	**0.37 J**	Carbon Disulfide	**21.8**
	10/1/2013	Pace	**83.5**	**216**	**276**	<0.44	<0.39	<0.28	<0.43	**2.7**	<0.37	<0.47	<0.36	**4.1**	ND	
	4/7/2014	Pace	**69.8**	**219**	**276**	<0.37	<0.50	<0.16	<0.41	<0.26	<0.24	<0.50	<0.33	<0.18	ND	
	10/10/2014	Pace	**71.6**	**213**	**284**	<0.37	<0.50	<0.24	<0.41	<0.26	<0.26	<0.50	<0.33	<0.18	Acetone	**4.1** J
	4/17/2015	Pace	**67.6**	**224**	**265**	<0.37	<0.50	<0.24	<0.41	<0.26	<0.26	<0.50	<0.33	**1.1**	ND	
	10/9/2015	Pace	**64.4**	**227**	**290**	<0.37	**0.63 J**	<0.24	<0.41	<0.26	<0.26	<0.50	<0.33	**1.3**	Acetone	**22.1**
	4/6/2016	Pace	**97.9**	**203**	**303**	<0.37	<0.50	<0.24	<0.41	<0.26	<0.26	<0.50	<0.33	**2.5**	**ND**	
	10/5/2016	Pace	**109**	**200**	**373**	<0.37	<0.50	<0.24	<0.41	<0.26	<0.26	<0.50	<0.33	**2.4**	**ND**	
	4/6/2017	Pace	**89**	**216**	**287**	<0.37	<0.50	<0.24	<0.41	<0.26	<0.26	<0.50	<0.33	**1.9**	**ND**	
	10/5/2017	Pace	**93.6**	**212**	**314**	<0.37	<0.50	<0.24	<0.41	<0.26	<0.26	<0.50	<0.33	**2.0**	**ND**	
	4/5/2018	Pace	**128**	**178**	**339**	<0.37	<0.50	<0.24	<0.41	<0.26	<0.26	<0.50	<0.33	**3.4**	ND	
	10/3/2018	Pace	**109**	**215**	**335**	<1.3	<2.2	<0.27	<0.24	<0.27	<1.1	<0.33	<0.26	**2.3**	Acetone	**5.3** J1
	4/4/2019	Pace	**124**	**186**	**345**	<1.3	<2.2	<0.27	<0.24	<0.27	<1.1	<0.33	<0.26	**4.2**	Acetone	**10.3** J
	10/10/2019	Pace	**123**	**180**	**331**	<1.3	<2.2	<0.27	<0.24	<0.27	<1.1	<0.33	<0.26	**5.1**	Acetone	**6.3** J1
															Carbon Disulfide	**0.98** J1
P-422B	10/27/2010	Siemens	**6.9**	**218**	**152**	<0.7	<0.4	<0.4	<0.4	**8.7**	<0.5	<0.30	**0.51 J**	**0.26 J**	ND	
	11/29/2010	Siemens	**7.16**	**225**	--	--	--	--	--	--	--	--	--	--	Methane	**24.3**
	4/7/2011	Siemens	**8.15**	**183**	**149**	<0.7	<0.4	<0.4	<0.4	<0.4	<0.5	<0.30	<0.4	< 0.20	ND	
	10/6/2011	Siemens	**6.34**	**194**	**152**	<0.7	<0.4	<0.4	<0.4	<0.4	<0.5	<0.30	<0.4	<0.20	ND	
	4/13/2012	Siemens	**10.2**	**212**	**159**	<0.7	<0.4	<0.4	<0.4	<0.4	<0.5	<0.30	<0.4	<0.20	ND	
	10/4/2012	Pace	**5.7**	**206**	**150**	<0.97	<0.24	<0.75	<0.57	<0.83	<0.89	<0.45	<0.48	<0.18	ND	
	10/3/2013	Pace	**25.8**	**196**	**169**	<0.44	<0.39	<0.28	<0.43	<0.42	<0.37	<0.47	<0.36	<0.18	ND	
	4/7/2014	Pace	**33.6**	**200**	**180**	<0.37	<0.50	<0.16	<0.41	<0.26	<0.24	<0.50	<0.33	<0.18	ND	
	10/10/2014	Pace	**25.9**	**198**	**170**	<0.37	<0.50	<0.24	<0.41	<0.26	<0.26	<0.50	<0.33	<0.18	ND	
	4/17/2015	Pace	**32.5**	**189**	**166**	<0.37	<0.50	<0.24	<0.41	<0.26	<0.26	<0.50	<0.33	<0.18	ND	

Table 3. LGRL VOC Investigation Deep Unconsolidated Well Sample Results - Through October 2019
Land and Gas Reclamation Landfill / File No. 25220008.02
(Results are in µg/L, except where otherwise noted)

Well Number	Sample Date	Lab	Chloride (mg/L)	Alkalinity (mg/L)	Hardness (mg/L)	Chloroethane	Chloromethane	1,1-Dichloroethane	1,1-Dichloroethene	cis-1,2-Dichloroethene	trans-1,2-Dichloroethene	Tetrachloroethene	Trichloroethene	Vinyl Chloride	Other VOCs
P-422B	10/9/2015	Pace	**29**	**200**	**167**	<0.37	<0.50	<0.24	<0.41	<0.26	<0.26	<0.50	<0.33	<0.18	ND
(cont.)	4/7/2016	Pace	**19.7**	**194**	**164**	<0.37	<0.50	<0.24	<0.41	<0.26	<0.26	<0.50	<0.33	<0.18	ND
	10/7/2016	Pace	**18.9**	**199**	**165**	<0.37	<0.50	<0.24	<0.41	**1.4**	<0.26	<0.50	<0.33	<0.18	ND
	4/7/2017	Pace	**12.2**	**209**	**157**	<0.37	<0.50	<0.24	<0.41	**7**	**0.27 J**	<0.50	<0.33	<0.18	ND
	10/6/2017	Pace	**10**	**212**	**166**	<0.37	<0.50	<0.24	<0.41	**0.85 J**	<0.26	<0.50	<0.33	<0.18	ND
	4/5/2018	Pace	**10.1**	**216**	**175**	<0.37	<0.50	<0.24	<0.41	<0.26	<0.26	<0.50	<0.33	<0.18	ND
	10/3/2018	Pace	**8.6**	**199**	**164**	<1.3	<2.2	<0.27	<0.24	<0.27	<1.1	<0.33	<0.26	<0.17	ND
	4/5/2019	Pace	**10.1**	**210**	**173**	<1.3	<2.2	<0.27	<0.24	<0.27	<1.1	<0.33	<0.26	<0.17	ND
	10/9/2019	Pace	**7.8**	**208**	**166**	<1.3	<2.2	<0.27	<0.24	<0.27	<1.1	<0.33	<0.26	<0.17	ND
NR 140 Groundwater Enforcement Standard			250	NS	NS	400	30	850	7	70	100	5	5	0.2	Acetone 9000 Carbon Disulfide 1,000 Xylenes 2,000
NR 140 Preventive Action Limit			125	NS	NS	80	3	85	0.7	7	20	0.5	0.5	0.02	Acetone 1,800 Carbon Disulfide 200 Xylenes 400

Abbreviations:
ND = Not detected
mg/L = Milligrams per Liter
µg/L = Micrograms per Liter
Siemens = Siemens Water Technologies
Pace = Pace Analytical Services, Inc., Green Bay, WI
-- = Not Analyzed

Bold indicates detected compound.
Bold and underline indicates result above drinking water standard.

Lab Notes/Qualifiers:
J = Estimated value below laboratory limit of quantitation.
J1 = Estimated concentration at or above the Limit of Detection (LOD) and below the Limit of Quantitation (LOQ).

Created by: MOB Date: 9/5/2012
Last revision by: AJR Date: 12/13/2019
Checked by: SCC Date: 5/26/2020
Proj Mgr QA/QC: SCC Date: 5/26/2020

Table 4. LGRL VOC Investigation Water Supply Well Sample Results - Through December 2019

(Results are in µg/L, except where otherwise noted)

Note: See last page for abbreviations, notes, and groundwater standards.

Well Number	Well Owner	Sample Date	Lab	Chloride (mg/L)	Alkalinity (mg/L)	Chloroethane	Chloromethane	1,1-Dichloroethane	1,1-Dichloroethene	cis-1,2-Dichloroethene	trans-1,2-Dichloroethene	Tetrachloroethene	Trichloroethene	Vinyl Chloride	Other VOCs
Monthly Monitoring Locations															
PW-21R	A. Oechsner N7548 Hwy. 67 Mayville	1/29/2009	NLS	**12**	**310**	<0.79	<0.31	<0.21	<0.13	**11**	**0.26** J	<0.15	<0.18	**0.61**	ND
			NLS	--	--	<0.79	<0.31	<0.21	<0.13	**10**	**0.26** J	<0.15	<0.18	**0.56**	ND
		2/24/2009	NLS	--	--	<0.79	<0.31	<0.21	<0.13	**10**	<0.19	<0.15	<0.18	**0.35** J	ND
			CT	--	--	<0.40	**0.56** JB	<0.21	<0.24	**8.6**	<0.27	<0.30	<0.24	**0.39**	ND
		6/30/2009	NLS	--	--	<0.95	<0.16	<0.25	<0.18	**19**	**0.52** J	<0.20	**0.26**	**0.53**	ND
		7/14/2010	NLS	--	--	<1.0	<0.16	<0.14	<0.11	**12**	**0.23** J	<0.10	<0.12	**0.40** J	ND
PW-21RR Untreated	A. Oechsner N7548 Hwy. 67 Mayville	10/7/2010	Siemens	--	--	<0.70	<0.40	<0.40	<0.40	**2.74**	<0.50	<0.30	<0.40	**0.58** J	ND
			TA	--	--	<1.0	<0.30	<0.50	<0.50	**2.0**	<0.50	<0.50	<0.20	**0.37** J	ND
		11/11/2010	TA	**13**	**320**	<1.0	**0.47** J	<0.50	<0.50	**2.6**	<0.50	<0.50	<0.20	**0.76** J	Chloroform **0.29** J Toluene **21**
		11/29/2010	Siemens	**12.4**	**347**	<0.70	<0.40	<0.40	<1.30	**3.12**	<0.50	<0.30	<0.40	**0.61** J	Toluene **1.25**
		12/16/2010	Siemens	--	--	<0.70	<0.40	<0.40	<0.40	**3.75**	<0.50	<0.30	<0.40	**0.65** J	Toluene **0.99** J
		1/12/2011	NLS	--	--	<1.0	<0.16	<0.14	<0.11	**4.4**	**0.13** J	<0.10	<0.12	**0.75**	ND
		2/10/2011	Siemens	--	--	<0.70	<0.40	<0.40	<0.40	**6**	<0.50	<0.30	<0.40	**0.79**	ND
		3/1/2011	TA	--	--	<0.070	<0.063	<0.074	<0.059	**6.1**	<0.13	<0.067	<0.060	**0.92**	ND
		4/5/2011	NLS	--	--	<1.6	<0.29	<0.23	<0.13	**8.9**	**0.32** J	<0.11	<0.28	**0.94**	ND
			TA	--	--	<0.10	<0.20	<0.050	<0.050	**7.3**	**0.27** J	<0.050	<0.050	**0.79**	ND
		5/26/2011	TA	--	--	**0.34** J	<0.20	**0.080** J	<0.05	**12**	**0.44** J	<0.050	<0.050	**1.0**	ND
		6/28/2011	TA	--	--	<0.50	<0.30	<0.25	<0.15	**9.8**	**0.37** J	<0.15	<0.25	**0.78**	ND
		7/14/2011	TA	--	--	<0.50	**0.33** J	<0.25	<0.15	**10**	**0.40** J	<0.15	<0.25	**0.75**	ND
		8/16/2011	TA	--	--	<0.50	<0.30	<0.25	<0.15	**9.7**	**0.31** J	<0.15	<0.25	**0.46** J	ND
		9/1/2011	TA	--	--	<0.50	**0.46** J	<0.25	<0.15	**11**	**0.45** J	<0.15	<0.25	**0.67**	ND
		10/6/2011	TA	--	--	**0.52**	<0.30	<0.25	<0.15	**10**	**0.40** J	<0.15	<0.25	**0.63**	ND
		11/14/11 *	TA	--	--	<0.50	<0.30	<0.25	<0.15	**11**	**0.43** J	<0.15	<0.25	**0.82**	ND
		11/14/11 **	TA	--	--	**0.64**	<0.30	<0.25	<0.15	**12**	**0.43** J	<0.15	<0.25	**0.81**	ND
		12/12/2011	TA	--	--	<0.50	<0.30	<0.25	<0.15	**12**	**0.42** J	<0.15	<0.25	**0.83**	ND
		12/27/2011	TA	--	--	<0.50	<0.30	<0.25	<0.15	**12**	**0.45** J	<0.15	<0.25	**0.74**	ND
			Siemens	--	--	<0.70	<0.40	<0.40	<0.40	**13.9**	**0.57** J	<0.30	<0.40	**0.85** J	ND
		1/4/2012	Siemens	--	--	<0.70	<0.40	<0.40	<0.40	**15.4**	**0.62** J	<0.30	<0.40	**1.09**	ND
		1/11/2012	Siemens	--	--	<0.70	<0.40	<0.40	<0.40	**15.5**	**0.66** J	<0.30	<0.40	**1.02**	ND
		1/18/2012	Siemens	--	--	<0.70	<0.40	<0.40	<0.40	**15.2**	**0.66** J	<0.30	<0.40	**1.01**	ND
		1/25/2012	Siemens	--	--	<0.70	<0.40	<0.40	<0.40	**16.6**	**0.61** J	<0.30	<0.40	**1.10**	ND
		2/15/2012	TA	--	--	<0.50	<0.30	<0.25	<0.15	**13**	**0.47** J	<0.15	<0.25	**0.86**	ND
		3/1/2012	TA	--	--	<0.50	<0.30	<0.25	<0.15	**13**	**0.48** J	<0.15	<0.25	**0.96**	ND

Table 4. LGRL VOC Investigation Water Supply Well Sample Results - Through December 2019
(Results are in µg/L, except where otherwise noted)

Note: See last page for abbreviations, notes, and groundwater standards.

Well Number	Well Owner	Sample Date	Lab	Chloride (mg/L)	Alkalinity (mg/L)	Chloroethane	Chloromethane	1,1-Dichloroethane	1,1-Dichloroethene	cis-1,2-Dichloroethene	trans-1,2-Dichloroethene	Tetrachloroethene	Trichloroethene	Vinyl Chloride	Other VOCs
PW-21RR Untreated (cont.)	A. Oechsner N7548 Hwy. 67 Mayville	4/11/2012	TA	**16**	**290**	<0.50	<0.30	<0.25	<0.15	**14**	**0.69**	<0.15	<0.25	**0.89**	ND
		5/2/2012	Siemens	--	--	**0.92** J	<0.40	<0.40	<0.40	**19.8**	**0.80** J	<0.30	<0.40	**1.52**	ND
		6/20/2012	Pace	--	--	**0.25** J	**0.73** J	**0.11** J	<0.16	**15.1**	**0.51**	<0.16	<0.11	**0.62**	ND
		7/18/2012	Pace	--	--	<0.20	<0.13	<0.072	<0.16	**16**	**0.47** J	<0.16	<0.11	**0.62**	ND
		8/2/2012	Pace	--	--	**0.46** J	<0.13	**0.12** J	<0.16	**18.6**	**0.64**	<0.16	<0.11	**0.75**	ND
		9/13/2012	Pace	--	--	<0.31	<0.13	<0.072	<0.16	**16.1**	**0.49** J	<0.16	<0.11	**0.55**	Benzene **0.050** J Toluene **0.088** J
		10/5/2012	Pace	**13.6**	**316**	<0.31	<0.13	<0.072	<0.16	**14.6**	**0.51**	<0.16	<0.11	**0.63**	ND
		11/29/2012	Pace	--	--	<0.31	<0.13	<0.072	<0.16	**10.9**	**0.30** J	<0.16	<0.11	**0.44**	ND
		12/17/2012	Pace	--	--	<0.31	<0.13	<0.072	<0.16	**14.8**	**0.45** J	<0.16	<0.11	**0.62**	ND
		1/8/2013	Pace	--	--	**0.62** J	<0.13	<0.072	<0.16	**14.4**	**0.40** J	<0.16	<0.11	**0.52**	ND
		2/20/2013	Pace	--	--	<0.31	<0.13	<0.072	<0.16	**14**	**0.39** J	<0.16	<0.11	**0.52**	ND
		3/21/2013	Pace	--	--	<0.31	<0.13	<0.072	<0.16	**13.2**	**0.42** J	<0.16	<0.11	**0.48**	ND
		4/2/2013	Pace	**13.1**	**294**	<0.31	<0.13	<0.072	<0.16	**9.2**	**0.25** J	<0.16	<0.11	**0.34** J	ND
		5/7/2013	Pace	--	--	<0.31	<0.13	<0.072	<0.16	**14.4**	**0.43** J	<0.16	<0.11	**0.64**	ND
		6/27/2013	Pace	--	--	<0.50	<0.50	<0.25	<0.24	**12.5**	**0.32** J	<0.25	<0.12	**0.5**	m&p-Xylene **0.22** JB
		7/29/2013	Pace	--	--	<0.50	<0.50	<0.25	<0.24	**14.9**	**0.35** J	<0.25	<0.12	**0.6**	ND
		8/26/2013	Pace	--	--	<0.22	<0.40	<0.20	<0.23	**18**	<0.20	<0.19	<0.18	<0.19	ND
		9/12/2013	Pace	--	--	<0.22 L3	<0.40 L3	<0.20	<0.23	**16.1**	<0.20	<0.19	<0.18	<0.19 L3	ND
		10/1/13	Pace	**14.6**	**349**	<0.22	<0.40	<0.20	<0.23	**16.5**	**0.47** J	<0.19	<0.18	<0.19	ND
		11/7/13	Pace	--	--	<0.22	<0.40	<0.20	<0.23	**14.5**	**0.44** J	<0.19	<0.18	**0.67**	Methylene Chloride **0.48** J 1,2-Dichloroethane **0.55**
		12/9/13	Pace	--	--	<0.50	<0.50	<0.25	<0.24	**13.3**	**0.39** J	<0.25	<0.13	**0.58**	ND
		1/9/2014	Pace	--	--	<0.50	<0.50 M1	<0.25	<0.24	**14.9**	**0.33** J	<0.25	<0.13	**0.75**	ND
		2/11/2014	Pace	--	--	<0.50	<0.50	<0.25	<0.24	**12.2**	**0.32** J	<0.25	<0.13	**0.52**	ND
		3/11/2014	Pace	--	--	<0.50	<0.50	<0.25	<0.24	**14.4**	**0.46** J	<0.25	<0.13	**0.50**	ND
		4/25/2014	Pace	**14.7**	**356**	<0.50	<0.50	<0.25	<0.24	**15.3**	**0.42** J	<0.25	<0.13	**0.66**	ND
		5/12/2014	Pace	--	--	<0.17	<0.34	<0.077	<0.13	**13.8**	**0.26** J	<0.099	<0.084	**0.56**	ND
		6/10/2014	Pace	--	--	**0.21** J	<0.34	<0.077	<0.13	**15.0**	**0.38** J	<0.099	<0.084	**0.78**	ND
		7/8/2014	Pace	--	--	**0.29** J	<0.34 M1	<0.077	<0.13	**16.4**	**0.38** J	<0.099	<0.084	**0.64** M1	ND
		8/1/2014	Pace	--	--	**0.25** J	<0.34	<0.077	<0.13	**14.6**	**0.43** J	<0.099	<0.084	**0.56**	ND
		9/3/2014	Pace	--	--	<0.17	<0.34	<0.077	<0.13	**13.9**	**0.27** J	<0.099	<0.084	**0.58**	ND
		9/3/2014 DUP	Pace	--	--	0.27 J	<0.34	<0.077	<0.13	**14.8**	0.30 J	<0.099	<0.084	**0.67**	ND
		10/6/2014	Pace	**14.7**	**338**	**0.47** J	<0.34	<0.087	<0.17	**15.9**	**0.48** J	<0.12	<0.084	**0.53**	ND
		11/20/2014	Pace	--	--	<0.27	<0.34	<0.087	<0.17	**16.2**	**0.47** J	<0.12	<0.084	**0.57**	ND
		12/12/2014	Pace	--	--	<0.27	<0.34	<0.087	<0.17	**19.0**	<0.15	<0.12	<0.084	**1.2**	ND
		1/21/2015	Pace	--	--	<0.27	<0.34	<0.087	<0.17	**17.1**	<0.15	<0.12	<0.084	**0.43**	ND

Table 4. LGRL VOC Investigation Water Supply Well Sample Results - Through December 2019
(Results are in µg/L, except where otherwise noted)

Note: See last page for abbreviations, notes, and groundwater standards.

Well Number	Well Owner	Sample Date	Lab	Chloride (mg/L)	Alkalinity (mg/L)	Chloroethane	Chloromethane	1,1-Dichloroethane	1,1-Dichloroethene	cis-1,2-Dichloroethene	trans-1,2-Dichloroethene	Tetrachloroethene	Trichloroethene	Vinyl Chloride	Other VOCs
PW-21RR Untreated (cont.)	A. Oechsner N7548 Hwy. 67 Mayville	2/18/2015	Pace	--	--	<0.27	<0.34	<0.087	<0.17	**14.2**	**0.37** J	<0.12	<0.084	**0.55**	ND
		3/5/2015	Pace	--	--	<0.27	<0.34	<0.087	<0.17	**16.6**	<0.15	<0.12	<0.084	**0.50**	ND
		4/17/2015	Pace	**15.5** B	**328**	<0.27	<0.34	<0.087	<0.17	**18.3**	**0.48** J	<0.12	<0.084	**0.50**	ND
		5/20/2015	Pace	--	--	<0.34	<0.64	<0.19	<0.17	**16.7**	**0.44** J	<0.15	<0.14	**0.55**	ND
		6/3/2015	Pace	--	--	<0.34	<0.64	<0.19	<0.17	**18.8**	**0.52**	<0.15	<0.14	**0.56**	ND
		7/16/2015	Pace	--	--	<0.34	<0.64	<0.19	<0.17	**18.5**	**1.2**	<0.15	<0.14	**0.58**	ND
		8/31/2015	Pace	--	--	<0.34	<0.64 L2	<0.19	<0.17	**18.0**	**1.1**	<0.15	<0.14	**0.47**	ND
		9/21/2015	Pace	--	--	<0.34 H1	<0.64 H1,L3	**0.19** J,H1	<0.17 H1	**18.1** H1	**0.53** H1	<0.15 H1	**0.18** J,H1	**0.60** H1	ND
		10/6/2015	Pace	**16.0**	**328**	<0.88	<0.20	**0.18**	<0.17	**20**	**0.35**	<0.13	<0.19	**0.76**	ND
		11/4/2015	Pace	--	--	<0.24 N2	<0.23 N2	<0.17 N2	<0.17 N2	**17.7** N2	**0.42** J,N2	<0.32 N2	<0.21 N2	<0.23 N2	ND
		12/3/2015	Pace	--	--	<0.24	<0.23	<0.17	<0.17	**18.2**	**0.37** J	<0.32	<0.21	<0.23	ND
		1/5/2016	Pace	--	--	**0.36** J	<0.64	<0.19 M1	<0.17	**18.7**	<0.18	<0.15	<0.14	**0.55**	ND
		2/9/2016	Pace	--	--	<0.34	<0.64	<0.19	<0.17	**18.3**	**0.41** J	<0.15	<0.14	**0.50**	Toluene **0.27** JB
		3/10/2016	Pace	--	--	<0.34	<0.64	<0.19	<0.17	**17.5**	**0.52** J	<0.15	<0.14	**0.55**	ND
		4/5/2016	Pace	**16.0**	**345**	<0.34	<0.64	<0.19	<0.17	**17.5**	**0.42** J	<0.15	<0.14	**0.47**	ND
		5/19/2016	Pace	--	--	<0.34	<0.64	<0.19	<0.17	**19.7**	**0.24** J	<0.15	<0.14	**0.45**	ND
		6/22/2016	Pace	--	--	<0.34	<0.64	<0.19	<0.17	**18**	**0.46** J	<0.15	<0.14	**0.37**	ND
		7/7/2016	Pace	--	--	<0.34	<0.64	<0.19	<0.17	**18.8**	**0.48** J	<0.15	<0.14	**0.64**	ND
		8/11/2016	Pace	--	--	<0.18	<0.21	<0.088	<0.089	**17.9**	**0.35** J	<0.12	<0.044	**0.46**	ND
		9/9/2016	Pace	--	--	<0.18	<0.21	<0.088	<0.089	**17**	**0.47** J	<0.12	<0.044	**0.42**	ND
		10/4/2016	Pace	**17.0**	**345**	**0.28** J	<0.21	<0.088	<0.089	**20.7**	**0.53**	<0.12	<0.044	**0.57**	ND
		11/14/2016	Pace	--	--	**0.29** J	<0.21	<0.088	<0.089	**16.7**	**0.47** J	<0.12	<0.044	**0.45**	ND
		12/1/2016	Pace	--	--	**0.37** J	<0.21	<0.088	<0.089	**19.2**	**0.51**	<0.12	<0.044	**0.48**	ND
		1/27/2017	Pace	--	--	<0.18	<0.21	<0.088	<0.089	**21.1**	**0.42** J	<0.12	<0.044	**0.5**	ND
		2/2/2017	Pace	--	--	**0.31** J	<0.21	<0.088	<0.089	**22.1**	**0.44** J	<0.12	<0.044	**0.46**	ND
		3/9/2017	Pace	--	--	**0.53** J	<0.21	<0.088	<0.089	**25**	**0.63**	<0.12	<0.044	**0.5**	ND
		4/4/2017	Pace	**18.4**	**339**	**0.32** J	<0.21	<0.088	<0.089	**20.3**	**0.75**	<0.12	<0.044	**0.54**	ND
		5/19/2017	Pace	--	--	0.54 J	<0.21	<0.088	<0.089	**20.8**	**0.48 J**	<0.12	<0.044	**0.62**	ND
		6/22/2017	Pace	--	--	0.28 J	<0.21	<0.088	<0.089	**19.5**	**0.51**	<0.12	<0.044	**0.59**	ND
		7/17/2017	Pace	--	--	0.58 J	<0.21	<0.088	<0.089	**18.3**	0.42 J	<0.12	<0.044	**0.52**	ND
		8/2/2017	Pace	--	--	0.33 J	<0.21	0.20 J	<0.089	**24.1**	**0.68**	<0.12	<0.044	**0.71**	ND
		9/7/2017	Pace	--	--	0.32 J	<1.1	<0.14	<0.18	**20.6**	0.51 J	<0.12	<0.11	**0.51**	ND
		10/3/2017	Pace	**18**	**335**	<0.32	<1.1	<0.14	<0.18	**19.4**	0.41 J	<0.12	<0.11	**0.59**	ND
		11/1/2017	Pace	--	--	<0.32	<1.1	<0.14	<0.18	**17**	0.46 J	<0.12	<0.11	**0.49**	ND
		1/18/2018	Pace	--	--	0.33 J	<1.1	<0.14	<0.18	**20.6**	0.50 J	<0.12	<0.11	**0.63**	ND
		2/1/2018	Pace	--	--	0.35 J	<1.1	<0.14	<0.18	**19.5**	0.40 J	<0.12	<0.11	**0.49**	ND
		3/14/2018	Pace	--	--	<0.32	<1.1	<0.14	<0.18	**18.9**	0.37 J1	<0.12	<0.11	**0.52**	ND

Table 4. LGRL VOC Investigation Water Supply Well Sample Results - Through December 2019
(Results are in µg/L, except where otherwise noted)

Note: See last page for abbreviations, notes, and groundwater standards.

Well Number	Well Owner	Sample Date	Lab	Chloride (mg/L)	Alkalinity (mg/L)	Chloroethane	Chloromethane	1,1-Dichloroethane	1,1-Dichloroethene	cis-1,2-Dichloroethene	trans-1,2-Dichloroethene	Tetrachloroethene	Trichloroethene	Vinyl Chloride	Other VOCs
PW-21RR Untreated (cont.)	A. Oechsner N7548 Hwy. 67 Mayville	4/3/2018	Pace	**17.5**	**323**	<0.32	<1.1	<0.14	<0.18	**18.4**	0.36 J1	<0.12	<0.11	**0.59**	ND
		5/15/2018	Pace	--	--	0.26	<0.023	**0.14**	<0.034	**20.5**	0.49	<0.040	<0.044	**0.58**	ND
		6/1/2018	Pace	--	--	<0.32	<1.1	<0.14	<0.18	**17.6**	**0.44** J1	<0.12	<0.11	**0.55**	ND
		7/12/2018	Pace	--	--	**0.81**	<0.15	<0.16	<0.19	**20.1**	**0.54** J1	<0.17	<0.12	**0.48**	ND
		8/2/2018	Pace	--	--	<0.14	<0.15	<0.16	<0.19	**19.5**	**0.42** J1	<0.17	<0.12	**0.55**	ND
		9/4/2018	Pace	--	--	<0.14	**0.47** J1	<0.16	<0.19	**21.2**	**0.70**	<0.17	<0.12	**0.50**	ND
		10/1/2018	Pace	**17.6**	**325**	<0.14	<0.15	<0.16	<0.19	**21.8**	**0.53** J1	<0.17	<0.12	**0.41**	ND
		11/20/2018	Pace	--	--	<0.14	**0.30** J1	<0.16	<0.19	**20.1**	**0.50** J1	<0.17	<0.12	**0.71**	ND
		12/20/2018	Pace	--	--	<0.14	<0.15	<0.16	<0.19	**19.7**	**0.52** J1	<0.17	<0.12	**0.67**	ND
		1/9/2019	Pace	--	--	<0.37	<0.22	<0.28	<0.21	**17.6**	<0.35	<0.48	<0.23	<0.37	ND
		2/19/2019	Pace	--	--	**0.39** J	<0.15	<0.16	<0.19	**24.2**	**0.53** J	<0.17	<0.12	**0.68**	ND
		3/13/2019	Pace	--	--	<0.14	<0.15	<0.16	<0.19	**20.9**	**0.47** J	<0.17	<0.12	**0.64**	ND
		4/3/2019	Pace	17.4	328	**0.34** J1	<0.15	<0.16	<0.19	**20.1**	**0.51** J1	<0.17	<0.12	**0.50**	ND
		5/20/2019	Pace	--	--	<0.14	<0.15	<0.16	<0.19	**17.8**	0.30 J	<0.17	<0.12	0.46	ND
		6/12/2019	Northern Lake Services	--	--	<1.5	<0.23	<0.31	<0.25	**20**	<0.47	<0.28	<0.30	0.64 J2	ND
		7/9/2019	Pace	--	--	<0.14	<0.15	<0.16	<0.19	**18.1**	0.30 J1	<0.17	<0.12	0.45	ND
		8/15/2019	Pace	--	--	<0.14	<0.15	<0.16	<0.19	**20.9**	0.36 J1	<0.17	<0.12	0.63	ND
		9/19/2019	Pace	--	--	<0.14	<0.15	<0.16	<0.19	**19.1**	0.35 J1	<0.17	<0.12	0.41	ND
		10/8/2019	Pace	18.1	331	<0.14	<0.15	<0.16	<0.19	**26**	0.52 J1	<0.17	<0.12	0.52	ND
		11/19/2019	Pace	--	--	<1.5	<0.23	<0.31	<0.25	**19**	0.67 J1	<0.28	<0.30	0.7	ND
		12/6/2019	Pace	--	--	<1.5	<0.23	<0.31	<0.25	**17**	0.48 J1	<0.28	<0.30	0.51 J1	ND
PW-21RR After Treatment System	A. Oechsner N7548 Hwy. 67 Mayville	6/27/13	Pace	--	--	<0.50	<0.50	<0.25	<0.24	**1.5**	<0.21	<0.25	<0.12	<0.20	m&p-Xylene **0.25** JB
		7/29/13	Pace	--	--	<0.50	<0.50	<0.25	<0.24	**1.4**	<0.21	<0.25	<0.12	<0.20	ND
		8/26/13	Pace	--	--	<0.22	<0.40	<0.20	<0.23	**2.3**	<0.20	<0.19	<0.18	<0.19	ND
		9/12/13	Pace	--	--	<0.22	<0.40	<0.20	<0.23	**2.1**	<0.20	<0.19	<0.18	<0.19	ND
		10/1/13	Pace	--	--	<0.22	<0.40	<0.20	<0.23	**2.4**	<0.20	<0.19	<0.18	<0.19	ND
		11/7/13	Pace	--	--	<0.22	<0.40	<0.20	<0.23	**1.2**	<0.20	<0.19	<0.18	<0.19	Methylene Chloride **0.46** J
		12/9/13	Pace	--	--	<0.50	<0.50	<0.25	<0.24	**0.74**	<0.21	<0.25	<0.13	<0.20	ND
		1/9/2014	Pace	--	--	<0.50	<0.50	<0.25	<0.24	**0.84**	<0.21	<0.25	<0.13	<0.20	ND
		2/11/2014	Pace	--	--	<0.50	<0.50	<0.25	<0.24	**0.73**	<0.21	<0.25	<0.13	<0.20	ND
		3/11/2014	Pace	--	--	<0.50	<0.50	<0.25	<0.24	**1.6**	<0.21	<0.25	<0.13	<0.20	ND
		4/25/2014	Pace	--	--	<0.50	<0.50	<0.25	<0.24	**1.2**	<0.21	<0.25	<0.13	<0.20	ND
		5/12/2014	Pace	--	--	<0.17	<0.34	<0.077	<0.13	**1.5**	<0.15	<0.099	<0.084	<0.20	ND
		6/10/2014	Pace	--	--	<0.17	<0.34	<0.077	<0.13	**1.4**	<0.15	<0.099	<0.084	<0.20	ND
		7/8/2014	Pace	--	--	<0.17	<0.34	<0.077	<0.13	**1.3**	<0.15	<0.099	<0.084	<0.20	ND
		8/1/2014	Pace	--	--	<0.17	<0.34	<0.077	<0.13	**1.7**	<0.15	<0.099	<0.084	<0.082	ND
		10/6/2014	Pace	--	--	<0.27	<0.34	<0.087	<0.17	**1.5**	<0.15	<0.12	<0.084	<0.082	ND

Table 4. LGRL VOC Investigation Water Supply Well Sample Results - Through December 2019
(Results are in µg/L, except where otherwise noted)

Note: See last page for abbreviations, notes, and groundwater standards.

Well Number	Well Owner	Sample Date	Lab	Chloride (mg/L)	Alkalinity (mg/L)	Chloroethane	Chloromethane	1,1-Dichloroethane	1,1-Dichloroethene	cis-1,2-Dichloroethene	trans-1,2-Dichloroethene	Tetrachloroethene	Trichloroethene	Vinyl Chloride	Other VOCs
PW-21RR After Treatment System (cont.)	A. Oechsner N7548 Hwy. 67 Mayville	11/20/2014	Pace	--	--	<0.27	<0.34	<0.087	<0.17	**0.63**	<0.15	<0.12	<0.084	<0.082	ND
		12/12/2014	Pace	--	--	<0.27 H1	<0.34 H1,L3	<0.087 H1	<0.17 H1	**9.9** H1	**0.17** J, H1	<0.12 H1	<0.084 H1	**0.35** H1	ND
		1/21/2015	Pace	--	--	<0.27	<0.34	<0.087	<0.17	**9.9**	**0.21** J	<0.12	<0.084	**0.28**	ND
		2/18/2015	Pace	--	--	<0.27	<0.34	<0.087	<0.17	**1.0**	<0.15	<0.12	<0.084	<0.082	ND
		3/5/2015	Pace	--	--	<0.27	<0.34	<0.087	<0.17	**1.3**	<0.15	<0.12	<0.084	<0.082	ND
		4/17/2015	Pace	**15.6** B	**333**	<0.27	<0.34	<0.087	<0.17	**1.6**	<0.15	<0.12	<0.084	<0.082	ND
		5/20/2015	Pace	--	--	<0.34	<0.64	<0.19	<0.17	**0.83**	<0.18	<0.15	<0.14	<0.081	ND
		6/3/2015	Pace	--	--	<0.34	<0.64	<0.19	<0.17	**1.3**	<0.18	<0.15	<0.14	<0.15	Isopropylbenzene (Cumene) **0.11** J
		7/16/2015	Pace	--	--	<0.34	<0.64	<0.19	<0.17	**2.3**	<0.18	<0.15	<0.14	<0.081	ND
		8/31/2015	Pace	--	--	<0.34	<0.64	<0.19	<0.17	**2.1**	<0.18	<0.15	<0.14	<0.081	ND
		9/21/2015	Pace	--	--	<0.34 H1	<0.64 H1,L3	<0.19 H1	<0.17 H1	**1.9** H1	<0.18 H1	<0.15 H1	<0.14 H1	<0.081 H1	ND
		10/6/2015	Pace	--	--	<0.88	<0.20	<0.15	<0.17	**2.5**	<0.18	<0.13	<0.19	<0.10	ND
		11/4/2015	Pace	--	--	<0.24 N2	<0.23 N2	<0.17 N2	<0.17 N2	**1.6** N2	<0.19 N2	<0.32 N2	<0.21 N2	<0.23 N2	Isopropylbenzene (Cumene) **0.81** N2 Benzene **2.4** N2
		12/3/2015	Pace	--	--	<0.24	<0.23	<0.17	<0.17	**1.1**	<0.19	<0.32	<0.21	<0.23	ND
		2/9/2016	Pace	--	--	<0.34	<0.64	<0.19	<0.17	**2.7**	<0.18	<0.15	<0.14	<0.15	Toluene **0.26** J
		3/10/2016	Pace	--	--	<0.34	<0.64	<0.19	<0.17	**1.2**	<0.18	<0.15	<0.14	<0.15	ND
		4/5/2016	Pace	--	--	<0.34	<0.64	<0.19	<0.17	**0.98**	<0.18	<0.15	<0.14	<0.081	ND
		5/19/2016	Pace	--	--	<0.34	<0.64	<0.19	<0.17	**1.2**	<0.18	<0.15	<0.14	<0.081	ND
		6/22/2016	Pace	--	--	<0.34	<0.64	<0.19	<0.17	**1.6**	<0.18	<0.15	<0.14	<0.081	ND
		7/7/2016	Pace	--	--	<0.34	<0.64	<0.19	<0.17	**2.2**	<0.18	<0.15	<0.14	<0.081	ND
		8/11/2016	Pace	--	--	<0.18	<0.21	<0.088	<0.089	**1.9**	<0.11	<0.12	<0.044	<0.098	ND
		9/9/2016	Pace	--	--	<0.18	<0.21	<0.088	<0.089	**1.9**	<0.11	<0.12	<0.044	<0.098	ND
		10/4/2016	Pace	--	--	<0.18	<0.21	<0.088	<0.089	**1.9**	<0.11	<0.12	<0.044	<0.098	ND
		11/14/2016	Pace	--	--	<0.18	<0.21	<0.088	<0.089	**1.8**	<0.11	<0.12	<0.044	<0.098	ND
		12/1/2016	Pace	--	--	<0.18	<0.21	<0.088	<0.089	**1.7**	<0.11	<0.12	<0.044	<0.098	ND
		1/27/2017	Pace	--	--	<0.18	<0.21	<0.088	<0.089	**1.1**	<0.11	<0.12	<0.044	<0.098	ND
		2/2/2017	Pace	--	--	<0.18	<0.21	<0.088	<0.089	**1.1**	<0.11	<0.12	<0.044	<0.098	ND
		3/9/2017	Pace	--	--	<0.18	<0.21	<0.088	<0.089	**1.4**	<0.11	<0.12	<0.044	<0.098	ND
		4/4/2017	Pace	--	--	<0.18	<0.21	<0.088	<0.089	**1.4**	<0.11	<0.12	<0.044	<0.098	ND
		5/19/2017	Pace	--	--	<0.18	<0.21	<0.088	<0.089	**1.5**	<0.11	<0.12	<0.044	<0.098	ND
		6/22/2017	Pace	--	--	<0.18	<0.21	<0.088	<0.089	**1.9**	<0.11	<0.12	<0.044	<0.098	ND
		7/17/2017	Pace	--	--	<0.18	<0.21	<0.088	<0.089	**1.4**	<0.11	<0.12	<0.044	<0.098	ND
		8/2/2017	Pace	--	--	<0.18	<0.21	<0.088	<0.089	**1.9**	<0.11	<0.12	<0.044	<0.098	ND
		9/7/2017	Pace	--	--	<0.32	<1.1	<0.14	<0.18	**1.5**	<0.21	<0.12	<0.11	<0.074	ND
		10/3/2017	Pace	--	--	<0.32	<1.1	<0.14	<0.18	**4.1**	<0.21	<0.12	<0.11	<0.074	ND
		11/1/2017	Pace	--	--	<0.32	<1.1	<0.14	<0.18	**1.5**	<0.21	<0.12	<0.11	<0.074	ND
		1/18/2018	Pace	--	--	<0.32	<1.1	<0.14	<0.18	**1.1**	<0.21	<0.12	<0.11	<0.074	ND

Table 4. LGRL VOC Investigation Water Supply Well Sample Results - Through December 2019
(Results are in µg/L, except where otherwise noted)

Note: See last page for abbreviations, notes, and groundwater standards.

Well Number	Well Owner	Sample Date	Lab	Chloride (mg/L)	Alkalinity (mg/L)	Chloroethane	Chloromethane	1,1-Dichloroethane	1,1-Dichloroethene	cis-1,2-Dichloroethene	trans-1,2-Dichloroethene	Tetrachloroethene	Trichloroethene	Vinyl Chloride	Other VOCs
PW-21RR After Treatment System (cont.)	A. Oechsner N7548 Hwy. 67 Mayville	2/1/2018	Pace	--	--	<0.32	<1.1	<0.14	<0.18	**1.3**	<0.21	<0.12	<0.11	<0.074	ND
		3/14/2018	Pace	--	--	<0.32	<1.1	<0.14	<0.18	**1.1**	<0.21	<0.12	<0.11	<0.074	ND
		4/3/2018	Pace	--	--	<0.32	<1.1	<0.14	<0.18	**1.0**	<0.21	<0.12	<0.11	<0.074	ND
		5/15/2018	Pace	--	--	<0.053	**0.14**	<0.033	<0.034	**1.5**	<0.028	<0.040	<0.044	<0.016	ND
		6/1/2018	Pace	--	--	<0.32	<1.1	<0.14	<0.18	**1.6**	<0.21	<0.12	<0.11	<0.074	ND
		7/12/2018	Pace	--	--	<0.14	<0.15	<0.16	<0.19	**1.8**	<0.18	<0.17	<0.12	<0.086	Isopropylbenzene (Cumene) **0.51** J1 N2
		8/2/2018	Pace	--	--	<0.14	<0.15	<0.16	<0.19	**2.9**	<0.18	<0.17	<0.12	<0.086	ND
		9/4/2018	Pace	--	--	<0.14	0.54	<0.16	<0.19	**2.6**	<0.18	<0.17	<0.12	<0.086	ND
		10/1/2018	Pace	--	--	<0.14	<0.15	<0.16	<0.19	**2.2**	<0.18	<0.17	<0.12	<0.086	Isopropylbenzene **0.69**
		11/20/2018	Pace	--	--	<0.14	<0.15	<0.16	<0.19	**1.3**	<0.18	<0.17	<0.12	<0.086	ND
		12/20/2018	Pace	--	--	<0.14	<0.15	<0.16	<0.19	**1.5**	<0.18	<0.17	<0.12	<0.086	ND
		1/9/2019	Pace	--	--	<0.37	<0.22	<0.28	<0.21	<0.39	<0.35	<0.48	<0.23	<0.37	ND
		2/19/2019	Pace	--	--	<0.14	<0.15	<0.16	<0.19	**1.3**	<0.18	<0.17	<0.12	<0.086	ND
		3/13/2019	Pace	--	--	<0.14	<0.15	<0.16	<0.19	**1.9**	<0.18	<0.17	<0.12	<0.086	ND
		4/3/2019	Pace	--	--	<0.14	<0.15	<0.16	<0.19	**3.5**	<0.18	<0.17	<0.12	<0.086	ND
		5/20/2019	Pace	--	--	<0.14	<0.15	<0.16	<0.19	**1.2**	<0.18	<0.17	<0.12	<0.086	ND
		6/12/2019	Northern Lake Services	--	--	<1.5	<0.23	<0.31	<0.25	**1.4**	<0.47	<0.28	<0.30	<0.20	ND
		7/9/2019	Pace	--	--	<0.14	<0.15	<0.16	<0.19	**2.6**	<0.18	<0.17	<0.12	<0.086	ND
		8/15/2019	Pace	--	--	<0.14	<0.15	<0.16	<0.19	**4.2**	<0.18	<0.17	<0.12	<0.086	ND
		9/19/2019	Pace	--	--	<0.14	<0.15	<0.16	<0.19	**1.5**	<0.18	<0.17	<0.12	<0.086	ND
		10/8/2019	Pace	--	--	<0.14	<0.15	<0.16	<0.19	**4.9**	<0.18	<0.17	<0.12	<0.086	ND
		11/19/2019	Pace	--	--	<1.5	<0.23	<0.31	<0.25	**3**	<0.47	<0.28	<0.30	<0.20	ND
		12/6/2019	Pace	--	--	<1.5	<0.23	<0.31	<0.25	**2.3**	<0.47	<0.28	<0.30	<0.20	ND
Semi-annual Monitoring Locations															
PW-19	Antonioni W2831 Zion Church Rd. Mayville	6/28/2011	TA	--	--	<0.50	<0.30	<0.25	<0.15	**0.30** J	<0.30	<0.15	<0.25	<0.032	ND
		10/5/2012	Pace	**45.1**	**372**	<0.31	<0.13	<0.072	<0.16	<0.08	<0.14	<0.16	<0.11	<0.16	ND
		4/3/2013	Pace	**40.2**	**339**	<0.31	<0.13	<0.072	<0.16	**0.55**	<0.14	<0.16	<0.11	<0.16	ND
		10/1/2013	Pace	**38.3**	**355**	<0.22	<0.40	<0.20	<0.23	**0.82**	<0.20	<0.19	<0.18	<0.19	ND
		4/25/2014	Pace	**37.9**	**375**	<0.50	<0.50	<0.25	<0.24	**0.65**	<0.21	<0.25	<0.13	<0.20	ND
		10/6/2014	Pace	**43.1**	**341**	<0.27	<0.34	<0.087	<0.17	**0.63** J	<0.15	<0.12	<0.084	<0.082	ND
		6/3/2015	Pace	**41.1**	**352**	<0.34	<0.64	<0.19	<0.17	**0.63**	<0.18	<0.15	<0.14	<0.15	ND
		10/6/2015	Pace	**47.7**	**340**	<0.88	<0.20	<0.15	<0.17	**0.73**	<0.18	<0.13	<0.19	<0.10	ND
		4/5/2016	Pace	**42.6**	**335**	<0.34	<0.64	<0.19	<0.17	**0.59**	<0.18	<0.15	<0.14	<0.081	ND
		10/4/2016	Pace	**45.7**	**349**	<0.18	<0.21	<0.088	<0.089	**0.64**	<0.11	<0.12	<0.044	<0.098	ND
		4/4/2017	Pace	**45.7**	**353**	<0.18	<0.21	<0.088	<0.089	**0.55**	<0.11	<0.12	<0.044	<0.098	ND
		10/3/2017	Pace	**55.9**	**360**	<0.32	<1.1	<0.14	<0.18	**0.45**	<0.21	<0.12	<0.11	<0.074	ND

Table 4. LGRL VOC Investigation Water Supply Well Sample Results - Through December 2019
(Results are in µg/L, except where otherwise noted)

Note: See last page for abbreviations, notes, and groundwater standards.

Well Number	Well Owner	Sample Date	Lab	Chloride (mg/L)	Alkalinity (mg/L)	Chloroethane	Chloromethane	1,1-Dichloroethane	1,1-Dichloroethene	cis-1,2-Dichloroethene	trans-1,2-Dichloroethene	Tetrachloroethene	Trichloroethene	Vinyl Chloride	Other VOCs
PW-19 (cont.)	Antonioni W2831 Zion Church Rd. Mayville	4/3/2018	Pace	**52**	**362**	<0.32	<1.1	<0.14	<0.18	**0.54**	<0.21	<0.12	<0.11	<0.074	ND
		10/1/2018	Pace	**51.3**	**348**	<0.14	<0.15	<0.16	<0.19	**0.58**	<0.18	<0.17	<0.12	<0.086	ND
		4/3/2019	Pace	**41.4**	**326**	<0.14	<0.15	<0.16	<0.19	**1.2**	<0.18	<0.17	<0.12	<0.086	ND
		10/8/2019	Pace	**54.1**	**347**	<0.14	<0.15	<0.16	<0.19	**2.2**	<0.18	<0.17	<0.12	<0.086	ND
PW-20	Sellnow N7627 Hwy. 67 Mayville	3/11/2009	NLS	--	--	<0.95	<0.16	<0.25	<0.18	<0.10	<0.28	<0.20	<0.25	<0.19	ND
			CT	--	--	<0.40	**0.22** JB	<0.21	<0.24	<0.21	<0.27	<0.30	<0.24	<0.11	ND
		1/21/2010	NLS	--	--	<0.95	<0.16	<0.25	<0.18	<0.10	<0.28	<0.20	<0.25	<0.19	ND
		7/14/2010	NLS	--	--	<1.0	<0.16	<0.14	<0.11	<0.13	<0.11	<0.10	<0.12	<0.13	ND
		4/6/2011	NLS	--	--	<1.6	<0.29	<0.23	<0.13	<0.30	<0.30	<0.11	<0.28	<0.20	ND
			TA	--	--	<0.10	<0.20	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.032	ND
		10/6/2011	TA	--	--	<0.50	<0.30	<0.25	<0.15	<0.30	<0.30	<0.15	<0.25	<0.032	ND
		4/13/2012	TA	**33**	**310**	<0.50	<0.30	<0.25	<0.15	<0.30	<0.30	<0.15	<0.25	<0.032	ND
		10/5/2012	Pace	**45.6**	**323**	<0.31	<0.13	<0.072	<0.16	<0.080	<0.14	<0.16	<0.11	<0.16	ND
		4/2/2013	Pace	**29.3**	**340**	<0.31	<0.13	<0.072	<0.16	<0.080	<0.14	<0.16	<0.11	<0.16	ND
		10/1/2013	Pace	**22.3**	**312**	<0.22	<0.40	<0.20	<0.23	<0.12	<0.20	<0.19	<0.18	<0.19	ND
		4/25/2014	Pace	**27.7**	**385**	<0.50	<0.50	<0.25	<0.24	<0.23	<0.21	<0.25	<0.13	<0.20	ND
		10/6/2014	Pace	**28.4**	**315**	<0.27	<0.34	<0.087	<0.17	<0.11	<0.15	<0.12	<0.084	<0.082	ND
		4/17/2015	Pace	**62.8**	**365**	<0.27	<0.34	<0.087	<0.17	<0.11	<0.15	<0.12	<0.084	<0.082	ND
		10/6/2015	Pace	**26.4**	**327**	<0.88	<0.20	<0.15	<0.17	<0.16	<0.18	<0.13	<0.19	<0.10	ND
		4/5/2016	Pace	**23.0**	**330**	<0.34	<0.64	<0.19	<0.17	<0.17	<0.18	<0.15	<0.14	<0.081	ND
		10/4/2016	Pace	**27.2**	**325**	<0.18	<0.21	<0.088	<0.089	<0.085	<0.11	<0.12	<0.044	<0.098	ND
		4/6/2017	Pace	**30.4**	**333**	<0.18	<0.21	<0.088	<0.089	<0.085	<0.11	<0.12	<0.044	<0.098	ND
		10/5/2017	Pace	**22.5**	**327**	<0.32	<1.1	<0.14	<0.18	<0.073	<0.21	<0.12	<0.11	<0.074	ND
		4/3/2018	Pace	**20.6**	**334**	<0.32	<1.1	<0.14	<0.18	<0.073	<0.21	<0.12	<0.11	<0.074	ND
		10/1/2018	Pace	**19.3**	**323** M0	<1.3	<2.2	<0.27	<0.24	<0.27	<1.1	<0.33	<0.26	<0.17	ND
		4/5/2019	Pace	**25.8**	**319**	<0.14	<0.15	<0.16	<0.19	<0.14	<0.18	<0.17	<0.12	<0.086	ND
		10/8/2019	Pace	**18.8**	**319**	<0.14	<0.15	<0.16	<0.19	<0.14	<0.18	<0.17	<0.12	<0.086	ND
PW-23	Weiss W2978 Zion Church Rd. Mayville	3/11/2009	NLS	--	--	<0.95	<0.16	<0.25	<0.18	<0.10	<0.28	<0.20	<0.25	<0.19	ND
			CT	--	--	<0.40	**0.25** JB	<0.21	<0.24	<0.21	<0.27	<0.30	<0.24	<0.11	ND
		7/14/2010	NLS	--	--	<1.0	<0.16	<0.14	<0.11	<0.13	<0.11	<0.10	<0.12	<0.13	ND
		4/6/2011	NLS	--	--	<1.6	<0.29	<0.23	<0.13	<0.30	<0.30	<0.11	<0.28	<0.20	ND
			TA	--	--	<0.10	<0.20	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.032	ND
		10/6/2011	TA	--	--	<0.50	<0.30	<0.25	<0.15	<0.30	<0.30	<0.15	<0.25	<0.032	ND
		4/11/2012	TA	**160**	**320**	<0.50	<0.30	<0.25	<0.15	<0.30	<0.30	<0.15	<0.25	<0.032	ND
		10/5/2012	Pace	**135**	**358**	<0.31	<0.13	<0.072	<0.16	<0.080	<0.14	<0.16	<0.11	<0.16	ND
		4/2/2013	Pace	**108**	**385**	<0.31	<0.13	<0.072	<0.16	<0.080	<0.14	<0.16	<0.11	<0.16	ND

Table 4. LGRL VOC Investigation Water Supply Well Sample Results - Through December 2019
(Results are in µg/L, except where otherwise noted)

Note: See last page for abbreviations, notes, and groundwater standards.

Well Number	Well Owner	Sample Date	Lab	Chloride (mg/L)	Alkalinity (mg/L)	Chloroethane	Chloromethane	1,1-Dichloroethane	1,1-Dichloroethene	cis-1,2-Dichloroethene	trans-1,2-Dichloroethene	Tetrachloroethene	Trichloroethene	Vinyl Chloride	Other VOCs
PW-23 (cont.)	Weiss W2978 Zion Church Rd. Mayville	10/1/2013	Pace	**107**	**426**	<0.22	<0.40	<0.20	<0.23	<0.12	<0.20	<0.19	<0.18	<0.19	ND
		4/25/2014	Pace	**94.4**	**383**	<0.50	<0.50	<0.25	<0.24	<0.23	<0.21	<0.25	<0.13	<0.20	ND
		10/6/2014	Pace	**99.3**	**405**	<0.27	<0.34	<0.087	<0.17	<0.11	<0.15	<0.12	<0.084	<0.082	ND
		4/17/2015	Pace	**108**	**379**	<0.27	<0.34	<0.087	<0.17	<0.11	<0.15	<0.12	<0.084	<0.082	ND
		10/6/2015	Pace	**100**	**424**	<0.88	<0.20	<0.15	<0.17	<0.16	<0.18	<0.13	<0.19	<0.10	ND
		4/5/2016	Pace	**66.7**	**353**	<0.34	<0.64	<0.19	<0.17	<0.17	<0.18	<0.15	<0.14	<0.081	ND
		10/4/2016	Pace	**76.7**	**391**	<0.18	<0.21	<0.088	<0.089	<0.085	<0.11	<0.12	<0.044	<0.098	ND
		4/4/2017	Pace	**83.6**	**411**	<0.18	<0.21	<0.088	<0.089	<0.085	<0.11	<0.12	<0.044	<0.098	ND
		10/3/2017	Pace	**103**	**412**	<0.32	<1.1	<0.14	<0.18	<0.073	<0.21	<0.12	<0.11	<0.074	ND
		4/3/2018	Pace	**84.1**	**501**	<0.32	<1.1	<0.14	<0.18	<0.073	<0.21	<0.12	<0.11	<0.074	ND
		10/1/2018	Pace	**111**	**382**	<0.14	<0.15	<0.16	<0.19	<0.14	<0.18	<0.17	<0.12	<0.086	ND
		4/3/2019	Pace	**94.1**	**379**	<0.14	<0.15	<0.16	<0.19	<0.14	<0.18	<0.17	<0.12	<0.086	ND
		10/8/2019	Pace	**62.7**	**367**	<0.14	<0.15	<0.16	<0.19	<0.14	<0.18	<0.17	<0.12	<0.086	ND
PW-27 (Abandoned)	All Line Construction N7477 Hwy. 67 Mayville	2/24/2009	NLS	--	--	<0.79	<0.31	**0.91**	**0.36** J	**120**	**3.9**	<0.15	**2.9**	**12**	ND
			CT	--	--	**3.0**	**1.1** B	**1.0**	**0.47** J	**110**	**4.4**	<0.30	**2.8**	**9.4**	ND
		3/11/2009	NLS	--	--	<0.95	<0.16	**0.70** J	**0.26** J	**100**	**3.2**	<0.20	**2.4**	**8.3**	ND
			CT	--	--	**2.4**	<0.22	**0.81**	**0.41** J	**89**	**4.1**	<0.30	**2.7**	**7.1**	ND
		6/30/2009	Siemens	--	--	**2.55**	<0.40	**0.91** J	**0.45** J	**115**	**3.71**	<0.30	**2.83**	**8.26**	ND
		2/10/2011	Siemens	**32.3**	**386**	**1.98** J	<0.40	**0.74** J	<0.40	**101**	**3.45**	<0.30	**2.31**	**6.48**	ND
		5/2/2012	Siemens	**26.4**	**334**	**1.42** J	<0.40	**0.42** J	<0.40	**53.6**	**1.81**	<0.30	**1.19** J	**4.02**	ND
		12/17/2012	Pace	**39.9**	**349**	**2.3**	<0.13	**0.69**	**0.17** J	**86.2**	**2.8**	<0.16	**1.2**	**9.1**	Methyl-tert-butyl ether **0.092** J 1,2,4 Trimethylbenzene **0.052** J
		2/20/2013	Pace	**36.7**	**360**	**2.30**	<0.13	**0.77**	<0.16	**87**	**3.30**	<0.16	**1.90**	**7.10**	ND
PW-28	W. Muche N7650 Hwy. 67 Mayville	3/11/2009	NLS	--	--	<0.95	<0.16	<0.25	<0.18	**0.18** J	<0.28	<0.20	<0.25	<0.19	ND
			CT	--	--	<0.40	<0.22	<0.21	<0.24	**0.24** J	<0.27	<0.30	<0.24	<0.11	ND
		6/30/2009	NLS	--	--	<0.95	<0.16	<0.25	<0.18	**0.19** J	<0.28	<0.20	<0.25	<0.19	ND
		7/14/2010	NLS	--	--	<1.0	<0.16	<0.14	<0.11	**0.28** J	<0.11	<0.10	<0.12	<0.13	ND
		4/6/2011	NLS	--	--	<1.6	<0.29	<0.23	<0.13	**0.39** J	<0.30	<0.11	<0.28	<0.20	ND
			TA	--	--	<0.10	<0.20	<0.050	<0.050	**0.30** J	<0.050	<0.050	<0.050	<0.032	ND
		10/6/2011	TA	--	--	<0.50	<0.30	<0.25	<0.15	**0.33** J	<0.30	<0.15	<0.25	<0.032	ND
		4/11/2012	TA	**17**	**280**	<0.50	<0.30	<0.25	<0.15	**0.45** J	<0.30	<0.15	<0.25	<0.032	ND
		10/5/2012	Pace	**15.3**	**316**	<0.31	<0.13	<0.072	<0.16	**0.74**	<0.14	<0.16	<0.11	<0.16	ND
		4/3/2013	Pace	**16.1**	**339**	<0.31	<0.13	<0.072	<0.16	**1**	<0.14	<0.16	<0.11	<0.16	ND
		10/1/2013	Pace	**18.0**	**353**	<0.22	<0.40	<0.20	<0.23	**1.4**	<0.20	<0.19	<0.18	<0.19	ND
		4/25/2014	Pace	**18.3**	**374**	<0.17	<0.34	<0.077	<0.13	**1.2**	<0.15	<0.099	<0.084	<0.20	ND
		10/6/2014	Pace	**26.2**	**331**	<0.27	<0.34	<0.087	<0.17	**1.8**	<0.15	<0.12	<0.084	<0.082	ND

Table 4. LGRL VOC Investigation Water Supply Well Sample Results - Through December 2019
(Results are in µg/L, except where otherwise noted)

Note: See last page for abbreviations, notes, and groundwater standards.

Well Number	Well Owner	Sample Date	Lab	Chloride (mg/L)	Alkalinity (mg/L)	Chloroethane	Chloromethane	1,1-Dichloroethane	1,1-Dichloroethene	cis-1,2-Dichloroethene	trans-1,2-Dichloroethene	Tetrachloroethene	Trichloroethene	Vinyl Chloride	Other VOCs
PW-28 (cont.)	W. Muche N7650 Hwy. 67 Mayville	4/17/2015	Pace	**21.7**	**344**	<0.27	<0.34	<0.087	<0.17	**2.0**	<0.15	<0.12	<0.084	<0.082	ND
		10/6/2015	Pace	**24.4**	**365**	<0.88	<0.20	<0.15	<0.17	**2.5**	<0.18	<0.13	<0.19	<0.10	ND
		4/5/2016	Pace	**24.1**	**362**	<0.34	<0.64	<0.19	<0.17	**2.2**	<0.18	<0.15	<0.14	<0.081	ND
		10/4/2016	Pace	**27.2**	**354**	<0.18	<0.21	<0.088	<0.089	**2.1**	<0.11	<0.12	<0.044	<0.098	ND
		4/4/2017	Pace	**27.4**	**354**	<0.18	<0.21	<0.088	<0.089	**2.3**	<0.11	<0.12	<0.044	<0.098	ND
		10/3/2017	Pace	**26.8**	**352**	<0.32	<1.1	<0.14	<0.18	**2.6**	<0.21	<0.12	<0.11	<0.074	ND
		4/3/2018	Pace	**27.3**	**370**	<0.32	<1.1	<0.14	<0.18	**2.5**	<0.21	<0.12	<0.11	<0.074	ND
		10/1/2018	Pace	**27**	**354**	<0.14	<0.15	<0.16	<0.19	**3.0**	<0.18	<0.17	<0.12	<0.086	ND
		4/3/2019	Pace	**26.9**	**350**	<0.14	<0.15	<0.16	<0.19	**2.8**	<0.18	<0.17	<0.12	<0.086	ND
		10/8/2019	Pace	**29.8**	**341**	<0.14	<0.15	<0.16	<0.19	**3.7**	<0.18	<0.17	<0.12	<0.086	ND
PW-32	J. Oechsner W2983 Zion Church Rd. Mayville	4/7/2009	NLS	--	--	<0.95	<0.16	<0.25	<0.18	**0.12** J	<0.28	<0.20	<0.25	<0.19	ND
			CT	--	--	<0.40	<0.22	<0.21	<0.24	<0.21	<0.27	<0.30	<0.24	<0.11	ND
		9/23/2009	NLS	--	--	<1.2	<0.48	<0.19	<0.22	<0.17	<0.19	<0.17	<0.23	<0.21	ND
		7/14/2010	NLS	--	--	<1.0	<0.16	<0.14	<0.11	**0.14** J	<0.11	<0.10	<0.12	<0.13	ND
		4/5/2011	NLS	--	--	<1.6	<0.29	<0.23	<0.13	<0.30	<0.30	<0.11	<0.28	<0.20	ND
			TA	--	--	<0.10	<0.20	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.032	Chlorobenzene **0.050** J
		10/6/2011	TA	--	--	<0.50	<0.30	<0.25	<0.15	<0.30	<0.30	<0.15	<0.25	<0.032	ND
		4/11/2012	TA	**41**	**300**	<0.50	<0.30	<0.25	<0.15	<0.30	<0.30	<0.15	<0.25	<0.032	ND
		10/5/2012	Pace	**40.2**	**349**	<0.31	<0.13	<0.072	<0.16	<0.080	<0.14	<0.16	<0.11	<0.16	ND
		4/2/2013	Pace	**39.8**	**478**	<0.31	<0.13	<0.072	<0.16	**0.27** J	<0.14	<0.16	<0.11	<0.16	ND
		10/1/2013	Pace	**40.5**	**362**	<0.22	<0.40	<0.20	<0.23	<0.12	<0.20	<0.19	<0.18	<0.19	ND
		4/25/2014	Pace	**40.7**	**374**	<0.50	<0.50	<0.25	<0.24	**0.30** J	<0.21	<0.25	<0.13	<0.20	ND
		10/6/2014	Pace	**41.2**	**355**	<0.27	<0.34	<0.087	<0.17	**0.33** J	<0.15	<0.12	<0.084	<0.082	ND
		4/24/2015	Pace	**35.4**	**334**	<0.27	<0.34	<0.087	<0.17	**0.16** J	<0.15	<0.12	<0.084	<0.082	ND
		10/6/2015	Pace	**37.1**	**355**	<0.88	<0.20	<0.15	<0.17	**0.53**	<0.18	<0.13	<0.19	<0.10	ND
		4/5/2016	Pace	**39.0**	**348**	<0.34	<0.64	<0.19	<0.17	**0.32** J	<0.18	<0.15	<0.14	<0.081	ND
		10/4/2016	Pace	**42.3**	**345**	<0.18	<0.21	<0.088	<0.089	**0.39** J	<0.11	<0.12	<0.044	<0.098	ND
		4/4/2017	Pace	**41.6**	**340**	<0.18	<0.21	<0.088	<0.089	**0.26** J	<0.11	<0.12	<0.044	<0.098	ND
		10/3/2017	Pace	**45.1**	**358**	<0.32	<1.1	<0.14	<0.18	**0.31**	<0.21	<0.12	<0.11	<0.074	ND
		4/3/2018	Pace	**43.6**	**373** M0	<0.32	<1.1	<0.14	<0.18	**0.21** J1	<0.21	<0.12	<0.11	<0.074	ND
		10/1/2018	Pace	**43.2**	**347**	<0.14	<0.15	<0.16	<0.19	**0.37** J1	<0.18	<0.17	<0.12	<0.086	ND
		4/3/2019	Pace	**44**	**337**	<0.14	<0.15	<0.16	<0.19	**0.33** J1	<0.18	<0.17	<0.12	<0.086	ND
		10/8/2019	Pace	**48.1**	**342**	<0.14	<0.15	<0.16	<0.19	<0.14	<0.18	<0.17	<0.12	<0.086	ND

Table 4. LGRL VOC Investigation Water Supply Well Sample Results - Through December 2019
(Results are in µg/L, except where otherwise noted)

Note: See last page for abbreviations, notes, and groundwater standards.

Well Number	Well Owner	Sample Date	Lab	Chloride (mg/L)	Alkalinity (mg/L)	Chloroethane	Chloromethane	1,1-Dichloroethane	1,1-Dichloroethene	cis-1,2-Dichloroethene	trans-1,2-Dichloroethene	Tetrachloroethene	Trichloroethene	Vinyl Chloride	Other VOCs
PW-38	King N7746 Hwy. 67 Mayville	5/14/2009	NLS	--	--	<0.95	<0.16	<0.25	<0.18	<0.10	<0.28	<0.20	<0.25	<0.19	ND
			CT	--	--	<0.40	**0.57** J	<0.21	<0.24	<0.21	<0.27	<0.30	<0.24	<0.11	ND
		7/14/2010	NLS	--	--	<1.0	<0.16	<0.14	<0.11	<0.13	<0.11	<0.10	<0.12	<0.13	ND
		4/6/2011	NLS	--	--	<1.6	<0.29	<0.23	<0.13	<0.30	<0.30	<0.11	<0.28	<0.20	ND
			TA	--	--	<0.10	<0.20	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.032	Toluene **0.22** J
		10/6/2011	TA	--	--	<0.50	<0.30	<0.25	<0.15	<0.30	<0.30	<0.15	<0.25	<0.032	Toluene **0.35** J
		4/11/2012	TA	<3.1	**310**	<0.50	<0.30	<0.25	<0.15	<0.30	<0.30	<0.15	<0.25	<0.032	ND
		10/5/2012	Pace	<2.0	**338**	<0.31	<0.13	<0.072	<0.16	<0.080	<0.14	<0.16	<0.11	<0.16	ND
		4/2/2013	Pace	**2.4** J	**268**	<0.31	<0.13	<0.072	<0.16	<0.080	<0.14	<0.16	<0.11	<0.16	ND
		10/1/2013	Pace	**3.2** J	**349**	<0.22	<0.40	<0.20	<0.23	<0.12	<0.20	<0.19	<0.18	<0.19	ND
		4/25/2014	Pace	**2.9** J	**361**	<0.50	<0.50	<0.25	<0.24	<0.23	<0.21	<0.25	<0.13	<0.20	ND
		10/6/2014	Pace	**3.2** J	**335**	<0.27	<0.34	<0.087	<0.17	<0.11	<0.15	<0.12	<0.084	<0.082	ND
		4/24/2015	Pace	**2.9** JB	**338**	<0.27	<0.34	<0.087	<0.17	<0.11	<0.15	<0.12	<0.084	<0.082	ND
		10/6/2015	Pace	**2.7** J	**341**	<0.88	<0.20	<0.15	<0.17	<0.16	<0.18	<0.13	<0.19	<0.10	ND
		4/5/2016	Pace	**3.0** J	**344**	<0.34	<0.64	<0.19	<0.17	<0.17	<0.18	<0.15	<0.14	<0.081	ND
		10/4/2016	Pace	**1.6** J	**340**	<0.18	<0.21	<0.088	<0.089	<0.085	<0.11	<0.12	<0.044	<0.098	ND
		4/4/2017	Pace	**1.5** J	**339**	<0.18	<0.21	<0.088	<0.089	<0.085	<0.11	<0.12	<0.044	<0.098	ND
		10/3/2017	Pace	**2.5**	**334**	<0.32	<1.1	<0.14	<0.18	<0.073	<0.21	<0.12	<0.11	<0.074	ND
		4/3/2018	Pace	**1.8** J1	**350**	<0.32	<1.1	<0.14	<0.18	<0.073	<0.21	<0.12	<0.11	<0.074	ND
		10/1/2018	Pace	**1.6** J1	**330**	<0.14	<0.15	<0.16	<0.19	<0.14	<0.18	<0.17	<0.12	<0.086	ND
		4/3/2019	Pace	**1.8** J1	**330**	<0.14	<0.15	<0.16	<0.19	<0.14	<0.18	<0.17	<0.12	<0.086	ND
		10/8/2019	Pace	2.1	**328**	<0.14	<0.15	<0.16	<0.19	<0.14	<0.18	<0.17	<0.12	<0.086	ND
Annual Monitoring Locations															
PW-42	Steinbach W2772 Zion Church Rd. Mayville	10/5/2012	Pace	<2.0	**324**	<0.31	<0.13	<0.072	<0.16	<0.080	<0.14	<0.16	<0.11	<0.16	ND
		4/2/2013	Pace	**2.2** J	**320**	<0.31	<0.13	<0.072	<0.16	<0.080	<0.14	<0.16	<0.11	<0.16	ND
		10/6/2014	Pace	**3.4** J	**327**	<0.27	<0.34	<0.087	<0.17	<0.11	<0.15	<0.12	<0.084	<0.082	ND
		10/6/2015	Pace	**3.0** J	**342**	<0.88	<0.20	<0.15	<0.17	<0.16	<0.18	<0.13	<0.19	<0.10	ND
		10/4/2016	Pace	**1.6** J	**330**	<0.18	<0.21	<0.088	<0.089	<0.085	<0.11	<0.12	<0.044	<0.098	ND
		10/3/2017	Pace	**2.3**	**328**	<0.32	<1.1	<0.14	<0.018	<0.073	<0.21	<0.12	<0.11	<0.074	ND
		10/1/2018	Pace	**1.9** J1	**322**	<0.14	<0.15	<0.16	<0.19	<0.14	<0.18	<0.17	<-0.12	<0.086	ND
		10/9/2019	Pace	2.8	**327**	<0.14	<0.15	<0.16	<0.19	<0.14	<0.18	<0.17	<0.12	<0.086	ND

Table 4. LGRL VOC Investigation Water Supply Well Sample Results - Through December 2019
(Results are in µg/L, except where otherwise noted)

Note: See last page for abbreviations, notes, and groundwater standards.

Well Number	Well Owner	Sample Date	Lab	Chloride (mg/L)	Alkalinity (mg/L)	Chloroethane	Chloromethane	1,1-Dichloroethane	1,1-Dichloroethene	cis-1,2-Dichloroethene	trans-1,2-Dichloroethene	Tetrachloroethene	Trichloroethene	Vinyl Chloride	Other VOCs
PW-43	Hinz W2698 Zion Church Rd. Mayville	10/5/2012	Pace	**11.4**	**215**	<0.31	<0.13	<0.072	<0.16	<0.080	<0.14	<0.16	<0.11	<0.16	ND
		4/3/2013	Pace	**10.8**	**211**	<0.31	<0.13	<0.072	<0.16	<0.080	<0.14	<0.16	<0.11	<0.16	ND
		10/6/2014	Pace	**12.9**	**226**	<0.27	<0.34	<0.087	<0.17	<0.11	<0.15	<0.12	<0.084	<0.082	ND
		10/6/2015	Pace	**15**	**223**	<0.88	<0.20	<0.15	<0.17	<0.16	<0.18	<0.13	<0.19	<0.10	ND
		10/4/2016	Pace	**12.5**	**218**	<0.18	<0.21	<0.088	<0.089	<0.085	<0.11	<0.12	<0.044	<0.098	ND
		10/3/2017	Pace	**12.2**	**225**	<0.32	<1.1	<0.14	<0.18	<0.073	<0.21	<0.21	<0.11	<0.074	ND
		10/1/2018	Pace	**16.4**	**217**	<0.14	<0.15	<0.16	<0.19	<0.14	<0.18	<0.17	<0.12	<0.086	ND
		10/8/2019	Pace	**13.2**	**218**	<0.14	<0.15	<0.16	<0.19	<0.14	<0.18	<0.17	<0.12	<0.086	ND
PW-44	Christian N7686 Ekren Rd. Mayville	10/5/2012	Pace	<2.0	**291**	<0.31	<0.13	<0.072	<0.16	<0.080	<0.14	<0.16	<0.11	<0.16	ND
		4/2/2013	Pace	**2.3** J	**316**	<0.31	<0.13	<0.072	<0.16	<0.080	<0.14	<0.16	<0.11	<0.16	ND
		10/6/2014	Pace	**2.9** J	**319**	<0.27	<0.34	<0.087	<0.17	<0.11	<0.15	<0.12	<0.084	<0.082	ND
		10/6/2015	Pace	**2.7** J	**342**	<0.88	<0.20	<0.15	<0.17	<0.16	<0.18	<0.13	<0.19	<0.10	ND
		10/4/2016	Pace	**1.2** J	**326**	<0.18	<0.21	<0.088	<0.089	<0.085	<0.11	<0.12	<0.044	<0.098	ND
		10/3/2017	Pace	**1.6** J	**332**	<0.32	<1.1	<0.14	<0.18	<0.073	<0.21	<0.12	<0.11	<0.074	ND
		10/1/2018	Pace	**1.3** J1	**316**	<0.14	<0.15	<0.16	<0.19	<0.14	<0.18	<0.17	<0.12	<0.086	Styrene **0.92**
		10/8/2019	Pace	2	**323**	<0.14	<0.15	<0.16	<0.19	<0.14	<0.18	<0.17	<0.12	<0.086	ND
Non-Routine Monitoring Locations															
PW-1	Church View Farms J. Qualmann N7110 Hwy. V Horicon	4/7/2009	NLS	**34**	**240**	<0.95	<0.16	<0.25	<0.18	<0.10	<0.28	<0.20	<0.25	<0.19	ND
PW-3	Horicon Marsh Bowmen N7240 Hwy. V	4/30/2009	NLS	--	--	<0.95	<0.16	<0.25	<0.18	<0.10	<0.28	<0.20	<0.25	<0.19	ND
			CT	--	--	<0.40	<0.22	<0.21	<0.24	<0.21	<0.27	<0.30	<0.24	<0.11	ND
PW-4	Advanced Disposal N7271 Hwy. V Horicon	4/3/2009	NLS	--	--	<0.95	<0.16	<0.25	<0.18	<0.10	<0.28	<0.20	<0.25	<0.19	ND
			CT	--	--	<0.40	<0.22	<0.21	<0.24	<0.21	<0.27	<0.30	<0.24	<0.11	ND
None	Wondra N7877 Hwy 67 Mayville	10/22/2009	NLS	--	--	<0.95	<0.16	<0.25	<0.18	<0.10	<0.28	<0.20	<0.25	<0.19	Chloroform **0.36**
PW-18	Advanced Disposal N7785 Hwy. 67 Mayville	4/3/2009	NLS	--	--	<0.95	<0.16	<0.25	<0.18	<0.10	<0.28	<0.20	<0.25	<0.19	ND
			CT	--	--	<0.40	<0.22	<0.21	<0.24	<0.21	<0.27	<0.30	<0.24	<0.11	ND
PW-18 Hand Pump	Advanced Disposal N7785 Hwy. 67 Mayville	4/3/2009	NLS	--	--	<0.95	<0.16	<0.25	<0.18	<0.10	<0.28	<0.20	<0.25	<0.19	ND
			CT	--	--	<0.40	<0.22	<0.21	<0.24	<0.21	<0.27	<0.30	<0.24	<0.11	ND
PW-24	St. John's Lutheran Church N7074 Hwy. V	4/30/2009	NLS	**33**	**320**	<0.95	<0.16	<0.25	<0.18	<0.10	<0.28	<0.20	<0.25	<0.19	ND
			CT	--	--	<0.40	**0.3** J	<0.21	<0.24	<0.21	<0.27	<0.30	<0.24	<0.11	ND

Table 4. LGRL VOC Investigation Water Supply Well Sample Results - Through December 2019
(Results are in µg/L, except where otherwise noted)

Note: See last page for abbreviations, notes, and groundwater standards.

Well Number	Well Owner	Sample Date	Lab	Chloride (mg/L)	Alkalinity (mg/L)	Chloroethane	Chloromethane	1,1-Dichloroethane	1,1-Dichloroethene	cis-1,2-Dichloroethene	trans-1,2-Dichloroethene	Tetrachloroethene	Trichloroethene	Vinyl Chloride	Other VOCs	
PW-26	Goodearle W3653 Decora Rd. Horicon	4/30/2009	NLS	**13**	**310**	<0.95	<0.16	<0.25	<0.18	<0.10	<0.28	<0.20	<0.25	<0.19	ND	
PW-29	Persha N7241 Hwy. 67 Mayville	4/3/2009	NLS	--	--	<0.95	<0.16	<0.25	<0.18	<0.10	<0.28	<0.20	<0.25	<0.19	ND	
			CT	--	--	<0.40	<0.22	<0.21	<0.24	<0.21	<0.27	<0.30	<0.24	<0.11	ND	
PW-30	Wendorff N7306 Hwy. 67 Mayville	6/23/2009	NLS	--	--	<0.95	<0.16	<0.25	<0.18	<0.10	<0.28	<0.20	<0.25	<0.19	ND	
			CT	--	--	<0.40	<0.22	<0.21	<0.24	<0.21	<0.27	<0.30	<0.24	<0.11	ND	
PW-31	Wendorff N7306 Hwy. 67 Mayville	4/3/2009	NLS	--	--	<0.95	<0.16	<0.25	<0.18	<0.10	<0.28	<0.20	<0.25	<0.19	ND	
			CT	--	--	<0.40	<0.22	<0.21	<0.24	<0.21	<0.27	<0.30	<0.24	<0.11	ND	
PW-33	Lagerman W3230 STH 33 Iron Ridge	4/3/2009	NLS	--	--	<0.95	<0.16	<0.25	<0.18	<0.10	<0.28	<0.20	<0.25	<0.19	ND	
			CT	--	--	<0.40	<0.22	<0.21	<0.24	<0.21	<0.27	<0.30	<0.24	<0.11	ND	
PW-34	R H Equipment N7123 Hwy. 67 Mayville	4/13/2009	NLS	--	--	<0.95	<0.16	<0.25	<0.18	<0.10	<0.28	<0.20	<0.25	<0.19	ND	
			CT	--	--	<0.40	<0.22	<0.21	<0.24	<0.21	<0.27	<0.30	<0.24	<0.11	ND	
PW-35	Lewis N7143 Hwy. 67 Mayville	4/13/2009	NLS	--	--	<0.95	<0.16	<0.25	<0.18	<0.10	<0.28	<0.20	<0.25	<0.19	ND	
			CT	--	--	<0.40	<0.22	<0.21	<0.24	<0.21	<0.27	<0.30	<0.24	<0.11	ND	
PW-36	Mayville Animal Clinic N7860 Hwy. 67 Mayville	4/21/2009	NLS	--	--	<0.95	<0.16	<0.25	<0.18	<0.10	<0.28	<0.20	<0.25	<0.19	ND	
			CT	--	--	<0.40	<0.22	<0.21	<0.24	<0.21	<0.27	<0.30	<0.24	<0.11	ND	
PW-37	Halsne N7817 Hwy. 67 Mayville	4/30/2009	NLS	--	--	<0.95	<0.16	<0.25	<0.18	<0.10	<0.28	<0.20	<0.25	<0.19	ND	
			CT	--	--	<0.40	**0.40** J	<0.21	<0.24	<0.21	<0.27	<0.30	<0.24	<0.11	ND	
PW-Office Well	Advanced Disposal N7296 Hwy. V Horicon	4/7/2009	NLS	--	--	<0.95	<0.16	<0.25	<0.18	<0.10	<0.28	**3.5**	<0.25	<0.19	1,4 Dichlorobenzene	**0.27** J
			CT	--	--	<0.40	<0.22	<0.21	<0.24	<0.21	<0.27	**3.3**	<0.24	<0.11	1,4 Dichlorobenzene	**0.22** J
		4/30/2009	NLS	--	--	<0.95	<0.16	<0.25	<0.18	<0.10	<0.28	<0.20	<0.25	<0.19	ND	
			CT	--	--	<0.40	<0.22	<0.21	<0.24	<0.21	<0.27	<0.30	<0.24	<0.11	ND	
NR 140 Groundwater Enforcement Standard				250	NS	400	30	850	7	70	100	5	5	0.2	1,2-Dichloroethane	5
															1,4 Dichlorobenzene	75
															Benzene	5
															Chloroform	6
															Chlorobenzene	100
															Methyl-tert-butyl ether	60
															Methylene Chloride	5
															Styrene	100
															Toluene	800
															Trimethylbenzenes	480
															Acetone	9000

Table 4. LGRL VOC Investigation Water Supply Well Sample Results - Through December 2019

(Results are in µg/L, except where otherwise noted)

Note: See last page for abbreviations, notes, and groundwater standards.

Well Number	Well Owner	Sample Date	Lab	Chloride (mg/L)	Alkalinity (mg/L)	Chloroethane	Chloromethane	1,1-Dichloroethane	1,1-Dichloroethene	cis-1,2-Dichloroethene	trans-1,2-Dichloroethene	Tetrachloroethene	Trichloroethene	Vinyl Chloride	Other VOCs	
Drinking Water Standard (Maximum Contaminant Level)				250	NS	NS	NS	NS	7	70	100	5	5	0.2	1,2-Dichloroethane	5
															1,4 Dichlorobenzene	75
															Benzene	5
															Chloroform (TTHM)	80
															Methylene Chloride	5
															Styrene	100
															Toluene	1,000
															Acetone	NE

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Table 4. LGRL VOC Investigation Water Supply Well Sample Results - Through December 2019

Abbreviations:
NS = No standard established
TTHM = Trihalomethanes (disinfection byproducts including chloroform)
ND = Not detected
mg/L = Milligrams per Liter
µg/L = Micrograms per Liter
-- = Not Analyzed

CT = CT Laboratories, Baraboo, WI
NLS = Northern Lake Service, Inc., Crandon, WI
Siemens = Siemens Water Technologies
TA = TestAmerica, Watertown, WI
Pace = Pace Analytical Services, Inc., Green Bay, WI

Bold indicates detected compound.
Bold and underline indicates result above drinking water standard.

Notes:
* Sample collected at the pressure tank prior to the iron filtration system.
** Sample collected at the kitchen tap after the water passed through the iron filtration system.

Laboratory Notes/Qualifiers:
B = Compound also detected in blank sample
J = Estimated value below laboratory limit of quantitation
J1 = Estimated concentration at or above the Limit of Detection (LOD) and below the Limit of Quantitation (LOQ).
J2 = Result enclosed in brackets is between the Limit of Detection (LOD) and Limit of Quantitation (LOQ), and region of less certain quantititaion.
H1 = Analysis conducted outside the recognized method holding time. Analyzed 2 days outside of hold time.
L2 = Analyte recovery in the laboratory control sample (LCS) was below QC limits. Results may be biased low.
L3 = Analyte recovery in the laboratory control sample (LCS) exceeded QC limits. Analyte presence below reporting limits in associated samples. Results unaffected by high bias.
M1 = Matrix spike recovery exceeded QC limits. Batch accepted based on laboratory control sample (LCS) recovery.
M0 = Matrix spike recovery and/or matrix spike duplicate recovery was outside laboratory control limits.
N2 = The lab does not hold The Nelac Institute (NELAC/TNI) accreditation for this parameter.

Created by:	JSN	Date:	4/27/2009
Last revision by:	AJR	Date:	4/20/2020
Checked by:	NDK	Date:	4/20/2020
Proj Mgr QA/QC:	SCC	Date:	5/26/2020

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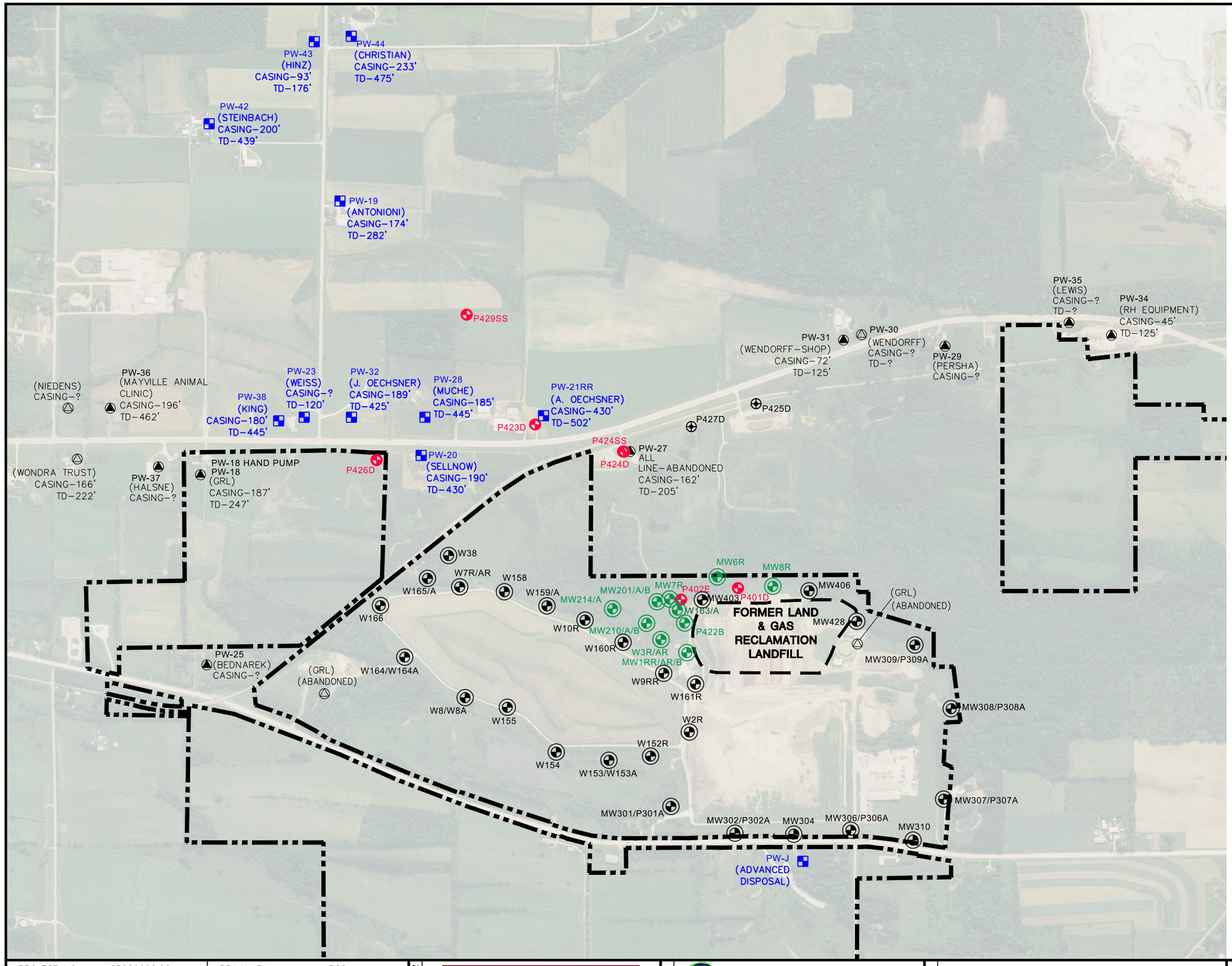
Figures



N

1,000 0 1,000

SCALE: 1" = 1,000'

LEGEND

- GLACIER RIDGE LANDFILL (GRL) PROPERTY LINE
- FORMER LGRL LIMITS OF WASTE
- APPROXIMATE PRIVATE WELL LOCATION, IN CURRENT MONITORING PROGRAM
- APPROXIMATE PRIVATE WELL LOCATION, HAS BEEN SAMPLED PREVIOUSLY
- APPROXIMATE PRIVATE WELL LOCATION, NOT SAMPLED
- PW-30 — WELL NAME ASSIGNED FOR SAMPLING PROGRAM
- (PERSHA) — WELL OWNER
- BEDROCK MONITORING WELL (LGRL INVESTIGATION)
- SHALLOW AQUIFER MONITORING WELL/NEST (LGRL MONITORING/INVESTIGATION)
- SHALLOW AQUIFER MONITORING WELL/NEST (GRL MONITORING)
- INVESTIGATION PHASE 2 BOREHOLE (ABANDONED)

NOTES:

1. AERIAL PHOTOGRAPH FROM THE NATIONAL AGRICULTURE IMAGERY PROGRAM AND PUBLISHED BY THE USDA FSA AERIAL PHOTOGRAPHY FIELD OFFICE. DATE OF IMAGE IS OCTOBER 30, 2015.
2. PROPERTY BOUNDARIES ARE APPROXIMATE. PROPERTY INFORMATION OBTAINED FROM DODGE COUNTY LAND INFORMATION OFFICE ON FEBRUARY 6, 2020.
3. PRIVATE WELL LOCATIONS AND DEPTHS ARE APPROXIMATE BASED ON PLAT MAPS AND WELL LOGS.
4. WELL PW-27 AND BOREHOLES P425D AND P427D WERE ABANDONED IN APRIL 2016.
5. GRL MONITORING WELLS SHOWN ARE NOT PART OF THE LGRL INVESTIGATION BUT ARE USED TO PROVIDE SUPPLEMENTAL INFORMATION ON GROUNDWATER FLOW AND LIMITS OF LGRL IMPACTS ON GROUNDWATER.
6. PW-J IS MONITORED FOR GRL. OTHER GRL PRIVATE WELL SAMPLE LOCATIONS NOT SHOWN.

PROJECT NO.	25220008.02	DRAWN BY:	BSS
DRAWN:	04/21/2020	CHECKED BY:	SCC
REVISED:	05/26/2020	APPROVED BY:	SCC 05/29/2020

ENGINEER: SCS ENGINEERS
2830 DAIRY DRIVE MADISON, WI 53718-6751
PHONE: (608) 224-2830

CLIENT: Advanced Disposal
ADVANCED DISPOSAL SERVICES
GLACIER RIDGE LANDFILL, LLC.

SITE: 2019 ANNUAL REPORT
LAND AND GAS RECLAMATION LANDFILL
DODGE COUNTY, WISCONSIN

MONITORING WELL AND PRIVATE WELL LOCATIONS

FIGURE 1

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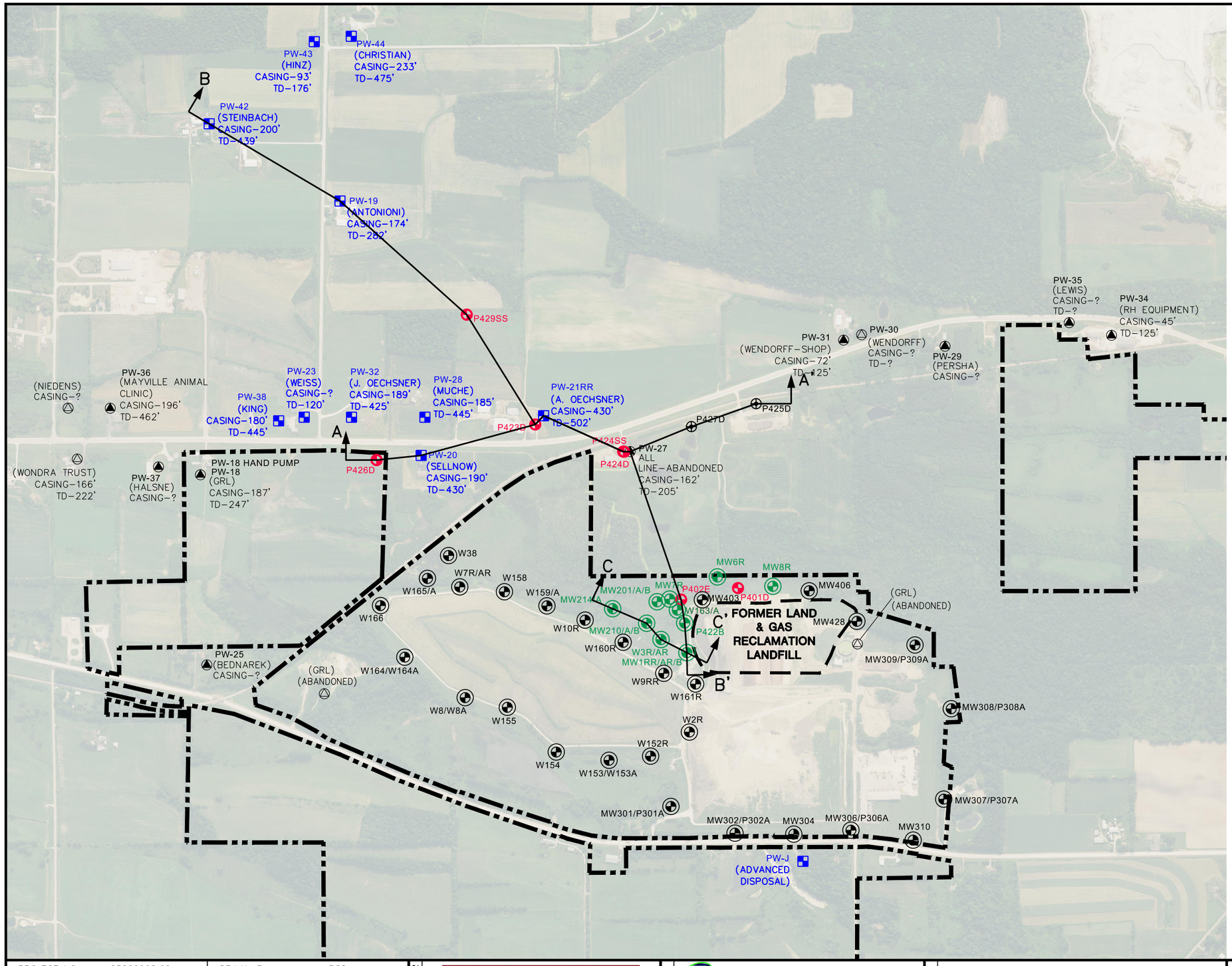

N

1,000 0 1,000

SCALE: 1" = 1,000'

LEGEND

- GLACIER RIDGE LANDFILL (GRL) PROPERTY LINE
- FORMER LGRL LIMITS OF WASTE
- APPROXIMATE PRIVATE WELL LOCATION, IN CURRENT MONITORING PROGRAM
- APPROXIMATE PRIVATE WELL LOCATION, HAS BEEN SAMPLED PREVIOUSLY
- APPROXIMATE PRIVATE WELL LOCATION, NOT SAMPLED
- PW-30 — WELL NAME ASSIGNED FOR SAMPLING PROGRAM
- (PERSHA) — WELL OWNER
- BEDROCK MONITORING WELL (LGRL INVESTIGATION)
- SHALLOW AQUIFER MONITORING WELL/NEST (LGRL MONITORING/INVESTIGATION)
- SHALLOW AQUIFER MONITORING WELL/NEST (GRL MONITORING)
- INVESTIGATION PHASE 2 BOREHOLE (ABANDONED)
- CROSS SECTION LOCATION

NOTES:

1. AERIAL PHOTOGRAPH FROM THE NATIONAL AGRICULTURE IMAGERY PROGRAM AND PUBLISHED BY THE USDA FSA AERIAL PHOTOGRAPHY FIELD OFFICE. DATE OF IMAGE IS OCTOBER 30, 2015.
2. PROPERTY BOUNDARIES ARE APPROXIMATE. PROPERTY INFORMATION OBTAINED FROM DODGE COUNTY LAND INFORMATION OFFICE ON FEBRUARY 6, 2020.
3. PRIVATE WELL LOCATIONS AND DEPTHS ARE APPROXIMATE BASED ON PLAT MAPS AND WELL LOGS.
4. WELL PW-27 AND BOREHOLES P425D AND P427D WERE ABANDONED IN APRIL 2016.
5. GRL MONITORING WELLS SHOWN ARE NOT PART OF THE LGRL INVESTIGATION BUT ARE USED TO PROVIDE SUPPLEMENTAL INFORMATION ON GROUNDWATER FLOW AND LIMITS OF LGRL IMPACTS ON GROUNDWATER.
6. PW-J IS MONITORED FOR GRL. OTHER GRL PRIVATE WELL SAMPLE LOCATIONS NOT SHOWN.

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ENGINEER: SCS ENGINEERS
2830 DAIRY DRIVE MADISON, WI 53718-6751
PHONE: (608) 224-2830

CLIENT: Advanced Disposal
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GLACIER RIDGE LANDFILL, LLC.

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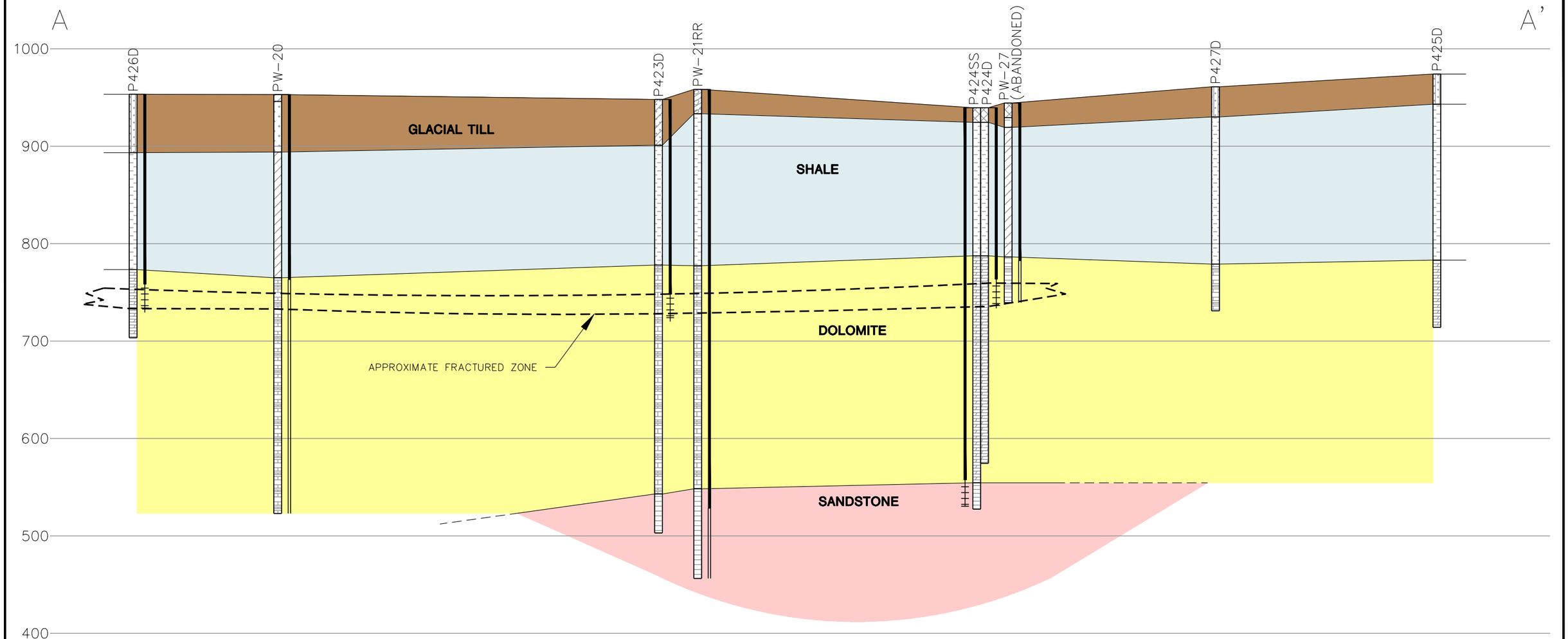
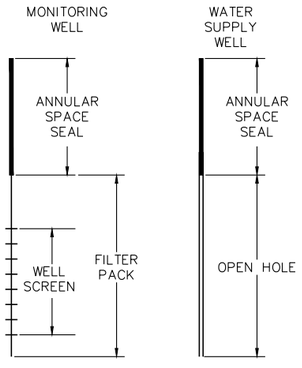
CROSS SECTION LOCATION MAP

FIGURE 2

I:\25220008.02\Drawings\Well and Cross Section Locations.dwg, 5/29/2020 2:42:45 PM





WELL DETAIL

NOTES:

1. THE PORTION OF ANY BOREHOLE EXTENDING BELOW THE MONITORING WELL SCREEN AND FILTER PACK WAS BACKFILLED WITH BENTONITE CHIPS PRIOR TO WELL CONSTRUCTION.
2. MONITORING WELL P423D WAS INSTALLED IN FORMER WATER SUPPLY WELL PW-21R AFTER BACKFILLING THE LOWER PORTION WITH BENTONITE CHIPS.
3. APPROXIMATE FRACTURED ZONE BASED ON BOREHOLE LOGGING AND PACKER PUMPING TEST IN MONITORING WELL BOREHOLES AND PW-27. THE ZONE IS INFERRED AT PW-20 AND PW-21RR, WHICH WERE NOT TESTED.

0 300

HORIZONTAL SCALE: 1" = 300'
VERTICAL SCALE: 1" = 100'
VERTICAL EXAGGERATION = 3X

LEGEND

- SILTY SAND
- SHALE
- DOLOMITE
- LIMESTONE
- LEAN CLAY
- SAND, WELL GRADED
- SAND WITH GRAVEL
- SANDSTONE
- CLAYEY CRAVEL
- FILL

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2830 DAIRY DRIVE MADISON, WI 53718-6751
PHONE: (608) 224-2830

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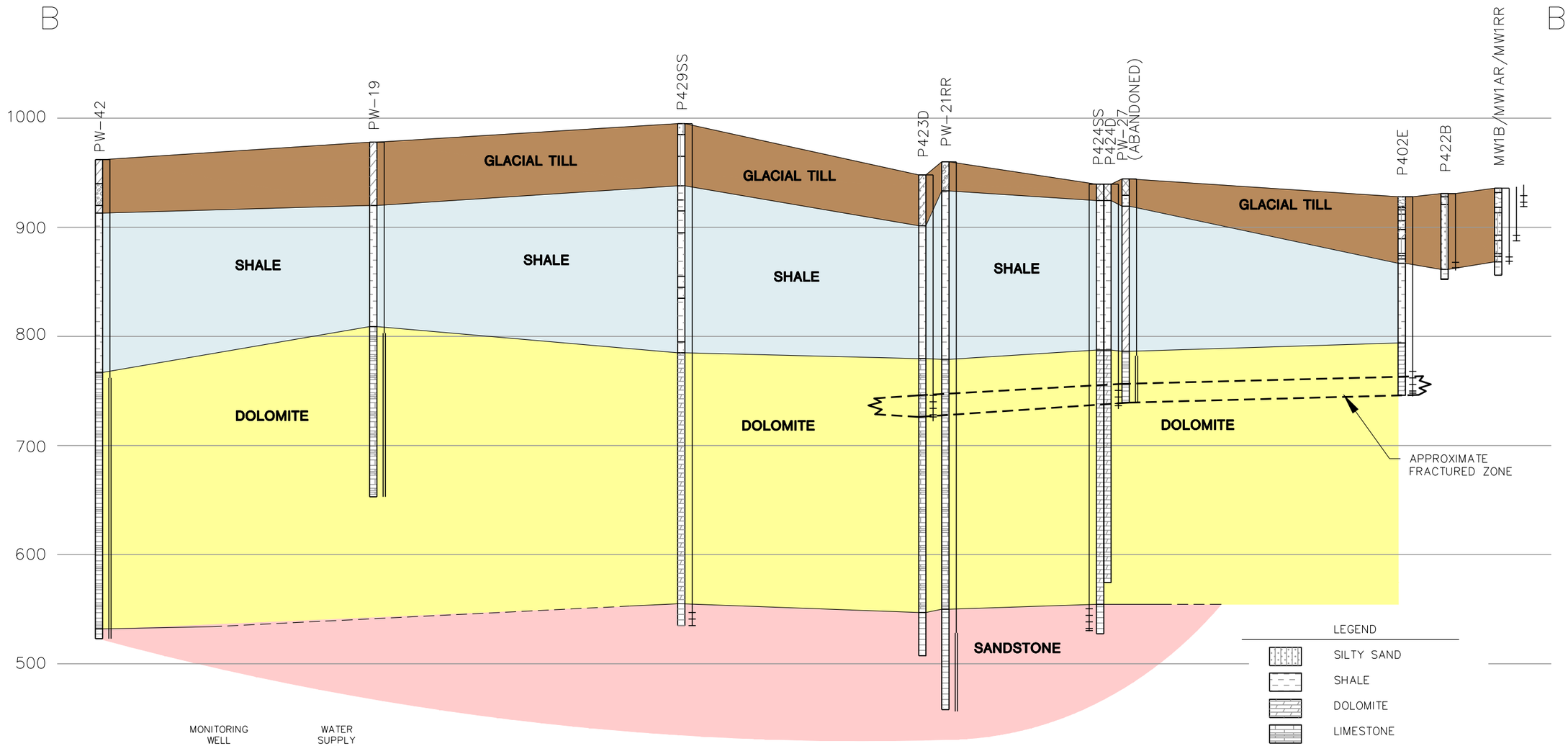
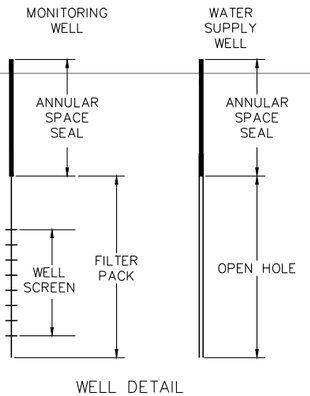
CROSS SECTION A-A'

FIGURE 3

I:\25220008.02\Drawings\Cross Sections.dwg, 5/29/2020 2:42:51 PM





WELL DETAIL

NOTES:

1. APPROXIMATE FRACTURED ZONE BASED ON BOREHOLE LOGGING AND PACKER PUMPING TEST IN MONITORING WELL BOREHOLES AND PW-27. THE ZONE IS INFERRED AT PW-21RR, WHICH WAS NOT TESTED.
2. PW-19 WELL CONSTRUCTION REPORT INDICATES THIS WELL WAS ORIGINALLY DRILLED TO A DEPTH OF 282 FEET. DAN ANTONIONI, THE PRESENT OWNER, STATED ON 02/27/2017 THAT THE WELL WAS DEEPENED TO 325 FEET IN 1962.
3. THE PORTION OF P423D EXTENDING BELOW THE MONITORING WELL SCREEN AND FILTER PACK WAS BACKFILLED WITH BENTONITE CHIPS PRIOR TO WELL CONSTRUCTION.

0 600

HORIZONTAL SCALE: 1" = 600'
VERTICAL SCALE: 1" = 100'
VERTICAL EXAGGERATION = 6X

LEGEND

- SILTY SAND
- SHALE
- DOLOMITE
- LIMESTONE
- LEAN CLAY
- SAND, WELL GRADED
- SAND WITH GRAVEL
- SANDSTONE
- CLAYEY GRAVEL
- FILL
- SILT
- GRAVEL
- SAND, POORLY GRADED
- PEAT

PROJECT NO.	25220008.02	DRAWN BY:	BSS
DRAWN:	04/21/2020	CHECKED BY:	SCC
REVISED:	05/26/2020	APPROVED BY:	SCC 05/29/2020

ENGINEER: SCS ENGINEERS
2830 DAIRY DRIVE MADISON, WI 53718-6751
PHONE: (608) 224-2830

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GLACIER RIDGE LANDFILL, LLC.

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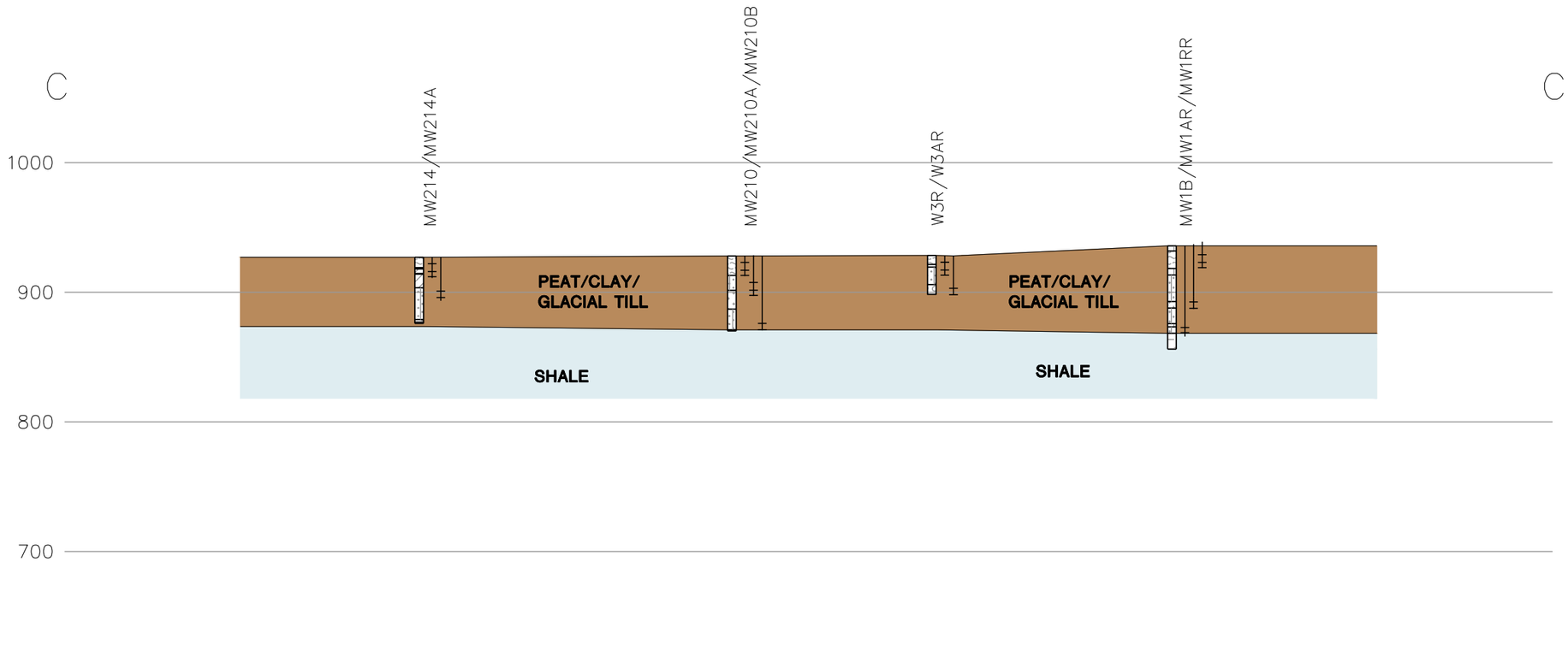
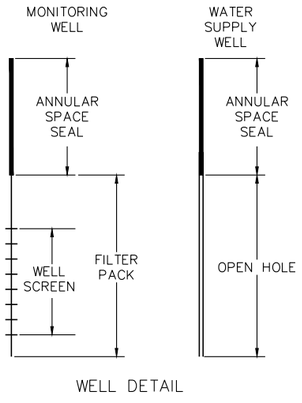
CROSS SECTION B-B'

FIGURE 4

I:\25220008.02\Drawings\Cross Sections.dwg, 5/29/2020 2:42:54 PM





WELL DETAIL

0 150

HORIZONTAL SCALE: 1" = 150'
VERTICAL SCALE: 1" = 25'
VERTICAL EXAGGERATION = 6X

LEGEND

- SILTY SAND
- SHALE
- DOLOMITE
- LIMESTONE
- LEAN CLAY
- SAND, WELL GRADED
- SAND WITH GRAVEL
- SANDSTONE
- CLAYEY GRAVEL
- FILL
- SILT
- GRAVEL
- SAND, POORLY GRADED
- PEAT

PROJECT NO.	25220008.02	DRAWN BY:	BSS
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ENGINEER: SCS ENGINEERS
2830 DAIRY DRIVE MADISON, WI 53718-6751
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GLACIER RIDGE LANDFILL, LLC.

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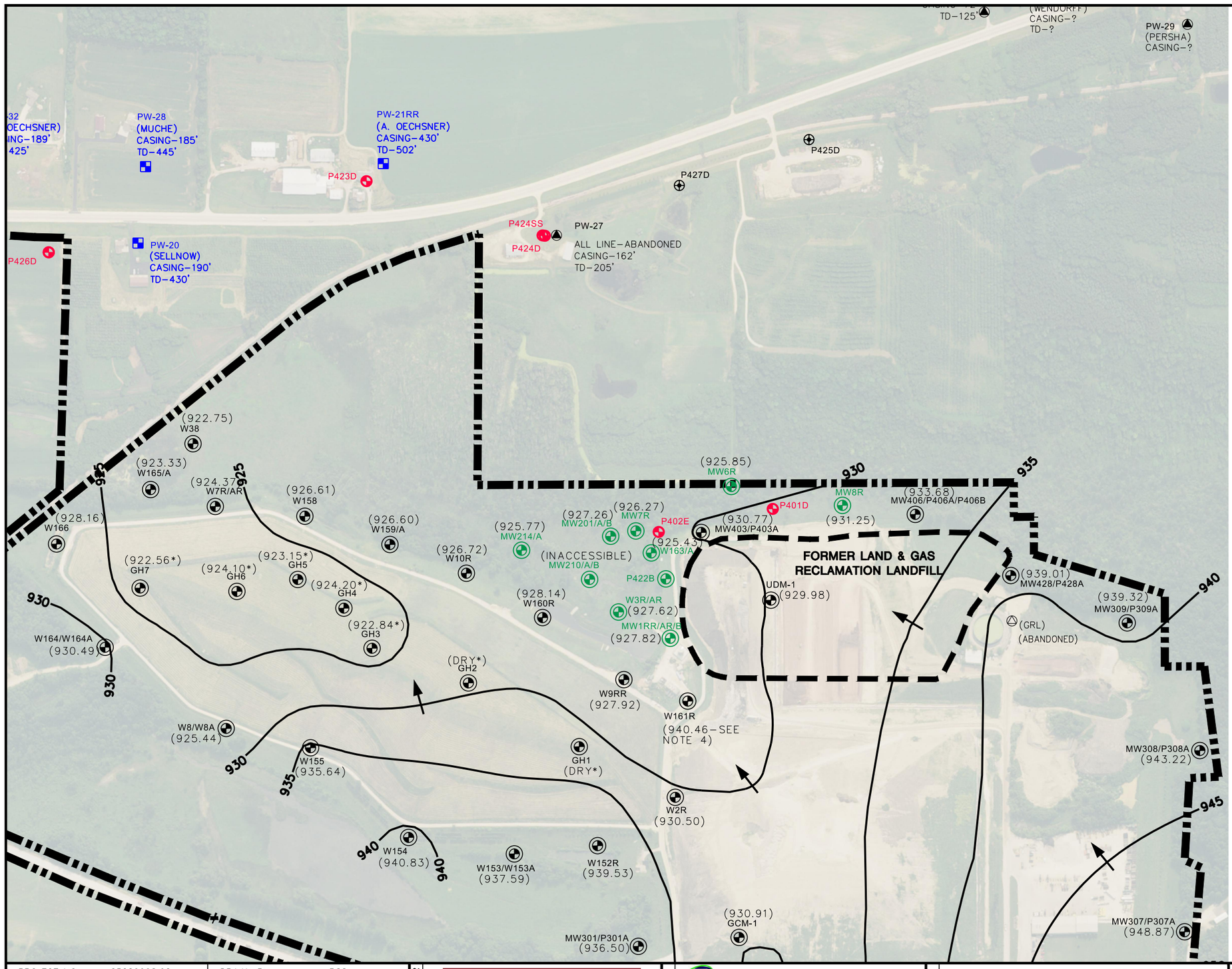
CROSS SECTION C-C'

FIGURE 5

I:\25220008.02\Drawings\Cross Sections.dwg, 5/29/2020 2:42:59 PM



N

500 0 500

SCALE: 1" = 500'

LEGEND

- GLACIER RIDGE LANDFILL (GRL) PROPERTY LINE
- FORMER LGRL LIMITS OF WASTE
- APPROXIMATE PRIVATE WELL LOCATION, IN CURRENT MONITORING PROGRAM
- APPROXIMATE PRIVATE WELL LOCATION, HAS BEEN SAMPLED PREVIOUSLY
- APPROXIMATE PRIVATE WELL LOCATION, NOT SAMPLED
- PW-30 — WELL NAME ASSIGNED FOR SAMPLING PROGRAM
- (PERSHA) — WELL OWNER
- BEDROCK MONITORING WELL (LGRL INVESTIGATION)
- SHALLOW AQUIFER MONITORING WELL/NEST (LGRL MONITORING/INVESTIGATION)
- SHALLOW AQUIFER MONITORING WELL/NEST (GRL MONITORING)
- INVESTIGATION PHASE 2 BOREHOLE (ABANDONED)
- (939.32) — WATER TABLE ELEVATION MEASURED ON OCTOBER 7-11, 2019
- (924.20*) — WATER TABLE ELEVATION MEASURED ON OCTOBER 29, 2019
- WATER TABLE ELEVATION CONTOUR (5' INTERVAL)

NOTES:

1. AERIAL PHOTOGRAPH FROM THE NATIONAL AGRICULTURE IMAGERY PROGRAM AND PUBLISHED BY THE USDA FSA AERIAL PHOTOGRAPHY FIELD OFFICE. DATE OF IMAGE IS OCTOBER 30, 2015.
2. PROPERTY BOUNDARIES ARE APPROXIMATE. PROPERTY INFORMATION OBTAINED FROM DODGE COUNTY LAND INFORMATION OFFICE ON FEBRUARY 6, 2020.
3. PRIVATE WELL LOCATIONS AND DEPTHS ARE APPROXIMATE BASED ON PLAT MAPS AND WELL LOGS.
4. WATER LEVEL FOR W-161R IN OCTOBER 2019 APPEARS TO BE IN ERROR AND WAS NOT USED IN CONTOURING. WATER LEVELS MEASURED BEFORE AND AFTER THIS EVENT WERE SIMILAR TO LEVELS AT MW-1RR AND W-9RR.

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ENGINEER: SCS ENGINEERS, 2830 DAIRY DRIVE MADISON, WI 53718-6751, PHONE: (608) 224-2830

CLIENT: Advanced Disposal — ADVANCED DISPOSAL SERVICES GLACIER RIDGE LANDFILL, LLC.

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SHALLOW GROUNDWATER ELEVATIONS AND WATER TABLE – OCTOBER 2019

FIGURE 6

I:\25220008.02\Drawings\SHALLOW WTBL.dwg, 5/29/2020 2:43:08 PM

PW-19
(ANTONIONI)
CASING-174'
TD-282'

P429SS
[846.74]*

PW-36
(MAYVILLE ANIMAL CLINIC)
CASING-196'
TD-462'

PW-38
(KING)
CASING-180'
TD-445'

PW-23
(WEISS)
CASING-?
TD-120'

PW-32
(J. OECHSNER)
CASING-189'
TD-425'

PW-28
(MUCHE)
CASING-185'
TD-445'

PW-21RR
(A. OECHSNER)
CASING-430'
TD-502'

854.0

P423D
(854.04)

[853.83]*
P424SS

854.5

P425D

P427D

PW-31
(WENDORFF-SHOP)
CASING-72'
TD-125'

PW-30
(WENDORFF)
CASING-?
TD-?

PW-29
(PERSHA)
CASING-?

PW-3
(LEWI
CASIN
TD-?

PW-37
(HALSNE)
CASING-?

PW-18 HAND PUMP

PW-18
(GRL)
CASING-187'
TD-247'

P426D
(853.89)

PW-20
(SELLNOW)
CASING-190'
TD-430'

P424D
(854.40)

PW-27
ALL LINE-ABANDONED
CASING-162'
TD-205'

855.0

855.5

P402E
(855.48)

P401D
(855.60)

(GRL)
(ABANDONED)

FORMER LAND & GAS RECLAMATION LANDFILL

PW-25
(BEDNAREK)
CASING-?

(GRL)
(ABANDONED)

PW-J
(ADVANCED DISPOSAL)

N

800 0 800

SCALE: 1" = 800'

LEGEND

- GLACIER RIDGE LANDFILL (GRL) PROPERTY LINE
- FORMER LGRL LIMITS OF WASTE
- APPROXIMATE PRIVATE WELL LOCATION, IN CURRENT MONITORING PROGRAM
- APPROXIMATE PRIVATE WELL LOCATION, HAS BEEN SAMPLED PREVIOUSLY
- APPROXIMATE PRIVATE WELL LOCATION, NOT SAMPLED
- PW-30 — WELL NAME ASSIGNED FOR SAMPLING PROGRAM
- (PERSHA) — WELL OWNER
- BEDROCK MONITORING WELL (LGRL INVESTIGATION)
- INVESTIGATION PHASE 2 BOREHOLE (ABANDONED)
- (853.95) — DOLOMITE GROUNDWATER ELEVATION MEASURED IN OCTOBER 2019
- [852.26]* — SANDSTONE GROUNDWATER ELEVATION MEASURED IN OCTOBER 2019 (NOT CONTOURED)
- DOLOMITE GROUNDWATER ELEVATION CONTOUR (0.5' INTERVAL)

NOTES:

1. AERIAL PHOTOGRAPH FROM THE NATIONAL AGRICULTURE IMAGERY PROGRAM AND PUBLISHED BY THE USDA FSA AERIAL PHOTOGRAPHY FIELD OFFICE. DATE OF IMAGE IS OCTOBER 30, 2015.
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3. PRIVATE WELL LOCATIONS AND DEPTHS ARE APPROXIMATE BASED ON PLAT MAPS AND WELL LOGS.
4. WELL PW-27 AND BOREHOLES P425D AND P427D WERE ABANDONED IN APRIL 2016.

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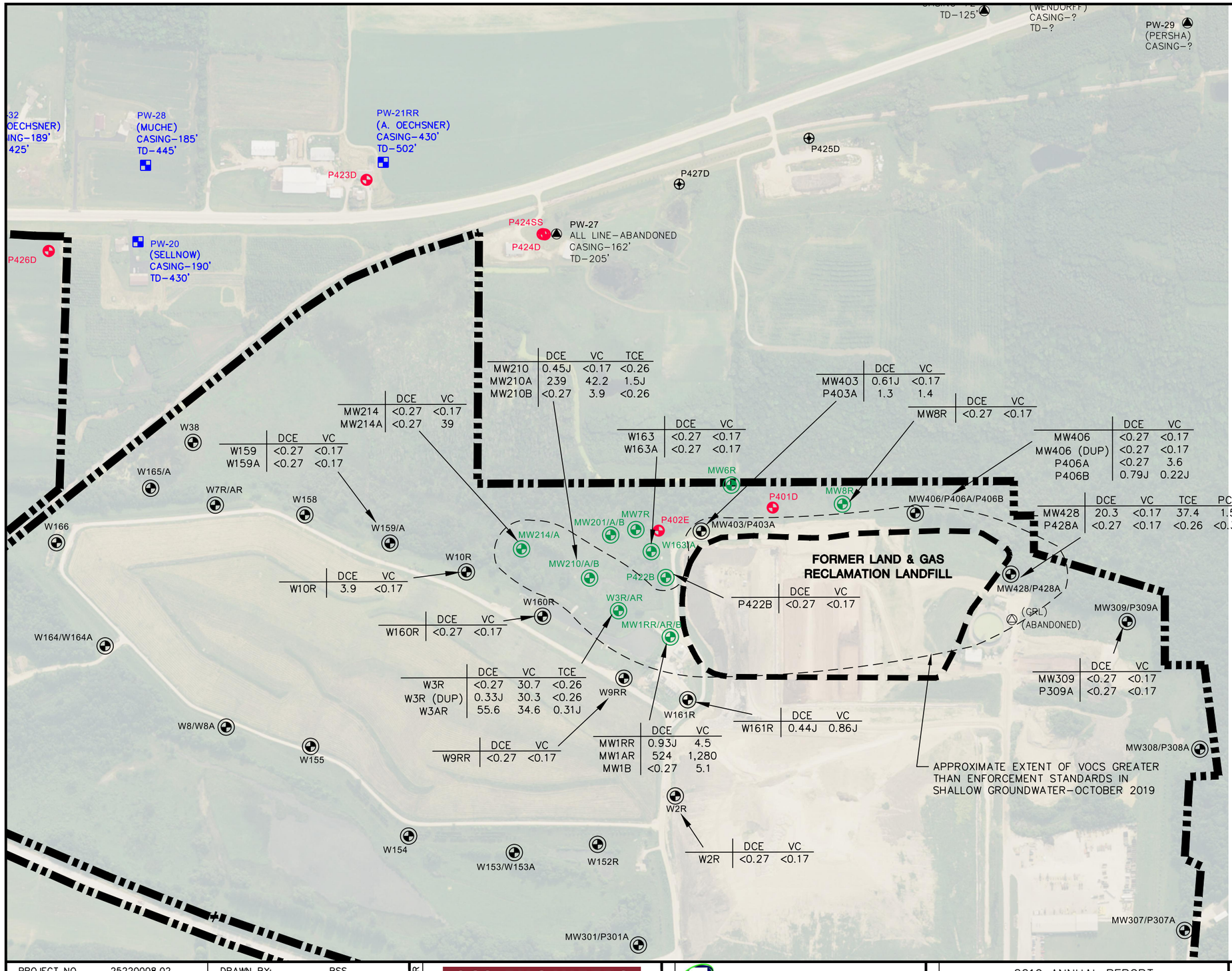
DODGE COUNTY, WISCONSIN

DOLOMITE BEDROCK GROUNDWATER ELEVATIONS AND POTENTIOMETRIC SURFACE CONTOURS – OCTOBER 2019

FIGURE 7

I:\25220008.02\Drawings\BEDROCK WTBL (Dolomite).dwg, 5/29/2020 2:43:13 PM



N

500 0 500

SCALE: 1" = 500'

LEGEND

- GLACIER RIDGE LANDFILL (GRL) PROPERTY LINE
- FORMER LGRL LIMITS OF WASTE
- APPROXIMATE PRIVATE WELL LOCATION, IN CURRENT MONITORING PROGRAM
- APPROXIMATE PRIVATE WELL LOCATION, HAS BEEN SAMPLED PREVIOUSLY
- APPROXIMATE PRIVATE WELL LOCATION, NOT SAMPLED
- PW-30 — WELL NAME ASSIGNED FOR SAMPLING PROGRAM
- (PERSHA) — WELL OWNER
- BEDROCK MONITORING WELL (LGRL INVESTIGATION)
- SHALLOW AQUIFER MONITORING WELL/NEST (LGRL MONITORING/INVESTIGATION)
- SHALLOW AQUIFER MONITORING WELL/NEST (GRL MONITORING)
- INVESTIGATION PHASE 2 BOREHOLE (ABANDONED)
- DCE — CIS–1,2–DICHLOROETHYLENE (µg/L) (PAL=7; ES=70)
- VC — VINYL CHLORIDE (µg/L) (PAL=0.02; ES=0.2)
- TCE — TRICHLOROETHYLENE (µg/L) (PAL=0.5; ES=5)
- PCE — TETRACHLOROETHYLENE (µg/L) (PAL=0.5; ES=5)

NOTES:

1. AERIAL PHOTOGRAPH FROM THE NATIONAL AGRICULTURE IMAGERY PROGRAM AND PUBLISHED BY THE USDA FSA AERIAL PHOTOGRAPHY FIELD OFFICE. DATE OF IMAGE IS OCTOBER 30, 2015.
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3. PRIVATE WELL LOCATIONS AND DEPTHS ARE APPROXIMATE BASED ON PLAT MAPS AND WELL LOGS.
4. VOC RESULTS ARE NOT SHOWN FOR ALL WELLS. VOC RESULTS SHOWN ARE FROM OCTOBER 8–11, 2019 SAMPLING EVENT EXCEPT FOR MW210/MW210A, WHICH ARE FROM THE JULY 2019 SAMPLING EVENT AND MW428/P428A, WHICH ARE FROM THE APRIL 2019 SAMPLING EVENT.

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CLIENT: Advanced Disposal — ADVANCED DISPOSAL SERVICES GLACIER RIDGE LANDFILL, LLC.

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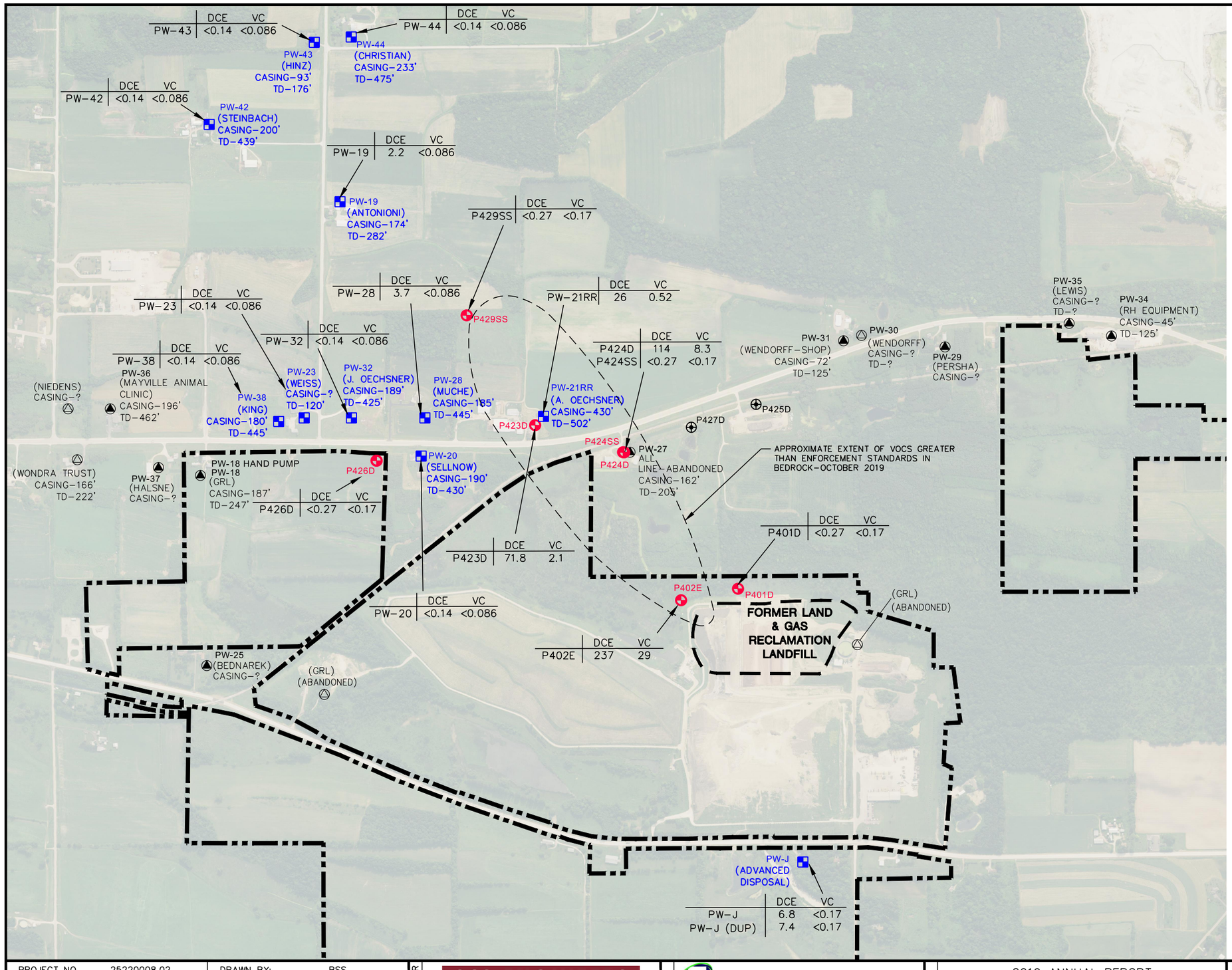
VOCS IN SHALLOW GROUNDWATER OCTOBER 2019

FIGURE 8

I:\25220008.02\Drawings\RSLTS_VOC Shallow.dwg, 5/29/2020 2:43:18 PM



N

1,000 0 1,000

SCALE: 1" = 1,000'

LEGEND

- GLACIER RIDGE LANDFILL (GRL) PROPERTY LINE
- FORMER LGRL LIMITS OF WASTE
- APPROXIMATE PRIVATE WELL LOCATION, IN CURRENT MONITORING PROGRAM
- APPROXIMATE PRIVATE WELL LOCATION, HAS BEEN SAMPLED PREVIOUSLY
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- (PERSHA) — WELL OWNER
- BEDROCK MONITORING WELL (LGRL INVESTIGATION)
- INVESTIGATION PHASE 2 BOREHOLE (ABANDONED)
- DCE — CIS-1,2-DICHLOROETHYLENE (µg/L) (PAL=7; ES=70)
- VC — VINYL CHLORIDE (µg/L) (PAL=0.02; ES=0.2)

NOTES:

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3. PRIVATE WELL LOCATIONS AND DEPTHS ARE APPROXIMATE BASED ON PLAT MAPS AND WELL LOGS.
4. WELL PW-27 AND BOREHOLES P425D AND P427D WERE ABANDONED IN APRIL 2016.
5. VOC RESULTS FROM OCTOBER 8, 2019 AND OCTOBER 29, 2019 SAMPLING EVENT.

PROJECT NO.	25220008.02	DRAWN BY:	BSS
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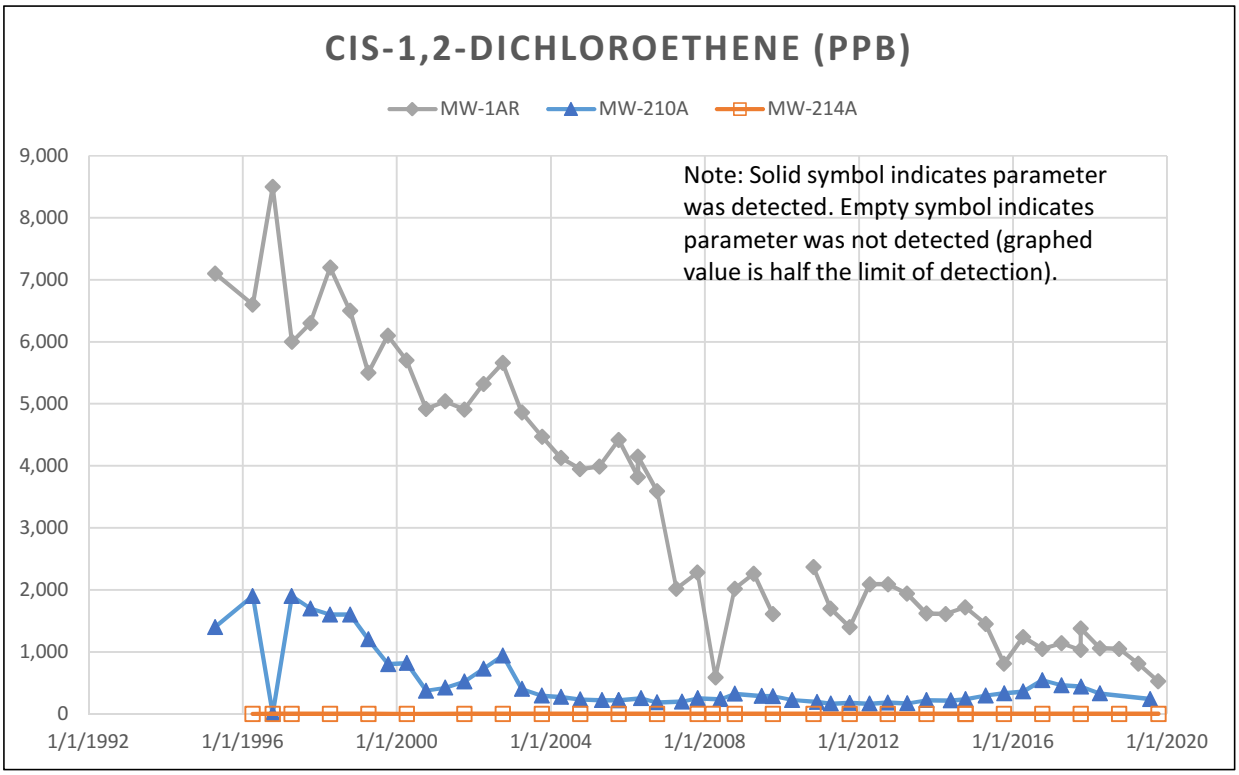
VOCS IN BEDROCK GROUNDWATER OCTOBER 2019

FIGURE 9

I:\25220008.02\Drawings\RSLTS_VOC Bedrock.dwg, 5/29/2020 2:43:24 PM

Figure G1. Time Series Graphs for Mid-Depth Wells Along the Shallow Plume (MW-1AR, MW-210A, MW-214A)



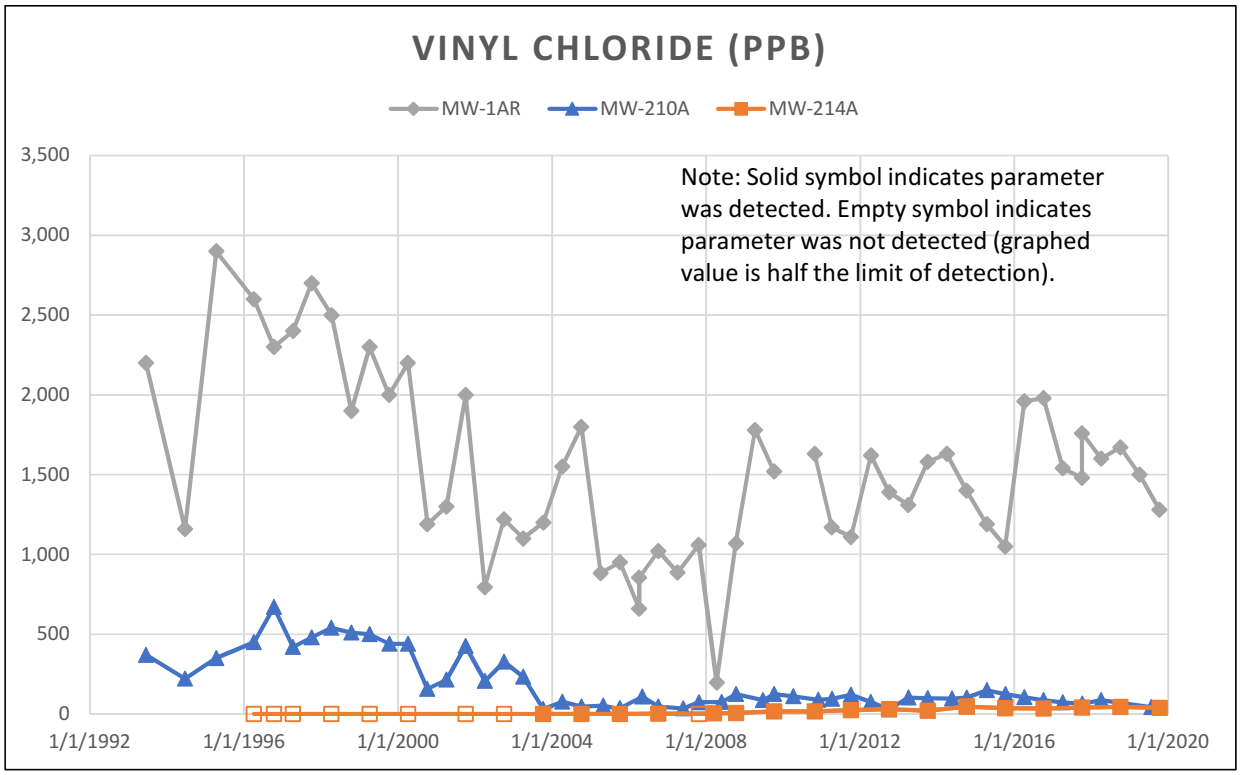
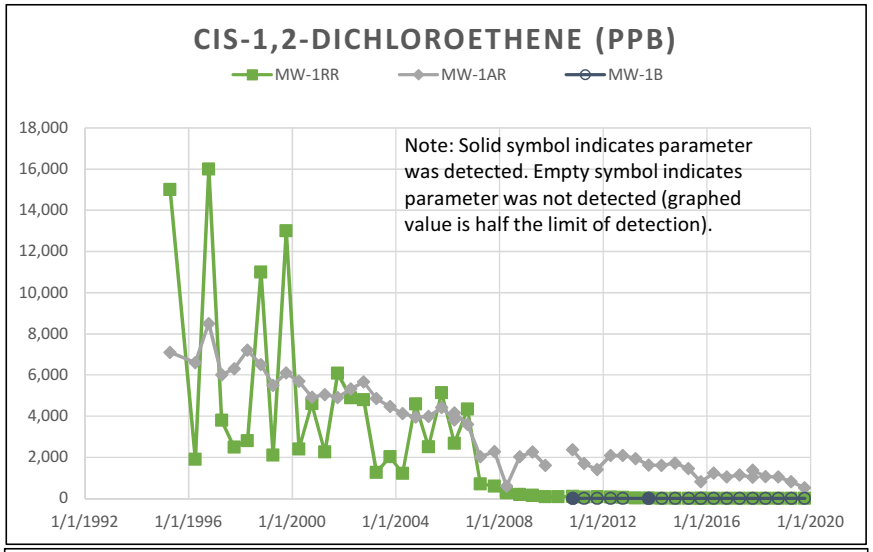
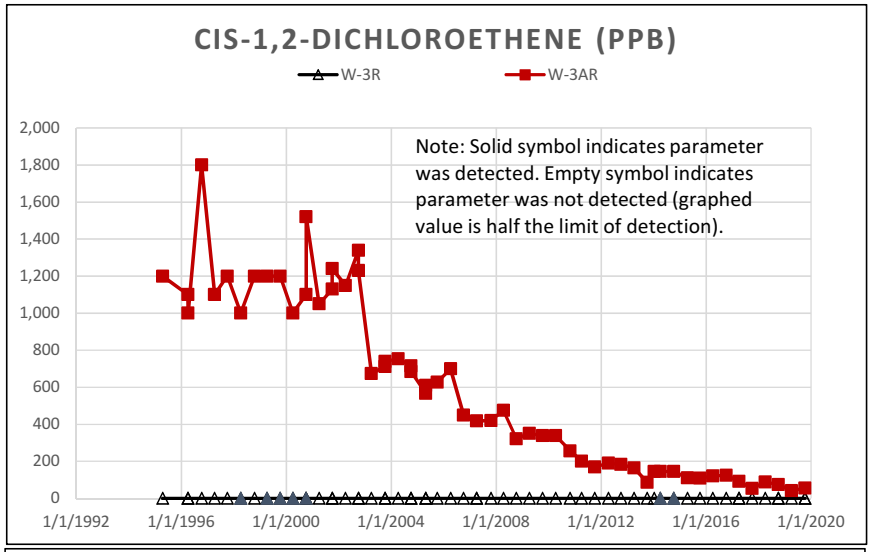
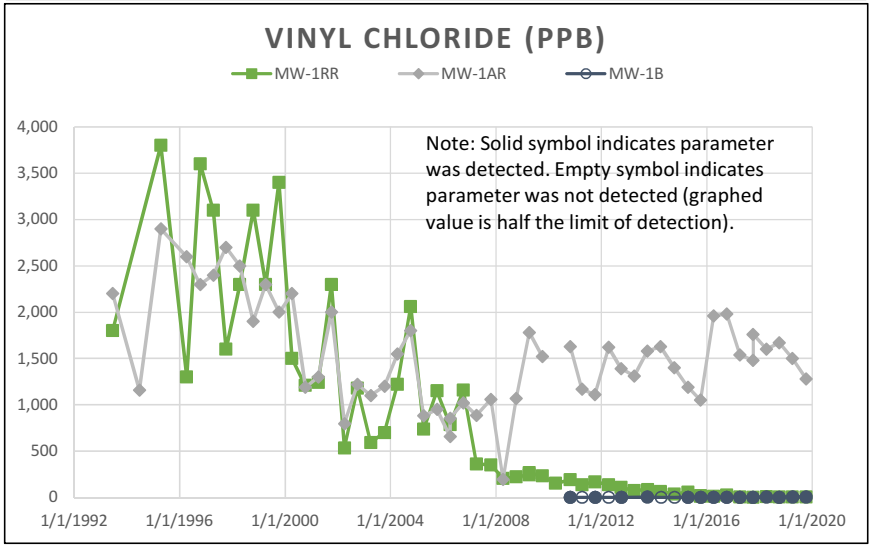


Figure G2. Time Series Graphs for Source Area Well Nests (MW-1 and W-3)







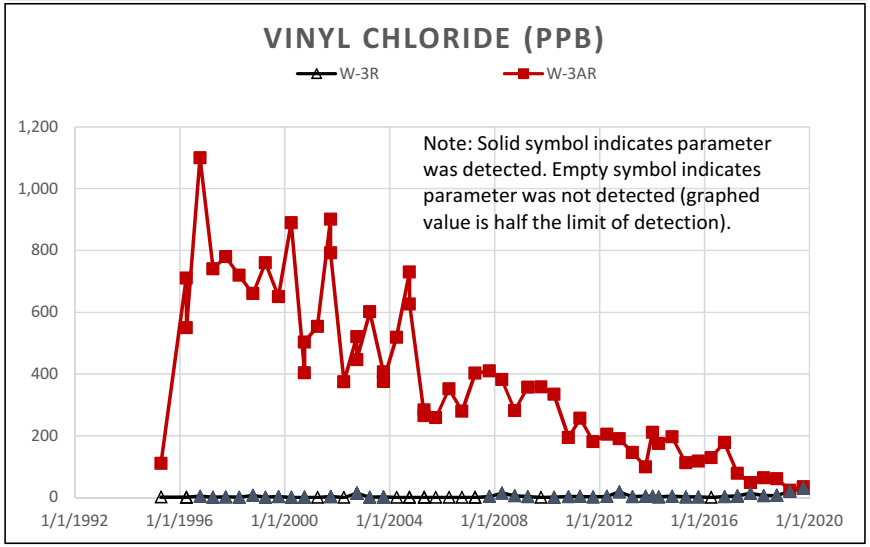


Figure G3. Time Series Graphs for Downgradient Well Nests (MW-210 and MW-214)

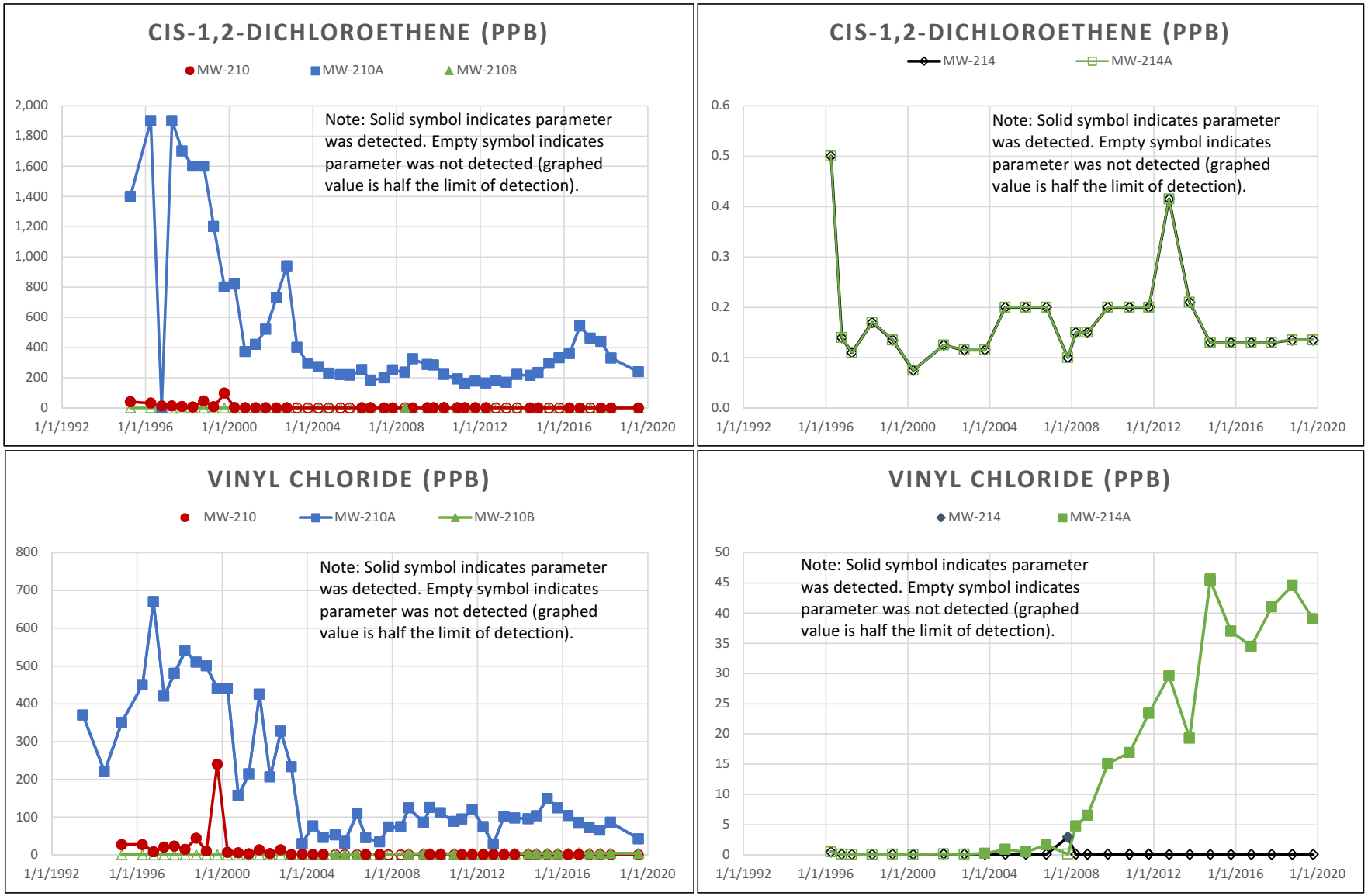


Figure G4. Time Series Graph for cis-1,2-DCE in Bedrock Monitoring Wells

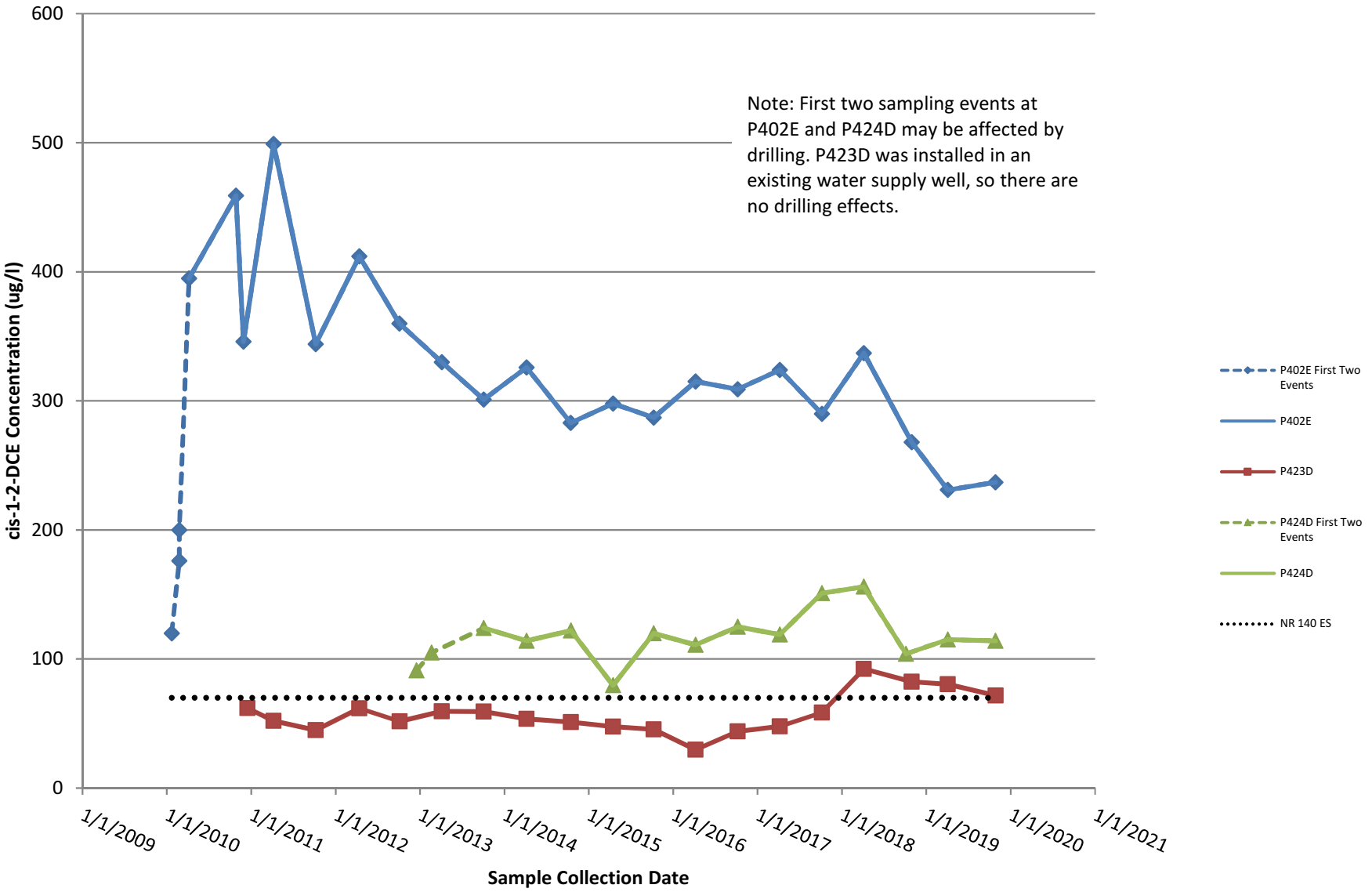


Figure G5. Time Series Graph for Vinyl Chloride in Bedrock Monitoring Wells

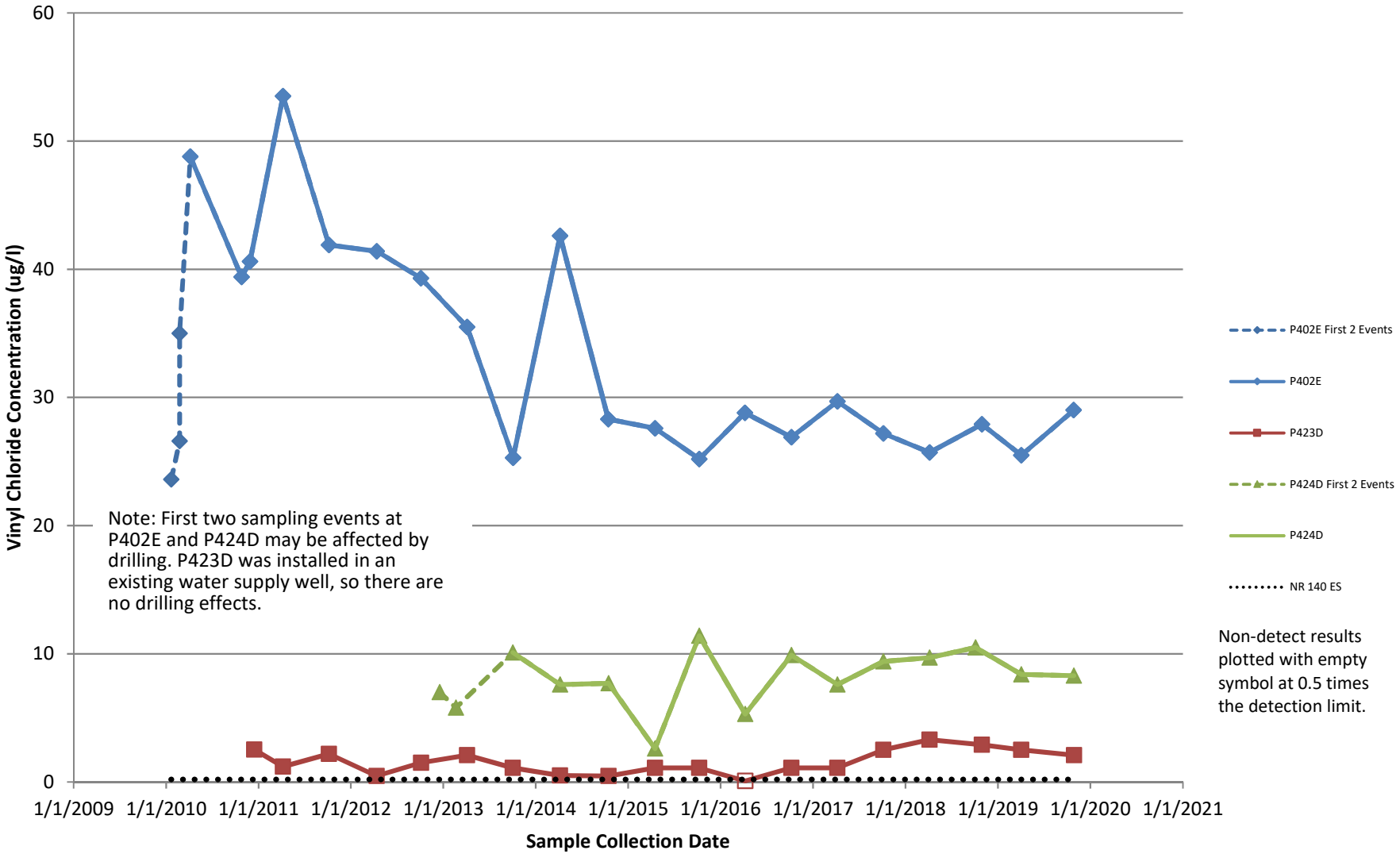


Figure G6. Time Series Graph for Cis-1,2-Dichloroethylene in Water Supply Wells Downgradient from LGRL

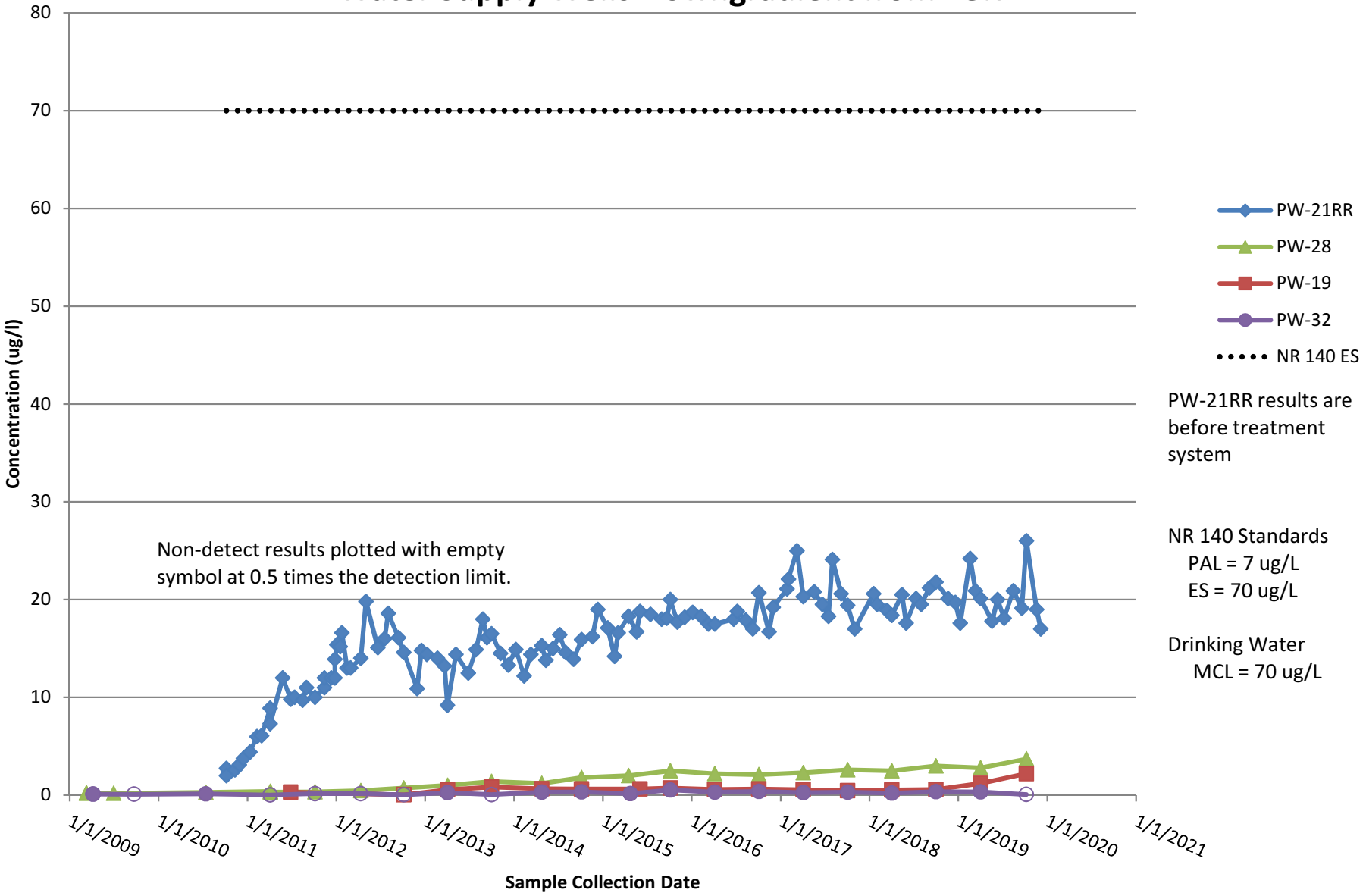
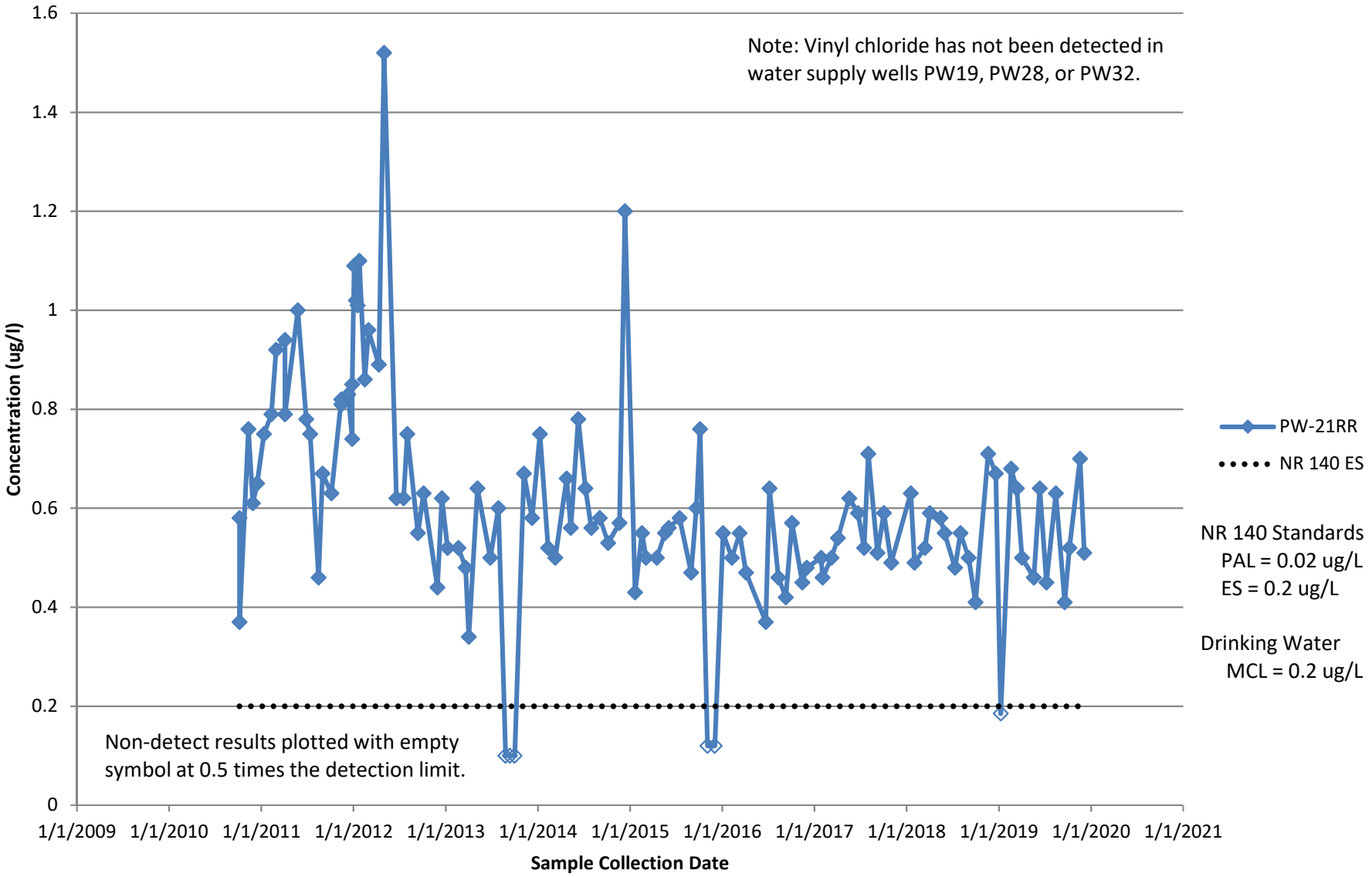


Figure G7. Time Series Graph for Vinyl Chloride at PW-21RR Samples (Before Treatment System)



Attachment A

LGRL Solid Waste Program Monitoring Results: 2016-2019

Historic Monitoring Results - Last 8 Events
Land and Gas Reclamation Landfill

Monitoring Wells	ES	PAL	Event 1	Event 2	Event 3	Event 4	Event 5	Event 6	Event 7	Event 8
MW-001AR (LGRL)										
Reporting Period			4/1/2016	10/1/2016	4/1/2017	10/1/2017	4/1/2018	10/1/2018	4/1/2019	10/1/2019
Field										
Groundwater elevation (ft MSL)			927.99	927.69	929.04	928.14	927.69	928.04	927.69	929.19
ph-Field (standard units)			7.37	7.27	7.32	6.73	7.17	7.29	7.61	7.34
						6.73				
Specific conductance-field (umhos/cm @ 25c)			1740	1910	2120	2240	2320	2210	2140	1547
						2240				
Temperature, water (degrees centigrade)			10.5	13.7	11.5	12.1	10.3	19.6	11.5	9.5
						12.1				
Inorganic										
Alkalinity, total filtered (mg/l as CaCO3)			534	546	496	520	518	521	539	461
						537				
Arsenic, dissolved (ug/l As)	10	1	**2.7**	**3.5**	**3.2**	**2.9**	**3**	**3**	**3.1**	**3.3**
	10	1				**3**				
Chloride, dissolved (mg/l as Cl)	250	125	**513**	**559 M**	**551**	**526**	**586 M**	**506**	**617**	**499**
	250	125				**507**				
Hardness, total, filtered (mg/l as CaCO3)			650	735	679	665	646	676	728	690
						681				
Organic										
1,1-Dichloroethane (ug/l)	850	85	22.3	20.5	19.7	24.4	19.7	20	18.7 J	21
	850	85				25.2				
1,1-Dichloroethylene (ug/l)	7	0.7	**7.3 J**	**6.7 J**	**7 J**	<4.1	**7.2 J**	**6.9 J**	**6.5 J**	**2 J**
	7	0.7				**9.8 J**				
Chloroethane (ug/l)	400	80	<3.7	6.7 J	<3.7	<3.7	4.1 J	<13.4	<26.8	<6.7
	400	80				<3.7				
cis-1,2-Dichloroethene (ug/l)	70	7	**1240**	**1050**	**1140**	**1030**	**1060**	**1050**	**808**	**524**
	70	7				**1380**				

Notes: Bold = PAL exceedance, bold + underlined = ES exceedance (groundwater samples only). Only VOCs detected at each sampling point in at least one of the sampling events are shown. Where more than one sample was collected per reporting period (duplicates and/or resampling), these results are shown in the rows below the original sample.

J Result is an estimated value below the laboratory's limit of quantitation.
B Compound detected in blank.
P Did not meet required preservation and/or hold time.
M Failed method QC check.

Historic Monitoring Results - Last 8 Events
Land and Gas Reclamation Landfill

Monitoring Wells	ES	PAL	Event 1	Event 2	Event 3	Event 4	Event 5	Event 6	Event 7	Event 8
MW-001AR (LGRL)										
Dichloromethane (ug/l)	5	0.5	<2.3	<2.3	<2.3	<2.3	<2.3	<5.8	<11.6	**6.4 J**
	5	0.5				<2.3				
Tetrahydrofuran (ug/l)	50	10	**48.6 J**	**68.3**	**46.7 J**	<20.3	**34.6 J**	**54.2 J**	**50.7 J**	**87.2 J**
	50	10				**33 J**				
trans-1,2-Dichloroethene, total (ug/l)	100	20	7.7 J	5.7 J	5.6 J	5.9 J	7.9 J	<10.9	<21.8	<5.5
	100	20				7.2 J				
Vinyl chloride (ug/l)	0.2	0.02	**1960**	**1980**	**1540**	**1480**	**1600**	**1670**	**1500**	**1280**
	0.2	0.02				**1760**				

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B Compound detected in blank.
P Did not meet required preservation and/or hold time.
M Failed method QC check.

Historic Monitoring Results - Last 8 Events
Land and Gas Reclamation Landfill

Monitoring Wells	ES	PAL	Event 1	Event 2	Event 3	Event 4	Event 5	Event 6	Event 7	Event 8
MW-001RR (LGRL)										
Reporting Period			4/1/2016	10/1/2016	4/1/2017	10/1/2017	4/1/2018	10/1/2018	4/1/2019	10/1/2019
Field										
Groundwater elevation (ft MSL)			927.67	927.37	927.67	926.77	926.29	927.57	926.02	927.82
ph-Field (standard units)			7.12	7.12	6.84	6.79	6.73	6.9	7.21	7.28
Specific conductance-field (umhos/cm @ 25c)			1721	1480	1615	1846	1920	1780	1711	1144
Temperature, water (degrees centigrade)			10	16.5	10.9	13.6	8.9	21.1	11	8.1
Inorganic										
Alkalinity, total filtered (mg/l as CaCO3)			980	935	942 M	1120	1110	1160	1050	979
Arsenic, dissolved (ug/l As)	10	1	**5.9**	**6.9**	**7**	**7.8**	**5.9**	**9.5**	**7**	**7.8**
Chloride, dissolved (mg/l as Cl)	250	125	78.7	78.5	84.7	75.7	76.3	77.6	91.9	87.5
Hardness, total, filtered (mg/l as CaCO3)			790	768	857	907	796	884	845	808
Organic										
1,1-Dichloroethane (ug/l)	850	85	0.61 J	1.1	0.41 J	<0.24	0.53 J	0.47 J	0.5 J	0.44 J
Acetone (ug/l)	9000	1800	<3	<3	3.8 J	7.5 J	<3	7.3 J	4.4 J	30.5
Benzene (ug/l)	5	0.5	<0.5	**0.78 J**	<0.5	<0.5	**0.58 J**	**0.52 J**	**0.5 J**	0.44 J
cis-1,2-Dichloroethene (ug/l)	70	7	2.4	4.8	1.3	<0.26	1.4	1.4	0.94 J	0.93 J
Tetrahydrofuran (ug/l)	50	10	<2	2.7 J	<2	<2	<2	<2.3	<2.3	<2.3
Vinyl chloride (ug/l)	0.2	0.02	**11.6**	**24**	**5.2**	**2.5**	**6.9**	**5.2**	**5.8**	**4.5**

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B Compound detected in blank.
P Did not meet required preservation and/or hold time.
M Failed method QC check.

Historic Monitoring Results - Last 8 Events
Land and Gas Reclamation Landfill

Monitoring Wells	ES	PAL	Event 1	Event 2	Event 3	Event 4	Event 5	Event 6	Event 7	Event 8
MW-006R										
Reporting Period			4/1/2016	10/1/2016	4/1/2017	10/1/2017	4/1/2018	10/1/2018	4/1/2019	10/1/2019
Field										
Groundwater elevation (ft MSL)			925.8	925.7	925.95	924.23	925.74	924.9	925.55	925.85
ph-Field (standard units)			6.95	7.01	7.07	7.09	7.18	7.02	7.82	7.07
							7.18			7.07
Specific conductance-field (umhos/cm @ 25c)			668	674	735	675	627	705	364	445
							627			445
Temperature, water (degrees centigrade)			10.3	13	8.5	10.9	9.9	8.5	7.9	12.5
							9.9			12.5
Inorganic										
Alkalinity, total filtered (mg/l as CaCO3)			347	361	361	378	378	366	373	407
							366			405
Arsenic, dissolved (ug/l As)	10	1	0.61 B	0.37 J	0.14 J	<0.28	**1 J**	0.45 J	0.29 J	0.5 J
	10	1					0.75 J			0.5 J
Chloride, dissolved (mg/l as Cl)	250	125	25.3	25.3	25.3	26.2	27.2	23.5	24.2	24.4
	250	125					27.2			24.3
Hardness, total, filtered (mg/l as CaCO3)			336	347	360	367	385	377	386	421
							371			428
Organic										
Acetone (ug/l)	9000	1800						4.1 J		

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Historic Monitoring Results - Last 8 Events
Land and Gas Reclamation Landfill

Monitoring Wells	ES	PAL	Event 1	Event 2	Event 3	Event 4	Event 5	Event 6	Event 7	Event 8
MW-007R										
Reporting Period			4/1/2016	10/1/2016	4/1/2017	10/1/2017	4/1/2018	10/1/2018	4/1/2019	10/1/2019
Field										
Comment, well frozen							Yes			
Groundwater elevation (ft MSL)			926.18	926.22	926.27	925.87		926.22	927.17	926.27
ph-Field (standard units)			6.74	6.91	7.21	7.3		7.06	7.2	7.29
			6.74					7.06	7.2	
Specific conductance-field (umhos/cm @ 25c)			804	821	790	911		659	363	470
			804					659	363	
Temperature, water (degrees centigrade)			5	12.8	5	15.5		15.8	4.8	15.7
			5					15.8	4.8	
Inorganic										
Alkalinity, total filtered (mg/l as CaCO3)			369	454	334	429		333	352	367
			356					340	371	
Arsenic, dissolved (ug/l As)	10	1	**1**	**2.8**	0.85 J	**2**		**1.8**	0.73 J	**7.3**
	10	1	0.98					**1.7**	0.74 J	
Chloride, dissolved (mg/l as Cl)	250	125	72.1	72.3	69.1	96.3		47.5	57.1	47.6
	250	125	73					47	56.4	
Hardness, total, filtered (mg/l as CaCO3)			385	477	405	483		355	391	380
			381					366	375	

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Historic Monitoring Results - Last 8 Events
Land and Gas Reclamation Landfill

Monitoring Wells	ES	PAL	Event 1	Event 2	Event 3	Event 4	Event 5	Event 6	Event 7	Event 8
MW-008R (LGRL)										
Reporting Period			4/1/2016	10/1/2016	4/1/2017	10/1/2017	4/1/2018	10/1/2018	4/1/2019	10/1/2019
Field										
Groundwater elevation (ft MSL)			931.57	931.39	931.59	929.19	930.95	931.19	931.09	931.25
ph-Field (standard units)			6.87	6.89	7.02	6.96	7.43	6.82	7.13	7.04
						6.96				
Specific conductance-field (umhos/cm @ 25c)			1346	1416	1544	1210	1260	1320	508	839
						1210				
Temperature, water (degrees centigrade)			5.3	13.9	7.7	11.8	9.1	9.5	9.9	12.2
						11.8				
Inorganic										
Alkalinity, total filtered (mg/l as CaCO3)			788	853	889	698	802	813	822	875
						734				
Arsenic, dissolved (ug/l As)	10	1	**2.3**	**3**	**2.2**	**3.7**	**3.6**	**2.5**	**2.8**	**2.3**
	10	1				**3.7**				
Chloride, dissolved (mg/l as Cl)	250	125	43.8	43.2	42.4	36.2	40	43.1	43	40.5
	250	125				35.7				
Hardness, total, filtered (mg/l as CaCO3)			805	772	811	713	764	832	763	794
						674				
MW-201										
Reporting Period			4/1/2016	10/1/2016	4/1/2017	10/1/2017	4/1/2018	10/1/2018	4/1/2019	10/1/2019
Field										
Groundwater elevation (ft MSL)			926.71	927.3	927.19	927.22	926.81	927.26	926.73	927.26
ph-Field (standard units)			6.81	7.02	6.93	7.21	6.99	7.44	7.36	7.32
Specific conductance-field (umhos/cm @ 25c)			877	1225	891	967	680	717	352	458
Temperature, water (degrees centigrade)			6.9	12.5	9	15.2	8.4	14.8	8.4	16.5

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B Compound detected in blank.
P Did not meet required preservation and/or hold time.
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Historic Monitoring Results - Last 8 Events
Land and Gas Reclamation Landfill

Monitoring Wells	ES	PAL	Event 1	Event 2	Event 3	Event 4	Event 5	Event 6	Event 7	Event 8
MW-201A										
Reporting Period			4/1/2016	10/1/2016	4/1/2017	10/1/2017	4/1/2018	10/1/2018	4/1/2019	10/1/2019
Field										
Groundwater elevation (ft MSL)			926.38	927.05	926.19	926.66	926.61	926.84	925.54	925.79
ph-Field (standard units)			6.93	7.14	7.46	7.47	7.16	7.39	7.28	7.34
Specific conductance-field (umhos/cm @ 25c)			837	1198	1110	864	689	744	398	494
Temperature, water (degrees centigrade)			7.5	13.2	9.9	15.3	8.7	15.2	8.5	19.1
MW-201B										
Reporting Period			4/1/2016	10/1/2016	4/1/2017	10/1/2017	4/1/2018	10/1/2018	4/1/2019	10/1/2019
Field										
Groundwater elevation (ft MSL)			926.38	927.21	927.47	926.67	926.47	926.97	926.57	927.33
ph-Field (standard units)			7.2	7.52	7.94	7.89	7.77	7.45	7.61	7.7
Specific conductance-field (umhos/cm @ 25c)			462	600	465	463	412	443	226	277
Temperature, water (degrees centigrade)			8.4	12.1	9.9	15.1	9.1	14.8	8.8	16.5

Notes: Bold = PAL exceedance, bold + underlined = ES exceedance (groundwater samples only). Only VOCs detected at each sampling point in at least one of the sampling events are shown. Where more than one sample was collected per reporting period (duplicates and/or resampling), these results are shown in the rows below the original sample.

J Result is an estimated value below the laboratory's limit of quantitation.
B Compound detected in blank.
P Did not meet required preservation and/or hold time.
M Failed method QC check.

Historic Monitoring Results - Last 8 Events
Land and Gas Reclamation Landfill

Monitoring Wells	ES	PAL	Event 1	Event 2	Event 3	Event 4	Event 5	Event 6	Event 7	Event 8
MW-203A										
Reporting Period			4/1/2016	10/1/2016	4/1/2017	10/1/2017	4/1/2018	10/1/2018	4/1/2019	10/1/2019
Field										
Groundwater elevation (ft MSL)			926.61	927.61	927.71	926.42	927.29	926.96	927.16	927.58
ph-Field (standard units)			7.11	7.27	7.47	7.26	7.25	7.23	7.24	7.52
Specific conductance-field (umhos/cm @ 25c)			644	659	674	660	563	621	336	383
Temperature, water (degrees centigrade)			8.1	13.1	9	10.4	11	9.8	7.1	11.3
Inorganic										
Alkalinity, total filtered (mg/l as CaCO3)			352	348	354	365	352	344 M	309	316
Arsenic, dissolved (ug/l As)	10	1	**7.4**	**9.3**	**7.5**	**8.8**	**8.3**	**8.7**	**8.1**	**5.6**
Chloride, dissolved (mg/l as Cl)	250	125	15.3	19.4	23.4	21.1	24.4	27	27.9	29.9
Hardness, total, filtered (mg/l as CaCO3)			333	355	340	332	330	368	355	332

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Historic Monitoring Results - Last 8 Events
Land and Gas Reclamation Landfill

Monitoring Wells	ES	PAL	Event 1	Event 2	Event 3	Event 4	Event 5	Event 6	Event 7	Event 8
MW-210										
Reporting Period			4/1/2016	10/1/2016	4/1/2017	10/1/2017	4/1/2018	10/1/2018	7/1/2019	10/1/2019
Field										
Groundwater elevation (ft MSL)			927.04	927.04	927.01	926.81	927.01		927.06	
ph-Field (standard units)			6.65	6.89	6.97	7.13	7.44		6.93	
Specific conductance-field (umhos/cm @ 25c)			1380	1443	1427	1311	1290		1433	
Temperature, water (degrees centigrade)			6.6	19.5	14.7	16.5	9.4		16.2	
Inorganic										
Alkalinity, total filtered (mg/l as CaCO3)			713	804	867	837	836		777	
Arsenic, dissolved (ug/l As)	10	1	**2.8**	**4.3**	**2.3**	**4.8**	**2.4**		**2.2**	
Chloride, dissolved (mg/l as Cl)	250	125	78.3	86	84.1	77.9	89.2		77.3	
Hardness, total, filtered (mg/l as CaCO3)			817	913	885	885	911		845	
Organic										
Acetone (ug/l)	9000	1800	<3	7.8 J	<3	<3	3.9 J		4 J	
cis-1,2-Dichloroethene (ug/l)	70	7	0.36 J	0.44 J	<0.26	0.32 J	0.39 J		0.45 J	
Dichloromethane (ug/l)	5	0.5	<0.23	<0.23	<0.23	0.31 JB	<0.23		<0.58	
Vinyl chloride (ug/l)	0.2	0.02	**0.19 J**	**0.23 J**	<0.18	**0.2 J**	<0.18		<0.17	

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B Compound detected in blank.
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Historic Monitoring Results - Last 8 Events
Land and Gas Reclamation Landfill

Monitoring Wells	ES	PAL	Event 1	Event 2	Event 3	Event 4	Event 5	Event 6	Event 7	Event 8
MW-210A										
Reporting Period			4/1/2016	10/1/2016	4/1/2017	10/1/2017	4/1/2018	10/1/2018	7/1/2019	10/1/2019
Field										
Groundwater elevation (ft MSL)			927.33	927.43	927.45	926.95	926.6		926.95	
ph-Field (standard units)			7.04	7.25	7.34	7.32	7.72		7.19	
Specific conductance-field (umhos/cm @ 25c)			1332	1335	1384	1215	1180		1114	
Temperature, water (degrees centigrade)			8.4	19.4	7.7	17.3	9.5		13.5	
Inorganic										
Alkalinity, total filtered (mg/l as CaCO3)			471	481	525	543	537		477	
Arsenic, dissolved (ug/l As)	10	1	**6.3**	**8.5**	**8.8**	**9.4**	**8.6**		**7.1**	
Chloride, dissolved (mg/l as Cl)	250	125	**192**	**168**	**160**	**136**	**140**		111	
Hardness, total, filtered (mg/l as CaCO3)			549	570	575	534	517		491	
Organic										
1,1-Dichloroethane (ug/l)	850	85	15.7	15.9	13	15.5	11.3		7	
1,1-Dichloroethylene (ug/l)	7	0.7	**1.6 J**	**2.1 J**	**2.1 J**	**2.2 J**	**1.6 J**		**1.1 J**	
1,2-Dichloroethane (ug/l)	5	0.5	0.48 J	<0.42	<0.42	<0.42	<0.42		<0.7	
Chloroethane (ug/l)	400	80	10.1	11.1	7.4	6.6	7.4		4.7 J	
cis-1,2-Dichloroethene (ug/l)	70	7	**360**	**542**	**461**	**440**	**330**		**239**	
Tetrahydrofuran (ug/l)	50	10	**11.2 J**	**11.3 J**	7.5 J	<5.1	<5.1		<5.8	
trans-1,2-Dichloroethene, total (ug/l)	100	20	4	6.3	3.3	3.8	9.7		<2.7	
Trichloroethylene (ug/l)	5	0.5	**1.9 J**	**2.4 J**	**2 J**	**2.3 J**	**1.9 J**		**1.5 J**	
Vinyl chloride (ug/l)	0.2	0.02	**104**	**85.5**	**71.7**	**64.7**	**86**		**42.2**	

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B Compound detected in blank.
P Did not meet required preservation and/or hold time.
M Failed method QC check.

Historic Monitoring Results - Last 8 Events
Land and Gas Reclamation Landfill

Monitoring Wells	ES	PAL	Event 1	Event 2	Event 3	Event 4	Event 5	Event 6	Event 7	Event 8
MW-210B										
Reporting Period			4/1/2016	10/1/2016	4/1/2017	10/1/2017	4/1/2018	10/1/2018	7/1/2019	10/1/2019
Field										
Groundwater elevation (ft MSL)			927.4	927.43	927.48	927.1	926.66		927.08	
ph-Field (standard units)			7.14	7.03	7.73	7.42	7.99		7.79	
Specific conductance-field (umhos/cm @ 25c)			712	752	712	684	742		734	
Temperature, water (degrees centigrade)			8.3	18.6	14	16.6	10.1		15.7	
Inorganic										
Alkalinity, total filtered (mg/l as CaCO3)			298	279	282	273	277		271	
Arsenic, dissolved (ug/l As)	10	1	0.27 J	0.17 J	<0.099	<0.28	<0.28		<0.28	
Chloride, dissolved (mg/l as Cl)	250	125	81.5	78.1	73	69.6	98.4		82.1	
Hardness, total, filtered (mg/l as CaCO3)			368	411	374	345	384		373	
Organic										
Acetone (ug/l)	9000	1800	<3	<3	<3	<3	<3		4.3 J	
Vinyl chloride (ug/l)	0.2	0.02	**3.6**	**4.4**	**3.7**	**3.4**	**4.3**		**3.9**	

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Historic Monitoring Results - Last 8 Events
Land and Gas Reclamation Landfill

Monitoring Wells	ES	PAL	Event 1	Event 2	Event 3	Event 4	Event 5	Event 6	Event 7	Event 8
MW-214										
Reporting Period			4/1/2016	10/1/2016	4/1/2017	10/1/2017	4/1/2018	10/1/2018	4/1/2019	10/1/2019
Field										
Comment, well frozen							Yes			
Groundwater elevation (ft MSL)			925.62	925.61	925.52	924.62		925.67	925.57	925.77
ph-Field (standard units)			7.65	7.3	7.33	7.29		7.15	7.2	7.4
			7.65							
Specific conductance-field (umhos/cm @ 25c)			969	956	813	1040		593	433	414
			969							
Temperature, water (degrees centigrade)			5.8	16.5	6.9	14		18	16.1	12.3
			5.8							
Inorganic										
Alkalinity, total filtered (mg/l as CaCO3)			373	482	397	511		373	369	347
			352							
Arsenic, dissolved (ug/l As)	10	1	**1.1 B**	**4.1**	**1.3**	**1.6**		<1.4	0.98 J	**1.3**
	10	1	**1**							
Chloride, dissolved (mg/l as Cl)	250	125	67.1	63.9	65.7	82.9		54.4	56.7	53.1
	250	125	67.5							
Hardness, total, filtered (mg/l as CaCO3)			410	523	445	540		392	370	365
			402							
Organic										
Acetone (ug/l)	9000	1800		3.7 J		<3		7.9 J		8.5 J
Toluene (ug/l)	800	160		<0.5		0.91 J		<0.17		<0.17

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Historic Monitoring Results - Last 8 Events
Land and Gas Reclamation Landfill

Monitoring Wells	ES	PAL	Event 1	Event 2	Event 3	Event 4	Event 5	Event 6	Event 7	Event 8
MW-214A										
Reporting Period			4/1/2016	10/1/2016	4/1/2017	10/1/2017	4/1/2018	10/1/2018	4/1/2019	10/1/2019
Field										
Groundwater elevation (ft MSL)			927.24	927.49	927.64	926.69	926.79	927.29	927.54	927.44
ph-Field (standard units)			7.58	7.61	7.53	7.55	7.67	7.12	7.36	7.28
Specific conductance-field (umhos/cm @ 25c)			1251	1145	1081	1111	1230	701	577	614
Temperature, water (degrees centigrade)			7.7	12.8	9.2	11.7	8.3	13.8	11.2	10.5
Inorganic										
Alkalinity, total filtered (mg/l as CaCO3)			357	360	358	354	353	357	354	344
Arsenic, dissolved (ug/l As)	10	1	0.86 B	0.98 J	0.54 J	0.86 J	0.69 J	<1.4	0.78 J	**1**
Chloride, dissolved (mg/l as Cl)	250	125	**188**	**184**	**197**	**201**	**185**	**187**	**205**	**191**
Hardness, total, filtered (mg/l as CaCO3)			559	572	579	555	523	530	522	516
Organic										
Acetone (ug/l)	9000	1800		<3		<3		3.7 J		7.5 J
Chloroethane (ug/l)	400	80		1.5		1.1		1.4 J		<1.3
Tetrahydrofuran (ug/l)	50	10		**11.7**		6.1		8 J		9.4 J
Vinyl chloride (ug/l)	0.2	0.02		**34.5**		**41**		**44.5**		**39**

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Historic Monitoring Results - Last 8 Events
Land and Gas Reclamation Landfill

Monitoring Wells	ES	PAL	Event 1	Event 2	Event 3	Event 4	Event 5	Event 6	Event 7	Event 8
W-003AR (LGRL)										
Reporting Period			4/1/2016	10/1/2016	4/1/2017	10/1/2017	4/1/2018	10/1/2018	4/1/2019	10/1/2019
Field										
Groundwater elevation (ft MSL)			926.47	927.84	927.14	927.29	927.22	927.49	926.89	928.07
ph-Field (standard units)			7.2	7.26	7.23	7.12	7.1	7.3	7.29	7.31
Specific conductance-field (umhos/cm @ 25c)			1295	1107	1105	1280	1260	1340	722	787
Temperature, water (degrees centigrade)			9.5	14.1	8.7	11.8	9.9	8.1	4.9	13.3
Inorganic										
Alkalinity, total filtered (mg/l as CaCO3)			664	692	692	640	686	628	607	636
Arsenic, dissolved (ug/l As)	10	1	**1.4**	**1.6**	**1.4**	**1.4**	**1.3**	**1.6**	**2.2**	**2.6**
Chloride, dissolved (mg/l as Cl)	250	125	98	112	**135**	**140**	**129**	**128**	**155**	**162**
Hardness, total, filtered (mg/l as CaCO3)			584	668	672	620	622	639	606	598
Organic										
1,1-Dichloroethane (ug/l)	850	85	16	18.3	13.4	15.6	14.6	14.9	12	16.9
1,1-Dichloroethylene (ug/l)	7	0.7	**1.1**	**1.6**	**0.92 J**	0.67 J	**0.89 J**	**0.78 J**	0.4 J	0.66 J
1,2-Dichloroethane (ug/l)	5	0.5	<0.17	0.38 J	0.21 J	<0.17	<0.34	<0.28	<0.28	<0.28
Acetone (ug/l)	9000	1800	<3	<3	<3	<3	6.2 J	<2.7	<2.7	6.8 J
Benzene (ug/l)	5	0.5	**0.98 J**	**1.6**	**1.3**	**1.2**	**1.3 J**	**1.1**	**1.1**	**1.1**
Chloroethane (ug/l)	400	80	6.3	9.9	6.2	5.9	7.4	7.2	6.1	7.2
cis-1,2-Dichloroethene (ug/l)	70	7	**121**	**125**	**92.6**	**53.5**	**88.9**	**74.5**	**42.1**	**55.6**
Dichlorodifluoromethane (ug/l)	1000	200	1.3	1.8	1	1	1 J	1 J	0.72 J	0.78 J
Methyl-tert-butyl ether (ug/l)	60	12	<0.17	0.28 J	0.25 J	<0.17	<0.35	<1.2	<1.2	<1.2
Tetrahydrofuran (ug/l)	50	10	6.2	9.1	8.6	**10.2**	5.5 J	7.8 J	8.6 J	**10.4 J**
trans-1,2-Dichloroethene, total (ug/l)	100	20	0.92 J	1.3	0.62 J	0.51 J	1.3 J	<1.1	<1.1	<1.1
Trichloroethylene (ug/l)	5	0.5	<0.33	**0.5 J**	<0.33	<0.33	<0.66	0.36 J	0.27 J	0.31 J
Vinyl chloride (ug/l)	0.2	0.02	**129**	**178**	**78.4**	**47.7**	**63.3**	**60.7**	**23.1**	**34.6**

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Historic Monitoring Results - Last 8 Events
Land and Gas Reclamation Landfill

Monitoring Wells	ES	PAL	Event 1	Event 2	Event 3	Event 4	Event 5	Event 6	Event 7	Event 8
W-003R (LGRL)										
Reporting Period			4/1/2016	10/1/2016	4/1/2017	10/1/2017	4/1/2018	10/1/2018	4/1/2019	10/1/2019
Field										
Groundwater elevation (ft MSL)			927.5	927.45	928.35	927.35	927.35	927.55	927.65	927.62
ph-Field (standard units)			7.13	6.84	6.97	7.25	6.73	6.71	7.26	6.9
				6.84	6.97			6.71		6.9
Specific conductance-field (umhos/cm @ 25c)			1435	1465	1323	1220	1230	1350	656	828
				1465	1323			1350		828
Temperature, water (degrees centigrade)			7.4	14.4	7.2	12.8	8	9.4	3.2	12.8
				14.4	7.2			9.4		12.8
Inorganic										
Alkalinity, total filtered (mg/l as CaCO3)			781	719	673	596	778	763	637	607
				294	694			813		610
Arsenic, dissolved (ug/l As)	10	1	**1.3**	**1.5**	**1**	**1.1**	**1.1**	**1.5**	0.76 J	0.81 J
	10	1		**1.4**	0.9 J			**1.8**		0.96 J
Chloride, dissolved (mg/l as Cl)	250	125	81.3	78.6	89.3	86.7	85.8 M	90.1	90.3	89
	250	125		76.5	84.3			90.4		88.1
Hardness, total, filtered (mg/l as CaCO3)			839	900	864	775	865	889	719	734
				913	884			880		710
Organic										
Acetone (ug/l)	9000	1800	<3	<3	<3	<3	<3	<2.7	<2.7	8.4 J
	9000	1800			<3			2.8 J		7.2 J
cis-1,2-Dichloroethene (ug/l)	70	7	<0.26	0.39 J	<0.26	<0.26	<0.26	<0.27	<0.27	<0.27
	70	7			<0.26			<0.27		0.33 J
Toluene (ug/l)	800	160	<0.5	<0.5	<0.5	1.4	<0.5	<0.17	<0.17	<0.17
	800	160			<0.5			<0.17		<0.17
Vinyl chloride (ug/l)	0.2	0.02	<0.18	**2.5**	**5.1**	**12.9**	**5.6**	**6.4**	**20.3**	**30.7**
	0.2	0.02			**5.1**			**6.8**		**30.3**

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Historic Monitoring Results - Last 8 Events
Land and Gas Reclamation Landfill

Monitoring Wells	ES	PAL	Event 1	Event 2	Event 3	Event 4	Event 5	Event 6	Event 7	Event 8
W-163 (LGRL)										
Reporting Period			4/1/2016	10/1/2016	4/1/2017	10/1/2017	4/1/2018	10/1/2018	4/1/2019	10/1/2019
Field										
Groundwater elevation (ft MSL)			925.81	925.43	925.47	925.13	924.98	925.43	924.48	925.43
ph-Field (standard units)			7.46	7.54	7.86	6.95	7.84	7.7	7.77	7.36
Specific conductance-field (umhos/cm @ 25c)			828	839	630	768	598	718	374	511
Temperature, water (degrees centigrade)			5.4	12.6	8.5	15.8	8.1	15.6	8.5	12
Inorganic										
Alkalinity, total filtered (mg/l as CaCO3)			420	343	307	367	406	335	357	369
Arsenic, dissolved (ug/l As)	10	1	**1.1**	**2.7**	**2.8 J**	**5.3**	**6**	**3.1**	**1.9**	**5.3**
Chloride, dissolved (mg/l as Cl)	250	125	62.4	49.2	45.9	53	56	56.7	64.5	62.5
Hardness, total, filtered (mg/l as CaCO3)			445	458	502	378	747	429	388	688
Organic										
Acetone (ug/l)	9000	1800		3.9 J		<3		<2.7		12.4 J
Toluene (ug/l)	800	160		<0.5		<0.5		<0.17		0.24 J

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Historic Monitoring Results - Last 8 Events
Land and Gas Reclamation Landfill

Monitoring Wells	ES	PAL	Event 1	Event 2	Event 3	Event 4	Event 5	Event 6	Event 7	Event 8
W-163A (LGRL)										
Reporting Period			4/1/2016	10/1/2016	4/1/2017	10/1/2017	4/1/2018	10/1/2018	4/1/2019	10/1/2019
Field										
Groundwater elevation (ft MSL)			926.76	926.77	926.87	926.47	926.47	926.67	926.12	927.36
ph-Field (standard units)			7.28	7.31	7.12	7.17	7.7	7.56	6.94	7.79
				7.31						
Specific conductance-field (umhos/cm @ 25c)			481	493	350	1561	326	418	209	213
				493						
Temperature, water (degrees centigrade)			5.3	12.5	7.1	15.5	8.6	14.9	8.8	15.5
				12.5						
Inorganic										
Alkalinity, total filtered (mg/l as CaCO3)			254	198	188	192	211 M	214	188	189
				202						
Arsenic, dissolved (ug/l As)	10	1	**2**	**2.7**	**2.9**	**3.2**	**2.3**	**1.6**	**1.9**	**2.8**
	10	1		**2.5**						
Chloride, dissolved (mg/l as Cl)	250	125	19.7	6.4	3.6	2.1	12.2	11.9	9.7 M	7.6
	250	125		6.4						
Hardness, total, filtered (mg/l as CaCO3)			239	182	166	155	195	191	187	193
				175						
Organic										
Acetone (ug/l)	9000	1800		<3		<3		<2.7		10.2 J
	9000	1800		<3						
Chloroethane (ug/l)	400	80		<0.37		<0.37		<1.3		1.6 J
	400	80		<0.37						

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Historic Monitoring Results - Last 8 Events
Land and Gas Reclamation Landfill

Staff Gauges	ES	PAL	Event 1	Event 2	Event 3	Event 4	Event 5	Event 6	Event 7	Event 8
SW-02										
Reporting Period			4/1/2016	10/1/2016	4/1/2017	10/1/2017	4/1/2018	10/1/2018	4/1/2019	10/1/2019
Field										
Comment, well dry							Yes	Yes		
Elevation, surface water (ft above MSL)			926.18	926.08	926.32	924.99			925.39	923.84
SW-03										
Reporting Period			4/1/2016	10/1/2016	4/1/2017	10/1/2017	4/1/2018	10/1/2018	4/1/2019	10/1/2019
Field										
Comment, well broken			Yes	Yes						
Comment, well frozen							Yes		Yes	
Elevation, surface water (ft above MSL)					923.63	925.72				928.6
SW-04										
Reporting Period			4/1/2016	10/1/2016	4/1/2017	10/1/2017	4/1/2018	10/1/2018	4/1/2019	10/1/2019
Field										
Comment, well dry							Yes			
Elevation, surface water (ft above MSL)			927.51	927.46	927.64	927.64		927.71	927.66	927.91
SW-05										
Reporting Period			4/1/2016	10/1/2016	4/1/2017	10/1/2017	4/1/2018	10/1/2018	4/1/2019	10/1/2019
Field										
Comment, well dry							Yes		Yes	
Elevation, surface water (ft above MSL)			>927.12	>927.12	923.84	924.95				925.01

Notes: Bold = PAL exceedance, bold + underlined = ES exceedance (groundwater samples only). Only VOCs detected at each sampling point in at least one of the sampling events are shown. Where more than one sample was collected per reporting period (duplicates and/or resampling), these results are shown in the rows below the original sample.

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M Failed method QC check.

Attachment B

Selected GRL Solid Waste Program Monitoring Results: 2016-2019

Historic Monitoring Results - Last 8 Events
Selected Wells in Glacier Ridge Landfill Monitoring Program

Monitoring Wells	ES	PAL	Event 1	Event 2	Event 3	Event 4	Event 5	Event 6	Event 7	Event 8
MW-008R (GRL)										
Reporting Period			4/1/2016	10/1/2016	4/1/2017	10/1/2017	4/1/2018	10/1/2018	4/1/2019	10/1/2019
Field										
Groundwater elevation (ft MSL)			931.57	931.39	931.59	929.19	930.95	931.19	931.09	931.25
ph-Field (standard units)			6.87	6.89	7.02	6.96	7.43	6.82	7.13	7.04
Specific conductance-field (umhos/cm @ 25c)		2100	1346	1416	1544	1210	1260	1320	508	839
Temperature, water (degrees centigrade)			5.3	13.9	7.7	11.8	9.1	9.5	9.9	12.2
Inorganic										
Alkalinity, total filtered (mg/l as CaCO3)		1200	788	853	889	698	802	813	822	875
Chloride, dissolved (mg/l as Cl)	250	125	43.8	43.2	42.4	36.2	40	43.1	43	40.5
Hardness, total, filtered (mg/l as CaCO3)		1100	805	772	811	713	764	832	763	794
Organic										
Acetone (ug/l)	9000	1800		<3		<3		4.3 J		<2.7

Notes: Bold = PAL exceedance, bold + underlined = ES exceedance (groundwater samples only). Only VOCs detected at each sampling point in at least one of the sampling events are shown. Where more than one sample was collected per reporting period (duplicates and/or resampling), these results are shown in the rows below the original sample.

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Historic Monitoring Results - Last 8 Events
Selected Wells in Glacier Ridge Landfill Monitoring Program

Monitoring Wells	ES	PAL	Event 1	Event 2	Event 3	Event 4	Event 5	Event 6	Event 7	Event 8
MW-309										
Reporting Period			4/1/2016	10/1/2016	4/1/2017	10/1/2017	4/1/2018	10/1/2018	4/1/2019	10/1/2019
Field										
Groundwater elevation (ft MSL)			939.19	938.62	939.44	937.05	937.84	938.37	939.27	939.32
ph-Field (standard units)			7.39	7.06	7.09	7.09	7.31	7.41	7.44	7.17
				7.06						7.17
Specific conductance-field (umhos/cm @ 25c)		1800	933	1086	1174	908	1210	966	438	1084
		1800		1086						1084
Temperature, water (degrees centigrade)			12.5	14	11.7	12.9	8.2	12.2	7.6	12.7
				14						12.7
Inorganic										
Alkalinity, total filtered (mg/l as CaCO3)		520	463	465	499	504	505	504	454	494
		520		482						481
Chloride, dissolved (mg/l as Cl)	250	125	31.7	28.7	28.2	45	46.7	37.6	17.6	21.9
	250	125		28.8						22
Hardness, total, filtered (mg/l as CaCO3)		630	557	**804**	**767**	**898**	**823**	**797**	603	624
		630		**810**						**653**
Organic										
Acetone (ug/l)	9000	1800		<3		<3		<2.7		5.5 J
	9000	1800		<3						3.8 J
Chloromethane (ug/l)	30	3		<0.5		<0.5		<2.2		<2.2
	30	3		<0.5						2.7 J

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Historic Monitoring Results - Last 8 Events
Selected Wells in Glacier Ridge Landfill Monitoring Program

Monitoring Wells	ES	PAL	Event 1	Event 2	Event 3	Event 4	Event 5	Event 6	Event 7	Event 8
MW-403										
Reporting Period			4/1/2016	10/1/2016	4/1/2017	10/1/2017	4/1/2018	10/1/2018	4/1/2019	10/1/2019
Field										
Groundwater elevation (ft MSL)			930.14	930.47	930.32	929.72	932.77	930.35	930.54	930.77
ph-Field (standard units)			7.05	6.81	7.37	6.76	7.36	6.92	6.85	6.85
				6.81			7.36			
Specific conductance-field (umhos/cm @ 25c)		1900	**1993**	**2370**	**2920**	**2230**	**2460**	**2270**	**1990**	1068
		1900		**2370**			**2460**			
Temperature, water (degrees centigrade)			9.1	13.7	6.7	14.6	9.1	13.8	9	10
				13.1			9.1			
Inorganic										
Alkalinity, total filtered (mg/l as CaCO3)		870	780	**956**	**937**	**1170**	**1290**	**1070**	**996**	**1120**
		870		**964**			**1270**			
Chloride, dissolved (mg/l as Cl)	250	125	**320**	**367**	**284**	**244**	**253**	**211**	**135**	95.8
	250	125		**370**			**272**			
Hardness, total, filtered (mg/l as CaCO3)		830	**1490**	**1720**	**1460**	**1330**	**1270**	**1400**	**1300**	**1080**
		830		**1780**			**1220**			
Organic										
1,1-Dichloroethane (ug/l)	850	85	<0.24	<0.24	0.45 J	0.39 J	<0.24	0.72 J	0.55 J	0.37 J
	850	85		0.25 J			<0.24			
Acetone (ug/l)	9000	1800	<3	<3	<3	<3	4.7 J	<2.7	4.9 J	6.1 J
	9000	1800		<3			6.6 J			
Benzene (ug/l)	5	0.5	**0.73 J**	**1.2**	**0.54 J**	**0.91 J**	**1.4**	**1**	0.44 J	**0.6 J**
	5	0.5		**1.4**			**1.4**			

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Historic Monitoring Results - Last 8 Events
Selected Wells in Glacier Ridge Landfill Monitoring Program

Monitoring Wells	ES	PAL	Event 1	Event 2	Event 3	Event 4	Event 5	Event 6	Event 7	Event 8
MW-403										
cis-1,2-Dichloroethene (ug/l)	70	7	**13**	**17.5**	**21.1**	**12.6**	0.97 J	2.2	1	0.61 J
	70	7		**19.2**			0.99 J			
Naphthalene (ug/l)	100	10	<2.5	<2.5	<2.5	<2.5	<2.5	<1.2	3.1 J	<1.2
	100	10		<2.5			<2.5			
Tetrahydrofuran (ug/l)	50	10	<2	<2	<2	<2	2.2 J	<2.3	<2.3	<2.3
	50	10		<2			2.2 J			
Toluene (ug/l)	800	160	<0.5	<0.5	<0.5	<0.5	1.1	<0.17	<0.17	<0.17
	800	160		<0.5			1			
trans-1,2-Dichloroethene, total (ug/l)	100	20	0.35 J	0.47 J	0.83 J	0.77 J	<0.26	<1.1	<1.1	<1.1
	100	20		0.62 J			<0.26			
Trichloroethylene (ug/l)	5	0.5	**1.2**	**1.5**	**1.6**	**0.67 J**	<0.33	<0.26	<0.26	<0.26
	5	0.5		**1.4**			<0.33			
Vinyl chloride (ug/l)	0.2	0.02	**1.8**	**5.7**	**13.4**	**16.9**	**0.76 J**	**4.3**	**1.9**	<0.17
	0.2	0.02		**6.6**			**0.74 J**			

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Historic Monitoring Results - Last 8 Events
Selected Wells in Glacier Ridge Landfill Monitoring Program

Monitoring Wells	ES	PAL	Event 1	Event 2	Event 3	Event 4	Event 5	Event 6	Event 7	Event 8
MW-406										
Reporting Period			4/1/2016	10/1/2016	4/1/2017	10/1/2017	4/1/2018	10/1/2018	4/1/2019	10/1/2019
Field										
Groundwater elevation (ft MSL)			934.13	934.01	934.23	931.76	934.15	932.83	933.53	933.68
ph-Field (standard units)			7.35	7.3	7.42	7.18	7.06	6.95	7.57	7
			7.35			7.18		6.95	7.57	7
Specific conductance-field (umhos/cm @ 25c)		1200	677	653	**1235**	1017	1140	1170	588	712
		1200	677			1017		1170	588	712
Temperature, water (degrees centigrade)			7	14.1	9.4	11.2	9.1	10.1	6.2	10.6
			7			11.2		10.1	6.2	10.6
Inorganic										
Alkalinity, total filtered (mg/l as CaCO3)		640	339	**669**	359	623	**770**	**756**	**711**	**774**
		640	370			613		**807**	**715**	**776**
Chloride, dissolved (mg/l as Cl)	250	125	22.8	37.8	18.8	30	33	34.7	27.6	29.9
	250	125	23			29.7		32.9	27.3	29
Hardness, total, filtered (mg/l as CaCO3)		590	346	**692**	306	**653**	**782**	**799**	**733**	**735**
		590	345			**616**		**822**	**723**	**744**
Organic										
Acetone (ug/l)	9000	1800	<3	<3	<3	5.8 J	3.7 J	4.1 J	5.3 J	6.7 J
	9000	1800	<3			6 J		<2.7		<2.7
Methyl-tert-butyl ether (ug/l)	60	12	<0.17	<0.17	<0.17	<0.17	<0.17	<1.2	<1.2	<1.2
	60	12	0.21 J			<0.17		<1.2		<1.2
Vinyl chloride (ug/l)	0.2	0.02	**2**	<0.18	**1.2**	<0.18	<0.18	<0.17	<0.17	<0.17
	0.2	0.02	**2.3**			<0.18		<0.17		<0.17

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Historic Monitoring Results - Last 8 Events
Selected Wells in Glacier Ridge Landfill Monitoring Program

Monitoring Wells	ES	PAL	Event 1	Event 2	Event 3	Event 4	Event 5	Event 6	Event 7	Event 8
MW-428 (GRL)										
Reporting Period			11/1/2018	1/1/2019	2/1/2019	4/1/2019	5/1/2019	7/1/2019	8/1/2019	10/1/2019
Field										
Groundwater elevation (ft MSL)			937.36	936.85	936.77	936.87	937.09	938.87	938.24	939.01
ph-Field (standard units)			6.89	7.61	6.89	7.27	6.93	6.89	7.08	7.04
Specific conductance-field (umhos/cm @ 25c)			693	889	1220	604	1060	822	1184	1339
Temperature, water (degrees centigrade)			9.6	13.7	9.7	8.7	11.1	13.4	12.5	12.8
Inorganic										
Alkalinity, total filtered (mg/l as CaCO3)			699	653	676	670	677	724	709	709
Arsenic, dissolved (ug/l As)	10	1	<0.28	**1.3**	0.97 J	0.36 J	0.39 J			
Barium, dissolved (ug/l as Ba)	2000	400	61.3	69.2	59.4	61.2	56.4			
Boron, dissolved (mg/l as B)	1	0.2	0.0432	0.0433	0.0433	0.0445	0.0431	0.0424	0.0403	0.0418
Cadmium, dissolved (ug/l as Cd)	5	0.5	<0.15	<0.15	**0.55 J**	<0.15	<0.15			
Chloride, dissolved (mg/l as Cl)	250	125	39.5	40.8	39	40.5	35.8	32.9	33	30.8
Chromium, dissolved (ug/l as Cr)	100	10	<1	3.7	<1	<1	<1			
COD, filtered (mg/l)			<14.2	34.7 J	<14.2	<13.4	<14.2	<13.4	<13.4	<13.4
Copper, dissolved (ug/l Cu)	1300	130	2.7 J	5.9	4.4	3.2 J	3 J			
Cyanide, total (mg/l as CN)	0.2	0.04	0.012 J	<0.0068	<0.0068	<0.0068	<0.0068			
Fluoride, dissolved (mg/l as F)	4	0.8	<0.1	<0.1 M	<0.1	<0.5 M	<0.1	<0.1	<0.1	<0.1
Hardness, total, filtered (mg/l as CaCO3)			824	952	794	806	820	816	771	799
Lead, dissolved (ug/l as Pb)	15	1.5	<0.24	1.1	0.63 J	<0.24	<0.24			
Manganese, dissolved (ug/l as Mn)	50	25	**471**	**547**	**494**	**467**	**488**	**496**	**465**	**455**

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Historic Monitoring Results - Last 8 Events
Selected Wells in Glacier Ridge Landfill Monitoring Program

Monitoring Wells	ES	PAL	Event 1	Event 2	Event 3	Event 4	Event 5	Event 6	Event 7	Event 8
MW-428 (GRL)										
Mercury, dissolved (ug/l as Hg)	2	0.2	<0.084	<0.084	<0.084	<0.084	<0.084			
Nitrite + nitrate, dis. (mg/l as N)	10	2	**3.7**	**3.5**	**3.7**	**3.7**	**3.6**	**4.1**	**4.2**	**4.3**
Nitrogen, ammonia, dissolved (mg/l as N)	9.7	0.97	<0.25	<0.25	<0.25	<0.25	<0.25	<0.25	<0.25	<0.25
Selenium, dissolved (ug/l as Se)	50	10	0.42 J	0.48 J	0.73 J	<0.32	<0.32			
Silver, dissolved (ug/l as Ag)	50	10	<0.1	0.23 J	0.31 J	<0.1	<0.1			
Sodium, dissolved (mg/l as Na)			19.3	19.8	20.5	19	19.4	21.1	19.4	20
Sulfate, dissolved (mg/l as SO4)	250	125	80.3	90.4	89	88.9	80.5	85.5	81.3	89.1
Zinc, dissolved (ug/l as Zn)	5000	2500	10.2 JB	13.7 JB	15 J	20	<4.6			
Organic										
1,1,1-Trichloroethane (ug/l)	200	40	0.26 J	<0.24	<0.24	0.31 J				
1,1-Dichloroethane (ug/l)	850	85	2	2.4	2.5 M	2.2				
1,2-Dichloropropane (ug/l)	5	0.5	**3.9**	**2.9**	**3.2**	**3.1**				
Acetone (ug/l)	9000	1800	<2.7	4.5 J	6.6 J	3.3 J				
Chlorobenzene (ug/l)	100	20	1.1 J	2.2 J	1.1 J	1.1 J				
cis-1,2-Dichloroethene (ug/l)	70	7	**20.5**	**19.4**	**21.1**	**20.3**				
Tetrachloroethylene (ug/l)	5	0.5	**1.6**	**2.1**	**1.6**	**1.5**				
Trichloroethylene (ug/l)	5	0.5	**36.8**	**43**	**39.6**	**37.4**				

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Historic Monitoring Results - Last 8 Events
Selected Wells in Glacier Ridge Landfill Monitoring Program

Monitoring Wells	ES	PAL	Event 1	Event 2	Event 3	Event 4	Event 5	Event 6	Event 7	Event 8
P-309A										
Reporting Period			4/1/2016	10/1/2016	4/1/2017	10/1/2017	4/1/2018	10/1/2018	4/1/2019	10/1/2019
Field										
Groundwater elevation (ft MSL)			939.28	938.73	939.48	937.11	937.84	938.48	939.28	939.33
ph-Field (standard units)			7.91	7.94	8.1	7.92	8.16	7.63	7.96	7.8
Specific conductance-field (umhos/cm @ 25c)		610	289	249	261	290	345	302	140	266
Temperature, water (degrees centigrade)			11.5	13.2	11	14.5	9.6	13.3	8.2	12.1
Inorganic										
Alkalinity, total filtered (mg/l as CaCO3)		250	143	138	142	149	139	143	134	123 B
Chloride, dissolved (mg/l as Cl)	250	125	4.1	2.6	2.9	3.1	2.7	2.4	2.4	3
Hardness, total, filtered (mg/l as CaCO3)		170	65.7	71.1	61.2	66	67.7	69.6	60.2	59.9
Organic										
Acetone (ug/l)	9000	1800		<3		<3		3.6 J		3.4 J
Benzene (ug/l)	5	0.5		<0.5		<0.5		0.25 J		0.45 J
Chloromethane (ug/l)	30	3		<0.5		<0.5		<2.2		2.6 J
Toluene (ug/l)	800	160		<0.5		<0.5		0.34 J		0.52 J

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Historic Monitoring Results - Last 8 Events
Selected Wells in Glacier Ridge Landfill Monitoring Program

Monitoring Wells	ES	PAL	Event 1	Event 2	Event 3	Event 4	Event 5	Event 6	Event 7	Event 8
P-403A										
Reporting Period			4/1/2016	10/1/2016	4/1/2017	10/1/2017	4/1/2018	10/1/2018	4/1/2019	10/1/2019
Field										
Groundwater elevation (ft MSL)			928.45	928.57	928.62	927.64	927.91	928.27	928.31	928.99
ph-Field (standard units)			7.47	7.23	7.54	7.04	7.5		6.96	7.48
Specific conductance-field (umhos/cm @ 25c)		2900	1916	1540	1932	1640	1820		1720	1011
Temperature, water (degrees centigrade)			8.9	11.8	11.2	13.8	9.4		8.9	14.1
Inorganic										
Alkalinity, total filtered (mg/l as CaCO3)		860	610	621	689	694	707 M		848 M	**862**
Chloride, dissolved (mg/l as Cl)	400	400	303	310	294	305	262		264	227
Hardness, total, filtered (mg/l as CaCO3)		1300	906	944	839	925	963		1110	1030
Organic										
1,1-Dichloroethane (ug/l)	850	85	1.2	1.2	0.51 J	0.74 J	0.55 J		0.33 J	0.42 J
Acetone (ug/l)	9000	1800	<3	<3	6 J	<3	<3		6 J	7.3 J
Benzene (ug/l)	5	0.5	**1**	**1.3 M**	<0.5	**0.61 J**	**1.3**		**0.78 J**	**1.3**
cis-1,2-Dichloroethene (ug/l)	70	7	1.8	1.8	0.79 J	0.84 J	1.4		0.85 J	1.3
Dichloromethane (ug/l)	5	0.5	<0.23	0.31 J	<0.23	<0.23	<0.23		<0.58	<0.58
Ethylbenzene (ug/l)	700	140	<0.5	<0.5	<0.5	<0.5	<0.5		0.29 J	<0.22
m&p-Xylene (ug/l)	2000	400	<1	<1	<1	<1	<1		1.3 J	<0.47
Methyl-tert-butyl ether (ug/l)	60	12	0.31 J	0.29 J	<0.17	<0.17	0.2 J		<1.2	<1.2
Naphthalene (ug/l)	100	10	<2.5	<2.5	<2.5	<2.5	<2.5		3.5 J	<1.2
o-Xylene (ug/l)	2000	400	<0.5	<0.5	<0.5	<0.5	<0.5		0.62 J	<0.26

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Historic Monitoring Results - Last 8 Events
Selected Wells in Glacier Ridge Landfill Monitoring Program

Monitoring Wells	ES	PAL	Event 1	Event 2	Event 3	Event 4	Event 5	Event 6	Event 7	Event 8
P-403A										
Tetrahydrofuran (ug/l)	50	10	4.3 J	5.7	3.5 J	<2	<2		3.2 J	2.6 J
Toluene (ug/l)	800	160	<0.5	<0.5	<0.5	<0.5	<0.5		0.7 J	<0.17
Vinyl chloride (ug/l)	0.2	0.02	**1.9**	<0.18	<0.18	<0.18	**1**		**0.61 J**	**1.4**

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Historic Monitoring Results - Last 8 Events
Selected Wells in Glacier Ridge Landfill Monitoring Program

Monitoring Wells	ES	PAL	Event 1	Event 2	Event 3	Event 4	Event 5	Event 6	Event 7	Event 8
P-406A										
Reporting Period			4/1/2016	10/1/2016	4/1/2017	10/1/2017	4/1/2018	10/1/2018	4/1/2019	10/1/2019
Field										
Groundwater elevation (ft MSL)			932.56	933.19	933.17	931.97	932.62	932.65	932.73	933.27
ph-Field (standard units)			6.91	7.01	7.25	7.68	7.34	7.61	7.4	7.75
					7.25				7.4	
Specific conductance-field (umhos/cm @ 25c)		1100	1075	981	635	706	683	634	326	396
		1100			635				326	
Temperature, water (degrees centigrade)			5.3	13.8	9.7	11.7	8.8	10.5	8	10.7
					9.7				8	
Inorganic										
Alkalinity, total filtered (mg/l as CaCO3)		560	**627**	357	**749**	413	347	336	350	353
		560			388				347	
Chloride, dissolved (mg/l as Cl)	250	125	40.3	23.6	39	29.1	23.7	19.8	22.7	21.3
	250	125			18.7				22.7	
Hardness, total, filtered (mg/l as CaCO3)		570	**628**	384	**646**	423	374	365	362	336
		570			305				345	
Organic										
1,1-Dichloroethane (ug/l)	850	85	<0.24	<0.24	<0.24	<0.24	0.25 J	<0.27	<0.27	<0.27
	850	85			<0.24					
Acetone (ug/l)	9000	1800	<3	<3	3.1 J	<3	<3	3.3 J	3.6 J	<2.7
	9000	1800			<3					
Methyl-tert-butyl ether (ug/l)	60	12	<0.17	<0.17	<0.17	<0.17	0.18 J	<1.2	<1.2	<1.2
	60	12			<0.17					

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Historic Monitoring Results - Last 8 Events
Selected Wells in Glacier Ridge Landfill Monitoring Program

Monitoring Wells	ES	PAL	Event 1	Event 2	Event 3	Event 4	Event 5	Event 6	Event 7	Event 8
P-406A										
Tetrahydrofuran (ug/l)	50	10	<2	<2	<2	<2	2.2 J	<2.3	<2.3	<2.3
	50	10			<2					
Vinyl chloride (ug/l)	0.2	0.02	<0.18	**2.7**	<0.18	**4**	**3.5**	**2.7**	**2.2**	**3.6**
	0.2	0.02			**1.2**					

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Historic Monitoring Results - Last 8 Events
Selected Wells in Glacier Ridge Landfill Monitoring Program

Monitoring Wells	ES	PAL	Event 1	Event 2	Event 3	Event 4	Event 5	Event 6	Event 7	Event 8
P-406B										
Reporting Period			4/1/2016	10/1/2016	4/1/2017	10/1/2017	4/1/2018	10/1/2018	4/1/2019	10/1/2019
Field										
Groundwater elevation (ft MSL)			933.27	933.57	933.72	932.72	933.26	933.17	933.42	933.77
ph-Field (standard units)			7.07	7.14	7.58	7.93	7.49	7.58	7.48	7.51
			7.07						7.48	
Specific conductance-field (umhos/cm @ 25c)		970	788	743	783	701	703	636	341	384
		970	788						341	
Temperature, water (degrees centigrade)			6.7	13.5	9.7	10.8	10	10.9	7.5	11.3
			6.7						7.5	
Inorganic										
Alkalinity, total filtered (mg/l as CaCO3)		560	412	385	392	365	356	358	343	333
		560	421						321	
Chloride, dissolved (mg/l as Cl)	250	125	16.1	14.9	11.8	10.6	10 M	11	10.1 M	10.2
	250	125	16.1						10	
Hardness, total, filtered (mg/l as CaCO3)		630	473	514	420	446	432	457	399	394
		630	471						399	
Organic										
1,1-Dichloroethane (ug/l)	850	85	3.5	3	2.3	2.8	2.2	2.3	1.8	2.3
	850	85	3.1						1.8	
1,2-Dichloropropane (ug/l)	5	0.5	<0.23	0.27 J	<0.23	<0.23	0.42 J	0.34 J	0.29 J	0.42 J
	5	0.5	<0.23						<0.28	
Acetone (ug/l)	9000	1800	<3	<3	<3	<3	<3	<2.7	4.6 J	8.3 J
	9000	1800	<3						3.1 J	

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Historic Monitoring Results - Last 8 Events
Selected Wells in Glacier Ridge Landfill Monitoring Program

Monitoring Wells	ES	PAL	Event 1	Event 2	Event 3	Event 4	Event 5	Event 6	Event 7	Event 8
P-406B										
Benzene (ug/l)	5	0.5	**1.2**	**1.3**	**1.2**	**1.3**	**1.3**	**1.1**	**0.96 J**	**1.1**
	5	0.5	**1.1**						**1.1**	
cis-1,2-Dichloroethene (ug/l)	70	7	0.93 J	0.94 J	0.72 J	0.89 J	1.1	0.79 J	0.71 J	0.79 J
	70	7	0.84 J						0.67 J	
Dichlorodifluoromethane (ug/l)	1000	200	<0.22	0.28 J	<0.22	<0.22	<0.22	<0.5	<0.5	<0.5
	1000	200	<0.22						<0.5	
Vinyl chloride (ug/l)	0.2	0.02	**2.5**	**2.5**	**1.3**	**0.99 J**	**0.75 J**	**0.72 J**	**0.29 J**	**0.22 J**
	0.2	0.02	**2.4**						**0.27 J**	

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Historic Monitoring Results - Last 8 Events
Selected Wells in Glacier Ridge Landfill Monitoring Program

Monitoring Wells	ES	PAL	Event 1	Event 2	Event 3	Event 4	Event 5	Event 6	Event 7	Event 8
P-428A (GRL)										
Reporting Period			11/1/2018	1/1/2019	2/1/2019	4/1/2019	5/1/2019	7/1/2019	8/1/2019	10/1/2019
Field										
Groundwater elevation (ft MSL)			936.71	936.41	936.21	936.61	936.63	937.31	936.61	937.68
ph-Field (standard units)			7.56	7.22	7.02	7.84	7.3	7.42	7.6	7.68
Specific conductance-field (umhos/cm @ 25c)			447	596	732	393	737	604	742	824
Temperature, water (degrees centigrade)			10.2	11.7	9.6	9	11.8	12.9	14.3	12.9
Inorganic										
Alkalinity, total filtered (mg/l as CaCO3)			343	350	357	353	344	377	365	373
Arsenic, dissolved (ug/l As)	10	1	**4.6**	**4.6**	**6.1**	**4.4**	**4.6**	**4.7**	**4.5**	**4.6**
Barium, dissolved (ug/l as Ba)	2000	400	62.4	69.2	68.4	68.2	67.4			
Boron, dissolved (mg/l as B)	1	0.2	0.0391	0.0354	0.039	0.0377	0.0373	0.0356	0.0301	0.0348
Cadmium, dissolved (ug/l as Cd)	5	0.5	<0.15	<0.15	**1.2**	<0.15	<0.15			
Chloride, dissolved (mg/l as Cl)	250	125	28.4	28.9	28.5	29.3	26.9	27.4	27.5	29.7
Chromium, dissolved (ug/l as Cr)	100	10	<1	<1	2 J	<1	<1			
COD, filtered (mg/l)			<13.4	<13.4	<13.4	<13.4	<13.4	15.4 J	<13.4	<13.4
Copper, dissolved (ug/l Cu)	1300	130	<1.1	<1.1	2.6 J	<1.1	<1.1			
Cyanide, total (mg/l as CN)	0.2	0.04	<0.0068	<0.0068	<0.0068	<0.0068	<0.0068			
Fluoride, dissolved (mg/l as F)	4	0.8	<0.1	<0.1	<0.1	<0.1	0.11 J	<0.1	<0.1	<0.1
Hardness, total, filtered (mg/l as CaCO3)			472	472	464	465	457	493	461	499
Lead, dissolved (ug/l as Pb)	15	1.5	<0.24	<0.24	1.4	<0.24	<0.24			
Manganese, dissolved (ug/l as Mn)	50	25	**47.1**	**29.7**	**28.4**	21.3	22.1	15.6	19.8	12.7

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Historic Monitoring Results - Last 8 Events
Selected Wells in Glacier Ridge Landfill Monitoring Program

Monitoring Wells	ES	PAL	Event 1	Event 2	Event 3	Event 4	Event 5	Event 6	Event 7	Event 8
P-428A (GRL)										
Mercury, dissolved (ug/l as Hg)	2	0.2	<0.084	<0.084	<0.084	<0.084	<0.084			
Nitrite + nitrate, dis. (mg/l as N)	10	2	<0.095	<0.095	<0.095	<0.095	<0.095	<0.095	<0.095	0.13 J
Nitrogen, ammonia, dissolved (mg/l as N)	9.7	0.97	<0.25	<0.25	<0.25	<0.25	<0.25	<0.25	<0.25	<0.25
Selenium, dissolved (ug/l as Se)	50	10	<0.32	<0.32	1.5	<0.32	<0.32			
Silver, dissolved (ug/l as Ag)	50	10	<0.1	<0.1	0.6	<0.1	<0.1			
Sodium, dissolved (mg/l as Na)			12.5	11.7	11.1	11.1	10.7	11.1	9.45	9.99
Sulfate, dissolved (mg/l as SO4)	250	125	78.8	85.4	82	84.2	74	75.8	74.7	82.1
Zinc, dissolved (ug/l as Zn)	5000	2500	10.1 JB	5.7 JB	6.7 J	5.4 J	13.7 J			
Organic										
Acetone (ug/l)	9000	1800	<2.7	3.1 J	<2.7	5.2 J				

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Historic Monitoring Results - Last 8 Events
Selected Wells in Glacier Ridge Landfill Monitoring Program

Monitoring Wells	ES	PAL	Event 1	Event 2	Event 3	Event 4	Event 5	Event 6	Event 7	Event 8
W-009RR										
Reporting Period			4/1/2016	10/1/2016	4/1/2017	10/1/2017	4/1/2018	10/1/2018	4/1/2019	10/1/2019
Field										
Groundwater elevation (ft MSL)			926.87	928.77	928.77	927.72	926.72	927.22	926.97	927.92
ph-Field (standard units)			7.04	7.01	7.56	6.75	7.31	7.58	6.89	7.11
Specific conductance-field (umhos/cm @ 25c)		2100	890	915	860	1072	1390	731	1120	930
Temperature, water (degrees centigrade)			11.5	14.8	13.5	14.1	10.7	14.5	11.3	14
Inorganic										
Alkalinity, total filtered (mg/l as CaCO3)		1200	266	794	444	701	836	631	613	707
Chloride, dissolved (mg/l as Cl)	250	125	17.4	19	18.9	34.4	35.3	22.4	23.4	32.2
Hardness, total, filtered (mg/l as CaCO3)		1300	300	424	450	767	865	775	630	757
Organic										
Acetone (ug/l)	9000	1800		<3		<3		4 J		4.6 J
Tetrahydrofuran (ug/l)	50	10		5.4		**34.7**		**14.4 J**		**36.5**
Toluene (ug/l)	800	160		<0.5		0.66 J		<0.17		<0.17

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Historic Monitoring Results - Last 8 Events
Selected Wells in Glacier Ridge Landfill Monitoring Program

Monitoring Wells	ES	PAL	Event 1	Event 2	Event 3	Event 4	Event 5	Event 6	Event 7	Event 8
W-010R										
Reporting Period			4/1/2016	10/1/2016	4/1/2017	10/1/2017	4/1/2018	10/1/2018	4/1/2019	10/1/2019
Field										
Groundwater elevation (ft MSL)			926.44	926.61	927.19	924.64	926.14	926.19	926.94	926.72
ph-Field (standard units)			7.1	7.48	6.97	6.97	7.29	7.4	7.47	7.05
Specific conductance-field (umhos/cm @ 25c)		2100	1234	1583	1442	1147	1400	1720	1320	1245
Temperature, water (degrees centigrade)			10.2	13.9	9.3	13.7	2	13.3	7.9	13.3
Inorganic										
Alkalinity, total filtered (mg/l as CaCO3)		950	646	705	738	716	721	706	676	682
Chloride, dissolved (mg/l as Cl)	250	125	18	24.9	19.3	43	34.8	35.5	33.7	38.1
Hardness, total, filtered (mg/l as CaCO3)		960	762	808	834	892	847	899	864	867
Organic										
Acetone (ug/l)	9000	1800		<3		<3		<2.7		6.9 J
cis-1,2-Dichloroethene (ug/l)	70	7		<0.26		2.7		1.3		3.9

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Historic Monitoring Results - Last 8 Events
Selected Wells in Glacier Ridge Landfill Monitoring Program

Monitoring Wells	ES	PAL	Event 1	Event 2	Event 3	Event 4	Event 5	Event 6	Event 7	Event 8
W-158 (GRL)										
Reporting Period			4/1/2016	10/1/2016	4/1/2017	10/1/2017	4/1/2018	10/1/2018	4/1/2019	10/1/2019
Field										
Groundwater elevation (ft MSL)			926.21	925.49	926.33	923.46	925.01	924.96	924.76	926.61
ph-Field (standard units)			7.2	7.31	7.21	7.35	7.1	7.5	7.1	7
Specific conductance-field (umhos/cm @ 25c)		800	**988**	**981**	**898**	**850**	**1000**	**830**	**870**	**862**
Temperature, water (degrees centigrade)			11	16.5	8.9	14.3	6.9	7.5	7.4	15.3
Inorganic										
Alkalinity, total filtered (mg/l as CaCO3)		440	**517**	**493**	**514**	**571**	**585**	**557**	**528**	**472**
Chloride, dissolved (mg/l as Cl)	250	125	5	6.2	5.8	4.9	5.6 M	1.5 J	3.1	1.8 J
Hardness, total, filtered (mg/l as CaCO3)		500	487	**543**	**512**	**532**	**577**	**642**	**546**	484
Organic										
Acetone (ug/l)	9000	1800	<3	<3	<3	<3	<3	3.3 J	3.8 J	7.6 J

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Historic Monitoring Results - Last 8 Events
Selected Wells in Glacier Ridge Landfill Monitoring Program

Monitoring Wells	ES	PAL	Event 1	Event 2	Event 3	Event 4	Event 5	Event 6	Event 7	Event 8
W-159 (GRL)										
Reporting Period			4/1/2016	10/1/2016	4/1/2017	10/1/2017	4/1/2018	10/1/2018	4/1/2019	10/1/2019
Field										
Groundwater elevation (ft MSL)			926.55	925.92	926.6	924.25	924.65	925.5	925.22	926.6
ph-Field (standard units)			7.5	7.4	7.27	7.04	7.55	7.61	7.33	7.32
Specific conductance-field (umhos/cm @ 25c)		1100	805	930	757	924	957	647	619	**1540**
Temperature, water (degrees centigrade)			11	14	10.5	13.1	8.2	9.4	8.7	12.1
Inorganic										
Alkalinity, total filtered (mg/l as CaCO3)		500	428	**799**	462	**500**	**555**	455	335	437
Chloride, dissolved (mg/l as Cl)	250	125	3.5 J	1.9 J	4.9	7.2	9.2 J	2	2.2	2.5
Hardness, total, filtered (mg/l as CaCO3)		640	396	471	415	**648**	556	435	445	515
Organic										
Acetone (ug/l)	9000	1800		<3		<3		4.1 J		2.9 J

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Historic Monitoring Results - Last 8 Events
Selected Wells in Glacier Ridge Landfill Monitoring Program

Monitoring Wells	ES	PAL	Event 1	Event 2	Event 3	Event 4	Event 5	Event 6	Event 7	Event 8
W-159A (GRL)										
Reporting Period			4/1/2016	10/1/2016	4/1/2017	10/1/2017	4/1/2018	10/1/2018	4/1/2019	10/1/2019
Field										
Groundwater elevation (ft MSL)			925.62	925.85	926.52	924.47	925.37	925.42	925.22	926.67
ph-Field (standard units)			7.41	7.35	7.06	6.91	7.6	7.57	7.29	7.3
				7.35			7.6			
Specific conductance-field (umhos/cm @ 25c)		720	**764**	**824**	640	**954**	**746**	641	599	**1300**
		720		**824**			**746**			
Temperature, water (degrees centigrade)			11.3	14.2	8.9	13.6	9	8.3	9.3	10.8
				14.2			9			
Inorganic										
Alkalinity, total filtered (mg/l as CaCO3)		430	403	367	360	400	400	**434**	320	385
		430		292			366 B			
Chloride, dissolved (mg/l as Cl)	250	125	3.9 J	3.1	3.2	3.7	4.5	2.2	3.5	3.1
	250	125		3.2			4.4			
Hardness, total, filtered (mg/l as CaCO3)		440	365	403	332	409	381	**443**	346	389
		440		401			379			
Organic										
Acetone (ug/l)	9000	1800		<3		<3		6.6 J		<2.7
	9000	1800		<3						

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Historic Monitoring Results - Last 8 Events
Selected Wells in Glacier Ridge Landfill Monitoring Program

Monitoring Wells	ES	PAL	Event 1	Event 2	Event 3	Event 4	Event 5	Event 6	Event 7	Event 8
W-160R										
Reporting Period			4/1/2016	10/1/2016	4/1/2017	10/1/2017	4/1/2018	10/1/2018	4/1/2019	10/1/2019
Field										
Groundwater elevation (ft MSL)			927.04	927.99	928.09	927.29	926.94	927.24	926.69	928.14
ph-Field (standard units)			7.53	7.2	7.55	6.85	7.48	7.33	7.6	7.46
						6.85				
Specific conductance-field (umhos/cm @ 25c)		2000	1267	1592	1210	1072	1180	1380	1050	865
		2000				1072				
Temperature, water (degrees centigrade)			11	15.6	9	14.5	7	14.5	8.4	16.2
						14.5				
Inorganic										
Alkalinity, total filtered (mg/l as CaCO3)		1100	659	652	581	570	536	503	522	495
		1100				573				
Chloride, dissolved (mg/l as Cl)	250	125	93.9	105	81.7	87.4	94.8	78.7	65.7	56.8
	250	125				85.3				
Hardness, total, filtered (mg/l as CaCO3)		1100	765	807	646	690	645	645	620	553
		1100				692				
Organic										
Acetone (ug/l)	9000	1800	<3	<3	<3	<3	<3	<2.7	3.6 J	8.4 J
	9000	1800				<3				
Toluene (ug/l)	800	160	<0.5	<0.5	<0.5	<0.5	<0.5	<0.17	<0.17	0.29 J
	800	160				<0.5				

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Historic Monitoring Results - Last 8 Events
Selected Wells in Glacier Ridge Landfill Monitoring Program

Monitoring Wells	ES	PAL	Event 1	Event 2	Event 3	Event 4	Event 5	Event 6	Event 7	Event 8
W-161R (GRL)										
Reporting Period			4/1/2016	10/1/2016	4/1/2017	10/1/2017	4/1/2018	10/1/2018	4/1/2019	10/1/2019
Field										
Groundwater elevation (ft MSL)			926.33	930.13	929.16	928.21	940.78	927.21	927.46	940.46
ph-Field (standard units)			7.21	6.97	7.46	7.46	7.27	7.47	7.57	7.06
			7.21							
Specific conductance-field (umhos/cm @ 25c)		1100	1094	**1243**	**1111**	1023	**1190**	890	**1170**	985
		1100	1094							
Temperature, water (degrees centigrade)			11.9	15.1	13.3	13.6	9.2	13.6	8.9	13.9
			11.9							
Inorganic										
Alkalinity, total filtered (mg/l as CaCO3)		740	462	**929**	495	584	541	563	571	592 M
		740	472							
Chloride, dissolved (mg/l as Cl)	250	125	36.3	43.2	38.1	48	45.2	42.8	40	56
	250	125	37.1							
Hardness, total, filtered (mg/l as CaCO3)		640	581	611	638	**735**	**661**	**728**	**698**	**660**
		640	586							
Organic										
1,1-Dichloroethane (ug/l)	850	85		0.33 J		0.97 J		0.35 J		<0.27
Acetone (ug/l)	9000	1800		<3		<3		3.8 J		8 J
cis-1,2-Dichloroethene (ug/l)	70	7		0.4 J		1.2		0.33 J		0.44 J
Vinyl chloride (ug/l)	0.2	0.02		**0.67 J**		<0.18		**0.73 J**		**0.86 J**

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Historic Monitoring Results - Last 8 Events
Selected Wells in Glacier Ridge Landfill Monitoring Program

Monitoring Wells	ES	PAL	Event 1	Event 2	Event 3	Event 4	Event 5	Event 6	Event 7	Event 8
W-163 (GRL)										
Reporting Period			4/1/2016	10/1/2016	4/1/2017	10/1/2017	4/1/2018	10/1/2018	4/1/2019	10/1/2019
Field										
Groundwater elevation (ft MSL)			925.81	925.43	925.47	925.13	924.98	925.43	924.48	925.43
ph-Field (standard units)			7.46	7.54	7.86	6.95	7.84	7.7	7.77	7.36
Specific conductance-field (umhos/cm @ 25c)		1400	828	839	630	768	598	718	374	511
Temperature, water (degrees centigrade)			5.4	12.6	8.5	15.8	8.1	15.6	8.5	12
Inorganic										
Alkalinity, total filtered (mg/l as CaCO3)		520	420	343	307	367	406	335	357	369
Chloride, dissolved (mg/l as Cl)	250	140	62.4	49.2	45.9	53	56	56.7	64.5	62.5
Hardness, total, filtered (mg/l as CaCO3)		790	445	458	502	378	747	429	388	688
Organic										
Acetone (ug/l)	9000	1800	3.1 J	3.9 J	<3	<3	<3	<2.7	<2.7	12.4 J
Toluene (ug/l)	800	160	<0.5	<0.5	<0.5	<0.5	<0.5	<0.17	<0.17	0.24 J

Notes: Bold = PAL exceedance, bold + underlined = ES exceedance (groundwater samples only). Only VOCs detected at each sampling point in at least one of the sampling events are shown. Where more than one sample was collected per reporting period (duplicates and/or resampling), these results are shown in the rows below the original sample.

J Result is an estimated value below the laboratory's limit of quantitation.
B Compound detected in blank.
P Did not meet required preservation and/or hold time.
M Failed method QC check.

Historic Monitoring Results - Last 8 Events
Selected Wells in Glacier Ridge Landfill Monitoring Program

Monitoring Wells	ES	PAL	Event 1	Event 2	Event 3	Event 4	Event 5	Event 6	Event 7	Event 8
W-163A (GRL)										
Reporting Period			4/1/2016	10/1/2016	4/1/2017	10/1/2017	4/1/2018	10/1/2018	4/1/2019	10/1/2019
Field										
Groundwater elevation (ft MSL)			926.76	926.77	926.87	926.47	926.47	926.67	926.12	927.36
ph-Field (standard units)			7.28	7.31	7.12	7.17	7.7	7.56	6.94	7.79
Specific conductance-field (umhos/cm @ 25c)		760	481	493	350	**1561**	326	418	209	213
Temperature, water (degrees centigrade)			5.3	12.5	7.1	15.5	8.6	14.9	8.8	15.5
Inorganic										
Alkalinity, total filtered (mg/l as CaCO3)		320	254	198	188	192	211 M	214	188	189
Chloride, dissolved (mg/l as Cl)	250	125	19.7	6.4	3.6	2.1	12.2	11.9	9.7 M	7.6
Hardness, total, filtered (mg/l as CaCO3)		360	239	182	166	155	195	191	187	193
Organic										
Acetone (ug/l)	9000	1800	<3	<3	4.4 J	<3	<3	<2.7	<2.7	10.2 J
Chloroethane (ug/l)	400	80	<0.37	<0.37	<0.37	<0.37	<0.37	<1.3	<1.3	1.6 J

Notes: Bold = PAL exceedance, bold + underlined = ES exceedance (groundwater samples only). Only VOCs detected at each sampling point in at least one of the sampling events are shown. Where more than one sample was collected per reporting period (duplicates and/or resampling), these results are shown in the rows below the original sample.

J Result is an estimated value below the laboratory's limit of quantitation.
B Compound detected in blank.
P Did not meet required preservation and/or hold time.
M Failed method QC check.

Environmental Sampling Corporation

ADVANCED DISPOSAL SERVICES GLACIER RIDGE LANDFILL
Private Well Monitoring Data

PW-J	ANNUAL MONITORING PARAMETERS												BACKGROUND MONITORING PARAMETERS												
	FIELD PARAMETERS			INORGANIC PARAMETERS (EPA MCL or SMCL / WDNR ES)			VOCs (WDNR PAL / EPA MCL / WDNR ES)						INORGANIC PARAMETERS (EPA MCL or SMCL / WDNR ES)												
N7351 Hwy V	pH	Conductivity	Temp.	Alkalinity	Hardness	Chloride	Acetone	cis-1,2-Dichloro-ethene	Naphthalene	Toluene	trans-1,2-Dichloro-ethene	Vinyl Chloride	As	Ag	B	Ba	Cd	Cr	Cu	Fe	Hg	Mn #	NO_3+NO_2 N	Pb	SO_4
	NS	NS	NS	NS	NS	(250 / 250)	(1800/ NS / 9000)	(7 / 70 / 70)	(10 / 10 / 100)	(160 / 160 / 800)	(20 / 100 / 100)	(0.02 / 0.2 / 0.2)	(10 / 10)	(100 / 50)	(NS /1000)	(2 / 2)	(0.005 / 0.005)	(0.1 / 0.1)	(1300 / 1300)	(300 / 300)	(0.002 / 0.002)	(50 / 300)	(NS / 10)	(0.015 / 0.015)	(250 / 250)
DATE	s.u.	umhos/cm	deg. C	mg/L	mg/L	mg/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	mg/L	mg/L	mg/L	ug/L	ug/L	mg/L	ug/L	mg/L	mg/L	mg/L
10/30/13	7.38	822	13.4	395	464	28.8	<2.6	<0.42	<2.5	<0.44	<0.37	<0.18	0.35 J	<0.05	92.0	0.0550	<0.000032	<0.000081	7.6	**3,300**	<0.00003	**93.0**	<0.15	0.00057	59.0
04/25/14	7.29	707	12.5	351	366	14.5	<3.0	<0.26	<2.5	<0.50	<0.24	<0.18	0.29 J	<0.056	<75.0	0.0413	<0.000033	<0.00022	14.3	**4,140**	<0.026	**62.4**	<0.095	0.00077	37.5
10/08/14	6.95	827	17.1	369	377	27.3	<3.0	<0.26	<2.5	<0.50	<0.26	<0.18	--	--	--	--	--	--	--	--	--	--	--	--	--
10/07/15	7.30	913	17.1	387	441	27.7	<3.0	<0.26	<2.5	<0.50	<0.26	<0.18	--	--	--	--	--	--	--	--	--	--	--	--	--
10/06/16	7.27	677	17.8	368	425	30.1	<3.0	0.80 J	<2.5	<0.50	<0.26	<0.18	--	--	--	--	--	--	--	--	--	--	--	--	--
02/02/17	7.50	768	9.2	--	--	--	--	1.5	<0.064	<0.080	<0.11	<0.098	--	--	--	--	--	--	--	--	--	--	--	--	--
04/04/17	7.22	802	10.8	--	--	--	<3.0	1.7	<2.5	<0.50	<0.26	<0.18	--	--	--	--	--	--	--	--	--	--	--	--	--
10/03/17	6.91	796	14.9	367	424	27.8	<3.0	4.6	<2.5	<0.50	0.35 J	<0.18	--	--	--	--	--	--	--	--	--	--	--	--	--
12/08/17	7.78	826	7.7	--	--	--	--	3.0	0.73 J	0.62	<0.21	<0.074	--	--	--	--	--	--	--	--	--	--	--	--	--
04/03/18	6.74	781	11.2	379	365	24.5	<3.0	**7.1**	<2.5	<0.50	0.43 J	<0.18	--	--	--	--	--	--	--	--	--	--	--	--	--
06/01/18 *	7.36	685	14.2	--	--	--	<9.0 / <3.0	6.5 / 5.5	<2.5 / <0.70	<0.50 / <0.30	0.38 J / <0.60	<0.18 / <0.19	--	--	--	--	--	--	--	--	--	--	--	--	--
10/05/18	7.50	624	13.2	346	387	18.1	<2.7	4.8	<1.2	<0.17	<1.1	**0.19 J**	--	--	--	--	--	--	--	--	--	--	--	--	--
	7.50	632	13.2	348	372	18.3	<2.7	4.9	<1.2	<0.17	<1.1	<0.17	--	--	--	--	--	--	--	--	--	--	--	--	--
05/31/19	7.63	606	11.8	325	372	23.5	3.0 J	**8.1**	<1.2	<0.17	<1.1	<0.17	--	--	--	--	--	--	--	--	--	--	--	--	--
07/09/19	7.41	598	12.4	--	--	--	<2.7	**7.3**	<1.2	<0.17	<1.1	<0.17	--	--	--	--	--	--	--	--	--	--	--	--	--
10/08/19	7.64	494	6.5	345	368	23.6	7.7 J	6.8	<1.2	<0.17	<1.1	<0.17	--	--	--	--	--	--	--	--	--	--	--	--	--
	7.64	494	6.6	335	367	23.9	6.2 J	**7.4**	<1.2	<0.17	<1.1	<0.17	--	--	--	--	--	--	--	--	--	--	--	--	--
04/22/20	7.13	774	10.8	341	402	25.1	4.2 J	6.8	<1.2	<0.27	0.64 J	<0.17	--	--	--	--	--	--	--	--	--	--	--	--	--

Notes:
Drinking water samples are unfiltered.
Samples were analyzed by Pace Analytical Services unless otherwise noted.
* - Split samples for VOC analyses were sent to Pace Analytical Services and CT Laboratories. Results are listed above as Pace result / CT result.
The home on the property was demolished after the October 2018 event.
mg/L = milligrams per liter
ug/L = micrograms per liter
NS = no standard established
s.u. = standard units
# -Manganese has NR140 standards for both Public Welfare (50 ug/L) and Public Health (300 ug/L).
B=Analyte was detected in the laboratory QA/QC trip blank. Presence of this compound is a result of laboratory or sample bottle contamination and does not represent the actual water quality of the sample.
J=Estimated concentration below laboratory quantitation level.
EPA MCL: Environmental Protection Agency (EPA) Maximum Contaminant Level (MCL)
EPA SMCL: Environmental Protection Agency (EPA) Secondary Maximum Contaminant Level (SMCL)
WDNR PAL: Wisconsin Department of Natural Resources (WDNR) Preventive Action Limit (PAL)
WDNR ES: Wisconsin Department of Natural Resources (WDNR) Enforcement Standard (ES)
EPA SMCL Standards / WDNR NR140 Public Welfare Standards: chloride, iron, manganese, sulfate, and silver (EPA).
EPA MCL Standards / WDNR NR140 Public Health Standards: arsenic, barium, boron (WDNR), cadmium, chromium, manganense, mercury, nitrate plus nitrite nitrogen (WDNR), silver (WDNR), and VOC's.
235 = Indicates a Preventive Action Limit (PAL) exceedance
590 = Indicates an MCL, SMCL, or ES exceedance
0.19 J = Concentration in excess of the NR140 PAL, but less than the LOQ. This concentration is not considered an exceedance of NR140 standards.
Analyte abbreviations:

As: arsenic
Ag: silver
B: boron
Ba: barium
Cd: cadmium
Cr: chromium
Cu: copper
Fe: iron
Hg: mercury
Mn: manganese
NO_3+NO_2 N: nitrate plus nitrite as nitrogen
Pb: lead
SO_4: sulfate

Attachment C

Bedrock Investigation Laboratory Report (October 2019)

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

November 12, 2019

Lonn Walter
Advanced Disposal Glacier Ridge Landfill LLC
N7296 Hwy V
Horicon, WI 53032

RE: Project: LGRL INVESTIGATION MONITORING
Pace Project No.: 40198233

Dear Lonn Walter:
Enclosed are the analytical results for sample(s) received by the laboratory between October 10, 2019 and October 30, 2019. The results relate only to the samples included in this report. Results reported herein conform to the most current, applicable TNI/NELAC standards and the laboratory's Quality Assurance Manual, where applicable, unless otherwise noted in the body of the report.

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

Sincerely,

Cindy K Varga

Cindy Varga
cindy.varga@pacelabs.com
(920)469-2436
Project Manager

Enclosures

cc: Sherren Clark, SCS Engineers
Environmental Sampling Corporation Staff, Environmental Sampling Corporation
Jake Margelofsky, Advanced Disposal Glacier Ridge Landfill LLC
Frank Perugini, Environmental Sampling Corporation
Kari Rabideau, Advanced Disposal
Ashley Radunzel, SCS ENGINEERS

REPORT OF LABORATORY ANALYSIS

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

CERTIFICATIONS

Project: LGRL INVESTIGATION MONITORING
Pace Project No.: 40198233

Green Bay Certification IDs

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

REPORT OF LABORATORY ANALYSIS

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

SAMPLE SUMMARY

Project: LGRL INVESTIGATION MONITORING
Pace Project No.: 40198233

Lab ID	Sample ID	Matrix	Date Collected	Date Received
40198233001	**P-401D**	Water	10/28/19 10:35	10/30/19 09:00
40198233002	**P-402E**	Water	10/28/19 11:25	10/30/19 09:00
40198233003	**P-424D**	Water	10/28/19 13:00	10/30/19 09:00
40198233004	**P-424SS**	Water	10/28/19 15:00	10/30/19 09:00
40198233005	**P-423D**	Water	10/29/19 09:45	10/30/19 09:00
40198233006	**P-426D**	Water	10/29/19 10:30	10/30/19 09:00
40198233007	**P-429SS**	Water	10/29/19 13:45	10/30/19 09:00
40197127005	**MW-1B**	Water	10/10/19 14:00	10/11/19 09:15
40196999005	**P-422B**	Water	10/09/19 15:00	10/10/19 09:15

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SAMPLE ANALYTE COUNT

Project: LGRL INVESTIGATION MONITORING
Pace Project No.: 40198233

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
40198233001	**P-401D**	EPA 6010	TXW	1	PASI-G
		EPA 8260	LAP	46	PASI-G
			CKV	7	PASI-G
		EPA 300.0	HMB	1	PASI-G
		EPA 310.2	DAW	1	PASI-G
40198233002	**P-402E**	EPA 6010	TXW	1	PASI-G
		EPA 8260	LAP	46	PASI-G
			CKV	7	PASI-G
		EPA 300.0	HMB	1	PASI-G
		EPA 310.2	DAW	1	PASI-G
40198233003	**P-424D**	EPA 6010	TXW	1	PASI-G
		EPA 8260	LAP	46	PASI-G
			CKV	7	PASI-G
		EPA 300.0	HMB	1	PASI-G
		EPA 310.2	DAW	1	PASI-G
40198233004	**P-424SS**	EPA 6010	TXW	1	PASI-G
		EPA 8260	LAP	46	PASI-G
			CKV	7	PASI-G
		EPA 300.0	HMB	1	PASI-G
		EPA 310.2	DAW	1	PASI-G
40198233005	**P-423D**	EPA 6010	TXW	1	PASI-G
		EPA 8260	LAP	46	PASI-G
			CKV	7	PASI-G
		EPA 300.0	HMB	1	PASI-G
		EPA 310.2	DAW	1	PASI-G
40198233006	**P-426D**	EPA 6010	TXW	1	PASI-G
		EPA 8260	LAP	46	PASI-G
			CKV	7	PASI-G
		EPA 300.0	HMB	1	PASI-G
		EPA 310.2	DAW	1	PASI-G
40198233007	**P-429SS**	EPA 6010	TXW	1	PASI-G
		EPA 8260	LAP	46	PASI-G
			CKV	7	PASI-G
		EPA 300.0	HMB	1	PASI-G
		EPA 310.2	DAW	1	PASI-G
40197127005	**MW-1B**	EPA 6010	TXW	1	PASI-G
		EPA 8260	LAP	46	PASI-G

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SAMPLE ANALYTE COUNT

Project: LGRL INVESTIGATION MONITORING
Pace Project No.: 40198233

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
			CKV	7	PASI-G
		EPA 300.0	HMB	1	PASI-G
		EPA 310.2	DAW	1	PASI-G
40196999005	**P-422B**	EPA 6010	TXW	1	PASI-G
		EPA 8260	HNW	46	PASI-G
			CKV	7	PASI-G
		EPA 300.0	HMB	1	PASI-G
		EPA 310.2	DAW	1	PASI-G

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ANALYTICAL RESULTS

Project: LGRL INVESTIGATION MONITORING
Pace Project No.: 40198233

Sample: P-401D **Lab ID: 40198233001** Collected: 10/28/19 10:35 Received: 10/30/19 09:00 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
6010 MET ICP, Dissolved	Analytical Method: EPA 6010								
Total Hardness by 2340B, Dissolved	**320000**	ug/L	2000	150	1		11/06/19 00:10		
8260 MSV	Analytical Method: EPA 8260								
1,1,1-Trichloroethane	**<0.24**	ug/L	1.0	0.24	1		11/04/19 07:30	71-55-6	
1,1,2-Trichloroethane	**<0.55**	ug/L	5.0	0.55	1		11/04/19 07:30	79-00-5	
1,1-Dichloroethane	**<0.27**	ug/L	1.0	0.27	1		11/04/19 07:30	75-34-3	
1,1-Dichloroethene	**<0.24**	ug/L	1.0	0.24	1		11/04/19 07:30	75-35-4	
1,2-Dibromo-3-chloropropane	**<1.8**	ug/L	5.9	1.8	1		11/04/19 07:30	96-12-8	
1,2-Dibromoethane (EDB)	**<0.83**	ug/L	2.8	0.83	1		11/04/19 07:30	106-93-4	
1,2-Dichlorobenzene	**<0.71**	ug/L	2.4	0.71	1		11/04/19 07:30	95-50-1	
1,2-Dichloroethane	**<0.28**	ug/L	1.0	0.28	1		11/04/19 07:30	107-06-2	
1,2-Dichloropropane	**<0.28**	ug/L	1.0	0.28	1		11/04/19 07:30	78-87-5	
1,3-Dichlorobenzene	**<0.63**	ug/L	2.1	0.63	1		11/04/19 07:30	541-73-1	
1,4-Dichlorobenzene	**<0.94**	ug/L	3.1	0.94	1		11/04/19 07:30	106-46-7	
2-Butanone (MEK)	**<2.9**	ug/L	20.0	2.9	1		11/04/19 07:30	78-93-3	
Acetone	**9.2J**	ug/L	20.0	2.7	1		11/04/19 07:30	67-64-1	
Benzene	**<0.25**	ug/L	1.0	0.25	1		11/04/19 07:30	71-43-2	
Bromodichloromethane	**<0.36**	ug/L	1.2	0.36	1		11/04/19 07:30	75-27-4	
Bromoform	**<4.0**	ug/L	13.2	4.0	1		11/04/19 07:30	75-25-2	
Bromomethane	**<0.97**	ug/L	5.0	0.97	1		11/04/19 07:30	74-83-9	
Carbon disulfide	**<0.37**	ug/L	5.0	0.37	1		11/04/19 07:30	75-15-0	
Carbon tetrachloride	**<0.17**	ug/L	1.0	0.17	1		11/04/19 07:30	56-23-5	
Chlorobenzene	**<0.71**	ug/L	2.4	0.71	1		11/04/19 07:30	108-90-7	
Chloroethane	**<1.3**	ug/L	5.0	1.3	1		11/04/19 07:30	75-00-3	
Chloroform	**<1.3**	ug/L	5.0	1.3	1		11/04/19 07:30	67-66-3	
Chloromethane	**<2.2**	ug/L	7.3	2.2	1		11/04/19 07:30	74-87-3	
Dibromochloromethane	**<2.6**	ug/L	8.7	2.6	1		11/04/19 07:30	124-48-1	
Dibromomethane	**<0.94**	ug/L	3.1	0.94	1		11/04/19 07:30	74-95-3	
Dichlorodifluoromethane	**<0.50**	ug/L	5.0	0.50	1		11/04/19 07:30	75-71-8	
Ethylbenzene	**<0.22**	ug/L	1.0	0.22	1		11/04/19 07:30	100-41-4	
Methyl-tert-butyl ether	**<1.2**	ug/L	4.2	1.2	1		11/04/19 07:30	1634-04-4	
Methylene Chloride	**<0.58**	ug/L	5.0	0.58	1		11/04/19 07:30	75-09-2	
Naphthalene	**<1.2**	ug/L	5.0	1.2	1		11/04/19 07:30	91-20-3	
Styrene	**<0.47**	ug/L	1.6	0.47	1		11/04/19 07:30	100-42-5	
Tetrachloroethene	**<0.33**	ug/L	1.1	0.33	1		11/04/19 07:30	127-18-4	
Tetrahydrofuran	**<2.3**	ug/L	20.0	2.3	1		11/04/19 07:30	109-99-9	
Toluene	**<0.17**	ug/L	5.0	0.17	1		11/04/19 07:30	108-88-3	
Trichloroethene	**<0.26**	ug/L	1.0	0.26	1		11/04/19 07:30	79-01-6	
Trichlorofluoromethane	**<0.21**	ug/L	1.0	0.21	1		11/04/19 07:30	75-69-4	
Vinyl chloride	**<0.17**	ug/L	1.0	0.17	1		11/04/19 07:30	75-01-4	
cis-1,2-Dichloroethene	**<0.27**	ug/L	1.0	0.27	1		11/04/19 07:30	156-59-2	
cis-1,3-Dichloropropene	**<3.6**	ug/L	12.1	3.6	1		11/04/19 07:30	10061-01-5	
m&p-Xylene	**<0.47**	ug/L	2.0	0.47	1		11/04/19 07:30	179601-23-1	
o-Xylene	**<0.26**	ug/L	1.0	0.26	1		11/04/19 07:30	95-47-6	
trans-1,2-Dichloroethene	**<1.1**	ug/L	3.6	1.1	1		11/04/19 07:30	156-60-5	

REPORT OF LABORATORY ANALYSIS

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

ANALYTICAL RESULTS

Project: LGRL INVESTIGATION MONITORING
Pace Project No.: 40198233

Sample: P-401D **Lab ID: 40198233001** Collected: 10/28/19 10:35 Received: 10/30/19 09:00 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV	Analytical Method: EPA 8260								
trans-1,3-Dichloropropene	**<4.4**	ug/L	14.6	4.4	1		11/04/19 07:30	10061-02-6	
Surrogates									
4-Bromofluorobenzene (S)	89	%	70-130		1		11/04/19 07:30	460-00-4	
Dibromofluoromethane (S)	99	%	70-130		1		11/04/19 07:30	1868-53-7	
Toluene-d8 (S)	96	%	70-130		1		11/04/19 07:30	2037-26-5	
Field Data	Analytical Method:								
Field pH	**7.29**	Std. Units			1		10/28/19 10:35		
Field Specific Conductance	**594**	umhos/cm			1		10/28/19 10:35		
Turbidity	**N**	NTU			1		10/28/19 10:35		
Static Water Level	**855.60**	feet			1		10/28/19 10:35		
Apparent Color	**N**	no units			1		10/28/19 10:35		
Odor	**N**	no units			1		10/28/19 10:35		
Temperature, Water (C)	**12.4**	deg C			1		10/28/19 10:35		
300.0 IC Anions, Dissolved	Analytical Method: EPA 300.0								
Chloride, Dissolved	**15.7**	mg/L	2.0	0.50	1		11/08/19 13:43	16887-00-6	
310.2 Alkalinity, Dissolved	Analytical Method: EPA 310.2								
Alkalinity, Total as CaCO3, Dissolved	**321**	mg/L	95.4	28.6	2		11/04/19 12:53		

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
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ANALYTICAL RESULTS

Project: LGRL INVESTIGATION MONITORING
Pace Project No.: 40198233

Sample: P-402E **Lab ID: 40198233002** Collected: 10/28/19 11:25 Received: 10/30/19 09:00 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
6010 MET ICP, Dissolved	Analytical Method: EPA 6010								
Total Hardness by 2340B, Dissolved	**466000**	ug/L	2000	150	1		11/06/19 00:13		
8260 MSV	Analytical Method: EPA 8260								
1,1,1-Trichloroethane	**<0.61**	ug/L	2.5	0.61	2.5		11/01/19 14:00	71-55-6	
1,1,2-Trichloroethane	**<1.4**	ug/L	12.5	1.4	2.5		11/01/19 14:00	79-00-5	
1,1-Dichloroethane	**0.73J**	ug/L	2.5	0.68	2.5		11/01/19 14:00	75-34-3	
1,1-Dichloroethene	**0.74J**	ug/L	2.5	0.61	2.5		11/01/19 14:00	75-35-4	
1,2-Dibromo-3-chloropropane	**<4.4**	ug/L	14.7	4.4	2.5		11/01/19 14:00	96-12-8	
1,2-Dibromoethane (EDB)	**<2.1**	ug/L	6.9	2.1	2.5		11/01/19 14:00	106-93-4	
1,2-Dichlorobenzene	**<1.8**	ug/L	5.9	1.8	2.5		11/01/19 14:00	95-50-1	
1,2-Dichloroethane	**<0.70**	ug/L	2.5	0.70	2.5		11/01/19 14:00	107-06-2	
1,2-Dichloropropane	**<0.71**	ug/L	2.5	0.71	2.5		11/01/19 14:00	78-87-5	
1,3-Dichlorobenzene	**<1.6**	ug/L	5.2	1.6	2.5		11/01/19 14:00	541-73-1	
1,4-Dichlorobenzene	**<2.4**	ug/L	7.9	2.4	2.5		11/01/19 14:00	106-46-7	
2-Butanone (MEK)	**<7.3**	ug/L	50.0	7.3	2.5		11/01/19 14:00	78-93-3	
Acetone	**11.0J**	ug/L	50.0	6.9	2.5		11/01/19 14:00	67-64-1	
Benzene	**<0.62**	ug/L	2.5	0.62	2.5		11/01/19 14:00	71-43-2	
Bromodichloromethane	**<0.91**	ug/L	3.0	0.91	2.5		11/01/19 14:00	75-27-4	
Bromoform	**<9.9**	ug/L	33.1	9.9	2.5		11/01/19 14:00	75-25-2	
Bromomethane	**<2.4**	ug/L	12.5	2.4	2.5		11/01/19 14:00	74-83-9	
Carbon disulfide	**<0.94**	ug/L	12.5	0.94	2.5		11/01/19 14:00	75-15-0	
Carbon tetrachloride	**<0.41**	ug/L	2.5	0.41	2.5		11/01/19 14:00	56-23-5	
Chlorobenzene	**<1.8**	ug/L	5.9	1.8	2.5		11/01/19 14:00	108-90-7	
Chloroethane	**4.4J**	ug/L	12.5	3.4	2.5		11/01/19 14:00	75-00-3	
Chloroform	**<3.2**	ug/L	12.5	3.2	2.5		11/01/19 14:00	67-66-3	
Chloromethane	**<5.5**	ug/L	18.2	5.5	2.5		11/01/19 14:00	74-87-3	
Dibromochloromethane	**<6.5**	ug/L	21.7	6.5	2.5		11/01/19 14:00	124-48-1	
Dibromomethane	**<2.3**	ug/L	7.8	2.3	2.5		11/01/19 14:00	74-95-3	
Dichlorodifluoromethane	**<1.2**	ug/L	12.5	1.2	2.5		11/01/19 14:00	75-71-8	
Ethylbenzene	**<0.55**	ug/L	2.5	0.55	2.5		11/01/19 14:00	100-41-4	
Methyl-tert-butyl ether	**<3.1**	ug/L	10.4	3.1	2.5		11/01/19 14:00	1634-04-4	
Methylene Chloride	**<1.5**	ug/L	12.5	1.5	2.5		11/01/19 14:00	75-09-2	
Naphthalene	**<2.9**	ug/L	12.5	2.9	2.5		11/01/19 14:00	91-20-3	
Styrene	**<1.2**	ug/L	3.9	1.2	2.5		11/01/19 14:00	100-42-5	
Tetrachloroethene	**<0.82**	ug/L	2.7	0.82	2.5		11/01/19 14:00	127-18-4	
Tetrahydrofuran	**<5.8**	ug/L	50.0	5.8	2.5		11/01/19 14:00	109-99-9	
Toluene	**<0.43**	ug/L	12.5	0.43	2.5		11/01/19 14:00	108-88-3	
Trichloroethene	**1.3J**	ug/L	2.5	0.64	2.5		11/01/19 14:00	79-01-6	
Trichlorofluoromethane	**<0.54**	ug/L	2.5	0.54	2.5		11/01/19 14:00	75-69-4	
Vinyl chloride	**29.0**	ug/L	2.5	0.44	2.5		11/01/19 14:00	75-01-4	
cis-1,2-Dichloroethene	**237**	ug/L	2.5	0.68	2.5		11/01/19 14:00	156-59-2	
cis-1,3-Dichloropropene	**<9.1**	ug/L	30.2	9.1	2.5		11/01/19 14:00	10061-01-5	
m&p-Xylene	**<1.2**	ug/L	5.0	1.2	2.5		11/01/19 14:00	179601-23-1	
o-Xylene	**<0.65**	ug/L	2.5	0.65	2.5		11/01/19 14:00	95-47-6	
trans-1,2-Dichloroethene	**6.7J**	ug/L	9.1	2.7	2.5		11/01/19 14:00	156-60-5	

REPORT OF LABORATORY ANALYSIS

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

Project: LGRL INVESTIGATION MONITORING
Pace Project No.: 40198233

Sample: P-402E **Lab ID: 40198233002** Collected: 10/28/19 11:25 Received: 10/30/19 09:00 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV	Analytical Method: EPA 8260								
trans-1,3-Dichloropropene	**<10.9**	ug/L	36.4	10.9	2.5		11/01/19 14:00	10061-02-6	
Surrogates									
4-Bromofluorobenzene (S)	85	%	70-130		2.5		11/01/19 14:00	460-00-4	
Dibromofluoromethane (S)	102	%	70-130		2.5		11/01/19 14:00	1868-53-7	
Toluene-d8 (S)	95	%	70-130		2.5		11/01/19 14:00	2037-26-5	
Field Data	Analytical Method:								
Field pH	**7.45**	Std. Units			1		10/28/19 11:25		
Field Specific Conductance	**765**	umhos/cm			1		10/28/19 11:25		
Turbidity	**N**	NTU			1		10/28/19 11:25		
Static Water Level	**855.48**	feet			1		10/28/19 11:25		
Apparent Color	**N**	no units			1		10/28/19 11:25		
Odor	**N**	no units			1		10/28/19 11:25		
Temperature, Water (C)	**8.1**	deg C			1		10/28/19 11:25		
300.0 IC Anions, Dissolved	Analytical Method: EPA 300.0								
Chloride, Dissolved	**50.3**	mg/L	2.0	0.50	1		11/08/19 13:56	16887-00-6	
310.2 Alkalinity, Dissolved	Analytical Method: EPA 310.2								
Alkalinity, Total as CaCO3, Dissolved	**368**	mg/L	95.4	28.6	2		11/04/19 12:54		

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
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ANALYTICAL RESULTS

Project: LGRL INVESTIGATION MONITORING
Pace Project No.: 40198233

Sample: P-424D **Lab ID: 40198233003** Collected: 10/28/19 13:00 Received: 10/30/19 09:00 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
6010 MET ICP, Dissolved	Analytical Method: EPA 6010								
Total Hardness by 2340B, Dissolved	**452000**	ug/L	2000	150	1		11/06/19 00:15		
8260 MSV	Analytical Method: EPA 8260								
1,1,1-Trichloroethane	**<0.24**	ug/L	1.0	0.24	1		10/31/19 14:35	71-55-6	
1,1,2-Trichloroethane	**<0.55**	ug/L	5.0	0.55	1		10/31/19 14:35	79-00-5	
1,1-Dichloroethane	**0.82J**	ug/L	1.0	0.27	1		10/31/19 14:35	75-34-3	
1,1-Dichloroethene	**0.33J**	ug/L	1.0	0.24	1		10/31/19 14:35	75-35-4	
1,2-Dibromo-3-chloropropane	**<1.8**	ug/L	5.9	1.8	1		10/31/19 14:35	96-12-8	
1,2-Dibromoethane (EDB)	**<0.83**	ug/L	2.8	0.83	1		10/31/19 14:35	106-93-4	
1,2-Dichlorobenzene	**<0.71**	ug/L	2.4	0.71	1		10/31/19 14:35	95-50-1	
1,2-Dichloroethane	**<0.28**	ug/L	1.0	0.28	1		10/31/19 14:35	107-06-2	
1,2-Dichloropropane	**<0.28**	ug/L	1.0	0.28	1		10/31/19 14:35	78-87-5	
1,3-Dichlorobenzene	**<0.63**	ug/L	2.1	0.63	1		10/31/19 14:35	541-73-1	
1,4-Dichlorobenzene	**<0.94**	ug/L	3.1	0.94	1		10/31/19 14:35	106-46-7	
2-Butanone (MEK)	**<2.9**	ug/L	20.0	2.9	1		10/31/19 14:35	78-93-3	
Acetone	**5.8J**	ug/L	20.0	2.7	1		10/31/19 14:35	67-64-1	
Benzene	**<0.25**	ug/L	1.0	0.25	1		10/31/19 14:35	71-43-2	
Bromodichloromethane	**<0.36**	ug/L	1.2	0.36	1		10/31/19 14:35	75-27-4	
Bromoform	**<4.0**	ug/L	13.2	4.0	1		10/31/19 14:35	75-25-2	
Bromomethane	**<0.97**	ug/L	5.0	0.97	1		10/31/19 14:35	74-83-9	
Carbon disulfide	**<0.37**	ug/L	5.0	0.37	1		10/31/19 14:35	75-15-0	
Carbon tetrachloride	**<0.17**	ug/L	1.0	0.17	1		10/31/19 14:35	56-23-5	
Chlorobenzene	**<0.71**	ug/L	2.4	0.71	1		10/31/19 14:35	108-90-7	
Chloroethane	**2.4J**	ug/L	5.0	1.3	1		10/31/19 14:35	75-00-3	
Chloroform	**<1.3**	ug/L	5.0	1.3	1		10/31/19 14:35	67-66-3	
Chloromethane	**<2.2**	ug/L	7.3	2.2	1		10/31/19 14:35	74-87-3	
Dibromochloromethane	**<2.6**	ug/L	8.7	2.6	1		10/31/19 14:35	124-48-1	
Dibromomethane	**<0.94**	ug/L	3.1	0.94	1		10/31/19 14:35	74-95-3	
Dichlorodifluoromethane	**<0.50**	ug/L	5.0	0.50	1		10/31/19 14:35	75-71-8	
Ethylbenzene	**<0.22**	ug/L	1.0	0.22	1		10/31/19 14:35	100-41-4	
Methyl-tert-butyl ether	**<1.2**	ug/L	4.2	1.2	1		10/31/19 14:35	1634-04-4	
Methylene Chloride	**<0.58**	ug/L	5.0	0.58	1		10/31/19 14:35	75-09-2	
Naphthalene	**<1.2**	ug/L	5.0	1.2	1		10/31/19 14:35	91-20-3	
Styrene	**<0.47**	ug/L	1.6	0.47	1		10/31/19 14:35	100-42-5	
Tetrachloroethene	**<0.33**	ug/L	1.1	0.33	1		10/31/19 14:35	127-18-4	
Tetrahydrofuran	**<2.3**	ug/L	20.0	2.3	1		10/31/19 14:35	109-99-9	
Toluene	**<0.17**	ug/L	5.0	0.17	1		10/31/19 14:35	108-88-3	
Trichloroethene	**1.9**	ug/L	1.0	0.26	1		10/31/19 14:35	79-01-6	
Trichlorofluoromethane	**<0.21**	ug/L	1.0	0.21	1		10/31/19 14:35	75-69-4	
Vinyl chloride	**8.3**	ug/L	1.0	0.17	1		10/31/19 14:35	75-01-4	
cis-1,2-Dichloroethene	**114**	ug/L	1.0	0.27	1		10/31/19 14:35	156-59-2	
cis-1,3-Dichloropropene	**<3.6**	ug/L	12.1	3.6	1		10/31/19 14:35	10061-01-5	
m&p-Xylene	**<0.47**	ug/L	2.0	0.47	1		10/31/19 14:35	179601-23-1	
o-Xylene	**<0.26**	ug/L	1.0	0.26	1		10/31/19 14:35	95-47-6	
trans-1,2-Dichloroethene	**3.6J**	ug/L	3.6	1.1	1		10/31/19 14:35	156-60-5	

REPORT OF LABORATORY ANALYSIS

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

Project: LGRL INVESTIGATION MONITORING
Pace Project No.: 40198233

Sample: P-424D **Lab ID: 40198233003** Collected: 10/28/19 13:00 Received: 10/30/19 09:00 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV	Analytical Method: EPA 8260								
trans-1,3-Dichloropropene	**<4.4**	ug/L	14.6	4.4	1		10/31/19 14:35	10061-02-6	
Surrogates									
4-Bromofluorobenzene (S)	87	%	70-130		1		10/31/19 14:35	460-00-4	
Dibromofluoromethane (S)	98	%	70-130		1		10/31/19 14:35	1868-53-7	
Toluene-d8 (S)	96	%	70-130		1		10/31/19 14:35	2037-26-5	
Field Data	Analytical Method:								
Field pH	**7.33**	Std. Units			1		10/28/19 13:00		
Field Specific Conductance	**672**	umhos/cm			1		10/28/19 13:00		
Turbidity	**N**	NTU			1		10/28/19 13:00		
Static Water Level	**854.40**	feet			1		10/28/19 13:00		
Apparent Color	**N**	no units			1		10/28/19 13:00		
Odor	**N**	no units			1		10/28/19 13:00		
Temperature, Water (C)	**11.4**	deg C			1		10/28/19 13:00		
300.0 IC Anions, Dissolved	Analytical Method: EPA 300.0								
Chloride, Dissolved	**36.0**	mg/L	2.0	0.50	1		11/08/19 14:09	16887-00-6	
310.2 Alkalinity, Dissolved	Analytical Method: EPA 310.2								
Alkalinity, Total as CaCO3, Dissolved	**357**	mg/L	95.4	28.6	2		11/04/19 12:55		

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
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ANALYTICAL RESULTS

Project: LGRL INVESTIGATION MONITORING
Pace Project No.: 40198233

Sample: P-424SS **Lab ID: 40198233004** Collected: 10/28/19 15:00 Received: 10/30/19 09:00 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
6010 MET ICP, Dissolved	Analytical Method: EPA 6010								
Total Hardness by 2340B, Dissolved	**318000**	ug/L	2000	150	1		11/06/19 00:18		
8260 MSV	Analytical Method: EPA 8260								
1,1,1-Trichloroethane	**<0.24**	ug/L	1.0	0.24	1		10/31/19 12:21	71-55-6	
1,1,2-Trichloroethane	**<0.55**	ug/L	5.0	0.55	1		10/31/19 12:21	79-00-5	
1,1-Dichloroethane	**<0.27**	ug/L	1.0	0.27	1		10/31/19 12:21	75-34-3	
1,1-Dichloroethene	**<0.24**	ug/L	1.0	0.24	1		10/31/19 12:21	75-35-4	
1,2-Dibromo-3-chloropropane	**<1.8**	ug/L	5.9	1.8	1		10/31/19 12:21	96-12-8	
1,2-Dibromoethane (EDB)	**<0.83**	ug/L	2.8	0.83	1		10/31/19 12:21	106-93-4	
1,2-Dichlorobenzene	**<0.71**	ug/L	2.4	0.71	1		10/31/19 12:21	95-50-1	
1,2-Dichloroethane	**<0.28**	ug/L	1.0	0.28	1		10/31/19 12:21	107-06-2	
1,2-Dichloropropane	**<0.28**	ug/L	1.0	0.28	1		10/31/19 12:21	78-87-5	
1,3-Dichlorobenzene	**<0.63**	ug/L	2.1	0.63	1		10/31/19 12:21	541-73-1	
1,4-Dichlorobenzene	**<0.94**	ug/L	3.1	0.94	1		10/31/19 12:21	106-46-7	
2-Butanone (MEK)	**<2.9**	ug/L	20.0	2.9	1		10/31/19 12:21	78-93-3	
Acetone	**5.5J**	ug/L	20.0	2.7	1		10/31/19 12:21	67-64-1	
Benzene	**<0.25**	ug/L	1.0	0.25	1		10/31/19 12:21	71-43-2	
Bromodichloromethane	**<0.36**	ug/L	1.2	0.36	1		10/31/19 12:21	75-27-4	
Bromoform	**<4.0**	ug/L	13.2	4.0	1		10/31/19 12:21	75-25-2	
Bromomethane	**<0.97**	ug/L	5.0	0.97	1		10/31/19 12:21	74-83-9	R1
Carbon disulfide	**<0.37**	ug/L	5.0	0.37	1		10/31/19 12:21	75-15-0	
Carbon tetrachloride	**<0.17**	ug/L	1.0	0.17	1		10/31/19 12:21	56-23-5	
Chlorobenzene	**<0.71**	ug/L	2.4	0.71	1		10/31/19 12:21	108-90-7	
Chloroethane	**<1.3**	ug/L	5.0	1.3	1		10/31/19 12:21	75-00-3	
Chloroform	**<1.3**	ug/L	5.0	1.3	1		10/31/19 12:21	67-66-3	
Chloromethane	**<2.2**	ug/L	7.3	2.2	1		10/31/19 12:21	74-87-3	R1
Dibromochloromethane	**<2.6**	ug/L	8.7	2.6	1		10/31/19 12:21	124-48-1	
Dibromomethane	**<0.94**	ug/L	3.1	0.94	1		10/31/19 12:21	74-95-3	
Dichlorodifluoromethane	**<0.50**	ug/L	5.0	0.50	1		10/31/19 12:21	75-71-8	
Ethylbenzene	**<0.22**	ug/L	1.0	0.22	1		10/31/19 12:21	100-41-4	
Methyl-tert-butyl ether	**<1.2**	ug/L	4.2	1.2	1		10/31/19 12:21	1634-04-4	
Methylene Chloride	**<0.58**	ug/L	5.0	0.58	1		10/31/19 12:21	75-09-2	
Naphthalene	**<1.2**	ug/L	5.0	1.2	1		10/31/19 12:21	91-20-3	
Styrene	**<0.47**	ug/L	1.6	0.47	1		10/31/19 12:21	100-42-5	
Tetrachloroethene	**<0.33**	ug/L	1.1	0.33	1		10/31/19 12:21	127-18-4	
Tetrahydrofuran	**<2.3**	ug/L	20.0	2.3	1		10/31/19 12:21	109-99-9	
Toluene	**<0.17**	ug/L	5.0	0.17	1		10/31/19 12:21	108-88-3	
Trichloroethene	**<0.26**	ug/L	1.0	0.26	1		10/31/19 12:21	79-01-6	
Trichlorofluoromethane	**<0.21**	ug/L	1.0	0.21	1		10/31/19 12:21	75-69-4	
Vinyl chloride	**<0.17**	ug/L	1.0	0.17	1		10/31/19 12:21	75-01-4	R1
cis-1,2-Dichloroethene	**<0.27**	ug/L	1.0	0.27	1		10/31/19 12:21	156-59-2	R1
cis-1,3-Dichloropropene	**<3.6**	ug/L	12.1	3.6	1		10/31/19 12:21	10061-01-5	
m&p-Xylene	**<0.47**	ug/L	2.0	0.47	1		10/31/19 12:21	179601-23-1	
o-Xylene	**<0.26**	ug/L	1.0	0.26	1		10/31/19 12:21	95-47-6	
trans-1,2-Dichloroethene	**<1.1**	ug/L	3.6	1.1	1		10/31/19 12:21	156-60-5	

REPORT OF LABORATORY ANALYSIS

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

ANALYTICAL RESULTS

Project: LGRL INVESTIGATION MONITORING
Pace Project No.: 40198233

Sample: P-424SS **Lab ID: 40198233004** Collected: 10/28/19 15:00 Received: 10/30/19 09:00 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV	Analytical Method: EPA 8260								
trans-1,3-Dichloropropene	**<4.4**	ug/L	14.6	4.4	1		10/31/19 12:21	10061-02-6	
Surrogates									
4-Bromofluorobenzene (S)	90	%	70-130		1		10/31/19 12:21	460-00-4	
Dibromofluoromethane (S)	104	%	70-130		1		10/31/19 12:21	1868-53-7	
Toluene-d8 (S)	95	%	70-130		1		10/31/19 12:21	2037-26-5	
Field Data	Analytical Method:								
Field pH	**7.45**	Std. Units			1		10/28/19 15:00		
Field Specific Conductance	**521**	umhos/cm			1		10/28/19 15:00		
Turbidity	**N**	NTU			1		10/28/19 15:00		
Static Water Level	**853.83**	feet			1		10/28/19 15:00		
Apparent Color	**N**	no units			1		10/28/19 15:00		
Odor	**N**	no units			1		10/28/19 15:00		
Temperature, Water (C)	**6.5**	deg C			1		10/28/19 15:00		
300.0 IC Anions, Dissolved	Analytical Method: EPA 300.0								
Chloride, Dissolved	**1.0J**	mg/L	2.0	0.50	1		11/08/19 14:23	16887-00-6	B
310.2 Alkalinity, Dissolved	Analytical Method: EPA 310.2								
Alkalinity, Total as CaCO3, Dissolved	**291**	mg/L	95.4	28.6	2		11/04/19 12:55		

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
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ANALYTICAL RESULTS

Project: LGRL INVESTIGATION MONITORING
Pace Project No.: 40198233

Sample: P-423D **Lab ID: 40198233005** Collected: 10/29/19 09:45 Received: 10/30/19 09:00 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
6010 MET ICP, Dissolved	Analytical Method: EPA 6010								
Total Hardness by 2340B, Dissolved	**434000**	ug/L	2000	150	1		11/06/19 00:20		
8260 MSV	Analytical Method: EPA 8260								
1,1,1-Trichloroethane	**<0.24**	ug/L	1.0	0.24	1		11/01/19 07:59	71-55-6	
1,1,2-Trichloroethane	**<0.55**	ug/L	5.0	0.55	1		11/01/19 07:59	79-00-5	
1,1-Dichloroethane	**0.53J**	ug/L	1.0	0.27	1		11/01/19 07:59	75-34-3	
1,1-Dichloroethene	**<0.24**	ug/L	1.0	0.24	1		11/01/19 07:59	75-35-4	
1,2-Dibromo-3-chloropropane	**<1.8**	ug/L	5.9	1.8	1		11/01/19 07:59	96-12-8	
1,2-Dibromoethane (EDB)	**<0.83**	ug/L	2.8	0.83	1		11/01/19 07:59	106-93-4	
1,2-Dichlorobenzene	**<0.71**	ug/L	2.4	0.71	1		11/01/19 07:59	95-50-1	
1,2-Dichloroethane	**<0.28**	ug/L	1.0	0.28	1		11/01/19 07:59	107-06-2	
1,2-Dichloropropane	**<0.28**	ug/L	1.0	0.28	1		11/01/19 07:59	78-87-5	
1,3-Dichlorobenzene	**<0.63**	ug/L	2.1	0.63	1		11/01/19 07:59	541-73-1	
1,4-Dichlorobenzene	**<0.94**	ug/L	3.1	0.94	1		11/01/19 07:59	106-46-7	
2-Butanone (MEK)	**11.1J**	ug/L	20.0	2.9	1		11/01/19 07:59	78-93-3	
Acetone	**5.4J**	ug/L	20.0	2.7	1		11/01/19 07:59	67-64-1	
Benzene	**<0.25**	ug/L	1.0	0.25	1		11/01/19 07:59	71-43-2	
Bromodichloromethane	**<0.36**	ug/L	1.2	0.36	1		11/01/19 07:59	75-27-4	
Bromoform	**<4.0**	ug/L	13.2	4.0	1		11/01/19 07:59	75-25-2	
Bromomethane	**<0.97**	ug/L	5.0	0.97	1		11/01/19 07:59	74-83-9	
Carbon disulfide	**<0.37**	ug/L	5.0	0.37	1		11/01/19 07:59	75-15-0	
Carbon tetrachloride	**<0.17**	ug/L	1.0	0.17	1		11/01/19 07:59	56-23-5	
Chlorobenzene	**<0.71**	ug/L	2.4	0.71	1		11/01/19 07:59	108-90-7	
Chloroethane	**1.8J**	ug/L	5.0	1.3	1		11/01/19 07:59	75-00-3	
Chloroform	**<1.3**	ug/L	5.0	1.3	1		11/01/19 07:59	67-66-3	
Chloromethane	**<2.2**	ug/L	7.3	2.2	1		11/01/19 07:59	74-87-3	
Dibromochloromethane	**<2.6**	ug/L	8.7	2.6	1		11/01/19 07:59	124-48-1	
Dibromomethane	**<0.94**	ug/L	3.1	0.94	1		11/01/19 07:59	74-95-3	
Dichlorodifluoromethane	**<0.50**	ug/L	5.0	0.50	1		11/01/19 07:59	75-71-8	
Ethylbenzene	**<0.22**	ug/L	1.0	0.22	1		11/01/19 07:59	100-41-4	
Methyl-tert-butyl ether	**<1.2**	ug/L	4.2	1.2	1		11/01/19 07:59	1634-04-4	
Methylene Chloride	**<0.58**	ug/L	5.0	0.58	1		11/01/19 07:59	75-09-2	
Naphthalene	**<1.2**	ug/L	5.0	1.2	1		11/01/19 07:59	91-20-3	
Styrene	**<0.47**	ug/L	1.6	0.47	1		11/01/19 07:59	100-42-5	
Tetrachloroethene	**<0.33**	ug/L	1.1	0.33	1		11/01/19 07:59	127-18-4	
Tetrahydrofuran	**<2.3**	ug/L	20.0	2.3	1		11/01/19 07:59	109-99-9	
Toluene	**<0.17**	ug/L	5.0	0.17	1		11/01/19 07:59	108-88-3	
Trichloroethene	**0.71J**	ug/L	1.0	0.26	1		11/01/19 07:59	79-01-6	
Trichlorofluoromethane	**<0.21**	ug/L	1.0	0.21	1		11/01/19 07:59	75-69-4	
Vinyl chloride	**2.1**	ug/L	1.0	0.17	1		11/01/19 07:59	75-01-4	
cis-1,2-Dichloroethene	**71.8**	ug/L	1.0	0.27	1		11/01/19 07:59	156-59-2	
cis-1,3-Dichloropropene	**<3.6**	ug/L	12.1	3.6	1		11/01/19 07:59	10061-01-5	
m&p-Xylene	**<0.47**	ug/L	2.0	0.47	1		11/01/19 07:59	179601-23-1	
o-Xylene	**<0.26**	ug/L	1.0	0.26	1		11/01/19 07:59	95-47-6	
trans-1,2-Dichloroethene	**3.3J**	ug/L	3.6	1.1	1		11/01/19 07:59	156-60-5	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
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ANALYTICAL RESULTS

Project: LGRL INVESTIGATION MONITORING
Pace Project No.: 40198233

Sample: P-423D **Lab ID: 40198233005** Collected: 10/29/19 09:45 Received: 10/30/19 09:00 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV	Analytical Method: EPA 8260								
trans-1,3-Dichloropropene	**<4.4**	ug/L	14.6	4.4	1		11/01/19 07:59	10061-02-6	
Surrogates									
4-Bromofluorobenzene (S)	90	%	70-130		1		11/01/19 07:59	460-00-4	
Dibromofluoromethane (S)	106	%	70-130		1		11/01/19 07:59	1868-53-7	
Toluene-d8 (S)	98	%	70-130		1		11/01/19 07:59	2037-26-5	
Field Data	Analytical Method:								
Field pH	**7.38**	Std. Units			1		10/29/19 09:45		
Field Specific Conductance	**662**	umhos/cm			1		10/29/19 09:45		
Turbidity	**N**	NTU			1		10/29/19 09:45		
Static Water Level	**854.04**	feet			1		10/29/19 09:45		
Apparent Color	**N**	no units			1		10/29/19 09:45		
Odor	**N**	no units			1		10/29/19 09:45		
Temperature, Water (C)	**9.6**	deg C			1		10/29/19 09:45		
300.0 IC Anions, Dissolved	Analytical Method: EPA 300.0								
Chloride, Dissolved	**28.6**	mg/L	2.0	0.50	1		11/08/19 14:36	16887-00-6	
310.2 Alkalinity, Dissolved	Analytical Method: EPA 310.2								
Alkalinity, Total as CaCO3, Dissolved	**336**	mg/L	95.4	28.6	2		11/04/19 12:56		

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: LGRL INVESTIGATION MONITORING
Pace Project No.: 40198233

Sample: P-426D **Lab ID: 40198233006** Collected: 10/29/19 10:30 Received: 10/30/19 09:00 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
6010 MET ICP, Dissolved	Analytical Method: EPA 6010								
Total Hardness by 2340B, Dissolved	**536000**	ug/L	2000	150	1		11/06/19 00:28		
8260 MSV	Analytical Method: EPA 8260								
1,1,1-Trichloroethane	**<0.24**	ug/L	1.0	0.24	1		10/31/19 15:42	71-55-6	
1,1,2-Trichloroethane	**<0.55**	ug/L	5.0	0.55	1		10/31/19 15:42	79-00-5	
1,1-Dichloroethane	**<0.27**	ug/L	1.0	0.27	1		10/31/19 15:42	75-34-3	
1,1-Dichloroethene	**<0.24**	ug/L	1.0	0.24	1		10/31/19 15:42	75-35-4	
1,2-Dibromo-3-chloropropane	**<1.8**	ug/L	5.9	1.8	1		10/31/19 15:42	96-12-8	
1,2-Dibromoethane (EDB)	**<0.83**	ug/L	2.8	0.83	1		10/31/19 15:42	106-93-4	
1,2-Dichlorobenzene	**<0.71**	ug/L	2.4	0.71	1		10/31/19 15:42	95-50-1	
1,2-Dichloroethane	**<0.28**	ug/L	1.0	0.28	1		10/31/19 15:42	107-06-2	
1,2-Dichloropropane	**<0.28**	ug/L	1.0	0.28	1		10/31/19 15:42	78-87-5	
1,3-Dichlorobenzene	**<0.63**	ug/L	2.1	0.63	1		10/31/19 15:42	541-73-1	
1,4-Dichlorobenzene	**<0.94**	ug/L	3.1	0.94	1		10/31/19 15:42	106-46-7	
2-Butanone (MEK)	**<2.9**	ug/L	20.0	2.9	1		10/31/19 15:42	78-93-3	
Acetone	**6.5J**	ug/L	20.0	2.7	1		10/31/19 15:42	67-64-1	
Benzene	**<0.25**	ug/L	1.0	0.25	1		10/31/19 15:42	71-43-2	
Bromodichloromethane	**<0.36**	ug/L	1.2	0.36	1		10/31/19 15:42	75-27-4	
Bromoform	**<4.0**	ug/L	13.2	4.0	1		10/31/19 15:42	75-25-2	
Bromomethane	**<0.97**	ug/L	5.0	0.97	1		10/31/19 15:42	74-83-9	
Carbon disulfide	**<0.37**	ug/L	5.0	0.37	1		10/31/19 15:42	75-15-0	
Carbon tetrachloride	**<0.17**	ug/L	1.0	0.17	1		10/31/19 15:42	56-23-5	
Chlorobenzene	**<0.71**	ug/L	2.4	0.71	1		10/31/19 15:42	108-90-7	
Chloroethane	**<1.3**	ug/L	5.0	1.3	1		10/31/19 15:42	75-00-3	
Chloroform	**<1.3**	ug/L	5.0	1.3	1		10/31/19 15:42	67-66-3	
Chloromethane	**<2.2**	ug/L	7.3	2.2	1		10/31/19 15:42	74-87-3	
Dibromochloromethane	**<2.6**	ug/L	8.7	2.6	1		10/31/19 15:42	124-48-1	
Dibromomethane	**<0.94**	ug/L	3.1	0.94	1		10/31/19 15:42	74-95-3	
Dichlorodifluoromethane	**<0.50**	ug/L	5.0	0.50	1		10/31/19 15:42	75-71-8	
Ethylbenzene	**<0.22**	ug/L	1.0	0.22	1		10/31/19 15:42	100-41-4	
Methyl-tert-butyl ether	**<1.2**	ug/L	4.2	1.2	1		10/31/19 15:42	1634-04-4	
Methylene Chloride	**<0.58**	ug/L	5.0	0.58	1		10/31/19 15:42	75-09-2	
Naphthalene	**<1.2**	ug/L	5.0	1.2	1		10/31/19 15:42	91-20-3	
Styrene	**<0.47**	ug/L	1.6	0.47	1		10/31/19 15:42	100-42-5	
Tetrachloroethene	**<0.33**	ug/L	1.1	0.33	1		10/31/19 15:42	127-18-4	
Tetrahydrofuran	**<2.3**	ug/L	20.0	2.3	1		10/31/19 15:42	109-99-9	
Toluene	**<0.17**	ug/L	5.0	0.17	1		10/31/19 15:42	108-88-3	
Trichloroethene	**<0.26**	ug/L	1.0	0.26	1		10/31/19 15:42	79-01-6	
Trichlorofluoromethane	**<0.21**	ug/L	1.0	0.21	1		10/31/19 15:42	75-69-4	
Vinyl chloride	**<0.17**	ug/L	1.0	0.17	1		10/31/19 15:42	75-01-4	
cis-1,2-Dichloroethene	**<0.27**	ug/L	1.0	0.27	1		10/31/19 15:42	156-59-2	
cis-1,3-Dichloropropene	**<3.6**	ug/L	12.1	3.6	1		10/31/19 15:42	10061-01-5	
m&p-Xylene	**<0.47**	ug/L	2.0	0.47	1		10/31/19 15:42	179601-23-1	
o-Xylene	**<0.26**	ug/L	1.0	0.26	1		10/31/19 15:42	95-47-6	
trans-1,2-Dichloroethene	**<1.1**	ug/L	3.6	1.1	1		10/31/19 15:42	156-60-5	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
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ANALYTICAL RESULTS

Project: LGRL INVESTIGATION MONITORING
Pace Project No.: 40198233

Sample: P-426D **Lab ID: 40198233006** Collected: 10/29/19 10:30 Received: 10/30/19 09:00 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV	Analytical Method: EPA 8260								
trans-1,3-Dichloropropene	**<4.4**	ug/L	14.6	4.4	1		10/31/19 15:42	10061-02-6	
Surrogates									
4-Bromofluorobenzene (S)	87	%	70-130		1		10/31/19 15:42	460-00-4	
Dibromofluoromethane (S)	102	%	70-130		1		10/31/19 15:42	1868-53-7	
Toluene-d8 (S)	97	%	70-130		1		10/31/19 15:42	2037-26-5	
Field Data	Analytical Method:								
Field pH	**7.40**	Std. Units			1		10/29/19 10:30		
Field Specific Conductance	**595**	umhos/cm			1		10/29/19 10:30		
Turbidity	**N**	NTU			1		10/29/19 10:30		
Static Water Level	**853.95**	feet			1		10/29/19 10:30		
Apparent Color	**N**	no units			1		10/29/19 10:30		
Odor	**N**	no units			1		10/29/19 10:30		
Temperature, Water (C)	**8.9**	deg C			1		10/29/19 10:30		
300.0 IC Anions, Dissolved	Analytical Method: EPA 300.0								
Chloride, Dissolved	**60.6**	mg/L	10.0	2.5	5		11/08/19 23:26	16887-00-6	
310.2 Alkalinity, Dissolved	Analytical Method: EPA 310.2								
Alkalinity, Total as CaCO3, Dissolved	**350**	mg/L	95.4	28.6	2		11/04/19 12:56		

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: LGRL INVESTIGATION MONITORING
Pace Project No.: 40198233

Sample: P-429SS **Lab ID: 40198233007** Collected: 10/29/19 13:45 Received: 10/30/19 09:00 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
6010 MET ICP, Dissolved	Analytical Method: EPA 6010								
Total Hardness by 2340B, Dissolved	**336000**	ug/L	2000	150	1		11/06/19 00:30		
8260 MSV	Analytical Method: EPA 8260								
1,1,1-Trichloroethane	**<0.24**	ug/L	1.0	0.24	1		11/01/19 08:22	71-55-6	
1,1,2-Trichloroethane	**<0.55**	ug/L	5.0	0.55	1		11/01/19 08:22	79-00-5	
1,1-Dichloroethane	**<0.27**	ug/L	1.0	0.27	1		11/01/19 08:22	75-34-3	
1,1-Dichloroethene	**<0.24**	ug/L	1.0	0.24	1		11/01/19 08:22	75-35-4	
1,2-Dibromo-3-chloropropane	**<1.8**	ug/L	5.9	1.8	1		11/01/19 08:22	96-12-8	
1,2-Dibromoethane (EDB)	**<0.83**	ug/L	2.8	0.83	1		11/01/19 08:22	106-93-4	
1,2-Dichlorobenzene	**<0.71**	ug/L	2.4	0.71	1		11/01/19 08:22	95-50-1	
1,2-Dichloroethane	**<0.28**	ug/L	1.0	0.28	1		11/01/19 08:22	107-06-2	
1,2-Dichloropropane	**<0.28**	ug/L	1.0	0.28	1		11/01/19 08:22	78-87-5	
1,3-Dichlorobenzene	**<0.63**	ug/L	2.1	0.63	1		11/01/19 08:22	541-73-1	
1,4-Dichlorobenzene	**<0.94**	ug/L	3.1	0.94	1		11/01/19 08:22	106-46-7	
2-Butanone (MEK)	**<2.9**	ug/L	20.0	2.9	1		11/01/19 08:22	78-93-3	
Acetone	**11.9J**	ug/L	20.0	2.7	1		11/01/19 08:22	67-64-1	
Benzene	**<0.25**	ug/L	1.0	0.25	1		11/01/19 08:22	71-43-2	
Bromodichloromethane	**<0.36**	ug/L	1.2	0.36	1		11/01/19 08:22	75-27-4	
Bromoform	**<4.0**	ug/L	13.2	4.0	1		11/01/19 08:22	75-25-2	
Bromomethane	**<0.97**	ug/L	5.0	0.97	1		11/01/19 08:22	74-83-9	
Carbon disulfide	**<0.37**	ug/L	5.0	0.37	1		11/01/19 08:22	75-15-0	
Carbon tetrachloride	**<0.17**	ug/L	1.0	0.17	1		11/01/19 08:22	56-23-5	
Chlorobenzene	**<0.71**	ug/L	2.4	0.71	1		11/01/19 08:22	108-90-7	
Chloroethane	**<1.3**	ug/L	5.0	1.3	1		11/01/19 08:22	75-00-3	
Chloroform	**<1.3**	ug/L	5.0	1.3	1		11/01/19 08:22	67-66-3	
Chloromethane	**<2.2**	ug/L	7.3	2.2	1		11/01/19 08:22	74-87-3	
Dibromochloromethane	**<2.6**	ug/L	8.7	2.6	1		11/01/19 08:22	124-48-1	
Dibromomethane	**<0.94**	ug/L	3.1	0.94	1		11/01/19 08:22	74-95-3	
Dichlorodifluoromethane	**<0.50**	ug/L	5.0	0.50	1		11/01/19 08:22	75-71-8	
Ethylbenzene	**<0.22**	ug/L	1.0	0.22	1		11/01/19 08:22	100-41-4	
Methyl-tert-butyl ether	**<1.2**	ug/L	4.2	1.2	1		11/01/19 08:22	1634-04-4	
Methylene Chloride	**<0.58**	ug/L	5.0	0.58	1		11/01/19 08:22	75-09-2	
Naphthalene	**<1.2**	ug/L	5.0	1.2	1		11/01/19 08:22	91-20-3	
Styrene	**<0.47**	ug/L	1.6	0.47	1		11/01/19 08:22	100-42-5	
Tetrachloroethene	**<0.33**	ug/L	1.1	0.33	1		11/01/19 08:22	127-18-4	
Tetrahydrofuran	**<2.3**	ug/L	20.0	2.3	1		11/01/19 08:22	109-99-9	
Toluene	**<0.17**	ug/L	5.0	0.17	1		11/01/19 08:22	108-88-3	
Trichloroethene	**<0.26**	ug/L	1.0	0.26	1		11/01/19 08:22	79-01-6	
Trichlorofluoromethane	**<0.21**	ug/L	1.0	0.21	1		11/01/19 08:22	75-69-4	
Vinyl chloride	**<0.17**	ug/L	1.0	0.17	1		11/01/19 08:22	75-01-4	
cis-1,2-Dichloroethene	**<0.27**	ug/L	1.0	0.27	1		11/01/19 08:22	156-59-2	
cis-1,3-Dichloropropene	**<3.6**	ug/L	12.1	3.6	1		11/01/19 08:22	10061-01-5	
m&p-Xylene	**<0.47**	ug/L	2.0	0.47	1		11/01/19 08:22	179601-23-1	
o-Xylene	**<0.26**	ug/L	1.0	0.26	1		11/01/19 08:22	95-47-6	
trans-1,2-Dichloroethene	**<1.1**	ug/L	3.6	1.1	1		11/01/19 08:22	156-60-5	

REPORT OF LABORATORY ANALYSIS

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

ANALYTICAL RESULTS

Project: LGRL INVESTIGATION MONITORING
Pace Project No.: 40198233

Sample: P-429SS **Lab ID: 40198233007** Collected: 10/29/19 13:45 Received: 10/30/19 09:00 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV	Analytical Method: EPA 8260								
trans-1,3-Dichloropropene	**<4.4**	ug/L	14.6	4.4	1		11/01/19 08:22	10061-02-6	
Surrogates									
4-Bromofluorobenzene (S)	85	%	70-130		1		11/01/19 08:22	460-00-4	
Dibromofluoromethane (S)	102	%	70-130		1		11/01/19 08:22	1868-53-7	
Toluene-d8 (S)	95	%	70-130		1		11/01/19 08:22	2037-26-5	
Field Data	Analytical Method:								
Field pH	**7.59**	Std. Units			1		10/29/19 13:45		
Field Specific Conductance	**508**	umhos/cm			1		10/29/19 13:45		
Turbidity	**N**	NTU			1		10/29/19 13:45		
Static Water Level	**846.74**	feet			1		10/29/19 13:45		
Apparent Color	**N**	no units			1		10/29/19 13:45		
Odor	**N**	no units			1		10/29/19 13:45		
Temperature, Water (C)	**9.5**	deg C			1		10/29/19 13:45		
300.0 IC Anions, Dissolved	Analytical Method: EPA 300.0								
Chloride, Dissolved	**1.5J**	mg/L	2.0	0.50	1		11/08/19 15:02	16887-00-6	B
310.2 Alkalinity, Dissolved	Analytical Method: EPA 310.2								
Alkalinity, Total as CaCO3, Dissolved	**306**	mg/L	95.4	28.6	2		11/04/19 12:57		M0

REPORT OF LABORATORY ANALYSIS

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

ANALYTICAL RESULTS

Project: LGRL INVESTIGATION MONITORING
Pace Project No.: 40198233

Sample: MW-1B **Lab ID: 40197127005** Collected: 10/10/19 14:00 Received: 10/11/19 09:15 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
6010 MET ICP, Dissolved	Analytical Method: EPA 6010								
Total Hardness by 2340B, Dissolved	**331000**	ug/L	2000	150	1		10/16/19 03:19		
8260 MSV	Analytical Method: EPA 8260								
1,1,1-Trichloroethane	**<0.24**	ug/L	1.0	0.24	1		10/15/19 13:20	71-55-6	
1,1,2-Trichloroethane	**<0.55**	ug/L	5.0	0.55	1		10/15/19 13:20	79-00-5	
1,1-Dichloroethane	**<0.27**	ug/L	1.0	0.27	1		10/15/19 13:20	75-34-3	
1,1-Dichloroethene	**<0.24**	ug/L	1.0	0.24	1		10/15/19 13:20	75-35-4	
1,2-Dibromo-3-chloropropane	**<1.8**	ug/L	5.9	1.8	1		10/15/19 13:20	96-12-8	
1,2-Dibromoethane (EDB)	**<0.83**	ug/L	2.8	0.83	1		10/15/19 13:20	106-93-4	
1,2-Dichlorobenzene	**<0.71**	ug/L	2.4	0.71	1		10/15/19 13:20	95-50-1	
1,2-Dichloroethane	**<0.28**	ug/L	1.0	0.28	1		10/15/19 13:20	107-06-2	
1,2-Dichloropropane	**<0.28**	ug/L	1.0	0.28	1		10/15/19 13:20	78-87-5	
1,3-Dichlorobenzene	**<0.63**	ug/L	2.1	0.63	1		10/15/19 13:20	541-73-1	
1,4-Dichlorobenzene	**<0.94**	ug/L	3.1	0.94	1		10/15/19 13:20	106-46-7	
2-Butanone (MEK)	**<2.9**	ug/L	20.0	2.9	1		10/15/19 13:20	78-93-3	
Acetone	**6.3J**	ug/L	20.0	2.7	1		10/15/19 13:20	67-64-1	
Benzene	**<0.25**	ug/L	1.0	0.25	1		10/15/19 13:20	71-43-2	
Bromodichloromethane	**<0.36**	ug/L	1.2	0.36	1		10/15/19 13:20	75-27-4	
Bromoform	**<4.0**	ug/L	13.2	4.0	1		10/15/19 13:20	75-25-2	
Bromomethane	**<0.97**	ug/L	5.0	0.97	1		10/15/19 13:20	74-83-9	
Carbon disulfide	**0.98J**	ug/L	5.0	0.37	1		10/15/19 13:20	75-15-0	
Carbon tetrachloride	**<0.17**	ug/L	1.0	0.17	1		10/15/19 13:20	56-23-5	
Chlorobenzene	**<0.71**	ug/L	2.4	0.71	1		10/15/19 13:20	108-90-7	
Chloroethane	**<1.3**	ug/L	5.0	1.3	1		10/15/19 13:20	75-00-3	
Chloroform	**<1.3**	ug/L	5.0	1.3	1		10/15/19 13:20	67-66-3	
Chloromethane	**<2.2**	ug/L	7.3	2.2	1		10/15/19 13:20	74-87-3	
Dibromochloromethane	**<2.6**	ug/L	8.7	2.6	1		10/15/19 13:20	124-48-1	
Dibromomethane	**<0.94**	ug/L	3.1	0.94	1		10/15/19 13:20	74-95-3	
Dichlorodifluoromethane	**<0.50**	ug/L	5.0	0.50	1		10/15/19 13:20	75-71-8	
Ethylbenzene	**<0.22**	ug/L	1.0	0.22	1		10/15/19 13:20	100-41-4	
Methyl-tert-butyl ether	**<1.2**	ug/L	4.2	1.2	1		10/15/19 13:20	1634-04-4	
Methylene Chloride	**<0.58**	ug/L	5.0	0.58	1		10/15/19 13:20	75-09-2	
Naphthalene	**<1.2**	ug/L	5.0	1.2	1		10/15/19 13:20	91-20-3	
Styrene	**<0.47**	ug/L	1.6	0.47	1		10/15/19 13:20	100-42-5	
Tetrachloroethene	**<0.33**	ug/L	1.1	0.33	1		10/15/19 13:20	127-18-4	
Tetrahydrofuran	**<2.3**	ug/L	20.0	2.3	1		10/15/19 13:20	109-99-9	
Toluene	**<0.17**	ug/L	5.0	0.17	1		10/15/19 13:20	108-88-3	
Trichloroethene	**<0.26**	ug/L	1.0	0.26	1		10/15/19 13:20	79-01-6	
Trichlorofluoromethane	**<0.21**	ug/L	1.0	0.21	1		10/15/19 13:20	75-69-4	
Vinyl chloride	**5.1**	ug/L	1.0	0.17	1		10/15/19 13:20	75-01-4	
cis-1,2-Dichloroethene	**<0.27**	ug/L	1.0	0.27	1		10/15/19 13:20	156-59-2	
cis-1,3-Dichloropropene	**<3.6**	ug/L	12.1	3.6	1		10/15/19 13:20	10061-01-5	
m&p-Xylene	**<0.47**	ug/L	2.0	0.47	1		10/15/19 13:20	179601-23-1	
o-Xylene	**<0.26**	ug/L	1.0	0.26	1		10/15/19 13:20	95-47-6	
trans-1,2-Dichloroethene	**<1.1**	ug/L	3.6	1.1	1		10/15/19 13:20	156-60-5	

REPORT OF LABORATORY ANALYSIS

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

ANALYTICAL RESULTS

Project: LGRL INVESTIGATION MONITORING
Pace Project No.: 40198233

Sample: MW-1B **Lab ID: 40197127005** Collected: 10/10/19 14:00 Received: 10/11/19 09:15 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV	Analytical Method: EPA 8260								
trans-1,3-Dichloropropene	**<4.4**	ug/L	14.6	4.4	1		10/15/19 13:20	10061-02-6	
Surrogates									
4-Bromofluorobenzene (S)	90	%	70-130		1		10/15/19 13:20	460-00-4	
Dibromofluoromethane (S)	104	%	70-130		1		10/15/19 13:20	1868-53-7	
Toluene-d8 (S)	102	%	70-130		1		10/15/19 13:20	2037-26-5	
Field Data	Analytical Method:								
Field pH	**7.63**	Std. Units			1		10/10/19 14:00		
Field Specific Conductance	**458**	umhos/cm			1		10/10/19 14:00		
Turbidity	**N**	NTU			1		10/10/19 14:00		
Static Water Level	**927.82**	feet			1		10/10/19 14:00		
Apparent Color	**N**	no units			1		10/10/19 14:00		
Odor	**N**	no units			1		10/10/19 14:00		
Temperature, Water (C)	**13.7**	deg C			1		10/10/19 14:00		
300.0 IC Anions, Dissolved	Analytical Method: EPA 300.0								
Chloride, Dissolved	**123**	mg/L	10.0	2.5	5		10/22/19 16:07	16887-00-6	
310.2 Alkalinity, Dissolved	Analytical Method: EPA 310.2								
Alkalinity, Total as CaCO3, Dissolved	**180**	mg/L	23.5	7.0	1		10/23/19 11:13		

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
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ANALYTICAL RESULTS

Project: LGRL INVESTIGATION MONITORING
Pace Project No.: 40198233

Sample: P-422B **Lab ID: 40196999005** Collected: 10/09/19 15:00 Received: 10/10/19 09:15 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
6010 MET ICP, Dissolved	Analytical Method: EPA 6010								
Total Hardness by 2340B, Dissolved	**166000**	ug/L	2000	150	1		10/16/19 20:19		
8260 MSV	Analytical Method: EPA 8260								
1,1,1-Trichloroethane	**<0.24**	ug/L	1.0	0.24	1		10/14/19 13:27	71-55-6	
1,1,2-Trichloroethane	**<0.55**	ug/L	5.0	0.55	1		10/14/19 13:27	79-00-5	
1,1-Dichloroethane	**<0.27**	ug/L	1.0	0.27	1		10/14/19 13:27	75-34-3	
1,1-Dichloroethene	**<0.24**	ug/L	1.0	0.24	1		10/14/19 13:27	75-35-4	
1,2-Dibromo-3-chloropropane	**<1.8**	ug/L	5.9	1.8	1		10/14/19 13:27	96-12-8	
1,2-Dibromoethane (EDB)	**<0.83**	ug/L	2.8	0.83	1		10/14/19 13:27	106-93-4	
1,2-Dichlorobenzene	**<0.71**	ug/L	2.4	0.71	1		10/14/19 13:27	95-50-1	
1,2-Dichloroethane	**<0.28**	ug/L	1.0	0.28	1		10/14/19 13:27	107-06-2	
1,2-Dichloropropane	**<0.28**	ug/L	1.0	0.28	1		10/14/19 13:27	78-87-5	
1,3-Dichlorobenzene	**<0.63**	ug/L	2.1	0.63	1		10/14/19 13:27	541-73-1	
1,4-Dichlorobenzene	**<0.94**	ug/L	3.1	0.94	1		10/14/19 13:27	106-46-7	
2-Butanone (MEK)	**<2.9**	ug/L	20.0	2.9	1		10/14/19 13:27	78-93-3	
Acetone	**<2.7**	ug/L	20.0	2.7	1		10/14/19 13:27	67-64-1	
Benzene	**<0.25**	ug/L	1.0	0.25	1		10/14/19 13:27	71-43-2	
Bromodichloromethane	**<0.36**	ug/L	1.2	0.36	1		10/14/19 13:27	75-27-4	
Bromoform	**<4.0**	ug/L	13.2	4.0	1		10/14/19 13:27	75-25-2	
Bromomethane	**<0.97**	ug/L	5.0	0.97	1		10/14/19 13:27	74-83-9	
Carbon disulfide	**<0.37**	ug/L	5.0	0.37	1		10/14/19 13:27	75-15-0	
Carbon tetrachloride	**<0.17**	ug/L	1.0	0.17	1		10/14/19 13:27	56-23-5	
Chlorobenzene	**<0.71**	ug/L	2.4	0.71	1		10/14/19 13:27	108-90-7	
Chloroethane	**<1.3**	ug/L	5.0	1.3	1		10/14/19 13:27	75-00-3	
Chloroform	**<1.3**	ug/L	5.0	1.3	1		10/14/19 13:27	67-66-3	
Chloromethane	**<2.2**	ug/L	7.3	2.2	1		10/14/19 13:27	74-87-3	
Dibromochloromethane	**<2.6**	ug/L	8.7	2.6	1		10/14/19 13:27	124-48-1	
Dibromomethane	**<0.94**	ug/L	3.1	0.94	1		10/14/19 13:27	74-95-3	
Dichlorodifluoromethane	**<0.50**	ug/L	5.0	0.50	1		10/14/19 13:27	75-71-8	
Ethylbenzene	**<0.22**	ug/L	1.0	0.22	1		10/14/19 13:27	100-41-4	
Methyl-tert-butyl ether	**<1.2**	ug/L	4.2	1.2	1		10/14/19 13:27	1634-04-4	
Methylene Chloride	**<0.58**	ug/L	5.0	0.58	1		10/14/19 13:27	75-09-2	
Naphthalene	**<1.2**	ug/L	5.0	1.2	1		10/14/19 13:27	91-20-3	
Styrene	**<0.47**	ug/L	1.6	0.47	1		10/14/19 13:27	100-42-5	
Tetrachloroethene	**<0.33**	ug/L	1.1	0.33	1		10/14/19 13:27	127-18-4	
Tetrahydrofuran	**<2.3**	ug/L	20.0	2.3	1		10/14/19 13:27	109-99-9	
Toluene	**<0.17**	ug/L	5.0	0.17	1		10/14/19 13:27	108-88-3	
Trichloroethene	**<0.26**	ug/L	1.0	0.26	1		10/14/19 13:27	79-01-6	
Trichlorofluoromethane	**<0.21**	ug/L	1.0	0.21	1		10/14/19 13:27	75-69-4	
Vinyl chloride	**<0.17**	ug/L	1.0	0.17	1		10/14/19 13:27	75-01-4	
cis-1,2-Dichloroethene	**<0.27**	ug/L	1.0	0.27	1		10/14/19 13:27	156-59-2	
cis-1,3-Dichloropropene	**<3.6**	ug/L	12.1	3.6	1		10/14/19 13:27	10061-01-5	
m&p-Xylene	**<0.47**	ug/L	2.0	0.47	1		10/14/19 13:27	179601-23-1	
o-Xylene	**<0.26**	ug/L	1.0	0.26	1		10/14/19 13:27	95-47-6	
trans-1,2-Dichloroethene	**<1.1**	ug/L	3.6	1.1	1		10/14/19 13:27	156-60-5	

REPORT OF LABORATORY ANALYSIS

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

ANALYTICAL RESULTS

Project: LGRL INVESTIGATION MONITORING
Pace Project No.: 40198233

Sample: P-422B **Lab ID: 40196999005** Collected: 10/09/19 15:00 Received: 10/10/19 09:15 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV	Analytical Method: EPA 8260								
trans-1,3-Dichloropropene	**<4.4**	ug/L	14.6	4.4	1		10/14/19 13:27	10061-02-6	
Surrogates									
4-Bromofluorobenzene (S)	94	%	70-130		1		10/14/19 13:27	460-00-4	
Dibromofluoromethane (S)	112	%	70-130		1		10/14/19 13:27	1868-53-7	
Toluene-d8 (S)	89	%	70-130		1		10/14/19 13:27	2037-26-5	
Field Data	Analytical Method:								
Field pH	**7.89**	Std. Units			1		10/09/19 15:00		
Field Specific Conductance	**242**	umhos/cm			1		10/09/19 15:00		
Turbidity	**N**	NTU			1		10/09/19 15:00		
Static Water Level	**928.49**	feet			1		10/09/19 15:00		
Apparent Color	**N**	no units			1		10/09/19 15:00		
Odor	**N**	no units			1		10/09/19 15:00		
Temperature, Water (C)	**11.9**	deg C			1		10/09/19 15:00		
300.0 IC Anions, Dissolved	Analytical Method: EPA 300.0								
Chloride, Dissolved	**7.8**	mg/L	2.0	0.50	1		10/21/19 19:33	16887-00-6	
310.2 Alkalinity, Dissolved	Analytical Method: EPA 310.2								
Alkalinity, Total as CaCO3, Dissolved	**208**	mg/L	23.5	7.0	1		10/18/19 13:01		

REPORT OF LABORATORY ANALYSIS

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

QUALITY CONTROL DATA

Project: LGRL INVESTIGATION MONITORING
Pace Project No.: 40198233

QC Batch: 337583
QC Batch Method: EPA 6010
Analysis Method: EPA 6010
Analysis Description: ICP Metals, Trace, Dissolved
Associated Lab Samples: 40197127005

METHOD BLANK: 1960981 Matrix: Water
Associated Lab Samples: 40197127005

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Total Hardness by 2340B, Dissolved	ug/L	409J	2000	10/16/19 02:20	

LABORATORY CONTROL SAMPLE: 1960982

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Total Hardness by 2340B, Dissolved	ug/L		30800			

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1960983 1960984

Parameter	Units	40197080001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Total Hardness by 2340B, Dissolved	ug/L	268 mg/L			291000	292000				0	20	

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

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
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Green Bay, WI 54302
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QUALITY CONTROL DATA

Project: LGRL INVESTIGATION MONITORING
Pace Project No.: 40198233

QC Batch: 337682
QC Batch Method: EPA 6010
Analysis Method: EPA 6010
Analysis Description: ICP Metals, Trace, Dissolved
Associated Lab Samples: 40196999005

METHOD BLANK: 1961384 Matrix: Water
Associated Lab Samples: 40196999005

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Total Hardness by 2340B, Dissolved	ug/L	<150	2000	10/17/19 20:00	

LABORATORY CONTROL SAMPLE: 1961385

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Total Hardness by 2340B, Dissolved	ug/L		32000			

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1961386 1961387

Parameter	Units	40196982004 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Total Hardness by 2340B, Dissolved	ug/L	653000			657000	659000				0	20	

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: LGRL INVESTIGATION MONITORING
Pace Project No.: 40198233

QC Batch: 339764 Analysis Method: EPA 6010
QC Batch Method: EPA 6010 Analysis Description: ICP Metals, Trace, Dissolved
Associated Lab Samples: 40198233001, 40198233002, 40198233003, 40198233004, 40198233005, 40198233006, 40198233007

METHOD BLANK: 1973080 Matrix: Water
Associated Lab Samples: 40198233001, 40198233002, 40198233003, 40198233004, 40198233005, 40198233006, 40198233007

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Total Hardness by 2340B, Dissolved	ug/L	243J	2000	11/05/19 23:31	

LABORATORY CONTROL SAMPLE: 1973081

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Total Hardness by 2340B, Dissolved	ug/L		33400			

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1973082 1973083

Parameter	Units	40198252001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Total Hardness by 2340B, Dissolved	ug/L	510000			528000	532000				1	20	

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: LGRL INVESTIGATION MONITORING
Pace Project No.: 40198233

QC Batch: 337263
QC Batch Method: EPA 8260
Analysis Method: EPA 8260
Analysis Description: 8260 MSV
Associated Lab Samples: 40196999005

METHOD BLANK: 1959904
Matrix: Water
Associated Lab Samples: 40196999005

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
1,1,1-Trichloroethane	ug/L	<0.24	1.0	10/14/19 06:21	
1,1,2-Trichloroethane	ug/L	<0.55	5.0	10/14/19 06:21	
1,1-Dichloroethane	ug/L	<0.27	1.0	10/14/19 06:21	
1,1-Dichloroethene	ug/L	<0.24	1.0	10/14/19 06:21	
1,2-Dibromo-3-chloropropane	ug/L	<1.8	5.9	10/14/19 06:21	
1,2-Dibromoethane (EDB)	ug/L	<0.83	2.8	10/14/19 06:21	
1,2-Dichlorobenzene	ug/L	<0.71	2.4	10/14/19 06:21	
1,2-Dichloroethane	ug/L	<0.28	1.0	10/14/19 06:21	
1,2-Dichloropropane	ug/L	<0.28	1.0	10/14/19 06:21	
1,3-Dichlorobenzene	ug/L	<0.63	2.1	10/14/19 06:21	
1,4-Dichlorobenzene	ug/L	<0.94	3.1	10/14/19 06:21	
2-Butanone (MEK)	ug/L	<2.9	20.0	10/14/19 06:21	
Acetone	ug/L	<2.7	20.0	10/14/19 06:21	
Benzene	ug/L	<0.25	1.0	10/14/19 06:21	
Bromodichloromethane	ug/L	<0.36	1.2	10/14/19 06:21	
Bromoform	ug/L	<4.0	13.2	10/14/19 06:21	
Bromomethane	ug/L	<0.97	5.0	10/14/19 06:21	
Carbon disulfide	ug/L	<0.37	5.0	10/14/19 06:21	
Carbon tetrachloride	ug/L	<0.17	1.0	10/14/19 06:21	
Chlorobenzene	ug/L	<0.71	2.4	10/14/19 06:21	
Chloroethane	ug/L	<1.3	5.0	10/14/19 06:21	
Chloroform	ug/L	<1.3	5.0	10/14/19 06:21	
Chloromethane	ug/L	<2.2	7.3	10/14/19 06:21	
cis-1,2-Dichloroethene	ug/L	<0.27	1.0	10/14/19 06:21	
cis-1,3-Dichloropropene	ug/L	<3.6	12.1	10/14/19 06:21	
Dibromochloromethane	ug/L	<2.6	8.7	10/14/19 06:21	
Dibromomethane	ug/L	<0.94	3.1	10/14/19 06:21	
Dichlorodifluoromethane	ug/L	<0.50	5.0	10/14/19 06:21	
Ethylbenzene	ug/L	<0.22	1.0	10/14/19 06:21	
m&p-Xylene	ug/L	<0.47	2.0	10/14/19 06:21	
Methyl-tert-butyl ether	ug/L	<1.2	4.2	10/14/19 06:21	
Methylene Chloride	ug/L	<0.58	5.0	10/14/19 06:21	
Naphthalene	ug/L	<1.2	5.0	10/14/19 06:21	
o-Xylene	ug/L	<0.26	1.0	10/14/19 06:21	
Styrene	ug/L	<0.47	1.6	10/14/19 06:21	
Tetrachloroethene	ug/L	<0.33	1.1	10/14/19 06:21	
Tetrahydrofuran	ug/L	<2.3	20.0	10/14/19 06:21	
Toluene	ug/L	<0.17	5.0	10/14/19 06:21	
trans-1,2-Dichloroethene	ug/L	<1.1	3.6	10/14/19 06:21	
trans-1,3-Dichloropropene	ug/L	<4.4	14.6	10/14/19 06:21	
Trichloroethene	ug/L	<0.26	1.0	10/14/19 06:21	

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: LGRL INVESTIGATION MONITORING
Pace Project No.: 40198233

METHOD BLANK: 1959904 Matrix: Water
Associated Lab Samples: 40196999005

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Trichlorofluoromethane	ug/L	<0.21	1.0	10/14/19 06:21	
Vinyl chloride	ug/L	<0.17	1.0	10/14/19 06:21	
4-Bromofluorobenzene (S)	%	94	70-130	10/14/19 06:21	
Dibromofluoromethane (S)	%	112	70-130	10/14/19 06:21	
Toluene-d8 (S)	%	89	70-130	10/14/19 06:21	

LABORATORY CONTROL SAMPLE: 1959905

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,1,1-Trichloroethane	ug/L	50	61.3	123	70-130	
1,1,2-Trichloroethane	ug/L	50	53.0	106	70-130	
1,1-Dichloroethane	ug/L	50	64.8	130	73-150	
1,1-Dichloroethene	ug/L	50	62.2	124	73-138	
1,2-Dibromo-3-chloropropane	ug/L	50	38.8	78	64-129	
1,2-Dibromoethane (EDB)	ug/L	50	53.1	106	70-130	
1,2-Dichlorobenzene	ug/L	50	50.0	100	70-130	
1,2-Dichloroethane	ug/L	50	63.5	127	75-140	
1,2-Dichloropropane	ug/L	50	57.0	114	73-135	
1,3-Dichlorobenzene	ug/L	50	50.9	102	70-130	
1,4-Dichlorobenzene	ug/L	50	51.7	103	70-130	
Benzene	ug/L	50	57.6	115	70-130	
Bromodichloromethane	ug/L	50	57.0	114	70-130	
Bromoform	ug/L	50	53.6	107	68-129	
Bromomethane	ug/L	50	24.6	49	18-159	
Carbon disulfide	ug/L	50	52.0	104	69-132	
Carbon tetrachloride	ug/L	50	60.9	122	70-130	
Chlorobenzene	ug/L	50	55.0	110	70-130	
Chloroethane	ug/L	50	44.3	89	53-147	
Chloroform	ug/L	50	60.6	121	74-136	
Chloromethane	ug/L	50	25.8	52	29-115	
cis-1,2-Dichloroethene	ug/L	50	59.3	119	70-130	
cis-1,3-Dichloropropene	ug/L	50	50.0	100	70-130	
Dibromochloromethane	ug/L	50	53.8	108	70-130	
Dichlorodifluoromethane	ug/L	50	17.8	36	10-130	
Ethylbenzene	ug/L	50	53.1	106	80-124	
m&p-Xylene	ug/L	100	111	111	70-130	
Methyl-tert-butyl ether	ug/L	50	48.4	97	54-137	
Methylene Chloride	ug/L	50	60.5	121	73-138	
o-Xylene	ug/L	50	54.0	108	70-130	
Styrene	ug/L	50	54.2	108	70-130	
Tetrachloroethene	ug/L	50	59.4	119	70-130	
Toluene	ug/L	50	52.5	105	80-126	
trans-1,2-Dichloroethene	ug/L	50	65.4	131	73-145	
trans-1,3-Dichloropropene	ug/L	50	45.5	91	70-130	

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: LGRL INVESTIGATION MONITORING
Pace Project No.: 40198233

LABORATORY CONTROL SAMPLE: 1959905

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Trichloroethene	ug/L	50	59.9	120	70-130	
Trichlorofluoromethane	ug/L	50	54.2	108	76-147	
Vinyl chloride	ug/L	50	37.7	75	51-120	
4-Bromofluorobenzene (S)	%			100	70-130	
Dibromofluoromethane (S)	%			109	70-130	
Toluene-d8 (S)	%			90	70-130	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1959929 1959930

Parameter	Units	40196974002 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
1,1,1-Trichloroethane	ug/L	<0.24	50	50	59.2	56.9	118	114	70-130	4	20	
1,1,2-Trichloroethane	ug/L	<0.55	50	50	51.3	48.9	103	98	70-137	5	20	
1,1-Dichloroethane	ug/L	<0.27	50	50	62.6	60.1	125	120	73-153	4	20	
1,1-Dichloroethene	ug/L	<0.24	50	50	60.7	57.5	121	115	73-138	5	20	
1,2-Dibromo-3-chloropropane	ug/L	<1.8	50	50	38.7	37.4	77	75	58-129	3	20	
1,2-Dibromoethane (EDB)	ug/L	<0.83	50	50	51.6	49.8	103	100	70-130	4	20	
1,2-Dichlorobenzene	ug/L	<0.71	50	50	48.5	46.3	97	93	70-130	5	20	
1,2-Dichloroethane	ug/L	<0.28	50	50	61.5	58.3	123	117	75-140	5	20	
1,2-Dichloropropane	ug/L	<0.28	50	50	55.2	52.7	110	105	71-138	5	20	
1,3-Dichlorobenzene	ug/L	<0.63	50	50	49.2	46.7	98	93	70-130	5	20	
1,4-Dichlorobenzene	ug/L	<0.94	50	50	50.4	48.0	101	96	70-130	5	20	
Benzene	ug/L	<0.25	50	50	55.7	53.4	111	107	70-130	4	20	
Bromodichloromethane	ug/L	<0.36	50	50	55.5	52.8	111	106	70-130	5	20	
Bromoform	ug/L	<4.0	50	50	51.9	50.0	104	100	68-129	4	20	
Bromomethane	ug/L	<0.97	50	50	26.3	26.7	53	53	15-170	1	20	
Carbon disulfide	ug/L	<0.37	50	50	50.3	48.2	101	96	66-145	4	20	
Carbon tetrachloride	ug/L	<0.17	50	50	59.3	57.0	119	114	70-130	4	20	
Chlorobenzene	ug/L	<0.71	50	50	52.9	50.9	106	102	70-130	4	20	
Chloroethane	ug/L	<1.3	50	50	42.9	40.6	86	81	51-148	5	20	
Chloroform	ug/L	<1.3	50	50	58.2	55.6	116	111	74-136	4	20	
Chloromethane	ug/L	<2.2	50	50	25.2	23.1	50	46	23-115	9	20	
cis-1,2-Dichloroethene	ug/L	<0.27	50	50	57.6	55.2	115	110	70-131	4	20	
cis-1,3-Dichloropropene	ug/L	<3.6	50	50	48.8	46.5	98	93	70-130	5	20	
Dibromochloromethane	ug/L	<2.6	50	50	51.8	50.0	104	100	70-130	4	20	
Dichlorodifluoromethane	ug/L	<0.50	50	50	16.8	15.8	34	32	10-132	6	20	
Ethylbenzene	ug/L	<0.22	50	50	51.2	49.0	102	98	80-125	4	20	
m&p-Xylene	ug/L	<0.47	100	100	107	102	107	102	70-130	5	20	
Methyl-tert-butyl ether	ug/L	<1.2	50	50	47.2	45.1	94	90	51-145	5	20	
Methylene Chloride	ug/L	<0.58	50	50	58.7	56.6	117	113	73-140	4	20	
o-Xylene	ug/L	<0.26	50	50	52.0	50.0	104	100	70-130	4	20	
Styrene	ug/L	<0.47	50	50	51.9	49.7	104	99	70-130	4	20	
Tetrachloroethene	ug/L	<0.33	50	50	57.3	54.9	115	110	70-130	4	20	
Toluene	ug/L	<0.17	50	50	50.6	48.5	101	97	80-131	4	20	

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: LGRL INVESTIGATION MONITORING
Pace Project No.: 40198233

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1959929 1959930

Parameter	Units	40196974002 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
trans-1,2-Dichloroethene	ug/L	<1.1	50	50	63.3	60.7	127	121	73-148	4	20	
trans-1,3-Dichloropropene	ug/L	<4.4	50	50	44.5	42.2	89	84	70-130	5	20	
Trichloroethene	ug/L	<0.26	50	50	58.8	55.5	118	111	70-130	6	20	
Trichlorofluoromethane	ug/L	<0.21	50	50	52.1	49.9	104	100	74-147	4	20	
Vinyl chloride	ug/L	<0.17	50	50	36.5	35.1	73	70	41-129	4	20	
4-Bromofluorobenzene (S)	%						101	101	70-130			
Dibromofluoromethane (S)	%						110	111	70-130			
Toluene-d8 (S)	%						89	90	70-130			

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: LGRL INVESTIGATION MONITORING
Pace Project No.: 40198233

QC Batch: 337265
QC Batch Method: EPA 8260
Analysis Method: EPA 8260
Analysis Description: 8260 MSV
Associated Lab Samples: 40197127005

METHOD BLANK: 1959910
Matrix: Water
Associated Lab Samples: 40197127005

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
1,1,1-Trichloroethane	ug/L	<0.24	1.0	10/15/19 06:44	
1,1,2-Trichloroethane	ug/L	<0.55	5.0	10/15/19 06:44	
1,1-Dichloroethane	ug/L	<0.27	1.0	10/15/19 06:44	
1,1-Dichloroethene	ug/L	<0.24	1.0	10/15/19 06:44	
1,2-Dibromo-3-chloropropane	ug/L	<1.8	5.9	10/15/19 06:44	
1,2-Dibromoethane (EDB)	ug/L	<0.83	2.8	10/15/19 06:44	
1,2-Dichlorobenzene	ug/L	<0.71	2.4	10/15/19 06:44	
1,2-Dichloroethane	ug/L	<0.28	1.0	10/15/19 06:44	
1,2-Dichloropropane	ug/L	<0.28	1.0	10/15/19 06:44	
1,3-Dichlorobenzene	ug/L	<0.63	2.1	10/15/19 06:44	
1,4-Dichlorobenzene	ug/L	<0.94	3.1	10/15/19 06:44	
2-Butanone (MEK)	ug/L	<2.9	20.0	10/15/19 06:44	
Acetone	ug/L	<2.7	20.0	10/15/19 06:44	
Benzene	ug/L	<0.25	1.0	10/15/19 06:44	
Bromodichloromethane	ug/L	<0.36	1.2	10/15/19 06:44	
Bromoform	ug/L	<4.0	13.2	10/15/19 06:44	
Bromomethane	ug/L	<0.97	5.0	10/15/19 06:44	
Carbon disulfide	ug/L	<0.37	5.0	10/15/19 06:44	
Carbon tetrachloride	ug/L	<0.17	1.0	10/15/19 06:44	
Chlorobenzene	ug/L	<0.71	2.4	10/15/19 06:44	
Chloroethane	ug/L	<1.3	5.0	10/15/19 06:44	
Chloroform	ug/L	<1.3	5.0	10/15/19 06:44	
Chloromethane	ug/L	<2.2	7.3	10/15/19 06:44	
cis-1,2-Dichloroethene	ug/L	<0.27	1.0	10/15/19 06:44	
cis-1,3-Dichloropropene	ug/L	<3.6	12.1	10/15/19 06:44	
Dibromochloromethane	ug/L	<2.6	8.7	10/15/19 06:44	
Dibromomethane	ug/L	<0.94	3.1	10/15/19 06:44	
Dichlorodifluoromethane	ug/L	<0.50	5.0	10/15/19 06:44	
Ethylbenzene	ug/L	<0.22	1.0	10/15/19 06:44	
m&p-Xylene	ug/L	<0.47	2.0	10/15/19 06:44	
Methyl-tert-butyl ether	ug/L	<1.2	4.2	10/15/19 06:44	
Methylene Chloride	ug/L	<0.58	5.0	10/15/19 06:44	
Naphthalene	ug/L	<1.2	5.0	10/15/19 06:44	
o-Xylene	ug/L	<0.26	1.0	10/15/19 06:44	
Styrene	ug/L	<0.47	1.6	10/15/19 06:44	
Tetrachloroethene	ug/L	<0.33	1.1	10/15/19 06:44	
Tetrahydrofuran	ug/L	<2.3	20.0	10/15/19 06:44	
Toluene	ug/L	<0.17	5.0	10/15/19 06:44	
trans-1,2-Dichloroethene	ug/L	<1.1	3.6	10/15/19 06:44	
trans-1,3-Dichloropropene	ug/L	<4.4	14.6	10/15/19 06:44	
Trichloroethene	ug/L	<0.26	1.0	10/15/19 06:44	

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: LGRL INVESTIGATION MONITORING
Pace Project No.: 40198233

METHOD BLANK: 1959910 Matrix: Water
Associated Lab Samples: 40197127005

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Trichlorofluoromethane	ug/L	<0.21	1.0	10/15/19 06:44	
Vinyl chloride	ug/L	<0.17	1.0	10/15/19 06:44	
4-Bromofluorobenzene (S)	%	87	70-130	10/15/19 06:44	
Dibromofluoromethane (S)	%	98	70-130	10/15/19 06:44	
Toluene-d8 (S)	%	101	70-130	10/15/19 06:44	

LABORATORY CONTROL SAMPLE: 1959911

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,1,1-Trichloroethane	ug/L	50	65.1	130	70-130	
1,1,2-Trichloroethane	ug/L	50	54.5	109	70-130	
1,1-Dichloroethane	ug/L	50	64.8	130	73-150	
1,1-Dichloroethene	ug/L	50	68.0	136	73-138	
1,2-Dibromo-3-chloropropane	ug/L	50	51.9	104	64-129	
1,2-Dibromoethane (EDB)	ug/L	50	54.5	109	70-130	
1,2-Dichlorobenzene	ug/L	50	54.8	110	70-130	
1,2-Dichloroethane	ug/L	50	57.8	116	75-140	
1,2-Dichloropropane	ug/L	50	58.7	117	73-135	
1,3-Dichlorobenzene	ug/L	50	54.7	109	70-130	
1,4-Dichlorobenzene	ug/L	50	54.1	108	70-130	
Benzene	ug/L	50	59.0	118	70-130	
Bromodichloromethane	ug/L	50	58.6	117	70-130	
Bromoform	ug/L	50	54.9	110	68-129	
Bromomethane	ug/L	50	45.5	91	18-159	
Carbon disulfide	ug/L	50	58.9	118	69-132	
Carbon tetrachloride	ug/L	50	62.6	125	70-130	
Chlorobenzene	ug/L	50	56.9	114	70-130	
Chloroethane	ug/L	50	55.3	111	53-147	
Chloroform	ug/L	50	59.2	118	74-136	
Chloromethane	ug/L	50	48.5	97	29-115	
cis-1,2-Dichloroethene	ug/L	50	59.6	119	70-130	
cis-1,3-Dichloropropene	ug/L	50	58.8	118	70-130	
Dibromochloromethane	ug/L	50	56.2	112	70-130	
Dichlorodifluoromethane	ug/L	50	54.5	109	10-130	
Ethylbenzene	ug/L	50	59.9	120	80-124	
m&p-Xylene	ug/L	100	125	125	70-130	
Methyl-tert-butyl ether	ug/L	50	53.3	107	54-137	
Methylene Chloride	ug/L	50	56.7	113	73-138	
o-Xylene	ug/L	50	58.8	118	70-130	
Styrene	ug/L	50	52.7	105	70-130	
Tetrachloroethene	ug/L	50	58.0	116	70-130	
Toluene	ug/L	50	58.7	117	80-126	
trans-1,2-Dichloroethene	ug/L	50	63.5	127	73-145	
trans-1,3-Dichloropropene	ug/L	50	57.1	114	70-130	

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REPORT OF LABORATORY ANALYSIS

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

QUALITY CONTROL DATA

Project: LGRL INVESTIGATION MONITORING
Pace Project No.: 40198233

LABORATORY CONTROL SAMPLE: 1959911

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Trichloroethene	ug/L	50	61.4	123	70-130	
Trichlorofluoromethane	ug/L	50	62.3	125	76-147	
Vinyl chloride	ug/L	50	56.2	112	51-120	
4-Bromofluorobenzene (S)	%			98	70-130	
Dibromofluoromethane (S)	%			100	70-130	
Toluene-d8 (S)	%			97	70-130	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1960753 1960754

Parameter	Units	40197127004 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
1,1,1-Trichloroethane	ug/L	<0.24	50	50	61.4	63.4	123	127	70-130	3	20	
1,1,2-Trichloroethane	ug/L	<0.55	50	50	54.8	56.1	110	112	70-137	2	20	
1,1-Dichloroethane	ug/L	16.9	50	50	78.8	80.2	124	127	73-153	2	20	
1,1-Dichloroethene	ug/L	0.66J	50	50	65.3	66.4	129	132	73-138	2	20	
1,2-Dibromo-3-chloropropane	ug/L	<1.8	50	50	53.1	55.8	106	112	58-129	5	20	
1,2-Dibromoethane (EDB)	ug/L	<0.83	50	50	51.7	56.0	103	112	70-130	8	20	
1,2-Dichlorobenzene	ug/L	<0.71	50	50	51.6	57.2	103	114	70-130	10	20	
1,2-Dichloroethane	ug/L	<0.28	50	50	58.0	60.4	116	121	75-140	4	20	
1,2-Dichloropropane	ug/L	<0.28	50	50	55.6	58.7	111	117	71-138	6	20	
1,3-Dichlorobenzene	ug/L	<0.63	50	50	51.2	55.2	102	110	70-130	8	20	
1,4-Dichlorobenzene	ug/L	<0.94	50	50	50.6	55.5	101	111	70-130	9	20	
Benzene	ug/L	1.1	50	50	59.2	60.4	116	119	70-130	2	20	
Bromodichloromethane	ug/L	<0.36	50	50	56.1	58.9	112	118	70-130	5	20	
Bromoform	ug/L	<4.0	50	50	54.0	57.4	108	115	68-129	6	20	
Bromomethane	ug/L	<0.97	50	50	44.4	44.8	89	90	15-170	1	20	
Carbon disulfide	ug/L	<0.37	50	50	58.2	59.3	116	119	66-145	2	20	
Carbon tetrachloride	ug/L	<0.17	50	50	58.5	59.2	117	118	70-130	1	20	
Chlorobenzene	ug/L	<0.71	50	50	54.4	59.0	109	118	70-130	8	20	
Chloroethane	ug/L	7.2	50	50	62.5	63.0	111	112	51-148	1	20	
Chloroform	ug/L	<1.3	50	50	57.2	58.8	114	118	74-136	3	20	
Chloromethane	ug/L	<2.2	50	50	47.7	50.2	95	100	23-115	5	20	
cis-1,2-Dichloroethene	ug/L	55.6	50	50	105	114	99	117	70-131	8	20	
cis-1,3-Dichloropropene	ug/L	<3.6	50	50	58.8	60.7	118	121	70-130	3	20	
Dibromochloromethane	ug/L	<2.6	50	50	54.7	57.9	109	116	70-130	6	20	
Dichlorodifluoromethane	ug/L	0.78J	50	50	53.2	53.1	105	105	10-132	0	20	
Ethylbenzene	ug/L	<0.22	50	50	56.9	61.1	114	122	80-125	7	20	
m&p-Xylene	ug/L	<0.47	100	100	115	123	115	123	70-130	7	20	
Methyl-tert-butyl ether	ug/L	<1.2	50	50	52.8	55.2	105	110	51-145	5	20	
Methylene Chloride	ug/L	<0.58	50	50	55.4	56.5	110	112	73-140	2	20	
o-Xylene	ug/L	<0.26	50	50	55.9	60.6	112	121	70-130	8	20	
Styrene	ug/L	<0.47	50	50	53.6	54.7	107	109	70-130	2	20	
Tetrachloroethene	ug/L	<0.33	50	50	58.0	60.5	116	121	70-130	4	20	
Toluene	ug/L	<0.17	50	50	55.9	59.6	112	119	80-131	6	20	

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REPORT OF LABORATORY ANALYSIS

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

QUALITY CONTROL DATA

Project: LGRL INVESTIGATION MONITORING
Pace Project No.: 40198233

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1960753 1960754

Parameter	Units	40197127004 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
trans-1,2-Dichloroethene	ug/L	<1.1	50	50	62.4	63.6	123	126	73-148	2	20	
trans-1,3-Dichloropropene	ug/L	<4.4	50	50	55.1	58.4	110	117	70-130	6	20	
Trichloroethene	ug/L	0.31J	50	50	58.1	62.2	116	124	70-130	7	20	
Trichlorofluoromethane	ug/L	<0.21	50	50	58.4	60.4	117	121	74-147	3	20	
Vinyl chloride	ug/L	34.6	50	50	91.0	90.2	113	111	41-129	1	20	
4-Bromofluorobenzene (S)	%						98	106	70-130			
Dibromofluoromethane (S)	%						103	98	70-130			
Toluene-d8 (S)	%						99	100	70-130			

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REPORT OF LABORATORY ANALYSIS

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

QUALITY CONTROL DATA

Project: LGRL INVESTIGATION MONITORING
Pace Project No.: 40198233

QC Batch: 339229 Analysis Method: EPA 8260
QC Batch Method: EPA 8260 Analysis Description: 8260 MSV
Associated Lab Samples: 40198233003, 40198233004, 40198233005, 40198233006, 40198233007

METHOD BLANK: 1970417 Matrix: Water
Associated Lab Samples: 40198233003, 40198233004, 40198233005, 40198233006, 40198233007

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
1,1,1-Trichloroethane	ug/L	<0.24	1.0	10/31/19 10:06	
1,1,2-Trichloroethane	ug/L	<0.55	5.0	10/31/19 10:06	
1,1-Dichloroethane	ug/L	<0.27	1.0	10/31/19 10:06	
1,1-Dichloroethene	ug/L	<0.24	1.0	10/31/19 10:06	
1,2-Dibromo-3-chloropropane	ug/L	<1.8	5.9	10/31/19 10:06	
1,2-Dibromoethane (EDB)	ug/L	<0.83	2.8	10/31/19 10:06	
1,2-Dichlorobenzene	ug/L	<0.71	2.4	10/31/19 10:06	
1,2-Dichloroethane	ug/L	<0.28	1.0	10/31/19 10:06	
1,2-Dichloropropane	ug/L	<0.28	1.0	10/31/19 10:06	
1,3-Dichlorobenzene	ug/L	<0.63	2.1	10/31/19 10:06	
1,4-Dichlorobenzene	ug/L	<0.94	3.1	10/31/19 10:06	
2-Butanone (MEK)	ug/L	<2.9	20.0	10/31/19 10:06	
Acetone	ug/L	<2.7	20.0	10/31/19 10:06	
Benzene	ug/L	<0.25	1.0	10/31/19 10:06	
Bromodichloromethane	ug/L	<0.36	1.2	10/31/19 10:06	
Bromoform	ug/L	<4.0	13.2	10/31/19 10:06	
Bromomethane	ug/L	<0.97	5.0	10/31/19 10:06	
Carbon disulfide	ug/L	<0.37	5.0	10/31/19 10:06	
Carbon tetrachloride	ug/L	<0.17	1.0	10/31/19 10:06	
Chlorobenzene	ug/L	<0.71	2.4	10/31/19 10:06	
Chloroethane	ug/L	<1.3	5.0	10/31/19 10:06	
Chloroform	ug/L	<1.3	5.0	10/31/19 10:06	
Chloromethane	ug/L	<2.2	7.3	10/31/19 10:06	
cis-1,2-Dichloroethene	ug/L	<0.27	1.0	10/31/19 10:06	
cis-1,3-Dichloropropene	ug/L	<3.6	12.1	10/31/19 10:06	
Dibromochloromethane	ug/L	<2.6	8.7	10/31/19 10:06	
Dibromomethane	ug/L	<0.94	3.1	10/31/19 10:06	
Dichlorodifluoromethane	ug/L	<0.50	5.0	10/31/19 10:06	
Ethylbenzene	ug/L	<0.22	1.0	10/31/19 10:06	
m&p-Xylene	ug/L	<0.47	2.0	10/31/19 10:06	
Methyl-tert-butyl ether	ug/L	<1.2	4.2	10/31/19 10:06	
Methylene Chloride	ug/L	<0.58	5.0	10/31/19 10:06	
Naphthalene	ug/L	<1.2	5.0	10/31/19 10:06	
o-Xylene	ug/L	<0.26	1.0	10/31/19 10:06	
Styrene	ug/L	<0.47	1.6	10/31/19 10:06	
Tetrachloroethene	ug/L	<0.33	1.1	10/31/19 10:06	
Tetrahydrofuran	ug/L	<2.3	20.0	10/31/19 10:06	
Toluene	ug/L	<0.17	5.0	10/31/19 10:06	
trans-1,2-Dichloroethene	ug/L	<1.1	3.6	10/31/19 10:06	
trans-1,3-Dichloropropene	ug/L	<4.4	14.6	10/31/19 10:06	
Trichloroethene	ug/L	<0.26	1.0	10/31/19 10:06	

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REPORT OF LABORATORY ANALYSIS

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

QUALITY CONTROL DATA

Project: LGRL INVESTIGATION MONITORING
Pace Project No.: 40198233

METHOD BLANK: 1970417 Matrix: Water
Associated Lab Samples: 40198233003, 40198233004, 40198233005, 40198233006, 40198233007

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Trichlorofluoromethane	ug/L	<0.21	1.0	10/31/19 10:06	
Vinyl chloride	ug/L	<0.17	1.0	10/31/19 10:06	
4-Bromofluorobenzene (S)	%	91	70-130	10/31/19 10:06	
Dibromofluoromethane (S)	%	102	70-130	10/31/19 10:06	
Toluene-d8 (S)	%	98	70-130	10/31/19 10:06	

LABORATORY CONTROL SAMPLE: 1970418

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,1,1-Trichloroethane	ug/L	50	54.7	109	70-130	
1,1,2-Trichloroethane	ug/L	50	49.0	98	70-130	
1,1-Dichloroethane	ug/L	50	53.3	107	73-150	
1,1-Dichloroethene	ug/L	50	50.9	102	73-138	
1,2-Dibromo-3-chloropropane	ug/L	50	51.9	104	64-129	
1,2-Dibromoethane (EDB)	ug/L	50	51.0	102	70-130	
1,2-Dichlorobenzene	ug/L	50	51.0	102	70-130	
1,2-Dichloroethane	ug/L	50	49.2	98	75-140	
1,2-Dichloropropane	ug/L	50	50.8	102	73-135	
1,3-Dichlorobenzene	ug/L	50	51.4	103	70-130	
1,4-Dichlorobenzene	ug/L	50	50.7	101	70-130	
Benzene	ug/L	50	50.7	101	70-130	
Bromodichloromethane	ug/L	50	52.7	105	70-130	
Bromoform	ug/L	50	52.9	106	68-129	
Bromomethane	ug/L	50	37.4	75	18-159	
Carbon disulfide	ug/L	50	51.2	102	69-132	
Carbon tetrachloride	ug/L	50	51.8	104	70-130	
Chlorobenzene	ug/L	50	51.2	102	70-130	
Chloroethane	ug/L	50	52.3	105	53-147	
Chloroform	ug/L	50	54.7	109	74-136	
Chloromethane	ug/L	50	47.8	96	29-115	
cis-1,2-Dichloroethene	ug/L	50	48.1	96	70-130	
cis-1,3-Dichloropropene	ug/L	50	51.5	103	70-130	
Dibromochloromethane	ug/L	50	51.2	102	70-130	
Dichlorodifluoromethane	ug/L	50	43.8	88	10-130	
Ethylbenzene	ug/L	50	56.2	112	80-124	
m&p-Xylene	ug/L	100	113	113	70-130	
Methyl-tert-butyl ether	ug/L	50	45.9	92	54-137	
Methylene Chloride	ug/L	50	51.1	102	73-138	
o-Xylene	ug/L	50	55.0	110	70-130	
Styrene	ug/L	50	56.7	113	70-130	
Tetrachloroethene	ug/L	50	49.7	99	70-130	
Toluene	ug/L	50	52.9	106	80-126	
trans-1,2-Dichloroethene	ug/L	50	54.8	110	73-145	
trans-1,3-Dichloropropene	ug/L	50	48.1	96	70-130	

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REPORT OF LABORATORY ANALYSIS

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

QUALITY CONTROL DATA

Project: LGRL INVESTIGATION MONITORING
Pace Project No.: 40198233

LABORATORY CONTROL SAMPLE: 1970418

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Trichloroethene	ug/L	50	53.4	107	70-130	
Trichlorofluoromethane	ug/L	50	53.7	107	76-147	
Vinyl chloride	ug/L	50	52.7	105	51-120	
4-Bromofluorobenzene (S)	%			102	70-130	
Dibromofluoromethane (S)	%			100	70-130	
Toluene-d8 (S)	%			99	70-130	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1970603 1970604

Parameter	Units	40198233004 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
1,1,1-Trichloroethane	ug/L	<0.24	50	50	52.6	62.1	105	124	70-130	16	20	
1,1,2-Trichloroethane	ug/L	<0.55	50	50	48.8	57.1	98	114	70-137	16	20	
1,1-Dichloroethane	ug/L	<0.27	50	50	52.0	61.1	104	122	73-153	16	20	
1,1-Dichloroethene	ug/L	<0.24	50	50	49.7	58.6	99	117	73-138	16	20	
1,2-Dibromo-3-chloropropane	ug/L	<1.8	50	50	55.1	58.9	110	118	58-129	7	20	
1,2-Dibromoethane (EDB)	ug/L	<0.83	50	50	52.7	59.6	105	119	70-130	12	20	
1,2-Dichlorobenzene	ug/L	<0.71	50	50	51.6	60.4	103	121	70-130	16	20	
1,2-Dichloroethane	ug/L	<0.28	50	50	48.1	57.4	96	115	75-140	18	20	
1,2-Dichloropropane	ug/L	<0.28	50	50	48.8	56.4	98	113	71-138	14	20	
1,3-Dichlorobenzene	ug/L	<0.63	50	50	51.4	59.7	103	119	70-130	15	20	
1,4-Dichlorobenzene	ug/L	<0.94	50	50	51.5	59.5	103	119	70-130	14	20	
Benzene	ug/L	<0.25	50	50	51.2	60.4	102	121	70-130	17	20	
Bromodichloromethane	ug/L	<0.36	50	50	50.6	58.8	101	118	70-130	15	20	
Bromoform	ug/L	<4.0	50	50	52.7	60.0	105	120	68-129	13	20	
Bromomethane	ug/L	<0.97	50	50	38.3	50.4	77	101	15-170	27	20	R1
Carbon disulfide	ug/L	<0.37	50	50	51.4	60.8	103	122	66-145	17	20	
Carbon tetrachloride	ug/L	<0.17	50	50	51.3	62.3	103	125	70-130	19	20	
Chlorobenzene	ug/L	<0.71	50	50	51.3	58.3	103	117	70-130	13	20	
Chloroethane	ug/L	<1.3	50	50	50.3	59.7	101	119	51-148	17	20	
Chloroform	ug/L	<1.3	50	50	53.3	63.3	107	127	74-136	17	20	
Chloromethane	ug/L	<2.2	50	50	44.8	55.6	88	109	23-115	22	20	R1
cis-1,2-Dichloroethene	ug/L	<0.27	50	50	46.2	57.0	92	114	70-131	21	20	R1
cis-1,3-Dichloropropene	ug/L	<3.6	50	50	51.3	58.0	103	116	70-130	12	20	
Dibromochloromethane	ug/L	<2.6	50	50	50.2	59.0	100	118	70-130	16	20	
Dichlorodifluoromethane	ug/L	<0.50	50	50	41.8	48.3	84	97	10-132	14	20	
Ethylbenzene	ug/L	<0.22	50	50	53.1	62.1	106	124	80-125	16	20	
m&p-Xylene	ug/L	<0.47	100	100	107	126	107	126	70-130	16	20	
Methyl-tert-butyl ether	ug/L	<1.2	50	50	44.9	54.5	90	109	51-145	19	20	
Methylene Chloride	ug/L	<0.58	50	50	50.1	58.0	100	116	73-140	15	20	
o-Xylene	ug/L	<0.26	50	50	53.1	60.7	106	121	70-130	13	20	
Styrene	ug/L	<0.47	50	50	54.3	63.4	109	127	70-130	15	20	
Tetrachloroethene	ug/L	<0.33	50	50	51.3	59.7	103	119	70-130	15	20	
Toluene	ug/L	<0.17	50	50	52.5	61.6	105	123	80-131	16	20	

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REPORT OF LABORATORY ANALYSIS

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

QUALITY CONTROL DATA

Project: LGRL INVESTIGATION MONITORING
Pace Project No.: 40198233

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1970603 1970604

Parameter	Units	40198233004 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
trans-1,2-Dichloroethene	ug/L	<1.1	50	50	53.0	61.4	106	123	73-148	15	20	
trans-1,3-Dichloropropene	ug/L	<4.4	50	50	47.4	55.2	95	110	70-130	15	20	
Trichloroethene	ug/L	<0.26	50	50	51.6	58.7	103	117	70-130	13	20	
Trichlorofluoromethane	ug/L	<0.21	50	50	52.0	62.1	104	124	74-147	18	20	
Vinyl chloride	ug/L	<0.17	50	50	49.4	62.0	99	124	41-129	23	20	R1
4-Bromofluorobenzene (S)	%						100	96	70-130			HS
Dibromofluoromethane (S)	%						101	95	70-130			
Toluene-d8 (S)	%						101	100	70-130			

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REPORT OF LABORATORY ANALYSIS

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

QUALITY CONTROL DATA

Project: LGRL INVESTIGATION MONITORING
Pace Project No.: 40198233

QC Batch: 339231 Analysis Method: EPA 8260
QC Batch Method: EPA 8260 Analysis Description: 8260 MSV
Associated Lab Samples: 40198233001, 40198233002

METHOD BLANK: 1970421 Matrix: Water
Associated Lab Samples: 40198233001, 40198233002

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
1,1,1-Trichloroethane	ug/L	<0.24	1.0	11/01/19 11:02	
1,1,2-Trichloroethane	ug/L	<0.55	5.0	11/01/19 11:02	
1,1-Dichloroethane	ug/L	<0.27	1.0	11/01/19 11:02	
1,1-Dichloroethene	ug/L	<0.24	1.0	11/01/19 11:02	
1,2-Dibromo-3-chloropropane	ug/L	<1.8	5.9	11/01/19 11:02	
1,2-Dibromoethane (EDB)	ug/L	<0.83	2.8	11/01/19 11:02	
1,2-Dichlorobenzene	ug/L	<0.71	2.4	11/01/19 11:02	
1,2-Dichloroethane	ug/L	<0.28	1.0	11/01/19 11:02	
1,2-Dichloropropane	ug/L	<0.28	1.0	11/01/19 11:02	
1,3-Dichlorobenzene	ug/L	<0.63	2.1	11/01/19 11:02	
1,4-Dichlorobenzene	ug/L	<0.94	3.1	11/01/19 11:02	
2-Butanone (MEK)	ug/L	<2.9	20.0	11/01/19 11:02	
Acetone	ug/L	<2.7	20.0	11/01/19 11:02	
Benzene	ug/L	<0.25	1.0	11/01/19 11:02	
Bromodichloromethane	ug/L	<0.36	1.2	11/01/19 11:02	
Bromoform	ug/L	<4.0	13.2	11/01/19 11:02	
Bromomethane	ug/L	<0.97	5.0	11/01/19 11:02	
Carbon disulfide	ug/L	<0.37	5.0	11/01/19 11:02	
Carbon tetrachloride	ug/L	<0.17	1.0	11/01/19 11:02	
Chlorobenzene	ug/L	<0.71	2.4	11/01/19 11:02	
Chloroethane	ug/L	<1.3	5.0	11/01/19 11:02	
Chloroform	ug/L	<1.3	5.0	11/01/19 11:02	
Chloromethane	ug/L	<2.2	7.3	11/01/19 11:02	
cis-1,2-Dichloroethene	ug/L	<0.27	1.0	11/01/19 11:02	
cis-1,3-Dichloropropene	ug/L	<3.6	12.1	11/01/19 11:02	
Dibromochloromethane	ug/L	<2.6	8.7	11/01/19 11:02	
Dibromomethane	ug/L	<0.94	3.1	11/01/19 11:02	
Dichlorodifluoromethane	ug/L	<0.50	5.0	11/01/19 11:02	
Ethylbenzene	ug/L	<0.22	1.0	11/01/19 11:02	
m&p-Xylene	ug/L	<0.47	2.0	11/01/19 11:02	
Methyl-tert-butyl ether	ug/L	<1.2	4.2	11/01/19 11:02	
Methylene Chloride	ug/L	<0.58	5.0	11/01/19 11:02	
Naphthalene	ug/L	<1.2	5.0	11/01/19 11:02	
o-Xylene	ug/L	<0.26	1.0	11/01/19 11:02	
Styrene	ug/L	<0.47	1.6	11/01/19 11:02	
Tetrachloroethene	ug/L	<0.33	1.1	11/01/19 11:02	
Tetrahydrofuran	ug/L	<2.3	20.0	11/01/19 11:02	
Toluene	ug/L	<0.17	5.0	11/01/19 11:02	
trans-1,2-Dichloroethene	ug/L	<1.1	3.6	11/01/19 11:02	
trans-1,3-Dichloropropene	ug/L	<4.4	14.6	11/01/19 11:02	
Trichloroethene	ug/L	<0.26	1.0	11/01/19 11:02	

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REPORT OF LABORATORY ANALYSIS

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

QUALITY CONTROL DATA

Project: LGRL INVESTIGATION MONITORING
Pace Project No.: 40198233

METHOD BLANK: 1970421 Matrix: Water
Associated Lab Samples: 40198233001, 40198233002

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Trichlorofluoromethane	ug/L	<0.21	1.0	11/01/19 11:02	
Vinyl chloride	ug/L	<0.17	1.0	11/01/19 11:02	
4-Bromofluorobenzene (S)	%	89	70-130	11/01/19 11:02	
Dibromofluoromethane (S)	%	100	70-130	11/01/19 11:02	
Toluene-d8 (S)	%	98	70-130	11/01/19 11:02	

LABORATORY CONTROL SAMPLE: 1970422

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,1,1-Trichloroethane	ug/L	50	55.1	110	70-130	
1,1,2-Trichloroethane	ug/L	50	50.7	101	70-130	
1,1-Dichloroethane	ug/L	50	55.6	111	73-150	
1,1-Dichloroethene	ug/L	50	53.7	107	73-138	
1,2-Dibromo-3-chloropropane	ug/L	50	48.3	97	64-129	
1,2-Dibromoethane (EDB)	ug/L	50	51.5	103	70-130	
1,2-Dichlorobenzene	ug/L	50	51.7	103	70-130	
1,2-Dichloroethane	ug/L	50	49.7	99	75-140	
1,2-Dichloropropane	ug/L	50	51.0	102	73-135	
1,3-Dichlorobenzene	ug/L	50	51.9	104	70-130	
1,4-Dichlorobenzene	ug/L	50	51.3	103	70-130	
Benzene	ug/L	50	53.1	106	70-130	
Bromodichloromethane	ug/L	50	51.7	103	70-130	
Bromoform	ug/L	50	53.1	106	68-129	
Bromomethane	ug/L	50	41.6	83	18-159	
Carbon disulfide	ug/L	50	52.0	104	69-132	
Carbon tetrachloride	ug/L	50	54.6	109	70-130	
Chlorobenzene	ug/L	50	52.6	105	70-130	
Chloroethane	ug/L	50	50.9	102	53-147	
Chloroform	ug/L	50	55.0	110	74-136	
Chloromethane	ug/L	50	46.2	92	29-115	
cis-1,2-Dichloroethene	ug/L	50	49.9	100	70-130	
cis-1,3-Dichloropropene	ug/L	50	50.9	102	70-130	
Dibromochloromethane	ug/L	50	52.2	104	70-130	
Dichlorodifluoromethane	ug/L	50	41.2	82	10-130	
Ethylbenzene	ug/L	50	55.6	111	80-124	
m&p-Xylene	ug/L	100	114	114	70-130	
Methyl-tert-butyl ether	ug/L	50	45.4	91	54-137	
Methylene Chloride	ug/L	50	51.3	103	73-138	
o-Xylene	ug/L	50	54.9	110	70-130	
Styrene	ug/L	50	57.8	116	70-130	
Tetrachloroethene	ug/L	50	52.5	105	70-130	
Toluene	ug/L	50	55.8	112	80-126	
trans-1,2-Dichloroethene	ug/L	50	54.2	108	73-145	
trans-1,3-Dichloropropene	ug/L	50	48.2	96	70-130	

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REPORT OF LABORATORY ANALYSIS

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

QUALITY CONTROL DATA

Project: LGRL INVESTIGATION MONITORING
Pace Project No.: 40198233

LABORATORY CONTROL SAMPLE: 1970422

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Trichloroethene	ug/L	50	54.5	109	70-130	
Trichlorofluoromethane	ug/L	50	55.5	111	76-147	
Vinyl chloride	ug/L	50	49.3	99	51-120	
4-Bromofluorobenzene (S)	%			99	70-130	
Dibromofluoromethane (S)	%			98	70-130	
Toluene-d8 (S)	%			100	70-130	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1972164 1972165

Parameter	Units	40198189005 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
1,1,1-Trichloroethane	ug/L	<0.24	50	50	55.0	54.3	110	109	70-130	1	20	
1,1,2-Trichloroethane	ug/L	<0.55	50	50	50.0	46.5	100	93	70-137	7	20	
1,1-Dichloroethane	ug/L	<0.27	50	50	54.5	53.8	109	108	73-153	1	20	
1,1-Dichloroethene	ug/L	<0.24	50	50	56.3	51.9	113	104	73-138	8	20	
1,2-Dibromo-3-chloropropane	ug/L	<1.8	50	50	53.1	46.5	106	93	58-129	13	20	
1,2-Dibromoethane (EDB)	ug/L	<0.83	50	50	50.9	47.6	102	95	70-130	7	20	
1,2-Dichlorobenzene	ug/L	<0.71	50	50	52.1	50.8	104	102	70-130	2	20	
1,2-Dichloroethane	ug/L	<0.28	50	50	49.9	49.9	100	100	75-140	0	20	
1,2-Dichloropropane	ug/L	<0.28	50	50	50.7	54.9	101	110	71-138	8	20	
1,3-Dichlorobenzene	ug/L	<0.63	50	50	52.0	52.5	104	105	70-130	1	20	
1,4-Dichlorobenzene	ug/L	<0.94	50	50	51.2	51.1	102	102	70-130	0	20	
Benzene	ug/L	<0.25	50	50	52.9	50.1	106	100	70-130	5	20	
Bromodichloromethane	ug/L	<0.36	50	50	51.3	57.8	103	116	70-130	12	20	
Bromoform	ug/L	<4.0	50	50	52.7	47.3	105	95	68-129	11	20	
Bromomethane	ug/L	<0.97	50	50	48.5	51.2	97	102	15-170	6	20	
Carbon disulfide	ug/L				54.0	53.7				1	20	
Carbon tetrachloride	ug/L	<0.17	50	50	54.0	53.3	108	107	70-130	1	20	
Chlorobenzene	ug/L	<0.71	50	50	52.0	52.4	104	105	70-130	1	20	
Chloroethane	ug/L	<1.3	50	50	53.8	54.4	108	109	51-148	1	20	
Chloroform	ug/L	<1.3	50	50	54.1	51.6	108	103	74-136	5	20	
Chloromethane	ug/L	<2.2	50	50	53.8	55.0	108	110	23-115	2	20	
cis-1,2-Dichloroethene	ug/L	<0.27	50	50	50.2	49.8	100	100	70-131	1	20	
cis-1,3-Dichloropropene	ug/L	<3.6	50	50	52.7	56.5	105	113	70-130	7	20	
Dibromochloromethane	ug/L	<2.6	50	50	50.4	48.6	101	97	70-130	4	20	
Dichlorodifluoromethane	ug/L	<0.50	50	50	60.5	60.0	121	120	10-132	1	20	
Ethylbenzene	ug/L	<0.22	50	50	55.4	57.9	111	116	80-125	4	20	
m&p-Xylene	ug/L	<0.47	100	100	114	116	114	116	70-130	2	20	
Methyl-tert-butyl ether	ug/L	<1.2	50	50	46.2	45.2	92	90	51-145	2	20	
Methylene Chloride	ug/L	<0.58	50	50	51.1	51.6	102	103	73-140	1	20	
o-Xylene	ug/L	<0.26	50	50	53.6	57.3	107	115	70-130	7	20	
Styrene	ug/L	<0.47	50	50	56.5	58.7	113	117	70-130	4	20	
Tetrachloroethene	ug/L	<0.33	50	50	53.5	49.3	107	99	70-130	8	20	
Toluene	ug/L	<0.17	50	50	55.4	54.3	111	109	80-131	2	20	

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REPORT OF LABORATORY ANALYSIS

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

QUALITY CONTROL DATA

Project: LGRL INVESTIGATION MONITORING
Pace Project No.: 40198233

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1972164 1972165

Parameter	Units	40198189005 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
trans-1,2-Dichloroethene	ug/L	<1.1	50	50	53.8	54.2	108	108	73-148	1	20	
trans-1,3-Dichloropropene	ug/L	<4.4	50	50	49.4	45.8	99	92	70-130	8	20	
Trichloroethene	ug/L	<0.26	50	50	54.2	60.2	108	120	70-130	11	20	
Trichlorofluoromethane	ug/L	<0.21	50	50	57.0	55.3	114	111	74-147	3	20	
Vinyl chloride	ug/L	<0.17	50	50	56.8	55.9	114	112	41-129	2	20	
4-Bromofluorobenzene (S)	%						99	103	70-130			
Dibromofluoromethane (S)	%						98	94	70-130			
Toluene-d8 (S)	%						100	98	70-130			

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REPORT OF LABORATORY ANALYSIS

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

QUALITY CONTROL DATA

Project: LGRL INVESTIGATION MONITORING
Pace Project No.: 40198233

QC Batch: 337820
QC Batch Method: EPA 300.0
Analysis Method: EPA 300.0
Analysis Description: 300.0 IC Anions,Dissolved
Associated Lab Samples: 40196999005

METHOD BLANK: 1962181 Matrix: Water
Associated Lab Samples: 40196999005

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Chloride	mg/L	<0.50	2.0	10/21/19 10:31	

LABORATORY CONTROL SAMPLE: 1962182

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chloride	mg/L	20	20.4	102	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1962183 1962184

Parameter	Units	40196966006 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Chloride	mg/L	42.7	100	100	147	141	104	98	90-110	4	15	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1962185 1962186

Parameter	Units	40196999005 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Chloride	mg/L	7.8	20	20	29.2	29.1	107	106	90-110	0	15	

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Pace Analytical Services, LLC
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QUALITY CONTROL DATA

Project: LGRL INVESTIGATION MONITORING
Pace Project No.: 40198233

QC Batch: 337919
QC Batch Method: EPA 300.0
Analysis Method: EPA 300.0
Analysis Description: 300.0 IC Anions,Dissolved
Associated Lab Samples: 40197127005

METHOD BLANK: 1962683 Matrix: Water
Associated Lab Samples: 40197127005

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Chloride	mg/L	<0.50	2.0	10/21/19 20:43	

LABORATORY CONTROL SAMPLE: 1962684

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chloride	mg/L	20	20.6	103	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1962685 1962686

Parameter	Units	40197106021 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Chloride	mg/L	35.3	20	20	54.9	54.8	98	97	90-110	0	15	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1962687 1962688

Parameter	Units	40197334004 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Chloride	mg/L	300	200	200	503	496	102	98	90-110	1	15	

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
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(920)469-2436

QUALITY CONTROL DATA

Project: LGRL INVESTIGATION MONITORING
Pace Project No.: 40198233

QC Batch: 339892 Analysis Method: EPA 300.0
QC Batch Method: EPA 300.0 Analysis Description: 300.0 IC Anions,Dissolved
Associated Lab Samples: 40198233001, 40198233002, 40198233003, 40198233004, 40198233005, 40198233006, 40198233007

METHOD BLANK: 1973573 Matrix: Water
Associated Lab Samples: 40198233001, 40198233002, 40198233003, 40198233004, 40198233005, 40198233006, 40198233007

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Chloride	mg/L	0.55J	2.0	11/08/19 10:51	

LABORATORY CONTROL SAMPLE: 1973574

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chloride	mg/L	20	20.6	103	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1973575 1973576

Parameter	Units	40198158006 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Chloride	mg/L	45.7	100	100	148	146	102	100	90-110	1	15	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1973577 1973578

Parameter	Units	40198241007 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Chloride	mg/L	2.0J	20	20	21.5	21.8	98	99	90-110	1	15	

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
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QUALITY CONTROL DATA

Project: LGRL INVESTIGATION MONITORING
Pace Project No.: 40198233

QC Batch: 337968
QC Batch Method: EPA 310.2
Analysis Method: EPA 310.2
Analysis Description: 310.2 Alkalinity, Dissolved
Associated Lab Samples: 40196999005

METHOD BLANK: 1962859 Matrix: Water
Associated Lab Samples: 40196999005

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Alkalinity, Total as CaCO3, Dissolved	mg/L	9.2J	23.5	10/18/19 12:44	

LABORATORY CONTROL SAMPLE: 1962860

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Alkalinity, Total as CaCO3, Dissolved	mg/L	100	96.3	96	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1962861 1962862

Parameter	Units	40196992004 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Alkalinity, Total as CaCO3, Dissolved	mg/L	774	500	500	1250	1220	96	90	90-110	3	20	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1962863 1962864

Parameter	Units	40197074004 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Alkalinity, Total as CaCO3, Dissolved	mg/L	120	100	100	211	212	92	92	90-110	0	20	

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
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(920)469-2436

QUALITY CONTROL DATA

Project: LGRL INVESTIGATION MONITORING
Pace Project No.: 40198233

QC Batch: 338382 Analysis Method: EPA 310.2
QC Batch Method: EPA 310.2 Analysis Description: 310.2 Alkalinity, Dissolved
Associated Lab Samples: 40197127005

METHOD BLANK: 1964967 Matrix: Water
Associated Lab Samples: 40197127005

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Alkalinity, Total as CaCO3, Dissolved	mg/L	<7.0	23.5	10/23/19 11:00	

LABORATORY CONTROL SAMPLE: 1964968

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Alkalinity, Total as CaCO3, Dissolved	mg/L	100	101	101	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1964969 1964970

Parameter	Units	40197127002 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Alkalinity, Total as CaCO3, Dissolved	mg/L	607	500	500	1090	1080	96	94	90-110	1	20	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1964971 1964972

Parameter	Units	40197193001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Alkalinity, Total as CaCO3, Dissolved	mg/L	628	1000	1000	1630	1570	100	94	90-110	4	20	

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: LGRL INVESTIGATION MONITORING
Pace Project No.: 40198233

QC Batch: 339557 Analysis Method: EPA 310.2
QC Batch Method: EPA 310.2 Analysis Description: 310.2 Alkalinity, Dissolved
Associated Lab Samples: 40198233001, 40198233002, 40198233003, 40198233004, 40198233005, 40198233006, 40198233007

METHOD BLANK: 1972095 Matrix: Water
Associated Lab Samples: 40198233001, 40198233002, 40198233003, 40198233004, 40198233005, 40198233006, 40198233007

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Alkalinity, Total as CaCO3, Dissolved	mg/L	<14.3	47.7	11/04/19 12:50	

LABORATORY CONTROL SAMPLE: 1972096

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Alkalinity, Total as CaCO3, Dissolved	mg/L	100	96.2	96	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1972097 1972098

Parameter	Units	40198233007 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Alkalinity, Total as CaCO3, Dissolved	mg/L	306	200	200	479	485	87	89	90-110	1	20	M0

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REPORT OF LABORATORY ANALYSIS

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

QUALIFIERS

Project: LGRL INVESTIGATION MONITORING
Pace Project No.: 40198233

DEFINITIONS

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

ND - Not Detected at or above LOD.

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

LOD - Limit of Detection adjusted for dilution factor, percent moisture, initial weight and final volume.

LOQ - Limit of Quantitation adjusted for dilution factor, percent moisture, initial weight and final volume.

S - Surrogate

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

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

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

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

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

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

TNI - The NELAC Institute.

LABORATORIES

PASI-G	Pace Analytical Services - Green Bay

ANALYTE QUALIFIERS

B	Analyte was detected in the associated method blank.
HS	Results are from sample aliquot taken from VOA vial with headspace (air bubble greater than 6 mm diameter).
M0	Matrix spike recovery and/or matrix spike duplicate recovery was outside laboratory control limits.
R1	RPD value was outside control limits.

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

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: LGRL INVESTIGATION MONITORING
Pace Project No.: 40198233

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
40196999005	P-422B	EPA 6010	337682		
40197127005	MW-1B	EPA 6010	337583		
40198233001	P-401D	EPA 6010	339764		
40198233002	P-402E	EPA 6010	339764		
40198233003	P-424D	EPA 6010	339764		
40198233004	P-424SS	EPA 6010	339764		
40198233005	P-423D	EPA 6010	339764		
40198233006	P-426D	EPA 6010	339764		
40198233007	P-429SS	EPA 6010	339764		
40196999005	P-422B	EPA 8260	337263		
40197127005	MW-1B	EPA 8260	337265		
40198233001	P-401D	EPA 8260	339231		
40198233002	P-402E	EPA 8260	339231		
40198233003	P-424D	EPA 8260	339229		
40198233004	P-424SS	EPA 8260	339229		
40198233005	P-423D	EPA 8260	339229		
40198233006	P-426D	EPA 8260	339229		
40198233007	P-429SS	EPA 8260	339229		
40196999005	P-422B				
40197127005	MW-1B				
40198233001	P-401D				
40198233002	P-402E				
40198233003	P-424D				
40198233004	P-424SS				
40198233005	P-423D				
40198233006	P-426D				
40198233007	P-429SS				
40196999005	P-422B	EPA 300.0	337820		
40197127005	MW-1B	EPA 300.0	337919		
40198233001	P-401D	EPA 300.0	339892		
40198233002	P-402E	EPA 300.0	339892		
40198233003	P-424D	EPA 300.0	339892		
40198233004	P-424SS	EPA 300.0	339892		
40198233005	P-423D	EPA 300.0	339892		
40198233006	P-426D	EPA 300.0	339892		
40198233007	P-429SS	EPA 300.0	339892		
40196999005	P-422B	EPA 310.2	337968		
40197127005	MW-1B	EPA 310.2	338382		
40198233001	P-401D	EPA 310.2	339557		
40198233002	P-402E	EPA 310.2	339557		
40198233003	P-424D	EPA 310.2	339557		
40198233004	P-424SS	EPA 310.2	339557		

REPORT OF LABORATORY ANALYSIS

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

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: LGRL INVESTIGATION MONITORING
Pace Project No.: 40198233

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
40198233005	**P-423D**	EPA 310.2	339557		
40198233006	**P-426D**	EPA 310.2	339557		
40198233007	**P-429SS**	EPA 310.2	339557		

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CHAIN-OF-CUSTODY / Analytical Request Document

40198283

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately.

Page: 1 of 1

Section A Required Client Information:

ADS Glacier Ridge
N7296 Hwy V
Horicon, WI 53032
Email To: Kari Rabideau - ADS
Phone: na | Fax: na
Requested Due Date/TAT:

Section B Required Project Information:

Report To: Kari Radbideau
Copy To: Frank Perugini - ESC, ESC Staff, Sherren Clark - SCS Eng
Purchase Order No.: na
Project Name: LGRL ~~GW APR~~ Investigation Baseline GW 10/30/19
Project Number: na

Section C Invoice Information:

Attention: Kari Rabideau
Company Name: ADS Glacier Ridge
Address: N7296 Hwy V, Horicon, WI 53032
Pace Quote Reference: na
Pace Project Manager: Cindy Varga
Pace Profile #: 4172 line 29 shared wells 35

REGULATORY AGENCY

__NPDES X GROUND WATER __DRINKING WATER
__UST __RCRA OTHER____

SITE LOCATION: __GA __IL __IN __MI __NC __OH __SC X WI OTHER____

Filtered (Y/N): N Y Y

Requested Analysis: 8260 NR 507 VOCs; diss chloride, alkalinity; diss 6020 6010 - hard, ~~as~~ GW 10/31/19; Residual Chlorine (Y/N)

Section D Required Client Information

Valid Matrix Codes — MATRIX / CODE: DRINKING WATER DW; WATER WT; WASTE WATER WW; PRODUCT P; SOIL/SOLID SL; OIL OL; WIPE WP; AIR AR; OTHER OT; TISSUE TS

SAMPLE ID — One Character per box. (A-Z, 0-9 / ,-) Samples IDs MUST BE UNIQUE

ITEM #	SAMPLE ID	MATRIX CODE	SAMPLE TYPE G=GRAB C=COMP	Composite Start Date	Composite Start Time	Composite End/Grab Date (2019)	Composite End/Grab Time	Sample Temp at Collection	# of Containers	Nitric	HCL	Unpreserved	8260 NR 507 VOCs	diss chloride, alkalinity	diss 6010 - hard	Pace Project Number Lab I.D.
1	P-401D	WT	G	—		10/28	1035	12.4	5	1	3	1	X	X	X	001
2	P-402E	↓	↓	—		↓	1125	8.1	5	1	3	1	X	X	X	002
3	P-424D	↓	↓	—			1300	11.4	5	1	3	1	X	X	X	003
4	P-424SS	↓	↓	—		10/28	1500	6.5	5	1	3	1	X	X	X	004
5	P-423D	↓	↓	—		10/29	0945	9.6	5	1	3	1	X	X	X	005
6	P-426D	↓	↓	—		↓	1030	8.9	5	1	3	1	X	X	X	006
7	P-429SS	↓	↓	—		10/29	1345	9.5	5	1	3	1	X	X	X	007
8																
9																
10																
11																
12																

Additional Comments:

VOCs - MW-1RR, MW-1AR,A-3A,W-3AR, MW-210, MW-210A, MW-210B, DUP02, W-163, W-163A,MW-214,MW-214A MW-204A, MW-8R

Shared wells - MW-1RR,MW-1AR,A-3A,W-163, W-163A MW-8R,MW-204A

RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	Temp in °C	Received on Ice	Custody Sealed Cooler	Samples Intact
[signature] / ESC	10/29/19	1700					Y/N	Y/N	Y/N
Wiltco	10/30/19	0900	John T. Brunette Pace	10/30/19	0900	R01	Y	N	Y
							Y/N	Y/N	Y/N
							Y/N	Y/N	Y/N

SAMPLER NAME AND SIGNATURE
PRINT Name of SAMPLER: Scott Freimark
SIGNATURE of SAMPLER: [signature]
DATE Signed (MM/DD/YY): 10/29/19

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

Sample Preservation Receipt Form

Client Name: ADS Project # 40198233

All containers needing preservation have been checked and noted below: ☒Yes ☐No ☐N/A Initial when completed: JTB Date/Time: 10/30/19 1410

Lab Lot# of pH paper: 10053581 Lab Std #ID of preservation (if pH adjusted): 405439

Pace Lab #	Glass: AG1U	AG1H	AG4S	AG4U	AG5U	AG2S	BG3U	Plastic: BP1U	BP2N	BP2Z	BP3U	BP3B	BP3N	BP3S	Vials: DG9A	DG9T	VG9U	VG9H	VG9M	VG9D	Jars: JGFU	WGFU	WPFU	General: SP5T	ZPLC	GN	VOA Vials (>6mm) *	H2SO4 pH ≤2	NaOH+Zn Act pH ≥9	NaOH pH ≥12	HNO3 pH ≤2	pH after adjusted	Volume (mL)
001											1		1					3													5	1	2.5 / 5 / 10
002											1		1					3													1		2.5 / 5 / 10
003											1		1					3													1		2.5 / 5 / 10
004											1		1					3									1				1		2.5 / 5 / 10
005											1		1					3													1		2.5 / 5 / 10
006											1		1					3													1		2.5 / 5 / 10
007											1		1					3													1		2.5 / 5 / 10
008																																	2.5 / 5 / 10
009																																	2.5 / 5 / 10
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014																																	2.5 / 5 / 10
015																																	2.5 / 5 / 10
016																																	2.5 / 5 / 10
017																																	2.5 / 5 / 10
018																																	2.5 / 5 / 10
019																																	2.5 / 5 / 10
020																											JTB 10/30/19						2.5 / 5 / 10

Exceptions to preservation check: VOA, Coliform, TOC, TOX, TOH, O&G, WI DRO, Phenolics, Other: _____ Headspace in VOA Vials (>6mm): ☒Yes ☐No ☐N/A ***If yes look in headspace column**

AG1U	1 liter amber glass	BP1U	1 liter plastic unpres	DG9A	40 mL amber ascorbic	JGFU	4 oz amber jar unpres
AG1H	1 liter amber glass HCL	BP2N	500 mL plastic HNO3	DG9T	40 mL amber Na Thio	WGFU	4 oz clear jar unpres
AG4S	125 mL amber glass H2SO4	BP2Z	500 mL plastic NaOH, Znact	VG9U	40 mL clear vial unpres	WPFU	4 oz plastic jar unpres
AG4U	120 mL amber glass unpres	BP3U	250 mL plastic unpres	VG9H	40 mL clear vial HCL		
AG5U	100 mL amber glass unpres	BP3B	250 mL plastic NaOH	VG9M	40 mL clear vial MeOH	SP5T	120 mL plastic Na Thiosulfate
AG2S	500 mL amber glass H2SO4	BP3N	250 mL plastic HNO3	VG9D	40 mL clear vial DI	ZPLC	ziploc bag
BG3U	250 mL clear glass unpres	BP3S	250 mL plastic H2SO4			GN:	

Pace Analytical™ 1241 Bellevue Street, Green Bay, WI 54302	Document Name: Sample Condition Upon Receipt (SCUR)	Document Revised: 25Apr2018
	Document No.: F-GB-C-031-Rev.07	Issuing Authority: Pace Green Bay Quality Office

Sample Condition Upon Receipt Form (SCUR)

Project #: WO#: 40198233

Client Name: ADS

Courier: ☐ CS Logistics ☐ Fed Ex ☐ Speedee ☐ UPS ☒ Waltco ☐ Client ☐ Pace Other:

Tracking #: 2226419-1

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

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

Packing Material: ☐ Bubble Wrap ☒ Bubble Bags ☐ None ☒ Other Ziploc Bags 10/30/19 JTB

Thermometer Used SR - N/A **Type of Ice:** (Wet) Blue Dry None ☒ Samples on ice, cooling process has begun

Cooler Temperature Uncorr: R01 /Corr:

Temp Blank Present: ☐ yes ☒ no **Biological Tissue is Frozen:** ☐ yes ☐ no

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

Person examining contents:
Date: 10/30/19
Initials: JTB

Chain of Custody Present:	☒Yes ☐No ☐N/A	1.
Chain of Custody Filled Out:	☑Yes ☐No ☐N/A	2.
Chain of Custody Relinquished:	☒Yes ☐No ☐N/A	3.
Sampler Name & Signature on COC:	☒Yes ☐No ☐N/A	4.
Samples Arrived within Hold Time:	☒Yes ☐No	5.
- VOA Samples frozen upon receipt	☐Yes ☐No	Date/Time:
Short Hold Time Analysis (<72hr):	☐Yes ☒No	6.
Rush Turn Around Time Requested:	☐Yes ☒No	7.
Sufficient Volume: For Analysis: ☒Yes ☐No MS/MSD: ☐Yes ☑No ☐N/A		8.
Correct Containers Used:	☒Yes ☐No	9.
-Pace Containers Used:	☒Yes ☐No ☐N/A	
-Pace IR Containers Used:	☐Yes ☐No ☒N/A	
Containers Intact:	☒Yes ☐No	10.
Filtered volume received for Dissolved tests	☒Yes ☐No ☐N/A	11.
Sample Labels match COC:	☒Yes ☐No ☐N/A	12.
-Includes date/time/ID/Analysis Matrix: W		
Trip Blank Present:	☐Yes ☐No ☒N/A	13.
Trip Blank Custody Seals Present	☐Yes ☐No ☒N/A	
Pace Trip Blank Lot # (if purchased):		

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

Person Contacted: Date/Time:

Comments/ Resolution:

Project Manager Review: Date: 10/30/19

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CHAIN-OF-CUSTODY / Analytical Request Document

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately.

40197127

Page: 1 of 1

Section A Required Client Information:	Section B Required Project Information:	Section C Invoice Information:
ADS Glacier Ridge	Report To: Kari Radbideau	Attention: Kari Rabideau
N7296 Hwy V	Copy To: Frank Perugini - ESC, ESC Staff, Sherren Clark - SCS Eng	Company Name: ADS Glacier Ridge
Horicon, WI 53032		Address: N7296 Hwy V, Horicon, WI 53032
Email To: Kari Rabideau - ADS	Purchase Order No.: na	Pace Quote Reference: na
Phone: na Fax: na	Project Name: LGRL GW APR	Pace Project Manager: Cindy Varga
Requested Due Date/TAT:	Project Number: na	Pace Profile #: 4172 line 29 shared wells 35

REGULATORY AGENCY

__NPDES X GROUND WATER __DRINKING WATER

__UST __RCRA OTHER____

SITE LOCATION __GA __IL __IN __MI __NC __OH __SC X WI OTHER____

Section D Required Client Information

SAMPLE ID

One Character per box.
(A-Z, 0-9 / ,-)
Samples IDs MUST BE UNIQUE

Valid Matrix Codes

MATRIX	CODE
DRINKING WATER	DW
WATER	WT
WASTE WATER	WW
PRODUCT	P
SOIL/SOLID	SL
OIL	OL
WIPE	WP
AIR	AR
OTHER	OT
TISSUE	TS

ITEM #	SAMPLE ID		MATRIX CODE	SAMPLE TYPE G=GRAB C=COMP	COLLECTED COMPOSITE START DATE	COMPOSITE START TIME	COMPOSITE END/GRAB DATE (2019)	COMPOSITE END/GRAB TIME	SAMPLE TEMP AT COLLECTION	#OF CONTAINERS	Preservatives: Nitric	HCL	Unpreserved	8260 NR 507 VOCs	diss chloride, alkalinity	diss 6020 - hard. as	Residual Chlorine (Y/N)	Pace Project Number / Lab I.D.
1	W-163	X	GW	G			10/10	1040	12.0	5	1	3	1	X	X	X		~~001~~
2	W-163A	X						1130	15.5	5	1	3	1	X	X	X		~~002~~
3	MW-7R	001						1210	15.7	2	1		1		X	X		~~003~~
4	W-3R	002						1250	12.8	5	1	3	1	X	X	X		~~004~~
5	Dup-01	003							12.8	5	1	3	1	X	X	X		~~005~~
6	W-3AR	004						1325	13.3	5	1	3	1	X	X	X		~~006~~
7	MW-1B	005						1400	13.7	5	1	3	1	X	X	X		~~007~~
8	MW-1RR	X					↓	1420	8.1	5	1	3	1	X	X	X		~~008~~
9	MW-1AR	X	GW	G			10/10	1500	9.5	5	1	3	1	X	X	X		~~009~~
10	Trip Blank	X 006								2		2		X				~~010~~
11		Cat colum																
12																		

Additional Comments: X - on Sep COC (WS)

VOCs - MW-1RR, MW-1AR,A-3A,W-3AR, MW-210, MW-210A, MW-210B, DUP02, W-163, W-163A,MW-214,MW-214A MW-204A, MW-8R

Shared wells - MW-1RR,MW-1AR,A-3A,W-163, W-163A MW-8R,MW-204A

RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME
Liz Carlson/ESC	10/10/19	17:00			
Waltco	10/11/19	9:15	Alan Pace	10/11/19	9:15

SAMPLE CONDITIONS

Temp in °C	Received on Ice Y/N	Custody Sealed Cooler Y/N	Samples Intact Y/N
4	Y/N	Y/N	Y/N
	Y/N	Y/N	Y/N
	Y/N	Y/N	Y/N

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: Liz Carlson

SIGNATURE of SAMPLER: Liz Carlson DATE Signed (MM / DD / YY): 10/10/19

Sample Preservation Receipt Form

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

Client Name: ADS Glacier Ridge Project # 40197127

All containers needing preservation have been checked and noted below: ☒Yes ☐No ☐N/A

Lab Lot# of pH paper: 10USO801 Lab Std #ID of preservation (if pH adjusted):

Initial when completed: AS Date/ Time:

Pace Lab #	Glass: AG1U	AG1H	AG4S	AG4U	AG5U	AG2S	BG3U	Plastic: BP1U	BP2N	BP2Z	BP3U	BP3B	BP3N	BP3S	Vials: DG9A	DG9T	VG9U	VG9H	VG9M	VG9D	Jars: JGFU	WGFU	WPFU	General: SP5T	ZPLC	GN	VOA Vials (>6mm) *	H2SO4 pH ≤2	NaOH+Zn Act pH ≥9	NaOH pH ≥12	HNO3 pH ≤2	pH after adjusted	Volume (mL)
001											1		1	X				3															2.5 / 5 / 10
002											1		1	X				3									1							2.5 / 5 / 10
003											1		1	X				3																2.5 / 5 / 10
004											1		1	X				3																2.5 / 5 / 10
005											1		1	X				3																2.5 / 5 / 10
006											X		X	X				2																2.5 / 5 / 10
007																		2																2.5 / 5 / 10
008																		X																2.5 / 5 / 10
009																																		2.5 / 5 / 10
010																																		2.5 / 5 / 10
011																																		2.5 / 5 / 10
012																																		2.5 / 5 / 10
013																																		2.5 / 5 / 10
014																																		2.5 / 5 / 10
015																																		2.5 / 5 / 10
016																																		2.5 / 5 / 10
017																																		2.5 / 5 / 10
018																																		2.5 / 5 / 10
019																																		2.5 / 5 / 10
020																																		2.5 / 5 / 10

10/11/19 AS

Exceptions to preservation check: VOA, Coliform, TOC, TOX, TOH, O&G, WI DRO, Phenolics, Other: _____ Headspace in VOA Vials (>6mm): ☒Yes ☐No ☐N/A ***If yes look in headspace column**

AG1U	1 liter amber glass	BP1U	1 liter plastic unpres	DG9A	40 mL amber ascorbic	JGFU	4 oz amber jar unpres
AG1H	1 liter amber glass HCL	BP2N	500 mL plastic HNO3	DG9T	40 mL amber Na Thio	WGFU	4 oz clear jar unpres
AG4S	125 mL amber glass H2SO4	BP2Z	500 mL plastic NaOH, Znact	VG9U	40 mL clear vial unpres	WPFU	4 oz plastic jar unpres
AG4U	120 mL amber glass unpres	BP3U	250 mL plastic unpres	VG9H	40 mL clear vial HCL		
AG5U	100 mL amber glass unpres	BP3B	250 mL plastic NaOH	VG9M	40 mL clear vial MeOH	SP5T	120 mL plastic Na Thiosulfate
AG2S	500 mL amber glass H2SO4	BP3N	250 mL plastic HNO3	VG9D	40 mL clear vial DI	ZPLC	ziploc bag
BG3U	250 mL clear glass unpres	BP3S	250 mL plastic H2SO4			GN:	

Pace Analytical™ 1241 Bellevue Street, Green Bay, WI 54302	Document Name: Sample Condition Upon Receipt (SCUR)	Document Revised: 25Apr2018
	Document No.: F-GB-C-031-Rev.07	Issuing Authority: Pace Green Bay Quality Office

Sample Condition Upon Receipt Form (SCUR)

Client Name: ADS Glacier Ridge

Project #: WO#: 40197127

Courier: ☐ CS Logistics ☐ Fed Ex ☐ Speedee ☐ UPS ☑ Waltco ☐ Client ☐ Pace Other:

Tracking #:

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

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

Packing Material: ☐ Bubble Wrap ☑ Bubble Bags ☐ None ☐ Other

Thermometer Used SR - 24 **Type of Ice:** (Wet) Blue Dry None ☑ Samples on ice, cooling process has begun

Cooler Temperature Uncorr: 4 /Corr: 4

Temp Blank Present: ☐ yes ☐ no **Biological Tissue is Frozen:** ☐ yes ☐ no

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

Person examining contents:
Date: 10/11/19
Initials: AS

Chain of Custody Present:	☑Yes ☐No ☐N/A	1.
Chain of Custody Filled Out:	☑Yes ☐No ☐N/A	2.
Chain of Custody Relinquished:	☑Yes ☐No ☐N/A	3.
Sampler Name & Signature on COC:	☑Yes ☐No ☐N/A	4.
Samples Arrived within Hold Time:	☑Yes ☐No	5.
- VOA Samples frozen upon receipt	☐Yes ☐No	Date/Time:
Short Hold Time Analysis (<72hr):	☐Yes ☑No	6.
Rush Turn Around Time Requested:	☐Yes ☑No	7.
Sufficient Volume: For Analysis: ☑Yes ☐No MS/MSD: ☐Yes ☑No ☐N/A		8.
Correct Containers Used:	☑Yes ☐No	9.
-Pace Containers Used:	☑Yes ☐No ☐N/A	
-Pace IR Containers Used:	☐Yes ☐No ☑N/A	
Containers Intact:	☑Yes ☐No	10.
Filtered volume received for Dissolved tests 10/11/19 AS	☑Yes ☐No ☑N/A	11.
Sample Labels match COC:	☑Yes ☐No ☐N/A	12.
-Includes date/time/ID/Analysis Matrix: W		
Trip Blank Present:	☑Yes ☐No ☐N/A	13.
Trip Blank Custody Seals Present	☑Yes ☐No ☐N/A	
Pace Trip Blank Lot # (if purchased): 433		

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

Person Contacted: Date/Time:

Comments/ Resolution:

Project Manager Review: CC **Date:** 10/15/19

Pace Analytical™
www.pacelabs.com

CHAIN-OF-CUSTODY / Analytical Request Document

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately.

40196999

Page: 1 of 1

Section A **Required** Client Information:	Section B **Required** Project Information:	Section C Invoice Information:
ADS Glacier Ridge	Report To: Kari Radbideau	Attention: Kari Rabideau
N7296 Hwy V	Copy To: Frank Perugini - ESC, ESC Staff, Sherren Clark - SCS Eng	Company Name: ADS Glacier Ridge
Horicon, WI 53032		Address: N7296 Hwy V, Horicon, WI 53032
Email To: Kari Rabideau - ADS	Purchase Order No.: na	Pace Quote Reference: na
Phone: na Fax: na	Project Name: LGRL GW APR	Pace Project Manager: Cindy Varga
Requested Due Date/TAT:	Project Number: na	Pace Profile #: 4172 line 29 shared wells 35

REGULATORY AGENCY

__ NPDES _X_ GROUND WATER __ DRINKING WATER

__ UST __ RCRA OTHER_____

SITE LOCATION: __GA __IL __IN __MI __NC __OH __SC _X_ WI OTHER____

Section D **Required** Client Information

SAMPLE ID

One Character per box.
(A-Z, 0-9 / ,-)
Samples IDs MUST BE UNIQUE

Valid Matrix Codes

MATRIX	CODE
DRINKING WATER	DW
WATER	WT
WASTE WATER	WW
PRODUCT	P
SOIL/SOLID	SL
OIL	OL
WIPE	WP
AIR	AR
OTHER	OT
TISSUE	TS

ITEM #	SAMPLE ID	MATRIX CODE	SAMPLE TYPE G=GRAB C=COMP	COLLECTED COMPOSITE START DATE	COLLECTED COMPOSITE START TIME	COLLECTED COMPOSITE END/GRAB DATE	COLLECTED COMPOSITE END/GRAB TIME	SAMPLE TEMP AT COLLECTION	#OF CONTAINERS	Preservatives: Nitric	Preservatives: HCL	Preservatives: Unpreserved	Filtered (Y/N)	Requested Analysis: 8260 NR 507 VOCs	Requested Analysis: diss chloride, alkalinity	Requested Analysis: diss 6020 - hard, as	Residual Chlorine (Y/N)	Pace Project Number Lab I.D.
													N	Y	Y			
1	MW-8R	GW	G			10/9	1250	12.2	5	1	3	1		X	X	X		001
2	MW-203A						1350	11.3	2	1		1			X	X		002
3	MW-6R						1325	12.5	2	1		1			X	X		003
4	Dup-02							12.5	2	1		1			X	X		004
5	P-422B	GW	G			10/9	1500	11.9	5	1	3	1		X	X	X		005
6																		
7																		
8																		
9																		
10																		
11																		
12																		

Additional Comments:

VOCs - MW-1RR, MW-1AR,A-3A,W-3AR, MW-210, MW-210A, MW-210B, DUP02, W-163, W-163A,MW-214,MW-214A MW-204A, MW-8R

Shared wells - MW-1RR,MW-1AR,A-3A,W-163, W-163A MW-8R,MW-204A

RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME
Liz Carlson /ESC	10/9/19	17:00			
Walco	10/10/19	0915	mpull	10/10/19	0915

SAMPLE CONDITIONS

Temp in °C	Received on Ice Y/N	Custody Sealed Cooler Y/N	Samples Intact Y/N
	Y/N	Y/N	Y/N
Ron	(Y) N	(Y) N	(Y) N
	Y/N	Y/N	Y/N

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: Liz Carlson

SIGNATURE of SAMPLER: Liz Carlson DATE Signed (MM/DD/YY): 10/9/19

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

Sample Preservation Receipt Form

Client Name: ADS Glaiver Ridge Project # 401960999

All containers needing preservation have been checked and noted below: ☑Yes ☐No ☐N/A Initial when completed: MH Date/ Time:

Lab Lot# of pH paper: 200891 Lab Std #ID of preservation (if pH adjusted):

	Glass							Plastic							Vials						Jars			General							
Pace Lab #	AG1U	AG1H	AG4S	AG4U	AG5U	AG2S	BG3U	BP1U	BP2N	BP2Z	BP3U	BP3B	BP3N	BP3S	DG9A	DG9T	VG9U	VG9H	VG9M	VG9D	JGFU	WGFU	WPFU	SP5T	ZPLC	GN	VOA Vials (>6mm) *	H2SO4 pH ≤2	NaOH+Zn Act pH ≥9	NaOH pH ≥12	HNO3 pH ≤2	pH after adjusted	Volume (mL)
001											1		1					3									3				X		2.5 / 5 / 10
002											1		1																		X		2.5 / 5 / 10
003											1		1																		X		2.5 / 5 / 10
004											1		1																		X		2.5 / 5 / 10
005											1		1					3													X		2.5 / 5 / 10
006																																	2.5 / 5 / 10
007																																	2.5 / 5 / 10
008																																	2.5 / 5 / 10
009																																	2.5 / 5 / 10
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016																																	2.5 / 5 / 10
017																																	2.5 / 5 / 10
018																																	2.5 / 5 / 10
019																																	2.5 / 5 / 10
020																																	2.5 / 5 / 10

MH 10/14/19

Exceptions to preservation check: VOA, Coliform, TOC, TOX, TOH, O&G, WI DRO, Phenolics, Other: _____ Headspace in VOA Vials (>6mm) : ☑Yes ☐No ☐N/A ***If yes look in headspace column**

AG1U	1 liter amber glass	BP1U	1 liter plastic unpres	DG9A	40 mL amber ascorbic	JGFU	4 oz amber jar unpres
AG1H	1 liter amber glass HCL	BP2N	500 mL plastic HNO3	DG9T	40 mL amber Na Thio	WGFU	4 oz clear jar unpres
AG4S	125 mL amber glass H2SO4	BP2Z	500 mL plastic NaOH, Znact	VG9U	40 mL clear vial unpres	WPFU	4 oz plastic jar unpres
AG4U	120 mL amber glass unpres	BP3U	250 mL plastic unpres	VG9H	40 mL clear vial HCL		
AG5U	100 mL amber glass unpres	BP3B	250 mL plastic NaOH	VG9M	40 mL clear vial MeOH	SP5T	120 mL plastic Na Thiosulfate
AG2S	500 mL amber glass H2SO4	BP3N	250 mL plastic HNO3	VG9D	40 mL clear vial DI	ZPLC	ziploc bag
BG3U	250 mL clear glass unpres	BP3S	250 mL plastic H2SO4			GN:	

Pace Analytical™ 1241 Bellevue Street, Green Bay, WI 54302	Document Name: Sample Condition Upon Receipt (SCUR)	Document Revised: 25Apr2018
	Document No.: F-GB-C-031-Rev.07	Issuing Authority: Pace Green Bay Quality Office

Sample Condition Upon Receipt Form (SCUR)

Project #: WO# : 40196999

40196999

Client Name: ADS Glacier Ridge

Courier: ☐ CS Logistics ☐ Fed Ex ☐ Speedee ☐ UPS ☒ Waltco ☐ Client ☐ Pace Other:

Tracking #: 2038604

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

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

Packing Material: ☑ Bubble Wrap ☑ Bubble Bags ☐ None ☐ Other

Thermometer Used SR - NB **Type of Ice:** (Wet) Blue Dry None ☑ Samples on ice, cooling process has begun

Cooler Temperature Uncorr: RG /Corr:

Temp Blank Present: ☐ yes ☑ no **Biological Tissue is Frozen:** ☐ yes ☐ no

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

Person examining contents:
Date: 10/10/19
Initials: MH

Chain of Custody Present:	☑Yes ☐No ☐N/A	1.
Chain of Custody Filled Out:	☑Yes ☐No ☐N/A	2.
Chain of Custody Relinquished:	☑Yes ☐No ☐N/A	3.
Sampler Name & Signature on COC:	☑Yes ☐No ☐N/A	4.
Samples Arrived within Hold Time:	☑Yes ☐No	5.
- VOA Samples frozen upon receipt	☐Yes ☐No	Date/Time:
Short Hold Time Analysis (<72hr):	☐Yes ☑No	6.
Rush Turn Around Time Requested:	☐Yes ☑No	7.
Sufficient Volume: For Analysis: ☑Yes ☐No MS/MSD:	☐Yes ☑No ☐N/A	8.
Correct Containers Used:	☑Yes ☐No	9.
-Pace Containers Used:	☑Yes ☐No ☐N/A	
-Pace IR Containers Used:	☐Yes ☑No ☐N/A	
Containers Intact:	☑Yes ☐No	10.
Filtered volume received for Dissolved tests	☐Yes ☑No ☐N/A	11.
Sample Labels match COC:	☑Yes ☐No ☐N/A	12.
-Includes date/time/ID/Analysis Matrix: W		
Trip Blank Present:	☐Yes ☑No ☐N/A	13.
Trip Blank Custody Seals Present	☐Yes ☑No ☐N/A	
Pace Trip Blank Lot # (if purchased):		

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

Person Contacted: Date/Time:

Comments/ Resolution:

Project Manager Review: CL **Date:** 10/11/19