Ashland LLC

2021 Corrective Measure Implementation Annual Progress Report

Ashland Distribution
130 South Street
Rensselaer, New York

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Acronyms and Abbreviations

1,1-DCE	1,1-dichloroethene
1,2-DCA	1,2-dichloroethane
Arcadis	Arcadis U.S., Inc.
Ashland	Ashland LLC
bgs	below ground surface
BTEX	benzene, toluene, ethylbenzene, and xylene
cis-1,2-DCE	cis-1,2-dichloroethene
CMI	Corrective Measure Implementation
CSM	conceptual site model
CVOC	chlorinated volatile organic compound
DPT	direct-push technology
ERD	enhanced reductive dechlorination
EVO	emulsified vegetable oil
IRZ	in-situ reactive zone
mg/L	milligrams per liter
MNA	monitored natural attenuation
NYSDEC	New York State Department of Environmental Protection
NYSDOH	New York State Department of Health
PCE	tetrachloroethene
PRB	permeable reactive barrier
reporting period	January 1 through December 31, 2021
site	Ashland Property located at 130 South Street in Rensselaer, New York
SMP	Site Management Plan
TCE	trichloroethene
TOC	total organic carbon
TOGS	Technical and Operational Guidance Series
trans-1,2-DCE	trans-1,2-dichloroethene
USEPA	United States Environmental Protection Agency
VC	vinyl chloride
VOC	volatile organic compound

1 Introduction

On behalf of Ashland LLC (Ashland), Arcadis U.S., Inc. (Arcadis) prepared this 2021 Corrective Measure Implementation (CMI) Annual Progress Report for the Ashland Property located at 130 South Street in Rensselaer, New York (site; Figure 1). This report details the activities conducted on site from January 1 through December 31, 2021 (reporting period).

Arcadis prepared this 2021 CMI Annual Report on behalf of Ashland as required by the Administrative Order on Consent, Docket No. II, RCRA-92-3008(h)-0201, between Ashland and the United States Environmental Protection Agency (USEPA) Region 2, and according to the CMI Work Plan (Arcadis 2010). The CMI Work Plan was approved by the USEPA in a letter dated March 16, 2010 and updated for groundwater monitoring as approved by the USEPA in a letter dated March 17, 2011 (USEPA 2010, 2011). Groundwater remediation activities consist of an enhanced reductive dechlorination (ERD) program in upgradient source zones and along the downgradient portion of the site to address potential off-site migration of chlorinated volatile organic compounds (CVOCs) in groundwater. This is the eleventh year of remedy implementation.

The ERD program was optimized beginning in 2017 to target CVOC mass flux areas and source zones identified during the 2017 site characterization activities detailed in the 2017 CMI Annual Report (Arcadis 2018a). The optimization included expanding the injection well network in 2018, subsurface EVO injections using direct-push technology (DPT) drilling in 2020, and the installation of a mulch permeable reactive barrier (PRB) along the downgradient property boundary to provide a long-term carbon source to groundwater. The mulch PRB installation is on hold pending an implementation strategy evaluation.

The activities listed below comprise the ongoing scope of the selected site remedy:

- Operate an enhanced bioattenuation remediation system to achieve ERD along the downgradient portion of the property and, starting in 2018, at confirmed source areas.
- Monitor ERD system performance.
- Monitor benzene, toluene, ethylbenzene, and xylenes (BTEX) concentrations in groundwater samples from MW-20.
- Monitor groundwater and, if necessary, evaluate the need for additional vapor monitoring at the former Volvo service center located across the railroad tracks approximately 125 feet west of the site.
- Provide institutional and engineering controls.

This 2021 CMI Annual Report is organized into the sections listed in the table below.

Section	Purpose
Section 1 – Introduction	Provides a brief overview of the groundwater remediation activities and organization of this 2021 CMI Annual Report.
Section 2 – Corrective Measure Objectives	Provides the objectives of the remedy.
Section 3 – Enhanced Reductive Dechlorination Summary	Discusses the ERD injection methodology, well network, injection substrate, and the remedial optimization activities since 2017.
Section 4 – Groundwater Monitoring	Summarizes site-wide groundwater monitoring events, modifications to the program, and results for the past year.
Section 5 – Well Decommissioning	Summarizes well decommissioning activities completed in 2021.
Section 6 – Periodic Review Report: Engineering and Institutional Controls	Documents implementation and inspection of engineering and institutional controls at the site.
Section 7 – Five-Year Review	This section fulfills the requirement agreed to in the CMI Work Plan (Arcadis 2010) to summarize the remedy status after five years of implementation.
Section 8 – Conclusion, Recommendations, and Schedule	Summarizes the remedial activities conducted during this reporting period. Presents recommendations for future activities and a schedule for the future work.
Section 9 – References	Lists the references cited throughout this 2021 CMI Annual Report.

2 Corrective Measure Objectives

In the Revised Draft Corrective Measures Study Report (Arcadis 2009), Ashland proposed a tiered approach to identifying the corrective measure objectives using goals for short-term protectiveness, intermediate performance (defined as the initial 10 to 15 years after remedy implementation), and final cleanup goals.

The short-term protectiveness goals include:

- Prevention of unacceptable human exposure to constituents (on site and off site)
- Prevention of migration of constituents (off site).

The intermediate performance goals include:

- Protection of human health and the environment (on site and off site)
- Maintenance of plume control (on site)
- Returning the site to a productive asset for the surrounding community (on site).

Final cleanup goals include:

- Protection of human health and the environment (on site and off site)
- Achieving cleanup objectives (on site and off site).

Media cleanup standards for on-site conditions have not been established because institutional controls (e.g., deed restrictions on water use, health and safety provisions for below-grade excavation) and engineering controls (e.g., fencing, asphalt, and building slabs) can be used to prevent exposure to these media.

3 Enhanced Reductive Dechlorination Summary

This section discusses historical ERD activities including injection methodology, well networks, and injection substrate.

3.1 Historical Injections

Groundwater remediation activities began in October 2010 with the injection of a dilute molasses solution in three separate events conducted approximately quarterly (see Table 1). The original injection well network comprised five wells installed to a depth of 12 to 20 feet below ground surface (bgs) in each of the two in-situ reactive zone (IRZ) areas along the downgradient property line: the southern IRZ (A-Line) and northern IRZ (B-Line). After establishing a healthy microbial population with molasses injections, the injected substrate was switched to EVO which supplies a carbon source over a longer period through partial sorption of the EVO injection fluids, followed by dissolution over time into site groundwater. EVO injections were completed in 2011, 2013, and 2015.

Based on a review of performance data, Arcadis completed additional investigation efforts in 2017 and 2018 to assess the presence of source mass not targeted by the initial injection well network. These efforts included a limited-scale molasses injection event in 2017 as described in the 2017 Annual CMI Report (Arcadis 2018a). Data from those investigations resulted in the installation of 17 additional injection wells and one monitoring well to expand and optimize the existing ERD system infrastructure (Figure 2). The injection wells were intended to address confirmed on-site source areas and a deeper mass flux zone along the property boundary. A subsequent EVO injection event was completed in 2018, utilizing only the newly installed injection wells. In 2020, EVO was injected into the full set of injection wells, including both the newly installed locations and the existing injection well network (see Table 2a). During the 2020 EVO injection event, injections were also performed at 11 DPT drilling locations in 2020 to provide supplemental targeted treatment as described in the 2020 Annual CMI Report (Arcadis 2021). See Table 2a and Table 2b for a summary of remedial optimization injections.

3.2 Mulch PRB

Performance monitoring data collected in 2020 indicated that deeper injection events targeting areas identified during site characterization events yielded successful treatment; however, a combination of continued deep injections and carbon substrate delivery to the shallow subsurface consistent with injections from 2010 to 2016 were necessary to meet project objectives. To address this observation, Ashland proposed installing a mulch PRB to facilitate carbon distribution into the shallow subsurface.

Ashland received approval from the NYSDEC via email on September 14, 2020 to implement the Mulch PRB Installation Work Plan (Arcadis 2020a). The mulch PRB installation has been postponed while Ashland and Arcadis evaluate potential alternative implementation strategies that would make the mulch PRB more cost effective to address the shallow mass flux zone along the site boundary and provide long-term carbon substrate delivery to the shallow subsurface.

4 Groundwater Monitoring

This section summarizes site-wide groundwater monitoring events, modifications to the program, and results from the reporting period.

4.1 Groundwater Monitoring Program

The groundwater monitoring program presented in the CMI Work Plan (Arcadis 2010) establishes the relevant Sampling and Analysis Plan and quality assurance/quality control parameters for future monitoring, which track the efficacy of the corrective measure. Quarterly sampling of a selected monitoring network was performed primarily downgradient and off site from the IRZs for the first 2 years of implementation and then semi-annually starting in 2013 at the following locations: IP-1, IMP-3, MW-16, MW-17, MW-18, and MW-21. Monitoring well MW-13, which is located on site and upgradient of the Southern IRZ Area, is used as a background location. In 2019, the monitoring program was modified to include additional wells and analytes as detailed below. Changes to the monitoring program were documented in the ERD Work Plan (Arcadis 2018b). Table 3 summarizes the 2021 semiannual monitoring program for IRZ performance and MW-20 BTEX constituents.

4.2 Groundwater Monitoring Activities

The two site semi-annual monitoring events were performed on April 14 and 15, 2021 (spring sampling event), and November 22 and 23, 2021 and December 10, 2021 (fall sampling event). Monitoring is intended to track performance of the corrective measure implementation and provide data to support injection frequency (e.g., total organic carbon [TOC] concentrations at injection wells). To support post-injection monitoring, additional samples were collected during the 2021 spring and fall sampling events at the following wells: MW-15, MW-16, MW-20, MW-23, MW-24, and MW-25. Monitored natural attenuation (MNA) parameters including ethane, ethene, and methane were also collected during the 2021 spring and fall sampling events. These additional groundwater monitoring activities are summarized in Table 3. Groundwater monitoring results are discussed in Section 4.6.

4.3 Laboratory Analyses

Table 3 shows the analyses completed at each monitoring well. Groundwater samples collected during the 2021 spring and fall sampling events were analyzed for the following parameters:

- Volatile organic compounds (VOCs) by Method USEPA SW 846 8260C
- TOC by Method USEPA SW 846 9060A
- Ethane, ethene, and methane using USEPA SW 846 Method Robert S. Kerr (RSK-175) standard operating procedure

4.4 Quality Assurance/Quality Control

The data packages for the semi-annual sampling events were reviewed by an Arcadis data validator. Any qualification of the data was determined using the USEPA National Functional Guidelines of January 2017

(Organic Data Review and Inorganic Data Review) and New Jersey Department of Environmental Protection Technical Guidance documents (April 2014).

Data verification was performed at a Level II and included review of the data package completeness, sample preservation, holding times, blank contamination (method, field, and trip), laboratory control samples, matrix spike recoveries and field duplicates.

Data Usability Summary Reports were prepared for the 2021 spring and fall sampling events by Arcadis, and are included as Appendix A. The results were usable; either as reported or with minor qualification. The data validator's comments are incorporated in Tables 6 through 8.

4.5 Groundwater Monitoring Methodology

Before collecting groundwater samples during the semiannual events, a comprehensive round of water level measurements was conducted across the site for comparison to historical groundwater elevations. During the fall sampling event, water levels and groundwater samples were not able to be collected along the railroad property (IP-1, IMP-3, MW-16, and MW-18), until December due to access coordination delays with Amtrak and CSXT. Groundwater elevation results are discussed in Section 4.6.1.

Groundwater samples were collected according to the methodology described in the CMI Work Plan (Arcadis 2010) using low-flow sampling techniques to minimize turbidity in the samples. Each well was purged using a peristaltic pump at a flow rate between 150 and 250 milliliters per minute. Groundwater samples were collected from each well after water quality field parameters (including pH, dissolved oxygen, oxidation-reduction potential, temperature, turbidity, and conductivity) stabilized (i.e., within +/- 0.1 for pH, 10 percent for dissolved oxygen, 3 percent for conductivity, and 10 millivolts for oxidation-reduction potential). The water quality field parameters were monitored and recorded approximately every 5 minutes until stabilization was achieved. Field data for the sampling events completed during this reporting period are provided in Table 4. Groundwater monitoring field logs are included in Appendix B.

Following collection, groundwater samples were packed for shipment in a cooler with ice under appropriate chain-of-custody protocol and transported to TestAmerica Laboratories, Inc. located in Buffalo, New York for all analyses.

4.6 Groundwater Monitoring Results

Historically, the following compounds have been detected at the site: 1,1-dichloroethene (1,1-DCE), 1,2-dichloroethane (1,2-DCA), cis-1,2-dichloroethene (cis-1,2-DCE), trans-1,2-dichloroethene (trans-1,2-DCE), trichloroethene (TCE), tetrachloroethene (PCE), and vinyl chloride (VC).

ERD performance can be evaluated in various ways, including:

- Elevated dechlorination daughter compounds (cis-1,2-DCE and VC) and end products (ethane and ethene) trends alongside decreasing parent compound (PCE and TCE) trends.
- Maintained elevated levels of TOC as electron donors.
- Favorable geochemical conditions to support parent product degradation into dechlorination daughter products and end products.

- Presence of methanogenic conditions in target treatment zones (i.e., the presence of methane) favorable for microorganisms capable of CVOC dechlorination.

4.6.1 Groundwater Elevation

Two rounds of groundwater levels were collected as part of the semiannual groundwater sampling activities and are presented in Table 5. Monitoring wells MW-10 and MW-11, located adjacent to the CSX railroad, were not gauged during the spring sampling event because they are damaged. These wells were abandoned as approved by the NYSDEC (April 2020), in December 2021 as detailed in Section 5. Groundwater contours for the 2021 spring and fall sampling events are shown on Figures 3 and 4. Groundwater elevation data collected during the reporting period suggest that groundwater flow was consistent with historical observations, flowing generally to the north-northwest.

4.6.2 Total Organic Carbon, Methane, and pH

TOC results allow evaluation of carbon substrate distribution, downgradient transportation prior to consumption by biota, and biota consumption via processes that lead to ERD of parent compounds. TOC samples were collected at fourteen monitoring wells and two injection wells during the spring and fall sampling events.

Groundwater concentrations for TOC and MNA parameters, including methane, from 2021 sampling events are shown on Figure 5 and summarized in Tables 6 and 7, respectively. The “at-a-glance” charts for performance monitoring wells (MW-B1, MW-A1, and MW-19), additional monitoring wells included to support expansion of the existing remedy (MW-23, MW-24, and MW-25), and select downgradient monitoring wells (MW-16, MW-18, IP-1, and IMP-3) are presented on Figures 6 through 15.

The target TOC concentration is approximately 20 milligrams per liter (mg/L) which is assumed sufficient to promote ERD based on Arcadis’ experience with ERD implementation; however, TOC concentrations below this target but still above background are often adequate. Results from the semiannual events are detailed below and presented on Table 6.

- The TOC analytical results from groundwater samples collected from wells IW-A2, IW-B3, MW-B1, and MW-24 located within the IRZ had concentrations exceeding the target. Although wells MW-A1, MW-23 and MW-25 were below the target, the concentrations are above background and, therefore, sufficient TOC is considered present within the IRZ areas.
- Downgradient TOC results for the six off-site locations (MW-16, MW-17, MW-18, MW-21, IP-1, and IMP-3) are consistent with historical values, ranging from an estimated 1.1 to 7.8 mg/L.
- TOC at MW-13, located upgradient from treatment areas, was either not detected or detected just above reporting limits consistent with historical values.

Methanogenic conditions favorable for ERD were observed during the reporting period within or immediately downgradient of property boundary IRZs. Methane concentrations are shown in Table 7 and summarized below:

- Methane was detected in all on-site wells analyzed for methane in the 2021 spring and fall sampling events. On-site methane concentrations from wells within the anticipated IRZ areas ranged from 9.2 mg/L to 17 mg/L in 2021, except for MW-20 which did not exhibit elevated concentrations, indicating that sufficient reducing conditions exist.

- Methane concentrations were generally consistent with historical levels at downgradient monitoring locations (MW-16, MW-18, IP-1) during the reporting period. IP-1 was the only off-site downgradient monitoring well that exhibited elevated methane concentrations (2.8 and 2.3 mg/L as shown in Table 7); however, the concentrations are considered safe and below any levels that would be a concern regarding migration to indoor air.
- pH values in all performance monitoring wells were maintained in the ranges favorable for ERD (i.e., between 5 and 8 standard units) throughout the reporting period as shown in Table 4.

These data indicate that site groundwater remains strongly supportive of ongoing ERD remedy implementation following the 2020 injection event.

4.6.3 Volatile Organic Compounds

Site groundwater VOC results have historically been compared to guidance values/standards, as applicable, found in the Technical and Operational Guidance Series (TOGS; NYSDEC 1998) and its addenda (January 1999 Errata Sheet, April 2000 Addendum, and June 2004 Addendum). Discussed below are the results that are greater than these guidance values/standards. The results of VOC analysis from samples collected at the background well, IRZ performance monitoring wells, downgradient wells, and wells near the former Volvo service center are discussed below.

Groundwater analytical results from this reporting period for dechlorination end products (ethane and ethene) and VOCs are summarized in Tables 7 and 8, respectively. The following wells described in this section exhibited VOC groundwater concentrations above the TOGS Criteria during the reporting period as shown in Table 8: MW-24, MW-A1, MW-19, MW-25, MW-15, MW-20, IMP-3, IP-1, and MW-18. Results for key CVOCs (PCE, TCE, cis-1,2-DCE, and VC) and their dechlorination end products are also presented in the “at-a-glance” charts shown on Figures 6 through 15 which show concentration trends over the full timeframe of ERD remedy implementation at the site.

Ketones such as acetone, 2-butonone, and 2-hexanone are temporary products of organic carbon substrate (e.g., EVO) fermentation. These compounds may be detected near locations where organic carbon substrate is injected; however, these compounds degrade and/or attenuate rapidly when transported downgradient of the treatment zone via groundwater movement because they serve as electron donors to support ERD. Acetone has exceeded TOGS Criteria occasionally since injection began, particularly during quarterly injections with molasses as described in Section 3.1.

Acetone was detected in MW-15 and MW-19 during this reporting period below the TOGS Criteria. 2-butonone was detected in MW-24 during the reporting period. Monitoring of these parameters will continue during the next sampling event. Subsequent sections describe results from key monitoring locations in additional detail.

4.6.3.1 Background Well

Samples collected from monitoring well MW-13 (the background location) were non-detect for all CVOC analytes during the 2021 sampling events. This is consistent with historical observations at this location.

4.6.3.2 In-Situ Reactive Zone Monitoring Wells

Monitoring wells within and immediately downgradient of the IRZs (MW-B1, MW-A1, and MW-19) are included in the monitoring program to evaluate ERD effectiveness along the property boundary. Monitoring wells MW-23, MW-24, and MW-25 were included during this reporting period to evaluate the 2018 and 2020 expansion of the existing ERD remedy. Performance monitoring results for key CVOCs (PCE, TCE, cis-1,2-DCE, and VC), their dechlorination end products (ethene and ethane), and an indicator of reducing conditions (methane) are presented on Figures 6 through 15 for these wells.

These IRZ monitoring wells continue to demonstrate ERD effectiveness within and immediately downgradient of the IRZs along the property boundary as discussed below.

4.6.3.2.1 Northern (B-Line) In-Situ Reactive Zone Monitoring Wells

The northern monitoring well results are included in Table 7 and Table 8 and summarized below. At-a-glance charts are included for these wells on Figures 6 through 8.

Shallow Zone

Monitoring well MW-B1 is representative of the shallow mass flux zone for the northern (B-Line) IRZ area. Parent products (PCE and TCE), daughter products (cis-1,2-DCE and VC), and end products (ethane and ethene) were not detected in the reporting period. Daughter product concentrations decreased from historical highs following remedial activities in 2010 and fluctuated until 2018; they have been minimal or non-detect since injections in 2018 and 2020. This suggests strong reductive dechlorination along the northern IRZ.

Deeper Zone

Monitoring wells MW-23 and MW-24 are representative of the deeper mass flux zone for the northern IRZ area.

Monitoring well MW-23 exhibited the following trends regarding key CVOCs:

- Parent products were not detected during the reporting period
- Daughter products were detected in both the spring and fall sampling event, likely as a result of the 2020 injection event

As shown on Figure 7, parent and daughter products at MW-23 decreased to non-detect concentrations alongside elevated end products following the 2017 and 2018 injections. Parent and daughter product concentrations have remained non-detect except for limited daughter product detections as shown in Table 8.

Monitoring well MW-24 exhibited the following trends regarding key CVOCs:

- Parent products were not detected during the reporting period
- Daughter products were elevated during the spring sampling event, but decreased to non-detect during the fall sampling event

As shown on Figure 8, TCE at MW-24 diminished to non-detect concentrations alongside elevated daughter product concentrations following the 2017 and 2018 injections. Elevated TCE was then observed in November 2020 resulting from the 2020 injection event. TCE and daughter products decreased to non-detect by the 2021 fall sampling event. The overall trend at MW-24 location indicates a steady shift from parent products to daughter and end products.

Overall, VOC data collected at these wells during the reporting period suggest that ERD has resulted in a significant transformation from parent to end products in the northern IRZ and in the expanded areas of influence from the 2018 and 2020 remedial optimizations.

4.6.3.2.2 Southern (A-Line) In-Situ Reactive Zone Monitoring Wells

Overall, VOC data collected during the reporting period suggest that ERD continues to occur within the southern IRZ in response to remedial optimization activities since 2017. Southern (A-line) IRZ monitoring well results are included in Tables 7 and 8 and summarized below.

Source Area

Monitoring well MW-25, which represents the southern source area mass flux zone, exhibited the following trends regarding key CVOCs:

- Parent and daughter products fluctuated during the reporting period
- End products were elevated during the reporting period

As shown on Figure 9, parent products decreased alongside increasing daughter products as a result of the 2018 injection event. Parent product concentrations decreased further to limited or non-detect concentrations following the 2020 injection event, alongside a significant increase in daughter product cis-1,2-DCE. However, parent and daughter products rebounded at MW-25 during 2021 which is common when residual mass of VOCs adsorbed to soil (previously inaccessible for treatment) dissolves into groundwater to reach equilibrium conditions. These results indicate reductive dechlorination is occurring at and upgradient of this location in response to the 2018 and 2020 injection events. Performance monitoring results in 2022 will be used to evaluate if increasing concentrations require additional injections to facilitate ongoing ERD.

Shallow Zone

Monitoring wells MW-A1 and MW-19 represent the shallow mass flux zone for the southern IRZ area.

Monitoring well MW-A1 exhibited the following trends regarding key CVOCs:

- Parent and daughter products were not detected at MW-A1 during the reporting period

As shown on Figure 10, parent and daughter products concentrations have remained non-detect at MW-A1 for the last three sampling events, which has never occurred for consecutive sampling events at this location. This indicates that remedy effectiveness has improved significantly in this area as a result of remedial optimization activities since 2017.

Monitoring well MW-19 exhibited the following trends regarding key CVOCs:

- Parent product concentrations were limited or non-detect during the reporting period
- Daughter products fluctuated near historical lows during the reporting period
- End products were elevated during the reporting period

As shown on Figure 11, parent products have historically fluctuated at MW-19, which is attributed to residual CVOC mass sorbed to soil that is liberated during ERD injections. Daughter products have also historically fluctuated; however, they decreased following the 2020 injection event and remained near historical lows during

the reporting period. End products transitioned from increased ethene to ethane in 2021. These results indicate reductive dechlorination is occurring through completion in this area.

CVOCs at these shallow mass flux zone locations have fluctuated since injections began along the property boundary; however, they have trended downward with an associated shift to end products since system optimization in 2017. MW-19 is screened over a larger interval than MW-A1 and may be impacted by both shallow and deeper mass flux pathways. Daughter products at MW-19 have decreased over time but remain above screening levels; this indicates the shallow mass flux zone may require additional carbon substrate for complete CVOC mass reduction in this area.

Downgradient On-Site Wells

MW-20 and MW-15 are at the downgradient edge of the property but outside what has historically been considered the IRZ areas. The 2018 remedial optimization described in Section 3.1 expanded the IRZ to include areas upgradient of these wells.

Monitoring wells MW-15 and MW-20 exhibited the following trends regarding key CVOCs:

- Parent and daughter product concentrations were within historical low concentration ranges during the reporting period

The continued, but limited, presence of daughter and end products at these wells suggests that natural degradation is likely occurring at or upgradient of this area. However, parent, daughter, and end product results at MW-15 and MW-20 do not show a significant influence from remedial optimization activities since 2017. This indicates that these wells are primarily impacted by the shallow mass flux pathway, and not the deeper mass flux zones targeted during remedial optimization activities since 2017.

BTEX concentrations have generally demonstrated decreasing trends at MW-20 since ERD treatment began. Benzene at exceeded TOGS Criteria during the reporting period but was within historical ranges. Toluene, ethylbenzene, and xylenes have remained non-detect since late 2019. The variation in BTEX concentrations is likely attributed to upgradient groundwater flushing and consumption as organic carbon to accentuate ERD within this area.

4.6.3.3 Downgradient Monitoring Wells

Downgradient off-site monitoring wells include MW-16, MW-18, IP-1, IMP-3, MW-17, and MW-21. Performance monitoring results for key CVOCs, their dechlorination end products, and an indicator of reducing conditions (methane) are presented on Figures 12 through 15 for a subset of these wells. Performance monitoring results are included in Table 8.

Monitoring well MW-16, located downgradient of the southern source area detailed in Section 3, exhibited the following trends regarding key CVOCs:

- Parent and daughter products fluctuated near historical lows during the reporting period

As shown on Figure 12, daughter products at MW-16 have generally decreased in response to both shallow and deeper injection activities since 2010; however, the trend appears more significant in response to deeper injection activities since 2017. These results indicate that MW-16 is influenced by both the shallow and deeper mass flux pathways.

Monitoring wells MW-17 and MW-21, located downgradient from the southern IRZ on the southwestern edge of the downgradient off-site property, continue to have no key CVOC detections.

Monitoring wells IMP-3, IP-1, and MW-18, located downgradient of the northern IRZ, exhibited continued parent and daughter product concentrations within historical ranges during the reporting period as shown on Figures 13 through 15. These monitoring wells have shown limited influence from historical shallow injections from 2010 to 2015, or from remedial optimization activities since 2017.

As part of the monitoring program, IMP-3, IP-1, MW-16, and MW-18 are also monitored for select VOCs (1,2-DCA, benzene, TCE, cis-1,2-DCE, trans-1,2-DCE, and VC) to address potential soil vapor exposure concerns in commercial buildings near these monitoring wells near the Former Volvo Center. Each of these wells had concentrations greater than the TOGS criteria for at least one of the select VOCs during the reporting period as shown on Table 8. Current concentrations of these select VOCs do not indicate a change in condition warranting additional action for vapor intrusion concerns for off-site locations.

During the November 2021 sampling event, Arcadis noted that the former Volvo service center was currently being used as additional office space by Walter Pratt & Sons. Arcadis will continue to track property use and groundwater results in future annual reports.

4.6.4 Dissolved Oxygen Field Data

Dissolved oxygen data collected during the 2021 reporting period is shown in Table 4. The results indicate that site groundwater is strongly to moderately reducing and will support ongoing CVOC ERD treatment. The depletion of oxygen is observed across the site in groundwater samples as the monitoring wells reach stabilization. Dissolved oxygen off site ranged from 0.0 to 0.3 mg/L and 0.0 to 5.37 mg/L during the spring and fall sampling events, respectively. Dissolved oxygen on site was 0.0 mg/L and ranged from 0.53 to 5.97 mg/L during the spring and fall sampling events, respectively. Depleted dissolved oxygen concentrations in areas targeted by carbon substrate injections indicates anaerobic conditions favorable to ERD.

4.6.5 Summary

The following observations can be made based on data collected since submittal of the 2020 CMI Annual Report (Arcadis 2021):

- ERD was sustained along the property boundary and additional CVOC source areas targeted during remedial optimization activities since 2017. Indications of successful ERD following the 2020 injection event were observed during the reporting period (e.g., MW-B1 and MW-24 as described in Section 4.6.3.2.1, MW-25 as described in Section 4.6.3.2.2).
- Remedial optimization activities since 2017 have resulted in significant CVOC mass reduction in deeper mass flux areas (e.g., MW-23 and MW-24 as described in Section 4.6.3.2.1, MW-A1 as described in Section 4.6.3.2.2).
- Additional carbon substrate delivery remains a recommendation in the shallow mass flux zone to facilitate complete remediation of site CVOCs, consistent with previous findings.
- There is limited evidence that sustained ERD is occurring off site resulting from remedial optimization activities since 2017. This is primarily exhibited at MW-16 which had decreasing daughter product concentrations following these injection events, potentially the result of deeper on-site source zone treatment

and related reduced mass flux from these areas. However, performance monitoring results in 2022 are required to confirm these results.

- Wells downgradient of the northern IRZ (e.g., IMP-3, IP-1, and MW-18) did not exhibit significant influence from shallow injections (2010 to 2015) or deeper remedial optimization activities (2017 to present). B-Line IRZ monitoring well results (e.g., MW-23, MW-24, MW-B1) following remedial optimization activities indicate successful ERD as a result of carbon substrate delivery to the deeper source areas and mass flux zones. This indicates that the clean water front resulting from upgradient treatment has not reached these downgradient wells and/or these downgradient wells may not be significantly connected to the deeper mass flux zone. The lack of response at off-site downgradient wells to historical shallow injections may also be attributed to ineffective shallow carbon substrate delivery.
- The presence of dechlorination daughter and/or end products at areas that have not been influenced by ERD treatment suggests that natural attenuation is occurring at or upgradient of these locations with other organic compounds potentially served as electron donors (e.g., BTEX).

5 Well Decommissioning

Four wells (MW-10, MW-11, MW-12S, and MW-12D) were abandoned in 2021 after approval from the NYSDEC via email on April 14, 2020. These wells were associated with previous environmental investigations and/or remedial activities and were currently not critical to the implementation or monitoring of the ongoing remedy. These four wells were either previously damaged, not used for sampling, and/or difficult to access due to railroad traffic and regulations.

A New York State licensed well driller performed the well abandonment activities. A representative of Arcadis was present during the work and documented all monitoring well decommissioning activities, including daily reports, photographs, and sketches as necessary. Well decommission logs are provided in Appendix C. The wells were decommissioned using the steps described below, which are in conformance with NYSDEC CP-43: Groundwater Monitoring Well Decommissioning Policy (NYSDEC 2009) except as noted.

Abandonment included the following procedures:

- Well construction details for each well to be abandoned were reviewed to confirm as-built well depth, screen interval, and surface seal information.
- The wells were positively identified before initiating the abandonment.
- Water levels and well depths were measured using a well sounder.
- Cement or bentonite grout was used to backfill (via tremie pipe) each well from the bottom up.
- Surface completion materials were removed (e.g., flush mounts, concrete pads) from each well location except at MW-12S/12D for concerns related to damaging nearby utilities.
- The well casing was cut and removed to a depth of at least 2 feet below ground surface, with the exception of MW-12S/12D, where the well casing was cut at the surface, for concerns related to damaging nearby utilities.

  Ground surface around each abandoned well was repaired to match the surrounding areas.

6 Periodic Review Report: Engineering and Institutional Controls

As described in the CMI Work Plan (Arcadis 2010) and the Statement of Basis for Proposed Remedy Selection (USEPA 2009), Ashland is responsible for institutional controls at the site including maintaining perimeter control and tracking surface covers (building slabs and asphalt pavement). The details related to this responsibility are identified in the Periodic Review Report (PRR) section of the Draft Site Management Plan (SMP; Arcadis 2017) submitted to USEPA for approval on January 31, 2017. A revised SMP will be submitted for approval in 2022 now that ERD optimization has been completed. The revised SMP will include the Environmental Easement for the site once it is finalized and recorded.

Arcadis performs annual reviews of these institutional controls as part of the semiannual monitoring events. Conditions are similar to those documented in Appendix C of the 2020 CMI Annual Report (Arcadis 2021). Appendix D contains the site inspection log completed in November, as well as a photo log. As requested by the NYSDEC, an Institutional and Engineering Controls Certification Form is provided in Appendix E and signed by Ashland.

In 2021, Ashland coordinated with their subcontractor (The Davey Tree Expert Company) to maintain the vegetation along the fence line and to clean up some of the overgrown areas within the site. On-site vegetation maintenance will continue in 2022. There were no observations of new graffiti on site. The fence surrounding the site generally remained in good condition, except for a section along South Street as noted below. During the well decommissioning activities described in Section 5, the road box for monitoring well MW-19 was repaired by the subcontractor.

Issues identified during the annual review are summarized below:

- Rainwater runoff and debris from off site has been observed to be flooding certain areas onsite causing minor erosion and leaving mud and debris onsite. It's our understanding that the City of Rensselaer has applied for a grant to replace the storm sewer culvert under the road adjacent to the site and grant approval is pending. This work is expected to improve flooding on site.
- The rainwater runoff and debris from off site is causing some undermining and fence damage along South Street. Ashland will coordinate with a subcontractor to repair the fence in 2022.

7 Five-Year Review

This section fulfills the requirement agreed to in the CMI Work Plan (Arcadis 2010) to summarize the remedy status after five years of implementation. The review, which was planned for 2021 but was postponed to include results from the 2020 remedial optimization, covers the period from 2015 to 2021 (five-year review period).

7.1 Remedy Review

Multiple supplemental site investigations were completed in 2017 that indicated the presence of residual on-site CVOC sources and potential mass flux pathways in deeper intervals not targeted by the existing ERD remedy, as detailed in the 2017 CMI Annual Report (Arcadis 2018a). In response, Arcadis completed a limited-scale molasses injection event in 2017 in three dual-purpose injection/monitoring wells that targeted the newly identified deeper source and mass flux zones. The limited-scale injection event was successful and led to a 2018 remedial optimization. The 2018 remedial optimization included the installation of 17 injection wells targeting source areas and deeper mass flux zones, followed by subsequent EVO injections into the newly installed injection wells. Shallow injections in pre-existing injection wells were not completed in the 2018 injection event. The 2018 remedial optimization and injection work was detailed in the 2018 CMI Annual Report (Arcadis 2019).

Performance monitoring data collected following the 2018 remedial optimization injections indicated that:

- Deeper injection events in 2017 and 2018 yielded successful treatment; however, a combination of continued deep injections and carbon substrate delivery to the shallow subsurface consistent with injections from 2010 to 2016 is necessary to meet project objectives.
- Targeted source area treatment is effective; therefore, supplemental targeted treatment is necessary to continue ERD of on-site source mass that is leading to downgradient impacts.

In response, Arcadis completed another injection event in 2020 in the injection infrastructure utilized in 2018 supplemented with a one-time injection into CVOC source zones using temporary DPT injection points to deliver EVO and similarly promote CVOC treatment. Arcadis also proposed the installation of a mulch PRB to facilitate carbon substrate delivery to the shallow subsurface. The mulch PRB installation is currently on hold as described in Section 3.2.

Overall, the site remedy has resulted in sustained ERD and CVOC source mass degradation along the property boundary, including the CVOC source areas and deep mass flux pathways targeted during remedial optimization activities since 2017. Successful ERD resulting from the 2020 injection event was observed as described in Section 4.6.5. Historical analytical results from downgradient monitoring wells generally show a separate influence from shallow and deep carbon substrate injections which indicates connection to both shallow and deep mass flux pathways. These conclusions were drawn from historical analytical data shown on Figures 6 through 15 and discussed in Section 4.6.3. The historical analytical data was also reviewed for statistically significant trends as described in Section 7.2.

Results from remedial activities conducted during this five-year review period indicate that the site remedy is generally on track (pending successful carbon substrate delivery to the shallow subsurface) to achieve the corrective measure objectives for short-term and intermediate performance listed in Section 2. Human and environmental health is protected on site with institutional controls and off site by site remedial activities. Although treatment has been successful on site, off-site wells downgradient of the northern source zone (e.g., IMP-3, IP-1,

MW-18) exceed at least one TOGS criteria. TOGS exceedances were minimal at off-site wells downgradient of the southern source zone (MW-21, MW-16, and MW-17). Remedial optimization activities since 2017 have determined that carbon substrate delivery is required both in the shallow and deep mass flux zones to achieve on-site plume control. The proposed mulch PRB described in Section 3.2 is expected to result in effective long-term shallow carbon substrate delivery and improve on-site treatment. Although there remains some VOCs in groundwater on site, the site can still be used as a productive asset for the surrounding community if the need or opportunity arises.

Recommendations related to this five-year review are detailed in Section 8.

7.2 Mann-Kendall Analysis

The non-parametric Mann-Kendall test was utilized to identify the presence of a statistically significant trend in the concentration data. This test compares the relative magnitudes of sample data rather than the data values themselves (Gilbert 1987). The data need not conform to any particular statistical distribution (e.g., normal distribution). If an increasing trend exists, the sample taken first from any randomly selected pair of measurements should on average have a lower concentration than the measurement collected at a later point.

The Mann-Kendall test statistic (S) was calculated for the following wells where BTEX, PCE, TCE, 1,1-DCA, 1,1-DCE, 1,2-DCA, cis-1,2-DCE, trans-1,2-DCE and VC were detected in more than 40% of samples since 2010: IMP-1, IP-1, IW-A2, IW-B3, MW-15, MW-16, MW-18, MW-19, MW-20, MW-23, MW-24, MW-25, MW-A1, and MW-B1.

The Mann-Kendall results are summarized in Appendix F-1; the detailed results are presented in Appendix F-2. An overall positive value for S indicates an upward trend over time, while a negative value indicates a decreasing trend over time.

Overall, most locations did not exhibit a statistically significant trend. Injections into new source areas during remedial optimization activities since 2017 may have upset equilibrium and impacted trends at these monitoring locations. The discussion below focuses on the following COCs: PCE, TCE, 1,1-DCA, 1,1-DCE, 1,2-DCA, cis-1,2-DCE, trans-1,2-DCE and VC. Constituents for which a decreasing or increasing trend are as follows:

- PCE: increasing at well MW-20 and decreasing at well MW-25.
  - Increases at MW-20 are limited, and concentrations are generally fluctuating within historical ranges as described in Section **Error! Reference source not found.**.
  - Decreasing trend at MW-25 are a result of successful remedial optimization since 2017 as described in Section 4.6.3.2.2.
- TCE and 1,1-DCE: decreasing at well MW-16. Decreasing trends are in response to site remedial activities as described in Section 4.6.3.3.
- 1,1-DCA: decreasing at wells MW-19, MW-24, and MW-A1.
- cis-1,2-DCE: increasing at well IMP-3; however, concentrations have decreased from historical highs in 2006. Decreasing at wells MW-16 (as described Section 4.6.3.3) and MW-A1 (as described Section 4.6.3.2.2).
- Vinyl chloride: increasing at well IMP-3; however, concentrations have decreased from historical highs in 2006. and decreasing at wells IP-1 and MW-A1.

The remaining trends for the locations and analytes exhibited either no significant trend (31 out of the 55 trend tests), decreasing trends (18 out of the 55 trend tests), or probably decreasing trends (3 out of the 55 trend tests) as detailed in Appendix F-1. Based on these trends, the plume is relatively stable.

8 Conclusions, Recommendations, and Schedule

Based on the data collected to date, the ERD injection remedy at the site continues to maintain an IRZ along the western site boundary to address potential off-site migration of CVOCs in groundwater.

Performance monitoring data collected during the reporting period indicates that carbon substrate in areas targeted during the 2020 injection event was successfully replenished and does not yet require additional injections at this time. The data indicates successful ERD resulting from the 2020 injection, particularly in MW-A1, MW-B1, MW-24, and MW-25. The results indicate that ERD effectiveness has increased significantly in deeper source zones and mass flux pathways; however, performance monitoring results in 2022 are required to confirm these results

Shallow carbon substrate delivery has not occurred since 2016, as efforts since 2017 have been focused largely on evaluation and treatment of deeper mass flux zones identified during 2017 site characterization activities. Performance monitoring data collected since the 2017 ERD system optimization indicate that deeper injection events yield successful treatment; however, a combination of continued deep injections and carbon substrate delivery to the shallow subsurface is likely necessary to meet project objectives.

Arcadis is evaluating the best option to provide a long-term solution to delivery of carbon to the shallow subsurface, without the installation of additional injection wells in this interval. The shallow injection wells previously used at the site were largely inefficient means of delivering carbon substrate to the subsurface due to low relative permeability in the shallow subsurface. The previously proposed mulch PRB installation (Arcadis 2020a) has been postponed while Ashland and Arcadis evaluate potential alternative implementation strategies that would make the mulch PRB more cost effective to address the shallow mass flux zone along the site boundary and provide long-term carbon substrate delivery to the shallow subsurface. Results of this evaluation and a modified implementation approach are expected to be reported to NYSDEC in 2022.

Semiannual groundwater monitoring will be conducted in 2022 in accordance with the monitoring schedules and methodology included in this 2021 CMI Annual Report except for the following analyses, which were added onto the original groundwater monitoring program (in 2019) that was presented in the CMI Work Plan to evaluate ERD performance based on newly configured injection plans. At this time, the extra data collection is not needed, and sample analysis will no longer be conducted at the following locations:

- VOCs and field parameters at MW-15
- Methane, ethene, and ethane at MW-15, MW-16, and MW-20

Monitoring well MW-15, was added on to the sample list in 2019 to provide additional data on CVOC concentrations near areas targeted during remedial optimization activities, and has exhibited trends similar to MW-20 and no longer requires collection of additional samples.

Arcadis and Ashland will continue to review remedy effectiveness and delivery system optimization and will communicate any recommended changes to the Agencies (NYSDEC, USEPA, and NYSDOH) prior to any potential future injection events.

9 References

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Tables

Table 1
IRZ Injection Summary (2010 - 2015)
2021 Corrective Measure Implementation Annual Progress Report
Ashland LLC
130 South Street, Rensselaer, New York

	Location ID	Cumulative Volume (gallons)	Average Injection Rate (gpm)	Cumulative Volume (gallons)	Average Injection Rate (gpm)	Cumulative Volume (gallons)	Average Injection Rate (gpm)
Molasses Injections	**Southern IRZ**	**October 2010**		**January 2011-March 2011**		**July 2011-August 2011**	
	IW-A2	201	0.2	773	0.3	940	0.2
	IW-A3	469	0.5	1,209	0.5	1,019	0.3
	IW-A5	477	0.6	736	0.4	1,035	0.3
	IW-A6	980	1.2	1,670	0.9	1,064	0.3
	IW-A7	992	1.1	759	0.3	1,120	0.3
	Subtotal	3,100	--	5,100	--	5,200	--
	Average	624	0.7	1,030	0.5	1,036	0.3
	Northern IRZ	**October 2010**		**January 2011-March 2011**		**July 2011-August 2011**	
	IW-B1	12	0.04	283	0.2	988	0.03
	IW-B2	372	1.2	389	0.2	1,105	0.05
	IW-B3	339	1.3	441	0.2	1,011	0.03
	IW-B4	194	0.6	286	0.1	560	0.02
	IW-B5	699	2.3	1,614	1.2	1,632	0.07
	Subtotal	1,600	--	3,000	--	5,300	--
	Average	323	1.1	603	0.4	1,059	0.04

	Location ID	Cumulative Volume (gallons)	Average Injection Rate (gpm)	Cumulative Volume (gallons)	Average Injection Rate (gpm)	Cumulative Volume (gallons)	Average Injection Rate (gpm)
EVO Injections	**Southern IRZ**	**October 2011-December 2011**		**July 2013-October 2013**		**September 2015-November 2015**	
	IW-A2	1,306	0.2	1,305	0.2	736	0.06
	IW-A3	1,309	0.3	1,310	0.3	1,325	0.60
	IW-A5	1,320	0.3	1,368	0.3	1,085	0.12
	IW-A6	1,300	0.2	1,363	0.4	1,029	0.12
	IW-A7	1,312	0.2	1,305	0.2	374	0.04
	Subtotal	6,500	--	6,700	--	4,500	--
	Average	1,309	0.3	1,330	0.3	910	0.2
	Northern IRZ	**October 2011-December 2011**		**July 2013-October 2013**		**September 2015-January 2016**	
	IW-B1	690	0.02	25	0.003	275	0.003
	IW-B2	1,955	0.21	1,720	0.05	1,275	0.02
	IW-B3	1,285	0.04	735	0.01	975	0.02
	IW-B4	705	0.02	1,330	0.05	633	0.01
	IW-B5	2,275	0.22	1,800	0.07	846	0.01
	Subtotal	6,900	--	5,600	--	4,000	--
	Average	1,382	0.10	1,122	0.04	801	0.01

NOTES:
EVO = emulsified vegetable oil.
gpm = gallons per minute.
IRZ = in-situ reactive zone.
-- = not applicable.

Table 2a
IRZ Injection Summary (2017-2020)
2021 Corrective Measure Implementation Annual Progress Report
Ashland LLC
130 South Street, Rensselaer, New York

	Location ID	Cumulative Volume (gallons)*	Average Injection Rate (gpm)*		Cumulative Volume (gallons)*	Average Injection Rate (gpm)*	Cumulative Volume (gallons)**	Average Injection Rate (gpm)**
Molasses Injections	**Southern Source Zone**	**November 2017**		EVO Injections	**October 2018-December 2018**		**September 2020-October 2020**	
	IW-A08	--	--		3,629	0.2	3,605	0.4
	IW-A09	--	--		4,524	0.9	4,605	0.6
	IW-A10	--	--		95	0.1	--	--
	IW-A11	--	--		5,530	2.4	5,647	3.1
	IW-A12	--	--		5,751	1.0	5,938	1.2
	IW-A13	--	--		3,515	1.3	3,748	1.0
	IW-A14	--	--		4,016	0.4	2,040	0.4
	MW-22	5,767	1.2		3,531	0.7	1,632	0.4
	Subtotal:	5,800	--		30,600	--	27,200	--
	Average:	5,767	1.2		3,824	0.9	3,888	1.0
	Northern Source Zone	**November 2017**			**October 2018-December 2018**		**September 2020-October 2020**	
	IW-B06	--	--		1,135	0.2	1,815	0.2
	IW-B07	--	--		2,553	0.4	807	0.1
	IW-B08	--	--		1,996	0.3	2,063	0.3
	IW-B09	--	--		4,734	0.5	2,025	0.3
	IW-B10	--	--		3,706	0.3	3,480	0.5
	IW-B11	--	--		3,242	0.5	3,659	0.3
	IW-B12	--	--		4,055	0.5	2,349	0.4
	IW-B13	--	--		5,051	0.9	5,069	--
	IW-B14	--	--		4,950	1.2	5,480	--
	IW-B15	--	--		4,911	1.7	5,069	--
	MW-23	1,162	0.6		--[a]	--[a]	--[a]	--[a]
	MW-24	3,320	0.7		--[a]	--[a]	--[a]	--[a]
	Subtotal:	4,500	--		36,300	--	31,800	--
	Average:	2,241	0.6		3,633	0.7	3,182	0.3

NOTES:

[a] Monitoring wells MW-23 and MW-24 used for monitoring during 2018 and 2020 injection events.

[b] Significant daylighting was observed during the 2018 injection event, potentially due to a failed well seal. IW-B10 was taken offline.

[c] IW-A10 was deemed inoperable during the 2018 injection event and was not utilized during the 2020 injection event.

EVO = emulsified vegetable oil

gpm = gallons per minute

* = Based on injection flow rate measured at wellhead (A-line) or changes of tank volumes vs. time (B-line).

* = Average injection rate listed only for flow from injection trailer. Flow rate during injection via gravity was not measured. Wells that do not have a flow rate listed were only injected via gravity.

-- = not available

Table 2b
DPT Injection Summary (2020)
2021 Corrective Measure Implementation Annual Progress Report
Ashland LLC
130 South Street, Rensselaer, New York

DPT Injections	Location ID	Interval (ft bgs)	Cumulative Volume (gallons)*	Average Injection Rate (gpm)*
	Southern Source Zone		**September 2020-October 2020**	
	DPT-01	12 - 16	588	0.5
	DPT-01	16 - 20	678	1.2
	DPT-02	12 - 16	600	0.6
	DPT-02	16 - 20	490	1.1
	DPT-03	17 - 21	573	0.6
	DPT-03	21 - 25	456	1.1
	DPT-04	17 - 21	587	1.2
	DPT-04	21 - 25	601	1.2
	DPT-05	18 - 22	612	0.5
	DPT-05	22 - 26	580	1.1
		Subtotal:	5,800	--
		Average:	576	0.9
	Northern Source Zone		**September 2020-October 2020**	
	DPT-06	20 - 24	90	0.6
	DPT-06	24 - 28	1	0.2
	DPT-07	14 - 18	588	1.7
	DPT-07	18 - 22	588	0.7
	DPT-07	22 - 26	603	0.7
	DPT-08	10 - 14	341	0.6
	DPT-08	14 - 18	588	1.5
	DPT-08	18 - 22	588	1.5
	DPT-08	22 - 26	582	1.1
	DPT-08	26 - 30	791	0.6
	DPT-09	14 - 18	72	1.7
	DPT-09	18 - 22	869	1.5
	DPT-09	22 - 26	844	1.2
	DPT-09	26 - 30	762	2.6
	DPT-10[a]	13 - 17	--	--
	DPT-10[a]	17 - 21	--	--
	DPT-10[a]	21 - 25	--	--
	DPT-11	06 - 10	585	1.1
	DPT-11	10 - 14	588	2.9
	DPT-11	14 - 18	588	4.0
	DPT-11	18 - 22	588	4.0
	DPT-11	22 - 26	588	3.5
	DPT-12	13 - 17	588	2.0
	DPT-12	17 - 21	618	2.5
	DPT-12	21 - 25	608	3.0
		Subtotal:	12,100	--
		Average:	548	1.8
		Total:	17,900	--

NOTES:
[a] - proposed injection point DPT-10 was removed from the scope of work due to field conditions.
DPT = direct push technology
gpm = gallons per minute
-- = not applicable.

Table 3
Sample Summary and IRZ Performance and BTEX Monitoring (2021)
2021 Corrective Measure Implementation Annual Progress Report
Ashland LLC
130 South Street, Rensselaer, New York

Parameter	Semi-Annual (2 times/year)				Water Level	Field Parameters
Well IDs	VOCs	Ethane/Ethene	Methane	TOC	--	--
IP-1	X	X	X	X	X	X
IMP-3	X			X	X	X
IW-A2	X			X	X	X
IW-B3	X			X	X	X
MW-A1	X	X	X	X	X	X
MW-B1	X	X	X	X	X	X
MW-13	X			X	X	X
MW-15	X	X	X		X	X
MW-16	X	X	X	X	X	X
MW-17	X			X	X	X
MW-18	X	X	X	X	X	X
MW-19	X	X	X	X	X	X
MW-20	X	X	X	X	X	X
MW-21	X			X	X	X
MW-23	X	X	X	X	X	X
MW-24	X	X	X	X	X	X
MW-25	X	X	X	X	X	X

NOTES:
1. Samples will be analyzed by Test America (TA) located in Buffalo, New York.
2. Field parameters include pH, dissolved oxygen,oxidation-reduction potential, temperature, conductivity, and turbidity.
X = indicates sample to be collected.
TOC = total organic carbon.
VOC = volatile organic compounds.

Table 4
Field Parameters After Stabilization was Achieved (2016-2021)
2020 Corrective Measure Implementation Annual Progress Report
Ashland LLC
130 South Street, Rensselaer, New York

Well ID	Date Sampled	Conductivity (mS/cm)	Dissolved Oxygen (mg/L)	Oxidation Reduction Potential (mV)	pH (SU)	Temperature (°C)	Turbidity (NTUs)
IMP-3	06/30/16	1.75	0.99	-154	7.75	17.96	3.8
	12/20/16	1.13	4.38	0.0	7.05	10.75	0.0
	05/15/17	1.71	0.00	25	7.37	10.60	22.8
	10/30/17	1.72	1.69	-61	6.49	15.45	37.6
	04/09/18	0.985	1.56	-15	7.31	10.56	30.9
	10/03/18	1.60	0.57	-119	6.97	16.70	0.0
	02/19/19	1.58	14.91	-181	7.29	6.60	606
	05/07/19	1.84	0.57	-92	6.86	11.91	42.0
	08/07/19	1.68	0.68	-56	7.31	17.47	9.9
	11/07/19	1.83	0.45	-34	6.98	13.59	58.7
	04/07/20	1.79	0.71	-95	6.96	12.76	73.1
	11/12/20	0.929	2.54	-46	6.94	14.32	3.5
	04/15/21	1.67	0.0	-83	6.97	11.56	5.7
	12/10/21	1.57	0.0	-70	7.11	12.41	0.7
IP-1	06/28/16	1.14	0.0	-119	5.36	16.42	13.1
	12/20/16	1.14	0.55	-84	6.40	9.39	26.9
	05/15/17	1.00	0.00	-32	7.30	11.03	108.0
	10/30/17	1.10	3.60	-109	6.83	14.20	11.6
	04/09/18	0.775	0.00	-115	7.33	9.00	102
	10/03/18	0.856	0.00	-181	6.99	64.4	0.0
	02/19/19	1.03	15.39	-216	7.13	5.32	973
	05/07/19	1.19	2.65	-127	6.56	10.85	35.8
	08/07/19	0.965	0.52	-113	7.20	18.83	8.8
	11/07/19	1.02	3.63	-94	6.86	13.75	31.7
	04/07/20	0.999	2.22	-151	6.54	10.79	71.7
	11/12/20	0.560	6.21	-109	6.98	14.68	34.3
	04/15/21	0.975	0.0	-126	6.92	10.10	23.1
	12/10/21	0.801	0.0	-102	7.08	11.13	11.1
IW-A2	06/30/16	6.81	0.38	-215	7.31	19.90	537
	12/21/16	3.97	1.30	-207	6.88	9.00	363
	05/16/17	3.25	0.00	-83	6.76	18.60	588
	10/31/17	4.16	2.66	-113	6.80	14.25	446
	04/10/18	3.31	0.00	-161	7.19	11.44	149
	10/04/18	3.75	0.69	-193	6.97	15.38	101
	05/08/19	3.21	3.20	-262	6.94	18.05	129
	11/07/19	3.76	0.17	-133	6.71	10.89	199
	04/08/20	3.55	0.00	-177	6.94	13.37	40.0
	11/12/20	3.32	0.55	-140	6.81	11.91	12.0
	04/15/21	3.02	0.0	-129	6.44	11.77	30.6
	11/22/21	3.05	4.25	-168	6.75	13.88	20.1
IW-B3	06/30/16	2.37	3.33	-57	7.70	19.68	187
	12/21/16	3.09	0.70	-156	6.91	10.11	324
	05/16/17	1.43	0.00	-8	6.31	11.95	399
	10/31/17	2.82	1.99	-133	6.71	11.92	324
	04/10/18	2.94	0.00	-122	7.32	8.49	153
	10/03/18	2.44	0.49	-173	6.81	18.92	195
	05/08/19	2.04	5.48	-234	6.74	10.97	92.5
	11/06/19	2.21	0.37	-136	6.76	14.10	30.9
	04/07/20	1.70	0.43	-101	6.79	12.31	49.9
	11/13/20	1.88	7.38	-99	6.72	10.59	11.5
	04/14/21	1.61	0.0	-126	6.66	11.59	19.7
	11/22/21	1.76	0.91	-157	6.51	12.29	21.0
MW-13	06/28/16	0.718	0.53	-74	7.78	15.76	0.0
	12/20/16	0.688	2.30	54	8.01	7.76	0.0
	05/16/17	0.459	0.00	121	7.40	12.87	0.0
	10/31/17	0.745	1.06	-33	6.95	13.61	0.0
	04/10/18	0.572	0.00	64	7.95	6.72	17.7
	10/04/18	0.580	0.00	-95	7.52	58.5	0.0
	05/07/19	0.877	6.45	-139	7.32	11.08	9.19
	11/06/19	0.712	1.83	54	7.42	12.12	6.60
	04/07/20	0.816	0.50	-87	7.80	10.87	0
	11/11/20	0.460	2.83	40	7.89	13.65	0.9
	04/14/21	0.633	0.0	20	7.05	15.15	0.0
	11/22/21	0.733	5.97	191	7.35	13.01	1.2
MW-15	11/06/19	1.29	0.94	-93	7.06	12.55	32.2
	04/07/20	1.15	0.00	-124	7.26	13.15	1.6
	11/12/20	0.912	3.04	-69	6.72	11.37	1.9
	04/15/21	1.02	0.0	-88	6.68	13.30	0.0
	11/22/21	1.21	3.92	-116	6.93	14.24	9.1

Table 4
Field Parameters After Stabilization was Achieved (2016-2021)
2020 Corrective Measure Implementation Annual Progress Report
Ashland LLC
130 South Street, Rensselaer, New York

Well ID	Date Sampled	Conductivity (mS/cm)	Dissolved Oxygen (mg/L)	Oxidation Reduction Potential (mV)	pH (SU)	Temperature (°C)	Turbidity (NTUs)
MW-16	06/30/16	1.21	0.61	6	7.59	18.97	0.8
	12/20/16	1.64	4.71	-58	7.40	11.26	0.0
	05/15/17	0.951	0.00	205	7.10	15.39	5.8
	10/30/17	1.11	6.99	-17	7.20	14.36	22.9
	04/09/18	1.12	0.47	144	7.71	9.81	10.1
	10/03/18	1.22	0.63	-39	7.14	16.56	0.0
	02/19/19	1.53	13.88	-98	7.53	8.10	46.1
	05/07/19	1.87	0.66	-49	7.13	10.22	3.77
	08/08/19	1.72	0.14	-59	7.55	17.70	0.0
	11/07/19	1.86	0.00	-64	7.01	12.57	2.84
	04/07/20	1.81	2.52	-20	7.57	11.51	0
	11/11/20	0.888	2.05	-24	7.08	15.81	0.0
	04/15/21	1.61	0.0	26	7.06	10.73	0.0
	12/10/21	1.69	1.93	16	7.53	12.09	0.8
MW-17	06/28/16	1.92	8.18	-84	4.95	19.99	49.0
	12/21/16	NS	NS	NS	NS	NS	NS
	05/15/17	1.68	0.00	-14	7.04	14.26	25.7
	10/30/17	1.48	2.46	-79	6.99	17.10	20.4
	04/09/18	2.05	0.00	-60	7.72	11.91	22.1
	10/03/18	1.65	0.00	-168	7.06	65.0	0.0
	05/08/19	1.25	5.68	-103	7.07	11.88	8.71
	11/06/19	1.91	2.83	-169	7.19	16.85	53.1
	04/07/20	1.78	0.98	-157	7.39	12.72	23.9
	11/12/20	1.39	3.13	-120	7.10	17.18	27.9
	04/15/21	1.47	0.0	-96	7.02	12.76	1.1
	11/22/21	1.54	3.91	-132	6.93	16.49	14.1
MW-18	06/28/16	1.13	0.0	-89	5.66	17.01	90.7
	12/20/16	1.23	0.33	-57	6.66	10.40	6.0
	05/15/17	0.686	0.00	14	6.91	12.62	114
	10/30/17	1.19	2.36	-60	6.82	13.50	0.0
	04/09/18	0.770	0.00	21	7.33	10.02	28.7
	10/03/18	0.898	0.00	-120	6.88	60.7	0.0
	02/19/19	1.03	14.88	-122	6.82	6.80	412
	05/07/19	1.22	0.65	-100	6.85	12.29	11.1
	08/07/19	0.988	0.55	-52	7.44	19.20	4.5
	11/07/19	1.27	1.10	-39	6.87	11.08	8.45
	04/07/20	1.14	0.55	-56	6.99	14.87	44.8
	11/12/20	0.602	2.98	-42	6.91	14.20	42.3
	04/15/21	1.12	0.0	-38	6.83	10.38	0.0
	12/10/21	0.993	0.0	28	6.91	9.94	0
MW-19	06/30/16	0.718	0.41	-206	7.33	14.65	13.1
	12/20/16	1.09	0.32	-56	6.80	7.80	19.0
	05/16/17	0.688	0.00	-62	7.16	15.05	7.0
	10/31/17	0.836	5.42	-99	6.62	15.36	10.4
	04/10/18	0.886	0.00	-131	7.43	6.11	30.1
	10/04/18	0.50	1.63	-99	7.22	17.81	36.5
	02/19/19	0.65	5.50	-28	8.17	--	161
	05/08/19	1.52	0.90	-190	7.59	10.52	6.13
	08/08/19	1.32	0.33	-136	7.50	19.80	0.0
	11/06/19	1.37	0.20	-96	7.07	13.31	0.98
	04/08/20	1.40	1.67	-182	6.88	7.90	2.2
	11/12/20	0.810	0.60	-120	6.86	12.75	4.2
	04/15/21	1.680	0.0	-138	7.08	9.10	0.0
	11/23/21	1.50	0.60	-98	6.70	11.79	21.2
MW-20	06/30/16	1.15	0.45	-193	7.57	17.62	0.0
	12/21/16	1.53	2.22	-48	7.29	8.08	1.6
	05/16/17	0.776	0.00	94	7.11	11.61	0.0
	10/31/17	1.21	1.36	-76	5.84	14.97	9.92
	04/10/18	0.799	0.00	-46	7.28	6.77	20.9
	10/04/18	1.00	0.00	-111	6.89	62.8	0.0
	05/07/19	1.07	7.10	-179	7.05	10.79	5.98
	11/06/19	0.983	0.80	-29	7.01	12.53	14.8
	04/07/20	0.928	0.00	-72	7.07	12.20	0.0
	11/12/20	0.805	0.70	-57	6.93	11.78	2.4
	04/15/21	0.950	0.0	-41	6.62	10.41	0.0
	11/23/21	0.970	5.73	-48	6.88	12.21	2.9

Table 4
Field Parameters After Stabilization was Achieved (2016-2021)
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Ashland LLC
130 South Street, Rensselaer, New York

Well ID	Date Sampled	Conductivity (mS/cm)	Dissolved Oxygen (mg/L)	Oxidation Reduction Potential (mV)	pH (SU)	Temperature (°C)	Turbidity (NTUs)
MW-21	06/30/16	4.71	6.08	21	7.69	18.58	17.4
	12/20/16	1.80	1.49	-64	6.66	9.48	11.5
	05/15/17	0.819	6.30	327	7.50	13.44	9.9
	10/30/17	2.02	4.13	-58	6.98	14.14	14.6
	04/09/18	1.00	1.06	-63	7.32	8.81	20.8
	10/03/18	2.35	0.47	-169	6.90	15.48	0.0
	02/19/19	1.18	13.49	-100	7.32	6.22	780
	05/07/19	1.58	1.13	-65	6.91	10.40	10.3
	08/08/19	2.64	0.08	-97	7.27	17.28	0.0
	11/07/19	2.17	1.68	34	6.74	12.51	8.48
	04/07/20	1.95	6.02	40	7.35	14.37	8.2
	11/11/20	1.75	3.53	-62	6.82	15.72	0.0
	04/15/21	1.82	0.3	31	6.95	9.90	0.2
	11/22/21	1.63	5.37	-66	6.76	13.96	5.3
MW-22	10/31/17	1.75	1.47	-69	6.81	15.48	26.9
	04/10/18	3.19	0.00	-106	6.39	7.56	73.3
MW-23	10/31/17	3.10	10.67	-43	6.99	10.06	6.2
	04/10/18	3.19	0.00	-175	7.30	10.47	20.8
	02/19/19	1.48	11.13	-231	7.18	9.77	73.0
	05/08/19	1.53	0.77	-149	7.26	10.57	7.95
	08/08/19	1.28	1.97	-105	8.20	19.85	29.1
	11/06/19	1.37	0.00	-64	6.82	14.69	79.0
	04/07/20	1.30	0.09	-131	7.01	13.10	6.7
	11/12/20	1.00	0.74	-98	6.71	12.12	14.0
	04/14/21	1.55	0.0	-143	6.36	12.25	0.0
	11/22/21	1.59	0.75	-88	6.46	13.86	11.2
MW-24	10/31/17	1.74	3.85	41	6.85	13.51	29.6
	04/10/18	1.31	0.00	-220	7.44	10.50	24.9
	02/19/19	1.38	7.84	-205	7.11	11.40	206
	05/08/19	2.04	2.22	-275	7.22	13.52	52.1
	08/08/19	1.92	1.59	-107	8.04	19.01	38.2
	11/06/19	2.14	0.54	-130	6.85	15.01	14.7
	04/08/20	1.91	0.00	-116	6.81	11.47	0.3
	11/13/20	2.25	0.72	19	5.32	13.22	0
	04/15/21	1.91	0.0	3	5.25	12.10	31.3
	11/22/21	2.65	0.62	-111	6.58	15.78	69.0
MW-25	10/04/18	1.88	0.00	-43	6.75	64.7	0.0
	02/21/19	2.12	8.24	-49	6.53	8.94	309
	05/08/19	2.14	0.49	-100	7.16	11.67	4.08
	08/07/19	2.03	7.57	-31	7.17	20.16	0.0
	11/06/19	1.97	0.71	-70	6.76	16.31	8.78
	04/07/20	1.97	0.00	-56	7.01	11.79	8.6
	11/11/20	1.58	0.81	-53	6.76	15.15	9.0
	04/15/21	2.00	0.0	-90	6.41	10.93	4.9
	11/23/21	2.21	4.03	-101	6.75	16.03	1.1
MW-A1	06/30/16	1.78	0.65	-162	7.03	15.01	255
	12/20/16	1.77	0.95	-121	6.81	7.95	10.6
	05/16/17	1.04	0.00	-48	6.69	16.27	26.3
	10/31/17	1.50	1.36	-88	6.31	14.82	10.5
	04/10/18	1.03	1.50	-93	7.28	8.21	23.3
	10/04/18	1.33	0.57	-115	6.83	16.08	0.0
	05/08/19	1.66	4.20	-182	6.77	16.61	5.28
	11/06/19	1.75	0.67	-71	6.65	14.04	35.2
	04/08/20	1.94	0.87	-135	6.47	8.21	4.9
	11/11/20	1.78	0.76	-74	6.90	14.20	3.0
	04/15/21	1.53	0.0	-68	6.47	10.99	1.7
	11/22/21	1.79	0.53	-68	6.46	12.31	11.7
MW-B1	06/28/16	2.16	0.37	-204	7.85	16.23	30.1
	12/21/16	2.20	0.71	-80	6.77	11.69	2.8
	05/16/17	2.09	0.00	4	6.68	11.75	2
	10/30/17	2.40	2.29	-57	6.68	14.06	5.4
	04/10/18	2.71	0.00	-154	7.32	8.41	5.9
	10/03/18	2.22	0.00	-159	6.64	61.9	0.0
	05/07/19	2.73	5.31	-187	6.55	10.79	38.8
	11/06/19	2.34	0.00	-32	6.73	14.74	2.00
	04/08/20	2.55	0.00	-79	6.76	10.18	0.0
	11/12/20	2.05	0.65	-85	6.20	12.09	0
	04/15/21	2.21	0.0	-101	6.60	10.50	38
	11/22/21	2.13	0.60	-98	6.63	13.45	8.1

Table 4
Field Parameters After Stabilization was Achieved (2016-2021)
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Ashland LLC
130 South Street, Rensselaer, New York

Well ID	Date Sampled	Conductivity (mS/cm)	Dissolved Oxygen (mg/L)	Oxidation Reduction Potential (mV)	pH (SU)	Temperature (ºC)	Turbidity (NTUs)
MW-1	12/20/16	1.63	5.86	12	7.39	8.86	0.0
	10/30/17	1.37	6.65	100	7.06	16.12	6.5
	12/20/16	0.801	0.44	3	6.59	8.20	1.5
	04/10/18	1.26	1.12	-22	7.84	6.83	9.3

NOTES:
°C = degrees Celsius
mg/L = milligrams per liter
mS/cm = milliSiemens per centimeter
mV = millivolts
NS = not sampled
NTU = nephelometric turbidity unit
SU = standard unit

Table 5
Summary of Groundwater Elevation Data (1999-2021)
2020 Corrective Measure Implementation Annual Progress Report
Ashland LLC
130 South Street, Rensselaer, New York

Well ID	Measuring Point Elevation (msl)	Date	DTW	Groundwater Elevation (msl)
MW-1	28.98	11/15/1999	8.47	20.51
		5/24/2000	5.78	23.20
		11/29/2000	6.73	22.25
		7/6/2001	NM	NM
		11/7/2001	8.07	20.91
		5/21/2002	6.30	22.68
		11/12/2002	6.79	22.19
		4/21/2003	7.03	21.95
		7/14/2003	6.61	22.37
		10/28/2003	7.08	21.90
		4/6/2004	6.54	22.44
		10/12/2004	8.49	20.49
		4/13/2005	7.28	21.70
		10/4/2005	9.65	19.33
		5/2/2006	7.29	21.69
		10/3/2006	6.51	22.47
		4/9/2007	6.75	22.23
		9/11/2007	6.58	22.40
		4/9/2008	5.34	23.64
		9/15/2008	5.55	23.43
		4/6/2009	5.78	23.20
		9/23/2009	7.32	21.66
		4/15/2010	5.91	23.07
		3/10/2011	4.37	24.61
		8/8/2011	7.15	21.83
		10/13/2011	5.14	23.84
		1/25/2012	6.31	22.67
		3/29/2012	6.70	22.28
		7/3/2012	7.30	21.68
		3/21/2013	5.25	23.73
		11/20/2013	10.22	18.76
		10/14/2014	9.26	19.72
		4/22/2015	6.24	22.74
		1/27/2016	8.20	20.78
		6/28/2016	9.80	19.18
		12/19/2016	6.99	21.99
		5/15/2017	5.30	23.68
		10/30/2017	9.81	19.17
		4/10/2018	7.18	21.80
		10/3/2018	5.08	23.90
		5/7/2019	5.73	23.25
		11/6/2019	5.65	23.33
		4/7/2020	5.86	23.12
		11/11/2020	6.13	22.85
		4/14/2021	6.32	22.66
		11/22/2021	5.81	23.17

Table 5
Summary of Groundwater Elevation Data (1999-2021)
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Ashland LLC
130 South Street, Rensselaer, New York

Well ID	Measuring Point Elevation (msl)	Date	DTW	Groundwater Elevation (msl)
MW-3	24.27	11/15/1999	5.48	18.79
		5/24/2000	1.94	22.33
		11/29/2000	4.93	19.34
		7/6/2001	3.35	20.92
		11/7/2001	5.50	18.77
		5/21/2002	3.48	20.79
		11/12/2002	4.26	20.01
		4/21/2003	4.64	19.63
		7/14/2003	3.62	20.65
		10/28/2003	3.42	20.85
		4/6/2004	3.54	20.73
		10/12/2004	5.34	18.93
		4/13/2005	4.38	19.89
		10/5/2005	7.10	17.17
		5/2/2006	4.79	19.48
		10/3/2006	5.10	19.17
		4/9/2007	4.88	19.39
		9/11/2007	5.07	19.20
		4/9/2008	1.32	22.95
		9/15/2008	2.32	21.95
		4/6/2009	2.32	21.95
		9/23/2009	3.79	20.48
		4/15/2010	2.50	21.77
		3/10/2011*	--	--
		8/8/2011	3.96	20.31
		10/13/2011	1.42	22.85
		1/25/2012	3.06	21.21
		3/29/2012	3.41	20.86
		7/3/2012	3.54	20.73
		3/21/2013	1.70	22.57
		11/20/2013	3.35	20.92
		10/14/2014	6.20	18.07
		4/22/2015	4.45	19.82
		1/27/2016	4.88	19.39
		6/28/2016	6.05	18.22
		12/19/2016	5.29	18.98
		5/15/2017	2.20	22.07
		10/30/2017	6.24	18.03
		4/9/2018	4.29	19.98
		10/3/2018	3.29	20.98
		5/7/2019	3.64	20.63
		11/6/2019	3.68	20.59
		4/7/2020	3.64	20.63
		11/11/2020	4.83	19.44
		4/14/2021	4.60	19.67
		11/22/2021	3.91	20.36

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Summary of Groundwater Elevation Data (1999-2021)
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Ashland LLC
130 South Street, Rensselaer, New York

Well ID	Measuring Point Elevation (msl)	Date	DTW	Groundwater Elevation (msl)
MW-4	25.95	11/15/1999	8.61	17.34
		5/24/2000	4.79	21.16
		11/29/2000	7.39	18.56
		7/6/2001	5.68	20.27
		11/7/2001	8.71	17.24
		5/21/2002	7.15	18.80
		11/12/2002	7.45	18.50
		4/21/2003	8.41	17.54
		7/14/2003	6.95	19.00
		10/28/2003	7.55	18.40
		4/6/2004	7.06	18.89
		10/12/2004	8.55	17.40
		4/13/2005	7.51	18.44
		10/5/2005	10.86	15.09
		5/2/2006	6.90	19.05
		10/3/2006	5.84	20.11
		4/9/2007	7.30	18.65
		9/11/2007	6.61	19.34
		4/9/2008	5.58	20.37
		9/15/2008	6.37	19.58
		4/6/2009	6.23	19.72
		9/23/2009	7.33	18.62
		4/15/2010	5.50	20.45
		3/10/2011	4.58	21.37
		8/8/2011	7.41	18.54
		10/13/2011	4.66	21.29
		1/25/2012	6.20	19.75
		3/29/2012	6.45	19.50
		7/3/2012	9.51	16.44
		3/21/2013	5.65	20.30
		11/20/2013	10.55	15.40
		10/14/2014	10.50	15.45
		4/22/2015	7.62	18.33
		1/27/2016	8.63	17.32
		6/28/2016	NM	NM
		12/19/2016	6.91	19.04
		5/15/2017	4.54	21.41
		10/30/2017	7.41	18.54
		4/9/2018	7.40	18.55
		10/3/2018	3.79	22.16
		5/7/2019	6.27	19.68
		11/6/2019	6.32	19.63
		4/7/2020	6.11	19.84
		11/11/2020	7.08	18.87
		4/14/2021	6.74	19.21
		11/22/2021	5.53	20.42

Table 5
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Ashland LLC
130 South Street, Rensselaer, New York

Well ID	Measuring Point Elevation (msl)	Date	DTW	Groundwater Elevation (msl)
MW-9	27.18	11/15/1999	7.98	19.20
		5/24/2000	4.34	22.84
		11/29/2000	6.81	20.37
		7/6/2001	5.59	21.59
		11/7/2001	7.99	19.19
		5/21/2002	7.93	19.25
		11/12/2002	7.88	19.30
		4/21/2003	8.29	18.89
		7/14/2003	8.04	19.14
		10/28/2003	9.28	17.90
		4/6/2004	6.18	21.00
		10/12/2004	8.78	18.40
		4/13/2005	7.75	19.43
		10/5/2005	10.55	16.63
		5/2/2006	7.04	20.14
		10/3/2006	7.63	19.55
		4/9/2007	6.39	20.79
		9/11/2007	6.76	20.42
		4/9/2008	4.18	23.00
		9/15/2008	5.68	21.50
		4/6/2009	4.79	22.39
		9/23/2009	7.06	20.12
		4/15/2010	5.01	22.17
		3/10/2011	3.80	23.38
		8/8/2011	7.12	20.06
		10/13/2011	4.41	22.77
		1/25/2012	5.81	21.37
		3/29/2012	5.79	21.39
		7/3/2012	6.70	20.48
		3/21/2013	4.22	22.96
		11/20/2013	12.16	15.02
		10/14/2014	11.70	15.48
		4/22/2015	10.50	16.68
		1/27/2016	11.52	15.66
		6/28/2016	11.70	15.48
		12/19/2016	10.80	16.38
		5/15/2017	10.01	17.17
		10/30/2017	11.36	15.82
		4/9/2018	10.33	16.85
		10/3/2018	10.40	16.78
		5/7/2019	10.27	16.91
		11/6/2019	10.30	16.88
		4/7/2020	10.65	16.53
		11/11/2020	NM	NM
		4/14/2021	10.70	16.48
		11/22/2021	10.28	16.90

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Ashland LLC
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Well ID	Measuring Point Elevation (msl)	Date	DTW	Groundwater Elevation (msl)
MW-10	26.34	11/15/1999	6.58	19.76
		5/24/2000	3.49	22.85
		11/29/2000	5.86	20.48
		7/6/2001	4.73	21.61
		11/7/2001	6.78	19.56
		5/21/2002	4.45	21.89
		11/12/2002	5.34	21.00
		4/21/2003	5.34	21.00
		7/14/2003	5.68	20.66
		10/28/2003	3.80	22.54
		4/6/2004	4.61	21.73
		10/12/2004	6.61	19.73
		4/13/2005	5.63	20.71
		10/4/2005	8.34	18.00
		5/2/2006	5.63	20.71
		10/3/2006	4.44	21.90
		4/9/2007	4.84	21.50
		9/11/2007	6.76	19.58
		4/9/2008	4.38	21.96
		9/15/2008	4.61	21.73
		4/6/2009	5.05	21.29
		9/23/2009	7.37	18.97
		4/15/2010	5.62	20.72
		3/10/2011	4.06	22.28
		8/8/2011	7.25	19.09
		10/13/2011	4.05	22.29
		1/25/2012	6.20	20.14
		3/29/2012	6.66	19.68
		7/3/2012	7.12	19.22
		3/21/2013	4.82	21.52
		11/20/2013	8.53	17.81
		10/14/2014	8.30	18.04
Obstruction at 4.7 Damaged		4/22/2015	NM*	NM*
		1/27/2016	NM**	NM**
		6/28/2016	NM	NM
		12/19/2016	NM	NM
		5/15/2017	4.57	21.77
		10/30/2017	NM	NM
		4/9/2018	NM	NM
		10/3/2018	NM	NM
		5/7/2019	NM	NM
		11/6/2019	NM	NM
		4/7/2020	NM	NM
		11/11/2020	NM	NM
		4/14/2021	NM	NM
		5/27/2021	Abandoned	

Table 5
Summary of Groundwater Elevation Data (1999-2021)
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Ashland LLC
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Well ID	Measuring Point Elevation (msl)	Date	DTW	Groundwater Elevation (msl)
MW-11	25.16	11/15/1999	7.21	17.95
		5/24/2000	5.61	19.55
		11/29/2000	6.46	18.70
		7/6/2001	5.88	19.28
		11/7/2001	8.62	16.54
		5/21/2002	5.60	19.56
		11/12/2002	6.38	18.78
		4/21/2003	6.29	18.87
		7/14/2003	5.83	19.33
		10/28/2003	6.98	18.18
		4/6/2004	5.62	19.54
		10/12/2004	7.54	17.62
		4/13/2005	5.97	19.19
		10/4/2005	9.66	15.50
		5/2/2006	6.02	19.14
		10/3/2006	5.58	19.58
		4/9/2007	5.64	19.52
		9/11/2007	5.33	19.83
		4/9/2008	5.69	19.47
		9/15/2008	5.61	19.55
		4/6/2009	5.72	19.44
		9/23/2009	8.13	17.03
		4/15/2010	10.50	14.66
		3/10/2011**	NM	NM
		8/8/2011**	NM	NM
		10/13/2011**	NM	NM
		1/25/2012**	NM	NM
		3/29/2012**	NM	NM
		7/3/2012**	NM	NM
		3/21/2013	NM	NM
		11/20/2013	NM	NM
		10/14/2014	9.50	15.66
		4/22/2015	NM*	NM*
		1/27/2016	NM**	NM**
		6/28/2016	NM	NM
		12/19/2016	NM	NM
		5/15/2017	NM	NM
		10/30/2017	NM	NM
		4/9/2018	NM	NM
		10/3/2018	NM	NM
Damaged		5/7/2019	NM	NM
		11/6/2019	NM	NM
		4/7/2020	NM	NM
		11/11/2020	NM	NM
		4/14/2021	NM	NM
		12/10/2021	Abandoned	

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Ashland LLC
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Well ID	Measuring Point Elevation (msl)	Date	DTW	Groundwater Elevation (msl)
MW-12S	23.12	11/15/1999	8.43	14.69
		5/24/2000	7.21	15.91
		11/29/2000	8.30	14.82
		7/6/2001	6.48	16.64
		11/7/2001	9.21	13.91
		5/21/2002	7.23	15.89
		11/12/2002	8.15	14.97
		4/21/2003	8.21	14.91
		7/14/2003	7.92	15.20
		10/28/2003	7.05	16.07
		4/6/2004	7.15	15.97
		10/12/2004	7.70	15.42
		4/13/2005	7.50	15.62
		10/4/2005	10.38	12.74
		5/2/2006	6.17	16.95
		10/3/2006	7.58	15.54
		4/9/2007	7.21	15.91
		9/11/2007	6.80	16.32
		4/9/2008	7.06	16.06
		9/15/2008	7.79	15.33
		4/6/2009	7.65	15.47
		9/23/2009	8.91	14.21
		4/15/2010	6.30	16.82
		3/10/2011	6.47	16.65
		8/8/2011	8.70	14.42
		10/13/2011	7.68	15.44
		1/25/2012	8.15	14.97
		3/29/2012	8.16	14.96
		7/3/2012	8.68	14.44
		3/21/2013	7.20	15.92
		11/20/2013	9.45	13.67
		10/14/2014	9.90	13.22
		4/22/2015	NM*	NM*
		1/27/2016	8.30	14.82
		6/28/2016	7.86	15.26
		12/19/2016	7.01	16.11
		5/15/2017	5.30	17.82
		10/30/2017	9.46	13.66
		4/9/2018	6.48	16.64
		10/3/2018	5.69	17.43
		5/7/2019	5.77	17.35
		11/6/2019	5.81	17.31
		4/7/2020	5.59	17.53
		11/11/2020	6.53	16.59
		4/14/2021	6.25	16.87
		12/10/2021	Abandoned	

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Well ID	Measuring Point Elevation (msl)	Date	DTW	Groundwater Elevation (msl)
MW-12D	24.08	11/15/1999	9.02	15.06
		5/24/2000	7.54	16.54
		11/29/2000	8.98	15.10
		7/6/2001	8.21	15.87
		11/7/2001	9.52	14.56
		5/21/2002	7.81	16.27
		11/12/2002	8.84	15.24
		4/21/2003	7.61	16.47
		7/14/2003	8.44	15.64
		10/28/2003	9.66	14.42
		4/6/2004	7.21	16.87
		10/12/2004	8.64	15.44
		4/13/2005	7.82	16.26
		10/4/2005	9.92	14.16
		5/2/2006	7.75	16.33
		10/3/2006	8.22	15.86
		4/9/2007	7.26	16.82
		9/11/2007	8.51	15.57
		4/9/2008	7.16	16.92
		9/15/2008	8.18	15.90
		4/6/2009	7.70	16.38
		9/23/2009	9.28	14.80
		4/15/2010	7.70	16.38
		3/10/2011	6.28	17.80
		8/8/2011	9.03	15.05
		10/13/2011	7.74	16.34
		1/25/2012	8.35	15.73
		3/29/2012	8.35	15.73
		7/3/2012	8.80	15.28
		3/21/2013	7.29	16.79
		11/20/2013	9.92	14.16
		10/14/2014	10.10	13.98
		4/22/2015	NM*	NM*
		1/27/2016	8.88	15.20
		6/28/2016	9.62	14.46
		12/19/2016	NM	NM
		5/15/2017	7.49	16.59
		10/30/2017	10.88	13.20
		4/9/2018	8.52	15.56
		10/3/2018	7.68	16.40
		5/7/2019	8.18	15.90
		11/6/2019	8.22	15.86
		4/7/2020	8.18	15.90
		11/11/2020	9.00	15.08
		4/14/2021	8.55	15.53
		12/10/2021	Abandoned	

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Well ID	Measuring Point Elevation (msl)	Date	DTW	Groundwater Elevation (msl)
MW-13	36.86	11/15/1999	3.83	33.03
		5/24/2000	3.89	32.97
		11/29/2000	4.51	32.35
		7/6/2001	3.49	33.37
		11/7/2001	4.75	32.11
		5/21/2002	3.04	33.82
		11/12/2002	3.54	33.32
		4/21/2003	3.33	33.53
		7/14/2003	3.42	33.44
		10/28/2003	3.88	32.98
		4/6/2004	2.67	34.19
		10/12/2004	3.32	33.54
		4/13/2005	2.73	34.13
		10/4/2005	4.24	32.62
		5/2/2006	2.87	33.99
		10/3/2006	3.19	33.67
		4/9/2007	2.72	34.14
		9/11/2007	3.07	33.79
		4/9/2008	2.63	34.23
		9/15/2008	3.25	33.61
		4/6/2009	3.59	33.27
		9/23/2009	4.31	32.55
		4/15/2010	2.90	33.96
		3/10/2011	2.00	34.86
		8/8/2011	3.45	33.41
		10/13/2011	2.91	33.95
		1/25/2012	2.92	33.94
		3/29/2012	2.78	34.08
		7/3/2012	4.12	32.74
		9/13/2012	3.52	33.34
		3/21/2013	2.79	34.07
		11/20/2013	4.16	32.70
		10/14/2014	4.70	32.16
		4/22/2015	3.30	33.56
		1/27/2016	3.13	33.73
		6/28/2016	4.58	32.28
		12/19/2016	3.79	33.07
		5/15/2017	2.59	34.27
		10/30/2017	5.00	31.86
		4/10/2018	2.91	33.95
		10/3/2018	2.36	34.50
		5/7/2019	2.86	34.00
		11/6/2019	2.89	33.97
		4/7/2020	2.88	33.98
		11/11/2020	3.69	33.17
		4/14/2021	3.03	33.83
		11/22/2021	2.37	34.49

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Well ID	Measuring Point Elevation (msl)	Date	DTW	Groundwater Elevation (msl)
MW-14	33.85	11/15/1999	7.11	26.74
		5/24/2000	6.41	27.44
		11/29/2000	7.17	26.68
		7/6/2001	6.93	26.92
		11/7/2001	7.93	25.92
		5/21/2002	5.90	27.95
		11/12/2002	7.28	26.57
		4/21/2003	6.18	27.67
		7/14/2003	6.86	26.99
		10/28/2003	7.18	26.67
		4/6/2004	5.70	28.15
		10/12/2004	6.95	26.90
		4/13/2005	6.20	27.65
		10/4/2005	8.51	25.34
		5/2/2006	6.00	27.85
		10/3/2006	6.04	27.81
		4/9/2007	5.91	27.94
		9/11/2007	6.01	27.84
		4/9/2008	5.80	28.05
		9/15/2008	6.35	27.50
		4/6/2009	5.95	27.90
		9/23/2009	7.46	26.39
		4/15/2010	5.98	27.87
		3/10/2011	5.05	28.80
		8/8/2011	7.65	26.20
		10/13/2011	4.97	28.88
		1/25/2012	6.37	27.48
		3/29/2012	6.50	27.35
		7/3/2012	7.60	26.25
		3/21/2013	5.86	27.99
		11/20/2013	7.98	25.87
		10/14/2014	8.60	25.25
		4/22/2015	6.41	27.44
		1/27/2016	6.73	27.12
		6/28/2016	8.16	25.69
		12/19/2016	6.08	27.77
		5/15/2017	5.55	28.30
		10/30/2017	8.60	25.25
		4/9/2018	6.63	27.22
		10/3/2018	4.78	29.07
		5/7/2019	6.22	27.63
		11/6/2019	6.34	27.51
		4/7/2020	5.60	28.25
		11/11/2020	7.07	26.78
		4/14/2021	6.39	27.46
		11/22/2021	5.85	28.00

Table 5
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Ashland LLC
130 South Street, Rensselaer, New York

Well ID	Measuring Point Elevation (msl)	Date	DTW	Groundwater Elevation (msl)
MW-15	25.19	11/15/1999	3.91	21.28
		5/24/2000	2.56	22.63
		11/29/2000	2.98	22.21
		7/6/2001	3.02	22.17
		11/7/2001	4.37	20.82
		5/21/2002	2.88	22.31
		11/12/2002	2.91	22.28
		4/21/2003	3.46	21.73
		7/14/2003	3.08	22.11
		10/28/2003	2.98	22.21
		4/6/2004	2.93	22.26
		10/12/2004	3.68	21.51
		4/13/2005	3.45	21.74
		8/11/2005	5.21	19.98
		10/6/2005	4.84	20.35
		5/2/2006	2.74	22.45
		10/3/2006	2.17	23.02
		4/9/2007	2.29	22.90
		9/11/2007	2.20	22.99
		4/9/2008	2.26	22.93
		9/15/2008	2.10	23.09
		4/6/2009	2.37	22.82
		9/23/2009	3.43	21.76
		4/15/2010	2.55	22.64
		3/10/2011	1.85	23.34
		8/8/2011	2.96	22.23
		10/13/2011	1.93	23.26
		1/25/2012	2.55	22.64
		3/29/2012	2.97	22.22
		7/3/2012	3.35	21.84
		3/21/2013	2.10	23.09
		11/20/2013	4.10	21.09
		10/14/2014	4.40	20.79
		4/22/2015	1.83	23.36
		1/27/2016	2.37	22.82
		6/28/2016	4.20	20.99
		12/19/2016	2.09	23.10
		5/15/2017	1.55	23.64
		10/30/2017	9.16	16.03
		4/9/2018	1.78	23.41
		10/3/2018	1.65	23.54
		5/7/2019	1.80	23.39
		11/6/2019	1.70	23.49
		4/7/2020	1.86	23.33
		11/11/2020	2.32	22.87
		4/14/2021	2.20	22.99
		11/22/2021	1.59	23.60

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Well ID	Measuring Point Elevation (msl)	Date	DTW	Groundwater Elevation (msl)
MW-16	25.41	7/6/2001	8.28	17.13
		11/7/2001	8.75	16.66
		5/21/2002	7.25	18.16
		11/12/2002	8.11	17.30
		4/21/2003	8.46	16.95
		7/14/2003	8.26	17.15
		10/28/2003	8.03	17.38
		4/6/2004	7.68	17.73
		10/12/2004	8.56	16.85
		4/13/2005	8.15	17.26
		8/11/2005	8.83	16.58
		10/6/2005	9.21	16.20
		5/2/2006	8.23	17.18
		10/3/2006	7.48	17.93
		4/9/2007	9.25	16.16
		9/11/2007	7.38	18.03
		4/9/2008	7.47	17.94
		9/15/2008	7.97	17.44
		4/6/2009	7.64	17.77
		9/23/2009	8.81	16.60
		4/15/2010	7.70	17.71
		3/10/2011	5.65	19.76
		8/8/2011	8.28	17.13
		10/13/2011	7.32	18.09
		1/25/2012	8.25	17.16
		3/29/2012	8.35	17.06
		7/3/2012	5.48	19.93
		9/14/2012	8.22	17.19
		3/21/2013	7.55	17.86
		11/20/2013	8.25	17.16
		10/14/2014	8.60	16.81
		4/22/2015	NM*	NM*
		1/27/2016	8.18	17.23
		6/28/2016	8.91	16.50
		12/19/2016	7.98	17.43
		5/15/2017	6.47	18.94
		10/30/2017	8.29	17.12
		4/9/2018	7.88	17.53
		10/3/2018	7.01	18.40
		5/7/2019	7.55	17.86
		11/6/2019	8.67	16.74
		4/7/2020	7.35	18.06
		11/11/2020	8.16	17.25
		4/14/2021	7.80	17.61
		12/10/2021	7.79	17.62

Table 5
Summary of Groundwater Elevation Data (1999-2021)
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Ashland LLC
130 South Street, Rensselaer, New York

Well ID	Measuring Point Elevation (msl)	Date	DTW	Groundwater Elevation (msl)
MW-17	21.78	7/6/2001	6.10	15.68
		11/7/2001	6.78	15.00
		5/21/2002	6.07	15.71
		11/12/2002	6.57	15.21
		4/21/2003	6.31	15.47
		7/14/2003	6.29	15.49
		10/28/2003	6.56	15.22
		4/6/2004	5.94	15.84
		10/12/2004	6.47	15.31
		4/13/2005	6.08	15.70
		10/4/2005	7.89	13.89
		5/2/2006	5.89	15.89
		10/3/2006	6.33	15.45
		4/9/2007	6.03	15.75
		9/11/2007	6.75	15.03
		4/9/2008	5.77	16.01
		9/15/2008	6.38	15.40
		4/6/2009	5.89	15.89
		9/23/2009	5.78	16.00
		4/15/2010	6.00	15.78
		3/10/2011	5.46	16.32
		8/8/2011	6.30	15.48
		10/13/2011	6.00	15.78
		1/25/2012	6.25	15.53
		3/29/2012	6.16	15.62
		7/3/2012	6.25	15.53
		9/13/2012	6.34	15.44
		3/21/2013	5.58	16.20
		11/20/2013	7.06	14.72
		10/14/2014	6.00	15.78
		4/22/2015	5.93	15.85
		1/27/2016	6.45	15.33
		6/28/2016	6.46	15.32
		12/19/2016	NM	NM
		5/15/2017	5.65	16.13
		10/30/2017	12.46	9.32
		4/9/2018	6.19	15.59
		10/3/2018	5.77	16.01
		5/7/2019	5.93	15.85
		11/6/2019	6.06	15.72
		4/7/2020	6.02	15.76
		11/11/2020	7.31	14.47
		4/14/2021	6.40	15.38
		11/22/2021	6.01	15.77

Table 5
Summary of Groundwater Elevation Data (1999-2021)
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130 South Street, Rensselaer, New York

Well ID	Measuring Point Elevation (msl)	Date	DTW	Groundwater Elevation (msl)
MW-18	23.98	7/6/2001	5.08	18.90
		11/7/2001	6.36	17.62
		5/21/2002	4.38	19.60
		11/12/2002	5.62	18.36
		4/21/2003	5.71	18.27
		7/14/2003	5.13	18.85
		10/28/2003	5.54	18.44
		4/6/2004	4.33	19.65
		10/12/2004	6.73	17.25
		4/13/2005	5.38	18.60
		10/5/2005	7.18	16.80
		5/2/2006	5.30	18.68
		10/3/2006	4.48	19.50
		4/9/2007	4.53	19.45
		9/11/2007	4.29	19.69
		4/9/2008	4.19	19.79
		9/15/2008	4.88	19.10
		4/6/2009	4.60	19.38
		9/23/2009	6.53	17.45
		4/15/2010	4.96	19.02
		3/10/2011	3.10	20.88
		8/8/2011	6.10	17.88
		10/13/2011	4.73	19.25
		1/25/2012	5.44	18.54
		3/29/2012	5.70	18.28
		7/3/2012	6.35	17.63
		9/14/2012	5.75	18.23
		3/21/2013	4.42	19.56
		11/20/2013	6.74	17.24
		10/14/2014	6.90	17.08
		4/22/2015	NM*	NM*
		1/27/2016	6.01	17.97
		6/28/2016	7.01	16.97
		12/19/2016	5.52	18.46
		5/15/2017	4.10	19.88
		10/30/2017	6.65	17.33
		4/9/2018	5.47	18.51
		10/3/2018	4.11	19.87
		5/7/2019	5.00	18.98
		11/6/2019	5.07	18.91
		4/7/2020	5.05	18.93
		11/11/2020	5.76	18.22
		4/14/2021	5.80	18.18
		12/10/2021	5.89	18.09

Table 5
Summary of Groundwater Elevation Data (1999-2021)
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Well ID	Measuring Point Elevation (msl)	Date	DTW	Groundwater Elevation (msl)
MW-19	25.51	7/6/2001	3.65	21.86
		11/7/2001	4.56	20.95
		5/21/2002	NM	NM
		11/12/2002	3.49	22.02
		4/21/2003	3.53	21.98
		7/14/2003	3.71	21.80
		10/28/2003	3.11	22.40
		4/6/2004	3.76	21.75
		10/12/2004	4.17	21.34
		4/13/2005	3.82	21.69
		8/11/2005	5.38	20.13
		10/4/2005	4.91	20.60
		5/2/2006	1.91	23.60
		10/3/2006	1.62	23.89
		4/9/2007	1.72	23.79
		9/11/2007	1.90	23.61
		4/9/2008	1.79	23.72
		9/15/2008	2.51	23.00
		4/6/2009	2.27	23.24
		9/23/2009	5.78	19.73
		4/15/2010	2.38	23.13
		3/10/2011	1.61	23.90
		8/8/2011	2.81	22.70
		10/13/2011	2.02	23.49
		1/25/2012	2.45	23.06
		3/29/2012	2.60	22.91
		7/3/2012	3.10	22.41
		9/13/2012	3.02	22.49
		3/21/2013	2.15	23.36
		11/20/2013	2.55	22.96
		10/14/2014	3.40	22.11
		4/22/2015	2.19	23.32
		1/27/2016	2.13	23.38
		6/28/2016	3.51	22.00
		12/19/2016	2.63	22.88
		5/15/2017	2.22	23.29
		10/30/2017	2.64	22.87
		4/10/2018	2.36	23.15
		10/3/2018	1.87	23.64
		5/7/2019	2.31	23.20
		11/6/2019	2.78	22.73
		4/7/2020	2.50	23.01
		11/11/2020	3.14	22.37
		4/14/2021	2.91	22.60
		11/22/2021	2.44	23.07

Table 5
Summary of Groundwater Elevation Data (1999-2021)
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Ashland LLC
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Well ID	Measuring Point Elevation (msl)	Date	DTW	Groundwater Elevation (msl)
SUMP	26.82	11/15/1999	9.34	17.48
		5/24/2000	1.44	25.38
		11/29/2000	3.08	23.74
		7/6/2001	3.80	23.02
		11/7/2001	6.48	20.34
		5/21/2002	NM	NM
		11/12/2002	9.30	17.52
		4/21/2003	NM	NM
		7/14/2003	17.24	9.58
		10/28/2003	18.60	8.22
		4/6/2004	9.29	17.53
		10/12/2004	18.80	8.02
		4/13/2005	18.75	8.07
		10/5/2005	14.00	12.82
		5/2/2006	18.74	8.08
		10/4/2006	18.62	8.20
		4/9/2007	18.71	8.11
		9/11/2007	8.80	18.02
		4/9/2008	3.01	23.81
		9/15/2008	4.10	22.72
		4/6/2009	2.27	24.55
		9/23/2009	5.55	21.27
		4/15/2010	3.81	23.01
		3/10/2011	2.11	24.71
		8/8/2011	5.55	21.27
		10/13/2011	5.12	21.70
		1/25/2012	4.65	22.17
		3/29/2012	4.85	21.97
		7/3/2012	5.12	21.70
		3/21/2013	5.02	21.80
		11/20/2013	8.30	18.52
		10/14/2014	8.10	18.72
		4/22/2015	6.40	20.42
		1/27/2016	6.63	20.19
		6/28/2016	NM	NM
		12/19/2016	NM	NM
		5/15/2017	3.47	23.35
		10/30/2017	8.70	18.12
		4/9/2018	5.84	20.98
		10/3/2018	7.68	19.14
		05/07/2019***	Abandoned	

Table 5
Summary of Groundwater Elevation Data (1999-2021)
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Ashland LLC
130 South Street, Rensselaer, New York

Well ID	Measuring Point Elevation (msl)	Date	DTW	Groundwater Elevation (msl)
MW-A1	26.82	4/9/2008	4.73	22.09
		9/15/2008	4.97	21.85
		4/6/2009	4.81	22.01
		9/23/2009	5.62	21.20
		4/15/2010	7.16	19.66
		3/10/2011	4.37	22.45
		8/8/2011	5.65	21.17
		10/13/2011	4.85	21.97
		1/25/2012	7.80	19.02
		3/29/2012	5.40	21.42
		7/3/2012	6.06	20.76
		9/13/2012	5.82	21.00
		3/21/2013	4.90	21.92
		11/20/2013	5.70	21.12
		10/14/2014	6.70	20.12
		4/22/2015	5.10	21.72
		1/27/2016	5.27	21.55
		6/28/2016	6.40	20.42
		12/19/2016	6.65	20.17
		5/15/2017	5.93	20.89
		10/30/2017	5.76	21.06
		4/10/2018	4.91	21.91
		10/3/2018	4.64	22.18
		5/7/2019	4.72	22.10
		11/6/2019	5.44	21.38
		4/7/2020	5.06	21.76
		11/11/2020	5.73	21.09
		4/14/2021	5.45	21.37
		11/22/2021	5.00	21.82
MW-B1	27.53	4/9/2008	5.18	22.35
		9/15/2008	5.14	22.39
		4/6/2009	5.34	22.19
		9/23/2009	6.31	21.22
		4/15/2010	5.34	22.19
		3/10/2011	4.50	23.03
		8/8/2011	5.91	21.62
		10/13/2011	5.40	22.13
		1/125/12	8.40	19.13
		3/29/2012	5.75	21.78
		7/3/2012	6.77	20.76
		9/13/2012	6.11	21.42
		3/21/2013	5.50	22.03
		11/20/2013	8.30	19.23
		10/14/2014	8.00	19.53

Table 5
Summary of Groundwater Elevation Data (1999-2021)
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130 South Street, Rensselaer, New York

Well ID	Measuring Point Elevation (msl)	Date	DTW	Groundwater Elevation (msl)
MW-B1	27.53	4/22/2015	6.24	21.29
		1/27/2016	6.80	20.73
		6/28/2016	7.79	19.74
		12/19/2016	6.31	21.22
		5/15/2017	5.11	22.42
		10/30/2017	6.62	20.91
		4/10/2018	6.57	20.96
		10/3/2018	5.27	22.26
		5/7/2019	5.36	22.17
		11/6/2019	6.22	21.31
		4/7/2020	5.38	22.15
		11/11/2020	5.76	21.77
		4/14/2021	7.20	20.33
		11/22/2021	5.34	22.19
MW-B2	27.40	4/9/2008	5.08	22.32
		4/6/2009	5.19	22.21
		9/23/2009	6.11	21.29
		4/15/2010	5.23	22.17
		3/10/2011	4.37	23.03
		8/8/2011	5.52	21.88
		10/13/2011	4.94	22.46
		1/25/2012	7.85	19.55
		3/29/2012	4.76	22.64
		7/3/2012	5.96	21.44
		3/21/2013	4.91	22.49
		11/20/2013	6.89	20.51
		10/14/2014	6.70	20.70
		4/22/2015	5.32	22.08
		1/27/2016	6.07	21.33
		6/28/2016	6.92	20.48
		12/19/2016	5.82	21.58
		5/15/2017	4.82	22.58
		10/30/2017	6.76	20.64
		4/9/2018	5.61	21.79
		10/3/2018	4.81	22.59
		5/7/2019	5.16	22.24
		11/6/2019	5.12	22.28
		4/7/2020	5.27	22.13
		11/11/2020	6.65	20.75
		4/14/2021	7.44	19.96
		11/22/2021	5.62	21.78

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Well ID	Measuring Point Elevation (msl)	Date	DTW	Groundwater Elevation (msl)
IMP-1	25.13	10/13/2011	6.32	18.81
		1/25/2012	7.15	17.98
		3/29/2012	7.31	17.82
		7/3/2012	7.89	17.24
		3/21/2013	6.00	19.13
		11/20/2013	8.45	16.68
		10/14/2014	8.70	16.43
		4/22/2015	NM*	NM*
		1/27/2016	7.79	17.34
		6/28/2016	8.80	16.33
		12/19/2016	7.40	17.73
		5/15/2017	5.91	19.22
		10/30/2017	8.55	16.58
		4/9/2018	7.12	18.01
		10/3/2018	4.55	20.58
		5/7/2019	6.54	18.59
		11/6/2019	6.62	18.51
		4/7/2020	6.30	18.83
		11/11/2020	6.85	18.28
		4/14/2021	7.50	17.63
IMP-2	25.17	10/13/2011	6.32	18.85
		1/25/2012	7.48	17.69
		3/29/2012	7.61	17.56
		7/3/2012	8.16	17.01
		3/21/2013	6.35	18.82
		11/20/2013	8.62	16.55
		10/14/2014	9.20	15.97
		4/22/2015	NM*	NM*
		1/27/2016	7.96	17.21
		6/28/2016	NM	NM
		12/19/2016	7.88	17.29
		5/15/2017	6.55	18.62
		10/30/2017	8.41	16.76
		4/9/2018	NM	NM
		10/3/2018	5.95	19.22
		5/7/2019	NM	NM
		11/6/2019	7.16	18.01
		4/7/2020	7.02	18.15
		11/11/2020	7.68	17.49
		4/14/2021	7.86	17.31

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Well ID	Measuring Point Elevation (msl)	Date	DTW	Groundwater Elevation (msl)
IMP-3	25.13	9/15/2008	8.39	16.74
		4/6/2009	7.62	17.51
		9/23/2009	9.70	15.43
		4/15/2010	7.64	17.49
		3/10/2011	5.51	19.62
		8/8/2011	9.26	15.87
		10/13/2011	7.33	17.80
		1/25/2012	8.72	16.41
		3/29/2012	8.78	16.35
		7/3/2012	9.33	15.80
		9/14/2012	8.71	16.42
		3/21/2013	7.40	17.73
		11/20/2013	9.43	15.70
		10/14/2014	9.80	15.33
		4/22/2015	NM*	NM*
		1/27/2016	8.66	16.47
		6/28/2016	9.89	15.24
		12/19/2016	8.30	16.83
		5/15/2017	6.77	18.36
		10/30/2017	8.50	16.63
		4/9/2018	8.14	16.99
		10/3/2018	6.83	18.30
		5/7/2019	7.73	17.40
		11/6/2019	7.84	17.29
		4/7/2020	7.60	17.53
		11/11/2020	8.54	16.59
		4/14/2021	8.19	16.94
		12/10/2021	8.38	16.75
IP-1	25.15	4/15/2010	5.03	20.12
		3/10/2011	3.72	21.43
		8/8/2011	5.70	19.45
		10/13/2011	4.46	20.69
		1/25/2012	5.28	19.87
		3/29/2012	5.65	19.50
		7/3/2012	6.28	18.87
		9/14/2012	5.52	19.63
		3/21/2013	4.63	20.52
		11/20/2013	6.36	18.79
		10/14/2014	6.40	18.75
		4/22/2015	NM*	NM*
		1/27/2016	5.67	19.48
		6/28/2016	6.68	18.47
		12/19/2016	4.93	20.22
		5/15/2017	3.83	21.32
		10/30/2017	5.74	19.41
		4/9/2018	5.01	20.14
		10/3/2018	4.00	21.15
		5/7/2019	4.51	20.64
		11/6/2019	4.90	20.25
		4/7/2020	4.84	20.31
		11/11/2020	5.25	19.90
		4/14/2021	5.30	19.85
		12/10/2021	5.28	19.87

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Well ID	Measuring Point Elevation (msl)	Date	DTW	Groundwater Elevation (msl)
MW-20	25.36	4/15/2010	2.67	22.69
		3/10/2011	2.05	23.31
		8/8/2011	3.04	22.32
		10/13/2011	2.16	23.20
		1/25/2012	2.66	22.70
		3/29/2012	3.10	22.26
		7/3/2012	3.42	21.94
		9/13/2012	2.77	22.59
		3/21/2013	2.15	23.21
		11/20/2013	3.65	21.71
		10/14/2014	3.90	21.46
		4/22/2015	1.88	23.48
		1/27/2016	2.34	23.02
		6/28/2016	3.81	21.55
		12/19/2016	2.05	23.31
		5/15/2017	1.63	23.73
		10/30/2017	3.16	22.20
		4/10/2018	1.94	23.42
		10/3/2018	1.64	23.72
		5/7/2019	1.94	23.42
		11/6/2019	1.84	23.52
		4/7/2020	1.93	23.43
		11/11/2020	2.29	23.07
		4/14/2021	2.19	23.17
		11/22/2021	1.68	23.68
MW-21	27.97	4/15/2010	10.16	17.81
		3/10/2011	7.35	20.62
		8/8/2011	11.45	16.52
		10/13/2011	10.65	17.32
		1/25/2012	13.00	14.97
		3/29/2012	10.83	17.14
		7/3/2012	11.15	16.82
		9/14/2012	11.27	16.70
		3/21/2013	9.76	18.21
		11/20/2013	11.68	16.29
		10/14/2014	12.10	15.87
		4/22/2015	9.60	18.37
		1/27/2016	10.53	17.44
		6/28/2016	11.90	16.07
		12/19/2016	11.01	16.96
		5/15/2017	8.37	19.60
		10/30/2017	11.46	16.51
		4/9/2018	10.27	17.70
		10/3/2018	10.03	17.94
		5/7/2019	9.93	18.04
		11/6/2019	9.92	18.05
		4/7/2020	9.52	18.45
		11/11/2020	11.17	16.80
		4/14/2021	10.19	17.78
		11/22/2021	9.93	18.04

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Summary of Groundwater Elevation Data (1999-2021)
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Ashland LLC
130 South Street, Rensselaer, New York

Well ID	Measuring Point Elevation (msl)	Date	DTW	Groundwater Elevation (msl)
MW-22	30.65	10/30/2017	3.12	27.53
		4/10/2018	1.76	28.89
		10/3/2018	1.35	29.30
		5/7/2019	0.85	29.80
		4/8/2020	0.98	29.67
		11/11/2020	NM	NM
		4/26/2021	1.13	29.52
		11/22/2021	1.23	29.42
MW-23	26.69	10/30/2017	9.50	17.19
		4/10/2018	8.58	18.11
		10/3/2018	7.76	18.93
		5/7/2019	7.29	19.40
		11/6/2019	7.49	19.20
		4/7/2020	7.18	19.51
		11/11/2020	7.56	19.13
		4/14/2021	7.20	19.49
		11/22/2021	7.27	19.42
MW-24	25.43	10/30/2017	7.30	18.13
		4/10/2018	5.78	19.65
		10/3/2018	5.68	19.75
		5/7/2019	6.22	19.21
		11/6/2019	6.34	19.09
		4/8/2020	6.58	18.85
		11/11/2020	7.37	18.06
		4/14/2021	7.20	18.23
		11/22/2021	6.71	18.72
MW-25	28.13	10/3/2018	4.06	24.07
		5/7/2019	2.35	25.78
		11/6/2019	2.01	26.12
		4/7/2020	1.34	26.79
		11/11/2020	5.05	23.08
		4/14/2021	3.62	24.51
		11/22/2021	4.98	23.15
PZ-1	27.88	10/13/2011	4.30	23.58
		1/25/2012	4.11	23.77
		3/29/2012	5.00	22.88
		7/3/2012	5.60	22.28
		3/21/2013	4.16	23.72
		11/20/2013	5.04	22.84
		10/14/2014	6.00	21.88
		4/22/2015	4.15	23.73
		1/27/2016	5.08	22.80
		6/28/2016	6.15	21.73
		12/19/2016	4.40	23.48
		5/15/2017	3.95	23.93
		10/30/2017	4.03	23.85
		4/9/2018	4.31	23.57
		10/3/2018	4.03	23.85
		05/07/2019***	Abandoned	

Table 5
Summary of Groundwater Elevation Data (1999-2021)
2020 Corrective Measure Implementation Annual Progress Report
Ashland LLC
130 South Street, Rensselaer, New York

Well ID	Measuring Point Elevation (msl)	Date	DTW	Groundwater Elevation (msl)
PZ-2	28.34	10/13/2011	4.76	23.58
		1/25/2012	5.06	23.28
		3/29/2012	5.06	23.28
		7/3/2012	6.00	22.34
		3/21/2013	4.94	23.40
		11/20/2013	6.02	22.32
		10/14/2014	6.00	22.34
		4/22/2015	4.97	23.37
		1/27/2016	5.54	22.80
		6/28/2016	7.03	21.31
		12/19/2016	5.30	23.04
		5/15/2017	5.21	23.13
		10/30/2017	5.26	23.08
		4/9/2018	5.31	23.03
		10/3/2018	5.30	23.04
		05/07/2019***	Abandoned	
PZ-3	29.97	10/13/2011	4.11	25.86
		1/25/2012	7.30	22.67
		3/29/2012	5.01	24.96
		7/3/2012	5.65	24.32
		3/21/2013	4.53	25.44
		11/20/2013	6.34	23.63
		10/14/2014	5.70	24.27
		4/22/2015	4.60	25.37
		1/27/2016	5.44	24.53
		6/28/2016	6.06	23.91
		12/19/2016	5.37	24.60
		5/15/2017	4.46	25.51
		10/30/2017	5.70	24.27
		4/9/2018	4.79	25.18
		10/3/2018	4.07	25.90
		5/8/2019	5.00	24.97
		11/6/2019	4.97	25.00
		4/7/2020	5.56	24.41
		11/11/2020	6.01	23.96
		4/14/2021	6.09	23.88
		11/22/2021	5.59	24.38

Table 5
Summary of Groundwater Elevation Data (1999-2021)
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Ashland LLC
130 South Street, Rensselaer, New York

Well ID	Measuring Point Elevation (msl)	Date	DTW	Groundwater Elevation (msl)
PZ-4	25.20	10/13/2011	1.54	23.66
		1/25/2012	3.17	22.03
		3/29/2012	3.30	21.90
		7/3/2012	3.63	21.57
		3/21/2013	1.52	23.68
		11/20/2013	6.77	18.43
		10/14/2014	6.70	18.50
		4/22/2015	5.00	20.20
		1/27/2016	5.21	19.99
		6/28/2016	6.21	18.99
		12/19/2016	6.28	18.92
		5/15/2017	1.95	23.25
		10/30/2017	7.21	17.99
		4/9/2018	4.37	20.83
		10/3/2018	4.00	21.20
		5/7/2019	3.50	21.70
		11/6/2019	3.54	21.66
		4/7/2020	3.55	21.65
		11/11/2020	5.41	19.79
		4/14/2021	4.51	20.69
		11/22/2021	3.31	21.89
PZ-5	25.52	10/13/2011	2.65	22.87
		1/25/2012	4.22	21.30
		3/29/2012	4.35	21.17
		7/3/2012	4.36	21.16
		3/21/2013	3.25	22.27
		11/20/2013	6.98	18.54
		10/14/2014	5.60	19.92
		4/22/2015	4.46	21.06
		1/27/2016	5.17	20.35
		6/28/2016	6.27	19.25
		12/19/2016	5.36	20.16
		5/15/2017	2.55	22.97
		10/30/2017	6.80	18.72
		4/9/2018	4.99	20.53
		10/3/2018	3.23	22.29
		5/7/2019	3.45	22.07
		11/6/2019	3.51	22.01
		4/7/2020	4.39	21.13
		11/11/2020	4.66	20.86
		4/14/2021	4.22	21.30
		11/22/2021	3.95	21.57

Table 5
Summary of Groundwater Elevation Data (1999-2021)
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Ashland LLC
130 South Street, Rensselaer, New York

Well ID	Measuring Point Elevation (msl)	Date	DTW	Groundwater Elevation (msl)
PZ-6	25.22	10/13/2011	3.49	21.73
		1/25/2012	4.46	20.76
		3/29/2012	4.55	20.67
		7/3/2012	4.88	20.34
		3/21/2013	3.35	21.87
		11/20/2013	6.46	18.76
		10/14/2014	5.70	19.52
		4/22/2015	4.01	21.21
		1/27/2016	4.85	20.37
		6/28/2016	5.94	19.28
		12/19/2016	4.83	20.39
		5/15/2017	2.81	22.41
		10/30/2017	4.60	20.62
		4/9/2018	4.32	20.90
		10/3/2018	6.24	18.98
		5/7/2019	3.71	21.51
		11/6/2019	4.00	21.22
		4/7/2020	3.75	21.47
		11/11/2020	4.75	20.47
		4/14/2021	4.31	20.91
		11/22/2021	4.41	20.81
PZ-7	24.90	10/13/2011	3.28	21.62
		1/25/2012	6.12	18.78
		3/29/2012	4.02	20.88
		7/3/2012	4.45	20.45
		3/21/2013	3.02	21.88
		11/20/2013	4.89	20.01
		10/14/2014	5.10	19.80
		4/22/2015	3.22	21.68
		1/27/2016	4.17	20.73
		6/28/2016	5.18	19.72
		12/19/2016	3.73	21.17
		5/15/2017	2.68	22.22
		10/30/2017	4.80	20.10
		4/9/2018	3.83	21.07
		10/3/2018	2.75	22.15
		5/7/2019	3.24	21.66
		11/6/2019	3.52	21.38
		4/7/2020	3.42	21.48
		11/11/2020	3.44	21.46
		4/14/2021	3.81	21.09
		11/22/2021	3.89	21.01

Table 5
Summary of Groundwater Elevation Data (1999-2021)
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Ashland LLC
130 South Street, Rensselaer, New York

Well ID	Measuring Point Elevation (msl)	Date	DTW	Groundwater Elevation (msl)
BM-2	28.02	10/13/2011	3.33	24.69
		1/25/2012	< 0.5	--
		3/29/2012	3.65	24.37
		7/3/2012	3.70	24.32
		3/21/2013	3.65	24.37
		11/20/2013	3.72	24.30
		10/14/2014	3.50	24.52
		4/22/2015	3.62	--
		1/27/2016	3.50	24.52
		6/28/2016	3.72	24.30
		12/19/2016	0.80	27.22
		5/15/2017	3.70	24.32
		10/30/2017	3.74	24.28
		4/9/2018	3.71	24.31
		10/3/2018	3.70	24.32
		5/7/2019	3.62	24.40
		11/6/2019	3.81	24.21
		4/7/2020	3.75	24.27
		11/11/2020	3.78	24.24
		4/14/2021	3.70	24.32
		11/22/2021	3.68	24.34
BM-4	26.59	10/13/2011	7.01	19.58
		1/25/2012	< 0.5	--
		3/29/2012	7.90	18.69
		7/3/2012	8.00	18.59
		3/21/2013	NM	NM
		11/20/2013	8.05	18.54
		10/14/2014	7.90	18.69
		4/22/2015	7.97	18.62
		1/27/2016	7.99	18.60
		6/28/2016	NM	NM
		12/19/2016	NM	NM
		5/15/2017	8.20	18.39
		10/30/2017	8.25	18.34
		4/9/2018	NM	NM
		10/3/2018	8.00	18.59
		5/7/2019	7.90	18.69
		11/6/2019	8.07	18.52
		4/7/2020	8.07	18.52
		11/11/2020	8.18	18.41
		4/14/2021	7.00	19.59
		11/22/2021	8.02	18.57

Table 5
Summary of Groundwater Elevation Data (1999-2021)
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Ashland LLC
130 South Street, Rensselaer, New York

Well ID	Measuring Point Elevation (msl)	Date	DTW	Groundwater Elevation (msl)
MH-1	16.50	10/13/2011	7.12	9.38
		1/25/2012	NM	NM
		3/29/2012	7.90	8.60
		7/3/2012	7.90	8.60
		3/21/2013	7.98	8.52
		11/20/2013	8.05	8.45
		10/14/2014	8.50	8.00
		4/22/2015	8.00	8.50
		1/27/2016	8.05	8.45
		6/28/2016	8.03	8.47
		12/19/2016	NM	NM
		5/15/2017	7.90	8.60
		10/30/2017	8.00	8.50
		4/9/2018	8.02	8.48
		10/3/2018	7.81	8.69
		5/7/2019	8.00	8.50
		11/6/2019	8.12	8.38
		4/7/2020	8.11	8.39
		11/11/2020	8.38	8.12
		4/14/2021	8.00	8.50
		11/22/2021	8.02	8.48
MH-2	15.40	10/13/2011	NM	NM
		1/25/2012	NM	NM
		3/29/2012	NM	NM
		7/3/2012	NM	NM
		3/21/2013	NM	NM
		11/20/2013	NM	NM
		10/14/2014	8.20	7.20
		4/22/2015	7.89	7.51
		1/27/2016	NM	NM
		6/28/2016	NM	NM
		12/19/2016	NM	NM
		5/15/2017	NM	NM
		10/30/2017	NM	NM
		4/9/2018	NM	NM
		10/3/2018	7.73	7.67
		5/7/2019	8.18	7.22
		11/6/2019	8.29	7.11
		4/7/2020	8.31	7.09
		11/11/2020	8.37	7.03
		4/14/2021	8.10	7.30
		11/22/2021	8.29	7.11
IW-A2	32.30	11/6/2019	8.60	23.70
		4/8/2020	8.23	24.07
		4/14/2021	7.80	24.50
		11/22/2021	7.83	24.47
IW-B1	25.03	5/7/2019	4.60	27.70

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Summary of Groundwater Elevation Data (1999-2021)
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130 South Street, Rensselaer, New York

Well ID	Measuring Point Elevation (msl)	Date	DTW	Groundwater Elevation (msl)
IW-B2	25.99	5/7/2019	2.23	23.76
		4/14/2021	2.38	23.61
		11/22/2021	2.11	23.88
IW-B3	25.60	11/6/2019	2.25	23.35
		4/14/2021	6.00	19.60
		11/22/2021	2.12	23.48

NOTES:
1. All elevations are referenced to feet above mean sea level (msl).
2. Top of inner casing measuring point elevations were updated with survey performed by Thew Associates in 2018.

bgs = below ground surface
DTW = depth to groundwater in feet below measuring point
NM = Not measured.
NM* = Not measured. Wells were inaccessible along the CSX rail line due to railroad construction.
* = Unable to located due to ice.
** = Well casing damaged.
*** = Well was abandoned.

Table 6
Summary of TOC Results (2003-2021)
2021 Corrective Measure Implementation Annual Progress Report
Ashland LLC
130 South Street, Rensselaer, New York

Location ID	Date Collected	Total Organic Carbon (mg/L) (mg/L)
IMP-3	2/28/2006	**2.30**
	5/3/2006	**1.00**
	4/15/2010	1.00 U
	3/9/2011	1.00 U
	8/10/2011	**1.30**
	10/14/2011	1.00 U
	1/24/2012	1.00 U
	3/30/2012	1.00 U
	7/3/2012	**1.00**
	9/14/2012	1.00 U
	3/22/2013	**1.90**
	11/21/2013	**1.50**
	5/29/2014	1.00 U
	10/14/2014	**1.10**
	1/27/2016	1.00 U
	6/30/2016	**1.50**
	12/20/2016	2.30 UB
	5/15/2017	**0.910 J**
	10/30/2017	1.30 UB
	4/9/2018	1.40 UB
	10/3/2018	1.70 UB
	11/20/2018	**1.40**
	11/29/2018	**1.00**
	12/5/2018	**1.60 B**
	12/11/2018	**1.80**
	1/9/2019	--
	2/19/2019	--
	5/7/2019	**0.900 J**
	8/7/2019	--
	11/6/2019	**1.0**
	4/7/2020	**0.79 J**
	11/12/2020	**1.6**
	4/15/2021	**1.10**
	12/10/2021	**1.9**
IP-1	2/28/2006	**3.10**
	5/3/2006	**3.10**
	4/15/2010	**3.20**
	3/9/2011	**3.70**
	8/10/2011	**4.90**
	10/14/2011	**4.30**
	1/24/2012	**4.20**
	3/30/2012	**4.80**
	7/3/2012	**5.30**
	9/14/2012	**4.40**
	3/22/2013	**4.80**
	11/21/2013	**7.60**
	5/29/2014	**5.00**

Table 6
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Ashland LLC
130 South Street, Rensselaer, New York

Location ID	Date Collected	Total Organic Carbon (mg/L) (mg/L)
IP-1 (cont)	10/14/2014	**5.40**
	1/27/2016	**4.50**
	6/28/2016	**4.40**
	12/20/2016	**4.60 [4.40]**
	5/15/2017	**4.10**
	10/30/2017	**4.30**
	4/9/2018	**3.70**
	10/3/2018	4.30 UB
	11/20/2018	**4.30**
	11/29/2018	**4.10**
	12/5/2018	**4.30 B**
	12/11/2018	**4.60**
	1/9/2019	--
	2/19/2019	--
	5/7/2019	**3.90**
	8/7/2019	--
	11/7/2019	**4.40**
	4/7/2020	**4.70**
	11/12/2020	**4.50**
	4/15/2021	**4.30**
	12/10/2021	**4.3**
IW-A2	10/20/2010	**20,000**
	11/8/2010	**300**
	11/23/2010	**250**
	12/28/2010	**230**
	4/11/2011	**790**
	5/12/2011	**220**
	6/2/2011	**310**
	10/14/2011	**960**
	1/25/2012	**7,100**
	3/29/2012	**4,700**
	7/2/2012	**3,400**
	9/13/2012	**1,400**
	3/22/2013	**290**
	11/21/2013	**1,200**
	5/29/2014	**340**
	10/15/2014	**280**
	4/23/2015	**200**
	1/27/2016	**3,900**
	6/30/2016	**4,100**
	12/21/2016	**620**
	5/16/2017	**380**
	10/31/2017	**420**
	4/10/2018	**260**
	10/4/2018	**210**
	5/8/2019	**150**
	11/6/2019	**190**

Table 6
Summary of TOC Results (2003-2021)
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Ashland LLC
130 South Street, Rensselaer, New York

Location ID	Date Collected	Total Organic Carbon (mg/L) (mg/L)
IW-A2 (cont)	4/8/2020	**190**
	11/12/2020	**120**
	4/15/2021	**140**
	11/22/2021	**120**
IW-B3	10/14/2011	**1,600**
	1/24/2012	**8,100**
	3/29/2012	**3,600**
	7/2/2012	**4,000**
	9/13/2012	**2,100**
	3/21/2013	**560**
	11/21/2013	**3,000**
	5/29/2014	**860**
	10/15/2014	**570**
	4/22/2015	**320**
	1/27/2016	**1,500**
	6/30/2016	**1,800**
	12/21/2016	**390**
	5/16/2017	**500**
	10/31/2017	**380**
	4/10/2018	**250**
	10/3/2018	**240**
	5/8/2019	**150**
	11/6/2019	**190**
	4/7/2020	**98**
	11/13/2020	**130**
	4/14/2021	**71.0**
	11/22/2021	**110**
MW-1	7/16/2003	1.00 U
	4/12/2007	**1.70**
	9/14/2007	**3.90**
	12/20/2016	2.60 UB
	10/30/2017	2.20 UB
	4/10/2018	1.70 UB
MW-13	7/16/2003	**3.60**
	4/10/2007	1.00 U
	4/16/2010	1.00 U
	3/9/2011	1.00 U
	8/9/2011	1.00 U
	10/14/2011	1.00 U
	1/25/2012	1.00 U
	3/29/2012	1.00 U
	7/2/2012	1.00 U
	9/13/2012	1.00 U
	3/21/2013	1.00 U
	11/21/2013	**2.60**
	5/29/2014	1.00 U
	10/15/2014	1.00 U
	4/22/2015	1.00 U

Table 6
Summary of TOC Results (2003-2021)
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130 South Street, Rensselaer, New York

Location ID	Date Collected	Total Organic Carbon (mg/L) (mg/L)
MW-13 (cont)	1/27/2016	1.00 U
	6/28/2016	1.00 U
	12/20/2016	1.00 UB
	5/16/2017	**0.590 J**
	10/31/2017	1.00 UB
	4/10/2018	0.540 UB
	10/4/2018	1.10 UB
	5/7/2019	**1.40**
	11/6/2019	1.00 U
	4/7/2020	1.00 U
	11/11/2020	1.00 U
	4/14/2021	1.00 U
	11/22/2021	**0.50 J**
MW-16	7/15/2003	0.100 U
	8/11/2005	**1.70**
	4/12/2007	1.00 U
	9/24/2007	**2.10**
	4/15/2010	1.00 U
	3/8/2011	1.00 U
	8/9/2011	**1.40**
	10/14/2011	**1.20**
	1/24/2012	**1.20**
	3/30/2012	**1.40**
	7/2/2012	**1.60**
	9/14/2012	**1.60**
	3/22/2013	**1.20**
	11/21/2013	**4.20**
	5/29/2014	1.00 U
	10/14/2014	**1.70**
	1/27/2016	**1.10**
	6/30/2016	**1.60**
	12/20/2016	1.10 UB
	5/15/2017	1.10
	10/30/2017	2.10 UB
	4/9/2018	0.880 UB
	10/3/2018	1.20 UB
	11/20/2018	**1.40**
	11/29/2018	**1.80**
	12/5/2018	**1.50 B**
	12/11/2018	**1.80**
	1/9/2019	--
	2/19/2019	--
	5/7/2019	**0.790 J**
	8/8/2019	--
	11/7/2019	**0.87 J**
	4/7/2020	**0.75 J**
	11/11/2020	**1.10**
	4/15/2021	**1.40**
	12/10/2021	**1.1**

Table 6
Summary of TOC Results (2003-2021)
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Ashland LLC
130 South Street, Rensselaer, New York

Location ID	Date Collected	Total Organic Carbon (mg/L) (mg/L)
MW-17	7/15/2003	0.100 U
	2/28/2006	1.00 U
	4/10/2007	1.00 U
	4/15/2010	1.00 U [1.00 U]
	3/8/2011	**1.50**
	8/9/2011	**1.30**
	10/13/2011	1.00 U
	1/24/2012	**1.10 J [5.50 J]**
	3/30/2012	**1.00**
	7/2/2012	**1.50**
	9/13/2012	**1.50**
	3/22/2013	**1.60**
	11/21/2013	1.00 U
	5/29/2014	**1.10**
	10/15/2014	**1.50**
	4/22/2015	**1.30**
	1/27/2016	**1.20**
	6/28/2016	**1.50**
	5/15/2017	**1.40**
	10/30/2017	**3.20**
	4/9/2018	1.60 UB
	10/3/2018	1.80 UB
	5/8/2019	**2.90**
	11/6/2019	**3.20**
	4/7/2020	**1.60**
	11/12/2020	**3.60**
	4/15/2021	**2.20**
	11/22/2021	**2.7**
MW-18	2/28/2006	1.80
	5/3/2006	2.00
	4/12/2007	11.0
	9/24/2007	2.00
	4/15/2010	**1.10**
	3/9/2011	**1.60**
	8/10/2011	1.40
	10/14/2011	**1.50**
	1/24/2012	**1.30**
	3/30/2012	**1.50**
	7/3/2012	**1.70**
	9/14/2012	**2.00**
	3/22/2013	2.30
	11/21/2013	**2.60**
	5/29/2014	**1.80**
	10/14/2014	**3.30**
	1/27/2016	**2.00**
	6/28/2016	**2.40**
	12/20/2016	**2.50 UB**
	5/15/2017	**2.70**
	10/30/2017	2.50 UB
	4/9/2018	2.60

Table 6
Summary of TOC Results (2003-2021)
2021 Corrective Measure Implementation Annual Progress Report
Ashland LLC
130 South Street, Rensselaer, New York

Location ID	Date Collected	Total Organic Carbon (mg/L) (mg/L)
MW-18 (cont)	10/3/2018	2.80 UB
	11/20/2018	**2.50**
	11/29/2018	**2.10**
	12/5/2018	**2.60 B**
	12/11/2018	**2.70**
	1/9/2019	--
	2/19/2019	--
	5/7/2019	**2.00**
	8/7/2019	--
	11/7/2019	**2.70**
	4/7/2020	**2.90**
	11/12/2020	**2.70**
	4/15/2021	**2.50**
	12/10/2021	**2.8**
MW-19	7/16/2003	**6.30**
	8/11/2005	**6.90**
	5/10/2006	**69.0**
	4/12/2007	**1.50 [2.80]**
	9/18/2007	**11.0**
	3/9/2011	**6.90**
	8/9/2011	**9.10**
	10/13/2011	**7.10**
	1/25/2012	**29.0**
	3/29/2012	**28.0 [27.0]**
	7/2/2012	**8.40 [8.30]**
	9/13/2012	**8.10 [8.10]**
	3/21/2013	**6.30 [6.40]**
	11/21/2013	**8.30 J [4.10 J]**
	5/29/2014	**8.80 [9.40]**
	10/15/2014	**8.10 [7.70]**
	4/23/2015	**6.20 [5.90]**
	1/27/2016	**8.90**
	6/30/2016	**23.0 [24.0]**
	12/20/2016	**5.00**
	5/16/2017	**4.60 [4.60]**
	10/31/2017	**5.30 [5.80]**
	4/9/2018	**5.70 B [5.70]**
	10/4/2018	**4.60 [4.60]**
	11/20/2018	**8.20**
	11/29/2018	**7.60 [7.80]**
	12/5/2018	**7.60**
	12/11/2018	**7.30**
	1/9/2019	**6.20**
	2/19/2019	**4.7 B**
	5/8/2019	**5.20 [5.30]**
	8/8/2019	**6.8**
	11/6/2019	**7.1 [7.0]**
	4/8/2020	**6.1 [6.5]**
	11/12/2020	**36 [37]**
	4/15/2021	**9.20**
	11/23/2021	**8.0 [7.8]**

Table 6
Summary of TOC Results (2003-2021)
2021 Corrective Measure Implementation Annual Progress Report
Ashland LLC
130 South Street, Rensselaer, New York

Location ID	Date Collected	Total Organic Carbon (mg/L) (mg/L)
MW-20	10/31/2017	**21.0**
	4/10/2018	**4.00**
	11/6/2019	**3.80**
	4/7/2020	**2.80**
	11/12/2020	**3.80**
	4/15/2021	**4.50**
	11/23/2021	**3.6**
MW-21	4/16/2010	**2.30**
	3/8/2011	**2.80**
	8/9/2011	**2.90**
	10/13/2011	**3.70**
	1/24/2012	**3.20**
	3/30/2012	**2.90**
	7/2/2012	**3.10**
	9/14/2012	**4.50**
	3/22/2013	**3.20**
	11/21/2013	**2.80**
	5/29/2014	**2.20**
	10/15/2014	**2.70**
	4/22/2015	**2.70**
	1/27/2016	**3.20**
	6/30/2016	**4.20**
	12/20/2016	**4.70**
	5/15/2017	**3.00**
	10/30/2017	**4.20**
	4/9/2018	**4.60**
	10/3/2018	**8.50**
	11/20/2018	**3.50**
	11/29/2018	**3.60**
	12/5/2018	**4.40 B [4.30]**
	12/11/2018	**4.50**
	5/7/2019	**2.90**
	11/7/2019	**6.80**
	4/7/2020	**2.70**
	11/11/2020	**4.70**
	4/15/2021	**3.80**
	11/22/2021	**7.8**
MW-22	9/15/2017	**6.50 B**
	4/19/2018	**600**
MW-23	9/15/2017	**1.60 B**
	4/19/2018	**31.0**
	11/20/2018	**21.0**
	11/29/2018	**45.0**
	12/5/2018	**32.0 B**
	12/11/2018	**25.0**
	1/9/2019	**19.0**
	2/19/2019	**15**
	5/8/2019	**14.0**
	8/8/2019	**15**
	11/6/2019	**17**
	4/7/2020	**14**

Table 6
Summary of TOC Results (2003-2021)
2021 Corrective Measure Implementation Annual Progress Report
Ashland LLC
130 South Street, Rensselaer, New York

Location ID	Date Collected	Total Organic Carbon (mg/L) (mg/L)
MW-23 (cont)	11/12/2020	**16**
	4/14/2021	**13.0 [15.0]**
	11/22/2021	**13**
MW-24	9/15/2017	**3.20 B [3.20 B]**
	4/19/2018	**28.0**
	11/20/2018	**13.0**
	11/29/2018	**46.0**
	12/5/2018	**81.0 B**
	12/11/2018	**61.0**
	1/9/2019	**92.0**
	2/19/2019	**82**
	5/8/2019	**89.0**
	8/8/2019	**170**
	11/6/2019	**62**
	4/8/2020	**21**
	11/13/2020	**590**
	4/15/2021	**760**
	11/22/2021	**350**
MW-25	10/4/2018	**5.30**
	11/20/2018	**6.20**
	11/29/2018	**7.50**
	12/5/2018	**7.20 B**
	12/11/2018	**6.30**
	1/9/2019	**9.00**
	2/21/2019	**5.2**
	5/8/2019	**6.00**
	8/7/2019	**6.00**
	11/6/2019	**19**
	4/7/2020	**6.8**
	11/11/2020	**16.0**
	4/15/2021	**12.0**
	11/23/2021	**10**
MW-A1	10/20/2010	**14.0**
	11/8/2010	**7.90**
	11/23/2010	**6.30**
	12/28/2010	10.0 U
	3/9/2011	**6.20 [6.90]**
	4/11/2011	100 U
	5/12/2011	**6.30**
	6/2/2011	**14.0**
	8/9/2011	**8.10 [8.60]**
	10/13/2011	**6.80 [6.80]**
	1/25/2012	**77.0**
	3/29/2012	**58.0**
	7/2/2012	**23.0**
	9/13/2012	**11.0**
	3/21/2013	**11.0**
	11/21/2013	**680**
	5/29/2014	**93.0**
	10/15/2014	**19.0**
	4/23/2015	**15.0**

Table 6
Summary of TOC Results (2003-2021)
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Ashland LLC
130 South Street, Rensselaer, New York

Location ID	Date Collected	Total Organic Carbon (mg/L) (mg/L)
MW-A1 (cont)	1/27/2016	**260**
	6/30/2016	**65.0**
	12/20/2016	**12.0**
	5/16/2017	**9.20**
	10/31/2017	**11.0**
	4/10/2018	**10.0**
	10/4/2018	**13.0**
	5/8/2019	**12.0**
	11/6/2019	**16.0**
	4/8/2020	**17.0**
	11/11/2020	**15.0**
	4/15/2021	**15.0**
	11/23/2021	**15**
MW-B1	3/9/2011	**1,700**
	8/10/2011	**2,200**
	10/13/2011	**930**
	1/24/2012	**590**
	3/29/2012	**600**
	7/2/2012	**600**
	9/13/2012	**480**
	3/21/2013	**260**
	11/21/2013	**86.0**
	5/29/2014	**30.0**
	10/15/2014	**35.0**
	4/22/2015	**27.0**
	1/27/2016	**39.0**
	6/28/2016	**22.0**
	12/21/2016	**29.0**
	5/16/2017	**18.0**
	10/30/2017	**22.0**
	4/10/2018	**21.0**
	10/3/2018	**17.0**
	5/7/2019	**20.0**
	11/6/2019	**18**
	4/8/2020	**15**
	11/12/2020	**450**
	4/15/2021	**26.0**
	11/22/2021	**19**

NOTES:

1. Bold results denote detections.
2. All results are in mg/L, equivalent to parts per million.
3. Duplicate sample results are in brackets.

mg/L = milligrams per liter

B = Compound was found in the blank and sample.

J = Indicates an estimated value.

U = Undetected; result is less than the project quantitation limit or if estimated results (J flags) are to be reported, less than the method detection limit.

UB = Compound considered nondetect at the listed value due to associated blank contamination.

Table 7
Summary of MNA Parameters in Groundwater (2003-2021)
2021 Corrective Measure Implementation Annual Progress Report
Ashland LLC
130 South Street, Rensselaer, New York

Location ID	Date Collected	Ethane (µg/L)	Ethene (µg/L)	Methane (µg/L)
IMP-3	2/28/2006	**12**	**2.5**	**250**
	5/3/2006	**13**	**2.7**	**100**
	4/15/2010	**1.2**	**0.49**	**260**
	10/30/2017	7.5 U	7.0 U	**210**
	4/9/2018	83 U	77 U	**170**
IP-1	2/28/2006	**76**	**33**	**4,400**
	5/3/2006	**50**	**16**	**1,900**
	4/15/2010	**34**	**8.0**	**2,100**
	3/9/2011	NA	NA	**0.62**
	8/10/2011	NA	NA	**980 J**
	10/14/2011	NA	NA	**2,400**
	1/24/2012	NA	NA	**2,200 J**
	3/30/2012	NA	NA	**2,000**
	9/14/2012	**50 J**	**14 J**	**2,200**
	3/22/2013	**43**	**13**	**2,300**
	11/21/2013	**56**	**13**	**2,500**
	5/29/2014	1.1 U	1.0 U	**1,200**
	10/14/2014	**43**	**8.5**	**1,300**
	1/27/2016	NA	NA	**1,500**
	6/28/2016	150 U	140 U	**600**
	12/20/2016	150 U [75 U]	140 U [70 U]	380 UB [470 UB]
	5/15/2017	75 U	70 U	380 UB
	10/30/2017	170 U	150 U	**1,800**
	4/9/2018	83 U	77 U	**2,300**
	10/3/2018	**61**	**8.8**	**2,700 D**
	5/7/2019	**2.0 J**	**0.49 J**	**1,500 J**
	11/7/2019	**29**	**3.4 J**	**1,400 J**
	4/7/2020	**48**	**6.0 J**	**2,400**
	11/12/2020	**44**	**5.2 J**	**2,100**
	4/15/2021	**66**	**8.7**	**2,800 D**
	12/10/2021	**44**	**3.9 J**	**2,300**
IW-A2	10/31/2017	330 U	310 U	**4,200**
	4/10/2018	750 U	700 U	**13,000**
IW-B3	10/31/2017	330 U	310 U	**5,500**
	4/10/2018	750 U	700 U	**14,000**
MW-1	7/16/2003	**1.4**	0.33 U	**47**
	4/12/2007	**2.5**	0.33 U	**3.4**
	9/14/2007	0.35 U	0.33 U	**0.36**
	12/20/2016	7.5 U	7.0 U	4.0 UB
	10/30/2017	7.5 U	7.0 U	4.0 U
	4/10/2018	7.5 U	7.0 U	4.0 U
MW-13	7/16/2003	0.35 U	0.33 U	**3.3**
	4/10/2007	0.35 U	0.33 U	**0.60**
	4/16/2010	0.35 U	0.33 U	0.19 U
MW-15	11/6/2019	**33**	**16**	**2,300**
	4/7/2020	170 U	150 U	**5,400**
	11/11/2020	**63**	**22**	**1,600**
	4/15/2021	**30 J**	77 U	**2,100**
	11/22/2021	**60 J**	77 U	**3,100**
MW-16	7/15/2003	**3.2**	**0.77**	**120**
	8/11/2005	**0.59**	0.33 U	**0.52**
	4/12/2007	**0.68**	0.33 U	**6.9**
	9/24/2007	**41**	**4.4**	**900**
	4/15/2010	0.35 U	0.33 U	**3.4**
	3/30/2012	1.1 U	1.0 U	**0.72**
	7/2/2012	**8.1**	1.0 U	**150**
	9/14/2012	**3.3 J**	1.0 UJ	**25 J**
	3/22/2013	1.1 U	1.0 U	0.58 U
	11/21/2013	1.1 U	1.0 U	**1.1**
	5/29/2014	1.1 U	1.0 U	**42**

Table 7
Summary of MNA Parameters in Groundwater (2003-2021)
2021 Corrective Measure Implementation Annual Progress Report
Ashland LLC
130 South Street, Rensselaer, New York

Location ID	Date Collected	Ethane (µg/L)	Ethene (µg/L)	Methane (µg/L)
MW-16	10/14/2014	**16**	1.0 U	**340**
	6/30/2016	**10**	7.0 U	120 UB
	12/20/2016	7.5 U	7.0 U	27 UB
	5/15/2017	7.5 U	7.0 U	8.3 UB
	10/30/2017	**7.7**	7.0 U	**140**
	4/9/2018	7.5 U	7.0 U	4.0 U
	10/3/2018	7.5 U	7.0 U	**52**
	5/7/2019	7.5 UJ	7.0 UJ	**7.6 J**
	11/7/2019	7.5 U	7.0 U	**27**
	4/7/2020	7.5 U	7.0 U	**11**
	11/11/2020	7.5 U	7.0 U	**28**
	4/15/2021	7.5 U	7.0 U	**5.6**
	12/10/2021	7.5 U	7.0 U	4.0 U
MW-17	7/15/2003	0.35 U	0.33 U	**11**
	2/28/2006	0.35 U	0.33 U	**6.5**
	4/10/2007	0.35 U	0.33 U	**15**
	4/15/2010	0.35 U [0.35 U]	0.33 U [0.33 U]	**5.0 [5.4]**
MW-18	2/28/2006	**70**	**8.6**	**1,500**
	5/3/2006	**19**	**3.4**	**450**
	4/12/2007	**40**	**3.5**	**580**
	9/24/2007	**43**	**5.1**	**1,100**
	4/15/2010	**20**	**1.7**	**180**
	3/30/2012	**3.2**	1.0 U	**130**
	7/3/2012	**5.4**	1.0 U	**43**
	9/14/2012	**21 J**	**1.0 J**	**170 J**
	3/22/2013	1.1 U	1.0 U	0.58 U
	11/21/2013	**17**	**2.0**	**230**
	5/29/2014	1.1 U	1.0 U	**690**
	10/14/2014	**29**	**2.7**	**470**
	6/28/2016	150 U	140 U	**470**
	12/20/2016	75 U	70 U	90 UB
	5/15/2017	75 U	70 U	220 UB
	10/30/2017	170 U	150 U	**570**
	4/9/2018	170 U	150 U	**1,200**
	10/3/2018	**26**	7.0 U	**590 D**
	5/7/2019	**17 J**	7.0 UJ	**510 J**
	4/7/2020	**29**	7.0 U	**530**
	11/12/2020	**47**	**1.8 J**	**790**
	4/15/2021	**48**	**2.7 J**	**860 D**
	12/10/2021	**10**	7.0 U	**260**
MW-19	7/16/2003	**190**	**60**	**1,200**
	8/11/2005	**290**	**640**	**3,600**
	5/10/2006	**270**	**950**	**13,000**
	9/18/2007	**310**	**530**	**24,000**
	3/9/2011	**72**	**100**	**5,800**
	8/9/2011	**94**	**160 J**	**3,800 J**
	10/13/2011	**140**	**180**	**5,000 J**
	1/25/2012	**120**	**310**	**6,700**
	3/29/2012	**140 [180]**	**320 [410]**	**8,400 [11,000]**
	7/2/2012	**160 [160]**	**400 [380]**	**7,700 [7,500]**
	9/13/2012	**84 J [92 J]**	**180 J [190 J]**	**4,100 [4,400]**
	3/21/2013	**180 [200]**	**360 [400]**	**3,800 [4,100]**
	11/21/2013	**91 J [170 J]**	**170 J [300 J]**	**4,900 J [9,000 J]**
	5/29/2014	**350 [310]**	610 J [1.0 UJ]	**15,000 [14,000]**
	10/15/2014	**180 [180]**	**190 [180]**	**5,700 [5,400]**
	4/23/2015	**120 J [120 J]**	**130 J [130 J]**	**1,900 [2,100]**
	1/27/2016	NA	NA	**15,000 [17,000]**
	6/30/2016	**94 J [130 J]**	**81 J [110 J]**	**1,700 [2,400]**
	12/20/2016	380 U	350 U	430 UB
	5/16/2017	75 U [75 U]	29 J [70 U]	580 UB [460 UB]
	10/31/2017	**110 J [140 J]**	**56 J [78 J]**	**1,400 [1,600]**
	4/9/2018	**390 [350]**	**330 [300 J]**	**5,400 [4,900]**
	10/4/2018	**91 J [180 J]**	**120 J [210 J]**	**1,000 [1,300 D]**
	5/8/2019	**320 J [200 J]**	**310 J [320 J]**	**3,300 J [1,700 J]**
	11/6/2019	**300 [340]**	**380 J [380 J]**	**3,900 [4,900]**
	4/8/2020	**320 J [220 J]**	**320 J [260 J]**	**7,600 J [6,700]**
	11/12/2020	**270 J [170 J]**	**1,300 J [1,200]**	**4,900 [4,600]**
	4/15/2021	**610**	**560**	**10,000 D**
	11/23/2021	**670 [530 J]**	**250 [150 J]**	**8,400 [9,200]**

Table 7
Summary of MNA Parameters in Groundwater (2003-2021)
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Location ID	Date Collected	Ethane (µg/L)	Ethene (µg/L)	Methane (µg/L)
MW-20	10/31/2017	170 U	150 U	**5,400**
	4/10/2018	170 U	150 U	**550**
	11/6/2019	**4.4 J**	7.0 U	**640**
	4/7/2020	**8.0**	7.0 U	**2,000**
	11/12/2020	7.5 U	7.0 U	**93**
	4/15/2021	7.5 U	7.0 U	**880 D**
	11/23/2021	**5.3 J**	7.0 U	**1,400**
MW-21	4/16/2010	0.35 U	0.33 U	**0.89**
MW-22	9/15/2017	**91 JF1**	**52 JF1**	**1,100**
	4/19/2018	**240 J**	**210 J**	**4,400**
MW-23	9/15/2017	**12**	**18**	**98**
	4/19/2018	170 U	150 U	**12,000 D**
	11/6/2019	**190**	7.0 U	**6,800**
	4/7/2020	**240**	77 U	**18,000**
	11/12/2020	**140 J**	150 U	**17,000**
	4/15/2021	**200 [190]**	77 U [77 U]	**15,000 [15,000 D]**
	11/22/2021	**98 J**	310 U	**15,000**
MW-24	9/15/2017	**13 [9.9]**	7.0 U [7.0 U]	**190 [160]**
	4/19/2018	170 U	**33 J**	**1,300**
	11/6/2019	**310**	**490**	**8,200**
	4/8/2020	**330**	**710**	**16,000**
	11/13/2020	**80 J**	**140 J**	**14,000**
	4/15/2021	330 U	310 U	**14,000 D**
	11/22/2021	660 U	620 U	**11,000**
MW-25	10/4/2018	**290**	**190**	**2,200 D**
	5/8/2019	**660 J**	**180 J**	**4,900 J**
	11/6/2019	**390**	**160**	**2,200**
	4/7/2020	**700**	**180**	**7,200**
	11/11/2020	**230 J**	310 U	**2,400**
	4/15/2021	**740**	**330**	**9,500 D**
	11/23/2021	**600**	**53 J**	**11,000**
MW-A1	3/9/2011	**460 [500]**	**380 [420]**	**9,500 [11,000]**
	8/9/2011	**320 J [320]**	**250 J [250 J]**	**6,400 J [6,400 J]**
	10/13/2011	**440 J [520]**	**530 J [380]**	**15,000 J [10,000 J]**
	1/25/2012	**140**	**71**	**7,000**
	3/29/2012	**280**	**230**	**12,000**
	7/2/2012	**170**	**140**	**8,900**
	9/13/2012	**110 J**	**65 J**	**6,700**
	3/21/2013	**230**	**37**	**13,000**
	11/21/2013	**38**	**16**	**11,000**
	5/29/2014	**40**	**8.5**	**3,000**
	10/15/2014	**86**	**13**	**10,000**
	1/27/2016	NA	NA	**13,000**
	6/30/2016	380 U	350 U	5,400 UB
	12/20/2016	150 U	140 U	**2,600**
	5/16/2017	150 U	140 U	**2,300**
	10/31/2017	330 U	310 U	**12,000**
	4/19/2018	**100**	**21 J**	**7,500 D**
	10/4/2018	**340**	**49 J**	**17,000 D**
	5/8/2019	**400 J**	310 U	**14,000 J**
	11/6/2019	**300**	7.0 U	**6,800**
	4/8/2020	**260 J**	310 U	**16,000**
	11/11/2020	**200**	150 U	**8,900**
	4/15/2021	660 U	620 U	**14,000**
	11/23/2021	660 U	620 U	**16,000**
MW-B1	3/9/2011	**30**	1.0 U	**7,300**
	8/10/2011	**9.5**	**13 J**	**10,000 J**
	10/13/2011	**25**	**9.3**	**26,000 J**
	1/24/2012	**50**	**3.2**	**8,100**
	3/29/2012	**91**	1.0 U	**11,000**
	7/2/2012	**78**	1.0 U	**11,000**
	9/13/2012	**20 J**	1.0 UJ	**4,000**
	3/21/2013	**69**	1.0 U	**13,000**
	11/21/2013	**65**	1.0 U	**13,000**
	5/29/2014	1.1 U	1.0 U	**4,100**
	10/15/2014	**110**	**4.2**	**7,000**
	4/22/2015	**33 J**	**2.9 J**	**3,500**
	1/27/2016	NA	NA	**13,000**
	6/28/2016	380 U	350 U	**5,100**
	12/21/2016	380 U	350 U	**2,100**
	5/16/2017	75 U	70 U	**950**
	10/30/2017	170 U	150 U	**5,300**

Table 7
Summary of MNA Parameters in Groundwater (2003-2021)
2021 Corrective Measure Implementation Annual Progress Report
Ashland LLC
130 South Street, Rensselaer, New York

Location ID	Date Collected	Ethane (µg/L)	Ethene (µg/L)	Methane (µg/L)
MW-B1	4/10/2018	750 U	700 U	**13,000**
	10/3/2018	750 U	700 U	**10,000**
	5/7/2019	**40 J**	77 UJ	**5,000 J**
	11/6/2019	**48 J**	77 U	**2,700**
	4/8/2020	**29 J**	77 U	**2,900**
	11/12/2020	83 U	77 U	**12,000**
	4/15/2021	170 U	150 U	**17,000 D**
	11/22/2021	170 U	150 U	**13,000**
PZ-6	2/28/2006	**120**	**5.7**	**1,100**
	5/3/2006	**14**	0.33 U	**1.5**
	9/14/2007	**85**	**2.4**	**1,200**
	12/20/2016	7.5 U	7.0 U	42 UB

NOTES:
1. Bold results denote detections.
2. Duplicate sample results are in brackets.
3. All results are in micrograms per liter (µg/L), equivalent to parts per billion.

MNA = monitored natural attenuation
NA = not analyzed
NS = not sampled
µg/L = micrograms per liter
D = Compound quantitated using a secondary dilution.
J = Indicates an estimated value.
U = Undetected; result is less than the project quantitation limit or if estimated results (J flags) are to be reported, less than the method detection limit.
UB = Compound considered nondetect at the listed value due to associated blank contamination.

Table 8
Summary of Volatile Organic Compounds (2010-2021)
2021 Corrective Measure Implementation Annual Progress Report
Ashland LLC
130 South Street, Rensselaer, New York

Location ID: / Date Collected:	NYSDEC TOGS 1.1.1 Water Guidance Values	Units	IMP-3 04/15/10	IMP-3 03/09/11	IMP-3 08/10/11	IMP-3 10/14/11	IMP-3 01/24/12	IMP-3 03/30/12	IMP-3 07/03/12	IMP-3 09/14/12	IMP-3 03/22/13	IMP-3 11/21/13	IMP-3 05/29/14	IMP-3 10/14/14	IMP-3 01/27/16	IMP-3 06/30/16	IMP-3 12/20/16	IMP-3 05/15/17	IMP-3 10/30/17	IMP-3 04/09/18	IMP-3 10/03/18	IMP-3 02/19/19	IMP-3 05/07/19	IMP-3 08/07/19	IMP-3 11/07/19	IMP-3 04/07/20	IMP-3 11/12/20	IMP-3 04/15/21	IMP-3 12/10/21
Detected Volatile Organics																													
1,1,1-Trichloroethane	5	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U
1,1,2-trichloro-1,2,2-trifluoroethane	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U
1,2-Dichlorobenzene	3	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U
2-Butanone	- -	ug/L	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	5.0 U	10 U	10 U	10 U	10 U	5.0 U	10 U	10 U	10 U	10 U	10 U*	10 U	10 U	10 U	10 U	20 U
2-Hexanone	50	ug/L	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	10 U
4-Methyl-2-pentanone	- -	ug/L	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	10 U
Acetone	50	ug/L	25 U	25 U	25 U	25 U	25 U	25 U	25 U	25 U	25 U	25 U	10 U	5.0 U	10 U	10 U	10 U	10 UB	5.0 UB	**3.3 J**	10 UB	10 U	10 U	10 U	10 U	10 U	10 U	10 U	20 U
Benzene	1	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U
Carbon Disulfide	- -	ug/L	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U
Carbon Tetrachloride	5	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U
Chlorobenzene	5	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U
Chloroethane	5	ug/L	1.0 U	1.0 U	1.0 UJ	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	5.0 U	1.0 U	1.0 UJ	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U
Chloroform	7	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U
Cyclohexane	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U
Dichlorodifluoromethane	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U
Ethylbenzene	5	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U
Isopropylbenzene	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U
Methylcyclohexane	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U
Methylene Chloride	5	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	1.0 UJ	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U
Toluene	5	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U
Xylenes (total)	5	ug/L	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	4.0 U
Tetrachloroethene	5	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U
Trichloroethene	5	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 UJ	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U
1,1-Dichloroethane	5	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U
1,1-Dichloroethene	5	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U
1,2-Dichloroethane	0.6	ug/L	**1.8**	**6.7**	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	**1.3**	**0.43 J**	**3.1**	**1.0**	**1.7**	**0.38 J**	**0.58 J**	**0.44 J**	**0.34 J**	1.0 U	**0.76 J**	**2.4**
cis-1,2-Dichloroethene	5	ug/L	**14**	**27**	**4.0**	**1.9**	**7.2**	**10**	1.0 U	**36**	**1.6**	1.0 U	**6.0**	**160**	**66**	**58**	**120 D**	**80**	**78**	**130 D**	**72**	**68**	**14**	**53**	**16**	**11**	**47**	**120 D**	**90**
trans-1,2-Dichloroethene	5	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	**1.0**	1.0 U	1.0 U	1.0 U	**2.3**	1.0 U	**0.93 J**	1.0 U	**1.0**	**0.83 J**	**1.9**	**0.91 J**	**1.7**	1.0 U	**1.0**	1.0 U	1.0 U	1.0 U	**1.7**	2.0 U
Vinyl Chloride	2	ug/L	**2.7**	**6.4**	**1.2**	1.0 U	1.0 U	**1.7**	1.0 U	**3.6**	1.0 U	1.0 U	1.0 U	**15**	**7.8**	**8.4**	1.0 U	**10**	**2.3**	**5.7**	**5.9**	**14**	**1.9**	**7.5**	**2.1**	**2.1**	**2.7**	**13**	**13**
Total VOCs	- -	ug/L	**19**	**40**	**5.2**	**1.9**	**7.2**	**12**	ND	**41**	**1.6**	ND	**6.0**	**180**	**74**	**67 J**	**120**	**92**	**82 J**	**140 J**	**83 J**	**85.4**	**16.28 J**	**62.08 J**	**18.54 J**	**13.44 J**	**49.7**	**135.46 J**	**105.4**

NOTES:
1. All results are in micrograms per liter (µg/L), equivalent to parts per billion.
2. NYSDEC. 1998. TOGS 1.1.1 Water Guidance Values/Standards = New York State Department of Environmental Conservation Technical and Operational Guidance Series, June 1998, and its addenda (January 1999 Errata Sheet, April 2000 Addendum, and June 2004 Addendum).
3. Shaded cells denote results in exceedance of criteria. Bold values are detected.

NA = not analyzed

ND = non detected

NYSDEC = New York State Department of Environmental Conservation

TOGS = Technical and Operational Guidance Series

VOC = volatile organic compound.

[ ] = Duplicate results are shown in brackets.

- - = no standard/guidance value

D = Compound quantitated using a secondary dilution.

F1 = MS and/or MSD Recovery is outside acceptable Limits.

J = Indicates an estimated value.

R = The sample results were rejected

U = The compound was analyzed for but not detected. The associated value is the compound quantitation limit.
UB =Compound considered nondetect at the listed value due to associated blank contamination.
UJ = The compound was analyzed for but not detected. The associated value is the compound quantitation limit. Indicates an estimated value.

Table 8
Summary of Volatile Organic Compounds (2010-2021)
2021 Corrective Measure Implementation Annual Progress Report
Ashland LLC
130 South Street, Rensselaer, New York

Location ID: / Date Collected:	NYSDEC TOGS 1.1.1 Water Guidance Values	Units	IP-1 04/15/10	IP-1 03/09/11	IP-1 08/10/11	IP-1 10/14/11	IP-1 01/24/12	IP-1 03/30/12	IP-1 07/03/12	IP-1 09/14/12	IP-1 03/22/13	IP-1 11/21/13	IP-1 05/29/14	IP-1 10/14/14	IP-1 01/27/16	IP-1 06/28/16	IP-1 12/20/16	IP-1 05/15/17	IP-1 10/30/17	IP-1 04/09/18	IP-1 10/03/18	IP-1 02/19/19	IP-1 05/07/19	IP-1 08/07/19	IP-1 11/07/19	IP-1 04/07/20	IP-1 11/12/20	IP-1 04/15/21	IP-1 12/10/21
Detected Volatile Organics																													
1,1,1-Trichloroethane	5	ug/L	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	5.0 U	2.0 U	2.0 U	10 U	10 U [10 U]	10 U	1.0 U	1.0 U	1.0 U	4.0 U	1.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
1,1,2-trichloro-1,2,2-trifluoroethane	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	10 U	10 U [10 U]	10 U	1.0 U	1.0 U	1.0 U	4.0 U	1.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
1,2-Dichlorobenzene	3	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	10 U	10 U [10 U]	10 U	1.0 U	1.0 U	1.0 U	4.0 U	1.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
2-Butanone	- -	ug/L	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U	50 U	10 U	20 U	100 U	100 U [100 U]	100 U	5.0 U	10 U	10 U	40 U	10 U	50 U*	50 U	50 U	50 U	50 U	50 U
2-Hexanone	50	ug/L	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U	25 U	10 U	10 U	50 U	50 U [50 U]	50 U	5.0 U	5.0 U	5.0 U	20 U	5.0 U	25 U	25 U	25 U	25 U	25 U	25 U
4-Methyl-2-pentanone	- -	ug/L	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U	25 U	10 U	10 U	50 U	50 U [50 U]	50 U	5.0 U	5.0 U	5.0 U	20 U	5.0 U	25 U	25 U	25 U	25 U	25 U	25 U
Acetone	50	ug/L	50 U	50 U	50 U	50 U	50 U	50 U	50 U	50 U	50 U	50 UJ	50 U	10 U	20 U	100 U	100 U [100 U]	100 U	5.0 UB	**3.4 J**	10 UB	40 U	10 U	50 U	50 U	50 U	50 U	50 U	50 U
Benzene	1	ug/L	2.0 U	2.0 U	**2.1**	**2.1**	2.0 U	**2.1**	**2.7**	**2.8**	**2.0**	**2.5 J**	5.0 U	**2.1**	2.0 U	10 U	10 U [10 U]	10 U	**2.0**	**1.5**	**1.9**	4.0 U	**1.6**	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Carbon Disulfide	- -	ug/L	4.0 U	4.0 U	4.0 U	4.0 U	4.0 U	4.0 U	4.0 U	4.0 U	4.0 U	4.0 U	5.0 U	2.0 U	2.0 U	10 U	10 U [10 U]	10 U	1.0 U	1.0 U	1.0 U	4.0 U	1.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Carbon Tetrachloride	5	ug/L	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	5.0 U	2.0 U	2.0 U	10 U	10 U [10 U]	10 U	1.0 U	1.0 U	1.0 U	4.0 U	1.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Chlorobenzene	5	ug/L	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	5.0 U	2.0 U	2.0 U	10 U	10 U [10 U]	10 U	1.0 U	1.0 U	1.0 U	4.0 U	1.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Chloroethane	5	ug/L	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	10 U	5.0 U	2.0 UJ	2.0 U	10 U	10 U [10 U]	10 U	1.0 U	1.0 U	1.0 U	4.0 U	1.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Chloroform	7	ug/L	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	5.0 U	2.0 U	2.0 U	10 U	10 U [10 U]	10 U	1.0 U	1.0 U	1.0 U	4.0 U	1.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Cyclohexane	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	10 U	10 U [10 U]	10 U	1.0 U	1.0 U	1.0 U	4.0 U	1.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Dichlorodifluoromethane	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	10 U	10 U [10 U]	10 U	1.0 U	1.0 U	1.0 U	4.0 U	1.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Ethylbenzene	5	ug/L	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	5.0 U	2.0 U	2.0 U	10 U	10 U [10 U]	10 U	1.0 U	1.0 U	1.0 U	4.0 U	1.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Isopropylbenzene	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	10 U	10 U [10 U]	10 U	1.0 U	1.0 U	1.0 U	4.0 U	1.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Methylcyclohexane	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	10 U	10 U [10 U]	10 U	1.0 U	1.0 U	1.0 U	4.0 U	1.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Methylene Chloride	5	ug/L	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 UJ	**12 J**	2.0 U	2.0 U	10 U	10 U [10 U]	**9.6 J**	1.0 U	1.0 U	1.0 U	4.0 U	1.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Toluene	5	ug/L	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	5.0 U	2.0 U	2.0 U	10 U	10 U [10 U]	10 U	1.0 U	1.0 U	1.0 U	4.0 U	1.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Xylenes (total)	5	ug/L	4.0 U	4.0 U	4.0 U	4.0 U	4.0 U	4.0 U	4.0 U	4.0 U	4.0 U	4.0 U	10 U	4.0 U	4.0 U	20 U	20 U [20 U]	20 U	2.0 U	2.0 U	2.0 U	8.0 U	2.0 U	10 U	10 U	10 U	10 U	10 U	10 U
Tetrachloroethene	5	ug/L	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	5.0 U	2.0 U	2.0 U	10 U	10 U [10 U]	10 U	1.0 U	1.0 U	1.0 U	4.0 U	1.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Trichloroethene	5	ug/L	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	5.0 U	2.0 UJ	2.0 U	10 U	10 U [10 U]	10 U	1.0 U	1.0 U	1.0 U	4.0 U	1.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
1,1-Dichloroethane	5	ug/L	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	5.0 U	2.0 U	2.0 U	10 U	10 U [10 U]	10 U	1.0 U	1.0 U	1.0 U	4.0 U	1.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
1,1-Dichloroethene	5	ug/L	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	5.0 U	2.0 U	2.0 U	10 U	10 U [10 U]	10 U	**0.64 J**	**0.49 J**	**0.37 J**	4.0 U	1.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
1,2-Dichloroethane	0.6	ug/L	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	5.0 U	2.0 U	2.0 U	10 U	10 U [10 U]	10 U	**0.56 J**	**0.34 J**	**0.39 J**	4.0 U	**0.37 J**	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
cis-1,2-Dichloroethene	5	ug/L	**200**	**210**	**250**	**360**	**220**	**190**	**290**	**420 D**	**240**	**530 DJ**	**390**	**570**	**420 DJ**	**510**	**520 [530]**	**280**	**500**	**350 D**	**370 D**	**310**	**300 D**	**330**	**340**	**270**	**360**	**310**	**280**
trans-1,2-Dichloroethene	5	ug/L	**3.5**	**4.1**	**4.8**	**6.7**	**3.8**	**3.8**	**5.8**	**9.0**	**3.9**	**12 J**	5.0 U	**7.0**	**4.8**	10 U	10 U [10 U]	10 U	**6.0**	**4.6**	**6.4**	**5.0**	**4.1**	5.0 U	5.0 U	5.0 U	**4.5 J**	5.0 U	5.0 U
Vinyl Chloride	2	ug/L	**68**	**83**	**110**	**240**	**120**	**160**	**220**	**260 D**	**190**	**190 J**	**180**	**150**	**110**	**110**	**110 [140]**	**63**	**80**	**68**	**65**	**83**	**81**	**66**	**61**	**85**	**65**	**73**	**86**
Total VOCs	- -	ug/L	**270**	**300**	**370**	**610**	**340**	**360**	**520**	**690**	**440**	**730 J**	**580 J**	**730**	**530 J**	**620**	**630 [670]**	**350 J**	**590 J**	**430 J**	**450 J**	**398**	**385.47 J**	**396**	**401**	**355**	**429.5 J**	**383**	**366**

NOTES:
1. All results are in micrograms per liter (µg/L), equivalent to parts per billion.
2. NYSDEC. 1998. TOGS 1.1.1 Water Guidance Values/Standards = New York State Department of Environmental Conservation Technical and Operational Guidance Series, June 1998, and its addenda (January 1999 Errata Sheet, April 2000 Addendum, and June 2004 Addendum).
3. Shaded cells denote results in exceedance of criteria. Bold values are detected.

NA = not analyzed
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UB =Compound considered nondetect at the listed value due to associated blank contamination.
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Table 8
Summary of Volatile Organic Compounds (2010-2021)
2021 Corrective Measure Implementation Annual Progress Report
Ashland LLC
130 South Street, Rensselaer, New York

Location ID: / Date Collected:	NYSDEC TOGS 1.1.1 Water Guidance Values	Units	IW-A2 01/25/12	IW-A2 03/29/12	IW-A2 07/02/12	IW-A2 09/13/12	IW-A2 03/22/13	IW-A2 11/21/13	IW-A2 05/29/14	IW-A2 10/15/14	IW-A2 04/23/15	IW-A2 01/27/16	IW-A2 06/30/16	IW-A2 12/21/16	IW-A2 05/16/17	IW-A2 10/31/17	IW-A2 04/10/18	IW-A2 10/04/18	IW-A2 05/08/19	IW-A2 11/07/19	IW-A2 04/08/20	IW-A2 11/12/20	IW-A2 04/15/21	IW-A2 11/22/21
Detected Volatile Organics																								
1,1,1-Trichloroethane	5	ug/L	1.0 U	10 U	10 U	5.0 U	1.0 U	5.0 U	10 U	1.0 UJ	1.0 UJ	5.0 U	40 U	40 U	50 U	**1.4**	50 U	R	20 U	40 U	40 U	80 U	20 U	20 UJJ
1,1,2-trichloro-1,2,2-trifluoroethane	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	40 U	40 U	50 U	1.0 U	50 U	R	20 U	40 U	40 U	80 U	20 U	20 UJJ
1,2-Dichlorobenzene	3	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	40 U	40 U	50 U	**0.28 J**	50 U	R	20 U	40 U	40 U	80 U	20 U	20 UJJ
2-Butanone	- -	ug/L	**79**	**890**	**800**	**710**	10 U	**630**	100 U	5.0 UJ	5.0 UJ	**240**	**460**	400 U	500 U	**10**	500 U	R	200 U	400 U	400 U	400 U	200 U	200 UJJ
2-Hexanone	50	ug/L	10 U	100 U	100 U	**56**	10 U	50 U	50 U	5.0 UJ	5.0 UJ	25 U	**70 J**	200 U	250 U	5.0 U	250 U	R	100 U	200 U	200 U	400 U	100 U	100 UJJ
4-Methyl-2-pentanone	- -	ug/L	10 U	100 U	**180**	50 U	10 U	50 U	50 U	5.0 UJ	5.0 UJ	25 U	200 U	200 U	250 U	5.0 U	250 U	R	100 U	200 U	200 U	400 U	100 U	100 UJJ
Acetone	50	ug/L	25 U	**290**	**750**	**2,000**	25 U	**350**	100 U	5.0 UJ	5.0 UJ	**220**	**850**	400 U	500 U	**49**	500 U	R	200 U	400 U	400 U	800 U	200 U	200 UJJ
Benzene	1	ug/L	**3.3**	**23**	**22**	**23**	**18**	**27**	**11**	**7.3 J**	**11 J**	**6.1**	**23 J**	**50**	50 U	**13**	50 U	R	**13 J**	40 U	40 U	80 U	20 U	**13 J**
Carbon Disulfide	- -	ug/L	2.0 U	20 U	20 U	10 U	2.0 U	10 U	10 U	1.0 UJ	1.0 UJ	5.0 U	40 U	40 U	50 U	**3.5**	50 U	R	20 UB	40 U	40 U	80 U	20 U	20 UJJ
Carbon Tetrachloride	5	ug/L	1.0 U	10 U	10 U	5.0 U	1.0 U	5.0 U	10 U	1.0 UJ	1.0 UJ	5.0 U	40 U	40 U	50 U	1.0 U	50 U	R	20 U	40 U	40 U	80 U	20 U	20 UJJ
Chlorobenzene	5	ug/L	1.0 U	10 U	10 U	5.0 U	1.0 U	5.0 U	10 U	1.0 UJ	1.0 UJ	5.0 U	40 U	40 U	50 U	**2.7**	50 U	R	20 U	40 U	40 U	80 U	20 U	20 UJJ
Chloroethane	5	ug/L	1.0 U	10 U	10 U	5.0 U	1.0 U	25 U	10 U	1.0 UJ	1.0 UJ	5.0 U	40 U	40 U	50 U	1.0 U	50 U	R	20 U	40 U	40 U	80 U	20 U	20 UJJ
Chloroform	7	ug/L	1.0 U	10 U	10 U	5.0 U	1.0 U	5.0 U	10 U	1.0 UJ	1.0 UJ	5.0 U	40 U	40 U	50 U	1.0 U	50 U	R	20 U	40 U	40 U	80 U	20 U	20 UJJ
Cyclohexane	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	40 U	40 U	50 U	**1.1**	50 U	R	20 U	40 U	40 U	80 U	20 U	20 UJJ
Dichlorodifluoromethane	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	40 U	40 U	50 U	1.0 U	50 U	R	20 U	40 U	40 U	80 U	20 U	20 UJJ
Ethylbenzene	5	ug/L	**4.5**	**13**	10 U	**9.0**	**14**	**17**	10 U	**5.1 J**	**2.5 J**	5.0 U	40 U	40 U	50 U	**4.0**	50 U	R	20 U	40 U	40 U	80 U	20 U	20 UJJ
Isopropylbenzene	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	40 U	40 U	50 U	**3.8**	50 U	R	20 U	40 U	40 U	80 U	20 U	20 UJ
Methylcyclohexane	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	40 U	40 U	50 U	**1.6**	50 U	R	20 U	40 U	40 U	80 U	20 U	20 UJ
Methylene Chloride	5	ug/L	5.0 U	50 U	50 U	25 U	5.0 U	25 U	10 UJ	1.0 UJ	1.0 UJ	5.0 U	40 U	40 U	50 U	1.0 U	50 U	R	20 U	40 U	40 U	80 U	20 U	20 UJ
Toluene	5	ug/L	**1.7**	10 U	10 U	**8.2**	**5.1**	**6.6**	10 U	**2.2 J**	**1.1 J**	5.0 U	40 U	40 U	50 U	**2.5**	50 U	R	20 U	40 U	40 U	80 U	20 U	20 UJ
Xylenes (total)	5	ug/L	**58**	**180**	**95**	**85**	**210**	**160**	**120**	**77 J**	**160 J**	10 U	**42 J**	**190**	**85 J**	**45**	**73 J**	**42 J**	**25 J**	**43 J**	**36 J**	160 U	**17 J**	**27 J**
Tetrachloroethene	5	ug/L	1.0 U	10 U	10 U	5.0 U	1.0 U	5.0 U	10 U	1.0 UJ	1.0 UJ	5.0 U	40 U	40 U	50 U	**1.0**	50 U	R	20 U	40 U	40 U	80 U	20 U	20 UJ
Trichloroethene	5	ug/L	1.0 U	10 U	10 U	5.0 U	1.0 U	5.0 U	10 U	1.0 UJ	1.0 UJ	5.0 U	40 U	40 U	50 U	**70**	50 U	R	20 U	40 U	40 U	80 U	20 U	20 UJ
1,1-Dichloroethane	5	ug/L	1.0 U	10 U	10 U	5.0 U	1.0 U	5.0 U	10 U	1.0 UJ	1.0 UJ	5.0 U	40 U	40 U	50 U	1.0 U	50 U	R	20 U	40 U	40 U	80 U	20 U	20 UJ
1,1-Dichloroethene	5	ug/L	1.0 U	10 U	10 U	5.0 U	1.0 U	5.0 U	10 U	1.0 UJ	1.0 UJ	5.0 U	40 U	40 U	50 U	1.0 U	50 U	R	20 U	40 U	40 U	80 U	20 U	20 UJ
1,2-Dichloroethane	0.6	ug/L	1.0 U	10 U	10 U	5.0 U	1.0 U	5.0 U	10 U	1.0 UJ	1.0 UJ	5.0 U	40 U	40 U	50 U	1.0 U	50 U	R	20 U	40 U	40 U	80 U	20 U	20 UJ
cis-1,2-Dichloroethene	5	ug/L	1.0 U	10 U	10 U	5.0 U	1.0 U	5.0 U	10 U	1.0 UJ	1.0 UJ	5.0 U	40 U	40 U	50 U	**17**	50 U	R	20 U	40 U	40 U	80 U	20 U	20 UJ
trans-1,2-Dichloroethene	5	ug/L	1.0 U	10 U	10 U	5.0 U	1.0 U	5.0 U	10 U	1.0 UJ	1.0 UJ	5.0 U	40 U	40 U	50 U	**0.19 J**	50 U	R	20 U	40 U	40 U	80 U	20 U	20 UJ
Vinyl Chloride	2	ug/L	1.0 U	10 U	10 U	5.0 U	1.0 U	5.0 U	10 U	1.0 UJ	1.0 UJ	5.0 U	40 U	40 U	50 U	**2.2**	50 U	R	20 U	40 U	40 U	80 U	20 U	20 UJ
Total VOCs	- -	ug/L	**150**	**1,400**	**1,800**	**2,900**	**250**	**1,200**	**130**	**92 J**	**170 J**	**470**	**1,400 J**	**240**	**85 J**	**220 J**	**73 J**	**42 J**	**38 J**	**43 J**	**36 J**	ND	**17 J**	**40 J**

NOTES:

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Detected Volatile Organics																											
1,1,1-Trichloroethane	5	ug/L	20 U	1.0 U	1.0 U	10 U	10 U	1.0 U	10 U	1.0 U	2.0 UJ	1.0 U	40 U	40 U	100 U	1.0 U	400 U	R	40 U	200 U	20 U	50 U	20 U	20 U	10 U	**6.8**	2.0 U
1,1,2-trichloro-1,2,2-trifluoroethane	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	40 U	40 U	100 U	1.0 U	400 U	R	40 U	200 U	20 U	50 U	20 U	20 U	10 U	2.0 U	2.0 U
1,2-Dichlorobenzene	3	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	40 U	40 U	100 U	1.0 U	400 U	R	40 U	200 U	20 U	50 U	20 U	20 U	10 U	2.0 U	2.0 U
2-Butanone	- -	ug/L	**1,500**	**220**	**820 D**	**540**	100 U	**130**	100 U	5.0 U	10 UJ	**36**	**3,300**	400 U	1,000 U	**3.6 J**	4,000 U	R	400 U	2,000 U	200 U	500 U	200 U	200 U	100 U	10 U	20 U
2-Hexanone	50	ug/L	**660**	10 U	**33**	100 U	100 U	**24**	**60**	5.0 U	10 UJ	5.0 U	**370**	200 U	500 U	5.0 U	2,000 U	R	200 U	1,000 U	100 U	250 U	100 U	100 U	50 U	10 U	10 U
4-Methyl-2-pentanone	- -	ug/L	200 U	10 U	10 U	100 U	100 U	10 U	50 U	5.0 U	10 UJ	5.0 U	200 U	200 U	500 U	5.0 U	2,000 U	R	200 U	1,000 U	100 U	250 U	100 U	100 U	50 U	10 U	10 U
Acetone	50	ug/L	500 U	**230**	**290**	**410**	250 U	**300**	**120**	**21**	10 UJ	**19 J**	**4,000**	400 U	1,000 U	22 UB	4,000 U	R	400 U	2,000 U	200 U	500 U	200 U	200 U	100 U	10 UB	20 U
Benzene	1	ug/L	20 U	1.0 U	1.0 U	10 U	10 U	1.0 U	10 U	1.0 U	2.0 UJ	1.0 U	40 U	40 U	100 U	**0.22 J**	400 U	R	40 U	200 U	20 U	50 U	20 U	20 U	10 U	2.0 U	2.0 U
Carbon Disulfide	- -	ug/L	40 U	2.0 U	2.0 U	20 U	20 U	2.0 U	10 U	1.0 U	2.0 UJ	1.0 U	40 U	40 U	100 U	**5.1**	400 U	R	40 U	200 U	20 U	50 U	20 U	20 U	10 U	**0.63 J**	2.0 U
Carbon Tetrachloride	5	ug/L	20 U	1.0 U	1.0 U	10 U	10 U	1.0 U	10 U	1.0 U	2.0 UJ	1.0 U	40 U	40 U	100 U	1.0 U	400 U	R	40 U	200 U	20 U	50 U	20 U	20 U	10 U	2.0 U	2.0 U
Chlorobenzene	5	ug/L	20 U	1.0 U	1.0 U	10 U	10 U	1.0 U	10 U	1.0 U	2.0 UJ	1.0 U	40 U	40 U	100 U	1.0 U	400 U	R	40 U	200 U	20 U	50 U	20 U	20 U	10 U	2.0 U	2.0 U
Chloroethane	5	ug/L	20 U	1.0 U	1.0 U	10 U	10 U	5.0 U	10 U	1.0 UJ	2.0 UJ	1.0 U	40 U	40 U	100 U	1.0 U	400 U	R	40 U	200 U	20 U	50 U	20 U	20 U	10 U	2.0 U	2.0 U
Chloroform	7	ug/L	20 U	**2.8**	1.0 U	10 U	10 U	1.0 U	10 U	1.0 U	2.0 UJ	**7.9**	40 U	40 U	100 U	1.0 U	400 U	R	40 U	200 U	20 U	50 U	20 U	20 U	10 U	2.0 U	2.0 U
Cyclohexane	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	40 U	40 U	100 U	1.0 U	400 U	R	40 U	200 U	20 U	50 U	20 U	20 U	10 U	2.0 U	2.0 U
Dichlorodifluoromethane	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	40 U	40 U	100 U	1.0 U	400 U	R	40 U	200 U	20 U	50 U	20 U	20 U	10 U	2.0 U	2.0 U
Ethylbenzene	5	ug/L	20 U	**1.4**	**1.1**	10 U	10 U	1.0 U	10 U	1.0 U	2.0 UJ	1.0 U	40 U	40 U	100 U	**1.2**	400 U	R	40 U	200 U	20 U	50 U	20 U	20 U	10 U	2.0 U	2.0 U
Isopropylbenzene	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	40 U	40 U	100 U	1.0 U	400 U	R	40 U	200 U	20 U	50 U	20 U	20 U	10 U	2.0 U	2.0 U
Methylcyclohexane	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	40 U	40 U	100 U	1.0 U	400 U	R	40 U	200 U	20 U	50 U	20 U	20 U	10 U	2.0 U	2.0 U
Methylene Chloride	5	ug/L	100 U	**5.0**	5.0 U	50 U	50 U	5.0 U	**19 J**	1.0 U	2.0 UJ	**3.1**	40 U	40 U	100 U	1.0 U	400 U	R	40 U	200 U	20 U	50 U	20 U	20 U	10 U	2.0 U	2.0 U
Toluene	5	ug/L	**120**	**53**	**260 D**	**2,000 D**	**690**	**190**	**240**	**19**	2.0 UJ	**1.5**	40 U	40 U	100 U	**36**	400 U	R	40 U	200 U	20 U	50 U	20 U	20 U	10 U	2.0 U	2.0 U
Xylenes (total)	5	ug/L	40 U	2.0 U	2.0 U	20 U	20 U	2.0 U	20 U	2.0 U	4.0 UJ	2.0 U	80 U	80 U	200 U	**2.4**	800 U	R	80 U	400 U	40 U	100 U	40 U	40 U	20 U	4.0 U	4.0 U
Tetrachloroethene	5	ug/L	20 U	1.0 U	1.0 U	10 U	10 U	1.0 U	10 U	1.0 U	2.0 UJ	1.0 U	40 U	40 U	100 U	**0.25 J**	400 U	R	40 U	200 U	20 U	50 U	20 U	20 U	**4.6 J**	**12**	**0.95 J**
Trichloroethene	5	ug/L	20 U	1.0 U	**1.0**	10 U	10 U	1.0 U	10 U	1.0 UJ	2.0 UJ	1.0 U	40 U	40 U	100 U	**11**	400 U	R	40 U	200 U	20 U	50 U	20 U	20 U	**120**	**180**	**34**
1,1-Dichloroethane	5	ug/L	20 U	1.0 U	1.0 U	10 U	10 U	1.0 U	10 U	1.0 U	2.0 UJ	1.0 U	40 U	40 U	100 U	1.0 U	400 U	R	40 U	200 U	20 U	50 U	20 U	20 U	10 U	**3.1**	**1.6 J**
1,1-Dichloroethene	5	ug/L	20 U	1.0 U	1.0 U	10 U	10 U	1.0 U	10 U	1.0 U	2.0 UJ	1.0 U	40 U	40 U	100 U	1.0 U	400 U	R	40 U	200 U	20 U	50 U	20 U	20 U	10 U	**17**	**2.1**
1,2-Dichloroethane	0.6	ug/L	20 U	**5.9**	**6.2**	10 U	10 U	1.0 U	10 U	1.0 U	2.0 UJ	1.0 U	40 U	40 U	100 U	**0.26 J**	400 U	R	40 U	200 U	20 U	50 U	20 U	20 U	10 U	**0.54 J**	2.0 U
cis-1,2-Dichloroethene	5	ug/L	**30**	**20**	**20**	**11**	10 U	**2.9**	10 U	1.0 U	2.0 UJ	**1.1**	40 U	40 U	100 U	**1.7**	400 U	R	40 U	200 U	20 U	50 U	20 U	20 U	**290**	**660**	**160**
trans-1,2-Dichloroethene	5	ug/L	20 U	**1.6**	**2.0**	10 U	10 U	1.0 U	10 U	1.0 U	2.0 UJ	1.0 U	40 U	40 U	100 U	**0.23 J**	400 U	R	40 U	200 U	20 U	50 U	20 U	20 U	10 U	**3.0**	2.0 U
Vinyl Chloride	2	ug/L	20 U	**8.2**	**6.4**	10 U	10 U	**2.0**	10 U	1.0 U	2.0 UJ	1.0 U	40 U	40 U	100 U	**0.13 J**	400 U	R	40 U	200 U	20 U	50 U	20 U	20 U	10 U	**9.0**	**7.4**
Total VOCs	- -	ug/L	**2,300**	**550**	**1,400**	**3,000**	**690**	**650**	**440 J**	**40**	ND	**69 J**	**7,700**	ND	ND	**62 J**	ND	R	NA	ND	ND	ND	ND	ND	**410 J**	**892 J**	**206.05 J**

NOTES:
1. All results are in micrograms per liter (µg/L), equivalent to parts per billion.
2. NYSDEC. 1998. TOGS 1.1.1 Water Guidance Values/Standards = New York State Department of Environmental Conservation Technical and Operational Guidance Series, June 1998, and its addenda (January 1999 Errata Sheet, April 2000 Addendum, and June 2004 Addendum).
3. Shaded cells denote results in exceedance of criteria. Bold values are detected.

NA = not analyzed
ND = non detected
NYSDEC = New York State Department of Environmental Conservation
TOGS = Technical and Operational Guidance Series
VOC = volatile organic compound.
[ ] = Duplicate results are shown in brackets.
- - = no standard/guidance value
D = Compound quantitated using a secondary dilution.
F1 = MS and/or MSD Recovery is outside acceptable Limits.
J = Indicates an estimated value.
R = The sample results were rejected
U = The compound was analyzed for but not detected. The associated value is the compound quantitation limit.
UB =Compound considered nondetect at the listed value due to associated blank contamination.
UJ = The compound was analyzed for but not detected. The associated value is the compound quantitation limit. Indicates an estimated value.

Table 8
Summary of Volatile Organic Compounds (2010-2021)
2021 Corrective Measure Implementation Annual Progress Report
Ashland LLC
130 South Street, Rensselaer, New York

Location ID: / Date Collected:	NYSDEC TOGS 1.1.1 Water Guidance Values	Units	MW-13 04/16/10	MW-13 03/09/11	MW-13 08/09/11	MW-13 10/14/11	MW-13 01/25/12	MW-13 03/29/12	MW-13 07/02/12	MW-13 09/13/12	MW-13 03/21/13	MW-13 11/21/13	MW-13 05/29/14	MW-13 10/15/14	MW-13 04/22/15	MW-13 01/27/16	MW-13 06/28/16	MW-13 12/20/16	MW-13 05/16/17	MW-13 10/31/17	MW-13 04/10/18	MW-13 10/04/18	MW-13 05/07/19	MW-13 11/06/19	MW-13 04/07/20	MW-13 11/11/20	MW-13 04/14/21	MW-13 11/22/21	MW-15 11/06/19	MW-15 04/07/20	MW-15 11/12/20	MW-15 04/15/21	MW-15 11/22/21
Detected Volatile Organics																																	
1,1,1-Trichloroethane	5	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1,2-trichloro-1,2,2-trifluoroethane	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dichlorobenzene	3	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
2-Butanone	- -	ug/L	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	5.0 U	5.0 U	10 U	10 U	10 U	10 U	5.0 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
2-Hexanone	50	ug/L	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
4-Methyl-2-pentanone	- -	ug/L	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Acetone	50	ug/L	25 U	25 U	25 U	25 U	25 U	25 U	25 U	25 U	25 U	25 U	**16**	5.0 U	5.0 U	10 U	10 U	10 U	10 UB	5.0 UB	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Benzene	1	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	**5.4**	**5.3**	**13**	**5.4**	**5.3**
Carbon Disulfide	- -	ug/L	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Carbon Tetrachloride	5	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Chlorobenzene	5	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Chloroethane	5	ug/L	1.0 U	1.0 U	1.0 UJ	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	5.0 U	1.0 U	1.0 UJ	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Chloroform	7	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Cyclohexane	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	**0.57 J**	1.0 U	**0.96 J**	1.0 U	**1.5**
Dichlorodifluoromethane	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Ethylbenzene	5	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Isopropylbenzene	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Methylcyclohexane	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	**0.27 J**	**0.65 J**	**0.70 J**	**0.40 J**	**1.1**
Methylene Chloride	5	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	1.0 UJ	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Toluene	5	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Xylenes (total)	5	ug/L	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	**1.6 J**	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
Tetrachloroethene	5	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Trichloroethene	5	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 UJ	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	**4.6**	1.0 U	**4.5**	**1.4**	1.0 U
1,1-Dichloroethane	5	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	**0.67 J**	**0.43 J**	**1.3**	1.0 U	**0.67 J**
1,1-Dichloroethene	5	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dichloroethane	0.6	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	**0.55 J**	**0.56 J**	1.0 U	**0.91 J**	**0.35 J**
cis-1,2-Dichloroethene	5	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	**18**	**10**	**10**	**23**	**8.1**
trans-1,2-Dichloroethene	5	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	**1.1**	1.0 U	1.0 U	1.0 U	1.0 U
Vinyl Chloride	2	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	**19**	**17**	**6.5**	**21**	**13**
Total VOCs	- -	ug/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	**16**	ND	ND	ND	ND	ND	ND	ND	ND	**1.6 J**	ND	ND	ND	ND	ND	ND	**50.16**	**33.94 J**	**36.96 J**	**52.11 J**	**30.02 J**

NOTES:
1. All results are in micrograms per liter (µg/L), equivalent to parts per billion.
2. NYSDEC. 1998. TOGS 1.1.1 Water Guidance Values/Standards = New York State Department of Environmental Conservation Technical and Operational Guidance Series, June 1998, and its addenda (January 1999 Errata Sheet, April 2000 Addendum, and June 2004 Addendum).
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Ashland LLC
130 South Street, Rensselaer, New York

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Detected Volatile Organics																													
1,1,1-Trichloroethane	5	ug/L	1.0 U	1.0 U	5.0 U	5.0 U	1.0 U	1.0 U	2.0 U	5.0 U	1.0 U	5.0 U	1.0 U	1.0 U	1.0 U	8.0 U	1.0 U	2.0 U	1.0 U	1.0 U	1.0 U	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1,2-trichloro-1,2,2-trifluoroethane	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	8.0 U	1.0 U	2.0 U	1.0 U	1.0 U	1.0 U	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dichlorobenzene	3	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	8.0 U	1.0 U	2.0 U	1.0 U	1.0 U	1.0 U	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
2-Butanone	- -	ug/L	10 U	10 U	50 U	50 U	10 U	10 U	20 U	50 U	10 U	50 U	10 U	5.0 U	10 U	80 U	10 U	20 U	5.0 U	10 U	10 U	20 U	10 U	10 U*	10 U	10 U	10 U	10 U
2-Hexanone	50	ug/L	10 U	10 U	50 U	50 U	10 UJ	10 U	20 U	50 U	10 U	50 U	5.0 U	5.0 U	5.0 U	40 U	5.0 U	10 U	5.0 U	5.0 U	5.0 U	10 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
4-Methyl-2-pentanone	- -	ug/L	10 U	10 U	50 U	50 U	10 U	10 U	20 U	50 U	10 U	50 U	5.0 U	5.0 U	5.0 U	40 U	5.0 U	10 U	5.0 U	5.0 U	5.0 U	10 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Acetone	50	ug/L	25 U	25 U	130 U	130 U	25 U	25 U	50 U	130 U	25 U	130 U	10 U	5.0 U	10 U	80 U	10 U	20 U	5.0 UB	10 U	10 U	20 U	10 U	10 U	10 U	10 U	10 U	10 U
Benzene	1	ug/L	1.0 U	1.0 U	5.0 U	5.0 U	1.0 U	1.0 U	2.0 U	5.0 U	1.0 U	5.0 U	1.0 U	1.0 U	1.0 U	8.0 U	1.0 U	2.0 U	**0.50 J**	1.0 U	1.0 U	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Carbon Disulfide	- -	ug/L	2.0 U	2.0 U	10 U	10 U	2.0 U	2.0 U	4.0 U	10 U	2.0 U	10 U	1.0 U	1.0 U	1.0 U	8.0 U	1.0 U	2.0 U	1.0 U	1.0 U	1.0 U	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Carbon Tetrachloride	5	ug/L	1.0 U	1.0 U	5.0 U	5.0 U	1.0 U	1.0 U	2.0 U	5.0 U	1.0 U	5.0 U	1.0 U	1.0 U	1.0 U	8.0 U	1.0 U	2.0 U	1.0 U	1.0 U	1.0 U	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Chlorobenzene	5	ug/L	1.0 U	1.0 U	5.0 U	5.0 U	1.0 U	1.0 U	2.0 U	5.0 U	1.0 U	5.0 U	1.0 U	1.0 U	1.0 U	8.0 U	1.0 U	2.0 U	1.0 U	1.0 U	1.0 U	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Chloroethane	5	ug/L	1.0 U	1.0 U	5.0 UJ	5.0 U	1.0 U	1.0 U	2.0 U	5.0 U	1.0 U	25 U	1.0 U	1.0 UJ	1.0 U	8.0 U	1.0 U	2.0 U	1.0 U	1.0 U	1.0 U	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Chloroform	7	ug/L	1.0 U	1.0 U	5.0 U	5.0 U	1.0 U	1.0 U	2.0 U	5.0 U	1.0 U	5.0 U	1.0 U	1.0 U	1.0 U	8.0 U	1.0 U	2.0 U	1.0 U	1.0 U	1.0 U	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Cyclohexane	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	8.0 U	1.0 U	2.0 U	1.0 U	1.0 U	1.0 U	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Dichlorodifluoromethane	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	8.0 U	1.0 U	2.0 U	1.0 U	1.0 U	1.0 U	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Ethylbenzene	5	ug/L	1.0 U	1.0 U	5.0 U	5.0 U	1.0 U	1.0 U	2.0 U	5.0 U	1.0 U	5.0 U	1.0 U	1.0 U	1.0 U	8.0 U	1.0 U	2.0 U	1.0 U	1.0 U	1.0 U	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Isopropylbenzene	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	8.0 U	1.0 U	2.0 U	1.0 U	1.0 U	1.0 U	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Methylcyclohexane	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	8.0 U	1.0 U	2.0 U	1.0 U	1.0 U	1.0 U	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Methylene Chloride	5	ug/L	5.0 U	5.0 U	25 U	25 U	5.0 U	5.0 U	10 U	25 U	5.0 U	25 U	1.0 UJ	1.0 U	1.0 U	8.0 U	1.0 U	**1.4 J**	1.0 U	1.0 U	1.0 U	**1.1 J**	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Toluene	5	ug/L	1.0 U	1.0 U	5.0 U	5.0 U	1.0 U	1.0 U	2.0 U	5.0 U	1.0 U	5.0 U	1.0 U	1.0 U	1.0 U	8.0 U	1.0 U	2.0 U	1.0 U	1.0 U	1.0 U	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Xylenes (total)	5	ug/L	2.0 U	2.0 U	10 U	10 U	2.0 U	2.0 U	4.0 U	10 U	2.0 U	10 U	2.0 U	2.0 U	2.0 U	16 U	2.0 U	4.0 U	2.0 U	2.0 U	2.0 U	4.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
Tetrachloroethene	5	ug/L	1.0 U	1.0 U	5.0 U	5.0 U	1.0 U	1.0 U	2.0 U	5.0 U	1.0 U	5.0 U	1.0 U	1.0 U	1.0 U	8.0 U	1.0 U	2.0 U	1.0 U	1.0 U	1.0 U	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Trichloroethene	5	ug/L	**7.3**	**15**	**35**	**35**	**16**	**18**	**45**	**44**	**1.9**	**32**	**6.8**	**21 J**	**13**	**27**	**9.9**	**16**	**30**	**20**	**21**	**5.6**	**1.3**	**11**	**1.2**	**2.6**	**4.3**	**18**	**2.0**
1,1-Dichloroethane	5	ug/L	1.0 U	1.0 U	5.0 U	5.0 U	1.0 U	1.0 U	2.0 U	5.0 U	1.0 U	5.0 U	1.0 U	1.0 U	1.0 U	8.0 U	1.0 U	2.0 U	**0.57 J**	1.0 U	**0.40 J**	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1-Dichloroethene	5	ug/L	1.0 U	**1.1**	5.0 U	5.0 U	**1.1**	**1.3**	**3.8**	5.0 U	1.0 U	5.0 U	1.0 U	**3.3**	1.0 U	8.0 U	1.0 U	**0.70 J**	**2.4**	**1.1**	**1.2**	2.0 U	1.0 U	**0.46 J**	1.0 U	1.0 U	1.0 U	**1.0**	1.0 U
1,2-Dichloroethane	0.6	ug/L	1.0 U	**1.4**	5.0 U	5.0 U	**1.7**	**2.2**	**6.8**	5.0 U	1.0 U	**6.0**	1.0 U	**4.8**	**1.3**	**3.7 J**	**0.62 J**	**0.95 J**	**3.1**	**1.3**	**1.6**	2.0 U	1.0 U	**0.68 J**	1.0 U	1.0 U	**0.40 J**	**1.3**	1.0 U
cis-1,2-Dichloroethene	5	ug/L	**66**	**160**	**350**	**380**	**180**	**170 D**	**420 D**	**410**	**17**	**360**	**65**	**440**	**160 D**	**330**	**77**	**130**	**330**	**160 D**	**230 D**	**45**	**8.6**	**70**	**7.5**	**18**	**38**	**190 D**	**9.2**
trans-1,2-Dichloroethene	5	ug/L	1.0 U	**1.7**	5.0 U	5.0 U	**3.4**	**1.6**	**4.4**	**5.4**	1.0 U	5.0 U	1.0 U	**4.1**	1.0 U	8.0 U	1.0 U	2.0 U	**3.4**	**1.7**	**2.7**	**2.1**	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	**1.2**	1.0 U
Vinyl Chloride	2	ug/L	1.0 U	**2.6**	**11**	**6.2**	**2.1**	1.0 U	**11**	**14**	1.0 U	5.0 U	1.0 U	**16**	1.0 U	**8.0**	**1.7**	2.0 U	**8.6**	1.0 U	**4.0**	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U	**1.1**	**2.0**	1.0 U
Total VOCs	- -	ug/L	**73**	**180**	**400**	**420**	**200**	**190**	**490**	**470**	**19**	**400**	**72**	**490 J**	**170**	**370 J**	**89 J**	**150 J**	**380 J**	**180**	**260 J**	**53.8 J**	**9.9**	**82.14 J**	**8.7**	**20.6**	**43.8 J**	**213.5 D**	**11.2**

NOTES:
1. All results are in micrograms per liter (µg/L), equivalent to parts per billion.
2. NYSDEC. 1998. TOGS 1.1.1 Water Guidance Values/Standards = New York State Department of Environmental Conservation Technical and Operational Guidance Series, June 1998, and its addenda (January 1999 Errata Sheet, April 2000 Addendum, and June 2004 Addendum).
3. Shaded cells denote results in exceedance of criteria. Bold values are detected.

NA = not analyzed
ND = non detected
NYSDEC = New York State Department of Environmental Conservation
TOGS = Technical and Operational Guidance Series
VOC = volatile organic compound.
[ ] = Duplicate results are shown in brackets.
- - = no standard/guidance value
D = Compound quantitated using a secondary dilution.
F1 = MS and/or MSD Recovery is outside acceptable Limits.
J = Indicates an estimated value.
R = The sample results were rejected
U = The compound was analyzed for but not detected. The associated value is the compound quantitation limit.
UB =Compound considered nondetect at the listed value due to associated blank contamination.
UJ = The compound was analyzed for but not detected. The associated value is the compound quantitation limit. Indicates an estimated value.

Table 8
Summary of Volatile Organic Compounds (2010-2021)
2021 Corrective Measure Implementation Annual Progress Report
Ashland LLC
130 South Street, Rensselaer, New York

Location ID: / Date Collected:	NYSDEC TOGS 1.1.1 Water Guidance Values	Units	MW-17 04/15/10	MW-17 03/08/11	MW-17 08/09/11	MW-17 10/13/11	MW-17 01/24/12	MW-17 03/30/12	MW-17 07/02/12	MW-17 09/13/12	MW-17 03/22/13	MW-17 11/21/13	MW-17 05/29/14	MW-17 10/15/14	MW-17 04/22/15	MW-17 01/27/16	MW-17 06/28/16	MW-17 05/15/17	MW-17 10/30/17	MW-17 04/09/18	MW-17 10/03/18	MW-17 05/08/19	MW-17 11/06/19	MW-17 04/07/20	MW-17 11/12/20	MW-17 04/15/21	MW-17 11/22/21
Detected Volatile Organics																											
1,1,1-Trichloroethane	5	ug/L	1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U	1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1,2-trichloro-1,2,2-trifluoroethane	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dichlorobenzene	3	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
2-Butanone	- -	ug/L	10 U [10 U]	10 U	10 U	10 UJ	10 U [10 U]	10 U	10 U	10 U	10 U	10 U	10 U	5.0 U	5.0 U	10 U	10 U	10 U	5.0 U	10 U	20 U	10 U	10 U	10 U	10 U	10 U	10 U
2-Hexanone	50	ug/L	10 U [10 U]	10 U	10 U	10 U	10 U [10 U]	10 U	10 U	10 U	10 U	10 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	10 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
4-Methyl-2-pentanone	- -	ug/L	10 U [10 U]	10 U	10 U	10 U	10 U [10 U]	10 U	10 U	10 U	10 U	10 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	10 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Acetone	50	ug/L	25 U [25 U]	25 U	25 U	25 UJ	25 U [25 U]	25 U	25 U	25 U	25 U	25 U	10 U	5.0 U	5.0 U	10 U	10 U	10 UB	5.0 UB	**3.2 J**	20 UB	10 U	10 U	10 U	10 U	10 U	10 U
Benzene	1	ug/L	1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U	1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Carbon Disulfide	- -	ug/L	2.0 U [2.0 U]	2.0 U	2.0 U	2.0 U	2.0 U [2.0 U]	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Carbon Tetrachloride	5	ug/L	1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U	1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Chlorobenzene	5	ug/L	1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U	1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Chloroethane	5	ug/L	1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U	1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U	1.0 U	5.0 U	1.0 U	1.0 UJ	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Chloroform	7	ug/L	1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U	1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Cyclohexane	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Dichlorodifluoromethane	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Ethylbenzene	5	ug/L	1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U	1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Isopropylbenzene	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Methylcyclohexane	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Methylene Chloride	5	ug/L	5.0 U [5.0 U]	5.0 U	5.0 U	5.0 U	5.0 U [5.0 U]	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	1.0 UJ	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Toluene	5	ug/L	1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U	1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Xylenes (total)	5	ug/L	2.0 U [2.0 U]	2.0 U	2.0 U	2.0 U	2.0 U [2.0 U]	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	4.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
Tetrachloroethene	5	ug/L	1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U	1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Trichloroethene	5	ug/L	1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U	1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 UJ	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1-Dichloroethane	5	ug/L	1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U	1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1-Dichloroethene	5	ug/L	1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U	1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dichloroethane	0.6	ug/L	1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U	1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
cis-1,2-Dichloroethene	5	ug/L	1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U	1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
trans-1,2-Dichloroethene	5	ug/L	1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U	1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Vinyl Chloride	2	ug/L	1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U	1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Total VOCs	- -	ug/L	ND [ND]	ND	ND	ND	ND [ND]	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	**3.2 J**	**6.1 J**	ND	ND	ND	ND	ND	ND

NOTES:
1. All results are in micrograms per liter (µg/L), equivalent to parts per billion.
2. NYSDEC. 1998. TOGS 1.1.1 Water Guidance Values/Standards = New York State Department of Environmental Conservation Technical and Operational Guidance Series, June 1998, and its addenda (January 1999 Errata Sheet, April 2000 Addendum, and June 2004 Addendum).
3. Shaded cells denote results in exceedance of criteria. Bold values are detected.

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NYSDEC = New York State Department of Environmental Conservation
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D = Compound quantitated using a secondary dilution.
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Summary of Volatile Organic Compounds (2010-2021)
2021 Corrective Measure Implementation Annual Progress Report
Ashland LLC
130 South Street, Rensselaer, New York

Location ID: / Date Collected:	NYSDEC TOGS 1.1.1 Water Guidance Values	Units	MW-18 04/15/10	MW-18 03/09/11	MW-18 08/10/11	MW-18 10/14/11	MW-18 01/24/12	MW-18 03/30/12	MW-18 07/03/12	MW-18 09/14/12	MW-18 03/22/13	MW-18 11/21/13	MW-18 05/29/14	MW-18 10/14/14	MW-18 01/27/16	MW-18 06/28/16	MW-18 12/20/16	MW-18 05/15/17	MW-18 10/30/17	MW-18 04/09/18	MW-18 10/03/18	MW-18 02/19/19	MW-18 05/07/19	MW-18 08/07/19	MW-18 11/07/19	MW-18 04/07/20	MW-18 11/12/20	MW-18 04/15/21	MW-18 12/10/21
Detected Volatile Organics																													
1,1,1-Trichloroethane	5	ug/L	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	1.0 U	1.0 U	2.0 U	2.0 U	2.0 U	1.0 U	1.0 U	8.0 U	8.0 U	10 U	1.0 U	1.0 U	1.0 U	4.0 U	1.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
1,1,2-trichloro-1,2,2-trifluoroethane	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	8.0 U	8.0 U	10 U	1.0 U	1.0 U	1.0 U	4.0 U	1.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
1,2-Dichlorobenzene	3	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	8.0 U	8.0 U	10 U	1.0 U	1.0 U	1.0 U	4.0 U	1.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
2-Butanone	- -	ug/L	20 U	20 U	20 U	20 U	20 U	20 U	10 U	10 U	20 U	20 U	20 U	5.0 U	10 U	80 U	80 U	100 U	5.0 U	10 U	10 U	40 U	10 U	50 U*	50 U	50 U	50 U	50 U	50 U
2-Hexanone	50	ug/L	20 U	20 U	20 U	20 U	20 UJ	20 U	10 U	10 U	20 U	20 U	10 U	5.0 U	5.0 U	40 U	40 U	50 U	5.0 U	5.0 U	5.0 U	20 U	5.0 U	25 U	25 U	25 U	25 U	25 U	25 U
4-Methyl-2-pentanone	- -	ug/L	20 U	20 U	20 U	20 U	20 U	20 U	10 U	10 U	20 U	20 U	10 U	5.0 U	5.0 U	40 U	40 U	50 U	5.0 U	5.0 U	5.0 U	20 U	5.0 U	25 U	25 U	25 U	25 U	25 U	25 U
Acetone	50	ug/L	50 U	50 U	50 U	50 U	50 U	50 U	25 U	25 U	50 U	50 U	20 U	5.0 U	10 U	80 U	80 UJ	100 U	5.0 UB	**3.2 J**	10 U	40 U	10 U	50 U	50 U	50 U	50 U	50 U	50 U
Benzene	1	ug/L	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	1.0 U	**1.0**	2.0 U	2.0 U	2.0 U	**1.2**	1.0 U	8.0 U	8.0 U	10 U	**1.1**	**1.0**	**1.2**	4.0 U	**0.76 J**	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Carbon Disulfide	- -	ug/L	4.0 U	4.0 U	4.0 U	4.0 U	4.0 U	4.0 U	2.0 U	2.0 U	4.0 U	4.0 U	2.0 U	1.0 U	1.0 U	8.0 U	8.0 UJ	10 U	1.0 U	1.0 U	1.0 U	4.0 U	1.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Carbon Tetrachloride	5	ug/L	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	1.0 U	1.0 U	2.0 U	2.0 U	2.0 U	1.0 U	1.0 U	8.0 U	8.0 U	10 U	1.0 U	1.0 U	1.0 U	4.0 U	1.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Chlorobenzene	5	ug/L	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	1.0 U	1.0 U	2.0 U	2.0 U	2.0 U	1.0 U	1.0 U	8.0 U	8.0 U	10 U	1.0 U	1.0 U	1.0 U	4.0 U	1.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Chloroethane	5	ug/L	2.0 U	2.0 U	2.0 UJ	**79 J**	2.0 U	2.0 U	1.0 U	1.0 U	2.0 U	10 U	2.0 U	1.0 UJ	1.0 U	8.0 U	8.0 U	10 U	1.0 U	1.0 U	1.0 U	4.0 U	1.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Chloroform	7	ug/L	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	1.0 U	1.0 U	2.0 U	2.0 U	2.0 U	1.0 U	1.0 U	8.0 U	8.0 U	10 U	1.0 U	1.0 U	1.0 U	4.0 U	1.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Cyclohexane	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	8.0 U	8.0 U	10 U	1.0 U	1.0 U	1.0 U	4.0 U	1.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Dichlorodifluoromethane	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	8.0 U	8.0 U	10 U	1.0 U	1.0 U	1.0 U	4.0 U	1.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Ethylbenzene	5	ug/L	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	1.0 U	1.0 U	2.0 U	2.0 U	2.0 U	1.0 U	1.0 U	8.0 U	8.0 U	10 U	1.0 U	1.0 U	1.0 U	4.0 U	1.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Isopropylbenzene	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	8.0 U	8.0 U	10 U	1.0 U	1.0 U	1.0 U	4.0 U	1.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Methylcyclohexane	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	8.0 U	8.0 U	10 U	1.0 U	1.0 U	1.0 U	4.0 U	1.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Methylene Chloride	5	ug/L	10 U	10 U	10 U	10 U	10 U	10 U	5.0 U	5.0 U	10 U	10 U	**3.8 J**	1.0 U	1.0 U	8.0 U	8.0 UJ	**6.3 J**	1.0 U	1.0 U	1.0 U	4.0 U	1.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Toluene	5	ug/L	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	1.0 U	1.0 U	2.0 U	2.0 U	2.0 U	1.0 U	1.0 U	8.0 U	8.0 U	10 U	1.0 U	1.0 U	1.0 U	4.0 U	1.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Xylenes (total)	5	ug/L	4.0 U	4.0 U	4.0 U	4.0 U	4.0 U	4.0 U	2.0 U	2.0 U	4.0 U	4.0 U	4.0 U	2.0 U	2.0 U	16 U	16 U	20 U	2.0 U	2.0 U	2.0 U	8.0 U	2.0 U	10 U	10 U	10 U	10 U	10 U	10 U
Tetrachloroethene	5	ug/L	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	1.0 U	1.0 U	2.0 U	2.0 U	2.0 U	1.0 U	1.0 U	8.0 U	8.0 U	10 U	1.0 U	1.0 U	1.0 U	4.0 U	1.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Trichloroethene	5	ug/L	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	1.0 U	1.0 U	2.0 U	2.0 U	2.0 U	1.0 UJ	1.0 U	8.0 U	8.0 U	10 U	1.0 U	1.0 U	1.0 U	4.0 U	1.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
1,1-Dichloroethane	5	ug/L	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	1.0 U	1.0 U	2.0 U	2.0 U	2.0 U	1.0 U	1.0 U	8.0 U	8.0 U	10 U	1.0 U	1.0 U	1.0 U	4.0 U	1.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
1,1-Dichloroethene	5	ug/L	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	1.0 U	1.0 U	2.0 U	2.0 U	2.0 U	1.0 U	1.0 U	8.0 U	8.0 U	10 U	**0.58 J**	**0.49 J**	**0.44 J**	4.0 U	1.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
1,2-Dichloroethane	0.6	ug/L	**3.8**	**3.0**	2.0 U	2.0 U	2.0 U	2.0 U	**1.1**	1.0 U	2.0 U	**2.3**	**2.4**	1.0 U	1.0 U	8.0 U	8.0 U	10 U	**0.47 J**	**0.54 J**	**1.2**	4.0 U	1.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
cis-1,2-Dichloroethene	5	ug/L	**280**	**310**	**120**	**310**	**200**	**220**	**96**	**390 D**	**250**	**350**	**330 D**	**430**	**330 D**	**410**	**440**	**360**	**420**	**420 D**	**380 D**	**290**	**240 D**	**290**	**330**	**290**	**350**	**380**	**310**
trans-1,2-Dichloroethene	5	ug/L	**3.9**	**3.2**	**2.4**	**5.2**	**2.4**	**2.1**	**2.0**	**6.7**	**4.3**	**5.3**	**6.1**	**4.9**	**3.5**	8.0 U	8.0 U	10 U	**4.3**	**7.3**	**2.5**	**9.2**	**1.7**	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Vinyl Chloride	2	ug/L	**49**	**15**	**30**	**92**	2.0 U	**17**	**28**	**110 D**	**32**	**79**	**120**	**170**	**69**	**110**	**150**	**100**	**93**	**71**	**120 D**	**65**	**61**	**89**	**74**	**57**	**85**	**73**	**41**
Total VOCs	- -	ug/L	**340**	**330**	**150**	**490 J**	**200**	**240**	**130**	**510**	**290**	**440**	**460 J**	**610**	**400**	**520**	**590**	**470 J**	**520 J**	**500 J**	**510 J**	**364.2**	**303.46 J**	**379**	**404**	**347**	**435**	**453**	**351**

NOTES:

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Detected Volatile Organics														
1,1,1-Trichloroethane	5	ug/L	5.0 U	1.0 U	5.0 U	**1.2**	1.0 U [1.0 U]	1.0 U [2.0 U]	1.0 U [1.0 U]	5.0 U [10 U]	5.0 U [5.0 U]	25 U [25 U]	1.0 U [2.0 U]	1.0 U [1.0 U]
1,1,2-trichloro-1,2,2-trifluoroethane	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	3	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Butanone	- -	ug/L	50 U	10 U	50 U	10 U	10 U [10 U]	10 U [20 U]	10 U [10 U]	50 U [100 U]	50 U [50 U]	250 U [250 U]	5.0 U [10 U]	5.0 U [5.0 U]
2-Hexanone	50	ug/L	50 U	10 U	50 U	10 U	10 U [10 U]	10 U [20 U]	10 U [10 U]	50 U [100 U]	50 U [50 U]	130 U [130 U]	5.0 U [10 U]	5.0 U [5.0 U]
4-Methyl-2-pentanone	- -	ug/L	50 U	10 U	50 U	10 UJ	10 U [10 U]	10 U [20 U]	10 U [10 U]	50 U [100 U]	50 U [50 U]	130 U [130 U]	5.0 U [10 U]	5.0 U [5.0 U]
Acetone	50	ug/L	120 U	25 U	130 U	25 U	25 U [25 U]	25 U [50 U]	25 U [25 U]	130 U [250 U]	130 U [130 U]	250 U [250 U]	5.0 U [10 U]	5.0 U [5.0 U]
Benzene	1	ug/L	**12**	**12**	**8.8**	**5.2**	**6.2 [6.1]**	**13 [18]**	**14 [13]**	**6.3 [10 U]**	**9.6 [11]**	25 U [25 U]	**6.6 [6.2]**	**4.0 [4.0]**
Carbon Disulfide	- -	ug/L	10 U	2.0 U	10 U	2.0 U	2.0 U [2.0 U]	2.0 U [4.0 U]	2.0 U [2.0 U]	10 U [20 U]	10 U [10 U]	25 U [25 U]	1.0 U [2.0 U]	1.0 U [1.0 U]
Carbon Tetrachloride	5	ug/L	5.0 U	1.0 U	5.0 UJ	1.0 U	1.0 U [1.0 U]	1.0 U [2.0 U]	1.0 U [1.0 U]	5.0 U [10 U]	5.0 U [5.0 U]	25 U [25 U]	1.0 U [2.0 U]	1.0 U [1.0 U]
Chlorobenzene	5	ug/L	5.0 U	1.0 U	5.0 U	1.0 U	1.0 U [1.0 U]	1.0 U [2.0 U]	1.0 U [1.0 U]	5.0 U [10 U]	5.0 U [5.0 U]	25 U [25 U]	1.0 U [2.0 U]	1.0 U [1.0 U]
Chloroethane	5	ug/L	**92**	**110**	**38**	**37**	**38 [40]**	**77 [82]**	**150 J [160]**	**28 [29]**	**67 [70]**	**230 [240]**	**39 J [33 J]**	**34 J [33]**
Chloroform	7	ug/L	5.0 U	**2.9**	5.0 U	1.0 U	**1.0 [1.0 U]**	1.0 U [2.0 U]	**1.0 [1.0 U]**	5.0 U [10 U]	**5.0 U [5.0]**	25 U [25 U]	**4.3 [4.1]**	**3.3 [3.5]**
Cyclohexane	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dichlorodifluoromethane	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethylbenzene	5	ug/L	5.0 U	1.0 U	5.0 U	1.0 U	1.0 U [1.0 U]	1.0 U [2.0 U]	1.0 U [1.0 U]	5.0 U [10 U]	5.0 U [5.0 U]	25 U [25 U]	1.0 U [2.0 U]	1.0 U [1.0 U]
Isopropylbenzene	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methylcyclohexane	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methylene Chloride	5	ug/L	25 U	5.0 U	25 U	5.0 U	5.0 U [5.0 U]	5.0 U [10 U]	5.0 U [5.0 U]	25 U [50 U]	25 U [25 U]	**25 J [28 J]**	**1.3 [2.0 U]**	1.0 U [1.0 U]
Toluene	5	ug/L	5.0 U	1.0 U	5.0 U	**1.9**	**3.3 [2.8]**	**2.3 [3.0]**	**2.5 [2.3]**	5.0 U [10 U]	5.0 U [5.0 U]	25 U [25 U]	**2.3 [2.0 U]**	**1.5 [1.6]**
Xylenes (total)	5	ug/L	10 U	2.0 U	10 U	2.0 U	**2.0 U [2.1]**	2.0 U [4.0 U]	2.0 U [2.0 U]	10 U [20 U]	10 U [10 U]	50 U [50 U]	2.0 U [4.0 U]	2.0 U [2.0 U]
Tetrachloroethene	5	ug/L	5.0 U	**6.7**	**6.3**	1.0 U	1.0 U [1.0 U]	1.0 U [2.0 U]	1.0 U [1.0 U]	**6.9 [10 U]**	**6.1 [7.6]**	25 U [25 U]	**5.9 [5.6]**	**15 [15]**
Trichloroethene	5	ug/L	**44**	**6.8**	5.0 U	1.0 U	1.0 U [1.0 U]	1.0 U [2.0 U]	**2.6 [2.3]**	**19 [18]**	**6.4 [7.0]**	**56 [54]**	**10 J [9.1 J]**	**13 [13]**
1,1-Dichloroethane	5	ug/L	**75**	**67**	**44**	**35**	**18 [19]**	**140 [150]**	**82 [73]**	**27 [27]**	**41 [40]**	**110 [110]**	**26 [23]**	**15 J [16]**
1,1-Dichloroethene	5	ug/L	5.0 U	1.0 U	5.0 U	1.0 U	1.0 U [1.0 U]	1.0 U [2.0 U]	1.0 U [1.0 U]	5.0 U [10 U]	5.0 U [5.0 U]	25 U [25 U]	**1.2 [2.0 U]**	**1.3 [1.5]**
1,2-Dichloroethane	0.6	ug/L	5.0 U	1.0 U	5.0 U	1.0 U	1.0 U [1.0 U]	1.0 U [2.0 U]	1.0 U [1.0 U]	5.0 U [10 U]	5.0 U [5.0 U]	25 U [25 U]	1.0 U [2.0 U]	1.0 U [1.0 U]
cis-1,2-Dichloroethene	5	ug/L	**530**	**100**	**370**	**1.1**	1.0 U [1.0 U]	**4.3 [6.3]**	**99 [89]**	**820 J [780]**	**400 J [420]**	**1,900 J [1,800]**	**490 [450]**	**380 [400]**
trans-1,2-Dichloroethene	5	ug/L	5.0 U	**3.9**	5.0 U	**2.8**	**2.9 [2.9]**	**5.9 [6.7]**	**6.1 [5.4]**	5.0 U [10 U]	**5.4 J [5.9]**	25 U [25 U]	**5.6 [4.9]**	**4.3 [4.5]**
Vinyl Chloride	2	ug/L	**220**	**160**	**230**	**3.2**	1.0 U [1.0 U]	**11 [16]**	**150 D [160 D]**	**250 [240]**	**280 J [230]**	**510 [510]**	**330 [270]**	**180 [170]**
Total VOCs	- -	ug/L	**970**	**470**	**700**	**87**	**69 [73]**	**250 [280]**	**510 J [510]**	**1,200 J [1,100]**	**820 J [800]**	**2,800 J [2,700 J]**	**920 J [810 J]**	**650 J [660]**

NOTES:
1. All results are in micrograms per liter (µg/L), equivalent to parts per billion.
2. NYSDEC. 1998. TOGS 1.1.1 Water Guidance Values/Standards = New York State Department of Environmental Conservation Technical and Operational Guidance Series, June 1998, and its addenda (January 1999 Errata Sheet, April 2000 Addendum, and June 2004 Addendum).
3. Shaded cells denote results in exceedance of criteria. Bold values are detected.

NA = not analyzed
ND = non detected
NYSDEC = New York State Department of Environmental Conservation
TOGS = Technical and Operational Guidance Series
VOC = volatile organic compound.
[ ] = Duplicate results are shown in brackets.
- - = no standard/guidance value
D = Compound quantitated using a secondary dilution.
F1 = MS and/or MSD Recovery is outside acceptable Limits.
J = Indicates an estimated value.
R = The sample results were rejected
U = The compound was analyzed for but not detected. The associated value is the compound quantitation limit.
UB =Compound considered nondetect at the listed value due to associated blank contamination.
UJ = The compound was analyzed for but not detected. The associated value is the compound quantitation limit. Indicates an estimated value.
Laboratory control sample dup (LCS or LCSD) is outside acceptance limits.

Table 8
Summary of Volatile Organic Compounds (2010-2021)
2021 Corrective Measure Implementation Annual Progress Report
Ashland LLC
130 South Street, Rensselaer, New York

Location ID: / Date Collected:	NYSDEC TOGS 1.1.1 Water Guidance Values	Units	MW-19 01/27/16	MW-19 06/30/16	MW-19 12/20/16	MW-19 05/16/17	MW-19 10/31/17	MW-19 04/09/18	MW-19 10/04/18	MW-19 02/19/19	MW-19 05/08/19	MW-19 08/08/19	MW-19 11/06/19	MW-19 04/08/20	MW-19 11/12/20	MW-19 04/15/21	MW-19 11/23/21
Detected Volatile Organics																	
1,1,1-Trichloroethane	5	ug/L	5.0 U [5.0 U]	2.0 U [2.0 U]	2.0 U	1.0 U [40 U]	1.0 U [1.0 U]	**0.84 J [20 U]**	5.0 U [5.0 U]	5.0 U [5.0 U]	10 U [10 U]	10 U	10 U [1.0 U]	10 U [20 U]	2.0 U [2.0 U]	2.0 U	2.0 U [1.0 U]
1,1,2-trichloro-1,2,2-trifluoroethane	5	ug/L	NA	2.0 U [2.0 U]	**4.2**	**270 D [280]**	**12 [12]**	**170 D [230]**	5.0 U [5.0 U]	**9.0 [7.2]**	10 U [10 U]	10 U	**250 [230]**	**560 J [650]**	2.0 U [2.0 U]	2.0 U	**2.5 [2.0]**
1,2-Dichlorobenzene	3	ug/L	NA	2.0 U [2.0 U]	2.0 U	1.0 U [40 U]	1.0 U [1.0 U]	1.0 U [20 U]	5.0 U [5.0 U]	5.0 U [5.0 U]	10 U [10 U]	10 U	10 U [1.0 U]	10 U [20 U]	2.0 U [2.0 U]	**2.4**	2.0 U [1.0 U]
2-Butanone	- -	ug/L	50 U [50 U]	20 U [20 U]	20 U	10 U [400 U]	5.0 U [5.0 U]	10 U [200 U]	50 U [50 U]	50 U [50 U]	100 U [100 U]	100 U*	100 U [10 U]	100 U [200 U]	20 U* [20 U*]	20 U	20 U [10 U]
2-Hexanone	50	ug/L	25 U [25 U]	10 U [10 U]	10 U	5.0 U [200 U]	5.0 U [5.0 U]	5.0 U [100 U]	25 U [25 U]	25 U [25 U]	50 U [50 U]	50 U	50 U [5.0 U]	50 U [100 U]	10 U [10 U]	10 U	10 U [5.0 U]
4-Methyl-2-pentanone	- -	ug/L	25 U [25 U]	10 U [10 U]	10 U	5.0 U [200 U]	5.0 U [5.0 U]	5.0 U [100 U]	25 U [25 U]	25 U [25 U]	50 U [50 U]	50 U	50 U [5.0 U]	50 U [100 U]	10 U [10 U]	10 U	10 U [5.0 U]
Acetone	50	ug/L	50 UJ [50 U]	**6.6 J [6.3 J]**	20 U	10 UB [400 U]	5.2 UB [5.0 UB]	**4.4 J [200 U]**	50 U [50 U]	50 U [50 U]	100 U [100 U]	100 U	100 U [10 U]	100 U [200 U]	**10 J [9.4 J]**	**6.2 J**	20 U [10 U]
Benzene	1	ug/L	**7.3 [7.8]**	**7.0 [7.7]**	**3.2**	**7.1 [40 U]**	**3.7 [3.7]**	**7.9 [10 J]**	5.0 U [5.0 U]	**4.2 J [4.2 J]**	**8.3 J [7.5 J]**	**6.9 J**	**9.3 J [10]**	**9.8 J [11 J]**	**7.2 [7.5]**	**7.8**	**6.4 [6.9]**
Carbon Disulfide	- -	ug/L	5.0 U [5.0 U]	2.0 U [2.0 U]	2.0 U	**0.41 J [40 U]**	1.0 U [1.0 U]	1.0 U [20 U]	5.0 U [5.0 U]	5.0 U [5.0 U]	10 U [10 U]	10 U	10 U [1.0 U]	10 U [20 U]	2.0 U [2.0 U]	2.0 U	2.0 U [1.0 U]
Carbon Tetrachloride	5	ug/L	5.0 U [5.0 U]	2.0 U [2.0 U]	2.0 U	1.0 U [40 U]	1.0 U [1.0 U]	1.0 U [20 U]	5.0 U [5.0 U]	5.0 U [5.0 U]	10 U [10 U]	10 U	10 U [1.0 U]	10 U [20 U]	2.0 U [2.0 U]	2.0 U	2.0 U [1.0 U]
Chlorobenzene	5	ug/L	5.0 U [5.0 U]	2.0 U [2.0 U]	2.0 U	1.0 U [40 U]	1.0 U [1.0 U]	1.0 U [20 U]	5.0 U [5.0 U]	5.0 U [5.0 U]	10 U [10 U]	10 U	10 U [1.0 U]	10 U [20 U]	2.0 U [2.0 U]	2.0 U	2.0 U [1.0 U]
Chloroethane	5	ug/L	**180 J [180]**	**86 [95]**	**32**	**22 [40 U]**	**16 [17]**	**45 [48]**	**12 [11]**	**39 [40]**	**58 [47]**	**45**	**74 [70]**	**82 [90]**	**43 [45]**	**65**	**93 [96]**
Chloroform	7	ug/L	5.0 U [5.0 U]	2.0 U [2.0 U]	2.0 U	**1.7 [40 U]**	**0.56 J [0.56 J]**	**6.5 [7.7 J]**	5.0 U [5.0 U]	5.0 U [5.0 U]	10 U [10 U]	10 U	10 U **[0.82 J]**	**3.9 J [20 U]**	**1.5 J [1.5 J]**	**2.2**	**1.0 J [0.94 J]**
Cyclohexane	- -	ug/L	NA	2.0 U [2.0 U]	2.0 U	**0.29 J [40 U]**	**0.61 J [0.60 J]**	**0.32 J [20 U]**	5.0 U [5.0 U]	5.0 U [5.0 U]	10 U [10 U]	10 U	10 U **[0.32 J]**	10 U [20 U]	2.0 U [2.0 U]	2.0 U	**1.5 J [0.90 J]**
Dichlorodifluoromethane	5	ug/L	NA	2.0 U [2.0 U]	2.0 U	1.0 U [40 U]	1.0 U [1.0 U]	**19 [20 U]**	5.0 U [5.0 U]	5.0 U [5.0 U]	10 U [10 U]	10 U	10 U [1.0 U]	10 U [20 U]	2.0 U [2.0 U]	2.0 U	2.0 U [1.0 U]
Ethylbenzene	5	ug/L	5.0 U [5.0 U]	2.0 U [2.0 U]	2.0 U	1.0 U [40 U]	**0.30 J [0.35 J]**	1.0 U [20 U]	5.0 U [5.0 U]	5.0 U [5.0 U]	10 U [10 U]	10 U	10 U [1.0 U]	10 U [20 U]	2.0 U [2.0 U]	2.0 U	2.0 U [1.0 U]
Isopropylbenzene	5	ug/L	NA	2.0 U [2.0 U]	2.0 U	1.0 U [40 U]	1.0 U [1.0 U]	1.0 U [20 U]	5.0 U [5.0 U]	5.0 U [5.0 U]	10 U [10 U]	10 U	10 U [1.0 U]	10 U [20 U]	2.0 U [2.0 U]	2.0 U	2.0 U [1.0 U]
Methylcyclohexane	- -	ug/L	NA	2.0 U [2.0 U]	2.0 U	1.0 U [40 U]	1.0 U [1.0 U]	1.0 U [20 U]	5.0 U [5.0 U]	5.0 U [5.0 U]	10 U [10 U]	10 U	10 U [1.0 U]	10 U [20 U]	2.0 U [2.0 U]	2.0 U	2.0 U [1.0 U]
Methylene Chloride	5	ug/L	5.0 U [5.0 U]	2.0 U [2.0 U]	2.0 U	**0.96 J [23 J]**	1.0 UB [1.0 UB]	1.0 U [20 U]	5.0 UB [5.0 UB]	5.0 U **[2.2 J]**	**5.5 J [10 U]**	10 U	10 U [1.0 U]	10 U [20 U]	**2.6 [2.4]**	2.0 U	2.0 U [1.0 U]
Toluene	5	ug/L	5.0 U [5.0 U]	**2.4 [2.4]**	2.0 U	**2.0 [40 U]**	**0.27 J [0.29 J]**	**1.9 [20 U]**	5.0 U [5.0 U]	5.0 U [5.0 U]	10 U [10 U]	10 U	10 U **[1.3]**	10 U [20 U]	**2.4 [2.4]**	**1.7 J**	2.0 U **[0.60 J]**
Xylenes (total)	5	ug/L	10 U [10 U]	4.0 U [4.0 U]	4.0 U	2.0 U [80 U]	**2.0 U [0.28 J]**	2.0 U [40 U]	10 U [10 U]	10 U [10 U]	20 U [20 U]	20 U	20 U [2.0 U]	20 U [40 U]	4.0 U [4.0 U]	4.0 U	4.0 U [2.0 U]
Tetrachloroethene	5	ug/L	5.0 U [5.0 U]	2.0 U [2.0 U]	2.0 U	**9.9 [40 U]**	**1.6 [1.7]**	**11 [14 J]**	**5.0 UB [5.2]**	5.0 U [5.0 U]	10 U **[3.6 J]**	10 U	**10 [10]**	**8.6 J [9.4 J]**	2.0 U [2.0 U]	2.0 U	2.0 U **[0.47 J]**
Trichloroethene	5	ug/L	5.0 U [5.0 U]	2.0 U [2.0 U]	**1.1 J**	**29 [33 J]**	**3.5 [3.7]**	**23 [24]**	**3.1 J [3.4 J]**	**2.3 J** [5.0 U]	**7.0 J [7.9 J]**	10 U	**49 [52]**	**40 [45]**	2.0 U [2.0 U]	**0.95 J**	**1.4 J [1.4]**
1,1-Dichloroethane	5	ug/L	**36 [40]**	**27 [30]**	**11**	**31 [37 J]**	**10 [10]**	**26 [31]**	**8.9 [8.7]**	**13 [13]**	**22 J [18]**	**16**	**23 [23]**	**33 [36]**	**28 [30]**	**37**	**10 [10]**
1,1-Dichloroethene	5	ug/L	5.0 U [5.0 U]	2.0 U [2.0 U]	2.0 U	**4.6 [40 U]**	1.0 U [1.0 U]	**3.7 [20 U]**	5.0 U [5.0 U]	5.0 U [5.0 U]	10 U [10 U]	10 U	10 U [1.0 U]	**4.0 J [20 U]**	2.0 U [2.0 U]	2.0 U	2.0 U [1.0 U]
1,2-Dichloroethane	0.6	ug/L	5.0 U [5.0 U]	2.0 U [2.0 U]	2.0 U	**0.32 J [40 U]**	**0.30 J [0.33 J]**	**0.21 J [20 U]**	5.0 U [5.0 U]	5.0 U [5.0 U]	10 U [10 U]	10 U	10 U **[0.30 J]**	10 U [20 U]	2.0 U [2.0 U]	2.0 U	2.0 U [1.0 U]
cis-1,2-Dichloroethene	5	ug/L	**66 [74]**	**39 [42]**	**120**	**1,700 DJ [1,700]**	**140 [140]**	**930 D [920]**	**170 J [150 J]**	**250 [250]**	**560 [520]**	**150**	**490 J [480 J]**	**1,300 [1,300]**	**70 [78]**	**130**	**69 [71]**
trans-1,2-Dichloroethene	5	ug/L	5.0 U [5.0 U]	**3.9 [4.2]**	2.0 U	**7.0 [40 U]**	**2.9 [3.0]**	**5.2 [20 U]**	5.0 U [5.0 U]	5.0 U [5.0 U]	10 U [10 U]	10 U	10 U **[5.4]**	10 U [20 U]	**6.7 [7.2]**	**5.2**	**3.0 [3.3]**
Vinyl Chloride	2	ug/L	**98 [87]**	**67 J [73]**	**120**	**560 D [540]**	**110 [110]**	**330 D [300]**	**68 [85]**	**120 [120]**	**190 [170]**	**170**	**250 [240]**	**450 [500]**	**130 J [140]**	**150**	**120 [120]**
Total VOCs	- -	ug/L	**390 J [390]**	**240 J [260 J]**	**290 J**	**2,400 J [2,300 J]**	**290 J [290 J]**	**1,400 J [1,400 J]**	**270 J [270 J]**	**442.5 J [436.6 J]**	**850.8 J**	**387.9 J**	**1,155.3 J [1,123.14]**	**2491.3 J [2681.4 J]**	**301.4 J [323.4 J]**	**408.45 J**	**307.8 J [313.51]**

NOTES:
1. All results are in micrograms per liter (µg/L), equivalent to parts per billion.
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3. Shaded cells denote results in exceedance of criteria. Bold values are detected.

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Ashland LLC
130 South Street, Rensselaer, New York

Location ID: / Date Collected:	NYSDEC TOGS 1.1.1 Water Guidance Values	Units	MW-20 04/16/10	MW-20 03/10/11	MW-20 08/10/11	MW-20 09/13/12	MW-20 03/22/13	MW-20 11/21/13	MW-20 05/29/14	MW-20 10/15/14	MW-20 04/23/15	MW-20 01/27/16	MW-20 06/30/16	MW-20 12/21/16	MW-20 05/16/17	MW-20 10/31/17	MW-20 04/10/18	MW-20 10/04/18	MW-20 05/07/19	MW-20 11/06/19	MW-20 04/07/20	MW-20 11/12/20	MW-20 04/15/21	MW-20 11/23/21
Detected Volatile Organics																								
1,1,1-Trichloroethane	5	ug/L	NA	1.0 U	10 U	1.0 U	1.0 U	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U	40 U	1.0 U	2.0 U	25 U	1.0 U	1.0 U	2.0 U	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1,2-trichloro-1,2,2-trifluoroethane	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	40 U	1.0 U	2.0 U	25 U	1.0 U	1.0 U	2.0 U	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dichlorobenzene	3	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	40 U	1.0 U	2.0 U	25 U	1.0 U	1.0 U	2.0 U	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U
2-Butanone	- -	ug/L	NA	10 U	100 U	10 U	10 U	20 U	10 U	5.0 U	5.0 U	10 U	400 U	10 U	20 U	130 U	10 U	10 U	20 U	20 U	10 U	10 U	10 U	10 U
2-Hexanone	50	ug/L	NA	10 U	100 U	10 U	10 U	20 U	5.0 U	5.0 U	5.0 U	5.0 U	200 U	5.0 U	10 U	130 U	5.0 U	5.0 U	10 U	10 U	5.0 U	5.0 U	5.0 U	5.0 U
4-Methyl-2-pentanone	- -	ug/L	NA	10 U	100 U	10 U	10 U	20 U	5.0 U	5.0 U	5.0 U	5.0 U	200 U	5.0 U	10 U	130 U	5.0 U	5.0 U	10 UJ	10 U	5.0 U	5.0 U	5.0 U	5.0 U
Acetone	50	ug/L	NA	25 U	250 U	25 U	25 U	50 U	10 U	**11**	5.0 U	10 UJ	400 U	10 U	20 UB	130 U	10 U	**4.6 J**	20 U	20 U	10 U	10 U	10 U	10 U
Benzene	1	ug/L	**470**	**5.1**	**360**	**100**	**14**	**330**	**13**	**310**	**6.6**	**7.1**	**300**	**0.59 J**	2.0 U	**410**	**11**	1.0 U	**4.6**	**4.1**	**5.2**	**1.2**	**0.43 J**	**3.0**
Carbon Disulfide	- -	ug/L	NA	2.0 U	20 U	2.0 U	2.0 U	4.0 U	1.0 U	1.0 U	1.0 U	1.0 U	40 U	1.0 U	2.0 U	25 U	1.0 U	1.0 U	2.0 U	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Carbon Tetrachloride	5	ug/L	NA	**1.5**	10 U	1.0 U	1.0 U	2.0 U	1.0 U	1.0 U	**1.0**	1.0 U	40 U	**1.3**	**1.7 J**	25 U	**0.58 J**	**2.5**	2.0 U	2.0 U	1.0 U	**1.1**	**0.59 J**	**0.52 J**
Chlorobenzene	5	ug/L	NA	1.0 U	10 U	1.0 U	1.0 U	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U	40 U	1.0 U	2.0 U	25 U	1.0 U	1.0 U	2.0 U	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Chloroethane	5	ug/L	NA	1.0 U	10 UJ	1.0 U	1.0 U	10 U	1.0 U	1.0 UJ	1.0 U	1.0 U	40 U	1.0 U	2.0 U	25 U	1.0 U	1.0 U	2.0 U	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Chloroform	7	ug/L	NA	**2.5**	10 U	1.0 U	1.0 U	2.0 U	1.0 U	1.0 U	**2.3**	**1.3**	40 U	**2.2**	**2.6**	25 U	**1.5**	3.6 UB	**1.3 J**	**1.4 J**	**0.58 J**	**2.2**	**1.9**	**1.5**
Cyclohexane	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	40 U	1.0 U	2.0 U	25 U	1.0 U	1.0 U	2.0 U	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Dichlorodifluoromethane	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	40 U	1.0 U	2.0 U	25 U	1.0 U	1.0 U	2.0 U	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Ethylbenzene	5	ug/L	**760**	**1.7**	**210**	**17**	1.0 U	**88**	**18**	**69**	**6.0**	**7.4**	**220**	1.0 U	2.0 U	**520 J**	**10**	1.0 U	**8.2**	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Isopropylbenzene	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	40 U	1.0 U	2.0 U	**50**	**1.2**	1.0 U	2.0 U	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Methylcyclohexane	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	40 U	1.0 U	2.0 U	**16 J**	1.0 U	1.0 U	2.0 U	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Methylene Chloride	5	ug/L	NA	5.0 U	50 U	5.0 U	5.0 U	10 U	1.0 UJ	1.0 U	1.0 U	1.0 U	40 U	1.0 U	**1.7 J**	25 U	1.0 U	1.0 U	2.0 U	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Toluene	5	ug/L	**2,900**	1.0 U	**350**	**4.1**	1.0 U	**90**	1.0 U	**34**	1.0 U	**3.3**	**86**	1.0 U	2.0 U	**190**	**1.1**	1.0 U	2.0 U	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Xylenes (total)	5	ug/L	**7,100**	**8.8**	**1,700**	**77**	**5.4**	**410**	**6.7**	**250**	**36**	**45**	**2,400**	2.0 U	4.0 U	**5,200**	**77**	2.0 U	**53**	4.0 U	2.0 U	2.0 U	2.0 U	2.0 U
Tetrachloroethene	5	ug/L	NA	**52**	10 U	**32**	**21**	2.0 U	**17**	**2.2**	**54**	**42**	40 U	**58**	**80**	25 U	**55**	**98**	**58**	**30**	**33**	**57**	**67**	**52**
Trichloroethene	5	ug/L	NA	**3.1**	10 U	**15**	**15**	**4.6**	**18**	1.0 UJ	**6.9**	**5.2**	40 U	**4.8**	**6.0**	25 U	**13**	**9.3**	**10**	**9.5**	**13**	**7.1**	**11**	**11**
1,1-Dichloroethane	5	ug/L	NA	1.0 U	10 U	1.0 U	1.0 U	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U	40 U	1.0 U	2.0 U	25 U	**0.46 J**	**0.70 J**	2.0 U	2.0 U	1.0 U	1.0 U	1.0 U	**0.41 J**
1,1-Dichloroethene	5	ug/L	NA	1.0 U	10 U	1.0 U	1.0 U	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U	40 U	1.0 U	2.0 U	25 U	1.0 U	1.0 U	2.0 U	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dichloroethane	0.6	ug/L	NA	1.0 U	10 U	1.0 U	1.0 U	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U	40 U	1.0 U	2.0 U	25 U	1.0 U	**0.23 J**	2.0 U	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U
cis-1,2-Dichloroethene	5	ug/L	NA	**1.2**	**80**	**16**	**5.3**	**30**	**11**	**23**	**4.8**	**6.8**	40 U	**2.6**	**3.9**	**77**	**11**	**10**	**14**	**14**	**19**	**8.4**	**10**	**16**
trans-1,2-Dichloroethene	5	ug/L	NA	1.0 U	**10**	1.0 U	1.0 U	2.0 U	1.0 U	**1.2**	1.0 U	1.0 U	40 U	1.0 U	2.0 U	**4.8 J**	1.0 U	1.0 U	2.0 U	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Vinyl Chloride	2	ug/L	NA	1.0 U	**20**	**4.7**	1.0 U	**12**	**1.7**	**9.1**	1.0 U	1.0 U	40 U	1.0 U	2.0 U	**14 J**	**0.96 J**	1.0 U	2.0 U	2.0 U	**1.6**	1.0 U	1.0 U	**1.7**
Total VOCs	- -	ug/L	**11,000**	**76**	**2,700**	**270**	**61**	**960**	**85**	**710**	**120**	**120**	**3,000**	**69 J**	**96 J**	**6,400 J**	**180 J**	**130 J**	**147.8 J**	**59**	**72.38 J**	**77**	**90.92 J**	**86.13 J**

NOTES:

1. All results are in micrograms per liter (µg/L), equivalent to parts per billion.

2. NYSDEC. 1998. TOGS 1.1.1 Water Guidance Values/Standards = New York State Department of Environmental Conservation Technical and Operational Guidance Series, June 1998, and its addenda (January 1999 Errata Sheet, April 2000 Addendum, and June 2004 Addendum).

3. Shaded cells denote results in exceedance of criteria. Bold values are detected.

NA = not analyzed

ND = non detected

NYSDEC = New York State Department of Environmental Conservation

TOGS = Technical and Operational Guidance Series

VOC = volatile organic compound.

[ ] = Duplicate results are shown in brackets.

- - = no standard/guidance value

D = Compound quantitated using a secondary dilution.

F1 = MS and/or MSD Recovery is outside acceptable Limits.

J = Indicates an estimated value.

R = The sample results were rejected

U = The compound was analyzed for but not detected. The associated value is the compound quantitation limit.

UB =Compound considered nondetect at the listed value due to associated blank contamination.

UJ = The compound was analyzed for but not detected. The associated value is the compound quantitation limit. Indicates an estimated value.

Table 8
Summary of Volatile Organic Compounds (2010-2021)
2021 Corrective Measure Implementation Annual Progress Report
Ashland LLC
130 South Street, Rensselaer, New York

Location ID: / Date Collected:	NYSDEC TOGS 1.1.1 Water Guidance Values	Units	MW-22 09/15/17	MW-23 09/15/17	MW-23 02/19/19	MW-23 05/08/19	MW-23 08/08/19	MW-23 11/06/19	MW-23 04/07/20	MW-23 11/12/20	MW-23 04/14/21	MW-23 11/22/21	MW-24 09/15/17	MW-24 02/19/19	MW-24 05/08/19	MW-24 08/08/19	MW-24 11/06/19	MW-24 04/08/20	MW-24 11/13/20	MW-24 04/15/21	MW-24 11/22/21	MW-25 10/04/18	MW-25 02/21/19	MW-25 02/21/19	MW-25 05/08/19	MW-25 08/07/19	MW-25 11/06/19	MW-25 04/07/20	MW-25 11/11/20	MW-25 04/15/21	MW-25 11/23/21
Detected Volatile Organics																															
1,1,1-Trichloroethane	5	ug/L	**23**	200 U	10 U	2.0 U	2.0 U	2.0 U	1.0 U	1.0 U	1.0 U [2.0 U]	2.0 U	100 U [100 U]	**170**	**150**	20 U	100 U	100 U	80 U	80 U	80 U	20 U	100 U	100 U	100 U	100 U	100 U	50 U	50 U	20 UJ	20 U
1,1,2-trichloro-1,2,2-trifluoroethane	5	ug/L	10 U	200 U	10 U	2.0 U	2.0 U	2.0 U	1.0 U	1.0 U	1.0 U [2.0 U]	2.0 U	100 U [100 U]	100 U	100 U	20 U	100 U	100 U	80 U	80 U	80 U	20 U	100 U	100 U	100 U	100 U	100 U	50 U	50 U	20 UJ	20 U
1,2-Dichlorobenzene	3	ug/L	10 U	200 U	10 U	2.0 U	2.0 U	2.0 U	1.0 U	1.0 U	1.0 U [2.0 U]	2.0 U	100 U [100 U]	100 U	100 U	20 U	100 U	100 U	80 U	80 U	80 U	20 U	100 U	100 U	100 U	100 U	100 U	50 U	50 U	20 U	20 U
2-Butanone	- -	ug/L	100 U	2,000 U	100 U	20 U	20 U*	20 U	10 U	10 U	10 U [20 U]	20 U	1,000 U [1,000 U]	1,000 U	1,000 U	**100 J**	1,000 U	1,000 U	800 U	800 U	**140 J**	200 U	1,000 U	1,000 U	1,000 U	1,000 U*	1,000 U	500 U	500 U	200 U	200 U
2-Hexanone	50	ug/L	50 U	1,000 U	50 U	10 U	10 U	10 U	5.0 U	5.0 U	5.0 U [10 U]	10 U	500 U [500 U]	500 U	500 U	100 U	500 U	500 U	400 U	400 U	400 U	100 U	500 U	500 U	500 U	500 U	500 U	250 U	250 U	100 UJ	100 U
4-Methyl-2-pentanone	- -	ug/L	50 U	1,000 U	50 U	10 U	10 U	10 U	5.0 U	5.0 U	5.0 U [10 U]	10 U	500 U [500 U]	500 U	500 U	100 U	500 U	500 U	400 U	400 U	400 U	100 U	500 U	500 U	500 U	500 U	500 U	250 U	250 U	100 UJ	100 U
Acetone	50	ug/L	100 U	2,000 U	100 U	20 U	20 U	20 U	10 U	**3.5**	10 U [20 U]	20 U	1,000 U [1,000 U]	1,000 U	1,000 U	**100 J**	1,000 U	1,000 U	800 U	800 U	800 U	200 U	1,000 U	1,000 U	1,000 U	1,000 U	1,000 U	500 U	500 U	200 UJ	200 U
Benzene	1	ug/L	**6.7 J**	200 U	10 U	2.0 U	2.0 U	2.0 U	1.0 U	1.0 U	1.0 U [2.0 U]	2.0 U	100 U [100 U]	100 U	100 U	20 U	100 U	100 U	80 U	80 U	80 U	20 U	100 U	100 U	100 U	100 U	100 U	50 U	50 U	20 UJ	20 U
Carbon Disulfide	- -	ug/L	10 U	200 U	10 U	2.0 U	2.0 U	2.0 U	1.0 U	1.0 U	1.0 U [2.0 U]	2.0 U	100 U [100 U]	100 U	100 U	20 U	100 U	100 U	80 U	80 U	80 U	20 U	100 U	100 U	100 U	100 U	100 U	50 U	50 U	20 UJ	20 U
Carbon Tetrachloride	5	ug/L	10 U	200 U	10 U	2.0 U	2.0 U	2.0 U	1.0 U	1.0 U	1.0 U [2.0 U]	2.0 U	100 U [100 U]	100 U	100 U	20 U	100 U	100 U	80 U	80 U	80 U	20 U	100 U	100 U	100 U	100 U	100 U	50 U	50 U	20 UJ	20 U
Chlorobenzene	5	ug/L	**49**	200 U	10 U	2.0 U	2.0 U	2.0 U	1.0 U	1.0 U	1.0 U [2.0 U]	2.0 U	100 U [100 U]	100 U	100 U	20 U	100 U	100 U	80 U	80 U	80 U	20 U	100 U	100 U	100 U	100 U	100 U	50 U	50 U	20 U	20 U
Chloroethane	5	ug/L	10 U	200 U	10 U	2.0 U	2.0 U	2.0 U	1.0 U	1.0 U	1.0 U [2.0 U]	2.0 U	100 U [100 U]	100 U	100 U	**24**	100 U	100 U	80 U	80 U	80 U	20 U	100 U	100 U	100 U	100 U	100 U	50 U	50 U	20 U	20 U
Chloroform	7	ug/L	10 U	200 U	10 U	2.0 U	2.0 U	2.0 U	1.0 U	1.0 U	1.0 U [2.0 U]	2.0 U	**34 J [100 U]**	100 U	100 U	20 U	100 U	100 U	80 U	80 U	80 U	20 U	100 U	100 U	100 U	100 U	100 U	50 U	50 U	20 U	20 U
Cyclohexane	- -	ug/L	**5.9 J**	200 U	10 U	2.0 U	2.0 U	2.0 U	1.0 U	1.0 U	1.0 U [2.0 U]	2.0 U	100 U [100 U]	100 U	100 U	20 U	100 U	100 U	80 U	80 U	80 U	20 U	100 U	100 U	100 U	100 U	100 U	50 U	50 U	20 UJ	20 U
Dichlorodifluoromethane	5	ug/L	10 U	200 U	10 U	2.0 U	2.0 U	2.0 U	1.0 U	1.0 U	1.0 U [2.0 U]	2.0 U	100 U [100 U]	100 U	100 U	20 U	100 U	100 U	80 U	80 U	80 U	NA	100 U*	100 U*	100 U	100 U	100 U	50 U	50 U	20 UJ	20 U
Ethylbenzene	5	ug/L	10 U	200 U	10 U	2.0 U	2.0 U	2.0 U	1.0 U	1.0 U	1.0 U [2.0 U]	2.0 U	100 U [100 U]	100 U	100 U	20 U	100 U	100 U	80 U	80 U	80 U	20 U	100 U	100 U	100 U	100 U	100 U	50 U	50 U	20 UJ	20 U
Isopropylbenzene	5	ug/L	10 U	200 U	10 U	2.0 U	2.0 U	2.0 U	1.0 U	1.0 U	1.0 U [2.0 U]	2.0 U	100 U [100 U]	100 U	100 U	20 U	100 U	100 U	80 U	80 U	80 U	20 U	100 U	100 U	100 U	100 U	100 U	50 U	50 U	20 UJ	20 U
Methylcyclohexane	- -	ug/L	**1.6 J**	200 U	10 U	2.0 U	2.0 U	2.0 U	1.0 U	1.0 U	1.0 U [2.0 U]	2.0 U	100 U [100 U]	100 U	100 U	20 U	100 U	100 U	80 U	80 U	80 U	20 U	100 U	100 U	100 U	100 U	100 U	50 U	50 U	20 U	20 U
Methylene Chloride	5	ug/L	10 U	200 U	**13**	**1.2 J**	2.0 U	2.0 U	1.0 U	1.0 U	1.0 U [2.0 U]	2.0 U	100 U [100 U]	100 U	100 U	20 U	100 U	100 U	80 U	80 U	80 U	20 UB	100 U	100 U	100 U	100 U	100 U	50 U	50 U	20 UJ	20 U
Toluene	5	ug/L	10 U	200 U	10 U	2.0 U	2.0 U	2.0 U	1.0 U	1.0 U	1.0 U [2.0 U]	2.0 U	100 U [100 U]	100 U	100 U	20 U	100 U	100 U	80 U	80 U	80 U	20 U	100 U	100 U	100 U	100 U	100 U	50 U	50 U	20 UJ	20 U
Xylenes (total)	5	ug/L	**7.9 J**	400 U	20 U	4.0 U	4.0 U	4.0 U	2.0 U	2.0 U	2.0 U [4.0 U]	4.0 U	200 U [200 U]	200 U	200 U	40 U	200 U	200 U	160 U	160 U	160 U	40 U	200 U	200 U	200 U	200 U	200 U	100 U	100 U	40 UJ	40 U
Tetrachloroethene	5	ug/L	10 U	200 U	10 U	2.0 U	2.0 U	2.0 U	1.0 U	1.0 U	1.0 U [2.0 U]	2.0 U	100 U [100 U]	100 U	100 U	20 U	100 U	100 U	80 U	80 U	80 U	**9,300 D**	**3,300**	**3,300**	**3,200**	**2,300**	**2,200**	**2,100**	**35 J**	**340 J**	**920**
Trichloroethene	5	ug/L	**440**	**5,800**	10 U	2.0 U	2.0 U	2.0 U	1.0 U	1.0 U	1.0 U [2.0 U]	2.0 U	**3,100 [3,200]**	100 U	100 U	20 U	100 U	100 U	**1,000**	80 U	80 U	**220**	**87 J**	**87 J**	**130**	**84 J**	**91 J**	**83**	50 U	**150 J**	**280**
1,1-Dichloroethane	5	ug/L	**7.1 J**	200 U	10 U	2.0 U	2.0 U	2.0 U	1.0 U	1.0 U	1.0 U [2.0 U]	2.0 U	100 U [100 U]	**230**	**210**	**340**	**120**	**88 J**	**58 J**	**86**	80 U	**17 J**	100 U	100 U	100 U	100 U	100 U	50 U	50 U	20 U	20 U
1,1-Dichloroethene	5	ug/L	10 U	200 U	10 U	2.0 U	2.0 U	2.0 U	1.0 U	1.0 U	1.0 U [2.0 U]	2.0 U	100 U [100 U]	100 U	100 U	20 U	100 U	100 U	80 U	80 U	80 U	20 U	100 U	100 U	100 U	100 U	100 U	50 U	50 U	20 UJ	20 U
1,2-Dichloroethane	0.6	ug/L	10 U	200 U	10 U	**0.50 J**	**0.43 J**	**0.49 J**	**0.23 J**	**0.23 J**	**0.32 J [2.0 U]**	2.0 U	100 U [100 U]	100 U	100 U	20 U	100 U	100 U	80 U	80 U	80 U	20 U	100 U	100 U	100 U	100 U	100 U	50 U	50 U	20 UJ	20 U
cis-1,2-Dichloroethene	5	ug/L	**790 F1**	**4,900**	10 U	2.0 U	2.0 U	2.0 U	1.0 U	1.0 U	**0.82 J [2.0 U]**	2.0 U	**650 [630]**	**2,200**	**2,200**	**830**	**810**	**2,500**	**2,600**	**2,600**	80 U	**850**	**550**	**550**	**650**	**770**	**490**	**530**	**12,000**	**870 J**	**680**
trans-1,2-Dichloroethene	5	ug/L	10 U	200 U	10 U	2.0 U	2.0 U	2.0 U	1.0 U	1.0 U	1.0 U [2.0 U]	2.0 U	100 U [100 U]	100 U	100 U	20 U	100 U	100 U	80 U	80 U	80 U	20 U	100 U	100 U	100 U	100 U	100 U	50 U	**57**	20 U	20 U
Vinyl Chloride	2	ug/L	**700 F1**	**260**	10 U	2.0 U	2.0 U	**2.6**	1.0 U	1.0 U	**2.0 [1.9 J]**	**1.9 J**	100 U [100 U]	**820**	**1,500**	**1,400**	**1,800**	**3,100**	**550**	**460**	80 U	**690**	**610**	**610**	**640**	**800**	**590**	**720**	**570**	**140**	**190**
Total VOCs	- -	ug/L	**2,000 J**	**11,000**	**13**	**1.7 J**	**0.43 J**	**3.09**	**0.23 J**	**3.73 J**	**3.14 J [5.9 J]**	**1.9 J**	**3,800 J [3,800]**	**3420**	**4060**	**2,794 J**	**2,730**	**5,688 J**	**4,208 J**	**3,146**	**140 J**	NA	NA	**4547 J**	**5390**	**3,954 J**	**3,371**	**3,433**	**12,662 J**	**1,500**	**2,070**

NOTES:
1. All results are in micrograms per liter (µg/L), equivalent to parts per billion.
2. NYSDEC. 1998. TOGS 1.1.1 Water Guidance Values/Standards = New York State Department of Environmental Conservation Technical and Operational Guidance Series, June 1998, and its addenda (January 1999 Errata Sheet, April 2000 Addendum, and June 2004 Addendum).
3. Shaded cells denote results in exceedance of criteria. Bold values are detected.
NA = not analyzed
ND = non detected
NYSDEC = New York State Department of Environmental Conservation
TOGS = Technical and Operational Guidance Series
VOC = volatile organic compound.
[ ] = Duplicate results are shown in brackets.
- - = no standard/guidance value
D = Compound quantitated using a secondary dilution.
F1 = MS and/or MSD Recovery is outside acceptable Limits.
J = Indicates an estimated value.
R = The sample results were rejected
U = The compound was analyzed for but not detected. The associated value is the compound quantitation limit.
UB =Compound considered nondetect at the listed value due to associated blank contamination.
UJ = The compound was analyzed for but not detected. The associated value is the compound quantitation limit. Indicates an estimated value.
E = Result exceeded calibration range.

Table 8
Summary of Volatile Organic Compounds (2010-2021)
2021 Corrective Measure Implementation Annual Progress Report
Ashland LLC
130 South Street, Rensselaer, New York

Location ID: / Date Collected:	NYSDEC TOGS 1.1.1 Water Guidance Values	Units	MW-21 04/16/10	MW-21 03/08/11	MW-21 08/09/11	MW-21 10/13/11	MW-21 01/24/12	MW-21 03/30/12	MW-21 07/02/12	MW-21 09/14/12	MW-21 03/22/13	MW-21 11/21/13	MW-21 05/29/14	MW-21 10/15/14	MW-21 04/22/15	MW-21 01/27/16	MW-21 06/30/16	MW-21 12/20/16	MW-21 05/15/17	MW-21 10/30/17	MW-21 04/09/18	MW-21 10/03/18	MW-21 02/19/19	MW-21 05/07/19	MW-21 08/08/19	MW-21 11/07/19	MW-21 04/07/20	MW-21 11/11/20	MW-21 04/15/21	MW-21 11/22/21
Detected Volatile Organics																														
1,1,1-Trichloroethane	5	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1,2-trichloro-1,2,2-trifluoroethane	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dichlorobenzene	3	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
2-Butanone	- -	ug/L	10 U	10 U	10 U	10 UJ	10 U	10 U	10 U	10 U	10 U	10 U	10 U	5.0 U	5.0 U	10 U	10 U	10 U	10 U	5.0 U	10 U	10 U	10 U	10 U	10 U*	10 U	10 U	10 U	10 U	10 U
2-Hexanone	50	ug/L	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
4-Methyl-2-pentanone	- -	ug/L	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Acetone	50	ug/L	25 U	25 U	25 U	25 UJ	25 U	25 U	25 U	25 U	25 U	25 U	10 U	5.0 U	5.0 U	10 U	10 U	10 U	10 UB	5.0 UB	**4.5 J**	10 UB	**5.5 J**	10 U	**10**	10 U	10 U	10 U	10 U	10 U
Benzene	1	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Carbon Disulfide	- -	ug/L	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	**0.21 J**	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Carbon Tetrachloride	5	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Chlorobenzene	5	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Chloroethane	5	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	5.0 U	1.0 U	1.0 UJ	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Chloroform	7	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	**0.91 J**	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Cyclohexane	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Dichlorodifluoromethane	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Ethylbenzene	5	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Isopropylbenzene	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Methylcyclohexane	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Methylene Chloride	5	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	1.0 UJ	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Toluene	5	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Xylenes (total)	5	ug/L	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
Tetrachloroethene	5	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Trichloroethene	5	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 UJ	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1-Dichloroethane	5	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1-Dichloroethene	5	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dichloroethane	0.6	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
cis-1,2-Dichloroethene	5	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
trans-1,2-Dichloroethene	5	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Vinyl Chloride	2	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Total VOCs	- -	ug/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	**0.91 J**	ND	ND	**4.7 J**	**3.5 J**	**5.5 J**	ND	**10**	ND	ND	ND	ND	ND

NOTES:
1. All results are in micrograms per liter (µg/L), equivalent to parts per billion.
2. NYSDEC. 1998. TOGS 1.1.1 Water Guidance Values/Standards = New York State Department of Environmental Conservation Technical and Operational Guidance Series, June 1998, and its addenda (January 1999 Errata Sheet, April 2000 Addendum, and June 2004 Addendum).
3. Shaded cells denote results in exceedance of criteria. Bold values are detected.

NA = not analyzed
ND = non detected
NYSDEC = New York State Department of Environmental Conservation
TOGS = Technical and Operational Guidance Series
VOC = volatile organic compound.
[ ] = Duplicate results are shown in brackets.
- - = no standard/guidance value
D = Compound quantitated using a secondary dilution.
F1 = MS and/or MSD Recovery is outside acceptable Limits.
J = Indicates an estimated value.
R = The sample results were rejected
U = The compound was analyzed for but not detected. The associated value is the compound quantitation limit.
UB =Compound considered nondetect at the listed value due to associated blank contamination.
UJ = The compound was analyzed for but not detected. The associated value is the compound quantitation limit. Indicates an estimated value.

Table 8
Summary of Volatile Organic Compounds (2010-2021)
2021 Corrective Measure Implementation Annual Progress Report
Ashland LLC
130 South Street, Rensselaer, New York

Location ID: / Date Collected:	NYSDEC TOGS 1.1.1 Water Guidance Values	Units	MW-A1 03/09/11	MW-A1 08/09/11	MW-A1 10/13/11	MW-A1 01/25/12	MW-A1 03/29/12	MW-A1 07/02/12	MW-A1 09/13/12	MW-A1 03/21/13	MW-A1 11/21/13	MW-A1 05/29/14	MW-A1 10/15/14	MW-A1 04/23/15	MW-A1 01/27/16	MW-A1 06/30/16	MW-A1 12/20/16	MW-A1 05/16/17	MW-A1 10/31/17	MW-A1 04/10/18	MW-A1 10/04/18	MW-A1 05/08/19	MW-A1 11/06/19	MW-A1 04/08/20	MW-A1 11/11/20	MW-A1 04/15/21	MW-A1 11/23/21
Detected Volatile Organics																											
1,1,1-Trichloroethane	5	ug/L	5.0 U [5.0 U]	5.0 U [5.0 U]	5.0 U [5.0 U]	**12**	1.0 U	1.0 U	2.0 U	1.0 U	1.0 U	4.0 U	1.0 U	1.0 U	10 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	4.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
1,1,2-trichloro-1,2,2-trifluoroethane	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1.0 U	1.0 U	1.0 U	**1.1**	**3.2**	4.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
1,2-Dichlorobenzene	3	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	4.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
2-Butanone	- -	ug/L	50 U [50 U]	50 U [50 U]	50 U [50 U]	10 U	10 U	10 U	**51**	10 U	**73**	40 U	5.0 U	5.0 U	100 U	10 U	10 U	10 U	5.0 U	20 U	40 U	20 U	20 U	20 U	20 U	20 U	20 U
2-Hexanone	50	ug/L	50 U [50 U]	50 U [50 U]	50 U [50 U]	10 U	10 U	10 U	20 U	10 U	10 U	20 U	5.0 U	5.0 U	50 U	5.0 U	5.0 U	5.0 U	5.0 U	10 U	20 U	10 U	10 U	10 U	10 U	10 U	10 U
4-Methyl-2-pentanone	- -	ug/L	50 U [50 U]	50 U [50 U]	50 U [50 U]	10 U	10 U	10 U	20 U	10 U	10 U	20 U	5.0 U	5.0 U	50 U	5.0 U	5.0 U	5.0 U	5.0 U	10 U	20 U	10 U	10 U	10 U	10 U	10 U	10 U
Acetone	50	ug/L	120 U [120 U]	130 U [130 U]	130 U [130 U]	25 U	25 U	25 U	**73**	25 U	**120**	40 U	5.0 U	5.0 U	100 U	**13**	10 U	10 UB	9.5 UB	20 U	**15 J**	20 U	20 UB	20 U	20 U	20 U	20 U
Benzene	1	ug/L	**7.7 [7.2]**	**9.5 [9.8]**	**5.2 [7.7]**	**8.8**	**7.9**	**8.7**	**12**	**5.3**	**11**	**9.2**	**6.7**	**6.3**	10 U	**5.8**	**8.8**	**7.1**	**9.3**	**9.9**	**6.1**	**7.6**	**6.0**	**3.5**	**2.8**	**2.3**	**1.7 J**
Carbon Disulfide	- -	ug/L	10 U [10 U]	10 U [10 U]	10 U [10 U]	2.0 U	2.0 U	2.0 U	4.0 U	2.0 U	2.0 U	4.0 U	1.0 U	1.0 U	10 U	1.0 U	1.0 U	1.0 U	**0.28 J**	2.0 U	4.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
Carbon Tetrachloride	5	ug/L	5.0 U [5.0 U]	5.0 U [5.0 U]	5.0 UJ [5.0 U]	1.0 U	1.0 U	1.0 U	2.0 U	1.0 U	1.0 U	4.0 U	1.0 U	1.0 U	10 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	4.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
Chlorobenzene	5	ug/L	5.0 U [5.0 U]	5.0 U [5.0 U]	5.0 U [5.0 U]	**2.1**	**2.0**	**2.7**	**3.1**	**2.0**	**2.5**	4.0 U	**1.4**	**1.8**	10 U	**0.98 J**	**1.3**	**1.3**	**1.1**	2.0 U	4.0 U	2.0 U	**2.1**	**1.8 J**	**1.7 J**	2.0 U	2.0 U
Chloroethane	5	ug/L	5.0 U [5.0 U]	**17 [16 J]**	5.0 U [5.0 U]	**13**	**20**	**13**	**38**	**6.8**	**21**	**6.9**	**4.5 J**	1.0 U	10 U	**4.3**	**9.8**	**4.3**	**25**	**39**	**7.6**	**9.3**	**5.0**	**6.1**	2.0 U	**3.0**	**2.4**
Chloroform	7	ug/L	5.0 U [5.0 U]	5.0 U [5.0 U]	5.0 U [5.0 U]	1.0 U	1.0 U	**1.3**	2.0 U	1.0 U	1.0 U	4.0 U	1.0 U	1.0 U	10 U	1.0 U	1.0 U	1.0 U	1.0 U	**1.1 J**	4.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
Cyclohexane	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1.0 U	1.0 U	**0.47 J**	**0.82 J**	2.0 U	4.0 U	2.0 U	**0.46 J**	2.0 U	2.0 U	**0.46 J**	**1.7 J**
Dichlorodifluoromethane	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	4.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
Ethylbenzene	5	ug/L	5.0 U [5.0 U]	5.0 U [5.0 U]	5.0 U [5.0 U]	1.0 U	1.0 U	1.0 U	2.0 U	1.0 U	1.0 U	4.0 U	1.0 U	1.0 U	10 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	4.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
Isopropylbenzene	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	4.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
Methylcyclohexane	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1.0 U	1.0 U	1.0 U	**0.61 J**	2.0 U	4.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
Methylene Chloride	5	ug/L	25 U [25 U]	25 U [25 U]	25 U [25 U]	5.0 U	5.0 U	5.0 U	10 U	5.0 U	5.0 U	4.0 UJ	1.0 U	1.0 U	10 U	1.0 U	1.0 U	1.0 U	1.0 UB	2.0 U	4.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
Toluene	5	ug/L	5.0 U [5.0 U]	5.0 U [5.0 U]	5.0 U [5.0 U]	1.0 U	1.0 U	1.0 U	**4.9**	1.0 U	1.0 U	4.0 U	**3.2**	1.0 U	10 U	**1.3**	**0.86 J**	1.0 U	**0.51 J**	2.0 U	4.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
Xylenes (total)	5	ug/L	10 U [10 U]	10 U [10 U]	10 U [10 U]	2.0 U	2.0 U	2.0 U	4.0 U	2.0 U	2.0 U	8.0 U	2.0 U	2.0 U	20 U	2.0 U	2.0 U	2.0 U	**0.36 J**	4.0 U	8.0 U	4.0 U	4.0 U	4.0 U	4.0 U	4.0 U	4.0 U
Tetrachloroethene	5	ug/L	5.0 U [5.0 U]	5.0 U [5.0 U]	5.0 U [5.0 U]	1.0 U	1.0 U	1.0 U	2.0 U	1.0 U	1.0 U	4.0 U	1.0 U	1.0 U	10 U	1.0 U	1.0 U	1.0 U	1.0 U	**3.6**	4.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
Trichloroethene	5	ug/L	5.0 U [5.0 U]	5.0 U [5.0 U]	5.0 U [5.0 U]	1.0 U	**1.2**	**1.3**	2.0 U	**3.5**	1.0 U	4.0 U	1.0 UJ	1.0 U	10 U	1.0 U	1.0 U	1.0 U	**0.83 J**	**9.9**	4.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
1,1-Dichloroethane	5	ug/L	**22 [21]**	**19 [20]**	**15 [17]**	**17**	**11**	**14**	**12**	**9.3**	1.0 U	4.0 U	1.0 U	**1.5**	10 U	1.0 U	**0.84 J**	**1.1**	**5.7**	**21**	**3.6 J**	**1.8 J**	**1.5 J**	**2.8**	**2.7**	2.0 U	2.0 U
1,1-Dichloroethene	5	ug/L	5.0 U [5.0 U]	5.0 U [5.0 U]	5.0 U [5.0 U]	1.0 U	1.0 U	1.0 U	2.0 U	1.0 U	1.0 U	4.0 U	1.0 U	1.0 U	10 U	1.0 U	1.0 U	1.0 U	1.0 U	**1.4 J**	4.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
1,2-Dichloroethane	0.6	ug/L	5.0 U [5.0 U]	5.0 U [5.0 U]	5.0 U [5.0 U]	1.0 U	1.0 U	1.0 U	2.0 U	1.0 U	1.0 U	4.0 U	1.0 U	1.0 U	10 U	1.0 U	1.0 U	1.0 U	**0.26 J**	2.0 U	4.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
cis-1,2-Dichloroethene	5	ug/L	**270 [260]**	**220 J [250 J]**	**200 [210]**	**25**	**36**	**130**	**150**	**86**	**7.6**	**5.7**	**6.3**	**27**	10 U	**6.7**	**13**	**24**	**26**	**330 D**	4.0 U	**2.8**	**23**	**40**	2.0 U	2.0 U	2.0 U
trans-1,2-Dichloroethene	5	ug/L	5.0 U [5.0 U]	5.0 U [5.0 U]	5.0 U [5.0 U]	1.0 U	1.0 U	**1.5**	2.0 U	1.0 U	1.0 U	4.0 U	1.0 U	1.0 U	10 U	1.0 U	1.0 U	1.0 U	**1.8**	**3.4**	4.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
Vinyl Chloride	2	ug/L	**490 [460]**	**310 [410]**	**600 J [470]**	**50**	**70**	**200 D**	**230 D**	**120**	**4.2**	4.0 U	**17**	**51**	10 U	**17**	**39**	**70**	**28**	**120**	4.0 U	**3.1**	**27**	**62**	2.0 U	2.0 U	2.0 U
Total VOCs	- -	ug/L	**790 [750]**	**580 J [710 J]**	**820 J [700]**	**130**	**150**	**370**	**570**	**230**	**240**	**22**	**39 J**	**88**	ND	**49 J**	**74 J**	**110**	**99 J**	**540 J**	**32 J**	**24.6 J**	**65.06**	**116.2 J**	**7.2 J**	**5.8 J**	**5.8 J**

NOTES:
1. All results are in micrograms per liter (µg/L), equivalent to parts per billion.
2. NYSDEC. 1998. TOGS 1.1.1 Water Guidance Values/Standards = New York State Department of Environmental Conservation Technical and Operational Guidance Series, June 1998, and its addenda (January 1999 Errata Sheet, April 2000 Addendum, and June 2004 Addendum).
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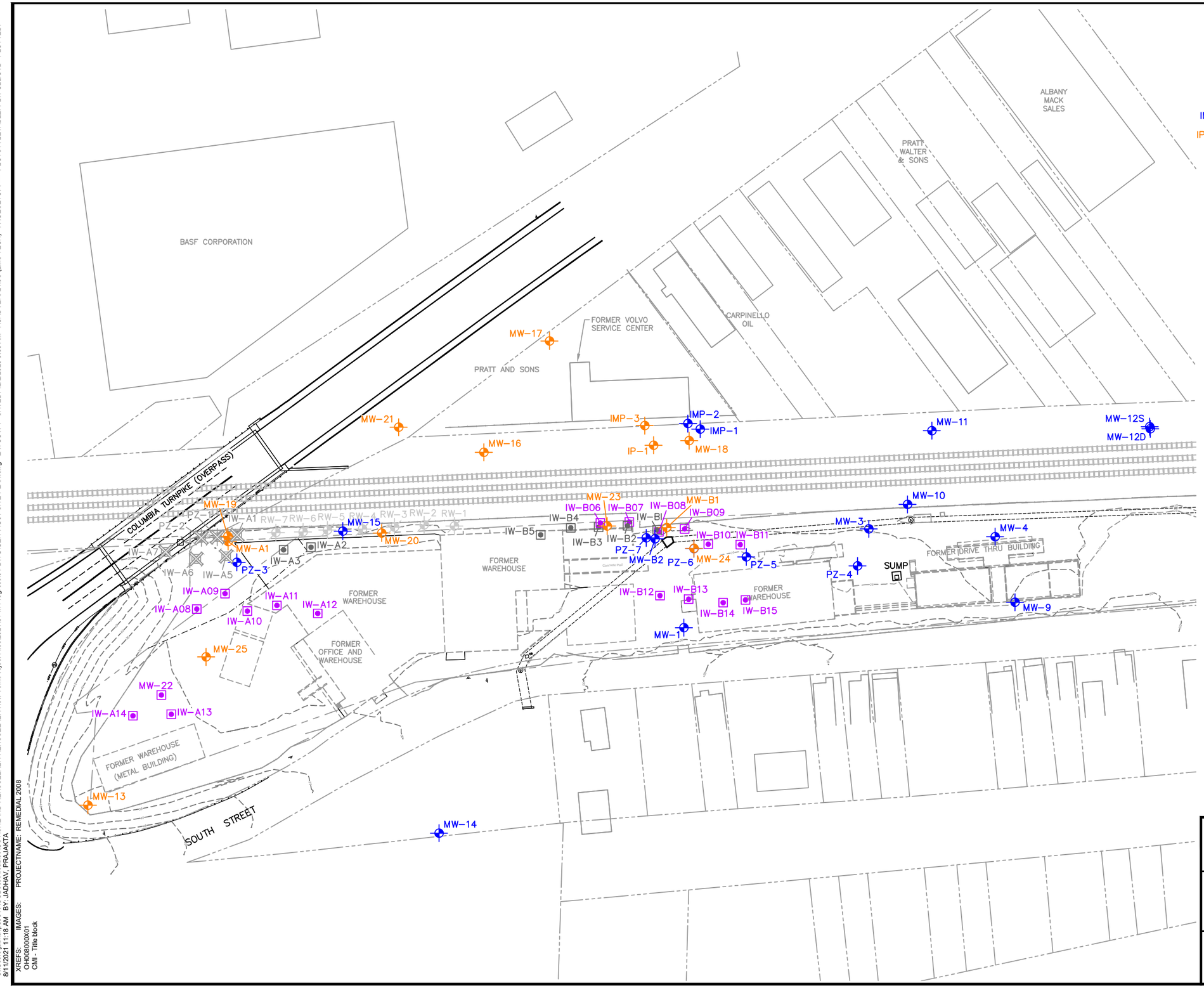
Ashland LLC
130 South Street, Rensselaer, New York

Location ID: / Date Collected:	NYSDEC TOGS 1.1.1 Water Guidance Values	Units	MW-B1 03/09/11	MW-B1 08/10/11	MW-B1 10/13/11	MW-B1 01/24/12	MW-B1 03/29/12	MW-B1 07/02/12	MW-B1 09/13/12	MW-B1 03/21/13	MW-B1 11/21/13	MW-B1 05/29/14	MW-B1 10/15/14	MW-B1 04/22/15	MW-B1 01/27/16	MW-B1 06/28/16	MW-B1 12/21/16	MW-B1 05/16/17	MW-B1 10/30/17	MW-B1 04/10/18	MW-B1 10/03/18	MW-B1 05/07/19	MW-B1 11/06/19	MW-B1 04/08/20	MW-B1 11/12/20	MW-B1 04/15/21	MW-B1 11/22/21	PZ-6 12/20/16
Detected Volatile Organics																												
1,1,1-Trichloroethane	5	ug/L	5.0 U	50 U	50 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	4.0 U	1.0 U	1.0 U	5.0 U	4.0 U	1.0 U	1.0 U	1.0 U	2.0 U	2.0 U	1.0 U	2.0 U	1.0 U	1.0 U	4.0 U	4.0 U	**39**
1,1,2-trichloro-1,2,2-trifluoroethane	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	4.0 U	1.0 U	1.0 U	1.0 U	2.0 U	2.0 U	1.0 U	2.0 U	1.0 U	1.0 U	4.0 U	4.0 U	1.0 U
1,2-Dichlorobenzene	3	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	4.0 U	1.0 U	1.0 U	1.0 U	2.0 U	2.0 U	1.0 U	2.0 U	1.0 U	1.0 U	4.0 U	4.0 U	1.0 U
2-Butanone	- -	ug/L	**430**	**7,800**	**5,100 J**	**520**	**47**	10 U	10 U	10 U	10 U	40 U	5.0 U	5.0 U	50 U	40 U	10 U	10 U	5.0 U	20 U	20 U	10 U	20 U	10 U	**29**	40 U	40 U	10 U
2-Hexanone	50	ug/L	50 U	500 U	500 U	50 UJ	10 U	10 U	10 U	10 U	10 U	20 U	5.0 U	5.0 U	25 U	20 U	5.0 U	5.0 U	5.0 U	10 U	10 U	5.0 U	10 U	5.0 U	**5.6**	20 U	20 U	5.0 U
4-Methyl-2-pentanone	- -	ug/L	50 U	500 U	500 U	50 U	10 U	10 U	10 U	10 U	10 U	20 U	5.0 U	5.0 U	25 U	20 U	5.0 U	5.0 U	5.0 U	10 U	10 U	5.0 U	10 U	5.0 U	5.0 U	20 U	20 U	5.0 U
Acetone	50	ug/L	120 U	1,300 U	1,300 UJ	130 U	25 U	25 U	25 U	25 U	25 U	40 U	5.0 U	5.0 U	50 U	40 U	10 U	10 UB	5.0 UB	20 U	20 U	10 U	20 U	10 U	**29**	40 U	40 U	10 U
Benzene	1	ug/L	5.0 UJ	50 UJ	50 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	4.0 U	1.0 U	1.0 U	5.0 U	4.0 U	1.0 U	1.0 U	1.0 U	2.0 U	2.0 U	1.0 U	2.0 U	1.0 U	**0.50 J**	4.0 U	4.0 U	1.0 U
Carbon Disulfide	- -	ug/L	10 U	100 U	100 U	10 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	4.0 U	1.0 U	1.0 U	5.0 U	4.0 U	1.0 U	**0.24 J**	1.0 U	2.0 U	2.0 U	1.0 U	2.0 U	1.0 U	**0.42 J**	4.0 U	4.0 U	1.0 U
Carbon Tetrachloride	5	ug/L	5.0 U	50 U	50 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	4.0 U	1.0 U	1.0 U	5.0 U	4.0 U	1.0 U	1.0 U	1.0 U	2.0 U	2.0 U	1.0 U	2.0 U	1.0 U	1.0 U	4.0 U	4.0 U	1.0 U
Chlorobenzene	5	ug/L	5.0 UJ	50 U	50 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	4.0 U	1.0 U	1.0 U	5.0 U	4.0 U	1.0 U	1.0 U	1.0 U	2.0 U	2.0 U	1.0 U	2.0 U	1.0 U	1.0 U	4.0 U	4.0 U	1.0 U
Chloroethane	5	ug/L	5.0 U	50 U	50 U	5.0 U	1.0 U	1.0 U	**3.7**	1.0 U	5.0 U	4.0 U	1.0 UJ	1.0 U	5.0 U	4.0 U	1.0 U	1.0 U	1.0 U	2.0 U	2.0 U	1.0 U	2.0 U	1.0 U	1.0 U	4.0 U	4.0 U	1.0 U
Chloroform	7	ug/L	5.0 U	50 U	50 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	4.0 U	1.0 U	1.0 U	5.0 U	4.0 U	1.0 U	1.0 U	1.0 U	2.0 U	2.0 U	1.0 U	2.0 U	1.0 U	**0.74 J**	4.0 U	4.0 U	1.0 U
Cyclohexane	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	4.0 U	1.0 U	1.0 U	1.0 U	2.0 U	2.0 U	1.0 U	2.0 U	1.0 U	1.0 U	4.0 U	4.0 U	1.0 U
Dichlorodifluoromethane	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	4.0 U	1.0 U	1.0 U	1.0 U	2.0 U	2.0 U	1.0 U	2.0 U	1.0 U	1.0 U	4.0 U	4.0 U	1.0 U
Ethylbenzene	5	ug/L	5.0 UJ	50 UJ	50 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	4.0 U	1.0 U	1.0 U	5.0 U	4.0 U	1.0 U	1.0 U	1.0 U	2.0 U	2.0 U	1.0 U	2.0 U	1.0 U	1.0 U	4.0 U	4.0 U	1.0 U
Isopropylbenzene	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	4.0 U	1.0 U	1.0 U	1.0 U	2.0 U	2.0 U	1.0 U	2.0 U	1.0 U	1.0 U	4.0 U	4.0 U	1.0 U
Methylcyclohexane	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	4.0 U	1.0 U	1.0 U	1.0 U	2.0 U	2.0 U	1.0 U	2.0 U	1.0 U	1.0 U	4.0 U	4.0 U	1.0 U
Methylene Chloride	5	ug/L	25 U	250 U	250 U	25 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	**6.9 J**	1.0 U	1.0 U	5.0 U	4.0 U	1.0 U	1.0 U	1.0 U	2.0 U	2.0 U	1.0 U	2.0 U	1.0 U	1.0 U	4.0 U	4.0 U	1.0 U
Toluene	5	ug/L	5.0 UJ	50 UJ	50 U	5.0 U	**2.1**	**2.2**	**2.7**	**1.6**	1.0 U	4.0 U	1.0 U	1.0 U	5.0 U	4.0 U	1.0 U	1.0 U	1.0 U	2.0 U	2.0 U	1.0 U	2.0 U	1.0 U	1.0 U	4.0 U	4.0 U	1.0 U
Xylenes (total)	5	ug/L	10 UJ	100 UJ	100 U	10 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	8.0 U	2.0 U	2.0 U	10 U	8.0 U	2.0 U	2.0 U	2.0 U	4.0 U	4.0 U	2.0 U	4.0 U	2.0 U	2.0 U	8.0 U	8.0 U	2.0 U
Tetrachloroethene	5	ug/L	5.0 U	50 U	50 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	4.0 U	1.0 U	1.0 U	5.0 U	4.0 U	1.0 U	1.0 U	1.0 U	2.0 U	2.0 U	1.0 U	2.0 U	1.0 U	1.0 U	4.0 U	4.0 U	1.0 U
Trichloroethene	5	ug/L	5.0 U	50 U	50 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	4.0 U	1.0 UJ	1.0 U	5.0 U	4.0 U	1.0 U	1.0 U	1.0 U	2.0 U	2.0 U	1.0 U	2.0 U	1.0 U	1.0 U	4.0 U	4.0 U	**5.2**
1,1-Dichloroethane	5	ug/L	5.0 U	50 U	50 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	4.0 U	1.0 U	1.0 U	5.0 U	4.0 U	1.0 U	1.0 U	1.0 U	2.0 U	2.0 U	1.0 U	2.0 U	1.0 U	1.0 U	4.0 U	4.0 U	**13**
1,1-Dichloroethene	5	ug/L	5.0 U	50 U	50 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	4.0 U	1.0 U	1.0 U	5.0 U	4.0 U	1.0 U	1.0 U	1.0 U	2.0 U	2.0 U	1.0 U	2.0 U	1.0 U	1.0 U	4.0 U	4.0 U	1.0 U
1,2-Dichloroethane	0.6	ug/L	**34**	50 U	50 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	4.0 U	1.0 U	**1.0**	5.0 U	4.0 U	1.0 U	**0.44 J**	**0.48 J**	2.0 U	**0.77 J**	1.0 U	**0.44 J**	**0.32 J**	**0.40 J**	4.0 U	4.0 U	1.0 U
cis-1,2-Dichloroethene	5	ug/L	**710**	50 U	**68**	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	**14**	**7.3**	**8.7**	5.0 U	4.0 U	1.0 U	**3.3**	**2.3**	**17**	**15**	1.0 U	2.0 U	1.0 U	**0.88 J**	4.0 U	4.0 U	**29**
trans-1,2-Dichloroethene	5	ug/L	**45**	50 U	50 U	**10**	**5.9**	**3.6**	**3.7**	1.0 U	1.0 U	4.0 U	**1.2**	**1.4**	5.0 U	4.0 U	1.0 U	**0.99 J**	**0.96 J**	2.0 U	2.0 U	1.0 U	2.0 U	1.0 U	1.0 U	4.0 U	4.0 U	1.0 U
Vinyl Chloride	2	ug/L	**270**	50 U	50 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	**18**	**10**	**14**	5.0 U	4.0 U	1.0 U	**6.5**	**2.2**	**7.4**	**27**	1.0 U	2.0 U	1.0 U	**1.2**	4.0 U	4.0 U	**25**
Total VOCs	- -	ug/L	**1,500**	**7,800**	**5,200 J**	**530**	**55**	**5.8**	**10**	**1.6**	ND	**39 J**	**19**	**25**	ND	ND	ND	**11 J**	**5.9 J**	**24**	**43 J**	ND	**0.44 J**	**0.32 J**	**67.74 J**	ND	ND	**111.2**

NOTES:
1. All results are in micrograms per liter (µg/L), equivalent to parts per billion.
2. NYSDEC. 1998. TOGS 1.1.1 Water Guidance Values/Standards = New York State Department of Environmental Conservation Technical and Operational Guidance Series, June 1998, and its addenda (January 1999 Errata Sheet, April 2000 Addendum, and June 2004 Addendum).
3. Shaded cells denote results in exceedance of criteria. Bold values are detected.
NA = not analyzed
ND = non detected
NYSDEC = New York State Department of Environmental Conservation
TOGS = Technical and Operational Guidance Series
VOC = volatile organic compound.
[ ] = Duplicate results are shown in brackets.
- - = no standard/guidance value
D = Compound quantitated using a secondary dilution.
F1 = MS and/or MSD Recovery is outside acceptable Limits.
J = Indicates an estimated value.
R = The sample results were rejected
U = The compound was analyzed for but not detected. The associated value is the compound quantitation limit.
UB =Compound considered nondetect at the listed value due to associated blank contamination.
UJ = The compound was analyzed for but not detected. The associated value is the compound quantitation limit. Indicates an estimated value.

Figures



LEGEND:

- IMP-1/MW-1/PZ-1 — GROUNDWATER GAUGING WELL
- IP-1/IMP-3/MW-16 — PERFORMANCE MONITORING GROUNDWATER SAMPLING LOCATIONS
- IW-A2 — SHALLOW INJECTION WELL LOCATION (2010)
- IW-A14 — ERD SYSTEM OPTIMIZATION INJECTION WELL (2018)
- SURFACE CONTOUR
- RAILROAD TRACK
- CULVERTED STREAM PIPE
- PROPERTY LINE
- FORMER BUILDINGS AND STRUCTURES
- RECOVERY WELLS ABANDONED IN 2016
- INJECTION WELLS/PIEZOMETERS ABANDONED IN 2018

NOTES:

1. LOCATIONS AND TOPOGRAPHY EAST OF CSX RAILROAD PROPERTY AND WEST OF AND INCLUDING SOUTH STREET, SURVEYED BY THEW ASSOCIATES PE-LS, PLLC (OCTOBER 2008). TWO NEW MONITORING WELLS, MW-20 & MW-21, AND TEN NEW INJECTION WELLS, IW-A2 THROUGH IW-A7 & IW-B2 THROUGH IW-B5, WERE SURVEYED ON JULY 2, 2010 BY THEW ASSOCIATES. ONE NEW MONITORING WELL (MW-25) AND 17 NEW INJECTION WELLS (IW-A08 THROUGH IW-A14; IW-B06 THROUGH IW-B15) WERE SURVEYED ON DECEMBER 5, 2018 BY THEW ASSOCIATES, ALONG WITH THREE DUAL-PURPOSE MONITORING AND INJECTION WELLS INSTALLED IN 2017 (MW-22 THROUGH MW-24).
2. REFERENCED HORIZONTALLY TO THE NORTH AMERICAN DATUM OF 1983 (NAD83) AND PROJECTED ON THE NEW YORK STATE PLANE COORDINATE SYSTEM (EAST ZONE). VERTICAL REFERENCE TO NGVD 1929.
3. ASHLAND PROPERTY BOUNDARY ESTABLISHED BY THEW ASSOCIATES SURVEY AND DEED RESEARCH (OCTOBER 2008). OTHER PROPERTY LINES AND MAP FEATURES ARE FROM RENSSELAER COUNTY TAX MAPPING AND NEW YORK STATE CLEARING-HOUSE AERIAL PHOTOGRAPHY.
4. INJECTION WELL MW-22 WAS INSTALLED DURING THE 2017 LIMITED-SCALE INJECTION EVENT.

0 100' 200'

GRAPHIC SCALE

ASHLAND INC.
RENSSELAER, NEW YORK

2021 CORRECTIVE MEASURES IMPLEMENTATION ANNUAL PROGRESS REPORT

SITE PLAN

ARCADIS Design & Consultancy for natural and built assets

FIGURE 1

CITY: SYRACUSE, NY DIV/GROUP: ENV/IM-DV DB: R. BASSETT, E. KRAHMER, R. ALLEN PM: W. GOLLA TM/TR: K. POTTER LYR:ON=*;OFF=REF, (FRZ)
C:\Users\jadhavp8954\ACCDocs\Arcadis\AUS-ASHLAND-RENSSELAER-RENSSELAER New York\Project Files\2021\01-In Progress\01-DWG\GEN-FIG01-SITE PLAN.dwg LAYOUT: 1 SAVED: 12/2/2020 9:55 AM ACADVER: 24.0S (LMS TECH) PAGESETUP: --- PLOTSTYLETABLE: PLTFULL.CTB PLOTTED: 8/11/2021 11:18 AM BY: JADHAV, PRAJAKTA
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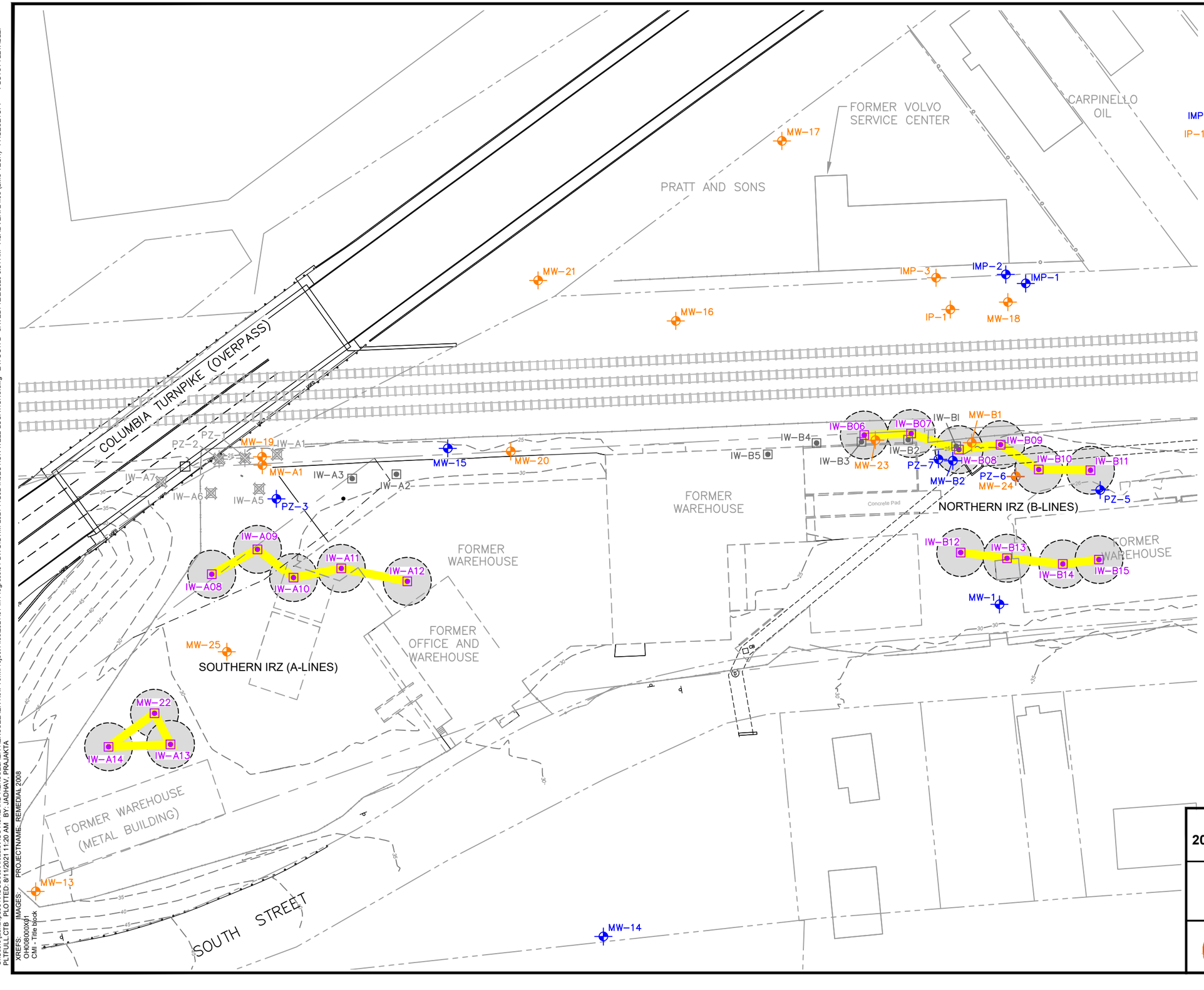

LEGEND:

- IMP-1/MW-1/PZ-1 — GROUNDWATER GAUGING WELL
- IP-1/IMP-3/MW-16 — PERFORMANCE MONITORING GROUNDWATER SAMPLING LOCATIONS
- IW-A2 — SHALLOW INJECTION WELL LOCATION (2010)
- IW-A14 — ERD SYSTEM OPTIMIZATION INJECTION WELL (2018)
- SURFACE CONTOUR
- RAILROAD TRACK
- CULVERTED STREAM PIPE
- PROPERTY LINE
- FORMER BUILDINGS AND STRUCTURES
- WELLS ABANDONED IN 2018
- EXTENT OF IN-SITU REACTIVE ZONE (IRZ)
- LATERAL EXTENT OF INFLUENCE (30 FEET)

NOTES:

1. IRZ WELLS IW-A6 AND IW-A7 WERE INSTALLED UNDER THE COLUMBIA TURNPIKE OVERPASS.
2. LOCATIONS AND TOPOGRAPHY EAST OF CSX RAILROAD PROPERTY AND WEST OF AND INCLUDING SOUTH STREET, SURVEYED BY THEW ASSOCIATES PE-LS, PLLC (OCTOBER 2008). TWO NEW MONITORING WELLS, MW-20 & MW-21, AND TEN NEW INJECTION WELLS, IW-A2 THROUGH IW-A7 & IW-B2 THROUGH IW-B5, WERE SURVEYED ON JULY 2, 2010 BY THEW ASSOCIATES. ONE NEW MONITORING WELL (MW-25) AND 17 NEW INJECTION WELLS (IW-A08 THROUGH IW-A14; IW-B06 THROUGH IW-B15) WERE SURVEYED ON DECEMBER 5, 2018 BY THEW ASSOCIATES, ALONG WITH THREE DUAL-PURPOSE MONITORING AND INJECTION WELLS INSTALLED IN 2017 (MW-22 THROUGH MW-24).
3. REFERENCED HORIZONTALLY TO THE NORTH AMERICAN DATUM OF 1983 (NAD83) AND PROJECTED ON THE NEW YORK STATE PLANE COORDINATE SYSTEM (EAST ZONE). VERTICAL REFERENCE TO NGVD 1929.
4. ASHLAND PROPERTY BOUNDARY ESTABLISHED BY THEW ASSOCIATES SURVEY AND DEED RESEARCH (OCTOBER 2008). OTHER PROPERTY LINES AND MAP FEATURES ARE FROM RENSSELAER COUNTY TAX MAPPING AND NEW YORK STATE CLEARING-HOUSE AERIAL PHOTOGRAPHY.
5. SHALLOW SOUTHERN IRZ (A LINE) CONSISTS OF THE FOLLOWING WELLS: IW-A2 AND IW-A3, IW-A5, IW-A6, AND IW-A7 WERE ABANDONED IN 2018.
6. SHALLOW NORTHERN IRZ (B LINE) CONSISTS OF THE FOLLOWING WELLS : IW-B1 THROUGH IW-B5.

0 60' 120'

GRAPHIC SCALE

ASHLAND INC.
RENSSELAER, NEW YORK
2021 CORRECTIVE MEASURES IMPLEMENTATION ANNUAL PROGRESS REPORT

IRZ AREA INJECTION WELL LOCATIONS

ARCADIS Design & Consultancy for natural and built assets

FIGURE 2

CITY: SYRACUSE, NY DIV/GROUP: ENV/IM-DV DB: R. BASSETT, E. KRAHMER, R. ALLEN PM: W. GOLLA TM/TR: K. POTTER LYR:ON=*;OFF=REF; (FRZ)
C:\Users\jadhavp\89541ACCDocs\Arcadis\AUS-ASHLAND-RENSSELAER-RENSSELAER New York\Project Files\20211101-In Progress\01-DWG\GWM-2021-FIG02-INJECTION WELL LOCATIONS.dwg LAYOUT: 2 SAVED: 12/2/2020 9:54 AM ACADVER: 24.0S (LMS TECH) PAGESETUP: --- PLOTSTYLETABLE:
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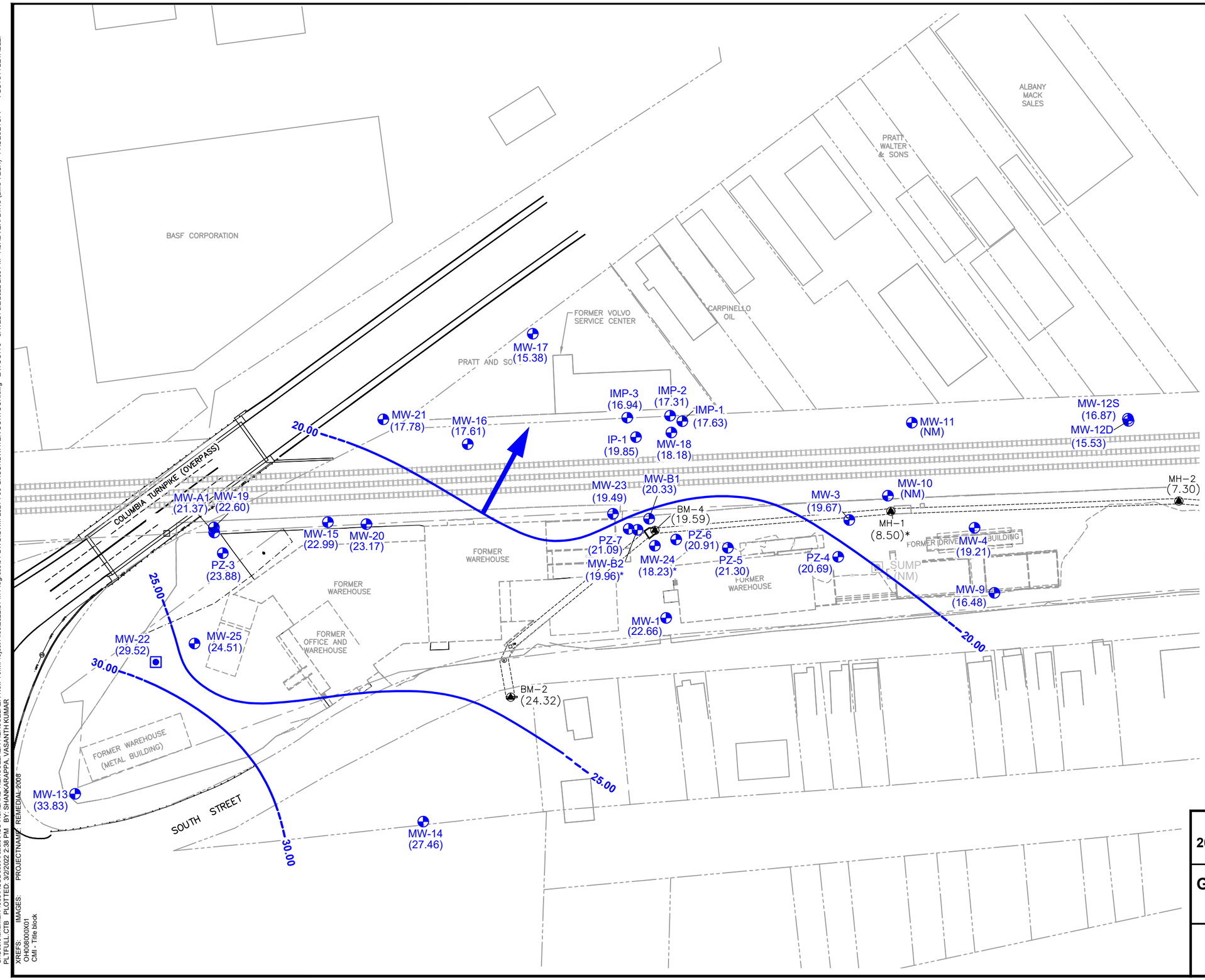

LEGEND:

- MW-1 / GP-18 / IMP-1 / IP-1 — PERFORMANCE MONITORING GROUNDWATER SAMPLING LOCATIONS
- (33.83) — GROUNDWATER ELEVATION COLLECTED ON APRIL 14, 2021 (FEET)
- MW-22 — ERD SYSTEM OPTIMIZATION INJECTION WELL(2017)
- GROUNDWATER ELEVATION CONTOUR LINE (DASHED WHERE INFERRED)
- MH–1 — CULVERTED STREAM PIPE INVERT ELEVATION/SURFACE WATER ELEVATION (NOT USED IN CONTOURING)
- SURFACE CONTOUR
- RAILROAD TRACK
- CULVERTED STREAM PIPE
- PROPERTY LINE
- FORMER BUILDINGS AND STRUCTURES
- * — WELL NOT USED IN CONTOURING
- (NM) — NOT MEASURED

NOTES:

1. INVERT ELEVATIONS FOR THE CULVERTED STREAM THAT RUNS EAST TO NORTHEAST ON THE SITE WERE SURVEYED BY THEW ASSOCIATES PE–LS, PLCC (OCTOBER 2008).
2. LOCATIONS AND TOPOGRAPHY EAST OF CSX RAILROAD PROPERTY AND WEST OF AND INCLUDING SOUTH STREET, SURVEYED BY THEW ASSOCIATES PE–LS, PLLC (OCTOBER 2008). TWO NEW MONITORING WELLS, MW–20 & MW–21, WERE SURVEYED ON JULY 2, 2010 BY THEW ASSOCIATES. REFERENCED HORIZONTALLY TO THE NORTH AMERICAN DATUM OF 1983 (NAD83) AND PROJECTED ON THE NEW YORK STATE PLANE COORDINATE SYSTEM (EAST ZONE). VERTICAL REFERENCE TO NGVD 1929. ASHLAND PROPERTY BOUNDARY ESTABLISHED BY THEW ASSOCIATES SURVEY AND DEED RESEARCH (OCTOBER 2008). OTHER PROPERTY LINES AND MAP FEATURES ARE FROM RENSSELAER COUNTY TAX MAPPING AND NEW YORK STATE CLEARING–HOUSE AERIAL PHOTOGRAPHY.
3. MONITORING WELLS MW–22 THROUGH MW–24 LOCATIONS ARE APPROXIMATE.

0 100' 200'

ASHLAND INC.
RENSSELAER, NEW YORK

2021 CORRECTIVE MEASURES IMPLEMENTATION ANNUAL PROGRESS REPORT

GROUNDWATER ELEVATION CONTOURS APRIL 14, 2021

ARCADIS

FIGURE 3

CITY: SYRACUSE, NY GROUP: ENVCAD DB: P. LISTER, E. KRAHMER, R. ALLEN PM: M. KITTINGER TM/TR: K. POTTER LYR:ON=*;OFF=REF, (FRZ)
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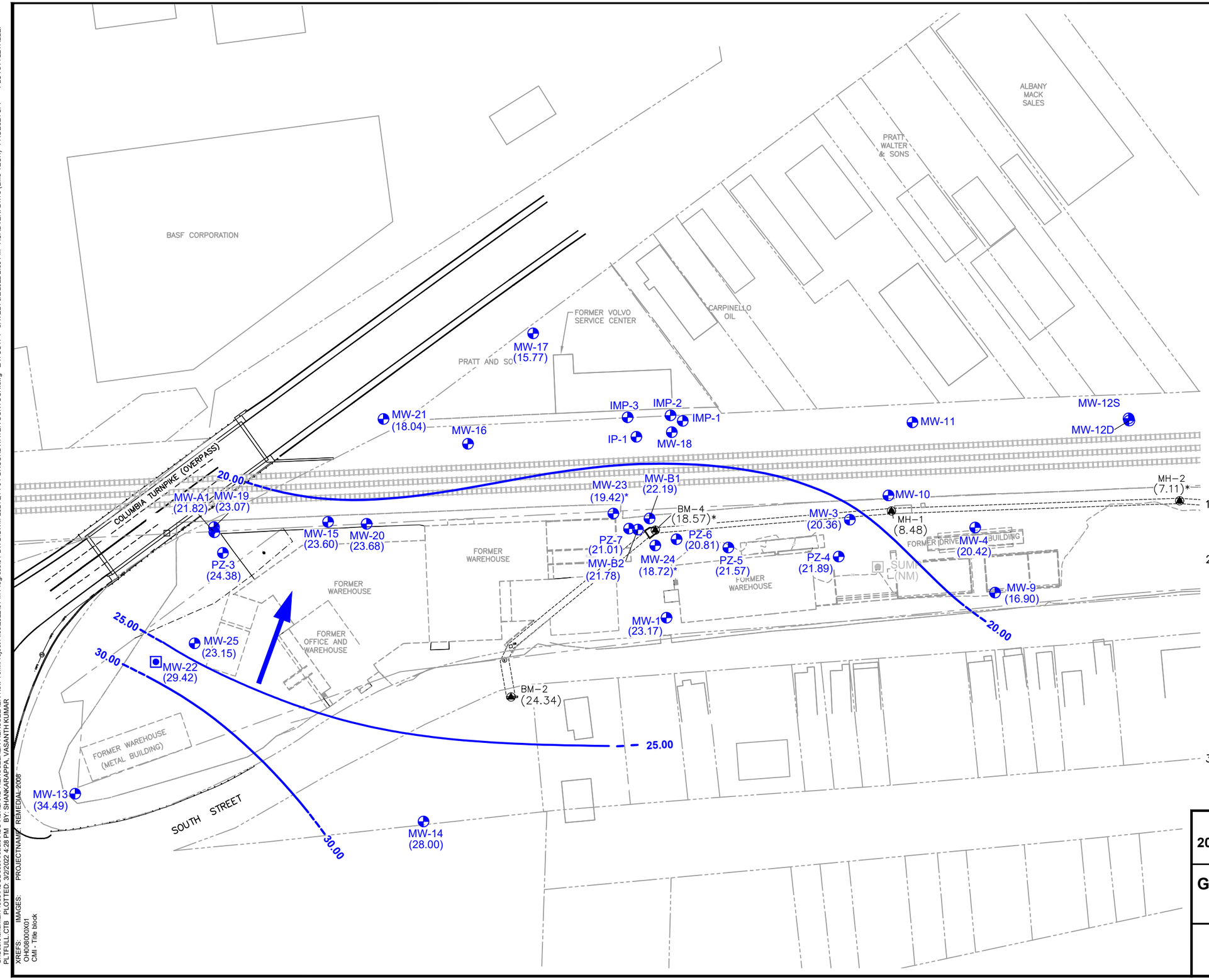

LEGEND:

- MW-13 / IMP-1 — PERFORMANCE MONITORING GROUNDWATER SAMPLING LOCATIONS
- (34.49) — GROUNDWATER ELEVATION COLLECTED ON APRIL 14, 2021 (FEET)
- MW-22 — ERD SYSTEM OPTIMIZATION INJECTION WELL(2017)
- GROUNDWATER ELEVATION CONTOUR LINE (DASHED WHERE INFERRED)
- MH–1 — CULVERTED STREAM PIPE INVERT ELEVATION/SURFACE WATER ELEVATION (NOT USED IN CONTOURING)
- SURFACE CONTOUR
- RAILROAD TRACK
- CULVERTED STREAM PIPE
- PROPERTY LINE
- FORMER BUILDINGS AND STRUCTURES
- * WELL NOT USED IN CONTOURING
- (NM) NOT MEASURED

NOTES:

1. INVERT ELEVATIONS FOR THE CULVERTED STREAM THAT RUNS EAST TO NORTHEAST ON THE SITE WERE SURVEYED BY THEW ASSOCIATES PE–LS, PLCC (OCTOBER 2008).
2. LOCATIONS AND TOPOGRAPHY EAST OF CSX RAILROAD PROPERTY AND WEST OF AND INCLUDING SOUTH STREET, SURVEYED BY THEW ASSOCIATES PE–LS, PLLC (OCTOBER 2008). TWO NEW MONITORING WELLS, MW–20 & MW–21, WERE SURVEYED ON JULY 2, 2010 BY THEW ASSOCIATES. REFERENCED HORIZONTALLY TO THE NORTH AMERICAN DATUM OF 1983 (NAD83) AND PROJECTED ON THE NEW YORK STATE PLANE COORDINATE SYSTEM (EAST ZONE). VERTICAL REFERENCE TO NGVD 1929. ASHLAND PROPERTY BOUNDARY ESTABLISHED BY THEW ASSOCIATES SURVEY AND DEED RESEARCH (OCTOBER 2008). OTHER PROPERTY LINES AND MAP FEATURES ARE FROM RENSSELAER COUNTY TAX MAPPING AND NEW YORK STATE CLEARING–HOUSE AERIAL PHOTOGRAPHY.
3. MONITORING WELLS MW–22 THROUGH MW–24 LOCATIONS ARE APPROXIMATE.

0 100' 200'

ASHLAND INC.
RENSSELAER, NEW YORK

2021 CORRECTIVE MEASURES IMPLEMENTATION ANNUAL PROGRESS REPORT

GROUNDWATER ELEVATION CONTOURS NOVEMBER 22, 2021

ARCADIS

FIGURE 4

CITY: SYRACUSE, NY GROUP: ENVCAD DB: P. LISTER, E. KRAHMER, R. ALLEN PM: M. KITTINGER TM/TR: K. POTTER LYR:ON=*;OFF=REF,(FRZ)
C:\Users\shankarv4688\ACCDocs\Arcadis\AUS-ASHLAND-RENSSELAER-RENSSELAER New York\Project Files\2022\01-In Progress\01-DWG\GWM-202104-F04-GROUNDWATER CONTOUR.dwg LAYOUT: 4 SAVED: 3/2/2022 2:38 PM ACADVER: 24.1S (LMS TECH) PAGESETUP: ---- PLOTSTYLETABLE:
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XREFS: IMAGES:
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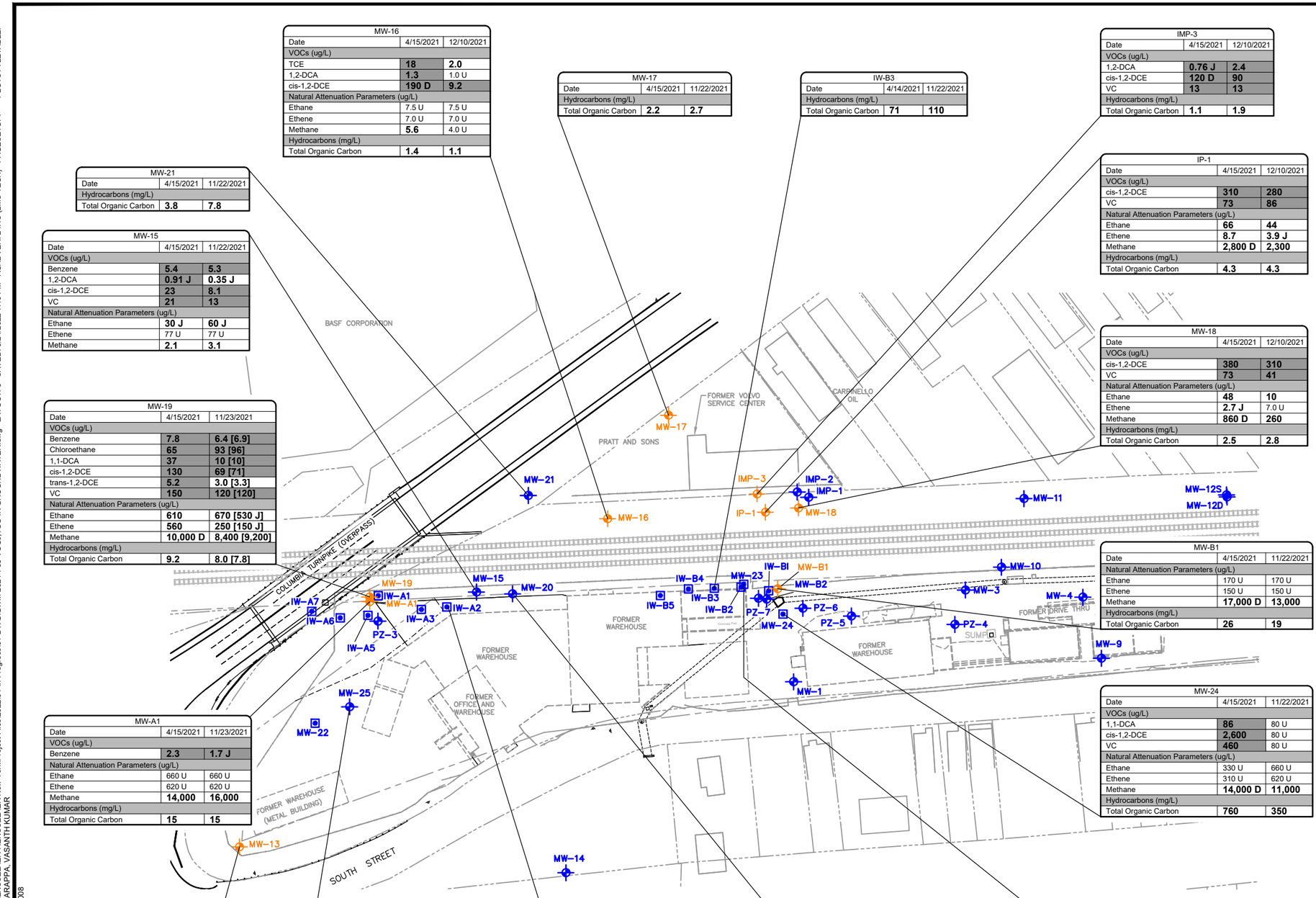
CMI - Title block
PROJECTNAME: REMEDIAL-2008



MW-16		
Date	4/15/2021	12/10/2021
VOCs (ug/L)		
TCE	**18**	**2.0**
1,2-DCA	**1.3**	1.0 U
cis-1,2-DCE	**190 D**	**9.2**
Natural Attenuation Parameters (ug/L)		
Ethane	7.5 U	7.5 U
Ethene	7.0 U	7.0 U
Methane	**5.6**	4.0 U
Hydrocarbons (mg/L)		
Total Organic Carbon	**1.4**	**1.1**

MW-17		
Date	4/15/2021	11/22/2021
Hydrocarbons (mg/L)		
Total Organic Carbon	**2.2**	**2.7**

IW-B3		
Date	4/14/2021	11/22/2021
Hydrocarbons (mg/L)		
Total Organic Carbon	**71**	**110**

IMP-3		
Date	4/15/2021	12/10/2021
VOCs (ug/L)		
1,2-DCA	**0.76 J**	**2.4**
cis-1,2-DCE	**120 D**	**90**
VC	**13**	**13**
Hydrocarbons (mg/L)		
Total Organic Carbon	**1.1**	**1.9**

MW-21		
Date	4/15/2021	11/22/2021
Hydrocarbons (mg/L)		
Total Organic Carbon	**3.8**	**7.8**

IP-1		
Date	4/15/2021	12/10/2021
VOCs (ug/L)		
cis-1,2-DCE	**310**	**280**
VC	**73**	**86**
Natural Attenuation Parameters (ug/L)		
Ethane	**66**	**44**
Ethene	**8.7**	**3.9 J**
Methane	**2,800 D**	**2,300**
Hydrocarbons (mg/L)		
Total Organic Carbon	**4.3**	**4.3**

MW-15		
Date	4/15/2021	11/22/2021
VOCs (ug/L)		
Benzene	**5.4**	**5.3**
1,2-DCA	**0.91 J**	**0.35 J**
cis-1,2-DCE	**23**	**8.1**
VC	**21**	**13**
Natural Attenuation Parameters (ug/L)		
Ethane	**30 J**	**60 J**
Ethene	77 U	77 U
Methane	**2.1**	**3.1**

MW-18		
Date	4/15/2021	12/10/2021
VOCs (ug/L)		
cis-1,2-DCE	**380**	**310**
VC	**73**	**41**
Natural Attenuation Parameters (ug/L)		
Ethane	**48**	**10**
Ethene	**2.7 J**	7.0 U
Methane	**860 D**	**260**
Hydrocarbons (mg/L)		
Total Organic Carbon	**2.5**	**2.8**

MW-19		
Date	4/15/2021	11/23/2021
VOCs (ug/L)		
Benzene	**7.8**	**6.4 [6.9]**
Chloroethane	**65**	**93 [96]**
1,1-DCA	**37**	**10 [10]**
cis-1,2-DCE	**130**	**69 [71]**
trans-1,2-DCE	**5.2**	**3.0 [3.3]**
VC	**150**	**120 [120]**
Natural Attenuation Parameters (ug/L)		
Ethane	**610**	**670 [530 J]**
Ethene	**560**	**250 [150 J]**
Methane	**10,000 D**	**8,400 [9,200]**
Hydrocarbons (mg/L)		
Total Organic Carbon	**9.2**	**8.0 [7.8]**

MW-B1		
Date	4/15/2021	11/22/2021
Natural Attenuation Parameters (ug/L)		
Ethane	170 U	170 U
Ethene	150 U	150 U
Methane	**17,000 D**	**13,000**
Hydrocarbons (mg/L)		
Total Organic Carbon	**26**	**19**

MW-A1		
Date	4/15/2021	11/23/2021
VOCs (ug/L)		
Benzene	**2.3**	**1.7 J**
Natural Attenuation Parameters (ug/L)		
Ethane	660 U	660 U
Ethene	620 U	620 U
Methane	**14,000**	**16,000**
Hydrocarbons (mg/L)		
Total Organic Carbon	**15**	**15**

MW-24		
Date	4/15/2021	11/22/2021
VOCs (ug/L)		
1,1-DCA	**86**	80 U
cis-1,2-DCE	**2,600**	80 U
VC	**460**	80 U
Natural Attenuation Parameters (ug/L)		
Ethane	330 U	660 U
Ethene	310 U	620 U
Methane	**14,000 D**	**11,000**
Hydrocarbons (mg/L)		
Total Organic Carbon	**760**	**350**

MW-13		
Date	4/14/2021	11/22/2021
Hydrocarbons (mg/L)		
Total Organic Carbon	1 U	**0.5 J**

MW-25		
Date	4/15/2021	11/23/2021
VOCs (ug/L)		
PCE	**340 J**	**920**
TCE	**150 J**	**280**
cis-1,2-DCE	**870 J**	**680**
VC	**140**	**190**
Natural Attenuation Parameters (ug/L)		
Ethane	**740**	**600**
Ethene	**330**	**53 J**
Methane	**9,500 D**	**11,000**
Hydrocarbons (mg/L)		
Total Organic Carbon	**12**	**10**

IW-A2		
Date	4/15/2021	11/22/2021
VOCs (ug/L)		
Benzene	20 U	**13 J**
Xylenes (total)	**17 J**	**27 J**
Hydrocarbons (mg/L)		
Total Organic Carbon	**140**	**120**

MW-20		
Date	4/15/2021	11/23/2021
VOCs (ug/L)		
Benzene	**0.43 J**	**3.0**
PCE	**67**	**52**
TCE	**11**	**11**
cis-1,2-DCE	**10**	**16**
Natural Attenuation Parameters (ug/L)		
Ethane	7.5 U	**5.3 J**
Ethene	7.0 U	7.0 U
Methane	**880 D**	**1,400**
Hydrocarbons (mg/L)		
Total Organic Carbon	**4.5**	**3.6**

MW-23		
Date	4/14/2021	11/22/2021
Natural Attenuation Parameters (ug/L)		
Ethane	**200 [190]**	**98 J**
Ethene	77 U [77 U]	310 U
Methane	**15,000 D [15,000 D]**	**15,000**
Hydrocarbons (mg/L)		
Total Organic Carbon	**13**	**13**

LEGEND:

- IMP-1/MW-1/PZ-1 — GROUNDWATER GAUGING WELL
- IP-1/IMP-3/MW-16 — PERFORMANCE MONITORING GROUNDWATER SAMPLING LOCATIONS
- IW-B1 — INJECTION WELL LOCATION
- RAILROAD TRACK
- CULVERTED STREAM PIPE
- PROPERTY LINE
- FORMER BUILDINGS AND STRUCTURES
- D — COMPOUND QUANTITATED USING A SECONDARY DILUTION
- J — INDICATES AN ESTIMATED VALUE
- U — INDICATES THE ANALYTE WAS ANALYZED FOR BUT NOT DETECTED
- cis-1,2-DCE — CIS-1,2-DICHLOROETHENE
- VC — VINYL CHLORIDE
- PCE — TETRACHLOROETHENE
- TCE — TRICHLOROETHENE
- 1,2-DCA — 1,2-DICHLOROETHANE
- trans-1,2-DCE — TRANS-1,2-DICHLOROETHENE
- VOCs — VOLATILE ORGANIC COMPOUNDS
- NYSDEC TOGS — NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION TECHNICAL AND OPERATION GUIDANCE SERIES
- (µg/L) — MICROGRAMS PER LITER
- (mg/L) — MILLIGRAMS PER LITER

BOLD RESULTS DENOTE DETECTIONS

SHADED CELLS DENOTE RESULTS EXCEEDING NYSDEC TOGS 1.1.1 WATER GUIDANCE VALUES/STANDARDS

DUPLICATE RESULTS ARE IN BRACKETS

ONLY VOC CONSTITUENTS WITH ONE OR MORE EXCEEDANCES AT A GIVEN LOCATION ARE SUMMARIZED

LEGEND		
Analyte Unit	Units	NYSDEC TOGS 1.1.1 Water Guidance Values
Benzene	µg/L	1
Chloroethane	µg/L	5
1,1-Dichloroethane	µg/L	5
1,2-Dichloroethane	µg/L	0.6
cis-1,2-Dichloroethene	µg/L	5
Tetrachloroethene	µg/L	5
Trichloroethene	µg/L	5
trans-1,2-Dichloroethene	µg/L	5
Vinyl Chloride	µg/L	2
Xylenes (total)	µg/L	5
Ethane	µg/L	--
Ethene	µg/L	--
Methane	µg/L	--
Total Organic Carbon	µg/L	--

0 100' 200'

GRAPHIC SCALE

ASHLAND INC.
RENSSELAER, NEW YORK

2021 CORRECTIVE MEASURES IMPLEMENTATION ANNUAL PROGRESS REPORT

VOCs, TOC AND MNA PARAMETERS IN GROUNDWATER (2021)

ARCADIS

FIGURE **5**

CITY: SYRACUSE, NY DIV/GROUP: ENV/IM-DV DB: R. BASSETT, E. KRAHMER, R. ALLEN PM: W. GOLLA TM/TR: K. POTTER LYR:ON=*;OFF=*REF; (FR2)
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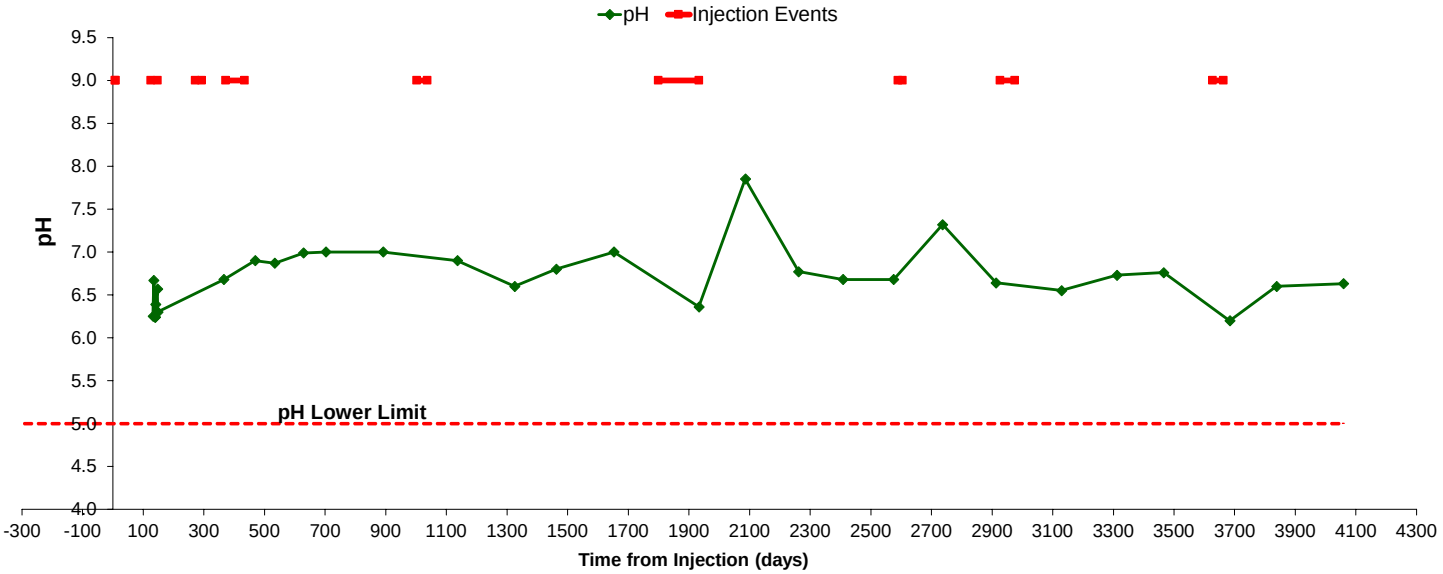

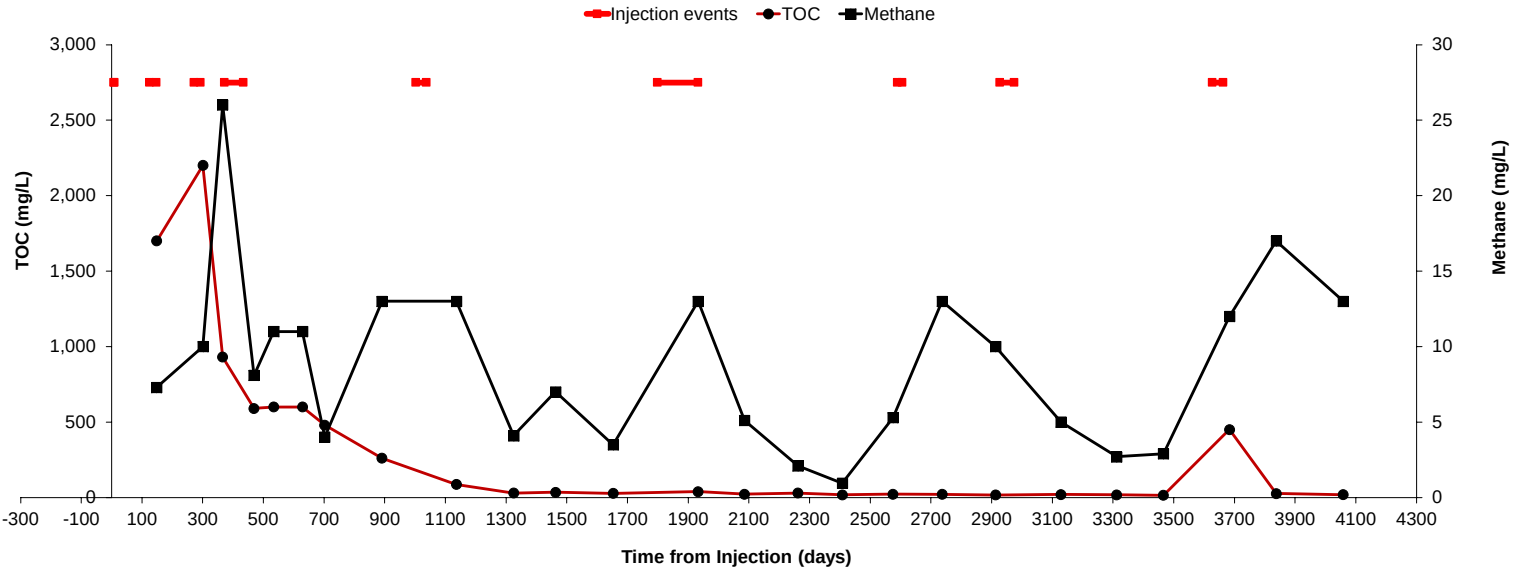

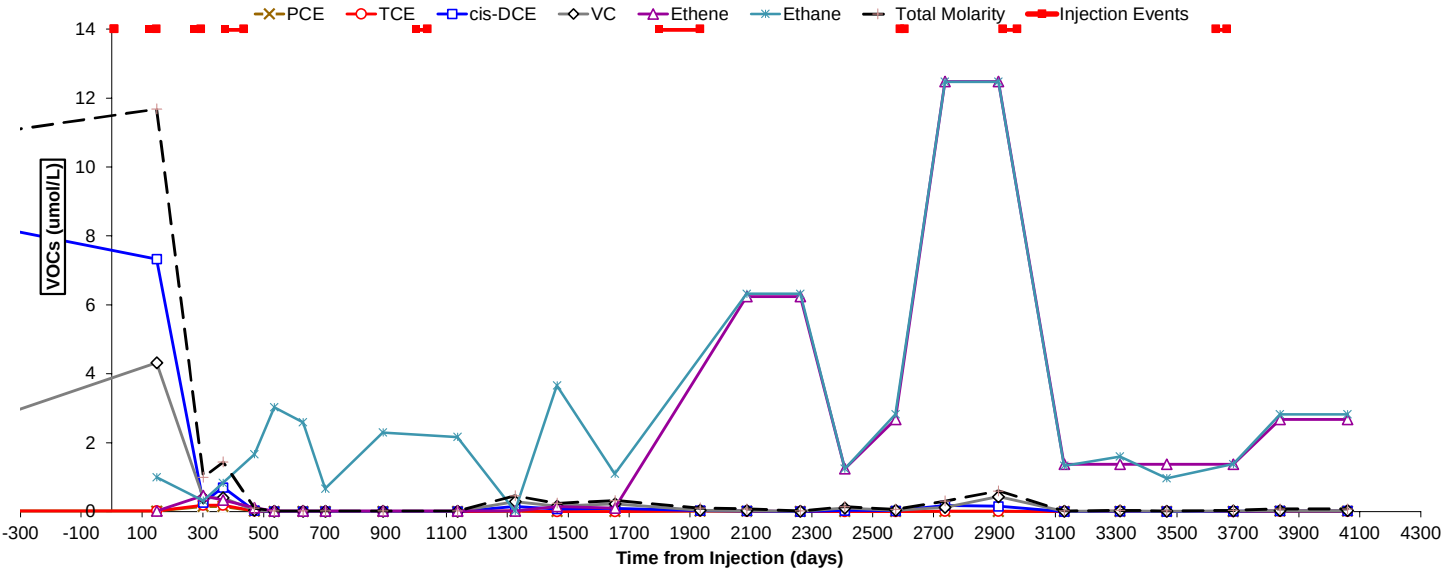

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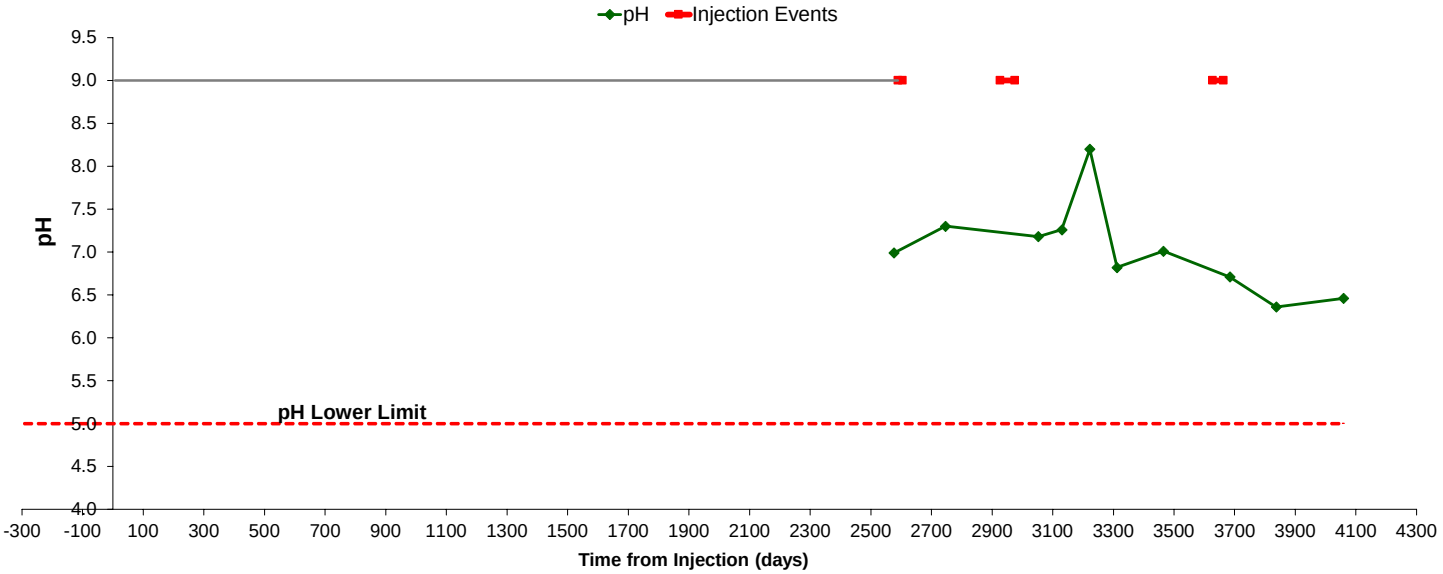
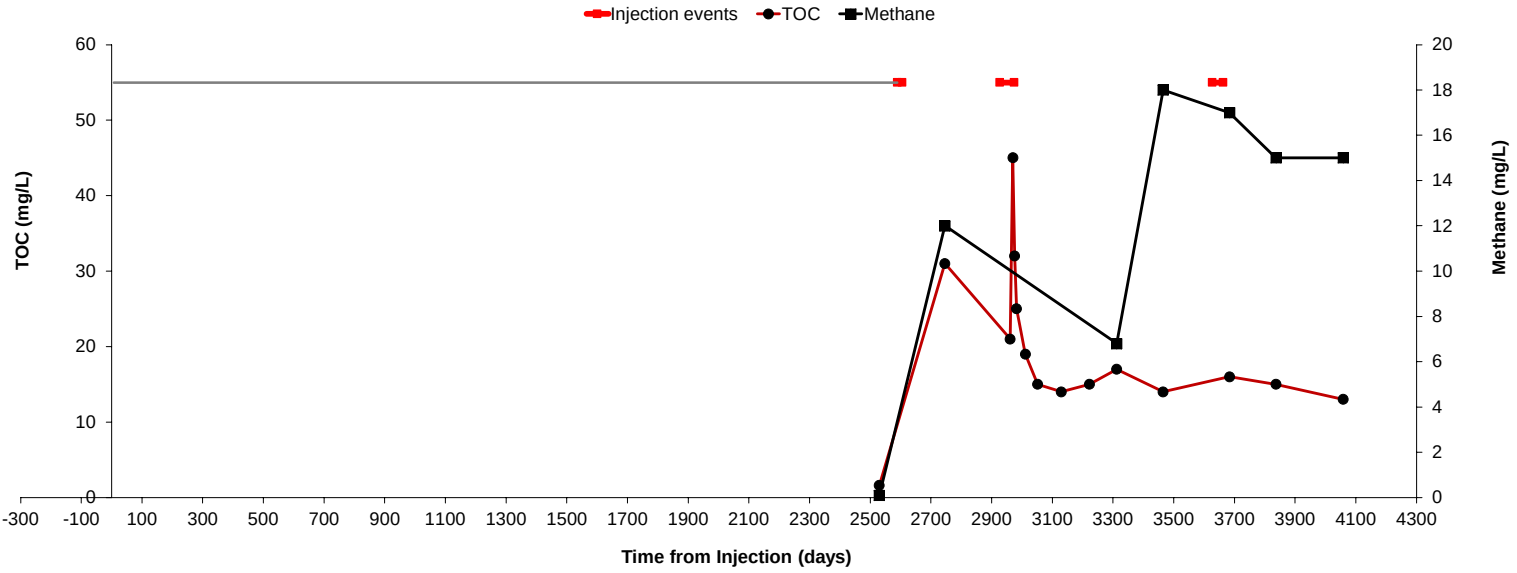
2021 CORRECTIVE MEASURE IMPLEMENTATION ANNUAL REPORT

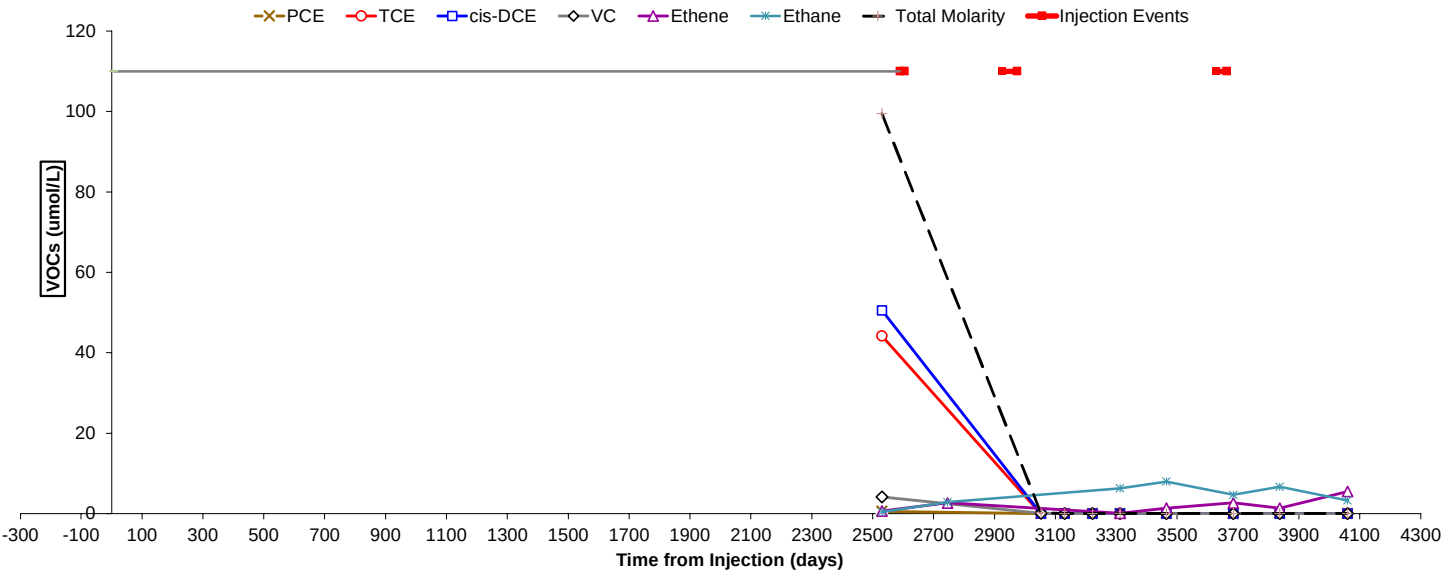
MW-B1 PERFORMANCE MONITORING RESULTS

ARCADIS

FIGURE
6







Note: Well was installed in September 2017. Gray lines indicate timeframe of historical injections completed prior to well installation and related remedial activity.

ASHLAND LLC.
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2021 CORRECTIVE MEASURE IMPLEMENTATION ANNUAL REPORT

MW-23 PERFORMANCE MONITORING RESULTS

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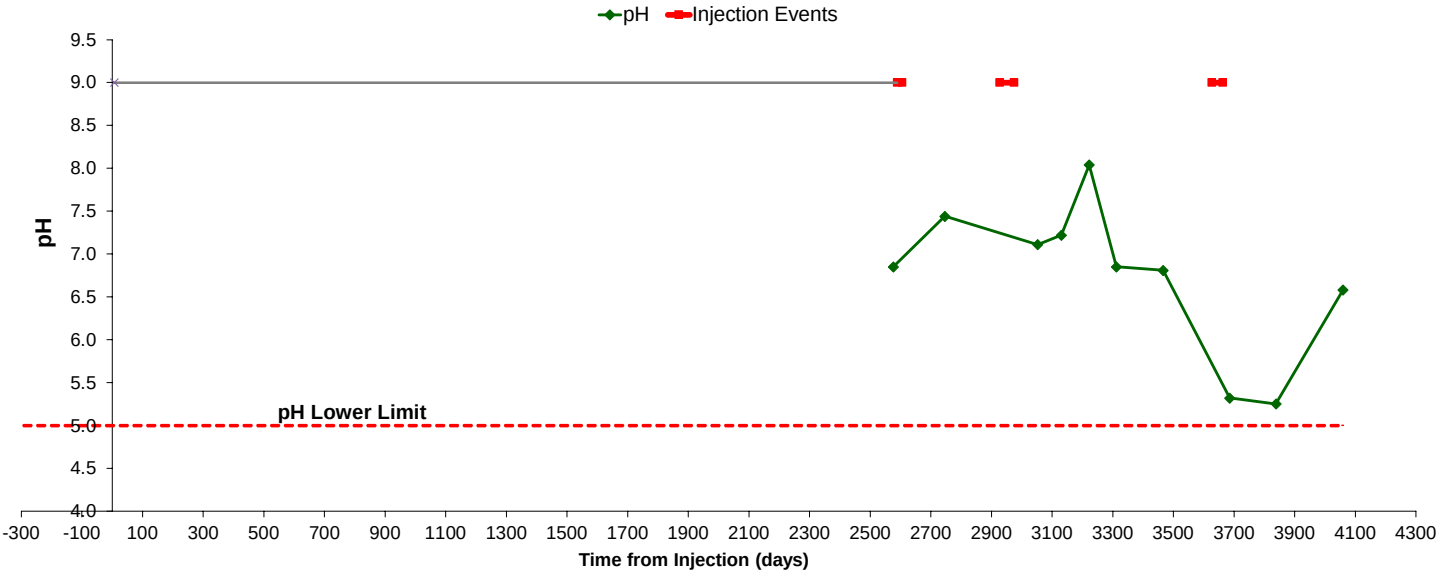
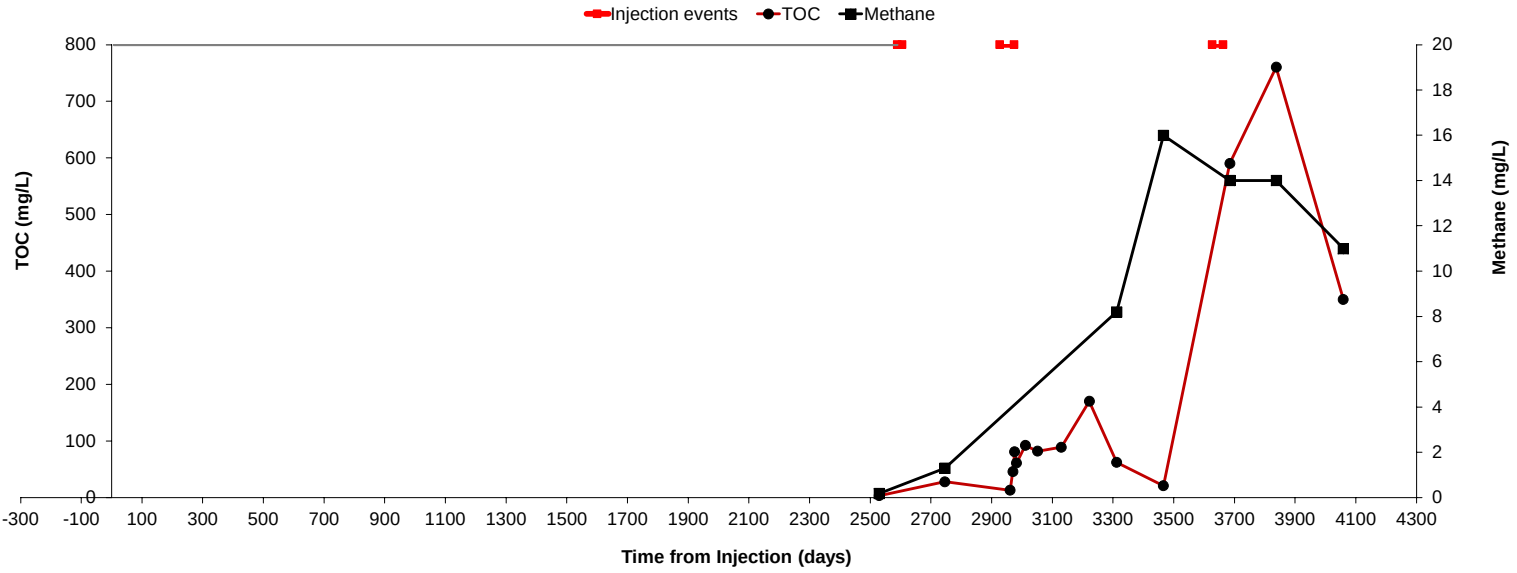
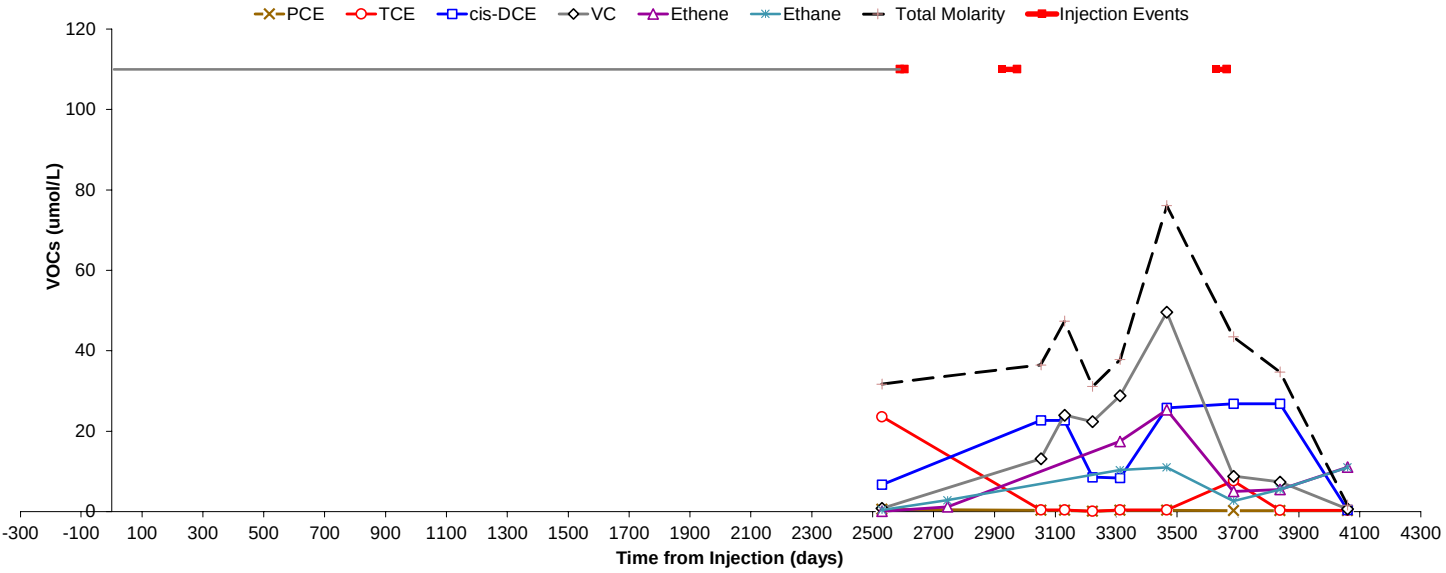
FIGURE
7







Note: Well was installed in September 2017. Gray lines indicate timeframe of historical injections completed prior to well installation and related remedial activity.

ASHLAND LLC.
RENSSELAER NEW YORK
2021 CORRECTIVE MEASURE IMPLEMENTATION ANNUAL REPORT

MW-24 PERFORMANCE MONITORING RESULTS

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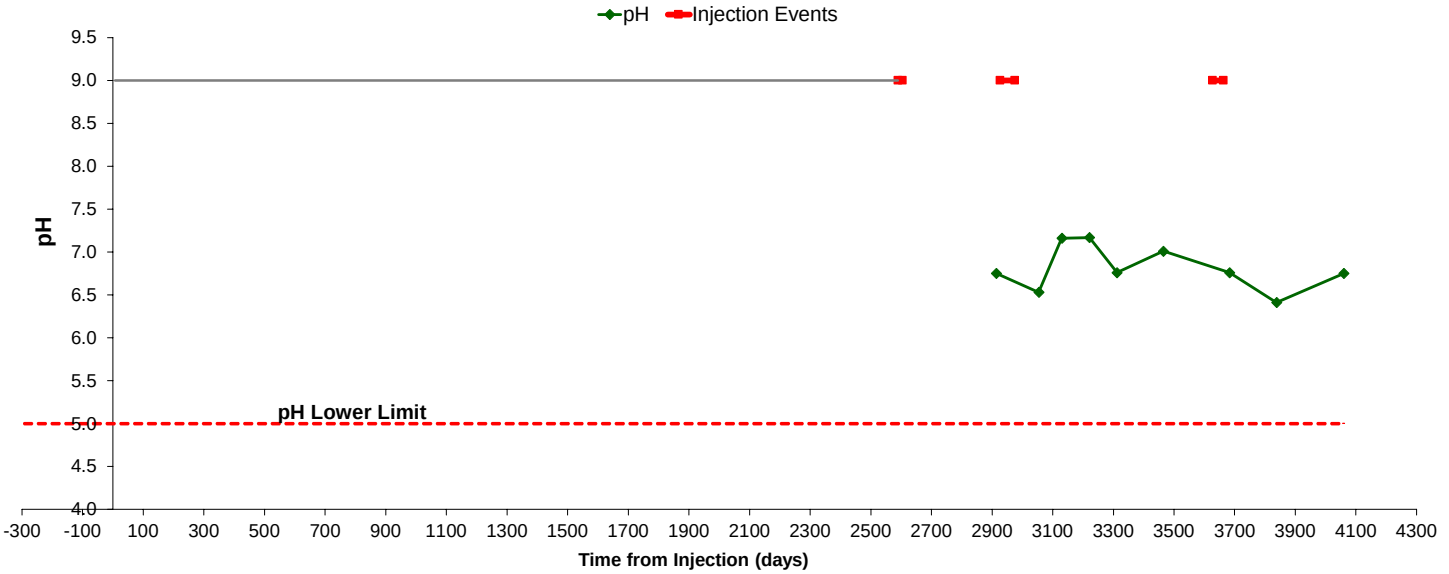
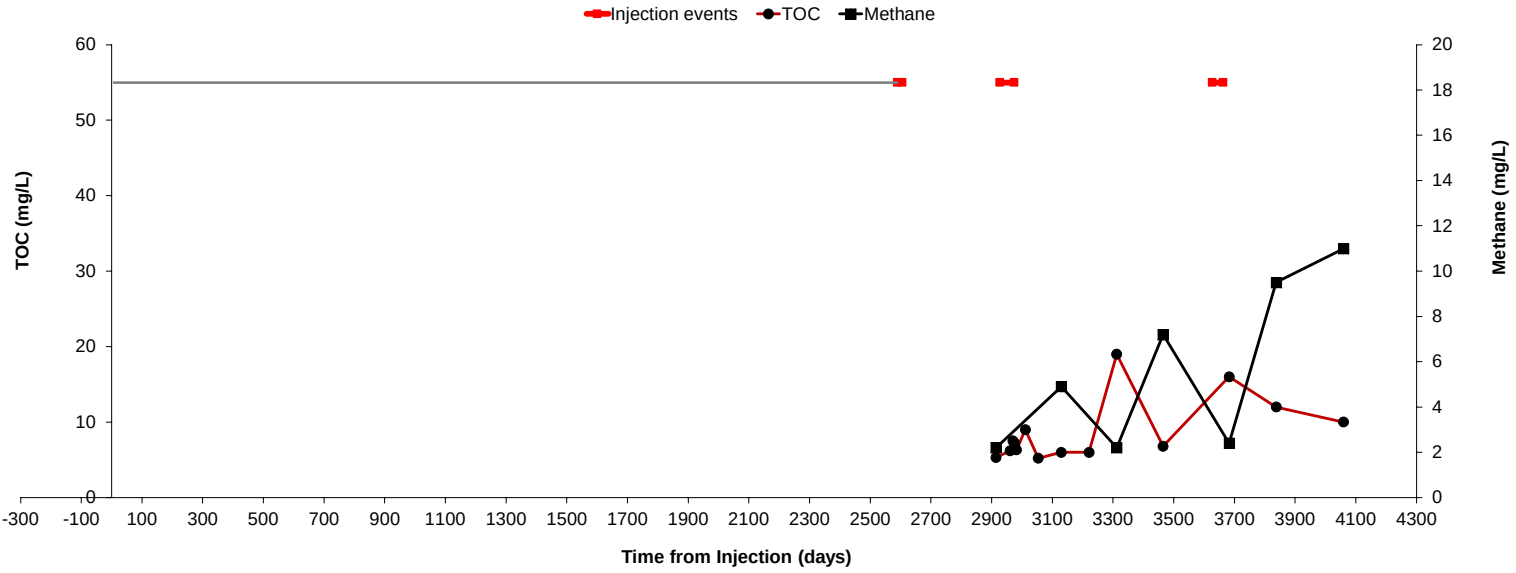
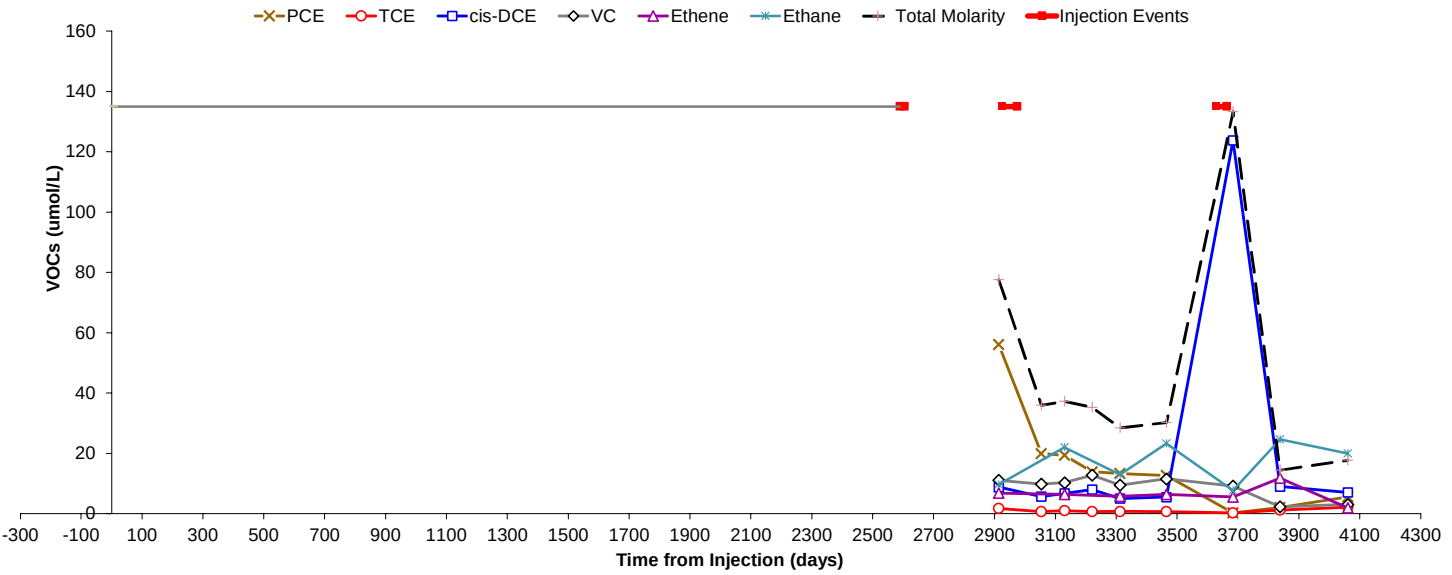
FIGURE
8







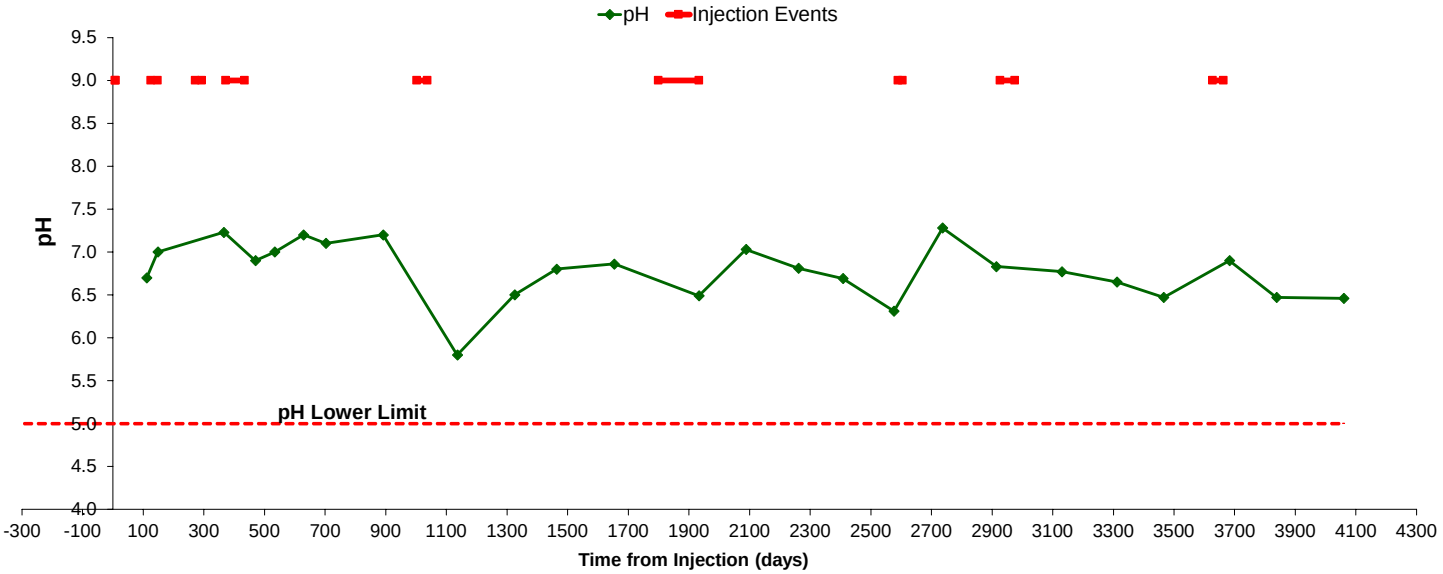
Note: Well was installed in October 2018. Gray lines indicate timeframe of historical injections completed prior to well installation and related remedial activity.

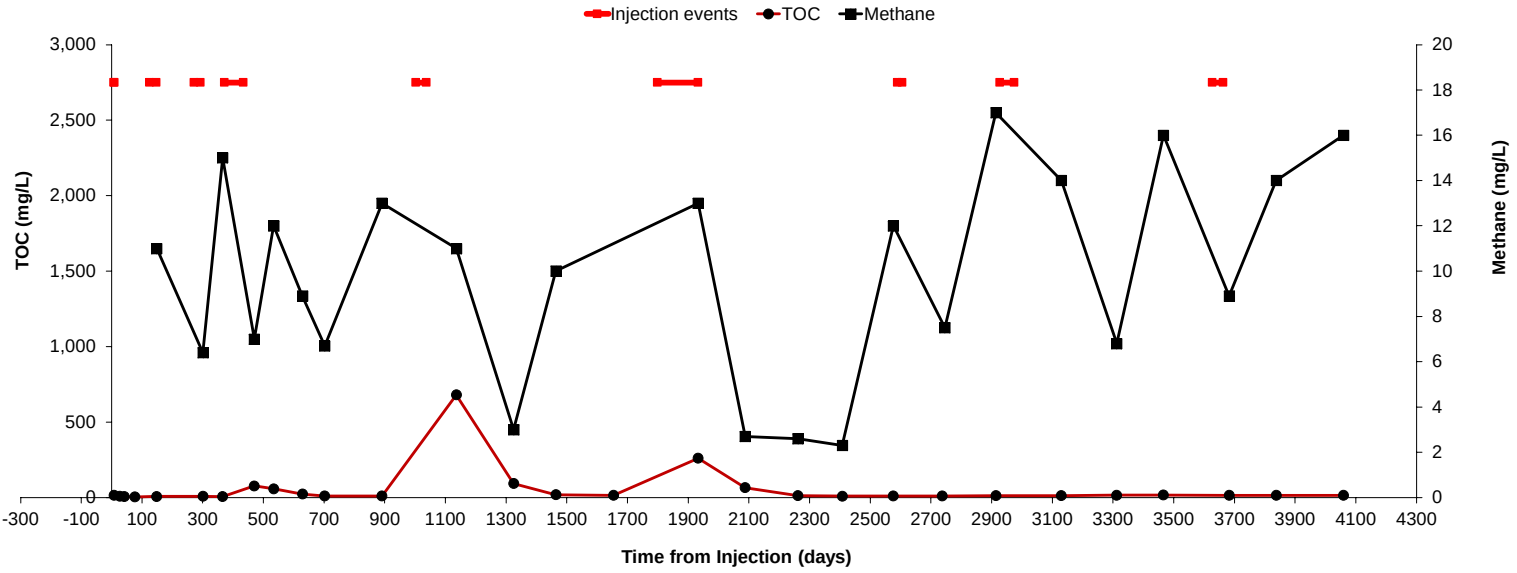
ASHLAND LLC.
RENSSELAER NEW YORK
2021 CORRECTIVE MEASURE IMPLEMENTATION ANNUAL REPORT

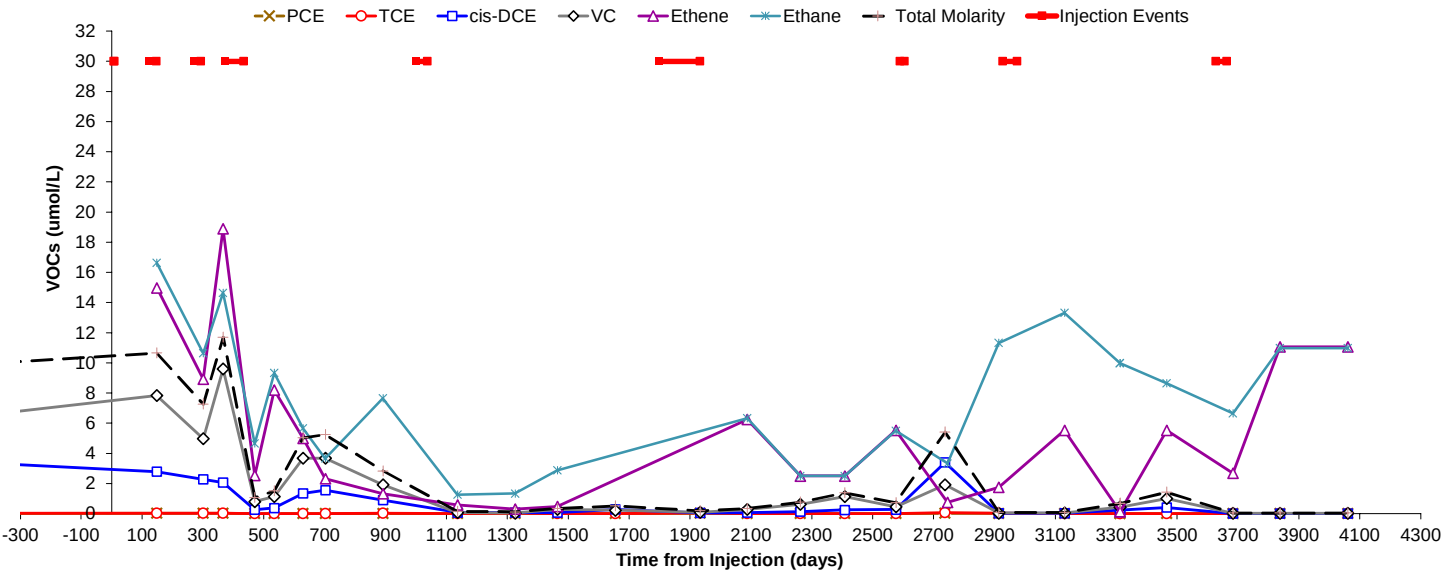
MW-25 PERFORMANCE MONITORING RESULTS

ARCADIS

FIGURE
9







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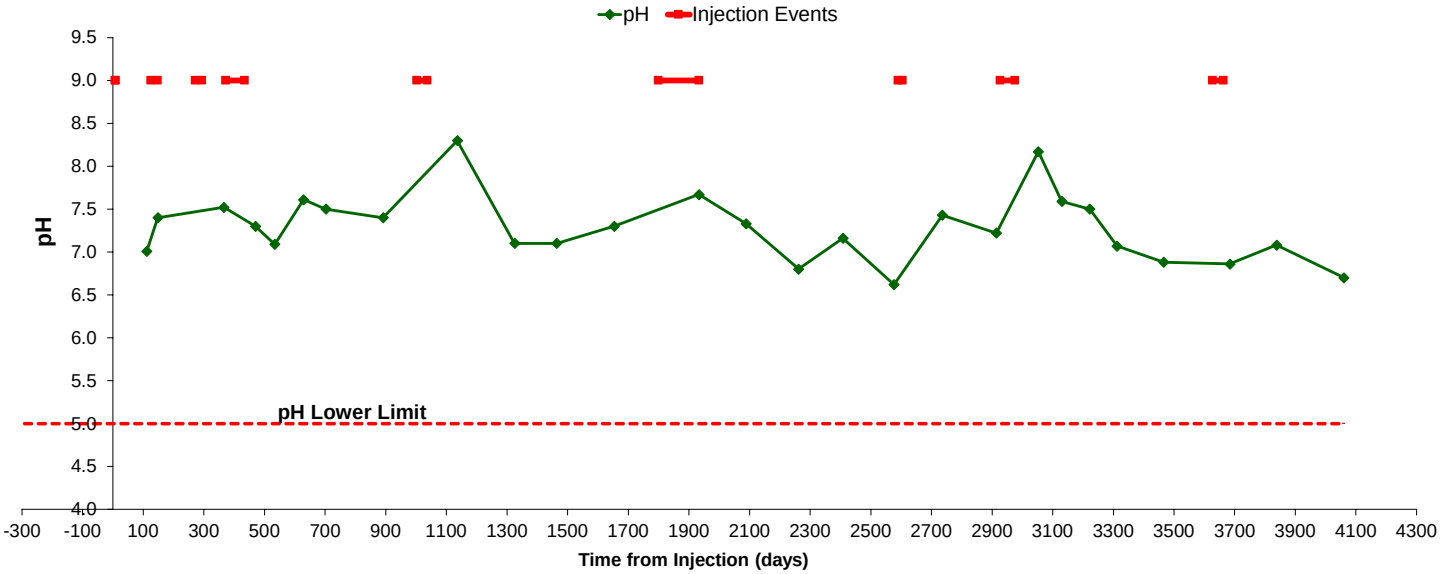
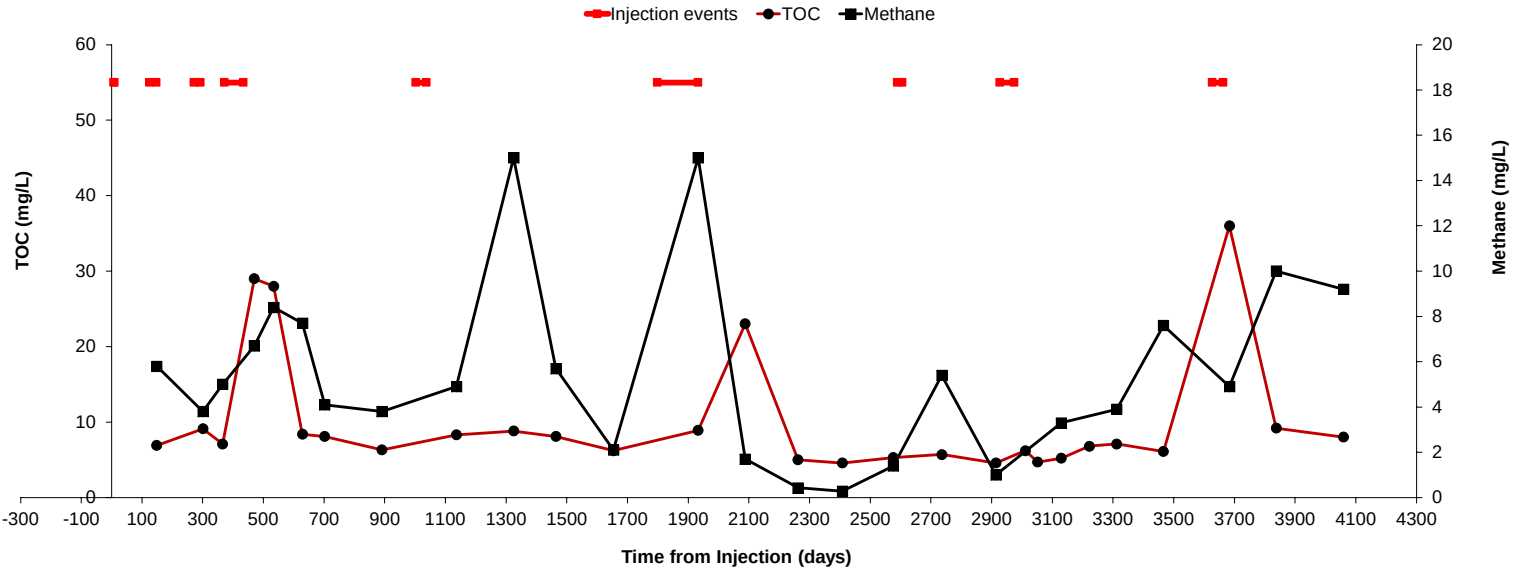
RENSSELAER NEW YORK
2021 CORRECTIVE MEASURE IMPLEMENTATION ANNUAL REPORT

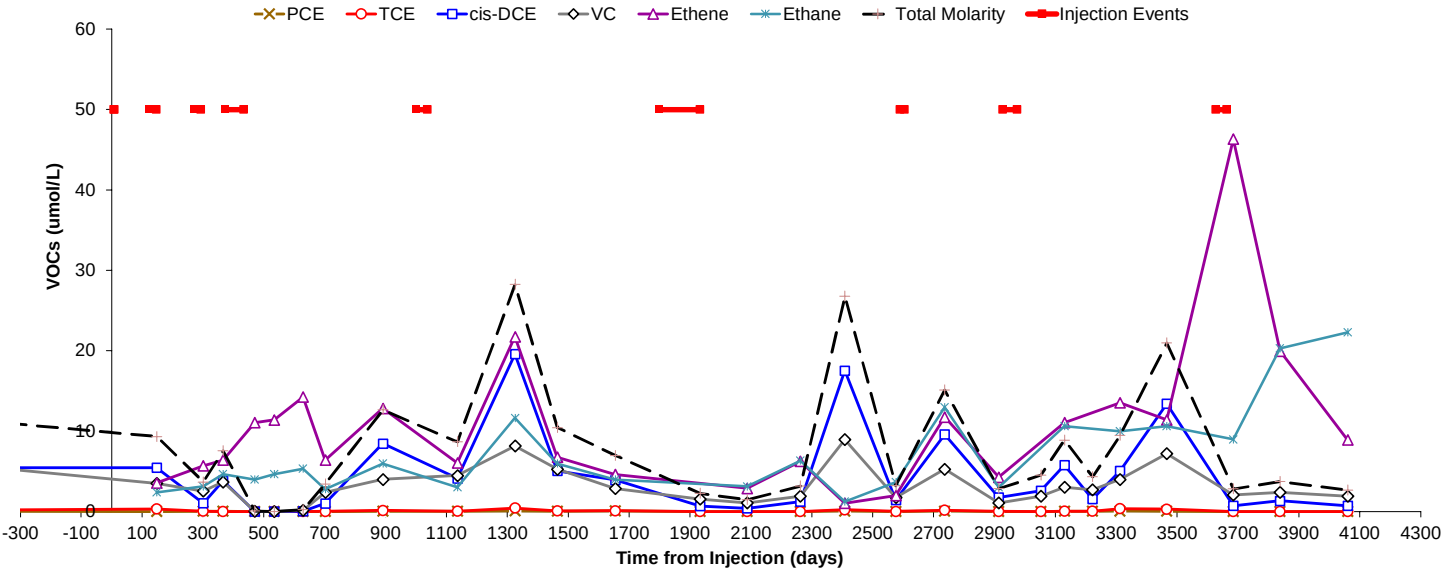
MW-A1 PERFORMANCE MONITORING RESULTS

ARCADIS

FIGURE
10







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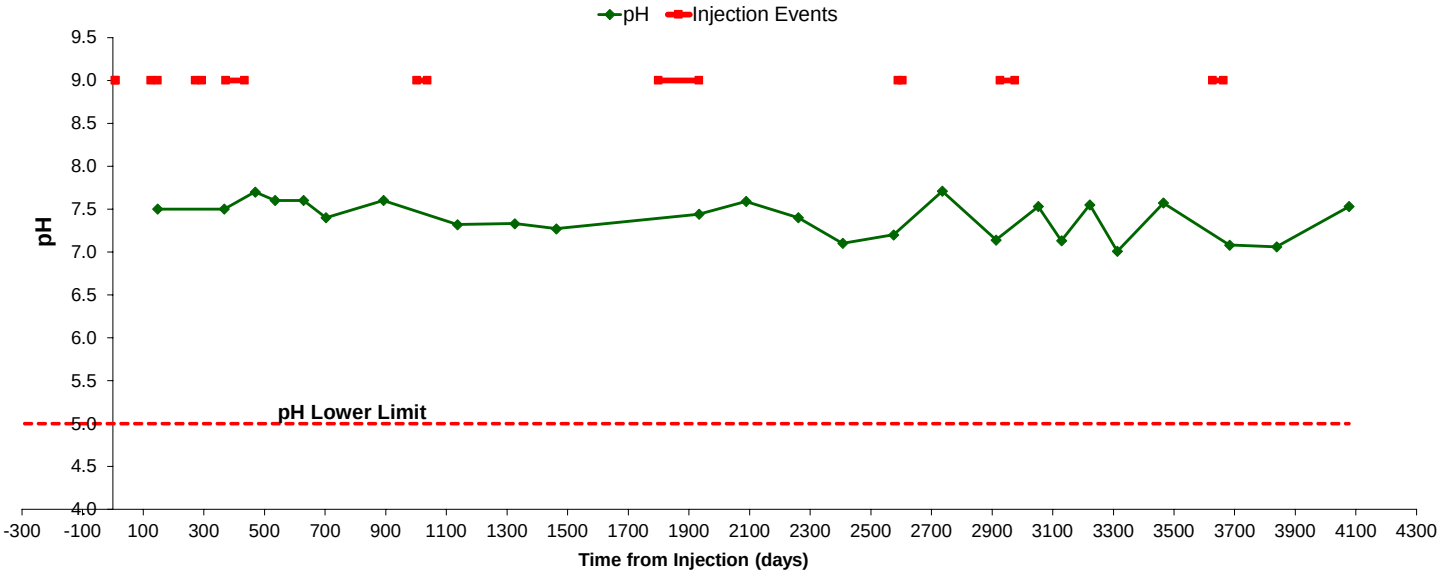
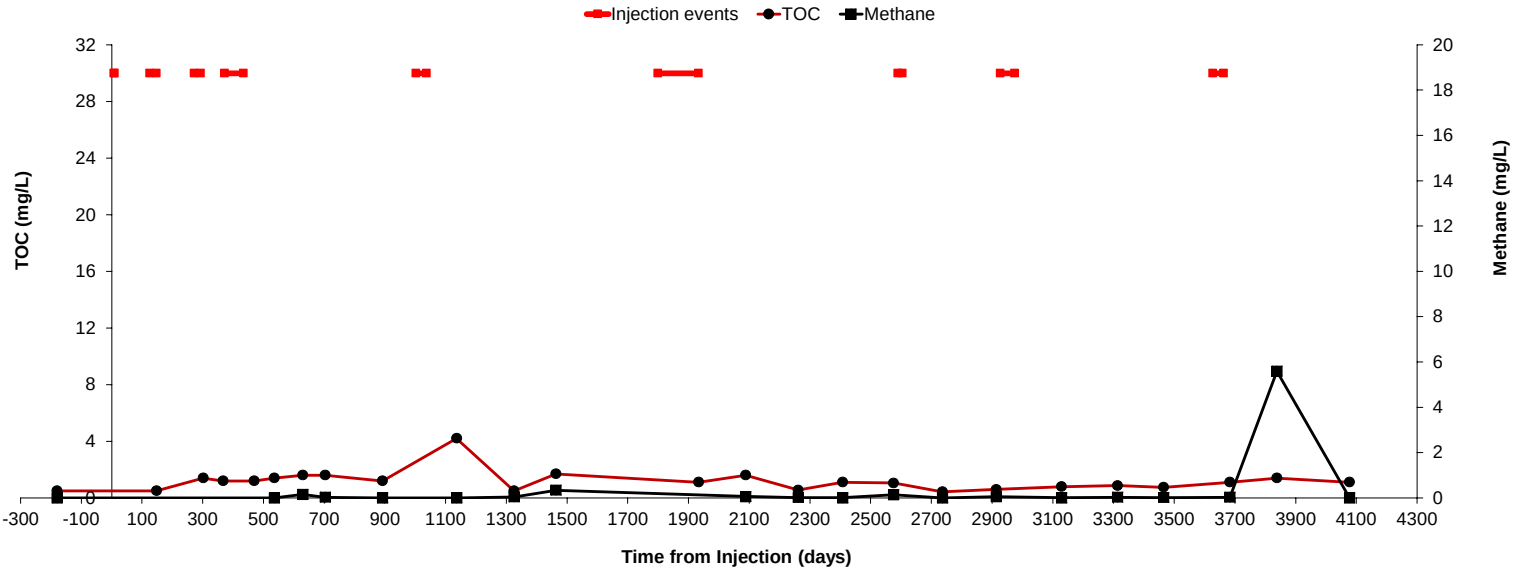
RENSSELAER NEW YORK
2021 CORRECTIVE MEASURE IMPLEMENTATION ANNUAL REPORT

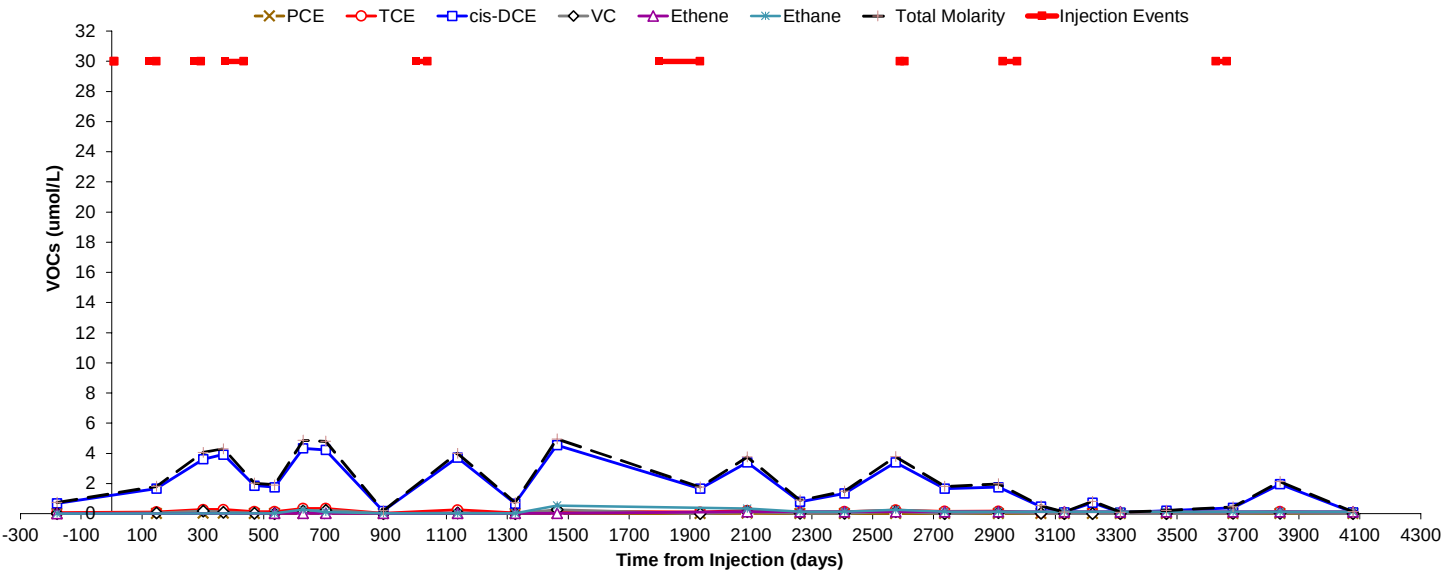
MW-19 PERFORMANCE MONITORING RESULTS

ARCADIS

FIGURE
11







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2021 CORRECTIVE MEASURE IMPLEMENTATION ANNUAL REPORT

MW-16 PERFORMANCE MONITORING RESULTS

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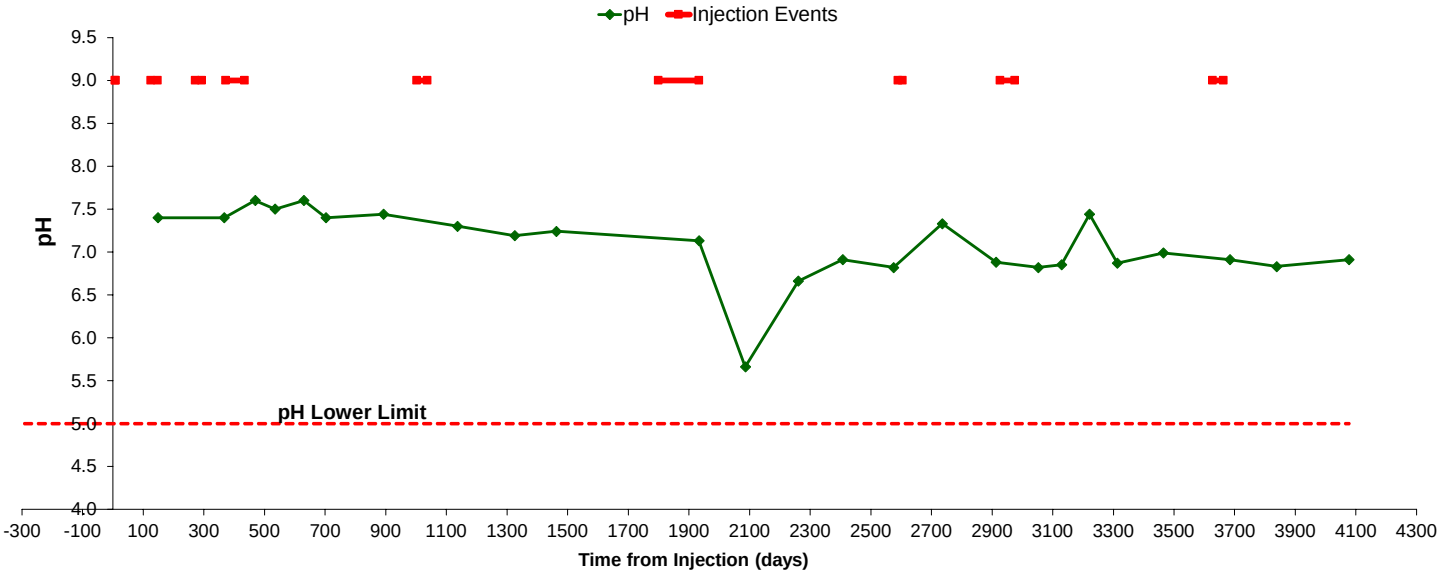
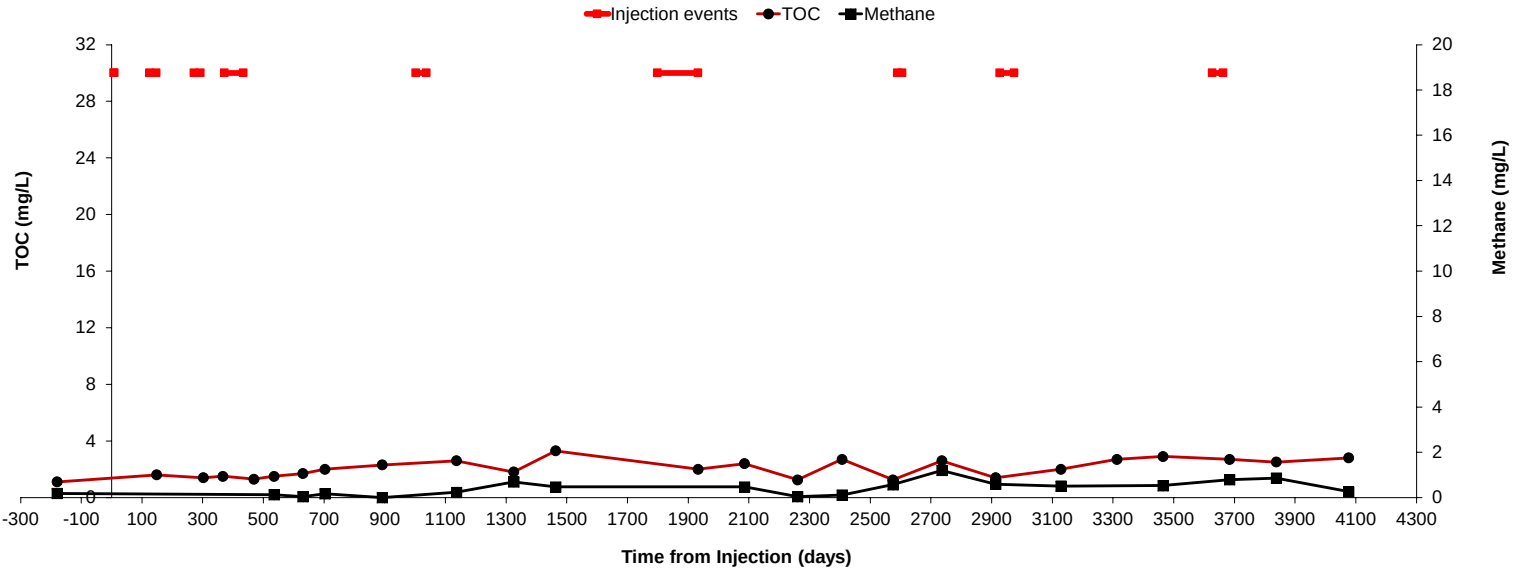
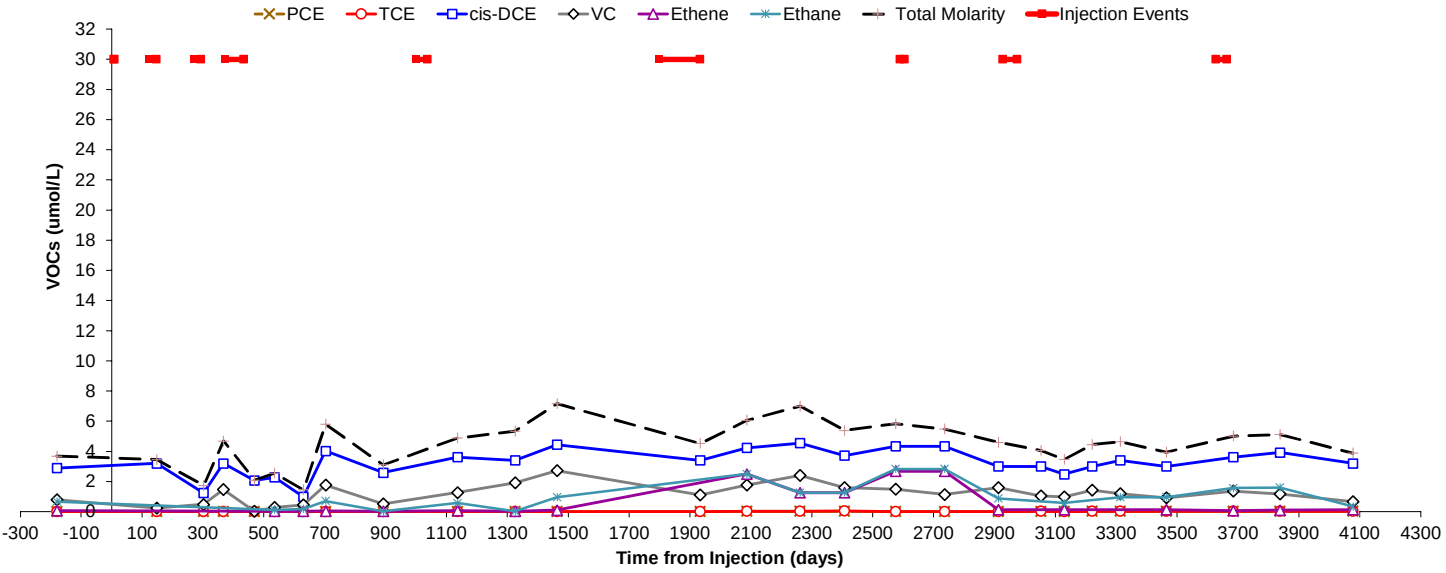
FIGURE
12







ASHLAND LLC.
RENSSELAER NEW YORK
2021 CORRECTIVE MEASURE IMPLEMENTATION ANNUAL REPORT

MW-18 PERFORMANCE MONITORING RESULTS

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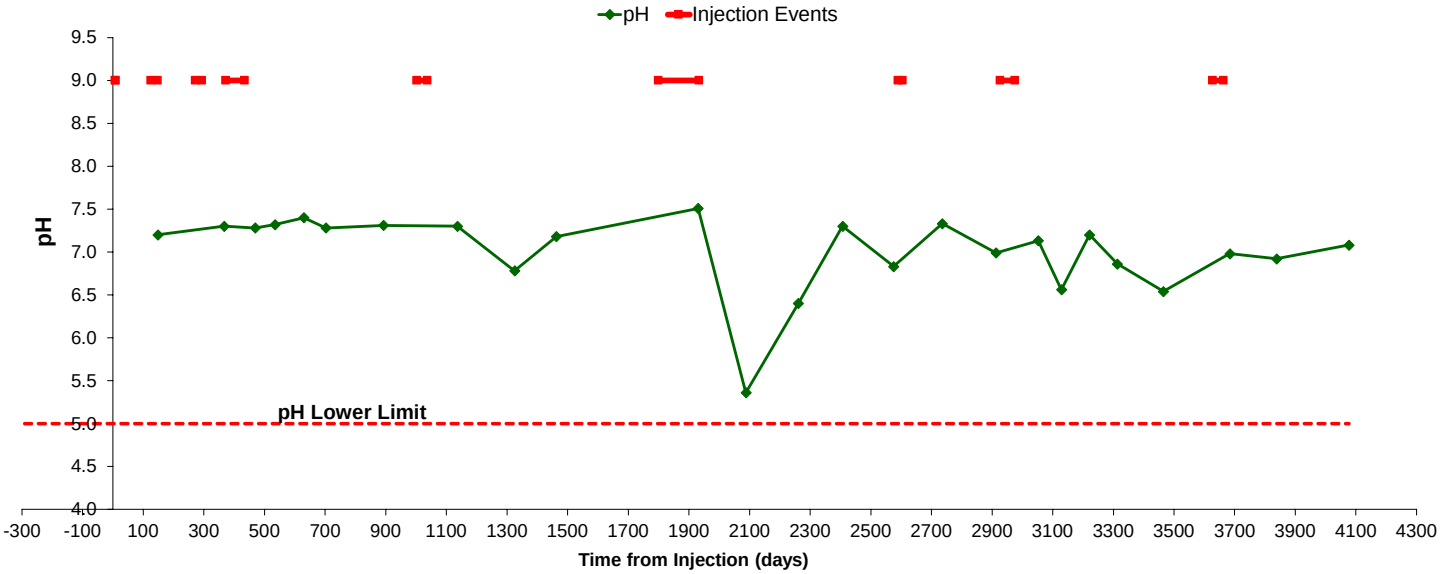
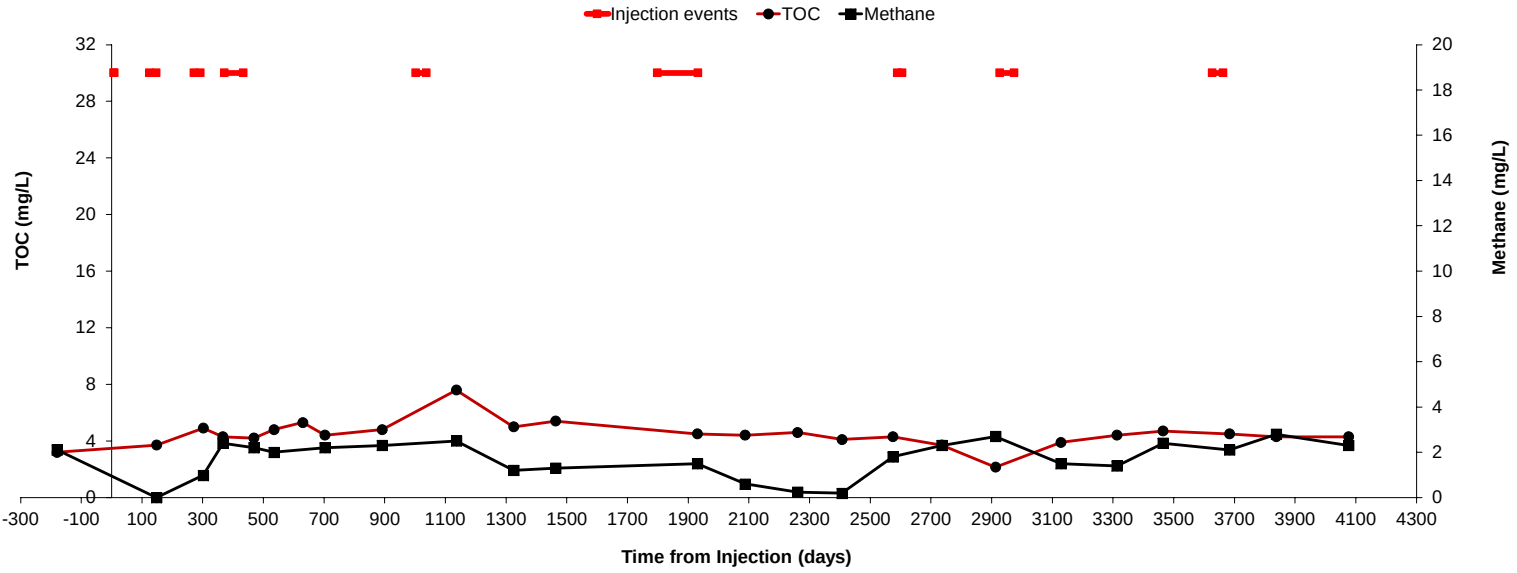
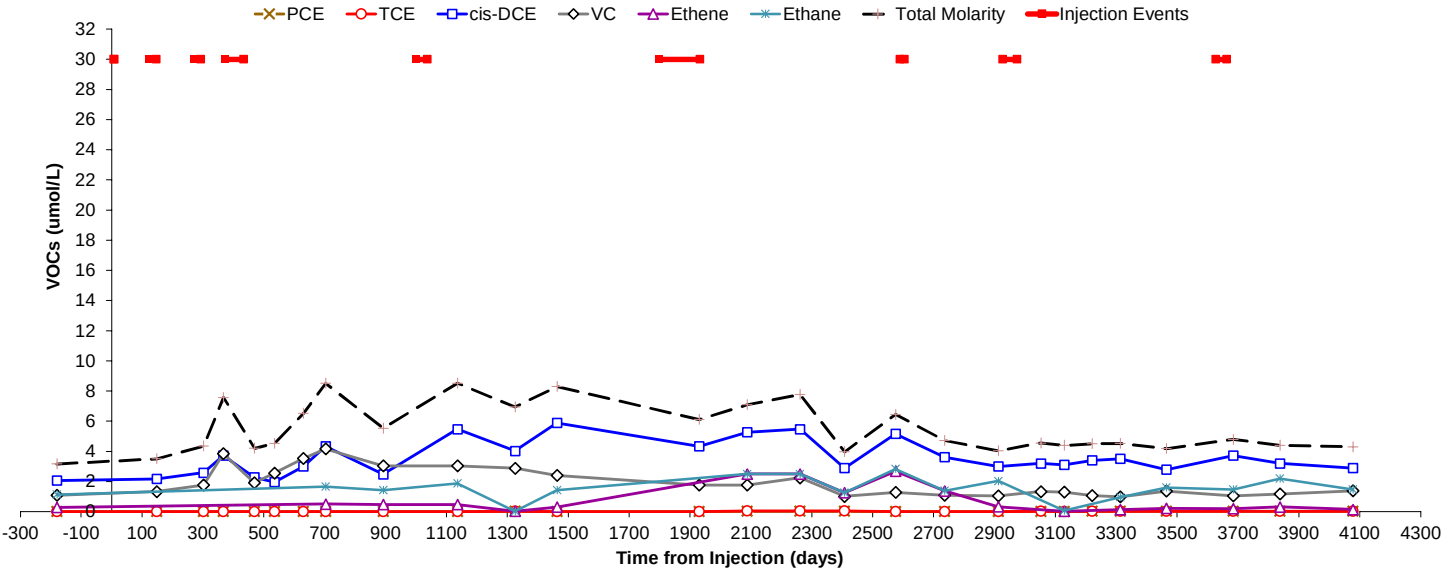
FIGURE
13





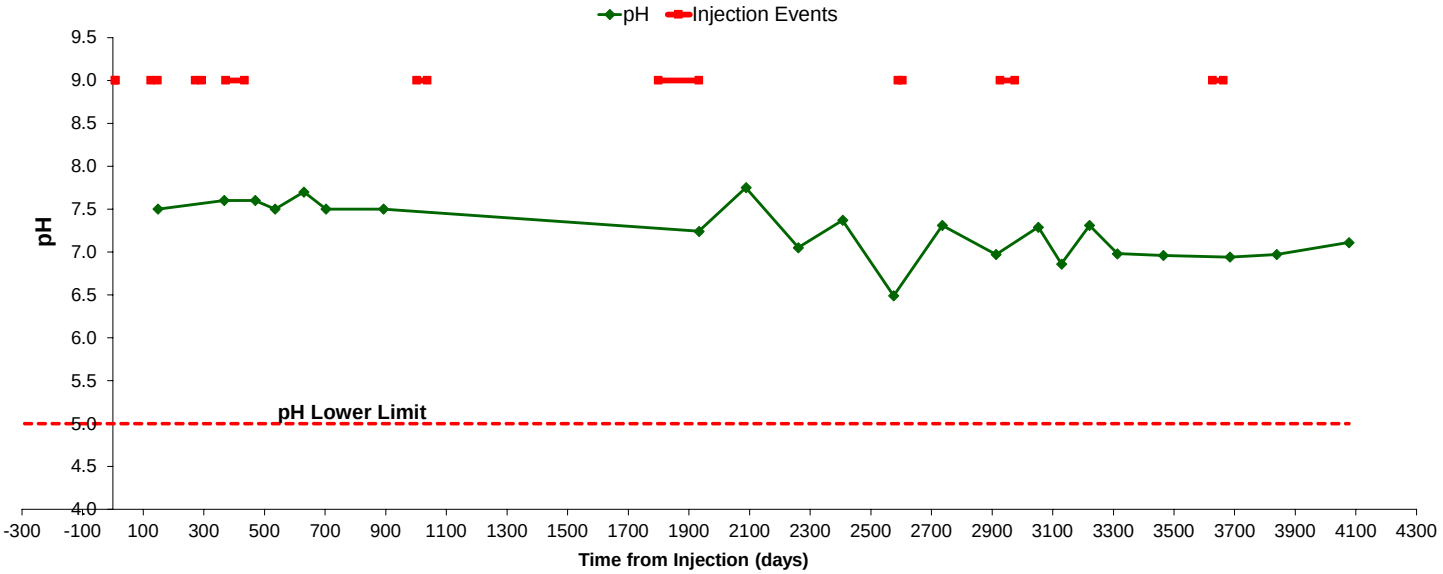


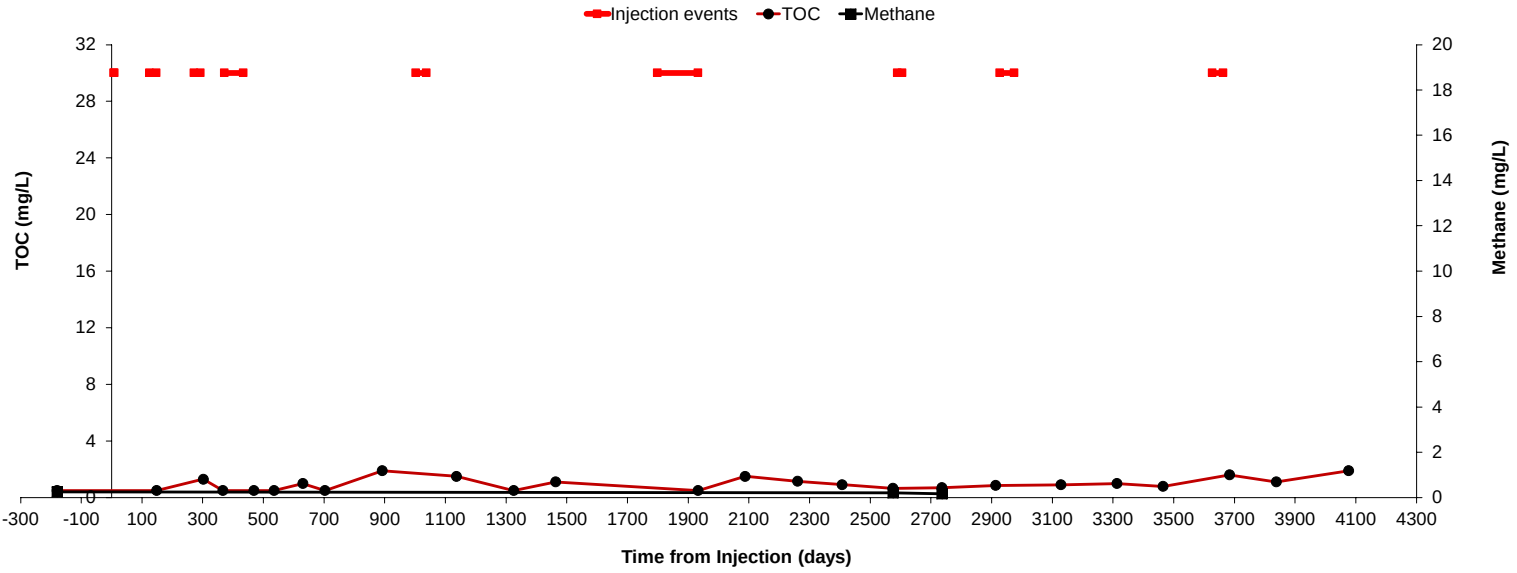
ASHLAND LLC.
RENSSELAER NEW YORK
2021 CORRECTIVE MEASURE IMPLEMENTATION ANNUAL REPORT

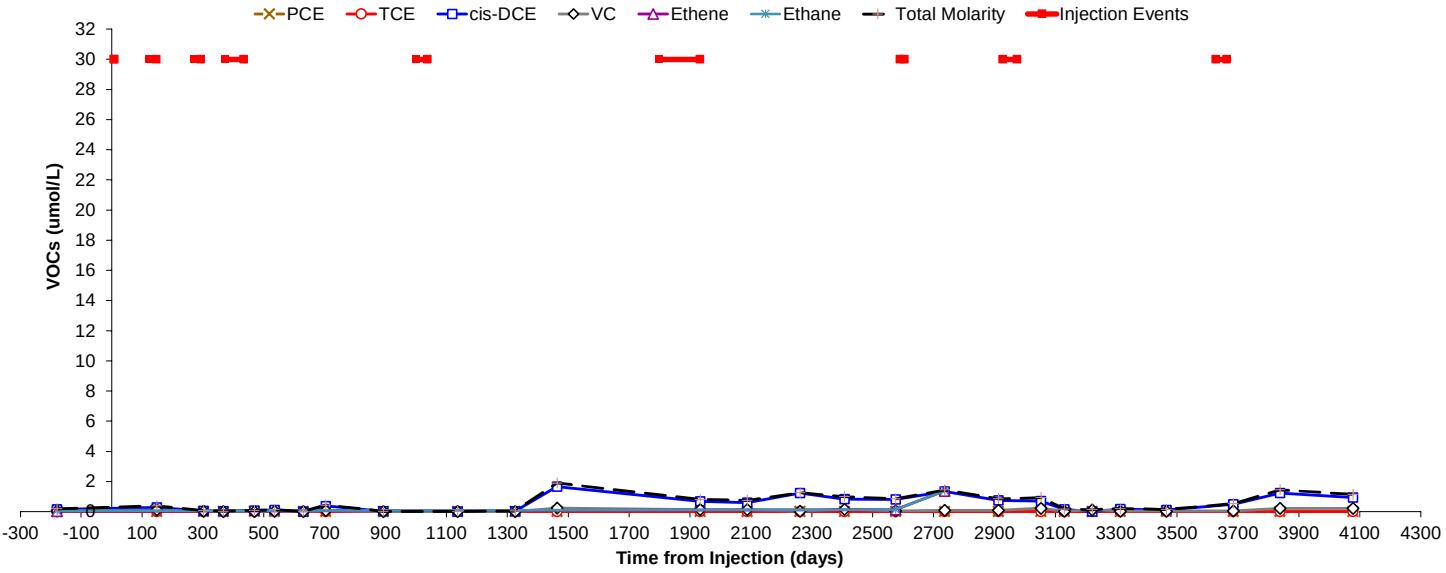
IP-1 PERFORMANCE MONITORING RESULTS

ARCADIS

FIGURE
14







ASHLAND LLC.
RENSSELAER NEW YORK
2021 CORRECTIVE MEASURE IMPLEMENTATION ANNUAL REPORT

IMP-3 PERFORMANCE MONITORING RESULTS

ARCADIS

FIGURE
15

Appendix A

Data Usability Summary Reports

DATA VALIDATION CHECKLIST

Ashland
Rensselaer

ARCADIS, Inc.
6041 Wallace Road
Extension, Suite 300,
Wexford, PA 15090
Tel. 724-934-9528
Fax. --

Environmental
Project:
Ashland
Rensselaer

Project Number:
30059651

Sample Team:	ARCADIS
Sample Matrix:	Water
Lab Project Manager:	Eddie Barnett
SDG Numbers:	480-183467-1
Analyses:	VOCs – 8260C, Dissolved Gases – RSK 175 and TOC - 9060A
QA Reporting Level:	ARCADIS, Level II
ARCADIS Project Manager:	Shannon Lloyd

Data were reviewed in accordance with USEPA National Functional Guidelines of January 2017 (Organic Data Review and Inorganic Data Review) and NJDEP Technical Guidance documents (April 2014).

The data verification was performed at a Level II and included review of data package completeness, Laboratory Control Sample and Laboratory Control Sample Duplicate recoveries, Method Blanks, Field Blanks, Trip Blanks, Matrix Spike and Matrix Spike Duplicate recoveries, Field Duplicates, Laboratory Duplicate results and Holding Time compliance. Laboratory calculations were not verified. Only QA/QC results and analytical data associated with analytes/compounds of interest were reviewed for this validation.

Only QA/QC results and analytical data associated with analytes/compounds of interest were reviewed for this validation.

ANALYTICAL DATA PACKAGE DOCUMENTATION

The following samples were included in this data validation:

Sample ID	Lab Sample ID	Sample Date	Parent Sample
MW-13	480-183467-1	04/14/21	
MW-23	480-183467-2	04/14/21	
IW-B3	480-183467-3	04/14/21	
DUP-01	480-183467-4	04/14/21	MW-23
Equipment Blank - 1	480-183467-5	04/14/21	
MW-B1	480-183467-6	04/15/21	
MW-17	480-183467-7	04/15/21	
MW-21	480-183467-8	04/15/21	
MW-16	480-183467-9	04/15/21	
IP-1	480-183467-10	04/15/21	
IMP-3	480-183467-11	04/15/21	
MW-18	480-183467-12	04/15/21	
IW-A2	480-183467-13	04/15/21	
MW-A1	480-183467-14	04/15/21	
MW-15	480-183467-15	04/15/21	
MW-20	480-183467-16	04/15/21	
MW-24	480-183467-17	04/15/21	
Equipment Blank - 2	480-183467-18	04/15/21	
MW-19	480-183467-19	04/15/21	
MW-25	480-183467-20	04/15/21	

I. GENERAL INFORMATION

ITEMS REVIEWED	REPORTED / REVIEWED		EXCEPTIONS NOTED		GENERAL COMMENTS NOTED		ITEM NOT REQUIRED
	NO	YES	NO	YES	NO	YES	
1. Chain of Custody		X	X		X		
2. Sampling dates and times		X	X		X		
3. Sample type on COC		X	X		X		
4. Field QC samples		X	X		X		
5. Case Narrative		X	X		X		
6. Laboratory Report Checklist		X	X		X		
7. Laboratory Exception Reports		X	X		X		
8. TRRP Format		X	X		X		
9. Sample Receipt Condition		X	X		X		

COMMENTS: Performance was acceptable, with the following exceptions and notes.

“Exceptions Noted” = If an exception was noted in the accompanying exception report (ER) this will be checked in the affirmative.
“General Comments Noted” = If there are other comments associated with Data Quality (not necessarily noted in the ER) this will be checked in the affirmative.

The analytical report was complete without exceptions or notations.

II.VOLATILES

	REPORTED / REVIEWED		PERFORMANCE ACCEPTABLE		ITEM NOT REQUIRED
	NO	YES	NO	YES	
1. Holding times		X		X	
2. Reporting limits		X		X	
3. Blanks					
A. Method Blanks		X		X	
B. Field Blanks/Equipment Blanks		X		X	
C. Trip Blanks		X		X	
4. Laboratory control sample (LCS) %R		X		X	
5. Laboratory control sample duplicate (LCSD) %R	X				X
6. LCS/LCSD RPD	X				X
7. Matrix spike (MS) %R		X	X		
8. Matrix spike duplicate (MSD) %R		X	X		
9. MS/MSD RPD		X	X		
10. Surrogate Recoveries		X		X	
11. Field Duplicate Comparison		X		X	

VOCs - volatile organic compounds
%R - percent recovery
RPD - relative percent difference
MSD- Matrix Spike Duplicate
“Exceptions Noted” = If an exception was noted in the accompanying exception report (ER) this will be checked in the affirmative.
“General Comments Noted” = If there are other comments associated with Data Quality (not necessarily noted in the ER) this will be checked in the affirmative

COMMENTS: Performance was acceptable, with the following exceptions and notes.

7-9. The MS/MSD analysis was performed on samples MW-A1 and MW-25. The MS/MSD analysis exhibited recoveries below than the lower control limit and RPDs out of the control limits for several compounds. These compounds were qualified as estimated (detects as J and non-detects as UJ).

Qualification of results were not required for the compounds those exhibited MS/MSD recoveries above the upper control limits.

11. Field duplicate sample DUP-01 was collected from MW-23. The calculated differences between the parent and duplicate sample were acceptable.

III. DISSOLVED GASES

	REPORTED / REVIEWED		PERFORMANCE ACCEPTABLE		ITEM NOT REQUIRED
	NO	YES	NO	YES	
1. Holding times		X		X	
2. Reporting limits		X		X	
3. Blanks					
A. Method Blanks		X		X	
B. Field Blanks/Equipment Blanks		X		X	
4. Laboratory control sample (LCS) %R		X		X	
5. Laboratory control sample duplicate (LCSD) %R		X		X	
6. LCS/LCSD RPD		X		X	
7. Matrix spike (MS) %R		X		X	
8. Matrix spike duplicate (MSD) %R		X		X	
9. MS/MSD RPD		X		X	
10. Field Duplicate Comparison		X		X	

VOCs - volatile organic compounds
%R - percent recovery
RPD - relative percent difference
MSD- Matrix Spike Duplicate
“Exceptions Noted” = If an exception was noted in the accompanying exception report (ER) this will be checked in the affirmative.
“General Comments Noted” = If there are other comments associated with Data Quality (not necessarily noted in the ER) this will be checked in the affirmative

COMMENTS: Performance was acceptable, with the following exceptions and notes.

7-9. The MS/MSD analysis was performed on sample MW-A1. The MS/MSD analysis exhibited acceptable recoveries and RPDs.

10. Field duplicate sample DUP-01 was collected from MW-23. The calculated differences between the parent and duplicate sample were acceptable.

IV. GENERAL CHEMISTRY

	REPORTED / REVIEWED		PERFORMANCE ACCEPTABLE		ITEM NOT REQUIRED
	NO	YES	NO	YES	
1. Holding times		X		X	
2. Reporting limits		X		X	
3. Blanks					
A. Method Blanks		X		X	
B. Field Blanks/Equipment Blanks		X	X		
4. Laboratory control sample (LCS) %R		X		X	
5. Laboratory control sample duplicate (LCSD) %R		X		X	
6. LCS/LCSD RPD		X		X	
7. Matrix spike (MS) %R		X		X	
8. Matrix spike duplicate (MSD) %R		X		X	
9. MS/MSD RPD		X		X	
10. Laboratory duplicate analysis (RPD)		X		X	
11. Field Duplicate Comparison		X		X	

VOCs - volatile organic compounds
%R - percent recovery
RPD - relative percent difference
MSD- Matrix Spike Duplicate
“Exceptions Noted” = If an exception was noted in the accompanying exception report (ER) this will be checked in the affirmative.
“General Comments Noted” = If there are other comments associated with Data Quality (not necessarily noted in the ER) this will be checked in the affirmative

COMMENTS: Performance was acceptable.

3B. The analyte TOC Result 1 was detected above method detection limit in Equipment Blank-2 sample. For sample results associated with equipment blank contamination that were greater than the blank action limit did not require any qualifications. Few sample results (for TOC Result 1) were less than the blank action limit but greater than reporting limit, were qualified as UB at detected concentrations.

7. The MS analysis was performed on samples MW-B1 and MW-19. The MS analysis exhibited acceptable recoveries.

7-9. The MS/MSD analysis was performed on sample MW-A1. The MS/MSD analysis exhibited acceptable recoveries and RPDs.

10. The laboratory duplicate analysis was performed on sample MW-17 and MW-25. The laboratory duplicate analysis exhibited acceptable RPDs.

11. Field duplicate sample DUP-01 was collected from MW-23. The calculated differences between the parent and duplicate sample were acceptable.

DATA VALIDATION QUALIFICATION SUMMARY

Qualifier Definitions:

J – The compound was positively identified; however, the associated numerical value is an estimated concentration only.

UJ – The compound was not detected above the reported sample quantitation limit. However, the reported limit is approximate and may or may not represent the actual limit of quantitation.

UB – Compound is considered non-detect at the listed value due to associated blank contamination.

Explanation/Notes:

Sample ID	Parameter	Result	Units	Qualifier	Reason
MW-23	Methane	15000	µg/L	D	Dilution
DUP-01	Methane	15000	µg/L	D	Dilution
MW-B1	Methane	17000	µg/L	D	Dilution
MW-17	TOC Result 1	2.3	Mg/L	UB	Equipment Blank contamination
MW-16	cis-1,2-Dichloroethene	190	µg/L	D	Dilution
	TOC Result 1	1.3	Mg/L	UB	Equipment Blank contamination
IP-1	Methane	2800	µg/L	D	Dilution
IMP-3	cis-1,2-Dichloroethene	120	µg/L	D	Dilution
	TOC Result 1	1.1	Mg/L	UB	Equipment Blank contamination
MW-18	Methane	860	µg/L	D	Dilution
MW-20	Methane	880	µg/L	D	Dilution
MW-24	Methane	14000	µg/L	D	Dilution
MW-19	Methane	14000	µg/L	D	Dilution
MW-25	Acetone	ND	µg/L	UJ	MS/MSD RPD
	Benzene	ND	µg/L	UJ	MS/MSD RPD
	Bromodichloromethane	ND	µg/L	UJ	MS/MSD RPD
	Bromoform	ND	µg/L	UJ	MS/MSD RPD
	2-Butanone (MEK)	ND	µg/L	UJ	MS/MSD RPD
	Carbon disulfide	ND	µg/L	UJ	MS/MSD RPD
	Carbon tetrachloride	ND	µg/L	UJ	MS/MSD RPD
	cis-1,2-Dichloroethene	870	µg/L	J	MSD Recovery
	cis-1,3-Dichloropropene	ND	µg/L	UJ	MS/MSD RPD
	Cyclohexane	ND	µg/L	UJ	MS/MSD RPD
	Dibromochloromethane	ND	µg/L	UJ	MS/MSD RPD
	1,2-Dibromo-3-Chloropropane	ND	µg/L	UJ	MS/MSD RPD
	1,2-Dibromoethane	ND	µg/L	UJ	MS/MSD RPD
	1,2-Dichloroethane	ND	µg/L	UJ	MS/MSD RPD
	1,1-Dichloroethene	ND	µg/L	UJ	MS/MSD RPD
	1,2-Dichloropropane	ND	µg/L	UJ	MS/MSD RPD
	Ethylbenzene	ND	µg/L	UJ	MS/MSD RPD
	2-Hexanone	ND	µg/L	UJ	MS/MSD RPD

Sample ID	Parameter	Result	Units	Qualifier	Reason
	Isopropylbenzene	ND	µg/L	UJ	MS/MSD RPD
	Methyl acetate	ND	µg/L	UJ	MS/MSD RPD
	Methylene Chloride	ND	µg/L	UJ	MS/MSD RPD
	1,1,2,2-Tetrachloroethane	ND	µg/L	UJ	MS/MSD RPD
	Tetrachloroethene	340	µg/L	J	MSD Recovery
	Toluene	ND	µg/L	UJ	MS/MSD RPD
	trans-1,3-Dichloropropene	ND	µg/L	UJ	MS/MSD RPD
	1,1,1-Trichloroethane	ND	µg/L	UJ	MS/MSD RPD
	1,1,2-Trichloroethane	ND	µg/L	UJ	MS/MSD RPD
	Trichloroethene	150	µg/L	J	MS/MSD RPD
	Xylenes, Total	ND	µg/L	UJ	MS/MSD RPD
	Methane	9500	µg/L	D	Dilution

VALIDATION PERFORMED BY: Hrishikesh Upadhyaya

SIGNATURE: 

DATE: May 25, 2021

PEER REVIEW BY: Dennis Capria

DATE: May 27, 2021

CHAIN OF CUSTODY/
CORRECTED SAMPLE ANALYSIS DATA SHEET

Eurofins TestAmerica, Buffalo
10 Hazelwood Drive
Amherst, NY 14228-2298
Phone: 716-691-2600 Fax: 716-691-7991

Chain of Custody Record

eurofins Environment Testing America

Client Information	Sampler: Gillychamberlain	Lab PM: Barnett, Eddie T	Carrier Tracking No(s):	COC No: 680-125095-46759.5
Client Contact: Joe Zaso	Phone: 518-528-0884	E-Mail: Eddie.Barnett@Eurofinset.com	State of Origin:	Page: Page 5 of 6
Company: ARCADIS U.S. Inc	PWSID:			Job #:
Address: 6041 Wallace Road Extension Suite 300	Due Date Requested:			
City: Wexford	TAT Requested (days): Standard			
State, Zip: PA, 15090	Compliance Project: Δ Yes Δ No			
Phone:	PO #: PO844259			
Email: joseph.zaso@arcadis.com	WO #: Task 400			
Project Name: Ashland Rensselaer	Project #: 68016621			
Site:	SSOW#:			

Analysis Requested

Preservation Codes:
A - HCL, B - NaOH, C - Zn Acetate, D - Nitric Acid, E - NaHSO4, F - MeOH, G - Amchlor, H - Ascorbic Acid, I - Ice, J - DI Water, K - EDTA, L - EDA, M - Hexane, N - None, O - AsNaO2, P - Na2O4S, Q - Na2SO3, R - Na2S2O3, S - H2SO4, T - TSP Dodecahydrate, U - Acetone, V - MCAA, W - pH 4-5, Z - other (specify)
Other:

Sample Identification	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	8260C - TCL list OLM04.2	9060A - (MOD) Local Method	RSK_175 - Methane, Ethane, Ethene	Total Number of containers	Special Instructions/Note:
			Preservation Code:								
~~MW-26~~ QC	~~4-15-21~~		G	Water	N	N	X	X	X	5	
~~MW-24~~ MW-19	4-15-21	1740	G	Water	N	N	X	X	X	5	
MW-25	4-15-21	1800	G	Water	N	N	X	X	X	5	
TRIP BLANKS	4-13-21	—		Water	N	N	X			2	
QC				Water							
				Water							
				Water							
				Water							
				Water							
				Water							

Possible Hazard Identification
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return To Client ☐ Disposal By Lab ☐ Archive For ____ Months

Deliverable Requested: I, (II), III, IV, Other (specify)

Special Instructions/QC Requirements: Jan McCary (Ashland PM) for invoicing

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
[signature]	4/16/21 1125	Arcadis	Tim Knollman	4-16-2021 1125	EETA
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks:

Ver: 11/01/2020

Eurofins TestAmerica, Buffalo
10 Hazelwood Drive
Amherst, NY 14228-2298
Phone: 716-691-2600 Fax: 716-691-7991

Chain of Custody Record

Albany #224

eurofins | Environment Testing America

Client Information	Sampler: Colby Churchill	Lab PM: Barnett, Eddie T	Carrier Tracking No(s):	COC No: 680-125095-46759.6
Client Contact: Joe Zaso	Phone: 518-573-0884	E-Mail: Eddie.Barnett@Eurofinset.com	State of Origin:	Page: Page 6 of 6
Company: ARCADIS U.S. Inc	PWSID:			Job #:

Address: 6041 Wallace Road Extension Suite 300	Due Date Requested:	Analysis Requested	Preservation Codes:
City: Wexford	TAT Requested (days): Standard		A - HCL, B - NaOH, C - Zn Acetate, D - Nitric Acid, E - NaHSO4, M - Hexane, N - None, O - AsNaO2, P - Na2O4S, Q - Na2SO3, R - Na2S2O3, SO4, P Dodecahydrate, etone, CAA, H 4-5, her (specify)
State, Zip: PA, 15090	Compliance Project: Δ Yes Δ No		
Phone:	PO #: PO844259		
Email: joseph.zaso@arcadis.com	WO #: Task 400		
Project Name: Ashland Rensselaer	Project #: 68016621		
Site:	SSOW#:		

480-183467 Chain of Custody

Sample Identification	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	8260C - TCL list OLM04.2	9060A - (MOD) Local Method	RSK_175 - Methane, Ethane, Ethene	Total Number of	Special Instructions/Note:
Preservation Code:							A	A	A		
MW-13	4-14-21	1430	G	Water	N	N	X	X		5	
MW-23		1415	G	Water	N	N	X	X	X	8	
IW-B3		1630	G	water	N	N	X	X		5	
Dup-01		1200	G	water	N	N	X	X	X	8	
Equipment Blank-1		1500	G	Water	N	N	X	X	X	8	
MW-B1	4-15-21	0825	G	water	N	N	X	X	X	8	
MW-17		1015	G	water	N	N	X	X		5	
MW-21		1105	G	water	N	N	X	X		5	
MW-16		1230	G	water	N	N	X	X	X	6	
IP-1		1325	G	water	N	N	X	X	X	8	
IMP-3		1435	G	water	N	N	X	X		5	

Possible Hazard Identification
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months

Deliverable Requested: I, II, III, IV, Other (specify)

Special Instructions/QC Requirements: Jen McCarty (Ashland PM) for invoicing

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

	Relinquished by	Date/Time	Company	Received by	Date/Time	Company
1	Parker Hall	4/16/21/1125	Arcadis	Tim Knollmyer	4-16-2021 1125	EETA
2	Tim Knollmyer	4-16-2021 1700	EETA		Date/Time:	Company
3	Relinquished by:	Date/Time:	Company	Received by:	4/17/21 0600	TAT

Custody Seals Intact: Δ Yes Δ No | Custody Seal No.:

Cooler Temperature(s) °C and Other Remarks: 2.8 #1

Ver: 11/01/2020

Eurofins Environment Testing America, Buffalo
10 Hazelwood Drive
Amherst, NY 14228-2298
Phone: 716-691-2600 Fax: 716-691-7991

Chain of Custody Record

Albany #224

eurofins | Environment Testing America

Client Information	Sampler: Colby Clarke Hill	Lab PM: Barnett, Eddie T	Carrier Tracking No(s):	COC No: 680-125095-46759.4
Client Contact: Joe Zaso	Phone: 518-572-0884	E-Mail: Eddie.Barnett@Eurofinset.com	State of Origin:	Page: Page 4 of 6
Company: ARCADIS U.S. Inc	PWSID:			Job #:
Address: 6041 Wallace Road Extension Suite 300	Due Date Requested:			
City: Wexford	TAT Requested (days): Standard			
State, Zip: PA, 15090	Compliance Project: Δ Yes Δ No			
Phone:	PO #: PO844259			
Email: joseph.zaso@arcadis.com	WO #: Task 400			
Project Name: Ashland Rensselaer	Project #: 68016621			
Site:	SSOW#:			

Analysis Requested

Preservation Codes:
A - HCL, B - NaOH, C - Zn Acetate, D - Nitric Acid, E - NaHSO4, F - MeOH, G - Amchlor, H - Ascorbic Acid, I - Ice, J - DI Water, K - EDTA, L - EDA, M - Hexane, N - None, O - AsNaO2, P - Na2O4S, Q - Na2SO3, R - Na2S2O3, S - H2SO4, T - TSP Dodecahydrate, U - Acetone, V - MCAA, W - pH 4-5, Z - other (specify)
Other:

Sample Identification	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	8260C - TCL list OLM04.2	90604 - (MOD) Local Method	RSK_175 - Methane, Ethane, Ethene	Total Number of containers	Special Instructions/Note:
			Preservation Code:				A	A	A		
[redacted] MW-18	4-15-21	1525	G	Water	N	N	X	X	X	6	
[redacted] IW-A2		0940	G	Water	N	N	X	X		6	
[redacted] MW-A1		1220	G	Water	N	Y	X	X	X	8	
[redacted] MW-A1 MS		1220	G	Water	N	Y	X	X	X	8	
[redacted] MW-A1 MSD		1220	G	Water	N	Y	X	X	X	8	
[redacted] MW-15		1415	G	Water	N	N	X		X	6	
[redacted] MW-20		1535	G	Water	N	N	X	X	X	6	
[redacted] MW-24		1655	G	Water	N	N	X	X	X	8	
~~[redacted] Field Blank~~	~~0715~~	~~G~~	~~Water~~	~~N~~	~~N~~	~~X~~	~~X~~	~~X~~	~~8~~		
[redacted] Equipment Blank-2	✓	1200	G	Water	N	N	X	X	X	8	
[redacted]				Water							

Possible Hazard Identification
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months

Deliverable Requested: I, II, III, IV, Other (specify)

Special Instructions/QC Requirements: Ian McCary (Ashland PM) for invoicing

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

Relinquished by	Date/Time	Company	Received by	Date/Time	Company
Colby Clarke Hill	4/16/21 1125	Arcadis	Tim Knollmyer	4-16-2021 1125	EETM
Tim Knollmyer	4-16-2021 1700	EETM			

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks:

Ver: 11/01/2020

Client Sample ID: MW-13

Date Collected: 04/14/21 14:30
Date Received: 04/17/21 08:00

Lab Sample ID: 480-183467-1

Matrix: Water

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	10	U	10	3.0	ug/L			04/18/21 23:00	1
Benzene	1.0	U	1.0	0.41	ug/L			04/18/21 23:00	1
Bromodichloromethane	1.0	U	1.0	0.39	ug/L			04/18/21 23:00	1
Bromoform	1.0	U	1.0	0.26	ug/L			04/18/21 23:00	1
Bromomethane	1.0	U	1.0	0.69	ug/L			04/18/21 23:00	1
2-Butanone (MEK)	10	U	10	1.3	ug/L			04/18/21 23:00	1
Carbon disulfide	1.0	U	1.0	0.19	ug/L			04/18/21 23:00	1
Carbon tetrachloride	1.0	U	1.0	0.27	ug/L			04/18/21 23:00	1
Chlorobenzene	1.0	U	1.0	0.75	ug/L			04/18/21 23:00	1
Chloroethane	1.0	U	1.0	0.32	ug/L			04/18/21 23:00	1
Chloroform	1.0	U	1.0	0.34	ug/L			04/18/21 23:00	1
Chloromethane	1.0	U	1.0	0.35	ug/L			04/18/21 23:00	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.81	ug/L			04/18/21 23:00	1
cis-1,3-Dichloropropene	1.0	U	1.0	0.36	ug/L			04/18/21 23:00	1
Cyclohexane	1.0	U	1.0	0.18	ug/L			04/18/21 23:00	1
Dibromochloromethane	1.0	U	1.0	0.32	ug/L			04/18/21 23:00	1
1,2-Dibromo-3-Chloropropane	1.0	U	1.0	0.39	ug/L			04/18/21 23:00	1
1,2-Dibromoethane	1.0	U	1.0	0.73	ug/L			04/18/21 23:00	1
1,2-Dichlorobenzene	1.0	U	1.0	0.79	ug/L			04/18/21 23:00	1
1,3-Dichlorobenzene	1.0	U	1.0	0.78	ug/L			04/18/21 23:00	1
1,4-Dichlorobenzene	1.0	U	1.0	0.84	ug/L			04/18/21 23:00	1
Dichlorodifluoromethane	1.0	U	1.0	0.68	ug/L			04/18/21 23:00	1
1,1-Dichloroethane	1.0	U	1.0	0.38	ug/L			04/18/21 23:00	1
1,2-Dichloroethane	1.0	U	1.0	0.21	ug/L			04/18/21 23:00	1
1,1-Dichloroethene	1.0	U	1.0	0.29	ug/L			04/18/21 23:00	1
1,2-Dichloropropane	1.0	U	1.0	0.72	ug/L			04/18/21 23:00	1
Ethylbenzene	1.0	U	1.0	0.74	ug/L			04/18/21 23:00	1
2-Hexanone	5.0	U	5.0	1.2	ug/L			04/18/21 23:00	1
Isopropylbenzene	1.0	U	1.0	0.79	ug/L			04/18/21 23:00	1
Methyl acetate	2.5	U	2.5	1.3	ug/L			04/18/21 23:00	1
Methylcyclohexane	1.0	U	1.0	0.16	ug/L			04/18/21 23:00	1
Methylene Chloride	1.0	U	1.0	0.44	ug/L			04/18/21 23:00	1
4-Methyl-2-pentanone (MIBK)	5.0	U	5.0	2.1	ug/L			04/18/21 23:00	1
Methyl tert-butyl ether	1.0	U	1.0	0.16	ug/L			04/18/21 23:00	1
Styrene	1.0	U	1.0	0.73	ug/L			04/18/21 23:00	1
1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.21	ug/L			04/18/21 23:00	1
Tetrachloroethene	1.0	U	1.0	0.36	ug/L			04/18/21 23:00	1
Toluene	1.0	U	1.0	0.51	ug/L			04/18/21 23:00	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.90	ug/L			04/18/21 23:00	1
trans-1,3-Dichloropropene	1.0	U	1.0	0.37	ug/L			04/18/21 23:00	1
1,2,4-Trichlorobenzene	1.0	U	1.0	0.41	ug/L			04/18/21 23:00	1
1,1,1-Trichloroethane	1.0	U	1.0	0.82	ug/L			04/18/21 23:00	1
1,1,2-Trichloroethane	1.0	U	1.0	0.23	ug/L			04/18/21 23:00	1
Trichloroethene	1.0	U	1.0	0.46	ug/L			04/18/21 23:00	1
Trichlorofluoromethane	1.0	U	1.0	0.88	ug/L			04/18/21 23:00	1
1,1,2-Trichloro-1,2,2-trifluoroethane	1.0	U	1.0	0.31	ug/L			04/18/21 23:00	1
Vinyl chloride	1.0	U	1.0	0.90	ug/L			04/18/21 23:00	1
Xylenes, Total	2.0	U	2.0	0.66	ug/L			04/18/21 23:00	1

Client Sample ID: MW-13

Date Collected: 04/14/21 14:30
Date Received: 04/17/21 08:00

Lab Sample ID: 480-183467-1

Matrix: Water

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*114*		*73 - 120*		*04/18/21 23:00*	*1*
Dibromofluoromethane (Surr)	*111*		*75 - 123*		*04/18/21 23:00*	*1*
1,2-Dichloroethane-d4 (Surr)	*106*		*77 - 120*		*04/18/21 23:00*	*1*
Toluene-d8 (Surr)	*110*		*80 - 120*		*04/18/21 23:00*	*1*

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
TOC Result 1	1.0	U	1.0	0.43	mg/L			04/28/21 03:34	1
TOC Result 2	1.0	U	1.0	0.43	mg/L			04/28/21 03:34	1
Total Organic Carbon	1.0	U	1.0	0.43	mg/L			04/28/21 03:34	1

Client Sample ID: MW-23

Date Collected: 04/14/21 14:15
Date Received: 04/17/21 08:00

Lab Sample ID: 480-183467-2

Matrix: Water

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	10	U	10	3.0	ug/L			04/18/21 23:23	1
Benzene	1.0	U	1.0	0.41	ug/L			04/18/21 23:23	1
Bromodichloromethane	1.0	U	1.0	0.39	ug/L			04/18/21 23:23	1
Bromoform	1.0	U	1.0	0.26	ug/L			04/18/21 23:23	1
Bromomethane	1.0	U	1.0	0.69	ug/L			04/18/21 23:23	1
2-Butanone (MEK)	10	U	10	1.3	ug/L			04/18/21 23:23	1
Carbon disulfide	1.0	U	1.0	0.19	ug/L			04/18/21 23:23	1
Carbon tetrachloride	1.0	U	1.0	0.27	ug/L			04/18/21 23:23	1
Chlorobenzene	1.0	U	1.0	0.75	ug/L			04/18/21 23:23	1
Chloroethane	1.0	U	1.0	0.32	ug/L			04/18/21 23:23	1
Chloroform	1.0	U	1.0	0.34	ug/L			04/18/21 23:23	1
Chloromethane	1.0	U	1.0	0.35	ug/L			04/18/21 23:23	1
cis-1,2-Dichloroethene	**0.82**	**J**	1.0	0.81	ug/L			04/18/21 23:23	1
cis-1,3-Dichloropropene	1.0	U	1.0	0.36	ug/L			04/18/21 23:23	1
Cyclohexane	1.0	U	1.0	0.18	ug/L			04/18/21 23:23	1
Dibromochloromethane	1.0	U	1.0	0.32	ug/L			04/18/21 23:23	1
1,2-Dibromo-3-Chloropropane	1.0	U	1.0	0.39	ug/L			04/18/21 23:23	1
1,2-Dibromoethane	1.0	U	1.0	0.73	ug/L			04/18/21 23:23	1
1,2-Dichlorobenzene	1.0	U	1.0	0.79	ug/L			04/18/21 23:23	1
1,3-Dichlorobenzene	1.0	U	1.0	0.78	ug/L			04/18/21 23:23	1
1,4-Dichlorobenzene	1.0	U	1.0	0.84	ug/L			04/18/21 23:23	1
Dichlorodifluoromethane	1.0	U	1.0	0.68	ug/L			04/18/21 23:23	1
1,1-Dichloroethane	1.0	U	1.0	0.38	ug/L			04/18/21 23:23	1
1,2-Dichloroethane	**0.32**	**J**	1.0	0.21	ug/L			04/18/21 23:23	1
1,1-Dichloroethene	1.0	U	1.0	0.29	ug/L			04/18/21 23:23	1
1,2-Dichloropropane	1.0	U	1.0	0.72	ug/L			04/18/21 23:23	1
Ethylbenzene	1.0	U	1.0	0.74	ug/L			04/18/21 23:23	1
2-Hexanone	5.0	U	5.0	1.2	ug/L			04/18/21 23:23	1
Isopropylbenzene	1.0	U	1.0	0.79	ug/L			04/18/21 23:23	1
Methyl acetate	2.5	U	2.5	1.3	ug/L			04/18/21 23:23	1
Methylcyclohexane	1.0	U	1.0	0.16	ug/L			04/18/21 23:23	1
Methylene Chloride	1.0	U	1.0	0.44	ug/L			04/18/21 23:23	1
4-Methyl-2-pentanone (MIBK)	5.0	U	5.0	2.1	ug/L			04/18/21 23:23	1
Methyl tert-butyl ether	1.0	U	1.0	0.16	ug/L			04/18/21 23:23	1

Client Sample ID: MW-23

Date Collected: 04/14/21 14:15
Date Received: 04/17/21 08:00

Lab Sample ID: 480-183467-2

Matrix: Water

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Styrene	1.0	U	1.0	0.73	ug/L			04/18/21 23:23	1
1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.21	ug/L			04/18/21 23:23	1
Tetrachloroethene	1.0	U	1.0	0.36	ug/L			04/18/21 23:23	1
Toluene	1.0	U	1.0	0.51	ug/L			04/18/21 23:23	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.90	ug/L			04/18/21 23:23	1
trans-1,3-Dichloropropene	1.0	U	1.0	0.37	ug/L			04/18/21 23:23	1
1,2,4-Trichlorobenzene	1.0	U	1.0	0.41	ug/L			04/18/21 23:23	1
1,1,1-Trichloroethane	1.0	U	1.0	0.82	ug/L			04/18/21 23:23	1
1,1,2-Trichloroethane	1.0	U	1.0	0.23	ug/L			04/18/21 23:23	1
Trichloroethene	1.0	U	1.0	0.46	ug/L			04/18/21 23:23	1
Trichlorofluoromethane	1.0	U	1.0	0.88	ug/L			04/18/21 23:23	1
1,1,2-Trichloro-1,2,2-trifluoroethane	1.0	U	1.0	0.31	ug/L			04/18/21 23:23	1
Vinyl chloride	**2.0**		1.0	0.90	ug/L			04/18/21 23:23	1
Xylenes, Total	2.0	U	2.0	0.66	ug/L			04/18/21 23:23	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*107*		*73 - 120*		*04/18/21 23:23*	*1*
Dibromofluoromethane (Surr)	*109*		*75 - 123*		*04/18/21 23:23*	*1*
1,2-Dichloroethane-d4 (Surr)	*106*		*77 - 120*		*04/18/21 23:23*	*1*
Toluene-d8 (Surr)	*101*		*80 - 120*		*04/18/21 23:23*	*1*

Method: RSK-175 - Dissolved Gases (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethane	**200**		83	17	ug/L			04/19/21 18:44	11
Ethene	77	U	77	17	ug/L			04/19/21 18:44	11

Method: RSK-175 - Dissolved Gases (GC) - DL

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methane	**15000**	D	350	88	ug/L			04/20/21 00:43	88

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
TOC Result 1	**13**		1.0	0.43	mg/L			04/28/21 04:04	1
TOC Result 2	**13**		1.0	0.43	mg/L			04/28/21 04:04	1
Total Organic Carbon	**13**		1.0	0.43	mg/L			04/28/21 04:04	1

Client Sample ID: IW-B3

Date Collected: 04/14/21 16:30
Date Received: 04/17/21 08:00

Lab Sample ID: 480-183467-3

Matrix: Water

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	200	U	200	60	ug/L			04/19/21 13:38	20
Benzene	20	U	20	8.2	ug/L			04/19/21 13:38	20
Bromodichloromethane	20	U	20	7.8	ug/L			04/19/21 13:38	20
Bromoform	20	U	20	5.2	ug/L			04/19/21 13:38	20
Bromomethane	20	U	20	14	ug/L			04/19/21 13:38	20
2-Butanone (MEK)	200	U	200	26	ug/L			04/19/21 13:38	20
Carbon disulfide	20	U	20	3.8	ug/L			04/19/21 13:38	20
Carbon tetrachloride	20	U	20	5.4	ug/L			04/19/21 13:38	20
Chlorobenzene	20	U	20	15	ug/L			04/19/21 13:38	20

Client Sample ID: IW-B3

Date Collected: 04/14/21 16:30
Date Received: 04/17/21 08:00

Lab Sample ID: 480-183467-3

Matrix: Water

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloroethane	20	U	20	6.4	ug/L			04/19/21 13:38	20
Chloroform	20	U	20	6.8	ug/L			04/19/21 13:38	20
Chloromethane	20	U	20	7.0	ug/L			04/19/21 13:38	20
cis-1,2-Dichloroethene	20	U	20	16	ug/L			04/19/21 13:38	20
cis-1,3-Dichloropropene	20	U	20	7.2	ug/L			04/19/21 13:38	20
Cyclohexane	20	U	20	3.6	ug/L			04/19/21 13:38	20
Dibromochloromethane	20	U	20	6.4	ug/L			04/19/21 13:38	20
1,2-Dibromo-3-Chloropropane	20	U	20	7.8	ug/L			04/19/21 13:38	20
1,2-Dibromoethane	20	U	20	15	ug/L			04/19/21 13:38	20
1,2-Dichlorobenzene	20	U	20	16	ug/L			04/19/21 13:38	20
1,3-Dichlorobenzene	20	U	20	16	ug/L			04/19/21 13:38	20
1,4-Dichlorobenzene	20	U	20	17	ug/L			04/19/21 13:38	20
Dichlorodifluoromethane	20	U	20	14	ug/L			04/19/21 13:38	20
1,1-Dichloroethane	20	U	20	7.6	ug/L			04/19/21 13:38	20
1,2-Dichloroethane	20	U	20	4.2	ug/L			04/19/21 13:38	20
1,1-Dichloroethene	20	U	20	5.8	ug/L			04/19/21 13:38	20
1,2-Dichloropropane	20	U	20	14	ug/L			04/19/21 13:38	20
Ethylbenzene	20	U	20	15	ug/L			04/19/21 13:38	20
2-Hexanone	100	U	100	25	ug/L			04/19/21 13:38	20
Isopropylbenzene	20	U	20	16	ug/L			04/19/21 13:38	20
Methyl acetate	50	U	50	26	ug/L			04/19/21 13:38	20
Methylcyclohexane	20	U	20	3.2	ug/L			04/19/21 13:38	20
Methylene Chloride	20	U	20	8.8	ug/L			04/19/21 13:38	20
4-Methyl-2-pentanone (MIBK)	100	U	100	42	ug/L			04/19/21 13:38	20
Methyl tert-butyl ether	20	U	20	3.2	ug/L			04/19/21 13:38	20
Styrene	20	U	20	15	ug/L			04/19/21 13:38	20
1,1,2,2-Tetrachloroethane	20	U	20	4.2	ug/L			04/19/21 13:38	20
Tetrachloroethene	20	U	20	7.2	ug/L			04/19/21 13:38	20
Toluene	20	U	20	10	ug/L			04/19/21 13:38	20
trans-1,2-Dichloroethene	20	U	20	18	ug/L			04/19/21 13:38	20
trans-1,3-Dichloropropene	20	U	20	7.4	ug/L			04/19/21 13:38	20
1,2,4-Trichlorobenzene	20	U	20	8.2	ug/L			04/19/21 13:38	20
1,1,1-Trichloroethane	20	U	20	16	ug/L			04/19/21 13:38	20
1,1,2-Trichloroethane	20	U	20	4.6	ug/L			04/19/21 13:38	20
Trichloroethene	20	U	20	9.2	ug/L			04/19/21 13:38	20
Trichlorofluoromethane	20	U	20	18	ug/L			04/19/21 13:38	20
1,1,2-Trichloro-1,2,2-trifluoroethane	20	U	20	6.2	ug/L			04/19/21 13:38	20
Vinyl chloride	20	U	20	18	ug/L			04/19/21 13:38	20
Xylenes, Total	40	U	40	13	ug/L			04/19/21 13:38	20

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*101*		*73 - 120*		*04/19/21 13:38*	*20*
Dibromofluoromethane (Surr)	*110*		*75 - 123*		*04/19/21 13:38*	*20*
1,2-Dichloroethane-d4 (Surr)	*106*		*77 - 120*		*04/19/21 13:38*	*20*
Toluene-d8 (Surr)	*97*		*80 - 120*		*04/19/21 13:38*	*20*

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
TOC Result 1	**70**		2.0	0.87	mg/L			04/28/21 04:33	2
TOC Result 2	**72**		2.0	0.87	mg/L			04/28/21 04:33	2

Client Sample ID: IW-B3
Lab Sample ID: 480-183467-3
Date Collected: 04/14/21 16:30
Matrix: Water
Date Received: 04/17/21 08:00

General Chemistry (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Organic Carbon	71		2.0	0.87	mg/L			04/28/21 04:33	2

Client Sample ID: DUP-01
Lab Sample ID: 480-183467-4
Date Collected: 04/14/21 12:00
Matrix: Water
Date Received: 04/17/21 08:00

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	20	U	20	6.0	ug/L			04/19/21 14:02	2
Benzene	2.0	U	2.0	0.82	ug/L			04/19/21 14:02	2
Bromodichloromethane	2.0	U	2.0	0.78	ug/L			04/19/21 14:02	2
Bromoform	2.0	U	2.0	0.52	ug/L			04/19/21 14:02	2
Bromomethane	2.0	U	2.0	1.4	ug/L			04/19/21 14:02	2
2-Butanone (MEK)	20	U	20	2.6	ug/L			04/19/21 14:02	2
Carbon disulfide	2.0	U	2.0	0.38	ug/L			04/19/21 14:02	2
Carbon tetrachloride	2.0	U	2.0	0.54	ug/L			04/19/21 14:02	2
Chlorobenzene	2.0	U	2.0	1.5	ug/L			04/19/21 14:02	2
Chloroethane	2.0	U	2.0	0.64	ug/L			04/19/21 14:02	2
Chloroform	2.0	U	2.0	0.68	ug/L			04/19/21 14:02	2
Chloromethane	2.0	U	2.0	0.70	ug/L			04/19/21 14:02	2
cis-1,2-Dichloroethene	2.0	U	2.0	1.6	ug/L			04/19/21 14:02	2
cis-1,3-Dichloropropene	2.0	U	2.0	0.72	ug/L			04/19/21 14:02	2
Cyclohexane	2.0	U	2.0	0.36	ug/L			04/19/21 14:02	2
Dibromochloromethane	2.0	U	2.0	0.64	ug/L			04/19/21 14:02	2
1,2-Dibromo-3-Chloropropane	2.0	U	2.0	0.78	ug/L			04/19/21 14:02	2
1,2-Dibromoethane	2.0	U	2.0	1.5	ug/L			04/19/21 14:02	2
1,2-Dichlorobenzene	2.0	U	2.0	1.6	ug/L			04/19/21 14:02	2
1,3-Dichlorobenzene	2.0	U	2.0	1.6	ug/L			04/19/21 14:02	2
1,4-Dichlorobenzene	2.0	U	2.0	1.7	ug/L			04/19/21 14:02	2
Dichlorodifluoromethane	2.0	U	2.0	1.4	ug/L			04/19/21 14:02	2
1,1-Dichloroethane	2.0	U	2.0	0.76	ug/L			04/19/21 14:02	2
1,2-Dichloroethane	2.0	U	2.0	0.42	ug/L			04/19/21 14:02	2
1,1-Dichloroethene	2.0	U	2.0	0.58	ug/L			04/19/21 14:02	2
1,2-Dichloropropane	2.0	U	2.0	1.4	ug/L			04/19/21 14:02	2
Ethylbenzene	2.0	U	2.0	1.5	ug/L			04/19/21 14:02	2
2-Hexanone	10	U	10	2.5	ug/L			04/19/21 14:02	2
Isopropylbenzene	2.0	U	2.0	1.6	ug/L			04/19/21 14:02	2
Methyl acetate	5.0	U	5.0	2.6	ug/L			04/19/21 14:02	2
Methylcyclohexane	2.0	U	2.0	0.32	ug/L			04/19/21 14:02	2
Methylene Chloride	2.0	U	2.0	0.88	ug/L			04/19/21 14:02	2
4-Methyl-2-pentanone (MIBK)	10	U	10	4.2	ug/L			04/19/21 14:02	2
Methyl tert-butyl ether	2.0	U	2.0	0.32	ug/L			04/19/21 14:02	2
Styrene	2.0	U	2.0	1.5	ug/L			04/19/21 14:02	2
1,1,2,2-Tetrachloroethane	2.0	U	2.0	0.42	ug/L			04/19/21 14:02	2
Tetrachloroethene	2.0	U	2.0	0.72	ug/L			04/19/21 14:02	2
Toluene	2.0	U	2.0	1.0	ug/L			04/19/21 14:02	2
trans-1,2-Dichloroethene	2.0	U	2.0	1.8	ug/L			04/19/21 14:02	2
trans-1,3-Dichloropropene	2.0	U	2.0	0.74	ug/L			04/19/21 14:02	2
1,2,4-Trichlorobenzene	2.0	U	2.0	0.82	ug/L			04/19/21 14:02	2
1,1,1-Trichloroethane	2.0	U	2.0	1.6	ug/L			04/19/21 14:02	2

Client Sample ID: DUP-01

Date Collected: 04/14/21 12:00
Date Received: 04/17/21 08:00

Lab Sample ID: 480-183467-4

Matrix: Water

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,2-Trichloroethane	2.0	U	2.0	0.46	ug/L			04/19/21 14:02	2
Trichloroethene	2.0	U	2.0	0.92	ug/L			04/19/21 14:02	2
Trichlorofluoromethane	2.0	U	2.0	1.8	ug/L			04/19/21 14:02	2
1,1,2-Trichloro-1,2,2-trifluoroethane	2.0	U	2.0	0.62	ug/L			04/19/21 14:02	2
Vinyl chloride	**1.9**	**J**	2.0	1.8	ug/L			04/19/21 14:02	2
Xylenes, Total	4.0	U	4.0	1.3	ug/L			04/19/21 14:02	2

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*108*		*73 - 120*		*04/19/21 14:02*	*2*
Dibromofluoromethane (Surr)	*116*		*75 - 123*		*04/19/21 14:02*	*2*
1,2-Dichloroethane-d4 (Surr)	*109*		*77 - 120*		*04/19/21 14:02*	*2*
Toluene-d8 (Surr)	*102*		*80 - 120*		*04/19/21 14:02*	*2*

Method: RSK-175 - Dissolved Gases (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethane	**190**		83	17	ug/L			04/19/21 19:03	11
Ethene	77	U	77	17	ug/L			04/19/21 19:03	11

Method: RSK-175 - Dissolved Gases (GC) - DL

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methane	**15000**	D	350	88	ug/L			04/20/21 01:02	88

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
TOC Result 1	**14**		1.0	0.43	mg/L			04/23/21 17:31	1
TOC Result 2	**15**		1.0	0.43	mg/L			04/23/21 17:31	1
Total Organic Carbon	**15**		1.0	0.43	mg/L			04/23/21 17:31	1

Client Sample ID: Equipment Blank - 1

Date Collected: 04/14/21 15:00
Date Received: 04/17/21 08:00

Lab Sample ID: 480-183467-5

Matrix: Water

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	10	U	10	3.0	ug/L			04/19/21 00:35	1
Benzene	1.0	U	1.0	0.41	ug/L			04/19/21 00:35	1
Bromodichloromethane	1.0	U	1.0	0.39	ug/L			04/19/21 00:35	1
Bromoform	1.0	U	1.0	0.26	ug/L			04/19/21 00:35	1
Bromomethane	1.0	U	1.0	0.69	ug/L			04/19/21 00:35	1
2-Butanone (MEK)	10	U	10	1.3	ug/L			04/19/21 00:35	1
Carbon disulfide	1.0	U	1.0	0.19	ug/L			04/19/21 00:35	1
Carbon tetrachloride	1.0	U	1.0	0.27	ug/L			04/19/21 00:35	1
Chlorobenzene	1.0	U	1.0	0.75	ug/L			04/19/21 00:35	1
Chloroethane	1.0	U	1.0	0.32	ug/L			04/19/21 00:35	1
Chloroform	1.0	U	1.0	0.34	ug/L			04/19/21 00:35	1
Chloromethane	1.0	U	1.0	0.35	ug/L			04/19/21 00:35	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.81	ug/L			04/19/21 00:35	1
cis-1,3-Dichloropropene	1.0	U	1.0	0.36	ug/L			04/19/21 00:35	1
Cyclohexane	1.0	U	1.0	0.18	ug/L			04/19/21 00:35	1
Dibromochloromethane	1.0	U	1.0	0.32	ug/L			04/19/21 00:35	1
1,2-Dibromo-3-Chloropropane	1.0	U	1.0	0.39	ug/L			04/19/21 00:35	1

Client Sample ID: Equipment Blank - 1

Date Collected: 04/14/21 15:00
Date Received: 04/17/21 08:00

Lab Sample ID: 480-183467-5

Matrix: Water

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromoethane	1.0	U	1.0	0.73	ug/L			04/19/21 00:35	1
1,2-Dichlorobenzene	1.0	U	1.0	0.79	ug/L			04/19/21 00:35	1
1,3-Dichlorobenzene	1.0	U	1.0	0.78	ug/L			04/19/21 00:35	1
1,4-Dichlorobenzene	1.0	U	1.0	0.84	ug/L			04/19/21 00:35	1
Dichlorodifluoromethane	1.0	U	1.0	0.68	ug/L			04/19/21 00:35	1
1,1-Dichloroethane	1.0	U	1.0	0.38	ug/L			04/19/21 00:35	1
1,2-Dichloroethane	1.0	U	1.0	0.21	ug/L			04/19/21 00:35	1
1,1-Dichloroethene	1.0	U	1.0	0.29	ug/L			04/19/21 00:35	1
1,2-Dichloropropane	1.0	U	1.0	0.72	ug/L			04/19/21 00:35	1
Ethylbenzene	1.0	U	1.0	0.74	ug/L			04/19/21 00:35	1
2-Hexanone	5.0	U	5.0	1.2	ug/L			04/19/21 00:35	1
Isopropylbenzene	1.0	U	1.0	0.79	ug/L			04/19/21 00:35	1
Methyl acetate	2.5	U	2.5	1.3	ug/L			04/19/21 00:35	1
Methylcyclohexane	1.0	U	1.0	0.16	ug/L			04/19/21 00:35	1
Methylene Chloride	1.0	U	1.0	0.44	ug/L			04/19/21 00:35	1
4-Methyl-2-pentanone (MIBK)	5.0	U	5.0	2.1	ug/L			04/19/21 00:35	1
Methyl tert-butyl ether	1.0	U	1.0	0.16	ug/L			04/19/21 00:35	1
Styrene	1.0	U	1.0	0.73	ug/L			04/19/21 00:35	1
1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.21	ug/L			04/19/21 00:35	1
Tetrachloroethene	1.0	U	1.0	0.36	ug/L			04/19/21 00:35	1
Toluene	1.0	U	1.0	0.51	ug/L			04/19/21 00:35	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.90	ug/L			04/19/21 00:35	1
trans-1,3-Dichloropropene	1.0	U	1.0	0.37	ug/L			04/19/21 00:35	1
1,2,4-Trichlorobenzene	1.0	U	1.0	0.41	ug/L			04/19/21 00:35	1
1,1,1-Trichloroethane	1.0	U	1.0	0.82	ug/L			04/19/21 00:35	1
1,1,2-Trichloroethane	1.0	U	1.0	0.23	ug/L			04/19/21 00:35	1
Trichloroethene	1.0	U	1.0	0.46	ug/L			04/19/21 00:35	1
Trichlorofluoromethane	1.0	U	1.0	0.88	ug/L			04/19/21 00:35	1
1,1,2-Trichloro-1,2,2-trifluoroethane	1.0	U	1.0	0.31	ug/L			04/19/21 00:35	1
Vinyl chloride	1.0	U	1.0	0.90	ug/L			04/19/21 00:35	1
Xylenes, Total	2.0	U	2.0	0.66	ug/L			04/19/21 00:35	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*108*		*73 - 120*		*04/19/21 00:35*	*1*
Dibromofluoromethane (Surr)	*110*		*75 - 123*		*04/19/21 00:35*	*1*
1,2-Dichloroethane-d4 (Surr)	*106*		*77 - 120*		*04/19/21 00:35*	*1*
Toluene-d8 (Surr)	*104*		*80 - 120*		*04/19/21 00:35*	*1*

Method: RSK-175 - Dissolved Gases (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethane	7.5	U	7.5	1.5	ug/L			04/19/21 19:22	1
Ethene	7.0	U	7.0	1.5	ug/L			04/19/21 19:22	1
Methane	4.0	U	4.0	1.0	ug/L			04/19/21 19:22	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
TOC Result 1	1.0	U	1.0	0.43	mg/L			04/23/21 18:30	1
TOC Result 2	1.0	U	1.0	0.43	mg/L			04/23/21 18:30	1
Total Organic Carbon	1.0	U	1.0	0.43	mg/L			04/23/21 18:30	1

Client Sample ID: MW-B1

Date Collected: 04/15/21 08:25
Date Received: 04/17/21 08:00

Lab Sample ID: 480-183467-6

Matrix: Water

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	40	U	40	12	ug/L			04/19/21 00:58	4
Benzene	4.0	U	4.0	1.6	ug/L			04/19/21 00:58	4
Bromodichloromethane	4.0	U	4.0	1.6	ug/L			04/19/21 00:58	4
Bromoform	4.0	U	4.0	1.0	ug/L			04/19/21 00:58	4
Bromomethane	4.0	U	4.0	2.8	ug/L			04/19/21 00:58	4
2-Butanone (MEK)	40	U	40	5.3	ug/L			04/19/21 00:58	4
Carbon disulfide	4.0	U	4.0	0.76	ug/L			04/19/21 00:58	4
Carbon tetrachloride	4.0	U	4.0	1.1	ug/L			04/19/21 00:58	4
Chlorobenzene	4.0	U	4.0	3.0	ug/L			04/19/21 00:58	4
Chloroethane	4.0	U	4.0	1.3	ug/L			04/19/21 00:58	4
Chloroform	4.0	U	4.0	1.4	ug/L			04/19/21 00:58	4
Chloromethane	4.0	U	4.0	1.4	ug/L			04/19/21 00:58	4
cis-1,2-Dichloroethene	4.0	U	4.0	3.2	ug/L			04/19/21 00:58	4
cis-1,3-Dichloropropene	4.0	U	4.0	1.4	ug/L			04/19/21 00:58	4
Cyclohexane	4.0	U	4.0	0.72	ug/L			04/19/21 00:58	4
Dibromochloromethane	4.0	U	4.0	1.3	ug/L			04/19/21 00:58	4
1,2-Dibromo-3-Chloropropane	4.0	U	4.0	1.6	ug/L			04/19/21 00:58	4
1,2-Dibromoethane	4.0	U	4.0	2.9	ug/L			04/19/21 00:58	4
1,2-Dichlorobenzene	4.0	U	4.0	3.2	ug/L			04/19/21 00:58	4
1,3-Dichlorobenzene	4.0	U	4.0	3.1	ug/L			04/19/21 00:58	4
1,4-Dichlorobenzene	4.0	U	4.0	3.4	ug/L			04/19/21 00:58	4
Dichlorodifluoromethane	4.0	U	4.0	2.7	ug/L			04/19/21 00:58	4
1,1-Dichloroethane	4.0	U	4.0	1.5	ug/L			04/19/21 00:58	4
1,2-Dichloroethane	4.0	U	4.0	0.84	ug/L			04/19/21 00:58	4
1,1-Dichloroethene	4.0	U	4.0	1.2	ug/L			04/19/21 00:58	4
1,2-Dichloropropane	4.0	U	4.0	2.9	ug/L			04/19/21 00:58	4
Ethylbenzene	4.0	U	4.0	3.0	ug/L			04/19/21 00:58	4
2-Hexanone	20	U	20	5.0	ug/L			04/19/21 00:58	4
Isopropylbenzene	4.0	U	4.0	3.2	ug/L			04/19/21 00:58	4
Methyl acetate	10	U	10	5.2	ug/L			04/19/21 00:58	4
Methylcyclohexane	4.0	U	4.0	0.64	ug/L			04/19/21 00:58	4
Methylene Chloride	4.0	U	4.0	1.8	ug/L			04/19/21 00:58	4
4-Methyl-2-pentanone (MIBK)	20	U	20	8.4	ug/L			04/19/21 00:58	4
Methyl tert-butyl ether	4.0	U	4.0	0.64	ug/L			04/19/21 00:58	4
Styrene	4.0	U	4.0	2.9	ug/L			04/19/21 00:58	4
1,1,2,2-Tetrachloroethane	4.0	U	4.0	0.84	ug/L			04/19/21 00:58	4
Tetrachloroethene	4.0	U	4.0	1.4	ug/L			04/19/21 00:58	4
Toluene	4.0	U	4.0	2.0	ug/L			04/19/21 00:58	4
trans-1,2-Dichloroethene	4.0	U	4.0	3.6	ug/L			04/19/21 00:58	4
trans-1,3-Dichloropropene	4.0	U	4.0	1.5	ug/L			04/19/21 00:58	4
1,2,4-Trichlorobenzene	4.0	U	4.0	1.6	ug/L			04/19/21 00:58	4
1,1,1-Trichloroethane	4.0	U	4.0	3.3	ug/L			04/19/21 00:58	4
1,1,2-Trichloroethane	4.0	U	4.0	0.92	ug/L			04/19/21 00:58	4
Trichloroethene	4.0	U	4.0	1.8	ug/L			04/19/21 00:58	4
Trichlorofluoromethane	4.0	U	4.0	3.5	ug/L			04/19/21 00:58	4
1,1,2-Trichloro-1,2,2-trifluoroethane	4.0	U	4.0	1.2	ug/L			04/19/21 00:58	4
Vinyl chloride	4.0	U	4.0	3.6	ug/L			04/19/21 00:58	4
Xylenes, Total	8.0	U	8.0	2.6	ug/L			04/19/21 00:58	4

Client Sample ID: MW-B1
Date Collected: 04/15/21 08:25
Date Received: 04/17/21 08:00

Lab Sample ID: 480-183467-6
Matrix: Water

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*106*		*73 - 120*		*04/19/21 00:58*	*4*
Dibromofluoromethane (Surr)	*110*		*75 - 123*		*04/19/21 00:58*	*4*
1,2-Dichloroethane-d4 (Surr)	*108*		*77 - 120*		*04/19/21 00:58*	*4*
Toluene-d8 (Surr)	*104*		*80 - 120*		*04/19/21 00:58*	*4*

Method: RSK-175 - Dissolved Gases (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethane	170	U	170	33	ug/L			04/19/21 19:41	22
Ethene	150	U	150	33	ug/L			04/19/21 19:41	22

Method: RSK-175 - Dissolved Gases (GC) - DL

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methane	**17000**	D	880	220	ug/L			04/20/21 01:20	220

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
TOC Result 1	**24**		1.0	0.43	mg/L			04/23/21 18:57	1
TOC Result 2	**26**		1.0	0.43	mg/L			04/23/21 18:57	1
Total Organic Carbon	**26**		1.0	0.43	mg/L			04/23/21 18:57	1

Client Sample ID: MW-17
Date Collected: 04/15/21 10:15
Date Received: 04/17/21 08:00

Lab Sample ID: 480-183467-7
Matrix: Water

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	10	U	10	3.0	ug/L			04/19/21 01:23	1
Benzene	1.0	U	1.0	0.41	ug/L			04/19/21 01:23	1
Bromodichloromethane	1.0	U	1.0	0.39	ug/L			04/19/21 01:23	1
Bromoform	1.0	U	1.0	0.26	ug/L			04/19/21 01:23	1
Bromomethane	1.0	U	1.0	0.69	ug/L			04/19/21 01:23	1
2-Butanone (MEK)	10	U	10	1.3	ug/L			04/19/21 01:23	1
Carbon disulfide	1.0	U	1.0	0.19	ug/L			04/19/21 01:23	1
Carbon tetrachloride	1.0	U	1.0	0.27	ug/L			04/19/21 01:23	1
Chlorobenzene	1.0	U	1.0	0.75	ug/L			04/19/21 01:23	1
Chloroethane	1.0	U	1.0	0.32	ug/L			04/19/21 01:23	1
Chloroform	1.0	U	1.0	0.34	ug/L			04/19/21 01:23	1
Chloromethane	1.0	U	1.0	0.35	ug/L			04/19/21 01:23	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.81	ug/L			04/19/21 01:23	1
cis-1,3-Dichloropropene	1.0	U	1.0	0.36	ug/L			04/19/21 01:23	1
Cyclohexane	1.0	U	1.0	0.18	ug/L			04/19/21 01:23	1
Dibromochloromethane	1.0	U	1.0	0.32	ug/L			04/19/21 01:23	1
1,2-Dibromo-3-Chloropropane	1.0	U	1.0	0.39	ug/L			04/19/21 01:23	1
1,2-Dibromoethane	1.0	U	1.0	0.73	ug/L			04/19/21 01:23	1
1,2-Dichlorobenzene	1.0	U	1.0	0.79	ug/L			04/19/21 01:23	1
1,3-Dichlorobenzene	1.0	U	1.0	0.78	ug/L			04/19/21 01:23	1
1,4-Dichlorobenzene	1.0	U	1.0	0.84	ug/L			04/19/21 01:23	1
Dichlorodifluoromethane	1.0	U	1.0	0.68	ug/L			04/19/21 01:23	1
1,1-Dichloroethane	1.0	U	1.0	0.38	ug/L			04/19/21 01:23	1
1,2-Dichloroethane	1.0	U	1.0	0.21	ug/L			04/19/21 01:23	1
1,1-Dichloroethene	1.0	U	1.0	0.29	ug/L			04/19/21 01:23	1

Client Sample ID: MW-17
Lab Sample ID: 480-183467-7

Date Collected: 04/15/21 10:15
Matrix: Water
Date Received: 04/17/21 08:00

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dichloropropane	1.0	U	1.0	0.72	ug/L			04/19/21 01:23	1
Ethylbenzene	1.0	U	1.0	0.74	ug/L			04/19/21 01:23	1
2-Hexanone	5.0	U	5.0	1.2	ug/L			04/19/21 01:23	1
Isopropylbenzene	1.0	U	1.0	0.79	ug/L			04/19/21 01:23	1
Methyl acetate	2.5	U	2.5	1.3	ug/L			04/19/21 01:23	1
Methylcyclohexane	1.0	U	1.0	0.16	ug/L			04/19/21 01:23	1
Methylene Chloride	1.0	U	1.0	0.44	ug/L			04/19/21 01:23	1
4-Methyl-2-pentanone (MIBK)	5.0	U	5.0	2.1	ug/L			04/19/21 01:23	1
Methyl tert-butyl ether	1.0	U	1.0	0.16	ug/L			04/19/21 01:23	1
Styrene	1.0	U	1.0	0.73	ug/L			04/19/21 01:23	1
1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.21	ug/L			04/19/21 01:23	1
Tetrachloroethene	1.0	U	1.0	0.36	ug/L			04/19/21 01:23	1
Toluene	1.0	U	1.0	0.51	ug/L			04/19/21 01:23	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.90	ug/L			04/19/21 01:23	1
trans-1,3-Dichloropropene	1.0	U	1.0	0.37	ug/L			04/19/21 01:23	1
1,2,4-Trichlorobenzene	1.0	U	1.0	0.41	ug/L			04/19/21 01:23	1
1,1,1-Trichloroethane	1.0	U	1.0	0.82	ug/L			04/19/21 01:23	1
1,1,2-Trichloroethane	1.0	U	1.0	0.23	ug/L			04/19/21 01:23	1
Trichloroethene	1.0	U	1.0	0.46	ug/L			04/19/21 01:23	1
Trichlorofluoromethane	1.0	U	1.0	0.88	ug/L			04/19/21 01:23	1
1,1,2-Trichloro-1,2,2-trifluoroethane	1.0	U	1.0	0.31	ug/L			04/19/21 01:23	1
Vinyl chloride	1.0	U	1.0	0.90	ug/L			04/19/21 01:23	1
Xylenes, Total	2.0	U	2.0	0.66	ug/L			04/19/21 01:23	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*103*		*73 - 120*		*04/19/21 01:23*	*1*
Dibromofluoromethane (Surr)	*109*		*75 - 123*		*04/19/21 01:23*	*1*
1,2-Dichloroethane-d4 (Surr)	*103*		*77 - 120*		*04/19/21 01:23*	*1*
Toluene-d8 (Surr)	*100*		*80 - 120*		*04/19/21 01:23*	*1*

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
TOC Result 1	**2.3**	UB	1.0	0.43	mg/L			04/23/21 19:55	1
TOC Result 2	**2.4**		1.0	0.43	mg/L			04/23/21 19:55	1
Total Organic Carbon	**2.2**		1.0	0.43	mg/L			04/23/21 19:55	1

Client Sample ID: MW-21
Lab Sample ID: 480-183467-8

Date Collected: 04/15/21 11:05
Matrix: Water
Date Received: 04/17/21 08:00

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	10	U	10	3.0	ug/L			04/19/21 01:46	1
Benzene	1.0	U	1.0	0.41	ug/L			04/19/21 01:46	1
Bromodichloromethane	1.0	U	1.0	0.39	ug/L			04/19/21 01:46	1
Bromoform	1.0	U	1.0	0.26	ug/L			04/19/21 01:46	1
Bromomethane	1.0	U	1.0	0.69	ug/L			04/19/21 01:46	1
2-Butanone (MEK)	10	U	10	1.3	ug/L			04/19/21 01:46	1
Carbon disulfide	1.0	U	1.0	0.19	ug/L			04/19/21 01:46	1
Carbon tetrachloride	1.0	U	1.0	0.27	ug/L			04/19/21 01:46	1

Client Sample ID: MW-21

Date Collected: 04/15/21 11:05
Date Received: 04/17/21 08:00

Lab Sample ID: 480-183467-8

Matrix: Water

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chlorobenzene	1.0	U	1.0	0.75	ug/L			04/19/21 01:46	1
Chloroethane	1.0	U	1.0	0.32	ug/L			04/19/21 01:46	1
Chloroform	1.0	U	1.0	0.34	ug/L			04/19/21 01:46	1
Chloromethane	1.0	U	1.0	0.35	ug/L			04/19/21 01:46	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.81	ug/L			04/19/21 01:46	1
cis-1,3-Dichloropropene	1.0	U	1.0	0.36	ug/L			04/19/21 01:46	1
Cyclohexane	1.0	U	1.0	0.18	ug/L			04/19/21 01:46	1
Dibromochloromethane	1.0	U	1.0	0.32	ug/L			04/19/21 01:46	1
1,2-Dibromo-3-Chloropropane	1.0	U	1.0	0.39	ug/L			04/19/21 01:46	1
1,2-Dibromoethane	1.0	U	1.0	0.73	ug/L			04/19/21 01:46	1
1,2-Dichlorobenzene	1.0	U	1.0	0.79	ug/L			04/19/21 01:46	1
1,3-Dichlorobenzene	1.0	U	1.0	0.78	ug/L			04/19/21 01:46	1
1,4-Dichlorobenzene	1.0	U	1.0	0.84	ug/L			04/19/21 01:46	1
Dichlorodifluoromethane	1.0	U	1.0	0.68	ug/L			04/19/21 01:46	1
1,1-Dichloroethane	1.0	U	1.0	0.38	ug/L			04/19/21 01:46	1
1,2-Dichloroethane	1.0	U	1.0	0.21	ug/L			04/19/21 01:46	1
1,1-Dichloroethene	1.0	U	1.0	0.29	ug/L			04/19/21 01:46	1
1,2-Dichloropropane	1.0	U	1.0	0.72	ug/L			04/19/21 01:46	1
Ethylbenzene	1.0	U	1.0	0.74	ug/L			04/19/21 01:46	1
2-Hexanone	5.0	U	5.0	1.2	ug/L			04/19/21 01:46	1
Isopropylbenzene	1.0	U	1.0	0.79	ug/L			04/19/21 01:46	1
Methyl acetate	2.5	U	2.5	1.3	ug/L			04/19/21 01:46	1
Methylcyclohexane	1.0	U	1.0	0.16	ug/L			04/19/21 01:46	1
Methylene Chloride	1.0	U	1.0	0.44	ug/L			04/19/21 01:46	1
4-Methyl-2-pentanone (MIBK)	5.0	U	5.0	2.1	ug/L			04/19/21 01:46	1
Methyl tert-butyl ether	1.0	U	1.0	0.16	ug/L			04/19/21 01:46	1
Styrene	1.0	U	1.0	0.73	ug/L			04/19/21 01:46	1
1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.21	ug/L			04/19/21 01:46	1
Tetrachloroethene	1.0	U	1.0	0.36	ug/L			04/19/21 01:46	1
Toluene	1.0	U	1.0	0.51	ug/L			04/19/21 01:46	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.90	ug/L			04/19/21 01:46	1
trans-1,3-Dichloropropene	1.0	U	1.0	0.37	ug/L			04/19/21 01:46	1
1,2,4-Trichlorobenzene	1.0	U	1.0	0.41	ug/L			04/19/21 01:46	1
1,1,1-Trichloroethane	1.0	U	1.0	0.82	ug/L			04/19/21 01:46	1
1,1,2-Trichloroethane	1.0	U	1.0	0.23	ug/L			04/19/21 01:46	1
Trichloroethene	1.0	U	1.0	0.46	ug/L			04/19/21 01:46	1
Trichlorofluoromethane	1.0	U	1.0	0.88	ug/L			04/19/21 01:46	1
1,1,2-Trichloro-1,2,2-trifluoroethane	1.0	U	1.0	0.31	ug/L			04/19/21 01:46	1
Vinyl chloride	1.0	U	1.0	0.90	ug/L			04/19/21 01:46	1
Xylenes, Total	2.0	U	2.0	0.66	ug/L			04/19/21 01:46	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*104*		*73 - 120*		*04/19/21 01:46*	*1*
Dibromofluoromethane (Surr)	*112*		*75 - 123*		*04/19/21 01:46*	*1*
1,2-Dichloroethane-d4 (Surr)	*107*		*77 - 120*		*04/19/21 01:46*	*1*
Toluene-d8 (Surr)	*102*		*80 - 120*		*04/19/21 01:46*	*1*

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
TOC Result 1	**3.5**		1.0	0.43	mg/L			04/23/21 20:52	1

Client Sample ID: MW-21

Date Collected: 04/15/21 11:05
Date Received: 04/17/21 08:00

Lab Sample ID: 480-183467-8

Matrix: Water

General Chemistry (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
TOC Result 2	**3.9**		1.0	0.43	mg/L			04/23/21 20:52	1
Total Organic Carbon	**3.8**		1.0	0.43	mg/L			04/23/21 20:52	1

Client Sample ID: MW-16

Date Collected: 04/15/21 12:30
Date Received: 04/17/21 08:00

Lab Sample ID: 480-183467-9

Matrix: Water

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	10	U	10	3.0	ug/L			04/19/21 02:10	1
Benzene	1.0	U	1.0	0.41	ug/L			04/19/21 02:10	1
Bromodichloromethane	1.0	U	1.0	0.39	ug/L			04/19/21 02:10	1
Bromoform	1.0	U	1.0	0.26	ug/L			04/19/21 02:10	1
Bromomethane	1.0	U	1.0	0.69	ug/L			04/19/21 02:10	1
2-Butanone (MEK)	10	U	10	1.3	ug/L			04/19/21 02:10	1
Carbon disulfide	1.0	U	1.0	0.19	ug/L			04/19/21 02:10	1
Carbon tetrachloride	1.0	U	1.0	0.27	ug/L			04/19/21 02:10	1
Chlorobenzene	1.0	U	1.0	0.75	ug/L			04/19/21 02:10	1
Chloroethane	1.0	U	1.0	0.32	ug/L			04/19/21 02:10	1
Chloroform	1.0	U	1.0	0.34	ug/L			04/19/21 02:10	1
Chloromethane	1.0	U	1.0	0.35	ug/L			04/19/21 02:10	1
cis-1,2-Dichloroethene	190 D ~~170~~ ~~E~~		4.0	~~1.0~~	3.2 ~~0.81~~	ug/L		04/19/21 02:10	4 ~~1~~
cis-1,3-Dichloropropene	1.0	U	1.0	0.36	ug/L			04/19/21 02:10	1
Cyclohexane	1.0	U	1.0	0.18	ug/L			04/19/21 02:10	1
Dibromochloromethane	1.0	U	1.0	0.32	ug/L			04/19/21 02:10	1
1,2-Dibromo-3-Chloropropane	1.0	U	1.0	0.39	ug/L			04/19/21 02:10	1
1,2-Dibromoethane	1.0	U	1.0	0.73	ug/L			04/19/21 02:10	1
1,2-Dichlorobenzene	1.0	U	1.0	0.79	ug/L			04/19/21 02:10	1
1,3-Dichlorobenzene	1.0	U	1.0	0.78	ug/L			04/19/21 02:10	1
1,4-Dichlorobenzene	1.0	U	1.0	0.84	ug/L			04/19/21 02:10	1
Dichlorodifluoromethane	1.0	U	1.0	0.68	ug/L			04/19/21 02:10	1
1,1-Dichloroethane	1.0	U	1.0	0.38	ug/L			04/19/21 02:10	1
1,2-Dichloroethane	**1.3**		1.0	0.21	ug/L			04/19/21 02:10	1
1,1-Dichloroethene	**1.0**		1.0	0.29	ug/L			04/19/21 02:10	1
1,2-Dichloropropane	1.0	U	1.0	0.72	ug/L			04/19/21 02:10	1
Ethylbenzene	1.0	U	1.0	0.74	ug/L			04/19/21 02:10	1
2-Hexanone	5.0	U	5.0	1.2	ug/L			04/19/21 02:10	1
Isopropylbenzene	1.0	U	1.0	0.79	ug/L			04/19/21 02:10	1
Methyl acetate	2.5	U	2.5	1.3	ug/L			04/19/21 02:10	1
Methylcyclohexane	1.0	U	1.0	0.16	ug/L			04/19/21 02:10	1
Methylene Chloride	1.0	U	1.0	0.44	ug/L			04/19/21 02:10	1
4-Methyl-2-pentanone (MIBK)	5.0	U	5.0	2.1	ug/L			04/19/21 02:10	1
Methyl tert-butyl ether	1.0	U	1.0	0.16	ug/L			04/19/21 02:10	1
Styrene	1.0	U	1.0	0.73	ug/L			04/19/21 02:10	1
1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.21	ug/L			04/19/21 02:10	1
Tetrachloroethene	1.0	U	1.0	0.36	ug/L			04/19/21 02:10	1
Toluene	1.0	U	1.0	0.51	ug/L			04/19/21 02:10	1
trans-1,2-Dichloroethene	**1.2**		1.0	0.90	ug/L			04/19/21 02:10	1
trans-1,3-Dichloropropene	1.0	U	1.0	0.37	ug/L			04/19/21 02:10	1
1,2,4-Trichlorobenzene	1.0	U	1.0	0.41	ug/L			04/19/21 02:10	1

Client Sample ID: MW-16
Date Collected: 04/15/21 12:30
Date Received: 04/17/21 08:00

Lab Sample ID: 480-183467-9
Matrix: Water

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	1.0	U	1.0	0.82	ug/L			04/19/21 02:10	1
1,1,2-Trichloroethane	1.0	U	1.0	0.23	ug/L			04/19/21 02:10	1
Trichloroethene	**18**		1.0	0.46	ug/L			04/19/21 02:10	1
Trichlorofluoromethane	1.0	U	1.0	0.88	ug/L			04/19/21 02:10	1
1,1,2-Trichloro-1,2,2-trifluoroethane	1.0	U	1.0	0.31	ug/L			04/19/21 02:10	1
Vinyl chloride	**2.0**		1.0	0.90	ug/L			04/19/21 02:10	1
Xylenes, Total	2.0	U	2.0	0.66	ug/L			04/19/21 02:10	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*105*		*73 - 120*		*04/19/21 02:10*	*1*
Dibromofluoromethane (Surr)	*112*		*75 - 123*		*04/19/21 02:10*	*1*
1,2-Dichloroethane-d4 (Surr)	*104*		*77 - 120*		*04/19/21 02:10*	*1*
Toluene-d8 (Surr)	*103*		*80 - 120*		*04/19/21 02:10*	*1*

Method: 8260C - Volatile Organic Compounds by GC/MS - DL

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	40	U	40	12	ug/L			04/19/21 12:51	4
Benzene	4.0	U	4.0	1.6	ug/L			04/19/21 12:51	4
Bromodichloromethane	4.0	U	4.0	1.6	ug/L			04/19/21 12:51	4
Bromoform	4.0	U	4.0	1.0	ug/L			04/19/21 12:51	4
Bromomethane	4.0	U	4.0	2.8	ug/L			04/19/21 12:51	4
2-Butanone (MEK)	40	U	40	5.3	ug/L			04/19/21 12:51	4
Carbon disulfide	4.0	U	4.0	0.76	ug/L			04/19/21 12:51	4
Carbon tetrachloride	4.0	U	4.0	1.1	ug/L			04/19/21 12:51	4
Chlorobenzene	4.0	U	4.0	3.0	ug/L			04/19/21 12:51	4
Chloroethane	4.0	U	4.0	1.3	ug/L			04/19/21 12:51	4
Chloroform	4.0	U	4.0	1.4	ug/L			04/19/21 12:51	4
Chloromethane	4.0	U	4.0	1.4	ug/L			04/19/21 12:51	4
cis-1,2-Dichloroethene	**190**		4.0	3.2	ug/L			04/19/21 12:51	4
cis-1,3-Dichloropropene	4.0	U	4.0	1.4	ug/L			04/19/21 12:51	4
Cyclohexane	4.0	U	4.0	0.72	ug/L			04/19/21 12:51	4
Dibromochloromethane	4.0	U	4.0	1.3	ug/L			04/19/21 12:51	4
1,2-Dibromo-3-Chloropropane	4.0	U	4.0	1.6	ug/L			04/19/21 12:51	4
1,2-Dibromoethane	4.0	U	4.0	2.9	ug/L			04/19/21 12:51	4
1,2-Dichlorobenzene	4.0	U	4.0	3.2	ug/L			04/19/21 12:51	4
1,3-Dichlorobenzene	4.0	U	4.0	3.1	ug/L			04/19/21 12:51	4
1,4-Dichlorobenzene	4.0	U	4.0	3.4	ug/L			04/19/21 12:51	4
Dichlorodifluoromethane	4.0	U	4.0	2.7	ug/L			04/19/21 12:51	4
1,1-Dichloroethane	4.0	U	4.0	1.5	ug/L			04/19/21 12:51	4
1,2-Dichloroethane	**1.7**	**J**	4.0	0.84	ug/L			04/19/21 12:51	4
1,1-Dichloroethene	**1.3**	**J**	4.0	1.2	ug/L			04/19/21 12:51	4
1,2-Dichloropropane	4.0	U	4.0	2.9	ug/L			04/19/21 12:51	4
Ethylbenzene	4.0	U	4.0	3.0	ug/L			04/19/21 12:51	4
2-Hexanone	20	U	20	5.0	ug/L			04/19/21 12:51	4
Isopropylbenzene	4.0	U	4.0	3.2	ug/L			04/19/21 12:51	4
Methyl acetate	10	U	10	5.2	ug/L			04/19/21 12:51	4
Methylcyclohexane	4.0	U	4.0	0.64	ug/L			04/19/21 12:51	4
Methylene Chloride	4.0	U	4.0	1.8	ug/L			04/19/21 12:51	4
4-Methyl-2-pentanone (MIBK)	20	U	20	8.4	ug/L			04/19/21 12:51	4
Methyl tert-butyl ether	4.0	U	4.0	0.64	ug/L			04/19/21 12:51	4

Client Sample ID: MW-16
Lab Sample ID: 480-183467-9

Date Collected: 04/15/21 12:30
Matrix: Water
Date Received: 04/17/21 08:00

Method: 8260C - Volatile Organic Compounds by GC/MS - DL (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Styrene	4.0	U	4.0	2.9	ug/L			04/19/21 12:51	4
1,1,2,2-Tetrachloroethane	4.0	U	4.0	0.84	ug/L			04/19/21 12:51	4
Tetrachloroethene	4.0	U	4.0	1.4	ug/L			04/19/21 12:51	4
Toluene	4.0	U	4.0	2.0	ug/L			04/19/21 12:51	4
trans-1,2-Dichloroethene	4.0	U	4.0	3.6	ug/L			04/19/21 12:51	4
trans-1,3-Dichloropropene	4.0	U	4.0	1.5	ug/L			04/19/21 12:51	4
1,2,4-Trichlorobenzene	4.0	U	4.0	1.6	ug/L			04/19/21 12:51	4
1,1,1-Trichloroethane	4.0	U	4.0	3.3	ug/L			04/19/21 12:51	4
1,1,2-Trichloroethane	4.0	U	4.0	0.92	ug/L			04/19/21 12:51	4
Trichloroethene	**18**		4.0	1.8	ug/L			04/19/21 12:51	4
Trichlorofluoromethane	4.0	U	4.0	3.5	ug/L			04/19/21 12:51	4
1,1,2-Trichloro-1,2,2-trifluoroethane	4.0	U	4.0	1.2	ug/L			04/19/21 12:51	4
Vinyl chloride	4.0	U	4.0	3.6	ug/L			04/19/21 12:51	4
Xylenes, Total	8.0	U	8.0	2.6	ug/L			04/19/21 12:51	4

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*107*		*73 - 120*		*04/19/21 12:51*	*4*
Dibromofluoromethane (Surr)	*114*		*75 - 123*		*04/19/21 12:51*	*4*
1,2-Dichloroethane-d4 (Surr)	*105*		*77 - 120*		*04/19/21 12:51*	*4*
Toluene-d8 (Surr)	*105*		*80 - 120*		*04/19/21 12:51*	*4*

Method: RSK-175 - Dissolved Gases (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethane	7.5	U	7.5	1.5	ug/L			04/19/21 20:00	1
Ethene	7.0	U	7.0	1.5	ug/L			04/19/21 20:00	1
Methane	**5.6**		4.0	1.0	ug/L			04/19/21 20:00	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
TOC Result 1	**1.3**	UB	1.0	0.43	mg/L			04/23/21 23:43	1
TOC Result 2	**1.5**		1.0	0.43	mg/L			04/23/21 23:43	1
Total Organic Carbon	**1.4**		1.0	0.43	mg/L			04/23/21 23:43	1

Client Sample ID: IP-1
Lab Sample ID: 480-183467-10

Date Collected: 04/15/21 13:25
Matrix: Water
Date Received: 04/17/21 08:00

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	50	U	50	15	ug/L			04/19/21 02:34	5
Benzene	5.0	U	5.0	2.1	ug/L			04/19/21 02:34	5
Bromodichloromethane	5.0	U	5.0	2.0	ug/L			04/19/21 02:34	5
Bromoform	5.0	U	5.0	1.3	ug/L			04/19/21 02:34	5
Bromomethane	5.0	U	5.0	3.5	ug/L			04/19/21 02:34	5
2-Butanone (MEK)	50	U	50	6.6	ug/L			04/19/21 02:34	5
Carbon disulfide	5.0	U	5.0	0.95	ug/L			04/19/21 02:34	5
Carbon tetrachloride	5.0	U	5.0	1.4	ug/L			04/19/21 02:34	5
Chlorobenzene	5.0	U	5.0	3.8	ug/L			04/19/21 02:34	5
Chloroethane	5.0	U	5.0	1.6	ug/L			04/19/21 02:34	5
Chloroform	5.0	U	5.0	1.7	ug/L			04/19/21 02:34	5
Chloromethane	5.0	U	5.0	1.8	ug/L			04/19/21 02:34	5

Client Sample ID: IP-1
Date Collected: 04/15/21 13:25
Date Received: 04/17/21 08:00

Lab Sample ID: 480-183467-10
Matrix: Water

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
cis-1,2-Dichloroethene	**310**		5.0	4.1	ug/L			04/19/21 02:34	5
cis-1,3-Dichloropropene	5.0	U	5.0	1.8	ug/L			04/19/21 02:34	5
Cyclohexane	5.0	U	5.0	0.90	ug/L			04/19/21 02:34	5
Dibromochloromethane	5.0	U	5.0	1.6	ug/L			04/19/21 02:34	5
1,2-Dibromo-3-Chloropropane	5.0	U	5.0	2.0	ug/L			04/19/21 02:34	5
1,2-Dibromoethane	5.0	U	5.0	3.7	ug/L			04/19/21 02:34	5
1,2-Dichlorobenzene	5.0	U	5.0	4.0	ug/L			04/19/21 02:34	5
1,3-Dichlorobenzene	5.0	U	5.0	3.9	ug/L			04/19/21 02:34	5
1,4-Dichlorobenzene	5.0	U	5.0	4.2	ug/L			04/19/21 02:34	5
Dichlorodifluoromethane	5.0	U	5.0	3.4	ug/L			04/19/21 02:34	5
1,1-Dichloroethane	5.0	U	5.0	1.9	ug/L			04/19/21 02:34	5
1,2-Dichloroethane	5.0	U	5.0	1.1	ug/L			04/19/21 02:34	5
1,1-Dichloroethene	5.0	U	5.0	1.5	ug/L			04/19/21 02:34	5
1,2-Dichloropropane	5.0	U	5.0	3.6	ug/L			04/19/21 02:34	5
Ethylbenzene	5.0	U	5.0	3.7	ug/L			04/19/21 02:34	5
2-Hexanone	25	U	25	6.2	ug/L			04/19/21 02:34	5
Isopropylbenzene	5.0	U	5.0	4.0	ug/L			04/19/21 02:34	5
Methyl acetate	13	U	13	6.5	ug/L			04/19/21 02:34	5
Methylcyclohexane	5.0	U	5.0	0.80	ug/L			04/19/21 02:34	5
Methylene Chloride	5.0	U	5.0	2.2	ug/L			04/19/21 02:34	5
4-Methyl-2-pentanone (MIBK)	25	U	25	11	ug/L			04/19/21 02:34	5
Methyl tert-butyl ether	5.0	U	5.0	0.80	ug/L			04/19/21 02:34	5
Styrene	5.0	U	5.0	3.7	ug/L			04/19/21 02:34	5
1,1,2,2-Tetrachloroethane	5.0	U	5.0	1.1	ug/L			04/19/21 02:34	5
Tetrachloroethene	5.0	U	5.0	1.8	ug/L			04/19/21 02:34	5
Toluene	5.0	U	5.0	2.6	ug/L			04/19/21 02:34	5
trans-1,2-Dichloroethene	5.0	U	5.0	4.5	ug/L			04/19/21 02:34	5
trans-1,3-Dichloropropene	5.0	U	5.0	1.9	ug/L			04/19/21 02:34	5
1,2,4-Trichlorobenzene	5.0	U	5.0	2.1	ug/L			04/19/21 02:34	5
1,1,1-Trichloroethane	5.0	U	5.0	4.1	ug/L			04/19/21 02:34	5
1,1,2-Trichloroethane	5.0	U	5.0	1.2	ug/L			04/19/21 02:34	5
Trichloroethene	5.0	U	5.0	2.3	ug/L			04/19/21 02:34	5
Trichlorofluoromethane	5.0	U	5.0	4.4	ug/L			04/19/21 02:34	5
1,1,2-Trichloro-1,2,2-trifluoroethane	5.0	U	5.0	1.6	ug/L			04/19/21 02:34	5
Vinyl chloride	**73**		5.0	4.5	ug/L			04/19/21 02:34	5
Xylenes, Total	10	U	10	3.3	ug/L			04/19/21 02:34	5

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*107*		*73 - 120*		*04/19/21 02:34*	*5*
Dibromofluoromethane (Surr)	*110*		*75 - 123*		*04/19/21 02:34*	*5*
1,2-Dichloroethane-d4 (Surr)	*107*		*77 - 120*		*04/19/21 02:34*	*5*
Toluene-d8 (Surr)	*103*		*80 - 120*		*04/19/21 02:34*	*5*

Method: RSK-175 - Dissolved Gases (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethane	**66**		7.5	1.5	ug/L			04/19/21 20:19	1
Ethene	**8.7**		7.0	1.5	ug/L			04/19/21 20:19	1

Client Sample ID: IP-1
Lab Sample ID: 480-183467-10

Date Collected: 04/15/21 13:25
Matrix: Water
Date Received: 04/17/21 08:00

Method: RSK-175 - Dissolved Gases (GC) - DL

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methane	**2800**	D	88	22	ug/L			04/20/21 01:39	22

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
TOC Result 1	**4.2**		1.0	0.43	mg/L			04/24/21 00:12	1
TOC Result 2	**4.6**		1.0	0.43	mg/L			04/24/21 00:12	1
Total Organic Carbon	**4.3**		1.0	0.43	mg/L			04/24/21 00:12	1

Client Sample ID: IMP-3
Lab Sample ID: 480-183467-11

Date Collected: 04/15/21 14:35
Matrix: Water
Date Received: 04/17/21 08:00

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	10	U	10	3.0	ug/L			04/19/21 02:58	1
Benzene	1.0	U	1.0	0.41	ug/L			04/19/21 02:58	1
Bromodichloromethane	1.0	U	1.0	0.39	ug/L			04/19/21 02:58	1
Bromoform	1.0	U	1.0	0.26	ug/L			04/19/21 02:58	1
Bromomethane	1.0	U	1.0	0.69	ug/L			04/19/21 02:58	1
2-Butanone (MEK)	10	U	10	1.3	ug/L			04/19/21 02:58	1
Carbon disulfide	1.0	U	1.0	0.19	ug/L			04/19/21 02:58	1
Carbon tetrachloride	1.0	U	1.0	0.27	ug/L			04/19/21 02:58	1
Chlorobenzene	1.0	U	1.0	0.75	ug/L			04/19/21 02:58	1
Chloroethane	1.0	U	1.0	0.32	ug/L			04/19/21 02:58	1
Chloroform	1.0	U	1.0	0.34	ug/L			04/19/21 02:58	1
Chloromethane	1.0	U	1.0	0.35	ug/L			04/19/21 02:58	1
cis-1,2-Dichloroethene	120 D ~~**100 E**~~		2.0 ~~1.0~~	1.6 ~~0.81~~	ug/L			04/19/21 02:58	2 ~~1~~
cis-1,3-Dichloropropene	1.0	U	1.0	0.36	ug/L			04/19/21 02:58	1
Cyclohexane	1.0	U	1.0	0.18	ug/L			04/19/21 02:58	1
Dibromochloromethane	1.0	U	1.0	0.32	ug/L			04/19/21 02:58	1
1,2-Dibromo-3-Chloropropane	1.0	U	1.0	0.39	ug/L			04/19/21 02:58	1
1,2-Dibromoethane	1.0	U	1.0	0.73	ug/L			04/19/21 02:58	1
1,2-Dichlorobenzene	1.0	U	1.0	0.79	ug/L			04/19/21 02:58	1
1,3-Dichlorobenzene	1.0	U	1.0	0.78	ug/L			04/19/21 02:58	1
1,4-Dichlorobenzene	1.0	U	1.0	0.84	ug/L			04/19/21 02:58	1
Dichlorodifluoromethane	1.0	U	1.0	0.68	ug/L			04/19/21 02:58	1
1,1-Dichloroethane	1.0	U	1.0	0.38	ug/L			04/19/21 02:58	1
1,2-Dichloroethane	**0.76**	**J**	1.0	0.21	ug/L			04/19/21 02:58	1
1,1-Dichloroethene	1.0	U	1.0	0.29	ug/L			04/19/21 02:58	1
1,2-Dichloropropane	1.0	U	1.0	0.72	ug/L			04/19/21 02:58	1
Ethylbenzene	1.0	U	1.0	0.74	ug/L			04/19/21 02:58	1
2-Hexanone	5.0	U	5.0	1.2	ug/L			04/19/21 02:58	1
Isopropylbenzene	1.0	U	1.0	0.79	ug/L			04/19/21 02:58	1
Methyl acetate	2.5	U	2.5	1.3	ug/L			04/19/21 02:58	1
Methylcyclohexane	1.0	U	1.0	0.16	ug/L			04/19/21 02:58	1
Methylene Chloride	1.0	U	1.0	0.44	ug/L			04/19/21 02:58	1
4-Methyl-2-pentanone (MIBK)	5.0	U	5.0	2.1	ug/L			04/19/21 02:58	1
Methyl tert-butyl ether	1.0	U	1.0	0.16	ug/L			04/19/21 02:58	1
Styrene	1.0	U	1.0	0.73	ug/L			04/19/21 02:58	1
1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.21	ug/L			04/19/21 02:58	1

Client Sample ID: IMP-3
Date Collected: 04/15/21 14:35
Date Received: 04/17/21 08:00

Lab Sample ID: 480-183467-11
Matrix: Water

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Tetrachloroethene	1.0	U	1.0	0.36	ug/L			04/19/21 02:58	1
Toluene	1.0	U	1.0	0.51	ug/L			04/19/21 02:58	1
trans-1,2-Dichloroethene	**1.7**		1.0	0.90	ug/L			04/19/21 02:58	1
trans-1,3-Dichloropropene	1.0	U	1.0	0.37	ug/L			04/19/21 02:58	1
1,2,4-Trichlorobenzene	1.0	U	1.0	0.41	ug/L			04/19/21 02:58	1
1,1,1-Trichloroethane	1.0	U	1.0	0.82	ug/L			04/19/21 02:58	1
1,1,2-Trichloroethane	1.0	U	1.0	0.23	ug/L			04/19/21 02:58	1
Trichloroethene	1.0	U	1.0	0.46	ug/L			04/19/21 02:58	1
Trichlorofluoromethane	1.0	U	1.0	0.88	ug/L			04/19/21 02:58	1
1,1,2-Trichloro-1,2,2-trifluoroethane	1.0	U	1.0	0.31	ug/L			04/19/21 02:58	1
Vinyl chloride	**13**		1.0	0.90	ug/L			04/19/21 02:58	1
Xylenes, Total	2.0	U	2.0	0.66	ug/L			04/19/21 02:58	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*107*		*73 - 120*		*04/19/21 02:58*	*1*
Dibromofluoromethane (Surr)	*105*		*75 - 123*		*04/19/21 02:58*	*1*
1,2-Dichloroethane-d4 (Surr)	*106*		*77 - 120*		*04/19/21 02:58*	*1*
Toluene-d8 (Surr)	*102*		*80 - 120*		*04/19/21 02:58*	*1*

Method: 8260C - Volatile Organic Compounds by GC/MS - DL

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	20	U	20	6.0	ug/L			04/19/21 13:14	2
Benzene	2.0	U	2.0	0.82	ug/L			04/19/21 13:14	2
Bromodichloromethane	2.0	U	2.0	0.78	ug/L			04/19/21 13:14	2
Bromoform	2.0	U	2.0	0.52	ug/L			04/19/21 13:14	2
Bromomethane	2.0	U	2.0	1.4	ug/L			04/19/21 13:14	2
2-Butanone (MEK)	20	U	20	2.6	ug/L			04/19/21 13:14	2
Carbon disulfide	2.0	U	2.0	0.38	ug/L			04/19/21 13:14	2
Carbon tetrachloride	2.0	U	2.0	0.54	ug/L			04/19/21 13:14	2
Chlorobenzene	2.0	U	2.0	1.5	ug/L			04/19/21 13:14	2
Chloroethane	2.0	U	2.0	0.64	ug/L			04/19/21 13:14	2
Chloroform	2.0	U	2.0	0.68	ug/L			04/19/21 13:14	2
Chloromethane	2.0	U	2.0	0.70	ug/L			04/19/21 13:14	2
cis-1,2-Dichloroethene	**120**		2.0	1.6	ug/L			04/19/21 13:14	2
cis-1,3-Dichloropropene	2.0	U	2.0	0.72	ug/L			04/19/21 13:14	2
Cyclohexane	2.0	U	2.0	0.36	ug/L			04/19/21 13:14	2
Dibromochloromethane	2.0	U	2.0	0.64	ug/L			04/19/21 13:14	2
1,2-Dibromo-3-Chloropropane	2.0	U	2.0	0.78	ug/L			04/19/21 13:14	2
1,2-Dibromoethane	2.0	U	2.0	1.5	ug/L			04/19/21 13:14	2
1,2-Dichlorobenzene	2.0	U	2.0	1.6	ug/L			04/19/21 13:14	2
1,3-Dichlorobenzene	2.0	U	2.0	1.6	ug/L			04/19/21 13:14	2
1,4-Dichlorobenzene	2.0	U	2.0	1.7	ug/L			04/19/21 13:14	2
Dichlorodifluoromethane	2.0	U	2.0	1.4	ug/L			04/19/21 13:14	2
1,1-Dichloroethane	2.0	U	2.0	0.76	ug/L			04/19/21 13:14	2
1,2-Dichloroethane	**0.92**	**J**	2.0	0.42	ug/L			04/19/21 13:14	2
1,1-Dichloroethene	2.0	U	2.0	0.58	ug/L			04/19/21 13:14	2
1,2-Dichloropropane	2.0	U	2.0	1.4	ug/L			04/19/21 13:14	2
Ethylbenzene	2.0	U	2.0	1.5	ug/L			04/19/21 13:14	2
2-Hexanone	10	U	10	2.5	ug/L			04/19/21 13:14	2
Isopropylbenzene	2.0	U	2.0	1.6	ug/L			04/19/21 13:14	2

Client Sample ID: IMP-3
Lab Sample ID: 480-183467-11

Date Collected: 04/15/21 14:35
Matrix: Water
Date Received: 04/17/21 08:00

Method: 8260C - Volatile Organic Compounds by GC/MS - DL (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methyl acetate	5.0	U	5.0	2.6	ug/L			04/19/21 13:14	2
Methylcyclohexane	2.0	U	2.0	0.32	ug/L			04/19/21 13:14	2
Methylene Chloride	2.0	U	2.0	0.88	ug/L			04/19/21 13:14	2
4-Methyl-2-pentanone (MIBK)	10	U	10	4.2	ug/L			04/19/21 13:14	2
Methyl tert-butyl ether	2.0	U	2.0	0.32	ug/L			04/19/21 13:14	2
Styrene	2.0	U	2.0	1.5	ug/L			04/19/21 13:14	2
1,1,2,2-Tetrachloroethane	2.0	U	2.0	0.42	ug/L			04/19/21 13:14	2
Tetrachloroethene	2.0	U	2.0	0.72	ug/L			04/19/21 13:14	2
Toluene	2.0	U	2.0	1.0	ug/L			04/19/21 13:14	2
trans-1,2-Dichloroethene	**1.8**	**J**	2.0	1.8	ug/L			04/19/21 13:14	2
trans-1,3-Dichloropropene	2.0	U	2.0	0.74	ug/L			04/19/21 13:14	2
1,2,4-Trichlorobenzene	2.0	U	2.0	0.82	ug/L			04/19/21 13:14	2
1,1,1-Trichloroethane	2.0	U	2.0	1.6	ug/L			04/19/21 13:14	2
1,1,2-Trichloroethane	2.0	U	2.0	0.46	ug/L			04/19/21 13:14	2
Trichloroethene	2.0	U	2.0	0.92	ug/L			04/19/21 13:14	2
Trichlorofluoromethane	2.0	U	2.0	1.8	ug/L			04/19/21 13:14	2
1,1,2-Trichloro-1,2,2-trifluoroethane	2.0	U	2.0	0.62	ug/L			04/19/21 13:14	2
Vinyl chloride	**15**		2.0	1.8	ug/L			04/19/21 13:14	2
Xylenes, Total	4.0	U	4.0	1.3	ug/L			04/19/21 13:14	2

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*106*		*73 - 120*		*04/19/21 13:14*	*2*
Dibromofluoromethane (Surr)	*112*		*75 - 123*		*04/19/21 13:14*	*2*
1,2-Dichloroethane-d4 (Surr)	*109*		*77 - 120*		*04/19/21 13:14*	*2*
Toluene-d8 (Surr)	*101*		*80 - 120*		*04/19/21 13:14*	*2*

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
TOC Result 1	**1.1**	UB	1.0	0.43	mg/L			04/24/21 00:41	1
TOC Result 2	**1.4**		1.0	0.43	mg/L			04/24/21 00:41	1
Total Organic Carbon	**1.1**		1.0	0.43	mg/L			04/24/21 00:41	1

Client Sample ID: MW-18
Lab Sample ID: 480-183467-12

Date Collected: 04/15/21 15:25
Matrix: Water
Date Received: 04/17/21 08:00

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	50	U	50	15	ug/L			04/19/21 03:21	5
Benzene	5.0	U	5.0	2.1	ug/L			04/19/21 03:21	5
Bromodichloromethane	5.0	U	5.0	2.0	ug/L			04/19/21 03:21	5
Bromoform	5.0	U	5.0	1.3	ug/L			04/19/21 03:21	5
Bromomethane	5.0	U	5.0	3.5	ug/L			04/19/21 03:21	5
2-Butanone (MEK)	50	U	50	6.6	ug/L			04/19/21 03:21	5
Carbon disulfide	5.0	U	5.0	0.95	ug/L			04/19/21 03:21	5
Carbon tetrachloride	5.0	U	5.0	1.4	ug/L			04/19/21 03:21	5
Chlorobenzene	5.0	U	5.0	3.8	ug/L			04/19/21 03:21	5
Chloroethane	5.0	U	5.0	1.6	ug/L			04/19/21 03:21	5
Chloroform	5.0	U	5.0	1.7	ug/L			04/19/21 03:21	5
Chloromethane	5.0	U	5.0	1.8	ug/L			04/19/21 03:21	5

Client Sample ID: MW-18
Date Collected: 04/15/21 15:25
Date Received: 04/17/21 08:00

Lab Sample ID: 480-183467-12
Matrix: Water

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
cis-1,2-Dichloroethene	**380**		5.0	4.1	ug/L			04/19/21 03:21	5
cis-1,3-Dichloropropene	5.0	U	5.0	1.8	ug/L			04/19/21 03:21	5
Cyclohexane	5.0	U	5.0	0.90	ug/L			04/19/21 03:21	5
Dibromochloromethane	5.0	U	5.0	1.6	ug/L			04/19/21 03:21	5
1,2-Dibromo-3-Chloropropane	5.0	U	5.0	2.0	ug/L			04/19/21 03:21	5
1,2-Dibromoethane	5.0	U	5.0	3.7	ug/L			04/19/21 03:21	5
1,2-Dichlorobenzene	5.0	U	5.0	4.0	ug/L			04/19/21 03:21	5
1,3-Dichlorobenzene	5.0	U	5.0	3.9	ug/L			04/19/21 03:21	5
1,4-Dichlorobenzene	5.0	U	5.0	4.2	ug/L			04/19/21 03:21	5
Dichlorodifluoromethane	5.0	U	5.0	3.4	ug/L			04/19/21 03:21	5
1,1-Dichloroethane	5.0	U	5.0	1.9	ug/L			04/19/21 03:21	5
1,2-Dichloroethane	5.0	U	5.0	1.1	ug/L			04/19/21 03:21	5
1,1-Dichloroethene	5.0	U	5.0	1.5	ug/L			04/19/21 03:21	5
1,2-Dichloropropane	5.0	U	5.0	3.6	ug/L			04/19/21 03:21	5
Ethylbenzene	5.0	U	5.0	3.7	ug/L			04/19/21 03:21	5
2-Hexanone	25	U	25	6.2	ug/L			04/19/21 03:21	5
Isopropylbenzene	5.0	U	5.0	4.0	ug/L			04/19/21 03:21	5
Methyl acetate	13	U	13	6.5	ug/L			04/19/21 03:21	5
Methylcyclohexane	5.0	U	5.0	0.80	ug/L			04/19/21 03:21	5
Methylene Chloride	5.0	U	5.0	2.2	ug/L			04/19/21 03:21	5
4-Methyl-2-pentanone (MIBK)	25	U	25	11	ug/L			04/19/21 03:21	5
Methyl tert-butyl ether	5.0	U	5.0	0.80	ug/L			04/19/21 03:21	5
Styrene	5.0	U	5.0	3.7	ug/L			04/19/21 03:21	5
1,1,2,2-Tetrachloroethane	5.0	U	5.0	1.1	ug/L			04/19/21 03:21	5
Tetrachloroethene	5.0	U	5.0	1.8	ug/L			04/19/21 03:21	5
Toluene	5.0	U	5.0	2.6	ug/L			04/19/21 03:21	5
trans-1,2-Dichloroethene	5.0	U	5.0	4.5	ug/L			04/19/21 03:21	5
trans-1,3-Dichloropropene	5.0	U	5.0	1.9	ug/L			04/19/21 03:21	5
1,2,4-Trichlorobenzene	5.0	U	5.0	2.1	ug/L			04/19/21 03:21	5
1,1,1-Trichloroethane	5.0	U	5.0	4.1	ug/L			04/19/21 03:21	5
1,1,2-Trichloroethane	5.0	U	5.0	1.2	ug/L			04/19/21 03:21	5
Trichloroethene	5.0	U	5.0	2.3	ug/L			04/19/21 03:21	5
Trichlorofluoromethane	5.0	U	5.0	4.4	ug/L			04/19/21 03:21	5
1,1,2-Trichloro-1,2,2-trifluoroethane	5.0	U	5.0	1.6	ug/L			04/19/21 03:21	5
Vinyl chloride	**73**		5.0	4.5	ug/L			04/19/21 03:21	5
Xylenes, Total	10	U	10	3.3	ug/L			04/19/21 03:21	5

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*108*		*73 - 120*		*04/19/21 03:21*	*5*
Dibromofluoromethane (Surr)	*112*		*75 - 123*		*04/19/21 03:21*	*5*
1,2-Dichloroethane-d4 (Surr)	*109*		*77 - 120*		*04/19/21 03:21*	*5*
Toluene-d8 (Surr)	*105*		*80 - 120*		*04/19/21 03:21*	*5*

Method: RSK-175 - Dissolved Gases (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethane	**48**		7.5	1.5	ug/L			04/19/21 20:38	1
Ethene	**2.7**	**J**	7.0	1.5	ug/L			04/19/21 20:38	1

Client Sample ID: MW-18
Lab Sample ID: 480-183467-12
Date Collected: 04/15/21 15:25
Matrix: Water
Date Received: 04/17/21 08:00

Method: RSK-175 - Dissolved Gases (GC) - DL

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methane	**860**	D	88	22	ug/L			04/20/21 01:58	22

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
TOC Result 1	**2.4**		1.0	0.43	mg/L			04/24/21 01:08	1
TOC Result 2	**2.5**		1.0	0.43	mg/L			04/24/21 01:08	1
Total Organic Carbon	**2.5**		1.0	0.43	mg/L			04/24/21 01:08	1

Client Sample ID: IW-A2
Lab Sample ID: 480-183467-13
Date Collected: 04/15/21 09:40
Matrix: Water
Date Received: 04/17/21 08:00

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	200	U	200	60	ug/L			04/19/21 14:29	20
Benzene	20	U	20	8.2	ug/L			04/19/21 14:29	20
Bromodichloromethane	20	U	20	7.8	ug/L			04/19/21 14:29	20
Bromoform	20	U	20	5.2	ug/L			04/19/21 14:29	20
Bromomethane	20	U	20	14	ug/L			04/19/21 14:29	20
2-Butanone (MEK)	200	U	200	26	ug/L			04/19/21 14:29	20
Carbon disulfide	20	U	20	3.8	ug/L			04/19/21 14:29	20
Carbon tetrachloride	20	U	20	5.4	ug/L			04/19/21 14:29	20
Chlorobenzene	20	U	20	15	ug/L			04/19/21 14:29	20
Chloroethane	20	U	20	6.4	ug/L			04/19/21 14:29	20
Chloroform	20	U	20	6.8	ug/L			04/19/21 14:29	20
Chloromethane	20	U	20	7.0	ug/L			04/19/21 14:29	20
cis-1,2-Dichloroethene	20	U	20	16	ug/L			04/19/21 14:29	20
cis-1,3-Dichloropropene	20	U	20	7.2	ug/L			04/19/21 14:29	20
Cyclohexane	20	U	20	3.6	ug/L			04/19/21 14:29	20
Dibromochloromethane	20	U	20	6.4	ug/L			04/19/21 14:29	20
1,2-Dibromo-3-Chloropropane	20	U	20	7.8	ug/L			04/19/21 14:29	20
1,2-Dibromoethane	20	U	20	15	ug/L			04/19/21 14:29	20
1,2-Dichlorobenzene	20	U	20	16	ug/L			04/19/21 14:29	20
1,3-Dichlorobenzene	20	U	20	16	ug/L			04/19/21 14:29	20
1,4-Dichlorobenzene	20	U	20	17	ug/L			04/19/21 14:29	20
Dichlorodifluoromethane	20	U	20	14	ug/L			04/19/21 14:29	20
1,1-Dichloroethane	20	U	20	7.6	ug/L			04/19/21 14:29	20
1,2-Dichloroethane	20	U	20	4.2	ug/L			04/19/21 14:29	20
1,1-Dichloroethene	20	U	20	5.8	ug/L			04/19/21 14:29	20
1,2-Dichloropropane	20	U	20	14	ug/L			04/19/21 14:29	20
Ethylbenzene	20	U	20	15	ug/L			04/19/21 14:29	20
2-Hexanone	100	U	100	25	ug/L			04/19/21 14:29	20
Isopropylbenzene	20	U	20	16	ug/L			04/19/21 14:29	20
Methyl acetate	50	U	50	26	ug/L			04/19/21 14:29	20
Methylcyclohexane	20	U	20	3.2	ug/L			04/19/21 14:29	20
Methylene Chloride	20	U	20	8.8	ug/L			04/19/21 14:29	20
4-Methyl-2-pentanone (MIBK)	100	U	100	42	ug/L			04/19/21 14:29	20
Methyl tert-butyl ether	20	U	20	3.2	ug/L			04/19/21 14:29	20
Styrene	20	U	20	15	ug/L			04/19/21 14:29	20
1,1,2,2-Tetrachloroethane	20	U	20	4.2	ug/L			04/19/21 14:29	20

Client Sample ID: IW-A2
Lab Sample ID: 480-183467-13

Date Collected: 04/15/21 09:40
Matrix: Water
Date Received: 04/17/21 08:00

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Tetrachloroethene	20	U	20	7.2	ug/L			04/19/21 14:29	20
Toluene	20	U	20	10	ug/L			04/19/21 14:29	20
trans-1,2-Dichloroethene	20	U	20	18	ug/L			04/19/21 14:29	20
trans-1,3-Dichloropropene	20	U	20	7.4	ug/L			04/19/21 14:29	20
1,2,4-Trichlorobenzene	20	U	20	8.2	ug/L			04/19/21 14:29	20
1,1,1-Trichloroethane	20	U	20	16	ug/L			04/19/21 14:29	20
1,1,2-Trichloroethane	20	U	20	4.6	ug/L			04/19/21 14:29	20
Trichloroethene	20	U	20	9.2	ug/L			04/19/21 14:29	20
Trichlorofluoromethane	20	U	20	18	ug/L			04/19/21 14:29	20
1,1,2-Trichloro-1,2,2-trifluoroethane	20	U	20	6.2	ug/L			04/19/21 14:29	20
Vinyl chloride	20	U	20	18	ug/L			04/19/21 14:29	20
Xylenes, Total	**17**	**J**	40	13	ug/L			04/19/21 14:29	20

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*110*		*73 - 120*		*04/19/21 14:29*	*20*
Dibromofluoromethane (Surr)	*107*		*75 - 123*		*04/19/21 14:29*	*20*
1,2-Dichloroethane-d4 (Surr)	*103*		*77 - 120*		*04/19/21 14:29*	*20*
Toluene-d8 (Surr)	*105*		*80 - 120*		*04/19/21 14:29*	*20*

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
TOC Result 1	**140**		4.0	1.7	mg/L			04/24/21 01:37	4
TOC Result 2	**140**		4.0	1.7	mg/L			04/24/21 01:37	4
Total Organic Carbon	**140**		4.0	1.7	mg/L			04/24/21 01:37	4

Client Sample ID: MW-A1
Lab Sample ID: 480-183467-14

Date Collected: 04/15/21 12:20
Matrix: Water
Date Received: 04/17/21 08:00

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	20	U	20	6.0	ug/L			04/19/21 04:09	2
Benzene	**2.3**		2.0	0.82	ug/L			04/19/21 04:09	2
Bromodichloromethane	2.0	U F1	2.0	0.78	ug/L			04/19/21 04:09	2
Bromoform	2.0	U	2.0	0.52	ug/L			04/19/21 04:09	2
Bromomethane	2.0	U	2.0	1.4	ug/L			04/19/21 04:09	2
2-Butanone (MEK)	20	U	20	2.6	ug/L			04/19/21 04:09	2
Carbon disulfide	2.0	U	2.0	0.38	ug/L			04/19/21 04:09	2
Carbon tetrachloride	2.0	U	2.0	0.54	ug/L			04/19/21 04:09	2
Chlorobenzene	2.0	U F1	2.0	1.5	ug/L			04/19/21 04:09	2
Chloroethane	**3.0**		2.0	0.64	ug/L			04/19/21 04:09	2
Chloroform	2.0	U	2.0	0.68	ug/L			04/19/21 04:09	2
Chloromethane	2.0	U	2.0	0.70	ug/L			04/19/21 04:09	2
cis-1,2-Dichloroethene	2.0	U	2.0	1.6	ug/L			04/19/21 04:09	2
cis-1,3-Dichloropropene	2.0	U	2.0	0.72	ug/L			04/19/21 04:09	2
Cyclohexane	**0.46**	**J**	2.0	0.36	ug/L			04/19/21 04:09	2
Dibromochloromethane	2.0	U F1	2.0	0.64	ug/L			04/19/21 04:09	2
1,2-Dibromo-3-Chloropropane	2.0	U	2.0	0.78	ug/L			04/19/21 04:09	2
1,2-Dibromoethane	2.0	U F1	2.0	1.5	ug/L			04/19/21 04:09	2
1,2-Dichlorobenzene	2.0	U	2.0	1.6	ug/L			04/19/21 04:09	2

Client Sample ID: MW-A1
Date Collected: 04/15/21 12:20
Date Received: 04/17/21 08:00

Lab Sample ID: 480-183467-14
Matrix: Water

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,3-Dichlorobenzene	2.0	U	2.0	1.6	ug/L			04/19/21 04:09	2
1,4-Dichlorobenzene	2.0	U	2.0	1.7	ug/L			04/19/21 04:09	2
Dichlorodifluoromethane	2.0	U	2.0	1.4	ug/L			04/19/21 04:09	2
1,1-Dichloroethane	2.0	U F1	2.0	0.76	ug/L			04/19/21 04:09	2
1,2-Dichloroethane	2.0	U	2.0	0.42	ug/L			04/19/21 04:09	2
1,1-Dichloroethene	2.0	U	2.0	0.58	ug/L			04/19/21 04:09	2
1,2-Dichloropropane	2.0	U F1	2.0	1.4	ug/L			04/19/21 04:09	2
Ethylbenzene	2.0	U	2.0	1.5	ug/L			04/19/21 04:09	2
2-Hexanone	10	U	10	2.5	ug/L			04/19/21 04:09	2
Isopropylbenzene	2.0	U F1	2.0	1.6	ug/L			04/19/21 04:09	2
Methyl acetate	5.0	U	5.0	2.6	ug/L			04/19/21 04:09	2
Methylcyclohexane	2.0	U	2.0	0.32	ug/L			04/19/21 04:09	2
Methylene Chloride	2.0	U	2.0	0.88	ug/L			04/19/21 04:09	2
4-Methyl-2-pentanone (MIBK)	10	U	10	4.2	ug/L			04/19/21 04:09	2
Methyl tert-butyl ether	2.0	U	2.0	0.32	ug/L			04/19/21 04:09	2
Styrene	2.0	U	2.0	1.5	ug/L			04/19/21 04:09	2
1,1,2,2-Tetrachloroethane	2.0	U F1	2.0	0.42	ug/L			04/19/21 04:09	2
Tetrachloroethene	2.0	U	2.0	0.72	ug/L			04/19/21 04:09	2
Toluene	2.0	U	2.0	1.0	ug/L			04/19/21 04:09	2
trans-1,2-Dichloroethene	2.0	U	2.0	1.8	ug/L			04/19/21 04:09	2
trans-1,3-Dichloropropene	2.0	U	2.0	0.74	ug/L			04/19/21 04:09	2
1,2,4-Trichlorobenzene	2.0	U	2.0	0.82	ug/L			04/19/21 04:09	2
1,1,1-Trichloroethane	2.0	U	2.0	1.6	ug/L			04/19/21 04:09	2
1,1,2-Trichloroethane	2.0	U	2.0	0.46	ug/L			04/19/21 04:09	2
Trichloroethene	2.0	U	2.0	0.92	ug/L			04/19/21 04:09	2
Trichlorofluoromethane	2.0	U	2.0	1.8	ug/L			04/19/21 04:09	2
1,1,2-Trichloro-1,2,2-trifluoroethane	2.0	U	2.0	0.62	ug/L			04/19/21 04:09	2
Vinyl chloride	2.0	U	2.0	1.8	ug/L			04/19/21 04:09	2
Xylenes, Total	4.0	U	4.0	1.3	ug/L			04/19/21 04:09	2

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*110*		*73 - 120*		*04/19/21 04:09*	*2*
Dibromofluoromethane (Surr)	*112*		*75 - 123*		*04/19/21 04:09*	*2*
1,2-Dichloroethane-d4 (Surr)	*107*		*77 - 120*		*04/19/21 04:09*	*2*
Toluene-d8 (Surr)	*104*		*80 - 120*		*04/19/21 04:09*	*2*

Method: RSK-175 - Dissolved Gases (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethane	660	U	660	130	ug/L			04/19/21 15:33	88
Ethene	620	U	620	130	ug/L			04/19/21 15:33	88
Methane	**14000**		350	88	ug/L			04/19/21 15:33	88

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
TOC Result 1	**15**		1.0	0.43	mg/L			04/23/21 22:19	1
TOC Result 2	**16**		1.0	0.43	mg/L			04/23/21 22:19	1
Total Organic Carbon	**15**		1.0	0.43	mg/L			04/23/21 22:19	1

Client Sample ID: MW-15

Date Collected: 04/15/21 14:15
Date Received: 04/17/21 08:00

Lab Sample ID: 480-183467-15

Matrix: Water

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	**3.6**	**J**	10	3.0	ug/L			04/19/21 04:33	1
Benzene	**5.4**		1.0	0.41	ug/L			04/19/21 04:33	1
Bromodichloromethane	1.0	U	1.0	0.39	ug/L			04/19/21 04:33	1
Bromoform	1.0	U	1.0	0.26	ug/L			04/19/21 04:33	1
Bromomethane	1.0	U	1.0	0.69	ug/L			04/19/21 04:33	1
2-Butanone (MEK)	10	U	10	1.3	ug/L			04/19/21 04:33	1
Carbon disulfide	1.0	U	1.0	0.19	ug/L			04/19/21 04:33	1
Carbon tetrachloride	1.0	U	1.0	0.27	ug/L			04/19/21 04:33	1
Chlorobenzene	1.0	U	1.0	0.75	ug/L			04/19/21 04:33	1
Chloroethane	1.0	U	1.0	0.32	ug/L			04/19/21 04:33	1
Chloroform	1.0	U	1.0	0.34	ug/L			04/19/21 04:33	1
Chloromethane	1.0	U	1.0	0.35	ug/L			04/19/21 04:33	1
cis-1,2-Dichloroethene	**23**		1.0	0.81	ug/L			04/19/21 04:33	1
cis-1,3-Dichloropropene	1.0	U	1.0	0.36	ug/L			04/19/21 04:33	1
Cyclohexane	1.0	U	1.0	0.18	ug/L			04/19/21 04:33	1
Dibromochloromethane	1.0	U	1.0	0.32	ug/L			04/19/21 04:33	1
1,2-Dibromo-3-Chloropropane	1.0	U	1.0	0.39	ug/L			04/19/21 04:33	1
1,2-Dibromoethane	1.0	U	1.0	0.73	ug/L			04/19/21 04:33	1
1,2-Dichlorobenzene	1.0	U	1.0	0.79	ug/L			04/19/21 04:33	1
1,3-Dichlorobenzene	1.0	U	1.0	0.78	ug/L			04/19/21 04:33	1
1,4-Dichlorobenzene	1.0	U	1.0	0.84	ug/L			04/19/21 04:33	1
Dichlorodifluoromethane	1.0	U	1.0	0.68	ug/L			04/19/21 04:33	1
1,1-Dichloroethane	1.0	U	1.0	0.38	ug/L			04/19/21 04:33	1
1,2-Dichloroethane	**0.91**	**J**	1.0	0.21	ug/L			04/19/21 04:33	1
1,1-Dichloroethene	1.0	U	1.0	0.29	ug/L			04/19/21 04:33	1
1,2-Dichloropropane	1.0	U	1.0	0.72	ug/L			04/19/21 04:33	1
Ethylbenzene	1.0	U	1.0	0.74	ug/L			04/19/21 04:33	1
2-Hexanone	5.0	U	5.0	1.2	ug/L			04/19/21 04:33	1
Isopropylbenzene	1.0	U	1.0	0.79	ug/L			04/19/21 04:33	1
Methyl acetate	2.5	U	2.5	1.3	ug/L			04/19/21 04:33	1
Methylcyclohexane	**0.40**	**J**	1.0	0.16	ug/L			04/19/21 04:33	1
Methylene Chloride	1.0	U	1.0	0.44	ug/L			04/19/21 04:33	1
4-Methyl-2-pentanone (MIBK)	5.0	U	5.0	2.1	ug/L			04/19/21 04:33	1
Methyl tert-butyl ether	1.0	U	1.0	0.16	ug/L			04/19/21 04:33	1
Styrene	1.0	U	1.0	0.73	ug/L			04/19/21 04:33	1
1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.21	ug/L			04/19/21 04:33	1
Tetrachloroethene	1.0	U	1.0	0.36	ug/L			04/19/21 04:33	1
Toluene	1.0	U	1.0	0.51	ug/L			04/19/21 04:33	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.90	ug/L			04/19/21 04:33	1
trans-1,3-Dichloropropene	1.0	U	1.0	0.37	ug/L			04/19/21 04:33	1
1,2,4-Trichlorobenzene	1.0	U	1.0	0.41	ug/L			04/19/21 04:33	1
1,1,1-Trichloroethane	1.0	U	1.0	0.82	ug/L			04/19/21 04:33	1
1,1,2-Trichloroethane	1.0	U	1.0	0.23	ug/L			04/19/21 04:33	1
Trichloroethene	**1.4**		1.0	0.46	ug/L			04/19/21 04:33	1
Trichlorofluoromethane	1.0	U	1.0	0.88	ug/L			04/19/21 04:33	1
1,1,2-Trichloro-1,2,2-trifluoroethane	1.0	U	1.0	0.31	ug/L			04/19/21 04:33	1
Vinyl chloride	**21**		1.0	0.90	ug/L			04/19/21 04:33	1
Xylenes, Total	2.0	U	2.0	0.66	ug/L			04/19/21 04:33	1

Client Sample ID: MW-15
Lab Sample ID: 480-183467-15

Date Collected: 04/15/21 14:15
Matrix: Water
Date Received: 04/17/21 08:00

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*104*		*73 - 120*		*04/19/21 04:33*	*1*
Dibromofluoromethane (Surr)	*111*		*75 - 123*		*04/19/21 04:33*	*1*
1,2-Dichloroethane-d4 (Surr)	*112*		*77 - 120*		*04/19/21 04:33*	*1*
Toluene-d8 (Surr)	*102*		*80 - 120*		*04/19/21 04:33*	*1*

Method: RSK-175 - Dissolved Gases (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethane	**30**	**J**	83	17	ug/L			04/19/21 20:56	11
Ethene	77	U	77	17	ug/L			04/19/21 20:56	11
Methane	**2100**		44	11	ug/L			04/19/21 20:56	11

Client Sample ID: MW-20
Lab Sample ID: 480-183467-16

Date Collected: 04/15/21 15:35
Matrix: Water
Date Received: 04/17/21 08:00

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	10	U	10	3.0	ug/L			04/19/21 04:56	1
Benzene	**0.43**	**J**	1.0	0.41	ug/L			04/19/21 04:56	1
Bromodichloromethane	1.0	U	1.0	0.39	ug/L			04/19/21 04:56	1
Bromoform	1.0	U	1.0	0.26	ug/L			04/19/21 04:56	1
Bromomethane	1.0	U	1.0	0.69	ug/L			04/19/21 04:56	1
2-Butanone (MEK)	10	U	10	1.3	ug/L			04/19/21 04:56	1
Carbon disulfide	1.0	U	1.0	0.19	ug/L			04/19/21 04:56	1
Carbon tetrachloride	**0.59**	**J**	1.0	0.27	ug/L			04/19/21 04:56	1
Chlorobenzene	1.0	U	1.0	0.75	ug/L			04/19/21 04:56	1
Chloroethane	1.0	U	1.0	0.32	ug/L			04/19/21 04:56	1
Chloroform	**1.9**		1.0	0.34	ug/L			04/19/21 04:56	1
Chloromethane	1.0	U	1.0	0.35	ug/L			04/19/21 04:56	1
cis-1,2-Dichloroethene	**10**		1.0	0.81	ug/L			04/19/21 04:56	1
cis-1,3-Dichloropropene	1.0	U	1.0	0.36	ug/L			04/19/21 04:56	1
Cyclohexane	1.0	U	1.0	0.18	ug/L			04/19/21 04:56	1
Dibromochloromethane	1.0	U	1.0	0.32	ug/L			04/19/21 04:56	1
1,2-Dibromo-3-Chloropropane	1.0	U	1.0	0.39	ug/L			04/19/21 04:56	1
1,2-Dibromoethane	1.0	U	1.0	0.73	ug/L			04/19/21 04:56	1
1,2-Dichlorobenzene	1.0	U	1.0	0.79	ug/L			04/19/21 04:56	1
1,3-Dichlorobenzene	1.0	U	1.0	0.78	ug/L			04/19/21 04:56	1
1,4-Dichlorobenzene	1.0	U	1.0	0.84	ug/L			04/19/21 04:56	1
Dichlorodifluoromethane	1.0	U	1.0	0.68	ug/L			04/19/21 04:56	1
1,1-Dichloroethane	1.0	U	1.0	0.38	ug/L			04/19/21 04:56	1
1,2-Dichloroethane	1.0	U	1.0	0.21	ug/L			04/19/21 04:56	1
1,1-Dichloroethene	1.0	U	1.0	0.29	ug/L			04/19/21 04:56	1
1,2-Dichloropropane	1.0	U	1.0	0.72	ug/L			04/19/21 04:56	1
Ethylbenzene	1.0	U	1.0	0.74	ug/L			04/19/21 04:56	1
2-Hexanone	5.0	U	5.0	1.2	ug/L			04/19/21 04:56	1
Isopropylbenzene	1.0	U	1.0	0.79	ug/L			04/19/21 04:56	1
Methyl acetate	2.5	U	2.5	1.3	ug/L			04/19/21 04:56	1
Methylcyclohexane	1.0	U	1.0	0.16	ug/L			04/19/21 04:56	1
Methylene Chloride	1.0	U	1.0	0.44	ug/L			04/19/21 04:56	1
4-Methyl-2-pentanone (MIBK)	5.0	U	5.0	2.1	ug/L			04/19/21 04:56	1
Methyl tert-butyl ether	1.0	U	1.0	0.16	ug/L			04/19/21 04:56	1

Client Sample ID: MW-20

Date Collected: 04/15/21 15:35
Date Received: 04/17/21 08:00

Lab Sample ID: 480-183467-16
Matrix: Water

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Styrene	1.0	U	1.0	0.73	ug/L			04/19/21 04:56	1
1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.21	ug/L			04/19/21 04:56	1
Tetrachloroethene	**67**		1.0	0.36	ug/L			04/19/21 04:56	1
Toluene	1.0	U	1.0	0.51	ug/L			04/19/21 04:56	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.90	ug/L			04/19/21 04:56	1
trans-1,3-Dichloropropene	1.0	U	1.0	0.37	ug/L			04/19/21 04:56	1
1,2,4-Trichlorobenzene	1.0	U	1.0	0.41	ug/L			04/19/21 04:56	1
1,1,1-Trichloroethane	1.0	U	1.0	0.82	ug/L			04/19/21 04:56	1
1,1,2-Trichloroethane	1.0	U	1.0	0.23	ug/L			04/19/21 04:56	1
Trichloroethene	**11**		1.0	0.46	ug/L			04/19/21 04:56	1
Trichlorofluoromethane	1.0	U	1.0	0.88	ug/L			04/19/21 04:56	1
1,1,2-Trichloro-1,2,2-trifluoroethane	1.0	U	1.0	0.31	ug/L			04/19/21 04:56	1
Vinyl chloride	1.0	U	1.0	0.90	ug/L			04/19/21 04:56	1
Xylenes, Total	2.0	U	2.0	0.66	ug/L			04/19/21 04:56	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*110*		*73 - 120*		*04/19/21 04:56*	*1*
Dibromofluoromethane (Surr)	*111*		*75 - 123*		*04/19/21 04:56*	*1*
1,2-Dichloroethane-d4 (Surr)	*109*		*77 - 120*		*04/19/21 04:56*	*1*
Toluene-d8 (Surr)	*104*		*80 - 120*		*04/19/21 04:56*	*1*

Method: RSK-175 - Dissolved Gases (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethane	7.5	U	7.5	1.5	ug/L			04/19/21 21:15	1
Ethene	7.0	U	7.0	1.5	ug/L			04/19/21 21:15	1

Method: RSK-175 - Dissolved Gases (GC) - DL

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methane	**880**	D	88	22	ug/L			04/20/21 02:17	22

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
TOC Result 1	**4.4**		1.0	0.43	mg/L			04/24/21 02:07	1
TOC Result 2	**4.5**		1.0	0.43	mg/L			04/24/21 02:07	1
Total Organic Carbon	**4.5**		1.0	0.43	mg/L			04/24/21 02:07	1

Client Sample ID: MW-24

Date Collected: 04/15/21 16:55
Date Received: 04/17/21 08:00

Lab Sample ID: 480-183467-17
Matrix: Water

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	800	U	800	240	ug/L			04/19/21 05:20	80
Benzene	80	U	80	33	ug/L			04/19/21 05:20	80
Bromodichloromethane	80	U	80	31	ug/L			04/19/21 05:20	80
Bromoform	80	U	80	21	ug/L			04/19/21 05:20	80
Bromomethane	80	U	80	55	ug/L			04/19/21 05:20	80
2-Butanone (MEK)	800	U	800	110	ug/L			04/19/21 05:20	80
Carbon disulfide	80	U	80	15	ug/L			04/19/21 05:20	80
Carbon tetrachloride	80	U	80	22	ug/L			04/19/21 05:20	80
Chlorobenzene	80	U	80	60	ug/L			04/19/21 05:20	80

Client Sample ID: MW-24
Date Collected: 04/15/21 16:55
Date Received: 04/17/21 08:00

Lab Sample ID: 480-183467-17
Matrix: Water

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloroethane	80	U	80	26	ug/L			04/19/21 05:20	80
Chloroform	80	U	80	27	ug/L			04/19/21 05:20	80
Chloromethane	80	U	80	28	ug/L			04/19/21 05:20	80
cis-1,2-Dichloroethene	**2600**		80	65	ug/L			04/19/21 05:20	80
cis-1,3-Dichloropropene	80	U	80	29	ug/L			04/19/21 05:20	80
Cyclohexane	80	U	80	14	ug/L			04/19/21 05:20	80
Dibromochloromethane	80	U	80	26	ug/L			04/19/21 05:20	80
1,2-Dibromo-3-Chloropropane	80	U	80	31	ug/L			04/19/21 05:20	80
1,2-Dibromoethane	80	U	80	58	ug/L			04/19/21 05:20	80
1,2-Dichlorobenzene	80	U	80	63	ug/L			04/19/21 05:20	80
1,3-Dichlorobenzene	80	U	80	62	ug/L			04/19/21 05:20	80
1,4-Dichlorobenzene	80	U	80	67	ug/L			04/19/21 05:20	80
Dichlorodifluoromethane	80	U	80	54	ug/L			04/19/21 05:20	80
1,1-Dichloroethane	**86**		80	30	ug/L			04/19/21 05:20	80
1,2-Dichloroethane	80	U	80	17	ug/L			04/19/21 05:20	80
1,1-Dichloroethene	80	U	80	23	ug/L			04/19/21 05:20	80
1,2-Dichloropropane	80	U	80	58	ug/L			04/19/21 05:20	80
Ethylbenzene	80	U	80	59	ug/L			04/19/21 05:20	80
2-Hexanone	400	U	400	99	ug/L			04/19/21 05:20	80
Isopropylbenzene	80	U	80	63	ug/L			04/19/21 05:20	80
Methyl acetate	200	U	200	100	ug/L			04/19/21 05:20	80
Methylcyclohexane	80	U	80	13	ug/L			04/19/21 05:20	80
Methylene Chloride	80	U	80	35	ug/L			04/19/21 05:20	80
4-Methyl-2-pentanone (MIBK)	400	U	400	170	ug/L			04/19/21 05:20	80
Methyl tert-butyl ether	80	U	80	13	ug/L			04/19/21 05:20	80
Styrene	80	U	80	58	ug/L			04/19/21 05:20	80
1,1,2,2-Tetrachloroethane	80	U	80	17	ug/L			04/19/21 05:20	80
Tetrachloroethene	80	U	80	29	ug/L			04/19/21 05:20	80
Toluene	80	U	80	41	ug/L			04/19/21 05:20	80
trans-1,2-Dichloroethene	80	U	80	72	ug/L			04/19/21 05:20	80
trans-1,3-Dichloropropene	80	U	80	30	ug/L			04/19/21 05:20	80
1,2,4-Trichlorobenzene	80	U	80	33	ug/L			04/19/21 05:20	80
1,1,1-Trichloroethane	80	U	80	66	ug/L			04/19/21 05:20	80
1,1,2-Trichloroethane	80	U	80	18	ug/L			04/19/21 05:20	80
Trichloroethene	80	U	80	37	ug/L			04/19/21 05:20	80
Trichlorofluoromethane	80	U	80	70	ug/L			04/19/21 05:20	80
1,1,2-Trichloro-1,2,2-trifluoroethane	80	U	80	25	ug/L			04/19/21 05:20	80
Vinyl chloride	**460**		80	72	ug/L			04/19/21 05:20	80
Xylenes, Total	160	U	160	53	ug/L			04/19/21 05:20	80

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*106*		*73 - 120*		*04/19/21 05:20*	*80*
Dibromofluoromethane (Surr)	*112*		*75 - 123*		*04/19/21 05:20*	*80*
1,2-Dichloroethane-d4 (Surr)	*108*		*77 - 120*		*04/19/21 05:20*	*80*
Toluene-d8 (Surr)	*100*		*80 - 120*		*04/19/21 05:20*	*80*

Method: RSK-175 - Dissolved Gases (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethane	330	U	330	66	ug/L			04/19/21 21:34	44
Ethene	310	U	310	66	ug/L			04/19/21 21:34	44

Client Sample ID: MW-24
Lab Sample ID: 480-183467-17

Date Collected: 04/15/21 16:55
Matrix: Water
Date Received: 04/17/21 08:00

Method: RSK-175 - Dissolved Gases (GC) - DL

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methane	**14000**	D	880	220	ug/L			04/20/21 15:53	220

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
TOC Result 1	**750**		20	8.7	mg/L			04/28/21 05:03	20
TOC Result 2	**770**		20	8.7	mg/L			04/28/21 05:03	20
Total Organic Carbon	**760**		20	8.7	mg/L			04/28/21 05:03	20

Client Sample ID: Equipment Blank - 2
Lab Sample ID: 480-183467-18

Date Collected: 04/15/21 12:00
Matrix: Water
Date Received: 04/17/21 08:00

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	10	U	10	3.0	ug/L			04/19/21 05:44	1
Benzene	1.0	U	1.0	0.41	ug/L			04/19/21 05:44	1
Bromodichloromethane	1.0	U	1.0	0.39	ug/L			04/19/21 05:44	1
Bromoform	1.0	U	1.0	0.26	ug/L			04/19/21 05:44	1
Bromomethane	1.0	U	1.0	0.69	ug/L			04/19/21 05:44	1
2-Butanone (MEK)	10	U	10	1.3	ug/L			04/19/21 05:44	1
Carbon disulfide	1.0	U	1.0	0.19	ug/L			04/19/21 05:44	1
Carbon tetrachloride	1.0	U	1.0	0.27	ug/L			04/19/21 05:44	1
Chlorobenzene	1.0	U	1.0	0.75	ug/L			04/19/21 05:44	1
Chloroethane	1.0	U	1.0	0.32	ug/L			04/19/21 05:44	1
Chloroform	1.0	U	1.0	0.34	ug/L			04/19/21 05:44	1
Chloromethane	1.0	U	1.0	0.35	ug/L			04/19/21 05:44	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.81	ug/L			04/19/21 05:44	1
cis-1,3-Dichloropropene	1.0	U	1.0	0.36	ug/L			04/19/21 05:44	1
Cyclohexane	1.0	U	1.0	0.18	ug/L			04/19/21 05:44	1
Dibromochloromethane	1.0	U	1.0	0.32	ug/L			04/19/21 05:44	1
1,2-Dibromo-3-Chloropropane	1.0	U	1.0	0.39	ug/L			04/19/21 05:44	1
1,2-Dibromoethane	1.0	U	1.0	0.73	ug/L			04/19/21 05:44	1
1,2-Dichlorobenzene	1.0	U	1.0	0.79	ug/L			04/19/21 05:44	1
1,3-Dichlorobenzene	1.0	U	1.0	0.78	ug/L			04/19/21 05:44	1
1,4-Dichlorobenzene	1.0	U	1.0	0.84	ug/L			04/19/21 05:44	1
Dichlorodifluoromethane	1.0	U	1.0	0.68	ug/L			04/19/21 05:44	1
1,1-Dichloroethane	1.0	U	1.0	0.38	ug/L			04/19/21 05:44	1
1,2-Dichloroethane	1.0	U	1.0	0.21	ug/L			04/19/21 05:44	1
1,1-Dichloroethene	1.0	U	1.0	0.29	ug/L			04/19/21 05:44	1
1,2-Dichloropropane	1.0	U	1.0	0.72	ug/L			04/19/21 05:44	1
Ethylbenzene	1.0	U	1.0	0.74	ug/L			04/19/21 05:44	1
2-Hexanone	5.0	U	5.0	1.2	ug/L			04/19/21 05:44	1
Isopropylbenzene	1.0	U	1.0	0.79	ug/L			04/19/21 05:44	1
Methyl acetate	2.5	U	2.5	1.3	ug/L			04/19/21 05:44	1
Methylcyclohexane	1.0	U	1.0	0.16	ug/L			04/19/21 05:44	1
Methylene Chloride	1.0	U	1.0	0.44	ug/L			04/19/21 05:44	1
4-Methyl-2-pentanone (MIBK)	5.0	U	5.0	2.1	ug/L			04/19/21 05:44	1
Methyl tert-butyl ether	1.0	U	1.0	0.16	ug/L			04/19/21 05:44	1
Styrene	1.0	U	1.0	0.73	ug/L			04/19/21 05:44	1
1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.21	ug/L			04/19/21 05:44	1

Client Sample ID: Equipment Blank - 2

Lab Sample ID: 480-183467-18

Date Collected: 04/15/21 12:00
Date Received: 04/17/21 08:00

Matrix: Water

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Tetrachloroethene	1.0	U	1.0	0.36	ug/L			04/19/21 05:44	1
Toluene	1.0	U	1.0	0.51	ug/L			04/19/21 05:44	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.90	ug/L			04/19/21 05:44	1
trans-1,3-Dichloropropene	1.0	U	1.0	0.37	ug/L			04/19/21 05:44	1
1,2,4-Trichlorobenzene	1.0	U	1.0	0.41	ug/L			04/19/21 05:44	1
1,1,1-Trichloroethane	1.0	U	1.0	0.82	ug/L			04/19/21 05:44	1
1,1,2-Trichloroethane	1.0	U	1.0	0.23	ug/L			04/19/21 05:44	1
Trichloroethene	1.0	U	1.0	0.46	ug/L			04/19/21 05:44	1
Trichlorofluoromethane	1.0	U	1.0	0.88	ug/L			04/19/21 05:44	1
1,1,2-Trichloro-1,2,2-trifluoroethane	1.0	U	1.0	0.31	ug/L			04/19/21 05:44	1
Vinyl chloride	1.0	U	1.0	0.90	ug/L			04/19/21 05:44	1
Xylenes, Total	2.0	U	2.0	0.66	ug/L			04/19/21 05:44	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*101*		*73 - 120*		*04/19/21 05:44*	*1*
Dibromofluoromethane (Surr)	*106*		*75 - 123*		*04/19/21 05:44*	*1*
1,2-Dichloroethane-d4 (Surr)	*101*		*77 - 120*		*04/19/21 05:44*	*1*
Toluene-d8 (Surr)	*101*		*80 - 120*		*04/19/21 05:44*	*1*

Method: RSK-175 - Dissolved Gases (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethane	7.5	U	7.5	1.5	ug/L			04/19/21 23:08	1
Ethene	7.0	U	7.0	1.5	ug/L			04/19/21 23:08	1
Methane	4.0	U	4.0	1.0	ug/L			04/19/21 23:08	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
TOC Result 1	**0.48**	**J**	1.0	0.43	mg/L			04/24/21 05:01	1
TOC Result 2	1.0	U	1.0	0.43	mg/L			04/24/21 05:01	1
Total Organic Carbon	1.0	U	1.0	0.43	mg/L			04/24/21 05:01	1

Client Sample ID: MW-19

Lab Sample ID: 480-183467-19

Date Collected: 04/15/21 17:40
Date Received: 04/17/21 08:00

Matrix: Water

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	**6.2**	**J**	20	6.0	ug/L			04/19/21 06:07	2
Benzene	**7.8**		2.0	0.82	ug/L			04/19/21 06:07	2
Bromodichloromethane	2.0	U	2.0	0.78	ug/L			04/19/21 06:07	2
Bromoform	2.0	U	2.0	0.52	ug/L			04/19/21 06:07	2
Bromomethane	2.0	U	2.0	1.4	ug/L			04/19/21 06:07	2
2-Butanone (MEK)	20	U	20	2.6	ug/L			04/19/21 06:07	2
Carbon disulfide	2.0	U	2.0	0.38	ug/L			04/19/21 06:07	2
Carbon tetrachloride	2.0	U	2.0	0.54	ug/L			04/19/21 06:07	2
Chlorobenzene	2.0	U	2.0	1.5	ug/L			04/19/21 06:07	2
Chloroethane	**65**		2.0	0.64	ug/L			04/19/21 06:07	2
Chloroform	**2.2**		2.0	0.68	ug/L			04/19/21 06:07	2
Chloromethane	2.0	U	2.0	0.70	ug/L			04/19/21 06:07	2
cis-1,2-Dichloroethene	**130**		2.0	1.6	ug/L			04/19/21 06:07	2
cis-1,3-Dichloropropene	2.0	U	2.0	0.72	ug/L			04/19/21 06:07	2

Client Sample ID: MW-19

Date Collected: 04/15/21 17:40
Date Received: 04/17/21 08:00

Lab Sample ID: 480-183467-19

Matrix: Water

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyclohexane	2.0	U	2.0	0.36	ug/L			04/19/21 06:07	2
Dibromochloromethane	2.0	U	2.0	0.64	ug/L			04/19/21 06:07	2
1,2-Dibromo-3-Chloropropane	2.0	U	2.0	0.78	ug/L			04/19/21 06:07	2
1,2-Dibromoethane	2.0	U	2.0	1.5	ug/L			04/19/21 06:07	2
1,2-Dichlorobenzene	2.0	U	2.0	1.6	ug/L			04/19/21 06:07	2
1,3-Dichlorobenzene	2.0	U	2.0	1.6	ug/L			04/19/21 06:07	2
1,4-Dichlorobenzene	2.0	U	2.0	1.7	ug/L			04/19/21 06:07	2
Dichlorodifluoromethane	2.0	U	2.0	1.4	ug/L			04/19/21 06:07	2
1,1-Dichloroethane	**37**		2.0	0.76	ug/L			04/19/21 06:07	2
1,2-Dichloroethane	2.0	U	2.0	0.42	ug/L			04/19/21 06:07	2
1,1-Dichloroethene	2.0	U	2.0	0.58	ug/L			04/19/21 06:07	2
1,2-Dichloropropane	2.0	U	2.0	1.4	ug/L			04/19/21 06:07	2
Ethylbenzene	2.0	U	2.0	1.5	ug/L			04/19/21 06:07	2
2-Hexanone	10	U	10	2.5	ug/L			04/19/21 06:07	2
Isopropylbenzene	2.0	U	2.0	1.6	ug/L			04/19/21 06:07	2
Methyl acetate	5.0	U	5.0	2.6	ug/L			04/19/21 06:07	2
Methylcyclohexane	2.0	U	2.0	0.32	ug/L			04/19/21 06:07	2
Methylene Chloride	2.0	U	2.0	0.88	ug/L			04/19/21 06:07	2
4-Methyl-2-pentanone (MIBK)	10	U	10	4.2	ug/L			04/19/21 06:07	2
Methyl tert-butyl ether	2.0	U	2.0	0.32	ug/L			04/19/21 06:07	2
Styrene	2.0	U	2.0	1.5	ug/L			04/19/21 06:07	2
1,1,2,2-Tetrachloroethane	2.0	U	2.0	0.42	ug/L			04/19/21 06:07	2
Tetrachloroethene	2.0	U	2.0	0.72	ug/L			04/19/21 06:07	2
Toluene	**1.7**	**J**	2.0	1.0	ug/L			04/19/21 06:07	2
trans-1,2-Dichloroethene	**5.2**		2.0	1.8	ug/L			04/19/21 06:07	2
trans-1,3-Dichloropropene	2.0	U	2.0	0.74	ug/L			04/19/21 06:07	2
1,2,4-Trichlorobenzene	2.0	U	2.0	0.82	ug/L			04/19/21 06:07	2
1,1,1-Trichloroethane	2.0	U	2.0	1.6	ug/L			04/19/21 06:07	2
1,1,2-Trichloroethane	2.0	U	2.0	0.46	ug/L			04/19/21 06:07	2
Trichloroethene	**0.95**	**J**	2.0	0.92	ug/L			04/19/21 06:07	2
Trichlorofluoromethane	2.0	U	2.0	1.8	ug/L			04/19/21 06:07	2
1,1,2-Trichloro-1,2,2-trifluoroethane	**2.4**		2.0	0.62	ug/L			04/19/21 06:07	2
Vinyl chloride	**150**		2.0	1.8	ug/L			04/19/21 06:07	2
Xylenes, Total	4.0	U	4.0	1.3	ug/L			04/19/21 06:07	2

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*108*		*73 - 120*		*04/19/21 06:07*	*2*
Dibromofluoromethane (Surr)	*107*		*75 - 123*		*04/19/21 06:07*	*2*
1,2-Dichloroethane-d4 (Surr)	*103*		*77 - 120*		*04/19/21 06:07*	*2*
Toluene-d8 (Surr)	*102*		*80 - 120*		*04/19/21 06:07*	*2*

Method: RSK-175 - Dissolved Gases (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethane	**610**		170	33	ug/L			04/19/21 23:27	22
Ethene	**560**		150	33	ug/L			04/19/21 23:27	22

Method: RSK-175 - Dissolved Gases (GC) - DL

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methane	**10000**	D	880	220	ug/L			04/20/21 16:12	220

Client Sample ID: MW-19

Date Collected: 04/15/21 17:40
Date Received: 04/17/21 08:00

Lab Sample ID: 480-183467-19

Matrix: Water

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
TOC Result 1	8.7		1.0	0.43	mg/L			04/24/21 05:28	1
TOC Result 2	9.4		1.0	0.43	mg/L			04/24/21 05:28	1
Total Organic Carbon	9.2		1.0	0.43	mg/L			04/24/21 05:28	1

Client Sample ID: MW-25

Date Collected: 04/15/21 18:00
Date Received: 04/17/21 08:00

Lab Sample ID: 480-183467-20

Matrix: Water

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	200	U F2	200	60	ug/L			04/19/21 14:56	20
Benzene	20	U F2	20	8.2	ug/L			04/19/21 14:56	20
Bromodichloromethane	20	U F2	20	7.8	ug/L			04/19/21 14:56	20
Bromoform	20	U F2	20	5.2	ug/L			04/19/21 14:56	20
Bromomethane	20	U	20	14	ug/L			04/19/21 14:56	20
2-Butanone (MEK)	200	U F2	200	26	ug/L			04/19/21 14:56	20
Carbon disulfide	20	U F2	20	3.8	ug/L			04/19/21 14:56	20
Carbon tetrachloride	20	U F2	20	5.4	ug/L			04/19/21 14:56	20
Chlorobenzene	20	U	20	15	ug/L			04/19/21 14:56	20
Chloroethane	20	U	20	6.4	ug/L			04/19/21 14:56	20
Chloroform	20	U	20	6.8	ug/L			04/19/21 14:56	20
Chloromethane	20	U	20	7.0	ug/L			04/19/21 14:56	20
cis-1,2-Dichloroethene	870	F1	20	16	ug/L			04/19/21 14:56	20
cis-1,3-Dichloropropene	20	U F2	20	7.2	ug/L			04/19/21 14:56	20
Cyclohexane	20	U F2	20	3.6	ug/L			04/19/21 14:56	20
Dibromochloromethane	20	U F2	20	6.4	ug/L			04/19/21 14:56	20
1,2-Dibromo-3-Chloropropane	20	U F2	20	7.8	ug/L			04/19/21 14:56	20
1,2-Dibromoethane	20	U F2	20	15	ug/L			04/19/21 14:56	20
1,2-Dichlorobenzene	20	U	20	16	ug/L			04/19/21 14:56	20
1,3-Dichlorobenzene	20	U	20	16	ug/L			04/19/21 14:56	20
1,4-Dichlorobenzene	20	U	20	17	ug/L			04/19/21 14:56	20
Dichlorodifluoromethane	20	U	20	14	ug/L			04/19/21 14:56	20
1,1-Dichloroethane	20	U	20	7.6	ug/L			04/19/21 14:56	20
1,2-Dichloroethane	20	U F2	20	4.2	ug/L			04/19/21 14:56	20
1,1-Dichloroethene	20	U F2	20	5.8	ug/L			04/19/21 14:56	20
1,2-Dichloropropane	20	U F2	20	14	ug/L			04/19/21 14:56	20
Ethylbenzene	20	U F2	20	15	ug/L			04/19/21 14:56	20
2-Hexanone	100	U F2	100	25	ug/L			04/19/21 14:56	20
Isopropylbenzene	20	U F2	20	16	ug/L			04/19/21 14:56	20
Methyl acetate	50	U F2	50	26	ug/L			04/19/21 14:56	20
Methylcyclohexane	20	U	20	3.2	ug/L			04/19/21 14:56	20
Methylene Chloride	20	U F2	20	8.8	ug/L			04/19/21 14:56	20
4-Methyl-2-pentanone (MIBK)	100	U	100	42	ug/L			04/19/21 14:56	20
Methyl tert-butyl ether	20	U	20	3.2	ug/L			04/19/21 14:56	20
Styrene	20	U	20	15	ug/L			04/19/21 14:56	20
1,1,2,2-Tetrachloroethane	20	U F2	20	4.2	ug/L			04/19/21 14:56	20
Tetrachloroethene	340	F1	20	7.2	ug/L			04/19/21 14:56	20
Toluene	20	U F2	20	10	ug/L			04/19/21 14:56	20
trans-1,2-Dichloroethene	20	U	20	18	ug/L			04/19/21 14:56	20
trans-1,3-Dichloropropene	20	U F2	20	7.4	ug/L			04/19/21 14:56	20

Client Sample ID: MW-25

Date Collected: 04/15/21 18:00
Date Received: 04/17/21 08:00

Lab Sample ID: 480-183467-20

Matrix: Water

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trichlorobenzene	20	U	20	8.2	ug/L			04/19/21 14:56	20
1,1,1-Trichloroethane	20	U F2 UJ	20	16	ug/L			04/19/21 14:56	20
1,1,2-Trichloroethane	20	U F2 UJ	20	4.6	ug/L			04/19/21 14:56	20
Trichloroethene	**150**	**F2** J	20	9.2	ug/L			04/19/21 14:56	20
Trichlorofluoromethane	20	U	20	18	ug/L			04/19/21 14:56	20
1,1,2-Trichloro-1,2,2-trifluoroethane	20	U	20	6.2	ug/L			04/19/21 14:56	20
Vinyl chloride	**140**		20	18	ug/L			04/19/21 14:56	20
Xylenes, Total	40	~~U F2~~ UJ	40	13	ug/L			04/19/21 14:56	20

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*108*		*73 - 120*		*04/19/21 14:56*	*20*
Dibromofluoromethane (Surr)	*115*		*75 - 123*		*04/19/21 14:56*	*20*
1,2-Dichloroethane-d4 (Surr)	*110*		*77 - 120*		*04/19/21 14:56*	*20*
Toluene-d8 (Surr)	*103*		*80 - 120*		*04/19/21 14:56*	*20*

Method: RSK-175 - Dissolved Gases (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethane	**740**		83	17	ug/L			04/19/21 23:46	11
Ethene	**330**		77	17	ug/L			04/19/21 23:46	11

Method: RSK-175 - Dissolved Gases (GC) - DL

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methane	**9500**	D	350	88	ug/L			04/20/21 16:31	88

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
TOC Result 1	**11**		1.0	0.43	mg/L			04/24/21 06:26	1
TOC Result 2	**12**		1.0	0.43	mg/L			04/24/21 06:26	1
Total Organic Carbon	**12**		1.0	0.43	mg/L			04/24/21 06:26	1

DATA VALIDATION CHECKLIST **Ashland Rensselaer**

Sample Team:	ARCADIS
Sample Matrix:	Water
Lab Project Manager:	David Fuller
SDG Numbers:	480-192803-1, and 480-193338-1
Analyses:	VOCs – 8260C, Dissolved gases – RSK 175 and TOC -9060A
QA Reporting Level:	ARCADIS, Level II
ARCADIS Project Manager:	Barnett, Eddie T and Bill Golla

ARCADIS U.S., Inc.
6041 Wallace Road Extension,
Suite 300 Wexford, PA 15090 Tel.
724-934-9528

Environmental
Project: Ashland
Project Number: 30110230.402

Data were reviewed in accordance with USEPA National Functional Guidelines for Organic Superfund Methods Data Review, EPA-540-R-20-005 November 2020 (with reference to the historical USEPA Contract Laboratory Program National Functional Guidelines for Organic Data Review, OSWER 9240.1-05A-P, October 1999, as appropriate) and NJDEP Technical Guidance documents (April 2014).

The data verification was performed at a Level II and included review of data package completeness, Laboratory Control Sample and Laboratory Control Sample Duplicate recoveries, Method Blanks, Field Blanks, Trip Blanks, Matrix Spike and Matrix Spike Duplicate recoveries, Field Duplicates, Laboratory Duplicate results, and Holding Time compliance. Laboratory calculations were not verified. Only QA/QC results and analytical data associated with analytes/compounds of interest were reviewed for this validation.

Only QA/QC results and analytical data associated with analytes/compounds of interest were reviewed for this validation.

ANALYTICAL DATA PACKAGE DOCUMENTATION

The following samples were included in this data validation:

SDGs	Sample ID	Lab ID	Sample Date	Parent Sample
480-192803-1	MW-13	480-192803-1	11/22/2021	
	MW-21	480-192803-2	11/22/2021	
	MW-17	480-192803-3	11/22/2021	
	IW-A2	480-192803-4	11/22/2021	
	FB-1	480-192803-5	11/22/2021	
	MW-15	480-192803-6	11/22/2021	
	MW-B1	480-192803-7	11/22/2021	
	IW-B3	480-192803-8	11/22/2021	
	MW-23	480-192803-9	11/22/2021	
	MW-24	480-192803-10	11/22/2021	
	TRIP BLANK	480-192803-11	11/22/2021	
	MW-20	480-192803-12	11/23/2021	
	MW-25	480-192803-13	11/23/2021	
	FB-2	480-192803-14	11/23/2021	
	MW-A1	480-192803-15	11/23/2021	
	MW-19	480-192803-16	11/23/2021	
	DUP-1	480-192803-17	11/23/2021	MW-19
480-193338-1	IP-1-121021	480-193338-1	12/10/2021	
	IMP-3-121021	480-193338-2	12/10/2021	
	MW-16-121021	480-193338-3	12/10/2021	
	MW-18-121021	480-193338-4	12/10/2021	
	FB-1	480-193338-5	12/10/2021	
	Trip Blank	480-193338-6	12/10/2021	

I. GENERAL INFORMATION

ITEMS REVIEWED	REPORTED/ REVIEWED		EXCEPTIONS NOTED		GENERAL COMMENTS NOTED		ITEM NOT REQUIRED
	NO	YES	NO	YES	NO	YES	
1. Chain of Custody		X	X		X		
2. Sampling dates and times		X	X		X		
3. Sample type on COC		X	X		X		
4. Field QC samples		X	X		X		
5. Case Narrative		X	X		X		
6. Laboratory Report Checklist		X	X		X		
7. Laboratory Exception Reports		X	X		X		
8. Sample Receipt Condition		X	X		X		

COMMENTS: Performance was acceptable, with the following exceptions and notes.
“Exceptions Noted” = If an exception was noted in the accompanying exception report (ER) this will be checked in the affirmative.
“General Comments Noted” = If there are other comments associated with Data Quality (not necessarily noted in the ER) this will be checked in the affirmative.

The analytical report was complete with exceptions or notations.

SDG#480-193338-1:

Sampling date was mismatching with COC

Sample ID on COC	Corrected sample ID
IP-1-120121	IP-1-121021
IMP-3-120121	IMP-3-121021
MW-16-121021	MW-16-121021

II. VOLATILE ORGANIC COMPOUNDS (VOCs - SW8260C)

ITEMS REVIEWED	REPORTED/ REVIEWED		EXCEPTIONS NOTED		GENERAL COMMENTS NOTED		ITEM NOT REQUIRED
	NO	YES	NO	YES	NO	YES	
1. Holding times		X		X		X	
2. Reporting limits		X	X		X		
3. Blanks							
A. Method Blanks		X	X		X		
B. Field Blanks/Equipment Blanks		X	X		X		
C. Trip Blanks		X	X		X		
4. Laboratory control sample (LCS) %R		X		X		X	
5. Laboratory control sample duplicate (LCSD) %R	X						X
6. LCS/LCSD RPD	X						X
7. Matrix spike (MS) %R		X	X			X	
8. MSD %R		X	X			X	
9. MS/MSD RPD		X	X			X	
10. Surrogate Recoveries		X	X			X	
11. Field Duplicate Comparison		X	X			X	

Notes:
%R - percent recovery
RPD - relative percent difference
MSD- Matrix Spike Duplicate
"Exceptions Noted" = If an exception was noted in the accompanying exception report (ER) this will be checked in the affirmative.
"General Comments Noted" = If there are other comments associated with Data Quality (not necessarily noted in the ER) this will be checked in the affirmative

COMMENTS: Performance was acceptable, with below exceptions.

SDG#480-192803-1:

1. It is noted in the case narrative that the pH of the sample IW-A2 (480-192803-4) was observed as 6 SU which is exceeded the limit of 2 SU. However, the sample was analysed with in the holding time of 7 day (if unpreserved). The compounds in the associated sample were qualified as estimated (J/UJ) due to the exceedance of pH.

7-9. The MS/MSD analysis was performed on sample MW-A1, exhibited acceptable recoveries and RPDs.

10. All surrogate recoveries were within control limits.

11. A field duplicate sample DUP-1 was collected from MW-19 and the RPDs were acceptable.

SDG#480-193338-1:

4. The LCS recovery for compound Cyclohexane, Methylcyclohexane, 1,1,2-Trichloro-1,2,2-trifluoroethane was greater than the control limit in analysis batch 608629. Compound was not detected in any of the associated samples hence no other qualification was required.

7-9. MS/MSD analysis was not performed on any of the samples from this SDG.

10. All surrogate recoveries were within control limits.

11. A field duplicate sample was not collected for this SDG.

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III. DISSOLVED GASES (RSK-175)

ITEMS REVIEWED	REPORTED/ REVIEWED		EXCEPTIONS NOTED		GENERAL COMMENTS NOTED		ITEM NOT REQUIRED
	NO	YES	NO	YES	NO	YES	
1. Holding times		X	X		X		
2. Reporting limits		X	X		X		
3. Blanks							
A. Method Blanks		X	X		X		
B. Field Blanks/Equipment Blanks		X	X		X		
4. Laboratory control sample (LCS) %R		X	X		X		
5. Laboratory control sample duplicate (LCSD) %R		X	X		X		
6. LCS/LCSD RPD		X	X		X		
7. Matrix spike (MS) %R		X	X			X	
8. MSD %R		X	X			X	
9. MS/MSD RPD		X	X			X	
10. Field/Lab Duplicate Comparison		X	X			X	

Notes:
%R - percent recovery RPD - relative percent difference
MSD- Matrix Spike Duplicate
“Exceptions Noted” = If an exception was noted in the accompanying exception report (ER) this will be checked in the affirmative.
“General Comments Noted” = If there are other comments associated with Data Quality (not necessarily noted in the ER) this will be checked in the affirmative

COMMENTS: Performance was acceptable, with below exceptions.

SDG# 480-192803-1:

7-9. The MS/MSD analysis was performed on sample MW-A1, exhibited acceptable recoveries and RPDs.

10. A field duplicate sample DUP-1 was collected from MW-19 and the RPDs were acceptable.

SDG# 480-193338-1:

7-9. MS/MSD analysis was not performed on any of the samples from this SDG.

10. A field duplicate sample was not collected for this SDG.

IV. General Chemistry – (Total Organic Carbon -9060A)

ITEMS REVIEWED	REPORTED/ REVIEWED		EXCEPTIONS NOTED		GENERAL COMMENTS NOTED		ITEM NOT REQUIRED
	NO	YES	NO	YES	NO	YES	
1. Holding times		X	X		X		
2. Reporting limits		X	X		X		
3. Blanks							
A. Method Blanks		X	X		X		
B. Field Blanks/Equipment Blanks		X	X				
4. Laboratory control sample (LCS) %R		X	X		X		
5. Laboratory control sample duplicate (LCSD) %R	X						X
6. LCS/LCSD RPD	X						X
7. Matrix spike (MS) %R		X	X			X	
8. MSD %R		X	X			X	
9. MS/MSD RPD		X	X			X	
10. Lab Duplicate RPD		X	X			X	
11. Field/Lab Duplicate Comparison		X	X			X	

Notes:
%R - percent recovery RPD - relative percent difference
MSD- Matrix Spike Duplicate
"Exceptions Noted" = If an exception was noted in the accompanying exception report (ER) this will be checked in the affirmative.
"General Comments Noted" = If there are other comments associated with Data Quality (not necessarily noted in the ER) this will be checked in the affirmative

COMMENTS: Performance was acceptable, with below exceptions.

SDG# 480-192803-1:

7-9. The MS analysis was performed on sample MW-13. The MS recovery was within the control limit.

The MS/MSD analysis was performed on samples MW-A1; The MS/MSD recovery was within the control limit.

10. Sample MW-21 was used as the laboratory duplicate, exhibited acceptable RPD.

11. A field duplicate sample DUP-1 was collected from MW-19 and the RPDs were acceptable.

SDG# 480-193338-1:

7-9. The MS analysis was performed on sample IMP-3-121021. The MS recovery was within the control limit.

MSD analysis was not performed on any of the samples from this SDG.

10. Sample MW-16-121021 was used as the laboratory duplicate, exhibited acceptable RPD.

11. A field duplicate sample was not collected for this SDG.

DATA VALIDATION QUALIFICATION SUMMARY

Qualifier Definitions:

J – The compound was positively identified; however, the associated numerical value is an estimated concentration only.
UJ – The compound was not detected above the reported sample quantitation limit. However, the reported limit is approximate and may or may not represent the actual limit of quantitation.

Explanation/Notes:

SDGs	Sample ID	Method	Parameter	Result	Units	Qualifier	Reason
480-192803-1	IW-A2	SW846 8260	All Compounds	UJ/J	ug/L	UJ / J	PH limit exceedance

VALIDATION PERFORMED BY: Bhagyashree Fulzele

SIGNATURE: 

DATE: January 17, 2022

PEER REVIEW: Dennis Capria

DATE: February 1, 2022

Eurofins TestAmerica, Buffalo
10 Hazelwood Drive
Amherst, NY 14228-2298
Phone: 716-691-2600 Fax: 716-691-7991

Chain of Custody Record

Albany #224

eurofins Environment Testing America

Client Information	Sampler: ES/KV	Lab PM: Barnett, Eddie T	Carrier Tracking No(s):	COC No: 680-130675-46759.3
Client Contact: Joe Zaso	Phone: 518-320-4441	E-Mail: Eddie.Barnett@Eurofinset.com	State of Origin:	Page: Page ~~2 of 2~~ 1 of 2
Company: ARCADIS U.S. Inc	PWSID:			Job #:
Address: 6041 Wallace Road Extension Suite 300	Due Date Requested:			
City: Wexford	TAT Requested (days): Standard			
State, Zip: PA, 15090	Compliance Project: Δ Yes Δ No			
Phone:	PO #: PO884663			
Email: joseph.zaso@arcadis.com	WO #: Task 400			
Project Name: Ashland Rensselaer	Project #: 68016621			
Site: Ashland Ren.	SSOW#:			

Analysis Requested

Preservation Codes:

A - HCL	M - Hexane
B - NaOH	N - None
C - Zn Acetate	O - AsNaO2
D - Nitric Acid	P - Na2O4S
E - NaHSO4	Q - Na2SO3
F - MeOH	R - Na2S2O3
G - Amchlor	S - H2SO4
H - Ascorbic Acid	T - TSP Dodecahydrate
I - Ice	U - Acetone
J - DI Water	V - MCAA
K - EDTA	W - pH 4-5
L - EDA	Z - other (specify)

Other:

Sample Identification	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	8260C - TCL list OLM04.2	9060A - (MOD) Local Method	RSK_175 - Methane, Ethane, Ethene	Total Number of containers	Special Instructions/Note:
Preservation Code:							A	A	A		
MW-13	11/22/21	1125	G	Water			X	X		5	
MW-21		1220		Water			X	X		5	
MW-17		1310		Water			X	X		5	
IW-A2		1420		Water			X	X		5	
~~FB-1~~ (ES) FB-1		1430		Water			X	X	X	8	
MW-15		1515		Water			X		X	6	
MW-B1		1320		Water			X	X	X		
IW-B3		1215		Water			X	X			
~~MP-1~~ (ES) MW-23		1120		Water			X	X	X		
MW-24		1435		Water			X	X	X		
Trip Blank		—	—	Water			X			4	

480-192803 Chain of Custody

Possible Hazard Identification
☒ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return To Client ☐ Disposal By Lab ☒ Archive For Standard Months

Deliverable Requested: I, II, III, IV, Other (specify)

Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
1	[signature]	11/22/21 1230	ARCADIS	[signature]	11-23-2021 1230	EETN
2	[signature]	11-23-2021 1700	EETA	[signature]	11/24/21 1030	EETA
3	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No | Custody Seal No.:

Cooler Temperature(s) °C and Other Remarks: 2.1 #1 ICE

Ver: 06/08/2021

Eurofins TestAmerica, Buffalo
10 Hazelwood Drive
Amherst, NY 14228-2298
Phone: 716-691-2600 Fax: 716-691-7991

Chain of Custody Record

Albany #224

eurofins | Environment Testing America

Client Information	Sampler: ES/KV	Lab PM: Barnett, Eddie T	Carrier Tracking No(s):	COC No: 680-130675-46759.3
Client Contact: Joe Zaso	Phone: 518-320-4491	E-Mail: Eddie.Barnett@Eurofinset.com	State of Origin:	Page: ~~Page 3 of 6~~ 2 of 2
Company: ARCADIS U.S. Inc	PWSID:			Job #:
Address: 6041 Wallace Road Extension Suite 300	Due Date Requested:			
City: Wexford	TAT Requested (days): Standard			
State, Zip: PA, 15090	Compliance Project: Δ Yes Δ No			
Phone:	PO #: PO884663			
Email: joseph.zaso@arcadis.com	WO #: Task 400			
Project Name: Ashland Rensselaer	Project #: 68016621			
Site: Ashland Ren.	SSOW#:			

Analysis Requested

Preservation Codes:

A - HCL
B - NaOH
C - Zn Acetate
D - Nitric Acid
E - NaHSO4
F - MeOH
G - Amchlor
H - Ascorbic Acid
I - Ice
J - DI Water
K - EDTA
L - EDA
M - Hexane
N - None
O - AsNaO2
P - Na2O4S
Q - Na2SO3
R - Na2S2O3
S - H2SO4
T - TSP Dodecahydrate
U - Acetone
V - MCAA
W - pH 4-5
Z - other (specify)

Other:

Sample Identification	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	8260C - TCL list OLM04.2	9060A - (MOD) Local Method	RSK_175 - Methane, Ethane, Ethene	Total Number of containers	Special Instructions/Note:
			Preservation Code:				A	A	A		
MW-20	11/23/21	0855	G	Water			X	X	X	8	
MW-25		1005		Water			X	X	X	8	
FB-2		1020		Water			X	X	X	8	
MW-A1		1020		Water		X	X	X	X	24	MS/MSD
MW-19		0905		Water			X	X	X	8	
DUP-1		0850		Water			X	X	X	8	
				Water							
				Water							
~~MP-1~~ (ES)				Water							
				Water							
				Water							

DNE
11-23-2021

Possible Hazard Identification
☒ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return To Client ☐ Disposal By Lab ☒ Archive For Standard Months

Deliverable Requested: I, II, III, IV, Other (specify)

Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:				
Relinquished by: ES	Date/Time: 11/23/21 1230	Company ARCADIS	Received by:	Date/Time: 11-23-2021 1230	Company FEDEX		
Relinquished by:	Date/Time: 11-23-2021 1700	Company FEDEX	Received by: PSI	Date/Time:	Company		
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company		

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks:

Ver: 06/08/2021

Client: Ashland LLC
Project/Site: Ashland Rensselaer

Job ID: 480-192803-1

Client Sample ID: MW-13
Date Collected: 11/22/21 11:25
Date Received: 11/24/21 10:30

Lab Sample ID: 480-192803-1
Matrix: Water

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	10	U	10	3.0	ug/L			11/29/21 14:17	1
Benzene	1.0	U	1.0	0.41	ug/L			11/29/21 14:17	1
Bromodichloromethane	1.0	U	1.0	0.39	ug/L			11/29/21 14:17	1
Bromoform	1.0	U	1.0	0.26	ug/L			11/29/21 14:17	1
Bromomethane	1.0	U	1.0	0.69	ug/L			11/29/21 14:17	1
2-Butanone (MEK)	10	U	10	1.3	ug/L			11/29/21 14:17	1
Carbon disulfide	1.0	U	1.0	0.19	ug/L			11/29/21 14:17	1
Carbon tetrachloride	1.0	U	1.0	0.27	ug/L			11/29/21 14:17	1
Chlorobenzene	1.0	U	1.0	0.75	ug/L			11/29/21 14:17	1
Chloroethane	1.0	U	1.0	0.32	ug/L			11/29/21 14:17	1
Chloroform	1.0	U	1.0	0.34	ug/L			11/29/21 14:17	1
Chloromethane	1.0	U	1.0	0.35	ug/L			11/29/21 14:17	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.81	ug/L			11/29/21 14:17	1
cis-1,3-Dichloropropene	1.0	U	1.0	0.36	ug/L			11/29/21 14:17	1
Cyclohexane	1.0	U	1.0	0.18	ug/L			11/29/21 14:17	1
Dibromochloromethane	1.0	U	1.0	0.32	ug/L			11/29/21 14:17	1
1,2-Dibromo-3-Chloropropane	1.0	U	1.0	0.39	ug/L			11/29/21 14:17	1
1,2-Dibromoethane	1.0	U	1.0	0.73	ug/L			11/29/21 14:17	1
1,2-Dichlorobenzene	1.0	U	1.0	0.79	ug/L			11/29/21 14:17	1
1,3-Dichlorobenzene	1.0	U	1.0	0.78	ug/L			11/29/21 14:17	1
1,4-Dichlorobenzene	1.0	U	1.0	0.84	ug/L			11/29/21 14:17	1
Dichlorodifluoromethane	1.0	U	1.0	0.68	ug/L			11/29/21 14:17	1
1,1-Dichloroethane	1.0	U	1.0	0.38	ug/L			11/29/21 14:17	1
1,2-Dichloroethane	1.0	U	1.0	0.21	ug/L			11/29/21 14:17	1
1,1-Dichloroethene	1.0	U	1.0	0.29	ug/L			11/29/21 14:17	1
1,2-Dichloropropane	1.0	U	1.0	0.72	ug/L			11/29/21 14:17	1
Ethylbenzene	1.0	U	1.0	0.74	ug/L			11/29/21 14:17	1
2-Hexanone	5.0	U	5.0	1.2	ug/L			11/29/21 14:17	1
Isopropylbenzene	1.0	U	1.0	0.79	ug/L			11/29/21 14:17	1
Methyl acetate	2.5	U	2.5	1.3	ug/L			11/29/21 14:17	1
Methylcyclohexane	1.0	U	1.0	0.16	ug/L			11/29/21 14:17	1
Methylene Chloride	1.0	U	1.0	0.44	ug/L			11/29/21 14:17	1
4-Methyl-2-pentanone (MIBK)	5.0	U	5.0	2.1	ug/L			11/29/21 14:17	1
Methyl tert-butyl ether	1.0	U	1.0	0.16	ug/L			11/29/21 14:17	1
Styrene	1.0	U	1.0	0.73	ug/L			11/29/21 14:17	1
1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.21	ug/L			11/29/21 14:17	1
Tetrachloroethene	1.0	U	1.0	0.36	ug/L			11/29/21 14:17	1
Toluene	1.0	U	1.0	0.51	ug/L			11/29/21 14:17	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.90	ug/L			11/29/21 14:17	1
trans-1,3-Dichloropropene	1.0	U	1.0	0.37	ug/L			11/29/21 14:17	1
1,2,4-Trichlorobenzene	1.0	U	1.0	0.41	ug/L			11/29/21 14:17	1
1,1,1-Trichloroethane	1.0	U	1.0	0.82	ug/L			11/29/21 14:17	1
1,1,2-Trichloroethane	1.0	U	1.0	0.23	ug/L			11/29/21 14:17	1
Trichloroethene	1.0	U	1.0	0.46	ug/L			11/29/21 14:17	1
Trichlorofluoromethane	1.0	U	1.0	0.88	ug/L			11/29/21 14:17	1
1,1,2-Trichloro-1,2,2-trifluoroethane	1.0	U	1.0	0.31	ug/L			11/29/21 14:17	1
Vinyl chloride	1.0	U	1.0	0.90	ug/L			11/29/21 14:17	1
Xylenes, Total	2.0	U	2.0	0.66	ug/L			11/29/21 14:17	1

Client Sample ID: MW-13

Lab Sample ID: 480-192803-1

Date Collected: 11/22/21 11:25

Matrix: Water

Date Received: 11/24/21 10:30

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*100*		*73 - 120*		*11/29/21 14:17*	*1*
Dibromofluoromethane (Surr)	*102*		*75 - 123*		*11/29/21 14:17*	*1*
1,2-Dichloroethane-d4 (Surr)	*100*		*77 - 120*		*11/29/21 14:17*	*1*
Toluene-d8 (Surr)	*99*		*80 - 120*		*11/29/21 14:17*	*1*

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
TOC Result 1	**0.89**	**J**	1.0	0.43	mg/L			12/01/21 17:52	1
TOC Result 2	**0.55**	**J**	1.0	0.43	mg/L			12/01/21 17:52	1
TOC Result 3	1.0	U	1.0	0.43	mg/L			12/01/21 17:52	1
TOC Result 4	1.0	U	1.0	0.43	mg/L			12/01/21 17:52	1
Total Organic Carbon	**0.50**	**J**	1.0	0.43	mg/L			12/01/21 17:52	1

Client Sample ID: MW-21

Lab Sample ID: 480-192803-2

Date Collected: 11/22/21 12:20

Matrix: Water

Date Received: 11/24/21 10:30

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	10	U	10	3.0	ug/L			11/29/21 14:40	1
Benzene	1.0	U	1.0	0.41	ug/L			11/29/21 14:40	1
Bromodichloromethane	1.0	U	1.0	0.39	ug/L			11/29/21 14:40	1
Bromoform	1.0	U	1.0	0.26	ug/L			11/29/21 14:40	1
Bromomethane	1.0	U	1.0	0.69	ug/L			11/29/21 14:40	1
2-Butanone (MEK)	10	U	10	1.3	ug/L			11/29/21 14:40	1
Carbon disulfide	1.0	U	1.0	0.19	ug/L			11/29/21 14:40	1
Carbon tetrachloride	1.0	U	1.0	0.27	ug/L			11/29/21 14:40	1
Chlorobenzene	1.0	U	1.0	0.75	ug/L			11/29/21 14:40	1
Chloroethane	1.0	U	1.0	0.32	ug/L			11/29/21 14:40	1
Chloroform	1.0	U	1.0	0.34	ug/L			11/29/21 14:40	1
Chloromethane	1.0	U	1.0	0.35	ug/L			11/29/21 14:40	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.81	ug/L			11/29/21 14:40	1
cis-1,3-Dichloropropene	1.0	U	1.0	0.36	ug/L			11/29/21 14:40	1
Cyclohexane	1.0	U	1.0	0.18	ug/L			11/29/21 14:40	1
Dibromochloromethane	1.0	U	1.0	0.32	ug/L			11/29/21 14:40	1
1,2-Dibromo-3-Chloropropane	1.0	U	1.0	0.39	ug/L			11/29/21 14:40	1
1,2-Dibromoethane	1.0	U	1.0	0.73	ug/L			11/29/21 14:40	1
1,2-Dichlorobenzene	1.0	U	1.0	0.79	ug/L			11/29/21 14:40	1
1,3-Dichlorobenzene	1.0	U	1.0	0.78	ug/L			11/29/21 14:40	1
1,4-Dichlorobenzene	1.0	U	1.0	0.84	ug/L			11/29/21 14:40	1
Dichlorodifluoromethane	1.0	U	1.0	0.68	ug/L			11/29/21 14:40	1
1,1-Dichloroethane	1.0	U	1.0	0.38	ug/L			11/29/21 14:40	1
1,2-Dichloroethane	1.0	U	1.0	0.21	ug/L			11/29/21 14:40	1
1,1-Dichloroethene	1.0	U	1.0	0.29	ug/L			11/29/21 14:40	1
1,2-Dichloropropane	1.0	U	1.0	0.72	ug/L			11/29/21 14:40	1
Ethylbenzene	1.0	U	1.0	0.74	ug/L			11/29/21 14:40	1
2-Hexanone	5.0	U	5.0	1.2	ug/L			11/29/21 14:40	1
Isopropylbenzene	1.0	U	1.0	0.79	ug/L			11/29/21 14:40	1
Methyl acetate	2.5	U	2.5	1.3	ug/L			11/29/21 14:40	1
Methylcyclohexane	1.0	U	1.0	0.16	ug/L			11/29/21 14:40	1
Methylene Chloride	1.0	U	1.0	0.44	ug/L			11/29/21 14:40	1

Client Sample ID: MW-21

Date Collected: 11/22/21 12:20
Date Received: 11/24/21 10:30

Lab Sample ID: 480-192803-2
Matrix: Water

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4-Methyl-2-pentanone (MIBK)	5.0	U	5.0	2.1	ug/L			11/29/21 14:40	1
Methyl tert-butyl ether	1.0	U	1.0	0.16	ug/L			11/29/21 14:40	1
Styrene	1.0	U	1.0	0.73	ug/L			11/29/21 14:40	1
1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.21	ug/L			11/29/21 14:40	1
Tetrachloroethene	1.0	U	1.0	0.36	ug/L			11/29/21 14:40	1
Toluene	1.0	U	1.0	0.51	ug/L			11/29/21 14:40	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.90	ug/L			11/29/21 14:40	1
trans-1,3-Dichloropropene	1.0	U	1.0	0.37	ug/L			11/29/21 14:40	1
1,2,4-Trichlorobenzene	1.0	U	1.0	0.41	ug/L			11/29/21 14:40	1
1,1,1-Trichloroethane	1.0	U	1.0	0.82	ug/L			11/29/21 14:40	1
1,1,2-Trichloroethane	1.0	U	1.0	0.23	ug/L			11/29/21 14:40	1
Trichloroethene	1.0	U	1.0	0.46	ug/L			11/29/21 14:40	1
Trichlorofluoromethane	1.0	U	1.0	0.88	ug/L			11/29/21 14:40	1
1,1,2-Trichloro-1,2,2-trifluoroethane	1.0	U	1.0	0.31	ug/L			11/29/21 14:40	1
Vinyl chloride	1.0	U	1.0	0.90	ug/L			11/29/21 14:40	1
Xylenes, Total	2.0	U	2.0	0.66	ug/L			11/29/21 14:40	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*99*		*73 - 120*		*11/29/21 14:40*	*1*
Dibromofluoromethane (Surr)	*106*		*75 - 123*		*11/29/21 14:40*	*1*
1,2-Dichloroethane-d4 (Surr)	*104*		*77 - 120*		*11/29/21 14:40*	*1*
Toluene-d8 (Surr)	*95*		*80 - 120*		*11/29/21 14:40*	*1*

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
TOC Result 1	**7.7**		1.0	0.43	mg/L			12/01/21 18:46	1
TOC Result 2	**7.9**		1.0	0.43	mg/L			12/01/21 18:46	1
TOC Result 3	**8.0**		1.0	0.43	mg/L			12/01/21 18:46	1
TOC Result 4	**7.7**		1.0	0.43	mg/L			12/01/21 18:46	1
Total Organic Carbon	**7.8**		1.0	0.43	mg/L			12/01/21 18:46	1

Client Sample ID: MW-17

Date Collected: 11/22/21 13:10
Date Received: 11/24/21 10:30

Lab Sample ID: 480-192803-3
Matrix: Water

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	10	U	10	3.0	ug/L			11/29/21 15:03	1
Benzene	1.0	U	1.0	0.41	ug/L			11/29/21 15:03	1
Bromodichloromethane	1.0	U	1.0	0.39	ug/L			11/29/21 15:03	1
Bromoform	1.0	U	1.0	0.26	ug/L			11/29/21 15:03	1
Bromomethane	1.0	U	1.0	0.69	ug/L			11/29/21 15:03	1
2-Butanone (MEK)	10	U	10	1.3	ug/L			11/29/21 15:03	1
Carbon disulfide	1.0	U	1.0	0.19	ug/L			11/29/21 15:03	1
Carbon tetrachloride	1.0	U	1.0	0.27	ug/L			11/29/21 15:03	1
Chlorobenzene	1.0	U	1.0	0.75	ug/L			11/29/21 15:03	1
Chloroethane	1.0	U	1.0	0.32	ug/L			11/29/21 15:03	1
Chloroform	1.0	U	1.0	0.34	ug/L			11/29/21 15:03	1
Chloromethane	1.0	U	1.0	0.35	ug/L			11/29/21 15:03	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.81	ug/L			11/29/21 15:03	1

Client: Ashland LLC
Project/Site: Ashland Rensselaer

Job ID: 480-192803-1

Client Sample ID: MW-17

Date Collected: 11/22/21 13:10
Date Received: 11/24/21 10:30

Lab Sample ID: 480-192803-3

Matrix: Water

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
cis-1,3-Dichloropropene	1.0	U	1.0	0.36	ug/L			11/29/21 15:03	1
Cyclohexane	1.0	U	1.0	0.18	ug/L			11/29/21 15:03	1
Dibromochloromethane	1.0	U	1.0	0.32	ug/L			11/29/21 15:03	1
1,2-Dibromo-3-Chloropropane	1.0	U	1.0	0.39	ug/L			11/29/21 15:03	1
1,2-Dibromoethane	1.0	U	1.0	0.73	ug/L			11/29/21 15:03	1
1,2-Dichlorobenzene	1.0	U	1.0	0.79	ug/L			11/29/21 15:03	1
1,3-Dichlorobenzene	1.0	U	1.0	0.78	ug/L			11/29/21 15:03	1
1,4-Dichlorobenzene	1.0	U	1.0	0.84	ug/L			11/29/21 15:03	1
Dichlorodifluoromethane	1.0	U	1.0	0.68	ug/L			11/29/21 15:03	1
1,1-Dichloroethane	1.0	U	1.0	0.38	ug/L			11/29/21 15:03	1
1,2-Dichloroethane	1.0	U	1.0	0.21	ug/L			11/29/21 15:03	1
1,1-Dichloroethene	1.0	U	1.0	0.29	ug/L			11/29/21 15:03	1
1,2-Dichloropropane	1.0	U	1.0	0.72	ug/L			11/29/21 15:03	1
Ethylbenzene	1.0	U	1.0	0.74	ug/L			11/29/21 15:03	1
2-Hexanone	5.0	U	5.0	1.2	ug/L			11/29/21 15:03	1
Isopropylbenzene	1.0	U	1.0	0.79	ug/L			11/29/21 15:03	1
Methyl acetate	2.5	U	2.5	1.3	ug/L			11/29/21 15:03	1
Methylcyclohexane	1.0	U	1.0	0.16	ug/L			11/29/21 15:03	1
Methylene Chloride	1.0	U	1.0	0.44	ug/L			11/29/21 15:03	1
4-Methyl-2-pentanone (MIBK)	5.0	U	5.0	2.1	ug/L			11/29/21 15:03	1
Methyl tert-butyl ether	1.0	U	1.0	0.16	ug/L			11/29/21 15:03	1
Styrene	1.0	U	1.0	0.73	ug/L			11/29/21 15:03	1
1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.21	ug/L			11/29/21 15:03	1
Tetrachloroethene	1.0	U	1.0	0.36	ug/L			11/29/21 15:03	1
Toluene	1.0	U	1.0	0.51	ug/L			11/29/21 15:03	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.90	ug/L			11/29/21 15:03	1
trans-1,3-Dichloropropene	1.0	U	1.0	0.37	ug/L			11/29/21 15:03	1
1,2,4-Trichlorobenzene	1.0	U	1.0	0.41	ug/L			11/29/21 15:03	1
1,1,1-Trichloroethane	1.0	U	1.0	0.82	ug/L			11/29/21 15:03	1
1,1,2-Trichloroethane	1.0	U	1.0	0.23	ug/L			11/29/21 15:03	1
Trichloroethene	1.0	U	1.0	0.46	ug/L			11/29/21 15:03	1
Trichlorofluoromethane	1.0	U	1.0	0.88	ug/L			11/29/21 15:03	1
1,1,2-Trichloro-1,2,2-trifluoroethane	1.0	U	1.0	0.31	ug/L			11/29/21 15:03	1
Vinyl chloride	1.0	U	1.0	0.90	ug/L			11/29/21 15:03	1
Xylenes, Total	2.0	U	2.0	0.66	ug/L			11/29/21 15:03	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*97*		*73 - 120*		*11/29/21 15:03*	*1*
Dibromofluoromethane (Surr)	*104*		*75 - 123*		*11/29/21 15:03*	*1*
1,2-Dichloroethane-d4 (Surr)	*98*		*77 - 120*		*11/29/21 15:03*	*1*
Toluene-d8 (Surr)	*97*		*80 - 120*		*11/29/21 15:03*	*1*

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
TOC Result 1	**2.6**		1.0	0.43	mg/L			11/27/21 21:21	1
TOC Result 2	**2.8**		1.0	0.43	mg/L			11/27/21 21:21	1
TOC Result 3	**2.7**		1.0	0.43	mg/L			11/27/21 21:21	1
TOC Result 4	**2.7**		1.0	0.43	mg/L			11/27/21 21:21	1
Total Organic Carbon	**2.7**		1.0	0.43	mg/L			11/27/21 21:21	1

Client Sample ID: IW-A2

Date Collected: 11/22/21 14:20
Date Received: 11/24/21 10:30

Lab Sample ID: 480-192803-4

Matrix: Water

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	200	~~U~~ UJ	200	60	ug/L			11/29/21 15:27	20
Benzene	**13**	**J**	20	8.2	ug/L			11/29/21 15:27	20
Bromodichloromethane	20	U	20	7.8	ug/L			11/29/21 15:27	20
Bromoform	20	U	20	5.2	ug/L			11/29/21 15:27	20
Bromomethane	20	U	20	14	ug/L			11/29/21 15:27	20
2-Butanone (MEK)	200	U	200	26	ug/L			11/29/21 15:27	20
Carbon disulfide	20	U	20	3.8	ug/L			11/29/21 15:27	20
Carbon tetrachloride	20	U	20	5.4	ug/L			11/29/21 15:27	20
Chlorobenzene	20	U	20	15	ug/L			11/29/21 15:27	20
Chloroethane	20	U	20	6.4	ug/L			11/29/21 15:27	20
Chloroform	20	U	20	6.8	ug/L			11/29/21 15:27	20
Chloromethane	20	U	20	7.0	ug/L			11/29/21 15:27	20
cis-1,2-Dichloroethene	20	U	20	16	ug/L			11/29/21 15:27	20
cis-1,3-Dichloropropene	20	U	20	7.2	ug/L			11/29/21 15:27	20
Cyclohexane	20	U	20	3.6	ug/L			11/29/21 15:27	20
Dibromochloromethane	20	U	20	6.4	ug/L			11/29/21 15:27	20
1,2-Dibromo-3-Chloropropane	20	U	20	7.8	ug/L			11/29/21 15:27	20
1,2-Dibromoethane	20	U	20	15	ug/L			11/29/21 15:27	20
1,2-Dichlorobenzene	20	U	20	16	ug/L			11/29/21 15:27	20
1,3-Dichlorobenzene	20	U	20	16	ug/L			11/29/21 15:27	20
1,4-Dichlorobenzene	20	U	20	17	ug/L			11/29/21 15:27	20
Dichlorodifluoromethane	20	U	20	14	ug/L			11/29/21 15:27	20
1,1-Dichloroethane	20	U	20	7.6	ug/L			11/29/21 15:27	20
1,2-Dichloroethane	20	U UJ	20	4.2	ug/L			11/29/21 15:27	20
1,1-Dichloroethene	20	U	20	5.8	ug/L			11/29/21 15:27	20
1,2-Dichloropropane	20	U	20	14	ug/L			11/29/21 15:27	20
Ethylbenzene	20	U	20	15	ug/L			11/29/21 15:27	20
2-Hexanone	100	U	100	25	ug/L			11/29/21 15:27	20
Isopropylbenzene	20	U	20	16	ug/L			11/29/21 15:27	20
Methyl acetate	50	U	50	26	ug/L			11/29/21 15:27	20
Methylcyclohexane	20	U	20	3.2	ug/L			11/29/21 15:27	20
Methylene Chloride	20	U	20	8.8	ug/L			11/29/21 15:27	20
4-Methyl-2-pentanone (MIBK)	100	U	100	42	ug/L			11/29/21 15:27	20
Methyl tert-butyl ether	20	U	20	3.2	ug/L			11/29/21 15:27	20
Styrene	20	U	20	15	ug/L			11/29/21 15:27	20
1,1,2,2-Tetrachloroethane	20	U	20	4.2	ug/L			11/29/21 15:27	20
Tetrachloroethene	20	U	20	7.2	ug/L			11/29/21 15:27	20
Toluene	20	U	20	10	ug/L			11/29/21 15:27	20
trans-1,2-Dichloroethene	20	U	20	18	ug/L			11/29/21 15:27	20
trans-1,3-Dichloropropene	20	U	20	7.4	ug/L			11/29/21 15:27	20
1,2,4-Trichlorobenzene	20	U	20	8.2	ug/L			11/29/21 15:27	20
1,1,1-Trichloroethane	20	U	20	16	ug/L			11/29/21 15:27	20
1,1,2-Trichloroethane	20	U	20	4.6	ug/L			11/29/21 15:27	20
Trichloroethene	20	U	20	9.2	ug/L			11/29/21 15:27	20
Trichlorofluoromethane	20	U	20	18	ug/L			11/29/21 15:27	20
1,1,2-Trichloro-1,2,2-trifluoroethane	20	U	20	6.2	ug/L			11/29/21 15:27	20
Vinyl chloride	20	U	20	18	ug/L			11/29/21 15:27	20
Xylenes, Total	**27**	**J**	40	13	ug/L			11/29/21 15:27	20

Client Sample ID: IW-A2

Date Collected: 11/22/21 14:20
Date Received: 11/24/21 10:30

Lab Sample ID: 480-192803-4
Matrix: Water

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*102*		*73 - 120*		*11/29/21 15:27*	*20*
Dibromofluoromethane (Surr)	*105*		*75 - 123*		*11/29/21 15:27*	*20*
1,2-Dichloroethane-d4 (Surr)	*99*		*77 - 120*		*11/29/21 15:27*	*20*
Toluene-d8 (Surr)	*98*		*80 - 120*		*11/29/21 15:27*	*20*

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
TOC Result 1	**110**		2.0	0.87	mg/L			12/01/21 19:43	2
TOC Result 2	**120**		2.0	0.87	mg/L			12/01/21 19:43	2
TOC Result 3	**120**		2.0	0.87	mg/L			12/01/21 19:43	2
TOC Result 4	**120**		2.0	0.87	mg/L			12/01/21 19:43	2
Total Organic Carbon	**120**		2.0	0.87	mg/L			12/01/21 19:43	2

Client Sample ID: FB-1

Date Collected: 11/22/21 14:30
Date Received: 11/24/21 10:30

Lab Sample ID: 480-192803-5
Matrix: Water

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	10	U	10	3.0	ug/L			11/29/21 15:49	1
Benzene	1.0	U	1.0	0.41	ug/L			11/29/21 15:49	1
Bromodichloromethane	1.0	U	1.0	0.39	ug/L			11/29/21 15:49	1
Bromoform	1.0	U	1.0	0.26	ug/L			11/29/21 15:49	1
Bromomethane	1.0	U	1.0	0.69	ug/L			11/29/21 15:49	1
2-Butanone (MEK)	10	U	10	1.3	ug/L			11/29/21 15:49	1
Carbon disulfide	1.0	U	1.0	0.19	ug/L			11/29/21 15:49	1
Carbon tetrachloride	1.0	U	1.0	0.27	ug/L			11/29/21 15:49	1
Chlorobenzene	1.0	U	1.0	0.75	ug/L			11/29/21 15:49	1
Chloroethane	1.0	U	1.0	0.32	ug/L			11/29/21 15:49	1
Chloroform	1.0	U	1.0	0.34	ug/L			11/29/21 15:49	1
Chloromethane	1.0	U	1.0	0.35	ug/L			11/29/21 15:49	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.81	ug/L			11/29/21 15:49	1
cis-1,3-Dichloropropene	1.0	U	1.0	0.36	ug/L			11/29/21 15:49	1
Cyclohexane	1.0	U	1.0	0.18	ug/L			11/29/21 15:49	1
Dibromochloromethane	1.0	U	1.0	0.32	ug/L			11/29/21 15:49	1
1,2-Dibromo-3-Chloropropane	1.0	U	1.0	0.39	ug/L			11/29/21 15:49	1
1,2-Dibromoethane	1.0	U	1.0	0.73	ug/L			11/29/21 15:49	1
1,2-Dichlorobenzene	1.0	U	1.0	0.79	ug/L			11/29/21 15:49	1
1,3-Dichlorobenzene	1.0	U	1.0	0.78	ug/L			11/29/21 15:49	1
1,4-Dichlorobenzene	1.0	U	1.0	0.84	ug/L			11/29/21 15:49	1
Dichlorodifluoromethane	1.0	U	1.0	0.68	ug/L			11/29/21 15:49	1
1,1-Dichloroethane	1.0	U	1.0	0.38	ug/L			11/29/21 15:49	1
1,2-Dichloroethane	1.0	U	1.0	0.21	ug/L			11/29/21 15:49	1
1,1-Dichloroethene	1.0	U	1.0	0.29	ug/L			11/29/21 15:49	1
1,2-Dichloropropane	1.0	U	1.0	0.72	ug/L			11/29/21 15:49	1
Ethylbenzene	1.0	U	1.0	0.74	ug/L			11/29/21 15:49	1
2-Hexanone	5.0	U	5.0	1.2	ug/L			11/29/21 15:49	1
Isopropylbenzene	1.0	U	1.0	0.79	ug/L			11/29/21 15:49	1
Methyl acetate	2.5	U	2.5	1.3	ug/L			11/29/21 15:49	1
Methylcyclohexane	1.0	U	1.0	0.16	ug/L			11/29/21 15:49	1
Methylene Chloride	1.0	U	1.0	0.44	ug/L			11/29/21 15:49	1

Client Sample ID: FB-1

Lab Sample ID: 480-192803-5

Date Collected: 11/22/21 14:30
Matrix: Water
Date Received: 11/24/21 10:30

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4-Methyl-2-pentanone (MIBK)	5.0	U	5.0	2.1	ug/L			11/29/21 15:49	1
Methyl tert-butyl ether	1.0	U	1.0	0.16	ug/L			11/29/21 15:49	1
Styrene	1.0	U	1.0	0.73	ug/L			11/29/21 15:49	1
1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.21	ug/L			11/29/21 15:49	1
Tetrachloroethene	1.0	U	1.0	0.36	ug/L			11/29/21 15:49	1
Toluene	1.0	U	1.0	0.51	ug/L			11/29/21 15:49	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.90	ug/L			11/29/21 15:49	1
trans-1,3-Dichloropropene	1.0	U	1.0	0.37	ug/L			11/29/21 15:49	1
1,2,4-Trichlorobenzene	1.0	U	1.0	0.41	ug/L			11/29/21 15:49	1
1,1,1-Trichloroethane	1.0	U	1.0	0.82	ug/L			11/29/21 15:49	1
1,1,2-Trichloroethane	1.0	U	1.0	0.23	ug/L			11/29/21 15:49	1
Trichloroethene	1.0	U	1.0	0.46	ug/L			11/29/21 15:49	1
Trichlorofluoromethane	1.0	U	1.0	0.88	ug/L			11/29/21 15:49	1
1,1,2-Trichloro-1,2,2-trifluoroethane	1.0	U	1.0	0.31	ug/L			11/29/21 15:49	1
Vinyl chloride	1.0	U	1.0	0.90	ug/L			11/29/21 15:49	1
Xylenes, Total	2.0	U	2.0	0.66	ug/L			11/29/21 15:49	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*98*		*73 - 120*		*11/29/21 15:49*	*1*
Dibromofluoromethane (Surr)	*98*		*75 - 123*		*11/29/21 15:49*	*1*
1,2-Dichloroethane-d4 (Surr)	*96*		*77 - 120*		*11/29/21 15:49*	*1*
Toluene-d8 (Surr)	*95*		*80 - 120*		*11/29/21 15:49*	*1*

Method: RSK-175 - Dissolved Gases (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethane	7.5	U	7.5	1.5	ug/L			11/29/21 18:49	1
Ethene	7.0	U	7.0	1.5	ug/L			11/29/21 18:49	1
Methane	4.0	U	4.0	1.0	ug/L			11/29/21 18:49	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
TOC Result 1	**0.43**	**J**	1.0	0.43	mg/L			12/01/21 20:13	1
TOC Result 2	1.0	U	1.0	0.43	mg/L			12/01/21 20:13	1
TOC Result 3	1.0	U	1.0	0.43	mg/L			12/01/21 20:13	1
TOC Result 4	1.0	U	1.0	0.43	mg/L			12/01/21 20:13	1
Total Organic Carbon	1.0	U	1.0	0.43	mg/L			12/01/21 20:13	1

Client Sample ID: MW-15

Lab Sample ID: 480-192803-6

Date Collected: 11/22/21 15:15
Matrix: Water
Date Received: 11/24/21 10:30

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	10	U	10	3.0	ug/L			11/29/21 16:13	1
Benzene	**5.3**		1.0	0.41	ug/L			11/29/21 16:13	1
Bromodichloromethane	1.0	U	1.0	0.39	ug/L			11/29/21 16:13	1
Bromoform	1.0	U	1.0	0.26	ug/L			11/29/21 16:13	1
Bromomethane	1.0	U	1.0	0.69	ug/L			11/29/21 16:13	1
2-Butanone (MEK)	10	U	10	1.3	ug/L			11/29/21 16:13	1
Carbon disulfide	1.0	U	1.0	0.19	ug/L			11/29/21 16:13	1
Carbon tetrachloride	1.0	U	1.0	0.27	ug/L			11/29/21 16:13	1

Client Sample ID: MW-15
Date Collected: 11/22/21 15:15
Date Received: 11/24/21 10:30

Lab Sample ID: 480-192803-6
Matrix: Water

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chlorobenzene	1.0	U	1.0	0.75	ug/L			11/29/21 16:13	1
Chloroethane	1.0	U	1.0	0.32	ug/L			11/29/21 16:13	1
Chloroform	1.0	U	1.0	0.34	ug/L			11/29/21 16:13	1
Chloromethane	1.0	U	1.0	0.35	ug/L			11/29/21 16:13	1
cis-1,2-Dichloroethene	**8.1**		1.0	0.81	ug/L			11/29/21 16:13	1
cis-1,3-Dichloropropene	1.0	U	1.0	0.36	ug/L			11/29/21 16:13	1
Cyclohexane	**1.5**		1.0	0.18	ug/L			11/29/21 16:13	1
Dibromochloromethane	1.0	U	1.0	0.32	ug/L			11/29/21 16:13	1
1,2-Dibromo-3-Chloropropane	1.0	U	1.0	0.39	ug/L			11/29/21 16:13	1
1,2-Dibromoethane	1.0	U	1.0	0.73	ug/L			11/29/21 16:13	1
1,2-Dichlorobenzene	1.0	U	1.0	0.79	ug/L			11/29/21 16:13	1
1,3-Dichlorobenzene	1.0	U	1.0	0.78	ug/L			11/29/21 16:13	1
1,4-Dichlorobenzene	1.0	U	1.0	0.84	ug/L			11/29/21 16:13	1
Dichlorodifluoromethane	1.0	U	1.0	0.68	ug/L			11/29/21 16:13	1
1,1-Dichloroethane	**0.67**	**J**	1.0	0.38	ug/L			11/29/21 16:13	1
1,2-Dichloroethane	**0.35**	**J**	1.0	0.21	ug/L			11/29/21 16:13	1
1,1-Dichloroethene	1.0	U	1.0	0.29	ug/L			11/29/21 16:13	1
1,2-Dichloropropane	1.0	U	1.0	0.72	ug/L			11/29/21 16:13	1
Ethylbenzene	1.0	U	1.0	0.74	ug/L			11/29/21 16:13	1
2-Hexanone	5.0	U	5.0	1.2	ug/L			11/29/21 16:13	1
Isopropylbenzene	1.0	U	1.0	0.79	ug/L			11/29/21 16:13	1
Methyl acetate	2.5	U	2.5	1.3	ug/L			11/29/21 16:13	1
Methylcyclohexane	**1.1**		1.0	0.16	ug/L			11/29/21 16:13	1
Methylene Chloride	1.0	U	1.0	0.44	ug/L			11/29/21 16:13	1
4-Methyl-2-pentanone (MIBK)	5.0	U	5.0	2.1	ug/L			11/29/21 16:13	1
Methyl tert-butyl ether	1.0	U	1.0	0.16	ug/L			11/29/21 16:13	1
Styrene	1.0	U	1.0	0.73	ug/L			11/29/21 16:13	1
1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.21	ug/L			11/29/21 16:13	1
Tetrachloroethene	1.0	U	1.0	0.36	ug/L			11/29/21 16:13	1
Toluene	1.0	U	1.0	0.51	ug/L			11/29/21 16:13	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.90	ug/L			11/29/21 16:13	1
trans-1,3-Dichloropropene	1.0	U	1.0	0.37	ug/L			11/29/21 16:13	1
1,2,4-Trichlorobenzene	1.0	U	1.0	0.41	ug/L			11/29/21 16:13	1
1,1,1-Trichloroethane	1.0	U	1.0	0.82	ug/L			11/29/21 16:13	1
1,1,2-Trichloroethane	1.0	U	1.0	0.23	ug/L			11/29/21 16:13	1
Trichloroethene	1.0	U	1.0	0.46	ug/L			11/29/21 16:13	1
Trichlorofluoromethane	1.0	U	1.0	0.88	ug/L			11/29/21 16:13	1
1,1,2-Trichloro-1,2,2-trifluoroethane	1.0	U	1.0	0.31	ug/L			11/29/21 16:13	1
Vinyl chloride	**13**		1.0	0.90	ug/L			11/29/21 16:13	1
Xylenes, Total	2.0	U	2.0	0.66	ug/L			11/29/21 16:13	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*102*		*73 - 120*		*11/29/21 16:13*	*1*
Dibromofluoromethane (Surr)	*103*		*75 - 123*		*11/29/21 16:13*	*1*
1,2-Dichloroethane-d4 (Surr)	*99*		*77 - 120*		*11/29/21 16:13*	*1*
Toluene-d8 (Surr)	*94*		*80 - 120*		*11/29/21 16:13*	*1*

Method: RSK-175 - Dissolved Gases (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethane	**60**	**J**	83	17	ug/L			11/29/21 19:08	11

Client Sample ID: MW-15

Date Collected: 11/22/21 15:15
Date Received: 11/24/21 10:30

Lab Sample ID: 480-192803-6
Matrix: Water

Method: RSK-175 - Dissolved Gases (GC) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethene	77	U	77	17	ug/L			11/29/21 19:08	11
Methane	**3100**		44	11	ug/L			11/29/21 19:08	11

Client Sample ID: MW-B1

Date Collected: 11/22/21 13:20
Date Received: 11/24/21 10:30

Lab Sample ID: 480-192803-7
Matrix: Water

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	40	U	40	12	ug/L			11/29/21 16:36	4
Benzene	4.0	U	4.0	1.6	ug/L			11/29/21 16:36	4
Bromodichloromethane	4.0	U	4.0	1.6	ug/L			11/29/21 16:36	4
Bromoform	4.0	U	4.0	1.0	ug/L			11/29/21 16:36	4
Bromomethane	4.0	U	4.0	2.8	ug/L			11/29/21 16:36	4
2-Butanone (MEK)	40	U	40	5.3	ug/L			11/29/21 16:36	4
Carbon disulfide	4.0	U	4.0	0.76	ug/L			11/29/21 16:36	4
Carbon tetrachloride	4.0	U	4.0	1.1	ug/L			11/29/21 16:36	4
Chlorobenzene	4.0	U	4.0	3.0	ug/L			11/29/21 16:36	4
Chloroethane	4.0	U	4.0	1.3	ug/L			11/29/21 16:36	4
Chloroform	4.0	U	4.0	1.4	ug/L			11/29/21 16:36	4
Chloromethane	4.0	U	4.0	1.4	ug/L			11/29/21 16:36	4
cis-1,2-Dichloroethene	4.0	U	4.0	3.2	ug/L			11/29/21 16:36	4
cis-1,3-Dichloropropene	4.0	U	4.0	1.4	ug/L			11/29/21 16:36	4
Cyclohexane	4.0	U	4.0	0.72	ug/L			11/29/21 16:36	4
Dibromochloromethane	4.0	U	4.0	1.3	ug/L			11/29/21 16:36	4
1,2-Dibromo-3-Chloropropane	4.0	U	4.0	1.6	ug/L			11/29/21 16:36	4
1,2-Dibromoethane	4.0	U	4.0	2.9	ug/L			11/29/21 16:36	4
1,2-Dichlorobenzene	4.0	U	4.0	3.2	ug/L			11/29/21 16:36	4
1,3-Dichlorobenzene	4.0	U	4.0	3.1	ug/L			11/29/21 16:36	4
1,4-Dichlorobenzene	4.0	U	4.0	3.4	ug/L			11/29/21 16:36	4
Dichlorodifluoromethane	4.0	U	4.0	2.7	ug/L			11/29/21 16:36	4
1,1-Dichloroethane	4.0	U	4.0	1.5	ug/L			11/29/21 16:36	4
1,2-Dichloroethane	4.0	U	4.0	0.84	ug/L			11/29/21 16:36	4
1,1-Dichloroethene	4.0	U	4.0	1.2	ug/L			11/29/21 16:36	4
1,2-Dichloropropane	4.0	U	4.0	2.9	ug/L			11/29/21 16:36	4
Ethylbenzene	4.0	U	4.0	3.0	ug/L			11/29/21 16:36	4
2-Hexanone	20	U	20	5.0	ug/L			11/29/21 16:36	4
Isopropylbenzene	4.0	U	4.0	3.2	ug/L			11/29/21 16:36	4
Methyl acetate	10	U	10	5.2	ug/L			11/29/21 16:36	4
Methylcyclohexane	4.0	U	4.0	0.64	ug/L			11/29/21 16:36	4
Methylene Chloride	4.0	U	4.0	1.8	ug/L			11/29/21 16:36	4
4-Methyl-2-pentanone (MIBK)	20	U	20	8.4	ug/L			11/29/21 16:36	4
Methyl tert-butyl ether	4.0	U	4.0	0.64	ug/L			11/29/21 16:36	4
Styrene	4.0	U	4.0	2.9	ug/L			11/29/21 16:36	4
1,1,2,2-Tetrachloroethane	4.0	U	4.0	0.84	ug/L			11/29/21 16:36	4
Tetrachloroethene	4.0	U	4.0	1.4	ug/L			11/29/21 16:36	4
Toluene	4.0	U	4.0	2.0	ug/L			11/29/21 16:36	4
trans-1,2-Dichloroethene	4.0	U	4.0	3.6	ug/L			11/29/21 16:36	4
trans-1,3-Dichloropropene	4.0	U	4.0	1.5	ug/L			11/29/21 16:36	4
1,2,4-Trichlorobenzene	4.0	U	4.0	1.6	ug/L			11/29/21 16:36	4

Client Sample ID: MW-B1

Date Collected: 11/22/21 13:20
Date Received: 11/24/21 10:30

Lab Sample ID: 480-192803-7
Matrix: Water

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	4.0	U	4.0	3.3	ug/L			11/29/21 16:36	4
1,1,2-Trichloroethane	4.0	U	4.0	0.92	ug/L			11/29/21 16:36	4
Trichloroethene	4.0	U	4.0	1.8	ug/L			11/29/21 16:36	4
Trichlorofluoromethane	4.0	U	4.0	3.5	ug/L			11/29/21 16:36	4
1,1,2-Trichloro-1,2,2-trifluoroethane	4.0	U	4.0	1.2	ug/L			11/29/21 16:36	4
Vinyl chloride	4.0	U	4.0	3.6	ug/L			11/29/21 16:36	4
Xylenes, Total	8.0	U	8.0	2.6	ug/L			11/29/21 16:36	4

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*100*		*73 - 120*		*11/29/21 16:36*	*4*
Dibromofluoromethane (Surr)	*100*		*75 - 123*		*11/29/21 16:36*	*4*
1,2-Dichloroethane-d4 (Surr)	*96*		*77 - 120*		*11/29/21 16:36*	*4*
Toluene-d8 (Surr)	*98*		*80 - 120*		*11/29/21 16:36*	*4*

Method: RSK-175 - Dissolved Gases (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethane	170	U	170	33	ug/L			11/29/21 19:27	22
Ethene	150	U	150	33	ug/L			11/29/21 19:27	22

Method: RSK-175 - Dissolved Gases (GC) - DL

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methane	**13000**		440	110	ug/L			11/30/21 23:58	110

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
TOC Result 1	**18**		1.0	0.43	mg/L			12/01/21 20:41	1
TOC Result 2	**20**		1.0	0.43	mg/L			12/01/21 20:41	1
TOC Result 3	**19**		1.0	0.43	mg/L			12/01/21 20:41	1
TOC Result 4	**20**		1.0	0.43	mg/L			12/01/21 20:41	1
Total Organic Carbon	**19**		1.0	0.43	mg/L			12/01/21 20:41	1

Client Sample ID: IW-B3

Date Collected: 11/22/21 12:15
Date Received: 11/24/21 10:30

Lab Sample ID: 480-192803-8
Matrix: Water

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	200	U	200	60	ug/L			11/29/21 16:59	20
Benzene	20	U	20	8.2	ug/L			11/29/21 16:59	20
Bromodichloromethane	20	U	20	7.8	ug/L			11/29/21 16:59	20
Bromoform	20	U	20	5.2	ug/L			11/29/21 16:59	20
Bromomethane	20	U	20	14	ug/L			11/29/21 16:59	20
2-Butanone (MEK)	200	U	200	26	ug/L			11/29/21 16:59	20
Carbon disulfide	20	U	20	3.8	ug/L			11/29/21 16:59	20
Carbon tetrachloride	20	U	20	5.4	ug/L			11/29/21 16:59	20
Chlorobenzene	20	U	20	15	ug/L			11/29/21 16:59	20
Chloroethane	20	U	20	6.4	ug/L			11/29/21 16:59	20
Chloroform	20	U	20	6.8	ug/L			11/29/21 16:59	20
Chloromethane	20	U	20	7.0	ug/L			11/29/21 16:59	20
cis-1,2-Dichloroethene	20	U	20	16	ug/L			11/29/21 16:59	20
cis-1,3-Dichloropropene	20	U	20	7.2	ug/L			11/29/21 16:59	20

Client Sample ID: IW-B3

Date Collected: 11/22/21 12:15
Date Received: 11/24/21 10:30

Lab Sample ID: 480-192803-8

Matrix: Water

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyclohexane	20	U	20	3.6	ug/L			11/29/21 16:59	20
Dibromochloromethane	20	U	20	6.4	ug/L			11/29/21 16:59	20
1,2-Dibromo-3-Chloropropane	20	U	20	7.8	ug/L			11/29/21 16:59	20
1,2-Dibromoethane	20	U	20	15	ug/L			11/29/21 16:59	20
1,2-Dichlorobenzene	20	U	20	16	ug/L			11/29/21 16:59	20
1,3-Dichlorobenzene	20	U	20	16	ug/L			11/29/21 16:59	20
1,4-Dichlorobenzene	20	U	20	17	ug/L			11/29/21 16:59	20
Dichlorodifluoromethane	20	U	20	14	ug/L			11/29/21 16:59	20
1,1-Dichloroethane	20	U	20	7.6	ug/L			11/29/21 16:59	20
1,2-Dichloroethane	20	U	20	4.2	ug/L			11/29/21 16:59	20
1,1-Dichloroethene	20	U	20	5.8	ug/L			11/29/21 16:59	20
1,2-Dichloropropane	20	U	20	14	ug/L			11/29/21 16:59	20
Ethylbenzene	20	U	20	15	ug/L			11/29/21 16:59	20
2-Hexanone	100	U	100	25	ug/L			11/29/21 16:59	20
Isopropylbenzene	20	U	20	16	ug/L			11/29/21 16:59	20
Methyl acetate	50	U	50	26	ug/L			11/29/21 16:59	20
Methylcyclohexane	20	U	20	3.2	ug/L			11/29/21 16:59	20
Methylene Chloride	20	U	20	8.8	ug/L			11/29/21 16:59	20
4-Methyl-2-pentanone (MIBK)	100	U	100	42	ug/L			11/29/21 16:59	20
Methyl tert-butyl ether	20	U	20	3.2	ug/L			11/29/21 16:59	20
Styrene	20	U	20	15	ug/L			11/29/21 16:59	20
1,1,2,2-Tetrachloroethane	20	U	20	4.2	ug/L			11/29/21 16:59	20
Tetrachloroethene	20	U	20	7.2	ug/L			11/29/21 16:59	20
Toluene	20	U	20	10	ug/L			11/29/21 16:59	20
trans-1,2-Dichloroethene	20	U	20	18	ug/L			11/29/21 16:59	20
trans-1,3-Dichloropropene	20	U	20	7.4	ug/L			11/29/21 16:59	20
1,2,4-Trichlorobenzene	20	U	20	8.2	ug/L			11/29/21 16:59	20
1,1,1-Trichloroethane	20	U	20	16	ug/L			11/29/21 16:59	20
1,1,2-Trichloroethane	20	U	20	4.6	ug/L			11/29/21 16:59	20
Trichloroethene	20	U	20	9.2	ug/L			11/29/21 16:59	20
Trichlorofluoromethane	20	U	20	18	ug/L			11/29/21 16:59	20
1,1,2-Trichloro-1,2,2-trifluoroethane	20	U	20	6.2	ug/L			11/29/21 16:59	20
Vinyl chloride	20	U	20	18	ug/L			11/29/21 16:59	20
Xylenes, Total	40	U	40	13	ug/L			11/29/21 16:59	20

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*98*		*73 - 120*		*11/29/21 16:59*	*20*
Dibromofluoromethane (Surr)	*103*		*75 - 123*		*11/29/21 16:59*	*20*
1,2-Dichloroethane-d4 (Surr)	*101*		*77 - 120*		*11/29/21 16:59*	*20*
Toluene-d8 (Surr)	*99*		*80 - 120*		*11/29/21 16:59*	*20*

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
TOC Result 1	**120**		2.0	0.87	mg/L			12/01/21 21:10	2
TOC Result 2	**110**		2.0	0.87	mg/L			12/01/21 21:10	2
TOC Result 3	**110**		2.0	0.87	mg/L			12/01/21 21:10	2
TOC Result 4	**110**		2.0	0.87	mg/L			12/01/21 21:10	2
Total Organic Carbon	**110**		2.0	0.87	mg/L			12/01/21 21:10	2

Client: Ashland LLC
Project/Site: Ashland Rensselaer

Job ID: 480-192803-1

Client Sample ID: MW-23

Date Collected: 11/22/21 11:20
Date Received: 11/24/21 10:30

Lab Sample ID: 480-192803-9

Matrix: Water

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	20	U	20	6.0	ug/L			11/29/21 17:22	2
Benzene	2.0	U	2.0	0.82	ug/L			11/29/21 17:22	2
Bromodichloromethane	2.0	U	2.0	0.78	ug/L			11/29/21 17:22	2
Bromoform	2.0	U	2.0	0.52	ug/L			11/29/21 17:22	2
Bromomethane	2.0	U	2.0	1.4	ug/L			11/29/21 17:22	2
2-Butanone (MEK)	20	U	20	2.6	ug/L			11/29/21 17:22	2
Carbon disulfide	2.0	U	2.0	0.38	ug/L			11/29/21 17:22	2
Carbon tetrachloride	2.0	U	2.0	0.54	ug/L			11/29/21 17:22	2
Chlorobenzene	2.0	U	2.0	1.5	ug/L			11/29/21 17:22	2
Chloroethane	2.0	U	2.0	0.64	ug/L			11/29/21 17:22	2
Chloroform	2.0	U	2.0	0.68	ug/L			11/29/21 17:22	2
Chloromethane	2.0	U	2.0	0.70	ug/L			11/29/21 17:22	2
cis-1,2-Dichloroethene	2.0	U	2.0	1.6	ug/L			11/29/21 17:22	2
cis-1,3-Dichloropropene	2.0	U	2.0	0.72	ug/L			11/29/21 17:22	2
Cyclohexane	2.0	U	2.0	0.36	ug/L			11/29/21 17:22	2
Dibromochloromethane	2.0	U	2.0	0.64	ug/L			11/29/21 17:22	2
1,2-Dibromo-3-Chloropropane	2.0	U	2.0	0.78	ug/L			11/29/21 17:22	2
1,2-Dibromoethane	2.0	U	2.0	1.5	ug/L			11/29/21 17:22	2
1,2-Dichlorobenzene	2.0	U	2.0	1.6	ug/L			11/29/21 17:22	2
1,3-Dichlorobenzene	2.0	U	2.0	1.6	ug/L			11/29/21 17:22	2
1,4-Dichlorobenzene	2.0	U	2.0	1.7	ug/L			11/29/21 17:22	2
Dichlorodifluoromethane	2.0	U	2.0	1.4	ug/L			11/29/21 17:22	2
1,1-Dichloroethane	2.0	U	2.0	0.76	ug/L			11/29/21 17:22	2
1,2-Dichloroethane	2.0	U	2.0	0.42	ug/L			11/29/21 17:22	2
1,1-Dichloroethene	2.0	U	2.0	0.58	ug/L			11/29/21 17:22	2
1,2-Dichloropropane	2.0	U	2.0	1.4	ug/L			11/29/21 17:22	2
Ethylbenzene	2.0	U	2.0	1.5	ug/L			11/29/21 17:22	2
2-Hexanone	10	U	10	2.5	ug/L			11/29/21 17:22	2
Isopropylbenzene	2.0	U	2.0	1.6	ug/L			11/29/21 17:22	2
Methyl acetate	5.0	U	5.0	2.6	ug/L			11/29/21 17:22	2
Methylcyclohexane	2.0	U	2.0	0.32	ug/L			11/29/21 17:22	2
Methylene Chloride	2.0	U	2.0	0.88	ug/L			11/29/21 17:22	2
4-Methyl-2-pentanone (MIBK)	10	U	10	4.2	ug/L			11/29/21 17:22	2
Methyl tert-butyl ether	2.0	U	2.0	0.32	ug/L			11/29/21 17:22	2
Styrene	2.0	U	2.0	1.5	ug/L			11/29/21 17:22	2
1,1,2,2-Tetrachloroethane	2.0	U	2.0	0.42	ug/L			11/29/21 17:22	2
Tetrachloroethene	2.0	U	2.0	0.72	ug/L			11/29/21 17:22	2
Toluene	2.0	U	2.0	1.0	ug/L			11/29/21 17:22	2
trans-1,2-Dichloroethene	2.0	U	2.0	1.8	ug/L			11/29/21 17:22	2
trans-1,3-Dichloropropene	2.0	U	2.0	0.74	ug/L			11/29/21 17:22	2
1,2,4-Trichlorobenzene	2.0	U	2.0	0.82	ug/L			11/29/21 17:22	2
1,1,1-Trichloroethane	2.0	U	2.0	1.6	ug/L			11/29/21 17:22	2
1,1,2-Trichloroethane	2.0	U	2.0	0.46	ug/L			11/29/21 17:22	2
Trichloroethene	2.0	U	2.0	0.92	ug/L			11/29/21 17:22	2
Trichlorofluoromethane	2.0	U	2.0	1.8	ug/L			11/29/21 17:22	2
1,1,2-Trichloro-1,2,2-trifluoroethane	2.0	U	2.0	0.62	ug/L			11/29/21 17:22	2
Vinyl chloride	**1.9**	**J**	2.0	1.8	ug/L			11/29/21 17:22	2
Xylenes, Total	4.0	U	4.0	1.3	ug/L			11/29/21 17:22	2

Client Sample ID: MW-23

Lab Sample ID: 480-192803-9

Date Collected: 11/22/21 11:20

Matrix: Water

Date Received: 11/24/21 10:30

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*96*		*73 - 120*		*11/29/21 17:22*	*2*
Dibromofluoromethane (Surr)	*100*		*75 - 123*		*11/29/21 17:22*	*2*
1,2-Dichloroethane-d4 (Surr)	*100*		*77 - 120*		*11/29/21 17:22*	*2*
Toluene-d8 (Surr)	*96*		*80 - 120*		*11/29/21 17:22*	*2*

Method: RSK-175 - Dissolved Gases (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethane	**98**	**J**	330	66	ug/L			11/29/21 19:46	44
Ethene	310	U	310	66	ug/L			11/29/21 19:46	44

Method: RSK-175 - Dissolved Gases (GC) - DL

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methane	**15000**		880	220	ug/L			12/01/21 00:17	220

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
TOC Result 1	**13**		1.0	0.43	mg/L			12/02/21 00:00	1
TOC Result 2	**14**		1.0	0.43	mg/L			12/02/21 00:00	1
TOC Result 3	**14**		1.0	0.43	mg/L			12/02/21 00:00	1
TOC Result 4	**13**		1.0	0.43	mg/L			12/02/21 00:00	1
Total Organic Carbon	**13**		1.0	0.43	mg/L			12/02/21 00:00	1

Client Sample ID: MW-24

Lab Sample ID: 480-192803-10

Date Collected: 11/22/21 14:35

Matrix: Water

Date Received: 11/24/21 10:30

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	800	U	800	240	ug/L			11/29/21 17:45	80
Benzene	80	U	80	33	ug/L			11/29/21 17:45	80
Bromodichloromethane	80	U	80	31	ug/L			11/29/21 17:45	80
Bromoform	80	U	80	21	ug/L			11/29/21 17:45	80
Bromomethane	80	U	80	55	ug/L			11/29/21 17:45	80
2-Butanone (MEK)	**140**	**J**	800	110	ug/L			11/29/21 17:45	80
Carbon disulfide	80	U	80	15	ug/L			11/29/21 17:45	80
Carbon tetrachloride	80	U	80	22	ug/L			11/29/21 17:45	80
Chlorobenzene	80	U	80	60	ug/L			11/29/21 17:45	80
Chloroethane	80	U	80	26	ug/L			11/29/21 17:45	80
Chloroform	80	U	80	27	ug/L			11/29/21 17:45	80
Chloromethane	80	U	80	28	ug/L			11/29/21 17:45	80
cis-1,2-Dichloroethene	80	U	80	65	ug/L			11/29/21 17:45	80
cis-1,3-Dichloropropene	80	U	80	29	ug/L			11/29/21 17:45	80
Cyclohexane	80	U	80	14	ug/L			11/29/21 17:45	80
Dibromochloromethane	80	U	80	26	ug/L			11/29/21 17:45	80
1,2-Dibromo-3-Chloropropane	80	U	80	31	ug/L			11/29/21 17:45	80
1,2-Dibromoethane	80	U	80	58	ug/L			11/29/21 17:45	80
1,2-Dichlorobenzene	80	U	80	63	ug/L			11/29/21 17:45	80
1,3-Dichlorobenzene	80	U	80	62	ug/L			11/29/21 17:45	80
1,4-Dichlorobenzene	80	U	80	67	ug/L			11/29/21 17:45	80
Dichlorodifluoromethane	80	U	80	54	ug/L			11/29/21 17:45	80
1,1-Dichloroethane	80	U	80	30	ug/L			11/29/21 17:45	80

Client: Ashland LLC
Project/Site: Ashland Rensselaer

Job ID: 480-192803-1

Client Sample ID: MW-24
Date Collected: 11/22/21 14:35
Date Received: 11/24/21 10:30

Lab Sample ID: 480-192803-10
Matrix: Water

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane	80	U	80	17	ug/L			11/29/21 17:45	80
1,1-Dichloroethene	80	U	80	23	ug/L			11/29/21 17:45	80
1,2-Dichloropropane	80	U	80	58	ug/L			11/29/21 17:45	80
Ethylbenzene	80	U	80	59	ug/L			11/29/21 17:45	80
2-Hexanone	400	U	400	99	ug/L			11/29/21 17:45	80
Isopropylbenzene	80	U	80	63	ug/L			11/29/21 17:45	80
Methyl acetate	200	U	200	100	ug/L			11/29/21 17:45	80
Methylcyclohexane	80	U	80	13	ug/L			11/29/21 17:45	80
Methylene Chloride	80	U	80	35	ug/L			11/29/21 17:45	80
4-Methyl-2-pentanone (MIBK)	400	U	400	170	ug/L			11/29/21 17:45	80
Methyl tert-butyl ether	80	U	80	13	ug/L			11/29/21 17:45	80
Styrene	80	U	80	58	ug/L			11/29/21 17:45	80
1,1,2,2-Tetrachloroethane	80	U	80	17	ug/L			11/29/21 17:45	80
Tetrachloroethene	80	U	80	29	ug/L			11/29/21 17:45	80
Toluene	80	U	80	41	ug/L			11/29/21 17:45	80
trans-1,2-Dichloroethene	80	U	80	72	ug/L			11/29/21 17:45	80
trans-1,3-Dichloropropene	80	U	80	30	ug/L			11/29/21 17:45	80
1,2,4-Trichlorobenzene	80	U	80	33	ug/L			11/29/21 17:45	80
1,1,1-Trichloroethane	80	U	80	66	ug/L			11/29/21 17:45	80
1,1,2-Trichloroethane	80	U	80	18	ug/L			11/29/21 17:45	80
Trichloroethene	80	U	80	37	ug/L			11/29/21 17:45	80
Trichlorofluoromethane	80	U	80	70	ug/L			11/29/21 17:45	80
1,1,2-Trichloro-1,2,2-trifluoroethane	80	U	80	25	ug/L			11/29/21 17:45	80
Vinyl chloride	80	U	80	72	ug/L			11/29/21 17:45	80
Xylenes, Total	160	U	160	53	ug/L			11/29/21 17:45	80

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*97*		*73 - 120*		*11/29/21 17:45*	*80*
Dibromofluoromethane (Surr)	*100*		*75 - 123*		*11/29/21 17:45*	*80*
1,2-Dichloroethane-d4 (Surr)	*93*		*77 - 120*		*11/29/21 17:45*	*80*
Toluene-d8 (Surr)	*98*		*80 - 120*		*11/29/21 17:45*	*80*

Method: RSK-175 - Dissolved Gases (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethane	660	U	660	130	ug/L			11/29/21 20:05	88
Ethene	620	U	620	130	ug/L			11/29/21 20:05	88
Methane	**11000**		350	88	ug/L			11/29/21 20:05	88

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
TOC Result 1	**350**		4.0	1.7	mg/L			12/02/21 00:28	4
TOC Result 2	**350**		4.0	1.7	mg/L			12/02/21 00:28	4
TOC Result 3	**360**		4.0	1.7	mg/L			12/02/21 00:28	4
TOC Result 4	**350**		4.0	1.7	mg/L			12/02/21 00:28	4
Total Organic Carbon	**350**		4.0	1.7	mg/L			12/02/21 00:28	4

Client: Ashland LLC
Project/Site: Ashland Rensselaer

Job ID: 480-192803-1

Client Sample ID: TRIP BLANK

Date Collected: 11/22/21 00:00
Date Received: 11/24/21 10:30

Lab Sample ID: 480-192803-11

Matrix: Water

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	10	U	10	3.0	ug/L			11/29/21 18:08	1
Benzene	1.0	U	1.0	0.41	ug/L			11/29/21 18:08	1
Bromodichloromethane	1.0	U	1.0	0.39	ug/L			11/29/21 18:08	1
Bromoform	1.0	U	1.0	0.26	ug/L			11/29/21 18:08	1
Bromomethane	1.0	U	1.0	0.69	ug/L			11/29/21 18:08	1
2-Butanone (MEK)	10	U	10	1.3	ug/L			11/29/21 18:08	1
Carbon disulfide	1.0	U	1.0	0.19	ug/L			11/29/21 18:08	1
Carbon tetrachloride	1.0	U	1.0	0.27	ug/L			11/29/21 18:08	1
Chlorobenzene	1.0	U	1.0	0.75	ug/L			11/29/21 18:08	1
Chloroethane	1.0	U	1.0	0.32	ug/L			11/29/21 18:08	1
Chloroform	1.0	U	1.0	0.34	ug/L			11/29/21 18:08	1
Chloromethane	1.0	U	1.0	0.35	ug/L			11/29/21 18:08	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.81	ug/L			11/29/21 18:08	1
cis-1,3-Dichloropropene	1.0	U	1.0	0.36	ug/L			11/29/21 18:08	1
Cyclohexane	1.0	U	1.0	0.18	ug/L			11/29/21 18:08	1
Dibromochloromethane	1.0	U	1.0	0.32	ug/L			11/29/21 18:08	1
1,2-Dibromo-3-Chloropropane	1.0	U	1.0	0.39	ug/L			11/29/21 18:08	1
1,2-Dibromoethane	1.0	U	1.0	0.73	ug/L			11/29/21 18:08	1
1,2-Dichlorobenzene	1.0	U	1.0	0.79	ug/L			11/29/21 18:08	1
1,3-Dichlorobenzene	1.0	U	1.0	0.78	ug/L			11/29/21 18:08	1
1,4-Dichlorobenzene	1.0	U	1.0	0.84	ug/L			11/29/21 18:08	1
Dichlorodifluoromethane	1.0	U	1.0	0.68	ug/L			11/29/21 18:08	1
1,1-Dichloroethane	1.0	U	1.0	0.38	ug/L			11/29/21 18:08	1
1,2-Dichloroethane	1.0	U	1.0	0.21	ug/L			11/29/21 18:08	1
1,1-Dichloroethene	1.0	U	1.0	0.29	ug/L			11/29/21 18:08	1
1,2-Dichloropropane	1.0	U	1.0	0.72	ug/L			11/29/21 18:08	1
Ethylbenzene	1.0	U	1.0	0.74	ug/L			11/29/21 18:08	1
2-Hexanone	5.0	U	5.0	1.2	ug/L			11/29/21 18:08	1
Isopropylbenzene	1.0	U	1.0	0.79	ug/L			11/29/21 18:08	1
Methyl acetate	2.5	U	2.5	1.3	ug/L			11/29/21 18:08	1
Methylcyclohexane	1.0	U	1.0	0.16	ug/L			11/29/21 18:08	1
Methylene Chloride	1.0	U	1.0	0.44	ug/L			11/29/21 18:08	1
4-Methyl-2-pentanone (MIBK)	5.0	U	5.0	2.1	ug/L			11/29/21 18:08	1
Methyl tert-butyl ether	1.0	U	1.0	0.16	ug/L			11/29/21 18:08	1
Styrene	1.0	U	1.0	0.73	ug/L			11/29/21 18:08	1
1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.21	ug/L			11/29/21 18:08	1
Tetrachloroethene	1.0	U	1.0	0.36	ug/L			11/29/21 18:08	1
Toluene	1.0	U	1.0	0.51	ug/L			11/29/21 18:08	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.90	ug/L			11/29/21 18:08	1
trans-1,3-Dichloropropene	1.0	U	1.0	0.37	ug/L			11/29/21 18:08	1
1,2,4-Trichlorobenzene	1.0	U	1.0	0.41	ug/L			11/29/21 18:08	1
1,1,1-Trichloroethane	1.0	U	1.0	0.82	ug/L			11/29/21 18:08	1
1,1,2-Trichloroethane	1.0	U	1.0	0.23	ug/L			11/29/21 18:08	1
Trichloroethene	1.0	U	1.0	0.46	ug/L			11/29/21 18:08	1
Trichlorofluoromethane	1.0	U	1.0	0.88	ug/L			11/29/21 18:08	1
1,1,2-Trichloro-1,2,2-trifluoroethane	1.0	U	1.0	0.31	ug/L			11/29/21 18:08	1
Vinyl chloride	1.0	U	1.0	0.90	ug/L			11/29/21 18:08	1
Xylenes, Total	2.0	U	2.0	0.66	ug/L			11/29/21 18:08	1

Client Sample ID: TRIP BLANK

Lab Sample ID: 480-192803-11

Date Collected: 11/22/21 00:00
Matrix: Water
Date Received: 11/24/21 10:30

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	98		73 - 120		11/29/21 18:08	1
Dibromofluoromethane (Surr)	103		75 - 123		11/29/21 18:08	1
1,2-Dichloroethane-d4 (Surr)	100		77 - 120		11/29/21 18:08	1
Toluene-d8 (Surr)	94		80 - 120		11/29/21 18:08	1

Client Sample ID: MW-20

Lab Sample ID: 480-192803-12

Date Collected: 11/23/21 08:55
Matrix: Water
Date Received: 11/24/21 10:30

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	10	U	10	3.0	ug/L			11/29/21 18:31	1
Benzene	**3.0**		1.0	0.41	ug/L			11/29/21 18:31	1
Bromodichloromethane	1.0	U	1.0	0.39	ug/L			11/29/21 18:31	1
Bromoform	1.0	U	1.0	0.26	ug/L			11/29/21 18:31	1
Bromomethane	1.0	U	1.0	0.69	ug/L			11/29/21 18:31	1
2-Butanone (MEK)	10	U	10	1.3	ug/L			11/29/21 18:31	1
Carbon disulfide	1.0	U	1.0	0.19	ug/L			11/29/21 18:31	1
Carbon tetrachloride	**0.52**	**J**	1.0	0.27	ug/L			11/29/21 18:31	1
Chlorobenzene	1.0	U	1.0	0.75	ug/L			11/29/21 18:31	1
Chloroethane	1.0	U	1.0	0.32	ug/L			11/29/21 18:31	1
Chloroform	**1.5**		1.0	0.34	ug/L			11/29/21 18:31	1
Chloromethane	1.0	U	1.0	0.35	ug/L			11/29/21 18:31	1
cis-1,2-Dichloroethene	**16**		1.0	0.81	ug/L			11/29/21 18:31	1
cis-1,3-Dichloropropene	1.0	U	1.0	0.36	ug/L			11/29/21 18:31	1
Cyclohexane	1.0	U	1.0	0.18	ug/L			11/29/21 18:31	1
Dibromochloromethane	1.0	U	1.0	0.32	ug/L			11/29/21 18:31	1
1,2-Dibromo-3-Chloropropane	1.0	U	1.0	0.39	ug/L			11/29/21 18:31	1
1,2-Dibromoethane	1.0	U	1.0	0.73	ug/L			11/29/21 18:31	1
1,2-Dichlorobenzene	1.0	U	1.0	0.79	ug/L			11/29/21 18:31	1
1,3-Dichlorobenzene	1.0	U	1.0	0.78	ug/L			11/29/21 18:31	1
1,4-Dichlorobenzene	1.0	U	1.0	0.84	ug/L			11/29/21 18:31	1
Dichlorodifluoromethane	1.0	U	1.0	0.68	ug/L			11/29/21 18:31	1
1,1-Dichloroethane	**0.41**	**J**	1.0	0.38	ug/L			11/29/21 18:31	1
1,2-Dichloroethane	1.0	U	1.0	0.21	ug/L			11/29/21 18:31	1
1,1-Dichloroethene	1.0	U	1.0	0.29	ug/L			11/29/21 18:31	1
1,2-Dichloropropane	1.0	U	1.0	0.72	ug/L			11/29/21 18:31	1
Ethylbenzene	1.0	U	1.0	0.74	ug/L			11/29/21 18:31	1
2-Hexanone	5.0	U	5.0	1.2	ug/L			11/29/21 18:31	1
Isopropylbenzene	1.0	U	1.0	0.79	ug/L			11/29/21 18:31	1
Methyl acetate	2.5	U	2.5	1.3	ug/L			11/29/21 18:31	1
Methylcyclohexane	1.0	U	1.0	0.16	ug/L			11/29/21 18:31	1
Methylene Chloride	1.0	U	1.0	0.44	ug/L			11/29/21 18:31	1
4-Methyl-2-pentanone (MIBK)	5.0	U	5.0	2.1	ug/L			11/29/21 18:31	1
Methyl tert-butyl ether	1.0	U	1.0	0.16	ug/L			11/29/21 18:31	1
Styrene	1.0	U	1.0	0.73	ug/L			11/29/21 18:31	1
1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.21	ug/L			11/29/21 18:31	1
Tetrachloroethene	**52**		1.0	0.36	ug/L			11/29/21 18:31	1
Toluene	1.0	U	1.0	0.51	ug/L			11/29/21 18:31	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.90	ug/L			11/29/21 18:31	1

Client Sample ID: MW-20

Date Collected: 11/23/21 08:55
Date Received: 11/24/21 10:30

Lab Sample ID: 480-192803-12
Matrix: Water

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
trans-1,3-Dichloropropene	1.0	U	1.0	0.37	ug/L			11/29/21 18:31	1
1,2,4-Trichlorobenzene	1.0	U	1.0	0.41	ug/L			11/29/21 18:31	1
1,1,1-Trichloroethane	1.0	U	1.0	0.82	ug/L			11/29/21 18:31	1
1,1,2-Trichloroethane	1.0	U	1.0	0.23	ug/L			11/29/21 18:31	1
Trichloroethene	**11**		1.0	0.46	ug/L			11/29/21 18:31	1
Trichlorofluoromethane	1.0	U	1.0	0.88	ug/L			11/29/21 18:31	1
1,1,2-Trichloro-1,2,2-trifluoroethane	1.0	U	1.0	0.31	ug/L			11/29/21 18:31	1
Vinyl chloride	**1.7**		1.0	0.90	ug/L			11/29/21 18:31	1
Xylenes, Total	2.0	U	2.0	0.66	ug/L			11/29/21 18:31	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*98*		*73 - 120*		*11/29/21 18:31*	*1*
Dibromofluoromethane (Surr)	*102*		*75 - 123*		*11/29/21 18:31*	*1*
1,2-Dichloroethane-d4 (Surr)	*99*		*77 - 120*		*11/29/21 18:31*	*1*
Toluene-d8 (Surr)	*96*		*80 - 120*		*11/29/21 18:31*	*1*

Method: RSK-175 - Dissolved Gases (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethane	**5.3**	**J**	7.5	1.5	ug/L			11/29/21 20:24	1
Ethene	7.0	U	7.0	1.5	ug/L			11/29/21 20:24	1

Method: RSK-175 - Dissolved Gases (GC) - DL

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methane	**1400**		88	22	ug/L			12/01/21 00:36	22

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
TOC Result 1	**3.6**		1.0	0.43	mg/L			12/02/21 00:57	1
TOC Result 2	**3.7**		1.0	0.43	mg/L			12/02/21 00:57	1
TOC Result 3	**3.6**		1.0	0.43	mg/L			12/02/21 00:57	1
TOC Result 4	**3.5**		1.0	0.43	mg/L			12/02/21 00:57	1
Total Organic Carbon	**3.6**		1.0	0.43	mg/L			12/02/21 00:57	1

Client Sample ID: MW-25

Date Collected: 11/23/21 10:05
Date Received: 11/24/21 10:30

Lab Sample ID: 480-192803-13
Matrix: Water

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	200	U	200	60	ug/L			11/29/21 18:54	20
Benzene	20	U	20	8.2	ug/L			11/29/21 18:54	20
Bromodichloromethane	20	U	20	7.8	ug/L			11/29/21 18:54	20
Bromoform	20	U	20	5.2	ug/L			11/29/21 18:54	20
Bromomethane	20	U	20	14	ug/L			11/29/21 18:54	20
2-Butanone (MEK)	200	U	200	26	ug/L			11/29/21 18:54	20
Carbon disulfide	20	U	20	3.8	ug/L			11/29/21 18:54	20
Carbon tetrachloride	20	U	20	5.4	ug/L			11/29/21 18:54	20
Chlorobenzene	20	U	20	15	ug/L			11/29/21 18:54	20
Chloroethane	20	U	20	6.4	ug/L			11/29/21 18:54	20
Chloroform	20	U	20	6.8	ug/L			11/29/21 18:54	20
Chloromethane	20	U	20	7.0	ug/L			11/29/21 18:54	20

Client Sample ID: MW-25

Date Collected: 11/23/21 10:05
Date Received: 11/24/21 10:30

Lab Sample ID: 480-192803-13

Matrix: Water

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
cis-1,2-Dichloroethene	**680**		20	16	ug/L			11/29/21 18:54	20
cis-1,3-Dichloropropene	20	U	20	7.2	ug/L			11/29/21 18:54	20
Cyclohexane	20	U	20	3.6	ug/L			11/29/21 18:54	20
Dibromochloromethane	20	U	20	6.4	ug/L			11/29/21 18:54	20
1,2-Dibromo-3-Chloropropane	20	U	20	7.8	ug/L			11/29/21 18:54	20
1,2-Dibromoethane	20	U	20	15	ug/L			11/29/21 18:54	20
1,2-Dichlorobenzene	20	U	20	16	ug/L			11/29/21 18:54	20
1,3-Dichlorobenzene	20	U	20	16	ug/L			11/29/21 18:54	20
1,4-Dichlorobenzene	20	U	20	17	ug/L			11/29/21 18:54	20
Dichlorodifluoromethane	20	U	20	14	ug/L			11/29/21 18:54	20
1,1-Dichloroethane	20	U	20	7.6	ug/L			11/29/21 18:54	20
1,2-Dichloroethane	20	U	20	4.2	ug/L			11/29/21 18:54	20
1,1-Dichloroethene	20	U	20	5.8	ug/L			11/29/21 18:54	20
1,2-Dichloropropane	20	U	20	14	ug/L			11/29/21 18:54	20
Ethylbenzene	20	U	20	15	ug/L			11/29/21 18:54	20
2-Hexanone	100	U	100	25	ug/L			11/29/21 18:54	20
Isopropylbenzene	20	U	20	16	ug/L			11/29/21 18:54	20
Methyl acetate	50	U	50	26	ug/L			11/29/21 18:54	20
Methylcyclohexane	20	U	20	3.2	ug/L			11/29/21 18:54	20
Methylene Chloride	20	U	20	8.8	ug/L			11/29/21 18:54	20
4-Methyl-2-pentanone (MIBK)	100	U	100	42	ug/L			11/29/21 18:54	20
Methyl tert-butyl ether	20	U	20	3.2	ug/L			11/29/21 18:54	20
Styrene	20	U	20	15	ug/L			11/29/21 18:54	20
1,1,2,2-Tetrachloroethane	20	U	20	4.2	ug/L			11/29/21 18:54	20
Tetrachloroethene	**920**		20	7.2	ug/L			11/29/21 18:54	20
Toluene	20	U	20	10	ug/L			11/29/21 18:54	20
trans-1,2-Dichloroethene	20	U	20	18	ug/L			11/29/21 18:54	20
trans-1,3-Dichloropropene	20	U	20	7.4	ug/L			11/29/21 18:54	20
1,2,4-Trichlorobenzene	20	U	20	8.2	ug/L			11/29/21 18:54	20
1,1,1-Trichloroethane	20	U	20	16	ug/L			11/29/21 18:54	20
1,1,2-Trichloroethane	20	U	20	4.6	ug/L			11/29/21 18:54	20
Trichloroethene	**280**		20	9.2	ug/L			11/29/21 18:54	20
Trichlorofluoromethane	20	U	20	18	ug/L			11/29/21 18:54	20
1,1,2-Trichloro-1,2,2-trifluoroethane	20	U	20	6.2	ug/L			11/29/21 18:54	20
Vinyl chloride	**190**		20	18	ug/L			11/29/21 18:54	20
Xylenes, Total	40	U	40	13	ug/L			11/29/21 18:54	20

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*97*		*73 - 120*		*11/29/21 18:54*	*20*
Dibromofluoromethane (Surr)	*99*		*75 - 123*		*11/29/21 18:54*	*20*
1,2-Dichloroethane-d4 (Surr)	*93*		*77 - 120*		*11/29/21 18:54*	*20*
Toluene-d8 (Surr)	*96*		*80 - 120*		*11/29/21 18:54*	*20*

Method: RSK-175 - Dissolved Gases (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethane	**600**		83	17	ug/L			11/29/21 20:43	11
Ethene	**53**	**J**	77	17	ug/L			11/29/21 20:43	11

Client Sample ID: MW-25

Lab Sample ID: 480-192803-13

Date Collected: 11/23/21 10:05

Matrix: Water

Date Received: 11/24/21 10:30

Method: RSK-175 - Dissolved Gases (GC) - DL

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methane	11000		350	88	ug/L			12/01/21 00:54	88

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
TOC Result 1	9.7		1.0	0.43	mg/L			12/02/21 01:26	1
TOC Result 2	11		1.0	0.43	mg/L			12/02/21 01:26	1
TOC Result 3	10		1.0	0.43	mg/L			12/02/21 01:26	1
TOC Result 4	10		1.0	0.43	mg/L			12/02/21 01:26	1
Total Organic Carbon	10		1.0	0.43	mg/L			12/02/21 01:26	1

Client Sample ID: FB-2

Lab Sample ID: 480-192803-14

Date Collected: 11/23/21 10:20

Matrix: Water

Date Received: 11/24/21 10:30

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	10	U	10	3.0	ug/L			11/29/21 19:16	1
Benzene	1.0	U	1.0	0.41	ug/L			11/29/21 19:16	1
Bromodichloromethane	1.0	U	1.0	0.39	ug/L			11/29/21 19:16	1
Bromoform	1.0	U	1.0	0.26	ug/L			11/29/21 19:16	1
Bromomethane	1.0	U	1.0	0.69	ug/L			11/29/21 19:16	1
2-Butanone (MEK)	10	U	10	1.3	ug/L			11/29/21 19:16	1
Carbon disulfide	1.0	U	1.0	0.19	ug/L			11/29/21 19:16	1
Carbon tetrachloride	1.0	U	1.0	0.27	ug/L			11/29/21 19:16	1
Chlorobenzene	1.0	U	1.0	0.75	ug/L			11/29/21 19:16	1
Chloroethane	1.0	U	1.0	0.32	ug/L			11/29/21 19:16	1
Chloroform	1.0	U	1.0	0.34	ug/L			11/29/21 19:16	1
Chloromethane	1.0	U	1.0	0.35	ug/L			11/29/21 19:16	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.81	ug/L			11/29/21 19:16	1
cis-1,3-Dichloropropene	1.0	U	1.0	0.36	ug/L			11/29/21 19:16	1
Cyclohexane	1.0	U	1.0	0.18	ug/L			11/29/21 19:16	1
Dibromochloromethane	1.0	U	1.0	0.32	ug/L			11/29/21 19:16	1
1,2-Dibromo-3-Chloropropane	1.0	U	1.0	0.39	ug/L			11/29/21 19:16	1
1,2-Dibromoethane	1.0	U	1.0	0.73	ug/L			11/29/21 19:16	1
1,2-Dichlorobenzene	1.0	U	1.0	0.79	ug/L			11/29/21 19:16	1
1,3-Dichlorobenzene	1.0	U	1.0	0.78	ug/L			11/29/21 19:16	1
1,4-Dichlorobenzene	1.0	U	1.0	0.84	ug/L			11/29/21 19:16	1
Dichlorodifluoromethane	1.0	U	1.0	0.68	ug/L			11/29/21 19:16	1
1,1-Dichloroethane	1.0	U	1.0	0.38	ug/L			11/29/21 19:16	1
1,2-Dichloroethane	1.0	U	1.0	0.21	ug/L			11/29/21 19:16	1
1,1-Dichloroethene	1.0	U	1.0	0.29	ug/L			11/29/21 19:16	1
1,2-Dichloropropane	1.0	U	1.0	0.72	ug/L			11/29/21 19:16	1
Ethylbenzene	1.0	U	1.0	0.74	ug/L			11/29/21 19:16	1
2-Hexanone	5.0	U	5.0	1.2	ug/L			11/29/21 19:16	1
Isopropylbenzene	1.0	U	1.0	0.79	ug/L			11/29/21 19:16	1
Methyl acetate	2.5	U	2.5	1.3	ug/L			11/29/21 19:16	1
Methylcyclohexane	1.0	U	1.0	0.16	ug/L			11/29/21 19:16	1
Methylene Chloride	1.0	U	1.0	0.44	ug/L			11/29/21 19:16	1
4-Methyl-2-pentanone (MIBK)	5.0	U	5.0	2.1	ug/L			11/29/21 19:16	1
Methyl tert-butyl ether	1.0	U	1.0	0.16	ug/L			11/29/21 19:16	1

Client Sample ID: FB-2

Lab Sample ID: 480-192803-14

Date Collected: 11/23/21 10:20
Date Received: 11/24/21 10:30

Matrix: Water

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Styrene	1.0	U	1.0	0.73	ug/L			11/29/21 19:16	1
1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.21	ug/L			11/29/21 19:16	1
Tetrachloroethene	1.0	U	1.0	0.36	ug/L			11/29/21 19:16	1
Toluene	1.0	U	1.0	0.51	ug/L			11/29/21 19:16	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.90	ug/L			11/29/21 19:16	1
trans-1,3-Dichloropropene	1.0	U	1.0	0.37	ug/L			11/29/21 19:16	1
1,2,4-Trichlorobenzene	1.0	U	1.0	0.41	ug/L			11/29/21 19:16	1
1,1,1-Trichloroethane	1.0	U	1.0	0.82	ug/L			11/29/21 19:16	1
1,1,2-Trichloroethane	1.0	U	1.0	0.23	ug/L			11/29/21 19:16	1
Trichloroethene	1.0	U	1.0	0.46	ug/L			11/29/21 19:16	1
Trichlorofluoromethane	1.0	U	1.0	0.88	ug/L			11/29/21 19:16	1
1,1,2-Trichloro-1,2,2-trifluoroethane	1.0	U	1.0	0.31	ug/L			11/29/21 19:16	1
Vinyl chloride	1.0	U	1.0	0.90	ug/L			11/29/21 19:16	1
Xylenes, Total	2.0	U	2.0	0.66	ug/L			11/29/21 19:16	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*94*		*73 - 120*		*11/29/21 19:16*	*1*
Dibromofluoromethane (Surr)	*108*		*75 - 123*		*11/29/21 19:16*	*1*
1,2-Dichloroethane-d4 (Surr)	*99*		*77 - 120*		*11/29/21 19:16*	*1*
Toluene-d8 (Surr)	*96*		*80 - 120*		*11/29/21 19:16*	*1*

Method: RSK-175 - Dissolved Gases (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethane	7.5	U	7.5	1.5	ug/L			11/29/21 22:17	1
Ethene	7.0	U	7.0	1.5	ug/L			11/29/21 22:17	1
Methane	4.0	U	4.0	1.0	ug/L			11/29/21 22:17	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
TOC Result 1	1.0	U	1.0	0.43	mg/L			12/02/21 01:56	1
TOC Result 2	1.0	U	1.0	0.43	mg/L			12/02/21 01:56	1
TOC Result 3	1.0	U	1.0	0.43	mg/L			12/02/21 01:56	1
TOC Result 4	1.0	U	1.0	0.43	mg/L			12/02/21 01:56	1
Total Organic Carbon	1.0	U	1.0	0.43	mg/L			12/02/21 01:56	1

Client Sample ID: MW-A1

Lab Sample ID: 480-192803-15

Date Collected: 11/23/21 10:20
Date Received: 11/24/21 10:30

Matrix: Water

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	20	U	20	6.0	ug/L			11/29/21 19:39	2
Benzene	**1.7**	**J**	2.0	0.82	ug/L			11/29/21 19:39	2
Bromodichloromethane	2.0	U	2.0	0.78	ug/L			11/29/21 19:39	2
Bromoform	2.0	U	2.0	0.52	ug/L			11/29/21 19:39	2
Bromomethane	2.0	U	2.0	1.4	ug/L			11/29/21 19:39	2
2-Butanone (MEK)	20	U	20	2.6	ug/L			11/29/21 19:39	2
Carbon disulfide	2.0	U	2.0	0.38	ug/L			11/29/21 19:39	2
Carbon tetrachloride	2.0	U	2.0	0.54	ug/L			11/29/21 19:39	2
Chlorobenzene	2.0	U	2.0	1.5	ug/L			11/29/21 19:39	2
Chloroethane	**2.4**		2.0	0.64	ug/L			11/29/21 19:39	2

Client Sample ID: MW-A1
Date Collected: 11/23/21 10:20
Date Received: 11/24/21 10:30

Lab Sample ID: 480-192803-15
Matrix: Water

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloroform	2.0	U	2.0	0.68	ug/L			11/29/21 19:39	2
Chloromethane	2.0	U	2.0	0.70	ug/L			11/29/21 19:39	2
cis-1,2-Dichloroethene	2.0	U	2.0	1.6	ug/L			11/29/21 19:39	2
cis-1,3-Dichloropropene	2.0	U	2.0	0.72	ug/L			11/29/21 19:39	2
Cyclohexane	**1.7**	**J**	2.0	0.36	ug/L			11/29/21 19:39	2
Dibromochloromethane	2.0	U	2.0	0.64	ug/L			11/29/21 19:39	2
1,2-Dibromo-3-Chloropropane	2.0	U	2.0	0.78	ug/L			11/29/21 19:39	2
1,2-Dibromoethane	2.0	U	2.0	1.5	ug/L			11/29/21 19:39	2
1,2-Dichlorobenzene	2.0	U	2.0	1.6	ug/L			11/29/21 19:39	2
1,3-Dichlorobenzene	2.0	U	2.0	1.6	ug/L			11/29/21 19:39	2
1,4-Dichlorobenzene	2.0	U	2.0	1.7	ug/L			11/29/21 19:39	2
Dichlorodifluoromethane	2.0	U	2.0	1.4	ug/L			11/29/21 19:39	2
1,1-Dichloroethane	2.0	U	2.0	0.76	ug/L			11/29/21 19:39	2
1,2-Dichloroethane	2.0	U	2.0	0.42	ug/L			11/29/21 19:39	2
1,1-Dichloroethene	2.0	U	2.0	0.58	ug/L			11/29/21 19:39	2
1,2-Dichloropropane	2.0	U	2.0	1.4	ug/L			11/29/21 19:39	2
Ethylbenzene	2.0	U	2.0	1.5	ug/L			11/29/21 19:39	2
2-Hexanone	10	U	10	2.5	ug/L			11/29/21 19:39	2
Isopropylbenzene	2.0	U	2.0	1.6	ug/L			11/29/21 19:39	2
Methyl acetate	5.0	U	5.0	2.6	ug/L			11/29/21 19:39	2
Methylcyclohexane	2.0	U	2.0	0.32	ug/L			11/29/21 19:39	2
Methylene Chloride	2.0	U	2.0	0.88	ug/L			11/29/21 19:39	2
4-Methyl-2-pentanone (MIBK)	10	U	10	4.2	ug/L			11/29/21 19:39	2
Methyl tert-butyl ether	2.0	U	2.0	0.32	ug/L			11/29/21 19:39	2
Styrene	2.0	U	2.0	1.5	ug/L			11/29/21 19:39	2
1,1,2,2-Tetrachloroethane	2.0	U	2.0	0.42	ug/L			11/29/21 19:39	2
Tetrachloroethene	2.0	U	2.0	0.72	ug/L			11/29/21 19:39	2
Toluene	2.0	U	2.0	1.0	ug/L			11/29/21 19:39	2
trans-1,2-Dichloroethene	2.0	U	2.0	1.8	ug/L			11/29/21 19:39	2
trans-1,3-Dichloropropene	2.0	U	2.0	0.74	ug/L			11/29/21 19:39	2
1,2,4-Trichlorobenzene	2.0	U	2.0	0.82	ug/L			11/29/21 19:39	2
1,1,1-Trichloroethane	2.0	U	2.0	1.6	ug/L			11/29/21 19:39	2
1,1,2-Trichloroethane	2.0	U	2.0	0.46	ug/L			11/29/21 19:39	2
Trichloroethene	2.0	U	2.0	0.92	ug/L			11/29/21 19:39	2
Trichlorofluoromethane	2.0	U	2.0	1.8	ug/L			11/29/21 19:39	2
1,1,2-Trichloro-1,2,2-trifluoroethane	2.0	U	2.0	0.62	ug/L			11/29/21 19:39	2
Vinyl chloride	2.0	U	2.0	1.8	ug/L			11/29/21 19:39	2
Xylenes, Total	4.0	U	4.0	1.3	ug/L			11/29/21 19:39	2

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*96*		*73 - 120*		*11/29/21 19:39*	*2*
Dibromofluoromethane (Surr)	*102*		*75 - 123*		*11/29/21 19:39*	*2*
1,2-Dichloroethane-d4 (Surr)	*98*		*77 - 120*		*11/29/21 19:39*	*2*
Toluene-d8 (Surr)	*97*		*80 - 120*		*11/29/21 19:39*	*2*

Method: RSK-175 - Dissolved Gases (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethane	660	U	660	130	ug/L			11/29/21 14:44	88
Ethene	620	U	620	130	ug/L			11/29/21 14:44	88
Methane	**16000**		350	88	ug/L			11/29/21 14:44	88

Client Sample ID: MW-A1

Lab Sample ID: 480-192803-15

Date Collected: 11/23/21 10:20

Matrix: Water

Date Received: 11/24/21 10:30

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
TOC Result 1	**15**		1.0	0.43	mg/L			12/01/21 22:36	1
TOC Result 2	**16**		1.0	0.43	mg/L			12/01/21 22:36	1
TOC Result 3	**16**		1.0	0.43	mg/L			12/01/21 22:36	1
TOC Result 4	**15**		1.0	0.43	mg/L			12/01/21 22:36	1
Total Organic Carbon	**15**		1.0	0.43	mg/L			12/01/21 22:36	1

Client Sample ID: MW-19

Lab Sample ID: 480-192803-16

Date Collected: 11/23/21 09:05

Matrix: Water

Date Received: 11/24/21 10:30

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	20	U	20	6.0	ug/L			11/29/21 20:02	2
Benzene	**6.4**		2.0	0.82	ug/L			11/29/21 20:02	2
Bromodichloromethane	2.0	U	2.0	0.78	ug/L			11/29/21 20:02	2
Bromoform	2.0	U	2.0	0.52	ug/L			11/29/21 20:02	2
Bromomethane	2.0	U	2.0	1.4	ug/L			11/29/21 20:02	2
2-Butanone (MEK)	20	U	20	2.6	ug/L			11/29/21 20:02	2
Carbon disulfide	2.0	U	2.0	0.38	ug/L			11/29/21 20:02	2
Carbon tetrachloride	2.0	U	2.0	0.54	ug/L			11/29/21 20:02	2
Chlorobenzene	2.0	U	2.0	1.5	ug/L			11/29/21 20:02	2
Chloroethane	**93**		2.0	0.64	ug/L			11/29/21 20:02	2
Chloroform	**1.0**	**J**	2.0	0.68	ug/L			11/29/21 20:02	2
Chloromethane	2.0	U	2.0	0.70	ug/L			11/29/21 20:02	2
cis-1,2-Dichloroethene	**69**		2.0	1.6	ug/L			11/29/21 20:02	2
cis-1,3-Dichloropropene	2.0	U	2.0	0.72	ug/L			11/29/21 20:02	2
Cyclohexane	**1.5**	**J**	2.0	0.36	ug/L			11/29/21 20:02	2
Dibromochloromethane	2.0	U	2.0	0.64	ug/L			11/29/21 20:02	2
1,2-Dibromo-3-Chloropropane	2.0	U	2.0	0.78	ug/L			11/29/21 20:02	2
1,2-Dibromoethane	2.0	U	2.0	1.5	ug/L			11/29/21 20:02	2
1,2-Dichlorobenzene	2.0	U	2.0	1.6	ug/L			11/29/21 20:02	2
1,3-Dichlorobenzene	2.0	U	2.0	1.6	ug/L			11/29/21 20:02	2
1,4-Dichlorobenzene	2.0	U	2.0	1.7	ug/L			11/29/21 20:02	2
Dichlorodifluoromethane	2.0	U	2.0	1.4	ug/L			11/29/21 20:02	2
1,1-Dichloroethane	**10**		2.0	0.76	ug/L			11/29/21 20:02	2
1,2-Dichloroethane	2.0	U	2.0	0.42	ug/L			11/29/21 20:02	2
1,1-Dichloroethene	2.0	U	2.0	0.58	ug/L			11/29/21 20:02	2
1,2-Dichloropropane	2.0	U	2.0	1.4	ug/L			11/29/21 20:02	2
Ethylbenzene	2.0	U	2.0	1.5	ug/L			11/29/21 20:02	2
2-Hexanone	10	U	10	2.5	ug/L			11/29/21 20:02	2
Isopropylbenzene	2.0	U	2.0	1.6	ug/L			11/29/21 20:02	2
Methyl acetate	5.0	U	5.0	2.6	ug/L			11/29/21 20:02	2
Methylcyclohexane	2.0	U	2.0	0.32	ug/L			11/29/21 20:02	2
Methylene Chloride	2.0	U	2.0	0.88	ug/L			11/29/21 20:02	2
4-Methyl-2-pentanone (MIBK)	10	U	10	4.2	ug/L			11/29/21 20:02	2
Methyl tert-butyl ether	2.0	U	2.0	0.32	ug/L			11/29/21 20:02	2
Styrene	2.0	U	2.0	1.5	ug/L			11/29/21 20:02	2
1,1,2,2-Tetrachloroethane	2.0	U	2.0	0.42	ug/L			11/29/21 20:02	2
Tetrachloroethene	2.0	U	2.0	0.72	ug/L			11/29/21 20:02	2
Toluene	2.0	U	2.0	1.0	ug/L			11/29/21 20:02	2

Client Sample ID: MW-19

Date Collected: 11/23/21 09:05
Date Received: 11/24/21 10:30

Lab Sample ID: 480-192803-16
Matrix: Water

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
trans-1,2-Dichloroethene	**3.0**		2.0	1.8	ug/L			11/29/21 20:02	2
trans-1,3-Dichloropropene	2.0	U	2.0	0.74	ug/L			11/29/21 20:02	2
1,2,4-Trichlorobenzene	2.0	U	2.0	0.82	ug/L			11/29/21 20:02	2
1,1,1-Trichloroethane	2.0	U	2.0	1.6	ug/L			11/29/21 20:02	2
1,1,2-Trichloroethane	2.0	U	2.0	0.46	ug/L			11/29/21 20:02	2
Trichloroethene	**1.4**	**J**	2.0	0.92	ug/L			11/29/21 20:02	2
Trichlorofluoromethane	2.0	U	2.0	1.8	ug/L			11/29/21 20:02	2
1,1,2-Trichloro-1,2,2-trifluoroethane	**2.5**		2.0	0.62	ug/L			11/29/21 20:02	2
Vinyl chloride	**120**		2.0	1.8	ug/L			11/29/21 20:02	2
Xylenes, Total	4.0	U	4.0	1.3	ug/L			11/29/21 20:02	2

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*96*		*73 - 120*		*11/29/21 20:02*	*2*
Dibromofluoromethane (Surr)	*102*		*75 - 123*		*11/29/21 20:02*	*2*
1,2-Dichloroethane-d4 (Surr)	*99*		*77 - 120*		*11/29/21 20:02*	*2*
Toluene-d8 (Surr)	*98*		*80 - 120*		*11/29/21 20:02*	*2*

Method: RSK-175 - Dissolved Gases (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethane	**670**		170	33	ug/L			11/29/21 22:36	22
Ethene	**250**		150	33	ug/L			11/29/21 22:36	22

Method: RSK-175 - Dissolved Gases (GC) - DL

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methane	**8400**		350	88	ug/L			12/01/21 01:13	88

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
TOC Result 1	**7.8**		1.0	0.43	mg/L			12/02/21 02:24	1
TOC Result 2	**8.2**		1.0	0.43	mg/L			12/02/21 02:24	1
TOC Result 3	**8.0**		1.0	0.43	mg/L			12/02/21 02:24	1
TOC Result 4	**8.1**		1.0	0.43	mg/L			12/02/21 02:24	1
Total Organic Carbon	**8.0**		1.0	0.43	mg/L			12/02/21 02:24	1

Client Sample ID: DUP-1

Date Collected: 11/23/21 08:50
Date Received: 11/24/21 10:30

Lab Sample ID: 480-192803-17
Matrix: Water

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	10	U	10	3.0	ug/L			11/29/21 20:25	1
Benzene	**6.9**		1.0	0.41	ug/L			11/29/21 20:25	1
Bromodichloromethane	1.0	U	1.0	0.39	ug/L			11/29/21 20:25	1
Bromoform	1.0	U	1.0	0.26	ug/L			11/29/21 20:25	1
Bromomethane	1.0	U	1.0	0.69	ug/L			11/29/21 20:25	1
2-Butanone (MEK)	10	U	10	1.3	ug/L			11/29/21 20:25	1
Carbon disulfide	1.0	U	1.0	0.19	ug/L			11/29/21 20:25	1
Carbon tetrachloride	1.0	U	1.0	0.27	ug/L			11/29/21 20:25	1
Chlorobenzene	1.0	U	1.0	0.75	ug/L			11/29/21 20:25	1
Chloroethane	**96**		1.0	0.32	ug/L			11/29/21 20:25	1

Client Sample ID: DUP-1
Date Collected: 11/23/21 08:50
Date Received: 11/24/21 10:30

Lab Sample ID: 480-192803-17
Matrix: Water

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloroform	**0.94**	**J**	1.0	0.34	ug/L			11/29/21 20:25	1
Chloromethane	1.0	U	1.0	0.35	ug/L			11/29/21 20:25	1
cis-1,2-Dichloroethene	**71**		1.0	0.81	ug/L			11/29/21 20:25	1
cis-1,3-Dichloropropene	1.0	U	1.0	0.36	ug/L			11/29/21 20:25	1
Cyclohexane	**0.90**	**J**	1.0	0.18	ug/L			11/29/21 20:25	1
Dibromochloromethane	1.0	U	1.0	0.32	ug/L			11/29/21 20:25	1
1,2-Dibromo-3-Chloropropane	1.0	U	1.0	0.39	ug/L			11/29/21 20:25	1
1,2-Dibromoethane	1.0	U	1.0	0.73	ug/L			11/29/21 20:25	1
1,2-Dichlorobenzene	1.0	U	1.0	0.79	ug/L			11/29/21 20:25	1
1,3-Dichlorobenzene	1.0	U	1.0	0.78	ug/L			11/29/21 20:25	1
1,4-Dichlorobenzene	1.0	U	1.0	0.84	ug/L			11/29/21 20:25	1
Dichlorodifluoromethane	1.0	U	1.0	0.68	ug/L			11/29/21 20:25	1
1,1-Dichloroethane	**10**		1.0	0.38	ug/L			11/29/21 20:25	1
1,2-Dichloroethane	1.0	U	1.0	0.21	ug/L			11/29/21 20:25	1
1,1-Dichloroethene	1.0	U	1.0	0.29	ug/L			11/29/21 20:25	1
1,2-Dichloropropane	1.0	U	1.0	0.72	ug/L			11/29/21 20:25	1
Ethylbenzene	1.0	U	1.0	0.74	ug/L			11/29/21 20:25	1
2-Hexanone	5.0	U	5.0	1.2	ug/L			11/29/21 20:25	1
Isopropylbenzene	1.0	U	1.0	0.79	ug/L			11/29/21 20:25	1
Methyl acetate	2.5	U	2.5	1.3	ug/L			11/29/21 20:25	1
Methylcyclohexane	1.0	U	1.0	0.16	ug/L			11/29/21 20:25	1
Methylene Chloride	1.0	U	1.0	0.44	ug/L			11/29/21 20:25	1
4-Methyl-2-pentanone (MIBK)	5.0	U	5.0	2.1	ug/L			11/29/21 20:25	1
Methyl tert-butyl ether	1.0	U	1.0	0.16	ug/L			11/29/21 20:25	1
Styrene	1.0	U	1.0	0.73	ug/L			11/29/21 20:25	1
1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.21	ug/L			11/29/21 20:25	1
Tetrachloroethene	**0.47**	**J**	1.0	0.36	ug/L			11/29/21 20:25	1
Toluene	**0.60**	**J**	1.0	0.51	ug/L			11/29/21 20:25	1
trans-1,2-Dichloroethene	**3.3**		1.0	0.90	ug/L			11/29/21 20:25	1
trans-1,3-Dichloropropene	1.0	U	1.0	0.37	ug/L			11/29/21 20:25	1
1,2,4-Trichlorobenzene	1.0	U	1.0	0.41	ug/L			11/29/21 20:25	1
1,1,1-Trichloroethane	1.0	U	1.0	0.82	ug/L			11/29/21 20:25	1
1,1,2-Trichloroethane	1.0	U	1.0	0.23	ug/L			11/29/21 20:25	1
Trichloroethene	**1.4**		1.0	0.46	ug/L			11/29/21 20:25	1
Trichlorofluoromethane	1.0	U	1.0	0.88	ug/L			11/29/21 20:25	1
1,1,2-Trichloro-1,2,2-trifluoroethane	**2.0**		1.0	0.31	ug/L			11/29/21 20:25	1
~~**Vinyl chloride**~~	~~**120**~~	~~**E**~~	~~1.0~~	~~0.90~~	~~ug/L~~			~~11/29/21 20:25~~	~~1~~
Xylenes, Total	2.0	U	2.0	0.66	ug/L			11/29/21 20:25	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*97*		*73 - 120*		*11/29/21 20:25*	*1*
Dibromofluoromethane (Surr)	*102*		*75 - 123*		*11/29/21 20:25*	*1*
1,2-Dichloroethane-d4 (Surr)	*101*		*77 - 120*		*11/29/21 20:25*	*1*
Toluene-d8 (Surr)	*98*		*80 - 120*		*11/29/21 20:25*	*1*

Method: 8260C - Volatile Organic Compounds by GC/MS - DL

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
~~Acetone~~	20	U	20	6.0	ug/L			11/30/21 09:03	2
Benzene	**7.2**		2.0	0.82	ug/L			~~11/30/21 09:03~~	~~2~~

Client Sample ID: DUP-1
Date Collected: 11/23/21 08:50
Date Received: 11/24/21 10:30

Lab Sample ID: 480-192803-17
Matrix: Water

Method: 8260C - Volatile Organic Compounds by GC/MS - DL (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bromodichloromethane	2.0	U	2.0	0.78	ug/L			11/30/21 09:03	2
Bromoform	2.0	U	2.0	0.52	ug/L			11/30/21 09:03	2
Bromomethane	2.0	U	2.0	1.4	ug/L			11/30/21 09:03	2
2-Butanone (MEK)	20	U	20	2.6	ug/L			11/30/21 09:03	2
Carbon disulfide	2.0	U	2.0	0.38	ug/L			11/30/21 09:03	2
Carbon tetrachloride	2.0	U	2.0	0.54	ug/L			11/30/21 09:03	2
Chlorobenzene	2.0	U	2.0	1.5	ug/L			11/30/21 09:03	2
Chloroethane	**99**		2.0	0.64	ug/L			11/30/21 09:03	2
Chloroform	**0.98**	**J**	2.0	0.68	ug/L			11/30/21 09:03	2
Chloromethane	2.0	U	2.0	0.70	ug/L			11/30/21 09:03	2
cis-1,2-Dichloroethene	**73**		2.0	1.6	ug/L			11/30/21 09:03	2
cis-1,3-Dichloropropene	2.0	U	2.0	0.72	ug/L			11/30/21 09:03	2
Cyclohexane	**1.6**	**J**	2.0	0.36	ug/L			11/30/21 09:03	2
Dibromochloromethane	2.0	U	2.0	0.64	ug/L			11/30/21 09:03	2
1,2-Dibromo-3-Chloropropane	2.0	U	2.0	0.78	ug/L			11/30/21 09:03	2
1,2-Dibromoethane	2.0	U	2.0	1.5	ug/L			11/30/21 09:03	2
1,2-Dichlorobenzene	2.0	U	2.0	1.6	ug/L			11/30/21 09:03	2
1,3-Dichlorobenzene	2.0	U	2.0	1.6	ug/L			11/30/21 09:03	2
1,4-Dichlorobenzene	2.0	U	2.0	1.7	ug/L			11/30/21 09:03	2
Dichlorodifluoromethane	2.0	U	2.0	1.4	ug/L			11/30/21 09:03	2
1,1-Dichloroethane	**10**		2.0	0.76	ug/L			11/30/21 09:03	2
1,2-Dichloroethane	2.0	U	2.0	0.42	ug/L			11/30/21 09:03	2
1,1-Dichloroethene	2.0	U	2.0	0.58	ug/L			11/30/21 09:03	2
1,2-Dichloropropane	2.0	U	2.0	1.4	ug/L			11/30/21 09:03	2
Ethylbenzene	2.0	U	2.0	1.5	ug/L			11/30/21 09:03	2
2-Hexanone	10	U	10	2.5	ug/L			11/30/21 09:03	2
Isopropylbenzene	2.0	U	2.0	1.6	ug/L			11/30/21 09:03	2
Methyl acetate	5.0	U	5.0	2.6	ug/L			11/30/21 09:03	2
Methylcyclohexane	2.0	U	2.0	0.32	ug/L			11/30/21 09:03	2
Methylene Chloride	2.0	U	2.0	0.88	ug/L			11/30/21 09:03	2
4-Methyl-2-pentanone (MIBK)	10	U	10	4.2	ug/L			11/30/21 09:03	2
Methyl tert-butyl ether	2.0	U	2.0	0.32	ug/L			11/30/21 09:03	2
Styrene	2.0	U	2.0	1.5	ug/L			11/30/21 09:03	2
1,1,2,2-Tetrachloroethane	2.0	U	2.0	0.42	ug/L			11/30/21 09:03	2
Tetrachloroethene	2.0	U	2.0	0.72	ug/L			11/30/21 09:03	2
Toluene	2.0	U	2.0	1.0	ug/L			11/30/21 09:03	2
trans-1,2-Dichloroethene	**3.0**		2.0	1.8	ug/L			11/30/21 09:03	2
trans-1,3-Dichloropropene	2.0	U	2.0	0.74	ug/L			11/30/21 09:03	2
1,2,4-Trichlorobenzene	2.0	U	2.0	0.82	ug/L			11/30/21 09:03	2
1,1,1-Trichloroethane	2.0	U	2.0	1.6	ug/L			11/30/21 09:03	2
1,1,2-Trichloroethane	2.0	U	2.0	0.46	ug/L			11/30/21 09:03	2
Trichloroethene	**1.6**	**J**	2.0	0.92	ug/L			11/30/21 09:03	2
Trichlorofluoromethane	2.0	U	2.0	1.8	ug/L			11/30/21 09:03	2
1,1,2-Trichloro-1,2,2-trifluoroethane	**2.4**		2.0	0.62	ug/L			11/30/21 09:03	2
Vinyl chloride	**120**		2.0	1.8	ug/L			11/30/21 09:03	2
Xylenes, Total	4.0	U	4.0	1.3	ug/L			11/30/21 09:03	2

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*97*		*73 - 120*		*11/30/21 09:03*	*2*

Client: Ashland LLC
Project/Site: Ashland Rensselaer

Job ID: 480-192803-1

Client Sample ID: DUP-1

Date Collected: 11/23/21 08:50
Date Received: 11/24/21 10:30

Lab Sample ID: 480-192803-17

Matrix: Water

Method: 8260C - Volatile Organic Compounds by GC/MS - DL (Continued)

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Dibromofluoromethane (Surr)	*104*		*75 - 123*		*11/30/21 09:03*	*2*
1,2-Dichloroethane-d4 (Surr)	*99*		*77 - 120*		*11/30/21 09:03*	*2*
Toluene-d8 (Surr)	*96*		*80 - 120*		*11/30/21 09:03*	*2*

Method: RSK-175 - Dissolved Gases (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethane	**530**	**J**	660	130	ug/L			11/29/21 22:55	88
Ethene	**150**	**J**	620	130	ug/L			11/29/21 22:55	88
Methane	**9200**		350	88	ug/L			11/29/21 22:55	88

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
TOC Result 1	**7.6**		1.0	0.43	mg/L			12/02/21 02:52	1
TOC Result 2	**7.9**		1.0	0.43	mg/L			12/02/21 02:52	1
TOC Result 3	**7.8**		1.0	0.43	mg/L			12/02/21 02:52	1
TOC Result 4	**8.2**		1.0	0.43	mg/L			12/02/21 02:52	1
Total Organic Carbon	**7.8**		1.0	0.43	mg/L			12/02/21 02:52	1

Chain of Custody Record

Albany #224

Temperature on Receipt _____

Drinking Water? Yes☐ No☐

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

TAL-4124 (1007)

Client: ARCADIS	Project Manager: Bill Golla	Date: 12/10/21	Chain of Custody Number: 295681
Address: 855 RTE 146 STE 210	Telephone Number (Area Code)/Fax Number	Lab Number	Page 1 of 1
City: Clifton Park / State: NY / Zip Code: 12065	Site Contact: Joe Zaso (Katie Bidwell)	Lab Contact: Eddie Barnett	
Project Name and Location (State): Ashland Rensselaer	Carrier/Waybill Number		
Contract/Purchase Order/Quote No.: PO#884663 WO#Task 400	Project #: 68016621		

Sample I.D. No. and Description (Containers for each sample may be combined on one line)	Date	Time	Matrix: Air	Aqueous	Sed	Soil	Containers & Preservatives: Unpres.	H2SO4	HNO3	HCl	NaOH	ZnAc/NaOH	Analysis: Toc 9060A	Voc 8260C	RSK 175
IP-1-121021	12/10/21	1030		X						X			2	3	3
IMP-3-121021		1200											2	3	
MW-16-121021		1255											2	3	3
MW-18-121021		0910											2	3	3
FB-1		1100											2	3	3
Trip Blank		—												3	

TNK

12-10-2021

480-193338 Chain of Custody

Special Instructions/ Conditions of Receipt

Possible Hazard Identification
☒ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal
☐ Return To Client ☐ Disposal By Lab ☒ Archive For Standard Months (A fee may be assessed if samples are retained longer than 1 month)

Turn Around Time Required
☐ 24 Hours ☐ 48 Hours ☐ 7 Days ☐ 14 Days ☐ 21 Days ☒ Other Standard

QC Requirements (Specify)

1. Relinquished By	Date: 12/10/21	Time: 1347	1. Received By	Date: 12-10-2021	Time: 1347
2. Relinquished By	Date: 12-10-2021	Time: 1700	2. Received By	Date: 12/11/21	Time: 11:30
3. Relinquished By	Date	Time	3. Received By	Date	Time

Comments

#1 2.5

DISTRIBUTION: WHITE - Returned to Client with Report; CANARY - Stays with the Sample; PINK - Field Copy

Client: Ashland LLC
Project/Site: Ashland Rensselaer

Job ID: 480-193338-1

Client Sample ID: ~~IP-1-120121~~ IP-1-121021
Date Collected: 12/10/21 10:30
Date Received: 12/11/21 11:30

Lab Sample ID: 480-193338-1
Matrix: Water

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	50	U	50	15	ug/L			12/14/21 03:09	5
Benzene	5.0	U	5.0	2.1	ug/L			12/14/21 03:09	5
Bromodichloromethane	5.0	U	5.0	2.0	ug/L			12/14/21 03:09	5
Bromoform	5.0	U	5.0	1.3	ug/L			12/14/21 03:09	5
Bromomethane	5.0	U	5.0	3.5	ug/L			12/14/21 03:09	5
2-Butanone (MEK)	50	U	50	6.6	ug/L			12/14/21 03:09	5
Carbon disulfide	5.0	U	5.0	0.95	ug/L			12/14/21 03:09	5
Carbon tetrachloride	5.0	U	5.0	1.4	ug/L			12/14/21 03:09	5
Chlorobenzene	5.0	U	5.0	3.8	ug/L			12/14/21 03:09	5
Chloroethane	5.0	U	5.0	1.6	ug/L			12/14/21 03:09	5
Chloroform	5.0	U	5.0	1.7	ug/L			12/14/21 03:09	5
Chloromethane	5.0	U	5.0	1.8	ug/L			12/14/21 03:09	5
cis-1,2-Dichloroethene	**280**		5.0	4.1	ug/L			12/14/21 03:09	5
cis-1,3-Dichloropropene	5.0	U	5.0	1.8	ug/L			12/14/21 03:09	5
Cyclohexane	5.0	U *	5.0	0.90	ug/L			12/14/21 03:09	5
Dibromochloromethane	5.0	U	5.0	1.6	ug/L			12/14/21 03:09	5
1,2-Dibromo-3-Chloropropane	5.0	U	5.0	2.0	ug/L			12/14/21 03:09	5
1,2-Dibromoethane	5.0	U	5.0	3.7	ug/L			12/14/21 03:09	5
1,2-Dichlorobenzene	5.0	U	5.0	4.0	ug/L			12/14/21 03:09	5
1,3-Dichlorobenzene	5.0	U	5.0	3.9	ug/L			12/14/21 03:09	5
1,4-Dichlorobenzene	5.0	U	5.0	4.2	ug/L			12/14/21 03:09	5
Dichlorodifluoromethane	5.0	U	5.0	3.4	ug/L			12/14/21 03:09	5
1,1-Dichloroethane	5.0	U	5.0	1.9	ug/L			12/14/21 03:09	5
1,2-Dichloroethane	5.0	U	5.0	1.1	ug/L			12/14/21 03:09	5
1,1-Dichloroethene	5.0	U	5.0	1.5	ug/L			12/14/21 03:09	5
1,2-Dichloropropane	5.0	U	5.0	3.6	ug/L			12/14/21 03:09	5
Ethylbenzene	5.0	U	5.0	3.7	ug/L			12/14/21 03:09	5
2-Hexanone	25	U	25	6.2	ug/L			12/14/21 03:09	5
Isopropylbenzene	5.0	U	5.0	4.0	ug/L			12/14/21 03:09	5
Methyl acetate	13	U	13	6.5	ug/L			12/14/21 03:09	5
Methylcyclohexane	5.0	U *	5.0	0.80	ug/L			12/14/21 03:09	5
Methylene Chloride	5.0	U	5.0	2.2	ug/L			12/14/21 03:09	5
4-Methyl-2-pentanone (MIBK)	25	U	25	11	ug/L			12/14/21 03:09	5
Methyl tert-butyl ether	5.0	U	5.0	0.80	ug/L			12/14/21 03:09	5
Styrene	5.0	U	5.0	3.7	ug/L			12/14/21 03:09	5
1,1,2,2-Tetrachloroethane	5.0	U	5.0	1.1	ug/L			12/14/21 03:09	5
Tetrachloroethene	5.0	U	5.0	1.8	ug/L			12/14/21 03:09	5
Toluene	5.0	U	5.0	2.6	ug/L			12/14/21 03:09	5
trans-1,2-Dichloroethene	5.0	U	5.0	4.5	ug/L			12/14/21 03:09	5
trans-1,3-Dichloropropene	5.0	U	5.0	1.9	ug/L			12/14/21 03:09	5
1,2,4-Trichlorobenzene	5.0	U	5.0	2.1	ug/L			12/14/21 03:09	5
1,1,1-Trichloroethane	5.0	U	5.0	4.1	ug/L			12/14/21 03:09	5
1,1,2-Trichloroethane	5.0	U	5.0	1.2	ug/L			12/14/21 03:09	5
Trichloroethene	5.0	U	5.0	2.3	ug/L			12/14/21 03:09	5
Trichlorofluoromethane	5.0	U	5.0	4.4	ug/L			12/14/21 03:09	5
1,1,2-Trichloro-1,2,2-trifluoroethane	5.0	U	5.0	1.6	ug/L			12/14/21 03:09	5
Vinyl chloride	**86**		5.0	4.5	ug/L			12/14/21 03:09	5
Xylenes, Total	10	U	10	3.3	ug/L			12/14/21 03:09	5

Client Sample ID: ~~IP-1-120121~~ IP-1-121021

Lab Sample ID: 480-193338-1

Date Collected: 12/10/21 10:30
Date Received: 12/11/21 11:30

Matrix: Water

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*95*		*73 - 120*		*12/14/21 03:09*	*5*
Dibromofluoromethane (Surr)	*106*		*75 - 123*		*12/14/21 03:09*	*5*
1,2-Dichloroethane-d4 (Surr)	*107*		*77 - 120*		*12/14/21 03:09*	*5*
Toluene-d8 (Surr)	*102*		*80 - 120*		*12/14/21 03:09*	*5*

Method: RSK-175 - Dissolved Gases (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethane	**44**		7.5	1.5	ug/L			12/13/21 16:17	1
Ethene	**3.9**	**J**	7.0	1.5	ug/L			12/13/21 16:17	1

Method: RSK-175 - Dissolved Gases (GC) - DL

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methane	**2300**		88	22	ug/L			12/13/21 18:29	22

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
TOC Result 1	**4.2**		1.0	0.43	mg/L			12/14/21 15:52	1
TOC Result 2	**4.5**		1.0	0.43	mg/L			12/14/21 15:52	1
TOC Result 3	**4.2**		1.0	0.43	mg/L			12/14/21 15:52	1
TOC Result 4	**4.2**		1.0	0.43	mg/L			12/14/21 15:52	1
Total Organic Carbon	**4.3**		1.0	0.43	mg/L			12/14/21 15:52	1

Client Sample ID: ~~IMP-3-120121~~ IMP-3-121021

Lab Sample ID: 480-193338-2

Date Collected: 12/10/21 12:00
Date Received: 12/11/21 11:30

Matrix: Water

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	20	U	20	6.0	ug/L			12/14/21 03:31	2
Benzene	2.0	U	2.0	0.82	ug/L			12/14/21 03:31	2
Bromodichloromethane	2.0	U	2.0	0.78	ug/L			12/14/21 03:31	2
Bromoform	2.0	U	2.0	0.52	ug/L			12/14/21 03:31	2
Bromomethane	2.0	U	2.0	1.4	ug/L			12/14/21 03:31	2
2-Butanone (MEK)	20	U	20	2.6	ug/L			12/14/21 03:31	2
Carbon disulfide	2.0	U	2.0	0.38	ug/L			12/14/21 03:31	2
Carbon tetrachloride	2.0	U	2.0	0.54	ug/L			12/14/21 03:31	2
Chlorobenzene	2.0	U	2.0	1.5	ug/L			12/14/21 03:31	2
Chloroethane	2.0	U	2.0	0.64	ug/L			12/14/21 03:31	2
Chloroform	2.0	U	2.0	0.68	ug/L			12/14/21 03:31	2
Chloromethane	2.0	U	2.0	0.70	ug/L			12/14/21 03:31	2
cis-1,2-Dichloroethene	**90**		2.0	1.6	ug/L			12/14/21 03:31	2
cis-1,3-Dichloropropene	2.0	U	2.0	0.72	ug/L			12/14/21 03:31	2
Cyclohexane	2.0	U	2.0	0.36	ug/L			12/14/21 03:31	2
Dibromochloromethane	2.0	U	2.0	0.64	ug/L			12/14/21 03:31	2
1,2-Dibromo-3-Chloropropane	2.0	U	2.0	0.78	ug/L			12/14/21 03:31	2
1,2-Dibromoethane	2.0	U	2.0	1.5	ug/L			12/14/21 03:31	2
1,2-Dichlorobenzene	2.0	U	2.0	1.6	ug/L			12/14/21 03:31	2
1,3-Dichlorobenzene	2.0	U	2.0	1.6	ug/L			12/14/21 03:31	2
1,4-Dichlorobenzene	2.0	U	2.0	1.7	ug/L			12/14/21 03:31	2
Dichlorodifluoromethane	2.0	U	2.0	1.4	ug/L			12/14/21 03:31	2
1,1-Dichloroethane	2.0	U	2.0	0.76	ug/L			12/14/21 03:31	2

Client Sample ID: ~~IMP-3-120121~~ IMP-3-121021
Date Collected: 12/10/21 12:00
Date Received: 12/11/21 11:30

Lab Sample ID: 480-193338-2
Matrix: Water

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane	**2.4**		2.0	0.42	ug/L			12/14/21 03:31	2
1,1-Dichloroethene	2.0	U	2.0	0.58	ug/L			12/14/21 03:31	2
1,2-Dichloropropane	2.0	U	2.0	1.4	ug/L			12/14/21 03:31	2
Ethylbenzene	2.0	U	2.0	1.5	ug/L			12/14/21 03:31	2
2-Hexanone	10	U	10	2.5	ug/L			12/14/21 03:31	2
Isopropylbenzene	2.0	U	2.0	1.6	ug/L			12/14/21 03:31	2
Methyl acetate	5.0	U	5.0	2.6	ug/L			12/14/21 03:31	2
Methylcyclohexane	2.0	U	2.0	0.32	ug/L			12/14/21 03:31	2
Methylene Chloride	2.0	U	2.0	0.88	ug/L			12/14/21 03:31	2
4-Methyl-2-pentanone (MIBK)	10	U	10	4.2	ug/L			12/14/21 03:31	2
Methyl tert-butyl ether	2.0	U	2.0	0.32	ug/L			12/14/21 03:31	2
Styrene	2.0	U	2.0	1.5	ug/L			12/14/21 03:31	2
1,1,2,2-Tetrachloroethane	2.0	U	2.0	0.42	ug/L			12/14/21 03:31	2
Tetrachloroethene	2.0	U	2.0	0.72	ug/L			12/14/21 03:31	2
Toluene	2.0	U	2.0	1.0	ug/L			12/14/21 03:31	2
trans-1,2-Dichloroethene	2.0	U	2.0	1.8	ug/L			12/14/21 03:31	2
trans-1,3-Dichloropropene	2.0	U	2.0	0.74	ug/L			12/14/21 03:31	2
1,2,4-Trichlorobenzene	2.0	U	2.0	0.82	ug/L			12/14/21 03:31	2
1,1,1-Trichloroethane	2.0	U	2.0	1.6	ug/L			12/14/21 03:31	2
1,1,2-Trichloroethane	2.0	U	2.0	0.46	ug/L			12/14/21 03:31	2
Trichloroethene	2.0	U	2.0	0.92	ug/L			12/14/21 03:31	2
Trichlorofluoromethane	2.0	U	2.0	1.8	ug/L			12/14/21 03:31	2
1,1,2-Trichloro-1,2,2-trifluoroethane	2.0	U	2.0	0.62	ug/L			12/14/21 03:31	2
Vinyl chloride	**13**		2.0	1.8	ug/L			12/14/21 03:31	2
Xylenes, Total	4.0	U	4.0	1.3	ug/L			12/14/21 03:31	2

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*96*		*73 - 120*		*12/14/21 03:31*	*2*
Dibromofluoromethane (Surr)	*110*		*75 - 123*		*12/14/21 03:31*	*2*
1,2-Dichloroethane-d4 (Surr)	*110*		*77 - 120*		*12/14/21 03:31*	*2*
Toluene-d8 (Surr)	*101*		*80 - 120*		*12/14/21 03:31*	*2*

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
TOC Result 1	**1.9**		1.0	0.43	mg/L			12/14/21 16:48	1
TOC Result 2	**1.8**		1.0	0.43	mg/L			12/14/21 16:48	1
TOC Result 3	**2.3**		1.0	0.43	mg/L			12/14/21 16:48	1
TOC Result 4	**1.7**		1.0	0.43	mg/L			12/14/21 16:48	1
Total Organic Carbon	**1.9**		1.0	0.43	mg/L			12/14/21 16:48	1

Client Sample ID: ~~MW-16-120121~~ MW-16-121021
Date Collected: 12/10/21 12:55
Date Received: 12/11/21 11:30

Lab Sample ID: 480-193338-3
Matrix: Water

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	10	U	10	3.0	ug/L			12/14/21 17:40	1
Benzene	1.0	U	1.0	0.41	ug/L			12/14/21 17:40	1
Bromodichloromethane	1.0	U	1.0	0.39	ug/L			12/14/21 17:40	1
Bromoform	1.0	U	1.0	0.26	ug/L			12/14/21 17:40	1

Client Sample ID: ~~MW-16-120121~~ MW-16-121021
Date Collected: 12/10/21 12:55
Date Received: 12/11/21 11:30

Lab Sample ID: 480-193338-3
Matrix: Water

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bromomethane	1.0	U	1.0	0.69	ug/L			12/14/21 17:40	1
2-Butanone (MEK)	10	U	10	1.3	ug/L			12/14/21 17:40	1
Carbon disulfide	1.0	U	1.0	0.19	ug/L			12/14/21 17:40	1
Carbon tetrachloride	1.0	U	1.0	0.27	ug/L			12/14/21 17:40	1
Chlorobenzene	1.0	U	1.0	0.75	ug/L			12/14/21 17:40	1
Chloroethane	1.0	U	1.0	0.32	ug/L			12/14/21 17:40	1
Chloroform	1.0	U	1.0	0.34	ug/L			12/14/21 17:40	1
Chloromethane	1.0	U	1.0	0.35	ug/L			12/14/21 17:40	1
cis-1,2-Dichloroethene	**9.2**		1.0	0.81	ug/L			12/14/21 17:40	1
cis-1,3-Dichloropropene	1.0	U	1.0	0.36	ug/L			12/14/21 17:40	1
Cyclohexane	1.0	U	1.0	0.18	ug/L			12/14/21 17:40	1
Dibromochloromethane	1.0	U	1.0	0.32	ug/L			12/14/21 17:40	1
1,2-Dibromo-3-Chloropropane	1.0	U	1.0	0.39	ug/L			12/14/21 17:40	1
1,2-Dibromoethane	1.0	U	1.0	0.73	ug/L			12/14/21 17:40	1
1,2-Dichlorobenzene	1.0	U	1.0	0.79	ug/L			12/14/21 17:40	1
1,3-Dichlorobenzene	1.0	U	1.0	0.78	ug/L			12/14/21 17:40	1
1,4-Dichlorobenzene	1.0	U	1.0	0.84	ug/L			12/14/21 17:40	1
Dichlorodifluoromethane	1.0	U	1.0	0.68	ug/L			12/14/21 17:40	1
1,1-Dichloroethane	1.0	U	1.0	0.38	ug/L			12/14/21 17:40	1
1,2-Dichloroethane	1.0	U	1.0	0.21	ug/L			12/14/21 17:40	1
1,1-Dichloroethene	1.0	U	1.0	0.29	ug/L			12/14/21 17:40	1
1,2-Dichloropropane	1.0	U	1.0	0.72	ug/L			12/14/21 17:40	1
Ethylbenzene	1.0	U	1.0	0.74	ug/L			12/14/21 17:40	1
2-Hexanone	5.0	U	5.0	1.2	ug/L			12/14/21 17:40	1
Isopropylbenzene	1.0	U	1.0	0.79	ug/L			12/14/21 17:40	1
Methyl acetate	2.5	U	2.5	1.3	ug/L			12/14/21 17:40	1
Methylcyclohexane	1.0	U	1.0	0.16	ug/L			12/14/21 17:40	1
Methylene Chloride	1.0	U	1.0	0.44	ug/L			12/14/21 17:40	1
4-Methyl-2-pentanone (MIBK)	5.0	U	5.0	2.1	ug/L			12/14/21 17:40	1
Methyl tert-butyl ether	1.0	U	1.0	0.16	ug/L			12/14/21 17:40	1
Styrene	1.0	U	1.0	0.73	ug/L			12/14/21 17:40	1
1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.21	ug/L			12/14/21 17:40	1
Tetrachloroethene	1.0	U	1.0	0.36	ug/L			12/14/21 17:40	1
Toluene	1.0	U	1.0	0.51	ug/L			12/14/21 17:40	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.90	ug/L			12/14/21 17:40	1
trans-1,3-Dichloropropene	1.0	U	1.0	0.37	ug/L			12/14/21 17:40	1
1,2,4-Trichlorobenzene	1.0	U	1.0	0.41	ug/L			12/14/21 17:40	1
1,1,1-Trichloroethane	1.0	U	1.0	0.82	ug/L			12/14/21 17:40	1
1,1,2-Trichloroethane	1.0	U	1.0	0.23	ug/L			12/14/21 17:40	1
Trichloroethene	**2.0**		1.0	0.46	ug/L			12/14/21 17:40	1
Trichlorofluoromethane	1.0	U	1.0	0.88	ug/L			12/14/21 17:40	1
1,1,2-Trichloro-1,2,2-trifluoroethane	1.0	U	1.0	0.31	ug/L			12/14/21 17:40	1
Vinyl chloride	1.0	U	1.0	0.90	ug/L			12/14/21 17:40	1
Xylenes, Total	2.0	U	2.0	0.66	ug/L			12/14/21 17:40	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*95*		*73 - 120*		*12/14/21 17:40*	*1*
Dibromofluoromethane (Surr)	*93*		*75 - 123*		*12/14/21 17:40*	*1*
1,2-Dichloroethane-d4 (Surr)	*103*		*77 - 120*		*12/14/21 17:40*	*1*
Toluene-d8 (Surr)	*96*		*80 - 120*		*12/14/21 17:40*	*1*

Client Sample ID: ~~MW-16-120121~~ MW-16-121021

Lab Sample ID: 480-193338-3
Date Collected: 12/10/21 12:55
Matrix: Water
Date Received: 12/11/21 11:30

Method: RSK-175 - Dissolved Gases (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethane	7.5	U	7.5	1.5	ug/L			12/13/21 16:35	1
Ethene	7.0	U	7.0	1.5	ug/L			12/13/21 16:35	1
Methane	4.0	U	4.0	1.0	ug/L			12/13/21 16:35	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
TOC Result 1	**1.1**		1.0	0.43	mg/L			12/14/21 17:44	1
TOC Result 2	**1.1**		1.0	0.43	mg/L			12/14/21 17:44	1
TOC Result 3	**1.1**		1.0	0.43	mg/L			12/14/21 17:44	1
TOC Result 4	**0.97**	**J**	1.0	0.43	mg/L			12/14/21 17:44	1
Total Organic Carbon	**1.1**		1.0	0.43	mg/L			12/14/21 17:44	1

Client Sample ID: MW-18-121021

Lab Sample ID: 480-193338-4
Date Collected: 12/10/21 09:10
Matrix: Water
Date Received: 12/11/21 11:30

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	50	U	50	15	ug/L			12/14/21 04:14	5
Benzene	5.0	U	5.0	2.1	ug/L			12/14/21 04:14	5
Bromodichloromethane	5.0	U	5.0	2.0	ug/L			12/14/21 04:14	5
Bromoform	5.0	U	5.0	1.3	ug/L			12/14/21 04:14	5
Bromomethane	5.0	U	5.0	3.5	ug/L			12/14/21 04:14	5
2-Butanone (MEK)	50	U	50	6.6	ug/L			12/14/21 04:14	5
Carbon disulfide	5.0	U	5.0	0.95	ug/L			12/14/21 04:14	5
Carbon tetrachloride	5.0	U	5.0	1.4	ug/L			12/14/21 04:14	5
Chlorobenzene	5.0	U	5.0	3.8	ug/L			12/14/21 04:14	5
Chloroethane	5.0	U	5.0	1.6	ug/L			12/14/21 04:14	5
Chloroform	5.0	U	5.0	1.7	ug/L			12/14/21 04:14	5
Chloromethane	5.0	U	5.0	1.8	ug/L			12/14/21 04:14	5
cis-1,2-Dichloroethene	**310**		5.0	4.1	ug/L			12/14/21 04:14	5
cis-1,3-Dichloropropene	5.0	U	5.0	1.8	ug/L			12/14/21 04:14	5
Cyclohexane	5.0	U	5.0	0.90	ug/L			12/14/21 04:14	5
Dibromochloromethane	5.0	U	5.0	1.6	ug/L			12/14/21 04:14	5
1,2-Dibromo-3-Chloropropane	5.0	U	5.0	2.0	ug/L			12/14/21 04:14	5
1,2-Dibromoethane	5.0	U	5.0	3.7	ug/L			12/14/21 04:14	5
1,2-Dichlorobenzene	5.0	U	5.0	4.0	ug/L			12/14/21 04:14	5
1,3-Dichlorobenzene	5.0	U	5.0	3.9	ug/L			12/14/21 04:14	5
1,4-Dichlorobenzene	5.0	U	5.0	4.2	ug/L			12/14/21 04:14	5
Dichlorodifluoromethane	5.0	U	5.0	3.4	ug/L			12/14/21 04:14	5
1,1-Dichloroethane	5.0	U	5.0	1.9	ug/L			12/14/21 04:14	5
1,2-Dichloroethane	5.0	U	5.0	1.1	ug/L			12/14/21 04:14	5
1,1-Dichloroethene	5.0	U	5.0	1.5	ug/L			12/14/21 04:14	5
1,2-Dichloropropane	5.0	U	5.0	3.6	ug/L			12/14/21 04:14	5
Ethylbenzene	5.0	U	5.0	3.7	ug/L			12/14/21 04:14	5
2-Hexanone	25	U	25	6.2	ug/L			12/14/21 04:14	5
Isopropylbenzene	5.0	U	5.0	4.0	ug/L			12/14/21 04:14	5
Methyl acetate	13	U	13	6.5	ug/L			12/14/21 04:14	5
Methylcyclohexane	5.0	U	5.0	0.80	ug/L			12/14/21 04:14	5
Methylene Chloride	5.0	U	5.0	2.2	ug/L			12/14/21 04:14	5

Client Sample ID: MW-18-121021

Lab Sample ID: 480-193338-4

Date Collected: 12/10/21 09:10
Matrix: Water
Date Received: 12/11/21 11:30

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4-Methyl-2-pentanone (MIBK)	25	U	25	11	ug/L			12/14/21 04:14	5
Methyl tert-butyl ether	5.0	U	5.0	0.80	ug/L			12/14/21 04:14	5
Styrene	5.0	U	5.0	3.7	ug/L			12/14/21 04:14	5
1,1,2,2-Tetrachloroethane	5.0	U	5.0	1.1	ug/L			12/14/21 04:14	5
Tetrachloroethene	5.0	U	5.0	1.8	ug/L			12/14/21 04:14	5
Toluene	5.0	U	5.0	2.6	ug/L			12/14/21 04:14	5
trans-1,2-Dichloroethene	5.0	U	5.0	4.5	ug/L			12/14/21 04:14	5
trans-1,3-Dichloropropene	5.0	U	5.0	1.9	ug/L			12/14/21 04:14	5
1,2,4-Trichlorobenzene	5.0	U	5.0	2.1	ug/L			12/14/21 04:14	5
1,1,1-Trichloroethane	5.0	U	5.0	4.1	ug/L			12/14/21 04:14	5
1,1,2-Trichloroethane	5.0	U	5.0	1.2	ug/L			12/14/21 04:14	5
Trichloroethene	5.0	U	5.0	2.3	ug/L			12/14/21 04:14	5
Trichlorofluoromethane	5.0	U	5.0	4.4	ug/L			12/14/21 04:14	5
1,1,2-Trichloro-1,2,2-trifluoroethane	5.0	U	5.0	1.6	ug/L			12/14/21 04:14	5
Vinyl chloride	**41**		5.0	4.5	ug/L			12/14/21 04:14	5
Xylenes, Total	10	U	10	3.3	ug/L			12/14/21 04:14	5

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*95*		*73 - 120*		*12/14/21 04:14*	*5*
Dibromofluoromethane (Surr)	*110*		*75 - 123*		*12/14/21 04:14*	*5*
1,2-Dichloroethane-d4 (Surr)	*111*		*77 - 120*		*12/14/21 04:14*	*5*
Toluene-d8 (Surr)	*101*		*80 - 120*		*12/14/21 04:14*	*5*

Method: RSK-175 - Dissolved Gases (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethane	**10**		7.5	1.5	ug/L			12/13/21 16:54	1
Ethene	7.0	U	7.0	1.5	ug/L			12/13/21 16:54	1
Methane	**260**		4.0	1.0	ug/L			12/13/21 16:54	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
TOC Result 1	**2.6**		1.0	0.43	mg/L			12/14/21 18:40	1
TOC Result 2	**2.8**		1.0	0.43	mg/L			12/14/21 18:40	1
TOC Result 3	**3.0**		1.0	0.43	mg/L			12/14/21 18:40	1
TOC Result 4	**2.7**		1.0	0.43	mg/L			12/14/21 18:40	1
Total Organic Carbon	**2.8**		1.0	0.43	mg/L			12/14/21 18:40	1

Client Sample ID: FB-1

Lab Sample ID: 480-193338-5

Date Collected: 12/10/21 11:00
Matrix: Water
Date Received: 12/11/21 11:30

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	10	U	10	3.0	ug/L			12/14/21 04:36	1
Benzene	1.0	U	1.0	0.41	ug/L			12/14/21 04:36	1
Bromodichloromethane	1.0	U	1.0	0.39	ug/L			12/14/21 04:36	1
Bromoform	1.0	U	1.0	0.26	ug/L			12/14/21 04:36	1
Bromomethane	1.0	U	1.0	0.69	ug/L			12/14/21 04:36	1
2-Butanone (MEK)	10	U	10	1.3	ug/L			12/14/21 04:36	1
Carbon disulfide	1.0	U	1.0	0.19	ug/L			12/14/21 04:36	1
Carbon tetrachloride	1.0	U	1.0	0.27	ug/L			12/14/21 04:36	1

Client Sample ID: FB-1
Date Collected: 12/10/21 11:00
Date Received: 12/11/21 11:30

Lab Sample ID: 480-193338-5
Matrix: Water

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chlorobenzene	1.0	U	1.0	0.75	ug/L			12/14/21 04:36	1
Chloroethane	1.0	U	1.0	0.32	ug/L			12/14/21 04:36	1
Chloroform	1.0	U	1.0	0.34	ug/L			12/14/21 04:36	1
Chloromethane	1.0	U	1.0	0.35	ug/L			12/14/21 04:36	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.81	ug/L			12/14/21 04:36	1
cis-1,3-Dichloropropene	1.0	U	1.0	0.36	ug/L			12/14/21 04:36	1
Cyclohexane	1.0	U	1.0	0.18	ug/L			12/14/21 04:36	1
Dibromochloromethane	1.0	U	1.0	0.32	ug/L			12/14/21 04:36	1
1,2-Dibromo-3-Chloropropane	1.0	U	1.0	0.39	ug/L			12/14/21 04:36	1
1,2-Dibromoethane	1.0	U	1.0	0.73	ug/L			12/14/21 04:36	1
1,2-Dichlorobenzene	1.0	U	1.0	0.79	ug/L			12/14/21 04:36	1
1,3-Dichlorobenzene	1.0	U	1.0	0.78	ug/L			12/14/21 04:36	1
1,4-Dichlorobenzene	1.0	U	1.0	0.84	ug/L			12/14/21 04:36	1
Dichlorodifluoromethane	1.0	U	1.0	0.68	ug/L			12/14/21 04:36	1
1,1-Dichloroethane	1.0	U	1.0	0.38	ug/L			12/14/21 04:36	1
1,2-Dichloroethane	1.0	U	1.0	0.21	ug/L			12/14/21 04:36	1
1,1-Dichloroethene	1.0	U	1.0	0.29	ug/L			12/14/21 04:36	1
1,2-Dichloropropane	1.0	U	1.0	0.72	ug/L			12/14/21 04:36	1
Ethylbenzene	1.0	U	1.0	0.74	ug/L			12/14/21 04:36	1
2-Hexanone	5.0	U	5.0	1.2	ug/L			12/14/21 04:36	1
Isopropylbenzene	1.0	U	1.0	0.79	ug/L			12/14/21 04:36	1
Methyl acetate	2.5	U	2.5	1.3	ug/L			12/14/21 04:36	1
Methylcyclohexane	1.0	U	1.0	0.16	ug/L			12/14/21 04:36	1
Methylene Chloride	1.0	U	1.0	0.44	ug/L			12/14/21 04:36	1
4-Methyl-2-pentanone (MIBK)	5.0	U	5.0	2.1	ug/L			12/14/21 04:36	1
Methyl tert-butyl ether	1.0	U	1.0	0.16	ug/L			12/14/21 04:36	1
Styrene	1.0	U	1.0	0.73	ug/L			12/14/21 04:36	1
1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.21	ug/L			12/14/21 04:36	1
Tetrachloroethene	1.0	U	1.0	0.36	ug/L			12/14/21 04:36	1
Toluene	1.0	U	1.0	0.51	ug/L			12/14/21 04:36	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.90	ug/L			12/14/21 04:36	1
trans-1,3-Dichloropropene	1.0	U	1.0	0.37	ug/L			12/14/21 04:36	1
1,2,4-Trichlorobenzene	1.0	U	1.0	0.41	ug/L			12/14/21 04:36	1
1,1,1-Trichloroethane	1.0	U	1.0	0.82	ug/L			12/14/21 04:36	1
1,1,2-Trichloroethane	1.0	U	1.0	0.23	ug/L			12/14/21 04:36	1
Trichloroethene	1.0	U	1.0	0.46	ug/L			12/14/21 04:36	1
Trichlorofluoromethane	1.0	U	1.0	0.88	ug/L			12/14/21 04:36	1
1,1,2-Trichloro-1,2,2-trifluoroethane	1.0	U	1.0	0.31	ug/L			12/14/21 04:36	1
Vinyl chloride	1.0	U	1.0	0.90	ug/L			12/14/21 04:36	1
Xylenes, Total	2.0	U	2.0	0.66	ug/L			12/14/21 04:36	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*96*		*73 - 120*		*12/14/21 04:36*	*1*
Dibromofluoromethane (Surr)	*109*		*75 - 123*		*12/14/21 04:36*	*1*
1,2-Dichloroethane-d4 (Surr)	*109*		*77 - 120*		*12/14/21 04:36*	*1*
Toluene-d8 (Surr)	*102*		*80 - 120*		*12/14/21 04:36*	*1*

Method: RSK-175 - Dissolved Gases (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethane	7.5	U	7.5	1.5	ug/L			12/13/21 17:13	1

Client Sample ID: FB-1

Lab Sample ID: 480-193338-5

Date Collected: 12/10/21 11:00
Date Received: 12/11/21 11:30

Matrix: Water

Method: RSK-175 - Dissolved Gases (GC) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethene	7.0	U	7.0	1.5	ug/L			12/13/21 17:13	1
Methane	4.0	U	4.0	1.0	ug/L			12/13/21 17:13	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
TOC Result 1	1.0	U	1.0	0.43	mg/L			12/14/21 19:10	1
TOC Result 2	1.0	U	1.0	0.43	mg/L			12/14/21 19:10	1
TOC Result 3	1.0	U	1.0	0.43	mg/L			12/14/21 19:10	1
TOC Result 4	1.0	U	1.0	0.43	mg/L			12/14/21 19:10	1
Total Organic Carbon	1.0	U	1.0	0.43	mg/L			12/14/21 19:10	1

Client Sample ID: Trip Blank

Lab Sample ID: 480-193338-6

Date Collected: 12/10/21 00:00
Date Received: 12/11/21 11:30

Matrix: Water

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	10	U	10	3.0	ug/L			12/14/21 04:58	1
Benzene	1.0	U	1.0	0.41	ug/L			12/14/21 04:58	1
Bromodichloromethane	1.0	U	1.0	0.39	ug/L			12/14/21 04:58	1
Bromoform	1.0	U	1.0	0.26	ug/L			12/14/21 04:58	1
Bromomethane	1.0	U	1.0	0.69	ug/L			12/14/21 04:58	1
2-Butanone (MEK)	10	U	10	1.3	ug/L			12/14/21 04:58	1
Carbon disulfide	1.0	U	1.0	0.19	ug/L			12/14/21 04:58	1
Carbon tetrachloride	1.0	U	1.0	0.27	ug/L			12/14/21 04:58	1
Chlorobenzene	1.0	U	1.0	0.75	ug/L			12/14/21 04:58	1
Chloroethane	1.0	U	1.0	0.32	ug/L			12/14/21 04:58	1
Chloroform	1.0	U	1.0	0.34	ug/L			12/14/21 04:58	1
Chloromethane	1.0	U	1.0	0.35	ug/L			12/14/21 04:58	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.81	ug/L			12/14/21 04:58	1
cis-1,3-Dichloropropene	1.0	U	1.0	0.36	ug/L			12/14/21 04:58	1
Cyclohexane	1.0	U	1.0	0.18	ug/L			12/14/21 04:58	1
Dibromochloromethane	1.0	U	1.0	0.32	ug/L			12/14/21 04:58	1
1,2-Dibromo-3-Chloropropane	1.0	U	1.0	0.39	ug/L			12/14/21 04:58	1
1,2-Dibromoethane	1.0	U	1.0	0.73	ug/L			12/14/21 04:58	1
1,2-Dichlorobenzene	1.0	U	1.0	0.79	ug/L			12/14/21 04:58	1
1,3-Dichlorobenzene	1.0	U	1.0	0.78	ug/L			12/14/21 04:58	1
1,4-Dichlorobenzene	1.0	U	1.0	0.84	ug/L			12/14/21 04:58	1
Dichlorodifluoromethane	1.0	U	1.0	0.68	ug/L			12/14/21 04:58	1
1,1-Dichloroethane	1.0	U	1.0	0.38	ug/L			12/14/21 04:58	1
1,2-Dichloroethane	1.0	U	1.0	0.21	ug/L			12/14/21 04:58	1
1,1-Dichloroethene	1.0	U	1.0	0.29	ug/L			12/14/21 04:58	1
1,2-Dichloropropane	1.0	U	1.0	0.72	ug/L			12/14/21 04:58	1
Ethylbenzene	1.0	U	1.0	0.74	ug/L			12/14/21 04:58	1
2-Hexanone	5.0	U	5.0	1.2	ug/L			12/14/21 04:58	1
Isopropylbenzene	1.0	U	1.0	0.79	ug/L			12/14/21 04:58	1
Methyl acetate	2.5	U	2.5	1.3	ug/L			12/14/21 04:58	1
Methylcyclohexane	1.0	U	1.0	0.16	ug/L			12/14/21 04:58	1
Methylene Chloride	1.0	U	1.0	0.44	ug/L			12/14/21 04:58	1
4-Methyl-2-pentanone (MIBK)	5.0	U	5.0	2.1	ug/L			12/14/21 04:58	1

Client: Ashland LLC
Job ID: 480-193338-1
Project/Site: Ashland Rensselaer

Client Sample ID: Trip Blank
Lab Sample ID: 480-193338-6
Date Collected: 12/10/21 00:00
Matrix: Water
Date Received: 12/11/21 11:30

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methyl tert-butyl ether	1.0	U	1.0	0.16	ug/L			12/14/21 04:58	1
Styrene	1.0	U	1.0	0.73	ug/L			12/14/21 04:58	1
1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.21	ug/L			12/14/21 04:58	1
Tetrachloroethene	1.0	U	1.0	0.36	ug/L			12/14/21 04:58	1
Toluene	1.0	U	1.0	0.51	ug/L			12/14/21 04:58	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.90	ug/L			12/14/21 04:58	1
trans-1,3-Dichloropropene	1.0	U	1.0	0.37	ug/L			12/14/21 04:58	1
1,2,4-Trichlorobenzene	1.0	U	1.0	0.41	ug/L			12/14/21 04:58	1
1,1,1-Trichloroethane	1.0	U	1.0	0.82	ug/L			12/14/21 04:58	1
1,1,2-Trichloroethane	1.0	U	1.0	0.23	ug/L			12/14/21 04:58	1
Trichloroethene	1.0	U	1.0	0.46	ug/L			12/14/21 04:58	1
Trichlorofluoromethane	1.0	U	1.0	0.88	ug/L			12/14/21 04:58	1
1,1,2-Trichloro-1,2,2-trifluoroethane	1.0	U	1.0	0.31	ug/L			12/14/21 04:58	1
Vinyl chloride	1.0	U	1.0	0.90	ug/L			12/14/21 04:58	1
Xylenes, Total	2.0	U	2.0	0.66	ug/L			12/14/21 04:58	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*90*		*73 - 120*		*12/14/21 04:58*	*1*
Dibromofluoromethane (Surr)	*108*		*75 - 123*		*12/14/21 04:58*	*1*
1,2-Dichloroethane-d4 (Surr)	*109*		*77 - 120*		*12/14/21 04:58*	*1*
Toluene-d8 (Surr)	*98*		*80 - 120*		*12/14/21 04:58*	*1*

Appendix B

Groundwater Monitoring Field Logs

Ashland Rensselaer — *Site*

Semiannual Sampling — *Event*

GROUNDWATER SAMPLING LOG

Sampling Personnel: GH/CW/CH **Well ID:** IP-1
Client / Job Number: 30059651 **Date:** 4-15-21
Weather: 50 / rainy **Time In:** 1250 **Time Out:** 1345

Well Information

Depth to Water:	5.89 (feet)	(from MP)
Total Depth:	18.45 (feet)	(from MP)
Length of Water Column:	(feet) 12.56	
Volume of Water in Well:	(gal) 2.0	
Intake depth for tubing:	(feet) 16'	

Well Type:	Flushmount ☐		Stick-Up ☒	
Well Material:	Stainless Steel ☐		PVC ☒	
Well Locked:	Yes ☒		No ☐	
Measuring Point Marked:	Yes ☒		No ☐	
Well Diameter:	1"	(2")	Other:	

Purging Information

Purging Method:	Bailer ☐	Peristaltic ☒	Monsoon ☐	Other:		
Tubing/Bailer Material:	Steel ☐	Polyethylene ☒	Teflon ☐	Other:		
Sampling Method:	Bailer ☐	Peristaltic ☒	Monsoon ☐	(Other): Bailer-VOCs		
Pump Start Time:	1250					
Pump Stop Time:	1345	Water-Quality Meter Type:	horiba			
Total Volume Removed:	~3 (gal)	Did well go dry:	Yes ☐	No ☒		

Conversion Factors

gal / ft. of water	1" ID	2" ID	4" ID	6" ID
	0.041	0.163	0.653	1.469

1 gal = 3.785 L =3785 ml = 0.1337 cubic feet

Unit Stability

pH	DO / Turb	Cond. /Temp	ORP
∀ 0.1	∀ 10%	∀ 3.0%	∀ 10 mV

Parameter:	1	2	3	4	5	6	7	8	9
Time	1255 ~~1300~~ CC	1300	1305	1310	1315	1320	1325		
Volume Purged (Gal)		~1.0		~2.0			~3.0		
Rate (mL/min)	200	200	200	200	200	200	200		
Depth to Water (ft.)	5.89	5.89	5.89	5.89	5.89	5.89	5.89		
pH	6.95	6.92	6.90	6.90	6.92	6.91	6.92		
Temp. (C)	10.60	10.36	10.21	10.19	10.19	10.15	10.10		
Conductivity (mS/cm)	0.984	0.981	0.979	0.978	0.976	0.976	0.975		
Dissolved Oxygen (mg/L)	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
ORP (mV)	-108	-115	-120	-125	-124	-125	-126		
Turbidity (NTU)	46.1	56.5	52.0	30.0	29.9	23.7	23.1		
Notes:									

Sampling Information

Analyses	#	n	Laboratory
8260C VOCs	3		TestAmerica
9060A TOC	2		
RSK methane	3		
Color: clear			
Odor: none			
Appearance:			
Sample ID: IP-1	Sample Time: 1325		
MS/MSD: Yes ☐	No ☒		
Duplicate: Yes ☐	No ☒		
Duplicate ID	Dup. Time:		
Chain of Custody Signed By:			

Problems / Observations

- tubing present in well, tubing left in well after sampling

- Lots of orange sludge in well & on water probe

Ashland Rensselaer — Site

Semiannual Sampling — Event

GROUNDWATER SAMPLING LOG

Sampling Personnel: GLB/Churchill
Well ID: IMP-3
Client / Job Number: 30059651
Date: 4-15-21
Weather: 50 rainy
Time In: 1400 Time Out: 1450

Well Information

Depth to Water:	8.05 (feet)	(from MP)
Total Depth:	18.30 (feet)	(from MP)
Length of Water Column:	(feet) 10.25	
Volume of Water in Well:	(gal) 1.7	
Intake depth for tubing:	(feet) 16'	

Well Type:	Flushmount ☐		Stick-Up ☒	
Well Material:	Stainless Steel ☐		PVC ☒	
Well Locked:	Yes ☒		No ☐	
Measuring Point Marked:	Yes ☒		No ☐	
Well Diameter:	1"	(2")	Other:	

Purging Information

Purging Method:	Bailer ☐	Peristaltic ☒	Monsoon ☐	Other:			
Tubing/Bailer Material:	Steel ☐	Polyethylene ☒	Teflon ☐	Other:			
Sampling Method:	Bailer ☐	Peristaltic ☒	Monsoon ☐	Other: Bailer-VOCs			

Pump Start Time: 1400
Pump Stop Time: 1450
Water-Quality Meter Type: Horiba
Total Volume Removed: ~2.75 (gal)
Did well go dry: Yes ☐ No ☒

Conversion Factors				
gal / ft. of water	1" ID	2" ID	4" ID	6" ID
	0.041	0.163	0.653	1.469
1 gal = 3.785 L = 3785 ml = 0.1337 cubic feet				

Unit Stability			
pH	DO / Turb	Cond. /Temp	ORP
∀ 0.1	∀ 10%	∀ 3.0%	∀ 10 mV

Parameter:	1	2	3	4	5	6	7	8	9
Time	1405	1410	1415	1420	1425	1430	1435		
Volume Purged (Gal)			~1 gal		~2 gal		~2.75		
Rate (mL/min)	200	150	150	150	150	150	150		
Depth to Water (ft.)	9.10	9.63	10.38	10.55	10.55	10.55	10.55		
pH	7.11	7.06	7.00	6.98	6.98	6.97	6.97		
Temp. (C)	11.74	11.52	11.23	11.32	11.42	11.50	11.56		
Conductivity (mS/cm)	1.68	1.62	1.60	1.63	1.67	1.66	1.67		
Dissolved Oxygen (mg/L)	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
ORP (mV)	-79	-71	-67	-74	-82	-82	-83		
Turbidity (NTU)	2.8	9.0	15.0	6.5	6.3	5.9	5.7		
Notes:									

Sampling Information

Analyses	#	n	Laboratory
8260C VOCs	3		TestAmerica
9060A TOC	2		

Color: Clear
Odor: Moderate sulfur
Appearance:
Sample ID: IMP-3 Sample Time: 1435
MS/MSD: Yes ☐ No ☒
Duplicate: Yes ☐ No ☒
Duplicate ID: Dup. Time:
Chain of Custody Signed By:

Problems / Observations

- Tubing present in well, tubing left in well after sampling

Ashland Rensselaer — Site

Semiannual Sampling — Event

GROUNDWATER SAMPLING LOG

Sampling Personnel: PE
Well ID: IW - A2
Client / Job Number: 30059651
Date: 4/15/21
Weather: 50 rainy.
Time In: 0730 Time Out: 1000

Well Information

Depth to Water:	9.05 (feet)	(from MP)
Total Depth:	23.71 (feet)	(from MP)
Length of Water Column:	(feet) 14.66	
Volume of Water in Well:	(gal) 2.4	
Intake depth for tubing:	(feet) 20'	

Well Type:	Flushmount ☐		Stick-Up ☒	
Well Material:	Stainless Steel ☒		PVC ☐	
Well Locked:	Yes ☒		No ☐	
Measuring Point Marked:	Yes ☒		No ☐	
Well Diameter:	1"	(2")	Other:	

Purging Information

Purging Method:	Bailer ☐	Peristaltic ☒	Monsoon ☐	Other:		
Tubing/Bailer Material:	Steel ☐	Polyethylene ☒	Teflon ☐	Other:		
Sampling Method: VOCs.	Bailer ☒	Peristaltic ☒	Monsoon ☐	Other:		
Pump Start Time: 0740						
Pump Stop Time: 1000	Water-Quality Meter Type: horiba					
Total Volume Removed: ~3 (gal)	Did well go dry: Yes ☐	No ☒				

Conversion Factors

gal / ft. of water	1" ID	2" ID	4" ID	6" ID
	0.041	0.163	0.653	1.469

1 gal = 3.785 L =3785 ml = 0.1337 cubic feet

Unit Stability

pH	DO / Turb	Cond. /Temp	ORP
∀ 0.1	∀ 10%	∀ 3.0%	∀ 10 mV

Parameter:	1	2	3	4	5	6	7	8	9
Time	0745	0750	0755	800	805	810	0815	0820	0825
Volume Purged (Gal)		0.5				0.75		1.0	
Rate (mL/min)	200	200	200	200	200	150	150		
Depth to Water (ft.)	10.15	10.95	11.05				12.00		
pH	6.05	6.25	6.37	6.39	6.42	6.41	6.45	6.41	6.44
Temp. (C)	12.45	11.36	12.39	12.82	12.95	12.17	11.85	11.81	12.25
Conductivity (mS/cm)	3.04	3.10	2.95	2.89	2.86	2.89	2.94	2.96	2.93
Dissolved Oxygen (mg/L)	0.17	0.0	0.48	0.76	1.27	1.57	0.97	0.0	0.37
ORP (mV)	-137	-148	-129	-123	-110	-110	-112	-118	-111
Turbidity (NTU)	14.9	9.6	16.1	19.6	27.0	23.4	28.1	19.3	30.1
Notes:									

Sampling Information

Analyses	#	n	Laboratory
8260C	3		TestAmerica
9060	2		"

Color: Yellow tint
Odor: none
Appearance: Clear, stream present (blocky)
Sample ID: IW - A2 Sample Time: 0940
MS/MSD: Yes ☐ No ☒
Duplicate: Yes ☐ No ☒
Duplicate ID Dup. Time:
Chain of Custody Signed By:

Problems / Observations

Two sets of tubing were previously left in the well. Larger tubing was removed and discarded.

Ashland Rensselaer — Site

April Semi-Annual — Event

GROUNDWATER SAMPLING LOG

Sampling Personnel: PE
Well ID: IW-A2
Client / Job Number: 30059651
Date: 4/15/21
Weather: 55 rainy
Time In: 0730 **Time Out:** 1000

Parameter:	1	2	3	4	5	6	7	8	9
Time	0830	0835	0840	845	0850	0855	0905	0910	0915
Volume Purged (Gal)		1.25						1.5	
Rate (mL/min)	150							125	
Depth to Water (ft.)	—	13.40		13.80	PUMP OFF	PUMP OFF	RECHARGED		
pH	6.44	6.45	6.44	6.45				6.49	6.48
Temp. (C)	11.64	11.41	11.83	12.03				11.65	11.64
Conductivity (mS/cm)	2.94	3.00	2.93	2.91				3.01	3.02
Dissolved Oxygen (mg/L)	0.72	0.04	0.0	0.0				0.85	0.09
ORP (mV)	-98	-95	-116	-120				-95	-98
Turbidity (NTU)	80.3	47.5	37.7	32.4				39.2	34.9
Notes:	Pump shut off @ 0850. No water coming out of tubing. 0905 pump turned back on. New tubing added.								

Parameter:	1	2	3	4	5	6	7	8	9
Time	0920	0925	0930	0935	0940				
Volume Purged (Gal)	2.0		2.5						
Rate (mL/min)	120	120	120						
Depth to Water (ft.)					SAMPLE				
pH	6.46	6.44	6.43	6.44					
Temp. (C)	11.68	11.74	11.82	11.77					
Conductivity (mS/cm)	3.02	3.02	3.02	3.02					
Dissolved Oxygen (mg/L)	0.0	0.0	0.0	0.0					
ORP (mV)	-111	-120	-126	-129					
Turbidity (NTU)	30.9	32.1	31.7	30.6					
Notes:									

Ashland Rensselaer — Site

Semiannual Sampling — Event

GROUNDWATER SAMPLING LOG

Sampling Personnel: CLB / CMH
Client / Job Number: 30059651
Weather: Sunny 70

Well ID: IW-B3
Date: 4-14-21
Time In: 1530 Time Out: 1650

Well Information

Depth to Water:	6.00 (feet)	(from MP)
Total Depth:	15.45 (feet)	(from MP)
Length of Water Column:	9.45 (feet)	
Volume of Water in Well:	1.54 (gal)	
Intake depth for tubing:	12 (feet)	

Well Type:	Flushmount ☐	Stick-Up ☐	
Well Material:	Stainless Steel ☒	PVC ☒	CC
Well Locked:	Yes ☒	No ☐	
Measuring Point Marked:	Yes ☐	No ☒	
Well Diameter:	1"	(2")	Other:

Purging Information

Purging Method:	Bailer ☐	Peristaltic ☒	Monsoon ☐	Other:		
Tubing/Bailer Material:	Steel ☐	Polyethylene ☒	Teflon ☐	Other:		
Sampling Method:	Bailer ☐	Peristaltic ☒	Monsoon ☐	Other: VOCs, bailer		
Pump Start Time:	1530					
Pump Stop Time:	1650			Water-Quality Meter Type:	horiba	
Total Volume Removed:	3.5 (gal)			Did well go dry:	Yes ☐	No ☒

Conversion Factors

gal / ft. of water	1" ID	2" ID	4" ID	6" ID
	0.041	0.163	0.653	1.469

1 gal = 3.785 L = 3785 ml = 0.1337 cubic feet

Unit Stability

pH	DO / Turb	Cond. /Temp	ORP
∀ 0.1	∀ 10%	∀ 3.0%	∀ 10 mV

Parameter:	1	2	3	4	5	6	7	8	9
Time	1535	1540	1545	1550	1555	1600	1605	1610	1615
Volume Purged (Gal)				~1 gal			~2 gal		
Rate (mL/min)	180	125	50	50	50	50	50	50	50
Depth to Water (ft.)	6.56	6.97	7.85	7.85	7.85	7.85	7.85	7.85	7.85
pH	7.08	6.88	6.80	6.78	6.69	6.70	6.67	6.98	6.69
Temp. (C)	17.55	18.60	21.57	22.05	22.16	21.76	21.44	12.27	11.84
Conductivity (mS/cm)	1.52	1.35	1.24	1.23	1.24	1.21	1.21	1.54	1.57
Dissolved Oxygen (mg/L)	0.54	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ORP (mV)	-131	-140	-136	-135	-134	-133	-133	-139	-131
Turbidity (NTU)	243	207	232	230	229	220	218	42.5	25.8
Notes:	- Tubing was already in well, left there when finished sampling								

Sampling Information

Analyses	#	n	Laboratory
8260C VOCs	3		TestAmerica
9060A TOC	2		
~~ACETONE~~			

Color: clear
Odor: slight sulfur
Appearance:
Sample ID: IW-B3 Sample Time: 1630
MS/MSD: Yes ☐ No ☒
Duplicate: Yes ☐ No ☒
Duplicate ID: Dup. Time:
Chain of Custody Signed By:

Problems / Observations

- must purge as slow as possible
- Horiba disconnected at 1605, cleaned, and reconnected due to high turbidity
- large sheen in purge bucket

Ashland Rensselaer — *Site*

April Semi-Annual — *Event*

GROUNDWATER SAMPLING LOG

Sampling Personnel: Colby Churchill
Well ID: IW-B3
Client / Job Number: 30059651
Date: 4-14-21
Weather: Sunny 70
Time In: 1530 **Time Out:** 1650

Parameter:	1	2	3	4	5	6	7	8	9
Time	1620	1625	1630						
Volume Purged (Gal)	~3 gal		~3.5						
Rate (mL/min)	50	50	50						
Depth to Water (ft.)	7.85	7.85	7.85						
pH	6.66	6.65	6.66						
Temp. (C)	11.66	11.50	11.59						
Conductivity (mS/cm)	1.59	1.60	1.61						
Dissolved Oxygen (mg/L)	0.0	0.0	0.0						
ORP (mV)	-128	-127	-126						
Turbidity (NTU)	20.3	20.0	19.7						
Notes:									

Parameter:	1	2	3	4	5	6	7	8	9
Time									
Volume Purged (Gal)									
Rate (mL/min)									
Depth to Water (ft.)									
pH									
Temp. (C)									
Conductivity (mS/cm)									
Dissolved Oxygen (mg/L)									
ORP (mV)									
Turbidity (NTU)									
Notes:									

Ashland Rensselaer — *Site*

Semiannual Sampling — *Event*

GROUNDWATER SAMPLING LOG

Sampling Personnel: PE
Well ID: MW-A1
Client / Job Number: 30059651
Date: 4/15/21
Weather: 50 rainy
Time In: 1020 **Time Out:** 1245

Well Information

Depth to Water:	5.45 (feet)	(from MP)
Total Depth:	22.35 (feet)	(from MP)
Length of Water Column:	(feet) 16.90	
Volume of Water in Well:	(gal) 2.75	
Intake depth for tubing:	(feet) 20'	

Well Type:	Flushmount ☐		Stick-Up ☒	
Well Material:	Stainless Steel ☐		PVC ☒	
Well Locked:	Yes ☒		No ☐	
Measuring Point Marked:	Yes ☒		No ☐	
Well Diameter:	1"	(2")	Other:	

Purging Information

Purging Method:	Bailer ☒	Peristaltic ☐	Monsoon ☐	Other:			
Tubing/Bailer Material:	Steel ☐	Polyethylene ☒	Teflon ☐	Other:			
Sampling Method: VOCs	Bailer ☒	Peristaltic ☒	Monsoon ☐	Other:			
Pump Start Time: 1140							
Pump Stop Time: 1245	Water-Quality Meter Type: Horiba.						
Total Volume Removed: 2 (gal)	Did well go dry: Yes ☐	No ☒					

Conversion Factors

gal / ft. of water	1" ID	2" ID	4" ID	6" ID
	0.041	0.163	0.653	1.469

1 gal = 3.785 L =3785 ml = 0.1337 cubic feet

Unit Stability

pH	DO / Turb	Cond. /Temp	ORP
∀ 0.1	∀ 10%	∀ 3.0%	∀ 10 mV

Parameter:	1	2	3	4	5	6	7	8	9
Time	1145	1150	1155	1200	1205	1210	1215	1220	
Volume Purged (Gal)		0.5		1.0			1.7		
Rate (mL/min)	170	170	170	170	170	170	170		
Depth to Water (ft.)	5.93	6.05	6.15		6.30				
pH	6.82	6.64	6.55	6.52	6.50	6.49	6.47		
Temp. (C)	11.80	11.56	11.19	11.07	11.01	10.97	10.99		
Conductivity (mS/cm)	1.52	1.50	1.51	1.52	1.52	1.53	1.53		
Dissolved Oxygen (mg/L)	1.15	0.10	0.0	0.0	0.0	0.0	0.0		
ORP (mV)	-25	-44	-52	-58	-63	-65	-68		
Turbidity (NTU)	10.7	5.6	3.4	2.8	2.5	2.4	1.7		
Notes:									

Sampling Information

Analyses	#	n	Laboratory
8260C	9		TestAmerica
9060	6		
RSK 175 SOP	9		
Color: yellow tint, clear			
Odor: none			
Appearance: none.			
Sample ID: MW-A1	Sample Time: 1220		
MS/MSD: Yes ☒	No ☐		
Duplicate: Yes ☐	No ☒		
Duplicate ID	Dup. Time:		
Chain of Custody Signed By:			

Problems / Observations

- Battery died at 1033 after pumping for 1030. Replaced battery and began purging at 1140.
- Tubing left in well.
- 2 bailers full were required to fill MS/MSD VOC samples

Ashland Rensselaer — Site

Semiannual Sampling — Event

GROUNDWATER SAMPLING LOG

Sampling Personnel: Colby Churchill
Well ID: MW-B1
Client / Job Number: 30059651
Date: 4-15-21
Weather: 40 rainy
Time In: 0735 Time Out: 0840

Well Information

Depth to Water: 6.81 (feet) (from MP)
Total Depth: 21.49 (feet) (from MP)
Length of Water Column: (feet) 14.68
Volume of Water in Well: (gal) 2.4
Intake depth for tubing: (feet) 18

Well Type: Flushmount ☐ Stick-Up ☒
Well Material: Stainless Steel ☐ PVC ☒
Well Locked: Yes ☒ No ☐
Measuring Point Marked: Yes ☐ No ☒
Well Diameter: 1" (2") Other:

Purging Information

Purging Method: Bailer ☐ Peristaltic ☒ Monsoon ☐ Other:
Tubing/Bailer Material: Steel ☐ Polyethylene ☒ Teflon ☐ Other:
Sampling Method: Bailer ☐ Peristaltic ☒ Monsoon ☐ ~~Other: Bailer~~

Pump Start Time: 0735
Pump Stop Time: 0840
Water-Quality Meter Type: YSI; Aq
Total Volume Removed: ~3.25 (gal)
Did well go dry: Yes ☐ No ☒

Conversion Factors				
gal / ft. of water	1" ID	2" ID	4" ID	6" ID
	0.041	0.163	0.653	1.469
1 gal = 3.785 L =3785 ml = 0.1337 cubic feet				

Unit Stability			
pH	DO / Turb	Cond. /Temp	ORP
∀ 0.1	∀ 10%	∀ 3.0%	∀ 10 mV

Parameter:	1	2	3	4	5	6	7	8	9	10
Time	0740	0745	0750	0755	0800	0805	0810	0815	0820	082
Volume Purged (Gal)									~3.0	
Rate (mL/min)	150	100	100		100	100	100	75	75	75
Depth to Water (ft.)	6.81	8.65	8.65	Dead	8.20	10.21	10.87	12.00	12.15	12.1
pH	6.25	6.43	6.55		6.89	6.67	6.61	6.60	6.60	6.60
Temp. (C)	11.74	10.90	11.07		12.38	12.19	10.48	10.44	10.47	10.5
Conductivity (mS/cm)	2.21	2.21	2.18		2.10	2.10	2.20	2.21	2.21	2.2
Dissolved Oxygen (mg/L)	3.15	1.84	1.97		~~0.0~~	0.0	0.0	0.0	0.0	0.
ORP (mV)	-66	-79	-90		-85	-88	-92	-100	-101	-1
Turbidity (NTU)	91.8	92.7	87.0		85.3	101	58.3	40.1	39.6	38.
Notes:										

Sampling Information

Analyses	#	n	Laboratory
8260C TCL	3		TestAmerica
9060A TOC	2		
RSK Methane..	3		
Color: light brown			
Odor: slight sulfur			
Appearance:			
Sample ID: MW-B1	Sample Time: 0825		
MS/MSD: Yes ☐	No ☒		
Duplicate: Yes ☐	No ☒		
Duplicate ID	Dup. Time:		
Chain of Custody Signed By:			

Problems / Observations

- Battery dead at 755 restarted by 8
- Tubing left in well after sampling
- VOCs sampled w/ pump, bailers could not fit down well

Ashland Rensselaer — *Site*

Semiannual Sampling — *Event*

GROUNDWATER SAMPLING LOG

Sampling Personnel: PE
Well ID: MW-13
Client / Job Number: 30059651
Date: 4/14/21
Weather: 70 OVERCAST
Time In: 1325 **Time Out:** 1445

Well Information

Depth to Water:	3.05 (feet)	(from MP)
Total Depth:	21.90 (feet)	(from MP)
Length of Water Column:	(feet) 18.85	
Volume of Water in Well:	(gal) 3.07	
Intake depth for tubing:	26' (feet) ~~70 OVERCAST~~ PE	

Well Type:	Flushmount ☐		Stick-Up ☒	
Well Material:	Stainless Steel ☒		PVC ☐	
Well Locked:	Yes ☒		No ☐	
Measuring Point Marked:	Yes ☒		No ☐	
Well Diameter:	1"	2"	Other:	

Purging Information

Purging Method:	Bailer ☐	Peristaltic ☒	Monsoon ☐	Other:		
Tubing/Bailer Material:	Steel ☐	Polyethylene ☐	Teflon ☐	Other:		
Sampling Method: VOCs	Bailer ☒	Peristaltic ☒	Monsoon ☐	Other:		
Pump Start Time:	1335					
Pump Stop Time:	1435	Water-Quality Meter Type:	Horiba.			
Total Volume Removed:	2.5 (gal)	Did well go dry:	Yes ☐	No ☒		

Conversion Factors				
gal / ft. of water	1" ID	2" ID	4" ID	6" ID
	0.041	0.163	0.653	1.469
1 gal = 3.785 L =3785 ml = 0.1337 cubic feet				

Unit Stability			
pH	DO / Turb	Cond. /Temp	ORP
∀ 0.1	∀ 10%	∀ 3.0%	∀ 10 mV

Parameter:	1	2	3	4	5	6	7	8	9
Time	1340	1345	1350	1355	1400	1405	1410	1415	1420
Volume Purged (Gal)		0.5		1.0		1.5		1.75	2.0
Rate (mL/min)	200	200	150	150	150	120	120	120	120
Depth to Water (ft.)	4.48	5.55	6.01	6.70		7.65		8.40	
pH	6.63	6.86	6.92	6.95	6.98	7.01	7.03	7.04	7.04
Temp. (C)	15.60	13.39	13.80	13.54	13.38	13.88	14.55	15.18	15.10
Conductivity (mS/cm)	0.660	0.676	0.672	0.669	0.667	0.662	0.650	0.634	0.636
Dissolved Oxygen (mg/L)	0.03	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ORP (mV)	158	128	91	60	47	34	28	25	23
Turbidity (NTU)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Notes:									

Sampling Information

Analyses	#	n	Laboratory
9060A	2		TestAmerica
8260C	3		"

Color: NONE.
Odor: NONE
Appearance: Clear
Sample ID: MW-13 Sample Time: 1430
MS/MSD: Yes ☐ No ☒
Duplicate: Yes ☐ No ☒
Duplicate ID Dup. Time:
Chain of Custody Signed By:

Problems / Observations

Ashland Rensselaer — *Site*

April Semi-Annual — *Event*

GROUNDWATER SAMPLING LOG

Sampling Personnel: PE
Well ID: MW-13
Client / Job Number: 30059651
Date: 9/14/21
Weather: 70 cloudy
Time In: 1325 **Time Out:** 1445

Parameter:	1	2	3	4	5	6	7	8	9
Time	1425	1430							
Volume Purged (Gal)	2.5								
Rate (mL/min)	150								
Depth to Water (ft.)	9.60								
pH	7.05								
Temp. (C)	15.15								
Conductivity (mS/cm)	0.633								
Dissolved Oxygen (mg/L)	0.0								
ORP (mV)	20								
Turbidity (NTU)	0.0								
Notes:									

Parameter:	1	2	3	4	5	6	7	8	9
Time									
Volume Purged (Gal)									
Rate (mL/min)									
Depth to Water (ft.)									
pH									
Temp. (C)									
Conductivity (mS/cm)									
Dissolved Oxygen (mg/L)									
ORP (mV)					PE				
Turbidity (NTU)									
Notes:									

Ashland Rensselaer — Site

Semiannual Sampling — Event

GROUNDWATER SAMPLING LOG

Sampling Personnel: PE
Well ID: MW-15
Client / Job Number: 30059651
Date: 4/15/21
Weather: 50 rainy
Time In: 1330 Time Out: 1445

Well Information

Depth to Water:	2.38 (feet)	(from MP)
Total Depth:	14.66 (feet)	(from MP)
Length of Water Column:	12.28 (feet)	
Volume of Water in Well:	2.00 (gal)	
Intake depth for tubing:	9 (feet)	

Well Type:	Flushmount ☒	Stick-Up ☐		
Well Material:	Stainless Steel ☐	PVC ☒		
Well Locked:	Yes ☒	No ☐		
Measuring Point Marked:	Yes ☒	No ☐		
Well Diameter:	1"	(2)	Other:	

Purging Information

Purging Method:	Bailer ☐	Peristaltic ☒	Monsoon ☐	Other:			
Tubing/Bailer Material:	Steel ☐	Polyethylene ☒	Teflon ☐	Other:			
Sampling Method: VOCs	Bailer ☒	Peristaltic ☒	Monsoon ☐	Other:			

Pump Start Time: 1335
Pump Stop Time: 1425
Water-Quality Meter Type: Horiba
Total Volume Removed: 2.25 (gal)
Did well go dry: Yes ☐ No ☒

Conversion Factors

gal / ft. of water	1" ID	2" ID	4" ID	6" ID
	0.041	0.163	0.653	1.469

1 gal = 3.785 L =3785 ml = 0.1337 cubic feet

Unit Stability

pH	DO / Turb	Cond. /Temp	ORP
∀ 0.1	∀ 10%	∀ 3.0%	∀ 10 mV

Parameter:	1	2	3	4	5	6	7	8	9
Time	1340	1345	1350	1355	1400	1405	1410	1415	
Volume Purged (Gal)			0.7	1.0		1.5			
Rate (mL/min)	200	200	200	200	200	200			
Depth to Water (ft.)	2.80	2.85			2.90				
pH	6.84	6.77	6.73	6.71	6.70	6.69	6.68		
Temp. (C)	14.68	14.17	13.68	13.45	13.37	13.32	13.30		
Conductivity (mS/cm)	1.02	1.01	1.01	1.01	1.01	1.01	1.02		
Dissolved Oxygen (mg/L)	0.37	0.0	0.0	0.0	0.0	0.0	0.0		
ORP (mV)	-52	-67	-77	-81	-85	-87	-88		
Turbidity (NTU)	0.4	0.0	0.0	0.0	0.0	0.0	0.0		
Notes:									

Sampling Information

Analyses	#	n	Laboratory
8260C	3		TestAmerica
RSK 175 SOP	3		"
			"

Color: Clear
Odor: none
Appearance: none
Sample ID: MW-15 Sample Time: 1415
MS/MSD: Yes ☐ No ☒
Duplicate: Yes ☐ No ☒
Duplicate ID Dup. Time:
Chain of Custody Signed By:

Problems / Observations

Tubing left in well at end.

Ashland Rensselaer — Site

Semiannual Sampling — Event

GROUNDWATER SAMPLING LOG

Sampling Personnel: Gibby/Churchill
Well ID: MW-16
Client / Job Number: 30059651
Date: 9-15-21
Weather: 60 cloudy
Time In: 1145 Time Out: 1250

Well Information

Depth to Water:	7.85 (feet)	(from MP)
Total Depth:	16.70 (feet)	(from MP)
Length of Water Column:	(feet)	8.85
Volume of Water in Well:	(gal)	1.5
Intake depth for tubing:	(feet)	15'

Well Type:	Flushmount ☐		Stick-Up ☒	
Well Material:	Stainless Steel ☐		PVC ☒	
Well Locked:	Yes ☒		No ☐	
Measuring Point Marked:	Yes ☒		No ☐	
Well Diameter:	1"	②	Other:	

Purging Information

Purging Method:	Bailer ☐	Peristaltic ☒	Monsoon ☐	Other:		
Tubing/Bailer Material:	Steel ☐	Polyethylene ☒	Teflon ☐	Other:		
Sampling Method:	Bailer ☐	Peristaltic ☒	Monsoon ☐	Other:	VOCs bailer	

Pump Start Time: 1145
Pump Stop Time: 1250
Water-Quality Meter Type: horiba
Total Volume Removed: 2.5 (gal)
Did well go dry: Yes ☐ No ☒

Conversion Factors				
gal / ft. of water	1" ID	2" ID	4" ID	6" ID
	0.041	0.163	0.653	1.469
1 gal = 3.785 L =3785 ml = 0.1337 cubic feet				

Unit Stability			
pH	DO / Turb	Cond. /Temp	ORP
∀ 0.1	∀ 10%	∀ 3.0%	∀ 10 mV

Parameter:	1	2	3	4	5	6	7	8	9
Time	1150	1155	1200	1205	1210	1215	1220	1225	1230
Volume Purged (Gal)			0.75		~1.5				~2.5
Rate (mL/min)	100	100	75	75	75	75	75	75	75
Depth to Water (ft.)	9.09	10.25	11.56	12.53	12.75	12.75	12.75	12.75	12.75
pH	7.20	7.19	7.17	7.17	7.17	7.17	7.11	7.09	7.06
Temp. (C)	10.73	10.54	10.60	10.69	10.80	10.85	10.82	10.79	10.73
Conductivity (mS/cm)	1.71	1.71	1.71	1.71	1.71	1.69	1.67	1.66	1.61
Dissolved Oxygen (mg/L)	2.21	1.86	1.56	1.35	0.88	0.50	0.15	0.0	0.0
ORP (mV)	61	64	67	67	61	44	27	30	26
Turbidity (NTU)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Notes:									

Sampling Information

Analyses	#	n	Laboratory
8260C VOCs	3		TestAmerica
9060A TOC	2		"
175 RSK Methane	3		"
Color: clear			
Odor: none			
Appearance:			
Sample ID: MW-16	Sample Time: 1230		
MS/MSD: Yes ☐	No ☒		
Duplicate: Yes ☐	No ☒		
Duplicate ID	Dup. Time:		
Chain of Custody Signed By:			

Problems / Observations

- tubing present in well, tubing left in well after sampling

Ashland Rensselaer | **Semiannual Sampling**
Site | Event

GROUNDWATER SAMPLING LOG

Sampling Personnel: Colby Churchill | Well ID: MW-17
Client / Job Number: 30059651 | Date: 4-15-21
Weather: 40 rainy | Time In: 940 Time Out: 1025

Well Information

Depth to Water:	6.35	(feet)	(from MP)
Total Depth:	17.68	(feet)	(from MP)
Length of Water Column:	(feet)	11.33	
Volume of Water in Well:	(gal)	1.85	
Intake depth for tubing:	(feet)	15'	

Well Type:	Flushmount	☒	Stick-Up	☐
Well Material:	Stainless Steel	☐	PVC	☒
Well Locked:	Yes	☐	No	☒
Measuring Point Marked:	Yes	☐	No	☒
Well Diameter:	1"	(2") circled	Other:	

Purging Information

Purging Method:	Bailer ☐	Peristaltic ☒	Monsoon ☐	Other:
Tubing/Bailer Material:	Steel ☐	Polyethylene ☒	Teflon ☐	Other:
Sampling Method:	Bailer ☐	Peristaltic ☒	Monsoon ☐	(Other:) VOCs back

Pump Start Time: 940
Pump Stop Time: 1025 | Water-Quality Meter Type: horiba
Total Volume Removed: 2.5 (gal) | Did well go dry: Yes ☐ No ☒

Conversion Factors

gal / ft. of water	1" ID	2" ID	4" ID	6" ID
	0.041	0.163	0.653	1.469

1 gal = 3.785 L =3785 ml = 0.1337 cubic feet

Unit Stability

pH	DO / Turb	Cond. /Temp	ORP
∀ 0.1	∀ 10%	∀ 3.0%	∀ 10 mV

Parameter:	1	2	3	4	5	6	7	8	9
Time	945	950	955	1000	1005	1010	1015		
Volume Purged (Gal)			~1.0				~2.5		
Rate (mL/min)	100	100	100	100	100	100	100		
Depth to Water (ft.)	7.45	8.27	8.95	9.30	9.65	9.98	10.08		
pH	7.28	7.23	7.18	7.12	7.05	7.03	7.02		
Temp. (C)	12.24	12.89	12.80	12.74	12.74	12.76	12.76		
Conductivity (mS/cm)	0.00	1.78	1.52	1.44	1.44	1.47	1.47		
Dissolved Oxygen (mg/L)	11.86	0.0	0.0	0.0	0.0	0.0	0.0		
ORP (mV)	11	-115	-106	-99	-96	-96	-96		
Turbidity (NTU)	122	31.4	14.1	7.5	3.4	1.7	1.1		
Notes:									

Sampling Information

Analyses	#	n	Laboratory
8260C VOC	3		TestAmerica
9060A TOC	2		
CC ~~RSK [illegible]~~	3		

Color: light brown
Odor: none
Appearance:

Sample ID: MW-17		Sample Time: 1015	
MS/MSD:	Yes ☐	No ☒	
Duplicate:	Yes ☐	No ☒	
Duplicate ID		Dup. Time:	
Chain of Custody Signed By:			

Problems / Observations

- tubing present in well, left tubing in well after sampling.
- Buildings nearby are occupied now

Ashland Rensselaer — Site

Semiannual Sampling — Event

GROUNDWATER SAMPLING LOG

Sampling Personnel: Colby Churchill
Well ID: MW-18
Client / Job Number: 30059651
Date: 4-15-21
Weather: 50 rain
Time In: 1450 Time Out: 1545

Well Information

Depth to Water:	6.03 (feet)	(from MP)
Total Depth:	18.04 (feet)	(from MP)
Length of Water Column:	12.01 (feet)	
Volume of Water in Well:	2.0 (gal)	
Intake depth for tubing:	16' (feet)	

Well Type:	Flushmount ☐		Stick-Up ☒	
Well Material:	Stainless Steel ☐		PVC ☒	
Well Locked:	Yes ☒		No ☐	
Measuring Point Marked:	Yes ☒		No ☐	
Well Diameter:	1"	(2")	Other:	

Purging Information

Purging Method:	Bailer ☐	Peristaltic ☒	Monsoon ☐	Other:		
Tubing/Bailer Material:	Steel ☐	Polyethylene ☒	Teflon ☐	Other:		
Sampling Method:	Bailer ☐	Peristaltic ☑	Monsoon ☐	Other: VOCs- Bailer		
Pump Start Time: 1450						
Pump Stop Time: 1545		Water-Quality Meter Type: horiba				
Total Volume Removed: 2.5 (gal)		Did well go dry: Yes ☐	No ☒			

Conversion Factors

gal / ft. of water	1" ID	2" ID	4" ID	6" ID
	0.041	0.163	0.653	1.469

1 gal = 3.785 L =3785 ml = 0.1337 cubic feet

Unit Stability

pH	DO / Turb	Cond. /Temp	ORP
∀ 0.1	∀ 10%	∀ 3.0%	∀ 10 mV

Parameter:	1	2	3	4	5	6	7	8	9
Time	1455	1500	1505	1510	1515	1520	1525		
Volume Purged (Gal)				~1.5		~2.25	~2.5		
Rate (mL/min)	150	150	150	75	75	75	75		
Depth to Water (ft.)	6.92	7.73	8.52	9.37	9.87	9.87	9.87		
pH	6.96	6.87	6.85	6.84	6.86	6.82	6.83		
Temp. (C)	9.94	10.03	10.18	10.46	10.42	10.40	10.38		
Conductivity (mS/cm)	1.14	1.14	1.13	1.12	1.12	1.12	1.12		
Dissolved Oxygen (mg/L)	0.52	0.0	0.0	0.0	0.0	0.0	0.0		
ORP (mV)	-23	-18	-26	-32	-33	-35	-38		
Turbidity (NTU)	62.6	34.4	15.6	9.3	3.3	0.8	0.0		
Notes:									

Sampling Information

Analyses	#	n	Laboratory
8260C VOCs	3		TestAmerica
9060A TOC	2		
175 RSK methane	3		
Color: Clear			
Odor:			
Appearance:			
Sample ID: MW-18	Sample Time: 1525		
MS/MSD: Yes ☐	No ☒		
Duplicate: Yes ☐	No ☒		
Duplicate ID	Dup. Time:		
Chain of Custody Signed By:			

Problems / Observations

- tubing present in well, tubing left in well after sampling
- Purged slowly

Ashland Rensselaer — Site

Semiannual Sampling — Event

GROUNDWATER SAMPLING LOG

Sampling Personnel: CC
Well ID: MW-19
Client / Job Number: 30059651
Date: 4/15/21
Weather: SO rainy
Time In: 1705 **Time Out:** 1750

Well Information

Depth to Water:	3.22 (feet)	(from MP)
Total Depth:	17.18 (feet)	(from MP)
Length of Water Column:	(feet) 13.96	
Volume of Water in Well:	(gal) 9.12	
Intake depth for tubing:	(feet) 12'	

Well Type:	Flushmount	☒	Stick-Up	☐
Well Material:	Stainless Steel	☐	PVC	☒
Well Locked:	Yes	☐	No	☒
Measuring Point Marked:	Yes	☒	No	☐
Well Diameter:	1"	2"	Other:	4"

Purging Information

Purging Method:	Bailer	☐	Peristaltic	☒	Monsoon ☐	Other:
Tubing/Bailer Material:	Steel	☐	Polyethylene	☒	Teflon ☐	Other:
Sampling Method:	VOCs Bailer	☒	Peristaltic	☒	Monsoon ☐	Other:

Pump Start Time: 1705
Pump Stop Time: 1745
Water-Quality Meter Type: Horiba
Total Volume Removed: 4 (gal)
Did well go dry: Yes ☐ No ☒

Conversion Factors

gal / ft. of water	1" ID	2" ID	4" ID	6" ID
	0.041	0.163	0.653	1.469

1 gal = 3.785 L =3785 ml = 0.1337 cubic feet

Unit Stability

pH	DO / Turb	Cond. /Temp	ORP
∀ 0.1	∀ 10%	∀ 3.0%	∀ 10 mV

Parameter:	1	2	3	4	5	6	7	8	9
Time	1710	1715	1720	1725	1730	1735	1740		
Volume Purged (Gal)		~.75		~2.0			~4.0		
Rate (mL/min)	250	250	250	250	150	150	150		
Depth to Water (ft.)	3.53	3.95	4.11	4.33	4.50	4.50	4.50		
pH	7.00	6.97	6.94	7.00	7.09	7.08	7.08		
Temp. (C)	9.36	9.26	9.17	9.13	9.00	9.05	9.10		
Conductivity (mS/cm)	1.68	1.68	1.68	1.68	1.68	1.68	1.68		
Dissolved Oxygen (mg/L)	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
ORP (mV)	-129	-131	-131	-139	-143	-139	-138		
Turbidity (NTU)	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
Notes:									

Sampling Information

Analyses	#	n	Laboratory
8260C VOCs	3		TestAmerica
9060A TOC	2		"
175 RSK	3		"
Color: clear			
Odor: none			
Appearance: —			
Sample ID: MW-19	Sample Time: 1740		
MS/MSD: Yes ☐	No ☒		
Duplicate: Yes ☐	No ☒		
Duplicate ID	Dup. Time:		
Chain of Custody Signed By:			

Problems / Observations

Ashland Rensselaer — *Site*

Semiannual Sampling — *Event*

GROUNDWATER SAMPLING LOG

Sampling Personnel: PE
Client / Job Number: 30059651
Weather: 50 rainy

Well ID: MW-20
Date: 4/15/21
Time In: 1445 **Time Out:** 1545

Well Information

Depth to Water:	2.40 (feet)	(from MP)
Total Depth:	11.80 (feet)	(from MP)
Length of Water Column:	9.40 (feet)	
Volume of Water in Well:	1.53 (gal)	
Intake depth for tubing:	7 (feet)	

Well Type:	Flushmount ☒	Stick-Up ☐		
Well Material:	Stainless Steel ☐	PVC ☒		
Well Locked:	Yes ☒	No ☐		
Measuring Point Marked:	Yes ☒	No ☐		
Well Diameter:	1"	2"	Other:	

Purging Information

Purging Method:	Bailer ☒	Peristaltic ☐	Monsoon ☐	Other:		
Tubing/Bailer Material:	Steel ☐	Polyethylene ☒	Teflon ☐	Other:		
Sampling Method: VOCs	Bailer ☐	Peristaltic ☒	Monsoon ☐	Other:		
Pump Start Time: 1445						
Pump Stop Time: 1540	Water-Quality Meter Type: Horiba					
Total Volume Removed: 2 (gal)	2.40 gal.	Did well go dry: Yes ☐	No ☒			

Conversion Factors

gal / ft. of water	1" ID	2" ID	4" ID	6" ID
	0.041	0.163	0.653	1.469

1 gal = 3.785 L =3785 ml = 0.1337 cubic feet

Unit Stability

pH	DO / Turb	Cond. /Temp	ORP
∀ 0.1	∀ 10%	∀ 3.0%	∀ 10 mV

Parameter:	1	2	3	4	5	6	7	8	9
Time	1450	1455	1500	1505	1510	1515	1520	1525	1530
Volume Purged (Gal)			0.6	1.0	1.3	1.5	1.75	2.0	
Rate (mL/min)	200	200	220	220	220	220	220	220	220
Depth to Water (ft.)	2.40	2.40	2.40	2.40	2.40	2.40	2.40	2.40	2.41
pH	6.99	6.83	6.77	6.75	6.71	6.68	6.65	6.64	6.62
Temp. (C)	11.40	10.79	10.49	10.41	10.33	10.32	10.40	10.41	10.41
Conductivity (mS/cm)	0.935	0.937	0.946	0.950	0.954	0.95	0.932	0.950	0.950
Dissolved Oxygen (mg/L)	2.74	1.03	0.85	0.63	0.08	0.0	0.0	0.0	0.0
ORP (mV)	-6	-23	-32	-36	-37	-38	-39	-41	-41
Turbidity (NTU)	16.3	14.2	12.3	10.4	2.7	1.7	0.0	0.0	0.0
Notes:									

Sampling Information

Analyses	#	n	Laboratory
9060 ATOC	2		TestAmerica
8260 CVOCs	3		"
175 RSK SOP	3		"
Color: clear			
Odor: none			
Appearance: clear			
Sample ID: MW-20	Sample Time: 1535		
MS/MSD: Yes ☐	No ☒		
Duplicate: Yes ☐	No ☒		
Duplicate ID	Dup. Time:		
Chain of Custody Signed By:			

Problems / Observations

Tubing left in well.

Ashland Rensselaer — Site

Semiannual Sampling — Event

GROUNDWATER SAMPLING LOG

Sampling Personnel: Colby Chouinard
Well ID: MW-21
Client / Job Number: 30059651
Date: 4-15-21
Weather: 50 cloudy
Time In: 1030 Time Out: 1120

Well Information

Depth to Water:	10.95 (feet)	(from MP)
Total Depth:	15.05 (feet)	(from MP)
Length of Water Column:	(feet) 4.8	
Volume of Water in Well:	(gal) 0.78	
Intake depth for tubing:	(feet) 14'	

Well Type:	Flushmount ☐		Stick-Up ☒	
Well Material:	Stainless Steel ☐		PVC ☒	
Well Locked:	Yes ☒		No ☐	
Measuring Point Marked:	Yes ☒		No ☐	
Well Diameter:	1"	2"	Other:	

Purging Information

Purging Method:	Bailer ☐	Peristaltic ☒	Monsoon ☐	Other:		
Tubing/Bailer Material:	Steel ☐	Polyethylene ☒	Teflon ☐	Other:		
Sampling Method:	Bailer ☐	Peristaltic ☒	Monsoon ☐	Other: VOCs-bailer		
Pump Start Time:	1030					
Pump Stop Time:	1120	Water-Quality Meter Type:	horiba			
Total Volume Removed:	~1.5 (gal)	Did well go dry:	Yes ☐	No ☒		

Conversion Factors

gal / ft. of water	1" ID	2" ID	4" ID	6" ID
	0.041	0.163	0.653	1.469

1 gal = 3.785 L =3785 ml = 0.1337 cubic feet

Unit Stability

pH	DO / Turb	Cond. /Temp	ORP
∀ 0.1	∀ 10%	∀ 3.0%	∀ 10 mV

Parameter:	1	2	3	4	5	6	7	8	9
Time	1035	1040	1045	1050	1055	1100	1105		
Volume Purged (Gal)				~1 gal			~1.5 gal		
Rate (mL/min)	75	50	50	50	50	50	50		
Depth to Water (ft.)	10.95	11.15	11.50	12.00	12.33	12.51	12.78		
pH	7.13	7.00	6.99	6.97	6.94	6.94	6.95		
Temp. (C)	10.23	9.70	9.72	9.73	9.89	9.90	9.90		
Conductivity (mS/cm)	1.54	1.62	1.67	1.74	1.81	1.81	1.82		
Dissolved Oxygen (mg/L)	2.96	1.07	0.80	0.75	0.39	0.33	0.3		
ORP (mV)	4	15	20	26	30	30	31		
Turbidity (NTU)	10.3	4.4	3.8	1.0	0.3	0.3	0.2		
Notes:									

Sampling Information

Analyses	#	n	Laboratory
8260C VOCs	3		TestAmerica
9060A TOC	2		

Color: clear
Odor: none
Appearance:
Sample ID: MW-21 Sample Time: 1105
MS/MSD: Yes ☐ No ☒
Duplicate: Yes ☐ No ☒
Duplicate ID Dup. Time:
Chain of Custody Signed By:

Problems / Observations

- tubing present in well, tubing left in well after sampling
- Purged as slow as possible low well volume

Ashland Rensselaer — Site

Semiannual Sampling — Event

GROUNDWATER SAMPLING LOG

Sampling Personnel: Colby Churchill
Well ID: MW-23
Client / Job Number: 30059651
Date: 4-14-21
Weather: Sunny 70
Time In: 1330 **Time Out:** 1425

Well Information

Depth to Water:	7.89 (feet)	(from MP)
Total Depth:	30.25 (feet)	(from MP)
Length of Water Column:	22.36 (feet)	
Volume of Water in Well:	14.6 (gal)	
Intake depth for tubing:	27 (feet)	

Well Type:	Flushmount ☐		Stick-Up ☒	
Well Material:	Stainless Steel ☐		PVC ☒	
Well Locked:	Yes ☒		No ☐	
Measuring Point Marked:	Yes ☒		No ☐	
Well Diameter:	1"	2"	Other: (4")	

Purging Information

Purging Method:	Bailer ☐	Peristaltic ☒	Monsoon ☐	Other:			
Tubing/Bailer Material:	Steel ☐	Polyethylene ☒	Teflon ☐	Other:			
Sampling Method:	Bailer ☐	Peristaltic ☒	Monsoon ☐	Other: (VOCs - bailer)			

Pump Start Time: 1330
Pump Stop Time: 1425
Water-Quality Meter Type: horiba
Total Volume Removed: 4.5 (gal)
Did well go dry: Yes ☐ No ☒

Conversion Factors

gal / ft. of water	1" ID	2" ID	4" ID	6" ID
	0.041	0.163	0.653	1.469

1 gal = 3.785 L = 3785 ml = 0.1337 cubic feet

Unit Stability

pH	DO / Turb	Cond. /Temp	ORP
∀ 0.1	∀ 10%	∀ 3.0%	∀ 10 mV

Parameter:	1	2	3	4	5	6	7	8	9
Time	1335	1340	1345	1350	1355	1400	1405	1410	1415
Volume Purged (Gal)			~1.5gal		~2.5		~3.5		~4.5
Rate (mL/min)	200	200	160	160	125	125	125	125	125
Depth to Water (ft.)	8.85	9.97	10.63	11.28	11.76	12.20	12.50	12.60	12.60
pH	6.30	6.33	6.31	6.31	6.33	6.34	6.36	6.36	6.36
Temp. (C)	12.73	12.23	12.16	12.32	12.16	12.18	12.35	12.29	12.25
Conductivity (mS/cm)	1.55	1.55	1.53	1.54	1.54	1.54	1.55	1.55	1.55
Dissolved Oxygen (mg/L)	6.09	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ORP (mV)	-97	-111	-116	-122	-127	-132	-139	-140	-143
Turbidity (NTU)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Notes:	-Dup-01 taken here. time-1200								

Sampling Information

Analyses	#	n	Laboratory
VOCs EPA 8260	3		TestAmerica
TOC EPA 9060A	2		
Methane... RSK175	3		
Color:			
Odor: Strong Sulfur			
Appearance:			
Sample ID: MW-23	Sample Time: 1415		
MS/MSD: Yes ☐	No ☒		
Duplicate: Yes ☒	No ☐		
Duplicate ID Dup-01	Dup. Time: 1200		
Chain of Custody Signed By:			

Problems / Observations

- old tubing present in well, left in well after sampling

Ashland Rensselaer — *Site* | **Semiannual Sampling** — *Event*

GROUNDWATER SAMPLING LOG

Sampling Personnel: PE
Well ID: MW-24
Client / Job Number: 30059651
Date: 4/15/21
Weather: MS rainy.
Time In: 1600 **Time Out:** 1705

Well Information

Depth to Water:	7.19 (feet)	(from MP)
Total Depth:	25.74 (feet)	(from MP)
Length of Water Column:	(feet) 18.55	
Volume of Water in Well:	(gal) 12.1	
Intake depth for tubing:	20' (feet)	

Well Type:	Flushmount	☒	Stick-Up	☐	
Well Material:	Stainless Steel	☐	PVC	☒	
Well Locked:	Yes	☒	No	☐	
Measuring Point Marked:	Yes	☒	No	☐	
Well Diameter:	1"	2"	Other:	4"	

Purging Information

Purging Method:	Bailer	☐	Peristaltic	☒	Monsoon ☐	Other:
Tubing/Bailer Material:	Steel	☐	Polyethylene	☒	Teflon ☐	Other:
Sampling Method: VOCs	Bailer	☒	Peristaltic	☒	Monsoon ☐	Other:

Pump Start Time: 1605
Pump Stop Time: 1700
Water-Quality Meter Type: Horiba
Total Volume Removed: 2.25 (gal)
Did well go dry: Yes ☐ No ☒

Conversion Factors

gal / ft. of water	1" ID	2" ID	4" ID	6" ID
	0.041	0.163	0.653	1.469

1 gal = 3.785 L =3785 ml = 0.1337 cubic feet

Unit Stability

pH	DO / Turb	Cond. /Temp	ORP
∀ 0.1	∀ 10%	∀ 3.0%	∀ 10 mV

Parameter:	1	2	3	4	5	6	7	8	9
Time	1610	1615	1620	1625	1630	1635	1640	1645	1650
Volume Purged (Gal)			0.5			1.0			2.0
Rate (mL/min)	200	200	200	200	200	200	250	250	250
Depth to Water (ft.)	7.19		8.30	8.30	8.32	8.30	8.30	8.31	8.31
pH	Broke Instrument	5.55	5.38	5.32	5.30	5.28	5.26	5.25	5.25
Temp. (C)		11.97	12.24	12.28	12.09	12.11	12.11	12.12	12.10
Conductivity (mS/cm)		1.85	1.87	1.88	1.87	1.89	1.90	1.91	1.91
Dissolved Oxygen (mg/L)		0.27	0.0	0.0	0.16	0.0	0.0	0.0	0.0
ORP (mV)		34	26	19	13	11	7	4	3
Turbidity (NTU)		30.0	27.6	27.8	45.8	37.2	35.1	37.0	31.3
Notes:									

16 SAMPLE

Sampling Information

Analyses	#	n	Laboratory
8260C VOCs.	3		TestAmerica
9060A TOC	2		
RSK 175 SOP	3		
Color: Pink tint, clear			
Odor: Strong odor. -> methane.			
Appearance:			
Sample ID: MW-24	Sample Time: 1655		
MS/MSD: Yes ☐	No ☒		
Duplicate: Yes ☐	No ☒		
Duplicate ID	Dup. Time:		
Chain of Custody Signed By:			

Problems / Observations

Tubing left in well when finished.

Ashland Rensselaer — Site

Semiannual Sampling — Event

GROUNDWATER SAMPLING LOG

Sampling Personnel: PE
Well ID: MW-25
Client / Job Number: 30059651
Date: 4/15/21
Weather: 40 rainy.
Time In: 1715 **Time Out:** 1810

Well Information

Depth to Water:	5.40 (feet)	(from MP)
Total Depth:	20.49 (feet)	(from MP)
Length of Water Column:	(feet) 15.09	
Volume of Water in Well:	(gal) 2.5	
Intake depth for tubing:	15' (feet)	

Well Type:	Flushmount ☒	Stick-Up ☐		
Well Material:	Stainless Steel ☐	PVC ☒		
Well Locked:	Yes ☒	No ☐		
Measuring Point Marked:	Yes ☒	No ☐		
Well Diameter:	1"	2"	Other:	

Purging Information

Purging Method:	Bailer ☐	Peristaltic ☒	Monsoon ☐	Other:		
Tubing/Bailer Material:	Steel ☐	Polyethylene ☒	Teflon ☐	Other:		
Sampling Method: VOCs	Bailer ☒	Peristaltic ☒	Monsoon ☐	Other:		
Pump Start Time: 1720						
Pump Stop Time: 1805		Water-Quality Meter Type: Horiba				
Total Volume Removed: 2.6 (gal)		Did well go dry: Yes ☐	No ☒			

Conversion Factors				
gal / ft. of water	1" ID	2" ID	4" ID	6" ID
	0.041	0.163	0.653	1.469
1 gal = 3.785 L =3785 ml = 0.1337 cubic feet				

Unit Stability			
pH	DO / Turb	Cond. /Temp	ORP
∀ 0.1	∀ 10%	∀ 3.0%	∀ 10 mV

Parameter:	1	2	3	4	5	6	7	8	9
Time	1725	1730	1735	1740	1745	1750	1755 ~~1800~~	1800	
Volume Purged (Gal)		0.5			1.5			2.6	
Rate (mL/min)	300	250	250	250	250	250	250	250	
Depth to Water (ft.)	5.40	5.32	5.95	6.21	7.88	7.88	7.90	7.94	
pH	5.92	6.30	6.34	6.37	6.39	6.41	6.41	6.41	
Temp. (C)	11.05	10.97	10.94	10.98	10.89	10.90	10.90	10.93	
Conductivity (mS/cm)	1.99	2.02	2.02	2.01	2.01	2.01	2.00	2.00	
Dissolved Oxygen (mg/L)	0.73	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
ORP (mV)	-44	-80	-82	-85	-86	-88	-89	-90	
Turbidity (NTU)	5.5	5.0	5.2	5.2	4.4	5.4	5.3	4.9	
Notes:									

Sampling Information

Analyses	#	n	Laboratory
8260C VOCs	3		TestAmerica
9060A TOC	2		"
RSK 175 SOP	3		"
Color: Clear			
Odor: present.			
Appearance: ~~n/a~~ clear. black fines present.			
Sample ID: MW-25	Sample Time: 1800		
MS/MSD: Yes ☐	No ☒		
Duplicate: Yes ☐	No ☒		
Duplicate ID	Dup. Time:		
Chain of Custody Signed By:			

Problems / Observations

Water was pooling in ~~Excel~~ concrete pad under metal plate.
↳ removed to below casing prior to purging.
- fine black sediment/fines were present in purge water and samples

Site: Ashland Ren.

GROUNDWATER SAMPLING LOG

2H 2021

Event

Sampling Personnel: ES
Client / Job Number: 30053651
Weather: Cloudy 45°F

Well ID: IW-A2
Date: 11/22/21
Time In: 1340 Time Out: 1425

Well Information

Depth to Water:	(feet)	7.83	(from MP)
Total Depth:	(feet)	23.84	(from MP)
Length of Water Column:	(feet)	16.01	
Volume of Water in Well:	(gal)	2.72	
Intake depth for tubing	(feet)	~21	

Well Type	Flushmount ☐		Stick-Up ☒	
Well Material:	Stainless Steel ☒		PVC ☐	
Well Locked:	Yes ☒		No ☐	
Measuring Point Marked	Yes ☒		No ☐	
Well Diameter:	1"	(2")	Other:	

Purging Information

Purging Method:	Bailer ☐	Peristaltic ☒	Monsoon ☐	Other		
Tubing/Bailer Material:	Steel ☐	Polyethylene ☒	Teflon ☐	Other:		
Sampling Method:	Bailer ☒	Peristaltic ☒	Monsoon ☐	Other:		
Pump Start Time:	1340					
Pump Stop Time:	1425	Water-Quality Meter Type:	Horiba U52			
Total Volume Removed:	(gal) ~1.50	Did well go dry:	Yes ☐	No ☒		

Conversion Factors				
gal / ft. of water	1" ID	2" ID	4" ID	6" ID
	0.041	0.163	0.653	1.469
1 gal = 3.785 L = 3785 ml = 0.1337 cubic feet				

Unit Stability			
pH	DO / Turb	Cond. /Temp	ORP
∀ 0.1	∀ 10%	∀ 3.0%	∀ 10 mV

Parameter:	1	2	3	4	5	6	7	8	9
Time	1345	1350	1355	1400	1405	1410	1415		
Volume Purged (Gal)	0	0.25	0.50	0.75	1.00	1.25	1.50		
Rate (mL/min)	200	200	200	200	200	200	200		
Depth to Water (ft.)	7.83	9.87	10.54	11.66	12.55	13.65	14.21		
pH	6.84	6.83	6.82	6.80	6.78	6.76	6.75		
Temp. (C)	13.46	13.70	13.69	13.80	13.77	13.87	13.88		
Conductivity (mS/cm)	3.05	3.07	3.06	3.06	3.04	3.04	3.05		
Dissolved Oxygen (mg/L)	6.60	5.52	4.95	4.61	4.47	4.32	4.25		
ORP (mV)	-160	-167	-170	-170	-169	-169	-168		
Turbidity (NTU)	15.5	16.0	18.7	23.8	25.1	22.6	20.1		
Notes:									

Sampling Information

Analyses	#	n	Laboratory
VOCs	3		TA
TOCs	2		TA

Color: Yellow Tint
Odor: Slight odor
Appearance: Clear
Sample ID: IW-A2 Sample Time: 1420
MS/MSD: Yes ☐ No ☒
Duplicate: Yes ☐ No ☒
Duplicate ID: — Dup. Time: —
Chain of Custody Signed By: ES

Initial

Problems / Observations

Final: Yellow Tint, Slight odor, Clear

*VOCs sampled w/ Bailer

Site Ashland Rossel ger GROUNDWATER SAMPLING LOG

Sampling Personnel: K, K, MG
Client / Job Number: 30039411
Weather: Cloudy 44°F

Well ID: W-B3
Date: 11/22/21
Time In: 1130 Time Out: 1220

Well Information

Depth to Water: 2.01 (feet) (from MP)
Total Depth: 15.40 (feet) (from MP)
Length of Water Column: 13.39 (feet)
Volume of Water in Well: 2.14 (gal)
Intake depth for tubing: (feet) 13.4

Well Type	Flushmount ☐		Stick-Up ☑	
Well Material	Stainless Steel ☑		PVC ☐	
Well Locked	Yes ☐		No ☒	
Measuring Point Marked	Yes ☐		No ☒	
Well Diameter	1"	(2")	Other:	

Purging Information

Purging Method:	Bailer ☐	Peristaltic ✓	Monsoon ☐	Other			
Tubing/Bailer Material:	Steel ☐	Polyethylene ✓	Teflon ☐	Other:			
Sampling Method:	Bailer ☑	Peristaltic ☑	Monsoon ☐	Other:			

Pump Start Time: 1130
Pump Stop Time: 1220
Water-Quality Meter Type: Horiba
Total Volume Removed: 2.0 (gal)
Did well go dry: Yes ☐ No ☒

Conversion Factors				
gal / ft. of water	1" ID	2" ID	4" ID	6" ID
	0.041	0.163	0.653	1.469
1 gal = 3.785 L = 3785 ml = 0.1337 cubic feet				

Unit Stability			
pH	DO / Turb	Cond. /Temp	ORP
∀ 0.1	∀ 10%	∀ 3.0%	∀ 10 mV

Parameter:	1	2	3	4	5	6	7	8	9
Time	1135	1140	1145	1150	1155	1200	1205	1210	
Volume Purged (Gal)	0.26	0.52	0.78	1.04	1.3	1.56	1.82	2.08	
Rate (mL/min)	200	200	200	200	200	200	200	200	
Depth to Water (ft.)	2.31	2.32	2.32	2.33	2.33	2.35	2.35	2.35	
pH	6.50	6.50	6.51	6.49	6.52	6.51	6.51	6.51	
Temp. (C)	12.63	12.32	12.18	12.20	12.25	12.29	12.30	12.29	
Conductivity (mS/cm)	1.62	1.70	1.73	1.75	1.76	1.76	1.76	1.76	
Dissolved Oxygen (mg/L)	0.81	0.92	0.91	0.95	1.00	0.93	0.92	0.91	
ORP (mV)	-134	-158	-160	-159	-160	-159	-157	-157	
Turbidity (NTU)	15.2	15.8	18.4	19.6	20.2	21.1	21.1	21.0	
Notes:									

Sampling Information

Analyses	#	n	Laboratory
8260 VOC	3		Test America
9060 TOC	2		↓

FINAL
Color: red / orange
Odor: slight odor
Appearance:
Sample ID: MW-B3-112221 Sample Time: 1215
MS/MSD: Yes ☐ No ☒
Duplicate: Yes ☐ No ☒
Duplicate ID: — Dup. Time: —
Chain of Custody Signed By:

Problems / Observations

Initial: Slight red hue / Some Black suspended solids.

☑ VOCs sampled with Bailer

Site: Ashland Rossclaer

GROUNDWATER SAMPLING LOG

Sampling Personnel: Kirk Hayes
Client / Job Number: 300394
Weather: Sunny 31°F

Well ID: MW-A1
Date: 11/23/21
Time In: 0940 Time Out: 1025

Well Information

Depth to Water	(feet)	5.64 (from MP)
Total Depth	(feet)	22.40 (from MP)
Length of Water Column:	(feet)	16.76
Volume of Water in Well:	(gal)	2.68
Intake depth for tubing:	(feet)	16

Well Type	Flushmount	☐	Stick-Up	☑	
Well Material	Stainless Steel	☐	PVC	☑	
Well Locked	Yes	☐	No	☑	
Measuring Point Marked	Yes	☑	No	☐	
Well Diameter	1"	2"	Other:		

Purging Information

Purging Method:	Bailer	☐	Peristaltic	✓	Monsoon ☐	Other	
Tubing/Bailer Material:	Steel	☐	Polyethylene	✓	Teflon ☐	Other:	
Sampling Method:	Bailer	☑	Peristaltic	☑	Monsoon ☐	Other:	

Pump Start Time: 0940
Pump Stop Time: 1025
Water-Quality Meter Type: Horiba
Total Volume Removed: (gal) 1.50
Did well go dry: Yes ☐ No ☒

Conversion Factors				
gal / ft. of water	1" ID	2" ID	4" ID	6" ID
	0.041	0.163	0.653	1.469
1 gal = 3.785 L = 3785 ml = 0.1337 cubic feet				

Unit Stability			
pH	DO / Turb	Cond. /Temp	ORP
∀ 0.1	∀ 10%	∀ 3.0%	∀ 10 mV

Parameter:	1	2	3	4	5	6	7	8	9
Time	0945	0950	0955	1000	1005	1010	1015		
Volume Purged (Gal)	0	0.25	0.50	0.75	1.00	1.25	1.50		
Rate (mL/min)	200	200	200	200	200	200	200		
Depth to Water (ft.)	5.98	6.04	6.12	6.18	6.21	6.22	6.22		
pH	6.61	6.45	6.48	6.47	6.46	6.46	6.46		
Temp (C)	10.93	11.71	12.37	12.34	12.32	12.30	12.31		
Conductivity (mS/cm)	1.76	1.79	1.80	1.79	1.79	1.79	1.79		
Dissolved Oxygen (mg/L)	2.44	0.69	0.57	0.53	0.53	0.53	0.53		
ORP (mV)	-42	-60	-66	-69	-68	-68	-68		
Turbidity (NTU)	15.4	20.2	21.1	12.4	11.9	11.7	11.7		
Notes:									

Sampling Information

Analyses	#	n	Laboratory
VOCs 8260	3		Test America
9060 TOC	2		↓
RSK 175	3		↓

Final –
Color: Clear
Odor: No odor present
Appearance:
Sample ID: MW-A1-112321 Sample Time: 1020
MS/MSD: Yes ☑ No ☐
Duplicate: Yes ☐ No ☑
Duplicate ID: MS/MSD Dup. Time: 1020
Chain of Custody Signed By:

Problems / Observations

Initial: Clear, No Odor, No Color

☑ VOCs Sampled with Bailer

Site: Ashland Lawsclaret

Event:

GROUNDWATER SAMPLING LOG

Sampling Personnel: KirKvan

Well ID: MW-B1

Client / Job Number: 30039411

Date: 11/22/21

Weather: Cloudy 44°F

Time In: 1235 Time Out: 1325

Well Information

Depth to Water:	(feet)	5.36	(from MP)
Total Depth:	(feet)	21.56	(from MP)
Length of Water Column:	(feet)	16.2	
Volume of Water in Well:	(gal)	2.59	
Intake depth for tubing:	(feet)	18	

Well Type	Flushmount ☐		Stick-Up ☑		
Well Material	Stainless Steel ☐		PVC ☑		
Well Locked	Yes ☐		No ☑		
Measuring Point Marked	Yes ☑		No ☐		
Well Diameter	1"	(2")	Other:		

Purging Information

Purging Method:	Bailer ☐	Penstaltic ☑	Monsoon ☐	Other		
Tubing/Bailer Material:	Steel ☐	Polyethylene ☑	Teflon ☐	Other:		
Sampling Method:	Bailer ☑	Per staltic ☑	Monsoon ☐	Other:		
Pump Start Time:	1235					
Pump Stop Time:	1325	Water-Quality Meter Type:	Horiba			
Total Volume Removed:	(gal)	Did well go dry:	Yes ☐	No ☐		

Conversion Factors

gal / ft of water	1" ID	2" ID	4" ID	6" ID
	0.041	0.163	0.653	1.469

1 gal = 3.785 L = 3785 ml = 0.1337 cubic feet

Unit Stability

pH	DO / Turb	Cond. /Temp	ORP
∀ 0.1	∀ 10%	∀ 3.0%	∀ 10 mV

Parameter:	1	2	3	4	5	6	7	8	9
Time	1240	1245	1250	1255	1300	1305	1310	1315	
Volume Purged (Gal)	0.26	0.52	0.78	1.04	1.30	1.56	1.82	2.08	
Rate (mL/min)	200	200	200	200	200	200	200	200	
Depth to Water (ft.)	6.22	6.71	7.21	7.74	7.78	7.80	7.82	7.82	
pH	6.72	6.69	6.69	6.68	6.66	6.65	6.63	6.63	
Temp. (C)	13.18	13.17	13.40	13.59	13.40	13.42	13.44	13.45	
Conductivity (mS/cm)	2.12	2.12	2.12	2.12	2.13	2.13	2.13	2.13	
Dissolved Oxygen (mg/L)	2.17	1.23	0.82	0.68	0.67	0.66	0.60	0.60	
ORP (mV)	-72	-82	-88	-93	-95	-97	-98	-98	
Turbidity (NTU)	15.5	12.5	12.5	9.8	8.5	8.0	8.2	8.1	
Notes:									

Sampling Information

Analyses	#	n	Laboratory
8260 VOC	3		Test America
9060 TOC	2		↓
RSK 175	3		↓

Final-

Color:	Slight Red tint.
Odor:	None
Appearance:	Black Suspended Solids
Sample ID:	MW-B1-112221 Sample Time: 1320
MS/MSD:	Yes ☐ No ☑
Duplicate:	Yes ☐ No ☑
Duplicate ID	— Dup. Time: —
Chain of Custody Signed By:	

Problems / Observations

Initial- Clear, No odor, No Color
Small Black suspended particles.

☑ VOCs Sampled w/Bailer

Site: Ashland Rev.

GROUNDWATER SAMPLING LOG

2H 2021

Sampling Personnel: ES
Client / Job Number: 30053651
Weather: Cloudy 76°F

Well ID: MW-13
Date: 11/22/21
Time In: 1040 Time Out: 1130

Well Information

Depth to Water:	(feet)	22.15	(from MP)
Total Depth:	(feet)	2.37	(from MP)
Length of Water Column:	(feet)	19.78	
Volume of Water in Well	(gal)	3.36	
Intake depth for tubing:	(feet)	~18'	

Well Type:	Flushmount ☐	Stick-Up ☒		
Well Material	Stainless Steel ☒	PVC ☐		
Well Locked	Yes ☒	No ☐		
Measuring Point Marked	Yes ☒	No ☐		
Well Diameter	(2")	Other:		

Purging Information

Purging Method:	Bailer ☐	Peristaltic X				
Tubing/Bailer Material:	Steel ☐	Polyethylene X		Other		
Sampling Method:	Bailer ☒	Peristaltic X	Monsoon ☐	Other: ~~Bailer~~		
Pump Start Time:	1045					
Pump Stop Time:	1130	Water-Quality Meter Type:	Horiba U52			
Total Volume Removed:	(gal) ~2.0	Did well go dry:	Yes ☐	No ☒		

Conversion Factors

gal / ft of water	1" ID	2" ID	4" ID	6" ID
	0.041	0.163	0.653	1.469

1 gal = 3.785 L = 3785 ml = 0.1337 cubic feet

Unit Stability

pH	DO / Turb	Cond. /Temp	ORP
∀ 0.1	∀ 10%	∀ 3.0%	∀ 10 mV

Parameter:	1	2	3	4	5	6	7	8	9
Time	1050	1055	1100	1105	1110	1115	1120		
Volume Purged (Gal)	0	0.33	0.66	1.00	1.33	1.66	2.00		
Rate (mL/min)	250	250	250	250	250	250	250		
Depth to Water (ft.)	3.68	4.45	5.37	6.12	6.72	7.27	7.92		
pH	7.13	7.35	7.45	7.44	7.43	7.39	7.35		
Temp (C)	12.98	12.96	12.94	13.00	12.90	12.98	13.01		
Conductivity (mS/cm)	0.735	0.718	0.715	0.719	0.725	0.731	0.733		
Dissolved Oxygen (mg/L)	7.58	6.73	6.57	6.45	6.22	6.06	5.97		
ORP (mV)	230	217	208	204	200	195	191		
Turbidity (NTU)	1.1	0.7	1.0	1.1	0.8	1.5	1.2		
Notes:									

Sampling Information

Analyses	#	n	Laboratory
VOCs	3		TA
TOCs	2		TA

Color: ~~Clear~~ None
Odor: None
Appearance: Clear
Sample ID MW-13 Sample Time: 1125
MS/MSD: Yes ☐ No ☒
Duplicate: Yes ☐ No ☒
Duplicate ID — Dup. Time: —
Chain of Custody Signed By: ES

Initial

Problems / Observations

Final: No Color, No odor, clear

* VOCs sampled w/ Bailer

Site: Ashland Res. | Event: ZH 2021

GROUNDWATER SAMPLING LOG

Sampling Personnel: ES
Client / Job Number: 300536.51
Weather: Cloudy 45°F
Well ID: MW-15
Date: 11/22/21
Time In: 1435 Time Out 1520

Well Information

Depth to Water:	(feet)	1.59	(from MP)
Total Depth:	(feet)	14.98	(from MP)
Length of Water Column:	(feet)	13.39	
Volume of Water in Well:	(gal)	2.27	
Intake depth for tubing:	(feet)	~13	

Well Type:	Flushmount	☒	Stick-Up	☐
Well Material:	Stainless Steel	☐	PVC	☒
Well Locked:	Yes	☒	No	☐
Measuring Point Marked	Yes	☒	No	☐
Well Diameter:	(2")		Other:	

Purging Information

Purging Method:	Bailer	☐	Peristaltic	☒	Other:	
Tubing/Bailer Material:	Steel	☐	Polyethylene	☒	Other:	
Sampling Method:	Bailer	☒	Peristaltic	☒	Monsoon ☐	Other:

Pump Start Time: 1435
Pump Stop Time: 1520
Water-Quality Meter Type: Horiba U52
Total Volume Removed: (gal) ~1.50
Did well go dry: Yes ☐ No ☒

Conversion Factors				
gal / ft. of water	1" ID	2" ID	4" ID	6" ID
	0.041	0.163	0.653	1.469
1 gal = 3.785 L = 3785 ml = 0.1337 cubic feet				

Unit Stability			
pH	DO / Turb	Cond. /Temp	ORP
∀ 0.1	∀ 10%	∀ 3.0%	∀ 10 mV

Parameter:	1	2	3	4	5	6	7	8	9
Time	1440	1445	1450	1455	1500	1505	1510		
Volume Purged (Gal)	0	0.25	0.50	0.75	1.00	1.25	1.50		
Rate (mL/min)	200	200	200	200	200	200	200		
Depth to Water (ft.)	2.45	2.47	2.50	2.52	2.54	2.55	2.56		
pH	6.93	6.93	6.93	6.93	6.93	6.93	6.93		
Temp. (C)	14.22	14.20	14.21	14.19	14.19	14.18	14.24		
Conductivity (mS/cm)	1.22	1.22	1.21	1.21	1.21	1.21	1.21		
Dissolved Oxygen (mg/L)	5.04	4.51	4.30	4.13	4.04	3.97	3.92		
ORP (mV)	-99	-105	-108	-112	-113	-115	-116		
Turbidity (NTU)	11.1	14.8	12.8	15.6	12.3	11.5	9.1		
Notes:									

Sampling Information

Analyses	#	n	Laboratory
VOCs	3		TA
RSK	3		TA

Color: None
Odor: None
Appearance: Clear
Sample ID: MW-15 Sample Time:
MS/MSD: Yes ☐ No ☒
Duplicate: Yes ☐ No ☒
Duplicate ID — Dup. Time: —
Chain of Custody Signed By: ES

Initial

Problems / Observations

Final: No Color, No Odor, Clear

* VOCs ~~after~~ sampled w/ Bailer

Site: Ashland Rev. | Event: ZH 2021

GROUNDWATER SAMPLING LOG

Sampling Personnel: ES
Client / Job Number: 300 53651
Weather: Cloudy 45°F

Well ID: MW-17
Date: 11/22/21
Time In: 1225 Time Out: 1315

Well Information

Depth to Water:	(feet)	6.01	(from MP)
Total Depth:	(feet)	17.77	(from MP)
Length of Water Column:	(feet)	11.76	
Volume of Water in Well:	(gal)	1.99	
Intake depth for tubing:	(feet)	~14'	

Well Type:	Flushmount ☒	Stick-Up ☐		
Well Material:	Stainless Steel ☐	PVC ☒		
Well Locked:	Yes ☒	No ☐		
Measuring Point Marked	Yes ☒	No ☐		
Well Diameter:	(2")	Other:		

Purging Information

Purging Method:	Bailer ☐	Peristaltic ☒	Monsoon ☐	Other			
Tubing/Bailer Material:	Steel ☐	Polyethylene ☒	Teflon ☐	Other:			
Sampling Method:	Bailer ☒	Peristaltic ☒	Monsoon ☐	Other:			

Pump Start Time: 1225
Pump Stop Time: 1315
Water-Quality Meter Type: Horiba U52
Total Volume Removed: (gal) ~2.0
Did well go dry: Yes ☐ No ☒

Conversion Factors

gal / ft. of water	1" ID	2" ID	4" ID	6" ID
	0.041	0.163	0.653	1.469

1 gal = 3.785 L = 3785 ml = 0.1337 cubic feet

Unit Stability

pH	DO / Turb	Cond. /Temp	ORP
∀ 0.1	∀ 10%	∀ 3.0%	∀ 10 mV

Parameter:	1	2	3	4	5	6	7	8	9
Time	1235	1240	1245	1250	1255	1300	1305		
Volume Purged (Gal)	0	0.33	0.66	1.00	1.33	1.66	2.00		
Rate (mL/min)	250	250	250	250	250	250	250		
Depth to Water (ft.)	6.01	7.65	7.98	8.08	8.35	8.71	8.98		
pH	7.08	7.00	6.95	6.93	6.93	6.93	6.93		
Temp. (C)	15.28	16.57	16.41	16.43	16.47	16.51	16.49		
Conductivity (mS/cm)	2.17 ~~1.28~~	1.88	1.67	1.55	1.59	1.57	1.54		
Dissolved Oxygen (mg/L)	7.50	4.84	4.54	4.31	4.18	4.03	3.91		
ORP (mV)	-128	-132	-130	-130	-133	-132	-132		
Turbidity (NTU)	122	46.3	29.1	21.3	20.3	17.2	14.1		
Notes:									

Sampling Information

Analyses	#	n	Laboratory
VOCs	3		TA
TOCs	2		TA

Color: None
Odor: None
Appearance: Cloudy
Sample ID: MW-17 Sample Time: 1310
MS/MSD: Yes ☐ No ☒
Duplicate: Yes ☐ No ☒
Duplicate ID: — Dup. Time: —
Chain of Custody Signed By: ES

Initial

Problems / Observations

Final: No Color, No Odor, Clear

* VOCs sampled w/ Bailer

Site: Ashland Reservoir — Event:

GROUNDWATER SAMPLING LOG

Sampling Personnel: Kirk Vargo
Client / Job Number: 300 39411
Weather: Sunny 31°F

Well ID: MW-19
Date: 11/23/21
Time In: 0815 Time Out:

Well Information

Depth to Water:	(feet)	2.62	(from MP)
Total Depth:	(feet)	17.47	(from MP)
Length of Water Column:	(feet)	14.85	
Volume of Water in Well:	(gal)	9.65	
Intake depth for tubing:	(feet)	14	

Well Type:	Flushmount ☑		Stick-Up ☐	
Well Material:	Stainless Steel ☐		PVC ☑	
Well Locked:	Yes ☐		No ☑	
Measuring Point Marked:	Yes ☐		No ☐	
Well Diameter:	1"	2"	Other: 4"	

Purging Information

Purging Method:	Bailer ☐	Peristaltic ☑	Monsoon	Other			
Tubing/Bailer Material:	Steel ☐	Polyethylene ✓	Teflon ☐	Other:			
Sampling Method:	Bailer ☑	Peristaltic ☑	Monsoon ☐	Other:			

Pump Start Time: 0815
Pump Stop Time: 0900
Water-Quality Meter Type: Horiba
Total Volume Removed: (gal) 2.00
Did well go dry: Yes ☐ No ☑

Conversion Factors

gal / ft of water	1" ID	2" ID	4" ID	6" ID
	0.041	0.163	0.653	1.469

1 gal = 3.785 L = 3785 ml = 0.1337 cubic feet

Unit Stability

pH	DO / Turb	Cond /Temp	ORP
∀ 0.1	∀ 10%	∀ 3.0%	∀ 10 mV

Parameter:	1	2	3	4	5	6	7	8	9
Time	0820	0825	0830	0835	0840	0845	0850	0855	0900
Volume Purged (Gal)	0.26	0.52	0.50	0.75	1.00	1.25	1.50	1.75	2.00
Rate (mL/min)	200	200	200	200	200	200	200	200	200
Depth to Water (ft.)	2.77	2.80	2.90	3.02	3.06	3.08	3.11	3.12	3.12
pH	5.58	6.36	6.51	6.61	6.64	6.65	6.67	6.70	6.70
Temp. (C)	10.92	10.13	11.40	11.93	11.74	11.70	11.75	11.78	11.79
Conductivity (mS/cm)	1.58	1.40	1.49	1.49	1.49	1.49	1.50	1.50	1.50
Dissolved Oxygen (mg/L)	1.52	0.82	0.70	0.63	0.61	0.61	0.65	0.60	0.60
ORP (mV)	42	-94	-104	-103	-99	-99	-98	-98	-98
Turbidity (NTU)	29.9	29.6	25.6	22.9	20.9	21.2	21.6	21.2	21.2
Notes:									

Sampling Information

Analyses	#	n	Laboratory
VOCs 8260	3		Test America
RSK 175	3		↓
9060 TOC	2		↓

Field —
Color: None
Odor: No odor
Appearance: Clear with some black particles
Sample ID: MW-19-112321 Sample Time: 0905
MS/MSD: Yes ☐ No ☑
Duplicate: Yes ☑ No ☐
Duplicate ID: Dup-1-112321 Dup. Time: 0850
Chain of Custody Signed By:

Problems / Observations

Initial: Clear, no odor, no color

☑ VOCs sampled with Bailer

Site: Ashland Ren.

GROUNDWATER SAMPLING LOG

Event: ZH 2021

Sampling Personnel: ES
Client / Job Number: 30053651
Weather: Sunny 30°C

Well ID: MW-20
Date: 11/23/21
Time In: 0815 Time Out. 0900

Well Information

Depth to Water:	(feet)	1.78	(from MP)
Total Depth:	(feet)	11.99	(from MP)
Length of Water Column:	(feet)	10.21	
Volume of Water in Well:	(gal)	1.73	
Intake depth for tubing:	(feet)	~10	

Well Type:	Flushmount ☒	Stick-Up ☐		
Well Material:	Stainless Steel ☐	PVC ☒		
Well Locked:	Yes ☒	No ☐		
Measuring Point Marked	Yes ☒	No ☐		
Well Diameter	1 ☒	Other:		

Purging Information

Purging Method:	Bailer ☐	Peristaltic ☒	Monsoon ☐	Other		
Tubing/Bailer Material:	Steel ☐	Polyethylene ☒	Teflon ☐	Other:		
Sampling Method:	Bailer ☒	Peristaltic ☒	Monsoon ☐	Other:		

Pump Start Time: 0815
Pump Stop Time: 0900
Water-Quality Meter Type: Horiba U52
Total Volume Removed: (gal) ~1.50
Did well go dry: Yes ☐ No ☒

Conversion Factors				
gal / ft. of water	1" ID	2" ID	4" ID	6" ID
	0.041	0.163	0.653	1.469
1 gal = 3.785 L = 3785 ml = 0.1337 cubic feet				

Unit Stability			
pH	DO / Turb	Cond. /Temp	ORP
∀ 0.1	∀ 10%	∀ 3.0%	∀ 10 mV

Parameter:	1	2	3	4	5	6	7	8	9
Time	0820	0825	0830	0835	0840	0845	0850		
Volume Purged (Gal)	0	0.25	0.5	0.75	1.00	1.25	1.50		
Rate (mL/min)	200	200	200	200	200	200	200		
Depth to Water (ft.)	1.78	1.89	1.89	1.89	1.89	1.89	1.89		
pH	6.64	6.82	6.85	6.87	6.88	6.88	6.88		
Temp. (C)	11.65	12.67	12.73	12.52	12.25	12.13	12.21		
Conductivity (mS/cm)	0.959	0.932	0.932	0.947	0.963	0.966	0.970		
Dissolved Oxygen (mg/L)	8.54	7.33	6.76	6.34	6.04	5.80	5.73		
ORP (mV)	12	-27	-35	-39	-45	-47	-48		
Turbidity (NTU)	17.1	17.8	18.4	13.8	8.3	3.4	2.9		
Notes:									

Sampling Information

Analyses	#	n	Laboratory
VOCs	3		TA
TOCs	2		↓
RSK	3		↓

Color: None
Odor: None
Appearance: Clear
Sample ID: MW-20 Sample Time: 0855
MS/MSD: Yes ☐ No ☒
Duplicate: Yes ☐ No ☒
Duplicate ID — Dup. Time: —
Chain of Custody Signed By: ES

Initial

Problems / Observations

Final: No Color, No Odor, clear

* VOCs sampled w/ Bailer

Site: Ashland Res.

GROUNDWATER SAMPLING LOG

2 14 2021

Sampling Personnel: ES
Client / Job Number: 300 53651
Weather: Cloudy 45°F

Well ID: MW-21
Date: 11/22/21
Time In: 1140 Time Out 1225

Well Information

Depth to Water:	(feet)	~~14.90~~ 9.93	(from MP)
Total Depth:	(feet)	~~9.~~ 14.90	(from MP)
Length of Water Column:	(feet)	4.97	
Volume of Water in Well:	(gal)	0.84	
Intake depth for tubing:	(feet)	~13'	

Well Type:	Flushmount ☐		Stick-Up ☒		
Well Material:	Stainless Steel ☐		PVC ☒		
Well Locked:	Yes ☒		No ☐		
Measuring Point Marked	Yes ☒		No ☐		
Well Diameter	1"	(2)	Other:		

Purging Information

Purging Method:	Bailer ☐	Peristaltic ☒	Monsoon ☐	Other			
Tubing/Bailer Material:	Steel ☐	Polyethylene ☒	Teflon ☐	Other:			
Sampling Method:	Bailer ☒	Peristaltic ☒	Monsoon ☐	Other:			

Pump Start Time: 1140
Pump Stop Time: 1225
Water-Quality Meter Type: Horiba U52
Total Volume Removed: (gal) ~1.20
Did well go dry: Yes ☐ No ☒

Conversion Factors

gal / ft. of water	1" ID	2" ID	4" ID	6" ID
	0.041	0.163	0.653	1.469

1 gal = 3.785 L = 3785 ml = 0.1337 cubic feet

Unit Stability

pH	DO / Turb	Cond. /Temp	ORP
∀ 0.1	∀ 10%	∀ 3.0%	∀ 10 mV

Parameter:	1	2	3	4	5	6	7	8	9
Time	1145	1150	1155	1200	1205	1210	1215		
Volume Purged (Gal)	0	0.20	0.40	0.60	0.80	1.00	1.20		
Rate (mL/min)	150	150	150	150	150	150	150		
Depth to Water (ft.)	9.93	10.47	10.74	10.97	11.24	11.52	11.74		
pH	6.81	6.79	6.79	6.79	6.78	6.76	6.76		
Temp. (C)	13.67	13.80	13.95	13.95	13.96	13.96	13.96		
Conductivity (mS/cm)	1.96	1.81	1.63	1.59	1.59	1.61	1.63		
Dissolved Oxygen (mg/L)	7.26	6.76	6.55	6.24	5.86	5.59	5.37		
ORP (mV)	-90	-53	-14	-21	-58	-63	-66		
Turbidity (NTU)	51.8	27.4	26.3	12.2	8.5	6.4	5.3		
Notes:									

Sampling Information

Analyses	#	n	Laboratory
VOCs	3		TA
TOCs	2		TA

Color: None (Initial)
Odor: None
Appearance: Clear
Sample ID: MW-21 Sample Time: 1220
MS/MSD: Yes ☐ No ☒
Duplicate: Yes ☐ No ☒
Duplicate ID — Dup. Time: —
Chain of Custody Signed By: ES

Problems / Observations

Final: No Color, No Odor, Clear

VOCs sampled w/ Bailer

Site: Ashland Wasserlauf — Event:

GROUNDWATER SAMPLING LOG

Sampling Personnel: Kirk Vargo — Well ID: MW-23
Client / Job Number: 30039411 — Date: 11/22/21
Weather: Cloudy 44°F — Time In: 1035 — Time Out: 1135

Well Information

Depth to Water	(feet)	7.30	(from MP)
Total Depth	(feet)	30.47	(from MP)
Length of Water Column	(feet)	23.4	
Volume of Water In Well	(gal)	15.21	
Intake depth for tubing	(feet)	~ 28	

Well Type:	Flushmount ☐	Stick-Up ☑		
Well Material:	Stainless Steel ☐	PVC ☑		
Well Locked:	Yes ☑	No ☐		
Measuring Point Marked	Yes ☑	No ☐		
Well Diameter	1"	2"	Other: 4"	

Purging Information

Purging Method	Bailer ☐	Peristaltic ☑	Monsoon ☐	Other			
Tubing/Bailer Material:	Steel ☐	Polyethylene ☑	Teflon ☐	Other:			
Sampling Method:	Bailer ☑	Penstaltic ☑	Monsoon ☐	Other:			

Pump Start Time: 1040
Pump Stop Time: 1125
Water-Quality Meter Type: Horiba
Total Volume Removed: 1.82 (gal)
Did well go dry: Yes ☐ No ☒

Conversion Factors				
gal / ft of water	1" ID	2" ID	4" ID	6" ID
	0.041	0.163	0.653	1.469
1 gal = 3.785 L = 3785 ml = 0.1337 cubic feet				

Unit Stability			
pH	DO / Turb	Cond. /Temp	ORP
∀ 0.1	∀ 10%	∀ 3.0%	∀ 10 mV

Parameter:	1	2	3	4	5	6	7	8	9
Time	1045	1050	1055	1100	1105	1110	1115		
Volume Purged (Gal)	0.26	0.52	0.78	1.04	1.3	1.56	1.82		
Rate (mL/min)	200	200	200	200	200	200	200		
Depth to Water (ft)	7.52	7.72	8.07	8.37	8.40	8.42	8.44		
pH	6.07	6.28	6.39	6.43	6.44	6.45	6.46		
Temp. (C)	13.64	13.69	13.81	13.81	13.85	13.87	13.86		
Conductivity (mS/cm)	1.61	1.60	1.60	1.60	1.59	1.59	1.59		
Dissolved Oxygen (mg/L)	1.69	1.07	0.87	0.79	0.76	0.75	0.75		
ORP (mV)	-41	-71	-83	-86	-88	-88	-88		
Turbidity (NTU)	13.0	10.6	12.5	11.6	11.0	11.0	11.2		
Notes:									

Sampling Information

Analyses	#	n	Laboratory
8260 VOC	3		TestAmerica
9060 TOC	2		↓
RSK175	3		↓
Color: Slight Red tint			
Odor: Slight odor Present			
Appearance: Suspended Black Particles			
Sample ID: MW-23-112221	Sample Time: 1120		
MS/MSD: Yes ☐	No ☒		
Duplicate: Yes ☐	No ☒		
Duplicate ID: ——	Dup. Time: ——		
Chain of Custody Signed By:			

FINAL –

Problems / Observations

INitial: Clear, No odor, No Color.

☑ VOC sampled with Bailer

Site: Ashland Rensselaer

Event:

GROUNDWATER SAMPLING LOG

Sampling Personnel: Kirk Vargo
Well ID: MW-24
Client / Job Number:
Date: 11/22/21
Weather: Cloudy 44° F
Time In: 1345 Time Out 1440

Well Information

Depth to Water:	(feet)	6.66	(from MP)
Total Depth:	(feet)	25.88	(from MP)
Length of Water Column:	(feet)	19.22	
Volume of Water in Well:	(gal)	12.49	
Intake depth for tubing:	(feet)	24	

Well Type:	Flushmount	☑	Stick-Up	☐	
Well Material:	Stainless Steel	☐	PVC	☑	
Well Locked:	Yes	☐	No	☑	
Measuring Point Marked	Yes	☑	No	☐	
Well Diameter:	1"	2"	Other:	4"	

Purging Information

Purging Method:	Bailer	☐	Peristaltic	☑	Monsoon	☐	Other
Tubing/Bailer Material:	Steel	☐	Polyethylene	☑	Teflon	☐	Other:
Sampling Method:	Bailer	☑	Peristaltic	☑	Monsoon	☐	Other:

Pump Start Time: 1345
Pump Stop Time: 1440
Water-Quality Meter Type: Horiba
Total Volume Removed: (gal) 2.34
Did well go dry: Yes ☐ No ☑

Conversion Factors

gal / ft. of water	1" ID	2" ID	4" ID	6" ID
	0.041	0.163	0.653	1.469

1 gal = 3.785 L = 3785 ml = 0.1337 cubic feet

Unit Stability

pH	DO / Turb	Cond. /Temp	ORP
∀ 0.1	∀ 10%	∀ 3.0%	∀ 10 mV

Parameter:	1	2	3	4	5	6	7	8	9
Time	1350	1355	1400	1405	1410	1415	1420	1425	1430
Volume Purged (Gal)	0.26	0.52	0.78	1.04	1.3	1.56	1.82	2.08	2.34
Rate (mL/min)	200	200	200	200	200	200	200	200	200
Depth to Water (ft.)	6.92	7.19	7.31	7.88	7.90	7.94	7.98	8.00	8.00
pH	6.56	6.58	6.56	6.55	6.55	6.56	6.57	6.58	6.58
Temp. (C)	15.15	15.32	15.45	15.68	15.70	15.73	15.76	15.77	15.78
Conductivity (mS/cm)	2.61	2.65	2.65	2.66	2.66	2.65	2.65	2.65	2.65
Dissolved Oxygen (mg/L)	1.31	0.76	0.67	0.60	0.60	0.60	0.66	0.62	0.62
ORP (mV)	-76	-93	-101	-104	-105	-107	-110	-111	-111
Turbidity (NTU)	71.0	67.7	67.9	60.5	69.7	69.0	69.0	69.2	69.0
Notes:									

Sampling Information

Analyses	#	n	Laboratory
VOCs 8260	3		Test America
9060 TOC	2		↓
RSK 175	3		↓

Color: No Color
Odor: Slight odor
Appearance: Clear, Black suspended particles
Sample ID: MW-24-112221 Sample Time: 1435
MS/MSD: Yes ☐ No ☑
Duplicate: Yes ☐ No ☑
Duplicate ID — Dup. Time: —
Chain of Custody Signed By:

Problems / Observations

Initial: Clear, no odor, No Color

☑ VOCs taken with Bailer

Site: Ashland Ref. | **GROUNDWATER SAMPLING LOG** | Event: 2H 2021

Sampling Personnel: ES
Client / Job Number: 30053651
Weather: Sunny 31°F
Well ID: MW-25
Date: 11/23/21
Time In: 0910 Time Out: 1010

Well Information

Depth to Water:	(feet)	2.68	(from MP)
Total Depth:	(feet)	20.91	(from MP)
Length of Water Column:	(feet)	18.23	
Volume of Water in Well:	(gal)	3.09	
Intake depth for tubing:	(feet)	~19'	

Well Type:	Flushmount	X	Stick Up		
Well Material:	Stainless Steel		PVC	X	
Well Locked:	Yes	X	No		
Measuring Point Marked:	Yes	X	No		
Well Diameter:	1	(2)	Other:		

Purging Information

Purging Method:	Bailer		Peristaltic	X	Monsoon		Other:
Tubing/Bailer Material:	Steel		Polyethylene	X	Teflon		Other:
Sampling Method:	Bailer	X	Peristaltic	X	Monsoon		Other:

Pump Start Time: 0925
Pump Stop Time: 1010
Water-Quality Meter Type: Horiba U52
Total Volume Removed: (gal) ~2.0
Did well go dry: Yes ☐ No ☒

Conversion Factors

gal / ft. of water	1" ID	2" ID	4" ID	6" ID
	0.041	0.163	0.653	1.469

1 gal = 3.785 L = 3785 ml = 0.1337 cubic feet

Unit Stability

pH	DO / Turb	Cond. /Temp	ORP
∀ 0.1	∀ 10%	∀ 3.0%	∀ 10 mV

Parameter:	1	2	3	4	5	6	7	8	9
Time	0930	0935	0940	0945	0950	0955	1000		
Volume Purged (Gal)	0	0.33	0.66	1.00	1.33	1.66	2.00		
Rate (mL/min)	250	250	250	250	250	250	250		
Depth to Water (ft.)	2.68	4.07	4.39	4.52	4.61	4.77	4.79		
pH	6.73	6.74	6.75	6.75	6.76	6.75	6.75		
Temp. (C)	15.05	15.77	16.03	16.02	16.01	16.13	16.03		
Conductivity (mS/cm)	2.23	2.24	2.23	2.23	2.22	2.21	2.21		
Dissolved Oxygen (mg/L)	8.24	6.10	5.14	4.70	4.39	4.15	4.03		
ORP (mV)	-81	-90	-94	-97	-99	-101	-101		
Turbidity (NTU)	3.3	4.5	3.7	1.9	1.4	1.1	1.1		
Notes:									

Sampling Information

Analyses	#	n	Laboratory
VOCs	3		TA
TOCs	2		↓
RSK	3		↓

Color: None
Odor: None
Appearance: clear
Sample ID: MW-25 Sample Time: 1005
MS/MSD: Yes ☐ No ☒
Duplicate: Yes ☐ No ☒
Duplicate ID: — Dup. Time: —
Chain of Custody Signed By: ES

Initial

Problems / Observations

Final: No Color, No Odor, Clear

* VOCs Sampled w/ Bailer

Site Ashland Rcn. **GROUNDWATER SAMPLING LOG** 2H 2021

Sampling Personnel: ES
Client / Job Number: 30053651
Weather: Cloudy 45°F

Well ID: FB-1
Date: 11/22/21
Time In: Time Out

Well Information

Depth to Water:	(feet)	(from MP)
Total Depth:	(feet)	(from MP)
Length of Water Column	(feet)	
Volume of Water in Well	(gal)	
Intake depth for tubing	(feet)	

Well Type:			
Well Material:	Stainless	PVC	☐
Well Locked:	Yes	No	☐
Measuring Point Marked:	☐	No	☐
Well Diameter:	2"	Other:	

Purging Information

Purging Method:	Bailer ☐	Peristaltic ☐	Monsoon ☐	Other:		
Tubing/Bailer Material:	Steel ☐	Polyethylene ☐	Teflon ☐	Other:		
Sampling Method:	Bailer ☐	Peristaltic ☐	Monsoon ☐	Other:		

Pump Start Time:
Pump Stop Time: Water-Quality Meter Type:
Total Volume Removed: (gal) Did well go dry: Yes ☐ No ☐

Conversion Factors				
gal / ft. of water	1" ID	2" ID	4" ID	6" ID
	0.041	0.163	0.653	1.469
1 gal = 3.785 L =3785 ml = 0.1337 cubic feet				

Unit Stability			
pH	DO / Turb	Cond /Temp	ORP
∀ 0.1	∀ 10%	∀ 3.0%	∀ 10 mV

Parameter:	1	2	3	4	5	6	7	8	9
Time									
Volume Purged (Gal)									
Rate (mL/min)									
Depth to Water (ft.)									
pH									
Temp. (C)									
Conductivity (mS/cm)									
Dissolved Oxygen (mg/L)									
ORP (mV)									
Turbidity (NTU)									
Notes:									

Sampling Information

Analyses	#	n	Laboratory
VOCs	3		TA
TOCs	2		TA
RSK	3		TA
Color:	—		
Odor:	—		
Appearance:	—		
Sample ID: FB-1	Sample Time: 1430		
MS/MSD: Yes ☐	No ☒		
Duplicate: Yes ☐	No ☒		
Duplicate ID —	Dup Time: —		
Chain of Custody Signed By: ES			

Problems / Observations

* Field Blank collected using deconned WL Meter @ 1430

Site Ashland Ren

GROUNDWATER SAMPLING LOG

Event

Sampling Personnel: ES
Client / Job Number: 300 53651
Weather: Sunny 34°F

Well ID: FB-2
Date: 11/23/21
Time In: Time Out

Well Information

Depth to Water:	(feet)	(from MP)
Total Depth:	(feet)	(from MP)
Length of Water Column:	(feet)	
Volume of Water in Well:	(gal)	
Intake depth for tubing:	(feet)	

Well Type:	Flushmount ☐	Stick Up ☐		
Well Material:	Stainless Steel ☐	PVC ☐		
Well Locked:	Yes ☐	No ☐		
Measuring Point Marked:	Yes ☐	No ☐		
Well Diameter:	2"	Other:		

Purging Information

Purging Method:	Bailer ☐	Peristaltic ☐	Monsoon ☐	Other:			
Tubing/Bailer Material:	Steel ☐	Polyethylene ☐	Teflon ☐	Other:			
Sampling Method:	Bailer ☐	Peristaltic ☐	Monsoon ☐	Other:			
Pump Start Time:							
Pump Stop Time:		Water-Quality Meter Type:					
Total Volume Removed:	(gal)		Did well go dry:	Yes ☐	No ☐		

Conversion Factors

gal / ft. of water	1" ID	2" ID	4" ID	6" ID
	0.041	0.163	0.653	1.469

1 gal = 3.785 L = 3785 ml = 0.1337 cubic feet

Unit Stability

pH	DO / Turb	Cond. /Temp	ORP
∀ 0.1	∀ 10%	∀ 3.0%	∀ 10 mV

Parameter:	1	2	3	4	5	6	7	8	9
Time									
Volume Purged (Gal)									
Rate (mL/min)									
Depth to Water (ft)									
pH									
Temp. (C)									
Conductivity (mS/cm)									
Dissolved Oxygen (mg/L)									
ORP (mV)									
Turbidity (NTU)									
Notes:									

Sampling Information

Analyses	#	n	Laboratory
VOCs	3		TA
TOCs	2		↓
RSK	3		↓
Color:			
Odor:			
Appearance:			
Sample ID: FB-2	Sample Time: 1020		
MS/MSD: Yes ☐	No ☒		
Duplicate: Yes ☐	No ☒		
Duplicate ID: —	Dup. Time: —		
Chain of Custody Signed By: ES			

Problems / Observations

Field Blank sampled from decanted WL Meter @ 1020

Site: Ashland Ref. | Event:

GROUNDWATER SAMPLING LOG

Sampling Personnel: ES
Client / Job Number: 30059651
Weather: Cloudy 35°F
Well ID: IP-1
Date: 12/10/21
Time In: 0940 Time Out: 1035

Well Information

Depth to Water	(feet)	5.28	(from MP)
Total Depth	(feet)	18.45	(from MP)
Length of Water Column:	(feet)	13.17	
Volume of Water in Well	(gal)	2.23	
Intake depth for tubing	(feet)	~15'	

Well Type:	Flushmount	☐	Stick-Up	☒	
Well Material	Stainless Steel	☐	PVC	☒	
Well Locked	Yes	☒	No	☐	
Measuring Point Marked	Yes	☒	No	☐	
Well Diameter	1"	⊗	Other		

Purging Information

Purging Method	Bailer	☐	Penstaltic	☒	Monsoon ☐	Other	
Tubing/Bailer Material:	Steel	☐	Polyethylene	☒	Teflon ☐	Other:	
Sampling Method:	Bailer	☒	Peristaltic	☒	Monsoon ☐	Other:	

Pump Start Time: 0950
Pump Stop Time: 1035
Water-Quality Meter Type: Horiba U52
Total Volume Removed: (gal) ~1.5
Did well go dry: Yes ☐ No ☒

Conversion Factors				
gal / ft of water	1" ID	2" ID	4" ID	6" ID
	0.041	0.163	0.653	1.469
1 gal = 3.785 L = 3785 ml = 0.1337 cubic feet				

Unit Stability			
pH	DO / Turb	Cond. /Temp	ORP
∀ 0.1	∀ 10%	∀ 3.0%	∀ 10 mV

Parameter:	1	2	3	4	5	6	7	8	9
Time	0955	1000	1005	1010	1015	1020	1025		
Volume Purged (Gal)	0	0.25	0.50	0.75	1.00	1.25	1.50		
Rate (mL/min)	200	200	200	200	200	200	200		
Depth to Water (ft)	5.58	5.70	5.72	5.77	5.79	5.80	5.81		
pH	7.02	7.02	7.03	7.05	7.07	7.07	7.08		
Temp (C)	10.27	11.01	10.99	11.13	11.15	11.13	11.13		
Conductivity (mS/cm)	0.793	0.788	0.792	0.794	0.797	0.799	0.801		
Dissolved Oxygen (mg/L)	1.41	0.02	0	0	0	0	0		
ORP (mV)	-54	-77	-85	-92	-97	-100	-102		
Turbidity (NTU)	19.5	17.7	12.2	11.6	12.3	13.0	11.1		
Notes:									

Sampling Information

Analyses	#	n	Laboratory
TOCs	2		TA
VOCs	3		↓
RSK	3		↓
Color: None			
Odor: None			
Appearance: Clear			
Sample ID: IP-1-121021 Sample Time: 1030			
MS/MSD: Yes ☐ No ☒			
Duplicate: Yes ☐ No ☒			
Duplicate ID: — Dup Time: —			
Chain of Custody Signed By: ES			

@ collection

Problems / Observations

Initial: Clear, No Odor, No Color

VOCs sampled w/ Bailer

Site: Ashland Res. | Event:

GROUNDWATER SAMPLING LOG

Sampling Personnel: ES
Client / Job Number: 30059651
Weather: Cloudy 40 °F
Well ID: IMP-3
Date: 12/10/21
Time In: 1120 Time Out: 1205

Well Information

Depth to Water:	(feet)	8.38	(from MP)
Total Depth:	(feet)	18.29	(from MP)
Length of Water Column:	(feet)	9.91	
Volume of Water in Well	(gal)	1.68	
Intake depth for tubing	(feet)	~15'	

Well Type	Flushmount	☐	Stick-Up	☒	
Well Material:	Stainless Steel	☐	PVC	☐	
Well Locked:	Yes	☒	No	☐	
Measuring Point Marked:	Yes	☒	No	☐	
Well Diameter:	1"	(2)	Other:		

Purging Information

Purging Method:	Bailer	☐	Peristaltic	☒	Monsoon	☐	Other:
Tubing/Bailer Material:	Steel	☐	Polyethylene	☒	Teflon	☐	Other:
Sampling Method	Bailer	☒	Peristaltic	☒	Monsoon	☐	Other:

Pump Start Time: 1120
Pump Stop Time: 1205
Water-Quality Meter Type: Horiba U52
Total Volume Removed (gal): ~1.5
Did well go dry: Yes ☐ No ☒

Conversion Factors				
gal / ft of water	1" ID	2" ID	4" ID	6" ID
	0.041	0.163	0.653	1.469
1 gal = 3.785 L = 3785 ml = 0.1337 cubic feet				

Unit Stability			
pH	DO / Turb	Cond. /Temp	ORP
∀ 0.1	∀ 10%	∀ 3.0%	∀ 10 mV

Parameter:	1	2	3	4	5	6	7	8	9
Time	1125	1130	1135	1140	1145	1150	1155		
Volume Purged (Gal)	0	0.25	0.50	0.75	1.00	1.25	1.50		
Rate (mL/min)	200	200	200	200	200	200	200		
Depth to Water (ft.)	8.70	8.81	8.91	9.08	9.31	9.55	9.79		
pH	7.12	7.12	7.12	7.12	7.12	7.11	7.11		
Temp. (C)	11.36	11.55	11.65	12.22	12.34	12.46	12.41		
Conductivity (mS/cm)	1.58	1.58	1.58	1.59	1.58	1.57	1.57		
Dissolved Oxygen (mg/L)	2.36	0.27	0.06	0	0	0	0		
ORP (mV)	-30	-45	-51	-62	-65	-68	-70		
Turbidity (NTU)	8.5	2.0	0.6	0.5	0.3	3.7	0.7		
Notes									

Sampling Information

Analyses	#	n	Laboratory
VOCs	3		TA
TOCs	2		↓

Color: None
Odor: Present
Appearance: Clear
Sample ID: IMP-3-121021 Sample Time: 1200
MS/MSD: Yes ☐ No ☒
Duplicate: Yes ☐ No ☒
Duplicate ID: — Dup. Time: —
Chain of Custody Signed By: ES

Collection

Problems / Observations

Initial: Clear, Odor Present, No Color

VOCs sampled w/ Bailer

Site: Ashland Rev

Event:

GROUNDWATER SAMPLING LOG

Sampling Personnel: ES
Client / Job Number: 30059651
Weather: Cloudy

Well ID: MW-16
Date: 12/10/21
Time In: 1215 Time Out: 1300

Well Information

Depth to Water:	(feet)	7.79	(from MP)
Total Depth:	(feet)	16.63	(from MP)
Length of Water Column:	(feet)	8.84	
Volume of Water in Well:	(gal)	1.50	
Intake depth for tubing	(feet)	~13'	

Well Type	Flushmount	☐	Stick-Up	☒	
Well Material	Stainless Steel	☐	PVC	☒	
Well Locked.	Yes	☒	No	☐	
Measuring Point Marked	Yes	☒	No	☐	
Well Diameter	1"	(2")	Other		

Purging Information

Purging Method	Bailer	☐	Penstaltic	☒	Monsoon ☐	Other:
Tubing/Bailer Material	Steel	☐	Polyethylene	☒	Teflon ☐	Other
Sampling Method.	Bailer	☒	Penstaltic	☒	Monsoon ☐	Other

Pump Start Time: 1215
Pump Stop Time 1300
Water-Quality Meter Type Horiba U52
Total Volume Removed (gal) ~1.5
Did well go dry Yes ☐ No ☒

Conversion Factors				
gal / ft. of water	1" ID	2" ID	4" ID	6" ID
	0.041	0.163	0.653	1.469
1 gal = 3.785 L = 3785 ml = 0.1337 cubic feet				

Unit Stability			
pH	DO / Turb	Cond /Temp	ORP
∀ 0.1	∀ 10%	∀ 3.0%	∀ 10 mV

Parameter:	1	2	3	4	5	6	7	8	9
Time	1220	1225	1230	1235	1240	1245	1250		
Volume Purged (Gal)	0	0.25	0.50	0.75	1.00	1.25	1.50		
Rate (mL/min)	200	200	200	200	200	200	200		
Depth to Water (ft)	8.57	9.02	9.42	9.83	10.20	10.57	11.01		
pH	7.53	7.54	7.54	7.54	7.54	7.53	7.53		
Temp. (C)	11.93	12.10	11.91	11.87	12.03	12.05	12.09		
Conductivity (mS/cm)	1.69	1.69	1.68	1.69	1.69	1.69	1.69		
Dissolved Oxygen (mg/L)	5.19	2.86	2.49	2.35	2.21	2.08	1.93		
ORP (mV)	-16	-13	-6	1	8	11	16		
Turbidity (NTU)	1.7	1.3	1.3	1.2	1.0	1.1	0.8		
Notes:									

Sampling Information

Analyses	#	n	Laboratory
TOCs	2		TA
VOCs	3		
RSK	3		↓
Color:			
Odor:			
Appearance:			
Sample ID: MW-16-121021	Sample Time: 1255		
MS/MSD: Yes ☐	No ☒		
Duplicate: Yes ☐	No ☒		
Duplicate ID —	Dup Time: —		
Chain of Custody Signed By: ES			

Collected

Problems / Observations

Initial:

VOCs sampled w/ Bailer

Site: Ashland Res. | Event:

GROUNDWATER SAMPLING LOG

Sampling Personnel: ES
Client / Job Number: 30059651
Weather: Cloudy
Well ID: MW-18
Date: 12/10/21
Time In: 0820 Time Out: 0915

Well Information

Depth to Water	(feet)	5.89	(from MP)
Total Depth	(feet)	17.98	(from MP)
Length of Water Column	(feet)	12.09	
Volume of Water in Well	(gal)	2.05	
Intake depth for tubing	(feet)	~16'	

Well Type	Flushmount ☐		Stick-Up ☒	
Well Material	Stainless Steel ☐		PVC ☒	
Well Locked	Yes ☒		No ☐	
Measuring Point Marked	Yes ☒		No ☐	
Well Diameter	1"	(2")	Other	

Purging Information

Purging Method	Bailer ☐	Peristaltic ☒	Monsoon ☐	Other		
Tubing/Bailer Material	Steel ☐	Polyethylene ☒	Teflon ☐	Other		
Sampling Method	Bailer ☒	Peristaltic ☒	Monsoon ☐	Other:		
Pump Start Time:	0830					
Pump Stop Time:	0915	Water-Quality Meter Type	Horiba U52			
Total Volume Removed:	(gal) ~1.5	Did well go dry:	Yes ☐	No ☒		

Conversion Factors				
gal / ft. of water	1" ID	2" ID	4" ID	6" ID
	0.041	0.163	0.653	1.469
1 gal = 3.785 L = 3785 ml = 0.1337 cubic feet				

Unit Stability			
pH	DO / Turb	Cond /Temp	ORP
∀ 0.1	∀ 10%	∀ 3.0%	∀ 10 mV

Parameter:	1	2	3	4	5	6	7	8	9
Time	0835	0840	0845	0850	0855	0900	0905		
Volume Purged (Gal)	0	0.25	0.50	0.75	1.00	1.25	1.50		
Rate (mL/min)	200	200	200	200	200	200	200		
Depth to Water (ft.)	6.82	~~6.95~~ 7.22	7.78	8.09	8.22	8.36	8.49		
pH	6.41	6.78	6.76	6.78	6.83	6.87	6.91		
Temp. (C)	9.91	9.73	9.71	9.86	9.94	9.92	9.94		
Conductivity (mS/cm)	0.952	0.956	0.974	0.979	0.982	0.987	0.993		
Dissolved Oxygen (mg/L)	1.28	2.61	0.99	0.21	0.07	0	0		
ORP (mV)	233	184	77	52	39	30	28		
Turbidity (NTU)	14.6	8.0	0.3	0.3	0	0	0		
Notes:									

Sampling Information

Analyses	#	n	Laboratory
TDCs	2		TA
VOCs	3		↓
RSK	3		↓
Color: None			
Odor: None			
Appearance: Clear			
Sample ID: MW-18-121021	Sample Time: 0910		
MS/MSD:	Yes ☐	No ☒	
Duplicate:	Yes ☐	No ☒	
Duplicate ID: —	Dup Time: —		
Chain of Custody Signed By: ES			

Problems / Observations

Initial: Clear, No Color, No Odor

VOCs sampled w/ Bailer

& collection

Site: Ashland Rest. | Event:

GROUNDWATER SAMPLING LOG

Sampling Personnel: ES
Client / Job Number: 300 59651
Weather: Cloudy

Well ID: FB-1
Date: 12/10/21
Time In: 1100 Time Out:

Well Information

Depth to Water:	(feet)	(from MP)
Total Depth:	(feet)	(from MP)
Length of Water Column:	(feet)	
Volume of Water in Well	(gal)	
Intake depth for tubing	(feet)	

Well Type:	Flushmount ☐		Stick-Up ☐	
Well Material:	Stainless Steel ☐		PVC ☐	
Well Locked:	Yes ☐		No ☐	
Measuring Point Marked	Yes ☐		No ☐	
Well Diameter:	1"	2"	Other:	

Purging Information

Purging Method:	Bailer ☐	Peristaltic ☐	Monsoon ☐	Other:
Tubing/Bailer Material:	Steel ☐	Polyethylene ☐	Teflon ☐	Other:
Sampling Method:	Bailer ☐	Peristaltic ☐	Monsoon ☐	Other:

Pump Start Time:
Pump Stop Time: Water-Quality Meter Type:
Total Volume Removed: (gal) Did well go dry: Yes ☐ No ☐

Conversion Factors				
gal / ft. of water	1" ID	2" ID	4" ID	6" ID
	0.041	0.163	0.653	1.469
1 gal = 3.785 L = 3785 ml = 0.1337 cubic feet				

Unit Stability			
pH	DO / Turb	Cond. /Temp	ORP
∀ 0.1	∀ 10%	∀ 3.0%	∀ 10 mV

Parameter:	1	2	3	4	5	6	7	8	9
Time									
Volume Purged (Gal)									
Rate (mL/min)									
Depth to Water (ft.)									
pH									
Temp. (C)									
Conductivity (mS/cm)									
Dissolved Oxygen (mg/L)									
ORP (mV)									
Turbidity (NTU)									
Notes:									

Sampling Information

Analyses	#	n	Laboratory
VOCs	3		TA
TOCs	2		↓
RSK	3		↓
Color:			
Odor:			
Appearance:			
Sample ID: FB-1-121021	Sample Time: 1100		
MS/MSD: Yes ☐	No ☒		
Duplicate: Yes ☐	No ☒		
Duplicate ID: —	Dup. Time: —		
Chain of Custody Signed By: ES			

Problems / Observations

FB-1-121021

Collected from decanned WL Meter.

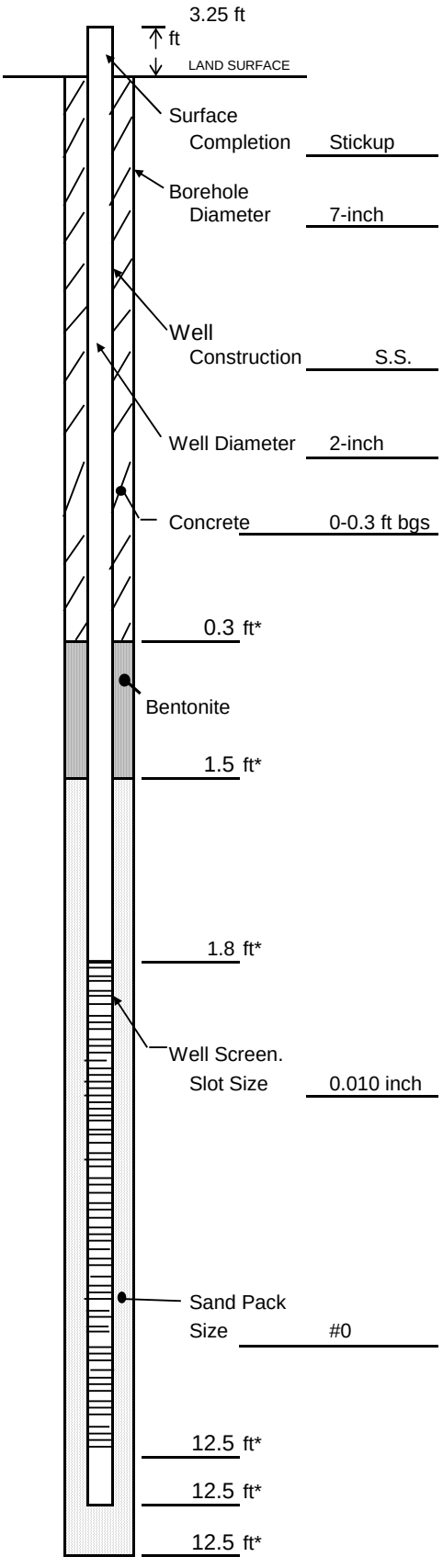
Appendix C

Well Decommission Logs

ARCADIS

Well Construction

Well Decommissioning Record



Project Ashland **Well ID** MW-10

Site Location Rensselaer, NY

Driller David Cornell

Inspector Katie Bidwell

Date 27-May-21

Drilling Contractor Arcadis

NYRD# 11023

Decommissioning Method Grout-in-Place

Surface Completion Stickup

Well Material Stainless Steel

Well Diameter 2-inch

Additional Information

None

GROUTING

Interval Grouted (FBLS) 0-12 ft

Number of Batches Prepared 1

Quantity of Cement Used (lbs.) 25 lbs

Cement Type Portland Type I/II

Quantity of Bentonite Used (lbs.) 1 lbs

Quantity of Calcium Chloride Used (lbs.) 0

Volume of Grout Prepared (gal.) 2.5 gallons

Volume of Grout Used (gal.) 2.5 gallons

Comments: Well decommissioned using the grout-in-place method. Upper 5 feet of casing removed from well. Surface completion removed and ground surface restored to match the surrounding area.

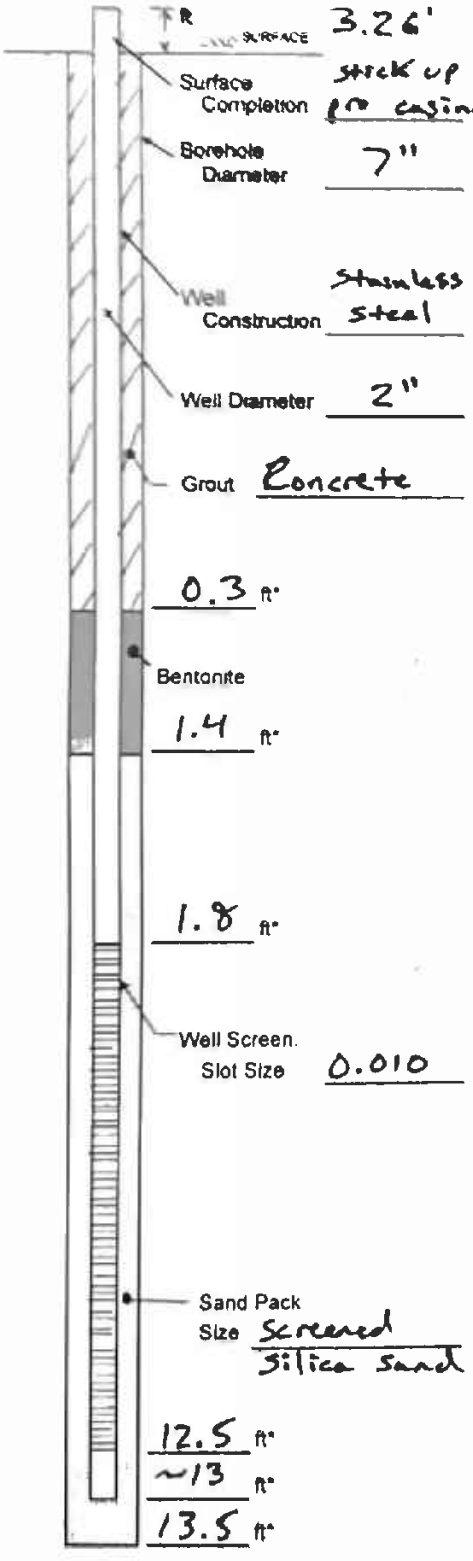
* Depth Below Land Surface

Prepared by David Cornell

CWD # 3111452

ARCADIS
Well Construction

Well Decommissioning Record



Project: Ashland Res. Well ID: MW-11
Site Location: Rensselaer, NY
Driller: Cascade (Zack + Jason)
Inspector: ES
Date: 12/10/21
Drilling Contractor: Arcadis
NYRD#: 11023
Decommissioning Method: Grout in place
Surface Completion: Grout to surface
Well Material: Stainless Steel
Well Diameter: 2"
Additional Information: Pro casing and concrete pad removed. Casing destroyed ~2' below grade. Grouted to surface.

GROUTING
Interval Grouted (FBLS): ~13' to surface (0)
Number of Batches Prepared: 1
Quantity of Cement Used (lbs.): ~67 lbs
Cement Type: Portland Cement
Quantity of Bentonite Used (lbs.): ~17 lbs
Quantity of Calcium Chloride Used (lbs.): NA
Volume of Grout Prepared (gal.): ~20 gallons
Volume of Grout Used (gal.): ~7 gallons

Comments:
obstruction @ 2.16 ft., unable to measure bottom of well and DTW.

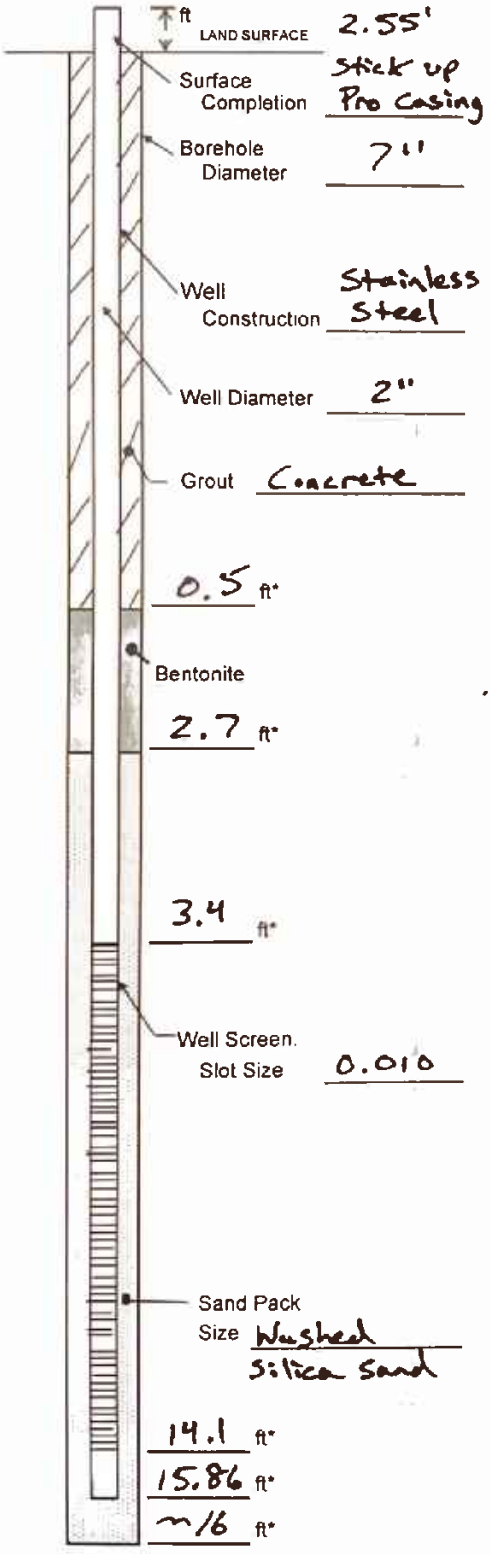
Headspace: 0 ppm

Prepared by: ES
CWD #:

* Depth Below Land Surface

ARCADIS

Well Construction



* Depth Below Land Surface

Well Decommissioning Record

Project: Ashland Ren. 30059651 Well ID: MW-12S

Site Location: Rensselaer, NY

Driller: Cascade (Zack + Jason)

Inspector: ES

Date: 12/10/21

Drilling Contractor: Arcadis

NYRD#: 11023

Decommissioning Method: Grout in Place

Surface Completion: Grout to surface

Well Material: Stainless Steel

Well Diameter: 2"

Additional Information: Due to nearby utility and well casing pro casing cut at grade. Concrete Pad left in place.

GROUTING

Interval Grouted (FBLS): ~15.86 ft to surface (0)

Number of Batches Prepared: 1

Quantity of Cement Used (lbs.): ~67 lbs

Cement Type: Portland Cement

Quantity of Bentonite Used (lbs.): ~17 lbs

Quantity of Calcium Chloride Used (lbs.): NA

Volume of Grout Prepared (gal.): ~20 gallons

Volume of Grout Used (gal.): ~7 gallons

Comments:

DTW: 6.84'

DTB: 15.86'

Headspace: 0 ppm

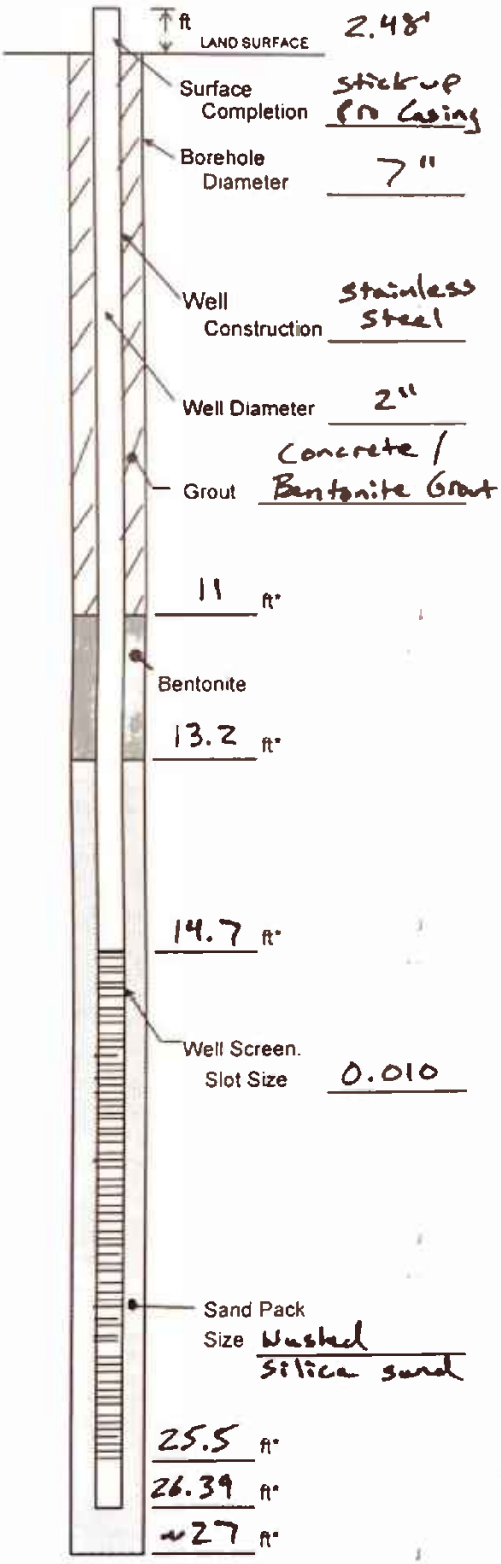
Prepared by: ES

CWD #:

ARCADIS

Well Construction

Well Decommissioning Record



Project: Ashland Ren. Well ID: MW-12D

Site Location: Rensselaer, NY

Driller: Cascade (Zack + Jason)

Inspector: ES

Date: 12/10/21

Drilling Contractor: Arcadis

NYRD#: 11023

Decommissioning Method: Grout in place

Surface Completion: Grout to surface

Well Material: Stainless steel

Well Diameter: 2"

Additional Information: Due to nearby utility, pro casing and well casing cut at grade. Concrete pad left in place.

GROUTING

Interval Grouted (FBLS): 26.39' to surface (0)

Number of Batches Prepared: 1

Quantity of Cement Used (lbs.): ~67 lbs

Cement Type: Portland Cement

Quantity of Bentonite Used (lbs.): ~17 lbs

Quantity of Calcium Chloride Used (lbs.): NA

Volume of Grout Prepared (gal.): ~20 gallons

Volume of Grout Used (gal.): ~7 gallons

Comments:

DTW: 8.91'

DTB: 26.39'

Headspace: 0 ppm

Prepared by: ES

CWD #:

* Depth Below Land Surface

Appendix D

2021 Annual Site Inspection and Photo Log

Site-wide Inspection Form
Ashland Rensselaer Site
Rensselaer, New York

Semiannual Inspection Checklist/Weather Event Inspection

Month November

Year 2021

1. Check integrity of the asphalt surfaces and building footers – document any changes with photos and comments below.
Add specific comments/date/initials:

- Cracks present in asphault	11/23/21	ES
at south end of site		
- previously caved in area is in	11/23/21	ES
good shape.		

2. Check condition of perimeter fence – document any changes with photos and comments below.
Comments/date/initials:

- gaps at botton of Western	11/23/21	ES
fence line present. ~ 1 ft		
- Vegetation along fenceline in	11/23/21	
good shape.		

3. Check current site usage (if changed) – document any changes with photos and comments below.
Comments/date/initials:

- No changes in site usage	11/23/21	ES

4. Check monitoring well conditions on and offsite – document any changes with photos and comments below.
Comments/date/initials:

- Monitoring well conditions are	11/23/21	ES
consistent w/ previous inspections		

5. Check that site records are up to date (HASP/CAMP, Environmental Easement, Annual CMI Reports) – document any changes with photos and comments below. Comments/date/initials:

- Site records are up to date	11/23/21	ES

6. Please check the status of the building near monitoring well MW-17, if it remains vacant or not. Please document any new businesses, or activities that are occurring inside the building. Comments/date/initials:

* The Building is occupied by Walter S. Pratt Rental Company. At least one worker spends time in this building regularly.

Contact → Steven Pratt 518-465-1549

ARCADIS Design & Consultancy for natural and built assets

2021 Site Inspection: Former Ashland Facility - Rensselaer

Project: Former Ashland Facility - Rensselaer	Location: Rensselaer, NY	Project No. 30059651

Onsite looking east toward South Street. Very minor cracks and vegetation observed at the southern end of the site.

Collapsed asphalt near culvert continues to be maintained with Type 2 crusher run gravel.

ARCADIS Design & Consultancy for natural and built assets	2021 Site Inspection: Former Ashland Facility- Rensselaer	
Project: Former Ashland Facility - Rensselaer	**Location: Rensselaer, NY**	**Project No.** 30059651

Stormwater runoff from South Street, leaving mud and debris onsite.

Looking south along the eastern boundary of the railroad tracks. The perimeter fence in this area is in good condition.

2021 Site Inspection:
Former Ashland Facility- Rensselaer

Project: Former Ashland Facility - Rensselaer	Location: Rensselaer, NY	Project No. 30059651

Photo taken of the north end of the property looking east to South Street. Previous improvements onsite included brush removal and fence improvements.

Photo taken at the main entrance gate by MW-1, looking south along South Street.

ARCADIS Design & Consultancy for natural and built assets	2021 Site Inspection: Former Ashland Facility- Rensselaer	
Project: Former Ashland Facility - Rensselaer	**Location: Rensselaer, NY**	**Project No.** 30059651

Looking south onsite at the storage shed and fence line. This area is in good condition.

Photo taken of the southwest corner underneath the Columbia Turnpike Overpass. The fence in this area remains in good condition.

Appendix E

Institutional and Engineering Controls Certification Form

Enclosure 2
NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION
Site Management Periodic Review Report Notice
Institutional and Engineering Controls Certification Form

Site Details **Box 1**

Site No. 442038

Site Name Former Ashland Distribution Facility

Site Address: 130 South Street Zip Code: 12144
City/Town: Rensselaer
County: Rensselaer
Site Acreage: 4.8

Reporting Period: January 1, 2021 to December 31, 2021

	YES	NO
1. Is the information above correct?	☒	☐
If NO, include handwritten above or on a separate sheet.		
2. Has some or all of the site property been sold, subdivided, merged, or undergone a tax map amendment during this Reporting Period?	☐	☒
3. Has there been any change of use at the site during this Reporting Period (see 6NYCRR 375-1.11(d))?	☐	☒
4. Have any federal, state, and/or local permits (e.g., building, discharge) been issued for or at the property during this Reporting Period?	☐	☒
If you answered YES to questions 2 thru 4, include documentation or evidence that documentation has been previously submitted with this certification form.		
5. Is the site currently undergoing development?	☐	☒

Box 2

	YES	NO
6. Is the current site use consistent with the use(s) listed below? Inactive	☒	☐
7. Are all ICs/ECs in place and functioning as designed?	☐	☒

Deed restrictions (Environmental Easement) have not been executed yet pending approval between NYSDEC and Ashland LLC. Therefore, a corrective action work plan is not required at this time.

IF THE ANSWER TO EITHER QUESTION 6 OR 7 IS NO, sign and date below and DO NOT COMPLETE THE REST OF THIS FORM. Otherwise continue.

A Corrective Measures Work Plan must be submitted along with this form to address these issues.

Ian McCary
Remediation Project Manager-Ashland LLC

Signature of Owner, Remedial Party or Designated Representative

3.29.2022
Date

Description of Institutional Controls

(Note: These ICs remain draft until the Site Management Plan and Environmental Easement are finalized)

- The property may be used for commercial or industrial use (residential use is prohibited);
- All ECs must be operated and maintained as specified in this SMP;
- All ECs must be inspected at a frequency and in a manner defined in the SMP;
- The use of groundwater underlying the property is prohibited without necessary water quality treatment as determined by the NYSDOH or Rensselaer County Department of Health to render it safe for use as drinking water or for industrial purposes, and the user must first notify and obtain written approval to do so from the Department;
- Groundwater and other environmental or public health monitoring must be performed as defined in this SMP;
- Data and information pertinent to site management must be reported at the frequency and in a manner as defined in this SMP;
- All future activities that will disturb remaining contaminated material must be conducted in accordance with this SMP;
- Monitoring to assess the performance and effectiveness of the remedy must be performed as defined in this SMP;
- Groundwater monitoring must be performed semiannually as defined in this SMP until monitoring indicates the remedy has achieved the remedial action objectives identified in the CMI Work Plan;
- Soil vapor monitoring must be performed if groundwater concentrations increase from current levels in any area downgradient of the site;
- Operation, maintenance, monitoring, inspection, and reporting of any mechanical or physical component of the remedy shall be performed as defined in this SMP;
- Inspection of the perimeter fence will be conducted annually and maintained as needed;
- Inspection of the asphalt and concrete surfaces that cover portions of the site will be completed annually and maintained as needed;
- Access to the site must be provided to agents, employees or other representatives of the State of New York with reasonable prior notice to the property owner to assure compliance with the restriction identified by the Environmental Easement.
- The potential for vapor intrusion must be evaluated for any building developed in the area within the IC boundaries and any potential impacts that are identified must be monitored or mitigated; and
- Vegetable gardens and farming on the site are prohibited.

Description of Engineering Controls

Box 4

(Note: These ECs remain draft until the Site Management Plan and Environmental Easement are finalized)

- Cover

Exposure to remaining contamination at the site is prevented by a cover system placed over the site. This cover system is comprised of asphalt pavement, concrete-covered sidewalks and driveways, and concrete building slabs in the southern portion of the site.

- Perimeter Fencing

A seven feet tall chain link fence with three access gates (two double gates on South Street and single man-size gate under the Columbia Turnpike Bridge near the south west corner is maintained to prevent access to onsite soils and unsafe areas of the site.

Box 5

Periodic Review Report (PRR) Certification Statements

1. I certify by checking "YES" below that:

   a) the Periodic Review report and all attachments were prepared under the direction of, and reviewed by, the party making the certification;

   b) to the best of my knowledge and belief, the work and conclusions described in this certification are in accordance with the requirements of the site remedial program, and generally accepted engineering practices; and the information presented is accurate and compete.

YES	NO
☒	☐

2. If this site has an IC/EC Plan (or equivalent as required in the Decision Document), for each Institutional or Engineering control listed in Boxes 3 and/or 4, I certify by checking "YES" below that all of the following statements are true:

   (a) the Institutional Control and/or Engineering Control(s) employed at this site is unchanged since the date that the Control was put in-place, or was last approved by the Department;

   (b) nothing has occurred that would impair the ability of such Control, to protect public health and the environment;

   (c) access to the site will continue to be provided to the Department, to evaluate the remedy, including access to evaluate the continued maintenance of this Control;

   (d) nothing has occurred that would constitute a violation or failure to comply with the Site Management Plan for this Control; and

   (e) if a financial assurance mechanism is required by the oversight document for the site, the mechanism remains valid and sufficient for its intended purpose established in the document.

YES	NO
☒	☐

IF THE ANSWER TO QUESTION 2 IS NO, sign and date below and DO NOT COMPLETE THE REST OF THIS FORM. Otherwise continue.

A Corrective Measures Work Plan must be submitted along with this form to address these issues.

Ian McCary

Remediation Project Manager - Ashland LLC

Signature of Owner, Remedial Party or Designated Representative

3.29.2022

Date

IC CERTIFICATIONS
SITE NO.

Box 6

SITE OWNER OR DESIGNATED REPRESENTATIVE SIGNATURE

I certify that all information and statements in Boxes 1,2, and 3 are true. I understand that a false statement made herein is punishable as a Class "A" misdemeanor, pursuant to Section 210.45 of the Penal Law.

I Ian McCary (print name) at 500 Hercules Road, Bldg 8145, Wilmington, DE 19808 (print business address),

am certifying as Owner (Owner or Remedial Party)

for the Site named in the Site Details Section of this form.

Ian McCary

Remediation Project Manager - Ashland LLC

Signature of Owner, Remedial Party, or Designated Representative Rendering Certification

3.29.2022

Date

Appendix F

Mann-Kendall Analysis

Appendix F
Summary of Mann Kendall Trend Analysis
Ashland
Rensselaer, New York

Well ID and Data Set[1]	Number of Data Points	Number of Non-detects	% Non Detects	Minimum Value (µg/L)	Maximum (µg/L) Value Detected	Coefficient of Variation	Mann Kendall Statistic (S)	p value	Trend [2]
Benzene									
IP-1	27	15	56%	ND (2.0 U)	2.8	0.46	71	0.14	No Significant Trend
IW-A2	21	6	29%	3.3	50	0.58	11	0.76	No Significant Trend
MW-15	5	0	0%	5.3	13	0.50	-2	0.79	No Significant Trend
MW-19	27	2	7%	ND (5.0 U)	40	0.75	-50	0.31	No Significant Trend
MW-20	22	2	9%	0.43	470	1.54	-115	0.001	Decreasing Trend
MW-A1	25	1	4%	1.7	12	0.38	-126	0.003	Decreasing Trend
Ethylbenzene									
MW-20	22	9	41%	ND (1.0 U)	760	2.19	-97	0.005	Decreasing Trend
Toluene									
IW-B3	21	12	57%	1.5	2000	2.28	-74	0.027	Decreasing Trend
MW-19	27	13	48%	0.27	3.3 [3]	0.86	-37	0.45	No Significant Trend
MW-20	22	13	59%	ND (1.0 U)	2900	3.70	-79	0.018	Decreasing Trend
Xylenes									
IW-A2	22	2	9%	ND (10 U)	210	0.72	-104	0.004	Decreasing Trend
MW-20	22	8	36%	ND (2.0 U)	710	2.35	-102	0.004	Decreasing Trend
Tetrachloroethene									
MW-19	27	14	52%	ND (1.0 U)	40	1.31	5	0.93	No Significant Trend
MW-20	21	4	19%	ND (2.0 U)	98	0.65	74	0.027	Increasing Trend
MW-25	9	0	0%	35	9300	1.05	-30	0.002	Decreasing Trend
Trichloroethene									
MW-15	5	2	40%	ND (1.0 U)	4.6	0.91	-5	0.31	No Significant Trend
MW-16	27	0	0%	1.2	45	0.77	-117	0.016	Decreasing Trend
MW-19	27	8	30%	ND (1.0 U)	56	1.36	10	0.85	No Significant Trend
MW-20	21	4	19%	ND (1.0 U)	18 [4]	0.53	41	0.22	No Significant Trend
MW-25	9	1	11%	ND (50 U)	220	0.62	-2	0.92	No Significant Trend
1,1-Dichloroethane									
MW-15	5	1	20%	0.43	1.3	0.48	1	1	No Significant Trend
MW-19	27	0	0%	8.9	150	0.85	-129	0.008	Decreasing Trend
MW-24	9	2	22%	ND (80 U)	340	0.71	-22	0.009	Decreasing Trend
MW-A1	25	7	28%	ND (1.0 U)	22	1.06	-126	0.003	Decreasing Trend

Well ID and Data Set[1]	Number of Data Points	Number of Non-detects	% Non Detects	Minimum Value (µg/L)	Maximum (µg/L) Value Detected	Coefficient of Variation	Mann Kendall Statistic (S)	p value	Trend [2]
1,1-Dichloroethene									
MW-16	27	16	59%	0.46	4	0.80	-102	0.029	Decreasing Trend
1,2-Dichloroethane									
IMP-3	27	14	52%	0.34	6.7	1.28	-12	0.80	No Significant Trend
MW-15	5	1	20%	0.35	0.91	0.36	-2	0.81	No Significant Trend
MW-16	27	11	41%	0.35	6.8	0.93	-116	0.015	Decreasing Trend
cis-1,2-Dichloroethene									
IMP-3	27	2	7%	ND (1.0 U)	160	0.97	110	0.023	Increasing Trend
IP-1	27	0	0%	190	570	0.31	42	0.39	No Significant Trend
MW-15	5	0	0%	8.1	23	0.46	-3	0.61	No Significant Trend
MW-16	27	0	0%	7.5	440	0.82	-123	0.011	Decreasing Trend
MW-18	27	0	0%	96	440	0.28	75	0.121	No Significant Trend
MW-19	27	1	4%	ND (1.0 U)	1900	1.21	28	0.57	No Significant Trend
MW-20	21	1	5%	1.2	80	1.16	2	0.97	No Significant Trend
MW-24	9	1	11%	ND (80 U)	2600	0.63	8	0.46	No Significant Trend
MW-25	9	0	0%	490	12000	1.96	4	0.75	No Significant Trend
MW-A1	25	5	20%	ND (2.0 U)	330	1.45	-147	0.0006	Decreasing Trend
MW-B1	25	15	60%	ND (1.0 U)	710	3.98	-50	0.24	No Significant Trend
trans-1,2-Dichloroethene									
IP-1	27	9	33%	ND (5.0 U)	12	0.45	-73	0.13	No Significant Trend
MW-16	27	16	59%	ND (1.0 U)	5.4	0.80	-89	0.057	Probably Decreasing Trend
MW-18	27	9	33%	1.7	9.2	0.48	-29	0.56	No Significant Trend
MW-19	27	11	41%	ND (2.0 U)	7.2 [3]	0.72	51	0.30	No Significant Trend
Vinyl Chloride									
IMP-3	27	7	26%	ND (1.0 U)	15	0.97	101	0.035	Increasing Trend
IP-1	27	0	0%	61	260	0.50	-140	0.004	Decreasing Trend
MW-15	5	0	0%	6.5	21	0.38	-2	0.81	No Significant Trend
MW-16	27	14	52%	ND (1.0 U)	16	1.27	-80	0.09	Probably Decreasing Trend
MW-18	27	1	4%	ND (2.0 U)	170	0.55	47	0.34	No Significant Trend
MW-19	27	1	4%	ND (1.0 U)	560	0.73	29	0.59	No Significant Trend
MW-20	21	12	57%	ND (1.0 U)	20	1.48	-3	0.61	No Significant Trend
MW-23	9	5	56%	ND (1.0 U)	260	2.82	14	0.17	No Significant Trend
MW-24	8	2	25%	ND (80 U)	3100	0.80	-10	0.27	No Significant Trend

Well ID and Data Set[1]	Number of Data Points	Number of Non-detects	% Non Detects	Minimum Value (µg/L)	Maximum (µg/L) Value Detected	Coefficient of Variation	Mann Kendall Statistic (S)	p value	Trend [2]
MW-25	9	0	0%	140	800	0.42	-18	0.08	Probably Decreasing Trend
MW-A1	25	6	24%	ND (2.0 U)	600	1.56	-151	0.0004	Decreasing Trend
MW-B1	25	15	60%	ND (1.0 U)	270	3.16	-49	0.25	No Significant Trend

NOTE:

[1] The Mann Kendall trend analysis is included as Attachment 2 and provides the data used for each test.

[2] Concentration trend is considered increaseing (S > 0) or decreasing (S < 0): p value < 0.05 = Increasing or Decreasing; p value > 0.05 but < 0.1 = probably increasing or decreasing; p value > 0.1 No Signficant Trend.

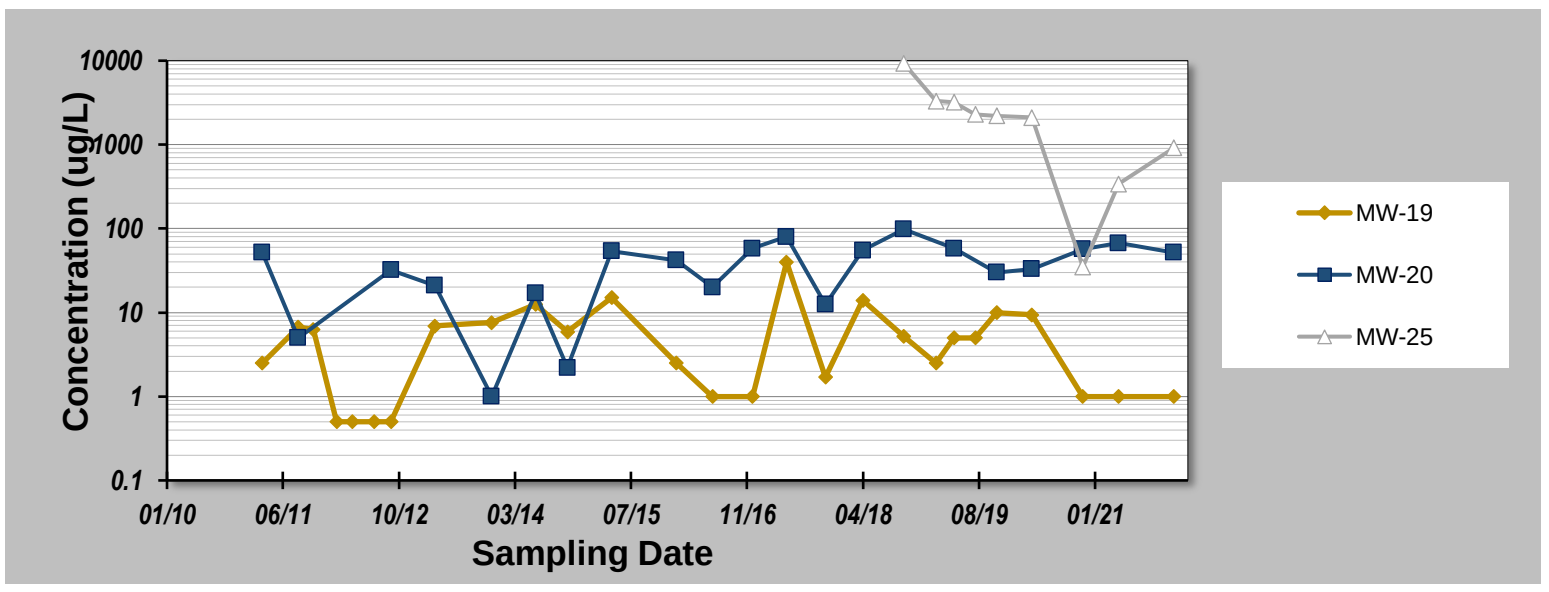
[3] Half the value of the laboratory quantitation limit was used for non detect values for the Mann Kendall analysis; the maximum value associated wtih non detects for the Mann Kendall analysis was 12.5.

[4] Half the value of the laboratory quantiation limit was used for non detect values for the Mann Kendall analysis; the maximum value associated wtih non detects for the Mann Kendall analysis was 20.

DEFINITIONS:

cis-1,2-DCE = cis-1,2-Dichloroethene
COC = constituent of concern
LQL = laboratory quantitation limit
µg/L = microgram(s) per liter
ND = non detect
PCE = tetrachloroethene
1,1,1-TCA = 1,1,1-trichloroethane
TCE = trichloroethene.
U = The compound was analyzed for but not detected. The associated value is the compound quantitation limit.

Mann-Kendall Constituent Trend Analysis				
Sampling Point ID		MW-19	MW-20	MW-25
Sampling Event	Sampling Date	PCE CONCENTRATIONS (µg/L)		
1	Apr-10			
2	Mar-11	2.5	52	
3	Aug-11	6.7	5	
4	Oct-11	6.3		
5	Jan-12	0.5		
6	Mar-12	0.5		
7	Jul-12	0.5		
8	Sep-12	0.5	32	
9	Mar-13	6.9	21	
10	Nov-13	7.6	1	
11	May-14	12.5	17	
12	Oct-14	5.9	2.2	
13	Apr-15	15	54	
14	Jan-16	2.5	42	
15	Jun-16	1	20	
16	Dec-16	1	58	
17	May-17	40	80	
18	Oct-17	1.7	12.5	
19	Apr-18	14	55	
20	Oct-18	5.2	98	9300
21	Feb-19	2.5		3300
22	May-19	5	58	3200
23	Aug-19	5		2300
24	Nov-19	10	30	2200
25	Apr-20	9.4	33	2100
26	Nov-20	1	57	35
27	Apr-21	1	67	340
28	Dec-21	1	52	920
29				
30				
Coefficient of Variation		1.31	0.65	1.05
Mann-Kendall Statistic (S)		5	74	-30
p value		0.93	0.027	0.002
Concentration Trend:		No Significant Trend	Increasing Trend	Decreasing Trend



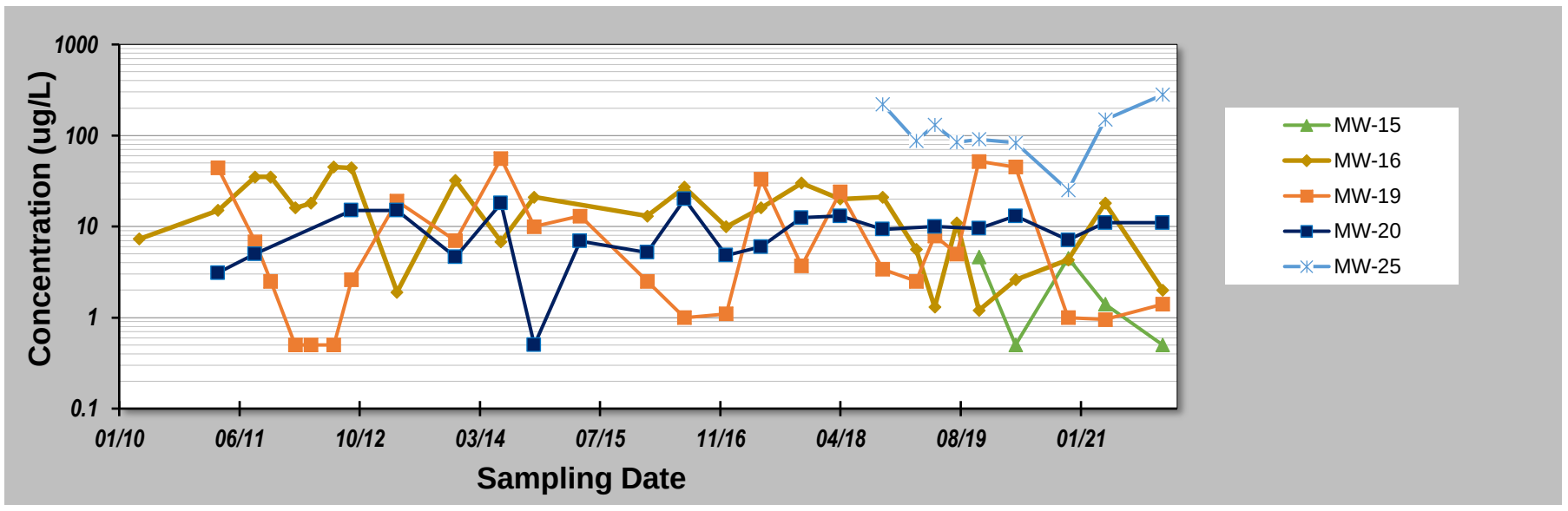
Notes:

1. At lesast four independent sampling events per well are required for calculating the trend. For results that were less then method detection limit, half of the MDL was used.

2. Concentration trend is considered increaseing (S > 0) or decreasing (S < 0): p value < 0.05 = Increasing or Decreasing; p value > 0.05 but < 0.1 = probably increasing or decreasing; p value > 0.1 No Signficant Trend.

3. Methodology based on "MAROS: A Decision Support System for Optimizing Monitoring Plans", J.J. Aziz, M. Ling, H.S. Rifai, C.J. Newall, and J.R. Gonzales, Ground Water, 41(3):355-367, 2003.

Mann-Kendall Constituent Trend Analysis						
Sampling Point ID		MW-15	MW-16	MW-19	MW-20	MW-25
Sampling Event	Sampling Date	TCE CONCENTRATIONS (µg/L)				
1	Apr-10		7.3			
2	Mar-11		15	44	3.1	
3	Aug-11		35	6.8	5	
4	Oct-11		35	2.5		
5	Jan-12		16	0.5		
6	Mar-12		18	0.5		
7	Jul-12		45	0.5		
8	Sep-12		44	2.6	15	
9	Mar-13		1.9	19	15	
10	Nov-13		32	7	4.6	
11	May-14		6.8	56	18	
12	Oct-14		21	10	0.5	
13	Apr-15			13	6.9	
14	Jan-16		13	2.5	5.2	
15	Jun-16		27	1	20	
16	Dec-16		9.9	1.1	4.8	
17	May-17		16	33	6	
18	Oct-17		30	3.7	12.5	
19	Apr-18		20	24	13	
20	Oct-18		21	3.4	9.3	220
21	Feb-19		5.6	2.5		87
22	May-19		1.3	7.9	10	130
23	Aug-19		11	5		84
24	Nov-19	4.6	1.2	52	9.5	91
25	Apr-20	0.5	2.6	45	13	83
26	Nov-20	4.5	4.3	1	7.1	25
27	Apr-21	1.4	18	0.95	11	150
28	Dec-21	0.5	2	1.4	11	280
29						
30						
Coefficient of Variation		0.91	0.77	1.36	0.53	0.62
Mann-Kendall Statistic (S)		-5	-117	10	41	-2
p value		0.31	0.016	0.85	0.22	0.92
Concentration Trend:		No Significant Trend	Decreasing Trend	No Significant Trend	No Significant Trend	No Significant Trend



Notes:

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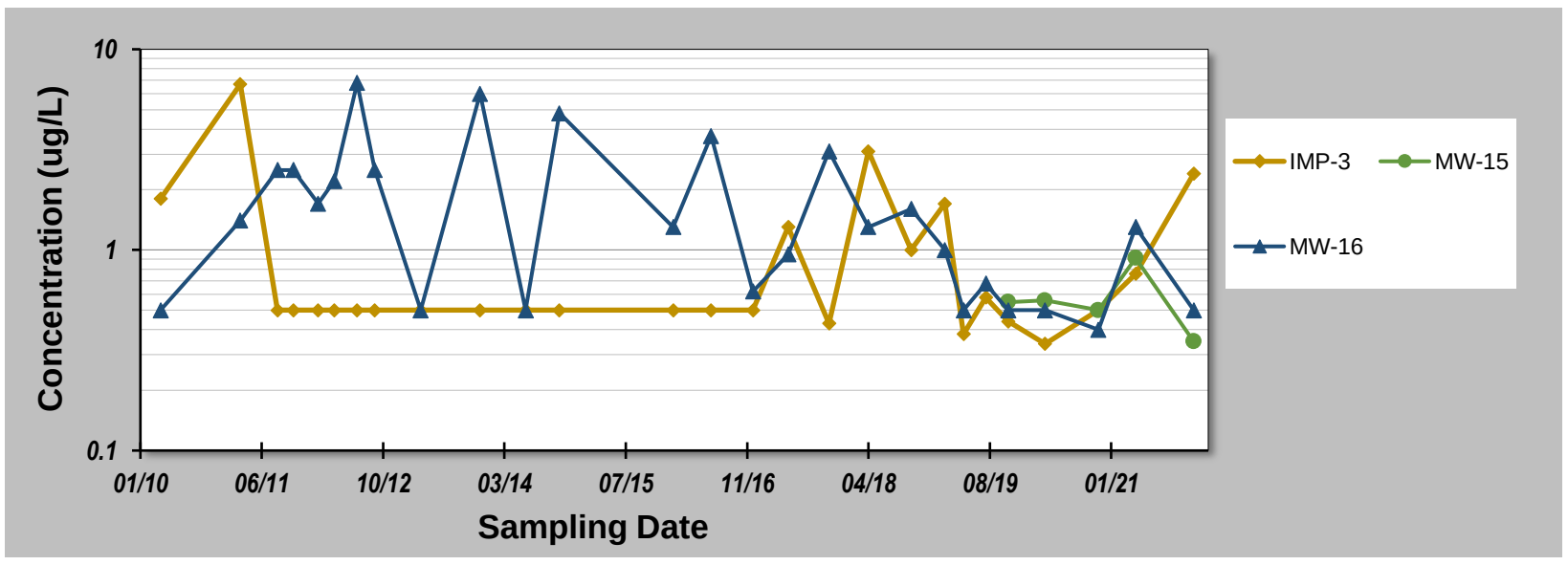
Mann-Kendall Constituent Trend Analysis				
Sampling Point ID		IMP-3	MW-15	MW-16
Sampling Event	Sampling Date	1,2-DICHLOROETHANE CONCENTRATIONS (µg/L)		
1	Apr-10	1.8		0.5
2	Mar-11	6.7		1.4
3	Aug-11	0.5		2.5
4	Oct-11	0.5		2.5
5	Jan-12	0.5		1.7
6	Mar-12	0.5		2.2
7	Jul-12	0.5		6.8
8	Sep-12	0.5		2.5
9	Mar-13	0.5		0.5
10	Nov-13	0.5		6
11	May-14	0.5		0.5
12	Oct-14	0.5		4.8
13	Apr-15			
14	Jan-16	0.5		1.3
15	Jun-16	0.5		3.7
16	Dec-16	0.5		0.62
17	May-17	1.3		0.95
18	Oct-17	0.43		3.1
19	Apr-18	3.1		1.3
20	Oct-18	1		1.6
21	Feb-19	1.7		1
22	May-19	0.38		0.5
23	Aug-19	0.58		0.68
24	Nov-19	0.44	0.55	0.5
25	Apr-20	0.34	0.56	0.5
26	Nov-20	0.5	0.5	0.4
27	Apr-21	0.76	0.91	1.3
28	Dec-21	2.4	0.35	0.5
29				
30				
Coefficient of Variation		1.28	0.36	0.93
Mann-Kendall Statistic (S)		-12	-2	-116
p value		0.80	0.81	0.015
Concentration Trend:		No Significant Trend	No Significant Trend	Decreasing Trend



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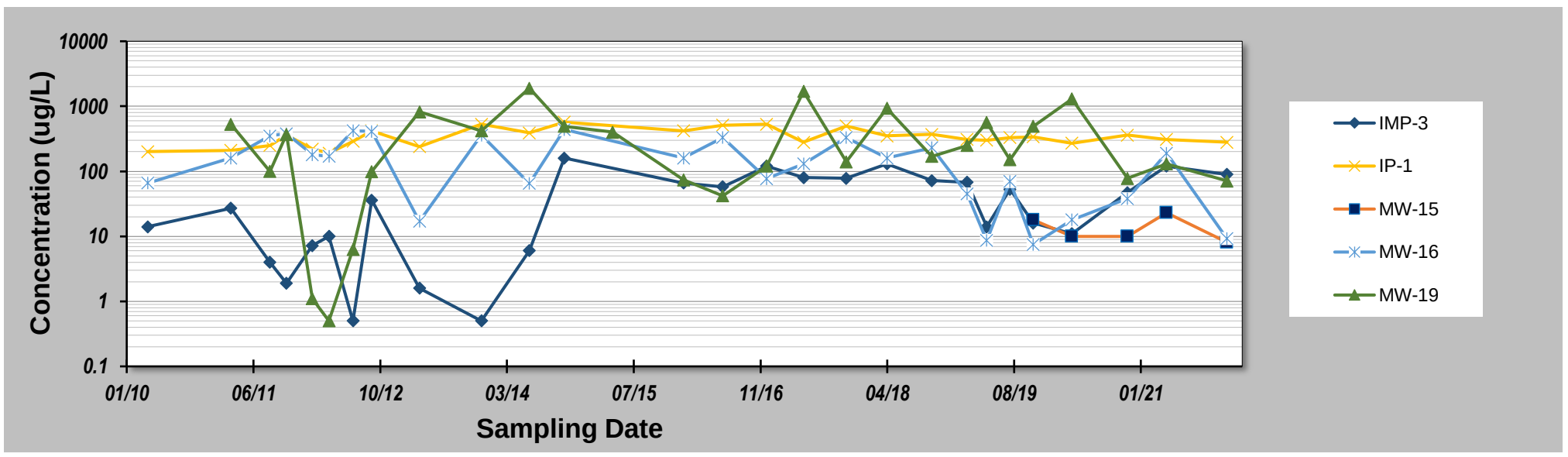
Mann-Kendall Constituent Trend Analysis							
Sampling Point ID		IMP-3	IP-1	MW-15	MW-16	MW-18	MW-19
Sampling Event	Sampling Date	CIS-1,2-DICHLOROETHENE CONCENTRATIONS (µg/L)					
1	Apr-10	14	200		66	280	
2	Mar-11	27	210		160	310	530
3	Aug-11	4	250		350	120	100
4	Oct-11	1.9	360		380	310	370
5	Jan-12	7.2	220		180	200	1.1
6	Mar-12	10	190		170	220	0.5
7	Jul-12	0.5	290		420	96	6.3
8	Sep-12	36	420		410	390	99
9	Mar-13	1.6	240		17	250	820
10	Nov-13	0.5	530		360	350	420
11	May-14	6	390		65	330	1900
12	Oct-14	160	570		440	430	490
13	Apr-15						400
14	Jan-16	66	420		160	330	74
15	Jun-16	58	510		330	410	42
16	Dec-16	120	530		77	440	120
17	May-17	80	280		130	360	1700
18	Oct-17	78	500		330	420	140
19	Apr-18	130	350		160	420	930
20	Oct-18	72	370		230	380	170
21	Feb-19	68	310		45	290	250
22	May-19	14	300		8.6	240	560
23	Aug-19	53	330		70	290	150
24	Nov-19	16	340	18	7.5	330	490
25	Apr-20	11	270	10	18	290	1300
26	Nov-20	47	360	10	38	350	78
27	Apr-21	120	310	23	190	380	130
28	Dec-21	90	280	8.1	9.2	310	71
29							
30							
Coefficient of Variation		0.97	0.31	0.46	0.82	0.28	1.21
Mann-Kendall Statistic (S)		110	42	-3.0	-123	75	28
p value		0.023	0.39	0.61	0.011	0.121	0.57
Concentration Trend:		Increasing Trend	No Significant Trend	No Significant Trend	Decreasing Trend	No Significant Trend	No Significant Trend



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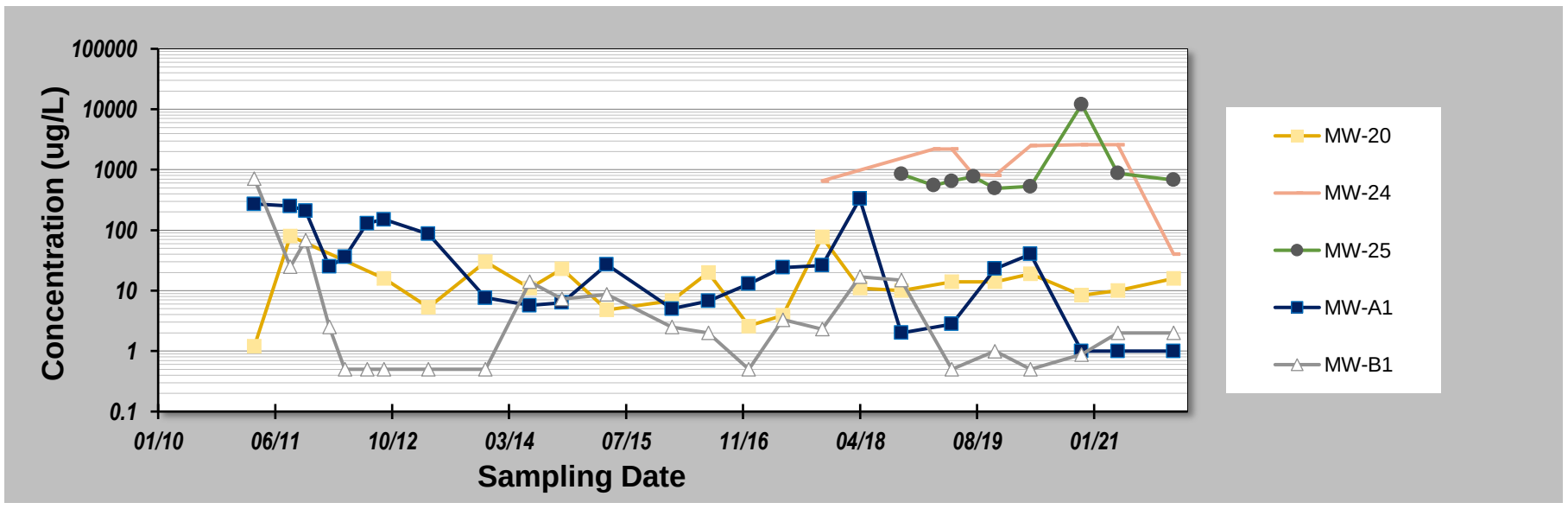
Mann-Kendall Constituent Trend Analysis						
Sampling Point ID		MW-20	MW-24	MW-25	MW-A1	MW-B1
Sampling Event	Sampling Date	CIS-1,2-DICHLOROETHENE CONCENTRATIONS (µg/L)				
1	Apr-10					
2	Mar-11	1.2			270	710
3	Aug-11	80			250	25
4	Oct-11				210	68
5	Jan-12				25	2.5
6	Mar-12				36	0.5
7	Jul-12				130	0.5
8	Sep-12	16			150	0.5
9	Mar-13	5.3			86	0.5
10	Nov-13	30			7.6	0.5
11	May-14	11			5.7	14
12	Oct-14	23			6.3	7.3
13	Apr-15	4.8			27	8.7
14	Jan-16	6.8			5	2.5
15	Jun-16	20			6.7	2
16	Dec-16	2.6			13	0.5
17	May-17	3.9			24	3.3
18	Oct-17	77	650		26	2.3
19	Apr-18	11			330	17
20	Oct-18	10		850	2	15
21	Feb-19		2200	550		
22	May-19	14	2200	650	2.8	0.5
23	Aug-19		830	770		
24	Nov-19	14	810	490	23	1
25	Apr-20	19	2500	530	40	0.5
26	Nov-20	8.4	2600	12000	1	0.88
27	Apr-21	10	2600	870	1	2
28	Dec-21	16	40	680	1	2
29						
30						
Coefficient of Variation		1.16	0.63	1.96	1.45	3.98
Mann-Kendall Statistic (S)		2	8.0	4.0	-147	-50
p value		0.97	0.46	0.75	0.0006	0.24
Concentration Trend:		No Significant Trend	No Significant Trend	No Significant Trend	Decreasing Trend	No Significant Trend



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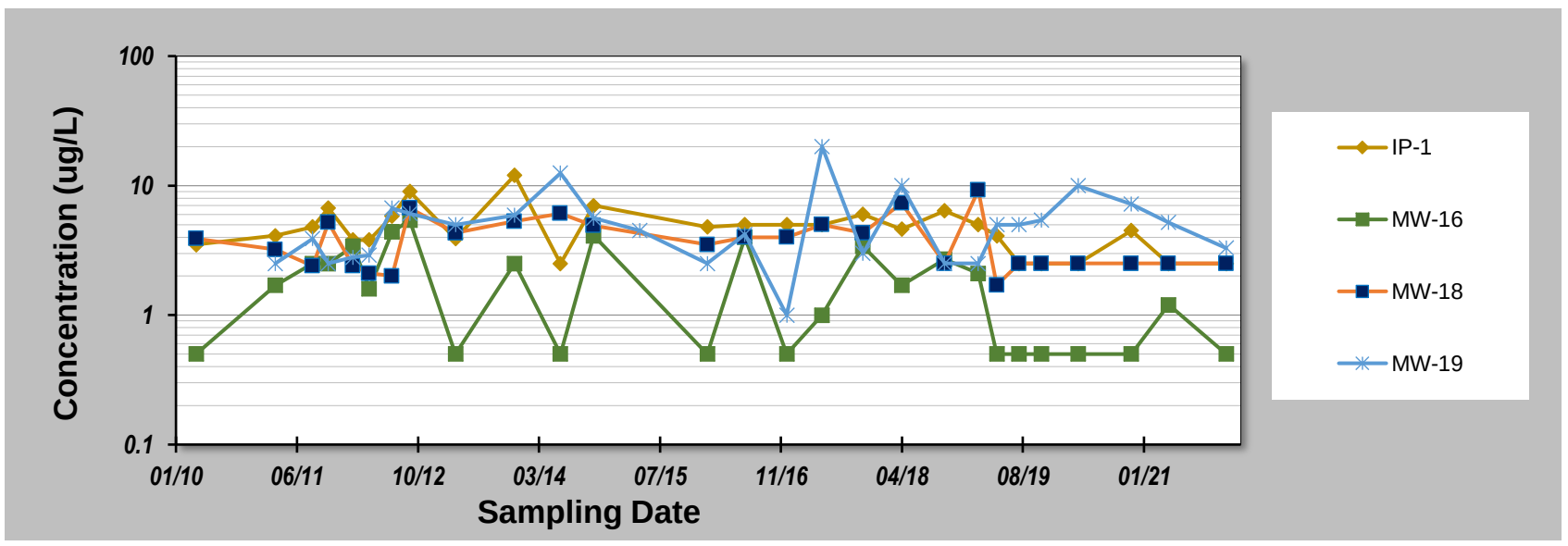
Mann-Kendall Constituent Trend Analysis					
Sampling Point ID		IP-1	MW-16	MW-18	MW-19
Sampling Event	Sampling Date	TRANS-1,2-DICHLOROETHENE CONCENTRATIONS (µg/L)			
1	Apr-10	3.5	0.5	3.9	
2	Mar-11	4.1	1.7	3.2	2.5
3	Aug-11	4.8	2.5	2.4	3.9
4	Oct-11	6.7	2.5	5.2	2.5
5	Jan-12	3.8	3.4	2.4	2.8
6	Mar-12	3.8	1.6	2.1	2.9
7	Jul-12	5.8	4.4	2	6.7
8	Sep-12	9	5.4	6.7	6.1
9	Mar-13	3.9	0.5	4.3	5
10	Nov-13	12	2.5	5.3	5.9
11	May-14	2.5	0.5	6.1	12.5
12	Oct-14	7	4.1	4.9	5.6
13	Apr-15				4.5
14	Jan-16	4.8	0.5	3.5	2.5
15	Jun-16	5	4	4	4.2
16	Dec-16	5	0.5	4	1
17	May-17	5	1	5	20
18	Oct-17	6	3.4	4.3	3
19	Apr-18	4.6	1.7	7.3	10
20	Oct-18	6.4	2.7	2.5	2.5
21	Feb-19	5	2.1	9.2	2.5
22	May-19	4.1	0.5	1.7	5
23	Aug-19	2.5	0.5	2.5	5
24	Nov-19	2.5	0.5	2.5	5.4
25	Apr-20	2.5	0.5	2.5	10
26	Nov-20	4.5	0.5	2.5	7.2
27	Apr-21	2.5	1.2	2.5	5.2
28	Dec-21	2.5	0.5	2.5	3.3
29					
30					
Coefficient of Variation		0.45	0.80	0.48	0.72
Mann-Kendall Statistic (S)		-73	-89	-29	51
p value		0.13	0.057	0.56	0.30
Concentration Trend:		No Significant Trend	Probably Decreasing Trend	No Significant Trend	No Significant Trend



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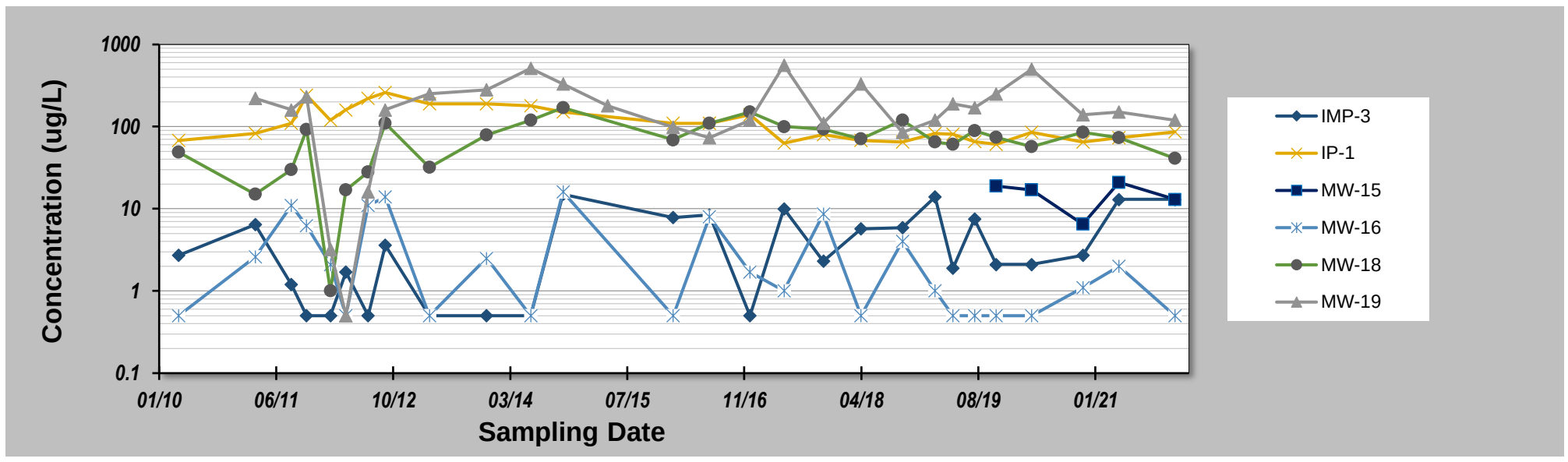
Mann-Kendall Constituent Trend Analysis							
Sampling Point ID		IMP-3	IP-1	MW-15	MW-16	MW-18	MW-19
Sampling Event	Sampling Date	VINYL CHLORIDE CONCENTRATIONS (µg/L)					
1	Apr-10	2.7	68		0.5	49	
2	Mar-11	6.4	83		2.6	15	220
3	Aug-11	1.2	110		11	30	160
4	Oct-11	0.5	240		6.2	92	230
5	Jan-12	0.5	120		2.1	1	3.2
6	Mar-12	1.7	160		0.5	17	0.5
7	Jul-12	0.5	220		11	28	16
8	Sep-12	3.6	260		14	110	160
9	Mar-13	0.5	190		0.5	32	250
10	Nov-13	0.5	190		2.5	79	280
11	May-14	0.5	180		0.5	120	510
12	Oct-14	15	150		16	170	330
13	Apr-15						180
14	Jan-16	7.8	110		0.5	69	98
15	Jun-16	8.4	110		8	110	73
16	Dec-16	0.5	140		1.7	150	120
17	May-17	10	63		1	100	560
18	Oct-17	2.3	80		8.6	93	110
19	Apr-18	5.7	68		0.5	71	330
20	Oct-18	5.9	65		4	120	85
21	Feb-19	14	83		1	65	120
22	May-19	1.9	81		0.5	61	190
23	Aug-19	7.5	66		0.5	89	170
24	Nov-19	2.1	61	19	0.5	74	250
25	Apr-20	2.1	85	17	0.5	57	500
26	Nov-20	2.7	65	6.5	1.1	85	140
27	Apr-21	13	73	21	2	73	150
28	Dec-21	13	86	13	0.5	41	120
29							
30							
Coefficient of Variation		0.97	0.50	0.38	1.27	0.55	0.73
Mann-Kendall Statistic (S)		101	-140	-2.0	-80	47	29
p value		0.035	0.004	0.81	0.09	0.34	0.590
Concentration Trend:		Increasing Trend	Decreasing Trend	No Significant Trend	Probably Decreasing Trend	No Significant Trend	No Significant Trend



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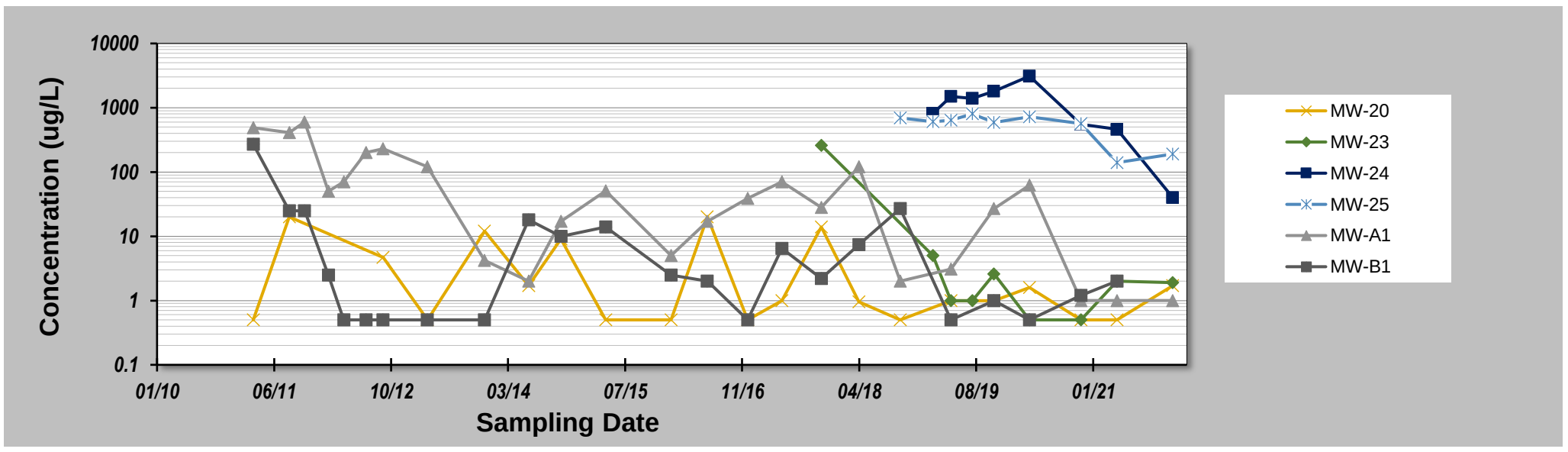
Mann-Kendall Constituent Trend Analysis							
Sampling Point ID		MW-20	MW-23	MW-24	MW-25	MW-A1	MW-B1
Sampling Event	Sampling Date	VINYL CHLORIDE CONCENTRATIONS (µg/L)					
1	Apr-10						
2	Mar-11	0.5				490	270
3	Aug-11	20				410	25
4	Oct-11					600	25
5	Jan-12					50	2.5
6	Mar-12					70	0.5
7	Jul-12					200	0.5
8	Sep-12	4.7				230	0.5
9	Mar-13	0.5				120	0.5
10	Nov-13	12				4.2	0.5
11	May-14	1.7				2	18
12	Oct-14	9.1				17	10
13	Apr-15	0.5				51	14
14	Jan-16	0.5				5	2.5
15	Jun-16	20				17	2
16	Dec-16	0.5				39	0.5
17	May-17	1				70	6.5
18	Oct-17	14	260			28	2.2
19	Apr-18	0.96				120	7.4
20	Oct-18	0.5			690	2	27
21	Feb-19		5	820	610		
22	May-19	1	1	1500	640	3.1	0.5
23	Aug-19		1	1400	800		
24	Nov-19	1	2.6	1800	590	27	1
25	Apr-20	1.6	0.5	3100	720	62	0.5
26	Nov-20	0.5	0.5	550	570	1	1.2
27	Apr-21	0.5	2	460	140	1	2
28	Dec-21	1.7	1.9	40	190	1	2
29							
30							
Coefficient of Variation		1.48	2.82	0.80	0.42	1.56	3.16
Mann-Kendall Statistic (S)		-3.0	14	-10	-18	-151	-49
p value		0.61	0.17	0.27	0.076	0.0004	0.25
Concentration Trend:		No Significant Trend	No Significant Trend	No Significant Trend	Probably Decreasing Trend	Decreasing Trend	No Significant Trend



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