

Ashland LLC

2020 Corrective Measure Implementation Annual Progress Report

**130 South Street
Rensselaer, New York**

**USEPA RCRA Administrative Order on Consent
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2020 Corrective Measure Implementation Annual Progress Report

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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, 2020
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 2020 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, 2020 (reporting period).

Arcadis prepared this 2020 CMI Annual Report 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 tenth year of remedy implementation.

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.

Arcadis presented a revised conceptual site model (CSM) and proposed path forward for the site to representatives of the USEPA, New York State Department of Environmental Conservation (NYSDEC), and New York State Department of Health (NYSDOH) via teleconference on August 22, 2018. The revised CSM presented elements of results from site characterization activities completed in 2017 and detailed in the 2017 CMI Annual Report (Arcadis 2018a). Arcadis received approval from the NYSDEC via email on September 24, 2018 to implement the ERD System Optimization Work Plan (Arcadis 2018b) to optimize the current site remedy. As outlined in the ERD Work Plan (Arcadis 2018b), Arcadis expanded the injection well network in 2018 to target the highest CVOC mass flux areas and source zones identified during 2017 site characterization activities and completed an injection event at the newly installed injection wells using emulsified vegetable oil (EVO) in 2018 and 2020.

Arcadis received approval from the NYSDEC via email on September 14, 2020 to implement the Mulch Permeable Reactive Barrier (PRB) Installation Work Plan (Arcadis 2020a). This work plan included the injection of additional EVO directly into the subsurface through boreholes using direct-push technology (DPT) drilling. The work plan also included the installation of a mulch PRB along the downgradient property boundary to provide a long term carbon source to groundwater, however the installation of the mulch PRB is on hold pending more favorable weather conditions and an implementation strategy

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evaluation. The 2020 ERD injection event is detailed in Appendix A: ERD Injection Event Summary (2020), (Arcadis 2020b).

This 2020 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 2020 CMI Annual Report.
Section 2 – Corrective Measure Objectives	Provides the objectives of the remedy.
Section 3 – Conceptual Site Model Update	Discusses the additional field activities completed to further evaluate and update the CSM.
Section 4 – Enhanced Reductive Dechlorination Summary	Discusses the ERD injection methodology, well network, injection substrate, and the 2020 injection event.
Section 5 – Groundwater Monitoring	Summarizes site-wide groundwater monitoring events, modifications to the program, and results for the past year.
Section 6 – Periodic Review Report: Engineering and Institutional Controls	Documents implementation and inspection of engineering and institutional controls at the site.
Section 7 – 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 8 – References	Lists the references cited throughout this 2020 CMI Annual Report.

2 Corrective Measure Objectives

In the Revised Draft Corrective Measures Study Report (Arcadis 2009), Arcadis 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 injections including: ERD injection methodology, well network, injection substrate and a summary of the 2020 injection event.

3.1 Historical Injections

Groundwater remediation activities began in October 2010 with the injection of a dilute molasses solution in three 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. Four of the injection wells to the south were abandoned in October 2018 to allow access for adjacent bridge renovation construction. 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. EVO injections were completed in 2011, 2013, and 2015. A limited-scale molasses injection event was completed in 2017 as described in the 2017 Annual CMI Report (Arcadis 2018a). Following some additional investigation efforts in 2017 and 2018, Arcadis installed 17 injection wells (ranging in depth from 10 to 30 feet bgs and one monitoring well to expand and optimize the existing ERD system infrastructure (Figure 2). The injection wells were intended to address confirmed source areas on site and a deeper mass flux zone along the property boundary. A 2% by volume EVO solution was injecting into these new wells in 2018.

Performance monitoring data collected in early 2020 to evaluate the 2018 injections 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 is necessary to meet project objectives.
- Carbon substrate was recently nearing depletion in areas targeted during the 2018 injection event and that these areas would benefit from additional injections.

Targeted source area treatment is effective; therefore, supplemental targeted treatment is necessary to continue ERD of on-site source CVOC mass that is leading to downgradient impacts.

Based on these observations, Arcadis proposed the work outlined in the Mulch PRB Installation Work Plan (Arcadis 2020a) to facilitate carbon distribution into the 2018 injection infrastructure and additional deeper areas.

3.2 Remedial Optimization and 2020 Injection Event

Arcadis received approval from the NYSDEC via email on September 14, 2020 to implement the Mulch PRB Installation Work Plan (Arcadis 2020a) to replenish carbon substrate through EVO injections into the same ERD injection infrastructure utilized in 2018 and an additional eleven DPT drilling locations, expanding the 2018 ERD system. The work was completed from September 16 to October 23, 2020 and approximately 60,000 gallons of injection solution were injected into the existing injection network, which is approximately 87% of the target injection volume. Table 2a summarizes the injection volumes. The DPT injections occurred in two to five intervals at 11 injection points for a total of approximately 18,000

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gallons resulting in 95% of the injection target. Table 2b summarizes the injection volumes for the 2020 DPT injections.

Details of the 2020 ERD injection event are presented in Appendix A: ERD Injection Event Summary (2020), (Arcadis 2020b).

The installation of the mulch PRB is pending due to unfavorable winter and wet weather conditions. While on hold pending better weather, Arcadis continues to evaluate options to address the shallow mass flux zone along the site boundary to provide long-term carbon substrate delivery to the shallow subsurface to treat CVOCs.

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.

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, a few modifications were made to the monitoring program, which included additional wells and analytes as detailed below. Changes to the monitoring program were documented in the ERD Work Plan (Arcadis 2018b). Tables 3 summarize the 2020 semiannual monitoring program for IRZ performance and BTEX constituents in MW-20.

4.2 Groundwater Monitoring Activities

The two semi-annual monitoring events were performed at the site on April 7 and 8, and November 11 through November 13, 2020. To support the post injection monitoring, additional samples were collected during the April and November (MW-15, MW-16, MW-20, MW-23, MW-24, and MW-25) 2020 sampling events. Monitored natural attenuation (MNA) parameters including ethane, ethene and methane were also collected during the April and November 2020 sampling events.

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 through time). Additional data collected is summarized in Table 3. Groundwater monitoring results are discussed in Section 5.6.

4.3 Laboratory Analyses

Table 3 shows the analyses required at each monitoring well. Groundwater samples collected during the April and November 2020 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 April and November 2020 sampling events by Arcadis. The results were usable; either as reported or with minor qualification. The data validator's comments are incorporated in Tables 6 through 9, and the Data Usability Summary Reports are included as Appendix B.

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. Groundwater elevation results are discussed in Section 5.6.1.

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 C.

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).

The performance of ERD can be evaluated in various ways, including:

- Elevated dechlorination daughter compound (cis-1,2-DCE and VC) and end product (ethane and ethene) trends and associated decreasing parent compound trends (PCE and TCE).
- Maintenance of elevated levels of organic carbon as electron donors.
- Favorable geochemical conditions to support parent compound degradation into dechlorination daughter compounds and end products.
- Presence of reducing 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 because they are damaged. These wells plus MW-12S and MW-12D are scheduled to be abandoned in 2021 since access is limited to these wells (due to the railroad) and they are not used for groundwater monitoring. Groundwater contours for the April and November 2020 sampling events are shown on Figures 3 and 4. Groundwater elevation data collected in both gauging events 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 samples provide data to evaluate organic carbon released from the carbon substrate injected to support ERD, including distribution, downgradient transportation prior to consumption, and consumption via ERD. TOC samples were collected at fourteen monitoring wells and two injection wells during the April and November 2020 sampling event.

Groundwater TOC and MNA parameters concentrations from the 2020 sampling events are 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 20 milligrams per liter (mg/L) which is assumed to be sufficient to promote ERD based on Arcadis' experience with ERD implementation. 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-B1, IW-B3, MW-19, 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 overall 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 0.75 J to 6.8 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.

Strong reducing and methanogenic conditions favorable for ERD were observed during the reporting period within or at the immediate downgradient of property boundary IRZs. The methane concentrations are shown in Table 7 and summarized below:

- Methane was detected in all wells analyzed for methane in April and November 2020. On-site methane concentrations from wells within the anticipated IRZ areas ranged from 2.4 mg/L to 18 mg/L in 2020, 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 estimated elevated methane concentrations (2.4 and 2.1 mg/L) but remain at concentrations that 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 is strongly supportive of ongoing ERD remedy implementation.

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). Exceedances of TOGS (NYSDEC 1998) discussed below reflect results greater than these values/standards in groundwater. 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. Dechlorination end product concentrations (ethane and ethene) and detected VOCs in groundwater collected during this reporting period are summarized in Tables 7 and 8, respectively. Results for key CVOCs (PCE, TCE, cis-1,2-DCE, and VC) and their dechlorination end products (ethene and ethane) are also presented in the “at-a-glance” charts (Figures 6 through 15), which show concentration trends (as a function of molarity) over the full timeframe of ERD remedy implementation at the site.

Ketones such as acetone, 2-butanone, 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 (NYSDEC 1998) occasionally since injection began, particularly during quarterly injections with molasses. Acetone was detected in MW-19, MW-23, and MW-B1 during the reporting period. 2-butanone and 2-hexanone were both detected in the groundwater sample collected from MW-B1 during the November 2020 sampling event. 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 2020 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

Monitoring well MW-B1 represents the shallow mass flux zone for the northern (B-Line) IRZ area whereas MW-23 and MW-24 represent the deeper mass flux zone for the northern IRZ area. The northern monitoring well results are included in Table 7 and Table 8 and summarized below.

Shallow Zone

Parent products (PCE and TCE) were not detected and cis-1,2-DCE was slightly above the reporting limit at MW-B1 in November 2020. Dechlorination end products (ethane and ethene) were detected at each of these wells during the reporting period which suggests that reductive dechlorination is continuing to completion along the northern IRZ. CVOCs in the shallow mass flux zone have trended downward with an associated shift to dechlorination end products since the start of ERD injections; the data collected during this reporting period at MW-B1 are consistent with these trends. Total CVOC molarity at MW-B1 has decreased since the start of ERD injections, indicating that ERD and CVOC mass reduction is occurring at this location.

Deeper Zone

Parent products (PCE and TCE) and dechlorination daughter products (cis-1,2-DCE and VC) were not detected at MW-23. MW-24 had non-detect TCE concentrations since 2019, exhibited a TCE concentration increase in November 2020. Cis-1,2-DCE concentrations remained stable throughout the reporting period, and VC concentrations decreased in the November 2020 sampling event. This data alongside decreasing, but still elevated, dechlorination end products indicates that additional ERD is necessary in this area.

Deeper mass flux zone data indicate either complete (MW-23) or ongoing (MW-24) reduction in CVOC concentrations resulting from the 2017 limited scale injections, and 2018 and 2020 remedial optimizations.

Overall, VOC data collected during the reporting period suggest that ERD continues to occur within the northern IRZ and in the expanded areas of influence from the 2018 and 2020 remedial optimizations.

However, the data also indicates that ERD has slowed, especially at MW-24, and would benefit from the additional carbon substrate delivery provided during the 2020 injections. Monitoring well MW-24 exhibited VOC concentrations above the TOGS Criteria at least once in 2020 as shown in Table 8.

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

Monitoring wells MW-A1 and MW-19 represent the shallow mass flux zone for the southern (A-Line) IRZ area. Monitoring well MW-25 represents the source area mass flux zone. Southern (A-line) IRZ monitoring well results are included in Tables 7 and 8 and summarized below.

Shallow Zone

In the shallow mass flux zone, MW-19 exhibited limited parent compound detections and were non-detect at MW-A1 during the reporting period. Dechlorination daughter product concentrations fluctuated at MW-19 during the reporting period. MW-A1 dechlorination daughter product concentrations continued to fluctuate near historical low concentrations during the reporting period; they were both non-detect in November 2020. Dechlorination end products were elevated at both wells during the reporting period, including a significant increase in ethene at MW-19 (see Figure 11), which indicates reductive dechlorination is occurring through completion at these locations.

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 dechlorination end products since system optimization in 2017. Total CVOC molarity at MW-A1 has decreased since ERD injections began, indicating that ERD and CVOC mass reduction is occurring at this location. Total molarity at MW-19 steadily decreased from October 2014 to 2016 and has fluctuated since. Parent compound total molarity fluctuations in MW-19 have historically been attributed to residual CVOC mass that is sorbed to soil and liberated as a result of the ERD injections.

Source Area

In the source mass flux zone, parent products were detected during the April 2020 sampling event at MW-25; however, PCE concentrations decreased throughout the reporting period and have decreased overall since the first sampling event in 2018. Dechlorination daughter product cis-1,2-DCE increased at MW-25 during the reporting period alongside parent product decreases following the 2020 remedial optimization (see Figure 9). Dechlorination end products were elevated at MW-25 during the reporting period. These data indicate reductive dechlorination is occurring at and upgradient of this location.

Source area mass flux zone data from MW-25 indicates reduced CVOC concentrations in response to the 2017 limited-scale injection, and 2018 and 2020 remedial optimizations. Parent compounds reductions likely indicate successful treatment from source area IRZ injections due to source mass desorption, which increases dissolved mass readily available for treatment and improves ERD efficacy.

Overall, VOC data collected during the reporting period suggest that ERD continues to occur within the southern IRZ shallow and source area mass flux zones from the 2018 and 2020 remedial optimizations. MW-A1, MW-19, and MW-25 all exhibited VOC concentrations greater than the TOGS Criteria at least once in 2020 as shown in Table 8.

4.6.3.3 On Site Wells Outside In-Situ Reactive Zone

MW-20 and MW-15 are at the downgradient edge of the property but outside what is considered the IRZ areas. Performance monitoring results are included in Table 8 and results are discussed further below.

MW-15 was sampled in November 2020 for the third time since 2009 to provide additional data on CVOC concentrations near newly installed 2018 remedial optimization infrastructure. The results showed that TCE, cis-1,2-DCE, and VC were within historical concentration ranges. PCE was not detected. Benzene, cis-1,2-DCE, and VC were detected in groundwater at MW-15 at concentrations greater than the TOGS Criteria.

MW-20 exhibited VOC groundwater concentrations above TOGS Criteria at least once in 2020 as shown in Table 8; however, concentrations were within historical ranges. Parent compounds (PCE and TCE) and dechlorination daughter product cis-1,2-DCE fluctuated within historical ranges during the reporting period at MW-20. VC was detected during the April 2020 sampling event, but was not detected during the November 2020 sampling event at MW-20. The presence of cis-1,2-DCE suggests that natural degradation is likely occurring at or upgradient of this area. Ethane (a dechlorination end product) was detected during the reporting period at MW-20 for the first time.

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

4.6.3.4 Downgradient Monitoring Wells

Downgradient 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. Dechlorination daughter product concentrations at these off-site monitoring wells generally increased after IRZ injections began but remained relatively stable with fluctuations during recent sampling events. However, dechlorination daughter product concentrations at MW-16 and IMP-3 decreased following the 2017 limited-scale injection and 2018 remedial optimization.

IMP-3, IP-1, and MW-18, located downgradient of the northern source area detailed in Section 3, exhibited VOC concentrations above the TOGS Criteria during the reporting period; however, concentrations were within historical ranges. VOC results for monitoring location IMP-3 decreased to non-detect by 2013; however, concentrations increased in 2014 and remained stable until decreases in concentrations following the 2017 limited-scale injection and 2018 remedial optimization. Groundwater samples collected from MW-17 and MW-21, located downgradient from the southern source zone on the southwestern edge of the downgradient off-site property, continue to have no CVOC detections.

As part of the monitoring program, IMP-3, IP-1, MW-16, and MW-18 are also monitored for the following CVOCs; 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.

Cis-1,2-DCE and VC were reported at concentrations greater than the TOGS Criteria in the groundwater samples collected at IMP-3, IP-1, and MW-18 and cis-1,2-DCE was reported at a concentration greater than the TOGS Criteria in the groundwater sample collected at MW-16 during the reporting period.

All concentrations for benzene were non-detect for all four locations during the April and November 2020 sampling events.

All concentrations for 1,2-DCA were either non-detect or reported at a low estimated concentration less than the TOGS Criteria for all four locations.

All trans-1,2-DCE concentrations were either non-detect or reported at a concentration less than the TOGS Criteria for all four locations.

Property use at the former Volvo service center has not changed since implementation in 2010. Arcadis will continue to track property use and groundwater results in future annual reports. Current concentrations of 1,2-DCA, benzene, TCE, cis-1,2-DCE, trans-1,2-DCE, and VC do not indicate a change in condition warranting additional action for vapor intrusion concerns for offsite locations.

4.6.4 Dissolved Oxygen Field Data

Dissolved oxygen data collected during the 2020 reporting period indicated that site groundwater is strongly to moderately reducing and will support ongoing CVOC ERD treatment. Data further indicated that, under ambient conditions, site groundwater geochemistry is favorable for reductive dechlorination of CVOCs. The depletion of oxygen is observed across the site in groundwater samples as the monitoring wells reach stabilization. Dissolved oxygen offsite ranged from 0.071 to 6.02 mg/L and 2.05 to 6.21 mg/L and ranged from 0.0 to 0.87 mg/L and 0.55 to 7.38 mg/L onsite during the April and November 2020 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 2019 CMI Annual Report (Arcadis 2020c):

- Successful ERD was sustained along the property boundary and additional CVOC source areas targeted during the 2017 limited scale injection and the 2018 remedial optimization. Some indications of successful ERD progress from the 2020 injection event were observed in November 2020 (e.g., MW-25 as described in Section 4.6.3.2.2). However, the 2020 injection event was completed shortly before the November sampling event; the effects of these injections will be further evaluated in subsequent monitoring events.
- 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 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 2021 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 2019 CMI Annual Report (Arcadis 2020c). 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 2020, Arcadis and their subcontractor (The Davey Tree Expert Company) maintained the vegetation along the fence line. The fence remained in good condition and did not need additional repairs and there were no observations of new graffiti on site.

Issues identified during the annual review are summarized below:

- MW-10, MW-11, and MW-12S/D have received NYSDEC approval (via email April 14, 2020) for well abandonment and will be completed in 2021. These wells are not sampled, damaged, and/or are difficult to access due to railroad traffic/regulations.
- Collapsed asphalt near the culvert continues to be maintained with Type 2 crusher run gravel (see photo provided in Appendix C).
- Rainwater runoff and debris from offsite 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 is evaluating the storm sewer under the road adjacent to the site to determine if repairs can be made to avoid this flooding.

6 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 in April 2020 indicated that carbon substrate was nearing depletion in areas targeted during the 2018 injection event and that these areas would benefit from additional injections which were completed later in 2020.

Initial review of the post-injection semiannual data indicates successful ERD following the 2020 injection, particularly in MW-25. However, the 2020 injections were completed shortly before the November sampling event; therefore, the full effect of the injections will be further evaluated with data from the 2021 semiannual sampling events.

Performance monitoring data collected since the 2018 ERD system optimization indicate 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 is 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) is being reevaluated due to newly encountered site conditions potentially requiring an alternative solution.

Semiannual groundwater monitoring will be conducted in 2021 in accordance with the monitoring schedules and methodology included in this 2020 CMI Annual Report.

Since carbon substrate injections including DPT were just completed in late 2020 to optimize carbon substrate delivery and since the mulch PRB is currently being re-evaluated, Arcadis would like to request an extension on the five-year review report initially planned for 2020. The five-year review report will be submitted later in 2021 or early 2022.

7 References

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Tables

Table 1
IRZ Injection Summary (2010 - 2015)
2020 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
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)
 2020 Corrective Measure Implementation Annual Progress Report
 Ashland LLC
 130 South Street, Rensselaer, New York

Molasses Injections	Location ID	Cumulative Volume (gallons)*	Average Injection Rate (gpm)*	EVO Injections	Cumulative Volume (gallons)*	Average Injection Rate (gpm)*	Cumulative Volume (gallons)**	Average Injection Rate (gpm)**
	Southern Source Zone	November 2017			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)
2020 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 (April / November 2020)****2020 Corrective Measure Implementation Annual Progress Report****Ashland LLC****130 South Street, Rensselaer, New York**

Parameter Well IDs	Semi-Annual (2 times/year)				Water Level --	Field Parameters --
	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 (2016-2020)
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
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
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
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
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
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
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

Table 4
Field Parameters After Stabilization was Achieved (2016-2020)
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-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
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
MW-19	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
	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
MW-20	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
	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
MW-21	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
	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
MW-22	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
	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
	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
MW-23	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

Table 4
Field Parameters After Stabilization was Achieved (2016-2020)
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-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
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
	06/30/16	1.78	0.65	-162	7.03	15.01	255
MW-A1	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
MW-B1	11/11/20	1.78	0.76	-74	6.90	14.20	3.0
	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
MW-1	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
	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 (1999-2020)
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

Table 5
Summary of Groundwater Elevation Data (1999-2020)
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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
Under ice		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

Table 5
Summary of Groundwater Elevation Data (1999-2020)
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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

Table 5
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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
*Potential blockage		11/11/2020	NM	NM

Table 5
Summary of Groundwater Elevation Data (1999-2020)
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130 South Street, Rensselaer, New York

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
		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
Obstruction at 4.72 feet bgs				
Damaged				

Table 5
Summary of Groundwater Elevation Data (1999-2020)
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-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

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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

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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

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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

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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

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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

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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

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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

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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

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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

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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
Abandoned		5/7/2019	Abandoned	

Table 5
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Ashland LLC
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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
MW-B1	27.53	4/9/2008	5.18	22.35
		9/15/2008	5.14	-5.14
		4/6/2009	5.34	-5.34
		9/23/2009	6.31	-6.31
		4/15/2010	5.34	-5.34
		3/10/2011	4.50	-4.50
		8/8/2011	5.91	-5.91
		10/13/2011	5.40	-5.40
		1/125/12	8.40	-8.40
		3/29/2012	5.75	-5.75
		7/3/2012	6.77	-6.77
		9/13/2012	6.11	-6.11
		3/21/2013	5.50	-5.50
		11/20/2013	8.30	19.23
		10/14/2014	8.00	19.53
		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

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Well ID	Measuring Point Elevation (msl)	Date	DTW	Groundwater Elevation (msl)
MW-B2	27.40	4/9/2008	5.08	22.32
		4/6/2009	5.19	-5.19
		9/23/2009	6.11	-6.11
		4/15/2010	5.23	-5.23
		3/10/2011	4.37	-4.37
		8/8/2011	5.52	-5.52
		10/13/2011	4.94	-4.94
		1/25/2012	7.85	-7.85
		3/29/2012	4.76	-4.76
		7/3/2012	5.96	-5.96
		3/21/2013	4.91	-4.91
		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	-5.12
		4/7/2020	5.27	-5.27
IMP-1	25.13	11/11/2020	6.65	-6.65
		10/13/2011	6.32	18.81
		1/25/2012	7.15	-7.15
		3/29/2012	7.31	-7.31
		7/3/2012	7.89	-7.89
		3/21/2013	6.00	-6.00
		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	-6.62
		4/7/2020	6.30	-6.30
		11/11/2020	6.85	-6.85

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Well ID	Measuring Point Elevation (msl)	Date	DTW	Groundwater Elevation (msl)
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
IMP-3	25.13	11/11/2020	7.68	17.49
		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

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Well ID	Measuring Point Elevation (msl)	Date	DTW	Groundwater Elevation (msl)
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
MW-20	25.36	11/6/2019	4.90	20.25
		4/7/2020	4.84	20.31
		11/11/2020	5.25	19.90
		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

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Well ID	Measuring Point Elevation (msl)	Date	DTW	Groundwater Elevation (msl)
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
MW-22	30.65	11/6/2019	9.92	18.05
		4/7/2020	9.52	18.45
		11/11/2020	11.17	16.80
		10/30/2017	3.12	27.53
		4/10/2018	1.76	28.89
		10/3/2018	1.35	29.30
MW-23	26.69	5/7/2019	0.85	29.80
		4/8/2020	0.98	29.67
		11/11/2020	NM	NM
		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
MW-24	25.43	11/6/2019	7.49	19.20
		4/7/2020	7.18	19.51
		11/11/2020	7.56	19.13
		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
MW-25	28.13	11/6/2019	6.34	19.09
		4/8/2020	6.58	18.85
		11/11/2020	7.37	18.06
		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

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Well ID	Measuring Point Elevation (msl)	Date	DTW	Groundwater Elevation (msl)
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
Abandoned		5/7/2019	Abandoned	
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
Abandoned		5/7/2019	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

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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
PZ-5	25.52	11/11/2020	5.41	19.79
		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

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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
PZ-7	24.90	11/11/2020	4.75	20.47
		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

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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
BM-4	26.59	11/11/2020	3.78	24.24
		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

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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
MH-2	15.40	11/11/2020	8.38	8.12
		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
IW-A2	32.30	4/7/2020	8.31	7.09
		11/11/2020	8.37	7.03
IW-B1	25.03	11/6/2019	8.60	23.70
		4/8/2020	8.23	24.07
IW-B2	25.99	5/7/2019	4.60	20.43
IW-B3	25.60	5/7/2019	2.23	23.76
		11/6/2019	2.25	23.35

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. April 22, 2015 wells were inaccessible along the CSX rail line due to railroad construction.
* = Unable to located due to ice.
** = Well casing damaged.

Table 6
Summary of TOC Results (2003-2020)
2020 Corrective Measure Implementation Annual Progress Report
Ashland LLC
130 South Street, Rensselaer, New York

Location ID	Date Collected	Total Organic Carbon (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
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
	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	4.4
	4/7/2020	4.7
	11/12/2020	4.5

Table 6
Summary of TOC Results (2003-2020)
2020 Corrective Measure Implementation Annual Progress Report
Ashland LLC
130 South Street, Rensselaer, New York

Location ID	Date Collected	Total Organic Carbon (mg/L)
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
	4/8/2020	190
	11/12/2020	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
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

Table 6
Summary of TOC Results (2003-2020)
2020 Corrective Measure Implementation Annual Progress Report
Ashland LLC
130 South Street, Rensselaer, New York

Location ID	Date Collected	Total Organic Carbon (mg/L)
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
	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	1.0 U
	4/7/2020	1.0 U
	11/11/2020	1.0 U
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	1.1

Table 6
Summary of TOC Results (2003-2020)
2020 Corrective Measure Implementation Annual Progress Report
Ashland LLC
130 South Street, Rensselaer, New York

Location ID	Date Collected	Total Organic Carbon (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	1.6
	11/12/2020	3.6
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
	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	2.9
	11/12/2020	2.7

Table 6
Summary of TOC Results (2003-2020)
2020 Corrective Measure Implementation Annual Progress Report
Ashland LLC
130 South Street, Rensselaer, New York

Location ID	Date Collected	Total Organic Carbon (mg/L)
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]
MW-20	10/31/2017	21.0
	4/10/2018	4.00
	11/6/2019	3.8
	4/7/2020	2.8
	11/12/2020	3.8
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	6.8
	4/7/2020	2.7
	11/11/2020	4.7

Table 6
Summary of TOC Results (2003-2020)
2020 Corrective Measure Implementation Annual Progress Report
Ashland LLC
130 South Street, Rensselaer, New York

Location ID	Date Collected	Total Organic Carbon (mg/L)
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
	11/12/2020	16
	9/15/2017	3.20 B [3.20 B]
MW-24	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
	10/4/2018	5.30
	11/20/2018	6.20
MW-25	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
	10/20/2010	14.0
	11/8/2010	7.90
	11/23/2010	6.30
	12/28/2010	10.0 U
MW-A1	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
	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
	4/8/2020	17
	11/11/2020	15

Table 6
Summary of TOC Results (2003-2020)
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Ashland LLC
130 South Street, Rensselaer, New York

Location ID	Date Collected	Total Organic Carbon (mg/L)
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

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 (2010-2020)
2020 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
	4/7/2020	NA	NA	NA
	11/12/2020	NA	NA	NA
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
IW-A2	10/31/2017	330 U	310 U	4,200
	4/10/2018	750 U	700 U	13,000
	4/8/2020	NA	NA	NA
	11/12/2020	NA	NA	NA
IW-B3	10/31/2017	330 U	310 U	5,500
	4/10/2018	750 U	700 U	14,000
	4/7/2020	NA	NA	NA
	11/13/2020	NA	NA	NA
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
	4/7/2020	NA	NA	NA
	11/11/2020	NA	NA	NA
	11/6/2019	33	16	2,300
MW-15	4/7/2020	170 U	150 U	5,400
	11/11/2020	63	22	1,600

Table 7
Summary of MNA Parameters in Groundwater (2010-2020)
2020 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	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
	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
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]
	4/7/2020	NA	NA	NA
MW-18	11/12/2020	NA	NA	NA
	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

Table 7
Summary of MNA Parameters in Groundwater (2010-2020)
2020 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-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]
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
MW-21	4/16/2010	0.35 U	0.33 U	0.89
	4/7/2020	NA	NA	NA
	11/11/2020	NA	NA	NA
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
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
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

Table 7
Summary of MNA Parameters in Groundwater (2010-2020)
2020 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-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
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
	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
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 (2010-2020)
2020 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
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
1,1,2-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
1,2-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
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
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
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
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
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
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
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
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
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
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
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
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
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
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
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
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
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
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
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
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
1,1-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
1,1-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
1,2-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
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
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	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
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
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

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 (2010-2020)
2020 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
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
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
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
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
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
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
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
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
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
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
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
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
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
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
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
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
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
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
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
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
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
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
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
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
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
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
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
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
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
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

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 (2010-2020)
2020 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
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
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
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
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
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
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
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
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
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
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
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
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
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
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
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
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
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
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
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
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
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
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
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
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
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
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
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
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
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
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

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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NYSDEC = New York State Department of Environmental Conservation
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VOC = volatile organic compound.
[] = Duplicate results are shown in brackets.
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D = Compound quantitated using a secondary dilution.
F1 = MS and/or MSD Recovery is outside acceptable Limits.
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R = The sample results were rejected
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UB =Compound considered nondetect at the listed value due to associated blank contamination.
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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	IW-B3 01/24/12	IW-B3 03/29/12	IW-B3 07/02/12	IW-B3 09/13/12	IW-B3 03/21/13	IW-B3 11/21/13	IW-B3 05/29/14	IW-B3 10/15/14	IW-B3 04/22/15	IW-B3 01/27/16	IW-B3 06/30/16	IW-B3 12/21/16	IW-B3 05/16/17	IW-B3 10/31/17	IW-B3 04/10/18	IW-B3 10/03/18	IW-B3 05/08/19	IW-B3 11/06/19	IW-B3 04/07/20	IW-B3 11/13/20	MW-1 12/20/16	MW-1 10/30/17	MW-1 04/10/18
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	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	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	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	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	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	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	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	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	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	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	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	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	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	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	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	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	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	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	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	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	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	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	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	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	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	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	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	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	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	410 J	890 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.

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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.

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Table 8
Summary of Volatile Organic Compounds (2010-2020)
2020 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-15 11/06/19	MW-15 04/07/20	MW-15 11/12/20	
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	
1,1,2-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	
1,2-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	
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	
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	
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	
Acetone	50	ug/L	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	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	
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	5.4	5.3	13	
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	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	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	
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	
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	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	
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	0.57 J	1.0 U	0.96 J	
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	
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	
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	
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	0.27 J	0.65 J	0.70 J	
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	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	
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	
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	
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	4.6	1.0 U	4.5	
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	0.67 J	0.43 J	1.3	
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	
1,2-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	0.55 J	0.56 J	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	18	10	10	
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	1.1	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	19	17	6.5	
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	50.16	33.94 J	36.96 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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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
1,1,2-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
1,2-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
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
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
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
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
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
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
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
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
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
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
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
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
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
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
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
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
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
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
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
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
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
1,1-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
1,2-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
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
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
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
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

NOTES:

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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	
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	
1,1,2-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	
1,2-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	
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	
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	
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	
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	
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	
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	
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	
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	
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	
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	
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	
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	
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	
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	
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	
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	
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	
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	
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	
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	
1,1-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	
1,1-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	
1,2-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	
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	
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	
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	
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	

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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		
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		
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		
2-Butanone	--	ug/L	20 U	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		
2-Hexanone		50	ug/L	20 U	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		
4-Methyl-2-pentanone	--	ug/L	20 U	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		
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		
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		
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	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		
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		
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		
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		
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		
Cyclohexane	--	ug/L	NA	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		
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		
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		
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		
Methylcyclohexane	--	ug/L	NA	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		
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		
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		
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		
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		
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		
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		
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		
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		
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		
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		
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		
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			

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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[] = Duplicate results are shown in brackets.

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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 (2010-2020)
2020 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 03/09/11	MW-19 08/09/11	MW-19 10/13/11	MW-19 01/25/12	MW-19 03/29/12	MW-19 07/02/12	MW-19 09/13/12	MW-19 03/21/13	MW-19 11/21/13	MW-19 05/29/14	MW-19 10/15/14	MW-19 04/23/15
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:

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

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or Laboratory control sample dup (LCS or LCSD) is outside acceptance limits.

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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	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]
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]
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-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*]
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]
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]
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]
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]
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]
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]
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]
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]
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]
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]
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]
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]
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]
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]
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]
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]
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]
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]
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]
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]
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]
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]
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]
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]
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]
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]

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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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.

or Laboratory control sample dup (LCS or LCSD) is outside acceptance limits.

Table 8
Summary of Volatile Organic Compounds (2010-2020)
2020 Corrective Measure Implementation Annual Progress Report
Ashland LLC
130 South Street, Rensselaer, New York

Location ID: Date Collected:	NYSDEC TOGS 1.1.1	Units	MW-21	MW-21	MW-21	MW-21	MW-21	MW-21	MW-21	MW-21	MW-21	MW-21	MW-21	MW-21	MW-21	MW-21	MW-21	MW-21	MW-21	MW-21	MW-21	MW-21	MW-21	MW-21	MW-21	MW-21	MW-21	MW-21	
	Water Guidance Values		04/16/10	03/08/11	08/09/11	10/13/11	01/24/12	03/30/12	07/02/12	09/14/12	03/22/13	11/21/13	05/29/14	10/15/14	04/22/15	01/27/16	06/30/16	12/20/16	05/15/17	10/30/17	04/09/18	10/03/18	02/19/19	05/07/19	08/08/19	11/07/19	04/07/20	11/11/20	
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	
1,1,2-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	
1,2-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	
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	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	
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	
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	
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	5.0 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	
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	
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	
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	
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	
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	
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	
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	
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	
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	
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	
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	
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	
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	
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	
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	
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	
1,1-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	
1,1-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	
1,2-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	
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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	
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	
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	

NOTES:

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

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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	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
1,1,2-trichloro-1,2,2-trifluoroethane	5	ug/L	NA	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
1,2-Dichlorobenzene	3	ug/L	NA	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
2-Butanone	--	ug/L	NA	10 U	100 U	10 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
2-Hexanone	50	ug/L	NA	10 U	100 U	10 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
4-Methyl-2-pentanone	--	ug/L	NA	10 U	100 U	10 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
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	
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	
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	
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	
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	
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	
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	
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	
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	
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	
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	
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	
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	
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	
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	
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	
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	
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	
1,1-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	
1,2-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	
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	
trans-1,2-Dichloroethene	5	ug/L	NA	1.0 U	10 U	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	
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	
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	

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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VOC = volatile organic compound.

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D = Compound quantitated using a secondary dilution.

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

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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 (2010-2020)
2020 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		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-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-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
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	100 U [100 U]	170	150	20 U	100 U	100 U	80 U	20 U	100 U	100 U	100 U	100 U	100 U	50 U	50 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	100 U [100 U]	100 U	100 U	20 U	100 U	100 U	80 U	20 U	100 U	100 U	100 U	100 U	100 U	50 U	50 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	100 U [100 U]	100 U	100 U	20 U	100 U	100 U	80 U	20 U	100 U	100 U	100 U	100 U	100 U	50 U	50 U
2-Butanone	--	ug/L	100 U	2,000 U	100 U	20 U	20 U*	20 U	10 U	10 U	1,000 U [1,000 U]	1,000 U	1,000 U	100 J	1,000 U	1,000 U	800 U	200 U	1,000 U	1,000 U	1,000 U	1,000 U*	1,000 U	500 U	500 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	500 U [500 U]	500 U	500 U	100 U	500 U	500 U	400 U	100 U	500 U	500 U	500 U	500 U	500 U	250 U	250 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	500 U [500 U]	500 U	500 U	100 U	500 U	500 U	400 U	100 U	500 U	500 U	500 U	500 U	500 U	250 U	250 U
Acetone	50	ug/L	100 U	2,000 U	100 U	20 U	20 U	20 U	10 U	3.5	1,000 U [1,000 U]	1,000 U	1,000 U	100 J	1,000 U	1,000 U	800 U	200 U	1,000 U	1,000 U	1,000 U	1,000 U	1,000 U	500 U	500 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	100 U [100 U]	100 U	100 U	20 U	100 U	100 U	80 U	20 U	100 U	100 U	100 U	100 U	100 U	50 U	50 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	100 U [100 U]	100 U	100 U	20 U	100 U	100 U	80 U	20 U	100 U	100 U	100 U	100 U	100 U	50 U	50 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	100 U [100 U]	100 U	100 U	20 U	100 U	100 U	80 U	20 U	100 U	100 U	100 U	100 U	100 U	50 U	50 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	100 U [100 U]	100 U	100 U	20 U	100 U	100 U	80 U	20 U	100 U	100 U	100 U	100 U	100 U	50 U	50 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	100 U [100 U]	100 U	100 U	24	100 U	100 U	80 U	20 U	100 U	100 U	100 U	100 U	100 U	50 U	50 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	34 J [100 U]	100 U	100 U	20 U	100 U	100 U	80 U	20 U	100 U	100 U	100 U	100 U	100 U	50 U	50 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	100 U [100 U]	100 U	100 U	20 U	100 U	100 U	80 U	20 U	100 U	100 U	100 U	100 U	100 U	50 U	50 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	100 U [100 U]	100 U	100 U	20 U	100 U	100 U	80 U	NA	100 U*	100 U*	100 U	100 U	100 U	50 U	50 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	100 U [100 U]	100 U	100 U	20 U	100 U	100 U	80 U	20 U	100 U	100 U	100 U	100 U	100 U	50 U	50 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	100 U [100 U]	100 U	100 U	20 U	100 U	100 U	80 U	20 U	100 U	100 U	100 U	100 U	100 U	50 U	50 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	100 U [100 U]	100 U	100 U	20 U	100 U	100 U	80 U	20 U	100 U	100 U	100 U	100 U	100 U	50 U	50 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	100 U [100 U]	100 U	100 U	20 U	100 U	100 U	80 U	20 UB	100 U	100 U	100 U	100 U	100 U	50 U	50 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	100 U [100 U]	100 U	100 U	20 U	100 U	100 U	80 U	20 U	100 U	100 U	100 U	100 U	100 U	50 U	50 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	200 U [200 U]	200 U	200 U	40 U	200 U	200 U	160 U	40 U	200 U	200 U	200 U	200 U	200 U	100 U	100 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	100 U [100 U]	100 U	100 U	20 U	100 U	100 U	80 U	9,300 D	3,300	3,300	3,200	2,300	2,200	2,100	35 J
Trichloroethene	5	ug/L	440	5,800	10 U	2.0 U	2.0 U	2.0 U	1.0 U	1.0 U	3,100 [3,200]	100 U	100 U	20 U	100 U	100 U	1,000	220	87 J	87 J	130	84 J	91 J	83	50 U
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	100 U [100 U]	230	210	340	120	88 J	58 J	17 J	100 U	100 U	100 U	100 U	100 U	50 U	50 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	100 U [100 U]	100 U	100 U	20 U	100 U	100 U	80 U	20 U	100 U	100 U	100 U	100 U	100 U	50 U	50 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	100 U [100 U]	100 U	100 U	20 U	100 U	100 U	80 U	20 U	100 U	100 U	100 U	100 U	100 U	50 U	50 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	650 [630]	2,200	2,200	830	810	2,500	2,600	850	550	550	650	770	490	530	12,000
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	100 U [100 U]	100 U	100 U	20 U	100 U	100 U	80 U	20 U	100 U	100 U	100 U	100 U	100 U	50 U	57
Vinyl Chloride	2	ug/L	700 F1	260	10 U	2.0 U	2.0 U	2.6	1.0 U	1.0 U	100 U [100 U]	820	1,500	1,400	1,800	3,100	550	690	610	610	640	800	590	720	570
Total VOCs	--	ug/L	2,000 J	11,000	13	1.7 J	0.43 J	3.09	0.23 J	3.73 J	3,800 J [3,800]	3420	4060	2,794 J	2,730	5,688 J	4,208 J	NA	NA	4547 J	5390	3,954 J	3,371	3,433	12,662 J

NOTES:

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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 (2010-2020)
2020 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	
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	
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	
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-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	
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	
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	
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	
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	
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	
Carbon Tetrachloride	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	
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	
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	
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	1.1 J	4.0 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	
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	
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	
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	
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	
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	
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	
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	
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	
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	
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	
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	
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	
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	
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	
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	
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	

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 (2010-2020)
2020 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-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	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	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	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	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	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	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	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	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	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	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	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	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	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	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	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	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	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	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	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	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	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	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	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	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	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	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	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	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	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	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	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).

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J = Indicates an estimated value.

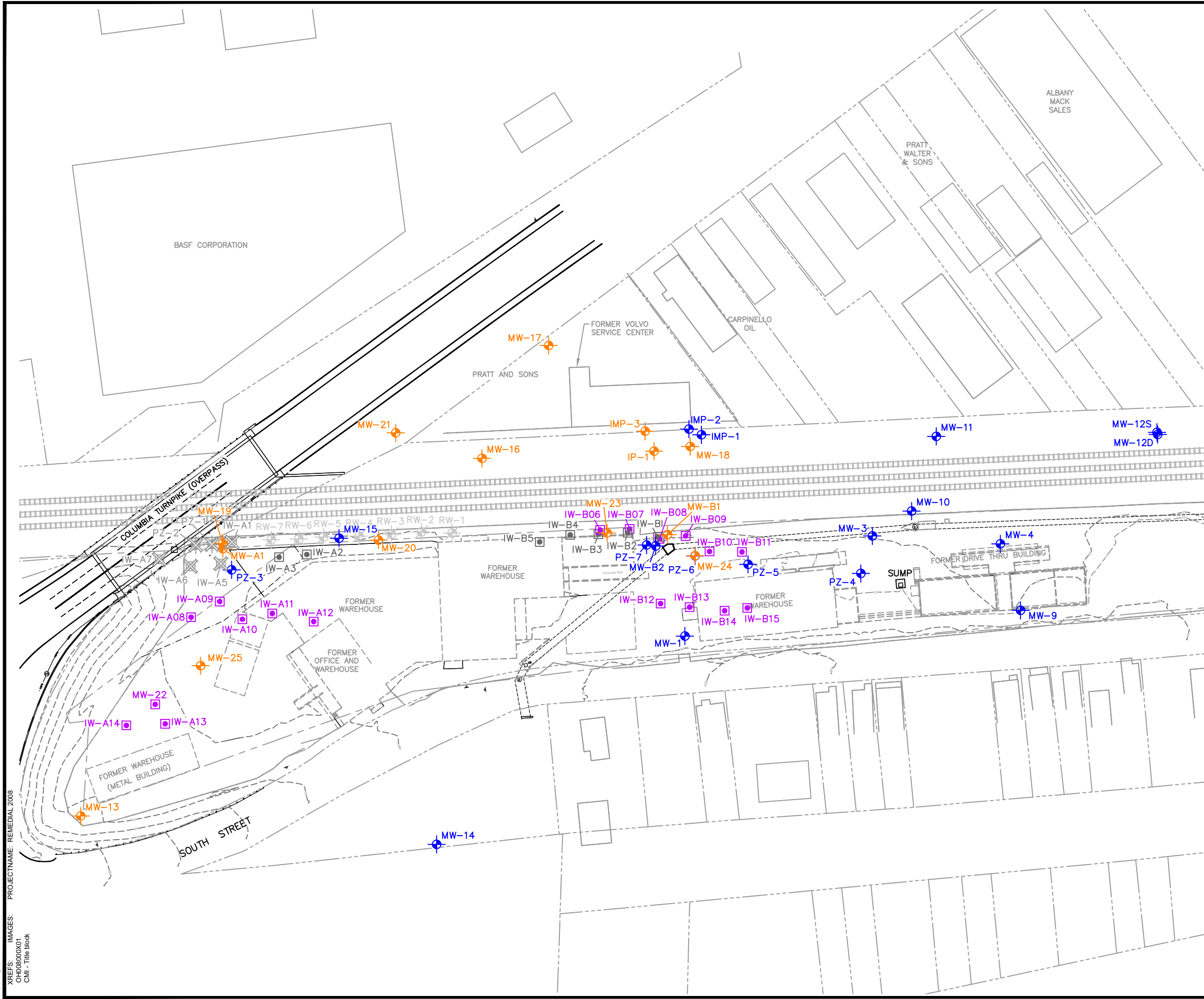
R = The sample results were rejected

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.

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Figures

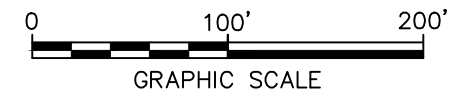


LEGEND:

- 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

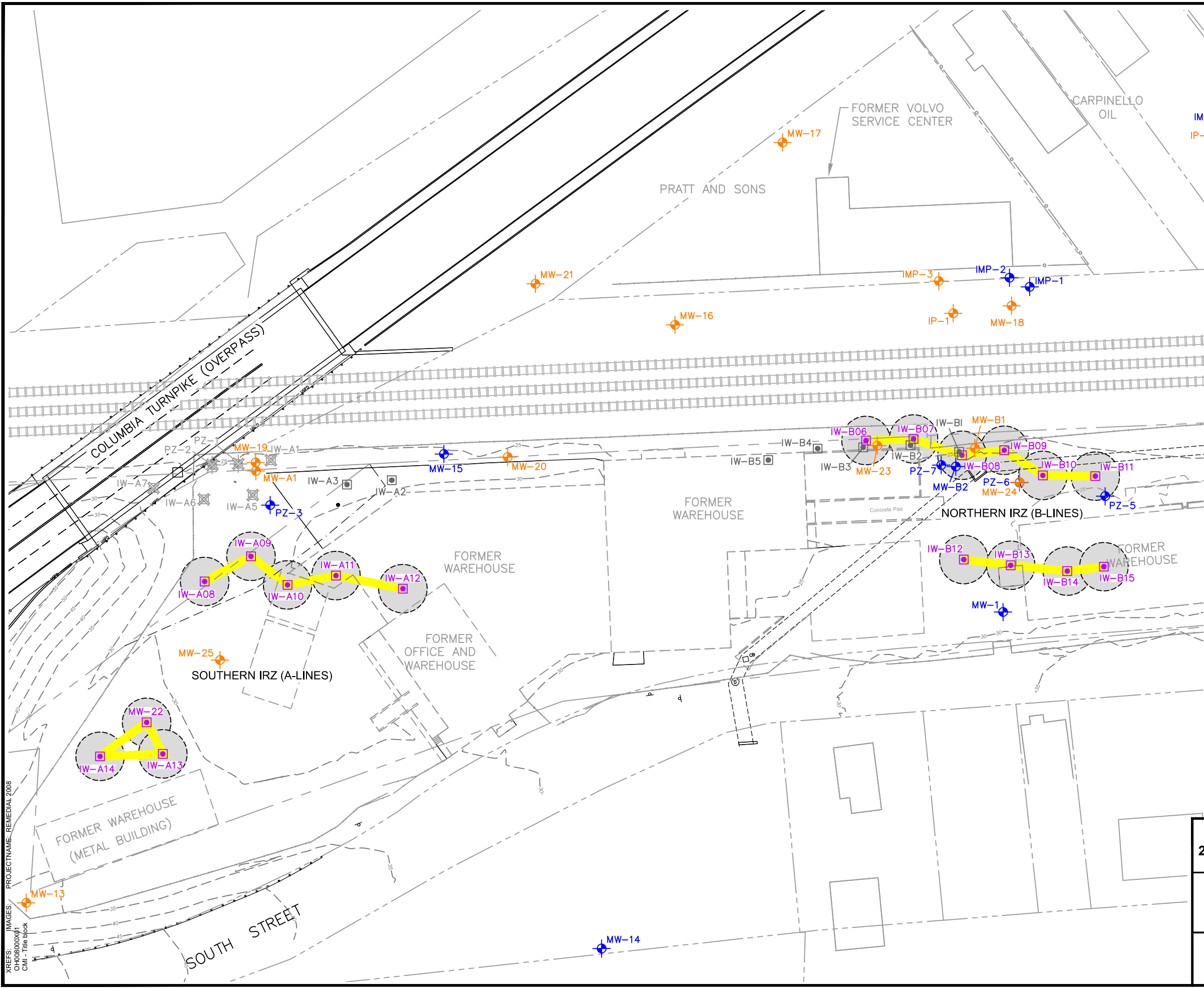
NOTES:

- LOCATIONS AND TOPOGRAPHY EAST OF CSX RAILROAD PROPERTY AND WEST OF AND INCLUDING SOUTH STREET, SURVEYED BY THE 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 THE 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 THE ASSOCIATES, ALONG WITH THREE DUAL-PURPOSE MONITORING AND INJECTION WELLS INSTALLED IN 2017 (MW-22 THROUGH MW-24).
- 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 THE 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.
- INJECTION WELL MW-22 WAS INSTALLED DURING THE 2017 LIMITED-SCALE INJECTION EVENT.



ASHLAND INC.
RENSSELAER, NEW YORK
**2020 CORRECTIVE MEASURES IMPLEMENTATION
ANNUAL PROGRESS REPORT**

SITE PLAN

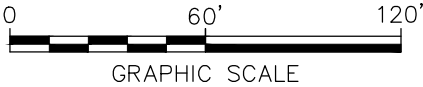


LEGEND:

- 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:

- IRZ WELLS IW-A6 AND IW-A7 WERE INSTALLED UNDER THE COLUMBIA TURNPIKE OVERPASS.
- LOCATIONS AND TOPOGRAPHY EAST OF CSX RAILROAD PROPERTY AND WEST OF AND INCLUDING SOUTH STREET, SURVEYED BY THE 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 THE 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 THE ASSOCIATES, ALONG WITH THREE DUAL-PURPOSE MONITORING AND INJECTION WELLS INSTALLED IN 2017 (MW-22 THROUGH MW-24).
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- ASHLAND PROPERTY BOUNDARY ESTABLISHED BY THE 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.
- 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.
- SHALLOW NORTHERN IRZ (B LINE) CONSISTS OF THE FOLLOWING WELLS: IW-B1 THROUGH IW-B5.



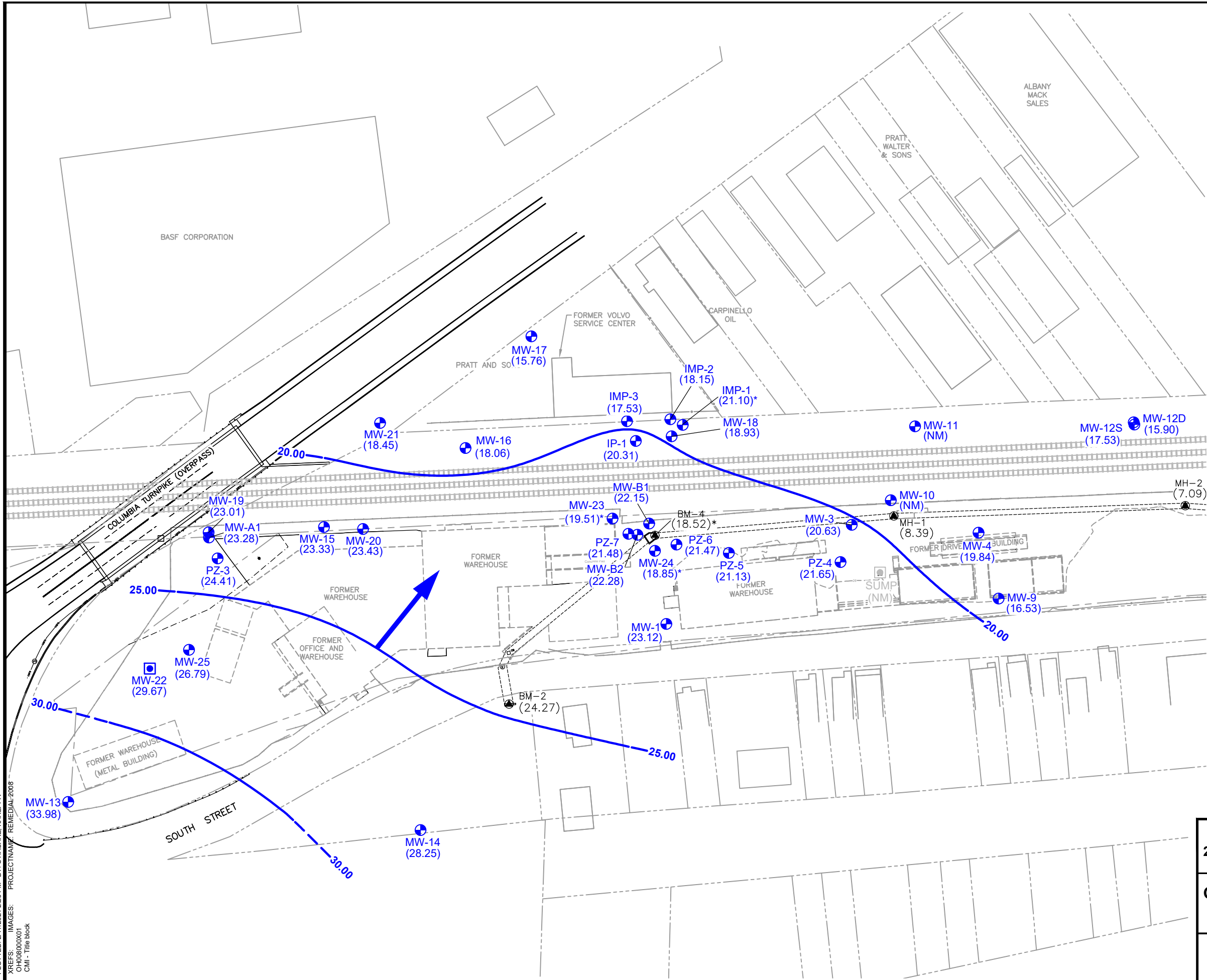
ASHLAND INC.
RENSSELAER, NEW YORK
**2020 CORRECTIVE MEASURES IMPLEMENTATION
ANNUAL PROGRESS REPORT**

**IRZ AREA
INJECTION WELL LOCATIONS**

ARCADIS Design & Consultancy
for natural and
built assets

FIGURE
2

CITY: SYRACUSE, NY; GROUP: ENV/CAD; DB: P. LISTER, E. KRAHMER, R. ALLEN; PM: M. KITTINGER, TM/PR: K. POTTER, LYR/ON: OFF-PRF (FRZ);
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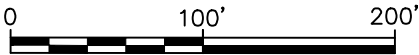


LEGEND:

- MW-1 GP-18 IMP-1 IP-1 (33.98) PERFORMANCE MONITORING GROUNDWATER SAMPLING LOCATIONS
- MW-22 ERD SYSTEM OPTIMIZATION INJECTION WELL(2017)
- 30- GROUNDWATER ELEVATION CONTOUR LINE (DASHED WHERE INFERRED)
- MH-1 CULVERTED STREAM PIPE INVERT ELEVATION/SURFACE WATER ELEVATION (NOT USED IN CONTOURING)
- 80- SURFACE CONTOUR
- RAILROAD TRACK
- CULVERTED STREAM PIPE
- PROPERTY LINE
- FORMER BUILDINGS AND STRUCTURES
- * WELL NOT USED IN CONTOURING
- (NM) NOT MEASURED

NOTES:

- INVERT ELEVATIONS FOR THE CULVERTED STREAM THAT RUNS EAST TO NORTHEAST ON THE SITE WERE SURVEYED BY THE ASSOCIATES PE-LS, PLLC (OCTOBER 2008).
- LOCATIONS AND TOPOGRAPHY EAST OF CSX RAILROAD PROPERTY AND WEST OF AND INCLUDING SOUTH STREET, SURVEYED BY THE ASSOCIATES PE-LS, PLLC (OCTOBER 2008). TWO NEW MONITORING WELLS, MW-20 & MW-21, WERE SURVEYED ON JULY 2, 2010 BY THE 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 THE 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.
- MONITORING WELLS MW-22 THROUGH MW-24 LOCATIONS ARE APPROXIMATE.



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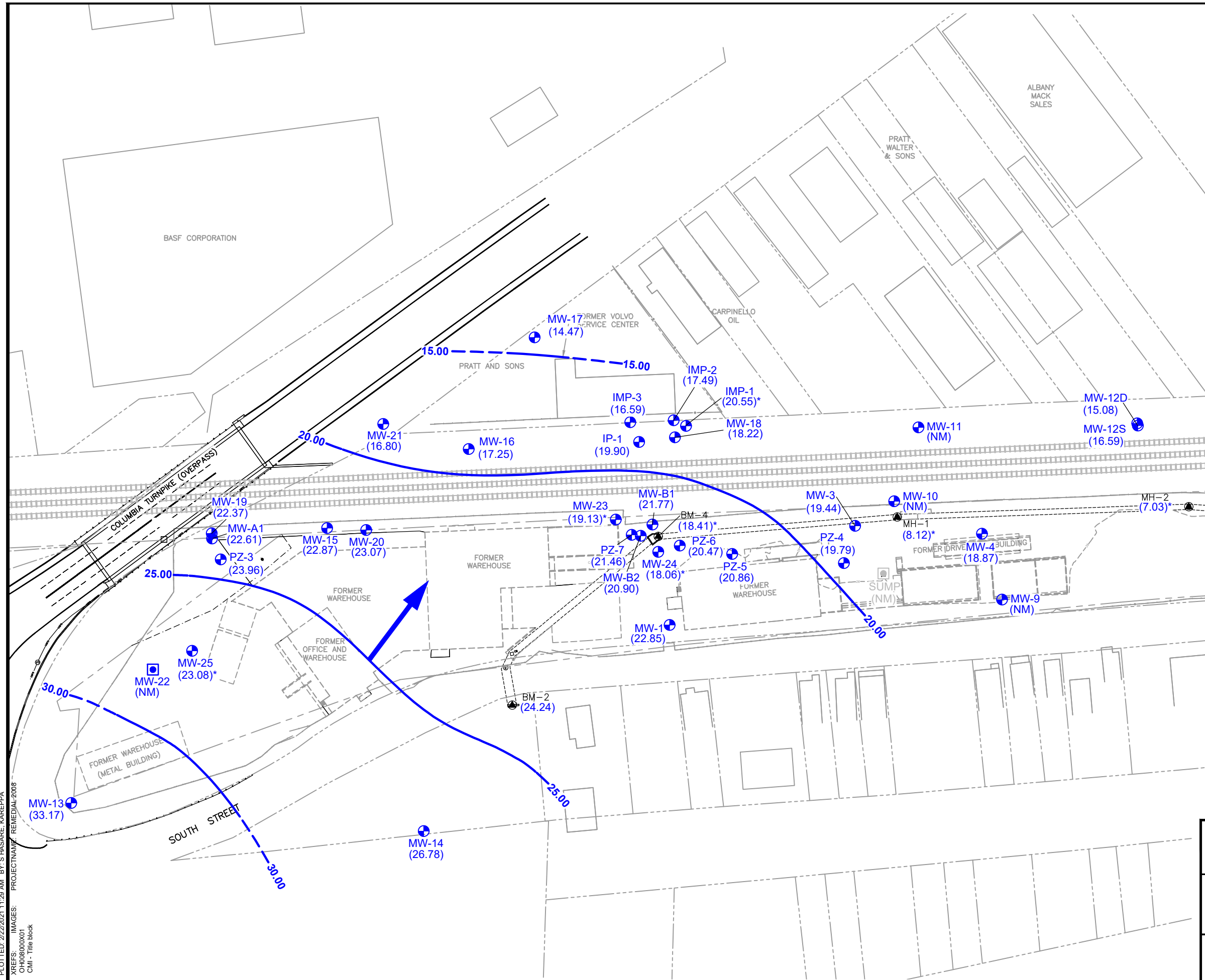
**GROUNDWATER ELEVATION CONTOURS
APRIL 7 AND 8, 2020**



FIGURE

3

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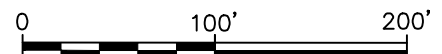


LEGEND:

- MW-1 GP-18 IMP-1 IP-1 (33.17) PERFORMANCE MONITORING GROUNDWATER SAMPLING LOCATIONS
- MW-22 ERD SYSTEM OPTIMIZATION INJECTION WELL(2017)
- 30.00 GROUNDWATER ELEVATION CONTOUR LINE (DASHED WHERE INFERRED)
- MH-1 CULVERTED STREAM PIPE INVERT ELEVATION/SURFACE WATER ELEVATION (NOT USED IN CONTOURING)
- 80 SURFACE CONTOUR
- RAILROAD TRACK
- CULVERTED STREAM PIPE
- PROPERTY LINE
- FORMER BUILDINGS AND STRUCTURES
- * WELL NOT USED IN CONTOURING
- (NM) NOT MEASURED

NOTES:

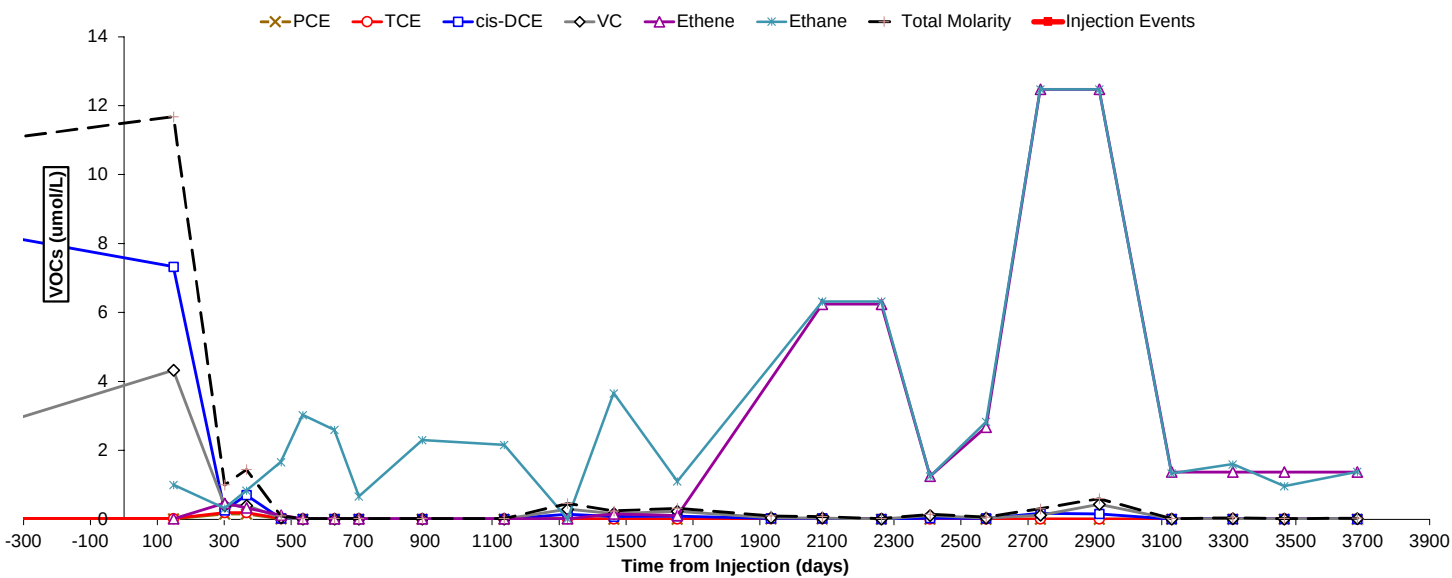
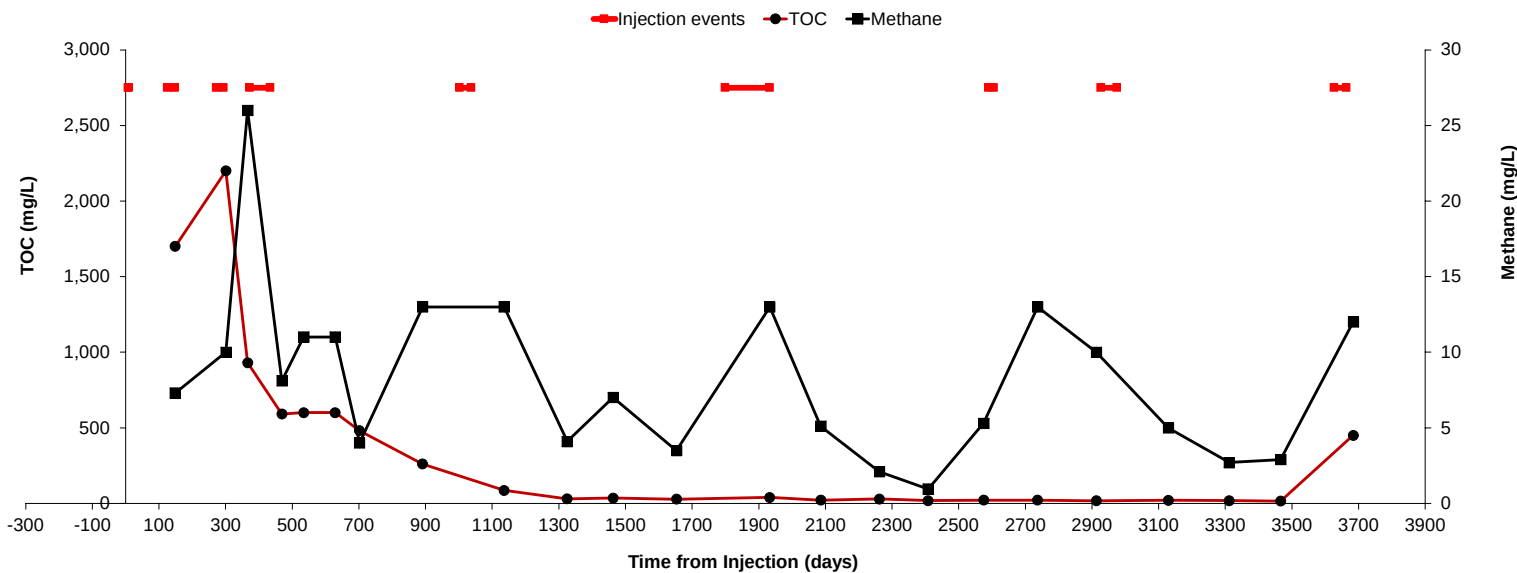
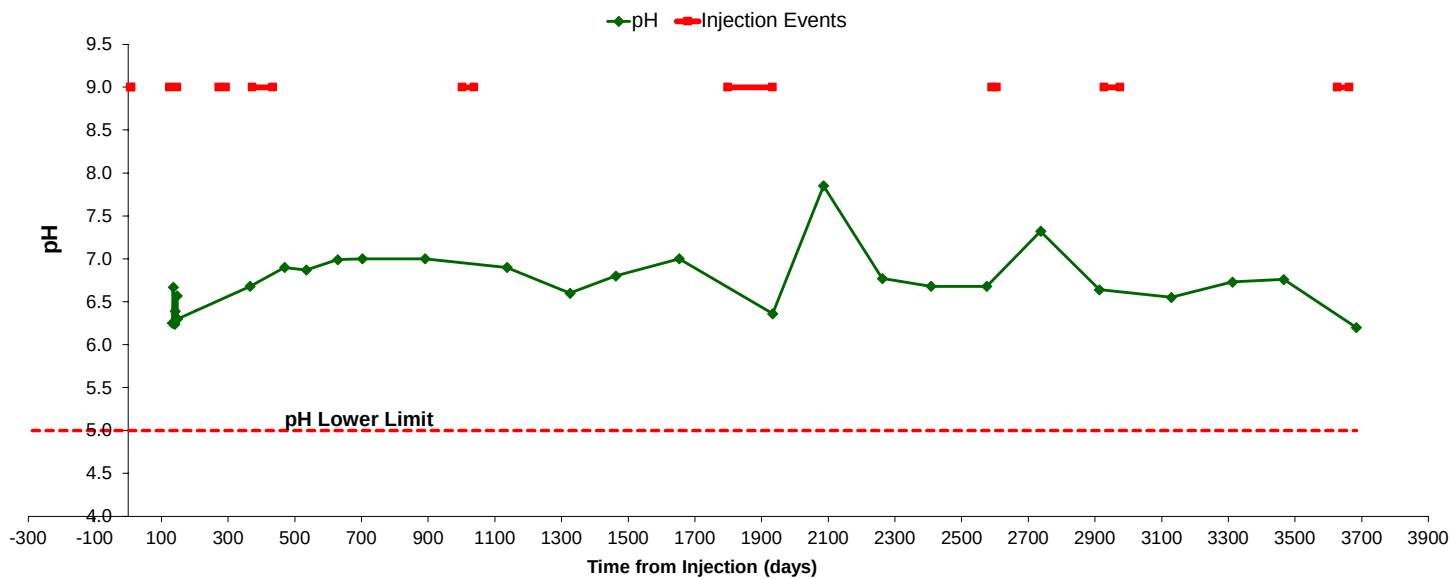
- INVERT ELEVATIONS FOR THE CULVERTED STREAM THAT RUNS EAST TO NORTHEAST ON THE SITE WERE SURVEYED BY THE ASSOCIATES PE-LS, PLLC (OCTOBER 2008).
- LOCATIONS AND TOPOGRAPHY EAST OF CSX RAILROAD PROPERTY AND WEST OF AND INCLUDING SOUTH STREET, SURVEYED BY THE ASSOCIATES PE-LS, PLLC (OCTOBER 2008). TWO NEW MONITORING WELLS, MW-20 & MW-21, WERE SURVEYED ON JULY 2, 2010 BY THE 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 THE ASSOCIATES SURVEY AND DEED RESEARCH (OCTOBER 2008). OTHER PROPERTY LINES AND MAP FEATURES ARE FROM RENSSLAER COUNTY TAX MAPPING AND NEW YORK STATE CLEARING-HOUSE AERIAL PHOTOGRAPHY.
- MONITORING WELLS MW-22 THROUGH MW-24 LOCATIONS ARE APPROXIMATE.
- MONITORING WELL MW-19 WAS DAMAGED.



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**GROUNDWATER ELEVATION CONTOURS
NOVEMBER 11 AND 12, 2020**

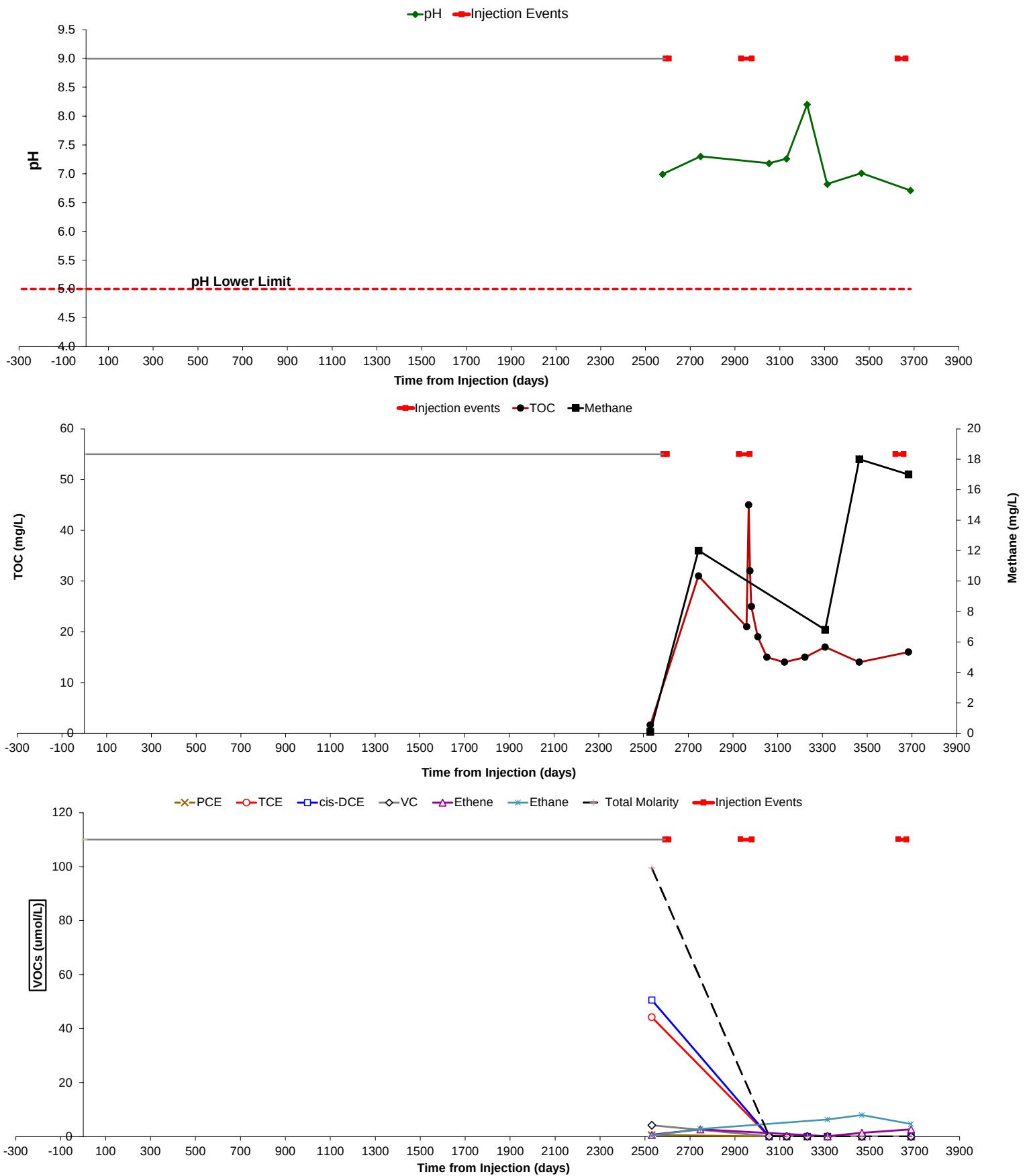




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**MW-B1 PERFORMANCE
MONITORING RESULTS**





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

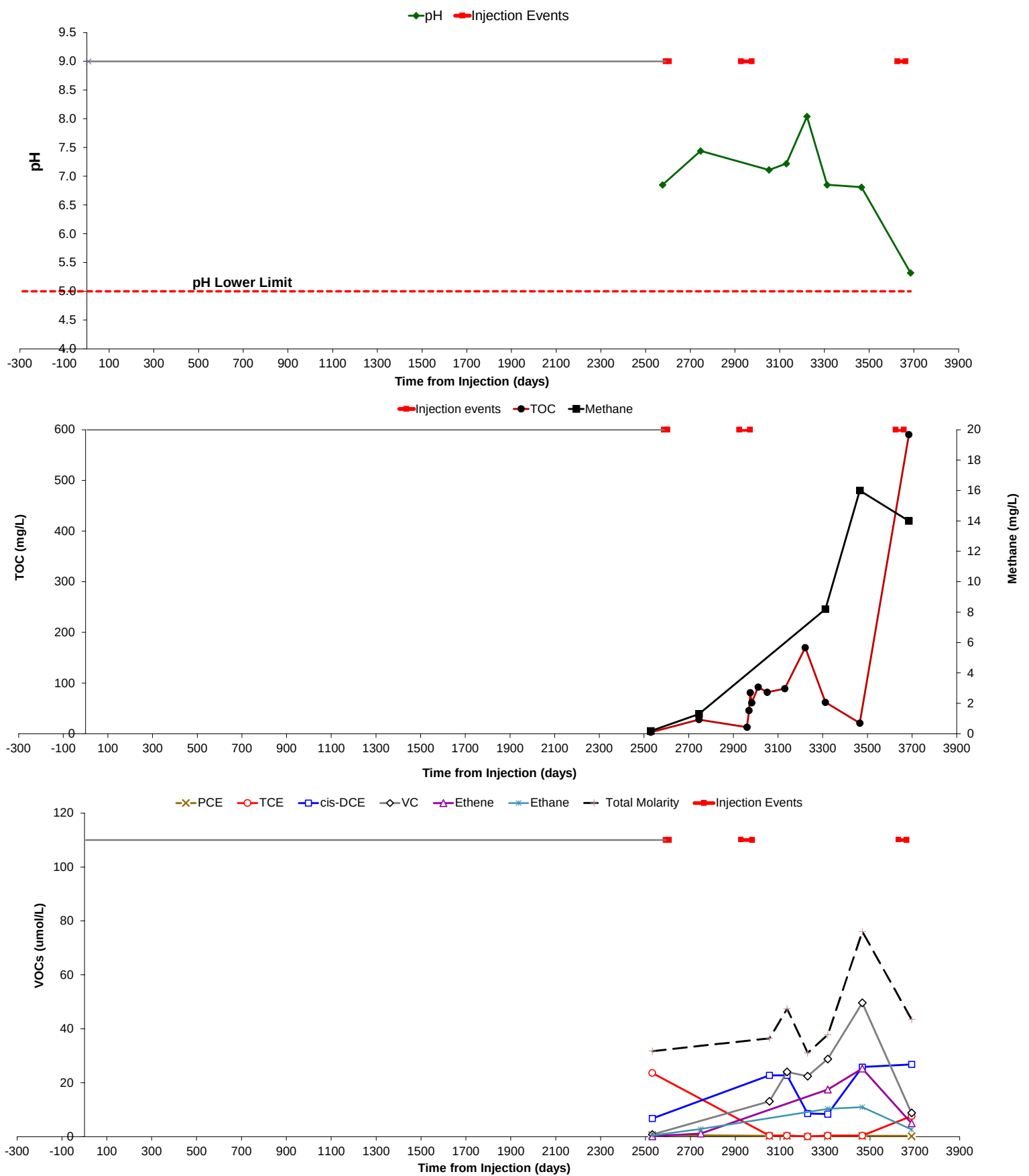
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MW-23 PERFORMANCE
MONITORING RESULTS



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.

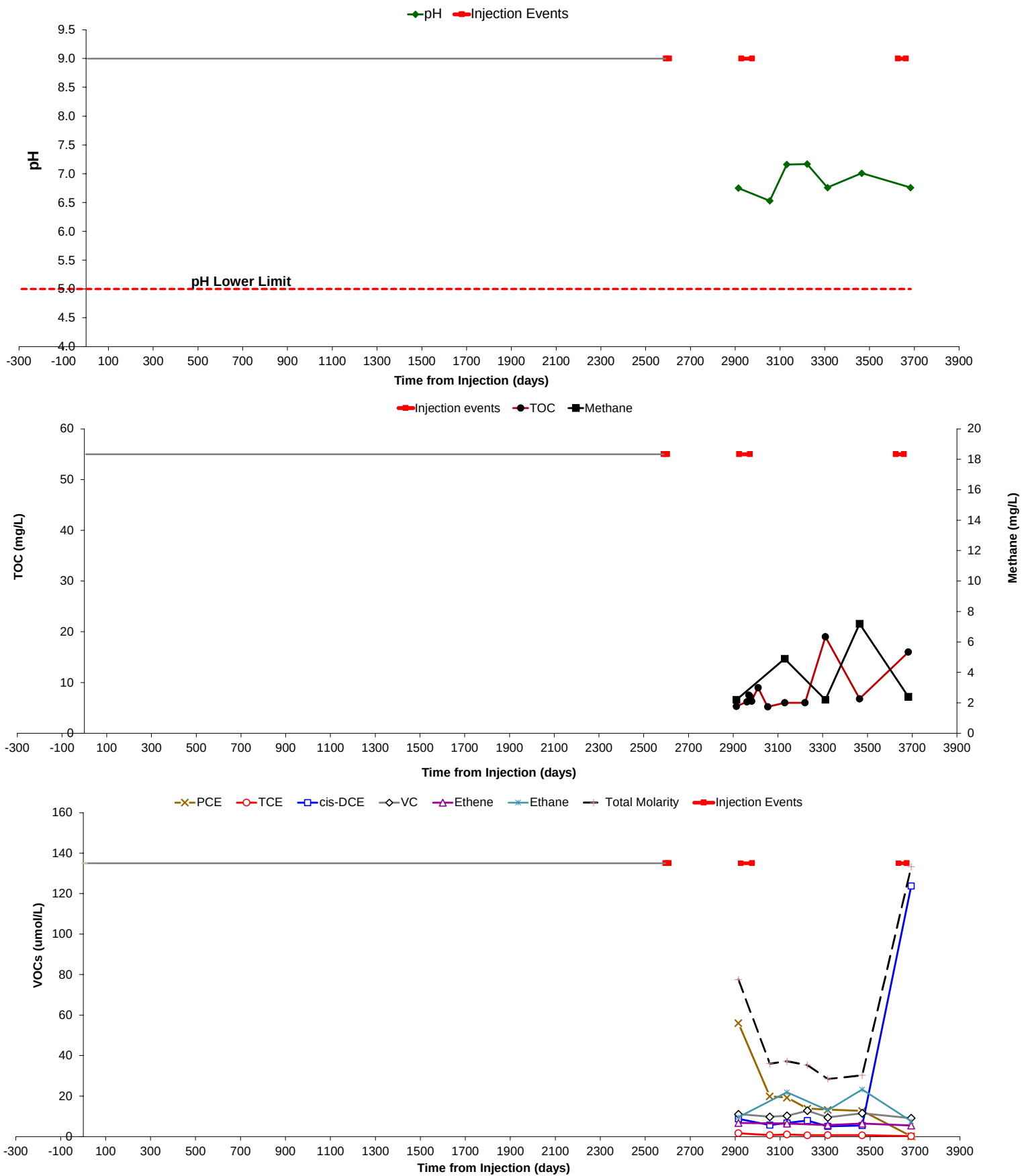
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MW-24 PERFORMANCE MONITORING RESULTS



FIGURE

8



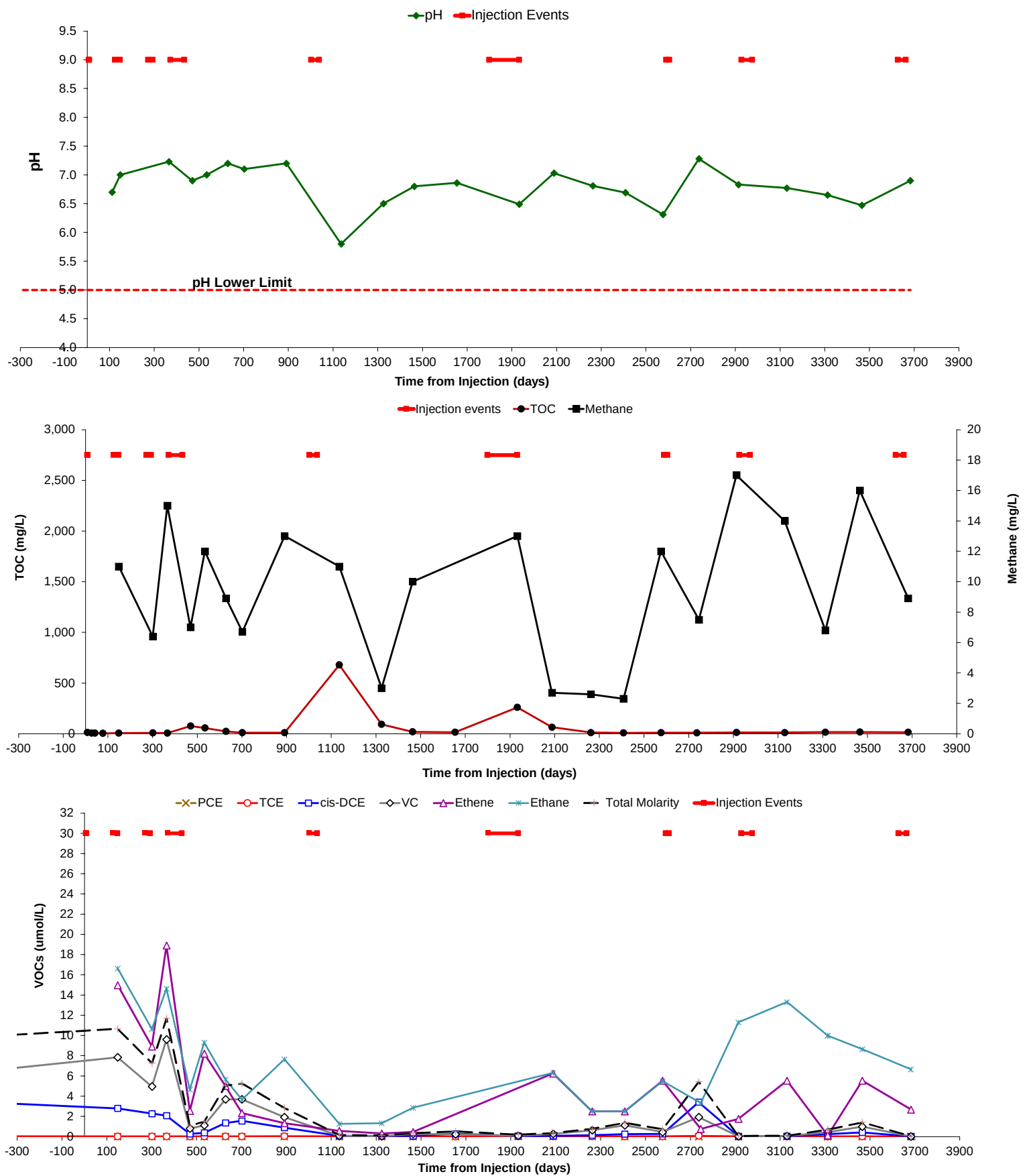
Note: Well was installed in October 2018. Gray lines indicate timeframe of historical injections completed prior to well installation and related remedial activity.

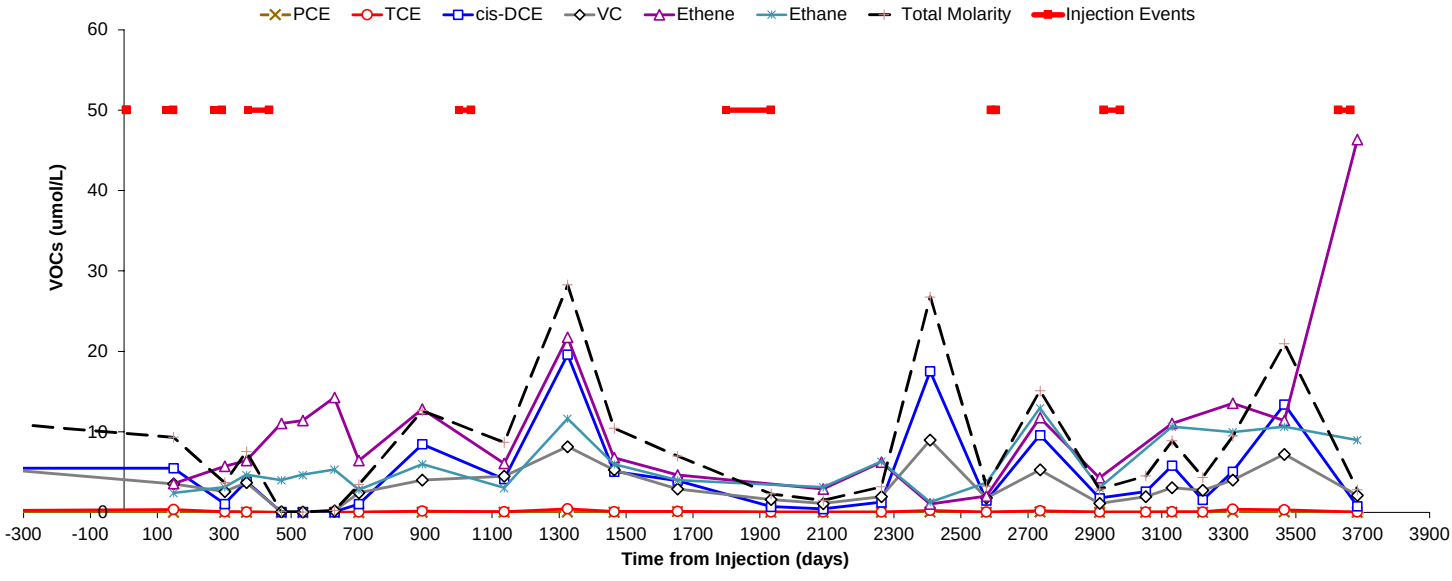
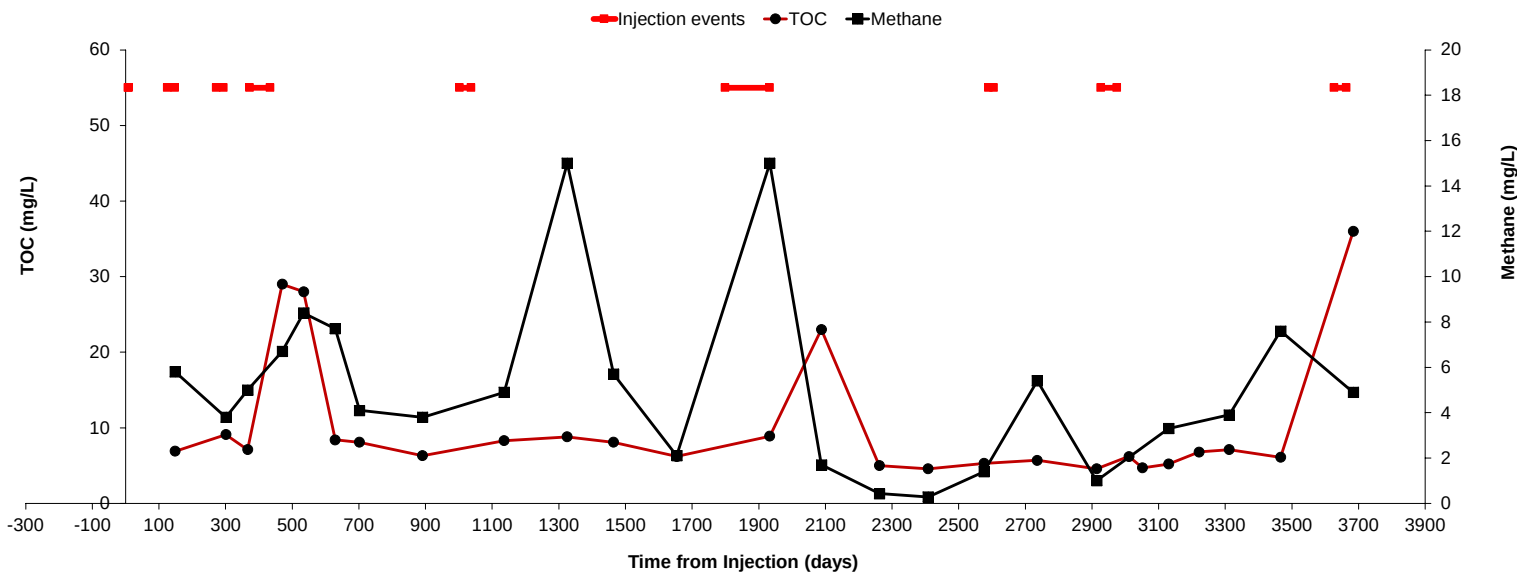
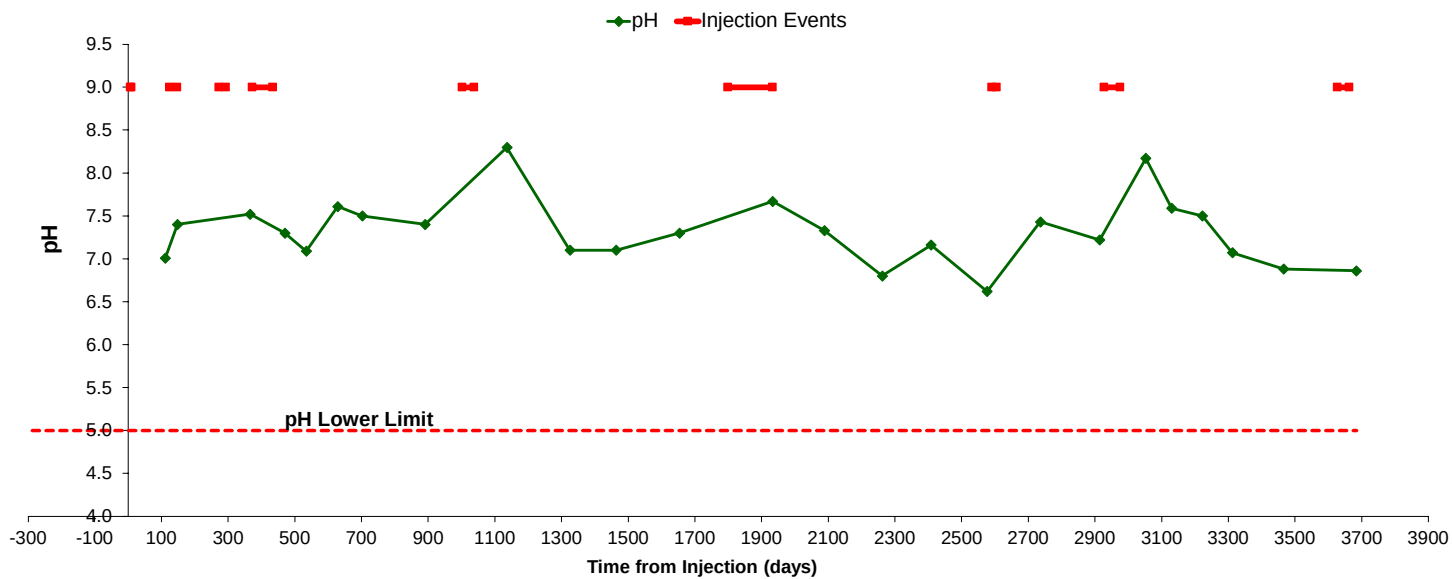
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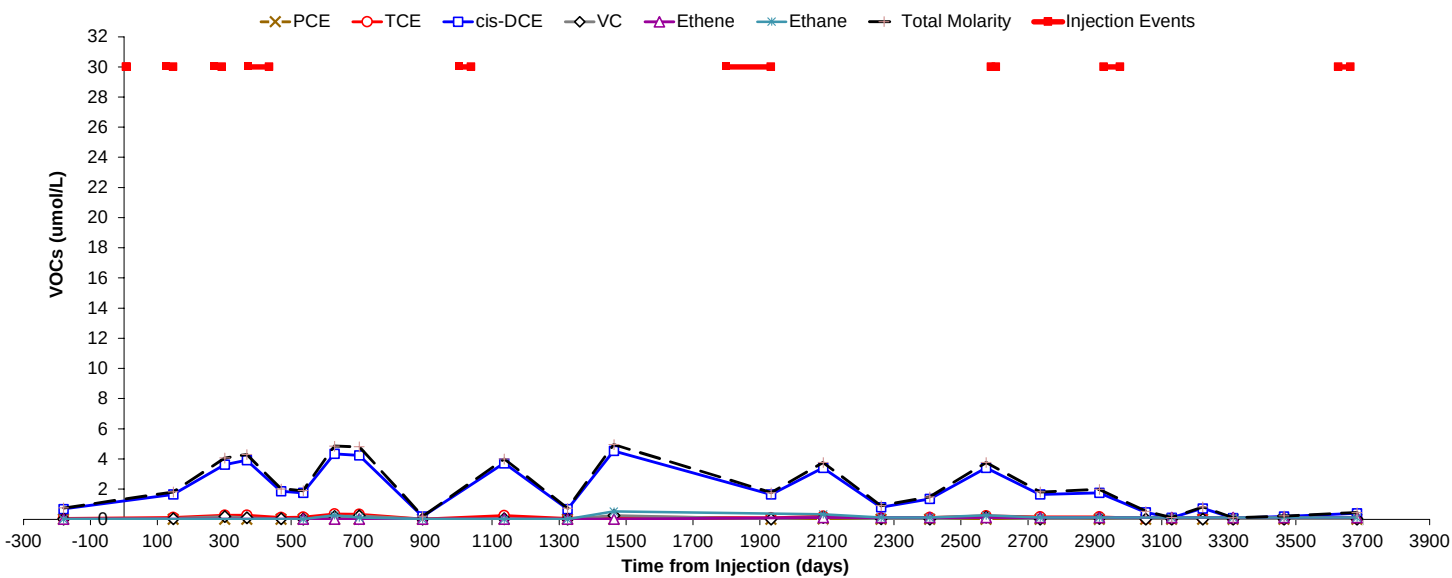
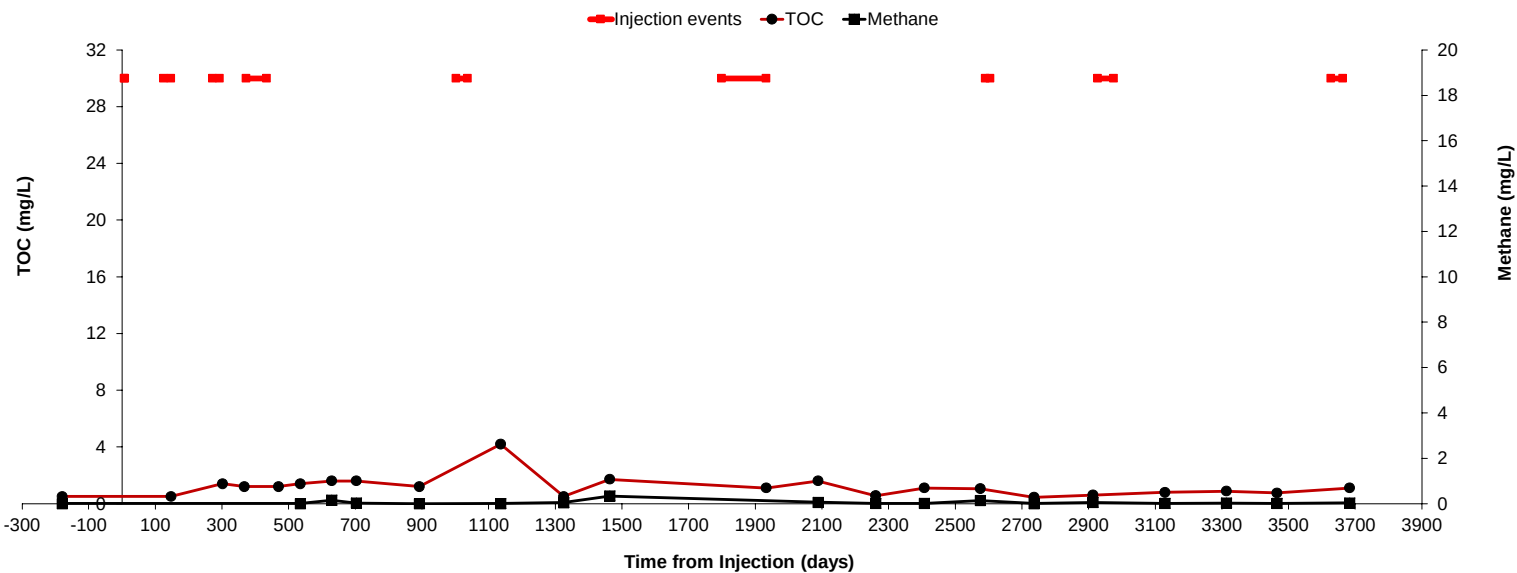
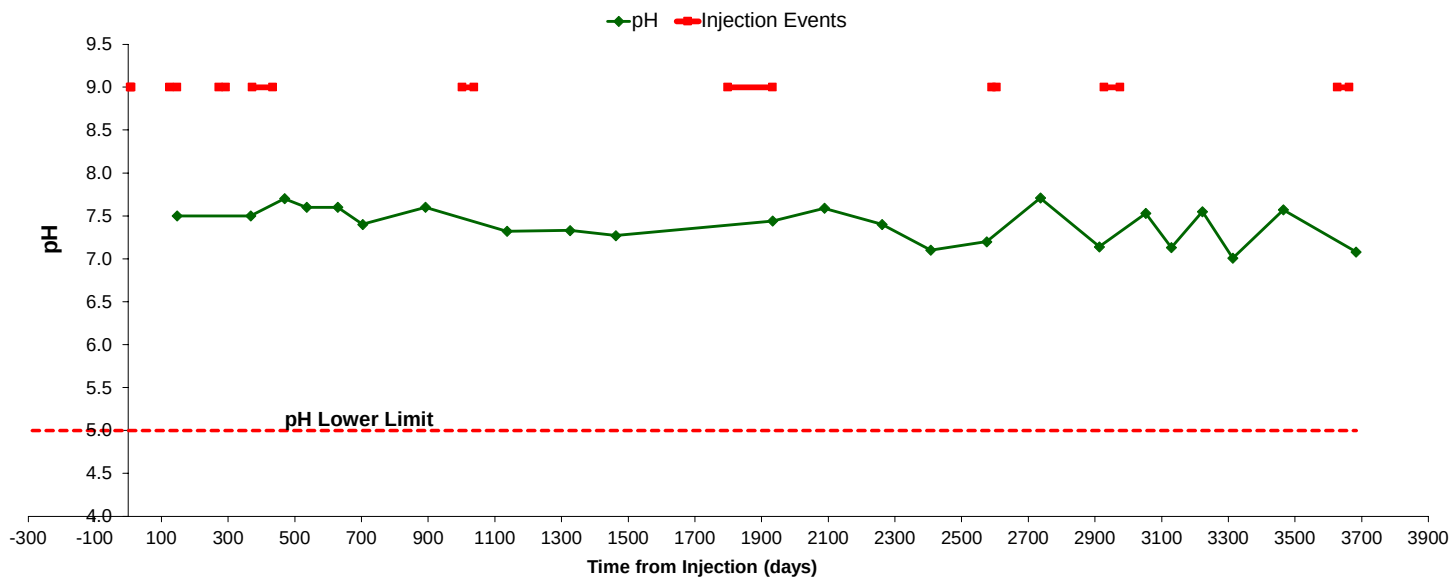
MW-25 PERFORMANCE
MONITORING RESULTS



FIGURE
9



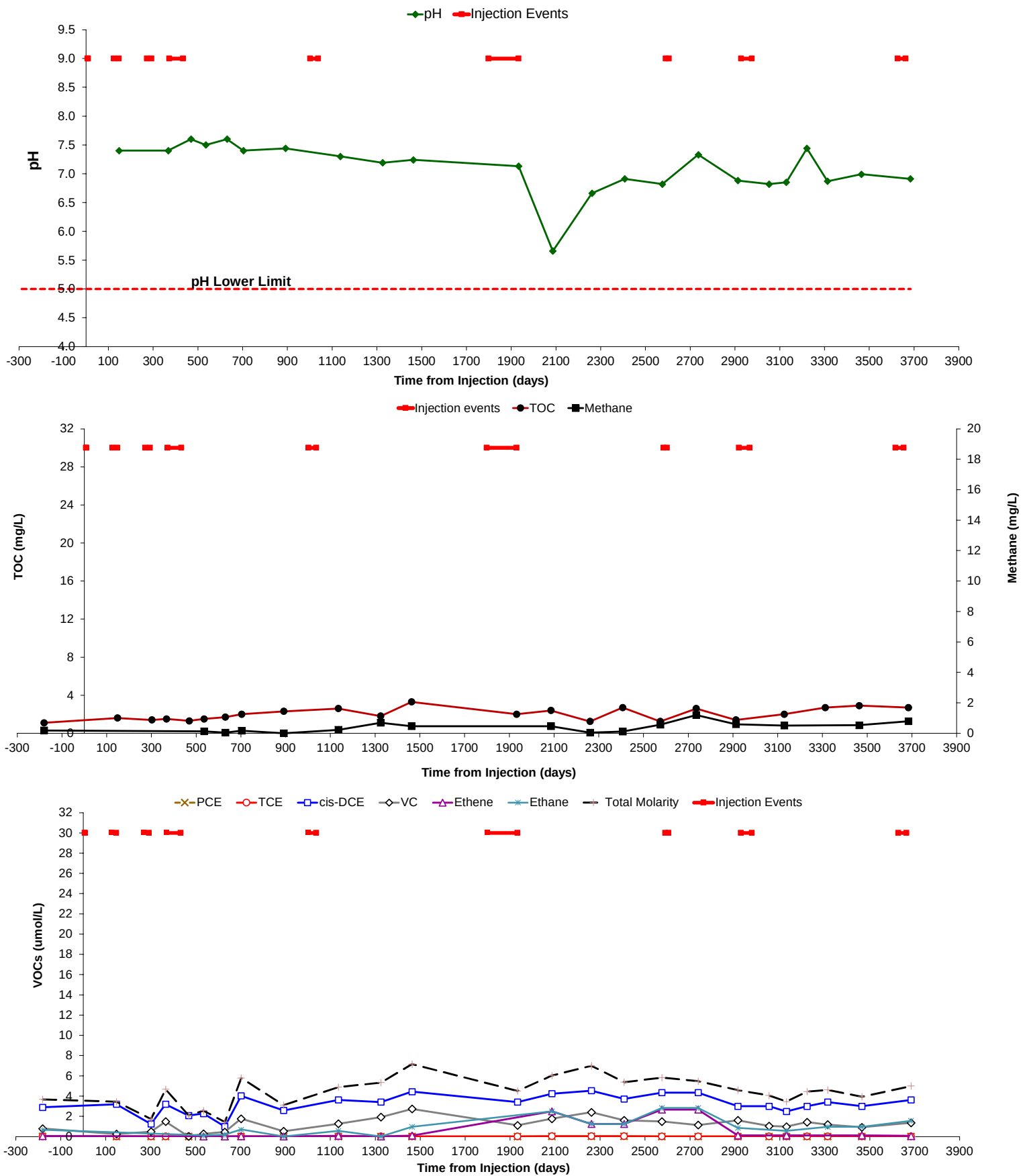




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**MW-16 PERFORMANCE
MONITORING RESULTS**

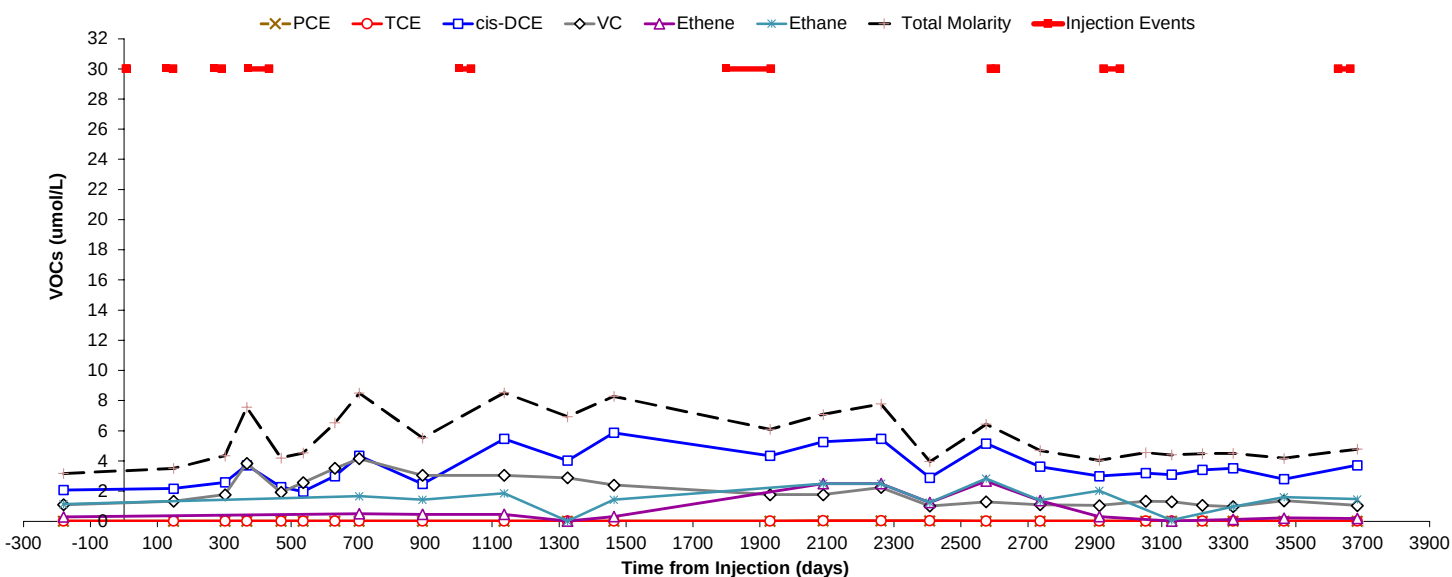
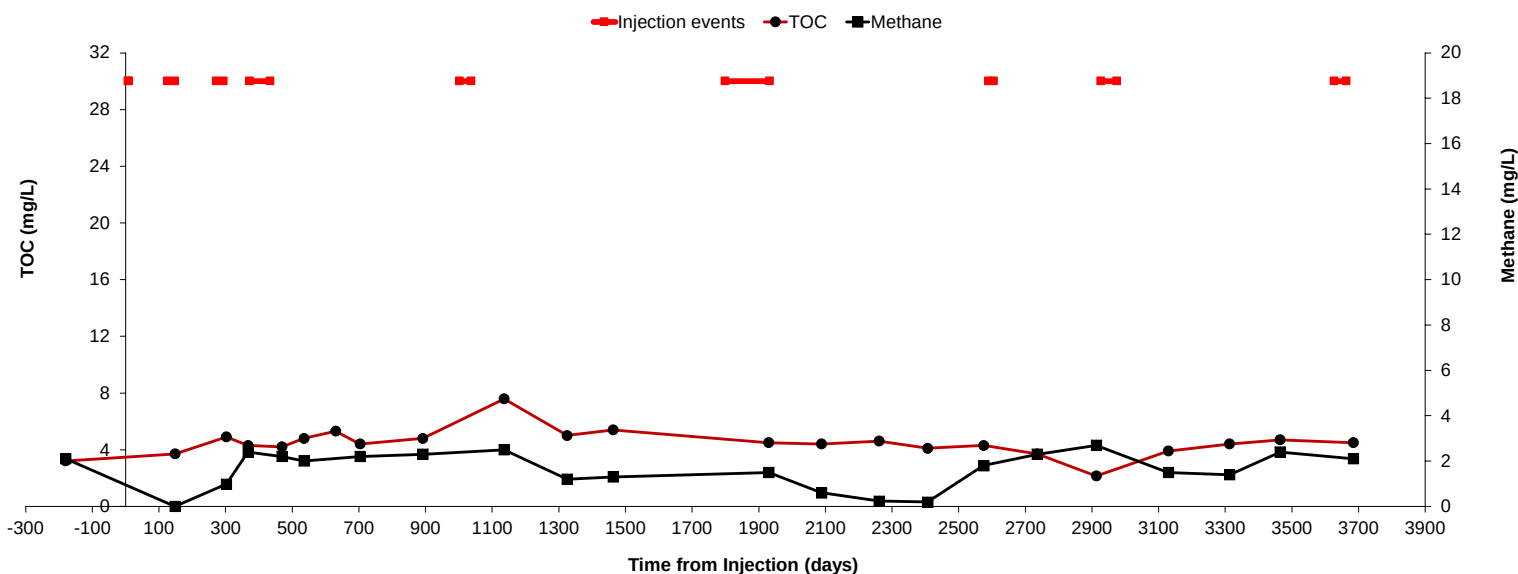
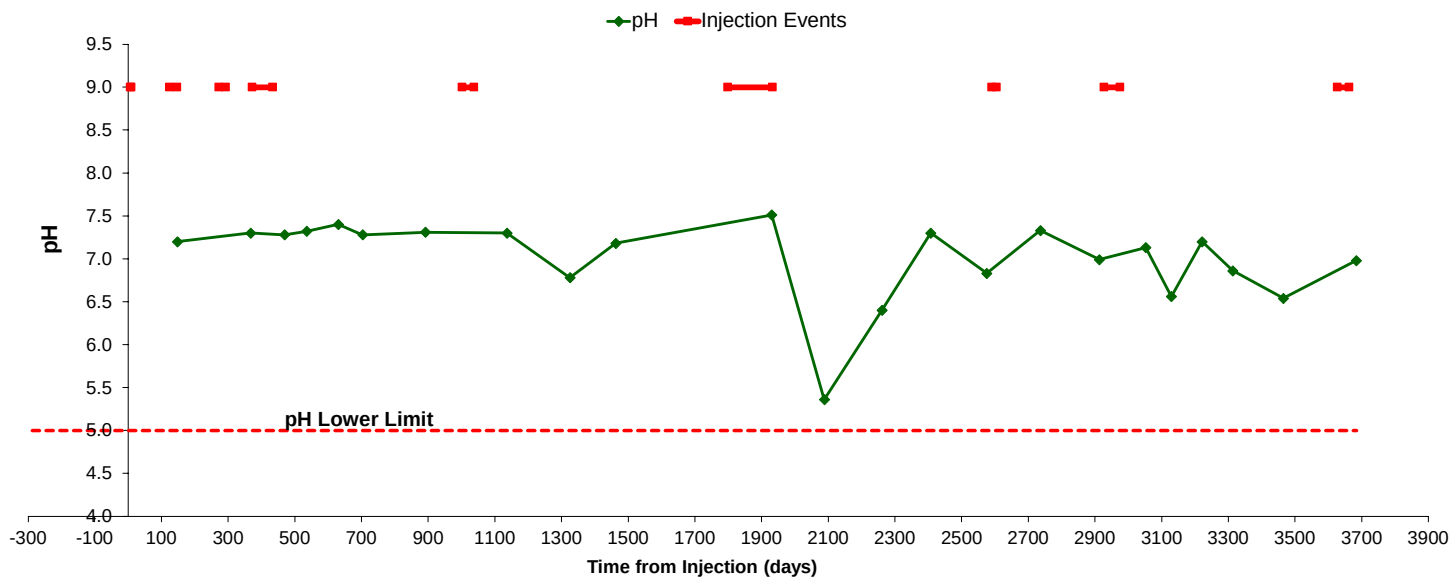




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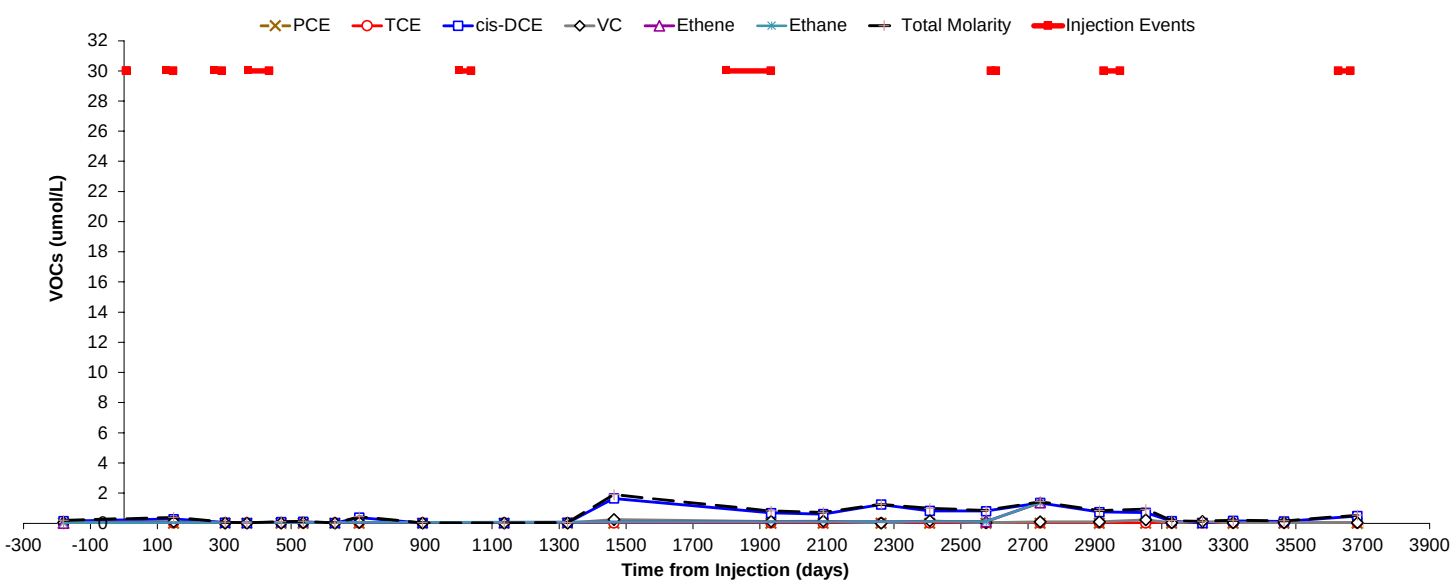
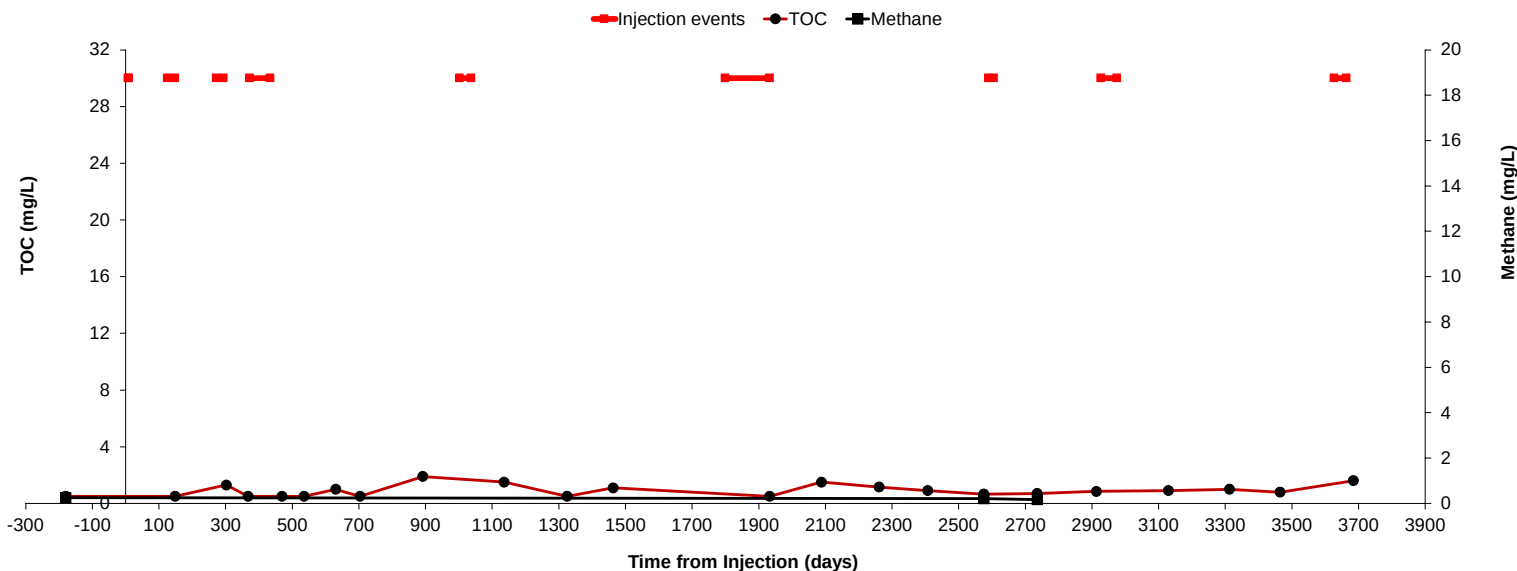
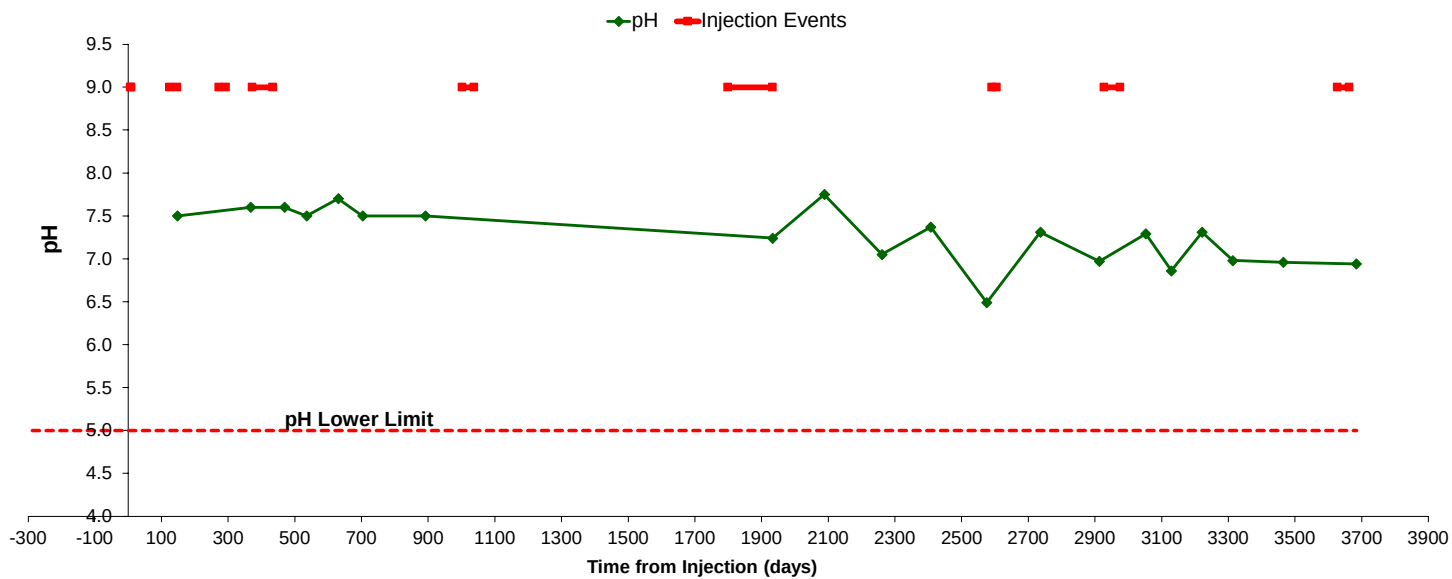
MW-18 PERFORMANCE MONITORING RESULTS





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IP-1 PERFORMANCE MONITORING RESULTS



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ANNUAL REPORT

**IMP-3 PERFORMANCE
MONITORING RESULTS**



Appendix A

ERD Injection Event Summary (2020)

Ashland LLC

ERD INJECTION EVENT SUMMARY (2020)

130 South Street, Rensselaer, New York

December 9, 2020

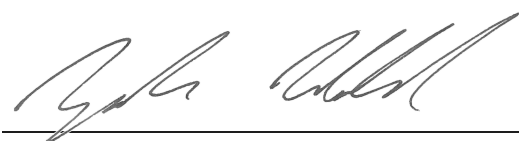
A large, solid orange geometric shape, resembling a stylized triangle or a section of a larger triangle, is positioned in the bottom right corner of the page. It is composed of two overlapping triangles, creating a complex, angular form that extends from the bottom edge towards the top right corner.



William M. Golla
Certified Project Manager



Jason Nail
Senior Geologist



Zach Wahl
Staff Environmental Engineer

ERD INJECTION EVENT SUMMARY (2020)

130 South Street, Rensselaer, New York

Prepared for:

Ashland LLC

Prepared by:

Arcadis of New York, Inc.

855 Route 146

Suite 210

Clifton Park

New York 12065

Tel 518 250 7300

Fax 518 371 2757

Our Ref:

30039411

Date:

December 9, 2020

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CONTENTS

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Path Forward.....	4
References.....	5

TABLES

Table 1: Existing Infrastructure Injection Summary

Table 2: DPT Injection Summary

FIGURES

Figure 1: Injection Locations

APPENDICES

Appendix A. Analytical Results

Appendix B. DPT Injection Logs

INTRODUCTION

Corrective measures at the former Ashland LLC (Ashland) chemical distribution facility located at 130 South Street in Rensselaer, New York (site) currently include enhanced reductive dechlorination (ERD) of chlorinated volatile organic compounds (CVOCs) in groundwater. The ERD system, which has operated since 2010, was expanded in 2018 by installing 17 additional injection wells to target source mass and CVOC flux pathways generally deeper than historical ERD operations, which focused on shallow groundwater. This report details carbon substrate distribution into existing ERD injection infrastructure, as well as direct-push injections completed in nearby areas. The work described in this report was completed from September 16 to October 23, 2020 as outlined in the Mulch PRB Installation Work Plan (Arcadis 2020a), which the New York State Department of Environmental Conservation (NYSDEC) approved via email on September 14, 2020 (NYSDEC 2020). Installation of the proposed mulch permeable reactive barrier (PRB) to address the shallow CVOC mass flux zone along the site boundary was postponed due to site conditions (e.g., weather), and therefore is not included in this technical memorandum. A summary of monitoring data and analysis following the work described in this report will be presented in the site Annual Corrective Measure Implementation Report under separate cover.

BACKGROUND

The Corrective Measures Implementation Work Plan (Arcadis 2010) for the site was approved by the United States Environmental Protection Agency (USEPA) in a letter dated March 16, 2010 (USEPA 2010). Groundwater remediation activities commenced in 2010 by implementing an ERD program along the downgradient portion of the site to address potential off-site migration of CVOCs in shallow groundwater, including six ERD injection events. Multiple supplemental investigations were completed in 2017 to update the project conceptual site model and provide data to optimize the ERD program. Based on this data, the ERD program was optimized in 2018 by expanding the existing ERD system infrastructure into deeper CVOC source zones and mass flux pathways than were previously targeted. Following the system expansion, an injection event was completed in 2018 to deliver carbon substrate and stimulate ERD in these newly targeted deeper zones. At that time, shallow injections were not deemed necessary in 2018 based on available data. These 2018 remedial activities are further detailed in the ERD System Optimization Work Plan (Arcadis 2018), ERD System Optimization Well Installation Summary (Arcadis 2019), and 2019 Corrective Measure Implementation Annual Progress Report (Arcadis 2020b).

Recent performance monitoring data collected following the 2018 ERD system optimization indicated that:

- Carbon substrate was recently nearing depletion in areas targeted during the 2018 injection event and that these areas would benefit from additional injections.
- Targeted source area treatment is effective; therefore, supplemental targeted treatment is necessary to continue ERD of on-site source CVOC mass that is leading to downgradient impacts.

Based on these observations, Arcadis proposed the work outlined in the Mulch PRB Installation Work Plan (Arcadis 2020a) to facilitate carbon distribution into the 2018 injection infrastructure and additional

deeper areas. The New York State Department of Environmental Conservation (NYSDEC) approved the work outlined in the plan via email on September 14, 2020 (NYSDEC 2020).

OBJECTIVES

The Mulch PRB Installation Work Plan (Arcadis 2020) established the following objectives to facilitate carbon distribution and optimize the existing ERD system:

- Replenish carbon substrate through emulsified vegetable oil (EVO) injections into in the same ERD injection infrastructure utilized in 2018 to continue promoting in-situ remediation zones (IRZs) to treat CVOC source mass and mass flux zones.
- Supplement the 2018 ERD system expansion with a single injection event into CVOC source zones using temporary direct-push technology (DPT) injection points to deliver EVO and similarly promote CVOC treatment by establishing IRZs in these areas.
- Install a mulch PRB in the shallow mass flux zone along the site boundary to provide long-term carbon delivery to the shallow subsurface to promote IRZs to treat CVOCs (implementation currently planned for 2021).

FIELD ACTIVITIES

The following sections describe field activities related to the objectives listed above.

Utility Location and Clearance

Ground Penetrating Radar Systems, LLC. (GPRS) conducted electromagnetic, ground penetrating radar, and radio frequency detection geophysical techniques on September 23, 2020. Additionally, an 811 ticket was issued for the site, a review of site historical drawings was completed, and a utility-oriented site inspection was conducted. The techniques provided clearance of subsurface utilities and located potential buried pipelines, utilities (i.e., water supply, sewer, and storm), tanks, and drums in advance of drilling activities.

Injections

EVO was delivered to target areas by injecting in the existing infrastructure and temporary DPT points. EVO content was monitored by sampling prepared injection solution at various points throughout the event; these analytical results are included in Appendix A. The injection implementation is summarized in the following sections.

Existing Infrastructure

The ERD system optimization injection wells shown on Figure 1 were used to repeat the 2018 ERD injections, except at well IW-A10 which was deemed inoperable during the 2018 injection event. The Mulch PRB Installation Work Plan (Arcadis 2020a) specified an injection target volume of 68,900 gallons. Injections were completed using a mobile injection trailer and/or dedicated injection manifolds and tanks.

Injection solution was prepared on site using potable water and EVO (approximately 2 percent by volume in the injection solution). Approximately 60,000 gallons of injection solution were injected into the existing injection network, which is approximately 87% of the target injection volume. Table 1 summarizes the injection volumes.

Direct-Push Injections

Injection solution was prepared on site using potable water and EVO at approximately 2% by volume. The target 10-foot injection radius of influence (ROI) for DPT injections was verified with field observations of increased turbidity and visual observation of oil droplets at two existing monitoring wells near DPT injection points (MW-23 and MW-24). Following ROI verification, up to approximately 588 gallons of injection solution were injected using subcontractor equipment (e.g., mobile injection trailer, dedicated injection manifolds and tanks) over 4-foot intervals at up to six injection points at a time.

Additional volume was injected in adjacent intervals and/or nearby DPT injection points to the extent practicable when field observations required ceasing injections at the following injection points and intervals:

- DPT-06 from 20 to 28 feet below ground surface (ft bgs): stopped injecting in the first interval from 20 to 24 ft bgs after injection solution was observed daylighting through a nearby monitoring well. The DPT rod was advanced to the next interval from 24 to 28 ft bgs and immediately experienced similar solution daylighting. Injections were stopped at this point and it was abandoned.
- DPT-08 from 10 to 14 ft bgs: stopped injecting in the first interval from 10 to 14 ft bgs after injection solution was observed daylighting at a nearby location. The DPT rod was advanced to the next interval from 14 to 18 ft bgs and did not experience any further issues. The remaining intervals at this location were completed without daylighting.
- DPT-09 from 14 to 18 ft bgs: stopped injecting in the first interval from 14 to 18 ft bgs after injection solution was observed daylighting at a nearby location. The DPT rod was advanced to the next interval from 18 to 22 ft bgs and did not experience any further issues. The remaining intervals at this location were completed without daylighting.
- DPT-10 from 13 to 25 ft bgs: proposed injection point DPT-10 was removed from the scope of work due to unexpected proximity to an existing monitoring well. The remaining injection points were shifted accordingly to cover the target injection area based on the injection ROI.

The Mulch PRB Installation Work Plan (Arcadis 2020a) specified an injection target volume of 20,600 gallons for DPT injections. The removal of proposed injection point DPT-10 resulted in the injection target being reduced to approximately 19,000 gallons. Injections occurred in two to five intervals at 11 injection points for a total of approximately 18,000 gallons resulting in 95% of the injection target. Table 2 summarizes the injection volumes. Appendix B includes the subcontractor DPT injection field logs.

Injection points were abandoned after completion and properly sealed. The DPT injection locations were flagged and labeled following abandonment and recorded using a Trimble® Geo7X handheld receiver.

Investigation Derived Waste Management

Investigation derived waste generated during field activities included decontamination water, purge water, personal protective equipment (PPE), and other disposable sampling materials. Wastewater from decontamination procedures and purge water were placed in properly labelled 55-gallon drums and stored on asphalt on the northern portion of the site. PPE (e.g., nitrile gloves, disposable supplies, paper, plastic) was treated as municipal waste. Arcadis will coordinate the characterization and disposal of all containerized waste from injection activities in accordance with waste hauler, waste handling facility, and state and federal requirements in December 2020.

PATH FORWARD

The 2020 ERD Injection event was successful at injecting near target volumes of EVO into the subsurface. Approximately 87% of the target volume was injected into the existing injection wells and 95% of the target volume was injecting via the DPT locations.

Post-injection performance monitoring will be accomplished through continued routine groundwater monitoring events completed as part of the current remedy. Results will be presented in future Annual Corrective Measure Implementation Reports for the site. 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.

Currently, Arcadis plans to complete the mulch PRB installation detailed in the Mulch PRB Installation Work Plan (Arcadis 2020a) in 2021. Arcadis will summarize the mulch PRB installation and present monitoring results within future Annual Corrective Measure Implementation Reports for the site.

REFERENCES

- Arcadis. 2010. Corrective Measure Implementation Work Plan. March.
- Arcadis. 2011. Letter from Katherine Potter (Arcadis) to Michael Infurna (USEPA) re: Notification of Switch to emulsified vegetable oil (EVO). September 23.
- Arcadis. 2018. ERD System Optimization Work Plan. Optimization of Enhanced Reductive Dechlorination Program. September.
- Arcadis. 2019. ERD System Optimization Well Installation Summary. 130 South Street, Rensselaer, New York. January 25.
- Arcadis. 2020a. Mulch Permeable Reactive Barrier Installation Work Plan. August 25.
- Arcadis. 2020b. ERD INJECTION EVENT SUMMARY (2020): 130 South Street, Rensselaer, New York. USEPA RCRA Administrative Order on Consent Docket No. II, RCRA-92-3008(h)-0201. April 24.
- NYSDEC. 2020. Email from Michael D. MacCabe (NYSDEC) to Katie Bidwell (Arcadis) re: Ashland Chemical 442038 - Rensselaer- Mulch PRB Installation Work Plan - Schedule update. September 14.
- USEPA. 2010. Letter from Michael Infurna (USEPA) to James Vondracek (Ashland) re: Draft Corrective Measure Implementation Work Plan. March 16.
- USEPA. 2011b. Email from USEPA to Ashland re: Approval of switch to EVO. October 5.

TABLES



Table 1
Existing Infrastructure Injection Summary
ERD Injection Event Summary (2020)
Ashland LLC
130 South Street, Rensselaer, New York

Location ID	Injected Volume (gallons)	Average Injection Rate* (gpm)
Southern Source Zone		
IW-A08	3,605.4	0.44
IW-A09	4,605.1	0.57
IW-A11	5,646.9	3.06
IW-A12	5,938.3	1.18
IW-A13	3,747.9	0.97
IW-A14	2,039.7	0.37
Northern Source Zone		
IW-B06	1,815.0	0.23
IW-B07	806.6	0.13
IW-B08	2,063.0	0.25
IW-B09	2,024.7	0.25
IW-B10	3,480.1	0.48
IW-B11	3,658.5	0.32
IW-B12	2,349.4	0.41
IW-B13	5,069.0	--
IW-B14	5,480.0	--
IW-B15	5,069.0	--
MW-22	1,632.0	0.39
Total:	59,031	

Notes:

* - 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 applicable

gpm = gallons per minute

Table 2
DPT Injection Summary
ERD Injection Event Summary (2020)
Ashland LLC
130 South Street, Rensselaer, New York

Location ID	Interval (ft bgs)	Injected Volume (gallons)	Average Injection Rate (gpm)
Southern Source Zone			
DPT-01	12 - 16	588	0.54
DPT-01	16 - 20	678	1.17
DPT-02	12 - 16	600	0.58
DPT-02	16 - 20	490	1.13
DPT-03	17 - 21	573	0.58
DPT-03	21 - 25	456	1.13
DPT-04	17 - 21	587	1.19
DPT-04	21 - 25	601	1.17
DPT-05	18 - 22	612	0.50
DPT-05	22 - 26	580	1.13
Northern Source Zone			
DPT-06	20 - 24	90	0.56
DPT-06	24 - 28	1	0.20
DPT-07	14 - 18	588	1.70
DPT-07	18 - 22	588	0.72
DPT-07	22 - 26	603	0.72
DPT-08	10 - 14	341	0.64
DPT-08	14 - 18	588	1.50
DPT-08	18 - 22	588	1.50
DPT-08	22 - 26	582	1.13
DPT-08	26 - 30	791	0.63
DPT-09	14 - 18	72	1.67
DPT-09	18 - 22	869	1.46
DPT-09	22 - 26	844	1.20
DPT-09	26 - 30	762	2.60
DPT-10 ^a	13 - 17	--	--

Table 2
DPT Injection Summary
ERD Injection Event Summary (2020)
Ashland LLC
130 South Street, Rensselaer, New York

Location ID	Interval (ft bgs)	Injected Volume (gallons)	Average Injection Rate (gpm)
DPT-10 ^a	17 - 21	--	--
DPT-10 ^a	21 - 25	--	--
DPT-11	06 - 10	585	1.05
DPT-11	10 - 14	588	2.88
DPT-11	14 - 18	588	4.00
DPT-11	18 - 22	588	4.00
DPT-11	22 - 26	588	3.50
DPT-12	13 - 17	588	2.00
DPT-12	17 - 21	618	2.50
DPT-12	21 - 25	608	3.00
Total:		17,822	

Notes:

a - proposed injection point DPT-10 was removed from the scope of work due to field conditions.

-- = not applicable

gpm = gallons per minute

FIGURES



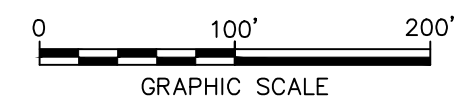


LEGEND:

- IMP-1/MW-1/PZ-1 GROUNDWATER GAUGING WELL
- IP-1/IMP-3/MW-16 PERFORMANCE MONITORING GROUNDWATER SAMPLING LOCATIONS
- IW-B1 SHALLOW INJECTION WELL LOCATION (2010)
- SURFACE CONTOUR
- RAILROAD TRACK
- CULVERTED STREAM PIPE
- PROPERTY LINE
- FORMER BUILDINGS AND STRUCTURES
- IW-A14 ERD SYSTEM OPTIMIZATION INJECTION WELL (2020)
- IW-A5 INJECTION WELLS/PIEZOMETERS ABANDONED IN 2018
- DPT-09 DPT INJECTION POINT

NOTES:

1. LOCATIONS AND TOPOGRAPHY EAST OF CSX RAILROAD PROPERTY AND WEST OF AND INCLUDING SOUTH STREET, SURVEYED BY THE ASSOCIATES PE-LS, PLLC (OCTOBER 2008). TWO NEW MONITORING WELLS, MW-20 & MW-21, AND TEN NEW INJECTION WELLS, IW-A2 THRU IW-A7 & IW-B2 THRU IW-B5, WERE SURVEYED ON JULY 2, 2010 BY THE 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 THE 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 THE 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.



ASHLAND INC.
RENSSELAER, NEW YORK
ERD INJECTION EVENT SUMMARY (2020)

INJECTION LOCATIONS



APPENDIX A

Analytical Results



ANALYTICAL REPORT

Eurofins TestAmerica, Buffalo
10 Hazelwood Drive
Amherst, NY 14228-2298
Tel: (716)691-2600

Laboratory Job ID: 480-175359-1
Client Project/Site: Ashland Rensselaer

For:
Ashland LLC
1313 N. Market Street
Wilmington, Delaware 19894

Attn: Ian McCary



Authorized for release by:
9/25/2020 1:48:25 PM

Eddie Barnett, Project Manager I
(912)250-0280
Eddie.Barnett@Eurofinset.com

LINKS

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results through
TotalAccess

Have a Question?



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www.eurofinsus.com/Env

The test results in this report meet all 2003 NELAC, 2009 TNI, and 2016 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

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Definitions/Glossary

Client: Ashland LLC
Project/Site: Ashland Rensselaer

Job ID: 480-175359-1

Qualifiers

General Chemistry

Qualifier	Qualifier Description

U	Indicates the analyte was analyzed for but not detected.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.

α	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Case Narrative

Client: Ashland LLC
Project/Site: Ashland Rensselaer

Job ID: 480-175359-1

Job ID: 480-175359-1

Laboratory: Eurofins TestAmerica, Buffalo

Narrative

CASE NARRATIVE
Client: Ashland LLC
Project: Ashland Rensselaer

Report Number: 480-175359-1

With the exceptions noted as flags or footnotes, standard analytical protocols were followed in the analysis of the samples and no problems were encountered or anomalies observed. In addition all laboratory quality control samples were within established control limits, with any exceptions noted below. Each sample was analyzed to achieve the lowest possible reporting limit within the constraints of the method. In the event of interference or analytes present at high concentrations, samples may be diluted. For diluted samples, the reporting limits are adjusted relative to the dilution required.

RECEIPT

The sample was received on 09/19/2020; the sample arrived in good condition, properly preserved and on ice. The temperature of the cooler at receipt was 2.2° C.

TOTAL ORGANIC CARBON

Sample Injection_Solution-20200918 (480-175359-1) was analyzed for total organic carbon in accordance with EPA SW-846 Method 9060A. The sample was analyzed on 09/23/2020.

Sample Injection_Solution-20200918 (480-175359-1)[100X] required dilution prior to analysis. The reporting limits have been adjusted accordingly.

No analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

Detection Summary

Client: Ashland LLC
Project/Site: Ashland Rensselaer

Job ID: 480-175359-1

Client Sample ID: Injection_Solution-20200918

Lab Sample ID: 480-175359-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
TOC Result 1	2200		100	43	mg/L	100		9060A	Total/NA
TOC Result 2	2200		100	43	mg/L	100		9060A	Total/NA
Total Organic Carbon	2300		100	43	mg/L	100		9060A	Total/NA

This Detection Summary does not include radiochemical test results.

Eurofins TestAmerica, Buffalo

Client Sample Results

Client: Ashland LLC
Project/Site: Ashland Rensselaer

Job ID: 480-175359-1

Client Sample ID: Injection_Solution-20200918

Lab Sample ID: 480-175359-1

Date Collected: 09/18/20 10:05

Matrix: Water

Date Received: 09/19/20 08:00

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
TOC Result 1	2200		100	43	mg/L			09/23/20 22:52	100
TOC Result 2	2200		100	43	mg/L			09/23/20 22:52	100
Total Organic Carbon	2300		100	43	mg/L			09/23/20 22:52	100

QC Sample Results

Client: Ashland LLC
Project/Site: Ashland Rensselaer

Job ID: 480-175359-1

Method: 9060A - Organic Carbon, Total (TOC)

Lab Sample ID: MB 480-551154/4

Matrix: Water

Analysis Batch: 551154

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
TOC Result 1	1.0	U	1.0	0.43	mg/L			09/23/20 18:49	1
TOC Result 2	1.0	U	1.0	0.43	mg/L			09/23/20 18:49	1
Total Organic Carbon	1.0	U	1.0	0.43	mg/L			09/23/20 18:49	1

Lab Sample ID: LCS 480-551154/5

Matrix: Water

Analysis Batch: 551154

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
TOC Result 1	60.0	59.8		mg/L		100	90 - 110
TOC Result 2	60.0	61.4		mg/L		102	90 - 110
Total Organic Carbon	60.0	60.4		mg/L		101	90 - 110

QC Association Summary

Client: Ashland LLC
Project/Site: Ashland Rensselaer

Job ID: 480-175359-1

General Chemistry

Analysis Batch: 551154

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-175359-1	Injection_Solution-20200918	Total/NA	Water	9060A	
MB 480-551154/4	Method Blank	Total/NA	Water	9060A	
LCS 480-551154/5	Lab Control Sample	Total/NA	Water	9060A	

Lab Chronicle

Client: Ashland LLC
Project/Site: Ashland Rensselaer

Job ID: 480-175359-1

Client Sample ID: Injection_Solution-20200918

Lab Sample ID: 480-175359-1

Date Collected: 09/18/20 10:05

Matrix: Water

Date Received: 09/19/20 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	9060A		100	551154	09/23/20 22:52	CLA	TAL BUF

Laboratory References:

TAL BUF = Eurofins TestAmerica, Buffalo, 10 Hazelwood Drive, Amherst, NY 14228-2298, TEL (716)691-2600

Accreditation/Certification Summary

Client: Ashland LLC
Project/Site: Ashland Rensselaer

Job ID: 480-175359-1

Laboratory: Eurofins TestAmerica, Buffalo

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

Authority	Program	Identification Number	Expiration Date
New York	NELAP	10026	04-01-21

The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.

Analysis Method	Prep Method	Matrix	Analyte
9060A		Water	TOC Result 1
9060A		Water	TOC Result 2

Method Summary

Client: Ashland LLC
Project/Site: Ashland Rensselaer

Job ID: 480-175359-1

Method	Method Description	Protocol	Laboratory
9060A	Organic Carbon, Total (TOC)	SW846	TAL BUF

Protocol References:

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

TAL BUF = Eurofins TestAmerica, Buffalo, 10 Hazelwood Drive, Amherst, NY 14228-2298, TEL (716)691-2600

Sample Summary

Client: Ashland LLC
Project/Site: Ashland Rensselaer

Job ID: 480-175359-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Asset ID
480-175359-1	Injection_Solution-20200918	Water	09/18/20 10:05	09/19/20 08:00	

[illegible]

Login Sample Receipt Checklist

Client: Ashland LLC

Job Number: 480-175359-1

Login Number: 175359

List Number: 2

Creator: Yeager, Brian A

List Source: Eurofins TestAmerica, Buffalo

Question	Answer	Comment
Radioactivity wasn't checked or is $\leq$ background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is $<6\text{mm}$ (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

ANALYTICAL REPORT

Eurofins TestAmerica, Buffalo
10 Hazelwood Drive
Amherst, NY 14228-2298
Tel: (716)691-2600

Laboratory Job ID: 480-175594-1
Client Project/Site: Ashland Rensselaer

For:
Ashland LLC
1313 N. Market Street
Wilmington, Delaware 19894

Attn: Ian McCary



Authorized for release by:
10/2/2020 6:49:48 AM

Eddie Barnett, Project Manager I
(912)250-0280
Eddie.Barnett@Eurofinset.com

LINKS

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www.eurofinsus.com/Env

The test results in this report meet all 2003 NELAC, 2009 TNI, and 2016 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

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Definitions/Glossary

Client: Ashland LLC
Project/Site: Ashland Rensselaer

Job ID: 480-175594-1

Qualifiers

General Chemistry

Qualifier	Qualifier Description
U	Indicates the analyte was analyzed for but not detected.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
α	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Case Narrative

Client: Ashland LLC
Project/Site: Ashland Rensselaer

Job ID: 480-175594-1

Job ID: 480-175594-1

Laboratory: Eurofins TestAmerica, Buffalo

Narrative

CASE NARRATIVE
Client: Ashland LLC
Project: Ashland Rensselaer

Report Number: 480-175594-1

With the exceptions noted as flags or footnotes, standard analytical protocols were followed in the analysis of the samples and no problems were encountered or anomalies observed. In addition all laboratory quality control samples were within established control limits, with any exceptions noted below. Each sample was analyzed to achieve the lowest possible reporting limit within the constraints of the method. In the event of interference or analytes present at high concentrations, samples may be diluted. For diluted samples, the reporting limits are adjusted relative to the dilution required.

RECEIPT

The sample was received on 09/25/2020; the sample arrived in good condition, properly preserved and on ice. The temperature of the cooler at receipt was 2.5° C.

TOTAL ORGANIC CARBON

Sample Injection Solution - 20200924 (480-175594-1) was analyzed for total organic carbon in accordance with EPA SW-846 Method 9060A. The sample was analyzed on 09/30/2020.

Sample Injection Solution - 20200924 (480-175594-1)[100X] required dilution prior to analysis. The reporting limits have been adjusted accordingly.

No analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

Detection Summary

Client: Ashland LLC
Project/Site: Ashland Rensselaer

Job ID: 480-175594-1

Client Sample ID: Injection Solution - 20200924

Lab Sample ID: 480-175594-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
TOC Result 1	2000		100	43	mg/L	100		9060A	Total/NA
TOC Result 2	2000		100	43	mg/L	100		9060A	Total/NA
Total Organic Carbon	2100		100	43	mg/L	100		9060A	Total/NA

This Detection Summary does not include radiochemical test results.

Eurofins TestAmerica, Buffalo

Client Sample Results

Client: Ashland LLC
Project/Site: Ashland Rensselaer

Job ID: 480-175594-1

Client Sample ID: Injection Solution - 20200924

Lab Sample ID: 480-175594-1

Date Collected: 09/24/20 09:00

Matrix: Water

Date Received: 09/25/20 08:00

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
TOC Result 1	2000		100	43	mg/L			09/30/20 18:22	100
TOC Result 2	2000		100	43	mg/L			09/30/20 18:22	100
Total Organic Carbon	2100		100	43	mg/L			09/30/20 18:22	100

QC Sample Results

Client: Ashland LLC
Project/Site: Ashland Rensselaer

Job ID: 480-175594-1

Method: 9060A - Organic Carbon, Total (TOC)

Lab Sample ID: MB 480-552111/4

Matrix: Water

Analysis Batch: 552111

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
TOC Result 1	1.0	U	1.0	0.43	mg/L			09/30/20 17:26	1
TOC Result 2	1.0	U	1.0	0.43	mg/L			09/30/20 17:26	1
Total Organic Carbon	1.0	U	1.0	0.43	mg/L			09/30/20 17:26	1

Lab Sample ID: LCS 480-552111/5

Matrix: Water

Analysis Batch: 552111

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
TOC Result 1	60.0	59.3		mg/L		99	90 - 110
TOC Result 2	60.0	57.4		mg/L		96	90 - 110
Total Organic Carbon	60.0	58.6		mg/L		98	90 - 110

QC Association Summary

Client: Ashland LLC
Project/Site: Ashland Rensselaer

Job ID: 480-175594-1

General Chemistry

Analysis Batch: 552111

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-175594-1	Injection Solution - 20200924	Total/NA	Water	9060A	
MB 480-552111/4	Method Blank	Total/NA	Water	9060A	
LCS 480-552111/5	Lab Control Sample	Total/NA	Water	9060A	

Lab Chronicle

Client: Ashland LLC
Project/Site: Ashland Rensselaer

Job ID: 480-175594-1

Client Sample ID: Injection Solution - 20200924

Lab Sample ID: 480-175594-1

Date Collected: 09/24/20 09:00

Matrix: Water

Date Received: 09/25/20 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	9060A		100	552111	09/30/20 18:22	CLA	TAL BUF

Laboratory References:

TAL BUF = Eurofins TestAmerica, Buffalo, 10 Hazelwood Drive, Amherst, NY 14228-2298, TEL (716)691-2600

Accreditation/Certification Summary

Client: Ashland LLC
Project/Site: Ashland Rensselaer

Job ID: 480-175594-1

Laboratory: Eurofins TestAmerica, Buffalo

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

Authority	Program	Identification Number	Expiration Date
New York	NELAP	10026	04-01-21

The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.

Analysis Method	Prep Method	Matrix	Analyte
9060A		Water	TOC Result 1
9060A		Water	TOC Result 2

Method Summary

Client: Ashland LLC
Project/Site: Ashland Rensselaer

Job ID: 480-175594-1

Method	Method Description	Protocol	Laboratory
9060A	Organic Carbon, Total (TOC)	SW846	TAL BUF

Protocol References:

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

TAL BUF = Eurofins TestAmerica, Buffalo, 10 Hazelwood Drive, Amherst, NY 14228-2298, TEL (716)691-2600

Sample Summary

Client: Ashland LLC
Project/Site: Ashland Rensselaer

Job ID: 480-175594-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Asset ID
480-175594-1	Injection Solution - 20200924	Water	09/24/20 09:00	09/25/20 08:00	

10 Hazelwood Drive

Amherst, NY 14228-2298

Phone: 716-691-2600 Fax: 716-691-7991

#224

Client Information

Client Contact:

Joe Zaso

Company:

ARCADIS U.S. Inc

Address:

6041 Wallace Road Extension Suite 300

City:

Wexford

State, Zip:

PA, 15090

Phone:

Email:

Joseph.zaso@arcadis.com

Project Name:

Ashland Rensselaer

Site:

Sampler:

Mike Redman

Phone:

800485-5295

E-Mail:

Eddie.Barnett@Eurofinset.com

Lab PM:

Barnett, Eddie T

Carrier Tracking No(s):

680-118193-45120-1

Page:

Page 1 of 1

Job #:

Job #:

Analysis Requested

Due Date Requested:

TAT Requested (days):

Standard

PO #:

POB13031

WO #:

Task 400

Project #:

68016621

SSOW#:

GOC No:

680-118193-45120-1

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Job #:

Job #:

Preservation Codes:

M - Hexane

N - None

O - AsNaO2

P - Na2O4S

Q - Na2SO3

R - Na2SO4

S - TSP Dodecahydrate

T - MCAA

U - Acetone

V - pH 4-5

W - other (specify)

Z - other (specify)

Lab PM:

Barnett, Eddie T

E-Mail:

Eddie.Barnett@Eurofinset.com

Job #:

Job #:

Preservation Codes:

M - Hexane

N - None

O - AsNaO2

P - Na2O4S

Q - Na2SO3

R - Na2SO4

S - TSP Dodecahydrate

T - MCAA

U - Acetone

V - pH 4-5

W - other (specify)

Z - other (specify)

Lab PM:

Barnett, Eddie T

E-Mail:

Eddie.Barnett@Eurofinset.com

Job #:

Job #:

Preservation Codes:

M - Hexane

N - None

O - AsNaO2

P - Na2O4S

Q - Na2SO3

R - Na2SO4

S - TSP Dodecahydrate

T - MCAA

U - Acetone

V - pH 4-5

W - other (specify)

Z - other (specify)

Lab PM:

Barnett, Eddie T

E-Mail:

Eddie.Barnett@Eurofinset.com

Job #:

Job #:

Preservation Codes:

M - Hexane

N - None

O - AsNaO2

P - Na2O4S

Q - Na2SO3

R - Na2SO4

S - TSP Dodecahydrate

T - MCAA

U - Acetone

V - pH 4-5

W - other (specify)

Z - other (specify)

Lab PM:

Barnett, Eddie T

E-Mail:

Eddie.Barnett@Eurofinset.com

Job #:

Job #:

Preservation Codes:

M - Hexane

N - None

O - AsNaO2

P - Na2O4S

Q - Na2SO3

R - Na2SO4

S - TSP Dodecahydrate

T - MCAA

U - Acetone

V - pH 4-5

Login Sample Receipt Checklist

Client: Ashland LLC

Job Number: 480-175594-1

Login Number: 175594

List Number: 2

Creator: Yeager, Brian A

List Source: Eurofins TestAmerica, Buffalo

Question	Answer	Comment
Radioactivity wasn't checked or is $\leq$ background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is $<6\text{mm}$ (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

ANALYTICAL REPORT

Eurofins TestAmerica, Buffalo
10 Hazelwood Drive
Amherst, NY 14228-2298
Tel: (716)691-2600

Laboratory Job ID: 480-176243-1
Client Project/Site: Ashland Rensselaer

For:
Ashland LLC
1313 N. Market Street
Wilmington, Delaware 19894

Attn: Ian McCary



Authorized for release by:
10/19/2020 2:36:39 PM

Eddie Barnett, Project Manager I
(912)250-0280
Eddie.Barnett@Eurofinset.com

LINKS

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results through
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The test results in this report meet all 2003 NELAC, 2009 TNI, and 2016 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

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Definitions/Glossary

Client: Ashland LLC
Project/Site: Ashland Rensselaer

Job ID: 480-176243-1

Qualifiers

General Chemistry

Qualifier	Qualifier Description

U	Indicates the analyte was analyzed for but not detected.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.

α	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Case Narrative

Client: Ashland LLC
Project/Site: Ashland Rensselaer

Job ID: 480-176243-1

Job ID: 480-176243-1

Laboratory: Eurofins TestAmerica, Buffalo

Narrative

CASE NARRATIVE
Client: Ashland LLC
Project: Ashland Rensselaer

Report Number: 480-176243-1

With the exceptions noted as flags or footnotes, standard analytical protocols were followed in the analysis of the samples and no problems were encountered or anomalies observed. In addition all laboratory quality control samples were within established control limits, with any exceptions noted below. Each sample was analyzed to achieve the lowest possible reporting limit within the constraints of the method. In the event of interference or analytes present at high concentrations, samples may be diluted. For diluted samples, the reporting limits are adjusted relative to the dilution required.

RECEIPT

The sample was received on 10/09/2020; the sample arrived in good condition, properly preserved and on ice. The temperature of the cooler at receipt was 3.1° C.

TOTAL ORGANIC CARBON

Sample INJECTION_SOLUTION-20201008 (480-176243-1) was analyzed for total organic carbon in accordance with EPA SW-846 Method 9060A. The sample was analyzed on 10/16/2020.

Sample INJECTION_SOLUTION-20201008 (480-176243-1)[200X] required dilution prior to analysis. The reporting limits have been adjusted accordingly.

No analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

Detection Summary

Client: Ashland LLC
Project/Site: Ashland Rensselaer

Job ID: 480-176243-1

Client Sample ID: INJECTION_SOLUTION-20201008

Lab Sample ID: 480-176243-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
TOC Result 1	2100		200	87	mg/L	200		9060A	Total/NA
TOC Result 2	2000		200	87	mg/L	200		9060A	Total/NA
Total Organic Carbon	2300		200	87	mg/L	200		9060A	Total/NA

This Detection Summary does not include radiochemical test results.

Eurofins TestAmerica, Buffalo

Client Sample Results

Client: Ashland LLC
Project/Site: Ashland Rensselaer

Job ID: 480-176243-1

Client Sample ID: INJECTION_SOLUTION-20201008

Lab Sample ID: 480-176243-1

Date Collected: 10/08/20 08:15

Matrix: Water

Date Received: 10/09/20 08:00

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
TOC Result 1	2100		200	87	mg/L			10/16/20 23:06	200
TOC Result 2	2000		200	87	mg/L			10/16/20 23:06	200
Total Organic Carbon	2300		200	87	mg/L			10/16/20 23:06	200

QC Sample Results

Client: Ashland LLC
Project/Site: Ashland Rensselaer

Job ID: 480-176243-1

Method: 9060A - Organic Carbon, Total (TOC)

Lab Sample ID: MB 480-554425/51

Matrix: Water

Analysis Batch: 554425

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
TOC Result 1	1.0	U	1.0	0.43	mg/L			10/16/20 14:21	1
TOC Result 2	1.0	U	1.0	0.43	mg/L			10/16/20 14:21	1
Total Organic Carbon	1.0	U	1.0	0.43	mg/L			10/16/20 14:21	1

Lab Sample ID: LCS 480-554425/52

Matrix: Water

Analysis Batch: 554425

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
TOC Result 1	60.0	59.8		mg/L		100	90 - 110
TOC Result 2	60.0	61.3		mg/L		102	90 - 110
Total Organic Carbon	60.0	60.9		mg/L		101	90 - 110

QC Association Summary

Client: Ashland LLC
Project/Site: Ashland Rensselaer

Job ID: 480-176243-1

General Chemistry

Analysis Batch: 554425

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-176243-1	INJECTION_SOLUTION-20201008	Total/NA	Water	9060A	
MB 480-554425/51	Method Blank	Total/NA	Water	9060A	
LCS 480-554425/52	Lab Control Sample	Total/NA	Water	9060A	

Lab Chronicle

Client: Ashland LLC
Project/Site: Ashland Rensselaer

Job ID: 480-176243-1

Client Sample ID: INJECTION_SOLUTION-20201008

Lab Sample ID: 480-176243-1

Date Collected: 10/08/20 08:15

Matrix: Water

Date Received: 10/09/20 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	9060A		200	554425	10/16/20 23:06	CLA	TAL BUF

Laboratory References:

TAL BUF = Eurofins TestAmerica, Buffalo, 10 Hazelwood Drive, Amherst, NY 14228-2298, TEL (716)691-2600

Accreditation/Certification Summary

Client: Ashland LLC
Project/Site: Ashland Rensselaer

Job ID: 480-176243-1

Laboratory: Eurofins TestAmerica, Buffalo

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

Authority	Program	Identification Number	Expiration Date
New York	NELAP	10026	04-01-21

The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.

Analysis Method	Prep Method	Matrix	Analyte
9060A		Water	TOC Result 1
9060A		Water	TOC Result 2

Method Summary

Client: Ashland LLC
Project/Site: Ashland Rensselaer

Job ID: 480-176243-1

Method	Method Description	Protocol	Laboratory
9060A	Organic Carbon, Total (TOC)	SW846	TAL BUF

Protocol References:

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

TAL BUF = Eurofins TestAmerica, Buffalo, 10 Hazelwood Drive, Amherst, NY 14228-2298, TEL (716)691-2600

Sample Summary

Client: Ashland LLC
Project/Site: Ashland Rensselaer

Job ID: 480-176243-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Asset ID
480-176243-1	INJECTION_SOLUTION-20201008	Water	10/08/20 08:15	10/09/20 08:00	

Chain of Custody Record

Environment Testing
America

Client Information Client Contact: Joe Zaso, Joe Zaso, Ian McGary (Ashland) Company: ARCADIS U.S. Inc. Address: 6041 Wallace Road Extension Suite 300 City: Wexford State: PA, Zip: 15090 Phone: PO # PO813031 Email: joseph.zaso@arcadis.com Project Name: Ashland Rensselaer Site:		Sampler: Matt Wiener Phone: 513-584-3148 Lab PM: Barnett, Eddie T E-Mail: Eddie.Barnett@Eurofinset.com Carrier Tracking No(s): COC No: 680-118193-45120.1 Page: Page 1 of 1 Job #:	
Due Date Requested: TAT Requested (days): PO #: WO #: Task #: Project #: SOW#:		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 Other: M - Hexane N - None O - AsNaO2 P - Na2O4S Q - Na2SO3 R - Na2SO3 S - H2SO4 T - TSP Dodecahydrate U - Acetone V - MCAA W - pH 4-5 Z - other (specify)	
Sample Identification INJECTION SOLUTION - 20201008 Sample Date: 10/18/20 Sample Time: 0815 Sample Type (C=Comp, G=grab): G Matrix (W=water, S=solid, O=wastewater, AT=tissue, A=air): Water Preservation Code: WNT Field Filtered Sample (Yes or No): Perform MS/MSD (Yes or No): 9060A - (MOD) Local Method:		Total Number of Containers: Special Instructions/Note: TOC, collected from DPT tube 480-176243 Chain of Custody	
Possible Hazard Identification ☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological Deliverable Requested: I, II, III, IV, Other (specify)			
Empty Kit Relinquished by: Relinquished by: Matt Wiener D. Therman Date: 10/18/20 Time: 1020 Company: Arcadis Relinquished by: Matt Wiener Date: 10/18/20 Time: 1700 Company: Arcadis Relinquished by: Matt Wiener Date: 10/18/20 Time: 1700 Company: Arcadis			
Sample Disposal (A fee may be assessed if samples are retained longer than 1 month) ☐ Return To Client ☐ Disposal By Lab ☐ Archive For Months Special Instructions/OC Requirements:			
Custody Seals Intact: Custody Seal No.: Relinquished by: Matt Wiener Date: 10/18/20 Time: 1020 Company: Arcadis Relinquished by: Matt Wiener Date: 10/18/20 Time: 1700 Company: Arcadis Relinquished by: Matt Wiener Date: 10/18/20 Time: 1700 Company: Arcadis			
Cooler Temperature(s) °C and Other Remarks: 3.1 #1			

Login Sample Receipt Checklist

Client: Ashland LLC

Job Number: 480-176243-1

Login Number: 176243

List Source: Eurofins TestAmerica, Buffalo

List Number: 1

Creator: Sabuda, Brendan D

Question	Answer	Comment
Radioactivity wasn't checked or is $\leq$ background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	3.1 #1 ICE
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is $<6\text{mm}$ (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

ANALYTICAL REPORT

Eurofins TestAmerica, Buffalo
10 Hazelwood Drive
Amherst, NY 14228-2298
Tel: (716)691-2600

Laboratory Job ID: 480-177008-1
Client Project/Site: Ashland Rensselaer

For:
Ashland LLC
1313 N. Market Street
Wilmington, Delaware 19894

Attn: Ian McCary



Authorized for release by:
10/29/2020 11:52:42 AM

Eddie Barnett, Project Manager I
(912)250-0280
Eddie.Barnett@Eurofinset.com

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This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

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Definitions/Glossary

Client: Ashland LLC
Project/Site: Ashland Rensselaer

Job ID: 480-177008-1

Qualifiers

General Chemistry

Qualifier	Qualifier Description

U	Indicates the analyte was analyzed for but not detected.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.

α	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Case Narrative

Client: Ashland LLC
Project/Site: Ashland Rensselaer

Job ID: 480-177008-1

Job ID: 480-177008-1

Laboratory: Eurofins TestAmerica, Buffalo

Narrative

CASE NARRATIVE
Client: Ashland LLC
Project: Ashland Rensselaer

Report Number: 480-177008-1

With the exceptions noted as flags or footnotes, standard analytical protocols were followed in the analysis of the samples and no problems were encountered or anomalies observed. In addition all laboratory quality control samples were within established control limits, with any exceptions noted below. Each sample was analyzed to achieve the lowest possible reporting limit within the constraints of the method. In the event of interference or analytes present at high concentrations, samples may be diluted. For diluted samples, the reporting limits are adjusted relative to the dilution required.

RECEIPT

The sample was received on 10/23/2020; the sample arrived in good condition, properly preserved and on ice. The temperature of the cooler at receipt was 3.4° C.

TOTAL ORGANIC CARBON

Sample INJECTION_SOLUTION-20201022 (480-177008-1) was analyzed for total organic carbon in accordance with EPA SW-846 Method 9060A. The sample was analyzed on 10/28/2020.

Sample INJECTION_SOLUTION-20201022 (480-177008-1)[200X] required dilution prior to analysis. The reporting limits have been adjusted accordingly.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

Detection Summary

Client: Ashland LLC
Project/Site: Ashland Rensselaer

Job ID: 480-177008-1

Client Sample ID: INJECTION_SOLUTION-20201022

Lab Sample ID: 480-177008-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
TOC Result 1	1900		200	87	mg/L	200		9060A	Total/NA
TOC Result 2	2000		200	87	mg/L	200		9060A	Total/NA
Total Organic Carbon	2100		200	87	mg/L	200		9060A	Total/NA

This Detection Summary does not include radiochemical test results.

Eurofins TestAmerica, Buffalo

Client Sample Results

Client: Ashland LLC
Project/Site: Ashland Rensselaer

Job ID: 480-177008-1

Client Sample ID: INJECTION_SOLUTION-20201022

Lab Sample ID: 480-177008-1

Date Collected: 10/22/20 07:30

Matrix: Water

Date Received: 10/23/20 08:00

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
TOC Result 1	1900		200	87	mg/L			10/28/20 02:38	200
TOC Result 2	2000		200	87	mg/L			10/28/20 02:38	200
Total Organic Carbon	2100		200	87	mg/L			10/28/20 02:38	200

QC Sample Results

Client: Ashland LLC
Project/Site: Ashland Rensselaer

Job ID: 480-177008-1

Method: 9060A - Organic Carbon, Total (TOC)

Lab Sample ID: MB 480-556257/27

Matrix: Water

Analysis Batch: 556257

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
TOC Result 1	1.0	U	1.0	0.43	mg/L			10/28/20 07:16	1
TOC Result 2	1.0	U	1.0	0.43	mg/L			10/28/20 07:16	1
Total Organic Carbon	1.0	U	1.0	0.43	mg/L			10/28/20 07:16	1

Lab Sample ID: MB 480-556257/4

Matrix: Water

Analysis Batch: 556257

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
TOC Result 1	1.0	U	1.0	0.43	mg/L			10/27/20 20:10	1
TOC Result 2	1.0	U	1.0	0.43	mg/L			10/27/20 20:10	1
Total Organic Carbon	1.0	U	1.0	0.43	mg/L			10/27/20 20:10	1

Lab Sample ID: LCS 480-556257/28

Matrix: Water

Analysis Batch: 556257

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
TOC Result 1	60.0	55.6		mg/L		93	90 - 110
TOC Result 2	60.0	57.0		mg/L		95	90 - 110
Total Organic Carbon	60.0	56.5		mg/L		94	90 - 110

Lab Sample ID: LCS 480-556257/5

Matrix: Water

Analysis Batch: 556257

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
TOC Result 1	60.0	56.3		mg/L		94	90 - 110
TOC Result 2	60.0	58.3		mg/L		97	90 - 110
Total Organic Carbon	60.0	57.6		mg/L		96	90 - 110

QC Association Summary

Client: Ashland LLC
Project/Site: Ashland Rensselaer

Job ID: 480-177008-1

General Chemistry

Analysis Batch: 556257

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-177008-1	INJECTION_SOLUTION-20201022	Total/NA	Water	9060A	
MB 480-556257/27	Method Blank	Total/NA	Water	9060A	
MB 480-556257/4	Method Blank	Total/NA	Water	9060A	
LCS 480-556257/28	Lab Control Sample	Total/NA	Water	9060A	
LCS 480-556257/5	Lab Control Sample	Total/NA	Water	9060A	

Lab Chronicle

Client: Ashland LLC
Project/Site: Ashland Rensselaer

Job ID: 480-177008-1

Client Sample ID: INJECTION_SOLUTION-20201022

Lab Sample ID: 480-177008-1

Date Collected: 10/22/20 07:30

Matrix: Water

Date Received: 10/23/20 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	9060A		200	556257	10/28/20 02:38	CLA	TAL BUF

Laboratory References:

TAL BUF = Eurofins TestAmerica, Buffalo, 10 Hazelwood Drive, Amherst, NY 14228-2298, TEL (716)691-2600

Accreditation/Certification Summary

Client: Ashland LLC
Project/Site: Ashland Rensselaer

Job ID: 480-177008-1

Laboratory: Eurofins TestAmerica, Buffalo

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

Authority	Program	Identification Number	Expiration Date
New York	NELAP	10026	04-01-21

The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.

Analysis Method	Prep Method	Matrix	Analyte
9060A		Water	TOC Result 1
9060A		Water	TOC Result 2

Method Summary

Client: Ashland LLC
Project/Site: Ashland Rensselaer

Job ID: 480-177008-1

Method	Method Description	Protocol	Laboratory
9060A	Organic Carbon, Total (TOC)	SW846	TAL BUF

Protocol References:

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

TAL BUF = Eurofins TestAmerica, Buffalo, 10 Hazelwood Drive, Amherst, NY 14228-2298, TEL (716)691-2600

Sample Summary

Client: Ashland LLC
Project/Site: Ashland Rensselaer

Job ID: 480-177008-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Asset ID
480-177008-1	INJECTION_SOLUTION-20201022	Water	10/22/20 07:30	10/23/20 08:00	

Client Information Client Contact: Ian McCary Company: Ashland LLC Address: 1313 N. Market Street City: Wilmington State, Zip: DE, 19894 Phone:		Sampler: Matt Wiener Phone: 513-884-3148 Lab PM: Barnett, Eddie T E-Mail: Eddie.Barnett@Eurofinset.com		Carrier Tracking No(s): 680-118481-45216.2 Page: 2 of 2 Job #: 1 of 1		COC No: 680-118481-45216.2	
Due Date Requested: TAT Requested (days): Standard PO #: PO813031 WO #: Task 400 Project #: 88946624 SSOW#: 30059651				Analysis Requested			
Sample Identification INJECTION-SOLUTION-20101022				Field Filtered Sample (Yes or No) Perform MS/MSD (Yes or No)			
Sample Date: 10/22/20		Sample Time: 0730		Sample Type (C=comp, G=grab): G		Matrix (W=water, S=solid, O=soil, B=biological, A=air): W	
Sample Date: 10/22/20		Sample Time: 0730		Sample Type (C=comp, G=grab): G		Matrix (W=water, S=solid, O=soil, B=biological, A=air): W	
Sample Date: 10/22/20		Sample Time: 0730		Sample Type (C=comp, G=grab): G		Matrix (W=water, S=solid, O=soil, B=biological, A=air): W	
Sample Date: 10/22/20		Sample Time: 0730		Sample Type (C=comp, G=grab): G		Matrix (W=water, S=solid, O=soil, B=biological, A=air): W	
Sample Date: 10/22/20		Sample Time: 0730		Sample Type (C=comp, G=grab): G		Matrix (W=water, S=solid, O=soil, B=biological, A=air): W	
Sample Date: 10/22/20		Sample Time: 0730		Sample Type (C=comp, G=grab): G		Matrix (W=water, S=solid, O=soil, B=biological, A=air): W	
Sample Date: 10/22/20		Sample Time: 0730		Sample Type (C=comp, G=grab): G		Matrix (W=water, S=solid, O=soil, B=biological, A=air): W	
Sample Date: 10/22/20		Sample Time: 0730		Sample Type (C=comp, G=grab): G		Matrix (W=water, S=solid, O=soil, B=biological, A=air): W	
Sample Date: 10/22/20		Sample Time: 0730		Sample Type (C=comp, G=grab): G		Matrix (W=water, S=solid, O=soil, B=biological, A=air): W	
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Sample Date: 10/22/20		Sample Time: 0730		Sample Type (C=comp, G=grab): G		Matrix (W=water, S=solid, O=soil, B=biological, A=air): W	
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Sample Date: 10/22/20		Sample Time: 0730		Sample Type (C=comp, G=grab): G		Matrix (W=water, S=solid, O=soil, B=biological, A=air): W	
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Sample Date: 10/22/20		Sample Time: 0730		Sample Type (C=comp, G=grab): G		Matrix (W=water, S=solid, O=soil, B=biological, A=air): W	
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Sample Date: 10/22/20		Sample Time: 0730		Sample Type (C=comp, G=grab): G		Matrix (W=water, S=solid, O=soil, B=biological, A=air): W	
Sample Date: 10/22/20		Sample Time: 0730		Sample Type (C=comp, G=grab): G		Matrix (W=water, S=solid, O=soil, B=biological	

Login Sample Receipt Checklist

Client: Ashland LLC

Job Number: 480-177008-1

Login Number: 177008

List Number: 2

Creator: Stopa, Erik S

List Source: Eurofins TestAmerica, Buffalo

Question	Answer	Comment
Radioactivity wasn't checked or is $\leq$ background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is $<6\text{mm}$ (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

APPENDIX B

DPT Injection Logs



[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

Project Name:		Arcadis - 130 South Street, Rensselaer, NY - EVO Injection								 INJECTION FIELD LOG
Injection Operator:		Joe Hutchins								
Boring ID	Start Date	Start Time	End Date	End Time	Injection Interval	Pressure (PSI)	Flow Rate (GPM)	2% EVO Injected (Gallons)	Daylighting (Mark X)	Field Notes
DPT-7	#####	10:52am	#####	11:35am	14'-18'	20-25	5	275	x	Stopped because of water level rise in nearby well
		1:20pm		1:22pm	14'-18'	10-15	1	2	x	
		1:30pm		1:31pm	14'-18'	10-15	1	1		Stopped at 1:31pm to drill more injection points
		2:24pm		3:15pm	14'-18'	10	0.5	69.46		
	#####	7:54am	#####	12:06pm	14'-18'	10	1	240.5		
		12:33pm		3:25pm	18'-22'	15	.5-1	164.7		
	#####	8:08am	#####	9:20am	18'-22'	10-12		62.5		Flow meter not working properly, unsure of exact total
		10:07am		1:35pm	18'-22'	10-12	.5-.8	150		Flow meter stopped working
	#####	8:06am	#####	1:07pm	18'-22'	8	0.75	211		
		1:15pm		1:32pm	22'-26'	8	0.75	12	x	Daylighting at nearby well
		2:40pm		4:12pm	22'-26'	8	0.75	69	x	Daylighting at nearby well
	10/6/2020	7:33am		11:11am	22'-26'	10-12	<1.0	60	x	Daylighting at nearby well
		12:24pm	10/6/2020	4:45pm	22'-26'	10-12	.75-1	319		

[illegible]

CASCADE DRILLING TECHNICAL SERVICES EXCELLENCE ON EVERY LEVEL™ INJECTION FIELD LOG										
Project Name:		Arcadis - 130 South Street, Rensselaer, NY - EVO Injection								
Injection Operator:		Joe Hutchins								
Boring ID	Start Date	Start Time	End Date	End Time	Injection Interval	Pressure (PSI)	Flow Rate (GPM)	2% EVO Injected (Gallons)	Daylighting (Mark X)	Field Notes
DPT-8	10/01/2020	9:55am	10/01/2020	1:56pm	10'-14'	10-12	0.2	0.2	x	Daylighting in nearby well
	10/05/2020	8:04am	10/05/2020	12:38pm	10'-14'	8	0.75	213	x	Daylighting in nearby well
		2:55pm		3:50pm	10'-14'	8	0.75	23	x	Daylighting in nearby well
	10/6/2020	7:33am	10/6/2020	10:38am	10'-14'	10-12	0.75-1	105		
		11:03am		11:11am	26'-30'	20	0.75-1	4	x	Daylighting in nearby well
		11:49am		4:45pm	26'-30'	20	.75-1	199		
	10/07/2020	11:15am	10/07/2020	11:48am	26'-30'	10-12	0.5	12		
		1:45pm		4:00pm	26'-30'	10-12	.3-.5	45		
	10/08/2020	8:00am	10/08/2020	1:33pm	26'-30'	10-20	0.5	531		
	10/09/2020	7:50am	10/09/2020	4:10pm	22'-26'	10-20	.5-1	525		
	10/12/2020	8:00am	10/12/2020	8:31am	22'-26'	10-20	1-2	57		



INJECTION FIELD LOG

[illegible]

[illegible]

[illegible]

[illegible]

Arcadis Canada Inc.

855 Route 146

Suite 210

Clifton Park, New York 12065

Tel 518 250 7300

Fax 518 371 2757

www.arcadis.com

Appendix B

Data Usability Summary Reports

DATA VALIDATION CHECKLIST**Ashland Rensselaer**

Sample Team:	ARCADIS
Sample Matrix:	Water
Lab Project Manager:	Eddie Barnett
SDG Numbers:	480-168373-1
Analyses:	VOCs – 8260C, Dissolved gases – RSK 175 and TOC -9060A
QA Reporting Level:	ARCADIS, Level II
ARCADIS Project Manager:	Joe Zaso

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

Environmental
Project: Ashland
Project Number: 30039411.00004

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 ID	Sample Date	Parent Sample
IP-1	480-168373-1	04-07-2020	
IMP-3	480-168373-2	04-07-2020	
IW-B3	480-168373-3	04-07-2020	
MW-18	480-168373-4	04-07-2020	
MW-23	480-168373-5	04-07-2020	
MW-16	480-168373-6	04-07-2020	
MW-21	480-168373-7	04-07-2020	
MW-20	480-168373-8	04-07-2020	
MW-17	480-168373-9	04-07-2020	
MW-15	480-168373-10	04-07-2020	
MW-13	480-168373-11	04-07-2020	
MW-25	480-168373-12	04-07-2020	
FB-1	480-168373-13	04-07-2020	
Trip Blank-1	480-168373-14	04-07-2020	
MW-A1	480-168373-15	04-08-2020	
MW-24	480-168373-16	04-08-2020	
MW-19	480-168373-17	04-08-2020	
MW-B1	480-168373-18	04-08-2020	
IW-A2	480-168373-19	04-08-2020	
FB-2	480-168373-20	04-08-2020	
Trip Blank-2	480-168373-21	04-08-2020	
DUP-1	480-168373-22	04-08-2020	MW-19

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.

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. Calibration Exceedance		X		X		X	
5. Laboratory control sample (LCS) %R		X	X		X		
6. Laboratory control sample duplicate (LCSD) %R	X						X
7. LCS/LCSD RPD	X						X
8. Matrix spike (MS) %R		X		X		X	
9. MSD %R		X		X		X	
10. MS/MSD RPD		X	X		X		
11. Surrogate Recoveries		X	X		X		
12. 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.

4. Compound cis-1,2-dichloroethene was exceeded the calibration range in sample MW-19. The laboratory was re-analyzed and result reported from higher dilution.
- 8-10. The MS/MSD analysis was performed on samples MW-19 and IW-A2. The MS and MSD recoveries for compound 1,1,2-trichloro-1,2,2-trifluoroethane was less than the NJDEP control limit in sample MW-19 and qualified as estimated (J).
12. A field duplicate sample DUP-1 was collected at MW-19 and the RPDs were acceptable.

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.

7-9. The MS/MSD analysis was performed on sample MW-19. The MS/MSD analysis exhibited acceptable recoveries and RPD between MS/MSD recoveries.

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

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.

7-9. The MS and/or MSD analysis performed on samples MW-23, DUP-1 and MW-19. The MS and/or MSD recoveries were within the control limits.

10. Laboratory duplicate was performed on sample MW-16 and RPD was acceptable.

11. A field duplicate sample DUP-1 was collected at MW-19 and the RPD was acceptable.

DATA VALIDATION QUALIFICATION SUMMARY

Qualifier Definitions:

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

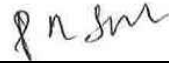
UJ – The compound was not detected above the reported sample quantitation limit. However, the reported limit is approximate and may or may not represent the actual limit of quantitation.

Explanation/Notes:

Sample ID	Method	Parameter	Result	Units	Qualifier	Reason
MW-19	SW846 8260	1,1,2-Trichloro-1,2,2-trifluoroethane	820	ug/l	J	Low MS/MSD recovery

VALIDATION PERFORMED BY: Suresh PR

SIGNATURE:

A handwritten signature in black ink, appearing to read 'Suresh PR', is written above a horizontal line.

DATE: June 05, 2020

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 Joe Zaso		Date 4/8/20	Chain of Custody Number 295685
Address 855 RTE 146 STE 210		Telephone Number (Area Code)/Fax Number		Lab Number	Page 2 of 2

City Clifton Park	State NY	Zip Code 12065	Site Contact Felix Congo	Lab Contact	Analysis (Attach list if more space is needed)
Project Name and Location (State) Ashland Rensselaer			Carrier/Waybill Number		Special Instructions/ Conditions of Receipt

Contract/Purchase Order/Quote No. 30039411			Matrix				Containers & Preservatives						VOCs			TOCs			RSK			Special Instructions										Conditions of Receipt																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																			
Sample I.D. No. and Description (Containers for each sample may be combined on one line)	Date	Time	Air	Aqueous	Sed.	Soil	Unpres.	H2SO4	HNO3	HCl	NaOH	ZnAc/NaOH																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																							

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)
*Direct Bill → Ashland PM: Ian McCary

1. Relinquished By Emmanuel Sosa	Date 4/8/20	Time 1435	1. Received By Karl Lach	Date 4/8/20	Time 1435
2. Relinquished By Karl Lach	Date 4/8/20	Time 1700	2. Received By Cwallace	Date 4/9/20	Time 0800
3. Relinquished By	Date	Time	3. Received By	Date	Time

Comments

DISTRIBUTION: WHITE - Returned to Client with Report; CANARY - Stays with the Sample; PINK - Field Copy

#2 2:4

Client Sample Results

Client: Ashland LLC
Project/Site: Ashland Rensselaer

Job ID: 480-168373-1

Client Sample ID: IP-1

Lab Sample ID: 480-168373-1

Date Collected: 04/07/20 10:20

Matrix: Water

Date Received: 04/09/20 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			04/09/20 23:22	5
Benzene	5.0	U	5.0	2.1	ug/L			04/09/20 23:22	5
Bromodichloromethane	5.0	U	5.0	2.0	ug/L			04/09/20 23:22	5
Bromoform	5.0	U	5.0	1.3	ug/L			04/09/20 23:22	5
Bromomethane	5.0	U	5.0	3.5	ug/L			04/09/20 23:22	5
2-Butanone (MEK)	50	U	50	6.6	ug/L			04/09/20 23:22	5
Carbon disulfide	5.0	U	5.0	0.95	ug/L			04/09/20 23:22	5
Carbon tetrachloride	5.0	U	5.0	1.4	ug/L			04/09/20 23:22	5
Chlorobenzene	5.0	U	5.0	3.8	ug/L			04/09/20 23:22	5
Chloroethane	5.0	U	5.0	1.6	ug/L			04/09/20 23:22	5
Chloroform	5.0	U	5.0	1.7	ug/L			04/09/20 23:22	5
Chloromethane	5.0	U	5.0	1.8	ug/L			04/09/20 23:22	5
cis-1,2-Dichloroethene	270		5.0	4.1	ug/L			04/09/20 23:22	5
cis-1,3-Dichloropropene	5.0	U	5.0	1.8	ug/L			04/09/20 23:22	5
Cyclohexane	5.0	U	5.0	0.90	ug/L			04/09/20 23:22	5
Dibromochloromethane	5.0	U	5.0	1.6	ug/L			04/09/20 23:22	5
1,2-Dibromo-3-Chloropropane	5.0	U	5.0	2.0	ug/L			04/09/20 23:22	5
1,2-Dibromoethane	5.0	U	5.0	3.7	ug/L			04/09/20 23:22	5
1,2-Dichlorobenzene	5.0	U	5.0	4.0	ug/L			04/09/20 23:22	5
1,3-Dichlorobenzene	5.0	U	5.0	3.9	ug/L			04/09/20 23:22	5
1,4-Dichlorobenzene	5.0	U	5.0	4.2	ug/L			04/09/20 23:22	5
Dichlorodifluoromethane	5.0	U	5.0	3.4	ug/L			04/09/20 23:22	5
1,1-Dichloroethane	5.0	U	5.0	1.9	ug/L			04/09/20 23:22	5
1,2-Dichloroethane	5.0	U	5.0	1.1	ug/L			04/09/20 23:22	5
1,1-Dichloroethene	5.0	U	5.0	1.5	ug/L			04/09/20 23:22	5
1,2-Dichloropropane	5.0	U	5.0	3.6	ug/L			04/09/20 23:22	5
Ethylbenzene	5.0	U	5.0	3.7	ug/L			04/09/20 23:22	5
2-Hexanone	25	U	25	6.2	ug/L			04/09/20 23:22	5
Isopropylbenzene	5.0	U	5.0	4.0	ug/L			04/09/20 23:22	5
Methyl acetate	13	U	13	6.5	ug/L			04/09/20 23:22	5
Methylcyclohexane	5.0	U	5.0	0.80	ug/L			04/09/20 23:22	5
Methylene Chloride	5.0	U	5.0	2.2	ug/L			04/09/20 23:22	5
4-Methyl-2-pentanone (MIBK)	25	U	25	11	ug/L			04/09/20 23:22	5
Methyl tert-butyl ether	5.0	U	5.0	0.80	ug/L			04/09/20 23:22	5
Styrene	5.0	U	5.0	3.7	ug/L			04/09/20 23:22	5
1,1,2,2-Tetrachloroethane	5.0	U	5.0	1.1	ug/L			04/09/20 23:22	5
Tetrachloroethene	5.0	U	5.0	1.8	ug/L			04/09/20 23:22	5
Toluene	5.0	U	5.0	2.6	ug/L			04/09/20 23:22	5
trans-1,2-Dichloroethene	5.0	U	5.0	4.5	ug/L			04/09/20 23:22	5
trans-1,3-Dichloropropene	5.0	U	5.0	1.9	ug/L			04/09/20 23:22	5
1,2,4-Trichlorobenzene	5.0	U	5.0	2.1	ug/L			04/09/20 23:22	5
1,1,1-Trichloroethane	5.0	U	5.0	4.1	ug/L			04/09/20 23:22	5
1,1,2-Trichloroethane	5.0	U	5.0	1.2	ug/L			04/09/20 23:22	5
Trichloroethene	5.0	U	5.0	2.3	ug/L			04/09/20 23:22	5
Trichlorofluoromethane	5.0	U	5.0	4.4	ug/L			04/09/20 23:22	5
1,1,2-Trichloro-1,2,2-trifluoroethane	5.0	U	5.0	1.6	ug/L			04/09/20 23:22	5
Vinyl chloride	85		5.0	4.5	ug/L			04/09/20 23:22	5
Xylenes, Total	10	U	10	3.3	ug/L			04/09/20 23:22	5

Eurofins TestAmerica, Buffalo

Client Sample Results

Client: Ashland LLC
Project/Site: Ashland Rensselaer

Job ID: 480-168373-1

Client Sample ID: IP-1

Lab Sample ID: 480-168373-1

Date Collected: 04/07/20 10:20

Matrix: Water

Date Received: 04/09/20 08:00

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	101		73 - 120		04/09/20 23:22	5
Dibromofluoromethane (Surr)	106		75 - 123		04/09/20 23:22	5
1,2-Dichloroethane-d4 (Surr)	106		77 - 120		04/09/20 23:22	5
Toluene-d8 (Surr)	106		80 - 120		04/09/20 23:22	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			04/09/20 16:42	1
Ethene	6.0	J	7.0	1.5	ug/L			04/09/20 16:42	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methane	2400		44	11	ug/L			04/10/20 01:11	11

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
TOC Result 1	4.7		1.0	0.43	mg/L			04/10/20 00:58	1
TOC Result 2	4.6		1.0	0.43	mg/L			04/10/20 00:58	1
Total Organic Carbon	4.7		1.0	0.43	mg/L			04/10/20 00:58	1

Client Sample ID: IMP-3

Lab Sample ID: 480-168373-2

Date Collected: 04/07/20 11:00

Matrix: Water

Date Received: 04/09/20 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			04/09/20 23:47	1
Benzene	1.0	U	1.0	0.41	ug/L			04/09/20 23:47	1
Bromodichloromethane	1.0	U	1.0	0.39	ug/L			04/09/20 23:47	1
Bromoform	1.0	U	1.0	0.26	ug/L			04/09/20 23:47	1
Bromomethane	1.0	U	1.0	0.69	ug/L			04/09/20 23:47	1
2-Butanone (MEK)	10	U	10	1.3	ug/L			04/09/20 23:47	1
Carbon disulfide	1.0	U	1.0	0.19	ug/L			04/09/20 23:47	1
Carbon tetrachloride	1.0	U	1.0	0.27	ug/L			04/09/20 23:47	1
Chlorobenzene	1.0	U	1.0	0.75	ug/L			04/09/20 23:47	1
Chloroethane	1.0	U	1.0	0.32	ug/L			04/09/20 23:47	1
Chloroform	1.0	U	1.0	0.34	ug/L			04/09/20 23:47	1
Chloromethane	1.0	U	1.0	0.35	ug/L			04/09/20 23:47	1
cis-1,2-Dichloroethene	11		1.0	0.81	ug/L			04/09/20 23:47	1
cis-1,3-Dichloropropene	1.0	U	1.0	0.36	ug/L			04/09/20 23:47	1
Cyclohexane	1.0	U	1.0	0.18	ug/L			04/09/20 23:47	1
Dibromochloromethane	1.0	U	1.0	0.32	ug/L			04/09/20 23:47	1
1,2-Dibromo-3-Chloropropane	1.0	U	1.0	0.39	ug/L			04/09/20 23:47	1
1,2-Dibromoethane	1.0	U	1.0	0.73	ug/L			04/09/20 23:47	1
1,2-Dichlorobenzene	1.0	U	1.0	0.79	ug/L			04/09/20 23:47	1
1,3-Dichlorobenzene	1.0	U	1.0	0.78	ug/L			04/09/20 23:47	1
1,4-Dichlorobenzene	1.0	U	1.0	0.84	ug/L			04/09/20 23:47	1
Dichlorodifluoromethane	1.0	U	1.0	0.68	ug/L			04/09/20 23:47	1
1,1-Dichloroethane	1.0	U	1.0	0.38	ug/L			04/09/20 23:47	1
1,2-Dichloroethane	0.34	J	1.0	0.21	ug/L			04/09/20 23:47	1
1,1-Dichloroethene	1.0	U	1.0	0.29	ug/L			04/09/20 23:47	1

Eurofins TestAmerica, Buffalo

Client Sample Results

Client: Ashland LLC
Project/Site: Ashland Rensselaer

Job ID: 480-168373-1

Client Sample ID: IMP-3

Lab Sample ID: 480-168373-2

Date Collected: 04/07/20 11:00

Matrix: Water

Date Received: 04/09/20 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			04/09/20 23:47	1
Ethylbenzene	1.0	U	1.0	0.74	ug/L			04/09/20 23:47	1
2-Hexanone	5.0	U	5.0	1.2	ug/L			04/09/20 23:47	1
Isopropylbenzene	1.0	U	1.0	0.79	ug/L			04/09/20 23:47	1
Methyl acetate	2.5	U	2.5	1.3	ug/L			04/09/20 23:47	1
Methylcyclohexane	1.0	U	1.0	0.16	ug/L			04/09/20 23:47	1
Methylene Chloride	1.0	U	1.0	0.44	ug/L			04/09/20 23:47	1
4-Methyl-2-pentanone (MIBK)	5.0	U	5.0	2.1	ug/L			04/09/20 23:47	1
Methyl tert-butyl ether	1.0	U	1.0	0.16	ug/L			04/09/20 23:47	1
Styrene	1.0	U	1.0	0.73	ug/L			04/09/20 23:47	1
1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.21	ug/L			04/09/20 23:47	1
Tetrachloroethene	1.0	U	1.0	0.36	ug/L			04/09/20 23:47	1
Toluene	1.0	U	1.0	0.51	ug/L			04/09/20 23:47	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.90	ug/L			04/09/20 23:47	1
trans-1,3-Dichloropropene	1.0	U	1.0	0.37	ug/L			04/09/20 23:47	1
1,2,4-Trichlorobenzene	1.0	U	1.0	0.41	ug/L			04/09/20 23:47	1
1,1,1-Trichloroethane	1.0	U	1.0	0.82	ug/L			04/09/20 23:47	1
1,1,2-Trichloroethane	1.0	U	1.0	0.23	ug/L			04/09/20 23:47	1
Trichloroethene	1.0	U	1.0	0.46	ug/L			04/09/20 23:47	1
Trichlorofluoromethane	1.0	U	1.0	0.88	ug/L			04/09/20 23:47	1
1,1,2-Trichloro-1,2,2-trifluoroethane	1.0	U	1.0	0.31	ug/L			04/09/20 23:47	1
Vinyl chloride	2.1		1.0	0.90	ug/L			04/09/20 23:47	1
Xylenes, Total	2.0	U	2.0	0.66	ug/L			04/09/20 23:47	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	92		73 - 120		04/09/20 23:47	1
Dibromofluoromethane (Surr)	103		75 - 123		04/09/20 23:47	1
1,2-Dichloroethane-d4 (Surr)	106		77 - 120		04/09/20 23:47	1
Toluene-d8 (Surr)	102		80 - 120		04/09/20 23:47	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
TOC Result 1	0.83	J	1.0	0.43	mg/L			04/10/20 01:25	1
TOC Result 2	0.68	J	1.0	0.43	mg/L			04/10/20 01:25	1
Total Organic Carbon	0.79	J	1.0	0.43	mg/L			04/10/20 01:25	1

Client Sample ID: IW-B3

Lab Sample ID: 480-168373-3

Date Collected: 04/07/20 11:35

Matrix: Water

Date Received: 04/09/20 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			04/13/20 14:42	20
Benzene	20	U	20	8.2	ug/L			04/13/20 14:42	20
Bromodichloromethane	20	U	20	7.8	ug/L			04/13/20 14:42	20
Bromoform	20	U	20	5.2	ug/L			04/13/20 14:42	20
Bromomethane	20	U	20	14	ug/L			04/13/20 14:42	20
2-Butanone (MEK)	200	U	200	26	ug/L			04/13/20 14:42	20
Carbon disulfide	20	U	20	3.8	ug/L			04/13/20 14:42	20
Carbon tetrachloride	20	U	20	5.4	ug/L			04/13/20 14:42	20

Eurofins TestAmerica, Buffalo

Client Sample Results

Client: Ashland LLC
Project/Site: Ashland Rensselaer

Job ID: 480-168373-1

Client Sample ID: IW-B3

Lab Sample ID: 480-168373-3

Date Collected: 04/07/20 11:35

Matrix: Water

Date Received: 04/09/20 08:00

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

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

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	98		73 - 120		04/13/20 14:42	20
Dibromofluoromethane (Surr)	105		75 - 123		04/13/20 14:42	20
1,2-Dichloroethane-d4 (Surr)	105		77 - 120		04/13/20 14:42	20
Toluene-d8 (Surr)	102		80 - 120		04/13/20 14:42	20

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
TOC Result 1	96		2.0	0.87	mg/L			04/11/20 21:10	2

Eurofins TestAmerica, Buffalo

Client Sample Results

Client: Ashland LLC
Project/Site: Ashland Rensselaer

Job ID: 480-168373-1

Client Sample ID: IW-B3

Lab Sample ID: 480-168373-3

Date Collected: 04/07/20 11:35

Matrix: Water

Date Received: 04/09/20 08:00

General Chemistry (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
TOC Result 2	98		2.0	0.87	mg/L			04/11/20 21:10	2
Total Organic Carbon	98		2.0	0.87	mg/L			04/11/20 21:10	2

Client Sample ID: MW-18

Lab Sample ID: 480-168373-4

Date Collected: 04/07/20 11:45

Matrix: Water

Date Received: 04/09/20 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			04/10/20 00:36	5
Benzene	5.0	U	5.0	2.1	ug/L			04/10/20 00:36	5
Bromodichloromethane	5.0	U	5.0	2.0	ug/L			04/10/20 00:36	5
Bromoform	5.0	U	5.0	1.3	ug/L			04/10/20 00:36	5
Bromomethane	5.0	U	5.0	3.5	ug/L			04/10/20 00:36	5
2-Butanone (MEK)	50	U	50	6.6	ug/L			04/10/20 00:36	5
Carbon disulfide	5.0	U	5.0	0.95	ug/L			04/10/20 00:36	5
Carbon tetrachloride	5.0	U	5.0	1.4	ug/L			04/10/20 00:36	5
Chlorobenzene	5.0	U	5.0	3.8	ug/L			04/10/20 00:36	5
Chloroethane	5.0	U	5.0	1.6	ug/L			04/10/20 00:36	5
Chloroform	5.0	U	5.0	1.7	ug/L			04/10/20 00:36	5
Chloromethane	5.0	U	5.0	1.8	ug/L			04/10/20 00:36	5
cis-1,2-Dichloroethene	290		5.0	4.1	ug/L			04/10/20 00:36	5
cis-1,3-Dichloropropene	5.0	U	5.0	1.8	ug/L			04/10/20 00:36	5
Cyclohexane	5.0	U	5.0	0.90	ug/L			04/10/20 00:36	5
Dibromochloromethane	5.0	U	5.0	1.6	ug/L			04/10/20 00:36	5
1,2-Dibromo-3-Chloropropane	5.0	U	5.0	2.0	ug/L			04/10/20 00:36	5
1,2-Dibromoethane	5.0	U	5.0	3.7	ug/L			04/10/20 00:36	5
1,2-Dichlorobenzene	5.0	U	5.0	4.0	ug/L			04/10/20 00:36	5
1,3-Dichlorobenzene	5.0	U	5.0	3.9	ug/L			04/10/20 00:36	5
1,4-Dichlorobenzene	5.0	U	5.0	4.2	ug/L			04/10/20 00:36	5
Dichlorodifluoromethane	5.0	U	5.0	3.4	ug/L			04/10/20 00:36	5
1,1-Dichloroethane	5.0	U	5.0	1.9	ug/L			04/10/20 00:36	5
1,2-Dichloroethane	5.0	U	5.0	1.1	ug/L			04/10/20 00:36	5
1,1-Dichloroethene	5.0	U	5.0	1.5	ug/L			04/10/20 00:36	5
1,2-Dichloropropane	5.0	U	5.0	3.6	ug/L			04/10/20 00:36	5
Ethylbenzene	5.0	U	5.0	3.7	ug/L			04/10/20 00:36	5
2-Hexanone	25	U	25	6.2	ug/L			04/10/20 00:36	5
Isopropylbenzene	5.0	U	5.0	4.0	ug/L			04/10/20 00:36	5
Methyl acetate	13	U	13	6.5	ug/L			04/10/20 00:36	5
Methylcyclohexane	5.0	U	5.0	0.80	ug/L			04/10/20 00:36	5
Methylene Chloride	5.0	U	5.0	2.2	ug/L			04/10/20 00:36	5
4-Methyl-2-pentanone (MIBK)	25	U	25	11	ug/L			04/10/20 00:36	5
Methyl tert-butyl ether	5.0	U	5.0	0.80	ug/L			04/10/20 00:36	5
Styrene	5.0	U	5.0	3.7	ug/L			04/10/20 00:36	5
1,1,2,2-Tetrachloroethane	5.0	U	5.0	1.1	ug/L			04/10/20 00:36	5
Tetrachloroethene	5.0	U	5.0	1.8	ug/L			04/10/20 00:36	5
Toluene	5.0	U	5.0	2.6	ug/L			04/10/20 00:36	5
trans-1,2-Dichloroethene	5.0	U	5.0	4.5	ug/L			04/10/20 00:36	5
trans-1,3-Dichloropropene	5.0	U	5.0	1.9	ug/L			04/10/20 00:36	5
1,2,4-Trichlorobenzene	5.0	U	5.0	2.1	ug/L			04/10/20 00:36	5

Eurofins TestAmerica, Buffalo

Client Sample Results

Client: Ashland LLC
Project/Site: Ashland Rensselaer

Job ID: 480-168373-1

Client Sample ID: MW-18

Lab Sample ID: 480-168373-4

Date Collected: 04/07/20 11:45

Matrix: Water

Date Received: 04/09/20 08:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	5.0	U	5.0	4.1	ug/L			04/10/20 00:36	5
1,1,2-Trichloroethane	5.0	U	5.0	1.2	ug/L			04/10/20 00:36	5
Trichloroethene	5.0	U	5.0	2.3	ug/L			04/10/20 00:36	5
Trichlorofluoromethane	5.0	U	5.0	4.4	ug/L			04/10/20 00:36	5
1,1,2-Trichloro-1,2,2-trifluoroethane	5.0	U	5.0	1.6	ug/L			04/10/20 00:36	5
Vinyl chloride	57		5.0	4.5	ug/L			04/10/20 00:36	5
Xylenes, Total	10	U	10	3.3	ug/L			04/10/20 00:36	5

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	96		73 - 120		04/10/20 00:36	5
Dibromofluoromethane (Surr)	108		75 - 123		04/10/20 00:36	5
1,2-Dichloroethane-d4 (Surr)	109		77 - 120		04/10/20 00:36	5
Toluene-d8 (Surr)	103		80 - 120		04/10/20 00:36	5

Method: RSK-175 - Dissolved Gases (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethane	29		7.5	1.5	ug/L			04/09/20 17:00	1
Ethene	7.0	U	7.0	1.5	ug/L			04/09/20 17:00	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methane	530		44	11	ug/L			04/10/20 01:30	11

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
TOC Result 1	3.1		1.0	0.43	mg/L			04/10/20 02:20	1
TOC Result 2	2.9		1.0	0.43	mg/L			04/10/20 02:20	1
Total Organic Carbon	2.9		1.0	0.43	mg/L			04/10/20 02:20	1

Client Sample ID: MW-23

Lab Sample ID: 480-168373-5

Date Collected: 04/07/20 12:20

Matrix: Water

Date Received: 04/09/20 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			04/13/20 15:06	1
Benzene	1.0	U	1.0	0.41	ug/L			04/13/20 15:06	1
Bromodichloromethane	1.0	U	1.0	0.39	ug/L			04/13/20 15:06	1
Bromoform	1.0	U	1.0	0.26	ug/L			04/13/20 15:06	1
Bromomethane	1.0	U	1.0	0.69	ug/L			04/13/20 15:06	1
2-Butanone (MEK)	10	U	10	1.3	ug/L			04/13/20 15:06	1
Carbon disulfide	1.0	U	1.0	0.19	ug/L			04/13/20 15:06	1
Carbon tetrachloride	1.0	U	1.0	0.27	ug/L			04/13/20 15:06	1
Chlorobenzene	1.0	U	1.0	0.75	ug/L			04/13/20 15:06	1
Chloroethane	1.0	U	1.0	0.32	ug/L			04/13/20 15:06	1
Chloroform	1.0	U	1.0	0.34	ug/L			04/13/20 15:06	1
Chloromethane	1.0	U	1.0	0.35	ug/L			04/13/20 15:06	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.81	ug/L			04/13/20 15:06	1
cis-1,3-Dichloropropene	1.0	U	1.0	0.36	ug/L			04/13/20 15:06	1
Cyclohexane	1.0	U	1.0	0.18	ug/L			04/13/20 15:06	1
Dibromochloromethane	1.0	U	1.0	0.32	ug/L			04/13/20 15:06	1

Eurofins TestAmerica, Buffalo

Client Sample Results

Client: Ashland LLC
Project/Site: Ashland Rensselaer

Job ID: 480-168373-1

Client Sample ID: MW-23

Lab Sample ID: 480-168373-5

Date Collected: 04/07/20 12:20

Matrix: Water

Date Received: 04/09/20 08:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromo-3-Chloropropane	1.0	U	1.0	0.39	ug/L			04/13/20 15:06	1
1,2-Dibromoethane	1.0	U	1.0	0.73	ug/L			04/13/20 15:06	1
1,2-Dichlorobenzene	1.0	U	1.0	0.79	ug/L			04/13/20 15:06	1
1,3-Dichlorobenzene	1.0	U	1.0	0.78	ug/L			04/13/20 15:06	1
1,4-Dichlorobenzene	1.0	U	1.0	0.84	ug/L			04/13/20 15:06	1
Dichlorodifluoromethane	1.0	U	1.0	0.68	ug/L			04/13/20 15:06	1
1,1-Dichloroethane	1.0	U	1.0	0.38	ug/L			04/13/20 15:06	1
1,2-Dichloroethane	0.23	J	1.0	0.21	ug/L			04/13/20 15:06	1
1,1-Dichloroethene	1.0	U	1.0	0.29	ug/L			04/13/20 15:06	1
1,2-Dichloropropane	1.0	U	1.0	0.72	ug/L			04/13/20 15:06	1
Ethylbenzene	1.0	U	1.0	0.74	ug/L			04/13/20 15:06	1
2-Hexanone	5.0	U	5.0	1.2	ug/L			04/13/20 15:06	1
Isopropylbenzene	1.0	U	1.0	0.79	ug/L			04/13/20 15:06	1
Methyl acetate	2.5	U	2.5	1.3	ug/L			04/13/20 15:06	1
Methylcyclohexane	1.0	U	1.0	0.16	ug/L			04/13/20 15:06	1
Methylene Chloride	1.0	U	1.0	0.44	ug/L			04/13/20 15:06	1
4-Methyl-2-pentanone (MIBK)	5.0	U	5.0	2.1	ug/L			04/13/20 15:06	1
Methyl tert-butyl ether	1.0	U	1.0	0.16	ug/L			04/13/20 15:06	1
Styrene	1.0	U	1.0	0.73	ug/L			04/13/20 15:06	1
1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.21	ug/L			04/13/20 15:06	1
Tetrachloroethene	1.0	U	1.0	0.36	ug/L			04/13/20 15:06	1
Toluene	1.0	U	1.0	0.51	ug/L			04/13/20 15:06	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.90	ug/L			04/13/20 15:06	1
trans-1,3-Dichloropropene	1.0	U	1.0	0.37	ug/L			04/13/20 15:06	1
1,2,4-Trichlorobenzene	1.0	U	1.0	0.41	ug/L			04/13/20 15:06	1
1,1,1-Trichloroethane	1.0	U	1.0	0.82	ug/L			04/13/20 15:06	1
1,1,2-Trichloroethane	1.0	U	1.0	0.23	ug/L			04/13/20 15:06	1
Trichloroethene	1.0	U	1.0	0.46	ug/L			04/13/20 15:06	1
Trichlorofluoromethane	1.0	U	1.0	0.88	ug/L			04/13/20 15:06	1
1,1,2-Trichloro-1,2,2-trifluoroethane	1.0	U	1.0	0.31	ug/L			04/13/20 15:06	1
Vinyl chloride	1.0	U	1.0	0.90	ug/L			04/13/20 15:06	1
Xylenes, Total	2.0	U	2.0	0.66	ug/L			04/13/20 15:06	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	90		73 - 120		04/13/20 15:06	1
Dibromofluoromethane (Surr)	107		75 - 123		04/13/20 15:06	1
1,2-Dichloroethane-d4 (Surr)	105		77 - 120		04/13/20 15:06	1
Toluene-d8 (Surr)	100		80 - 120		04/13/20 15:06	1

Method: RSK-175 - Dissolved Gases (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethane	240		83	17	ug/L			04/09/20 17:19	11
Ethene	77	U	77	17	ug/L			04/09/20 17:19	11

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methane	18000		350	88	ug/L			04/10/20 01:49	88

Eurofins TestAmerica, Buffalo

Client Sample Results

Client: Ashland LLC
Project/Site: Ashland Rensselaer

Job ID: 480-168373-1

Client Sample ID: MW-23

Lab Sample ID: 480-168373-5

Date Collected: 04/07/20 12:20

Matrix: Water

Date Received: 04/09/20 08:00

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
TOC Result 1	14		1.0	0.43	mg/L			04/10/20 04:39	1
TOC Result 2	14		1.0	0.43	mg/L			04/10/20 04:39	1
Total Organic Carbon	14		1.0	0.43	mg/L			04/10/20 04:39	1

Client Sample ID: MW-16

Lab Sample ID: 480-168373-6

Date Collected: 04/07/20 12:35

Matrix: Water

Date Received: 04/09/20 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			04/10/20 01:24	1
Benzene	1.0	U	1.0	0.41	ug/L			04/10/20 01:24	1
Bromodichloromethane	1.0	U	1.0	0.39	ug/L			04/10/20 01:24	1
Bromoform	1.0	U	1.0	0.26	ug/L			04/10/20 01:24	1
Bromomethane	1.0	U	1.0	0.69	ug/L			04/10/20 01:24	1
2-Butanone (MEK)	10	U	10	1.3	ug/L			04/10/20 01:24	1
Carbon disulfide	1.0	U	1.0	0.19	ug/L			04/10/20 01:24	1
Carbon tetrachloride	1.0	U	1.0	0.27	ug/L			04/10/20 01:24	1
Chlorobenzene	1.0	U	1.0	0.75	ug/L			04/10/20 01:24	1
Chloroethane	1.0	U	1.0	0.32	ug/L			04/10/20 01:24	1
Chloroform	1.0	U	1.0	0.34	ug/L			04/10/20 01:24	1
Chloromethane	1.0	U	1.0	0.35	ug/L			04/10/20 01:24	1
cis-1,2-Dichloroethene	18		1.0	0.81	ug/L			04/10/20 01:24	1
cis-1,3-Dichloropropene	1.0	U	1.0	0.36	ug/L			04/10/20 01:24	1
Cyclohexane	1.0	U	1.0	0.18	ug/L			04/10/20 01:24	1
Dibromochloromethane	1.0	U	1.0	0.32	ug/L			04/10/20 01:24	1
1,2-Dibromo-3-Chloropropane	1.0	U	1.0	0.39	ug/L			04/10/20 01:24	1
1,2-Dibromoethane	1.0	U	1.0	0.73	ug/L			04/10/20 01:24	1
1,2-Dichlorobenzene	1.0	U	1.0	0.79	ug/L			04/10/20 01:24	1
1,3-Dichlorobenzene	1.0	U	1.0	0.78	ug/L			04/10/20 01:24	1
1,4-Dichlorobenzene	1.0	U	1.0	0.84	ug/L			04/10/20 01:24	1
Dichlorodifluoromethane	1.0	U	1.0	0.68	ug/L			04/10/20 01:24	1
1,1-Dichloroethane	1.0	U	1.0	0.38	ug/L			04/10/20 01:24	1
1,2-Dichloroethane	1.0	U	1.0	0.21	ug/L			04/10/20 01:24	1
1,1-Dichloroethene	1.0	U	1.0	0.29	ug/L			04/10/20 01:24	1
1,2-Dichloropropane	1.0	U	1.0	0.72	ug/L			04/10/20 01:24	1
Ethylbenzene	1.0	U	1.0	0.74	ug/L			04/10/20 01:24	1
2-Hexanone	5.0	U	5.0	1.2	ug/L			04/10/20 01:24	1
Isopropylbenzene	1.0	U	1.0	0.79	ug/L			04/10/20 01:24	1
Methyl acetate	2.5	U	2.5	1.3	ug/L			04/10/20 01:24	1
Methylcyclohexane	1.0	U	1.0	0.16	ug/L			04/10/20 01:24	1
Methylene Chloride	1.0	U	1.0	0.44	ug/L			04/10/20 01:24	1
4-Methyl-2-pentanone (MIBK)	5.0	U	5.0	2.1	ug/L			04/10/20 01:24	1
Methyl tert-butyl ether	1.0	U	1.0	0.16	ug/L			04/10/20 01:24	1
Styrene	1.0	U	1.0	0.73	ug/L			04/10/20 01:24	1
1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.21	ug/L			04/10/20 01:24	1
Tetrachloroethene	1.0	U	1.0	0.36	ug/L			04/10/20 01:24	1
Toluene	1.0	U	1.0	0.51	ug/L			04/10/20 01:24	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.90	ug/L			04/10/20 01:24	1
trans-1,3-Dichloropropene	1.0	U	1.0	0.37	ug/L			04/10/20 01:24	1

Eurofins TestAmerica, Buffalo

Client Sample Results

Client: Ashland LLC
Project/Site: Ashland Rensselaer

Job ID: 480-168373-1

Client Sample ID: MW-16

Lab Sample ID: 480-168373-6

Date Collected: 04/07/20 12:35

Matrix: Water

Date Received: 04/09/20 08:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trichlorobenzene	1.0	U	1.0	0.41	ug/L			04/10/20 01:24	1
1,1,1-Trichloroethane	1.0	U	1.0	0.82	ug/L			04/10/20 01:24	1
1,1,2-Trichloroethane	1.0	U	1.0	0.23	ug/L			04/10/20 01:24	1
Trichloroethene	2.6		1.0	0.46	ug/L			04/10/20 01:24	1
Trichlorofluoromethane	1.0	U	1.0	0.88	ug/L			04/10/20 01:24	1
1,1,2-Trichloro-1,2,2-trifluoroethane	1.0	U	1.0	0.31	ug/L			04/10/20 01:24	1
Vinyl chloride	1.0	U	1.0	0.90	ug/L			04/10/20 01:24	1
Xylenes, Total	2.0	U	2.0	0.66	ug/L			04/10/20 01:24	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	89		73 - 120		04/10/20 01:24	1
Dibromofluoromethane (Surr)	107		75 - 123		04/10/20 01:24	1
1,2-Dichloroethane-d4 (Surr)	105		77 - 120		04/10/20 01:24	1
Toluene-d8 (Surr)	101		80 - 120		04/10/20 01:24	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			04/09/20 17:38	1
Ethene	7.0	U	7.0	1.5	ug/L			04/09/20 17:38	1
Methane	11		4.0	1.0	ug/L			04/09/20 17:38	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
TOC Result 1	0.82	J	1.0	0.43	mg/L			04/10/20 05:34	1
TOC Result 2	0.74	J	1.0	0.43	mg/L			04/10/20 05:34	1
Total Organic Carbon	0.75	J	1.0	0.43	mg/L			04/10/20 05:34	1

Client Sample ID: MW-21

Lab Sample ID: 480-168373-7

Date Collected: 04/07/20 13:30

Matrix: Water

Date Received: 04/09/20 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			04/10/20 01:49	1
Benzene	1.0	U	1.0	0.41	ug/L			04/10/20 01:49	1
Bromodichloromethane	1.0	U	1.0	0.39	ug/L			04/10/20 01:49	1
Bromoform	1.0	U	1.0	0.26	ug/L			04/10/20 01:49	1
Bromomethane	1.0	U	1.0	0.69	ug/L			04/10/20 01:49	1
2-Butanone (MEK)	10	U	10	1.3	ug/L			04/10/20 01:49	1
Carbon disulfide	1.0	U	1.0	0.19	ug/L			04/10/20 01:49	1
Carbon tetrachloride	1.0	U	1.0	0.27	ug/L			04/10/20 01:49	1
Chlorobenzene	1.0	U	1.0	0.75	ug/L			04/10/20 01:49	1
Chloroethane	1.0	U	1.0	0.32	ug/L			04/10/20 01:49	1
Chloroform	1.0	U	1.0	0.34	ug/L			04/10/20 01:49	1
Chloromethane	1.0	U	1.0	0.35	ug/L			04/10/20 01:49	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.81	ug/L			04/10/20 01:49	1
cis-1,3-Dichloropropene	1.0	U	1.0	0.36	ug/L			04/10/20 01:49	1
Cyclohexane	1.0	U	1.0	0.18	ug/L			04/10/20 01:49	1
Dibromochloromethane	1.0	U	1.0	0.32	ug/L			04/10/20 01:49	1
1,2-Dibromo-3-Chloropropane	1.0	U	1.0	0.39	ug/L			04/10/20 01:49	1
1,2-Dibromoethane	1.0	U	1.0	0.73	ug/L			04/10/20 01:49	1

Eurofins TestAmerica, Buffalo

Client Sample Results

Client: Ashland LLC
Project/Site: Ashland Rensselaer

Job ID: 480-168373-1

Client Sample ID: MW-21

Lab Sample ID: 480-168373-7

Date Collected: 04/07/20 13:30

Matrix: Water

Date Received: 04/09/20 08:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dichlorobenzene	1.0	U	1.0	0.79	ug/L			04/10/20 01:49	1
1,3-Dichlorobenzene	1.0	U	1.0	0.78	ug/L			04/10/20 01:49	1
1,4-Dichlorobenzene	1.0	U	1.0	0.84	ug/L			04/10/20 01:49	1
Dichlorodifluoromethane	1.0	U	1.0	0.68	ug/L			04/10/20 01:49	1
1,1-Dichloroethane	1.0	U	1.0	0.38	ug/L			04/10/20 01:49	1
1,2-Dichloroethane	1.0	U	1.0	0.21	ug/L			04/10/20 01:49	1
1,1-Dichloroethene	1.0	U	1.0	0.29	ug/L			04/10/20 01:49	1
1,2-Dichloropropane	1.0	U	1.0	0.72	ug/L			04/10/20 01:49	1
Ethylbenzene	1.0	U	1.0	0.74	ug/L			04/10/20 01:49	1
2-Hexanone	5.0	U	5.0	1.2	ug/L			04/10/20 01:49	1
Isopropylbenzene	1.0	U	1.0	0.79	ug/L			04/10/20 01:49	1
Methyl acetate	2.5	U	2.5	1.3	ug/L			04/10/20 01:49	1
Methylcyclohexane	1.0	U	1.0	0.16	ug/L			04/10/20 01:49	1
Methylene Chloride	1.0	U	1.0	0.44	ug/L			04/10/20 01:49	1
4-Methyl-2-pentanone (MIBK)	5.0	U	5.0	2.1	ug/L			04/10/20 01:49	1
Methyl tert-butyl ether	1.0	U	1.0	0.16	ug/L			04/10/20 01:49	1
Styrene	1.0	U	1.0	0.73	ug/L			04/10/20 01:49	1
1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.21	ug/L			04/10/20 01:49	1
Tetrachloroethene	1.0	U	1.0	0.36	ug/L			04/10/20 01:49	1
Toluene	1.0	U	1.0	0.51	ug/L			04/10/20 01:49	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.90	ug/L			04/10/20 01:49	1
trans-1,3-Dichloropropene	1.0	U	1.0	0.37	ug/L			04/10/20 01:49	1
1,2,4-Trichlorobenzene	1.0	U	1.0	0.41	ug/L			04/10/20 01:49	1
1,1,1-Trichloroethane	1.0	U	1.0	0.82	ug/L			04/10/20 01:49	1
1,1,2-Trichloroethane	1.0	U	1.0	0.23	ug/L			04/10/20 01:49	1
Trichloroethene	1.0	U	1.0	0.46	ug/L			04/10/20 01:49	1
Trichlorofluoromethane	1.0	U	1.0	0.88	ug/L			04/10/20 01:49	1
1,1,2-Trichloro-1,2,2-trifluoroethane	1.0	U	1.0	0.31	ug/L			04/10/20 01:49	1
Vinyl chloride	1.0	U	1.0	0.90	ug/L			04/10/20 01:49	1
Xylenes, Total	2.0	U	2.0	0.66	ug/L			04/10/20 01:49	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	103		73 - 120		04/10/20 01:49	1
Dibromofluoromethane (Surr)	108		75 - 123		04/10/20 01:49	1
1,2-Dichloroethane-d4 (Surr)	110		77 - 120		04/10/20 01:49	1
Toluene-d8 (Surr)	107		80 - 120		04/10/20 01:49	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
TOC Result 1	3.0		1.0	0.43	mg/L			04/10/20 06:29	1
TOC Result 2	2.6		1.0	0.43	mg/L			04/10/20 06:29	1
Total Organic Carbon	2.7		1.0	0.43	mg/L			04/10/20 06:29	1

Client Sample ID: MW-20

Lab Sample ID: 480-168373-8

Date Collected: 04/07/20 13:40

Matrix: Water

Date Received: 04/09/20 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			04/13/20 15:31	1

Eurofins TestAmerica, Buffalo

Client Sample Results

Client: Ashland LLC
Project/Site: Ashland Rensselaer

Job ID: 480-168373-1

Client Sample ID: MW-20

Lab Sample ID: 480-168373-8

Date Collected: 04/07/20 13:40

Matrix: Water

Date Received: 04/09/20 08:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	5.2		1.0	0.41	ug/L			04/13/20 15:31	1
Bromodichloromethane	1.0	U	1.0	0.39	ug/L			04/13/20 15:31	1
Bromoform	1.0	U	1.0	0.26	ug/L			04/13/20 15:31	1
Bromomethane	1.0	U	1.0	0.69	ug/L			04/13/20 15:31	1
2-Butanone (MEK)	10	U	10	1.3	ug/L			04/13/20 15:31	1
Carbon disulfide	1.0	U	1.0	0.19	ug/L			04/13/20 15:31	1
Carbon tetrachloride	1.0	U	1.0	0.27	ug/L			04/13/20 15:31	1
Chlorobenzene	1.0	U	1.0	0.75	ug/L			04/13/20 15:31	1
Chloroethane	1.0	U	1.0	0.32	ug/L			04/13/20 15:31	1
Chloroform	0.58	J	1.0	0.34	ug/L			04/13/20 15:31	1
Chloromethane	1.0	U	1.0	0.35	ug/L			04/13/20 15:31	1
cis-1,2-Dichloroethene	19		1.0	0.81	ug/L			04/13/20 15:31	1
cis-1,3-Dichloropropene	1.0	U	1.0	0.36	ug/L			04/13/20 15:31	1
Cyclohexane	1.0	U	1.0	0.18	ug/L			04/13/20 15:31	1
Dibromochloromethane	1.0	U	1.0	0.32	ug/L			04/13/20 15:31	1
1,2-Dibromo-3-Chloropropane	1.0	U	1.0	0.39	ug/L			04/13/20 15:31	1
1,2-Dibromoethane	1.0	U	1.0	0.73	ug/L			04/13/20 15:31	1
1,2-Dichlorobenzene	1.0	U	1.0	0.79	ug/L			04/13/20 15:31	1
1,3-Dichlorobenzene	1.0	U	1.0	0.78	ug/L			04/13/20 15:31	1
1,4-Dichlorobenzene	1.0	U	1.0	0.84	ug/L			04/13/20 15:31	1
Dichlorodifluoromethane	1.0	U	1.0	0.68	ug/L			04/13/20 15:31	1
1,1-Dichloroethane	1.0	U	1.0	0.38	ug/L			04/13/20 15:31	1
1,2-Dichloroethane	1.0	U	1.0	0.21	ug/L			04/13/20 15:31	1
1,1-Dichloroethene	1.0	U	1.0	0.29	ug/L			04/13/20 15:31	1
1,2-Dichloropropane	1.0	U	1.0	0.72	ug/L			04/13/20 15:31	1
Ethylbenzene	1.0	U	1.0	0.74	ug/L			04/13/20 15:31	1
2-Hexanone	5.0	U	5.0	1.2	ug/L			04/13/20 15:31	1
Isopropylbenzene	1.0	U	1.0	0.79	ug/L			04/13/20 15:31	1
Methyl acetate	2.5	U	2.5	1.3	ug/L			04/13/20 15:31	1
Methylcyclohexane	1.0	U	1.0	0.16	ug/L			04/13/20 15:31	1
Methylene Chloride	1.0	U	1.0	0.44	ug/L			04/13/20 15:31	1
4-Methyl-2-pentanone (MIBK)	5.0	U	5.0	2.1	ug/L			04/13/20 15:31	1
Methyl tert-butyl ether	1.0	U	1.0	0.16	ug/L			04/13/20 15:31	1
Styrene	1.0	U	1.0	0.73	ug/L			04/13/20 15:31	1
1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.21	ug/L			04/13/20 15:31	1
Tetrachloroethene	33		1.0	0.36	ug/L			04/13/20 15:31	1
Toluene	1.0	U	1.0	0.51	ug/L			04/13/20 15:31	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.90	ug/L			04/13/20 15:31	1
trans-1,3-Dichloropropene	1.0	U	1.0	0.37	ug/L			04/13/20 15:31	1
1,2,4-Trichlorobenzene	1.0	U	1.0	0.41	ug/L			04/13/20 15:31	1
1,1,1-Trichloroethane	1.0	U	1.0	0.82	ug/L			04/13/20 15:31	1
1,1,2-Trichloroethane	1.0	U	1.0	0.23	ug/L			04/13/20 15:31	1
Trichloroethene	13		1.0	0.46	ug/L			04/13/20 15:31	1
Trichlorofluoromethane	1.0	U	1.0	0.88	ug/L			04/13/20 15:31	1
1,1,2-Trichloro-1,2,2-trifluoroethane	1.0	U	1.0	0.31	ug/L			04/13/20 15:31	1
Vinyl chloride	1.6		1.0	0.90	ug/L			04/13/20 15:31	1
Xylenes, Total	2.0	U	2.0	0.66	ug/L			04/13/20 15:31	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	93		73 - 120		04/13/20 15:31	1

Eurofins TestAmerica, Buffalo

Client Sample Results

Client: Ashland LLC
Project/Site: Ashland Rensselaer

Job ID: 480-168373-1

Client Sample ID: MW-20

Lab Sample ID: 480-168373-8

Date Collected: 04/07/20 13:40

Matrix: Water

Date Received: 04/09/20 08:00

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

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Dibromofluoromethane (Surr)	105		75 - 123		04/13/20 15:31	1
1,2-Dichloroethane-d4 (Surr)	103		77 - 120		04/13/20 15:31	1
Toluene-d8 (Surr)	98		80 - 120		04/13/20 15:31	1

Method: RSK-175 - Dissolved Gases (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethane	8.0		7.5	1.5	ug/L			04/09/20 17:57	1
Ethene	7.0	U	7.0	1.5	ug/L			04/09/20 17:57	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methane	2000		44	11	ug/L			04/10/20 02:07	11

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
TOC Result 1	2.8		1.0	0.43	mg/L			04/10/20 06:56	1
TOC Result 2	2.8		1.0	0.43	mg/L			04/10/20 06:56	1
Total Organic Carbon	2.8		1.0	0.43	mg/L			04/10/20 06:56	1

Client Sample ID: MW-17

Lab Sample ID: 480-168373-9

Date Collected: 04/07/20 14:25

Matrix: Water

Date Received: 04/09/20 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			04/10/20 02:37	1
Benzene	1.0	U	1.0	0.41	ug/L			04/10/20 02:37	1
Bromodichloromethane	1.0	U	1.0	0.39	ug/L			04/10/20 02:37	1
Bromoform	1.0	U	1.0	0.26	ug/L			04/10/20 02:37	1
Bromomethane	1.0	U	1.0	0.69	ug/L			04/10/20 02:37	1
2-Butanone (MEK)	10	U	10	1.3	ug/L			04/10/20 02:37	1
Carbon disulfide	1.0	U	1.0	0.19	ug/L			04/10/20 02:37	1
Carbon tetrachloride	1.0	U	1.0	0.27	ug/L			04/10/20 02:37	1
Chlorobenzene	1.0	U	1.0	0.75	ug/L			04/10/20 02:37	1
Chloroethane	1.0	U	1.0	0.32	ug/L			04/10/20 02:37	1
Chloroform	1.0	U	1.0	0.34	ug/L			04/10/20 02:37	1
Chloromethane	1.0	U	1.0	0.35	ug/L			04/10/20 02:37	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.81	ug/L			04/10/20 02:37	1
cis-1,3-Dichloropropene	1.0	U	1.0	0.36	ug/L			04/10/20 02:37	1
Cyclohexane	1.0	U	1.0	0.18	ug/L			04/10/20 02:37	1
Dibromochloromethane	1.0	U	1.0	0.32	ug/L			04/10/20 02:37	1
1,2-Dibromo-3-Chloropropane	1.0	U	1.0	0.39	ug/L			04/10/20 02:37	1
1,2-Dibromoethane	1.0	U	1.0	0.73	ug/L			04/10/20 02:37	1
1,2-Dichlorobenzene	1.0	U	1.0	0.79	ug/L			04/10/20 02:37	1
1,3-Dichlorobenzene	1.0	U	1.0	0.78	ug/L			04/10/20 02:37	1
1,4-Dichlorobenzene	1.0	U	1.0	0.84	ug/L			04/10/20 02:37	1
Dichlorodifluoromethane	1.0	U	1.0	0.68	ug/L			04/10/20 02:37	1
1,1-Dichloroethane	1.0	U	1.0	0.38	ug/L			04/10/20 02:37	1
1,2-Dichloroethane	1.0	U	1.0	0.21	ug/L			04/10/20 02:37	1
1,1-Dichloroethene	1.0	U	1.0	0.29	ug/L			04/10/20 02:37	1

Eurofins TestAmerica, Buffalo

Client Sample Results

Client: Ashland LLC
Project/Site: Ashland Rensselaer

Job ID: 480-168373-1

Client Sample ID: MW-17

Lab Sample ID: 480-168373-9

Date Collected: 04/07/20 14:25

Matrix: Water

Date Received: 04/09/20 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			04/10/20 02:37	1
Ethylbenzene	1.0	U	1.0	0.74	ug/L			04/10/20 02:37	1
2-Hexanone	5.0	U	5.0	1.2	ug/L			04/10/20 02:37	1
Isopropylbenzene	1.0	U	1.0	0.79	ug/L			04/10/20 02:37	1
Methyl acetate	2.5	U	2.5	1.3	ug/L			04/10/20 02:37	1
Methylcyclohexane	1.0	U	1.0	0.16	ug/L			04/10/20 02:37	1
Methylene Chloride	1.0	U	1.0	0.44	ug/L			04/10/20 02:37	1
4-Methyl-2-pentanone (MIBK)	5.0	U	5.0	2.1	ug/L			04/10/20 02:37	1
Methyl tert-butyl ether	1.0	U	1.0	0.16	ug/L			04/10/20 02:37	1
Styrene	1.0	U	1.0	0.73	ug/L			04/10/20 02:37	1
1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.21	ug/L			04/10/20 02:37	1
Tetrachloroethene	1.0	U	1.0	0.36	ug/L			04/10/20 02:37	1
Toluene	1.0	U	1.0	0.51	ug/L			04/10/20 02:37	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.90	ug/L			04/10/20 02:37	1
trans-1,3-Dichloropropene	1.0	U	1.0	0.37	ug/L			04/10/20 02:37	1
1,2,4-Trichlorobenzene	1.0	U	1.0	0.41	ug/L			04/10/20 02:37	1
1,1,1-Trichloroethane	1.0	U	1.0	0.82	ug/L			04/10/20 02:37	1
1,1,2-Trichloroethane	1.0	U	1.0	0.23	ug/L			04/10/20 02:37	1
Trichloroethene	1.0	U	1.0	0.46	ug/L			04/10/20 02:37	1
Trichlorofluoromethane	1.0	U	1.0	0.88	ug/L			04/10/20 02:37	1
1,1,2-Trichloro-1,2,2-trifluoroethane	1.0	U	1.0	0.31	ug/L			04/10/20 02:37	1
Vinyl chloride	1.0	U	1.0	0.90	ug/L			04/10/20 02:37	1
Xylenes, Total	2.0	U	2.0	0.66	ug/L			04/10/20 02:37	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	94		73 - 120		04/10/20 02:37	1
Dibromofluoromethane (Surr)	107		75 - 123		04/10/20 02:37	1
1,2-Dichloroethane-d4 (Surr)	108		77 - 120		04/10/20 02:37	1
Toluene-d8 (Surr)	100		80 - 120		04/10/20 02:37	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
TOC Result 1	1.6		1.0	0.43	mg/L			04/10/20 07:24	1
TOC Result 2	1.5		1.0	0.43	mg/L			04/10/20 07:24	1
Total Organic Carbon	1.6		1.0	0.43	mg/L			04/10/20 07:24	1

Client Sample ID: MW-15

Lab Sample ID: 480-168373-10

Date Collected: 04/07/20 14:35

Matrix: Water

Date Received: 04/09/20 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			04/10/20 03:02	1
Benzene	5.3		1.0	0.41	ug/L			04/10/20 03:02	1
Bromodichloromethane	1.0	U	1.0	0.39	ug/L			04/10/20 03:02	1
Bromoform	1.0	U	1.0	0.26	ug/L			04/10/20 03:02	1
Bromomethane	1.0	U	1.0	0.69	ug/L			04/10/20 03:02	1
2-Butanone (MEK)	10	U	10	1.3	ug/L			04/10/20 03:02	1
Carbon disulfide	1.0	U	1.0	0.19	ug/L			04/10/20 03:02	1
Carbon tetrachloride	1.0	U	1.0	0.27	ug/L			04/10/20 03:02	1

Eurofins TestAmerica, Buffalo

Client Sample Results

Client: Ashland LLC
Project/Site: Ashland Rensselaer

Job ID: 480-168373-1

Client Sample ID: MW-15

Lab Sample ID: 480-168373-10

Date Collected: 04/07/20 14:35

Matrix: Water

Date Received: 04/09/20 08:00

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			04/10/20 03:02	1
Chloroethane	1.0	U	1.0	0.32	ug/L			04/10/20 03:02	1
Chloroform	1.0	U	1.0	0.34	ug/L			04/10/20 03:02	1
Chloromethane	1.0	U	1.0	0.35	ug/L			04/10/20 03:02	1
cis-1,2-Dichloroethene	10		1.0	0.81	ug/L			04/10/20 03:02	1
cis-1,3-Dichloropropene	1.0	U	1.0	0.36	ug/L			04/10/20 03:02	1
Cyclohexane	1.0	U	1.0	0.18	ug/L			04/10/20 03:02	1
Dibromochloromethane	1.0	U	1.0	0.32	ug/L			04/10/20 03:02	1
1,2-Dibromo-3-Chloropropane	1.0	U	1.0	0.39	ug/L			04/10/20 03:02	1
1,2-Dibromoethane	1.0	U	1.0	0.73	ug/L			04/10/20 03:02	1
1,2-Dichlorobenzene	1.0	U	1.0	0.79	ug/L			04/10/20 03:02	1
1,3-Dichlorobenzene	1.0	U	1.0	0.78	ug/L			04/10/20 03:02	1
1,4-Dichlorobenzene	1.0	U	1.0	0.84	ug/L			04/10/20 03:02	1
Dichlorodifluoromethane	1.0	U	1.0	0.68	ug/L			04/10/20 03:02	1
1,1-Dichloroethane	0.43	J	1.0	0.38	ug/L			04/10/20 03:02	1
1,2-Dichloroethane	0.56	J	1.0	0.21	ug/L			04/10/20 03:02	1
1,1-Dichloroethene	1.0	U	1.0	0.29	ug/L			04/10/20 03:02	1
1,2-Dichloropropane	1.0	U	1.0	0.72	ug/L			04/10/20 03:02	1
Ethylbenzene	1.0	U	1.0	0.74	ug/L			04/10/20 03:02	1
2-Hexanone	5.0	U	5.0	1.2	ug/L			04/10/20 03:02	1
Isopropylbenzene	1.0	U	1.0	0.79	ug/L			04/10/20 03:02	1
Methyl acetate	2.5	U	2.5	1.3	ug/L			04/10/20 03:02	1
Methylcyclohexane	0.65	J	1.0	0.16	ug/L			04/10/20 03:02	1
Methylene Chloride	1.0	U	1.0	0.44	ug/L			04/10/20 03:02	1
4-Methyl-2-pentanone (MIBK)	5.0	U	5.0	2.1	ug/L			04/10/20 03:02	1
Methyl tert-butyl ether	1.0	U	1.0	0.16	ug/L			04/10/20 03:02	1
Styrene	1.0	U	1.0	0.73	ug/L			04/10/20 03:02	1
1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.21	ug/L			04/10/20 03:02	1
Tetrachloroethene	1.0	U	1.0	0.36	ug/L			04/10/20 03:02	1
Toluene	1.0	U	1.0	0.51	ug/L			04/10/20 03:02	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.90	ug/L			04/10/20 03:02	1
trans-1,3-Dichloropropene	1.0	U	1.0	0.37	ug/L			04/10/20 03:02	1
1,2,4-Trichlorobenzene	1.0	U	1.0	0.41	ug/L			04/10/20 03:02	1
1,1,1-Trichloroethane	1.0	U	1.0	0.82	ug/L			04/10/20 03:02	1
1,1,2-Trichloroethane	1.0	U	1.0	0.23	ug/L			04/10/20 03:02	1
Trichloroethene	1.0	U	1.0	0.46	ug/L			04/10/20 03:02	1
Trichlorofluoromethane	1.0	U	1.0	0.88	ug/L			04/10/20 03:02	1
1,1,2-Trichloro-1,2,2-trifluoroethane	1.0	U	1.0	0.31	ug/L			04/10/20 03:02	1
Vinyl chloride	17		1.0	0.90	ug/L			04/10/20 03:02	1
Xylenes, Total	2.0	U	2.0	0.66	ug/L			04/10/20 03:02	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	99		73 - 120		04/10/20 03:02	1
Dibromofluoromethane (Surr)	106		75 - 123		04/10/20 03:02	1
1,2-Dichloroethane-d4 (Surr)	108		77 - 120		04/10/20 03:02	1
Toluene-d8 (Surr)	104		80 - 120		04/10/20 03:02	1

Method: RSK-175 - Dissolved Gases (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethane	170	U	170	33	ug/L			04/09/20 18:16	22

Eurofins TestAmerica, Buffalo

Client Sample Results

Client: Ashland LLC
Project/Site: Ashland Rensselaer

Job ID: 480-168373-1

Client Sample ID: MW-15

Lab Sample ID: 480-168373-10

Date Collected: 04/07/20 14:35

Matrix: Water

Date Received: 04/09/20 08:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethene	150	U	150	33	ug/L			04/09/20 18:16	22
Methane	5400		88	22	ug/L			04/09/20 18:16	22

Client Sample ID: MW-13

Lab Sample ID: 480-168373-11

Date Collected: 04/07/20 15:15

Matrix: Water

Date Received: 04/09/20 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			04/10/20 03:26	1
Benzene	1.0	U	1.0	0.41	ug/L			04/10/20 03:26	1
Bromodichloromethane	1.0	U	1.0	0.39	ug/L			04/10/20 03:26	1
Bromoform	1.0	U	1.0	0.26	ug/L			04/10/20 03:26	1
Bromomethane	1.0	U	1.0	0.69	ug/L			04/10/20 03:26	1
2-Butanone (MEK)	10	U	10	1.3	ug/L			04/10/20 03:26	1
Carbon disulfide	1.0	U	1.0	0.19	ug/L			04/10/20 03:26	1
Carbon tetrachloride	1.0	U	1.0	0.27	ug/L			04/10/20 03:26	1
Chlorobenzene	1.0	U	1.0	0.75	ug/L			04/10/20 03:26	1
Chloroethane	1.0	U	1.0	0.32	ug/L			04/10/20 03:26	1
Chloroform	1.0	U	1.0	0.34	ug/L			04/10/20 03:26	1
Chloromethane	1.0	U	1.0	0.35	ug/L			04/10/20 03:26	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.81	ug/L			04/10/20 03:26	1
cis-1,3-Dichloropropene	1.0	U	1.0	0.36	ug/L			04/10/20 03:26	1
Cyclohexane	1.0	U	1.0	0.18	ug/L			04/10/20 03:26	1
Dibromochloromethane	1.0	U	1.0	0.32	ug/L			04/10/20 03:26	1
1,2-Dibromo-3-Chloropropane	1.0	U	1.0	0.39	ug/L			04/10/20 03:26	1
1,2-Dibromoethane	1.0	U	1.0	0.73	ug/L			04/10/20 03:26	1
1,2-Dichlorobenzene	1.0	U	1.0	0.79	ug/L			04/10/20 03:26	1
1,3-Dichlorobenzene	1.0	U	1.0	0.78	ug/L			04/10/20 03:26	1
1,4-Dichlorobenzene	1.0	U	1.0	0.84	ug/L			04/10/20 03:26	1
Dichlorodifluoromethane	1.0	U	1.0	0.68	ug/L			04/10/20 03:26	1
1,1-Dichloroethane	1.0	U	1.0	0.38	ug/L			04/10/20 03:26	1
1,2-Dichloroethane	1.0	U	1.0	0.21	ug/L			04/10/20 03:26	1
1,1-Dichloroethene	1.0	U	1.0	0.29	ug/L			04/10/20 03:26	1
1,2-Dichloropropane	1.0	U	1.0	0.72	ug/L			04/10/20 03:26	1
Ethylbenzene	1.0	U	1.0	0.74	ug/L			04/10/20 03:26	1
2-Hexanone	5.0	U	5.0	1.2	ug/L			04/10/20 03:26	1
Isopropylbenzene	1.0	U	1.0	0.79	ug/L			04/10/20 03:26	1
Methyl acetate	2.5	U	2.5	1.3	ug/L			04/10/20 03:26	1
Methylcyclohexane	1.0	U	1.0	0.16	ug/L			04/10/20 03:26	1
Methylene Chloride	1.0	U	1.0	0.44	ug/L			04/10/20 03:26	1
4-Methyl-2-pentanone (MIBK)	5.0	U	5.0	2.1	ug/L			04/10/20 03:26	1
Methyl tert-butyl ether	1.0	U	1.0	0.16	ug/L			04/10/20 03:26	1
Styrene	1.0	U	1.0	0.73	ug/L			04/10/20 03:26	1
1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.21	ug/L			04/10/20 03:26	1
Tetrachloroethene	1.0	U	1.0	0.36	ug/L			04/10/20 03:26	1
Toluene	1.0	U	1.0	0.51	ug/L			04/10/20 03:26	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.90	ug/L			04/10/20 03:26	1
trans-1,3-Dichloropropene	1.0	U	1.0	0.37	ug/L			04/10/20 03:26	1
1,2,4-Trichlorobenzene	1.0	U	1.0	0.41	ug/L			04/10/20 03:26	1

Eurofins TestAmerica, Buffalo

Client Sample Results

Client: Ashland LLC
Project/Site: Ashland Rensselaer

Job ID: 480-168373-1

Client Sample ID: MW-13

Lab Sample ID: 480-168373-11

Date Collected: 04/07/20 15:15

Matrix: Water

Date Received: 04/09/20 08:00

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			04/10/20 03:26	1
1,1,2-Trichloroethane	1.0	U	1.0	0.23	ug/L			04/10/20 03:26	1
Trichloroethene	1.0	U	1.0	0.46	ug/L			04/10/20 03:26	1
Trichlorofluoromethane	1.0	U	1.0	0.88	ug/L			04/10/20 03:26	1
1,1,2-Trichloro-1,2,2-trifluoroethane	1.0	U	1.0	0.31	ug/L			04/10/20 03:26	1
Vinyl chloride	1.0	U	1.0	0.90	ug/L			04/10/20 03:26	1
Xylenes, Total	2.0	U	2.0	0.66	ug/L			04/10/20 03:26	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	87		73 - 120		04/10/20 03:26	1
Dibromofluoromethane (Surr)	104		75 - 123		04/10/20 03:26	1
1,2-Dichloroethane-d4 (Surr)	104		77 - 120		04/10/20 03:26	1
Toluene-d8 (Surr)	98		80 - 120		04/10/20 03:26	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			04/10/20 07:51	1
TOC Result 2	1.0	U	1.0	0.43	mg/L			04/10/20 07:51	1
Total Organic Carbon	1.0	U	1.0	0.43	mg/L			04/10/20 07:51	1

Client Sample ID: MW-25

Lab Sample ID: 480-168373-12

Date Collected: 04/07/20 15:35

Matrix: Water

Date Received: 04/09/20 08:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	500	U	500	150	ug/L			04/13/20 15:55	50
Benzene	50	U	50	21	ug/L			04/13/20 15:55	50
Bromodichloromethane	50	U	50	20	ug/L			04/13/20 15:55	50
Bromoform	50	U	50	13	ug/L			04/13/20 15:55	50
Bromomethane	50	U	50	35	ug/L			04/13/20 15:55	50
2-Butanone (MEK)	500	U	500	66	ug/L			04/13/20 15:55	50
Carbon disulfide	50	U	50	9.5	ug/L			04/13/20 15:55	50
Carbon tetrachloride	50	U	50	14	ug/L			04/13/20 15:55	50
Chlorobenzene	50	U	50	38	ug/L			04/13/20 15:55	50
Chloroethane	50	U	50	16	ug/L			04/13/20 15:55	50
Chloroform	50	U	50	17	ug/L			04/13/20 15:55	50
Chloromethane	50	U	50	18	ug/L			04/13/20 15:55	50
cis-1,2-Dichloroethene	530		50	41	ug/L			04/13/20 15:55	50
cis-1,3-Dichloropropene	50	U	50	18	ug/L			04/13/20 15:55	50
Cyclohexane	50	U	50	9.0	ug/L			04/13/20 15:55	50
Dibromochloromethane	50	U	50	16	ug/L			04/13/20 15:55	50
1,2-Dibromo-3-Chloropropane	50	U	50	20	ug/L			04/13/20 15:55	50
1,2-Dibromoethane	50	U	50	37	ug/L			04/13/20 15:55	50
1,2-Dichlorobenzene	50	U	50	40	ug/L			04/13/20 15:55	50
1,3-Dichlorobenzene	50	U	50	39	ug/L			04/13/20 15:55	50
1,4-Dichlorobenzene	50	U	50	42	ug/L			04/13/20 15:55	50
Dichlorodifluoromethane	50	U	50	34	ug/L			04/13/20 15:55	50
1,1-Dichloroethane	50	U	50	19	ug/L			04/13/20 15:55	50
1,2-Dichloroethane	50	U	50	11	ug/L			04/13/20 15:55	50

Eurofins TestAmerica, Buffalo

Client Sample Results

Client: Ashland LLC
Project/Site: Ashland Rensselaer

Job ID: 480-168373-1

Client Sample ID: MW-25

Lab Sample ID: 480-168373-12

Date Collected: 04/07/20 15:35

Matrix: Water

Date Received: 04/09/20 08:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1-Dichloroethene	50	U	50	15	ug/L			04/13/20 15:55	50
1,2-Dichloropropane	50	U	50	36	ug/L			04/13/20 15:55	50
Ethylbenzene	50	U	50	37	ug/L			04/13/20 15:55	50
2-Hexanone	250	U	250	62	ug/L			04/13/20 15:55	50
Isopropylbenzene	50	U	50	40	ug/L			04/13/20 15:55	50
Methyl acetate	130	U	130	65	ug/L			04/13/20 15:55	50
Methylcyclohexane	50	U	50	8.0	ug/L			04/13/20 15:55	50
Methylene Chloride	50	U	50	22	ug/L			04/13/20 15:55	50
4-Methyl-2-pentanone (MIBK)	250	U	250	110	ug/L			04/13/20 15:55	50
Methyl tert-butyl ether	50	U	50	8.0	ug/L			04/13/20 15:55	50
Styrene	50	U	50	37	ug/L			04/13/20 15:55	50
1,1,2,2-Tetrachloroethane	50	U	50	11	ug/L			04/13/20 15:55	50
Tetrachloroethene	2100		50	18	ug/L			04/13/20 15:55	50
Toluene	50	U	50	26	ug/L			04/13/20 15:55	50
trans-1,2-Dichloroethene	50	U	50	45	ug/L			04/13/20 15:55	50
trans-1,3-Dichloropropene	50	U	50	19	ug/L			04/13/20 15:55	50
1,2,4-Trichlorobenzene	50	U	50	21	ug/L			04/13/20 15:55	50
1,1,1-Trichloroethane	50	U	50	41	ug/L			04/13/20 15:55	50
1,1,2-Trichloroethane	50	U	50	12	ug/L			04/13/20 15:55	50
Trichloroethene	83		50	23	ug/L			04/13/20 15:55	50
Trichlorofluoromethane	50	U	50	44	ug/L			04/13/20 15:55	50
1,1,2-Trichloro-1,2,2-trifluoroethane	50	U	50	16	ug/L			04/13/20 15:55	50
Vinyl chloride	720		50	45	ug/L			04/13/20 15:55	50
Xylenes, Total	100	U	100	33	ug/L			04/13/20 15:55	50

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	99		73 - 120		04/13/20 15:55	50
Dibromofluoromethane (Surr)	107		75 - 123		04/13/20 15:55	50
1,2-Dichloroethane-d4 (Surr)	103		77 - 120		04/13/20 15:55	50
Toluene-d8 (Surr)	103		80 - 120		04/13/20 15:55	50

Method: RSK-175 - Dissolved Gases (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethane	700		83	17	ug/L			04/09/20 18:35	11
Ethene	180		77	17	ug/L			04/09/20 18:35	11

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methane	7200		350	88	ug/L			04/10/20 02:26	88

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
TOC Result 1	6.7		1.0	0.43	mg/L			04/10/20 09:14	1
TOC Result 2	6.6		1.0	0.43	mg/L			04/10/20 09:14	1
Total Organic Carbon	6.8		1.0	0.43	mg/L			04/10/20 09:14	1

Client Sample Results

Client: Ashland LLC
Project/Site: Ashland Rensselaer

Job ID: 480-168373-1

Client Sample ID: FB-1

Lab Sample ID: 480-168373-13

Date Collected: 04/07/20 15:30

Matrix: Water

Date Received: 04/09/20 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			04/10/20 04:14	1
Benzene	1.0	U	1.0	0.41	ug/L			04/10/20 04:14	1
Bromodichloromethane	1.0	U	1.0	0.39	ug/L			04/10/20 04:14	1
Bromoform	1.0	U	1.0	0.26	ug/L			04/10/20 04:14	1
Bromomethane	1.0	U	1.0	0.69	ug/L			04/10/20 04:14	1
2-Butanone (MEK)	10	U	10	1.3	ug/L			04/10/20 04:14	1
Carbon disulfide	1.0	U	1.0	0.19	ug/L			04/10/20 04:14	1
Carbon tetrachloride	1.0	U	1.0	0.27	ug/L			04/10/20 04:14	1
Chlorobenzene	1.0	U	1.0	0.75	ug/L			04/10/20 04:14	1
Chloroethane	1.0	U	1.0	0.32	ug/L			04/10/20 04:14	1
Chloroform	1.0	U	1.0	0.34	ug/L			04/10/20 04:14	1
Chloromethane	1.0	U	1.0	0.35	ug/L			04/10/20 04:14	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.81	ug/L			04/10/20 04:14	1
cis-1,3-Dichloropropene	1.0	U	1.0	0.36	ug/L			04/10/20 04:14	1
Cyclohexane	1.0	U	1.0	0.18	ug/L			04/10/20 04:14	1
Dibromochloromethane	1.0	U	1.0	0.32	ug/L			04/10/20 04:14	1
1,2-Dibromo-3-Chloropropane	1.0	U	1.0	0.39	ug/L			04/10/20 04:14	1
1,2-Dibromoethane	1.0	U	1.0	0.73	ug/L			04/10/20 04:14	1
1,2-Dichlorobenzene	1.0	U	1.0	0.79	ug/L			04/10/20 04:14	1
1,3-Dichlorobenzene	1.0	U	1.0	0.78	ug/L			04/10/20 04:14	1
1,4-Dichlorobenzene	1.0	U	1.0	0.84	ug/L			04/10/20 04:14	1
Dichlorodifluoromethane	1.0	U	1.0	0.68	ug/L			04/10/20 04:14	1
1,1-Dichloroethane	1.0	U	1.0	0.38	ug/L			04/10/20 04:14	1
1,2-Dichloroethane	1.0	U	1.0	0.21	ug/L			04/10/20 04:14	1
1,1-Dichloroethene	1.0	U	1.0	0.29	ug/L			04/10/20 04:14	1
1,2-Dichloropropane	1.0	U	1.0	0.72	ug/L			04/10/20 04:14	1
Ethylbenzene	1.0	U	1.0	0.74	ug/L			04/10/20 04:14	1
2-Hexanone	5.0	U	5.0	1.2	ug/L			04/10/20 04:14	1
Isopropylbenzene	1.0	U	1.0	0.79	ug/L			04/10/20 04:14	1
Methyl acetate	2.5	U	2.5	1.3	ug/L			04/10/20 04:14	1
Methylcyclohexane	1.0	U	1.0	0.16	ug/L			04/10/20 04:14	1
Methylene Chloride	1.0	U	1.0	0.44	ug/L			04/10/20 04:14	1
4-Methyl-2-pentanone (MIBK)	5.0	U	5.0	2.1	ug/L			04/10/20 04:14	1
Methyl tert-butyl ether	1.0	U	1.0	0.16	ug/L			04/10/20 04:14	1
Styrene	1.0	U	1.0	0.73	ug/L			04/10/20 04:14	1
1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.21	ug/L			04/10/20 04:14	1
Tetrachloroethene	1.0	U	1.0	0.36	ug/L			04/10/20 04:14	1
Toluene	1.0	U	1.0	0.51	ug/L			04/10/20 04:14	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.90	ug/L			04/10/20 04:14	1
trans-1,3-Dichloropropene	1.0	U	1.0	0.37	ug/L			04/10/20 04:14	1
1,2,4-Trichlorobenzene	1.0	U	1.0	0.41	ug/L			04/10/20 04:14	1
1,1,1-Trichloroethane	1.0	U	1.0	0.82	ug/L			04/10/20 04:14	1
1,1,2-Trichloroethane	1.0	U	1.0	0.23	ug/L			04/10/20 04:14	1
Trichloroethene	1.0	U	1.0	0.46	ug/L			04/10/20 04:14	1
Trichlorofluoromethane	1.0	U	1.0	0.88	ug/L			04/10/20 04:14	1
1,1,2-Trichloro-1,2,2-trifluoroethane	1.0	U	1.0	0.31	ug/L			04/10/20 04:14	1
Vinyl chloride	1.0	U	1.0	0.90	ug/L			04/10/20 04:14	1
Xylenes, Total	2.0	U	2.0	0.66	ug/L			04/10/20 04:14	1

Eurofins TestAmerica, Buffalo

Client Sample Results

Client: Ashland LLC
Project/Site: Ashland Rensselaer

Job ID: 480-168373-1

Client Sample ID: FB-1

Lab Sample ID: 480-168373-13

Date Collected: 04/07/20 15:30

Matrix: Water

Date Received: 04/09/20 08:00

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	95		73 - 120		04/10/20 04:14	1
Dibromofluoromethane (Surr)	108		75 - 123		04/10/20 04:14	1
1,2-Dichloroethane-d4 (Surr)	109		77 - 120		04/10/20 04:14	1
Toluene-d8 (Surr)	105		80 - 120		04/10/20 04:14	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			04/09/20 18:54	1
Ethene	7.0	U	7.0	1.5	ug/L			04/09/20 18:54	1
Methane	4.0	U	4.0	1.0	ug/L			04/09/20 18:54	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			04/10/20 09:42	1
TOC Result 2	1.0	U	1.0	0.43	mg/L			04/10/20 09:42	1
Total Organic Carbon	1.0	U	1.0	0.43	mg/L			04/10/20 09:42	1

Client Sample ID: Trip Blank-1

Lab Sample ID: 480-168373-14

Date Collected: 04/07/20 00:00

Matrix: Water

Date Received: 04/09/20 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			04/10/20 04:38	1
Benzene	1.0	U	1.0	0.41	ug/L			04/10/20 04:38	1
Bromodichloromethane	1.0	U	1.0	0.39	ug/L			04/10/20 04:38	1
Bromoform	1.0	U	1.0	0.26	ug/L			04/10/20 04:38	1
Bromomethane	1.0	U	1.0	0.69	ug/L			04/10/20 04:38	1
2-Butanone (MEK)	10	U	10	1.3	ug/L			04/10/20 04:38	1
Carbon disulfide	1.0	U	1.0	0.19	ug/L			04/10/20 04:38	1
Carbon tetrachloride	1.0	U	1.0	0.27	ug/L			04/10/20 04:38	1
Chlorobenzene	1.0	U	1.0	0.75	ug/L			04/10/20 04:38	1
Chloroethane	1.0	U	1.0	0.32	ug/L			04/10/20 04:38	1
Chloroform	1.0	U	1.0	0.34	ug/L			04/10/20 04:38	1
Chloromethane	1.0	U	1.0	0.35	ug/L			04/10/20 04:38	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.81	ug/L			04/10/20 04:38	1
cis-1,3-Dichloropropene	1.0	U	1.0	0.36	ug/L			04/10/20 04:38	1
Cyclohexane	1.0	U	1.0	0.18	ug/L			04/10/20 04:38	1
Dibromochloromethane	1.0	U	1.0	0.32	ug/L			04/10/20 04:38	1
1,2-Dibromo-3-Chloropropane	1.0	U	1.0	0.39	ug/L			04/10/20 04:38	1
1,2-Dibromoethane	1.0	U	1.0	0.73	ug/L			04/10/20 04:38	1
1,2-Dichlorobenzene	1.0	U	1.0	0.79	ug/L			04/10/20 04:38	1
1,3-Dichlorobenzene	1.0	U	1.0	0.78	ug/L			04/10/20 04:38	1
1,4-Dichlorobenzene	1.0	U	1.0	0.84	ug/L			04/10/20 04:38	1
Dichlorodifluoromethane	1.0	U	1.0	0.68	ug/L			04/10/20 04:38	1
1,1-Dichloroethane	1.0	U	1.0	0.38	ug/L			04/10/20 04:38	1
1,2-Dichloroethane	1.0	U	1.0	0.21	ug/L			04/10/20 04:38	1
1,1-Dichloroethene	1.0	U	1.0	0.29	ug/L			04/10/20 04:38	1
1,2-Dichloropropane	1.0	U	1.0	0.72	ug/L			04/10/20 04:38	1
Ethylbenzene	1.0	U	1.0	0.74	ug/L			04/10/20 04:38	1
2-Hexanone	5.0	U	5.0	1.2	ug/L			04/10/20 04:38	1

Eurofins TestAmerica, Buffalo

Client Sample Results

Client: Ashland LLC
Project/Site: Ashland Rensselaer

Job ID: 480-168373-1

Client Sample ID: Trip Blank-1

Lab Sample ID: 480-168373-14

Date Collected: 04/07/20 00:00

Matrix: Water

Date Received: 04/09/20 08:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Isopropylbenzene	1.0	U	1.0	0.79	ug/L			04/10/20 04:38	1
Methyl acetate	2.5	U	2.5	1.3	ug/L			04/10/20 04:38	1
Methylcyclohexane	1.0	U	1.0	0.16	ug/L			04/10/20 04:38	1
Methylene Chloride	1.0	U	1.0	0.44	ug/L			04/10/20 04:38	1
4-Methyl-2-pentanone (MIBK)	5.0	U	5.0	2.1	ug/L			04/10/20 04:38	1
Methyl tert-butyl ether	1.0	U	1.0	0.16	ug/L			04/10/20 04:38	1
Styrene	1.0	U	1.0	0.73	ug/L			04/10/20 04:38	1
1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.21	ug/L			04/10/20 04:38	1
Tetrachloroethene	1.0	U	1.0	0.36	ug/L			04/10/20 04:38	1
Toluene	1.0	U	1.0	0.51	ug/L			04/10/20 04:38	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.90	ug/L			04/10/20 04:38	1
trans-1,3-Dichloropropene	1.0	U	1.0	0.37	ug/L			04/10/20 04:38	1
1,2,4-Trichlorobenzene	1.0	U	1.0	0.41	ug/L			04/10/20 04:38	1
1,1,1-Trichloroethane	1.0	U	1.0	0.82	ug/L			04/10/20 04:38	1
1,1,2-Trichloroethane	1.0	U	1.0	0.23	ug/L			04/10/20 04:38	1
Trichloroethene	1.0	U	1.0	0.46	ug/L			04/10/20 04:38	1
Trichlorofluoromethane	1.0	U	1.0	0.88	ug/L			04/10/20 04:38	1
1,1,2-Trichloro-1,2,2-trifluoroethane	1.0	U	1.0	0.31	ug/L			04/10/20 04:38	1
Vinyl chloride	1.0	U	1.0	0.90	ug/L			04/10/20 04:38	1
Xylenes, Total	2.0	U	2.0	0.66	ug/L			04/10/20 04:38	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	89		73 - 120		04/10/20 04:38	1
Dibromofluoromethane (Surr)	103		75 - 123		04/10/20 04:38	1
1,2-Dichloroethane-d4 (Surr)	104		77 - 120		04/10/20 04:38	1
Toluene-d8 (Surr)	99		80 - 120		04/10/20 04:38	1

Client Sample ID: MW-A1

Lab Sample ID: 480-168373-15

Date Collected: 04/08/20 09:40

Matrix: Water

Date Received: 04/09/20 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			04/10/20 05:02	2
Benzene	3.5		2.0	0.82	ug/L			04/10/20 05:02	2
Bromodichloromethane	2.0	U	2.0	0.78	ug/L			04/10/20 05:02	2
Bromoform	2.0	U	2.0	0.52	ug/L			04/10/20 05:02	2
Bromomethane	2.0	U	2.0	1.4	ug/L			04/10/20 05:02	2
2-Butanone (MEK)	20	U	20	2.6	ug/L			04/10/20 05:02	2
Carbon disulfide	2.0	U	2.0	0.38	ug/L			04/10/20 05:02	2
Carbon tetrachloride	2.0	U	2.0	0.54	ug/L			04/10/20 05:02	2
Chlorobenzene	1.8	J	2.0	1.5	ug/L			04/10/20 05:02	2
Chloroethane	6.1		2.0	0.64	ug/L			04/10/20 05:02	2
Chloroform	2.0	U	2.0	0.68	ug/L			04/10/20 05:02	2
Chloromethane	2.0	U	2.0	0.70	ug/L			04/10/20 05:02	2
cis-1,2-Dichloroethene	40		2.0	1.6	ug/L			04/10/20 05:02	2
cis-1,3-Dichloropropene	2.0	U	2.0	0.72	ug/L			04/10/20 05:02	2
Cyclohexane	2.0	U	2.0	0.36	ug/L			04/10/20 05:02	2
Dibromochloromethane	2.0	U	2.0	0.64	ug/L			04/10/20 05:02	2
1,2-Dibromo-3-Chloropropane	2.0	U	2.0	0.78	ug/L			04/10/20 05:02	2

Eurofins TestAmerica, Buffalo

Client Sample Results

Client: Ashland LLC
Project/Site: Ashland Rensselaer

Job ID: 480-168373-1

Client Sample ID: MW-A1

Lab Sample ID: 480-168373-15

Date Collected: 04/08/20 09:40

Matrix: Water

Date Received: 04/09/20 08:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromoethane	2.0	U	2.0	1.5	ug/L			04/10/20 05:02	2
1,2-Dichlorobenzene	2.0	U	2.0	1.6	ug/L			04/10/20 05:02	2
1,3-Dichlorobenzene	2.0	U	2.0	1.6	ug/L			04/10/20 05:02	2
1,4-Dichlorobenzene	2.0	U	2.0	1.7	ug/L			04/10/20 05:02	2
Dichlorodifluoromethane	2.0	U	2.0	1.4	ug/L			04/10/20 05:02	2
1,1-Dichloroethane	2.8		2.0	0.76	ug/L			04/10/20 05:02	2
1,2-Dichloroethane	2.0	U	2.0	0.42	ug/L			04/10/20 05:02	2
1,1-Dichloroethene	2.0	U	2.0	0.58	ug/L			04/10/20 05:02	2
1,2-Dichloropropane	2.0	U	2.0	1.4	ug/L			04/10/20 05:02	2
Ethylbenzene	2.0	U	2.0	1.5	ug/L			04/10/20 05:02	2
2-Hexanone	10	U	10	2.5	ug/L			04/10/20 05:02	2
Isopropylbenzene	2.0	U	2.0	1.6	ug/L			04/10/20 05:02	2
Methyl acetate	5.0	U	5.0	2.6	ug/L			04/10/20 05:02	2
Methylcyclohexane	2.0	U	2.0	0.32	ug/L			04/10/20 05:02	2
Methylene Chloride	2.0	U	2.0	0.88	ug/L			04/10/20 05:02	2
4-Methyl-2-pentanone (MIBK)	10	U	10	4.2	ug/L			04/10/20 05:02	2
Methyl tert-butyl ether	2.0	U	2.0	0.32	ug/L			04/10/20 05:02	2
Styrene	2.0	U	2.0	1.5	ug/L			04/10/20 05:02	2
1,1,2,2-Tetrachloroethane	2.0	U	2.0	0.42	ug/L			04/10/20 05:02	2
Tetrachloroethene	2.0	U	2.0	0.72	ug/L			04/10/20 05:02	2
Toluene	2.0	U	2.0	1.0	ug/L			04/10/20 05:02	2
trans-1,2-Dichloroethene	2.0	U	2.0	1.8	ug/L			04/10/20 05:02	2
trans-1,3-Dichloropropene	2.0	U	2.0	0.74	ug/L			04/10/20 05:02	2
1,2,4-Trichlorobenzene	2.0	U	2.0	0.82	ug/L			04/10/20 05:02	2
1,1,1-Trichloroethane	2.0	U	2.0	1.6	ug/L			04/10/20 05:02	2
1,1,2-Trichloroethane	2.0	U	2.0	0.46	ug/L			04/10/20 05:02	2
Trichloroethene	2.0	U	2.0	0.92	ug/L			04/10/20 05:02	2
Trichlorofluoromethane	2.0	U	2.0	1.8	ug/L			04/10/20 05:02	2
1,1,2-Trichloro-1,2,2-trifluoroethane	2.0	U	2.0	0.62	ug/L			04/10/20 05:02	2
Vinyl chloride	62		2.0	1.8	ug/L			04/10/20 05:02	2
Xylenes, Total	4.0	U	4.0	1.3	ug/L			04/10/20 05:02	2

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	95		73 - 120		04/10/20 05:02	2
Dibromofluoromethane (Surr)	111		75 - 123		04/10/20 05:02	2
1,2-Dichloroethane-d4 (Surr)	107		77 - 120		04/10/20 05:02	2
Toluene-d8 (Surr)	103		80 - 120		04/10/20 05:02	2

Method: RSK-175 - Dissolved Gases (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethane	260	J	330	66	ug/L			04/09/20 20:28	44
Ethene	310	U	310	66	ug/L			04/09/20 20:28	44

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methane	16000		880	220	ug/L			04/12/20 22:10	220

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
TOC Result 1	17		1.0	0.43	mg/L			04/10/20 10:09	1

Eurofins TestAmerica, Buffalo

Client Sample Results

Client: Ashland LLC
Project/Site: Ashland Rensselaer

Job ID: 480-168373-1

Client Sample ID: MW-A1

Lab Sample ID: 480-168373-15

Date Collected: 04/08/20 09:40

Matrix: Water

Date Received: 04/09/20 08:00

General Chemistry (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
TOC Result 2	17		1.0	0.43	mg/L			04/10/20 10:09	1
Total Organic Carbon	17		1.0	0.43	mg/L			04/10/20 10:09	1

Client Sample ID: MW-24

Lab Sample ID: 480-168373-16

Date Collected: 04/08/20 10:15

Matrix: Water

Date Received: 04/09/20 08:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	1000	U	1000	300	ug/L			04/10/20 05:27	100
Benzene	100	U	100	41	ug/L			04/10/20 05:27	100
Bromodichloromethane	100	U	100	39	ug/L			04/10/20 05:27	100
Bromoform	100	U	100	26	ug/L			04/10/20 05:27	100
Bromomethane	100	U	100	69	ug/L			04/10/20 05:27	100
2-Butanone (MEK)	1000	U	1000	130	ug/L			04/10/20 05:27	100
Carbon disulfide	100	U	100	19	ug/L			04/10/20 05:27	100
Carbon tetrachloride	100	U	100	27	ug/L			04/10/20 05:27	100
Chlorobenzene	100	U	100	75	ug/L			04/10/20 05:27	100
Chloroethane	100	U	100	32	ug/L			04/10/20 05:27	100
Chloroform	100	U	100	34	ug/L			04/10/20 05:27	100
Chloromethane	100	U	100	35	ug/L			04/10/20 05:27	100
cis-1,2-Dichloroethene	2500		100	81	ug/L			04/10/20 05:27	100
cis-1,3-Dichloropropene	100	U	100	36	ug/L			04/10/20 05:27	100
Cyclohexane	100	U	100	18	ug/L			04/10/20 05:27	100
Dibromochloromethane	100	U	100	32	ug/L			04/10/20 05:27	100
1,2-Dibromo-3-Chloropropane	100	U	100	39	ug/L			04/10/20 05:27	100
1,2-Dibromoethane	100	U	100	73	ug/L			04/10/20 05:27	100
1,2-Dichlorobenzene	100	U	100	79	ug/L			04/10/20 05:27	100
1,3-Dichlorobenzene	100	U	100	78	ug/L			04/10/20 05:27	100
1,4-Dichlorobenzene	100	U	100	84	ug/L			04/10/20 05:27	100
Dichlorodifluoromethane	100	U	100	68	ug/L			04/10/20 05:27	100
1,1-Dichloroethane	88	J	100	38	ug/L			04/10/20 05:27	100
1,2-Dichloroethane	100	U	100	21	ug/L			04/10/20 05:27	100
1,1-Dichloroethene	100	U	100	29	ug/L			04/10/20 05:27	100
1,2-Dichloropropane	100	U	100	72	ug/L			04/10/20 05:27	100
Ethylbenzene	100	U	100	74	ug/L			04/10/20 05:27	100
2-Hexanone	500	U	500	120	ug/L			04/10/20 05:27	100
Isopropylbenzene	100	U	100	79	ug/L			04/10/20 05:27	100
Methyl acetate	250	U	250	130	ug/L			04/10/20 05:27	100
Methylcyclohexane	100	U	100	16	ug/L			04/10/20 05:27	100
Methylene Chloride	100	U	100	44	ug/L			04/10/20 05:27	100
4-Methyl-2-pentanone (MIBK)	500	U	500	210	ug/L			04/10/20 05:27	100
Methyl tert-butyl ether	100	U	100	16	ug/L			04/10/20 05:27	100
Styrene	100	U	100	73	ug/L			04/10/20 05:27	100
1,1,2,2-Tetrachloroethane	100	U	100	21	ug/L			04/10/20 05:27	100
Tetrachloroethene	100	U	100	36	ug/L			04/10/20 05:27	100
Toluene	100	U	100	51	ug/L			04/10/20 05:27	100
trans-1,2-Dichloroethene	100	U	100	90	ug/L			04/10/20 05:27	100
trans-1,3-Dichloropropene	100	U	100	37	ug/L			04/10/20 05:27	100
1,2,4-Trichlorobenzene	100	U	100	41	ug/L			04/10/20 05:27	100

Eurofins TestAmerica, Buffalo

Client Sample Results

Client: Ashland LLC
Project/Site: Ashland Rensselaer

Job ID: 480-168373-1

Client Sample ID: MW-24

Lab Sample ID: 480-168373-16

Date Collected: 04/08/20 10:15

Matrix: Water

Date Received: 04/09/20 08:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	100	U	100	82	ug/L			04/10/20 05:27	100
1,1,2-Trichloroethane	100	U	100	23	ug/L			04/10/20 05:27	100
Trichloroethene	100	U	100	46	ug/L			04/10/20 05:27	100
Trichlorofluoromethane	100	U	100	88	ug/L			04/10/20 05:27	100
1,1,2-Trichloro-1,2,2-trifluoroethane	100	U	100	31	ug/L			04/10/20 05:27	100
Vinyl chloride	3100		100	90	ug/L			04/10/20 05:27	100
Xylenes, Total	200	U	200	66	ug/L			04/10/20 05:27	100

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	101		73 - 120		04/10/20 05:27	100
Dibromofluoromethane (Surr)	105		75 - 123		04/10/20 05:27	100
1,2-Dichloroethane-d4 (Surr)	106		77 - 120		04/10/20 05:27	100
Toluene-d8 (Surr)	106		80 - 120		04/10/20 05:27	100

Method: RSK-175 - Dissolved Gases (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethane	330		83	17	ug/L			04/09/20 20:47	11
Ethene	710		77	17	ug/L			04/09/20 20:47	11

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methane	16000		350	88	ug/L			04/12/20 22:29	88

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
TOC Result 1	21		1.0	0.43	mg/L			04/10/20 10:37	1
TOC Result 2	21		1.0	0.43	mg/L			04/10/20 10:37	1
Total Organic Carbon	21		1.0	0.43	mg/L			04/10/20 10:37	1

Client Sample ID: MW-19

Lab Sample ID: 480-168373-17

Date Collected: 04/08/20 10:25

Matrix: Water

Date Received: 04/09/20 08:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	100	U	100	30	ug/L			04/10/20 05:51	10
Benzene	9.8	J	10	4.1	ug/L			04/10/20 05:51	10
Bromodichloromethane	10	U	10	3.9	ug/L			04/10/20 05:51	10
Bromoform	10	U	10	2.6	ug/L			04/10/20 05:51	10
Bromomethane	10	U	10	6.9	ug/L			04/10/20 05:51	10
2-Butanone (MEK)	100	U	100	13	ug/L			04/10/20 05:51	10
Carbon disulfide	10	U	10	1.9	ug/L			04/10/20 05:51	10
Carbon tetrachloride	10	U	10	2.7	ug/L			04/10/20 05:51	10
Chlorobenzene	10	U	10	7.5	ug/L			04/10/20 05:51	10
Chloroethane	82		10	3.2	ug/L			04/10/20 05:51	10
Chloroform	3.9	J	10	3.4	ug/L			04/10/20 05:51	10
Chloromethane	10	U	10	3.5	ug/L			04/10/20 05:51	10
cis-1,2-Dichloroethene	1200	E	1300	40	ug/L	20		04/10/20 05:51	40 20
cis-1,3-Dichloropropene	10	U	10	3.6	ug/L			04/10/20 05:51	10
Cyclohexane	10	U	10	1.8	ug/L			04/10/20 05:51	10
Dibromochloromethane	10	U	10	3.2	ug/L			04/10/20 05:51	10

Eurofins TestAmerica, Buffalo

Client Sample Results

Client: Ashland LLC
Project/Site: Ashland Rensselaer

Job ID: 480-168373-1

Client Sample ID: MW-19

Lab Sample ID: 480-168373-17

Date Collected: 04/08/20 10:25

Matrix: Water

Date Received: 04/09/20 08:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromo-3-Chloropropane	10	U	10	3.9	ug/L			04/10/20 05:51	10
1,2-Dibromoethane	10	U	10	7.3	ug/L			04/10/20 05:51	10
1,2-Dichlorobenzene	10	U	10	7.9	ug/L			04/10/20 05:51	10
1,3-Dichlorobenzene	10	U	10	7.8	ug/L			04/10/20 05:51	10
1,4-Dichlorobenzene	10	U	10	8.4	ug/L			04/10/20 05:51	10
Dichlorodifluoromethane	10	U	10	6.8	ug/L			04/10/20 05:51	10
1,1-Dichloroethane	33		10	3.8	ug/L			04/10/20 05:51	10
1,2-Dichloroethane	10	U	10	2.1	ug/L			04/10/20 05:51	10
1,1-Dichloroethene	4.0	J	10	2.9	ug/L			04/10/20 05:51	10
1,2-Dichloropropane	10	U	10	7.2	ug/L			04/10/20 05:51	10
Ethylbenzene	10	U	10	7.4	ug/L			04/10/20 05:51	10
2-Hexanone	50	U	50	12	ug/L			04/10/20 05:51	10
Isopropylbenzene	10	U	10	7.9	ug/L			04/10/20 05:51	10
Methyl acetate	25	U	25	13	ug/L			04/10/20 05:51	10
Methylcyclohexane	10	U	10	1.6	ug/L			04/10/20 05:51	10
Methylene Chloride	10	U	10	4.4	ug/L			04/10/20 05:51	10
4-Methyl-2-pentanone (MIBK)	50	U	50	21	ug/L			04/10/20 05:51	10
Methyl tert-butyl ether	10	U	10	1.6	ug/L			04/10/20 05:51	10
Styrene	10	U	10	7.3	ug/L			04/10/20 05:51	10
1,1,2,2-Tetrachloroethane	10	U	10	2.1	ug/L			04/10/20 05:51	10
Tetrachloroethene	8.6	J	10	3.6	ug/L			04/10/20 05:51	10
Toluene	10	U	10	5.1	ug/L			04/10/20 05:51	10
trans-1,2-Dichloroethene	10	U	10	9.0	ug/L			04/10/20 05:51	10
trans-1,3-Dichloropropene	10	U	10	3.7	ug/L			04/10/20 05:51	10
1,2,4-Trichlorobenzene	10	U	10	4.1	ug/L			04/10/20 05:51	10
1,1,1-Trichloroethane	10	U	10	8.2	ug/L			04/10/20 05:51	10
1,1,2-Trichloroethane	10	U	10	2.3	ug/L			04/10/20 05:51	10
Trichloroethene	40		10	4.6	ug/L			04/10/20 05:51	10
Trichlorofluoromethane	10	U	10	8.8	ug/L			04/10/20 05:51	10
1,1,2-Trichloro-1,2,2-trifluoroethane	560	F4 J	10	3.1	ug/L			04/10/20 05:51	10
Vinyl chloride	450		10	9.0	ug/L			04/10/20 05:51	10
Xylenes, Total	20	U	20	6.6	ug/L			04/10/20 05:51	10

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	97		73 - 120		04/10/20 05:51	10
Dibromofluoromethane (Surr)	105		75 - 123		04/10/20 05:51	10
1,2-Dichloroethane-d4 (Surr)	104		77 - 120		04/10/20 05:51	10
Toluene-d8 (Surr)	103		80 - 120		04/10/20 05:51	10

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	200	U	200	60	ug/L			04/13/20 16:19	20
Benzene	11	J	20	8.2	ug/L			04/13/20 16:19	20
Bromodichloromethane	20	U	20	7.8	ug/L			04/13/20 16:19	20
Bromoform	20	U	20	5.2	ug/L			04/13/20 16:19	20
Bromomethane	20	U	20	14	ug/L			04/13/20 16:19	20
2-Butanone (MEK)	200	U	200	26	ug/L			04/13/20 16:19	20
Carbon disulfide	20	U	20	3.8	ug/L			04/13/20 16:19	20
Carbon tetrachloride	20	U	20	5.4	ug/L			04/13/20 16:19	20

Eurofins TestAmerica, Buffalo

Client Sample Results

Client: Ashland LLC
Project/Site: Ashland Rensselaer

Job ID: 480-168373-1

Client Sample ID: MW-19

Lab Sample ID: 480-168373-17

Date Collected: 04/08/20 10:25

Matrix: Water

Date Received: 04/09/20 08:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chlorobenzene	20	U	20	15	ug/L			04/13/20 16:19	20
Chloroethane	85		20	6.4	ug/L			04/13/20 16:19	20
Chloroform	20	U	20	6.8	ug/L			04/13/20 16:19	20
Chloromethane	20	U	20	7.0	ug/L			04/13/20 16:19	20
cis-1,2-Dichloroethene	1300		20	16	ug/L			04/13/20 16:19	20
cis-1,3-Dichloropropene	20	U	20	7.2	ug/L			04/13/20 16:19	20
Cyclohexane	20	U	20	3.6	ug/L			04/13/20 16:19	20
Dibromochloromethane	20	U	20	6.4	ug/L			04/13/20 16:19	20
1,2-Dibromo-3-Chloropropane	20	U	20	7.8	ug/L			04/13/20 16:19	20
1,2-Dibromoethane	20	U	20	15	ug/L			04/13/20 16:19	20
1,2-Dichlorobenzene	20	U	20	16	ug/L			04/13/20 16:19	20
1,3-Dichlorobenzene	20	U	20	16	ug/L			04/13/20 16:19	20
1,4-Dichlorobenzene	20	U	20	17	ug/L			04/13/20 16:19	20
Dichlorodifluoromethane	20	U	20	14	ug/L			04/13/20 16:19	20
1,1-Dichloroethane	34		20	7.6	ug/L			04/13/20 16:19	20
1,2-Dichloroethane	20	U	20	4.2	ug/L			04/13/20 16:19	20
1,1-Dichloroethene	20	U	20	5.8	ug/L			04/13/20 16:19	20
1,2-Dichloropropane	20	U	20	14	ug/L			04/13/20 16:19	20
Ethylbenzene	20	U	20	15	ug/L			04/13/20 16:19	20
2-Hexanone	100	U	100	25	ug/L			04/13/20 16:19	20
Isopropylbenzene	20	U	20	16	ug/L			04/13/20 16:19	20
Methyl acetate	50	U	50	26	ug/L			04/13/20 16:19	20
Methylcyclohexane	20	U	20	3.2	ug/L			04/13/20 16:19	20
Methylene Chloride	20	U	20	8.8	ug/L			04/13/20 16:19	20
4-Methyl-2-pentanone (MIBK)	100	U	100	42	ug/L			04/13/20 16:19	20
Methyl tert-butyl ether	20	U	20	3.2	ug/L			04/13/20 16:19	20
Styrene	20	U	20	15	ug/L			04/13/20 16:19	20
1,1,2,2-Tetrachloroethane	20	U	20	4.2	ug/L			04/13/20 16:19	20
Tetrachloroethene	11	J	20	7.2	ug/L			04/13/20 16:19	20
Toluene	20	U	20	10	ug/L			04/13/20 16:19	20
trans-1,2-Dichloroethene	20	U	20	18	ug/L			04/13/20 16:19	20
trans-1,3-Dichloropropene	20	U	20	7.4	ug/L			04/13/20 16:19	20
1,2,4-Trichlorobenzene	20	U	20	8.2	ug/L			04/13/20 16:19	20
1,1,1-Trichloroethane	20	U	20	16	ug/L			04/13/20 16:19	20
1,1,2-Trichloroethane	20	U	20	4.6	ug/L			04/13/20 16:19	20
Trichloroethene	41		20	9.2	ug/L			04/13/20 16:19	20
Trichlorofluoromethane	20	U	20	18	ug/L			04/13/20 16:19	20
1,1,2-Trichloro-1,2,2-trifluoroethane	620	J	20	6.2	ug/L			04/13/20 16:19	20
Vinyl chloride	480		20	18	ug/L			04/13/20 16:19	20
Xylenes, Total	40	U	40	13	ug/L			04/13/20 16:19	20

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	103		73 - 120		04/13/20 16:19	20
Dibromofluoromethane (Surr)	108		75 - 123		04/13/20 16:19	20
1,2-Dichloroethane-d4 (Surr)	105		77 - 120		04/13/20 16:19	20
Toluene-d8 (Surr)	108		80 - 120		04/13/20 16:19	20

Eurofins TestAmerica, Buffalo

Client Sample Results

Client: Ashland LLC
Project/Site: Ashland Rensselaer

Job ID: 480-168373-1

Client Sample ID: MW-19

Lab Sample ID: 480-168373-17

Date Collected: 04/08/20 10:25

Matrix: Water

Date Received: 04/09/20 08:00

Method: RSK-175 - Dissolved Gases (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethane	320	J	660	130	ug/L			04/09/20 12:50	88
Ethene	320	J	620	130	ug/L			04/09/20 12:50	88
Methane	7600	J	350	88	ug/L			04/09/20 12:50	88

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
TOC Result 1	5.9		1.0	0.43	mg/L			04/12/20 05:32	1
TOC Result 2	6.1		1.0	0.43	mg/L			04/12/20 05:32	1
Total Organic Carbon	6.1		1.0	0.43	mg/L			04/12/20 05:32	1

Client Sample ID: MW-B1

Lab Sample ID: 480-168373-18

Date Collected: 04/08/20 11:25

Matrix: Water

Date Received: 04/09/20 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			04/13/20 16:44	1
Benzene	1.0	U	1.0	0.41	ug/L			04/13/20 16:44	1
Bromodichloromethane	1.0	U	1.0	0.39	ug/L			04/13/20 16:44	1
Bromoform	1.0	U	1.0	0.26	ug/L			04/13/20 16:44	1
Bromomethane	1.0	U	1.0	0.69	ug/L			04/13/20 16:44	1
2-Butanone (MEK)	10	U	10	1.3	ug/L			04/13/20 16:44	1
Carbon disulfide	1.0	U	1.0	0.19	ug/L			04/13/20 16:44	1
Carbon tetrachloride	1.0	U	1.0	0.27	ug/L			04/13/20 16:44	1
Chlorobenzene	1.0	U	1.0	0.75	ug/L			04/13/20 16:44	1
Chloroethane	1.0	U	1.0	0.32	ug/L			04/13/20 16:44	1
Chloroform	1.0	U	1.0	0.34	ug/L			04/13/20 16:44	1
Chloromethane	1.0	U	1.0	0.35	ug/L			04/13/20 16:44	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.81	ug/L			04/13/20 16:44	1
cis-1,3-Dichloropropene	1.0	U	1.0	0.36	ug/L			04/13/20 16:44	1
Cyclohexane	1.0	U	1.0	0.18	ug/L			04/13/20 16:44	1
Dibromochloromethane	1.0	U	1.0	0.32	ug/L			04/13/20 16:44	1
1,2-Dibromo-3-Chloropropane	1.0	U	1.0	0.39	ug/L			04/13/20 16:44	1
1,2-Dibromoethane	1.0	U	1.0	0.73	ug/L			04/13/20 16:44	1
1,2-Dichlorobenzene	1.0	U	1.0	0.79	ug/L			04/13/20 16:44	1
1,3-Dichlorobenzene	1.0	U	1.0	0.78	ug/L			04/13/20 16:44	1
1,4-Dichlorobenzene	1.0	U	1.0	0.84	ug/L			04/13/20 16:44	1
Dichlorodifluoromethane	1.0	U	1.0	0.68	ug/L			04/13/20 16:44	1
1,1-Dichloroethane	1.0	U	1.0	0.38	ug/L			04/13/20 16:44	1
1,2-Dichloroethane	0.32	J	1.0	0.21	ug/L			04/13/20 16:44	1
1,1-Dichloroethene	1.0	U	1.0	0.29	ug/L			04/13/20 16:44	1
1,2-Dichloropropane	1.0	U	1.0	0.72	ug/L			04/13/20 16:44	1
Ethylbenzene	1.0	U	1.0	0.74	ug/L			04/13/20 16:44	1
2-Hexanone	5.0	U	5.0	1.2	ug/L			04/13/20 16:44	1
Isopropylbenzene	1.0	U	1.0	0.79	ug/L			04/13/20 16:44	1
Methyl acetate	2.5	U	2.5	1.3	ug/L			04/13/20 16:44	1
Methylcyclohexane	1.0	U	1.0	0.16	ug/L			04/13/20 16:44	1
Methylene Chloride	1.0	U	1.0	0.44	ug/L			04/13/20 16:44	1
4-Methyl-2-pentanone (MIBK)	5.0	U	5.0	2.1	ug/L			04/13/20 16:44	1
Methyl tert-butyl ether	1.0	U	1.0	0.16	ug/L			04/13/20 16:44	1

Eurofins TestAmerica, Buffalo

Client Sample Results

Client: Ashland LLC
Project/Site: Ashland Rensselaer

Job ID: 480-168373-1

Client Sample ID: MW-B1

Lab Sample ID: 480-168373-18

Date Collected: 04/08/20 11:25

Matrix: Water

Date Received: 04/09/20 08:00

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			04/13/20 16:44	1
1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.21	ug/L			04/13/20 16:44	1
Tetrachloroethene	1.0	U	1.0	0.36	ug/L			04/13/20 16:44	1
Toluene	1.0	U	1.0	0.51	ug/L			04/13/20 16:44	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.90	ug/L			04/13/20 16:44	1
trans-1,3-Dichloropropene	1.0	U	1.0	0.37	ug/L			04/13/20 16:44	1
1,2,4-Trichlorobenzene	1.0	U	1.0	0.41	ug/L			04/13/20 16:44	1
1,1,1-Trichloroethane	1.0	U	1.0	0.82	ug/L			04/13/20 16:44	1
1,1,2-Trichloroethane	1.0	U	1.0	0.23	ug/L			04/13/20 16:44	1
Trichloroethene	1.0	U	1.0	0.46	ug/L			04/13/20 16:44	1
Trichlorofluoromethane	1.0	U	1.0	0.88	ug/L			04/13/20 16:44	1
1,1,2-Trichloro-1,2,2-trifluoroethane	1.0	U	1.0	0.31	ug/L			04/13/20 16:44	1
Vinyl chloride	1.0	U	1.0	0.90	ug/L			04/13/20 16:44	1
Xylenes, Total	2.0	U	2.0	0.66	ug/L			04/13/20 16:44	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	91		73 - 120		04/13/20 16:44	1
Dibromofluoromethane (Surr)	106		75 - 123		04/13/20 16:44	1
1,2-Dichloroethane-d4 (Surr)	103		77 - 120		04/13/20 16:44	1
Toluene-d8 (Surr)	100		80 - 120		04/13/20 16:44	1

Method: RSK-175 - Dissolved Gases (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethane	29	J	83	17	ug/L			04/09/20 21:06	11
Ethene	77	U	77	17	ug/L			04/09/20 21:06	11

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methane	2900		350	88	ug/L			04/12/20 22:48	88

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
TOC Result 1	15		1.0	0.43	mg/L			04/10/20 12:28	1
TOC Result 2	15		1.0	0.43	mg/L			04/10/20 12:28	1
Total Organic Carbon	15		1.0	0.43	mg/L			04/10/20 12:28	1

Client Sample ID: IW-A2

Lab Sample ID: 480-168373-19

Date Collected: 04/08/20 13:10

Matrix: Water

Date Received: 04/09/20 08:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	400	U	400	120	ug/L			04/10/20 11:45	40
Benzene	40	U	40	16	ug/L			04/10/20 11:45	40
Bromodichloromethane	40	U	40	16	ug/L			04/10/20 11:45	40
Bromoform	40	U	40	10	ug/L			04/10/20 11:45	40
Bromomethane	40	U-F2 U	40	28	ug/L			04/10/20 11:45	40
2-Butanone (MEK)	400	U	400	53	ug/L			04/10/20 11:45	40
Carbon disulfide	40	U	40	7.6	ug/L			04/10/20 11:45	40
Carbon tetrachloride	40	U	40	11	ug/L			04/10/20 11:45	40
Chlorobenzene	40	U	40	30	ug/L			04/10/20 11:45	40

Eurofins TestAmerica, Buffalo

Client Sample Results

Client: Ashland LLC
Project/Site: Ashland Rensselaer

Job ID: 480-168373-1

Client Sample ID: IW-A2

Lab Sample ID: 480-168373-19

Date Collected: 04/08/20 13:10

Matrix: Water

Date Received: 04/09/20 08:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloroethane	40	U	40	13	ug/L			04/10/20 11:45	40
Chloroform	40	U	40	14	ug/L			04/10/20 11:45	40
Chloromethane	40	U	40	14	ug/L			04/10/20 11:45	40
cis-1,2-Dichloroethene	40	U	40	32	ug/L			04/10/20 11:45	40
cis-1,3-Dichloropropene	40	U	40	14	ug/L			04/10/20 11:45	40
Cyclohexane	40	U	40	7.2	ug/L			04/10/20 11:45	40
Dibromochloromethane	40	U	40	13	ug/L			04/10/20 11:45	40
1,2-Dibromo-3-Chloropropane	40	U	40	16	ug/L			04/10/20 11:45	40
1,2-Dibromoethane	40	U	40	29	ug/L			04/10/20 11:45	40
1,2-Dichlorobenzene	40	U	40	32	ug/L			04/10/20 11:45	40
1,3-Dichlorobenzene	40	U	40	31	ug/L			04/10/20 11:45	40
1,4-Dichlorobenzene	40	U	40	34	ug/L			04/10/20 11:45	40
Dichlorodifluoromethane	40	U	40	27	ug/L			04/10/20 11:45	40
1,1-Dichloroethane	40	U	40	15	ug/L			04/10/20 11:45	40
1,2-Dichloroethane	40	U	40	8.4	ug/L			04/10/20 11:45	40
1,1-Dichloroethene	40	U	40	12	ug/L			04/10/20 11:45	40
1,2-Dichloropropane	40	U	40	29	ug/L			04/10/20 11:45	40
Ethylbenzene	40	U	40	30	ug/L			04/10/20 11:45	40
2-Hexanone	200	U	200	50	ug/L			04/10/20 11:45	40
Isopropylbenzene	40	U	40	32	ug/L			04/10/20 11:45	40
Methyl acetate	100	U	100	52	ug/L			04/10/20 11:45	40
Methylcyclohexane	40	U	40	6.4	ug/L			04/10/20 11:45	40
Methylene Chloride	40	U	40	18	ug/L			04/10/20 11:45	40
4-Methyl-2-pentanone (MIBK)	200	U	200	84	ug/L			04/10/20 11:45	40
Methyl tert-butyl ether	40	U	40	6.4	ug/L			04/10/20 11:45	40
Styrene	40	U	40	29	ug/L			04/10/20 11:45	40
1,1,2,2-Tetrachloroethane	40	U	40	8.4	ug/L			04/10/20 11:45	40
Tetrachloroethene	40	U	40	14	ug/L			04/10/20 11:45	40
Toluene	40	U	40	20	ug/L			04/10/20 11:45	40
trans-1,2-Dichloroethene	40	U	40	36	ug/L			04/10/20 11:45	40
trans-1,3-Dichloropropene	40	U	40	15	ug/L			04/10/20 11:45	40
1,2,4-Trichlorobenzene	40	U	40	16	ug/L			04/10/20 11:45	40
1,1,1-Trichloroethane	40	U	40	33	ug/L			04/10/20 11:45	40
1,1,2-Trichloroethane	40	U	40	9.2	ug/L			04/10/20 11:45	40
Trichloroethene	40	U	40	18	ug/L			04/10/20 11:45	40
Trichlorofluoromethane	40	U	40	35	ug/L			04/10/20 11:45	40
1,1,2-Trichloro-1,2,2-trifluoroethane	40	U	40	12	ug/L			04/10/20 11:45	40
Vinyl chloride	40	U	40	36	ug/L			04/10/20 11:45	40
Xylenes, Total	36	J	80	26	ug/L			04/10/20 11:45	40

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	100		73 - 120		04/10/20 11:45	40
Dibromofluoromethane (Surr)	107		75 - 123		04/10/20 11:45	40
1,2-Dichloroethane-d4 (Surr)	106		77 - 120		04/10/20 11:45	40
Toluene-d8 (Surr)	104		80 - 120		04/10/20 11:45	40

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
TOC Result 1	190		2.0	0.87	mg/L			04/10/20 12:56	2
TOC Result 2	190		2.0	0.87	mg/L			04/10/20 12:56	2

Eurofins TestAmerica, Buffalo

Client Sample Results

Client: Ashland LLC
Project/Site: Ashland Rensselaer

Job ID: 480-168373-1

Client Sample ID: IW-A2

Lab Sample ID: 480-168373-19

Date Collected: 04/08/20 13:10

Matrix: Water

Date Received: 04/09/20 08:00

General Chemistry (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Organic Carbon	190		2.0	0.87	mg/L			04/10/20 12:56	2

Client Sample ID: FB-2

Lab Sample ID: 480-168373-20

Date Collected: 04/08/20 11:10

Matrix: Water

Date Received: 04/09/20 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			04/10/20 12:09	1
Benzene	1.0	U	1.0	0.41	ug/L			04/10/20 12:09	1
Bromodichloromethane	1.0	U	1.0	0.39	ug/L			04/10/20 12:09	1
Bromoform	1.0	U	1.0	0.26	ug/L			04/10/20 12:09	1
Bromomethane	1.0	U	1.0	0.69	ug/L			04/10/20 12:09	1
2-Butanone (MEK)	10	U	10	1.3	ug/L			04/10/20 12:09	1
Carbon disulfide	1.0	U	1.0	0.19	ug/L			04/10/20 12:09	1
Carbon tetrachloride	1.0	U	1.0	0.27	ug/L			04/10/20 12:09	1
Chlorobenzene	1.0	U	1.0	0.75	ug/L			04/10/20 12:09	1
Chloroethane	1.0	U	1.0	0.32	ug/L			04/10/20 12:09	1
Chloroform	1.0	U	1.0	0.34	ug/L			04/10/20 12:09	1
Chloromethane	1.0	U	1.0	0.35	ug/L			04/10/20 12:09	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.81	ug/L			04/10/20 12:09	1
cis-1,3-Dichloropropene	1.0	U	1.0	0.36	ug/L			04/10/20 12:09	1
Cyclohexane	1.0	U	1.0	0.18	ug/L			04/10/20 12:09	1
Dibromochloromethane	1.0	U	1.0	0.32	ug/L			04/10/20 12:09	1
1,2-Dibromo-3-Chloropropane	1.0	U	1.0	0.39	ug/L			04/10/20 12:09	1
1,2-Dibromoethane	1.0	U	1.0	0.73	ug/L			04/10/20 12:09	1
1,2-Dichlorobenzene	1.0	U	1.0	0.79	ug/L			04/10/20 12:09	1
1,3-Dichlorobenzene	1.0	U	1.0	0.78	ug/L			04/10/20 12:09	1
1,4-Dichlorobenzene	1.0	U	1.0	0.84	ug/L			04/10/20 12:09	1
Dichlorodifluoromethane	1.0	U	1.0	0.68	ug/L			04/10/20 12:09	1
1,1-Dichloroethane	1.0	U	1.0	0.38	ug/L			04/10/20 12:09	1
1,2-Dichloroethane	1.0	U	1.0	0.21	ug/L			04/10/20 12:09	1
1,1-Dichloroethene	1.0	U	1.0	0.29	ug/L			04/10/20 12:09	1
1,2-Dichloropropane	1.0	U	1.0	0.72	ug/L			04/10/20 12:09	1
Ethylbenzene	1.0	U	1.0	0.74	ug/L			04/10/20 12:09	1
2-Hexanone	5.0	U	5.0	1.2	ug/L			04/10/20 12:09	1
Isopropylbenzene	1.0	U	1.0	0.79	ug/L			04/10/20 12:09	1
Methyl acetate	2.5	U	2.5	1.3	ug/L			04/10/20 12:09	1
Methylcyclohexane	1.0	U	1.0	0.16	ug/L			04/10/20 12:09	1
Methylene Chloride	1.0	U	1.0	0.44	ug/L			04/10/20 12:09	1
4-Methyl-2-pentanone (MIBK)	5.0	U	5.0	2.1	ug/L			04/10/20 12:09	1
Methyl tert-butyl ether	1.0	U	1.0	0.16	ug/L			04/10/20 12:09	1
Styrene	1.0	U	1.0	0.73	ug/L			04/10/20 12:09	1
1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.21	ug/L			04/10/20 12:09	1
Tetrachloroethene	1.0	U	1.0	0.36	ug/L			04/10/20 12:09	1
Toluene	1.0	U	1.0	0.51	ug/L			04/10/20 12:09	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.90	ug/L			04/10/20 12:09	1
trans-1,3-Dichloropropene	1.0	U	1.0	0.37	ug/L			04/10/20 12:09	1
1,2,4-Trichlorobenzene	1.0	U	1.0	0.41	ug/L			04/10/20 12:09	1
1,1,1-Trichloroethane	1.0	U	1.0	0.82	ug/L			04/10/20 12:09	1

Eurofins TestAmerica, Buffalo

Client Sample Results

Client: Ashland LLC
Project/Site: Ashland Rensselaer

Job ID: 480-168373-1

Client Sample ID: FB-2

Lab Sample ID: 480-168373-20

Date Collected: 04/08/20 11:10

Matrix: Water

Date Received: 04/09/20 08:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,2-Trichloroethane	1.0	U	1.0	0.23	ug/L			04/10/20 12:09	1
Trichloroethene	1.0	U	1.0	0.46	ug/L			04/10/20 12:09	1
Trichlorofluoromethane	1.0	U	1.0	0.88	ug/L			04/10/20 12:09	1
1,1,2-Trichloro-1,2,2-trifluoroethane	1.0	U	1.0	0.31	ug/L			04/10/20 12:09	1
Vinyl chloride	1.0	U	1.0	0.90	ug/L			04/10/20 12:09	1
Xylenes, Total	2.0	U	2.0	0.66	ug/L			04/10/20 12:09	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	94		73 - 120		04/10/20 12:09	1
Dibromofluoromethane (Surr)	104		75 - 123		04/10/20 12:09	1
1,2-Dichloroethane-d4 (Surr)	104		77 - 120		04/10/20 12:09	1
Toluene-d8 (Surr)	100		80 - 120		04/10/20 12:09	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			04/09/20 21:25	1
Ethene	7.0	U	7.0	1.5	ug/L			04/09/20 21:25	1
Methane	4.0	U	4.0	1.0	ug/L			04/09/20 21:25	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			04/10/20 16:11	1
TOC Result 2	1.0	U	1.0	0.43	mg/L			04/10/20 16:11	1
Total Organic Carbon	1.0	U	1.0	0.43	mg/L			04/10/20 16:11	1

Client Sample ID: Trip Blank-2

Lab Sample ID: 480-168373-21

Date Collected: 04/08/20 00:00

Matrix: Water

Date Received: 04/09/20 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			04/10/20 12:34	1
Benzene	1.0	U	1.0	0.41	ug/L			04/10/20 12:34	1
Bromodichloromethane	1.0	U	1.0	0.39	ug/L			04/10/20 12:34	1
Bromoform	1.0	U	1.0	0.26	ug/L			04/10/20 12:34	1
Bromomethane	1.0	U	1.0	0.69	ug/L			04/10/20 12:34	1
2-Butanone (MEK)	10	U	10	1.3	ug/L			04/10/20 12:34	1
Carbon disulfide	1.0	U	1.0	0.19	ug/L			04/10/20 12:34	1
Carbon tetrachloride	1.0	U	1.0	0.27	ug/L			04/10/20 12:34	1
Chlorobenzene	1.0	U	1.0	0.75	ug/L			04/10/20 12:34	1
Chloroethane	1.0	U	1.0	0.32	ug/L			04/10/20 12:34	1
Chloroform	1.0	U	1.0	0.34	ug/L			04/10/20 12:34	1
Chloromethane	1.0	U	1.0	0.35	ug/L			04/10/20 12:34	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.81	ug/L			04/10/20 12:34	1
cis-1,3-Dichloropropene	1.0	U	1.0	0.36	ug/L			04/10/20 12:34	1
Cyclohexane	1.0	U	1.0	0.18	ug/L			04/10/20 12:34	1
Dibromochloromethane	1.0	U	1.0	0.32	ug/L			04/10/20 12:34	1
1,2-Dibromo-3-Chloropropane	1.0	U	1.0	0.39	ug/L			04/10/20 12:34	1
1,2-Dibromoethane	1.0	U	1.0	0.73	ug/L			04/10/20 12:34	1
1,2-Dichlorobenzene	1.0	U	1.0	0.79	ug/L			04/10/20 12:34	1
1,3-Dichlorobenzene	1.0	U	1.0	0.78	ug/L			04/10/20 12:34	1

Eurofins TestAmerica, Buffalo

Client Sample Results

Client: Ashland LLC
Project/Site: Ashland Rensselaer

Job ID: 480-168373-1

Client Sample ID: Trip Blank-2

Lab Sample ID: 480-168373-21

Date Collected: 04/08/20 00:00

Matrix: Water

Date Received: 04/09/20 08:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dichlorobenzene	1.0	U	1.0	0.84	ug/L			04/10/20 12:34	1
Dichlorodifluoromethane	1.0	U	1.0	0.68	ug/L			04/10/20 12:34	1
1,1-Dichloroethane	1.0	U	1.0	0.38	ug/L			04/10/20 12:34	1
1,2-Dichloroethane	1.0	U	1.0	0.21	ug/L			04/10/20 12:34	1
1,1-Dichloroethene	1.0	U	1.0	0.29	ug/L			04/10/20 12:34	1
1,2-Dichloropropane	1.0	U	1.0	0.72	ug/L			04/10/20 12:34	1
Ethylbenzene	1.0	U	1.0	0.74	ug/L			04/10/20 12:34	1
2-Hexanone	5.0	U	5.0	1.2	ug/L			04/10/20 12:34	1
Isopropylbenzene	1.0	U	1.0	0.79	ug/L			04/10/20 12:34	1
Methyl acetate	2.5	U	2.5	1.3	ug/L			04/10/20 12:34	1
Methylcyclohexane	1.0	U	1.0	0.16	ug/L			04/10/20 12:34	1
Methylene Chloride	1.0	U	1.0	0.44	ug/L			04/10/20 12:34	1
4-Methyl-2-pentanone (MIBK)	5.0	U	5.0	2.1	ug/L			04/10/20 12:34	1
Methyl tert-butyl ether	1.0	U	1.0	0.16	ug/L			04/10/20 12:34	1
Styrene	1.0	U	1.0	0.73	ug/L			04/10/20 12:34	1
1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.21	ug/L			04/10/20 12:34	1
Tetrachloroethene	1.0	U	1.0	0.36	ug/L			04/10/20 12:34	1
Toluene	1.0	U	1.0	0.51	ug/L			04/10/20 12:34	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.90	ug/L			04/10/20 12:34	1
trans-1,3-Dichloropropene	1.0	U	1.0	0.37	ug/L			04/10/20 12:34	1
1,2,4-Trichlorobenzene	1.0	U	1.0	0.41	ug/L			04/10/20 12:34	1
1,1,1-Trichloroethane	1.0	U	1.0	0.82	ug/L			04/10/20 12:34	1
1,1,2-Trichloroethane	1.0	U	1.0	0.23	ug/L			04/10/20 12:34	1
Trichloroethene	1.0	U	1.0	0.46	ug/L			04/10/20 12:34	1
Trichlorofluoromethane	1.0	U	1.0	0.88	ug/L			04/10/20 12:34	1
1,1,2-Trichloro-1,2,2-trifluoroethane	1.0	U	1.0	0.31	ug/L			04/10/20 12:34	1
Vinyl chloride	1.0	U	1.0	0.90	ug/L			04/10/20 12:34	1
Xylenes, Total	2.0	U	2.0	0.66	ug/L			04/10/20 12:34	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	98		73 - 120		04/10/20 12:34	1
Dibromofluoromethane (Surr)	106		75 - 123		04/10/20 12:34	1
1,2-Dichloroethane-d4 (Surr)	106		77 - 120		04/10/20 12:34	1
Toluene-d8 (Surr)	104		80 - 120		04/10/20 12:34	1

Client Sample ID: DUP-1

Lab Sample ID: 480-168373-22

Date Collected: 04/08/20 10:00

Matrix: Water

Date Received: 04/09/20 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			04/13/20 17:08	20
Benzene	11	J	20	8.2	ug/L			04/13/20 17:08	20
Bromodichloromethane	20	U	20	7.8	ug/L			04/13/20 17:08	20
Bromoform	20	U	20	5.2	ug/L			04/13/20 17:08	20
Bromomethane	20	U	20	14	ug/L			04/13/20 17:08	20
2-Butanone (MEK)	200	U	200	26	ug/L			04/13/20 17:08	20
Carbon disulfide	20	U	20	3.8	ug/L			04/13/20 17:08	20
Carbon tetrachloride	20	U	20	5.4	ug/L			04/13/20 17:08	20
Chlorobenzene	20	U	20	15	ug/L			04/13/20 17:08	20

Eurofins TestAmerica, Buffalo

Client Sample Results

Client: Ashland LLC
Project/Site: Ashland Rensselaer

Job ID: 480-168373-1

Client Sample ID: DUP-1

Lab Sample ID: 480-168373-22

Date Collected: 04/08/20 10:00

Matrix: Water

Date Received: 04/09/20 08:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloroethane	90		20	6.4	ug/L			04/13/20 17:08	20
Chloroform	20	U	20	6.8	ug/L			04/13/20 17:08	20
Chloromethane	20	U	20	7.0	ug/L			04/13/20 17:08	20
cis-1,2-Dichloroethene	1300		20	16	ug/L			04/13/20 17:08	20
cis-1,3-Dichloropropene	20	U	20	7.2	ug/L			04/13/20 17:08	20
Cyclohexane	20	U	20	3.6	ug/L			04/13/20 17:08	20
Dibromochloromethane	20	U	20	6.4	ug/L			04/13/20 17:08	20
1,2-Dibromo-3-Chloropropane	20	U	20	7.8	ug/L			04/13/20 17:08	20
1,2-Dibromoethane	20	U	20	15	ug/L			04/13/20 17:08	20
1,2-Dichlorobenzene	20	U	20	16	ug/L			04/13/20 17:08	20
1,3-Dichlorobenzene	20	U	20	16	ug/L			04/13/20 17:08	20
1,4-Dichlorobenzene	20	U	20	17	ug/L			04/13/20 17:08	20
Dichlorodifluoromethane	20	U	20	14	ug/L			04/13/20 17:08	20
1,1-Dichloroethane	36		20	7.6	ug/L			04/13/20 17:08	20
1,2-Dichloroethane	20	U	20	4.2	ug/L			04/13/20 17:08	20
1,1-Dichloroethene	20	U	20	5.8	ug/L			04/13/20 17:08	20
1,2-Dichloropropane	20	U	20	14	ug/L			04/13/20 17:08	20
Ethylbenzene	20	U	20	15	ug/L			04/13/20 17:08	20
2-Hexanone	100	U	100	25	ug/L			04/13/20 17:08	20
Isopropylbenzene	20	U	20	16	ug/L			04/13/20 17:08	20
Methyl acetate	50	U	50	26	ug/L			04/13/20 17:08	20
Methylcyclohexane	20	U	20	3.2	ug/L			04/13/20 17:08	20
Methylene Chloride	20	U	20	8.8	ug/L			04/13/20 17:08	20
4-Methyl-2-pentanone (MIBK)	100	U	100	42	ug/L			04/13/20 17:08	20
Methyl tert-butyl ether	20	U	20	3.2	ug/L			04/13/20 17:08	20
Styrene	20	U	20	15	ug/L			04/13/20 17:08	20
1,1,2,2-Tetrachloroethane	20	U	20	4.2	ug/L			04/13/20 17:08	20
Tetrachloroethene	9.4 J		20	7.2	ug/L			04/13/20 17:08	20
Toluene	20	U	20	10	ug/L			04/13/20 17:08	20
trans-1,2-Dichloroethene	20	U	20	18	ug/L			04/13/20 17:08	20
trans-1,3-Dichloropropene	20	U	20	7.4	ug/L			04/13/20 17:08	20
1,2,4-Trichlorobenzene	20	U	20	8.2	ug/L			04/13/20 17:08	20
1,1,1-Trichloroethane	20	U	20	16	ug/L			04/13/20 17:08	20
1,1,2-Trichloroethane	20	U	20	4.6	ug/L			04/13/20 17:08	20
Trichloroethene	45		20	9.2	ug/L			04/13/20 17:08	20
Trichlorofluoromethane	20	U	20	18	ug/L			04/13/20 17:08	20
1,1,2-Trichloro-1,2,2-trifluoroethane	650		20	6.2	ug/L			04/13/20 17:08	20
Vinyl chloride	500		20	18	ug/L			04/13/20 17:08	20
Xylenes, Total	40	U	40	13	ug/L			04/13/20 17:08	20

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	100		73 - 120		04/13/20 17:08	20
Dibromofluoromethane (Surr)	113		75 - 123		04/13/20 17:08	20
1,2-Dichloroethane-d4 (Surr)	107		77 - 120		04/13/20 17:08	20
Toluene-d8 (Surr)	104		80 - 120		04/13/20 17:08	20

Method: RSK-175 - Dissolved Gases (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethane	220 J		660	130	ug/L			04/09/20 21:43	88

Eurofins TestAmerica, Buffalo

Client Sample Results

Client: Ashland LLC
Project/Site: Ashland Rensselaer

Job ID: 480-168373-1

Client Sample ID: DUP-1

Lab Sample ID: 480-168373-22

Date Collected: 04/08/20 10:00

Matrix: Water

Date Received: 04/09/20 08:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethene	260	J	620	130	ug/L			04/09/20 21:43	88
Methane	6700		350	88	ug/L			04/09/20 21:43	88

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
TOC Result 1	6.5		1.0	0.43	mg/L			04/10/20 15:15	1
TOC Result 2	6.4		1.0	0.43	mg/L			04/10/20 15:15	1
Total Organic Carbon	6.5		1.0	0.43	mg/L			04/10/20 15:15	1

DATA VALIDATION CHECKLIST**Ashland Rensselaer**

Sample Team:	ARCADIS
Sample Matrix:	Water
Lab Project Manager:	Eddie Barnett
SDG Numbers:	480-178168-1
Analyses:	VOCs – 8260C, Dissolved gases – RSK 175 and TOC -9060A
QA Reporting Level:	ARCADIS, Level II
ARCADIS Project Manager:	Colin Melson

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

Environmental
Project: Ashland
Project Number: 30059657.00004

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 ID	Sample Date	Parent Sample
MW-A1-11112020	480-178168-1	11/11/2020	
MW-13-11112020	480-178168-2	11/11/2020	
MW-25-11112020	480-178168-3	11/11/2020	
FB-1-11112020	480-178168-4	11/11/2020	
MW-19-1112020	480-178168-5	11/12/2020	
DUP-1-1112020	480-178168-6	11/12/2020	MW-19-1112020
MW-21-1112020	480-178168-7	11/11/2020	
MW-16-1112020	480-178168-8	11/11/2020	
IP-1-1112020	480-178168-9	11/12/2020	
MW-20-1112020	480-178168-10	11/12/2020	
MW-15-1112020	480-178168-11	11/12/2020	
IW-A2-1112020	480-178168-12	11/12/2020	
IMP-3-11122020	480-178168-13	11/12/2020	
MW-18-11122020	480-178168-14	11/12/2020	
MW-17-11122020	480-178168-15	11/12/2020	
MW-B1-11122020	480-178168-16	11/12/2020	
MW-23-11122020	480-178168-17	11/12/2020	
MW-24-11132020	480-178168-18	11/13/2020	
IW-B3-11132020	480-178168-19	11/13/2020	
FB-2-11122020	480-178168-20	11/12/2020	
FB-3-11132020	480-178168-21	11/13/2020	
TB-1-11132020	480-178168-22	11/13/2020	
TB-2-11122020	480-178168-23	11/12/2020	

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.

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.

4. The LCS recovery for compound 2-butanone was greater than the control limit in analysis batch 559971. Compound was not detected in any of the associated samples hence no other qualification was required.
- 7-9. The MS/MSD analysis was performed on sample MW-19-1112020. The MS/MSD recoveries for the compounds bromoform, dibromochloromethane and vinyl chloride was less than the laboratory control limit. The compounds in the associated sample were qualified as estimated (J/UJ).

The MS/MSD RPD for compound bromomethane was greater than the control limit in sample MW-19-1112020. The compound in the associated sample was qualified as estimated (UJ).
11. A field duplicate sample DUP-1-1112020 was collected from MW-19-1112020 and the RPDs were acceptable.

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	
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.

- 7-9. The MS/MSD analysis was performed on sample MW-19-1112020. The MS/MSD recoveries for the compound ethane and ethene were greater than the laboratory control limit. The compounds in the associated sample were qualified as estimated (J).
- 11. A field duplicate sample DUP-1-1112020 was collected from MW-19-1112020 and the RPDs were acceptable.

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.

- 7-9. The MS/MSD analysis was performed on samples MW-19-1112020, MW-20-1112020 and IW-B3-11132020. The MS/MSD recovery was within the control limit.
- 10. Samples IMP-3-11122020 and FB-2-11122020 were used as the laboratory duplicate for TOC-2, exhibited acceptable RPDs.
- 11. A field duplicate sample DUP-1-1112020 was collected from MW-19-1112020 and the RPDs 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.

Explanation/Notes:

Sample ID	Method	Parameter	Result	Units	Qualifier	Reason
MW-19-1112020	SW846 8260	Bromoform	U	ug/l	UJ	Low MS/MSD recovery
		Bromomethane	U	ug/l	UJ	Low MS/MSD RPD
		Dibromochloromethane	U	ug/l	UJ	Low MS/MSD recovery
		Vinyl chloride	130	ug/l	J	
	RSK-175	Ethane	270	ug/l	J	High MS/MSD recovery
		Ethene	1300	ug/l	J	

VALIDATION PERFORMED BY: Bhagyashree Fulzele

SIGNATURE: 

DATE: December 11, 2020

PEER REVIEW: Dennis Capria

DATE: December 17, 2020

Albany

Chain of Custody Record 494537

Environment Testing
TestAmerica

Address: #224

Regulatory Program: ☐ DW ☐ NPDES ☐ RCRA ☐ Other:

TAL-8210

Client Contact		Project Manager: <u>Joe Zaso</u>		Site Contact: <u>Felix Congo</u>		Date: <u>11/13/2020</u>		COC No:			
Company Name: <u>ARCADIS</u>		Tel/Email:		Lab Contact:		Carrier:		1 of 2 COCs			
Address: <u>855 RTE 146 STE 210</u>		Analysis Turnaround Time		Filtered Sample (Y/N) Perform MS / MSD (Y/N) <u>VOCs 8260C</u> <u>TOCs 9060</u> <u>RSK 175</u> <u>MS/MSD</u>				Sampler:			
City/State/Zip: <u>CLIFTON PARK, NY 12065</u>		☒ CALENDAR DAYS ☐ WORKING DAYS						For Lab Use Only:			
Phone: <u>518-250-7300</u>		TAT if different from Below <u>Standard</u>						Walk-in Client:			
Fax:		☐ 2 weeks						Lab Sampling:			
Project Name: <u>Ashland Refuse/Incinerator</u>		☐ 1 week						Job / SDG No.:			
Site:		☐ 2 days									
PO# <u>30059651</u>		☐ 1 day									
Sample Identification		Sample Date	Sample Time	Sample Type (C=Comp, G=Grab)	Matrix	# of Cont.	Sample Specific Notes:				
MW-A1-11112020		11/11/20	1425	Grab	GW	8	N	N	X	X	
MW-13-11112020		11/11/20	1153	Grab	GW	5	N	N	X	X	
MW-25-11112020		11/11/20	1303	Grab	GW	8	N	N	X	X	
FB-1-11112020		11/11/20	1600	Grab	FB	7	N	N	X	X	
MW-19-11122020		11/12/20	0850	Grab	GW	24	N	N	X	X	X
Dup-1-111220		11/12/20	800	Grab	GW	8	N	N	X	X	
MW-21-11122020		11/11/20	1410	Grab	GW	5	N	N	X	X	
MW-16-11122020		11/11/20	1535	Grab	GW	5	N	N	X	X	
IP-1-11122020		11/12/20	0905	Grab	GW	8	N	N	X	X	X
MW-20-11122020		11/12/20	1120	Grab	GW	8	N	N	X	X	X
MW-15-11122020		11/12/20	1030	Grab	GW	3	N	N	X		
IW-A2-11122020		11/12/20	1225	Grab	GW	5	N	N	X	X	
Preservation Used: 1= Ice, 2= HCl; 3= H2SO4; 4= HNO3; 5= NaOH; 6= Other											
Possible Hazard Identification:						Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)					
Are any samples from a listed EPA Hazardous Waste? Please List any EPA Waste Codes for the sample in the Comments Section if the lab is to dispose of the sample.						☐ Return to Client ☐ Disposal by Lab ☒ Archive for <u>Standard</u> Months					
☒ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown											
Special Instructions/QC Requirements & Comments:											
2.6 2.6 2.8 3.0 ICE #1											
Custody Seals Intact: ☐ Yes ☐ No		Custody Seal No.:		Cooler Temp. (°C): Obs'd: _____		Corr'd: _____		Therm ID No.:			
Relinquished by: <u>[Signature]</u>		Company: <u>ARCADIS</u>		Date/Time: <u>11/13/20 1235</u>		Received by: <u>[Signature]</u>		Company: <u>FETA</u>		Date/Time: <u>11-13-2020 1235</u>	
Relinquished by: <u>[Signature]</u>		Company: <u>FETA</u>		Date/Time: <u>11-13-2020 1700</u>		Received by: <u>[Signature]</u>		Company: <u>TAB</u>		Date/Time: <u>11-14-20 800</u>	
Relinquished by:		Company:		Date/Time:		Received in Laboratory by:		Company:		Date/Time:	



480-178168 Chain of Custody

Address: Albany #224

Regulatory Program: ☐ DW ☐ NPDES ☐ RCRA ☐ Other:

TAL-8210

Client Contact		Project Manager: Joe Zaso		Site Contact: Felix Longo		Date: 11/13/2020		COC No:			
Company Name: Arcadis		Tel/Email:		Lab Contact:		Carrier:		2 of 2 COCs			
Address: 855 RTE 146 STE 210		Analysis Turnaround Time ☒ CALENDAR DAYS ☐ WORKING DAYS TAT if different from Below: Standard ☐ 2 weeks ☐ 1 week ☐ 2 days ☐ 1 day		Filtered Sample (Y/N) Perform MS / MSD (Y/N) VOC 82606 TOL 4060 RSK 175				Sampler:			
City/State/Zip: Clifton Park NY 12065								For Lab Use Only:			
Phone: 518-250-7300								Walk-in Client:			
Fax:								Lab Sampling:			
Project Name: Ashland Rensselaer								Job / SDG No.:			
Site:											
P O # 30059651											
Sample Identification		Sample Date	Sample Time	Sample Type (C=Comp, G=Grab)	Matrix	# of Cont.	Sample Specific Notes:				
IMP-3-11122020		11/12/20	0945	G	GW	5	N	N	X	X	
~~HP-1-11122020~~		~~11/12/20~~	~~0905~~	~~G~~	~~GW~~	~~8~~	~~N~~	~~N~~	~~X~~	~~X~~	
MW-18-11122020		11/12/20	1355	G	GW	8	N	N	X	X	
MW-17-11122020		11/12/20	1510	G	GW	5	N	N	X	X	
MW-B1-11122020		11/12/20	1415	G	GW	8	N	N	X	X	
MW-23-11122020		11/12/20	1530	G	GW	8	N	N	X	X	
MW-24-11132020		11/13/20	0910	G	GW	8	N	N	X	X	
IW-B3-11132020		11/13/20	0730	G	GW	5	N	N	X	X	
FB-2-11122020		11/12/20	1610	G	FB	8	N	N	X	X	
FB-3-11132020		11/13/20	1030	G	FB	8	N	N	X	X	
TB-1-11132020		11/13/20	—	G	TB	2	N	N	X		
TB-2-11122020		11/12/20	—	G	TB	2	N	N	X		
Preservation Used: 1= Ice, 2= HCl; 3= H2SO4; 4= HNO3; 5= NaOH; 6= Other											
Possible Hazard Identification: Are any samples from a listed EPA Hazardous Waste? Please List any EPA Waste Codes for the sample in the Comments Section if the lab is to dispose of the sample.							Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)				
☒ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown							☐ Return to Client ☐ Disposal by Lab ☒ Archive for Standard Months				
Special Instructions/QC Requirements & Comments:											
Custody Seals Intact: ☐ Yes ☐ No		Custody Seal No.:		Cooler Temp. (°C): Obs'd: _____		Corr'd: _____		Therm ID No.:			
Relinquished by: [Signature]		Company: Arcadis		Date/Time: 12/13/2013		Received by: [Signature]		Company: EETA		Date/Time: 11-13-2020 1235	
Relinquished by: [Signature]		Company: EETA		Date/Time: 11-13-2020		Received by: [Signature]		Company:		Date/Time:	
Relinquished by:		Company:		Date/Time:		Received in Laboratory by:		Company:		Date/Time:	

Client Sample Results

Client: Ashland LLC
Project/Site: Ashland Rensselaer

Job ID: 480-178168-1

Client Sample ID: MW-A1-11112020

Lab Sample ID: 480-178168-1

Date Collected: 11/11/20 14:25

Matrix: Water

Date Received: 11/14/20 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			11/17/20 12:51	2
Benzene	2.8		2.0	0.82	ug/L			11/17/20 12:51	2
Bromodichloromethane	2.0	U	2.0	0.78	ug/L			11/17/20 12:51	2
Bromoform	2.0	U	2.0	0.52	ug/L			11/17/20 12:51	2
Bromomethane	2.0	U	2.0	1.4	ug/L			11/17/20 12:51	2
2-Butanone (MEK)	20	U	20	2.6	ug/L			11/17/20 12:51	2
Carbon disulfide	2.0	U	2.0	0.38	ug/L			11/17/20 12:51	2
Carbon tetrachloride	2.0	U	2.0	0.54	ug/L			11/17/20 12:51	2
Chlorobenzene	1.7 J		2.0	1.5	ug/L			11/17/20 12:51	2
Chloroethane	2.0	U	2.0	0.64	ug/L			11/17/20 12:51	2
Chloroform	2.0	U	2.0	0.68	ug/L			11/17/20 12:51	2
Chloromethane	2.0	U	2.0	0.70	ug/L			11/17/20 12:51	2
cis-1,2-Dichloroethene	2.0	U	2.0	1.6	ug/L			11/17/20 12:51	2
cis-1,3-Dichloropropene	2.0	U	2.0	0.72	ug/L			11/17/20 12:51	2
Cyclohexane	2.0	U	2.0	0.36	ug/L			11/17/20 12:51	2
Dibromochloromethane	2.0	U	2.0	0.64	ug/L			11/17/20 12:51	2
1,2-Dibromo-3-Chloropropane	2.0	U	2.0	0.78	ug/L			11/17/20 12:51	2
1,2-Dibromoethane	2.0	U	2.0	1.5	ug/L			11/17/20 12:51	2
1,2-Dichlorobenzene	2.0	U	2.0	1.6	ug/L			11/17/20 12:51	2
1,3-Dichlorobenzene	2.0	U	2.0	1.6	ug/L			11/17/20 12:51	2
1,4-Dichlorobenzene	2.0	U	2.0	1.7	ug/L			11/17/20 12:51	2
Dichlorodifluoromethane	2.0	U	2.0	1.4	ug/L			11/17/20 12:51	2
1,1-Dichloroethane	2.7		2.0	0.76	ug/L			11/17/20 12:51	2
1,2-Dichloroethane	2.0	U	2.0	0.42	ug/L			11/17/20 12:51	2
1,1-Dichloroethene	2.0	U	2.0	0.58	ug/L			11/17/20 12:51	2
1,2-Dichloropropane	2.0	U	2.0	1.4	ug/L			11/17/20 12:51	2
Ethylbenzene	2.0	U	2.0	1.5	ug/L			11/17/20 12:51	2
2-Hexanone	10	U	10	2.5	ug/L			11/17/20 12:51	2
Isopropylbenzene	2.0	U	2.0	1.6	ug/L			11/17/20 12:51	2
Methyl acetate	5.0	U	5.0	2.6	ug/L			11/17/20 12:51	2
Methylcyclohexane	2.0	U	2.0	0.32	ug/L			11/17/20 12:51	2
Methylene Chloride	2.0	U	2.0	0.88	ug/L			11/17/20 12:51	2
4-Methyl-2-pentanone (MIBK)	10	U	10	4.2	ug/L			11/17/20 12:51	2
Methyl tert-butyl ether	2.0	U	2.0	0.32	ug/L			11/17/20 12:51	2
Styrene	2.0	U	2.0	1.5	ug/L			11/17/20 12:51	2
1,1,2,2-Tetrachloroethane	2.0	U	2.0	0.42	ug/L			11/17/20 12:51	2
Tetrachloroethene	2.0	U	2.0	0.72	ug/L			11/17/20 12:51	2
Toluene	2.0	U	2.0	1.0	ug/L			11/17/20 12:51	2
trans-1,2-Dichloroethene	2.0	U	2.0	1.8	ug/L			11/17/20 12:51	2
trans-1,3-Dichloropropene	2.0	U	2.0	0.74	ug/L			11/17/20 12:51	2
1,2,4-Trichlorobenzene	2.0	U	2.0	0.82	ug/L			11/17/20 12:51	2
1,1,1-Trichloroethane	2.0	U	2.0	1.6	ug/L			11/17/20 12:51	2
1,1,2-Trichloroethane	2.0	U	2.0	0.46	ug/L			11/17/20 12:51	2
Trichloroethene	2.0	U	2.0	0.92	ug/L			11/17/20 12:51	2
Trichlorofluoromethane	2.0	U	2.0	1.8	ug/L			11/17/20 12:51	2
1,1,2-Trichloro-1,2,2-trifluoroethane	2.0	U	2.0	0.62	ug/L			11/17/20 12:51	2
Vinyl chloride	2.0	U	2.0	1.8	ug/L			11/17/20 12:51	2
Xylenes, Total	4.0	U	4.0	1.3	ug/L			11/17/20 12:51	2

Eurofins TestAmerica, Buffalo

Client Sample Results

Client: Ashland LLC
Project/Site: Ashland Rensselaer

Job ID: 480-178168-1

Client Sample ID: MW-A1-11112020

Lab Sample ID: 480-178168-1

Date Collected: 11/11/20 14:25

Matrix: Water

Date Received: 11/14/20 08:00

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	104		73 - 120		11/17/20 12:51	2
Dibromofluoromethane (Surr)	112		75 - 123		11/17/20 12:51	2
1,2-Dichloroethane-d4 (Surr)	104		77 - 120		11/17/20 12:51	2
Toluene-d8 (Surr)	96		80 - 120		11/17/20 12:51	2

Method: RSK-175 - Dissolved Gases (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethane	200		170	33	ug/L			11/18/20 18:13	22
Ethene	150	U	150	33	ug/L			11/18/20 18:13	22

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methane	8900		880	220	ug/L			11/19/20 01:11	220

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
TOC Result 1	14		1.0	0.43	mg/L			11/19/20 12:26	1
TOC Result 2	15		1.0	0.43	mg/L			11/19/20 12:26	1
Total Organic Carbon	15		1.0	0.43	mg/L			11/19/20 12:26	1

Client Sample ID: MW-13-11112020

Lab Sample ID: 480-178168-2

Date Collected: 11/11/20 11:53

Matrix: Water

Date Received: 11/14/20 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			11/17/20 13:14	1
Benzene	1.0	U	1.0	0.41	ug/L			11/17/20 13:14	1
Bromodichloromethane	1.0	U	1.0	0.39	ug/L			11/17/20 13:14	1
Bromoform	1.0	U	1.0	0.26	ug/L			11/17/20 13:14	1
Bromomethane	1.0	U	1.0	0.69	ug/L			11/17/20 13:14	1
2-Butanone (MEK)	10	U	10	1.3	ug/L			11/17/20 13:14	1
Carbon disulfide	1.0	U	1.0	0.19	ug/L			11/17/20 13:14	1
Carbon tetrachloride	1.0	U	1.0	0.27	ug/L			11/17/20 13:14	1
Chlorobenzene	1.0	U	1.0	0.75	ug/L			11/17/20 13:14	1
Chloroethane	1.0	U	1.0	0.32	ug/L			11/17/20 13:14	1
Chloroform	1.0	U	1.0	0.34	ug/L			11/17/20 13:14	1
Chloromethane	1.0	U	1.0	0.35	ug/L			11/17/20 13:14	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.81	ug/L			11/17/20 13:14	1
cis-1,3-Dichloropropene	1.0	U	1.0	0.36	ug/L			11/17/20 13:14	1
Cyclohexane	1.0	U	1.0	0.18	ug/L			11/17/20 13:14	1
Dibromochloromethane	1.0	U	1.0	0.32	ug/L			11/17/20 13:14	1
1,2-Dibromo-3-Chloropropane	1.0	U	1.0	0.39	ug/L			11/17/20 13:14	1
1,2-Dibromoethane	1.0	U	1.0	0.73	ug/L			11/17/20 13:14	1
1,2-Dichlorobenzene	1.0	U	1.0	0.79	ug/L			11/17/20 13:14	1
1,3-Dichlorobenzene	1.0	U	1.0	0.78	ug/L			11/17/20 13:14	1
1,4-Dichlorobenzene	1.0	U	1.0	0.84	ug/L			11/17/20 13:14	1
Dichlorodifluoromethane	1.0	U	1.0	0.68	ug/L			11/17/20 13:14	1
1,1-Dichloroethane	1.0	U	1.0	0.38	ug/L			11/17/20 13:14	1
1,2-Dichloroethane	1.0	U	1.0	0.21	ug/L			11/17/20 13:14	1
1,1-Dichloroethene	1.0	U	1.0	0.29	ug/L			11/17/20 13:14	1

Eurofins TestAmerica, Buffalo

Client Sample Results

Client: Ashland LLC
Project/Site: Ashland Rensselaer

Job ID: 480-178168-1

Client Sample ID: MW-13-11112020

Lab Sample ID: 480-178168-2

Date Collected: 11/11/20 11:53

Matrix: Water

Date Received: 11/14/20 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			11/17/20 13:14	1
Ethylbenzene	1.0	U	1.0	0.74	ug/L			11/17/20 13:14	1
2-Hexanone	5.0	U	5.0	1.2	ug/L			11/17/20 13:14	1
Isopropylbenzene	1.0	U	1.0	0.79	ug/L			11/17/20 13:14	1
Methyl acetate	2.5	U	2.5	1.3	ug/L			11/17/20 13:14	1
Methylcyclohexane	1.0	U	1.0	0.16	ug/L			11/17/20 13:14	1
Methylene Chloride	1.0	U	1.0	0.44	ug/L			11/17/20 13:14	1
4-Methyl-2-pentanone (MIBK)	5.0	U	5.0	2.1	ug/L			11/17/20 13:14	1
Methyl tert-butyl ether	1.0	U	1.0	0.16	ug/L			11/17/20 13:14	1
Styrene	1.0	U	1.0	0.73	ug/L			11/17/20 13:14	1
1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.21	ug/L			11/17/20 13:14	1
Tetrachloroethene	1.0	U	1.0	0.36	ug/L			11/17/20 13:14	1
Toluene	1.0	U	1.0	0.51	ug/L			11/17/20 13:14	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.90	ug/L			11/17/20 13:14	1
trans-1,3-Dichloropropene	1.0	U	1.0	0.37	ug/L			11/17/20 13:14	1
1,2,4-Trichlorobenzene	1.0	U	1.0	0.41	ug/L			11/17/20 13:14	1
1,1,1-Trichloroethane	1.0	U	1.0	0.82	ug/L			11/17/20 13:14	1
1,1,2-Trichloroethane	1.0	U	1.0	0.23	ug/L			11/17/20 13:14	1
Trichloroethene	1.0	U	1.0	0.46	ug/L			11/17/20 13:14	1
Trichlorofluoromethane	1.0	U	1.0	0.88	ug/L			11/17/20 13:14	1
1,1,2-Trichloro-1,2,2-trifluoroethane	1.0	U	1.0	0.31	ug/L			11/17/20 13:14	1
Vinyl chloride	1.0	U	1.0	0.90	ug/L			11/17/20 13:14	1
Xylenes, Total	2.0	U	2.0	0.66	ug/L			11/17/20 13:14	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	112		73 - 120		11/17/20 13:14	1
Dibromofluoromethane (Surr)	110		75 - 123		11/17/20 13:14	1
1,2-Dichloroethane-d4 (Surr)	106		77 - 120		11/17/20 13:14	1
Toluene-d8 (Surr)	99		80 - 120		11/17/20 13:14	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
TOC Result 1	0.44	J	1.0	0.43	mg/L			11/19/20 12:54	1
TOC Result 2	1.0	U	1.0	0.43	mg/L			11/19/20 12:54	1
Total Organic Carbon	1.0	U	1.0	0.43	mg/L			11/19/20 12:54	1

Client Sample ID: MW-25-11112020

Lab Sample ID: 480-178168-3

Date Collected: 11/11/20 13:03

Matrix: Water

Date Received: 11/14/20 08:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	500	U	500	150	ug/L			11/17/20 13:38	50
Benzene	50	U	50	21	ug/L			11/17/20 13:38	50
Bromodichloromethane	50	U	50	20	ug/L			11/17/20 13:38	50
Bromoform	50	U	50	13	ug/L			11/17/20 13:38	50
Bromomethane	50	U	50	35	ug/L			11/17/20 13:38	50
2-Butanone (MEK)	500	U	500	66	ug/L			11/17/20 13:38	50
Carbon disulfide	50	U	50	9.5	ug/L			11/17/20 13:38	50
Carbon tetrachloride	50	U	50	14	ug/L			11/17/20 13:38	50

Eurofins TestAmerica, Buffalo

Client Sample Results

Client: Ashland LLC
Project/Site: Ashland Rensselaer

Job ID: 480-178168-1

Client Sample ID: MW-25-11112020

Lab Sample ID: 480-178168-3

Date Collected: 11/11/20 13:03

Matrix: Water

Date Received: 11/14/20 08:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chlorobenzene	50	U	50	38	ug/L			11/17/20 13:38	50
Chloroethane	50	U	50	16	ug/L			11/17/20 13:38	50
Chloroform	50	U	50	17	ug/L			11/17/20 13:38	50
Chloromethane	50	U	50	18	ug/L			11/17/20 13:38	50
~~cis-1,2-Dichloroethene~~	~~11000~~	~~E~~	~~50~~	~~41~~	~~ug/L~~			~~11/17/20 13:38~~	~~50~~
cis-1,3-Dichloropropene	50	U	50	18	ug/L			11/17/20 13:38	50
Cyclohexane	50	U	50	9.0	ug/L			11/17/20 13:38	50
Dibromochloromethane	50	U	50	16	ug/L			11/17/20 13:38	50
1,2-Dibromo-3-Chloropropane	50	U	50	20	ug/L			11/17/20 13:38	50
1,2-Dibromoethane	50	U	50	37	ug/L			11/17/20 13:38	50
1,2-Dichlorobenzene	50	U	50	40	ug/L			11/17/20 13:38	50
1,3-Dichlorobenzene	50	U	50	39	ug/L			11/17/20 13:38	50
1,4-Dichlorobenzene	50	U	50	42	ug/L			11/17/20 13:38	50
Dichlorodifluoromethane	50	U	50	34	ug/L			11/17/20 13:38	50
1,1-Dichloroethane	50	U	50	19	ug/L			11/17/20 13:38	50
1,2-Dichloroethane	50	U	50	11	ug/L			11/17/20 13:38	50
1,1-Dichloroethene	50	U	50	15	ug/L			11/17/20 13:38	50
1,2-Dichloropropane	50	U	50	36	ug/L			11/17/20 13:38	50
Ethylbenzene	50	U	50	37	ug/L			11/17/20 13:38	50
2-Hexanone	250	U	250	62	ug/L			11/17/20 13:38	50
Isopropylbenzene	50	U	50	40	ug/L			11/17/20 13:38	50
Methyl acetate	130	U	130	65	ug/L			11/17/20 13:38	50
Methylcyclohexane	50	U	50	8.0	ug/L			11/17/20 13:38	50
Methylene Chloride	50	U	50	22	ug/L			11/17/20 13:38	50
4-Methyl-2-pentanone (MIBK)	250	U	250	110	ug/L			11/17/20 13:38	50
Methyl tert-butyl ether	50	U	50	8.0	ug/L			11/17/20 13:38	50
Styrene	50	U	50	37	ug/L			11/17/20 13:38	50
1,1,2,2-Tetrachloroethane	50	U	50	11	ug/L			11/17/20 13:38	50
Tetrachloroethene	35	J	50	18	ug/L			11/17/20 13:38	50
Toluene	50	U	50	26	ug/L			11/17/20 13:38	50
trans-1,2-Dichloroethene	57		50	45	ug/L			11/17/20 13:38	50
trans-1,3-Dichloropropene	50	U	50	19	ug/L			11/17/20 13:38	50
1,2,4-Trichlorobenzene	50	U	50	21	ug/L			11/17/20 13:38	50
1,1,1-Trichloroethane	50	U	50	41	ug/L			11/17/20 13:38	50
1,1,2-Trichloroethane	50	U	50	12	ug/L			11/17/20 13:38	50
Trichloroethene	50	U	50	23	ug/L			11/17/20 13:38	50
Trichlorofluoromethane	50	U	50	44	ug/L			11/17/20 13:38	50
1,1,2-Trichloro-1,2,2-trifluoroethane	50	U	50	16	ug/L			11/17/20 13:38	50
Vinyl chloride	570		50	45	ug/L			11/17/20 13:38	50
Xylenes, Total	100	U	100	33	ug/L			11/17/20 13:38	50

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	105		73 - 120		11/17/20 13:38	50
Dibromofluoromethane (Surr)	109		75 - 123		11/17/20 13:38	50
1,2-Dichloroethane-d4 (Surr)	104		77 - 120		11/17/20 13:38	50
Toluene-d8 (Surr)	92		80 - 120		11/17/20 13:38	50

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	2000	U	2000	600	ug/L			11/19/20 15:12	200

Eurofins TestAmerica, Buffalo

Client Sample Results

Client: Ashland LLC
Project/Site: Ashland Rensselaer

Job ID: 480-178168-1

Client Sample ID: MW-25-11112020

Lab Sample ID: 480-178168-3

Date Collected: 11/11/20 13:03

Matrix: Water

Date Received: 11/14/20 08:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	200	U	200	82	ug/L			11/19/20 15:12	200
Bromodichloromethane	200	U	200	78	ug/L			11/19/20 15:12	200
Bromoform	200	U	200	52	ug/L			11/19/20 15:12	200
Bromomethane	200	U	200	140	ug/L			11/19/20 15:12	200
2-Butanone (MEK)	2000	J	2000	260	ug/L			11/19/20 15:12	200
Carbon disulfide	200	U	200	38	ug/L			11/19/20 15:12	200
Carbon tetrachloride	200	U	200	54	ug/L			11/19/20 15:12	200
Chlorobenzene	200	U	200	150	ug/L			11/19/20 15:12	200
Chloroethane	200	U	200	64	ug/L			11/19/20 15:12	200
Chloroform	200	U	200	68	ug/L			11/19/20 15:12	200
Chloromethane	200	U	200	70	ug/L			11/19/20 15:12	200
cis-1,2-Dichloroethene	12000		200	160	ug/L			11/19/20 15:12	200
cis-1,3-Dichloropropene	200	U	200	72	ug/L			11/19/20 15:12	200
Cyclohexane	200	U	200	36	ug/L			11/19/20 15:12	200
Dibromochloromethane	200	U	200	64	ug/L			11/19/20 15:12	200
1,2-Dibromo-3-Chloropropane	200	U	200	78	ug/L			11/19/20 15:12	200
1,2-Dibromoethane	200	U	200	150	ug/L			11/19/20 15:12	200
1,2-Dichlorobenzene	200	U	200	160	ug/L			11/19/20 15:12	200
1,3-Dichlorobenzene	200	U	200	160	ug/L			11/19/20 15:12	200
1,4-Dichlorobenzene	200	U	200	170	ug/L			11/19/20 15:12	200
Dichlorodifluoromethane	200	U	200	140	ug/L			11/19/20 15:12	200
1,1-Dichloroethane	200	U	200	76	ug/L			11/19/20 15:12	200
1,2-Dichloroethane	200	U	200	42	ug/L			11/19/20 15:12	200
1,1-Dichloroethene	200	U	200	58	ug/L			11/19/20 15:12	200
1,2-Dichloropropane	200	U	200	140	ug/L			11/19/20 15:12	200
Ethylbenzene	200	U	200	150	ug/L			11/19/20 15:12	200
2-Hexanone	1000	U	1000	250	ug/L			11/19/20 15:12	200
Isopropylbenzene	200	U	200	160	ug/L			11/19/20 15:12	200
Methyl acetate	500	U	500	260	ug/L			11/19/20 15:12	200
Methylcyclohexane	200	U	200	32	ug/L			11/19/20 15:12	200
Methylene Chloride	160	J	200	88	ug/L			11/19/20 15:12	200
4-Methyl-2-pentanone (MIBK)	1000	U	1000	420	ug/L			11/19/20 15:12	200
Methyl tert-butyl ether	200	U	200	32	ug/L			11/19/20 15:12	200
Styrene	200	U	200	150	ug/L			11/19/20 15:12	200
1,1,2,2-Tetrachloroethane	200	U	200	42	ug/L			11/19/20 15:12	200
Tetrachloroethene	200	U	200	72	ug/L			11/19/20 15:12	200
Toluene	200	U	200	100	ug/L			11/19/20 15:12	200
trans-1,2-Dichloroethene	200	U	200	180	ug/L			11/19/20 15:12	200
trans-1,3-Dichloropropene	200	U	200	74	ug/L			11/19/20 15:12	200
1,2,4-Trichlorobenzene	200	U	200	82	ug/L			11/19/20 15:12	200
1,1,1-Trichloroethane	200	U	200	160	ug/L			11/19/20 15:12	200
1,1,2-Trichloroethane	200	U	200	46	ug/L			11/19/20 15:12	200
Trichloroethene	200	U	200	92	ug/L			11/19/20 15:12	200
Trichlorofluoromethane	200	U	200	180	ug/L			11/19/20 15:12	200
1,1,2-Trichloro-1,2,2-trifluoroethane	200	U	200	62	ug/L			11/19/20 15:12	200
Vinyl chloride	780		200	180	ug/L			11/19/20 15:12	200
Xylenes, Total	400	U	400	130	ug/L			11/19/20 15:12	200

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	97		73 - 120		11/19/20 15:12	200

Eurofins TestAmerica, Buffalo

Client Sample Results

Client: Ashland LLC
Project/Site: Ashland Rensselaer

Job ID: 480-178168-1

Client Sample ID: MW-25-11112020

Lab Sample ID: 480-178168-3

Date Collected: 11/11/20 13:03

Matrix: Water

Date Received: 11/14/20 08:00

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

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Dibromofluoromethane (Surr)	99		75 - 123		11/19/20 15:12	200
1,2-Dichloroethane-d4 (Surr)	99		77 - 120		11/19/20 15:12	200
Toluene-d8 (Surr)	96		80 - 120		11/19/20 15:12	200

Method: RSK-175 - Dissolved Gases (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethane	230	J	330	66	ug/L			11/18/20 18:32	44
Ethene	310	U	310	66	ug/L			11/18/20 18:32	44
Methane	2400		180	44	ug/L			11/18/20 18:32	44

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
TOC Result 1	16		1.0	0.43	mg/L			11/19/20 13:21	1
TOC Result 2	16		1.0	0.43	mg/L			11/19/20 13:21	1
Total Organic Carbon	16		1.0	0.43	mg/L			11/19/20 13:21	1

Client Sample ID: FB-1-11112020

Lab Sample ID: 480-178168-4

Date Collected: 11/11/20 16:00

Matrix: Water

Date Received: 11/14/20 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			11/17/20 14:01	1
Benzene	1.0	U	1.0	0.41	ug/L			11/17/20 14:01	1
Bromodichloromethane	1.0	U	1.0	0.39	ug/L			11/17/20 14:01	1
Bromoform	1.0	U	1.0	0.26	ug/L			11/17/20 14:01	1
Bromomethane	1.0	U	1.0	0.69	ug/L			11/17/20 14:01	1
2-Butanone (MEK)	10	U	10	1.3	ug/L			11/17/20 14:01	1
Carbon disulfide	1.0	U	1.0	0.19	ug/L			11/17/20 14:01	1
Carbon tetrachloride	1.0	U	1.0	0.27	ug/L			11/17/20 14:01	1
Chlorobenzene	1.0	U	1.0	0.75	ug/L			11/17/20 14:01	1
Chloroethane	1.0	U	1.0	0.32	ug/L			11/17/20 14:01	1
Chloroform	1.0	U	1.0	0.34	ug/L			11/17/20 14:01	1
Chloromethane	1.0	U	1.0	0.35	ug/L			11/17/20 14:01	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.81	ug/L			11/17/20 14:01	1
cis-1,3-Dichloropropene	1.0	U	1.0	0.36	ug/L			11/17/20 14:01	1
Cyclohexane	1.0	U	1.0	0.18	ug/L			11/17/20 14:01	1
Dibromochloromethane	1.0	U	1.0	0.32	ug/L			11/17/20 14:01	1
1,2-Dibromo-3-Chloropropane	1.0	U	1.0	0.39	ug/L			11/17/20 14:01	1
1,2-Dibromoethane	1.0	U	1.0	0.73	ug/L			11/17/20 14:01	1
1,2-Dichlorobenzene	1.0	U	1.0	0.79	ug/L			11/17/20 14:01	1
1,3-Dichlorobenzene	1.0	U	1.0	0.78	ug/L			11/17/20 14:01	1
1,4-Dichlorobenzene	1.0	U	1.0	0.84	ug/L			11/17/20 14:01	1
Dichlorodifluoromethane	1.0	U	1.0	0.68	ug/L			11/17/20 14:01	1
1,1-Dichloroethane	1.0	U	1.0	0.38	ug/L			11/17/20 14:01	1
1,2-Dichloroethane	1.0	U	1.0	0.21	ug/L			11/17/20 14:01	1
1,1-Dichloroethene	1.0	U	1.0	0.29	ug/L			11/17/20 14:01	1
1,2-Dichloropropane	1.0	U	1.0	0.72	ug/L			11/17/20 14:01	1
Ethylbenzene	1.0	U	1.0	0.74	ug/L			11/17/20 14:01	1
2-Hexanone	5.0	U	5.0	1.2	ug/L			11/17/20 14:01	1

Eurofins TestAmerica, Buffalo

Client Sample Results

Client: Ashland LLC
Project/Site: Ashland Rensselaer

Job ID: 480-178168-1

Client Sample ID: FB-1-11112020

Lab Sample ID: 480-178168-4

Date Collected: 11/11/20 16:00

Matrix: Water

Date Received: 11/14/20 08:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Isopropylbenzene	1.0	U	1.0	0.79	ug/L			11/17/20 14:01	1
Methyl acetate	2.5	U	2.5	1.3	ug/L			11/17/20 14:01	1
Methylcyclohexane	1.0	U	1.0	0.16	ug/L			11/17/20 14:01	1
Methylene Chloride	1.0	U	1.0	0.44	ug/L			11/17/20 14:01	1
4-Methyl-2-pentanone (MIBK)	5.0	U	5.0	2.1	ug/L			11/17/20 14:01	1
Methyl tert-butyl ether	1.0	U	1.0	0.16	ug/L			11/17/20 14:01	1
Styrene	1.0	U	1.0	0.73	ug/L			11/17/20 14:01	1
1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.21	ug/L			11/17/20 14:01	1
Tetrachloroethene	1.0	U	1.0	0.36	ug/L			11/17/20 14:01	1
Toluene	1.0	U	1.0	0.51	ug/L			11/17/20 14:01	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.90	ug/L			11/17/20 14:01	1
trans-1,3-Dichloropropene	1.0	U	1.0	0.37	ug/L			11/17/20 14:01	1
1,2,4-Trichlorobenzene	1.0	U	1.0	0.41	ug/L			11/17/20 14:01	1
1,1,1-Trichloroethane	1.0	U	1.0	0.82	ug/L			11/17/20 14:01	1
1,1,2-Trichloroethane	1.0	U	1.0	0.23	ug/L			11/17/20 14:01	1
Trichloroethene	1.0	U	1.0	0.46	ug/L			11/17/20 14:01	1
Trichlorofluoromethane	1.0	U	1.0	0.88	ug/L			11/17/20 14:01	1
1,1,2-Trichloro-1,2,2-trifluoroethane	1.0	U	1.0	0.31	ug/L			11/17/20 14:01	1
Vinyl chloride	1.0	U	1.0	0.90	ug/L			11/17/20 14:01	1
Xylenes, Total	2.0	U	2.0	0.66	ug/L			11/17/20 14:01	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	104		73 - 120		11/17/20 14:01	1
Dibromofluoromethane (Surr)	103		75 - 123		11/17/20 14:01	1
1,2-Dichloroethane-d4 (Surr)	102		77 - 120		11/17/20 14:01	1
Toluene-d8 (Surr)	93		80 - 120		11/17/20 14:01	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			11/18/20 18:51	1
Ethene	7.0	U	7.0	1.5	ug/L			11/18/20 18:51	1
Methane	4.0	U	4.0	1.0	ug/L			11/18/20 18:51	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			11/19/20 13:49	1
TOC Result 2	1.0	U	1.0	0.43	mg/L			11/19/20 13:49	1
Total Organic Carbon	1.0	U	1.0	0.43	mg/L			11/19/20 13:49	1

Client Sample ID: MW-19-1112020

Lab Sample ID: 480-178168-5

Date Collected: 11/12/20 08:50

Matrix: Water

Date Received: 11/14/20 08:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	10	J	20	6.0	ug/L			11/19/20 15:37	2
Benzene	7.2		2.0	0.82	ug/L			11/19/20 15:37	2
Bromodichloromethane	2.0	U	2.0	0.78	ug/L			11/19/20 15:37	2
Bromoform	2.0	U-F1 UJ	2.0	0.52	ug/L			11/19/20 15:37	2
Bromomethane	2.0	U-F2 UJ	2.0	1.4	ug/L			11/19/20 15:37	2
2-Butanone (MEK)	20	U	20	2.6	ug/L			11/19/20 15:37	2

Eurofins TestAmerica, Buffalo

Client Sample Results

Client: Ashland LLC
Project/Site: Ashland Rensselaer

Job ID: 480-178168-1

Client Sample ID: MW-19-1112020

Lab Sample ID: 480-178168-5

Date Collected: 11/12/20 08:50

Matrix: Water

Date Received: 11/14/20 08:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Carbon disulfide	2.0	U	2.0	0.38	ug/L			11/19/20 15:37	2
Carbon tetrachloride	2.0	U	2.0	0.54	ug/L			11/19/20 15:37	2
Chlorobenzene	2.0	U	2.0	1.5	ug/L			11/19/20 15:37	2
Chloroethane	43		2.0	0.64	ug/L			11/19/20 15:37	2
Chloroform	1.5	J	2.0	0.68	ug/L			11/19/20 15:37	2
Chloromethane	2.0	U	2.0	0.70	ug/L			11/19/20 15:37	2
cis-1,2-Dichloroethene	70		2.0	1.6	ug/L			11/19/20 15:37	2
cis-1,3-Dichloropropene	2.0	U	2.0	0.72	ug/L			11/19/20 15:37	2
Cyclohexane	2.0	U	2.0	0.36	ug/L			11/19/20 15:37	2
Dibromochloromethane	2.0	U-F1 JJ	2.0	0.64	ug/L			11/19/20 15:37	2
1,2-Dibromo-3-Chloropropane	2.0	U	2.0	0.78	ug/L			11/19/20 15:37	2
1,2-Dibromoethane	2.0	U	2.0	1.5	ug/L			11/19/20 15:37	2
1,2-Dichlorobenzene	2.0	U	2.0	1.6	ug/L			11/19/20 15:37	2
1,3-Dichlorobenzene	2.0	U	2.0	1.6	ug/L			11/19/20 15:37	2
1,4-Dichlorobenzene	2.0	U	2.0	1.7	ug/L			11/19/20 15:37	2
Dichlorodifluoromethane	2.0	U	2.0	1.4	ug/L			11/19/20 15:37	2
1,1-Dichloroethane	28		2.0	0.76	ug/L			11/19/20 15:37	2
1,2-Dichloroethane	2.0	U	2.0	0.42	ug/L			11/19/20 15:37	2
1,1,1-Dichloroethene	2.0	U	2.0	0.58	ug/L			11/19/20 15:37	2
1,2-Dichloropropane	2.0	U	2.0	1.4	ug/L			11/19/20 15:37	2
Ethylbenzene	2.0	U	2.0	1.5	ug/L			11/19/20 15:37	2
2-Hexanone	10	U	10	2.5	ug/L			11/19/20 15:37	2
Isopropylbenzene	2.0	U	2.0	1.6	ug/L			11/19/20 15:37	2
Methyl acetate	5.0	U	5.0	2.6	ug/L			11/19/20 15:37	2
Methylcyclohexane	2.0	U	2.0	0.32	ug/L			11/19/20 15:37	2
Methylene Chloride	2.6		2.0	0.88	ug/L			11/19/20 15:37	2
4-Methyl-2-pentanone (MIBK)	10	U	10	4.2	ug/L			11/19/20 15:37	2
Methyl tert-butyl ether	2.0	U	2.0	0.32	ug/L			11/19/20 15:37	2
Styrene	2.0	U	2.0	1.5	ug/L			11/19/20 15:37	2
1,1,1,2-Tetrachloroethane	2.0	U	2.0	0.42	ug/L			11/19/20 15:37	2
Tetrachloroethene	2.0	U	2.0	0.72	ug/L			11/19/20 15:37	2
Toluene	2.4		2.0	1.0	ug/L			11/19/20 15:37	2
trans-1,2-Dichloroethene	6.7		2.0	1.8	ug/L			11/19/20 15:37	2
trans-1,3-Dichloropropene	2.0	U	2.0	0.74	ug/L			11/19/20 15:37	2
1,2,4-Trichlorobenzene	2.0	U	2.0	0.82	ug/L			11/19/20 15:37	2
1,1,1-Trichloroethane	2.0	U	2.0	1.6	ug/L			11/19/20 15:37	2
1,1,2-Trichloroethane	2.0	U	2.0	0.46	ug/L			11/19/20 15:37	2
Trichloroethene	2.0	U	2.0	0.92	ug/L			11/19/20 15:37	2
Trichlorofluoromethane	2.0	U	2.0	1.8	ug/L			11/19/20 15:37	2
1,1,2-Trichloro-1,2,2-trifluoroethane	2.0	U	2.0	0.62	ug/L			11/19/20 15:37	2
Vinyl chloride	130	F1 J	2.0	1.8	ug/L			11/19/20 15:37	2
Xylenes, Total	4.0	U	4.0	1.3	ug/L			11/19/20 15:37	2

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	91		73 - 120		11/19/20 15:37	2
Dibromofluoromethane (Surr)	98		75 - 123		11/19/20 15:37	2
1,2-Dichloroethane-d4 (Surr)	98		77 - 120		11/19/20 15:37	2
Toluene-d8 (Surr)	95		80 - 120		11/19/20 15:37	2

Eurofins TestAmerica, Buffalo

Client Sample Results

Client: Ashland LLC
Project/Site: Ashland Rensselaer

Job ID: 480-178168-1

Client Sample ID: MW-19-1112020

Lab Sample ID: 480-178168-5

Date Collected: 11/12/20 08:50

Matrix: Water

Date Received: 11/14/20 08:00

Method: RSK-175 - Dissolved Gases (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethane	270	F4 J	170	33	ug/L			11/18/20 16:08	22
Ethene	1300	F4 J	150	33	ug/L			11/18/20 16:08	22
Methane	4900		88	22	ug/L			11/18/20 16:08	22

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
TOC Result 1	35		1.0	0.43	mg/L			11/19/20 16:09	1
TOC Result 2	36		1.0	0.43	mg/L			11/19/20 16:09	1
Total Organic Carbon	36		1.0	0.43	mg/L			11/19/20 16:09	1

Client Sample ID: DUP-1-1112020

Lab Sample ID: 480-178168-6

Date Collected: 11/12/20 08:00

Matrix: Water

Date Received: 11/14/20 08:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	9.4	J	20	6.0	ug/L			11/19/20 16:02	2
Benzene	7.5		2.0	0.82	ug/L			11/19/20 16:02	2
Bromodichloromethane	2.0	U	2.0	0.78	ug/L			11/19/20 16:02	2
Bromoform	2.0	U	2.0	0.52	ug/L			11/19/20 16:02	2
Bromomethane	2.0	U	2.0	1.4	ug/L			11/19/20 16:02	2
2-Butanone (MEK)	20	U*	20	2.6	ug/L			11/19/20 16:02	2
Carbon disulfide	2.0	U	2.0	0.38	ug/L			11/19/20 16:02	2
Carbon tetrachloride	2.0	U	2.0	0.54	ug/L			11/19/20 16:02	2
Chlorobenzene	2.0	U	2.0	1.5	ug/L			11/19/20 16:02	2
Chloroethane	45		2.0	0.64	ug/L			11/19/20 16:02	2
Chloroform	1.5	J	2.0	0.68	ug/L			11/19/20 16:02	2
Chloromethane	2.0	U	2.0	0.70	ug/L			11/19/20 16:02	2
cis-1,2-Dichloroethene	78		2.0	1.6	ug/L			11/19/20 16:02	2
cis-1,3-Dichloropropene	2.0	U	2.0	0.72	ug/L			11/19/20 16:02	2
Cyclohexane	2.0	U	2.0	0.36	ug/L			11/19/20 16:02	2
Dibromochloromethane	2.0	U	2.0	0.64	ug/L			11/19/20 16:02	2
1,2-Dibromo-3-Chloropropane	2.0	U	2.0	0.78	ug/L			11/19/20 16:02	2
1,2-Dibromoethane	2.0	U	2.0	1.5	ug/L			11/19/20 16:02	2
1,2-Dichlorobenzene	2.0	U	2.0	1.6	ug/L			11/19/20 16:02	2
1,3-Dichlorobenzene	2.0	U	2.0	1.6	ug/L			11/19/20 16:02	2
1,4-Dichlorobenzene	2.0	U	2.0	1.7	ug/L			11/19/20 16:02	2
Dichlorodifluoromethane	2.0	U	2.0	1.4	ug/L			11/19/20 16:02	2
1,1-Dichloroethane	30		2.0	0.76	ug/L			11/19/20 16:02	2
1,2-Dichloroethane	2.0	U	2.0	0.42	ug/L			11/19/20 16:02	2
1,1-Dichloroethene	2.0	U	2.0	0.58	ug/L			11/19/20 16:02	2
1,2-Dichloropropane	2.0	U	2.0	1.4	ug/L			11/19/20 16:02	2
Ethylbenzene	2.0	U	2.0	1.5	ug/L			11/19/20 16:02	2
2-Hexanone	10	U	10	2.5	ug/L			11/19/20 16:02	2
Isopropylbenzene	2.0	U	2.0	1.6	ug/L			11/19/20 16:02	2
Methyl acetate	5.0	U	5.0	2.6	ug/L			11/19/20 16:02	2
Methylcyclohexane	2.0	U	2.0	0.32	ug/L			11/19/20 16:02	2
Methylene Chloride	2.4		2.0	0.88	ug/L			11/19/20 16:02	2
4-Methyl-2-pentanone (MIBK)	10	U	10	4.2	ug/L			11/19/20 16:02	2
Methyl tert-butyl ether	2.0	U	2.0	0.32	ug/L			11/19/20 16:02	2

Eurofins TestAmerica, Buffalo

Client Sample Results

Client: Ashland LLC
Project/Site: Ashland Rensselaer

Job ID: 480-178168-1

Client Sample ID: DUP-1-1112020

Lab Sample ID: 480-178168-6

Date Collected: 11/12/20 08:00

Matrix: Water

Date Received: 11/14/20 08:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Styrene	2.0	U	2.0	1.5	ug/L			11/19/20 16:02	2
1,1,2,2-Tetrachloroethane	2.0	U	2.0	0.42	ug/L			11/19/20 16:02	2
Tetrachloroethene	2.0	U	2.0	0.72	ug/L			11/19/20 16:02	2
Toluene	2.4		2.0	1.0	ug/L			11/19/20 16:02	2
trans-1,2-Dichloroethene	7.2		2.0	1.8	ug/L			11/19/20 16:02	2
trans-1,3-Dichloropropene	2.0	U	2.0	0.74	ug/L			11/19/20 16:02	2
1,2,4-Trichlorobenzene	2.0	U	2.0	0.82	ug/L			11/19/20 16:02	2
1,1,1-Trichloroethane	2.0	U	2.0	1.6	ug/L			11/19/20 16:02	2
1,1,2-Trichloroethane	2.0	U	2.0	0.46	ug/L			11/19/20 16:02	2
Trichloroethene	2.0	U	2.0	0.92	ug/L			11/19/20 16:02	2
Trichlorofluoromethane	2.0	U	2.0	1.8	ug/L			11/19/20 16:02	2
1,1,2-Trichloro-1,2,2-trifluoroethane	2.0	U	2.0	0.62	ug/L			11/19/20 16:02	2
Vinyl chloride	140		2.0	1.8	ug/L			11/19/20 16:02	2
Xylenes, Total	4.0	U	4.0	1.3	ug/L			11/19/20 16:02	2

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	97		73 - 120		11/19/20 16:02	2
Dibromofluoromethane (Surr)	99		75 - 123		11/19/20 16:02	2
1,2-Dichloroethane-d4 (Surr)	99		77 - 120		11/19/20 16:02	2
Toluene-d8 (Surr)	96		80 - 120		11/19/20 16:02	2

Method: RSK-175 - Dissolved Gases (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethane	170	J	330	66	ug/L			11/18/20 19:12	44
Ethene	1200		310	66	ug/L			11/18/20 19:12	44
Methane	4600		180	44	ug/L			11/18/20 19:12	44

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
TOC Result 1	36		1.0	0.43	mg/L			11/19/20 17:31	1
TOC Result 2	36		1.0	0.43	mg/L			11/19/20 17:31	1
Total Organic Carbon	37		1.0	0.43	mg/L			11/19/20 17:31	1

Client Sample ID: MW-21-1112020

Lab Sample ID: 480-178168-7

Date Collected: 11/11/20 14:10

Matrix: Water

Date Received: 11/14/20 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			11/17/20 15:09	1
Benzene	1.0	U	1.0	0.41	ug/L			11/17/20 15:09	1
Bromodichloromethane	1.0	U	1.0	0.39	ug/L			11/17/20 15:09	1
Bromoform	1.0	U	1.0	0.26	ug/L			11/17/20 15:09	1
Bromomethane	1.0	U	1.0	0.69	ug/L			11/17/20 15:09	1
2-Butanone (MEK)	10	U	10	1.3	ug/L			11/17/20 15:09	1
Carbon disulfide	1.0	U	1.0	0.19	ug/L			11/17/20 15:09	1
Carbon tetrachloride	1.0	U	1.0	0.27	ug/L			11/17/20 15:09	1
Chlorobenzene	1.0	U	1.0	0.75	ug/L			11/17/20 15:09	1
Chloroethane	1.0	U	1.0	0.32	ug/L			11/17/20 15:09	1
Chloroform	1.0	U	1.0	0.34	ug/L			11/17/20 15:09	1
Chloromethane	1.0	U	1.0	0.35	ug/L			11/17/20 15:09	1

Eurofins TestAmerica, Buffalo

Client Sample Results

Client: Ashland LLC
Project/Site: Ashland Rensselaer

Job ID: 480-178168-1

Client Sample ID: MW-21-1112020

Lab Sample ID: 480-178168-7

Date Collected: 11/11/20 14:10

Matrix: Water

Date Received: 11/14/20 08:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
cis-1,2-Dichloroethene	1.0	U	1.0	0.81	ug/L			11/17/20 15:09	1
cis-1,3-Dichloropropene	1.0	U	1.0	0.36	ug/L			11/17/20 15:09	1
Cyclohexane	1.0	U	1.0	0.18	ug/L			11/17/20 15:09	1
Dibromochloromethane	1.0	U	1.0	0.32	ug/L			11/17/20 15:09	1
1,2-Dibromo-3-Chloropropane	1.0	U	1.0	0.39	ug/L			11/17/20 15:09	1
1,2-Dibromoethane	1.0	U	1.0	0.73	ug/L			11/17/20 15:09	1
1,2-Dichlorobenzene	1.0	U	1.0	0.79	ug/L			11/17/20 15:09	1
1,3-Dichlorobenzene	1.0	U	1.0	0.78	ug/L			11/17/20 15:09	1
1,4-Dichlorobenzene	1.0	U	1.0	0.84	ug/L			11/17/20 15:09	1
Dichlorodifluoromethane	1.0	U	1.0	0.68	ug/L			11/17/20 15:09	1
1,1-Dichloroethane	1.0	U	1.0	0.38	ug/L			11/17/20 15:09	1
1,2-Dichloroethane	1.0	U	1.0	0.21	ug/L			11/17/20 15:09	1
1,1-Dichloroethene	1.0	U	1.0	0.29	ug/L			11/17/20 15:09	1
1,2-Dichloropropane	1.0	U	1.0	0.72	ug/L			11/17/20 15:09	1
Ethylbenzene	1.0	U	1.0	0.74	ug/L			11/17/20 15:09	1
2-Hexanone	5.0	U	5.0	1.2	ug/L			11/17/20 15:09	1
Isopropylbenzene	1.0	U	1.0	0.79	ug/L			11/17/20 15:09	1
Methyl acetate	2.5	U	2.5	1.3	ug/L			11/17/20 15:09	1
Methylcyclohexane	1.0	U	1.0	0.16	ug/L			11/17/20 15:09	1
Methylene Chloride	1.0	U	1.0	0.44	ug/L			11/17/20 15:09	1
4-Methyl-2-pentanone (MIBK)	5.0	U	5.0	2.1	ug/L			11/17/20 15:09	1
Methyl tert-butyl ether	1.0	U	1.0	0.16	ug/L			11/17/20 15:09	1
Styrene	1.0	U	1.0	0.73	ug/L			11/17/20 15:09	1
1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.21	ug/L			11/17/20 15:09	1
Tetrachloroethene	1.0	U	1.0	0.36	ug/L			11/17/20 15:09	1
Toluene	1.0	U	1.0	0.51	ug/L			11/17/20 15:09	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.90	ug/L			11/17/20 15:09	1
trans-1,3-Dichloropropene	1.0	U	1.0	0.37	ug/L			11/17/20 15:09	1
1,2,4-Trichlorobenzene	1.0	U	1.0	0.41	ug/L			11/17/20 15:09	1
1,1,1-Trichloroethane	1.0	U	1.0	0.82	ug/L			11/17/20 15:09	1
1,1,2-Trichloroethane	1.0	U	1.0	0.23	ug/L			11/17/20 15:09	1
Trichloroethene	1.0	U	1.0	0.46	ug/L			11/17/20 15:09	1
Trichlorofluoromethane	1.0	U	1.0	0.88	ug/L			11/17/20 15:09	1
1,1,2-Trichloro-1,2,2-trifluoroethane	1.0	U	1.0	0.31	ug/L			11/17/20 15:09	1
Vinyl chloride	1.0	U	1.0	0.90	ug/L			11/17/20 15:09	1
Xylenes, Total	2.0	U	2.0	0.66	ug/L			11/17/20 15:09	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	101		73 - 120		11/17/20 15:09	1
Dibromofluoromethane (Surr)	112		75 - 123		11/17/20 15:09	1
1,2-Dichloroethane-d4 (Surr)	100		77 - 120		11/17/20 15:09	1
Toluene-d8 (Surr)	91		80 - 120		11/17/20 15:09	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
TOC Result 1	4.7		1.0	0.43	mg/L			11/19/20 17:58	1
TOC Result 2	4.6		1.0	0.43	mg/L			11/19/20 17:58	1
Total Organic Carbon	4.7		1.0	0.43	mg/L			11/19/20 17:58	1

Eurofins TestAmerica, Buffalo

Client Sample Results

Client: Ashland LLC
Project/Site: Ashland Rensselaer

Job ID: 480-178168-1

Client Sample ID: MW-16-1112020

Lab Sample ID: 480-178168-8

Date Collected: 11/11/20 15:35

Matrix: Water

Date Received: 11/14/20 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			11/17/20 15:33	1
Benzene	1.0	U	1.0	0.41	ug/L			11/17/20 15:33	1
Bromodichloromethane	1.0	U	1.0	0.39	ug/L			11/17/20 15:33	1
Bromoform	1.0	U	1.0	0.26	ug/L			11/17/20 15:33	1
Bromomethane	1.0	U	1.0	0.69	ug/L			11/17/20 15:33	1
2-Butanone (MEK)	10	U	10	1.3	ug/L			11/17/20 15:33	1
Carbon disulfide	1.0	U	1.0	0.19	ug/L			11/17/20 15:33	1
Carbon tetrachloride	1.0	U	1.0	0.27	ug/L			11/17/20 15:33	1
Chlorobenzene	1.0	U	1.0	0.75	ug/L			11/17/20 15:33	1
Chloroethane	1.0	U	1.0	0.32	ug/L			11/17/20 15:33	1
Chloroform	1.0	U	1.0	0.34	ug/L			11/17/20 15:33	1
Chloromethane	1.0	U	1.0	0.35	ug/L			11/17/20 15:33	1
cis-1,2-Dichloroethene	38		1.0	0.81	ug/L			11/17/20 15:33	1
cis-1,3-Dichloropropene	1.0	U	1.0	0.36	ug/L			11/17/20 15:33	1
Cyclohexane	1.0	U	1.0	0.18	ug/L			11/17/20 15:33	1
Dibromochloromethane	1.0	U	1.0	0.32	ug/L			11/17/20 15:33	1
1,2-Dibromo-3-Chloropropane	1.0	U	1.0	0.39	ug/L			11/17/20 15:33	1
1,2-Dibromoethane	1.0	U	1.0	0.73	ug/L			11/17/20 15:33	1
1,2-Dichlorobenzene	1.0	U	1.0	0.79	ug/L			11/17/20 15:33	1
1,3-Dichlorobenzene	1.0	U	1.0	0.78	ug/L			11/17/20 15:33	1
1,4-Dichlorobenzene	1.0	U	1.0	0.84	ug/L			11/17/20 15:33	1
Dichlorodifluoromethane	1.0	U	1.0	0.68	ug/L			11/17/20 15:33	1
1,1-Dichloroethane	1.0	U	1.0	0.38	ug/L			11/17/20 15:33	1
1,2-Dichloroethane	0.40	J	1.0	0.21	ug/L			11/17/20 15:33	1
1,1-Dichloroethene	1.0	U	1.0	0.29	ug/L			11/17/20 15:33	1
1,2-Dichloropropane	1.0	U	1.0	0.72	ug/L			11/17/20 15:33	1
Ethylbenzene	1.0	U	1.0	0.74	ug/L			11/17/20 15:33	1
2-Hexanone	5.0	U	5.0	1.2	ug/L			11/17/20 15:33	1
Isopropylbenzene	1.0	U	1.0	0.79	ug/L			11/17/20 15:33	1
Methyl acetate	2.5	U	2.5	1.3	ug/L			11/17/20 15:33	1
Methylcyclohexane	1.0	U	1.0	0.16	ug/L			11/17/20 15:33	1
Methylene Chloride	1.0	U	1.0	0.44	ug/L			11/17/20 15:33	1
4-Methyl-2-pentanone (MIBK)	5.0	U	5.0	2.1	ug/L			11/17/20 15:33	1
Methyl tert-butyl ether	1.0	U	1.0	0.16	ug/L			11/17/20 15:33	1
Styrene	1.0	U	1.0	0.73	ug/L			11/17/20 15:33	1
1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.21	ug/L			11/17/20 15:33	1
Tetrachloroethene	1.0	U	1.0	0.36	ug/L			11/17/20 15:33	1
Toluene	1.0	U	1.0	0.51	ug/L			11/17/20 15:33	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.90	ug/L			11/17/20 15:33	1
trans-1,3-Dichloropropene	1.0	U	1.0	0.37	ug/L			11/17/20 15:33	1
1,2,4-Trichlorobenzene	1.0	U	1.0	0.41	ug/L			11/17/20 15:33	1
1,1,1-Trichloroethane	1.0	U	1.0	0.82	ug/L			11/17/20 15:33	1
1,1,2-Trichloroethane	1.0	U	1.0	0.23	ug/L			11/17/20 15:33	1
Trichloroethene	4.3		1.0	0.46	ug/L			11/17/20 15:33	1
Trichlorofluoromethane	1.0	U	1.0	0.88	ug/L			11/17/20 15:33	1
1,1,2-Trichloro-1,2,2-trifluoroethane	1.0	U	1.0	0.31	ug/L			11/17/20 15:33	1
Vinyl chloride	1.1		1.0	0.90	ug/L			11/17/20 15:33	1
Xylenes, Total	2.0	U	2.0	0.66	ug/L			11/17/20 15:33	1

Eurofins TestAmerica, Buffalo

Client Sample Results

Client: Ashland LLC
Project/Site: Ashland Rensselaer

Job ID: 480-178168-1

Client Sample ID: MW-16-1112020

Lab Sample ID: 480-178168-8

Date Collected: 11/11/20 15:35

Matrix: Water

Date Received: 11/14/20 08:00

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	107		73 - 120		11/17/20 15:33	1
Dibromofluoromethane (Surr)	113		75 - 123		11/17/20 15:33	1
1,2-Dichloroethane-d4 (Surr)	101		77 - 120		11/17/20 15:33	1
Toluene-d8 (Surr)	93		80 - 120		11/17/20 15:33	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			11/23/20 18:11	1
Ethene	7.0	U	7.0	1.5	ug/L			11/23/20 18:11	1
Methane	28		4.0	1.0	ug/L			11/23/20 18:11	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			11/19/20 18:26	1
TOC Result 2	1.0		1.0	0.43	mg/L			11/19/20 18:26	1
Total Organic Carbon	1.1		1.0	0.43	mg/L			11/19/20 18:26	1

Client Sample ID: IP-1-1112020

Lab Sample ID: 480-178168-9

Date Collected: 11/12/20 09:05

Matrix: Water

Date Received: 11/14/20 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			11/17/20 15:56	5
Benzene	5.0	U	5.0	2.1	ug/L			11/17/20 15:56	5
Bromodichloromethane	5.0	U	5.0	2.0	ug/L			11/17/20 15:56	5
Bromoform	5.0	U	5.0	1.3	ug/L			11/17/20 15:56	5
Bromomethane	5.0	U	5.0	3.5	ug/L			11/17/20 15:56	5
2-Butanone (MEK)	50	U	50	6.6	ug/L			11/17/20 15:56	5
Carbon disulfide	5.0	U	5.0	0.95	ug/L			11/17/20 15:56	5
Carbon tetrachloride	5.0	U	5.0	1.4	ug/L			11/17/20 15:56	5
Chlorobenzene	5.0	U	5.0	3.8	ug/L			11/17/20 15:56	5
Chloroethane	5.0	U	5.0	1.6	ug/L			11/17/20 15:56	5
Chloroform	5.0	U	5.0	1.7	ug/L			11/17/20 15:56	5
Chloromethane	5.0	U	5.0	1.8	ug/L			11/17/20 15:56	5
cis-1,2-Dichloroethene	360		5.0	4.1	ug/L			11/17/20 15:56	5
cis-1,3-Dichloropropene	5.0	U	5.0	1.8	ug/L			11/17/20 15:56	5
Cyclohexane	5.0	U	5.0	0.90	ug/L			11/17/20 15:56	5
Dibromochloromethane	5.0	U	5.0	1.6	ug/L			11/17/20 15:56	5
1,2-Dibromo-3-Chloropropane	5.0	U	5.0	2.0	ug/L			11/17/20 15:56	5
1,2-Dibromoethane	5.0	U	5.0	3.7	ug/L			11/17/20 15:56	5
1,2-Dichlorobenzene	5.0	U	5.0	4.0	ug/L			11/17/20 15:56	5
1,3-Dichlorobenzene	5.0	U	5.0	3.9	ug/L			11/17/20 15:56	5
1,4-Dichlorobenzene	5.0	U	5.0	4.2	ug/L			11/17/20 15:56	5
Dichlorodifluoromethane	5.0	U	5.0	3.4	ug/L			11/17/20 15:56	5
1,1-Dichloroethane	5.0	U	5.0	1.9	ug/L			11/17/20 15:56	5
1,2-Dichloroethane	5.0	U	5.0	1.1	ug/L			11/17/20 15:56	5
1,1-Dichloroethene	5.0	U	5.0	1.5	ug/L			11/17/20 15:56	5
1,2-Dichloropropane	5.0	U	5.0	3.6	ug/L			11/17/20 15:56	5
Ethylbenzene	5.0	U	5.0	3.7	ug/L			11/17/20 15:56	5
2-Hexanone	25	U	25	6.2	ug/L			11/17/20 15:56	5

Eurofins TestAmerica, Buffalo

Client Sample Results

Client: Ashland LLC
Project/Site: Ashland Rensselaer

Job ID: 480-178168-1

Client Sample ID: IP-1-1112020

Lab Sample ID: 480-178168-9

Date Collected: 11/12/20 09:05

Matrix: Water

Date Received: 11/14/20 08:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Isopropylbenzene	5.0	U	5.0	4.0	ug/L			11/17/20 15:56	5
Methyl acetate	13	U	13	6.5	ug/L			11/17/20 15:56	5
Methylcyclohexane	5.0	U	5.0	0.80	ug/L			11/17/20 15:56	5
Methylene Chloride	5.0	U	5.0	2.2	ug/L			11/17/20 15:56	5
4-Methyl-2-pentanone (MIBK)	25	U	25	11	ug/L			11/17/20 15:56	5
Methyl tert-butyl ether	5.0	U	5.0	0.80	ug/L			11/17/20 15:56	5
Styrene	5.0	U	5.0	3.7	ug/L			11/17/20 15:56	5
1,1,2,2-Tetrachloroethane	5.0	U	5.0	1.1	ug/L			11/17/20 15:56	5
Tetrachloroethene	5.0	U	5.0	1.8	ug/L			11/17/20 15:56	5
Toluene	5.0	U	5.0	2.6	ug/L			11/17/20 15:56	5
trans-1,2-Dichloroethene	4.5	J	5.0	4.5	ug/L			11/17/20 15:56	5
trans-1,3-Dichloropropene	5.0	U	5.0	1.9	ug/L			11/17/20 15:56	5
1,2,4-Trichlorobenzene	5.0	U	5.0	2.1	ug/L			11/17/20 15:56	5
1,1,1-Trichloroethane	5.0	U	5.0	4.1	ug/L			11/17/20 15:56	5
1,1,2-Trichloroethane	5.0	U	5.0	1.2	ug/L			11/17/20 15:56	5
Trichloroethene	5.0	U	5.0	2.3	ug/L			11/17/20 15:56	5
Trichlorofluoromethane	5.0	U	5.0	4.4	ug/L			11/17/20 15:56	5
1,1,2-Trichloro-1,2,2-trifluoroethane	5.0	U	5.0	1.6	ug/L			11/17/20 15:56	5
Vinyl chloride	65		5.0	4.5	ug/L			11/17/20 15:56	5
Xylenes, Total	10	U	10	3.3	ug/L			11/17/20 15:56	5

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	103		73 - 120		11/17/20 15:56	5
Dibromofluoromethane (Surr)	110		75 - 123		11/17/20 15:56	5
1,2-Dichloroethane-d4 (Surr)	108		77 - 120		11/17/20 15:56	5
Toluene-d8 (Surr)	93		80 - 120		11/17/20 15:56	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			11/18/20 19:50	1
Ethene	5.2	J	7.0	1.5	ug/L			11/18/20 19:50	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methane	2100		180	44	ug/L			11/19/20 01:30	44

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
TOC Result 1	4.4		1.0	0.43	mg/L			11/19/20 18:53	1
TOC Result 2	4.4		1.0	0.43	mg/L			11/19/20 18:53	1
Total Organic Carbon	4.5		1.0	0.43	mg/L			11/19/20 18:53	1

Client Sample ID: MW-20-1112020

Lab Sample ID: 480-178168-10

Date Collected: 11/12/20 11:20

Matrix: Water

Date Received: 11/14/20 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			11/17/20 16:19	1
Benzene	1.2		1.0	0.41	ug/L			11/17/20 16:19	1
Bromodichloromethane	1.0	U	1.0	0.39	ug/L			11/17/20 16:19	1

Eurofins TestAmerica, Buffalo

Client Sample Results

Client: Ashland LLC
Project/Site: Ashland Rensselaer

Job ID: 480-178168-1

Client Sample ID: MW-20-1112020

Lab Sample ID: 480-178168-10

Date Collected: 11/12/20 11:20

Matrix: Water

Date Received: 11/14/20 08:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bromoform	1.0	U	1.0	0.26	ug/L			11/17/20 16:19	1
Bromomethane	1.0	U	1.0	0.69	ug/L			11/17/20 16:19	1
2-Butanone (MEK)	10	U	10	1.3	ug/L			11/17/20 16:19	1
Carbon disulfide	1.0	U	1.0	0.19	ug/L			11/17/20 16:19	1
Carbon tetrachloride	1.1		1.0	0.27	ug/L			11/17/20 16:19	1
Chlorobenzene	1.0	U	1.0	0.75	ug/L			11/17/20 16:19	1
Chloroethane	1.0	U	1.0	0.32	ug/L			11/17/20 16:19	1
Chloroform	2.2		1.0	0.34	ug/L			11/17/20 16:19	1
Chloromethane	1.0	U	1.0	0.35	ug/L			11/17/20 16:19	1
cis-1,2-Dichloroethene	8.4		1.0	0.81	ug/L			11/17/20 16:19	1
cis-1,3-Dichloropropene	1.0	U	1.0	0.36	ug/L			11/17/20 16:19	1
Cyclohexane	1.0	U	1.0	0.18	ug/L			11/17/20 16:19	1
Dibromochloromethane	1.0	U	1.0	0.32	ug/L			11/17/20 16:19	1
1,2-Dibromo-3-Chloropropane	1.0	U	1.0	0.39	ug/L			11/17/20 16:19	1
1,2-Dibromoethane	1.0	U	1.0	0.73	ug/L			11/17/20 16:19	1
1,2-Dichlorobenzene	1.0	U	1.0	0.79	ug/L			11/17/20 16:19	1
1,3-Dichlorobenzene	1.0	U	1.0	0.78	ug/L			11/17/20 16:19	1
1,4-Dichlorobenzene	1.0	U	1.0	0.84	ug/L			11/17/20 16:19	1
Dichlorodifluoromethane	1.0	U	1.0	0.68	ug/L			11/17/20 16:19	1
1,1-Dichloroethane	1.0	U	1.0	0.38	ug/L			11/17/20 16:19	1
1,2-Dichloroethane	1.0	U	1.0	0.21	ug/L			11/17/20 16:19	1
1,1-Dichloroethene	1.0	U	1.0	0.29	ug/L			11/17/20 16:19	1
1,2-Dichloropropane	1.0	U	1.0	0.72	ug/L			11/17/20 16:19	1
Ethylbenzene	1.0	U	1.0	0.74	ug/L			11/17/20 16:19	1
2-Hexanone	5.0	U	5.0	1.2	ug/L			11/17/20 16:19	1
Isopropylbenzene	1.0	U	1.0	0.79	ug/L			11/17/20 16:19	1
Methyl acetate	2.5	U	2.5	1.3	ug/L			11/17/20 16:19	1
Methylcyclohexane	1.0	U	1.0	0.16	ug/L			11/17/20 16:19	1
Methylene Chloride	1.0	U	1.0	0.44	ug/L			11/17/20 16:19	1
4-Methyl-2-pentanone (MIBK)	5.0	U	5.0	2.1	ug/L			11/17/20 16:19	1
Methyl tert-butyl ether	1.0	U	1.0	0.16	ug/L			11/17/20 16:19	1
Styrene	1.0	U	1.0	0.73	ug/L			11/17/20 16:19	1
1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.21	ug/L			11/17/20 16:19	1
Tetrachloroethene	57		1.0	0.36	ug/L			11/17/20 16:19	1
Toluene	1.0	U	1.0	0.51	ug/L			11/17/20 16:19	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.90	ug/L			11/17/20 16:19	1
trans-1,3-Dichloropropene	1.0	U	1.0	0.37	ug/L			11/17/20 16:19	1
1,2,4-Trichlorobenzene	1.0	U	1.0	0.41	ug/L			11/17/20 16:19	1
1,1,1-Trichloroethane	1.0	U	1.0	0.82	ug/L			11/17/20 16:19	1
1,1,2-Trichloroethane	1.0	U	1.0	0.23	ug/L			11/17/20 16:19	1
Trichloroethene	7.1		1.0	0.46	ug/L			11/17/20 16:19	1
Trichlorofluoromethane	1.0	U	1.0	0.88	ug/L			11/17/20 16:19	1
1,1,2-Trichloro-1,2,2-trifluoroethane	1.0	U	1.0	0.31	ug/L			11/17/20 16:19	1
Vinyl chloride	1.0	U	1.0	0.90	ug/L			11/17/20 16:19	1
Xylenes, Total	2.0	U	2.0	0.66	ug/L			11/17/20 16:19	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	102		73 - 120		11/17/20 16:19	1
Dibromofluoromethane (Surr)	109		75 - 123		11/17/20 16:19	1
1,2-Dichloroethane-d4 (Surr)	112		77 - 120		11/17/20 16:19	1

Eurofins TestAmerica, Buffalo

Client Sample Results

Client: Ashland LLC
Project/Site: Ashland Rensselaer

Job ID: 480-178168-1

Client Sample ID: MW-20-1112020

Lab Sample ID: 480-178168-10

Date Collected: 11/12/20 11:20

Matrix: Water

Date Received: 11/14/20 08:00

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

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Toluene-d8 (Surr)	95		80 - 120		11/17/20 16:19	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			11/18/20 20:09	1
Ethene	7.0	U	7.0	1.5	ug/L			11/18/20 20:09	1
Methane	93		4.0	1.0	ug/L			11/18/20 20:09	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
TOC Result 1	3.7		1.0	0.43	mg/L			11/19/20 20:47	1
TOC Result 2	3.7		1.0	0.43	mg/L			11/19/20 20:47	1
Total Organic Carbon	3.8		1.0	0.43	mg/L			11/19/20 20:47	1

Client Sample ID: MW-15-1112020

Lab Sample ID: 480-178168-11

Date Collected: 11/12/20 10:30

Matrix: Water

Date Received: 11/14/20 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			11/17/20 16:42	1
Benzene	13		1.0	0.41	ug/L			11/17/20 16:42	1
Bromodichloromethane	1.0	U	1.0	0.39	ug/L			11/17/20 16:42	1
Bromoform	1.0	U	1.0	0.26	ug/L			11/17/20 16:42	1
Bromomethane	1.0	U	1.0	0.69	ug/L			11/17/20 16:42	1
2-Butanone (MEK)	10	U	10	1.3	ug/L			11/17/20 16:42	1
Carbon disulfide	1.0	U	1.0	0.19	ug/L			11/17/20 16:42	1
Carbon tetrachloride	1.0	U	1.0	0.27	ug/L			11/17/20 16:42	1
Chlorobenzene	1.0	U	1.0	0.75	ug/L			11/17/20 16:42	1
Chloroethane	1.0	U	1.0	0.32	ug/L			11/17/20 16:42	1
Chloroform	1.0	U	1.0	0.34	ug/L			11/17/20 16:42	1
Chloromethane	1.0	U	1.0	0.35	ug/L			11/17/20 16:42	1
cis-1,2-Dichloroethene	10		1.0	0.81	ug/L			11/17/20 16:42	1
cis-1,3-Dichloropropene	1.0	U	1.0	0.36	ug/L			11/17/20 16:42	1
Cyclohexane	0.96	J	1.0	0.18	ug/L			11/17/20 16:42	1
Dibromochloromethane	1.0	U	1.0	0.32	ug/L			11/17/20 16:42	1
1,2-Dibromo-3-Chloropropane	1.0	U	1.0	0.39	ug/L			11/17/20 16:42	1
1,2-Dibromoethane	1.0	U	1.0	0.73	ug/L			11/17/20 16:42	1
1,2-Dichlorobenzene	1.0	U	1.0	0.79	ug/L			11/17/20 16:42	1
1,3-Dichlorobenzene	1.0	U	1.0	0.78	ug/L			11/17/20 16:42	1
1,4-Dichlorobenzene	1.0	U	1.0	0.84	ug/L			11/17/20 16:42	1
Dichlorodifluoromethane	1.0	U	1.0	0.68	ug/L			11/17/20 16:42	1
1,1-Dichloroethane	1.3		1.0	0.38	ug/L			11/17/20 16:42	1
1,2-Dichloroethane	1.0	U	1.0	0.21	ug/L			11/17/20 16:42	1
1,1-Dichloroethene	1.0	U	1.0	0.29	ug/L			11/17/20 16:42	1
1,2-Dichloropropane	1.0	U	1.0	0.72	ug/L			11/17/20 16:42	1
Ethylbenzene	1.0	U	1.0	0.74	ug/L			11/17/20 16:42	1
2-Hexanone	5.0	U	5.0	1.2	ug/L			11/17/20 16:42	1
Isopropylbenzene	1.0	U	1.0	0.79	ug/L			11/17/20 16:42	1
Methyl acetate	2.5	U	2.5	1.3	ug/L			11/17/20 16:42	1

Eurofins TestAmerica, Buffalo

Client Sample Results

Client: Ashland LLC
Project/Site: Ashland Rensselaer

Job ID: 480-178168-1

Client Sample ID: MW-15-1112020

Lab Sample ID: 480-178168-11

Date Collected: 11/12/20 10:30

Matrix: Water

Date Received: 11/14/20 08:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methylcyclohexane	0.70	J	1.0	0.16	ug/L			11/17/20 16:42	1
Methylene Chloride	1.0	U	1.0	0.44	ug/L			11/17/20 16:42	1
4-Methyl-2-pentanone (MIBK)	5.0	U	5.0	2.1	ug/L			11/17/20 16:42	1
Methyl tert-butyl ether	1.0	U	1.0	0.16	ug/L			11/17/20 16:42	1
Styrene	1.0	U	1.0	0.73	ug/L			11/17/20 16:42	1
1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.21	ug/L			11/17/20 16:42	1
Tetrachloroethene	1.0	U	1.0	0.36	ug/L			11/17/20 16:42	1
Toluene	1.0	U	1.0	0.51	ug/L			11/17/20 16:42	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.90	ug/L			11/17/20 16:42	1
trans-1,3-Dichloropropene	1.0	U	1.0	0.37	ug/L			11/17/20 16:42	1
1,2,4-Trichlorobenzene	1.0	U	1.0	0.41	ug/L			11/17/20 16:42	1
1,1,1-Trichloroethane	1.0	U	1.0	0.82	ug/L			11/17/20 16:42	1
1,1,2-Trichloroethane	1.0	U	1.0	0.23	ug/L			11/17/20 16:42	1
Trichloroethene	4.5		1.0	0.46	ug/L			11/17/20 16:42	1
Trichlorofluoromethane	1.0	U	1.0	0.88	ug/L			11/17/20 16:42	1
1,1,2-Trichloro-1,2,2-trifluoroethane	1.0	U	1.0	0.31	ug/L			11/17/20 16:42	1
Vinyl chloride	6.5		1.0	0.90	ug/L			11/17/20 16:42	1
Xylenes, Total	2.0	U	2.0	0.66	ug/L			11/17/20 16:42	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	100		73 - 120		11/17/20 16:42	1
Dibromofluoromethane (Surr)	115		75 - 123		11/17/20 16:42	1
1,2-Dichloroethane-d4 (Surr)	111		77 - 120		11/17/20 16:42	1
Toluene-d8 (Surr)	87		80 - 120		11/17/20 16:42	1

Method: RSK-175 - Dissolved Gases (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethane	63		7.5	1.5	ug/L			11/23/20 18:30	1
Ethene	22		7.0	1.5	ug/L			11/23/20 18:30	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methane	1600		44	11	ug/L			11/24/20 08:15	11

Client Sample ID: IW-A2-1112020

Lab Sample ID: 480-178168-12

Date Collected: 11/12/20 12:25

Matrix: Water

Date Received: 11/14/20 08:00

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			11/17/20 17:05	80
Benzene	80	U	80	33	ug/L			11/17/20 17:05	80
Bromodichloromethane	80	U	80	31	ug/L			11/17/20 17:05	80
Bromoform	80	U	80	21	ug/L			11/17/20 17:05	80
Bromomethane	80	U	80	55	ug/L			11/17/20 17:05	80
2-Butanone (MEK)	800	U	800	110	ug/L			11/17/20 17:05	80
Carbon disulfide	80	U	80	15	ug/L			11/17/20 17:05	80
Carbon tetrachloride	80	U	80	22	ug/L			11/17/20 17:05	80
Chlorobenzene	80	U	80	60	ug/L			11/17/20 17:05	80
Chloroethane	80	U	80	26	ug/L			11/17/20 17:05	80
Chloroform	80	U	80	27	ug/L			11/17/20 17:05	80

Eurofins TestAmerica, Buffalo

Client Sample Results

Client: Ashland LLC
Project/Site: Ashland Rensselaer

Job ID: 480-178168-1

Client Sample ID: IW-A2-1112020

Lab Sample ID: 480-178168-12

Date Collected: 11/12/20 12:25

Matrix: Water

Date Received: 11/14/20 08:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloromethane	80	U	80	28	ug/L			11/17/20 17:05	80
cis-1,2-Dichloroethene	80	U	80	65	ug/L			11/17/20 17:05	80
cis-1,3-Dichloropropene	80	U	80	29	ug/L			11/17/20 17:05	80
Cyclohexane	80	U	80	14	ug/L			11/17/20 17:05	80
Dibromochloromethane	80	U	80	26	ug/L			11/17/20 17:05	80
1,2-Dibromo-3-Chloropropane	80	U	80	31	ug/L			11/17/20 17:05	80
1,2-Dibromoethane	80	U	80	58	ug/L			11/17/20 17:05	80
1,2-Dichlorobenzene	80	U	80	63	ug/L			11/17/20 17:05	80
1,3-Dichlorobenzene	80	U	80	62	ug/L			11/17/20 17:05	80
1,4-Dichlorobenzene	80	U	80	67	ug/L			11/17/20 17:05	80
Dichlorodifluoromethane	80	U	80	54	ug/L			11/17/20 17:05	80
1,1-Dichloroethane	80	U	80	30	ug/L			11/17/20 17:05	80
1,2-Dichloroethane	80	U	80	17	ug/L			11/17/20 17:05	80
1,1-Dichloroethene	80	U	80	23	ug/L			11/17/20 17:05	80
1,2-Dichloropropane	80	U	80	58	ug/L			11/17/20 17:05	80
Ethylbenzene	80	U	80	59	ug/L			11/17/20 17:05	80
2-Hexanone	400	U	400	99	ug/L			11/17/20 17:05	80
Isopropylbenzene	80	U	80	63	ug/L			11/17/20 17:05	80
Methyl acetate	200	U	200	100	ug/L			11/17/20 17:05	80
Methylcyclohexane	80	U	80	13	ug/L			11/17/20 17:05	80
Methylene Chloride	80	U	80	35	ug/L			11/17/20 17:05	80
4-Methyl-2-pentanone (MIBK)	400	U	400	170	ug/L			11/17/20 17:05	80
Methyl tert-butyl ether	80	U	80	13	ug/L			11/17/20 17:05	80
Styrene	80	U	80	58	ug/L			11/17/20 17:05	80
1,1,2,2-Tetrachloroethane	80	U	80	17	ug/L			11/17/20 17:05	80
Tetrachloroethene	80	U	80	29	ug/L			11/17/20 17:05	80
Toluene	80	U	80	41	ug/L			11/17/20 17:05	80
trans-1,2-Dichloroethene	80	U	80	72	ug/L			11/17/20 17:05	80
trans-1,3-Dichloropropene	80	U	80	30	ug/L			11/17/20 17:05	80
1,2,4-Trichlorobenzene	80	U	80	33	ug/L			11/17/20 17:05	80
1,1,1-Trichloroethane	80	U	80	66	ug/L			11/17/20 17:05	80
1,1,2-Trichloroethane	80	U	80	18	ug/L			11/17/20 17:05	80
Trichloroethene	80	U	80	37	ug/L			11/17/20 17:05	80
Trichlorofluoromethane	80	U	80	70	ug/L			11/17/20 17:05	80
1,1,2-Trichloro-1,2,2-trifluoroethane	80	U	80	25	ug/L			11/17/20 17:05	80
Vinyl chloride	80	U	80	72	ug/L			11/17/20 17:05	80
Xylenes, Total	160	U	160	53	ug/L			11/17/20 17:05	80

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	102		73 - 120		11/17/20 17:05	80
Dibromofluoromethane (Surr)	116		75 - 123		11/17/20 17:05	80
1,2-Dichloroethane-d4 (Surr)	113		77 - 120		11/17/20 17:05	80
Toluene-d8 (Surr)	91		80 - 120		11/17/20 17:05	80

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
TOC Result 1	120		2.0	0.87	mg/L			11/20/20 23:27	2
TOC Result 2	120		2.0	0.87	mg/L			11/20/20 23:27	2
Total Organic Carbon	120		2.0	0.87	mg/L			11/20/20 23:27	2

Eurofins TestAmerica, Buffalo

Client Sample Results

Client: Ashland LLC
Project/Site: Ashland Rensselaer

Job ID: 480-178168-1

Client Sample ID: IMP-3-11122020

Lab Sample ID: 480-178168-13

Date Collected: 11/12/20 09:45

Matrix: Water

Date Received: 11/14/20 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			11/17/20 17:28	1
Benzene	1.0	U	1.0	0.41	ug/L			11/17/20 17:28	1
Bromodichloromethane	1.0	U	1.0	0.39	ug/L			11/17/20 17:28	1
Bromoform	1.0	U	1.0	0.26	ug/L			11/17/20 17:28	1
Bromomethane	1.0	U	1.0	0.69	ug/L			11/17/20 17:28	1
2-Butanone (MEK)	10	U	10	1.3	ug/L			11/17/20 17:28	1
Carbon disulfide	1.0	U	1.0	0.19	ug/L			11/17/20 17:28	1
Carbon tetrachloride	1.0	U	1.0	0.27	ug/L			11/17/20 17:28	1
Chlorobenzene	1.0	U	1.0	0.75	ug/L			11/17/20 17:28	1
Chloroethane	1.0	U	1.0	0.32	ug/L			11/17/20 17:28	1
Chloroform	1.0	U	1.0	0.34	ug/L			11/17/20 17:28	1
Chloromethane	1.0	U	1.0	0.35	ug/L			11/17/20 17:28	1
cis-1,2-Dichloroethene	47		1.0	0.81	ug/L			11/17/20 17:28	1
cis-1,3-Dichloropropene	1.0	U	1.0	0.36	ug/L			11/17/20 17:28	1
Cyclohexane	1.0	U	1.0	0.18	ug/L			11/17/20 17:28	1
Dibromochloromethane	1.0	U	1.0	0.32	ug/L			11/17/20 17:28	1
1,2-Dibromo-3-Chloropropane	1.0	U	1.0	0.39	ug/L			11/17/20 17:28	1
1,2-Dibromoethane	1.0	U	1.0	0.73	ug/L			11/17/20 17:28	1
1,2-Dichlorobenzene	1.0	U	1.0	0.79	ug/L			11/17/20 17:28	1
1,3-Dichlorobenzene	1.0	U	1.0	0.78	ug/L			11/17/20 17:28	1
1,4-Dichlorobenzene	1.0	U	1.0	0.84	ug/L			11/17/20 17:28	1
Dichlorodifluoromethane	1.0	U	1.0	0.68	ug/L			11/17/20 17:28	1
1,1-Dichloroethane	1.0	U	1.0	0.38	ug/L			11/17/20 17:28	1
1,2-Dichloroethane	1.0	U	1.0	0.21	ug/L			11/17/20 17:28	1
1,1-Dichloroethene	1.0	U	1.0	0.29	ug/L			11/17/20 17:28	1
1,2-Dichloropropane	1.0	U	1.0	0.72	ug/L			11/17/20 17:28	1
Ethylbenzene	1.0	U	1.0	0.74	ug/L			11/17/20 17:28	1
2-Hexanone	5.0	U	5.0	1.2	ug/L			11/17/20 17:28	1
Isopropylbenzene	1.0	U	1.0	0.79	ug/L			11/17/20 17:28	1
Methyl acetate	2.5	U	2.5	1.3	ug/L			11/17/20 17:28	1
Methylcyclohexane	1.0	U	1.0	0.16	ug/L			11/17/20 17:28	1
Methylene Chloride	1.0	U	1.0	0.44	ug/L			11/17/20 17:28	1
4-Methyl-2-pentanone (MIBK)	5.0	U	5.0	2.1	ug/L			11/17/20 17:28	1
Methyl tert-butyl ether	1.0	U	1.0	0.16	ug/L			11/17/20 17:28	1
Styrene	1.0	U	1.0	0.73	ug/L			11/17/20 17:28	1
1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.21	ug/L			11/17/20 17:28	1
Tetrachloroethene	1.0	U	1.0	0.36	ug/L			11/17/20 17:28	1
Toluene	1.0	U	1.0	0.51	ug/L			11/17/20 17:28	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.90	ug/L			11/17/20 17:28	1
trans-1,3-Dichloropropene	1.0	U	1.0	0.37	ug/L			11/17/20 17:28	1
1,2,4-Trichlorobenzene	1.0	U	1.0	0.41	ug/L			11/17/20 17:28	1
1,1,1-Trichloroethane	1.0	U	1.0	0.82	ug/L			11/17/20 17:28	1
1,1,2-Trichloroethane	1.0	U	1.0	0.23	ug/L			11/17/20 17:28	1
Trichloroethene	1.0	U	1.0	0.46	ug/L			11/17/20 17:28	1
Trichlorofluoromethane	1.0	U	1.0	0.88	ug/L			11/17/20 17:28	1
1,1,2-Trichloro-1,2,2-trifluoroethane	1.0	U	1.0	0.31	ug/L			11/17/20 17:28	1
Vinyl chloride	2.7		1.0	0.90	ug/L			11/17/20 17:28	1
Xylenes, Total	2.0	U	2.0	0.66	ug/L			11/17/20 17:28	1

Eurofins TestAmerica, Buffalo

Client Sample Results

Client: Ashland LLC
Project/Site: Ashland Rensselaer

Job ID: 480-178168-1

Client Sample ID: IMP-3-11122020

Lab Sample ID: 480-178168-13

Date Collected: 11/12/20 09:45

Matrix: Water

Date Received: 11/14/20 08:00

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	105		73 - 120		11/17/20 17:28	1
Dibromofluoromethane (Surr)	114		75 - 123		11/17/20 17:28	1
1,2-Dichloroethane-d4 (Surr)	104		77 - 120		11/17/20 17:28	1
Toluene-d8 (Surr)	92		80 - 120		11/17/20 17:28	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
TOC Result 1	1.8		1.0	0.43	mg/L			11/19/20 21:41	1
TOC Result 2	1.5		1.0	0.43	mg/L			11/19/20 21:41	1
Total Organic Carbon	1.6		1.0	0.43	mg/L			11/19/20 21:41	1

Client Sample ID: MW-18-11122020

Lab Sample ID: 480-178168-14

Date Collected: 11/12/20 13:55

Matrix: Water

Date Received: 11/14/20 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			11/18/20 14:46	5
Benzene	5.0	U	5.0	2.1	ug/L			11/18/20 14:46	5
Bromodichloromethane	5.0	U	5.0	2.0	ug/L			11/18/20 14:46	5
Bromoform	5.0	U	5.0	1.3	ug/L			11/18/20 14:46	5
Bromomethane	5.0	U	5.0	3.5	ug/L			11/18/20 14:46	5
2-Butanone (MEK)	50	U	50	6.6	ug/L			11/18/20 14:46	5
Carbon disulfide	5.0	U	5.0	0.95	ug/L			11/18/20 14:46	5
Carbon tetrachloride	5.0	U	5.0	1.4	ug/L			11/18/20 14:46	5
Chlorobenzene	5.0	U	5.0	3.8	ug/L			11/18/20 14:46	5
Chloroethane	5.0	U	5.0	1.6	ug/L			11/18/20 14:46	5
Chloroform	5.0	U	5.0	1.7	ug/L			11/18/20 14:46	5
Chloromethane	5.0	U	5.0	1.8	ug/L			11/18/20 14:46	5
cis-1,2-Dichloroethene	350		5.0	4.1	ug/L			11/18/20 14:46	5
cis-1,3-Dichloropropene	5.0	U	5.0	1.8	ug/L			11/18/20 14:46	5
Cyclohexane	5.0	U	5.0	0.90	ug/L			11/18/20 14:46	5
Dibromochloromethane	5.0	U	5.0	1.6	ug/L			11/18/20 14:46	5
1,2-Dibromo-3-Chloropropane	5.0	U	5.0	2.0	ug/L			11/18/20 14:46	5
1,2-Dibromoethane	5.0	U	5.0	3.7	ug/L			11/18/20 14:46	5
1,2-Dichlorobenzene	5.0	U	5.0	4.0	ug/L			11/18/20 14:46	5
1,3-Dichlorobenzene	5.0	U	5.0	3.9	ug/L			11/18/20 14:46	5
1,4-Dichlorobenzene	5.0	U	5.0	4.2	ug/L			11/18/20 14:46	5
Dichlorodifluoromethane	5.0	U	5.0	3.4	ug/L			11/18/20 14:46	5
1,1-Dichloroethane	5.0	U	5.0	1.9	ug/L			11/18/20 14:46	5
1,2-Dichloroethane	5.0	U	5.0	1.1	ug/L			11/18/20 14:46	5
1,1-Dichloroethene	5.0	U	5.0	1.5	ug/L			11/18/20 14:46	5
1,2-Dichloropropane	5.0	U	5.0	3.6	ug/L			11/18/20 14:46	5
Ethylbenzene	5.0	U	5.0	3.7	ug/L			11/18/20 14:46	5
2-Hexanone	25	U	25	6.2	ug/L			11/18/20 14:46	5
Isopropylbenzene	5.0	U	5.0	4.0	ug/L			11/18/20 14:46	5
Methyl acetate	13	U	13	6.5	ug/L			11/18/20 14:46	5
Methylcyclohexane	5.0	U	5.0	0.80	ug/L			11/18/20 14:46	5
Methylene Chloride	5.0	U	5.0	2.2	ug/L			11/18/20 14:46	5
4-Methyl-2-pentanone (MIBK)	25	U	25	11	ug/L			11/18/20 14:46	5
Methyl tert-butyl ether	5.0	U	5.0	0.80	ug/L			11/18/20 14:46	5

Eurofins TestAmerica, Buffalo

Client Sample Results

Client: Ashland LLC
Project/Site: Ashland Rensselaer

Job ID: 480-178168-1

Client Sample ID: MW-18-11122020

Lab Sample ID: 480-178168-14

Date Collected: 11/12/20 13:55

Matrix: Water

Date Received: 11/14/20 08:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Styrene	5.0	U	5.0	3.7	ug/L			11/18/20 14:46	5
1,1,2,2-Tetrachloroethane	5.0	U	5.0	1.1	ug/L			11/18/20 14:46	5
Tetrachloroethene	5.0	U	5.0	1.8	ug/L			11/18/20 14:46	5
Toluene	5.0	U	5.0	2.6	ug/L			11/18/20 14:46	5
trans-1,2-Dichloroethene	5.0	U	5.0	4.5	ug/L			11/18/20 14:46	5
trans-1,3-Dichloropropene	5.0	U	5.0	1.9	ug/L			11/18/20 14:46	5
1,2,4-Trichlorobenzene	5.0	U	5.0	2.1	ug/L			11/18/20 14:46	5
1,1,1-Trichloroethane	5.0	U	5.0	4.1	ug/L			11/18/20 14:46	5
1,1,2-Trichloroethane	5.0	U	5.0	1.2	ug/L			11/18/20 14:46	5
Trichloroethene	5.0	U	5.0	2.3	ug/L			11/18/20 14:46	5
Trichlorofluoromethane	5.0	U	5.0	4.4	ug/L			11/18/20 14:46	5
1,1,2-Trichloro-1,2,2-trifluoroethane	5.0	U	5.0	1.6	ug/L			11/18/20 14:46	5
Vinyl chloride	85		5.0	4.5	ug/L			11/18/20 14:46	5
Xylenes, Total	10	U	10	3.3	ug/L			11/18/20 14:46	5

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	103		73 - 120		11/18/20 14:46	5
Dibromofluoromethane (Surr)	109		75 - 123		11/18/20 14:46	5
1,2-Dichloroethane-d4 (Surr)	108		77 - 120		11/18/20 14:46	5
Toluene-d8 (Surr)	105		80 - 120		11/18/20 14:46	5

Method: RSK-175 - Dissolved Gases (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethane	47		7.5	1.5	ug/L			11/18/20 20:28	1
Ethene	1.8	J	7.0	1.5	ug/L			11/18/20 20:28	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methane	790		88	22	ug/L			11/19/20 01:49	22

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
TOC Result 1	2.7		1.0	0.43	mg/L			11/19/20 23:05	1
TOC Result 2	2.6		1.0	0.43	mg/L			11/19/20 23:05	1
Total Organic Carbon	2.7		1.0	0.43	mg/L			11/19/20 23:05	1

Client Sample ID: MW-17-11122020

Lab Sample ID: 480-178168-15

Date Collected: 11/12/20 15:10

Matrix: Water

Date Received: 11/14/20 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			11/18/20 15:10	1
Benzene	1.0	U	1.0	0.41	ug/L			11/18/20 15:10	1
Bromodichloromethane	1.0	U	1.0	0.39	ug/L			11/18/20 15:10	1
Bromoform	1.0	U	1.0	0.26	ug/L			11/18/20 15:10	1
Bromomethane	1.0	U	1.0	0.69	ug/L			11/18/20 15:10	1
2-Butanone (MEK)	10	U	10	1.3	ug/L			11/18/20 15:10	1
Carbon disulfide	1.0	U	1.0	0.19	ug/L			11/18/20 15:10	1
Carbon tetrachloride	1.0	U	1.0	0.27	ug/L			11/18/20 15:10	1
Chlorobenzene	1.0	U	1.0	0.75	ug/L			11/18/20 15:10	1

Eurofins TestAmerica, Buffalo

Client Sample Results

Client: Ashland LLC
Project/Site: Ashland Rensselaer

Job ID: 480-178168-1

Client Sample ID: MW-17-11122020

Lab Sample ID: 480-178168-15

Date Collected: 11/12/20 15:10

Matrix: Water

Date Received: 11/14/20 08:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloroethane	1.0	U	1.0	0.32	ug/L			11/18/20 15:10	1
Chloroform	1.0	U	1.0	0.34	ug/L			11/18/20 15:10	1
Chloromethane	1.0	U	1.0	0.35	ug/L			11/18/20 15:10	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.81	ug/L			11/18/20 15:10	1
cis-1,3-Dichloropropene	1.0	U	1.0	0.36	ug/L			11/18/20 15:10	1
Cyclohexane	1.0	U	1.0	0.18	ug/L			11/18/20 15:10	1
Dibromochloromethane	1.0	U	1.0	0.32	ug/L			11/18/20 15:10	1
1,2-Dibromo-3-Chloropropane	1.0	U	1.0	0.39	ug/L			11/18/20 15:10	1
1,2-Dibromoethane	1.0	U	1.0	0.73	ug/L			11/18/20 15:10	1
1,2-Dichlorobenzene	1.0	U	1.0	0.79	ug/L			11/18/20 15:10	1
1,3-Dichlorobenzene	1.0	U	1.0	0.78	ug/L			11/18/20 15:10	1
1,4-Dichlorobenzene	1.0	U	1.0	0.84	ug/L			11/18/20 15:10	1
Dichlorodifluoromethane	1.0	U	1.0	0.68	ug/L			11/18/20 15:10	1
1,1-Dichloroethane	1.0	U	1.0	0.38	ug/L			11/18/20 15:10	1
1,2-Dichloroethane	1.0	U	1.0	0.21	ug/L			11/18/20 15:10	1
1,1-Dichloroethene	1.0	U	1.0	0.29	ug/L			11/18/20 15:10	1
1,2-Dichloropropane	1.0	U	1.0	0.72	ug/L			11/18/20 15:10	1
Ethylbenzene	1.0	U	1.0	0.74	ug/L			11/18/20 15:10	1
2-Hexanone	5.0	U	5.0	1.2	ug/L			11/18/20 15:10	1
Isopropylbenzene	1.0	U	1.0	0.79	ug/L			11/18/20 15:10	1
Methyl acetate	2.5	U	2.5	1.3	ug/L			11/18/20 15:10	1
Methylcyclohexane	1.0	U	1.0	0.16	ug/L			11/18/20 15:10	1
Methylene Chloride	1.0	U	1.0	0.44	ug/L			11/18/20 15:10	1
4-Methyl-2-pentanone (MIBK)	5.0	U	5.0	2.1	ug/L			11/18/20 15:10	1
Methyl tert-butyl ether	1.0	U	1.0	0.16	ug/L			11/18/20 15:10	1
Styrene	1.0	U	1.0	0.73	ug/L			11/18/20 15:10	1
1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.21	ug/L			11/18/20 15:10	1
Tetrachloroethene	1.0	U	1.0	0.36	ug/L			11/18/20 15:10	1
Toluene	1.0	U	1.0	0.51	ug/L			11/18/20 15:10	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.90	ug/L			11/18/20 15:10	1
trans-1,3-Dichloropropene	1.0	U	1.0	0.37	ug/L			11/18/20 15:10	1
1,2,4-Trichlorobenzene	1.0	U	1.0	0.41	ug/L			11/18/20 15:10	1
1,1,1-Trichloroethane	1.0	U	1.0	0.82	ug/L			11/18/20 15:10	1
1,1,2-Trichloroethane	1.0	U	1.0	0.23	ug/L			11/18/20 15:10	1
Trichloroethene	1.0	U	1.0	0.46	ug/L			11/18/20 15:10	1
Trichlorofluoromethane	1.0	U	1.0	0.88	ug/L			11/18/20 15:10	1
1,1,2-Trichloro-1,2,2-trifluoroethane	1.0	U	1.0	0.31	ug/L			11/18/20 15:10	1
Vinyl chloride	1.0	U	1.0	0.90	ug/L			11/18/20 15:10	1
Xylenes, Total	2.0	U	2.0	0.66	ug/L			11/18/20 15:10	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	103		73 - 120		11/18/20 15:10	1
Dibromofluoromethane (Surr)	111		75 - 123		11/18/20 15:10	1
1,2-Dichloroethane-d4 (Surr)	111		77 - 120		11/18/20 15:10	1
Toluene-d8 (Surr)	103		80 - 120		11/18/20 15:10	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
TOC Result 1	3.6		1.0	0.43	mg/L			11/19/20 23:33	1
TOC Result 2	3.5		1.0	0.43	mg/L			11/19/20 23:33	1

Eurofins TestAmerica, Buffalo

Client Sample Results

Client: Ashland LLC
Project/Site: Ashland Rensselaer

Job ID: 480-178168-1

Client Sample ID: MW-17-11122020

Lab Sample ID: 480-178168-15

Date Collected: 11/12/20 15:10

Matrix: Water

Date Received: 11/14/20 08:00

General Chemistry (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Organic Carbon	3.6		1.0	0.43	mg/L			11/19/20 23:33	1

Client Sample ID: MW-B1-11122020

Lab Sample ID: 480-178168-16

Date Collected: 11/12/20 14:15

Matrix: Water

Date Received: 11/14/20 08:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	29		10	3.0	ug/L			11/18/20 15:33	1
Benzene	0.50	J	1.0	0.41	ug/L			11/18/20 15:33	1
Bromodichloromethane	1.0	U	1.0	0.39	ug/L			11/18/20 15:33	1
Bromoform	1.0	U	1.0	0.26	ug/L			11/18/20 15:33	1
Bromomethane	1.0	U	1.0	0.69	ug/L			11/18/20 15:33	1
2-Butanone (MEK)	29		10	1.3	ug/L			11/18/20 15:33	1
Carbon disulfide	0.42	J	1.0	0.19	ug/L			11/18/20 15:33	1
Carbon tetrachloride	1.0	U	1.0	0.27	ug/L			11/18/20 15:33	1
Chlorobenzene	1.0	U	1.0	0.75	ug/L			11/18/20 15:33	1
Chloroethane	1.0	U	1.0	0.32	ug/L			11/18/20 15:33	1
Chloroform	0.74	J	1.0	0.34	ug/L			11/18/20 15:33	1
Chloromethane	1.0	U	1.0	0.35	ug/L			11/18/20 15:33	1
cis-1,2-Dichloroethene	0.88	J	1.0	0.81	ug/L			11/18/20 15:33	1
cis-1,3-Dichloropropene	1.0	U	1.0	0.36	ug/L			11/18/20 15:33	1
Cyclohexane	1.0	U	1.0	0.18	ug/L			11/18/20 15:33	1
Dibromochloromethane	1.0	U	1.0	0.32	ug/L			11/18/20 15:33	1
1,2-Dibromo-3-Chloropropane	1.0	U	1.0	0.39	ug/L			11/18/20 15:33	1
1,2-Dibromoethane	1.0	U	1.0	0.73	ug/L			11/18/20 15:33	1
1,2-Dichlorobenzene	1.0	U	1.0	0.79	ug/L			11/18/20 15:33	1
1,3-Dichlorobenzene	1.0	U	1.0	0.78	ug/L			11/18/20 15:33	1
1,4-Dichlorobenzene	1.0	U	1.0	0.84	ug/L			11/18/20 15:33	1
Dichlorodifluoromethane	1.0	U	1.0	0.68	ug/L			11/18/20 15:33	1
1,1-Dichloroethane	1.0	U	1.0	0.38	ug/L			11/18/20 15:33	1
1,2-Dichloroethane	0.40	J	1.0	0.21	ug/L			11/18/20 15:33	1
1,1-Dichloroethene	1.0	U	1.0	0.29	ug/L			11/18/20 15:33	1
1,2-Dichloropropane	1.0	U	1.0	0.72	ug/L			11/18/20 15:33	1
Ethylbenzene	1.0	U	1.0	0.74	ug/L			11/18/20 15:33	1
2-Hexanone	5.6		5.0	1.2	ug/L			11/18/20 15:33	1
Isopropylbenzene	1.0	U	1.0	0.79	ug/L			11/18/20 15:33	1
Methyl acetate	2.5	U	2.5	1.3	ug/L			11/18/20 15:33	1
Methylcyclohexane	1.0	U	1.0	0.16	ug/L			11/18/20 15:33	1
Methylene Chloride	1.0	U	1.0	0.44	ug/L			11/18/20 15:33	1
4-Methyl-2-pentanone (MIBK)	5.0	U	5.0	2.1	ug/L			11/18/20 15:33	1
Methyl tert-butyl ether	1.0	U	1.0	0.16	ug/L			11/18/20 15:33	1
Styrene	1.0	U	1.0	0.73	ug/L			11/18/20 15:33	1
1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.21	ug/L			11/18/20 15:33	1
Tetrachloroethene	1.0	U	1.0	0.36	ug/L			11/18/20 15:33	1
Toluene	1.0	U	1.0	0.51	ug/L			11/18/20 15:33	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.90	ug/L			11/18/20 15:33	1
trans-1,3-Dichloropropene	1.0	U	1.0	0.37	ug/L			11/18/20 15:33	1
1,2,4-Trichlorobenzene	1.0	U	1.0	0.41	ug/L			11/18/20 15:33	1
1,1,1-Trichloroethane	1.0	U	1.0	0.82	ug/L			11/18/20 15:33	1

Eurofins TestAmerica, Buffalo

Client Sample Results

Client: Ashland LLC
Project/Site: Ashland Rensselaer

Job ID: 480-178168-1

Client Sample ID: MW-B1-11122020

Lab Sample ID: 480-178168-16

Date Collected: 11/12/20 14:15

Matrix: Water

Date Received: 11/14/20 08:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,2-Trichloroethane	1.0	U	1.0	0.23	ug/L			11/18/20 15:33	1
Trichloroethene	1.0	U	1.0	0.46	ug/L			11/18/20 15:33	1
Trichlorofluoromethane	1.0	U	1.0	0.88	ug/L			11/18/20 15:33	1
1,1,2-Trichloro-1,2,2-trifluoroethane	1.0	U	1.0	0.31	ug/L			11/18/20 15:33	1
Vinyl chloride	1.2		1.0	0.90	ug/L			11/18/20 15:33	1
Xylenes, Total	2.0	U	2.0	0.66	ug/L			11/18/20 15:33	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	107		73 - 120		11/18/20 15:33	1
Dibromofluoromethane (Surr)	113		75 - 123		11/18/20 15:33	1
1,2-Dichloroethane-d4 (Surr)	106		77 - 120		11/18/20 15:33	1
Toluene-d8 (Surr)	106		80 - 120		11/18/20 15:33	1

Method: RSK-175 - Dissolved Gases (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethane	83	U	83	17	ug/L			11/18/20 20:47	11
Ethene	77	U	77	17	ug/L			11/18/20 20:47	11

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methane	12000		350	88	ug/L			11/19/20 02:07	88

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
TOC Result 1	450		50	22	mg/L			11/20/20 00:02	50
TOC Result 2	440		50	22	mg/L			11/20/20 00:02	50
Total Organic Carbon	450		50	22	mg/L			11/20/20 00:02	50

Client Sample ID: MW-23-11122020

Lab Sample ID: 480-178168-17

Date Collected: 11/12/20 15:30

Matrix: Water

Date Received: 11/14/20 08:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	3.5	J	10	3.0	ug/L			11/18/20 15:57	1
Benzene	1.0	U	1.0	0.41	ug/L			11/18/20 15:57	1
Bromodichloromethane	1.0	U	1.0	0.39	ug/L			11/18/20 15:57	1
Bromoform	1.0	U	1.0	0.26	ug/L			11/18/20 15:57	1
Bromomethane	1.0	U	1.0	0.69	ug/L			11/18/20 15:57	1
2-Butanone (MEK)	10	U	10	1.3	ug/L			11/18/20 15:57	1
Carbon disulfide	1.0	U	1.0	0.19	ug/L			11/18/20 15:57	1
Carbon tetrachloride	1.0	U	1.0	0.27	ug/L			11/18/20 15:57	1
Chlorobenzene	1.0	U	1.0	0.75	ug/L			11/18/20 15:57	1
Chloroethane	1.0	U	1.0	0.32	ug/L			11/18/20 15:57	1
Chloroform	1.0	U	1.0	0.34	ug/L			11/18/20 15:57	1
Chloromethane	1.0	U	1.0	0.35	ug/L			11/18/20 15:57	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.81	ug/L			11/18/20 15:57	1
cis-1,3-Dichloropropene	1.0	U	1.0	0.36	ug/L			11/18/20 15:57	1
Cyclohexane	1.0	U	1.0	0.18	ug/L			11/18/20 15:57	1
Dibromochloromethane	1.0	U	1.0	0.32	ug/L			11/18/20 15:57	1
1,2-Dibromo-3-Chloropropane	1.0	U	1.0	0.39	ug/L			11/18/20 15:57	1

Eurofins TestAmerica, Buffalo

Client Sample Results

Client: Ashland LLC
Project/Site: Ashland Rensselaer

Job ID: 480-178168-1

Client Sample ID: MW-23-11122020

Lab Sample ID: 480-178168-17

Date Collected: 11/12/20 15:30

Matrix: Water

Date Received: 11/14/20 08:00

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			11/18/20 15:57	1
1,2-Dichlorobenzene	1.0	U	1.0	0.79	ug/L			11/18/20 15:57	1
1,3-Dichlorobenzene	1.0	U	1.0	0.78	ug/L			11/18/20 15:57	1
1,4-Dichlorobenzene	1.0	U	1.0	0.84	ug/L			11/18/20 15:57	1
Dichlorodifluoromethane	1.0	U	1.0	0.68	ug/L			11/18/20 15:57	1
1,1-Dichloroethane	1.0	U	1.0	0.38	ug/L			11/18/20 15:57	1
1,2-Dichloroethane	0.34	J	1.0	0.21	ug/L			11/18/20 15:57	1
1,1-Dichloroethene	1.0	U	1.0	0.29	ug/L			11/18/20 15:57	1
1,2-Dichloropropane	1.0	U	1.0	0.72	ug/L			11/18/20 15:57	1
Ethylbenzene	1.0	U	1.0	0.74	ug/L			11/18/20 15:57	1
2-Hexanone	5.0	U	5.0	1.2	ug/L			11/18/20 15:57	1
Isopropylbenzene	1.0	U	1.0	0.79	ug/L			11/18/20 15:57	1
Methyl acetate	2.5	U	2.5	1.3	ug/L			11/18/20 15:57	1
Methylcyclohexane	1.0	U	1.0	0.16	ug/L			11/18/20 15:57	1
Methylene Chloride	1.0	U	1.0	0.44	ug/L			11/18/20 15:57	1
4-Methyl-2-pentanone (MIBK)	5.0	U	5.0	2.1	ug/L			11/18/20 15:57	1
Methyl tert-butyl ether	1.0	U	1.0	0.16	ug/L			11/18/20 15:57	1
Styrene	1.0	U	1.0	0.73	ug/L			11/18/20 15:57	1
1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.21	ug/L			11/18/20 15:57	1
Tetrachloroethene	1.0	U	1.0	0.36	ug/L			11/18/20 15:57	1
Toluene	1.0	U	1.0	0.51	ug/L			11/18/20 15:57	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.90	ug/L			11/18/20 15:57	1
trans-1,3-Dichloropropene	1.0	U	1.0	0.37	ug/L			11/18/20 15:57	1
1,2,4-Trichlorobenzene	1.0	U	1.0	0.41	ug/L			11/18/20 15:57	1
1,1,1-Trichloroethane	1.0	U	1.0	0.82	ug/L			11/18/20 15:57	1
1,1,2-Trichloroethane	1.0	U	1.0	0.23	ug/L			11/18/20 15:57	1
Trichloroethene	1.0	U	1.0	0.46	ug/L			11/18/20 15:57	1
Trichlorofluoromethane	1.0	U	1.0	0.88	ug/L			11/18/20 15:57	1
1,1,2-Trichloro-1,2,2-trifluoroethane	1.0	U	1.0	0.31	ug/L			11/18/20 15:57	1
Vinyl chloride	1.0	U	1.0	0.90	ug/L			11/18/20 15:57	1
Xylenes, Total	2.0	U	2.0	0.66	ug/L			11/18/20 15:57	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	105		73 - 120		11/18/20 15:57	1
Dibromofluoromethane (Surr)	105		75 - 123		11/18/20 15:57	1
1,2-Dichloroethane-d4 (Surr)	106		77 - 120		11/18/20 15:57	1
Toluene-d8 (Surr)	105		80 - 120		11/18/20 15:57	1

Method: RSK-175 - Dissolved Gases (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethane	140	J	170	33	ug/L			11/18/20 21:06	22
Ethene	150	U	150	33	ug/L			11/18/20 21:06	22

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methane	17000		880	220	ug/L			11/19/20 02:26	220

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
TOC Result 1	15		1.0	0.43	mg/L			11/20/20 00:29	1

Eurofins TestAmerica, Buffalo

Client Sample Results

Client: Ashland LLC
Project/Site: Ashland Rensselaer

Job ID: 480-178168-1

Client Sample ID: MW-23-11122020

Lab Sample ID: 480-178168-17

Date Collected: 11/12/20 15:30

Matrix: Water

Date Received: 11/14/20 08:00

General Chemistry (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
TOC Result 2	15		1.0	0.43	mg/L			11/20/20 00:29	1
Total Organic Carbon	16		1.0	0.43	mg/L			11/20/20 00:29	1

Client Sample ID: MW-24-11132020

Lab Sample ID: 480-178168-18

Date Collected: 11/13/20 09:10

Matrix: Water

Date Received: 11/14/20 08:00

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			11/18/20 16:21	80
Benzene	80	U	80	33	ug/L			11/18/20 16:21	80
Bromodichloromethane	80	U	80	31	ug/L			11/18/20 16:21	80
Bromoform	80	U	80	21	ug/L			11/18/20 16:21	80
Bromomethane	80	U	80	55	ug/L			11/18/20 16:21	80
2-Butanone (MEK)	800	U	800	110	ug/L			11/18/20 16:21	80
Carbon disulfide	80	U	80	15	ug/L			11/18/20 16:21	80
Carbon tetrachloride	80	U	80	22	ug/L			11/18/20 16:21	80
Chlorobenzene	80	U	80	60	ug/L			11/18/20 16:21	80
Chloroethane	80	U	80	26	ug/L			11/18/20 16:21	80
Chloroform	80	U	80	27	ug/L			11/18/20 16:21	80
Chloromethane	80	U	80	28	ug/L			11/18/20 16:21	80
cis-1,2-Dichloroethene	2600		80	65	ug/L			11/18/20 16:21	80
cis-1,3-Dichloropropene	80	U	80	29	ug/L			11/18/20 16:21	80
Cyclohexane	80	U	80	14	ug/L			11/18/20 16:21	80
Dibromochloromethane	80	U	80	26	ug/L			11/18/20 16:21	80
1,2-Dibromo-3-Chloropropane	80	U	80	31	ug/L			11/18/20 16:21	80
1,2-Dibromoethane	80	U	80	58	ug/L			11/18/20 16:21	80
1,2-Dichlorobenzene	80	U	80	63	ug/L			11/18/20 16:21	80
1,3-Dichlorobenzene	80	U	80	62	ug/L			11/18/20 16:21	80
1,4-Dichlorobenzene	80	U	80	67	ug/L			11/18/20 16:21	80
Dichlorodifluoromethane	80	U	80	54	ug/L			11/18/20 16:21	80
1,1-Dichloroethane	58	J	80	30	ug/L			11/18/20 16:21	80
1,2-Dichloroethane	80	U	80	17	ug/L			11/18/20 16:21	80
1,1-Dichloroethene	80	U	80	23	ug/L			11/18/20 16:21	80
1,2-Dichloropropane	80	U	80	58	ug/L			11/18/20 16:21	80
Ethylbenzene	80	U	80	59	ug/L			11/18/20 16:21	80
2-Hexanone	400	U	400	99	ug/L			11/18/20 16:21	80
Isopropylbenzene	80	U	80	63	ug/L			11/18/20 16:21	80
Methyl acetate	200	U	200	100	ug/L			11/18/20 16:21	80
Methylcyclohexane	80	U	80	13	ug/L			11/18/20 16:21	80
Methylene Chloride	80	U	80	35	ug/L			11/18/20 16:21	80
4-Methyl-2-pentanone (MIBK)	400	U	400	170	ug/L			11/18/20 16:21	80
Methyl tert-butyl ether	80	U	80	13	ug/L			11/18/20 16:21	80
Styrene	80	U	80	58	ug/L			11/18/20 16:21	80
1,1,2,2-Tetrachloroethane	80	U	80	17	ug/L			11/18/20 16:21	80
Tetrachloroethene	80	U	80	29	ug/L			11/18/20 16:21	80
Toluene	80	U	80	41	ug/L			11/18/20 16:21	80
trans-1,2-Dichloroethene	80	U	80	72	ug/L			11/18/20 16:21	80
trans-1,3-Dichloropropene	80	U	80	30	ug/L			11/18/20 16:21	80
1,2,4-Trichlorobenzene	80	U	80	33	ug/L			11/18/20 16:21	80

Eurofins TestAmerica, Buffalo

Client Sample Results

Client: Ashland LLC
Project/Site: Ashland Rensselaer

Job ID: 480-178168-1

Client Sample ID: MW-24-11132020

Lab Sample ID: 480-178168-18

Date Collected: 11/13/20 09:10

Matrix: Water

Date Received: 11/14/20 08:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	80	U	80	66	ug/L			11/18/20 16:21	80
1,1,2-Trichloroethane	80	U	80	18	ug/L			11/18/20 16:21	80
Trichloroethene	1000		80	37	ug/L			11/18/20 16:21	80
Trichlorofluoromethane	80	U	80	70	ug/L			11/18/20 16:21	80
1,1,2-Trichloro-1,2,2-trifluoroethane	80	U	80	25	ug/L			11/18/20 16:21	80
Vinyl chloride	550		80	72	ug/L			11/18/20 16:21	80
Xylenes, Total	160	U	160	53	ug/L			11/18/20 16:21	80

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	105		73 - 120		11/18/20 16:21	80
Dibromofluoromethane (Surr)	114		75 - 123		11/18/20 16:21	80
1,2-Dichloroethane-d4 (Surr)	108		77 - 120		11/18/20 16:21	80
Toluene-d8 (Surr)	104		80 - 120		11/18/20 16:21	80

Method: RSK-175 - Dissolved Gases (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethane	80	J	330	66	ug/L			11/18/20 21:24	44
Ethene	140	J	310	66	ug/L			11/18/20 21:24	44
Methane	14000		180	44	ug/L			11/18/20 21:24	44

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
TOC Result 1	580		100	43	mg/L			11/20/20 00:57	100
TOC Result 2	580		100	43	mg/L			11/20/20 00:57	100
Total Organic Carbon	590		100	43	mg/L			11/20/20 00:57	100

Client Sample ID: IW-B3-11132020

Lab Sample ID: 480-178168-19

Date Collected: 11/13/20 07:30

Matrix: Water

Date Received: 11/14/20 08:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	500	U	500	150	ug/L			11/18/20 16:45	50
Benzene	50	U	50	21	ug/L			11/18/20 16:45	50
Bromodichloromethane	50	U	50	20	ug/L			11/18/20 16:45	50
Bromoform	50	U	50	13	ug/L			11/18/20 16:45	50
Bromomethane	50	U	50	35	ug/L			11/18/20 16:45	50
2-Butanone (MEK)	500	U	500	66	ug/L			11/18/20 16:45	50
Carbon disulfide	50	U	50	9.5	ug/L			11/18/20 16:45	50
Carbon tetrachloride	50	U	50	14	ug/L			11/18/20 16:45	50
Chlorobenzene	50	U	50	38	ug/L			11/18/20 16:45	50
Chloroethane	50	U	50	16	ug/L			11/18/20 16:45	50
Chloroform	50	U	50	17	ug/L			11/18/20 16:45	50
Chloromethane	50	U	50	18	ug/L			11/18/20 16:45	50
cis-1,2-Dichloroethene	50	U	50	41	ug/L			11/18/20 16:45	50
cis-1,3-Dichloropropene	50	U	50	18	ug/L			11/18/20 16:45	50
Cyclohexane	50	U	50	9.0	ug/L			11/18/20 16:45	50
Dibromochloromethane	50	U	50	16	ug/L			11/18/20 16:45	50
1,2-Dibromo-3-Chloropropane	50	U	50	20	ug/L			11/18/20 16:45	50
1,2-Dibromoethane	50	U	50	37	ug/L			11/18/20 16:45	50
1,2-Dichlorobenzene	50	U	50	40	ug/L			11/18/20 16:45	50

Eurofins TestAmerica, Buffalo

Client Sample Results

Client: Ashland LLC
Project/Site: Ashland Rensselaer

Job ID: 480-178168-1

Client Sample ID: IW-B3-11132020

Lab Sample ID: 480-178168-19

Date Collected: 11/13/20 07:30

Matrix: Water

Date Received: 11/14/20 08:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,3-Dichlorobenzene	50	U	50	39	ug/L			11/18/20 16:45	50
1,4-Dichlorobenzene	50	U	50	42	ug/L			11/18/20 16:45	50
Dichlorodifluoromethane	50	U	50	34	ug/L			11/18/20 16:45	50
1,1-Dichloroethane	50	U	50	19	ug/L			11/18/20 16:45	50
1,2-Dichloroethane	50	U	50	11	ug/L			11/18/20 16:45	50
1,1-Dichloroethene	50	U	50	15	ug/L			11/18/20 16:45	50
1,2-Dichloropropane	50	U	50	36	ug/L			11/18/20 16:45	50
Ethylbenzene	50	U	50	37	ug/L			11/18/20 16:45	50
2-Hexanone	250	U	250	62	ug/L			11/18/20 16:45	50
Isopropylbenzene	50	U	50	40	ug/L			11/18/20 16:45	50
Methyl acetate	130	U	130	65	ug/L			11/18/20 16:45	50
Methylcyclohexane	50	U	50	8.0	ug/L			11/18/20 16:45	50
Methylene Chloride	50	U	50	22	ug/L			11/18/20 16:45	50
4-Methyl-2-pentanone (MIBK)	250	U	250	110	ug/L			11/18/20 16:45	50
Methyl tert-butyl ether	50	U	50	8.0	ug/L			11/18/20 16:45	50
Styrene	50	U	50	37	ug/L			11/18/20 16:45	50
1,1,2,2-Tetrachloroethane	50	U	50	11	ug/L			11/18/20 16:45	50
Tetrachloroethene	50	U	50	18	ug/L			11/18/20 16:45	50
Toluene	50	U	50	26	ug/L			11/18/20 16:45	50
trans-1,2-Dichloroethene	50	U	50	45	ug/L			11/18/20 16:45	50
trans-1,3-Dichloropropene	50	U	50	19	ug/L			11/18/20 16:45	50
1,2,4-Trichlorobenzene	50	U	50	21	ug/L			11/18/20 16:45	50
1,1,1-Trichloroethane	50	U	50	41	ug/L			11/18/20 16:45	50
1,1,2-Trichloroethane	50	U	50	12	ug/L			11/18/20 16:45	50
Trichloroethene	50	U	50	23	ug/L			11/18/20 16:45	50
Trichlorofluoromethane	50	U	50	44	ug/L			11/18/20 16:45	50
1,1,2-Trichloro-1,2,2-trifluoroethane	50	U	50	16	ug/L			11/18/20 16:45	50
Vinyl chloride	50	U	50	45	ug/L			11/18/20 16:45	50
Xylenes, Total	100	U	100	33	ug/L			11/18/20 16:45	50
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	102		73 - 120					11/18/20 16:45	50
Dibromofluoromethane (Surr)	113		75 - 123					11/18/20 16:45	50
1,2-Dichloroethane-d4 (Surr)	109		77 - 120					11/18/20 16:45	50
Toluene-d8 (Surr)	103		80 - 120					11/18/20 16:45	50

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
TOC Result 1	120		4.0	1.7	mg/L			11/19/20 21:58	4
TOC Result 2	130		4.0	1.7	mg/L			11/19/20 21:58	4
Total Organic Carbon	130		4.0	1.7	mg/L			11/19/20 21:58	4

Client Sample ID: FB-2-11122020

Lab Sample ID: 480-178168-20

Date Collected: 11/12/20 16:10

Matrix: Water

Date Received: 11/14/20 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			11/18/20 17:09	1
Benzene	1.0	U	1.0	0.41	ug/L			11/18/20 17:09	1

Eurofins TestAmerica, Buffalo

Client Sample Results

Client: Ashland LLC
Project/Site: Ashland Rensselaer

Job ID: 480-178168-1

Client Sample ID: FB-2-11122020

Lab Sample ID: 480-178168-20

Date Collected: 11/12/20 16:10

Matrix: Water

Date Received: 11/14/20 08:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bromodichloromethane	1.0	U	1.0	0.39	ug/L			11/18/20 17:09	1
Bromoform	1.0	U	1.0	0.26	ug/L			11/18/20 17:09	1
Bromomethane	1.0	U	1.0	0.69	ug/L			11/18/20 17:09	1
2-Butanone (MEK)	10	U	10	1.3	ug/L			11/18/20 17:09	1
Carbon disulfide	1.0	U	1.0	0.19	ug/L			11/18/20 17:09	1
Carbon tetrachloride	1.0	U	1.0	0.27	ug/L			11/18/20 17:09	1
Chlorobenzene	1.0	U	1.0	0.75	ug/L			11/18/20 17:09	1
Chloroethane	1.0	U	1.0	0.32	ug/L			11/18/20 17:09	1
Chloroform	1.0	U	1.0	0.34	ug/L			11/18/20 17:09	1
Chloromethane	1.0	U	1.0	0.35	ug/L			11/18/20 17:09	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.81	ug/L			11/18/20 17:09	1
cis-1,3-Dichloropropene	1.0	U	1.0	0.36	ug/L			11/18/20 17:09	1
Cyclohexane	1.0	U	1.0	0.18	ug/L			11/18/20 17:09	1
Dibromochloromethane	1.0	U	1.0	0.32	ug/L			11/18/20 17:09	1
1,2-Dibromo-3-Chloropropane	1.0	U	1.0	0.39	ug/L			11/18/20 17:09	1
1,2-Dibromoethane	1.0	U	1.0	0.73	ug/L			11/18/20 17:09	1
1,2-Dichlorobenzene	1.0	U	1.0	0.79	ug/L			11/18/20 17:09	1
1,3-Dichlorobenzene	1.0	U	1.0	0.78	ug/L			11/18/20 17:09	1
1,4-Dichlorobenzene	1.0	U	1.0	0.84	ug/L			11/18/20 17:09	1
Dichlorodifluoromethane	1.0	U	1.0	0.68	ug/L			11/18/20 17:09	1
1,1-Dichloroethane	1.0	U	1.0	0.38	ug/L			11/18/20 17:09	1
1,2-Dichloroethane	1.0	U	1.0	0.21	ug/L			11/18/20 17:09	1
1,1-Dichloroethene	1.0	U	1.0	0.29	ug/L			11/18/20 17:09	1
1,2-Dichloropropane	1.0	U	1.0	0.72	ug/L			11/18/20 17:09	1
Ethylbenzene	1.0	U	1.0	0.74	ug/L			11/18/20 17:09	1
2-Hexanone	5.0	U	5.0	1.2	ug/L			11/18/20 17:09	1
Isopropylbenzene	1.0	U	1.0	0.79	ug/L			11/18/20 17:09	1
Methyl acetate	2.5	U	2.5	1.3	ug/L			11/18/20 17:09	1
Methylcyclohexane	1.0	U	1.0	0.16	ug/L			11/18/20 17:09	1
Methylene Chloride	1.0	U	1.0	0.44	ug/L			11/18/20 17:09	1
4-Methyl-2-pentanone (MIBK)	5.0	U	5.0	2.1	ug/L			11/18/20 17:09	1
Methyl tert-butyl ether	1.0	U	1.0	0.16	ug/L			11/18/20 17:09	1
Styrene	1.0	U	1.0	0.73	ug/L			11/18/20 17:09	1
1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.21	ug/L			11/18/20 17:09	1
Tetrachloroethene	1.0	U	1.0	0.36	ug/L			11/18/20 17:09	1
Toluene	1.0	U	1.0	0.51	ug/L			11/18/20 17:09	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.90	ug/L			11/18/20 17:09	1
trans-1,3-Dichloropropene	1.0	U	1.0	0.37	ug/L			11/18/20 17:09	1
1,2,4-Trichlorobenzene	1.0	U	1.0	0.41	ug/L			11/18/20 17:09	1
1,1,1-Trichloroethane	1.0	U	1.0	0.82	ug/L			11/18/20 17:09	1
1,1,2-Trichloroethane	1.0	U	1.0	0.23	ug/L			11/18/20 17:09	1
Trichloroethene	1.0	U	1.0	0.46	ug/L			11/18/20 17:09	1
Trichlorofluoromethane	1.0	U	1.0	0.88	ug/L			11/18/20 17:09	1
1,1,2-Trichloro-1,2,2-trifluoroethane	1.0	U	1.0	0.31	ug/L			11/18/20 17:09	1
Vinyl chloride	1.0	U	1.0	0.90	ug/L			11/18/20 17:09	1
Xylenes, Total	2.0	U	2.0	0.66	ug/L			11/18/20 17:09	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	106		73 - 120		11/18/20 17:09	1
Dibromofluoromethane (Surr)	109		75 - 123		11/18/20 17:09	1

Eurofins TestAmerica, Buffalo

Client Sample Results

Client: Ashland LLC
Project/Site: Ashland Rensselaer

Job ID: 480-178168-1

Client Sample ID: FB-2-11122020

Lab Sample ID: 480-178168-20

Date Collected: 11/12/20 16:10

Matrix: Water

Date Received: 11/14/20 08:00

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

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	105		77 - 120		11/18/20 17:09	1
Toluene-d8 (Surr)	102		80 - 120		11/18/20 17:09	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			11/18/20 21:43	1
Ethene	7.0	U	7.0	1.5	ug/L			11/18/20 21:43	1
Methane	4.0	U	4.0	1.0	ug/L			11/18/20 21:43	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			11/19/20 22:58	1
TOC Result 2	1.0	U	1.0	0.43	mg/L			11/19/20 22:58	1
Total Organic Carbon	1.0	U	1.0	0.43	mg/L			11/19/20 22:58	1

Client Sample ID: FB-3-11132020

Lab Sample ID: 480-178168-21

Date Collected: 11/13/20 10:30

Matrix: Water

Date Received: 11/14/20 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			11/18/20 17:33	1
Benzene	1.0	U	1.0	0.41	ug/L			11/18/20 17:33	1
Bromodichloromethane	1.0	U	1.0	0.39	ug/L			11/18/20 17:33	1
Bromoform	1.0	U	1.0	0.26	ug/L			11/18/20 17:33	1
Bromomethane	1.0	U	1.0	0.69	ug/L			11/18/20 17:33	1
2-Butanone (MEK)	10	U	10	1.3	ug/L			11/18/20 17:33	1
Carbon disulfide	1.0	U	1.0	0.19	ug/L			11/18/20 17:33	1
Carbon tetrachloride	1.0	U	1.0	0.27	ug/L			11/18/20 17:33	1
Chlorobenzene	1.0	U	1.0	0.75	ug/L			11/18/20 17:33	1
Chloroethane	1.0	U	1.0	0.32	ug/L			11/18/20 17:33	1
Chloroform	1.0	U	1.0	0.34	ug/L			11/18/20 17:33	1
Chloromethane	1.0	U	1.0	0.35	ug/L			11/18/20 17:33	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.81	ug/L			11/18/20 17:33	1
cis-1,3-Dichloropropene	1.0	U	1.0	0.36	ug/L			11/18/20 17:33	1
Cyclohexane	1.0	U	1.0	0.18	ug/L			11/18/20 17:33	1
Dibromochloromethane	1.0	U	1.0	0.32	ug/L			11/18/20 17:33	1
1,2-Dibromo-3-Chloropropane	1.0	U	1.0	0.39	ug/L			11/18/20 17:33	1
1,2-Dibromoethane	1.0	U	1.0	0.73	ug/L			11/18/20 17:33	1
1,2-Dichlorobenzene	1.0	U	1.0	0.79	ug/L			11/18/20 17:33	1
1,3-Dichlorobenzene	1.0	U	1.0	0.78	ug/L			11/18/20 17:33	1
1,4-Dichlorobenzene	1.0	U	1.0	0.84	ug/L			11/18/20 17:33	1
Dichlorodifluoromethane	1.0	U	1.0	0.68	ug/L			11/18/20 17:33	1
1,1-Dichloroethane	1.0	U	1.0	0.38	ug/L			11/18/20 17:33	1
1,2-Dichloroethane	1.0	U	1.0	0.21	ug/L			11/18/20 17:33	1
1,1-Dichloroethene	1.0	U	1.0	0.29	ug/L			11/18/20 17:33	1
1,2-Dichloropropane	1.0	U	1.0	0.72	ug/L			11/18/20 17:33	1
Ethylbenzene	1.0	U	1.0	0.74	ug/L			11/18/20 17:33	1
2-Hexanone	5.0	U	5.0	1.2	ug/L			11/18/20 17:33	1
Isopropylbenzene	1.0	U	1.0	0.79	ug/L			11/18/20 17:33	1

Eurofins TestAmerica, Buffalo

Client Sample Results

Client: Ashland LLC
Project/Site: Ashland Rensselaer

Job ID: 480-178168-1

Client Sample ID: FB-3-11132020

Lab Sample ID: 480-178168-21

Date Collected: 11/13/20 10:30

Matrix: Water

Date Received: 11/14/20 08:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methyl acetate	2.5	U	2.5	1.3	ug/L			11/18/20 17:33	1
Methylcyclohexane	1.0	U	1.0	0.16	ug/L			11/18/20 17:33	1
Methylene Chloride	1.0	U	1.0	0.44	ug/L			11/18/20 17:33	1
4-Methyl-2-pentanone (MIBK)	5.0	U	5.0	2.1	ug/L			11/18/20 17:33	1
Methyl tert-butyl ether	1.0	U	1.0	0.16	ug/L			11/18/20 17:33	1
Styrene	1.0	U	1.0	0.73	ug/L			11/18/20 17:33	1
1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.21	ug/L			11/18/20 17:33	1
Tetrachloroethene	1.0	U	1.0	0.36	ug/L			11/18/20 17:33	1
Toluene	1.0	U	1.0	0.51	ug/L			11/18/20 17:33	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.90	ug/L			11/18/20 17:33	1
trans-1,3-Dichloropropene	1.0	U	1.0	0.37	ug/L			11/18/20 17:33	1
1,2,4-Trichlorobenzene	1.0	U	1.0	0.41	ug/L			11/18/20 17:33	1
1,1,1-Trichloroethane	1.0	U	1.0	0.82	ug/L			11/18/20 17:33	1
1,1,2-Trichloroethane	1.0	U	1.0	0.23	ug/L			11/18/20 17:33	1
Trichloroethene	1.0	U	1.0	0.46	ug/L			11/18/20 17:33	1
Trichlorofluoromethane	1.0	U	1.0	0.88	ug/L			11/18/20 17:33	1
1,1,2-Trichloro-1,2,2-trifluoroethane	1.0	U	1.0	0.31	ug/L			11/18/20 17:33	1
Vinyl chloride	1.0	U	1.0	0.90	ug/L			11/18/20 17:33	1
Xylenes, Total	2.0	U	2.0	0.66	ug/L			11/18/20 17:33	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	105		73 - 120		11/18/20 17:33	1
Dibromofluoromethane (Surr)	112		75 - 123		11/18/20 17:33	1
1,2-Dichloroethane-d4 (Surr)	111		77 - 120		11/18/20 17:33	1
Toluene-d8 (Surr)	104		80 - 120		11/18/20 17:33	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			11/18/20 22:02	1
Ethene	7.0	U	7.0	1.5	ug/L			11/18/20 22:02	1
Methane	4.0	U	4.0	1.0	ug/L			11/18/20 22:02	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			11/19/20 23:57	1
TOC Result 2	1.0	U	1.0	0.43	mg/L			11/19/20 23:57	1
Total Organic Carbon	1.0	U	1.0	0.43	mg/L			11/19/20 23:57	1

Client Sample ID: TB-1-11132020

Lab Sample ID: 480-178168-22

Date Collected: 11/13/20 00:00

Matrix: Water

Date Received: 11/14/20 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			11/18/20 17:57	1
Benzene	1.0	U	1.0	0.41	ug/L			11/18/20 17:57	1
Bromodichloromethane	1.0	U	1.0	0.39	ug/L			11/18/20 17:57	1
Bromoform	1.0	U	1.0	0.26	ug/L			11/18/20 17:57	1
Bromomethane	1.0	U	1.0	0.69	ug/L			11/18/20 17:57	1
2-Butanone (MEK)	10	U	10	1.3	ug/L			11/18/20 17:57	1
Carbon disulfide	1.0	U	1.0	0.19	ug/L			11/18/20 17:57	1

Eurofins TestAmerica, Buffalo

Client Sample Results

Client: Ashland LLC
Project/Site: Ashland Rensselaer

Job ID: 480-178168-1

Client Sample ID: TB-1-11132020

Lab Sample ID: 480-178168-22

Date Collected: 11/13/20 00:00

Matrix: Water

Date Received: 11/14/20 08:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Carbon tetrachloride	1.0	U	1.0	0.27	ug/L			11/18/20 17:57	1
Chlorobenzene	1.0	U	1.0	0.75	ug/L			11/18/20 17:57	1
Chloroethane	1.0	U	1.0	0.32	ug/L			11/18/20 17:57	1
Chloroform	1.0	U	1.0	0.34	ug/L			11/18/20 17:57	1
Chloromethane	1.0	U	1.0	0.35	ug/L			11/18/20 17:57	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.81	ug/L			11/18/20 17:57	1
cis-1,3-Dichloropropene	1.0	U	1.0	0.36	ug/L			11/18/20 17:57	1
Cyclohexane	1.0	U	1.0	0.18	ug/L			11/18/20 17:57	1
Dibromochloromethane	1.0	U	1.0	0.32	ug/L			11/18/20 17:57	1
1,2-Dibromo-3-Chloropropane	1.0	U	1.0	0.39	ug/L			11/18/20 17:57	1
1,2-Dibromoethane	1.0	U	1.0	0.73	ug/L			11/18/20 17:57	1
1,2-Dichlorobenzene	1.0	U	1.0	0.79	ug/L			11/18/20 17:57	1
1,3-Dichlorobenzene	1.0	U	1.0	0.78	ug/L			11/18/20 17:57	1
1,4-Dichlorobenzene	1.0	U	1.0	0.84	ug/L			11/18/20 17:57	1
Dichlorodifluoromethane	1.0	U	1.0	0.68	ug/L			11/18/20 17:57	1
1,1-Dichloroethane	1.0	U	1.0	0.38	ug/L			11/18/20 17:57	1
1,2-Dichloroethane	1.0	U	1.0	0.21	ug/L			11/18/20 17:57	1
1,1-Dichloroethene	1.0	U	1.0	0.29	ug/L			11/18/20 17:57	1
1,2-Dichloropropane	1.0	U	1.0	0.72	ug/L			11/18/20 17:57	1
Ethylbenzene	1.0	U	1.0	0.74	ug/L			11/18/20 17:57	1
2-Hexanone	5.0	U	5.0	1.2	ug/L			11/18/20 17:57	1
Isopropylbenzene	1.0	U	1.0	0.79	ug/L			11/18/20 17:57	1
Methyl acetate	2.5	U	2.5	1.3	ug/L			11/18/20 17:57	1
Methylcyclohexane	1.0	U	1.0	0.16	ug/L			11/18/20 17:57	1
Methylene Chloride	1.0	U	1.0	0.44	ug/L			11/18/20 17:57	1
4-Methyl-2-pentanone (MIBK)	5.0	U	5.0	2.1	ug/L			11/18/20 17:57	1
Methyl tert-butyl ether	1.0	U	1.0	0.16	ug/L			11/18/20 17:57	1
Styrene	1.0	U	1.0	0.73	ug/L			11/18/20 17:57	1
1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.21	ug/L			11/18/20 17:57	1
Tetrachloroethene	1.0	U	1.0	0.36	ug/L			11/18/20 17:57	1
Toluene	1.0	U	1.0	0.51	ug/L			11/18/20 17:57	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.90	ug/L			11/18/20 17:57	1
trans-1,3-Dichloropropene	1.0	U	1.0	0.37	ug/L			11/18/20 17:57	1
1,2,4-Trichlorobenzene	1.0	U	1.0	0.41	ug/L			11/18/20 17:57	1
1,1,1-Trichloroethane	1.0	U	1.0	0.82	ug/L			11/18/20 17:57	1
1,1,2-Trichloroethane	1.0	U	1.0	0.23	ug/L			11/18/20 17:57	1
Trichloroethene	1.0	U	1.0	0.46	ug/L			11/18/20 17:57	1
Trichlorofluoromethane	1.0	U	1.0	0.88	ug/L			11/18/20 17:57	1
1,1,2-Trichloro-1,2,2-trifluoroethane	1.0	U	1.0	0.31	ug/L			11/18/20 17:57	1
Vinyl chloride	1.0	U	1.0	0.90	ug/L			11/18/20 17:57	1
Xylenes, Total	2.0	U	2.0	0.66	ug/L			11/18/20 17:57	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	104		73 - 120		11/18/20 17:57	1
Dibromofluoromethane (Surr)	113		75 - 123		11/18/20 17:57	1
1,2-Dichloroethane-d4 (Surr)	108		77 - 120		11/18/20 17:57	1
Toluene-d8 (Surr)	105		80 - 120		11/18/20 17:57	1

Eurofins TestAmerica, Buffalo

Client Sample Results

Client: Ashland LLC
Project/Site: Ashland Rensselaer

Job ID: 480-178168-1

Client Sample ID: TB-2-11122020

Lab Sample ID: 480-178168-23

Date Collected: 11/12/20 00:00

Matrix: Water

Date Received: 11/14/20 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			11/18/20 18:21	1
Benzene	1.0	U	1.0	0.41	ug/L			11/18/20 18:21	1
Bromodichloromethane	1.0	U	1.0	0.39	ug/L			11/18/20 18:21	1
Bromoform	1.0	U	1.0	0.26	ug/L			11/18/20 18:21	1
Bromomethane	1.0	U	1.0	0.69	ug/L			11/18/20 18:21	1
2-Butanone (MEK)	10	U	10	1.3	ug/L			11/18/20 18:21	1
Carbon disulfide	1.0	U	1.0	0.19	ug/L			11/18/20 18:21	1
Carbon tetrachloride	1.0	U	1.0	0.27	ug/L			11/18/20 18:21	1
Chlorobenzene	1.0	U	1.0	0.75	ug/L			11/18/20 18:21	1
Chloroethane	1.0	U	1.0	0.32	ug/L			11/18/20 18:21	1
Chloroform	1.0	U	1.0	0.34	ug/L			11/18/20 18:21	1
Chloromethane	1.0	U	1.0	0.35	ug/L			11/18/20 18:21	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.81	ug/L			11/18/20 18:21	1
cis-1,3-Dichloropropene	1.0	U	1.0	0.36	ug/L			11/18/20 18:21	1
Cyclohexane	1.0	U	1.0	0.18	ug/L			11/18/20 18:21	1
Dibromochloromethane	1.0	U	1.0	0.32	ug/L			11/18/20 18:21	1
1,2-Dibromo-3-Chloropropane	1.0	U	1.0	0.39	ug/L			11/18/20 18:21	1
1,2-Dibromoethane	1.0	U	1.0	0.73	ug/L			11/18/20 18:21	1
1,2-Dichlorobenzene	1.0	U	1.0	0.79	ug/L			11/18/20 18:21	1
1,3-Dichlorobenzene	1.0	U	1.0	0.78	ug/L			11/18/20 18:21	1
1,4-Dichlorobenzene	1.0	U	1.0	0.84	ug/L			11/18/20 18:21	1
Dichlorodifluoromethane	1.0	U	1.0	0.68	ug/L			11/18/20 18:21	1
1,1-Dichloroethane	1.0	U	1.0	0.38	ug/L			11/18/20 18:21	1
1,2-Dichloroethane	1.0	U	1.0	0.21	ug/L			11/18/20 18:21	1
1,1-Dichloroethene	1.0	U	1.0	0.29	ug/L			11/18/20 18:21	1
1,2-Dichloropropane	1.0	U	1.0	0.72	ug/L			11/18/20 18:21	1
Ethylbenzene	1.0	U	1.0	0.74	ug/L			11/18/20 18:21	1
2-Hexanone	5.0	U	5.0	1.2	ug/L			11/18/20 18:21	1
Isopropylbenzene	1.0	U	1.0	0.79	ug/L			11/18/20 18:21	1
Methyl acetate	2.5	U	2.5	1.3	ug/L			11/18/20 18:21	1
Methylcyclohexane	1.0	U	1.0	0.16	ug/L			11/18/20 18:21	1
Methylene Chloride	1.0	U	1.0	0.44	ug/L			11/18/20 18:21	1
4-Methyl-2-pentanone (MIBK)	5.0	U	5.0	2.1	ug/L			11/18/20 18:21	1
Methyl tert-butyl ether	1.0	U	1.0	0.16	ug/L			11/18/20 18:21	1
Styrene	1.0	U	1.0	0.73	ug/L			11/18/20 18:21	1
1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.21	ug/L			11/18/20 18:21	1
Tetrachloroethene	1.0	U	1.0	0.36	ug/L			11/18/20 18:21	1
Toluene	1.0	U	1.0	0.51	ug/L			11/18/20 18:21	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.90	ug/L			11/18/20 18:21	1
trans-1,3-Dichloropropene	1.0	U	1.0	0.37	ug/L			11/18/20 18:21	1
1,2,4-Trichlorobenzene	1.0	U	1.0	0.41	ug/L			11/18/20 18:21	1
1,1,1-Trichloroethane	1.0	U	1.0	0.82	ug/L			11/18/20 18:21	1
1,1,2-Trichloroethane	1.0	U	1.0	0.23	ug/L			11/18/20 18:21	1
Trichloroethene	1.0	U	1.0	0.46	ug/L			11/18/20 18:21	1
Trichlorofluoromethane	1.0	U	1.0	0.88	ug/L			11/18/20 18:21	1
1,1,2-Trichloro-1,2,2-trifluoroethane	1.0	U	1.0	0.31	ug/L			11/18/20 18:21	1
Vinyl chloride	1.0	U	1.0	0.90	ug/L			11/18/20 18:21	1
Xylenes, Total	2.0	U	2.0	0.66	ug/L			11/18/20 18:21	1

Eurofins TestAmerica, Buffalo

Client Sample Results

Client: Ashland LLC
Project/Site: Ashland Rensselaer

Job ID: 480-178168-1

Client Sample ID: TB-2-11122020

Lab Sample ID: 480-178168-23

Date Collected: 11/12/20 00:00

Matrix: Water

Date Received: 11/14/20 08:00

<i>Surrogate</i>	<i>%Recovery</i>	<i>Qualifier</i>	<i>Limits</i>	<i>Prepared</i>	<i>Analyzed</i>	<i>Dil Fac</i>
4-Bromofluorobenzene (Surr)	103		73 - 120		11/18/20 18:21	1
Dibromofluoromethane (Surr)	108		75 - 123		11/18/20 18:21	1
1,2-Dichloroethane-d4 (Surr)	107		77 - 120		11/18/20 18:21	1
Toluene-d8 (Surr)	104		80 - 120		11/18/20 18:21	1

Appendix C

Groundwater Monitoring Field Logs

Sampling Personnel: ES Well ID: IMP-3
 Client / Job Number: 30039411 Date: 4/7/20
 Weather: Sunny 55°F Time In: 1025 Time Out: 1105

Well Information

Depth to Water: (feet) 7.60 (from MP)
 Total Depth: (feet) 18.38 (from MP)
 Length of Water Column: (feet) 10.78
 Volume of Water in Well: (gal) 1.75
 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:

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				

Pump Start Time: 1025
 Pump Stop Time: 1105 Water-Quality Meter Type: Horiba US3
 Total Volume Removed: (gal) ~1,50 Did well go dry: Yes ☐ No ☒

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	<u>1025</u>	<u>1030</u>	<u>1035</u>	<u>1040</u>	<u>1045</u>	<u>1050</u>	<u>1055</u>		
Volume Purged (Gal)	<u>0</u>	<u>0.25</u>	<u>0.50</u>	<u>0.75</u>	<u>1.0</u>	<u>1.25</u>	<u>1.50</u>		
Rate (mL/min)	<u>200</u>	<u>200</u>	<u>200</u>	<u>200</u>	<u>200</u>	<u>200</u>	<u>200</u>		
Depth to Water (ft.)	<u>7.87</u>	<u>7.98</u>	<u>8.10</u>	<u>8.25</u>	<u>8.42</u>	<u>8.58</u>	<u>8.72</u>		
pH	<u>6.79</u>	<u>6.82</u>	<u>6.86</u>	<u>6.88</u>	<u>6.91</u>	<u>6.93</u>	<u>6.96</u>		
Temp. (C)	<u>12.17</u>	<u>12.25</u>	<u>12.61</u>	<u>12.58</u>	<u>12.72</u>	<u>12.78</u>	<u>12.76</u>		
Conductivity (mS/cm)	<u>1.75</u>	<u>1.76</u>	<u>1.77</u>	<u>1.77</u>	<u>1.78</u>	<u>1.79</u>	<u>1.79</u>		
Dissolved Oxygen (mg/L)	<u>3.08</u>	<u>1.15</u>	<u>0.93</u>	<u>0.85</u>	<u>0.78</u>	<u>0.75</u>	<u>0.71</u>		
ORP (mV)	<u>-92</u>	<u>-89</u>	<u>-89</u>	<u>-90</u>	<u>-91</u>	<u>-93</u>	<u>-95</u>		
Turbidity (NTU)	<u>119</u>	<u>117</u>	<u>105</u>	<u>94.2</u>	<u>80.8</u>	<u>76.7</u>	<u>73.1</u>		
Notes:									

Sampling Information

Analyses	#	n	Laboratory
8260C VOL	3		TA
9060 TOC	2		TA
RSK175			
Color: Slightly Tan			
Odor: No Odor			
Appearance: Slightly Cloudy			
Sample ID: IMP-3-040720		Sample Time: 1100	
MS/MSD:	Yes ☐	No ☒	
Duplicate:	Yes ☐	No ☒	
Duplicate ID	Dup. Time:		
Chain of Custody Signed By:			

Problems / Observations

Initial: Slightly Tan, Slightly Cloudy, No Odor

☒ VOC sampled w/ bailer

Sampling Personnel: ES Well ID: IP-1
 Client / Job Number: 30039411 Date: 4/7/20
 Weather: Sunny 54°F Time In: 0930 Time Out: 1025

Well Information

Depth to Water: (feet) 4.80 (from MP)
 Total Depth: (feet) 18.55 (from MP)
 Length of Water Column: (feet) 13.75
 Volume of Water in Well: (gal) 2.24
 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:

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				

Pump Start Time: 0940
 Pump Stop Time: 1025 Water-Quality Meter Type: Horiba US3
 Total Volume Removed: (gal) ~2.0 Did well go dry: Yes ☐ No ☒

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	<u>0945</u>	<u>0950</u>	<u>0955</u>	<u>1000</u>	<u>1005</u>	<u>1010</u>	<u>1015</u>		
Volume Purged (Gal)	<u>0</u>	<u>0.33</u>	<u>0.66</u>	<u>1.00</u>	<u>1.33</u>	<u>1.66</u>	<u>2.00</u>		
Rate (mL/min)	<u>250</u>	<u>250</u>	<u>250</u>	<u>250</u>	<u>250</u>	<u>250</u>	<u>250</u>		
Depth to Water (ft.)	<u>5.12</u>	<u>5.18</u>	<u>5.25</u>	<u>5.28</u>	<u>5.30</u>	<u>5.32</u>	<u>5.36</u>		
pH	<u>6.29</u>	<u>6.42</u>	<u>6.48</u>	<u>6.49</u>	<u>6.52</u>	<u>6.53</u>	<u>6.54</u>		
Temp. (C)	<u>11.02</u>	<u>10.98</u>	<u>10.93</u>	<u>10.97</u>	<u>10.81</u>	<u>10.80</u>	<u>10.79</u>		
Conductivity (mS/cm)	<u>1.02</u>	<u>0.996</u>	<u>0.996</u>	<u>0.997</u>	<u>0.999</u>	<u>0.999</u>	<u>0.999</u>		
Dissolved Oxygen (mg/L)	<u>3.78</u>	<u>1.41</u>	<u>1.55</u>	<u>1.83</u>	<u>2.02</u>	<u>2.15</u>	<u>2.22</u>		
ORP (mV)	<u>-90</u>	<u>-129</u>	<u>-141</u>	<u>-145</u>	<u>-148</u>	<u>-149</u>	<u>-151</u>		
Turbidity (NTU)	<u>287</u>	<u>110</u>	<u>79.4</u>	<u>75.1</u>	<u>75.7</u>	<u>74.6</u>	<u>71.7</u>		
Notes:									

Sampling Information

Analyses	#	n	Laboratory
<u>8260C VOC</u>	<u>3</u>		<u>TA</u>
<u>9060 TOC</u>	<u>2</u>		
<u>RSK 175</u>	<u>3</u>		
Color: <u>Slightly Tan</u>			
Odor: <u>No Odor</u>			
Appearance: <u>Slightly Cloudy</u>			
Sample ID: <u>IP-1-040720</u> Sample Time: <u>1020</u>			
MS/MSD: Yes ☐ No ☒			
Duplicate: Yes ☐ No ☒			
Duplicate ID: Duplicate Time:			
Chain of Custody Signed By:			

Problems / Observations

Initial: Slightly Cloudy, Slightly Tan, No Odor

☒ VOC sampled w/ bailer

Sampling Personnel: **Kim Stilson**
 Client / Job Number: **30039411**
 Weather: **350 Partly Cloudy**

Well ID: **1W-A2**
 Date: **4/8/2020**
 Time In: **1200** Time Out: **1345**

Well Information
 Depth to Water: (feet) **8.23** (from MP)
 Total Depth: (feet) **23.86** (from MP)
 Length of Water Column: (feet) **15.63**
 Volume of Water in Well: (gal) **2.54**
 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:

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				

Pump Start Time: **1205**
 Pump Stop Time: **1330** Water-Quality Meter Type: **Horiba**
 Total Volume Removed: (gal) **2.08** Did well go dry: Yes ☐ No ☒

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	1230	1235	1240	1245	1250	1255	1300	1305	
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.)	9.01	9.55	10.10	10.22	~~6.9~~ 10.64/10.95	11.41	11.41	11.44	
pH	7.02	7.01	6.98	6.97	6.95	6.96	6.95	6.94	
Temp. (C)	12.26	12.21	12.99	13.36	13.46	13.58	13.33	13.37	
Conductivity (mS/cm)	3.62	3.63	3.61	3.59	3.56	3.54	3.57	3.55	
Dissolved Oxygen (mg/L)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
ORP (mV)	-177	-158	-2069	-172	-174	-175	-177	-177	
Turbidity (NTU)	86.8	67.9	60.6	50.7	47.5	40.6	40.3	~~33.8~~ 40.0	
Notes:	Issues w/ tubing. Replace tubing in well.								

Sampling Information

Analyses	#	n	Laboratory
8260C VOC	3		Test America
9060 TOC	2		
RSK175	3		
Color:	yellow / orange		
Odor:	no odor		
Appearance:	black suspended particles		
Sample ID:	1W-A2		
Sample Time:	1310		
MS/MSD:	Yes ☐	No ☒	
Duplicate:	Yes ☒	No ☐	
Duplicate ID			
Dup. Time:			
Chain of Custody Signed By:	ES		

Problems / Observations

Initial: slight red/orange, no odor
 suspended black particles.

☒ VOC sampled w/ bailer

Sampling Personnel: 12 Stilson

Well ID: TLW-B3

Client / Job Number: 30039411

Date: 4/7/2020

Weather: 45° Sunny

Time In: 1000 Time Out: 1135

Well Information

Depth to Water:	(feet)	<u>2.11'</u>	(from MP)
Total Depth:	(feet)	<u>15.40'</u>	(from MP)
Length of Water Column:	(feet)	<u>13.29'</u>	
Volume of Water in Well:	(gal)	<u>2.16 gal</u>	
Intake depth for tubing:	(feet)	<u>~13.4'</u>	

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:

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				

Pump Start Time:	<u>1030</u>	Water-Quality Meter Type:	<u>Horiba</u>
Pump Stop Time:	<u>1135</u>	Did well go dry:	Yes ☐ No ☒
Total Volume Removed:	<u>3.21 (gal) 3.12</u>		

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	<u>1035</u>	<u>1040</u>	<u>1045</u>	<u>1050</u>	<u>1055</u>	<u>1100</u>	<u>1105</u>	<u>1110</u>	<u>1115</u>
Volume Purged (Gal)	<u>0.26</u>	<u>0.52</u>	<u>0.78</u>	<u>1.04</u>	<u>1.3</u>	<u>1.56</u>	<u>1.82</u>	<u>2.08</u>	<u>2.34</u>
Rate (mL/min)	<u>200</u>	<u>200</u>	<u>200</u>	<u>200</u>	<u>200</u>	<u>200</u>	<u>200</u>	<u>200</u>	<u>200</u>
Depth to Water (ft.)	<u>2.74</u>	<u>3.09</u>	<u>3.25</u>	<u>3.57</u>	<u>3.81</u>	<u>4.01</u>	<u>4.32</u>	<u>4.62</u>	<u>4.91</u>
pH	<u>6.89</u>	<u>6.73</u>	<u>6.82</u>	<u>6.75</u>	<u>6.75</u>	<u>6.75</u>	<u>6.74</u>	<u>6.75</u>	<u>6.76</u>
Temp. (C)	<u>15.72</u>	<u>15.44</u>	<u>15.83</u>	<u>12.53</u>	<u>12.55</u>	<u>12.44</u>	<u>12.35</u>	<u>12.30</u>	<u>12.30</u>
Conductivity (mS/cm)	<u>1.68</u>	<u>1.63</u>	<u>1.60</u>	<u>1.70</u>	<u>1.69</u>	<u>1.70</u>	<u>1.70</u>	<u>1.70</u>	<u>1.69</u>
Dissolved Oxygen (mg/L)	<u>10.77</u>	<u>8.68</u>	<u>4.58</u>	<u>1.87</u>	<u>1.50</u>	<u>0.88</u>	<u>0.74</u>	<u>0.52</u>	<u>0.47</u>
ORP (mV)	<u>-77</u>	<u>-75</u>	<u>-72</u>	<u>-75</u>	<u>-77</u>	<u>-85</u>	<u>-90</u>	<u>-94</u>	<u>-96</u>
Turbidity (NTU)	<u>91.7</u>	<u>80.1</u>	<u>71.7</u>	<u>84.0</u>	<u>57.5</u>	<u>53.7</u>	<u>55.6</u>	<u>57.4</u>	<u>53.1</u>
Notes:	<u>Work on tracks along well. Diesel equipment being used. Moved @ 1110.</u>								

Sampling Information

Analyses	#	n	Laboratory
<u>8260C VOC</u>	<u>3</u>		<u>Test America</u>
<u>9060 TOC</u>	<u>2</u>		
<u>RSK175</u>	<u>3</u>		<u>(K)</u>
Color:	<u>red/orange</u>		
Odor:	<u>slight odor</u>		
Appearance:	<u>Black suspended particles</u>		
Sample ID:	<u>TLW-B3-040720</u>		
Sample Time:	<u>1135</u>		
MS/MSD:	Yes ☐	No ☒	
Duplicate:	Yes ☐	No ☒	
Duplicate ID:	<u>—</u>		
Dup. Time:	<u>—</u>		
Chain of Custody Signed By:	<u>ES</u>		

Problems / Observations

Initial: Slight red tint, some black suspended particles

At 1047 fix seal on flow thru cell

☒ VOC sampled w/bailer

Sampling Personnel: **K. S. (son)**

Well ID: **ILW-B3**

Client / Job Number: **30039411**

Date: **4/9/2020**

Weather: **45° Sunny**

Time In: **1000** Time Out: **1135**

Well Information

Depth to Water:	(feet) 2.11'	(from MP)
Total Depth:	(feet) 15.40'	(from MP)
Length of Water Column:	(feet) 13.29'	
Volume of Water in Well:	(gal) 2.16 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:

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				

Pump Start Time: **1030**

Pump Stop Time: **1135** Water-Quality Meter Type: **Horiba**

Total Volume Removed: **3.12** (gal) Did well go dry: Yes ☐ No ☒

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	1120	1125	1130						
Volume Purged (Gal)	2.6	2.86	3.12						
Rate (mL/min)	200	200	200						
Depth to Water (ft.)	5.55	5.97	6.11						
pH	6.78	6.78	6.79						
Temp. (C)	12.39	12.32	12.31						
Conductivity (mS/cm)	1.69	1.69	1.70						
Dissolved Oxygen (mg/L)	0.43	0.42	0.43						
ORP (mV)	-100	-101	-101						
Turbidity (NTU)	48.6	49.9	49.9						
Notes:									

Sampling Information

Analyses	#	n	Laboratory
8260C VOC	3		Test America
9060 TOC	2		1
RSK 175			(CS)
Color:	red/orange		
Odor:	slight odor		
Appearance:	Black suspended particles		
Sample ID:	ILW-B3-040720		
Sample Time:	1135		
MS/MSD:	Yes ☐	No ☒	
Duplicate:	Yes ☐	No ☒	
Duplicate ID:	—		
Dup. Time:	—		
Chain of Custody Signed By:	—		

Problems / Observations

Initial: Slight red tint, some black suspended particles

✓ VOC sampled w/ bailer

Sampling Personnel: ES Well ID: MW-13
 Client / Job Number: 30039411 Date: 4/7/20
 Weather: Sunny 64°F Time In: 1435 Time Out: 1520

Well Information

Depth to Water: (feet) 2.88 (from MP)
 Total Depth: (feet) 22.24 (from MP)
 Length of Water Column: (feet) 19.36
 Volume of Water in Well: (gal) 3.15
 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:
 Pump Start Time: 1435
 Pump Stop Time: 1520 Water-Quality Meter Type: Horiba US3
 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	<u>1440</u>	<u>1445</u>	<u>1450</u>	<u>1455</u>	<u>1500</u>	<u>1505</u>	<u>1510</u>		
Volume Purged (Gal)	<u>0</u>	<u>0.33</u>	<u>0.66</u>	<u>1.0</u>	<u>1.33</u>	<u>1.66</u>	<u>2.0</u>		
Rate (mL/min)	<u>250</u>	<u>250</u>	<u>250</u>	<u>250</u>	<u>250</u>	<u>250</u>	<u>250</u>		
Depth to Water (ft.)	<u>3.40</u>	<u>4.42</u>	<u>4.84</u>	<u>5.29</u>	<u>5.79</u>	<u>5.93</u>	<u>6.10</u>		
pH	<u>7.87</u>	<u>7.83</u>	<u>7.82</u>	<u>7.81</u>	<u>7.81</u>	<u>7.80</u>	<u>7.80</u>		
Temp. (C)	<u>11.58</u>	<u>11.06</u>	<u>10.95</u>	<u>10.81</u>	<u>10.79</u>	<u>10.85</u>	<u>10.87</u>		
Conductivity (mS/cm)	<u>0.824</u>	<u>0.816</u>	<u>0.816</u>	<u>0.816</u>	<u>0.816</u>	<u>0.816</u>	<u>0.816</u>		
Dissolved Oxygen (mg/L)	<u>3.21</u>	<u>0.81</u>	<u>0.63</u>	<u>0.55</u>	<u>0.53</u>	<u>0.52</u>	<u>0.50</u>		
ORP (mV)	<u>-96</u>	<u>-95</u>	<u>-94</u>	<u>-92</u>	<u>-89</u>	<u>-88</u>	<u>-87</u>		
Turbidity (NTU)	<u>3.6</u>	<u>0.5</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>		
Notes:									

Sampling Information

Analyses	#	n	Laboratory
8260C VOC	3		TA
9060 TOC	2		TA
~~RSK 175~~			
Color: None			
Odor: None			
Appearance: Clear			
Sample ID: MW-13-040726		Sample Time: 1515	
MS/MSD:	Yes ☐	No ☒	
Duplicate:	Yes ☐	No ☒	
Duplicate ID	Dup. Time:		
Chain of Custody Signed By:			

Problems / Observations

Initial: No Col., No odor, Clear

☒ VOC sampled w/ bailer

Sampling Personnel: Kim Stinson

Well ID: MW-15

Client / Job Number: 30039411

Date: 4/7/2020

Weather: 45° Sunny

Time In: 1350

Time Out: 1445

Well Information

Depth to Water:	(feet)	<u>1.86'</u>	(from MP)
Total Depth:	(feet)	<u>15.08'</u>	(from MP)
Length of Water Column:	(feet)	<u>13.22'</u>	
Volume of Water in Well:	(gal)	<u>2.15 gal</u>	
Intake depth for tubing:	(feet)	<u>~13'</u>	

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: ☐

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				

Pump Start Time: 1355

Pump Stop Time: 1440

Water-Quality Meter Type: Horiba

Total Volume Removed: (gal) 2.10

Did well go dry: Yes ☐ No ☒

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	<u>1400</u>	<u>1405</u>	<u>1410</u>	<u>1415</u>	<u>1420</u>	<u>1425</u>	<u>1430</u>		
Volume Purged (Gal)	<u>0.30</u>	<u>0.60</u>	<u>0.90</u>	<u>0.20</u>	<u>1.50</u>	<u>1.80</u>	<u>2.10</u>		
Rate (mL/min)	<u>250</u>	<u>250</u>	<u>250</u>	<u>250</u>	<u>250</u>	<u>250</u>	<u>250</u>		
Depth to Water (ft.)	<u>2.806</u>	<u>2.12</u>	<u>2.15</u>	<u>2.21</u>	<u>2.23</u>	<u>2.24</u>	<u>2.25</u>		
pH	<u>7.47</u>	<u>7.28</u>	<u>7.25</u>	<u>7.25</u>	<u>7.26</u>	<u>7.26</u>	<u>7.26</u>		
Temp. (C)	<u>15.18</u>	<u>13.98</u>	<u>13.44</u>	<u>13.23</u>	<u>13.16</u>	<u>13.14</u>	<u>13.15</u>		
Conductivity (mS/cm)	<u>1.13</u>	<u>1.13</u>	<u>1.14</u>	<u>1.14</u>	<u>1.15</u>	<u>1.15</u>	<u>1.15</u>		
Dissolved Oxygen (mg/L)	<u>1.44</u>	<u>0.15</u>	<u>0.00</u>	<u>0.00</u>	<u>0.00</u>	<u>0.00</u>	<u>0.00</u>		
ORP (mV)	<u>-98</u>	<u>-114</u>	<u>-119</u>	<u>-121</u>	<u>-123</u>	<u>-123</u>	<u>-124</u>		
Turbidity (NTU)	<u>1.6</u>	<u>0.9</u>	<u>2.0</u>	<u>1.7</u>	<u>2.1</u>	<u>1.8</u>	<u>1.6</u>		
Notes:									

Sampling Information

Problems / Observations

Analyses	#	n	Laboratory
<u>8260C VOC</u>	<u>3</u>		<u>Test America</u>
<u>9060 TOC</u>			
<u>RSK 175</u>	<u>3</u>		<u>Test America</u>
Color: <u>no color</u>			
Odor: <u>no odor</u>			
Appearance: <u>fine suspended black particles</u>			
Sample ID: <u>MW-15-040720</u>			Sample Time: <u>1435</u>
MS/MSD: Yes ☐ No ☒			
Duplicate: Yes ☐ No ☒			
Duplicate ID: <u>—</u>			Dup. Time: <u>—</u>
Chain of Custody Signed By: <u>EG</u>			

Initial: No color, no odor, clear

☒ VOC sampled w/ bailer

Sampling Personnel: ES Well ID: MW-16
 Client / Job Number: 30039411 Date: 4/7/20
 Weather: Sunny 60°F Time In: 1155 Time Out: 1240

Well Information

Depth to Water: (feet) 7.35 (from MP)
 Total Depth: (feet) 16.75 (from MP)
 Length of Water Column: (feet) 9.4
 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 ☐ Peristaltic ☒ Monsoon ☐ Other:
 Tubing/Bailer Material: Steel ☐ Polyethylene ☒ Teflon ☐ Other:
 Sampling Method: Bailer ☒ Peristaltic ☒ Monsoon ☐ Other:
 Pump Start Time: 1155
 Pump Stop Time: 1240 Water-Quality Meter Type: Horiba JS3
 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	<u>1200</u>	<u>1205</u>	<u>1210</u>	<u>1215</u>	<u>1220</u>	<u>1225</u>	<u>1230</u>		
Volume Purged (Gal)	<u>0</u>	<u>0.33</u>	<u>0.66</u>	<u>1.0</u>	<u>1.33</u>	<u>1.66</u>	<u>2.0</u>		
Rate (mL/min)	<u>250</u>	<u>250</u>	<u>250</u>	<u>250</u>	<u>250</u>	<u>250</u>	<u>250</u>		
Depth to Water (ft.)	<u>8.85</u>	<u>9.37</u>	<u>10.19</u>	<u>10.80</u>	<u>11.33</u>	<u>11.53</u>	<u>11.75</u>		
pH	<u>7.62</u>	<u>7.60</u>	<u>7.59</u>	<u>7.59</u>	<u>7.58</u>	<u>7.58</u>	<u>7.57</u>		
Temp. (C)	<u>11.20</u>	<u>11.24</u>	<u>11.10</u>	<u>10.98</u>	<u>11.11</u>	<u>11.36</u>	<u>11.51</u>		
Conductivity (mS/cm)	<u>1.81</u>	<u>1.80</u>	<u>1.80</u>	<u>1.81</u>	<u>1.81</u>	<u>1.81</u>	<u>1.81</u>		
Dissolved Oxygen (mg/L)	<u>5.81</u>	<u>4.31</u>	<u>3.69</u>	<u>3.50</u>	<u>3.02</u>	<u>2.86</u>	<u>2.52</u>		
ORP (mV)	<u>-9</u>	<u>-3</u>	<u>-1</u>	<u>-10</u>	<u>-12</u>	<u>-15</u>	<u>-20</u>		
Turbidity (NTU)	<u>3.3</u>	<u>4.0</u>	<u>1.3</u>	<u>0</u>	<u>0.2</u>	<u>0</u>	<u>0</u>		
Notes:									

Sampling Information

Analyses	#	n	Laboratory
<u>8260C VOC</u>	<u>3</u>		<u>TA</u>
<u>9060 TOC</u>	<u>2</u>		<u>↓</u>
<u>RSK 175</u>	<u>3</u>		<u>↓</u>
Color: <u>None</u>			
Odor: <u>None</u>			
Appearance: <u>Clear</u>			
Sample ID: <u>MW-16-040720</u>	Sample Time: <u>1235</u>		
MS/MSD: Yes ☐ No ☒			
Duplicate: Yes ☐ No ☒			
Duplicate ID: _____	Dup. Time: _____		
Chain of Custody Signed By: _____			

Problems / Observations

Initial: No Color, Clear, No odor

☒ VOC sampled w/ bailer

Sampling Personnel: ES Well ID: MW-17
 Client / Job Number: 30039411 Date: 4/7/20
 Weather: Sunny 63°F Time In: 1340 Time Out: 1430

Well Information

Depth to Water: (feet) 6.02 (from MP)
 Total Depth: (feet) 17.93 (from MP)
 Length of Water Column: (feet) 11.91
 Volume of Water in Well: (gal) 1.94
 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:
 Pump Start Time: 1340
 Pump Stop Time: 1430 Water-Quality Meter Type: Horiba U53
 Total Volume Removed: (gal) ~1.75 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	<u>1345</u>	<u>1350</u>	<u>1355</u>	<u>1400</u>	<u>1405</u>	<u>1410</u>	<u>1415</u>	<u>1420</u>	
Volume Purged (Gal)	<u>0</u>	<u>0.25</u>	<u>0.50</u>	<u>0.75</u>	<u>1.00</u>	<u>1.25</u>	<u>1.50</u>	<u>1.75</u>	
Rate (mL/min)	<u>2.00</u>	<u>2.00</u>	<u>2.00</u>	<u>2.00</u>	<u>2.00</u>	<u>2.00</u>	<u>2.00</u>	<u>2.00</u>	
Depth to Water (ft.)	<u>6.95</u>	<u>7.49</u>	<u>7.74</u>	<u>7.94</u>	<u>8.10</u>	<u>8.22</u>	<u>8.28</u>	<u>8.35</u>	
pH	<u>7.51</u>	<u>7.49</u>	<u>7.46</u>	<u>7.43</u>	<u>7.40</u>	<u>7.39</u>	<u>7.39</u>	<u>7.39</u>	
Temp. (C)	<u>13.45</u>	<u>13.60</u>	<u>13.16</u>	<u>12.91</u>	<u>12.82</u>	<u>12.86</u>	<u>12.79</u>	<u>12.72</u>	
Conductivity (mS/cm)	<u>2.24</u>	<u>2.24</u>	<u>2.19</u>	<u>1.90</u>	<u>1.76</u>	<u>1.74</u>	<u>1.76</u>	<u>1.78</u>	
Dissolved Oxygen (mg/L)	<u>6.17</u>	<u>1.09</u>	<u>0.79</u>	<u>0.89</u>	<u>0.95</u>	<u>0.96</u>	<u>0.98</u>	<u>0.98</u>	
ORP (mV)	<u>-165</u>	<u>-170</u>	<u>-171</u>	<u>-163</u>	<u>-159</u>	<u>-157</u>	<u>-157</u>	<u>-157</u>	
Turbidity (NTU)	<u>89.6</u>	<u>75.3</u>	<u>42.4</u>	<u>37.0</u>	<u>31.2</u>	<u>25.1</u>	<u>24.2</u>	<u>23.9</u>	
Notes:									

Sampling Information

Analyses	#	n	Laboratory
<u>8260C VOC</u>	<u>3</u>		<u>TA</u>
<u>9060 TOC</u>	<u>2</u>		<u>TA</u>
<u>RSK 175</u>			
Color:	<u>None</u>		
Odor:	<u>None</u>		
Appearance:	<u>Slightly cloudy</u>		
Sample ID:	<u>MW-17-040720</u>		
Sample Time:	<u>1425</u>		
MS/MSD:	Yes ☐	No ☒	
Duplicate:	Yes ☐	No ☒	
Duplicate ID			
Dup. Time:			
Chain of Custody Signed By:			

Problems / Observations

Initial: No Color, No Odor, Slightly Cloudy

☒ VOC sampled w/ bailer

Sampling Personnel: ES Well ID: MW-18
 Client / Job Number: 30039411 Date: 4/7/20
 Weather: Sunny 58°F Time In: 1105 Time Out: 1150

Well Information

Depth to Water: (feet) 5.05 (from MP)
 Total Depth: (feet) 18.05 (from MP)
 Length of Water Column: (feet) 13
 Volume of Water in Well: (gal) 2.11
 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:
 Pump Start Time: 1105
 Pump Stop Time: 1150 Water-Quality Meter Type: Horiba US3
 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	<u>1110</u>	<u>1115</u>	<u>1120</u>	<u>1125</u>	<u>1130</u>	<u>1135</u>	<u>1140</u>		
Volume Purged (Gal)	<u>0</u>	<u>0.25</u>	<u>0.50</u>	<u>0.75</u>	<u>1.00</u>	<u>1.25</u>	<u>1.50</u>		
Rate (mL/min)	<u>200</u>	<u>200</u>	<u>200</u>	<u>200</u>	<u>200</u>	<u>200</u>	<u>200</u>		
Depth to Water (ft.)	<u>5.61</u>	<u>6.98</u>	<u>7.24</u>	<u>7.52</u>	<u>7.68</u>	<u>7.80</u>	<u>7.93</u>		
pH	<u>6.91</u>	<u>6.87</u>	<u>6.90</u>	<u>6.91</u>	<u>6.93</u>	<u>6.95</u>	<u>6.99</u>		
Temp. (C)	<u>14.63</u>	<u>14.78</u>	<u>14.81</u>	<u>14.74</u>	<u>14.49</u>	<u>14.90</u>	<u>14.87</u>		
Conductivity (mS/cm)	<u>1.16</u>	<u>1.14</u>	<u>1.13</u>	<u>1.13</u>	<u>1.13</u>	<u>1.14</u>	<u>1.14</u>		
Dissolved Oxygen (mg/L)	<u>0.88</u>	<u>0.61</u>	<u>0.53</u>	<u>0.53</u>	<u>0.49</u>	<u>0.60</u>	<u>0.55</u>		
ORP (mV)	<u>-45</u>	<u>-34</u>	<u>-34</u>	<u>-40</u>	<u>-47</u>	<u>-54</u>	<u>-56</u>		
Turbidity (NTU)	<u>72.6</u>	<u>67.1</u>	<u>64.0</u>	<u>60.6</u>	<u>46.6</u>	<u>46.2</u>	<u>44.8</u>		
Notes:									

Sampling Information

Analyses	#	n	Laboratory
8260C VOC	3		TA
9060 TOC	2		
RSK 175	3		↓
Color:	Slightly Tan		
Odor:	No odor		
Appearance:	Clear		
Sample ID: MW-18-040720	Sample Time:		1145
MS/MSD:	Yes ☐	No ☒	
Duplicate:	Yes ☐	No ☒	
Duplicate ID	Dup. Time:		
Chain of Custody Signed By:			

Problems / Observations

Initial: Slightly Tan, Clear, No odor

☒ VOC sampled w/ bailer

Sampling Personnel: ES Well ID: MW-19
 Client / Job Number: 30039411 Date: 4/8/20
 Weather: Cloudy 46°F Time In: 0945 Time Out: 1035

Well Information
 Depth to Water: (feet) 2.66 (from MP)
 Total Depth: (feet) 17.55 (from MP)
 Length of Water Column: (feet) 14.89
 Volume of Water in Well: (gal) 9.72
 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:

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				

Pump Start Time: 0945
 Pump Stop Time: 1035 Water-Quality Meter Type: Horiba US3
 Total Volume Removed: (gal) ~2.0 Did well go dry: Yes ☐ No ☒

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	0950	0955	1000	1005	1010	1015	1020		
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.)	2.80	2.85	2.87	2.91	2.92	2.94	2.95		
pH	6.90	6.87	6.87	6.86	6.86	6.88	6.88		
Temp. (C)	7.82	7.86	7.88	7.89	7.84	7.87	7.90		
Conductivity (mS/cm)	1.40	1.40	1.39	1.40	1.39	1.40	1.40		
Dissolved Oxygen (mg/L)	5.28	1.43	1.17	1.33	1.39	1.56	1.67		
ORP (mV)	-161	-167	-172	-175	-177	-180	-182		
Turbidity (NTU)	26.3	11.5	7.2	2.8	3.5	2.0	2.2		
Notes:									

Sampling Information

Analyses	#	n	Laboratory
8260C VOC	912		TA
9060 TOC	68		↓
RSK175	912		↓
Color:	None		
Odor:	Odor Present		
Appearance:	Clear		
Sample ID:	MW-19-040820		
Sample Time:	1025		
MS/MSD:	Yes ☒	No ☐	
Duplicate:	Yes ☒	No ☐	
Duplicate ID	DUP-1-040820		
Dup. Time:	1000		
Chain of Custody Signed By:			

Problems / Observations

Initial: Clear, No Color, Odor Present

☒ VOC sampled w/ bailer

Sampling Personnel: ES Well ID: MW-21
 Client / Job Number: 30039411 Date: 9/7/20
 Weather: Sunny 60°F Time In: 1245 Time Out: 1335

Well Information

Depth to Water: (feet) 9.52 (from MP)
 Total Depth: (feet) 15.05 (from MP)
 Length of Water Column: (feet) 5.98
 Volume of Water in Well: (gal) 0.97
 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:
 Pump Start Time: 1250
 Pump Stop Time: 1335 Water-Quality Meter Type: Hanna US3
 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	<u>1255</u>	<u>1300</u>	<u>1305</u>	<u>1310</u>	<u>1315</u>	<u>1320</u>	<u>1325</u>		
Volume Purged (Gal)	<u>0</u>	<u>0.20</u>	<u>0.40</u>	<u>0.60</u>	<u>0.80</u>	<u>1.0</u>	<u>1.20</u>		
Rate (mL/min)	<u>150</u>	<u>150</u>	<u>150</u>	<u>150</u>	<u>150</u>	<u>150</u>	<u>150</u>		
Depth to Water (ft.)	<u>9.80</u>	<u>9.95</u>	<u>10.09</u>	<u>10.20</u>	<u>10.29</u>	<u>10.41</u>	<u>10.50</u>		
pH	<u>7.43</u>	<u>7.39</u>	<u>7.37</u>	<u>7.37</u>	<u>7.36</u>	<u>7.36</u>	<u>7.35</u>		
Temp. (C)	<u>13.98</u>	<u>14.27</u>	<u>14.35</u>	<u>14.75</u>	<u>14.48</u>	<u>14.27</u>	<u>14.37</u>		
Conductivity (mS/cm)	<u>1.89</u>	<u>1.91</u>	<u>1.93</u>	<u>1.93</u>	<u>1.93</u>	<u>1.95</u>	<u>1.95</u>		
Dissolved Oxygen (mg/L)	<u>9.36</u>	<u>7.25</u>	<u>7.06</u>	<u>6.78</u>	<u>6.52</u>	<u>6.31</u>	<u>6.02</u>		
ORP (mV)	<u>35</u>	<u>44</u>	<u>47</u>	<u>48</u>	<u>47</u>	<u>43</u>	<u>40</u>		
Turbidity (NTU)	<u>31.0</u>	<u>21.7</u>	<u>22.7</u>	<u>12.8</u>	<u>8.7</u>	<u>9.2</u>	<u>8.2</u>		
Notes:									

Sampling Information

Analyses	#	n	Laboratory
<u>8260C VOL</u>	<u>3</u>		<u>TA</u>
<u>9060 TOC</u>	<u>2</u>		<u>TA</u>
<u>REK175</u>			
Color: <u>None</u>			
Odor: <u>None</u>			
Appearance: <u>Clear</u>			
Sample ID: <u>MW-21-040720</u> Sample Time: <u>1330</u>			
MS/MSD: Yes ☐ No ☒			
Duplicate: Yes ☐ No ☒			
Duplicate ID: _____ Dup. Time: _____			
Chain of Custody Signed By:			

Problems / Observations

Initial: clear, No Col., No odor

☒ VOC sampled w/ bailer

Sampling Personnel: Kim Stilson

Well ID: MW-20

Client / Job Number: 30039411

Date: 4/17/2020

Weather: 45° sunny

Time In: 1250

Time Out: 1450

Well Information

Depth to Water:	(feet) <u>1.93'</u>	(from MP)
Total Depth:	(feet) <u>12.08'</u>	(from MP)
Length of Water Column:	(feet) <u>10.15'</u>	
Volume of Water in Well:	(gal) <u>1.65 gal</u>	
Intake depth for tubing:	(feet) <u>~10'</u>	

Well Type:	Flushmount ☒	Stick-Up ☐
Well Material:	Stainless Steel ☐	PVC ☒
Well Locked:	Yes ☒	No ☐
Measuring Point Marked:	Yes ☒	No ☐
Well Diameter:	1" ☐	2" ☒

Purging Information

Purging Method:	Bailer ☐	Peristaltic ☒	Monsoon ☐	Other:
Tubing/Bailer Material:	Steel ☐	Polyethylene ☒	Teflon ☐	Other:
Sampling Method:	Bailer ☒	Peristaltic ☒	Monsoon ☐	Other:

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				

Pump Start Time: 1300

Pump Stop Time: 1445

Water-Quality Meter Type: Horiba

Unit Stability			
pH	DO / Turb	Cond. / Temp	ORP
✓ 0.1	✓ 10%	✓ 3.0%	✓ 10 mV

Total Volume Removed: 2.10(gal)

Did well go dry: Yes ☐ No ☒

Parameter:	1	2	3	4	5	6	7	8	9
Time	<u>1305</u>	<u>1310</u>	<u>1315</u>	<u>1320</u>	<u>1325</u>	<u>1330</u>	<u>1335</u>		
Volume Purged (Gal)	<u>250</u>	<u>250</u>	<u>250</u>	<u>250</u>	<u>250</u>	<u>250</u>	<u>250</u>		
Rate (mL/min)	<u>0.30</u>	<u>0.60</u>	<u>0.90</u>	<u>1.20</u>	<u>1.50</u>	<u>1.80</u>	<u>2.1</u>		
Depth to Water (ft.)	<u>1.94</u>	<u>1.94</u>	<u>1.94</u>	<u>1.94</u>	<u>1.94</u>	<u>1.94</u>	<u>1.94</u>		
pH	<u>7.25</u>	<u>7.14</u>	<u>7.14</u>	<u>7.11</u>	<u>7.08</u>	<u>7.08</u>	<u>7.07</u>		
Temp. (C)	<u>18.92</u>	<u>12.32</u>	<u>12.50</u>	<u>12.22</u>	<u>12.17</u>	<u>12.18</u>	<u>12.20</u>		
Conductivity (mS/cm)	<u>0.844</u>	<u>0.933</u>	<u>0.903</u>	<u>0.917</u>	<u>0.927</u>	<u>0.928</u>	<u>0.928</u>		
Dissolved Oxygen (mg/L)	<u>1.26</u>	<u>0.42</u>	<u>0.090</u>	<u>0.01</u>	<u>0.00</u>	<u>0.00</u>	<u>0.00</u>		
ORP (mV)	<u>-63</u>	<u>-61</u>	<u>-62</u>	<u>-67</u>	<u>-71</u>	<u>-72</u>	<u>-72</u>		
Turbidity (NTU)	<u>5.9</u>	<u>9.0</u>	<u>6.6</u>	<u>0.5</u>	<u>0.0</u>	<u>0.0</u>	<u>0.0</u>		
Notes:									

Sampling Information

Problems / Observations

Analyses	#	n	Laboratory
<u>8260C VOC</u>	<u>3</u>		<u>Test America</u>
<u>9060 TOC</u>	<u>2</u>		<u>1</u>
<u>RSK 175</u>	<u>3</u>		
Color:	<u>clear no color</u>		
Odor:	<u>no odor</u>		
Appearance:	<u>clear</u>		
Sample ID:	<u>MW-20-0402</u>		
Sample Time:	<u>1340</u>		
MS/MSD:	Yes ☐	No ☒	
Duplicate:	Yes ☐	No ☒	
Duplicate ID:	<u>—</u>		
Dup. Time:	<u>—</u>		
Chain of Custody Signed By:	<u>EH</u>		

Initial: No color no odor, clear

☒ VOC sampled w/ bailer

Sampling Personnel: Kim Stiborn

Well ID: MW-23

Client / Job Number: 30039411

Date: 4/17/2020

Weather: 45° Sunny

Time In: 1135

Time Out: 1230

Well Information

Depth to Water:	(feet)	<u>7.18</u>	(from MP)
Total Depth:	(feet)	<u>30.44</u>	(from MP)
Length of Water Column:	(feet)	<u>23.26</u>	
Volume of Water in Well:	(gal)	<u>15.18</u>	
Intake depth for tubing:	(feet)	<u>~28</u>	

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:

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				

Pump Start Time: 1140

Pump Stop Time: 1225

Water-Quality Meter Type: Horiba

Total Volume Removed: (gal) 1.82

Did well go dry: Yes ☐ No ☒

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	<u>1145</u>	<u>1150</u>	<u>1155</u>	<u>1200</u>	<u>1205</u>	<u>1210</u>	<u>1215</u>		
Volume Purged (Gal)	<u>200</u>	<u>200</u>	<u>200</u>	<u>1.04</u>	<u>1.3</u>	<u>1.56</u>	<u>1.82</u>		
Rate (mL/min)	<u>0.26</u>	<u>0.52</u>	<u>0.78</u>	<u>200</u>	<u>200</u>	<u>200</u>	<u>200</u>		
Depth to Water (ft.)	<u>7.38</u>	<u>7.60</u>	<u>7.88</u>	<u>8.08</u>	<u>8.21</u>	<u>8.38</u>	<u>8.46</u>		
pH	<u>7.06</u>	<u>7.01</u>	<u>6.98</u>	<u>7.01</u>	<u>7.01</u>	<u>7.01</u>	<u>7.01</u>		
Temp. (C)	<u>14.13</u>	<u>13.64</u>	<u>13.12</u>	<u>13.03</u>	<u>13.11</u>	<u>13.13</u>	<u>13.10</u>		
Conductivity (mS/cm)	<u>1.32</u>	<u>1.28</u>	<u>1.30</u>	<u>1.30</u>	<u>1.30</u>	<u>1.30</u>	<u>1.30</u>		
Dissolved Oxygen (mg/L)	<u>1.55</u>	<u>1.17</u>	<u>0.64</u>	<u>0.15</u>	<u>0.10</u>	<u>0.09</u>	<u>0.09</u>		
ORP (mV)	<u>-106</u>	<u>-118</u>	<u>-123</u>	<u>-130</u>	<u>-131</u>	<u>-131</u>	<u>-131</u>		
Turbidity (NTU)	<u>2.2</u>	<u>0.7</u>	<u>0.9</u>	<u>6.4</u>	<u>6.7</u>	<u>7.0</u>	<u>6.7</u>		
Notes:									

Sampling Information

Analyses	#	n	Laboratory
<u>8260C VOC</u>	<u>3</u>		<u>Test America</u>
<u>9060 TOC</u>	<u>2</u>		<u>L</u>
<u>RSK175</u>	<u>3</u>		<u>L</u>
Color:	<u>slight red tint</u>		
Odor:	<u>odor present</u>		
Appearance:	<u>Suspended black particles</u>		
Sample ID:	<u>MW-23-040720</u>		
Sample Time:	<u>1220</u>		
MS/MSD:	Yes ☐	No ☒	
Duplicate:	Yes ☐	No ☒	
Duplicate ID:	<u>—</u>		
Dup. Time:	<u>—</u>		
Chain of Custody Signed By:	<u>ES</u>		

Problems / Observations

Initial: clear, no odor, no color

☒ VOC sampled w/ bailer

Sampling Personnel: K Stilson Well ID: MW-24
 Client / Job Number: 30039411 Date: 7/18/2019
 Weather: 40° cloudy Time In: 900 Time Out: 1030

Well Information
 Depth to Water: (feet) 6.58' (from MP)
 Total Depth: (feet) 26.24' (from MP)
 Length of Water Column: (feet) 19.66'
 Volume of Water in Well: (gal) 12.83 gal
 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:

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				

Pump Start Time: 0915
 Pump Stop Time: 1025 Water-Quality Meter Type: Horiba
 Total Volume Removed: (gal) 2.86 Did well go dry: Yes ☐ No ☒

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	<u>0920</u>	<u>0928</u>	<u>0930</u>	<u>0935</u>	<u>0940</u>	<u>0945</u>	<u>0950</u>	<u>0955</u>	<u>1000</u>
Volume Purged (Gal)	<u>0.26</u>	<u>0.52</u>	<u>0.78</u>	<u>1.04</u>	<u>1.3</u>	<u>1.56</u>	<u>1.82</u>	<u>2.08</u>	<u>2.34</u>
Rate (mL/min)	<u>200</u>	<u>200</u>	<u>200</u>	<u>200</u>	<u>200</u>	<u>200</u>	<u>200</u>	<u>200</u>	<u>200</u>
Depth to Water (ft.)	<u>7.09</u>	<u>7.10</u>	<u>7.10</u>	<u>7.11</u>	<u>7.11</u>	<u>7.11</u>	<u>7.11</u>	<u>7.12</u>	<u>7.12</u>
pH	<u>6.40</u>	<u>6.61</u>	<u>6.68</u>	<u>6.72</u>	<u>6.76</u>	<u>6.78</u>	<u>6.79</u>	<u>6.79</u>	<u>6.80</u>
Temp. (C)	<u>11.45</u>	<u>11.33</u>	<u>11.36</u>	<u>11.39</u>	<u>11.37</u>	<u>11.34</u>	<u>11.34</u>	<u>11.40</u>	<u>11.42</u>
Conductivity (mS/cm)	<u>1.92</u>	<u>1.91</u>	<u>1.91</u>	<u>1.91</u>	<u>1.91</u>	<u>1.91</u>	<u>1.91</u>	<u>1.91</u>	<u>1.91</u>
Dissolved Oxygen (mg/L)	<u>4.25</u>	<u>1.21</u>	<u>0.66</u>	<u>0.51</u>	<u>0.18</u>	<u>0.09</u>	<u>0.04</u>	<u>0.00</u>	<u>0.00</u>
ORP (mV)	<u>-40</u>	<u>-83</u>	<u>-100</u>	<u>-105</u>	<u>-110</u>	<u>-112</u>	<u>-114</u>	<u>-115</u>	<u>-116</u>
Turbidity (NTU)	<u>1.8</u>	<u>1.9</u>	<u>1.9</u>	<u>2.5</u>	<u>2.0</u>	<u>1.7</u>	<u>1.8</u>	<u>1.6</u>	<u>0.9</u>
Notes:	<u>Water in well box (flooded) empty out water in well box before opening well.</u>								

Sampling Information

Problems / Observations

Analyses	#	n	Laboratory
<u>8260C VOC</u>	<u>3</u>		<u>Test America</u>
<u>9060 TOC</u>	<u>2</u>		<u>L</u>
<u>RSK 175</u>	<u>3</u>		
Color:	<u>no color</u>		
Odor:	<u>no odor</u>		
Appearance:	<u>clear, black suspended particles.</u>		
Sample ID:	<u>MW-24</u>	Sample Time:	<u>1015</u>
MS/MSD:	Yes ☐ No ☒		
Duplicate:	Yes ☐ No ☒		
Duplicate ID	—	Dup. Time:	—
Chain of Custody Signed By:	<u>EG</u>		

Initial: clear, no color, no odor

☒ VOC sampled w/ bailer

Sampling Personnel: K. Stilson
 Client / Job Number: 30039411
 Weather: 40° Cloudy

Well ID: MW-24
 Date: 4/18/2020
 Time In: 0900 Time Out: 1030

Well Information

Depth to Water: (feet) 6.58' (from MP)
 Total Depth: (feet) 26.24' (from MP)
 Length of Water Column: (feet) 19.66'
 Volume of Water in Well: (gal) 12.83 gal
 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:

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				

Pump Start Time: 0915
 Pump Stop Time: 1025 Water-Quality Meter Type: Haniba
 Total Volume Removed: (gal) 2.86 Did well go dry: Yes ☐ No ☒

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	<u>1005</u>	<u>1010</u>							
Volume Purged (Gal)	<u>2.60</u>	<u>2.86</u>							
Rate (mL/min)	<u>200</u>	<u>200</u>							
Depth to Water (ft.)	<u>7.12</u>	<u>7.12</u>							
pH	<u>6.81</u>	<u>6.81</u>							
Temp. (C)	<u>11.42</u>	<u>11.47</u>							
Conductivity (mS/cm)	<u>191</u>	<u>191</u>							
Dissolved Oxygen (mg/L)	<u>0.00</u>	<u>0.00</u>							
ORP (mV)	<u>-116</u>	<u>-116</u>							
Turbidity (NTU)	<u>0.4</u>	<u>0.3</u>							
Notes:									

Sampling Information

Analyses	#	n	Laboratory
<u>8260C VOC</u>	<u>3</u>		<u>Test America</u>
<u>9060 TOC</u>	<u>2</u>		<u>L</u>
<u>RSK 175</u>	<u>3</u>		
Color:	<u>no color</u>		
Odor:	<u>no odor</u>		
Appearance:	<u>clear suspended black particles</u>		
Sample ID: <u>MW-24</u>	Sample Time: <u>1015</u>		
MS/MSD: Yes ☐ No ☒			
Duplicate: Yes ☐ No ☒			
Duplicate ID: <u>—</u>	Dup. Time: <u>—</u>		
Chain of Custody Signed By: <u>CS</u>			

Problems / Observations

Initial: Clear, no color no odor

☒ VOC sampled w/ bailer

Sampling Personnel: K. Stibon

Well ID: MW-25

Client / Job Number: 30039411

Date: 4/7/2020

Weather: 45° sunny

Time In: 1440 Time Out: 1555

Well Information

Depth to Water:	(feet)	<u>1.341</u>	(from MP)
Total Depth:	(feet)	<u>20.841</u>	(from MP)
Length of Water Column:	(feet)	<u>19.501</u>	
Volume of Water in Well:	(gal)	<u>3.17 gal</u>	
Intake depth for tubing:	(feet)	<u>~18ft</u>	

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: ☐

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				

Pump Start Time:	<u>1458</u>	Water-Quality Meter Type:	<u>Horiba</u>
Pump Stop Time:	<u>1555</u>	Did well go dry:	Yes ☐ No ☒
Total Volume Removed:	(gal) <u>2.1</u>		

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	<u>1503</u>	<u>1508</u>	<u>1513</u>	<u>1518</u>	<u>1523</u>	<u>1528</u>	<u>1533</u>		
Volume Purged (Gal)	<u>0.30</u>	<u>0.60</u>	<u>0.90</u>	<u>1.20</u>	<u>1.50</u>	<u>1.80</u>	<u>2.10</u>		
Rate (mL/min)	<u>250</u>	<u>250</u>	<u>250</u>	<u>250</u>	<u>250</u>	<u>250</u>	<u>250</u>		
Depth to Water (ft.)	<u>1.77</u>	<u>1.91</u>	<u>1.94</u>	<u>1.94</u>	<u>1.94</u>	<u>1.94</u>	<u>1.94</u>		
pH	<u>7.10</u>	<u>7.05</u>	<u>7.02</u>	<u>7.02</u>	<u>7.01</u>	<u>7.01</u>	<u>7.01</u>		
Temp. (C)	<u>14.91</u>	<u>14.20</u>	<u>12.51</u>	<u>12.37</u>	<u>12.15</u>	<u>11.82</u>	<u>11.74</u>		
Conductivity (mS/cm)	<u>1.88</u>	<u>1.89</u>	<u>1.94</u>	<u>1.94</u>	<u>1.95</u>	<u>1.96</u>	<u>1.97</u>		
Dissolved Oxygen (mg/L)	<u>1.30</u>	<u>0.51</u>	<u>0.00</u>	<u>0.00</u>	<u>0.00</u>	<u>0.00</u>	<u>0.00</u>		
ORP (mV)	<u>-57</u>	<u>-55</u>	<u>-56</u>	<u>-56</u>	<u>-56</u>	<u>-57</u>	<u>-56</u>		
Turbidity (NTU)	<u>300</u>	<u>255</u>	<u>106</u>	<u>104</u>	<u>11.7</u>	<u>8.1</u>	<u>8.6</u>		
Notes:									

Sampling Information

Analyses	#	n	Laboratory
<u>8260C VOC</u>	<u>3</u>		<u>Test America</u>
<u>9060 TOC</u>	<u>2</u>		<u>1</u>
<u>RSK 175</u>	<u>3</u>		<u>1</u>
Color:	<u>clear no color</u>		
Odor:	<u>none</u>		
Appearance:	<u>no color clear</u>		
Sample ID:	<u>MW-25-040</u>		
MS/MSD:	Yes ☐	No ☒	Sample Time: <u>1535</u>
Duplicate:	Yes ☐	No ☒	
Duplicate ID	<u>—</u>		
Dup. Time:	<u>—</u>		
Chain of Custody Signed By:	<u>CS</u>		

Problems / Observations

Initial: No odor, some red/orange suspended particulates, clear

@ 1519 clear out flow through cell of iron precip for more accurate turbidity.

☒ VOC sampled w/ bailer

Sampling Personnel: **Kim Skilson**

Well ID: **MW-B1**

Client / Job Number: **30039411**

Date: **4/8/2020**

Weather: **40° cloudy**

Time In: **1040** Time Out: **1145**

Well Information

Depth to Water:	(feet)	5.38'	(from MP)
Total Depth:	(feet)	21.68'	(from MP)
Length of Water Column:	(feet)	16.3'	
Volume of Water in Well:	(gal)	2.65 gal	
Intake depth for tubing:	(feet)	~19'	

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:	1040			
Pump Stop Time:	1135			
Total Volume Removed:	(gal) 2.00			
Water-Quality Meter Type:	Horiba			
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	1120	1125
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.)	6.05	6.10	6.13	6.15	6.16	6.17	6.17	6.18	
pH	6.80	6.78	6.78	6.77	6.75	6.76	6.76	6.76	
Temp. (C)	10.19	10.04	10.06	10.08	10.10	10.20	10.19	10.18	
Conductivity (mS/cm)	2.53	2.53	2.54	2.55	2.54	2.54	2.55	2.55	
Dissolved Oxygen (mg/L)	1.04	0.10	0.01	0.00	0.00	0.00	0.00	0.00	
ORP (mV)	-39	-55	-64	-74	-77	-78	-79	-79	
Turbidity (NTU)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Notes:									

Sampling Information

Analyses	#	n	Laboratory
8260C VOL	3		Test America
9060 TOC	2		I
RSK-175			
Color:	slight red tint		
Odor:	no odor		
Appearance:	Black suspended particles		
Sample ID:	MW-B1	Sample Time:	12 → 1125
MS/MSD:	Yes ☐	No ☒	
Duplicate:	Yes ☐	No ☒	
Duplicate ID:		Dup. Time:	
Chain of Custody Signed By:	ES		

Problems / Observations

Initial: Clear no odor no color
Small black suspended particles.

RSK 175-3 collected

☒ VOC sampled w/ bailer

Sampling Personnel: ES Well ID: MU-A1
 Client / Job Number: 30039411 Date: 4/8/20
 Weather: Cloudy 46°F Time In: 0850 Time Out: 0945

Well Information
 Depth to Water: (feet) 4.91 (from MP)
 Total Depth: (feet) 22.51 (from MP)
 Length of Water Column: (feet) 17.6
 Volume of Water in Well: (gal) 2.86
 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: 0900
 Pump Stop Time: 0945 Water-Quality Meter Type: Horiba USB
 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	<u>0905</u>	<u>0910</u>	<u>0915</u>	<u>0920</u>	<u>0925</u>	<u>0930</u>	<u>0935</u>		
Volume Purged (Gal)	<u>0</u>	<u>0.25</u>	<u>0.50</u>	<u>0.75</u>	<u>1.00</u>	<u>1.25</u>	<u>1.50</u>		
Rate (mL/min)	<u>200</u>	<u>200</u>	<u>200</u>	<u>200</u>	<u>200</u>	<u>200</u>	<u>200</u>		
Depth to Water (ft.)	<u>5.23</u>	<u>5.31</u>	<u>5.39</u>	<u>5.44</u>	<u>5.50</u>	<u>5.55</u>	<u>5.60</u>		
pH	<u>6.27</u>	<u>6.34</u>	<u>6.39</u>	<u>6.42</u>	<u>6.45</u>	<u>6.46</u>	<u>6.47</u>		
Temp. (C)	<u>7.95</u>	<u>7.99</u>	<u>8.05</u>	<u>8.08</u>	<u>8.13</u>	<u>8.17</u>	<u>8.21</u>		
Conductivity (mS/cm)	<u>1.95</u>	<u>1.96</u>	<u>1.95</u>	<u>1.96</u>	<u>1.95</u>	<u>1.97</u>	<u>1.94</u>		
Dissolved Oxygen (mg/L)	<u>2.91</u>	<u>1.60</u>	<u>1.09</u>	<u>0.98</u>	<u>0.98</u>	<u>0.86</u>	<u>0.87</u>		
ORP (mV)	<u>-84</u>	<u>-109</u>	<u>-122</u>	<u>-126</u>	<u>-131</u>	<u>-133</u>	<u>-135</u>		
Turbidity (NTU)	<u>2.8</u>	<u>3.1</u>	<u>2.8</u>	<u>2.9</u>	<u>2.6</u>	<u>3.8</u>	<u>4.9</u>		
Notes:									

Sampling Information

Analyses	#	n	Laboratory
8260C VOC	3		TA
9060 TOC	2		↓
RSK 175	3		↓
Color:	None		
Odor:	~~Atmos~~ Odor Present		
Appearance:	Clear		
Sample ID:	MW-A1-040820		Sample Time: 0940
MS/MSD:	Yes ☐	No ☒	
Duplicate:	Yes ☐	No ☒	
Duplicate ID	—		Dup. Time: —
Chain of Custody Signed By:			

Problems / Observations

Initial: Clear, No Color, Odor Present

☒ VOC sampled w/bailer

GROUNDWATER SAMPLING LOG

Sampling Personnel: K Stilson

Well ID: IMP-3

Client / Job Number:

Date: 11/12/2020

Weather: 50° cloudy

Time In: 0910

Time Out: 1000

Well Information

Depth to Water: (feet) 8.54 (from MP)
 Total Depth: (feet) 18.23 (from MP)
 Length of Water Column: (feet) 9.69
 Volume of Water in Well: (gal) 1.57
 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" ☒ Other:

Purging Information

Purging Method: Bailer ☐ Peristaltic ☒ Monsoon ☐ Other:
 Tubing/Bailer Material: Steel ☐ Polyethylene ☒ Teflon ☐ Other:
 Sampling Method: VOC Bailer ☒ Peristaltic ☒ Monsoon ☐ Other:

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				

Pump Start Time: 0910

Pump Stop Time: 1000

Water-Quality Meter Type: Horiba

Total Volume Removed: (gal) 1.8

Did well go dry: Yes ☐ No ☒

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	0915	0920	0925	0930	0935	0940			
Volume Purged (Gal)	0.30	0.60	0.90	1.20	1.50	1.80			
Rate (mL/min)	250	250	250	250	250	250			
Depth to Water (ft.)	9.00	9.17	9.23	9.28	9.33	9.37			
pH	7.10	7.08	7.00	6.97	6.95	6.94			
Temp. (C)	14.12	14.32	14.47	14.22	14.38	14.32			
Conductivity (mS/cm)	0.120	2.9712	1.19	1.15	0.927	0.929			
Dissolved Oxygen (mg/L)	5.83	8.298	2.62	2.60	2.57	2.54			
ORP (mV)	-69	-70	-70	-58	-47	-46			
Turbidity (NTU)	14.5	0.0	0.3	3.2	3.1	3.5			
Notes:									

Sampling Information

Analyses	#	n	Laboratory
8260 VOC	3		TA
9060 TOC	2		TA
Color: clear none			
Odor: none			
Appearance: clear			
Sample ID: IMP-3		Sample Time: 0945	
MS/MSD:	Yes ☐	No ☒	
Duplicate:	Yes ☐	No ☒	
Duplicate ID		Dup. Time:	
Chain of Custody Signed By:			

Problems / Observations

Initial slight turb, clear, no odor

VOC sampled w/ bailer

Ashland Rensselaer

242020 GWS

Site

Event

GROUNDWATER SAMPLING LOG

Sampling Personnel: K. Skibon

Well ID: IP-1

Client / Job Number:

Date: 1/14/2020

Weather: 51° Cloudy

Time In: 0830

Time Out: 0910

Well Information

Depth to Water:	(feet) 5.25	(from MP)
Total Depth:	(feet) 18.42	(from MP)
Length of Water Column:	(feet) 13.17	
Volume of Water in Well:	(gal) 2.14	
Intake depth for tubing:	(feet) ~16.5	

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:	VOC Bailer ☒	Peristaltic ☒	Monsoon ☐	Other: ☐

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				

Pump Start Time: 0830	Water-Quality Meter Type: Horiba
Pump Stop Time: 0910	
Total Volume Removed: (gal) 1.80	Did well go dry: Yes ☐ No ☒

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			
Volume Purged (Gal)	0.30	0.60	0.90	1.20	1.50	1.80			
Rate (mL/min)	250	250	250	250	250	250			
Depth to Water (ft.)	5.41	5.67	5.81	5.83	5.86	5.88			
pH	7.04	7.02	7.00	6.99	6.97	6.98			
Temp. (C)	14.83	14.79	14.77	14.71	14.70	14.68			
Conductivity (mS/cm)	0.565	0.563	0.561	0.560	0.558	0.560			
Dissolved Oxygen (mg/L)	7.69	7.12	6.66	6.26	6.23	6.21			
ORP (mV)	-99	-101	-104	-107	-108	-109			
Turbidity (NTU)	88.0	74.9	45.1	35.2	37.4	34.3			
Notes:									

Sampling Information

Analyses	#	n	Laboratory
8260C VOC	3		TA
9060 TOC	2		TA
RSK 195	3		TA
Color:	clear none		
Odor:	none		
Appearance:	clear		
Sample ID: IP-1	Sample Time: 0905		
MS/MSD:	Yes ☐	No ☒	
Duplicate:	Yes ☐	No ☒	
Duplicate ID	Dup. Time:		
Chain of Custody Signed By:			

Problems / Observations

Initial: slight tan color
clear, no odor



Groundwater Sampling Form

Project No. ~~30010597~~ 30059651

Well ID IW-A2

Page 1 of 1

Date 11/12/20

Project Name/Location	~~West Milford #211126/1457 Union Valley Road, West Milford, N.J.~~

Weather 

Measuring Pt.	Description
	Toe

Screen
Setting (ft-bmp)

Casing Diameter (in.) 2

Well Material ✓ PVC
SS

Static Water Level (ft-bmp) 9.47.90

Total Depth (ft-bmp) 23.44

Water Column/
Gallons in Well 15.98 2.55

MP Elevation 1005

Pump Intake (ft-bmp) 21'

Purge Method:

Sample Method *Low Flow*

Pump On/Off 1140/228

Volumes Purged 7000 mL

Centrifugal
Submersible
Other

Sample Time: Label 1225

Replicate/

Sampled by *Kir/K. V. V. V.*

[illegible][illegible]

Well Casing Volumes

Gallons/Foot	1" = 0.04
	1.25" = 0.06

$1.5'' = 0.09$
 $2'' = 0.16$

$$2.5'' = 0.26$$
$$3'' = 0.37$$

3.5" = 0.50
4" = 0.65

$$6'' = 1.47$$

Well Information

Took VOC Sample w/ Butler

Well Location:

Well Locked at Arrival:

Condition of Well:

Well Locked at Departure:

Well Completion: Flush Mount / Stick Up

Key Number To Well: _____ GW



ARCADIS

Groundwater Sampling Form

Project No.

30059651

Well ID

MW-13

Date

Page 1 of 1

11/11/20

Project Name/Location

Weather

Cloudy

Measuring Pt.
Description

TOC

Screen
Setting (ft-bmp)Casing
Diameter (in.)

2

Well Material
☒ PVC
☐ SS
☐ Other

Total Depth (ft-bmp)

22.24

Static Water
Level (ft-bmp)

37.6

Water Column in Well

18.48

Gallons in Well

2.95

Calc. Gallons
Purged

6000

Pump Intake (ft-bmp)

18'

Purge Method:

Centrifugal

Submersible

Disp. Bailer

Other

perc pump

Sample
Method

VOC w/ Bailer

Sample Time: Label

1153

Replicate/
Code No.

Pump On/Off

Sampled by K. L. Vargas

Time	Minutes Elapsed	Rate (gpm) (mL/min)	Depth to Water (ft) TOC	Gallons Purged	pH	Cond. (µmhos) (mS/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp. (°C) (°F)	Redox (mV)	Appearance	
											Color	Odor
1120	0	200	4.68	0	8.68	0.491	0.51	2.29	15.94	67	Clear	None
1125	5	200	4.96	1000	7.78	0.495	0.4	1.11	14.50	15	Clear	None
1130	10	200	5.00	2000	7.87	0.470	1.2	2.98	13.43	27	Clear	None
1135	15	200	5.06	3000	7.92	0.466	1.1	2.87	13.66	39	Clear	None
1140	20	200	5.06	4000	7.90	0.464	1.0	2.85	13.65	40	Clear	None
1145	25	200	5.06	5000	7.90	0.460	0.9	2.83	13.64	40	Clear	None
1150	30	200	5.06	6000	7.89	0.460	0.9	2.83	13.65	40	Clear	None

Constituents Sampled

8260 VOC's

9060 TOC

Container

40 mL Vials

40 mL Vials

Number

3

2

Preservative

HCL

HCL

Well Information

Well Location:

Good

Well Locked at Arrival:

Yes

No

Condition of Well:

Well Locked at Departure:

Yes

No

Well Completion:

Flush Mount

/ Stick Up

Key Number To Well:

NOTES:

Took VOC sample w/ Bailer

Well Casing Volumes

Gallons/Foot

1" = 0.04

1.5" = 0.09

2.5" = 0.26

3.5" = 0.50

6" = 1.47

1.25" = 0.06

2" = 0.16

3" = 0.37

4" = 0.65

Groundwater Sampling Form

Project No. ~~30010597~~ 3059651

Well ID MW-15

Page 1 of 1

Date 11/12/20

Project Name/Location ~~West Milford #211126/1457 Union Valley Road, West Milford, NJ~~

Weather *Cloudy*

Measuring Pt.	Description
	70c

Screen
Setting (ft-bmp)

Casing Diameter (in.) 2

Well Material ✓ PVC
SS

Static Water Level (ft-bmp) 2.22

Total Depth (ft-bmp) 15.10

Water Column/ Gallons in Well	12.88	2.06

MP Elevation

Pump Intake (ft-bmp) 13

Purge Method:

Sample Method Low Flow

Pump On/Off 0955/1033

Volumes Purged 6000 ML

Centrifugal

Submersible

Other Peri Amf

Sample Time: Label 1030
Start _____
End _____

Replicate/
Code No.

Sampled by *Kir Khr.*

[illegible]

Constituents Sampled

Container

Number

Preservative

Well Casing Volumes

Gallons/Foot	1" = 0.04
	1.25" = 0.06

$$1.5'' = 0.09$$
$$2.5'' = 0.26$$
$$3.5'' = 0.50$$
$$6'' = 1.47$$

Well Information

Well Location:

Well Locked at Arrival:

Condition of Well:

Well Locked at Departure:

Well Completion:

Flush Mount / Stick Up

Key Number To Well:

GW SAVED FORM

[illegible]

GROUNDWATER SAMPLING LOG

Sampling Personnel: K. Wilson
 Client / Job Number: _____
 Weather: 69° Cloudy Rain

Well ID: NW16
 Date: 11/11/2020
 Time In: 1450 Time Out: 1555

Well Information

Depth to Water: (feet) 8.16 (from MP)
 Total Depth: (feet) 14.98 (from MP)
 Length of Water Column: (feet) 6.82
 Volume of Water in Well: (gal) 1.11
 Intake depth for tubing: (feet) ~12.9'

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: VOC Bailer ☒ Peristaltic ☒ Monsoon ☐ Other: _____

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				

Pump Start Time: 1455 1455
 Pump Stop Time: 1545 Water-Quality Meter Type: Horiba
 Total Volume Removed: (gal) 1.4 Did well go dry: Yes ☐ No ☒

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	<u>1350</u>	<u>1505</u>	<u>1510</u>	<u>1515</u>	<u>1520</u>	<u>1525</u>	<u>1530</u>		
Volume Purged (Gal)	<u>0.2</u>	<u>0.4</u>	<u>0.6</u>	<u>0.8</u>	<u>0.10</u>	<u>1.2</u>	<u>1.4</u>		
Rate (mL/min)	<u>200</u>	<u>200</u>	<u>200</u>	<u>200</u>	<u>200</u>	<u>200</u>	<u>200</u>		
Depth to Water (ft.)	<u>8.77</u>	<u>9.42</u>	<u>9.88</u>	<u>10.46</u>	<u>11.09</u>	<u>12.78</u>	<u>12.15</u>		
pH	<u>7.03</u>	<u>7.04</u>	<u>7.05</u>	<u>7.05</u>	<u>7.06</u>	<u>7.07</u>	<u>7.08</u>		
Temp. (C)	<u>15.83</u>	<u>15.88</u>	<u>15.87</u>	<u>15.86</u>	<u>15.83</u>	<u>15.82</u>	<u>15.81</u>		
Conductivity (mS/cm)	<u>0.818</u>	<u>0.851</u>	<u>0.867</u>	<u>0.871</u>	<u>0.877</u>	<u>0.884</u>	<u>0.888</u>		
Dissolved Oxygen (mg/L)	<u>3.26</u>	<u>3.01</u>	<u>2.89</u>	<u>2.56</u>	<u>2.08</u>	<u>2.06</u>	<u>2.05</u>		
ORP (mV)	<u>1</u>	<u>-3</u>	<u>-10</u>	<u>-15</u>	<u>-19</u>	<u>-23</u>	<u>-24</u>		
Turbidity (NTU)	<u>0.0</u>	<u>0.0</u>	<u>0.0</u>	<u>0.0</u>	<u>0.0</u>	<u>0.0</u>	<u>0.0</u>		
Notes:									

Sampling Information

Sampling Information			
Analyses	#	n	Laboratory
TOC 9060	2		TA
VOC 8260	3		TA
RSX 175	3		TA
Color: clear none			
Odor: clear none			
Appearance: clear			
Sample ID: MW46	Sample Time: 1535		
MS/MSD: Yes ☐	No ☒		
Duplicate: Yes ☐	No ☒		
Duplicate ID	Dup. Time:		
Chain of Custody Signed By:			

Problems / Observations

Initial - No color
 no odor
 clear

GROUNDWATER SAMPLING LOG 24 2020 GWS

Sampling Personnel: KS

Well ID: MW-17

Client / Job Number:

Date: 11/12/2020

Weather: 50° Cloudy

Time In: 1430

Time Out: 1520

Well Information

Depth to Water: (feet) 6.99 (from MP)
 Total Depth: (feet) 12.70 (from MP)
 Length of Water Column: (feet) 10.71
 Volume of Water in Well: (gal) 1.74
 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: VOA Bailer ☒ Peristaltic ☒ Monsoon ☐ Other:

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				

Pump Start Time: 1435
 Pump Stop Time: 1515 Water-Quality Meter Type: Horiba
 Total Volume Removed: (gal) 2.0 Did well go dry: Yes ☐ No ☒

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	1435	1440	1445	1450	1455	1500	1505	1510	1515
Volume Purged (Gal)	0.25	0.50	0.75	1.0	1.25	1.50	2.0	2.5	3.0
Rate (mL/min)	200	200	200	200	200	200	200	200	200
Depth to Water (ft.)	7.32	7.74	7.99	8.27	8.55	8.71	8.89		
pH	7.12	7.10	7.11	7.11	7.11	7.10	7.10		
Temp. (C)	17.08	17.43	17.39	17.27	17.20	17.18	17.18		
Conductivity (mS/cm)	1.49	1.44	1.45	1.45	1.44	1.42	1.39		
Dissolved Oxygen (mg/L)	4.60	3.75	3.63	3.41	3.30	3.22	3.13		
ORP (mV)	-89	-97	-101	-116	-121	-121	-120		
Turbidity (NTU)	81.0	73.1	45.7	20.9	27.2	27.6	27.9		
Notes:									

Sampling Information

Analyses	#	n	Laboratory
8260 VOA	3		TA
9060 TOC	2		TA
Color: tan			
Odor: none			
Appearance: clear			
Sample ID: MW-17			Sample Time: 1510
MS/MSD: Yes ☐ No ☒			
Duplicate: Yes ☐ No ☒			
Duplicate ID: —			Dup. Time: —
Chain of Custody Signed By:			

Problems / Observations

Initial: tan, no odor clear

VO C sampled with bailer

Site

Ashland Rensselaer

24 2020 GWS

Event

GROUNDWATER SAMPLING LOG

Sampling Personnel: KS

Well ID: MW-18

Client / Job Number:

Date: 11/12/2020

Weather: Cloudy 51°

Time In: 1300

Time Out: 1415

Well Information

Depth to Water:	(feet)	5.76	(from MP)
Total Depth:	(feet)	17.85	(from MP)
Length of Water Column:	(feet)	12.09	
Volume of Water in Well:	(gal)	1.97	
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:	VOL Bailer ☒	Peristaltic ☒	Monsoon ☐	Other: ☐

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				

Pump Start Time:	1320	Water-Quality Meter Type:	Torhica
Pump Stop Time:	1355	Did well go dry:	Yes ☐ No ☒
Total Volume Removed:	(gal) 1.5		

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	1325	1330	1335	1340	1345	1350			
Volume Purged (Gal)	0.25	0.50	0.75	1.00	1.25	1.50			
Rate (mL/min)	200	200	200	200	200	200			
Depth to Water (ft.)	7.99	8.09	8.19	8.27	8.33	8.38			
pH	7.11	7.02	7.00	6.98	6.93	6.91			
Temp. (C)	14.18	14.25	14.27	14.28	14.23	14.20			
Conductivity (mS/cm)	0.580	0.588	0.593	0.597	0.600	0.602			
Dissolved Oxygen (mg/L)	3.45	3.11	3.07	3.02	3.00	2.98			
ORP (mV)	54	-17	-27	-33	-37	-42			
Turbidity (NTU)	115	84.7	49.9	44.4	43.1	42.3			
Notes:									

Sampling Information

Analyses	#	n	Laboratory
8260VOC	3		TA
9060TOL	2		TA
RSK 175	3		TA
Color:	clear no color		
Odor:	none		
Appearance:	clear		
Sample ID:	MW-18	Sample Time:	1355
MS/MSD:	Yes ☐	No ☒	
Duplicate:	Yes ☐	No ☒	
Duplicate ID:	—	Dup. Time:	—
Chain of Custody Signed By:			

Problems / Observations

Initial slight tan, clear, no odor

VOC sampled w/ bailer

GROUNDWATER SAMPLING LOG

Sampling Personnel: K. Stilson

Well ID: MW-21

Client / Job Number:

Date: 11/11/2020

Weather: Cloudy 69°

Time In: 1300

Time Out: 1430

Well Information

Depth to Water: (feet) 11.17 (from MP)

Total Depth: (feet) 15.01 (from MP)

Length of Water Column: (feet) 3.84

Volume of Water in Well: (gal) 0.62

Intake depth for tubing: (feet) ~14.00

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: VOC Bailer ☒ Peristaltic ☒ Monsoon ☐ Other:

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				

Pump Start Time: 1330

Pump Stop Time: 1430

Water-Quality Meter Type: HANNA

Unit Stability			
pH	DO / Turb	Cond. / Temp	ORP
▽ 0.1	▽ 10%	▽ 3.0%	▽ 10 mV

Total Volume Removed: (gal) 1.40

Did well go dry: Yes ☐ No ☒

Parameter:	1	2	3	4	5	6	7	8	9
Time	1335	1340	1345	1350	1355	1400	1405		
Volume Purged (Gal)	0.20	0.40	0.60	0.80	1.00	1.20	1.40		
Rate (mL/min)	200	200	200	200	200	200	200		
Depth to Water (ft.)	11.40	11.66	11.93	12.25	12.78	12.90	12.99		
pH	6.76	6.78	6.79	6.80	6.81	6.81	6.82		
Temp. (C)	17.17	16.88	16.53	16.33	16.07	15.81	15.72		
Conductivity (mS/cm)	1.81	1.80	1.79	1.78	1.77	1.76	1.75		
Dissolved Oxygen (mg/L)	4.46	4.40	4.31	4.27	3.99	3.75	3.53		
ORP (mV)	-62	-63	-64	-63	-63	-62	-62		
Turbidity (NTU)	163	57	416	0.7	0.0	0.0	0.0		
Notes:									

Sampling Information

Analyses	#	n	Laboratory
8260 VOC	3		TA
9060 PCB	2		TA
Color:	none		
Odor:	none		
Appearance:	clear		
Sample ID:	MW-21	Sample Time:	1410
MS/MSD:	Yes ☐	No ☒	
Duplicate:	Yes ☐	No ☒	
Duplicate ID	—	Dup. Time:	—
Chain of Custody Signed By:			

Problems / Observations

Initial: Tan slight cloudy
no odor

Final: color odor
none none clear

VOC collected w/ bailer.

Groundwater Sampling Form

Project No. ~~30010597~~ 30059651

Well ID PW-20

Page 1 of 1

Date 11/12/20

Project Name/Location ~~West Milford #211126/1457 Union Valley Road, West Milford, NJ~~

Weather Cloudy

Measuring Pt.	Description
	100

Screen
Setting (ft-bmp)

Casing Diameter (in.) - 2

Well Material _____ PVC
SS

Static Water Level (ft-bmp) 2.15

Total Depth (ft-bmp) 12.08

Water Column/
Gallons in Well 9.93 1.58

MP Elevation

Pump Intake (ft-bmp) / 0'

Purge Method:

Sample 1 = _____

Pump On/Off 1040/1123

Volumes Purged 7000 mL

Centrifugal _____
Submersible _____

Method SW / CCS

Sample Time: Label 1120
Start _____
End _____

Replicate/
Code No. _____

Other 121 pages

Sampled by Kirk Varjas

[illegible]

Constituents Sampled

Container

Number

Preservative

8260 Voc
9060 Toc
Rsk 175

3 x 46 mL Glass
2 x 46 mL Glass
3 x 46 mL Glass

$$\begin{array}{r} 3 \\ 2 \\ 3 \end{array}$$

Hei

Well Casing Volumes

Gallons/Foot	1" = 0.04	1.5" = 0.09	2.5" = 0.26	3.5" = 0.50	6" = 1.47
	1.25" = 0.06	2" = 0.16	3" = 0.37	4" = 0.65	

Well Information

Took vac sample w/ Barker

Well Location: _____

Well Locked at Arrival:

Condition of Well: Good

Well Locked at Departure:

Well Completion: Flush Mount / Stick Up

Key Number To Well:

GW Samp Form



ARCADIS

Groundwater Sampling Form

Project No. 30059651 Ashland, Louisiana Well ID MW-23Page 1 of 1

Project Name/Location

Date 4/12/20Measuring Pt. TOC
DescriptionScreen
Setting (ft-bmp)Casing
Diameter (in.) 4"Weather cloudyWell Material ☒ PVC
☐ SS
☐ OtherTotal Depth (ft-bmp) 30.14Static Water
Level (ft-bmp) 7.51

Water Column in Well

Gallons in Well

Calc. Gallons 6000 mLPump Intake (ft-bmp) 28'

Purge Method:

Sample
Method Low FlowPurged
Gallons Purged 6000 mL

MP Elevation

Centrifugal
Submersible

Pump On/Off

Sample Time: Label 1530Replicate/
Code No.Disp. Bailor
Other per pumpSampled by Kirklin

Time	Minutes Elapsed	Rate (gpm) (mL/min)	Depth to Water (ft) TOC	Gallons Purged	pH	Cond. (µmhos) (mS/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp. (°C) (°F)	Redox (mV)	Appearance	
											Color	Odor
1455	0	200	7.71	0	6.62	1.04	29.3	5.50	12.05	-46	Clear	None
1500	5	200	7.96	1000	6.70	1.03	20.2	2.93	12.18	-64	Clear	None
1505	10	200	8.25	2000	6.71	1.02	14.8	1.60	12.21	-80	Clear	None
1510	15	200	8.28	3000	6.71	1.03	15.2	1.04	12.12	-93	Clear	None
1515	20	200	8.30	4000	6.71	1.02	14.5	0.78	12.16	-96	Clear	None
1520	25	200	8.30	5000	6.71	1.01	14.0	0.76	12.15	-98	Clear	None
1525	30	200	8.30	6000	6.71	1.00	14.0	0.74	12.12	-98	Clear	None

Constituents Sampled	Container	Number	Preservative
8260 VOC	40 mL Glass	3	HCL
9060 TOC	40 mL Glass	2	HCL
RSK 175	40 mL Glass	3	HCL

Well Information

Well Location:	Well Locked at Arrival:	Yes	/	No
Condition of Well:	Well Locked at Departure:	Yes	/	No
Well Completion: Flush Mount / <u>Stick Up</u>	Key Number To Well:			

NOTES: Took VOC Sample w/ Bailor

Well Casing Volumes

Gallons/Foot	1" = 0.04	1.5" = 0.09	2.5" = 0.26	3.5" = 0.50	6" = 1.47
	1.25" = 0.06	2" = 0.16	3" = 0.37	4" = 0.65	

Appendix D

2020 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 2020

1. Check integrity of the asphalt surfaces and building footers – document any changes with photos and comments below.
Add specific comments/date/initials:

- Cracks in asphalt observed 11/12/2020 KS
on south end of site.
- Previously caved in area near 11/12/2020 KS
culvert holding up.

2. Check condition of perimeter fence – document any changes with photos and comments below.
Comments/date/initials:

- Some gaps noted @ bottom 11/12/2020
of fence line. SW corner,
western fence line.
- Vegetation cleared and sprayed KS 11/12/2020 KS
2019

3. Check current site usage (if changed) – document any changes with photos and comments below.
Comments/date/initials:

No change to site use 11/12/2020 KS

4. Check monitoring well conditions on and offsite – document any changes with photos and comments below.
Comments/date/initials:

- PZ-3 bent over 11/12/2020 KS
- MW-24 mud build up from overflow 11/12/2020 KS
of run off water.
- MW-21 covered in brush KS 11/12/2020 KS

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:

-HASP updated for 2020	11/12/2020	KS
*COVID Documents updated		KS

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.

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.

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.

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, 2020 to December 31, 2020

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.



Signature of Owner, Remedial Party or Designated Representative

Ian McCary
Remediation Project Manager-Ashland LLC

03/18/2021
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.

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 complete.

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

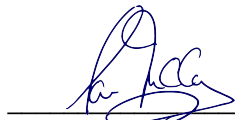
(e) if a financial assurance mechanism is required by the oversight document for the site, the mechanism remains valid and sufficient for its intended purpose established in the document.

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

03/18/2021

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 at 500 Hercules Road, Bldg 8145, Wilmington, DE 19808,
print name 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

03/18/2021
Date