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PERIODIC REVIEW REPORT (PRR)
FORMER AXIOHM FACILITY
950 DANBY ROAD
ITHACA, NEW YORK 14850
SITE NO.: C755012

Prepared For:

New York State Department of Environmental Conservation
Attn: Ms. Karen Cahill, Project Manager
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Owner:

South Hill Business Campus, LLC.
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March 2023
GeoLogic Project No. 209164

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1 INTRODUCTION

This report provides the basis for review and certification of the institutional controls and engineering controls (ICs/ECs) implemented at the Former Axiohm Facility, Site No. C755012 (Site). The Site is currently owned by South Hill Business Campus, LLC. (SHBC) and this report is prepared and submitted at the direction of SHBC, consistent with the Site's remedial program as approved by the New York State Department of Environmental Conservation (NYSDEC) and the New York State Department of Health (NYSDOH). The reporting period addressed in this report is February 15, 2022 to February 15, 2023. The completed IC/EC Certification Form is included in Appendix A.

1.1 Site Summary

Former manufacturing activities at the Site resulted in contamination of groundwater and soil vapor with chlorinated organic solvents, primarily Trichloroethene (TCE) and its decomposition products cis-1,2-Dichloroethene (DCE) and Vinyl Chloride (VC). The potential sources were identified as two, 9,000-gallon poured-concrete underground storage tanks (USTs) that formerly contained used solvents and one, 6,000-gallon steel UST that formerly contained virgin TCE. This contamination extended in the direction of groundwater flow from the southwest corner of the building towards the west/northwest into the lower parking lot area. Soil excavation and groundwater treatment utilizing in-situ chemical oxidation (ISCO) was completed at the Site in 2008. In addition, a Sub-Slab Depressurization System (SSDS) and a Positive Pressure Air Exchange System (PPAES) were installed to mitigate the possibility of Soil Vapor Intrusion (SVI). Remedial activities were completed at the Site in 2008. A Site Management Plan (SMP) that includes an Operation and Maintenance (O&M) Plan and a Soil Management Plan remain in place for the Site. The Certificate of Completion was issued by the NYSDEC on December 31, 2008. A second ISCO injection event was completed in 2012. Since 2012, various modifications have been made to the SSDS, PPAES and Post-Remediation Monitoring (PRM) program. These modifications are detailed below, in Section 2.4 and Section 3.2. Groundwater monitoring is ongoing.

2 SITE OVERVIEW

2.1 Site Location and Description

The Site is located at 950 Danby Road (a.k.a. NYS Route 96B), Town of Ithaca, County of Tompkins and State of New York (Drawing No. 1, Appendix B). The Brownfield Cleanup Program (BCP) portion of the Site is approximately 42.5 acres in size and currently consists of two Tax Parcels (39-1-1.1 and 39-1-1.22), which are depicted on Drawing No. 1A (Appendix B).

The Site is developed with a split-level two-story and four-story building occupying approximately 280,000 square feet. The building is utilized for office space, storage space and light manufacturing. A three-tiered parking area is located west of the building.

The properties surrounding the Site are predominately utilized for commercial/institutional purposes with limited residential uses. Predominately commercial sites are located north of the Site, the Ithaca College Campus is located east of the Site, some residences are located south of the Site and vacant/undeveloped land is located west of the Site.

2.2 Site History

The past uses of the Site have included undeveloped/agricultural and commercial/manufacturing. National Cash Register (NCR) purchased the Site from Ithaca College in the 1950's. NCR utilized the Site for manufacturing and printing purposes. Nine (9) known USTs were present on the Site associated with NCR's operations.

In or around 1992, AT&T Global Information Solutions began utilizing the Site for manufacturing and assembly associated with printers.

In or around 1994, Axiohm IPB, Inc. began utilizing the Site for office space, engineering, marketing, light manufacturing and a service center associated with printers. Axiohm closed in or around 2003.

SHBC purchased the Site in December 2004.

2.3 Nature and Extent of Contamination

SHBC submitted a BCP application to the NYSDEC in February of 2005 and a Brownfield Cleanup Agreement (BCA) was executed in October 2005. The BCA required SHBC to determine the nature and extent of the contamination from historic operations, and subsequently remediate the Site to support future commercial use.

A Remedial Investigation (RI) was completed at the Site in 2006 and 2007. A Remedial Investigation Report was submitted by S&W Redevelopment of North America, LLC (SWRNA) in January 2008 and was subsequently approved by the NYSDEC.

The RI indicated that former manufacturing activities in the southern portion of the building resulted in contamination of the groundwater and soil vapor with chlorinated organic solvents (TCE, DCE and VC). The potential contaminant sources were identified as two, 9,000-gallon poured-concrete USTs that formerly contained used solvents and one 6,000-gallon steel UST that formerly contained virgin TCE. The two, 9,000-gallon poured-concrete USTs are located at the southwest corner of the building and were abandoned in place. The 6,000-gallon steel UST was removed in 1986. The locations of these USTs are depicted on Drawing No. 2, Appendix B.

The RI indicated that the groundwater and soil vapor contamination extended in the direction of groundwater flow from the southwest corner of the building towards the west/northwest into the lower parking lot area.

2.4 Chronology of Site Remedial Program

The remedial activities completed at the Site are summarized below.

A Remedial Work Plan (RWP) and Remedial Design (RD) were submitted by SWRNA in March of 2008 and June of 2008 and were subsequently approved by the NYSDEC.

Engineering Controls (ECs) were implemented to mitigate potential SVI in accordance with a NYSDEC-approved Interim Remedial Measure (IRM), prepared by SWRNA and dated January 2007. The ECs included the installation of a SSDS and a PPAES in the lowest level of the building.

The SSDS was installed in the southern portion of the building's lowest level in 2007 and was subsequently expanded in 2008 to include several rooms adjoining the main building to the west. The PPAES was installed in the northern portion of the building in 2008. Both systems were designed to decrease the potential of SVI to occur by creating a positive indoor air pressure above the slab relative to below slab conditions.

The soil adjacent to the two, 9,000-gallon poured-concrete USTs (identified as a potential source area) was excavated and transported off-site for disposal at a permitted disposal facility. Excavation activities took place on March 31 and April 1, 2008. Approximately 14.6 tons of contaminated soil was removed and disposed of at The City of Auburn Landfill. Prior to backfilling, an injection well was installed in the excavation and potassium permanganate powder was placed at the bottom of the excavation to aide in the chemical oxidation of any residual contamination present.

The ISCO program was implemented to treat groundwater contamination by chemical oxidation processes. The 2008 ISCO was designed to destroy 100% of the TCE with a single injection of potassium permanganate solution, based on pilot testing conducted in March of 2008. Potassium permanganate solution was injected through horizontal injection trenches. The injection event started on June 26, 2008 and was completed on September 3, 2008. A total of 4,958 pounds of potassium permanganate was applied to the Site as 13,600 gallons of potassium permanganate solution.

In addition to the ECs, soil excavation and ISCO, Institutional Controls (ICs) were implemented at the Site to mitigate the potential for human and ecological exposure to groundwater. The ICs are described in Section 3.1.

Remedial activities were completed at the Site by SHBC, in accordance with the BCA, in 2008. A SMP was prepared by SWRNA on behalf of SHBC. The SMP includes an O&M Plan and also includes a Soil Management Plan for the Site. The SMP summarizes the ICs/ECs currently implemented and details the operations, maintenance and monitoring requirements associated with the NYSDEC-approved remedial action. The Certificate of Completion was issued by the NYSDEC on December 31, 2008.

Additional remedial measures were required by the NYSDEC in June 2011. GeoLogic prepared a design document for additional ISCO in September 2011. The NYSDEC and NYSDOH reviewed and commented on the design document. The design document was revised based on these comments and was subsequently approved in February 2012.

Additional ISCO injection commenced on May 21, 2012 and was completed on August 24, 2012. A total of 5,704 pounds of sodium permanganate was applied to the Site as 13,875 gallons of sodium permanganate solution. The injection event was summarized in GeoLogic's report entitled *2012 Additional ISCO*, dated December 2012.

Various modifications have been made to the SSDS, PPAES and PRM program since the Certificate of Completion was issued by the NYSDEC on December 31, 2008. Modifications have been made with NYSDEC/NYSDOH concurrence and if necessary, completed in accordance with NYSDEC/NYSDOH approved design documents. Modifications to the SSDS and PPAES are detailed in Section 3.2. Modifications to the PRM program are briefing summarized below:

- In March 2014, two bedrock wells (MW07-27BR and MW08-29BR) were removed from the PRM program. This modification was made based upon the historic lack of detecting Contaminants of Concern (COCs) or detecting low concentrations of COCs in the groundwater samples collected from these wells.

- In April 2015, the air sampling portion of the PRM program was discontinued. This modification was made based upon having sufficient data (results from 108 post-mitigation air samples) to evaluate post-mitigation conditions. The SSDS continues to be monitored and maintained in accordance with the SMP.

- In October 2015, GeoLogic submitted an updated Conceptual Site Model (CSM) for the Site to the NYSDEC. The updated CSM was approved by the NYSDEC and NYSDOH in November 2015.

- In November 2015, monitoring well MW06-23BR was added to the PRM program. GeoLogic revised the SMP to reflect the modifications to the PRM program and SVI mitigation systems made between April 2012 and November 2015. The revised SMP was approved by the NYSDEC and NYSDOH in November 2015.

In September 2016, GeoLogic submitted a Remedial System Optimization (RSO) Report for the Site. The goal of the RSO report was to evaluate the feasibility of additional remedial technologies to address the COCs remaining in groundwater at the Site. The RSO report recommended that a Monitored Natural Attenuation (MNA) program be implemented at the Site. The RSO report was approved, with conditions, by the NYSDEC and NYSDOH in October 2016.

In December 2016, overburden monitoring well MW-7 was abandoned and a new bedrock monitoring well, MW16-7BR was installed. This work was required by the NYSDEC's letter dated, October 26, 2016 in order to satisfy the conditional approval of GeoLogic's RSO Report. Groundwater samples were collected from MW16-7BR on a quarterly basis, for three quarters, and then included in the 2017 annual sampling. Quarterly sampling reports were submitted to the NYSDEC and NYSDOH after each sampling event.

In February 2017, the Site's SMP was updated to include the MNA plan, which is detailed in Section 4 of the February 2017 SMP.

In July 2017, the NYSDEC required modifications to the MNA plan. In September 2017, GeoLogic modified the MNA plan to include additional geochemical parameters. The field parameters recorded was expanded to include Dissolved Oxygen (DO), Oxidation Reduction Potential (ORP), pH and temperature. In addition to VOCs, the laboratory analysis was expanded to include Nitrate, Iron, Sulfate, Alkalinity and Chloride.

In October 2017, the NYSDEC required the Site's SMP be revised to reflect the September 2017 modifications to the MNA Plan. In April 2018, GeoLogic submitted a revised SMP to reflect these changes.

In May 2018, GeoLogic proposed adding Ethene to the laboratory analysis completed as part of the groundwater monitoring program for the Site. On May 24, 2018, the NYSDEC conditionally approved the modifications to the groundwater monitoring program. The NYSDEC also required the SMP to be revised to reflect the modifications and conditions listed in the letter of May 24th. In August 2018, GeoLogic submitted a revised SMP reflecting the requested changes.

In April 2020, GeoLogic recommended modifying the groundwater monitoring program to eliminate laboratory analysis of Alkalinity, Chloride, Ethene, Iron, Nitrate, and Sulfate. On June 15, 2020, the NYSDEC requested additional information. GeoLogic provided additional information in multiple response letters and e-mails between July 2020 and October 2020. On November 23, 2020, the NYSDEC approved modification of the groundwater monitoring program eliminating laboratory analysis of Alkalinity, Chloride, Iron, Nitrate, and Sulfate. Future groundwater samples will be analyzed for VOCs and ethene only.

In November 2020, an exploratory soil vapor extraction (SVE) well was installed in the south courtyard area at the Site. With the concurrence of the NYSDEC, the well was installed to aid in evaluating the effectiveness of SVE in the south courtyard area at the Site. In May 2021, a report was submitted to the NYSDEC and NYSDOH summarizing this work.

In July 2021, SVE was added to monitoring well MW16-7BR and to Injection Trench T-11. Piping was installed which connected MW16-7BR and T-11 to the trunk line of the existing SSDS. A bubbler system was also installed at MW16-7BR to facilitate the removal of VOCs from the groundwater. These modifications are depicted on Figure No. 4 (SMP Revision No. 5).

In September 2021, SMP Revision No. 5 was submitted to the DEC to reflect the addition of SVE to MW16-7BR and T-11 and the 2020 modification of the groundwater monitoring plan. These modifications were made with the concurrence of the NYSDEC and NYSDOH. The current Groundwater Monitoring Plan is described in Section 4 of SMP Revision No. 5.

2.5 Remedial Action Objectives (RAOs)

The Remedial Action Objectives (RAOs) that have been developed for the Site are based on considerations specific to the Site (e.g. Site use, detected constituents and potential exposure pathways). RAOs are identified to maintain and/or achieve conditions that are protective of public health and the environment. The RAOs that have been developed for the Site are consistent with the remedy selection process described in Technical Guidance for Site Investigation and Remediation, NYSDEC Program Policy DER-10 (DER-10, May 2010).

Based on the evaluation of the current environmental data and taking into consideration current and potential land use, and identification of the actual or potential public health and/or environmental exposure, the RAOs, for the Site are:

2.5.1 Groundwater

RAOs for Public Health Protection:

- Prevent ingestion of groundwater with contaminant levels exceeding drinking water standards.

RAOs for Environmental Protection:

- Restore groundwater aquifer to pre-disposal/pre-release conditions, to the extent practicable.
- Remove the source of ground or surface water contamination.

2.5.2 Soil

RAOs for Public Health Protection:

- Prevent ingestion/direct contact with contaminated soil.

RAOs for Environmental Protection:

- Prevent migration of contaminants that would result in groundwater or surface water contamination.

2.5.3 Soil Vapor

RAOs for Public Health Protection:

- Mitigate impacts to public health resulting from existing, or the potential for, soil vapor intrusion into buildings at the Site.

2.6 Cleanup and Site Closure Criteria

The standards that apply to the Site are listed below.

- For groundwater, New York State groundwater quality standards (Class GA) as listed by the NYSDEC Division of Water Technical and Operational Guidance Series (TOGS 1.1.1) apply.[1] The current standard for TCE is 5 µg/L.
- For Soils, Brownfield Soil Cleanup Objectives (SCOs) for restricted commercial use as listed in 6 NYCRR Part 375-6.8(b) apply.[1]
- For soil vapor, the objective is to reduce the potential for exposure via soil vapor intrusion pathways. The remedial objective is for indoor air quality to be as close to background as practicable, per The NYSDOH's *Guidance for Evaluating Soil Vapor Intrusion in the State of New York*, dated October 2006.[1]

The specific goals identified in the RWP (SWRNA, March 2008) and RD (SWRNA, June 2008) for the Site are listed below:

- Remove, contain, or treat, to the extent practicable, potential on-site sources of contamination;[1]
- Prevent, to the extent feasible, potential future off-site migration of on-site groundwater and/or soil vapor contamination;[1]
- Eliminate, to the extent feasible, potential on-site environmental or public health exposures to on-site contamination that may remain in groundwater and/or soil vapor.[1]

3 INSTITUTIONAL AND ENGINEERING CONTROLS

3.1 Summary of Institutional Controls (ICs)

ICs have been implemented at the Site to mitigate the potential for human and ecological exposure to soil and groundwater. The ICs are described below:

- An Environmental Easement pursuant to ECL 71-3605 was filed with the applicable government bodies.
- The use of groundwater is prohibited, except with prior approval by the NYSDEC and NYSDOH.
- The future use of the Site is restricted to commercial or industrial uses as defined in 6 NYCRR Part 375.
- The SMP, which includes both an O&M Plan and a Soil Management Plan for the Site, must be followed.

3.2 Summary of Engineering Controls (ECs)

ECs have been implemented at the Site to mitigate the potential for human exposure pathways related to SVI. The ECs are described below:

- A SSDS was installed in the southern portion of the building's lowest level in 2007 and was subsequently expanded in 2008 to include several rooms adjoining the main building to the west.
- A PPAES was installed in the northern portion of the building in 2008.

Both systems were designed to decrease the potential of SVI by creating a positive indoor air pressure above the floor slab relative to below the floor slab conditions.

Various modifications to the SSDS and PPAES have been completed since the Certificate of Completion was issued in 2008. All modifications have been made with NYSDEC/NYSDOH concurrence and, as necessary, completed in accordance with

NYSDEC/NYSDOH approved design documents. The modifications are summarized below:

- In January 2012, the SSDS and PPAES were modified to include the former Therm area within the SSDS. The use of the PPAES within the former Therm area was discontinued subsequent to expanding the SSDS. The 2012 modifications were completed in accordance with the NYSDEC-approved Design Document for Modification of SSDS and PPAES (GeoLogic, September 30, 2011) and the NYSDEC's comment letter, dated December 5, 2011. The SMP was revised in April 2012 to reflect these changes to the SSDS and PPAES.

- In April 2013, GeoLogic prepared a work plan for SVI sampling in the northern portion of the building. The NYSDEC and NYSDOH reviewed, commented on and subsequently approved the work plan. The SVI sampling was completed in May 2013. Based upon results of the SVI sampling, GeoLogic concluded that mitigation of the northern portion of the building was not warranted and the PPAES was shut down.

- In July 2021, SVE was added to monitoring well MW16-7BR and to Injection Trench T-11. Piping was installed which connected MW16-7BR and T-11 to the trunk line of the existing SSDS. A bubbler system was also installed at MW16-7BR to facilitate the removal of VOCs from the groundwater. These modifications are depicted on Figure No. 4 of SMP Revision No. 5.

3.2.1 Summary of ECs Operations During Reporting Period

On April 7, 2022, GeoLogic collected differential pressure measurements at the Site. The intent of this work was to satisfy the requirement of the NYSDEC and NYSDOH in the letter dated December 30, 2021, to determine if the SSDS is operating as designed and to measure continued effectiveness of the SSDS. The negative pressure observed at all locations exceeded the SSDS Performance Objective. The data collected demonstrated the continued effectiveness of the SSDS and demonstrated that the SSDS continues to operate as designed. The results were submitted to the NYSDEC in GeoLogic's letter dated May 2, 2022.

The SSDS has been monitored by maintenance staff, in accordance with the SMP. On October 12, 2022, the new motor for the SSDS fan was installed. Other routine maintenance has been performed on system components on an as needed basis. The SSDS Inspection Forms are attached in Appendix F.

4 MONITORING PLAN

4.1 Monitoring Plan Components

Monitoring at the Site consists of annual sampling of nine groundwater monitoring wells and is conducted to monitor the natural attenuation of the remaining groundwater contamination at the Site. The monitoring wells are categorized into two groups, overburden and bedrock. The nine wells included in the groundwater monitoring program are depicted on Drawing No. 2, Appendix B, and are summarized below:

Overburden Wells:	Bedrock Wells:
MW-2	MW06-23BR
MW06-25OB	MW06-24BR
IOW-4	MW06-25BR
	MW16-7BR
	IOW-1
	IOW-3

Data trends and supporting tables and charts are discussed in Section 5.

4.2 Summary of Monitoring Completed During Reporting Period

The following sampling has taken place during this reporting period:

- Annual groundwater sampling of nine monitoring wells was completed in September 2022. Subsequent to receipt, the laboratory analysis report was submitted to the NYSDEC and NYSDOH.

- On January 5, 2023, a non-working fire hydrant was removed by a Town of Ithaca contractor and replaced with a new fire hydrant. GeoLogic notified the NYSDEC of this work as soon as GeoLogic was aware of the work. The location of this hydrant is depicted on Drawing No. 2A, Appendix B. GeoLogic was on-site during excavation activities and screened the soils in accordance with the Site Management Plan. No field evidence of contamination was encountered. All photoionization detector (PID) readings were 0 parts per million (PPM).

Monitoring Deficiencies are summarized below in Section 4.3.

4.2.1 Summary of Groundwater Sampling

The depth to groundwater was measured in each well prior to collecting groundwater samples. It is noted that the depth to groundwater was measured at selected additional monitoring wells to supplement the data. These additional wells are listed on Table No. 1 (Appendix C). Based on recorded water levels, overburden and bedrock groundwater contour maps were prepared for September 2022 (Drawing No. 3 and Drawing No. 4 respectively, Appendix B).

The general direction of overburden and bedrock groundwater flow is to the west-northwest, consistent with previous results and the regional surface topography. Similar to previous sampling events, Drawing No. 3 indicates a slight convergence of overburden groundwater flow towards the swale. This convergence is more pronounced in the upper bedrock zone, see Drawing No. 4, which is consistent with prior evidence that the swale acts as a local groundwater discharge zone for the Site.

Field observations, including groundwater elevations, for the 2022 annual sampling event are summarized in Table No. 1, located in Appendix C.

Dissolved Oxygen (DO), Oxidation Reduction Potential (ORP), conductivity, pH, temperature and turbidity were measured and recorded for each well during the

September 2022 groundwater sampling event and are summarized in Table No. 4, located in Appendix C. Groundwater Monitoring Well Sampling Records are included in Appendix E.

All groundwater samples were submitted to an independent Environmental Laboratory Approval Program (ELAP) certified laboratory for analysis. The groundwater samples collected during the September 2022 annual sampling event were analyzed for Volatile Organic Compounds (VOCs) on the target compound list (TCL) by EPA Method 8260 and Ethene by the AM20GAX method of analysis.

The groundwater analytical results for September 2022 are summarized in Table No. 2, Appendix C. The results were reviewed and compared to Class GA water quality standards and/or guidance values listed in the NYSDEC Division of Water Technical and Operation Guidance Series 1.1.1 (TOGS 1.1.1, June 1998). Chlorinated VOC concentrations detected in groundwater samples are depicted on Drawing No. 5, Appendix B. Historical VOC concentrations, including RI, pre-RI data (where such data is available), pre-remediation and post-remediation are summarized on Table No. 3, Appendix C.

The geochemical parameters are summarized in Table No. 4, located in Appendix C, and were evaluated in accordance with Section 4.2 of SMP. Data trends are discussed in Section 5 of this PRR.

The laboratory analysis report for the groundwater samples collected during the September 2022 sampling event is included in Appendix G.

4.3 Monitoring Deficiencies

During the September 2022 sampling event, the following deficiencies were noted:

- Overburden monitoring well MW06-25OB was dry and therefore, unable to be sampled. This is attributed to periodic seasonal variation of groundwater levels.

5 DATA TRENDS AND REMEDIAL EFFECTIVENESS

5.1 Data Summary

Data from the groundwater sampling events are summarized in the following tables and charts and are included in Appendix C and Appendix D. The Site contaminants of concern (COCs) are TCE, DCE and VC.

APPENDIX C: Tables

- Table No. 1: Groundwater Elevations & Field Observations: 2022 Annual Sampling Event;
- Table No. 2: Summary of September 2022 Groundwater Analytical Results;
- Table No. 3: Summary of Groundwater VOC Analytical Results;
- Table No. 4: Summary of Geochemical Parameters.

APPENDIX D: Charts

- Charts No. 1 through No. 9: Summary of TCE, DCE and VC Concentrations for Groundwater Monitoring Wells.

5.2 Groundwater Contaminants Data Trends

The monitoring wells are categorized into two groups (Overburden and Bedrock) and Charts No. 1 through No. 9 depict the TCE, DCE and VC concentrations for the nine monitoring wells. The overburden wells are summarized on Charts No. 1 through No. 3 and the bedrock wells are summarized on Charts No. 4 through No. 9.

5.2.1 Overburden Wells: Contaminant Data Trends

Three of the nine monitoring wells are overburden wells; they are listed below:

- MW-2 (Chart No. 1);
- MW06-25OB (Chart No. 2);
- IOW-4 (Chart No. 3).

As indicated in Chart No. 1, MW-2 demonstrates no increase in TCE concentration. As indicated in Chart No. 2, MW06-25OB demonstrates a decreasing TCE concentration trend line. As indicated in Chart No. 3, IOW-4 demonstrates no increase in TCE concentration.

5.2.2 Bedrock Wells: Contaminant Data Trends

Six of the nine monitoring wells are bedrock wells; they are listed below:

- MW06-23BR (Chart No. 4);
- MW06-24BR (Chart No. 5);
- MW06-25BR (Chart No. 6);
- MW16-7BR (Chart No. 7);
- IOW-1 (Chart No. 8);
- IOW-3 (Chart No. 9).

As indicated in Charts No. 4 through No. 9, all bedrock wells (except IOW-1) demonstrate decreasing TCE trend lines. The concentrations observed at well IOW-1 varies widely, by two orders of magnitude and is likely associated with temporal variations of groundwater flow through fractured bedrock.

MW06-23BR was added back to the monitoring program in November 2015. The TCE concentration continues to demonstrate a long-term decreasing TCE trend.

Well MW16-7BR was installed in December 2016 in the area of the former 6,000-gallon UST that contained TCE. As indicated in Chart No. 7, the contaminant concentations continue to exhibit a steep downward trend.

5.3 Evaluation of Geochemical Data

The geochemical parameters collected as part of the Site's groundwater monitoring plan include Dissolved Oxygen (DO), ethene, Oxidation-Reduction Potential (ORP), pH, and temperature and are recorded on the Groundwater Monitoring Well Sampling Records (Appendix E and Table No. 4, Appendix C).

DO concentration is used to determine if aerobic or anaerobic degradation is likely to occur. DO concentrations greater than 5 mg/L indicate aerobic conditions.

- In 2022, all DO concentrations observed were less than the 5 mg/L threshold, except for MW16-7BR. The DO concentration at MW16-7BR was 8.41 mg/L and was artificially high due to the bubbler system installed in conjunction with the SVE at this well.

Ethene is one of the final products of chlorinated solvent reduction and is evaluated on a presence/absence basis. The presence of Ethene indicates degradation is occurring.

- In 2022, the Ethene concentrations observed ranged from non-detect (<1.0 microgram per liter (µg/L)) at multiple wells to 6.6 µg/L at MW-2. Ethene was detected at three wells, MW-2, MW06-23BR and IOW-3. The remaining wells were non-detect.

ORP measures the intensity or activity of the aquifer to mediate reactions of important elements in biological systems. <50 millivolts (mV) indicates a reductive pathway is possible.

- In 2022, the ORP readings observed ranged from 118.0 mV at MW06-24BR to 428.0 mV at IOW-3. No ORP readings less than the 50 mV threshold were observed in 2022.

pH is a general water quality parameter. Biological degradation processes are pH sensitive. A pH range between 5 and 9 is optimal for reductive pathways.

- In 2022, pH readings ranged from 6.98 at MW06-25BR to 8.91 at MW06-24BR. All pH readings were within the optimal range of 5 to 9 for reductive pathways.

Temperature can affect the rate at which biochemical processes occur. Temperatures greater than 20°C accelerate biochemical processes.

- In 2022, the groundwater temperatures ranged from 15.36°C at MW06-25BR to 28.62°C at IOW-4. A temperature above 20°C was observed at monitoring wells sampled except MW06-25BR.

5.4 Performance and Effectiveness of the ICs/ECs

The ICs implemented at the Site are detailed in Section 3.1. These ICs continue to be effective at mitigating the potential for exposure to remaining contamination in the Site's groundwater.

The ECs implemented at the Site are detailed in Section 3.2. The ECs continue to mitigate the potential for human exposure pathways related to SVI.

The SSDS has been monitored by building maintenance staff, in accordance with the SMP. Routine maintenance has been performed on system components on an as needed basis. The SSDS Inspection Forms are attached in Appendix F.

6 CONCLUSIONS and RECOMMENDATIONS

No change to the current groundwater monitoring program is recommended at this time. The next annual sampling event is scheduled for September 2023 after which recommendations for the sampling program and frequency will be submitted to the NYSDEC.

It is recommended that the PRR frequency be reduced from annually to once every five years.

7 REFERENCES

[1]S&W Redevelopment of North America, LLC., *Final Engineering Report*, November 2008, page 7.

8 CERTIFICATION

Signed Institutional and Engineering Controls Certification Forms are included in Appendix A.

Prepared by,

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Project Manager

Forrest Earl, P.G.
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APPENDIX A

INSTITUTIONAL AND ENGINEERING CONTROLS CERTIFICATION FORMS & BUILDING PERMITS

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. C755012

Site Name Former Axiohm Facility

Site Address: 950 Danby Road Zip Code: 14850
City/Town: Ithaca
County: Tompkins
Site Acreage: 42.530

Reporting Period: February 15, 2022 to February 15, 2023

	YES	NO
1. Is the information above correct?	X	☐
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?	☐	X
3. Has there been any change of use at the site during this Reporting Period (see 6NYCRR 375-1.11(d))?	☐	X
4. Have any federal, state, and/or local permits (e.g., building, discharge) been issued for or at the property during this Reporting Period?	X	☐
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?	☐	X

Box 2

	YES	NO
6. Is the current site use consistent with the use(s) listed below? Commercial and Industrial	X	☐
7. Are all ICs in place and functioning as designed?	X	☐

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 Date

	Box 2A	
	YES	NO
8. Has any new information revealed that assumptions made in the Qualitative Exposure Assessment regarding offsite contamination are no longer valid?	☐	X
If you answered YES to question 8, include documentation or evidence that documentation has been previously submitted with this certification form.		
9. Are the assumptions in the Qualitative Exposure Assessment still valid? (The Qualitative Exposure Assessment must be certified every five years)	X	☐
If you answered NO to question 9, the Periodic Review Report must include an updated Qualitative Exposure Assessment based on the new assumptions.		

SITE NO. C755012 **Box 3**

Description of Institutional Controls

Parcel	Owner	Institutional Control
39-1-1.1	South Hill Business Campus, LLC	Site Management Plan O&M Plan Ground Water Use Restriction Soil Management Plan Landuse Restriction Building Use Restriction

Institutional control are implemented for this site to restrict future use to commercial purposes, and prohibit the use of site groundwater without proper treatment, and prior approval of NYDEC and the NYSDOH. Engineering controls for this site eliminate the potential exposure pathway related to soil vapor intrusion. Engineering controls were implemented as an IRM that included installation of the sub-slab depressurization system (SSDS) in 2007 to mitigate potential soil vapor intrusion (SVI) in the southern portion of the building near the contaminant source. Sub-slab depressurization was also applied in 2008 to western rooms that jut-out from the main portion of the building, and an air exchange system was installed in 2008 to maintain positive indoor air pressure in the northern portion of the building outside the SSDS target area. In 2012, two additional vacuum points were installed in the northern end of the main building in order to extend the SSDS and the SMP was modified accordingly in April 2012. Based on soil vapor intrusion sampling conducted in May 2013, a Corrective Measures Work Plan was approved by the Department in April 2015 which allowed for termination of operation of the air exchange system in the northern portion of the building. The SSDS in the remainder of the building will operate continuously to mitigate potential exposure of building occupants to soil vapor contamination. The owner must also address the possibility that soil vapor intrusion may occur in the future as any new building are constructed at the site. Any new buildings within the BCP site boundary may also be fitted with SSDS's and/or positive pressure air exchange systems if required to mitigate potential future SVI, unless a soil vapor investigation was conducted which indicated SVI mitigation is not necessary, with written concurrence of NYSDEC/NYSDOH. ICs/ECs also includes a Soil Management Plan that summarizes the standards for management of subsurface soils/fill during any future intrusive work.

39-1-1.22	South Hill Business Campus, LLC	Site Management Plan O&M Plan Ground Water Use Restriction Soil Management Plan Landuse Restriction Building Use Restriction

Institutional control are implemented for this site to restrict future use to commercial purposes, and prohibit the use of site groundwater without proper treatment, and prior approval of NYDEC and the NYSDOH. Engineering controls for this site eliminate the potential exposure pathway related to soil vapor intrusion. Engineering controls were implemented as an IRM that included installation of the sub-slab depressurization system (SSDS) in 2007 to mitigate potential soil vapor intrusion (SVI) in the southern portion of the building near the contaminant source. Sub-slab depressurization was also applied in 2008 to western rooms that jut-out from the main portion of the building, and an air exchange system was installed in 2008 to maintain positive indoor air pressure in the northern portion of the building outside the SSDS target area. In 2012, two additional vacuum points were installed in the northern end of the main building in order to extend the SSDS and the SMP was modified accordingly in April 2012. Based on soil vapor intrusion sampling conducted in May 2013, a Corrective Measures Work Plan was approved by the Department in April 2015 which allowed for termination of operation of the air exchange system in the northern portion of the building. The SSDS in the remainder of the building will operate continuously to mitigate potential exposure of building occupants to soil vapor contamination. The owner must also address the possibility that soil vapor intrusion may occur in the future as any new building are constructed at the site. Any new buildings within the BCP site boundary may also be fitted with SSDS's and/or positive pressure air exchange systems if required to mitigate potential future SVI, unless a soil vapor investigation was conducted which indicated SVI mitigation is not necessary, with written concurrence of NYSDEC/NYSDOH. ICs/ECs also includes a Soil Management Plan that summarizes the standards for management of subsurface soils/fill during any future intrusive work.

Box 4

Description of Engineering Controls

Parcel	Engineering Control
39-1-1.1	Vapor Mitigation
39-1-1.22	Vapor Mitigation

Box 5

Periodic Review Report (PRR) Certification Statements

1. I certify by checking "YES" below that:

   a) the Periodic Review report and all attachments were prepared under the direction of, and reviewed by, the party making the Engineering Control certification;

   b) to the best of my knowledge and belief, the work and conclusions described in this certification are in accordance with the requirements of the site remedial program, and generally accepted engineering practices; and the information presented is accurate and compete.

YES	NO
X	☐

2. For each Engineering control listed in Box 4, I certify by checking "YES" below that all of the following statements are true:

   (a) The 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
X	☐

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.

Signature of Owner, Remedial Party or Designated Representative

Date

IC CERTIFICATIONS
SITE NO. C755012

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 LINDA LUCIANO (print name) at SOUTH HILL BUSINESS CAMPUS, LLC, (print business address)

am certifying as PROPERTY MANAGER (Owner or Remedial Party)

for the Site named in the Site Details Section of this form.

L. Luciano — Signature of Owner, Remedial Party, or Designated Representative Rendering Certification

2.28.23 — Date

EC CERTIFICATIONS

Box 7

Qualified Environmental Professional Signature

I certify that all information in Boxes 4 and 5 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 Forrest Earl, P.G. (print name) at GeoLogic NY, P.C., PO Box 350, Homer, NY 13077 (print business address)

am certifying as a Qualified Environmental Professional for the Owner (Owner or Remedial Party)

Signature of Qualified Environmental Professional, for the Owner or Remedial Party, Rendering Certification

Stamp (Required for PE)

3-23-23
Date

STATE OF NEW YORK ★ GEOLOGIST ★ FORREST CLARK EARL ★ LICENSED PROFESSIONAL ★ 000557

BUILDING PERMIT

TOWN OF ITHACA
215 N. Tioga Street, Ithaca, N.Y. 14850
www.town.ithaca.ny.us

CODE ENFORCEMENT DEPARTMENT
Phone (607) 273-1783
codes@town.ithaca.ny.us

Permit No.: 2022-0105

Date of Permit: 3/3/2022
Expiration Date: 3/3/2023

This serves as the OFFICIAL BUILDING PERMIT issued to South Hill Business Campus, LLC to erect, move, demolish, or repair a building as indicated, in accordance with all Laws and Regulations applicable thereto. All work shall be performed in accordance with the construction documents submitted and accepted as part of the application. The Town of Ithaca Code Department MUST be notified immediately in the event of any changes occurring during construction.

Scope of work:

Demise larger space to create acupuncture office with electrical and plumbing; waiting area room 100, therapy rooms 101 and 102.

Project Address: 950 Danby Rd

Property Owner: South Hill Business Campus, LLC

Owner Address: 950 Danby Rd
Ithaca, NY 14850

Tax Parcel #: 39.-1-1.1

Occupancy Class: B-BUSINESS **Construction Type:** **Sprinkler:** Yes

Signature: Dana Magnuson
Code Enforcement Officer

THIS PERMIT MUST BE POSTED ONSITE PRIOR TO WORK COMMENCING. SUPPLEMENTAL NOTES AND PLANS PROVIDED WITH BUILDING PERMIT MUST BE ONSITE AND AVAILABLE DURING INSPECTIONS.

Comments: additional sheet(s) may be attached.

BUILDING PERMIT

TOWN OF ITHACA
215 N. Tioga Street, Ithaca, N.Y. 14850
www.town.ithaca.ny.us

CODE ENFORCEMENT DEPARTMENT
Phone (607) 273-1783
codes@town.ithaca.ny.us

Permit No.: **2022-0117**

Date of Permit: **3/21/2022**
Expiration Date: **3/21/2023**

This serves as the OFFICIAL BUILDING PERMIT issued to **South Hill Business Campus LLC** **to erect, move, demolish, or repair a building as indicated, in accordance with all Laws and Regulations applicable thereto. All work shall be performed in accordance with the construction documents submitted and accepted as part of the application. The Town of Ithaca Code Department MUST be notified immediately in the event of any changes occurring during construction.**

Scope of work:
Demise Suite 310 into 4 Suites

Project Address: 950 Danby Rd

Property Owner: South Hill Business Campus LLC

Owner Address: Attn: Linda Luciano
Ithaca, NY 14850

Tax Parcel #: 39.-1-1.22

Occupancy Class: B-BUSINESS **Construction Type:** II-A **Sprinkler:** Yes

Signature: Dana Magnuson
Code Enforcement Officer

THIS PERMIT MUST BE POSTED ONSITE PRIOR TO WORK COMMENCING. SUPPLEMENTAL NOTES AND PLANS PROVIDED WITH BUILDING PERMIT MUST BE ONSITE AND AVAILABLE DURING INSPECTIONS.

Comments: **additional sheet(s) may be attached.**
Demise Suite 310 into 4 Suites

BUILDING PERMIT

TOWN OF ITHACA
215 N. Tioga Street, Ithaca, N.Y. 14850
www.town.ithaca.ny.us

CODE ENFORCEMENT DEPARTMENT
Phone (607) 273-1783
codes@town.ithaca.ny.us

Permit No.: **2022-0019**

Date of Permit: **1/28/2022**
Expiration Date: **1/28/2023**

This serves as the OFFICIAL BUILDING PERMIT issued to **South Hill Business Campus LLC** **to erect, move, demolish, or repair a building as indicated, in accordance with all Laws and Regulations applicable thereto. All work shall be performed in accordance with the construction documents submitted and accepted as part of the application. The Town of Ithaca Code Department MUST be notified immediately in the event of any changes occurring during construction.**

Scope of work:

Demise larger space to accommodate new tenant - second floor addition -Performance Systems Development - Suite 201-P (2,152 sq. ')

Project Address: 950 Danby Rd

Property Owner: South Hill Business Campus LLC

Owner Address: Attn: Linda Luciano
Ithaca, NY 14850

Tax Parcel #: 39.-1-1.22

Occupancy Class: B-BUSINESS **Construction Type:** **Sprinkler:** Yes

Signature: Dana Magnuson
Code Enforcement Officer

THIS PERMIT MUST BE POSTED ONSITE PRIOR TO WORK COMMENCING. SUPPLEMENTAL NOTES AND PLANS PROVIDED WITH BUILDING PERMIT MUST BE ONSITE AND AVAILABLE DURING INSPECTIONS.

Comments: **additional sheet(s) may be attached.**

BUILDING PERMIT

TOWN OF ITHACA

215 N. Tioga Street, Ithaca, N.Y. 14850

www.town.ithaca.ny.us

CODE ENFORCEMENT DEPARTMENT

Phone (607) 273-1783

codes@town.ithaca.ny.us

Permit No. : BLD-22-124	Date of Permit: July 27, 2022
	Expiration Date July 27, 2023

This serves as the OFFICIAL BUILDING PERMIT issued to South Hill Business Campus, LLC to erect, move, demolish, or repair a building as indicated, in accordance with all Laws and Regulations applicable thereto. All work shall be performed in accordance with the construction documents submitted and accepted as part of the application. The Town of Ithaca Code Department MUST be notified immediately in the event of any changes occurring during construction.

Scope of Work:

Build wall to split space in suite 198.

Project Address: 950 Danby Rd
Property Owner: South Hill Business Campus, LLC
Owner Address: 950 Danby Rd, 80, 250, 0
Occupancy Class: B **Construction Type:** V-B **Sprinkler:** Yes

Issued By:
Code Enforcement Officer
Dana Magnuson

THIS PERMIT MUST BE POSTED ONSITE PRIOR TO WORK COMMENCING. SUPPLEMENTAL NOTES AND PLANS PROVIDED WITH BUILDING PERMITS MUST BE ONSITE AND AVAILABLE DURING INSPECTIONS.

Comments:

BUILDING PERMIT

TOWN OF ITHACA

215 N. Tioga Street, Ithaca, N.Y. 14850

www.town.ithaca.ny.us

CODE ENFORCEMENT DEPARTMENT

Phone (607) 273-1783

codes@town.ithaca.ny.us

Permit No. : BLD-22-189	Date of Permit: October 26, 2022
	Expiration Date October 26, 2023

This serves as the OFFICIAL BUILDING PERMIT issued to South Hill Business Campus LLC to erect, move, demolish, or repair a building as indicated, in accordance with all Laws and Regulations applicable thereto. All work shall be performed in accordance with the construction documents submitted and accepted as part of the application. The Town of Ithaca Code Department MUST be notified immediately in the event of any changes occurring during construction.

Scope of Work:

Installation of Pella 150 Series double hung window in second floor stairwell on south side of building (cbord employee entrance).

Project Address: 950 Danby Rd
Property Owner: South Hill Business Campus LLC
Owner Address: 950 Danby Rd, Ithaca, NY, 14850
Occupancy Class: **Construction Type:** II-B **Sprinkler:** Yes

Issued By: Dana Magnuson
Code Enforcement Officer

THIS PERMIT MUST BE POSTED ONSITE PRIOR TO WORK COMMENCING. SUPPLEMENTAL NOTES AND PLANS PROVIDED WITH BUILDING PERMITS MUST BE ONSITE AND AVAILABLE DURING INSPECTIONS.

Comments:

BUILDING PERMIT

TOWN OF ITHACA

215 N. Tioga Street, Ithaca, N.Y. 14850

www.town.ithaca.ny.us

CODE ENFORCEMENT DEPARTMENT

Phone (607) 273-1783

codes@town.ithaca.ny.us

Permit No. : BLD-22-177	Date of Permit: October 11, 2022
	Expiration Date October 11, 2023

This serves as the OFFICIAL BUILDING PERMIT issued to South Hill Business Campus, LLC - contact Linda Luciano
to erect, move, demolish, or repair a building as indicated, in accordance with all Laws and Regulations applicable thereto. Ail work shall be performed in accordance with the construction documents submitted and accepted as part of the application. The Town of Ithaca Code Department MUST be notified immediately in the event of any changes occurring during construction.

Scope of Work:

Building new acupuncture office 202-DD.

Project Address: 950 Danby Rd
Property Owner: South Hill Business Campus, LLC - contact Linda Luciano
Owner Address: 950 Danby Road Danby Rd., Ithaca, New York, 14850
Occupancy Class: **Business** **Construction Type:** **II-B** **Sprinkler:** **Yes**

Issued By: Dana Maanuson
Code Enforcement Officer

THIS PERMIT MUST BE POSTED ONSITE PRIOR TO WORK COMMENCING. SUPPLEMENTAL NOTES AND PLANS PROVIDED WITH BUILDING PERMITS MUST BE ONSITE AND AVAILABLE DURING INSPECTIONS.

Comments:

BUILDING PERMIT

TOWN OF ITHACA
215 N. Tioga Street, Ithaca, N.Y. 14850
www.town.ithaca.ny.us

CODE ENFORCEMENT DEPARTMENT
Phone (607) 273-1783
codes@town.ithaca.ny.us

Permit No.: **2021-0559**

Date of Permit: **12/20/2021**
Expiration Date: **12/20/2022**

This serves as the OFFICIAL BUILDING PERMIT issued to **South Hill Business Campus LLC** **to erect, move, demolish, or repair a building as indicated, in accordance with all Laws and Regulations applicable thereto. All work shall be performed in accordance with the construction documents submitted and accepted as part of the application. The Town of Ithaca Code Department MUST be notified immediately in the event of any changes occurring during construction.**

Scope of work:
Renovation of main employee entry hallway (west side) and shipping room.

Project Address: 950 Danby Rd

Property Owner: South Hill Business Campus LLC

Owner Address: Attn: Linda Luciano
Ithaca, NY 14850

Tax Parcel #: 39.-1-1.22

Occupancy Class: B-BUSINESS **Construction Type:** **Sprinkler:** Yes

Signature: Dana Magnuson
Code Enforcement Officer

THIS PERMIT MUST BE POSTED ONSITE PRIOR TO WORK COMMENCING. SUPPLEMENTAL NOTES AND PLANS PROVIDED WITH BUILDING PERMIT MUST BE ONSITE AND AVAILABLE DURING INSPECTIONS.

Comments: **additional sheet(s) may be attached.**

BUILDING PERMIT

TOWN OF ITHACA

215 N. Tioga Street, Ithaca, N.Y. 14850

www.town.ithaca.ny.us

CODE ENFORCEMENT DEPARTMENT

Phone (607) 273-1783

codes@town.ithaca.ny.us

Permit No. : BLD-22-222	Date of Permit: December 15, 2022
	Expiration Date December 15, 2023

This serves as the OFFICIAL BUILDING PERMIT issued to South Hill Business Campus, LLC to erect, move, demolish, or repair a building as indicated, in accordance with all Laws and Regulations applicable thereto. All work shall be performed in accordance with the construction documents submitted and accepted as part of the application. The Town of Ithaca Code Department MUST be notified immediately in the event of any changes occurring during construction.

Scope of Work:

Mindwell Expansion -5 offices and lounge.

Project Address: 950 Danby Rd
Property Owner: South Hill Business Campus, LLC
Owner Address: 950 Danby Rd, Ithaca, NY, 14850
Occupancy Class: B - Business **Construction Type:** II-B **Sprinkler:** Yes

Issued By: Dana Magnuson
Code Enforcement Officer

THIS PERMIT MUST BE POSTED ONSITE PRIOR TO WORK COMMENCING. SUPPLEMENTAL NOTES AND PLANS PROVIDED WITH BUILDING PERMITS MUST BE ONSITE AND AVAILABLE DURING INSPECTIONS.

Comments:

BUILDING PERMIT

TOWN OF ITHACA

215 N. Tioga Street, Ithaca, N.Y. 14850

www.town.ithaca.ny.us

CODE ENFORCEMENT DEPARTMENT

Phone (607) 273-1783

codes@town.ithaca.ny.us

Permit No. : BLD-22-140	Date of Permit: August 22, 2022
	Expiration Date August 22, 2023

This serves as the OFFICIAL BUILDING PERMIT issued to South Hill Business Campus, LLC to erect, move, demolish, or repair a building as indicated, in accordance with all Laws and Regulations applicable thereto. All work shall be performed in accordance with the construction documents submitted and accepted as part of the application. The Town of Ithaca Code Department MUST be notified immediately in the event of any changes occurring during construction.

Scope of Work:

Alterations to existing suite 100-G to allow the addition of a kitchen show room.

Project Address: 950 Danby Rd
Property Owner: South Hill Business Campus, LLC
Owner Address: 950 Danby Road Danby Rd. Ithaca, New York, 14850
Occupancy Class: **Construction Type:** II-B **Sprinkler:** Yes

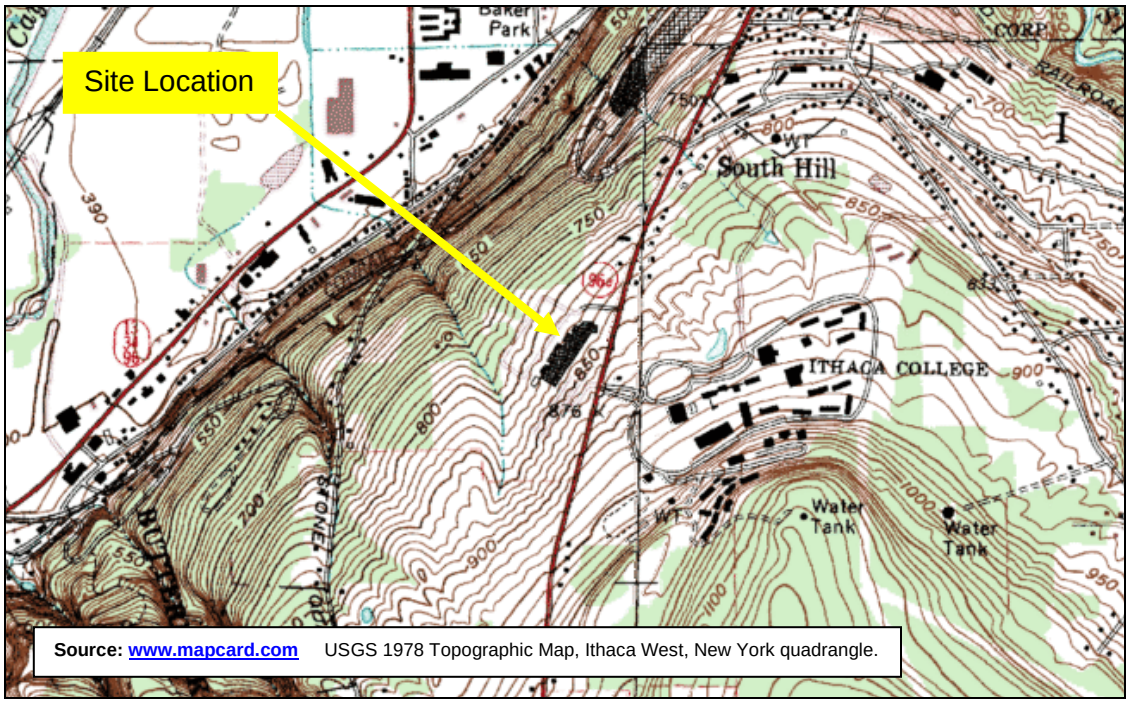
Issued By:
Code Enforcement Officer
Dana Magnuson

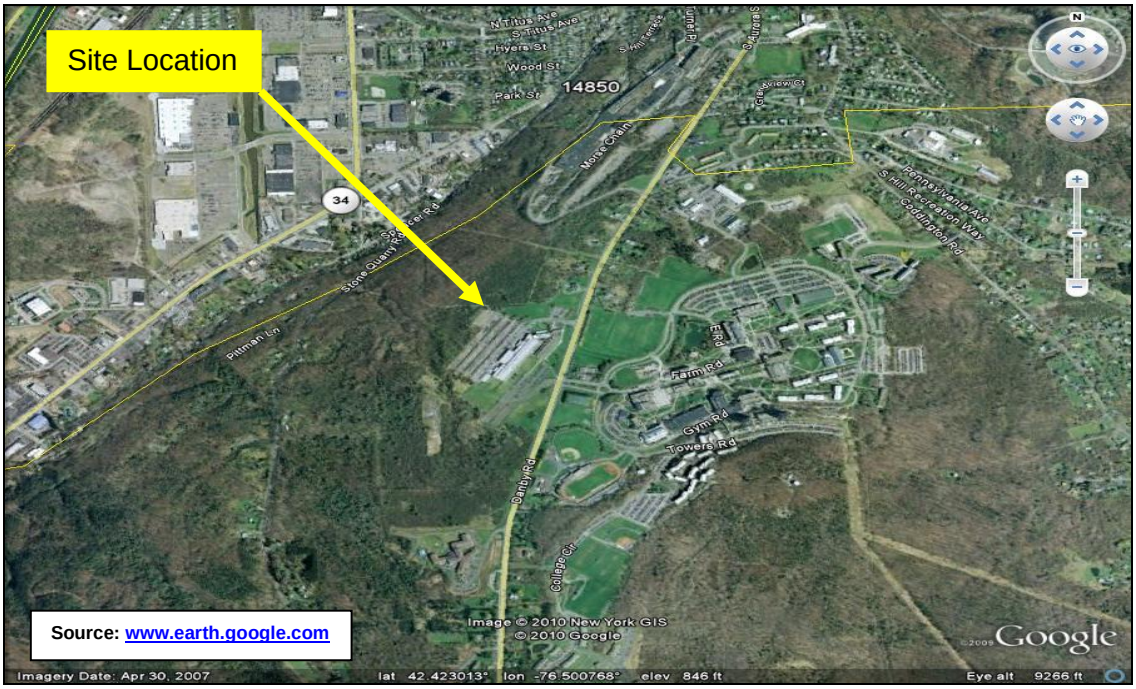
THIS PERMIT MUST BE POSTED ONSITE PRIOR TO WORK COMMENCING. SUPPLEMENTAL NOTES AND PLANS PROVIDED WITH BUILDING PERMITS MUST BE ONSITE AND AVAILABLE DURING INSPECTIONS.

Comments:

APPENDIX B

DRAWINGS





N

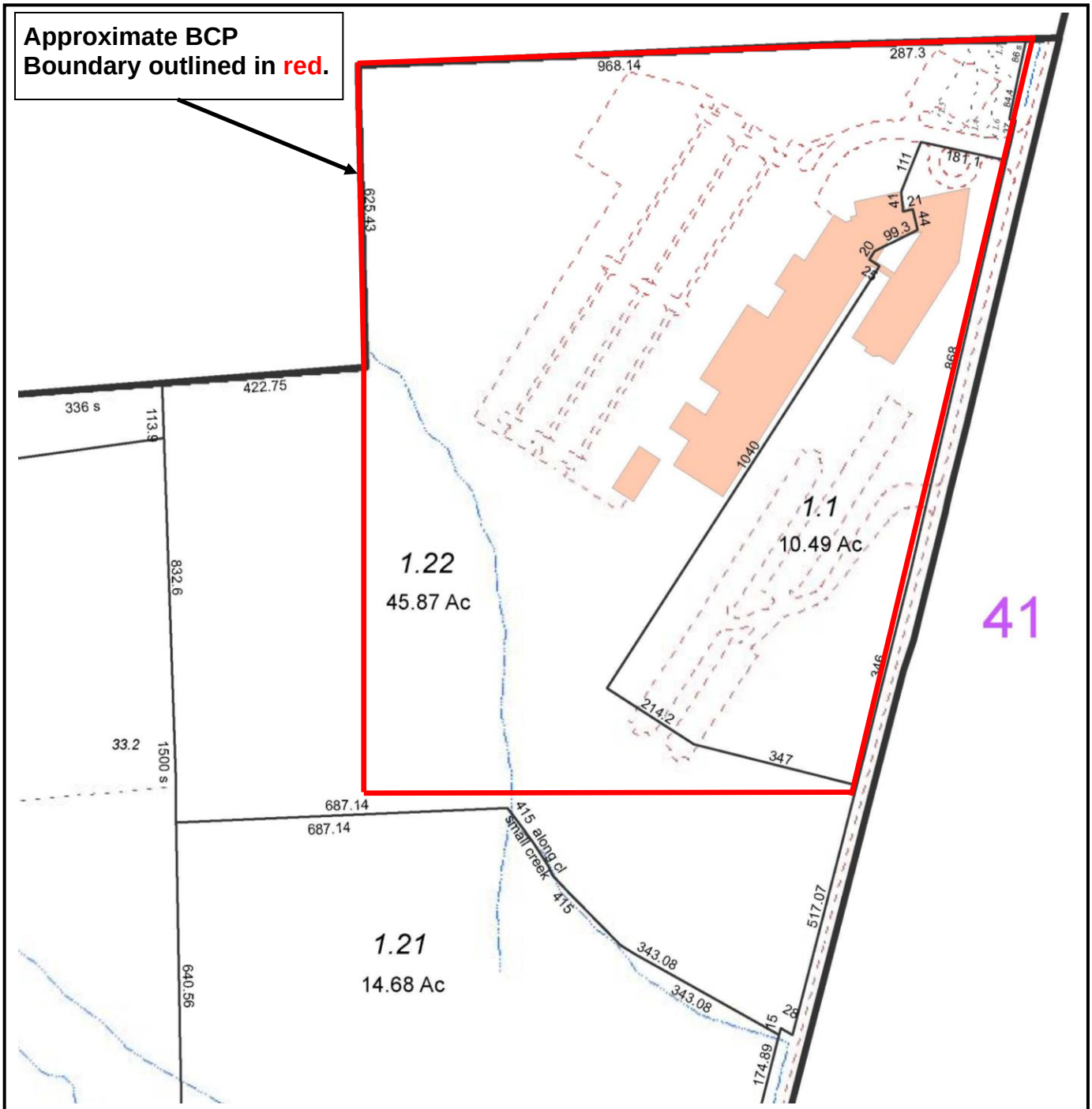
Project North

GeoLogic

GeoLogic NY, PC, Homer, New York

SITE LOCATION PLAN
FORMER AXIOHM FACILITY
SITE NO.: C755012
950 DANBY ROAD, ITHACA, NEW YORK

DRAWN BY:	SCALE:	PROJECT NO:
CTG	Not To Scale	209164
REVIEWED BY:	DATE:	DRAWING NO:
FCE	MARCH 2023	1



Source: http://property.tompkins-co.org. Portion of Map: 39, revised July 2014.

N

Project North

GeoLogic

GeoLogic NY, PC, Homer, New York

BCP BOUNDARY PLAN
FORMER AXIOHM FACILITY
SITE NO. C755012
950 DANBY ROAD, ITHACA, NEW YORK

DRAWN BY:	SCALE:	PROJECT NO:
CTG	Not To Scale	209164
REVIEWED BY:	DATE:	DRAWING NO:
FCE	MARCH 2023	1A

P:\PROJECTS\2009\209164 - SHBC\REPORT\2023 Reports\2023 PRR\Drawings\Drawing No. 1A BCP Boundary Plan.docx

LEGEND:

- SLOPES DOWN
- ISCO INJECTION TRENCH
- MONITORING WELL & IOW - INJECTION OBSERVATION WELL LOCATIONS
  - OB = OVERBURDEN BR = BEDROCK
- ● *MH #1* SANITARY SEWER MANHOLE
- ○ *MH B* STORM SEWER MANHOLE

NOTE: DRAWING BASED ON POST-REMEDIATION MONITORING FIGURES 3, 4, 5, 6, PREPARED BY S&W REDEVELOPMENT OF NORTH AMERICA, LLC, DATED 10/2009.

THIS MAP DOES NOT CONSTITUTE A SURVEY AND IS ONLY INTENDED TO CONVEY APPROXIMATE SAMPLE LOCATIONS AND SITE FEATURES.

APPROXIMATE SCALE:

0' 30' 90' 180'

GeoLogic

GeoLogic NY, P.C., Homer, New York

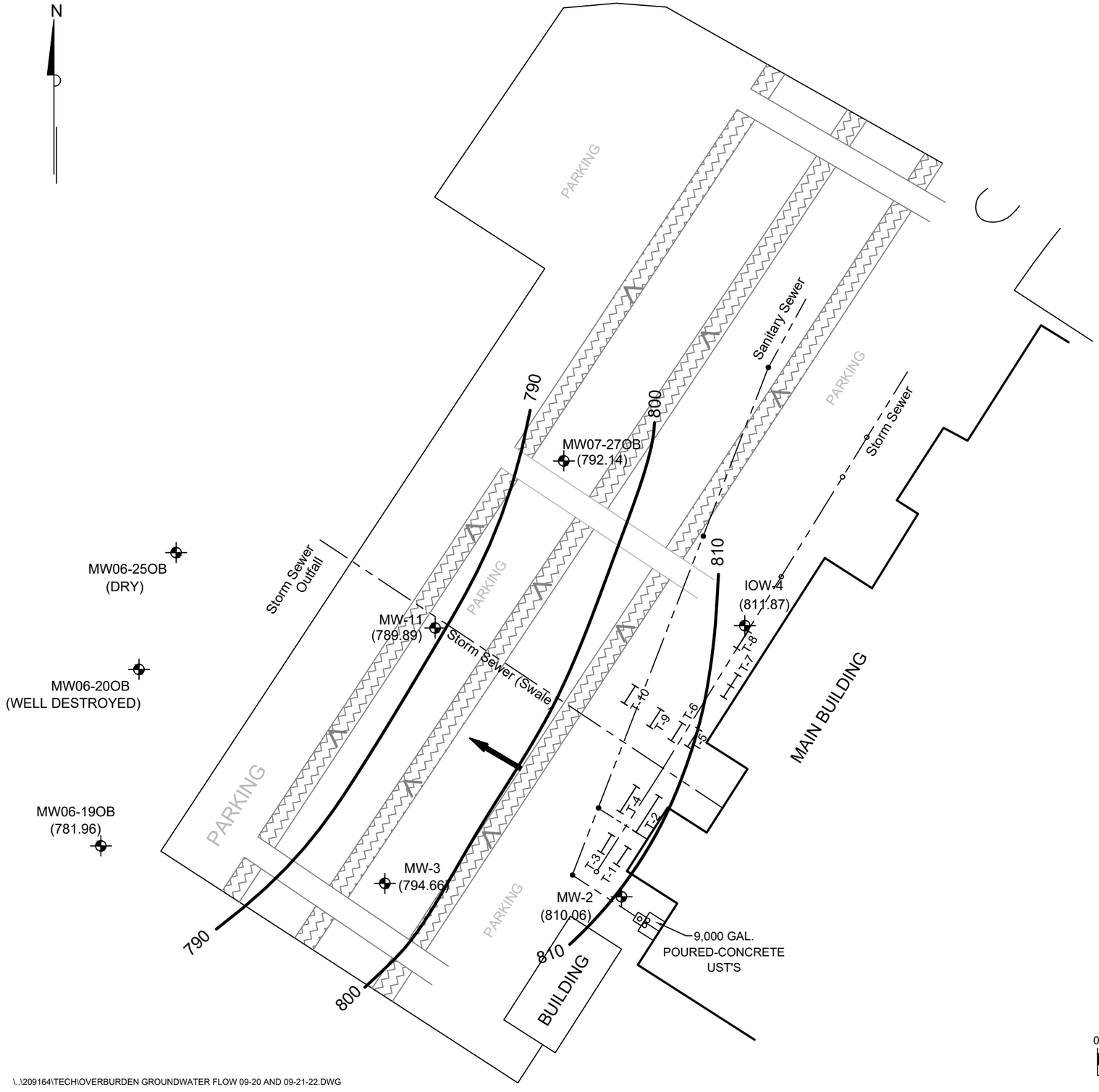
HISTORIC UST LOCATIONS & MONITORING WELL LOCATIONS

SITE NO. C755012, FORMER AXIOHM FACILITY
950 DANBY ROAD, ITHACA, NEW YORK

DRAWN BY:	SCALE:	PROJECT NO.:
CTG/SDW	AS SHOWN	209164
REVIEWED BY: FCE	DATE: SEPT. 2022	DRAWING NO.: 2

\...\209164\TECH\CAD MASTER DRAWINGS\HISTORIC UST LOCATIONS & MONITORING WELL LOCATIONS 09-2022.DWG


Drawing No. 2A
Fire Hydrant Replacement Location Plan
Site No. C755012
Former Axiohm Facility
950 Danby Road, Ithaca, NY
Location of Fire Hydrant
Google Earth
N
200 ft



LEGEND:

- SLOPES DOWN
- ISCO INJECTION TRENCH
- OB - OVERBURDEN WELL & IOW - INJECTION OBSERVATION WELL LOCATIONS
- (791.86) GROUNDWATER ELEVATION (FT.) FOR 09/20/2022 & 09/21/2022.
- 790 GROUNDWATER CONTOUR ELEVATION FOR 09/20/2022 & 09/21/2022.
- DIRECTION OF GROUNDWATER FLOW

NOTE: DRAWING BASED ON POST-REMEDIATION MONITORING FIGURES 3, 4, 5, 6, PREPARED BY S&W REDEVELOPMENT OF NORTH AMERICA, LLC, DATED 10/2009.

THIS MAP DOES NOT CONSTITUTE A SURVEY AND IS ONLY INTENDED TO CONVEY APPROXIMATE SAMPLE LOCATIONS AND SITE FEATURES.

APPROXIMATE SCALE:

0' 30' 90' 180'

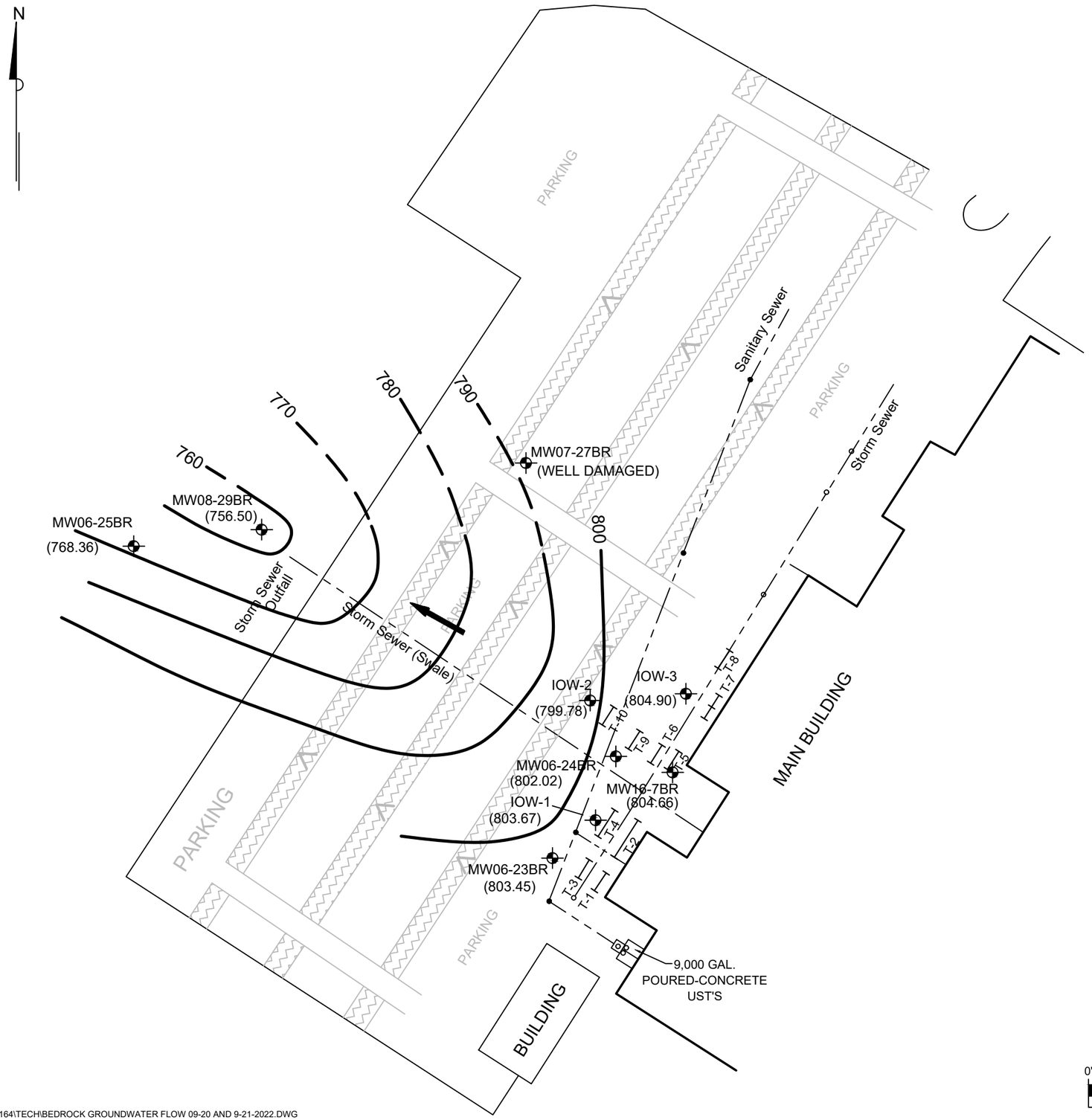
GeoLogic

GeoLogic NY, P.C., Homer, New York

OVERBURDEN GROUNDWATER FLOW FOR 09/20/2022 & 09/21/2022
SITE NO. C755012
FORMER AXIOHM FACILITY
950 DANBY ROAD, ITHACA, NEW YORK

DRAWN BY:	SCALE:	PROJECT NO.:
CTG/RTS	AS SHOWN	209164
REVIEWED BY:	DATE:	DRAWING NO.:
FCE	SEPT. 2022	3

\..\209164\TECH\OVERBURDEN GROUNDWATER FLOW 09-20 AND 09-21-22.DWG



LEGEND:

- SLOPES DOWN
- ISCO INJECTION TRENCH
- BR - BEDROCK WELL & IOW - INJECTION OBSERVATION WELL LOCATIONS
- (791.86) GROUNDWATER ELEVATION (FT.) FOR 09/20/2022 & 09/21/2022.
- 790 GROUNDWATER CONTOUR ELEVATION FOR 09/20/2022 & 09/21/2022.
- DIRECTION OF GROUNDWATER FLOW

NOTE: DRAWING BASED ON POST-REMEDIATION MONITORING FIGURES 3, 4, 5, 6, PREPARED BY S&W REDEVELOPMENT OF NORTH AMERICA, LLC, DATED 10/2009.

THIS MAP DOES NOT CONSTITUTE A SURVEY AND IS ONLY INTENDED TO CONVEY APPROXIMATE SAMPLE LOCATIONS AND SITE FEATURES.

APPROXIMATE SCALE:

0' 30' 90' 180'

\..\209164\TECH\BEDROCK GROUNDWATER FLOW 09-20 AND 9-21-2022.DWG

GeoLogic

GeoLogic NY, P.C., Homer, New York

BEDROCK GROUNDWATER FLOW FOR 09/20/2022 & 09/21/2022
SITE NO. C755012
FORMER AXIOHM FACILITY
950 DANBY ROAD, ITHACA, NEW YORK

DRAWN BY:	SCALE:	PROJECT NO.:
CTG/RTS	AS SHOWN	209164
REVIEWED BY:	DATE:	DRAWING NO.:
FCE	SEPT. 2022	4

MW06-25BR	TCE	DCE	VC
RI 2006	57	42	ND
Mar-08	50	45	10 J
Jun-08	Dry	Dry	Dry
Jan-09	72	41	20
Apr-09	73	45	7.6 J
Sep-09	68	34	14
Dec-09	67	29	11 J
Mar-10	46	34	ND J
Jun-10	55	37	8.3
Sep-10	56	32	8.0 J
Dec-10	68	33	8.1 J
Mar-11	60	38	5.5 J
Feb-12	50	24	ND
Sep-12	ND	ND	ND
Mar-13	NS	NS	NS
Jun-13	NS	NS	NS
Sep-13	NS	NS	NS
Dec-13	NS	NS	NS
Jun-14	NS	NS	NS
Dec-14	62	62	9.8
Mar-15	54	54	9.0
Jun-15	50.5	51.9	7.2
Sep-15	42.9	57.0	8.7
Dec-15	53.1	47.5	8.0
Mar-16	49.2	49.9	5.3
Jun-16	48	45	4.0
Sep-16	51.7	61.1	6.7
Sep-17	49.9	45.4	5.4
Sep-18	41.0	56.9	6.4
Sep-19	37.3	37.5	6.3
Sep-20	28.8	34.0	4.8
Sep-21	38.5	38.2	4.2
Sep-22	29.8	32.3	10.9

MW06-25OB	TCE	DCE	VC
RI 2006	23	59	2.5
Jun-08	Dry	Dry	Dry
Jan-09	Dry	Dry	Dry
Apr-09	18	25	ND
Sep-09	Dry	Dry	Dry
Dec-09	Dry	Dry	Dry
Mar-10	18	25	ND J
Jun-10	Dry	Dry	Dry
Sep-10	Dry	Dry	Dry
Dec-10	22	33	ND
Mar-11	9.2	7.4	ND
Feb-12	10	8.2	ND
Sep-12	Dry	Dry	Dry
Mar-13	4.3	1.7J	ND
Jun-13	Dry	Dry	Dry
Sep-13	Dry	Dry	Dry
Dec-13	Dry	Dry	Dry
Jun-14	14	16	0.92
Dec-14	24	31	ND
Mar-15	4.6	2.3	ND
Jun-15	14.5	28.4	ND
Sep-15	Dry	Dry	Dry
Dec-15	Dry	Dry	Dry
Mar-16	4.6	4.3	ND
Jun-16	Dry	Dry	Dry
Sep-16	Dry	Dry	Dry
Sep-17	Dry	Dry	Dry
Sep-18	3.3	2.1	ND
Sep-19	Dry	Dry	Dry
Sep-20	Dry	Dry	Dry
Sep-21	1.9	1.4	ND
Sep-22	Dry	Dry	Dry

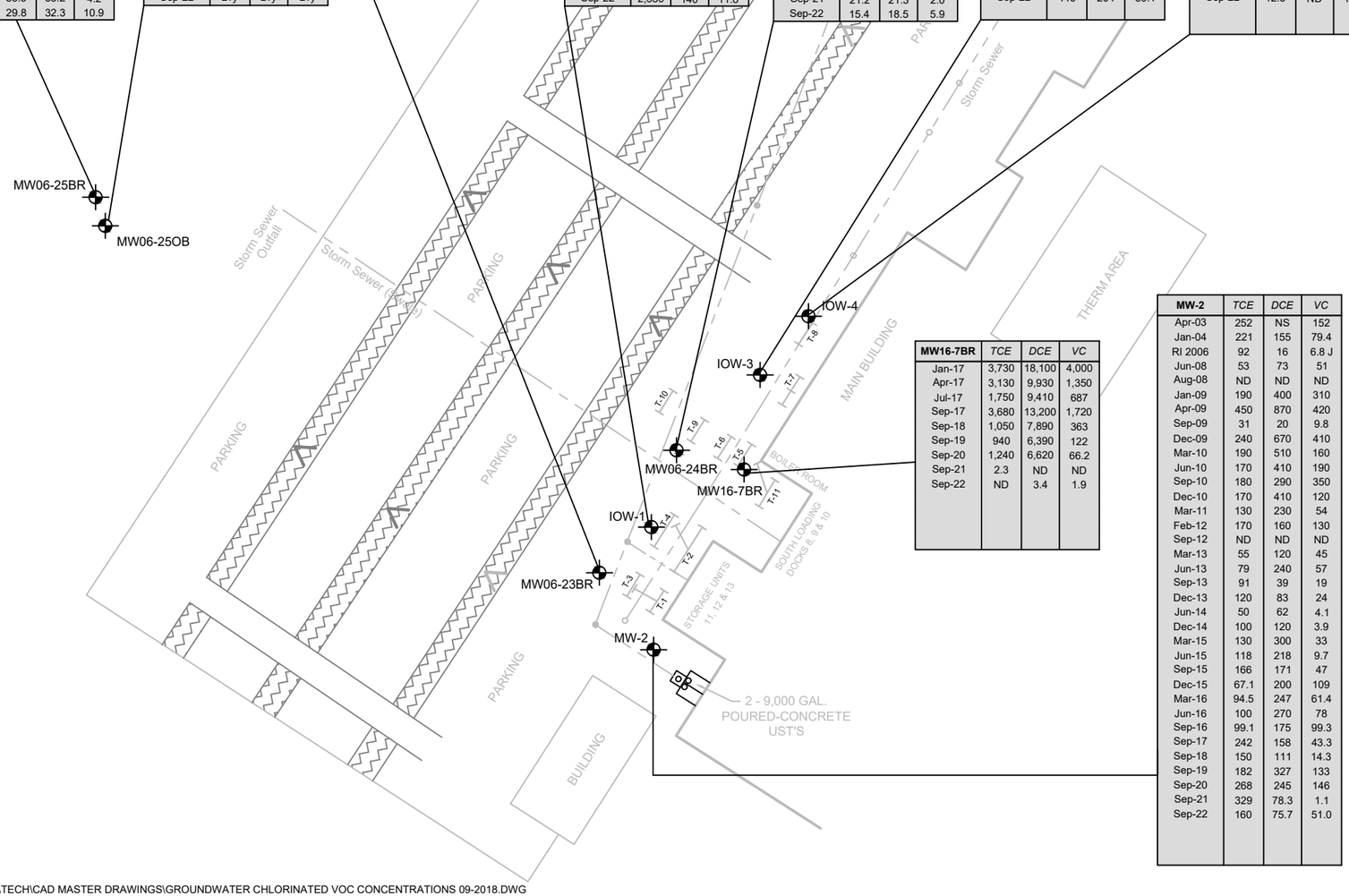
MW06-23BR	TCE	DCE	VC
RI 2006	590	420	46
Sep-15	1,070	170	9.8
Dec-15	925	131	5.5
Mar-16	855	114	2.1
Jun-16	950	75	1.2
Sep-16	913	105	2.9
Sep-17	816	67.6	1.9
Sep-18	598	163	6.6
Sep-19	390	107	15.6
Sep-20	781	209	57.2
Sep-21	1,540	637	57.4
Sep-22	1,030	534	118

IOW-1	TCE	DCE	VC
Jun-08	310	18	2.1 J
Aug-08	2,400	70 J	ND
Jan-09	2,700	250 J	ND
Apr-09	2,800	470	35 J
Sep-09	130	4.8	ND
Dec-09	2,400	200 J	ND
Mar-10	45	2 J	ND J
Jun-10	800	22	ND
Sep-10	2,700	48 J	ND
Dec-10	1,300	29 J	ND
Mar-11	32	1.1 J	ND
Feb-12	450	ND	ND
Sep-12	62	3.25 J	ND
Mar-13	2,100	41	ND
Jun-13	200	ND	ND
Sep-13	440	13	ND
Dec-13	2,200	78	ND
Jun-14	350	ND	ND
Dec-14	600	12	ND
Mar-15	990	35	ND
Jun-15	1,420	47.8	1.2
Sep-15	2,720	86.0	3.0
Dec-15	1,130	31.9	ND
Mar-16	934	27.4	ND
Jun-16	2,700	96	1.5
Sep-16	1,770	71.7	1.2
Sep-17	2,120	73.1	1.4
Sept-18	2,900	117	6.1
Sep-19	1,800	95.3	4.1
Sep-20	2,430	82.6	3.3
Sep-21	1,960	58.6	1.5
Sep-22	2,550	140	11.8

MW-06-24BR	TCE	DCE	VC
RI 2006	2,200	3,700	200 J
Jun-08	88	180	7.5
Aug-08	ND	ND	ND
Jan-09	37	25	1.7J
Apr-09	220	330	16
Sep-09	44	78	7.1
Dec-09	69	140	13
Mar-10	27	4.1	ND J
Jun-10	76	170	9.5
Sep-10	55	140	12
Dec-10	48	67	5.1
Mar-11	31	8.3	ND
Feb-12	31	14	ND
Sep-12	ND	ND	ND
Mar-13	NS	NS	NS
Jun-13	9.4	ND	ND
Sep-13	6.9	4.8	ND
Dec-13	39	83	12
Jun-14	18	16	2
Dec-14	47	99	8.2
Mar-15	33	30	3.6
Jun-15	3.9	2.3	ND
Sep-15	24.8	18.5	3.1
Dec-15	46.5	71.6	8.3
Mar-16	18.9	14.5	1.6
Jun-16	34	32	2.6
Sep-16	35.6	50.8	6.1
Sep-17	43.7	87.2	16.4
Sep-18	8.4	10	3.0
Sep-19	90.8	16.8	2.2
Sep-20	12.9	16.8	1.2
Sep-21	21.2	21.3	2.0
Sep-22	15.4	18.5	5.9

IOW-3	TCE	DCE	VC
Jun-08	650	53	7.7 J
Aug-08	1,300	98	ND
Jan-09	1,200	91 J	ND
Apr-09	770	55	6.4 J
Sep-09	1,000	64.0	ND
Dec-09	1,200	91 J	ND
Mar-10	480	39	ND J
Jun-10	900	63	ND
Sep-10	1,300	110	ND
Dec-10	1,800	120	ND
Mar-11	960	61	ND
Feb-12	1,100	ND	ND
Sep-12	ND	ND	ND
Mar-13	720	220	ND
Jun-13	630	350	ND
Sep-13	530	450	ND
Dec-13	610	380	ND
Jun-14	740	270	ND
Dec-14	760	300	11
Mar-15	560	170	4.6
Jun-15	612	335	2.3
Sep-15	632	356	2.1
Dec-15	638	257	7.0
Mar-16	685	193	3.3
Jun-16	930	230	2.2
Sep-16	622	363	9.7
Sep-17	740	276	3.0
Sep-18	671	340	56.5
Sep-19	541	276	35.4
Sep-20	693	239	38.6
Sep-21	642	251	39.1
Sep-22	446	204	39.1

IOW-4	TCE	DCE	VC
Jun-08	120	25 J	ND
Aug-08	ND	ND	ND
Jan-09	43	3.1 J	ND
Apr-09	34	3.2 J	ND
Sep-09	63	4	ND
Dec-09	52	3.1	ND
Mar-10	16	ND	ND J
Jun-10	31	2.1 J	ND
Sep-10	89	5.6	ND
Dec-10	20	1.1	ND
Mar-11	19	1.2 J	ND
Feb-12	20	ND	ND
Sep-12	ND	ND	ND
Mar-13	ND	14	ND
Jun-13	26	ND	ND
Sep-13	23	1.4	ND
Dec-13	28	2.4	ND
Jun-14	29	1.7	ND
Dec-14	44	7.3	ND
Mar-15	62	23	3.9
Jun-15	50	10.3	ND
Sep-15	128	15.8	ND
Dec-15	18.5	1.9	ND
Mar-16	33.2	5.4	ND
Jun-16	110	17	ND
Sep-16	69.0	9.9	ND
Sep-17	64.4	15.4	ND
Sep-18	43.5	5.5	ND
Sep-19	34.6	11.1	ND
Sep-20	21.7	3.3	ND
Sep-21	16.7	1.7	ND
Sep-22	12.5	ND	ND



MW16-7BR	TCE	DCE	VC
Jan-17	3,730	18,100	4,000
Apr-17	3,130	9,930	1,350
Jul-17	1,750	9,410	687
Sep-17	3,680	13,200	1,720
Sep-18	1,050	7,890	363
Sep-19	940	6,390	122
Sep-20	1,240	6,620	66.2
Sep-21	2.3	ND	ND
Sep-22	ND	3.4	1.9

MW-2	TCE	DCE	VC
Apr-03	252	NS	152
Jan-04	221	155	79.4
RI 2006	92	16	6.8 J
Jun-08	53	73	51
Aug-08	ND	ND	ND
Jan-09	190	400	310
Apr-09	450	870	420
Sep-09	31	20	9.8
Dec-09	240	670	410
Mar-10	190	510	160
Jun-10	170	410	190
Sep-10	180	290	350
Dec-10	170	410	120
Mar-11	130	230	54
Feb-12	170	160	130
Sep-12	ND	ND	ND
Mar-13	55	120	45
Jun-13	79	240	57
Sep-13	91	39	19
Dec-13	120	83	24
Jun-14	50	62	4.1
Dec-14	100	120	3.9
Mar-15	130	300	33
Jun-15	118	218	9.7
Sep-15	166	171	47
Dec-15	67.1	200	109
Mar-16	94.5	247	61.4
Jun-16	100	270	78
Sep-16	99.1	175	99.3
Sep-17	242	158	43.3
Sep-18	150	111	14.3
Sep-19	182	327	133
Sep-20	268	245	146
Sep-21	329	78.3	1.1
Sep-22	160	75.7	51.0

N

LEGEND:

- SANITARY SEWER MANHOLE COVER
- SLOTTED STORM DRAIN COVER
- SLOPES DOWN
- ISCO INJECTION TRENCH
- MONITORING WELL (MW) & INJECTION OBSERVATION WELL (IOW) LOCATIONS

Well ID	TCE	DCE	VC
Sample Dates	(Trichloroethene) (ug/L)	(cis-1,2-dichloroethene) (ug/L)	(Vinylchloride) (ug/L)

ND = NOT DETECTED
NS = NOT ANALYZED (DCE, Apr-03)
J = ESTIMATED VALUE

NOTE: AUGUST 2008 SAMPLES WERE COLLECTED DURING ISCO INJECTION. JANUARY AND APRIL 2009 SAMPLES ARE POST-ISCO. 2003 DATA (MW-2 AND MW-3) PROVIDED BY ENVIRONMENTAL PRODUCTS AND SERVICES, INC. 2004 DATA (MW-2, MW-3, AND MW-7) PROVIDED BY ERM.

NOTE: DRAWING BASED ON POST-REMEDIATION MONITORING FIGURES 3, 4, 5, 6, PREPARED BY S&W REDEVELOPMENT OF NORTH AMERICA, LLC, DATED 10/2009.

THIS MAP DOES NOT CONSTITUTE A SURVEY AND IS ONLY INTENDED TO CONVEY APPROXIMATE SAMPLE LOCATIONS AND SITE FEATURES.

APPROXIMATE SCALE:

0' 30' 90' 180'

GeoLogic

GeoLogic NY, P.C., Homer, New York

GROUNDWATER CHLORINATED VOC CONCENTRATIONS
SITE NO. C755012
FORMER AXIOHM FACILITY
950 DANBY ROAD, ITHACA, NEW YORK

DRAWN BY:	SCALE:	PROJECT NO.:
CTG/RTS	AS SHOWN	209164
REVIEWED BY: FCE	DATE: SEPT. 2022	DRAWING NO.: 5

\..\209164\TECH\CAD MASTER DRAWINGS\GROUNDWATER CHLORINATED VOC CONCENTRATIONS 09-2018.DWG

APPENDIX C

TABLES

Table No. 1:
Groundwater Elevations Field Observations: Annual Groundwater Sampling Event.

Groundwater Elevations & Field Observations September 20 and 21, 2022 Annual Groundwater Sampling Event							
Well#	**TOC ELEVATION**	**TOC DEPTH TO WATER (FT)**	**GW ELEVATION**	**TOC TOTAL DEPTH OF WELL (FT)**	**1 WELL VOLUME (GAL.)**	**APPROX. VOLUME PURGED (GAL.)**	**Notes**
MW-2	821.04	10.98	810.06	14.95	0.6	0.75	Cloudy and then clear. Duplicate collected.
MW-3	808.96	14.30	794.66	20.10	0.9	NA	**Water level only.**
MW-11	800.12	10.23	789.89	14.76	0.7	NA	**Water level only.**
MW06-19OB	783.57	1.61	781.96	9.87	1.3	NA	**Water level only. Water level above ground surface.**
MW06-20OB	Well Destroyed - Direct Hit by Tree						
MW06-25OB	784.55	DRY	NA	10.36	NA	NA	Well dry.
MW07-27OB	800.27	8.13	792.14	11.41	0.5	NA	**Water level only.**
MW06-23BR	818.33	14.88	803.45	21.73	1.1	1.25	Very light grey and then clear. MS/MSD collected.
MW06-24BR	818.42	16.40	802.02	21.70	0.8	0.875	Light brown and then cloudy.
MW06-25BR	781.90	13.54	768.36	19.37	0.9	0.875	Clear.
MW07-27BR	800.54	NA	NA	21.67	NA	NA	**Well damaged, unable to gauge well.**
MW08-29BR	780.56	24.06	756.50	28.85	0.8	NA	**Water level only.**
MW16-7BR	818.97	14.31	804.66	21.40	1.1	1.0	Clear.
IOW-1	818.45	14.78	803.67	23.64	1.4	1.5	Very light orange/brown and then clear.
IOW-2	817.90	18.12	799.78	25.25	1.1	NA	**Water level only.**
IOW-3	818.47	13.57	804.90	18.20	0.7	0.75	Very light grey and then clear.
IOW-4	818.33	6.46	811.87	8.80	0.4	0.5	Brown/orange then light brown/orange and then cloudy. Well dry at 0.5 gal. Well recharge for 10 minutes & then sample collected.

Notes:
All elevations are feet above mean sea level.
Water levels measured with an electronic water level indicator to the nearest 0.01' & referenced to the top of the PVC well casing.
Wells purged and sampled utilizing low flow techniques with dedicated tubing and a peristaltic pump.
TOC = Top of Casing GW = Groundwater NA = Not Applicable NC = Not Co IV = Insufficient Volume

Table 2.
Summary of September 2022 Groundwater Analytical Results.

September 20 and 21, 2022 Annual Groundwater Sampling Event																							
COMPOUND µg/L (ppb)	CLASS GA STANDARD	MW-2 Sep-22		MW06-23BR Sep-22		MW06-24BR Sep-22		MW06-25OB Sep-22	MW06-25BR Sep-22		MW16-7BR Sep-22		IOW-1 Sep-22		IOW-3 Sep-22		IOW-4 Sep-22		Trip Blank Sep-22	
Acetone	50	<10.0	ND	<10.0	ND	<10.0	ND		<10.0	ND	<10.0	ND	<10.0	ND	<10.0	ND	<10.0	ND	<10.0	ND
Benzene	1	<1.0	ND	<1.0	ND	<1.0	ND		<1.0	ND	<1.0	ND	<1.0	ND	<1.0	ND	<1.0	ND	<1.0	ND
Bromodichloromethane	50	<1.0	ND	<1.0	ND	<1.0	ND		<1.0	ND	<1.0	ND	<1.0	ND	<1.0	ND	<1.0	ND	<1.0	ND
Bromoform	50	<4.0	ND	<4.0	ND	<4.0	ND		<4.0	ND	<4.0	ND	<4.0	ND	<4.0	ND	<4.0	ND	<4.0	ND
Bromomethane	5	<4.0	ND	<4.0	ND	<4.0	ND		<4.0	ND	<4.0	ND	<4.0	ND	<4.0	ND	<4.0	ND	<4.0	ND
Methyl Ethyl Ketone (aka 2-Butanone)	50	<10.0	ND	<10.0	ND	<10.0	ND		<10.0	ND	<10.0	ND	<10.0	ND	<10.0	ND	<10.0	ND	<10.0	ND
Carbon disulfide	60	<1.0	ND	<1.0	ND	<1.0	ND		<1.0	ND	<1.0	ND	<1.0	ND	<1.0	ND	<1.0	ND	<1.0	ND
Carbon tetrachloride	5	<1.0	ND	<1.0	ND	<1.0	ND		<1.0	ND	<1.0	ND	<1.0	ND	<1.0	ND	<1.0	ND	<1.0	ND
Chlorobenzene	5	<1.0	ND	<1.0	ND	<1.0	ND		<1.0	ND	<1.0	ND	<1.0	ND	<1.0	ND	<1.0	ND	<1.0	ND
Chloroethane	5	<1.0	ND	<1.0	ND	<1.0	ND		<1.0	ND	<1.0	ND	<1.0	ND	<1.0	ND	<1.0	ND	<1.0	ND
Chloroform	7	<1.0	ND	<1.0	ND	<1.0	ND		<1.0	ND	<1.0	ND	<1.0	ND	<1.0	ND	<1.0	ND	<1.0	ND
Chloromethane	5	<1.0	ND	<1.0	ND	<1.0	ND		<1.0	ND	<1.0	ND	<1.0	ND	<1.0	ND	<1.0	ND	<1.0	ND
Dibromochloromethane	50	<1.0	ND	<1.0	ND	<1.0	ND		<1.0	ND	<1.0	ND	<1.0	ND	<1.0	ND	<1.0	ND	<1.0	ND
1,1-Dichloroethane	5	1.5		2.9		<1.0	ND		**18.5**		<1.0	ND	1.2		1.4		<1.0	ND	<1.0	ND
1,2-Dichloroethane	0.6	<1.0	ND	<1.0	ND	<1.0	ND		<1.0	ND	<1.0	ND	<1.0	ND	<1.0	ND	<1.0	ND	<1.0	ND
1,1-Dichloroethene	5	<1.0	ND	**5.2**		<1.0	ND	**Well Dry**	**7.2**		<1.0	ND	1.5		3.3		<1.0	ND	<1.0	ND
1,2-Dichloropropane	1	<1.0	ND	<1.0	ND	<1.0	ND	**No Sample**	<1.0	ND	<1.0	ND	<1.0	ND	<1.0	ND	<1.0	ND	<1.0	ND
cis-1,3-Dichloropropene	0.4	<1.0	ND	<1.0	ND	<1.0	ND		<1.0	ND	<1.0	ND	<1.0	ND	<1.0	ND	<1.0	ND	<1.0	ND
trans-1,3-Dichloropropene	0.4	<1.0	ND	<1.0	ND	<1.0	ND		<1.0	ND	<1.0	ND	<1.0	ND	<1.0	ND	<1.0	ND	<1.0	ND
Ethylbenzene	5	<1.0	ND	<1.0	ND	<1.0	ND		<1.0	ND	<1.0	ND	<1.0	ND	<1.0	ND	<1.0	ND	<1.0	ND
2-Hexanone	50	<10.0	ND	<10.0	ND	<10.0	ND		<10.0	ND	<10.0	ND	<10.0	ND	<10.0	ND	<10.0	ND	<10.0	ND
Methylene Chloride	5	<1.0	ND	<1.0	ND	<1.0	ND		<1.0	ND	<1.0	ND	<1.0	ND	<1.0	ND	<1.0	ND	<1.0	ND
Methyl Isobutyl Ketone (aka 4-Methyl-2-pentanone)	5	<10.0	ND	<10.0	ND	<10.0	ND		<10.0	ND	<10.0	ND	<10.0	ND	<10.0	ND	<10.0	ND	<10.0	ND
Styrene	5	<1.0	ND	<1.0	ND	<1.0	ND		<1.0	ND	<1.0	ND	<1.0	ND	<1.0	ND	<1.0	ND	<1.0	ND
1,1,2,2-Tetrachloroethane	5	<1.0	ND	<1.0	ND	<1.0	ND		<1.0	ND	<1.0	ND	<1.0	ND	<1.0	ND	<1.0	ND	<1.0	ND
Tetrachloroethene	5	<1.0	ND	<1.0	ND	<1.0	ND		<1.0	ND	<1.0	ND	<1.0	ND	<1.0	ND	<1.0	ND	<1.0	ND
Toluene	5	<1.0	ND	<1.0	ND	<1.0	ND		<1.0	ND	<1.0	ND	<1.0	ND	<1.0	ND	<1.0	ND	<1.0	ND
1,1,1-Trichloroethane	5	<1.0	ND	3.2		<1.0	ND		**95.8**		<1.0	ND	2.6		<1.0	ND	<1.0	ND	<1.0	ND
1,1,2-Trichloroethane	1	<1.0	ND	<1.0	ND	<1.0	ND		<1.0	ND	<1.0	ND	<1.0	ND	<1.0	ND	<1.0	ND	<1.0	ND
Trichloroethene (TCE)	5	**160**		**1,030**	M1	**15.4**			**29.8**		<1.0	ND	**2,550**		**446**		**12.5**		<1.0	ND
Vinyl Chloride (VC)	2	**51.0**	IH	**118**	IH	**5.9**	IH		**10.9**	IH	1.9	IH	**11.8**	IH	**39.1**	IH	<1.0	ND IH	<1.0	ND IH
Xylenes (Total)	5	<3.0	ND	<3.0	ND	<3.0	ND		<3.0	ND	<3.0	ND	<3.0	ND	<3.0	ND	<3.0	ND	<3.0	ND
cis-1,2-Dichloroethene (DCE)	5	**75.7**		**534**		**18.5**			**32.3**		3.4		**140**		**204**		<1.0	ND	<1.0	ND
trans-1,2-Dichloroethene	5	4.5		**7.3**		1.0			<1.0	ND	<1.0	ND	2.4		3.8		<1.0	ND	<1.0	ND
Total VOCs (µg/L)*		**292.7**		**1,700.6**		**40.8**		**No Sample**	**194.5**		**5.3**		**2,709.5**		**697.6**		**12.5**		**ND**	
Ethene (µg/L)	Not Applicable	6.6		6.0		<1.0	ND	NS	<1.0	ND	<1.0	ND	<1.0	ND	1.9		<1.0	ND	Not Analyzed	

Notes:
J - Estimated concentration, greater than the set Method Detection Limit (MDL) and less than the set reporting limit (RL)/practical quantitation limit (PQL).
* - Total VOCs does not include any compound(s) detected in the blank sample(s).
B - The analyte was found in an associated blank, as well as the sample.
NS - No Sample
IV - Insufficient Volume
Compound Above Standard

^ - Instrument related QC exceeds the control limits.
c - Calibration acceptability criteria exceeded for this analyte. Value estimated.
ND - Not detected at or above the adjusted reporting limit.
U - Indicates the analyte was analyzed for, but not detected.
See analytical results for additional qualifiers and complete results.

IH - This analyte exceeded secondary source verification criteria high for the initial calibration. The reported results should be considered an estimated value.
CH - The continuing calibration for this compound is outside of Pace Analytical acceptance limits. The results may be biased high.
IL - This analyte exceeded secondary source verification criteria low for the initial calibration. The reported results should be considered an estimated value.
M1- Matrix spike recovery exceeded QC limits. Back accepted based on LCS recovery.

Overburden Wells
Summary of Groundwater VOC Analytical Results.

Overburden Well

COMPOUND µg/L (ppb)	CLASS GA STANDARD	MW-2																																						
		Apr-03	Jan-04	RI 2006	Jun-08	Aug-08	Jan-09	Apr-09	Sep-09	Dec-09	Mar-10	Jun-10	Sep-10	Dec-10	Mar-11	Feb-12	Sep-12	Mar-13	June-12	Sep-13	Dec-13	Jun-14	Dec-14	Mar-15	Jun-15	Sep-15	Dec-15	Mar-16	Jun-16	Sep-16	Sep-17	Sep-18	Sep-19	Sep-20	Sep-21	Sep-22
Acetone	50	U	U	U	3.6 JB	**760 B**	U	U	1.6 J	U	U	10 J	14 J	U	U	U Q	U	U	U	13 J	U	8.5 J	5.4	<1 U	<10 U	<10 U	<10 U	<10 U	<10 U	<10 U	<10 U	<10 U	<10 U	<10 U	<10 U	<10.0 ND
Benzene	1	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1.0 ND
Bromodichloromethane	50	NS	NS	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1.0 ND
Bromoform	50	NS	NS	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<4.0 ND
Bromomethane	5	NS	NS	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<4.0 ND
Methyl Ethyl Ketone (MEK) (aka 2-Butanone)	50	U	U	U	U	**160**	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	<1 U	<10 U	<10 U	<10 U	<10 U	<1 U	<10 U	<10 U	<10 U	<10 U	<10 U	<10.0 ND
Carbon disulfide	60	NS	NS	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 Uc	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1.0 ND
Carbon tetrachloride	5	NS	NS	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1.0 ND
Chlorobenzene	5	NS	NS	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1.0 ND
Chloroethane	5	NS	NS	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 Uc	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1.0 ND
Chloroform	7	U	U	U	U	**12.0 J**	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1.0 ND
Chloromethane	5	NS	NS	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	<1 UC	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1.0 ND
Dibromochloromethane	50	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	Y	U	U	U	U	U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1.0 ND
1,1-Dichloroethane	5	**7.4**	**10.6**	1.7 J	1.6 J	U	U	**6.3 J**	U	U	U	**7.3 J**	**7.8 J**	**13 J**	**9.1 J**	**8.5 J**	U	**6**	**6.5**	**20**	**6.8**	2.3	4.4	**5.8**	4.3	**6.5**	**9.4**	**10.5**	**9.0 S**	**8.2**	4.0	1.4	3.4	4.1	1.6 CH	1.5
1,2-Dichloroethane	0.6	NS	NS	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1.0 ND
1,1-Dichloroethene	5	NS	1.98	U	U	U	U	**6.3 J**	U	U	U	U	U	U	2.0 J	U	U	U	U	U	U	U	U	1.2	<1 U	<1 U	1.1	1.3	<1 U	<1 U	<1 U	1.3	1.2	<1 U	<1.0 ND
1,2-Dichloropropane	1	NS	NS	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1.0 ND
cis-1,3-Dichloropropene	0.4	NS	NS	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1.0 ND
trans-1,3-Dichloropropene	0.4	NS	NS	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1.0 ND
Ethylbenzene	5	NS	NS	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1.0 ND
2-Hexanone	50	NS	NS	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	<1 U	<10 U	<10 U	<10 U	<10 U	<1 U	<10 U	<10 U	<10 U	<10 U	<10 U	<10 U	<10.0 ND
Methylene Chloride	5	NS	NS	U	U	**8.3 JB**	U	**6.8 JB**	U	U	U	4.7 JB	**9.0 JB**	4.5 JB	2.6 JB	U	U	U	U	U	U	U	U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1.0 ND
methyl isobutyl ketone (aka 4-Methyl-2-pentanone)	5	NS	NS	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	<1 U	<10 U	<10 U	<10 U	<10 U	<1 U	<10 U	<10 U	<10 U	<10 U	<10 U	<10 U	<10.0 ND
Styrene	5	NS	NS	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1.0 ND
1,1,2,2-Tetrachloroethane	5	NS	NS	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1.0 ND
Tetrachloroethene	5	NS	NS	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 Uc	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1.0 ND
Toluene	5	**6.2**	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	3.2	U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1.0 ND
1,1,1-Trichloroethane	5	U	1.73	U	U	U	U	U	1.5 J	U	U Q	U	U	U	U	U	U	U	U	4.8	U	U	1.2	1.2	<1 U	1.2 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	1.8 CH	2.1 CH	<1 U	<1.0 ND
1,1,2-Trichloroethane	1	NS	NS	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1.0 ND
Trichloroethene (TCE)	5	**252**	**221**	**92**	**53**	U	**190**	**450**	**31**	**240**	**190**	**170**	**180**	**170**	**130**	**170**	U	**55**	**79**	**91 D**	**120**	**50**	**100**	**130**	**118**	**166**	**67.1**	**94.5**	**100**	**99.1**	**242**	**150**	**182**	**268**	**329** CH,L1	**160**
Vinyl Chloride (VC)	2	**152**	**79.4**	**6.8 J**	**51**	U	**310**	**420**	**9.8**	**410**	**160 Q**	**190**	**350**	**120**	**54**	**130**	U	**45**	**57**	**19**	**24** *	**4.1**	**3.9**	**33**	**9.7**	**47.0**	**109**	**61.4**	**78**	**99.3**	**43.3**	**14.3**	**133**	**146**	1.1 CH	**51.0** IH
Xylenes (Total)	5	NS	NS	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	<1 U	<3 U	<3 U	<3 U	<3 U	<1 U	<3 U	<3 U	<3 U	<3 U	<3 U	<3 U	<3.0 ND
cis-1,2-Dichloroethene (DCE)	5	NS	**155**	**16**	**73**	U	**400**	**870**	**20**	**670**	**510**	**410**	**290**	**410**	**230**	**160**	U	**120**	**240**	**39 D**	**83**	**62**	**120**	**300 D**	**218**	**171**	**200**	**247**	**270 D**	**175**	**158**	**111**	**327**	**245**	**78.3** CH	**75.7**
trans-1,2-Dichloroethene	5	**12.9**	**6.63**	1.5 J	3.3 J	U	14 J	**29**	0.81	**24 J**	**17**	**16 J**	**16 J**	**16 J**	**11**	U	U	**6.6**	**9.6**	**9.9**	3.9	3.2	**5.3**	**41**	**9.2**	**6.7**	**14.3**	**13.2**	**11**	**6.8**	**7.2**	4.6	**14.2**	**12.2**	4.3 CH,L1	4.5
Total VOCs^ (µg/L)		430.5	476.3	118.0	181.9	12	914	1,782	63.11	1,344	877	793	857.8	729.0	436.1	468.5	U	232.6	392.1	196.7	237.7	133.3	240.2	512.2	359.2	398.4	400.9	427.9	468.0	388.4	454.5	281.3	662.7	678.6	414.3	292.7

Notes:
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L1 - Analyte recovery in the LCS was above QC limits. Results for this analyte in associated samples may be biased high.

VOC - Above Standard.

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Overburden Wells
Summary of Groundwater VOC Analytical Results.

Overburden Well

		MW06-25OB																												
COMPOUND µg/L (ppb)	**CLASS GA STANDARD**	**RI 2006**	**Jun-08**	**Jan-09**	**Apr-09**	**Sep-09**	**Dec-09**	**Mar-10**	**Jun-10**	**Sep-10**	**Dec-10**	**Mar-11**	**Feb-12**	**Sep-12**	**Mar-13**	**June-13, Sep-13 & Dec-13**	**Jun-14**	**Dec-14**	**Mar-15**	**Jun-15**	**Sep-15 & Dec-15**	**Mar-16**	**Jun-16 & Sep-16**	**Sep-17**	**Sep-18**	**Sep-19**	**Sep-20**	**Sep-21**	**Sep-22**
Acetone	50	5.7			U			U			U	U	U		48		14	8.1	3.7 U	13.5		<10 U			<10 U			<10 U	
Benzene	1	U			U			U			U	U	U		U		U	U	<1 U	<1 U		<1 U			<1 U			<1 U	
Bromodichloromethane	50	U			U			U			U	U	U		U		U	U	<1 U	<1 U		<1 U			<1 U			<1 U	
Bromoform	50	U			U			U			U	U	U		U		U	U	<1 U	<1 U		<1 U			<1 U			<1 U	
Bromomethane	5	U			U			U			U	U	U		U		U	U	<1 U	<1 U		<1 U			<1 U			<1 U	
Methyl Ethyl Ketone (MEK) (a.k.a. 2-Butanone)	50	U			U			U Q			U	U	U		U		U	1.8	<1 U	<10 U		<10 U			<10 U			<10 U	
Carbon disulfide	60	U			U			U			U	U	U		U		U	U	<1 U	<1 U		<1 U			<1 U			<1 U	
Carbon tetrachloride	5	U			U			U			U	U	U		U		U	U	<1 U	<1 U		4.1			<1 U			<1 U	
Chlorobenzene	5	U			U			U			U	U	U		U		U	U	<1 U	<1 U		<1 U			<1 U			<1 U	
Chloroethane	5	U			U			U			U	U	U		U		U	U	<1 U	<1 U		<1 U			<1 U			<1 U	
Chloroform	7	U			U			U			U	U	U		U		U	U	<1 U	<1 U		<1 U			<1 U			<1 U	
Chloromethane	5	U			U			U			U	U	U		U		16	U	<1 U	<1 U		<1 U			<1 U			<1 U	
Dibromochloromethane	50	U			U			U			U	U	U		U		U	U	<1 U	<1 U		<1 U			<1 U			<1 U	
1,1-Dichloroethane	5	**14**	Insufficient	Insufficient	**14**	Insufficient	Insufficient	**13**	Insufficient	Insufficient	**8.8 J**	3.4 J	3.7	Insufficient	3.2	Insufficient	**9.1**	**9.5**	1.6	**13**	Insufficient	2.0	Insufficient	Insufficient	2.7	Insufficient	Insufficient	**5.4** CH	Insufficient
1,2-Dichloroethane	0.6	U	Volume	Volume	U	Volume	Volume	U	Volume	Volume	U	U	U	Volume	U	Volume	U	U	<1 U	<1 U	Volume	<1 U	Volume	Volume	<1 U	Volume	Volume	<1 U	Volume
1,1-Dichloroethene	5	**15**	No	No	**6.8**	No	No	**5.4**	No	No	3.9 J	2.1 J	U	No	U	No	3.5	U	<1 U	2.6	No	<1	No	No	<1 U	No	No	<1 U	No
1,2-Dichloropropane	1	U	Sample	Sample	U	Sample	Sample	U	Sample	Sample	U	U	U	Sample	U	Sample	U	U	<1 U	<1 U	Sample	<1 U	Sample	Sample	<1 U	Sample	Sample	<1 U	Sample
cis-1,3-Dichloropropene	0.4	U			U			U			U	U	U		U		U	U	<1 U	<1 U		<1 U			<1 U			<1 U	
trans-1,3-Dichloropropene	0.4	U			U			U			U	U	U		U		U	U	<1 U	<1 U		<1 U			<1 U			<1 U	
Ethylbenzene	5.0	U			U			U			U	U	U		U		U	U	<1 U	<1 U		<1 U			<1 U			<1 U	
2-Hexanone	50	U			U			U Q			U	U	U		U		U	U	<1 U	<10 U		<10 U			<10 U			<10 U	
Methylene Chloride	5	U			U			U			2.0 JB	U	U		U		U	U	<1 U	<1 U		<1 U			<1 U			<1 U	
methyl isobutyl ketone (a.k.a. 4-Methyl-2-pentanone)		U			U			U Q			U	U	U		U		U	U	<1 U	<10 U		<10 U			<10 U			<10 U	
Styrene	5	U			U			U			U	U	U		U		U	U	<1 U	<1 U		<1 U			<1 U			<1 U	
1,1,2,2-Tetrachloroethane	5	U			U			U			U	U	U		U		U	U	<1 U	<1 U		<1 U			<1 U			<1 U	
Tetrachloroethene	5	U			U			U			U	U	U		U		U	U	<1 U	<1 U		<1 U			<1 U			<1 U	
Toluene	5	U			U			U			U	U	U		U		U	U	<1 U	<1 U		<1 U			<1 U			<1 U	
1,1,1-Trichloroethane	5	**240**			**170**			**150**			**170**	**95**	**98**		**93**		**180**	**170**	**50**	**120**		**31.9**			**13.0**			**15.2** CH,L1	
1,1,2-Trichloroethane	1	U			U			U			U	U	U		U		U	U	<1 U	<1 U		<1 U			<1 U			<1 U	
Trichloroethene (TCE)	5	**23**			**18**			**18**			**22**	**9.2**	**10**		4.3		**14**	**24**	4.6	**14.5**		4.6			3.3			1.9 CH,L1	
Vinyl Chloride (VC)	2	**2.5**			U			U Q			U	U	U		U		0.92	U	<1 U	<1 U		<1 U			<1 U			<1 U	
Xylenes (Total)	5	U			U			U			U	U	U		U		U	U	<1 U	<3 U		<3 U			<3 U			<3 U	
cis-1,2-Dichloroethene (DCE)	5	**59**			**25**			**25**			**33**	**7.4**	**8.2**		1.7		**16**	**31**	2.3	**28.4**		4.3			2.1			1.4 CH	
trans-1,2-Dichloroethene	5	12			U			U			U	U	U		U		U	U	<1 U	<1 U		<1 U			<1 U			<1 U	
Total VOCs^ (µg/L)		371.2	-	-	234	-	-	211	-	-	237.7	117.1	119.9	-	102.2	-	253.5	242.6	62.2	192.0	-	46.9	-	-	21.1	-	-	23.9	-

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Table No. 3: Page 3 of 9
Overburden Wells
Summary of Groundwater VOC Analytical Results.

Overburden Well			IOW-4																																			
COMPOUND µg/L (ppb)	CLASS GA STANDARD	RI 2006	Jun-08	Aug-08	Jan-09	Apr-09	Sep-09	Dec-09	Mar-10	Jun-10	Sep-10	Dec-10	Mar-11	Feb-12	Sep-12	Mar-13	Jun-13	Sep-13	Dec-13	Jun-14	Dec-14	Mar-15	Jun-15	Sep-15	Dec-15	Mar-16	Jun-16	Sep-16	Sep-17	Sep-18	Sep-19	Sep-20	Sep-21	Sep-22	
Acetone	50		45 JB	1,800 B	28 *	U	1.6 J	2.6 J	U	U	U	U	U	U Q	U Q	U	U	U	U	3.9 J	4.8	<1 U	<10 U	<10 U	<10 U	<10 U	<10 U	<10 U	48.9 B	<10 U	<10 U	<10 U	<10 U	<10.0	ND
Benzene	1		U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1.0	ND
Bromodichloromethane	50		U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1.0	ND
Bromoform	50		U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<4.0	ND
Bromomethane	5		U	U	2.4 J	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	<1 U	<1 U	<1 U	<1 U	2.2 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<4.0	ND
Methyl Ethyl Ketone (MEK) (a.k.a. 2-Butanone)	50		U	U	5.5 J	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	<1 U	<10 U	<10 U	<10 U	<10 U	<1 U	<10 U	<10 U	<10 U	<10 U	<10 U	<10 U	<10.0	ND
Carbon disulfide	60		U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 Uc	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1.0	ND
Carbon tetrachloride	5		U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1.0	ND
Chlorobenzene	5		U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1.0	ND
Chloroethane	5		U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 Uc	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1.0	ND
Chloroform	7		U	10 J	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1.0	ND
Chloromethane	5		U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	<1 UC	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1.0	ND
Dibromochloromethane	50		U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1.0	ND
1,1-Dichloroethane	5	Not Yet	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 US	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1.0	ND
1,2-Dichloroethane	0.6	Installed	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1.0	ND
1,1-Dichloroethene	5		U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1.0	ND
1,2-Dichloropropane	1		U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1.0	ND
cis-1,3-Dichloropropene	0.4		U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1.0	ND
trans-1,3-Dichloropropene	0.4		U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1.0	ND
Ethylbenzene	5.0		U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1.0	ND
2-Hexanone	50		U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	<1 U	<10 U	<10 U	<10 U	<10 U	<1 U	<10 U	<10 U	<10 U	<10 U	<10 U	<10 U	<10.0	ND
Methylene Chloride	5		3.9 JB	18 JB	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	1.2 U	<1.0	ND
methyl isobutyl ketone (a.k.a. 4-Methyl-2-pentanone)			U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	<1 U	<10 U	<10 U	<10 U	<10 U	<1 U	<10 U	<10 U	<10 U	<10 U	<10 U	<10 U	<10.0	ND
Styrene	5		U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1.0	ND
1,1,2,2-Tetrachloroethane	5		U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1.0	ND
Tetrachloroethene	5		U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 Uc	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1.0	ND
Toluene	5		U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1.0	ND
1,1,1-Trichloroethane	5		U	U	U	U	U	U	U Q	U	U	U	U	U	U	U	U	U	U	U	U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1.0	ND
1,1,2-Trichloroethane	1		U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1.0	ND
Trichloroethene (TCE)	5		**120**	**U**	**43**	**34**	**63**	**52**	**16**	**31**	**89**	**20**	**19**	**20**	U	U	**26**	**23**	**28**	**29**	**44**	**62**	**50**	**128**	**18.5**	**33.2**	**110**	**69.0**	**64.4**	**43.5**	**34.6**	**21.7**	**16.7** H1	**12.5**		
Vinyl Chloride (VC)	2		U	U	U	U	U	U	U Q	U	U	U	U	U	U	U	U	U	U	U	U	**3.9**	<1	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1.0	ND IH
Xylenes (Total)	5		U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	<1 U	<3 U	<3 U	<3 U	<3 U	<1 U	<3 U	<3 U	<3 U	<3 U	<3 U	<3 U	<3.0	ND
cis-1,2-Dichloroethene (DCE)	5		**25 J**	U	3.1 J	3.2 J	4.0 J	3.1 J	U	2.3 J	**5.6**	1.1 J	1.2 J	U	U	**14**	U	1.4	2.4	1.7	**7.3**	**23**	**10.3**	**15.8**	1.9	**5.4**	**17**	**9.9**	**15.4**	**5.5**	**11.1**	3.3	1.7 H1	<1.0	ND
trans-1,2-Dichloroethene	5		U	U	U	U	U	U	U	U	U	U	U	U	U	ND	U	U	U	U	U	<1 U	<1 U	1.1 U	<1 U	<1 U	1.8	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1.0	ND
Total VOCs^ (µg/L)		-	145	10	48.5	37.2	68.6	57.7	16	33.3	94.6	21.1	20.2	20.0	U	14.0	26.0	24.4	30.4	34.6	56.1	88.9	60.3	144.9	20.4	40.8	128.8	78.9	79.8	49.0	45.7	25.0	18.4	12.5	

Notes:
^ - Total VOC's does not include compounds detected in method blanks and trip blanks. MEK found in August 2008 and January 2009 samples is also excluded because ketones are known to be produced by the reaction of potassium permanganate with chlorinated organic compounds.
NS - Compound not analyzed (2003 and 2004 sampling used smaller analyte list).
J - Estimated concentration detected below quantitation limit.
H1 - Analysis conducted outside of EPA method holding time.
B - The analyte found in an associated blank, as well as the sample.
* - LCS or LCSD exceeds the control limit.
U - Indicates the analyte was analyzed for but not detected.
D - Samples results are obtained from a dilution; the surrogate or matrix spike recoveries reported are calculated from diluted samples.
Q - Outlying QC recoveries were associated with this parameter.

VOC - Above Standard.

2003 Data (MW-2 and MW-3 provided by Environmental Products and Services, Inc. 2004 Data (MW-2, MW-3 and MW-7) provided by ERM. All data between 2004 and 2009 provided by S&W Redevelopment of North America, LLC.
Samples collected in 2006 (RI) and March, April, and June 2008 are pre-ISCO injection. Samples collected in August 2008 are during ISCO injection.
Samples collected from January 2009 through February 2012 are post-2008 ISCO injection. Samples collected from September 2012 through the present are post-2012 ISCO injection.

Bedrock Wells
Summary of Groundwater VOC Analytical Results.

Bedrock Well		**MW06-23BR**																					
COMPOUND µg/L (ppb)	**CLASS GA STANDARD**	**RI 2006**		**Sep-15**		**Dec-15**		**Mar-16**		**Jun-16**		**Sep-16**		**Sep-17**		**Sep-18**		**Sep-19**		**Sep-20**		**Sep-21**		**Sep-22**	
Acetone	50	<10	U	<10	U	<10	U	<10	U	<10	U	<10	U	**73.6**	**B**	<10	U	<10	U	<10	U	<10	U	<10.0	ND
Benzene	1	<5	U	<1	U	<1	U	<1	U	<1	U	<1	U	<1	U	<1	U	<1	U	<1	U	<1	U	<1.0	ND
Bromodichloromethane	50	<5	U	<1	U	<1	U	<1	U	<1	U	<1	U	<1	U	<1	U	<1	U	<1	U	<1	U	<1.0	ND
Bromoform	50	<5	U	<1	U	<1	U	<1	U	<1	U	<1	U	<1	U	<1	U	<1	U	<1	U	<1	U	<4.0	ND
Bromomethane	5	<5	U	<1	U	<1	U	<1	U	<1	U	<1	U	<1	U	<1	U	<1	U	<1	U	<1	U	<4.0	ND
Methyl Ethyl Ketone (MEK) (a.k.a. 2-Butanone)	50	<10	U	<10	U	<10	U	<10	U	<1	U	<10	U	<10	U	<10	U	<10	U	<10	U	<10	U	<10.0	ND
Carbon disulfide	60	<5	U	<1	U	<1	U	<1	U	<1	Uc	<1	U	<1	U	<1	U	<1	U	<1	U	<1	U	<1.0	ND
Carbon tetrachloride	5	<5	U	<1	U	<1	U	<1	U	<1	U	<1	U	<1	U	<1	U	<1	U	<1	U	<1	U	<1.0	ND
Chlorobenzene	5	<5	U	<1	U	<1	U	<1	U	<1	U	<1	U	<1	U	<1	U	<1	U	<1	U	<1	U	<1.0	ND
Chloroethane	5	<5	U	<1	U	<1	U	<1	U	<1	Uc	<1	U	<1	U	<1	U	<1	U	<1	U	<1	U	<1.0	ND
Chloroform	7	<5	U	<1	U	<1	U	<1	U	<1	U	<1	U	<1	U	<1	U	<1	U	<1	U	<1	U	<1.0	ND
Chloromethane	5	<5	U	<1	U	<1	U	<1	U	<1	U	<1	U	<1	U	<1	U	<1	U	<1	U	<1	U	<1.0	ND
Dibromochloromethane	50	<5	U	<1	U	<1	U	<1	U	<1	U	<1	U	<1	U	<1	U	<1	U	<1	U	<1	U	<1.0	ND
1,1-Dichloroethane	5	<5	U	2.4		1.8		2.1		2.0	S	1.9		<1	U	1.8		2.0	MH	2.0		3.3	CH,MH	2.9	
1,2-Dichloroethane	0.6	<5	U	<1	U	<1	U	<1	U	<1	U	<1	U	<1	U	<1	U	<1	U	<1	U	<1	U	<1.0	ND
1,1-Dichloroethene	5	<5	U	2.3		1.8		1.4		<1	U	1.5		<1	U	1.3		<1	U	1.9		**5.4**	CH	**5.2**	
1,2-Dichloropropane	1	<5	U	<1	U	<1	U	<1	U	<1	U	<1	U	<1	U	<1	U	<1	U	<1	U	<1	U	<1.0	ND
cis-1,3-Dichloropropene	0.4	<5	U	<1	U	<1	U	<1	U	<1	U	<1	U	<1	U	<1	U	<1	U	<1	U	<1	U	<1.0	ND
trans-1,3-Dichloropropene	0.4	<5	U	<1	U	<1	U	<1	U	<1	U	<1	U	<1	U	<1	U	<1	U	<1	U	<1	U	<1.0	ND
Ethylbenzene	5	<5	U	<1	U	<1	U	<1	U	<1	U	<1	U	<1	U	<1	U	<1	U	<1	U	<1	U	<1.0	ND
2-Hexanone	50	<10	U	<10	U	<10	U	<10	U	<1	U	<10	U	<10	U	<10	U	<10	U	<10	U	<10	U	<10.0	ND
Methylene Chloride	5	<5	U	<1	U	<1	U	<1	U	<1	U	<1	U	<1	U	<1	U	1.6		1.4		<1	U	<1.0	ND
methyl isobutyl ketone (a.k.a. 4-Methyl-2-pentanone)		<10	U	<10	U	<10	U	<10	U	<1	U	<10	U	<10	U	<10	U	<10	U	<10	U	<10	U	<10.0	ND
Styrene	5	<5	U	<1	U	<1	U	<1	U	<1	U	<1	U	<1	U	<1	U	<1	U	<1	U	<1	U	<1.0	ND
1,1,2,2-Tetrachloroethane	5	<5	U	<1	U	<1	U	<1	U	<1	U	<1	U	<1	U	<1	U	<1	U	<1	U	<1	U	<1.0	ND
Tetrachloroethene	5	<5	U	<1	U	<1	U	<1	U	<1	Uc	<1	U	<1	U	<1	U	<1	U	<1	U	<1	U	<1.0	ND
Toluene	5	<5	U	<1	U	<1	U	<1	U	<1	U	<1	U	<1	U	<1	U	<1	U	<1	U	<1	U	<1.0	ND
1,1,1-Trichloroethane	5	<5	U	**6.0**		**6.4**		4.6		4.3		**5.8**		4.8		3.7		4.3	CH,MH	4.3		4.5	CH,L1	3.2	
1,1,2-Trichloroethane	1	<5	U	<1	U	<1	U	<1	U	<1	U	<1	U	<1	U	<1	U	<1	U	<1	U	<1	U	<1.0	ND
Trichloroethene (TCE)	5	**590**		**1,070**		**925**		**855**		**950**	**D**	**913**		**816**		**598**		**390**		**781**		**1,540**	CH,L1	**1,030**	M1
Vinyl Chloride (VC)	2	**46**		**9.8**		**5.5**		**2.1**		1.2		**2.9**		1.9		**6.6**		**15.6**		**57.2**		**57.4**	CH,MH	**118**	IH
Xylenes (Total)	5	<5	U	<3	U	<3	U	<3	U	<1	U	<3	U	<3	U	<3	U	<3	U	<3	U	<3	U	<3.0	ND
cis-1,2-Dichloroethene (DCE)	5	**420**		**170**		**131**		**114**		**75**		**105**		**67.6**		**163**		**107**	**MH**	**209**	MH	**637**	CH,MH	**534**	
trans-1,2-Dichloroethene	5	<5	U	4.5		**5.9**		3.4		1.7		1.9		1.8		2.1		1.9		2.9		**9.4**	CH,L1	**7.3**	
Total VOCs^ (µg/L)		1,056.0		1,265.0		1,077.4		982.6		1,034.2		1,032.0		892.1		776.5		522.4		1,058.3		2,257.0		1,700.6	

Notes:

^ - Total VOC's does not include compounds detected in method blanks.
NA - Data not available.
J - Estimated concentration detected below quantitation limit.
U - Indicates the analyte was analyzed for but not detected.
B - The analyte found in an associated blank, as well as the sample.

H1 - Analysis conducted outside of EPA method holding time.
CH - The continuing calibration for this compound is outside of Pace Analytical acceptance limits. The results may be biased high.
MH - Matrix spike recovery and/or matrix spike duplicate recovery was above laboratory limits. Results may be biased high.
L1 - Analyte recovery in the LCS was above QC limits. Results for this analyte in associated samples may be biased high.

VOC - Above Standard.

Samples collected in 2006 (RI) and March, April, and June 2008 are pre-ISCO injection. Samples collected from September 2012 through the present are post-2012 ISCO injection.

Table No. 3: Page 5 of 9
Bedrock Wells
Summary of Groundwater VOC Analytical Results.

Bedrock Well — **MW06-24BR**

COMPOUND µg/L (ppb)	CLASS GA Standard	RI 2006	Jun-08	Aug-08	Jan-09	Apr-09	Sep-09	Dec-09	Mar-10	Jun-10	Sep-10	Dec-10	Mar-11	Feb-12	Sep-12	Mar-13
Acetone	50	U	U	18.0 B	U	U	4.1 J	2.8 J	U	U	U	U	U	U	U	
Benzene	1	U	U	U	U	U	U	U	U	U	U	U	U	U	U	
Bromodichloromethane	50	U	U	U	U	U	U	U	U	U	U	U	U	U	U	
Bromoform	50	U	U	1.3 J	U	U	U	U	U	U	U	U	U	U	U	
Bromomethane	5	U	U	U	U	U	U	U	U	U	U	U	U	U	U	
Methyl Ethyl Ketone (MEK) (a.k.a. 2-Butanone)	50	U	U	U	U	U	U	U	U Q	U	U	U	U	U	U	
Carbon disulfide	60	U	U	U	U	U	U	U	U	U	U	U	U	U	U	
Carbon tetrachloride	5	U	U	U	U	U	U	U	U	U	U	U	U	U	U	
Chlorobenzene	5	U	U	U	U	U	U	U	U	U	U	U	U	U	U	
Chloroethane	5	U	U	U	U	U	U	U	U	U	U	U	U	U	U	
Chloroform	7	U	U	U	U	U	U	U	U	U	U	U	U	U	U	
Chloromethane	5	U	U	U	U	U	U	U	U	U	U	U	U	U	U	
Dibromochloromethane	50	U	U	U	U	U	U	U	U	U	U	U	U	U	U	
1,1-Dichloroethane	5	U	U	U	U	U	U	U	U	U	U	U	U	U	U	
1,2-Dichloroethane	0.6	U	U	U	U	U	U	U	U	U	U	U	U	U	U	
1,1-Dichloroethene	5	U	U	U	U	U	U	U	U	U	U	U	U	U	U	
1,2-Dichloropropane	1	U	U	U	U	U	U	U	U	U	U	U	U	U	U	
cis-1,3-Dichloropropene	0.4	U	U	U	U	U	U	U	U	U	U	U	U	U	U	No Sample
trans-1,3-Dichloropropene	0.4	U	U	U	U	U	U	U	U	U	U	U	U	U	U	Collected
Ethylbenzene	5.0	U	U	U	U	U	U	U	U	U	U	U	U	U	U	Permanganate
2-Hexanone	50	U	U	U	U	U	U	U	U Q	U	U	U	U	U	U	Present
Methylene Chloride	5	U	U	U	U	1.7 JB	U	U	U	U	U	U	U	U	U	
methyl isobutyl ketone (a.k.a. 4-Methyl-2-pentanone)		U	U	U	U	U	U	U	U Q	U	U	U	U	U	U	
Styrene	5	U	U	U	U	U	U	U	U	U	U	U	U	U	U	
1,1,2,2-Tetrachloroethane	5	U	U	U	U	U	U	U	U	U	U	U	U	U	U	
Tetrachloroethene	5	U	U	U	U	U	U	U	U	U	U	U	U	U	U	
Toluene	5	U	U	U	U	U	U	U	U	U	U	U	U	U	U	
1,1,1-Trichloroethane	5	U	U	U	U	U	U	U	U	U	U	U	U	U	U	
1,1,2-Trichloroethane	1	U	U	U	U	U	U	U	U	1.6 J	U	U	U	U	U	
Trichloroethene (TCE)	5	2,200	88	U	37	220	44	69	27	76	55	48	31	31	U	
Vinyl Chloride (VC)	2	200 J	7.5	U	2 J	16	7.1 J	13	U Q	9.5	12	5.1	U	U	U	
Xylenes (Total)	5	U	U	U	U	U	U	U	U	U	U	U	U	U	U	
cis-1,2-Dichloroethene (DCE)	5	3,700	180	U	25	330	78	140	4.1	170	140	67	8.3	14	U	
trans-1,2-Dichloroethene	5	79 J	4 J	U	1 J	6 J	2 J	3.0 J	U	3.7 J	2.9 J	1.5 J	U	U	U	
Total VOCs^ (µg/L)		6,179	279.6	1.3	64.8	571.7	135.2	227.8	31.1	260.8	209.9	121.6	39.3	45.0	U	NA

COMPOUND µg/L (ppb)	Jun-13	Sep-13	Dec-13	Jun-14	Dec-14	Mar-15	Jun-15	Sep-15	Dec-15	Mar-16	Jun-16	Sep-16	Sep-17	Sep-18	Sep-19	Sep-20	Sep-21	Sep-22
Acetone	11.0	9.2 J	U	3.1 J	3.6	<1 U	<10 U	<10 U	<10 U	<10 U	<10 U	<10 U	63.4 B	<10 U	<10	<10 U	<10 U	<10.0 ND
Benzene	U	U	U	U	U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1	<1 U	<1 U	<1.0 ND
Bromodichloromethane	U	U	U	U	U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1	<1 U	<1 U	<1.0 ND
Bromoform	U	U	U	U	U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1	<1 U	<1 U	<4.0 ND
Bromomethane	U	U	U	U	U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1	<1 U	<1 U	<4.0 ND
Methyl Ethyl Ketone (MEK) (a.k.a. 2-Butanone)	2.9 J	2.6 J	U	U	U	<1 U	<10 U	<10 U	<10 U	<10 U	<1 U	<10 U	<10 U	<10 U	<10	<10 U	<10 U	<10.0 ND
Carbon disulfide	U	U	U	U	U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 Uc	<1 U	<1 U	<1 U	<1	<1 U	<1 U	<1.0 ND
Carbon tetrachloride	U	U	U	U	U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1	<1 U	<1 U	<1.0 ND
Chlorobenzene	U	U	U	U	U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1	<1 U	<1 U	<1.0 ND
Chloroethane	U	U	U	U	U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 Uc	<1 U	<1 U	<1 U	<1	<1 U	<1 U	<1.0 ND
Chloroform	U	U	U	U	U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1	<1 U	<1 U	<1.0 ND
Chloromethane	U	U	U	16	U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1	<1 U	<1 U	<1.0 ND
Dibromochloromethane	U	U	U	U	U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1	<1 U	<1 U	<1.0 ND
1,1-Dichloroethane	U	U	U	U	U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 US	<1 U	<1 U	<1 U	<1	<1 U	<1 U	<1.0 ND
1,2-Dichloroethane	U	U	U	U	U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1	<1 U	<1 U	<1.0 ND
1,1-Dichloroethene	U	U	U	U	U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1	<1 U	<1 U	<1.0 ND
1,2-Dichloropropane	U	U	U	U	U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1	<1 U	<1 U	<1.0 ND
cis-1,3-Dichloropropene	U	U	U	U	U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1	<1 U	<1 U	<1.0 ND
trans-1,3-Dichloropropene	U	U	U	U	U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1	<1 U	<1 U	<1.0 ND
Ethylbenzene	U	U	U	U	U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1	<1 U	<1 U	<1.0 ND
2-Hexanone	U	U	U	U	U	<1 U	<10 U	<10 U	<10 U	<10 U	<1 U	<10 U	<10 U	<10 U	<10	<10 U	<10 U	<10.0 ND
Methylene Chloride	U	U	U	U	U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	1.2	1.3	<1 U	<1.0 ND
methyl isobutyl ketone (a.k.a. 4-Methyl-2-pentanone)	U	U	U	U	U	<1 U	<10 U	<10 U	<10 U	<10 U	<1 U	<10 U	<10 U	<10 U	<10	<10 U	<10 U	<10.0 ND
Styrene	U	U	U	U	U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1	<1 U	<1 U	<1.0 ND
1,1,2,2-Tetrachloroethane	U	U	U	U	U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1	<1 U	<1 U	<1.0 ND
Tetrachloroethene	U	U	U	U	U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 Uc	<1 U	<1 U	<1 U	<1	<1 U	<1 U	<1.0 ND
Toluene	U	U	U	U	U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1	<1 U	<1 U	<1.0 ND
1,1,1-Trichloroethane	U	U	U	U	U	1.4	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1	<1 U	<1 U	<1.0 ND
1,1,2-Trichloroethane	U	U	U	U	U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1	<1 U	<1 U	<1.0 ND
Trichloroethene (TCE)	9.4	6.9	39	18	47	33	3.9	24.8	46.5	18.9	34	35.6	43.7	8.4	90.8	12.9	21.2 CH,L1	15.4
Vinyl Chloride (VC)	U	U	12	2	8.2	3.6	<1 U	3.1	8.3	1.6	2.6	6.1	16.4	3.0	2.2	1.2	2.0 CH	5.9 IH
Xylenes (Total)	U	U	U	U	U	<1 U	<3 U	<3 U	<3 U	<3 U	<1 U	<3 U	<3 U	<3 U	<3	<3 U	<3 U	<3.0 ND
cis-1,2-Dichloroethene (DCE)	4.9	4.8	83	16	99	30	2.3	18.5	71.6	14.5	32	50.8	87.2	10.0	16.8	16.8	21.3 CH	18.5
trans-1,2-Dichloroethene	U	U	1.8	U	1.6	<1 U	<1 U	1.2	4.2	<1	<1 U	1.6	2.4	<1 U	<1	<1 U	<1 U	1.0
Total VOCs^ (µg/L)	28.2	23.5	135.8	55.1	159.4	68.0	6.2	47.6	130.6	35.0	68.6	94.1	149.7	21.4	111.0	30.9	44.5	40.8

Notes:
^ - Total VOC's does not include compounds detected in method blanks. MEK found in August 2008 and January 2009 samples is also excluded because ketones are known to be produced by the reaction of potassium permanganate with chlorinated organic compounds.
NS - Compound not analyzed (2003 and 2004 sampling used smaller analyte list).
J - Estimated concentration detected below quantitation limit.
B - The analyte found in an associated blank, as well as the sample.
* - LCS or LCSD exceeds the control limit.
U - Indicates the analyte was analyzed for but not detected.
D - Samples results are obtained from a dilution; the surrogate or matrix spike recoveries reported are calculated from diluted samples.
Q - Outlying QC recoveries were associated with this parameter.
CH - The continuing calibration for this compound is outside of Pace Analytical acceptance limits. The results may be biased high.
L1 - Analyte recovery in the LCS was above QC limits. Results for this analyte in associated samples may be biased high.

VOC - Above Standard.

2003 Data (MW-2 and MW-3 provided by Environmental Products and Services, Inc. 2004 Data (MW-2, MW-3 and MW-7) provided by ERM. All data between 2004 and 2009 provided by S&W Redevelopment of North America, LLC.
Samples collected in 2006 (RI) and March, April, and June 2008 are pre-ISCO injection. Samples collected in August 2008 are during ISCO injection.
Samples collected from January 2009 through February 2012 are post-2008 ISCO injection. Samples collected from September 2012 through the present are post-2012 ISCO injection.

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Bedrock Wells
Summary of Groundwater VOC Analytical Results.

Bedrock Well		MW06-25BR																													
COMPOUND µg/L (ppb)	CLASS GA STANDARD	RI 2006	Mar-08	Jun-08	Jan-09	Apr-09	Sep-09	Dec-09	Mar-10	Jun-10	Sep-10	Dec-10	Mar-11	Feb-12	Sep-12	Mar, Jun, Sep & Dec-13	Jun-14	Dec-14	Mar-15	Jun-15	Sep-15	Dec-15	Mar-16	Jun-16	Sep-16	Sep-17	Sep-18	Sep-19	Sep-20	Sep-21	Sep-22
Acetone	50	U	U		U	U	4.5 J	U	U	U	U	U	5.8 J	U Q	U			4.6	<1 U	<10 U	<10 U	<10 U	<10 U	<10 U	<10 U	<10 U	<10 U	<10 U	<10 U	<10 U	<10.0 ND
Benzene	1	U	U		U	U	U	U	U	U	U	U	U	U	U			U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1.0 ND
Bromodichloromethane	50	U	U		U	U	U	U	U	U	U	U	U	U	U			U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1.0 ND
Bromoform	50	U	U		U	U	U	U	U	U	U	U	U	U	U			U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<4.0 ND
Bromomethane	5	U	U		U	U	U	U	U	U	U	U	U	U	U			U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<4.0 ND
Methyl Ethyl Ketone (MEK) (a.k.a. 2-Butanone)	50	U	U		U	U	U	U	U	U	U	U	U	U	U			U	<1 U	<10 U	<10 U	<10 U	<10 U	<1 U	<10 U	<10 U	<10 U	<10 U	<10 U	<10 U	<10.0 ND
Carbon disulfide	60	U	U		U	U	U	U	U	U	U	U	U	U	U			U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1.0 ND
Carbon tetrachloride	5	U	U		U	U	U	U	U	U	U	U	U	U	U			U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1.0 ND
Chlorobenzene	5	U	U		U	U	U	U	U	U	U	U	U	U	U			U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1.0 ND
Chloroethane	5	U	U		U	U	U	U	U	U	U	U	U	U	U			U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 Uc	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1.0 ND
Chloroform	7	U	U		U	U	U	U	U	U	U	U	U	U	U			U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1.0 ND
Chloromethane	5	U	U		U	U	U	U	U	U	U	U	U	U	U			U	<1 UC	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1.0 ND
Dibromochloromethane	50	U	U		U	U	U	U	U	U	U	U	U	U	U			U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1.0 ND
1,1-Dichloroethane	5	**30**	**28**		**38**	**24**	**35**	**29**	**17**	**29**	**27**	**31**	**23**	**23**	**24 J**			**26 J**	**25**	**22.6**	**19.7**	**18.6**	**22.4**	**20 S**	**21.5**	**17.2**	**17.7**	**16.1**	**14.9**	**19.9 CH**	**18.5**
1,2-Dichloroethane	0.6	U	U		U	U	U	U	U	U	U	U	U	U	U			U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1.0 ND
1,1-Dichloroethene	5	**15**	**20**		**25 J**	**22**	**26**	**22**	**10 J**	**18**	**17**	**20**	**23**	U	U			**13**	**15**	**10.9**	**8.1**	**9.3**	**13.6**	**6.8**	**10.2**	**8.3**	**6.8**	**7.5**	**5.2**	**7.2 CH**	**7.2**
1,2-Dichloropropane	1	U	U	Insufficient	U	U	U	U	U	U	U	U	U	U	U			U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1.0 ND
cis-1,3-Dichloropropene	0.4	U	U	Volume	U	U	U	U	U	U	U	U	U	U	U	No Sample	No Sample	U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1.0 ND
trans-1,3-Dichloropropene	0.4	U	U		U	U	U	U	U	U	U	U	U	U	U	Collected	Collected	U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1.0 ND
Ethylbenzene	5.0	U	U		U	U	U	U	U	U	U	U	U	U	U	Permanganate	Permanganate	U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1.0 ND
2-Hexanone	50	U	U		U	U	U	U	U	U	U	U	U	U	U	Present	Present	U	<1 U	<10 U	<10 U	<10 U	<10 U	<1 U	<10 U	<10 U	<10 U	<10 U	<10 U	<10 U	<10.0 ND
Methylene Chloride	5	U	2.6 JB		U	U	U	4.4 J	U	U	U	2.2 JB	U	U	U			U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	1.1 U	<1 U	<1.0 ND
methyl isobutyl ketone (a.k.a. 4-Methyl-2-pentanone)		U	U		U	U	U	U	U	U	U	U	U	U	U			U	<1 U	<10 U	<10 U	<10 U	<10 U	<1 U	<10 U	<10 U	<10 U	<10 U	<10 U	<10 U	<10.0 ND
Styrene	5	U	U		U	U	U	U	U	U	U	U	U	U	U			U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1.0 ND
1,1,2,2-Tetrachloroethane	5	U	U		U	U	U	U	U	U	U	U	U	U	U			U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1.0 ND
Tetrachloroethene	5	U	U		U	U	U	U	U	U	U	U	U	U	U			U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 Uc	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1.0 ND
Toluene	5	U	U		U	U	U	U	U	U	U	U	U	U	U			U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1.0 ND
1,1,1-Trichloroethane	5	U	**270**		**420**	**280**	**290**	**290**	**180 Q**	**210**	**210**	**280**	**310**	**240**	**200**			**170**	**230 D**	**156 D**	**123**	**168**	**187**	**150**	**150**	**134**	**117**	**119 CH**	**83.2**	**116** CH,L1	**95.8**
1,1,2-Trichloroethane	1	**240**	U		U	U	U	U	U	U	U	U	U	U	U			U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1.0 ND
Trichloroethene (TCE)	5	**57**	**50**		**72**	**73**	**68**	**67**	**46**	**55**	**56**	**68**	**60**	**50**	U			**62**	**54**	**50.5**	**42.9**	**53.1**	**49.2**	**48**	**51.7**	**49.9**	**41.0**	**37.3**	**28.8**	**38.5** CH,L1	**29.8**
Vinyl Chloride (VC)	2	U	**10 J**		**20**	**7.6 J**	**14.0 J**	**11 J**	U Q	**8.3**	**8.0 J**	**8.1 J**	**5.5 J**	U	U			**9.8**	**9**	**7.2**	**8.7**	**8.0**	**5.3**	**4.0**	**6.7**	**5.4**	**6.4**	**6.3**	**4.8**	**4.2** CH	**10.9** IH
Xylenes (Total)	5	U	U		U	U	U	U	U	U	U	U	U	U	U			U	<1 U	<3 U	<3 U	<3 U	<3 U	<1 U	<3 U	<3 U	<3 U	<3 U	<3 U	<3 U	<3.0 ND
cis-1,2-Dichloroethene (DCE)	5	**42**	**45**		**41**	**45**	**34**	**29**	**34**	**37**	**32**	**33**	**38**	**24**	U			**62**	**54**	**51.9**	**57.0**	**47.5**	**49.9**	**45**	**61.1**	**45.4**	**56.9**	**37.5**	**34.0**	**38.2** CH	**32.3**
trans-1,2-Dichloroethene	5	U	0.91 JM		U	U	U	U	U	U	U	U	U	U	U			1.4	1.4	1.4	1.5	2.8	1.8	<1 U	1.1	<1 U	<1 U	<1 U	<1 U	<1 U	<1.0 ND
Total VOCs^ (µg/L)		384.0	423.9	NA	616.0	451.6	471.5	452.4	287	357.3	350	440.1	465.3	337.0	224	NA	NA	348.8	388.4	300.5	260.9	307.3	329.2	273.8	302.3	260.2	245.8	223.7	170.9	224.0	194.5

Notes:
^ - Total VOC's does not include compounds detected in method blanks. MEK found in August 2008 and January 2009 samples is also excluded because ketones are known to be produced by the reaction of potassium permanganate with chlorinated organic compounds.
NS - Compound not analyzed (2003 and 2004 sampling used smaller analyte list).
B - The analyte found in an associated blank, as well as the sample.
J - Estimated concentration detected below quantitation limit.
CH - The continuing calibration for this compound is outside of Pace Analytical acceptance limits. The results may be biased high.
* - LCS or LCSD exceeds the control limit.
L1 - Analyte recovery in the LCS was above QC limits. Results for this analyte in associated samples may be biased high.
U - Indicates the analyte was analyzed for but not detected.
D - Samples results are obtained from a dilution; the surrogate or matrix spike recoveries reported are calculated from diluted samples.
Q - Outlying QC recoveries were associated with this parameter.
VOC - Above Standard.
2003 Data (MW-2 and MW-3 provided by Environmental Products and Services, Inc. 2004 Data (MW-2, MW-3 and MW-7) provided by ERM. All data between 2004 and 2009 provided by S&W Redevelopment of North America, LLC.
Samples collected in 2006 (RI) and March, April, and June 2008 are pre-ISCO injection. Samples collected in August 2008 are during ISCO injection.
Samples collected from January 2009 through February 2012 are post-2008 ISCO injection. Samples collected from September 2012 through the present are post-2012 ISCO injection.

Bedrock Wells
Summary of Groundwater VOC Analytical Results.

Bedrock Well																					
		MW16-7BR																			
COMPOUND µg/L (ppb)	**CLASS GA STANDARD**	**Jan-17**		**Apr-17**		**Jul-17**		**Sep-17**		**Sep-18**		**Sep-19**		**Sep-20**		**Sep-21**		**Sep-22**	
Acetone	50	11.2		<10	U	**54.4**	**B**	**52.1**	**B**	<10		<10	U	<10	U	<10	U	<10.0	ND
Benzene	1	**4.6**		**2.6**		**3.0**		**2.9**		**2.3**		**2.0**		**2.2**		<1	U	<1.0	ND
Bromodichloromethane	50	<1	U	<1	U	<1	U	<1	U	<1	U	<1	U	<1	U	<1	U	<1.0	ND
Bromoform	50	<1	U	<1	U	<1	U	<1	U	<1	U	<1	U	<1	U	<1	U	<4.0	ND
Bromomethane	5	<1	U	<1	U	<1	U	<1	U	<1	U	<1	U	<1	U	<1	U	<4.0	ND
Methyl Ethyl Ketone (MEK) (a.k.a. 2-Butanone)	50	<10	U	<10	U	<10	U	<10	U	<10	U	<10	U	<10	U	<10	U	<10.0	ND
Carbon disulfide	60	<1	U	<1	U	<1	U	<1	U	<1	U	<1	U	<1	U	<1	U	<1.0	ND
Carbon tetrachloride	5	<1	U	<1	U	<1	U	<1	U	<1	U	<1	U	<1	U	<1	U	<1.0	ND
Chlorobenzene	5	<1	U	<1	U	<1	U	<1	U	<1	U	<1	U	<1	U	<1	U	<1.0	ND
Chloroethane	5	<1	U	<1	U	<1	U	<1	U	<1	U	<1	U	<1	U	<1	U	<1.0	ND
Chloroform	7	1.0		<1	U	<1	U	<1	U	<1	U	<1	U	<1	U	<1	U	<1.0	ND
Chloromethane	5	<1	U	<1	U	<1	U	<1	U	<1	U	<1	U	<1	U	<1	U	<1.0	ND
Dibromochloromethane	50	<1	U	<1	U	<1	U	<1	U	<1	U	<1	U	<1	U	<1	U	<1.0	ND
1,1-Dichloroethane	5	1.8		1.2		<1	U	<1	U	<1	U	<1	U	<1	U	<1	U	<1.0	ND
1,2-Dichloroethane	0.6	<1	U	<1	U	<1	U	<1	U	<1	U	<1	U	<1	U	<1	U	<1.0	ND
1,1-Dichloroethene	5	**54.6**		**28.2**		**19.4**		**45.2**		**12.1**		3.9		3.5		<1	U	<1.0	ND
1,2-Dichloropropane	1	<1	U	<1	U	<1	U	<1	U	<1	U	<1	U	<1	U	<1	U	<1.0	ND
cis-1,3-Dichloropropene	0.4	<1	U	<1	U	<1	U	<1	U	<1	U	<1	U	<1	U	<1	U	<1.0	ND
trans-1,3-Dichloropropene	0.4	<1	U	<1	U	<1	U	<1	U	<1	U	<1	U	<1	U	<1	U	<1.0	ND
Ethylbenzene	5	<1	U	<1	U	<1	U	<1	U	<1	U	<1	U	<1	U	<1	U	<1.0	ND
2-Hexanone	50	<10	U	<10	U	<10	U	<10	U	<10	U	<10	U	<10	U	<10	U	<10.0	ND
Methylene Chloride	5	<1	U	<1	U	<1	U	<1	U	<1	U	<1	U	<1	U	<1	U	<1.0	ND
methyl isobutyl ketone (a.k.a. 4-Methyl-2-pentanone)		<10	U	<10	U	<10	U	<10	U	<10	U	<10	U	<10	U	<10	U	<10.0	ND
Styrene	5	<1	U	<1	U	<1	U	<1	U	<1	U	<1	U	<1	U	<1	U	<1.0	ND
1,1,2,2-Tetrachloroethane	5	<1	U	<1	U	<1	U	<1	U	<1	U	<1	U	<1	U	<1	U	<1.0	ND
Tetrachloroethene	5	<1	U	<1	U	<1	U	<1	U	<1	U	<1	U	<1	U	<1	U	<1.0	ND
Toluene	5	**15.1**		**8.2**		**5.0**		**9.5**		1.9		<1	U	<1	U	<1	U	<1.0	ND
1,1,1-Trichloroethane	5	<1	U	<1	U	<1	U	<1	U	<1	U	<1	U	<1	U	<1	U	<1.0	ND
1,1,2-Trichloroethane	1	<1	U	<1	U	<1	U	<1	U	<1	U	<1	U	<1	U	<1	U	<1.0	ND
Trichloroethene (TCE)	5	**3,730**		**3,130**		**1,750**		**3,680**		**1,050**		**940**		**1,240**		2.3	H1	<1.0	ND
Vinyl Chloride (VC)	2	**4,000**		**1,350**		**687**		**1,720**		**363**		**122**		**66.2**		<1	U	1.9	IH
Xylenes (Total)	5	<3	U	<3	U	<3	U	<3	U	<3	U	<3	U	<3	U	<3	U	<3.0	ND
cis-1,2-Dichloroethene (DCE)	5	**18,100**		**9,930**		**9,410**		**13,200**		**7,890**		**6,390**		**6,620**		<1	U	3.4	
trans-1,2-Dichloroethene	5	**639**		**350**		**305**		**415**		**204**		**133**		**141**		<1	U	<1.0	ND
Total VOCs^ (µg/L)		26,557.3		14,800.2		12,179.4		19,072.6		9,523.3		7,590.9		8,072.9		2.3		5.3	

Notes:
^ - Total VOC's does not include compounds detected in method blanks.
NA - Data not available.
J - Estimated concentration detected below qua
B - The analyte found in an associated blank, as well as the sample.
U - Indicates the analyte was analyzed for but not detected.
H1 - Analysis conducted outside of EPA method holding time.
VOC - Above Standard.

Bedrock Wells
Summary of Groundwater VOC Analytical Results.

Bedrock Well			**IOW-1**																																			
COMPOUND µg/L (ppb)	**CLASS GA Standard**	**RI 2006**	**Jun-08**	**Aug-08**	**Jan-09**	**Apr-09**	**Sep-09**	**Dec-09**	**Mar-10**	**Jun-10**	**Sep-10**	**Dec-10**	**Mar-11**	**Feb-12**	**Sep-12**	**Mar-13**	**Jun-13**	**Sep-13**	**Dec-13**	**Jun-14**	**Dec-14**	**Mar-15**	**Jun-15**	**Sep-15**	**Dec-15**	**Mar-16**	**Jun-16**	**Sep-16**	**Sep-17**	**Sep-18**	**Sep-19**	**Sep-20**	**Sep-21**	**Sep-22**
Acetone	50		35.0 B	**120 JB**	U	U	6.1 J	U	U	U	U	U	U	U Q	U	U	U	U	U	U	4.5	<1 U	<10 U	<10 U	<10 U	<10 U	<10 U	<10 U	**71.3 B**	<10 U	<10 U	<10 U	<10 U	<10.0 ND
Benzene	1		U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1.0 ND
Bromodichloromethane	50		U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1.0 ND
Bromoform	50		U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<4.0 ND
Bromomethane	5		U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<4.0 ND
Methyl Ethyl Ketone (MEK) (a.k.a. 2-Butanone)	50		U	U	U	U	U	U	U Q	U	U	U	U	U	U	U	U	U	U	U	U	<1 U	<10 U	<10 U	<10 U	<10 U	<1 U	<10 U	<10 U	<10 U	<10 U	<10 U	<10 U	<10.0 ND
Carbon disulfide	60		U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 Uc	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1.0 ND
Carbon tetrachloride	5		U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1.0 ND
Chlorobenzene	5		U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1.0 ND
Chloroethane	5		U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 Uc	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1.0 ND
Chloroform	7		U	U	U	U	1.5 J	U	U	U	U	U	U	U	U	U	U	U	U	U	U	1.3	<1 U	1.8	1.7	<1 U	1.5	1.5	1.3 B	<1 U	1.1	1.3	<1 U	<1.0 ND
Chloromethane	5		U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	<1 UC	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1.0 ND
Dibromochloromethane	50		U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1.0 ND
1,1-Dichloroethane	5		U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	<1 U	<1 U	1.2	<1 U	<1 U	1.2 S	1.1	<1 U	1.3	1.0 CH	1.1	1.1 H1	1.2
1,2-Dichloroethane	0.6		U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1.0 ND
1,1-Dichloroethene	5		U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	<1 U	<1 U	1.2	<1 U	<1 U	<1 U	<1 U	<1 U	1.5	<1 U	1.0 U	<1 U	1.5
1,2-Dichloropropane	1	Not Yet	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1.0 ND
cis-1,3-Dichloropropene	0.4	Installed	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1.0 ND
trans-1,3-Dichloropropene	0.4		U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1.0 ND
Ethylbenzene	5.0		U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1.0 ND
2-Hexanone	50		U	U	U	U	U	U	U Q	U	U	U	U	U	U	U	U	U	U	U	U	<1 U	<10 U	<10 U	<10 U	<10 U	<1 U	<10 U	<10 U	<10 U	<10 U	<10 U	<10 U	<10.0 ND
Methylene Chloride	5		**6.4 J**	**34.0 JB**	U	**41.0 JB**	U	**54.0 J**	U	**10 JB**	**57 JB**	**15 JB**	U	U	U	U	U	U	U	U	U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	1.6	1.7	<1 U	<1.0 ND
methyl isobutyl ketone (a.k.a. 4-Methyl-2-pentanone)			U	U	U	U	U	U	U Q	U	U	U	U	U	U	U	U	U	U	U	U	<1 U	<10 U	<10 U	<10 U	<10 U	<1 U	<10 U	<10 U	<10 U	<10 U	<10 U	<10 U	<10.0 ND
Styrene	5		U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1.0 ND
1,1,2,2-Tetrachloroethane	5		U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1.0 ND
Tetrachloroethene	5		U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 Uc	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1.0 ND
Toluene	5		U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1.0 ND
1,1,1-Trichloroethane	5		U	U	U	U	2.1 J	U	U	U	U	U	U	U	U	U	U	U	U	U	U	2.4	3.6	3.2	4.9	4.5	2.3	4.3	4.7	4.0	**5.2**	3.4 CH	3.9	3.8 H1,L1	2.6
1,1,2-Trichloroethane	1		U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1.0 ND
Trichloroethene (TCE)	5		**310**	**2,400**	**2,700**	**2,800**	**130**	**2,400**	**45**	**800**	**2,700**	**1,300**	**32**	**450**	**62**	**2,100**	**200**	**440 D**	**2,200**	**350**	**600 D**	**990 D**	**1,420**	**2,720**	**1,130**	**934**	**2,700 D**	**1,770**	**2,120**	**2,900**	**1,880**	**2,430**	**1,960** H1	**2,550**
Vinyl Chloride (VC)	2		**2.1 J**	U	U	**35 JB**	U	U	U Q	U	U	U	U	U	U	U	U	U	U	U	U	<1 U	1.2	3.0	<1 U	<1 U	1.5	1.2	1.4	**6.1**	**4.1**	**3.3**	1.5 H1	**11.8** IH
Xylenes (Total)	5		U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	<1 U	<3 U	<3 U	<3 U	<3 U	<1 U	<3 U	<3 U	<3 U	<3 U	<3 U	<3 U	<3.0 ND
cis-1,2-Dichloroethene (DCE)	5		**18**	**70J**	**250 J**	**470**	4.8 J	**200 J**	2 J	**22 J**	**48 JB**	**29 JB**	1.1 J	U	3.2 J	**41**	U	**13**	**78**	U	**12**	**35**	**47.8**	**86.0**	**31.9**	**27.4**	**96**	**71.7**	**73.1**	**117**	**95.3**	**82.6**	**58.6** H1	**140**
trans-1,2-Dichloroethene	5		U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	<1 U	<1 U	2.4	1.4	<1 U	2.2	1.5	1.4	1.8	1.7	1.5	<1 U	2.4
Total VOCs^ (µg/L)		NA	337	2,470	2,950	3,305	145	2,654	47	822	2,748	1,329	33.1	450.0	65.2	2,141	200	453	2,278	350	618.9	1,029.9	1,472.2	2,820.5	1,169.5	963.7	2,806.7	1,851.7	2,201.2	3,032.9	1,986.6	2,523.4	2,025.0	2,709.5

Notes:
^ - Total VOC's does not include compounds detected in method blanks. MEK found in August 2008 and January 2009 samples is also excluded because ketones are known to be produced by the reaction of potassium permanganate with chlorinated organic compounds.
NS - Compound not analyzed (2003 and 2004 sampling used smaller analyte list).
J - Estimated concentration detected below quantitation limit.
B - The analyte found in an associated blank, as well as the sample.
* - LCS or LCSD exceeds the control limit.
U - Indicates the analyte was analyzed for but not detected.
D - Samples results are obtained from a dilution; the surrogate or matrix spike recoveries reported are calculated from diluted samples.
Q - Outlying QC recoveries were associated with this parameter.
H1 - Analysis conducted outside of EPA method holding time.
L1 - Analyte recovery in the LCS was above QC limits. Results for this analyte in associated samples may be biased high.
VOC - Above Standard.
2003 Data (MW-2 and MW-3 provided by Environmental Products and Services, Inc. 2004 Data (MW-2, MW-3 and MW-7) provided by ERM. All data between 2004 and 2009 provided by S&W Redevelopment of North America, LLC.
Samples collected in 2006 (RI) and March, April, and June 2008 are pre-ISCO injection. Samples collected in August 2008 are during ISCO injection.
Samples collected from January 2009 through February 2012 are post-2008 ISCO injection. Samples collected from September 2012 through the present are post-2012 ISCO injection.

Bedrock Wells
Summary of Groundwater VOC Analytical Results.

Bedrock Well

COMPOUND µg/L (ppb)	CLASS GA Standard	RI 2006	IOW-3 Jun-08	Aug-08	Jan-09	Apr-09	Sep-09	Dec-09	Mar-10	Jun-10	Sep-10	Dec-10	Mar-11	Feb-12	Sep-12	Mar-13	Jun-13	Sep-13	Dec-13	Jun-14	Dec-14	Mar-15	Jun-15	Sep-15	Dec-15	Mar-16	Jun-16	Sep-16	Sep-17	Sep-18	Sep-19	Sep-20	Sep-21	Sep-22
Acetone	50		66.0 JB	68.0 JB	U	U	U	U	U	U	41 JB	U	U	U Q	U	U	U	U	U	U	4.2	<1 U	<10 U	<10 U	<10 U	<10 U	<10 U	<10 U	48.8 B	<10 U	<10 U	<10 U	<10 U	<10.0 ND
Benzene	1		U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1.0 ND
Bromodichloromethane	50		U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1.0 ND
Bromoform	50		U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<4.0 ND
Bromomethane	5		U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<4.0 ND
Methyl Ethyl Ketone (MEK) (a.k.a. 2-Butanone)	50		U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	<1 U	<10 U	<10 U	<10 U	<10 U	<1 U	<10 U	<10 U	<10 U	<10 U	<10 U	<10 U	<10.0 ND
Carbon disulfide	60		U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 Uc	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1.0 ND
Carbon tetrachloride	5		U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1.0 ND
Chlorobenzene	5		U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1.0 ND
Chloroethane	5		U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 Uc	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1.0 ND
Chloroform	7		U	10.0 J	U	U	U	U	U	U	U	U	U	86 J	U	U	U	U	U	U	U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1.0 ND
Chloromethane	5		U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	<1 UC	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1.0 ND
Dibromochloromethane	50		U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1.0 ND
1,1-Dichloroethane	5		3.3 J	U	U	U	U	U	U	U	U	U	U	U	3.1 J	U	U	U	U	U	2.2	2.4	2.7	2.3	1.9	1.8	2.3 S	2.1	<1 U	1.2	1.6	2.3	2.1 H1	1.4
1,2-Dichloroethane	0.6		U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1.0 ND
1,1-Dichloroethene	5		U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	2.6	4.7	3.4	4.2	3.1	3.2	4.0	4.1	4.5	3.3	3.9	4.6 H1	3.3
1,2-Dichloropropane	1	Not Yet	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1.0 ND
cis-1,3-Dichloropropene	0.4	Installed	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1.0 ND
trans-1,3-Dichloropropene	0.4		U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1.0 ND
Ethylbenzene	5.0		U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1.0 ND
2-Hexanone	50		U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	<1 U	<10 U	<10 U	<10 U	<10 U	<1 U	<10 U	<10 U	<10 U	<10 U	<10 U	<10 U	<10.0 ND
Methylene Chloride	5		7.1 JB	18 JB	U	**5.2 J**	**36.0 JB**	U	U	**10 JB**	**27 JB**	**48 JB**	**7.3 JB**	U	U	U	U	U	U	U	U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	1.6	1.7	<1 U	<1.0 ND
methyl isobutyl ketone (a.k.a. 4-Methyl-2-pentanone)			U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	<1 U	<10 U	<10 U	<10 U	<10 U	<1 U	<10 U	<10 U	<10 U	<10 U	<10 U	<10 U	<10.0 ND
Styrene	5		U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1.0 ND
1,1,2,2-Tetrachloroethane	5		U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1.0 ND
Tetrachloroethene	5		U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 Uc	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1.0 ND
Toluene	5		U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1.0 ND
1,1,1-Trichloroethane	5		U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1.0 ND
1,1,2-Trichloroethane	1		U	U	U	U	U	U	U	**14 J**	U	U	U	U	U	U	U	U	U	U	U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1.0 ND
Trichloroethene (TCE)	5		**650**	**1,300**	**1,200**	**770**	**1,000**	**1200**	**480**	**900**	**1,300**	**1,800**	**960**	**1,100**	U	**720**	**630**	**530**	**610**	**740**	**760 D**	**560 D**	**612**	**632**	**638**	**685**	**930 D**	**622**	**740**	**671**	**541**	**693**	**642** H1	**446**
Vinyl Chloride (VC)	2		**7.7 J**	U	U	**6.4 J**	U	U	U	U	U	U	U	U	U	U	U	U	U	U	**11**	**4.6**	**2.3**	**2.1**	**7.0**	**3.3**	**2.2**	**9.7**	**3.0**	**56.5**	**35.4**	**38.6**	**39.1** H1,L1	**39.1** IH
Xylenes (Total)	5		U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	<3 U	<3 U	<3 U	<3 U	<3 U	<1 U	<3 U	<3 U	<3 U	<3 U	<3 U	<3 U	<3.0 ND
cis-1,2-Dichloroethene (DCE)	5		**53**	**98**	**91.0 J**	**55**	**64.0 JB**	**91.0 J**	**39**	**63**	**110**	**120**	**61**	U	U	**220**	**350**	**450**	**380**	**270**	**300 D**	**170**	**335**	**356**	**257**	**193**	**230 D**	**363**	**276**	**340**	**276**	**239**	**251** H1	**204**
trans-1,2-Dichloroethene	5		2.9 J	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	2.8	3.4	**5.6**	**7.0**	**8.8**	4.6	4.0	3.9	4.4	4.0	3.7	3.6	4.2 H1	3.8
Total VOCs^ (µg/L)		NA	716.9	1,408	1,291	831	1,100	1,291	519	977	1,410	1,920	1,021	1,186	3.1	940	980	980	990	1,010	1,080.2	743.0	962.3	1,002.8	916.9	890.8	1,171.7	1,004.7	1,027.5	1,077.2	861.0	980.4	943.0	697.6

Notes:
^ - Total VOC's does not include compounds detected in method blanks. MEK found in August 2008 and January 2009 samples is also excluded because ketones are known to be produced by the reaction of potassium permanganate with chlorinated organic compounds.
NS - Compound not analyzed (2003 and 2004 sampling used smaller analyte list).
J - Estimated concentration detected below quantitation limit.
B - The analyte found in an associated blank, as well as the sample.
* - LCS or LCSD exceeds the control limit.
U - Indicates the analyte was analyzed for but not detected.
D - Samples results are obtained from a dilution; the surrogate or matrix spike recoveries reported are calculated from diluted samples.
Q - Outlying QC recoveries were associated with this parameter.
H1 - Analysis conducted outside of EPA method holding time.
L1 - Analyte recovery in the LCS was above QC limits. Results for this analyte in associated samples may be biased high.
VOC - Above Standard.
2003 Data (MW-2 and MW-3 provided by Environmental Products and Services, Inc. 2004 Data (MW-2, MW-3 and MW-7) provided by ERM. All data between 2004 and 2009 provided by S&W Redevelopment of North America, LLC.
Samples collected in 2006 (RI) and March, April, and June 2008 are pre-ISCO injection. Samples collected in August 2008 are during ISCO injection.
Samples collected from January 2009 through February 2012 are post-2008 ISCO injection. Samples collected from September 2012 through the present are post-2012 ISCO injection.

Table No. 4:
Summary of Geochemical Parameters

Geochemical Parameters									
Well#	**Date**	**Temperature (°C)**	**Conductivity (mS/cm)**	**DO (mg/L)**	**pH**	**ORP (mV)**	**Turbidity (NTU)**	**Ethene (µg/L)**	
MW-2	09/21/2017	16.69	0.963	2.73	7.09	238.3	Turbidity added Sept. 2020	NS	
	06/26/2018	15.17	1.198	0.87	7.16	218.0		2.8	
	09/27/2018	16.61	1.059	4.23	7.51	244.1		<1.0	U
	09/17/2019	18.03	0.831	0.61	6.63	112.2		10.0	
	09/28/2020	21.40	1.254	1.16	7.19	236.4	1.25	15.0	
	09/20/2021	19.5	1.532	1.55	7.05	212.2	1.02	<1.0	ND
	09/20/2022	20.54	1.47	0.00	7.27	408.0	0.0	6.6	
MW06-25OB	09/20/2017	IV	IV	IV	IV	IV	Turbidity added Sept. 2020	NS	
	06/26/2018	IV	IV	IV	IV	IV		IV	
	09/26/2018	IV	IV	IV	IV	IV		<1.0	U
	09/17/2019	IV	IV	IV	IV	IV		IV	
	09/28/2020	IV	IV	IV	IV	IV	IV	<1.0	ND
	09/20/2021	17.3	0.448	1.33	6.13	85.5	354.3	<1.0	ND
	09/20/2022	IV	IV	IV	IV	IV	IV	IV	
IOW-4	09/21/2017	20.92	5.922	2.25	6.79	140.2	Turbidity added Sept. 2020	NS	
	06/26/2018	19.11	11.460	1.45	6.53	199.1		0.034	J
	09/27/2018	21.19	4.792	1.17	6.81	104.2		<1.0	U
	09/18/2019	21.67	4.272	0.71	7.69	96.0		0.14	J
	09/29/2020	19.50	5.424	0.89	8.14	202.3	11.28	<1.0	U
	09/21/2021	21.7	2.386	0.47	8.35	101.2	48.42	<1.0	ND
	09/20/2022	28.62	2.93	0.00	8.36	366.0	190.0	<1.0	ND
MW06-23BR	09/21/2017	16.92	1.069	2.24	7.30	155.9	Turbidity added Sept. 2020	NS	
	06/26/2018	16.25	2.124	1.69	6.87	235.4		0.056	J
	09/27/2018	16.66	1.660	2.29	7.09	260.0		<1.0	U
	09/17/2019	18.09	1.352	1.22	6.62	136.1		0.53	
	09/28/2020	20.20	1.739	1.14	7.35	232.7	24.13	6.8	
	09/20/2021	19.1	1.763	0.49	7.22	256.5	16.44	3.8	
	09/20/2022	20.48	1.82	0.00	7.38	419.0	11.1	6.0	
MW06-24BR	09/21/2017	17.88	3.999	3.80	7.35	130.8	Turbidity added Sept. 2020	NS	
	06/27/2018	16.16	0.721	5.11	8.05	145.3		0.068	J
	09/27/2018	18.15	4.839	0.78	7.75	-153.5		<1.0	U
	09/18/2019	18.10	6.982	5.78	7.51	113.4		0.36	
	09/29/2020	17.60	6.712	1.21	9.33	-30.8	9.68	1.0	
	09/21/2021	18.7	8.750	1.65	8.98	110.6	40.91	<1.0	ND
	09/21/2022	23.83	7.13	0.00	8.91	118.0	33.2	<1.0	ND
MW06-25BR	09/21/2017	13.06	2.011	3.14	6.99	130.1	Turbidity added Sept. 2020	NS	
	06/26/2018	10.83	3.279	5.03	6.84	134.3		0.23	
	09/26/2018	14.79	3.123	1.10	6.84	184.5		<1.0	U
	09/17/2019	12.18	2.479	1.36	5.74	137.1		0.48	
	09/28/2020	14.30	2.714	2.55	6.89	64.8	2.26	<1.0	U
	09/20/2021	14.0	3.041	2.61	6.89	107.2	2.68	<1.0	ND
	09/20/2022	15.36	2.62	0.00	6.98	303.0	0.0	<1.0	ND
MW16-7BR	09/21/2017	18.97	2.101	2.08	7.44	121.8	Turbidity added Sept. 2020	NS	
	06/27/2018	16.93	2.740	0.61	7.34	139.5		0.71	
	09/27/2018	18.89	3.172	0.99	7.34	-59.4		5.5	
	09/18/2019	19.86	2.374	1.15	7.06	7.0		2.1	
	09/28/2020	21.40	2.945	0.83	7.21	156.1	6.94	2.0	
	09/21/2021	19.6	3.048	9.40	8.23	229.1	10.82	<1.0	ND
	09/21/2022	24.03	3.60	8.41	8.29	403.0	0.0	<1.0	ND
IOW-1	09/21/2017	18.10	2.427	7.27	7.18	185.6	Turbidity added Sept. 2020	NS	
	06/26/2018	17.08	5.000	3.72	6.97	226.2		0.12	
	09/27/2018	17.68	4.184	3.05	7.14	242.6		<1.0	U
	09/18/2019	16.30	3.258	2.29	6.95	134.6		0.23	
	09/29/2020	20.80	3.086	2.67	7.18	276.0	2.42	<1.0	U
	09/21/2021	17.8	3.686	2.76	7.18	252.4	9.18	<1.0	ND
	09/20/2022	20.17	3.36	0.22	7.32	415.0	0.0	<1.0	ND
IOW-3	09/21/2017	18.39	3.463	4.67	7.06	130.6	Turbidity added Sept. 2020	NS	
	06/26/2018	17.48	4.589	0.63	6.68	201.5		2.0	
	09/27/2018	18.10	4.660	0.39	6.97	58.4		<1.0	U
	09/18/2019	19.20	4.070	0.27	6.73	92.0		0.83	
	09/29/2020	17.80	4.121	0.83	6.96	169.4	2.34	1.6	
	09/21/2021	18.8	5.364	0.28	6.87	309.1	1.12	1.5	
	09/21/2022	24.52	6.68	0.00	7.05	428.0	0.1	1.9	
	2022 Min.	15.36	1.470	0.00	6.98	118.00	0.00	<1.0	U
	2022 Max.	28.62	7.130	9.40	8.91	428.00	190.00	6.6	
	2022 Avg.	22.19	3.701	1.08	7.70	357.50	29.30	4.83	
	Overall Min.	10.83	0.45	0.00	5.74	-153.50	0.0	<1.0	U
	Overall Max.	28.62	11.46	9.40	9.33	428.00	354.3	15.00	
	Overall Avg.	18.46	3.40	2.02	7.28	180.22	31.2	2.68	

Notes:
All field parameters measured with a YSI 650 Display equipped with a YSI Pro DDS, YSI 600 XLM or YSI 556 multi-parameter probe or similar equipment.
2017: Dedicated bailer used to purge/sample wells & field parameters collected by inserting YSI into well.
2018 to present: Low-flow techniques used to purge/sample wells & field parameters collected using YSI with a flow cell.
J = Estimated concentration, greater than Method Detection Limit (MDL) and less than reporting limit (RL)/practical quantitation limit (PQL).
IV = Insufficient Volum NS = Not Sampled U = Analyte was analyzed for but not detected NC = Not Collected
See analytical report for additional qualifiers and complete results. ND = Not detected at or above the adjusted reportign limit.
September 2020 - Turbidity added to groundwater monitoring program.
September 2021 - Alkalinity, Chloride, Iron, Nitrate and Sulfate removed from groundwater monitoring program.

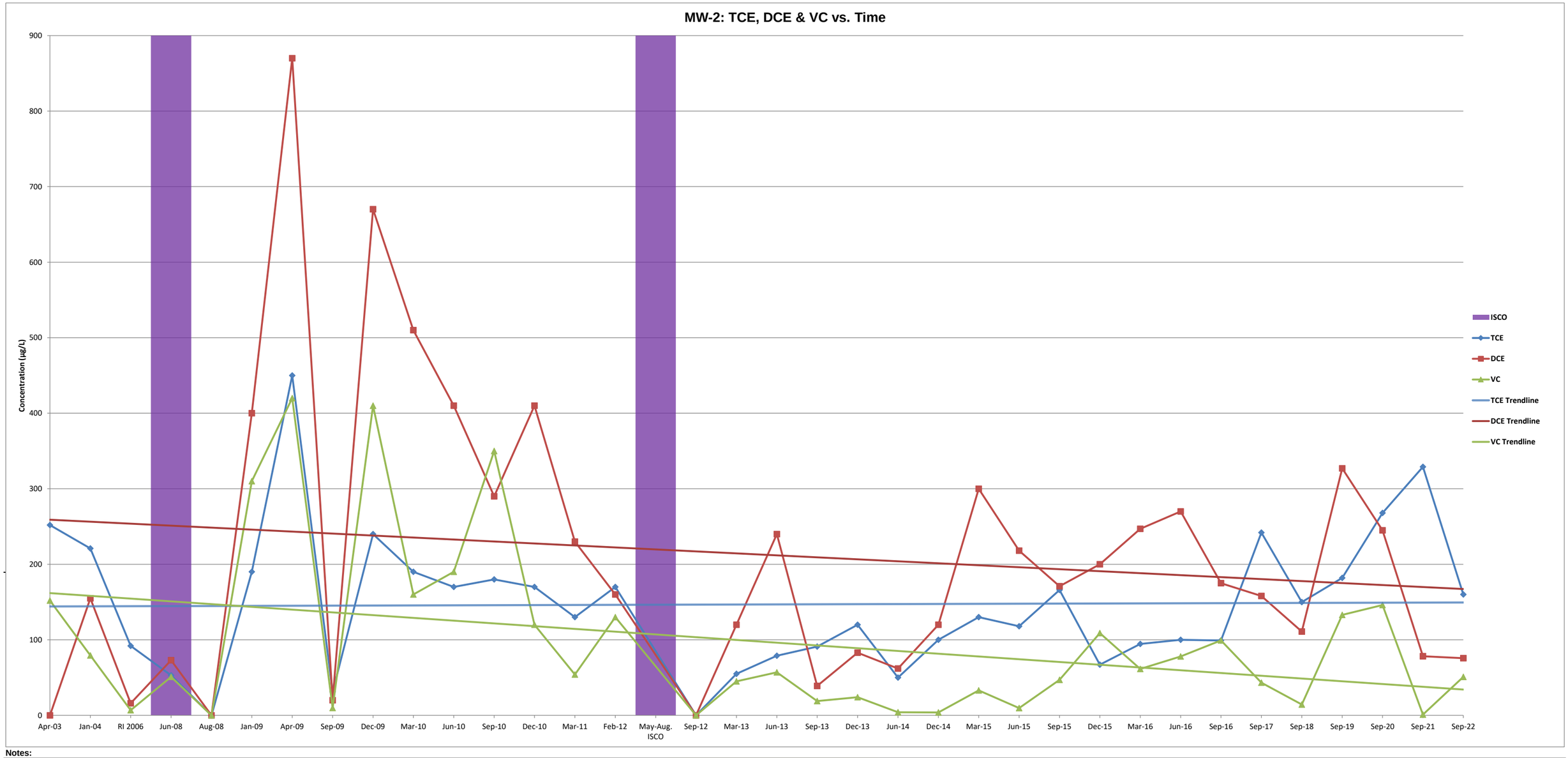
APPENDIX D

CHARTS

Chart No. 1
MW-2: Overburden Well
TCE, DCE and VC Concentrations in Groundwater

GeoLogic

MW-2	Apr-03	Jan-04	RI 2006	Jun-08	Aug-08	Jan-09	Apr-09	Sep-09	Dec-09	Mar-10	Jun-10	Sep-10	Dec-10	Mar-11	Feb-12	Sep-12	Mar-13	Jun-13	Sep-13	Dec-13	Jun-14	Dec-14	Mar-15	Jun-15	Sep-15	Dec-15	Mar-16	Jun-16	Sep-16	Sep-17	Sep-18	Sep-19	Sep-20	Sep-21	Sep-22
TCE	252	221	92	53	U	190	450	31	240	190	170	180	170	130	170	U	55	79	91	120	50	100	130	118	166	67.1	94.5	100	99.1	242	150	182	268	329	160
DCE	NS	155	16	73	U	400	870	20	670	510	410	290	410	230	160	U	120	240	39	83	62	120	300	218	171	200	247	270	175	158	111	327	245	78.3	75.7
VC	152	79.4	6.8	51	U	310	420	9.8	410	160	190	350	120	54	130	U	45	57	19	24	4.1	3.9	33	9.7	47	109	61.4	78	99.3	43.3	14.3	133	146	1.1	51
cVOCs (µg/L)	**404**	**455.4**	**114.8**	**177**	**U**	**900**	**1,740**	**60.8**	**1,320**	**860**	**770**	**820**	**700**	**414**	**460**	**U**	**220**	**376**	**149**	**227**	**116.1**	**223.9**	**463**	**345.7**	**384**	**376.1**	**402.9**	**448.0**	**373.4**	**443.3**	**275.3**	**642.0**	**659.0**	**408.4**	**286.7**



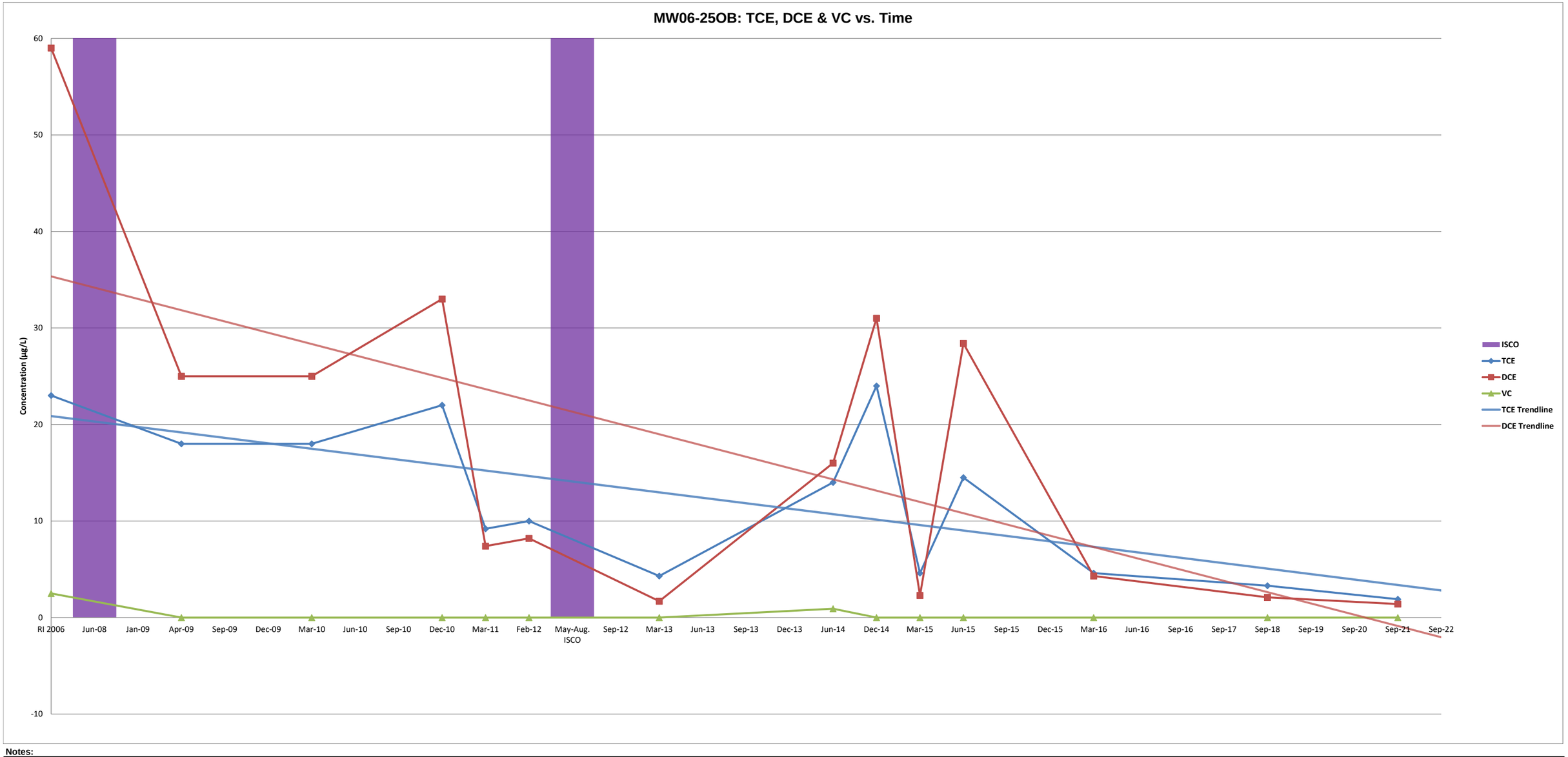
Notes:

TCE = Trichloroethene DCE = cis-1,2-Dichloroethene VC = Vinyl Chloride U = Not detected at the reporting limit. Highlighted cell indicates peak concentration.

Chart No. 2
MWO6-25OB: Overburden Well
TCE, DCE and VC Concentrations in Groundwater

GeoLogic

MW06-25OB	RI 2006	Jun-08	Jan-09	Apr-09	Sep-09	Dec-09	Mar-10	Jun-10	Sep-10	Dec-10	Mar-11	Feb-12	Sep-12	Mar-13	Jun-13	Sep-13	Dec-13	Jun-14	Dec-14	Mar-15	Jun-15	Sep-15	Dec-15	Mar-16	Jun-16	Sep-16	Sep-17	Sep-18	Sep-19	Sep-20	Sep-21	Sep-22
TCE	23			18			18			22	9.2	10		4.3				14	24	4.6	14.5			4.6				3.3			1.9	
DCE	59			25			25			33	7.4	8.2		1.7				16	31	2.3	28.4			4.3				2.1			1.4	
VC	2.5			U			U			U	U	U		U				0.92	U	U	U			U				U			U	
cVOCs (µg/L)	84.5	Dry	Dry	43.0	Dry	Dry	43.0	Dry	Dry	55.0	16.6	18.2	Dry	6.0	Dry	Dry	Dry	30.92	55.0	6.9	42.9	Dry	Dry	8.9	Dry	Dry	Dry	5.4	Dry	Dry	3.3	Dry



Notes:

TCE = Trichloroethene DCE = cis-1,2-Dichloroethene VC = Vinyl Chloride U = Not detected at the reporting limit. Highlighted cell indicates peak concentration.

Chart No. 3
IOW-4: Overburden Well
TCE, DCE and VC Concentrations in Groundwater

GeoLogic

IOW-4	Jun-08	Aug-08	Jan-09	Apr-09	Sep-09	Dec-09	Mar-10	Jun-10	Sep-10	Dec-10	Mar-11	Feb-12	Sep-12	Mar-13	Jun-13	Sep-13	Dec-13	Jun-14	Dec-14	Mar-15	Jun-15	Sep-15	Dec-15	Mar-16	Jun-16	Sep-16	Sep-17	Sep-18	Sep-19	Sep-20	Sep-21	Sep-22
TCE	120	U	43	34	63	52	16	31	89	20	19	20	U	U	26	23	28	29	44	62	50	128	18.5	33.2	69.0	110	64	43.5	34.6	21.7	16.7	12.5
DCE	25	U	3.1	3.2	4	3.1	U	2.1	5.6	1.1	1.2	U	U	14	U	1.4	2.4	1.7	7.3	23	10.3	15.8	1.9	5.4	9.9	17	15.4	5.5	11.1	3.3	1.7	U
VC	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	3.9	U	U	U	U	U	U	U	U	U	U	U	U
cVOCs (µg/L)	**145**	**U**	**46.1**	**37**	**67**	**55**	**16**	**33.1**	**94.6**	**21.1**	**20.2**	**20**	**U**	**14**	**26**	**24.4**	**30.4**	**30.7**	**51.3**	**88.9**	**60.3**	**143.8**	**20.4**	**38.6**	**78.9**	**127.0**	**79.8**	**49.0**	**45.7**	**25.0**	**18.4**	**12.5**

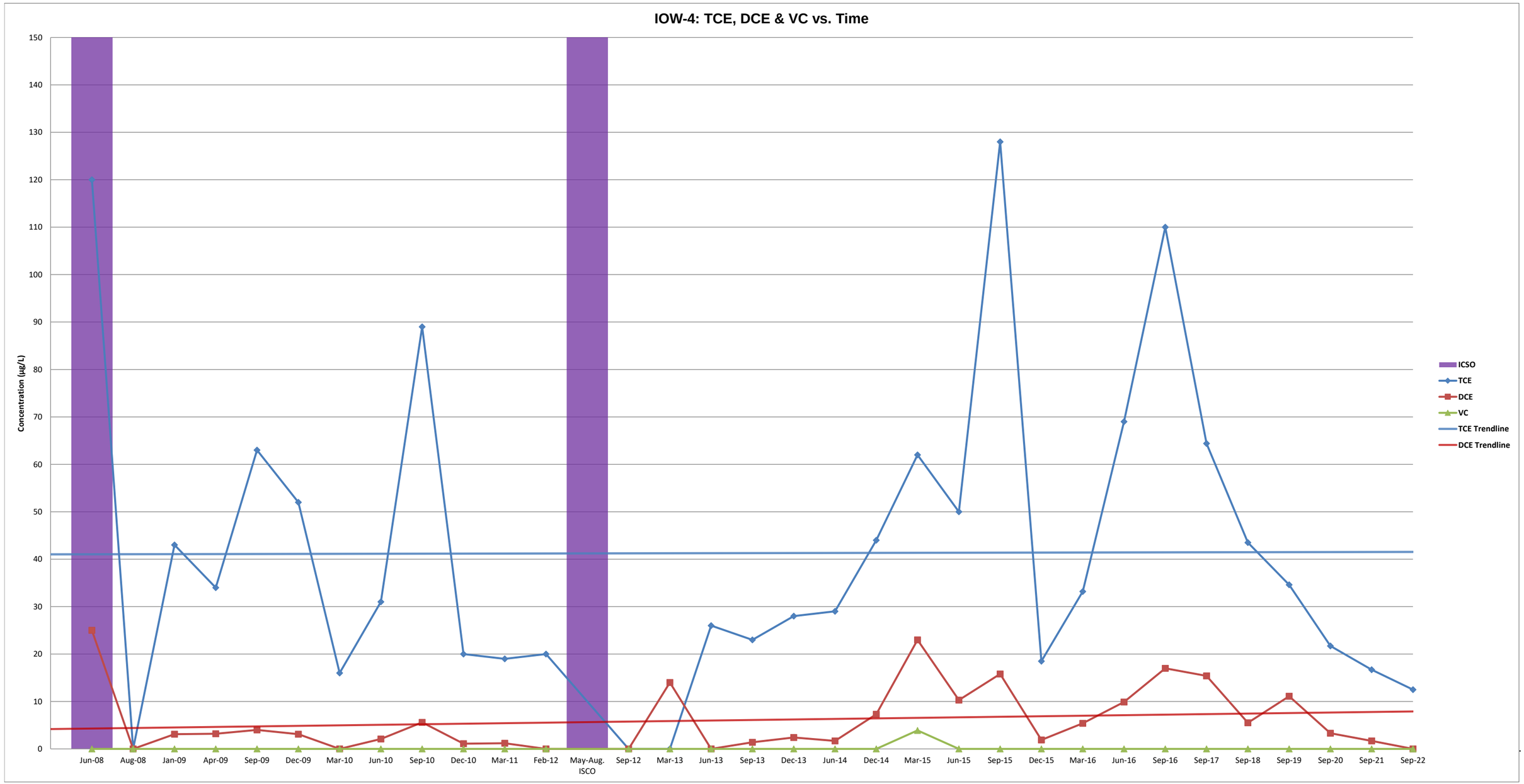
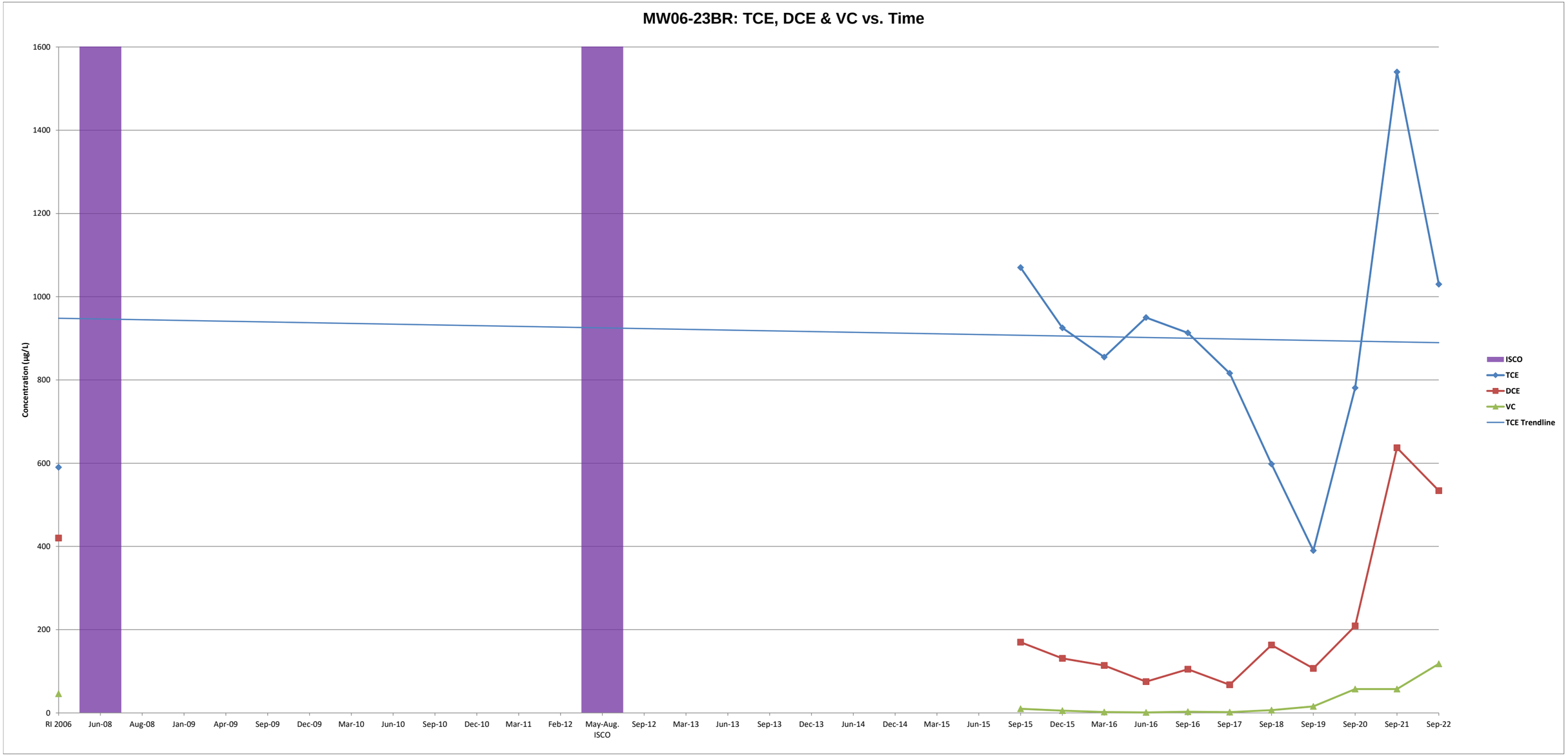


Chart No. 4
MW06-23BR: Bedrock Well
TCE, DCE and VC Concentrations in Groundwater

GeoLogic

MW06-23BR	RI 2006	Jun-08	Aug-08	Jan-09	Apr-09	Sep-09	Dec-09	Mar-10	Jun-10	Sep-10	Dec-10	Mar-11	Feb-12	y-Aug. ISC	Sep-12	Mar-13	Jun-13	Sep-13	Dec-13	Jun-14	Dec-14	Mar-15	Jun-15	Sep-15	Dec-15	Mar-16	Jun-16	Sep-16	Sep-17	Sep-18	Sep-19	Sep-20	Sep-21	Sep-22
TCE	590																							1,070	925	855	950	913	816	598	390	781	1,540	1,030
DCE	420																							170	131	114	75	105	67.6	163	107	209	637	534
VC	46																							9.8	5.5	2.1	1.2	2.9	1.9	6.6	15.6	57.2	57.4	118
cVOCs (µg/L)	**1,056**																							**1,249.8**	**1,061.5**	**971.1**	**1,026.2**	**1,020.9**	**885.5**	**767.6**	**512.6**	**1,047.2**	**2,234.4**	**1,682.0**

NO DATA



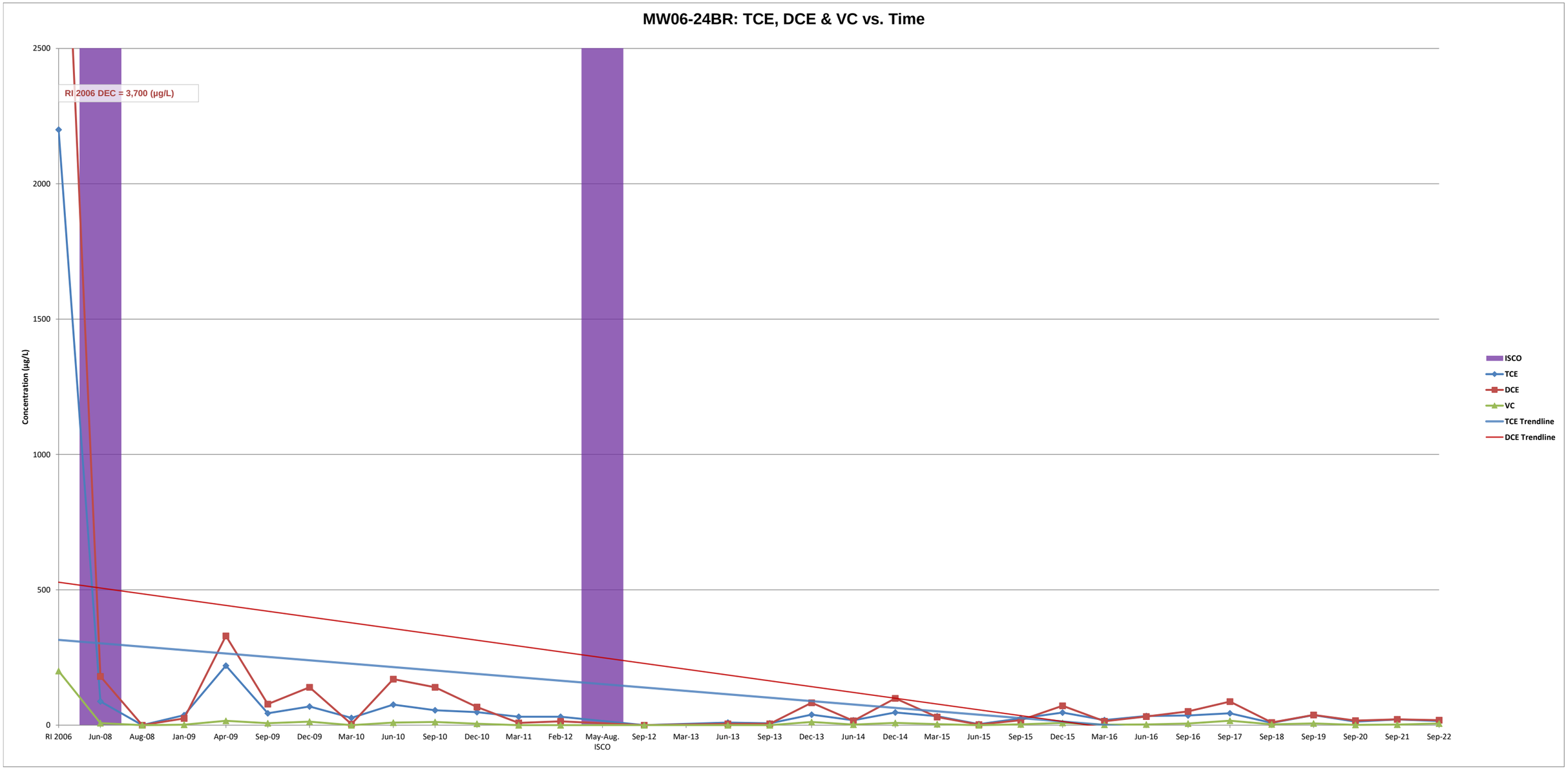
Notes:

TCE = Trichloroethene | DCE = cis-1,2-Dichloroethene | VC = Vinyl Chloride | U = Not detected at the reporting limit. | Highlighted cell indicates peak concentration.

Chart No. 5
MW06-24BR: Bedrock Well
TCE, DCE and VC Concentrations in Groundwater

GeoLogic

MW06-24BR	RI 2006	Jun-08	Aug-08	Jan-09	Apr-09	Sep-09	Dec-09	Mar-10	Jun-10	Sep-10	Dec-10	Mar-11	Feb-12	Sep-12	Mar-13	Jun-13	Sep-13	Dec-13	Jun-14	Dec-14	Mar-15	Jun-15	Sep-15	Dec-15	Mar-16	Jun-16	Sep-16	Sep-17	Sep-18	Sep-19	Sep-20	Sep-21	Sep-22
TCE	2,200	88	U	37	220	44	69	27	76	55	48	31	31	U		9.4	6.9	39	18	47	33	3.9	24.8	46.5	18.9	34	35.6	43.7	8.4	37.3	12.9	21.2	15.4
DCE	3,700	180	U	25	330	78	140	4.1	170	140	67	8.3	14	U		4.9	4.8	83	16	99	30	2.3	18.5	71.6	14.5	32	50.8	87.2	10.0	37.5	16.8	21.3	18.5
VC	200	7.5	U	1.7	16	7.1	13	U	9.5	12	5.1	U	U	U		U	U	12	2	8.2	3.6	U	3.1	8.3	1.6	2.6	6.1	16.4	3.0	6.3	1.2	2.0	5.9
cVOCs (µg/L)	**6,100**	**275.5**	**U**	**63.7**	**566**	**129.1**	**222**	**31.1**	**255.5**	**207**	**120.1**	**39.3**	**45**	**U**	**NS**	**14.3**	**11.7**	**134**	**36**	**154.2**	**66.6**	**6.2**	**46.4**	**126.4**	**35.0**	**68.6**	**92.5**	**147.3**	**21.4**	**81.1**	**30.9**	**44.5**	**39.8**



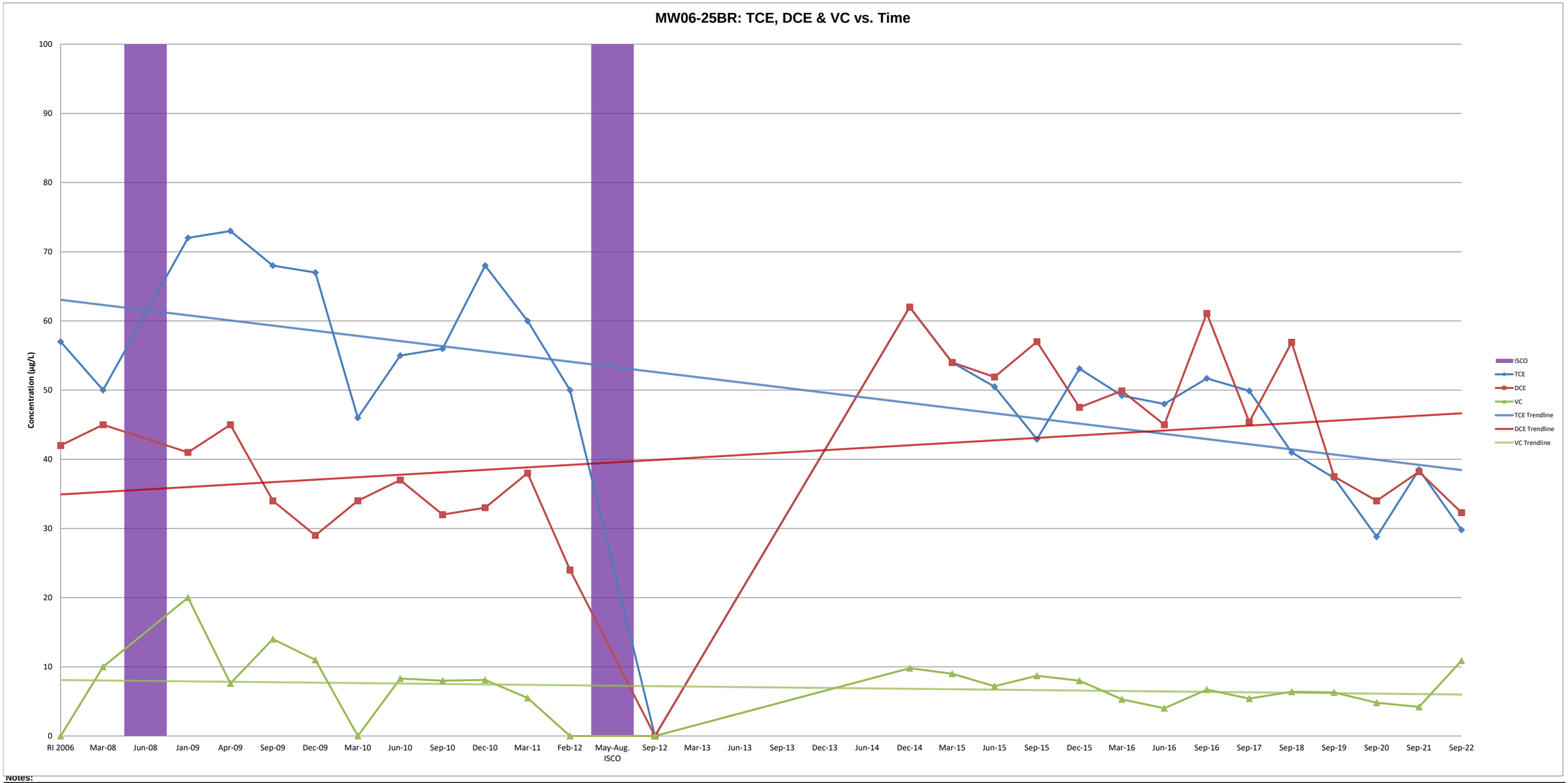
Notes:

TCE = Trichloroethene DCE = cis-1,2-Dichloroethene VC = Vinyl Chloride U = Not detected at the reporting limit. Highlighted cell indicates peak concentration.

Chart No. 6
MW06-25BR: Bedrock Well
TCE, DCE and VC Concentrations in Groundwater

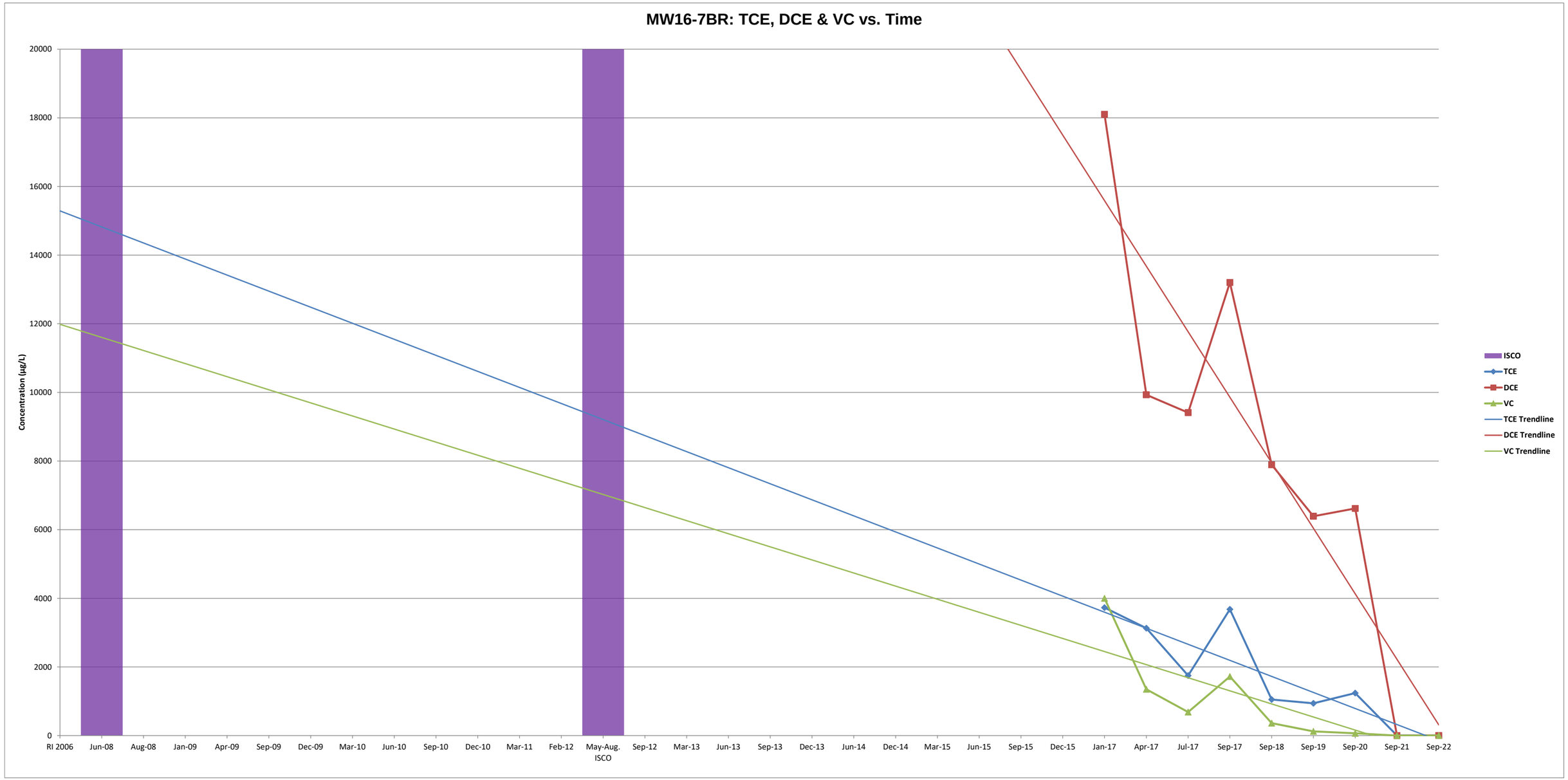
GeoLogic

MW06-25BR	RI 2006	Mar-08	Jun-08	Jan-09	Apr-09	Sep-09	Dec-09	Mar-10	Jun-10	Sep-10	Dec-10	Mar-11	Feb-12	Sep-12	Mar-13	Jun-13	Sep-13	Dec-13	Jun-14	Dec-14	Mar-15	Jun-15	Sep-15	Dec-15	Mar-16	Jun-16	Sep-16	Sep-17	Sep-18	Sep-19	Sep-20	Sep-21	Sep-22
TCE	57	50		72	73	68	67	46	55	56	68	60	50	U						62	54	50.5	42.9	53.1	49.2	48	51.7	49.9	41.0	37.3	28.8	38.5	29.8
DCE	42	45		41	45	34	29	34	37	32	33	38	24	U						62	54	51.9	57.0	47.5	49.9	45	61.1	45.4	56.9	37.5	34.0	38.2	32.3
VC	U	10		20	7.6	14	11	U	8.3	8	8.1	5.5	U	U						9.8	9	7.2	8.7	8.0	5.3	4.0	6.7	5.4	6.4	6.3	4.8	4.2	10.9
cVOCs (µg/L)	**99**	**105**	**DRY**	**133**	**125.6**	**116**	**107**	**80**	**100.3**	**96**	**109.1**	**103.5**	**74**	**U**	**NSPP**	**NSPP**	**NSPP**	**NSPP**	**NSPP**	**133.8**	**117**	**109.6**	**108.6**	**108.6**	**104.4**	**97.0**	**119.5**	**100.7**	**104.3**	**81.1**	**67.6**	**80.9**	**73.0**



Notes:

TCE = Trichloroethene | DCE = cis-1,2-Dichloroethene | VC = Vinyl Chloride | U = Not detected at the reporting limit. | Highlighted cell indicates peak concentration.



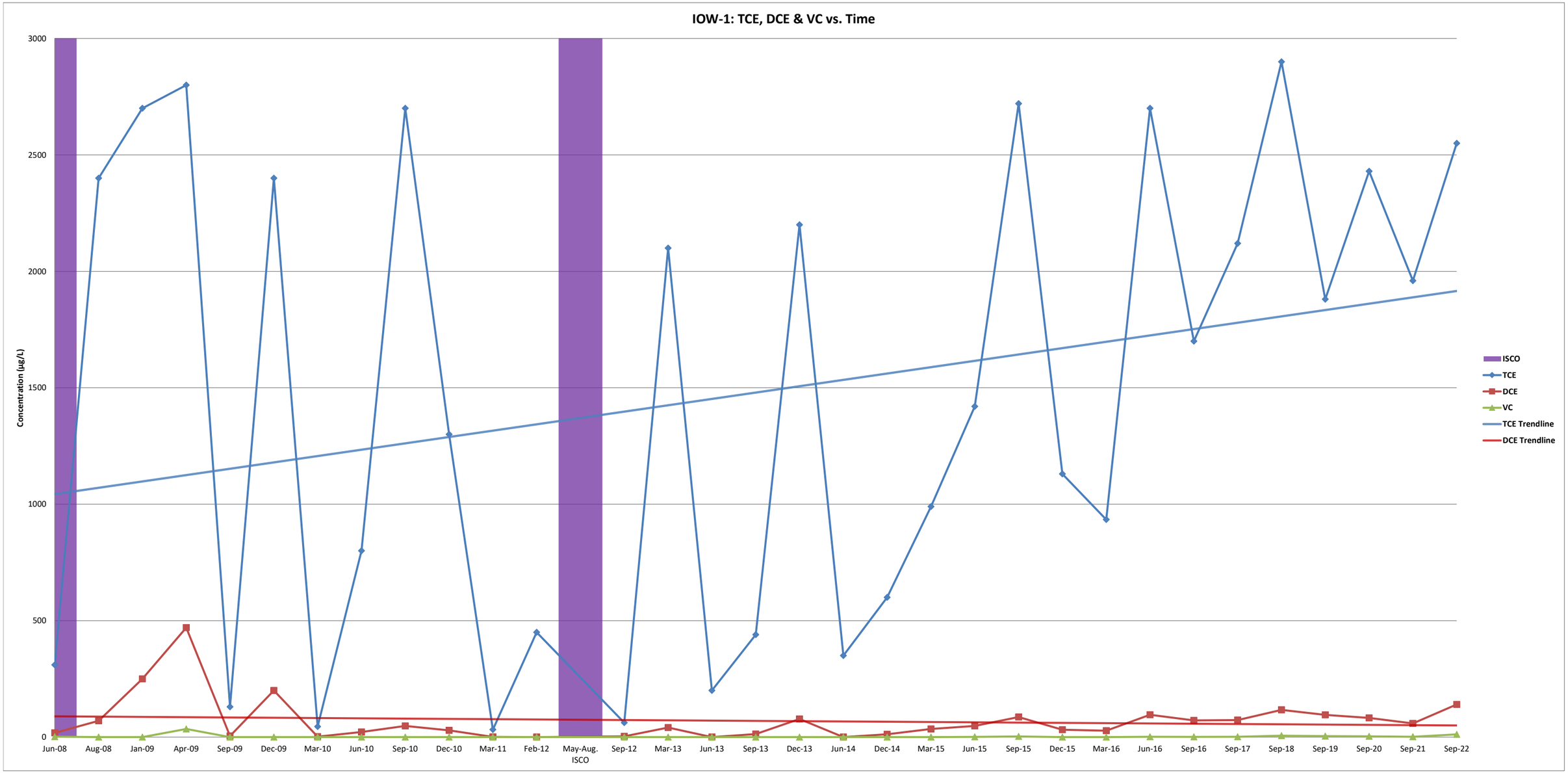
2014 PRR
Former Axiohm Facility
Site No. C755012

P:\PROJECTS\2009\209164 - SHBC\TECH\2023 PRR Charts\
Chart No. 7 MW16-7BR - cVOCs vs. Time

Chart No. 8
IOW-1: Bedrock Well
Summary of TCE, DCE and VC Concentrations in Groundwater

GeoLogic

IOW-1	Jun-08	Aug-08	Jan-09	Apr-09	Sep-09	Dec-09	Mar-10	Jun-10	Sep-10	Dec-10	Mar-11	Feb-12	Sep-12	Mar-13	Jun-13	Sep-13	Dec-13	Jun-14	Dec-14	Mar-15	Jun-15	Sep-15	Dec-15	Mar-16	Jun-16	Sep-16	Sep-17	Sep-18	Sep-19	Sep-20	Sep-21	Sep-22
TCE	310	2,400	2,700	2,800	130	2,400	45	800	2,700	1,300	32	450	62	2,100	200	440	2,200	350	600	990	1,420	2,720	1,130	934	2,700	1,700	2,120	2,900	1,880	2,430	1,960	2,550
DCE	18	70	250	470	4.8	200	2	22	48	29	1.1	U	3.25	41	U	13	78	U	12	35	47.8	86.0	31.9	27.4	96.0	71.7	73.1	117	95	82.6	58.6	140
VC	2.1	U	U	35	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	1.2	3.0	U	U	1.5	1.2	1.4	6.1	4.1	3.3	1.5	11.8
cVOCs (µg/L)	**330.1**	**2,470**	**2,950**	**3,305**	**134.8**	**2,600**	**47**	**822**	**2,748**	**1,329**	**33.1**	**450**	**65.25**	**2,141**	**200**	**453**	**2,278**	**350**	**612**	**1,025**	**1,469**	**2,809**	**1,161.9**	**961.4**	**2,797.5**	**1,772.9**	**2,194.5**	**3,023.1**	**1,979.4**	**2,515.9**	**2,020.1**	**2,701.8**



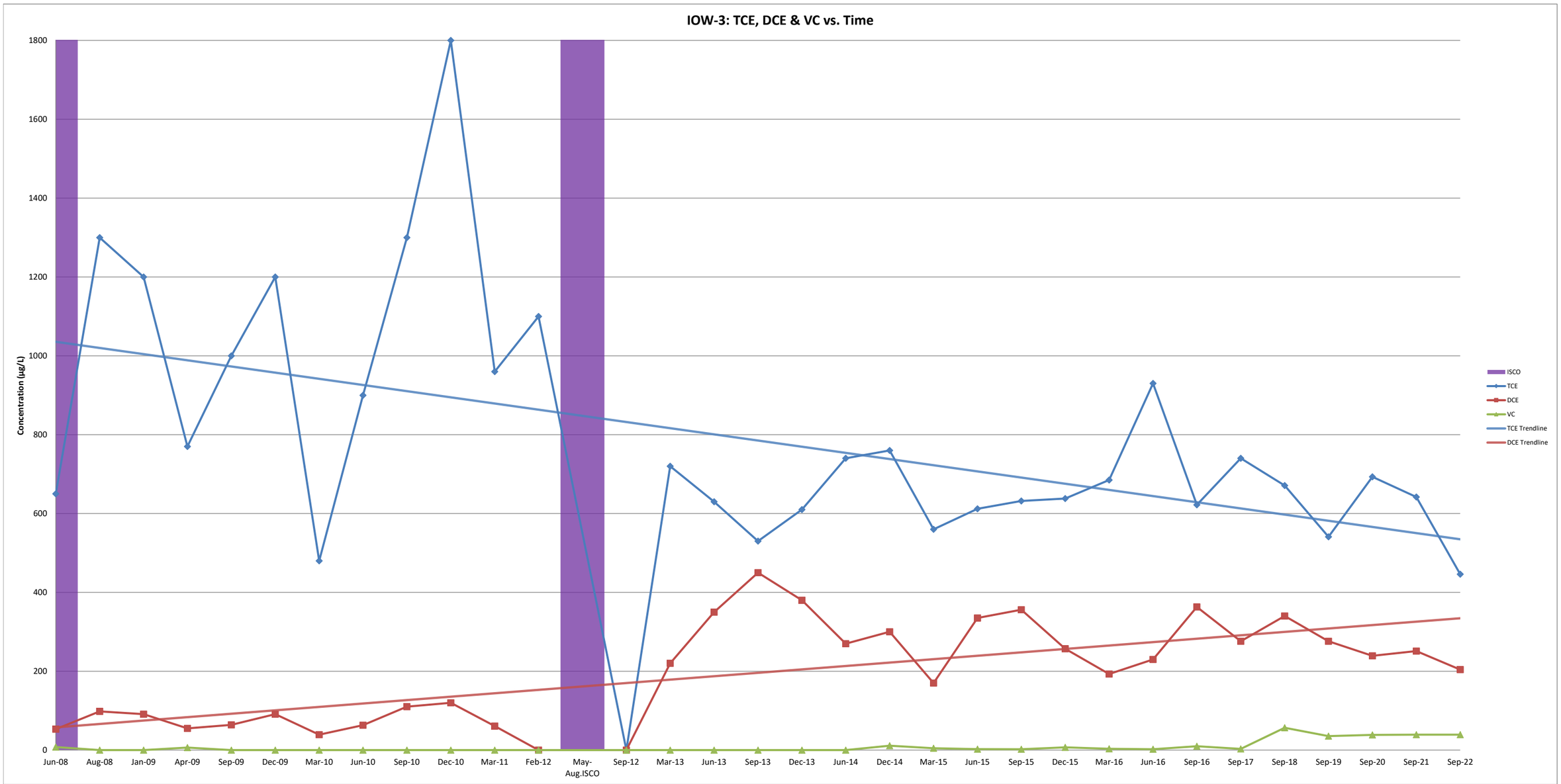
Notes:

TCE = Trichloroethene DCE = cis-1,2-Dichloroethene VC = Vinyl Chloride U = Not detected at the reporting limit. Highlighted cell indicates peak concentration.

Chart No. 9
IOW-3: Bedrock Well
TCE, DCE and VC Concentrations in Groundwater

GeoLogic

IOW-3	Jun-08	Aug-08	Jan-09	Apr-09	Sep-09	Dec-09	Mar-10	Jun-10	Sep-10	Dec-10	Mar-11	Feb-12	Sep-12	Mar-13	Jun-13	Sep-13	Dec-13	Jun-14	Dec-14	Mar-15	Jun-15	Sep-15	Dec-15	Mar-16	Jun-16	Sep-16	Sep-17	Sep-18	Sep-19	Sep-20	Sep-21	Sep-22
TCE	650	1,300	1,200	770	1,000	1,200	480	900	1,300	1,800	960	1,100	U	720	630	530	610	740	760	560	612	632	638	685	930	622	740	671	541	693	642	446
DCE	53	98	91	55	64	91	39	63	110	120	61	U	U	220	350	450	380	270	300	170	335	356	257	193	230	363	276	340	276	239	251	204
VC	7.7	U	U	6.4	U	U	U	U	U	U	U	U	U	U	U	U	U	U	11	4.6	2.3	2.1	7	3.3	2.2	9.7	3.0	56.6	35.4	38.6	39.1	39.1
cVOCs (µg/L)	**710.7**	**1,398**	**1,291**	**831.4**	**1,064**	**1,291**	**519**	**963**	**1,410**	**1,920**	**1,021**	**1,100**	**U**	**940**	**980**	**980**	**990**	**1,010**	**1,071**	**734.6**	**949.3**	**990.1**	**902**	**881.3**	**1,162.2**	**994.7**	**1,019.0**	**1,067.6**	**852.4**	**970.6**	**932.1**	**689.1**



Notes:

TCE = Trichloroethene DCE = cis-1,2-Dichloroethene VC = Vinyl Chloride U = Not detected at the reporting limit. Highlighted cell indicates peak concentration.

APPENDIX E

GROUNDWATER MONITORING WELL SAMPLING RECORDS

GROUNDWATER MONITORING WELL SAMPLING RECORD
FIELD PARAMETERS & LABORATORY ANALYSIS

PROJECT NO: 209164
SITE: Former Axiohm Facility (Site No. C755012)
WELL: MW-2
SAMPLER: GeoLogic NY, PC: CG
DATE(S): 9/20/2022

TOC Depth of Well (ft.)	**14.95**									
TOC Depth to GW (ft.)	**10.98**									
1 Well Volume (gal./fl.oz.)	**0.6 / 81.9**									
Volume Purged (fl. oz.)	**0**	**16**	**32**	**48**	**64**	**80**	**96**			
Purging Method	**Low-flow**									
FIELD PARAMETERS:	**Time**									
	12:26	12:29	12:32	12:36	12:39	12:42	12:48			
Temperature (°C)	20.39	20.20	20.33	20.32	20.56	20.52	20.54			
Conductivity (mS/cm)	1.89	1.67	1.59	1.53	1.50	1.46	1.47			
Dissolved Oxygen (DO) (mg/L)	1.06	0.00	0.00	0.00	0.00	0.00	0.00			
pH	7.46	7.40	7.33	7.30	7.28	7.28	7.27			
Oxidation Reduction Potential (ORP) (mV)	350	375	388	399	403	407	408			
Turbidity (NTU)	0.3	0.0	0.0	0.0	0.0	0.0	0.0			
OBSERVATIONS										
Color	Clear	Clear	Clear	Clear	Clear	Clear	Clear			
Sheen or Odor	No	No	No	No	No	No	No			
LABORATORY ANALYSIS	**Ethene by AM20GAX**		**VOCs by 8260B**						**QA/QC**	
Time Sampled	12:54		12:49						Dup.	

Comments (including field procedures):

TOC = Top of Casing GW = Groundwater NA = Not Applicable NC = Not Collected IV = Insufficient Volume

Field parameters were measured using a Horbia U-52 with multi-parameter sonde and a flow cell.

Low-flow techniques used to purged and sampled well using dedicated polyethylene tubing and a peristaltic pump.

The field parameters were recorded during purging to establish equilibrium prior to sample collection.

Disposable gloves were worn by the sampler. Field parameter equipment was decontaminated between wells.

NTU = Nephelometric Turbidity Units

GROUNDWATER MONITORING WELL SAMPLING RECORD
FIELD PARAMETERS & LABORATORY ANALYSIS

PROJECT NO: 209164
SITE: Former Axiohm Facility (Site No. C755012)
WELL: MW06-23BR
SAMPLER: GeoLogic NY, PC: CG
DATE(S): 9/20/2022

TOC Depth of Well (ft.)	**21.73**									
TOC Depth to GW (ft.)	**14.88**									
1 Well Volume (gal.)	**1.1**									
Volume Purged (fl. oz.)	**0**	**32**	**64**	**96**	**112**	**128**	**144**	**160**		
Purging Method	**Low-flow**									
FIELD PARAMETERS:	**Time**									
	15:26	15:34	15:41	15:48	15:52	15:56	16:00	16:04		
Temperature (°C)	22.00	20.72	20.72	20.71	20.68	20.61	20.54	20.48		
Conductivity (mS/cm)	1.85	1.91	1.90	1.90	1.89	1.86	1.83	1.82		
Dissolved Oxygen (DO) (mg/L)	1.74	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
pH	7.39	7.36	7.36	7.36	7.36	7.37	7.38	7.38		
Oxidation Reduction Potential (ORP) (mV)	347	399	408	414	415	416	418	419		
Turbidity (NTU)	59.2	44.0	31.7	27.8	27.1	26.9	26.6	11.1		
OBSERVATIONS										
Color	Very Lt. Grey	Cloudy	Cloudy	Cloudy	Cloudy	Cloudy	Cloudy	Cloudy		
Sheen or Odor	No	No	No	No	No	No	No	No		
LABORATORY ANALYSIS	**Ethene by AM20GAX**		**VOCs by 8260B**						**QA/QC**	
Time Sampled	16:07, 16:16-16:18		16:05, 16:12-16:14						MS/MDS	

Comments (including field procedures):

TOC = Top of Casing GW = Groundwater NA = Not Applicable NC = Not Collected IV = Insufficient Volume

Field parameters were measured using a Horbia U-52 with multi-parameter sonde and a flow cell.

Low-flow techniques used to purged and sampled well using dedicated polyethylene tubing and a peristaltic pump.

The field parameters were recorded during purging to establish equilibrium prior to sample collection.

Disposable gloves were worn by the sampler. Field parameter equipment was decontaminated between wells.

NTU = Nephelometric Turbidity Units

GROUNDWATER MONITORING WELL SAMPLING RECORD
FIELD PARAMETERS & LABORATORY ANALYSIS

PROJECT NO: 209164
SITE: Former Axiohm Facility (Site No. C755012)
WELL: MW06-24BR
SAMPLER: GeoLogic NY, PC: CG
DATE(S): 9/21/2022

TOC Depth of Well (ft.)	**21.70**									
TOC Depth to GW (ft.)	**16.4**									
1 Well Volume (gal.)	**0.85**									
Volume Purged (fl. oz.)	**0**	**32**	**48**	**64**	**80**	**96**	**112**			
Purging Method	**Low-flow**									
FIELD PARAMETERS:	**Time**									
	9:47	9:54	9:58	10:02	10:06	10:10	10:15			
Temperature (°C)	24.80	24.13	24.25	24.36	23.60	23.41	23.83			
Conductivity (mS/cm)	11.40	11.30	10.90	9.38	8.00	7.27	7.13			
Dissolved Oxygen (DO) (mg/L)	0.92	0.00	0.00	0.00	0.00	0.00	0.00			
pH	7.57	8.53	9.19	9.06	8.95	8.98	8.91			
Oxidation Reduction Potential (ORP) (mV)	283	254	216	106	81	98	118			
Turbidity (NTU)	74.8	50.0	27.2	14.0	44.7	47.4	33.2			
OBSERVATIONS										
Color	Lt. Brown	Very Lt. Brown	Cloudy	Cloudy	Cloudy	Cloudy	Cloudy			
Sheen or Odor	No	No	No	No	No	No	No			
LABORATORY ANALYSIS	**Ethene by AM20GAX**		**VOCs by 8260B**						**QA/QC**	
Time Sampled	10:18		10:16						No	

Comments (including field procedures):

TOC = Top of Casing GW = Groundwater NA = Not Applicable NC = Not Collected IV = Insufficient Volume

Field parameters were measured using a Horbia U-52 with multi-parameter sonde and a flow cell.

Low-flow techniques used to purged and sampled well using dedicated polyethylene tubing and a peristaltic pump.

The field parameters were recorded during purging to establish equilibrium prior to sample collection.

Disposable gloves were worn by the sampler. Field parameter equipment was decontaminated between wells.

NTU = Nephelometric Turbidity Units

Stopped pump after 96 fluid ounces for about 5 minutes due to increase in turbidity.

GROUNDWATER MONITORING WELL SAMPLING RECORD
FIELD PARAMETERS & LABORATORY ANALYSIS

PROJECT NO: 209164
SITE: Former Axiohm Facility (Site No. C755012)
WELL: MW06-25OB
SAMPLER: GeoLogic NY, PC: CG
DATE(S): 9/20/2022

TOC Depth of Well (ft.)	**10.36**		**Well Dry**								
TOC Depth to GW (ft.)	**NA**										
1 Well Volume (gal.)	**NA**										
Volume Purged (fl. oz.)	**NA**										
Purging Method	**NA**										
FIELD PARAMETERS:	**Time**										
Temperature (°C)											
Conductivity (mS/cm)											
Dissolved Oxygen (DO) (mg/L)	**Well Dry**										
pH											
Oxidation Reduction Potential (ORP) (mV)											
Turbidity (NTU)											
OBSERVATIONS											
Color											
Sheen or Odor											
LABORATORY ANALYSIS	**Ethene by AM20GAX**		**VOCs by 8260B**						**QA/QC**		
Time Sampled	NA		NA						NA		

Comments (including field procedures):

TOC = Top of Casing GW = Groundwater NA = Not Applicable NC = Not Collected IV = Insufficient Volume

Field parameters were measured using a Horbia U-52 with multi-parameter sonde and a flow cell.

Low-flow techniques used to purged and sampled well using dedicated polyethylene tubing and a peristaltic pump.

The field parameters were recorded during purging to establish equilibrium prior to sample collection.

Disposable gloves were worn by the sampler. Field parameter equipment was decontaminated between wells.

NTU = Nephelometric Turbidity Units

GROUNDWATER MONITORING WELL SAMPLING RECORD
FIELD PARAMETERS & LABORATORY ANALYSIS

PROJECT NO: 209164
SITE: Former Axiohm Facility (Site No. C755012)
WELL: MW06-25BR
SAMPLER: GeoLogic NY, PC: CG
DATE(S): 9/20/2022

TOC Depth of Well (ft.)	**19.37**									
TOC Depth to GW (ft.)	**13.54**									
1 Well Volume (gal.)	**0.9**									
Volume Purged (fl. oz.)	**0**	**32**	**48**	**64**	**80**	**96**	**112**			
Purging Method	**Low-flow**									
FIELD PARAMETERS:	**Time**									
	10:50	10:57	11:01	11:05	11:09	11:13	11:16			
Temperature (°C)	16.91	15.40	15.35	15.30	15.30	15.32	15.36			
Conductivity (mS/cm)	2.56	2.58	2.59	2.61	2.62	2.62	2.62			
Dissolved Oxygen (DO) (mg/L)	1.02	0.00	0.00	0.00	0.00	0.00	0.00			
pH	7.63	7.20	7.11	7.05	7.01	6.99	6.98			
Oxidation Reduction Potential (ORP) (mV)	272	292	296	299	301	302	303			
Turbidity (NTU)	2.9	0.0	0.0	0.0	0.0	0.0	0.0			
OBSERVATIONS										
Color	Clear	Clear	Clear	Clear	Clear	Clear	Clear			
Sheen or Odor	No	No	No	No	No	No	No			
LABORATORY ANALYSIS	**Ethene by AM20GAX**		**VOCs by 8260B**						**QA/QC**	
Time Sampled	11:19		11:17						No	

Comments (including field procedures):

TOC = Top of Casing GW = Groundwater NA = Not Applicable NC = Not Collected IV = Insufficient Volume

Field parameters were measured using a Horbia U-52 with multi-parameter sonde and a flow cell.

Low-flow techniques used to purged and sampled well using dedicated polyethylene tubing and a peristaltic pump.

The field parameters were recorded during purging to establish equilibrium prior to sample collection.

Disposable gloves were worn by the sampler. Field parameter equipment was decontaminated between wells.

NTU = Nephelometric Turbidity Units

GROUNDWATER MONITORING WELL SAMPLING RECORD
FIELD PARAMETERS & LABORATORY ANALYSIS

PROJECT NO: 209164
SITE: Former Axiohm Facility (Site No. C755012)
WELL: MW16-7BR
SAMPLER: GeoLogic NY, PC: CG
DATE(S): 9/21/2022

TOC Depth of Well (ft.)	**21.40**									
TOC Depth to GW (ft.)	**14.31**									
1 Well Volume (gal.)	**1.1**									
Volume Purged (fl. Oz.)	**0**	**32**	**64**	**80**	**96**	**112**	**128**			
Purging Method	**Low-flow**									
FIELD PARAMETERS:	**Time**									
	10:50	10:58	11:06	11:10	11:14	11:18	11:22			
Temperature (°C)	26.45	24.84	23.83	24.09	23.80	24.00	24.03			
Conductivity (mS/cm)	3.33	3.47	3.55	3.54	3.57	3.57	3.60			
Dissolved Oxygen (DO) (mg/L)	5.92	8.34	8.59	8.41	8.56	8.44	8.41			
pH	8.78	8.46	8.37	8.34	8.32	8.30	8.29			
Oxidation Reduction Potential (ORP) (mV)	361	388	397	399	401	402	403			
Turbidity (NTU)	11.7	0.1	0.1	0.4	0.1	0.0	0.0			
OBSERVATIONS										
Color	Clear	Clear	Clear	Clear	Clear	Clear	Clear			
Sheen or Odor	No	No	No	No	No	No	No			
LABORATORY ANALYSIS	**Ethene by AM20GAX**		**VOCs by 8260B**						**QA/QC**	
Time Sampled	11:25		11:23						No	

Comments (including field procedures):

TOC = Top of Casing GW = Groundwater NA = Not Applicable NC = Not Collected IV = Insufficient Volume

Field parameters were measured using a Horbia U-52 with multi-parameter sonde and a flow cell.

Low-flow techniques used to purged and sampled well using dedicated polyethylene tubing and a peristaltic pump.

The field parameters were recorded during purging to establish equilibrium prior to sample collection.

Disposable gloves were worn by the sampler. Field parameter equipment was decontaminated between wells.

NTU = Nephelometric Turbidity Units

GROUNDWATER MONITORING WELL SAMPLING RECORD
FIELD PARAMETERS & LABORATORY ANALYSIS

PROJECT NO: 209164
SITE: Former Axiohm Facility (Site No. C755012)
WELL: IOW-1
SAMPLER: GeoLogic NY, PC: CG
DATE(S): 9/20/2022

TOC Depth of Well (ft.)	**23.64**									
TOC Depth to GW (ft.)	**14.78**									
1 Well Volume (gal.)	**1.4**									
Volume Purged (fl. oz.)	**0**	**32**	**64**	**96**	**128**	**160**	**192**			
Purging Method	**Low-flow**									
FIELD PARAMETERS:	**Time**									
	14:05	14:12	14:19	14:26	14:33	14:40	14:47			
Temperature (°C)	21.85	20.38	20.22	20.08	20.09	20.14	20.17			
Conductivity (mS/cm)	3.53	3.49	3.47	3.46	3.46	3.46	3.36			
Dissolved Oxygen (DO) (mg/L)	2.78	0.76	0.35	0.53	0.42	0.39	0.22			
pH	7.09	7.33	7.35	7.35	7.34	7.33	7.32			
Oxidation Reduction Potential (ORP) (mV)	355	393	406	413	417	415	415			
Turbidity (NTU)	12.5	8.9	7.8	7.6	7.2	0.0	0.0			
OBSERVATIONS										
Color	Very Lt. Orange	Cloudy	Cloudy	Cloudy	Cloudy	Clear	Clear			
Sheen or Odor	No	No	No	No	No	No	No			
LABORATORY ANALYSIS	**Ethene by AM20GAX**		**VOCs by 8260B**						**QA/QC**	
Time Sampled	14:50		14:48						No	

Comments (including field procedures):

TOC = Top of Casing GW = Groundwater NA = Not Applicable NC = Not Collected IV = Insufficient Volume

Field parameters were measured using a Horbia U-52 with multi-parameter sonde and a flow cell.

Low-flow techniques used to purged and sampled well using dedicated polyethylene tubing and a peristaltic pump.

The field parameters were recorded during purging to establish equilibrium prior to sample collection.

Disposable gloves were worn by the sampler. Field parameter equipment was decontaminated between wells.

NTU = Nephelometric Turbidity Units

GROUNDWATER MONITORING WELL SAMPLING RECORD
FIELD PARAMETERS & LABORATORY ANALYSIS

PROJECT NO: 209164
SITE: Former Axiohm Facility (Site No. C755012)
WELL: IOW-3
SAMPLER: GeoLogic NY, PC: CG
DATE(S): 9/21/2022

TOC Depth of Well (ft.)	**18.20**									
TOC Depth to GW (ft.)	**13.57**									
1 Well Volume (gal.)	**0.7**									
Volume Purged (fl. oz.)	**0**	**16**	**32**	**48**	**64**	**80**	**96**			
Purging Method	**Low-flow**									
FIELD PARAMETERS:	**Time**									
	12:51	12:55	12:59	13:03	13:07	13:11	13:15			
Temperature (°C)	25.85	25.30	24.76	24.57	24.48	24.49	24.52			
Conductivity (mS/cm)	6.57	6.18	6.88	6.89	6.84	6.76	6.68			
Dissolved Oxygen (DO) (mg/L)	0.18	0.00	0.00	0.00	0.00	0.00	0.00			
pH	7.43	7.12	7.08	7.06	7.05	7.05	7.05			
Oxidation Reduction Potential (ORP) (mV)	407	421	424	425	426	427	428			
Turbidity (NTU)	9.7	6.5	5.3	4.0	3.6	0.4	0.1			
OBSERVATIONS										
Color	Very Lt. Grey	Cloudy	Clear	Clear	Clear	Clear	Clear			
Sheen or Odor	No	No	No	No	No	No	No			
LABORATORY ANALYSIS	**Ethene by AM20GAX**		**VOCs by 8260B**						**QA/QC**	
Time Sampled	13:18		13:16						No	

Comments (including field procedures):

TOC = Top of Casing GW = Groundwater NA = Not Applicable NC = Not Collected IV = Insufficient Volume

Field parameters were measured using a Horbia U-52 with multi-parameter sonde and a flow cell.

Low-flow techniques used to purged and sampled well using dedicated polyethylene tubing and a peristaltic pump.

The field parameters were recorded during purging to establish equilibrium prior to sample collection.

Disposable gloves were worn by the sampler. Field parameter equipment was decontaminated between wells.

NTU = Nephelometric Turbidity Units

GROUNDWATER MONITORING WELL SAMPLING RECORD
FIELD PARAMETERS & LABORATORY ANALYSIS

PROJECT NO: 209164
SITE: Former Axiohm Facility (Site No. C755012)
WELL: IOW-4
SAMPLER: GeoLogic NY, PC: CG
DATE(S): 9/21/2022

TOC Depth of Well (ft.)	**8.8**									
TOC Depth to GW (ft.)	**6.46**									
1 Well Volume (gal./fl.oz.)	**0.37 / 47.36**									
Volume Purged (fl. oz.)	**0**	**16**	**32**	**48**	**64**	Purged dry at ~65 fl. oz.				
Purging Method	**Low-flow**									
FIELD PARAMETERS:	**Time**									
	13:49	13:53	13:57	14:01	14:05					
Temperature (°C)	28.71	28.66	28.57	28.66	28.62					
Conductivity (mS/cm)	2.52	2.92	3.23	3.05	2.93					
Dissolved Oxygen (DO) (mg/L)	0.23	0.00	0.00	0.00	0.00					
pH	7.84	8.14	8.27	8.34	8.36					
Oxidation Reduction Potential (ORP) (mV)	361	365	365	366	366					
Turbidity (NTU)	507	326	245	203	190					
OBSERVATIONS										
Color	Brown/ Orange	Brown/ Orange	Brown/ Orange	Lt. Br./ Orange	Lt. Br./ Orange					
Sheen or Odor	No	No	No	No	No					
LABORATORY ANALYSIS	**Ethene by AM20GAX**		**VOCs by 8260B**						**QA/QC**	
Time Sampled	14:19		14:17						No	

Comments (including field procedures):

TOC = Top of Casing GW = Groundwater NA = Not Applicable NC = Not Collected IV = Insufficient Volume

Field parameters were measured using a Horbia U-52 with multi-parameter sonde and a flow cell.

Low-flow techniques used to purged and sampled well using dedicated polyethylene tubing and a peristaltic pump.

The field parameters were recorded during purging to establish equilibrium prior to sample collection.

Disposable gloves were worn by the sampler. Field parameter equipment was decontaminated between wells.

NTU = Nephelometric Turbidity Units

Well purged dry at ~65 fluid ounces. Let recovery for about 10 minutes and then collect sample.

APPENDIX F

SSDS INSPECTION FORMS

Sub-Slab Depressurization System (SSDS) Inspection Checklist

Date 10/12/2022

Inspector Initials JM

South Hill Business Campus, 950 Danby Road, Ithaca, NY

I. Pressure Readings

Suction riser (Column I.D.)	Pressure Reading (in WC)
B17	1.5
B19	1.4
B21	0.9
B23	1.2
B27	0.6
B29	0.2
* B31	0.4
* C25	1.2
D9	0.3
D18	1.5
D19	1.4
D21	1.3
D23	1.1
D27	0.5
D29	0.7
~~Re-attach~~ * D31	0.5
F10	1.1
F17	1.2
F19	1.4
F21	0.9
F23	0.9
F25	0.5
F27	0.4
F29	0.4
* F31	0.4
* G20	0.4
G 26-27	0.3
H15	1.0
~~Broken~~ * H-I 17	1.1
H23	0.3
H29	0.3
I18	0.2

II. Fan Inspection

1. Operational? Y ✓ N ____

2. Clear of obstructions? Y ✓ N ____

3. Repair needs? Y ____ N ✓

4. Observations/Comments:
Fan Motor was replaced 10/12

5. Actions Taken:

6. Recommended Maintenance:

Do any of the pressure gages require repair or replacement?
Y ____ N ✓

If so, indicate locations, and actions taken:
H-I 17 was broken, so I replaced it with a new one.
D-31 was hanging, so I re-attached it To the I beam.

Additional Comments:

GeoLogic

Sub-Slab Depressurization System (SSDS) Inspection Form

Date 4-7-22

Inspector Initials JM

Site No. C755012: Former Axiohm Facility, 950 Danby Road, Ithaca, NY

I. U-Tube Manometer Readings

Extraction Riser (Column I.D.)	Pressure Reading (in WC)
B17	2.9"
B19	2.4"
B21	1.7"
B23	2.2"
B27	1.0"
B29	0.5"
B31	0.3"
C25	1.4"
D9	0.3
D18	2.9"
D19	2.7"
D21	1.9"
D23	2.0"
D27	0.8"
D29	0.9"
D31	0.6"
F10	1.9"
F17	1.8"
F19	2.7"
F21	1.8"
F23	1.5"
F25	1.2"
F27	0.9"
F29	0.7"
F31	0.5"
G20	0.3"
G 26-27	0.9"
H15	1.5"
H-I 17	0.14
H23	.15"
H29	0.4"
I18	.03
T11	.15"
MW16-7D8	1.2"

II. Fan Inspection

1. Operational? Y ✓ N ____

2. Clear of obstructions? Y ✓ N ____

3. Repair needs? Y ____ N ✓

4. Observations/Comments:

N/A

5. Actions Taken:

N/A

6. Recommended Maintenance:

N/A

Do any of the pressure gauges require repair or replacement? Y ✓ N ____

If so, indicate locations, and actions taken:

Added fluid to U-Tubes as necessary

Additional Comments:

N/A

GeoLogic

APPENDIX G

GROUNDWATER ANALYTICAL RESULTS FOR SEPTEMBER 2022

Pace Analytical Services, LLC
1638 Roseytown Road - Suites 2,3,4
Greensburg, PA 15601
(724)850-5600

October 10, 2022

GeoLogic NY, P.C.
Geologic NY
37 Copeland Avenue
Homer, NY 13077

RE: Project: 209164
Pace Project No.: 30524553

Dear GeoLogic NY, P.C.:

Enclosed are the analytical results for sample(s) received by the laboratory on September 23, 2022. The results relate only to the samples included in this report. Results reported herein conform to the applicable TNI/NELAC Standards and the laboratory's Quality Manual, where applicable, unless otherwise noted in the body of the report.

The test results provided in this final report were generated by each of the following laboratories within the Pace Network:

- Pace Analytical Gulf Coast
- Pace Analytical Services - Greensburg

(Greensburg, PA) - Revision 1 - This report replaces the 10/4/22 report. This project was revised on 10/10/22 in order to include results for the trip blank.

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

Sincerely,

Skyler C. Richmond
skyler.richmond@pacelabs.com
(724)850-5600
Project Manager

Enclosures

Pace Analytical Services, LLC
1638 Roseytown Road - Suites 2,3,4
Greensburg, PA 15601
(724)850-5600

CERTIFICATIONS

Project: 209164
Pace Project No.: 30524553

Pace Analytical Services Pennsylvania
1638 Roseytown Rd Suites 2,3&4, Greensburg, PA 15601
ANAB DOD-ELAP Rad Accreditation #: L2417
Alabama Certification #: 41590
Arizona Certification #: AZ0734
Arkansas Certification
California Certification #: 04222CA
Colorado Certification #: PA01547
Connecticut Certification #: PH-0694
Delaware Certification
EPA Region 4 DW Rad
Florida/TNI Certification #: E87683
Georgia Certification #: C040
Guam Certification
Florida: Cert E871149 SEKS WET
Hawaii Certification
Idaho Certification
Illinois Certification
Indiana Certification
Iowa Certification #: 391
Kansas/TNI Certification #: E-10358
Kentucky Certification #: KY90133
KY WW Permit #: KY0098221
KY WW Permit #: KY0000221
Louisiana DHH/TNI Certification #: LA180012
Louisiana DEQ/TNI Certification #: 4086
Maine Certification #: 2017020
Maryland Certification #: 308
Massachusetts Certification #: M-PA1457
Michigan/PADEP Certification #: 9991
Missouri Certification #: 235
Montana Certification #: Cert0082
Nebraska Certification #: NE-OS-29-14
Nevada Certification #: PA014572018-1
New Hampshire/TNI Certification #: 297617
New Jersey/TNI Certification #: PA051
New Mexico Certification #: PA01457
New York/TNI Certification #: 10888
North Carolina Certification #: 42706
North Dakota Certification #: R-190
Ohio EPA Rad Approval: #41249
Oregon/TNI Certification #: PA200002-010
Pennsylvania/TNI Certification #: 65-00282
Puerto Rico Certification #: PA01457
Rhode Island Certification #: 65-00282
South Dakota Certification
Tennessee Certification #: 02867
Texas/TNI Certification #: T104704188-17-3
Utah/TNI Certification #: PA014572017-9
USDA Soil Permit #: P330-17-00091
Vermont Dept. of Health: ID# VT-0282
Virgin Island/PADEP Certification
Virginia/VELAP Certification #: 460198
Washington Certification #: C868
West Virginia DEP Certification #: 143
West Virginia DHHR Certification #: 9964C
Wisconsin Approve List for Rad
Wyoming Certification #: 8TMS-L

Pace Analytical Gulf Coast
7979 Innovation Park Drive, Baton Rouge, LA 70820
Arkansas Certification #: 88-0655
DoD ELAP Certification #: 6429-01
Florida Certification #: E87854
Illinois Certification #: 004585
Kansas Certification #: E-10354
Louisiana/LELAP Certification #: 01955
North Carolina Certification #: 618
North Dakota Certification #: R-195
Oklahoma Certification #: 2019-101
South Carolina Certification #: 73006001
Texas Certification #: T104704178-19-11
USDA Soil Permit # P330-19-00209
Virginia Certification #: 460215
Washington Certification #: C929

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1638 Roseytown Road - Suites 2,3,4
Greensburg, PA 15601
(724)850-5600

SAMPLE SUMMARY

Project: 209164
Pace Project No.: 30524553

Lab ID	Sample ID	Matrix	Date Collected	Date Received
30524553001	**MW-2**	Water	09/20/22 12:54	09/23/22 09:45
30524553002	**MW06-23BR**	Water	09/20/22 16:07	09/23/22 09:45
30524553003	**MW06-24BR**	Water	09/21/22 10:18	09/23/22 09:45
30524553004	**MW06-25BR**	Water	09/21/22 11:19	09/23/22 09:45
30524553005	**MW16-7BR**	Water	09/21/22 11:25	09/23/22 09:45
30524553006	**IOW-1**	Water	09/20/22 14:50	09/23/22 09:45
30524553007	**IOW-3**	Water	09/21/22 13:18	09/23/22 09:45
30524553008	**IOW-4**	Water	09/21/22 14:19	09/23/22 09:45
30524553009	**Dup.**	Water	09/20/22 12:54	09/23/22 09:45
30524553010	**MS-MW06-23BR**	Water	09/20/22 16:18	09/23/22 09:45
30524553011	**MSD-MW06-23BR**	Water	09/20/22 16:18	09/23/22 09:45
30524553012	**trip blank**	Water	09/20/22 00:00	09/23/22 09:45

Pace Analytical Services, LLC
1638 Roseytown Road - Suites 2,3,4
Greensburg, PA 15601
(724)850-5600

SAMPLE ANALYTE COUNT

Project: 209164
Pace Project No.: 30524553

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
30524553001	**MW-2**	AM20GAX	LMB	1	GCLA
		EPA 8260C	JAS	71	PASI-PA
30524553002	**MW06-23BR**	AM20GAX	LMB	1	GCLA
		EPA 8260C	JAS	71	PASI-PA
30524553003	**MW06-24BR**	AM20GAX	LMB	1	GCLA
		EPA 8260C	JAS	71	PASI-PA
30524553004	**MW06-25BR**	AM20GAX	LMB	1	GCLA
		EPA 8260C	JAS	71	PASI-PA
30524553005	**MW16-7BR**	AM20GAX	LMB	1	GCLA
		EPA 8260C	JAS	71	PASI-PA
30524553006	**IOW-1**	AM20GAX	LMB	1	GCLA
		EPA 8260C	JAS	71	PASI-PA
30524553007	**IOW-3**	AM20GAX	LMB	1	GCLA
		EPA 8260C	JAS	71	PASI-PA
30524553008	**IOW-4**	AM20GAX	LMB	1	GCLA
		EPA 8260C	JAS	71	PASI-PA
30524553009	**Dup.**	AM20GAX	LMB	1	GCLA
		EPA 8260C	JAS	71	PASI-PA
30524553010	**MS-MW06-23BR**	AM20GAX	LMB	1	GCLA
		EPA 8260C	JAS	71	PASI-PA
30524553011	**MSD-MW06-23BR**	AM20GAX	LMB	1	GCLA
		EPA 8260C	JAS	71	PASI-PA
30524553012	**trip blank**	EPA 8260C	JAS	71	PASI-PA

GCLA = Pace Analytical Gulf Coast
PASI-PA = Pace Analytical Services - Greensburg

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1638 Roseytown Road - Suites 2,3,4
Greensburg, PA 15601
(724)850-5600

PROJECT NARRATIVE

Project: 209164
Pace Project No.: 30524553

Method: **AM20GAX**
Description: Indicator Gases Water LHC
Client: GeoLogic NY, P.C.
Date: October 10, 2022

General Information:
11 samples were analyzed for AM20GAX by Pace Analytical Gulf Coast. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):
All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:
All criteria were within method requirements with any exceptions noted below.

Surrogates:
All surrogates were within QC limits with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Additional Comments:

Pace Analytical Services, LLC
1638 Roseytown Road - Suites 2,3,4
Greensburg, PA 15601
(724)850-5600

PROJECT NARRATIVE

Project: 209164
Pace Project No.: 30524553

Method: **EPA 8260C**
Description: 8260C MSV
Client: GeoLogic NY, P.C.
Date: October 10, 2022

General Information:
12 samples were analyzed for EPA 8260C by Pace Analytical Services Greensburg. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):
All criteria were within method requirements with any exceptions noted below.

QC Batch: 536605

IH: This analyte exceeded secondary source verification criteria high for the initial calibration. The reported results should be considered an estimated value.

- BLANK (Lab ID: 2603776)
  - Dichlorodifluoromethane
  - Vinyl chloride
- Dup. (Lab ID: 30524553009)
  - Dichlorodifluoromethane
  - Vinyl chloride
- IOW-1 (Lab ID: 30524553006)
  - Dichlorodifluoromethane
  - Vinyl chloride
- IOW-3 (Lab ID: 30524553007)
  - Dichlorodifluoromethane
  - Vinyl chloride
- IOW-4 (Lab ID: 30524553008)
  - Dichlorodifluoromethane
  - Vinyl chloride
- LCS (Lab ID: 2603777)
  - Dibromochloromethane
  - Vinyl chloride
- MS (Lab ID: 2603778)
  - Dichlorodifluoromethane
  - Vinyl chloride
- MS-MW06-23BR (Lab ID: 30524553010)
  - Dichlorodifluoromethane
  - Vinyl chloride
- MSD (Lab ID: 2603779)
  - Dichlorodifluoromethane
  - Vinyl chloride
- MSD-MW06-23BR (Lab ID: 30524553011)
  - Dichlorodifluoromethane
  - Vinyl chloride
- MW-2 (Lab ID: 30524553001)
  - Dichlorodifluoromethane

Pace Analytical Services, LLC
1638 Roseytown Road - Suites 2,3,4
Greensburg, PA 15601
(724)850-5600

PROJECT NARRATIVE

Project: 209164
Pace Project No.: 30524553

Method: **EPA 8260C**
Description: 8260C MSV
Client: GeoLogic NY, P.C.
Date: October 10, 2022

QC Batch: 536605

IH: This analyte exceeded secondary source verification criteria high for the initial calibration. The reported results should be considered an estimated value.

- Vinyl chloride
- MW06-23BR (Lab ID: 30524553002)
  - Dichlorodifluoromethane
  - Vinyl chloride
- MW06-24BR (Lab ID: 30524553003)
  - Dichlorodifluoromethane
  - Vinyl chloride
- MW06-25BR (Lab ID: 30524553004)
  - Dichlorodifluoromethane
  - Vinyl chloride
- MW16-7BR (Lab ID: 30524553005)
  - Dichlorodifluoromethane
  - Vinyl chloride
- trip blank (Lab ID: 30524553012)
  - Dichlorodifluoromethane
  - Vinyl chloride

IL: This analyte exceeded secondary source verification criteria low for the initial calibration. The reported results should be considered an estimated value.

- BLANK (Lab ID: 2603776)
  - Bromomethane
  - Carbon disulfide
- Dup. (Lab ID: 30524553009)
  - Bromomethane
  - Carbon disulfide
- IOW-1 (Lab ID: 30524553006)
  - Bromomethane
  - Carbon disulfide
- IOW-3 (Lab ID: 30524553007)
  - Bromomethane
  - Carbon disulfide
- IOW-4 (Lab ID: 30524553008)
  - Acetone
  - Bromomethane
  - Carbon disulfide
- LCS (Lab ID: 2603777)
  - Bromomethane
  - Carbon disulfide
- MS (Lab ID: 2603778)
  - Bromomethane
  - Carbon disulfide
- MS-MW06-23BR (Lab ID: 30524553010)
  - Bromomethane
  - Carbon disulfide

Pace Analytical Services, LLC
1638 Roseytown Road - Suites 2,3,4
Greensburg, PA 15601
(724)850-5600

PROJECT NARRATIVE

Project: 209164
Pace Project No.: 30524553

Method: **EPA 8260C**
Description: 8260C MSV
Client: GeoLogic NY, P.C.
Date: October 10, 2022

QC Batch: 536605

IL: This analyte exceeded secondary source verification criteria low for the initial calibration. The reported results should be considered an estimated value.

- MSD (Lab ID: 2603779)
  - Bromomethane
  - Carbon disulfide
- MSD-MW06-23BR (Lab ID: 30524553011)
  - Bromomethane
  - Carbon disulfide
- MW-2 (Lab ID: 30524553001)
  - Bromomethane
  - Carbon disulfide
- MW06-23BR (Lab ID: 30524553002)
  - Bromomethane
  - Carbon disulfide
- MW06-24BR (Lab ID: 30524553003)
  - Bromomethane
  - Carbon disulfide
- MW06-25BR (Lab ID: 30524553004)
  - Bromomethane
  - Carbon disulfide
- MW16-7BR (Lab ID: 30524553005)
  - Bromomethane
  - Carbon disulfide
- trip blank (Lab ID: 30524553012)
  - Bromomethane
  - Carbon disulfide

Continuing Calibration:
All criteria were within method requirements with any exceptions noted below.

QC Batch: 536605

CH: The continuing calibration for this compound is outside of Pace Analytical acceptance limits. The results may be biased high.

- BLANK (Lab ID: 2603776)
  - Bromomethane
  - Dichlorodifluoromethane
- Dup. (Lab ID: 30524553009)
  - Bromomethane
  - Dichlorodifluoromethane
- IOW-1 (Lab ID: 30524553006)
  - Bromomethane
  - Dichlorodifluoromethane
- IOW-3 (Lab ID: 30524553007)
  - Bromomethane
  - Dichlorodifluoromethane
- IOW-4 (Lab ID: 30524553008)

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(724)850-5600

PROJECT NARRATIVE

Project: 209164
Pace Project No.: 30524553

Method: **EPA 8260C**
Description: 8260C MSV
Client: GeoLogic NY, P.C.
Date: October 10, 2022

QC Batch: 536605

CH: The continuing calibration for this compound is outside of Pace Analytical acceptance limits. The results may be biased high.

- Acetone
- Bromomethane
- Dichlorodifluoromethane

- LCS (Lab ID: 2603777)
  - Bromomethane
  - Dibromochloromethane
- MS (Lab ID: 2603778)
  - Bromomethane
  - Dichlorodifluoromethane
- MS-MW06-23BR (Lab ID: 30524553010)
  - Bromomethane
  - Dichlorodifluoromethane
- MSD (Lab ID: 2603779)
  - Bromomethane
  - Dichlorodifluoromethane
- MSD-MW06-23BR (Lab ID: 30524553011)
  - Bromomethane
  - Dichlorodifluoromethane
- MW-2 (Lab ID: 30524553001)
  - Bromomethane
  - Dichlorodifluoromethane
- MW06-23BR (Lab ID: 30524553002)
  - Bromomethane
  - Dichlorodifluoromethane
- MW06-24BR (Lab ID: 30524553003)
  - Bromomethane
  - Dichlorodifluoromethane
- MW06-25BR (Lab ID: 30524553004)
  - Bromomethane
  - Dichlorodifluoromethane
- MW16-7BR (Lab ID: 30524553005)
  - Bromomethane
  - Dichlorodifluoromethane
- trip blank (Lab ID: 30524553012)
  - Bromomethane
  - Dichlorodifluoromethane

CL: The continuing calibration for this compound is outside of Pace Analytical acceptance limits. The results may be biased low.

- BLANK (Lab ID: 2603776)
  - 2,2-Dichloropropane
  - Vinyl acetate
- Dup. (Lab ID: 30524553009)
  - 2,2-Dichloropropane
- IOW-1 (Lab ID: 30524553006)
  - 2,2-Dichloropropane

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PROJECT NARRATIVE

Project: 209164
Pace Project No.: 30524553

Method: **EPA 8260C**
Description: 8260C MSV
Client: GeoLogic NY, P.C.
Date: October 10, 2022

QC Batch: 536605

CL: The continuing calibration for this compound is outside of Pace Analytical acceptance limits. The results may be biased low.

- IOW-3 (Lab ID: 30524553007)
  - 2,2-Dichloropropane
- IOW-4 (Lab ID: 30524553008)
  - 2,2-Dichloropropane
- LCS (Lab ID: 2603777)
  - 2,2-Dichloropropane
  - Vinyl acetate
- MS (Lab ID: 2603778)
  - 2,2-Dichloropropane
  - Vinyl acetate
- MS-MW06-23BR (Lab ID: 30524553010)
  - 2,2-Dichloropropane
- MSD (Lab ID: 2603779)
  - 2,2-Dichloropropane
  - Vinyl acetate
- MSD-MW06-23BR (Lab ID: 30524553011)
  - 2,2-Dichloropropane
- MW-2 (Lab ID: 30524553001)
  - 2,2-Dichloropropane
- MW06-23BR (Lab ID: 30524553002)
  - 2,2-Dichloropropane
  - Vinyl acetate
- MW06-24BR (Lab ID: 30524553003)
  - 2,2-Dichloropropane
- MW06-25BR (Lab ID: 30524553004)
  - 2,2-Dichloropropane
- MW16-7BR (Lab ID: 30524553005)
  - 2,2-Dichloropropane
- trip blank (Lab ID: 30524553012)
  - 2,2-Dichloropropane
  - Vinyl acetate

Internal Standards:
All internal standards were within QC limits with any exceptions noted below.

Surrogates:
All surrogates were within QC limits with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

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PROJECT NARRATIVE

Project: 209164
Pace Project No.: 30524553

Method: **EPA 8260C**
Description: 8260C MSV
Client: GeoLogic NY, P.C.
Date: October 10, 2022

QC Batch: 536605

L2: Analyte recovery in the laboratory control sample (LCS) was below QC limits. Results for this analyte in associated samples may be biased low.

- LCS (Lab ID: 2603777)
  - Carbon disulfide
  - Dichlorodifluoromethane

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

QC Batch: 536605

A matrix spike and/or matrix spike duplicate (MS/MSD) were performed on the following sample(s): 30524553002

M1: Matrix spike recovery exceeded QC limits. Batch accepted based on laboratory control sample (LCS) recovery.

- MS (Lab ID: 2603778)
  - Trichloroethene

ML: Matrix spike recovery and/or matrix spike duplicate recovery was below laboratory control limits. Result may be biased low.

- MS (Lab ID: 2603778)
  - 2-Chloroethylvinyl ether
  - Dichlorodifluoromethane
- MSD (Lab ID: 2603779)
  - 2-Chloroethylvinyl ether
  - Dichlorodifluoromethane

R1: RPD value was outside control limits.

- MSD (Lab ID: 2603779)
  - Bromomethane

Additional Comments:

Analyte Comments:

QC Batch: 536605

1c: This analyte did not meet the recommended minimum RF in the ICAL.

- BLANK (Lab ID: 2603776)
  - Acetone
- Dup. (Lab ID: 30524553009)
  - Acetone
  - Bromomethane
- IOW-1 (Lab ID: 30524553006)
  - Acetone
- IOW-3 (Lab ID: 30524553007)
  - Acetone
  - Bromomethane
- IOW-4 (Lab ID: 30524553008)
  - Acetone
  - Bromomethane

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PROJECT NARRATIVE

Project: 209164
Pace Project No.: 30524553

Method: **EPA 8260C**
Description: 8260C MSV
Client: GeoLogic NY, P.C.
Date: October 10, 2022

Analyte Comments:

QC Batch: 536605

1c: This analyte did not meet the recommended minimum RF in the ICAL.

- LCS (Lab ID: 2603777)
  - Acetone
  - Bromomethane
- MS (Lab ID: 2603778)
  - Acetone
  - Bromomethane
- MS-MW06-23BR (Lab ID: 30524553010)
  - Acetone
  - Bromomethane
- MSD (Lab ID: 2603779)
  - Acetone
  - Bromomethane
- MSD-MW06-23BR (Lab ID: 30524553011)
  - Acetone
  - Bromomethane
- MW-2 (Lab ID: 30524553001)
  - Acetone
  - Bromomethane
- MW06-23BR (Lab ID: 30524553002)
  - Acetone
  - Bromomethane
- MW06-24BR (Lab ID: 30524553003)
  - Acetone
  - Bromomethane
- MW06-25BR (Lab ID: 30524553004)
  - Acetone
  - Bromomethane
- MW16-7BR (Lab ID: 30524553005)
  - Acetone
  - Bromomethane
- trip blank (Lab ID: 30524553012)
  - Acetone

This data package has been reviewed for quality and completeness and is approved for release.

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ANALYTICAL RESULTS

Project: 209164
Pace Project No.: 30524553

Sample: MW-2 **Lab ID: 30524553001** Collected: 09/20/22 12:54 Received: 09/23/22 09:45 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
Indicator Gases Water LHC	Analytical Method: AM20GAX Pace Analytical Gulf Coast							
Ethene	**6.6**	ug/L	1.0	1		09/29/22 07:12	74-85-1	
8260C MSV	Analytical Method: EPA 8260C Pace Analytical Services - Greensburg							
1,1,1,2-Tetrachloroethane	ND	ug/L	1.0	1		09/30/22 14:45	630-20-6	
1,1,1-Trichloroethane	ND	ug/L	1.0	1		09/30/22 14:45	71-55-6	
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0	1		09/30/22 14:45	79-34-5	
1,1,2-Trichloroethane	ND	ug/L	1.0	1		09/30/22 14:45	79-00-5	
1,1-Dichloroethane	**1.5**	ug/L	1.0	1		09/30/22 14:45	75-34-3	
1,1-Dichloroethene	ND	ug/L	1.0	1		09/30/22 14:45	75-35-4	
1,1-Dichloropropene	ND	ug/L	1.0	1		09/30/22 14:45	563-58-6	
1,2,3-Trichlorobenzene	ND	ug/L	4.0	1		09/30/22 14:45	87-61-6	
1,2,4-Trichlorobenzene	ND	ug/L	4.0	1		09/30/22 14:45	120-82-1	
1,2,4-Trimethylbenzene	ND	ug/L	1.0	1		09/30/22 14:45	95-63-6	
1,2-Dibromo-3-chloropropane	ND	ug/L	5.0	1		09/30/22 14:45	96-12-8	
1,2-Dibromoethane (EDB)	ND	ug/L	1.0	1		09/30/22 14:45	106-93-4	
1,2-Dichlorobenzene	ND	ug/L	1.0	1		09/30/22 14:45	95-50-1	
1,2-Dichloroethane	ND	ug/L	1.0	1		09/30/22 14:45	107-06-2	
1,2-Dichloropropane	ND	ug/L	1.0	1		09/30/22 14:45	78-87-5	
1,3,5-Trimethylbenzene	ND	ug/L	1.0	1		09/30/22 14:45	108-67-8	
1,3-Dichlorobenzene	ND	ug/L	1.0	1		09/30/22 14:45	541-73-1	
1,3-Dichloropropane	ND	ug/L	1.0	1		09/30/22 14:45	142-28-9	
1,4-Dichlorobenzene	ND	ug/L	1.0	1		09/30/22 14:45	106-46-7	
2,2-Dichloropropane	ND	ug/L	1.0	1		09/30/22 14:45	594-20-7	CL
2-Butanone (MEK)	ND	ug/L	10.0	1		09/30/22 14:45	78-93-3	
2-Chloroethylvinyl ether	ND	ug/L	2.0	1		09/30/22 14:45	110-75-8	c2
2-Chlorotoluene	ND	ug/L	1.0	1		09/30/22 14:45	95-49-8	
2-Hexanone	ND	ug/L	10.0	1		09/30/22 14:45	591-78-6	
4-Chlorotoluene	ND	ug/L	1.0	1		09/30/22 14:45	106-43-4	
4-Methyl-2-pentanone (MIBK)	ND	ug/L	10.0	1		09/30/22 14:45	108-10-1	
Acetone	ND	ug/L	10.0	1		09/30/22 14:45	67-64-1	1c
Benzene	ND	ug/L	1.0	1		09/30/22 14:45	71-43-2	
Bromobenzene	ND	ug/L	1.0	1		09/30/22 14:45	108-86-1	
Bromochloromethane	ND	ug/L	1.0	1		09/30/22 14:45	74-97-5	
Bromodichloromethane	ND	ug/L	1.0	1		09/30/22 14:45	75-27-4	
Bromoform	ND	ug/L	4.0	1		09/30/22 14:45	75-25-2	
Bromomethane	ND	ug/L	4.0	1		09/30/22 14:45	74-83-9	1c,CH,IL
Carbon disulfide	ND	ug/L	1.0	1		09/30/22 14:45	75-15-0	IL,L2
Carbon tetrachloride	ND	ug/L	1.0	1		09/30/22 14:45	56-23-5	
Chlorobenzene	ND	ug/L	1.0	1		09/30/22 14:45	108-90-7	
Chloroethane	ND	ug/L	1.0	1		09/30/22 14:45	75-00-3	
Chloroform	ND	ug/L	1.0	1		09/30/22 14:45	67-66-3	
Chloromethane	ND	ug/L	1.0	1		09/30/22 14:45	74-87-3	
Dibromochloromethane	ND	ug/L	1.0	1		09/30/22 14:45	124-48-1	
Dibromomethane	ND	ug/L	1.0	1		09/30/22 14:45	74-95-3	
Dichlorodifluoromethane	ND	ug/L	1.0	1		09/30/22 14:45	75-71-8	CH,IH,L2

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
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ANALYTICAL RESULTS

Project: 209164
Pace Project No.: 30524553

Sample: MW-2 **Lab ID: 30524553001** Collected: 09/20/22 12:54 Received: 09/23/22 09:45 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260C MSV	Analytical Method: EPA 8260C Pace Analytical Services - Greensburg							
Ethylbenzene	ND	ug/L	1.0	1		09/30/22 14:45	100-41-4	
Hexachloro-1,3-butadiene	ND	ug/L	4.0	1		09/30/22 14:45	87-68-3	
Isopropylbenzene (Cumene)	ND	ug/L	1.0	1		09/30/22 14:45	98-82-8	
Methyl-tert-butyl ether	ND	ug/L	1.0	1		09/30/22 14:45	1634-04-4	
Methylene Chloride	ND	ug/L	1.0	1		09/30/22 14:45	75-09-2	
Naphthalene	ND	ug/L	4.0	1		09/30/22 14:45	91-20-3	
Styrene	ND	ug/L	1.0	1		09/30/22 14:45	100-42-5	
Tetrachloroethene	ND	ug/L	1.0	1		09/30/22 14:45	127-18-4	
Toluene	ND	ug/L	1.0	1		09/30/22 14:45	108-88-3	
Trichloroethene	**160**	ug/L	1.0	1		09/30/22 14:45	79-01-6	
Trichlorofluoromethane	ND	ug/L	1.0	1		09/30/22 14:45	75-69-4	
Vinyl acetate	ND	ug/L	1.0	1		09/30/22 14:45	108-05-4	
Vinyl chloride	**51.0**	ug/L	1.0	1		09/30/22 14:45	75-01-4	IH
Xylene (Total)	ND	ug/L	3.0	1		09/30/22 14:45	1330-20-7	
cis-1,2-Dichloroethene	**75.7**	ug/L	1.0	1		09/30/22 14:45	156-59-2	
cis-1,3-Dichloropropene	ND	ug/L	1.0	1		09/30/22 14:45	10061-01-5	
m&p-Xylene	ND	ug/L	2.0	1		09/30/22 14:45	179601-23-1	
n-Butylbenzene	ND	ug/L	1.0	1		09/30/22 14:45	104-51-8	
n-Propylbenzene	ND	ug/L	1.0	1		09/30/22 14:45	103-65-1	
o-Xylene	ND	ug/L	1.0	1		09/30/22 14:45	95-47-6	
p-Isopropyltoluene	ND	ug/L	1.0	1		09/30/22 14:45	99-87-6	
sec-Butylbenzene	ND	ug/L	1.0	1		09/30/22 14:45	135-98-8	
tert-Butylbenzene	ND	ug/L	1.0	1		09/30/22 14:45	98-06-6	
trans-1,2-Dichloroethene	**4.5**	ug/L	1.0	1		09/30/22 14:45	156-60-5	
trans-1,3-Dichloropropene	ND	ug/L	1.0	1		09/30/22 14:45	10061-02-6	
Surrogates								
4-Bromofluorobenzene (S)	102	%.	70-130	1		09/30/22 14:45	460-00-4	
1,2-Dichloroethane-d4 (S)	100	%.	70-130	1		09/30/22 14:45	17060-07-0	
Toluene-d8 (S)	96	%.	70-130	1		09/30/22 14:45	2037-26-5	
Dibromofluoromethane (S)	103	%.	70-130	1		09/30/22 14:45	1868-53-7	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1638 Roseytown Road - Suites 2,3,4
Greensburg, PA 15601
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ANALYTICAL RESULTS

Project: 209164
Pace Project No.: 30524553

Sample: MW06-23BR **Lab ID: 30524553002** Collected: 09/20/22 16:07 Received: 09/23/22 09:45 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
Indicator Gases Water LHC	Analytical Method: AM20GAX Pace Analytical Gulf Coast							
Ethene	**6.0**	ug/L	1.0	1		09/29/22 07:23	74-85-1	
8260C MSV	Analytical Method: EPA 8260C Pace Analytical Services - Greensburg							
1,1,1,2-Tetrachloroethane	ND	ug/L	1.0	1		09/30/22 17:08	630-20-6	
1,1,1-Trichloroethane	**3.2**	ug/L	1.0	1		09/30/22 17:08	71-55-6	
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0	1		09/30/22 17:08	79-34-5	
1,1,2-Trichloroethane	ND	ug/L	1.0	1		09/30/22 17:08	79-00-5	
1,1-Dichloroethane	**2.9**	ug/L	1.0	1		09/30/22 17:08	75-34-3	
1,1-Dichloroethene	**5.2**	ug/L	1.0	1		09/30/22 17:08	75-35-4	
1,1-Dichloropropene	ND	ug/L	1.0	1		09/30/22 17:08	563-58-6	
1,2,3-Trichlorobenzene	ND	ug/L	4.0	1		09/30/22 17:08	87-61-6	
1,2,4-Trichlorobenzene	ND	ug/L	4.0	1		09/30/22 17:08	120-82-1	
1,2,4-Trimethylbenzene	ND	ug/L	1.0	1		09/30/22 17:08	95-63-6	
1,2-Dibromo-3-chloropropane	ND	ug/L	5.0	1		09/30/22 17:08	96-12-8	
1,2-Dibromoethane (EDB)	ND	ug/L	1.0	1		09/30/22 17:08	106-93-4	
1,2-Dichlorobenzene	ND	ug/L	1.0	1		09/30/22 17:08	95-50-1	
1,2-Dichloroethane	ND	ug/L	1.0	1		09/30/22 17:08	107-06-2	
1,2-Dichloropropane	ND	ug/L	1.0	1		09/30/22 17:08	78-87-5	
1,3,5-Trimethylbenzene	ND	ug/L	1.0	1		09/30/22 17:08	108-67-8	
1,3-Dichlorobenzene	ND	ug/L	1.0	1		09/30/22 17:08	541-73-1	
1,3-Dichloropropane	ND	ug/L	1.0	1		09/30/22 17:08	142-28-9	
1,4-Dichlorobenzene	ND	ug/L	1.0	1		09/30/22 17:08	106-46-7	
2,2-Dichloropropane	ND	ug/L	1.0	1		09/30/22 17:08	594-20-7	CL
2-Butanone (MEK)	ND	ug/L	10.0	1		09/30/22 17:08	78-93-3	
2-Chloroethylvinyl ether	ND	ug/L	2.0	1		09/30/22 17:08	110-75-8	ML,c2
2-Chlorotoluene	ND	ug/L	1.0	1		09/30/22 17:08	95-49-8	
2-Hexanone	ND	ug/L	10.0	1		09/30/22 17:08	591-78-6	
4-Chlorotoluene	ND	ug/L	1.0	1		09/30/22 17:08	106-43-4	
4-Methyl-2-pentanone (MIBK)	ND	ug/L	10.0	1		09/30/22 17:08	108-10-1	
Acetone	ND	ug/L	10.0	1		09/30/22 17:08	67-64-1	1c
Benzene	ND	ug/L	1.0	1		09/30/22 17:08	71-43-2	
Bromobenzene	ND	ug/L	1.0	1		09/30/22 17:08	108-86-1	
Bromochloromethane	ND	ug/L	1.0	1		09/30/22 17:08	74-97-5	
Bromodichloromethane	ND	ug/L	1.0	1		09/30/22 17:08	75-27-4	
Bromoform	ND	ug/L	4.0	1		09/30/22 17:08	75-25-2	
Bromomethane	ND	ug/L	4.0	1		09/30/22 17:08	74-83-9	1c,CH,IL,R1
Carbon disulfide	ND	ug/L	1.0	1		09/30/22 17:08	75-15-0	IL,L2
Carbon tetrachloride	ND	ug/L	1.0	1		09/30/22 17:08	56-23-5	
Chlorobenzene	ND	ug/L	1.0	1		09/30/22 17:08	108-90-7	
Chloroethane	ND	ug/L	1.0	1		09/30/22 17:08	75-00-3	
Chloroform	ND	ug/L	1.0	1		09/30/22 17:08	67-66-3	
Chloromethane	ND	ug/L	1.0	1		09/30/22 17:08	74-87-3	
Dibromochloromethane	ND	ug/L	1.0	1		09/30/22 17:08	124-48-1	
Dibromomethane	ND	ug/L	1.0	1		09/30/22 17:08	74-95-3	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1638 Roseytown Road - Suites 2,3,4
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ANALYTICAL RESULTS

Project: 209164
Pace Project No.: 30524553

Sample: MW06-23BR **Lab ID: 30524553002** Collected: 09/20/22 16:07 Received: 09/23/22 09:45 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260C MSV	Analytical Method: EPA 8260C Pace Analytical Services - Greensburg							
Dichlorodifluoromethane	ND	ug/L	1.0	1		09/30/22 17:08	75-71-8	CH,IH, L2,ML
Ethylbenzene	ND	ug/L	1.0	1		09/30/22 17:08	100-41-4	
Hexachloro-1,3-butadiene	ND	ug/L	4.0	1		09/30/22 17:08	87-68-3	
Isopropylbenzene (Cumene)	ND	ug/L	1.0	1		09/30/22 17:08	98-82-8	
Methyl-tert-butyl ether	ND	ug/L	1.0	1		09/30/22 17:08	1634-04-4	
Methylene Chloride	ND	ug/L	1.0	1		09/30/22 17:08	75-09-2	
Naphthalene	ND	ug/L	4.0	1		09/30/22 17:08	91-20-3	
Styrene	ND	ug/L	1.0	1		09/30/22 17:08	100-42-5	
Tetrachloroethene	ND	ug/L	1.0	1		09/30/22 17:08	127-18-4	
Toluene	ND	ug/L	1.0	1		09/30/22 17:08	108-88-3	
Trichloroethene	**1030**	ug/L	10.0	10		09/30/22 17:32	79-01-6	M1
Trichlorofluoromethane	ND	ug/L	1.0	1		09/30/22 17:08	75-69-4	
Vinyl acetate	ND	ug/L	1.0	1		09/30/22 17:08	108-05-4	CL
Vinyl chloride	**118**	ug/L	1.0	1		09/30/22 17:08	75-01-4	IH
Xylene (Total)	ND	ug/L	3.0	1		09/30/22 17:08	1330-20-7	
cis-1,2-Dichloroethene	**534**	ug/L	10.0	10		09/30/22 17:32	156-59-2	
cis-1,3-Dichloropropene	ND	ug/L	1.0	1		09/30/22 17:08	10061-01-5	
m&p-Xylene	ND	ug/L	2.0	1		09/30/22 17:08	179601-23-1	
n-Butylbenzene	ND	ug/L	1.0	1		09/30/22 17:08	104-51-8	
n-Propylbenzene	ND	ug/L	1.0	1		09/30/22 17:08	103-65-1	
o-Xylene	ND	ug/L	1.0	1		09/30/22 17:08	95-47-6	
p-Isopropyltoluene	ND	ug/L	1.0	1		09/30/22 17:08	99-87-6	
sec-Butylbenzene	ND	ug/L	1.0	1		09/30/22 17:08	135-98-8	
tert-Butylbenzene	ND	ug/L	1.0	1		09/30/22 17:08	98-06-6	
trans-1,2-Dichloroethene	**7.3**	ug/L	1.0	1		09/30/22 17:08	156-60-5	
trans-1,3-Dichloropropene	ND	ug/L	1.0	1		09/30/22 17:08	10061-02-6	
Surrogates								
4-Bromofluorobenzene (S)	101	%.	70-130	1		09/30/22 17:08	460-00-4	
1,2-Dichloroethane-d4 (S)	102	%.	70-130	1		09/30/22 17:08	17060-07-0	
Toluene-d8 (S)	99	%.	70-130	1		09/30/22 17:08	2037-26-5	
Dibromofluoromethane (S)	107	%.	70-130	1		09/30/22 17:08	1868-53-7	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1638 Roseytown Road - Suites 2,3,4
Greensburg, PA 15601
(724)850-5600

ANALYTICAL RESULTS

Project: 209164
Pace Project No.: 30524553

Sample: MW06-24BR **Lab ID: 30524553003** Collected: 09/21/22 10:18 Received: 09/23/22 09:45 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
Indicator Gases Water LHC	Analytical Method: AM20GAX Pace Analytical Gulf Coast							
Ethene	ND	ug/L	1.0	1		09/29/22 07:35	74-85-1	
8260C MSV	Analytical Method: EPA 8260C Pace Analytical Services - Greensburg							
1,1,1,2-Tetrachloroethane	ND	ug/L	1.0	1		09/30/22 15:09	630-20-6	
1,1,1-Trichloroethane	ND	ug/L	1.0	1		09/30/22 15:09	71-55-6	
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0	1		09/30/22 15:09	79-34-5	
1,1,2-Trichloroethane	ND	ug/L	1.0	1		09/30/22 15:09	79-00-5	
1,1-Dichloroethane	ND	ug/L	1.0	1		09/30/22 15:09	75-34-3	
1,1-Dichloroethene	ND	ug/L	1.0	1		09/30/22 15:09	75-35-4	
1,1-Dichloropropene	ND	ug/L	1.0	1		09/30/22 15:09	563-58-6	
1,2,3-Trichlorobenzene	ND	ug/L	4.0	1		09/30/22 15:09	87-61-6	
1,2,4-Trichlorobenzene	ND	ug/L	4.0	1		09/30/22 15:09	120-82-1	
1,2,4-Trimethylbenzene	ND	ug/L	1.0	1		09/30/22 15:09	95-63-6	
1,2-Dibromo-3-chloropropane	ND	ug/L	5.0	1		09/30/22 15:09	96-12-8	
1,2-Dibromoethane (EDB)	ND	ug/L	1.0	1		09/30/22 15:09	106-93-4	
1,2-Dichlorobenzene	ND	ug/L	1.0	1		09/30/22 15:09	95-50-1	
1,2-Dichloroethane	ND	ug/L	1.0	1		09/30/22 15:09	107-06-2	
1,2-Dichloropropane	ND	ug/L	1.0	1		09/30/22 15:09	78-87-5	
1,3,5-Trimethylbenzene	ND	ug/L	1.0	1		09/30/22 15:09	108-67-8	
1,3-Dichlorobenzene	ND	ug/L	1.0	1		09/30/22 15:09	541-73-1	
1,3-Dichloropropane	ND	ug/L	1.0	1		09/30/22 15:09	142-28-9	
1,4-Dichlorobenzene	ND	ug/L	1.0	1		09/30/22 15:09	106-46-7	
2,2-Dichloropropane	ND	ug/L	1.0	1		09/30/22 15:09	594-20-7	CL
2-Butanone (MEK)	ND	ug/L	10.0	1		09/30/22 15:09	78-93-3	
2-Chloroethylvinyl ether	ND	ug/L	2.0	1		09/30/22 15:09	110-75-8	c2
2-Chlorotoluene	ND	ug/L	1.0	1		09/30/22 15:09	95-49-8	
2-Hexanone	ND	ug/L	10.0	1		09/30/22 15:09	591-78-6	
4-Chlorotoluene	ND	ug/L	1.0	1		09/30/22 15:09	106-43-4	
4-Methyl-2-pentanone (MIBK)	ND	ug/L	10.0	1		09/30/22 15:09	108-10-1	
Acetone	ND	ug/L	10.0	1		09/30/22 15:09	67-64-1	1c
Benzene	ND	ug/L	1.0	1		09/30/22 15:09	71-43-2	
Bromobenzene	ND	ug/L	1.0	1		09/30/22 15:09	108-86-1	
Bromochloromethane	ND	ug/L	1.0	1		09/30/22 15:09	74-97-5	
Bromodichloromethane	ND	ug/L	1.0	1		09/30/22 15:09	75-27-4	
Bromoform	ND	ug/L	4.0	1		09/30/22 15:09	75-25-2	
Bromomethane	ND	ug/L	4.0	1		09/30/22 15:09	74-83-9	1c,CH,IL
Carbon disulfide	ND	ug/L	1.0	1		09/30/22 15:09	75-15-0	IL,L2
Carbon tetrachloride	ND	ug/L	1.0	1		09/30/22 15:09	56-23-5	
Chlorobenzene	ND	ug/L	1.0	1		09/30/22 15:09	108-90-7	
Chloroethane	ND	ug/L	1.0	1		09/30/22 15:09	75-00-3	
Chloroform	ND	ug/L	1.0	1		09/30/22 15:09	67-66-3	
Chloromethane	ND	ug/L	1.0	1		09/30/22 15:09	74-87-3	
Dibromochloromethane	ND	ug/L	1.0	1		09/30/22 15:09	124-48-1	
Dibromomethane	ND	ug/L	1.0	1		09/30/22 15:09	74-95-3	
Dichlorodifluoromethane	ND	ug/L	1.0	1		09/30/22 15:09	75-71-8	CH,IH,L2

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1638 Roseytown Road - Suites 2,3,4
Greensburg, PA 15601
(724)850-5600

ANALYTICAL RESULTS

Project: 209164
Pace Project No.: 30524553

Sample: MW06-24BR **Lab ID: 30524553003** Collected: 09/21/22 10:18 Received: 09/23/22 09:45 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260C MSV	Analytical Method: EPA 8260C Pace Analytical Services - Greensburg							
Ethylbenzene	ND	ug/L	1.0	1		09/30/22 15:09	100-41-4	
Hexachloro-1,3-butadiene	ND	ug/L	4.0	1		09/30/22 15:09	87-68-3	
Isopropylbenzene (Cumene)	ND	ug/L	1.0	1		09/30/22 15:09	98-82-8	
Methyl-tert-butyl ether	ND	ug/L	1.0	1		09/30/22 15:09	1634-04-4	
Methylene Chloride	ND	ug/L	1.0	1		09/30/22 15:09	75-09-2	
Naphthalene	ND	ug/L	4.0	1		09/30/22 15:09	91-20-3	
Styrene	ND	ug/L	1.0	1		09/30/22 15:09	100-42-5	
Tetrachloroethene	ND	ug/L	1.0	1		09/30/22 15:09	127-18-4	
Toluene	ND	ug/L	1.0	1		09/30/22 15:09	108-88-3	
Trichloroethene	**15.4**	ug/L	1.0	1		09/30/22 15:09	79-01-6	
Trichlorofluoromethane	ND	ug/L	1.0	1		09/30/22 15:09	75-69-4	
Vinyl acetate	ND	ug/L	1.0	1		09/30/22 15:09	108-05-4	
Vinyl chloride	**5.9**	ug/L	1.0	1		09/30/22 15:09	75-01-4	IH
Xylene (Total)	ND	ug/L	3.0	1		09/30/22 15:09	1330-20-7	
cis-1,2-Dichloroethene	**18.5**	ug/L	1.0	1		09/30/22 15:09	156-59-2	
cis-1,3-Dichloropropene	ND	ug/L	1.0	1		09/30/22 15:09	10061-01-5	
m&p-Xylene	ND	ug/L	2.0	1		09/30/22 15:09	179601-23-1	
n-Butylbenzene	ND	ug/L	1.0	1		09/30/22 15:09	104-51-8	
n-Propylbenzene	ND	ug/L	1.0	1		09/30/22 15:09	103-65-1	
o-Xylene	ND	ug/L	1.0	1		09/30/22 15:09	95-47-6	
p-Isopropyltoluene	ND	ug/L	1.0	1		09/30/22 15:09	99-87-6	
sec-Butylbenzene	ND	ug/L	1.0	1		09/30/22 15:09	135-98-8	
tert-Butylbenzene	ND	ug/L	1.0	1		09/30/22 15:09	98-06-6	
trans-1,2-Dichloroethene	**1.0**	ug/L	1.0	1		09/30/22 15:09	156-60-5	
trans-1,3-Dichloropropene	ND	ug/L	1.0	1		09/30/22 15:09	10061-02-6	
Surrogates								
4-Bromofluorobenzene (S)	100	%.	70-130	1		09/30/22 15:09	460-00-4	
1,2-Dichloroethane-d4 (S)	107	%.	70-130	1		09/30/22 15:09	17060-07-0	
Toluene-d8 (S)	98	%.	70-130	1		09/30/22 15:09	2037-26-5	
Dibromofluoromethane (S)	105	%.	70-130	1		09/30/22 15:09	1868-53-7	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1638 Roseytown Road - Suites 2,3,4
Greensburg, PA 15601
(724)850-5600

ANALYTICAL RESULTS

Project: 209164
Pace Project No.: 30524553

Sample: MW06-25BR **Lab ID: 30524553004** Collected: 09/21/22 11:19 Received: 09/23/22 09:45 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
Indicator Gases Water LHC	Analytical Method: AM20GAX Pace Analytical Gulf Coast							
Ethene	ND	ug/L	1.0	1		09/29/22 07:46	74-85-1	
8260C MSV	Analytical Method: EPA 8260C Pace Analytical Services - Greensburg							
1,1,1,2-Tetrachloroethane	ND	ug/L	1.0	1		09/30/22 15:33	630-20-6	
1,1,1-Trichloroethane	**95.8**	ug/L	1.0	1		09/30/22 15:33	71-55-6	
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0	1		09/30/22 15:33	79-34-5	
1,1,2-Trichloroethane	ND	ug/L	1.0	1		09/30/22 15:33	79-00-5	
1,1-Dichloroethane	**18.5**	ug/L	1.0	1		09/30/22 15:33	75-34-3	
1,1-Dichloroethene	**7.2**	ug/L	1.0	1		09/30/22 15:33	75-35-4	
1,1-Dichloropropene	ND	ug/L	1.0	1		09/30/22 15:33	563-58-6	
1,2,3-Trichlorobenzene	ND	ug/L	4.0	1		09/30/22 15:33	87-61-6	
1,2,4-Trichlorobenzene	ND	ug/L	4.0	1		09/30/22 15:33	120-82-1	
1,2,4-Trimethylbenzene	ND	ug/L	1.0	1		09/30/22 15:33	95-63-6	
1,2-Dibromo-3-chloropropane	ND	ug/L	5.0	1		09/30/22 15:33	96-12-8	
1,2-Dibromoethane (EDB)	ND	ug/L	1.0	1		09/30/22 15:33	106-93-4	
1,2-Dichlorobenzene	ND	ug/L	1.0	1		09/30/22 15:33	95-50-1	
1,2-Dichloroethane	ND	ug/L	1.0	1		09/30/22 15:33	107-06-2	
1,2-Dichloropropane	ND	ug/L	1.0	1		09/30/22 15:33	78-87-5	
1,3,5-Trimethylbenzene	ND	ug/L	1.0	1		09/30/22 15:33	108-67-8	
1,3-Dichlorobenzene	ND	ug/L	1.0	1		09/30/22 15:33	541-73-1	
1,3-Dichloropropane	ND	ug/L	1.0	1		09/30/22 15:33	142-28-9	
1,4-Dichlorobenzene	ND	ug/L	1.0	1		09/30/22 15:33	106-46-7	
2,2-Dichloropropane	ND	ug/L	1.0	1		09/30/22 15:33	594-20-7	CL
2-Butanone (MEK)	ND	ug/L	10.0	1		09/30/22 15:33	78-93-3	
2-Chloroethylvinyl ether	ND	ug/L	2.0	1		09/30/22 15:33	110-75-8	c2
2-Chlorotoluene	ND	ug/L	1.0	1		09/30/22 15:33	95-49-8	
2-Hexanone	ND	ug/L	10.0	1		09/30/22 15:33	591-78-6	
4-Chlorotoluene	ND	ug/L	1.0	1		09/30/22 15:33	106-43-4	
4-Methyl-2-pentanone (MIBK)	ND	ug/L	10.0	1		09/30/22 15:33	108-10-1	
Acetone	ND	ug/L	10.0	1		09/30/22 15:33	67-64-1	1c
Benzene	ND	ug/L	1.0	1		09/30/22 15:33	71-43-2	
Bromobenzene	ND	ug/L	1.0	1		09/30/22 15:33	108-86-1	
Bromochloromethane	ND	ug/L	1.0	1		09/30/22 15:33	74-97-5	
Bromodichloromethane	ND	ug/L	1.0	1		09/30/22 15:33	75-27-4	
Bromoform	ND	ug/L	4.0	1		09/30/22 15:33	75-25-2	
Bromomethane	ND	ug/L	4.0	1		09/30/22 15:33	74-83-9	1c,CH,IL
Carbon disulfide	ND	ug/L	1.0	1		09/30/22 15:33	75-15-0	IL,L2
Carbon tetrachloride	ND	ug/L	1.0	1		09/30/22 15:33	56-23-5	
Chlorobenzene	ND	ug/L	1.0	1		09/30/22 15:33	108-90-7	
Chloroethane	ND	ug/L	1.0	1		09/30/22 15:33	75-00-3	
Chloroform	ND	ug/L	1.0	1		09/30/22 15:33	67-66-3	
Chloromethane	ND	ug/L	1.0	1		09/30/22 15:33	74-87-3	
Dibromochloromethane	ND	ug/L	1.0	1		09/30/22 15:33	124-48-1	
Dibromomethane	ND	ug/L	1.0	1		09/30/22 15:33	74-95-3	
Dichlorodifluoromethane	ND	ug/L	1.0	1		09/30/22 15:33	75-71-8	CH,IH,L2

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1638 Roseytown Road - Suites 2,3,4
Greensburg, PA 15601
(724)850-5600

ANALYTICAL RESULTS

Project: 209164
Pace Project No.: 30524553

Sample: MW06-25BR **Lab ID: 30524553004** Collected: 09/21/22 11:19 Received: 09/23/22 09:45 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260C MSV	Analytical Method: EPA 8260C Pace Analytical Services - Greensburg							
Ethylbenzene	ND	ug/L	1.0	1		09/30/22 15:33	100-41-4	
Hexachloro-1,3-butadiene	ND	ug/L	4.0	1		09/30/22 15:33	87-68-3	
Isopropylbenzene (Cumene)	ND	ug/L	1.0	1		09/30/22 15:33	98-82-8	
Methyl-tert-butyl ether	ND	ug/L	1.0	1		09/30/22 15:33	1634-04-4	
Methylene Chloride	ND	ug/L	1.0	1		09/30/22 15:33	75-09-2	
Naphthalene	ND	ug/L	4.0	1		09/30/22 15:33	91-20-3	
Styrene	ND	ug/L	1.0	1		09/30/22 15:33	100-42-5	
Tetrachloroethene	ND	ug/L	1.0	1		09/30/22 15:33	127-18-4	
Toluene	ND	ug/L	1.0	1		09/30/22 15:33	108-88-3	
Trichloroethene	**29.8**	ug/L	1.0	1		09/30/22 15:33	79-01-6	
Trichlorofluoromethane	ND	ug/L	1.0	1		09/30/22 15:33	75-69-4	
Vinyl acetate	ND	ug/L	1.0	1		09/30/22 15:33	108-05-4	
Vinyl chloride	**10.9**	ug/L	1.0	1		09/30/22 15:33	75-01-4	IH
Xylene (Total)	ND	ug/L	3.0	1		09/30/22 15:33	1330-20-7	
cis-1,2-Dichloroethene	**32.3**	ug/L	1.0	1		09/30/22 15:33	156-59-2	
cis-1,3-Dichloropropene	ND	ug/L	1.0	1		09/30/22 15:33	10061-01-5	
m&p-Xylene	ND	ug/L	2.0	1		09/30/22 15:33	179601-23-1	
n-Butylbenzene	ND	ug/L	1.0	1		09/30/22 15:33	104-51-8	
n-Propylbenzene	ND	ug/L	1.0	1		09/30/22 15:33	103-65-1	
o-Xylene	ND	ug/L	1.0	1		09/30/22 15:33	95-47-6	
p-Isopropyltoluene	ND	ug/L	1.0	1		09/30/22 15:33	99-87-6	
sec-Butylbenzene	ND	ug/L	1.0	1		09/30/22 15:33	135-98-8	
tert-Butylbenzene	ND	ug/L	1.0	1		09/30/22 15:33	98-06-6	
trans-1,2-Dichloroethene	ND	ug/L	1.0	1		09/30/22 15:33	156-60-5	
trans-1,3-Dichloropropene	ND	ug/L	1.0	1		09/30/22 15:33	10061-02-6	
Surrogates								
4-Bromofluorobenzene (S)	102	%.	70-130	1		09/30/22 15:33	460-00-4	
1,2-Dichloroethane-d4 (S)	106	%.	70-130	1		09/30/22 15:33	17060-07-0	
Toluene-d8 (S)	99	%.	70-130	1		09/30/22 15:33	2037-26-5	
Dibromofluoromethane (S)	105	%.	70-130	1		09/30/22 15:33	1868-53-7	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1638 Roseytown Road - Suites 2,3,4
Greensburg, PA 15601
(724)850-5600

ANALYTICAL RESULTS

Project: 209164
Pace Project No.: 30524553

Sample: MW16-7BR **Lab ID: 30524553005** Collected: 09/21/22 11:25 Received: 09/23/22 09:45 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
Indicator Gases Water LHC	Analytical Method: AM20GAX Pace Analytical Gulf Coast							
Ethene	ND	ug/L	1.0	1		09/29/22 07:57	74-85-1	
8260C MSV	Analytical Method: EPA 8260C Pace Analytical Services - Greensburg							
1,1,1,2-Tetrachloroethane	ND	ug/L	1.0	1		09/30/22 15:56	630-20-6	
1,1,1-Trichloroethane	ND	ug/L	1.0	1		09/30/22 15:56	71-55-6	
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0	1		09/30/22 15:56	79-34-5	
1,1,2-Trichloroethane	ND	ug/L	1.0	1		09/30/22 15:56	79-00-5	
1,1-Dichloroethane	ND	ug/L	1.0	1		09/30/22 15:56	75-34-3	
1,1-Dichloroethene	ND	ug/L	1.0	1		09/30/22 15:56	75-35-4	
1,1-Dichloropropene	ND	ug/L	1.0	1		09/30/22 15:56	563-58-6	
1,2,3-Trichlorobenzene	ND	ug/L	4.0	1		09/30/22 15:56	87-61-6	
1,2,4-Trichlorobenzene	ND	ug/L	4.0	1		09/30/22 15:56	120-82-1	
1,2,4-Trimethylbenzene	ND	ug/L	1.0	1		09/30/22 15:56	95-63-6	
1,2-Dibromo-3-chloropropane	ND	ug/L	5.0	1		09/30/22 15:56	96-12-8	
1,2-Dibromoethane (EDB)	ND	ug/L	1.0	1		09/30/22 15:56	106-93-4	
1,2-Dichlorobenzene	ND	ug/L	1.0	1		09/30/22 15:56	95-50-1	
1,2-Dichloroethane	ND	ug/L	1.0	1		09/30/22 15:56	107-06-2	
1,2-Dichloropropane	ND	ug/L	1.0	1		09/30/22 15:56	78-87-5	
1,3,5-Trimethylbenzene	ND	ug/L	1.0	1		09/30/22 15:56	108-67-8	
1,3-Dichlorobenzene	ND	ug/L	1.0	1		09/30/22 15:56	541-73-1	
1,3-Dichloropropane	ND	ug/L	1.0	1		09/30/22 15:56	142-28-9	
1,4-Dichlorobenzene	ND	ug/L	1.0	1		09/30/22 15:56	106-46-7	
2,2-Dichloropropane	ND	ug/L	1.0	1		09/30/22 15:56	594-20-7	CL
2-Butanone (MEK)	ND	ug/L	10.0	1		09/30/22 15:56	78-93-3	
2-Chloroethylvinyl ether	ND	ug/L	2.0	1		09/30/22 15:56	110-75-8	c2
2-Chlorotoluene	ND	ug/L	1.0	1		09/30/22 15:56	95-49-8	
2-Hexanone	ND	ug/L	10.0	1		09/30/22 15:56	591-78-6	
4-Chlorotoluene	ND	ug/L	1.0	1		09/30/22 15:56	106-43-4	
4-Methyl-2-pentanone (MIBK)	ND	ug/L	10.0	1		09/30/22 15:56	108-10-1	
Acetone	ND	ug/L	10.0	1		09/30/22 15:56	67-64-1	1c
Benzene	ND	ug/L	1.0	1		09/30/22 15:56	71-43-2	
Bromobenzene	ND	ug/L	1.0	1		09/30/22 15:56	108-86-1	
Bromochloromethane	ND	ug/L	1.0	1		09/30/22 15:56	74-97-5	
Bromodichloromethane	ND	ug/L	1.0	1		09/30/22 15:56	75-27-4	
Bromoform	ND	ug/L	4.0	1		09/30/22 15:56	75-25-2	
Bromomethane	ND	ug/L	4.0	1		09/30/22 15:56	74-83-9	1c,CH,IL
Carbon disulfide	ND	ug/L	1.0	1		09/30/22 15:56	75-15-0	IL,L2
Carbon tetrachloride	ND	ug/L	1.0	1		09/30/22 15:56	56-23-5	
Chlorobenzene	ND	ug/L	1.0	1		09/30/22 15:56	108-90-7	
Chloroethane	ND	ug/L	1.0	1		09/30/22 15:56	75-00-3	
Chloroform	ND	ug/L	1.0	1		09/30/22 15:56	67-66-3	
Chloromethane	ND	ug/L	1.0	1		09/30/22 15:56	74-87-3	
Dibromochloromethane	ND	ug/L	1.0	1		09/30/22 15:56	124-48-1	
Dibromomethane	ND	ug/L	1.0	1		09/30/22 15:56	74-95-3	
Dichlorodifluoromethane	ND	ug/L	1.0	1		09/30/22 15:56	75-71-8	CH,IH,L2

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1638 Roseytown Road - Suites 2,3,4
Greensburg, PA 15601
(724)850-5600

ANALYTICAL RESULTS

Project: 209164
Pace Project No.: 30524553

Sample: MW16-7BR **Lab ID: 30524553005** Collected: 09/21/22 11:25 Received: 09/23/22 09:45 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260C MSV	Analytical Method: EPA 8260C Pace Analytical Services - Greensburg							
Ethylbenzene	ND	ug/L	1.0	1		09/30/22 15:56	100-41-4	
Hexachloro-1,3-butadiene	ND	ug/L	4.0	1		09/30/22 15:56	87-68-3	
Isopropylbenzene (Cumene)	ND	ug/L	1.0	1		09/30/22 15:56	98-82-8	
Methyl-tert-butyl ether	ND	ug/L	1.0	1		09/30/22 15:56	1634-04-4	
Methylene Chloride	ND	ug/L	1.0	1		09/30/22 15:56	75-09-2	
Naphthalene	ND	ug/L	4.0	1		09/30/22 15:56	91-20-3	
Styrene	ND	ug/L	1.0	1		09/30/22 15:56	100-42-5	
Tetrachloroethene	ND	ug/L	1.0	1		09/30/22 15:56	127-18-4	
Toluene	ND	ug/L	1.0	1		09/30/22 15:56	108-88-3	
Trichloroethene	ND	ug/L	1.0	1		09/30/22 15:56	79-01-6	
Trichlorofluoromethane	ND	ug/L	1.0	1		09/30/22 15:56	75-69-4	
Vinyl acetate	ND	ug/L	1.0	1		09/30/22 15:56	108-05-4	
Vinyl chloride	**1.9**	ug/L	1.0	1		09/30/22 15:56	75-01-4	IH
Xylene (Total)	ND	ug/L	3.0	1		09/30/22 15:56	1330-20-7	
cis-1,2-Dichloroethene	**3.4**	ug/L	1.0	1		09/30/22 15:56	156-59-2	
cis-1,3-Dichloropropene	ND	ug/L	1.0	1		09/30/22 15:56	10061-01-5	
m&p-Xylene	ND	ug/L	2.0	1		09/30/22 15:56	179601-23-1	
n-Butylbenzene	ND	ug/L	1.0	1		09/30/22 15:56	104-51-8	
n-Propylbenzene	ND	ug/L	1.0	1		09/30/22 15:56	103-65-1	
o-Xylene	ND	ug/L	1.0	1		09/30/22 15:56	95-47-6	
p-Isopropyltoluene	ND	ug/L	1.0	1		09/30/22 15:56	99-87-6	
sec-Butylbenzene	ND	ug/L	1.0	1		09/30/22 15:56	135-98-8	
tert-Butylbenzene	ND	ug/L	1.0	1		09/30/22 15:56	98-06-6	
trans-1,2-Dichloroethene	ND	ug/L	1.0	1		09/30/22 15:56	156-60-5	
trans-1,3-Dichloropropene	ND	ug/L	1.0	1		09/30/22 15:56	10061-02-6	
Surrogates								
4-Bromofluorobenzene (S)	101	%.	70-130	1		09/30/22 15:56	460-00-4	
1,2-Dichloroethane-d4 (S)	105	%.	70-130	1		09/30/22 15:56	17060-07-0	
Toluene-d8 (S)	98	%.	70-130	1		09/30/22 15:56	2037-26-5	
Dibromofluoromethane (S)	104	%.	70-130	1		09/30/22 15:56	1868-53-7	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1638 Roseytown Road - Suites 2,3,4
Greensburg, PA 15601
(724)850-5600

ANALYTICAL RESULTS

Project: 209164
Pace Project No.: 30524553

Sample: IOW-1 **Lab ID: 30524553006** Collected: 09/20/22 14:50 Received: 09/23/22 09:45 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
Indicator Gases Water LHC	Analytical Method: AM20GAX Pace Analytical Gulf Coast							
Ethene	ND	ug/L	1.0	1		09/29/22 08:08	74-85-1	
8260C MSV	Analytical Method: EPA 8260C Pace Analytical Services - Greensburg							
1,1,1,2-Tetrachloroethane	ND	ug/L	1.0	1		09/30/22 17:56	630-20-6	
1,1,1-Trichloroethane	**2.6**	ug/L	1.0	1		09/30/22 17:56	71-55-6	
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0	1		09/30/22 17:56	79-34-5	
1,1,2-Trichloroethane	ND	ug/L	1.0	1		09/30/22 17:56	79-00-5	
1,1-Dichloroethane	**1.2**	ug/L	1.0	1		09/30/22 17:56	75-34-3	
1,1-Dichloroethene	**1.5**	ug/L	1.0	1		09/30/22 17:56	75-35-4	
1,1-Dichloropropene	ND	ug/L	1.0	1		09/30/22 17:56	563-58-6	
1,2,3-Trichlorobenzene	ND	ug/L	4.0	1		09/30/22 17:56	87-61-6	
1,2,4-Trichlorobenzene	ND	ug/L	4.0	1		09/30/22 17:56	120-82-1	
1,2,4-Trimethylbenzene	ND	ug/L	1.0	1		09/30/22 17:56	95-63-6	
1,2-Dibromo-3-chloropropane	ND	ug/L	5.0	1		09/30/22 17:56	96-12-8	
1,2-Dibromoethane (EDB)	ND	ug/L	1.0	1		09/30/22 17:56	106-93-4	
1,2-Dichlorobenzene	ND	ug/L	1.0	1		09/30/22 17:56	95-50-1	
1,2-Dichloroethane	ND	ug/L	1.0	1		09/30/22 17:56	107-06-2	
1,2-Dichloropropane	ND	ug/L	1.0	1		09/30/22 17:56	78-87-5	
1,3,5-Trimethylbenzene	ND	ug/L	1.0	1		09/30/22 17:56	108-67-8	
1,3-Dichlorobenzene	ND	ug/L	1.0	1		09/30/22 17:56	541-73-1	
1,3-Dichloropropane	ND	ug/L	1.0	1		09/30/22 17:56	142-28-9	
1,4-Dichlorobenzene	ND	ug/L	1.0	1		09/30/22 17:56	106-46-7	
2,2-Dichloropropane	ND	ug/L	1.0	1		09/30/22 17:56	594-20-7	CL
2-Butanone (MEK)	ND	ug/L	10.0	1		09/30/22 17:56	78-93-3	
2-Chloroethylvinyl ether	ND	ug/L	2.0	1		09/30/22 17:56	110-75-8	c2
2-Chlorotoluene	ND	ug/L	1.0	1		09/30/22 17:56	95-49-8	
2-Hexanone	ND	ug/L	10.0	1		09/30/22 17:56	591-78-6	
4-Chlorotoluene	ND	ug/L	1.0	1		09/30/22 17:56	106-43-4	
4-Methyl-2-pentanone (MIBK)	ND	ug/L	10.0	1		09/30/22 17:56	108-10-1	
Acetone	ND	ug/L	10.0	1		09/30/22 17:56	67-64-1	1c
Benzene	ND	ug/L	1.0	1		09/30/22 17:56	71-43-2	
Bromobenzene	ND	ug/L	1.0	1		09/30/22 17:56	108-86-1	
Bromochloromethane	ND	ug/L	1.0	1		09/30/22 17:56	74-97-5	
Bromodichloromethane	ND	ug/L	1.0	1		09/30/22 17:56	75-27-4	
Bromoform	ND	ug/L	4.0	1		09/30/22 17:56	75-25-2	
Bromomethane	ND	ug/L	4.0	1		09/30/22 17:56	74-83-9	CH,IL
Carbon disulfide	ND	ug/L	1.0	1		09/30/22 17:56	75-15-0	IL,L2
Carbon tetrachloride	ND	ug/L	1.0	1		09/30/22 17:56	56-23-5	
Chlorobenzene	ND	ug/L	1.0	1		09/30/22 17:56	108-90-7	
Chloroethane	ND	ug/L	1.0	1		09/30/22 17:56	75-00-3	
Chloroform	ND	ug/L	1.0	1		09/30/22 17:56	67-66-3	
Chloromethane	ND	ug/L	1.0	1		09/30/22 17:56	74-87-3	
Dibromochloromethane	ND	ug/L	1.0	1		09/30/22 17:56	124-48-1	
Dibromomethane	ND	ug/L	1.0	1		09/30/22 17:56	74-95-3	
Dichlorodifluoromethane	ND	ug/L	1.0	1		09/30/22 17:56	75-71-8	CH,IH,L2

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1638 Roseytown Road - Suites 2,3,4
Greensburg, PA 15601
(724)850-5600

ANALYTICAL RESULTS

Project: 209164
Pace Project No.: 30524553

Sample: IOW-1 **Lab ID: 30524553006** Collected: 09/20/22 14:50 Received: 09/23/22 09:45 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260C MSV	Analytical Method: EPA 8260C Pace Analytical Services - Greensburg							
Ethylbenzene	ND	ug/L	1.0	1		09/30/22 17:56	100-41-4	
Hexachloro-1,3-butadiene	ND	ug/L	4.0	1		09/30/22 17:56	87-68-3	
Isopropylbenzene (Cumene)	ND	ug/L	1.0	1		09/30/22 17:56	98-82-8	
Methyl-tert-butyl ether	ND	ug/L	1.0	1		09/30/22 17:56	1634-04-4	
Methylene Chloride	ND	ug/L	1.0	1		09/30/22 17:56	75-09-2	
Naphthalene	ND	ug/L	4.0	1		09/30/22 17:56	91-20-3	
Styrene	ND	ug/L	1.0	1		09/30/22 17:56	100-42-5	
Tetrachloroethene	ND	ug/L	1.0	1		09/30/22 17:56	127-18-4	
Toluene	ND	ug/L	1.0	1		09/30/22 17:56	108-88-3	
Trichloroethene	**2550**	ug/L	50.0	50		09/30/22 18:20	79-01-6	
Trichlorofluoromethane	ND	ug/L	1.0	1		09/30/22 17:56	75-69-4	
Vinyl acetate	ND	ug/L	1.0	1		09/30/22 17:56	108-05-4	
Vinyl chloride	**11.8**	ug/L	1.0	1		09/30/22 17:56	75-01-4	IH
Xylene (Total)	ND	ug/L	3.0	1		09/30/22 17:56	1330-20-7	
cis-1,2-Dichloroethene	**140**	ug/L	1.0	1		09/30/22 17:56	156-59-2	
cis-1,3-Dichloropropene	ND	ug/L	1.0	1		09/30/22 17:56	10061-01-5	
m&p-Xylene	ND	ug/L	2.0	1		09/30/22 17:56	179601-23-1	
n-Butylbenzene	ND	ug/L	1.0	1		09/30/22 17:56	104-51-8	
n-Propylbenzene	ND	ug/L	1.0	1		09/30/22 17:56	103-65-1	
o-Xylene	ND	ug/L	1.0	1		09/30/22 17:56	95-47-6	
p-Isopropyltoluene	ND	ug/L	1.0	1		09/30/22 17:56	99-87-6	
sec-Butylbenzene	ND	ug/L	1.0	1		09/30/22 17:56	135-98-8	
tert-Butylbenzene	ND	ug/L	1.0	1		09/30/22 17:56	98-06-6	
trans-1,2-Dichloroethene	**2.4**	ug/L	1.0	1		09/30/22 17:56	156-60-5	
trans-1,3-Dichloropropene	ND	ug/L	1.0	1		09/30/22 17:56	10061-02-6	
Surrogates								
4-Bromofluorobenzene (S)	102	%.	70-130	1		09/30/22 17:56	460-00-4	
1,2-Dichloroethane-d4 (S)	105	%.	70-130	1		09/30/22 17:56	17060-07-0	
Toluene-d8 (S)	99	%.	70-130	1		09/30/22 17:56	2037-26-5	
Dibromofluoromethane (S)	103	%.	70-130	1		09/30/22 17:56	1868-53-7	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1638 Roseytown Road - Suites 2,3,4
Greensburg, PA 15601
(724)850-5600

ANALYTICAL RESULTS

Project: 209164
Pace Project No.: 30524553

Sample: IOW-3 **Lab ID: 30524553007** Collected: 09/21/22 13:18 Received: 09/23/22 09:45 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
Indicator Gases Water LHC	Analytical Method: AM20GAX Pace Analytical Gulf Coast							
Ethene	**1.9**	ug/L	1.0	1		09/29/22 08:20	74-85-1	
8260C MSV	Analytical Method: EPA 8260C Pace Analytical Services - Greensburg							
1,1,1,2-Tetrachloroethane	ND	ug/L	1.0	1		09/30/22 18:44	630-20-6	
1,1,1-Trichloroethane	ND	ug/L	1.0	1		09/30/22 18:44	71-55-6	
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0	1		09/30/22 18:44	79-34-5	
1,1,2-Trichloroethane	ND	ug/L	1.0	1		09/30/22 18:44	79-00-5	
1,1-Dichloroethane	**1.4**	ug/L	1.0	1		09/30/22 18:44	75-34-3	
1,1-Dichloroethene	**3.3**	ug/L	1.0	1		09/30/22 18:44	75-35-4	
1,1-Dichloropropene	ND	ug/L	1.0	1		09/30/22 18:44	563-58-6	
1,2,3-Trichlorobenzene	ND	ug/L	4.0	1		09/30/22 18:44	87-61-6	
1,2,4-Trichlorobenzene	ND	ug/L	4.0	1		09/30/22 18:44	120-82-1	
1,2,4-Trimethylbenzene	ND	ug/L	1.0	1		09/30/22 18:44	95-63-6	
1,2-Dibromo-3-chloropropane	ND	ug/L	5.0	1		09/30/22 18:44	96-12-8	
1,2-Dibromoethane (EDB)	ND	ug/L	1.0	1		09/30/22 18:44	106-93-4	
1,2-Dichlorobenzene	ND	ug/L	1.0	1		09/30/22 18:44	95-50-1	
1,2-Dichloroethane	ND	ug/L	1.0	1		09/30/22 18:44	107-06-2	
1,2-Dichloropropane	ND	ug/L	1.0	1		09/30/22 18:44	78-87-5	
1,3,5-Trimethylbenzene	ND	ug/L	1.0	1		09/30/22 18:44	108-67-8	
1,3-Dichlorobenzene	ND	ug/L	1.0	1		09/30/22 18:44	541-73-1	
1,3-Dichloropropane	ND	ug/L	1.0	1		09/30/22 18:44	142-28-9	
1,4-Dichlorobenzene	ND	ug/L	1.0	1		09/30/22 18:44	106-46-7	
2,2-Dichloropropane	ND	ug/L	1.0	1		09/30/22 18:44	594-20-7	CL
2-Butanone (MEK)	ND	ug/L	10.0	1		09/30/22 18:44	78-93-3	
2-Chloroethylvinyl ether	ND	ug/L	2.0	1		09/30/22 18:44	110-75-8	c2
2-Chlorotoluene	ND	ug/L	1.0	1		09/30/22 18:44	95-49-8	
2-Hexanone	ND	ug/L	10.0	1		09/30/22 18:44	591-78-6	
4-Chlorotoluene	ND	ug/L	1.0	1		09/30/22 18:44	106-43-4	
4-Methyl-2-pentanone (MIBK)	ND	ug/L	10.0	1		09/30/22 18:44	108-10-1	
Acetone	ND	ug/L	10.0	1		09/30/22 18:44	67-64-1	1c
Benzene	ND	ug/L	1.0	1		09/30/22 18:44	71-43-2	
Bromobenzene	ND	ug/L	1.0	1		09/30/22 18:44	108-86-1	
Bromochloromethane	ND	ug/L	1.0	1		09/30/22 18:44	74-97-5	
Bromodichloromethane	ND	ug/L	1.0	1		09/30/22 18:44	75-27-4	
Bromoform	ND	ug/L	4.0	1		09/30/22 18:44	75-25-2	
Bromomethane	ND	ug/L	4.0	1		09/30/22 18:44	74-83-9	1c,CH,IL
Carbon disulfide	ND	ug/L	1.0	1		09/30/22 18:44	75-15-0	IL,L2
Carbon tetrachloride	ND	ug/L	1.0	1		09/30/22 18:44	56-23-5	
Chlorobenzene	ND	ug/L	1.0	1		09/30/22 18:44	108-90-7	
Chloroethane	ND	ug/L	1.0	1		09/30/22 18:44	75-00-3	
Chloroform	ND	ug/L	1.0	1		09/30/22 18:44	67-66-3	
Chloromethane	ND	ug/L	1.0	1		09/30/22 18:44	74-87-3	
Dibromochloromethane	ND	ug/L	1.0	1		09/30/22 18:44	124-48-1	
Dibromomethane	ND	ug/L	1.0	1		09/30/22 18:44	74-95-3	
Dichlorodifluoromethane	ND	ug/L	1.0	1		09/30/22 18:44	75-71-8	CH,IH,L2

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1638 Roseytown Road - Suites 2,3,4
Greensburg, PA 15601
(724)850-5600

ANALYTICAL RESULTS

Project: 209164
Pace Project No.: 30524553

Sample: IOW-3 **Lab ID: 30524553007** Collected: 09/21/22 13:18 Received: 09/23/22 09:45 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260C MSV	Analytical Method: EPA 8260C Pace Analytical Services - Greensburg							
Ethylbenzene	ND	ug/L	1.0	1		09/30/22 18:44	100-41-4	
Hexachloro-1,3-butadiene	ND	ug/L	4.0	1		09/30/22 18:44	87-68-3	
Isopropylbenzene (Cumene)	ND	ug/L	1.0	1		09/30/22 18:44	98-82-8	
Methyl-tert-butyl ether	ND	ug/L	1.0	1		09/30/22 18:44	1634-04-4	
Methylene Chloride	ND	ug/L	1.0	1		09/30/22 18:44	75-09-2	
Naphthalene	ND	ug/L	4.0	1		09/30/22 18:44	91-20-3	
Styrene	ND	ug/L	1.0	1		09/30/22 18:44	100-42-5	
Tetrachloroethene	ND	ug/L	1.0	1		09/30/22 18:44	127-18-4	
Toluene	ND	ug/L	1.0	1		09/30/22 18:44	108-88-3	
Trichloroethene	**446**	ug/L	10.0	10		09/30/22 19:08	79-01-6	
Trichlorofluoromethane	ND	ug/L	1.0	1		09/30/22 18:44	75-69-4	
Vinyl acetate	ND	ug/L	1.0	1		09/30/22 18:44	108-05-4	
Vinyl chloride	**39.1**	ug/L	1.0	1		09/30/22 18:44	75-01-4	IH
Xylene (Total)	ND	ug/L	3.0	1		09/30/22 18:44	1330-20-7	
cis-1,2-Dichloroethene	**204**	ug/L	1.0	1		09/30/22 18:44	156-59-2	
cis-1,3-Dichloropropene	ND	ug/L	1.0	1		09/30/22 18:44	10061-01-5	
m&p-Xylene	ND	ug/L	2.0	1		09/30/22 18:44	179601-23-1	
n-Butylbenzene	ND	ug/L	1.0	1		09/30/22 18:44	104-51-8	
n-Propylbenzene	ND	ug/L	1.0	1		09/30/22 18:44	103-65-1	
o-Xylene	ND	ug/L	1.0	1		09/30/22 18:44	95-47-6	
p-Isopropyltoluene	ND	ug/L	1.0	1		09/30/22 18:44	99-87-6	
sec-Butylbenzene	ND	ug/L	1.0	1		09/30/22 18:44	135-98-8	
tert-Butylbenzene	ND	ug/L	1.0	1		09/30/22 18:44	98-06-6	
trans-1,2-Dichloroethene	**3.8**	ug/L	1.0	1		09/30/22 18:44	156-60-5	
trans-1,3-Dichloropropene	ND	ug/L	1.0	1		09/30/22 18:44	10061-02-6	
Surrogates								
4-Bromofluorobenzene (S)	100	%.	70-130	1		09/30/22 18:44	460-00-4	
1,2-Dichloroethane-d4 (S)	105	%.	70-130	1		09/30/22 18:44	17060-07-0	
Toluene-d8 (S)	100	%.	70-130	1		09/30/22 18:44	2037-26-5	
Dibromofluoromethane (S)	106	%.	70-130	1		09/30/22 18:44	1868-53-7	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1638 Roseytown Road - Suites 2,3,4
Greensburg, PA 15601
(724)850-5600

ANALYTICAL RESULTS

Project: 209164
Pace Project No.: 30524553

Sample: IOW-4 **Lab ID: 30524553008** Collected: 09/21/22 14:19 Received: 09/23/22 09:45 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
Indicator Gases Water LHC	Analytical Method: AM20GAX Pace Analytical Gulf Coast							
Ethene	ND	ug/L	1.0	1		09/29/22 09:36	74-85-1	
8260C MSV	Analytical Method: EPA 8260C Pace Analytical Services - Greensburg							
1,1,1,2-Tetrachloroethane	ND	ug/L	1.0	1		09/30/22 16:21	630-20-6	
1,1,1-Trichloroethane	ND	ug/L	1.0	1		09/30/22 16:21	71-55-6	
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0	1		09/30/22 16:21	79-34-5	
1,1,2-Trichloroethane	ND	ug/L	1.0	1		09/30/22 16:21	79-00-5	
1,1-Dichloroethane	ND	ug/L	1.0	1		09/30/22 16:21	75-34-3	
1,1-Dichloroethene	ND	ug/L	1.0	1		09/30/22 16:21	75-35-4	
1,1-Dichloropropene	ND	ug/L	1.0	1		09/30/22 16:21	563-58-6	
1,2,3-Trichlorobenzene	ND	ug/L	4.0	1		09/30/22 16:21	87-61-6	
1,2,4-Trichlorobenzene	ND	ug/L	4.0	1		09/30/22 16:21	120-82-1	
1,2,4-Trimethylbenzene	ND	ug/L	1.0	1		09/30/22 16:21	95-63-6	
1,2-Dibromo-3-chloropropane	ND	ug/L	5.0	1		09/30/22 16:21	96-12-8	
1,2-Dibromoethane (EDB)	ND	ug/L	1.0	1		09/30/22 16:21	106-93-4	
1,2-Dichlorobenzene	ND	ug/L	1.0	1		09/30/22 16:21	95-50-1	
1,2-Dichloroethane	ND	ug/L	1.0	1		09/30/22 16:21	107-06-2	
1,2-Dichloropropane	ND	ug/L	1.0	1		09/30/22 16:21	78-87-5	
1,3,5-Trimethylbenzene	ND	ug/L	1.0	1		09/30/22 16:21	108-67-8	
1,3-Dichlorobenzene	ND	ug/L	1.0	1		09/30/22 16:21	541-73-1	
1,3-Dichloropropane	ND	ug/L	1.0	1		09/30/22 16:21	142-28-9	
1,4-Dichlorobenzene	ND	ug/L	1.0	1		09/30/22 16:21	106-46-7	
2,2-Dichloropropane	ND	ug/L	1.0	1		09/30/22 16:21	594-20-7	CL
2-Butanone (MEK)	ND	ug/L	10.0	1		09/30/22 16:21	78-93-3	
2-Chloroethylvinyl ether	ND	ug/L	2.0	1		09/30/22 16:21	110-75-8	c2
2-Chlorotoluene	ND	ug/L	1.0	1		09/30/22 16:21	95-49-8	
2-Hexanone	ND	ug/L	10.0	1		09/30/22 16:21	591-78-6	
4-Chlorotoluene	ND	ug/L	1.0	1		09/30/22 16:21	106-43-4	
4-Methyl-2-pentanone (MIBK)	ND	ug/L	10.0	1		09/30/22 16:21	108-10-1	
Acetone	ND	ug/L	10.0	1		09/30/22 16:21	67-64-1	1c,CH,IL
Benzene	ND	ug/L	1.0	1		09/30/22 16:21	71-43-2	
Bromobenzene	ND	ug/L	1.0	1		09/30/22 16:21	108-86-1	
Bromochloromethane	ND	ug/L	1.0	1		09/30/22 16:21	74-97-5	
Bromodichloromethane	ND	ug/L	1.0	1		09/30/22 16:21	75-27-4	
Bromoform	ND	ug/L	4.0	1		09/30/22 16:21	75-25-2	
Bromomethane	ND	ug/L	4.0	1		09/30/22 16:21	74-83-9	1c,CH,IL
Carbon disulfide	ND	ug/L	1.0	1		09/30/22 16:21	75-15-0	IL,L2
Carbon tetrachloride	ND	ug/L	1.0	1		09/30/22 16:21	56-23-5	
Chlorobenzene	ND	ug/L	1.0	1		09/30/22 16:21	108-90-7	
Chloroethane	ND	ug/L	1.0	1		09/30/22 16:21	75-00-3	
Chloroform	ND	ug/L	1.0	1		09/30/22 16:21	67-66-3	
Chloromethane	ND	ug/L	1.0	1		09/30/22 16:21	74-87-3	
Dibromochloromethane	ND	ug/L	1.0	1		09/30/22 16:21	124-48-1	
Dibromomethane	ND	ug/L	1.0	1		09/30/22 16:21	74-95-3	
Dichlorodifluoromethane	ND	ug/L	1.0	1		09/30/22 16:21	75-71-8	CH,IH,L2

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1638 Roseytown Road - Suites 2,3,4
Greensburg, PA 15601
(724)850-5600

ANALYTICAL RESULTS

Project: 209164
Pace Project No.: 30524553

Sample: IOW-4 **Lab ID: 30524553008** Collected: 09/21/22 14:19 Received: 09/23/22 09:45 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260C MSV	Analytical Method: EPA 8260C Pace Analytical Services - Greensburg							
Ethylbenzene	ND	ug/L	1.0	1		09/30/22 16:21	100-41-4	
Hexachloro-1,3-butadiene	ND	ug/L	4.0	1		09/30/22 16:21	87-68-3	
Isopropylbenzene (Cumene)	ND	ug/L	1.0	1		09/30/22 16:21	98-82-8	
Methyl-tert-butyl ether	ND	ug/L	1.0	1		09/30/22 16:21	1634-04-4	
Methylene Chloride	ND	ug/L	1.0	1		09/30/22 16:21	75-09-2	
Naphthalene	ND	ug/L	4.0	1		09/30/22 16:21	91-20-3	
Styrene	ND	ug/L	1.0	1		09/30/22 16:21	100-42-5	
Tetrachloroethene	ND	ug/L	1.0	1		09/30/22 16:21	127-18-4	
Toluene	ND	ug/L	1.0	1		09/30/22 16:21	108-88-3	
Trichloroethene	**12.5**	ug/L	1.0	1		09/30/22 16:21	79-01-6	
Trichlorofluoromethane	ND	ug/L	1.0	1		09/30/22 16:21	75-69-4	
Vinyl acetate	ND	ug/L	1.0	1		09/30/22 16:21	108-05-4	
Vinyl chloride	ND	ug/L	1.0	1		09/30/22 16:21	75-01-4	IH
Xylene (Total)	ND	ug/L	3.0	1		09/30/22 16:21	1330-20-7	
cis-1,2-Dichloroethene	ND	ug/L	1.0	1		09/30/22 16:21	156-59-2	
cis-1,3-Dichloropropene	ND	ug/L	1.0	1		09/30/22 16:21	10061-01-5	
m&p-Xylene	ND	ug/L	2.0	1		09/30/22 16:21	179601-23-1	
n-Butylbenzene	ND	ug/L	1.0	1		09/30/22 16:21	104-51-8	
n-Propylbenzene	ND	ug/L	1.0	1		09/30/22 16:21	103-65-1	
o-Xylene	ND	ug/L	1.0	1		09/30/22 16:21	95-47-6	
p-Isopropyltoluene	ND	ug/L	1.0	1		09/30/22 16:21	99-87-6	
sec-Butylbenzene	ND	ug/L	1.0	1		09/30/22 16:21	135-98-8	
tert-Butylbenzene	ND	ug/L	1.0	1		09/30/22 16:21	98-06-6	
trans-1,2-Dichloroethene	ND	ug/L	1.0	1		09/30/22 16:21	156-60-5	
trans-1,3-Dichloropropene	ND	ug/L	1.0	1		09/30/22 16:21	10061-02-6	
Surrogates								
4-Bromofluorobenzene (S)	103	%.	70-130	1		09/30/22 16:21	460-00-4	
1,2-Dichloroethane-d4 (S)	104	%.	70-130	1		09/30/22 16:21	17060-07-0	
Toluene-d8 (S)	97	%.	70-130	1		09/30/22 16:21	2037-26-5	
Dibromofluoromethane (S)	104	%.	70-130	1		09/30/22 16:21	1868-53-7	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1638 Roseytown Road - Suites 2,3,4
Greensburg, PA 15601
(724)850-5600

ANALYTICAL RESULTS

Project: 209164
Pace Project No.: 30524553

Sample: Dup. **Lab ID: 30524553009** Collected: 09/20/22 12:54 Received: 09/23/22 09:45 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
Indicator Gases Water LHC	Analytical Method: AM20GAX Pace Analytical Gulf Coast							
Ethene	**5.9**	ug/L	1.0	1		09/29/22 09:15	74-85-1	
8260C MSV	Analytical Method: EPA 8260C Pace Analytical Services - Greensburg							
1,1,1,2-Tetrachloroethane	ND	ug/L	1.0	1		09/30/22 16:44	630-20-6	
1,1,1-Trichloroethane	ND	ug/L	1.0	1		09/30/22 16:44	71-55-6	
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0	1		09/30/22 16:44	79-34-5	
1,1,2-Trichloroethane	ND	ug/L	1.0	1		09/30/22 16:44	79-00-5	
1,1-Dichloroethane	**1.4**	ug/L	1.0	1		09/30/22 16:44	75-34-3	
1,1-Dichloroethene	ND	ug/L	1.0	1		09/30/22 16:44	75-35-4	
1,1-Dichloropropene	ND	ug/L	1.0	1		09/30/22 16:44	563-58-6	
1,2,3-Trichlorobenzene	ND	ug/L	4.0	1		09/30/22 16:44	87-61-6	
1,2,4-Trichlorobenzene	ND	ug/L	4.0	1		09/30/22 16:44	120-82-1	
1,2,4-Trimethylbenzene	ND	ug/L	1.0	1		09/30/22 16:44	95-63-6	
1,2-Dibromo-3-chloropropane	ND	ug/L	5.0	1		09/30/22 16:44	96-12-8	
1,2-Dibromoethane (EDB)	ND	ug/L	1.0	1		09/30/22 16:44	106-93-4	
1,2-Dichlorobenzene	ND	ug/L	1.0	1		09/30/22 16:44	95-50-1	
1,2-Dichloroethane	ND	ug/L	1.0	1		09/30/22 16:44	107-06-2	
1,2-Dichloropropane	ND	ug/L	1.0	1		09/30/22 16:44	78-87-5	
1,3,5-Trimethylbenzene	ND	ug/L	1.0	1		09/30/22 16:44	108-67-8	
1,3-Dichlorobenzene	ND	ug/L	1.0	1		09/30/22 16:44	541-73-1	
1,3-Dichloropropane	ND	ug/L	1.0	1		09/30/22 16:44	142-28-9	
1,4-Dichlorobenzene	ND	ug/L	1.0	1		09/30/22 16:44	106-46-7	
2,2-Dichloropropane	ND	ug/L	1.0	1		09/30/22 16:44	594-20-7	CL
2-Butanone (MEK)	ND	ug/L	10.0	1		09/30/22 16:44	78-93-3	
2-Chloroethylvinyl ether	ND	ug/L	2.0	1		09/30/22 16:44	110-75-8	c2
2-Chlorotoluene	ND	ug/L	1.0	1		09/30/22 16:44	95-49-8	
2-Hexanone	ND	ug/L	10.0	1		09/30/22 16:44	591-78-6	
4-Chlorotoluene	ND	ug/L	1.0	1		09/30/22 16:44	106-43-4	
4-Methyl-2-pentanone (MIBK)	ND	ug/L	10.0	1		09/30/22 16:44	108-10-1	
Acetone	ND	ug/L	10.0	1		09/30/22 16:44	67-64-1	1c
Benzene	ND	ug/L	1.0	1		09/30/22 16:44	71-43-2	
Bromobenzene	ND	ug/L	1.0	1		09/30/22 16:44	108-86-1	
Bromochloromethane	ND	ug/L	1.0	1		09/30/22 16:44	74-97-5	
Bromodichloromethane	ND	ug/L	1.0	1		09/30/22 16:44	75-27-4	
Bromoform	ND	ug/L	4.0	1		09/30/22 16:44	75-25-2	
Bromomethane	ND	ug/L	4.0	1		09/30/22 16:44	74-83-9	1c,CH,IL
Carbon disulfide	ND	ug/L	1.0	1		09/30/22 16:44	75-15-0	IL,L2
Carbon tetrachloride	ND	ug/L	1.0	1		09/30/22 16:44	56-23-5	
Chlorobenzene	ND	ug/L	1.0	1		09/30/22 16:44	108-90-7	
Chloroethane	ND	ug/L	1.0	1		09/30/22 16:44	75-00-3	
Chloroform	ND	ug/L	1.0	1		09/30/22 16:44	67-66-3	
Chloromethane	ND	ug/L	1.0	1		09/30/22 16:44	74-87-3	
Dibromochloromethane	ND	ug/L	1.0	1		09/30/22 16:44	124-48-1	
Dibromomethane	ND	ug/L	1.0	1		09/30/22 16:44	74-95-3	
Dichlorodifluoromethane	ND	ug/L	1.0	1		09/30/22 16:44	75-71-8	CH,IH,L2

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1638 Roseytown Road - Suites 2,3,4
Greensburg, PA 15601
(724)850-5600

ANALYTICAL RESULTS

Project: 209164
Pace Project No.: 30524553

Sample: Dup. **Lab ID: 30524553009** Collected: 09/20/22 12:54 Received: 09/23/22 09:45 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260C MSV	Analytical Method: EPA 8260C Pace Analytical Services - Greensburg							
Ethylbenzene	ND	ug/L	1.0	1		09/30/22 16:44	100-41-4	
Hexachloro-1,3-butadiene	ND	ug/L	4.0	1		09/30/22 16:44	87-68-3	
Isopropylbenzene (Cumene)	ND	ug/L	1.0	1		09/30/22 16:44	98-82-8	
Methyl-tert-butyl ether	ND	ug/L	1.0	1		09/30/22 16:44	1634-04-4	
Methylene Chloride	ND	ug/L	1.0	1		09/30/22 16:44	75-09-2	
Naphthalene	ND	ug/L	4.0	1		09/30/22 16:44	91-20-3	
Styrene	ND	ug/L	1.0	1		09/30/22 16:44	100-42-5	
Tetrachloroethene	ND	ug/L	1.0	1		09/30/22 16:44	127-18-4	
Toluene	ND	ug/L	1.0	1		09/30/22 16:44	108-88-3	
Trichloroethene	**164**	ug/L	1.0	1		09/30/22 16:44	79-01-6	
Trichlorofluoromethane	ND	ug/L	1.0	1		09/30/22 16:44	75-69-4	
Vinyl acetate	ND	ug/L	1.0	1		09/30/22 16:44	108-05-4	
Vinyl chloride	**54.3**	ug/L	1.0	1		09/30/22 16:44	75-01-4	IH
Xylene (Total)	ND	ug/L	3.0	1		09/30/22 16:44	1330-20-7	
cis-1,2-Dichloroethene	**77.5**	ug/L	1.0	1		09/30/22 16:44	156-59-2	
cis-1,3-Dichloropropene	ND	ug/L	1.0	1		09/30/22 16:44	10061-01-5	
m&p-Xylene	ND	ug/L	2.0	1		09/30/22 16:44	179601-23-1	
n-Butylbenzene	ND	ug/L	1.0	1		09/30/22 16:44	104-51-8	
n-Propylbenzene	ND	ug/L	1.0	1		09/30/22 16:44	103-65-1	
o-Xylene	ND	ug/L	1.0	1		09/30/22 16:44	95-47-6	
p-Isopropyltoluene	ND	ug/L	1.0	1		09/30/22 16:44	99-87-6	
sec-Butylbenzene	ND	ug/L	1.0	1		09/30/22 16:44	135-98-8	
tert-Butylbenzene	ND	ug/L	1.0	1		09/30/22 16:44	98-06-6	
trans-1,2-Dichloroethene	**4.6**	ug/L	1.0	1		09/30/22 16:44	156-60-5	
trans-1,3-Dichloropropene	ND	ug/L	1.0	1		09/30/22 16:44	10061-02-6	
Surrogates								
4-Bromofluorobenzene (S)	99	%.	70-130	1		09/30/22 16:44	460-00-4	
1,2-Dichloroethane-d4 (S)	101	%.	70-130	1		09/30/22 16:44	17060-07-0	
Toluene-d8 (S)	97	%.	70-130	1		09/30/22 16:44	2037-26-5	
Dibromofluoromethane (S)	105	%.	70-130	1		09/30/22 16:44	1868-53-7	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1638 Roseytown Road - Suites 2,3,4
Greensburg, PA 15601
(724)850-5600

ANALYTICAL RESULTS

Project: 209164
Pace Project No.: 30524553

Sample: MS-MW06-23BR **Lab ID: 30524553010** Collected: 09/20/22 16:18 Received: 09/23/22 09:45 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
Indicator Gases Water LHC	Analytical Method: AM20GAX Pace Analytical Gulf Coast							
Ethene	**92**	ug/L	1.0	1		09/29/22 09:47	74-85-1	
8260C MSV	Analytical Method: EPA 8260C Pace Analytical Services - Greensburg							
1,1,1,2-Tetrachloroethane	**17.2**	ug/L	1.0	1		09/30/22 19:32	630-20-6	
1,1,1-Trichloroethane	**21.2**	ug/L	1.0	1		09/30/22 19:32	71-55-6	
1,1,2,2-Tetrachloroethane	**21.3**	ug/L	1.0	1		09/30/22 19:32	79-34-5	
1,1,2-Trichloroethane	**20.0**	ug/L	1.0	1		09/30/22 19:32	79-00-5	
1,1-Dichloroethane	**22.3**	ug/L	1.0	1		09/30/22 19:32	75-34-3	
1,1-Dichloroethene	**24.6**	ug/L	1.0	1		09/30/22 19:32	75-35-4	
1,1-Dichloropropene	**16.7**	ug/L	1.0	1		09/30/22 19:32	563-58-6	
1,2,3-Trichlorobenzene	**18.4**	ug/L	4.0	1		09/30/22 19:32	87-61-6	
1,2,4-Trichlorobenzene	**17.2**	ug/L	4.0	1		09/30/22 19:32	120-82-1	
1,2,4-Trimethylbenzene	**17.4**	ug/L	1.0	1		09/30/22 19:32	95-63-6	
1,2-Dibromo-3-chloropropane	**17.9**	ug/L	5.0	1		09/30/22 19:32	96-12-8	
1,2-Dibromoethane (EDB)	**18.8**	ug/L	1.0	1		09/30/22 19:32	106-93-4	
1,2-Dichlorobenzene	**18.9**	ug/L	1.0	1		09/30/22 19:32	95-50-1	
1,2-Dichloroethane	**19.0**	ug/L	1.0	1		09/30/22 19:32	107-06-2	
1,2-Dichloropropane	**19.8**	ug/L	1.0	1		09/30/22 19:32	78-87-5	
1,3,5-Trimethylbenzene	**18.2**	ug/L	1.0	1		09/30/22 19:32	108-67-8	
1,3-Dichlorobenzene	**19.2**	ug/L	1.0	1		09/30/22 19:32	541-73-1	
1,3-Dichloropropane	**17.4**	ug/L	1.0	1		09/30/22 19:32	142-28-9	
1,4-Dichlorobenzene	**18.7**	ug/L	1.0	1		09/30/22 19:32	106-46-7	
2,2-Dichloropropane	**14.7**	ug/L	1.0	1		09/30/22 19:32	594-20-7	CL
2-Butanone (MEK)	**21.9**	ug/L	10.0	1		09/30/22 19:32	78-93-3	
2-Chloroethylvinyl ether	ND	ug/L	2.0	1		09/30/22 19:32	110-75-8	c2
2-Chlorotoluene	**18.7**	ug/L	1.0	1		09/30/22 19:32	95-49-8	
2-Hexanone	**19.4**	ug/L	10.0	1		09/30/22 19:32	591-78-6	
4-Chlorotoluene	**18.3**	ug/L	1.0	1		09/30/22 19:32	106-43-4	
4-Methyl-2-pentanone (MIBK)	**20.8**	ug/L	10.0	1		09/30/22 19:32	108-10-1	
Acetone	**21.2**	ug/L	10.0	1		09/30/22 19:32	67-64-1	1c
Benzene	**19.0**	ug/L	1.0	1		09/30/22 19:32	71-43-2	
Bromobenzene	**17.6**	ug/L	1.0	1		09/30/22 19:32	108-86-1	
Bromochloromethane	**19.0**	ug/L	1.0	1		09/30/22 19:32	74-97-5	
Bromodichloromethane	**19.4**	ug/L	1.0	1		09/30/22 19:32	75-27-4	
Bromoform	**16.6**	ug/L	4.0	1		09/30/22 19:32	75-25-2	
Bromomethane	**15.3**	ug/L	4.0	1		09/30/22 19:32	74-83-9	1c,CH,IL
Carbon disulfide	**20.9**	ug/L	1.0	1		09/30/22 19:32	75-15-0	IL,L2
Carbon tetrachloride	**16.0**	ug/L	1.0	1		09/30/22 19:32	56-23-5	
Chlorobenzene	**19.6**	ug/L	1.0	1		09/30/22 19:32	108-90-7	
Chloroethane	**19.7**	ug/L	1.0	1		09/30/22 19:32	75-00-3	
Chloroform	**18.1**	ug/L	1.0	1		09/30/22 19:32	67-66-3	
Chloromethane	**14.2**	ug/L	1.0	1		09/30/22 19:32	74-87-3	
Dibromochloromethane	**18.0**	ug/L	1.0	1		09/30/22 19:32	124-48-1	
Dibromomethane	**18.8**	ug/L	1.0	1		09/30/22 19:32	74-95-3	
Dichlorodifluoromethane	**5.7**	ug/L	1.0	1		09/30/22 19:32	75-71-8	CH,IH,L2

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1638 Roseytown Road - Suites 2,3,4
Greensburg, PA 15601
(724)850-5600

ANALYTICAL RESULTS

Project: 209164
Pace Project No.: 30524553

Sample: MS-MW06-23BR **Lab ID: 30524553010** Collected: 09/20/22 16:18 Received: 09/23/22 09:45 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260C MSV	Analytical Method: EPA 8260C Pace Analytical Services - Greensburg							
Ethylbenzene	**18.1**	ug/L	1.0	1		09/30/22 19:32	100-41-4	
Hexachloro-1,3-butadiene	**15.4**	ug/L	4.0	1		09/30/22 19:32	87-68-3	
Isopropylbenzene (Cumene)	**20.5**	ug/L	1.0	1		09/30/22 19:32	98-82-8	
Methyl-tert-butyl ether	**17.4**	ug/L	1.0	1		09/30/22 19:32	1634-04-4	
Methylene Chloride	**20.8**	ug/L	1.0	1		09/30/22 19:32	75-09-2	
Naphthalene	**16.0**	ug/L	4.0	1		09/30/22 19:32	91-20-3	
Styrene	**18.3**	ug/L	1.0	1		09/30/22 19:32	100-42-5	
Tetrachloroethene	**18.7**	ug/L	1.0	1		09/30/22 19:32	127-18-4	
Toluene	**17.8**	ug/L	1.0	1		09/30/22 19:32	108-88-3	
Trichloroethene	**976**	ug/L	10.0	10		09/30/22 19:56	79-01-6	
Trichlorofluoromethane	**19.0**	ug/L	1.0	1		09/30/22 19:32	75-69-4	
Vinyl acetate	**15.8**	ug/L	1.0	1		09/30/22 19:32	108-05-4	
Vinyl chloride	**123**	ug/L	1.0	1		09/30/22 19:32	75-01-4	IH
Xylene (Total)	**54.2**	ug/L	3.0	1		09/30/22 19:32	1330-20-7	
cis-1,2-Dichloroethene	**627**	ug/L	10.0	10		09/30/22 19:56	156-59-2	
cis-1,3-Dichloropropene	**16.6**	ug/L	1.0	1		09/30/22 19:32	10061-01-5	
m&p-Xylene	**36.6**	ug/L	2.0	1		09/30/22 19:32	179601-23-1	
n-Butylbenzene	**16.8**	ug/L	1.0	1		09/30/22 19:32	104-51-8	
n-Propylbenzene	**18.3**	ug/L	1.0	1		09/30/22 19:32	103-65-1	
o-Xylene	**17.6**	ug/L	1.0	1		09/30/22 19:32	95-47-6	
p-Isopropyltoluene	**17.9**	ug/L	1.0	1		09/30/22 19:32	99-87-6	
sec-Butylbenzene	**18.9**	ug/L	1.0	1		09/30/22 19:32	135-98-8	
tert-Butylbenzene	**18.3**	ug/L	1.0	1		09/30/22 19:32	98-06-6	
trans-1,2-Dichloroethene	**25.6**	ug/L	1.0	1		09/30/22 19:32	156-60-5	
trans-1,3-Dichloropropene	**16.3**	ug/L	1.0	1		09/30/22 19:32	10061-02-6	
Surrogates								
4-Bromofluorobenzene (S)	99	%.	70-130	1		09/30/22 19:32	460-00-4	
1,2-Dichloroethane-d4 (S)	97	%.	70-130	1		09/30/22 19:32	17060-07-0	
Toluene-d8 (S)	98	%.	70-130	1		09/30/22 19:32	2037-26-5	
Dibromofluoromethane (S)	103	%.	70-130	1		09/30/22 19:32	1868-53-7	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1638 Roseytown Road - Suites 2,3,4
Greensburg, PA 15601
(724)850-5600

ANALYTICAL RESULTS

Project: 209164
Pace Project No.: 30524553

Sample: MSD-MW06-23BR **Lab ID: 30524553011** Collected: 09/20/22 16:18 Received: 09/23/22 09:45 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
Indicator Gases Water LHC	Analytical Method: AM20GAX Pace Analytical Gulf Coast							
Ethene	**100**	ug/L	1.0	1		09/29/22 09:58	74-85-1	
8260C MSV	Analytical Method: EPA 8260C Pace Analytical Services - Greensburg							
1,1,1,2-Tetrachloroethane	**17.9**	ug/L	1.0	1		09/30/22 20:20	630-20-6	
1,1,1-Trichloroethane	**23.4**	ug/L	1.0	1		09/30/22 20:20	71-55-6	
1,1,2,2-Tetrachloroethane	**22.1**	ug/L	1.0	1		09/30/22 20:20	79-34-5	
1,1,2-Trichloroethane	**20.0**	ug/L	1.0	1		09/30/22 20:20	79-00-5	
1,1-Dichloroethane	**24.3**	ug/L	1.0	1		09/30/22 20:20	75-34-3	
1,1-Dichloroethene	**26.2**	ug/L	1.0	1		09/30/22 20:20	75-35-4	
1,1-Dichloropropene	**18.1**	ug/L	1.0	1		09/30/22 20:20	563-58-6	
1,2,3-Trichlorobenzene	**19.2**	ug/L	4.0	1		09/30/22 20:20	87-61-6	
1,2,4-Trichlorobenzene	**18.7**	ug/L	4.0	1		09/30/22 20:20	120-82-1	
1,2,4-Trimethylbenzene	**18.9**	ug/L	1.0	1		09/30/22 20:20	95-63-6	
1,2-Dibromo-3-chloropropane	**18.4**	ug/L	5.0	1		09/30/22 20:20	96-12-8	
1,2-Dibromoethane (EDB)	**19.2**	ug/L	1.0	1		09/30/22 20:20	106-93-4	
1,2-Dichlorobenzene	**19.5**	ug/L	1.0	1		09/30/22 20:20	95-50-1	
1,2-Dichloroethane	**18.8**	ug/L	1.0	1		09/30/22 20:20	107-06-2	
1,2-Dichloropropane	**20.6**	ug/L	1.0	1		09/30/22 20:20	78-87-5	
1,3,5-Trimethylbenzene	**19.1**	ug/L	1.0	1		09/30/22 20:20	108-67-8	
1,3-Dichlorobenzene	**20.1**	ug/L	1.0	1		09/30/22 20:20	541-73-1	
1,3-Dichloropropane	**18.3**	ug/L	1.0	1		09/30/22 20:20	142-28-9	
1,4-Dichlorobenzene	**19.9**	ug/L	1.0	1		09/30/22 20:20	106-46-7	
2,2-Dichloropropane	**14.5**	ug/L	1.0	1		09/30/22 20:20	594-20-7	CL
2-Butanone (MEK)	**22.0**	ug/L	10.0	1		09/30/22 20:20	78-93-3	
2-Chloroethylvinyl ether	ND	ug/L	2.0	1		09/30/22 20:20	110-75-8	c2
2-Chlorotoluene	**19.9**	ug/L	1.0	1		09/30/22 20:20	95-49-8	
2-Hexanone	**20.7**	ug/L	10.0	1		09/30/22 20:20	591-78-6	
4-Chlorotoluene	**19.5**	ug/L	1.0	1		09/30/22 20:20	106-43-4	
4-Methyl-2-pentanone (MIBK)	**21.2**	ug/L	10.0	1		09/30/22 20:20	108-10-1	
Acetone	**22.1**	ug/L	10.0	1		09/30/22 20:20	67-64-1	1c
Benzene	**20.3**	ug/L	1.0	1		09/30/22 20:20	71-43-2	
Bromobenzene	**18.6**	ug/L	1.0	1		09/30/22 20:20	108-86-1	
Bromochloromethane	**20.2**	ug/L	1.0	1		09/30/22 20:20	74-97-5	
Bromodichloromethane	**19.4**	ug/L	1.0	1		09/30/22 20:20	75-27-4	
Bromoform	**17.6**	ug/L	4.0	1		09/30/22 20:20	75-25-2	
Bromomethane	**23.2**	ug/L	4.0	1		09/30/22 20:20	74-83-9	1c,CH,IL
Carbon disulfide	**19.6**	ug/L	1.0	1		09/30/22 20:20	75-15-0	IL,L2
Carbon tetrachloride	**17.0**	ug/L	1.0	1		09/30/22 20:20	56-23-5	
Chlorobenzene	**20.6**	ug/L	1.0	1		09/30/22 20:20	108-90-7	
Chloroethane	**19.7**	ug/L	1.0	1		09/30/22 20:20	75-00-3	
Chloroform	**19.0**	ug/L	1.0	1		09/30/22 20:20	67-66-3	
Chloromethane	**15.1**	ug/L	1.0	1		09/30/22 20:20	74-87-3	
Dibromochloromethane	**19.0**	ug/L	1.0	1		09/30/22 20:20	124-48-1	
Dibromomethane	**18.9**	ug/L	1.0	1		09/30/22 20:20	74-95-3	
Dichlorodifluoromethane	**5.8**	ug/L	1.0	1		09/30/22 20:20	75-71-8	CH,IH,L2

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1638 Roseytown Road - Suites 2,3,4
Greensburg, PA 15601
(724)850-5600

ANALYTICAL RESULTS

Project: 209164
Pace Project No.: 30524553

Sample: MSD-MW06-23BR **Lab ID: 30524553011** Collected: 09/20/22 16:18 Received: 09/23/22 09:45 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260C MSV	Analytical Method: EPA 8260C Pace Analytical Services - Greensburg							
Ethylbenzene	**19.8**	ug/L	1.0	1		09/30/22 20:20	100-41-4	
Hexachloro-1,3-butadiene	**15.7**	ug/L	4.0	1		09/30/22 20:20	87-68-3	
Isopropylbenzene (Cumene)	**21.9**	ug/L	1.0	1		09/30/22 20:20	98-82-8	
Methyl-tert-butyl ether	**17.7**	ug/L	1.0	1		09/30/22 20:20	1634-04-4	
Methylene Chloride	**21.8**	ug/L	1.0	1		09/30/22 20:20	75-09-2	
Naphthalene	**17.0**	ug/L	4.0	1		09/30/22 20:20	91-20-3	
Styrene	**19.5**	ug/L	1.0	1		09/30/22 20:20	100-42-5	
Tetrachloroethene	**19.8**	ug/L	1.0	1		09/30/22 20:20	127-18-4	
Toluene	**18.8**	ug/L	1.0	1		09/30/22 20:20	108-88-3	
Trichloroethene	**1090**	ug/L	10.0	10		09/30/22 20:44	79-01-6	
Trichlorofluoromethane	**19.1**	ug/L	1.0	1		09/30/22 20:20	75-69-4	
Vinyl acetate	**15.5**	ug/L	1.0	1		09/30/22 20:20	108-05-4	
Vinyl chloride	**150**	ug/L	1.0	1		09/30/22 20:20	75-01-4	IH
Xylene (Total)	**58.0**	ug/L	3.0	1		09/30/22 20:20	1330-20-7	
cis-1,2-Dichloroethene	**696**	ug/L	10.0	10		09/30/22 20:44	156-59-2	
cis-1,3-Dichloropropene	**17.2**	ug/L	1.0	1		09/30/22 20:20	10061-01-5	
m&p-Xylene	**39.2**	ug/L	2.0	1		09/30/22 20:20	179601-23-1	
n-Butylbenzene	**17.9**	ug/L	1.0	1		09/30/22 20:20	104-51-8	
n-Propylbenzene	**19.4**	ug/L	1.0	1		09/30/22 20:20	103-65-1	
o-Xylene	**18.8**	ug/L	1.0	1		09/30/22 20:20	95-47-6	
p-Isopropyltoluene	**18.7**	ug/L	1.0	1		09/30/22 20:20	99-87-6	
sec-Butylbenzene	**19.9**	ug/L	1.0	1		09/30/22 20:20	135-98-8	
tert-Butylbenzene	**19.4**	ug/L	1.0	1		09/30/22 20:20	98-06-6	
trans-1,2-Dichloroethene	**27.4**	ug/L	1.0	1		09/30/22 20:20	156-60-5	
trans-1,3-Dichloropropene	**17.0**	ug/L	1.0	1		09/30/22 20:20	10061-02-6	
Surrogates								
4-Bromofluorobenzene (S)	98	%.	70-130	1		09/30/22 20:20	460-00-4	
1,2-Dichloroethane-d4 (S)	98	%.	70-130	1		09/30/22 20:20	17060-07-0	
Toluene-d8 (S)	100	%.	70-130	1		09/30/22 20:20	2037-26-5	
Dibromofluoromethane (S)	100	%.	70-130	1		09/30/22 20:20	1868-53-7	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1638 Roseytown Road - Suites 2,3,4
Greensburg, PA 15601
(724)850-5600

ANALYTICAL RESULTS

Project: 209164
Pace Project No.: 30524553

Sample: trip blank **Lab ID: 30524553012** Collected: 09/20/22 00:00 Received: 09/23/22 09:45 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260C MSV	Analytical Method: EPA 8260C Pace Analytical Services - Greensburg							
1,1,1,2-Tetrachloroethane	ND	ug/L	1.0	1		09/30/22 13:09	630-20-6	
1,1,1-Trichloroethane	ND	ug/L	1.0	1		09/30/22 13:09	71-55-6	
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0	1		09/30/22 13:09	79-34-5	
1,1,2-Trichloroethane	ND	ug/L	1.0	1		09/30/22 13:09	79-00-5	
1,1-Dichloroethane	ND	ug/L	1.0	1		09/30/22 13:09	75-34-3	
1,1-Dichloroethene	ND	ug/L	1.0	1		09/30/22 13:09	75-35-4	
1,1-Dichloropropene	ND	ug/L	1.0	1		09/30/22 13:09	563-58-6	
1,2,3-Trichlorobenzene	ND	ug/L	4.0	1		09/30/22 13:09	87-61-6	
1,2,4-Trichlorobenzene	ND	ug/L	4.0	1		09/30/22 13:09	120-82-1	
1,2,4-Trimethylbenzene	ND	ug/L	1.0	1		09/30/22 13:09	95-63-6	
1,2-Dibromo-3-chloropropane	ND	ug/L	5.0	1		09/30/22 13:09	96-12-8	
1,2-Dibromoethane (EDB)	ND	ug/L	1.0	1		09/30/22 13:09	106-93-4	
1,2-Dichlorobenzene	ND	ug/L	1.0	1		09/30/22 13:09	95-50-1	
1,2-Dichloroethane	ND	ug/L	1.0	1		09/30/22 13:09	107-06-2	
1,2-Dichloropropane	ND	ug/L	1.0	1		09/30/22 13:09	78-87-5	
1,3,5-Trimethylbenzene	ND	ug/L	1.0	1		09/30/22 13:09	108-67-8	
1,3-Dichlorobenzene	ND	ug/L	1.0	1		09/30/22 13:09	541-73-1	
1,3-Dichloropropane	ND	ug/L	1.0	1		09/30/22 13:09	142-28-9	
1,4-Dichlorobenzene	ND	ug/L	1.0	1		09/30/22 13:09	106-46-7	
2,2-Dichloropropane	ND	ug/L	1.0	1		09/30/22 13:09	594-20-7	CL
2-Butanone (MEK)	ND	ug/L	10.0	1		09/30/22 13:09	78-93-3	
2-Chloroethylvinyl ether	ND	ug/L	2.0	1		09/30/22 13:09	110-75-8	c2
2-Chlorotoluene	ND	ug/L	1.0	1		09/30/22 13:09	95-49-8	
2-Hexanone	ND	ug/L	10.0	1		09/30/22 13:09	591-78-6	
4-Chlorotoluene	ND	ug/L	1.0	1		09/30/22 13:09	106-43-4	
4-Methyl-2-pentanone (MIBK)	ND	ug/L	10.0	1		09/30/22 13:09	108-10-1	
Acetone	ND	ug/L	10.0	1		09/30/22 13:09	67-64-1	1c
Benzene	ND	ug/L	1.0	1		09/30/22 13:09	71-43-2	
Bromobenzene	ND	ug/L	1.0	1		09/30/22 13:09	108-86-1	
Bromochloromethane	ND	ug/L	1.0	1		09/30/22 13:09	74-97-5	
Bromodichloromethane	ND	ug/L	1.0	1		09/30/22 13:09	75-27-4	
Bromoform	ND	ug/L	4.0	1		09/30/22 13:09	75-25-2	
Bromomethane	ND	ug/L	4.0	1		09/30/22 13:09	74-83-9	CH,IL
Carbon disulfide	ND	ug/L	1.0	1		09/30/22 13:09	75-15-0	IL
Carbon tetrachloride	ND	ug/L	1.0	1		09/30/22 13:09	56-23-5	
Chlorobenzene	ND	ug/L	1.0	1		09/30/22 13:09	108-90-7	
Chloroethane	ND	ug/L	1.0	1		09/30/22 13:09	75-00-3	
Chloroform	ND	ug/L	1.0	1		09/30/22 13:09	67-66-3	
Chloromethane	ND	ug/L	1.0	1		09/30/22 13:09	74-87-3	
Dibromochloromethane	ND	ug/L	1.0	1		09/30/22 13:09	124-48-1	
Dibromomethane	ND	ug/L	1.0	1		09/30/22 13:09	74-95-3	
Dichlorodifluoromethane	ND	ug/L	1.0	1		09/30/22 13:09	75-71-8	CH,IH
Ethylbenzene	ND	ug/L	1.0	1		09/30/22 13:09	100-41-4	
Hexachloro-1,3-butadiene	ND	ug/L	4.0	1		09/30/22 13:09	87-68-3	
Isopropylbenzene (Cumene)	ND	ug/L	1.0	1		09/30/22 13:09	98-82-8	
Methyl-tert-butyl ether	ND	ug/L	1.0	1		09/30/22 13:09	1634-04-4	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1638 Roseytown Road - Suites 2,3,4
Greensburg, PA 15601
(724)850-5600

ANALYTICAL RESULTS

Project: 209164
Pace Project No.: 30524553

Sample: trip blank **Lab ID: 30524553012** Collected: 09/20/22 00:00 Received: 09/23/22 09:45 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260C MSV	Analytical Method: EPA 8260C Pace Analytical Services - Greensburg							
Methylene Chloride	ND	ug/L	1.0	1		09/30/22 13:09	75-09-2	
Naphthalene	ND	ug/L	4.0	1		09/30/22 13:09	91-20-3	
Styrene	ND	ug/L	1.0	1		09/30/22 13:09	100-42-5	
Tetrachloroethene	ND	ug/L	1.0	1		09/30/22 13:09	127-18-4	
Toluene	ND	ug/L	1.0	1		09/30/22 13:09	108-88-3	
Trichloroethene	ND	ug/L	1.0	1		09/30/22 13:09	79-01-6	
Trichlorofluoromethane	ND	ug/L	1.0	1		09/30/22 13:09	75-69-4	
Vinyl acetate	ND	ug/L	1.0	1		09/30/22 13:09	108-05-4	CL
Vinyl chloride	ND	ug/L	1.0	1		09/30/22 13:09	75-01-4	IH
Xylene (Total)	ND	ug/L	3.0	1		09/30/22 13:09	1330-20-7	
cis-1,2-Dichloroethene	ND	ug/L	1.0	1		09/30/22 13:09	156-59-2	
cis-1,3-Dichloropropene	ND	ug/L	1.0	1		09/30/22 13:09	10061-01-5	
m&p-Xylene	ND	ug/L	2.0	1		09/30/22 13:09	179601-23-1	
n-Butylbenzene	ND	ug/L	1.0	1		09/30/22 13:09	104-51-8	
n-Propylbenzene	ND	ug/L	1.0	1		09/30/22 13:09	103-65-1	
o-Xylene	ND	ug/L	1.0	1		09/30/22 13:09	95-47-6	
p-Isopropyltoluene	ND	ug/L	1.0	1		09/30/22 13:09	99-87-6	
sec-Butylbenzene	ND	ug/L	1.0	1		09/30/22 13:09	135-98-8	
tert-Butylbenzene	ND	ug/L	1.0	1		09/30/22 13:09	98-06-6	
trans-1,2-Dichloroethene	ND	ug/L	1.0	1		09/30/22 13:09	156-60-5	
trans-1,3-Dichloropropene	ND	ug/L	1.0	1		09/30/22 13:09	10061-02-6	
Surrogates								
4-Bromofluorobenzene (S)	101	%.	70-130	1		09/30/22 13:09	460-00-4	
1,2-Dichloroethane-d4 (S)	107	%.	70-130	1		09/30/22 13:09	17060-07-0	
Toluene-d8 (S)	97	%.	70-130	1		09/30/22 13:09	2037-26-5	
Dibromofluoromethane (S)	105	%.	70-130	1		09/30/22 13:09	1868-53-7	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1638 Roseytown Road - Suites 2,3,4
Greensburg, PA 15601
(724)850-5600

QUALITY CONTROL DATA

Project: 209164
Pace Project No.: 30524553

QC Batch: 536605 Analysis Method: EPA 8260C
QC Batch Method: EPA 8260C Analysis Description: 8260C MSV
Laboratory: Pace Analytical Services - Greensburg
Associated Lab Samples: 30524553001, 30524553002, 30524553003, 30524553004, 30524553005, 30524553006, 30524553007, 30524553008, 30524553009, 30524553010, 30524553011, 30524553012

METHOD BLANK: 2603776 Matrix: Water
Associated Lab Samples: 30524553001, 30524553002, 30524553003, 30524553004, 30524553005, 30524553006, 30524553007, 30524553008, 30524553009, 30524553010, 30524553011, 30524553012

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
1,1,1,2-Tetrachloroethane	ug/L	ND	1.0	09/30/22 12:21	
1,1,1-Trichloroethane	ug/L	ND	1.0	09/30/22 12:21	
1,1,2,2-Tetrachloroethane	ug/L	ND	1.0	09/30/22 12:21	
1,1,2-Trichloroethane	ug/L	ND	1.0	09/30/22 12:21	
1,1-Dichloroethane	ug/L	ND	1.0	09/30/22 12:21	
1,1-Dichloroethene	ug/L	ND	1.0	09/30/22 12:21	
1,1-Dichloropropene	ug/L	ND	1.0	09/30/22 12:21	
1,2,3-Trichlorobenzene	ug/L	ND	4.0	09/30/22 12:21	
1,2,4-Trichlorobenzene	ug/L	ND	4.0	09/30/22 12:21	
1,2,4-Trimethylbenzene	ug/L	ND	1.0	09/30/22 12:21	
1,2-Dibromo-3-chloropropane	ug/L	ND	5.0	09/30/22 12:21	
1,2-Dibromoethane (EDB)	ug/L	ND	1.0	09/30/22 12:21	
1,2-Dichlorobenzene	ug/L	ND	1.0	09/30/22 12:21	
1,2-Dichloroethane	ug/L	ND	1.0	09/30/22 12:21	
1,2-Dichloropropane	ug/L	ND	1.0	09/30/22 12:21	
1,3,5-Trimethylbenzene	ug/L	ND	1.0	09/30/22 12:21	
1,3-Dichlorobenzene	ug/L	ND	1.0	09/30/22 12:21	
1,3-Dichloropropane	ug/L	ND	1.0	09/30/22 12:21	
1,4-Dichlorobenzene	ug/L	ND	1.0	09/30/22 12:21	
2,2-Dichloropropane	ug/L	ND	1.0	09/30/22 12:21	CL
2-Butanone (MEK)	ug/L	ND	10.0	09/30/22 12:21	
2-Chloroethylvinyl ether	ug/L	ND	2.0	09/30/22 12:21	
2-Chlorotoluene	ug/L	ND	1.0	09/30/22 12:21	
2-Hexanone	ug/L	ND	10.0	09/30/22 12:21	
4-Chlorotoluene	ug/L	ND	1.0	09/30/22 12:21	
4-Methyl-2-pentanone (MIBK)	ug/L	ND	10.0	09/30/22 12:21	
Acetone	ug/L	ND	10.0	09/30/22 12:21	1c
Benzene	ug/L	ND	1.0	09/30/22 12:21	
Bromobenzene	ug/L	ND	1.0	09/30/22 12:21	
Bromochloromethane	ug/L	ND	1.0	09/30/22 12:21	
Bromodichloromethane	ug/L	ND	1.0	09/30/22 12:21	
Bromoform	ug/L	ND	4.0	09/30/22 12:21	
Bromomethane	ug/L	ND	4.0	09/30/22 12:21	CH,IL
Carbon disulfide	ug/L	ND	1.0	09/30/22 12:21	IL
Carbon tetrachloride	ug/L	ND	1.0	09/30/22 12:21	
Chlorobenzene	ug/L	ND	1.0	09/30/22 12:21	
Chloroethane	ug/L	ND	1.0	09/30/22 12:21	
Chloroform	ug/L	ND	1.0	09/30/22 12:21	
Chloromethane	ug/L	ND	1.0	09/30/22 12:21	

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1638 Roseytown Road - Suites 2,3,4
Greensburg, PA 15601
(724)850-5600

QUALITY CONTROL DATA

Project: 209164
Pace Project No.: 30524553

METHOD BLANK: 2603776 Matrix: Water

Associated Lab Samples: 30524553001, 30524553002, 30524553003, 30524553004, 30524553005, 30524553006, 30524553007, 30524553008, 30524553009, 30524553010, 30524553011, 30524553012

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
cis-1,2-Dichloroethene	ug/L	ND	1.0	09/30/22 12:21	
cis-1,3-Dichloropropene	ug/L	ND	1.0	09/30/22 12:21	
Dibromochloromethane	ug/L	ND	1.0	09/30/22 12:21	
Dibromomethane	ug/L	ND	1.0	09/30/22 12:21	
Dichlorodifluoromethane	ug/L	ND	1.0	09/30/22 12:21	CH,IH
Ethylbenzene	ug/L	ND	1.0	09/30/22 12:21	
Hexachloro-1,3-butadiene	ug/L	ND	4.0	09/30/22 12:21	
Isopropylbenzene (Cumene)	ug/L	ND	1.0	09/30/22 12:21	
m&p-Xylene	ug/L	ND	2.0	09/30/22 12:21	
Methyl-tert-butyl ether	ug/L	ND	1.0	09/30/22 12:21	
Methylene Chloride	ug/L	ND	1.0	09/30/22 12:21	
n-Butylbenzene	ug/L	ND	1.0	09/30/22 12:21	
n-Propylbenzene	ug/L	ND	1.0	09/30/22 12:21	
Naphthalene	ug/L	ND	4.0	09/30/22 12:21	
o-Xylene	ug/L	ND	1.0	09/30/22 12:21	
p-Isopropyltoluene	ug/L	ND	1.0	09/30/22 12:21	
sec-Butylbenzene	ug/L	ND	1.0	09/30/22 12:21	
Styrene	ug/L	ND	1.0	09/30/22 12:21	
tert-Butylbenzene	ug/L	ND	1.0	09/30/22 12:21	
Tetrachloroethene	ug/L	ND	1.0	09/30/22 12:21	
Toluene	ug/L	ND	1.0	09/30/22 12:21	
trans-1,2-Dichloroethene	ug/L	ND	1.0	09/30/22 12:21	
trans-1,3-Dichloropropene	ug/L	ND	1.0	09/30/22 12:21	
Trichloroethene	ug/L	ND	1.0	09/30/22 12:21	
Trichlorofluoromethane	ug/L	ND	1.0	09/30/22 12:21	
Vinyl acetate	ug/L	ND	1.0	09/30/22 12:21	CL
Vinyl chloride	ug/L	ND	1.0	09/30/22 12:21	IH
Xylene (Total)	ug/L	ND	3.0	09/30/22 12:21	
1,2-Dichloroethane-d4 (S)	%.	102	70-130	09/30/22 12:21	
4-Bromofluorobenzene (S)	%.	101	70-130	09/30/22 12:21	
Dibromofluoromethane (S)	%.	105	70-130	09/30/22 12:21	
Toluene-d8 (S)	%.	99	70-130	09/30/22 12:21	

LABORATORY CONTROL SAMPLE: 2603777

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,1,1,2-Tetrachloroethane	ug/L	20	20.3	101	70-130	
1,1,1-Trichloroethane	ug/L	20	22.5	112	70-130	
1,1,2,2-Tetrachloroethane	ug/L	20	22.1	110	70-130	
1,1,2-Trichloroethane	ug/L	20	21.6	108	70-130	
1,1-Dichloroethane	ug/L	20	22.8	114	70-130	
1,1-Dichloroethene	ug/L	20	22.5	112	45-130	
1,1-Dichloropropene	ug/L	20	20.1	101	70-130	

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1638 Roseytown Road - Suites 2,3,4
Greensburg, PA 15601
(724)850-5600

QUALITY CONTROL DATA

Project: 209164
Pace Project No.: 30524553

LABORATORY CONTROL SAMPLE: 2603777

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,2,3-Trichlorobenzene	ug/L	20	21.1	106	56-145	
1,2,4-Trichlorobenzene	ug/L	20	19.9	100	61-151	
1,2,4-Trimethylbenzene	ug/L	20	20.7	103	70-130	
1,2-Dibromo-3-chloropropane	ug/L	20	20.2	101	64-130	
1,2-Dibromoethane (EDB)	ug/L	20	20.3	102	70-130	
1,2-Dichlorobenzene	ug/L	20	21.6	108	70-130	
1,2-Dichloroethane	ug/L	20	21.1	105	64-130	
1,2-Dichloropropane	ug/L	20	21.5	107	70-130	
1,3,5-Trimethylbenzene	ug/L	20	20.6	103	70-130	
1,3-Dichlorobenzene	ug/L	20	21.7	108	70-130	
1,3-Dichloropropane	ug/L	20	20.0	100	70-130	
1,4-Dichlorobenzene	ug/L	20	20.9	105	70-130	
2,2-Dichloropropane	ug/L	20	12.3	62	53-149	CL
2-Butanone (MEK)	ug/L	20	20.7	104	55-143	
2-Chloroethylvinyl ether	ug/L	20	22.4	112	48-137	
2-Chlorotoluene	ug/L	20	21.6	108	70-130	
2-Hexanone	ug/L	20	20.1	101	56-138	
4-Chlorotoluene	ug/L	20	21.3	107	70-130	
4-Methyl-2-pentanone (MIBK)	ug/L	20	19.7	99	62-136	
Acetone	ug/L	20	20.9	104	10-175	1c
Benzene	ug/L	20	21.7	108	70-130	
Bromobenzene	ug/L	20	20.1	101	70-130	
Bromochloromethane	ug/L	20	21.9	110	70-130	
Bromodichloromethane	ug/L	20	21.8	109	70-130	
Bromoform	ug/L	20	20.8	104	58-130	
Bromomethane	ug/L	20	19.3	97	10-151	1c,CH,IL
Carbon disulfide	ug/L	20	4.2	21	46-156	IL,L2
Carbon tetrachloride	ug/L	20	20.0	100	70-130	
Chlorobenzene	ug/L	20	22.3	111	70-130	
Chloroethane	ug/L	20	16.8	84	36-168	
Chloroform	ug/L	20	20.2	101	70-130	
Chloromethane	ug/L	20	12.1	61	43-134	
cis-1,2-Dichloroethene	ug/L	20	20.6	103	70-130	
cis-1,3-Dichloropropene	ug/L	20	18.1	90	70-130	
Dibromochloromethane	ug/L	20	20.6	103	70-130	CH,IH
Dibromomethane	ug/L	20	21.4	107	70-130	
Dichlorodifluoromethane	ug/L	20	6.2	31	46-169	L2
Ethylbenzene	ug/L	20	21.5	107	63-135	
Hexachloro-1,3-butadiene	ug/L	20	18.3	91	55-133	
Isopropylbenzene (Cumene)	ug/L	20	24.1	121	70-130	
m&p-Xylene	ug/L	40	43.6	109	70-130	
Methyl-tert-butyl ether	ug/L	20	16.6	83	63-130	
Methylene Chloride	ug/L	20	23.2	116	70-130	
n-Butylbenzene	ug/L	20	18.5	92	70-130	
n-Propylbenzene	ug/L	20	21.2	106	70-130	
Naphthalene	ug/L	20	19.7	99	30-166	
o-Xylene	ug/L	20	20.8	104	70-130	

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1638 Roseytown Road - Suites 2,3,4
Greensburg, PA 15601
(724)850-5600

QUALITY CONTROL DATA

Project: 209164
Pace Project No.: 30524553

LABORATORY CONTROL SAMPLE: 2603777

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
p-Isopropyltoluene	ug/L	20	20.5	102	70-130	
sec-Butylbenzene	ug/L	20	21.9	110	70-130	
Styrene	ug/L	20	22.0	110	70-130	
tert-Butylbenzene	ug/L	20	21.9	109	70-130	
Tetrachloroethene	ug/L	20	21.5	107	70-130	
Toluene	ug/L	20	21.0	105	70-130	
trans-1,2-Dichloroethene	ug/L	20	21.9	109	70-130	
trans-1,3-Dichloropropene	ug/L	20	18.3	92	70-130	
Trichloroethene	ug/L	20	22.1	111	70-130	
Trichlorofluoromethane	ug/L	20	19.1	95	49-149	
Vinyl acetate	ug/L	20	11.4	57	50-140	CL
Vinyl chloride	ug/L	20	14.0	70	56-132	IH
Xylene (Total)	ug/L	60	64.4	107	70-130	
1,2-Dichloroethane-d4 (S)	%.			96	70-130	
4-Bromofluorobenzene (S)	%.			103	70-130	
Dibromofluoromethane (S)	%.			100	70-130	
Toluene-d8 (S)	%.			100	70-130	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 2603778 2603779

Parameter	Units	30524553002 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
1,1,1,2-Tetrachloroethane	ug/L	ND	20	20	17.2	17.9	86	89	49-130	4	30	
1,1,1-Trichloroethane	ug/L	3.2	20	20	21.2	23.4	90	101	34-164	10	30	
1,1,2,2-Tetrachloroethane	ug/L	ND	20	20	21.3	22.1	107	111	49-142	4	30	
1,1,2-Trichloroethane	ug/L	ND	20	20	20.0	20.0	100	100	46-143	0	30	
1,1-Dichloroethane	ug/L	2.9	20	20	22.3	24.3	97	107	10-130	9	30	
1,1-Dichloroethene	ug/L	5.2	20	20	24.6	26.2	97	105	30-132	6	30	
1,1-Dichloropropene	ug/L	ND	20	20	16.7	18.1	83	90	43-130	8	30	
1,2,3-Trichlorobenzene	ug/L	ND	20	20	18.4	19.2	92	96	33-130	4	30	
1,2,4-Trichlorobenzene	ug/L	ND	20	20	17.2	18.7	86	94	36-130	8	30	
1,2,4-Trimethylbenzene	ug/L	ND	20	20	17.4	18.9	87	94	45-139	8	30	
1,2-Dibromo-3-chloropropane	ug/L	ND	20	20	17.9	18.4	89	92	45-130	3	30	
1,2-Dibromoethane (EDB)	ug/L	ND	20	20	18.8	19.2	94	96	50-132	2	30	
1,2-Dichlorobenzene	ug/L	ND	20	20	18.9	19.5	95	98	50-130	3	30	
1,2-Dichloroethane	ug/L	ND	20	20	19.0	18.8	95	94	49-135	1	30	
1,2-Dichloropropane	ug/L	ND	20	20	19.8	20.6	99	103	44-149	4	30	
1,3,5-Trimethylbenzene	ug/L	ND	20	20	18.2	19.1	91	95	45-134	5	30	
1,3-Dichlorobenzene	ug/L	ND	20	20	19.2	20.1	96	100	54-130	5	30	
1,3-Dichloropropane	ug/L	ND	20	20	17.4	18.3	87	91	42-130	5	30	
1,4-Dichlorobenzene	ug/L	ND	20	20	18.7	19.9	94	100	49-130	6	30	
2,2-Dichloropropane	ug/L	ND	20	20	14.7	14.5	73	73	40-130	1	30	CL
2-Butanone (MEK)	ug/L	ND	20	20	21.9	22.0	109	110	38-156	1	30	
2-Chloroethylvinyl ether	ug/L	ND	20	20	ND	ND	0	0	10-130		30	ML

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1638 Roseytown Road - Suites 2,3,4
Greensburg, PA 15601
(724)850-5600

QUALITY CONTROL DATA

Project: 209164
Pace Project No.: 30524553

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 2603778 2603779

Parameter	Units	30524553002 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
2-Chlorotoluene	ug/L	ND	20	20	18.7	19.9	93	99	41-130	6	30	
2-Hexanone	ug/L	ND	20	20	19.4	20.7	97	103	39-162	6	30	
4-Chlorotoluene	ug/L	ND	20	20	18.3	19.5	91	97	41-130	6	30	
4-Methyl-2-pentanone (MIBK)	ug/L	ND	20	20	20.8	21.2	104	106	41-159	2	30	
Acetone	ug/L	ND	20	20	21.2	22.1	97	101	27-130	4	30	1c
Benzene	ug/L	ND	20	20	19.0	20.3	95	101	17-162	7	30	
Bromobenzene	ug/L	ND	20	20	17.6	18.6	88	93	22-141	6	30	
Bromochloromethane	ug/L	ND	20	20	19.0	20.2	95	101	44-143	6	30	
Bromodichloromethane	ug/L	ND	20	20	19.4	19.4	97	97	50-139	0	30	
Bromoform	ug/L	ND	20	20	16.6	17.6	83	88	36-134	6	30	
Bromomethane	ug/L	ND	20	20	15.3	23.2	76	116	10-130	41	30	1c,CH, IL,R1
Carbon disulfide	ug/L	ND	20	20	20.9	19.6	103	97	59-138	6	30	IL
Carbon tetrachloride	ug/L	ND	20	20	16.0	17.0	80	85	46-140	6	30	
Chlorobenzene	ug/L	ND	20	20	19.6	20.6	98	103	52-133	5	30	
Chloroethane	ug/L	ND	20	20	19.7	19.7	99	99	15-175	0	30	
Chloroform	ug/L	ND	20	20	18.1	19.0	90	94	46-131	5	30	
Chloromethane	ug/L	ND	20	20	14.2	15.1	71	75	28-152	6	30	
cis-1,2-Dichloroethene	ug/L	534	200	200	627	696	46	81	10-175	10	30	
cis-1,3-Dichloropropene	ug/L	ND	20	20	16.6	17.2	83	86	42-137	3	30	
Dibromochloromethane	ug/L	ND	20	20	18.0	19.0	90	95	42-132	5	30	
Dibromomethane	ug/L	ND	20	20	18.8	18.9	94	95	41-130	1	30	
Dichlorodifluoromethane	ug/L	ND	20	20	5.7	5.8	28	29	35-170	2	30	CH,IH, ML
Ethylbenzene	ug/L	ND	20	20	18.1	19.8	91	99	51-132	9	30	
Hexachloro-1,3-butadiene	ug/L	ND	20	20	15.4	15.7	77	78	29-130	2	30	
Isopropylbenzene (Cumene)	ug/L	ND	20	20	20.5	21.9	102	110	54-147	7	30	
m&p-Xylene	ug/L	ND	40	40	36.6	39.2	92	98	51-130	7	30	
Methyl-tert-butyl ether	ug/L	ND	20	20	17.4	17.7	87	88	24-144	2	30	
Methylene Chloride	ug/L	ND	20	20	20.8	21.8	104	109	35-150	5	30	
n-Butylbenzene	ug/L	ND	20	20	16.8	17.9	84	89	30-138	6	30	
n-Propylbenzene	ug/L	ND	20	20	18.3	19.4	91	97	43-140	6	30	
Naphthalene	ug/L	ND	20	20	16.0	17.0	80	85	13-168	6	30	
o-Xylene	ug/L	ND	20	20	17.6	18.8	88	94	51-130	7	30	
p-Isopropyltoluene	ug/L	ND	20	20	17.9	18.7	90	94	37-139	4	30	
sec-Butylbenzene	ug/L	ND	20	20	18.9	19.9	94	100	47-137	6	30	
Styrene	ug/L	ND	20	20	18.3	19.5	92	98	48-138	6	30	
tert-Butylbenzene	ug/L	ND	20	20	18.3	19.4	91	97	46-141	6	30	
Tetrachloroethene	ug/L	ND	20	20	18.7	19.8	93	99	10-175	5	30	
Toluene	ug/L	ND	20	20	17.8	18.8	89	94	52-131	6	30	
trans-1,2-Dichloroethene	ug/L	7.3	20	20	25.6	27.4	91	100	40-135	7	30	
trans-1,3-Dichloropropene	ug/L	ND	20	20	16.3	17.0	81	85	45-132	4	30	
Trichloroethene	ug/L	1030	200	200	976	1090	-29	29	10-175	11	30	M1
Trichlorofluoromethane	ug/L	ND	20	20	19.0	19.1	95	96	34-163	1	30	
Vinyl acetate	ug/L	ND	20	20	15.8	15.5	79	77	36-130	2	30	CL

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

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1638 Roseytown Road - Suites 2,3,4
Greensburg, PA 15601
(724)850-5600

QUALITY CONTROL DATA

Project: 209164
Pace Project No.: 30524553

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 2603778 2603779

Parameter	Units	30524553002 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Vinyl chloride	ug/L	118	20	20	123	150	24	161	10-175	20	30	IH
Xylene (Total)	ug/L	ND	60	60	54.2	58.0	90	97	51-130	7	30	
1,2-Dichloroethane-d4 (S)	%.						97	98	70-130			
4-Bromofluorobenzene (S)	%.						99	98	70-130			
Dibromofluoromethane (S)	%.						103	100	70-130			
Toluene-d8 (S)	%.						98	100	70-130			

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

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1638 Roseytown Road - Suites 2,3,4
Greensburg, PA 15601
(724)850-5600

QUALIFIERS

Project: 209164
Pace Project No.: 30524553

DEFINITIONS

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

ND - Not Detected at or above adjusted reporting limit.

TNTC - Too Numerous To Count

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

RL - Reporting Limit - The lowest concentration value that meets project requirements for quantitative data with known precision and bias for a specific analyte in a specific matrix.

S - Surrogate

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

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

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected.

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

Reported results are not rounded until the final step prior to reporting. Therefore, calculated parameters that are typically reported as "Total" may vary slightly from the sum of the reported component parameters.

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

TNI - The NELAC Institute.

ANALYTE QUALIFIERS

1c	This analyte did not meet the recommended minimum RF in the ICAL.
CH	The continuing calibration for this compound is outside of Pace Analytical acceptance limits. The results may be biased high.
CL	The continuing calibration for this compound is outside of Pace Analytical acceptance limits. The results may be biased low.
IH	This analyte exceeded secondary source verification criteria high for the initial calibration. The reported results should be considered an estimated value.
IL	This analyte exceeded secondary source verification criteria low for the initial calibration. The reported results should be considered an estimated value.
L2	Analyte recovery in the laboratory control sample (LCS) was below QC limits. Results for this analyte in associated samples may be biased low.
M1	Matrix spike recovery exceeded QC limits. Batch accepted based on laboratory control sample (LCS) recovery.
ML	Matrix spike recovery and/or matrix spike duplicate recovery was below laboratory control limits. Result may be biased low.
R1	RPD value was outside control limits.
c2	Acid preservation may not be appropriate for the analysis of 2-Chloroethylvinyl ether.

Pace Analytical Services, LLC
1638 Roseytown Road - Suites 2,3,4
Greensburg, PA 15601
(724)850-5600

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: 209164
Pace Project No.: 30524553

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
30524553001	**MW-2**	AM20GAX	750764		
30524553002	**MW06-23BR**	AM20GAX	750764		
30524553003	**MW06-24BR**	AM20GAX	750764		
30524553004	**MW06-25BR**	AM20GAX	750764		
30524553005	**MW16-7BR**	AM20GAX	750764		
30524553006	**IOW-1**	AM20GAX	750764		
30524553007	**IOW-3**	AM20GAX	750764		
30524553008	**IOW-4**	AM20GAX	750764		
30524553009	**Dup.**	AM20GAX	750764		
30524553010	**MS-MW06-23BR**	AM20GAX	750764		
30524553011	**MSD-MW06-23BR**	AM20GAX	750764		
30524553001	**MW-2**	EPA 8260C	536605		
30524553002	**MW06-23BR**	EPA 8260C	536605		
30524553003	**MW06-24BR**	EPA 8260C	536605		
30524553004	**MW06-25BR**	EPA 8260C	536605		
30524553005	**MW16-7BR**	EPA 8260C	536605		
30524553006	**IOW-1**	EPA 8260C	536605		
30524553007	**IOW-3**	EPA 8260C	536605		
30524553008	**IOW-4**	EPA 8260C	536605		
30524553009	**Dup.**	EPA 8260C	536605		
30524553010	**MS-MW06-23BR**	EPA 8260C	536605		
30524553011	**MSD-MW06-23BR**	EPA 8260C	536605		
30524553012	**trip blank**	EPA 8260C	536605		

Pace Analytical
www.pacelabs.com

CHAIN-OF-CUSTODY / Analytical Request Document

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

Page: 1 of 1

Section A Required Client Information:		Section B Required Project Information:		Section C Invoice Information:	
Company:	GeoLogic NY, P.C.	Report To:	GeoLogic NY, P.C.	Attention:	
Address:	P.O. Box 350	Copy To:		Company Name:	GeoLogic NY, P.C.
	Homer, New York 13077			Address:	
Email To:	geologicny@geologic.net	Purchase Order No.:		Pace Quote Reference:	
Phone:	607-749-5000 Fax: 607-749-5063	Project Name:	209164	Pace Project Manager:	Courtney Fenk
Requested Due Date/TAT:	Standard - 5 Day	Project Number:	209164	Pace Profile #:	

REGULATORY AGENCY

☐ NPDES ☑ GROUND WATER ☐ DRINKING WATER
☐ UST ☐ RCRA ☐ OTHER _____

Site Location STATE: NY

Requested Analysis Filtered (Y/N)

ITEM #	Section D Required Client Information — SAMPLE ID (A-Z, 0-9 / ,-) Sample IDs MUST BE UNIQUE	Valid Matrix Codes: MATRIX / CODE	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED: COMPOSITE START DATE	COMPOSITE START TIME	COMPOSITE END/GRAB DATE	COMPOSITE END/GRAB TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives: Unpreserved	H_2SO_4	HNO_3	HCl	NaOH	$Na_2S_2O_3$	Methanol	Other	Y/N	Analysis Test: TCL VOCs by EPA 8260	Ethene by AM20GAX	Trip BLANK	Trip Blank - TSP	Residual Chlorine (Y/N)	Pace Project No./ Lab I.D.
1	MW-2	DRINKING WATER DW, WATER WT, WASTE WATER WW, PRODUCT P, SOIL/SOLID SL, OIL OL, WIPE WP, AIR AR, OTHER OT, TISSUE TS	WT	G			09/20/22	12:49-12:54		6				3				3		X	X				001
2	~~MW06-25OB~~ No Sample Well Dry		~~WT~~	~~G~~																					
3	MW06-23BR		WT	G			09/20/22	16:05-16:07		6				3				3		X	X				002
4	MW06-24BR		WT	G			09/21/22	10:16-10:18		6				3				3		X	X				003
5	MW06-25BR		WT	G			09/20/22	11:17-11:19		6				3				3		X	X				004
6	MW16-7BR		WT	G			09/21/22	11:23-11:25		6				3				3		X	X				005
7	IOW-1		WT	G			09/20/22	14:48-14:50		6				3				3		X	X				006
8	IOW-3		WT	G			09/21/22	13:16-13:18		6				3				3		X	X				007
9	IOW-4		WT	G			09/21/22	14:17-14:19		6				3				3		X	X				008
10	Dup.		WT	G			09/20/22	12:49-12:54		6				3				3		X	X				009
11	MS - MW06-23BR		WT	G			09/20/22	16:12-16:18		6				3				3		X	X				010
12	MSD - MW06-23BR		WT	G			09/20/22	16:12-16:18		6				3				3		X	X				011

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS: Temp in °C	Received on Ice (Y/N)	Custody Sealed Cooler (Y/N)	Samples Intact (Y/N)
** Trip Blank by Pace for Q.C. Only. NO CHARGE **	/ GeoLogic NY PC	9/23/22	8:55	Geologic Foyer	9/23/22	8:55				
	Geologic Foyer	9/23/22	10:10	M. PALE	9/23	1010				
					9-23-22 ~~10:10~~					
					9-23-22 9:45		4.9	Y	Y	Y

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: C. T. GABRIEL of GeoLogic NY, P.C.

SIGNATURE of SAMPLER: _____ DATE Signed (MM/DD/YY): 09/21/22

WO# : 30524553

30524553

...ent terms and agreeing to late charges of 1.5% per month for any invoices not paid within 30 days.

Pittsburgh Lab Sample Condition Upon Receipt

Pace Analytical

Client Name: Geologic NY Project #

Courier: ☑ Fed Ex ☐ UPS ☐ USPS ☐ Client ☐ Commercial ☐ Pace Other

Label 93
LIMS Login VPINC

Tracking #: 7760 1134 0564

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

Thermometer Used 17 Type of Ice: (Wet) Blue None

Cooler Temperature Observed Temp 5.1 °C Correction Factor: -0.2 °C Final Temp: 4.9 °C

Temp should be above freezing to 6°C

pH paper Lot# 100421 Date and Initials of person examining contents: JS 9/23/22

Comments:	Yes	No	N/A	
Chain of Custody Present:	✓			1.
Chain of Custody Filled Out:	✓			2.
Chain of Custody Relinquished:	✓			3.
Sampler Name & Signature on COC:	✓			4.
Sample Labels match COC: -Includes date/time/ID Matrix: WT	✓	✓		5. Trip blanks not listed on C.O.C. added as sample 012.
Samples Arrived within Hold Time:	✓			6.
Short Hold Time Analysis (<72hr remaining):		✓		7.
Rush Turn Around Time Requested:	✓			8. 5 DAY RUSH
Sufficient Volume:	✓			9.
Correct Containers Used: -Pace Containers Used:	✓ ✓			10.
Containers Intact:	✓			11.
Orthophosphate field filtered			✓	12.
Hex Cr Aqueous sample field filtered			✓	13.
Organic Samples checked for dechlorination:			✓	14.
Filtered volume received for Dissolved tests			✓	15.
All containers have been checked for preservation. exceptions: (VOA) coliform, TOC, O&G, Phenolics, Radon, Non-aqueous matrix			✓	16.
All containers meet method preservation requirements.	✓			Initial when completed JS Date/time of preservation
				Lot # of added preservative
Headspace in VOA Vials (>6mm):	✓			17.
Trip Blank Present:	✓			18.
Trip Blank Custody Seals Present	✓			
Rad Samples Screened < 0.5 mrem/hr			✓	Initial when completed: JS Date: Survey Meter SN:

Client Notification/ Resolution:

Person Contacted: Date/Time: Contacted By:

Comments/ Resolution:

☐ **A check in this box indicates that additional information has been stored in ereports.**

Note: Whenever there is a discrepancy affecting North Carolina compliance samples, a copy of this form will be sent to the North Carolina DEHNR Certification Office (i.e. out of hold, incorrect preservative, out of temp, incorrect containers)

***PM review** is documented electronically in LIMS. When the Project Manager closes the SRF Review schedule in LIMS. The review is in the Status section of the Workorder Edit Screen.

WO#: 30524553
Due Date: 09/30/22
PM: CF1
CLIENT: GEOLOGIC NY

Pace Analytical®

Pace Greensburg Lab -Sample Container Count

Please log Turn time as 5 calendar days

Client Geologic

Site

Profile Number 6149

Notes

Sample Line Item	Matrix	AG1H	AG1S	AG1T	AG2U	AG3S	AG3U	AG5U	AG5T	BG1U	BG2U	BP1N	BP1U	BP2S	BP2U	BP3C	BP3N	BP3S	BP3U	DG9S	GCUB	VG9H	VG9T	VG9U	VOAK	WGFU	WGKU	ZPLC	VG9E
1	WT																												
2																													
3																													
4																													
5																													
6																													
7																													
8																													
9																													
10																													
11																													
12																													

Container Codes

Glass

GJN	1 Gallon Jug with HNO3	DG9S	40mL amber VOA vial H2SO4
AG5U	100mL amber glass unprserved	VG9U	40mL clear VOA vial
AG5T	100mL amber glass Na Thiosulfate	VG9T	40mL clear VOA vial Na Thiosul
GJN	1 Gallon Jug	VG9H	40mL clear VOA vial HCl
AG1S	1L amber glass H2SO4	JGFU	4oz amber wide jar
AG1H	1L amber glass HCl	WGFU	4oz wide jar unpreserved
AG1T	1L amber glass Na Thiosulfate	BG2U	500mL clear glass unpreserved
BG1U	1L clear glass unpreserved	AG2U	500mL amber glass unpreserve
AG3S	250mL amber glass H2SO4	WGKU	8oz wide jar unpreserved
AG3U	250mL amber glass unpreserved		

Plastic / Misc.

GCUB	1 Gallon Cubitainer
12GN	1/2 Gallon Cubitainer
SP5T	120mL Coliform Na Thiosulfate
BP1N	1L plastic HNO3
BP1U	1L plastic unpreserved
BP3S	250mL plastic H2SO4
BP3N	250mL plastic HNO3
BP3U	250mL plastic unpreserved
BP3C	250ml plastic NAOH
BP2S	500mL plastic H2SO4
BP2U	500mL plastic unpreserved

EZI	5g Encore
VOAK	Kit for Volatile Solid
I	Wipe/Swab
ZPLC	Ziploc Bag

WT	Water
SL	Solid
OL	Non-aqueous liquid
WP	Wipe

WO#: 30524553

PM: CF1 Due Date: 09/30/22

CLIENT: GEOLOGIC NY

APPENDIX H

CORRESPONDENCE

Christopher Gabriel

From: Cahill, Karen A (DEC) <karen.cahill@dec.ny.gov>
Sent: Wednesday, June 1, 2022 5:09 PM
To: Christopher Gabriel; Forrest Earl
Cc: Priscott, Gary W (DEC); Forrest Earl
Subject: RE: Axiohm Site Discussion

Chris,

Thank you for organizing the meeting today and preparing the site summary. Based on your presentation, and after further discussion, we have determine that quarterly sampling will not be required as specified in our April 25, 2022 PRR conditional approval letter. Concentration trends will be re-evaluated once analytical results are available from the 2022 annual monitoring event.

Kind Regards,
Karen A. Cahill
Environmental Engineer, Division of Environmental Remediation

New York State Department of Environmental Conservation
615 Erie Blvd. West, Syracuse, NY 13204-2400
P: (315) 426-7432 M: (315)289-6788 karen.cahill@dec.ny.gov
www.dec.ny.gov | | |

From: Christopher Gabriel <chrisg@geologic.net>
Sent: Wednesday, June 1, 2022 12:49 PM
To: Cahill, Karen A (DEC) <karen.cahill@dec.ny.gov>
Cc: Priscott, Gary W (DEC) <gary.priscott@dec.ny.gov>; forrest@geologic.net
Subject: RE: Axiohm Site Discussion

All:

Attached please find the slide deck and charts for today's discussion. Thank you, Chris.

Christopher T. Gabriel
GeoLogic NY, PC
P.O. Box 350
Homer, New York 13077
Phone: 607-749-5000
Fax: 607-749-5063

From: Cahill, Karen A (DEC) <karen.cahill@dec.ny.gov>
Sent: Thursday, May 26, 2022 10:50 AM

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION

Division of Environmental Remediation, Region 7
615 Erie Boulevard West, Syracuse, NY 13204-2400
P: (315) 426-7519, (315) 426-7551 | F: (315) 426-2653
www.dec.ny.gov

April 25, 2022

Andrew Sciarabba
South Hill Business Campus
950 Danby Road, Suite 104
Ithaca, NY 14850

Re: Former Axiohm Facility, Site No. C755012
Periodic Review Report, March 16, 2022

Dear Andrew Sciarabba:

The New York State Department of Environmental Conservation (Department) and the New York State Department of Health have reviewed the above-referenced PRR covering the reporting period from February 15, 2021 to February 15, 2022 and find it acceptable with the following conditions:

Our April 19, 2019 and June 15, 2020 conditional approval letters for the 2018 and 2019 PRRs indicated that additional remedial measures must be evaluated for the site given the asymptotic or increasing concentrations trends in several wells.

With the exception of the expected spike in chlorinated VOC (cVOC) concentrations following the two ISCO injection events in 2008 and 2012, sampling results for several of the monitoring wells demonstrate flat or increasing concentration trends since the first injection event in June 2008 (or since routine monitoring began). The table below includes a summary of these results along with the results from the most recent groundwater sampling round.

Monitoring Well	Date	Results (µg/L)[3]	Sept 2021 (µg/L)[3]
MW-2 (OB)	June 2008	182	414
MW06-25BR	March 2008[1]	424	224
IOW-1	June 2008	337	2,025
IOW-3	June 2008	717	943
MW06-23BR	September 2015	1,265	2,257
MW16-7BR	September 2020[2]	8,073	2.3

1 – well was dry in June 2008
2 – sampling round prior to installation of SVE
3 – total CVOCs

MW16-7BR:
Based on results of the September 2021 sampling round, the soil vapor extraction (SVE) system installed at this well and at trench T-11 in July 2021 appears to be effective in reducing cVOCs in groundwater in the vicinity of this well. However, please ensure that the bubbler system and connection to the SSDS blower are shut down for a minimum of 24 hours prior to sampling to allow sufficient time for the aquifer to come to equilibrium.

Overall Effectiveness of the Remedy:
Given the above information regarding the groundwater concentration trends in the other site wells, the frequency of groundwater monitoring must be increased to quarterly for the next year to assess the effectiveness of the SVE system in reducing site-wide cVOCs.

In order to stay consistent with the current monitoring schedule (e.g., annually in September), the first quarterly sampling round can be conducted in late May or early June.

Please feel free to contact me if you have any questions.

Respectfully,

Karen A. Cahill
Project Manager
Division of Environmental Remediation

ec: L. Luciano, SHBC
C. Gabriel, Geologic
G. Priscott, DEC
A. Perretta, DOH