



MEMORANDUM

TO: Andrea Caprio, P.E., Regional Hazardous Waste Engineer

FROM: Steven Moeller, P.G., Professional Geologist 1

DATE: February 5, 2025

SUBJECT: RCRA COMPREHENSIVE GROUNDWATER MONITORING
EVALUATION (CME) & FIELD INSPECTION REPORT

Facility: Bell Aerospace-Textron
Niagara Falls Boulevard and Walmore Road
Wheatfield, Niagara County, NY 14240
DEC Site # 932052
EPA ID - NYD002106276

Background: The site is part of the larger former Bell Aerospace-Textron Wheatfield Plant which is located near the western boundary of the Town of Wheatfield, Niagara County. This large industrial facility is bounded by Niagara Falls Boulevard (U.S. Route 62) to the south, Walmore Road to the east, the former Carborundum Abrasives Company Plant to the north, and the Niagara Falls International Airport to the west and northwest. Bell Aircraft Corporation began operations at the Wheatfield Plant in 1942. In 1960, Textron purchased the military defense business from Bell Aircraft Corporation and established the Bell Aerospace Division of Textron (BAT). In 1973, BAT acquired the real property which comprises the Wheatfield Plant. Aircraft construction and a variety of manufacturing and research activities were formerly conducted at the Plant.

The source area consists of a former Neutralization Pond which was approximately rectangular in shape, at about 100 feet by 60 feet in plan dimension. Records indicate the Neutralization Pond was constructed in 1949 and used extensively for waste fluid neutralization and disposal of collected waste propellants and associated flush waters from rocket engine test firings in the Rocket Test Building through the 1950s and to a lesser extent through the 1960s. During operation, neutralized water from the Pond was discharged to the former Bell Aerospace Plant's sanitary sewer. In addition to the use of the Pond for neutralizing the waste propellants, it was apparently also used for disposal of solvents and fluids from other parts of the Plant. The Pond was physically closed in 1987. The source area is currently covered by grass, surrounded by a guard rail to prevent vehicular access, and located within a fenced, restricted-access rocket engine testing and research facility operated by Moog. The Moog facility is surrounded by the approximately 87-acre Wheatfield Business Park that is zoned for light industrial and processing.

Disposal of wastewaters into the unlined Neutralization Pond resulted in a bedrock groundwater plume contaminated with various halogenated organics, including trichloroethene (TCE) and its metabolites and methylene chloride, that extended approximately 4,300 feet south of the site. A smaller DNAPL plume was also present in the source area. A comprehensive hydrogeologic investigation was completed at this site. An interim report on the results of the investigations was submitted by Bell's consultant, Golder Associates, in 1987. More work was done in 1988-89 that included additional off-site investigation, investigation of the local sewer trenches and the potential for soil gas migration, survey of private wells in the area, and a pump test to define aquifer characteristics for use in evaluating the potential remedial measures. The Neutralization Pond was physically closed in 1987 in accordance with an approved closure plan. The RCRA Facility Investigation (RFI) was completed and a Corrective Measures Study (CMS) was approved in 1991. The CMS included a remediation plan for off-site and on-site areas and a health risk/environmental risk study. A 6 NYCRR Part 373 permit was issued for post-closure care and corrective action. An off-site corrective action system began operation in 1993 and initially consisted of six (6) groundwater extraction wells to control and reduce the extent of the groundwater plume. The off-site extracted groundwater is conveyed to the Niagara County Sewer District Publicly Owned Treatment Works (POTW). An on-site corrective action system began operation in 1995 and initially consisted of seven (7) groundwater extraction wells. The on-site extracted groundwater was conveyed to an on-site groundwater treatment plant.

Both systems have been modified over the years to optimize groundwater extraction and contaminant removal. Only three of the off-site groundwater extraction wells are currently pumping (EW-2, EW-3, and EW-4) as the off-site plume is being "pulled" back (northward) and shrinking. The on-site extraction wells and treatment plant were shut down on October 30, 2017 to facilitate a bioremediation pilot study, discussed in more detail below.

An off-site soil vapor intrusion (SVI) investigation was performed in 2007 and 2008 to assess any potential impacts from the off-site contaminant plume. Based upon the results of this investigation, Textron installed one sub-slab depressurization soil vapor mitigation system in 2014 at an off-site residence; this system is still in operation and is evaluated annually.

The Part 373 Permit was superseded and terminated by an Order on Consent, Index No. 932052-01-04, effective January 26, 2014. Site Management continues with inspections, hydraulic monitoring, groundwater quality monitoring, and off-site groundwater extraction and treatment. A Site Management Plan (SMP; March 2015, revised February 2018) was developed that incorporates all these elements and contains a Groundwater Monitoring Plan (2012).

A bioremediation pilot study was initiated in October 2017 to evaluate the effectiveness of subsurface injections of commercially available carbon substrate (3D Microemulsion® [3DME®]), iron-based products (Chemical Reducing Solution [CRS]), and microbial culture (SDC-9™) to accelerate the naturally occurring anaerobic dechlorination of dissolved-phase chlorinated volatile organic compounds (CVOCs) in bedrock groundwater. The on-site extraction wells and treatment plant were temporarily shut down

on October 30, 2017; the Department will make a determination if the on-site extraction/treatment system will be restarted at the end of the bioremediation pilot study.

The initial bioremediation pilot study injections were performed in the last quarter of 2017 and monitored approximately quarterly through 2018 and early 2019. Based upon indications that the bioremediation injection substrates were reducing CVOCs and complete reductive dechlorination was occurring, supplemental injections of sulfonated micro scale zero valent iron (S-MicroZVI™), CRS, and microbial cultures (SDC-9™ and MDB-1™) were performed near the source area in October 2019. An additional round of supplemental injections of the carbon source 3DME®, S-MicroZVI™, and the microbial cultures SDC-9™ and MDB-1™ were performed near the source area in October/November 2021. Groundwater monitoring is ongoing to evaluate the effectiveness of the supplemental injections.

Although the data show that the dissolved plume is retracting to the north and the Bioremediation Program is reducing CVOC concentrations, residual elevated CVOCs continue to be present in the vicinity of the former Neutralization Pond. In late 2024, Textron proposed pilot testing an additional newer technology in the Neutralization Pond source area called E-Redox® that enhances both biotic and abiotic CVOC degradation pathways. This technology uses low voltage electrodes placed into a set of three wells to create reducing conditions and electrons to reduce CVOCs primarily via the B-elimination pathway, similar to S-MicroZVI™; however, this is a continuous process in contrast to batch injection of an amendment. Since this is a continuous process forming an electrical reducing zone, the treatment is expected to be completed in this area in approximately 18 months. The E-Redox® system should be installed and operational in early 2025.

I. Office Evaluation

Prior to the field inspection, relevant documents were compiled and reviewed, including:

- Previous RCRA Groundwater Comprehensive Monitoring Evaluation (CME) Report (2009) and Operation & Maintenance Inspection (OMI) Reports (2018 and 2022)
- RCRA Facility Investigation (RFI) Report (June 1991)
- Site Management Plan (March 2015; revised February 2018), which contains the Groundwater Monitoring Plan (2012; and approved changes)
- Annual Monitoring Reports, Off-Site System Performance Reports, IC-EC Certifications, and Bioremediation Status Reports (2022-2023)
- Bioremediation Program E-Redox® Pilot Test Work Plan (November 2024)
- Recent Correspondence (2022-2024)

A RCRA CME Checklist for the site is included in Attachment A.

II. Field Evaluation

Sampling and monitoring activities in 2024 were performed in general accordance with the Groundwater Monitoring Plan (2012) for the site, with approved changes. Additional monitoring and groundwater sampling was also performed to evaluate the Bioremediation Pilot Study progress. Steven Moeller, PG, (NYSDEC) conducted field inspections at the

Textron facility on: March 25, 2024 - First Semiannual Sampling Event for the Bioremediation Pilot Study; April 29, 2024 – Off-site Extraction Well Sampling Event; and October 22, 2024 - Annual Groundwater Sampling Event/Second Semiannual Sampling Event for the Bioremediation Pilot Study. These inspections included observation of groundwater sample collection activities and limited inspection of monitoring wells, the Neutralization Pond source area, the On-site Groundwater Treatment Plant, and surrounding areas. Figures and tables indicating the well locations and sampling parameters are included in Attachment B. Groundwater Sample Field Data Sheets and Chain-of-Custody Forms for each of the sampling events are included in Attachment C. Attachment D includes photographs taken during the sampling events.

Date/Event: March 25, 2024 - First Semiannual Sampling Event for the Bioremediation Pilot Study

Onsite Personnel: Steven Moeller (NYSDEC – PM/Inspector) and Kevin Cronin (APTIM – Senior Geologist)

Weather: Mostly clear, 48° F, slight breeze

Semiannual groundwater sampling (spring and fall) has been performed to evaluate the progress of the Bioremediation Pilot Study. Twelve wells were sampled during the spring 2024 Bioremediation Pilot Study groundwater sampling event. Figure 4, showing the well locations, and Table 2, indicating the wells sampled and the analytical parameters, are included in Attachment B.

I observed Kevin Cronin (APTIM) purge and sample on-site wells 19-01(1) and 87-14(1). These wells are located in the active Moog rocket engine testing facility near the former Neutralization Pond source area. The physical integrity of each location was visually inspected and noted prior to sampling. Ambient air at the wellheads was analyzed for volatile organic vapors, Hydrogen Sulfide (H₂S), and Low Explosive Limit (LEL) using a combination photoionization detector (PID)/multigas meter. No H₂S or LEL readings greater than background concentrations or unusual odors were noted. Most wellhead PID readings were less than 10 parts per million (ppm); however, a maximum wellhead reading of 143.3 ppm was noted at well 87-04(1).

Prior to conducting any purging or sampling activities, depth to water/bottom measurements were recorded in each well with a Heron Dipper-T electronic water level indicator to calculate the volume of the water column in each well. It should be noted that the *Groundwater Monitoring Plan* Section 4.1 sampling protocols describe procedures for using an interface probe to record depth to water, any Non-Aqueous Phase Liquids (NAPLs), and well bottom measurements. Dense Non-Aqueous Phase Liquids (DNAPLs) have historically been noted in the source area (although not for many years) and remnant injection amendments have been noted as Light Non-Aqueous Phase Liquids (LNAPLs) in some wells.

The wells were purged and sampled using low-flow sampling techniques with a peristaltic pump with dedicated silicone and high-density polyethylene (HDPE) tubing. A YSI Pro DSS multiparameter meter with flow-through cell was used to periodically record field

water quality parameters (i.e., pH, temperature, dissolved oxygen [DO], oxidation-reduction potential [ORP], specific conductance, and turbidity [a separate Hach 2100Q turbidimeter was also used to verify turbidity readings]) during purging to ensure water quality parameters had stabilized prior to sample collection; depth to water and water volume purged measurements were also noted. These measurements and other field observations were recorded on field sampling forms. Normally, samples are collected upon field parameter stabilization; however, wells 19-01(1) and 87-14(1) both purged to dryness. After approximately an hour, well 87-14(1) had recovered enough to permit sampling. Well 19-01(1) was sampled on the following day.

When the wells had recovered sufficiently, clean pre-preserved sample bottles provided by the analytical laboratory were filled from the peristaltic pump tubing, before the flow-through cell. Sample analyses included volatile organic compounds (VOCs) by U.S. Environmental Protection Agency (USEPA) SW-846 Method 8260, Total Organic Carbon (TOC) by USEPA Method 5310C, ethene/ethane/methane by Method RSK 175, and sulfate by USEPA Method 9056A. Following collection, sample bottles were placed into a cooler filled with ice to maintain an approximate temperature of 4 degrees Celsius. The samples were delivered under proper chain-of-custody (COC; see Attachment C for COCs) to Eurofins/TestAmerica Laboratory in Amherst, New York, a New York State Environmental Laboratory Approval Program-certified laboratory.

The Groundwater Sample Field Data Sheets for this sampling event are included in Attachment C. Attachment D contains photographs of the field sampling activities. All purge water was collected and transported to the On-site Groundwater Treatment Plant for containerized in Department of Transportation-approved 55-gallon drums for subsequent characterization and off-site disposal.

I also performed a limited inspection of monitoring wells and the perimeter fence in the vicinity of the Neutralization Pond source area. All wells observed were locked and in reasonably good condition. The former Neutralization Pond source area is surrounded by a yellow metal guard rail and a chain-link fence, which is further surrounded by a facility perimeter chain-link fence. Access is limited and controlled by Moog, the current operator of the rocket engine testing and research facility surrounding the former Neutralization Pond.

Date/Event: April 29, 2024 – Off-site Extraction Well Sampling Event

Onsite Personnel: Steven Moeller (NYSDEC – PM/Inspector); Evan Schlegel and Hunter Lohr (APTIM sampling crew)

Weather: Mostly clear, 72° F, breezy, humid

The Off-Site Groundwater Extraction System consists of five groundwater extraction wells located within the National Grid Power Corporation utility easement south of the Bell Aerospace-Textron facility. The extraction wells, designated EW-2 through EW-6, are located in below-grade vaults with an open borehole which extends down through the uppermost bedrock rock (Zone 1). Each extraction well contains an electric submersible pump, except EW-6, which was taken out of service. Groundwater is extracted from Zone

1 and discharged via a stainless-steel riser pipe into a common header (doubly-contained pipeline) which flows into a sanitary sewer manhole in compliance with a Niagara County Sewer District Industrial Discharge Permit. As part of an extended pilot study requested by NYSDEC, extraction well EW-5 was taken offline on September 5, 2013, while extraction wells EW-2, EW-3, and EW-4 remain operational. The purpose of this pilot study is to reduce contaminant concentrations, to prevent continued migration of the plume southward, and to shrink the remnant plume and draw it northward. The Off-Site System remains operational in this configuration with the approval of NYSDEC.

To evaluate the performance of the Off-Site Groundwater Extraction System, groundwater quality samples are collected semiannually in the spring and fall from five of the Off-Site System extraction wells (EW-2, EW-3, EW-4, EW-5, and EW-6) and monitoring well 93-03(1) for VOC analysis by USEPA SW-846 Method 8260 (see Appendix B, Table 1). Extraction wells EW-2, EW-3, EW-4, and EW-5 have dedicated electric submersible pumps installed and samples are collected from sampling ports at the well head. Extraction well EW-6 and monitoring well 93-03(1) are sampled using low-flow sampling techniques with a peristaltic pump with dedicated silicone and HDPE tubing. Figure 1 in Attachment B shows the well locations.

I observed APTIM personnel performing sample collection activities at extraction wells EW-2, EW-3, and EW-4. We met on Walmore Road and took a dirt access road east to the utility right of way (ROW) where the extraction wells are located. Ground conditions were wet and the APTIM crew's pickup truck got stuck in the muddy ROW earlier in the day. Therefore, the APTIM crew manually carried the sampling equipment to each extraction well.

The physical integrity of each vault and well head appurtenances were visually inspected and noted prior to sampling. The vaults have heavy, large-diameter cast iron manhole lids that require two personnel and a specialized lid lifting tool for removal. The ambient air inside each extraction well vault and/or at the wellhead was analyzed for volatile organic vapors using a PID. No PID readings greater than background concentrations or unusual odors were noted. Sampling at the extraction well vaults is performed from outside the vaults without personnel actually entering the vaults, which are considered confined spaces. It should be noted that the *Groundwater Monitoring Plan* sampling protocols also describe procedures for using a multi-gas meter to monitor the well vaults for the presence of hydrogen sulfide (H₂S), oxygen deficiency, and percent lower explosive limit (percent LEL); although the vaults were allowed to vent, multi-gas meter readings were not taken today.

Prior to conducting sample collection, depth to water/bottom measurements were recorded in each well with a Solinst Model 101 electronic water level indicator. Extraction wells EW-2, EW-3, and EW-4 were purged and sampled using dedicated HDPE tubing that was connected to a valved sampling port. Water was purged into a 5-gallon plastic pail and a YSI 660 MDS multiparameter meter with sonde was used to record field water quality parameters (i.e., pH, temperature, DO, ORP, specific conductance, and turbidity [a separate Hach 2100Q turbidimeter was also used to verify turbidity readings]) during purging prior to sample collection. These measurements and other field observations were recorded on field sampling forms.

Clean pre-preserved sample bottles provided by the analytical laboratory were filled from the sampling port HDPE tubing. The samples were analyzed for VOCs by USEPA SW-846 Method 8260. Immediately following collection, sample vials were placed into a cooler filled with ice to maintain an approximate temperature of 4 degrees Celsius. The samples were delivered under proper chain-of-custody (see Attachment C for COCs) to Eurofins/TestAmerica Laboratory in Amherst, New York, a New York State Environmental Laboratory Approval Program-certified laboratory.

The Groundwater Sample Field Data Sheets for this sampling event are included in Attachment C. All purge water was collected and transported to the former Onsite Groundwater Treatment Plant for containerized in Department of Transportation-approved 55-gallon drums for subsequent characterization and off-site disposal. Attachment D contains photographs of the field sampling activities.

I also performed a limited visual inspection of extraction wells EW-2, EW-3, and EW-4 and the surrounding areas. The utility corridor where the wells are located appeared to be mowed. The well vaults and appurtenances appeared to be in reasonably good condition. APTIM performs maintenance, as needed, to keep the wells operating continuously to maintain hydraulic control and capture of the off-site contaminant plume.

As part of this sampling event, APTIM personnel also performed site-wide groundwater elevation measurements at 53 wells to develop groundwater potentiometric contour maps for the spring sampling event to demonstrate hydraulic capture of the off-site contaminant plume by the off-site extraction wells; the well locations monitored are listed on Table 4 in Attachment B. I did not observe these activities.

Date/Event: October 22 & 24, 2024 - Annual Groundwater Sampling Event/Second Semiannual Sampling Event for the Bioremediation Pilot Study

Onsite Personnel: Steven Moeller (NYSDEC – PM/Inspector); Kevin Cronin, Evan Schlegel, John Osborn (APTIM sampling crew)

Weather: October 22, 2024 – Sunny, 70° F, breezy; October 24, 2024 – Overcast, 48° F, slight breeze

The annual groundwater monitoring event is performed in October each year over the course of several days; 32 wells are sampled in even-numbered years and 23 wells are sampled in odd-numbered years. Additional groundwater sampling in support of the Bioremediation Program is also typically performed. Figures 4 and 7, showing the well locations, and Tables 1 and 2, indicating the wells sampled and the analytical parameters, are included in Attachment B. APTIM personnel also perform site-wide groundwater elevation measurements at 53 wells to develop groundwater potentiometric contour maps; the well locations monitored are listed in Table 4 in Attachment B.

On October 22, 2024, I observed Kevin Cronin (APTIM) purge and sample on-site well 89-12(1). The physical integrity of the well was visually inspected and recorded prior to sampling; Table 3 in Attachment B shows the visual inspection observations from the fall

2023 annual sampling event as an example. In addition, the ambient air at the wellhead was analyzed for volatile organic vapors using a PID. No PID readings greater than background concentrations or unusual odors were noted at 89-12(1).

Prior to conducting any purging or sampling activities, depth to water/NAPLs (none detected)/well bottom measurements were recorded with a Heron H-OIL interface probe to calculate the volume of the water column in the well. The well was purged and sampled using low-flow sampling techniques with a peristaltic pump with dedicated silicone and high-density polyethylene (HDPE) tubing. A YSI Pro DSS multiparameter meter with flow-through cell was used to record field water quality parameters (i.e., pH, temperature, DO, ORP, specific conductance, and turbidity) during purging to ensure water quality parameters had stabilized prior to sample collection. These measurements and other field observations were recorded on field sampling forms.

Upon field parameter stabilization, clean pre-preserved sample bottles provided by the analytical laboratory were filled from the peristaltic pump tubing, before the flow-through cell. The sample from well 89-12(1) was analyzed for VOCs by USEPA SW-846 Method 8260. Sample analyses for this sampling event included: VOCs by USEPA SW-846 Method 8260 at all wells; and TOC by USEPA Method 5310C, ethene/ethane/methane by Method RSK 175, and sulfate by USEPA Method 9056A at select wells to evaluate the progress of the Bioremediation Pilot Study. Immediately following collection, sample vials were placed into coolers filled with ice to maintain an approximate temperature of 4 degrees Celsius. The samples were delivered under proper chain-of-custody (see Attachment C for COCs) to Eurofins/TestAmerica Laboratory in Amherst, New York, a New York State Environmental Laboratory Approval Program-certified laboratory.

In the *2023 Annual Summary and Site Maintenance and Monitoring Report* (July 2024), APTIM proposed evaluating the use of HydraSleeve samplers for groundwater VOC sample collection at the site. Five monitoring wells (DW-10, 87-17(1), 87-19(1), 87-20(1), and 87-22(1)) are being used to conduct a comparison pilot study. Dedicated HydraSleeve samplers were deployed in each of these wells on October 7, 2024 (a minimum of two weeks prior to sampling) and retrieved on October 23-25, 2025. Following sample collection utilizing the HydraSleeves, the wells were also immediately sampled using low-flow techniques to provide analytical data for comparison purposes.

On October 24, 2024, I observed Evan Schlegel and John Osborn (APTIM sampling crew) retrieving the HydraSleeve sampler from well 87-19(1). The HydraSleeve sampler had been suspended in the well with a stainless-steel cable on October 7, 2024. The HydraSleeve sampler was pulled from the well and suspended on a tripod to facilitate manipulation and sample collection. The HydraSleeve sampler was then pierced using the pointed end of the provided dedicated discharge tube and the discharge was directed into clean, pre-preserved sample vials provided by the lab for VOC analysis by USEPA SW-846 Method 8260. A sample aliquot was also collected for field parameter measurements. Well 87-19(1) was then purged and sampled using a peristaltic pump via low-flow sampling techniques, as described above. Sample bottles were placed into coolers filled with ice to maintain an approximate temperature of 4 degrees Celsius. The samples were delivered under proper chain-of-custody (see Attachment C for COCs) to Eurofins/TestAmerica Laboratory in Amherst, New York, a New York State Environmental

Laboratory Approval Program-certified laboratory. A new dedicated HydraSleeve sampler was then installed in 87-19(1), to be collected during the next sampling event.

The dedicated HydraSleeve samplers and discharge tubes were properly disposed after sample collection. All purge water was collected and transported to the former Onsite Groundwater Treatment Plant for containerized in Department of Transportation-approved 55-gallon drums for subsequent characterization and off-site disposal. The Groundwater Sample Field Data Sheets for this sampling event are included in Attachment C. Attachment D contains photographs of the field sampling activities.

I also performed a limited inspection of monitoring wells in the parking areas north of Niagara Falls Boulevard and west of Walmore Road, and the On-site Groundwater Treatment Plant exterior. All wells observed were locked and in reasonably good condition, with the exception of well 86-23A, which is located just west of Walmore Road near the southernmost entry to the parking lot where the On-site Groundwater Treatment Plant is located. The outer steel stickup protective casing on well 86-23A was separated just above the ground surface and leaning at an approximate 45° angle; the protective casing will need to be replaced and the well riser may also need repair/replacement (see photo in Attachment D). The exterior of the On-site Groundwater Treatment Plant, which is currently idle due to the ongoing bioremediation pilot study, was in acceptable condition and the doors were locked.

III. Summary

Based upon a review of site-related documents (including the *Groundwater Monitoring Plan*), oversight of groundwater sample collection activities, and limited inspection of the facility, the Department has determined that the facility is in compliance with their groundwater monitoring program as required by the SMP and Order on Consent.

IV. Recommendations

Based upon this CME, the following recommendations are made:

- Update the 2012 *Groundwater Monitoring Plan*;
- Since DNAPLs have historically been noted in the source area and remnant injection amendments have been noted as LNAPLs in some wells, ensure that an interface probe is consistently used to record depth to water, any Non-Aqueous Phase Liquids (NAPLs), and well bottom measurements;
- For worker safety, evaluate acquisition of lighter weight (e.g., glass-reinforced plastic or composite material) manhole covers for the Off-site extraction well vaults;
- Ensure that a multi-gas meter is consistently used to monitor the well vaults for the presence of H₂S, oxygen deficiency, and LEL.

ATTACHMENTS

Attachment A - Comprehensive Groundwater Monitoring Evaluation (CME) Checklist

Attachment B - Figures and Tables

Attachment C - Groundwater Sample Field Data Sheets and Chain-of-Custody Forms

Attachment D - Photographs

ATTACHMENT A

Comprehensive Groundwater Monitoring Evaluation (CME) Checklist

Comprehensive Groundwater Monitoring Evaluation		Y/N
<p>I. Office Evaluation Technical Evaluation of the Design of the Groundwater Monitoring System</p> <p>A. Review of Relevant Documents</p> <p>1. What documents were obtained prior to conducting the inspection:</p> <p><input type="checkbox"/> RCRA Part A permit application</p> <p><input type="checkbox"/> RCRA Part B permit application</p> <p>(RCRA Permit replaced with Order on Consent, Index No. 932052-01-04, January 2014)</p> <p><input checked="" type="checkbox"/> Correspondence between the owner/operator and appropriate agencies or citizen's groups</p> <p><input checked="" type="checkbox"/> Previously conducted facility inspection/investigation reports (RFI & CMS Reports 1991)</p> <p><input checked="" type="checkbox"/> Facility's contractor reports (Annual Reports)</p> <p><input checked="" type="checkbox"/> Regional hydrogeologic, geologic, or soil reports</p> <p><input checked="" type="checkbox"/> The facility's Groundwater Monitoring Plan and QAPP (in SMP)</p> <p><input type="checkbox"/> Groundwater Assessment Program Outline (or Plan, if the facility is in assessment monitoring)</p> <p><input checked="" type="checkbox"/> Other (specify): Site Management Plan (SMP) (2015; revised 2018)</p>		
<p>B. Evaluation of the Owner/Operator's Hydrogeologic Assessment</p> <p>1. Did the owner/operator use the following direct techniques in the hydrogeologic assessment:</p> <p><input checked="" type="checkbox"/> Logs of the soil borings/rock corings (documented by a professional geologist, scientist, or geotechnical engineer)</p> <p><input checked="" type="checkbox"/> Materials tests (e.g., grain size analyses, standard penetration tests, etc.)</p> <p><input checked="" type="checkbox"/> Piezometer/well installations for water level measurements at different depths</p> <p><input checked="" type="checkbox"/> Slug tests</p> <p><input checked="" type="checkbox"/> Pressure tests</p> <p><input checked="" type="checkbox"/> Geochemical analyses of soil and groundwater samples</p> <p><input type="checkbox"/> Other (specify) (e.g., hydrochemical diagrams, wash analysis):</p>	<p>Yes</p>	

Comprehensive Groundwater Monitoring Evaluation		Y/N
<p>2. Did the owner/operator use the following indirect techniques to supplement direct techniques data:</p> <p><input type="checkbox"/> Geophysical well logs</p> <p><input type="checkbox"/> Tracer studies</p> <p><input type="checkbox"/> Resistivity and/or electromagnetic conductance</p> <p><input type="checkbox"/> Seismic survey</p> <p><input type="checkbox"/> Hydraulic conductivity measurements of cores</p> <p><input checked="" type="checkbox"/> Aerial photography</p> <p><input type="checkbox"/> Ground penetrating radar</p> <p><input type="checkbox"/> Other (specify):</p>	Some	
<p>3. Did the owner/operator document and present the raw data from the site hydrogeologic assessment?</p>	Yes	
<p>4. Did the owner/operator document methods (criteria) used to correlate and analyze the information?</p>	Yes	
<p>5. Did the owner/operator prepare the following:</p> <p><input checked="" type="checkbox"/> Narrative description of geology</p> <p><input checked="" type="checkbox"/> Geologic cross sections</p> <p><input checked="" type="checkbox"/> Geologic and soil maps</p> <p><input checked="" type="checkbox"/> Boring/coring logs</p> <p><input checked="" type="checkbox"/> Structure contour maps of the differing water bearing zones and confining layer</p> <p><input checked="" type="checkbox"/> Narrative description and calculation of groundwater flows</p> <p><input checked="" type="checkbox"/> Water table/potentiometric map</p> <p><input checked="" type="checkbox"/> Hydrologic cross sections</p>	Yes	
<p>6. Did the owner/operator obtain a regional map of the area and delineate the facility? On regional topographic map</p> <p>If yes, does the site map show:</p> <p><input checked="" type="checkbox"/> Surficial geology features</p> <p><input checked="" type="checkbox"/> Streams, rivers, lakes, or wetlands near the facility</p> <p><input checked="" type="checkbox"/> Discharging or recharging wells near the facility</p>	Yes	
<p>7. Did the owner/operator obtain a regional hydrogeologic map?</p> <p>If yes, does this hydrogeologic map indicate:</p> <p><input checked="" type="checkbox"/> Major areas of recharge/discharge</p> <p><input checked="" type="checkbox"/> Regional groundwater flow direction</p> <p><input checked="" type="checkbox"/> Potentiometric contours which are consistent with observed water level elevations</p>	Yes	

Comprehensive Groundwater Monitoring Evaluation		Y/N
8. Did the owner/operator prepare a facility site map? If yes, does the site map show: <input checked="" type="checkbox"/> Regulated units of the facility (e.g., landfill areas, impoundments) <input checked="" type="checkbox"/> Any seeps, springs, streams, ponds, or wetlands <input checked="" type="checkbox"/> Location of monitoring wells, soil borings, or test pits	Yes	
9. How many regulated units does the facility have? 1 If more than one regulated unit then, <input type="checkbox"/> Does the waste management area encompass all regulated units? <input type="checkbox"/> Is a waste management area delineated for each regulated unit?	Yes	
C. Characterization of Subsurface Geology of Site		
1. Soil boring/test pit program:		
a. Were the soil borings/test pits performed under the supervision of a qualified professional?	Yes	
b. Did the owner/operator provide documentation for selecting the spacing for borings?	Yes	
c. Were the borings drilled to the depth of the first confining unit below the uppermost zone of saturation or ten feet into bedrock?	Yes	
d. Indicate the method(s) of drilling: <input checked="" type="checkbox"/> Auger (hollow or solid stem) <input checked="" type="checkbox"/> Air rotary <input type="checkbox"/> Reverse rotary <input type="checkbox"/> Cable tool <input type="checkbox"/> Jetting <input type="checkbox"/> Other (specify):	Yes	
e. Were continuous sample cores taken?	Yes	
f. How were the samples obtained (checked method(s)) <input checked="" type="checkbox"/> Split spoon <input type="checkbox"/> Shelby tube, or similar <input checked="" type="checkbox"/> Rock coring <input checked="" type="checkbox"/> Ditch sampling <input type="checkbox"/> Other (explain):	Yes	
g. Were the continuous sample cores logged by a qualified professional in geology?	Yes	

Comprehensive Groundwater Monitoring Evaluation		Y/N
<p>h. Do the field boring logs include the following information:</p> <ul style="list-style-type: none"> <input checked="" type="checkbox"/> Hole name/number <input checked="" type="checkbox"/> Date started and finished <input checked="" type="checkbox"/> Driller's name <input checked="" type="checkbox"/> Hole location (i.e., map and elevation) <input checked="" type="checkbox"/> Drill rig type and bit/auger size <input checked="" type="checkbox"/> Gross petrography (e.g., rock type) of each geologic unit <input checked="" type="checkbox"/> Gross mineralogy of each geologic unit <input checked="" type="checkbox"/> Gross structural interpretation of each geologic unit and structural features (e.g., fractures, gouge material, solution channels, buried streams or valleys, identification of depositional material) <input checked="" type="checkbox"/> Development of soil zones and vertical extent and description of soil type <input checked="" type="checkbox"/> Depth of water bearing unit(s) and vertical extent of each <input checked="" type="checkbox"/> Depth and reason for termination of borehole <input checked="" type="checkbox"/> Depth and location of any contaminant encountered in borehole <input checked="" type="checkbox"/> Sample location/number <input checked="" type="checkbox"/> Percent sample recovery <li style="padding-left: 20px;">Narrative descriptions of: <ul style="list-style-type: none"> <input checked="" type="checkbox"/> Geologic observations <input checked="" type="checkbox"/> Drilling observations 	<p>Variously</p>	
<p>i. Were the following analytical tests performed on the core samples:</p> <ul style="list-style-type: none"> <input type="checkbox"/> Mineralogy (e.g., microscopic tests and x-ray diffraction) <ul style="list-style-type: none"> Petrographic analysis: <ul style="list-style-type: none"> <input type="checkbox"/> Degree of crystallinity and cementation of matrix <input type="checkbox"/> Degree of sorting, size fraction (i.e., sieving), textural variations <input checked="" type="checkbox"/> Rock type(s) <input checked="" type="checkbox"/> Soil type <input type="checkbox"/> Approximate bulk geochemistry <input type="checkbox"/> Existence of microstructures that may affect or indicate fluid flow <input checked="" type="checkbox"/> Falling head tests <input type="checkbox"/> Static head tests <input type="checkbox"/> Settling measurements <input type="checkbox"/> Centrifuge tests <input type="checkbox"/> Column drawings 	<p>Some</p>	

Comprehensive Groundwater Monitoring Evaluation		Y/N
D. Verification of Subsurface Geological Data		
1.	Has the owner/operator used indirect geophysical methods to supplement geological conditions between borehole locations?	No
2.	Do the number of borings and analytical data indicate that the confining layer displays a low enough permeability to impede the migration of contaminants to any stratigraphically lower water-bearing units?	Yes
3.	Is the confining layer laterally continuous across the entire site? Yes	Yes
4.	Did the owner/operator consider the chemical compatibility of the site-specific waste types and the geologic materials of the confining layer?	No
5.	Did the geologic assessment address or provide means for resolution of any information gaps of geologic data? Yes	Yes
6.	Do the laboratory data corroborate the field data for petrography?	NA
7.	Do the laboratory data corroborate the field data for mineralogy and subsurface geochemistry?	NA
E. Presentation of Geologic Data		
1.	Did the owner/operator present geologic cross sections of the site?	Yes
2.	Do cross sections: <input checked="" type="checkbox"/> Identify the types and characteristics of the geologic materials present <input checked="" type="checkbox"/> Define the contact zones between different geologic materials <input checked="" type="checkbox"/> Note the zones of high permeability or fracture <input checked="" type="checkbox"/> Give detailed borehole information including: <input checked="" type="checkbox"/> Location of borehole <input checked="" type="checkbox"/> Depth of termination <input checked="" type="checkbox"/> Location of screen (if applicable) <input checked="" type="checkbox"/> Depth of zone(s) of saturation <input checked="" type="checkbox"/> Backfill procedure	Yes
3.	Did the owner/operator provide a topographic map which was constructed by a licensed surveyor?	Yes

Comprehensive Groundwater Monitoring Evaluation		Y/N
<p>4. Does the topographic map provide:</p> <ul style="list-style-type: none"> <input checked="" type="checkbox"/> Contours at a maximum interval of two feet <input checked="" type="checkbox"/> Locations and illustrations of man-made features (e.g., parking lots, factory buildings, drainage ditches, storm drain, pipelines, etc.) <input checked="" type="checkbox"/> Descriptions of nearby water bodies <input checked="" type="checkbox"/> Descriptions of off-site wells <input checked="" type="checkbox"/> Site boundaries <input checked="" type="checkbox"/> Individual RCRA units <input checked="" type="checkbox"/> Delineation of the waste management area(s) <input checked="" type="checkbox"/> Well and boring locations 	Yes	
<p>5. Did the owner/operator provide an aerial photograph depicting the site and adjacent off-site features?</p>	Yes	
<p>6. Does the photograph clearly show surface water bodies, adjacent municipalities, and residences and are these clearly labeled?</p>	Yes	
F. Identification of Groundwater Flow Paths		
<p>1. Groundwater flow direction</p>		
<p>a. Was the well casing height measured by a licensed surveyor to the nearest 0.01 feet?</p>	Yes	
<p>b. Were the well water level measurements taken within a 24 hour period?</p>	Yes	
<p>c. Were the well water level measurements taken to the nearest 0.01 feet?</p>	Yes	
<p>d. Were the well water levels allowed to stabilize after construction and development for a minimum of 24 hours prior to measurements?</p>	Yes	
<p>e. Was the water level information obtained from (check appropriate one):</p> <ul style="list-style-type: none"> <input checked="" type="checkbox"/> Multiple piezometers placed in single borehole <input checked="" type="checkbox"/> Vertically nested piezometers in closely spaced separate boreholes <input checked="" type="checkbox"/> Monitoring wells 	Yes	
<p>f. Did the owner/operator provide construction details for the piezometers?</p>	Yes	

Comprehensive Groundwater Monitoring Evaluation		Y/N
g.	How were the static water levels measured (check method(s)). <input checked="" type="checkbox"/> Electric water sounder <input type="checkbox"/> Wetted tape <input type="checkbox"/> Air line <input checked="" type="checkbox"/> Other (explain): electronic oil-water interface probe	
h.	Was the well water level measured in wells with equivalent screened intervals at an equivalent depth below the saturated zone?	Yes
i.	Has the owner/operator provided a site water table (potentiometric) contour map?	Yes
	<ul style="list-style-type: none"> Do the potentiometric contours appear logical and accurate based on topography and presented data? 	Yes
	<ul style="list-style-type: none"> Are groundwater flow lines indicated? 	Yes
	<ul style="list-style-type: none"> Are static water levels shown? 	Yes
	<ul style="list-style-type: none"> Can hydraulic gradients be estimated? 	Yes
j.	Did the owner/operator develop hydrologic cross sections of the vertical flow component across the site using measurements from all wells?	Yes
k.	Do the owner/operator's flow nets include: <input checked="" type="checkbox"/> Piezometer locations <input checked="" type="checkbox"/> Depth of screening <input checked="" type="checkbox"/> Width of screening <input checked="" type="checkbox"/> Measurements of water levels from all wells and piezometers	Yes
2.	Seasonal and temporal fluctuations in groundwater:	
a.	Do fluctuations in static water levels occur? If yes, are the fluctuations caused by any of the following: <input checked="" type="checkbox"/> Off-site well pumping (Off-site Groundwater Extraction System) <input type="checkbox"/> Tidal processes or other intermittent natural variations (e.g., river stage, etc.) <input checked="" type="checkbox"/> On-site well pumping (On-site Groundwater Extraction System, if operating) <input type="checkbox"/> Off-site, on-site construction or changing land use patterns <input type="checkbox"/> Deep well injection <input checked="" type="checkbox"/> Seasonal variations <input type="checkbox"/> Other (specify):	Yes

Comprehensive Groundwater Monitoring Evaluation		Y/N
b.	Has the owner/operator documented sources and patterns that contribute to or affect the groundwater patterns below the waste management?	Yes
c.	Do water level fluctuations alter the general groundwater gradients and flow directions?	No
d.	Based on water level data, do any head differentials occur that may indicate a vertical flow component in the saturated zone?	Yes
e.	Did the owner/operator implement means for gauging long-term effects on water movement that may result from on-site or off-site construction or changes in land-use patterns?	Yes
3.	Hydraulic conductivity:	
a.	How were hydraulic conductivities of the subsurface materials determined? <input checked="" type="checkbox"/> Single-well tests (packer & slug tests) <input checked="" type="checkbox"/> Multiple-well tests (pump tests) <input type="checkbox"/> Other (specify):	
b.	If single-well tests were conducted, was it done by: <input checked="" type="checkbox"/> Adding or removing a known volume of water <input type="checkbox"/> Pressurizing well casing	
c.	If single well tests were conducted in a highly permeable formation, were pressure transducers and high-speed recording equipment used to record the rapidly changing water levels?	Yes
d.	Since single well tests only measure hydraulic conductivity in a limited area, were enough tests run to ensure a representative measure of conductivity in each hydrogeologic unit?	Yes
e.	Is the owner/operator's slug test data (if applicable) consistent with existing geologic information (e.g., boring logs)?	Yes

Comprehensive Groundwater Monitoring Evaluation		Y/N
f.	<p>Were other hydraulic conductivity properties determined? If yes, provide any of the following data, if available: <input checked="" type="checkbox"/> Transmissivity Bedrock Zone 1: 3.2×10^{-4} m²/sec. <input checked="" type="checkbox"/> Storage coefficient Bedrock Zone: 1 1×10^{-4} to 6×10^{-3} <input type="checkbox"/> Leakage <input checked="" type="checkbox"/> Permeability Bedrock Zone 1 hydraulic conductivities ranged from 1×10^{-4} to 2×10^{-2} cm/sec. Bedrock Zone 2 hydraulic conductivities from packer tests were 1×10^{-6} cm/sec. Bedrock Zone 3 hydraulic conductivities ranged from 1×10^{-5} to 1×10^{-3} cm/sec. Bedrock Zone 4 hydraulic conductivities ranged from 1×10^{-6} to 3×10^{-5} cm/sec. <input checked="" type="checkbox"/> Porosity Bedrock Zone 1: ~3 percent <input type="checkbox"/> Specific capacity <input type="checkbox"/> Other (specify):</p>	Yes
4.	Identification of the uppermost aquifers: Overburden/Bedrock Zones 1 & 3	
a.	<p>Has the extent of the uppermost saturated zone (aquifer) in the facility area been defined? If yes,</p> <ul style="list-style-type: none"> • Are soil boring/test pit logs included? • Are geologic cross-sections included? 	Yes
b.	<p>Is there evidence of confining (competent, unfractured, continuous, and low permeability) layers beneath the site? If yes, how was continuity demonstrated? Borings/literature</p>	Yes
c.	<p>What is hydraulic conductivity of the confining units (if present)? 10^{-6} to 10^{-5} cm/sec How was it determined? Packer testing/literature</p>	Variable
d.	<p>Does potential for other hydraulic communication exist (e.g., lateral discontinuity between geologic units, facies changes, fracture zones, cross cutting structures, or chemical corrosion/alteration of geologic units by leachage)? If yes or no, what is the rationale? Fractures in Zone 2</p>	Yes

Comprehensive Groundwater Monitoring Evaluation		Y/N
<p>G. Office Evaluation of the Facility's Groundwater Monitoring System Monitoring Well Design and Construction:</p> <p>These questions should be answered for each different well design present at the facility.</p> <p>1. Drilling Methods:</p>		
<p>a. What drilling methods were used for the wells?</p> <p><input checked="" type="checkbox"/> Hollow-stem auger <input type="checkbox"/> Solid-stem auger <input type="checkbox"/> Mud rotary <input checked="" type="checkbox"/> Air rotary <input type="checkbox"/> Reverse rotary <input type="checkbox"/> Cable tool <input type="checkbox"/> Jetting <input type="checkbox"/> Air drill w/ casing hammer <input type="checkbox"/> Other (specify):</p>		
<p>b. Were any cutting fluids (including water) or additives used during drilling? If yes, specify:</p> <ul style="list-style-type: none"> • Type of drilling fluid: water • Source of water used: potable • Foam: • Polymers: • Other: 		Yes
<p>c. Was the cutting fluid, or additive, identified? Water</p>		Yes
<p>d. Was the drilling equipment steam-cleaned prior to drilling the well?</p> <ul style="list-style-type: none"> • Other methods 		Yes
<p>e. Was compressed air used during drilling? If yes,</p> <ul style="list-style-type: none"> • Was the air filtered to remove oil? unknown 		Yes
<p>f. Did the owner/operator document procedure for establishing the potentiometric surface? If yes,</p> <ul style="list-style-type: none"> • How was the location established? Weighted tape/electronic water level meter 		Yes

Comprehensive Groundwater Monitoring Evaluation		Y/N												
g.	Formation samples													
	<ul style="list-style-type: none"> • Were formation samples collected initially during drilling? 	Yes												
	<ul style="list-style-type: none"> • Were any cores taken continuous? 	Yes												
	<ul style="list-style-type: none"> • If not, at what interval were samples taken? Variable 	Also variable												
	<ul style="list-style-type: none"> • How were the samples obtained? <input checked="" type="checkbox"/> Split spoon <input type="checkbox"/> Shelby tube <input checked="" type="checkbox"/> Core drill <input type="checkbox"/> Other (specify): 													
§	Identify if any physical and/or chemical tests were performed on the formation samples (specify): various, data provided in numerous historical reports	Yes												
2.	Monitoring Well Construction Materials (<i>see attached logs</i>)													
a.	Identify construction materials (by number) and diameters (ID/OD)	See Well Construction Logs												
	<table border="0"> <thead> <tr> <th></th> <th><u>Material</u></th> <th><u>Diameter</u></th> </tr> </thead> <tbody> <tr> <td>• Primary Casing</td> <td>PVC & S.S.</td> <td>2"</td> </tr> <tr> <td>• Secondary or outside casing (double construction)</td> <td>Steel</td> <td>4"</td> </tr> <tr> <td>• Screen</td> <td>PVC & S.S</td> <td>2"</td> </tr> </tbody> </table>			<u>Material</u>	<u>Diameter</u>	• Primary Casing	PVC & S.S.	2"	• Secondary or outside casing (double construction)	Steel	4"	• Screen	PVC & S.S	2"
	<u>Material</u>		<u>Diameter</u>											
• Primary Casing	PVC & S.S.		2"											
• Secondary or outside casing (double construction)	Steel	4"												
• Screen	PVC & S.S	2"												
b.	How are the sections of casing and screen connected?													
	<ul style="list-style-type: none"> • Pipe sections threaded • Couplings (friction) with adhesive or solvent • Couplings (friction) with retainer screws • Other (specify): 	Threaded												
c.	Were the materials steam-cleaned prior to installation?	Yes												
	<ul style="list-style-type: none"> • If no, how were the materials cleaned? 													
3.	Well Intake Design and Well Development													
a.	Were well intake screens installed?	Yes												
	<ul style="list-style-type: none"> • What are the length of the screens for the wells? Vary from 2' to 20'; primarily 5' & 10' 	Variable												

Comprehensive Groundwater Monitoring Evaluation		Y/N
	<ul style="list-style-type: none"> Is the screen manufactured? Yes, machine slotted 	Yes
b.	Was a filter pack installed?	Yes
	<ul style="list-style-type: none"> What kind of filter pack was employed? Silica sand 	Yes
	<ul style="list-style-type: none"> Is the filter pack compatible with formation materials? 	Yes
	<ul style="list-style-type: none"> How was the filter pack installed? Poured in 	
	<ul style="list-style-type: none"> What are the dimensions of the filter pack? Variable 	See Logs
	<ul style="list-style-type: none"> Has a turbidity measurement of the well water ever been made? Yes, during development and sampling 	Yes
	<ul style="list-style-type: none"> Have the filter pack and screen been designed for the in situ materials? 	Yes
c.	Well development	
	<ul style="list-style-type: none"> Were the wells developed? 	Yes
	<ul style="list-style-type: none"> What technique was used for well development? <ul style="list-style-type: none"> <input type="checkbox"/> Surge block <input checked="" type="checkbox"/> Bailer <input checked="" type="checkbox"/> Air surging <input type="checkbox"/> Water pumping <input type="checkbox"/> Other (specify): 	
4.	Annular Space Seals	
a.	What is the annular space in the saturated zone directly above the filter pack filled with: <ul style="list-style-type: none"> <input checked="" type="checkbox"/> Sodium bentonite (generally pellets/chips) <input type="checkbox"/> Cement (specify neat or concrete) <input type="checkbox"/> Other (specify): 	Yes
b.	Was the seal installed by: <ul style="list-style-type: none"> <input type="checkbox"/> Dropping material down the hole and tamping <input checked="" type="checkbox"/> Dropping material down the inside of hollow-stem auger <input checked="" type="checkbox"/> Tremie pipe method <input type="checkbox"/> Other (specify): 	

Comprehensive Groundwater Monitoring Evaluation		Y/N
c.	Was a different seal used in the unsaturated zone? If yes,	Yes
	<ul style="list-style-type: none"> • Was this seal made with <ul style="list-style-type: none"> <input checked="" type="checkbox"/> Sodium bentonite pellets <input checked="" type="checkbox"/> Cement-bentonite grout (above bentonite seal to surface) <input type="checkbox"/> Other (specify): 	
	<ul style="list-style-type: none"> • Was this seal installed by <ul style="list-style-type: none"> <input type="checkbox"/> Dropping material down the hole and tamping <input checked="" type="checkbox"/> Dropping material down the inside of hollow stem auger <input type="checkbox"/> Other (specify): 	
d.	Is the upper portion of the borehole sealed with a concrete cap to prevent infiltration from the surface?	Yes
e.	Is the well fitted with an above-ground protective device and bumper guards? Steel flush-mount road boxes & stick-up protective casings; some bumper guards	Yes
f.	Has the protective cover been installed with locks to prevent tampering?	Yes
H. Evaluation of the Facility's Detection Monitoring Program		
1.	Placement of Downgradient Detection Monitoring Wells:	
a.	Are the groundwater monitoring wells or clusters located immediately adjacent to the waste management area?	Yes
b.	How far apart are the detection monitoring wells?	Variable
c.	Does the owner/operator provide a rationale for the location of each monitoring well or cluster?	Yes
d.	Does the owner/operator identify the well screen lengths of each monitoring well or clusters?	Yes
e.	Does the owner/operator provide an explanation for the well screen lengths of each monitoring well or cluster?	Yes
f.	Do the actual locations of monitoring wells or clusters correspond to those identified by the owner/operator?	Yes

Comprehensive Groundwater Monitoring Evaluation		Y/N
2.	Placement of Upgradient Monitoring Wells:	
a.	Has the owner/operator documented the location of each upgradient monitoring well or cluster?	Yes
b.	Does the owner/operator provide an explanation for the location(s) of the upgradient monitoring well(s)?	Yes
c.	What length screen has the owner/operator employed in the background monitoring well(s)? generally 5' and 10'	5' and 10'
d.	Does the owner/operator provide an explanation for the screen length(s) chosen?	Yes
e.	Does the actual location of each background monitoring well or cluster correspond to that identified by the owner/operator?	Yes
I.	Office Evaluation of the Facility's Assessment Monitoring Program	
1.	Does the assessment plan specify: Assessment activities for the site were performed in the 1980s and 1990s; the Neutralization Pond closure was completed in 1988; Post-closure monitoring under Part 373 RCRA Permit (until 2013) and Order on Consent (since 2014) to present	
a.	The number, location, and depth of wells?	Yes
b.	The rationale for their placement and identify the basis that will be used to select subsequent sampling locations and depths in later assessment phases?	Yes
2.	Does the list of monitoring parameters include all hazardous waste constituents from the facility? The list has been modified over time	Yes
a.	Does the water quality parameter list include other important indicators not classified as hazardous waste constituents? Some; additional parameters are analyzed for discharge permit compliance (per permit requirements) and to evaluate bioremediation program progress	Yes
b.	Does the owner/operator provide documentation for the listed wastes which are not included? NA	NA

Comprehensive Groundwater Monitoring Evaluation		Y/N
3.	Does the owner/operator's assessment plan specify the procedures to be used to determine the rate of constituent migration in the groundwater?	Yes
4.	Did the owner/operator specified a schedule of implementation in the assessment plan?	Yes
5.	Were the assessment monitoring objectives clearly defined in the assessment plan?	Yes
a.	Did the plan include analysis and/or re-evaluation to determine if significant contamination has occurred in any of the detection monitoring wells?	Yes
b.	Did the plan provide for a comprehensive program of investigation to fully characterize the rate and extent of contaminant migration from the facility?	Yes
c.	Did the plan call for determining the concentrations of hazardous wastes and hazardous waste constituents in the ground water?	Yes
d.	Did the plan employ a quarterly monitoring program? Initially; over time, the sampling frequency was reduced to semiannual monitoring, and then to annual monitoring	Yes (initially)
6.	Did the assessment plan identify the investigatory methods that were used in the assessment phase?	Yes
a.	Is the role of each method in the evaluation fully described?	Yes
b.	Does the plan provide sufficient descriptions of the direct methods to be used?	Yes
c.	Did the plan provide sufficient descriptions of the indirect methods to be used? None used	NA
d.	Will the method contribute to the further characterization of the contaminant movement?	NA
7.	Were the investigatory techniques utilized in the assessment program based on direct methods?	Yes
a.	Does the assessment approach incorporate indirect methods to further support direct methods? No	No
b.	Did the planned methods called for in the assessment approach ultimately meet performance standards for assessment monitoring?	Yes

Comprehensive Groundwater Monitoring Evaluation		Y/N
c.	Were the procedures well defined?	Yes
d.	Did the approach provide for monitoring wells similar in design and construction as the detection monitoring wells?	Yes
e.	Did the approach employ taking samples during drilling or collecting core samples for further analysis?	Yes
8.	Are the indirect methods to be used based on reliable and accepted geophysical techniques?	NA
a.	Are they capable of detecting subsurface changes resulting from contaminant migration at the site?	NA
b.	Is the measurement at an appropriate level of sensitivity to detect groundwater quality changes at the site?	NA
c.	Is the method appropriate considering the nature of the subsurface materials?	NA
d.	Does the approach consider the limitations of these methods?	NA
e.	Will the extent of contamination and constituent concentration be based on direct methods and sound engineering judgment? Yes (Using indirect methods to further substantiate the findings - No)	Yes
9.	Did the assessment approach incorporate any mathematical modeling to predict contaminant movement? Groundwater modeling performed	Yes
a.	Were site specific measurements utilized to accurately portray the subsurface?	Yes
b.	Was the derived data reliable?	Yes
c.	Were the assumptions identified?	Yes
d.	Have the physical and chemical properties of the site-specific wastes and hazardous waste constituents been identified? Yes	Yes
J.	Conclusions	
1.	Subsurface geology	
a.	Has sufficient data been collected to adequately define petrography and petrographic variation?	Yes

Comprehensive Groundwater Monitoring Evaluation		Y/N
b.	Has the subsurface geochemistry been adequately defined?	Yes
c.	Was the boring/coring program adequate to define subsurface geologic variation?	Yes
d.	Was the owner/operator's narrative description complete and accurate in its interpretation of the data?	Yes
e.	Does the geologic assessment address or provide means to resolve any information gaps?	Yes
2.	Groundwater flow paths	
a.	Did the owner/operator adequately establish the horizontal and vertical components of groundwater flow?	Yes
b.	Were appropriate methods used to establish groundwater flow paths?	Yes
c.	Did the owner/operator provide accurate documentation?	Yes
d.	Are the potentiometric surface measurements valid?	Yes
e.	Did the owner/operator adequately consider the seasonal and temporal effects on the groundwater? During initial quarterly sampling	Yes
f.	Were sufficient hydraulic conductivity tests performed to document lateral and vertical variation in hydraulic conductivity in the entire hydrogeologic subsurface below the site?	Yes
3.	Uppermost Aquifer	
a.	Did the owner/operator adequately define the uppermost aquifer?	Yes
4.	Monitoring Well Construction and Design	
a.	Do the design and construction of the owner/operator's groundwater monitoring wells permit depth discrete groundwater samples to be taken?	Yes
b.	Are the samples representative of groundwater quality?	Yes
c.	Are the groundwater monitoring wells structurally stable?	Yes
d.	Does the groundwater monitoring well's design and construction permit an accurate assessment of aquifer characteristics?	Yes

Comprehensive Groundwater Monitoring Evaluation		Y/N
5.	Detection Monitoring	
a.	Downgradient Wells <ul style="list-style-type: none"> Do the location, and screen lengths of the groundwater monitoring wells or clusters in the detection monitoring system allow the immediate detection of a release of hazardous waste or constituents from the hazardous waste management area to the uppermost aquifer? 	Yes
b.	Upgradient Wells <ul style="list-style-type: none"> Do the locations and screen lengths of the upgradient (background) groundwater monitoring wells ensure the capability of collecting groundwater samples representative of upgradient (background) groundwater quality including any ambient heterogenous chemical characteristics? 	Yes
6.	Assessment Monitoring	
a.	Has the owner/operator adequately characterized site hydrogeology to determine contaminant migration?	Yes
b.	Is the detection monitoring system adequately designed and constructed to immediately detect any contaminant release?	Yes
c.	Are the procedures used to make a first determination of contamination adequate? NA	NA
d.	Is the assessment plan adequate to detect, characterize, and track contaminant migration?	Yes
e.	Will the assessment monitoring wells, given site hydrogeologic conditions, define the extent and concentration of contamination in the horizontal and vertical planes?	Yes
f.	Are the assessment monitoring wells adequately designed and constructed?	Yes
g.	Are the sampling and analysis procedures adequate to provide true measures of contamination?	Yes
h.	Do the procedures used for evaluation of assessment monitoring data result in determinations of the rate of migration, extent of migration, and hazardous constituent composition of the contaminant plume?	Yes

Comprehensive Groundwater Monitoring Evaluation		Y/N
i.	Are the data collected at sufficient frequency and duration to adequately determine the rate of migration?	Yes
j.	Is the schedule of implementation adequate?	Yes
k.	Is the owner/operator's assessment monitoring plan adequate?	Yes, but needs updating
l.	If the owner/operator had to implement his assessment monitoring plan, was it implemented satisfactorily? NA	NA
II.	Field Evaluation (inspections were performed during the March 25, 2024 First Semiannual Sampling Event for the Bioremediation Program; during the April 29, 2024 Offsite Extraction Well Sampling Event; and during the October 22, 2024 Annual Groundwater Sampling Event/Second Semiannual Sampling Event for the Bioremediation Program)	
A.	Groundwater Monitoring System	
1.	Are the numbers, depths, and locations of monitoring wells in agreement with those reported in the facility's monitoring plan?	Yes
B.	Monitoring Well Construction	
1.	Identify construction material and diameter	
a.	Primary casing: mostly 2" PVC & stainless steel	See Logs & Photos
b.	Secondary or outside casing: see attached well construction logs	
2.	Are the upper portions of the boreholes sealed with concrete to prevent infiltration from the surface?	Yes
3.	Are the wells fitted with above-ground protective device?	Yes
4.	Are the protective covers fitted with locks to prevent tampering? If a facility utilizes more than a single well design, answer the above questions for each well design?	Yes

Comprehensive Groundwater Monitoring Evaluation	Y/N
III. Review of Sample Collection Procedures	
A. Measurement of Well Depths /Elevation	
1. Are measurements of both depth to standing water and depth to the bottom of the well made?	Yes
2. Are measurements taken to the 0.01 feet?	Yes
3. What device is used? Electronic water level indicator and electronic oil-water interface probe	
4. Is there a reference point established by a licensed surveyor? Notches on well riser	Yes
5. Is the measuring equipment properly cleaned between well locations to prevent cross contamination?	Yes
B. Detection of Immiscible Layers	
1. Are procedures used which will detect light phase immiscible layers? <i>Site-related contaminant LNAPLs have not historically been detected at the site. However, residual 3D Microemulsion® remedial amendment injectate is still encountered as a thin LNAPL film in some source area wells. The Groundwater Monitoring Plan (2012) does specify using an electronic oil-water interface probe for collecting water-NAPL level measurements (observed being used during some, but not all, sampling events).</i>	Some
2. Are procedures used which will detect heavy phase immiscible layers? <i>DNAPLs have historically been detected at the site, although not for many years. The Groundwater Monitoring Plan (2012) does specify using an electronic oil-water level interface probe for collecting water/NAPL level measurements(observed being used during some, but not all, sampling events).</i>	Some
C. Sampling of Immiscible Layers	
1. Are the immiscible layers sampled separately prior to well evacuation?	NA
2. Do the procedures used minimize mixing with water soluble phases?	NA

Comprehensive Groundwater Monitoring Evaluation		Y/N
D. Well Evacuation		
1.	Are low yielding wells evacuated to dryness?	Yes
2.	Are high-yielding wells evacuated so that at least three casing volumes are removed? Low-flow purging and sampling procedures are generally used on most high-yielding wells groundwater monitoring wells (peristaltic pumps with dedicated HDPE/silicone tubing); sample collection is based upon field parameter stabilization, not well volume purging criteria	NA
3.	What device is used to evacuate the wells? Peristaltic pumps or dedicated or disposable HDPE bailers for groundwater monitoring wells; dedicated submersible well pumps in extraction wells	
4.	If any problems are encountered (e.g., equipment malfunction) are they noted in a field logbook? On field forms and/or logbook	Yes
E. Sample Withdrawal		
1.	For low yielding wells, are samples for volatiles, pH, and oxidation/reduction potential drawn first after the well recovers?	Yes
2.	Are samples withdrawn with either fluorocarbon/resin or stainless steel (316, 304 or 2205) sampling devices? No, fluorocarbon/resin bailers are no longer acceptable; most groundwater monitoring wells are sampled via peristaltic pumps with dedicated HDPE/silicone tubing using low-flow sampling techniques or with dedicated HDPE bailers; Hydrasleeve samplers were also pilot tested (side-by-side with current sampling techniques) during the October 2024 sampling event	No
3.	Are sampling devices either <u>bottom-valve bailers</u> or positive gas displacement bladder pumps? See above; no bladder pump usage	Some
4.	If bailers are used, is fluorocarbon/resin coated wire, single strand stainless steel wire, or monofilament used to raise and lower the bailer? Polyethylene string or rope is used (fluorocarbon/resin coated wire is no longer acceptable)	No

Comprehensive Groundwater Monitoring Evaluation		Y/N
5.	If bladder pumps are used, are they operated in continuous manner to prevent aeration of the sample?	NA
6.	If bailers are used, are they lowered slowly to prevent degassing of the water?	Yes
7.	If bailers are used, are the contents transferred to the sample container in a way that minimizes agitation and aeration?	Yes
8.	Is care taken to avoid placing clean sampling equipment on the ground or other contaminated surfaces prior to insertion into the well?	Yes
9.	If dedicated sampling equipment is not used, is equipment disassembled and thoroughly cleaned between samples? Dedicated or disposable sampling equipment is used	NA
10.	If samples are for inorganic analysis, does the cleaning procedure include the following sequential steps: Dedicated or disposable sampling equipment is used <input type="checkbox"/> Dilute acid rinse (HNO ₃ or HCl)	NA
11.	If samples are for organic analysis, does the cleaning procedure include the following sequential steps: Dedicated or disposable sampling equipment is used <input type="checkbox"/> Nonphosphate detergent wash <input type="checkbox"/> Tap water rinse <input type="checkbox"/> Distilled/deionized water rinse <input type="checkbox"/> Acetone rinse <input type="checkbox"/> Pesticide-grade hexane rinse	NA
12.	Is sampling equipment thoroughly dry before use?	NA
13.	Are equipment blanks taken to ensure that sample cross-contamination has not occurred? No, dedicated or disposable sampling equipment is used	No
14.	If volatile samples are taken with a positive gas displacement bladder pump, are pumping rates below 100 ml/min?	NA

Comprehensive Groundwater Monitoring Evaluation		Y/N
F. In-situ or Field Analyses		
1.	Are the following labile (chemically unstable) parameters determined in the field: <input checked="" type="checkbox"/> pH <input checked="" type="checkbox"/> Temperature <input checked="" type="checkbox"/> Specific conductivity <input checked="" type="checkbox"/> Redox potential <input type="checkbox"/> Chlorine <input checked="" type="checkbox"/> Dissolved oxygen <input checked="" type="checkbox"/> Turbidity <input checked="" type="checkbox"/> Other (specify): Visual and olfactory observations are noted	Yes
2.	For in-situ determinations, are they made after well evacuation and sample removal?	Yes
3.	If sample is withdrawn from the well, is parameter measured from a split portion?	Yes
4.	Is monitoring equipment calibrated according to manufacturers' specifications and consistent with SW-846?	Yes
5.	Are the date, procedure, and maintenance for equipment calibration documented in the field logbook? On field data sheets	Yes
IV. Review of Sample Preservation and Handling Procedures		
A. Sample Containers		
1.	Are samples transferred from the sampling device directly to their compatible containers?	Yes
2.	Are sample containers for metals (inorganics) analyses polyethylene with polypropylene caps? Metals are not site-related contaminants of concern and are not routinely included in the normal groundwater monitoring program; however, some metals analyses are occasionally performed for the Bioremediation Program	Yes
3.	Are sample containers for organics analysis glass bottles with fluorocarbon resin lined caps?	Yes
4.	If glass bottles are used for metals samples are the caps fluorocarbon resin-lined?	NA

Comprehensive Groundwater Monitoring Evaluation		Y/N
<p>5. Are the sample containers for metal analyses cleaned using these sequential steps: Sample containers provided by the laboratory are pre-cleaned and pre-preserved</p> <p><input type="checkbox"/> Nonphosphate detergent wash <input type="checkbox"/> 1:1 nitric acid rinse <input type="checkbox"/> Tap water rinse <input type="checkbox"/> 1:1 hydrochloric acid rinse <input type="checkbox"/> Tap water rinse <input type="checkbox"/> Distilled/deionized water rinse</p>	<p>NA</p>	
<p>6. Are the sample containers for organic analyses cleaned using these sequential steps: Sample containers provided by the laboratory are pre-cleaned and pre-preserved</p> <p><input type="checkbox"/> Nonphosphate detergent/hot water wash <input type="checkbox"/> Tap water rinse <input type="checkbox"/> Distilled/deionized water rinse <input type="checkbox"/> Acetone rinse <input type="checkbox"/> Pesticide-grade hexane rinse</p>	<p>NA</p>	
<p>7. Are trip blanks used for each sample container type to verify cleanliness? Trip Blanks are included in each sample cooler (VOC samples only)</p>	<p>Yes</p>	
<p>B. Sample Preservation Procedures</p> <p>1. Are samples for the following analyses cooled to 4°C: Yes Generally, all samples bottles are placed in a cooler on ice immediately after sample collection</p> <p><input checked="" type="checkbox"/> VOCs (Method 8260 B VOCs) <input type="checkbox"/> TOX <input type="checkbox"/> Chloride <input type="checkbox"/> Phenols <input type="checkbox"/> Sulfate <input type="checkbox"/> Nitrate <input type="checkbox"/> Coliform bacteria <input type="checkbox"/> Cyanide <input type="checkbox"/> Oil and grease <input type="checkbox"/> Hazardous constituents (261, Appendix VIII)</p>		<p>Yes</p>

Comprehensive Groundwater Monitoring Evaluation		Y/N
2.	<p>Are samples for the following analyses field acidified to pH<2 with HNO₃:</p> <p><input type="checkbox"/> Iron</p> <p><input type="checkbox"/> Chromium</p> <p><input type="checkbox"/> Copper</p> <p><input type="checkbox"/> Zinc</p> <p><input type="checkbox"/> Dissolved metals</p> <p><input type="checkbox"/> Fluoride</p> <p><input type="checkbox"/> Endrin</p> <p><input type="checkbox"/> Lindane</p> <p><input type="checkbox"/> Methoxychlor</p> <p><input type="checkbox"/> Toxaphene</p> <p><input type="checkbox"/> 2,4-D</p> <p><input type="checkbox"/> 2,4,5-TP Silvex</p> <p><input type="checkbox"/> Radium</p> <p><input type="checkbox"/> Gross alpha</p> <p><input type="checkbox"/> Gross beta</p>	NA
3.	<p>Are samples for the following analyses field acidified to pH<2 with H₂SO₄:</p> <p><input type="checkbox"/> Phenols</p> <p><input type="checkbox"/> Oil and grease</p>	NA
4.	Is the sample for VOC analyses field acidified to pH <2 with HCl? Yes	Yes
5.	Is the sample for TOX analysis preserved with 1 ml of 1.1 M sodium sulfite?	NA
6.	Is the sample for cyanide analysis preserved with NaOH to pH >12?	NA
C. Special Handling Considerations		
1.	Are organic samples handled without filtering?	Yes
2.	Are samples for volatile organics transferred to the appropriate vials to eliminate headspace over the sample?	Yes
3.	Are samples for metal analysis split into two portions? No, only unfiltered if metals analyses are performed	No
4.	Is the sample for dissolved metals filtered through a 0.45 micron filter? No filtered samples	NA
5.	Is the second portion not filtered and analyzed for total metals?	NA

Comprehensive Groundwater Monitoring Evaluation		Y/N
6.	Is one equipment blank prepared each day of groundwater sampling? No, dedicated and disposable sampling equipment is used	No
V. Review of Chain-of-Custody Procedures		
A. Sample Labels		
1.	Are sample labels used?	Yes
2.	Do they provide the following information: <input checked="" type="checkbox"/> Sample identification number <input checked="" type="checkbox"/> Name of collector <input checked="" type="checkbox"/> Date and time of collection <input checked="" type="checkbox"/> Place of collection <input checked="" type="checkbox"/> Parameter(s) requested and preservatives used	Yes
3.	Do they remain legible even if wet?	Yes
B. Sample Seals		
1.	Are sample seals placed on those containers to ensure samples are not altered?	No
C. Field Logbook		
1.	Is a field logbook maintained? Field forms are used	Yes

Comprehensive Groundwater Monitoring Evaluation		Y/N
<p>2. Does it document the following:</p> <ul style="list-style-type: none"> <input type="checkbox"/> Purpose of sampling (e.g., detection or assessment) - NA <input checked="" type="checkbox"/> Location of well(s) <input checked="" type="checkbox"/> Total depth of each well <input checked="" type="checkbox"/> Static water level depth and measurement technique <input type="checkbox"/> Presence of immiscible layers and detection method <input type="checkbox"/> Collection method for immiscible layers and sample identification numbers - NA <input checked="" type="checkbox"/> Well evacuation procedures <input type="checkbox"/> Sample withdrawal procedure <input checked="" type="checkbox"/> Date and time of collection <input type="checkbox"/> Well sampling sequence <input type="checkbox"/> Types of sample containers and sample identification number(s) <input type="checkbox"/> Preservative(s) used <input checked="" type="checkbox"/> Parameters requested <input checked="" type="checkbox"/> Field analysis data and method(s) <input type="checkbox"/> Sample distribution and transporter <li style="padding-left: 20px;">Field observations <ul style="list-style-type: none"> <input checked="" type="checkbox"/> Unusual well recharge rates <input type="checkbox"/> Equipment malfunction(s) <input type="checkbox"/> Possible sample contamination <input checked="" type="checkbox"/> Sampling rate 	<p></p>	
D. Chain-of-Custody Record (COC)		
<p>1. Is a chain-of-custody record included with samples?</p>	<p>Yes</p>	
<p>2. Does it document the following:</p> <ul style="list-style-type: none"> <input checked="" type="checkbox"/> Sample number <input checked="" type="checkbox"/> Signature of collector <input checked="" type="checkbox"/> Date and time of collection <input checked="" type="checkbox"/> Sample type <input checked="" type="checkbox"/> Station location <input checked="" type="checkbox"/> Number of containers <input checked="" type="checkbox"/> Parameters requested <input checked="" type="checkbox"/> Signatures of persons involved in chain-of-custody <input checked="" type="checkbox"/> Inclusive dates of custody 	<p>Yes</p>	
E. Sample Analysis Request Sheet		
<p>1. Does a sample analysis request sheet accompany samples? No, info is on COC</p>	<p>No</p>	

Comprehensive Groundwater Monitoring Evaluation		Y/N
2.	Does the request sheet document the following: <i>No, info is on COC</i> <input type="checkbox"/> Name of person receiving the sample <input type="checkbox"/> Date of sample receipt <input type="checkbox"/> Duplicates <input type="checkbox"/> Analysis to be performed	NA
VI. Review of Quality Assurance/Quality Control		
A.	Is the validity and reliability of the laboratory and field generated data ensured by a QA/QC program? <i>QA/QC specified in Groundwater Monitoring Plan; Lab data is reviewed and validated</i>	Yes
B.	Does the QA/QC program include:	
1.	Documentation of any deviation from approved procedures?	Yes
2.	Documentation of analytical results for: <input checked="" type="checkbox"/> Blanks <input checked="" type="checkbox"/> Standards <input checked="" type="checkbox"/> Duplicates <input checked="" type="checkbox"/> Spiked samples <input checked="" type="checkbox"/> Detectable limits for each parameter being analyzed	Yes
C.	Are approved statistical methods used?	Yes
D.	Are QC samples used to correct data?	Yes
E.	Are all data critically examined to ensure it has been properly calculated and reported?	Yes
VII. Surficial Well Inspection and Field Observation		
A.	Are the wells adequately maintained?	Yes
B.	Are the monitoring wells protected and secure?	Yes
C.	Do the wells have surveyed casing elevations?	Yes
D.	Are the groundwater samples turbid?	Some
E.	Have all physical characteristics of the site been noted in the inspector's field notes (i.e., surface waters, topography, surface features)?	Yes

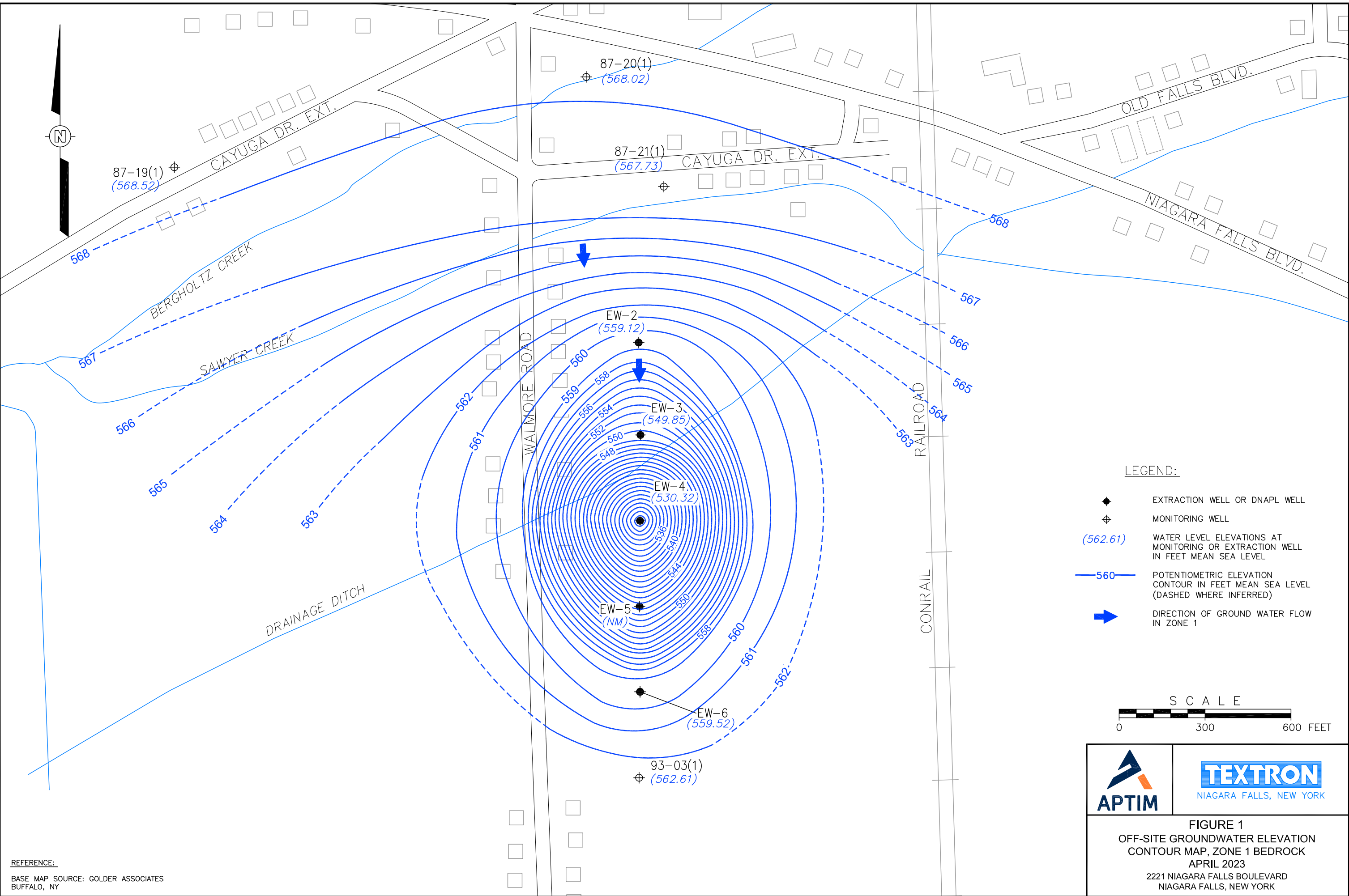
Comprehensive Groundwater Monitoring Evaluation		Y/N
F.	Has a site sketch been prepared by the field inspector with scale, north arrow, locations of buildings, locations) of regulated units, locations of monitoring wells, and a rough depiction of the site drainage pattern? No, this information is already available on site maps, figures, and aerial photos	No
VIII. Conclusions		
A.	Is the facility currently operating under the correct monitoring program according to the statistical analyses performed by the current operator?	Yes
B.	Does the groundwater monitoring system, as designed and operated, allow for detection or assessment of any possible groundwater contamination caused by the facility?	Yes
C.	Do the sampling and analysis procedures permit the owner/operator to detect and, where possible, assess the nature and extent of a release of hazardous constituents to ground water from the monitored hazardous waste management facility?	Yes

ATTACHMENT B

Figures and Tables

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 Plotted By: Evan.Schlegel

OFFICE: Pittsburgh, PA
 DATE: 5/23/23
 DESIGNED BY: ---
 DRAWN BY: E. Schlegel
 CHECKED BY: T. Hochbein
 APPROVED BY: P. Bauer
 DRAWING NUMBER: 631030389-B1



LEGEND:

- ◆ EXTRACTION WELL OR DNAPL WELL
- ⊕ MONITORING WELL
- (562.61) WATER LEVEL ELEVATIONS AT MONITORING OR EXTRACTION WELL IN FEET MEAN SEA LEVEL
- 560— POTENTIOMETRIC ELEVATION CONTOUR IN FEET MEAN SEA LEVEL (DASHED WHERE INFERRED)
- ➔ DIRECTION OF GROUND WATER FLOW IN ZONE 1





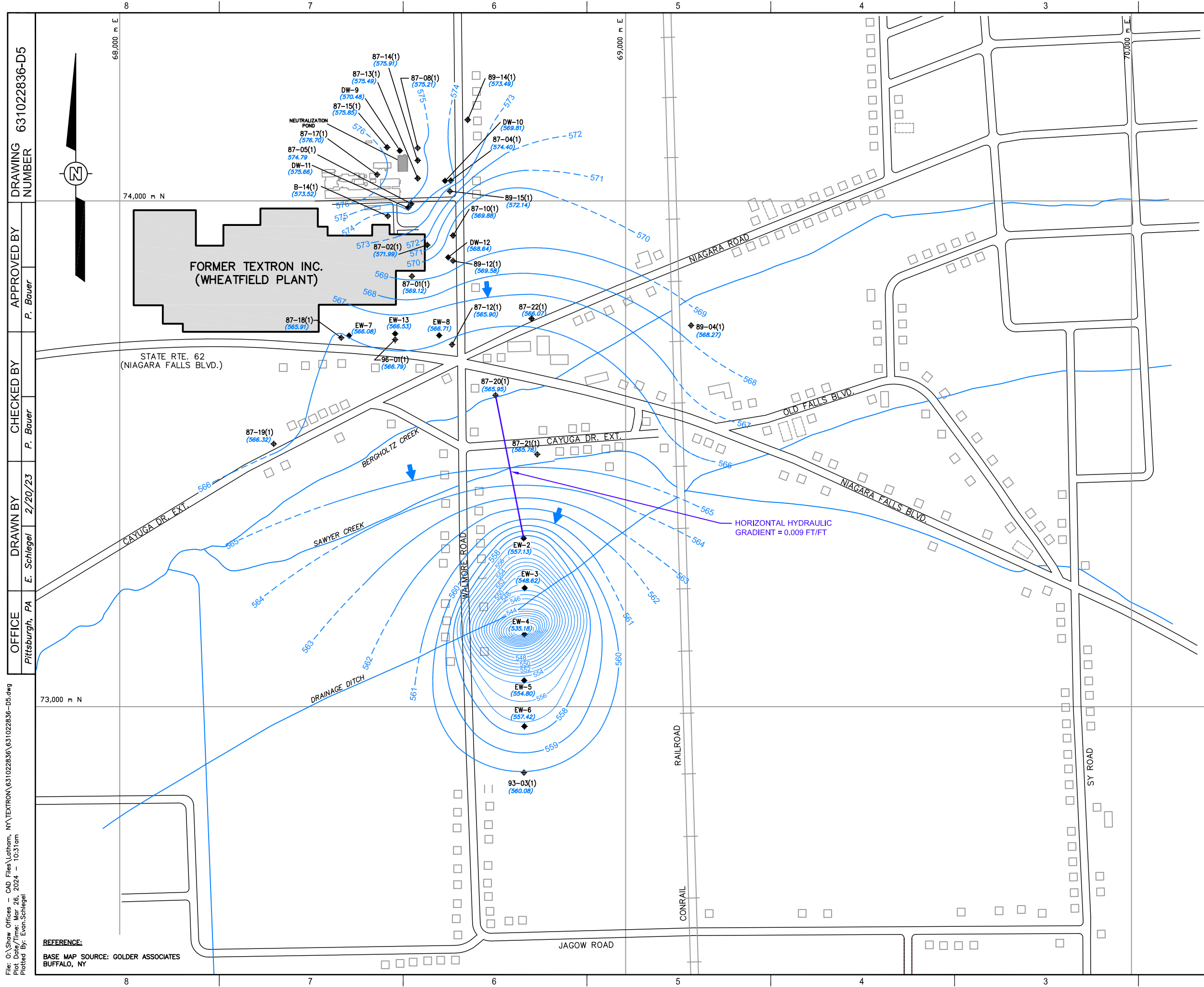
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TEXTRON
NIAGARA FALLS, NEW YORK

FIGURE 1
 OFF-SITE GROUNDWATER ELEVATION
 CONTOUR MAP, ZONE 1 BEDROCK
 APRIL 2023
 2221 NIAGARA FALLS BOULEVARD
 NIAGARA FALLS, NEW YORK

REFERENCE:
 BASE MAP SOURCE: GOLDER ASSOCIATES
 BUFFALO, NY



- LEGEND:**
- ◆ EXTRACTION WELL OR DNAPL WELL
 - ⊕ MONITORING WELL OR PIEZOMETER
 - 573 — POTENTIOMETRIC ELEVATION CONTOUR IN FEET MEAN SEA LEVEL (DASHED WHERE INFERRED)
 - (574.40) WATER LEVEL ELEVATIONS AT MONITORING OR EXTRACTION WELL IN FEET MEAN SEA LEVEL
 - ➔ DIRECTION OF GROUNDWATER FLOW IN ZONE 1

- NOTES:**
1. GRID SYSTEM SHOWN IS 1000-METER UNIVERSAL TRANSVERSE MERCATOR GRID, ZONE 17, 1927 NORTH AMERICAN DATUM.
 2. REFERENCE: U.S. GEOLOGICAL SURVEY, TONAWANDA WEST NEW YORK 7.5' QUADRANGLE, DATED 1980.
 3. WELL LOCATIONS SHOWN ARE APPROXIMATE.
 4. WATER LEVEL MEASUREMENTS OBTAINED ON OCTOBER 16-19, 2023.
 5. ONLY WELL LOCATIONS WITH AN ELEVATION LISTED ARE USED IN MAP CONTOURING.
 6. CONTOURS BETWEEN KNOWN POINTS HAVE BEEN INTERPOLATED.
 7. ON-SITE GROUNDWATER TREATMENT SYSTEM NOT OPERATING (DW-9, DW-10, DW-11, DW-12, EW-7, EW-8, AND EW-13).
 8. FORMER TREATMENT SYSTEM WELLS DW-9, DW-10, AND DW-12 WERE NOT USED FOR GENERATING GROUNDWATER CONTOURS.



FIGURE 4
GROUNDWATER ELEVATION CONTOUR MAP
ZONE 1 BEDROCK - OCTOBER 2023
 2221 NIAGARA FALLS BOULEVARD
 NIAGARA FALLS, NEW YORK

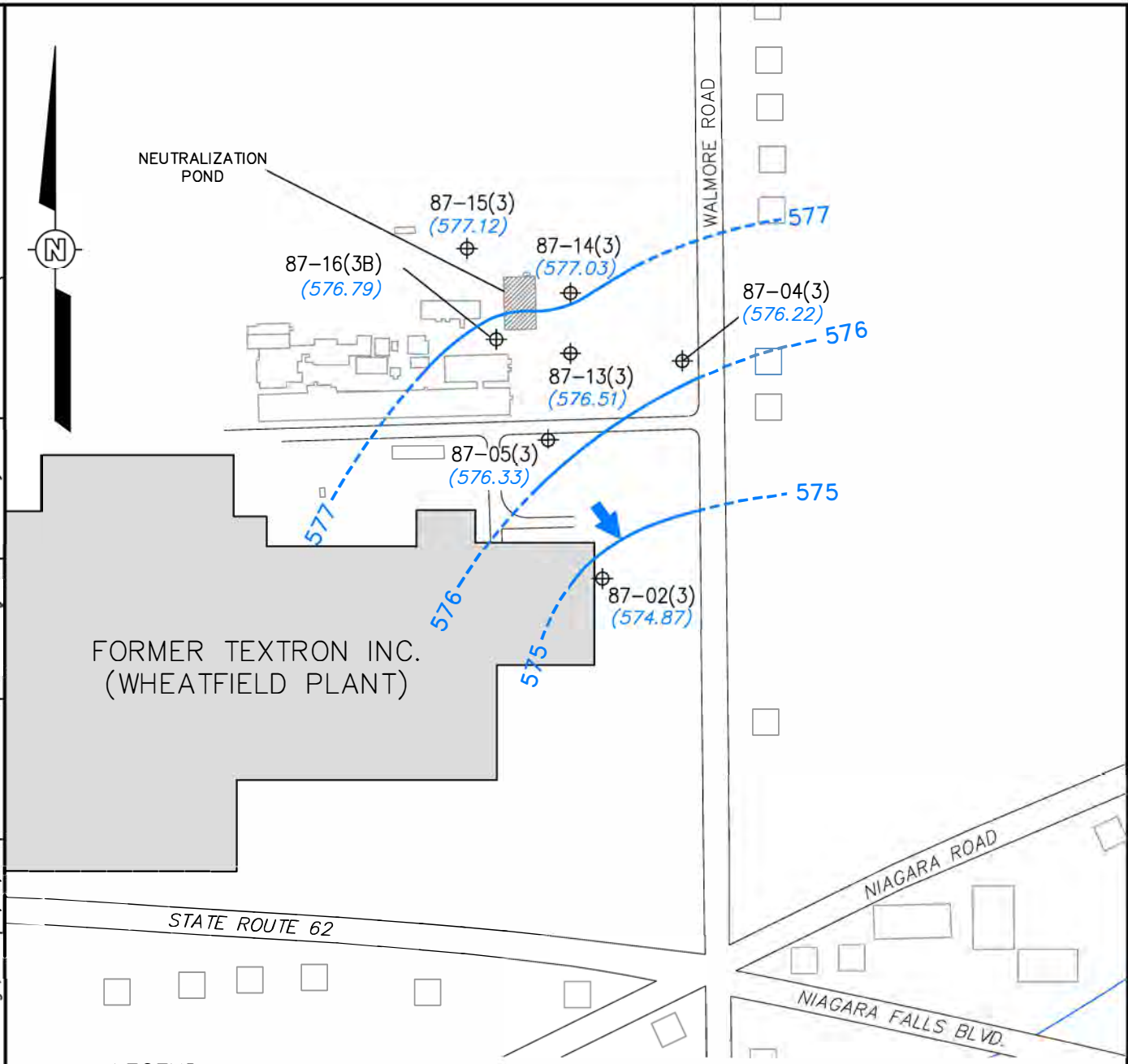
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 Plotted By: Evan Schlegel

OFFICE Pittsburgh, PA
 DRAWN BY E. Schlegel
 CHECKED BY P. Bauer
 APPROVED BY P. Bauer
 DRAWING NUMBER 631022836-D5



REFERENCE:
 BASE MAP SOURCE: GOLDER ASSOCIATES
 BUFFALO, NY

File: O:\Shaw Offices - CAD Files\Latham, NY\TEXTRON\631022836\631022836-A12.dwg
 Plot Date/Time: Feb 15, 2024 - 1:44pm
 Plotted By: Evan.Schlegel

OFFICE	DATE	DESIGNED BY	DRAWN BY	CHECKED BY	APPROVED BY	DRAWING NUMBER
Pittsburgh, PA	2/15/24	--	E. Schlegel	R. Mayer	P. Bauer	631022836-A12



LEGEND:

-  MONITORING WELL
- (574.87) WATER LEVEL ELEVATIONS AT MONITORING WELL IN FEET MEAN SEA LEVEL
- 577— POTENTIOMETRIC ELEVATION CONTOUR IN FEET MEAN SEA LEVEL (DASHED WHERE INFERRED)
-  DIRECTION OF GROUND WATER FLOW IN ZONE 3

NOTES:

1. WELL LOCATIONS SHOWN ARE APPROXIMATE.
2. WATER LEVEL MEASUREMENTS OBTAINED FROM OCTOBER 16-19, 2023.
3. ONLY WELL LOCATIONS WITH AN ELEVATION LISTED ARE USED IN MAP CONTOURING.
4. CONTOURS BETWEEN KNOWN POINTS HAVE BEEN INTERPOLATED.

REFERENCE:

BASE MAP SOURCE: GOLDBER ASSOCIATES
 BUFFALO, NY



	 NIAGARA FALLS, NEW YORK
FIGURE 7 ON-SITE GROUNDWATER ELEVATION CONTOUR MAP, ZONE 3 BEDROCK OCTOBER 2023 2221 NIAGARA FALLS BOULEVARD NIAGARA FALLS, NEW YORK	

Table 1
Groundwater Monitoring Points - On-Site and Off-Site
Effectiveness Monitoring Programs
Former Bell Aerospace Textron Inc.
Wheatfield, New York

WELL NUMBER	FREQUENCY		ANALYTICAL METHOD
	ANNUAL (A)	ANNUAL (B)	
OVERBURDEN MONITORING WELLS			
87-10(0)	X		8260
87-14(0)	X	X	8260
87-20(0)	X	X	8260
89-14(0)	X		8260
B-8	X		8260
TOTAL OVERBURDEN SAMPLES PER EVENT	5	2	
ZONE 1 MONITORING WELLS			
87-01(1)	X		8260
87-02(1)	X		8260
87-08(1)	X		8260
87-17(1)	X	X	8260
87-19(1)	X	X	8260
87-20(1)	X	X	8260
87-21(1)	X	X	8260
87-22(1)	X	X	8260
89-04(1)	X		8260
89-14(1)	X	X	8260
89-15(1)	X	X	8260
93-03(1)	X	X	8260
B-14(1)	X	X	8260
TOTAL ZONE 1 SAMPLES PER EVENT	13	9	
ZONE 3 MONITORING WELLS			
87-02(3)	X		8260
87-13(3)	X		8260
TOTAL ZONE 3 SAMPLES PER EVENT	2	0	
OFF-SITE EXTRACTION WELLS			
EW-2	X	X	8260
EW-3	X	X	8260
EW-4	X	X	8260
EW-5	X	X	8260
EW-6	X	X	8260
TOTAL OFF-SITE EXTRACTION WELL SAMPLES PER EVENT	5	5	
ON-SITE EXTRACTION WELLS			
EW-7	X	X	8260
EW-8	X	X	8260
DW-9	X	X	8260
DW-10	X	X	8260
DW-11	X	X	8260
DW-12	X	X	8260
EW-13	X	X	8260
TOTAL ON-SITE EXTRACTION WELL SAMPLES PER EVENT	7	7	
GRAND TOTAL SAMPLES PER EVENT	32	23	

(A) Annual sampling to be conducted in October of even-numbered years.

(B) Annual sampling to be conducted in October of odd-numbered years.

**Table 2
Monitoring Well Network
Bioremediation Program
Former Bell Aerospace Textron
Wheatfield, New York**

Sample ID	Bioremediation Program VOCs + Biologics	Requirements for Bioremediation Program Samples 8260
17-01(1)	X	CHLOROMETHANE
17-04(1)	X	VINYL CHLORIDE
19-01(1)	X	CHLOROETHANE
87-04(1)	X	BROMOMETHANE
87-10(1)	X	1 1-DICHLOROETHENE
87-13(1)	X	ACETONE
87-14(1)	X	CARBON DISULFIDE
87-16(1)	X	METHYLENE CHLORIDE
89-10(1)	X	TRANS-1 2-DICHLOROETHENE
89-15(1)	X	1 1-DICHLOROETHANE
B-10A(1)	X	CIS-1 2-DICHLOROETHENE
DW-9	X	METHYL ETHYL KETONE
		CHLOROFORM
		1 1 1-TRICHLOROETHANE
		CARBON TETRACHLORIDE
		BENZENE
		1 2-DICHLOROETHANE
		TRICHLOROETHENE
		1 2-DICHLOROPROPANE
		BROMODICHLOROMETHANE
		CIS-1 3-DICHLOROPROPENE
		MIBK
		TOLUENE
		TRANS-1 3-DICHLOROPROPENE
		1 1 2-TRICHLOROETHANE
		TETRACHLOROETHENE
		2-HEXANONE
		DIBROMOCHLOROMETHANE
		CHLOROBENZENE
		ETHYLBENZENE
		P-XYLENE/M-XYLENE
		O-XYLENE
		STYRENE
		BROMOFORM
		1 1 2 2-TETRACHLOROETHANE

Biological Parameters	USEPA Method
VOCs	8260
Total Organic Carbon	5310C
Ethene, Ethane, Methane	V8015 or RSK 175
Sulfate	9056A

Field Parameters	Events
Oxidation-Reduction Potential	Field Measurement via YSI Model 556 handheld screening instrument or equivalent
Dissolved Oxygen	
Specific Conductivity	
Temperature	
pH	
Turbidity	

Low flow sampling protocols to be followed during groundwater sampling for the Bioremediation Program.

Labels will be pre-printed BUT the day code will need to be filled in.

Table 3
Well Maintenance Activities
2023 Annual Summary
Former Bell Aerospace Textron Inc.
Wheatfield, New York

Well ID	Date Inspected	Air Quality (vaults only)	Well Aprons	Protective Casings	Locks	Comments
87-01(0)	16-Oct-23	NA	A	A	In Place	Need sample tubing
87-01(1)	16-Oct-23	NA	A	A	In Place	
87-02(1)	16-Oct-23	NA	A	A	In Place	
87-04(0)	16-Oct-23	NA	A	A	In Place	
87-04(1)	16-Oct-23	NA	U	A	In Place	Cracked well pad, animal burrowing
87-04(3)	16-Oct-23	NA	A	A	In Place	
87-05(1)	16-Oct-23	NA	A	A	In Place	
87-05(3)	16-Oct-23	NA	A	A	In Place	
87-08(1)	16-Oct-23	NA	A	A	In Place	
87-10(0)	16-Oct-23	NA	A	A	In Place	
87-10(1)	16-Oct-23	NA	A	A	In Place	
87-12(1)	16-Oct-23	NA	A	A	In Place	
87-13(0)	16-Oct-23	NA	A	A	In Place	Need sample tubing
87-13(1)	16-Oct-23	NA	A	A	In Place	
87-13(3)	16-Oct-23	NA	A	A	In Place	
87-14(0)	16-Oct-23	NA	A	A	In Place	
87-14(1)	16-Oct-23	NA	A	A	In Place	
87-14(3)	16-Oct-23	NA	A	A	In Place	
87-15(0)	16-Oct-23	NA	A	A	In Place	
87-15(1)	16-Oct-23	NA	A	A	In Place	
87-15(3)	16-Oct-23	NA	A	A	In Place	
87-16(3B)	16-Oct-23	NA	A	A	In Place	
87-17(0)	16-Oct-23	NA	A	A	In Place	
87-17(1)	16-Oct-23	NA	A	A	In Place	
87-18(0)	16-Oct-23	NA	A	A	In Place	Need sample tubing
87-18(1)	16-Oct-23	NA	A	A	In Place	
87-19(1)	16-Oct-23	NA	A	A	In Place	
87-20(0)	16-Oct-23	NA	A	A	In Place	
87-20(1)	16-Oct-23	NA	A	A	In Place	
87-21(1)	16-Oct-23	NA	A	A	In Place	
87-22(1)	16-Oct-23	NA	A	A	In Place	
89-04(1)	16-Oct-23	NA	A	A	In Place / Unlocked	PVC riser too high to bolt down. PVC was extended for injections
89-12(1)	16-Oct-23	NA	A	A	In Place	
89-14(0)	16-Oct-23	NA	A	A	In Place	
89-14(1)	16-Oct-23	NA	A	A	In Place	
89-15(1)	16-Oct-23	NA	A	A	In Place	
93-03(1)	16-Oct-23	NA	A	A	In Place	
96-01(1)	16-Oct-23	NA	A	A	In Place	
B-8(0)	16-Oct-23	NA	A	A	In Place	
B-14(1)	16-Oct-23	NA	A	A	In Place	
DW-9	19-Oct-23	A	A	A	In Place	
DW-10	18-Oct-23	A	A	A	In Place	
DW-11	18-Oct-23	A	A	A	In Place	
DW-12	16-Oct-23	A	A	A	In Place	
EW-2	19-Oct-23	A	A	A	In Place	
EW-3	19-Oct-23	A	A	A	In Place	
EW-4	19-Oct-23	A	A	A	In Place	
EW-5	19-Oct-23	A	A	A	In Place	
EW-6	19-Oct-23	A	A	A	In Place	
EW-7	16-Oct-23	NA	A	U	In Place	Water draining into casing
EW-8	16-Oct-23	NA	A	A	In Place	

Notes:

U - Unacceptable

A - Acceptable

NA - Not Applicable

Air quality only applies to vaulted wells

Table 4
Hydraulic Monitoring Data
2023 Annual Summary
Former Bell Aerospace Textron Inc.
Wheatfield, New York

Well Name	Top of Riser Elevation (ft MSL)	April 13, 2023		October 16-19, 2023	
		Water Level (ft BTOR)	Water Level Elevation (ft MSL)	Water Level (ft BTOR)	Water Level Elevation (ft MSL)
87-01(0)	588.10	12.02	576.08	14.94	573.16
87-01(1)	587.99	16.99	571.00	18.87	569.12
87-02(1)	589.21	15.41	573.80	17.22	571.99
87-02(3)	588.63	11.64	576.99	13.76	574.87
87-04(0)	589.32	9.19	580.13	10.32	579.00
87-04(1)	589.08	12.91	576.17	14.68	574.40
87-04(3)	589.49	11.24	578.25	13.27	576.22
87-05(1)	589.37	12.95	576.42	14.58	574.79
87-05(3)	589.46	11.14	578.32	13.13	576.33
87-08(1)	589.48	12.33	577.15	14.27	575.21
87-10(0)	587.30	12.91	574.39	13.88	573.42
87-10(1)	587.52	15.64	571.88	17.64	569.88
87-12(1)	583.84	15.90	567.94	17.94	565.90
87-13(0)	589.77	7.45	582.32	9.88	579.89
87-13(1)	590.06	13.08	576.98	14.57	575.49
87-13(3)	589.91	11.40	578.51	13.40	576.51
87-14(0)	589.56	7.50	582.06	11.39	578.17
87-14(1)	589.06	11.07	577.99	13.15	575.91
87-14(3)	590.35	11.42	578.93	13.32	577.03
87-15(0)	590.70	9.82	580.88	13.04	577.66
87-15(1)	590.27	12.19	578.08	14.42	575.85
87-15(3)	589.87	10.83	579.04	12.75	577.12
87-16(3B)	590.51	11.73	578.78	13.72	576.79
87-17(0)	589.50	11.06	578.44	12.84	576.66
87-17(1)	589.62	11.07	578.55	12.92	576.70
87-18(0)	585.95	10.66	575.29	10.75	575.20
87-18(1)	586.02	18.18	567.84	20.11	565.91
87-19(1)	581.47	12.95	568.52	15.15	566.32
87-20(0)	578.77	6.93	571.84	6.80	571.97
87-20(1)	579.01	10.99	568.02	13.06	565.95
87-21(1)	577.33	9.60	567.73	11.55	565.78
87-22(1)	583.97	15.31	568.66	17.90	566.07

Table 4
Hydraulic Monitoring Data
2023 Annual Summary
Former Bell Aerospace Textron Inc.
Wheatfield, New York

Well Name	Top of Riser Elevation (ft MSL)	April 13, 2023		October 16-19, 2023	
		Water Level (ft BTOR)	Water Level Elevation (ft MSL)	Water Level (ft BTOR)	Water Level Elevation (ft MSL)
89-04(1)	575.17	4.43	570.74	6.90	568.27
89-12(1)	586.62	15.01	571.61	17.04	569.58
89-14(0)	587.51	8.22	579.29	11.34	576.17
89-14(1)	587.59	11.95	575.64	14.10	573.49
89-15(1)	588.76	14.60	574.16	16.62	572.14
93-03(1)	572.30	9.69	562.61	12.22	560.08
96-01(1)	585.18	16.53	568.65	18.39	566.79
B-8(0)	590.26	6.89	583.37	11.35	578.91
B-14(1)	589.54	14.36	575.18	16.02	573.52
EW-2	568.15	9.03	559.12	11.02	557.13
EW-3	569.56	19.71	549.85	14.14	548.62
EW-4	570.07	17.75	552.32	7.39	535.18
EW-5	569.47	NM	569.47	11.84	554.80
EW-6	568.17	8.65	559.52	11.02	557.42
EW-7 (**)	580.96	12.90	568.06	20.10	566.08
EW-8 (**)	578.44	9.54	568.90	11.73	566.71
DW-9 (**)	581.30	8.87	572.43	10.82	570.48
DW-10 (**)	583.95	12.68	571.27	14.14	569.81
DW-11 (**)	583.05	5.55	577.50	7.39	575.66
DW-12 (**)	580.48	5.63	574.85	11.84	568.64
EW-13	579.84	14.88	564.96	16.62	566.53

Notes:

- BTOR = Below top of riser (or measuring point).
- MSL = Mean sea level.
- (**) Water level elevation measured from top of vault grate.
- DRY = No measurable quantity in well at time of measurement.
- NG = Not gauged.
- NA = Data not available.

ATTACHMENT C

Groundwater Sample Field Data Sheets and Chain-of-Custody Forms

**March 25, 2024 - First Semiannual Sampling Event for the
Bioremediation Pilot Study**



GROUNDWATER SAMPLING DATA COLLECTION FORM

Textron Groundwater Sampling

Wheatfield, New York

APTIM Project No. 631037017



MONITORING WELL ID: B-10A(1)
 Well Depth [ft-btoc]: ~ 27.20 (S&F)
 Depth to Water [ft-btoc]: ~ 11.26
 Well Casing Diameter [in]: 2" 1.25"
 Start Time (purging): 1030

Sampling Date: March 25, 2024
 Sampler(s): Kevin Cronin
 Sampling Device: Geopump w/ dedicated tubing
 Purge Volume (if applicable): 1.0 gal

FIELD PARAMETERS

Time [hh:mm]	pH [SU]	Temperature [°C]	Dissolved Oxygen [mg/L]	Redox Potential [mV]	Specific Conductance [mS/cm]	Turbidity [Ntu]	Depth To Water [ft-btoc]	Volume Purged [GAL]	Approximate Purge Rate [ml/min]
Stabilization Criteria	+/- 1%	+/- 3%	+/- 10%	+/- 10mV	+/- 3%	+/- 10%			50 to 200 ml/min
1032	9.38	10.44	74.73	-116.8	0.592	7.67	~14.01	~0.2	
1040	9.36	10.41	44.07	-197.8	1.149	6.09	~13.45	~0.7	
1050	9.37	10.37	41.68	-235.8	1.189	14.6	~14.04	~1.0	
1100	9.37	10.64	57.87	-240.5	1.269	13.5	~14.17	~1.5	

Flow
↓
↓

Sample Time: 1105 Sample ID: B-10A(1)
 Analytes Sampled: VOCs TOC, Methane, Ethane, Ethene, Sulfate QA/QC Sample: DUP-1
 PID (ppmv): 2.1 Odor: Y / N Water Color: CLEAR

Comments: _____

*Volume Factor: 2-inch well = 0.163 gal / ft, 1.5-inch well = 0.092 gal / ft, 1.25-inch well = 0.060 gal / ft.



GROUNDWATER SAMPLING DATA COLLECTION FORM

Textron Groundwater Sampling

Wheatfield, New York

APTIM Project No. 631037017



MONITORING WELL ID: DW-9
 Well Depth [ft-btoc]: ~ 28.31'
 Depth to Water [ft-btoc]: ~ 8.86'
 Well Casing Diameter [in]: 2"
 Start Time (purging): 0900

Sampling Date: March 25, 2024
 Sampler(s): Kevin Cronin
 Sampling Device: Geopump w/ dedicated tubing
 Purge Volume (if applicable): 3.2 gal

FIELD PARAMETERS

Time [hh:mm]	pH [SU]	Temperature [°C]	Dissolved Oxygen [mg/L]	Redox Potential [mV]	Specific Conductance [mS/cm]	Turbidity [Ntu]	Depth To Water [ft-btoc]	Volume Purged [GAL]	Approximate Purge Rate [ml/min]
Stabilization Criteria	+/- 1%	+/-3%	+/-10%	+/-10mV	+/-3%	+/-10%	/	/	50 to 200 ml/min
0930	9.36	7.40	191.16	89.6	0.407	9.28	~8.97	~1.1	
0935	9.40	7.44	169.12	89.0	0.465	10.5	~9.18	~2.7	
0940	9.42	7.47	178.95	89.8	0.466	15.1	~9.19	~3.5	
0946	9.43	7.57	195.81	94.9	0.405	19.9	~9.09	~4.6	

Sample Time: 0950 Sample ID: DW-9
 Analytes Sampled: VOCs TOC, Methane, Ethane, Ethene, Sulfate QA/QC Sample: _____
 PID (ppmv): 0.1 Odor: Y / (N) Water Color: CLEAR

Comments: GW WOULD NOT FLOW UP TUBING, AFTER SEVERAL ATTEMPTS USED DEDICATED BAILER TO PURGE WELL

*Volume Factor: 2-inch well = 0.163 gal / ft, 1.5-inch well = 0.092 gal / ft, 1.25-inch well = 0.060 gal / ft.



GROUNDWATER SAMPLING DATA COLLECTION FORM

Textron Groundwater Sampling
Wheatfield, New York

APTIM Project No. 631037017



MONITORING WELL ID: 17-01(1) Sampling Date: March 27, 2024
 Well Depth [ft-btoc]: ~ 33.87 Sampler(s): Kevin Cronin
 Depth to Water [ft-btoc]: ~ 11.83 - PROBE COVERED
 Well Casing Diameter [in]: 2" (N INJ. SOLN) Sampling Device: Geopump w/ dedicated tubing
 Start Time (purging): 1501 Purge Volume (if applicable): ~ 3.6

FIELD PARAMETERS

Time [hh:mm]	pH [SU]	Temperature [°C]	Dissolved Oxygen [mg/L]	Redox Potential [mV]	Specific Conductance [mS/cm]	Turbidity [Ntu]	Depth To Water [ft-btoc]	Volume Purged [GAL]	Approximate Purge Rate [ml/min]
Stabilization Criteria	+/- 1%	+/- 3%	+/- 10%	+/- 10mV	+/- 3%	+/- 10%			50 to 200 ml/min
1503	6.29	12.4	1.37	-337.2	4.576	4.03	~ 18.20	< 0.1	
1510	6.34	12.8	0.42	-352.7	4.080	4.14	~ NM	~ 0.4	
1520	6.30	13.0	0.41	-349.7	4.383	8.46	~ 16.52	~ 1.3	
1525	6.27	13.0	0.41	-347.6	4.585	7.80	~ 16.90	~ 1.5	
1530	6.23	13.0	0.39	-344.2	4.810	12.40	~ 17.20	~ 1.8	
1535	6.21	12.9	0.38	-341.3	4.925	20.1	~ 17.20	~ 2.0	
1545	6.17	12.9	0.36	-338.1	5.280	5.13	~ 17.28	~ 2.8	
1550	6.16	12.8	0.36	-336.6	5.310	3.03	~ 17.30	~ 3.0	
1600	6.14	13.0	0.34	-333.8	5.574	11.0	~ 17.15	~ 3.3	

Sample Time: 1605 Sample ID: 17-01(1)
 Analytes Sampled: VOCs TOC, Methane, Ethane, Ethene, Sulfate QA/QC Sample: _____
 PID (ppmv): 13.3 Odor: (Y) N Water Color: CLEAR

Comments: SHEEN OBSERVED ON GW, INJ SOLN COATES WL PROBE

*Volume Factor: 2-inch well = 0.163 gal / ft, 1.5-inch well = 0.092 gal / ft, 1.25-inch well = 0.060 gal / ft.



GROUNDWATER SAMPLING DATA COLLECTION FORM

Textron Groundwater Sampling

Wheatfield, New York

APTIM Project No. 631037017



MONITORING WELL ID: 17-04(1)
 Well Depth [ft-btoc]: ~28.79
 Depth to Water [ft-btoc]: ~10.61
 Well Casing Diameter [in]: 2"
 Start Time (purging): 0950

Sampling Date: March 28, 2024
 Sampler(s): Kevin Cronin
 Sampling Device: Geopump w/ dedicated tubing
 Purge Volume (if applicable): ~3.0 gal

FIELD PARAMETERS

Time [hh:mm]	pH [SU]	Temperature [°C]	Dissolved Oxygen [mg/L]	Redox Potential [mV]	Specific Conductance [mS/cm]	Turbidity [Ntu]	Depth To Water [ft-btoc]	Volume Purged [GAL]	Approximate Purge Rate [ml/min]
Stabilization Criteria	+/- 1%	+/-3%	+/-10%	+/-10mV	+/-3%	+/-10%			50 to 200 ml/min
0952	7.47	11.8	2.49	-152.0	6.502	115	~12.05	<0.1	
1000	7.83	12.3	0.12	-276.0	1.829	137	~14.51	~0.4	
* 1012	7.32	12.1	1.51	-155.5	1.881	169	~15.73	~1.0	
1020	6.93	12.2	0.09	-254.7	1.602	87.9	~19.30	~1.5	
1030	6.87	11.9	0.07	-268.1	1.576	89.7	~20.66	~1.7	
1035	6.66	12.0	0.05	-269.7	1.636	99.0	~22.37	~1.9	
1045	6.33	12.1	0.05	-343.9	1.864	118	~23.40	2.0	

FLOW
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↓
↓
↓

Sample Time: 1055 Sample ID: 17-04(1)

Analytes Sampled: VOCs TOC, Methane, Ethane, Ethene, Sulfate QA/QC Sample: _____

PID (ppmv): 2.2 0.7 kc Odor: (Y) N Water Color: GRAYISH w/ FLECKS

Comments: INITIALLY BLACK IN COLOR, VERY FINE BLACK FLECKS SETTLING OUT
* FLOW STOPS DUE TO PLUGGING; CORRECT + GET FLOW REESTABLISHED.
HAVE TO SLOW DOWN FLOW DUE TO DRAWDOWN EXPOSING SCREENED SECTION

*Volume Factor: 2-inch well = 0.163 gal / ft, 1.5-inch well = 0.092 gal / ft, 1.25-inch well = 0.060 gal / ft.



GROUNDWATER SAMPLING DATA COLLECTION FORM

Textron Groundwater Sampling

Wheatfield, New York

APTIM Project No. 631037017



MONITORING WELL ID:

19-01(1)

Sampling Date: March 25, 2024

Well Depth [ft-btoc]:

~ 33.39

Sampler(s): Kevin Cronin

Depth to Water [ft-btoc]:

~ 12.42

Sampling Device: Geopump w/ dedicated tubing

Well Casing Diameter [in]:

2"

Start Time (purging):

1304

Purge Volume (if applicable):

3.4 gal

FIELD PARAMETERS

Time [hh:mm]	pH [SU]	Temperature [°C]	Dissolved Oxygen [mg/L]	Redox Potential [mV]	Specific Conductance [mS/cm]	Turbidity [Ntu]	Depth To Water [ft-btoc]	Volume Purged [GAL]	Approximate Purge Rate [ml/min]
Stabilization Criteria	+/- 1%	+/-3%	+/-10%	+/-10mV	+/-3%	+/-10%			50 to 200 ml/min
1305	7.19	12.4	3.30	-241.5	5.997	154	15.25	<0.1	
1325	8.14	12.4	0.17	-357.3	6.080	205	~19.8	~1.2	
1335	8.04	12.5	0.11	-366.8	6.090	219	~24.12	~1.8	
1345	7.38	12.5	0.16	-387.8	6.090	237	~27.43	~2.6	
1355	7.18	12.8	0.30	-412.2	6.034	297	~29.20	~3.0	
1405									
3/26/24	NM	NM	NM	NM	NM	NM	~18.58	NA	Dry

Flow ↓ ↓ ↓

Sample Time:

0840 3/26/24

Sample ID:

19-01(1)

Analytes Sampled:

VOCs TOC, Methane, Ethane, Ethene, Sulfate

QA/QC Sample:

PID (ppmv):

5.2 PID 3/26/24 > 230 ppmv @ 0830

Odor: Y/N

Water Color: GRAY

Comments:

STEVE M. (NYSDEC) ON SITE @ 1305. WELL DRIES OUT @ ~ 1405. WAIT FOR RECHARGE TO SAMPLE LATER 1600 - WELL HAS ~ 2' OF GW, IN IT - CAN'T PULL SAMPLE VOLUME. WILL SAMPLE FIRST THING 3/26/24 AM.

*Volume Factor: 2-inch well = 0.163 gal / ft, 1.5-inch well = 0.092 gal / ft, 1.25-inch well = 0.060 gal / ft.



GROUNDWATER SAMPLING DATA COLLECTION FORM

Textron Groundwater Sampling

Wheatfield, New York

APTIM Project No. 631037017



MONITORING WELL ID: 87-04(1) Sampling Date: March 28, 2024

Well Depth [ft-btoc]: ~ 32.33 SOFT Sampler(s): Kevin Cronin

Depth to Water [ft-btoc]: ~ 12.67

Well Casing Diameter [in]: 2" Sampling Device: Geopump w/ dedicated tubing

Start Time (purging): 1142 Purge Volume (if applicable): ~ 3.2

FIELD PARAMETERS

Time [hh:mm]	pH [SU]	Temperature [°C]	Dissolved Oxygen [mg/L]	Redox Potential [mV]	Specific Conductance [mS/cm]	Turbidity [Ntu]	Depth To Water [ft-btoc]	Volume Purged [GAL]	Approximate Purge Rate [ml/min]
Stabilization Criteria	+/- 1%	+/-3%	+/-10%	+/-10mV	+/-3%	+/-10%			50 to 200 ml/min
1145	6.61	14.6	0.97	-493.2	3.581	29.3	~13.60	<0.1	
1155	6.51	11.0	0.24	-518.4	3.510	13.7	~14.98	~0.3	flow ↓
1205	6.51	11.1	0.26	-504.8	3.513	12.4	~15.33	~0.5	
1210	6.51	11.2	0.26	-473.2	3.516	10.7	~15.78	0.8	

Sample Time: 1215 Sample ID: 87-04(1)

Analytes Sampled: VOCs TOC, Methane, Ethane, Ethene, Sulfate QA/QC Sample: _____

PID (ppmv): 143.3 Odor: (Y) N Water Color: CLEAR w/ TRACE VF BLK FLECKS

Comments: V. FINE BLACK FLECKS NOTED

*Volume Factor: 2-inch well = 0.163 gal / ft, 1.5-inch well = 0.092 gal / ft, 1.25-inch well = 0.060 gal / ft.



GROUNDWATER SAMPLING DATA COLLECTION FORM

Textron Groundwater Sampling

Wheatfield, New York

APTIM Project No. 631037017



MONITORING WELL ID: 87-10(1)

Sampling Date: March 24, 2024

Well Depth [ft-btoc]: ~ 33.67

Sampler(s): Kevin Cronin

Depth to Water [ft-btoc]: ~ 15.56

Well Casing Diameter [in]: 2"

Sampling Device: Geopump w/ dedicated tubing

Start Time (purging): 1600

Purge Volume (if applicable): ~ 3.0 GAL

FIELD PARAMETERS

Time [hh:mm]	pH [SU]	Temperature [°C]	Dissolved Oxygen [mg/L]	Redox Potential [mV]	Specific Conductance [mS/cm]	Turbidity [Ntu]	Depth To Water [ft-btoc]	Volume Purged []	Approximate Purge Rate [ml/min]
Stabilization Criteria	+/- 1%	+/-3%	+/-10%	+/-10mV	+/-3%	+/-10%			50 to 200 ml/min
1608	9.70	9.02	55.56	-154.8	1.403	2.75	15.51	<0.1	
1615	9.54	9.41	41.48	-181.0	2.635	1.52	15.54	~1.8	
1630	9.33	9.36	40.17	-178.6	2.645	1.46	15.53	~2.5	
1640	9.43	8.60	36.19	-167.6	2.665	1.77	15.48	~7.9	
1650	9.24	9.11	35.98	-196.4	2.663	0.37	15.53	~3.2	
1700	9.02	9.54	30.65	-242.0	2.855	0.49	15.53	~3.4	
1710	8.90	9.82	28.45	-274.2	2.445	0.62	15.53	~4.0	

Sample Time: 1715

Sample ID: 87-10(1)

Analytes Sampled: VOCs TOC, Methane, Ethane, Ethene, Sulfate QA/QC Sample: _____

PID (ppmv): 0.0 Odor: Y / N Water Color: LOCAL

Comments: _____

*Volume Factor: 2-inch well = 0.163 gal / ft, 1.5-inch well = 0.092 gal / ft, 1.25-inch well = 0.060 gal / ft.



GROUNDWATER SAMPLING DATA COLLECTION FORM

Textron Groundwater Sampling

Wheatfield, New York

APTIM Project No. 631037017



MONITORING WELL ID: 87-13(1)
 Well Depth [ft-btoc]: ~ 30.23 SOFT
 Depth to Water [ft-btoc]: ~ 13.09
 Well Casing Diameter [in]: 2"
 Start Time (purging): 0840

Sampling Date: March 28, 2024
 Sampler(s): Kevin Cronin
 Sampling Device: Geopump w/ dedicated tubing
 Purge Volume (if applicable): 2.8 gal

FIELD PARAMETERS

Time [hh:mm]	pH [SU]	Temperature [°C]	Dissolved Oxygen [mg/L]	Redox Potential [mV]	Specific Conductance [mS/cm]	Turbidity [Ntu]	Depth To Water [ft-btoc]	Volume Purged [GAL]	Approximate Purge Rate [ml/min]
Stabilization Criteria	+/- 1%	+/-3%	+/-10%	+/-10mV	+/-3%	+/-10%			50 to 200 ml/min
0841	8.78	11.3	1.73	-127.2	1.960	17.9	~13.98	<0.1	
0845	9.01	11.7	0.38	-198.5	1.883	16.4	~14.48	~0.14	
0855	9.02	11.4	0.13	-256.1	1.768	7.90	~14.46	~1.0	
0900	9.09	11.5	0.11	-263.5	1.724	8.70	~14.67	~1.2	
0905	9.16	11.5	0.09	-263.9	1.715	9.80	~15.02	~1.5	

FLOW ↓

Sample Time: 0910 Sample ID: 87-13(1)
 Analytes Sampled: VOCs TOC, Methane, Ethane, Ethene, Sulfate QA/QC Sample: _____
 PID (ppmv): 6.5 Odor: Y / N Water Color: CLORAL W/ VIF BLK FLOCKS

Comments: VERY FINE BLACK FLOCKS NOTED ON GW.

*Volume Factor: 2-inch well = 0.163 gal / ft, 1.5-inch well = 0.092 gal / ft, 1.25-inch well = 0.060 gal / ft.



GROUNDWATER SAMPLING DATA COLLECTION FORM

Textron Groundwater Sampling
Wheatfield, New York



APTIM Project No. 631037017

MONITORING WELL ID: 87-14(i)
Well Depth [ft-btoc]: ~22.81
Depth to Water [ft-btoc]: ~12.32
Well Casing Diameter [in]: 2"
Start Time (purging): 1425

Sampling Date: March 25, 2024
Sampler(s): Kevin Cronin
Sampling Device: Geopump w/ dedicated tubing
Purge Volume (if applicable): 1.7 gal

FIELD PARAMETERS

Time [hh:mm]	pH [SU]	Temperature [°C]	Dissolved Oxygen [mg/L]	Redox Potential [mV]	Specific Conductance [mS/cm]	Turbidity [Ntu]	Depth To Water [ft-btoc]	Volume Purged [GALS]	Approximate Purge Rate [ml/min]
Stabilization Criteria	+/- 1%	+/-3%	+/-10%	+/-10mV	+/-3%	+/-10%			50 to 200 ml/min
1427	7.48	11.6	0.36	-213.1	5.696	77.7	~13.00	<0.1	
1435	7.49	11.3	0.90	-239.9	5.685	92.8	~15.09	~0.4	
1445	7.55	11.8	0.02	-274.3	5.692	138	~17.46	~1.0	
1500	6.36	12.1	0.00	-324.1	5.726	363	~20.20	~1.8	DRIES OUT

FLOW
↓
↓

Sample Time: 1530 Sample ID: 87-14(i)

Analytes Sampled: VOCs TOC, Methane, Ethane, Ethene, Sulfate QA/QC Sample: _____

PID (ppmv): 23.6 Odor: Y N Water Color: BLACKISH

Comments: BLACK FLECKS NOTED IN GW. STALE IN INSPECTING SAMPLING TECHNIQUE

*Volume Factor: 2-inch well = 0.163 gal / ft, 1.5-inch well = 0.092 gal / ft, 1.25-inch well = 0.060 gal / ft.



GROUNDWATER SAMPLING DATA COLLECTION FORM

Textron Groundwater Sampling

Wheatfield, New York

APTIM Project No. 631037017



MONITORING WELL ID: 87-16(1) Sampling Date: March 26, 2024

Well Depth [ft-btoc]: ~31.02 (SOFT) *OPEN HOLE* Sampler(s): Kevin Cronin

Depth to Water [ft-btoc]: ~12.11 Sampling Device: Geopump w/ dedicated tubing

Well Casing Diameter [in]: 2" Purge Volume (if applicable): ?

Start Time (purging): 0913

FIELD PARAMETERS

Time [hh:mm]	pH [SU]	Temperature [°C]	Dissolved Oxygen [mg/L]	Redox Potential [mV]	Specific Conductance [mS/cm]	Turbidity [Ntu]	Depth To Water [ft-btoc]	Volume Purged [GAL]	Approximate Purge Rate [ml/min]
Stabilization Criteria	+/- 1%	+/-3%	+/-10%	+/-10mV	+/-3%	+/-10%			50 to 200 ml/min
0915	6.90	10.9	0.83	-118.5	3.074	349	~12.59	<0.1	
0920	6.93	10.8	0.28	-125.8	3.106	37.7	~12.91	~0.6	
0925	6.98	10.9	0.17	-130.5	3.173	15.2	~13.15	~0.9	
0930	7.01	10.9	0.13	-133.6	3.214	15.1	~13.25	~1.4	
0938	7.11	10.9	0.08	-140.6	3.383	15.4	~13.28	~1.7	
0945	7.19	10.8	0.05	-144.8	3.541	13.7	~13.29	~1.9	
0950	7.24	11.0	0.04	-147.1	3.585	9.64	~13.35	~2.1	

Sample Time: 0955 Sample ID: 87-16(1)

Analytes Sampled: VOCs TOC, Methane, Ethane, Ethene, Sulfate QA/QC Sample: MS/MSD

PID (ppmv): 3.6 Odor: Y/N Water Color: SLT. YELLOWISH TINT

Comments: HAD TO TAKE TIME TO PREP/LABEL/SAMPLE QC SETS (0955-1020)

*Volume Factor: 2-inch well = 0.163 gal / ft, 1.5-inch well = 0.092 gal / ft, 1.25-inch well = 0.060 gal / ft.



GROUNDWATER SAMPLING DATA COLLECTION FORM

Textron Groundwater Sampling

Wheatfield, New York

APTIM Project No. 631037017



MONITORING WELL ID: 89-10(1)
 Well Depth [ft-btoc]: ~ 32.42
 Depth to Water [ft-btoc]: ~ 14.37
 Well Casing Diameter [in]: 2"
 Start Time (purging): 1420

Sampling Date: March 24, 2024
 Sampler(s): Kevin Cronin
 Sampling Device: Geopump w/ dedicated tubing
 Purge Volume (if applicable): 2.9 GAL

FIELD PARAMETERS

Time [hh:mm]	pH [SU]	Temperature [°C]	Dissolved Oxygen [mg/L]	Redox Potential [mV]	Specific Conductance [mS/cm]	Turbidity [Ntu]	Depth To Water [ft-btoc]	Volume Purged [GAL]	Approximate Purge Rate [ml/min]
Stabilization Criteria	+/- 1%	+/-3%	+/-10%	+/-10mV	+/-3%	+/-10%			50 to 200 ml/min
1426	8.65	10.64	43.22	-259.1	3.169	1.17	16.15	0.5	
1430	8.73	10.36	38.67	-258.2	3.194	1.03	16.29	~0.7	
1440	8.79	9.98	39.25	-256.2	3.214	2.05	15.70	~1.2	
1450	6.19	9.92	36.97	-259.2	3.210	0.76	~16.03	~1.8	
1500	6.00	9.42	39.58	-259.6	3.226	0.67	15.57	~2.3	
1510	6.03	9.71	41.12	-263.0	3.191	0.79	15.80	~2.8	

Sample Time: 1515 Sample ID: 89-10(1)

Analytes Sampled: VOCs TOC, Methane, Ethane, Ethene, Sulfate QA/QC Sample: _____

PID (ppmv): 0.0 Odor: Y / (N) Water Color: CLEAR

Comments: Very fine BLACK FLECKS OBSERVED

*Volume Factor: 2-inch well = 0.163 gal / ft, 1.5-inch well = 0.092 gal / ft, 1.25-inch well = 0.060 gal / ft.



GROUNDWATER SAMPLING DATA COLLECTION FORM

Textron Groundwater Sampling

Wheatfield, New York

APTIM Project No. 631037017



MONITORING WELL ID: 89-15(1)
 Well Depth [ft-btoc]: ~34.40
 Depth to Water [ft-btoc]: ~13.89
 Well Casing Diameter [in]: 2"
 Start Time (purging): 1100

Sampling Date: March 20, 2024
 Sampler(s): Kevin Cronin
 Sampling Device: Geopump w/ dedicated tubing
 Purge Volume (if applicable): 3.3 gal

FIELD PARAMETERS

Time [hh:mm]	pH [SU]	Temperature [°C]	Dissolved Oxygen [mg/L]	Redox Potential [mV]	Specific Conductance [mS/cm]	Turbidity [Ntu]	Depth To Water [ft-btoc]	Volume Purged []	Approximate Purge Rate [ml/min]
Stabilization Criteria	+/- 1%	+/-3%	+/-10%	+/-10mV	+/-3%	+/-10%			50 to 200 ml/min
1102	6.99	12.2	0.72	-310.6	1.861	10.4	~14.33	<0.1	
1105	6.92	12.2	0.17	-352.2	1.835	6.90	~15.72	~0.3	
1110	6.91	12.1	0.12	-354.4	1.842	9.17	~16.39	~0.8	
1115	6.91	12.3	0.11	-357.7	1.841	6.87	~16.34	~0.9	
1125	6.93	12.4	0.09	-363.7	1.827	4.43	~15.91	~1.4	
1130	6.94	12.4	0.08	-363.8	1.826	3.07	~15.70	~1.7	

FLOW
↓
↓

Sample Time: 1135 Sample ID: 89-15(1)
 Analytes Sampled: VOCs TOC, Methane, Ethane, Ethene, Sulfate QA/QC Sample: _____
 PID (ppmv): 3.6 Odor: Y / (N) Water Color: CLEAR w/ VF FLECKS

Comments: V. FINE BLACK FLECKS NOTED

*Volume Factor: 2-inch well = 0.163 gal / ft, 1.5-inch well = 0.092 gal / ft, 1.25-inch well = 0.060 gal / ft.

Amherst, NY 14228-2223
phone 716.691.2600 fax 716.691.7991

Regulatory Program: DW NPDES RCRA Other:

TestAmerica Laboratories, Inc. d/b/a Eurofins TestAmerica

Client Contact APTIM Environmental & Infrastructure, LLC 500 Penn Center Blvd, Suite 1000 Pittsburgh, PA 15235 (412) 736-1462 Phone (412) 858-1654 FAX Project Name: Textron Bioremediation Sampling Site: Textron Wheatfield P O # OS 221984		Project Manager: Paul Bauer Email: paul.bauer@aptim.com Tel/Fax: 412-736-1462		Site Contact: Kenin Cronin Date:		COC No: _____ of _____ COCs												
Analysis Turnaround Time <input type="checkbox"/> CALENDAR DAYS <input type="checkbox"/> WORKING DAYS TAT if different from Below _____ <input checked="" type="checkbox"/> 2 weeks <input type="checkbox"/> 1 week <input type="checkbox"/> 2 days <input type="checkbox"/> 1 day		Lab Contact: Brian Fischer Carrier:		TALS Project #: _____ Sampler: _____ For Lab Use Only: Walk-in Client: _____ Lab Sampling: _____ Job / SDG No.: _____		Sample Specific Notes:												
Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=Grab)	Matrix	# of Cont.	Filtered Sample (Y/N)	Perform MS /MSD (Y/N)	8260C_(MOD) Client Specific List	SM 5310C_TOC	RSK-175_Methane, Ethane, Ethene	9056A_Sulfate							
89-10(1)	3/24/24	1515	G	W	10	N	N	X	X	X	X							
87-10(1)	↓	1715	G	W	9	N	N	X	X	X	X							
DW-9	3/25/24	0950	G	W	10	N	N	X	X	X	X							
B-10A(1)	↓	1105	G	W	10	N	N	X	X	X	X							
87-14(1)	↓	1530	G	W	10	N	N	X	X	X	X							
19-01(1)	3/26/24	0840	G	W	10	N	N	X	X	X	X							
87-16(1)	↓	0955	G	W	10	N	N	X	X	X	X							
87-16(1) MS	↓	↓	G	W	3/0	N	N	X										
87-16(1) MSD	↓	↓	G	W	3/0	N	N	X										
89-15(1)	↓	1135	G	W	10	N	N	X	X	X								
FIELD BLANK	3/26/24	1245	G	W	3	N	N	X										
DUP-1	3/25/24	-	G	W	10	N	N	X	X	X	X							
Preservation Used: 1= Ice, 2= HCl; 3= H2SO4; 4=HNO3; 5=NaOH; 6= Other						Sample Disposal (A fee may be assessed if samples are retained longer than 1 month) <input type="checkbox"/> Return to Client <input checked="" type="checkbox"/> Disposal by Lab <input type="checkbox"/> Archive for _____ Months												
Possible Hazard Identification: Are any samples from a listed EPA Hazardous Waste? Please List any EPA Waste Codes for the sample in the Comments Section if the lab is to dispose of the sample. <input type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Poison B <input checked="" type="checkbox"/> Unknown						Special Instructions/QC Requirements & Comments:												
Custody Seals Intact: <input type="checkbox"/> Yes <input type="checkbox"/> No		Custody Seal No.:		Cooler Temp. (°C): Obs'd:		Corr'd:		Therm ID No.:										
Relinquished by: <i>Kenin Cronin</i>		Company: <i>APTIM</i>		Date/Time: <i>3/26/24 1345</i>		Received by: <i>C Walker</i>		Company: <i>PTAB</i>		Date/Time: <i>3/26/24 1345</i>								
Relinquished by:		Company:		Date/Time:		Received by:		Company:		Date/Time:								
Relinquished by:		Company:		Date/Time:		Received in Laboratory by:		Company:		Date/Time:								

April 29, 2024 – Off-site Extraction Well Sampling Event



GROUNDWATER SAMPLING DATA COLLECTION FORM
Textron Groundwater Sampling
Wheatfield, New York
APTIM Project No. 631037017



MONITORING WELL ID: EW-2
 Well Depth [ft-btoc]: 36.73
 Depth to Water [ft-btoc]: 8.10
 Well Casing Diameter [in]: 8
 Start Time (purging): 1510

Sampling Date: 4-29-24
 Sampler(s): E. Schlegel
H. Lohr
 Sampling Device: Pump in Well - Sample Port
 Purge Volume (if applicable): _____

FIELD PARAMETERS

Time [hh:mm]	pH [SU]	Temperature [°C]	Dissolved Oxygen [mg/L]	Redox Potential [mV]	Specific Conductance [mS/cm]	Turbidity [Ntu]	Depth To Water [ft-btoc]	Volume Purged []	Approximate Purge Rate [ml/min]
Stabilization Criteria	+/- 1%	+/-3%	+/-10%	+/-10mV	+/-3%	+/-10%	/	/	50 to 200 ml/min
1510	7.24	14.50	16.62	-260.4	1.666	2.97	-	-	-
1515	7.16	13.14	4.70	-317.8	1.827	0.95	-	-	-
1520		Sample							

Sample Time: 1520 Sample ID: EW-2

Analytes Sampled: VOCs TOC, Methane, Ethane, Ethene, Sulfate QA/QC Sample: _____

PID (ppmv): 0.0 Odor: Y / N Water Color: _____

Comments: _____

*Volume Factor: 2-inch well = 0.163 gal / ft

SIREM



GROUNDWATER SAMPLING DATA COLLECTION FORM
Textron Groundwater Sampling
Wheatfield, New York
APTIM Project No. 631037017



MONITORING WELL ID: EW-3
 Well Depth [ft-btoc]: 38.39
 Depth to Water [ft-btoc]: 17.21
 Well Casing Diameter [in]: 8
 Start Time (purging): 1545

Sampling Date: 4-29-24
 Sampler(s): E. Schlegel
H. Lohr
 Sampling Device: Pump in Well - Sample Port
 Purge Volume (if applicable): _____

FIELD PARAMETERS

Time [hh:mm]	pH [SU]	Temperature [°C]	Dissolved Oxygen [mg/L]	Redox Potential [mV]	Specific Conductance [mS/cm]	Turbidity [Ntu]	Depth To Water [ft-btoc]	Volume Purged []	Approximate Purge Rate [ml/min]
Stabilization Criteria	+/- 1%	+/- 3%	+/- 10%	+/- 10mV	+/- 3%	+/- 10%	/	/	50 to 200 ml/min
1545	6.99	14.57	8.71	-293.9	2.291	0.97	-	-	-
1550	7.04	13.80	4.04	-326.6	3.160	3.66	-	-	-

Sample Time: 1555 Sample ID: EW-3

Analytes Sampled: VOCs TOC, Methane, Ethane, Ethene, Sulfate QA/QC Sample: Duplicate DUP-01
 PID (ppmv): 0.0 Odor: 0/ N Sulfur like Water Color: _____

Comments: Collect Duplicate Sample DUP-01

*Volume Factor: 2-inch well = 0.163 gal / ft



GROUNDWATER SAMPLING DATA COLLECTION FORM
Textron Groundwater Sampling
Wheatfield, New York
APTIM Project No. 631037017



MONITORING WELL ID: EW-4
 Well Depth [ft-btoc]: 40.37
 Depth to Water [ft-btoc]: 6.59
 Well Casing Diameter [in]: 8
 Start Time (purging): 1625

Sampling Date: 4-29-24
 Sampler(s): E. Schlagel
H. Lohr
 Sampling Device: Pumpin well - Sample Port
 Purge Volume (if applicable): -

FIELD PARAMETERS

Time [hh:mm]	pH [SU]	Temperature [°C]	Dissolved Oxygen [mg/L]	Redox Potential [mV]	Specific Conductance [mS/cm]	Turbidity [Ntu]	Depth To Water [ft-btoc]	Volume Purged []	Approximate Purge Rate [ml/min]
Stabilization Criteria	+/- 1%	+/-3%	+/-10%	+/-10mV	+/-3%	+/-10%	/	/	50 to 200 ml/min
1625	7.15	15.05	13.13	-277.7	1.580	10.5			
1630	SAMPLE								

Sample Time: 1630 Sample ID: EW-4
 Analytes Sampled: VOCs TOC, Methane, Ethane, Ethene, Sulfate QA/QC Sample: NO
 PID (ppmv): 0.0 Odor: Y/N Water Color: _____

Comments: _____

*Volume Factor: 2-inch well = 0.163 gal / ft



GROUNDWATER SAMPLING DATA COLLECTION FORM
Textron Groundwater Sampling
Wheatfield, New York
APTIM Project No. 631037017



MONITORING WELL ID: EW-5 Sampling Date: 4-29-24
 Well Depth [ft-btoc]: 40.12 Sampler(s): ES
 Depth to Water [ft-btoc]: 8.34 Sampling Device: HL
 Well Casing Diameter [in]: 8 Purge Volume (if applicable): _____
 Start Time (purging): 1640 Sampling Device: Pump in well - Sample Port

FIELD PARAMETERS

Time [hh:mm]	pH [SU]	Temperature [°C]	Dissolved Oxygen [mg/L]	Redox Potential [mV]	Specific Conductance [mS/cm]	Turbidity [Ntu]	Depth To Water [ft-btoc]	Volume Purged []	Approximate Purge Rate [ml/min]
Stabilization Criteria	+/- 1%	+/-3%	+/-10%	+/-10mV	+/-3%	+/-10%	/	/	50 to 200 ml/min
<u>1640</u>	<u>7.05</u>	<u>14.37</u>	<u>3.49</u>	<u>-328.4</u>	<u>2.773</u>	<u>49.5</u>	<u>8.34</u>		
<u>1645</u>	<u>SAMPLE</u>								

Sample Time: 1645 Sample ID: EW-5
 Analytes Sampled: VOCs TOC, Methane, Ethane, Ethene, Sulfate QA/QC Sample: _____
 PID (ppmv): 0.0 Odor: 0 / N Water Color: _____

Comments: _____

*Volume Factor: 2-inch well = 0.163 gal / ft



GROUNDWATER SAMPLING DATA COLLECTION FORM
Textron Groundwater Sampling
Wheatfield, New York
APTIM Project No. 631037017



MONITORING WELL ID: EW-6 Sampling Date: 4-29-24
 Well Depth [ft-btoc]: 20.33 from MHLid Sampler(s): E. Schlegel
 Depth to Water [ft-btoc]: 8.88 H. Lohr Kevin Cronin
 Well Casing Diameter [in]: 8 Sampling Device: Peristaltic Pump
 Start Time (purging): 1220 Purge Volume (if applicable): _____

FIELD PARAMETERS

Time [hh:mm]	pH [SU]	Temperature [°C]	Dissolved Oxygen [mg/L]	Redox Potential [mV]	Specific Conductance [mS/cm]	Turbidity [Ntu]	Depth To Water [ft-btoc]	Volume Purged []	Approximate Purge Rate [ml/min]
Stabilization Criteria	+/- 1%	+/-3%	+/-10%	+/-10mV	+/-3%	+/-10%	/	/	50 to 200 ml/min
1220	7.15	14.68	15.71	-263.1	1.929	96.2	-	-	-
1225	7.26	13.13	23.39	-231.7	1.923	69.2	-	-	-
1230	7.16	12.36	16.22	-259.4	1.931	56.7	✓	✓	✓

Sample Time: 1230 Sample ID: EW-6
 Analytes Sampled: VOCs TOC, Methane, Ethane, Ethene, Sulfate QA/QC Sample: _____
 PID (ppmv): 0.00 Odor: Y / (N) Water Color: clear

Comments: Also collect NCS D + Mercury Sample

*Volume Factor: 2-inch well = 0.163 gal / ft



GROUNDWATER SAMPLING DATA COLLECTION FORM

Textron Groundwater Sampling

Wheatfield, New York

APTIM Project No. 631037017



MONITORING WELL ID: 93-03(1)
 Well Depth [ft-btoc]: 47.10
 Depth to Water [ft-btoc]: 9.71
 Well Casing Diameter [in]: 2
 Start Time (purging): 1325

Sampling Date: 4-29-24
 Sampler(s): ES HL KC
 Sampling Device: Peristaltic Pump
 Purge Volume (if applicable): _____

FIELD PARAMETERS

Time [hh:mm]	pH [SU]	Temperature [°C]	Dissolved Oxygen [mg/L]	Redox Potential [mV]	Specific Conductance [mS/cm]	Turbidity [Ntu]	Depth To Water [ft-btoc]	Volume Purged [Gal.]	Approximate Purge Rate [ml/min]
Stabilization Criteria	+/- 1%	+/-3%	+/-10%	+/-10mV	+/-3%	+/-10%			50 to 200 ml/min
1325	6.78	12.45	32.71	-229.0	2.930	11.5	9.74	0	250
1335	6.86	12.49	14.20	-206.5	2.927	3.60	9.79	0.2	200
1340	6.86	12.41	11.15	-300.9	2.924	2.46	9.81	0.4	200
1345	6.90	12.64	8.59	-299.6	2.924	8.34	9.74	0.6	200
1350	6.96	12.28	8.36	-298.3	2.923	7.99	9.74	0.8	200
1355	6.94	12.31	8.35	-298.1	2.921	8.55	9.74	1.0	200
1400	6.95	12.30	8.33	-297.9	2.920	8.23	9.74	1.2	200
1405	SAMPLE								

Sample Time: 1405 Sample ID: 93-03(1)

Analytes Sampled: VOCs TOC, Methane, Ethane, Ethene, Sulfate QA/QC Sample: MS / MSD
 PID (ppmv): 0.0 Odor: Y / N Water Color: clear

Comments: Collect MS & MSD

*Volume Factor: 2-inch well = 0.163 gal / ft

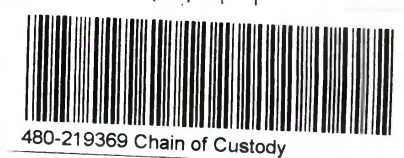
Amherst, NY 14228-2223
phone 716.691.2600 fax 716.691.7991

Regulatory Program: DW NPDES RCRA Other:

TestAmerica Laboratories, Inc. d/b/a Eurofins TestAmerica

Client Contact		Project Manager: Paul Bauer		Site Contact: Kenin Cronin		Date:		COC No:	
APTIM Environmental & Infrastructure, LLC		Email: paul.bauer@aptim.com		Lab Contact: Brian Fischer		Carrier:		1 of 1 COCs	
500 Penn Center Blvd, Suite 1000		Tel/Fax: 412-736-1462		Analysis Turnaround Time		TALS Project #:		Sampler:	
Pittsburgh, PA 15235		<input type="checkbox"/> CALENDAR DAYS <input type="checkbox"/> WORKING DAYS		TAT if different from Below _____		For Lab Use Only:		Walk-in Client:	
(412) 736-1462 Phone		<input type="checkbox"/> 2 weeks		<input type="checkbox"/> 1 week		Lab Sampling:		Job / SDG No.:	
(xxx) xxx-xxxx FAX		<input type="checkbox"/> 2 days		<input type="checkbox"/> 1 day		Project Name: Textron Off-Site Performance Wells		Site: Textron Wheatfield	
Project Name: Textron Off-Site Performance Wells		Site: Textron Wheatfield		P O # OS 221984		Filtered Sample (Y/N)		Perform MS / MSD (Y/N)	
Site: Textron Wheatfield		P O # OS 221984		8260C (MOD) Client Specific List					
P O # OS 221984									

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=Grab)	Matrix	# of Cont.	Filtered Sample (Y/N)	Perform MS / MSD (Y/N)	8260C (MOD) Client Specific List	Sample Specific Notes:									
EW-2 -	4-29	1520	G	W	3	N	N	X										
EW-3 -	↓	1555	G	W	3	N	N	X										
EW-4 -		1630	G	W	3	N	N	X										
EW-5 -		1645	G	W	3	N	N	X										
EW-6 -		1230	G	W	3	N	N	X										
93-03(1) -		1405	G	W	3	N	N	X										
93-03(1) MS -				G	W	3	N	Y	X									
93-03(1) MSD -			G	W	3	N	Y	X										
DUP -	↓	-	G	W	3	N	N	X										
TB -	4-29	-	G	W		N	N	X										



Preservation Used: 1= Ice, 2= HCl; 3= H2SO4; 4=HNO3; 5=NaOH; 6= Other _____

Possible Hazard Identification:
Are any samples from a listed EPA Hazardous Waste? Please List any EPA Waste Codes for the sample in the Comments Section if the lab is to dispose of the sample.

Non-Hazard Flammable Skin Irritant Poison B Unknown

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
 Return to Client Disposal by Lab Archive for _____ Months

Special Instructions/QC Requirements & Comments:
316 # 1 etc

Custody Seals Intact: <input type="checkbox"/> Yes <input type="checkbox"/> No	Custody Seal No.:	Cooler Temp. (°C): Obs'd:	Corr'd:	Therm ID No.:
Relinquished by: <i>Kenin Cronin</i>	Company: APTIM	Date/Time: 4/30/24 1315	Received by: <i>Y...</i>	Company: TAB
Relinquished by:	Company:	Date/Time:	Received by:	Company:
Relinquished by:	Company:	Date/Time:	Received in Laboratory by:	Company:

**October 22 & 24, 2024 - Annual Groundwater Sampling Event/Second
Semiannual Sampling Event for the Bioremediation Pilot Study**



GROUNDWATER SAMPLING DATA COLLECTION FORM

Textron Groundwater Sampling

Wheatfield, New York

APTIM Project No. 631037017



MONITORING WELL ID: B-8(0)
 Well Depth [ft-btoc]: ~18.44
 Depth to Water [ft-btoc]: ~11.12
 Well Casing Diameter [in]: 2 1/25
 Start Time (purging): 1407

Sampling Date: 10/24/2024
 Sampler(s): Kevin Cronin ✓
Evan Schlegel
 Sampling Device: Peristaltic Pump / Downhole pump
 Purge Volume (if applicable): 0.44 gal

FIELD PARAMETERS

Time [hh:mm]	pH [SU]	Temperature [°C]	Dissolved Oxygen [mg/L]	Redox Potential [mV]	Specific Conductance [mS/cm]	Turbidity [Ntu]	Depth To Water [ft-btoc]	Volume Purged [GAL]	Approximate Purge Rate [ml/min]
Stabilization Criteria	+/- 1%	+/-3%	+/-10%	+/-10mV	+/-3%	+/-10%	/	/	50 to 200 ml/min
1410	8.10	13.5	3.82	-128.1	1.716	616	~12.02	<0.1	
1420	7.61	13.2	0.89	-114.2	1.560	3.25	~12.55	~0.9	
1430	7.58	13.2	0.87	-112.8	1.669	1.58	~12.28	~1.3	
1435	7.57	13.1	0.85	-112.1	1.672	1.37	~12.30	~1.5	

↓ FLOW
 ↓ FLOW

Sample Time: 1440 Sample ID: B-8(0)
 Analytes Sampled: VOCs TOC Methane Ethane Ethene Sulfate Chloride QA/QC Sample _____
 PID (ppmv): 0.0 Odor: Y / N Water Color: CLEAR

Comments: INITIALLY LT GRAY, SLT TURBID, CLEARS UP

*Volume Factor: 2-inch well = 0.163 gal / ft; 1.5-inch well = 0.082 gal / ft; 1.25-inch well = 0.060 gal / ft



GROUNDWATER SAMPLING DATA COLLECTION FORM

Textron Groundwater Sampling

Wheatfield, New York

APTIM Project No. 631037017



MONITORING WELL ID:

B-10A(1)

Sampling Date: 10/29/2024

Well Depth [ft-btoc]:

~ 27.24

Sampler(s): Kevin Cronin

Depth to Water [ft-btoc]:

13.73

Evan Schlegel, J. Osborn

Well Casing Diameter [in]:

2 1.25"

Sampling Device: Peristaltic Pump / Downhole pump

Start Time (purging):

1540

Purge Volume (if applicable):

0.8 gal

FIELD PARAMETERS

Time [hh:mm]	pH [SU]	Temperature [°C]	Dissolved Oxygen [mg/L]	Redox Potential [mV]	Specific Conductance [mS/cm]	Turbidity [Ntu]	Depth To Water [ft-btoc]	Volume Purged [GAL]	Approximate Purge Rate [ml/min]
Stabilization Criteria	+/- 1%	+/-3%	+/-10%	+/-10mV	+/-3%	+/-10%			50 to 200 ml/min
1540	7.46	12.8	0.32	-245.5	1407	11.6	14.34	.01	140
1545	7.31	13.0	-0.65	-272.6	1383	8.63	14.46	.1	140
1550	7.27	13.1	-0.85	-286.6	1491	4.57	14.59	.7	140
1555	7.21	13.0	-0.90	-291.6	1512	3.44	14.68	.3	140
1600	7.13	13.1	-0.94	-291.6	1501	4.69	14.96	.5	140
1605	7.02	13.0	-0.98	-289.4	1442	5.98	15.39	.8	140
1610	6.89	12.9	-0.99	-289.9	1417	6.21	15.58	1.0	140
1613	6.80	13.0	-0.99	-289.1	1425	6.04	15.52	1.2	140
1616	6.71	13.1	-1.00	-289.9	1443	8.13	15.23	1.4	140
1619	6.71	13.0	-1.01	-291.9	1489	4.95	15.40	1.6	140
1622	6.71	13.0	-1.01	-293.7	1507	4.28	15.38	1.8	140

Sample Time: 1625

Sample ID: B-10A(1)

Analytes Sampled VOCs TOC, Methane Ethane Ethene, Sulfate Chloride

QA/QC Sample

PID (ppmv): 3.7

Odor: Y / N

Water Color: Clean w/ black solids

Comments:

*Volume Factor: 2-inch well = 0.163 gal / ft; 1.5-inch well = 0.082 gal / ft; 1.25-inch well = 0.060 gal / ft



GROUNDWATER SAMPLING DATA COLLECTION FORM

Textron Groundwater Sampling

Wheatfield, New York

APTIM Project No. 631037017



MONITORING WELL ID: B-14(1)
 Well Depth [ft-btoc]: ~ 26.96
 Depth to Water [ft-btoc]: ~ 15.44
 Well Casing Diameter [in]: ~ 1.25"
 Start Time (purging): 1347

Sampling Date: 10/23/2024
 Sampler(s): Kevin Cronin
Evan Schlegel
 Sampling Device: Peristaltic Pump/ Downhole pump
 Purge Volume (if applicable): 0.7

FIELD PARAMETERS

Time [hh:mm]	pH [SU]	Temperature [°C]	Dissolved Oxygen [mg/L]	Redox Potential [mV]	Specific Conductance [mS/cm]	Turbidity [Ntu]	Depth To Water [ft-btoc]	Volume Purged [GAL]	Approximate Purge Rate [ml/min]
Stabilization Criteria	+/- 1%	+/- 3%	+/- 10%	+/- 10mV	+/- 3%	+/- 10%			50 to 200 ml/min
1350	7.15	15.6	1.20	-272.5	6331	1.64	~15.45	~0.1	
1400	7.21	15.9	0.77	-339.6	6329	0.44	~15.44	~0.3	
1410	7.15	15.6	0.72	-360.5	6284	0.76	~15.46	~0.8	
1420	7.08	15.4	0.70	-369.3	6325	0.58	~15.45	~1.2	
1425	7.04	15.3	0.69	-372.3	6314	0.23	~15.45	~1.5	
1435	7.00	15.2	0.68	-375.9	6310	0.31	~15.46	~2.0	
1440	6.99	15.3	0.68	-375.9	6301	0.25	~15.46	~2.2	

Sample Time: 1440 Sample ID: B-14(1)
 Analytes Sampled: VOCs TOC Methane Ethane Ethene Sulfate Chloride QA/QC Sample _____
 PID (ppmv): 0.0 Odor: Y / N Water Color: CLEAR

Comments: Very windy, KNOCKING OVER FLOW-THROUGH CELL

*Volume Factor: 2-inch well = 0.163 gal / ft; 1.5-inch well = 0.082 gal / ft; 1.25-inch well = 0.060 gal / ft



GROUNDWATER SAMPLING DATA COLLECTION FORM

Textron Groundwater Sampling
Wheatfield, New York
APTIM Project No. 631037017



MONITORING WELL ID: DW-10
Well Depth [ft-btoc]: _____
Depth to Water [ft-btoc]: 13.84
Well Casing Diameter [in]: 2
Start Time (purging): 1355

Sampling Date: 10/25/2024
Sampler(s): Kevin Cronin
Evan Schlegel John Osborn
Sampling Device: Peristaltic Pump / Downhole pump
Purge Volume (if applicable): _____

FIELD PARAMETERS

HS

Time [hh:mm]	pH [SU]	Temperature [°C]	Dissolved Oxygen [mg/L]	Redox Potential [mV]	Specific Conductance [mS/cm]	Turbidity [Ntu]	Depth To Water [ft-btoc]	Volume Purged [GAL]	Approximate Purge Rate [ml/min]
Stabilization Criteria	+/- 1%	+/-3%	+/-10%	+/-10mV	+/-3%	+/-10%			50 to 200 ml/min
1335	5.94	13.6	0.10	-247.1	2394	22.1	-	-	-
1355	6.49	14.5	0.26	-266.0	1809	12.0	13.83	.01	200
1400	6.61	14.5	-0.68	-275.0	1805	10.2	13.87	.2	200
1405	6.38	14.3	-0.89	-288.7	1803	10.0	13.91	.4	200
1410	6.38	14.4	-0.93	-296.3	1799	10.3	13.95	.6	200
1415	6.37	14.4	-0.94	-299.3	1802	9.98	13.97	.8	200
1420	6.38	14.4	-0.95	-302.8	1797	11.6	13.99	1.0	200
1425	6.36	14.4	-0.95	-305.1	1802	10.7	14.03	1.2	200

Sample Time: 1430 Sample ID: DW-10

Analytes Sampled: VOCs TOC Methane Ethane Ethene Sulfate Chloride QA/QC Sample _____

PID (ppmv): 5.1 Odor: N Water Color: Clean w/ black solids

Comments: HYDROSLEEVE INSTALLED 10/7/2024
Hydrosleeve sampled @ 1355, replaced w/ new sleeve

*Volume Factor: 2-inch well = 0.163 gal / ft; 1.5-inch well = 0.082 gal / ft; 1.25-inch well = 0.060 gal / ft



GROUNDWATER SAMPLING DATA COLLECTION FORM

Textron Groundwater Sampling
Wheatfield, New York
APTIM Project No. 631037017



MONITORING WELL ID: DW-11
Well Depth [ft-btoc]: _____
Depth to Water [ft-btoc]: 12.03
Well Casing Diameter [in]: 2.6
Start Time (purging): 1620

Sampling Date: 10/22/2024
Sampler(s): Kevin Cronin
Evan Schlegel
Sampling Device: Peristaltic Pump / Downhole pump
Purge Volume (if applicable): _____

FIELD PARAMETERS

Time [hh:mm]	pH [SU]	Temperature [°C]	Dissolved Oxygen [mg/L]	Redox Potential [mV]	Specific Conductance [mS/cm]	Turbidity [Ntu]	Depth To Water [ft-btoc]	Volume Purged [Gal]	Approximate Purge Rate [ml/min]
Stabilization Criteria	+/- 1%	+/-3%	+/-10%	+/-10mV	+/-3%	+/-10%			50 to 200 ml/min
1620	8.17	17.1	1.07	-284.1	10328	27.4	12.11	0.1	300
1625	7.77	16.7	-0.39	-318.3	10434	11.3	12.13	.3	300
1630	7.53	16.7	-0.62	-329.9	10439	9.51	12.20	.6	300
1635	7.36	16.7	-0.73	-344.7	10419	8.46	12.25	.9	300
1640	7.30	16.8	-0.77	-349.4	10446	8.68	12.32	1.2	250
1645	7.27	16.8	-0.79	-357.8	10466	8.64	12.37	1.5	250
1650	7.25	16.8	-0.80	-361.3	10446	8.60	12.39	1.8	250
1655	7.24	16.7	-0.81	-363	10332	10.5	12.39	2.1	250

Sample Time: 1700 Sample ID: DW-11

Analytes Sampled: VOCs TOC, Methano, Ethane, I:thene, Sulfate, Chloride QA/QC Sample: _____

PID (ppmv): 0.0 Odor: Y / N Water Color: CLEAR

Comments: _____

*Volume Factor: 2-inch well = 0.163 gal / ft; 1.5-inch well = 0.082 gal / ft; 1.25-inch well = 0.060 gal / ft



GROUNDWATER SAMPLING DATA COLLECTION FORM

Textron Groundwater Sampling

Wheatfield, New York

APTIM Project No. 631037017



MONITORING WELL ID: DW-12
 Well Depth [ft-btoc]: ~ 32.35
 Depth to Water [ft-btoc]: ~ 11.22
 Well Casing Diameter [in]: 24
 Start Time (purging): 1410

Sampling Date: 10/22/2024
 Sampler(s): Kevin Cronin ✓
Evan Schlegel
 Sampling Device: Peristaltic Pump / Downhole pump
 Purge Volume (if applicable): _____

FIELD PARAMETERS

Time [hh:mm]	pH [SU]	Temperature [°C]	Dissolved Oxygen [mg/L]	Redox Potential [mV]	Specific Conductance [mS/cm]	Turbidity [Ntu]	Depth To Water [ft-btoc]	Volume Purged [GAL]	Approximate Purge Rate [ml/min]
Stabilization Criteria	+/- 1%	+/- 3%	+/- 10%	+/- 10mV	+/- 3%	+/- 10%			50 to 200 ml/min
1414	8.71	18.6	5.43	-38.3	1.414	7.78	~11.29	< 0.1	
1420	8.53	18.5	5.29	-19.6	1.424	6.6	~11.34	~0.9	
1425	8.50	18.6	5.29	-10.9	1.424	7.33	~11.35	~1.3	
1430	8.53	18.7	5.28	-10.9	1.424	8.25	~11.35	~1.5	
1435	8.50	18.6	5.28	-7.6	1.429	5.44	~11.42	~1.7	

Sample Time: 1440 Sample ID: DW-12
 Analytes Sampled: VOCs TOC, Methane Ethane, Ethene Sulfate Chloride QA/QC Sample: _____

PID (ppmv): 0.0 Odor: Y / (N) Water Color: CLEAR

Comments: _____

*Volume Factor: 2-inch well = 0.163 gal / ft; 1.5-inch well = 0.082 gal / ft; 1.25-inch well = 0.060 gal / ft



GROUNDWATER SAMPLING DATA COLLECTION FORM

Textron Groundwater Sampling

Wheatfield, New York

APTIM Project No. 631037017



MONITORING WELL ID: EW-2
 Well Depth [ft-btoc]: NM
 Depth to Water [ft-btoc]: ~ 8.92
 Well Casing Diameter [in]: 2 4
 Start Time (purging): _____

Sampling Date: 10/22/2024
 Sampler(s): Kevin Cronin JOHN OSBORN
Evan Schlegel
 Sampling Device: Peristaltic Pump / Downhole pump
 Purge Volume (if applicable): _____

FIELD PARAMETERS

Time [hh:mm]	pH [SU]	Temperature [°C]	Dissolved Oxygen [mg/L]	Redox Potential [mV]	Specific Conductance [mS/cm]	Turbidity [Ntu]	Depth To Water [ft-btoc]	Volume Purged [GAL]	Approximate Purge Rate [ml/min]
Stabilization Criteria	+/- 1%	+/-3%	+/-10%	+/-10mV	+/-3%	+/-10%	/	/	50 to 200 ml/min
1050	6.70	15.8	3.38	265.8	2546	18.6	~ 9.40		
1057	7.08	14.7	2.59	357.7	2416	5.62	NM		

Sample Time: 1055 Sample ID: EW-2
 Analytes Sampled: VOCs TOC Methane Ethane Ethene Sulfate Chloride QA/QC Sample _____
 PID (ppmv): 0.0 Odor: Y / N Water Color: CLEAR

Comments: _____

*Volume Factor: 2-inch well = 0.163 gal / ft; 1.5-inch well = 0.082 gal / ft; 1.25-inch well = 0.060 gal / ft



GROUNDWATER SAMPLING DATA COLLECTION FORM

Textron Groundwater Sampling

Wheatfield, New York

APTIM Project No. 631037017



MONITORING WELL ID: EW-3
 Well Depth [ft-btoc]: NM
 Depth to Water [ft-btoc]: ~18.84'
 Well Casing Diameter [in]: 2 1/4
 Start Time (purging): 1105

Sampling Date: 10/22/2024
 Sampler(s): Kevin Cronin JOHN OSBORN
Evan Schlegel
 Sampling Device: Peristaltic Pump / Downhole pump
 Purge Volume (if applicable): _____

FIELD PARAMETERS

Time [hh:mm]	pH [SU]	Temperature [°C]	Dissolved Oxygen [mg/L]	Redox Potential [mV]	Specific Conductance [mS/cm]	Turbidity [Ntu]	Depth To Water [ft-btoc]	Volume Purged [GAL]	Approximate Purge Rate [ml/min]
Stabilization Criteria	+/- 1%	+/-3%	+/-10%	+/-10mV	+/-3%	+/-10%			50 to 200 ml/min
1108	7.05	14.6	2.34	-133.5	6382	0.46	NM		
1111	7.13	13.2	2.06	-163.8	6588	0.43	NM		

Sample Time: 1115 Sample ID: EW-3

Analytes Sampled: VOCs TOC Methane Ethane Ethene Sulfate Chloride QA/QC Sample: _____

PID (ppmv): 0.0 Odor: Y/N Water Color: CLEAR

Comments: _____

*Volume Factor: 2-inch well = 0.163 gal / ft; 1.5-inch well = 0.082 gal / ft; 1.25-inch well = 0.060 gal / ft



GROUNDWATER SAMPLING DATA COLLECTION FORM

Textron Groundwater Sampling

Wheatfield, New York

APTIM Project No. 631037017



MONITORING WELL ID: EW-4
 Well Depth [ft-btoc]: NM
 Depth to Water [ft-btoc]: 33.94
 Well Casing Diameter [in]: 4
 Start Time (purging): 1127

Sampling Date: 10/22/2024
 Sampler(s): Kevin Cronin JOHN OSBORNE
Evan Schlegel
 Sampling Device: Peristaltic Pump (Downhole pump)
 Purge Volume (if applicable): _____

FIELD PARAMETERS

Time [hh:mm]	pH [SU]	Temperature [°C]	Dissolved Oxygen [mg/L]	Redox Potential [mV]	Specific Conductance [mS/cm]	Turbidity [Ntu]	Depth To Water [ft-btoc]	Volume Purged [GAL]	Approximate Purge Rate [ml/min]
Stabilization Criteria	+/- 1%	+/-3%	+/-10%	+/-10mV	+/-3%	+/-10%			50 to 200 ml/min
11:30	7.32	14.6	7.76	-102.0	3847	6.90			
11:34	7.28	14.1	7.96	-95.3	3707	62.1			

Sample Time: 1135 Sample ID: EW-4
 Analytes Sampled: VOCs TOC Methane Ethane Ethene Sulfate Chloride QA/QC Sample MS/MSD
 PID (ppmv): 0.0 Odor: Y / N Water Color: CLEAR

Comments: _____

*Volume Factor: 2-inch well = 0.163 gal / ft; 1.5-inch well = 0.082 gal / ft; 1.25-inch well = 0.060 gal / ft



GROUNDWATER SAMPLING DATA COLLECTION FORM

Textron Groundwater Sampling

Wheatfield, New York

APTIM Project No. 631037017



MONITORING WELL ID: EW-5

Sampling Date: 10/22/2024

Well Depth [ft-btoc]: NM

Sampler(s): Kevin Cronin John OSBORNE

Depth to Water [ft-btoc]: ~ 9.68

Evan Schlegel

Well Casing Diameter [in]: 24

Sampling Device: Peristaltic Pump / Downhole pump

Start Time (purging): 1145

Purge Volume (if applicable): _____

FIELD PARAMETERS

Time [hh:mm]	pH [SU]	Temperature [°C]	Dissolved Oxygen [mg/L]	Redox Potential [mV]	Specific Conductance [mS/cm]	Turbidity [Ntu]	Depth To Water [ft-btoc]	Volume Purged [GAC]	Approximate Purge Rate [ml/min]
Stabilization Criteria	+/- 1%	+/-3%	+/-10%	+/-10mV	+/-3%	+/-10%			50 to 200 ml/min
1148	6.93	14.4	2.54	32.6	4558	5.39			
1152	7.05	11.5	2.61	-33.8	4791	2.87			

Sample Time: 1150

Sample ID: EW-5

Analytes Sampled: VOCs TOC Methane Ethane Ethene Sulfate Chloride QA/QC Sample _____

PID (ppmv): _____ Odor: Y / N Water Color: _____

Comments: _____

*Volume Factor: 2-inch well = 0.163 gal / ft; 1.5-inch well = 0.082 gal / ft; 1.25-inch well = 0.060 gal / ft



GROUNDWATER SAMPLING DATA COLLECTION FORM

Textron Groundwater Sampling

Wheatfield, New York

APTIM Project No. 631037017



MONITORING WELL ID: EW-6

Sampling Date: 10/22/2024

Well Depth [ft-btoc]: 9

Sampler(s): Kevin Cronin

Depth to Water [ft-btoc]: 9.43

Evan Schlegel ✓

Well Casing Diameter [in]: 2

Sampling Device: Peristaltic Pump / Downhole pump

Start Time (purging): 1305

Purge Volume (if applicable): _____

FIELD PARAMETERS

Time [hh:mm]	pH [SU]	Temperature [°C]	Dissolved Oxygen [mg/L]	Redox Potential [mV]	Specific Conductance [mS/cm]	Turbidity [Ntu]	Depth To Water [ft-btoc]	Volume Purged [GAL]	Approximate Purge Rate [ml/min]
Stabilization Criteria	+/- 1%	+/-3%	+/-10%	+/-10mV	+/-3%	+/-10%	/	/	50 to 200 ml/min
1310	9.35	18.7	3.19	339.6	3105	12.8	-	-	-
1315	9.41	15.0	1.40	-151.8	2593	72.3			

Sample Time: 1320

Sample ID: EW-6

Analytes Sampled: VOCs TOC Methane Ethane Ethene Sulfate Chloride QA/QC Sample: _____

PID (ppmv): _____ Odor: Y / N Water Color: _____

Comments: _____

*Volume Factor: 2-inch well = 0.163 gal / ft; 1.5-inch well = 0.082 gal / ft; 1.25-inch well = 0.060 gal / ft



GROUNDWATER SAMPLING DATA COLLECTION FORM

Textron Groundwater Sampling

Wheatfield, New York

APTIM Project No. 631037017



MONITORING WELL ID: EW-7
 Well Depth [ft-btoc]: ~34.40
 Depth to Water [ft-btoc]: ~19.03
 Well Casing Diameter [in]: 2
 Start Time (purging): 1535

Sampling Date: 10/23/2024
 Sampler(s): Kevin Cronin
Evan Schlegel
 Sampling Device: Peristaltic Pump / Downhole pump
 Purge Volume (if applicable): _____

FIELD PARAMETERS

Time [hh:mm]	pH [SU]	Temperature [°C]	Dissolved Oxygen [mg/L]	Redox Potential [mV]	Specific Conductance [mS/cm]	Turbidity [Ntu]	Depth To Water [ft-btoc]	Volume Purged [GAL]	Approximate Purge Rate [ml/min]
Stabilization Criteria	+/- 1%	+/- 3%	+/- 10%	+/- 10mV	+/- 3%	+/- 10%			50 to 200 ml/min
1538	8.36	21.1	5.19	-86.8	3389	2.09	~19.03	<0.1	
1545	8.24	21.0	4.90	-72.4	3378	1.45	~19.02	~0.2	
1555	8.26	20.9	4.90	-66.3	3372	1.01	~19.03	~0.4	
1600	8.25	21.0	4.95	-61.4	3366	0.97	~19.02	~0.6	

Sample Time: 1605 Sample ID: EW-7
 Analytes Sampled: VOCs TOC, Methane, Ethane, Ethene, Sulfate, Chloride QA/QC Sample _____
 PID (ppmv): 0.0 Odor: Y / N Water Color: CLEAR

Comments: OBSERVE WATER COMING IN CASING @ ~19 BELOW MP
THINK THIS IS UPHOLE SURFACE WATER (IE TEMP

*Volume Factor: 2-inch well = 0.163 gal / ft; 1.5-inch well = 0.082 gal / ft; 1.25-inch well = 0.060 gal / ft



GROUNDWATER SAMPLING DATA COLLECTION FORM

Textron Groundwater Sampling

Wheatfield, New York

APTIM Project No. 631037017



MONITORING WELL ID: EW-8
 Well Depth [ft-btoc]: ~ 28.25
 Depth to Water [ft-btoc]: ~ 10.69 BTDC - GRATE
 Well Casing Diameter [in]: 24
 Start Time (purging): 0913

Sampling Date: 10/24/2024
 Sampler(s): Kevin Cronin
Evan Schlegel
 Sampling Device: Peristaltic Pump / Downhole pump
 Purge Volume (if applicable): _____

FIELD PARAMETERS

Time [hh:mm]	pH [SU]	Temperature [°C]	Dissolved Oxygen [mg/L]	Redox Potential [mV]	Specific Conductance [mS/cm]	Turbidity [Ntu]	Depth To Water [ft-btoc]	Volume Purged [GAL]	Approximate Purge Rate [ml/min]
Stabilization Criteria	+/- 1%	+/- 3%	+/- 10%	+/- 10mV	+/- 3%	+/- 10%			50 to 200 ml/min
0915	6.97	14.5	3.85	-320.7	6.250	9.15	~10.72	<0.1	
0925	6.72	14.9	0.87	-388.3	6.469	3.12	~10.70	~0.3	
0935	6.72	14.9	0.79	-391.3	6.440	1.56	~10.72	~0.7	
0940	6.71	14.8	0.76	-393.7	6.437	2.42	~10.71	~1.1	

Sample Time: 0940 Sample ID: EW-8
 Analytes Sampled: VOCs TOC Methane, Ethane, Ethene, Sulfate, Chloride QA/QC Sample _____
 PID (ppmv): 0.0 Odor: Y / N Water Color: CLEAR

Comments: _____

*Volume Factor: 2-inch well = 0.163 gal / ft; 1.5-inch well = 0.082 gal / ft; 1.25-inch well = 0.060 gal / ft



GROUNDWATER SAMPLING DATA COLLECTION FORM

Textron Groundwater Sampling

Wheatfield, New York

APTIM Project No. 631037017



MONITORING WELL ID: EW-13

Well Depth [ft-btoc]: _____

Depth to Water [ft-btoc]: 15.80

Well Casing Diameter [in]: 2

Start Time (purging): 1529

Sampling Date: 10/23/2024

Sampler(s): Kevin Cronin

Evan Schlegel ✓

Sampling Device: Peristaltic Pump / Downhole pump

Purge Volume (if applicable): _____

FIELD PARAMETERS

Time [hh:mm]	pH [SU]	Temperature [°C]	Dissolved Oxygen [mg/L]	Redox Potential [mV]	Specific Conductance [mS/cm]	Turbidity [Ntu]	Depth To Water [ft-btoc]	Volume Purged [Gal.]	Approximate Purge Rate [ml/min]
Stabilization Criteria	+/- 1%	+/-3%	+/-10%	+/-10mV	+/-3%	+/-10%	/	/	50 to 200 ml/min
1530	8.00	16.0	0.82	-328.8	6.186	2.59	15.80	0.05	150
1535	7.24	16.1	-0.62	-349.5	6.137	2.19	15.80	0.2	150
1540	7.18	16.1	-0.72	-353.8	6.128	1.01	15.80	0.4	150
1545	7.13	16.0	-0.77	-352.1	6.144	1.54	15.80	0.6	150
1550	7.10	16.1	-0.80	-358.2	6.091	3.34	15.80	0.8	150
1555	7.09	16.1	-0.81	-358.4	6.101	3.34	15.80	1.0	150
1600	7.08	16.2	-0.82	-359.3	6.092	2.95	15.80	1.2	150

Sample Time: 1605 Sample ID: EW-13

Analytes Sampled: X VOCs TOC, Methane, Ethane, Ethene, Sulfate, Chloride QA/QC Sample: _____

PID (ppmv): _____ Odor: Y / N Water Color: Clear

Comments: _____

*Volume Factor: 2-inch well = 0.163 gal / ft; 1.5-inch well = 0.082 gal / ft; 1.25-inch well = 0.060 gal / ft



GROUNDWATER SAMPLING DATA COLLECTION FORM

Textron Groundwater Sampling

Wheatfield, New York

APTIM Project No. 631037017



MONITORING WELL ID: MW-17-01(1) Sampling Date: 10/24/2024
 Well Depth [ft-btoc]: _____ Sampler(s): Kevin Cronin
 Depth to Water [ft-btoc]: NA - Injection Point Evan Schlegel ✓
 Well Casing Diameter [in]: 2 Sampling Device: Peristaltic Pump / Downhole pump
 Start Time (purging): 5:06 Purge Volume (if applicable): _____

FIELD PARAMETERS

Time [hh:mm]	pH [SU]	Temperature [°C]	Dissolved Oxygen [mg/L]	Redox Potential [mV]	Specific Conductance [mS/cm]	Turbidity [Ntu]	Depth To Water [ft-btoc]	Volume Purged [Gal]	Approximate Purge Rate [ml/min]
Stabilization Criteria	+/- 1%	+/-3%	+/-10%	+/-10mV	+/-3%	+/-10%			50 to 200 ml/min
0908	6.18	14.3	-0.37	-392.0	1014.1	10.8	-	0.02	225
0915	6.25	14.2	-0.52	-433.7	926.1	8.27	-	0.2	225
0920	6.24	14.3	-0.44	-442.8	951.0	6.16	-	0.4	225
0925	6.18	14.3	-0.39	-446.9	990.6	2.37	-	0.6	225
0930	6.17	14.1	-0.39	-448.5	1039.9	8.81	-	0.8	225
0935	6.11	14.1	-0.39	-447.9	1090.4	14.6	-	1.0	225
0940	6.08	14.0	-0.40	-447.7	1121.3	6.72	-	1.2	225
0945	6.05	13.9	-0.41	-475.9	1134.8	8.45	-	1.4	225

Sample Time: 0945 Sample ID: 17-01(1)
 Analytes Sampled: VOCs TOC, Methane, Ethane, Ethene, Sulfate, Chloride QA/QC Sample: _____

PID (ppmv): _____ Odor: Y / N Water Color: _____

Comments: _____

*Volume Factor: 2-inch well = 0.163 gal / ft; 1.5-inch well = 0.082 gal / ft; 1.25-inch well = 0.060 gal / ft



GROUNDWATER SAMPLING DATA COLLECTION FORM

Textron Groundwater Sampling

Wheatfield, New York

APTIM Project No. 631037017



MONITORING WELL ID: MW 17-04(1)

Sampling Date: 10/24/2024

Well Depth [ft-btoc]: _____

Sampler(s): Kevin Cronin

Depth to Water [ft-btoc]: 11.07

Evan Schlegel John Osborn ✓

Well Casing Diameter [in]: 2

Sampling Device: Peristaltic Pump / Downhole pump

Start Time (purging): 1128

Purge Volume (if applicable): _____

FIELD PARAMETERS

Time [hh:mm]	pH [SU]	Temperature [°C]	Dissolved Oxygen [mg/L]	Redox Potential [mV]	Specific Conductance [mS/cm]	Turbidity [Ntu]	Depth To Water [ft-btoc]	Volume Purged [Gal]	Approximate Purge Rate [ml/min]
Stabilization Criteria	+/- 1%	+/-3%	+/-10%	+/-10mV	+/-3%	+/-10%			50 to 200 ml/min
1130	7.76	14.2	-0.58	-352.4	18395	90.5	12.19	0.02	220
1135	7.78	14.4	-0.87	-360.7	18434	8.90	14.04	.2	220
1140	7.75	14.1	-0.88	-362.0	18374	8.87	14.87	.4	90
1145	7.68	14.5	-0.88	-364.8	17667	13.5	15.92	.6	90
1148	7.58	14.4	-0.89	-364.6	17466	13.4	16.10	.7	90
1151	7.33	14.4	-0.89	-364.1	17136	14.4	16.52	.8	90
1156	6.94	14.4	-0.89	-360.7	16843	19.9	17.23	1.0	90
1159	6.83	14.2	-0.90	-360.0	16672	16.5	17.61	1.2	90
1202	6.73	14.1	-0.91	-359.4	16645	13.9	18.05	1.4	90
1205	6.65	14.2	-0.90	-358.6	16516	11.7	18.47	1.6	90
1208	6.57	14.3	-0.90	-358.3	16478	12.2	18.73	1.8	90
1211	6.41	14.2	-0.90	-357.9	16454	10.9	19.12	1.9	90

Sample Time: 1220

Sample ID: 17-04(1)

OVER

Analytes Sampled: VOCs TOC Methane Ethane Ethene Sulfate Chloride QA/QC Sample: _____

PID (ppmv): _____ Odor: (Y) N Water Color: _____

Comments: _____

*Volume Factor: 2-inch well = 0.163 gal / ft; 1.5-inch well = 0.082 gal / ft; 1.25-inch well = 0.060 gal / ft



GROUNDWATER SAMPLING DATA COLLECTION FORM

Textron Groundwater Sampling
Wheatfield, New York
APTIM Project No. 631037017



MONITORING WELL ID: MW-19-01(i)
Well Depth [ft-btoc]: ~33.31
Depth to Water [ft-btoc]: ~14.72
Well Casing Diameter [in]: 2
Start Time (purging): 0855

Sampling Date: 10/25/2024
Sampler(s): Kevin Cronin
Evan Schlegel
Sampling Device: Peristaltic Pump / Downhole pump
Purge Volume (if applicable): _____

FIELD PARAMETERS

Time [hh:mm]	pH [SU]	Temperature [°C]	Dissolved Oxygen [mg/L]	Redox Potential [mV]	Specific Conductance [mS/cm]	Turbidity [Ntu]	Depth To Water [ft-btoc]	Volume Purged [GAL]	Approximate Purge Rate [ml/min]
Stabilization Criteria	+/- 1%	+/-3%	+/-10%	+/-10mV	+/-3%	+/-10%			50 to 200 ml/min
0856	7.80	12.7	2.50	-305.4	13.308	57.3	~15.81	<0.1	
0905	8.44	12.7	0.87	-439.2	13.475	49.4	~17.60	~0.3	
0915	8.42	12.9	0.79	-419.5	13.380	81.0	~20.28	~0.8	
0920	8.37	12.9	0.78	-413.5	13.397	84.3	~21.25	~1.0	
0925	8.34	13.0	0.77	-410.4	13.372	86.5	~21.75	~1.1	
0930 1415	8.34	13.1	0.76	-412.4	13.421	88.0	~22.64 ~21.44	~1.3	

Flow
↓

Sample Time: 1420 Sample ID: 19-01(i)

Analytes Sampled: VOCs TOC Methane Ethane Ethene Sulfate Chloride QA/QC Sample

PID (ppmv): 3.6 Odor: Y / N Water Color: DK GRAYISH

Comments: VF BLACK FLECKS OBSERVED. ∇ DRAWS DOWN. PUMP UNTIL WL NEARS TOP OF SCREEN THEN SHUT OFF TO RECOVER AND SAMPLE. SHUT DOWN @ 0935 TO RECOVER (∇ @ ~23.2' BTOC)

*Volume Factor: 2-inch well = 0.163 gal / ft; 1.5-inch well = 0.082 gal / ft; 1.25-inch well = 0.060 gal / ft



GROUNDWATER SAMPLING DATA COLLECTION FORM

Textron Groundwater Sampling
Wheatfield, New York
APTIM Project No. 631037017



MONITORING WELL ID: MW 86-23(B)
Well Depth [ft-btoc]: HISTORIC: ~24.92
Depth to Water [ft-btoc]: ?
Well Casing Diameter [in]: 2.1
Start Time (purging): 0930

Sampling Date: 10/22/2024
Sampler(s): Kevin Cronin, JOHN OSBORN, Evan Schlegel
Sampling Device: Peristaltic Pump / Downhole pump
Purge Volume (if applicable):

FIELD PARAMETERS

Table with 10 columns: Time, pH, Temperature, Dissolved Oxygen, Redox Potential, Specific Conductance, Turbidity, Depth To Water, Volume Purged, Approximate Purge Rate. Contains 7 rows of handwritten data.

Sample Time: 1005 Sample ID: 86-23(B)
Analytes Sampled: X VOCs
PID (ppmv): 0.0 Odor: Y / (N) Water Color: CLEAR

Comments: COULD NOT GET PAST ~9.95' BTCC W/ NARROW WL METER PROBE - NO WLS RECORDED.

*Volume Factor: 2-inch well = 0.163 gal / ft. 1.5-inch well = 0.082 gal / ft. 1.25-inch well = 0.060 gal / ft



GROUNDWATER SAMPLING DATA COLLECTION FORM

Textron Groundwater Sampling

Wheatfield, New York

APTIM Project No. 631037017



MONITORING WELL ID: MW 87-01(1)
 Well Depth [ft-btoc]: ~ 33.23
 Depth to Water [ft-btoc]: ~ 17.92
 Well Casing Diameter [in]: 2
 Start Time (purging): 1627

Sampling Date: 10/22/2024
 Sampler(s): Kevin Cronin
Evan Schlegel
 Sampling Device: Peristaltic Pump / Downhole pump
 Purge Volume (if applicable): _____

FIELD PARAMETERS

Time [hh:mm]	pH [SU]	Temperature [°C]	Dissolved Oxygen [mg/L]	Redox Potential [mV]	Specific Conductance [mS/cm]	Turbidity [Ntu]	Depth To Water [ft-btoc]	Volume Purged [GAL]	Approximate Purge Rate [ml/min]
Stabilization Criteria	+/- 1%	+/-3%	+/-10%	+/-10mV	+/-3%	+/-10%			50 to 200 ml/min
1629	7.62	19.1	1.42	-356.8	7.294	5.36	~17.97	<0.1	
1640	6.91	18.1	0.72	-410.4	7.149	5.45	~17.95	~0.3	
1645	6.89	18.0	0.69	-411.4	7.073	9.33	~17.93	~0.8	
1655	6.89	18.1	0.65	-413.3	6.827	5.81	~17.94	~1.1	
1700	6.89	17.9	0.64	-413.2	6.736	1.62	~17.94	~1.5	

Sample Time: 1705 Sample ID: 87-01(1)
 Analytes Sampled: VOCs TOC Methane Ethane Ethene Sulfate Chloride QA/QC Sample _____
 PID (ppmv): 0.0 Odor: Y / N Water Color: CLEAR

Comments: _____

*Volume Factor: 2-inch well = 0.163 gal / ft; 1.5-inch well = 0.082 gal / ft; 1.25-inch well = 0.060 gal / ft



GROUNDWATER SAMPLING DATA COLLECTION FORM

Textron Groundwater Sampling

Wheatfield, New York

APTIM Project No. 631037017



MONITORING WELL ID: MW 87-02(1)

Sampling Date: 10/23/2024

Well Depth [ft-btoc]: _____

Sampler(s): Kevin Cronin

Depth to Water [ft-btoc]: 16.04

Evan Schlegel ✓

Well Casing Diameter [in]: 2

Sampling Device: Peristaltic Pump / Downhole pump

Start Time (purging): 1405

Purge Volume (if applicable): _____

FIELD PARAMETERS

Time [hh:mm]	pH [SU]	Temperature [°C]	Dissolved Oxygen [mg/L]	Redox Potential [mV]	Specific Conductance [mS/cm]	Turbidity [Ntu]	Depth To Water [ft-btoc]	Volume Purged [Gal]	Approximate Purge Rate [ml/min]
Stabilization Criteria	+/- 1%	+/-3%	+/-10%	+/-10mV	+/-3%	+/-10%	/	/	50 to 200 ml/min
1405	8.04	16.1	1.14	-98.2	4.490	2.35	17.52	0.05	500
1410	7.29	16.3	-0.23	-127.8	5.179	1.71	17.57	0.4	125
1415	7.12	16.3	-0.47	-230.3	5.494	1.09	17.55	0.6	125
1420	7.11	16.2	-0.60	-261.3	5.500	1.28	17.55	0.8	125
1425	7.10	16.2	-0.67	-278.2	5.488	1.90	17.55	1.0	125
1430	7.08	16.2	-0.71	-291.5	5.464	1.31	17.51	1.2	125
1435	7.08	16.2	-0.73	-296.8	5.446	1.23	17.50	1.4	125

Sample Time: 1440

Sample ID: 87-02(1)

Analytes Sampled: VOCs TOC, Methane Ethane, Ethene, Sulfate Chloride QA/QC Sample: _____

PID (ppmv): 0.0 Odor: Y / N Water Color: _____

Comments: _____

*Volume Factor: 2-inch well = 0.163 gal / ft; 1.5-inch well = 0.082 gal / ft; 1.25-inch well = 0.060 gal / ft





GROUNDWATER SAMPLING DATA COLLECTION FORM

Textron Groundwater Sampling
Wheatfield, New York
APTIM Project No. 631037017



MONITORING WELL ID: MW 87-02(3)

Sampling Date: 10/23/2024

Well Depth [ft-btoc]: _____

Sampler(s): Kevin Cronin

Depth to Water [ft-btoc]: 13.18

Evan Schlegel ✓

Well Casing Diameter [in]: 2

Sampling Device: Peristaltic Pump / Downhole pump

Start Time (purging): 1442

Purge Volume (if applicable): _____

FIELD PARAMETERS

Time [hh:mm]	pH [SU]	Temperature [°C]	Dissolved Oxygen [mg/L]	Redox Potential [mV]	Specific Conductance [mS/cm]	Turbidity [Ntu]	Depth To Water [ft-btoc]	Volume Purged [Gal.]	Approximate Purge Rate [ml/min]
Stabilization Criteria	+/- 1%	+/-3%	+/-10%	+/-10mV	+/-3%	+/-10%	/	/	50 to 200 ml/min
1445	8.47	16.4	-0.33	-437.8	10.212	4.02	14.35	0.1	220
1450	8.54	16.5	-0.76	-468.3	10.233	3.52	16.08	0.2	220
1455	8.55	16.5	-0.81	-470.8	10.231	3.88	16.73	0.5	175
1500	8.56	16.5	-0.82	-479.9	10.227	4.11	16.90	0.6	140
1505	8.58	16.4	-0.84	-482.2	10.225	2.67	17.16	0.7	140
1510	8.59	16.4	-0.85	-485.1	10.222	2.36	17.30	0.8	140

Sample Time: 1515

Sample ID: 87-02(3)

Analytes Sampled: VOCs TOC Methane Ethane Ethene Sulfate Chloride QA/QC Sample: _____

PID (ppmv): 0.0 Odor: Y / N Water Color: _____

Comments: _____

*Volume Factor: 2-inch well = 0.163 gal / ft; 1.5-inch well = 0.082 gal / ft; 1.25-inch well = 0.060 gal / ft



GROUNDWATER SAMPLING DATA COLLECTION FORM

Textron Groundwater Sampling
Wheatfield, New York
APTIM Project No. 631037017



MONITORING WELL ID: MW 87-04(1)
Well Depth [ft-btoc]:
Depth to Water [ft-btoc]: NA Probe Sticking in Well
Well Casing Diameter [in]: 2
Start Time (purging): 1033
Sampling Date: 10/24/2024
Sampler(s): Kevin Cronin
Evan Schlegel JOHN OSBORN
Sampling Device: Peristaltic Pump / Downhole pump
Purge Volume (if applicable):

FIELD PARAMETERS

Table with 10 columns: Time, pH, Temperature, Dissolved Oxygen, Redox Potential, Specific Conductance, Turbidity, Depth To Water, Volume Purged, Approximate Purge Rate. Contains 8 rows of handwritten data.

Sample Time: 1115
Sample ID: 87-04(1)
Analytes Sampled: X VOCs X TOC Methane Ethane Ethene Sulfate Chloride
QA/QC Sample:

PID (ppmv):
Odor: Y / N
Water Color:

Comments:

*Volume Factor: 2-inch well = 0.163 gal / ft; 1.5-inch well = 0.082 gal / ft; 1.25-inch well = 0.060 gal / ft



GROUNDWATER SAMPLING DATA COLLECTION FORM

Textron Groundwater Sampling
Wheatfield, New York
APTIM Project No. 631037017



MONITORING WELL ID: MW 87-08(1)
Well Depth [ft-btoc]: KC ~ 22.28 ~ 22.69
Depth to Water [ft-btoc]: ~ 13.89
Well Casing Diameter [in]: 2
Start Time (purging): 1305

Sampling Date: 10/24/2024
Sampler(s): Kevin Cronin
Evan Schlegel
Sampling Device: Peristaltic Pump / Downhole pump
Purge Volume (if applicable): _____

FIELD PARAMETERS

Time [hh:mm]	pH [SU]	Temperature [°C]	Dissolved Oxygen [mg/L]	Redox Potential [mV]	Specific Conductance [mS/cm]	Turbidity [Ntu]	Depth To Water [ft-btoc]	Volume Purged [GAL]	Approximate Purge Rate [ml/min]
Stabilization Criteria	+/- 1%	+/-3%	+/-10%	+/-10mV	+/-3%	+/-10%			50 to 200 ml/min
1305	7.66	13.2	3.06	-163.9	2.653	5.50	~13.72	<0.1	
1315	7.28	12.8	0.93	-215.0	2.581	7.43	~13.69	~0.5	
1320	7.21	12.7	0.88	-215.4	2.726	3.14	~13.68	~0.8	
1330	7.18	12.7	0.83	-225.9	2.776	2.61	~13.68	~1.0	
1335	7.17	12.8	0.81	-235.1	2.778	1.75	~13.68	~1.3	
1340	7.17	12.7	0.80	-241.6	2.793	1.11	~13.68	~1.6	

Sample Time 1345 Sample ID 87-08(1)
Analytes Sampled: VOCs TOC Methane Ethane Ethene Sulfate Chloride QA/QC Sample _____
PID (ppmv): 0.0 Odor: Y/N Water Color: CLEAR

Comments: _____

*Volume Factor: 2-inch well = 0.163 gal / ft; 1.5-inch well = 0.082 gal / ft; 1.25-inch well = 0.060 gal / ft



GROUNDWATER SAMPLING DATA COLLECTION FORM

Textron Groundwater Sampling

Wheatfield, New York

APTIM Project No. 631037017



MONITORING WELL ID: MW 87-10(0)

Sampling Date: 10/22/2024

Well Depth [ft-btoc]: _____

Sampler(s): Kevin Cronin

Depth to Water [ft-btoc]: 13.05

Evan Schlegel John OSBORN ✓

Well Casing Diameter [in]: 2

Sampling Device: Peristaltic Pump / Downhole pump

Start Time (purging): 1435

Purge Volume (if applicable): _____

FIELD PARAMETERS

Time [hh:mm]	pH [SU]	Temperature [°C]	Dissolved Oxygen [mg/L]	Redox Potential [mV]	Specific Conductance [mS/cm]	Turbidity [Ntu]	Depth To Water [ft-btoc]	Volume Purged [Gal]	Approximate Purge Rate [ml/min]
Stabilization Criteria	+/- 1%	+/-3%	+/-10%	+/-10mV	+/-3%	+/-10%			50 to 200 ml/min
1435	7.58	17.1	5.11	-109.1	2719	0R	13.05	2.1	300
1446	7.45	17.0	5.26	-106.0	2104	836	13.15	.2	300
1449	7.45	16.9	5.56	-95.3	1933	156	13.15	.4	300
1450	7.45	16.8	5.59	-70.4	1904	21.6	13.15	.6	300
1455	7.42	17.0	5.56	-52.8	1902	6.87	13.15	.8	300
1500	7.41	17.0	5.56	-38.1	1902	3.01	13.16	1.0	300
1505	7.39	17.0	5.56	-21.8	1902	1.89	13.16	1.2	300
1510	7.38	17.0	5.55	-11.8	1900	6.43	13.16	1.4	300

Sample Time: 1515

Sample ID: 87-10(0)

Analytes Sampled: VOCs TOC Methane Ethane Ethene Sulfate Chloride QA/QC Sample: _____

PID (ppmv): _____ Odor: Y / N Water Color: _____

Comments: _____

*Volume Factor: 2-inch well = 0.163 gal / ft; 1.5-inch well = 0.082 gal / ft; 1.25-inch well = 0.060 gal / ft



GROUNDWATER SAMPLING DATA COLLECTION FORM

Textron Groundwater Sampling

Wheatfield, New York

APTIM Project No. 631037017



MONITORING WELL ID: MW 87-10(1)

Sampling Date: 10/22/2024

Well Depth [ft-btoc]: _____

Sampler(s): Kevin Cronin

Depth to Water [ft-btoc]: 16.85

Evan Schlegel JOHN OSBORN

Well Casing Diameter [in]: 2

Sampling Device: Peristaltic Pump / Downhole pump

Start Time (purging): 1520

Purge Volume (if applicable): _____

FIELD PARAMETERS

Time [hh:mm]	pH [SU]	Temperature [°C]	Dissolved Oxygen [mg/L]	Redox Potential [mV]	Specific Conductance [mS/cm]	Turbidity [Ntu]	Depth To Water [ft-btoc]	Volume Purged [Gal]	Approximate Purge Rate [ml/min]
Stabilization Criteria	+/- 1%	+/-3%	+/-10%	+/-10mV	+/-3%	+/-10%			50 to 200 ml/min
1520	7.51	17.1	0.95	-267.0	6060	1.31	16.91	2.1	300
1525	7.56	16.7	-0.58	-349.7	6069	17.1	16.90	.4	300
1530	7.56	16.6	-0.70	-366.6	6069	6.36	16.92	.7	300
1535	7.56	16.5	-0.78	-380.5	6058	2.01	16.91	1.0	300
1546	7.55	16.4	-0.80	-386.1	6058	1.77	16.91	1.3	300
1545	7.55	16.3	-0.83	-393.5	6051	1.02	16.92	1.6	300
1550	7.56	16.2	-0.84	-399.2	6139	1.07	16.91	1.9	300
1555	7.17	16.2	-0.85	-388.7	6397	0.71	16.92	2.2	300
1600	7.15	16.2	-0.82	-382.7	6387	0.52	16.92	2.5	300
1605	7.12	16.2	-0.86	-382.1	6374	0.61	16.91	2.8	300

Sample Time: 1616

Sample ID: 87-10(1)

Analytes Sampled: VOCs TOC Methane Ethane Ethene Sulfate Chloride Q/QC Sample: _____

PID (ppmv): _____ Odor: Y / N Water Color: _____

Comments: _____

*Volume Factor: 2-inch well = 0.163 gal / ft; 1.5-inch well = 0.082 gal / ft; 1.25-inch well = 0.060 gal / ft



GROUNDWATER SAMPLING DATA COLLECTION FORM

Textron Groundwater Sampling
Wheatfield, New York
APTIM Project No. 631037017



MONITORING WELL ID: MW 87-13(i)
Well Depth [ft-btoc]: _____
Depth to Water [ft-btoc]: 14.47
Well Casing Diameter [in]: 2
Start Time (purging): 1045

Sampling Date: 10/25/2024
Sampler(s): Kevin Cronin
Evan Schlegel John Osborn ✓
Sampling Device: Peristaltic Pump / Downhole pump
Purge Volume (if applicable): _____

FIELD PARAMETERS

Time [hh:mm]	pH [SU]	Temperature [°C]	Dissolved Oxygen [mg/L]	Redox Potential [mV]	Specific Conductance [mS/cm]	Turbidity [Ntu]	Depth To Water [ft-btoc]	Volume Purged [GAL]	Approximate Purge Rate [ml/min]
Stabilization Criteria	+/- 1%	+/-3%	+/-10%	+/-10mV	+/-3%	+/-10%			50 to 200 ml/min
1045	7.73	14.1	2.50	-111.4	2084	20.4	15.16	.01	200
1050	8.24	14.2	-0.06	-46.7	2098	20.6	15.48	.2	200
1055	8.25	14.1	-0.60	-184.3	2104	23.3	15.69	.4	180
1100	7.93	14.1	-0.76	-217.4	2108	25.4	15.85	.6	180
1105	7.90	14.3	-0.81	-231.0	2106	25.2	15.93	.8	180
1110	7.88	14.2	-0.83	-224.5	2092	24.7	16.03	1.0	180
1115	7.93	14.8	-0.85	-242.3	2060	24.7	16.29	1.2	180

Sample Time: 1126 Sample ID: 87-13(i)
Analytes Sampled: VOCs TOC Methane Ethane Ethene Sulfate Chloride QA/QC Sample _____

PID (ppmv): 0.1 Odor: Y N Water Color: Clear w/ black solids

Comments: _____

*Volume Factor: 2-inch well = 0.163 gal / ft; 1.5-inch well = 0.082 gal / ft; 1.25-inch well = 0.060 gal / ft



GROUNDWATER SAMPLING DATA COLLECTION FORM

Textron Groundwater Sampling
Wheatfield, New York

APTIM Project No. 631037017



MONITORING WELL ID: MW 87-13(3)

Sampling Date: 10/25/2024

Well Depth [ft-btoc]: _____

Sampler(s): Kevin Cronin

Depth to Water [ft-btoc]: 13.27

Evan Schlegel John Osborn

Well Casing Diameter [in]: 2

Sampling Device: Peristaltic Pump / Downhole pump

Start Time (purging): 1235

Purge Volume (if applicable): _____

FIELD PARAMETERS

Time [hh:mm]	pH [SU]	Temperature [°C]	Dissolved Oxygen [mg/L]	Redox Potential [mV]	Specific Conductance [mS/cm]	Turbidity [Ntu]	Depth To Water [ft-btoc]	Volume Purged [GAL]	Approximate Purge Rate [ml/min]
Stabilization Criteria	+/- 1%	+/-3%	+/-10%	+/-10mV	+/-3%	+/-10%			50 to 200 ml/min
1235	6.85	14.9	1.15	-61.2	2776	6.39	13.85	.01	200
1240	6.82	14.6	-0.66	-97.2	2727	3.86	14.40	.2	200
1245	6.82	14.5	-0.79	-108.8	2727	4.27	14.62	.4	200
1250	6.82	14.4	-0.83	-115.9	2721	3.59	14.76	.6	200
1255	6.82	14.4	-0.85	-121.2	2720	3.03	14.82	.8	200
1300	6.82	14.3	-0.87	-124.9	2719	2.90	14.84	1.0	200
1305	6.81	14.2	-0.88	-128.9	2719	2.72	14.72	1.2	200

Sample Time: 1310

Sample ID: 87-13(3)

Analytes Sampled: VOCs TOC Methane Ethane Ethene Sulfate Chloride Q/QC Sample: _____

PID (ppmv): 2

Odor: (N)

Water Color: Clear

Comments: Tubing momentarily disconnected from YSI

*Volume Factor: 2-inch well = 0.163 gal / ft; 1.5-inch well = 0.082 gal / ft; 1.25-inch well = 0.060 gal / ft



GROUNDWATER SAMPLING DATA COLLECTION FORM

Textron Groundwater Sampling

Wheatfield, New York

APTIM Project No. 631037017



MONITORING WELL ID: MW 87-14(0)

Sampling Date: 10/23/2024

Well Depth [ft-btoc]: ~16.60

Sampler(s): Kevin Cronin

Depth to Water [ft-btoc]: ~11.51

Evan Schlegel

Well Casing Diameter [in]: 2

Sampling Device: Peristaltic Pump / Downhole pump

Start Time (purging): 1605

Purge Volume (if applicable): _____

FIELD PARAMETERS

Time [hh:mm]	pH [SU]	Temperature [°C]	Dissolved Oxygen [mg/L]	Redox Potential [mV]	Specific Conductance [mS/cm]	Turbidity [Ntu]	Depth To Water [ft-btoc]	Volume Purged [GAL]	Approximate Purge Rate [ml/min]
Stabilization Criteria	+/- 1%	+/-3%	+/-10%	+/-10mV	+/-3%	+/-10%			50 to 200 ml/min
1106	7.42	13.8	2.03	-183.6	2.399	58.7	~16.79	<0.1	
1115	7.25	13.8	1.11	-134.5	2.161	8.07	~12.38	~0.3	
1125	7.17	13.8	0.94	-134.7	2.198	1.28	~12.69	~0.8	
1130	7.15	13.8	1.02	-133.0	2.199	1.89	~12.90	~1.2	
1135	7.12	13.7	0.91	-126.3	2.224	1.96	~13.37	~1.5	
1140	7.11	13.7	1.00	-124.8	2.240	2.38	~13.55	~1.7	

Flow ↓

Sample Time: 1140

Sample ID: 87-14(0)

Analytes Sampled: VOCs TOC, Methane, Ethane, Ethene, Sulfate Chloride QA/QC Sample: _____

PID (ppmv): 2.7 Odor: Y / (N) Water Color: CLEAR

Comments: _____

*Volume Factor: 2-inch well = 0.163 gal / ft; 1.5-inch well = 0.082 gal / ft; 1.25-inch well = 0.060 gal / ft



GROUNDWATER SAMPLING DATA COLLECTION FORM

Textron Groundwater Sampling
Wheatfield, New York
APTIM Project No. 631037017



MONITORING WELL ID: MW 87-14(1) Sampling Date: 10/25/2024
 Well Depth [ft-btoc]: ~ 22.87 ? (HISTORIC TDS ~ 32.30') Sampler(s): Kevin Cronin ✓
 Depth to Water [ft-btoc]: ~ 13.42 Evan Schlegel
 Well Casing Diameter [in]: 2 Sampling Device: Peristaltic Pump / Downhole pump
 Start Time (purging): 9:54 Purge Volume (if applicable): _____

FIELD PARAMETERS

Time [hh:mm]	pH [SU]	Temperature [°C]	Dissolved Oxygen [mg/L]	Redox Potential [mV]	Specific Conductance [mS/cm]	Turbidity [Ntu]	Depth To Water [ft-btoc]	Volume Purged [GAL]	Approximate Purge Rate [ml/min]
Stabilization Criteria	+/- 1%	+/-3%	+/-10%	+/-10mV	+/-3%	+/-10%			50 to 200 ml/min
0955	7.61	13.0	2.77	-308.3	11.769	533	NM	< 0.1	
1005	7.88	13.0	0.81	-378.6	11.417	160	~17.60	~0.8	
1015	7.86	12.9	0.74	-380.4	11.720	185	~18.82	~1.1	
1025	7.72	12.8	0.72	-368.9	11.735	254	~19.92	~1.4	DRYING OUT
1040							~19.83		

flow ↓

Sample Time: 1040 Sample ID: 87-14(1)
 Analytes Sampled: VOCs TOC Methane Ethane Ethene Sulfate Chloride Q/QC Sample _____
 PID (ppmv): 24.6 Odor: (Y) N Water Color: GRAY

Comments: CAN'T GET WL PROBE PAST ~22.87' BTOC, INITIALLY LT GRAY w/ COLOR TO START, BECOMES DARKER GRAY, DRYING OUT - LET SIT

*Volume Factor, 2-inch well = 0.163 gal / ft, 1.5-inch well = 0.082 gal / ft, 1.25-inch well = 0.060 gal / ft



GROUNDWATER SAMPLING DATA COLLECTION FORM

Textron Groundwater Sampling
Wheatfield, New York

APTIM Project No. 631037017



MONITORING WELL ID: MW 87-16(1)

Sampling Date: 10/25/2024

Well Depth [ft-btoc]: _____

Sampler(s): Kevin Cronin

Depth to Water [ft-btoc]: 13.98

Evan Schlegel John Osborn

Well Casing Diameter [in]: 2

Sampling Device: Peristaltic Pump / Downhole pump

Start Time (purging): 1140

Purge Volume (if applicable): _____

FIELD PARAMETERS

Time [hh:mm]	pH [SU]	Temperature [°C]	Dissolved Oxygen [mg/L]	Redox Potential [mV]	Specific Conductance [mS/cm]	Turbidity [Ntu]	Depth To Water [ft-btoc]	Volume Purged [gal]	Approximate Purge Rate [ml/min]
Stabilization Criteria	+/- 1%	+/-3%	+/-10%	+/-10mV	+/-3%	+/-10%			50 to 200 ml/min
1140	6.87	14.9	7.95	-79.8	3612	27.6	14.10	.01	200
1145	6.31	14.0	-0.40	-114.3	3534	22.5	14.24	.2	200
1150	6.32	13.9	-0.74	-117.6	3535	22.5	14.40	.4	200
1155	6.32	13.8	-0.84	-119.8	3562	11.5	14.51	.6	180
1200	6.32	13.8	-0.89	-120.5	3584	9.79	14.62	.8	180
1205	6.32	13.9	-0.91	-120.5	3611	11.50	14.73	1	180
1210	6.33	13.9	-0.92	-126.1	3629	9.92	14.78	1.2	180
1215	6.34	14.6	-0.92	-121.7	3646	9.83	14.83	1.4	180

Sample Time: 1220

Sample ID: 87-16(1)

Analytes Sampled VOCs TOC Methane Ethane Ethene Sulfate Chloride QA/QC Sample

PID (ppmv): 0.3

Odor: Y / N

Water Color: Clean

Comments: _____

*Volume Factor: 2-inch well = 0.163 gal / ft; 1.5-inch well = 0.082 gal / ft; 1.25-inch well = 0.060 gal / ft



GROUNDWATER SAMPLING DATA COLLECTION FORM

Textron Groundwater Sampling
Wheatfield, New York
APTIM Project No. 631037017



MONITORING WELL ID: mw 87-17(1)
Well Depth [ft-btoc]: 32.07
Depth to Water [ft-btoc]: ~12.63
Well Casing Diameter [in]: 2
Start Time (purging): 1303

Sampling Date: 10/25/2024
Sampler(s): Kevin Cronin ✓
Evan Schlegel
Sampling Device: Peristaltic Pump / Downhole pump
Purge Volume (if applicable): _____

FIELD PARAMETERS

Time [hh:mm]	pH [SU]	Temperature [°C]	Dissolved Oxygen [mg/L]	Redox Potential [mV]	Specific Conductance [mS/cm]	Turbidity [Ntu]	Depth To Water [ft-btoc]	Volume Purged [GAL]	Approximate Purge Rate [ml/min]
Stabilization Criteria	+/- 1%	+/-3%	+/-10%	+/-10mV	+/-3%	+/-10%			50 to 200 ml/min
<u>HS</u> 1300	7.10	15.0	1.87	-235.2	6.170	2.64	NM	-	
1305	7.12	15.7	1.82	-242.0	6.586	8.25	~12.65	~0.1	
1315	7.07	15.3	0.88	-276.4	6.545	4.46	~12.65	~0.5	
1325	7.05	14.8	0.78	-291.1	6.493	1.36	~12.65	~1.4	
1335	7.01	14.7	0.74	-296.6	6.466	1.29	~12.65	~2.0	
1340	6.98	14.7	0.72	-300.1	6.449	1.17	~12.65	~2.6	
1345	6.96	14.7	0.71	-308.6	6.445	0.85	~12.66	~3.3	

Sample Time: 1345 Sample ID: 87-17(1)
Analytes Sampled: VOCs TOC Methane Ethane Ethene Sulfate Chloride QA/QC Sample MS/MSD
PID (ppmv): 0.0 Odor: Y / N Water Color: CLEAR

Comments: HYDROSLEEVE INSTALLED 10/7/2024 "87-17(1) HS"
SAMPLE HYDROSLEEVE @ 1250, REINSTALL AFTER SAMPLING

*Volume Factor: 2-inch well = 0.163 gal / ft; 1.5-inch well = 0.082 gal / ft; 1.25-inch well = 0.060 gal / ft



GROUNDWATER SAMPLING DATA COLLECTION FORM

Textron Groundwater Sampling

Wheatfield, New York

APTIM Project No. 631037017



MONITORING WELL ID: MW 87-19(1)

Sampling Date: 10/24/2024

Well Depth [ft-btoc]:

Sampler(s): Kevin Cronin

Depth to Water [ft-btoc]: 14.64

Evan Schlegel JOHN OSBORN ✓

Well Casing Diameter [in]: 2

Sampling Device: Peristaltic Pump / Downhole pump

Start Time (purging): 1335

Purge Volume (if applicable):

FIELD PARAMETERS

Time [hh:mm]	pH [SU]	Temperature [°C]	Dissolved Oxygen [mg/L]	Redox Potential [mV]	Specific Conductance [mS/cm]	Turbidity [Ntu]	Depth To Water [ft-btoc]	Volume Purged [GAL]	Approximate Purge Rate [ml/min]
Stabilization Criteria	+/- 1%	+/-3%	+/-10%	+/-10mV	+/-3%	+/-10%			50 to 200 ml/min
HS 1325	6.72	13.4	0.73	109.2	3007	14.4	-	-	-
1335	9.29	14.1	0.82	-120.2	1321	5.35		.01	180
1340	9.31	13.8	-0.50	-146.4	1317	6.62	14.66	0.2	180
1345	8.32	13.7	-0.78	-153.3	1626	5.27	14.66	0.4	180
1350	7.55	13.7	-0.91	-133.0	1769	2.83	14.67	0.6	180
1355	6.83	13.6	-0.94	-97.5	2643	19.2	14.67	0.8	180
1400	6.65	13.5	-0.96	-73.7	2938	9.44	14.66	1.0	180
1405	6.61	13.6	-0.97	-73.0	3019	6.17	14.66	1.2	180
1410	6.60	13.6	-0.97	-74.5	3039	3.36	14.66	1.4	180
1415	6.59	13.5	-0.98	-75.9	3044	2.11	14.66	1.6	180

Sample Time: 1420

Sample ID:

Analytes Sampled: X VOCs TOC Methane Ethane Ethene Sulfate Chloride QA/QC Sample

PID (ppmv): Odor: Y / N Water Color: Clear

Comments: HYDROSLLEEVE INSTALLED 10/7/2024 - "87-19(1)HS" @ 1325

*Volume Factor: 2-inch well = 0.163 gal / ft; 1.5-inch well = 0.082 gal / ft; 1.25-inch well = 0.060 gal / ft



GROUNDWATER SAMPLING DATA COLLECTION FORM

Textron Groundwater Sampling
Wheatfield, New York
APTIM Project No. 631037017



MONITORING WELL ID: MW-87-20(o)
Well Depth [ft-btoc]: 10.3
Depth to Water [ft-btoc]: 7.77
Well Casing Diameter [in]: 2
Start Time (purging): 1008

Sampling Date: 10/23/2024
Sampler(s): Kevin Cronin
Evan Schlegel JOHN OSBORN ✓
Sampling Device: Peristaltic Pump / Downhole pump
Purge Volume (if applicable):

FIELD PARAMETERS

Table with 10 columns: Time, pH, Temperature, Dissolved Oxygen, Redox Potential, Specific Conductance, Turbidity, Depth To Water, Volume Purged, Approximate Purge Rate. Rows include stabilization criteria and multiple sampling events from 1009 to 1053.

Sample Time: 1055 Sample ID: 87-20(o)
Analytes Sampled: X VOCs
PID (ppmv): 0.0 Odor: Y / 0 Water Color:

Comments: * Water level dropped below tubing intake - (well going dry) Stop pump, lower tubing, resume pumping - Sample before well goes dry

*Volume Factor: 2-inch well = 0.163 gal / ft; 1.5-inch well = 0.082 gal / ft; 1.25-inch well = 0.060 gal / ft



GROUNDWATER SAMPLING DATA COLLECTION FORM

Textron Groundwater Sampling

Wheatfield, New York

APTIM Project No. 631037017



MONITORING WELL ID: MW 87-20(1)

Sampling Date: 10/23/2024

Well Depth [ft-btoc]: _____

Sampler(s): Kevin Cronin

Depth to Water [ft-btoc]: 11.86

Evan Schlegel JOHN OSBORN ✓

Well Casing Diameter [in]: 2

Sampling Device: Peristaltic Pump / Downhole pump

Start Time (purging): 0920

Purge Volume (if applicable): _____

FIELD PARAMETERS

Time [hh:mm]	pH [SU]	Temperature [°C]	Dissolved Oxygen [mg/L]	Redox Potential [mV]	Specific Conductance [mS/cm]	Turbidity [Ntu]	Depth To Water [ft-btoc]	Volume Purged [GAL]	Approximate Purge Rate [ml/min]
Stabilization Criteria	+/- 1%	+/-3%	+/-10%	+/-10mV	+/-3%	+/-10%			50 to 200 ml/min
<u>HS</u> 0905	6.90	15.5	3.04	-4.6	3.154	158	11.86		
0920	7.48	15.4	2.13	189.6	1.899	31.3	11.88	>.1	275
0925	7.43	15.3	-0.02	198.6	1.919	32.8	11.88	.3	275
0930	7.38	15.2	-0.17	189.5	2.076	35.7	11.88	.6	275
0935	7.24	15.1	0.11	176.8	2.477	29.9	11.89	.9	275
0940	7.16	15.1	0.41	151.6	2.877	4.83	11.89	1.2	275
0945	7.16	15.0	0.43	146.1	2.906	2.70	11.90	1.5	275
0950	7.16	15.0	0.43	143.4	2.914	2.26	11.90	1.8	275
0955	7.16	15.1	0.42	134.0	2.937	1.41	11.91	2.1	275
0958	7.16	15.0	0.43	138.8	2.935	1.12	11.91	2.4	275

Sample Time 1000

Sample ID 87-20(1)

Analytes Sampled: X VOCs TOC, Methane, Ethane, Ethene, Sulfate, Chloride QA/QC Sample: _____

PID (ppmv): _____ Odor: Y / N Water Color Orangeish Tint

Comments: HYDROSLEEVE INSTALLED 10/7/2024 "87-20(1) HS" @ 0910

*Volume Factor: 2-inch well = 0.163 gal / ft; 1.5-inch well = 0.082 gal / ft; 1.25-inch well = 0.060 gal / ft



GROUNDWATER SAMPLING DATA COLLECTION FORM

Textron Groundwater Sampling

Wheatfield, New York

APTIM Project No. 631037017



MONITORING WELL ID: MW 87-21(1)
 Well Depth [ft-btoc]: ~ 27.50 SOFT
 Depth to Water [ft-btoc]: ~ 10.30
 Well Casing Diameter [in]: 2
 Start Time (purging): 1203

Sampling Date: 10/23/2024
 Sampler(s): Kevin Cronin
Evan Schlegel
 Sampling Device: Peristaltic Pump / Downhole pump
 Purge Volume (if applicable): _____

FIELD PARAMETERS

Time [hh:mm]	pH [SU]	Temperature [°C]	Dissolved Oxygen [mg/L]	Redox Potential [mV]	Specific Conductance [mS/cm]	Turbidity [Ntu]	Depth To Water [ft-btoc]	Volume Purged [GAL]	Approximate Purge Rate [ml/min]
Stabilization Criteria	+/- 1%	+/-3%	+/-10%	+/-10mV	+/-3%	+/-10%	/	/	50 to 200 ml/min
1204	8.33	16.4	2.25	-189.2	2505	5.35	~10.30	~0.1	
1210	7.58	16.3	1.10	-183.0	2559	1.02	~10.32	~0.5	
1220	7.47	16.4	1.04	-177.3	2553	0.76	~10.32	~1.1	
1225	7.44	16.5	1.03	-174.7	2547	0.69	~10.32	~1.3	
1230	7.41	16.5	1.04	-170.1	2547	1.33	~10.32	~1.6	
1235	7.39	16.6	1.04	-167.0	2548	0.48	~10.32	~1.9	

Sample Time: 1240 Sample ID: 87-21(1)

Analytes Sampled: VOCs TOC Methane Ethane Ethene Sulfate Chloride QA/QC Sample: _____

PID (ppmv): 0.0 Odor: Y / N Water Color: CLEAR

Comments: _____

*Volume Factor: 2-inch well = 0.163 gal / ft; 1.5-inch well = 0.082 gal / ft; 1.25-inch well = 0.060 gal / ft



GROUNDWATER SAMPLING DATA COLLECTION FORM

Textron Groundwater Sampling

Wheatfield, New York

APTIM Project No. 631037017



MONITORING WELL ID: MW 87-22(1)
 Well Depth [ft-btoc]: ~ 32.40
 Depth to Water [ft-btoc]: ~ 17.09
 Well Casing Diameter [in]: 2
 Start Time (purging): 1050

Sampling Date: 10/24/2024
 Sampler(s): Kevin Cronin ✓
Evan Schlegel
 Sampling Device: Peristaltic Pump / Downhole pump
 Purge Volume (if applicable): _____

FIELD PARAMETERS

Time [hh:mm]	pH [SU]	Temperature [°C]	Dissolved Oxygen [mg/L]	Redox Potential [mV]	Specific Conductance [mS/cm]	Turbidity [Ntu]	Depth To Water [ft-btoc]	Volume Purged [GAL]	Approximate Purge Rate [ml/min]
Stabilization Criteria	+/- 1%	+/- 3%	+/- 10%	+/- 10mV	+/- 3%	+/- 10%			50 to 200 ml/min
<u>87-22(1) HS</u>	<u>7.14</u>	<u>12.5</u>	<u>1.97</u>	<u>-202.4</u>	<u>4.750</u>	<u>18.8</u>	<u>NM</u>	<u>NM</u>	
<u>1054</u>	<u>7.43</u>	<u>12.9</u>	<u>1.96</u>	<u>-149.1</u>	<u>3.718</u>	<u>7.07</u>	<u>~17.37</u>	<u>50.1</u>	
<u>1105</u>	<u>6.99</u>	<u>12.7</u>	<u>0.92</u>	<u>-226.0</u>	<u>4.331</u>	<u>4.75</u>	<u>~17.40</u>	<u>~0.7</u>	
<u>1115</u>	<u>6.89</u>	<u>12.6</u>	<u>0.82</u>	<u>-317.4</u>	<u>4.627</u>	<u>2.75</u>	<u>~17.40</u>	<u>~6.5</u>	
<u>1120</u>	<u>6.91</u>	<u>12.6</u>	<u>0.80</u>	<u>-324.4</u>	<u>4.948</u>	<u>5.30</u>	<u>~17.41</u>	<u>~1.8</u>	
<u>1125</u>	<u>6.95</u>	<u>12.7</u>	<u>0.78</u>	<u>-322.9</u>	<u>5.494</u>	<u>8.13</u>	<u>~17.40</u>	<u>~2.2</u>	
<u>1130</u>	<u>6.94</u>	<u>12.6</u>	<u>0.77</u>	<u>-322.3</u>	<u>5.583</u>	<u>7.75</u>	<u>~17.40</u>	<u>~2.5</u>	
<u>1135</u>	<u>6.86</u>	<u>12.6</u>	<u>0.76</u>	<u>-336.0</u>	<u>5.761</u>	<u>9.34</u>	<u>~17.40</u>	<u>~2.7</u>	
<u>1140</u>	<u>6.84</u>	<u>12.6</u>	<u>0.76</u>	<u>-343.7</u>	<u>5.789</u>	<u>9.07</u>	<u>~17.41</u>	<u>~2.9</u>	
<u>1145</u>	<u>6.83</u>	<u>12.6</u>	<u>0.75</u>	<u>-351.4</u>	<u>5.814</u>	<u>7.12</u>	<u>~17.41</u>	<u>3.1</u>	

SAMPLE @ 1035

Sample Time: 1145 Sample ID: 87-22(1)

Analytes Sampled: VOCs TOC Methane Ethane Ethene Sulfate Chloride QAVC Sample _____

PID (ppmv): 0.0 Odor: Y / N Water Color: CLEAR

Comments: HYDROSLLEEVE INSTALLED 10/7/2024 "87-22(1)HS"
SAMPLED 87-22(1)HS @ 1035. DUP-02 COLLECTED @ 1145

*Volume Factor 2-inch well = 0.163 gal / ft; 1.5-inch well = 0.082 gal / ft; 1.25-inch well = 0.060 gal / ft



GROUNDWATER SAMPLING DATA COLLECTION FORM

Textron Groundwater Sampling
Wheatfield, New York
APTIM Project No. 631037017



MONITORING WELL ID: MW 89-04(1)
Well Depth [ft-btoc]: ~18.36
Depth to Water [ft-btoc]: ~6.12
Well Casing Diameter [in]: 2
Start Time (purging): 1023

Sampling Date: 10/23/2024
Sampler(s): Kevin Cronin
Evan Schlegel
Sampling Device: Peristaltic Pump / Downhole pump
Purge Volume (if applicable): _____

FIELD PARAMETERS

Time [hh:mm]	pH [SU]	Temperature [°C]	Dissolved Oxygen [mg/L]	Redox Potential [mV]	Specific Conductance [mS/cm]	Turbidity [Ntu]	Depth To Water [ft-btoc]	Volume Purged [Gal]	Approximate Purge Rate [ml/min]
Stabilization Criteria	+/- 1%	+/-3%	+/-10%	+/-10mV	+/-3%	+/-10%			50 to 200 ml/min
1027	6.78	14.8	1.16	-222.5	2289	13.6	~6.90	<0.1	
1030	6.77	14.9	1.07	-230.2	2292	13.1	~6.93	~0.1	
1035	6.78	14.7	0.92	-248.6	2300	9.02	~7.00	~0.2	
1045	6.82	14.5	0.83	-283.1	2705	6.85	~6.98	~0.4	
1050	6.95	14.5	0.74	-379.4	1125	7.91	~7.01	~0.7	
1100	6.76	14.6	0.71	-429.0	6610	10.1	~7.05	~1.0	
1105	6.76	14.5	0.70	-431.3	6692	6.76	~7.03	~1.1	
1115	6.77	14.6	0.69	-432.1	6769	5.35	~7.02	~1.3	GET FORMS @ ROAD END

Sample Time: 1115 Sample ID: 89-04(1)
Analytes Sampled: VOCs TOC Methane Ethane Ethene Sulfate Chloride Q/QC Sample: _____
PID (ppmv): 0.0 Odor: Y / N Water Color: CLEAR

Comments: _____

*Volume Factor: 2-inch well = 0.163 gal / ft; 1.5-inch well = 0.082 gal / ft; 1.25-inch well = 0.060 gal / ft



GROUNDWATER SAMPLING DATA COLLECTION FORM

Textron Groundwater Sampling

Wheatfield, New York

APTIM Project No. 631037017



MONITORING WELL ID: MW 89-10(1)
 Well Depth [ft-btoc]: ~32.45
 Depth to Water [ft-btoc]: ~15.45
 Well Casing Diameter [in]: 2
 Start Time (purging): 1505

Sampling Date: 10/22/2024
 Sampler(s): Kevin Cronin ✓
Evan Schlegel
 Sampling Device: Peristaltic Pump / Downhole pump
 Purge Volume (if applicable): _____

FIELD PARAMETERS

Time [hh:mm]	pH [SU]	Temperature [°C]	Dissolved Oxygen [mg/L]	Redox Potential [mV]	Specific Conductance [mS/cm]	Turbidity [Ntu]	Depth To Water [ft-btoc]	Volume Purged [GAL]	Approximate Purge Rate [ml/min]
Stabilization Criteria	+/- 1%	+/-3%	+/-10%	+/-10mV	+/-3%	+/-10%	/	/	50 to 200 ml/min
1508	7.04	16.4	2.07	-364.3	5.269	7.81	~16.57	<0.1	FLOW ↓
1515	7.16	17.7	0.81	-412.9	4.810	2.84	~16.65	~0.2	
1520	7.07	17.9	0.74	-420.4	4.813	2.76	~16.68	~0.4	
1530	7.05	18.0	0.70	-419.6	4.887	1.09	~16.70	~0.7	
1535	7.05	18.0	0.66	-421.3	4.937	1.36	~16.52	~0.9	
1540	7.05	16.2	0.67	-425.1	49.59	1.61	~17.12	~1.2	

Sample Time: 1545 Sample ID: 89-10(1)

Analytes Sampled: VOCs TOC, Methane, Ethane, Ethene, Sulfate, Chloride QA/QC Sample _____

PID (ppmv): 0.0 Odor: YIN Water Color: CLEAR

Comments: OCCASIONAL BLACK FLECKS OBSERVED

*Volume Factor: 2-inch well = 0.163 gal / ft; 1.5-inch well = 0.082 gal / ft; 1.25-inch well = 0.060 gal / ft



GROUNDWATER SAMPLING DATA COLLECTION FORM

Textron Groundwater Sampling

Wheatfield, New York

APTIM Project No. 631037017



MONITORING WELL ID: MW 89-12(L)
 Well Depth [ft-btoc]: ~ 32.18
 Depth to Water [ft-btoc]: ~ 16.13
 Well Casing Diameter [in]: 2
 Start Time (purging): 1300

Sampling Date: 10/22 /2024
 Sampler(s): Kevin Cronin ✓
Evan Schlegel
 Sampling Device: Peristaltic Pump / Downhole pump
 Purge Volume (if applicable): _____

FIELD PARAMETERS

Time [hh:mm]	pH [SU]	Temperature [°C]	Dissolved Oxygen [mg/L]	Redox Potential [mV]	Specific Conductance [mS/cm]	Turbidity [Ntu]	Depth To Water [ft-btoc]	Volume Purged [GAL]	Approximate Purge Rate [ml/min]
Stabilization Criteria	+/- 1%	+/-3%	+/-10%	+/-10mV	+/-3%	+/-10%			50 to 200 ml/min
1302	6.99	16.6	2.08	-266.0	6.794	5.57	~16.15	~0.1	
1305	6.93	16.4	1.05	-280.4	6.674	7.40	~16.16	~0.3	
1310	6.95	16.2	0.86	-294.3	6.667	5.20	~16.16	~0.7	
1315	6.96	16.7	1.46	-288.5	6.635	4.75	~16.16	~1.0	
1320	6.98	16.7	1.82	-285.5	6.662	1.96	~16.19	~1.3	
1325	6.98	16.6	1.88	-286.5	6.668	1.74	~16.16	~1.5	

Sample Time: 1330 Sample ID: 89-12(L)
 Analytes Sampled: VOCs FOC Methane Ethane I-thene Sulfate Chloride QA/QC Sample: DUP-01
 PID (ppmv): 0.0 Odor: Y / N Water Color: CLEAR

Comments: ICE BLACK FLECKS OBSERVED. DUP-01 COLLECTED HERE STEVE M (NYSDEC) ONSITE @ 1300 - 1335.

*Volume Factor: 2-inch well = 0.163 gal / ft; 1.5-inch well = 0.082 gal / ft; 1.25-inch well = 0.060 gal / ft



GROUNDWATER SAMPLING DATA COLLECTION FORM

Textron Groundwater Sampling

Wheatfield, New York

APTIM Project No. 631037017



MONITORING WELL ID: MW89-14(0)

Sampling Date: 10/23 /2024

Well Depth [ft-btoc]: 12.10

Sampler(s): Kevin Cronin

Depth to Water [ft-btoc]: 10.88

Evan Schlegel John Osburn ✓

Well Casing Diameter [in]: 2

Sampling Device: Peristaltic Pump / Downhole pump

Start Time (purging): 1121

Purge Volume (if applicable): _____

FIELD PARAMETERS

Time [hh:mm]	pH [SU]	Temperature [°C]	Dissolved Oxygen [mg/L]	Redox Potential [mV]	Specific Conductance [mS/cm]	Turbidity [Ntu]	Depth To Water [ft-btoc]	Volume Purged [GAL]	Approximate Purge Rate [ml/min]
Stabilization Criteria	+/- 1%	+/-3%	+/-10%	+/-10mV	+/-3%	+/-10%			50 to 200 ml/min
1121	6.85	16.0	2.49	116.3	7.4000	2.37	11.10	0.02	120
1125	6.81	15.8	0.14	59.1	7.491	12.5	11.31	0.1	120
1130	6.77	16.1	-0.01	-32.1	7.474	43.1	11.46	0.2	90
1135	6.75	16.1	-0.27	-47.9	7.459	11.0	11.58	0.3	75
1140	6.76	16.1	-0.29	-47.8	7.440	7.20	11.81	0.4	75
		- Stop pumps, let recharge							
1235		SAMPLE					11.62		

Sample Time: 1235

Sample ID: 89-14(0)

Analytes Sampled: VOCs TOC Methane Ethane I:thene Sulfate Chloride QA/QC Sample _____

PID (ppmv): _____ Odor: Y / N Water Color: _____

Comments: well going dry - Did not Recover enough to get more Recharge - Sample

*Volume Factor: 2-inch well = 0.163 gal / ft; 1.5-inch well = 0.082 gal / ft; 1.25-inch well = 0.060 gal / ft



GROUNDWATER SAMPLING DATA COLLECTION FORM

Textron Groundwater Sampling
Wheatfield, New York
APTIM Project No. 631037017



MONITORING WELL ID: mw 89-14(1)
Well Depth [ft-btoc]: _____
Depth to Water [ft-btoc]: 13.37
Well Casing Diameter [in]: 2
Start Time (purging): 1148

Sampling Date: 10/23²⁴ /2024
Sampler(s): Kevin Cronin
Evan Schlegel Dan & Sborn ✓
Sampling Device: Peristaltic Pump / Downhole pump
Purge Volume (if applicable): _____

FIELD PARAMETERS

Time [hh:mm]	pH [SU]	Temperature [°C]	Dissolved Oxygen [mg/L]	Redox Potential [mV]	Specific Conductance [mS/cm]	Turbidity [Ntu]	Depth To Water [ft-btoc]	Volume Purged [Gal]	Approximate Purge Rate [ml/min]
Stabilization Criteria	+/- 1%	+/-3%	+/-10%	+/-10mV	+/-3%	+/-10%			50 to 200 ml/min
1150	7.26	15.4	2.31	-120.1	4.683	5.99	13.82	0.1	260
1155	7.08	14.7	1.58	-138.5	4.671	2.17	13.83	0.3	260
1200	7.03	14.7	1.34	-140.5	4.705	0.77	13.85	0.6	260
1205	6.93	14.6	1.20	-145.5	5.649	0.91	13.86	0.9	260
1210	6.89	14.7	1.06	-192.8	6.458	1.24	13.86	1.2	260
1215	6.89	14.7	1.10	-244.2	6.897	0.70	13.87	1.5	260
1220	6.87	14.7	1.00	-271.7	7.489	1.08	13.87	1.8	260
1225	6.86	14.7	1.05	-281.3	7.615	1.16	13.87	2.1	260

Sample Time: 1230 Sample ID: 89-14(1)

Analytes Sampled: VOCs TOC, Methane, Ethane, Ethene, Sulfate, Chloride QAVQC Sample _____

PID (ppmv): 0.0 Odor: Y / N Water Color: clear

Comments: _____

*Volume Factor: 2-inch well = 0.163 gal / ft; 1.5-inch well = 0.082 gal / ft; 1.25-inch well = 0.060 gal / ft



GROUNDWATER SAMPLING DATA COLLECTION FORM

Textron Groundwater Sampling

Wheatfield, New York

APTIM Project No. 631037017



MONITORING WELL ID: MW 89-15(1)
 Well Depth [ft-btoc]: ~34.43
 Depth to Water [ft-btoc]: ~15.61
 Well Casing Diameter [in]: 2
 Start Time (purging): 1156

Sampling Date: 10/29/2024
 Sampler(s): Kevin Cronin ✓
Evan Schlegel
 Sampling Device: Peristaltic Pump / Downhole pump
 Purge Volume (if applicable): _____

FIELD PARAMETERS

Time [hh:mm]	pH [SU]	Temperature [°C]	Dissolved Oxygen [mg/L]	Redox Potential [mV]	Specific Conductance [mS/cm]	Turbidity [Ntu]	Depth To Water [ft-btoc]	Volume Purged [GAL]	Approximate Purge Rate [ml/min]
Stabilization Criteria	+/- 1%	+/-3%	+/-10%	+/-10mV	+/-3%	+/-10%			50 to 200 ml/min
1158	7.28	16.2	2.07	-396.0	3.336	13.1	~16.32	<0.1	
1200	7.18	16.3	0.77	-440.1	3.261	7.15	~17.45	~0.5	
1220	7.23	16.1	0.75	-444.2	3.588	7.51	~17.63	~0.8	
1230	7.23	16.3	0.75	-444.5	3.630	9.86	~17.53	~1.3	
1235	7.24	16.2	0.75	-444.6	3.627	5.51	~17.54	~1.5	
1240	7.24	16.3	0.75	-442.3	3.638	3.56	~17.34	~1.9	

Flow ↓

Sample Time: 1245 Sample ID: 89-15(1)
 Analytes Sampled: VOCs TOC Methane Ethane Ethene Sulfate Chloride QAVQC Sample: _____
 PID (ppmv): 0.4 Odor: Y / N Water Color: CLEAR

Comments: _____

*Volume Factor: 2-inch well = 0.163 gal / ft; 1.5-inch well = 0.082 gal / ft; 1.25-inch well = 0.060 gal / ft



GROUNDWATER SAMPLING DATA COLLECTION FORM

Textron Groundwater Sampling
Wheatfield, New York
APTIM Project No. 631037017



MONITORING WELL ID: MW 93-03(1)
Well Depth [ft-btoc]: _____
Depth to Water [ft-btoc]: 10.92
Well Casing Diameter [in]: 2
Start Time (purging): 1335

Sampling Date: 10/22/2024
Sampler(s): Kevin Cronin
Evan Schlegel JOHN OSBORN ✓
Sampling Device: Peristaltic Pump / Downhole pump
Purge Volume (if applicable): _____

FIELD PARAMETERS

Time [hh:mm]	pH [SU]	Temperature [°C]	Dissolved Oxygen [mg/L]	Redox Potential [mV]	Specific Conductance [mS/cm]	Turbidity [Ntu]	Depth To Water [ft-btoc]	Volume Purged [Gal]	Approximate Purge Rate [ml/min]
Stabilization Criteria	+/- 1%	+/-3%	+/-10%	+/-10mV	+/-3%	+/-10%			50 to 200 ml/min
1335	8.13	13.0	3.24	-144.5	6626	10.3	10.98	1.0	
1340	7.19	13.0	-0.09	-226.8	6771	7.94	10.99	1.0	
1345	7.00	12.6	-0.64	-273.6	6772	6.00	10.99	1.0	
1350	7.00	12.6	-0.79	-300.8	6771	6.48	10.99	1.0	
1355	7.00	12.4	-0.87	-315.1	6753	5.65	10.98	1.0	
1400	6.99	12.4	-0.91	-326.6	6751	2.90	10.99	1.3	
1405	7.00	12.4	-0.94	-336.8	6741	4.82	10.98	1.6	
1410	7.01	12.3	-0.95	-342.3	6741	3.29	10.98	1.9	

Sample Time: 1415 Sample ID: 93-03(1)

Analytes Sampled: VOCs TOC Methane Ethane Ethene Sulfate Chloride Q/QC Sample _____

PID (ppmv): _____ Odor: Y / N Water Color: _____

Comments: _____

*Volume Factor: 2-inch well = 0.163 gal / ft; 1.5-inch well = 0.082 gal / ft; 1.25-inch well = 0.060 gal / ft

Evan - 724-493-0776

Chain of Custody Record

Pg 2 of 5
eurofins

Amherst, NY 14228-2223
phone 716.691.2600 fax 716.691.7991

Regulatory Program: DW NPDES RCRA Other:

TestAmerica Laboratories, Inc. d/b/a Eurofins TestAmerica

Client Contact APTIM Environmental & Infrastructure, LLC 500 Penn Center Blvd, Suite 1000 Pittsburgh, PA 15235 (412) 736-1462 Phone (xxx) xxx-xxxx FAX Project Name: Textron Annual Sampling Site: Textron Wheatfield P O # OS 221984		Project Manager: Paul Bauer Email: paul.bauer@aptim.com Tel/Fax: 412-736-1462		Site Contact: Kevin Cronin Date: _____		COC No: _____ of _____ COCs											
Analysis Turnaround Time <input type="checkbox"/> CALENDAR DAYS <input type="checkbox"/> WORKING DAYS TAT if different from Below _____ <input checked="" type="checkbox"/> 2 weeks <input type="checkbox"/> 1 week <input type="checkbox"/> 2 days <input type="checkbox"/> 1 day		Lab Contact: Brian Fischer Carrier: _____		TALS Project #: _____ Sampler: _____ For Lab Use Only: Walk-in Client: _____ Lab Sampling: _____ Job / SDG No.: _____		Sample Specific Notes: _____											
Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=Grab)	Matrix	# of Cont.	Filtered Sample (Y/N)	Perform MS / MSD (Y / N)	8260C (MOD) Client Specific List	SM 6310C_TOC	RSK-175_Methane, Ethane, Ethene	9056A_Sulfate						
87-10(1)	10/22/24	1600	G	W	9	N	N	X									
87-10(0)		1515	G	W	3	N	N	X									
89-10(1)	10/23/24	1545	G	W	9	N	N	X									
87-01(1)	10/22/24	1705	G	W	3	N	N	X									
DW-11		1700	G	W	3	N	N	X									
87-20(1) H5	10/23/24	0910	G	W	3	N	N	X									
87-20(1)		1000	G	W	3	N	N	X									
87-20(0)		1055	G	W	3	N	N	X									
89-04(1)		1115	G	W	3	N	N	X									
87-21(1)		1240	G	W		N	N	X									
89-14(1)		1230	G	W		N	N	X									
89-14(0)		1235	G	W		N	N	X									
Preservation Used: 1= Ice, 2= HCl; 3= H2SO4; 4= HNO3; 5= NaOH; 6= Other						Sample Disposal (A fee may be assessed if samples are retained longer than 1 month) <input type="checkbox"/> Return to Client <input checked="" type="checkbox"/> Disposal by Lab <input type="checkbox"/> Archive for _____ Months											
Possible Hazard Identification: Are any samples from a listed EPA Hazardous Waste? Please List any EPA Waste Codes for the sample in the Comments Section if the lab is to dispose of the sample. <input type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Poison B <input checked="" type="checkbox"/> Unknown						Special Instructions/QC Requirements & Comments: _____											
Custody Seals Intact: <input type="checkbox"/> Yes <input type="checkbox"/> No		Custody Seal No.: _____		Cooler Temp. (°C): Obs'd: _____ Corr'd: _____ Therm ID No.: _____		Relinquished by: <i>Kevin Cronin</i>		Company: APTIM Date/Time: 10/23/24 1710		Received by: <i>LC</i>		Company: _____ Date/Time: 10/23/24 1710					
Relinquished by: _____		Company: _____		Date/Time: _____		Received by: _____		Company: _____		Date/Time: _____		Received in Laboratory by: _____		Company: _____		Date/Time: _____	

Amherst, NY 14228-2223
phone 716.691.2600 fax 716.691.7991

Environmental Testing
TestAmerica

Regulatory Program: DW NPDES RCRA Other:

TestAmerica Laboratories, Inc. d/b/a Eurofins TestAmerica

Client Contact		Project Manager: Paul Bauer				Site Contact: Kevin Cronin		Date:		COC No:	
APTIM Environmental & Infrastructure, LLC		Email: paul.bauer@aptim.com				Lab Contact: Brian Fischer		Carrier:		_____ of _____ COCs	
500 Penn Center Blvd, Suite 1000		Tel/Fax: 412-736-1462				Analysis Turnaround Time				TALS Project #:	
Pittsburgh, PA 15235		<input type="checkbox"/> CALENDAR DAYS <input type="checkbox"/> WORKING DAYS				Filtered Sample (Y/N)				Sampler:	
(412) 736-1462 Phone		TAT if different from Below _____				Perform MS / MSD (Y/N)				For Lab Use Only:	
(xxx) xxx-xxxx FAX		<input checked="" type="checkbox"/> 2 weeks				8260C_(MOD) Client Specific List				Walk-in Client: _____	
Project Name: Textron Annual Sampling		<input type="checkbox"/> 1 week				SM 5310C_TOC				Lab Sampling: _____	
Site: Textron Wheatfield		<input type="checkbox"/> 2 days				RSK-175_Methane, Ethane, Ethene				Job / SDG No.: _____	
P O # OS 221984		<input type="checkbox"/> 1 day				9056A_Sulfate				Sample Specific Notes:	
Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=Grab)	Matrix	# of Cont.	Filtered Sample (Y/N)	Perform MS / MSD (Y/N)	8260C_(MOD) Client Specific List	SM 5310C_TOC	RSK-175_Methane, Ethane, Ethene	9056A_Sulfate
EW-8	10/24/24	0940	G	W	3	N	N	X			
17-01(1)		0945	G	W	10	N	N	X	XXX		
87-22(1) HS		1035	G	W	3	N	N	X			
87-22(1)		1145	G	W	3	N	N	X			
87-08(1)		1345	G	W	3	N	N	X			
B-8(0)		1440	G	W	3	N	N	X			
87-04(1)		1115	G	W	10	N	N	X	XXX		
17-04(1)		1220	G	W	10	N	N	X	XXX		
87-19(1)		1115	G	W	10	N	N	X	XXX		KC
DW-9		1610	G	W	10	N	N	X	XXX		
B-10A(1)		1625	G	W	10	N	N	X	XXX		
DW-02	10/24/24	-	G	W	3	N	N	X			
Preservation Used: 1= Ice, 2= HCl; 3= H2SO4; 4=HNO3; 5=NaOH; 6= Other						Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)					
Possible Hazard Identification:						<input type="checkbox"/> Return to Client <input type="checkbox"/> Disposal by Lab <input type="checkbox"/> Archive for _____ Months					
Are any samples from a listed EPA Hazardous Waste? Please List any EPA Waste Codes for the sample in the Comments Section if the lab is to dispose of the sample.											
<input type="checkbox"/> Non-Hazardous <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Poison B <input checked="" type="checkbox"/> Unknown											
Special Instructions/QC Requirements & Comments:											
Custody Seals Intact: <input type="checkbox"/> Yes <input type="checkbox"/> No			Custody Seal No.:			Cooler Temp. (°C): Obs'd: _____ Corr'd: _____			Therm ID No.:		
Relinquished by: <i>Kevin Cronin</i>			Company: APTIM			Date/Time: 10/25/24 1625			Received by: _____		
Relinquished by:			Company:			Date/Time:			Company:		
Relinquished by:			Company:			Date/Time:			Received in Laboratory by: _____		
									Company: TMS		
									Date/Time: 10/25/24 1625		

Amherst, NY 14228-2223
 phone 716.691.2600 fax 716.691.7991

Regulatory Program: DW NPDES RCRA Other:

TestAmerica Laboratories, Inc. d/b/a Eurofins TestAmerica

Client Contact		Project Manager: Paul Bauer				Site Contact: Kevin Cronin		Date:		COC No.:	
APTIM Environmental & Infrastructure, LLC		Email: paul.bauer@aptim.com				Lab Contact: Brian Fischer		Carrier:		_____ of _____ COCs	
500 Penn Center Blvd, Suite 1000		Tel/Fax: 412-736-1462				Analysis Turnaround Time		TALS Project #:		Sampler:	
Pittsburgh, PA 15235		<input type="checkbox"/> CALENDAR DAYS <input type="checkbox"/> WORKING DAYS				TAT if different from Below _____		For Lab Use Only:		Walk-in Client:	
(412) 736-1462 Phone		<input type="checkbox"/> 2 weeks				Filtered Sample (Y/N)		Perform MS / MSD (Y/N)		Lab Sampling:	
(xxx) xxx-xxxx FAX		<input type="checkbox"/> 1 week				8260C_(MOD) Client Specific List		SM 8310C_TOC		Job / SDG No.:	
Project Name: Textron Annual Sampling		<input type="checkbox"/> 2 days				RSK-175_Methane_Ethane		9056A_Sulfate		Sample Specific Notes:	
Site: Textron Wheatfield		<input type="checkbox"/> 1 day									
P O # OS 221984											

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=Grab)	Matrix	# of Cont.	Filtered Sample (Y/N)	Perform MS / MSD (Y/N)	8260C_(MOD) Client Specific List	SM 8310C_TOC	RSK-175_Methane_Ethane	9056A_Sulfate
87-19(1) HS	10/24/24	1325	G	W	3	N	N	X			
89-14(0)		1235	G	W	3	N	N	X			
89-14(1)		1230	G	W	3	N	N	X			
87-19(1)	10/24/24	1420	G	W	3	N	N	X			
FB-2	10/25/24	1625	G	W	3	N	N	X			
87-14(1)		1040	G	W	10	N	N	X	XXX		
87-13(1)		1120	G	W	10	N	N	X	XXX		
87-14(0)		1140	G	W	3	N	N	X			
87-17(1) HS		1250	G	W	3	N	N	X			
87-17(1)		1345	G	W	3	N	N	X			
87-17(1) MS(MSD)		1345	G	W	6	N	N	X			
TRIP BLANK-02	10/9/24	-	G	W	3	N	N	X			

Preservation Used: 1= Ice, 2= HCl; 3= H2SO4; 4=HNO3; 5=NaOH; 6= Other

Possible Hazard Identification: Are any samples from a listed EPA Hazardous Waste? Please List any EPA Waste Codes for the sample in the Comments Section if the lab is to dispose of the sample.

Non-Hazardous Flammable Skin Irritant Poison B Unknown

Special Instructions/QC Requirements & Comments:

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)

Return to Client Disposal by Lab Archive for _____ Months

Custody Seals Intact: <input type="checkbox"/> Yes <input type="checkbox"/> No	Custody Seal No.:	Cooler Temp. (°C): Obs'd: _____ Corr'd: _____	Therm ID No.:
Relinquished by: <i>Kevin Cronin</i>	Company: APTIM	Date/Time: 10/25/24 1625	Received by:
Relinquished by:	Company:	Date/Time:	Company:
Relinquished by:	Company:	Date/Time:	Company:
Relinquished by:	Company:	Date/Time:	Received in Laboratory by: <i>THB</i>
			Company: THB
			Date/Time: 10/25/24 1625

ATTACHMENT D

Photographs

**Photos taken on March 25, 2024 - First Semiannual Sampling Event
for the Bioremediation Pilot Study**



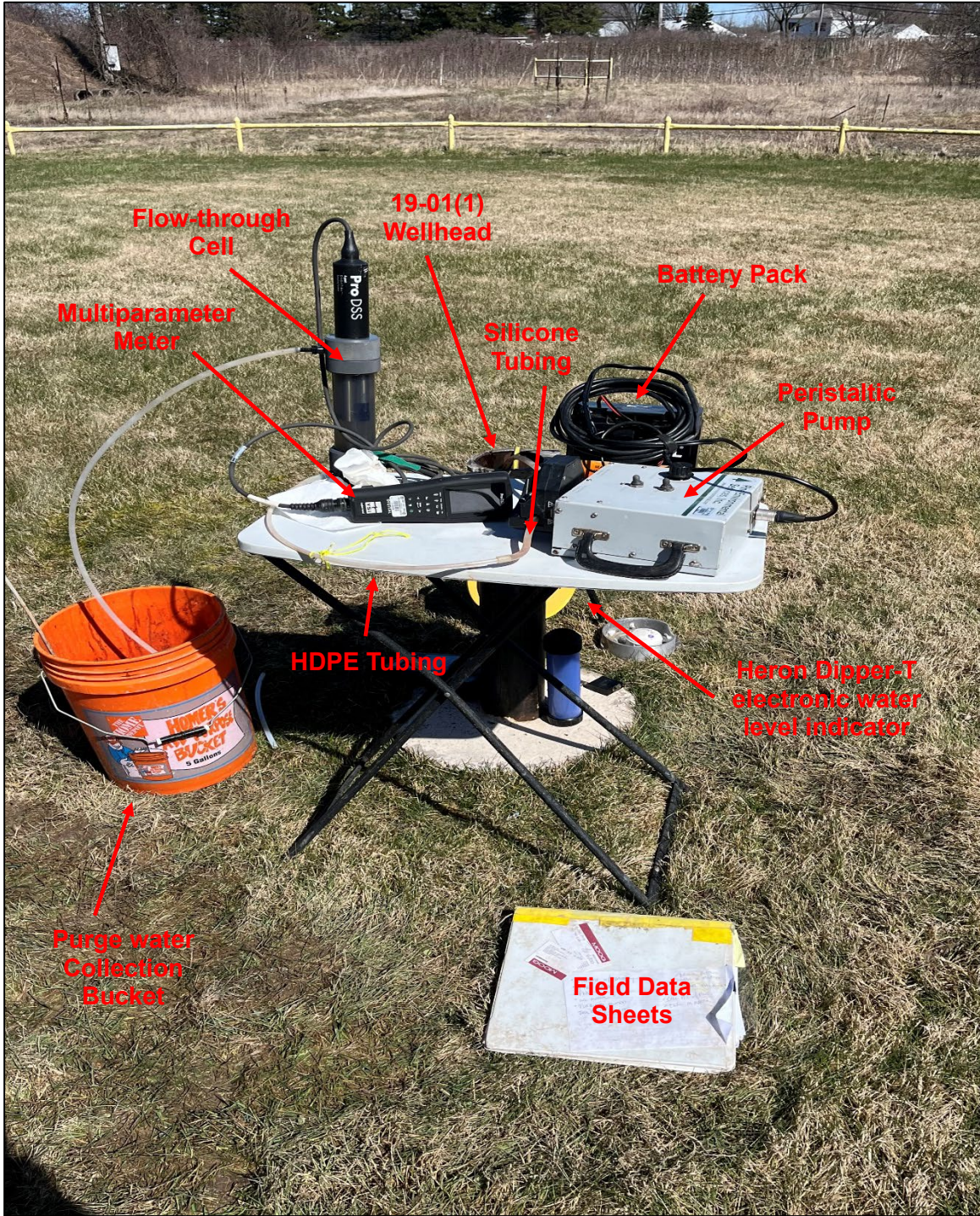
**Former Neutralization Pond
Source Area**

**Perimeter Guard Rail
and Chain-link Fence**

Northward view of former Neutralization Pond source area. Kevin Cronin (APTIM) is purging/sampling well 19-01(1) in background (yellow circle).



Performing air monitoring and depth to water/bottom measurements at 19-01(1) (left; red meter is combination PID/H₂S/LEL/O₂ meter) and purging well 19-01(1) (right).



Sampling equipment setup at well 19-01(1).



Heron Dipper-T electronic water level indicator and Hach 2100Q Turbidimeter (left) and Sample Bottle Set (right).



Taking water level/depth to bottom measurements at 87-14(1) (left) and 87-14(1) well head (right).

**Photos taken on April 29, 2024 - Offsite Extraction Well Sampling
Event**



APTIM personnel removing the manhole cover on extraction well EW-2 using specialized tool; sampling equipment in right of photo (yellow circle).



Views of inside of extraction well EW-2 vault. Wellhead and sampling port tubing shown in right photo.



Sampling equipment setup at extraction well EW-2.



Hach 2100Q Turbidimeter (left) and YSI Multiparameter Meter (right).



Taking water level/depth to bottom measurements at EW-2 (left) and field sampling log sheet (right).



Southward views of the utility right of way where the offsite extraction wells are located;
EW-2 vault shown in left photo.

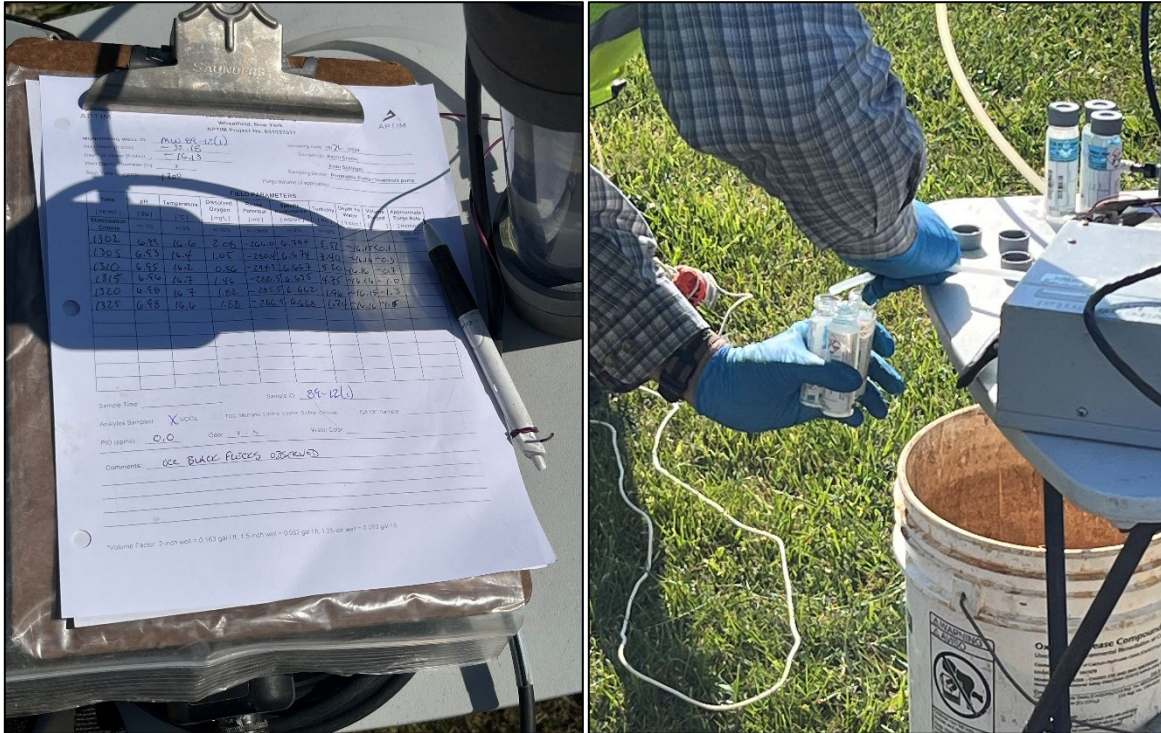
**Photos taken on October 22 & 24, 2024 - Annual Groundwater
Sampling Event/Second Semiannual Sampling Event for the
Bioremediation Pilot Study**



Southward view of Kevin Cronin (APTIM) purging/sampling well 89-12(1); Walmore Road in background.



On 10-22-2024, performing depth to water measurement at well 89-12(1) (left) and purging sampling equipment setup at well 89-12(1) (right).



Field purging/sampling log sheet (left) and collecting sample at 87-12(1) (right) (10-22-2024).



On 10-24-2024, views of a HydraSleeve sampler removed from well 87-19(1). APTIM is performing a pilot test of HydraSleeve samplers in 5 wells; samples were also collected via low-flow techniques with a peristaltic pump for analytical results comparisons.



On 10-24-2024, APTIM crew performing depth to water/bottom measurements and preparing to low-flow purge/sample well 87-19(1) with a peristaltic pump.



On 10-24-2024, 87-19(1) wellhead showing cable used to hang new HydraSleeve sampler in well (left). During site reconnaissance, damage was observed to well 86-23A on Walmore Road near the southernmost parking lot entry (right).