

Periodic Review Report (April 8, 2022 through April 12, 2023)

Former Scott Aviation Facility - West of Plant 2
Lancaster, New York NYSDEC Site Code No. 9-15-149

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Quality information

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List of Acronyms

ABC+®	Anaerobic BioChem and zero valent iron
ABC-Ole®	a mixture of Anaerobic BioChem, zero valent iron, and emulsified fatty acids
AMSL	above mean sea level
AECOM	AECOM Technical Services, Inc.
AS	air stripper
bgs	below ground surface
BSA	Buffalo Sewer Authority
cis-1,2-DCE	cis-1,2-dichloroethene
CD	compact disc
1,1-DCA	1,1-dichloroethane
Dhb	<i>dehalobacter</i>
Dhc	<i>dehalococcoides</i>
DPE	dual phase extraction
EC/BPDES	Erie County/Buffalo Pollution Discharge Elimination System
ERD	Enhanced Reductive Dechlorination
ft	feet
gpm	gallons per minute
GWCT	groundwater collection trench
GWTB	groundwater treatment building
HES	Heritage Environmental Services, LLC
IC/EC	Institutional Controls and Engineering Controls
lb/hr	pounds per hour
LNAPL	light non-aqueous phase liquid
LRP	liquid ring pump
Matrix	Matrix Environmental Technologies, Inc.
mg/kg	milligram per kilogram
MNA	monitored natural attenuation
MVS	mechanical volatilization system
µg/m ³	micrograms per cubic meter
µg/L	micrograms per liter
mg/L	milligrams per liter
NYSDEC	New York State Department of Environmental Conservation
O&M	operation and maintenance
OBG	O'Brien & Gere Engineers, Inc.
PFAS	per- and polyfluoroalkyl substances
PRR	Periodic Review Report
RAER	Remedial Action Engineering Report
RAO	Remedial Action Objective
RDWP	Remedial Design Work Plan
RI/FS	remedial investigation/feasibility study
ROD	Record of Decision
SICR	Site Investigation Completion Report
SVE	soil vapor extraction

1,1,1-TCA	1,1,1-trichloroethane
TCE	trichloroethene
TEH	total extractable hydrocarbons
TOC	total organic carbon
TOGS	Technical and Operational Guidance Series
TSS	total suspended solids
USEPA	United States Environmental Protection Agency
UST	underground storage tank
VC	vinyl chloride
VOC	volatile organic compound
ZVI	zero valent iron

1. Introduction

On behalf of Scott Figgie LLC (successor to Scott Technologies, Inc., which was a successor to Figgie International), hereinafter “Scott”, and pursuant to the requirements of New York State Department of Environmental Conservation (NYSDEC), Order on Consent, Index No. B9-0377095-05, AECOM Technical Services, Inc. (AECOM) prepared this Periodic Review Report (PRR) to summarize the operation and maintenance (O&M) and groundwater monitoring activities for the combined dual phase extraction (DPE) remediation system at the former Scott Aviation facility (the “Site”), NYSDEC Site Code No. 9-15-149, located at 225 Erie Street, Village of Lancaster, County of Erie, State of New York (**Figure 1**). A selected remedy for soil and groundwater was described in the Record of Decision (ROD), Scott Aviation Site, Village of Lancaster, Erie County, Site Number 9-15-149, which was signed into Declaration on November 7, 1994 (NYSDEC, November 1994). The reporting period discussed herein encompasses the period between April 8, 2022 and April 12, 2023. This is the eighteenth comprehensive remediation report.

1.1 Report Organization

The purpose of this PRR is to provide a summary of the current remediation system configuration, describe significant O&M and groundwater monitoring activities, discuss overall remediation system performance during the reporting period, and provide recommendations for future combined DPE remediation system operation.

This PRR was developed in general conformance with NYSDEC site investigation and remediation requirements (NYSDEC DER-10, May 2010). More specifically, this report provides the following information:

- Report organization details, a brief summary of Site history, previous Site investigations, remediation activities, and remedial action objectives (RAOs) for the Site (**Section 1**);
- A description of the current combined DPE remediation system configuration and a detailed summary of O&M activities conducted during the reporting period (**Section 2**);
- A groundwater monitoring program summary including a description of groundwater monitoring activities completed during the reporting period, a detailed review of the April 2023 comprehensive groundwater monitoring event, and a comparison of historical comprehensive groundwater analytical results to the April 2023 comprehensive groundwater analytical results (**Section 3**);
- A summary of groundwater remediation system monitoring and O&M and remediation progress (**Section 4**);
- Conclusions, recommendations, a description of upcoming Site-related activities, and a proposed monitoring and compliance sampling schedule (**Section 5**);
- Certification of the Institutional Controls and Engineering Controls (IC/EC; **Section 6**); and,
- References used in the preparation of this report (**Section 7**).

Supporting information used in the preparation of this PRR is included in six appendices:

- Appendix A contains a copy of the O&M checklist used for the combined DPE remediation system;
- Appendix B provides the groundwater sampling logs for the Site monitoring wells sampled in April 2023;
- Appendix C presents a current and historical summary of groundwater elevations measured for the Site monitoring wells sampled in April 2023;
- Appendix D provides a current and historical summary of the volatile organic compounds (VOCs) detected in the Site monitoring wells sampled in April 2023;
- Appendix E provides all April 2023 analytical data packages on compact disc (CD); and

- Appendix F includes the completed IC/EC certification.

1.2 Site Background

The following subsections present a brief summary of Site history and previous investigation and remediation activities.

1.2.1 Site Geology/Hydrogeology

The native soils underlying the Site generally consist of interbedded silts and clays with discontinuous sporadic fine sand lenses (shallow overburden). A thin coarse-grained layer is located above the bedrock (deep overburden). The average thickness of the overburden is approximately 21 feet (ft), ranging from 20 ft in the south to 26 ft in the north.

Groundwater is first encountered at the Site in the shallow overburden and then again just above the bedrock in the deep overburden. The natural flow of groundwater at the Site in both the shallow and deep overburden is to the northwest. Depth to groundwater across the Site in both the shallow and deep overburden is measured quarterly and is discussed in detail in Section 3.2 of this report.

1.2.2 Site Remedial Investigation/Feasibility Study

A 3,000-gallon underground storage tank (UST) was previously located at the Site, immediately adjacent to the southwestern corner of Scott Aviation Plant 2 (**Figure 2**). The UST was used to store waste cutting oil and spent chlorinated solvents generated during manufacturing operations conducted in Plant 2. Activities at Plant 2 have historically included the machining of piece parts from metal feedstock and the fabrication of cores to fit into devices that provide emergency oxygen upon demand in commercial aircraft (Earth Tech, April 2004).

During April 1991, the former Site owner, Figgie International, removed the UST. Based on contamination discovered during the removal of the UST, Figgie International entered into a remedial investigation/feasibility study (RI/FS) Order on Consent with the NYSDEC on July 9, 1992, and an RI was initiated by Versar, Inc. on behalf of Figgie International in the immediate area surrounding the former UST location. The final RI report, approved by the NYSDEC on December 13, 1993, indicated the presence of VOCs in excess of NYSDEC soil and groundwater guidance values to the west of Plant 2. A subsequent FS report was prepared by Figgie International and approved by the NYSDEC on August 29, 1994 (O'Brien & Gere, July 1996).

1.2.3 Record of Decision

Based on the results of the RI/FS, the NYSDEC prepared a ROD, dated November 7, 1994, which required remedial actions to be initiated to address contaminated soils and groundwater at the Site. The ROD specified that soil remediation would be accomplished by excavating all soils with VOCs above Site-specific RAOs and subsequently treating the soil on-Site using an ex-situ soil vapor extraction (SVE) system. The established RAOs for the Site are presented in **Table 1** and are discussed further in Section 1.3 of this report. The ROD also specified that groundwater remediation would be performed by installing a groundwater collection trench (GWCT) west of Plant 2 to induce hydraulic capture of groundwater impacted with VOCs and by constructing an associated groundwater treatment system. A ROD Amendment approving the use of a mechanical volatilization system (MVS) to treat excavated soils in lieu of the proposed ex-situ SVE system was issued by the NYSDEC on April 19, 1995 (O'Brien & Gere Engineers, Inc. [OBGE], July 1996).

1.2.4 Previous Remediation Activities

This section summarizes previous soil and groundwater remedial activities conducted at the Site.

1.2.4.1 Source Area Soil Excavation and Treatment

Following approval of the Remedial Design by the NYSDEC in September 1995, soil remediation actions were initiated. Soils to the west of Plant 2 in the vicinity of the former UST were excavated and treated on-

Site using an MVS (see **Figure 2** for former UST location). The MVS process consisted of a screening plant and Hammermill shredder that mechanically pulverized and aerated the excavated soil that had previously been amended with pulverized quick lime. Volatilization of the VOCs from the soil occurred as a result of the sieving and pulverizing actions and also because of the heat generated by the reaction of lime with moisture in the soil. Approximately 5,600 cubic yards of soil were excavated from depths ranging between 2 ft and 21 ft below ground surface (bgs; bedrock contact) and treated using the MVS. Based on analytical results for the treated soil (each individual VOC <1 milligram per kilogram (mg/kg) and total VOCs <10 mg/kg), on December 11, 1995, the NYSDEC approved backfilling the excavation with the originally excavated soil processed on-Site with the MVS. Backfilling of the excavation was completed on December 19, 1995, which included a soil cover of the treated soil.

1.2.4.2 Groundwater Collection Trench

In accordance with the ROD, during February 1996 a 200-foot long GWCT was constructed approximately 90 ft west of Plant 2. The purpose of the trench was to maintain hydraulic control of VOC-impacted groundwater. The bottom of the trench was excavated down to bedrock (approximately 25 ft bgs). The bottom five feet of the trench consists of rounded pea gravel and the top 20 feet of the trench was backfilled with remediated soils. A 6-inch diameter slotted high density polyethylene pipe located at the bottom of the trench conveys water to a wet well located at the north end of the trench. The water is transferred from the wet well using a submersible pump through a 1-inch diameter schedule 80 polyvinyl chloride pipe to a treatment system located in the Groundwater Treatment Building (GWTB) located immediately west of Plant 2.

The groundwater treatment system consists of a low-profile shallow tray air stripper (AS) unit. Treated water from the AS unit is discharged to the Buffalo Sewer Authority (BSA) under an Erie County/ Buffalo Pollutant Discharge Elimination System (EC/BPDES) permit via a 2-inch diameter force main that discharges to a BSA sanitary sewer located south of the GWTB at Erie Street (OBG, July 1996). Start-up of the groundwater treatment system occurred on March 1, 1996. **Figure 2** shows the location of the GWCT and GWTB.

1.2.5 Additional Investigation Activities

Annual groundwater monitoring completed in April 1998 indicated an increasing trend in VOC concentrations in MW-4, located to the west of the GWCT at the western property boundary of the Site. Additionally, light non-aqueous phase liquid (LNAPL) was observed at MW-4 on the water level probe during a quarterly monitoring event conducted in November 1998. In April 1999, four new monitoring wells (designated MW-7, MW-8, MW-9, and MW-10) were installed to evaluate the extent and potential source of VOCs and LNAPL observed in MW-4. Based on repeated detections of VOCs and LNAPL in the groundwater to the west of the GWCT, a comprehensive site investigation was conducted in February 2003 to further assess the vertical and horizontal extent of VOCs and LNAPL.

During the 2003 investigation, LNAPL was observed in MW-8 only. A total of 21 direct push technology borings were advanced to the east and west of the GWCT to further assess the extent of impacted soils west of Plant 2. Results were summarized in the June 2003 Site Investigation Completion Report (SICR); the data indicated the continued presence of chlorinated VOCs above the RAOs in the saturated soil and groundwater, primarily to the west of the GWCT (Earth Tech, June 2003).

1.2.6 Remedial Alternatives Analysis

Based upon the results of the 2003 investigation, a remedial alternatives analysis was completed, and results were included in the SICR. DPE was recommended to be implemented to supplement the existing remediation system and to further remediate VOCs in soil and groundwater at the Site (Earth Tech, June 2003).

At the request of the NYSDEC, a Remedial Design Work Plan (RDWP; Earth Tech, November 2003) was prepared that provided a detailed description and design for the proposed DPE system recommended in the SICR. A discussion of DPE system construction, startup, and O&M activities during approximately the

first year of operation (May 14, 2004 through July 19, 2005) is provided in the first Remedial Action Engineering Report (RAER; May 14, 2004 through July 19, 2005; Earth Tech, November 2005).

1.2.7 Injection Pilot Tests

Beginning on July 28, 2010 and concluding on October 29, 2010, de maximis, Inc., on behalf of Scott and with NYSDEC approval, initiated a chemical oxidation pilot test (de maximis Inc., July 2010). The test consisted of injection of sodium persulfate with chelated iron activation at 10 injection points located within the area of the >100 micrograms per liter (µg/L) trichloroethene (TCE) plume as defined in 2010. A second series of injections was performed between June and October 2011; refer to **Figure 3** for injection locations. A review of groundwater data at the source area monitoring wells following the pilot test indicated a spike in TCE concentrations, possibly due to mobilization of product from the vadose zone.

On November 6, 2014, AECOM submitted a 2014 Injection Pilot Test Work Plan (AECOM, November 2014) to NYSDEC detailing a pilot test injection program to be performed with the injectate Anaerobic BioChem and zero valent iron (ZVI; ABC+®). Following NYSDEC approval, the pilot test was performed in November 2014 in a 1,200 square foot area centered within source wells MW-4, MW-8R, and MW-16S; refer to **Figure 3** for injection locations. Each of the eight injection points received approximately 480 gallons of ABC+®, mixed at approximately 16 percent by weight solution, and divided up between five depth intervals at 10, 13, 16, 19 and 22 ft bgs. Following the November 2014 injection of ABC+®, two rounds of groundwater samples were collected and analyzed for VOCs. The groundwater VOC data collected in January 2015 and April 2015 showed significant decreases in TCE concentrations in the area of the injections, with the expected corresponding increases in cis-1,2-dichloroethene (cis-1,2-DCE), chloroethane, and vinyl chloride (VC) concentrations.

On April 28, 2015, AECOM submitted the Addendum to the 2014 Injection Pilot Test Work Plan (AECOM, April 2015) to NYSDEC outlining a second phase of injections to be performed with the injectate ABC+®. Following NYSDEC approval, the injection program was performed between April and May 2015 in an approximate 3,600 square foot area centered around monitoring wells MW-4, MW-8R, MW-13S/D, and MW-16S/D, and DPE wells DPE-3, DPE-4, DPE-5, DPE-7, and DPE-8; refer to **Figure 3** for injection locations. A total of 21 injection points were completed with approximately 410 gallons of 16 percent by weight ABC+® injected at each location and divided up between five depth intervals at 10, 13, 16, 19 and 22 ft bgs. Note that this area was expanded vertically and horizontally from the first phase of injections as well as overlapped (offset) the first phase of injections. Per the table referenced in Section 3.4, TCE concentrations showed a decreasing trend following these ABC+® injection events.

During the week of November 26, 2018, AECOM completed a five-day supplemental injection program per the 2018 Injection Work Plan (AECOM, October 2018) submitted to NYSDEC on October 31, 2018. ABC-Ole® with ZVI, a mixture of Anaerobic Biochem, ZVI, and emulsified fatty acids, was selected to remediate impacted groundwater in an approximate 4,500 square foot area within the 100 µg/L total VOC plume, which was based on October 2018 groundwater sample data. This area encompassed monitoring wells MW-4, MW-8R, MW-16S/D and MW-13S/D and dual phase extraction wells DPE-3, DPE-4, DPE-5, DPE-7, and DPE-8. The injectate ABC-Ole® with ZVI, mixed as an approximately 15 percent by weight solution, was injected at 20 locations (**Figure 4**). Sixteen injection points received approximately 400 gallons of solution each, with the four locations adjacent to monitoring well cluster MW-16 receiving approximately 500 gallons of injectate each. The injectate was distributed at depth intervals of 11, 14, 17, and 20 ft bgs and targeted the shallow water bearing unit.

To monitor the effectiveness of the November 2018 supplemental injections over time, monitored natural attenuation (MNA) parameters were collected from five monitoring wells (MW-4, MW-8R, MW-13S, MW-16S, and MW-16D) prior to the injection event. MNA samples were also collected from the same five wells during the April 2019, July 2019, October 2019, April 2020, April 2021, and April 2022 sampling events; note, background monitoring well MW-11 was included in the April 2021, October 2021, and April 2022 sampling events.

On September 15 and 16, 2021, AECOM completed bioaugmentation injections per the August 30, 2021 Bioaugmentation Injection Work Plan (AECOM, August 2021) using microbial culture KB-1® Plus and the

KB-1® Primer supplied by SiREM (refer to **Figure 5** for injection locations). Just prior to the bioaugmentation injections, the GWCT and DPE remedial systems were taken off-line. The bioaugmentation solution was injected in to the subsurface at nine locations via direct push technology, targeting either 3 or 4 discrete intervals ranging between 5 and 20 ft bgs depending on the location. Each injection point around locations MW-8R, DPE-4, and DPE-8 received approximately 200 gallons of KB-1® Plus/Primer (i.e., injectate) which was distributed at 5-foot depth intervals (5, 10, 15, and 20 ft bgs), targeting either the shallow or shallow and deep overburden groundwater zones. Each injection point around locations MW-16S and DPE-7 received approximately 150 gallons of injectate and was distributed at three depth intervals (8, 13, and 18 ft bgs), targeting the shallow overburden groundwater zone.

The KB-1® Primer came in pouches suitable for mixing with approximately 250 gallons of potable water. An appropriate amount of the KB-1® Primer was weighed with a scale provided by SiREM and mixed with the amount of water required for each injection location (i.e., 60% of a KB-1® Primer pouch for 150 gallons or 80% of a pouch for 200 gallons). The KB-1® Primer water mix was ready to inject when fully dissolved and upon pH and oxygen reduction potential (ORP) readings meeting the specifications designated by SiREM (i.e., 6 to 8.3 standard units for pH, and < -75 millivolts for ORP).

Injection flow rates for the injections ranged from approximately 3 to 12.5 gallons per minute (gpm). The target volume of injections for each discrete interval regardless of location was 50 gallons (to minimize short circuiting or breakthrough). This is the minimum amount of KB-1® Primer water recommended by SiREM to support the KB-1® Plus. At each interval, approximately half the injection amount of KB-1® Primer water (25 gallons) was injected. A target amount of KB-1® Plus (approximately 0.6 liters) was then injected using nitrogen gas to push the anaerobic microbial injectate into the targeted interval. The remaining half of the primer water was subsequently injected. Injections were conducted using a bottom-up approach, starting at the lowest designated interval, and raising the rods up to the next interval following completion of the lower interval injection.

On October 4, 2021, two weeks prior to the fourth quarter 2021 (October 2021) groundwater sampling event, the GWCT was brought back on-line. On November 23, 2021, approximately 40 days following the bioaugmentation injection event, AECOM and Matrix Environmental Technologies, Inc. (Matrix) performed O&M activities on the DPE system (including winterization activities) and brought DPE-1, DPE-2, and DPE-5 back on-line. Note DPE-1, DPE-2, and DPE-5 are located up/side-gradient of the regional groundwater flow and outside the bioaugmentation injection area. Contradictory to the work plan, during the winter months, DPE-1, DPE-2, and DPE-5 were not cycled, but remained on-line to keep the DPE remedial system components from freezing if the system were to be kept totally off-line. AECOM submitted the Bioaugmentation Injection Program Summary Report on December 28, 2021 (AECOM, December 2021).

On March 3, 2023, following NYSDEC-approval of the Electron Donor Injection Program Work Plan (AECOM, March 2023), AECOM's drilling subcontractor Matrix installed two shallow overburden injection wells (IW-01 and IW-02) immediately upgradient of MW-16S; refer to **Figure 6** for the location of the injection wells. Following installation and development of the injection wells, the injections were initiated during the week of March 6, 2023. The injection well construction diagram is included as **Figure 7**.

The injectate consisted of an extended release electron donor solution (EDS-ER™: vegetable oil-based donor), a quick release donor solution (EDS-QR™: a soluble glycerol-based high hydrogen-content electron donor), a solution to stimulate biological activity (TersOX™, Nutrients-QR: a source of nitrogen and phosphorus to avoid nutrient limitations for biostimulation programs); and the "chaser" solution (KB-1® Primer: chemicals to drive source water anoxic, buffer pH, remove chlorine and protect organohalide respiring bacteria). The total volume of mixed injectate solution to be used is approximately 3,000 gallons.

The injectate was mixed on Site in 10 gallon batches using the following ratio:

EDS-ER™	EDS-QR™	TersOX™ Nutrients- QR	KB-1® Primer	Anoxic Injection Volume
22.4 ounces/ 635 grams	30.4 ounces/ 862 grams	1.3 ounces/ 38 grams	1.1 ounces/ 32 grams	10 gallons

Once the desired amount of injectate solution was mixed, it was tremmied/pumped into the water column in each of the two newly installed injection wells. In addition, three shallow overburden DPE wells (DPE-3, DPE-5, and DPE-8) were also used as injection points, with the DPE well system toggled both on- and off-line as needed to move the injectate horizontally through the subsurface. Five to ten gallons of donor solution was added to the injection points three days per week and planned to be continued over a three-month period, or as fast as the subsurface would absorb the volume.

1.3 Remedial Action Objectives

Cleanup criteria for Site soil and groundwater are based on the RAOs established in the ROD (NYSDEC, November 1994). **Table 1** presents the Site-specific cleanup criteria for the contaminants of concern. The RAOs for the combined soil and groundwater remediation system include:

1. Maintain hydraulic control of shallow groundwater and eliminate potential off-Site migration of VOCs along the western property boundary.
2. Lower the groundwater table within the impacted source area to expose the aquifer matrix and subsequently extract soil vapors containing VOCs using enhanced vacuum extraction. By lowering the water table surface, the DPE system induces groundwater flow toward the system extraction wells, thereby allowing the applied vacuum to remove VOCs more effectively in the exposed aquifer matrix.
3. Reduce the mass of VOCs in the subsurface and remediate Site soil and groundwater to meet RAOs.
4. Obtain No Further Action status for the Site.

2. Current Remediation System Configuration and Operation and Maintenance Summary

This section provides a description of the current remediation system configuration and a summary of combined DPE remediation system O&M activities conducted during the reporting period (April 8, 2022 through April 12, 2023).

2.1 Current Remediation System Description and Configuration

As described in Section 1.2.4.2 of this report, the initial groundwater remediation system installed at the Site consisted of a 200-foot long GWCT and an associated groundwater treatment system located to the west of Plant 2. The GWCT remediation system was combined to operate with a new DPE remediation system, which was installed at the Site between February and May 2004. The combined remediation systems, known collectively as the combined DPE remediation system, began operation on May 14, 2004.

Figure 2 depicts the combined DPE remediation system including DPE system recovery wells, monitoring wells and nested piezometers, DPE system piping locations, the DPE system trailer, and the pre-existing GWCT and GWTB. The DPE system consists of eight recovery wells. **Figure 8** presents a typical DPE recovery well construction diagram. Three additional monitoring wells (MW 8R, MW-11 and MW-12) and four pairs of nested piezometers (MW-13S/D through MW-16S/D) were also installed as part of DPE system construction activities and monitoring activities completed in 2004 and 2005. A typical nested piezometer construction diagram is shown in **Figure 9**. Monitoring well, nested piezometer, injection well and DPE system recovery well construction details are provided in **Table 2**. Section 2 of the first RAER provides a detailed summary of recovery well and monitoring well installation, subsequent DPE system installation, and DPE system equipment specifications (Earth Tech, November 2005). **Figure 10** presents the process and instrumentation diagram for the combined DPE remediation system. Note that there are no buildings located over the groundwater plume. Any VOC vapors are collected through the DPE system and monitored through a quarterly sampling program; refer to Section 4.1.1.

2.2 Combined DPE Remediation System Operation Summary

During the current reporting period from April 8, 2022 through April 12, 2023, the total volume of groundwater treated and discharged to the sanitary sewer via the AS unit was approximately 776,430 gallons, at a combined average flow rate of 1.48 gpm. The treated groundwater was discharged to the BSA via the local sanitary sewer system under permit No. 21-10-E4054.

2.3 Routine DPE System Maintenance and Troubleshooting

The following subsections describe routine remedial system maintenance and troubleshooting as well as associated waste disposal that occurred during the current reporting period.

2.3.1 Routine System Maintenance

During routine weekly Site visits, AECOM personnel recorded system operating parameters, and inspected and cleaned the various system components and piping as needed. Minor system repairs were also made as necessary throughout the reporting period. The O&M data collected during the Site visits was recorded using the O&M checklist presented in **Appendix A**. Data collected on these checklists are used to track the performance of the system.

2.3.2 System Troubleshooting and O&M

Sporadic system shutdowns and delays that required troubleshooting and maintenance occurred during the current reporting period. These activities, along with O&M activities, are summarized below. (Note: This information is based on a Scott Figgie LLC fiscal year, which begins on October 1st.)

Third Quarter 2022 (following April 2022 sampling event through end of July 2022 sampling event)
combined DPE remedial system O&M:

- On June 23, 2022, AECOM and Matrix performed quarterly O&M on the GWCT and DPE remediation systems including repairing DPE valves and installing new DPE sight tubes on the header assembly. DPE-3, DPE-4, DPE-7, and DPE-8 were brought back on-line following discussions with bioaugmentation subcontractor SiREM; recall those DPE wells were taken off-line in September 2021 to accommodate the bioaugmentation injection event (DPE-6 remains off-line due to historic calcium hydroxide build up issues).

Fourth Quarter 2022 (following July 2022 sampling event through end of October 2022 sampling event)
combined DPE remedial system O&M:

- On July 19, 2022, AECOM and Matrix repaired the DPE system trailer cooling fan.

First Quarter 2023 (following October 2022 sampling event through end of January 2023 sampling event)
combined DPE remedial system O&M:

- On November 28, 2022, AECOM and Matrix installed a new Newterra-brand carbon steel knockout tank.
- During the week of December 19, 2022, AECOM and Matrix began the installation of the new QED Model EZ-2.4P HDPE four tray air stripper unit; the GWCT.
- During the week of December 19, 2022, AECOM and Matrix began the annual O&M of the remedial systems (i.e., cleaned totalizers and removed sediment from the knockout tank, hold tank, and air stripper).

Second Quarter 2023 (following January 2023 sampling event through end of April 2023 sampling event)
combined DPE remedial system O&M:

- During the week of January 9, 2023, AECOM and Matrix completed the installation of the new QED Model EZ-2.4P HDPE four tray air stripper unit and associated programming of the air stripper unit to the DPE system.
- During the week of January 9, 2023, AECOM and Matrix completed the annual O&M of the remedial systems (i.e., liquid ring pump oil and filter change).

2.3.3 Waste Disposal

In January of 2023, AECOM completed the annual recertification of the Site's waste stream with Heritage Environmental Services, LLC. No waste was transported off Site during the reporting period.

3. Groundwater Monitoring Summary

The following subsections provide a detailed description of groundwater monitoring activities conducted during the current reporting period (April 8, 2022 through April 12, 2023), a review of the most recent comprehensive groundwater monitoring event analytical results, and a comparison of those results to historical comprehensive groundwater monitoring event analytical data.

3.1 Description of Groundwater Monitoring Activities for the Reporting Period

The groundwater monitoring program associated with the original GWCT system was combined with the monitoring program developed for the new DPE system in May 2004. Monitoring wells sampled during this reporting period were in general accordance with Table 14 of the NYSDEC-approved Seventeenth PRR (AECOM, June 2022). A total of four groundwater monitoring events were performed during the current reporting period (**Table 3**). These included three targeted quarterly monitoring events (July 2022, October 2022, and January 2023) and one comprehensive monitoring event (April 2023).

In July 2022, October 2022, and January 2023, quarterly sampling was performed, which targeted three perimeter monitoring wells (MW-2, MW-3, and MW-11) and six wells located within the TCE plume (MW-4, MW-8R, MW-13S, MW-13D, MW-16S, and MW-16D). In addition, DPE wells (DPE-1, DPE-2, DPE-3, DPE-4, DPE-5, DPE-6, DPE-7, and DPE-8) and the GWCT manhole were sampled during the quarterly events.

In April 2023, a comprehensive groundwater monitoring event was conducted that included all Site monitoring wells and nested piezometer pairs (14 total wells), all eight DPE wells, and the GWCT manhole. Discussions of the results and the associated laboratory reports for the July 2022, October 2022, and January 2023 groundwater sampling events were provided to the NYSDEC in quarterly monitoring summary reports (AECOM, August 2022; AECOM, November 2022; and AECOM, February 2023). A discussion of the groundwater analytical results for the comprehensive April 2023 sampling event is presented in Section 3.3 of this report.

3.2 April 2023 Groundwater Sampling, Elevations, and Groundwater Flow Direction

AECOM personnel collected groundwater samples for the latest comprehensive monitoring event between April 3 through 12, 2023 in accordance with the procedures outlined in the NYSDEC-approved RDWP. The monitoring wells sampled in April 2023 are listed in **Table 3**. Groundwater sampling logs generated during the April 2023 sampling event are provided in **Appendix B**. Groundwater samples were analyzed for VOCs by Eurofins Environment Testing Northeast, LLC located in Amherst, New York, using United States Environmental Protection Agency (USEPA) Analytical Procedures Manual SW-846, Method 8260C.

A complete round of groundwater levels was measured for all Site monitoring wells, piezometers, and the GWCT manhole. **Table 4** provides a summary of groundwater elevations measured on April 3, 2023. A historical summary of groundwater levels and corresponding elevations and hydrographs for each monitoring well and nested piezometer pair is provided in **Appendix C**. Monitoring wells MW-2, MW-3, MW-4, MW-8R, MW-9, and MW-11 are screened across both the shallow and deep water-bearing units. The nested piezometer pairs (MW-13S/D, MW-14S/D, MW-15S/D, and MW 16S/D) are discretely screened, with one piezometer screened in the shallow water-bearing unit ('S' designation) and one piezometer screened in the deep water-bearing unit ('D' designation). DPE wells DPE-1, DPE 3, DPE-5, DPE-6, and DPE-8 are screened in the shallow water-bearing unit, while DPE-2, DPE 4, and DPE-7 are screened in the deep water-bearing unit. The GWCT is installed in the deep water-bearing unit.

Two groundwater surface contour maps for April 2023 are provided. The average water levels calculated for the nested piezometer pairs and monitoring wells, in conjunction with DPE well water level data, were used to generate the groundwater surface contours presented in **Figure 11**. **Figure 12** illustrates the

groundwater surface contours using only monitoring well, deep piezometer, and deep DPE water level data.

Groundwater elevations measured at monitoring wells and piezometers in April 2023 ranged from 670.61 ft above mean sea level (AMSL) at DPE-2 to 687.17 ft AMSL at MW-15S. The average groundwater surface elevation across the site (using groundwater elevations from monitoring wells only, as DPE groundwater elevations were not available for January 2023) was 0.45 feet lower when compared to the prior round of groundwater elevation measurements collected in January 2023. The decrease in groundwater elevations may be attributable to seasonal variations and optimization of the DPE recovery wells. Based on these water level measurements, the groundwater surface beneath the Site continues to exhibit an inward radial pattern (i.e., cone of depression), and groundwater flows inward towards the operating DPE recovery wells and the GWCT. **Figure 11** and **Figure 12** show depressions in the water table surface centered on the DPE wells for shallow (average) overburden and along the GWCT for deep overburden. The historical groundwater flow direction at the Site before active groundwater remediation was initiated had been predominantly to the northwest. These figures indicate that the GWCT remediation system continues to induce groundwater flow reversal along the western property boundary. This groundwater flow reversal helps to provide sustained hydraulic capture of the on-Site groundwater.

3.3 April 2023 Groundwater Analytical Results

The April 2023 groundwater sampling event was the eighteenth comprehensive sampling event conducted at the Site following the installation of the DPE system in May 2004. VOCs detected in groundwater from monitoring wells during the April 2023 sampling event are presented in **Table 5**. The following table summarizes the VOCs detected, their respective concentration ranges, the number of detections, and the number of those detections that exceeded Site-specific groundwater RAOs or groundwater criteria presented in NYSDEC Technical and Operational Guidance Series (TOGS) 1.1.1 (NYSDEC, June 1998, January 1999 errata sheet, April 2000 addendum, June 2004 addendum) protection for source of drinking water (groundwater) standards (i.e., water class GA); herein referred to as TOGS 1.1.1 groundwater standards.

Groundwater Quality Results - April 2023

VOCs Detected in Groundwater	Concentration Range (µg/L)	Number of Detections	RAO/TOGS 1.1.1 Exceedances
cis-1,2-Dichloroethene*	1.3 – 150,000	10	6
Vinyl chloride*	1.3 – 95,000	10	6
1,1-Dichloroethane*	0.52 – 820	8	5
Chloroethane*	2.4 – 170	7	5
Acetone	3.5 – 72	4	1
Toluene*	2.6 – 170	2	1
1,2-Dichloroethane*	0.42 – 0.97	2	0
Trichloroethene*	31	1	1
Xylenes, total*	24	1	1
2-Butanone (MEK)	20	1	0
Chloroform	0.48	1	0
Benzene	0.42	1	0

* Site-specific Remedial Action Objective

Twelve VOCs were detected in groundwater at monitoring wells and piezometers during the April 2023 sampling event. Eight of the 12 VOCs detected exceeded either the Site-specific RAOs or the TOGS 1.1.1 criteria for groundwater at one or more monitoring wells. **Figure 13** through **Figure 22** illustrate April 2023 isoconcentration contours from monitoring wells, DPE extraction wells, and the GWCT for 1,1,1-trichloroethane (1,1,1-TCA), 1,1-dichloroethane (1,1-DCA), cis-1,2-DCE, chloroethane, toluene, TCE, VC, xylenes (total), and total VOCs (shallow and deep overburden), respectively. Note: concentration contours were not generated for ethylbenzene as this compound was not detected. These compounds are listed in the ROD as the Site-specific compounds for which RAOs were established (refer to **Table 1**).

As shown, the highest concentrations of VOCs were detected just west of the GWCT and in the former soil excavation area, in a suspected remnant source area located in the vicinity of monitoring wells and piezometers MW-8R, MW-15S, and MW-16S, and DPE wells DPE-5, DPE-7, and DPE-8. Cis-1,2-DCE, VC, 1,1-DCA, chloroethane, and toluene exhibited the highest overall concentrations in Site groundwater. As has been observed historically, the shallow piezometers, which are screened in silts and clays, generally showed higher concentrations of the most frequently detected VOCs when compared to their deeper piezometer counterparts, which are screened in sands and gravels located immediately above bedrock.

3.4 Comparison of April 2023 Groundwater Analytical Data with Historical Groundwater Analytical Data

As previously described, quarterly groundwater quality data obtained during the reporting period, except for the April 2023 sampling event, was previously submitted to the NYSDEC in quarterly summary reports. Trend plots illustrating concentrations of TCE, cis-1,2-DCE, VC, 1,1,1-TCA, 1,1-DCA, and chloroethane over time are provided in **Appendix D**. Because concentrations of TCE were historically the highest detected of the contaminants of concern at the Site, a presentation of historical and current TCE concentrations in groundwater at Site monitoring wells and piezometers is provided in **Table 6**.

TCE was reported above the Site-specific RAO at one monitoring well (MW-15S); note that well MW-15S is in the excavation fill area and was not targeted during the injection pilot test programs. Based on the decrease in concentration of TCE at these locations, as well as other locations with historical detections of TCE, the previous injections appear to be contributing to the ongoing degradation of TCE. This is most clearly demonstrated on the TCE trend plots in **Figures 23** through **26** for monitoring wells MW-4, MW-8R, MW-13S, and MW-16S, respectively.

3.5 Groundwater Collection Trench and Dual Phase Extraction Wells Groundwater Analytical Data

A grab sample was collected from the GWCT during each of the four quarters included in the reporting period; these data are summarized in **Table 7**. Note that GWCT VOC data are not available prior to July 24, 2015. Although the VOC concentrations in the GWCT are relatively low, the GWCT remediation system continues to induce groundwater flow reversal along the western property boundary. This groundwater flow reversal aids in providing sustained hydraulic capture of the on-Site groundwater and is illustrated in the groundwater surface contour maps presented in **Figure 10** and **Figure 11**.

As stated above, groundwater grab samples were collected from DPE wells and analyzed for VOCs and total organic carbon (TOC). Analytical data are presented in **Table 8** and generally show decreasing trends of chlorinated VOCs in groundwater following the November 2014 injection pilot test at the DPE wells closest to the injections.

An electronic copy of the analytical laboratory data package for the April 2023 sampling event is provided in **Appendix E** on a CD.

3.6 Monitored Natural Attenuation

As stated in Section 1.2.7, to monitor the effectiveness of the injections over time, MNA parameters were collected from MW-4, MW-8R, MW-11, MW-13S, MW-16S, and MW-16D. Results of the April 2023 MNA

samples are summarized in **Table 9**. Per **Table 9**, all five wells sampled for MNA parameters (not including background monitoring well MW-11) show strong evidence for anaerobic biodegradation of chlorinated organics to occur; background well MW-11, outside the contaminant plume, shows adequate evidence for anaerobic biodegradation of chlorinated organics.

The use of the enhanced reductive dechlorination (ERD) amendments ABC+[®] and ABC-Ole[®] with ZVI were designed to provide needed nutrients, such as a soluble lactic acid carbon source, a phosphate buffer to control pH for optimum microbial growth, and ZVI which accelerates abiotic dechlorination of chlorinated ethenes and ethanes. In September of 2021, AECOM completed a bioaugmentation injection event using microbial culture KB-1[®] Plus and the associated KB-1[®] Primer. Microbial analyses continues to indicate that the necessary concentrations of bacteria such as *Dehalococcoides* (Dhc) species producing the enzymes tceA Reductase and VC reductase, remain present in the subsurface (further discussion is presented in Section 3.8). Over time, stimulation of the native bacteria by the injection of ABC+[®] and extra nutrients where chlorinated solvents are present in Site groundwater as well as the completion of bioaugmentation in September 2021 have dramatically reduced the concentrations of the original parent chlorinated VOCs, TCE and 1,1,1-TCA. The initial concentrations of known TCA degradation products (1,1-DCA and chloroethane), as well as of TCE degradation products (1,2-DCE isomers and VC), suggest that reductive dechlorination of the chlorinated solvents present in site groundwater as a result of the November 2018 ABC+[®] injection event and the September 2021 event continues to occur.

In March 2023, just prior to the April 2023 groundwater sampling event, AECOM began an electron donor and bioaugmentation program using a mixture of injectates that consisted of an extended release electron donor solution (EDS-ER[™]: vegetable oil-based donor), a quick release donor solution (EDS-QR[™]: a soluble glycerol-based high hydrogen-content electron donor), a solution to stimulate biological activity (TersOX[™] Nutrients-QR: a source of nitrogen and phosphorus to avoid nutrient limitations for biostimulation programs), and a “chaser” solution (KB-1[®] Primer: chemicals to drive source water anoxic, buffer pH, remove chlorine and protect organohalide respiring bacteria). The electron donor program was conducted to accelerate the reductive dechlorination of the remaining parent chlorinated VOCs and to increase the production of degradation intermediates such as cis-1,2-DCE and VC (without long-term accumulation) before complete mineralization occurs.

3.7 Total Organic Carbon

Samples were collected for TOC analysis to monitor the concentration of organic carbon sources available for optimum microbial growth. As the TOC concentrations have decreased over time in the areas targeted during previous injections, the electron donor injection event which was initiated in March 2023 was conducted to increase TOC concentrations above 20 milligrams per liter (mg/L), which is the minimum rule-of-thumb TOC concentration required to maintain effective ERD. TOC remains above 20 mg/L in the vicinity MW15S/D, MW-16S/D, DPE-1, DPE-7, and DPE-8. Refer to **Figure 27** for TOC isoconcentration contours for April 2023.

3.8 Dechlorinating Bacteria Analysis

During the April 2023 groundwater sampling event, AECOM collected samples at MW-8R and MW-16S and submitted the samples to SiREM in Knoxville, Tennessee for analysis for volatile fatty acids (VFA) (MW-8R and MW-16S) and Gene-Trac[®] analysis (MW-16S). The following sections summarize the VFA and Gene-Trac[®] analyses.

3.8.1 Volatile Fatty Acids

In addition to a TOC concentration greater than 20 mg/L, the quantification of VFAs is useful to assess the form of TOC present and its availability to promote the reductive dechlorination process. VFAs are fermented by a variety of pathways to produce the hydrogen necessary for complete reductive dechlorination to occur. In general, VFAs should be in excess of 10 to 20 mg/L to be useful. Pre- and

post-injection VFA data is summarized in **Table 10**; the associated laboratory data reports are included in **Appendix E**.

SiREM analyzed for six VFAs during the pre-bioaugmentation injection sampling event in August 2021 and subsequent post-injection monitoring events in December 2021, April 2022, October 2022, and April 2023; the following compares the pre-bioaugmentation injection concentrations with the most recent post-bioaugmentation injection sampling event in performed in April 2023.

Lactate is a component of the ABC-Ole' that was injected at the Site in November 2018. Lactate ferments to the VFAs acetate and propionate. Lactate can be used as a measure of the remaining unused reducing potential of the previously injected ABC-Ole'. For monitoring well MW-8R, lactate reduced from a low detected concentration of 1.2 mg/L in August 2021 down to the detection limit (<0.62 mg/L) in April 2023. This indicates the depletion of this VFA at this well. For monitoring well MW-16S, lactate was non-detect at <0.39 mg/L and non-detect at <7.8 mg/L between August 2021 and April 2023, which also indicates depletion of this VFA. For the electron donor program initiated at the site in March 2023, the carbon substrates being added (i.e., EDS-QR™ and EDS-ER™) do not contain lactate, so the concentration of lactate detected in MW-16S is not expected to increase.

Acetate is fermented from lactate, ABC-Ole', EDS-QR™, EDS-ER™, and sugars. *Dehalobacter* (Dhb) can use acetate as a low energy source while Dhc cannot. Dhb is implicated in the biodegradation of chlorinated ethenes such as tetrachloroethene (PCE) and TCE to cis-1,2-DCE and in the biodegradation of the chlorinated ethane 1,1,1-TCA to 1,1-DCA and subsequently to chloroethane. As a result, the presence of acetate indicates that partial reductive dechlorination can occur. However, complete reductive dechlorination to ethene and ethane will not occur without the presence of other VFAs and Dhc. Acetate decreased in MW-8R (70 mg/L to 2.2 mg/L) and decreased in MW-16S (495 mg/L to 347 mg/L). More time is required to evaluate the impact of the electron donor program using EDS-QR™ and EDS-ER™ and the subsequent formation of acetate since it has been only one month between the initiation of the program and the April 2023 sampling event.

Propionate is fermented from lactate, ABC-Ole', EDS-QR™, EDS-ER™, and alcohols. Propionate subsequently ferments to produce hydrogen and formate. Hydrogen is the preferred electron acceptor for reductive dechlorination because of its high energy yield. Dhc can only use hydrogen as an energy source. Slow fermentation of propionate results in efficient reductive dechlorination (less methanogenesis) and optimal Dhc growth. Propionate was not detected in MW-8R in August 2021 or April 2023. It has never been detected in MW-8R. Propionate concentration increased by an order of magnitude in MW-16S from 12 mg/L in August 2021 to 240 mg/L in April 2023. This increase in propionate is most likely due to the electron donor program initiated in March 2023; however, more time is needed to determine if this increase is related to the program.

Formate is created from the fermentation of propionate. Formate is fermented to produce hydrogen and bicarbonate. Formate was not detected in MW-8R or MW-16S in August 2021 or April 2023.

Butyrate is created from the fermentation of ABC-Ole', EDS-QR™, EDS-ER™, and alcohols. Butyrate ferments to produce hydrogen and acetate. Slow fermentation of butyrate results in efficient reductive dechlorination (less methanogenesis) and optimal Dhc growth. Butyrate was not detected in MW-8R in August 2021 or April 2023. Butyrate was detected at MW-16S in August 2021 (81 mg/L) and has increased to 137 mg/L in April 2023. More time is needed to determine if the increase in butyrate in this well is due to electron donor program.

Pyruvate is created from the fermentation of sugars. Pyruvate is subsequently fermented to propionate and acetate with some hydrogen production. Pyruvate was not detected in MW-8R during the August 2021 or April 2023 sampling event. Pyruvate was detected (0.71 mg/L) in MW-16S in August 2021 and increased to 2.1 mg/L in April 2023. More time is needed to determine if the increase in pyruvate in this well is due to electron donor program.

Overall, the April 2023 VFA results for MW-8R indicate that the remaining TOC in the vicinity of this well is insufficient to promote complete reductive dechlorination. TOC was detected in MW-8R at a concentration of 16.1 mg/L, which is less than the rule-of-thumb concentration of 20 mg/L. A review of the chlorinated VOCs detected in this well in April 2023 seems to confirm that there is a lack of TOC needed for complete reductive dechlorination because only cis-1,2-DCE and chloroethane remain above their RAOs (**Table 4**). Acetate was detected at a low concentration of 2.2 mg/L; no other VFAs were detected in this well. For MW-16S, there was an increase in the concentration of three VFAs (propionate [non-detect to 240 mg/L], butyrate [non-detect to 137 mg/L], and pyruvate [0.71 to 2.1 mg/L]) between October 2022 and April 2023. Both propionate and butyrate produce hydrogen when fermented, which is essential for complete reductive dechlorination to occur. These results indicate that complete reductive dechlorination is possible in the vicinity of this MW-16S if Dhc is present in sufficient quantity. A discussion of Dhc, Dhb, and reductase results is provided in the next subsection.

3.8.2 Gene-Trac®

Gene-Trac® Dhc is used to detect Dhc in a groundwater sample. The detection of Dhc is significant as Dhc contains the greatest number of reductive dehalogenase genes of any microbial group. Dhc is capable of the reductive dechlorination of PCE, TCE, cis-1,2-DCE, 1,1-dichloroethene, trans-1,2-dichloroethene, and VC. Pre- and post-injection Gene-Trac® data is summarized in **Table 11**; laboratory data reports are included in **Appendix E**.

Gene-Trac® microbials in MW-16S were analyzed by SiREM during the pre-bioaugmentation injection in August 2021 and subsequent post-injection monitoring events in December 2021, April 2022, October 2022, and April 2023; the following compares the pre-bioaugmentation injection concentrations with the most recent post-bioaugmentation injection sampling event in performed in April 2023.

The post-injection Gene-Trac® Dhc results decreased from 1×10^9 Dhc gene copies per liter to 7×10^8 Dhc gene copies per liter. Per the technical notes from SiREM regarding interpretation of data, when the density of Dhc gene copies per liter is 1×10^7 or higher, this concentration is generally associated with significant rates of dechlorination.

Gene-Trac® *vcrA*, *bvcA*, and *tceA* gene analysis quantifies genes that code for reductase enzymes that dechlorinate chlorinated ethenes and other compounds. The *vcrA*, *bvcA*, and *tceA* genes play specific roles in reductive dechlorination. Specifically, the Gene-Trac® *vcrA* and *bvcA* test quantifies VC-reductase genes that produce enzymes that convert VC to ethene. The *vcrA* reductase gene is reported to be the most commonly identified VC reductase gene in the environment, whereas *bvcA* is generally less common but can predominate in more oxidizing groundwater and possibly where DCE is dominant. The Gene-Trac® *tceA* test quantifies the TCE reductase gene that produces an enzyme that primarily converts TCE to cis-1,2-DCE and VC.

The *vcrA* reductase gene was detected in MW-16S at 1×10^9 gene copies per liter in the August 2021 pre-injection sample but decreased to 8×10^8 gene copies per liter in the April 2023 post-injection sample collected. The *bvcA* reductase gene was detected in MW-16S at 1×10^8 gene copies per liter in August 2021 and at 8×10^7 gene copies per liter in April 2023. The *tceA* reductase gene was detected in MW-16S at 1×10^9 gene copies per liter in August 2021 and at 8×10^7 gene copies per liter in April 2023. Per the technical notes from SiREM, the potential for complete dechlorination is very high when Dhc, *vcrA*, *bvcA*, and *tceA* are present at greater than or equal to 1×10^7 gene copies per liter. Additionally, VC stall is unlikely when *vcrA* is greater than 1×10^7 gene copies per liter, and ethene is detectable. Ethene was detected at 33,000 µg/l and 47,000 µg/l in August 2021 and April 2023, respectively.

Gene-Trac® Dhb is used to detect Dhb in a groundwater sample. Dhb is implicated in the biodegradation of PCE and TCE to cis-1,2-DCE. The detection of Dhb indicates that dechlorination activities attributed to Dhb may be active. Increasing concentrations of Dhb are indicative of increased potential for degradation.

Dhb was detected at 5×10^7 gene copies per liter in August 2021 and at 1×10^6 gene copies per liter in April 2023.

In summary, *Dhc*, *vcrA*, *bvcA*, and *tceA* are present at MW-16S at concentrations that continue to indicate a significant potential for complete reductive dechlorination to occur. Because the electron donor and bioaugmentation program was only initiated in March 2023 and this sampling event occurred in mid-April 2023, additional time is needed to evaluate the overall impact of the program in the vicinity of this well.

3.9 Dechlorinating Chemical Analysis

In addition to the dechlorinating bacteria and degradative enzyme results, the presence and distribution of TCE degradation products (*cis*-1,2-DCE and VC) and 1,1,1-TCA degradation products (1,1-DCA and chloroethane) provide supportive evidence that the attenuation of TCE and 1,1,1-TCA and their degradation products via reductive dechlorination continues to occur in-situ at the Site. The occurrence and concentrations of these degradation products are directly related to the historic distribution of TCE and 1,1,1-TCA in the subsurface. The degradation products of TCE and 1,1,1-TCA were detected at their highest concentrations within the suspected source area near MW-4, MW-8R, MW-13S, and MW-16S. A limited number of other VOCs were sporadically detected in groundwater at the Site, with the majority of these detections located in groundwater at MW-15S (note, MW-15S/D is located in the lime-stabilized excavation fill area and were not targeted during previous injection events because the pH of the groundwater in this area is too high to promote biological activity). The Technical Protocol for Evaluating Natural Attenuation of Chlorinated Solvents in Ground Water (USEPA, September 1998) indicates that a pH value greater than 9 is outside the range for reductive dechlorination to occur. In April 2023, the pH measured at MW-15S was 12.27 standard units.

4. Groundwater Remediation System Monitoring and VOC Mass Removal Summary

This section describes system performance monitoring and summarizes the mass of VOCs removed by the combined DPE remediation system during the current reporting period from April 2022 through April 2023.

4.1 System Monitoring Results

Air discharge and water discharge monitoring results are discussed in the following subsections.

4.1.1 Air Discharge Monitoring

Samples were obtained from the vapor effluent of the AS and LRP on a quarterly basis and analyzed by Eurofins Environment Testing Northeast, LLC, located in South Burlington, Vermont, using USEPA Compendium Method TO-15. Based on the analytical results for the vapor samples collected, the exhaust mass-loading rate was calculated and provided to the NYSDEC in the Site quarterly groundwater monitoring reports. The combined total of the exhaust mass-loading rates for the vapor discharges was compared to the NYSDEC guidance value of 0.5 pounds per hour (lb/hr) of VOCs. Vapor effluent monitoring results for the first three monitoring events (July 2022, October 2022, and January 2023) during the reporting period were previously submitted to NYSDEC, and no exceedance of the NYSDEC standard for VOC emissions occurred. Refer to **Table 12** for a summary of air effluent data (including April 2023 data).

AECOM collected a vapor effluent sample from the AS unit and the LRP for the final quarterly monitoring event of the reporting period on April 6, 2023. The vapor effluent analytical results for the reporting period are summarized in **Table 13**, and an electronic copy of the analytical laboratory data package is provided on the enclosed CD in **Appendix E**. During the April 2023 sampling event, five VOCs were detected in the AS unit effluent, and eight VOCs were detected in the LRP effluent. The total VOC discharge from the combined DPE remedial system was 1,154.6 micrograms per cubic meter ($\mu\text{g}/\text{m}^3$). Based on the effluent totals, the calculated VOC discharge-loading rate for the remediation system was less than 0.00062 lb/hr, which is well below the NYSDEC discharge guidance value of 0.5 lb/hr.

4.1.2 Water Discharge Monitoring

Following the sale of the Site to AVOX Systems Inc. in September 2004, Scott retained the responsibility for BSA EC/BPDES permit compliance sampling and reporting, for a period of time specified by contract. The current BSA EC/BPDES permit (No. 21-10-E4054) is effective from October 1, 2021 through September 30, 2024.

The permit requires quarterly sampling of treated groundwater discharge from the combined DPE groundwater remediation systems for a specific list of VOCs, total extractable hydrocarbons (TEH), total suspended solids (TSS), and pH. The quarterly discharge samples are analyzed by Eurofins Environment Testing Northeast, LLC, located in Amherst, New York. AECOM collected permit compliance samples from the AS unit treated effluent discharge sampling point in July 2022, October 2022, January 2023, and April 2023. Each quarter, AECOM tabulated the analytical data, converted the data to mass loading rates, compared the results to the permit requirements, and prepared a letter report for submittal to the BSA and NYSDEC. No exceedance of any permit discharge limit occurred during any of the four reporting periods.

On October 7, 2022 AECOM participated in the BSA EC/BPDES annual compliance inspection. Per an email from BSA EC/BPDES dated October 10, 2022, no issues were identified, and the facility was in full compliance with the permit. Samples collected by BSA on October 7, 2022 were also in compliance with all permit requirements, per an electronic mail from BSA dated November 29, 2022.

4.2 Mass Removal Summary

The estimated VOC mass removed by the combined DPE system for both groundwater and soil vapor was calculated based on operational and analytical data collected between July 2022 and April 2023.

The mass removal via groundwater extraction by the remediation system was calculated using total influent VOC concentrations, collected quarterly, and AS unit totalizer readings. The aqueous phase calculations are presented in **Table 14**. As shown in the table, approximately 0.11 pounds of VOCs were removed via groundwater extraction by the combined DPE remediation system per data collected between July 2022 and April 2023.

In addition to the VOCs removed through the AS, the DPE system additionally collects vapor from the subsurface and volatilizes VOCs during the groundwater extraction process. Mass removal was calculated using LRP runtime measurements, the total average LRP effluent sample VOC concentration for the reporting period, and the actual LRP airflow rate based on the manufacturer's operational curve, converted to standard cubic feet per minute. These calculations are presented in **Table 12**; approximately 4.23 pounds of VOCs were removed via the vapor phase from the combined DPE remedial system. Therefore, including both mass removal through groundwater and vapor, a total of 4.34 pounds of VOCs are estimated to have been removed by the combined DPE remediation system during the current reporting period (year).

Combining the totals for the 18 reporting periods, the cumulative mass of VOCs removed by the combined DPE remediation system is estimated at 3,046 pounds since the startup of the system in its current configuration on May 14, 2004.

5. Conclusions and Recommendations

Based on results of the remediation system analytical and operational data collected during the reporting period, conclusions, upcoming Site-related activities, and a proposed system monitoring schedule are presented below.

5.1 Conclusions

1. The GWCT and DPE ran continuously except for minor repairs and O&M activities which required the systems to be temporarily taken offline as needed.
2. During the current reporting period from April 8, 2022 through April 12, 2023, the total groundwater treated and discharged to the sanitary sewer via the AS unit was an estimated 776,430 gallons, at a combined average flow rate of 1.48 gpm.
3. Approximately 4.34 pounds of VOCs were removed by the combined remediation system from April 8, 2022 through April 12, 2023. An estimated cumulative total of 3,046 pounds of VOCs has been removed since combined DPE remediation system startup on May 14, 2004.
4. The system discharges were in compliance with applicable requirements (i.e., BSA EC/BPDES permit effluent discharge limits for liquids, and the NYSDEC air emission standard for vapor of 0.5 lb/hr) throughout the reporting period.
5. Groundwater elevations measured at monitoring wells and piezometers ranged from 670.61 ft AMSL at DPE-2 to 687.17 ft AMSL at MW-15S. The groundwater surface exhibits a cone of depression with groundwater flowing inward towards the active DPE wells and GWCT. The DPE wells and GWCT continue to induce groundwater flow reversal along the western property boundary, which serves to mitigate off-Site migration of VOCs in the shallow and deep overburden groundwater.
6. The groundwater analytical data and groundwater elevation data indicate that the DPE system and GWCT continued to maintain hydraulic control of groundwater by capturing potential off-Site migration of VOCs along the western property boundary.
7. During the April 2023 comprehensive groundwater sampling event, Site-specific VOCs 1,1,1 TCA and ethylbenzene were not detected in monitoring wells or piezometers; TCE was detected above its Site-specific RAO in monitoring well MW-15S and in extraction wells DPE-1, DPE-3, DPE-6, and DPE-8.
8. Cis-1,2-DCE, VC, 1,1-DCA, and chloroethane exhibited the highest overall concentrations and were the most frequently detected VOCs in groundwater. For the April 2023 comprehensive groundwater sampling event, the highest concentrations of VOCs were detected just west of the GWCT and in the former source area soil excavation.
9. The presence and distribution of TCE degradation products (cis-1,2-DCE and VC) and 1,1,1 TCA degradation products (1,1-DCA and chloroethane), coupled with the Gene-Trac® results from April 2023, continue to provide supportive evidence for the attenuation of TCE and 1,1,1-TCA, and their degradation products, via in-situ reductive dechlorination and in situ chemical reduction.
10. The location with the highest historical concentrations of contaminants of concern (MW-16S) has a TOC concentration above 20 mg/L, the minimum rule-of-thumb TOC concentration required to maintain ERD. Although TOC has fallen below 20 mg/L at MW-4 and MW-8R, it is anticipated that the concentrations will increase as a result of the ongoing electron donor and bioaugmentation injection program.
11. More time is required to evaluate and understand the impact of the electron donor and bioaugmentation program that was initiated in March 2023 on the targeted chlorinated VOCs in Site groundwater.

5.2 Recommendations

Based on information gathered during the current reporting period, the following recommendations are proposed for the Site:

1. Clean and/or replace the manifold for the DPE system that has become fouled with lime buildup, prior to the next comprehensive groundwater sampling event in April 2024.
2. Redevelop the DPE wells with acid, if needed, to remove excessive lime buildup prior to the next comprehensive groundwater sampling event in April 2024.
3. Flush the DPE conveyance piping with acid to remove excessive lime buildup prior to the next comprehensive groundwater sampling event in April 2024.
4. Continue to sample active DPE wells and the GWCT for VOCs.
5. Continue to perform O&M activities as listed in **Table 14**.
6. Perform three targeted quarterly groundwater sampling events and one comprehensive groundwater sampling event during the next reporting period.
7. Continue to monitor the performance of the September 2021 bioaugmentation injection program by performing semi-annual MNA sampling at MW-4, MW-8R, MW-11, MW-13S, MW-16S, and MW-16D.
8. Increase the VFA sample collection and analysis for MW-8R from semi-annual to quarterly (i.e., include the analysis in July 2023 and January 2024).
9. Increase the VFA and Gene-Trac® sample collection and analysis for MW-16S from semi-annual to quarterly (i.e., include the analysis in July 2023 and January 2024, as well as October 2023 and April 2024).
10. Assess in-situ bioaugmentation using microbial cultures to promote complete reductive dechlorination to the end products chloroethane and ethene.
11. Finalize a Site Management Plan following direction from NYSDEC.

5.3 Proposed Monitoring and Compliance Sampling Schedule

The proposed schedule for groundwater sampling at the Site during the next reporting period is presented in **Table 15**. As shown in **Table 15**, three perimeter wells (MW-2, MW-3, and MW-11), six historic source area wells (MW-4, MW-8R, MW-13S, MW-13D, MW-16S, and MW-16D), eight DPE wells (DPE-1, DPE-2, DPE-3, DPE-4, DPE-5, DPE-6, DPE-7, and DPE-8), and the GWCT will be sampled during the next three targeted quarterly events (July 2023, October 2023, and January 2024) for the next reporting period. The comprehensive groundwater monitoring event scheduled for April 2024 is planned to include all 14 Site monitoring wells and nested piezometers, the DPE wells (DPE-1, DPE-2, DPE-3, DPE-4, DPE-5, DPE-6, DPE-7, and DPE-8), and the GWCT.

Prior to each collection of groundwater samples, a complete round of water level measurements will be conducted. Groundwater samples will be analyzed for VOCs using USEPA SW-846 Method 8260C. Quality assurance/quality control samples will include equipment blanks, trip blanks, and blind duplicate samples. Laboratory batch quality control will be included with the completed data package.

If the DPE system remains in operation, quarterly air samples from the AS unit and LRP vapor effluent sampling ports will be collected to ensure compliance with the NYSDEC exhaust mass-loading rate guidance of 0.5 lb/hr of VOCs. Quarterly vapor effluent air samples will be collected from the LRP when on-line to determine the mass of VOCs removed by the DPE system as a vapor. The samples will be analyzed for VOCs utilizing USEPA Compendium Method TO-15.

Quarterly aqueous samples from the discharge to the sanitary sewer will be collected as specified in the current BSA EC/BPDES discharge permit. If the AS unit is in operation, influent samples will be collected to determine the treatment efficiency of the AS unit. Effluent samples will be analyzed for VOCs, TEH,

TSS, and pH as specified in the current permit. **Table 16** provides a summary of the proposed monitoring and compliance sampling activities during the next reporting period. In the event any effluent permit monitoring requirements change, notification of these changes will be given to the NYSDEC in a future quarterly groundwater monitoring summary report.

The next PRR (nineteenth comprehensive report since DPE system startup in May 2004) for the combined DPE remediation system will be prepared following the receipt of laboratory analytical results for the April 2024 comprehensive groundwater sampling event and will cover the period of April 2023 through April 2024.

6. Evaluate Remedy Performance, Effectiveness, and Protectiveness

6.1 Institutional Controls and Engineering Controls Certification

An IC/EC certification form was not distributed by NYSDEC for this reporting period; NYSDEC directed AECOM to update the June 5, 2020 IC/EC certification form for the current reporting period. AECOM verified that the institutional and engineering controls listed below are being implemented and are in compliance with the June 5, 2020 IC/EC certification form.

Institutional controls include:

1. Monitoring Plan
2. O&M Plan

Engineering controls include:

1. Groundwater Treatment System
2. Vapor Mitigation
3. Cover System
4. Groundwater Containment

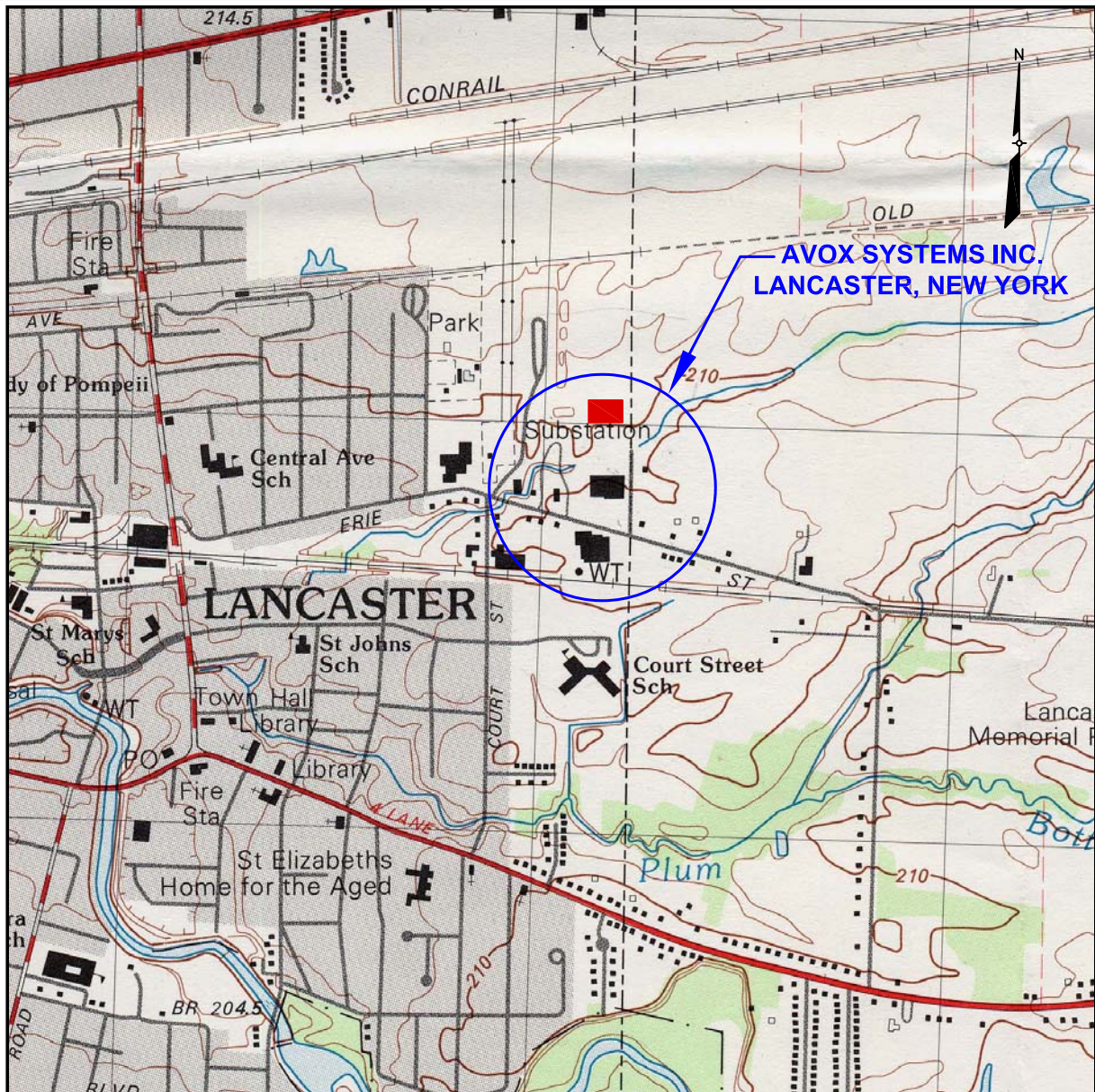
As a component of the PRR requirement, **Appendix F** includes the completed IC/EC certification.

7. References

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- NYSDEC. Division of Hazardous Waste Remediation. November 1994. "Record of Decision, Scott Aviation Site, Village of Lancaster, Eric County, I.D. Number 9-15-149".
- O'Brien & Gere Engineers, Inc. July 1996. "Soil and Ground Water Remediation Project, Scott Aviation, Lancaster, New York".

USEPA. September 1998. "Technical Protocol for Evaluating Natural Attenuation of Chlorinated Solvents in Ground Water", EPA/600/R-98/128, Office of Research and Development, Washington D.C.

Figures



SOURCE:
1982 GEOLOGIC SURVEY 7.5 X 15 MINUTE TOPOGRAPHIC QUADRANGLE
LANCASTER, NEW YORK

LEGEND



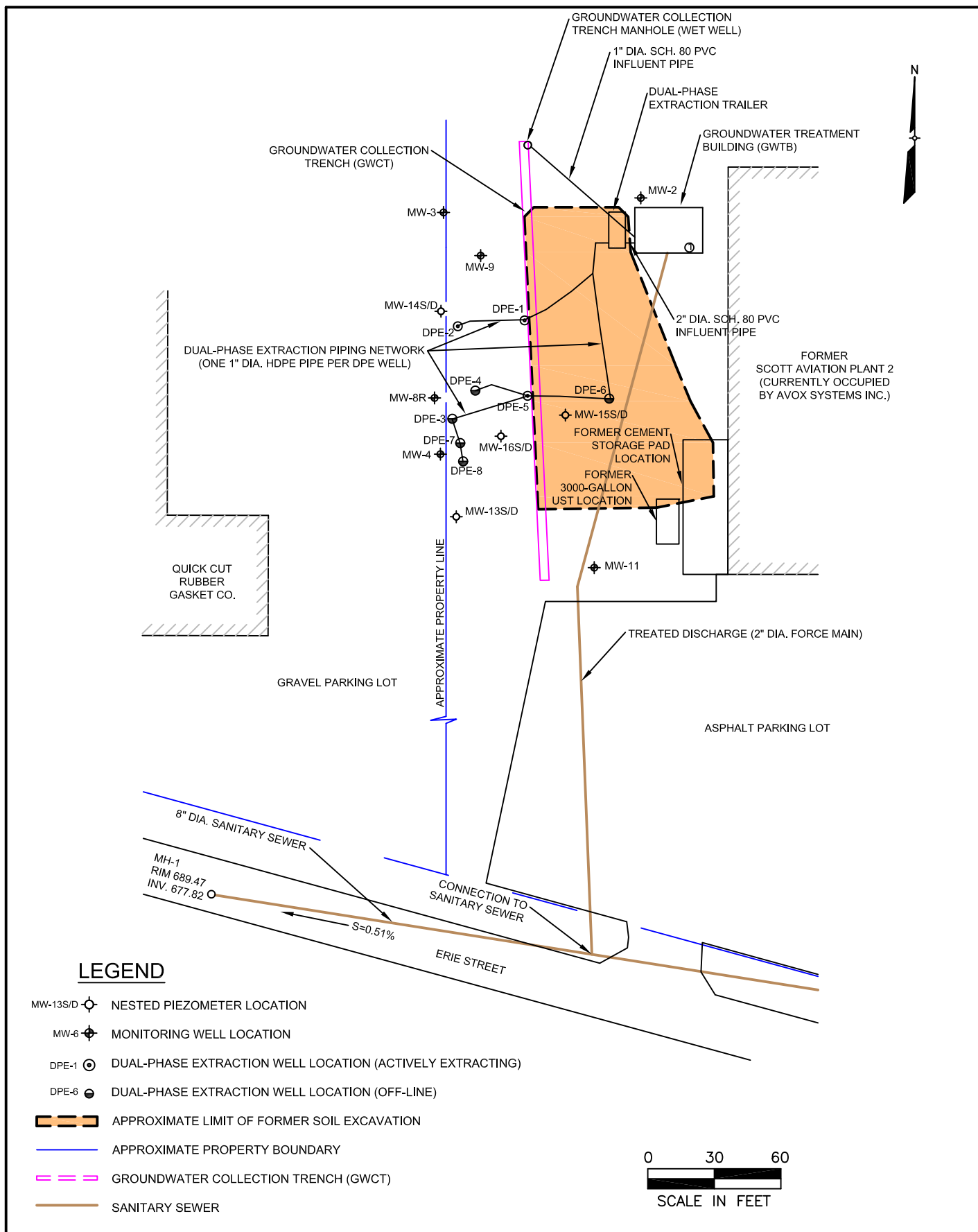
AVOX PLANT 3 ADDED AFTER PUBLICATION OF LANCASTER, NEW YORK
TOPOGRAPHIC QUADRANGLE.

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SCALE IN FEET

AECOM

FIGURE 1
SITE LOCATION MAP

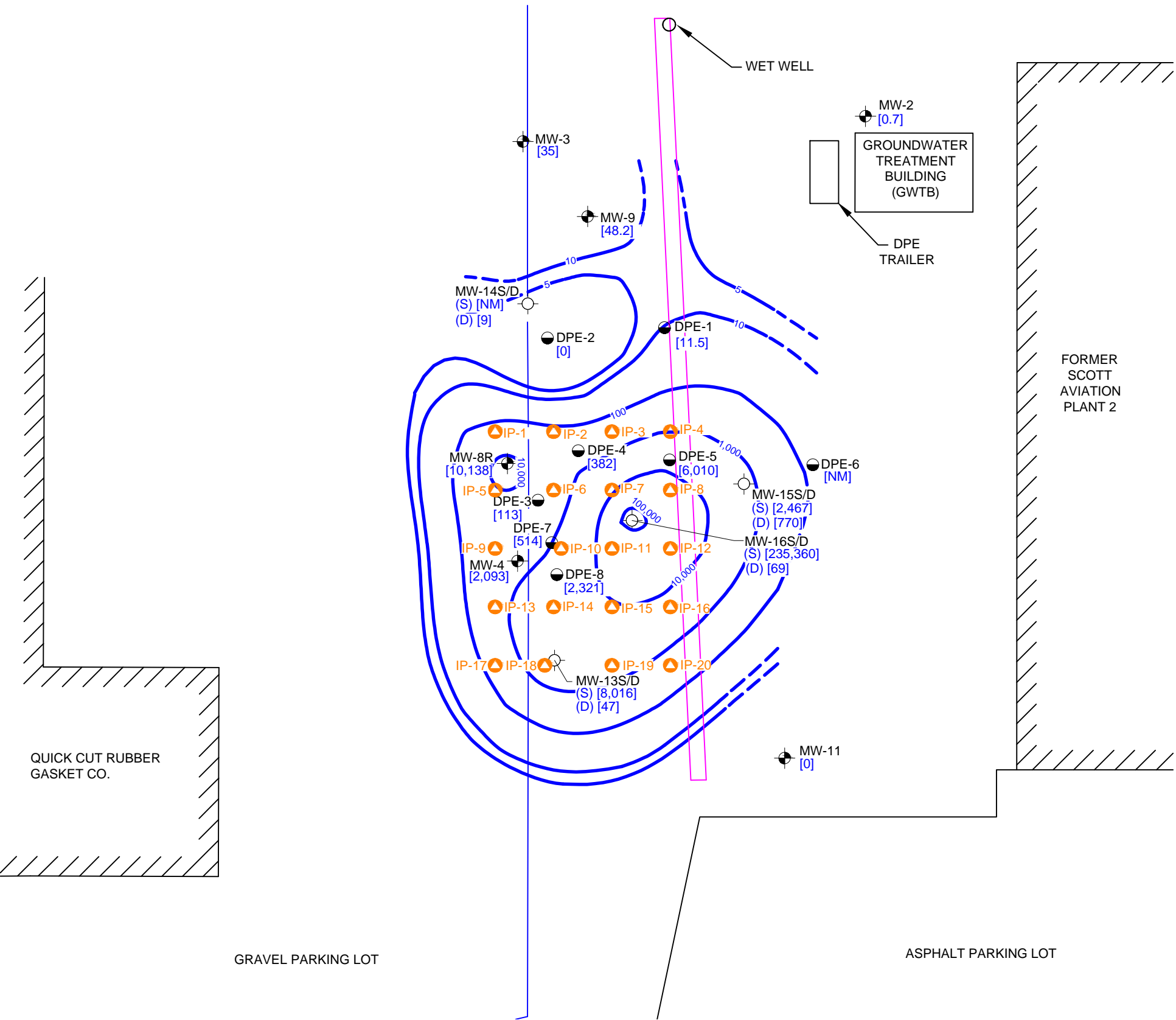
FORMER SCOTT AVIATION FACILITY
LANCASTER, NEW YORK



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FIGURE 2
WEST OF PLANT 2 SITE FEATURES MAP

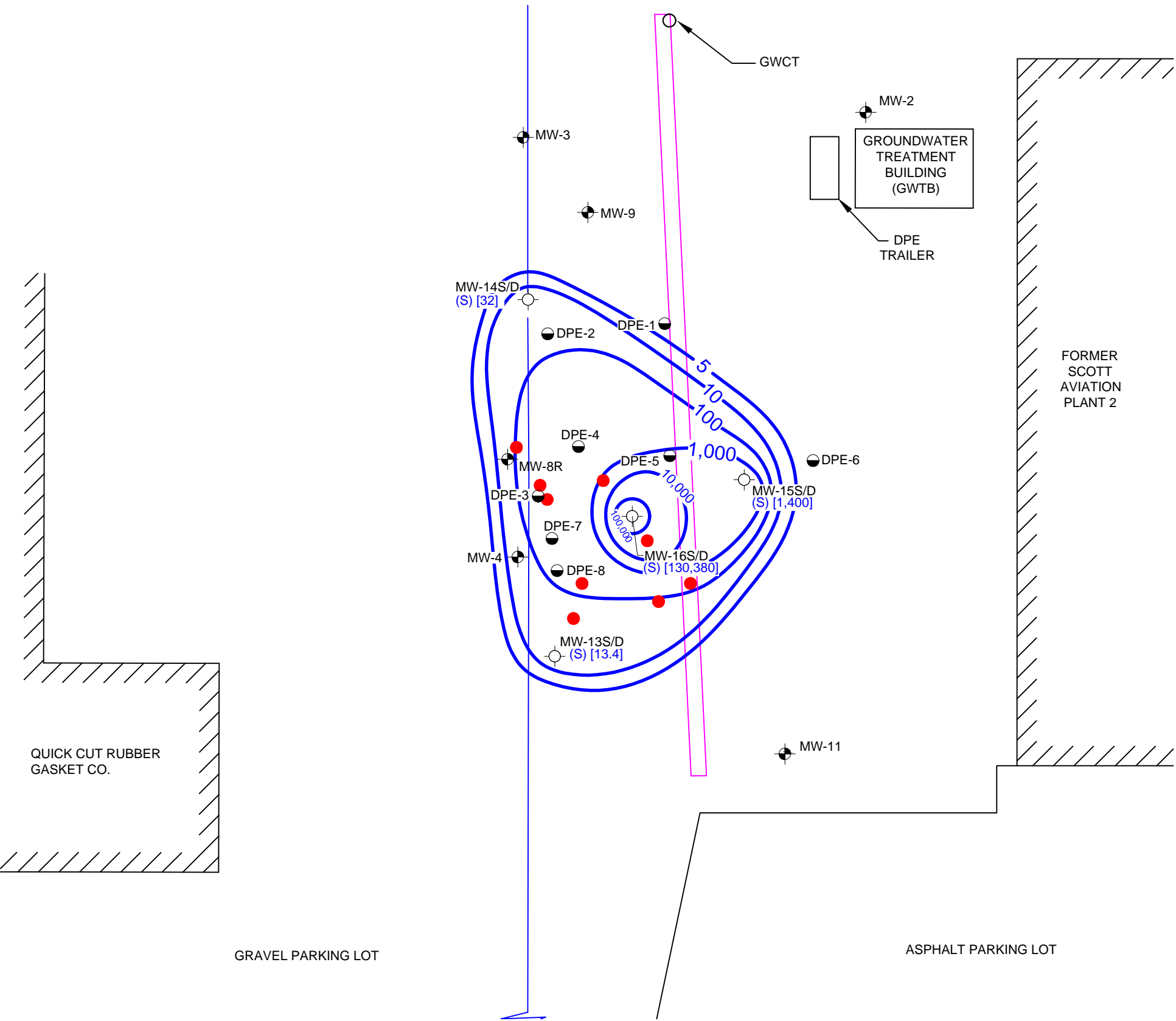
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 LANCASTER, NEW YORK



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FIGURE 4
NOVEMBER 2018 INJECTION POINTS

FORMER SCOTT AVIATION FACILITY
LANCASTER, NEW YORK



LEGEND

- BIOAUGMENTATION INJECTION LOCATION
- MW-13S/D NESTED PIEZOMETER LOCATION
- MW-9 MONITORING WELL LOCATION
- DPE-6 DUAL-PHASE EXTRACTION WELL LOCATION (OFF-LINE)
- [13.4] TOTAL VOC CONCENTRATION (µg/L)
- 10 TOTAL VOC CONTOUR
- (S) SHALLOW PIEZOMETER
- (D) DEEP PIEZOMETER
- GROUNDWATER COLLECTION TRENCH (GWCT)
- APPROXIMATE PROPERTY BOUNDARY

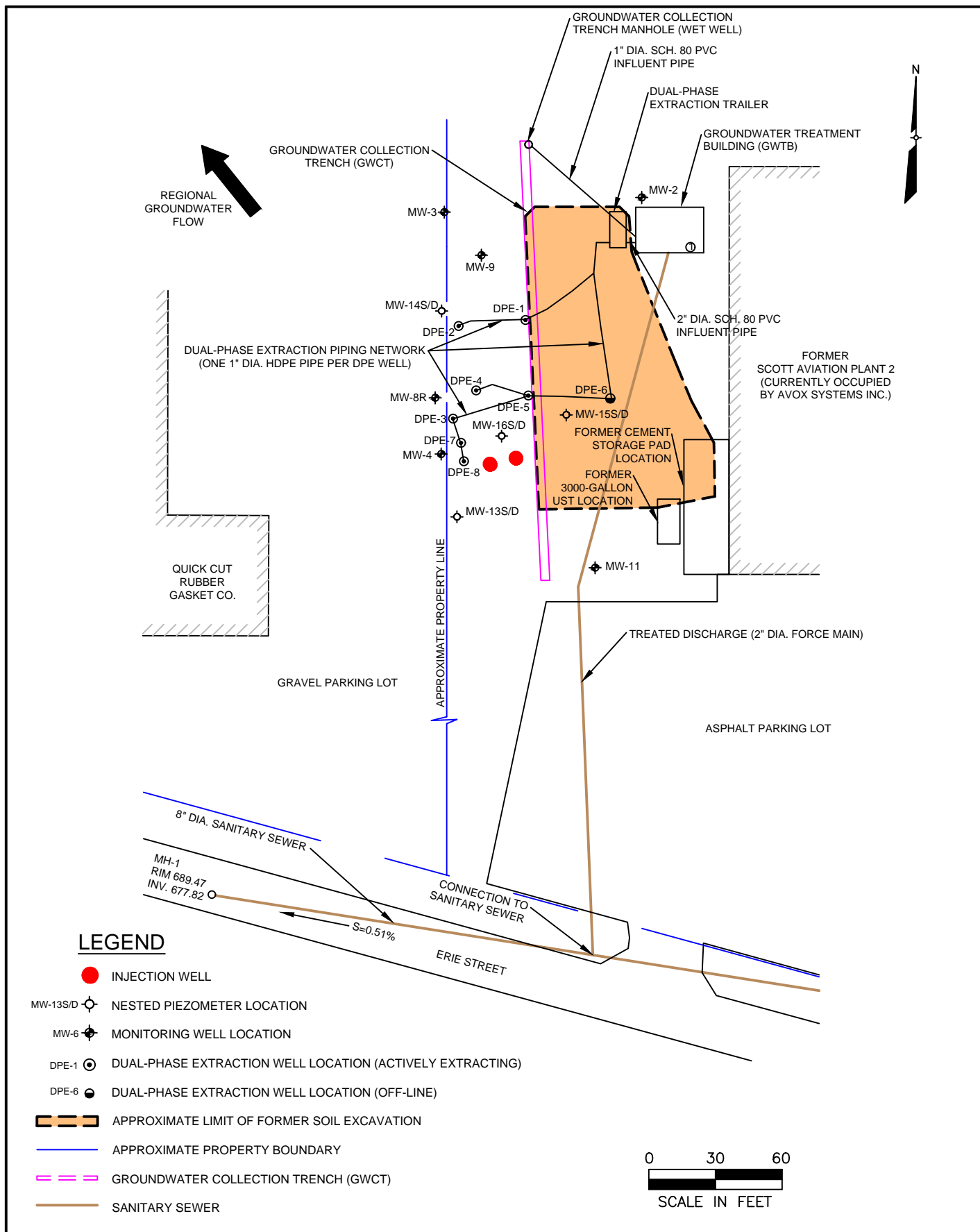
NOTES

- GROUNDWATER DATA IS FROM APRIL 2021.
- TOTAL VOC FROM THE SHALLOW PIEZOMETER PAIR LOCATIONS (i.e. MW-13S, MW-15S, MW-16S) WERE USED TO CREATE THE TOTAL VOC CONTOURS.
- PROPOSED VFA SAMPLES TO BE COLLECTED AT MW-8R AND MW-16S.
- PROPOSED GENE-TRAC SAMPLE TO BE COLLECTED AT MW-16S.
- SHALLOW/DEEP OVERBURDEN GROUNDWATER FLOW IS TO THE NORTHWEST.

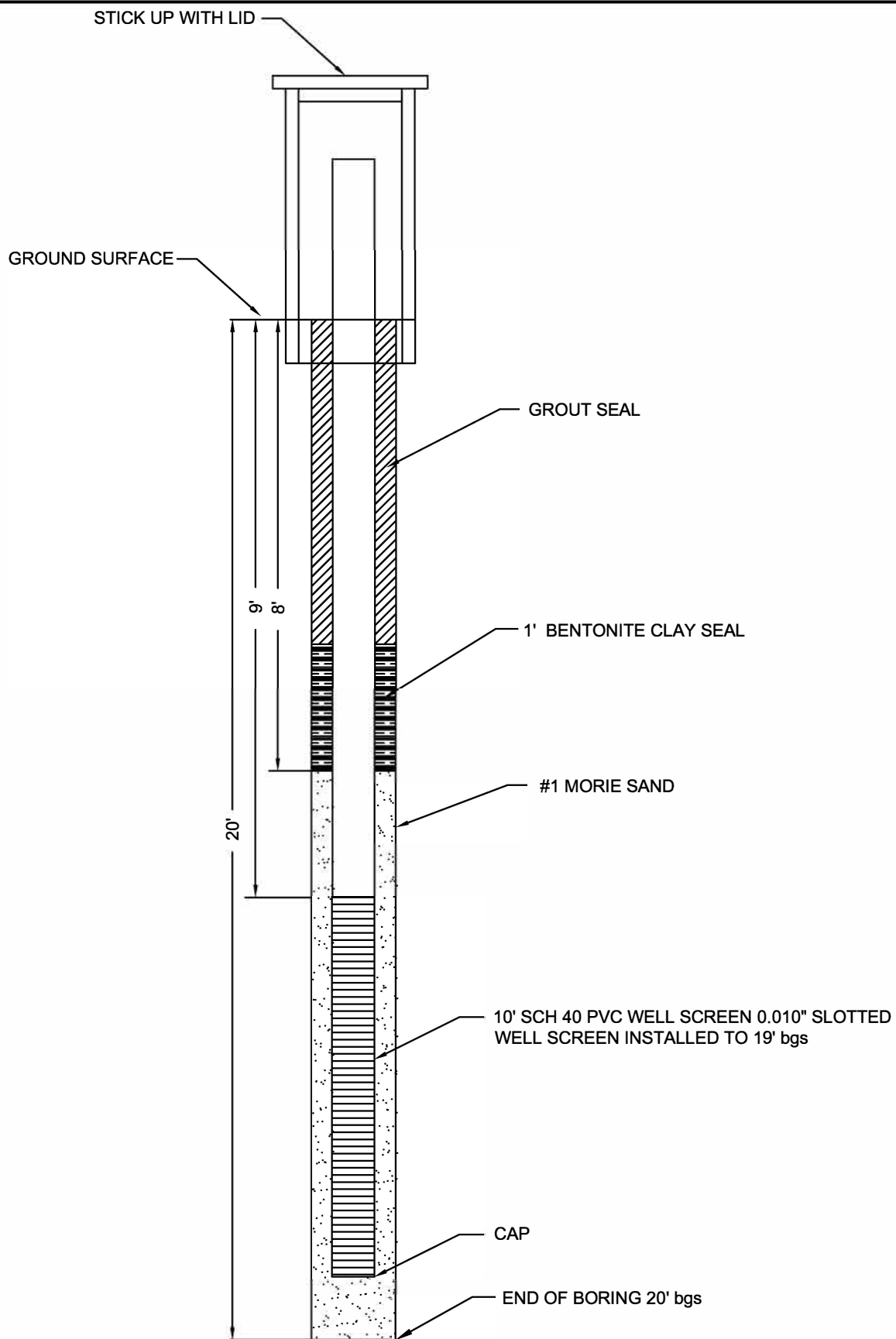


FIGURE 5
SEPTEMBER 2021 BIOAUGMENTATION INJECTION POINTS

FORMER SCOTT AVIATION FACILITY LANCASTER, NEW YORK



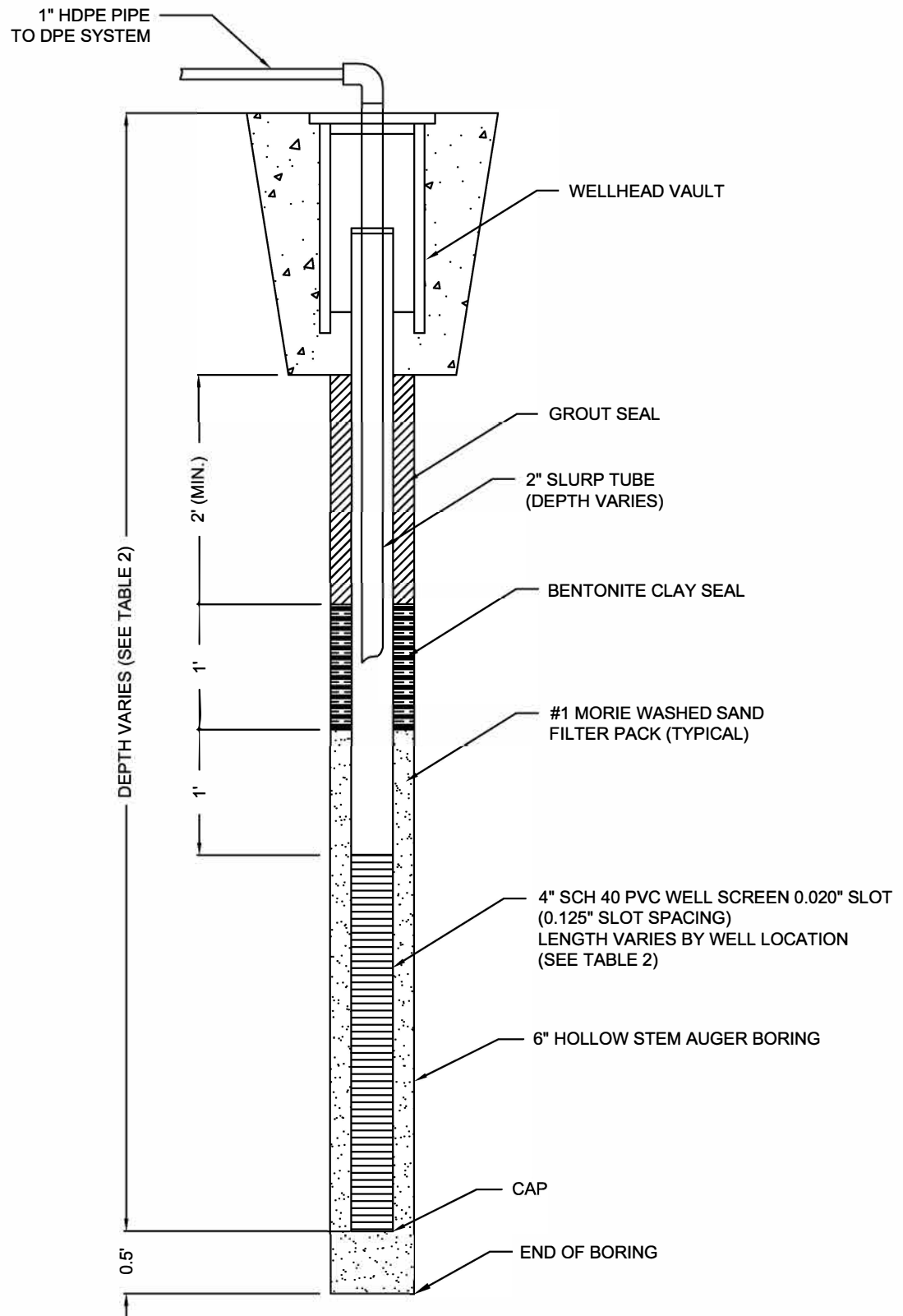
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**FIGURE 7
TYPICAL INJECTION WELL
CONSTRUCTION DIAGRAM**

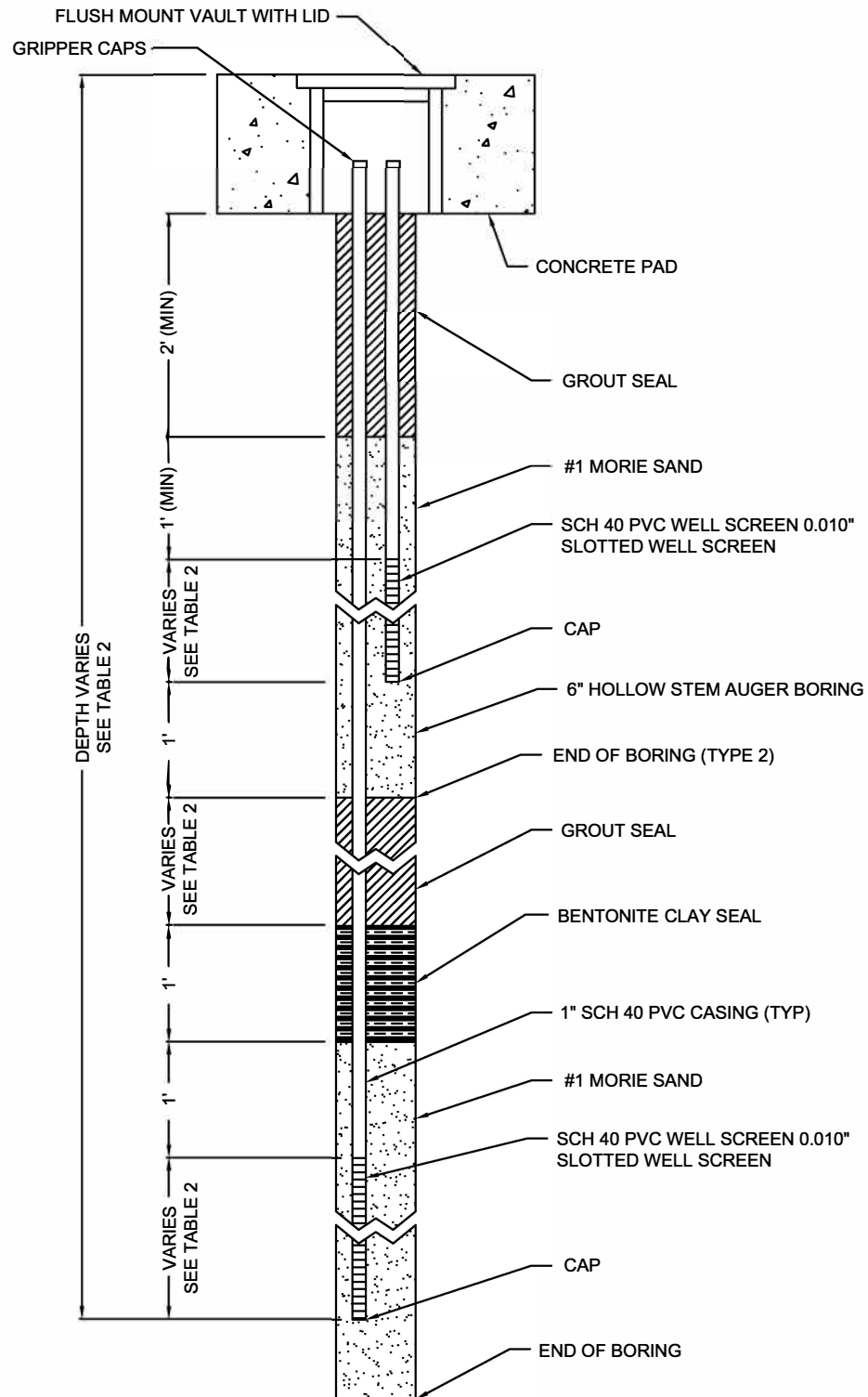
FORMER SCOTT AVIATION FACILITY
LANCASTER, NEW YORK



AECOM

FIGURE 8
TYPICAL DUAL PHASE EXTRACTION RECOVERY
WELL CONSTRUCTION DIAGRAM

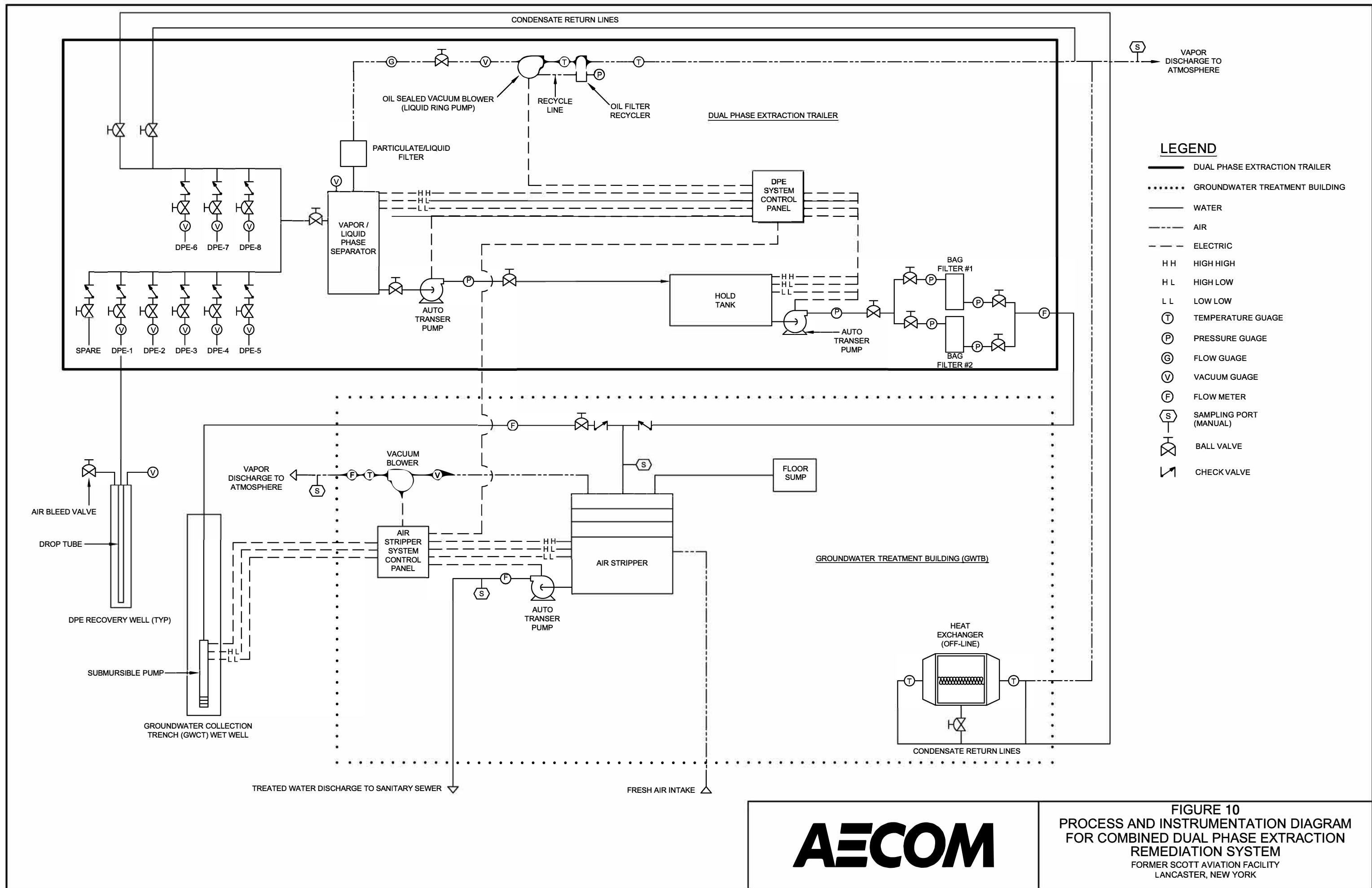
FORMER SCOTT AVIATION FACILITY
LANCASTER, NEW YORK



AECOM

FIGURE 9
TYPICAL NESTED PIEZOMETER
CONSTRUCTION DIAGRAM

FORMER SCOTT AVIATION FACILITY
 LANCASTER, NEW YORK



AECOM

FIGURE 10
PROCESS AND INSTRUMENTATION DIAGRAM
FOR COMBINED DUAL PHASE EXTRACTION
REMEDIATION SYSTEM
 FORMER SCOTT AVIATION FACILITY
 LANCASTER, NEW YORK

Groundwater Monitoring Water Level Data - April 3, 2023
Former Scott Aviation Facility - West of Plant 2
NYSDEC Site Code No. 9-15-149
Lancaster, New York

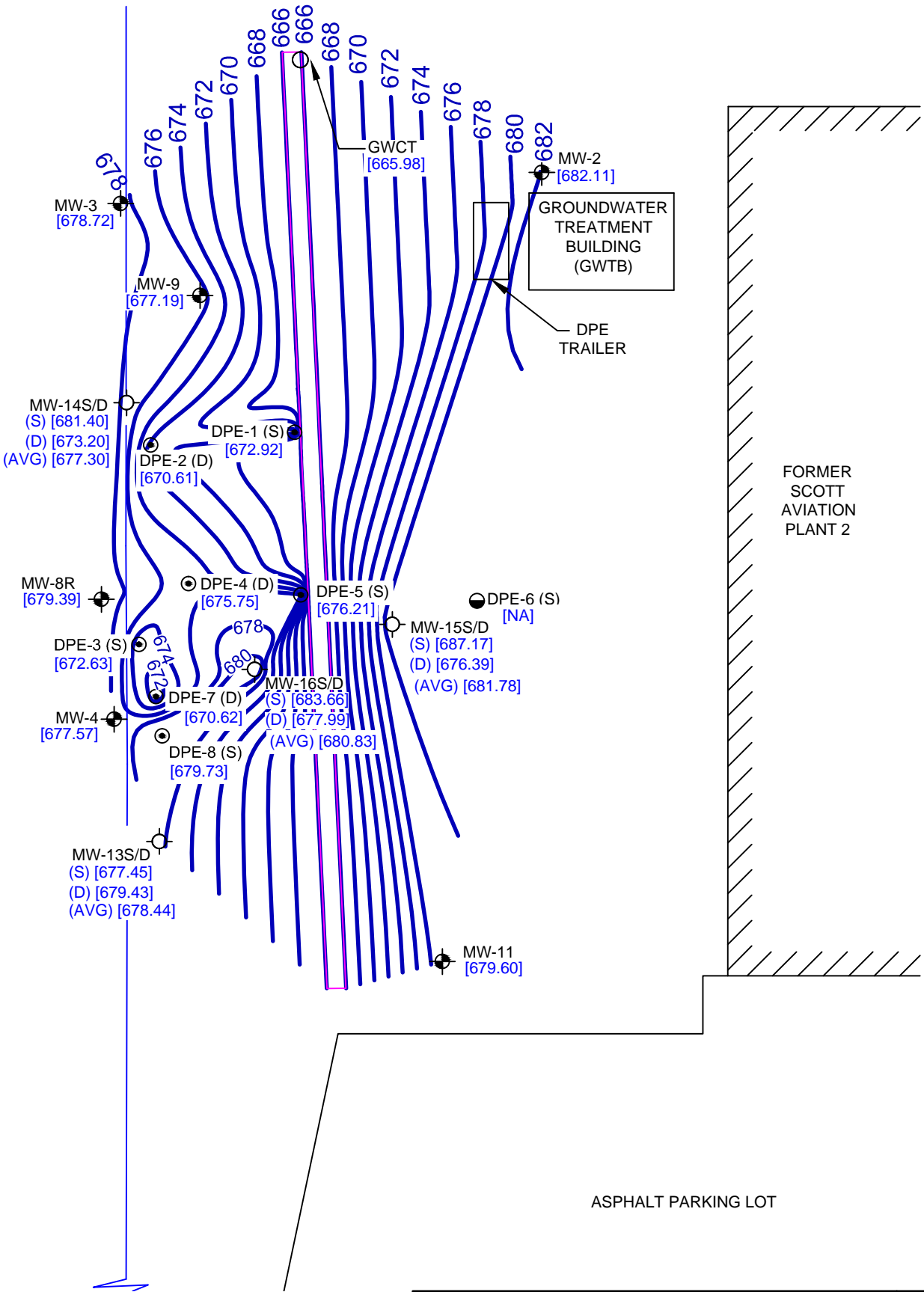
Monitoring Point Identification	Top of Casing (feet AMSL)	Depth to Water (feet from TOC)	Ground Water Elevation (feet AMSL)
Monitoring Wells			
MW-2	687.10	4.99	682.11
MW-3	687.05	8.33	678.72
MW-4	686.50	8.93	677.57
MW-8R	686.29	6.90	679.39
MW-9	689.57	12.38	677.19
MW-11	688.61	9.01	679.60
Nested Piezometers			
MW-13S	686.65	9.20	677.45
MW-13D	686.78	7.35	679.43
MW-14S	685.74	4.34	681.40
MW-14D	685.88	12.68	673.20
MW-15S	687.17	0.00	687.17
MW-15D	687.37	10.98	676.39
MW-16S	688.15	4.49	683.66
MW-16D	688.16	10.17	677.99
Remedial System			
GWCT Manhole (rim)	687.22	21.24	665.98
DPE Wells*			
DPE-1	687.17	14.25	672.92
DPE-2	685.32	14.71	670.61
DPE-3	685.98	13.35	672.63
DPE-4	686.00	10.25	675.75
DPE-5	686.91	10.70	676.21
DPE-6	687.53	NM	NA
DPE-7	685.92	15.30	670.62
DPE-8	686.03	6.30	679.73

Notes:
TOC - Top of Casing
AMSL - Above Mean Sea Level
NM - Not Measured (well vault flooded)
NA - Not Available
GWCT - Groundwater Collection Trench
GWCT is 200 feet long with a 0.01 foot/foot slope to the manhole
* All DPE wells except DPE-6 actively pumping during the collection of water levels

QUICK CUT RUBBER
GASKET CO.

GRAVEL PARKING LOT

ASPHALT PARKING LOT



LEGEND

- MW-13S/D NESTED PIEZOMETER LOCATION
- MW-9 MONITORING WELL LOCATION
- DPE-1 DUAL-PHASE EXTRACTION WELL LOCATION (ACTIVELY EXTRACTING)
- DPE-6 DUAL-PHASE EXTRACTION WELL LOCATION (OFF-LINE)
- [682.11] GROUNDWATER SURFACE ELEVATION IN FEET AMSL
- 678 ESTIMATED GROUNDWATER SURFACE CONTOUR IN FEET AMSL
- GROUNDWATER FLOW DIRECTION
- (S) SHALLOW PIEZOMETER/DPE
- (D) DEEP PIEZOMETER/DPE
- GROUNDWATER COLLECTION TRENCH (GWCT)
- APPROXIMATE PROPERTY BOUNDARY

NOTES

- GROUNDWATER ELEVATIONS WERE AVERAGED AT SHALLOW AND DEEP PIEZOMETER PAIR LOCATIONS (e.g. MW-15S/D) TO COMPARE TO ELEVATIONS MEASURED IN WELLS SCREENED ACROSS THE ENTIRE OVERBURDEN THICKNESS.
- GROUNDWATER WATER LEVELS WERE COLLECTED ON APRIL 3, 2023.



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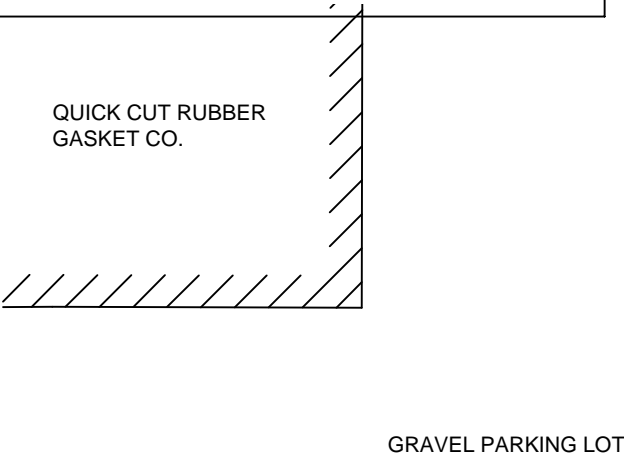
FIGURE 11
AVERAGE GROUNDWATER ELEVATIONS
APRIL 3, 2023

FORMER SCOTT AVIATION FACILITY
LANCASTER, NEW YORK

Groundwater Monitoring Water Level Data - April 3, 2023
Former Scott Aviation Facility - West of Plant 2
NYSDEC Site Code No. 9-15-149
Lancaster, New York

Monitoring Point Identification	Top of Casing (feet AMSL)	Depth to Water (feet from TOC)	Ground Water Elevation (feet AMSL)
Monitoring Wells			
MW-2	687.10	4.99	682.11
MW-3	687.05	8.33	678.72
MW-4	686.50	8.93	677.57
MW-8R	686.29	6.90	679.39
MW-9	689.57	12.38	677.19
MW-11	688.61	9.01	679.60
Nested Piezometers			
MW-13S	686.65	9.20	677.45
MW-13D	686.78	7.35	679.43
MW-14S	685.74	4.34	681.40
MW-14D	685.88	12.68	673.20
MW-15S	687.17	0.00	687.17
MW-15D	687.37	10.98	676.39
MW-16S	688.15	4.49	683.66
MW-16D	688.16	10.17	677.99
Remedial System			
GWCT Manhole (rim)	687.22	21.24	665.98
DPE Wells*			
DPE-1	687.17	14.25	672.92
DPE-2	685.32	14.71	670.61
DPE-3	685.98	13.35	672.63
DPE-4	686.00	10.25	675.75
DPE-5	686.91	10.70	676.21
DPE-6	687.53	NM	NA
DPE-7	685.92	15.30	670.62
DPE-8	686.03	6.30	679.73

Notes:
TOC - Top of Casing
AMSL - Above Mean Sea Level
NM - Not Measured (well vault flooded)
NA - Not Available
GWCT - Groundwater Collection Trench
GWCT is 200 feet long with a 0.01 foot/foot slope to the manhole
* All DPE wells except DPE-6 actively pumping during the collection of water levels



LEGEND

- MW-13S/D NESTED PIEZOMETER LOCATION
- MW-9 MONITORING WELL LOCATION
- DPE-1 DUAL-PHASE EXTRACTION WELL LOCATION (ACTIVELY EXTRACTING)
- DPE-6 DUAL-PHASE EXTRACTION WELL LOCATION (OFF-LINE)
- [676.39] GROUNDWATER SURFACE ELEVATION IN FEET AMSL
- 678 ESTIMATED GROUNDWATER SURFACE CONTOUR IN FEET AMSL
- GROUNDWATER FLOW DIRECTION
- (S) SHALLOW PIEZOMETER/DPE
- (D) DEEP PIEZOMETER/DPE
- GROUNDWATER COLLECTION TRENCH (GWCT)
- APPROXIMATE PROPERTY BOUNDARY

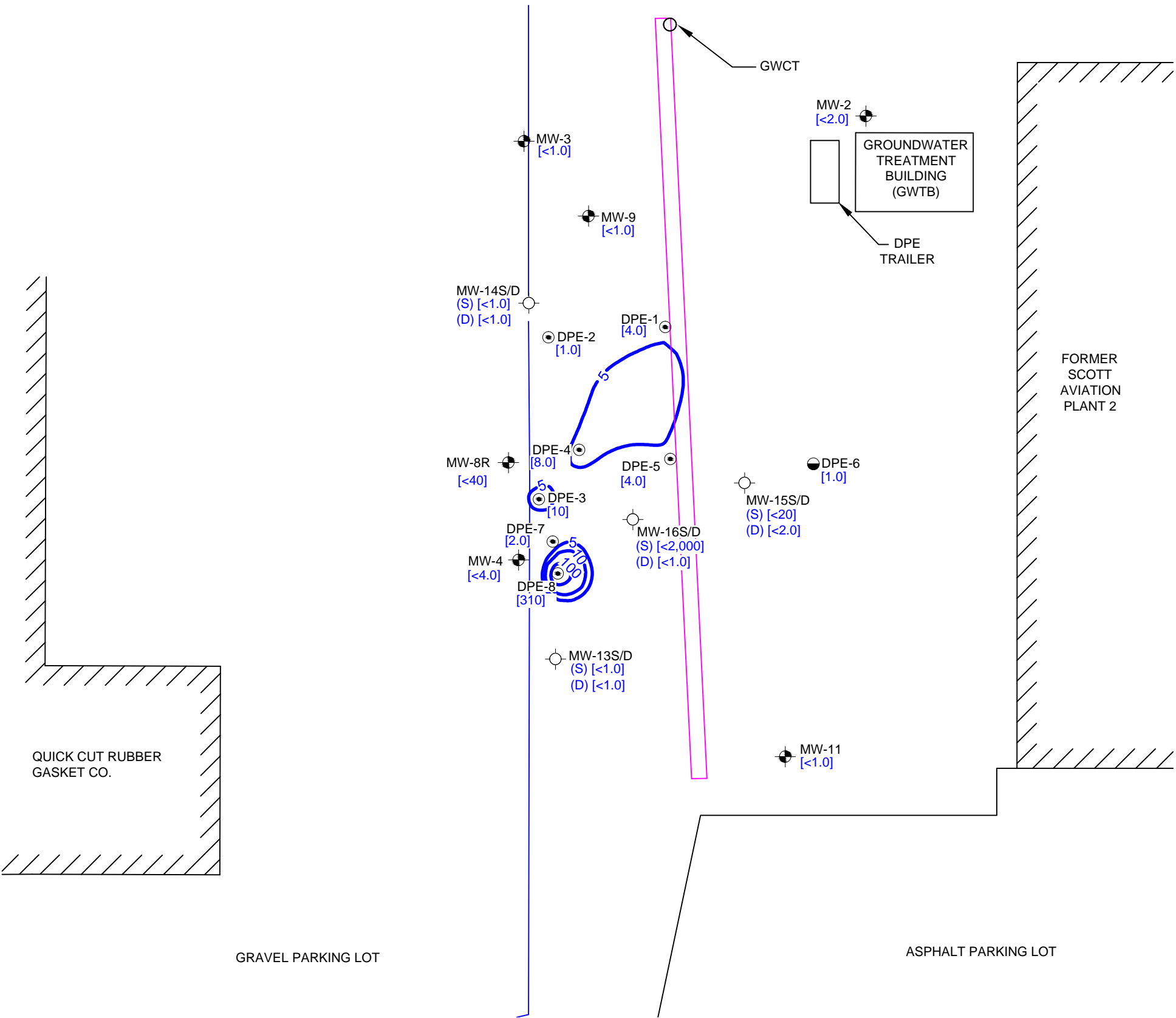
NOTE

- GROUNDWATER WATER LEVELS WERE COLLECTED ON APRIL 3, 2023.

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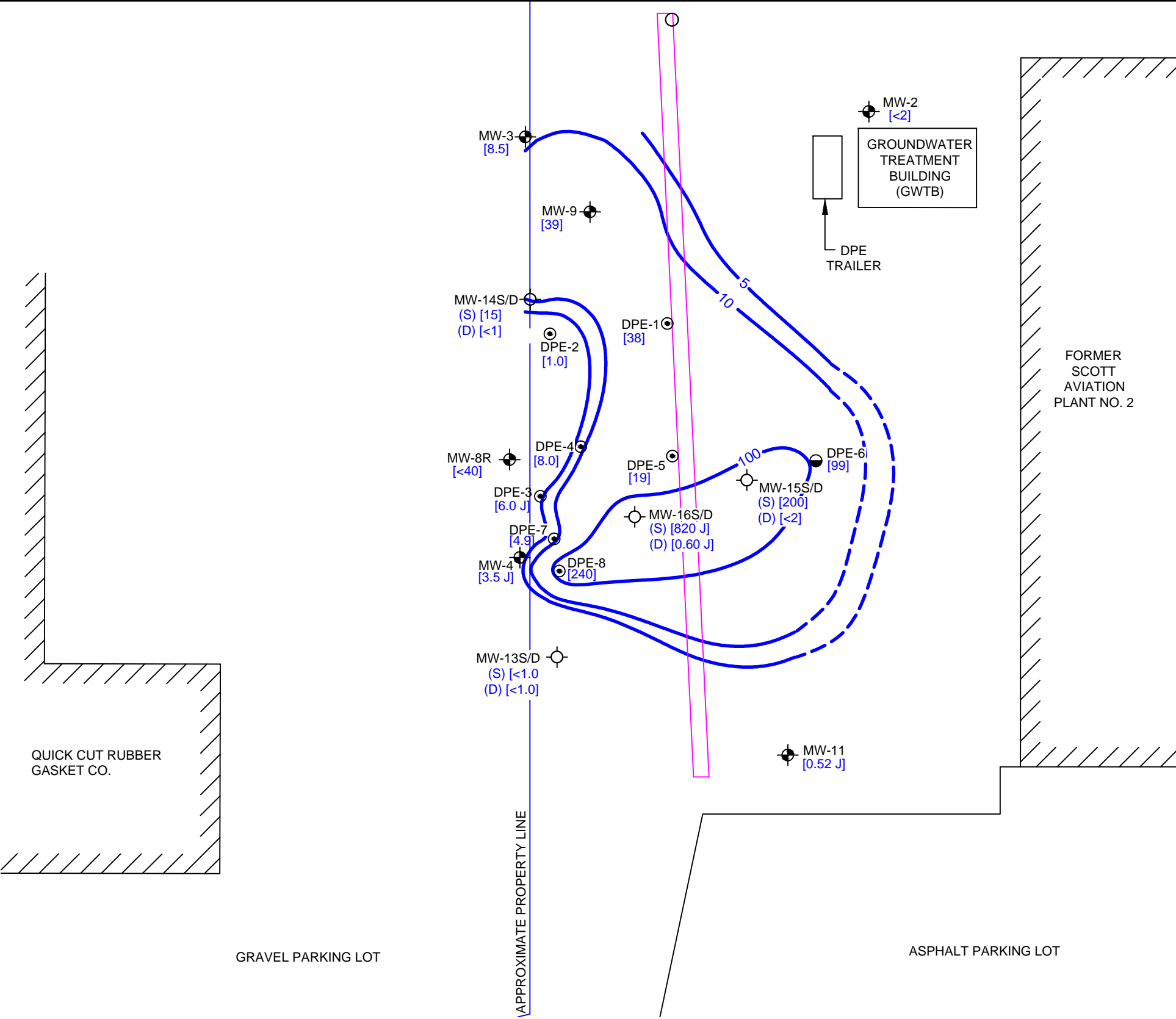
FIGURE 12
DEEP GROUNDWATER ELEVATIONS
APRIL 3, 2023

FORMER SCOTT AVIATION FACILITY
LANCASTER, NEW YORK



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FIGURE 13
1,1,1-TRICHLOROETHANE IN GROUNDWATER
ISOCONCENTRATION CONTOUR MAP
APRIL 2023
FORMER SCOTT AVIATION FACILITY
LANCASTER, NEW YORK



LEGEND

MW-9

MW-13S/D

DPE-6

DPE-1

[38]

10

5

<

(S)

(D)

J

MONITORING WELL LOCATION

NESTED PIEZOMETER LOCATION

DUAL-PHASE EXTRACTION WELL LOCATION (OFF-LINE)

DUAL-PHASE EXTRACTION WELL LOCATION (ACTIVELY EXTRACTING)

1,1-DICHLOROETHANE CONCENTRATION (µg/L)

1,1-DICHLOROETHANE ISOCONCENTRATION CONTOUR (µg/L) (DASHED WHERE INFERRED)

REMEDIAL ACTION OBJECTIVE FOR 1,1-DICHLOROETHANE (µg/L)

BELOW REPORTING LIMIT

SHALLOW PIEZOMETER

DEEP PIEZOMETER

GROUNDWATER COLLECTION TRENCH (GWCT)

APPROXIMATE PROPERTY BOUNDARY

RESULT IS LESS THAN THE RL BUT GREATER THAN OR EQUAL TO THE MDL AND THE CONCENTRATION IS AN APPROXIMATE VALUE

NOTE

1.

THE HIGHEST CONCENTRATION OF 1,1-DICHLOROETHANE WAS USED AT PIEZOMETER PAIR LOCATIONS TO GENERATE ISOCONCENTRATION CONTOURS.

0

15

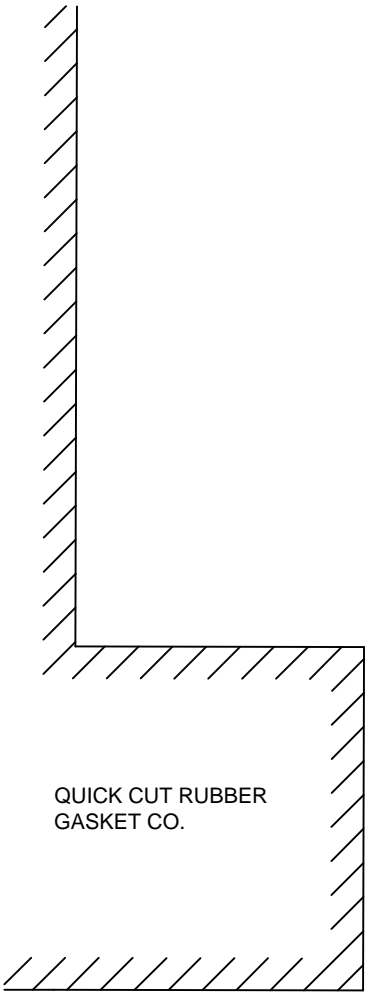
30

60

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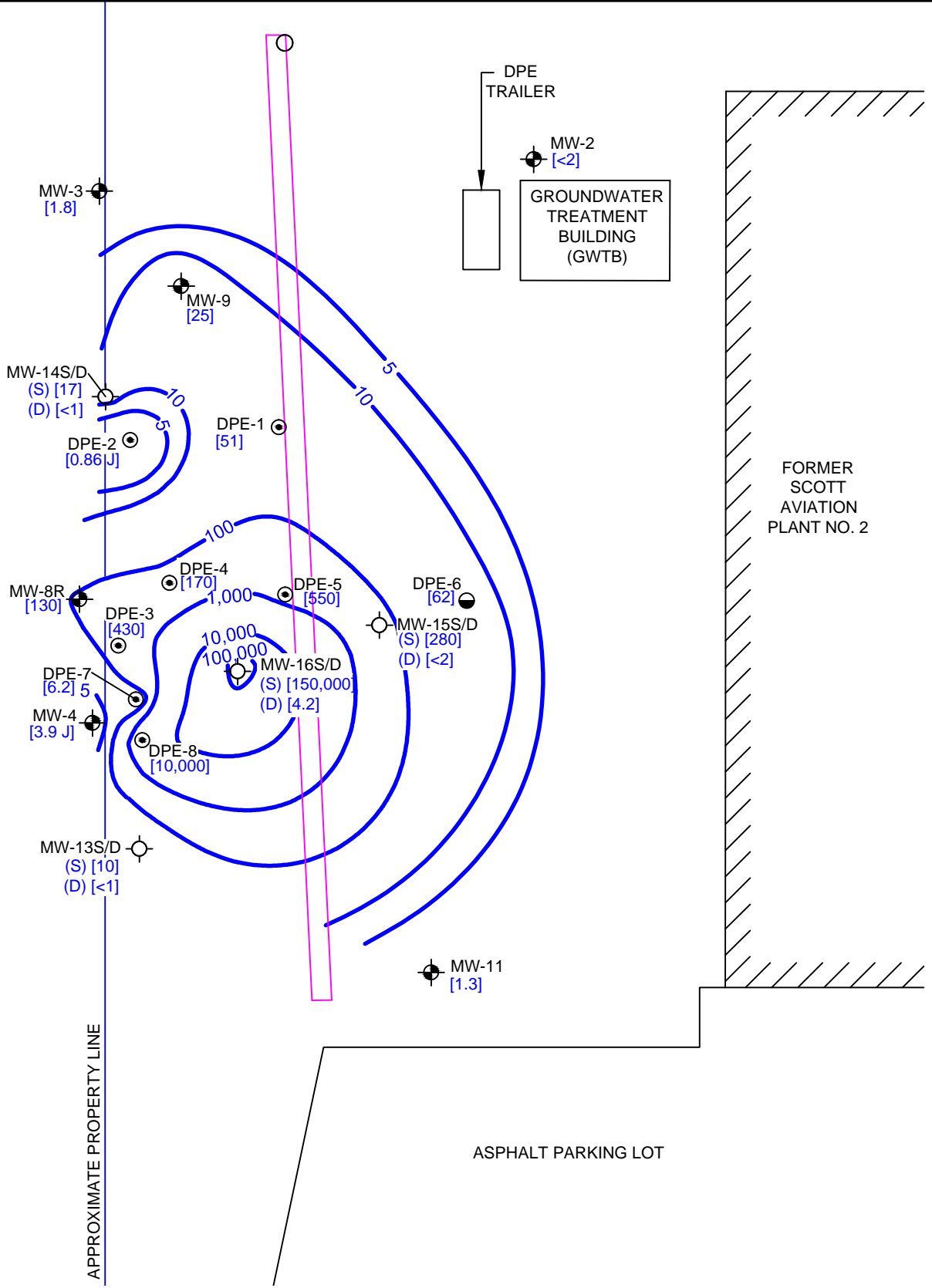
AECOM

FIGURE 14
1,1-DICHLOROETHANE IN GROUNDWATER
ISOCONCENTRATION CONTOUR MAP
APRIL 2023
FORMER SCOTT AVIATION FACILITY
LANCASTER, NEW YORK



QUICK CUT RUBBER
GASKET CO.

GRAVEL PARKING LOT



LEGEND

- MW-9 MONITORING WELL LOCATION
- MW-13S/D NESTED PIEZOMETER LOCATION
- DPE-6 DUAL-PHASE EXTRACTION WELL LOCATION (OFF-LINE)
- DPE-1 DUAL-PHASE EXTRACTION WELL LOCATION (ACTIVELY EXTRACTING)
- [62] cis-1,2-DICHLOROETHENE CONCENTRATION (µg/L)
- < BELOW REPORTING LIMIT
- (S) SHALLOW PIEZOMETER
- (D) DEEP PIEZOMETER
- 10 1,2-DICHLOROETHENE ISOCONCENTRATION CONTOUR (µg/L)
- 5 REMEDIAL ACTION OBJECTIVE FOR 1,2-DICHLOROETHENE (µg/L)
- GROUNDWATER COLLECTION TRENCH (GWCT)
- APPROXIMATE PROPERTY BOUNDARY

NOTE

1. THE HIGHEST CONCENTRATION OF 1,2-DICHLOROETHENE WAS USED AT PIEZOMETER PAIR LOCATIONS TO GENERATE ISOCONCENTRATION CONTOURS.

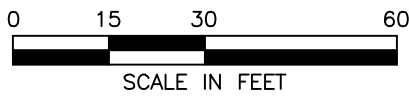
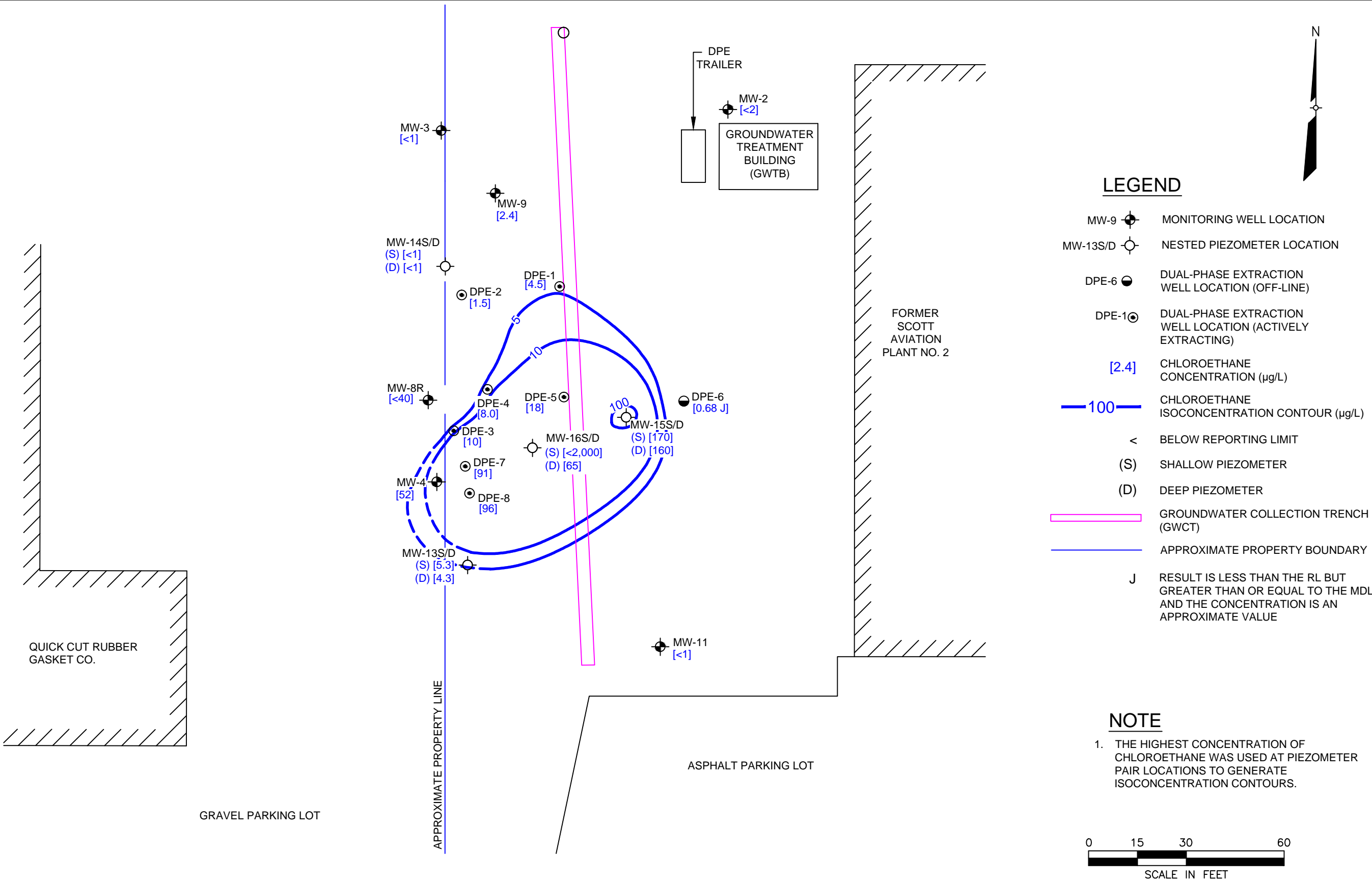
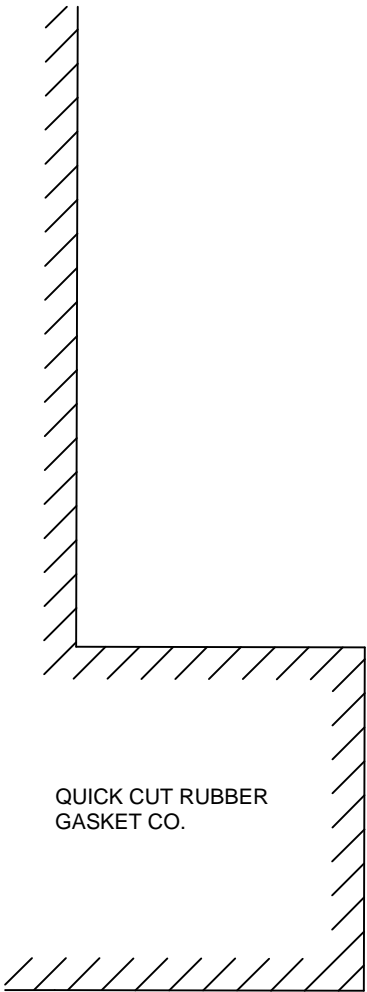


FIGURE 15
cis-1,2-DICHLOROETHENE IN GROUNDWATER
ISOCONCENTRATION CONTOUR MAP
APRIL 2023
FORMER SCOTT AVIATION FACILITY
LANCASTER, NEW YORK



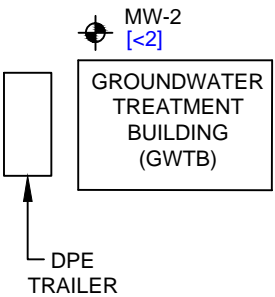
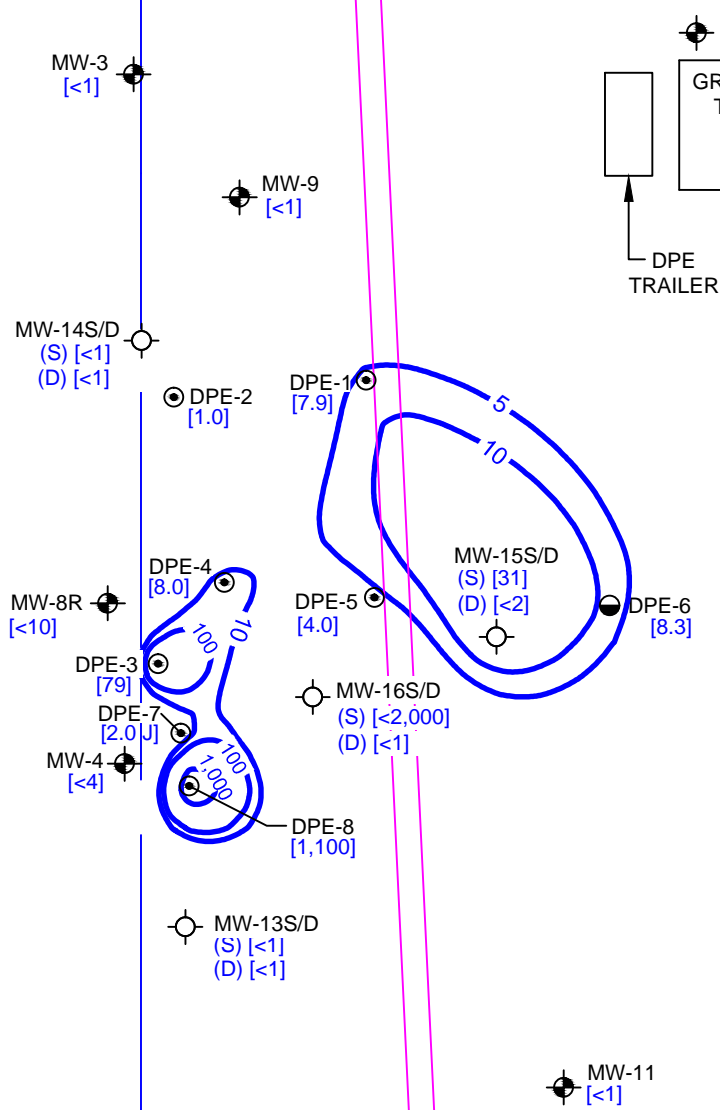
AECOM

FIGURE 16
CHLOROETHANE IN GROUNDWATER
ISOCONCENTRATION CONTOUR MAP
APRIL 2023
FORMER SCOTT AVIATION FACILITY
LANCASTER, NEW YORK



GRAVEL PARKING LOT

APPROXIMATE PROPERTY LINE



FORMER SCOTT AVIATION PLANT NO. 2

ASPHALT PARKING LOT

LEGEND

- MW-9 MONITORING WELL LOCATION
- MW-13S/D NESTED PIEZOMETER LOCATION
- DPE-6 DUAL-PHASE EXTRACTION WELL LOCATION (OFF-LINE)
- DPE-1 DUAL-PHASE EXTRACTION WELL LOCATION (ACTIVELY EXTRACTING)
- [8.3] TRICHLOROETHENE CONCENTRATION (µg/L)
- 10 TRICHLOROETHENE ISOCONCENTRATION CONTOUR (µg/L) (DASHED WHERE INFERRED)
- 5 REMEDIAL ACTION OBJECTIVE FOR TRICHLOROETHENE (µg/L) (DASHED WHERE INFERRED)
- < BELOW REPORTING LIMIT
- (S) SHALLOW PIEZOMETER
- (D) DEEP PIEZOMETER
- GROUNDWATER COLLECTION TRENCH (GWCT)
- APPROXIMATE PROPERTY BOUNDARY
- J RESULT IS LESS THAN THE RL BUT GREATER THAN OR EQUAL TO THE MDL AND THE CONCENTRATION IS AN APPROXIMATE VALUE

NOTE

- THE HIGHEST CONCENTRATION OF TCE WAS USED AT PIEZOMETER PAIR LOCATIONS TO GENERATE ISOCONCENTRATION CONTOURS.

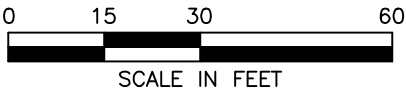
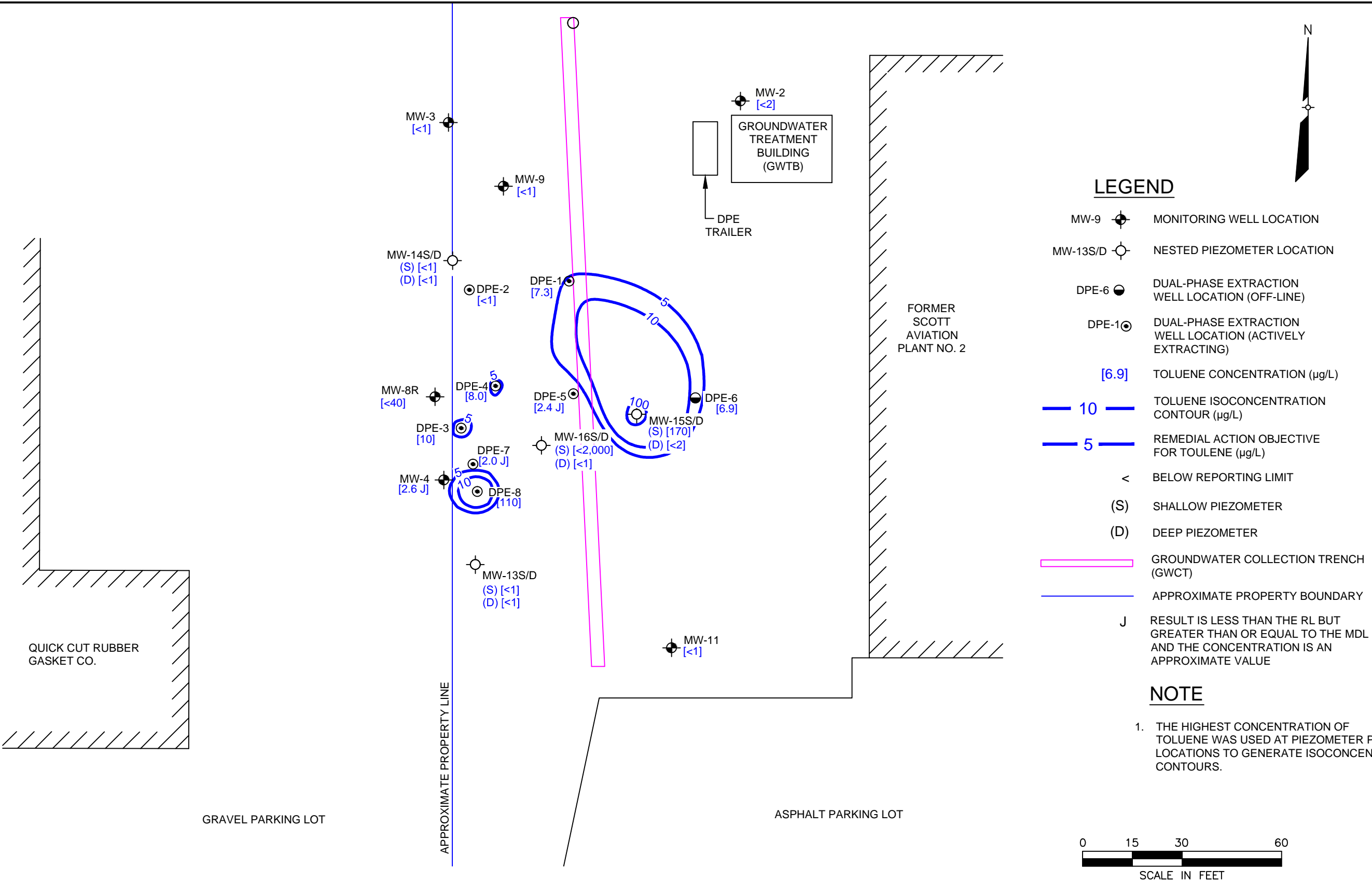
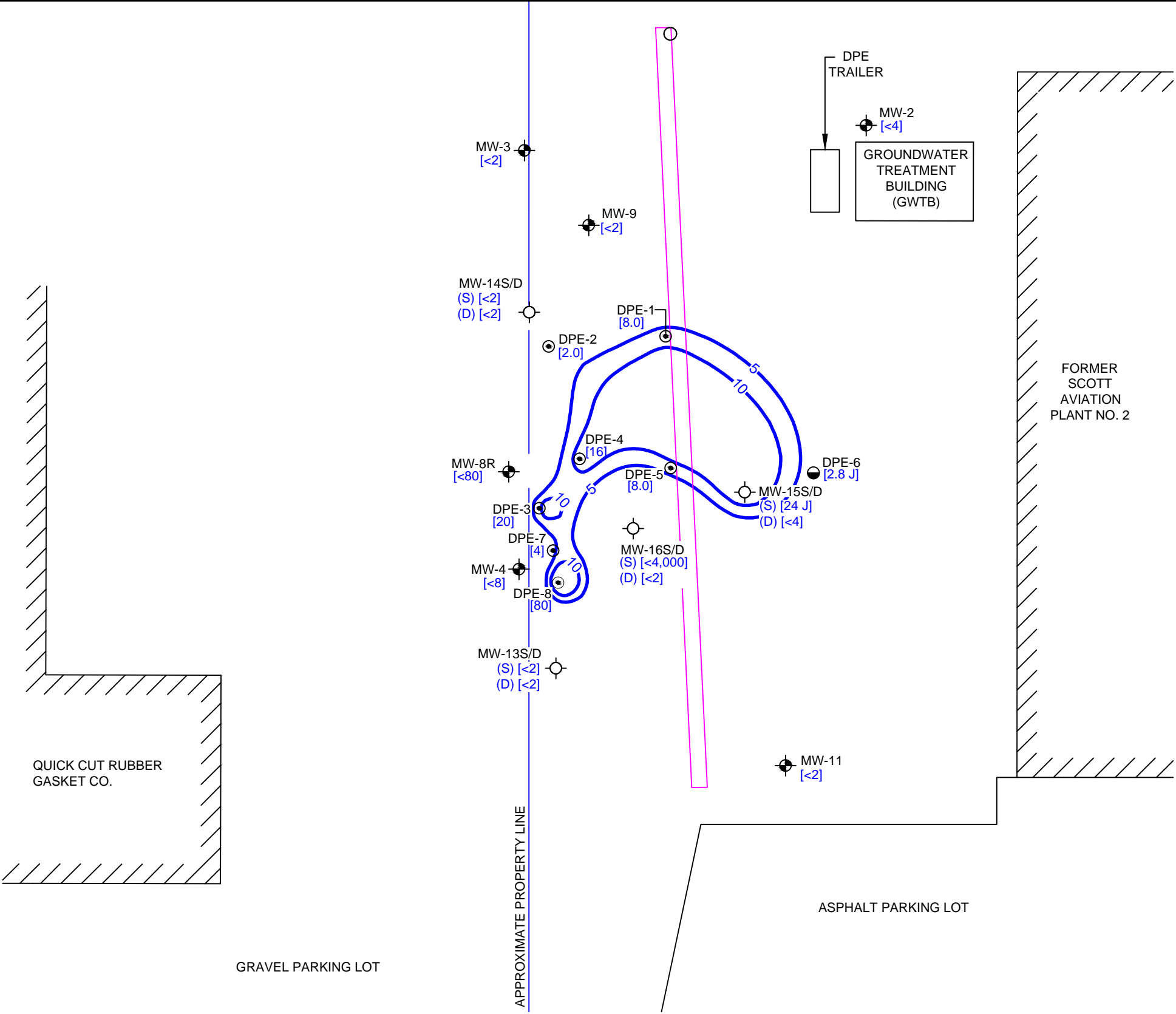


FIGURE 17
TRICHLOROETHENE IN GROUNDWATER
ISOCONCENTRATION CONTOUR MAP
APRIL 2023
FORMER SCOTT AVIATION FACILITY
LANCASTER, NEW YORK



AECOM

FIGURE 18
TOLUENE IN GROUNDWATER
ISOCONCENTRATION CONTOUR MAP
APRIL 2023
FORMER SCOTT AVIATION FACILITY
LANCASTER, NEW YORK



LEGEND

- MW-9 MONITORING WELL LOCATION
- MW-13S/D NESTED PIEZOMETER LOCATION
- DPE-6 DUAL-PHASE EXTRACTION WELL LOCATION (OFF-LINE)
- DPE-1 DUAL-PHASE EXTRACTION WELL LOCATION (ACTIVELY EXTRACTING)
- [8.0] XYLENES CONCENTRATION ($\mu\text{g/L}$)
- 10 XYLENES ISOCONCENTRATION CONTOUR ($\mu\text{g/L}$) (DASHED WHERE INFERRED)
- 5 REMEDIAL ACTION OBJECTIVE FOR XYLENES ($\mu\text{g/L}$) (DASHED WHERE INFERRED)
- < BELOW REPORTING LIMIT
- (S) SHALLOW PIEZOMETER
- (D) DEEP PIEZOMETER
- GROUNDWATER COLLECTION TRENCH (GWCT)
- APPROXIMATE PROPERTY BOUNDARY
- J RESULT IS LESS THAN THE RL BUT GREATER THAN OR EQUAL TO THE MDL AND THE CONCENTRATION IS AN APPROXIMATE VALUE

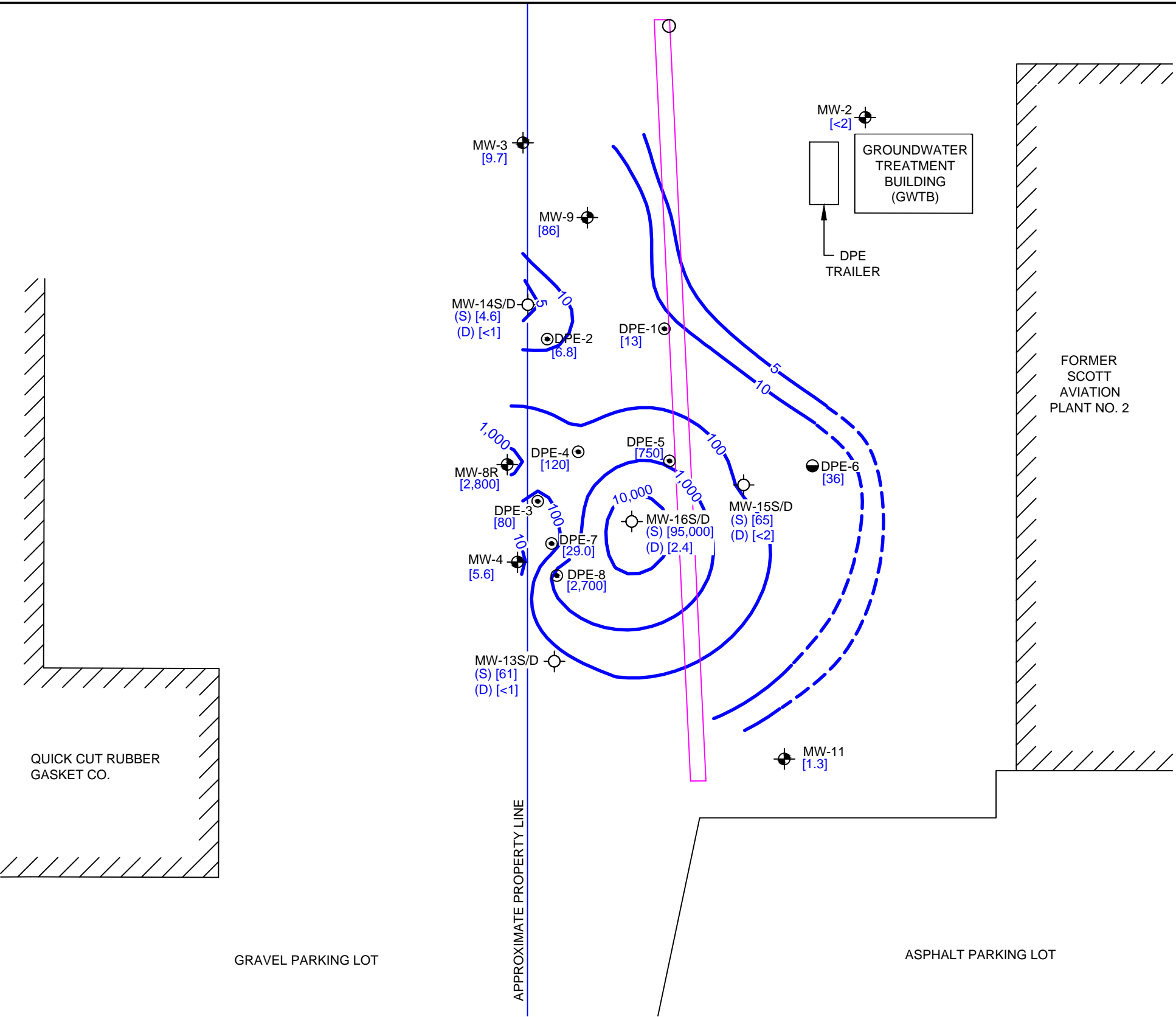
NOTE

- THE HIGHEST CONCENTRATION OF XYLENES WAS USED AT PIEZOMETER PAIR LOCATIONS TO GENERATE ISOCONCENTRATION CONTOURS.



AECOM

FIGURE 19
XYLENES ISOCONCENTRATION
CONTOUR MAP
APRIL 2023
FORMER SCOTT AVIATION FACILITY
LANCASTER, NEW YORK



LEGEND

MW-9

MONITORING WELL LOCATION

MW-13S/D

NESTED PIEZOMETER LOCATION

DPE-6

DUAL-PHASE EXTRACTION WELL LOCATION (OFF-LINE)

DPE-1

DUAL-PHASE EXTRACTION WELL LOCATION (ACTIVELY EXTRACTING)

[36]

VINYL CHLORIDE CONCENTRATION (µg/L)

10

VINYL CHLORIDE ISOCONCENTRATION CONTOUR (µg/L)

5

REMEDIAL ACTION OBJECTIVE FOR VINYL CHLORIDE (µg/L)

<

BELOW REPORTING LIMIT

(S)

SHALLOW PIEZOMETER

(D)

DEEP PIEZOMETER

GROUNDWATER COLLECTION TRENCH (GWCT)

APPROXIMATE PROPERTY BOUNDARY

NOTE

1.

THE HIGHEST CONCENTRATION OF VINYL CHLORIDE WAS USED AT PIEZOMETER PAIR LOCATIONS TO GENERATE ISOCONCENTRATION CONTOURS.

0

15

30

60

SCALE IN FEET

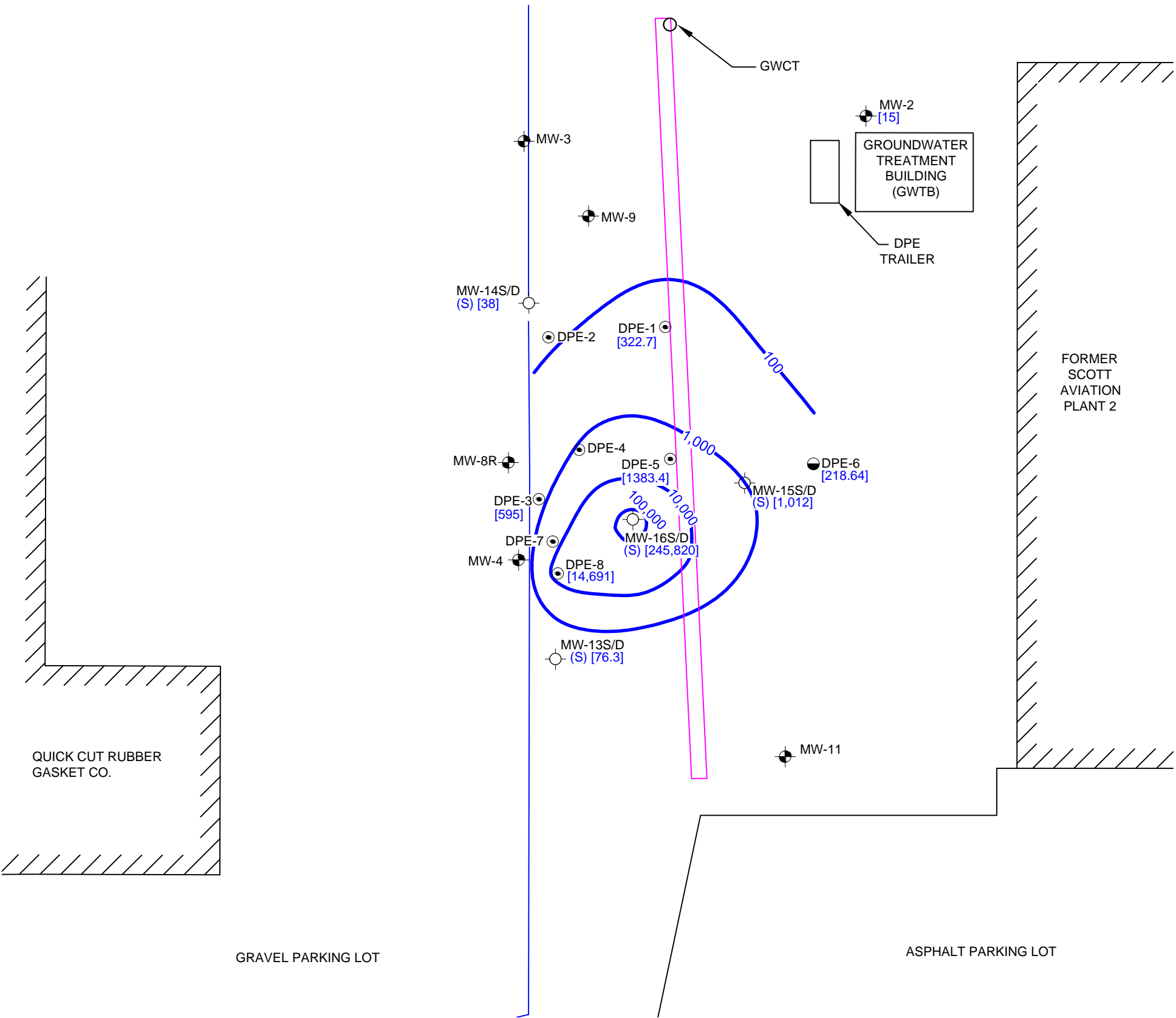
AECOM

FIGURE 20

VINYL CHLORIDE IN GROUNDWATER ISOCONCENTRATION CONTOUR MAP

APRIL 2023

FORMER SCOTT AVIATION FACILITY LANCASTER, NEW YORK



LEGEND

MW-13S/D

MW-9

DPE-6

DPE-1

[218.64]

10

(S)

(D)

NESTED PIEZOMETER LOCATION

MONITORING WELL LOCATION

DUAL-PHASE EXTRACTION WELL LOCATION (OFF-LINE)

DUAL-PHASE EXTRACTION WELL LOCATION (ACTIVELY EXTRACTING)

TOTAL VOC CONCENTRATION (µg/L)

TOTAL VOC CONTOUR

SHALLOW PIEZOMETER

DEEP PIEZOMETER

GROUNDWATER COLLECTION TRENCH (GWCT)

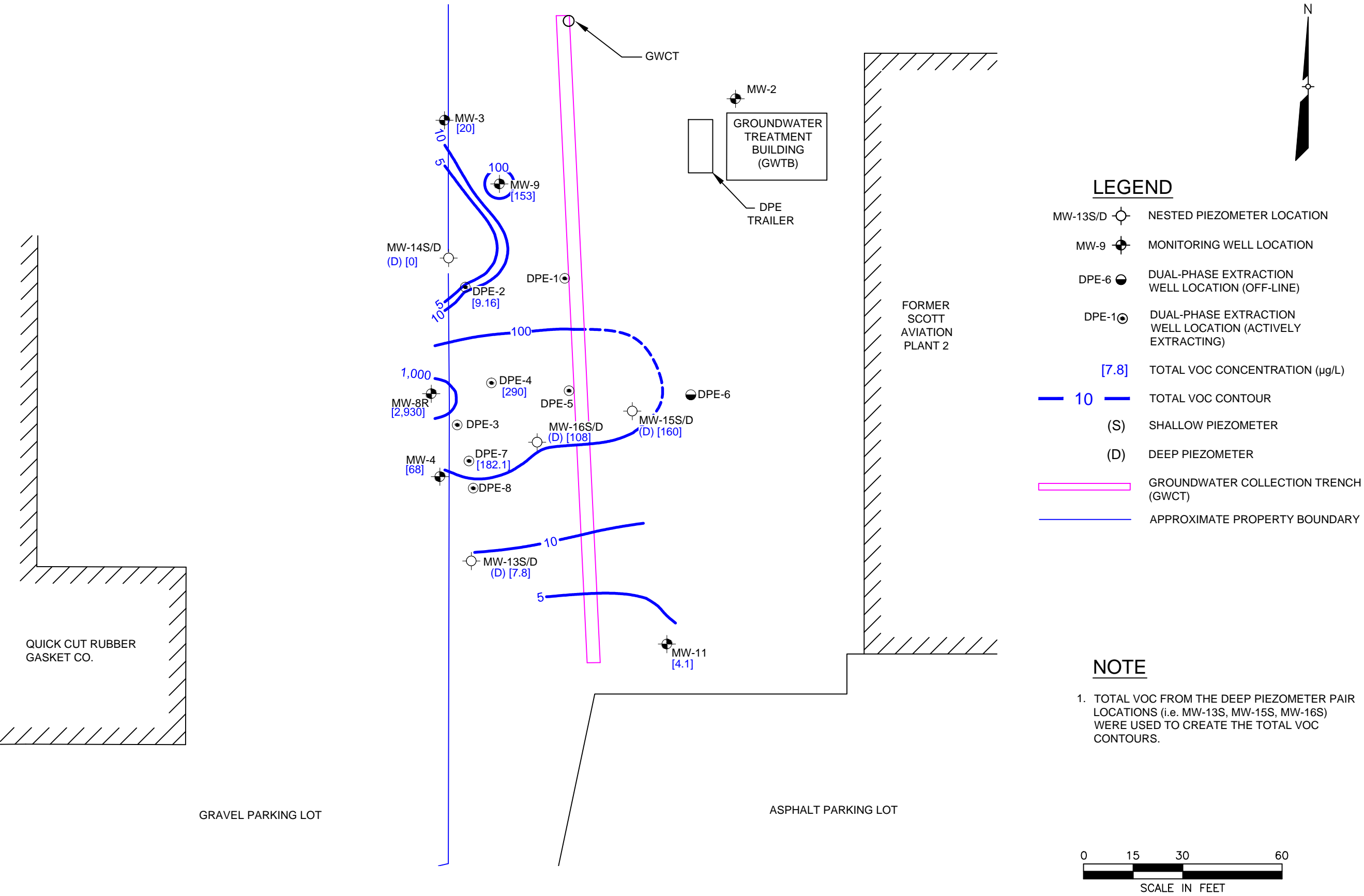
APPROXIMATE PROPERTY BOUNDARY

NOTE

1. TOTAL VOC FROM THE SHALLOW PIEZOMETER PAIR LOCATIONS (i.e. MW-13S, MW-15S, MW-16S) WERE USED TO CREATE THE TOTAL VOC CONTOURS.



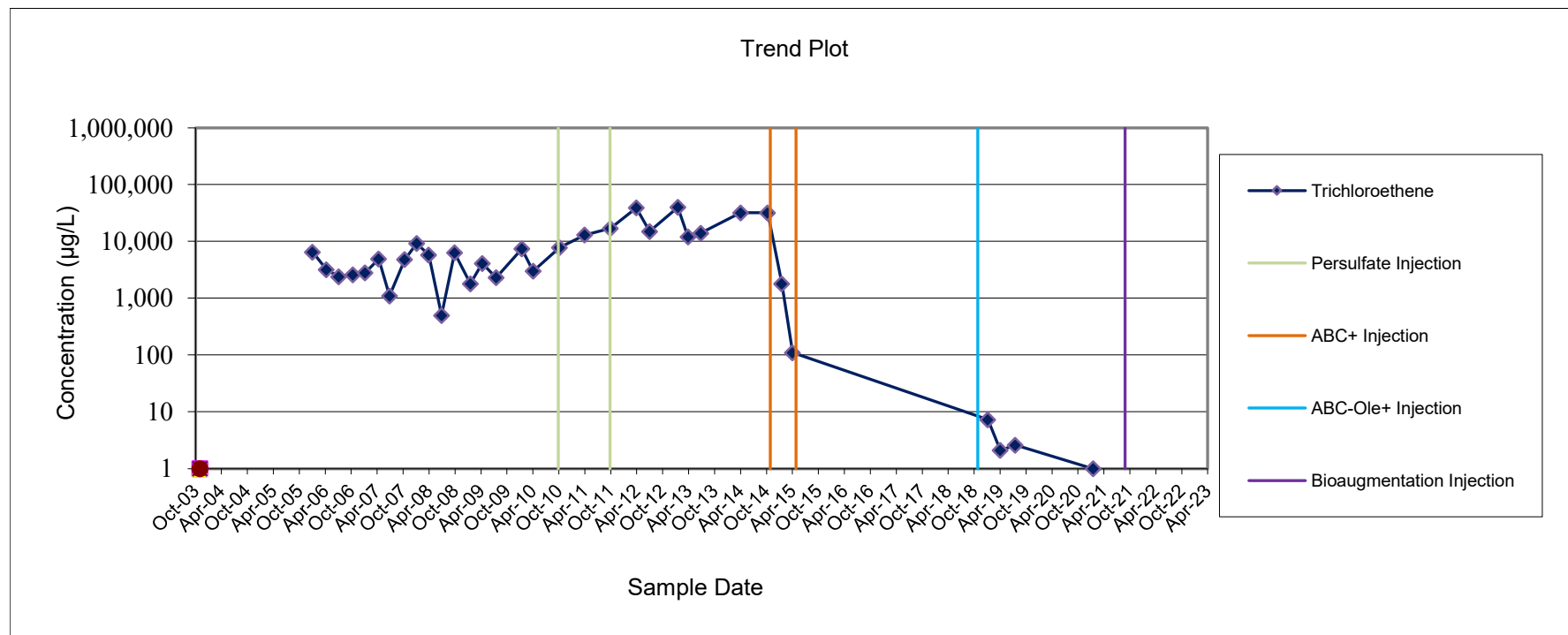
FIGURE 21
SHALLOW OVERBURDEN TOTAL VOLATILE ORGANIC COMPOUNDS IN GROUNDWATER ISOCONCENTRATION CONTOUR MAP - APRIL 2023
FORMER SCOTT AVIATION FACILITY
LANCASTER, NEW YORK



AECOM

FIGURE 22
DEEP OVERBURDEN TOTAL VOLATILE ORGANIC COMPOUNDS
IN GROUNDWATER ISOCONCENTRATION CONTOUR MAP
APRIL 2023
FORMER SCOTT AVIATION FACILITY
LANCASTER, NEW YORK

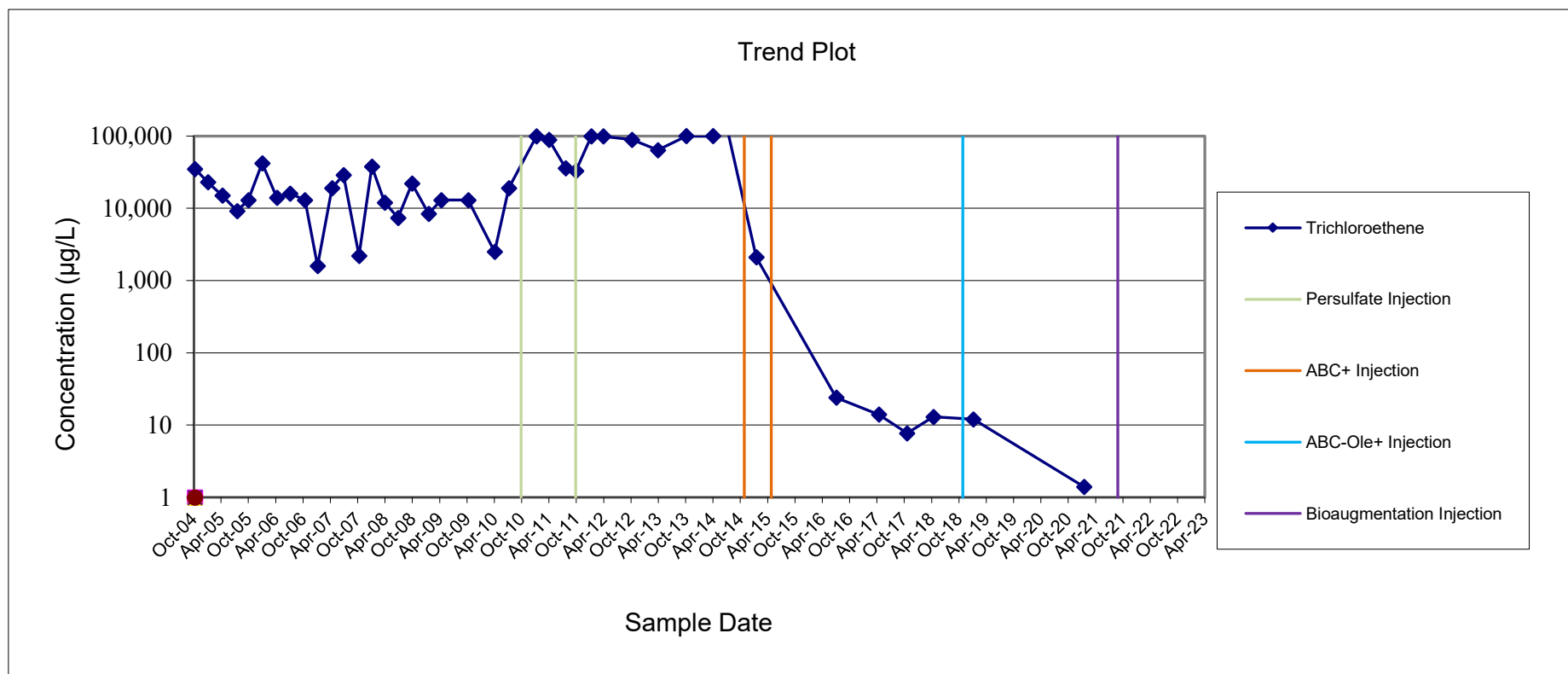
FIGURE 23
MONITORING WELL MW-4
HISTORICAL AND CURRENT SUMMARY OF TRICHLOROETHENE IN GROUNDWATER
Former Scott Aviation Site
Lancaster, New York



Notes: Trichloroethene has not been detected in the monitoring well since January 20, 2021 (1.0 µg/L).

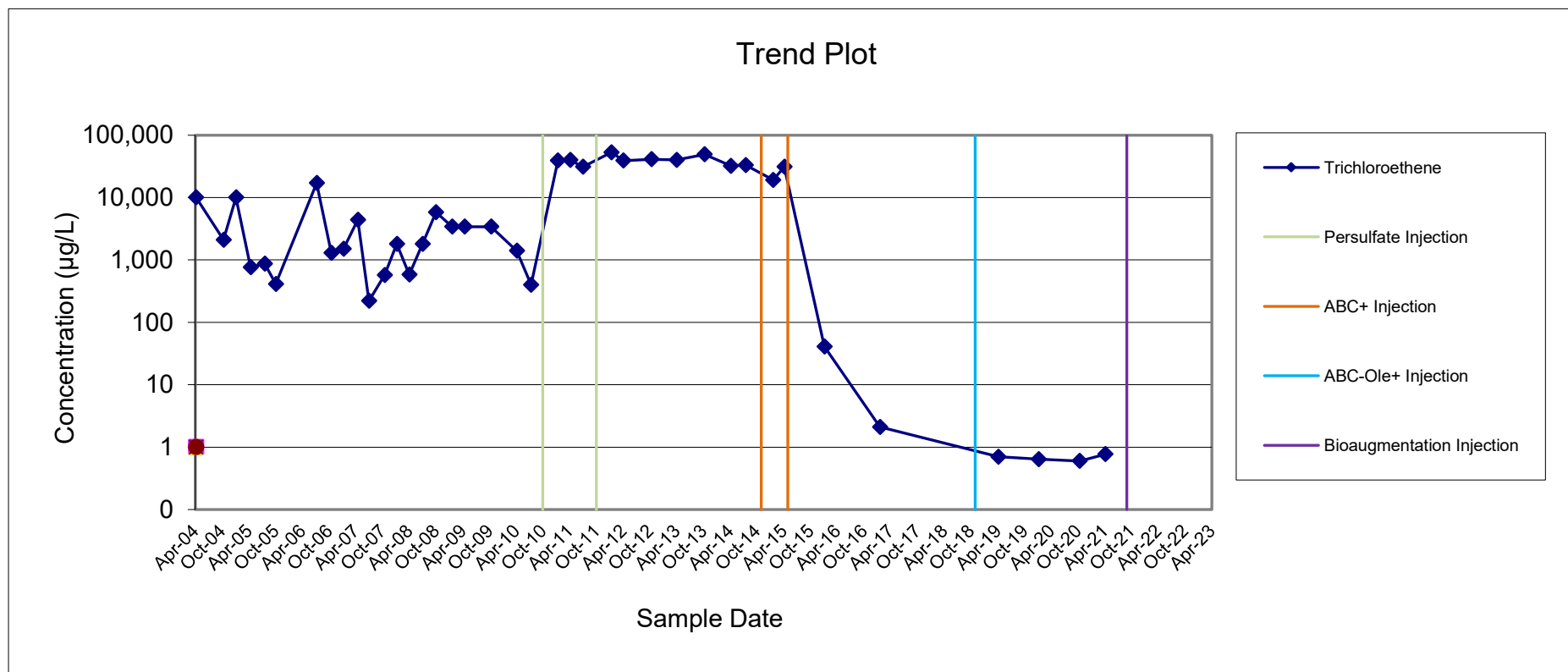
Trichloroethene has not exceeded screening criteria in the monitoring well since January 10, 2019 (7.3 µg/L).

FIGURE 24
MONITORING WELL MW-8R
HISTORICAL AND CURRENT SUMMARY OF TRICHLOROETHENE IN GROUNDWATER
Former Scott Aviation Site
Lancaster, New York



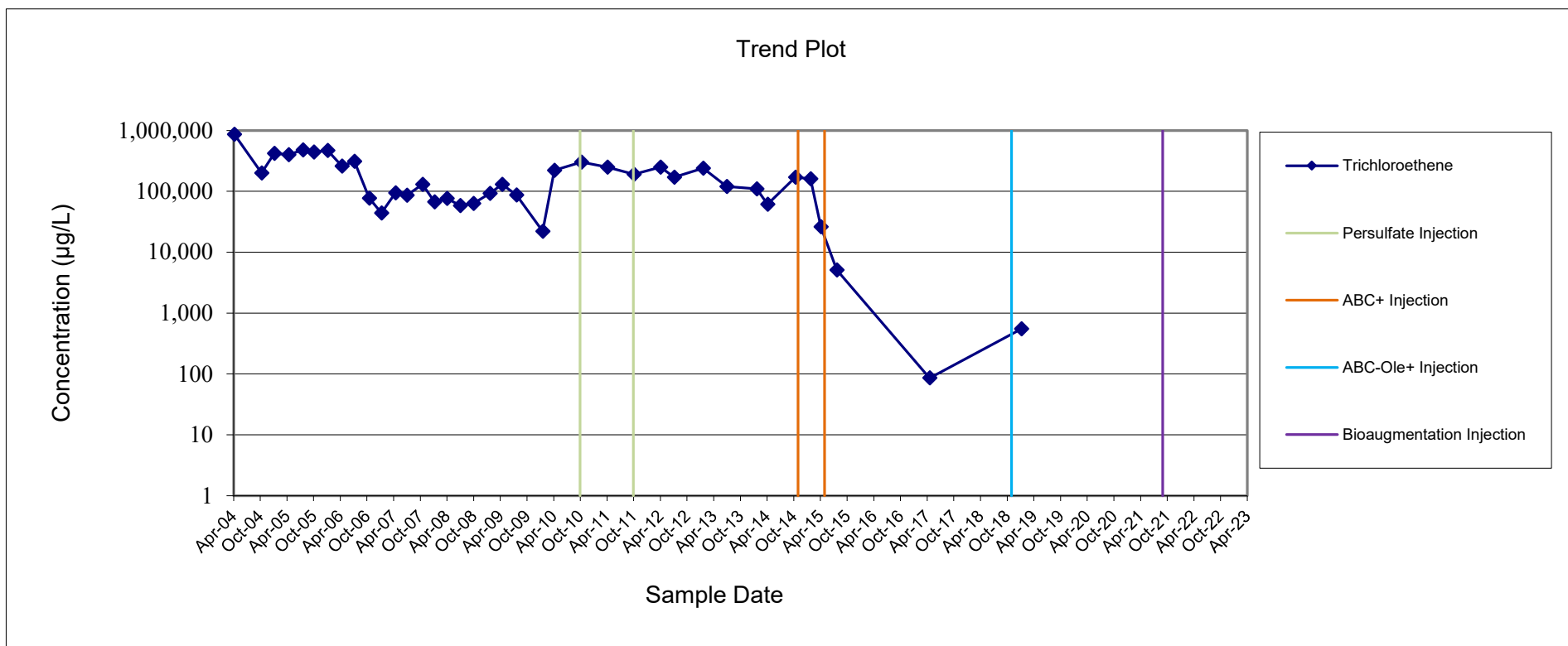
Notes: Trichloroethene has not been detected in the monitoring well since January 20, 2021 (1.0 µg/L).
 Trichloroethene has not exceeded screening criteria in the monitoring well since January 10, 2019 (13 µg/L).

FIGURE 25
MONITORING WELL MW-13S
HISTORICAL AND CURRENT SUMMARY OF TRICHLOROETHENE IN GROUNDWATER
Former Scott Aviation Site
Lancaster, New York

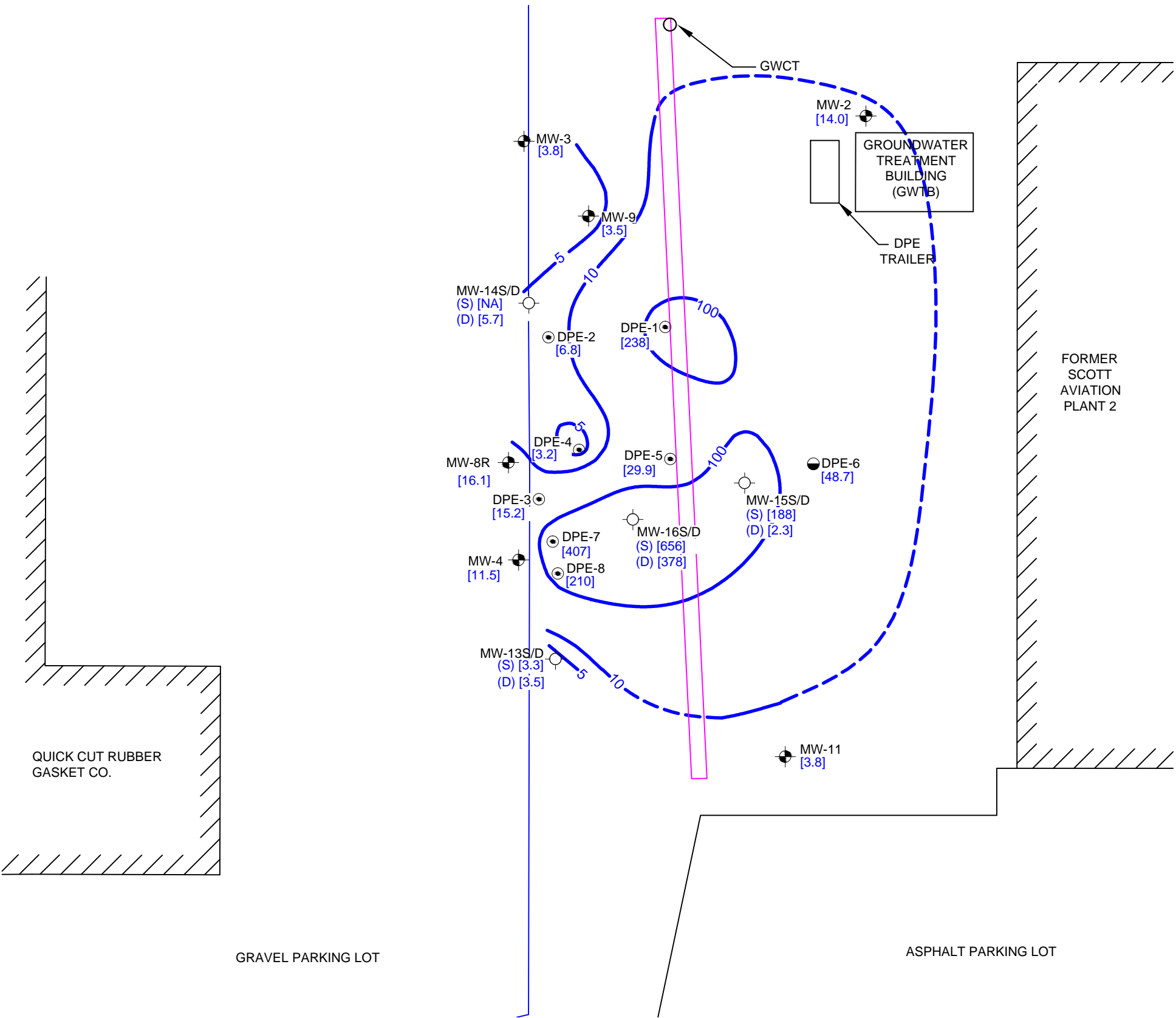


Notes: Trichloroethene has not been detected in the monitoring well since April 7, 2021 (0.77 µg/L).
 Trichloroethene has not exceeded screening criteria in the monitoring well since January 6, 2016 (41 µg/L).

FIGURE 26
MONITORING WELL MW-16S
HISTORICAL AND CURRENT SUMMARY OF TRICHLOROETHENE IN GROUNDWATER
Former Scott Aviation Site
Lancaster, New York



Notes: Trichloroethene has not been detected in the monitoring well since January 9, 2019 (550 µg/L).
 Trichloroethene has not exceeded screening criteria in the monitoring well since January 9, 2019 (550 µg/L).



LEGEND

MW-13S/D

MW-9

DPE-6

DPE-1

[14.0]

10

(S)

(D)

(D)

NESTED PIEZOMETER LOCATION

MONITORING WELL LOCATION

DUAL-PHASE EXTRACTION WELL LOCATION (OFF-LINE)

DUAL-PHASE EXTRACTION WELL LOCATION (ACTIVELY EXTRACTING)

TOTAL ORGANIC CARBON CONCENTRATION (mg/L)

TOTAL ORGANIC CARBON CONTOUR

SHALLOW PIEZOMETER

DEEP PIEZOMETER

GROUNDWATER COLLECTION TRENCH (GWCT)

APPROXIMATE PROPERTY BOUNDARY

DEEP PIEZOMETER

NOTE

1. THE HIGHEST CONCENTRATION OF TOC WAS USED AT PIEZOMETER PAIR LOCATIONS TO GENERATE ISOCONCENTRATION CONTOURS.



FIGURE 27
TOTAL ORGANIC CARBON IN GROUNDWATER
ISOCONCENTRATION CONTOUR MAP
APRIL 2023
FORMER SCOTT AVIATION FACILITY
LANCASTER, NEW YORK

Tables

Table 1

**Remedial Action Objectives
Former Scott Aviation Facility - West of Plant 2
NYSDEC Site Code No. 9-15-149
Lancaster, New York**

Volatile Organic Compounds	Remedial Action Objectives*	
	Soil (mg/kg)	Groundwater (µg/L)
1,1,1-Trichloroethane	1	5
1,1-Dichloroethane	1	5
1,2-Dichloroethene	1	5
Chloroethane	1	5
Ethylbenzene	1	5
Toluene	1	5
Trichloroethene	1	5
Vinyl chloride	1	5
Xylenes	1	5
Total VOCs	10	NA

Notes:

mg/kg - milligrams per kilogram

µg/L - micrograms per liter

NA - not applicable

* Based on values presented in site-specific ROD (November 1994).

Table 2

**Monitoring Well, Nested Piezometer, and
Dual Phase Extraction Well Construction Specifications
Former Scott Aviation Facility - West of Plant 2
NYSDEC Site Code No. 9-15-149
Lancaster, New York**

Well ID	Date Installed	Top of Casing Elevation (ft AMSL)	Well Diameter (inches)	Bottom of Boring (ft bgs)	Screen Length (ft)	Well Screen Interval (ft bgs)	Filter Sand Pack Interval (ft bgs)	Bentonite Seal Interval (ft bgs)
Monitoring Wells								
MW-1	(1)	NA	NA	NA	NA	NA	NA	NA
MW-2	05/24/91	687.00	2.0	15.0	10	5.0 - 15.0	4.0 - 15.0	1.0 - 4.0
MW-3	05/19/91	687.05	2.0	26.0	15	11.0 - 26.0	9.0 - 26.0	5.0 - 9.0
MW-4	05/23/91	656.50	2.0	26.0	10	16.0 - 26.0	14.0 - 26.0	11.0 - 14.0
MW-5	(1)	NA	NA	NA	NA	NA	NA	NA
MW-6 (4)	03/17/04	686.46	2.0	26.0	10	16.0 - 26.0	14.0 - 16.0	11.5 - 14.0
MW-7	(2)	NA	NA	NA	NA	NA	NA	NA
MW-8R	02/17/04	686.29	2.0	28.0	10	14.0 - 24.0	13.0 - 24.5	12.0 - 13.0
MW-9	04/11/99	689.57	2.0	25.4	20	5.4 - 25.4	4.0 - 25.4	2.0 - 4.0
MW-10 (4)	04/11/99	687.70	2.0	24.4	20	4.4 - 24.4	3.0 - 4.4	1.0 - 3.0
MW-11	03/01/04	688.61	2.0	29.0	20	8.5 - 28.5	7.5 - 29.0	6.5 - 7.5
MW-12 (4)	03/17/04	686.19	2.0	27.5	20	7.0 - 27.0	6.0 - 27.5	5.0 - 6.0
Nested Piezometers								
MW-13S	03/03/04	686.65	1.0	24.0	8	8.5 - 16.5	7.5 - 17.0	6.5 - 7.5
MW-13D	03/03/04	686.75	1.0	24.0	4	19.5 - 23.5	19.0 - 24.0	17.0 - 19.0
MW-14S	03/04/05	685.74	1.0	24.0	8	8.5 - 16.5	7.5 - 16.75	6.5 - 7.5
MW-14D	03/04/05	685.88	1.0	24.0	5	18.5 - 23.5	18.25 - 24.0	16.75 - 18.25
MW-15S	03/02/05	687.17	1.0	28.0	6	12.0 - 18.0	11.0 - 12.0	10.0 - 11.0
MW-15D	03/02/05	687.87	1.0	28.0	4	21.0 - 25.0	20.5 - 28.0	18.5 - 20.5
MW-16S	03/03/05	688.15	1.0	24.0	6	12.0 - 18.0	11.0 - 18.25	10.0 - 11.0
MW-16D	03/03/05	688.16	1.0	24.0	4	20.0 - 24.0	19.75 - 24.0	18.25 - 19.75
Dual Phase Extraction Recovery Wells								
DPE-1	02/17/04	687.17	4.0	18.5	5	13.0 - 18.0	12.0 - 18.5	11.0 - 12.0
DPE-2	02/19/04	685.32	4.0	26.0	5	18.5 - 23.5	18.0 - 26.0	17.0 - 18.0
DPE-3	02/18/04	685.98	4.0	18.0	8	8.5 - 16.5	8.0 - 18.0	7.0 - 8.0
DPE-4	(3)	686.00	2.0	27.7	20	7.7 - 27.7	6.0 - 27.7	4.0 - 6.0
DPE-5	02/16/04	686.00	4.0	18.3	6	12.0 - 18.0	11.0 - 18.3	10.0 - 11.0
DPE-6	02/16/04	687.53	4.0	18.3	6	12.0 - 18.0	11.0 - 18.3	10.0 - 11.0
DPE-7	02/19/04	685.92	4.0	26.0	4	19.5 - 23.5	19.0 - 26.0	18.0 - 19.0
DPE-8	02/18/04	686.03	4.0	17.0	8	8.5 - 16.5	8.0 - 17.0	7.0 - 8.0

Notes:

ft bgs - feet below ground surface

ft AMSL - feet above mean sea level

MW-# - Monitoring Well

DPE-# - Dual Phase Extraction Recovery Well

(1) MW-1 and MW-5 are not monitored for this project.

(2) MW-7 was abandoned in November 2003 per Section 3.7 of the Remedial Design Work Plan.

(3) Pre-existing monitoring well MW-8 (installed 04/11/99) was converted to DPE-4 in February 2004.

(4) Decommissioned

NA - Information is not available.

Table 3

**Summary of the Groundwater Monitoring Program - July 2022 through April 2023
Former Scott Aviation Facility - West of Plant 2
NYSDEC Site Code No. 9-15-149
Lancaster, New York**

Event Date	Number of Locations Sampled	Locations Sampled			
Quarterly Groundwater Monitoring					
July 2022	18	MW-2 MW-11 MW-16D DPE-4 DPE-8	MW-3 MW-13S DPE-1 DPE-5 GWCT	MW-4 MW-13D DPE-2 DPE-6	MW-8R MW-16S DPE-3 DPE-7
October 2022	18	MW-2 MW-11 MW-16D DPE-4 DPE-8	MW-3 MW-13S DPE-1 DPE-5 GWCT	MW-4 MW-13D DPE-2 DPE-6	MW-8R MW-16S DPE-3 DPE-7
January 2023	18	MW-2 MW-11 MW-16D DPE-4 DPE-8	MW-3 MW-13S DPE-1 DPE-5 GWCT	MW-4 MW-13D DPE-2 DPE-6	MW-8R MW-16S DPE-3 DPE-7
Comprehensive Annual Groundwater Monitoring					
April 2023	23	MW-2 MW-9 MW-14S MW-16S DPE-3 DPE-7	MW-3 MW-11 MW-14D MW-16D DPE-4 DPE-8	MW-4 MW-13S MW-15S DPE-1 DPE-5 GWCT	MW-8R MW-13D MW-15D DPE-2 DPE-6

Table 4

Groundwater Monitoring Water Level Data - April 3, 2023
Former Scott Aviation Facility - West of Plant 2
NYSDEC Site Code No. 9-15-149
Lancaster, New York

Monitoring Point Identification	Top of Casing Elevation (feet AMSL)	Depth to Water (feet from TOC)	Ground Water Elevation (feet AMSL)
Monitoring Wells			
MW-2	687.10	4.99	682.11
MW-3	687.05	8.33	678.72
MW-4	686.50	8.93	677.57
MW-8R	686.29	6.90	679.39
MW-9	689.57	12.38	677.19
MW-11	688.61	9.01	679.60
Nested Piezometers			
MW-13S	686.65	9.20	677.45
MW-13D	686.78	7.35	679.43
MW-14S	685.74	4.34	681.40
MW-14D	685.88	12.68	673.20
MW-15S	687.17	0.00	687.17
MW-15D	687.37	10.98	676.39
MW-16S	688.15	4.49	683.66
MW-16D	688.16	10.17	677.99
Remedial System			
GWCT Manhole (rim)	687.22	21.24	665.98
DPE Wells*			
DPE-1	687.17	14.25	672.92
DPE-2	685.32	14.71	670.61
DPE-3	685.98	13.35	672.63
DPE-4	686.00	10.25	675.75
DPE-5	686.91	10.70	676.21
DPE-6	687.53	NM	NA
DPE-7	685.92	15.30	670.62
DPE-8	686.03	6.30	679.73

Notes:

TOC - Top of Casing

AMSL - Above Mean Sea Level

NM - Not Measured (well vault flooded)

NA - Not Available

GWCT - Groundwater Collection Trench

GWCT is 200 feet long with a 0.01 foot/foot slope to the manhole

* DPE wells actively pumping during the collection of water levels

Table 5

Summary of Monitoring Well Analytical Data - April 2023
Former Scott Aviation Facility - West of Plant 2
NYSDEC Site Code No. 9-15-149
Lancaster, New York

Sample ID	Groundwater	MW-2	MW-3	MW-4	MW-8R	MW-9	MW-11	Duplicate^	MW-13S
Date Collected	RAO/TOGS 1.1.1	04/03/23	04/03/23	04/04/23	04/04/23	04/03/23	04/04/23	04/04/23	04/04/23
Lab Sample ID	Objective	480-207495-1	480-207495-4	480-207495-2	480-207495-3	480-207495-13	480-207495-5	480-207495-11	480-207495-6
Volatile Organic Compounds by Method 8260 (µg/L)									
1,1-Dichloroethane	5*	< 2.0 U	8.5	3.5 J	< 40 U	39	0.52 J	< 2.0 U	< 1.0 U
1,2-Dichloroethane	0.6	< 2.0 U	< 1.0 U	< 4.0 U	< 40 U	0.97 J	< 1.0 U	< 2.0 U	< 1.0 U
2-Butanone (MEK)	50	< 20 U	< 10 U	< 40 U	< 400 U	< 10 U	< 10 U	< 20 U	< 10 U
Acetone	50	15 J	< 10 U	< 40 U	< 400 U	< 10 U	< 10 U	< 20 U	< 10 U
Benzene	1	< 2.0 U	< 1.0 U	< 4.0 U	< 40 U	< 1.0 U	< 1.0 U	< 2.0 U	< 1.0 U
Chloroethane	5*	< 2.0 U	< 1.0 U	52	< 40 U	2.4	< 1.0 U	< 2.0 U	5.3
Chloroform	5	< 1.0 U	< 1.0 U	< 4.0 U	< 10 U	< 1.0 U	< 1.0 U	< 2.0 U	< 1.0 U
cis-1,2-Dichloroethene	5*	< 2.0 U	1.8	3.9 J	130	25	1.3	< 2.0 U	10
Toluene	5*	< 2.0 U	< 1.0 U	2.6 J	< 40 U	< 1.0 U	< 1.0 U	< 2.0 U	< 1.0 U
Trichloroethene	5*	< 2.0 U	< 1.0 U	< 4.0 U	< 40 U	< 1.0 U	< 1.0 U	< 2.0 U	< 1.0 U
Vinyl chloride	5*	< 2.0 U	9.7	5.6	2,800	86	1.3	< 2.0 U	61
Xylenes, Total	5*	< 4.0 U	< 2.0 U	< 8.0 U	< 80 U	< 2.0 U	< 2.0 U	< 4.0 U	< 2.0 U
Total Volatile Organic Compounds	NL	15	20	68	2,930	153	4.1	0.0	76.3
Total Organic Carbon	NL	14.0	3.8	11.5	16.1	3.5	3.8	3.9	3.3

Table 5

Summary of Monitoring Well Analytical Data - April 2023
Former Scott Aviation Facility - West of Plant 2
NYSDEC Site Code No. 9-15-149
Lancaster, New York

Sample ID	Groundwater	MW-13D	MW-14S	MW-14D	MW-15S	MW-15D	MW-16S	MW-16D
Date Collected	RAO/TOGS 1.1.1	04/04/23	04/03/23	04/04/23	04/03/23	04/03/23	04/04/23	04/04/23
Lab Sample ID	Objective	480-207495-7	480-207495-14	480-207495-15	480-207495-16	480-207495-17	480-207495-8	480-207495-9
Volatile Organic Compounds by Method 8260 (µg/L)								
1,1-Dichloroethane	5*	< 1.0 U	15	< 1.0 U	200	< 2.0 U	820 J	0.60 J
1,2-Dichloroethane	0.6	< 1.0 U	0.42 J	< 1.0 U	< 20 U	< 2.0 U	< 2,000 U	< 1.0 U
2-Butanone (MEK)	50	< 10 U	< 10 U	< 10 U	< 200 U	< 20 U	< 20,000 U	20
Acetone	50	3.5 J	< 10 U	< 10 U	72 J	< 20 U	< 20,000 U	16
Benzene	1	< 1.0 U	0.42 J	< 1.0 U	< 20 U	< 2.0 U	< 2,000 U	< 1.0 U
Chloroethane	5*	4.3	< 1.0 U	< 1.0 U	170	160	< 2,000 U	65
Chloroform	5	< 1.0 U	< 1.0 U	< 1.0 U	< 20 U	< 2.0 U	< 2,000 U	0.48 J
cis-1,2-Dichloroethene	5*	< 1.0 U	17	< 1.0 U	280	< 2.0 U	150,000	4.2
Toluene	5*	< 1.0 U	< 1.0 U	< 1.0 U	170	< 2.0 U	< 2,000 U	< 1.0 U
Trichloroethene	5*	< 1.0 U	< 1.0 U	< 1.0 U	31	< 2.0 U	< 2,000 U	< 1.0 U
Vinyl chloride	5*	< 1.0 U	4.6	< 1.0 U	65	< 2.0 U	95,000	2.4
Xylenes, Total	5*	< 2.0 U	< 2.0 U	< 2.0 U	24 J	< 4.0 U	< 4,000 U	< 2.0 U
Total Volatile Organic Compounds	NL	7.8	38	0.0	1,012	160	245,820	108
Total Organic Carbon	NL	3.5	NA	5.7	188	2.3	656	378

Notes:

Bold font indicates the analyte was detected.

Bold font and bold outline indicates the screening criteria was exceeded.

^ - Duplicate collected at MW-11.

* Site-specific RAO per ROD (November 1994).

Site-specific RAO's 1,1,1-Trichloroethane and Ethylbenzene were not detected above the reporting limit.

J - Result is less than the reporting limit but greater than or equal to the method detection limit and the concentration is an approximate value.

U - Not detected at or above reporting limit.

NL - Not listed.

Table 6

Summary of Annual TCE Concentrations in Groundwater from January 2009 (pre-injection) through April 2023
Former Scott Aviation Facility - West of Plant 2
NYSDEC Site Code No. 9-15-149
Lancaster, New York

Well ID	TCE Concentrations (µg/L)														
	January 2009	April 2010	April 2011	April 2012	April 2013	April 2014	April 2015	April 2016	April 2017	April 2018	April 2019	April 2020	April 2021	April 2022	April 2023
MW-2	< 5	<25	<1	<1	<1	<1	<5	<1	<1	<1	<1	<1	<1	<1	<2
MW-3	< 5	<5	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
MW-4*	19,000	3,000	13,000	39,000	12,000	32,000	110	<100	<5	<20	2.1	<4	<4	<4	<4
MW-8R	8,400	2,500	8,900	99,000	64,000	100,000	<2,000	<1,000	14	13	<40	<2	<10	<8	<40
MW-9	< 5	<5	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
MW-11	0.77	0.95	1.2	0.51	<1	<1	<2	<1	<1	<2	<1	<1	<1	<1	<1
MW-13S*	3,400	1,400	40,000	39,000	40,000	32,000	31,000	<100	0.26	<40	0.7	<1	0.77	<2	<1
MW-13D*	< 5	< 5	22	62	53	30	40	<10	<1	<1	<1	<1	<1	<1	<1
MW-14S	0.38	< 5	< 1	1.3	<1	<1	<1	<1	<1	NS	<1	<1	<1	<1	<1
MW-14D	< 5	9.4	0.97	0.64J	0.99	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
MW-15S	180	270	200	240	140	160	85	110	70	85	98	95	58	47	31
MW-15D	< 25	<5	<8	<10	<8	<20	<20	<10	<1	<5	<8	<2	<2	<2	<2
MW-16S*	92,000	220,000	250,000	250,000	230,000	61,000	26,000	<4,000	86	<1,000	<1,000	<1	<1,000	<2,000	<2,000
MW-16D*	52	12	22	42	57	<25	<20	<10	<1	<1	<2	<1	<1	<2	<1

Notes:

J – Estimated concentration.

Wells with asterisks were targeted during the October 2010 and October 2011 sodium persulfate with chelated iron injections; delineated by the grey and black dashed/dotted vertical lines respectively.

Wells in bold were targeted during the November 2014 injection and September 2021 injection; delineated by the black dashed vertical line and double vertical line respectively.

Wells in bold and shaded in grey were targeted during the April 2015 and November 2018 injections; delineated by the grey and black dotted vertical lines, respectively.

The September 2021 bioaugmentation injection targeted the wells in bold and is delineated by the double vertical lines.

The electron donor injection targeted the area adjacent to MW-16S in March 2023 and is delineated by the angled dashed/dotted line.

Table 7

**Summary of Groundwater Collection Trench Analytical Data
Former Scott Aviation Facility - West of Plant 2
NYSDEC Site Code No. 9-15-149
Lancaster, New York**

Sample ID	Groundwater	GWCT Manhole	GWCT Manhole	GWCT Manhole	GWCT Manhole	GWCT Manhole	GWCT Manhole	GWCT Manhole	GWCT Manhole
Date Collected	RAO/TOGS 1.1.1	07/24/15	10/19/15	01/05/16	04/04/16	07/05/16	10/27/16	01/16/17	04/20/17
Lab Sample ID	Objective	480-84562-15	480-89674-20	480-93630-15	480-84562-15	480-102662-4	480-108538-2	480-112334-8	480-116720-15
Volatile Organic Compounds by Method 8260 (µg/L)									
1,1-Dichloroethane	5*	1.3	0.7	< 1.0 U	0.4 J	< 1.0 U	< 1.0 U	< 1.0 U	0.74 J
2-Butanone (MEK)	50	2.4 J	< 10 U	< 10 U	< 10 U	< 1.0 U	< 1.0 U	< 1.0 U	< 10 U
Acetone	50	7.0 J	< 10 U	< 10 U	< 10 U	< 1.0 U	< 1.0 U	< 1.0 U	< 10 U
Carbon disulfide	1	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
Chloroethane	5*	< 1.0 U	< 1.0 U	62	44	70	34	45	26
Chlormethane	5	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
cis-1,2-Dichloroethene	5*	1.1	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	0.74 J
Ethylbenzene	5	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
Toluene	5*	< 1.0 U	< 1.0 U	0.99 J	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
trans-1,2-Dichloroethene	5	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
Vinyl chloride	5*	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
Xylenes, Total	5*	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U
Total Volatile Organic Compounds	NA	12.8	0.7	63	44	70	34	45	27

Table 7

Summary of Groundwater Collection Trench Analytical Data through April 2023
Former Scott Aviation Facility - West of Plant 2
NYSDEC Site Code No. 9-15-149
Lancaster, New York

Sample ID	Groundwater	GWCT Manhole	GWCT Manhole	GWCT Manhole	GWCT Manhole	GWCT Manhole	GWCT Manhole	GWCT Manhole	GWCT Manhole
Date Collected	RAO/TOGS 1.1.1	07/11/17	10/23/17	01/08/18	04/13/18	07/12/18	10/24/18	01/09/19	04/08/19
Lab Sample ID	Objective	480-121042-15	480-126420-1	480-129995-13	480-134234-8	480-138781-4	480-144170-15	480-147748-15	480-151586-12
Volatile Organic Compounds by Method 8260 (µg/L)									
1,1-Dichloroethane	5*	< 1.0 U	< 1.0 U	< 1.0 U	0.52 J	< 1.0 U	< 1.0 U	0.38 J	0.48 J
2-Butanone (MEK)	50	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U
Acetone	50	< 10 U	< 10 U	< 10 U	10 J	< 10 U	< 10 U	< 10 U	< 10 U
Carbon disulfide	1	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	0.20 J
Chloroethane	5*	65	45	64	53	49	38	28	48
Chloromethane	5	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
cis-1,2-Dichloroethene	5*	< 1.0 U	< 1.0 U	5.1	< 1.0 U	< 1.0 U	< 1.0 U	0.93 J	1.20
Ethylbenzene	5	< 1.0 U	0.19 J	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
Toluene	5*	< 1.0 U	0.25 J	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	0.80 J	0.60 J
trans-1,2-Dichloroethene	5	< 1.0 U	0.34 J	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
Vinyl chloride	5*	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	1.4
Xylenes, Total	5*	< 2.0 U	0.67 J	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U
Total Volatile Organic Compounds	NA	65	45	69	64	49	38	30	52

Table 7

Summary of Groundwater Collection Trench Analytical Data through April 2023
Former Scott Aviation Facility - West of Plant 2
NYSDEC Site Code No. 9-15-149
Lancaster, New York

Sample ID	Groundwater	GWCT Manhole	GWCT Manhole	GWCT Manhole	GWCT Manhole	GWCT Manhole	GWCT Manhole	GWCT Manhole	GWCT Manhole
Date Collected	RAO/ TOGS 1.1.1	07/23/19	10/14/19	01/06/20	04/06/20	07/22/20	10/13/20	01/20/21	04/07/21
Lab Sample ID	Objective	480-156622-7	480-160839-7	480-165026-18	480-168383-16	480-172827-15	480-176470-13	480-180395-15	480-182978-13
Volatile Organic Compounds by Method 8260 (µg/L)									
1,1-Dichloroethane	5*	< 1.0 U	< 1.0 U	0.45 J	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
2-Butanone (MEK)	50	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
Acetone	50	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
Carbon disulfide	1	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
Chloroethane	5*	48	28	34	52	37	34	24	29
Chloromethane	5	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	0.42 J	< 1.0 U	< 1.0 U	< 1.0 U
cis-1,2-Dichloroethene	5*	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
Ethylbenzene	5	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
Toluene	5*	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
trans-1,2-Dichloroethene	5	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
Vinyl chloride	5*	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	1.2 U	< 1.0 U	< 1.0 U	< 1.0 U
Xylenes, Total	5*	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U
Total Volatile Organic Compounds	NA	48	28	34	52	39	34	24	29

Table 7

Summary of Groundwater Collection Trench Analytical Data through April 2023
Former Scott Aviation Facility - West of Plant 2
NYSDEC Site Code No. 9-15-149
Lancaster, New York

Sample ID	Groundwater	GWCT Manhole	GWCT Manhole	GWCT Manhole	GWCT Manhole	GWCT Manhole
Date Collected	RAO/ TOGS 1.1.1	07/15/21	10/19/21	01/19/22	04/06/22	04/04/23
Lab Sample ID	Objective	480-187292-18	480-191095-10	480-194344-18	480-196479-18	480-207495-10
Volatile Organic Compounds by Method 8260 (µg/L)						
1,1-Dichloroethane	5*	< 1.0 U	0.44 J	< 1.0 U	< 1.0 U	0.58 J
2-Butanone (MEK)	50	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
Acetone	50	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
Carbon disulfide	1	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
Chloroethane	5*	37	32	28	24	8.6
Chloromethane	5	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
cis-1,2-Dichloroethene	5*	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
Ethylbenzene	5	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
Toluene	5*	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
trans-1,2-Dichloroethene	5	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
Vinyl chloride	5*	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
Xylenes, Total	5*	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U
Total Volatile Organic Compounds	NA	37	32	28	24	8.6

Notes:

Bold font indicates the analyte was detected.

Bold font and bold outline indicates the screening criteria was exceeded.

* Site-specific RAO per ROD (November 1994)

J - Result is less than the reporting limit but greater than or equal to the method detection limit and the concentration is an approximate value.

U - Not detected at or above reporting limit.

NA - Not applicable

Table 8

Summary of Dual Phase Extraction Well Groundwater Analytical Data - April 2023
Former Scott Aviation Facility - West of Plant 2
NYSDEC Site Code No. 9-15-149
Lancaster, New York

Sample ID	Groundwater	DPE-1	DPE-2	DPE-3	DPE-4	DPE-5	DPE-6	DPE-7	DPE-8
Date Collected	RAO/TOGS 1.1.1	04/05/23	04/05/23	04/05/23	04/05/23	04/05/23	04/05/23	04/05/23	04/05/23
Lab Sample ID	Objective	480-207551-1	480-207551-2	480-207551-13	480-207551-4	480-207551-5	480-207551-6	480-207551-7	480-207551-8
Volatile Organic Compounds by Method 8260 (µg/L)									
1,1,1-Trichloroethane	5*	4.0 U	1.0 U	10 U	8.0 U	4.0 U	1.0 U	2.0 U	310
1,1-Dichloroethane	5*	38	1.0 U	6.0 J	8.0 U	19	99	4.9	240
1,1-Dichloroethene	5	4.0 U	1.0 U	10 U	8.0 U	2.3 J	0.78 J	2.0 U	76
2-Butanone (MEK)	50	61	10 U	100 U	80 U	9.0 J	10 U	37	40 U
Acetone	50	140	10 U	100 U	80 U	31 J	10 U	14 J	40 U
Chloroethane	5*	4.5	1.5	10 U	8.0 U	18	0.68 J	91	96
cis-1,2-Dichloroethene	5*	51	0.86 J	430	170	550	62	6.2	10,000
Methylcyclohexane	NL	4.0 U	1.0 U	10 U	8.0 U	4.0 U	0.18 J	2.0 U	40 U
Toluene	5*	7.3	1.0 U	10 U	8.0 U	2.4 J	6.9	2.0 J	110
trans-1,2-Dichloroethene	5	4.0 U	1.0 U	10 U	8.0 U	4.0 U	2.0	2.0 U	59
Trichloroethene	5*	7.9	1.0 U	79	8.0 U	4.0 U	8.3	2.0 U	1,100
Vinyl chloride	5*	13	6.8	80	120	750	36	29.0	2,700
Xylenes, Total	5*	8.0 U	2.0 U	20 U	16 U	8.0 U	2.8 J	4.0 U	80 U
Total Volatile Organic Compounds	NL	323	9.2	595	290	1,383	219	182	14,691
Total Organic Carbon (mg/L)	NL	238	6.8	15.2	3.2	29.9	48.7	407	210

Notes:

Bold font indicates the analyte was detected.

Bold font and bold outline indicates the screening criteria was exceeded.

* Site-specific RAO per ROD (November 1994).

Total Organic Carbon by Method 9060A.

J - Result is less than the reporting limit but greater than or equal to the method detection limit and the concentration is an approximate value.

U - Not detected at or above reporting limit.

NL - Not listed.

Table 9

Bioattenuation Screening Summary - April 2023
Former Scott Aviation Facility - West of Plant 2
NYSDEC Site Code No. 9-15-149
Lancaster, New York

Parameter	Units	Criteria		Score Value	Monitoring Well Identification											
					MW-4		MW-8R		MW-11		MW-13S		MW-16S		MW-16D	
					Plume Well		Plume Well		Background well		Plume Well		Plume Well		Plume Well	
						Score		Score		Score		Score		Score		Score
Dissolved Oxygen	mg/L	< 0.5 mg/L	Tolerated, suppresses the reductive pathway at higher concentrations	3	0.09	3	0.11	3	0.10	3	0.13	3	0.26	3	0.06	3
		>0.5 mg/L	Not tolerated; however, VC may be oxidized aerobically	-3												
Nitrate	mg/L	< 1 mg/L	At higher concentrations may compete with reductive pathway	2	<0.050	2	<0.050	2	<0.050	2	<0.050	2	<0.050	2	0.027	2
Ferrous Iron	µg/L	> 1 mg/L	Reductive pathway possible	3	<0.10	0	<0.10	0	<0.10	0	<0.10	0	61.4	3	56.6	3
Sulfate	mg/L	< 20 mg/L	At higher concentrations may compete with reductive pathway	2	<20	2	4.1	2	7.4	2	3.0	2	32.4	0	<20	2
Sulfide	mg/L	> 1 mg/L	Reductive pathway possible	3	<1.0	0	0.8	0	<1.0	0	<1.0	0	<1.0	0	<1.0	0
Methane	µg/L	< 500 µg/L	VC oxidizes	0												
		> 500 µg/L	Ultimate reductive daughter product, VC accumulates	3	24,000	3	27,000	3	2,100	3	22,000	3	15,000	3	19,000	3
Ethene	µg/L	> 10 µg/L	Daughter product of VC	2	690	2	3,200	2	<150	0	1,100	2	47,000	2	<770	0
Ethane	µg/L	> 100 µg/L	Daughter product of Ethene	3	750	3	1,400	3	<170	0	2,300	3	<1,700	0	330	3
ORP	mV	< 50 mV	Reductive pathway possible	1					-4.8	1						
		< -100 mV	Reductive pathway likely	2	-155.5	2	-180.4	2			-113.7	2	-138.2	2	-116.5	2
pH	s.u.	5 < pH < 9	Optimal range for reductive pathway	0	7.73	0	7.68	0	6.49	0	7.10	0	6.84	0	6.26	0
		5 > pH > 9	Outside optimal range for reductive pathway	-2												
Temperature	°C	> 20°C	At temperature > 20°C, biochemical process is accelerated	1	10.5	0	9.8	0	11.0	0	9.6	0	10.2	0	11.1	0
TOC	mg/L	> 20 mg/L	Carbon and energy source, drives dechlorination (natural or anthropogenic)	2	11.5	0	16.1	0	3.8	0	3.3	0	656	2	378	2
Carbon Dioxide	µg/L	> 2x background	Ultimate oxidative product	1	29,000	0	40,000	0	150,000	0	64,000	0	290,000	0	190,000	0
Alkalinity	mg/L	> 2x background	Results from interaction of between carbon dioxide and aquifer minerals	1	448	0	893	0	460	0	476	0	1,100	2	815	0
PCE ¹	µg/L	----	N/A	0	<4	0	<40	0	<1	0	<1	0	<2,000	0	<1	0
TCE ²	µg/L	----	Material Released	0	<4	0	<40	0	<1	0	<1	0	<2,000	0	<1	0
DCE ³	µg/L	----	Daughter product of TCE (score if cis-1,2-DCE is 80% of total DCE)	2	3.9	2	130	2	1.3	2	61	2	150,000	2	4.2	2
VC ⁴	µg/L	----	Daughter product of DCE	2	5.6	2	2,800	2	1.3	2	18	2	95,000	2	2.4	2
1,1,1-TCA ⁵	µg/L	----	Material Released	0	<4	0	<40	0	<1	0	<1	0	<2,000	0	<1	0
1,1-DCA ⁶	µg/L	----	Daughter product of 1,1,1-TCA under reducing conditions	2	3.5	2	<40	0	0.52	2	<1	0	820	2	0.6	2
CA ⁷	µg/L	----	Daughter product of 1,1-DCA or VC under reducing conditions	2	52	2	<40	0	<1	0	5.30	2	<2,000	0	65	2
TOTAL SCORE						25		21		17		23		25		28

Notes:

DCE = dichloroethene

°C = degrees Celsius

µg/L = micrograms per liter

mg/L = milligrams per liter

mV = millivolts

ORP = oxidation-reduction potential

s.u. = standard unit

PCE = tetrachloroethene

TCE = trichloroethene

TOC = total organic carbon

VC = vinyl chloride

1,1,1-TCA = 1,1,1-trichloroethane

1,1-DCA = 1,1-dichloroethane

CA = chloroethane

0 to 5 points: There is inadequate evidence for anaerobic biodegradation of chlorinated organics.**6 to 14 points:** There is limited evidence for anaerobic biodegradation of chlorinated organics.**15 to 20 points:** There is adequate evidence for anaerobic biodegradation of chlorinated organics.**>20 points:** There is strong evidence for anaerobic biodegradation of chlorinated organics.¹ = Material Released² = Daughter product of PCE³ = Daughter product of TCE (score if cis-1,2-DCE is 80% of total DCE)⁴ = Daughter product of DCE⁵ = Material Released⁶ = Daughter product of 1,1,1-TCA under reducing conditions⁷ = Daughter product of 1,1-DCA or VC under reducing conditions

Table 10

**Pre- and Post-Bioaugmentation Injection VFA Data Comparison
Former Scott Aviation Facility - West of Plant 2
NYSDEC Site Code No. 9-15-149
Lancaster, New York**

Sample ID	Sample Date	Sample Dilution Factor	Lactate	Acetate	Propionate	Formate	Butyrate	Pyruvate
			mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
MW-8R	8/26/2021	50	1.2	70	<0.31	<0.22	<0.41	<0.69
MW-8R	12/9/2021	50	<0.39	28	<0.31	<0.22	<0.41	<0.69
MW-8R	4/6/2022	50	<0.39	37	<0.31	<0.22	<0.41	<0.69
MW-8R	10/10/2022	50	1.4	145	<0.13	<0.22	1.2	<0.69
MW-8R	4/12/2023	50	<0.62	2.2	<0.10	<1.3	<0.06	<0.15
MW-16S	8/26/2021	50	<0.39	495	12	<0.22	81	0.71
MW-16S	12/9/2021	1000	<7.8	921	14	<4.4	98	<13.8
MW-16S	4/7/2022	1000	<7.8	532	<6.2	<4.4	48	<0.69
MW-16S	10/10/2022	50	1.0	427	<0.13	<0.22	<0.41	<0.69
MW-16S	4/12/2023	50	<0.62	347	240	<1.3	137	2.1

Notes:

VFA - Volatile fatty acid

mg/L - milligram per liter

The bioaugmentation injection was performed on September 15 and 16, 2021.

Table 11

Pre- and Post-Bioaugmentation Injection Gene-Trac Data Comparison
Former Scott Aviation Facility - West of Plant 2
NYSDEC Site Code No. 9-15-149
Lancaster, New York

Sample ID	Sample Date	Dehalococcoides (Dhc)		Dehalobacter (Dhb)		VC Reductase (vcrA)		BAV1 VC Reductase (bvcA)		TCE Reductase (tceA)	
		Percent Dhc	Enumeration/Liter	Percent Dhb	Gene Copies/Liter	Percent vcrA	Gene Copies/Liter	Percent bvcA	Gene Copies/Liter	Percent tceA	Gene Copies/Liter
MW-16S	8/26/2021	8 - 23 %	1×10^9	0.3 - 1 %	5×10^7	8 - 22 %	1×10^9	1 - 3 %	1×10^8	7 - 18 %	1×10^9
MW-16S	12/9/2021	6 - 17 %	1×10^9	0.08 - 0.2 %	2×10^7	5 - 15 %	1×10^9	0.3 - 1 %	6×10^7	2 - 5 %	3×10^8
MW-16S	4/7/2022	31 - 67 %	5×10^9	0.07 - 0.2 %	1×10^7	33 - 71 %	6×10^9	0.3 - 0.8 %	4×10^7	1 - 3 %	2×10^8
MW-16S	10/10/2022	39 - 80 %	3×10^9	0.08 - 0.2 %	5×10^6	28 - 63 %	2×10^9	2 - 4 %	9×10^7	3 - 8 %	2×10^8
MW-16S	4/12/2023	6 - 17 %	7×10^8	0.09 - 0.23 %	1×10^6	7 - 19 %	8×10^8	0.8 - 2 %	8×10^7	0.7 - 2 %	8×10^7

Note: The bioaugmentation was performed on September 15 and 16, 2021.

Table 12

Volatile Organic Compound Mass Removed - Vapor Phase
Former Scott Aviation Facility - West of Plant 2
NYSDEC Site Code No. 9-15-149
Lancaster, New York

Sample ID: Sample Date:	LRP Effluent 3Q22 7/7/2022	AS Effluent 3Q22 7/7/2022	LRP Effluent 4Q22 10/3/2022	AS Effluent 4Q22 10/3/2022	LRP Effluent 1Q23 1/17/2023	AS Effluent 1Q23 1/17/2023	LRP Effluent 2Q23 4/6/2023	AS Effluent 2Q23 4/6/2023
VOCs by Method TO-15 (µg/m³)								
1,1,1-Trichloroethane	- U	- U	- U	- U	- U	- U	13	- U
1,1-Dichloroethane	4.8	- U	16	- U	3.6	- U	13	- U
1,1-Dichloroethene	1.4	- U	3.3	- U	1.5	- U	3.6	- U
1,2-Dichloroethene, Total	340	4.4	830	15	320 U	20	750	1.9
1,2,4-Trimethylbenzene	- U	- U	-	- U	- U	- U	2.2	- U
Acetone	23	17	- U	- U	12	- U	- U	17
Bromodichloromethane	- U	- U	- U	2.1	- U	- U	- U	- U
Carbon disulfide	- U	3.6	- U	- U	- U	- U	- U	5.5
Chloroethane	29	- U	30	35	1.8	2.3	- U	- U
Chloroform	3.1	- U	4.4	11	- U	- U	- U	- U
Chloromethane	1.4	1.2	- U	- U	1.4	1.3	- U	- U
Methyl Ethyl Ketone	5.3	2.4	- U	- U	5.4	1.5	- U	7.0
n-Heptane	- U	- U	- U	- U	1.1	- U	- U	- U
Tetrachloroethene	- U	- U	- U	1.7	3.3	- U	- U	- U
Toluene	3.4	- U	5.2	1.1	7.2	1.2	11	4.4
Trichlorofluoromethane	1.2	1.2	- U	- U	- U	- U	- U	- U
Trichloroethene	5.0	- U	- U	- U	12	- U	46	- U
Vinyl chloride	510	- U	580	2.8	330	2.1	280	- U
Total Detected VOCs (µg/m³)	928	30	1,469	69	699	28	1,119	35.8
Vacuum (inches Hg)	21.5	0.287	23.5	0.662	23.5	0.405	17.0	1.287
Air Flow Rate (acfm)	130.57	318.83	89.33	301.91	105.56	180.17	142.92	154.85
VOC discharge loading (lb/hr)	0.000454	0.000036	0.000492	0.000078	0.000277	0.000019	0.000599	0.000021
LRP/AS Runtime (hours)	2256	2256	2112	2112	2544	2544	1896	1896
VOCs Removed (pounds)	1.10		1.20		0.75		1.18	
Total VOCs Removed (pounds)	4.23							

Notes:

1. µg/m³ = micrograms per cubic meter
2. acfm = actual cubic feet per minute
3. Hg = Mercury
4. lb/hr = pounds per hour
5. LRP Effluent represents the untreated vapor discharge for the Liquid Ring Pump.
6. AS Effluent represents the vapor discharge from the Air Stripper.

Table 13

Summary of Vapor Monitoring Results - April 2023
Former Scott Aviation Facility - West of Plant 2
NYSDEC Site Code No. 9-15-149
Lancaster, New York

	Sample ID: Sample Date:	LRP Effluent 2Q23 4/6/2023	AS Effluent 2Q23 4/6/2023
<u>VOCs by Method TO-15 (µg/m³)</u>			
1,1,1-Trichloroethane		13	U
1,1-Dichloroethane		13	U
1,1-Dichloroethene		3.6	U
1,2-Dichloroethene, Total		750	1.9
1,2,4-Trimethylbenzene		2.2	U
Acetone		U	17
Carbon disulfide		U	5.5
Methyl Ethyl Ketone		U	7.0
Methylene Chloride		U	U
Toluene		11	4.4
Trichloroethene		46	U
Vinyl chloride		280	U
Total Detected VOCs (µg/m³)		1118.8	35.80
Vacuum (inches Hg)		17	1.287
Air Flow Rate (acfm)		142.92	154.85
VOC discharge loading (lb/hr)		0.000599	0.000021
Total VOC discharge loading (lb/hr)		0.000620	
Notes:			
1. µg/m³ = micrograms per cubic meter			
2. acfm = actual cubic feet per minute			
3. Hg = Mercury			
4. scfm = standard cubic feet per minute			
5. lb/hr = pounds per hour			
6. AS Effluent represents the untreated vapor discharge for the Air Stripper.			
Qualifiers:			
U - Not detected at or above reporting limit (reporting limit not included in the Total Detected VOCs).			

Table 14

Volatile Organic Compound Mass Removed - Aqueous Phase
Former Scott Aviation Facility - West of Plant 2
NYSDEC Site Code No. 9-15-149
Lancaster, New York

Sample ID Sample Date	Influent 3Q22 7/7/2022	Influent 4Q22 10/3/2022	Influent 1Q23 1/17/2023	Influent 2Q23 4/6/2023
VOCs (Method 8260) (µg/L)				
2-Butanone (MEK)	ND	ND	ND	7.3 J
Acetone	ND	13	3.7 J	19
Bromodichloromethane	ND	0.88 J	ND	ND
Chlorform	ND	3.4	ND	ND
Chloroethane	ND	ND	ND	1.9
cis-1,2-Dichloroethene	1.1	3.0	1.7	6.8
Total VOCs (µg/L)	1.1	20.3	5.4	35
Totalizer Readings (gallons)	2,046,880 (4/4/22) 2,189,080 (7/7/22)	2,189,080 (7/7/22) 2,323,060 (10/3/22)	2,323,060 (10/3/22) 2,576,670 (1/17/23)	2,576,670 (1/17/23) 2,823,290 (4/6/23)
Gallons Processed	142,200	133,980	253,610	246,620
VOCs Removed (pounds)	0.001	0.023	0.011	0.072
Total VOCs Removed (pounds)	0.11			

Notes:

1. µg/L = micrograms per liter
2. Influent - Represents the combined dual phase extraction and groundwater collection trench influent to the air stripper.
3. Dates are indicated next to the air stripper totalizer readings.
4. Totalizer readings from the air stripper effluent.
5. The majority of the VOCs removed is through the liquid ring pump vapor discharge before it reaches the air stripper.
6. Electron donor injection began on March 9, 2023.

Qualifiers:

J - Indicates compounds detected as estimated.

ND - Indicates compounds not detected above the quantitation limit.

Table 15

**Combined DPE Remediation System Operation and Maintenance Schedule
Former Scott Aviation Facility - West of Plant 2
NYSDEC Site Code No. 9-15-149
Lancaster, New York**

Frequency	Operation and Maintenance Activity
Weekly	Record System Operational Parameters Inspect All Piping, Mechanical, and Electrical Components Check/Fill LRP Seal Fluid Change Bag Filters/Clean Housings
Quarterly	Clean System Components (KO Tank, Hold Tank, Air Stripper)
Annually	Replace LRP Seal Fluid Change KO Tank Filter Replace LRP Separator Element Perform DPE Well and Conveyance Lines Scale Abatement Activity

Notes:

DPE: Dual Phase Extraction

KO: Knockout

LRP: Liquid Ring Pump

Table 16

Proposed Monitoring and Compliance Sampling Summary
Former Scott Aviation Facility - West of Plant 2
NYSDEC Site Code No. 9-15-149
Lancaster, New York

Location/Type	Matrix	Analytical Parameter									Comments
		VOCs (aqueous)	TOC (aqueous)	MNA (aqueous)	VFA (aqueous)	Gene-Trac (aqueous)	TPH (aqueous)	TSS (aqueous)	pH (aqueous)	VOCs (vapor)	
Quarterly BSA Sampling - 4 Events											
Air Stripper Influent	aqueous	1	0	0	0	0	1	1	1	0	Four grabs over 8 hour process day Four grabs over 8 hour process day Quality Assurance/Quality Control
Air Stripper Effluent	aqueous	1	0	0	0	0	1	1	1	0	
Trip Blank	aqueous	1	0	0	0	0	0	0	0	0	
Per Event		3	0	0	0	0	2	2	2	0	
Sub-Total		12	0	0	0	0	8	8	8	0	
Remedial Action Compliance Sampling											
Quarterly - 3 Events											
Primary Samples	aqueous	18	9	0	2	1	0	0	0	0	Wells: MW-2, MW-3, MW-4, MW-8R ⁺ , MW-11, MW-13S, MW-13D, MW-16S [^] , MW-16D, DPE-1, DPE-2, DPE-3, DPE-4, DPE-5, DPE-6, DPE-7, DPE-8, GWCT Quality Assurance/Quality Control Quality Assurance/Quality Control Quality Assurance/Quality Control Air Discharge Limit Compliance Air Discharge Limit Compliance
Duplicate	aqueous	1	0	0	0	0	0	0	0	0	
Trip Blank	aqueous	1	0	0	0	0	0	0	0	0	
Rinsate Blank	aqueous	1	0	0	0	0	0	0	0	0	
Air Stripper Effluent	air	0	0	0	0	0	0	0	0	1	
LRP Effluent	air	0	0	0	0	0	0	0	0	1	
Per Event		21	9	0	2	1	0	0	0	2	
Subtotal		63	27	0	6	3	0	0	0	6	
Annual Event - 1 Event											
Primary Samples	aqueous	23	14	0	2	1	0	0	0	0	Wells: MW-2, MW-3, MW-4, MW-8R ⁺ , MW-9, MW-11, MW-13S, MW-13D, MW-14S, MW-14D, MW-15S, MW-15D, MW-16S [^] , MW-16D, DPE-1, DPE-2, DPE-3, DPE-4, DPE-5, DPE-6, DPE-7, DPE-8, GWCT Wells: MW-4, MW-8R, MW-11, MW-13S, MW-16S, MW-16D Quality Assurance/Quality Control Quality Assurance/Quality Control Quality Assurance/Quality Control Air Discharge Limit Compliance Air Discharge Limit Compliance
Subset Samples	aqueous	0	0	6	0	0	0	0	0	0	
Trip Blank	aqueous	1	0	0	0	0	0	0	0	0	
Duplicate	aqueous	1	0	0	0	0	0	0	0	0	
Rinsate Blank	aqueous	1	0	0	0	0	0	0	0	0	
Air Stripper Effluent	air	0	0	0	0	0	0	0	0	1	
LRP Effluent	air	0	0	0	0	0	0	0	0	1	
Subtotal		26	24	6	2	1	0	0	0	2	
Total		101	51	6	8	4	8	8	8	8	

Methods:

Volatile organic compounds (VOCs) by USEPA SW-846 Method 8260C (aqueous).

Total organic carbon (TOC) by USEPA SW-846 Method 9060A (aqueous); not to include DPE wells or GWCT.

Monitored natural attenuation (MNA) by RSK-175 (Methane, Ethane and Ethene) and by EPA Method 300.0 (Chloride). Note additional MNA analyses may be added.

Total extractable hydrocarbons (TPH) by 40 CFR 136 Method 160.2

Total suspended solids (TSS) by 40 CFR 136 Method 1664

pH by 40 CFR 136 Method 150.1

VOCs by USEPA Method TO-15 (air)

MW - Monitoring Well

DPE - Dual Phase Extraction

GWCT - Groundwater Collection Trench

LRP - Liquid Ring Pump

* Volatile Fatty Acids (VFA) and Gene-Trac samples collected in July, October, January and April

⁺ VFA sample

[^] VFA and Gene-Trac sample

Table 17

Proposed Groundwater Monitoring Schedule - July 2023 through April 2024
Former Scott Aviation Facility - West of Plant 2
NYSDEC Site Code No. 9-15-149
Lancaster, New York

Event Date	Number of Locations Scheduled for Sampling	Locations Scheduled for Sampling			
Quarterly Groundwater Monitoring					
July 2023	18	MW-2	MW-3	MW-4	MW-8R
		MW-11	MW-13S	MW-13D	MW-16S
		MW-16D	DPE-1	DPE-2	DPE-3
		DPE-4	DPE-5	DPE-6	DPE-7
		DPE-8	GWCT		
October 2023	18	MW-2	MW-3	MW-4	MW-8R
		MW-11	MW-13S	MW-13D	MW-16S
		MW-16D	DPE-1	DPE-2	DPE-3
		DPE-4	DPE-5	DPE-6	DPE-7
		DPE-8	GWCT		
January 2024	18	MW-2	MW-3	MW-4	MW-8R
		MW-11	MW-13S	MW-13D	MW-16S
		MW-16D	DPE-1	DPE-2	DPE-3
		DPE-4	DPE-5	DPE-6	DPE-7
		DPE-8	GWCT		
Comprehensive Annual Groundwater Monitoring					
April 2024	23	MW-2	MW-3	MW-4	MW-8R
		MW-9	MW-11	MW-13S	MW-13D
		MW-14S	MW-14D	MW-15S	MW-15D
		MW-16S	MW-16D	DPE-1	DPE-2
		DPE-3	DPE-4	DPE-5	DPE-6
		DPE-7	DPE-8	GWCT	

Notes:

MW-## - Monitoring Well

MW-##S - Shallow Piezometer

MW-##D - Deep Piezometer

DPE-## - Dual Phase Extraction Well

GWCT - Groundwater Collection Trench

Appendix A Former Scott Aviation Plant 2 O&M Checklist

AECOM Technical Services, Inc.
SCOTT AVIATION WEST OF PLANT 2 O&M CHECKLIST (updated 4/2021)

Date: _____	Weather: _____
Time: _____	Field Technician Name: _____

DPE Process Room

DPE Wells (indicate if well is in operation)

DPE-1 _____	DPE-5 _____
DPE-2 _____	DPE-6 _____
DPE-3 _____	DPE-7 _____
DPE-4 _____	DPE-8 _____

Comments: _____

LRP Tank Exhaust Temperature - _____ °F	LRP Flow Rate - _____ x1000 FPM
LRP Filter Pressure - _____ PSI	KO Tank Vacuum - _____ "Hg
LRP Oil Level - _____	
LRP Inlet Vacuum - _____ "Hg	
LRP Exhaust Temperature - _____ °F	
LRP Hour Meter _____ HRS	

Comments: _____

DPE Control Room

LRP Hour Meter - _____	HRS
KO Tank Hour Meter - _____	HRS
Hold Tank Hour Meter - _____	HRS

Comments: _____

Groundwater Treatment Building

GW Trench Totalizer _____	GAL	Air Stripper Vacuum - _____	"H ₂ O
Air Stripper Effluent Flowrate - _____	GPM	Air Stripper Flow - _____	"H ₂ O
Air Stripper Effluent Totalizer (T1) - _____	GAL	AS Flow Gauge - _____	SCFM
Air Stripper Effluent Totalizer (T2) - _____	GAL		
Air Stripper Effluent Temperature - _____	°F		

Comments: _____

Appendix B April 2023 Groundwater Sampling Logs

Date (mo/day/yr)	4/4/2022	
Field Personnel	Ann Marie Kropovitch	
Site Name	Former Scott Aviation Site - Lancaster, NY	
Job #	60676130	
Well ID #	MW-2	
	Upgradient	Downgradient
Weather Conditions	Cloudy	
Air Temperature	36	
Total Depth (TWD) Below Top of Casing =	16.4	1/100 ft
Depth to Groundwater (DGW) Below Top of Casing =	5.25	1/100 ft
Length of Water Column (LWC) = TWD - DGW =	11.15	1/100 ft
1 Casing Volume (OCV) = LWC x	0.0408	= 0.5 gal
3 Casing Volumes =	1.36	gal
Method of Well Evacuation	Peristaltic Pump	
Method of Sample Collection	Peristaltic Pump/Poly Tubing	
Total Volume of Water Removed	1.9	gal

Casing Diameter	2	inches
Casing Material	PVC	
Measuring Point Elevation	688.68	1/100 ft
Height of Riser (above land surface)	3.38	1/100 ft
Land Surface Elevation	685.3	1/100 ft
Screened Interval (below land surface)	7-17	1/100 ft

Container	Analysis (Method)	# Bottles	Preservative	Dup - MS/MSD
VOA 40 mL glass	TCL VOCs (8260B)	3	HCL, 4°C	

FIELD ANALYSES							
Flow Rate (ml/min)	200	200	200	200	200	200	200
Time (Military)	9:15	9:20	9:25	9:30	9:35	9:40	9:50
Depth to Groundwater Below Top of Casing (ft)	5.25	8.32	8.96	9.65	10.23	10.75	11.53
Drawdown (ft)	0.00	3.07	3.71	4.40	4.98	5.50	6.28
pH (S.U.)	6.62	6.62	6.80	6.68	6.64	6.65	6.62
Sp. Cond. (mS/cm)	1.677	1.673	1.126	0.890	1.029	1.346	1.631
Turbidity (NTUs)	17.35	20.66	82.31	61.08	85.13	40.60	67.07
Dissolved Oxygen (mg/L)	1.47	0.68	0.39	0.41	0.34	0.32	0.27
Water Temperature (°C)	9.70	9.50	9.20	8.50	8.70	8.90	9.3
ORP (mV)	-11.70	107.90	-96.80	-76.70	-80.80	-88.40	-93.9
Physical appearance at start	Color	Clear		Physical appearance at sampling	Color	Clear	
	Odor	None			Odor	None	
Sheen/Free Product	No			Sheen/Free Product	No		

COMMENTS/OBSERVATIONS	Sample time 09:50 hrs. Purge start 09:12
	YSI Pro SS meter (ID# 51294) used to collect field parameters.

Date (mo/day/yr)	<u>4/4/2022</u>		Casing Diameter	<u>2</u>		inches	
Field Personnel	<u>Ann Marie Kropovitch</u>		Casing Material	<u>PVC</u>			
Site Name	<u>Former Scott Aviation Site - Lancaster, NY</u>		Measuring Point Elevation	<u>687.05</u>		1/100 ft	
Job #	<u>60676130</u>		Height of Riser (above land surface)	<u>1.15</u>		1/100 ft	
Well ID #	<u>MW-3</u>		Land Surface Elevation	<u>685.9</u>		1/100 ft	
	<u> </u> Upgradient	<u> </u> Downgradient	Screened Interval (below land surface)	<u>7.5 - 27.5</u>		1/100 ft	
Weather Conditions	<u>Sunny/Partly cloudy</u>						
Air Temperature	<u>38</u>						
Total Depth (TWD) Below Top of Casing =	<u>28</u>	1/100 ft					
Depth to Groundwater (DGW) Below Top of Casing =	<u>8.24</u>	1/100 ft					
Length of Water Column (LWC) = TWD - DGW =	<u>19.76</u>	1/100 ft					
1 Casing Volume (OCV) = LWC x	<u>0.0408</u>	=	<u>0.8</u>	gal			
3 Casing Volumes =	<u>2.42</u>	gal					
Method of Well Evacuation	<u>Peristaltic Pump</u>						
Method of Sample Collection	<u>Peristaltic Pump/Poly Tubing</u>						
Total Volume of Water Removed	<u>2.1</u>	gal					

Container	Analysis (Method)	# Bottles	Preservative	Dup - MS/MSD
VOA 40 mL glass	TCL VOCs (8260C)	3	HCL, 4°C	

FIELD ANALYSES

Flow Rate (ml/min)	<u>225</u>	<u>225</u>	<u>225</u>	<u>225</u>	<u>225</u>	<u>225</u>	<u>225</u>
Time (Military)	<u>11:00</u>	<u>11:05</u>	<u>11:10</u>	<u>11:15</u>	<u>11:20</u>	<u>11:25</u>	<u>11:30</u>
Depth to Groundwater Below Top of Casing (ft)	<u>8.24</u>	<u>11.51</u>	<u>13.01</u>	<u>13.48</u>	<u>13.93</u>	<u>14.28</u>	<u>14.69</u>
Drawdown (ft)	<u>0.00</u>	<u>11.51</u>	<u>4.77</u>	<u>5.24</u>	<u>5.69</u>	<u>6.04</u>	<u>6.45</u>
pH (S.U.)	<u>7.07</u>	<u>7.05</u>	<u>7.05</u>	<u>7.03</u>	<u>7.00</u>	<u>6.99</u>	<u>7.00</u>
Sp. Cond. (mS/cm)	<u>1.163</u>	<u>1.160</u>	<u>1.160</u>	<u>1.158</u>	<u>1.159</u>	<u>1.155</u>	<u>1.155</u>
Turbidity (NTUs)	<u>11.98</u>	<u>9.40</u>	<u>3.79</u>	<u>6.60</u>	<u>4.81</u>	<u>3.51</u>	<u>4.19</u>
Dissolved Oxygen (mg/L)	<u>0.81</u>	<u>0.55</u>	<u>0.49</u>	<u>0.42</u>	<u>0.52</u>	<u>0.64</u>	<u>0.52</u>
Water Temperature (°C)	<u>9.0</u>	<u>9.0</u>	<u>8.9</u>	<u>9.0</u>	<u>9.2</u>	<u>9.3</u>	<u>9.0</u>
ORP (mV)	<u>-18.00</u>	<u>1.80</u>	<u>5.10</u>	<u>3.30</u>	<u>2.00</u>	<u>-2</u>	<u>-13.8</u>

Physical appearance at start Color <u>Clear</u> Odor <u>None</u> Sheen/Free Product <u>None</u>	Physical appearance at sampling Color <u>Clear</u> Odor <u>None</u> Sheen/Free Product <u>None</u>
--	---

COMMENTS/OBSERVATIONS Sample time 13:55 hrs. Purge start 10:56

YSI Pro SS meter (ID# 51294) used to collect field parameters.

Date (mo/day/yr) 4/6/2022

Field Personnel Ann Marie Kropovitch

Site Name Former Scott Aviation Site - Lancaster, NY

Job # 60676130

Well ID # MW-4

 Upgradient Downgradient

Weather Conditions Cloudy

Air Temperature 48

Total Depth (TWD) Below Top of Casing = 26 1/100 ft

Depth to Groundwater (DGW) Below Top of Casing = 7.42 1/100 ft

Length of Water Column (LWC) = TWD - DGW = 18.58 1/100 ft

1 Casing Volume (OCV) = LWC x 0.0408 = 0.76 gal

3 Casing Volumes = 2.27 gal

Method of Well Evacuation Peristaltic Pump

Method of Sample Collection Peristaltic Pump/Poly Tubing

Total Volume of Water Removed 2.3 gal

Casing Diameter 2 inches

Casing Material PVC

Measuring Point Elevation 686.5 1/100 ft

Height of Riser (above land surface) -0.39 1/100 ft

Land Surface Elevation 686.89 1/100 ft

Screened Interval (below land surface) 15.5 - 25.5 1/100 ft

Container	Analysis (Method)	# Bottles	Preservative	Dup - MS/MSD
VOA 40 mL glass	TCL VOCs (8260B)	3	HCL, 4°C	
Various	MNA	multiple	Various	

FIELD ANALYSES

Flow Rate (ml/min)	250	250	250	250	250	250	250
Time (Military)	9:00	9:05	9:10	9:15	9:20	9:25	9:35
Depth to Groundwater Below Top of Casing (ft)	7.42	11.22	12.27	13.62	14.24	14.93	15.92
Drawdown (ft)	0.00	3.80	4.85	6.20	6.82	7.51	8.50
pH (S.U.)	7.43	7.36	7.33	7.32	7.32	7.34	7.37
Sp. Cond. (mS/cm)	1.509	1.511	1.512	1.516	1.516	1.519	1.519
Turbidity (NTUs)	27.10	65.11	68.13	75.49	71.57	60.82	38.21
Dissolved Oxygen (mg/L)	0.73	0.40	0.35	0.27	0.25	0.26	0.26
Water Temperature (°C)	10.20	10.20	10.30	10.50	10.70	10.8	11
ORP (mV)	-159.70	-151.80	-148.00	-146.00	-146.00	-145.7	-143.5

Physical appearance at start Color Clear

Odor None

Physical appearance at sampling Color Clear

Odor None

Sheen/Free Product None

Sheen/Free Product None

COMMENTS/OBSERVATIONS Sample time 09:45 hrs. Purge start 08:57

YSI Pro SS meter (ID# 51294) used to collect field parameters.

Date (mo/day/yr) 4/6/2022

Field Personnel Ann Marie Kropovitch

Site Name Former Scott Aviation Site - Lancaster, NY

Job # 60676130

Well ID # MW-8R

 Upgradient Downgradient

Weather Conditions Cloudy

Air Temperature 55

Total Depth (TWD) Below Top of Casing = 27.5 1/100 ft

Depth to Groundwater (DGW) Below Top of Casing = 6.01 1/100 ft

Length of Water Column (LWC) = TWD - DGW = 7.4 1/100 ft

1 Casing Volume (OCV) = LWC x 0.0408 = 0.3 gal

3 Casing Volumes = 0.91 gal

Method of Well Evacuation Peristaltic Pump

Method of Sample Collection Peristaltic Pump/Poly Tubing

Total Volume of Water Removed 2.3 gal

Casing Diameter 4 inches

Casing Material PVC

Measuring Point Elevation 686.29 1/100 ft

Height of Riser (above land surface) -0.29 1/100 ft

Land Surface Elevation 686.58 1/100 ft

Screened Interval (below land surface) 14 - 24 1/100 ft

Container	Analysis (Method)	# Bottles	Preservative	Dup - MS/MSD
VOA 40 mL glass	TCL VOCs (8260B)	3	HCL, 4°C	
Various	MNA	multiple	Various	
VOA 40 mL glass	VFA	2	None	

FIELD ANALYSES

Flow Rate (ml/min)	250	250	250	250	250	250	250
Time (Military)	11:15	11:20	11:25	11:30	11:35	11:40	11:50
Depth to Groundwater Below Top of Casing (ft)	6.01	8.23	9.21	9.81	11.02	12.31	13.26
Drawdown (ft)	0.00	2.22	3.20	3.80	5.01	6.30	7.25
pH (S.U.)	7.55	7.53	7.53	7.53	7.53	7.53	7.53
Sp. Cond. (S/cm)	1.528	1.524	1.524	1.523	1.523	1.523	1.521
Turbidity (NTUs)	58.10	62.87	81.20	93.37	94.79	96.7	97.3
Dissolved Oxygen (g/L)	1.63	0.58	0.38	0.31	0.24	0.2	0.19
Water Temperature (°C)	10.70	10.60	10.60	10.70	10.70	10.9	11
ORP (mV)	-144.90	-154.00	-156.70	-158.00	-160.40	-161.2	-161.9

Physical appearance at start Color Clear

Odor None

Physical appearance at sampling Color Clear

Odor None

Sheen/Free Product None

Sheen/Free Product None

COMMENTS/OBSERVATIONS Sample time 12:00 hrs. Purge start 11:10

YSI Pro SS meter (ID# 51294) used to collect field parameters.

Date (mo/day/yr)4/4/2022

Field PersonnelAnn Marie Kropovitch

Site NameFormer Scott Aviation Site - Lancaster, NY

Job #60676130

Well ID #MW-9

Upgradient

Downgradient

Weather ConditionsSun/Slight wind

Air Temperature40

Total Depth (TWD) Below Top of Casing =23.51/100 ft

Depth to Groundwater (DGW) Below Top of Casing =11.981/100 ft

Length of Water Column (LWC) = TWD - DGW =11.521/100 ft

1 Casing Volume (OCV) = LWC x0.0408=0.5gal

3 Casing Volumes =1.41gal

Method of Well EvacuationPeristaltic Pump

Method of Sample CollectionPeristaltic Pump/Poly Tubing

Total Volume of Water Removed2.3gal

Casing Diameter2inches

Casing MaterialPVC

Measuring Point Elevation689.571/100 ft

Height of Riser (above land surface)1.571/100 ft

Land Surface Elevation688.01/100 ft

Screened Interval (below land surface)3.5 - 23.51/100 ft

Container	Analysis (Method)	# Bottles	Preservative	Dup - MS/MSD
VOA 40 mL glass	TCL VOCs (8260B)	3	HCL, 4°C	

FIELD ANALYSES

Flow Rate (ml/min)	250	250	250	250	250	250	250
Time (Military)	12:40	12:45	12:50	12:55	13:00	13:05	13:15
Depth to Groundwater Below Top of Casing (ft)	11.98	13.02	13.33	13.62	14.06	14.50	15.42
Drawdown (ft)	0.00	1.04	1.35	1.64	2.08	2.52	3.44
pH (S.U.)	7.08	7.04	7.01	7.00	6.99	6.98	6.95
Sp. Cond. (mS/cm)	1.232	1.232	1.231	1.232	1.232	1.237	1.245
Turbidity (NTUs)	14.89	16.70	14.76	12.96	12.10	10.7	6.96
Dissolved Oxygen (mg/L)	4.82	4.54	3.97	3.86	4.11	4.73	5.05
Water Temperature (°C)	10.50	10.50	10.40	10.10	9.90	9.9	9.9
ORP (mV)	65.60	69.40	77.10	79.90	83.30	86.4	88.9

Physical appearance at start

ColorClear

OdorNone

Sheen/Free ProductNo

Physical appearance at sampling

ColorClear

OdorNone

Sheen/Free ProductNo

COMMENTS/OBSERVATIONS

Sample time 13:15 hrs. Purge start 12:37

YSI Pro SS meter (ID# 51294) used to collect field parameters.

Date (mo/day/yr)4/5/2022

Field PersonnelAnn Marie Kropovitch

Site NameFormer Scott Aviation Site - Lancaster, NY

Job #60676130

Well ID #MW-11

Upgradient

Downgradient

Weather ConditionsCloudy/Slight drizzle

Air Temperature42

Total Depth (TWD) Below Top of Casing =28.51/100 ft

Depth to Groundwater (DGW) Below Top of Casing =9.291/100 ft

Length of Water Column (LWC) = TWD - DGW =19.211/100 ft

1 Casing Volume (OCV) = LWC x 0.0408 =0.8gal

3 Casing Volumes =2.35gal

Method of Well EvacuationPeristaltic Pump

Method of Sample CollectionPeristaltic Pump/Poly Tubing

Total Volume of Water Removed2.3gal

Casing Diameter2inches

Casing MaterialPVC

Measuring Point Elevation688.611/100 ft

Height of Riser (above land surface)-0.261/100 ft

Land Surface Elevation688.871/100 ft

Screened Interval (below land surface)8.5 - 28.51/100 ft

Container	Analysis (Method)	# Bottles	Preservative	Dup - MS/MSD
VOA 40 mL glass	TCL VOCs (8260C)	3	HCL, 4°C	Dup
Various	MNA	multiple	Various	

FIELD ANALYSES

Flow Rate (ml/min)	250	250	250	250	250	250	250
Time (Military)	8:55	9:00	9:05	9:10	9:15	9:20	9:30
Depth to Groundwater Below Top of Casing (ft)	9.29	9.91	10.32	10.77	10.96	11.13	11.46
Drawdown (ft)	0.00	0.62	1.03	1.48	1.67	1.84	2.17
pH (S.U.)	6.46	6.49	6.50	6.51	6.51	6.51	6.53
Sp. Cond. (mS/cm)	5.340	5.199	5.187	5.116	5.114	5.093	4.845
Turbidity (NTUs)	20.34	5.91	5.02	4.21	4.08	3.82	3.21
Dissolved Oxygen (mg/L)	1.23	0.71	0.54	0.31	0.27	0.25	0.2
Water Temperature (°C)	11.40	11.30	11.30	11.30	11.20	11.3	11.4
ORP (mV)	7.86	-35.90	-37.20	-39.10	-40.60	-42.3	-46.2

Physical appearance at start

ColorClear

OdorNone

Sheen/Free ProductNo

Physical appearance at sampling

ColorClear

OdorNone

Sheen/Free ProductNo

COMMENTS/OBSERVATIONS

Sample time 09:45 hrs. Purge Start 08:50 FD on VOCs only

YSI Pro SS meter (ID# 51294) used to collect field parameters.

Date (mo/day/yr) _____	4/5/2022	
Field Personnel _____	Ann Marie Kropovitch	
Site Name _____	Former Scott Aviation Site - Lancaster, NY	
Job # _____	60676130	
Well ID # _____	MW-13S	
_____ Upgradient	_____ Downgradient	
Weather Conditions _____	Sun/some clouds	
Air Temperature _____	63	° F
Total Depth (TWD) Below Top of Casing = _____	16.5	1/100 ft
Depth to Groundwater (DGW) Below Top of Casing = _____	2.62	1/100 ft
Length of Water Column (LWC) = TWD - DGW = _____	13.88	1/100 ft
1 Casing Volume (OCV) = LWC x _____	0.0408	= _____ 0.6 gal
3 Casing Volumes = _____	1.70	gal
Method of Well Evacuation _____	Peristaltic Pump	
Method of Sample Collection _____	Peristaltic Pump/Poly Tubing	
Total Volume of Water Removed _____	2.1	gal

Casing Diameter _____	1	inches
Casing Material _____	PVC	
Measuring Point Elevation _____	685.74	1/100 ft
Height of Riser (above land surface) _____	-0.50	1/100 ft
Land Surface Elevation _____	686.24	1/100 ft
Screened Interval (below land surface) _____	8.5-16.5	1/100 ft

Container	Analysis (Method)	# Bottles	Preservative	Dup - MS/MSD
VOA 40 mL glass	TCL VOCs (8260B)	3	HCL, 4°C	
Various	MNA	multiple	Various	

	225	225	225	225	225	225	225
Flow Rate (ml/min)	225	225	225	225	225	225	225
Time (Military)	14:00	14:05	14:10	14:15	14:20	14:25	14:35
Depth to Groundwater Below Top of Casing (ft)	2.62	8.54	9.11	9.65	9.98	10.43	11.81
Drawdown (ft)	0.00	5.92	6.49	7.03	7.36	7.81	9.19
pH (S.U.)	7.02	7.12	7.34	7.34	7.21	7.12	7.02
Sp. Cond. (mS/cm)	1.385	1.369	1.372	1.384	1.388	1.392	1.395
Turbidity (NTUs)	34.29	86.10	100.20	259.30	173.80	110.8	64
Dissolved Oxygen (mg/L)	109.00	0.39	0.26	0.19	0.16	0.14	0.12
Water Temperature (°C)	10.40	10.20	10.60	10.80	10.70	10.9	11.2
ORP (mV)	-125.90	-133.20	-156.80	-164.80	-153.60	-139.3	-122

Physical appearance at start	Color	Clear _____	Physical appearance at sampling	Color	Clear _____
	Odor	None _____		Odor	None _____
Sheen/Free Product		No _____	Sheen/Free Product		No _____

COMMENTS/OBSERVATIONS _____	Sample time 14:40 hrs. Purge Start 13:55
YSI Pro SS meter (ID# 51294) used to collect field parameters.	

Date (mo/day/yr)	4/5/2022
Field Personnel	Ann Marie Kropovitch
Site Name	Former Scott Aviation Site - Lancaster, NY
Job #	60676130
Well ID #	MW-13D
	Upgradient Downgradient
Weather Conditions	Sunny
Air Temperature	63
Total Depth (TWD) Below Top of Casing =	23.5 1/100 ft
Depth to Groundwater (DGW) Below Top of Casing =	7.64 1/100 ft
Length of Water Column (LWC) = TWD - DGW =	15.86 1/100 ft
1 Casing Volume (OCV) = LWC x 0.0408 =	0.6 gal
3 Casing Volumes =	1.94 gal
Method of Well Evacuation	Peristaltic Pump
Method of Sample Collection	Peristaltic Pump/Poly Tubing
Total Volume of Water Removed	2.1 gal
Casing Diameter	1 inches
Casing Material	PVC
Measuring Point Elevation	685.88 1/100 ft
Height of Riser (above land surface)	-0.36 1/100 ft
Land Surface Elevation	686.24 1/100 ft
Screened Interval (below land surface)	19.5-23.5 1/100 ft

Container	Analysis (Method)	# Bottles	Preservative	Dup - MS/MSD
VOA 40 mL glass	TCL VOCs (8260B)	3	HCL, 4°C	

FIELD ANALYSES							
Flow Rate (ml/min)	225	225	225	225	225	225	225
Time (Military)	15:25	15:30	15:35	15:40	15:45	15:50	15:55
Depth to Groundwater Below Top of Casing (ft)	7.64	12.26	14.81	15.52	17.11	183.18	18.57
Drawdown (ft)	0.00	4.62	7.17	7.88	9.47	175.54	10.93
pH (S.U.)	7.33	7.26	7.26	7.26	7.26	7.24	7.23
Sp. Cond. (mS/cm)	1.521	1.509	1.510	1.511	1.514	1.518	1.517
Turbidity (NTUs)	50.94	63.20	149.70	156.30	142.80	135.7	130.40
Dissolved Oxygen (mg/L)	1.12	0.31	0.22	0.13	0.11	0.1	0.08
Water Temperature (°C)	12.30	11.70	12.00	12.70	12.60	12.7	12.8
ORP (mV)	-100.60	-107.90	-105.90	-114.30	-116.30	-120.2	-122.5
Physical appearance at start	Color Clear	Odor None	Sheen/Free Product No	Physical appearance at sampling	Color Clear	Odor None	Sheen/Free Product No
COMMENTS/OBSERVATIONS	Sample time 16:05 hrs. Purge start 15:22 YSI Pro SS meter (ID# 51294) used to collect field parameters.						

Date (mo/day/yr) _____	4/4/2022		Casing Diameter _____	1	inches
Field Personnel _____	Ann Marie Kropovitch		Casing Material _____	PVC	
Site Name _____	Former Scott Aviation Site - Lancaster, NY		Measuring Point Elevation _____	685.65	1/100 ft
Job # _____	60676130		Height of Riser (above land surface) _____		1/100 ft
Well ID # _____	MW-14S		Land Surface Elevation _____	686.93	1/100 ft
_____ Upgradient	_____ Downgradient		Screened Interval (below land surface) _____	8.5-16.5	1/100 ft
Weather Conditions _____	Sun/Partly Cloudy				
Air Temperature _____	45				
Total Depth (TWD) Below Top of Casing = _____	16.5	1/100 ft			
Depth to Groundwater (DGW) Below Top of Casing = _____	4.45	1/100 ft			
Length of Water Column (LWC) = TWD - DGW = _____	12.05	1/100 ft			
1 Casing Volume (OCV) = LWC x _____	0.0408	= _____	0.5	gal	
3 Casing Volumes = _____	1.47	gal			
Method of Well Evacuation _____	Peristaltic Pump				
Method of Sample Collection _____	Peristaltic Pump/Poly Tubing				
Total Volume of Water Removed _____	2.1	gal			

Container	Analysis (Method)	# Bottles	Preservative	Dup - MS/MSD

FIELD ANALYSES							
Flow Rate (ml/min)	225	225	225	225	225	225	225
Time (Military)	14:35	14:40	14:45	14:50	14:55	15:00	15:10
Depth to Groundwater Below Top of Casing (ft)	4.45	9.34	9.67	9.98	10.39	10.69	11.44
Drawdown (ft)	0.00	4.89	5.22	5.53	5.94	6.24	6.99
pH (S.U.)	7.08	6.97	6.93	6.92	6.91	6.9	9.89
Sp. Cond. (S/cm)	1.282	1.207	1.230	1.240	1.247	1.252	1.263
Turbidity (NTUs)	17.30	11.85	7.37	18.51	5.64	4.39	3.25
Dissolved Oxygen (g/L)	1.40	2.53	0.89	0.37	0.25	0.2	0.15
Water Temperature (°C)	9.50	8.70	8.80	8.80	8.80	8.9	9
ORP (mV)	60.90	-2.60	11.20	11.10	13.70	18.2	19.3

Physical appearance at start	Color	Clear _____	Physical appearance at sampling	Color	Clear _____
	Odor	None _____		Odor	None _____
Sheen/Free Product	No _____		Sheen/Free Product	No _____	

COMMENTS/OBSERVATIONS	Sample time 15:10 hrs. Purge start 14:31
	YSI Pro SS meter (ID# 51294) used to collect field parameters.

Date (mo/day/yr) _____	4/4/2022	
Field Personnel _____	Ann Marie Kropovitch	
Site Name _____	Former Scott Aviation Site - Lancaster, NY	
Job # _____	60676130	
Well ID # _____	MW-14D	
_____ Upgradient	_____ Downgradient	
Weather Conditions _____	Cloudy	
Air Temperature _____	42	
Total Depth (TWD) Below Top of Casing = _____	23.5	1/100 ft
Depth to Groundwater (DGW) Below Top of Casing = _____	15.72	1/100 ft
Length of Water Column (LWC) = TWD - DGW = _____	7.78	1/100 ft
1 Casing Volume (OCV) = LWC x _____	0.0408	= _____ 0.3 gal
3 Casing Volumes = _____	0.95	gal
Method of Well Evacuation _____	Peristaltic Pump	
Method of Sample Collection _____	Peristaltic Pump/Poly Tubing	
Total Volume of Water Removed _____	1.9	gal

Casing Diameter _____	1	inches
Casing Material _____	PVC	
Measuring Point Elevation _____	685.84	1/100 ft
Height of Riser (above land surface) _____		1/100 ft
Land Surface Elevation _____		1/100 ft
Screened Interval (below land surface) _____	18.5-23.5	1/100 ft

Container	Analysis (Method)	# Bottles	Preservative	Dup - MS/MSD
VOA 40 mL glass	TCL VOCs (8260B)	3	HCL, 4°C	

Flow Rate (ml/min)	200	200	200	200	200	200	200
Time (Military)	15:40	15:45	15:50	15:55	16:00	16:05	16:15
Depth to Groundwater Below Top of Casing (ft)	15.72	19.13	19.15	19.06	19.16	19.28	19.51
Drawdown (ft)	0.00	3.41	3.43	3.34	3.44	3.56	3.79
pH (S.U.)	7.12	7.14	7.13	7.11	7.10	7.1	7.1
Sp. Cond. (mS/cm)	1.190	1.106	1.056	1.115	1.159	1.179	1.181
Turbidity (NTUs)	25.57	16.32	11.90	6.88	6.32	2.98	2.55
Dissolved Oxygen (mg/L)	1.09	0.49	0.33	0.27	0.21	0.18	0.15
Water Temperature (°C)	10.80	10.90	10.70	10.80	10.70	10.7	10.7
ORP (mV)	-92.40	-93.60	-94.80	-97.10	-100.10	-102	-104.5

Physical appearance at start	Color	Clear _____	Physical appearance at sampling	Color	Clear _____
	Odor	None _____		Odor	None _____
Sheen/Free Product	No _____		Sheen/Free Product	No _____	

COMMENTS/OBSERVATIONS Sample time 16:20 hrs. Purge start 1537
YSI Pro SS meter (ID# 51294) used to collect field parameters.

Date (mo/day/yr)4/5/2022

Field PersonnelAnn Marie Kropovitch

Site NameFormer Scott Aviation Site - Lancaster, NY

Job #60676130

Well ID #MW-15S

Upgradient

Downgradient

Weather ConditionsCloudy

Air Temperature52 ° F

Total Depth (TWD) Below Top of Casing = 181/100 ft

Depth to Groundwater (DGW) Below Top of Casing = 0.791/100 ft

Length of Water Column (LWC) = TWD - DGW = 17.211/100 ft

1 Casing Volume (OCV) = LWC x 0.0408 = 0.702168 gal

3 Casing Volumes = 2.11 gal

Method of Well EvacuationPeristaltic Pump

Method of Sample CollectionPeristaltic Pump/Poly Tubing

Total Volume of Water Removed1.9 gal

Casing Diameter1 inches

Casing MaterialPVC

Measuring Point Elevation687.521/100 ft

Height of Riser (above land surface)-0.331/100 ft

Land Surface Elevation687.851/100 ft

Screened Interval (below land surface)12-181/100 ft

Container	Analysis (Method)	# Bottles	Preservative	Dup - MS/MSD
VOA 40 mL glass	TCL VOCs (8260B)	3	HCL, 4°C	

FIELD ANALYSES

Flow Rate (ml/min)	200	200	200	200	200	200	200
Time (Military)	11:00	11:05	11:10	11:15	11:20	11:25	11:35
Depth to Groundwater Below Top of Casing (ft)	0.79	2.71	2.98	3.14	3.27	3.29	3.44
Drawdown (ft)	0.00	1.92	2.19	2.35	2.48	2.50	2.65
pH (S.U.)	12.02	12.22	12.25	12.26	12.25	12.26	12.27
Sp. Cond. (mS/cm)	1.840	2.204	2.279	2.232	2.367	2.389	2.43
Turbidity (NTUs)	30.17	5.93	6.75	8.52	11.20	20.12	61.04
Dissolved Oxygen (mg/L)	1.47	0.32	0.20	0.15	0.11	0.09	0.04
Water Temperature (°C)	10.50	10.60	10.60	10.50	10.90	10.80	10.80
ORP (mV)	-228.6	-264.6	-282.5	-291.2	-307.9	-311.8	-338.7

Physical appearance at start

ColorClear

OdorNone

Sheen/Free ProductNo

Physical appearance at sampling

ColorClear

OdorNone

Sheen/Free ProductNo

COMMENTS/OBSERVATIONS

Sample time 11:40 hrs. Purge start 10:53

YSI Pro SS meter (ID# 51294) used to collect field parameters.

Date (mo/day/yr) _____	4/5/2022	
Field Personnel _____	Ann Marie Kropovitch	
Site Name _____	Former Scott Aviation Site - Lancaster, NY	
Job # _____	60676130	
Well ID # _____	MW-15D	
_____ Upgradient	_____ Downgradient	
Weather Conditions _____	Partly Cloudy	
Air Temperature _____	57	° F
Total Depth (TWD) Below Top of Casing = _____	25	1/100 ft
Depth to Groundwater (DGW) Below Top of Casing = _____	10.94	1/100 ft
Length of Water Column (LWC) = TWD - DGW = _____	14.06	1/100 ft
1 Casing Volume (OCV) = LWC x _____	0.0408	= _____ 0.6 gal
3 Casing Volumes = _____	1.72	gal
Method of Well Evacuation _____	Peristaltic Pump	
Method of Sample Collection _____	Peristaltic Pump/Poly Tubing	
Total Volume of Water Removed _____	1.9	gal

Casing Diameter _____	1	inches
Casing Material _____	PVC	
Measuring Point Elevation _____	687.62	1/100 ft
Height of Riser (above land surface) _____	-0.27	1/100 ft
Land Surface Elevation _____	687.89	1/100 ft
Screened Interval (below land surface) _____	21-25	1/100 ft

Container	Analysis (Method)	# Bottles	Preservative	Dup - MS/MSD
VOA 40 mL glass	TCL VOCs (8260B)	3	4°C	

200	200	200	200	200	200	200	200
12:05	12:10	12:15	12:20	12:25	12:30	12:35	12:40
10.94	11.26	11.30	11.33	11.35	11.36	11.35	11.35
0.00	0.32	0.36	0.39	0.41	0.42	0.41	0.41
8.68	8.10	7.96	7.89	7.85	7.62	7.78	7.78
0.990	0.986	1.024	1.082	1.163	1.248	1.359	1.391
5.51	2.05	6.15	12.95	19.55	23.26	31.85	36.14
2.69	0.51	0.28	0.20	0.16	0.14	0.12	0.11
12.60	12.60	12.70	12.70	12.80	12.80	12.90	12.8
-165.80	-182.90	-183.00	-184.10	-184.90	-185.3	-185.8	-186.2

Physical appearance at start	Color	Clear _____	Physical appearance at sampling	Color	Clear _____
	Odor	None _____		Odor	None _____
Sheen/Free Product	No _____		Sheen/Free Product	No _____	

COMMENTS/OBSERVATIONS	Sample time 12:45 hrs. Purge start 12:01
	YSI Pro SS meter (ID# 51294) used to collect field parameters.

Date (mo/day/yr) _____	4/5/2022	
Field Personnel _____	Ann Marie Kropovitch	
Site Name _____	Former Scott Aviation Site - Lancaster, NY	
Job # _____	60676130	
Well ID # _____	MW-16S	
_____ Upgradient	_____ Downgradient	
Weather Conditions _____	Cloudy/Windy	
Air Temperature _____	64	° F
Total Depth (TWD) Below Top of Casing = _____	15.4	1/100 ft
Depth to Groundwater (DGW) Below Top of Casing = _____	6.40	1/100 ft
Length of Water Column (LWC) = TWD - DGW = _____	6.71	1/100 ft
1 Casing Volume (OCV) = LWC x _____	0.0408	= _____ 0.3 gal
3 Casing Volumes = _____	0.82	gal
Method of Well Evacuation _____	Peristaltic Pump	
Method of Sample Collection _____	Peristaltic Pump/Poly Tubing	
Total Volume of Water Removed _____	0.5	gal

Casing Diameter _____	1	inches
Casing Material _____	PVC	
Measuring Point Elevation _____	688.15	1/100 ft
Height of Riser (above land surface) _____	2.46	1/100 ft
Land Surface Elevation _____	685.69	1/100 ft
Screened Interval (below land surface) _____	12 - 18	1/100 ft

Container	Analysis (Method)	# Bottles	Preservative	Dup - MS/MSD
VOA 40 mL glass	TCL VOCs (8260C)	3	HCL, 4°C	
Various	MNA	multiple	Various	
1 L	Gen-Trac	1	None	
VOA 40 mL glass	VFA	2	None	

FIELD ANALYSES							
Flow Rate (ml/min)	200	200	200				
Time (Military)	13:35	13:40	13:45				
Depth to Groundwater Below Top of Casing (ft)	6.40	12.52	14.22				
Drawdown (ft)	0.00	6.12	7.82				
pH (S.U.)	6.72	6.66	6.65				
Sp. Cond. (mS/cm)	2.981	2.979	2.975				
Turbidity (NTUs)	44.36	69.54	61.68				
Dissolved Oxygen (mg/L)	0.89	0.48	0.27				
Water Temperature (°C)	11.00	11.00	11.50				
ORP (mV)	-90.80	-91.30	-101.20				

Physical appearance at start	Color	Light Gray	Physical appearance at sampling	Color	Clear
	Odor	None		Odor	None
Sheen/Free Product		None	Sheen/Free Product		None

COMMENTS/OBSERVATIONS	Sample time 14:50 hrs. Purge start 13:30 Well went dry after 13:45 - sampling occurred after well recharged
	YSI Pro SS meter (ID# 51294) used to collect field parameters.

Date (mo/day/yr)4/6/2022

Field PersonnelAnn Marie Kropovitch

Site NameFormer Scott Aviation Site - Lancaster, NY

Job #60676130

Well ID #MW-16D

Upgradient

Downgradient

Weather ConditionsCloudy/Slight Wind

Air Temperature64

Total Depth (TWD) Below Top of Casing =241/100 ft

Depth to Groundwater (DGW) Below Top of Casing =10.11/100 ft

Length of Water Column (LWC) = TWD - DGW =13.91/100 ft

1 Casing Volume (OCV) = LWC x 0.0408 =0.6gal

3 Casing Volumes =1.70gal

Method of Well EvacuationPeristaltic Pump

Method of Sample CollectionPeristaltic Pump/Poly Tubing

Total Volume of Water Removed1.9gal

Casing Diameter1inches

Casing MaterialPVC

Measuring Point Elevation688.161/100 ft

Height of Riser (above land surface)2.471/100 ft

Land Surface Elevation685.691/100 ft

Screened Interval (below land surface)20-241/100 ft

Container	Analysis (Method)	# Bottles	Preservative	Dup - MS/MSD
VOA 40 mL glass	TCL VOCs (8260B)	3	HCL, 4°C	
Various	MNA	multiple	Various	

FIELD ANALYSES

Flow Rate (ml/min)	200	200	200	200	200	200	200
Time (Military)	14:05	14:10	14:15	14:20	14:25	14:30	14:40
Depth to Groundwater Below Top of Casing (ft)	10.10	13.35	14.22	15.01	15.41	15.75	16.65
Drawdown (ft)	0.00	3.25	4.12	4.91	5.31	5.65	6.55
pH (S.U.)	7.32	7.65	7.63	7.61	7.54	7.52	7.46
Sp. Cond. (mS/cm)	2.154	1.755	1.632	1.580	1.571	1.552	1.54
Turbidity (NTUs)	13.69	17.46	27.84	43.00	63.08	75.76	77.34
Dissolved Oxygen (g/L)	1.46	0.59	0.40	0.15	0.12	0.1	0.08
Water Temperature (°C)	12.70	13.20	13.20	13.20	13.20	13.5	13.70
ORP (mV)	-125.50	-151.90	-158.70	-165.70	-163.20	-162.40	-157.40

Physical appearance at start

ColorClear

OdorNone

Sheen/Free ProductNo

Physical appearance at sampling

ColorClear

OdorNone

Sheen/Free ProductNo

COMMENTS/OBSERVATIONS

Sample time 14:50 hrs. Purge start 14:50

YSI Pro SS meter (ID# 51294) used to collect field parameters.

Appendix C Current and Historical Summary of Groundwater Elevations

MONITORING WELL MW-2
SUMMARY OF GROUNDWATER ELEVATIONS
Former Scott Aviation Site - West of Plant 2
Lancaster, New York

Date	Depth to Water from TOC (ft)	Groundwater Elevation (ft MSL)
11/7/2003	7.29	683.06
4/8/2004	NM	NA
10/12/2004	NM	NA
1/6/2005	5.92	684.43
4/14/2005	6.50	683.85
7/20/2005	7.77	682.58
10/4/2005	6.08	684.27
1/5/2006	9.56	680.79
4/11/2006	6.65	683.70
7/10/2006	7.79	682.56
10/18/2006	6.11	684.24
1/9/2007	6.27	684.08
2/28/2007	5.20	685.15
4/16/2007	5.99	684.36
7/2/2007	7.22	683.13
10/15/2007	8.15	682.20
1/8/2008	5.73	684.62
4/2/2008	5.95	684.40
7/1/2008	4.90	685.45
9/30/2008	7.40	682.95
1/19/2009	6.75	683.60
4/14/2009	6.15	684.20
7/21/2009	6.25	684.10
10/14/2009	5.85	684.50
1/18/2010	7.00	683.35
4/8/2010	5.45	684.90
7/12/2010	6.10	684.25
10/11/2010	7.00	683.35
1/11/2011	6.80	683.55
4/4/2011	5.70	684.65
7/25/2011	4.75	685.60
10/3/2011	4.13	686.22
1/12/2012	6.40	683.95
4/2/2012	6.00	684.35
7/5/2012	6.47	683.88
10/11/2012	7.17	683.18
1/21/2013	6.72	683.63
4/1/2013	6.10	684.25
7/1/2013	6.84	683.51
10/9/2013	6.70	683.65
1/21/2014	6.00	684.35
4/7/2014	4.95	685.40
7/16/2014	6.72	683.63
10/14/2014	6.79	683.56
1/20/2015	7.12	683.23
4/6/2015	5.74	684.61
7/22/2015	6.19	684.16
10/19/2015	5.79	684.56
1/5/2016	6.41	683.94
4/4/2016	5.68	681.42
7/5/2016	5.56	683.12
10/24/2016	5.56	683.12
1/16/2017	6.21	682.47
4/18/2017	6.06	682.47
7/11/2017	6.92	681.76
10/23/2017	6.59	682.09
1/8/2018	6.61	680.39
4/11/2018	5.12	681.88
7/12/2018	6.71	680.29
10/19/2018	6.44	680.56
1/9/2019	5.65	681.35
4/8/2019	5.28	681.72
7/22/2019	6.30	680.70
10/14/2019	7.56	679.44
1/6/2020	7.39	679.61
4/6/2020	7.40	679.60
7/21/2020	6.10	680.90
10/13/2020	6.50	680.50
1/19/2021	6.53	680.47
4/6/2021	5.56	681.44
7/13/2021	6.80	680.20
10/18/2021	5.97	681.03
1/18/2022	6.07	680.93
4/4/2022	5.25	681.75

NOTES:

ft MSL - feet mean sea level

NA - Not Available

NM - Not Measured

TOC - top of PVC casing

TOC Elevation - 690.35

DPE and GWCT off line for repairs in February 2007.

DPE off line for repairs in January 2008.

DPE off line for repairs in October 2013.

TOC Elevation re-measured June 13, 2008 at 687.1.

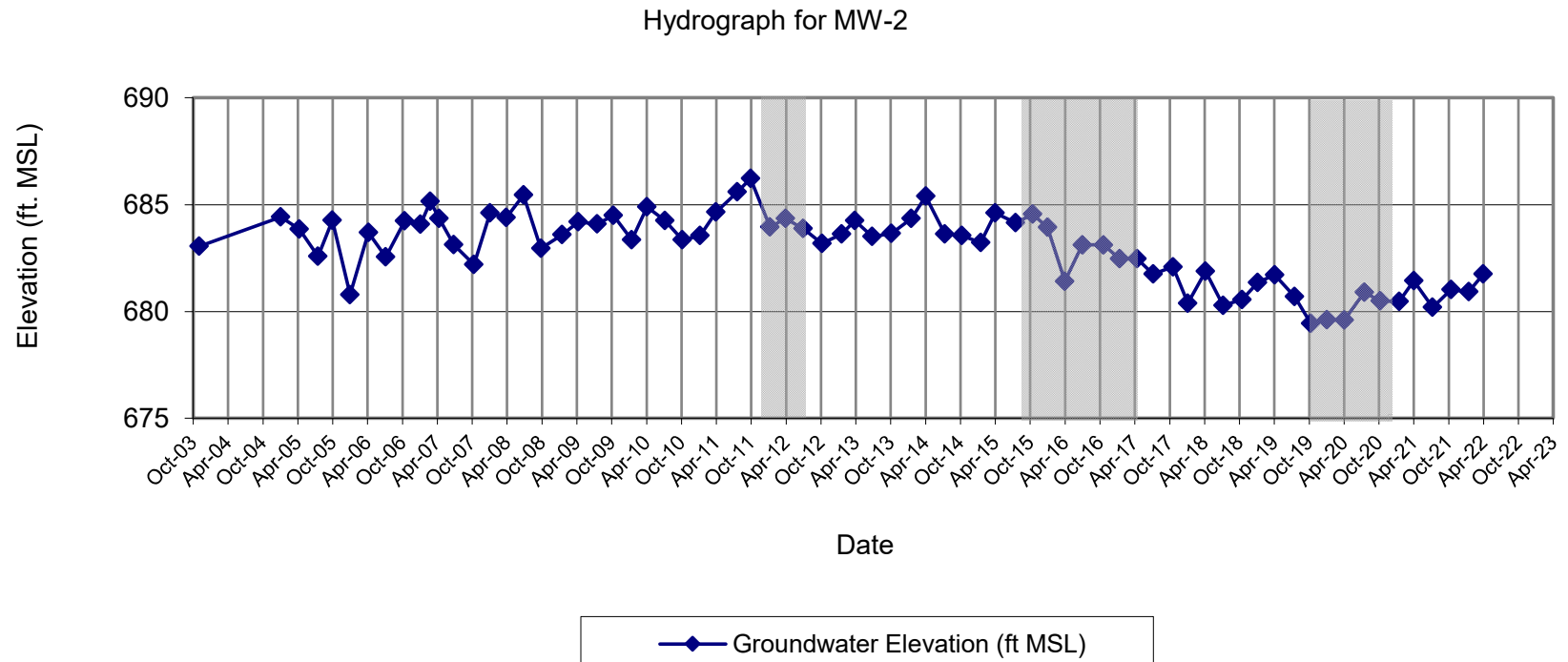
DPE system off line between June 2011 and November 2011 to accommodate the second phase of the chemical oxidation injection pilot test (note shading on graph).

DPE system off line between November 2014 and August 2016 to accommodate first and second phases of the ABC+ injection pilot test (note shading on graph).

DPE system off line between November 2018 and March 2020 to accommodate ABC+ OLE injection pilot test (note shading on graph).

DPE-3, -4, -6, -7, -8 off line beginning September 2021 to accommodate bioaugmentation injection.

MONITORING WELL MW-2
SUMMARY OF GROUNDWATER ELEVATIONS
Former Scott Aviation Site - West of Plant 2
Lancaster, New York



MONITORING WELL MW-3
SUMMARY OF GROUNDWATER ELEVATIONS
Former Scott Aviation Site - West of Plant 2
Lancaster, New York

Date	Depth to Water from TOC (ft)	Groundwater Elevation (ft) MSL
11/7/2003	12.76	674.96
4/8/2004	NM	NA
10/12/2004	NM	NA
1/6/2005	11.65	676.07
4/14/2005	12.64	675.08
7/20/2005	12.73	674.99
10/4/2005	7.38	680.34
1/5/2006	11.31	676.41
4/11/2006	11.84	675.88
7/10/2006	12.31	675.41
10/18/2006	10.82	676.9
1/9/2007	10.99	676.73
2/28/2007	3.99	683.73
4/16/2007	11.87	675.85
7/2/2007	13.35	674.37
10/17/2007	13.1	674.62
1/8/2008	7.61	680.11
4/2/2008	11.71	676.01
7/1/2008	10.75	676.27
9/30/2008	11.95	675.07
1/19/2009	10.94	676.08
4/14/2009	10.94	676.08
7/21/2009	11.51	675.51
10/14/2009	10.75	676.27
1/18/2010	12.38	674.64
4/8/2010	11.02	676.00
7/12/2010	9.18	677.84
10/11/2010	10.9	676.12
1/12/2011	11.3	675.72
4/4/2011	10.7	676.32
7/25/2011	4.38	682.64
10/3/2011	3.14	683.88
1/12/2012	10.65	676.37
4/2/2012	9.81	677.21
7/5/2012	8.56	678.46
10/11/2012	9.77	677.25
1/21/2013	11.15	675.87
4/1/2013	8.56	678.46
7/1/2013	11.85	675.17
10/9/2013	10.43	676.59
1/21/2014	10.45	676.57
4/7/2014	11.77	675.25
7/16/2014	10.29	676.73
10/14/2014	9.65	677.37
1/20/2015	10.15	676.87
4/6/2015	8.94	678.08
7/22/2015	7.98	679.04
10/19/2015	5.15	681.87
1/5/2016	9.01	678.01
4/4/2016	8.00	679.05
7/5/2016	5.86	681.19
10/24/2016	5.86	681.19
1/16/2017	10.58	676.47
4/18/2017	12.29	674.76
7/11/2017	12.65	674.40
10/23/2017	11.80	675.25
1/8/2018	10.12	676.93
4/11/2018	9.58	677.47
7/12/2018	10.98	676.07
10/19/2018	13.40	673.65
1/9/2019	12.32	674.73
4/8/2019	10.09	676.96
7/22/2019	9.24	677.81
10/14/2019	8.61	678.44
1/6/2020	8.14	678.91
4/6/2020	8.93	678.12
7/21/2020	9.14	677.91
10/13/2020	10.41	676.64
1/19/2021	8.73	678.32
4/6/2021	8.10	678.95
7/13/2021	9.10	677.95
10/18/2021	8.41	678.64
1/18/2022	8.89	678.16
4/4/2022	8.24	678.81

NOTES:

ft MSL - feet mean sea level

NA - Not Available

NM - Not Measured

TOC - top of PVC casing

TOC Elevation - 687.72

DPE and GWCT off line for repairs in February 2007.

DPE off line for repairs in January 2008.

DPE off line for repairs in October 2013.

TOC Elevation re-measured June 13, 2008 at 687.02

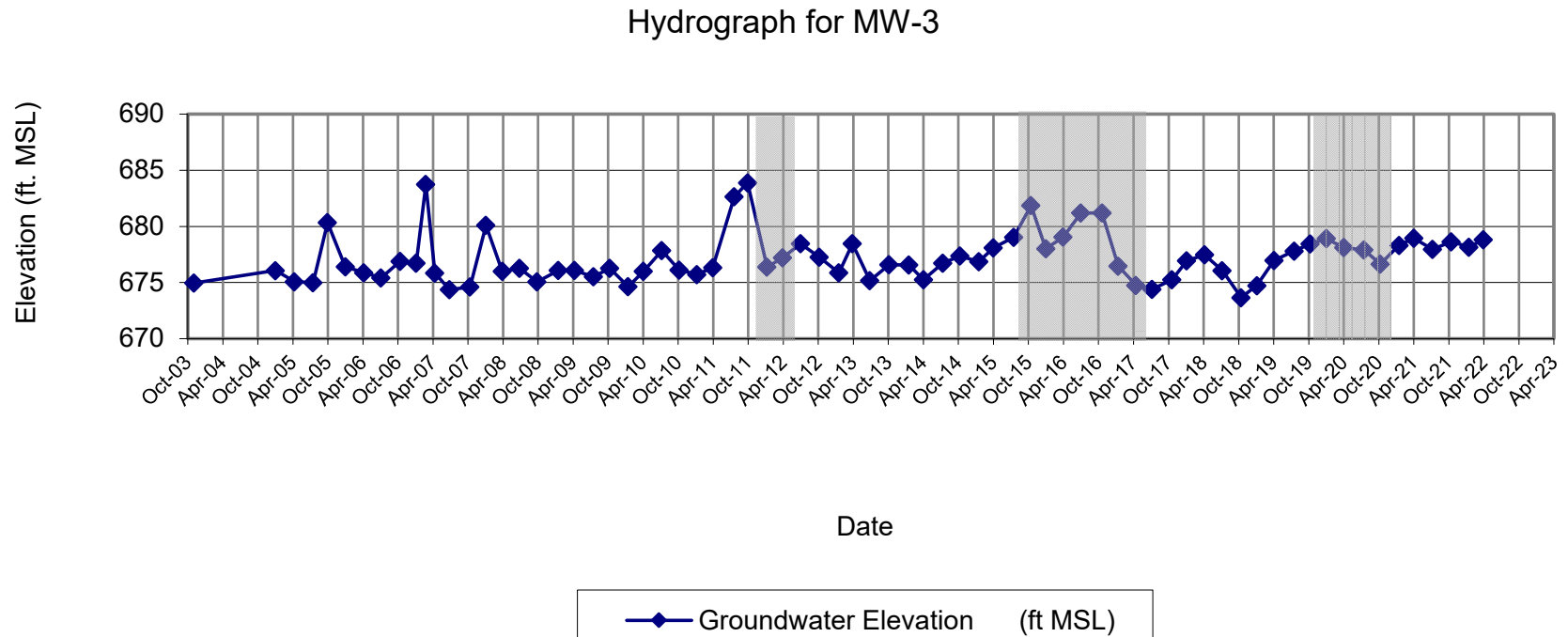
DPE system off line between June 2011 and November 2011 to accommodate the second phase of the chemical oxidation injection pilot test (note shading on graph).

DPE system off line between November 2014 and August 2016 to accommodate first and second phases of the ABC+ injection pilot test (note shading on graph).

DPE system off line between November 2018 and March 2020 to accommodate ABC+ OLE injection pilot test (note shading on graph).

DPE-3, -4, -6, -7, -8 off line beginning September 2021 to accommodate bioaugmentation injection.

MONITORING WELL MW-3
SUMMARY OF GROUNDWATER ELEVATIONS
Former Scott Aviation Site - West of Plant 2
Lancaster, New York



MONITORING WELL MW-4
SUMMARY OF GROUNDWATER ELEVATIONS
Former Scott Aviation Site - West of Plant 2
Lancaster, New York

Date	Depth to Water from TOC (ft)	Groundwater Elevation (ft) MSL)
11/7/2003	8.54	678.10
4/8/2004	NM	NA
10/12/2004	11.40	675.24
1/6/2005	9.20	677.44
4/14/2005	NM	NA
7/20/2005	NM	NA
10/4/2005	15.24	671.40
1/5/2006	15.71	670.93
4/11/2006	18.56	668.08
7/10/2006	15.02	671.62
10/18/2006	15.21	671.43
1/9/2007	14.00	672.64
2/28/2007	2.54	684.10
4/16/2007	12.45	674.19
7/2/2007	14.89	671.75
10/17/2007	12.91	673.73
1/8/2008	5.59	681.05
4/2/2008	9.31	677.33
7/1/2008	13.91	672.51
9/30/2008	13.55	672.87
1/19/2009	10.78	675.64
4/14/2009	8.90	677.52
7/21/2009	12.35	674.07
10/14/2009	10.40	676.02
1/18/2010	8.90	677.52
4/8/2010	10.90	675.52
7/12/2010	14.00	672.42
10/11/2010	16.69	669.73
1/12/2011	16.35	670.07
4/4/2011	17.67	668.75
7/25/2011	2.32	684.10
10/3/2011	2.98	683.44
1/12/2012	13.26	673.16
4/2/2012	13.10	673.32
7/6/2012	9.66	676.76
10/11/2012	18.60	667.82
1/21/2013	17.04	669.38
4/1/2013	18.65	667.77
7/1/2013	19.10	667.32
10/9/2013	10.10	676.32
1/21/2014	NM	NA
4/7/2014	18.85	667.57
7/16/2014	10.74	675.68
10/14/2014	8.52	677.90
1/20/2015	10.95	675.47
4/6/2015	9.05	677.37
7/22/2015	7.55	678.87
10/19/2015	4.59	681.83
1/5/2016	9.92	676.50
4/4/2016	8.20	678.30
7/5/2016	4.94	681.56
10/24/2016	4.94	681.56
1/16/2017	10.80	675.70
4/18/2017	11.92	675.70
7/11/2017	11.30	675.20
10/23/2017	13.06	673.44
1/8/2018	10.45	676.05
4/11/2018	10.55	675.95
7/12/2018	11.57	674.93
10/19/2018	11.57	674.93
1/9/2019	9.95	676.55
4/8/2019	8.83	677.67
7/22/2019	9.15	677.35
10/14/2019	8.39	678.11
1/6/2020	8.57	677.93
4/6/2020	8.57	677.93
7/21/2020	9.11	677.39
10/13/2020	11.72	674.78
1/19/2021	9.78	676.72
4/6/2021	8.84	677.66
7/13/2021	11.85	674.65
10/18/2021	7.65	678.85
1/18/2022	7.99	678.51
4/4/2022	7.67	678.83

NOTES:

ft MSL - feet mean sea level

NA - Not Available

NM - Not Measured

TOC - top of PVC casing

TOC Elevation - 686.64

DPE and GWCT off line for repairs in February 2007.

DPE off line for repairs in January 2008.

DPE off line for repairs in October 2013.

TOC Elevation re-measured on June 13, 2008 at 686.42.

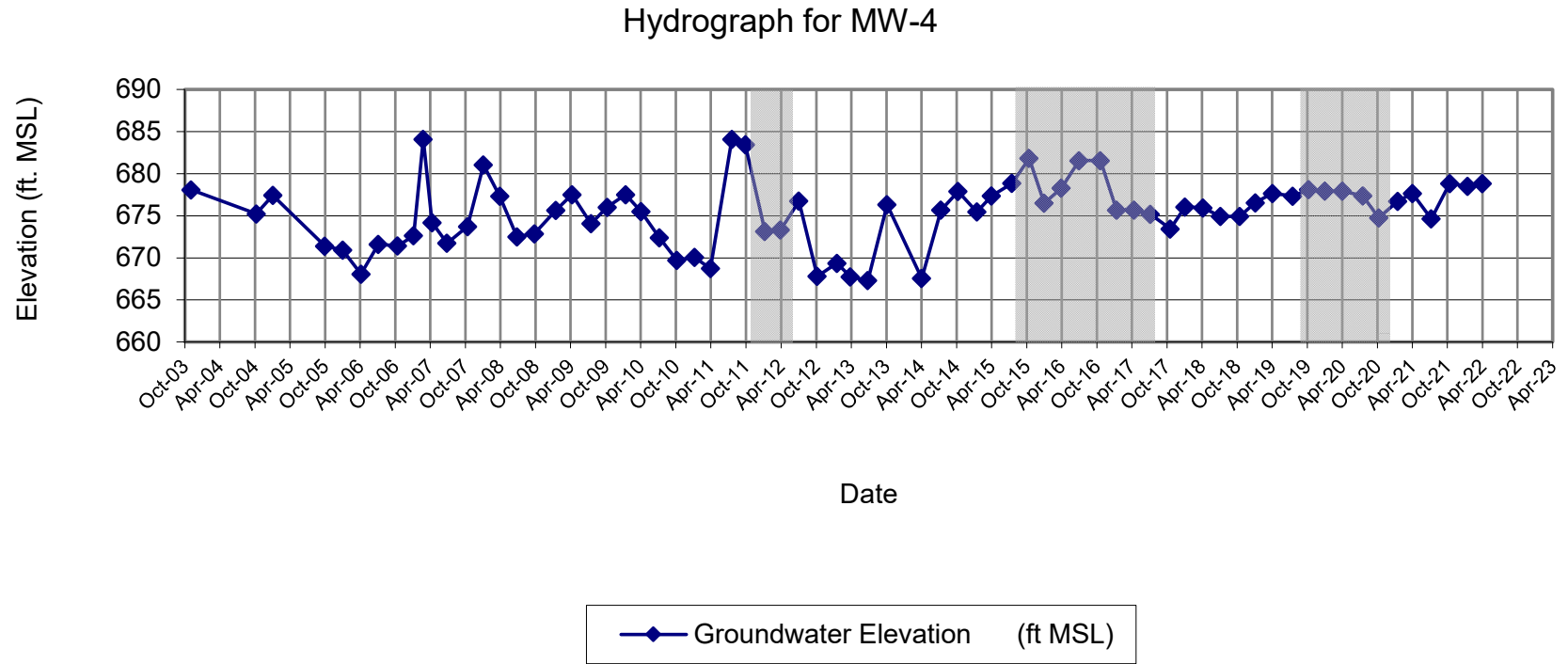
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DPE system off line between November 2014 and August 2016 to accommodate first and second phases of the ABC+ injection pilot test (note shading on graph).

DPE system off line between November 2018 and March 2020 to accommodate ABC+ OLE injection pilot test (note shading on graph).

DPE-3, -4, -6, -7, -8 off line beginning September 2021 to accommodate bioaugmentation injection.

MONITORING WELL MW-4
SUMMARY OF GROUNDWATER ELEVATIONS
Former Scott Aviation Site - West of Plant 2
Lancaster, New York



MONITORING WELL MW-8R
SUMMARY OF GROUNDWATER ELEVATIONS
Former Scott Aviation Site - West of Plant 2
Lancaster, New York

Date	Depth to Water from TOC (ft)	Groundwater Elevation (ft) MSL
4/8/2004	NM	NA
10/12/2004	12.75	672.92
1/6/2005	7.45	678.22
4/14/2005	14.45	671.22
7/20/2005	NM	NA
10/4/2005	NM	NA
1/6/2006	15.51	670.16
4/11/2006	15.65	670.02
7/10/2006	14.9	670.77
10/18/2006	15.72	669.95
1/9/2007	15.76	669.91
2/28/2007	10.78	674.89
4/16/2007	15.60	670.07
7/2/2007	16.29	669.38
10/15/2007	18.50	667.17
1/8/2008	4.99	680.68
4/2/2008	13.19	672.48
7/1/2008	12.15	674.06
9/30/2008	15.83	670.38
1/19/2009	11.55	674.66
4/14/2009	11.20	675.01
7/21/2009	13.57	672.64
10/14/2009	12.76	673.45
1/18/2010	11.26	674.95
4/8/2010	14.95	671.26
7/12/2010	13.74	672.47
10/11/2010	12.34	673.87
1/12/2011	13.10	673.11
4/4/2011	14.88	671.33
7/25/2011	3.25	682.96
10/3/2011	4.50	681.71
1/12/2012	12.96	673.25
4/2/2012	11.70	674.51
7/5/2012	10.34	675.87
10/11/2012	13.38	672.83
1/21/2013	14.90	671.31
4/1/2013	10.82	675.39
7/1/2013	12.70	673.51
10/9/2013	9.25	676.96
1/21/2014	NM	NA
4/7/2014	14.55	671.66
7/16/2014	8.97	677.24
10/14/2014	5.85	680.36
1/20/2015	9.80	676.41
4/6/2015	7.55	678.66
7/22/2015	8.22	677.99
10/19/2015	4.90	681.31
1/5/2016	8.95	677.26
4/4/2016	8.10	678.19
7/5/2016	4.99	681.30
10/24/2016	4.99	681.30
1/16/2017	10.35	675.94
4/18/2017	13.68	675.94
7/11/2017	11.60	674.69
10/23/2017	12.06	674.23
4/11/2018	10.05	676.16
7/12/2018	18.78	667.43
10/19/2018	18.60	667.61
1/9/2019	7.95	678.26
4/8/2019	6.80	679.41
7/22/2019	8.00	678.21
10/14/2019	9.91	676.30
1/6/2020	6.81	679.40
4/6/2020	8.71	677.50
7/21/2020	8.15	678.06
10/13/2020	10.39	675.82
1/20/2021	8.89	677.32
4/6/2021	7.55	678.66
7/13/2021	8.40	677.81
10/18/2021	12.45	673.76
1/18/2022	15.03	671.18
4/4/2022	14.52	671.69

NOTES:

ft MSL - feet mean sea level

NA - Not Available

NM - Not Measured

TOC - top of PVC casing

TOC Elevation - 685.67

DPE and GWCT off line for repairs in February 2007.

DPE off line for repairs in January 2008.

DPE off line for repairs in October 2013.

TOC Elevation re-measured on June 13, 2008 at 686.21.

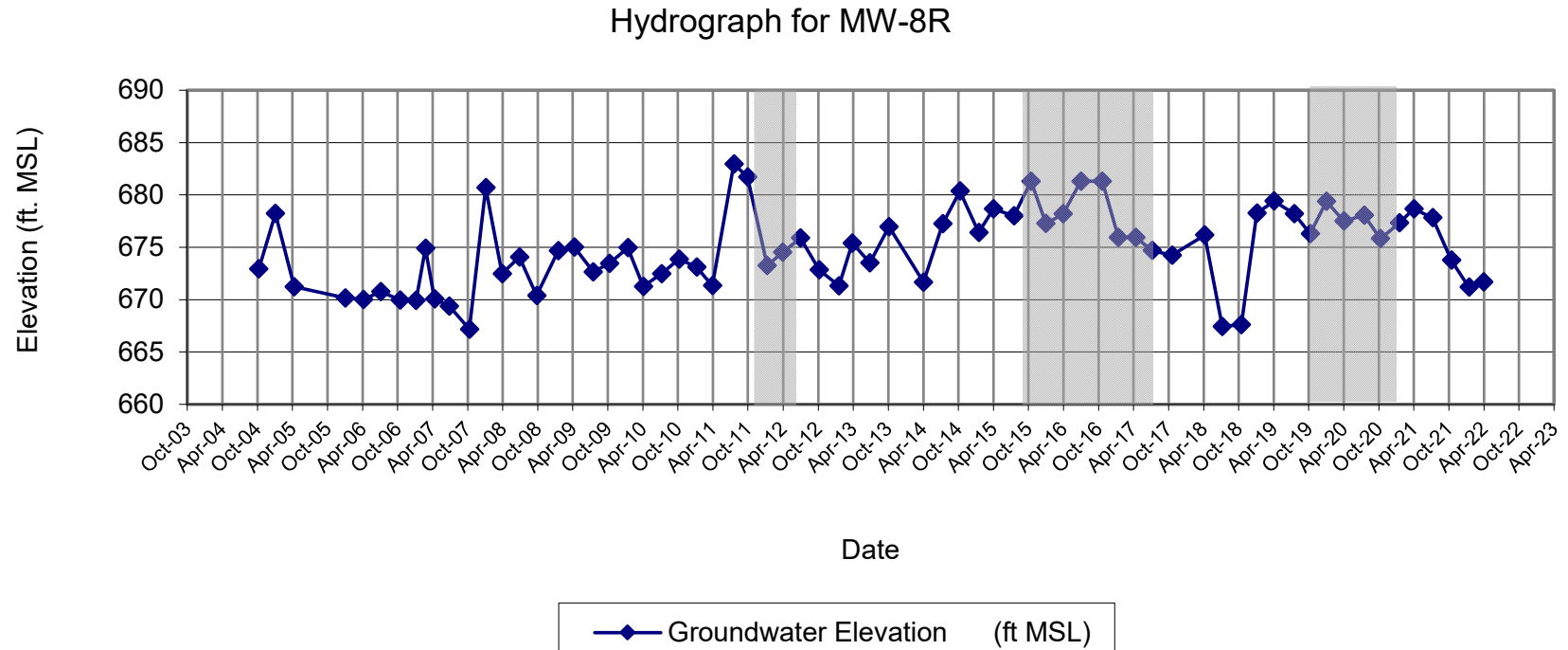
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DPE system off line between November 2014 and August 2016 to accommodate first and second phases of the ABC+ injection pilot test (note shading on graph).

DPE system off line between November 2018 and March 2020 to accommodate ABC+ OLE injection pilot test (note shading on graph).

DPE-3, -4, -6, -7, -8 off line beginning September 2021 to accommodate bioaugmentation injection.

MONITORING WELL MW-8R
SUMMARY OF GROUNDWATER ELEVATIONS
Former Scott Aviation Site - West of Plant 2
Lancaster, New York



MONITORING WELL MW-9
SUMMARY OF GROUNDWATER ELEVATIONS
Former Scott Aviation Site - West of Plant 2
Lancaster, New York

Date	Depth to Water from TOC (ft)	Groundwater Elevation (ft) MSL
11/7/2003	13.03	672.4
4/8/2004	NM	NA
10/12/2004	13.68	671.75
1/6/2005	12.89	672.54
4/14/2005	12.74	672.69
7/20/2005	13.88	671.55
10/4/2005	7.22	678.21
1/5/2006	12.79	672.64
4/11/2006	13.50	671.93
7/10/2006	13.24	672.19
10/18/2006	11.00	674.43
1/9/2007	12.24	673.19
2/28/2007	1.66	683.77
4/16/2007	13.15	672.28
7/2/2007	13.00	672.43
10/17/2007	13.95	671.48
1/8/2008	6.70	678.73
4/2/2008	10.61	674.82
7/1/2008	14.25	674.39
9/30/2008	15.67	672.97
1/19/2009	14.48	674.16
4/14/2009	15.48	673.16
7/21/2009	15.20	673.44
10/10/2009	15.06	673.58
1/18/2010	17.00	671.64
4/8/2010	15.40	673.24
7/12/2010	12.42	676.22
10/11/2010	14.21	674.43
1/12/2011	15.29	673.35
4/4/2011	14.55	674.09
7/25/2011	5.75	682.89
10/3/2011	4.58	684.06
1/12/2012	14.75	673.89
4/2/2012	14.52	674.12
7/5/2012	11.48	677.16
10/11/2012	12.66	675.98
1/21/2013	14.44	674.20
4/1/2013	11.87	676.77
7/1/2013	16.54	672.10
10/9/2013	13.68	674.96
1/21/2014	15.38	673.26
4/7/2014	16.30	672.34
7/16/2014	13.71	674.93
10/14/2014	13.09	675.55
1/20/2015	13.92	674.72
4/6/2015	12.41	676.23
7/22/2015	10.72	677.92
10/19/2015	7.06	681.58
1/5/2016	12.09	676.55
4/4/2016	11.38	678.19
7/5/2016	7.41	682.16
10/24/2016	7.41	682.16
1/16/2017	13.72	675.85
4/18/2017	14.24	675.85
7/11/2017	15.00	674.57
10/23/2017	14.84	674.73
1/8/2018	13.04	676.53
4/11/2018	13.20	676.37
7/12/2018	14.49	675.08
10/19/2018	14.21	675.36
1/9/2019	13.49	676.08
4/8/2019	12.85	676.72
7/22/2019	12.61	676.96
10/14/2019	11.83	677.74
1/6/2020	10.81	678.76
4/6/2020	12.25	677.32
7/21/2020	12.50	677.07
10/13/2020	14.72	674.85
1/19/2021	12.14	677.43
4/6/2021	11.26	678.31
7/13/2021	12.55	677.02
10/18/2021	11.69	677.88
1/18/2022	13.30	676.27
4/4/2022	12.10	677.47

NOTES:

ft MSL - feet mean sea level

NA - Not Available

NM - Not Measured

TOC - top of PVC casing

TOC Elevation - 685.43

DPE and GWCT off line for repairs in February 2007.

DPE off line for repairs in January 2008.

DPE off line for repairs in October 2013.

TOC Elevation re-measured on June 13, 2008 at 688.64.

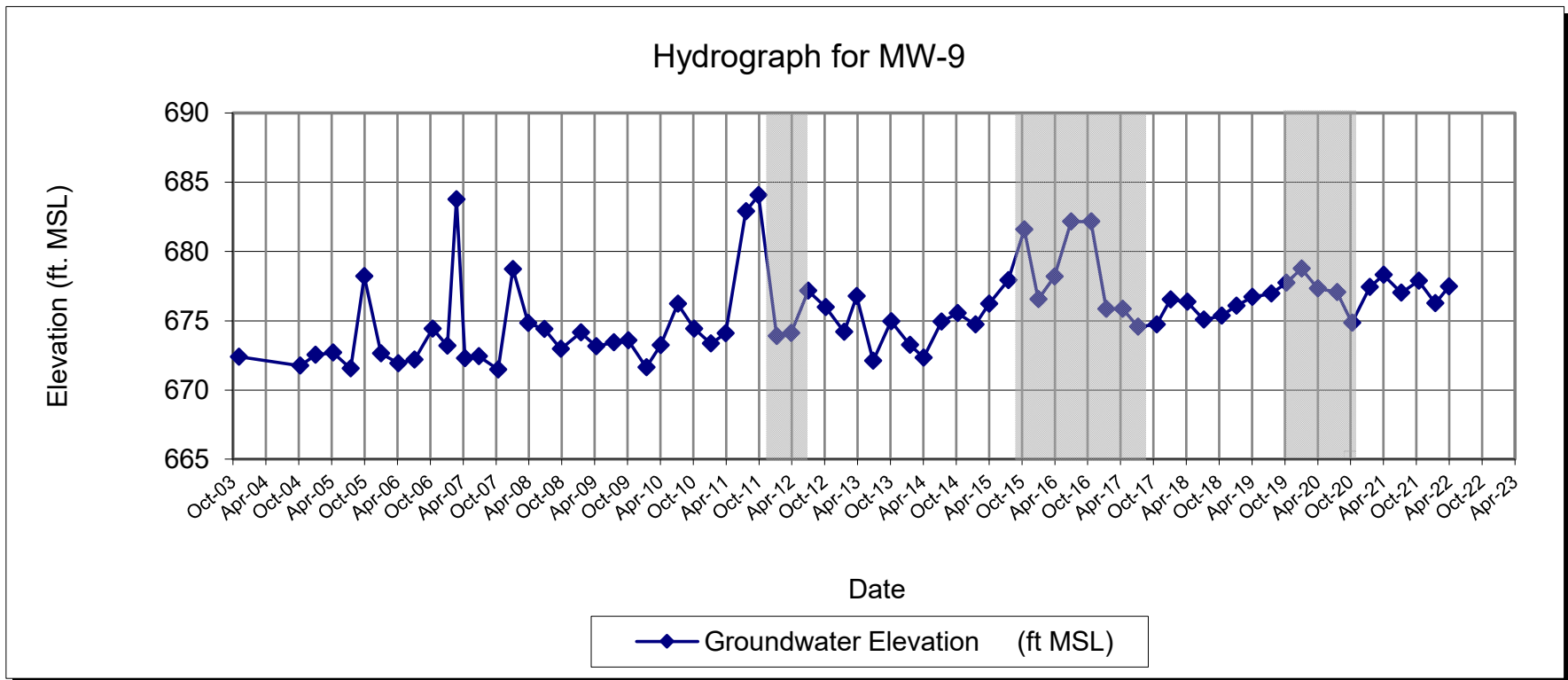
DPE system off line between June 2011 and November 2011 to accommodate the second phase of the chemical oxidation injection pilot test (note shading on graph).

DPE system off line between November 2014 and August 2016 to accommodate first and second phase of the ABC+ injection pilot test (note shading on graph).

DPE system off line between November 2018 and March 2020 to accommodate ABC+ OLE injection pilot test (note shading on graph).

DPE-3, -4, -6, -7, -8 off line beginning September 2021 to accommodate bioaugmentation injection.

MONITORING WELL MW-9
SUMMARY OF GROUNDWATER ELEVATIONS
Former Scott Aviation Site - West of Plant 2
Lancaster, New York



MONITORING WELL MW-11
SUMMARY OF GROUNDWATER ELEVATIONS
Former Scott Aviation Site - West of Plant 2
Lancaster, New York

Date	Depth to Water from TOC (ft)	Groundwater Elevation (ft) MSL
4/8/2004	NM	NA
10/12/2004	NM	NA
1/6/2005	15.59	673.02
4/14/2005	11.59	677.02
7/20/2005	17.34	671.27
10/4/2005	10.45	678.16
1/5/2006	16.58	672.03
4/11/2006	13.52	675.09
7/10/2006	13.75	674.86
10/18/2006	14.35	674.26
1/9/2007	15.26	673.35
2/28/2007	6.34	682.27
4/16/2007	11.55	677.06
7/2/2007	17.30	671.31
10/16/2007	17.69	670.92
1/8/2008	11.73	676.88
4/2/2008	14.78	673.83
7/1/2008	13.91	674.74
9/30/2008	15.25	673.40
1/19/2009	13.45	675.20
4/14/2009	13.50	675.15
7/21/2009	14.51	674.14
10/14/2009	13.85	674.80
1/18/2010	16.38	672.27
4/8/2010	13.90	674.75
7/12/2010	12.60	676.05
10/11/2010	14.80	673.85
1/12/2011	NM	
4/4/2011	14.52	674.13
7/25/2011	4.48	684.17
10/3/2011	4.05	684.60
1/12/2012	8.96	679.69
4/2/2012	12.87	675.78
7/5/2012	10.53	678.12
10/11/2012	14.40	674.25
1/21/2013	14.75	673.90
4/1/2013	11.66	676.99
7/1/2013	14.99	673.66
10/9/2013	12.25	676.40
1/21/2014	13.75	674.90
4/7/2014	14.56	674.09
7/16/2014	12.64	676.01
10/14/2014	12.26	676.39
1/20/2015	12.31	676.34
4/6/2015	11.95	676.70
7/22/2015	8.49	680.16
10/19/2015	8.75	679.90
1/5/2016	12.53	676.12
4/4/2016	10.84	677.77
7/5/2016	9.37	679.24
10/24/2016	9.37	679.24
1/16/2017	9.60	679.01
4/18/2017	11.98	679.01
7/11/2017	13.75	674.86
10/23/2017	12.83	675.78
1/8/2018	11.79	676.82
4/11/2018	10.75	677.86
7/12/2018	13.21	675.40
10/19/2018	12.40	676.21
1/9/2019	12.27	676.34
4/8/2019	11.66	676.95
7/22/2019	11.45	677.16
10/14/2019	11.59	677.02
1/6/2019	11.59	677.02
4/6/2020	11.79	676.82
7/21/2020	11.82	676.79
10/13/2020	11.81	676.80
1/19/2021	10.17	678.44
4/6/2021	9.81	678.80
7/13/2021	10.50	678.11
10/18/2021	9.68	678.93
1/18/2022	10.22	678.39
4/4/2022	9.14	679.47

NOTES:

ft MSL - feet mean sea level

NA - Not Available

NM - Not Measured

TOC - top of PVC casing

TOC Elevation - 688.61

DPE and GWCT off line for repairs in February 2007.

DPE off line for repairs in January 2008.

DPE off line for repairs in October 2013.

TOC Elevation re-measured on June 13, 2008 at 688.65.

DPE system off line between June 2011 and November 2011 to accommodate the second phase of the chemical oxidation injection pilot test (note shading on graph).

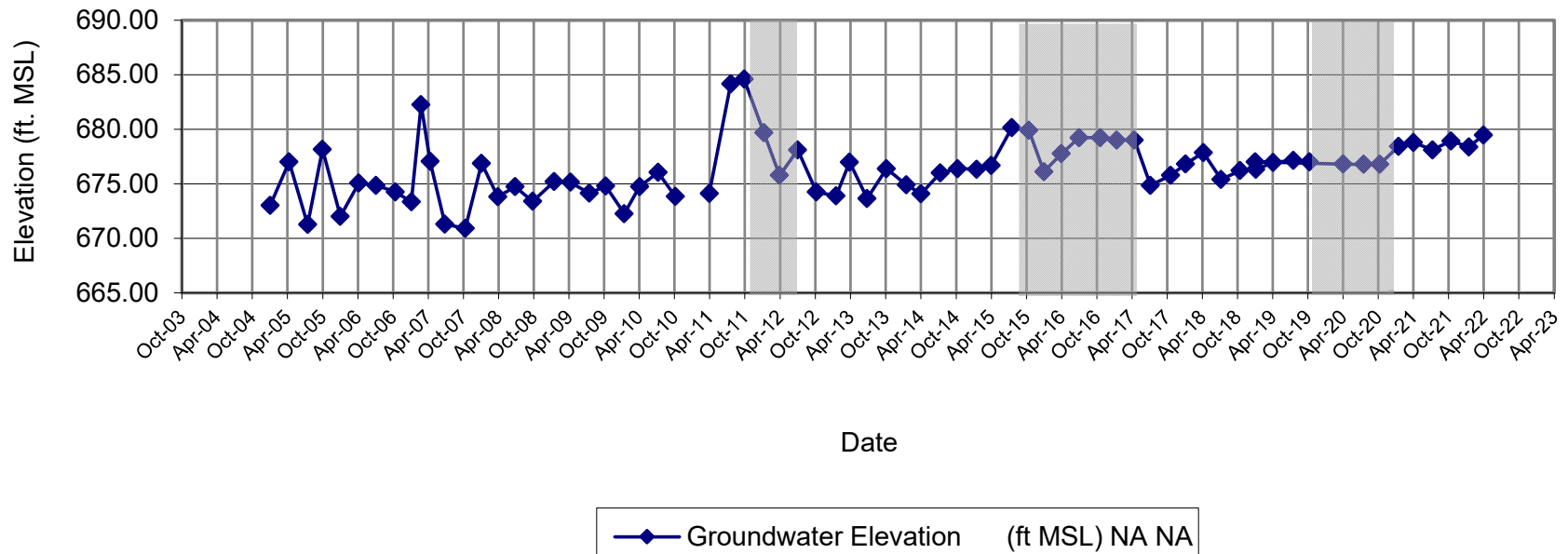
DPE system off line between November 2014 and August 2016 to accommodate first and second phases of the ABC+ injection pilot test (note shading on graph).

DPE system off line between November 2018 and March 2020 to accommodate ABC+ OLE injection pilot test (note shading on graph).

DPE-3, -4, -6, -7, -8 off line beginning September 2021 to accommodate bioaugmentation injection.

MONITORING WELL MW-11
SUMMARY OF GROUNDWATER ELEVATIONS
Former Scott Aviation Site - West of Plant 2
Lancaster, New York

Hydrograph for MW-11



MONITORING WELL MW-13S
SUMMARY OF GROUNDWATER ELEVATIONS
Former Scott Aviation Site - West of Plant 2
Lancaster, New York

Date	Depth to Water from TOC (ft)	Groundwater Elevation (ft) MSL
4/8/2004	7.01	679.56
10/12/2004	13.47	673.10
1/6/2005	7.24	679.33
4/14/2005	13.91	672.66
7/20/2005	12.81	673.76
10/4/2005	13.35	673.22
1/5/2006	13.79	672.78
4/11/2006	12.45	674.12
7/10/2006	13.02	673.55
10/18/2006	10.99	675.58
1/9/2007	11.35	675.22
2/28/2007	3.49	683.08
4/16/2007	12.01	674.56
7/2/2007	13.20	673.37
10/18/2007	12.77	673.80
1/8/2008	5.08	681.49
4/2/2008	5.45	681.12
7/1/2008	9.70	676.90
9/30/2008	11.80	674.80
1/19/2009	8.70	677.90
4/14/2009	8.64	677.96
7/21/2009	10.91	675.69
10/14/2009	9.18	677.42
1/18/2010	9.80	676.80
4/8/2010	8.30	678.30
7/12/2010	9.96	676.64
10/11/2010	10.29	676.31
1/12/2011	7.53	679.07
4/4/2011	8.00	678.60
7/25/2011	2.55	684.05
10/3/2011	1.81	684.79
1/12/2012	8.11	678.49
4/2/2012	8.06	678.54
7/5/2012	8.71	677.89
10/11/2012	9.57	677.03
1/21/2013	13.85	672.75
4/1/2013	6.44	680.16
7/1/2013	6.44	680.16
10/9/2013	4.10	682.50
1/21/2014	4.95	681.65
4/7/2014	6.02	680.58
7/16/2014	5.42	681.18
10/14/2014	4.41	682.19
1/20/2015	6.10	680.50
4/6/2015	4.69	681.91
7/22/2015	7.97	678.63
10/19/2015	3.95	682.65
1/5/2016	5.90	680.70
4/4/2016	5.05	681.60
7/5/2016	3.90	682.75
10/24/2016	3.90	682.75
1/16/2017	7.20	679.45
4/18/2017	6.11	679.45
7/11/2017	8.60	678.05
10/23/2017	6.42	680.23
1/8/2018	4.73	681.92
4/11/2018	4.20	682.45
7/12/2018	7.02	679.63
10/19/2018	15.86	670.79
1/9/2019	9.71	676.94
4/8/2019	5.35	681.30
7/22/2019	16.50	670.15
10/14/2019	16.50	670.15
1/6/2020	10.21	676.44
4/6/2020	8.36	678.29
7/21/2020	5.50	681.15
10/13/2020	8.84	677.81
1/19/2021	9.78	676.87
4/6/2021	3.67	682.98
7/13/2021	5.95	680.70
10/18/2021	9.31	677.34
1/18/2022	3.52	683.13
4/4/2022	2.97	683.68

NOTES:

ft MSL - feet mean sea level

NA - Not Available

NM - Not Measured

TOC - top of PVC casing

TOC Elevation - 686.57

DPE and GWCT off line for repairs in February 2007.

DPE off line for repairs in January 2008.

DPE off line for repairs in October 2013.

TOC Elevation re-measured on June 13, 2008 at 686.60.

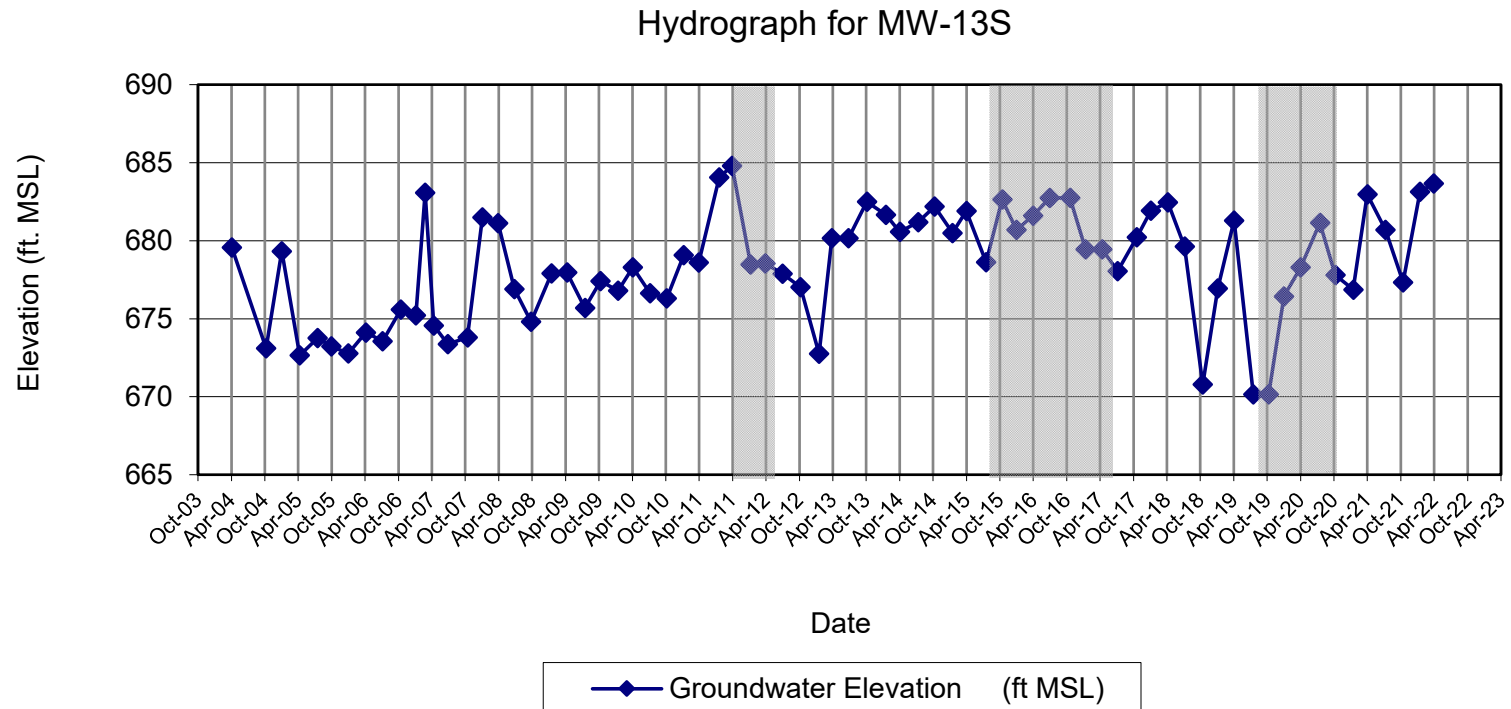
DPE system off line between June 2011 and November 2011 to accommodate the second phase of the chemical oxidation injection pilot test (note shading on graph).

DPE system off line between November 2014 and August 2016 to accommodate first and second phases of the ABC+ injection pilot test (note shading on graph).

DPE system off line between November 2018 and March 2020 to accommodate ABC+ OLE injection pilot test (note shading on graph).

DPE-3, -4, -6, -7, -8 off line beginning September 2021 to accommodate bioaugmentation injection.

MONITORING WELL MW-13S
SUMMARY OF GROUNDWATER ELEVATIONS
Former Scott Aviation Site - West of Plant 2
Lancaster, New York



MONITORING WELL MW-13D
SUMMARY OF GROUNDWATER ELEVATIONS
Former Scott Aviation Site - West of Plant 2
Lancaster, New York

Date	Depth to Water from TOC (ft)	Groundwater Elevation (ft) MSL
4/8/2004	13.28	673.43
10/12/2004	14.87	671.84
1/6/2005	14.55	672.16
4/14/2005	15.32	671.39
7/20/2005	15.65	671.06
10/4/2005	9.44	677.27
1/5/2006	15.83	670.88
4/11/2006	15.41	671.30
7/10/2006	13.79	672.92
10/18/2006	13.17	673.54
1/9/2007	14.41	672.30
2/28/2007	3.28	683.43
4/16/2007	14.66	672.05
7/2/2007	15.68	671.03
10/18/2007	15.80	670.91
1/8/2008	8.69	678.02
4/2/2008	12.86	673.85
7/1/2008	12.55	674.18
9/30/2008	13.89	672.84
1/19/2009	12.10	674.63
4/14/2009	11.78	674.95
7/21/2009	12.86	673.87
10/14/2009	11.59	675.14
1/18/2010	13.88	672.85
4/8/2010	12.00	674.73
7/12/2010	11.90	674.83
10/11/2010	13.34	673.39
1/12/2011	13.2	673.53
4/4/2011	13.13	673.60
7/25/2011	3.33	683.40
10/3/2011	2.55	684.18
1/12/2012	12.34	674.39
4/2/2012	11.76	674.97
7/5/2012	9.25	677.48
10/11/2012	13.00	673.73
1/21/2013	13.85	672.88
4/1/2013	11.01	675.72
7/1/2013	14.26	672.47
10/9/2013	10.36	676.37
1/21/2014	11.45	675.28
4/7/2014	13.65	673.08
7/16/2014	10.74	675.99
10/14/2014	9.41	677.32
1/20/2015	11.02	675.71
4/6/2015	9.35	677.38
7/22/2015	7.44	679.29
10/19/2015	4.55	682.18
1/5/2016	10.31	676.42
4/4/2016	8.65	678.13
7/5/2016	5.06	681.72
10/24/2016	5.06	681.72
1/16/2017	12.50	674.28
4/18/2017	10.10	674.28
7/11/2017	11.15	675.63
10/23/2017	10.87	675.91
1/8/2018	9.12	677.66
4/11/2018	8.70	678.08
7/12/2018	10.91	675.87
10/19/2018	10.86	675.92
1/9/2019	9.85	676.93
4/8/2019	9.00	677.78
7/22/2019	9.79	676.99
10/14/2019	8.87	677.91
1/6/2020	7.69	679.09
4/6/2020	8.54	678.24
7/21/2020	9.00	677.78
10/13/2020	10.16	676.62
1/19/2021	9.02	677.76
4/6/2021	7.90	678.88
7/13/2021	9.05	677.73
10/18/2021	8.45	678.33
1/18/2022	8.75	678.03
4/4/2022	7.52	679.26

NOTES:

ft MSL - feet mean sea level

NA - Not Available

NM - Not Measured

TOC - top of PVC casing

TOC Elevation - 686.71

DPE and GWCT off line for repairs in February 2007.

DPE off line for repairs in January 2008.

DPE off line for repairs in October 2013.

TOC Elevation re-measured on June 13, 2008 at 686.73.

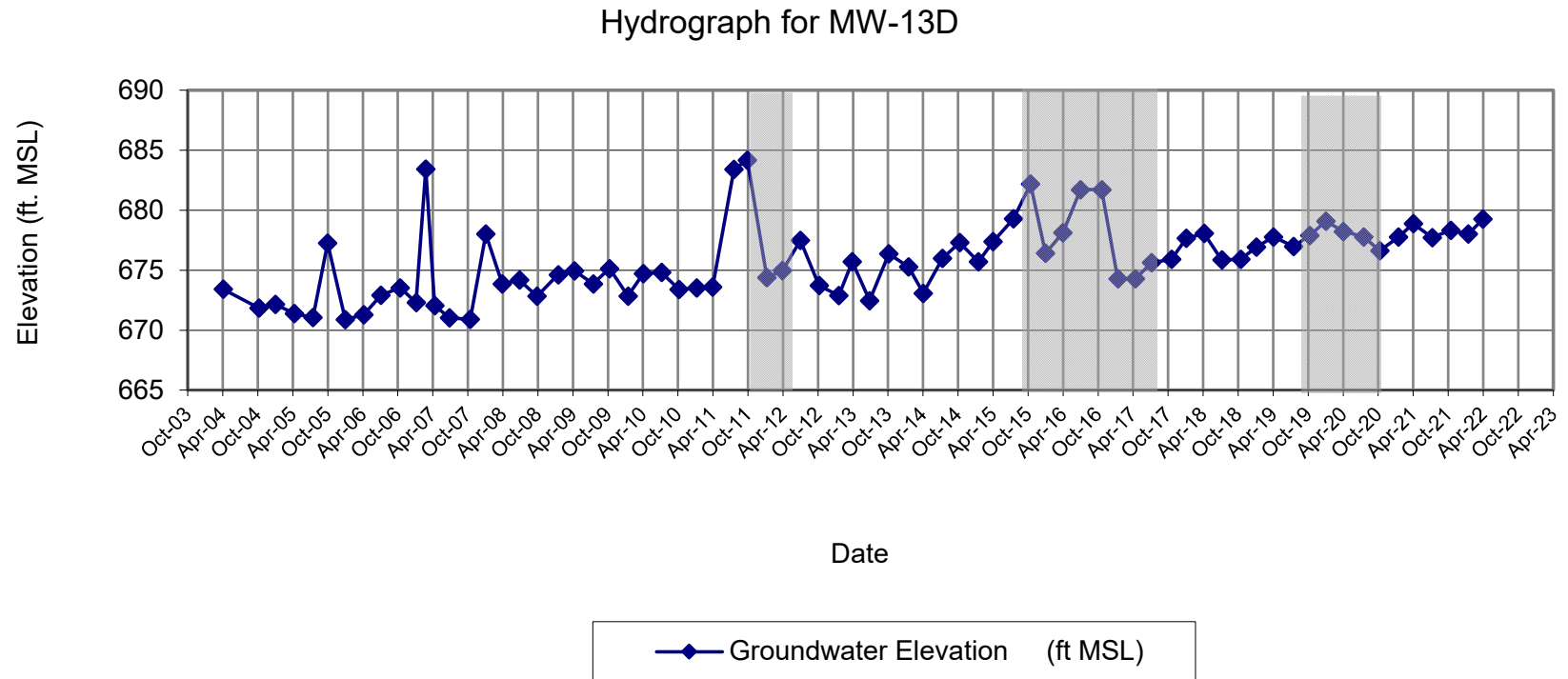
DPE system off line between June 2011 and November 2011 to accommodate the second phase of the chemical oxidation injection pilot test (note shading on graph).

DPE system off line between November 2014 and August 2016 to accommodate first and second phases of the ABC+ injection pilot test (note shading on graph).

DPE system off line between November 2018 and March 2020 to accommodate ABC+ OLE injection pilot test (note shading on graph).

DPE-3, -4, -6, -7, -8 off line beginning September 2021 to accommodate bioaugmentation injection.

MONITORING WELL MW-13D
SUMMARY OF GROUNDWATER ELEVATIONS
Former Scott Aviation Site - West of Plant 2
Lancaster, New York



MONITORING WELL MW-14S
SUMMARY OF GROUNDWATER ELEVATIONS
Former Scott Aviation Site - West of Plant 2
Lancaster, New York

Date	Depth to Water from TOC (ft)	Groundwater Elevation (ft) MSL
4/8/2004	5.14	680.17
10/12/2004	8.57	676.74
1/6/2005	6.27	679.04
4/14/2005	5.16	680.15
7/20/2005	8.32	676.99
10/4/2005	6.14	679.17
1/5/2006	8.41	676.90
4/11/2006	7.75	677.56
7/10/2006	8.18	677.13
10/18/2006	9.00	676.31
1/9/2007	6.61	678.70
2/28/2007	1.50	683.81
4/16/2007	3.45	681.86
7/2/2007	8.36	676.95
10/15/2007	9.45	675.86
1/8/2008	4.65	680.66
4/2/2008	4.47	680.84
7/1/2008	6.37	679.33
9/30/2008	8.90	676.80
1/19/2009	6.15	679.55
4/14/2009	7.70	678.00
7/21/2009	7.25	678.45
10/14/2009	7.05	678.65
1/18/2010	NM	
4/8/2010	6.50	678.81
7/12/2010	6.54	678.77
10/11/2010	5.90	679.80
1/12/2011	6.83	678.87
4/4/2011	6.34	679.36
7/25/2011	2.59	683.11
10/3/2011	1.98	683.72
1/12/2012	5.10	680.60
4/2/2012	4.55	681.15
7/5/2012	7.15	678.55
10/11/2012	6.67	679.03
1/21/2013	5.15	680.55
4/1/2013	5.05	680.65
7/1/2013	6.81	678.89
10/9/2013	5.60	680.10
1/21/2014	5.68	680.02
4/7/2014	6.03	679.67
7/16/2014	5.49	680.21
10/14/2014	5.61	680.09
1/20/2015	5.55	680.15
4/6/2015	4.58	681.12
7/22/2015	3.59	682.11
10/19/2015	3.70	682.00
1/5/2016	3.92	681.78
4/4/2016	8.80	676.90
7/5/2016	3.80	681.90
10/24/2016	3.80	681.90
1/16/2017	5.10	680.60
4/18/2017	5.44	680.26
7/11/2017	7.50	678.20
10/23/2017	7.18	678.52
1/8/2018	5.39	680.35
4/11/2018	5.14	680.60
7/12/2018	7.25	678.49
10/19/2018	6.89	678.85
1/9/2019	4.30	681.44
4/8/2019	4.40	681.34
7/22/2019	8.60	677.14
10/14/2019	5.14	680.60
1/6/2020	4.42	681.32
4/6/2020	4.31	681.43
7/21/2020	5.30	680.44
10/13/2020	6.18	679.56
1/19/2021	5.28	680.46
4/6/2021	4.75	680.99
7/13/2021	5.35	680.39
10/18/2021	5.41	680.33
1/18/2022	5.23	680.51
4/4/2022	4.86	680.88

NOTES:

ft MSL - feet mean sea level

NA - Not Available

NM - Not Measured

TOC - top of PVC casing

TOC Elevation - 685.31

DPE and GWCT off line for repairs in February 2007.

DPE off line for repairs in January 2008.

DPE off line for repairs in October 2013.

TOC Elevation re-measured on June 13, 2008 at 685.70.

DPE system off line between June 2011 and November 2011 to accommodate the second phase of the chemical oxidation injection pilot test (note shading on graph).

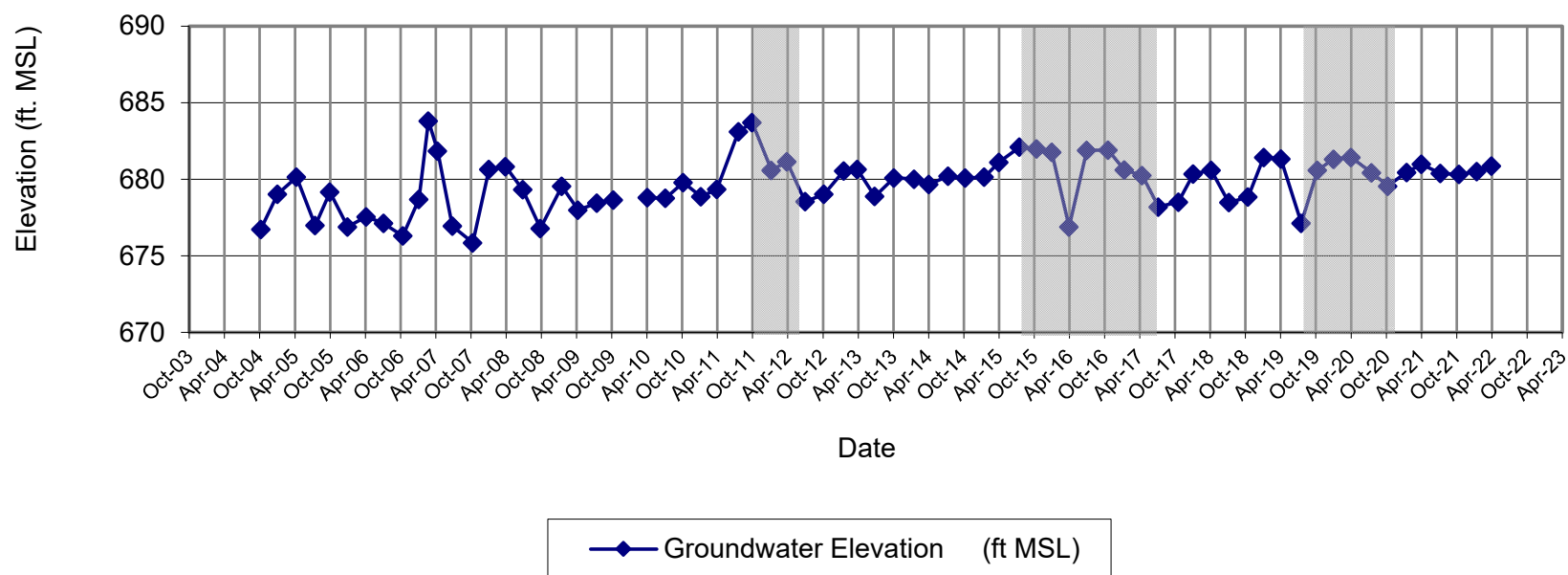
DPE system off line between November 2014 and August 2016 to accommodate first and second phases of the ABC+ injection pilot test (note shading on graph).

DPE system off line between November 2018 and March 2020 to accommodate ABC+ OLE injection pilot test (note shading on graph).

DPE-3, -4, -6, -7, -8 off line beginning September 2021 to accommodate bioaugmentation injection.

MONITORING WELL MW-14S
SUMMARY OF GROUNDWATER ELEVATIONS
Former Scott Aviation Site - West of Plant 2
Lancaster, New York

Hydrograph for MW-14S



MONITORING WELL MW-14D
SUMMARY OF GROUNDWATER ELEVATIONS
Former Scott Aviation Site - West of Plant 2
Lancaster, New York

Date	Depth to Water from TOC (ft)	Groundwater Elevation (ft) MSL
4/8/2004	13.21	672.22
10/12/2004	14.55	670.88
1/6/2005	15.97	669.46
4/14/2005	13.25	672.18
7/20/2005	18.20	667.23
10/4/2005	13.26	672.17
1/5/2006	19.08	666.35
4/11/2006	19.79	665.64
7/10/2006	17.16	668.27
10/18/2006	19.44	665.99
1/9/2007	14.71	670.72
2/28/2007	2.67	682.76
4/16/2007	19.74	665.69
7/2/2007	19.68	665.75
10/15/2007	19.76	665.67
1/8/2008	7.92	677.51
4/2/2008	14.41	671.02
7/1/2008	14.45	671.37
9/30/2008	15.39	670.43
1/19/2009	13.55	672.27
4/14/2009	20.10	665.72
7/21/2009	15.15	670.67
10/14/2009	20.27	665.55
1/18/2010	20.40	665.42
4/8/2010	15.40	670.42
7/12/2010	17.15	668.67
10/11/2010	14.40	671.42
1/12/2011	17.92	667.90
4/4/2011	16.23	669.59
7/25/2011	3.10	682.72
10/3/2011	2.72	683.10
1/12/2012	15.30	670.52
4/2/2012	16.50	669.32
7/5/2012	12.81	673.01
10/11/2012	14.55	671.27
1/21/2013	13.45	672.37
4/1/2013	10.78	675.04
7/1/2013	19.85	665.97
10/9/2013	10.02	675.80
1/21/2014	18.20	667.62
4/7/2014	17.95	667.87
7/16/2014	12.99	672.83
10/14/2014	10.70	675.12
1/20/2015	13.49	672.33
4/6/2015	11.30	674.52
7/22/2015	8.62	677.20
10/19/2015	4.10	681.72
1/5/2016	11.70	674.12
4/4/2016	17.98	667.90
7/5/2016	4.67	681.21
10/24/2016	4.67	681.21
1/16/2017	15.89	669.99
4/18/2017	12.45	669.99
7/11/2017	14.74	671.14
10/23/2017	17.02	668.86
1/8/2018	17.69	668.19
4/11/2018	15.95	669.93
7/12/2018	16.90	668.98
10/19/2018	15.69	670.19
1/9/2019	12.62	673.26
4/8/2019	11.80	674.08
7/22/2019	11.35	674.53
10/14/2019	11.88	674.00
1/6/2020	9.44	676.44
4/6/2020	13.00	672.88
7/21/2020	12.31	673.57
10/13/2020	19.31	666.57
1/19/2021	12.24	673.64
4/6/2021	10.28	675.60
7/13/2021	12.80	673.08
10/18/2021	10.13	675.75
1/18/2022	18.85	667.03
4/4/2022	11.49	674.39

NOTES:

ft MSL - feet mean sea level

NA - Not Available

NM - Not Measured

TOC - top of PVC casing

TOC Elevation - 685.43

DPE and GWCT off line for repairs in February 2007.

DPE off line for repairs in January 2008.

DPE off line for repairs in October 2013.

TOC Elevation re-measured on June 13, 2008 at 685.82.

DPE system off line between June 2011 and November 2011 to accommodate the second phase of the chemical oxidation injection pilot test (note shading on graph).

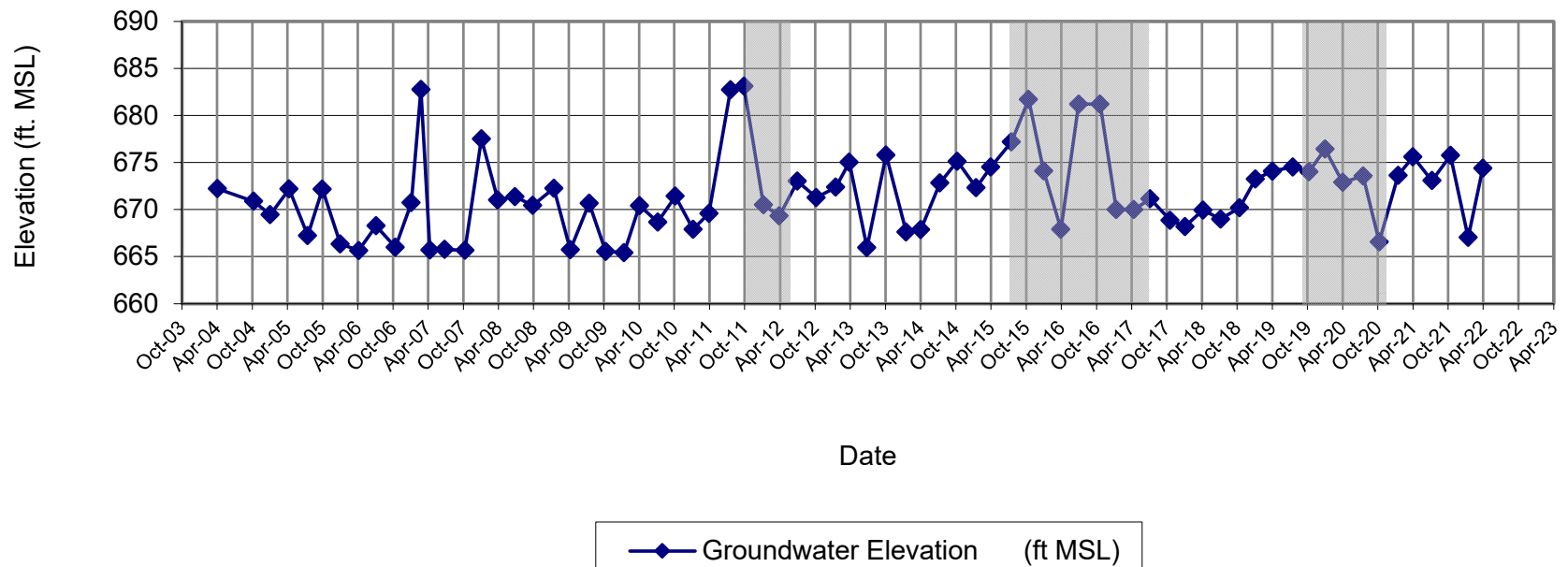
DPE system off line between November 2014 and August 2016 to accommodate first and second phases of the ABC+ injection pilot test (note shading on graph).

DPE system off line between November 2018 and March 2020 to accommodate ABC+ OLE injection pilot test (note shading on graph).

DPE-3, -4, -6, -7, -8 off line beginning September 2021 to accommodate bioaugmentation injection.

MONITORING WELL MW-14D
SUMMARY OF GROUNDWATER ELEVATIONS
Former Scott Aviation Site - West of Plant 2
Lancaster, New York

Hydrograph for MW-14D



MONITORING WELL MW-15S
SUMMARY OF GROUNDWATER ELEVATIONS
Former Scott Aviation Site - West of Plant 2
Lancaster, New York

Date	Depth to Water from TOC (ft)	Groundwater Elevation (ft) MSL
4/8/2004	1.20	685.44
10/12/2004	5.26	681.38
1/6/2005	0.35	686.29
4/14/2005	2.31	684.33
7/20/2005	4.78	681.86
10/4/2005	2.22	684.42
1/5/2006	0.70	685.94
4/11/2006	2.00	684.64
7/10/2006	4.75	681.89
1/9/2007	0.05	686.59
2/28/2007	0.00	686.64
4/16/2007	0.50	686.14
7/2/2007	4.67	681.97
10/16/2007	4.80	681.84
1/8/2008	0.70	685.94
4/2/2008	0.00	686.64
7/1/2008	0.50	687.02
9/30/2008	3.14	684.38
1/19/2009	1.50	686.02
4/14/2009	1.60	685.92
7/21/2009	1.11	686.41
10/14/2009	1.11	686.41
1/18/2010	0.80	686.72
4/8/2010	2.00	685.52
7/12/2010	2.80	684.72
10/11/2010	3.14	684.38
1/12/2011	1.40	686.12
4/4/2011	0.50	687.02
7/25/2011	2.51	685.01
10/3/2011	0.20	687.32
1/12/2012	0.50	687.02
4/2/2012	1.40	686.12
7/5/2012	3.90	683.62
10/1/2012	3.18	684.34
1/21/2013	0.00	687.52
4/1/2013	0.50	687.02
7/1/2013	1.73	685.79
10/9/2013	2.10	685.42
1/21/2014	1.75	685.77
4/7/2014	0.90	686.62
7/16/2014	1.91	685.61
10/14/2014	2.00	685.52
1/20/2015	1.60	685.92
4/6/2015	0.51	687.01
7/22/2015	1.41	686.11
10/19/2015	2.20	685.32
1/5/2016	1.15	686.37
4/4/2016	0.70	687.17
7/5/2016	3.61	683.56
10/24/2016	3.61	683.56
1/16/2017	1.20	685.97
4/18/2017	0.90	685.97
7/11/2017	4.30	682.87
10/23/2017	2.55	684.62
1/8/2018	0.00	687.17
4/11/2018	0.00	687.17
7/12/2018	0.35	686.82
10/19/2018	0.44	686.73
1/9/2019	0.22	686.95
4/8/2019	0.00	687.17
7/22/2019	2.95	684.22
10/14/2019	1.32	685.85
1/6/2020	0.04	687.13
4/6/2020	0.02	687.15
7/21/2020	0.48	686.69
10/13/2020	2.98	684.19
1/19/2021	0.49	686.68
4/6/2021	0.98	686.19
7/13/2021	3.25	683.92
10/18/2021	0.87	686.30
1/18/2022	0.00	687.17
4/4/2022	0.90	686.27

NOTES:

ft MSL - feet mean sea level

NA - Not Available

NM - Not Measured

TOC - top of PVC casing

TOC Elevation - 686.64

DPE and GWCT off line for repairs in February 2007.

DPE off line for repairs in January 2008.

DPE off line for repairs in October 2013.

Measured from ground surface on April 4, 2016 at 687.87.

TOC Elevation re-measured on June 13, 2008 at 687.52.

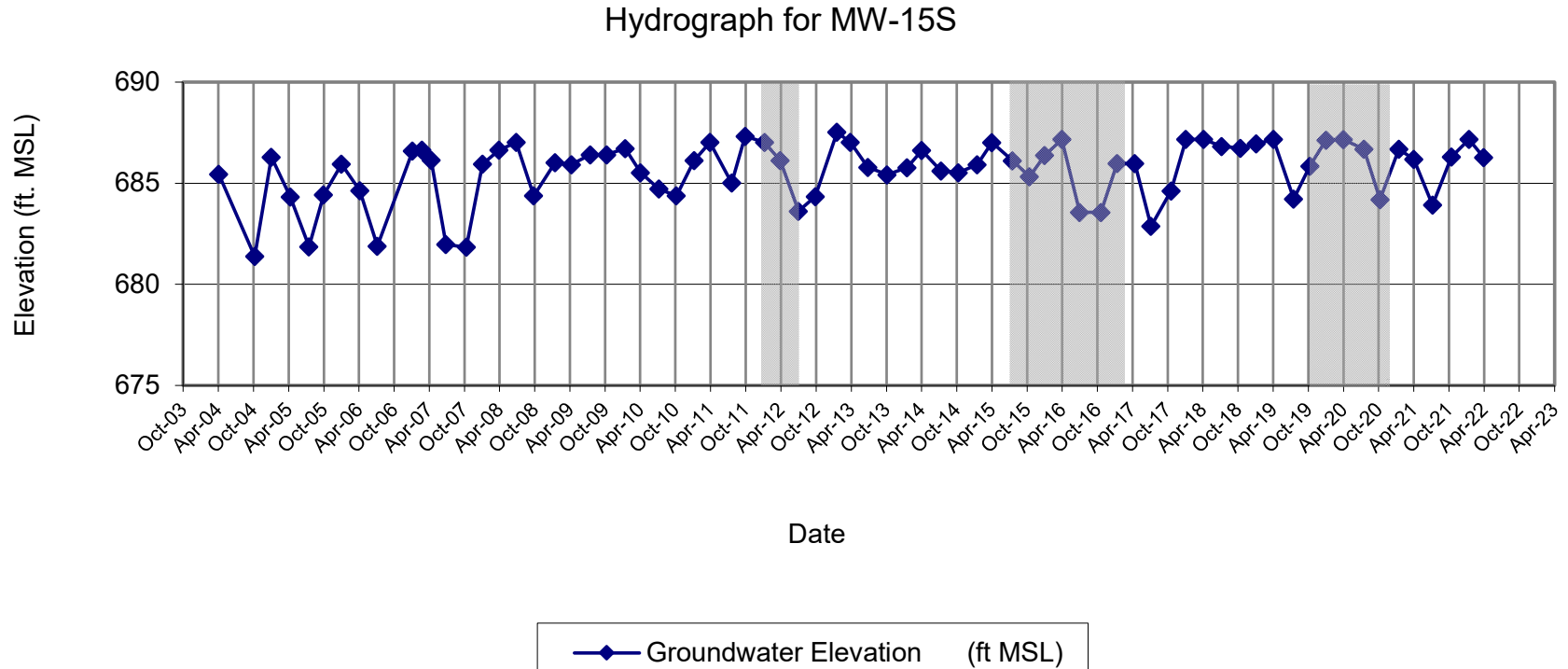
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DPE system off line between November 2014 and August 2016 to accommodate first and second phases of the ABC+ injection pilot test (note shading on graph).

DPE system off line between November 2018 and March 2020 to accommodate ABC+ OLE injection pilot test (note shading on graph).

DPE-3, -4, -6, -7, -8 off line beginning September 2021 to accommodate bioaugmentation injection.

MONITORING WELL MW-15S
SUMMARY OF GROUNDWATER ELEVATIONS
Former Scott Aviation Site - West of Plant 2
Lancaster, New York



MONITORING WELL MW-15D
SUMMARY OF GROUNDWATER ELEVATIONS
Former Scott Aviation Site - West of Plant 2
Lancaster, New York

Date	Depth to Water from TOC (ft)	Groundwater Elevation (ft) MSL
4/8/2004	15.70	671.61
10/12/2004	17.42	669.89
1/6/2005	15.74	671.57
4/14/2005	16.99	670.32
7/20/2005	17.31	670.00
10/4/2005	8.94	678.37
1/5/2006	16.16	671.15
4/11/2006	16.90	670.41
7/10/2006	15.78	671.53
10/18/2006	15.50	671.81
1/9/2007	15.80	671.51
2/28/2007	4.10	683.21
4/16/2007	16.61	670.70
7/2/2007	17.20	670.11
10/16/2007	16.70	670.61
1/8/2008	8.99	678.32
4/2/2008	15.01	672.30
7/1/2008	14.64	672.98
9/30/2008	16.24	671.38
1/19/2009	15.00	672.62
4/14/2009	14.21	673.41
7/21/2009	14.61	673.01
10/14/2009	14.81	672.81
1/18/2010	16.89	670.73
4/8/2010	15.00	672.62
7/12/2010	13.00	674.62
10/11/2010	13.00	674.62
1/12/2011	15.65	671.97
4/4/2011	15.51	672.11
7/25/2011	3.73	683.89
10/3/2011	3.05	684.57
1/12/2012	15.50	672.12
4/2/2012	14.30	673.32
7/5/2012	9.81	677.81
10/11/2012	13.70	673.92
1/21/2013	15.90	671.72
4/1/2013	11.08	676.54
7/1/2013	16.04	671.58
10/9/2013	13.95	673.67
1/21/2014	15.05	672.57
4/7/2014	15.84	671.78
7/16/2014	13.51	674.11
10/14/2014	12.49	675.13
1/20/2015	15.04	672.58
4/6/2015	13.15	674.47
7/22/2015	9.92	677.70
10/19/2015	6.50	681.12
1/5/2016	13.65	673.97
4/4/2016	11.70	676.17
7/5/2016	5.85	681.52
10/24/2016	5.85	681.52
1/16/2017	13.56	673.81
4/18/2017	13.40	673.97
7/11/2017	14.06	673.31
10/23/2017	14.21	673.16
1/8/2018	13.08	674.79
4/11/2018	11.70	676.17
7/12/2018	14.19	673.68
10/19/2018	13.83	674.04
1/9/2019	13.17	674.70
4/8/2019	12.80	675.07
7/22/2019	12.66	675.21
10/14/2019	11.97	675.90
1/6/2020	10.79	677.08
4/6/2020	11.85	676.02
7/21/2020	12.61	675.26
10/13/2020	13.55	674.32
1/19/2021	8.76	679.11
4/6/2021	11.31	676.56
7/13/2021	13.10	674.77
10/18/2021	11.72	676.15
1/18/2022	11.85	676.02
4/4/2022	10.80	677.07

NOTES:

ft MSL - feet mean sea level

NA - Not Available

NM - Not Measured

TOC - top of PVC casing

TOC Elevation - 687.31'

DPE and GWCT off line for repairs in February 2007.

DPE off line for repairs in January 2008.

DPE off line for repairs in October 2013.

TOC Elevation re-measured on June 13, 2008 at 687.62.

Measured from ground surface on April 4, 2016 at 687.87.

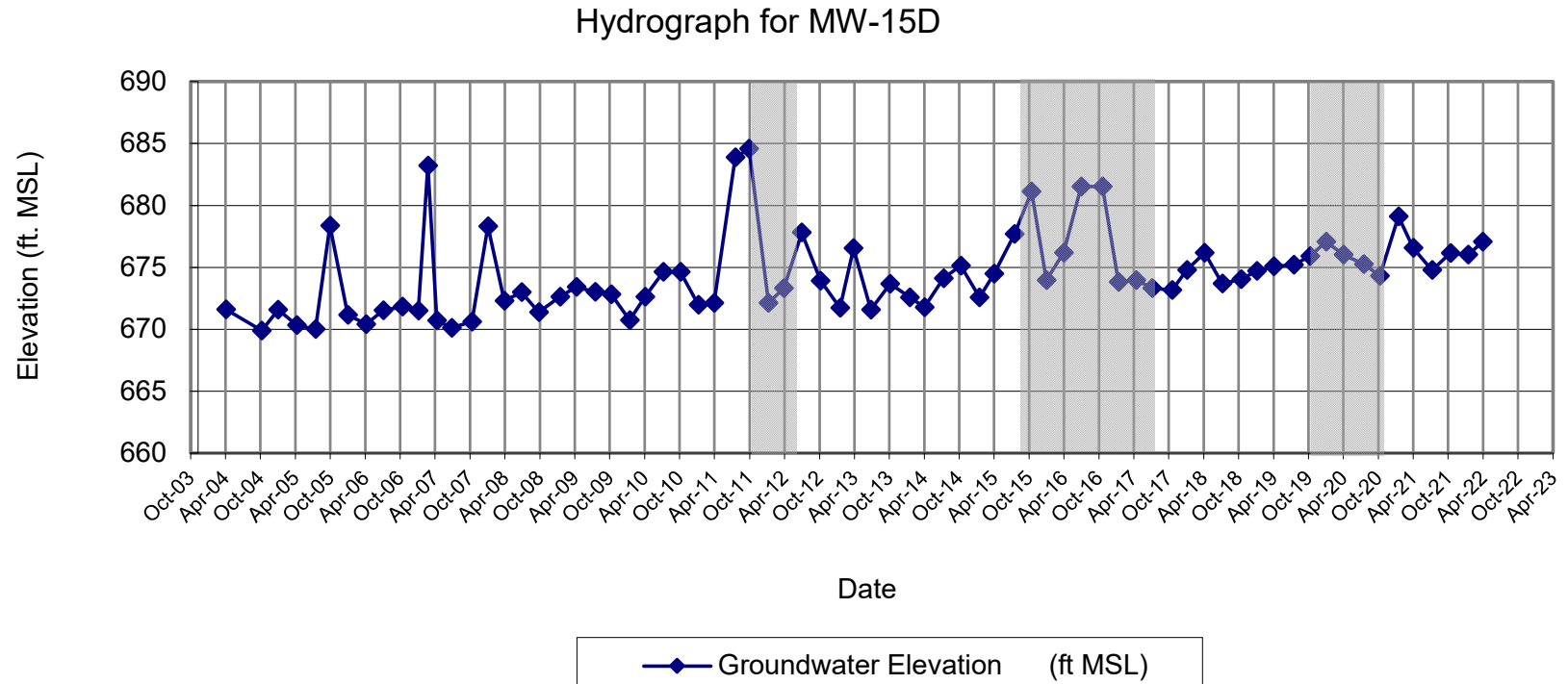
DPE system off line between June 2011 and November 2011 to accommodate the second phase of the chemical oxidation injection pilot test (note shading on graph).

DPE system off line between November 2014 and August 2016 to accommodate first and second phases of the ABC+ injection pilot test (note shading on graph).

DPE system off line between November 2018 and March 2020 to accommodate ABC+ OLE injection pilot test (note shading on graph).

DPE-3, -4, -6, -7, -8 off line beginning September 2021 to accommodate bioaugmentation injection.

MONITORING WELL MW-15D
SUMMARY OF GROUNDWATER ELEVATIONS
Former Scott Aviation Site - West of Plant 2
Lancaster, New York



MONITORING WELL MW-16S
SUMMARY OF GROUNDWATER ELEVATIONS
Former Scott Aviation Site - West of Plant 2
Lancaster, New York

Date	Depth to Water from TOC (ft)	Groundwater Elevation (ft) MSL
4/8/2004	5.09	680.75
10/12/2004	12.09	673.75
1/6/2005	4.75	681.09
4/14/2005	10.15	675.69
7/20/2005	14.56	671.28
10/4/2005	11.50	674.34
1/5/2006	11.41	674.43
4/11/2006	12.90	672.94
7/10/2006	11.54	674.30
10/18/2006	12.50	673.34
1/9/2007	13.82	672.02
2/28/2007	2.90	682.94
4/16/2007	13.07	672.77
7/2/2007	12.50	673.34
10/18/2007	15.23	670.61
1/8/2008	5.60	680.24
4/2/2008	12.40	673.44
7/1/2008	15.70	674.67
9/30/2008	19.34	671.03
1/19/2009	17.80	672.57
4/14/2009	18.22	672.15
7/21/2009	19.95	670.42
10/14/2009	17.77	672.60
1/18/2010	16.45	673.92
4/8/2010	18.60	671.77
7/12/2010	18.45	671.92
10/11/2010	13.51	676.86
4/7/2011	8.55	677.29
7/25/2011	1.45	684.39
10/3/2011	0.60	685.24
1/12/2012	3.80	682.04
4/2/2012	5.85	679.99
7/5/2012	9.12	676.72
10/11/2012	6.36	679.48
1/21/2013	7.85	677.99
4/1/2013	10.15	675.69
7/1/2013	9.18	676.66
10/9/2013	3.80	682.04
1/21/2014	9.55	676.29
4/7/2014	9.60	676.24
7/16/2014	9.05	676.79
10/14/2014	3.10	682.74
1/20/2015	6.90	678.94
4/6/2015	5.50	680.34
7/22/2015	10.14	678.05
10/19/2015	5.00	683.19
1/5/2016	7.05	681.14
4/4/2016	6.38	681.77
7/5/2016	5.23	682.92
10/24/2016	5.23	682.92
1/16/2017	8.25	679.90
4/18/2017	7.28	679.90
7/11/2017	10.36	677.79
10/23/2017	8.66	679.49
1/8/2018	6.29	681.86
4/11/2018	6.71	681.44
7/12/2018	8.99	679.16
10/19/2018	10.42	677.73
1/9/2019	6.86	681.29
4/8/2019	6.02	682.13
7/22/2019	6.91	681.24
10/14/2019	6.02	682.13
1/6/2020	5.51	682.64
4/6/2020	6.83	681.32
7/21/2020	6.14	682.01
10/12/2020	8.00	680.15
1/19/2021	6.89	681.26
4/6/2021	6.60	681.55
7/13/2021	6.90	681.25
10/18/2021	3.87	684.28
1/18/2022	5.42	682.73
4/4/2022	4.95	683.20

NOTES:

ft MSL - feet mean sea level

NA - Not Available

NM - Not Measured

TOC - top of PVC casing

TOC Elevation - 685.84

DPE and GWCT off line for repairs in February 2007.

DPE off line for repairs in January 2008.

DPE off line for repairs in October 2013.

TOC Elevation re-measured on June 13, 2008 at 690.37.

TOC Elevation re-measured on April 7, 2011 at 685.84.

TOC Elevation re-measured on June 1, 2015 at 688.19.

TOC Elevation re-measured on February 23, 2016 at 688.15.

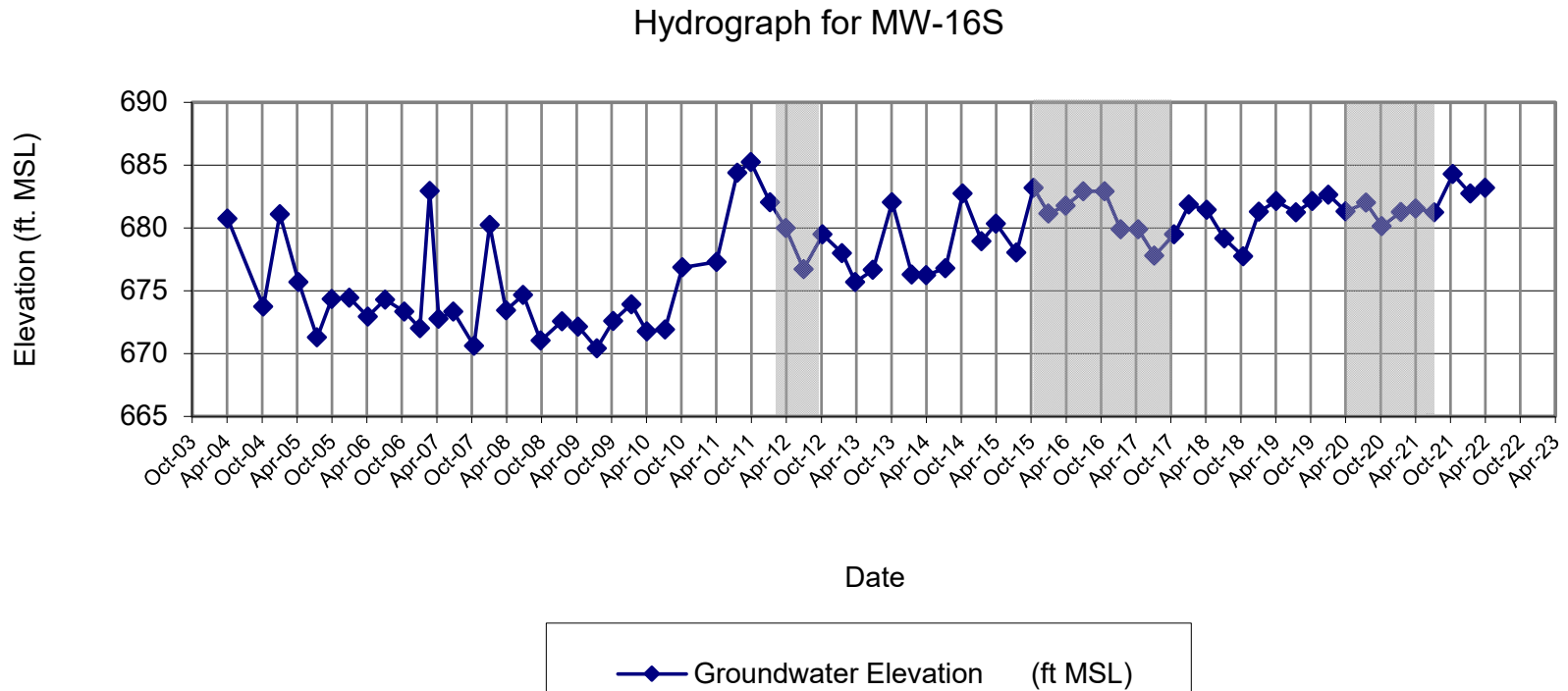
DPE system off line between June 2011 and November 2011 to accommodate the second phase of the chemical oxidation injection pilot test (note shading on graph).

DPE system off line between November 2014 and August 2016 to accommodate first and second phases of the ABC+ injection pilot test (note shading on graph).

DPE system off line between November 2018 and March 2020 to accommodate ABC+ OLE injection pilot test (note shading on graph).

DPE-3, -4, -6, -7, -8 off line beginning September 2021 to accommodate bioaugmentation injection.

MONITORING WELL MW-16S
SUMMARY OF GROUNDWATER ELEVATIONS
Former Scott Aviation Site - West of Plant 2
Lancaster, New York



MONITORING WELL MW-16D
SUMMARY OF GROUNDWATER ELEVATIONS
Former Scott Aviation Site - West of Plant 2
Lancaster, New York

Date	Depth to Water from TOC (ft)	Groundwater Elevation (ft) MSL
4/8/2004	13.62	672.39
10/12/2004	15.51	670.50
1/6/2005	13.70	672.31
4/14/2005	16.09	669.92
7/20/2005	16.65	669.36
10/4/2005	9.89	676.12
1/5/2006	17.21	668.80
4/11/2006	17.1	668.91
7/10/2006	10.61	675.4
10/18/2006	15.41	670.6
1/9/2007	15.6	670.41
2/28/2007	2.74	683.27
4/16/2007	16.35	669.66
7/2/2007	16.85	669.16
10/18/2007	17.17	668.84
1/8/2008	8.32	677.69
4/2/2008	13.44	672.57
7/1/2008	17.72	672.83
9/30/2008	19.29	671.26
1/19/2009	17.95	672.60
4/14/2009	17.21	673.34
7/21/2009	18.28	672.27
10/14/2009	17.60	672.95
1/18/2010	19.51	671.04
4/8/2010	17.19	673.36
7/12/2010	17.15	673.40
10/11/2010	18.63	671.92
4/7/2011	13.67	672.34
7/25/2011	2.46	683.55
10/3/2011	1.70	684.31
1/12/2012	13.55	672.46
4/2/2012	12.61	673.40
7/5/2012	8.90	677.11
10/11/2012	13.38	672.63
1/21/2013	15.44	670.57
4/1/2013	12.31	673.70
7/1/2013	16.25	669.76
10/9/2013	11.40	674.61
1/21/2014	13.35	672.66
4/7/2014	15.54	670.47
7/16/2014	11.73	674.28
10/14/2014	10.04	675.97
1/20/2015	12.31	673.70
4/6/2015	10.30	675.71
7/22/2015	9.80	678.59
10/19/2015	6.40	681.99
1/5/2016	13.00	675.39
4/4/2016	11.35	676.81
7/5/2016	6.49	681.67
10/24/2016	6.49	681.67
1/16/2017	14.28	673.88
4/18/2017	13.24	673.88
7/11/2017	14.25	673.91
10/23/2017	14.72	673.44
1/8/2018	12.38	675.78
4/11/2018	11.67	676.49
7/12/2018	14.20	673.96
10/19/2018	14.32	673.84
1/9/2019	12.82	675.34
4/8/2019	11.78	676.38
7/22/2019	12.13	676.03
10/14/2019	11.32	676.84
1/6/2020	10.29	677.87
4/6/2020	11.54	676.62
7/21/2020	11.96	676.20
10/12/2020	13.19	674.97
1/19/2021	8.96	679.20
4/6/2021	10.81	677.35
7/13/2021	12.10	676.06
10/18/2021	9.55	678.61
1/18/2022	11.33	676.83
4/4/2022	10.25	677.91

NOTES:

ft MSL - feet mean sea level

NA - Not Available

NM - Not Measured

TOC - top of PVC casing

TOC Elevation - 686.01

DPE and GWCT off line for repairs in February 2007.

DPE off line for repairs in January 2008.

DPE off line for repairs in October 2013.

TOC Elevation re-measured on June 13, 2008 at 690.55.

TOC Elevation re-measured on April 7, 2011 at 686.01.

TOC Elevation re-measured on June 1, 2015 at 688.39.

TOC Elevation re-measured on February 23, 2016 at 688.16.

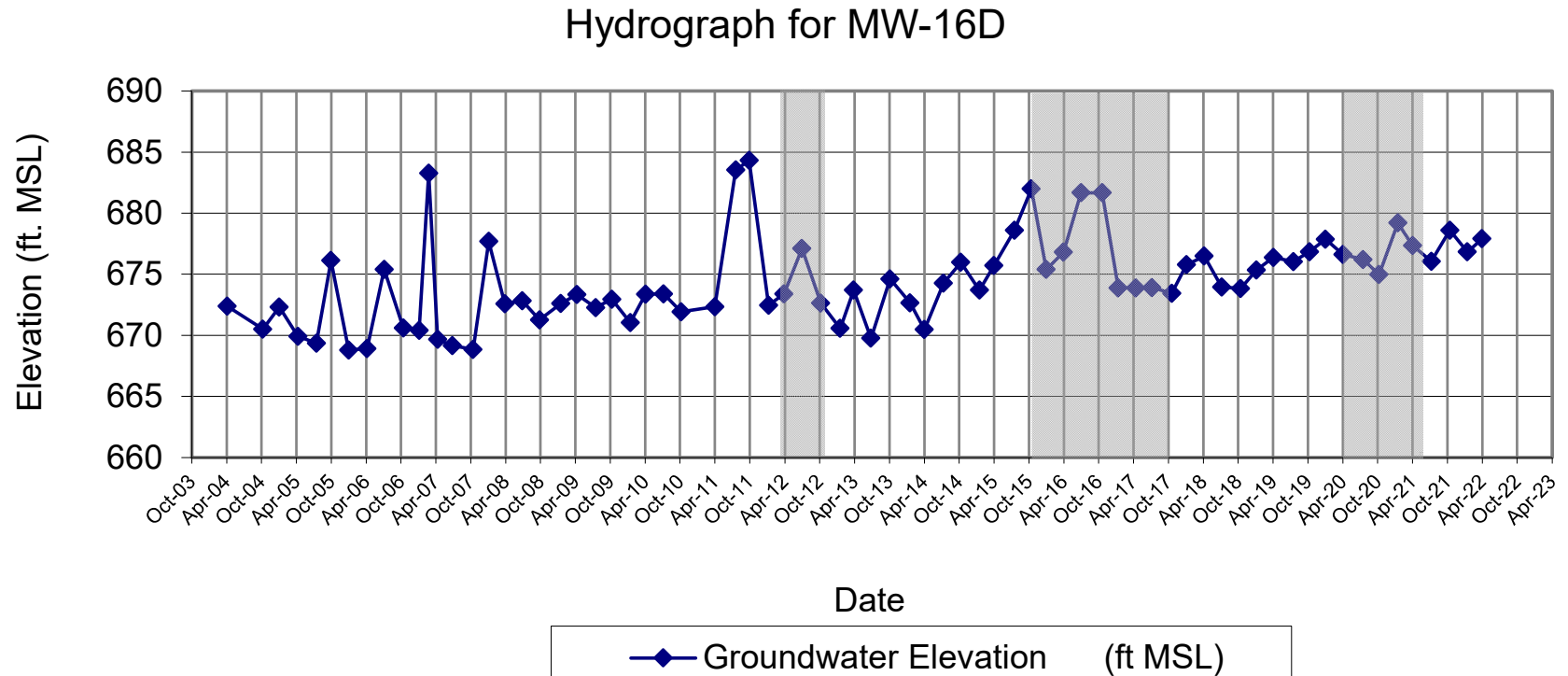
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DPE system off line between November 2018 and March 2020 to accommodate ABC+ OLE injection pilot test (note shading on graph).

DPE-3, -4, -6, -7, -8 off line beginning September 2021 to accommodate bioaugmentation injection.

MONITORING WELL MW-16D
SUMMARY OF GROUNDWATER ELEVATIONS
Former Scott Aviation Site - West of Plant 2
Lancaster, New York

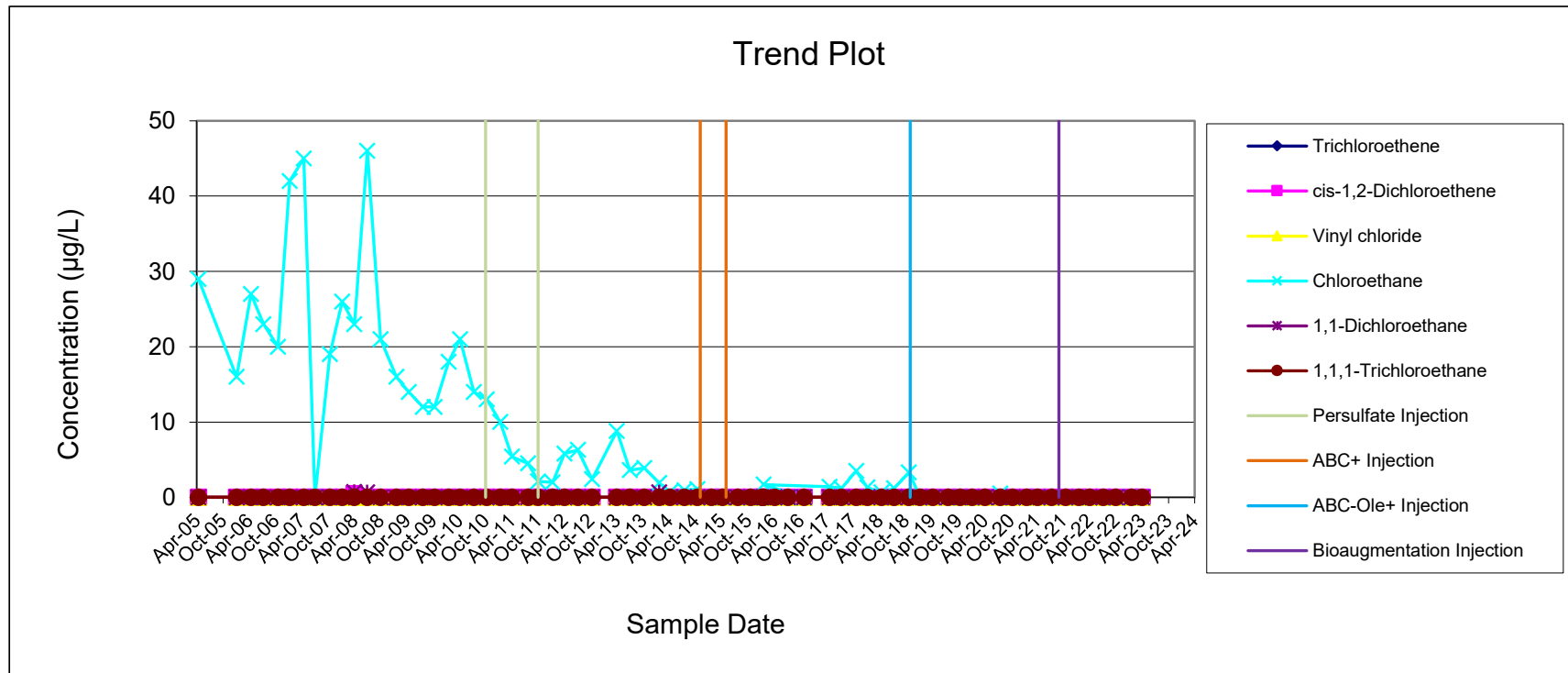


Appendix D Current and Historical Summary of VOCs in Groundwater

MONITORING WELL MW-2
HISTORICAL AND CURRENT SUMMARY OF CHLORINATED VOCs IN GROUNDWATER
Former Scott Aviation Site
Lancaster, New York

Sample Date	Analytical Results (µg/L)					
	Trichloroethene	cis-1,2-Dichloroethene	Vinyl chloride	Chloroethane	1,1-Dichloroethane	1,1,1-Trichloroethane
4/14/2005	< 10	< 10	< 10	29	< 10	<10
1/5/2006	< 25	< 25	< 25	16	< 25	< 25
4/14/2006	< 25	< 25	< 25	27	< 25	< 25
7/10/2006	< 25	< 25	< 25	23	< 25	< 25
10/19/2006	< 5	< 5	< 5	20	< 5	< 5
1/9/2007	< 5	< 5	< 5	42	< 5	< 5
4/16/2007	< 20	< 20	< 20	45	< 20	< 20
7/2/2007	< 5	< 5	< 5	< 5	< 5	< 5
10/15/2007	< 5	< 5	< 5	19	< 5	< 5
1/8/2008	< 5	< 5	< 5	26	< 5	< 5
4/2/2008	< 5	0.48	< 5	23	0.71	< 5
7/1/2008	< 5	< 5	< 5	46	0.65	< 5
10/1/2008	< 5	< 5	< 5	21	<5	< 5
1/20/2009	< 5	< 5	< 5	16	<5	< 5
4/15/2009	< 5	< 5	< 5	14	<5	< 5
7/22/2009	< 5	< 5	< 5	12	<5	< 5
10/12/2009	< 5	< 5	< 5	12	<5	< 5
1/18/2010	< 25	< 25	< 25	18	< 25	< 25
4/7/2010	< 25	< 25	< 25	21	< 25	< 25
7/12/2010	< 25	< 25	< 25	14	< 25	< 25
10/11/2010	< 25	< 25	< 25	13	< 25	< 25
1/12/2011	<1	<1	<1	10	<1	<1
4/4/2011	<1	<1	<1	5.4	<1	<1
7/25/2011	<1	<1	<1	4.5	<1	<1
10/3/2011	<1	<1	<1	2.1	<1	<1
1/11/2012	<1	<1	<1	2.0	<1	<1
4/2/2012	<1	<1	<1	5.8	<1	<1
7/5/2012	<1	<1	<1	6.3	<1	<1
10/11/2012	<1	<1	<1	2.4	<1	<1
4/1/2013	<1	<1	<1	8.8	<1	<1
7/1/2013	<1	<1	<1	3.6	<1	<1
10/9/2013	<1	<1	<1	3.9	<1	<1
1/21/2014	<1	<1	<1	1.9	0.67	<1
4/7/2014	<1	<1	<1	0.68	<1	<1
7/16/2014	<1	<1	<1	0.94	<1	<1
10/14/2014	<1	<1	<1	1.1	<1	<1
1/20/2015	<5	<5	<5	<5	<5	<5
4/7/2015	<5	<5	<5	<5	<5	<5
7/22/2015	<1	<1	<1	<1	<1	<1
10/19/2015	<1	<1	<1	<1	<1	<1
1/5/2016	<1	<1	<1	<1	<1	<1
4/4/2016	<1	<1	<1	<1	<1	<1
7/5/2016	<1	<1	<1	<1	<1	<1
10/24/2016	<1	<1	<1	<1	<1	<1
1/17/2016	<1	<1	<1	1.7	<1	<1
4/20/2017	<1	<1	<1	1.4	<1	<1
7/12/2017	<1	<1	<1	1.2	<1	<1
10/23/2017	<1	<1	<1	3.5	<1	<1
1/8/2018	<1	<1	<1	1.3	<1	<1
4/17/2018	<1	<1	<1	0.65	<1	<1
7/13/2018	<1	<1	<1	1.2	<1	<1
10/24/2018	<1	<1	<1	3.3	<1	<1
1/9/2019	<1	<1	<1	<1	<1	<1
4/8/2019	<1	<1	<1	<1	<1	<1
7/23/2019	<2	<2	<2	<2	<2	<2
10/15/2019	<1	<1	<1	<1	<1	<1
1/7/2020	<1	<1	<1	<1	<1	<1
4/6/2020	<1	<1	<1	<1	<1	<1
7/21/2020	<1	<1	<1	0.52	<1	<1
10/14/2020	<2	<2	<2	<2	<2	<2
1/19/2021	<1	<1	<1	<1	<1	<1
4/6/2021	<1	<1	<1	<1	<1	<1
7/13/2021	<2	<2	<2	<2	<2	<2
10/18/2021	<2	<2	<2	<2	<2	<2
1/19/2022	<2	<2	<2	<2	<2	<2
4/4/2022	<1	<1	<1	<1	<1	<1
7/7/2022	<2	<2	<2	<2	<2	<2
10/3/2022	<2	<2	<2	<2	<2	<2
1/18/2023	<2	<2	<2	<2	<2	<2
4/3/2023	<2	<2	<2	<2	<2	<2

MONITORING WELL MW-2
HISTORICAL AND CURRENT SUMMARY OF CHLORINATED VOCs IN GROUNDWATER
Former Scott Aviation Site
Lancaster, New York

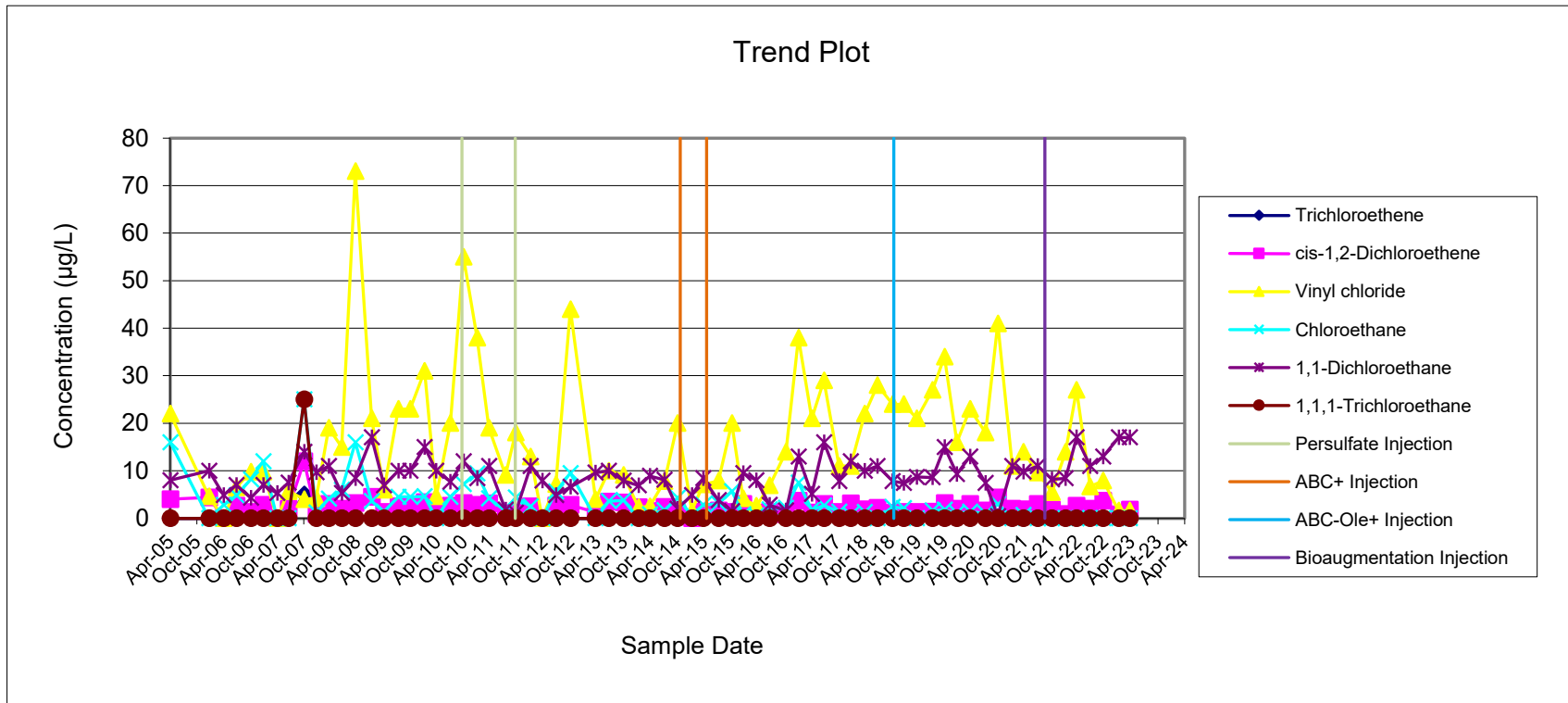


Note TCE data from 10/11/10 was reported in error as 350 µg/L and cis-1,2-DCE was reported as 25 µg/L.

MONITORING WELL MW-3
HISTORICAL AND CURRENT SUMMARY OF CHLORINATED VOCs IN GROUNDWATER
Former Scott Aviation Site
Lancaster, New York

Sample Date	Analytical Results (µg/L)					
	Trichloroethene	cis-1,2-Dichloroethene	Vinyl chloride	Chloroethane	1,1-Dichloroethane	1,1,1-Trichloroethane
4/14/2005	< 10	4.0	22	16	8.0	<10
1/5/2006	< 25	4.4	4.6	< 25	10	< 25
4/14/2006	< 25	< 25	< 25	2.8	4.9	< 25
7/10/2006	< 25	2.6	6.5	4.8	7.0	< 25
10/18/2006	< 5	1.3	9.8	8.2	4.3	< 5
1/10/2007	< 5	2.8	9.8	12	7.0	< 5
4/16/2007	< 20	< 20	< 20	< 20	5.3	< 20
7/2/2007	< 5	2.0	5.7	< 5	7.5	< 5
10/17/2007	5.0	12	4.0	25	14	25
1/9/2008	< 5	0.9	4.2	1.2	9.7	<5
4/3/2008	<5	3.0	19	4.1	11	<5
7/1/2008	<5	2.0	15	6.0	5.3	<5
10/1/2008	<5	3.2	73	16	8.4	<5
1/21/2009	<5	4.5	21	3.6	17	<5
4/15/2009	<5	1.3	6.0	1.4	6.9	<5
7/22/2009	<5	2.5	23	4.5	10	<5
10/12/2009	<5	2.5	23	4.5	10	<5
1/18/2010	<5	3.4	31	4.6	15	<5
4/7/2010	<5	1.7	4.6	<5	10	<5
7/13/2010	<5	2.6	20	4.5	7.7	<5
10/11/2010	<5	3.2	55	7.2	12	<5
1/12/2011	<1	2.8	38	9.4	8.4	<1
4/4/2011	<1	3.1	19	4.2	11	<1
7/26/2011	<1	0.98	9.1	1.5	1.8	<1
10/3/2011	<1	1.1	18	4.4	1.2	<1
1/13/2012	<1	2.5	13	2.5	11	<1
4/2/2012	<1	<1	<1	<1	7.9	<1
7/5/2012	<1	2.7	7.2	5.6	4.9	<1
10/11/2012	<1	2.8	44	9.5	6.6	<1
4/1/2013	<1	1.3	4.0	<1	9.6	<1
7/1/2013	<1	3.5	10	3.6	10	<1
10/10/2013	<1	3.3	9.1	3.8	7.9	<1
1/21/2014	<1	2.3	2.3	<1	6.9	<1
4/7/2014	<1	1.5	2.5	0.82	8.9	<1
7/17/2014	<1	2.4	7.8	1.7	8.1	<1
10/14/2014	<1	0.93	20	4.3	2.0	<1
1/20/2015	<1	<1	1.5	0.64	4.9	<1
4/7/2015	<1	1.4	7.1	2.8	8.4	<1
7/22/2015	<1	1.6	7.9	3.1	3.8	<1
10/21/2015	<1	1.3	20	5.7	1.5	<1
1/6/2016	<1	3.0	4.2	0.83	9.5	<1
4/5/2016	<1	0.98	2.6	0.58	8	<1
7/5/2016	<1	1.3	6.9	1.9	2.8	<1
10/25/2016	<1	0.81	14	2.2	1.6	<1
1/19/2017	<1	3.7	38	7.5	13	<1
4/20/2017	<1	1.2	21	1.8	5.1	<1
7/12/2017	<1	3.0	29	2.7	16	<1
10/23/2017	<1	1.3	11	1.4	7.8	<1
1/10/2018	<1	3.1	11	0.72	12	<1
4/17/2018	<1	1.9	22	1.3	10	<1
7/13/2018	<1	2.2	28	<1	11	<1
10/24/2018	<1	1.1	24	2.4	7.8	<1
1/9/2019	<1	1.3	24	2.1	7.4	<1
4/8/2019	<1	1.3	21	<1	8.7	<1
7/24/2019	<1	1.4	27	1.6	8.6	<1
10/15/2019	<1	3.2	34	1.8	15	<1
1/7/2020	<1	2.0	16	1.1	9.3	<1
4/6/2020	<1	3.0	23	1.4	13	<1
7/21/2020	<1	1.6	18	1.0	7.4	<1
10/13/2020	<1	4.4	41	3.0	0.47	<1
1/19/2021	<1	2.0	11	<1	11	<1
4/6/2021	<1	1.9	14	0.70	9.8	<1
7/13/2021	<1	3.0	9.6	<1	11	<1
10/18/2021	<1	1.8	5.5	<1	8.2	<1
1/19/2022	<1	0.86	14	<1	8.4	<1
4/4/2022	<1	2.6	27	<1	17	<1
7/7/2022	<1	2.0	6.7	<1	11	<1
10/3/2022	<1	3.7	7.9	<1	13	<1
1/18/2023	<1	0.82	1.6	<1	17	<1
4/3/2023	<1	1.8	1.6	<1	17	<1

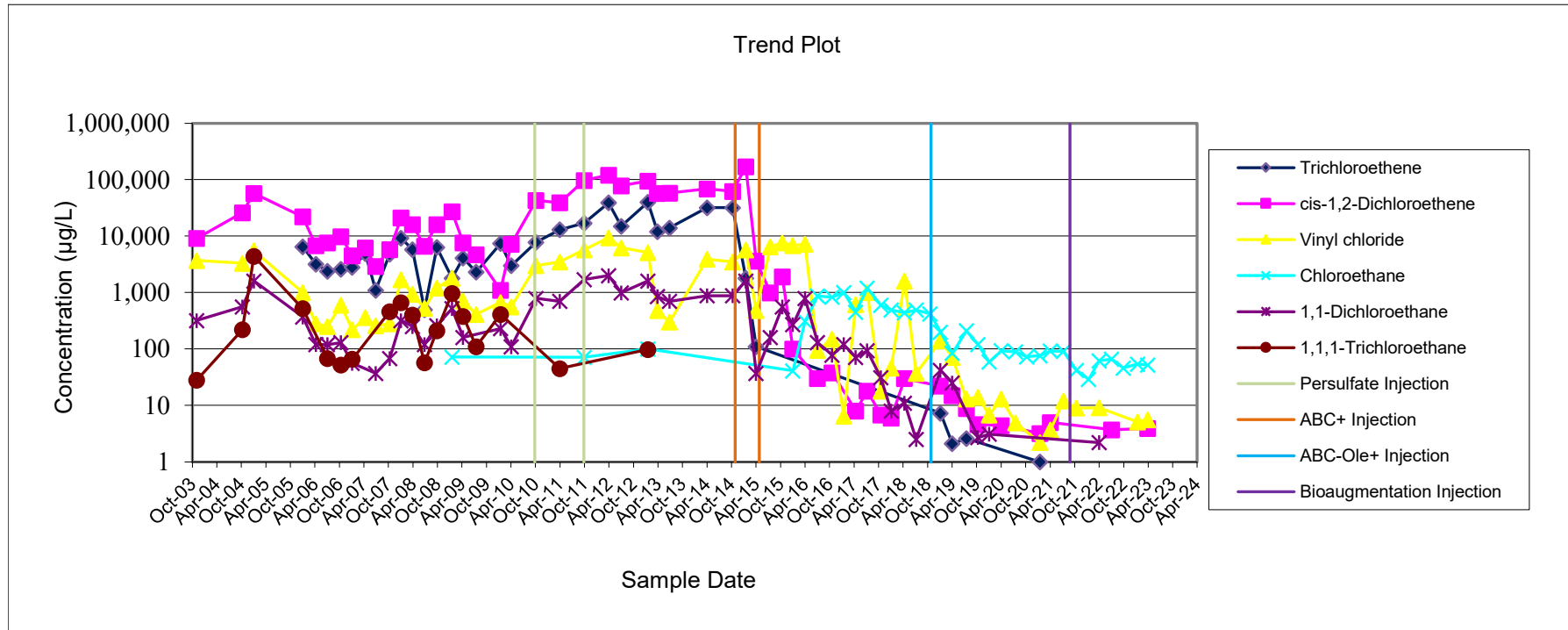
MONITORING WELL MW-3
HISTORICAL AND CURRENT SUMMARY OF CHLORINATED VOCs IN GROUNDWATER
Former Scott Aviation Site
Lancaster, New York



MONITORING WELL MW-4
HISTORICAL AND CURRENT SUMMARY OF CHLORINATED VOCs IN GROUNDWATER
Former Scott Aviation Site
Lancaster, New York

Sample Date	Analytical Results (µg/L)					
	Trichloroethene	cis-1,2-Dichloroethene	Vinyl chloride	Chloroethane	1,1-Dichloroethane	1,1,1-Trichloroethane
11/7/2003	270	9,100	3,700	< 10	320	28
10/13/2004	8,100	26,000	3,300	< 1000	560	220
1/7/2005	20,000	57,000	5,500	< 2000	1,600	4,400
1/6/2006	6,500	22,000	1,000	< 2000	370	520
4/14/2006	3,200	6,800	280	<500	120	<500
7/10/2006	2,400	7,600	250	<500	120	68
10/18/2006	2,600	9,800	600	<5	130	52
1/10/2007	2,800	4,500	220	<400	56	66
4/17/2007	4,900	6,200	360	<500	<500	<500
7/3/2007	1,100	2,900	260	<200	37	<200
10/17/2007	4,800	5,800	280	<500	68	460
1/9/2008	9,200	21,000	1,700	<500	320	660
4/3/2008	5,800	16,000	940	<1200	250	400
7/2/2008	500	6,600	530	<500	120	57
10/2/2008	6,300	16,000	1,200	<500	260	210
1/22/2009	1,800	27,000	1,800	72	520	970
4/15/2009	4,100	7,600	710	<200	160	380
7/22/2009	2,300	4,700	410	<250	<250	110
1/19/2010	7,400	1,100	670	<1000	230	410
4/8/2010	3,000	7,200	560	<500	110	<500
10/11/2010	7,800	43,000	3,000	<4,000	790	<4,000
4/6/2011	13,000	39,000	3,500	<40	700	45
10/4/2011	17,000	97,000	5,700	71	1700	<1
4/3/2012	39,000	120,000	9,400	<200	2000	<200
7/6/2012	15,000	78,000	6,200	<1000	990	<1000
1/21/2013	40,000	95,000	5,100	100	1600	98
4/2/2013	12,000	57,000	480	<40	850	<40
7/1/2013	14,000	58,000	300	<100	700	<100
4/7/2014	32,000	69,000	3,900	<1000	880	<1000
10/14/2014	32,000	62,000	3,500	<1000	880	<1000
1/21/2015	1,800	170,000	5,700	<1,000	1,600	<1000
4/7/2015	110	3,600	480	<80	37	<80
7/23/2015	<100	990	6,500	<100	160	<100
10/20/2015	<100	1,900	7,600	<100	560	<100
1/6/2016	<100	100	6,800	41	270	<100
4/6/2016	<100	<100	7,200	310	790	<100
7/8/2016	<20	30	95	870	130	<20
10/25/2016	<20	38	150	830	78	<20
1/19/2017	<20	<20	6.5	1,000	120	<20
4/18/2017	<5	8.0	610	450	71	<5
7/13/2017	<20	18	1,000	1,200	93	<20
10/23/2017	<20	6.8	18	600	31	<20
1/8/2018	<5	6.0	46	490	8.0	<5
4/17/2018	<20	30	1,600	440	11	<20
7/13/2018	<5	<5	37	490	2.5	<5
10/24/2018	<20	<20	<20	420	<20	<20
1/10/2019	7.3	22	140	200	42	<4
4/8/2019	2.1	15	71	84	25	<4
7/22/2019	2.6	8.8	13	210	<4	<4
10/17/2019	<4	4.6	14	120	2.7	<4
1/8/2020	<4	<4	6.8	59	3.1	<4
4/8/2020	<4	4.4	13	93	<4	<4
7/23/2020	<4	<4	4.9	89	<4	<4
10/14/2020	<4	<4	<4	73	<4	<4
1/20/2021	1.0	3.2	2.2	76	<1	<1
4/8/2021	<4	5.0	3.7	92	<4	<4
7/15/2021	<4	<4	12	91	<4	<4
10/19/2021	<4	<4	9.0	42	<4	<4
1/18/2022	<4	<4	<4	29	<4	<4
4/6/2022	<4	<4	9.1	62	2.2	<4
7/8/2022	<4	3.7	<4	66	<4	<4
10/3/2022	<4	<4	<4	46	<4	<4
1/18/2023	<4	<4	5.1	54	<4	<4
4/4/2023	<4	3.9	5.6	52	<4	<4

MONITORING WELL MW-4
HISTORICAL AND CURRENT SUMMARY OF CHLORINATED VOCs IN GROUNDWATER
Former Scott Aviation Site
Lancaster, New York



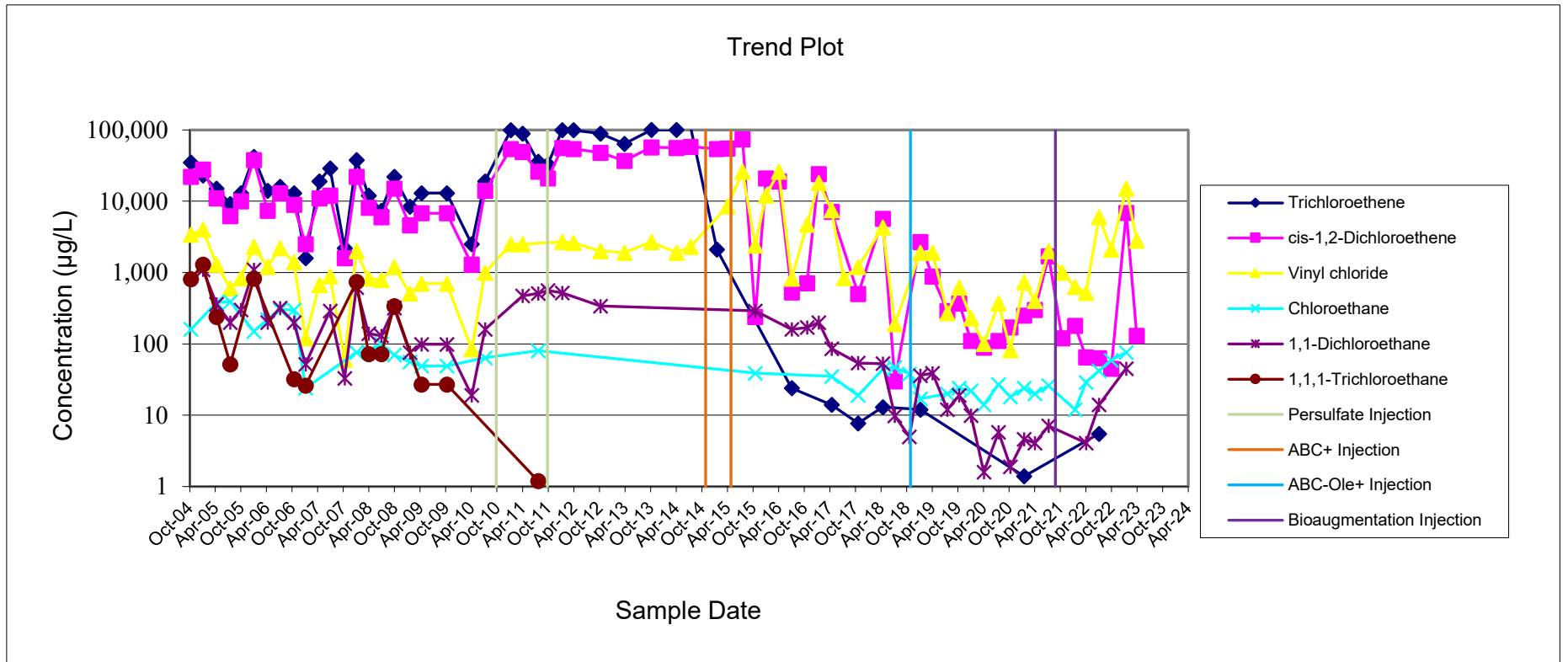
Note: LNAPL was present in MW-4 during the October 2004 and January 2005 groundwater sampling events.

MONITORING WELL MW-8R
HISTORICAL AND CURRENT SUMMARY OF CHLORINATED VOCs IN GROUNDWATER
Former Scott Aviation Site
Lancaster, New York

Sample Date	Analytical Results (µg/L)					
	Trichloroethene	cis-1,2-Dichloroethene	Vinyl chloride	Chloroethane	1,1-Dichloroethane	1,1,1-Trichloroethane
10/13/2004	35,000	22,000	3,400	160	< 5,000	810
1/7/2005	23,000	28,000	4,000	< 2,000	1,100	1,300
4/14/2005	15,000	11,000	1,300	380	360	240
7/21/2005	9,200	6,200	600	390	200	52
10/5/2005	13,000	10,000	830	< 1,000	300	<1,000
1/6/2006	42,000	38,000	2,300	150	1100	820
4/14/2006	14,000	7,400	1,200	220	200	< 1,000
7/10/2006	16,000	13,000	2,200	300	320	< 1,000
10/18/2006	13,000	8,900	1,400	300	200	32
1/10/2007	1,600	2,500	120	24	52	26
4/17/2007	19,000	11,000	670	< 1,000	< 1,000	< 1,000
7/3/2007	29,000	12,000	890	< 1,000	290	< 1,000
10/15/2007	2,200	1,600	60	< 200	33	< 200
1/8/2008	38,000	22,000	2,000	76	620	740
4/3/2008	12,000	8,100	820	77	140	72
7/2/2008	7,400	6,000	790	100	130	72
10/2/2008	22,000	15,000	1,200	70	320	340
1/22/2009	8,400	4,600	510	56	76	<100
4/15/2009	13,000	6,800	700	49	99	27
10/13/2009	13,000	6,800	700	49	99	27
4/8/2010	2,500	1,300	84	<100	19	<100
7/12/2010	19,000	14,000	1,000	64	160	<100
1/12/2011	99,000	54,000	2,500	<2000	<2000	<2000
4/6/2011	89,000	49,000	2,500	<800	470	<800
7/26/2011	36,000	26,000	<800	80	510	1.2
10/4/2011	33,000	21,000	<400	<400	560	<400
1/13/2012	99,000	56,000	2,700	<800	520	<800
4/3/2012	99,000	54,000	2,600	<2000	<2000	<2000
10/12/2012	89,000	48,000	2,000	<800	340	<800
4/2/2013	64,000	37,000	1,900	<1000	<1000	<1000
10/10/2013	100,000	57,000	2,700	<1000	<1000	<1000
4/7/2014	100,000	56,000	1,900	<1000	<1000	<1000
7/17/2014	110,000	58,000	2,300	<1000	<1000	<1000
1/21/2015	2,100	54,000	<2000	<2000	<2000	<2000
4/6/2015	<2000	55,000	8,500	<2000	<2000	<2000
7/23/2015	<200	74,000	26,000	<200	<200	<200
10/21/2015	<25	240	2,400	39	290	<25
1/6/2016	<1,000	21,000	12,000	<1,000	<1,000	<1,000
4/6/2016	<1,000	19,000	26,000	<1,000	<1,000	<1,000
7/8/2016	24	530	820	<20	160	<20
10/25/2016	<100	710	4,700	<100	170	<100
1/17/2017	<100	24,000	18,000	<100	200	<100
4/18/2017	14	7,100	7,500	35	86	<50
7/13/2017	<400	<400	840	<400	<400	<400
10/24/2017	7.7	500	1,200	19	54	<10
4/18/2018	13	5,700	4,300	44	53	<20
7/13/2018	<10	30	190	47	9.8	<10
10/24/2018	<10	<10	<10	38	5.0	<10
1/10/2019	12	2,700	1,900	17	36	<10
4/8/2019	<40	880	1,900	<40	39	<40
7/22/2019	<8	290	270	20	12	<8
10/15/2019	<10	370	620	24	19	<10
1/8/2020	<10	110	230	22	9.9	<10
4/8/2020	<2	89	100	14	1.6	<2
7/22/2020	<2	110	370	27	5.8	<2
10/14/2020	<2	170	82	18	1.9	<2
1/20/2021	1.4	250	730	24	4.6	<1
4/7/2021	<10	300	400	20	4.1	<10
7/14/2021	<8	1,700	2,000	26	7.1	<8
10/19/2021	<25	120	1,000	<25	<25	<25
1/18/2022	<25	180	630	12	<25	<25
4/6/2022	<8	65	520	29	4.1	<8
7/8/2022	5.5	63	6,000	42	14.0	<8
10/3/2022	<40	45	2,100	59	<40	<40
1/18/2023	<40	6,900	15,000	76	45.0	<40
4/4/2023	<40	130	2,800	<40	<40	<40

Note well was not accessible during the January 2018 sampling event.

MONITORING WELL MW-8R
HISTORICAL AND CURRENT SUMMARY OF CHLORINATED VOCs IN GROUNDWATER
Former Scott Aviation Site
Lancaster, New York



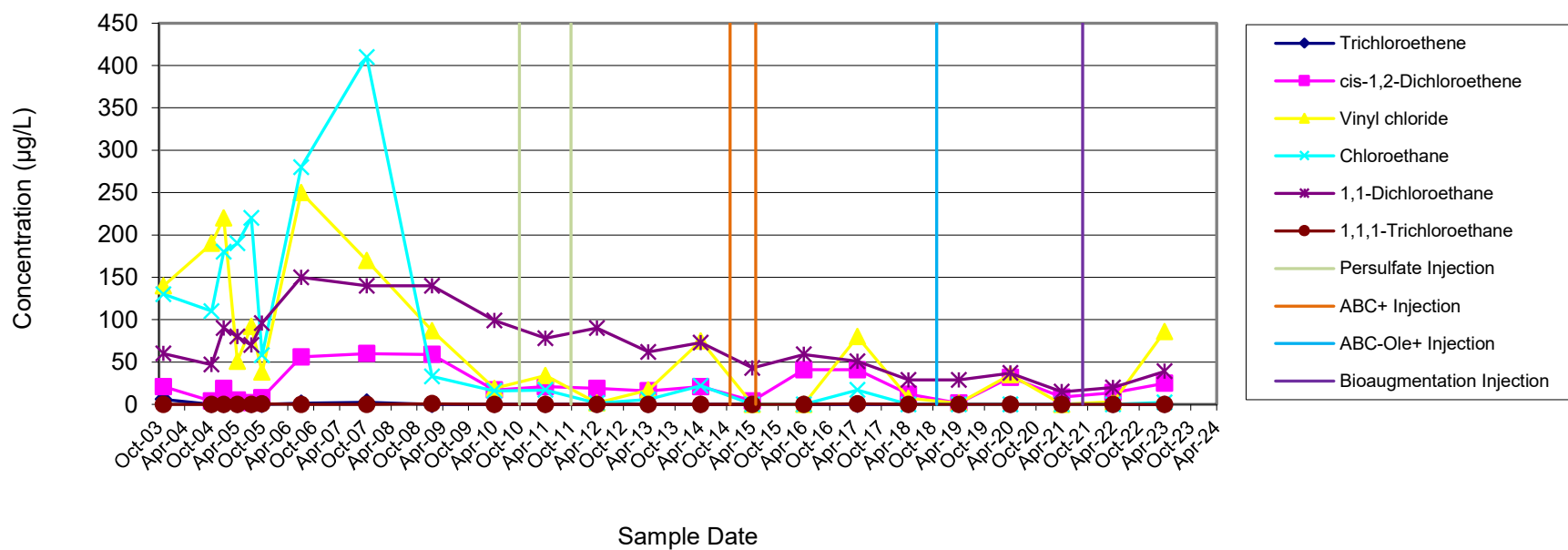
Note: LNAPL was present in MW-4 during the October 2004 and January 2005 groundwater sampling events.

MONITORING WELL MW-9
HISTORICAL AND CURRENT SUMMARY OF CHLORINATED VOCs IN GROUNDWATER
Former Scott Aviation Site
Lancaster, New York

Sample Date	Analytical Results (µg/L)					
	Trichloroethene	cis-1,2-Dichloroethene	Vinyl chloride	Chloroethane	1,1-Dichloroethane	1,1,1-Trichloroethane
11/7/2003	6	21	140	130	60	< 10
10/13/2004	< 10	4.0	190	110	47	< 10
1/6/2005	< 10	19	220	180	90	< 10
4/14/2005	< 10	5.0	51	190	80	< 10
7/21/2005	< 5	2.0	92	220	70	< 5
10/5/2005	< 5	8.0	38	58	96	0.68
7/10/2006	1.3	56	250	280	150	< 5
10/17/2007	2.6	60	170	410	140	< 25
1/21/2009	<5	59	87	33	140	0.81
4/7/2010	<5	17	19	16	99	< 5
4/4/2011	<1	21	34	17	78	<1
4/2/2012	<1	19	1.8	1.5	90	<1
4/1/2013	<1	16	17	5.9	62	<1
4/7/2014	<1	21	75	22	73	<1
4/7/2015	<1	4.1	<1	<1	43	<1
4/5/2016	<1	41	<1	<1	59	<1
4/20/2017	<1	41	80	17	51	0.6
4/17/2018	<1	12	7.2	<1	29	<1
4/8/2019	<1	1.6	1.6	<1	29	<1
4/7/2020	<1	32	35	<1	37	<1
4/6/2021	<1	8.7	<1	<1	15	<1
4/4/2022	<1	14	3.2	<1	20	<1
4/3/2023	<1	25	86	2.4	39	<1

MONITORING WELL MW-9
HISTORICAL AND CURRENT SUMMARY OF CHLORINATED VOCs IN GROUNDWATER
Former Scott Aviation Site
Lancaster, New York

Trend Plot

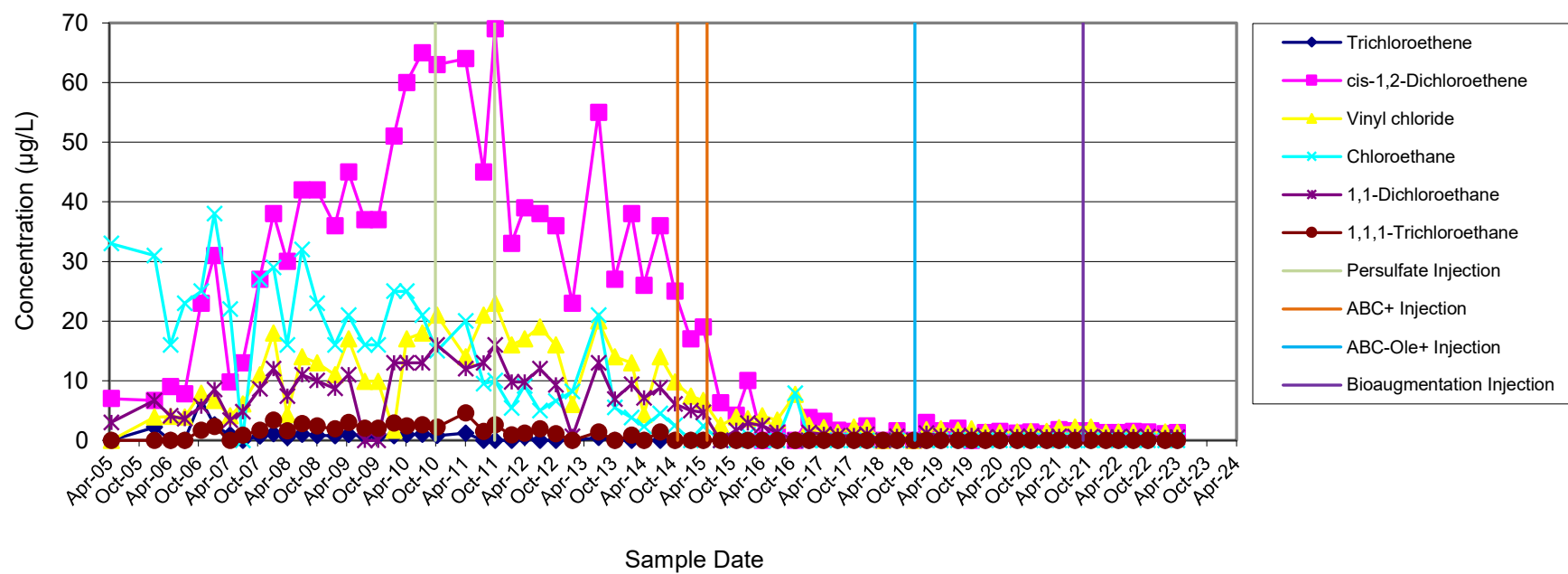


MONITORING WELL MW-11
HISTORICAL AND CURRENT SUMMARY OF CHLORINATED VOCs IN GROUNDWATER
Former Scott Aviation Site
Lancaster, New York

Sample Date	Analytical Results (µg/L)					
	Trichloroethene	cis-1,2-Dichloroethene	Vinyl chloride	Chloroethane	1,1-Dichloroethane	1,1,1-Trichloroethane
4/14/2005	< 10	7.0	< 10	33	3.0	< 10
1/5/2006	2.2	6.7	3.9	31	6.7	<20
4/14/2006	< 20	9.0	4.0	16	4.1	< 20
7/10/2006	< 20	7.8	3.9	23	3.6	< 20
10/19/2006	6.8	23	7.9	25	5.7	1.7
1/9/2007	2.6	31	6.7	38	8.5	2.3
4/16/2007	0.89	9.8	4.1	22	3.4	<5
7/2/2007	< 5	13	6.1	< 5	4.8	0.84
10/16/2007	0.71	27	11	27	8.6	1.7
1/8/2008	1.1	38	18	29	12	3.4
4/2/2008	0.49	30	4.3	16	7.4	1.6
7/1/2008	1.0	42	14	32	11	2.8
10/2/2008	0.81	42	13	23	10	2.4
1/20/2009	0.77	36	11	16	8.7	1.9
4/14/2009	0.95	45	17	21	11	3.0
7/22/2009	0.69	37	9.9	16	<5	2.0
10/13/2009	0.69	37	9.9	16	<5	2.0
1/18/2010	0.77	51	1.7	25	13	2.9
4/7/2010	0.95	60	17	25	13	2.4
7/12/2010	1.0	65	18	21	13	2.6
10/11/2010	0.8	63	21	15	16	2.2
4/5/2011	1.2	64	14	20	12	4.6
7/25/2011	<1	45	21	9.5	13	1.5
10/3/2011	<1	69	23	10	16	2.6
1/12/2012	<1	33	16	5.4	9.8	0.88
4/2/2012	0.51	39	17	9.1	9.8	1.2
7/5/2012	<1	38	19	5.0	12	1.9
10/11/2012	<1	36	16	6.6	9.3	1.1
1/21/2013	<1	23	6.0	8.2	0.64	<1
7/1/2013	0.46	55	20	21	13	1.4
10/9/2013	<1	27	14	5.5	6.9	<1
1/21/2014	<1	38	13	3.8	9.4	0.85
4/7/2014	<1	26	4.3	2.3	7.1	<1
7/16/2014	<1	36	14	4.5	8.8	1.4
10/14/2014	<1	25	9.8	2.5	6.1	<1
1/20/2015	<5	17	7.4	<5	5.0	<5
4/6/2015	<2	19	6.7	2.4	4.7	<2
7/22/2015	<1	6.3	2.5	<1	<1	<1
10/26/2015	<1	4.2	3.9	<1	1.7	<1
1/6/2016	<1	10	3.6	0.89	2.9	<1
4/4/2016	<1	<1	4.1	<1	2.5	<1
7/5/2016	<1	1.3	3.4	<1	1.3	<1
10/24/2016	<1	<1	7.7	7.9	<1	<1
1/17/2017	<1	3.8	2.5	<1	1.3	<1
4/18/2017	<1	3.2	2.1	<1	1.0	<1
7/12/2017	<1	1.7	1.3	<1	0.78	<1
10/20/2017	<1	1.5	2.2	<1	0.79	<1
1/8/2018	<1	2.4	2.1	<1	0.99	<1
4/18/2018	<2	<2	<2	<2	<2	<2
7/12/2018	<1	1.6	1.6	<1	0.68	<1
10/24/2018	<4	<4	<4	<4	<4	<4
1/9/2019	<1	3.0	1.8	<1	1.2	<1
4/8/2019	<1	1.6	1.9	<1	0.75	<1
7/23/2019	<1	2.0	1.7	<1	0.68	<1
10/15/2019	<1	<1	1.9	<1	0.82	<1
1/7/2020	<1	1.3	1.4	<1	0.54	<1
4/6/2020	<1	1.5	1.3	<1	0.54	<1
7/21/2020	<1	1.2	1.4	<1	0.59	<1
10/13/2020	<1	1.4	1.5	<1	0.64	<1
1/19/2021	<1	1.1	1.5	<1	0.58	<1
4/6/2021	<1	1.8	2.1	<1	0.66	<1
7/13/2021	<1	1.6	2.2	<1	0.61	<1
10/18/2021	<1	1.6	2.2	<1	0.61	<1
1/19/2022	<1	1.3	1.3	<1	0.54	<1
4/5/2022	<1	1.3	1.4	<1	0.52	<1
7/7/2022	<1	1.5	1.3	<1	0.59	<1
10/3/2022	<1	1.4	1.1	<1	0.61	<1
1/18/2023	<1	1.1	1.4	<1	0.46	<1
4/4/2023	<1	1.3	1.3	<1	0.52	<1

MONITORING WELL MW-11
HISTORICAL AND CURRENT SUMMARY OF CHLORINATED VOCs IN GROUNDWATER
Former Scott Aviation Site
Lancaster, New York

Trend Plot



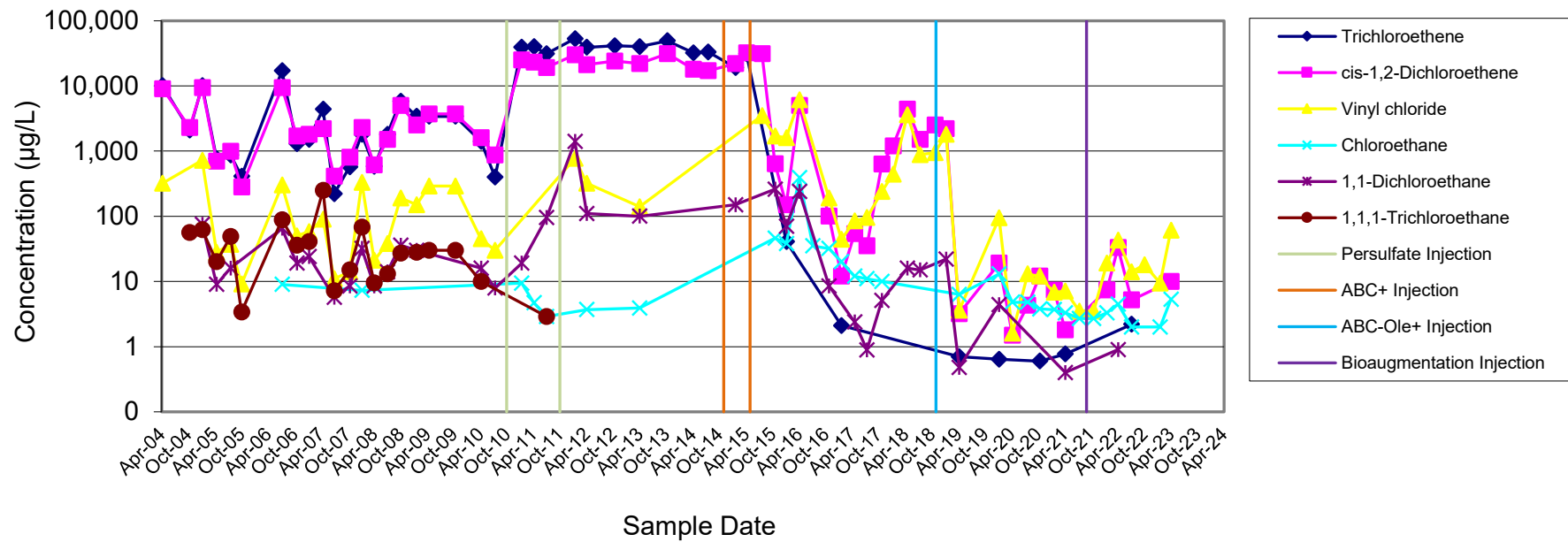
PIEZOMETER MW-13S
HISTORICAL AND CURRENT SUMMARY OF CHLORINATED VOCs IN GROUNDWATER
Former Scott Aviation Site
Lancaster, New York

Sample Date	Analytical Results (µg/L)					
	Trichloroethene	cis-1,2-Dichloroethene	Vinyl chloride	Chloroethane	1,1-Dichloroethane	1,1,1-Trichloroethane
4/8/2004	10,000	9,000	320	< 100	< 100	< 100
10/12/2004	2,100	2,300	< 200	< 200	< 200	56
1/6/2005	10,000	9,400	720	< 200	75	62
4/15/2005	760	700	28	< 50	9.0	20
7/20/2005	870	990	37	< 40	16	49
10/4/2005	410	280	9.1	< 40	< 40	3.4
7/10/2006	17,000	9,400	300	9.0	65	88
10/19/2006	1,300	1,700	50	<100	19	36
1/10/2007	1,500	1,800	58	<100	24	41
4/17/2007	4,400	2,200	90	< 250	< 250	250
7/3/2007	220	410	11	< 25	5.7	7.2
10/18/2007	570	800	14	< 25	8.5	15
1/9/2008	1800	2300	330	7.3	32	68
4/3/2008	580	610	21	<50	8.5	9.5
7/2/2008	1,800	1,500	38	<120	14	13
10/2/2008	5,800	5,000	190	<120	36	27
1/20/2009	3,400	2,500	150	<10	30	28
4/15/2009	3,400	3,700	290	<40	<40	30
10/13/2009	3,400	3,700	290	<40	<40	30
4/7/2010	1,400	1,600	45	<50	16	10
7/13/2010	400	870	30	<50	7.9	<50
1/12/2011	39,000	25,000	<500	9.4	19	<1
4/6/2011	40,000	23,000	<800	4.7	<800	<800
7/2/2011	31,000	19,000	<800	2.9	95	2.9
1/13/2012	53,000	30,000	770	<800	1400	<800
4/3/2012	39,000	21,000	320	3.7	110	<1
10/12/2012	41,000	24,000	<800	<800	<800	<800
4/2/2013	40,000	22,000	140	3.9	100	<1
10/10/2013	49,000	31,000	<1	<1	<1	<1
4/7/2014	32,000	18,000	<500	<500	<500	<500
7/17/2014	33,000	17,000	<500	<500	<500	<500
1/21/2015	19,000	22,000	<500	<500	150	<500
4/7/2015	31,000	32,000	<500	<500	<500	<500
7/23/2015	<500	31,000	3,500	<500	<500	<500
10/20/2015	<10	640	1,700	46	260	<10
1/6/2016	41	150	1,600	38	70	<25
4/5/2016	<100	5,000	6,100	390	240	<100
7/6/2016	<4	<4	<4	35	<4	<4
10/25/2016	<2	100	190	32	8.5	<2
1/19/2017	2.1	12	44	20	<2	<2
4/19/2017	<1	54	85	12	2.4	<1
7/13/2017	<2	35	95	11	0.89	<2
10/24/2017	<5	630	240	10	5.1	<5
1/9/2018	<40	1,200	440	<40	<40	<40
4/17/2018	<40	4,400	3,600	<40	16	<40
7/13/2018	<40	1,500	880	<40	15	<40
10/24/2018	<40	2,500	940	<40	<40	<40
1/9/2019	<40	2,200	1,800	<40	22	<40
4/8/2019	0.7	3.2	3.6	6.3	0.48	<1
1/8/2020	0.64	19	94	13	4.4	<1
4/8/2020	<1	1.5	1.6	4.8	<1	<1
7/22/2020	<1	4.3	13	4.8	<1	<1
10/13/2020	0.60	12	12	3.8	<1	<1
1/20/2021	<1	7.3	6.8	3.7	<1	<1
4/7/2021	0.77	1.8	7.1	3.3	0.40	<1
7/14/2021	<2	<2	3.5	2.7	<2	<2
10/19/2021	<2	<2	3.5	2.7	<2	<2
1/18/2022	<2	7.4	19	3.3	<2	<2
4/5/2022	<2	33	43	4.5	0.90	<2
7/7/2022	2.2	5.2	14	2	<1	<1
10/4/2022	<2	<2	18	<2	<2	<2
1/19/2023	<2	<2	9.4	2	<2	<2
4/4/2023	<1	10	61	5.3	<1	<1

Note well was dry during the July 2019 and October 2019 sampling events.

MONITORING WELL MW-13S
HISTORICAL AND CURRENT SUMMARY OF CHLORINATED VOCs IN GROUNDWATER
Former Scott Aviation Site
Lancaster, New York

Trend Plot

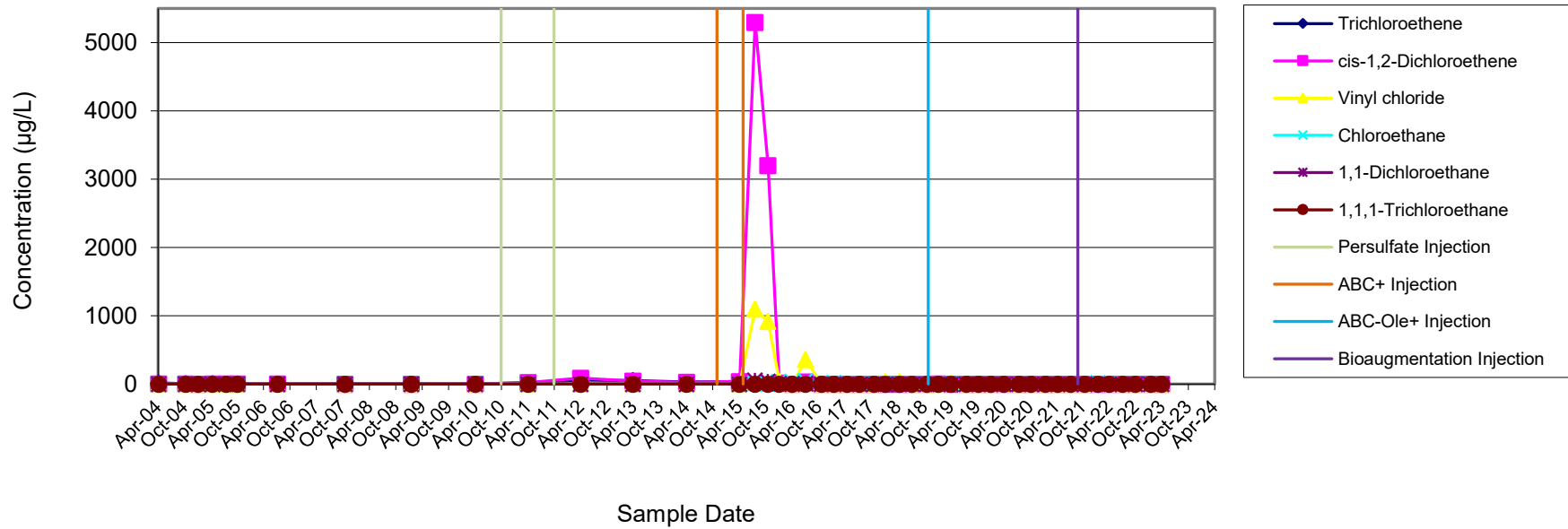


PIEZOMETER MW-13D
HISTORICAL AND CURRENT SUMMARY OF CHLORINATED VOCs IN GROUNDWATER
Former Scott Aviation Site
Lancaster, New York

Sample Date	Analytical Results (µg/L)					
	Trichloroethene	cis-1,2-Dichloroethene	Vinyl chloride	Chloroethane	1,1-Dichloroethane	1,1,1-Trichloroethane
4/8/2004	17	2.0	<10	<10	<10	<10
10/12/2004	7.0	2.0	<10	<10	<10	<10
1/6/2005	<10	<10	<10	<10	<10	<10
4/15/2005	8.0	4.0	<10	<10	<10	<10
7/20/2005	1.0	2.0	<5	<5	<5	<5
10/4/2005	1.4	1.5	<5	<5	<5	<5
7/10/2006	2.0	1.6	2.6	<5	<5	<5
10/18/2007	<5	0.55	1.1	<5	<5	<5
1/20/2009	<5	<5	<5	<5	<5	<5
4/7/2010	<5	<5	<5	<5	<5	<5
4/6/2011	22	23	<1	<1	<1	<1
4/3/2012	62	89	2.3	<1	<1	<1
4/1/2013	53	44	2.9	<1	<1	<1
4/7/2014	30	28	1.9	<1	<1	<1
4/7/2015	40	37	<1	<1	<1	<1
7/23/2015	2	5300	1100	11	56	<1
10/20/2015	<100	3200	920	<100	42	<100
1/6/2016	<10	15	47	38	12	<10
4/6/2016	<10	<10	<10	36	<10	<10
7/6/2016	<10	34	360	51	7.8	<10
10/25/2016	0.47	<1	<1	12	<1	<1
1/19/2017	<1	<1	<1	25	<1	<1
4/19/2017	<1	0.87	<1	9	<1	<1
7/13/2017	<1	<1	<1	13	<1	<1
10/24/2017	<1	<1	<1	6.9	<1	<1
1/9/2018	<1	1.1	39	9.9	0.73	<1
4/18/2018	<1	<1	39	6.5	<1	<1
7/13/2018	<1	<1	<1	5.5	<1	<1
10/24/2018	<1	<1	<1	4.2	<1	<1
1/10/2019	<1	1.6	1.2	7.4	<1	<1
4/8/2019	<1	<1	18	9.8	<1	<1
7/24/2019	<1	<1	<1	0.73	<1	<1
10/15/2019	<1	<1	<1	4.5	<1	<1
1/8/2020	<1	<1	<1	2.5	<1	<1
4/8/2020	<1	<1	4.0	2.9	<1	<1
7/22/2020	<1	<1	<1	2.8	<1	<1
10/13/2020	<1	<1	<1	3.5	<1	<1
1/20/2021	<1	<1	<1	2.4	<1	<1
4/15/2021	<1	<1	<1	2.6	<1	<1
7/14/2021	<1	<1	<1	2.2	<1	<1
10/19/2021	<1	<1	<1	2.2	<1	<1
1/18/2022	<1	<1	9.2	19	<1	<1
4/5/2022	<1	<1	1.4	12	<1	<1
7/7/2022	<1	<1	<1	7.8	<1	<1
10/4/2022	<1	<1	<1	<1	<1	<1
1/19/2023	<1	<1	<1	4.7	<1	<1
4/4/2023	<1	<1	<1	4.3	<1	<1

PIEZOMETER MW-13D
HISTORICAL AND CURRENT SUMMARY OF CHLORINATED VOCs IN GROUNDWATER
Former Scott Aviation Site
Lancaster, New York

Trend Plot



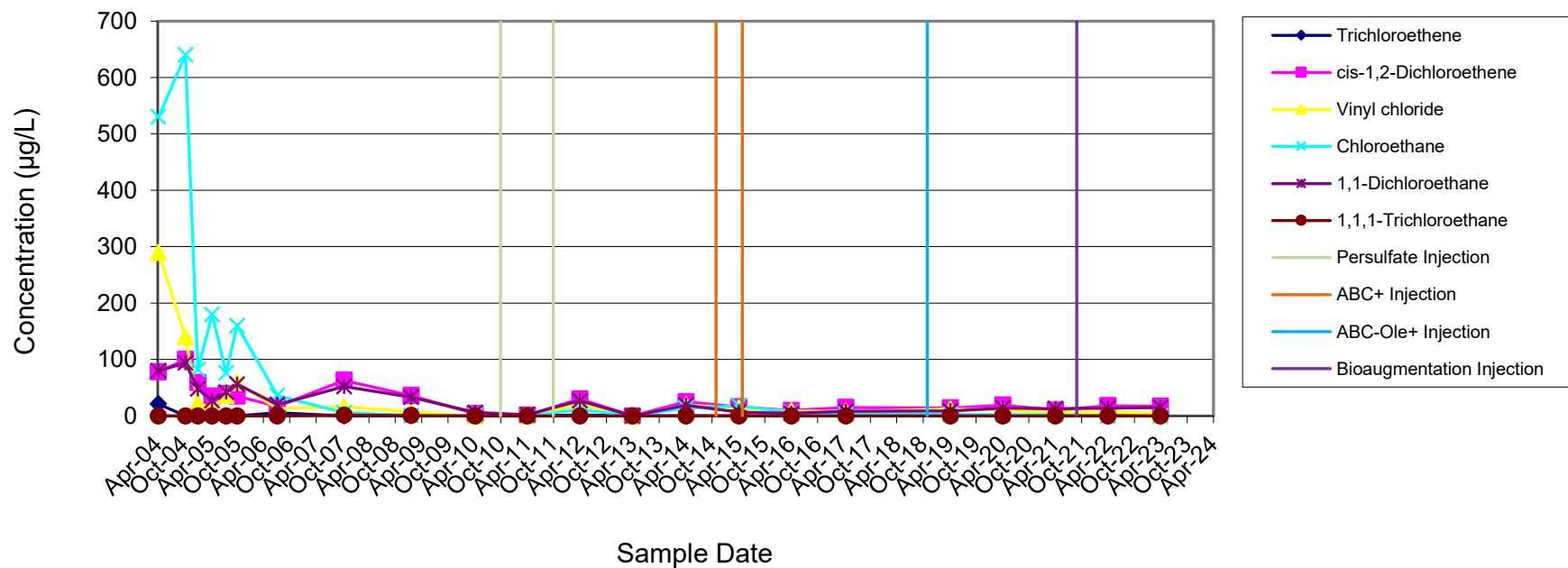
PIEZOMETER MW-14S
HISTORICAL AND CURRENT SUMMARY OF CHLORINATED VOCs IN GROUNDWATER
Former Scott Aviation Site
Lancaster, New York

Sample Date	Analytical Results (µg/L)					
	Trichloroethene	cis-1,2-Dichloroethene	Vinyl chloride	Chloroethane	1,1-Dichloroethane	1,1,1-Trichloroethane
4/8/2004	21	78	290	530	80	<20
10/12/2004	<10	100	140	640	94	<10
1/6/2005	<10	59	22	82	48	<10
4/15/2005	<10	35	15	180	27	<10
7/20/2005	<5	39	36	76	42	<5
10/5/2005	<5	35	59	160	56	<5
7/10/2006	5.7	17	13	36	20	< 25
10/15/2007	< 5	63	16	5.7	52	1.3
1/21/2009	0.38	36	7.9	0.87	33	0.63
4/8/2010	<5	4	< 5	0.62	5.9	<5
4/5/2011	<1	1.1	<1	<1	1.9	<1
4/2/2012	1.3	30	21	11	27	<1
4/1/2013	<1	<1	<1	<1	<1	<1
4/7/2014	<1	25	19	14	19	<1
4/7/2015	<1	16	14	18	6.8	<1
4/5/2016	<1	9.6	8.9	6.3	4.4	<1
4/18/2017	<1	15	7.8	2.8	8.1	<1
4/10/2019	<1	14	12	2.7	8.9	<1
4/7/2020	<1	19	10	1.8	14	<1
4/7/2021	<1	10	6.0	1.9	13	<1
4/4/2022	<1	18	7.2	<1	14	<1
4/3/2023	<1	17	4.6	<1	15	<1

Well was flooded and not sampled in April 2018.

PIEZOMETER MW-14S
HISTORICAL AND CURRENT SUMMARY OF CHLORINATED VOCs IN GROUNDWATER
Former Scott Aviation Site
Lancaster, New York

Trend Plot



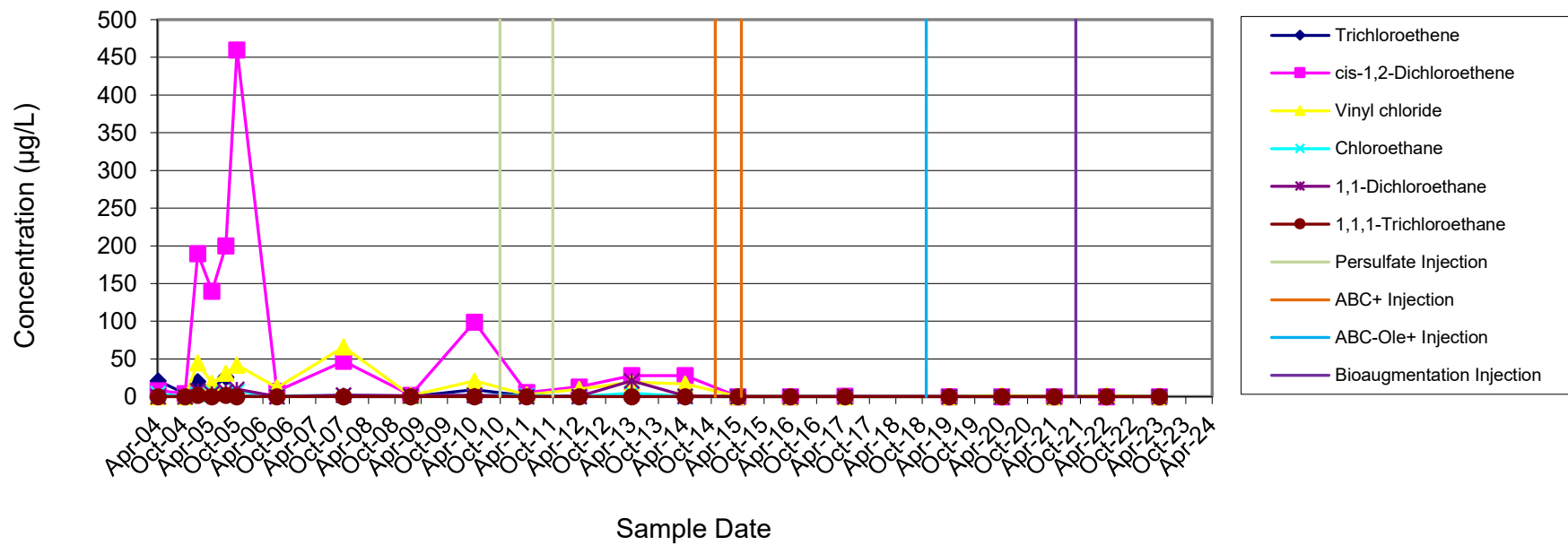
PIEZOMETER MW-14D
HISTORICAL AND CURRENT SUMMARY OF CHLORINATED VOCs IN GROUNDWATER
Former Scott Aviation Site
Lancaster, New York

Sample Date	Analytical Results (µg/L)					
	Trichloroethene	cis-1,2-Dichloroethene	Vinyl chloride	Chloroethane	1,1-Dichloroethane	1,1,1-Trichloroethane
4/8/2004	21	8.0	<10	4.0	<10	<10
10/12/2004	4.0	4.0	<10	<10	<10	<10
1/6/2005	20	190	45	3.0	8.0	2.0
4/15/2005	10	140	18	6.0	4.0	<10
7/20/2005	26	200	31	4.0	7.0	2.0
10/5/2005	<10	460	42	7.2	9.9	<10
7/10/2006	0.96	7.2	12	0.82	<5	<5
10/15/2007	<5	47	66	1.8	2.2	<5
1/21/2009	<5	2.0	1.4	0.91	1.3	<5
4/8/2010	9.4	99	21	1.5	2.0	<5
4/5/2011	0.97	5.6	2.6	1.5	<1	<1
4/2/2012	0.64	13	9.9	<1	0.44	<1
4/1/2013	0.99	28	19	4.6	21	<1
4/7/2014	<1	28	17	<1	0.82	<1
4/7/2015	<1	<1	<1	<1	<1	<1
4/5/2016	<1	<1	<1	<1	<1	<1
4/18/2017	<1	0.65	<1	<1	<1	<1
4/10/2019	<1	<1	<1	<1	<1	<1
4/7/2020	<1	<1	1.7	<1	<1	<1
4/7/2021	<1	<1	<1	<1	<1	<1
4/4/2022	<1	<1	1.7	<1	<1	<1
4/4/2023	<1	<1	<1	<1	<1	<1

Well was flooded and not sampled in April 2018.

PIEZOMETER MW-14D
HISTORICAL AND CURRENT SUMMARY OF CHLORINATED VOCs IN GROUNDWATER
Former Scott Aviation Site
Lancaster, New York

Trend Plot

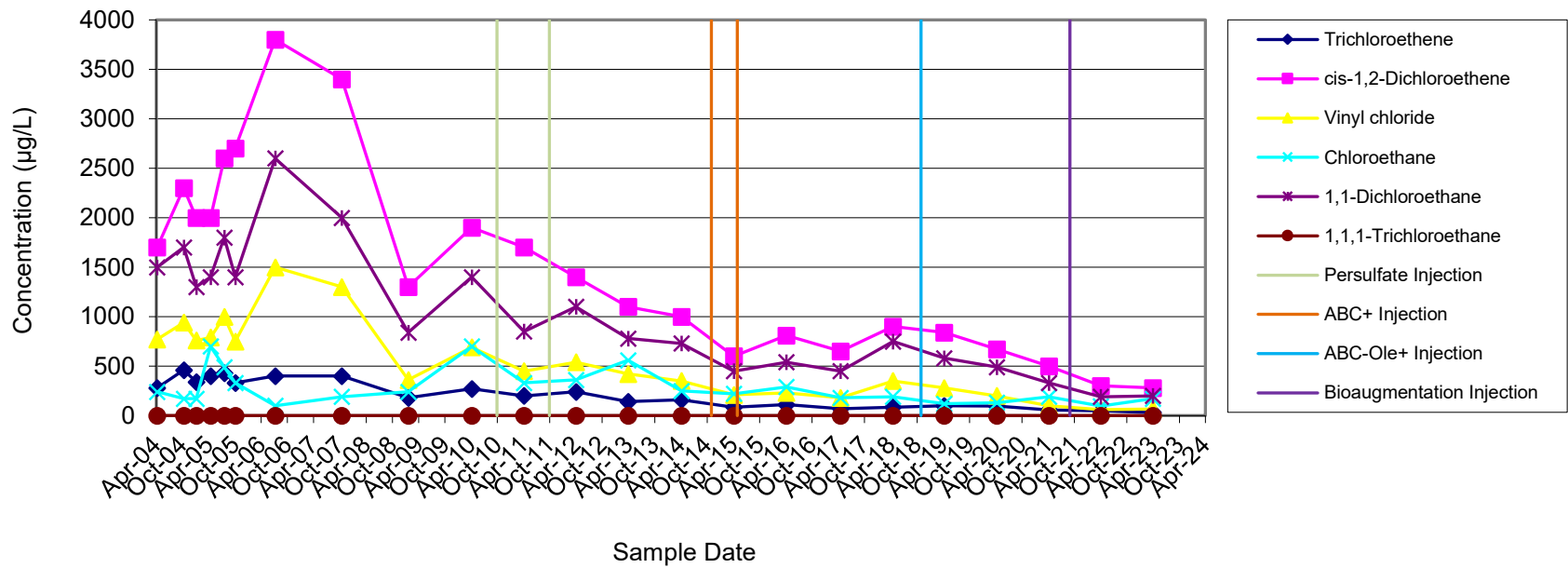


PIEZOMETER MW-15S
HISTORICAL AND CURRENT SUMMARY OF CHLORINATED VOCs IN GROUNDWATER
Former Scott Aviation Site
Lancaster, New York

Sample Date	Analytical Results (µg/L)					
	Trichloroethene	cis-1,2-Dichloroethene	Vinyl chloride	Chloroethane	1,1-Dichloroethane	1,1,1-Trichloroethane
4/8/2004	280	1,700	770	240	1,500	<250
10/12/2004	460	2,300	940	170	1,700	<250
1/7/2005	340	2,000	760	170	1,300	<250
4/15/2005	400	2,000	790	700	1,400	<200
7/21/2005	430	2,600	1,000	490	1,800	<120
10/5/2005	330	2,700	750	330	1,400	<100
7/10/2006	400	3,800	1,500	100	2,600	<25
10/16/2007	400	3400	1300	190	2000	<200
1/21/2009	180	1300	360	240	840	<5
4/8/2010	270	1900	690	700	1400	<10
4/7/2011	200	1700	450	330	850	<1
4/3/2012	240	1400	540	360	1100	<1
4/1/2013	140	1100	420	560	780	<20
4/7/2014	160	1000	350	250	730	<20
4/6/2015	85	600	210	220	450	<20
4/6/2016	110	810	230	290	540	<20
4/19/2017	70	650	180	180	450	<5
4/18/2018	85	900	350	190	750	<20
4/10/2019	98	840	280	120	580	<20
4/10/2020	95	670	200	130	490	<20
4/8/2021	58	500	100	190	330	<20
4/5/2022	47	300	60	95	190	<20
4/3/2023	31	280	65	170	200	<20

PIEZOMETER MW-15S
HISTORICAL AND CURRENT SUMMARY OF CHLORINATED VOCs IN GROUNDWATER
Former Scott Aviation Site
Lancaster, New York

Trend Plot

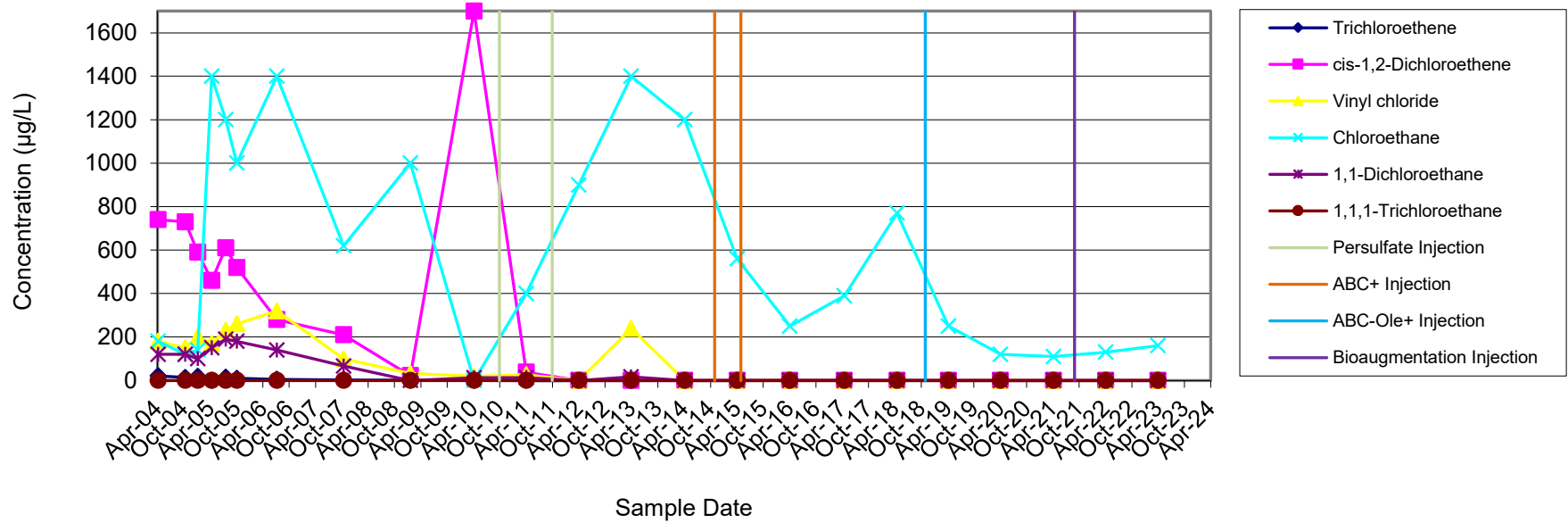


PIEZOMETER MW-15D
HISTORICAL AND CURRENT SUMMARY OF CHLORINATED VOCs IN GROUNDWATER
Former Scott Aviation Site
Lancaster, New York

Sample Date	Analytical Results (µg/L)					
	Trichloroethene	cis-1,2-Dichloroethene	Vinyl chloride	Chloroethane	1,1-Dichloroethane	1,1,1-Trichloroethane
4/8/2004	21	740	180	180	120	<10
10/12/2004	14	730	150	120	120	<50
1/7/2005	18	590	200	140	100	<50
4/15/2005	<50	460	170	1,400	150	<50
7/21/2005	15	610	230	1,200	190	<25
10/5/2005	10	520	260	1,000	180	<50
7/10/2006	4.9	280	320	1,400	140	<5
10/16/2007	3.6	210	99	620	66	<5
1/21/2009	<25	22	32	1,000	<25	<25
4/8/2010	<5	1,700	19	<5	12	<5
4/5/2011	<8	38	26	400	13	<8
4/3/2012	<10	<10	<10	900	<10	<10
4/1/2013	<8	<8	240	1,400	16	<8
4/7/2014	<20	<20	<20	1,200	<20	<20
4/6/2015	<20	<20	<20	560	<20	<20
4/6/2016	<5	<5	<5	250	<5	<5
4/19/2017	<1	<1	<1	390	0.35	<1
4/19/2018	<5	<5	<5	770	<5	<5
4/10/2019	<8	<8	<8	250	<8	<8
4/6/2020	<2	<2	<2	120	<2	<2
4/8/2021	<2	<2	<2	110	<2	<2
4/5/2022	<2	<2	<2	130	<2	<2
4/3/2023	<2	<2	<2	160	<2	<2

PIEZOMETER MW-15D
HISTORICAL AND CURRENT SUMMARY OF CHLORINATED VOCs IN GROUNDWATER
Former Scott Aviation Site
Lancaster, New York

Trend Plot

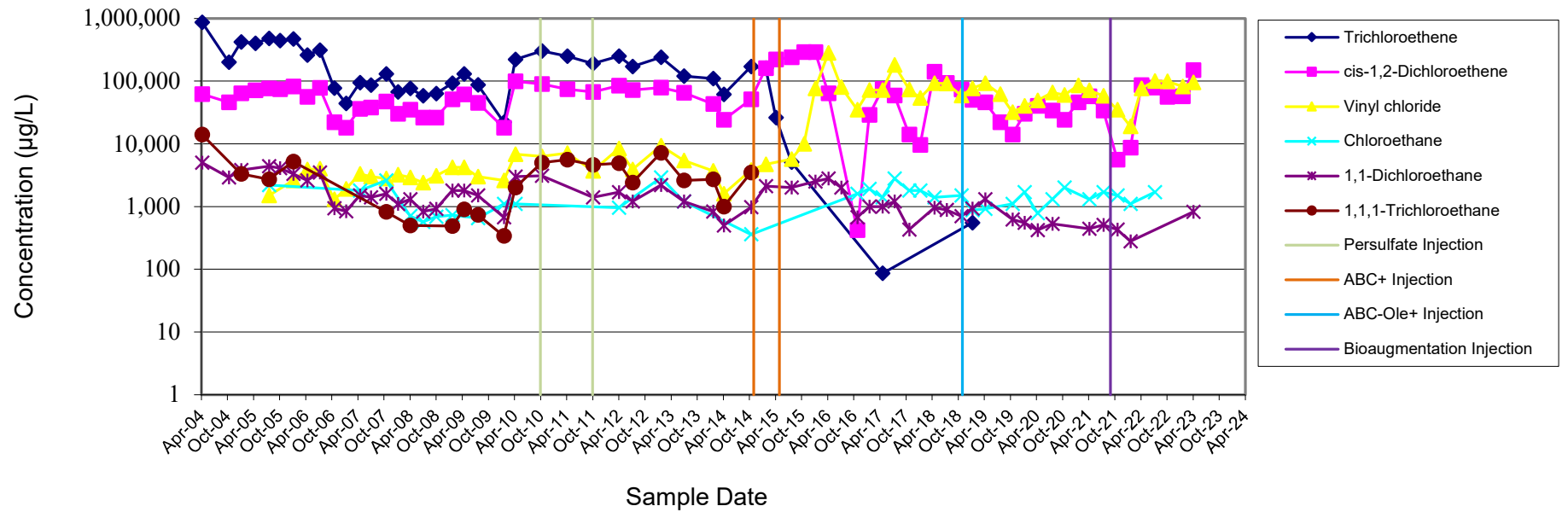


PIEZOMETER MW-16S
HISTORICAL AND CURRENT SUMMARY OF CHLORINATED VOCs IN GROUNDWATER
Former Scott Aviation Site
Lancaster, New York

Sample Date	Analytical Results (µg/L)					
	Trichloroethene	cis-1,2-Dichloroethene	Vinyl chloride	Chloroethane	1,1-Dichloroethane	1,1,1-Trichloroethane
4/8/2004	860,000	62,000	<20,000	<20,000	5,000	14,000
10/12/2004	200,000	46,000	<10,000	<10,000	2,900	<10,000
1/7/2005	420,000	64,000	<10,000	<10,000	3,800	3,300
4/15/2005	400,000	71,000	<25,000	<25,000	<25,000	<25,000
7/21/2005	480,000	76,000	1,500	2,200	4,400	2,700
10/5/2005	440,000	74,000	<25,000	<25,000	4,100	<25,000
1/6/2006	470,000	82,000	2,600	<20,000	3,300	5,200
4/14/2006	260,000	56,000	3,900	<20,000	2,600	<20,000
7/10/2006	310,000	78,000	4,000	<20,000	3,500	<20,000
10/19/2006	77,000	22,000	1,300	<5,000	940	<5,000
1/10/2007	44,000	18,000	1,900	<2,500	840	<2,500
4/17/2007	94,000	36,000	3,300	1,800	1,500	<5,000
7/3/2007	86,000	38,000	3,000	<5,000	1,400	<5,000
10/18/2007	130,000	47,000	2,800	2,600	1,600	820
1/8/2008	67,000	30,000	3,200	<5,000	1,100	<5,000
4/3/2008	76,000	35,000	2,900	710	1,300	500
7/2/2008	58,000	26,000	2,400	570	830	<5,000
10/2/2008	63,000	26,000	3,100	690	920	<5,000
1/22/2009	92,000	51,000	4,200	730	1,800	490
4/15/2009	130,000	61,000	4,200	<2,000	1,800	900
7/22/2009	87,000	45,000	3,000	650	1,500	740
1/19/2010	22,000	18,000	2,600	1,100	670	340
4/8/2010	220,000	99,000	6,800	1,100	3,000	2,000
10/11/2010	300,000	90,000	6,300	<20,000	3,100	5,000
4/7/2011	250,000	74,000	7,100	<4,000	<4,000	5,600
10/4/2011	190,000	67,000	3,700	<800	1,400	4,600
4/3/2012	250,000	84,000	8,400	960	1,700	4,900
7/6/2012	170,000	72,000	3,900	<2000	1,200	2,400
1/21/2013	240,000	79,000	9,300	2,900	2,200	7,200
7/1/2013	120,000	65,000	5,400	1,200	1,200	2,600
1/22/2014	110,000	43,000	3,700	<2,000	830	2,700
4/7/2014	61,000	24,000	1,600	<1000	500	1,000
10/14/2014	170,000	51,000	3,800	360	980	3,500
1/26/2015	160,000	160,000	4,700	<4,000	2,100	<4,000
4/7/2015	26,000	220,000	<4,000	<4,000	<4,000	<4,000
7/24/2015	5,100	240,000	5,700	<4,000	2,000	<4,000
10/20/2015	<4,000	290,000	10,000	<4,000	<4,000	<4,000
1/6/2016	<4,000	290,000	76,000	<4,000	2,500	<4,000
4/7/2016	<4,000	64,000	280,000	<4,000	2,800	<4,000
7/5/2016	<2,000	<2,000	80,000	<2,000	2,000	<2,000
10/26/2016	<500	420	35,000	1,600	670	<500
1/19/2017	<500	29,000	72,000	1,900	1,000	<500
4/20/2017	86	75,000	72,000	1,400	1,000	<200
7/13/2017	<1,000	59,000	180,000	2,800	1,200	<200
10/24/2017	<500	14,000	73,000	1,800	430	<500
1/9/2018	<1,000	9,600	54,000	1,800	<1,000	<1,000
4/18/2018	<1,000	140,000	92,000	1,400	960	<1,000
7/13/2018	<1,000	93,000	91,000	<1,000	880	<1,000
10/25/2018	<1,000	73,000	59,000	1,500	700	<1,000
1/9/2019	550	50,000	76,000	870	930	<1,000
4/9/2019	<1,000	46,000	92,000	920	1,300	<1,000
7/23/2019	<2,500	22,000	62,000	<2,500	<2,500	<2,500
10/17/2019	<1,000	14,000	32,000	1,100	620	<1,000
1/9/2020	<1,000	30,000	40,000	1,700	550	<1,000
4/10/2020	<1	40,000	49,000	780	420	<1
7/23/2020	<1,000	34,000	66,000	1,300	530	<1,000
10/14/2020	<1,000	24,000	60,000	2,000	<1,000	<1,000
1/20/2021	<1,000	46,000	85,000	<1,000	<1,000	<1,000
4/7/2021	<1,000	57,000	71,000	1,300	440	<1,000
7/14/2021	<1,000	34,000	58,000	1,700	510	<1,000
10/20/2021	<1,000	5,600	35,000	1,500	430	<1,000
1/20/2022	<1,000	8,700	19,000	1,100	280	<1,000
4/7/2022	<2,000	86,000	76,000	<2,000	<2,000	<2,000
7/8/2022	<1,000	79,000	100,000	1,700	<1,000	<1,000
10/4/2022	<2,000	56,000	99,000	<2,000	<2,000	<2,000
1/19/2023	<2,000	57,000	82,000	<2,000	<2,000	<2,000
4/4/2023	<2,000	150,000	95,000	<2,000	820	<2,000

MONITORING WELL MW-16S
HISTORICAL AND CURRENT SUMMARY OF CHLORINATED VOCs IN GROUNDWATER
Former Scott Aviation Site
Lancaster, New York

Trend Plot

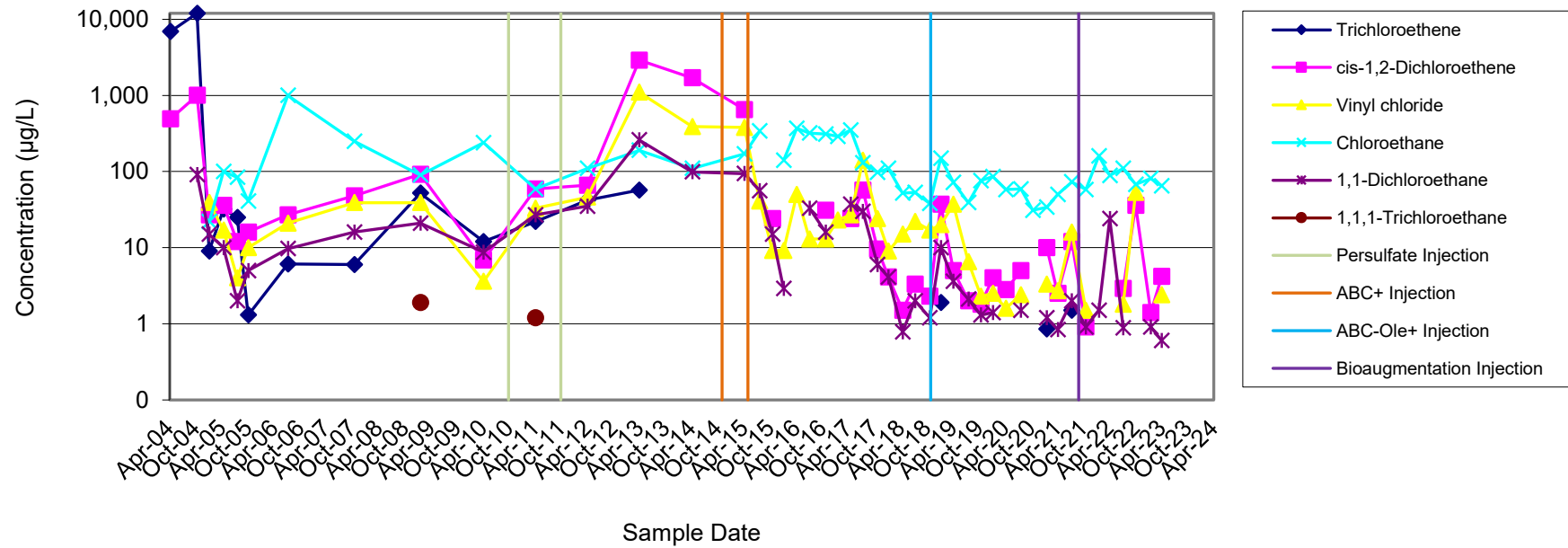


PIEZOMETER MW-16D
HISTORICAL AND CURRENT SUMMARY OF CHLORINATED VOCs IN GROUNDWATER
Former Scott Aviation Site
Lancaster, New York

Sample Date	Analytical Results (µg/L)					
	Trichloroethene	cis-1,2-Dichloroethene	Vinyl chloride	Chloroethane	1,1-Dichloroethane	1,1,1-Trichloroethane
4/8/2004	6,900	490	<500	<500	<500	<500
10/12/2004	12,000	1,000	<500	<500	91	<500
1/6/2005	9.0	27	39	22	15	<10
4/15/2005	32	36	17	100	10	<10
7/21/2005	25	12	4.0	84	2.0	<10
10/5/2005	1.3	16	10	41	5.0	<5
7/10/2006	6.1	27	21	1,000	9.7	<5
10/18/2007	6.0	48	39	250	16	<20
1/22/2009	52	92	39	90	21	1.9
4/8/2010	12	6.9	3.6	240	8.7	<10
4/7/2011	22	59	33	59	27	1.2
4/3/2012	42	66	46	110	35	<1
4/1/2013	57	2900	1100	190	260	<1
4/7/2014	<25	1700	390	110	99	<25
4/7/2015	<25	650	380	170	94	<25
7/23/2015	<25	<25	41	340	56	<25
10/20/2015	<10	24	9.2	<10	15	<10
1/6/2016	<5	<5	9.2	140	2.9	<5
4/7/2016	<10	<10	50	370	<10	<10
7/5/2016	<10	<10	13	320	33	<10
10/26/2016	<10	31	13	310	16	<10
1/19/2017	<10	<10	23	290	<10	<10
4/20/2017	<1	24	27	350	37	<1
7/13/2017	<5	57	140	130	30	<5
10/24/2017	<1	9.6	24	98	6.0	<1
1/8/2018	<1	4.1	9.0	110	4.1	<1
4/18/2018	<1	1.5	15	52	0.78	<1
7/13/2018	<1	3.3	22	53	2.0	<1
10/25/2018	<1	2.3	17	38	1.2	<1
1/10/2019	1.9	37	20	150	10	<1
4/8/2019	<2	5.0	37	72	3.6	<2
7/22/2019	<1	2.0	6.5	39	2.1	<1
10/17/2019	<1	1.8	2.3	76	1.3	<1
1/9/2020	<1	4.0	2.5	86	1.4	<1
4/9/2020	<1	2.8	1.6	58	<1	<1
7/23/2020	<1	5.0	2.4	59	1.5	<1
10/14/2020	<1	<1	<1	31	<1	<1
1/20/2021	0.85	10	3.3	34	1.2	<1
4/7/2021	<1	2.5	2.7	50	0.84	<1
7/14/2021	1.5	12	16	73	2.0	<1
10/20/2021	<1	0.91	1.5	58	0.91	<1
1/20/2022	<1	<1	<1	160	1.5	<1
4/6/2022	<2	<2	<2	89	24	<2
7/8/2022	<1	2.9	1.8	110	0.88	<1
10/4/2022	<2	36	53	68	<2	<2
1/18/2023	<1	1.4	<1	81	0.91	<1
4/4/2023	<1	4.2	2.4	65	0.60	<1

PIEZOMETER MW-16D
HISTORICAL AND CURRENT SUMMARY OF CHLORINATED VOCs IN GROUNDWATER
Former Scott Aviation Site
Lancaster, New York

Trend Plot



Appendix E Analytical Laboratory Data Packages (Provided on CD)

Appendix F IC/EC Certification



Enclosure 2
NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION
Site Management Periodic Review Report Notice
Institutional and Engineering Controls Certification Form



Site Details

Box 1

Site No. 915149

Site Name **Scott Aviation**

25A Walter Winter Drive

Site Address: ~~225 Erie Street~~ Zip Code: 14086

City/Town: Lancaster

County: Erie

Site Acreage: 0.600

Reporting Period: April 8, 2022 through April 12, 2023

YES NO

1. Is the information above correct?

☐

X

If NO, include handwritten above or on a separate sheet.

2. Has some or all of the site property been sold, subdivided, merged, or undergone a tax map amendment during this Reporting Period?

☐

X

3. Has there been any change of use at the site during this Reporting Period (see 6NYCRR 375-1.11(d))?

☐

X

4. Have any federal, state, and/or local permits (e.g., building, discharge) been issued for or at the property during this Reporting Period?

☐

X

If you answered YES to questions 2 thru 4, include documentation or evidence that documentation has been previously submitted with this certification form.

5. Is the site currently undergoing development?

☐

X

Box 2

YES NO

6. Is the current site use consistent with the use(s) listed below?

X

☐

Commercial and Industrial

7. Are all ICs/ECs in place and functioning as designed?

X

☐

IF THE ANSWER TO EITHER QUESTION 6 OR 7 IS NO, sign and date below and DO NOT COMPLETE THE REST OF THIS FORM. Otherwise continue.

A Corrective Measures Work Plan must be submitted along with this form to address these issues.

Signature of Owner, Remedial Party or Designated Representative

Date

Description of Institutional Controls

<u>Parcel</u>	<u>Owner</u>	<u>Institutional Control</u>
104.16-4-8.1	AVOX Systems	Monitoring Plan O&M Plan

A long-term monitoring program is in place and includes: (1) quarterly sampling of groundwater to monitor the effectiveness of the treatment systems, and (2) ~~monthly~~ quarterly sampling of the treatment systems to ensure compliance with discharge limits.

Description of Engineering Controls

<u>Parcel</u>	<u>Engineering Control</u>
104.16-4-8.1	Groundwater Treatment System Vapor Mitigation Cover System Groundwater Containment

In accordance with the ROD, a 200-foot long groundwater collection trench was constructed approximately 90 feet west of Plant 2 during February 1996. The purpose of the trench is to maintain hydraulic control of VOC-impacted groundwater. The groundwater treatment system consists of a low-profile shallow tray air stripper (AS) unit. Treated water from the AS unit is discharged under a City of Buffalo Pollutant Discharge Elimination System permit. The groundwater treatment system began operation on March 1 1996.

The groundwater collection trench system was subsequently combined with a dual phase extraction system installed at the Site between February and May 2004. The combined remediation system began operation on May 14, 2004.

A long-term operation and maintenance program is in place and includes: (1) long-term operation and maintenance of the groundwater collection and treatment system, and (2) long-term operation and maintenance of the dual phase extraction system.

Periodic Review Report (PRR) Certification Statements

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

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

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

YES NO

☒ ☐

2. If this site has an IC/EC Plan (or equivalent as required in the Decision Document), for each Institutional or Engineering control listed in Boxes 3 and/or 4, I certify by checking "YES" below that all of the following statements are true:

(a) the Institutional Control and/or Engineering Control(s) employed at this site is unchanged since the date that the Control was put in-place, or was last approved by the Department;

(b) nothing has occurred that would impair the ability of such Control, to protect public health and the environment;

(c) access to the site will continue to be provided to the Department, to evaluate the remedy, including access to evaluate the continued maintenance of this Control;

(d) nothing has occurred that would constitute a violation or failure to comply with the Site Management Plan for this Control; and

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

YES NO

☒ ☐

**IF THE ANSWER TO QUESTION 2 IS NO, sign and date below and
DO NOT COMPLETE THE REST OF THIS FORM. Otherwise continue.**

A Corrective Measures Work Plan must be submitted along with this form to address these issues.

Signature of Owner, Remedial Party or Designated Representative

Date

IC CERTIFICATIONS
SITE NO. 915149

Box 6

SITE OWNER OR DESIGNATED REPRESENTATIVE SIGNATURE

I certify that all information and statements in Boxes 1,2, and 3 are true. I understand that a false statement made herein is punishable as a Class "A" misdemeanor, pursuant to Section 210.45 of the Penal Law.

Dino Zack, PG, STS at 50 Lakefront Blvd, Suite 111, Buffalo, NY 14202
print name print business address

am certifying on behalf of Scott Figgie LLC (Owner or Remedial Party)

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

on behalf of Scott Figgie LLC

June 1, 2023

Signature of Owner, Remedial Party, or Designated Representative
Rendering Certification

Date

IC/EC CERTIFICATIONS

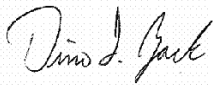
Box 7

Qualified Environmental Professional Signature

I certify that all information in Boxes 4 and 5 are true. I understand that a false statement made herein is punishable as a Class "A" misdemeanor, pursuant to Section 210.45 of the Penal Law.

I Dino Zack, PG at 50 Lakefront Blvd, Suite 111, Buffalo, NY 14202
print name print business address

am certifying as a Qualified Environmental Professional on behalf of Scott Figgie LLC
(Owner or Remedial Party)



on behalf of Scott Figgie LLC

June1, 2023

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

Stamp
(Required for PE)

Date

aecom.com