DRAFT 2019 COMPREHENSIVE SAMPLING REPORT

October 2019

United States Environmental Protection Agency
Lawrence Aviation Industries Superfund Site
Port Jefferson Station, Suffolk County, New York

Contract No. EP-W-09-009
Work Assignment No. 049-LTRA-02NS

EPA WORK ASSIGNMENT NUMBER: 049-LTRA-02NS

EPA CONTRACT NUMBER: EP-W-09-009

HDR

REMEDIAL ACTION CONTRACT (RAC) 2 PROGRAM

2019 COMPREHENSIVE SAMPLING EVENT REPORT

OCTOBER 2019

LAWRENCE AVIATION INDUSTRIES SUPERFUND SITE

LONG-TERM RESPONSE ACTION

PORT JEFFERSON STATION, NEW YORK

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bgs	below ground surface
CLP	contract laboratory program
COC	contaminant of concern
CRQL	Contract Required Quantitation Limit
CVOCs	Chlorinated Volatile Organic Compounds
DCA	dichloroethane
DCE	dichloroethene
DO	Dissolved Oxygen
DQIs	Data Quality Indicators
EPA	United States Environmental Protection Agency
ERT	Environmental Response Team
FS	Feasibility Study
FT	feet
GAC	granular activated carbon
GPM	gallons per minute
GWTF	groundwater treatment facility
HASP	Health and Safety Plan
HDR	Henningson, Durham & Richardson, Architecture and Engineering PC, in association with HDR Engineering, Inc.
HP	horse power
HRS	Hazard Ranking System
IDW	Investigation Derived Waste
ISCO	In-Situ Chemical Oxidation
LAI	Lawrence Aviation Industries
LTRA	Long Term Remedial Action
mg/l	milligrams per liter
msl	mean sea level
MTBE	methyl tert-butyl ether
mV	millivolts
NPL	National Priorities List
NYS	New York State
NYSDEC	New York State Department of Environmental Conservation
NYSDOH	New York State Department of Health
NYSDOT	New York State Department of Transportation
O&M	Operations and Maintenance
OMP	Old Mill Pond
ORP	Oxidation/Reduction Potential
OSWER	Office of Solid Waste and Emergency Response
PCB	polychlorinated biphenyl
PCE	tetrachloroethene
PDI	Pre-Design Investigation
PLC	programmable logic controller
PPE	Personal Protective Equipment
QA	Quality Assurance
QAPP	Quality Assurance Project Plan
QC	Quality Control
RA	Remedial Action
RAC	Remedial Action Contract
RAOs	Remedial Action Objectives
RCRA	Resource Conservation and Recovery Act
RD	remedial design
REAC	Response, Engineering and Analytical Contract
RI	remedial investigation
ROD	Record of Decision

SCWA	Suffolk County Water Authority
SMP	Site Management Plan
SOP	standard operating procedure
TAL	target analyte list
TCA	trichloroethane
TCE	trichloroethene
TCL	Target Compound List
TOGS	Technical & Operational Guidance Series
VC	vinyl chloride
VOC	volatile organic compounds
µg/l	micrograms per liter

1 INTRODUCTION

1.1 Purpose of this Report

This report for the Lawrence Aviation Industries (LAI) Superfund Site was prepared by Henningson, Durham & Richardson, Architecture and Engineering, P.C., in association with HDR Engineering, Inc. (HDR) under the United States Environmental Protection Agency (EPA) Region 2 Remedial Action Contract (RAC) 2 Contract No. EP-W-09-009 and EPA Work Assignment No. 049-LTRA-02NS in accordance with the EPA Close-Out Procedures for National Priorities List (NPL) Sites, Office of Solid Waste and Emergency Response (OSWER) Directive 9320.2-22, dated May 2011. The comprehensive sampling event report was prepared under Subtask 9.2 (Evaluate System Performance) of the November 2012 approved work plan. The purpose of this report is to present results of the June 2019 comprehensive sampling event, compare the results to the May 2008 baseline groundwater sampling results and subsequent groundwater sampling results, evaluate groundwater contamination plume capture and monitor Chlorinated Volatile Organic Compounds (CVOCs) to track remediation system effectiveness. This report includes the following information:

- Introduction (**Section 1**) - Includes a brief description of the site environmental setting and historical operations, site investigations and remedial activities
- 2019 Comprehensive Sampling Event and Results (**Section 2**) - Summarizes the June 2019 sampling event and area-wide groundwater plume contamination
- Groundwater Contamination over Time (**Section 3**) - Provides a summary of changes in area-wide groundwater plume contamination from May 2008 through June 2019, including an evaluation of the effectiveness of the remedial action
- References (**Section 4**) - Provides a list of documents relevant to the site activities

1.2 Site Location and Description

The LAI Site (Site) is located in Port Jefferson Station, Suffolk County, New York and has been assigned EPA identification number NYD002041531. A Site location map is provided as **Figure 1**. The Site encompasses approximately 126 acres and consists of the LAI industrial facility and the LAI outlying parcels (the wooded areas located east and northeast of the LAI industrial facility). The LAI industrial facility, approximately 42 acres in size, was an active manufacturer of titanium sheeting for the aeronautics industry. It encompasses 10 buildings located in the southwestern portion of the property. An abandoned, unlined earthen lagoon, which formerly received liquid wastes, lies west of the buildings and was filled in by the property owner. A former drum crushing area is situated southeast of the buildings. The New York State Department of Transportation (NYSDOT) installed a mixed-use bicycle and pedestrian path with a right-of-way through the Site in 2012. The LAI outlying parcels property is mostly vacant and wooded, but

contains a few small residential single-family houses and three Site access roads. The Long Island Railroad and Sheep Pasture Road form the northern border of the Site, to the east and west are various residential single family houses, and to the south is a power utility right-of-way and a wooded area beyond which is a residential area with single family houses. The Village of Port Jefferson and Port Jefferson Harbor lie approximately one mile to the north.

1.3 Historical Sources of Groundwater Contamination

The Site was previously part of a turkey farm owned by LAI's corporate predecessor, Ledkote Products Co. (Ledkote) of New York. In 1951, Ledkote established a business to produce lead gutters and downspouts for roof drains on the property. In 1959, the business was re-established as LAI and began to operate as a mill, manufacturing titanium sheet metal for the aeronautics industry and consumer products such as golf clubs. The 42-acre LAI industrial facility ceased operations in 2003.

Past disposal practices have resulted in releases of various contaminants including trichloroethene (TCE), tetrachloroethene (PCE), acid wastes, oils, sludge, heavy metals, and other industrial plant wastes. Previous investigations in the vicinity of the Site suggest that releases of hazardous substances from the facility have affected Site soils and groundwater, and surface water, and sediments downgradient of the Site.

Several investigations lead by Suffolk County and the New York State Department of Environmental Conservation (NYSDEC) concerning contamination of the LAI industrial facility were conducted during the 1970s and 1980s. During these studies fluoride, toluene, carbon tetrachloride and metals were detected in samples collected from sumps, puddles, laboratory cesspools and surface water runoff at the LAI facility. Fluoride, nitrates, TCE, 1,1-dichloroethene (1,1-DCE), cis-1,2-dichloroethene (cis-1,2-DCE), PCE and metals were detected in groundwater samples collected from adjacent residential wells. EPA provided bottled water to homes with private wells affected by contaminated groundwater and subsequently connected those homes to the public water supply as part of response action conducted in 1987. The NYSDEC, Region 1 Resource Conservation and Recovery Act (RCRA) Hazardous Substance Group oversaw a major drum removal action at the Site in 1991. The Suffolk County Water Authority (SCWA), under contract with the NYSDEC, connected homes that were affected by groundwater contamination attributed to LAI to public water supplies throughout the 1990s. The NYSDEC conducted a limited Remedial Investigation (RI) in 1997. The results from this investigation revealed that CVOCs were detected in the groundwater and surface water. Based on the above investigations, the EPA prepared a hazard ranking system (HRS) report and proposed the Site for inclusion on the NPL on October 22, 1999. The Site was listed on the NPL on March 6, 2000.

In April 2003, NYSDEC performed a multi-media inspection of the LAI Site as a result of previous findings of contamination. The NYSDEC documented violations of air, soil, solid waste, chemical bulk storage and hazardous waste regulations. LAI was ordered by the NYSDEC to cease production until all violations were resolved. Currently, the LAI industrial facility is not operating and most of the buildings are vacant and unused.

1.4 Recent Site History and Progress

EPA conducted an RI at the Site from August 2003 to May 2005 through the RAC program. The RI documented a CVOC plume and identified polychlorinated biphenyl (PCB)-contaminated soil at the Site. EPA personnel also noted conditions at the Site that warranted removal action (e.g. leaking vats and drums). During the RI, EPA Region 2's Removal Action Branch removed approximately 1,300 drums, cylinders and other containers containing various flammable solids, acids, bases, gases and unknown compounds, and inventoried the laboratory area; identifying at least 390 containers. Most of the drums and containers were disposed off-site in October and November 2004. Non-hazardous material were considered the property owner's responsibility and left at the Site. Approximately 13.5-tons of transformers and capacitors filled with suspected PCB liquid were removed from the Site and disposed of as part of the 2004 removal action. During these actions, EPA personnel identified approximately 30 additional electrical transformers in several areas of the Site. NYSDEC removed all of the PCB containing transformers in 2019. Eight non PCB transformers are remaining at the Site.

A Feasibility Study (FS) was completed in July 2006 by CDM Smith on behalf of the EPA and presented remedial alternatives for groundwater, soil, surface water and sediment. The Record of Decision (ROD) for the Site was signed on September 29, 2006 and addressed both soil and groundwater. The soil and sediment remedies were completed in March 2011 and included excavation and removal of approximately 550 tons of contaminated material from the Site. The groundwater remedy included the installation of the two groundwater extraction and treatment systems one at LAI and one at OMP and ISCO at the LAI source area.

1.5 Groundwater Remedy

The purpose of the selected groundwater remedy is to comply with the Remedial Action Objectives (RAOs) in the ROD. The RAOs for the Site are as follows:

- prevent or minimize potential, current, and future human exposures including inhalation, ingestion and dermal contact with Volatile Organic Compound (VOC)-contaminated groundwater
- minimize the potential for off-site migration of VOC-contaminated groundwater

- restore groundwater to levels that meet New York State Groundwater and Drinking Water Quality Standards within a reasonable time frame
- prevent or minimize VOC-contaminated groundwater from discharging into Port Jefferson Harbor

The groundwater remedy established in the ROD included the following components:

- construction of two groundwater extraction and treatment systems (one at the LAI facility and one within the downgradient plume area near OMP)
- in-situ chemical oxidation (ISCO) application within the area of high TCE concentrations in groundwater at the LAI Site
- imposition of institutional controls
- development of a Site Management Plan (SMP)
- long-term groundwater and surface water sampling to monitor changes in contaminant concentrations and distribution over time
- investigation of vapor intrusion into structures within the plume area, and implementation of an appropriate remedy (such as sub-slab ventilation systems) based upon the investigation results

Section 2 of this report discusses implementation of the groundwater remedy and more recent Site-related sampling events.

EPA completed the Remedial Design (RD) for the LAI and OMP groundwater pump and treat systems and ISCO treatment at the LAI facility in April 2009. This was performed under the EPA Region 2 RAC 2 Contract No. 68-W-98-210, Work Assignment No. 173-RDRD-02PF. The goal of this design was to minimize the potential for off-site migration of VOC-contaminated groundwater by extracting and treating contaminated groundwater and to treat groundwater with the highest TCE concentrations (greater than 1 milligram per liter [mg/l]) with ISCO to reduce contaminant mass. Both pump and treat systems have multiple extraction wells, air strippers and vapor-phase granular activated carbon (GAC) units. The OMP system also has liquid-phase GAC units.

In May 2009, EPA initiated the RA for the components specified in the RD under the Region 2 RAC 2 Contract No. EP-W-05-049, Work Assignment Nos. 234-RARA-02NS, 238-RARA-02NS and 338-RARA-02NS. Construction of the treatment system and ISCO injections at the LAI facility were performed from December 2009 through September 2010. The groundwater pump and treat facility startup testing at LAI was performed in September 2010. Operation and maintenance (O&M) activities for the on-site groundwater treatment system will continue until the RAOs are met.

The design and installation of the downgradient groundwater pump and treat facility at OMP was completed by the EPA Region 2 Removal Action Branch. Operations at the OMP facility started on August 22, 2011. In addition, indoor air testing at homes within the plume area and necessary mitigation measures were completed by EPA's Environmental Response Team (ERT) under the Response, Engineering and Analytical Contract (REAC).

Several recent upgrades were conducted at the downgradient OMP facility. A third extraction well was installed at the OMP facility (ERT-EW-6) and turned on in 2014. In April 2016, several conveyance components of the OMP treatment system, including all pipes, valves and fittings between the extraction wells and the start of the effluent discharge lines to the Old Mill Pond and Creek, were upgraded from three inch to six inch diameter parts. A 15 horsepower (HP) air stripper transfer pump (previously 7.5 HP) was installed to increase treatment capacity while expanding the capture zone of the distal end of the groundwater plume. The system flow capacity was increased from approximately 150 gallons per minute (gpm) to 225 gpm.

1.6 Hydrogeologic Setting

To provide a framework for discussion of the sampling results in **Section 2** and **Section 3**, the following sections summarize the site-specific geology and hydrogeology. **Figure 2** shows monitoring well sample locations and cross-section A-A' aligned along the centerline of the plume from upgradient of the Site to Port Jefferson Harbor. **Figure 3** shows topography with baseline Upper Glacial Aquifer groundwater contours and TCE isoconcentrations from data collected May 2008 at the conclusion of the Pre-Design Investigation (PDI). **Figure 4** is a geologic cross section with baseline potentiometric lines of equal hydraulic head and TCE isoconcentrations from data collected May 2008 at the conclusion of the Pre-Design Investigation (PDI).

1.6.1 Geology

Three aquifers are present beneath the LAI Site: the Upper Glacial aquifer, the Magothy aquifer, and the Lloyd Sand Member of the Raritan Formation (Koszalka 1984). The Magothy and underlying Lloyd Sand Aquifers are separated by the Raritan Clay member of the Raritan Formation, which limits the movement of groundwater between the two units. The presence of the Raritan Clay, directly underlying the Magothy aquifer, marks the lower boundary of the upper flow system. The RI concluded that the contaminant plume is migrating within the upper flow system, primarily within the Upper Glacial aquifer. The Upper Glacial deposits range in thickness from more than 300 feet at the LAI facility to approximately 100 feet at Port Jefferson Harbor and are composed primarily of sand and gravel with occasional lenses of silty sand and silt.

1.6.1.1 Magothy Aquifer

The Magothy aquifer consists of Upper Cretaceous Magothy deposits from base of the Upper Glacial aquifer to the top of the confining clay unit of the Raritan Formation. It consists of fine to medium sand with interbedded silts and clays. The aquifer has a fluvial-deltaic depositional origin, is wedge shaped, and thickens progressively towards the south and southeast. The Magothy deposits were unconformably overlain by glacial deposits (Franke and McClymonds 1972). Discontinuous clay bodies are present in the Magothy Formation. As seen on Cross-section A-A' (**Figure 4**), the contact between the Magothy and Upper Glacial aquifers on the order of 100 feet below mean sea level (msl) at the Site, which is consistent with regional studies in the area (Koszalka, 1984).

1.6.1.2 Upper Glacial Aquifer

The Site is directly underlain by the Pleistocene-age Harbor Hill moraine, a remnant of the most recent glaciation. The moraine is up to 70 feet thick and composed primarily of sand and gravel with occasional lenses of silty sand and silt. The moraine deposits thin to the south and to the north. Cross-section A-A' (**Figure 4**) shows the extent and lithology of the Upper Glacial Aquifer underlying the Site.

At the LAI industrial facility, the moraine deposits are underlain by well graded fine to medium grained sands and silts with occasional layers of silt and clay or sand and gravel. The clay-rich layers observed in this zone were thin and discontinuous, likely derived from Magothy Formation material, or deposits of the Smithtown Clay, that were reworked and then re-deposited during the creation of the local moraine. The localized glacial activity at the Site has reworked the upper layers of the Magothy Formation and left very complex heterogeneous glacial deposits at the base of the Upper Glacial aquifer, which makes identification of the contact between these two formations difficult at some locations. The approximate elevation of -100 msl is consistent with regional studies (Koszalka, 1984).

1.6.2 Hydrogeology

1.6.2.1 Groundwater Flow

The Upper Glacial aquifer is generally under unconfined conditions and the upper limit is defined by the water table. Saturated thickness ranges from approximately 110 to 140 feet. Synoptic groundwater level data from the 2008 baseline monitoring event were used to evaluate the horizontal and vertical distribution of hydraulic head at the Site (**Figures 3 and 4**). Potentiometric surface contours (**Figure 3**) show that groundwater flow from the LAI facility is to the north,

toward Port Jefferson Harbor under an average hydraulic gradient of approximately 0.004 ft/ft. Viewed in cross-section, along the approximate centerline of the plume (**Figure 4)**, a downward vertical hydraulic gradient is evident at the LAI facility that changes to an upward gradient further to the north, in proximity to Port Jefferson Harbor. These vertical gradients are indicative of groundwater recharge and discharge zones. The Upper Glacial aquifer appears to be under artesian conditions at MPW-09 which is near the OMP facility and Old Mill Pond as a result of low permeability silts, clay lenses, and silty sands in that area.

1.6.2.2 Estimates of Hydraulic Conductivity and Transmissivity

During the RI/FS, EPA performed a series of packer tests at the Site to estimate hydraulic conductivity and transmissivity of the Upper Glacial and Magothy aquifer. Inflatable packers were used to isolate vertical sections of the well for sampling to define the vertical distribution of water quality parameters and hydraulic conductivity. Tests were performed at well MPW-07, located at the LAI industrial facility; at well MPW-10 located approximately 1,700 feet downgradient of the LAI industrial facility; and at well MPW-09, near Port Jefferson Harbor. Hydraulic conductivity values were calculated to range from <0.02 feet/day to 89 feet/day, and transmissivity estimates ranged from 12 to 22,200 gallons per day/foot (or 2 to 3,000 square feet/day). Lithologic logs indicated that the saturated portion of the Upper Glacial and Magothy Aquifers at the Site, where multi-port wells are screened, generally consisted of a layer of fine to medium sand overlying a silty sand layer.

During the PDI, a 48-hour constant rate aquifer test was performed using a test well in the area near well MPW-02. The upper 60 feet (180-240 feet below ground surface (bgs)) of the aquifer was screened by the test well and piezometers were also screened within the zone from 205 to 225 feet bgs. The lithology observed in the screened zone was predominantly a mixture of fine to medium grained sands with silt. The aquifer test indicated hydraulic conductivity ranging from 31 to 63 feet/day and transmissivity estimates ranged from 4,400 to 8,800 square feet/day.

The wide range of hydraulic conductivity values observed in the packer tests is consistent with the heterogeneity of the glacially deposited material encountered in the borings. The results of the 48-hour constant rate test represent the mean hydraulic properties of the material between the pumping well and the piezometers used to measure drawdown. Therefore, the estimates derived from the 48-hour constant rate test are considered to be more representative of the bulk hydraulic properties of the aquifer in that area.

1.7 Summary of Area-Wide Contamination in 2008

The TCE plume originates in the vicinity of well MPW-07 at the LAI property and initially moves downward and to the northwest in response to the vertical and horizontal hydraulic gradients in

that area. The direction of groundwater flow and the TCE plume shift to the north toward Port Jefferson Harbor in the vicinity of well MPW-10, approximately 1,800 feet from downgradient LAI property boundary. Analytical data indicate that the TCE plume extends to the harbor, approximately 5,000 feet north of MPW-10.

The vertical hydraulic gradient in downgradient portions of the plume near well MPW-09 is upward, indicating that groundwater is moving upward within the aquifer as it approaches Port Jefferson Harbor. Analytical data indicate that the TCE plume also begins to move upward in the area of MPW-09. This upward gradient also causes groundwater to discharge at the surface in the vicinity of OMP. A surface water sample from OMP, collected in October 2003 during the RI, showed TCE concentrations ranging from 180 micrograms per liter (µg/l) to 340 µg/l and cis-1,2-DCE concentrations ranging from 9.2 to 17 µg/l. **Figures 3** and **4** show the TCE plume location and distribution in plan view and cross section, based on data collected during the 2008 comprehensive sampling event.

The highest TCE concentrations detected in the 2008 baseline sampling event (greater than 1,000 µg/l) were centered at two monitoring well locations; MPW-07, located at the LAI property, and MW-PD-16, located approximately 4,200 feet downgradient of the property and 1,100 feet upgradient of MPW-09. The sample at multiport well MPW-07 was collected from the shallowest port, just below the water table, while MW-PD-16 is screened approximately 125 feet below the water table and documents the downward migration of the plume.

The persistence of high TCE concentrations in the source area at the LAI property, more than 20 years after releases ended, indicates that residual subsurface soil contamination may be present, most likely in low permeability zones near the water table. The high TCE concentrations in the downgradient plume most likely indicates the presence of a more highly concentrated slug of TCE that coincides with larger releases that occurred when the LAI plant was in operation.

2 2019 COMPREHENSIVE SAMPLING EVENT AND RESULTS

Groundwater samples were collected to measure performance of the two remediation systems. Analytical results are used to monitor contaminant levels over time and evaluate whether the extraction wells prevent or minimize offsite migration of impacted groundwater and discharge to Port Jefferson Harbor.

2.1 Sampling Methodology

HDR conducted the comprehensive annual sampling activities from June 3 to 11, 2019. Groundwater sampling followed standard operating procedures presented in the April 2016 (Revision 3) EPA-approved Quality Assurance Project Plan (QAPP). Seventy-five groundwater samples were collected from 52 locations, consisting of seven extraction wells, six process monitoring points, nine multiport wells, three piezometers, and 26 monitoring wells. An additional 28 quality assurance/quality control (QA/QC) samples were collected as part of the comprehensive annual sampling activities.

The performance of both groundwater treatment facilities (GWTF) is monitored routinely, which includes monthly system process water sampling for target compound list (TCL) VOCs, fluoride, and target analyte list (TAL) metals. Eleven process water samples were collected from the treatment systems as part of the June 2019 monthly sampling event.

2.1.1 Groundwater Levels

HDR collected a synoptic round of groundwater level measurements on June 3rd, 2019 from the multiport wells, piezometers, and monitoring wells associated with the Site, which generated 80 readings. Conventional single-completion wells were measured using an electronic water level recorder. The depth to groundwater was measured to the nearest 0.01 foot from the top of the inner well casing. Multiport wells were recorded using the pressure transducers installed in each port. Water levels from the five extraction wells were recorded from the PLC.

2.1.2 Monitoring Wells

HDR conducted sampling using US EPA Region 2 low flow groundwater sampling protocols. Monitoring wells were purged with a Grundfos Redi-Flo2® submersible pump and sampled according to EPA low-flow procedures with minimum groundwater drawdown. Multi-port wells (Waterloo Multilevel Systems) were purged and sampled using Nitrogen-activated bladder pumps, that are included as part of the Waterloo system, in accordance with manufacturer instructions. Groundwater from each monitoring well was pumped through a YSI DSS water quality meter flow-through cell. The YSI DSS water quality meter measured water quality parameters, consisting of temperature, pH, oxidation reduction potential (ORP), specific conductance, turbidity and dissolved oxygen (DO). The water level in each well was also monitored during the purging

process using an electronic water level meter to document minimal drawdown conditions. Groundwater samples were collected after stabilization of field parameters.

The groundwater samples were analyzed for trace-level TCL VOCs in accordance with EPA Statement of Work method SOM02.4. Selected wells located along the centerline of the plume are sampled and analyzed for 1,4-dioxane on a biennial basis. Sampling and analysis for 1,4-dioxane was not performed as part of the 2019 Comprehensive Sampling Event because they were performed in 2018. Analytical samples were shipped to the laboratory under strict management and Chain-of-Custody (COC) procedures in accordance with the QAPP. Sample handling and custody was performed according to the EPA OSWER 9200.2-147, CLP Guidance for Field Samplers (EPA-540-R-014-013, October 2014). COC documentation was generated using the Scribe software program.

2.1.3 Surface Water

Surface water samples are collected on a biannual basis. Surface water samples were not collected as part of the 2019 Comprehensive Sampling Event.

2.2 Quality Control / Quality Assurance Samples

QA/QC sampling followed the procedures presented in the April 2016 (Revision 3) QAPP. QA/QC samples collected included field duplicates (1 per 20 samples collected), trip blanks (daily, for VOCs only), equipment blanks (minimum of 1 per 20 samples collected) and field blanks (daily). A total of 28 QA/QC samples were collected during this event, including field duplicates, equipment blanks, field blanks, and trip blanks, two of which were collected as part of the monthly compliance sampling.

2.3 Decontamination and Investigation Derived Waste (IDW)

Decontamination of personnel and equipment was conducted for all non-dedicated materials that came in contact with potentially hazardous materials to prevent cross-contamination of samples. Personnel decontamination procedures were implemented to prevent worker exposure to contaminants as explained in the site-specific Health and Safety Plan (HASP). Waste material generated during the annual sampling activities were: decontamination fluids containing wash/rinse water and decontamination chemicals, purged groundwater and personal protective equipment (PPE) consisting of nitrile gloves and Tyvek coveralls. Purge water and decontamination fluids were transported to the LAI or OMP GWTF in enclosed buckets or tubs. The water was treated through the air stripper and GAC vessels prior to discharge, in accordance with the Waste Management Plan for the Site. The PPE was disposed of as municipal waste.

2.4 2019 Comprehensive Sampling Event Results

Groundwater sampling locations are shown on **Figure 2**. Analytical results from samples were compared to criteria from the NYSDOH Drinking Water Quality standards (Part 5, Subpart 5.1, dated November 2011) and the NYSDEC for Class GA Groundwater (Technical & Operational Guidance Series (TOGS) 1.1.1, June 1998). NYSDOH and NYSDEC Standards for class GA Groundwater for VOC criteria are similar with the exception of chloroform. In this instance, the lower NYSDEC Standard for class GA Groundwater of 7 µg/l was used. A full set of analytical results for 2019 Comprehensive Sampling Event is presented in **Appendix A**.

2.4.1 Data Usability

A Data Usability Report was prepared to verify conformance with the data quality indicators (DQIs) specified in the EPA-approved QAPP, Revision 3 (HDR April 2016) and is provided in **Appendix B**. Sample data were evaluated for precision, accuracy, representativeness, comparability, sensitivity and completeness. Samples were analyzed through the contract laboratory program (CLP) by Shealy Environmental Inc. and validated by EPA Region 2 personnel.

The qualified results provided by the CLP laboratory are considered definitive data by EPA Region 2 based on the systematic data validation to provide assurance that the data were adequate for its intended use. The validation was performed based on an evaluation of project objectives, method-specific QA/QC information (such as holding times, calibration records, laboratory- and field-supplied blanks, duplicate precision, and surrogate and spike recovery), relevant sections of the EPA Region 2 Data Validation Standard Operating Procedures (SOPs) [HW-34 (Rev3) and HW-35 (Rev2) for VOA and SVOA, respectively], relevant sections of the EPA National Functional Guidelines for Organic Data Validation, and/or the best professional judgment of the validator. Validation was performed by EPA personnel with the appropriate training and/or experience in performing data validation for the analyses of interest associated with the project. Qualifiers (as appropriate) were added to the data based on the results of the validation.

The Data Usability Report focused only on the samples included in the comprehensive sampling event. The data generated during the 2019 comprehensive sampling event are considered definitive data generated under an EPA-approved QAPP, following EPA methods and validated according to EPA Region 2 standard operating procedures. The results of the data usability report indicate that sufficient data were collected to obtain a complete and usable data set.

QA blanks (method, field, rinse, and trip blanks) are prepared to identify contamination that may have been introduced into the samples during sample preparation or field activity. Method blanks measure laboratory contamination. Field and rinsate (equipment) blanks measure cross-contamination of samples during field operations. Trip blanks measure cross-contamination of

samples during shipment. Chloromethane was detected in one or more of the laboratory (method) blanks at concentrations above the reporting limit of 0.5 µg/l. The following was noted in the narrative that accompanied the data package and results were qualified as described. In accordance with SOP DW-1 for Trace Volatile Analysis (Corrective Action), if contaminants are detected in the laboratory blank, then in order for the same contaminants to be reportable in the samples, the sample concentration must be 10X the concentrations in the laboratory blank. If the amount is less than 10 times the amount found in the blank, report the amount found in the sample as a "U". If the contaminants found in the laboratory blank are not in the sample, then report the analytes (contaminants) as non-detect with the reporting limit as their values. As summarized in the narrative that accompanied the final data package, the samples were less than 10 times the amount in the laboratory blank. Results that were greater than 0.5 µg/l were qualified as "U", non-detect, for chloromethane. Chloromethane is not a Site contaminant of concern.

Upon validation, several of the sample results were qualified "U" indicating non-detect result above the contract required quantitation limit (CRQL), "UJ" for an estimated non-detect result value, "UL" for an estimated non-detect value that may be biased low, "K" for a reported value that may be biased high, and "NJ" for an analyte that is tentatively identified. These qualifiers were added based on the results of data validation. The qualified data were primarily low-level detections at or near the CRQL. No sample results were rejected for the 2019 Comprehensive Sampling Event.

The definitive data for the Long Term Remedial Action (LTRA) annual sampling event conducted in June 2019 fulfilled the site-specific QA/QC requirements. Overall, the data met the project DQOs, and are appropriate to characterize the levels of contamination in the aqueous samples collected from the Site.

2.4.2 Groundwater Levels

Depth to water measurements, the elevation of the measuring point and calculated groundwater elevations for the June 2019 Comprehensive Sampling Event are presented in **Table 1**. Three of the PLC readings (extraction wells ERT-EW-01, ERT-EW-02 and ERT-EW-06 at the OMP facility) did not appear to be representative of water levels in the wells and are not reported on **Table 1**. These readings were attributed to faulty transducers. The transducers are in the process of being reprogrammed.

A potentiometric surface map for the Upper Glacial aquifer from the LAI Site to the Port Jefferson Harbor, based on the June 2019 groundwater levels, is presented in **Figure 5**. Groundwater levels from the contaminated intervals were used at well cluster and multiport well locations. Well construction data is presented in **Table 2**. The data indicate that groundwater flow conditions are generally consistent with baseline conditions both in terms of flow direction and hydraulic gradient

in areas not impacted by the groundwater extraction and treatment facilities. Drawdown from the extraction wells appear to be limited to the immediate area of the extraction wells.

2.4.3 Sample Results

In addition to well construction details, **Table 2** provides information on where samples were collected, where they were not collected and in those cases the reasons for not collecting a sample. The site-related contaminants are primarily TCE and PCE. Historically, low concentrations of TCE degradation products cis-1,2-DCE, 1,1-DCE, and vinyl chloride (VC) have also been detected. Additional site related VOCs are 1,1,1-trichloroethane (1,1,1-TCA), 1,1-dichloroethane (1,1-DCA) and chloroform. **Table 3** summarizes the June 2019 groundwater analytical results for these site-related VOCs. Exceedances of screening criteria are highlighted in yellow. Geochemical parameters measured during the low flow purging process are summarized in **Table 4**.

2.4.3.1 Groundwater and GWTF System Process Water Sample Results

The key CVOC results for the 2019 comprehensive groundwater sampling event and the June 2019 monthly GWTF system process water are discussed below:

- TCE was detected in 62 of the 75 groundwater samples with concentrations ranging from 0.54 µg/l, to 1200 µg/l. Concentrations in 33 of the samples collected exceeded the remediation goal of 5 µg/l. The highest concentration of TCE, 1200 µg/l, was detected in the sample from source area well MW-ISCO-4.
- PCE was detected in 37 of the 75 groundwater samples with concentrations ranging from 0.53 µg/l, to 23 µg/l. Concentrations of PCE in six of the samples were greater than or equal to the remediation goal of 5 µg/l. The highest concentration of PCE, 23 µg/l, was detected in the groundwater sample collected from source area well MW-ISCO-2, screened 20 feet below the groundwater table.
- Cis-1,2-DCE was detected in 13 of the 75 groundwater samples with concentrations ranging from 0.57 µg/l, to 4.3 µg/l. The highest concentration of cis-1,2-DCE, 4.3 µg/l, which is below the remediation goal of 5 µg/l, was detected in the groundwater sample collected from the D-port at offsite multiport well MPW-09.
- The following compounds were detected in one or more samples at concentrations less than their respective remediation goals: 1,1,1-TCA, 1,1-DCA, 1,1-DCE, chloromethane, chloroform, and MTBE.
- VC was not detected in any of the groundwater samples collected.

Results for QA/QC samples are included in the Data Usability Report in **Appendix B**. Data summary tables for the complete list of VOCs is included in **Appendix A**.

A TCE isoconcentration contour map (**Figure 6**) presents the results of the 2019 comprehensive sampling event in plan view. Isoconcentration lines are based on the highest TCE concentration at multi-port and clustered well locations. Cross-section A-A' in **Figure 7** shows the distribution of the CVOCs with depth for the 2019 comprehensive sampling event. The location of cross section A-A' is shown on **Figure 6**. TCE, PCE, cis-1,2-DCE, and VC results are provided in the cross-section. However, the contours are based on TCE concentrations only. The contours represent TCE levels that were determined to be representative of the centerline of the plume. Data from wells projected onto the cross-section from locations at the edges of the plume were not used. Results of the 2019 comprehensive event were superimposed on the May 2008 PDI results in both **Figure 6** and **Figure 7** to help visualize the impact of remedial action on the plume.

2.4.3.2 Geochemical Parameters

General observations on the geochemical parameters measured during the 2019 event are as follows:

- Area-wide DO levels in groundwater ranged from 0.0 to 12.22 mg/L. The DO levels are considered to be generally indicative of oxidizing conditions. Levels below 1 mg/L were recorded at a few isolated locations, however these results were not always supported by ORP results and were not considered to be representative of the overall conditions in the plume. Levels recorded for ISCO-5, ISCO-10, MPW-02-B, PZ-05 and PZ-06 were also considered outliers as they were above saturation limits based on recorded temperatures and not considered to be representative of groundwater at the site.
- Area-wide pH readings in groundwater ranged from 4.9 in sample ERT-EW-5 to 8.92 in sample MPW-01-C. MPW-01-C has been consistently higher in previous sampling rounds than the Site wide range.
- Area-wide ORP levels in groundwater ranged from -17.1 millivolts (mV) in sample MPW-01-C to 211.7 mV in sample MPW-08-A. ORP levels are generally indicative of oxidizing conditions

3 GROUNDWATER CONTAMINATION OVER TIME

3.1 Effects of Remedial Action

As reported in the most recent monthly (August 2019) Operations and Maintenance Report, approximately 1,342.6 pounds of CVOC have been removed from the contaminant plume since HDR assumed operation of the remediation systems at the Site. The majority of contaminant mass removal was associated with the OMP system.

Removal of contaminant mass from the source area and offsite plumes has resulted in a general reduction in contaminant concentrations over the operational period of the remediation systems as shown in **Figures 8** through **11**. The data set used to prepare these figures is included in **Appendices C** and **D**. Evaluation of contaminant concentrations focused on chlorinated ethenes because these are the primary site-related contaminants. Further details of this evaluation will be discussed separately in terms of the source area plume and the offsite plume.

Fate of the source area plume was evaluated using analytical results from ISCO wells MW-ISCO-2, MW-ISCO-4 and MW-ISCO-5 located at the LAI facility. These wells are located in the source area immediately upgradient of extraction wells EW-01 and EW-02. ISCO injection well IW-ISCO-10 is also part of the LTMP but is further to the northeast than the three main source area wells.

As shown on **Figure 8**, groundwater in the source area experienced an initial rebound in total chlorinated ethene concentrations shortly after the completion of ISCO treatment and extraction system startup in 2010. Since the initial rebound, contaminant concentrations in each of the source area wells have generally exhibited reducing trends. Reducing trends continued in 2019 at ISCO-2 and ISCO-5. However, MW-ISCO-4 concentrations increased to 1209 µg/l, reversing the long term trend in that well (**Figure 8**).

A plot of the average concentrations of the three main source area wells with time is shown on **Figure 9**. Average total ethene concentrations for source area wells are presented in **Appendix C** and the data used to calculate average concentrations are provided in **Appendix D**. Contaminant concentrations fluctuate over the monitoring period, which can have an effect on the slope of the regression line from year to year. More recent trends in average concentrations in the source area are stable and possibly increasing. In 2017, downward trends were maintained in both the general population and at the 95% confidence limit. The slight increases in CVOC concentrations during the 2018 event did not affect the downward trend in the average concentration of the source area wells, but resulted in a slight upward trend in the 95% confidence limit. Increases in CVOC concentrations in two of the three source area wells (ISCO-2 and ISCO-4) in the 2019 event resulted in a stable average concentration trend and a slight upward trend in the 95% confidence limit of the source area wells. The overall trend in these data following the 2019 Comprehensive Sampling event indicates that groundwater concentrations are in equilibrium with residual source

material. Extension of the stable trendline indicates that the LAI system may have to operate longer than anticipated during the FS to meet remedial action objectives.

Fate of the offsite plume was evaluated using a series of single completion monitoring wells and a multiport well located along the centerline of the plume. Single completion wells MW-PD-12, MW-PD-14 and MW-PD-16 are located between the LAI facility and the OMP facility. Multiport well MPW-09, which monitors four different zones between the depths of 10 and 135 feet (A through D ports), is located immediately downgradient of the OMP extraction wells. Contaminant concentrations in these wells show a downward trend since startup of the OMP remediation system in 2010, consistent with the reduction in mass within the offsite plume (**Figure 10**). This reduction can be seen at depth where the highest concentrations are migrating (MPW-09-B, MPW-09-C, MPW-09-D, MW-PD-12, and MW-PD-16) through 2018. The reduction can also be seen at shallow depths above silt and clay deposits in the Upper Glacial aquifer (MPW-09-A) through 2017. In 2019, the increasing trend in the TCE concentration at MW-PD-14 continued for the third year in a row. Based on overall trends in the offsite plume, it is anticipated that the downward trend in concentrations will be re-established. However, concentrations at this well should be closely monitored in future comprehensive sampling events.

Average total ethane concentrations for offsite plume wells are presented in **Appendix C** and the data used to calculate average concentration are provided in **Appendix D**. The overall downward trend is demonstrated in a plot of the average contaminant concentrations for these offsite plume wells over time (**Figure 11**). The downward trend for the offsite plume is present both in the general population and at the 95% confidence limit. The overall downward trend is maintained through 2019. This general reducing trend can also be seen at individual wells located at the plume lateral and distal limits as shown in **Figures 12** through **16** and **Appendix E**. Although it is clear from the trend plots that contaminant mass is being removed by the OMP facility, extension of the average concentration trendline suggests that the OMP facility may also have to operate longer than anticipated during the FS.

3.2 Groundwater Contamination Plume Extent

The pre-remediation groundwater contamination plume extent used for this evaluation was established based on data from the 2008 PDI. At that time, the plume extended approximately 6,000 feet northwest of the LAI facility to Port Jefferson Harbor and was approximately 1,000 feet in width (**Figure 3)**. Vertically, the plume was shown to migrate downward from the facility to depths of 250 to 300 feet and then upward as it approached Port Jefferson Harbor (**Figure 4**). **Figures 3** and **4** are figures from the PDI that show plume distribution based on concentrations of TCE, the primary contaminant associated with the plume. The PDI concluded that both horizontal and vertical plume migration was consistent with the flow of groundwater from upland recharge areas near the LAI facility to discharge areas at the harbor (**Figures 3** and **4**). Groundwater level data from the 2019 synoptic round of groundwater measurement indicate that current plume

migration remains consistent with the ambient groundwater flow and the original conceptual model of contaminant transport (**Figures 5** and **6**).

The 2019 comprehensive sampling event indicates that the current plume extent is similar to the pre-remediation plume in overall length, but has separated into onsite or source area and offsite plumes over the course of remedial action (**Figure 6**). The current plume width, based on the 5 µg/l contour, is approximately 65% of the 2008 plume width. **Figures 6** and **7**, which show the current horizontal and vertical distribution of the plume, were also based on TCE concentrations to be consistent with **Figures 3** and **4**. The separation between the source area and offsite plume shown on **Figure 6** is consistent with the collection of contaminated groundwater by LAI facility extraction wells EW-01 and EW-02.

The current downgradient extent of the source area plume was estimated based on groundwater flow conditions in the area of the LAI facility and is shown as dashed contour lines on **Figures 6** and **7**. The lateral and vertical limits of the source area plume are generally consistent with the pre-remediation plume. The plume in the area of the LAI facility is limited to the immediate area of the contaminant source and the upper 25 to 30 feet of the aquifer. The limits of the combined EW-01/EW-02 capture zone cannot be established by existing monitoring wells and piezometers. The presence of manufacturing buildings limited placement of these wells. However, continued mass removal by the extraction and treatment systems indicates that the extraction wells continue to be effective in collecting contaminated groundwater in the source area.

The current offsite plume extends from a point upgradient of MW-PD-12 to Port Jefferson Harbor. The estimated upgradient extent was based on groundwater flow conditions between the LAI facility and MW-PD-12 and is shown as dashed contour lines on **Figures 6** and **7.** Analytical data from the June 2019 sampling indicate that the vertical migration pathway of the current plume is consistent with the pre-remediation plume. A comparison of the current distribution of the offsite plume with OMP extraction wells indicates that the OMP system is targeting the most highly concentrated portion of the plume both horizontally and vertically. A reduction in the width of the offsite plume is further evidence of the impact of the OMP system. Based on the width and thickness of the offsite plume, it is unlikely that the OMP system is resulting in complete capture of the plume, but it is resulting in a reduction in plume concentrations as discussed above. Recent enhancements to the remediation system that allow higher pumping rates are expected to increase mass removal and the remediation of the offsite plume.

3.3 Plume Concentrations

In general, concentrations of site-related VOCs have decreased from pre-remedial action levels to present day levels throughout the plume as shown in **Figures 12** through **16** and **Appendix E**. Fluctuations in contaminant concentrations have been observed, however an overall decreasing trend is evident in the data as previously discussed. Decreases in concentrations of the primary contaminant TCE, accounted for most of the observed reduction in total VOCs. Concentrations of

TCE degradation products, such as cis-1,2-DCE and VC, have been consistently low and have not changed significantly over time.

Average concentrations in the source area at the LAI property show a slight overall increase, but are relatively stable compared to the offsite plume (**Figures 9** and **11**). TCE concentrations have been relatively stable for the past three monitoring events at MW-ISCO-2 (710 µg/l in 2017, 710 µg/l in 2018 and 780 µg/l in 2019). MW-ISCO-2 is located downgradient of the source area, just upgradient of extraction wells EW-01 and EW-02. Conversely, TCE concentrations at MW-ISCO-4, which is located in the suspected source area have increased over the past three monitoring events, with a marked increase in 2019 (220 µg/l in 2017, 330 µg/l in 2018 and 1,200 µg/l in 2019).

Annual comprehensive sampling events have established that concentrations in the source area have historically fluctuated on the order of hundreds to more than a thousand µg/l. Short term fluctuations such as these are consistent with variations in the rate of recharge or the elevation of the water table that result in changes in mass transfer from residual source material in the unsaturated zone or capillary fringe to the groundwater. Rebound from the back diffusion of residual mass in the saturated zone would be expected to be more gradual and consistent.

The increase of close to a thousand µg/l in MW-ISCO-4, which is screened 16 to 26 feet below the water table, suggests that the residual source material might be relatively close to the water table. However, the relative consistency of concentrations at downgradient well MW-ISCO-2 indicates that the residual source material might be limited to immediate area of MW-ISCO-4.

Influent concentrations at EW-01 and EW-02 have shown very little fluctuation since 2012, including the June 2019 annual monitoring event. The trend in influent concentrations is consistent with the trend in average source area concentrations shown in **Figure 9**.

The 2019 TCE and total VOC concentrations at wells MW-PD-12, MW-PD-14 and MW-PD-16, located in the central part of the offsite plume, ranged from slight increases to slight decreases with respect to 2018 levels. These wells are located along the approximate center line of the plume and represent the highest concentrations detected in the central part of the offsite plume. The fluctuations are believed to be a result of historical changes in VOC mass transfer at the LAI facility, most likely a result of variations in precipitation. The variations in contaminant concentrations at the source area are reflected in the plume as it migrates downgradient from the site. Total VOC concentration versus time plots for these wells indicate that overall trends in contaminant concentrations are downward since the groundwater extraction and treatment facilities began operation (**Figures 12** to **16)**. The data set used to prepare these time-series graphs is included in **Appendix E**. Based on historical data trends, the overall reduction in contaminant concentrations in the central part of the offsite plume is expected to continue as long as the remediation systems continue to operate.

Monitoring wells located in the distal end of the plume, also exhibit a general trend of short term fluctuations with an overall reducing trend. Concentrations of total VOCs at well MPW-09, located immediately downgradient of the OMP system, show a greater reduction in concentration than MW-PD-16, which is located upgradient of the OMP facility (**Figure 14 and 15**). The greatest overall reductions in concentrations are seen in the deeper intervals, ports B, C, and D that intercept the main part of the plume and correlate with screen zones of the OMP extraction wells. The range in TCE concentrations for the 2019 annual event in ports C and D was 150 to 230 µg/l. Concentrations in port B have reduced the most, from hundreds of µg/l as recent as 2016 to approximately 36 µg/l in 2019. Shallow port A, which is separated from the extraction well screens by silt and clay beds, has generally exhibited lower concentrations (**Figure 15**). Overall average trends observed through the 2019 event have continued to decrease.

The 2019 TCE concentrations in groundwater samples from ERT-MW-2B, located at the downgradient end of the plume to the west of the OMP extraction wells, were higher than 2018 levels (370 µg/l in 2019 as compared to 206 µg/l in 2018). The TCE concentration of 370 µg/l measured at ERT-MW-2B represents the highest level detected at this well during the long term monitoring program. The high level of TCE detected in ERT-MW-2B did not affect its overall reducing trend. The 2019 TCE concentrations in groundwater samples collected from ERT-MW-1B, located at the downgradient end of the plume to the east of the OMP extraction wells, have remained approximately the same compared to 2018 levels. In ERT-MW-1B, historical data shows an overall reducing trend. Plots of CVOC concentration with time for these wells are presented in **Figure 16**. TCE concentrations in groundwater samples collected from ERT-MW-3, MPW-05, MPW-06, ERT-MW-5A/B, and ERT-MW-4A/B ranged from 0.54 µg/l to 4 µg/l, and were used to define the western and eastern limits of the downgradient plume.

TCE concentrations detected in the sample from ERT-EW-6 (292 µg/l) indicate that the extraction well continues to remove VOC mass from the slug centered on MW-PD-16 (**Figure 3** and **Figure 4**). Historical total VOC concentrations detected in groundwater samples collected from MW-PD-16 are shown in **Figure 14,** which shows a large drop in concentrations between 2008 and 2012, followed by a relatively stable trend. The 2019 TCE concentration at MW-PD-16 (280 µg/l) is consistent with this trend showing variation minor decrease from the 2018 concentration (380 µg/l). This trend indicates that upgradient portions of the plume continue to migrate towards the OMP facility under advective transport.

Based on the overall trends in total VOC concentrations from 2014 to 2019, operation of ERT-EW-6 and the increased overall extraction rate appears to have a direct influence on the MPW-09 cluster, located just downgradient of the OMP facility. The greatest impact appears to be on intermediate and deep portions of the plume, as shown in the graphs for MPW-09 ports B, C and D (**Figure 15),** where operating OMP extraction wells ERT-EW-1, ERT-EW-2 and ERT-EW-6 are completed. The sample from shallow port MPW-09-A, which is separated from the extraction well screen zones by low permeability silt and clay deposits, does not show the same reduction in concentration. This indicates that the OMP extraction wells are targeting the depth interval

impacted by the plume and that their continued operation will continue to remove contaminant mass from the downgradient portion of the plume.

3.4 Natural Attenuation

The primary mechanism for natural attenuation of chlorinated ethenes is reductive dechlorination. If sufficient hydrogen, suitable bacteria and favorable hydrogeochemical conditions are present, chlorinated compounds such as PCE and TCE will be progressively dechlorinated, resulting in compounds that ultimately breakdown to carbon dioxide. As chlorine atoms are replaced by hydrogen, PCE degrades to TCE which subsequently degrades to DCE, with the "cis" isomer (cis-1,2-DCE) predominant over the "trans" isomer (trans-1,2-DCE). As reductive dechlorination proceeds, VC is produced, and, ultimately, ethene and carbon dioxide as shown below (Chapelle 1993; Wiedemeier et al. 1998).

PCE (C_2Cl_4) → TCE (C_2HCl_3) → DCE ($C_2H_2Cl_2$) → VC (C_2H_3Cl) → Ethene (C_2H_4) → CO_2

The 2019 comprehensive sampling event is consistent with past annual sampling events in indicating that favorable reductive dechlorination hydrogeochemical conditions do not exist at the Site. The relatively high DO levels and positive ORP levels measured in groundwater during the 2019 groundwater sampling event indicate aerobic conditions are present in the aquifer, which does not support active reductive dechlorination. Low and/or non-detect concentrations of the degradation products of reductive dechlorination in groundwater samples, such as cis-1,2-DCE and VC, also indicate that limited reductive dechlorination is occurring. These conditions are consistent with those observed in groundwater during the RI, which also indicated limited reductive dechlorination of TCE. This suggests that decreases in contamination are primarily due to remedial activities performed at the Site, consisting of source mass removal from the operation of two groundwater pump and treat systems, as well as dilution and dispersion.

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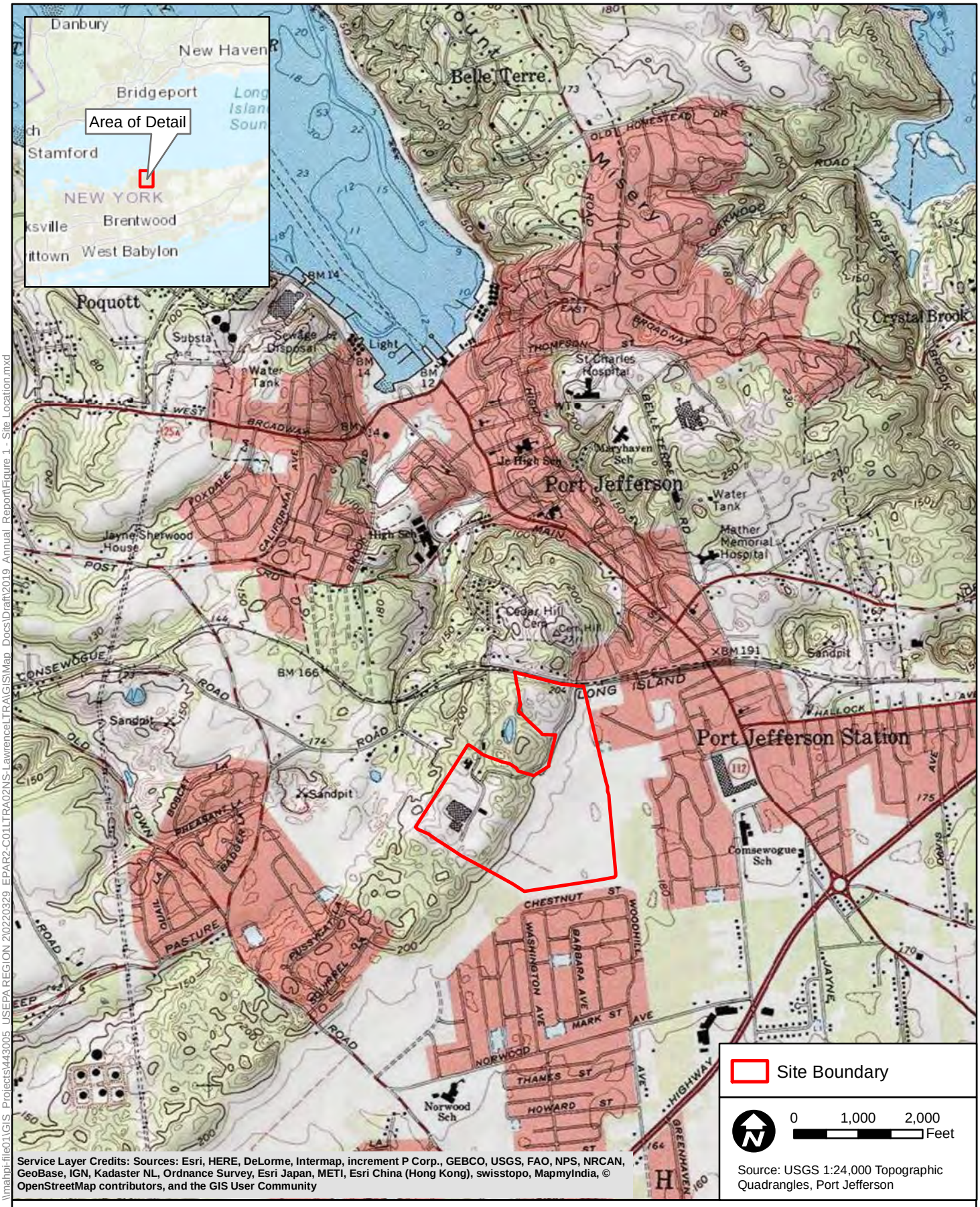
FIGURES



\\mahpi-file01\GIS_Projects\443005_USEPA REGION 2\20220329_EPAR2-C01LTRA02NS-LawrenceLTRA\GIS\Map_Docs\Draft\2019_Annual_Report\Figure 1 - Site Location.mxd

2019 COMPREHENSIVE SAMPLING EVENT REPORT
LAWRENCE AVIATION INDUSTRIES SITE
PORT JEFFERSON STATION, NY

Figure 1
Site Location Map
October, 2019

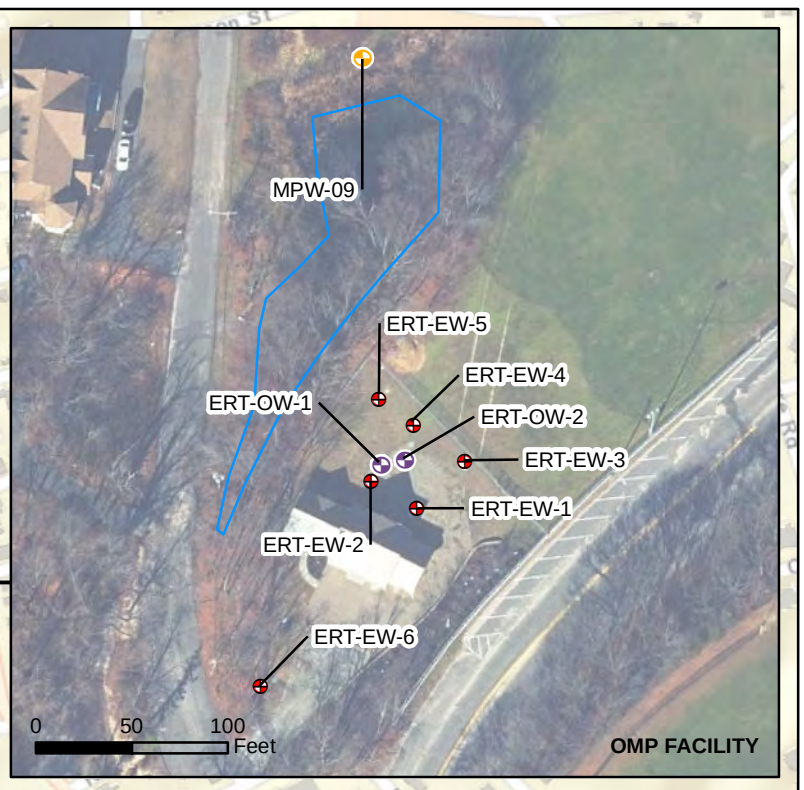
Port Jefferson Harbor

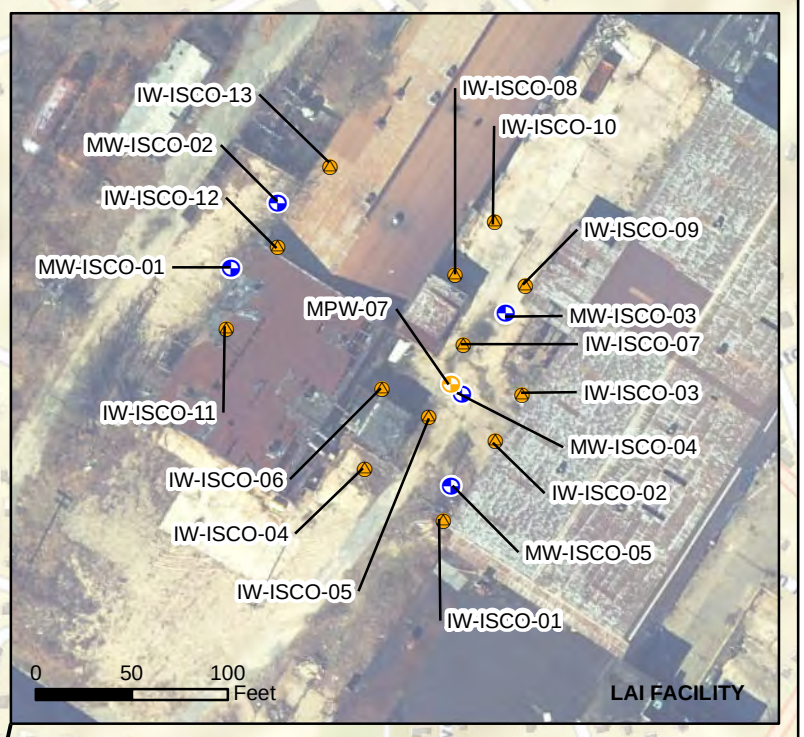
Bridgeport-Port Jefferson Ferry

Port Jefferson

A

ERT-MW-2A
ERT-MW-2B
ERT-MW-2C
ERT-MW-2D
ERT-MW-1A
ERT-MW-1B
SDW-01
ERT-MW-5A
ERT-MW-5B
ERT-MW-4A
ERT-MW-4B
MPW-08
ERT-MW-3
MPW-09
ERT-MW-6A
ERT-MW-6B
MW-PD-15
OMP Facility
MW-PD-17
MW-PD-16
MPW-05
MPW-06
MW-PD-14
MW-PD-13
MW-PD-12
MPW-10
MW-PD-11
MPW-03
MPW-04
PZ-07
MW-05
EW-02
MPW-02
PZ-PD-02
PZ-PD-03
PZ-06
PZ-01
PZ-PD-01
EW-01
LAI Facility
PZ-05
PZ-04
PZ-02
PZ-03
IW-02
IW-01
IW-03
IW-05
IW-04
MPW-01
A'





Legend

- Approximate Former Lawrence Aviation Industries Property Boundary
- Surface Water Body
- Cross Section Line

Well Location Types

- Multiport Well
- Monitoring Well
- Piezometer
- Injection Well
- ISCO Injection Well
- ERT Extraction Well
- ERT Monitoring or Observation Well
- DEC Monitoring Wells

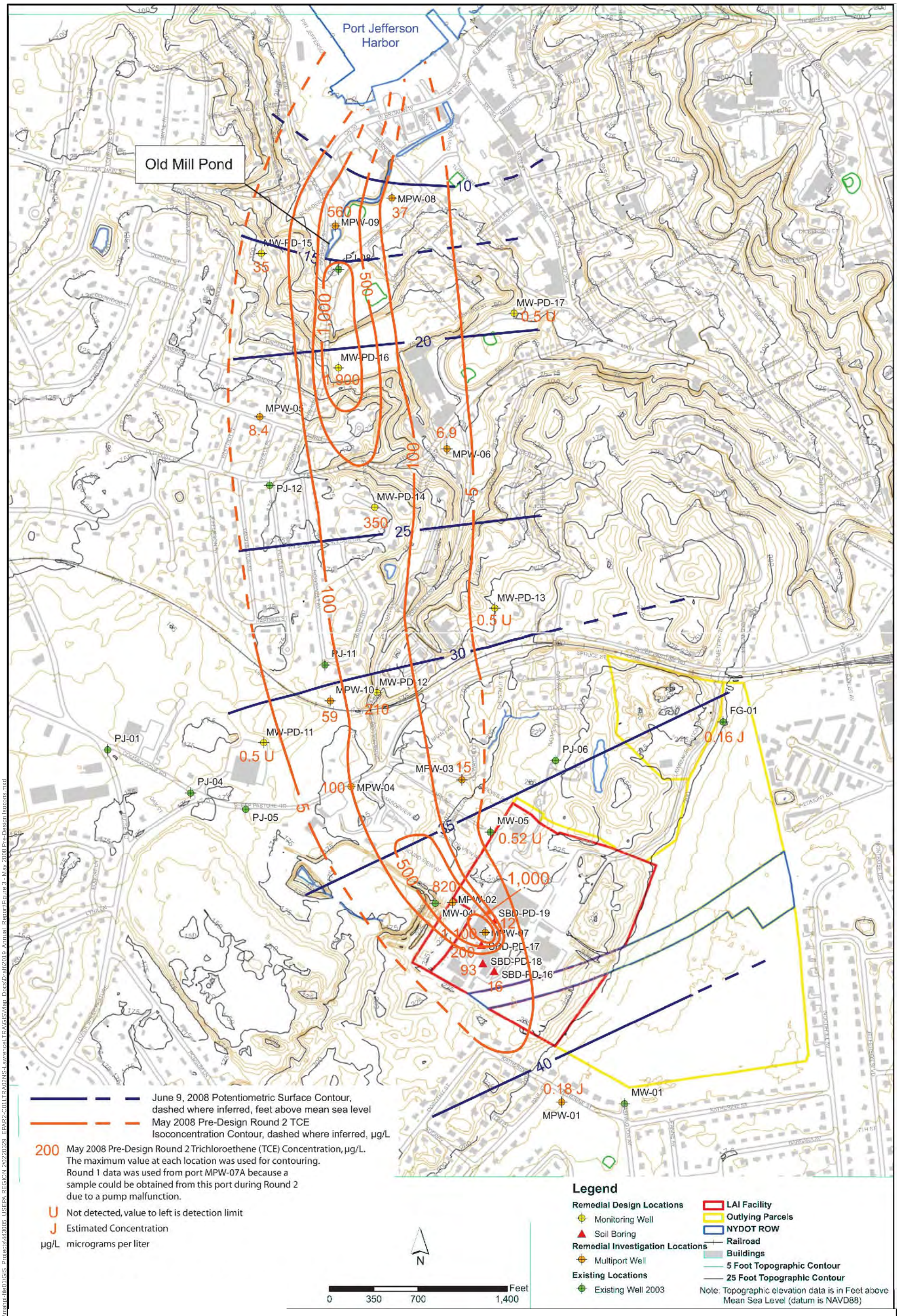
0 300 600 Feet

Service Layer Credits: Sources: Esri, HERE, DeLorme, USGS, Intermap, INCREMENT P, NRCan, Esri Japan, METI, Esri China (Hong Kong), Esri Korea, Esri (Thailand), MapmyIndia, NGCC, © OpenStreetMap contributors, and the GIS User Community
Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community

Document Path: \\mahgi-file01\GIS_Projects\443005_USEPA REGION 2\20220329_EPAR2_C01LTRA02NS-LawrenceLTRA\GIS\Map_Docs\Draft\2019_Annual_Report\Figure 2 - Sample Locations and Cross Section Transect.mxd

2019 COMPREHENSIVE SAMPLING EVENT REPORT
LAWRENCE AVIATION INDUSTRIES SITE
PORT JEFFERSON STATION, NY

Figure 2
Monitoring Well / Surface Water Sample Locations and Cross Section Location Map
October, 2019



SOURCE: COMPREHENSIVE SAMPLING EVENT REPORT BY CDM-SMITH. OCTOBER 2012 (REFERENCE: FIGURE 1-4)

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2019 COMPREHENSIVE SAMPLING EVENT REPORT
LAWRENCE AVIATION INDUSTRIES SITE
PORT JEFFERSON STATION, NY

Figure 3

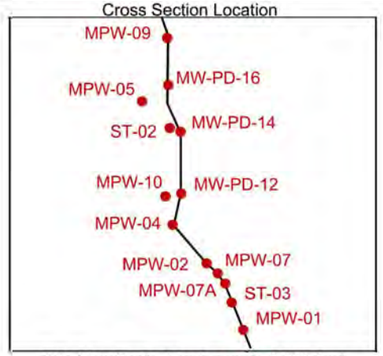
May 2008 Pre-Design Round 2 TCE Isoconcentration Contours

October, 2019

North
A

South
A'

Cross Section Location



Site Map Scale 1 inch equals 3,580 feet

Elevation (feet above mean sea level)

Distance Along Baseline (ft)

Upper Glacial Aquifer

Magothy Aquifer

— ? — AQUIFER BOUNDRY

Screened Interval

Horizontal Scale (feet) 0 700

Vertical Scale (feet) 0 70

Vertical Exaggeration: 10x

Stratigraphy

- USCS Clayey Sand
- USCS Well-graded Sand
- USCS Well-graded Gravelly Sand
- Silt
- USCS Silty Sand
- USCS Well-graded Sandy Gravel
- USCS Poorly-graded Sand
- USCS Well-graded Sand with Silt
- Sandy Silt
- USCS Low Plasticity Silty Clay
- USCS Silt
- USCS Poorly-graded Gravelly Sand

Well Construction

- Casing
- Well Screen
- Native Material

TCE Isococentration Contour (µg/l) Dashed where inferred

Water Table

Ground Surface Elevation

Groundwater Sample Results:
Tetrachloroethene (PCE)
Trichloroethene (TCE)
cis-1,2-Dichloroethane (cis-1,2-DCE)
Vinyl Chloride
All U - all analytes not detected

All results in micrograms per liter
U - not detected, detection limit is value to left (µg/L)
J - estimated concentration

Water level and analytical data are posted at the mid point of screened interval.

Water Level Elevation, feet above mean sea level, (Port) — 30.2

Date: June 9, 2008

Round 1 Round 1 analytical results were used for MPW-07-A because a sample could not be obtained from MPW-02-A during Round 2.

* Water level elevation from MPW-07-A was anomolus and was not used.

SOURCE: COMPREHENSIVE SAMPLING EVENT REPORT BY CDM–SMITH, OCTOBER 2012 (REFERENCE: FIGURE 1–3)

2019 COMPREHENSIVE SAMPLING EVENT REPORT
LAWRENCE AVIATION INDUSTRIES SITE
PORT JEFFERSON STATION, NY

Figure 4
Geologic Cross Section and May 2008 Pre-Design Round 2 TCE Groundwater Sampling Results
October, 2019

Document Path: \\mahp-file01\GIS_Projects\443005_USEPA REGION 2\20220329_EPAR2-C011TRA02NS-Lawrence\TRA\GIS\Map_Docs\Draft\2019_Annual_Report\Figure 4 - May_2008CrossSection.mxd

Port Jefferson Harbor

Port Jefferson

A

ERT-MW-2A (9.29)
ERT-MW-2B (9.42)
ERT-MW-2C
ERT-MW-2D
ERT-MW-1A (10.04)
ERT-MW-1B (2.88)
ERT-MW-5A (7.80)
ERT-MW-5B (8.12)
SDW-01
ERT-MW-4A (7.74)
ERT-MW-4B (7.79)
ERT-MW-3 (16.82)
MPW-09-C (14.73)
10
MPW-08-B (10.94)
ERT-MW-6A (11.91)
ERT-MW-6B (13.97)
MW-PD-15 (16.98)
ERT-EW-5
ERT-EW-3
ERT-EW-4
5
OMP Facility
ERT-EW-6
ERT-OW-2 (14.76)
ERT-EW-1
ERT-OW-1 (13.45)
ERT-EW-2
MW-PD-17 (20.03)
20
MW-PD-16 (20.77)
MPW-05-D (21.97)
MPW-06-C (21.70)
25
MW-PD-14 (25.06)
MW-PD-13 (28.06)
MW-PD-12 (29.57)
MPW-10-B (29.54)
MW-PD-11 (30.44)
MPW-03-B (29.99)
MPW-04-B (30.54)
30
MW-5 (36.12)
PZ-7
EW-02 (32.2)
35
PZ-6 (35.91)
PZ-01 (38.11)
MPW-02-B (33.36)
EW-01 (33.7)
MW-ISCO-2 (36.44)
MW-ISCO-4 (37.24)
MW-ISCO-5 (37.88)
MPW-07-B (35.70)
PZ-04 (38.63)
PZ-5 (37.72)
PZ-02
IW-02
IW-01
IW-04
IW-03
IW-05
LAI Facility
40
MPW-01-B (40.9)
A'

Legend

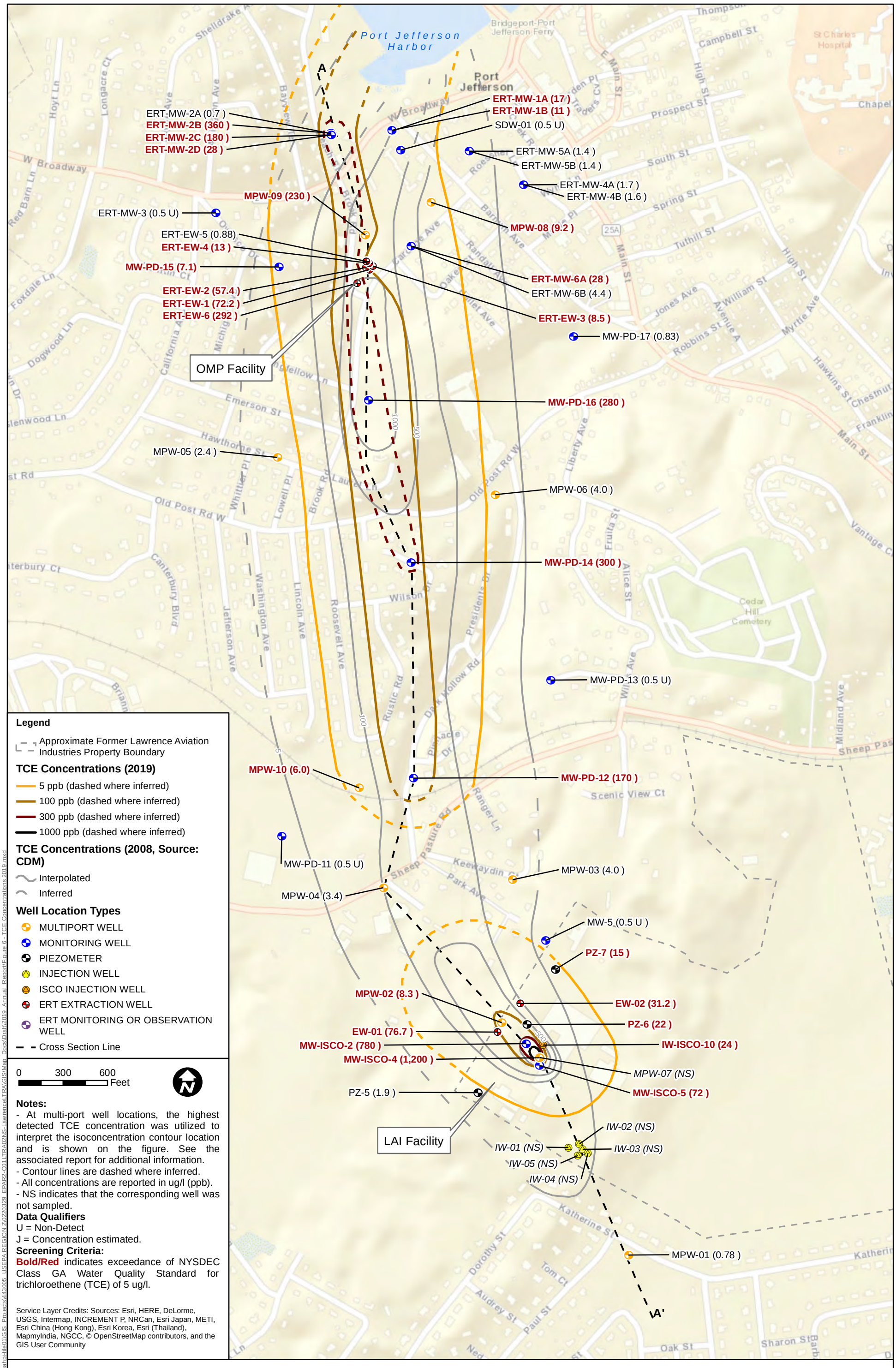
- MULTIPORT WELL
- MONITORING WELL
- PIEZOMETER
- INJECTION WELL
- ERT EXTRACTION WELL
- ERT MONITORING OR OBSERVATION WELL
- DEC MONITORING WELL
- Approximate Groundwater Flow Direction
- Approximate Potentiometric Surface (in ft amsl)
- Dashed where inferred
- Approximate Former Lawrence Aviation Industries Property Boundary
- Cross Section Line

0 300 600 Feet

Note: For multi-port wells, the groundwater elevation from the contaminated zone was used. Some data points were considered outliers and were not used in creation of the potentiometric surface contour lines.

2019 COMPREHENSIVE SAMPLING EVENT REPORT
LAWRENCE AVIATION INDUSTRIES SITE
PORT JEFFERSON STATION, NY

Figure 5
June 2019 Upper Glacial Aquifer Potentiometric Surface
October, 2019



Legend

- Approximate Former Lawrence Aviation Industries Property Boundary

TCE Concentrations (2019)

- 5 ppb (dashed where inferred)
- 100 ppb (dashed where inferred)
- 300 ppb (dashed where inferred)
- 1000 ppb (dashed where inferred)

TCE Concentrations (2008, Source: CDM)

- Interpolated
- Inferred

Well Location Types

- MULTIPORT WELL
- MONITORING WELL
- PIEZOMETER
- INJECTION WELL
- ISCO INJECTION WELL
- ERT EXTRACTION WELL
- ERT MONITORING OR OBSERVATION WELL
- Cross Section Line

0 300 600 Feet

Notes:

- At multi-port well locations, the highest detected TCE concentration was utilized to interpret the isoconcentration contour location and is shown on the figure. See the associated report for additional information.
- Contour lines are dashed where inferred.
- All concentrations are reported in ug/l (ppb).
- NS indicates that the corresponding well was not sampled.

Data Qualifiers

U = Non-Detect
J = Concentration estimated.

Screening Criteria:

Bold/Red indicates exceedance of NYSDEC Class GA Water Quality Standard for trichloroethene (TCE) of 5 ug/l.

2019 COMPREHENSIVE SAMPLING EVENT REPORT
LAWRENCE AVIATION INDUSTRIES SITE
PORT JEFFERSON STATION, NY

Figure 6
June 2019 Comprehensive Sampling TCE Isoconcentration Contours
October, 2019

A NORTH

A' SOUTH

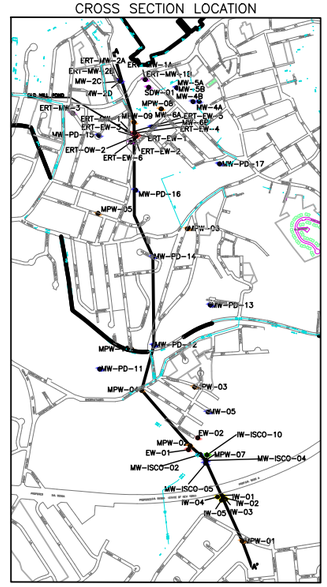
ELEVATION (FT AMSL)

DISTANCE ALONG BASELINE (FT)

ERT-MW-2A
ERT-MW-2B
ERT-MW-2C
ERT-MW-2D
MPW-09
ERT-MW-6A/6B (PROJECTED 300')
ERT-EW-1/2/4/5
ERT-EW-6
MW-PD-16
MPW-05 (PROJECTED 600')
MPW-06 (PROJECTED 750')
MW-PD-14
MW-PD-12
MPW-10 (PROJECTED 400')
MPW-04 (PROJECTED 350')
MPW-02
EW-01
MW-ISCO-02
MW-ISCO-04
MW-ISCO-05
MPW-01

OLD MILL POND
OMP FACILITY
LAI FACILITY

CROSS SECTION LOCATION



SITE MAP SCALE 1 INCH EQUALS 4,000 FEET

HORIZONTAL SCALE (FT) 0 800

VERTICAL SCALE (FT) 0 100

LEGEND:

- WATER TABLE, ESTIMATED
- GROUND SURFACE ELEVATION
- TCE ISOCONCENTRATION CONTOUR IN PPB FROM JUNE 2019: PROJECTED WELLS NOT USED
- INFERRED TCE ISOCONCENTRATION CONTOUR IN PPB FROM JUNE 2019
- TCE ISOCONCENTRATION CONTOUR IN PPB FROM MAY 2008 (DASHED WHERE INFERRED)

GROUNDWATER SAMPLE RESULTS

- 0.5 U TETRACHLOROETHENE(PCE)
- 3.2 TRICHLOROTHENE(TCE)
- 0.5 U CIS-1,2-DICHLOROETHENE(CIS-1,2-DCE)
- 0.5 U VINYL CHLORIDE

NOTE:
1. ALL RESULTS ARE SHOWN IN MICROGRAMS PER LITER.
2. AN AVERAGE WATER TABLE ELEVATION WAS USED FOR MPWS AND CLUSTERED WELLS.
3. GROUNDWATER GENERALLY TRENDS IN A NORTH – NORTHWESTERN DIRECTION FROM THE LAI FACILITY TO THE OMP FACILITY.
4. AT MULTI-PORT WELLS THE HIGHEST CONCENTRATIONS ARE SHOWN ON THIS FIGURE AND USED FOR TCE ISOCONCENTRATION CONTOUR CREATION.

ACRONYMS:

ERT – EMERGENCY RESPONSE TEAM
EW – EXTRACTION WELL
FT AMSL – FEET ABOVE MEAN SEA LEVEL
ISCO – IN-SITU CHEMICAL OXIDATION
J – ESTIMATED VALUES (– INDICATE LIKELY DIRECTION OF BIAS)
L – OFF-SCALE LOW
MPW – MULTIPORT WELL WITH PORT LETTER
MW – MONITORING WELL
NS – NOT SAMPLED
PPB – PARTS PER BILLION
PZ – PIEZOMETER
U – ANALYZED BUT NOT DETECTED

CROSS SECTION A-A' AND JUNE 2019 COMPREHENSIVE SAMPLING EVENT TCE GROUNDWATER SAMPLING RESULTS

2019 COMPREHENSIVE SAMPLING EVENT REPORT
LAWRENCE AVIATION INDUSTRIES SITE
PORT JEFFERSON STATION, NEW YORK

DATE
OCTOBER 2019

DRAWING SHEET
FIGURE 7

Figure 8
Total Ethene Concentrations in Source Area Wells
2019 Comprehensive Sampling Event Report
Lawrence Aviation Industries Site
Port Jefferson Station, New York

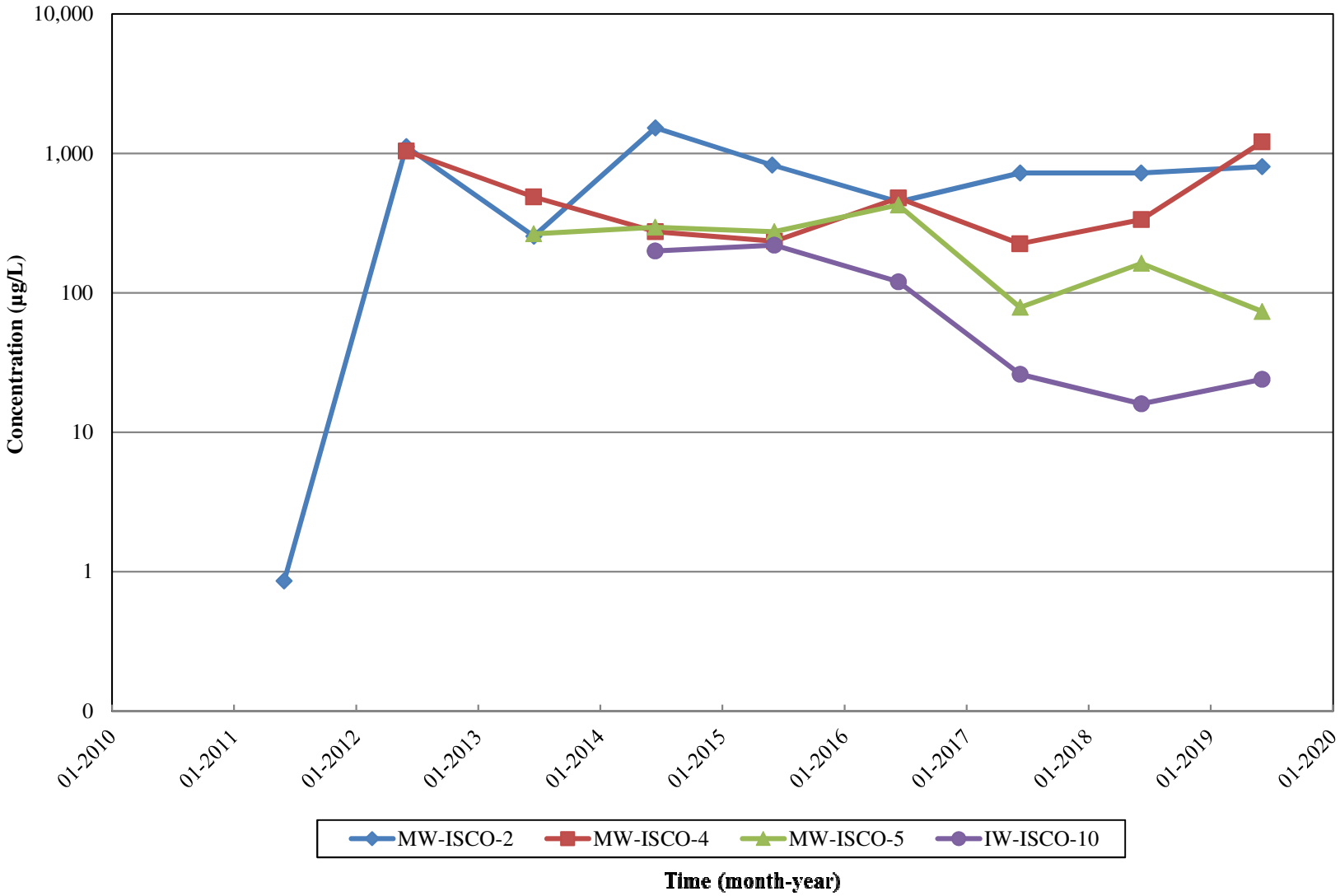


Figure 9
Average Total Ethene Concentrations in Source Area Wells over Time
2019 Comprehensive Sampling Event Report
Lawrence Aviation Industries Site
Port Jefferson Station, New York

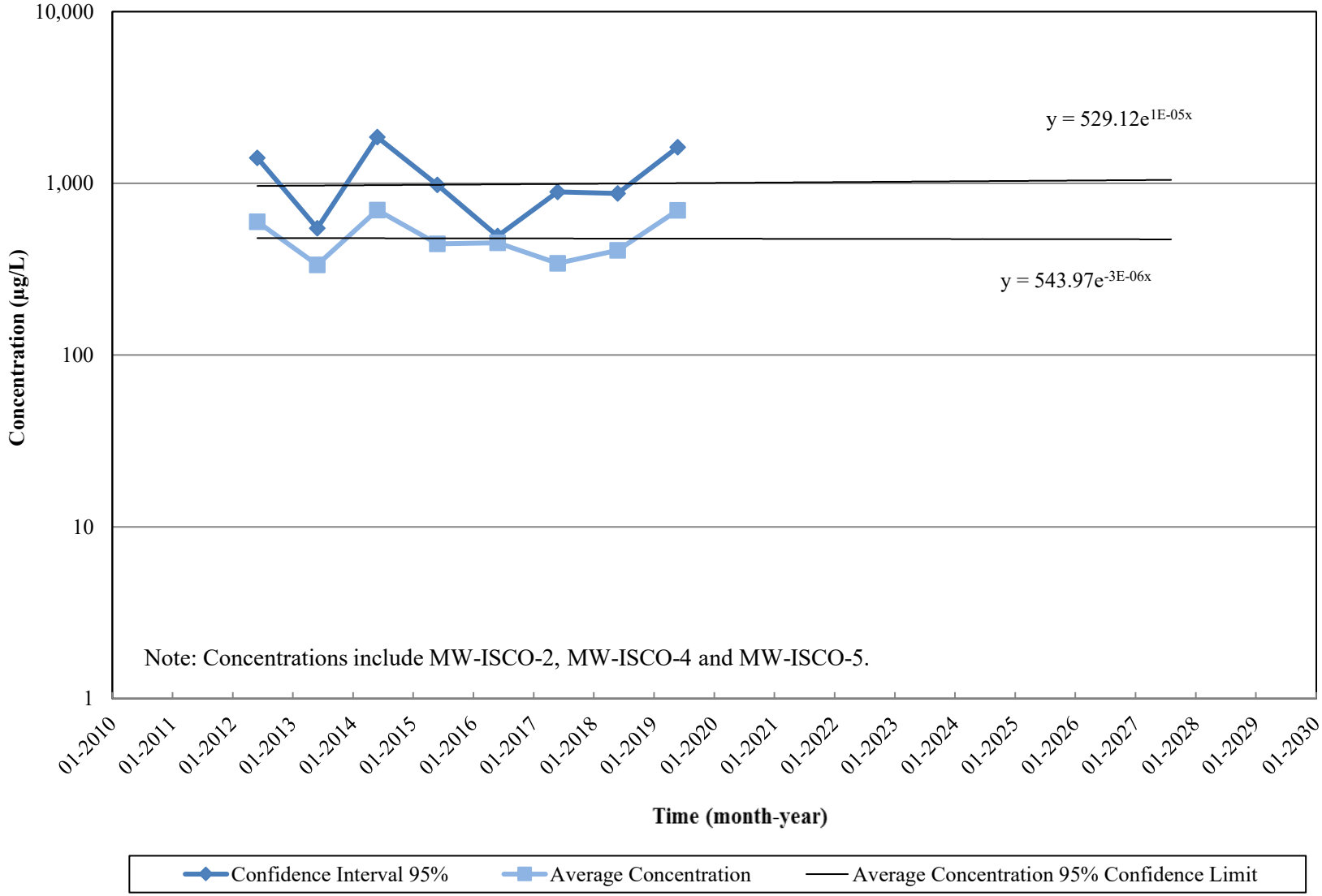


Figure 10
Total Ethene Concentrations in the Offsite Plume
2019 Comprehensive Sampling Event Report
Lawrence Aviation Industries Site
Port Jefferson Station, New York

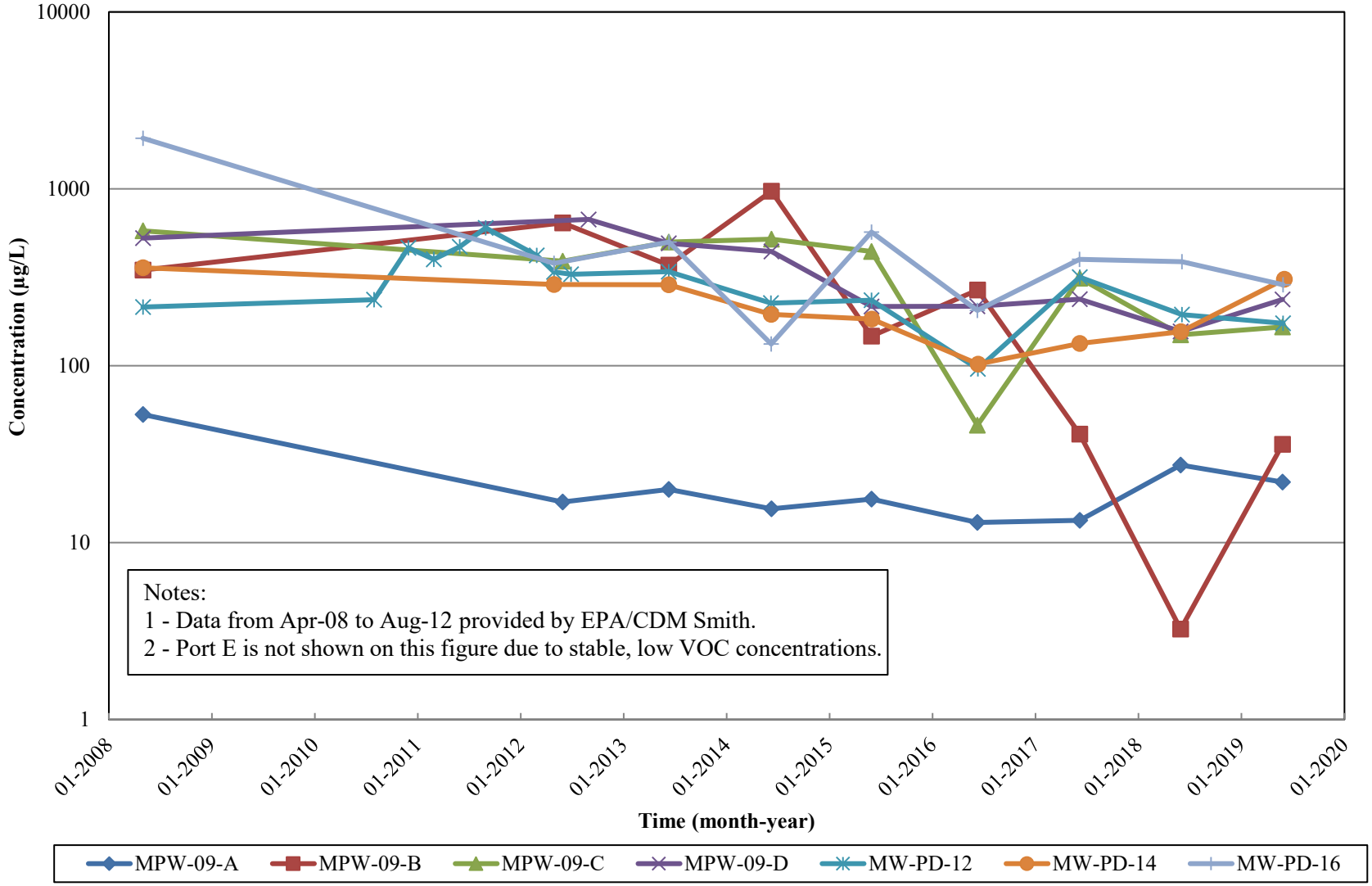


Figure 11
Average Total Ethene Concentrations in the Offsite Plume over Time
2019 Comprehensive Sampling Event Report
Lawrence Aviation Industries Site
Port Jefferson Station, New York

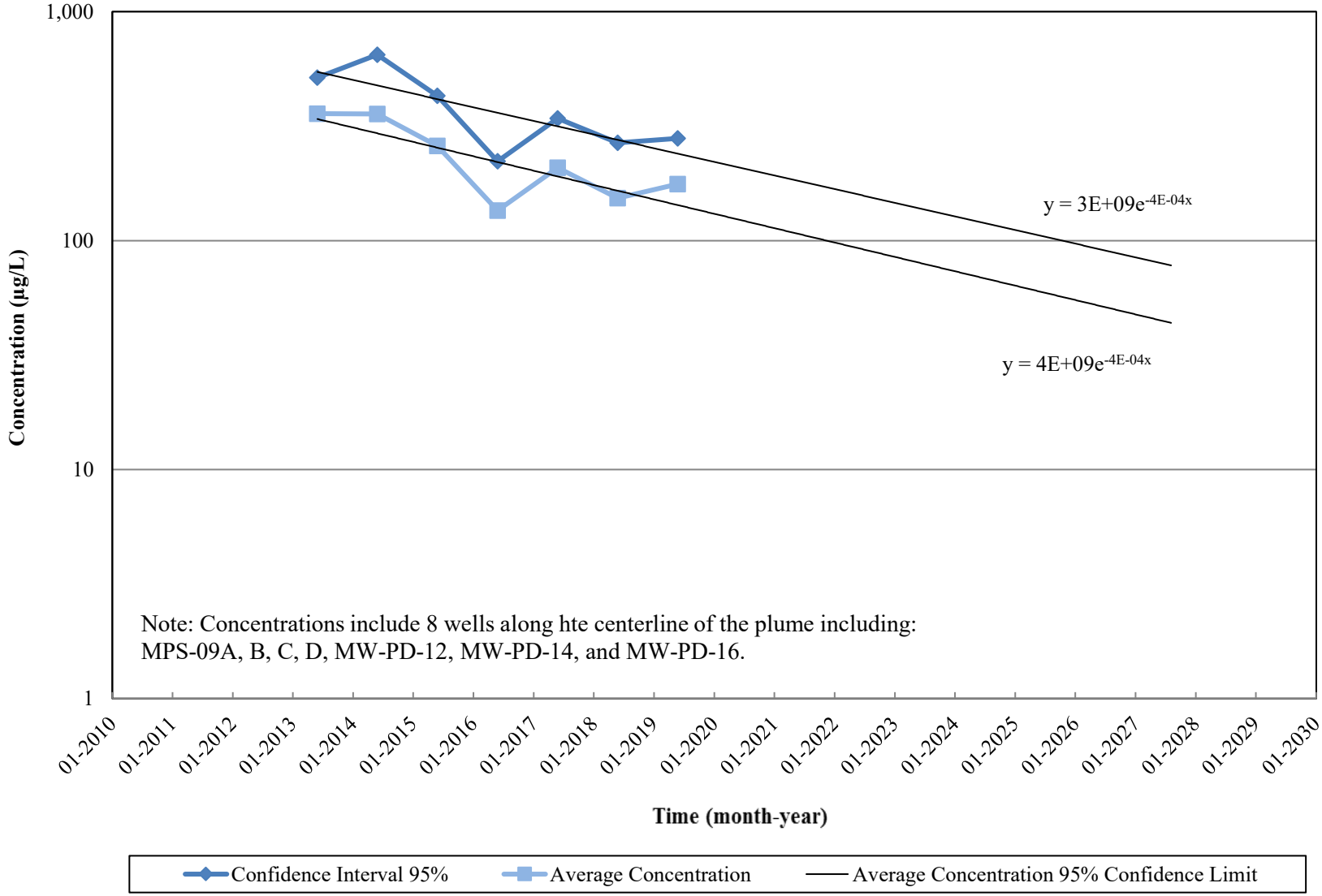


Figure 12
Total VOC Concentration Trend - MW-PD-12
2019 Comprehensive Sampling Event Report
Lawrence Aviation Industries Site
Port Jefferson Station, New York

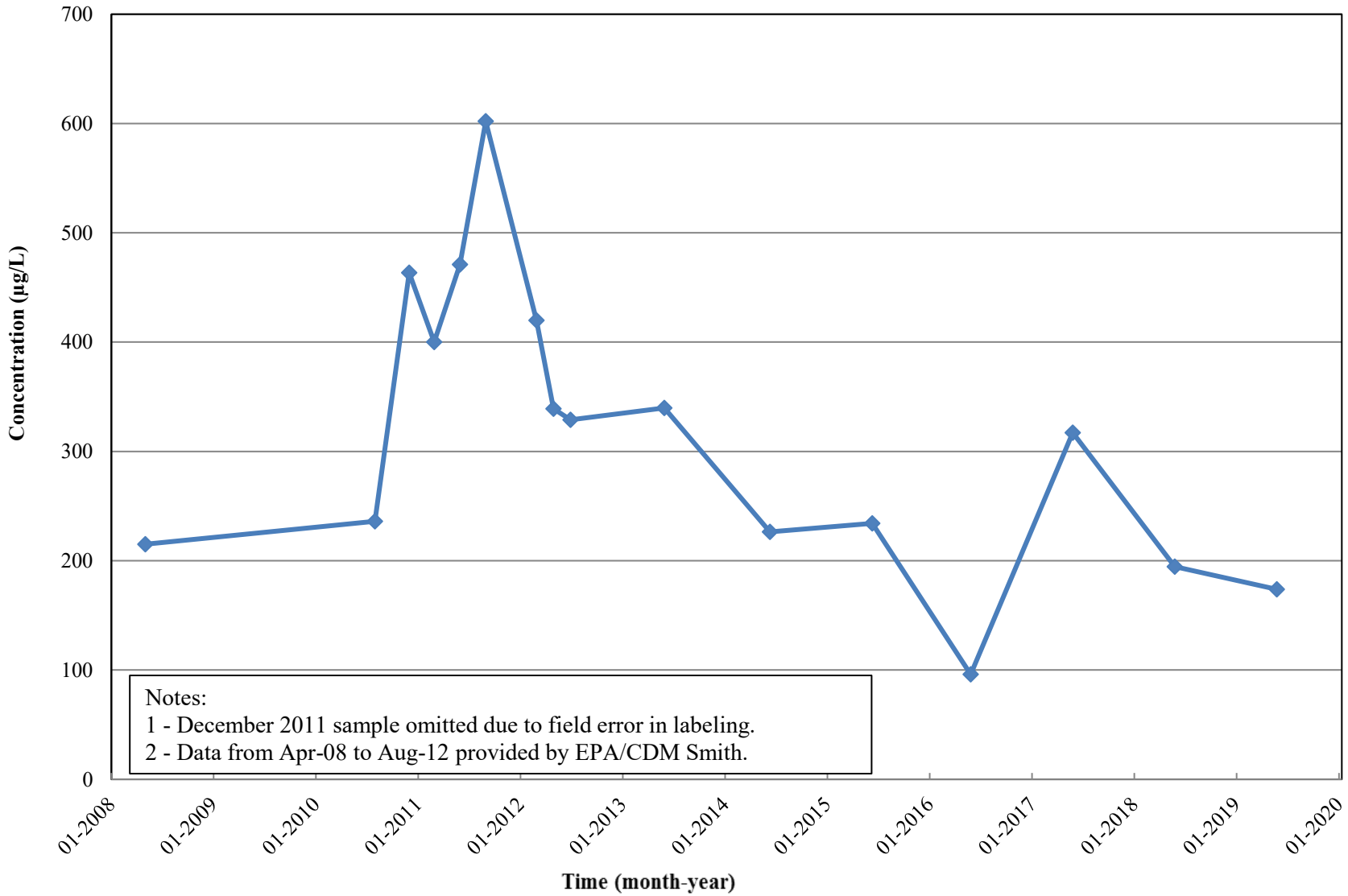


Figure 13
Total VOC Concentration Trend - MW-PD-14
2019 Comprehensive Sampling Event Report
Lawrence Aviation Industries Site
Port Jefferson Station, New York

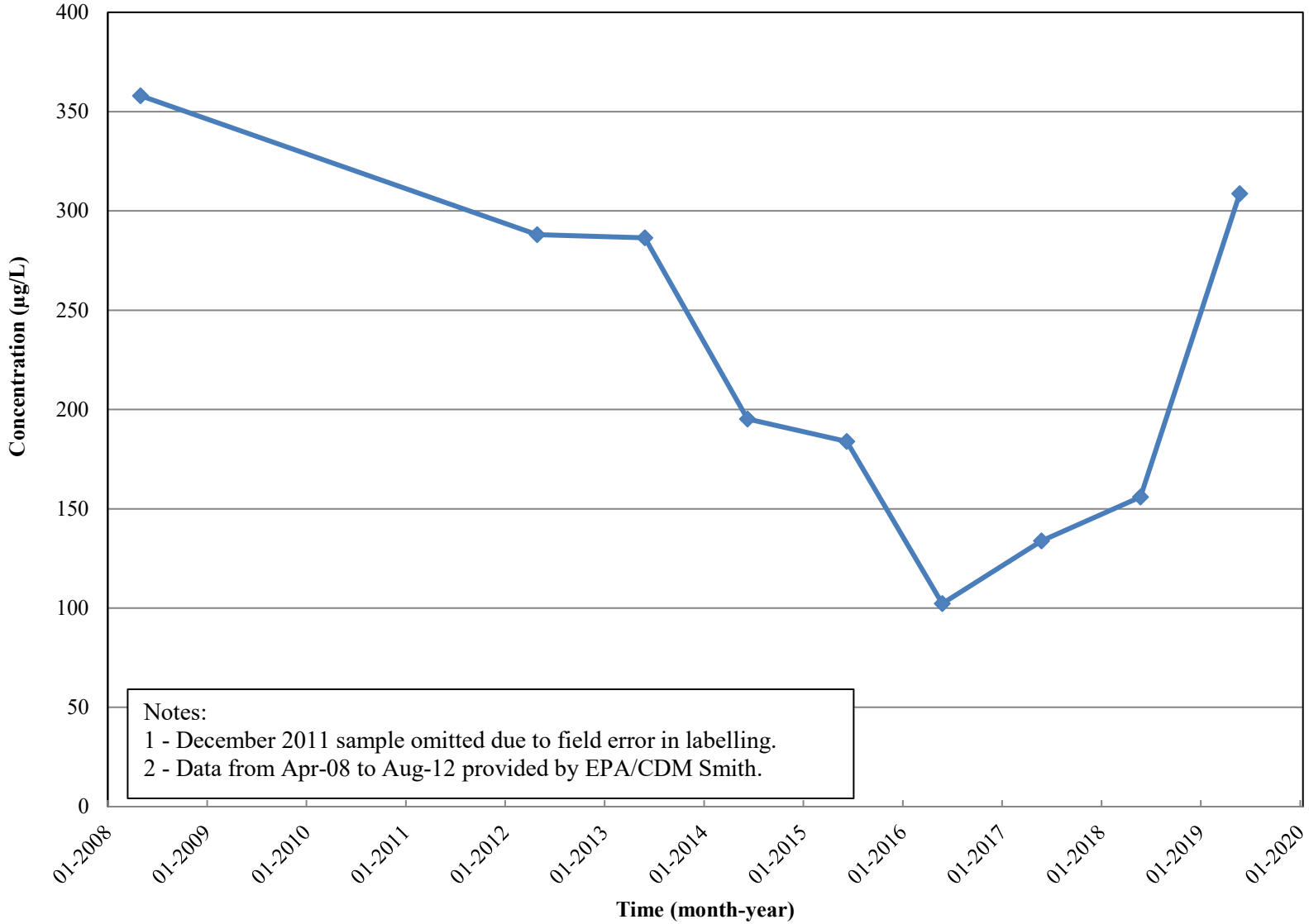


Figure 14
Total VOC Concentration Trend - MW-PD-16
2019 Comprehensive Sampling Event Report
Lawrence Aviation Industries Site
Port Jefferson Station, New York

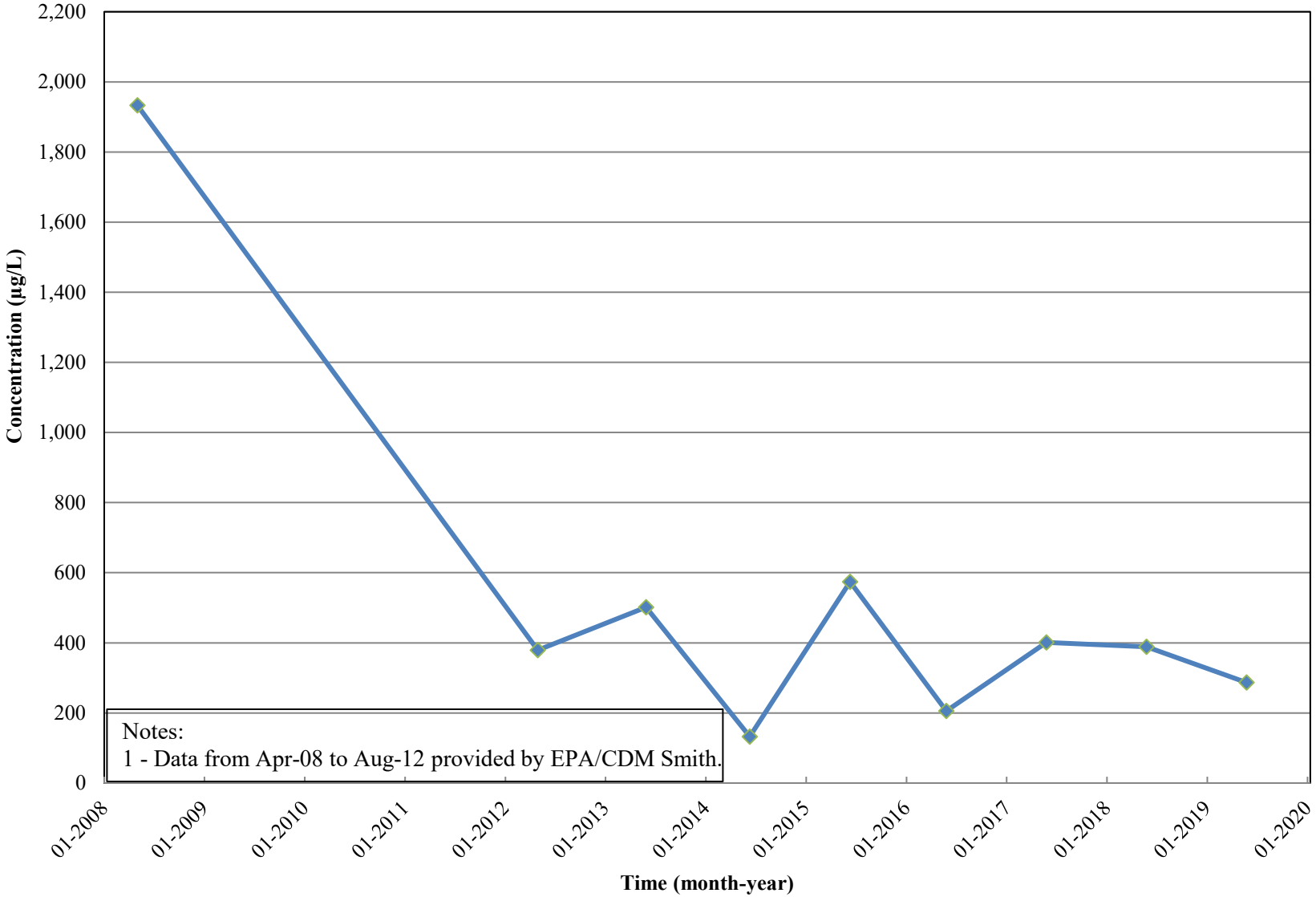


Figure 15
Total VOC Concentration Trend - MPW-09
2019 Comprehensive Sampling Event Report
Lawrence Aviation Industries Site
Port Jefferson Station, New York

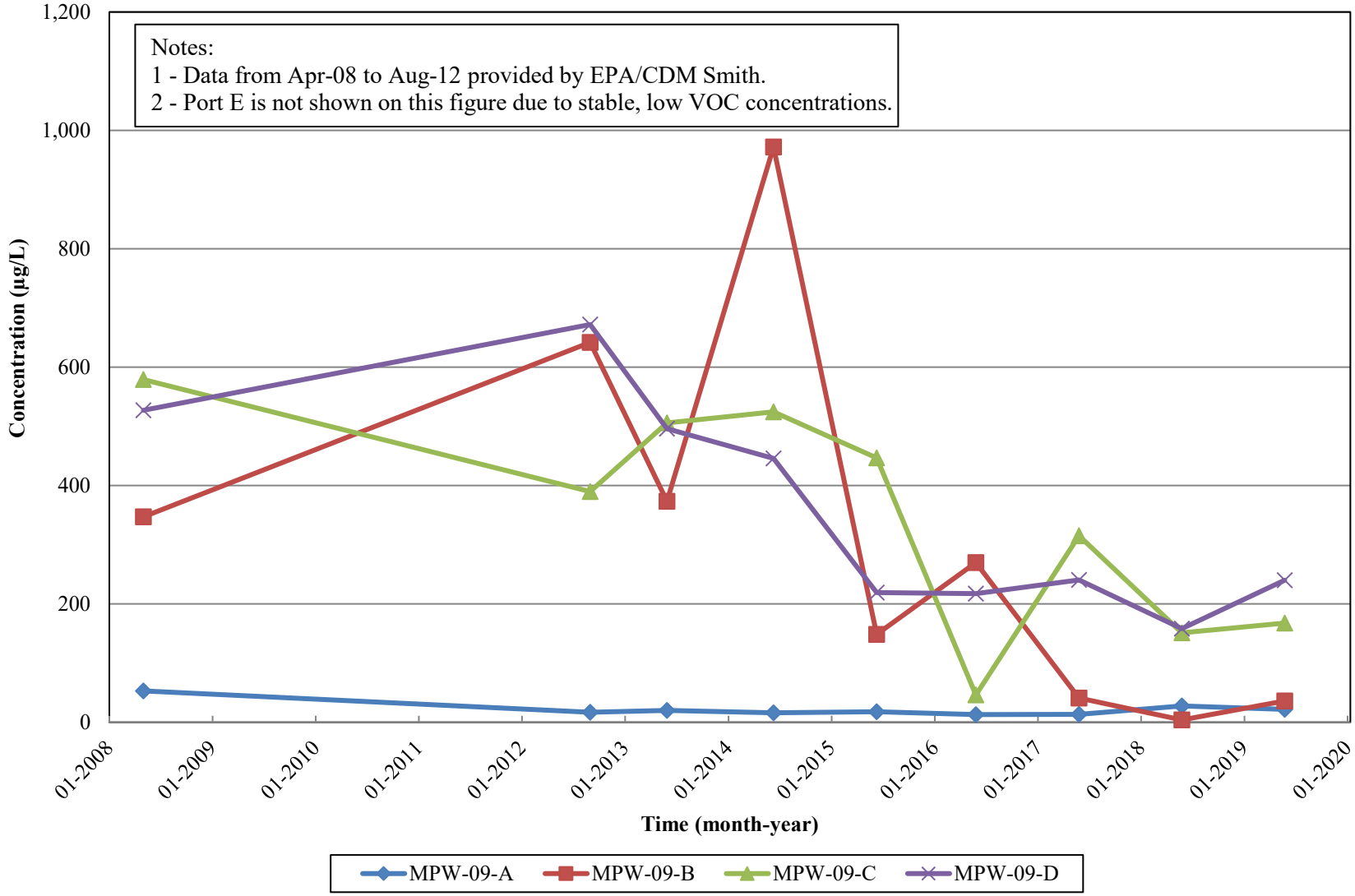
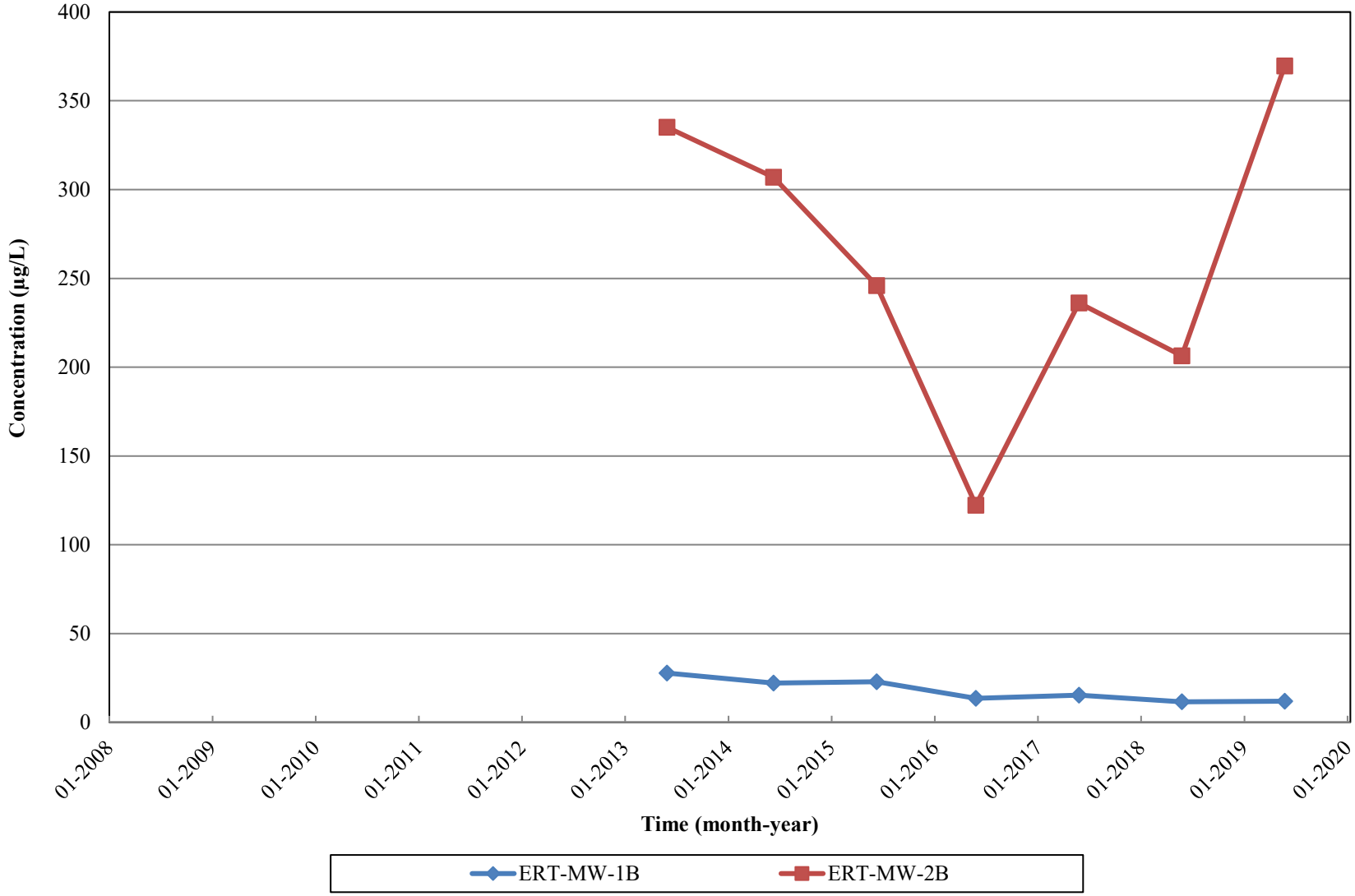


Figure 16
Total VOC Concentration Trend - ERT-MW-1B and ERT-MW-2B
2019 Comprehensive Sampling Event Report
Lawrence Aviation Industries Site
Port Jefferson Station, New York



TABLES

Table 1
June 2019 Groundwater Elevations
Lawrence Aviation Industries Site
Port Jefferson Station, New York

Well ID	Top Of Casing Elevation (ft amsl)	Depth To Water (ft btoc)	June 2019 Groundwater Elevation Data (ft amsl)
ERT-EW-1 *	22.58	NR	NR
ERT-EW-2 *	22.76	NR	NR
ERT-EW-3	22.88	6.68	16.20
ERT-EW-4	22.56	5.83	16.73
ERT-EW-5	22.84	6.38	16.46
ERT-EW-6 *	18.97	69.78	-50.81
ERT-MW-1A	11.33	1.29	10.04
ERT-MW-1B	11.38	8.5	2.88
ERT-MW-2A	12.61	3.32	9.29
ERT-MW-2B	12.71	3.29	9.42
ERT-MW-2C	8.81	NCA	NCA
ERT-MW-2D	8.67	NCA	NCA
ERT-MW-3	109.37	92.55	16.82
ERT-MW-4A	7.74	NCA	NCA
ERT-MW-4B	7.79	NCA	NCA
ERT-MW-5A	9.18	1.38	7.80
ERT-MW-5B	9.17	1.05	8.12
ERT-MW-6A	16.52	4.61	11.91
ERT-MW-6B	16.52	2.55	13.97
ERT-OW-1	22.65	9.2	13.45
ERT-OW-2	22.73	7.97	14.76
EW-01 *	219.30	185.63	33.67
EW-02 *	222.61	190.46	32.15
IW-01 *	225.99	186.23	39.76
IW-02 *	225.27	48.96	176.31
IW-03 *	224.99	58.67	166.32
IW-04 *	225.68	55.14	170.54
IW-05 *	224.48	48.55	175.93
IW-ISCO-5	228.50	190.73	37.77
IW-ISCO-10	228.50	192.02	36.48
MPW-01-A	183.40	141.69	41.71
MPW-01-B	183.40	142.51	40.89
MPW-01-C	183.40	142.53	40.87
MPW-02-A	221.02	187.00	34.02
MPW-02-B	221.02	187.66	33.36
MPW-02-C	221.02	188.87	32.15
MPW-02-D	221.02	189.58	31.44
MPW-03-A	189.73	159.02	30.71
MPW-03-B	189.73	159.74	29.99
MPW-03-C	189.73	NC	NC
MPW-03-D	189.73	159.43	30.30
MPW-04-A	177.23	146.48	30.75
MPW-04-B	177.23	146.69	30.54
MPW-04-C	177.23	147.24	29.99
MPW-04-D	177.23	146.96	30.27
MPW-04-E	177.23	147.51	29.72
MPW-05-A	156.80	135.61	21.19
MPW-05-B	156.80	134.79	22.01
MPW-05-C	156.80	135.71	21.09
MPW-05-D	156.80	134.83	21.97
MPW-06-A	57.29	34.82	22.47

Table 1
June 2019 Groundwater Elevations
Lawrence Aviation Industries Site
Port Jefferson Station, New York

Well ID	Top Of Casing Elevation (ft amsl)	Depth To Water (ft btoc)	June 2019 Groundwater Elevation Data (ft amsl)
MPW-06-B	57.29	35.26	22.03
MPW-06-C	57.29	35.59	21.70
MPW-06-D	57.29	35.99	21.30
MPW-07-A	229.11	172.24	56.87
MPW-07-B	229.11	193.41	35.70
MPW-07-C	229.11	186.21	42.90
MPW-08-A	17.08	NC	NA
MPW-08-B	17.08	6.14	10.94
MPW-08-C	17.08	5.80	11.28
MPW-08-D	17.08	6.61	10.47
MPW-08-E	17.08	6.21	10.87
MPW-09-A**	9.66	-3.15	12.81
MPW-09-B**	9.66	-4.68	14.34
MPW-09-C**	9.66	-5.07	14.73
MPW-09-D**	9.66	-5.20	14.86
MPW-09-E**	9.66	-5.34	15.00
MPW-10-A	170.73	141.16	29.57
MPW-10-B	170.73	141.19	29.54
MPW-10-C	170.73	141.51	29.22
MPW-10-D	170.73	141.83	28.90
MW-05	220.63	184.51	36.12
MW-ISCO-02	227.24	190.8	36.44
MW-ISCO-3	228.50	191.26	37.24
MW-ISCO-04	228.58	191.03	37.55
MW-ISCO-05	228.43	190.55	37.88
MW-ISCO-7	NC	NC	NC
MW-PD-11	164.90	134.46	30.44
MW-PD-12	142.70	113.13	29.57
MW-PD-13	177.30	149.24	28.06
MW-PD-14	177.62	152.56	25.06
MW-PD-15	95.26	78.28	16.98
MW-PD-16	86.11	65.34	20.77
MW-PD-17	24.74	4.71	20.03
PZ-01	224.04	185.93	38.11
PZ-02	226.99	NC	NC
PZ-03	227.90	NC	NC
PZ-04	224.63	186	38.63
PZ-05	226.81	189.09	37.72
PZ-06	230.20	194.29	35.91
PZ-07	218.14	183.27	34.87
SDW-01	13.14	7.78	5.36

NOTES:
ft amsl - Feet above mean sea level
ft btoc - Feet below top of casing
NC - Not collected
NCA - Not collected due to artesian conditions
NR - Not reported because PLC reading was not representative of actual groundwater levels
Depth to water and groundwater elevation readings in multiport wells were calculated using measured frequency output in accordance with manufacturer specifications
See http://www.geokon.com/content/manuals/GK-404_Readout_Box.pdf
* Groundwater elevation reading taken from PLC.
** Depth to water is calculated using in situ transducers. Wells under artesian conditions.

Table 2
Sample Location and Well Construction Information
Lawrence Aviation Industries Site
Port Jefferson Station, New York

Well ID	Port	Top of Casing Elevation (ft amsl)	X Coordinate	Y Coordinate	Diameter of Well (inches)	Top of Screened Interval (ft bgs)	Bottom of Screened Interval (ft bgs)	Attempted for June 2019 Sampling Event	Sampled During June 2019 Event	Comment
ERT-EW-1*	NA	22.58	1240345.53	284149.95	6	120	140	x		Sampled as part of the Monthly Process Monitoring; transducer not functioning correctly
ERT-EW-2*	NA	22.76	1240321.71	284149.95	6	90	110	x		Sampled as part of the Monthly Process Monitoring; transducer not functioning correctly
ERT-EW-3*	NA	22.88	1240370.46	284174.31	6	90	110	x	x	
ERT-EW-4*	NA	22.56	1240343.76	284193.23	6	60	80	x	x	
ERT-EW-5*	NA	22.84	1240325.56	284206.51	4	20	40	x	x	
ERT-EW-6	NA	18.97	1240263.916	284057.195	6	90	120	x		Sampled as part of the Monthly Process Monitoring; transducer not functioning correctly
ERT-MW-1A	NA	11.33	1240501.82	285090.06	2	47	57	x	x	
ERT-MW-1B	NA	11.38	1240497.56	285093.63	2	72	82	x	x	
ERT-MW-2A	NA	12.61	1240083.17	285072.26	2	46	56	x	x	
ERT-MW-2B	NA	12.71	1240086.33	285075.08	2	71	81	x	x	
ERT-MW-2C	C	5.67	1240087.142	285062.176	2	90	100	x	x	
ERT-MW-2D	D	5.54	1240087.024	285062.4	2	120	130	x	x	
ERT-MW-3	NA	109.37	1239306.16	284533.89	2	223	233	x	x	
ERT-MW-4A	A	7.74	1241389.039	284724.897	2	70	80	x	x	
ERT-MW-4B	B	7.79	1241389.157	284725.116	2	120	130	x	x	
ERT-MW-5A	A	9.18	1241022.358	284951.901	2	90	100	x	x	
ERT-MW-5B	B	9.17	1241022.564	284952.129	2	120	130	x	x	
ERT-MW-6A	A	16.52	1240626.904	284309.368	2	80	90	x	x	
ERT-MW-6B	B	16.52	1240627.145	284309.238	2	125	135	x	x	
ERT-OW-1*	NA	22.65	1240326.9	284172.47	2	95	105			Observation Well
ERT-OW-2*	NA	22.73	1240339.27	284175.07	2	95	105			Observation Well
EW-01	NA	219.30	1241213.95	278985.42	10	182	248	x		Sampled as part of the Monthly Process Monitoring
EW-02	NA	222.61	1241367.23	279180.5	10	182	240	x		Sampled as part of the Monthly Process Monitoring
FG-01	NA	201.43	1243376.354	280474.705	2	170	180			Paved over - well is lost
IW-01	NA	225.99	1241693.86	278204.79	6	183	248			Injection Well - not injecting at time of synoptic
IW-02	NA	225.27	1241766.61	278227.33	6	183	248			Injection Well - injecting at time of synoptic
IW-03	NA	224.99	1241790.03	278192.12	6	183	248			Injection Well - injecting at time of synoptic
IW-04	NA	225.68	1241826.33	278167.07	6	183	248			Injection Well - injecting at time of synoptic
IW-05	NA	224.48	1241758.26	278150.73	6	183	248			Injection Well - injecting at time of synoptic
IW-ISCO-10	NA	228.50	1241521.28	278897.45	2	200	220	x	x	
IW-ISCO-5	NA	228.50	1241486.95	278795.69	2	200	220	x		
MPW-01-A	A	183.40	1242101.12	277475.448	4	160	170	x	x	
MPW-01-B	B	183.40	1242101.12	277475.448	4	185	195	x	x	
MPW-01-C	C	183.40	1242101.12	277475.448	4	210	220	x	x	
MPW-02-A	A	221.02	1241241.061	279049.859	4	190	200	x		
MPW-02-B	B	221.02	1241241.061	279049.859	4	215	225	x	x	
MPW-02-C	C	221.02	1241241.061	279049.859	4	240	250	x	x	
MPW-02-D	D	221.02	1241241.061	279049.859	4	265	275	x		
MPW-03-A	A	189.73	1241315.641	280017.573	4	175	185	x		
MPW-03-B	B	189.73	1241315.641	280017.573	4	195	205	x	x	
MPW-03-C	C	189.73	1241315.641	280017.573	4	215	225	x	x	
MPW-03-D	D	189.73	1241315.641	280017.573	4	235	245	x	x	Transducer not functioning as of 2016

Table 2
Sample Location and Well Construction Information
Lawrence Aviation Industries Site
Port Jefferson Station, New York

Well ID	Port	Top of Casing Elevation (ft amsl)	X Coordinate	Y Coordinate	Diameter of Well (inches)	Top of Screened Interval (ft bgs)	Bottom of Screened Interval (ft bgs)	Attempted for June 2019 Sampling Event	Sampled During June 2019 Event	Comment
MPW-04-A	A	177.23	1240440.958	279964.528	4	150	160	x		
MPW-04-B	B	177.23	1240440.958	279964.528	4	170	180	x	x	
MPW-04-C	C	177.23	1240440.958	279964.528	4	200	210	x		
MPW-04-D	D	177.23	1240440.958	279964.528	4	220	230	x	x	
MPW-04-E	E	177.23	1240440.958	279964.528	4	240	250	x	x	
MPW-05-A	A	156.80	1239723.031	282879.48	4	160	170	x	x	
MPW-05-B	B	156.80	1239723.031	282879.48	4	185	195	x	x	
MPW-05-C	C	156.80	1239723.031	282879.48	4	205	215	x	x	
MPW-05-D	D	156.80	1239723.031	282879.48	4	225	235	x	x	
MPW-06-A	A	57.29	1241197.553	282627.237	4	65	75	x	x	
MPW-06-B	B	57.29	1241197.553	282627.237	4	90	100	x	x	
MPW-06-C	C	57.29	1241197.553	282627.237	4	115	125	x		
MPW-06-D	D	57.29	1241197.553	282627.237	4	160	170	x	x	
MPW-07-A	A	229.11	1241498.444	278813.286	4	200	210	x		Bladders non-functional; transducer seems faulty
MPW-07-B	B	229.11	1241498.444	278813.286	4	220	230	x		Bladders non-functional; transducer seems faulty
MPW-07-C	C	229.11	1241498.444	278813.286	4	250	260	x		Bladders non-functional; transducer seems faulty
MPW-08-A	A	17.08	1240764.773	284605.552	4	25	35	x	x	Transducer not functioning as of 2018
MPW-08-B	B	17.08	1240764.773	284605.552	4	45	55	x	x	
MPW-08-C	C	17.08	1240764.773	284605.552	4	75	85	x	x	
MPW-08-D	D	17.08	1240764.773	284605.552	4	95	105	x	x	
MPW-08-E	E	17.08	1240764.773	284605.552	4	115	125	x	x	
MPW-09-A	A	9.66	1240317.248	284384.575	4	10	20	x	x	
MPW-09-B	B	9.66	1240317.248	284384.575	4	45	55	x	x	
MPW-09-C	C	9.66	1240317.248	284384.575	4	70	80	x	x	
MPW-09-D	D	9.66	1240317.248	284384.575	4	90	100	x	x	
MPW-09-E	E	9.66	1240317.248	284384.575	4	125	135	x	x	
MPW-10-A	A	170.73	1240276.043	280640.585	4	160	170	x	x	
MPW-10-B	B	170.73	1240276.043	280640.585	4	185	195	x	x	
MPW-10-C	C	170.73	1240276.043	280640.585	4	215	225	x	x	
MPW-10-D	D	170.73	1240276.043	280640.585	4	235	245	x	x	
MW-05	NA	220.63	1241539.108	279606.08	4	180	195	x	x	
MW-ISCO-02	NA	227.24	1241408.33	278907.54	2	205	215	x	x	
MW-ISCO-04	NA	228.58	1241504.14	278807.98	2	207	217	x	x	
MW-ISCO-05	NA	228.43	1241498.63	278760.26	4	206	216	x	x	
MW-PD-11	NA	164.90	1239752.51	280312.47	4	195	205	x	x	
MW-PD-12	NA	142.70	1240644.56	280706.4	4	150	160	x	x	Well damaged
MW-PD-13	NA	177.30	1241574.79	281370.71	4	175	185	x	x	
MW-PD-14	NA	177.62	1240627.49	282166.23	4	239	249	x	x	
MW-PD-15	NA	95.26	1239734.72	284168.4	4	204	214	x	x	
MW-PD-16	NA	86.11	1240340.86	283265.25	4	190	200	x	x	
MW-PD-17	NA	24.74	1241728.59	283697.93	4	80	90	x	x	
PZ-01	NA	224.04	1242210.32	278999.38	2	198	208			
PZ-02	NA	226.99	1241653.38	278477.2	2	198	208			
PZ-03	NA	227.90	1242062.76	278320.85	2	198	208			
PZ-04	NA	224.63	1241742.8	278687.26	2	201	211			

Table 2
Sample Location and Well Construction Information
Lawrence Aviation Industries Site
Port Jefferson Station, New York

Well ID	Port	Top of Casing Elevation (ft amsl)	X Coordinate	Y Coordinate	Diameter of Well (inches)	Top of Screened Interval (ft bgs)	Bottom of Screened Interval (ft bgs)	Attempted for June 2019 Sampling Event	Sampled During June 2019 Event	Comment
PZ-05	NA	226.81	1241082	278576	2	196	206	x	x	
PZ-06	NA	230.20	1241414	279038	2	201.5	211.5	x	x	
PZ-07	NA	218.14	1241606	279410	2	190	200	x	x	
SDW-1	NA	13.14	1240558.67	284960.84	6	2	12	x	x	
SW-05	NA	NA	1240241.93	284183.55	NA	NA	NA			OMP Surface Water Sample
SW-06	NA	NA	1240278.21	284357.85	NA	NA	NA			OMP Surface Water Sample
SW-07	NA	NA	1240327.17	284371.39	NA	NA	NA			OMP Surface Water Sample
SW-08	NA	NA	1240366.23	284350.04	NA	NA	NA			OMP Surface Water Sample
SW-15	NA	NA	1241004.83	285682.85	NA	NA	NA			Port Jefferson Harbor Surface Water Sample
SW-16	NA	NA	1240364.29	285520.26	NA	NA	NA			Port Jefferson Harbor Surface Water Sample

NOTES:
Elevations for PZ-05 and PZ-07 are estimated
Coordinates are in New York State Plane - Long Island, Datum: NAD83, Units: feet
ft amsl - Feet above mean sea level
ft bgs - Feet below ground surface
NA - Not available
* - Surface elevation not available, therefore, top of casing elevation used as surface elevation

Table 3
Groundwater Sampling Results - Key COCs, June 2019
Lawrence Aviation Industries Site
Port Jefferson Station, New York

					Analyte		1,1,1-TCA		1,1-DCA		1,1-DCE		Chloroform		cis-1,2-DCE		PCE		TCE		VC	
					Screening Criteria (ug/l)		5		5		5		7		5		5		5		2	
Location	HDR Field Sample ID	CLP ID	Matrix	Date Sampled			Results (ug/l)	Q	Results (ug/l)	Q	Results (ug/l)	Q	Results (ug/l)	Q	Results (ug/l)	Q	Results (ug/l)	Q	Results (ug/l)	Q	Results (ug/l)	Q
01-AS	01-AS_20190611	NA	WG	6/11/2019			0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
01-CINF	01-INF_20190611	NA	WG	6/11/2019			0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	2.61		**60.7**		0.5	U
01-EFF	01-EFF_20190611	NA	WG	6/11/2019			0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
01-EW01	01-EW01_20190611	NA	WG	6/11/2019			0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	3.15		**76.7**		0.5	U
01-EW02	01-EW02_20190611	NA	WG	6/11/2019			0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	1.78		**31.2**		0.5	U
02-AS	02-AS_20190611	NA	WG	6/11/2019			0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	4.84		0.5	U
02-EFF	02-EFF_20190611	NA	WG	6/11/2019			0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	4.51		0.5	U
02-EW01	02-EW01_20190611	NA	WG	6/11/2019			0.77		1.59		0.56		0.65		0.84		1.73		**72.2**		0.5	U
02-EW02	02-EW02_20190611	NA	WG	6/11/2019			0.5	U	0.67		0.5	U	0.5	U	1.04		4.88		**57.4**		0.5	U
02-EW06	02-EW06_20190611	NA	WG	6/11/2019			0.5	U	0.69		0.5	U	0.5	U	1.56		**8.46**		**292**		0.5	U
02-GAC	02-GAC_20190611	NA	WG	6/11/2019			0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	**5.44**		0.5	U
ERT-EW-3	ERT-EW-3-HDR-R7-06112019-0	NA	WG	6/11/2019			0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	**8.5**		0.5	UJ
ERT-EW-4	ERT-EW-4-HDR-R7-06112019-0	NA	WG	6/11/2019			0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.71		**13**		0.5	UJ
ERT-EW-5	ERT-EW-5-HDR-R7-06112019-0	NA	WG	6/11/2019			0.5	U	0.5	U	0.5	U	0.69		0.5	U	0.5	U	0.88		0.5	UJ
ERT-MW-1A	ERT-MW-1A-HDR-R7-06042019-0	NA	WG	6/4/2019			0.5	U	0.71		0.5	U	0.5	U	0.5	U	0.5	U	**17**		0.5	UJ
ERT-MW-1B	ERT-MW-1B-HDR-R7-06042019-0	NA	WG	6/4/2019			0.5	U	0.81		0.5	U	0.5	U	0.5	U	0.5	U	**11**		0.5	UJ
ERT-MW-2A	ERT-MW-2A-HDR-R7-06042019-0	NA	WG	6/4/2019			0.5	U	0.5	U	0.5	U	1.3		0.5	U	0.5	U	0.7		0.5	UJ
ERT-MW-2B	ERT-MW-2B-HDR-R7-06042019-0	NA	WG	6/4/2019			0.93		2		0.56		0.55		2.6		3		**360**		0.5	UJ
ERT-MW-2C	ERT-MW-2C-HDR-R7-06042019-0	NA	WG	6/4/2019			0.66		1.4		0.5	U	0.6		1.8		1.8		**180**		0.5	UJ
ERT-MW-2D	ERT-MW-2D-HDR-R7-06042019-0	NA	WG	6/4/2019			0.56		1.1		0.5	U	0.5	U	0.5	U	0.67		**28**		0.5	UJ
ERT-MW-3	ERT-MW-3-HDR-R7-06052019-0	NA	WG	6/5/2019			0.74		1		0.5	U	0.8		0.5	U	0.75		0.5	U	0.5	UJ
ERT-MW-4A	ERT-MW-4A-HDR-R7-06052019-0	NA	WG	6/5/2019			0.61		0.91		0.5	U	0.5	U	0.5	U	0.5	U	1.7		0.5	UJ
ERT-MW-4B	ERT-MW-4B-HDR-R7-06052019-0	NA	WG	6/5/2019			1.2		1.9		0.65		0.57		0.5	U	0.58		1.6		0.5	UJ
ERT-MW-5A	ERT-MW-5A-HDR-R7-06052019-0	NA	WG	6/5/2019			1.4		2.3		0.53		0.83		0.83		0.66		1.4		0.5	UJ
ERT-MW-5B	ERT-MW-5B-HDR-R7-06052019-0	NA	WG	6/5/2019			2.1		3.1		1		0.93		0.6		0.88		1.4		0.5	UJ
ERT-MW-6A	ERT-MW-6A-HDR-R7-06042019-0	NA	WG	6/4/2019			0.59		1.1		0.5	U	0.51		0.57		0.5	U	**28**		0.5	UJ
ERT-MW-6B	ERT-MW-6B-HDR-R7-06042019-0	NA	WG	6/4/2019			0.51		0.89		0.5	U	0.5	U	0.5	U	0.5	U	4.4		0.5	UJ
IW-ISCO-10	IW-ISCO-10-HDR-R7-06112019-0	NA	WG	6/11/2019			0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.78		**24**		0.5	UJ
MPW-01-A	MPW-01-A-HDR-R7-06072019-0	NA	WG	6/7/2019			0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	UJ
MPW-01-B	MPW-01-B-HDR-R7-06072019-0	NA	WG	6/7/2019			0.5	U	0.5	U	0.5	U	0.7		0.5	U	0.5	U	0.5	U	0.5	UJ
MPW-01-C	MPW-01-C-HDR-R7-06072019-0	NA	WG	6/7/2019			1		2.3		0.65		0.72		0.5	U	0.5	U	0.78		0.5	UJ
MPW-02-B	MPW-02-B-HDR-R7-06102019-0	NA	WG	6/10/2019			0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	**8.3**		0.5	UJ
MPW-02-C	MPW-02-C-HDR-R7-06102019-0	NA	WG	6/10/2019			0.5	U	0.5	U	0.5	U	1		0.5	U	0.5	U	**6.1**		0.5	UJ
MPW-03-B	MPW-03-B-HDR-R7-06062019-0	NA	WG	6/6/2019			0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.53		3.1		0.5	UJ
MPW-03-C	MPW-03-C-HDR-R7-06062019-0	NA	WG	6/6/2019			0.51		0.83		0.5	U	0.5	U	0.5	U	0.5	U	1.1		0.5	UJ
MPW-03-D	MPW-03-D-HDR-R7-06102019-0	NA	WG	6/10/2019			0.5	U	0.83		0.5	U	0.5	U	0.5	U	0.55		4		0.5	UJ
MPW-04-B	MPW-04-B-HDR-R7-06102019-0	NA	WG	6/10/2019			0.5	U	0.5	U	0.5	U	0.63		0.5	U	2.4		3.4		0.5	UJ
MPW-04-D	MPW-04-D-HDR-R7-06102019-0	NA	WG	6/10/2019			0.5	U	0.5	U	0.5	U	0.9		0.5	U	0.77		0.62		0.5	UJ
MPW-04-E	MPW-04-E-HDR-R7-06122019-0	NA	WG	6/12/2019			0.5	U	0.5	U	0.5	U	0.86		0.5	U	0.5	U	0.61		0.5	UJ
MPW-05-A	MPW-05-A-HDR-R7-06052019-0	NA	WG	6/5/2019			0.5	U	0.5	U	0.5	U	1.6		0.5	U	0.5	U	0.5	U	0.5	UJ
MPW-05-B	MPW-05-B-HDR-R7-06052019-0	NA	WG	6/5/2019			0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	UJ
MPW-05-C	MPW-05-C-HDR-R7-06052019-0	NA	WG	6/5/2019			0.5	U	0.53		0.5	U	0.73		0.5	U	0.98		2.2		0.5	UJ
MPW-05-D	MPW-05-D-HDR-R7-06052019-0	NA	WG	6/5/2019			0.75		0.89		0.5	U	0.73		0.5	U	1.1		2.4		0.5	UJ
MPW-06-A	MPW-06-A-HDR-R7-06052019-0	NA	WG	6/5/2019			0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	UJ
MPW-06-B	MPW-06-B-HDR-R7-06052019-0	NA	WG	6/5/2019			0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.54		0.5	UJ
MPW-06-D	MPW-06-D-HDR-R7-06052019-0	NA	WG	6/5/2019			0.77		1.4		0.5	U	0.62		0.5	U	0.5	U	4		0.5	UJ

Table 3
Groundwater Sampling Results - Key COCs, June 2019
Lawrence Aviation Industries Site
Port Jefferson Station, New York

				Analyte	1,1,1-TCA		1,1-DCA		1,1-DCE		Chloroform		cis-1,2-DCE		PCE		TCE		VC	
				Screening Criteria (ug/l)	5		5		5		7		5		5		5		2	
Location	HDR Field Sample ID	CLP ID	Matrix	Date Sampled	Results (ug/l)	Q	Results (ug/l)	Q	Results (ug/l)	Q	Results (ug/l)	Q	Results (ug/l)	Q	Results (ug/l)	Q	Results (ug/l)	Q	Results (ug/l)	Q
MPW-08-A	MPW-08-A-HDR-R7-06042019-0	NA	WG	6/4/2019	0.5	U	0.5	U	0.5	U	0.85		0.5	U	0.5	U	0.5	U	0.5	UJ
MPW-08-B	MPW-08-B-HDR-R7-06042019-0	NA	WG	6/4/2019	0.5	U	0.5	U	0.5	U	0.82		0.5	U	0.5	U	0.71		0.5	UJ
MPW-08-C	MPW-08-C-HDR-R7-06042019-0	NA	WG	6/4/2019	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	2.8		0.5	UJ
MPW-08-D	MPW-08-D-HDR-R7-06042019-0	NA	WG	6/4/2019	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	**9.2**		0.5	UJ
MPW-08-E	MPW-08-E-HDR-R7-06052019-0	NA	WG	6/5/2019	0.6		1		0.5	U	0.5	U	0.5	U	0.5	U	3.7		0.5	UJ
MPW-09-A	MPW-09-A-HDR-R7-06042019-0	NA	WG	6/4/2019	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	**22**		0.5	UJ
MPW-09-B	MPW-09-B-HDR-R7-06042019-0	NA	WG	6/4/2019	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	3.9		**32**		0.5	UJ
MPW-09-C	MPW-09-C-HDR-R7-06042019-0	NA	WG	6/4/2019	0.77		1		0.5	U	0.5	U	2.9		**13**		**150**		0.5	UJ
MPW-09-D	MPW-09-D-HDR-R7-06042019-0	NA	WG	6/4/2019	0.73		1.5		0.56		0.54		4.3		2.4		**230**		0.5	UJ
MPW-09-E	MPW-09-E-HDR-R7-06042019-0	NA	WG	6/4/2019	0.5	U	0.75		0.5	U	0.5	U	0.5	U	0.5	U	1.1		0.5	UJ
MPW-10-A	MPW-10-A-HDR-R7-06062019-0	NA	WG	6/6/2019	0.5	U	0.5	U	0.5	U	0.53		0.5	U	3		3.9	L	0.5	UJ
MPW-10-B	MPW-10-B-HDR-R7-06062019-0	NA	WG	6/6/2019	0.5	U	0.5	U	0.5	U	0.82		0.5	U	3.6		**6**		0.5	UJ
MPW-10-C	MPW-10-C-HDR-R7-06062019-0	NA	WG	6/6/2019	0.56		0.94		0.5	U	0.9		0.5	U	0.97		0.91		0.5	UJ
MPW-10-D	MPW-10-D-HDR-R7-06062019-0	NA	WG	6/6/2019	0.5	U	0.5	U	0.5	U	0.91		0.5	U	0.61		0.64		0.5	UJ
MW-05	MW-05-HDR-R7-06062019-0	NA	WG	6/6/2019	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	UJ
MW-ISCO-2	MW-ISCO-2-HDR-R7-06112019-0	NA	WG	6/11/2019	0.5	U	0.5	U	0.5	U	0.5	U	0.7		**23**		**780**		0.5	UJ
MW-ISCO-4	MW-ISCO-4-HDR-R7-06112019-0	NA	WG	6/11/2019	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	**9.4**		**1200**		0.5	UJ
MW-ISCO-5	MW-ISCO-5-HDR-R7-06112019-0	NA	WG	6/11/2019	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	1.5		**72**		0.5	UJ
MW-PD-11	MW-PD-11-HDR-R7-06102019-0	NA	WG	6/10/2019	0.5	U	0.5	U	0.5	U	1.2		0.5	U	0.5	U	0.5	U	0.5	UJ
MW-PD-12	MW-PD-12-HDR-R7-06062019-0	NA	WG	6/6/2019	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	3.8		**170**		0.5	UJ
MW-PD-13	MW-PD-13-HDR-R7-06102019-0	NA	WG	6/10/2019	0.5	U	0.5	U	0.5	U	1.4		0.5	U	0.5	U	0.5	U	0.5	UJ
MW-PD-14	MW-PD-14-HDR-R7-06102019-0	NA	WG	6/10/2019	0.5	U	0.5	U	0.5	U	0.5	U	1.2		**7.5**		**300**		0.5	UJ
MW-PD-15	MW-PD-15-HDR-R7-06052019-0	NA	WG	6/5/2019	0.79		1.2		0.5	U	0.54		0.5	U	2.4		**7.1**		0.5	UJ
MW-PD-16	MW-PD-16-HDR-R7-06062019-0	NA	WG	6/6/2019	0.5	U	0.5	U	0.5	U	0.5	U	0.66		**6**		**280**		0.5	UJ
MW-PD-17	MW-PD-17-HDR-R7-06062019-0	NA	WG	6/6/2019	1.2		0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.83		0.5	UJ
PZ-05	PZ-05-HDR-R7-06102019-0	NA	WG	6/10/2019	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	1.9		0.5	UJ
PZ-06	PZ-06-HDR-R7-06072019-0	NA	WG	6/7/2019	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.99		**22**		0.5	UJ
PZ-07	PZ-07-HDR-R7-06072019-0	NA	WG	6/7/2019	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	1.5		**15**		0.5	UJ
SDW-01	SDW-01-HDR-R7-06052019-0	NA	WG	6/5/2019	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	UJ

Acronyms:

ug/l - micrograms per Liter
COC - Contaminant of Concern
D - Diluted sample
DCA - Dichloroethane
DCE - Dichloroethene
ID - Identification
ISCO - in situ chemical oxidation
J - Estimated values (+/- indicates likely bias direction)
L - Value may be biased low
MPW - Multi-Port Well
MW - Monitoring Well
NA - Not Applicable
NS - Not Sampled
PCE - Tetrachloroethene
PZ - Piezometer
Q - Qualifier
TCA - Trichloroethane
TCE - Trichloroethene
U - Not Detected
VC - Vinyl Chloride
VOC - Volatile Organic Compound
WG - Groundwater

Values that are **bold and highlighted** exceed NYSDEC Class GA Standards: **110**

In its 2012 Edition of the Drinking Water Standards and Health Advisories, EPA listed a health advisory of 0.35 µg/L for 1,4-dioxane; there is no MCL at this time.
The EPA Regional Screening Level (RSL) for preliminary remediation goals for 1,4-dioxane is 0.78 ug/L. A RSL is not to be used as a cleanup level.

Table 4
June 2019 Water Quality Data
Lawrence Aviation Industries Site
Port Jefferson Station, New York

Location	HDR Field Sample ID	CLP Sample ID	Date Sampled	Time of Reading (24-hour)	Flow Rate (L/min)	Temp-erature (°C)	Specific Conductance (mS/cm)	Oxidation / Reduction Potential (mV)	Dissolved Oxygen (mg/L)	pH (s.u.)	Turbidity (NTU)	Depth To Water Collected During Synoptic Round (ft btic)
ERT-EW-1	02-EW01_20190611	NA	6/11/2019	Sampled as part of the Monthly Process Monitoring - Depth to Water reading is based on PLC data								-18.37
ERT-EW-2	02-EW02_20190611	NA	6/11/2019	Sampled as part of the Monthly Process Monitoring - Depth to Water reading is based on PLC data								-91.18
ERT-EW-3	ERT-EW-3-HDR-R7-06112019-0	NA	6/11/2019	11:39	0.33	12.4	0.201	186.9	9.53	5.47	3.2	6.68
ERT-EW-4	ERT-EW-4-HDR-R7-06112019-0	NA	6/11/2019	10:36	0.31	12.7	0.329	189.1	9.25	5.3	0.87	5.83
ERT-EW-5	ERT-EW-5-HDR-R7-06112019-0	NA	6/11/2019	9:31	0.2	13.3	0.296	204.1	8.62	4.9	0.4	6.38
ERT-EW-6	02-EW06_20190611	NA	6/11/2019	Sampled as part of the Monthly Process Monitoring - Depth to Water reading is based on PLC data								-69.78
ERT-MW-1A	ERT-MW-1A-HDR-R7-06042019-0	NA	6/4/2019	13:42	0.26	13.7	12.789	116.4	7.15	6.67	0.44	1.29
ERT-MW-1B	ERT-MW-1B-HDR-R7-06042019-0	NA	6/4/2019	12:47	0.375	12.2	11.483	121.7	5.83	6.82	0.03	8.50
ERT-MW-2A	ERT-MW-2A-HDR-R7-06042019-0	NA	6/4/2019	9:00	0.45	14	22.27	182.5	6.96	5.46	30.8	3.32
ERT-MW-2B	ERT-MW-2B-HDR-R7-06042019-0	NA	6/4/2019	10:35	0.25	14.9	16.872	138.3	5.73	6.28	3.18	3.29
ERT-MW-2C	ERT-MW-2C-HDR-R7-06042019-0	NA	6/4/2019	9:41	0.45	11.5	12.194	143.4	6.00	6.41	0.57	0.00
ERT-MW-2D	ERT-MW-2D-HDR-R7-06042019-0	NA	6/4/2019	11:21	0.25	12.5	11.298	121.9	6.63	6.77	0.39	0.00
ERT-MW-3	ERT-MW-3-HDR-R7-06052019-0	NA	6/5/2019	11:25	0.375	16.3	25.049	138.1	1.37	6.00	1.28	92.55
ERT-MW-4A	ERT-MW-4A-HDR-R7-06052019-0	NA	6/5/2019	8:31	0.38	14.2	11.481	193.8	8.18	5.89	1.62	0.00
ERT-MW-4B	ERT-MW-4B-HDR-R7-06052019-0	NA	6/5/2019	9:27	0.25	13	11.483	173	8.3	5.90	0.62	0.00
ERT-MW-5A	ERT-MW-5A-HDR-R7-06052019-0	NA	6/5/2019	11:41	0.23	13.7	12.379	154.1	7.69	6.00	2.68	1.38
ERT-MW-5B	ERT-MW-5B-HDR-R7-06052019-0	NA	6/5/2019	11:05	0.5	12.6	14.765	156.4	7.52	6.11	0.61	1.05
ERT-MW-6A	ERT-MW-6A-HDR-R7-06042019-0	NA	6/4/2019	15:25	0.375	13.4	14.394	86.6	6.73	6.76	1.28	4.61
ERT-MW-6B	ERT-MW-6B-HDR-R7-06042019-0	NA	6/4/2019	16:01	0.25	13.3	12.835	79.6	5.15	7.08	0.24	2.55
EW-01	01-EW01_20190611	NA	6/11/2019	Sampled as part of the Monthly Process Monitoring - Depth to Water reading is based on PLC data								33.67
EW-02	01-EW02_20190611	NA	6/11/2019	Sampled as part of the Monthly Process Monitoring - Depth to Water reading is based on PLC data								32.15
IW-ISCO-10	IW-ISCO-10-HDR-R7-06112019-0	NA	6/11/2019	16:40	0.16	19.4	0.295	202.5**	10.71	6.06	4.25	192.02
MPW-01-A	MPW-01-A-HDR-R7-06072019-0	NA	6/7/2019	9:35	0.075	13.6	0.407	102.2	1.08	5.79	1.06	41.71
MPW-01-B	MPW-01-B-HDR-R7-06072019-0	NA	6/7/2019	10:50	0.105	13.8	0.419	170.3	2.74	5.39	0.28	40.89
MPW-01-C	MPW-01-C-HDR-R7-06072019-0	NA	6/7/2019	12:05	0.075	13.8	0.444	-17.1	1.57	8.92	1.12	40.87
MPW-02-B	MPW-02-B-HDR-R7-06102019-0	NA	6/10/2019	15:40	0.08	16	0.288	148.9**	12.22	6.13	2	33.36
MPW-02-C	MPW-02-C-HDR-R7-06102019-0	NA	6/10/2019	17:00	0.075	15.8	0.378	107.7	4.87	6.08	1.06	32.15
MPW-02-D	Port no longer functioning; not sampled in 2018.											31.44
MPW-03-B	MPW-03-B-HDR-R7-06062019-0	NA	6/6/2019	15:15	0.08	15.4	0.209	112.7	1.22	5.75	30.4	29.99
MPW-03-C	MPW-03-C-HDR-R7-06062019-0	NA	6/6/2019	17:00	0.06	15.6	0.317	84.7	1.4	6.52	0.36	NA
MPW-03-D	MPW-03-D-HDR-R7-06102019-0	NA	6/10/2019	13:45	0.07	14.3	0.299	57	0.39	6.04	0.66	30.30
MPW-04-B	MPW-04-B-HDR-R7-06102019-0	NA	6/10/2019	9:25	0.4	14.4	0.421	153.2	5.23	5.68	0.69	30.54
MPW-04-D	MPW-04-D-HDR-R7-06102019-0	NA	6/10/2019	10:30	0.115	15.2	0.413	137.6	6.73	5.62	0.73	30.27
MPW-04-E	MPW-04-E-HDR-R7-06122019-0	NA	6/11/2019	8:40	0.125	14.5	0.424	130.8	6.37	5.84	1.86	29.72
MPW-05-A	MPW-05-A-HDR-R7-06052019-0	NA	6/5/2019	14:45	0.18	14.2	0.326	61.4	1.06	5.6	0.36	21.19

Table 4
June 2019 Water Quality Data
Lawrence Aviation Industries Site
Port Jefferson Station, New York

Location	HDR Field Sample ID	CLP Sample ID	Date Sampled	Time of Reading (24-hour)	Flow Rate (L/min)	Temp-erature (°C)	Specific Conductance (mS/cm)	Oxidation / Reduction Potential (mV)	Dissolved Oxygen (mg/L)	pH (s.u.)	Turbidity (NTU)	Depth To Water Collected During Synoptic Round (ft btic)
MPW-05-B	MPW-05-B-HDR-R7-06052019-0	NA	6/5/2019	15:50	0.215	13.9	0.43	94.4	0.09	5.79	0.22	22.01
MPW-05-C	MPW-05-C-HDR-R7-06052019-0	NA	6/5/2019	16:25	0.125	14.8	0.297	163.9	5.47	5.77	0.28	21.09
MPW-05-D	MPW-05-D-HDR-R7-06052019-0	NA	6/5/2019	17:35	0.125	15.1	0.32	143.6	5.49	5.85	1.29	21.97
MPW-06-A	MPW-06-A-HDR-R7-06052019-0	NA	6/5/2019	10:15	0.1	14.3	0.662	158.2	3.13	6.68	6.47	22.47
MPW-06-B	MPW-06-B-HDR-R7-06052019-0	NA	6/5/2019	11:00	0.1	13.9	0.156	24	0.01	5.79	0.63	22.03
MPW-06-D	MPW-06-D-HDR-R7-06052019-0	NA	6/5/2019	11:55	0.11	14.5	0.223	96.3	5.43	7.72	0.26	21.30
MPW-08-A	MPW-08-A-HDR-R7-06042019-0	NA	6/4/2019	13:30	0.125	16.5	0.331	211.7	8.28	5.48	0.16	NA
MPW-08-B	MPW-08-B-HDR-R7-06042019-0	NA	6/4/2019	14:30	0.16	15	0.316	192.1	8.89	5.54	0.11	10.94
MPW-08-C	MPW-08-C-HDR-R7-06042019-0	NA	6/4/2019	15:15	0.225	13.8	0.258	153.6	9.11	5.86	0.33	11.28
MPW-08-D	MPW-08-D-HDR-R7-06042019-0	NA	6/4/2019	16:05	0.225	13.2	0.214	134.2	9.18	6.23	0.11	10.47
MPW-08-E	MPW-08-E-HDR-R7-06052019-0	NA	6/5/2019	13:40	0.17	15.6	0.179	78.5	5.00	6.88	0.33	10.87
MPW-09-A	MPW-09-A-HDR-R7-06042019-0	NA	6/4/2019	8:35	0.125	11.6	0.205	202.3	4.92	5.64	0.06	12.81
MPW-09-B	MPW-09-B-HDR-R7-06042019-0	NA	6/4/2019	9:30	0.25	11.5	0.321	198.7	4.93	5.53	0.25	14.34
MPW-09-C	MPW-09-C-HDR-R7-06042019-0	NA	6/4/2019	10:10	0.09	12.1	0.462	173.3	0	6.12	0.07	14.73
MPW-09-D	MPW-09-D-HDR-R7-06042019-0	NA	6/4/2019	11:00	0.125	12.1	0.237	134	2.78	6.31	0.95	14.86
MPW-09-E	MPW-09-E-HDR-R7-06042019-0	NA	6/4/2019	12:20	0.125	12.8	0.127	116.2	3.77	6.77	0.41	15.00
MPW-10-A	MPW-10-A-HDR-R7-06062019-0	NA	6/6/2019	9:20	0.075	16.4	0.447	149.2	1.38	5.7	1.02	29.57
MPW-10-B	MPW-10-B-HDR-R7-06062019-0	NA	6/6/2019	10:20	0.075	16.5	0.44	164	5.36	5.9	0.34	29.54
MPW-10-C	MPW-10-C-HDR-R7-06062019-0	NA	6/6/2019	11:25	0.08	16.4	0.449	164.2	7.35	5.92	0.08	29.22
MPW-10-D	MPW-10-D-HDR-R7-06062019-0	NA	6/6/2019	13:00	0.05	16.9	0.434	158.3	7.7	5.77	0.98	28.90
MW-05	MW-05-HDR-R7-06062019-0	NA	6/6/2019	16:14	0.12	19.8	283.575	142.8	1.65	5.97	2.29	184.51
MW-ISCO-02	MW-ISCO-2-HDR-R7-06112019-0	NA	6/11/2019	14:45	0.175	20.2	0.298	144.9	5.02	5.91	1.89	190.80
MW-ISCO-04	MW-ISCO-4-HDR-R7-06112019-0	NA	6/11/2019	10:45	0.175	17.3	0.263	133.7	8.72	5.73	2.09	191.03
MW-ISCO-05	MW-ISCO-5-HDR-R7-06112019-0	NA	6/11/2019	12:55	0.4	17.8	0.301	107.6**	12.22	6.29	7.1	190.55
MW-PD-11	MW-PD-11-HDR-R7-06102019-0	NA	6/10/2019	10:32	0.22	18.1	0.24	34.8	2.91	5.49	7.25	134.46
MW-PD-12	MW-PD-12-HDR-R7-06062019-0	NA	6/6/2019	14:31	0.275	17.4	818.8	119.3	5.62	5.9	9.42	113.13
MW-PD-13	MW-PD-13-HDR-R7-06102019-0	NA	6/6/2019	13:05	0.22	15.4	806.54	143	8.67	5.9	6.65	149.24
MW-PD-14	MW-PD-14-HDR-R7-06102019-0	NA	6/6/2019	11:37	0.38	14.1	728.39	165.8	1.98	5.2	7.13	152.56
MW-PD-15	MW-PD-15-HDR-R7-06052019-0	NA	6/5/2019	13:23	0.22	13.7	24.116	142.6	4.1	6.24	2.6	78.28
MW-PD-16	MW-PD-16-HDR-R7-06062019-0	NA	6/6/2019	9:43	0.45	13.6	679.89	151.9	6.14	5.7	5.44	65.34
MW-PD-17	MW-PD-17-HDR-R7-06062019-0	NA	6/6/2019	8:19	0.41	13.7	719.47	112	7.08	6.49	1.91	4.71
PZ-05	PZ-05-HDR-R7-06102019-0	NA	6/10/2019	12:38	0.18	18.6	0.29	111.9**	9.95	6.13	4.56	189.09
PZ-06	PZ-06-HDR-R7-06072019-0	NA	6/7/2019	11:20	0.32	20.4	0.292	174.5**	10.4	5.93	6.71	194.29
PZ-07	PZ-07-HDR-R7-06072019-0	NA	6/7/2019	9:40	0.35	21.8	0.184	188.1	7.18	5.59	0.94	183.27
SDW-01	SDW-01-HDR-R7-06052019-0	NA	6/5/2019	15:23		14.6	63	-93.6	2.27	6.62	56.1	7.78

NOTES:

Table shows water quality parameters collected after stabilization was attained but just before the sample was collected.

* - Indicates measurement taken from initial reading, not after stabilization was attained.

** - Dissolved oxygen levels were above saturation limits.

°C - degrees in Celcius.

ft btic - depth to water measured in feet below the top of the inner well casing.

mg/L - milligrams per liter

mL/min - milliliters per minute

mS/cm - millisiemens per centimenter

mV - millivolts

NA - Not applicable.

NTU - Nephelometric Turbidity Unit

s.u. - standardized pH units

APPENDICES

APPENDIX A
2019 COMPREHENSIVE SAMPLING EVENT
ANALYTICAL DATA TABLES

Appendix A
Table A1 - Groundwater VOCs Analytical Sampling Results (June 2019)
Lawrence Aviation Industries Site
Port Jefferson Station, New York

				Well ID	01-AS		01-CINF		01-EFF		01-EFF		01-EW01		01-EW02		02-AS		02-EFF		02-EW01		02-EW02		02-EW06		02-GAC	
				Sample ID	01-AS_20190611		01-INF_20190611		01-EFF_20190611		11-EFF_20190611		01-EW01_20190611		01-EW02_20190611		02-AS_20190611		02-EFF_20190611		02-EW01_20190611		02-EW02_20190611		02-EW06_20190611		02-GAC_20190611	
				CLP ID	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
				Sample Date	6/11/2019		6/11/2019		6/11/2019		6/11/2019		6/11/2019		6/11/2019		6/11/2019		6/11/2019		6/11/2019		6/11/2019		6/11/2019		6/11/2019	
Analyte	**CAS No.**	**Units**	**NYSDEC Class GA Standards**	**Results**	**Qual**	**Results**	**Qual**	**Results**	**Qual**	**Results**	**Qual**	**Results**	**Qual**	**Results**	**Qual**	**Results**	**Qual**	**Results**	**Qual**	**Results**	**Qual**	**Results**	**Qual**	**Results**	**Qual**	**Results**	**Qual**	**Results**	**Qual**
Volatile Organic Compounds (VOCs)																												
1,1,1-Trichloroethane	71-55-6	ug/l	5	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.77		0.5	U	0.5	U	0.5	U	0.5	U
1,1,2,2-Tetrachloroethane	79-34-5	ug/l	5	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	ug/l	NA	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,1,2-Trichloroethane	79-00-5	ug/l	1	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,1-Dichloroethane	75-34-3	ug/l	5	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	1.59		0.67		0.69		0.5	U	0.5	U
1,1-Dichloroethene	75-35-4	ug/l	5	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.56		0.5	U	0.5	U	0.5	U	0.5	U
1,2,3-Trichlorobenzene	87-61-6	ug/l	NA	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2,4-Trichlorobenzene	120-82-1	ug/l	NA	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2-Dibromo-3-Chloropropane	96-12-8	ug/l	0.04	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2-Dibromoethane	106-93-4	ug/l	0.0006	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2-Dichlorobenzene	95-50-1	ug/l	3	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2-Dichloroethane	107-06-2	ug/l	0.6	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2-Dichloropropane	78-87-5	ug/l	1	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,3-Dichlorobenzene	541-73-1	ug/l	3	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,4-Dichlorobenzene	106-46-7	ug/l	3	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
2-Butanone	78-93-3	ug/l	NA	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U
2-Hexanone	591-78-6	ug/l	NA	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U
4-Methyl-2-Pentanone	108-10-1	ug/l	NA	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U
Acetone	67-64-1	ug/l	NA	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U
Benzene	71-43-2	ug/l	1	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Bromochloromethane	74-97-5	ug/l	5	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Bromodichloromethane	75-27-4	ug/l	NA	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	2.47		0.5	U	0.5	U
Bromoform	75-25-2	ug/l	NA	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Bromomethane	74-83-9	ug/l	5	0.57		0.51		0.54		0.5	U	0.5	U	0.5	U	0.51		0.5	U	0.51		0.5	U	0.5	U	0.5	U	0.5	U
Carbon Disulfide	75-15-0	ug/l	60	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Carbon Tetrachloride	56-23-5	ug/l	5	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Chlorobenzene	108-90-7	ug/l	5	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Chloroethane	75-00-3	ug/l	5	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Chloroform	67-66-3	ug/l	7	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.65		0.5	U	0.5	U	0.5	U	0.5	U
Chloromethane	74-87-3	ug/l	5	0.5	U	0.5	U	0.5	U	0.73		0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.71		0.77		0.67	
cis-1,2-Dichloroethylene	156-59-2	ug/l	5	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.84		1.04		1.56		0.5	U	0.5	U
cis-1,3-Dichloropropene	10061-01-5	ug/l	NA	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Cyclohexane	110-82-7	ug/l	NA	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Dibromochloromethane	124-48-1	ug/l	NA	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Dichlorodifluoromethane	75-71-8	ug/l	5	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Ethylbenzene	100-41-4	ug/l	5	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Isopropylbenzene	98-82-8	ug/l	5	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
M, P Xylenes	179601-23-1	ug/l	NA	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Methyl Acetate	79-20-9	ug/l	NA	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Methyl tert-Butyl Ether	1634-04-4	ug/l	NA	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.91		0.5	U	0.5	U
Methylcyclohexane	108-87-2	ug/l	NA	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Methylene Chloride	75-09-2	ug/l	5	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
o-Xylene (1,2-Dimethylbenzene)	95-47-6	ug/l	5	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Styrene	100-42-5	ug/l	5	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Tetrachloroethylene(PCE)	127-18-4	ug/l	**5**	0.5	U	2.61		0.5	U	0.5	U	3.15		1.78		0.5	U	0.5	U	1.73		4.88		**8.46**		0.5	U	0.5	U
Toluene	108-88-3	ug/l	5	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
trans-1,2-Dichloroethene	156-60-5	ug/l	5	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
trans-1,3-Dichloropropene	10061-02-6	ug/l	NA	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Trichloroethylene (TCE)	79-01-6	ug/l	**5**	0.5	U	**60.7**		0.5	U	4.83		**76.7**		**31.2**		4.84		4.51		**72.2**		**57.4**		**292**		**5.44**	
Trichlorofluoromethane	75-69-4	ug/l	5	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Vinyl Chloride	75-01-4	ug/l	2	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U

Notes:
J - Estimated values (+/- indicates likely bias direction)
K - The reported value may be biased high.
L - The reported value may be biased low.
NA - Not Available
U - Non-Detect Value
ug/l - microgram per liter
Values that are **bold and highlighted** exceed NYSDEC
Class GA Standards: **110**
Values highlighted blue are non-detect, but the RDL exceeds
the NYSDEC Class GA Standards: 110

Appendix A
Table A1 - Groundwater VOCs Analytical Sampling Results (June 2019)
Lawrence Aviation Industries Site
Port Jefferson Station, New York

				Well ID	ERT-EW-3		ERT-EW-4		ERT-EW-5		ERT-MW-1A		ERT-MW-1B		ERT-MW-2A		ERT-MW-2B		ERT-MW-2C		ERT-MW-2D		ERT-MW-3		ERT-MW-4A		ERT-MW-4B	
				Sample ID	ERT-EW-3-HDR-R7-06112019-0		ERT-EW-4-HDR-R7-06112019-0		ERT-EW-5-HDR-R7-06112019-0		ERT-MW-1A-HDR-R7-06042019-0		ERT-MW-1B-HDR-R7-06042019-0		ERT-MW-2A-HDR-R7-06042019-0		ERT-MW-2B-HDR-R7-06042019-0		ERT-MW-2C-HDR-R7-06042019-0		ERT-MW-2D-HDR-R7-06042019-0		ERT-MW-3-HDR-R7-06052019-0		ERT-MW-4A-HDR-R7-06052019-0		ERT-MW-4B-HDR-R7-06052019-0	
				CLP ID	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
				Sample Date	6/11/2019		6/11/2019		6/11/2019		6/4/2019		6/4/2019		6/4/2019		6/4/2019		6/4/2019		6/4/2019		6/5/2019		6/5/2019		6/5/2019	
Analyte	**CAS No.**	**Units**	**NYSDEC Class GA Standards**	**Results**	**Qual**	**Results**	**Qual**	**Results**	**Qual**	**Results**	**Qual**	**Results**	**Qual**	**Results**	**Qual**	**Results**	**Qual**	**Results**	**Qual**	**Results**	**Qual**	**Results**	**Qual**	**Results**	**Qual**	**Results**	**Qual**
Volatile Organic Compounds (VOCs)																												
1,1,1-Trichloroethane	71-55-6	ug/l	5	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.93		0.66		0.56		0.74		0.61		1.2	
1,1,2,2-Tetrachloroethane	79-34-5	ug/l	5	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	ug/l	NA	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,1,2-Trichloroethane	79-00-5	ug/l	1	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,1-Dichloroethane	75-34-3	ug/l	5	0.5	U	0.5	U	0.5	U	0.71		0.81		0.5	U	2		1.4		1.1		1		0.91		1.9	
1,1-Dichloroethene	75-35-4	ug/l	5	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.56		0.5	U	0.5	U	0.5	U	0.5	U	0.65	
1,2,3-Trichlorobenzene	87-61-6	ug/l	NA	1	UL	1	UL	1	UL	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
1,2,4-Trichlorobenzene	120-82-1	ug/l	NA	0.5	UL	0.5	UL	0.5	UL	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2-Dibromo-3-Chloropropane	96-12-8	ug/l	0.04	0.5	U	0.5	U	0.5	U	0.5	UJ	0.5	UJ	0.5	UJ	0.5	UJ	0.5	UJ	0.5	UJ	0.5	UL	0.5	UL	0.5	UL
1,2-Dibromoethane	106-93-4	ug/l	0.0006	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2-Dichlorobenzene	95-50-1	ug/l	3	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2-Dichloroethane	107-06-2	ug/l	0.6	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2-Dichloropropane	78-87-5	ug/l	1	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,3-Dichlorobenzene	541-73-1	ug/l	3	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,4-Dichlorobenzene	106-46-7	ug/l	3	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
2-Butanone	78-93-3	ug/l	NA	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U
2-Hexanone	591-78-6	ug/l	NA	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U
4-Methyl-2-Pentanone	108-10-1	ug/l	NA	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U
Acetone	67-64-1	ug/l	NA	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U
Benzene	71-43-2	ug/l	1	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Bromochloromethane	74-97-5	ug/l	5	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Bromodichloromethane	75-27-4	ug/l	NA	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Bromoform	75-25-2	ug/l	NA	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Bromomethane	74-83-9	ug/l	5	1	UL	1	UL	1	UL	1	UL	1	UL	1	UL	1	UL	1	UL	1	UL	1	UL	1	UL	1	UL
Carbon Disulfide	75-15-0	ug/l	60	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Carbon Tetrachloride	56-23-5	ug/l	5	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Chlorobenzene	108-90-7	ug/l	5	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Chloroethane	75-00-3	ug/l	5	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Chloroform	67-66-3	ug/l	7	0.5	U	0.5	U	0.69		0.5	U	0.5	U	1.3		0.55		0.6		0.5	U	0.8		0.5	U	0.57	
Chloromethane	74-87-3	ug/l	5	0.76	U	1	U	1	U	0.55		0.5	U	0.5	U	0.5	U	0.59		0.61		1	U	0.69	U	0.64	U
cis-1,2-Dichloroethylene	156-59-2	ug/l	5	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	2.6		1.8		0.5	U	0.5	U	0.5	U	0.5	U
cis-1,3-Dichloropropene	10061-01-5	ug/l	NA	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Cyclohexane	110-82-7	ug/l	NA	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Dibromochloromethane	124-48-1	ug/l	NA	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Dichlorodifluoromethane	75-71-8	ug/l	5	0.5	UL	0.5	UL	0.5	UL	0.5	UL	0.5	UL	0.5	UL	0.5	UL	0.5	UL	0.5	UL	0.5	UL	0.5	UL	0.5	UL
Ethylbenzene	100-41-4	ug/l	5	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Isopropylbenzene	98-82-8	ug/l	5	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
M, P Xylenes	179601-23-1	ug/l	NA	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Methyl Acetate	79-20-9	ug/l	NA	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Methyl tert-Butyl Ether	1634-04-4	ug/l	NA	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Methylcyclohexane	108-87-2	ug/l	NA	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Methylene Chloride	75-09-2	ug/l	5	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
o-Xylene (1,2-Dimethylbenzene)	95-47-6	ug/l	5	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Styrene	100-42-5	ug/l	5	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Tetrachloroethylene(PCE)	127-18-4	ug/l	**5**	0.5	U	0.71		0.5	U	0.5	U	0.5	U	0.5	U	3		1.8		0.67		0.75		0.5	U	0.58	
Toluene	108-88-3	ug/l	5	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
trans-1,2-Dichloroethene	156-60-5	ug/l	5	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
trans-1,3-Dichloropropene	10061-02-6	ug/l	NA	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Trichloroethylene (TCE)	79-01-6	ug/l	**5**	**8.5**		**13**		0.88		**17**		**11**		0.7		**360**		**180**		**28**		0.5	U	1.7		1.6	
Trichlorofluoromethane	75-69-4	ug/l	5	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Vinyl Chloride	75-01-4	ug/l	2	0.5	UJ	0.5	UJ	0.5	UJ	0.5	UJ	0.5	UJ	0.5	UJ	0.5	UJ	0.5	UJ	0.5	UJ	0.5	UJ	0.5	UJ	0.5	UJ

Notes:
J - Estimated values (+/- indicates likely bias direction)
K - The reported value may be biased high.
L - The reported value may be biased low.
NA - Not Available
U - Non-Detect Value
ug/l - microgram per liter
Values that are **bold and highlighted** exceed NYSDEC Class GA Standards: **110**
Values highlighted blue are non-detect, but the RDL exceeds the NYSDEC Class GA Standards: 110

Appendix A
Table A1 - Groundwater VOCs Analytical Sampling Results (June 2019)
Lawrence Aviation Industries Site
Port Jefferson Station, New York

				Well ID	ERT-MW-5A		ERT-MW-5B		ERT-MW-6A		ERT-MW-6B		IW-ISCO-10		MPW-01-A		MPW-01-B		MPW-01-C		MPW-02-B		MPW-02-C		MPW-03-B		MPW-03-C	
				Sample ID	ERT-MW-5A-HDR-R7-06052019-0		ERT-MW-5B-HDR-R7-06052019-0		ERT-MW-6A-HDR-R7-06042019-0		ERT-MW-6B-HDR-R7-06042019-0		IW-ISCO-10-HDR-R7-06112019-0		MPW-01-A-HDR-R7-06072019-0		MPW-01-B-HDR-R7-06072019-0		MPW-01-C-HDR-R7-06072019-0		MPW-02-B-HDR-R7-06102019-0		MPW-02-C-HDR-R7-06102019-0		MPW-03-B-HDR-R7-06062019-0		MPW-03-C-HDR-R7-06062019-0	
				CLP ID	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
				Sample Date	6/5/2019		6/5/2019		6/4/2019		6/4/2019		6/11/2019		6/7/2019		6/7/2019		6/7/2019		6/10/2019		6/10/2019		6/6/2019		6/6/2019	
Analyte	CAS No.	Units	NYSDEC Class GA Standards	Results	Qual	Results	Qual	Results	Qual	Results	Qual	Results	Qual	Results	Qual	Results	Qual	Results	Qual	Results	Qual	Results	Qual	Results	Qual	Results	Qual	Results	Qual
Volatile Organic Compounds (VOCs)																												
1,1,1-Trichloroethane	71-55-6	ug/l	5	1.4		2.1		0.59		0.51		0.5	U	0.5	U	0.5	U	1		0.5	U	0.5	U	0.5	U	0.51	
1,1,2,2-Tetrachloroethane	79-34-5	ug/l	5	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	ug/l	NA	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,1,2-Trichloroethane	79-00-5	ug/l	1	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,1-Dichloroethane	75-34-3	ug/l	5	2.3		3.1		1.1		0.89		0.5	U	0.5	U	0.5	U	2.3		0.5	U	0.5	U	0.5	U	0.83	
1,1-Dichloroethene	75-35-4	ug/l	5	0.53		1		0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.65		0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2,3-Trichlorobenzene	87-61-6	ug/l	NA	1	U	1	U	1	U	1	U	1	UL	1	UL	1	UL	1	UL	1	UJ	1	UJ	1	U	1	U	1	U
1,2,4-Trichlorobenzene	120-82-1	ug/l	NA	0.5	U	0.5	U	0.5	U	0.5	U	0.5	UL	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2-Dibromo-3-Chloropropane	96-12-8	ug/l	0.04	0.5	UL	0.5	UL	0.5	UJ	0.5	UJ	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2-Dibromoethane	106-93-4	ug/l	0.0006	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2-Dichlorobenzene	95-50-1	ug/l	3	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2-Dichloroethane	107-06-2	ug/l	0.6	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2-Dichloropropane	78-87-5	ug/l	1	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,3-Dichlorobenzene	541-73-1	ug/l	3	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,4-Dichlorobenzene	106-46-7	ug/l	3	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
2-Butanone	78-93-3	ug/l	NA	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U
2-Hexanone	591-78-6	ug/l	NA	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	UJ	5	UJ	5	U	5	U	5	U
4-Methyl-2-Pentanone	108-10-1	ug/l	NA	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U
Acetone	67-64-1	ug/l	NA	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U
Benzene	71-43-2	ug/l	1	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Bromochloromethane	74-97-5	ug/l	5	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Bromodichloromethane	75-27-4	ug/l	NA	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Bromoform	75-25-2	ug/l	NA	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Bromomethane	74-83-9	ug/l	5	1	UL	1	UL	1	UL	1	UL	1	UL	1	UL	1	UL	1	UL	1	UL	1	UL	1	UL	1	UL	1	UL
Carbon Disulfide	75-15-0	ug/l	60	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Carbon Tetrachloride	56-23-5	ug/l	5	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Chlorobenzene	108-90-7	ug/l	5	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Chloroethane	75-00-3	ug/l	5	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Chloroform	67-66-3	ug/l	7	0.83		0.93		0.51		0.5	U	0.5	U	0.5	U	0.7		0.72		0.5	U	1		0.5	U	0.5	U	0.5	U
Chloromethane	74-87-3	ug/l	5	0.78	U	0.89	U	0.5	U	0.5	U	1.1	U	0.87	U	0.5	U	0.69	U	0.79	U	0.84	U	0.93	K	0.98	K		
cis-1,2-Dichloroethylene	156-59-2	ug/l	5	0.83		0.6		0.57		0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
cis-1,3-Dichloropropene	10061-01-5	ug/l	NA	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Cyclohexane	110-82-7	ug/l	NA	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Dibromochloromethane	124-48-1	ug/l	NA	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Dichlorodifluoromethane	75-71-8	ug/l	5	0.5	UL	0.5	UL	0.5	UL	0.5	UL	0.5	UL	0.5	UL	0.5	UL	0.5	UL	0.5	UL	0.5	UL	0.5	UL	0.5	UL	0.5	UL
Ethylbenzene	100-41-4	ug/l	5	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Isopropylbenzene	98-82-8	ug/l	5	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
M, P Xylenes	179601-23-1	ug/l	NA	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Methyl Acetate	79-20-9	ug/l	NA	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Methyl tert-Butyl Ether	1634-04-4	ug/l	NA	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.82			
Methylcyclohexane	108-87-2	ug/l	NA	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Methylene Chloride	75-09-2	ug/l	5	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
o-Xylene (1,2-Dimethylbenzene)	95-47-6	ug/l	5	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Styrene	100-42-5	ug/l	5	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Tetrachloroethylene(PCE)	127-18-4	ug/l	**5**	0.66		0.88		0.5	U	0.5	U	0.78		0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.53		0.5	U		
Toluene	108-88-3	ug/l	5	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
trans-1,2-Dichloroethene	156-60-5	ug/l	5	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
trans-1,3-Dichloropropene	10061-02-6	ug/l	NA	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Trichloroethylene (TCE)	79-01-6	ug/l	**5**	1.4		1.4		**28**		4.4		**24**		0.5	U	0.5	U	0.78		**8.3**		**6.1**		3.1		1.1	
Trichlorofluoromethane	75-69-4	ug/l	5	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Vinyl Chloride	75-01-4	ug/l	2	0.5	UJ	0.5	UJ	0.5	UJ	0.5	UJ	0.5	UJ	0.5	UJ	0.5	UJ	0.5	UJ	0.5	UJ	0.5	UJ	0.5	UJ	0.5	UJ	0.5	UJ

Notes:
J - Estimated values (+/- indicates likely bias direction)
K - The reported value may be biased high.
L - The reported value may be biased low.
NA - Not Available
U - Non-Detect Value
ug/l - microgram per liter
Values that are **bold and highlighted** exceed NYSDEC Class GA Standards: **110**
Values highlighted blue are non-detect, but the RDL exceeds the NYSDEC Class GA Standards: 110

Appendix A
Table A1 - Groundwater VOCs Analytical Sampling Results (June 2019)
Lawrence Aviation Industries Site
Port Jefferson Station, New York

				Well ID	MPW-03-D		MPW-04-B		MPW-04-B		MPW-04-D		MPW-04-E		MPW-05-A		MPW-05-B		MPW-05-C		MPW-05-D		MPW-06-A		MPW-06-B		MPW-06-D	
				Sample ID	MPW-03-D-HDR-R7-06102019-0		MPW-04-B-HDR-R7-06102019-0		MPW-04-B-HDR-R7-06102019-1		MPW-04-D-HDR-R7-06102019-0		MPW-04-E-HDR-R7-06122019-0		MPW-05-A-HDR-R7-06052019-0		MPW-05-B-HDR-R7-06052019-0		MPW-05-C-HDR-R7-06052019-0		MPW-05-D-HDR-R7-06052019-0		MPW-06-A-HDR-R7-06052019-0		MPW-06-B-HDR-R7-06052019-0		MPW-06-D-HDR-R7-06052019-0	
				CLP ID	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
				Sample Date	6/10/2019		6/10/2019		6/10/2019		6/10/2019		6/12/2019		6/5/2019		6/5/2019		6/5/2019		6/5/2019		6/5/2019		6/5/2019		6/5/2019	
Analyte	CAS No.	Units	NYSDEC Class GA Standards	Results	Qual	Results	Qual	Results	Qual	Results	Qual	Results	Qual	Results	Qual	Results	Qual	Results	Qual	Results	Qual	Results	Qual	Results	Qual	Results	Qual
Volatile Organic Compounds (VOCs)																											
1,1,1-Trichloroethane	71-55-6	ug/l	5	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.75		0.5	U	0.5	U	0.77	
1,1,2,2-Tetrachloroethane	79-34-5	ug/l	5	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	ug/l	NA	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,1,2-Trichloroethane	79-00-5	ug/l	1	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,1-Dichloroethane	75-34-3	ug/l	5	0.83		0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.53		0.89		0.5	U	0.5	U	1.4	
1,1-Dichloroethene	75-35-4	ug/l	5	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2,3-Trichlorobenzene	87-61-6	ug/l	NA	1	UJ	1	UJ	1	UJ	1	UJ	1	UL	1	U	1	U	1	U	1	U	1	U	1	U	1	U
1,2,4-Trichlorobenzene	120-82-1	ug/l	NA	0.5	U	0.5	U	0.5	U	0.5	U	0.5	UL	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2-Dibromo-3-Chloropropane	96-12-8	ug/l	0.04	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	UL	0.5	UL	0.5	UL	0.5	U
1,2-Dibromoethane	106-93-4	ug/l	0.0006	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2-Dichlorobenzene	95-50-1	ug/l	3	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2-Dichloroethane	107-06-2	ug/l	0.6	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2-Dichloropropane	78-87-5	ug/l	1	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,3-Dichlorobenzene	541-73-1	ug/l	3	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,4-Dichlorobenzene	106-46-7	ug/l	3	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
2-Butanone	78-93-3	ug/l	NA	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U
2-Hexanone	591-78-6	ug/l	NA	5	UJ	5	UJ	5	UJ	5	UJ	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U
4-Methyl-2-Pentanone	108-10-1	ug/l	NA	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U
Acetone	67-64-1	ug/l	NA	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U
Benzene	71-43-2	ug/l	1	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Bromochloromethane	74-97-5	ug/l	5	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Bromodichloromethane	75-27-4	ug/l	NA	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Bromoform	75-25-2	ug/l	NA	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Bromomethane	74-83-9	ug/l	5	1	UL	1	UL	1	UL	1	UL	1	UL	1	UL	1	UL	1	UL	1	UL	1	UL	1	UL	1	UL
Carbon Disulfide	75-15-0	ug/l	60	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Carbon Tetrachloride	56-23-5	ug/l	5	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Chlorobenzene	108-90-7	ug/l	5	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Chloroethane	75-00-3	ug/l	5	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Chloroform	67-66-3	ug/l	7	0.5	U	0.63		0.62		0.9		0.86		1.6		0.5	U	0.73		0.73		0.5	U	0.5	U	0.62	
Chloromethane	74-87-3	ug/l	5	0.93	U	0.84	U	0.8	U	0.83	U	0.75	U	0.9	K	1.1	K	0.94	K	0.99	U	1	U	1	U	0.82	K
cis-1,2-Dichloroethylene	156-59-2	ug/l	5	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
cis-1,3-Dichloropropene	10061-01-5	ug/l	NA	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Cyclohexane	110-82-7	ug/l	NA	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Dibromochloromethane	124-48-1	ug/l	NA	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Dichlorodifluoromethane	75-71-8	ug/l	5	0.5	UL	0.5	UL	0.5	UL	0.5	UL	0.5	UL	0.5	UL	0.5	UL	0.5	UL	0.5	UL	0.5	UL	0.5	UL	0.5	UL
Ethylbenzene	100-41-4	ug/l	5	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Isopropylbenzene	98-82-8	ug/l	5	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
M, P Xylenes	179601-23-1	ug/l	NA	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Methyl Acetate	79-20-9	ug/l	NA	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Methyl tert-Butyl Ether	1634-04-4	ug/l	NA	0.86		0.67		0.63		1.2		0.6		0.5	U	0.5	U	0.79		0.8		0.5	U	0.5	U	0.5	U
Methylcyclohexane	108-87-2	ug/l	NA	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Methylene Chloride	75-09-2	ug/l	5	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
o-Xylene (1,2-Dimethylbenzene)	95-47-6	ug/l	5	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Styrene	100-42-5	ug/l	5	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Tetrachloroethylene(PCE)	127-18-4	ug/l	**5**	0.55		2.4		2.8		0.77		0.5	U	0.5	U	0.5	U	0.98		1.1		0.5	U	0.5	U	0.5	U
Toluene	108-88-3	ug/l	5	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
trans-1,2-Dichloroethene	156-60-5	ug/l	5	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
trans-1,3-Dichloropropene	10061-02-6	ug/l	NA	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Trichloroethylene (TCE)	79-01-6	ug/l	**5**	4		3.4		3.6		0.62		0.61		0.5	U	0.5	U	2.2		2.4		0.5	U	0.54		4	
Trichlorofluoromethane	75-69-4	ug/l	5	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Vinyl Chloride	75-01-4	ug/l	2	0.5	UJ	0.5	UJ	0.5	UJ	0.5	UJ	0.5	UJ	0.5	UJ	0.5	UJ	0.5	UJ	0.5	UJ	0.5	UJ	0.5	UJ	0.5	UJ

Notes:
J - Estimated values (+/- indicates likely bias direction)
K - The reported value may be biased high.
L - The reported value may be biased low.
NA - Not Available
U - Non-Detect Value
ug/l - microgram per liter
Values that are **bold and highlighted** exceed NYSDEC Class GA Standards: **110**
Values highlighted blue are non-detect, but the RDL exceeds the NYSDEC Class GA Standards: 110

Appendix A
Table A1 - Groundwater VOCs Analytical Sampling Results (June 2019)
Lawrence Aviation Industries Site
Port Jefferson Station, New York

				Well ID	MPW-08-A		MPW-08-B		MPW-08-C		MPW-08-D		MPW-08-E		MPW-09-A		MPW-09-A		MPW-09-B		MPW-09-C		MPW-09-D		MPW-09-E		MPW-10-A	
				Sample ID	MPW-08-A-HDR-R7-06042019-0		MPW-08-B-HDR-R7-06042019-0		MPW-08-C-HDR-R7-06042019-0		MPW-08-D-HDR-R7-06042019-0		MPW-08-E-HDR-R7-06052019-0		MPW-09-A-HDR-R7-06042019-0		MPW-09-A-HDR-R7-06042019-1		MPW-09-B-HDR-R7-06042019-0		MPW-09-C-HDR-R7-06042019-0		MPW-09-D-HDR-R7-06042019-0		MPW-09-E-HDR-R7-06042019-0		MPW-10-A-HDR-R7-06062019-0	
				CLP ID	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
				Sample Date	6/4/2019		6/4/2019		6/4/2019		6/4/2019		6/5/2019		6/4/2019		6/4/2019		6/4/2019		6/4/2019		6/4/2019		6/4/2019		6/6/2019	
Analyte	CAS No.	Units	NYSDEC Class GA Standards	Results	Qual	Results	Qual	Results	Qual	Results	Qual	Results	Qual	Results	Qual	Results	Qual	Results	Qual	Results	Qual	Results	Qual	Results	Qual	Results	Qual	Results	Qual
Volatile Organic Compounds (VOCs)																												
1,1,1-Trichloroethane	71-55-6	ug/l	5	0.5	U	0.5	U	0.5	U	0.5	U	0.6		0.5	U	0.5	U	0.5	U	0.77		0.73		0.5	U	0.5	U		
1,1,2,2-Tetrachloroethane	79-34-5	ug/l	5	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U		
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	ug/l	NA	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U		
1,1,2-Trichloroethane	79-00-5	ug/l	1	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U		
1,1-Dichloroethane	75-34-3	ug/l	5	0.5	U	0.5	U	0.5	U	0.5	U	1		0.5	U	0.5	U	0.5	U	1		1.5		0.75		0.5	U		
1,1-Dichloroethene	75-35-4	ug/l	5	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.56		0.5	U	0.5	U		
1,2,3-Trichlorobenzene	87-61-6	ug/l	NA	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U		
1,2,4-Trichlorobenzene	120-82-1	ug/l	NA	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U		
1,2-Dibromo-3-Chloropropane	96-12-8	ug/l	0.04	0.5	UJ	0.5	UJ	0.5	UJ	0.5	UJ	0.5	UL	0.5	UJ	0.5	UL	0.5	UJ	0.5	UL	0.5	UL	0.5	UL	0.5	U		
1,2-Dibromoethane	106-93-4	ug/l	0.0006	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U		
1,2-Dichlorobenzene	95-50-1	ug/l	3	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U		
1,2-Dichloroethane	107-06-2	ug/l	0.6	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U		
1,2-Dichloropropane	78-87-5	ug/l	1	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U		
1,3-Dichlorobenzene	541-73-1	ug/l	3	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U		
1,4-Dichlorobenzene	106-46-7	ug/l	3	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U		
2-Butanone	78-93-3	ug/l	NA	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U		
2-Hexanone	591-78-6	ug/l	NA	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U		
4-Methyl-2-Pentanone	108-10-1	ug/l	NA	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U		
Acetone	67-64-1	ug/l	NA	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U		
Benzene	71-43-2	ug/l	1	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U		
Bromochloromethane	74-97-5	ug/l	5	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U		
Bromodichloromethane	75-27-4	ug/l	NA	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U		
Bromoform	75-25-2	ug/l	NA	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U		
Bromomethane	74-83-9	ug/l	5	1	UL	1	UL	1	UL	1	UL	1	UL	1	UL	1	UL	1	UL	1	UL	1	UL	1	UL	1	UL		
Carbon Disulfide	75-15-0	ug/l	60	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U		
Carbon Tetrachloride	56-23-5	ug/l	5	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U		
Chlorobenzene	108-90-7	ug/l	5	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U		
Chloroethane	75-00-3	ug/l	5	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U		
Chloroform	67-66-3	ug/l	7	0.85		0.82		0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.54		0.5	U	0.53			
Chloromethane	74-87-3	ug/l	5	0.6		0.57		0.64		0.68		0.93	U	0.72		0.75	U	0.76		0.7	U	0.61	U	0.72	U	1.1	K		
cis-1,2-Dichloroethylene	156-59-2	ug/l	5	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	2.9		4.3		0.5	U	0.5	U		
cis-1,3-Dichloropropene	10061-01-5	ug/l	NA	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U		
Cyclohexane	110-82-7	ug/l	NA	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U		
Dibromochloromethane	124-48-1	ug/l	NA	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U		
Dichlorodifluoromethane	75-71-8	ug/l	5	0.5	UL	0.5	UL	0.5	UL	0.5	UL	0.5	UL	0.5	UL	0.5	UL	0.5	UL	0.5	UL	0.5	UL	0.5	UL	0.5	UL		
Ethylbenzene	100-41-4	ug/l	5	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U		
Isopropylbenzene	98-82-8	ug/l	5	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U		
M, P Xylenes	179601-23-1	ug/l	NA	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U		
Methyl Acetate	79-20-9	ug/l	NA	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U		
Methyl tert-Butyl Ether	1634-04-4	ug/l	NA	0.5	U	1.2		0.72		0.5	U	0.5	U	0.83		0.82		0.74		0.72		0.5	U	0.5	U	0.5	U		
Methylcyclohexane	108-87-2	ug/l	NA	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U		
Methylene Chloride	75-09-2	ug/l	5	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U		
o-Xylene (1,2-Dimethylbenzene)	95-47-6	ug/l	5	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U		
Styrene	100-42-5	ug/l	5	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U		
Tetrachloroethylene(PCE)	127-18-4	ug/l	**5**	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	3.9		**13**		2.4		0.5	U	3			
Toluene	108-88-3	ug/l	5	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U		
trans-1,2-Dichloroethene	156-60-5	ug/l	5	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U		
trans-1,3-Dichloropropene	10061-02-6	ug/l	NA	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U		
Trichloroethylene (TCE)	79-01-6	ug/l	**5**	0.5	U	0.71		2.8		**9.2**		3.7		**22**		**23**		**32**		**150**		**230**		1.1		3.9	L		
Trichlorofluoromethane	75-69-4	ug/l	5	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U		
Vinyl Chloride	75-01-4	ug/l	2	0.5	UJ	0.5	UJ	0.5	UJ	0.5	UJ	0.5	UJ	0.5	UJ	0.5	UJ	0.5	UJ	0.5	UJ	0.5	UJ	0.5	UJ	0.5	UJ		

Notes:
J - Estimated values (+/- indicates likely bias direction)
K - The reported value may be biased high.
L - The reported value may be biased low.
NA - Not Available
U - Non-Detect Value
ug/l - microgram per liter
Values that are **bold and highlighted** exceed NYSDEC Class GA Standards: **110**
Values highlighted blue are non-detect, but the RDL exceeds the NYSDEC Class GA Standards: 110

Appendix A
Table A1 - Groundwater VOCs Analytical Sampling Results (June 2019)
Lawrence Aviation Industries Site
Port Jefferson Station, New York

				Well ID	MPW-10-B		MPW-10-C		MPW-10-D		MW-05		MW-05		MW-ISCO-2		MW-ISCO-4		MW-ISCO-5		MW-PD-11		MW-PD-12		MW-PD-13		MW-PD-14	
				Sample ID	MPW-10-B-HDR-R7-06062019-0		MPW-10-C-HDR-R7-06062019-0		MPW-10-D-HDR-R7-06062019-0		MW-05-HDR-R7-06062019-0		MW-05-HDR-R7-06062019-1		MW-ISCO-2-HDR-R7-06112019-0		MW-ISCO-4-HDR-R7-06112019-0		MW-ISCO-5-HDR-R7-06112019-0		MW-PD-11-HDR-R7-06102019-0		MW-PD-12-HDR-R7-06062019-0		MW-PD-13-HDR-R7-06102019-0		MW-PD-14-HDR-R7-06102019-0	
				CLP ID	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
				Sample Date	6/6/2019		6/6/2019		6/6/2019		6/6/2019		6/6/2019		6/11/2019		6/11/2019		6/11/2019		6/10/2019		6/6/2019		6/10/2019		6/10/2019	
Analyte	CAS No.	Units	NYSDEC Class GA Standards	Results	Qual	Results	Qual	Results	Qual	Results	Qual	Results	Qual	Results	Qual	Results	Qual	Results	Qual	Results	Qual	Results	Qual	Results	Qual	Results	Qual
Volatile Organic Compounds (VOCs)																											
1,1,1-Trichloroethane	71-55-6	ug/l	5	0.5	U	0.56		0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,1,2,2-Tetrachloroethane	79-34-5	ug/l	5	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	ug/l	NA	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,1,2-Trichloroethane	79-00-5	ug/l	1	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,1-Dichloroethane	75-34-3	ug/l	5	0.5	U	0.94		0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,1-Dichloroethene	75-35-4	ug/l	5	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2,3-Trichlorobenzene	87-61-6	ug/l	NA	1	U	1	U	1	UL	1	UL	1	UL	1	UL	1	UL	1	UL	1	UJ	1	UL	1	UJ	1	UJ
1,2,4-Trichlorobenzene	120-82-1	ug/l	NA	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	UL	0.5	UL	0.5	UL	0.5	U	0.5	U	0.5	U	0.5	U
1,2-Dibromo-3-Chloropropane	96-12-8	ug/l	0.04	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2-Dibromoethane	106-93-4	ug/l	0.0006	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2-Dichlorobenzene	95-50-1	ug/l	3	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2-Dichloroethane	107-06-2	ug/l	0.6	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2-Dichloropropane	78-87-5	ug/l	1	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,3-Dichlorobenzene	541-73-1	ug/l	3	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,4-Dichlorobenzene	106-46-7	ug/l	3	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
2-Butanone	78-93-3	ug/l	NA	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U
2-Hexanone	591-78-6	ug/l	NA	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	UJ	5	U	5	UJ	5	UJ
4-Methyl-2-Pentanone	108-10-1	ug/l	NA	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U
Acetone	67-64-1	ug/l	NA	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U
Benzene	71-43-2	ug/l	1	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Bromochloromethane	74-97-5	ug/l	5	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Bromodichloromethane	75-27-4	ug/l	NA	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Bromoform	75-25-2	ug/l	NA	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Bromomethane	74-83-9	ug/l	5	1	UL	1	UL	1	UL	1	UL	1	UL	1	UL	1	UL	1	UL	1	UL	1	UL	1	UL	1	UL
Carbon Disulfide	75-15-0	ug/l	60	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Carbon Tetrachloride	56-23-5	ug/l	5	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Chlorobenzene	108-90-7	ug/l	5	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Chloroethane	75-00-3	ug/l	5	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Chloroform	67-66-3	ug/l	7	0.82		0.9		0.91		0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	1.2		0.5	U	1.4		0.5	U
Chloromethane	74-87-3	ug/l	5	0.91	K	0.93	K	0.91	U	0.8	U	0.78	U	1.1	U	1.1	U	1.2	U	1.1	U	0.89	U	0.96	U	0.99	U
cis-1,2-Dichloroethylene	156-59-2	ug/l	5	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.7		0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	1.2	
cis-1,3-Dichloropropene	10061-01-5	ug/l	NA	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Cyclohexane	110-82-7	ug/l	NA	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Dibromochloromethane	124-48-1	ug/l	NA	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Dichlorodifluoromethane	75-71-8	ug/l	5	0.5	UL	0.5	UL	0.5	UL	0.5	UL	0.5	UL	0.5	UL	0.5	UL	0.5	UL	0.5	UL	0.5	UL	0.5	UL	0.5	UL
Ethylbenzene	100-41-4	ug/l	5	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Isopropylbenzene	98-82-8	ug/l	5	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
M, P Xylenes	179601-23-1	ug/l	NA	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Methyl Acetate	79-20-9	ug/l	NA	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Methyl tert-Butyl Ether	1634-04-4	ug/l	NA	0.89		2		2.2		0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.64	
Methylcyclohexane	108-87-2	ug/l	NA	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Methylene Chloride	75-09-2	ug/l	5	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
o-Xylene (1,2-Dimethylbenzene)	95-47-6	ug/l	5	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Styrene	100-42-5	ug/l	5	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	UL	0.5	U	0.5	U	0.5	U	0.5	U
Tetrachloroethylene(PCE)	127-18-4	ug/l	**5**	3.6		0.97		0.61		0.5	U	0.5	U	**23**		**9.4**		1.5		0.5	U	3.8		0.5	U	**7.5**	
Toluene	108-88-3	ug/l	5	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
trans-1,2-Dichloroethene	156-60-5	ug/l	5	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
trans-1,3-Dichloropropene	10061-02-6	ug/l	NA	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Trichloroethylene (TCE)	79-01-6	ug/l	**5**	**6**		0.91		0.64		0.5	U	0.6		**780**		**1200**		**72**		0.5	U	**170**		0.5	U	**300**	
Trichlorofluoromethane	75-69-4	ug/l	5	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Vinyl Chloride	75-01-4	ug/l	2	0.5	UJ	0.5	UJ	0.5	UJ	0.5	UJ	0.5	UJ	0.5	UJ	0.5	UJ	0.5	UJ	0.5	UJ	0.5	UJ	0.5	UJ	0.5	UJ

Notes:
J - Estimated values (+/- indicates likely bias direction)
K - The reported value may be biased high.
L - The reported value may be biased low.
NA - Not Available
U - Non-Detect Value
ug/l - microgram per liter
Values that are **bold and highlighted** exceed NYSDEC Class GA Standards: **110**
Values highlighted blue are non-detect, but the RDL exceeds the NYSDEC Class GA Standards: 110

Appendix A
Table A1 - Groundwater VOCs Analytical Sampling Results (June 2019)
Lawrence Aviation Industries Site
Port Jefferson Station, New York

				MW-PD-15		MW-PD-16		MW-PD-17		PZ-05		PZ-06		PZ-07		PZ-07		SDW-01	
			Sample ID	MW-PD-15-HDR-R7-06052019-0		MW-PD-16-HDR-R7-06062019-0		MW-PD-17-HDR-R7-06062019-0		PZ-05-HDR-R7-06102019-0		PZ-06-HDR-R7-06072019-0		PZ-07-HDR-R7-06072019-0		PZ-07-HDR-R7-06072019-1		SDW-01-HDR-R7-06052019-0	
			CLP ID	NA		NA		NA		NA		NA		NA		NA		NA	
			Sample Date	6/5/2019		6/6/2019		6/6/2019		6/10/2019		6/7/2019		6/7/2019		6/7/2019		6/5/2019	
Analyte	CAS No.	Units	NYSDEC Class GA Standards	Results	Qual	Results	Qual	Results	Qual	Results	Qual	Results	Qual	Results	Qual	Results	Qual	Results	Qual
Volatile Organic Compounds (VOCs)																			
1,1,1-Trichloroethane	71-55-6	ug/l	5	0.79		0.5	U	1.2		0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,1,2,2-Tetrachloroethane	79-34-5	ug/l	5	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	ug/l	NA	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,1,2-Trichloroethane	79-00-5	ug/l	1	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,1-Dichloroethane	75-34-3	ug/l	5	1.2		0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,1-Dichloroethene	75-35-4	ug/l	5	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2,3-Trichlorobenzene	87-61-6	ug/l	NA	1	U	1	UL	1	UL	1	UJ	1	UL	1	UL	1	UL	1	U
1,2,4-Trichlorobenzene	120-82-1	ug/l	NA	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2-Dibromo-3-Chloropropane	96-12-8	ug/l	0.04	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2-Dibromoethane	106-93-4	ug/l	0.0006	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2-Dichlorobenzene	95-50-1	ug/l	3	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2-Dichloroethane	107-06-2	ug/l	0.6	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2-Dichloropropane	78-87-5	ug/l	1	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,3-Dichlorobenzene	541-73-1	ug/l	3	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,4-Dichlorobenzene	106-46-7	ug/l	3	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
2-Butanone	78-93-3	ug/l	NA	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U
2-Hexanone	591-78-6	ug/l	NA	5	U	5	U	5	U	5	UJ	5	U	5	U	5	U	5	U
4-Methyl-2-Pentanone	108-10-1	ug/l	NA	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U
Acetone	67-64-1	ug/l	NA	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U
Benzene	71-43-2	ug/l	1	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Bromochloromethane	74-97-5	ug/l	5	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Bromodichloromethane	75-27-4	ug/l	NA	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Bromoform	75-25-2	ug/l	NA	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Bromomethane	74-83-9	ug/l	5	1	UL	1	UL	1	UL	1	UL	1	UL	1	UL	1	UL	1	UL
Carbon Disulfide	75-15-0	ug/l	60	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Carbon Tetrachloride	56-23-5	ug/l	5	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Chlorobenzene	108-90-7	ug/l	5	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Chloroethane	75-00-3	ug/l	5	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Chloroform	67-66-3	ug/l	7	0.54		0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Chloromethane	74-87-3	ug/l	5	0.97	K	1	U	0.85	U	1	U	1	U	0.86	U	0.92	U	1.2	K
cis-1,2-Dichloroethylene	156-59-2	ug/l	5	0.5	U	0.66		0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
cis-1,3-Dichloropropene	10061-01-5	ug/l	NA	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Cyclohexane	110-82-7	ug/l	NA	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Dibromochloromethane	124-48-1	ug/l	NA	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Dichlorodifluoromethane	75-71-8	ug/l	5	0.5	UL	0.5	UL	0.5	UL	0.5	UL	0.5	UL	0.5	UL	0.5	UL	0.5	UL
Ethylbenzene	100-41-4	ug/l	5	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Isopropylbenzene	98-82-8	ug/l	5	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
M, P Xylenes	179601-23-1	ug/l	NA	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Methyl Acetate	79-20-9	ug/l	NA	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Methyl tert-Butyl Ether	1634-04-4	ug/l	NA	0.5	U	0.77		0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	2.6	
Methylcyclohexane	108-87-2	ug/l	NA	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Methylene Chloride	75-09-2	ug/l	5	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
o-Xylene (1,2-Dimethylbenzene)	95-47-6	ug/l	5	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Styrene	100-42-5	ug/l	5	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Tetrachloroethylene(PCE)	127-18-4	ug/l	**5**	2.4		**6**		0.5	U	0.5	U	0.99		1.5		1.7		0.5	U
Toluene	108-88-3	ug/l	5	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
trans-1,2-Dichloroethene	156-60-5	ug/l	5	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
trans-1,3-Dichloropropene	10061-02-6	ug/l	NA	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Trichloroethylene (TCE)	79-01-6	ug/l	**5**	**7.1**		**280**		0.83		1.9		**22**		**15**		**16**		0.5	U
Trichlorofluoromethane	75-69-4	ug/l	5	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Vinyl Chloride	75-01-4	ug/l	2	0.5	UJ	0.5	UJ	0.5	UJ	0.5	UJ	0.5	UJ	0.5	UJ	0.5	UJ	0.5	UJ

Notes:
J - Estimated values (+/- indicates likely bias direction)
K - The reported value may be biased high.
L - The reported value may be biased low.
NA - Not Available
U - Non-Detect Value
ug/l - microgram per liter
Values that are **bold and highlighted** exceed NYSDEC Class GA Standards: **110**
Values highlighted blue are non-detect, but the RDL exceeds the NYSDEC Class GA Standards: 110

APPENDIX B
DATA USABILITY REPORT & TABLES

DATA USABILITY ANALYSIS
LAWRENCE AVIATION INDUSTRIES SITE

To meet the primary objectives of the Long-Term Response Action (LTRA) program at the Lawrence Aviation Industries (LAI) Site, in August 2012 the United States Environmental Protection Agency (EPA), Region 2 issued a work assignment to Henningson, Durham & Richardson, Architecture and Engineering PC, in association with HDR Engineering, Inc. (HDR) for the operation and maintenance (O&M) of the groundwater treatment systems at the LAI Site. The system at the LAI facility was completed on September 28, 2010 and is currently in its 8th year of LTRA. Construction of the Old Mill Pond (OMP) treatment facility was completed in August 2011 and is currently in its 7th year of LTRA. This data usability analysis is for aqueous samples collected in June 2019 as part of the annual sampling program at the Site. Sixty-four groundwater samples were collected from locations associated with the LAI and OMP facilities. In addition, quality assurance/quality control (QA/QC) samples were collected including field duplicates (four), equipment blanks (six), field blanks (seven), and trip blanks (seven) as well as laboratory blanks for a total of 88 samples. A sample summary is presented as **Table B1**. All aqueous analytical sample results from samples collected as part of the annual sampling were generated by the EPA Region 2 Division of Environmental Science and Assessment (DESA) Laboratory in Edison, NJ for the following analysis and method:

Analysis	**Method**
E-TVOA TRACE/SF	EPA DW-1 Rev. 2.6

The results provided by the DESA laboratory are considered definitive data and underwent data validation by EPA staff to provide assurance that the data were adequate for its intended use. Validation is typically performed based on an evaluation of project objectives, method-specific QA/QC information (such as holding times, calibration records, laboratory- and field-supplied blanks, duplicate precision, and surrogate and spike recovery), relevant sections of the EPA Region 2 Data Validation Standard Operating Procedures (SOPs), relevant sections of the EPA National Functional Guidelines for Organic Data Validation, and/or the best professional judgment of the validator. Qualifiers (as appropriate) were added to the data based on the results of the validation. Note that EPA staff provide data validation for analyses provided by the Region 2 DESA laboratory and Contract Laboratory Program (CLP) laboratories. Although a data validation report is not provided when DESA laboratory analyzes the samples, remarks are made in the data package narrative. In addition, the QC summary report is provided for HDR evaluation in preparing this overall data usability.

Note that since this project is in the LTRA phase, the focus was placed on site-specific contaminants of concern with regard to the VOCs: 1,1,1-trichloroethane (1,1,1-TCA), 1,1-dichloroethane (1,1-DCA), 1,1-dichloroethene (1,1-DCE), chloroform, cis-1,2-dichloroethene (cis-1,2-DCE), trichloroethene (TCE), tetrachloroethene (PCE), and vinyl chloride (VC) with regard to evaluation of the results. The attached results tables that summarize the QA/QC data (i.e., **Tables B2 and B4**) provide the full list as well as the sample number, sample location, sample collection date, and the result and qualifiers for these constituents.

As part of the data assessment by the DESA laboratory, data qualifiers are presented along with the analytical results. Qualifiers used with regard to the assessment of the 2019 annual (aqueous) samples collected are highlighted in bold for clarity.

- **U - The analyte analyzed for, but was not detected at a level greater than or equal to the level of the adjusted CRQL for sample and method.**
- J - The analyte was positively identified and the associated numerical value is the approximate concentration of the analyte in the sample (due either to the quality of the data generated because certain quality control criteria were not met, or the concentration of the analyte was below the CRQL).
    - J+ - The result is an estimated quantity, but the result may be biased high.
    - J- - The result is an estimated quantity, but the result may be biased low.
- **UJ - The analyte was not detected at a level greater than or equal to the adjusted CRQL. However, the reported adjusted CRQL is approximate and may be inaccurate or imprecise.**
- **UL – The analyte was not detected at a level greater than or equal to the adjusted CRQL. However, the reported adjusted CRQL is approximate and may be biased low.**
- **L – The analyte was detected at a level greater than or equal to the adjusted CRQL. However, the reported adjusted CRQL is approximate and may be biased low.**
- D – The result is a diluted concentration.
- **K – The identification of the analyte is acceptable; the reported value may be biased high.**
- R- The sample results are unusable due to the quality of the data generated because certain criteria were not met. The analyte may or may not be present in the sample.
- N- The analysis indicates the presence of an analyte for which there is presumptive evidence to make a "tentative identification".
- **NJ- The analysis indicated the presence of an analyte that has been "tentatively identified" and the associated numerical value represent its approximate concentration.**

Seven sample delivery groups (SDGs) were received in one final data package for the samples analyzed during the annual sampling event in June 2019 for Project No. P-1906002 (1906002, 1906029, 1906032, 1906037, 1906039, 1906044, and 1906047).

The following sections provide an evaluation of the usability of the data for the Site based on the narrative provided with the final data package and the QC summary report, and as compared to the site-specific QA/QC requirements outlined in the EPA-approved Final QAPP (EPA, 2016).

Precision

Precision is the measurement of agreement in repeated tests of the same or identical samples, under prescribed conditions. Precision data indicate how consistent and reproducible the field sampling or analytical procedures have been. For the Site data, precision was determined through replicate measurements of the same or identical samples, i.e., a field duplicate sample. The acceptance criterion for the field duplicate is a relative percent difference (RPD) of less than 25 percent. The RPD was not calculated for any set of sample pairs where concentrations were not detected in one or both of the data sets; agreement between the original sample and the duplicate can be inferred when both of the results are non-detects. The remainder of the sample pairs contained detections in both of the data sets and were within the RPD limits prescribed. The field duplicate data is summarized on **Table B2**. All of the RPD results were less than 25% and therefore indicate the sampling program achieved overall good reproducibility.

RPDs were also calculated by the laboratory for the laboratory control samples (LCSs). Note matrix spike

samples were analyzed but duplicates for the matrix spike samples were not analyzed. The acceptance criterion for the LCS and LCS duplicate (LCSD) is an RPD less than 20 percent. All of the RPD results were less than 20% and therefore indicate the laboratory achieved overall good reproducibility.

Accuracy

Accuracy is the degree of agreement of a measured sample result or average of results with an accepted reference or true value. It is the quantitative measurement of the bias of a system, and is expressed in terms of percent recovery (%R). Accuracy of the data can be determined through the use of surrogate compounds, internal standard compounds, matrix spike samples, and laboratory control spike samples.

Chloromethane was detected in one or more of the laboratory (method) blanks at concentrations above the reporting limit of 0.5 ug/l. Note, chloromethane is not a contaminant of concern for the Site. The following was noted in the narrative that accompanied the data package and results were qualified as described. In accordance with SOP DW-1 for Trace Volatile Analysis (Corrective Action), if contaminants are detected in the laboratory blank, then in order for the same contaminants to be reportable in the samples, the sample concentration must be 10X the concentrations in the laboratory blank. If the amount is less than 10 times the amount found in the blank, report the amount found in the sample as a “U”. If the contaminants found in the laboratory blank are not in the sample, then report the analytes (contaminants) as non-detect with the reporting limit as their values. As summarized in the narrative that accompanied the final data package, samples 1906002-16 through -21, 1906029-01 through -04, 1906029-08 through -12, 1906029-16 through -17, 1906032-06 through -08, 1906032-11 thorough -16, 1906037-01 through -09, 1906039-01 through -13, 1906044-01 through -10, and 1906047-01 through -03 were less than 10 times the amount in the laboratory blank. Results that were greater than 0.5 ug/l were qualified as "U", non-detect, for chloromethane.

In addition, upon review of the QC Summary report, percent recoveries for the following parameters were found to be outside of QC limits for the LCSs, LCSDs, and/or matrix spike samples. Surrogate recoveries were all within acceptance limits. Associated positive sample results would receive a “J” for estimated bias; no additional qualification to the results was provided for by EPA staff. With the exception of the MS result for trichloroethene, the remaining parameters are not contaminants of concern for the Site.

- Batch 906028: LCS/D - Chloromethane 157%/146%, Dichlorodifluoromethane 132%, and 1,1,2-Trichloro-1,2,2-Trifluoromethane 142%.
- Batch 906035: LCS/D - Dichlorodifluoromethane 123%, Chloromethane 169%/ 158%, and 1,1-Dichloroethene 142%.
- Batch 906043: LCS/D - Chloromethane 171%/ 175%; and MS - Trichloroethene 73.2%.
- Batch 906075: LCS/D - Chloromethane 175%/ 177%, 1,1,2-Trichloro-1,2,2-Trifluoromethane 140%, and 1,2,4-Trichlorobenzene 75.8%; and MS - Bromodichloromethane 153%.
- Batch 906082: MS - Styrene 81% and 1,2,4-Trichlorobenzene 71.8%.
- Batch 906089: LCS/D - Chloromethane 175%/ 164%.

Based on the information provided and available results, the laboratories achieved a good degree of accuracy with regard to the contaminants of concern for the Site.

Representativeness

Representativeness is the degree to which the results of the analyses accurately and precisely represent a characteristic of a population, a process condition, or an environmental condition. In this case, representativeness is the degree to which the data reflect the contaminants present and their concentration magnitudes in the sampled site areas. Representativeness of data occurs through the selection of appropriate sampling locations and the implementation of approved sampling procedures. The sampling locations for this round of sampling consisted solely of fixed sample locations, i.e., groundwater monitoring wells that are sampled during every annual event. In addition, field personnel followed the procedures outlined in the EPA-approved QAPP (EPA, 2016) for the Site.

Comparability

To increase the degree of comparability between data results and between past, present and future sampling events, standard environmental analytical methods were employed by the off-site laboratory. Routine Analytical Service (RAS) sample analyses available through DESA were utilized for the VOA as specified in the SOWs.

Completeness

Completeness is determined by the percentage of samples that meet or exceed all of the criteria objective levels (i.e., the number of usable sample results for the data set). All of the sample results were determined to be usable as none of the samples were rejected. See **Table B3**.

Sensitivity

Sensitivity is the ability of the analytical method or instrument to detect a target analyte at the level of interest. The MDL is a statistically-derived value that represents a 99 percent confidence level that the reported instrument signal is different from a blank sample. The quantitation limit (QL) is the minimum concentration of an analyte that can be routinely identified by the laboratory, and is generally between three and ten times the MDL. Analytical methods are matrix-, moisture-and dilution-dependent. The sample quantitation limit (SQL) actually determined for a constituent for a specific sample may be higher than the QL due to these issues. The laboratory was able to achieve the standard reporting limits for each analyte requested for trace level VOAs with the exception of bromomethane and 1,2,3-trichlorobenzene, neither of which are contaminants of concern for the Site. The CRQL for these compounds is 0.5 ug/l, respectively, the reporting limit was raised in all samples due to problems associated with the initial calibration curve.

Blank Contamination Elimination

Blanks were prepared to identify any contamination that may have been introduced into the samples. Validation determines the need for qualification of sampling analytical results based on blank contamination. Field, equipment, and trip blank samples were prepared by the field crew and submitted with the aqueous samples for the June 2019 annual sampling event. There were no detectable concentrations in any of the field QC samples. Method blanks were analyzed for each batch of samples, chloromethane, which is not a contaminant of concern for the site, was detected in one or more of the blanks, and results were qualified as non-detect as described above. The results are provided in **Table B4**.

Usability Summary

The definitive data for the LTRA annual sampling event conducted in June 2019 fulfilled the site-specific QA/QC requirements. Overall, the data met the project DQOs, and are appropriate to characterize the levels of contamination in the aqueous samples collected from the Site.

References

EPA, 2016. Uniform Federal Policy of Quality Assurance Project Plans, Region 2 Architect-Engineering Services Contract, Contract #EP-W-09-009, Project-Specific UFP-QAPP, Lawrence Aviation Industries Long-Term Response Action. Revised March 2016.

Appendix B Table B1 - Sample Summary (June 2019)
2019 Comprehensive Sampling Event Report
Lawrence Aviation Industries Site
Port Jefferson Station, New York

HDR Field Sample ID	CLP ID	Well ID	Sample Type	Parent Sample ID	Laboratory Name	Sample Collected By	Sample Date	Matrix	VOCs by EPA DW-1
									Initial
									Number of Analytes
ERT-EW-3-HDR-R7-06112019-0	NA	ERT-EW-3	N		DESA	HDR	6/11/2019	WG	51
ERT-EW-4-HDR-R7-06112019-0	NA	ERT-EW-4	N		DESA	HDR	6/11/2019	WG	51
ERT-EW-5-HDR-R7-06112019-0	NA	ERT-EW-5	N		DESA	HDR	6/11/2019	WG	51
ERT-EW-5-HDR-R7-06112019-EB	NA		EB		DESA	HDR	6/11/2019	WQ	51
ERT-EW-5-HDR-R7-06112019-FB	NA		FB		DESA	HDR	6/11/2019	WQ	51
ERT-MW-1A-HDR-R7-06042019-0	NA	ERT-MW-1A	N		DESA	HDR	6/4/2019	WG	51
ERT-MW-1B-HDR-R7-06042019-0	NA	ERT-MW-1B	N		DESA	HDR	6/4/2019	WG	51
ERT-MW-2A-HDR-R7-06042019-0	NA	ERT-MW-2A	N		DESA	HDR	6/4/2019	WG	51
ERT-MW-2A-HDR-R7-06042019-EB	NA		EB		DESA	HDR	6/4/2019	WQ	51
ERT-MW-2A-HDR-R7-06042019-FB	NA		FB		DESA	HDR	6/4/2019	WQ	51
ERT-MW-2B-HDR-R7-06042019-0	NA	ERT-MW-2B	N		DESA	HDR	6/4/2019	WG	51
ERT-MW-2C-HDR-R7-06042019-0	NA	ERT-MW-2C	N		DESA	HDR	6/4/2019	WG	51
ERT-MW-2D-HDR-R7-06042019-0	NA	ERT-MW-2D	N		DESA	HDR	6/4/2019	WG	51
ERT-MW-3-HDR-R7-06052019-0	NA	ERT-MW-3	N		DESA	HDR	6/5/2019	WG	51
ERT-MW-4A-HDR-R7-06052019-0	NA	ERT-MW-4A	N		DESA	HDR	6/5/2019	WG	51
ERT-MW-4A-HDR-R7-06052019-EB	NA		EB		DESA	HDR	6/5/2019	WQ	51
ERT-MW-4B-HDR-R7-06052019-0	NA	ERT-MW-4B	N		DESA	HDR	6/5/2019	WG	51
ERT-MW-5A-HDR-R7-06052019-0	NA	ERT-MW-5A	N		DESA	HDR	6/5/2019	WG	51
ERT-MW-5B-HDR-R7-06052019-0	NA	ERT-MW-5B	N		DESA	HDR	6/5/2019	WG	51
ERT-MW-6A-HDR-R7-06042019-0	NA	ERT-MW-6A	N		DESA	HDR	6/4/2019	WG	51
ERT-MW-6B-HDR-R7-06042019-0	NA	ERT-MW-6B	N		DESA	HDR	6/4/2019	WG	51
IW-ISCO-10-HDR-R7-06112019-0	NA	IW-ISCO-10	N		DESA	HDR	6/11/2019	WG	51
MPW-01-A-HDR-R7-06072019-0	NA	MPW-01-A	N		DESA	HDR	6/7/2019	WG	51
MPW-01-B-HDR-R7-06072019-0	NA	MPW-01-B	N		DESA	HDR	6/7/2019	WG	51
MPW-01-C-HDR-R7-06072019-0	NA	MPW-01-C	N		DESA	HDR	6/7/2019	WG	51
MPW-02-B-HDR-R7-06102019-0	NA	MPW-02-B	N		DESA	HDR	6/10/2019	WG	51
MPW-02-C-HDR-R7-06102019-0	NA	MPW-02-C	N		DESA	HDR	6/10/2019	WG	51
MPW-03-B-HDR-R7-06062019-0	NA	MPW-03-B	N		DESA	HDR	6/6/2019	WG	51
MPW-03-C-HDR-R7-06062019-0	NA	MPW-03-C	N		DESA	HDR	6/6/2019	WG	51
MPW-03-D-HDR-R7-06102019-0	NA	MPW-03-D	N		DESA	HDR	6/10/2019	WG	51
MPW-04-B-HDR-R7-06102019-0	NA	MPW-04-B	N		DESA	HDR	6/10/2019	WG	51
MPW-04-B-HDR-R7-06102019-1	NA	MPW-04-B	FD	MPW-04-B-HDR-R7-06102019-0	DESA	HDR	6/10/2019	WG	51
MPW-04-D-HDR-R7-06102019-0	NA	MPW-04-D	N		DESA	HDR	6/10/2019	WG	51
MPW-04-E-HDR-R7-06122019-0	NA	MPW-04-E	N		DESA	HDR	6/12/2019	WG	51
MPW-04-E-HDR-R7-06122019-FB	NA		FB		DESA	HDR	6/12/2019	WQ	51
MPW-05-A-HDR-R7-06052019-0	NA	MPW-05-A	N		DESA	HDR	6/5/2019	WG	51
MPW-05-B-HDR-R7-06052019-0	NA	MPW-05-B	N		DESA	HDR	6/5/2019	WG	51

Notes:
Numbers in the VOCs column represent th enumber of VOCs analytes reported for each sample.
The methods listed for VOCs included in the electronic data deliverable from the laboratories and is based on standard operating procedures (SOPs) consistent with the quality assurance project plan requested methods.

Abbreviations:

DESA = Division of Environmental Science and Assessment
EB = equipment blank
FB = field blank
FD = field duplicate
N = normal sample
TB = trip blank
VOC = volatile organic compound
EPA = Environmental Protection Agency
WG = groundwater
HDR = HDR, Inc.
NA = not applicable

Appendix B Table B1 - Sample Summary (June 2019)
2019 Comprehensive Sampling Event Report
Lawrence Aviation Industries Site
Port Jefferson Station, New York

HDR Field Sample ID	CLP ID	Well ID	Sample Type	Parent Sample ID	Laboratory Name	Sample Collected By	Sample Date	Matrix	VOCs by EPA DW-1
									Initial
									Number of Analytes
MPW-05-C-HDR-R7-06052019-0	NA	MPW-05-C	N		DESA	HDR	6/5/2019	WG	51
MPW-05-D-HDR-R7-06052019-0	NA	MPW-05-D	N		DESA	HDR	6/5/2019	WG	51
MPW-06-A-HDR-R7-06052019-0	NA	MPW-06-A	N		DESA	HDR	6/5/2019	WG	51
MPW-06-A-HDR-R7-06052019-FB	NA		FB		DESA	HDR	6/5/2019	WQ	51
MPW-06-B-HDR-R7-06052019-0	NA	MPW-06-B	N		DESA	HDR	6/5/2019	WG	51
MPW-06-D-HDR-R7-06052019-0	NA	MPW-06-D	N		DESA	HDR	6/5/2019	WG	51
MPW-08-A-HDR-R7-06042019-0	NA	MPW-08-A	N		DESA	HDR	6/4/2019	WG	51
MPW-08-B-HDR-R7-06042019-0	NA	MPW-08-B	N		DESA	HDR	6/4/2019	WG	51
MPW-08-C-HDR-R7-06042019-0	NA	MPW-08-C	N		DESA	HDR	6/4/2019	WG	51
MPW-08-D-HDR-R7-06042019-0	NA	MPW-08-D	N		DESA	HDR	6/4/2019	WG	51
MPW-08-E-HDR-R7-06052019-0	NA	MPW-08-E	N		DESA	HDR	6/5/2019	WG	51
MPW-09-A-HDR-R7-06042019-0	NA	MPW-09-A	N		DESA	HDR	6/4/2019	WG	51
MPW-09-A-HDR-R7-06042019-1	NA	MPW-09-A	FD	MPW-09-A-HDR-R7-06042019-0	DESA	HDR	6/4/2019	WG	51
MPW-09-B-HDR-R7-06042019-0	NA	MPW-09-B	N		DESA	HDR	6/4/2019	WG	51
MPW-09-C-HDR-R7-06042019-0	NA	MPW-09-C	N		DESA	HDR	6/4/2019	WG	51
MPW-09-D-HDR-R7-06042019-0	NA	MPW-09-D	N		DESA	HDR	6/4/2019	WG	51
MPW-09-E-HDR-R7-06042019-0	NA	MPW-09-E	N		DESA	HDR	6/4/2019	WG	51
MPW-10-A-HDR-R7-06062019-0	NA	MPW-10-A	N		DESA	HDR	6/6/2019	WG	51
MPW-10-B-HDR-R7-06062019-0	NA	MPW-10-B	N		DESA	HDR	6/6/2019	WG	51
MPW-10-C-HDR-R7-06062019-0	NA	MPW-10-C	N		DESA	HDR	6/6/2019	WG	51
MPW-10-D-HDR-R7-06062019-0	NA	MPW-10-D	N		DESA	HDR	6/6/2019	WG	51
MW-05-HDR-R7-06062019-0	NA	MW-05	N		DESA	HDR	6/6/2019	WG	51
MW-05-HDR-R7-06062019-1	NA	MW-05	FD	MW-05-HDR-R7-06062019-0	DESA	HDR	6/6/2019	WG	51
MW-ISCO-2-HDR-R7-06112019-0	NA	MW-ISCO-2	N		DESA	HDR	6/11/2019	WG	51
MW-ISCO-4-HDR-R7-06112019-0	NA	MW-ISCO-4	N		DESA	HDR	6/11/2019	WG	51
MW-ISCO-5-HDR-R7-06112019-0	NA	MW-ISCO-5	N		DESA	HDR	6/11/2019	WG	51
MW-PD-11-HDR-R7-06102019-0	NA	MW-PD-11	N		DESA	HDR	6/10/2019	WG	51
MW-PD-11-HDR-R7-06102019-EB	NA		EB		DESA	HDR	6/10/2019	WQ	51
MW-PD-11-HDR-R7-06102019-FB	NA		FB		DESA	HDR	6/10/2019	WQ	51
MW-PD-12-HDR-R7-06062019-0	NA	MW-PD-12	N		DESA	HDR	6/6/2019	WG	51
MW-PD-13-HDR-R7-06102019-0	NA	MW-PD-13	N		DESA	HDR	6/10/2019	WG	51
MW-PD-14-HDR-R7-06102019-0	NA	MW-PD-14	N		DESA	HDR	6/10/2019	WG	51
MW-PD-15-HDR-R7-06052019-0	NA	MW-PD-15	N		DESA	HDR	6/5/2019	WG	51
MW-PD-16-HDR-R7-06062019-0	NA	MW-PD-16	N		DESA	HDR	6/6/2019	WG	51
MW-PD-17-HDR-R7-06062019-0	NA	MW-PD-17	N		DESA	HDR	6/6/2019	WG	51
MW-PD-17-HDR-R7-06062019-EB	NA		EB		DESA	HDR	6/6/2019	WQ	51
MW-PD-17-HDR-R7-06062019-FB	NA		FB		DESA	HDR	6/6/2019	WQ	51

Notes:
Numbers in the VOCs column represent th enumber of VOCs analytes reported for each sample.
The methods listed for VOCs included in the electronic data deliverable from the laboratories and is based on standard operating procedures (SOPs) consistent with the quality assurance project plan requested methods.

Abbreviations:

DESA = Division of Environmental Science and Assessment
EB = equipment blank
FB = field blank
FD = field duplicate
N = normal sample
TB = trip blank
VOC = volatile organic compound
EPA = Environmental Protection Agency
WG = groundwater
HDR = HDR, Inc.
NA = not applicable

Appendix B Table B1 - Sample Summary (June 2019)
2019 Comprehensive Sampling Event Report
Lawrence Aviation Industries Site
Port Jefferson Station, New York

HDR Field Sample ID	CLP ID	Well ID	Sample Type	Parent Sample ID	Laboratory Name	Sample Collected By	Sample Date	Matrix	VOCs by EPA DW-1
									Initial
									Number of Analytes
PZ-05-HDR-R7-06102019-0	NA	PZ-05	N		DESA	HDR	6/10/2019	WG	51
PZ-06-HDR-R7-06072019-0	NA	PZ-06	N		DESA	HDR	6/7/2019	WG	51
PZ-07-HDR-R7-06072019-0	NA	PZ-07	N		DESA	HDR	6/7/2019	WG	51
PZ-07-HDR-R7-06072019-1	NA	PZ-07	FD	PZ-07-HDR-R7-06072019-0	DESA	HDR	6/7/2019	WG	51
PZ-07-HDR-R7-06072019-EB	NA		EB		DESA	HDR	6/7/2019	WQ	51
PZ-07-HDR-R7-06072019-FB	NA		FB		DESA	HDR	6/7/2019	WQ	51
SDW-01-HDR-R7-06052019-0	NA	SDW-01	N		DESA	HDR	6/5/2019	WG	51
TB-06042019	NA		TB		DESA	HDR	6/4/2019	WQ	51
TB-06052019-0	NA		TB		DESA	HDR	6/5/2019	WQ	51
TB-06062019	NA		TB		DESA	HDR	6/6/2019	WQ	51
TB-06072019	NA		TB		DESA	HDR	6/7/2019	WQ	51
TB-06102019	NA		TB		DESA	HDR	6/10/2019	WQ	51
TB-06112019	NA		TB		DESA	HDR	6/11/2019	WQ	51
TB-06122019	NA		TB		DESA	HDR	6/12/2019	WQ	51

Notes:
Numbers in the VOCs column represent th enumber of VOCs analytes reported for each sample.
The methods listed for VOCs included in the electronic data deliverable from the laboratories and is based on standard operating procedures (SOPs) consistent with the quality assurance project plan requested methods.

Abbreviations:

DESA	=	Division of Environmental Science and Assessment	VOC	=	volatile organic compound
EB	=	equipment blank	EPA	=	Environmental Protection Agency
FB	=	field blank	WG	=	groundwater
FD	=	field duplicate	HDR	=	HDR, Inc.
N	=	normal sample	NA	=	not applicable
TB	=	trip blank			

Appendix B Table B2 - Groundwater VOCs Field Duplicate Analytical Sampling Results
2019 Comprehensive Sampling Event Report
Lawrence Aviation Industries Site
Port Jefferson Station, New York

					MPW-04-B		MPW-04-B		RPD	ABS	MPW-09-A		MPW-09-A		RPD	ABS	MW-05		MW-05		RPD	ABS
					MPW-04-B-HDR-R7-06102019-0		MPW-04-B-HDR-R7-06102019-1				MPW-09-A-HDR-R7-06042019-0		MPW-09-A-HDR-R7-06042019-1				MW-05-HDR-R7-06062019-0		MW-05-HDR-R7-06062019-1			
					NA		NA				NA		NA				NA		NA			
					6/10/2019		6/10/2019				6/4/2019		6/4/2019				6/6/2019		6/6/2019			
	Cas No.	Units	NYSDEC Class GA Standards	5 x CRQL	Results (ug/l)	Qual.	Results	Qual.			Results (ug/l)	Qual.	Results	Qual.			Results (ug/l)	Qual.	Results	Qual.		
Volatile Organic Compounds (VOCs)																						
1,1,1-Trichloroethane	71-55-6	ug/l	5	2.5	0.5	U	0.5	U	-	-	0.5	U	0.5	U	-	-	0.5	U	0.5	U	-	-
1,1,2,2-Tetrachloroethane	79-34-5	ug/l	5	2.5	0.5	U	0.5	U	-	-	0.5	U	0.5	U	-	-	0.5	U	0.5	U	-	-
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	ug/l	NA	2.5	0.5	U	0.5	U	-	-	0.5	U	0.5	U	-	-	0.5	U	0.5	U	-	-
1,1,2-Trichloroethane	79-00-5	ug/l	1	2.5	0.5	U	0.5	U	-	-	0.5	U	0.5	U	-	-	0.5	U	0.5	U	-	-
1,1-Dichloroethane	75-34-3	ug/l	5	2.5	0.5	U	0.5	U	-	-	0.5	U	0.5	U	-	-	0.5	U	0.5	U	-	-
1,1-Dichloroethene	75-35-4	ug/l	5	2.5	0.5	U	0.5	U	-	-	0.5	U	0.5	U	-	-	0.5	U	0.5	U	-	-
1,2,3-Trichlorobenzene	87-61-6	ug/l	NA	5	1	UJ	1	UJ	0%	0	1	U	1	U	-	-	1	UL	1	UL	0%	0
1,2,4-Trichlorobenzene	120-82-1	ug/l	NA	2.5	0.5	U	0.5	U	-	-	0.5	U	0.5	U	-	-	0.5	U	0.5	U	-	-
1,2-Dibromo-3-Chloropropane	96-12-8	ug/l	0.04	2.5	**0.5**	U	**0.5**	U	-	-	**0.5**	UJ	**0.5**	UL	0%	0	**0.5**	U	**0.5**	U	-	-
1,2-Dibromoethane	106-93-4	ug/l	0.0006	2.5	**0.5**	U	**0.5**	U	-	-	**0.5**	U	**0.5**	U	-	-	**0.5**	U	**0.5**	U	-	-
1,2-Dichlorobenzene	95-50-1	ug/l	3	2.5	0.5	U	0.5	U	-	-	0.5	U	0.5	U	-	-	0.5	U	0.5	U	-	-
1,2-Dichloroethane	107-06-2	ug/l	0.6	2.5	0.5	U	0.5	U	-	-	0.5	U	0.5	U	-	-	0.5	U	0.5	U	-	-
1,2-Dichloropropane	78-87-5	ug/l	1	2.5	0.5	U	0.5	U	-	-	0.5	U	0.5	U	-	-	0.5	U	0.5	U	-	-
1,3-Dichlorobenzene	541-73-1	ug/l	3	2.5	0.5	U	0.5	U	-	-	0.5	U	0.5	U	-	-	0.5	U	0.5	U	-	-
1,4-Dichlorobenzene	106-46-7	ug/l	3	2.5	0.5	U	0.5	U	-	-	0.5	U	0.5	U	-	-	0.5	U	0.5	U	-	-
2-Butanone	78-93-3	ug/l	NA	25	5	U	5	U	-	-	5	U	5	U	-	-	5	U	5	U	-	-
2-Hexanone	591-78-6	ug/l	NA	25	5	UJ	5	UJ	0%	0	5	U	5	U	-	-	5	U	5	U	-	-
4-Methyl-2-Pentanone	108-10-1	ug/l	NA	25	5	U	5	U	-	-	5	U	5	U	-	-	5	U	5	U	-	-
Acetone	67-64-1	ug/l	NA	25	5	U	5	U	-	-	5	U	5	U	-	-	5	U	5	U	-	-
Benzene	71-43-2	ug/l	1	2.5	0.5	U	0.5	U	-	-	0.5	U	0.5	U	-	-	0.5	U	0.5	U	-	-
Bromochloromethane	74-97-5	ug/l	5	2.5	0.5	U	0.5	U	-	-	0.5	U	0.5	U	-	-	0.5	U	0.5	U	-	-
Bromodichloromethane	75-27-4	ug/l	NA	2.5	0.5	U	0.5	U	-	-	0.5	U	0.5	U	-	-	0.5	U	0.5	U	-	-
Bromoform	75-25-2	ug/l	NA	2.5	0.5	U	0.5	U	-	-	0.5	U	0.5	U	-	-	0.5	U	0.5	U	-	-
Bromomethane	74-83-9	ug/l	5	5	1	UL	1	UL	0%	0	1	UL	1	UL	0%	0	1	UL	1	UL	0%	0
Carbon Disulfide	75-15-0	ug/l	60	2.5	0.5	U	0.5	U	-	-	0.5	U	0.5	U	-	-	0.5	U	0.5	U	-	-
Carbon Tetrachloride	56-23-5	ug/l	5	2.5	0.5	U	0.5	U	-	-	0.5	U	0.5	U	-	-	0.5	U	0.5	U	-	-
Chlorobenzene	108-90-7	ug/l	5	2.5	0.5	U	0.5	U	-	-	0.5	U	0.5	U	-	-	0.5	U	0.5	U	-	-
Chloroethane	75-00-3	ug/l	5	2.5	0.5	U	0.5	U	-	-	0.5	U	0.5	U	-	-	0.5	U	0.5	U	-	-
Chloroform	67-66-3	ug/l	7	2.5	0.63		0.62		2%	0.01	0.5	U	0.5	U	-	-	0.5	U	0.5	U	-	-
Chloromethane	74-87-3	ug/l	5	variable	0.84	U	0.8	U	-	-	0.72		0.75	U	-	-	0.8	U	0.78	U	-	-
cis-1,2-Dichloroethylene	156-59-2	ug/l	5	2.5	0.5	U	0.5	U	-	-	0.5	U	0.5	U	-	-	0.5	U	0.5	U	-	-
cis-1,3-Dichloropropene	10061-01-5	ug/l	NA	2.5	0.5	U	0.5	U	-	-	0.5	U	0.5	U	-	-	0.5	U	0.5	U	-	-
Cyclohexane	110-82-7	ug/l	NA	2.5	0.5	U	0.5	U	-	-	0.5	U	0.5	U	-	-	0.5	U	0.5	U	-	-
Dibromochloromethane	124-48-1	ug/l	NA	2.5	0.5	U	0.5	U	-	-	0.5	U	0.5	U	-	-	0.5	U	0.5	U	-	-
Dichlorodifluoromethane	75-71-8	ug/l	5	2.5	0.5	UL	0.5	UL	0%	0	0.5	UL	0.5	UL	0%	0	0.5	UL	0.5	UL	0%	0
Ethylbenzene	100-41-4	ug/l	5	2.5	0.5	U	0.5	U	-	-	0.5	U	0.5	U	-	-	0.5	U	0.5	U	-	-
Isopropylbenzene	98-82-8	ug/l	5	2.5	0.5	U	0.5	U	-	-	0.5	U	0.5	U	-	-	0.5	U	0.5	U	-	-
M, P Xylenes	179601-23-1	ug/l	NA	2.5	0.5	U	0.5	U	-	-	0.5	U	0.5	U	-	-	0.5	U	0.5	U	-	-
Methyl Acetate	79-20-9	ug/l	NA	2.5	0.5	U	0.5	U	-	-	0.5	U	0.5	U	-	-	0.5	U	0.5	U	-	-
Methyl tert-Butyl Ether	1634-04-4	ug/l	NA	2.5	0.67		0.63		6%	0.04	0.83		0.82		1%	0.01	0.5	U	0.5	U	-	-
Methylcyclohexane	108-87-2	ug/l	NA	2.5	0.5	U	0.5	U	-	-	0.5	U	0.5	U	-	-	0.5	U	0.5	U	-	-
Methylene Chloride	75-09-2	ug/l	5	2.5	0.5	U	0.5	U	-	-	0.5	U	0.5	U	-	-	0.5	U	0.5	U	-	-
o-Xylene (1,2-Dimethylbenzene)	95-47-6	ug/l	5	2.5	0.5	U	0.5	U	-	-	0.5	U	0.5	U	-	-	0.5	U	0.5	U	-	-
Styrene	100-42-5	ug/l	5	2.5	0.5	U	0.5	U	-	-	0.5	U	0.5	U	-	-	0.5	U	0.5	U	-	-
Tetrachloroethylene(PCE)	127-18-4	ug/l	5	2.5	2.4		2.8		15%	0.4	0.5	U	0.5	U	-	-	0.5	U	0.5	U	-	-
Toluene	108-88-3	ug/l	5	2.5	0.5	U	0.5	U	-	-	0.5	U	0.5	U	-	-	0.5	U	0.5	U	-	-
trans-1,2-Dichloroethene	156-60-5	ug/l	5	2.5	0.5	U	0.5	U	-	-	0.5	U	0.5	U	-	-	0.5	U	0.5	U	-	-
trans-1,3-Dichloropropene	10061-02-6	ug/l	NA	2.5	0.5	U	0.5	U	-	-	0.5	U	0.5	U	-	-	0.5	U	0.5	U	-	-
Trichloroethylene (TCE)	79-01-6	ug/l	5	2.5	3.4		3.6		6%	0.2	**22**		**23**		4%	1	0.5	U	0.6		-	-
Trichlorofluoromethane	75-69-4	ug/l	5	2.5	0.5	U	0.5	U	-	-	0.5	U	0.5	U	-	-	0.5	U	0.5	U	-	-
Vinyl Chloride	75-01-4	ug/l	2	2.5	0.5	UJ	0.5	UJ	0%	0	0.5	UJ	0.5	UJ	0%	0	0.5	UJ	0.5	UJ	0%	0

Notes:
U: Non-Detect Value
J: Estimated values (+/- indicates likely biase direction)
NA: Not Analyzed
ug/l: microgram per liter

RPD: Relative Percent Difference
CRQL: Contract Required Quantitation Limit
-: RPD and ABS values cannot be calculated as one or both results are U qualified.
Variable: 5x CRQL results are variable due to varying dilution factors between samples.
Values that are **bold and shaded** exceed NYSDEC Class GA Standards: **150**

HDR

Appendix B Table B2 - Groundwater VOCs Field Duplicate Analytical Sampling Results
2019 Comprehensive Sampling Event Report
Lawrence Aviation Industries Site
Port Jefferson Station, New York

					PZ-07		PZ-07		RPD	ABS
					PZ-07-HDR-R7-06072019-0		PZ-07-HDR-R7-06072019-1			
					NA		NA			
					6/7/2019		6/7/2019			
	Cas No.	Units	NYSDEC Class GA Standards	5 x CRQL	Results (ug/l)	Qual.	Results	Qual.		
Volatile Organic Compounds (VOCs)										
1,1,1-Trichloroethane	71-55-6	ug/l	5	2.5	0.5	U	0.5	U	-	-
1,1,2,2-Tetrachloroethane	79-34-5	ug/l	5	2.5	0.5	U	0.5	U	-	-
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	ug/l	NA	2.5	0.5	U	0.5	U	-	-
1,1,2-Trichloroethane	79-00-5	ug/l	1	2.5	0.5	U	0.5	U	-	-
1,1-Dichloroethane	75-34-3	ug/l	5	2.5	0.5	U	0.5	U	-	-
1,1-Dichloroethene	75-35-4	ug/l	5	2.5	0.5	U	0.5	U	-	-
1,2,3-Trichlorobenzene	87-61-6	ug/l	NA	5	1	UL	1	UL	0%	0
1,2,4-Trichlorobenzene	120-82-1	ug/l	NA	2.5	0.5	U	0.5	U	-	-
1,2-Dibromo-3-Chloropropane	96-12-8	ug/l	0.04	2.5	**0.5**	U	**0.5**	U	-	-
1,2-Dibromoethane	106-93-4	ug/l	0.0006	2.5	**0.5**	U	**0.5**	U	-	-
1,2-Dichlorobenzene	95-50-1	ug/l	3	2.5	0.5	U	0.5	U	-	-
1,2-Dichloroethane	107-06-2	ug/l	0.6	2.5	0.5	U	0.5	U	-	-
1,2-Dichloropropane	78-87-5	ug/l	1	2.5	0.5	U	0.5	U	-	-
1,3-Dichlorobenzene	541-73-1	ug/l	3	2.5	0.5	U	0.5	U	-	-
1,4-Dichlorobenzene	106-46-7	ug/l	3	2.5	0.5	U	0.5	U	-	-
2-Butanone	78-93-3	ug/l	NA	25	5	U	5	U	-	-
2-Hexanone	591-78-6	ug/l	NA	25	5	U	5	U	-	-
4-Methyl-2-Pentanone	108-10-1	ug/l	NA	25	5	U	5	U	-	-
Acetone	67-64-1	ug/l	NA	25	5	U	5	U	-	-
Benzene	71-43-2	ug/l	1	2.5	0.5	U	0.5	U	-	-
Bromochloromethane	74-97-5	ug/l	5	2.5	0.5	U	0.5	U	-	-
Bromodichloromethane	75-27-4	ug/l	NA	2.5	0.5	U	0.5	U	-	-
Bromoform	75-25-2	ug/l	NA	2.5	0.5	U	0.5	U	-	-
Bromomethane	74-83-9	ug/l	5	5	1	UL	1	UL	0%	0
Carbon Disulfide	75-15-0	ug/l	60	2.5	0.5	U	0.5	U	-	-
Carbon Tetrachloride	56-23-5	ug/l	5	2.5	0.5	U	0.5	U	-	-
Chlorobenzene	108-90-7	ug/l	5	2.5	0.5	U	0.5	U	-	-
Chloroethane	75-00-3	ug/l	5	2.5	0.5	U	0.5	U	-	-
Chloroform	67-66-3	ug/l	7	2.5	0.5	U	0.5	U	-	-
Chloromethane	74-87-3	ug/l	5	variable	0.86	U	0.92	U	-	-
cis-1,2-Dichloroethylene	156-59-2	ug/l	5	2.5	0.5	U	0.5	U	-	-
cis-1,3-Dichloropropene	10061-01-5	ug/l	NA	2.5	0.5	U	0.5	U	-	-
Cyclohexane	110-82-7	ug/l	NA	2.5	0.5	U	0.5	U	-	-
Dibromochloromethane	124-48-1	ug/l	NA	2.5	0.5	U	0.5	U	-	-
Dichlorodifluoromethane	75-71-8	ug/l	5	2.5	0.5	UL	0.5	UL	0%	0
Ethylbenzene	100-41-4	ug/l	5	2.5	0.5	U	0.5	U	-	-
Isopropylbenzene	98-82-8	ug/l	5	2.5	0.5	U	0.5	U	-	-
M, P Xylenes	179601-23-1	ug/l	NA	2.5	0.5	U	0.5	U	-	-
Methyl Acetate	79-20-9	ug/l	NA	2.5	0.5	U	0.5	U	-	-
Methyl tert-Butyl Ether	1634-04-4	ug/l	NA	2.5	0.5	U	0.5	U	-	-
Methylcyclohexane	108-87-2	ug/l	NA	2.5	0.5	U	0.5	U	-	-
Methylene Chloride	75-09-2	ug/l	5	2.5	0.5	U	0.5	U	-	-
o-Xylene (1,2-Dimethylbenzene)	95-47-6	ug/l	5	2.5	0.5	U	0.5	U	-	-
Styrene	100-42-5	ug/l	5	2.5	0.5	U	0.5	U	-	-
Tetrachloroethylene(PCE)	127-18-4	ug/l	5	2.5	1.5		1.7		13%	0.2
Toluene	108-88-3	ug/l	5	2.5	0.5	U	0.5	U	-	-
trans-1,2-Dichloroethene	156-60-5	ug/l	5	2.5	0.5	U	0.5	U	-	-
trans-1,3-Dichloropropene	10061-02-6	ug/l	NA	2.5	0.5	U	0.5	U	-	-
Trichloroethylene (TCE)	79-01-6	ug/l	5	2.5	**15**		**16**		6%	1
Trichlorofluoromethane	75-69-4	ug/l	5	2.5	0.5	U	0.5	U	-	-
Vinyl Chloride	75-01-4	ug/l	2	2.5	0.5	UJ	0.5	UJ	0%	0

Notes:
U: Non-Detect Value
J: Estimated values (+/- indicates likely biase direction)
NA: Not Analyzed
ug/l: microgram per liter

RPD: Relative Percent Difference
CRQL: Contract Required Quantitation Limit
-: RPD and ABS values cannot be calculated as one or both results are U qualified.
Variable: 5x CRQL results are variable due to varying dilution factors between samples.
Values that are **bold and shaded** exceed NYSDEC Class GA Standards: **150**

Appendix B Table B3 - Groundwater Sample Results Completeness
2019 Comprehensive Sampling Event Report
Lawrence Aviation Industries Site
Port Jefferson Station, New York

Groundwater Results	VOCs
	Total Numbers
Non-Detects	3053
No. of Detects	211
No. of Estimated Hits (with Qualifier J, J+, NJ and NJD)	0
Non-Reportable Results	0
No. of Rejects	0
Total	3264
Percent Rejected	0.00%
Percent Estimated Hits	0.00%
Total Completeness	100%

Notes:
The counts and calculations above do not include field, equipment or trip blank samples, only environmental samples (including field duplicate and MS/MSD samples)

Appendix B Table B4 - Groundwater VOCs Field and Equipment Blanks and VOCs Trip Blank Analytical Sampling Results
2019 Comprehensive Sampling Event Report
Lawrence Aviation Industries Site
Port Jefferson Station, New York

			Sample ID	ERT-MW-2A-HDR-R7-06042019-EB		ERT-MW-4A-HDR-R7-06052019-EB		MW-PD-17-HDR-R7-06062019-EB		PZ-07-HDR-R7-06072019-EB		MW-PD-11-HDR-R7-06102019-EB		ERT-EW-5-HDR-R7-06112019-EB	
			CLP ID	NA		NA		NA		NA		NA		NA	
			Sample Date	6/4/2019		6/5/2019		6/6/2019		6/7/2019		6/10/2019		6/11/2019	
Analyte	Cas No.	Units	NYSDEC Class GA Standards (ug/l)	Results (ug/l)	Qual	Results (ug/l)	Qual	Results (ug/l)	Qual	Results (ug/l)	Qual	Results (ug/l)	Qual	Results (ug/l)	Qual
Volatile Organic Compounds (VOCs)															
1,1,1-Trichloroethane	71-55-6	ug/l	5	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,1,2,2-Tetrachloroethane	79-34-5	ug/l	5	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	ug/l	NA	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,1,2-Trichloroethane	79-00-5	ug/l	1	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,1-Dichloroethane	75-34-3	ug/l	5	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,1-Dichloroethene	75-35-4	ug/l	5	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2,3-Trichlorobenzene	87-61-6	ug/l	NA	1	U	1	UL	1	UL	1	UL	1	UJ	1	UL
1,2,4-Trichlorobenzene	120-82-1	ug/l	NA	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	UL
1,2-Dibromo-3-Chloropropane	96-12-8	ug/l	0.04	0.5	UL	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2-Dibromoethane	106-93-4	ug/l	0.0006	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2-Dichlorobenzene	95-50-1	ug/l	3	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2-Dichloroethane	107-06-2	ug/l	0.6	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2-Dichloropropane	78-87-5	ug/l	1	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,3-Dichlorobenzene	541-73-1	ug/l	3	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,4-Dichlorobenzene	106-46-7	ug/l	3	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
2-Butanone	78-93-3	ug/l	NA	5	U	5	U	5	U	5	U	5	U	5	U
2-Hexanone	591-78-6	ug/l	NA	5	U	5	U	5	U	5	U	5	UJ	5	U
4-Methyl-2-Pentanone	108-10-1	ug/l	NA	5	U	5	U	5	U	5	U	5	U	5	U
Acetone	67-64-1	ug/l	NA	5	U	5	U	5	U	5	U	5	U	5	U
Benzene	71-43-2	ug/l	1	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Bromochloromethane	74-97-5	ug/l	5	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Bromodichloromethane	75-27-4	ug/l	NA	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Bromoform	75-25-2	ug/l	NA	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Bromomethane	74-83-9	ug/l	5	1	UL	1	UL	1	UL	1	UL	1	UL	1	UL
Carbon Disulfide	75-15-0	ug/l	60	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Carbon Tetrachloride	56-23-5	ug/l	5	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Chlorobenzene	108-90-7	ug/l	5	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Chloroethane	75-00-3	ug/l	5	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Chloroform	67-66-3	ug/l	7	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Chloromethane	74-87-3	ug/l	5	0.62	U	0.68	U	0.86	U	1	U	0.7	U	0.66	U
cis-1,2-Dichloroethylene	156-59-2	ug/l	5	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
cis-1,3-Dichloropropene	10061-01-5	ug/l	NA	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Cyclohexane	110-82-7	ug/l	NA	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Dibromochloromethane	124-48-1	ug/l	NA	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Dichlorodifluoromethane	75-71-8	ug/l	5	0.5	UL	0.5	UL	0.5	UL	0.5	UL	0.5	UL	0.5	UL
Ethylbenzene	100-41-4	ug/l	NA	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Isopropylbenzene	98-82-8	ug/l	5	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
M, P Xylenes	179601-23-1	ug/l	5	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Methyl Acetate	79-20-9	ug/l	NA	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Methyl tert-Butyl Ether	1634-04-4	ug/l	NA	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Methylcyclohexane	108-87-2	ug/l	NA	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Methylene Chloride	75-09-2	ug/l	5	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
o-Xylene (1,2-Dimethylbenzene)	95-47-6	ug/l	5	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Styrene	100-42-5	ug/l	5	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Tetrachloroethylene(PCE)	127-18-4	ug/l	5	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Toluene	108-88-3	ug/l	5	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
trans-1,2-Dichloroethene	156-60-5	ug/l	5	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
trans-1,3-Dichloropropene	10061-02-6	ug/l	NA	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Trichloroethylene (TCE)	79-01-6	ug/l	5	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Trichlorofluoromethane	75-69-4	ug/l	5	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Vinyl Chloride	75-01-4	ug/l	2	0.5	UJ	0.5	UJ	0.5	UJ	0.5	UJ	0.5	UJ	0.5	UJ

Notes:

U - Non-Detect Value

J - Estimated values (- indicates likely biased low)

NA - Not Available

ug/l - microgram per liter

Values detected

Appendix B Table B4 - Groundwater VOCs Field and Equipment Blanks and VOCs Trip Blank Analytical Sampling Results
2019 Comprehensive Sampling Event Report
Lawrence Aviation Industries Site
Port Jefferson Station, New York

			Sample ID	ERT-MW-2A-HDR-R7-06042019-FB		MPW-06-A-HDR-R7-06052019-FB		MW-PD-17-HDR-R7-06062019-FB		PZ-07-HDR-R7-06072019-FB		MW-PD-11-HDR-R7-06102019-FB		ERT-EW-5-HDR-R7-06112019-FB	
			CLP ID	NA		NA		NA		NA		NA		NA	
			Sample Date	6/4/2019		6/5/2019		6/6/2019		6/7/2019		6/10/2019		6/11/2019	
Analyte	Cas No.	Units	NYSDEC Class GA Standards (ug/l)	Results (ug/l)	Qual	Results (ug/l)	Qual	Results (ug/l)	Qual	Results (ug/l)	Qual	Results (ug/l)	Qual	Results (ug/l)	Qual
Volatile Organic Compounds (VOCs)															
1,1,1-Trichloroethane	71-55-6	ug/l	5	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,1,2,2-Tetrachloroethane	79-34-5	ug/l	5	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	ug/l	NA	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,1,2-Trichloroethane	79-00-5	ug/l	1	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,1-Dichloroethane	75-34-3	ug/l	5	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,1-Dichloroethene	75-35-4	ug/l	5	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2,3-Trichlorobenzene	87-61-6	ug/l	NA	1	U	1	UL	1	UJ	1	UL	1	UJ	1	UL
1,2,4-Trichlorobenzene	120-82-1	ug/l	NA	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	UL
1,2-Dibromo-3-Chloropropane	96-12-8	ug/l	0.04	0.5	UL	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2-Dibromoethane	106-93-4	ug/l	0.0006	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2-Dichlorobenzene	95-50-1	ug/l	3	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2-Dichloroethane	107-06-2	ug/l	0.6	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2-Dichloropropane	78-87-5	ug/l	1	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,3-Dichlorobenzene	541-73-1	ug/l	3	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,4-Dichlorobenzene	106-46-7	ug/l	3	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
2-Butanone	78-93-3	ug/l	NA	5	U	5	U	5	U	5	U	5	U	5	U
2-Hexanone	591-78-6	ug/l	NA	5	U	5	U	5	UJ	5	U	5	UJ	5	U
4-Methyl-2-Pentanone	108-10-1	ug/l	NA	5	U	5	U	5	U	5	U	5	U	5	U
Acetone	67-64-1	ug/l	NA	5	U	5	U	5	U	5	U	5	U	5	U
Benzene	71-43-2	ug/l	1	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Bromochloromethane	74-97-5	ug/l	5	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Bromodichloromethane	75-27-4	ug/l	NA	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Bromoform	75-25-2	ug/l	NA	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Bromomethane	74-83-9	ug/l	5	1	UL	1	UL	1	UL	1	UL	1	UL	1	UL
Carbon Disulfide	75-15-0	ug/l	60	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Carbon Tetrachloride	56-23-5	ug/l	5	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Chlorobenzene	108-90-7	ug/l	5	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Chloroethane	75-00-3	ug/l	5	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Chloroform	67-66-3	ug/l	7	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Chloromethane	74-87-3	ug/l	5	0.68	U	0.69	U	0.51	U	0.6	U	0.92	U	0.7	U
cis-1,2-Dichloroethylene	156-59-2	ug/l	5	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
cis-1,3-Dichloropropene	10061-01-5	ug/l	NA	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Cyclohexane	110-82-7	ug/l	NA	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Dibromochloromethane	124-48-1	ug/l	NA	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Dichlorodifluoromethane	75-71-8	ug/l	5	0.5	UL	0.5	UL	0.5	UL	0.5	UL	0.5	UL	0.5	UL
Ethylbenzene	100-41-4	ug/l	NA	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Isopropylbenzene	98-82-8	ug/l	5	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
M, P Xylenes	179601-23-1	ug/l	5	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Methyl Acetate	79-20-9	ug/l	NA	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Methyl tert-Butyl Ether	1634-04-4	ug/l	NA	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Methylcyclohexane	108-87-2	ug/l	NA	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Methylene Chloride	75-09-2	ug/l	5	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
o-Xylene (1,2-Dimethylbenzene)	95-47-6	ug/l	5	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Styrene	100-42-5	ug/l	5	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Tetrachloroethylene(PCE)	127-18-4	ug/l	5	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Toluene	108-88-3	ug/l	5	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
trans-1,2-Dichloroethene	156-60-5	ug/l	5	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
trans-1,3-Dichloropropene	10061-02-6	ug/l	NA	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Trichloroethylene (TCE)	79-01-6	ug/l	5	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Trichlorofluoromethane	75-69-4	ug/l	5	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Vinyl Chloride	75-01-4	ug/l	2	0.5	UJ	0.5	UJ	0.5	UJ	0.5	UJ	0.5	UJ	0.5	UJ

Notes:

U - Non-Detect Value

J - Estimated values (- indicates likely biased low)

NA - Not Available

ug/l - microgram per liter

Values detected

Appendix B Table B4 - Groundwater VOCs Field and Equipment Blanks and VOCs Trip Blank Analytical Sampling Results
2019 Comprehensive Sampling Event Report
Lawrence Aviation Industries Site
Port Jefferson Station, New York

			Sample ID	MPW-04-E-HDR-R7-06122019-FB		TB-06042019		TB-06052019-0		TB-06062019		TB-06072019		TB-06102019	
			CLP ID	NA		NA		NA		NA		NA		NA	
			Sample Date	6/12/2019		6/4/2019		6/5/2019		6/6/2019		6/7/2019		6/10/2019	
Analyte	Cas No.	Units	NYSDEC Class GA Standards (ug/l)	Results (ug/l)	Qual	Results (ug/l)	Qual	Results (ug/l)	Qual	Results (ug/l)	Qual	Results (ug/l)	Qual	Results (ug/l)	Qual
Volatile Organic Compounds (VOCs)															
1,1,1-Trichloroethane	71-55-6	ug/l	5	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,1,2,2-Tetrachloroethane	79-34-5	ug/l	5	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	ug/l	NA	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,1,2-Trichloroethane	79-00-5	ug/l	1	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,1-Dichloroethane	75-34-3	ug/l	5	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,1-Dichloroethene	75-35-4	ug/l	5	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2,3-Trichlorobenzene	87-61-6	ug/l	NA	1	UL	1	U	1	UL	1	UL	1	UL	1	UJ
1,2,4-Trichlorobenzene	120-82-1	ug/l	NA	0.5	UL	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2-Dibromo-3-Chloropropane	96-12-8	ug/l	0.04	0.5	U	0.5	UJ	0.5	U	0.5	U	0.5	U	0.5	U
1,2-Dibromoethane	106-93-4	ug/l	0.0006	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2-Dichlorobenzene	95-50-1	ug/l	3	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2-Dichloroethane	107-06-2	ug/l	0.6	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2-Dichloropropane	78-87-5	ug/l	1	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,3-Dichlorobenzene	541-73-1	ug/l	3	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,4-Dichlorobenzene	106-46-7	ug/l	3	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
2-Butanone	78-93-3	ug/l	NA	5	U	5	U	5	U	5	U	5	U	5	U
2-Hexanone	591-78-6	ug/l	NA	5	U	5	U	5	U	5	U	5	U	5	UJ
4-Methyl-2-Pentanone	108-10-1	ug/l	NA	5	U	5	U	5	U	5	U	5	U	5	U
Acetone	67-64-1	ug/l	NA	5	U	5	U	5	U	5	U	5	U	5	U
Benzene	71-43-2	ug/l	1	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Bromochloromethane	74-97-5	ug/l	5	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Bromodichloromethane	75-27-4	ug/l	NA	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Bromoform	75-25-2	ug/l	NA	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Bromomethane	74-83-9	ug/l	5	1	UL	1	UL	1	UL	1	UL	1	UL	1	UL
Carbon Disulfide	75-15-0	ug/l	60	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Carbon Tetrachloride	56-23-5	ug/l	5	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Chlorobenzene	108-90-7	ug/l	5	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Chloroethane	75-00-3	ug/l	5	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Chloroform	67-66-3	ug/l	7	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Chloromethane	74-87-3	ug/l	5	0.92	U	0.5	U	0.5	U	0.76	U	0.65	U	0.56	U
cis-1,2-Dichloroethylene	156-59-2	ug/l	5	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
cis-1,3-Dichloropropene	10061-01-5	ug/l	NA	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Cyclohexane	110-82-7	ug/l	NA	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Dibromochloromethane	124-48-1	ug/l	NA	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Dichlorodifluoromethane	75-71-8	ug/l	5	0.5	UL	0.5	UL	0.5	UL	0.5	UL	0.5	UL	0.5	UL
Ethylbenzene	100-41-4	ug/l	NA	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Isopropylbenzene	98-82-8	ug/l	5	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
M, P Xylenes	179601-23-1	ug/l	5	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Methyl Acetate	79-20-9	ug/l	NA	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Methyl tert-Butyl Ether	1634-04-4	ug/l	NA	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Methylcyclohexane	108-87-2	ug/l	NA	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Methylene Chloride	75-09-2	ug/l	5	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
o-Xylene (1,2-Dimethylbenzene)	95-47-6	ug/l	5	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Styrene	100-42-5	ug/l	5	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Tetrachloroethylene(PCE)	127-18-4	ug/l	5	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Toluene	108-88-3	ug/l	5	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
trans-1,2-Dichloroethene	156-60-5	ug/l	5	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
trans-1,3-Dichloropropene	10061-02-6	ug/l	NA	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Trichloroethylene (TCE)	79-01-6	ug/l	5	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Trichlorofluoromethane	75-69-4	ug/l	5	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Vinyl Chloride	75-01-4	ug/l	2	0.5	UJ	0.5	UJ	0.5	UJ	0.5	UJ	0.5	UJ	0.5	UJ

Notes:

U - Non-Detect Value

J - Estimated values (- indicates likely biased low)

NA - Not Available

ug/l - microgram per liter

Values detected

Appendix B Table B4 - Groundwater VOCs Field and Equipment Blanks and VOCs Trip Blank Analytical Sampling Results
2019 Comprehensive Sampling Event Report
Lawrence Aviation Industries Site
Port Jefferson Station, New York

			Sample ID	TB-06112019		TB-06122019	
			CLP ID	NA		NA	
			Sample Date	6/11/2019		6/12/2019	
Analyte	Cas No.	Units	NYSDEC Class GA Standards (ug/l)	Results (ug/l)	Qual	Results (ug/l)	Qual
Volatile Organic Compounds (VOCs)							
1,1,1-Trichloroethane	71-55-6	ug/l	5	0.5	U	0.5	U
1,1,2,2-Tetrachloroethane	79-34-5	ug/l	5	0.5	U	0.5	U
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	ug/l	NA	0.5	U	0.5	U
1,1,2-Trichloroethane	79-00-5	ug/l	1	0.5	U	0.5	U
1,1-Dichloroethane	75-34-3	ug/l	5	0.5	U	0.5	U
1,1-Dichloroethene	75-35-4	ug/l	5	0.5	U	0.5	U
1,2,3-Trichlorobenzene	87-61-6	ug/l	NA	1	UL	1	UL
1,2,4-Trichlorobenzene	120-82-1	ug/l	NA	0.5	UL	0.5	UL
1,2-Dibromo-3-Chloropropane	96-12-8	ug/l	0.04	0.5	U	0.5	U
1,2-Dibromoethane	106-93-4	ug/l	0.0006	0.5	U	0.5	U
1,2-Dichlorobenzene	95-50-1	ug/l	3	0.5	U	0.5	U
1,2-Dichloroethane	107-06-2	ug/l	0.6	0.5	U	0.5	U
1,2-Dichloropropane	78-87-5	ug/l	1	0.5	U	0.5	U
1,3-Dichlorobenzene	541-73-1	ug/l	3	0.5	U	0.5	U
1,4-Dichlorobenzene	106-46-7	ug/l	3	0.5	U	0.5	U
2-Butanone	78-93-3	ug/l	NA	5	U	5	U
2-Hexanone	591-78-6	ug/l	NA	5	U	5	U
4-Methyl-2-Pentanone	108-10-1	ug/l	NA	5	U	5	U
Acetone	67-64-1	ug/l	NA	5	U	5	U
Benzene	71-43-2	ug/l	1	0.5	U	0.5	U
Bromochloromethane	74-97-5	ug/l	5	0.5	U	0.5	U
Bromodichloromethane	75-27-4	ug/l	NA	0.5	U	0.5	U
Bromoform	75-25-2	ug/l	NA	0.5	U	0.5	U
Bromomethane	74-83-9	ug/l	5	1	UL	1	UL
Carbon Disulfide	75-15-0	ug/l	60	0.5	U	0.5	U
Carbon Tetrachloride	56-23-5	ug/l	5	0.5	U	0.5	U
Chlorobenzene	108-90-7	ug/l	5	0.5	U	0.5	U
Chloroethane	75-00-3	ug/l	5	0.5	U	0.5	U
Chloroform	67-66-3	ug/l	7	0.5	U	0.5	U
Chloromethane	74-87-3	ug/l	5	0.71	U	0.91	U
cis-1,2-Dichloroethylene	156-59-2	ug/l	5	0.5	U	0.5	U
cis-1,3-Dichloropropene	10061-01-5	ug/l	NA	0.5	U	0.5	U
Cyclohexane	110-82-7	ug/l	NA	0.5	U	0.5	U
Dibromochloromethane	124-48-1	ug/l	NA	0.5	U	0.5	U
Dichlorodifluoromethane	75-71-8	ug/l	5	0.5	UL	0.5	UL
Ethylbenzene	100-41-4	ug/l	NA	0.5	U	0.5	U
Isopropylbenzene	98-82-8	ug/l	5	0.5	U	0.5	U
M, P Xylenes	179601-23-1	ug/l	5	0.5	U	0.5	U
Methyl Acetate	79-20-9	ug/l	NA	0.5	U	0.5	U
Methyl tert-Butyl Ether	1634-04-4	ug/l	NA	0.5	U	0.5	U
Methylcyclohexane	108-87-2	ug/l	NA	0.5	U	0.5	U
Methylene Chloride	75-09-2	ug/l	5	0.5	U	0.5	U
o-Xylene (1,2-Dimethylbenzene)	95-47-6	ug/l	5	0.5	U	0.5	U
Styrene	100-42-5	ug/l	5	0.5	U	0.5	U
Tetrachloroethylene(PCE)	127-18-4	ug/l	5	0.5	U	0.5	U
Toluene	108-88-3	ug/l	5	0.5	U	0.5	U
trans-1,2-Dichloroethene	156-60-5	ug/l	5	0.5	U	0.5	U
trans-1,3-Dichloropropene	10061-02-6	ug/l	NA	0.5	U	0.5	U
Trichloroethylene (TCE)	79-01-6	ug/l	5	0.5	U	0.5	U
Trichlorofluoromethane	75-69-4	ug/l	5	0.5	U	0.5	U
Vinyl Chloride	75-01-4	ug/l	2	0.5	UJ	0.5	UJ

Notes:
U - Non-Detect Value
J - Estimated values (- indicates likely biased low)
NA - Not Available
ug/l - microgram per liter
Values detected

APPENDIX C
AVERAGE TOTAL ETHENE CONCENTRATION CALCULATIONS

Appendix C - Average Total Ethene Concentration Calculations
2019 Comprehensive Sampling Event Report
Lawrence Aviation Industries Site
Port Jefferson Station, New York

Well No.	Baseline Total CVOC Concentration (ug/l) June 2011	Total CVOC Concentration (ug/l) June 2012	Total CVOC Concentration (ug/l) June 2013	Total CVOC Concentration (ug/l) June 2014	Total CVOC Concentration (ug/l) June 2015	Total CVOC Concentration (ug/l) June 2016	Total CVOC Concentration (ug/l) June 2017	Total CVOC Concentration (ug/l) June 2018	Total CVOC Concentration (ug/l) June 2019
MW-ISCO-2	0.9	1,121.2	254.4	1,526.3	827.0	448.8	724.7	725.8	803.7
MW-ISCO-4	-	549.6	487.5	275.0	234.3	478.4	224.9	335.6	1209.4
MW-ISCO-5	1.1	124.4	264.7	294.9	274.4	426.4	78.6	162.8	73.5
Average Concentration	0.7	598.4	335.5	698.7	445.2	451.2	342.7	408.1	695.5
STD Deviation	0.6	500.2	131.7	716.8	331.2	26.1	338.8	288.4	575.6
STD Error	0.3	288.8	76.0	413.8	191.2	15.1	195.6	166.5	332.3
t (95%)	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8
Confidence Interval 95%	**1.6**	**1,407.0**	**548.4**	**1,857.4**	**980.7**	**493.4**	**890.5**	**874.3**	**1,626.1**
MPW-09-A	*	*	20.0	15.6	17.6	13.0	13.4	27.5	22.0
MPW-09-B	*	*	371.2	969.4	147.0	268.1	41.1	3.2	35.9
MPW-09-C	*	*	500.2	519.9	442.9	46.1	312.6	149.6	167.7
MPW-09-D	*	*	491.6	441.8	215.9	216.6	237.9	156.3	240.0
MW-PD-12	470.9	328.5	339.8	226.0	234.3	96.0	317.2	194.4	173.8
MW-PD-14	*	*	286.5	194.9	183.8	102.2	133.9	155.8	308.7
MW-PD-16	*	*	500.2	132.7	570.4	205.4	398.9	386.8	286.7
Average Concentration			358.5	357.2	258.8	135.4	207.8	153.4	176.4
STD Deviation			172.3	321.2	187.0	95.5	148.0	125.6	113.6
STD Error			65.1	121.4	70.7	36.1	55.9	47.5	42.9
t (95%)			2.4	2.4	2.4	2.4	2.4	2.4	2.4
Confidence Interval 95%			**514.8**	**648.5**	**428.4**	**222.0**	**342.1**	**267.3**	**279.4**
* Data not available for time series									

APPENDIX D
TOTAL VOC CONCENTRATIONS USED IN TIME SERIES GRAPHS

Appendix D
Total VOC Concentration Data Used in Time Series Graphs
Lawrence Aviation Industries Site
Port Jefferson Station, New York

Well ID	RI March 2005	RI May 2005	Pre-Design Round 2 May - June 2008	August 2010 (Baseline)	December 2010	March 2011	June 2011	September 2011	December 2011	March 2012	May 2012	July 2012	September 2012	June 2013	June 2014	June 2015	June 2016	June 2017	June 2018	June 2019
MPW-09-A	157	71	53	NS	NS	NS	NS	NS	NS	NS	NS	NS	17	20	16	18	13	13	28	22
MPW-09-B	377	573	347	NS	NS	NS	NS	NS	NS	NS	NS	NS	642	373	972	149	270	41	4	36
MPW-09-C	597	786	579	NS	NS	NS	NS	NS	NS	NS	NS	NS	390	506	525	447	46	315	151	168
MPW-09-D	399	888	527	NS	NS	NS	NS	NS	NS	NS	NS	NS	672	496	446	219	217	240	158	240
MW-PD-12	NI	NI	215	236	463.6	400	471	602	NS	420	339	329	NU	340	226	234	96	317	195	174
MW-PD-14	NI	NI	358	NS	NS	NS	NS	NS	NS	NS	288	NS	NS	287	195	184	102	134	156	309
MW-PD-16	NI	NI	1933	NS	NS	NS	NS	NS	NS	NS	379	NS	NS	502	133	574	206	401	388	287

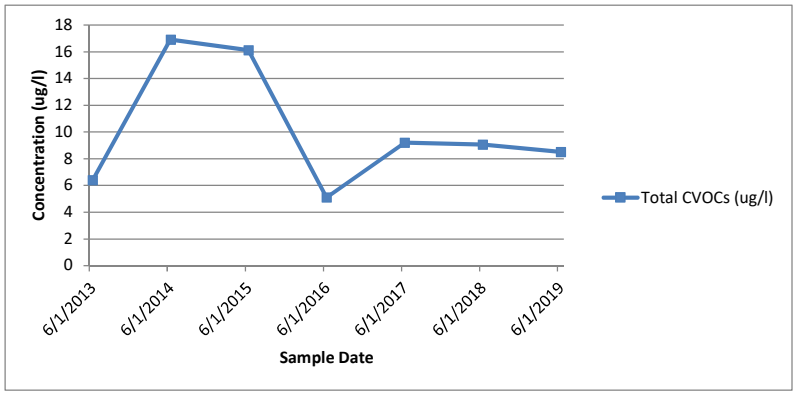
Notes:
All results in micrograms per liter
NI - Not Installed
NS - Not Sampled
NU - Not Used
RI - Remedial Investigation
VOC - Volatile Organic Compound

Total VOC Concentration values equal sum of the following compounds, not including non-detects:
Trichloroethene
1,1,1-Trichloroethane
1,1-Dichloroethane
1,1-Dichloroethene
Chloroform
cis-1,2-Dichloroethene
Tetrachloroethene
Vinyl Chloride

APPENDIX E
ANNUAL REPORT DATA 2012-2019 CVOCS

ERT-EW-3

		Sample Date	6/12/2013		6/11/2014		6/10/2015		6/10/2016		6/9/2017		6/13/2018		6/11/2019	
CVOC	CAS RN	Units	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual
1,1,1-Trichloroethane	71-55-6	ug/l		U	0.11	J	0.11	J		U		U		U		U
1,1-Dichloroethane	75-34-3	ug/l		U		U	0.11	J		U		U		U		U
1,1-Dichloroethene	75-35-4	ug/l		U		U		U		UJ		U		U		U
Chloroform	67-66-3	ug/l		U		U		U		U		U	0.21	J		U
Chloromethane	74-87-3	ug/l		U		U		U		U		U		U		U
cis-1,2-Dichloroethylene	156-59-2	ug/l		U	0.41	J	0.45	J		UJ		U		U		U
Tetrachloroethylene(PCE)	127-18-4	ug/l		U	0.39	J	0.45	J		U	0.3	J	0.25	J		U
Trichloroethene (TCE)	79-01-6	ug/l	6.4		16		15	J	5.1		8.9		8.6		8.5	
Vinyl Chloride	75-01-4	ug/l		U		U		U		U		U		U		UJ
Total CVOCs		**ug/l**	**6.40**		**16.91**		**16.12**		**5.10**		**9.20**		**9.06**		**8.50**	

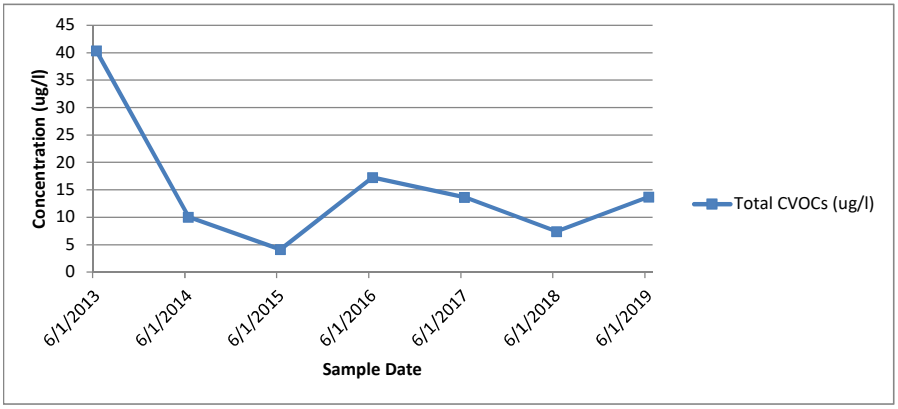


Notes:

1. Total CVOCs were calculated by adding the concentrations of the following VOCs:
   - 1,1,1-Trichloroethane
   - 1,1-Dichloroethane
   - 1,1-Dichloroethene
   - Chloroform
   - Chloromethane
   - cis-1,2-Dichloroethene
   - Tetrachloroethene
   - Trichloroethene
   - Vinyl Chloride
2. For non-detect (U qualified) results, a value of 0 was used.
3. NS = Not Sampled
4. Qualifiers were defined as follows:
   - J - Estimated values (- indicates likely biased low, + indicates likely biased high)
   - U - Non-Detect Value

ERT-EW-4

	Sample Date		6/12/2013		6/11/2014		6/10/2015		6/13/2016		6/9/2017		6/13/2018		6/11/2019	
CVOC	CAS RN	Units	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual
1,1,1-Trichloroethane	71-55-6	ug/l		U		U		U		U		U		U		U
1,1-Dichloroethane	75-34-3	ug/l		U		U		U		U		U		U		U
1,1-Dichloroethene	75-35-4	ug/l		U		U		U		U		U		U		U
Chloroform	67-66-3	ug/l		U	0.11	J		U		U		U		U		U
Chloromethane	74-87-3	ug/l		U		U		U		U		U		U		U
cis-1,2-Dichloroethylene	156-59-2	ug/l	1.6		0.2	J		U	0.33	J	0.21	J		U		U
Tetrachloroethylene(PCE)	127-18-4	ug/l	0.75		0.31	J	0.22	J	0.96		0.46	J	0.32	J	0.71	
Trichloroethene (TCE)	79-01-6	ug/l	38		9.4		3.9	J	16		13		7.1		13	
Vinyl Chloride	75-01-4	ug/l		U		U		U		U		U		U		UJ
Total CVOCs		**ug/l**	**40.35**		**10.02**		**4.12**		**17.29**		**13.67**		**7.42**		**13.71**	

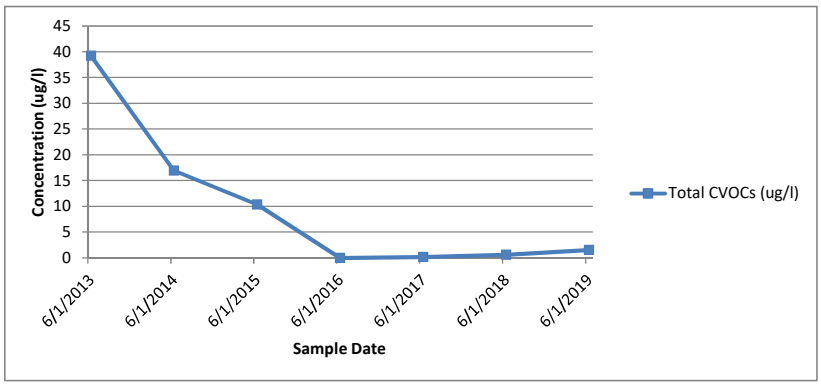


Notes:

1. Total CVOCs were calculated by adding the concentrations of the following VOCs:
   - 1,1,1-Trichloroethane
   - 1,1-Dichloroethane
   - 1,1-Dichloroethene
   - Chloroform
   - Chloromethane
   - cis-1,2-Dichloroethene
   - Tetrachloroethene
   - Trichloroethene
   - Vinyl Chloride
2. For non-detect (U qualified) results, a value of 0 was used.
3. NS = Not Sampled
4. Qualifiers were defined as follows:
   - J - Estimated values (- indicates likely biased low, + indicates likely biased high)
   - U - Non-Detect Value

ERT-EW-5

		Sample Date	6/12/2013		6/11/2014		6/10/2015		6/13/2016		6/9/2017		6/13/2018		6/11/2019	
CVOC	CAS RN	Units	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual
1,1,1-Trichloroethane	71-55-6	ug/l		U		U		U		U		U		U		U
1,1-Dichloroethane	75-34-3	ug/l		U		U		U		U		U		U		U
1,1-Dichloroethene	75-35-4	ug/l		U		U		U		UJ		U		U		U
Chloroform	67-66-3	ug/l		U	0.22	J	0.4	J		U		U	0.34	J	0.69	
Chloromethane	74-87-3	ug/l		U		U		U		U		U		U		U
cis-1,2-Dichloroethylene	156-59-2	ug/l		U	0.22	J	0.14	J		UJ		U		U		U
Tetrachloroethylene(PCE)	127-18-4	ug/l	1.2		0.52		0.43	J		U		U		U		U
Trichloroethene (TCE)	79-01-6	ug/l	38		16		9.4	J		U	0.2	J	0.3	J	0.88	
Vinyl Chloride	75-01-4	ug/l		U		U		U		U		U		U		UJ
Total CVOCs		**ug/l**	**39.20**		**16.96**		**10.37**		**0.00**	**U**	**0.20**		**0.64**		**1.57**	

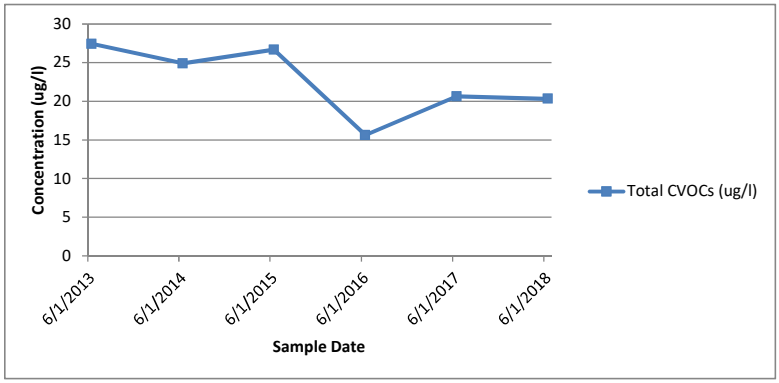


Notes:

1. Total CVOCs were calculated by adding the concentrations of the following VOCs:
   - 1,1,1-Trichloroethane
   - 1,1-Dichloroethane
   - 1,1-Dichloroethene
   - Chloroform
   - Chloromethane
   - cis-1,2-Dichloroethene
   - Tetrachloroethene
   - Trichloroethene
   - Vinyl Chloride
2. For non-detect (U qualified) results, a value of 0 was used.
3. NS = Not Sampled
4. Qualifiers were defined as follows:
   - J - Estimated values (- indicates likely biased low, + indicates likely biased high)
   - U - Non-Detect Value

ERT-MW-1A

		Sample Date	6/18/2013		6/13/2014		6/8/2015		6/10/2016		6/7/2017		6/6/2018		6/4/2019	
CVOC	CAS RN	Units	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual
1,1,1-Trichloroethane	71-55-6	ug/l		U	0.4	J	0.36	J		U	0.29	J	0.33	J		U
1,1-Dichloroethane	75-34-3	ug/l	0.62		0.73	J	0.75		0.34	J	0.53		0.68		0.71	
1,1-Dichloroethene	75-35-4	ug/l		U	0.2	J		U		UJ		UJ	0.22	J		U
Chloroform	67-66-3	ug/l		U	0.38	J	0.41	J		U		U	0.33	J		U
Chloromethane	74-87-3	ug/l		U		UJ		U		U		U		U	0.55	
cis-1,2-Dichloroethylene	156-59-2	ug/l	0.82		0.9	J	0.82		0.29	J	0.57	J-	0.53			U
Tetrachloroethylene(PCE)	127-18-4	ug/l		U	0.3	J	0.34	J		U	0.27	J	0.25	J		U
Trichloroethene (TCE)	79-01-6	ug/l	26		22	J	24		15		19		18	D	17	
Vinyl Chloride	75-01-4	ug/l		U		UJ		U		U		U		U		UJ
Total CVOCs		**ug/l**	**27.44**		**24.91**		**26.68**		**15.63**		**20.66**		**20.34**		**18.26**	

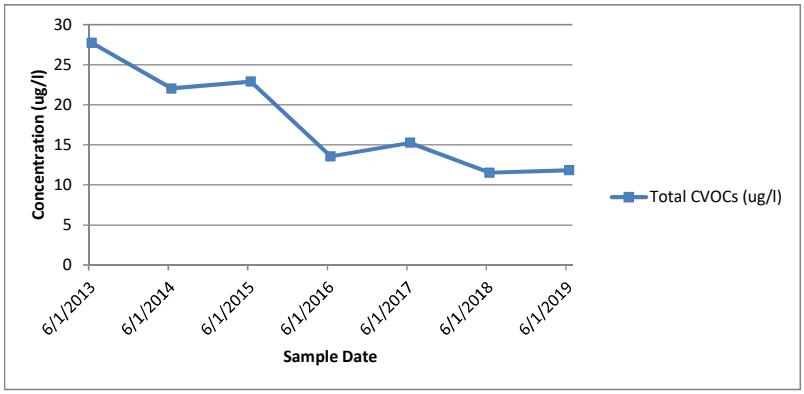


Notes:

1. Total CVOCs were calculated by adding the concentrations of the following VOCs:
   - 1,1,1-Trichloroethane
   - 1,1-Dichloroethane
   - 1,1-Dichloroethene
   - Chloroform
   - Chloromethane
   - cis-1,2-Dichloroethene
   - Tetrachloroethene
   - Trichloroethene
   - Vinyl Chloride
2. For non-detect (U qualified) results, a value of 0 was used.
3. NS = Not Sampled
4. Qualifiers were defined as follows:
   - J - Estimated values (- indicates likely biased low, + indicates likely biased high)
   - U - Non-Detect Value

ERT-MW-1B

		Sample Date	6/18/2013		6/13/2014		6/8/2015		6/10/2016		6/7/2017		6/6/2018		6/4/2019	
CVOC	CAS RN	Units	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual
1,1,1-Trichloroethane	71-55-6	ug/l		U	0.21	J	0.29	J		U	0.27	J	0.27	J		U
1,1-Dichloroethane	75-34-3	ug/l		U	0.48	J	0.63		0.3	J	0.59		0.57		0.81	
1,1-Dichloroethene	75-35-4	ug/l		U	0.14	J		U		U		U	0.18	J		U
Chloroform	67-66-3	ug/l		U	0.37	J		U		U		U	0.25	J		U
Chloromethane	74-87-3	ug/l		U		UJ		U		U		U		U		U
cis-1,2-Dichloroethylene	156-59-2	ug/l	0.72		0.67	J+	0.72		0.26	J	0.41	J	0.25	J		U
Tetrachloroethylene(PCE)	127-18-4	ug/l		U	0.16	J	0.26	J		U		U		U		U
Trichloroethene (TCE)	79-01-6	ug/l	27		20	J	21		13		14		10		11	
Vinyl Chloride	75-01-4	ug/l		U		UJ		U		U		U		U		UJ
Total CVOCs		**ug/l**	**27.72**		**22.03**		**22.9**		**13.56**		**15.27**		**11.52**		**11.81**	

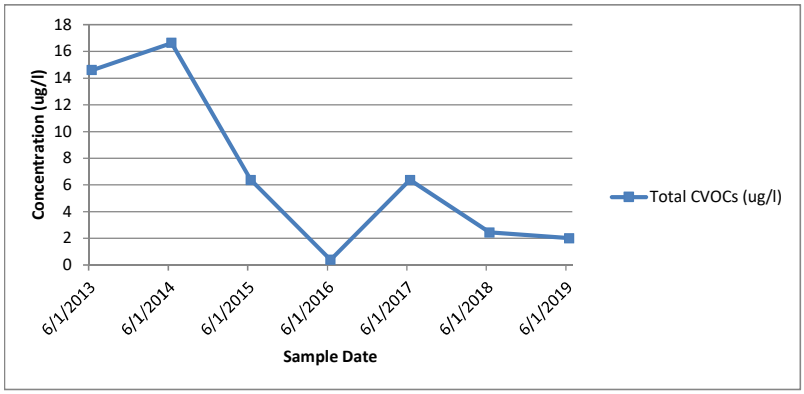


Notes:

1. Total CVOCs were calculated by adding the concentrations of the following VOCs:
   - 1,1,1-Trichloroethane
   - 1,1-Dichloroethane
   - 1,1-Dichloroethene
   - Chloroform
   - Chloromethane
   - cis-1,2-Dichloroethene
   - Tetrachloroethene
   - Trichloroethene
   - Vinyl Chloride
2. For non-detect (U qualified) results, a value of 0 was used.
3. NS = Not Sampled
4. Qualifiers were defined as follows:
   - J - Estimated values (- indicates likely biased low, + indicates likely biased high)
   - U - Non-Detect Value

ERT-MW-2A

		Sample Date	6/17/2013		6/16/2014		6/8/2015		6/8/2016		6/6/2017		6/5/2018		6/4/2019	
CVOC	CAS RN	Units	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual
1,1,1-Trichloroethane	71-55-6	ug/l		U	0.16	J	0.13	J		U		U		U		U
1,1-Dichloroethane	75-34-3	ug/l		U		U		U		U		U		U		U
1,1-Dichloroethene	75-35-4	ug/l		U		U		U		UJ		U		U		U
Chloroform	67-66-3	ug/l		U	0.49	J	0.53			U	0.56		0.6		1.3	
Chloromethane	74-87-3	ug/l		U		U		U		U		U		U		U
cis-1,2-Dichloroethylene	156-59-2	ug/l		U	0.28	J+		U		UJ		U		U		U
Tetrachloroethylene(PCE)	127-18-4	ug/l	0.6		1.7		1.4		0.39	J	1.7		0.63			U
Trichloroethene (TCE)	79-01-6	ug/l	14		14		4.3			U	4.1		1.2		0.7	
Vinyl Chloride	75-01-4	ug/l		U		U		U		U		U		U		UJ
Total CVOCs		**ug/l**	**14.6**		**16.63**		**6.36**		**0.39**		**6.36**		**2.43**		**2**	

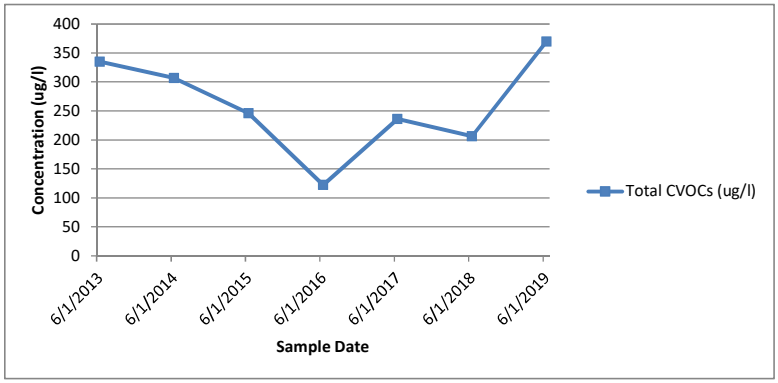


Notes:

1. Total CVOCs were calculated by adding the concentrations of the following VOCs:
   - 1,1,1-Trichloroethane
   - 1,1-Dichloroethane
   - 1,1-Dichloroethene
   - Chloroform
   - Chloromethane
   - cis-1,2-Dichloroethene
   - Tetrachloroethene
   - Trichloroethene
   - Vinyl Chloride
2. For non-detect (U qualified) results, a value of 0 was used.
3. NS = Not Sampled
4. Qualifiers were defined as follows:
   - J - Estimated values (- indicates likely biased low, + indicates likely biased high)
   - U - Non-Detect Value

ERT-MW-2B

		Sample Date	6/17/2013		6/16/2014		6/8/2015		6/8/2016		6/6/2017		6/5/2018		6/4/2019	
CVOC	CAS RN	Units	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual
1,1,1-Trichloroethane	71-55-6	ug/l		U	0.35	J	0.39	J		U	0.51		0.52		0.93	
1,1-Dichloroethane	75-34-3	ug/l	0.58		0.82		0.85		0.39	J	1.3		1.2		2	
1,1-Dichloroethene	75-35-4	ug/l		U	0.24	J+		U		U		U	0.34	J	0.56	
Chloroform	67-66-3	ug/l		U	0.48	J	0.42	J		U		U	0.38	J	0.55	
Chloromethane	74-87-3	ug/l		U		U		U		U		U		U		U
cis-1,2-Dichloroethylene	156-59-2	ug/l	2.9		3.2	J+	2.4		0.93		2.3		2.1		2.6	
Tetrachloroethylene(PCE)	127-18-4	ug/l	1.6		1.9		1.9		0.96		2.1		1.9		3	
Trichloroethene (TCE)	79-01-6	ug/l	330		300		240		120	D	230		200	D	360	
Vinyl Chloride	75-01-4	ug/l		U		U		U		U		U		U		UJ
Total CVOCs		**ug/l**	**335.08**	**U**	**307**		**246**		**122.3**		**236.2**		**206.4**		**369.64**	

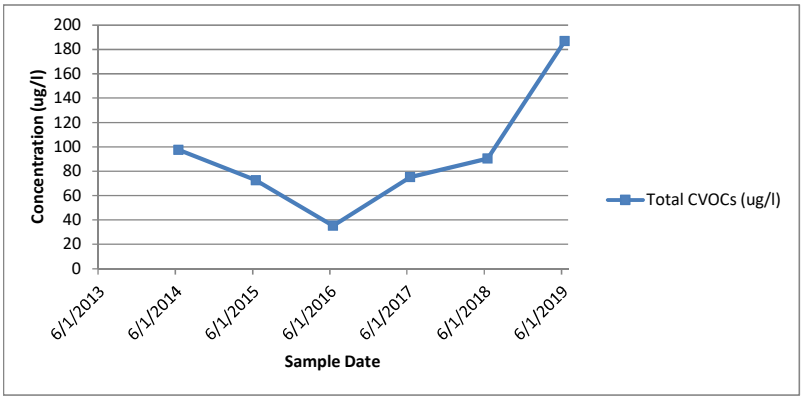


Notes:

1. Total CVOCs were calculated by adding the concentrations of the following VOCs:
   - 1,1,1-Trichloroethane
   - 1,1-Dichloroethane
   - 1,1-Dichloroethene
   - Chloroform
   - Chloromethane
   - cis-1,2-Dichloroethene
   - Tetrachloroethene
   - Trichloroethene
   - Vinyl Chloride
2. For non-detect (U qualified) results, a value of 0 was used.
3. NS = Not Sampled
4. Qualifiers were defined as follows:
   - J - Estimated values (- indicates likely biased low, + indicates likely biased high)
   - U - Non-Detect Value

ERT-MW-2C

		Sample Date	6/16/2014		6/8/2015		6/8/2016		6/6/2017		6/5/2018		6/4/2019	
CVOC	CAS RN	Units	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual
1,1,1-Trichloroethane	71-55-6	ug/l	0.16	J	0.22	J		U	0.29	J	0.31	J	0.66	
1,1-Dichloroethane	75-34-3	ug/l	0.33	J	0.47	J		U	0.49	J	0.78		1.4	
1,1-Dichloroethene	75-35-4	ug/l	0.12	J+		U		UJ		U	0.25	J		U
Chloroform	67-66-3	ug/l	0.32	J	0.38	J		U		U	0.34	J	0.6	
Chloromethane	74-87-3	ug/l		U		U		U		U		U	0.59	
cis-1,2-Dichloroethylene	156-59-2	ug/l	1.2	J+	0.9		0.25	J-	0.87		1		1.8	
Tetrachloroethylene(PCE)	127-18-4	ug/l	0.48	J	0.59			U	0.66		0.77		1.8	
Trichloroethene (TCE)	79-01-6	ug/l	95		70		35	D	73		87	D	180	
Vinyl Chloride	75-01-4	ug/l		U		U		U		U		U		UJ
Total CVOCs		**ug/l**	**97.61**		**72.56**		**35.25**		**75.31**		**90.45**		**186.85**	

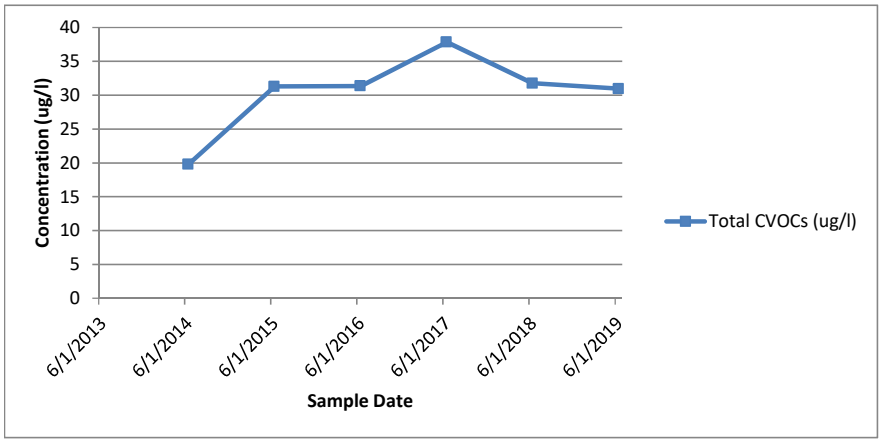


Notes:

1. Total CVOCs were calculated by adding the concentrations of the following VOCs:
   - 1,1,1-Trichloroethane
   - 1,1-Dichloroethane
   - 1,1-Dichloroethene
   - Chloroform
   - Chloromethane
   - cis-1,2-Dichloroethene
   - Tetrachloroethene
   - Trichloroethene
   - Vinyl Chloride
2. For non-detect (U qualified) results, a value of 0 was used.
3. NS = Not Sampled
4. Qualifiers were defined as follows:
   - J - Estimated values (- indicates likely biased low, + indicates likely biased high)
   - U - Non-Detect Value

ERT-MW-2D

		Sample Date	6/16/2014		6/8/2015		6/8/2016		6/6/2017		6/5/2018		6/4/2019	
CVOC	CAS RN	Units	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual
1,1,1-Trichloroethane	71-55-6	ug/l	0.29	J	0.55		0.36	J	0.65		0.64		0.56	
1,1-Dichloroethane	75-34-3	ug/l	0.54		1.2		0.6		0.97		1.2		1.1	
1,1-Dichloroethene	75-35-4	ug/l	0.16	J+		U		UJ		U	0.37	J		U
Chloroform	67-66-3	ug/l	0.27	J	0.49	J		U		U	0.42	J		U
Chloromethane	74-87-3	ug/l		U		U		U		U		U	0.61	
cis-1,2-Dichloroethylene	156-59-2	ug/l	0.23	J+	0.46	J		UJ	0.47	J	0.42	J		U
Tetrachloroethylene(PCE)	127-18-4	ug/l	0.27	J	0.57		0.37	J	0.74		0.69		0.67	
Trichloroethene (TCE)	79-01-6	ug/l	18		28		30	D	35		28	D	28	
Vinyl Chloride	75-01-4	ug/l		U		U		U		U		U		UJ
Total CVOCs		**ug/l**	**19.76**		**31.27**		**31.33**		**37.83**		**31.74**		**30.94**	

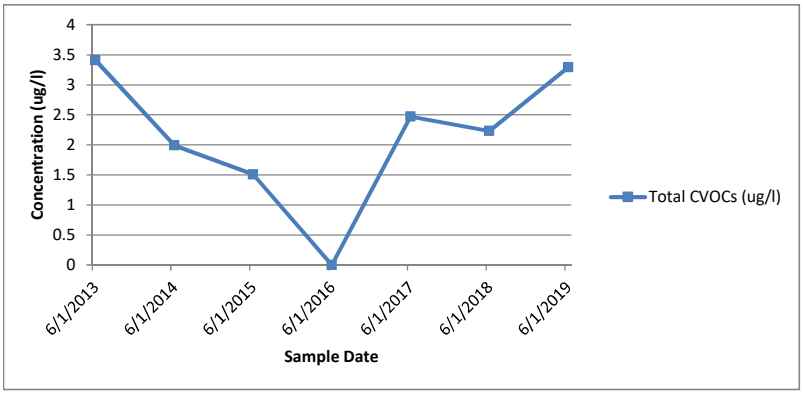


Notes:

1. Total CVOCs were calculated by adding the concentrations of the following VOCs:
   - 1,1,1-Trichloroethane
   - 1,1-Dichloroethane
   - 1,1-Dichloroethene
   - Chloroform
   - Chloromethane
   - cis-1,2-Dichloroethene
   - Tetrachloroethene
   - Trichloroethene
   - Vinyl Chloride
2. For non-detect (U qualified) results, a value of 0 was used.
3. NS = Not Sampled
4. Qualifiers were defined as follows:
   - J - Estimated values (- indicates likely biased low, + indicates likely biased high)
   - U - Non-Detect Value

ERT-MW-3

		Sample Date	6/14/2013		6/11/2014		6/4/2015		6/16/2016		6/8/2017		6/7/2018		6/5/2019	
CVOC	CAS RN	Units	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual
1,1,1-Trichloroethane	71-55-6	ug/l	0.85		0.47	J	0.54	J		U	0.48	J	0.4	J	0.74	
1,1-Dichloroethane	75-34-3	ug/l	0.86		0.46	J	0.51	J		U	0.58		0.52		1	
1,1-Dichloroethene	75-35-4	ug/l		U	0.2	J		U		U		UJ	0.17	J		U
Chloroform	67-66-3	ug/l	0.55		0.44	J		U		U	0.6		0.56		0.8	
Chloromethane	74-87-3	ug/l		U		U		U		U		U		U		U
cis-1,2-Dichloroethylene	156-59-2	ug/l		U		U		U		U		UJ		U		U
Tetrachloroethylene(PCE)	127-18-4	ug/l	0.65		0.42	J	0.46	J		U	0.48	J	0.4	J	0.75	
Trichloroethene (TCE)	79-01-6	ug/l	0.5			U		U		U	0.33	J	0.18	J		U
Vinyl Chloride	75-01-4	ug/l		U		U		U		U		U		U		UJ
Total CVOCs		**ug/l**	**3.41**		**1.99**		**1.51**		0		2.47		2.23		3.29	

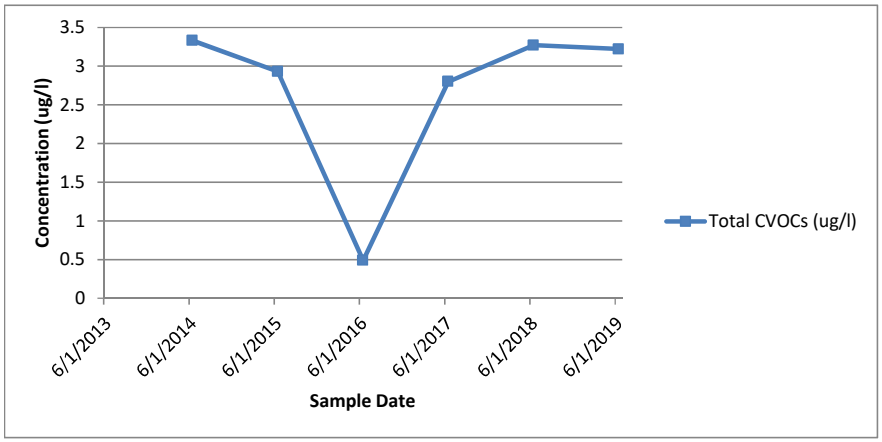


Notes:

1. Total CVOCs were calculated by adding the concentrations of the following VOCs:
   - 1,1,1-Trichloroethane
   - 1,1-Dichloroethane
   - 1,1-Dichloroethene
   - Chloroform
   - Chloromethane
   - cis-1,2-Dichloroethene
   - Tetrachloroethene
   - Trichloroethene
   - Vinyl Chloride
2. For non-detect (U qualified) results, a value of 0 was used.
3. NS = Not Sampled
4. Qualifiers were defined as follows:
   - J - Estimated values (- indicates likely biased low, + indicates likely biased high)
   - U - Non-Detect Value

ERT-MW-4A

		Sample Date	6/17/2014		6/5/2015		6/9/2016		6/7/2017		6/7/2018		6/5/2019	
CVOC	CAS RN	Units	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual
1,1,1-Trichloroethane	71-55-6	ug/l	0.39	J	0.46	J		U	0.47	J	0.44	J	0.61	
1,1-Dichloroethane	75-34-3	ug/l	0.63		0.73	J	0.49	J	0.64		0.8		0.91	
1,1-Dichloroethene	75-35-4	ug/l	0.21	J		U		U		U	0.18	J		U
Chloroform	67-66-3	ug/l	0.37	J		U		U		U	0.26	J		U
Chloromethane	74-87-3	ug/l		U		U		U		U		U		U
cis-1,2-Dichloroethylene	156-59-2	ug/l	0.39	J	0.35	J		U	0.3	J	0.22	J		U
Tetrachloroethylene(PCE)	127-18-4	ug/l	0.24	J	0.29	J		U	0.29	J	0.27	J		U
Trichloroethene (TCE)	79-01-6	ug/l	1.1		1.1	J		U	1.1		1.1		1.7	
Vinyl Chloride	75-01-4	ug/l		U		U		U		U		U		UJ
Total CVOCs		**ug/l**	**3.33**		**2.93**		**0.49**		**2.8**		**3.27**		**3.22**	

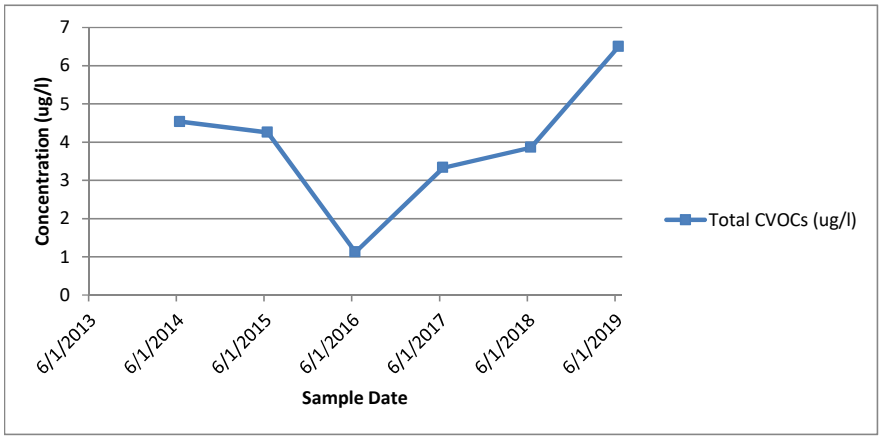


Notes:

1. Total CVOCs were calculated by adding the concentrations of the following VOCs:
   - 1,1,1-Trichloroethane
   - 1,1-Dichloroethane
   - 1,1-Dichloroethene
   - Chloroform
   - Chloromethane
   - cis-1,2-Dichloroethene
   - Tetrachloroethene
   - Trichloroethene
   - Vinyl Chloride
2. For non-detect (U qualified) results, a value of 0 was used.
3. NS = Not Sampled
4. Qualifiers were defined as follows:
   - J - Estimated values (- indicates likely biased low, + indicates likely biased high)
   - U - Non-Detect Value

ERT-MW-4B

		Sample Date	6/17/2014		6/5/2015		6/9/2016		6/7/2017		6/7/2018		6/5/2019	
CVOC	CAS RN	Units	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual
1,1,1-Trichloroethane	71-55-6	ug/l	0.61		0.62	J	0.37	J	0.69		0.64		1.2	
1,1-Dichloroethane	75-34-3	ug/l	1		0.91	J	0.75		1.1		1.1		1.9	
1,1-Dichloroethene	75-35-4	ug/l	0.27	J	0.5	UJ		U		U	0.32	J	0.65	
Chloroform	67-66-3	ug/l	0.47	J	0.37	J		U		U	0.35	J	0.57	
Chloromethane	74-87-3	ug/l		U	0.5	UJ		U		U		U		U
cis-1,2-Dichloroethylene	156-59-2	ug/l	0.53	J+	0.42	J		U	0.38	J	0.28	J		U
Tetrachloroethylene(PCE)	127-18-4	ug/l	0.35	J	0.29	J		U	0.31	J	0.33	J	0.58	
Trichloroethene (TCE)	79-01-6	ug/l	1.3		0.64	J		U	0.85		0.84		1.6	
Vinyl Chloride	75-01-4	ug/l		U		U		U		U		U		UJ
Total CVOCs		**ug/l**	**4.53**		**4.25**		**1.12**		**3.33**		**3.86**		**6.5**	

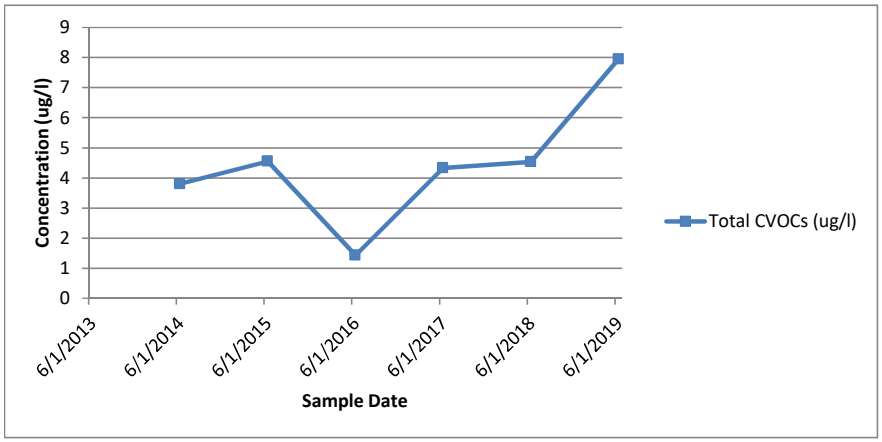


Notes:

1. Total CVOCs were calculated by adding the concentrations of the following VOCs:
   - 1,1,1-Trichloroethane
   - 1,1-Dichloroethane
   - 1,1-Dichloroethene
   - Chloroform
   - Chloromethane
   - cis-1,2-Dichloroethene
   - Tetrachloroethene
   - Trichloroethene
   - Vinyl Chloride
2. For non-detect (U qualified) results, a value of 0 was used.
3. NS = Not Sampled
4. Qualifiers were defined as follows:
   - J - Estimated values (- indicates likely biased low, + indicates likely biased high)
   - U - Non-Detect Value

ERT-MW-5A

		Sample Date	6/17/2014		6/5/2015		6/9/2016		6/7/2017		6/7/2018		6/5/2019	
CVOC	CAS RN	Units	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual
1,1,1-Trichloroethane	71-55-6	ug/l	0.84		0.88	J	0.38	J	0.75		0.78		1.4	
1,1-Dichloroethane	75-34-3	ug/l	1.3		1.4	J	0.79		1.4		1.3		2.3	
1,1-Dichloroethene	75-35-4	ug/l	0.31	J+		U		U		U	0.36	J	0.53	
Chloroform	67-66-3	ug/l	0.52		0.57	J		U	0.57		0.47	J	0.83	
Chloromethane	74-87-3	ug/l		U		U		U		U		U		U
cis-1,2-Dichloroethylene	156-59-2	ug/l	0.53	J+	0.59	J	0.26	J	0.5		0.47	J	0.83	
Tetrachloroethylene(PCE)	127-18-4	ug/l	0.3	J	0.38	J		U	0.38	J	0.37	J	0.66	
Trichloroethene (TCE)	79-01-6	ug/l		U	0.73	J		U	0.73		0.78		1.4	
Vinyl Chloride	75-01-4	ug/l		U		U		U		U		U		UJ
Total CVOCs		**ug/l**	**3.8**		**4.55**		**1.43**		**4.33**		**4.53**		**7.95**	

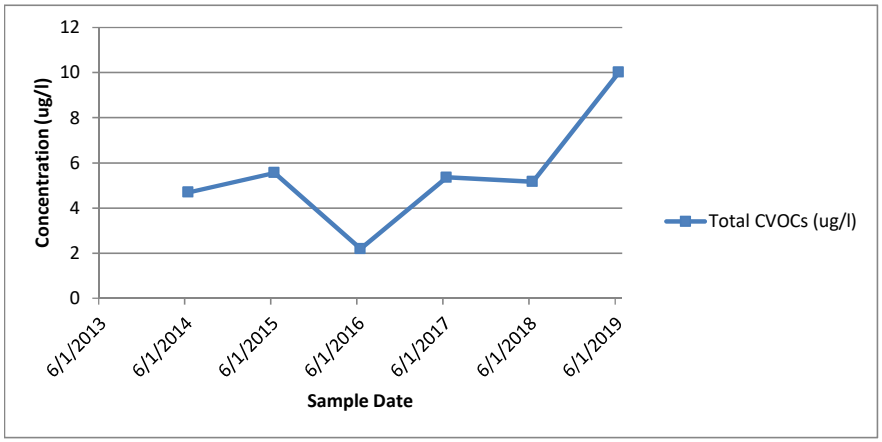


Notes:

1. Total CVOCs were calculated by adding the concentrations of the following VOCs:
   - 1,1,1-Trichloroethane
   - 1,1-Dichloroethane
   - 1,1-Dichloroethene
   - Chloroform
   - Chloromethane
   - cis-1,2-Dichloroethene
   - Tetrachloroethene
   - Trichloroethene
   - Vinyl Chloride
2. For non-detect (U qualified) results, a value of 0 was used.
3. NS = Not Sampled
4. Qualifiers were defined as follows:
   - J - Estimated values (- indicates likely biased low, + indicates likely biased high)
   - U - Non-Detect Value

ERT-MW-5B

		Sample Date	6/17/2014		6/5/2015		6/9/2016		6/7/2017		6/7/2018		6/5/2019	
CVOC	CAS RN	Units	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual
1,1,1-Trichloroethane	71-55-6	ug/l	1.2		1.3	J	0.64		1.1		1.1		2.1	
1,1-Dichloroethane	75-34-3	ug/l	1.7		1.9	J	1.3		1.8		1.8		3.1	
1,1-Dichloroethene	75-35-4	ug/l	0.35	J+		U		UJ	0.45	J	0.43	J	1	
Chloroform	67-66-3	ug/l	0.53		0.57	J		U	0.56		0.49	J	0.93	
Chloromethane	74-87-3	ug/l		U		U		U		U		U		U
cis-1,2-Dichloroethylene	156-59-2	ug/l	0.55	J+	0.57	J	0.25	J	0.39	J	0.33	J	0.6	
Tetrachloroethylene(PCE)	127-18-4	ug/l	0.36	J	0.44	J		U	0.38	J	0.4	J	0.88	
Trichloroethene (TCE)	79-01-6	ug/l		U	0.78	J		U	0.67		0.61		1.4	
Vinyl Chloride	75-01-4	ug/l		U		U		U		U		U		UJ
Total CVOCs		**ug/l**	**4.69**		**5.56**		**2.19**		**5.35**		**5.16**		**10.01**	

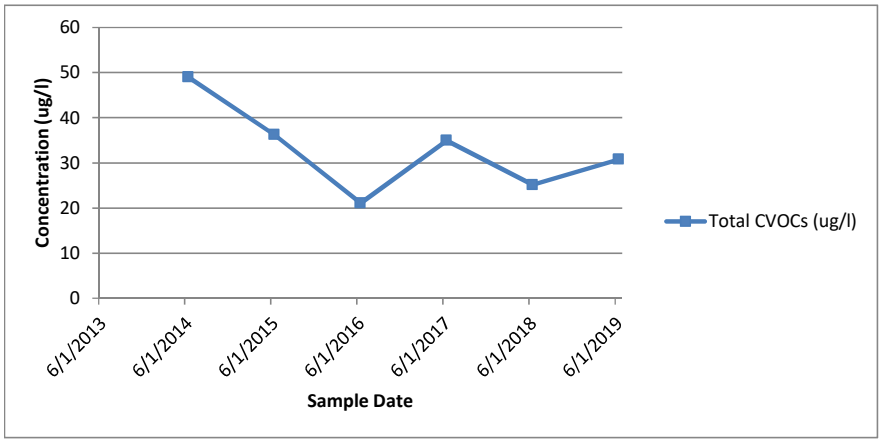


Notes:

1. Total CVOCs were calculated by adding the concentrations of the following VOCs:
   - 1,1,1-Trichloroethane
   - 1,1-Dichloroethane
   - 1,1-Dichloroethene
   - Chloroform
   - Chloromethane
   - cis-1,2-Dichloroethene
   - Tetrachloroethene
   - Trichloroethene
   - Vinyl Chloride
2. For non-detect (U qualified) results, a value of 0 was used.
3. NS = Not Sampled
4. Qualifiers were defined as follows:
   - J - Estimated values (- indicates likely biased low, + indicates likely biased high)
   - U - Non-Detect Value

ERT-MW-6A

		Sample Date	6/18/2014		6/8/2015		6/7/2016		6/8/2017		6/6/2018		6/4/2019	
CVOC	CAS RN	Units	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual
1,1,1-Trichloroethane	71-55-6	ug/l	0.81		0.62			U	0.52		0.49	J	0.59	
1,1-Dichloroethane	75-34-3	ug/l	1.4		1.2		0.57		1.1		0.95		1.1	
1,1-Dichloroethene	75-35-4	ug/l	0.4	J		U		UJ		UJ	0.3	J		U
Chloroform	67-66-3	ug/l	0.51		0.48	J		U		U	0.4	J	0.51	
Chloromethane	74-87-3	ug/l		U		U		U		U		U		U
cis-1,2-Dichloroethylene	156-59-2	ug/l	1.2	J+	1.3		0.5	J-	0.89	J-	0.64		0.57	
Tetrachloroethylene(PCE)	127-18-4	ug/l	0.68		0.64			U	0.45	J	0.35	J		U
Trichloroethene (TCE)	79-01-6	ug/l	44		32		20	D	32		22	D	28	
Vinyl Chloride	75-01-4	ug/l		U		U		U		U		U		UJ
Total CVOCs		**ug/l**	**49**		**36.24**		**21.07**		**34.96**		**25.13**		**30.77**	

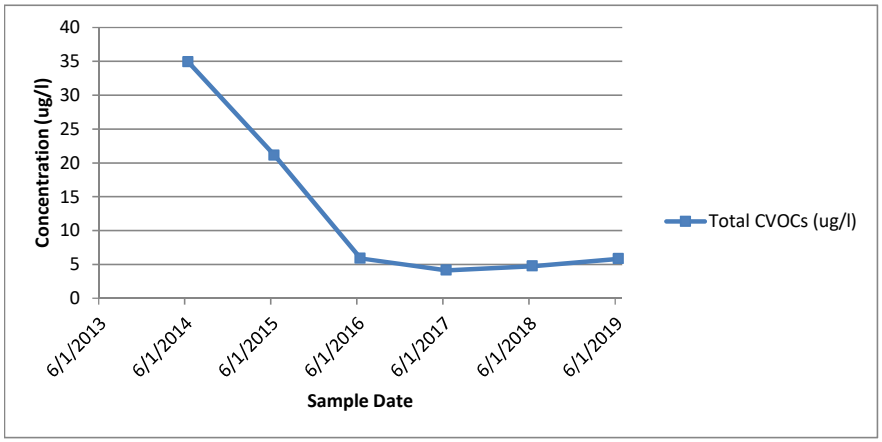


Notes:

1. Total CVOCs were calculated by adding the concentrations of the following VOCs:
   - 1,1,1-Trichloroethane
   - 1,1-Dichloroethane
   - 1,1-Dichloroethene
   - Chloroform
   - Chloromethane
   - cis-1,2-Dichloroethene
   - Tetrachloroethene
   - Trichloroethene
   - Vinyl Chloride
2. For non-detect (U qualified) results, a value of 0 was used.
3. NS = Not Sampled
4. Qualifiers were defined as follows:
   - J - Estimated values (- indicates likely biased low, + indicates likely biased high)
   - U - Non-Detect Value

ERT-MW-6B

		Sample Date	6/18/2014		6/8/2015		6/7/2016		6/8/2017		6/6/2018		6/4/2019	
CVOC	CAS RN	Units	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual
1,1,1-Trichloroethane	71-55-6	ug/l	0.7		0.58			U	0.36	J	0.4	J	0.51	
1,1-Dichloroethane	75-34-3	ug/l	1.1		1.1		0.49	J	0.66		0.72		0.89	
1,1-Dichloroethene	75-35-4	ug/l	0.32	J		U		UJ		U	0.21	J		U
Chloroform	67-66-3	ug/l	0.46	J	0.46	J		U		U	0.29	J		U
Chloromethane	74-87-3	ug/l		U		U		U		U		U		U
cis-1,2-Dichloroethylene	156-59-2	ug/l	0.78	J+	0.58			UJ		U		U		U
Tetrachloroethylene(PCE)	127-18-4	ug/l	0.52		0.37	J		U		U		U		U
Trichloroethene (TCE)	79-01-6	ug/l	31		18		5.4		3.1		3.1		4.4	
Vinyl Chloride	75-01-4	ug/l		U		U		U		U		U		UJ
Total CVOCs		**ug/l**	**34.88**		**21.09**		**5.89**		**4.12**		**4.72**		**5.8**	

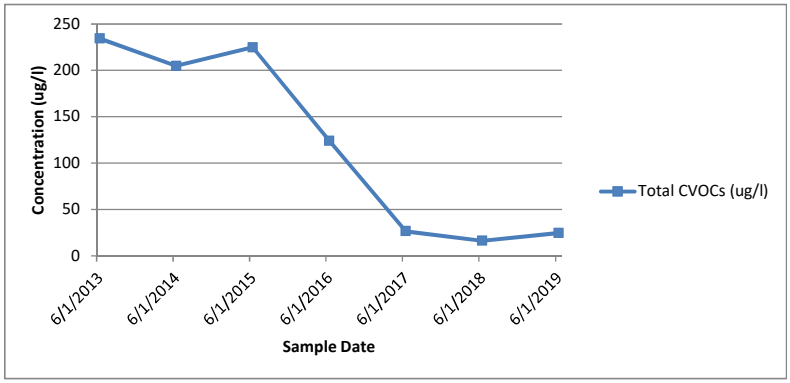


Notes:

1. Total CVOCs were calculated by adding the concentrations of the following VOCs:
   - 1,1,1-Trichloroethane
   - 1,1-Dichloroethane
   - 1,1-Dichloroethene
   - Chloroform
   - Chloromethane
   - cis-1,2-Dichloroethene
   - Tetrachloroethene
   - Trichloroethene
   - Vinyl Chloride
2. For non-detect (U qualified) results, a value of 0 was used.
3. NS = Not Sampled
4. Qualifiers were defined as follows:
   - J - Estimated values (- indicates likely biased low, + indicates likely biased high)
   - U - Non-Detect Value

IW-ISCO-10

		Sample Date	6/17/2013		6/19/2014		6/9/2015		6/16/2016		6/14/2017		6/14/2018		6/11/2019	
CVOC	CAS RN	Units	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual
1,1,1-Trichloroethane	71-55-6	ug/l		U		U		U		U		U		U		U
1,1-Dichloroethane	75-34-3	ug/l		U		U		U		U		U		U		U
1,1-Dichloroethene	75-35-4	ug/l		U		U		U		U		U		U		U
Chloroform	67-66-3	ug/l		U		U		U		U		U		U		U
Chloromethane	74-87-3	ug/l		U		U		U		U		U		U		U
cis-1,2-Dichloroethylene	156-59-2	ug/l		U	0.25	J	0.33	J	0.32	J		U		U		U
Tetrachloroethylene(PCE)	127-18-4	ug/l	4.4		4.5		4.5		3.7		0.72		0.38	J	0.78	
Trichloroethene (TCE)	79-01-6	ug/l	230		200		220		120	D	26		16	J	24	
Vinyl Chloride	75-01-4	ug/l		U		U		U		U		U		U		UJ
Total CVOCs		**ug/l**	**234.4**		**204.8**		**224.8**		**124**		**26.72**		**16.38**		**24.78**	

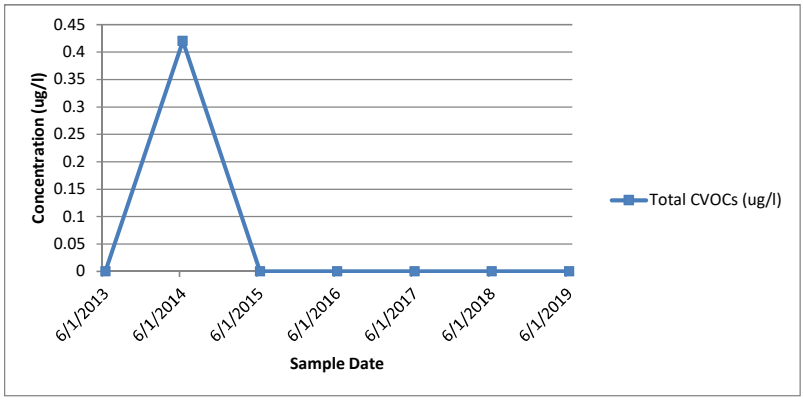


Notes:

1. Total CVOCs were calculated by adding the concentrations of the following VOCs:
   - 1,1,1-Trichloroethane
   - 1,1-Dichloroethane
   - 1,1-Dichloroethene
   - Chloroform
   - Chloromethane
   - cis-1,2-Dichloroethene
   - Tetrachloroethene
   - Trichloroethene
   - Vinyl Chloride
2. For non-detect (U qualified) results, a value of 0 was used.
3. NS = Not Sampled
4. Qualifiers were defined as follows:
   - J - Estimated values (- indicates likely biased low, + indicates likely biased high)
   - U - Non-Detect Value

MPW-01-A

		Sample Date	6/12/2013		6/10/2014		6/1/2015		6/8/2016		6/9/2017		6/12/2018		6/7/2019	
CVOC	CAS RN	Units	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual
1,1,1-Trichloroethane	71-55-6	ug/l		U		U		U		U		U		U		U
1,1-Dichloroethane	75-34-3	ug/l		U		U		U		U		U		U		U
1,1-Dichloroethene	75-35-4	ug/l		U		U		U		U		U		U		U
Chloroform	67-66-3	ug/l		U	0.3	J		U		U		U		U		U
Chloromethane	74-87-3	ug/l		U		U		U		U		U		U		U
cis-1,2-Dichloroethylene	156-59-2	ug/l		U		U		U		U		U		U		U
Tetrachloroethylene(PCE)	127-18-4	ug/l		U	0.12	J		U		U		U		U		U
Trichloroethene (TCE)	79-01-6	ug/l		U		U		U		U		U		U		U
Vinyl Chloride	75-01-4	ug/l		U		U		U		U		U		U		UJ
Total CVOCs		**ug/l**	**0**		**0.42**		**0**		**0**		**0**		**0**		**0**	

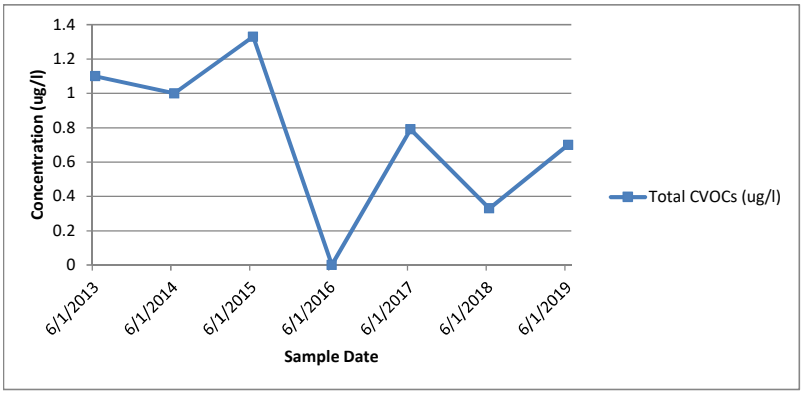


Notes:

1. Total CVOCs were calculated by adding the concentrations of the following VOCs:
   - 1,1,1-Trichloroethane
   - 1,1-Dichloroethane
   - 1,1-Dichloroethene
   - Chloroform
   - Chloromethane
   - cis-1,2-Dichloroethene
   - Tetrachloroethene
   - Trichloroethene
   - Vinyl Chloride
2. For non-detect (U qualified) results, a value of 0 was used.
3. NS = Not Sampled
4. Qualifiers were defined as follows:
   - J - Estimated values (- indicates likely biased low, + indicates likely biased high)
   - U - Non-Detect Value

MPW-01-B

		Sample Date	6/12/2013		6/10/2014		6/2/2015		6/8/2016		6/12/2017		6/12/2018		6/7/2019	
CVOC	CAS RN	Units	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual
1,1,1-Trichloroethane	71-55-6	ug/l		U		UJ		U		U		U		U		U
1,1-Dichloroethane	75-34-3	ug/l		U		U		U		U		U		U		U
1,1-Dichloroethene	75-35-4	ug/l		U		U		U		U		U		U		U
Chloroform	67-66-3	ug/l	1.1		0.82		1.1			U	0.79		0.33	J	0.7	
Chloromethane	74-87-3	ug/l		U		U		U		U		U		U		U
cis-1,2-Dichloroethylene	156-59-2	ug/l		U		U		U		U		U		U		U
Tetrachloroethylene(PCE)	127-18-4	ug/l		U	0.18	J	0.23	J		U		U		U		U
Trichloroethene (TCE)	79-01-6	ug/l		U		U		U		U		U		U		U
Vinyl Chloride	75-01-4	ug/l		U		U		U		U		U		U		UJ
Total CVOCs		**ug/l**	**1.1**		**1**		**1.33**		**0**		**0.79**		**0.33**		**0.7**	

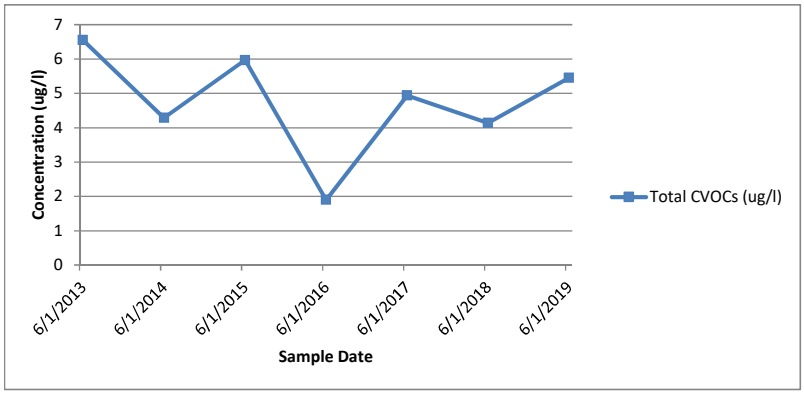


Notes:

1. Total CVOCs were calculated by adding the concentrations of the following VOCs:
   - 1,1,1-Trichloroethane
   - 1,1-Dichloroethane
   - 1,1-Dichloroethene
   - Chloroform
   - Chloromethane
   - cis-1,2-Dichloroethene
   - Tetrachloroethene
   - Trichloroethene
   - Vinyl Chloride
2. For non-detect (U qualified) results, a value of 0 was used.
3. NS = Not Sampled
4. Qualifiers were defined as follows:
   - J - Estimated values (- indicates likely biased low, + indicates likely biased high)
   - U - Non-Detect Value

MPW-01-C

		Sample Date	6/12/2013		6/10/2014		6/2/2015		6/8/2016		6/12/2017		6/12/2018		6/7/2019	
CVOC	CAS RN	Units	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual
1,1,1-Trichloroethane	71-55-6	ug/l	1.5		1		1.1		0.5		0.87		0.7		1	
1,1-Dichloroethane	75-34-3	ug/l	3		2.2		2.8		1.4		2.4		1.7		2.3	
1,1-Dichloroethene	75-35-4	ug/l	0.63		0.4	J	0.62			U		U	0.44	J	0.65	
Chloroform	67-66-3	ug/l	0.66		0.56		0.68			U	0.78		0.54		0.72	
Chloromethane	74-87-3	ug/l		U		U		U		U		U		U		U
cis-1,2-Dichloroethylene	156-59-2	ug/l		U		U		U		U		U		U		U
Tetrachloroethylene(PCE)	127-18-4	ug/l		U	0.13	J	0.19	J		U	0.24	J	0.19	J		U
Trichloroethene (TCE)	79-01-6	ug/l	0.76			U	0.58			U	0.65		0.57		0.78	
Vinyl Chloride	75-01-4	ug/l		U		U		U		U		U		U		UJ
Total CVOCs		**ug/l**	**6.55**		**4.29**		**5.97**		**1.9**		**4.94**		**4.14**		**5.45**	

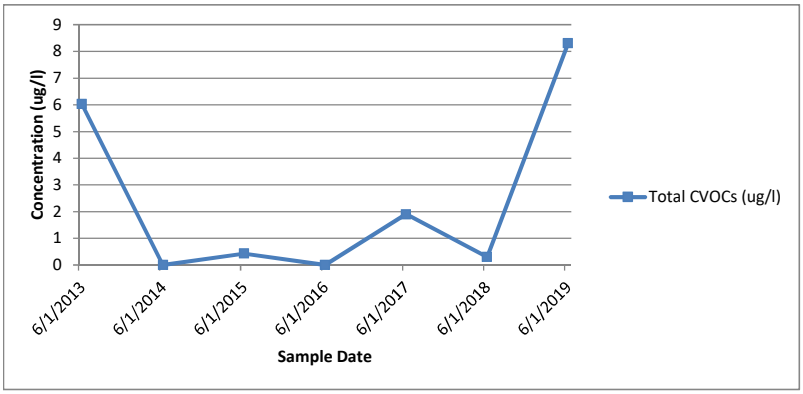


Notes:

1. Total CVOCs were calculated by adding the concentrations of the following VOCs:
   - 1,1,1-Trichloroethane
   - 1,1-Dichloroethane
   - 1,1-Dichloroethene
   - Chloroform
   - Chloromethane
   - cis-1,2-Dichloroethene
   - Tetrachloroethene
   - Trichloroethene
   - Vinyl Chloride
2. For non-detect (U qualified) results, a value of 0 was used.
3. NS = Not Sampled
4. Qualifiers were defined as follows:
   - J - Estimated values (- indicates likely biased low, + indicates likely biased high)
   - U - Non-Detect Value

MPW-02-B

		Sample Date	6/11/2013		6/12/2014		6/5/2015		6/9/2016		6/14/2017		6/12/2018		6/10/2019	
CVOC	CAS RN	Units	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual
1,1,1-Trichloroethane	71-55-6	ug/l	0.57			UJ		U		U		U		U		U
1,1-Dichloroethane	75-34-3	ug/l	0.79			UJ		U		U		U		U		U
1,1-Dichloroethene	75-35-4	ug/l		U		UJ		U		U		U		U		U
Chloroform	67-66-3	ug/l	0.5			UJ		U		U		U		U		U
Chloromethane	74-87-3	ug/l		U		UJ		U		U		U		U		U
cis-1,2-Dichloroethylene	156-59-2	ug/l		U		UJ		U		U		U		U		U
Tetrachloroethylene(PCE)	127-18-4	ug/l	0.57			UJ		U		U		U		U		U
Trichloroethene (TCE)	79-01-6	ug/l	3.6			UJ	0.43	J		U	1.9		0.3	J	8.3	
Vinyl Chloride	75-01-4	ug/l		U		UJ		U		U		U		U		UJ
Total CVOCs		**ug/l**	**6.03**		**0**		**0.43**		**0**		**1.9**		**0.3**		**8.3**	

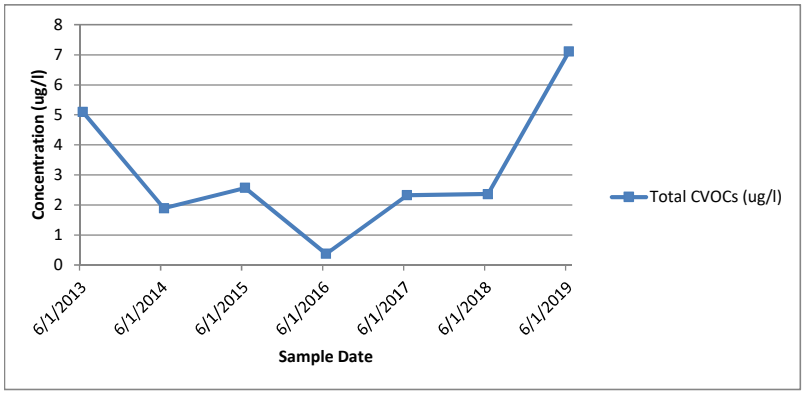


Notes:

1. Total CVOCs were calculated by adding the concentrations of the following VOCs:
   - 1,1,1-Trichloroethane
   - 1,1-Dichloroethane
   - 1,1-Dichloroethene
   - Chloroform
   - Chloromethane
   - cis-1,2-Dichloroethene
   - Tetrachloroethene
   - Trichloroethene
   - Vinyl Chloride
2. For non-detect (U qualified) results, a value of 0 was used.
3. NS = Not Sampled
4. Qualifiers were defined as follows:
   - J - Estimated values (- indicates likely biased low, + indicates likely biased high)
   - U - Non-Detect Value

MPW-02-C

		Sample Date	6/11/2013		6/12/2014		6/5/2015		6/9/2016		6/14/2017		6/12/2018		6/10/2019	
CVOC	CAS RN	Units	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual
1,1,1-Trichloroethane	71-55-6	ug/l	0.7		0.31	J	0.27	J		U	0.33	J	0.26	J		U
1,1-Dichloroethane	75-34-3	ug/l	0.99		0.37	J	0.34	J	0.37	J	0.62		0.45	J		U
1,1-Dichloroethene	75-35-4	ug/l		U	0.17	J		U		U		U	0.21	J		U
Chloroform	67-66-3	ug/l	1.3		0.93	J	1			U	0.95		1.1		1	
Chloromethane	74-87-3	ug/l		U		UJ		U		U		U		U		U
cis-1,2-Dichloroethylene	156-59-2	ug/l		U		UJ		U		U		U		U		U
Tetrachloroethylene(PCE)	127-18-4	ug/l		U	0.11	J	0.13	J		U		U		U		U
Trichloroethene (TCE)	79-01-6	ug/l	2.1			UJ	0.83			U	0.42	J	0.34	J	6.1	
Vinyl Chloride	75-01-4	ug/l		U		UJ		U		U		U		U		UJ
Total CVOCs		**ug/l**	**5.09**		**1.89**		**2.57**		**0.37**		**2.32**		**2.36**		**7.1**	

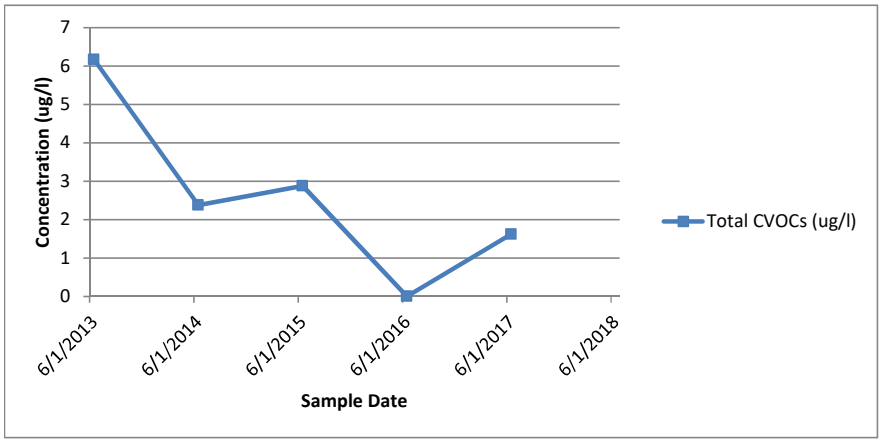


Notes:

1. Total CVOCs were calculated by adding the concentrations of the following VOCs:
   - 1,1,1-Trichloroethane
   - 1,1-Dichloroethane
   - 1,1-Dichloroethene
   - Chloroform
   - Chloromethane
   - cis-1,2-Dichloroethene
   - Tetrachloroethene
   - Trichloroethene
   - Vinyl Chloride
2. For non-detect (U qualified) results, a value of 0 was used.
3. NS = Not Sampled
4. Qualifiers were defined as follows:
   - J - Estimated values (- indicates likely biased low, + indicates likely biased high)
   - U - Non-Detect Value

MPW-02-D

		Sample Date	6/11/2013		6/12/2014		6/5/2015		6/9/2016		6/14/2017			
CVOC	CAS RN	Units	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual		
1,1,1-Trichloroethane	71-55-6	ug/l	1.3		0.35	J	0.38	J		U		U		
1,1-Dichloroethane	75-34-3	ug/l	1.7		0.42	J	0.49	J		U	0.25	J		
1,1-Dichloroethene	75-35-4	ug/l	0.57		0.22	J		U		U		U		
Chloroform	67-66-3	ug/l	1.2		1.2	J	1.2			U	1.1			
Chloromethane	74-87-3	ug/l		U		UJ		U		U		U		
cis-1,2-Dichloroethylene	156-59-2	ug/l		U		UJ		U		U		U		
Tetrachloroethylene(PCE)	127-18-4	ug/l		U	0.19	J	0.23	J		U		U		
Trichloroethene (TCE)	79-01-6	ug/l	1.4			UJ	0.58			U	0.27	J		
Vinyl Chloride	75-01-4	ug/l		U		UJ		U		U		U		
Total CVOCs		**ug/l**	**6.17**		**2.38**		**2.88**		**0**		**1.62**			



Notes:

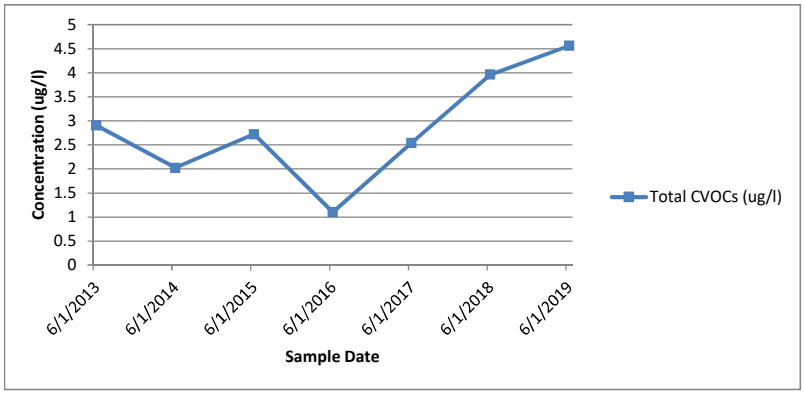
1. Total CVOCs were calculated by adding the concentrations of the following VOCs:
   - 1,1,1-Trichloroethane
   - 1,1-Dichloroethane
   - 1,1-Dichloroethene
   - Chloroform
   - Chloromethane
   - cis-1,2-Dichloroethene
   - Tetrachloroethene
   - Trichloroethene
   - Vinyl Chloride

***MPW-02-D was not sampled in 2018 or 2019.**

2. For non-detect (U qualified) results, a value of 0 was used.
3. NS = Not Sampled
4. Qualifiers were defined as follows:
   - J - Estimated values (- indicates likely biased low, + indicates likely biased high)
   - U - Non-Detect Value

MPW-03-B

		Sample Date	6/14/2013		6/12/2014		6/2/2015		6/9/2016		6/12/2017		6/11/2018		6/6/2019	
CVOC	CAS RN	Units	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual
1,1,1-Trichloroethane	71-55-6	ug/l		U		UJ		U		U		U		U		U
1,1-Dichloroethane	75-34-3	ug/l		U		UJ		U		U		U		U		U
1,1-Dichloroethene	75-35-4	ug/l		U		UJ		U		U		U		U		U
Chloroform	67-66-3	ug/l		U		UJ		U		U		U	0.27	J		U
Chloromethane	74-87-3	ug/l		U		UJ		U		U		U		U	0.93	K
cis-1,2-Dichloroethylene	156-59-2	ug/l		U		UJ		U		U		U		U		U
Tetrachloroethylene(PCE)	127-18-4	ug/l		U	0.22	J	0.32	J		U	0.34	J	0.39	J	0.53	
Trichloroethene (TCE)	79-01-6	ug/l	2.9		1.8	J	2.4	J	1.1		2.2		3.3		3.1	
Vinyl Chloride	75-01-4	ug/l		U		UJ		U		U		U		U		UJ
Total CVOCs		**ug/l**	**2.9**		**2.02**		**2.72**		**1.1**		**2.54**		**3.96**		**4.56**	

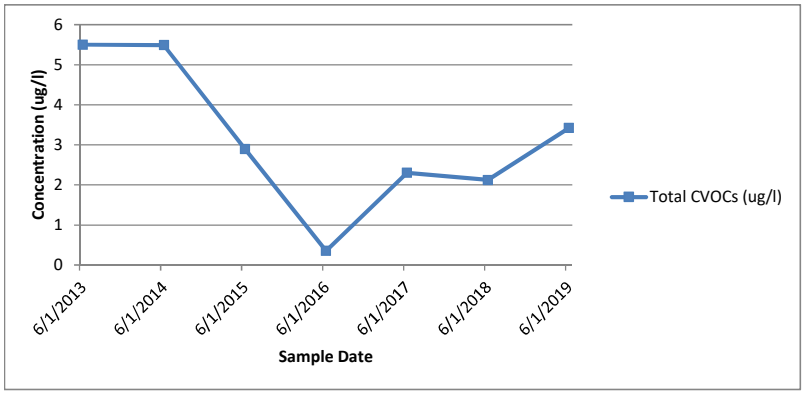


Notes:

1. Total CVOCs were calculated by adding the concentrations of the following VOCs:
   - 1,1,1-Trichloroethane
   - 1,1-Dichloroethane
   - 1,1-Dichloroethene
   - Chloroform
   - Chloromethane
   - cis-1,2-Dichloroethene
   - Tetrachloroethene
   - Trichloroethene
   - Vinyl Chloride
2. For non-detect (U qualified) results, a value of 0 was used.
3. NS = Not Sampled
4. Qualifiers were defined as follows:
   - J - Estimated values (- indicates likely biased low, + indicates likely biased high)
   - U - Non-Detect Value

MPW-03-C

		Sample Date	6/14/2013		6/12/2014		6/4/2015		6/9/2016		6/12/2017		6/11/2018		6/6/2019	
CVOC	CAS RN	Units	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual
1,1,1-Trichloroethane	71-55-6	ug/l		U	0.36	J	0.45	J		U	0.37	J	0.28	J+	0.51	
1,1-Dichloroethane	75-34-3	ug/l		U	0.5	J	0.65	J+	0.35	J	0.61		0.53		0.83	
1,1-Dichloroethene	75-35-4	ug/l		U	0.17	J		U		U		U		U		U
Chloroform	67-66-3	ug/l		U	0.38	J		U		U		U	0.44	J		U
Chloromethane	74-87-3	ug/l		U		UJ		U		U		U		U	0.98	K
cis-1,2-Dichloroethylene	156-59-2	ug/l		U		UJ		U		U		U		U		U
Tetrachloroethylene(PCE)	127-18-4	ug/l		U	0.38	J	0.19	J		U	0.22	J		U		U
Trichloroethene (TCE)	79-01-6	ug/l	5.5		3.7	J	1.6			U	1.1		0.87		1.1	
Vinyl Chloride	75-01-4	ug/l		U		UJ		U		U		U		U		UJ
Total CVOCs		**ug/l**	**5.5**	**U**	**5.49**		**2.89**		**0.35**		**2.3**		**2.12**		**3.42**	

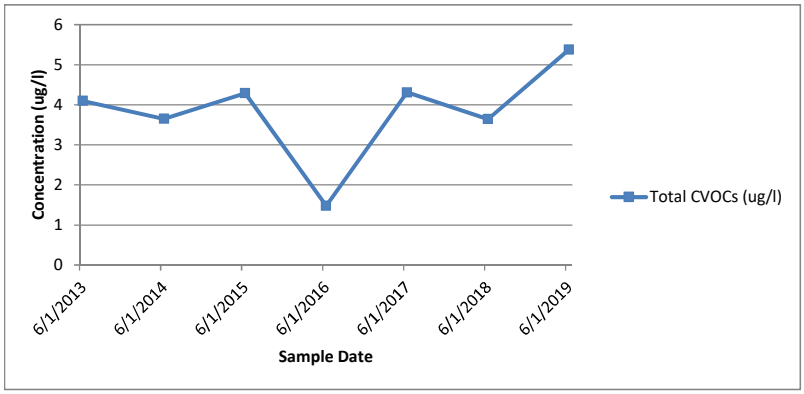


Notes:

1. Total CVOCs were calculated by adding the concentrations of the following VOCs:
   - 1,1,1-Trichloroethane
   - 1,1-Dichloroethane
   - 1,1-Dichloroethene
   - Chloroform
   - Chloromethane
   - cis-1,2-Dichloroethene
   - Tetrachloroethene
   - Trichloroethene
   - Vinyl Chloride
2. For non-detect (U qualified) results, a value of 0 was used.
3. NS = Not Sampled
4. Qualifiers were defined as follows:
   - J - Estimated values (- indicates likely biased low, + indicates likely biased high)
   - U - Non-Detect Value

MPW-03-D

		Sample Date	6/14/2013		6/12/2014		6/2/2015		6/9/2016		6/12/2017		6/11/2018		6/10/2019	
CVOC	CAS RN	Units	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual
1,1,1-Trichloroethane	71-55-6	ug/l		U	0.2	J	0.32	J		U	0.32	J	0.28	J+		U
1,1-Dichloroethane	75-34-3	ug/l	1.2		0.95	J	1		0.48	J	0.81		0.61		0.83	
1,1-Dichloroethene	75-35-4	ug/l		U		UJ		U		U		U		U		U
Chloroform	67-66-3	ug/l		U		UJ		U		U		U	0.21	J		U
Chloromethane	74-87-3	ug/l		U		UJ		U		U		U		U		U
cis-1,2-Dichloroethylene	156-59-2	ug/l		U	0.11	J		U		U		U		U		U
Tetrachloroethylene(PCE)	127-18-4	ug/l		U	0.29	J	0.37	J		U	0.38	J	0.34	J	0.55	
Trichloroethene (TCE)	79-01-6	ug/l	2.9		2.1	J	2.6		1		2.8		2.2		4	
Vinyl Chloride	75-01-4	ug/l		U		UJ		U		U		U		U		UJ
Total CVOCs		**ug/l**	**4.1**		**3.65**		**4.29**		**1.48**		**4.31**		**3.64**		**5.38**	

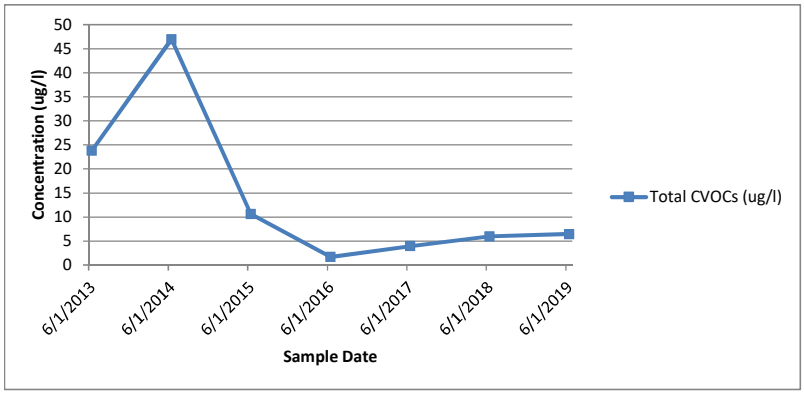


Notes:

1. Total CVOCs were calculated by adding the concentrations of the following VOCs:
   - 1,1,1-Trichloroethane
   - 1,1-Dichloroethane
   - 1,1-Dichloroethene
   - Chloroform
   - Chloromethane
   - cis-1,2-Dichloroethene
   - Tetrachloroethene
   - Trichloroethene
   - Vinyl Chloride
2. For non-detect (U qualified) results, a value of 0 was used.
3. NS = Not Sampled
4. Qualifiers were defined as follows:
   - J - Estimated values (- indicates likely biased low, + indicates likely biased high)
   - U - Non-Detect Value

MPW-04-B

		Sample Date	6/14/2013		6/13/2014		6/4/2015		6/13/2016		6/8/2017		6/11/2018		6/10/2019	
CVOC	CAS RN	Units	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual
1,1,1-Trichloroethane	71-55-6	ug/l		U		U	0.11	J		U	0.2	J		U		U
1,1-Dichloroethane	75-34-3	ug/l		U		U	0.16	J		U	0.28	J		U		U
1,1-Dichloroethene	75-35-4	ug/l		U		U		U		UJ		UJ		U		U
Chloroform	67-66-3	ug/l		U	0.42	J	0.72	J	0.75		0.65		0.45	J	0.63	
Chloromethane	74-87-3	ug/l		U		U		U		U		U		U		U
cis-1,2-Dichloroethylene	156-59-2	ug/l		U	0.55	J+		U		UJ		UJ		U		U
Tetrachloroethylene(PCE)	127-18-4	ug/l	8.8		14		3.3	J	0.91		1.3		2.3		2.4	
Trichloroethene (TCE)	79-01-6	ug/l	15		32		6.3	J		U	1.5	J	3.2		3.4	
Vinyl Chloride	75-01-4	ug/l		U		U		U		U		U		U		UJ
Total CVOCs		**ug/l**	**23.8**		**46.97**		**10.59**		**1.66**		**3.93**		**5.95**		**6.43**	

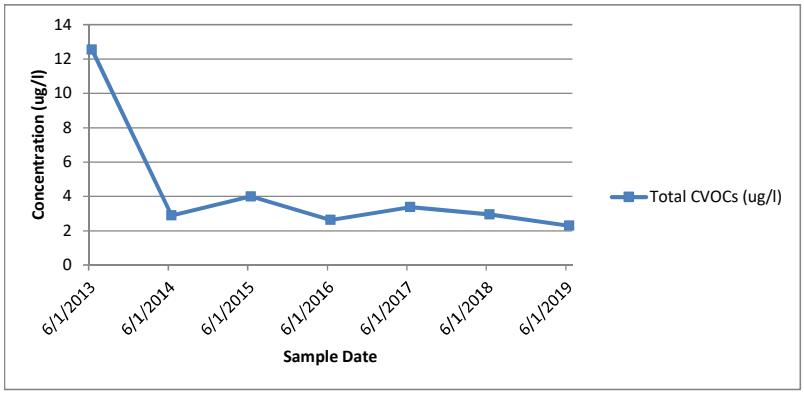


Notes:

1. Total CVOCs were calculated by adding the concentrations of the following VOCs:
   - 1,1,1-Trichloroethane
   - 1,1-Dichloroethane
   - 1,1-Dichloroethene
   - Chloroform
   - Chloromethane
   - cis-1,2-Dichloroethene
   - Tetrachloroethene
   - Trichloroethene
   - Vinyl Chloride
2. For non-detect (U qualified) results, a value of 0 was used.
3. NS = Not Sampled
4. Qualifiers were defined as follows:
   - J - Estimated values (- indicates likely biased low, + indicates likely biased high)
   - U - Non-Detect Value

MPW-04-D

		Sample Date	6/14/2013		6/13/2014		6/4/2015		6/13/2016		6/9/2017		6/11/2018		6/10/2019	
CVOC	CAS RN	Units	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual
1,1,1-Trichloroethane	71-55-6	ug/l		U	0.6		0.91		0.84		0.57		0.31	J		U
1,1-Dichloroethane	75-34-3	ug/l		U	0.9		1.3		1.2		0.99		0.51			U
1,1-Dichloroethene	75-35-4	ug/l		U	0.27	J		U		UJ		U	0.21	J		U
Chloroform	67-66-3	ug/l	0.55		0.7		0.77			U	0.72		0.67		0.9	
Chloromethane	74-87-3	ug/l		U		U		U		U		U		U		U
cis-1,2-Dichloroethylene	156-59-2	ug/l		U		U		U		UJ		U		U		U
Tetrachloroethylene(PCE)	127-18-4	ug/l	2		0.42	J	0.56		0.59		0.59		0.63		0.77	
Trichloroethene (TCE)	79-01-6	ug/l	10			U	0.46	J		U	0.5		0.61		0.62	
Vinyl Chloride	75-01-4	ug/l		U		U		U		U		U		U		UJ
Total CVOCs		**ug/l**	**12.55**		**2.89**		**4**		**2.63**		**3.37**		**2.94**		**2.29**	

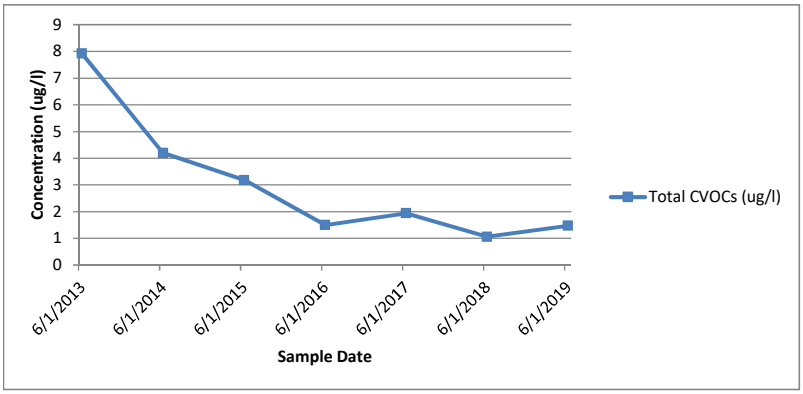


Notes:

1. Total CVOCs were calculated by adding the concentrations of the following VOCs:
   - 1,1,1-Trichloroethane
   - 1,1-Dichloroethane
   - 1,1-Dichloroethene
   - Chloroform
   - Chloromethane
   - cis-1,2-Dichloroethene
   - Tetrachloroethene
   - Trichloroethene
   - Vinyl Chloride
2. For non-detect (U qualified) results, a value of 0 was used.
3. NS = Not Sampled
4. Qualifiers were defined as follows:
   - J - Estimated values (- indicates likely biased low, + indicates likely biased high)
   - U - Non-Detect Value

MPW-04-E

		Sample Date	6/14/2013		6/13/2014		6/9/2015		6/13/2016		6/9/2017		6/13/2018		6/12/2019	
CVOC	CAS RN	Units	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual
1,1,1-Trichloroethane	71-55-6	ug/l	2.2		0.91		0.73		0.39	J	0.26	J		U		U
1,1-Dichloroethane	75-34-3	ug/l	2.6		1.6		0.96		0.58		0.34	J	0.2	J		U
1,1-Dichloroethene	75-35-4	ug/l	0.74		0.52	J+		U		U		U		U		U
Chloroform	67-66-3	ug/l	0.8		0.76		0.65		0.53		0.68		0.53		0.86	
Chloromethane	74-87-3	ug/l		U		U		U		U		U		U		U
cis-1,2-Dichloroethylene	156-59-2	ug/l		U		U		U		U		U		U		U
Tetrachloroethylene(PCE)	127-18-4	ug/l	0.7		0.41	J	0.38	J		U	0.26	J		U		U
Trichloroethene (TCE)	79-01-6	ug/l	0.88			U	0.46	J		U	0.4	J	0.33	J	0.61	
Vinyl Chloride	75-01-4	ug/l		U		U		U		U		U		U		UJ
Total CVOCs		**ug/l**	**7.92**		**4.2**		**3.18**		**1.5**		**1.94**		**1.06**		**1.47**	

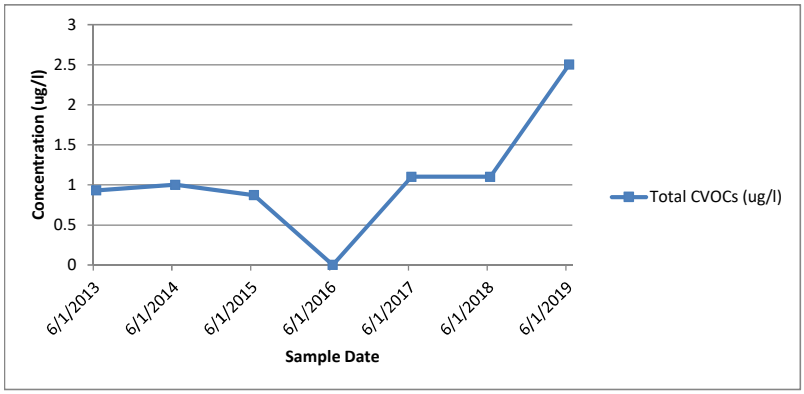


Notes:

1. Total CVOCs were calculated by adding the concentrations of the following VOCs:
   - 1,1,1-Trichloroethane
   - 1,1-Dichloroethane
   - 1,1-Dichloroethene
   - Chloroform
   - Chloromethane
   - cis-1,2-Dichloroethene
   - Tetrachloroethene
   - Trichloroethene
   - Vinyl Chloride
2. For non-detect (U qualified) results, a value of 0 was used.
3. NS = Not Sampled
4. Qualifiers were defined as follows:
   - J - Estimated values (- indicates likely biased low, + indicates likely biased high)
   - U - Non-Detect Value

MPW-05-A

		Sample Date	6/13/2013		6/16/2014		6/8/2015		6/10/2016		6/7/2017		6/6/2018		6/5/2019	
CVOC	CAS RN	Units	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual
1,1,1-Trichloroethane	71-55-6	ug/l		U		U		U		U		U		U		U
1,1-Dichloroethane	75-34-3	ug/l		U		U		U		U		U		U		U
1,1-Dichloroethene	75-35-4	ug/l		U		U		U		U		U		U		U
Chloroform	67-66-3	ug/l	0.93		1		0.87	J		U	1.1		1.1		1.6	
Chloromethane	74-87-3	ug/l		U		U		U		U		U		U	0.9	K
cis-1,2-Dichloroethylene	156-59-2	ug/l		U		U		U		U		U		U		U
Tetrachloroethylene(PCE)	127-18-4	ug/l		U		U		U		U		U		U		U
Trichloroethene (TCE)	79-01-6	ug/l		U		U		U		U		U		U		U
Vinyl Chloride	75-01-4	ug/l		U		U		U		U		U		U		UJ
Total CVOCs		**ug/l**	**0.93**		**1**		**0.87**		**0**		**1.1**		**1.1**		**2.5**	

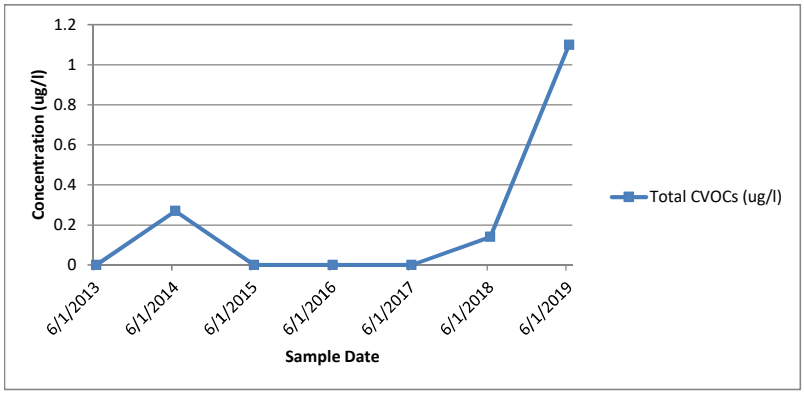


Notes:

1. Total CVOCs were calculated by adding the concentrations of the following VOCs:
   - 1,1,1-Trichloroethane
   - 1,1-Dichloroethane
   - 1,1-Dichloroethene
   - Chloroform
   - Chloromethane
   - cis-1,2-Dichloroethene
   - Tetrachloroethene
   - Trichloroethene
   - Vinyl Chloride
2. For non-detect (U qualified) results, a value of 0 was used.
3. NS = Not Sampled
4. Qualifiers were defined as follows:
   - J - Estimated values (- indicates likely biased low, + indicates likely biased high)
   - U - Non-Detect Value

MW-05-B

		Sample Date	6/13/2013		6/16/2014		6/8/2015		6/10/2016		6/7/2017		6/6/2018		6/5/2019	
CVOC	CAS RN	Units	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual
1,1,1-Trichloroethane	71-55-6	ug/l		U		U		U		U		U		U		U
1,1-Dichloroethane	75-34-3	ug/l		U		U		U		U		U		U		U
1,1-Dichloroethene	75-35-4	ug/l		U		U		U		U		U		U		U
Chloroform	67-66-3	ug/l		U	0.27	J		U		U		U	0.14	J		U
Chloromethane	74-87-3	ug/l		U		U		U		U		U		U	1.1	K
cis-1,2-Dichloroethylene	156-59-2	ug/l		U		U		U		U		U		U		U
Tetrachloroethylene(PCE)	127-18-4	ug/l		U		U		U		U		U		U		U
Trichloroethene (TCE)	79-01-6	ug/l		U		U		U		U		U		U		U
Vinyl Chloride	75-01-4	ug/l		U		U		U		U		U		U		UJ
Total CVOCs		**ug/l**	**0**		**0.27**		**0**		**0**		**0**		**0.14**		**1.1**	

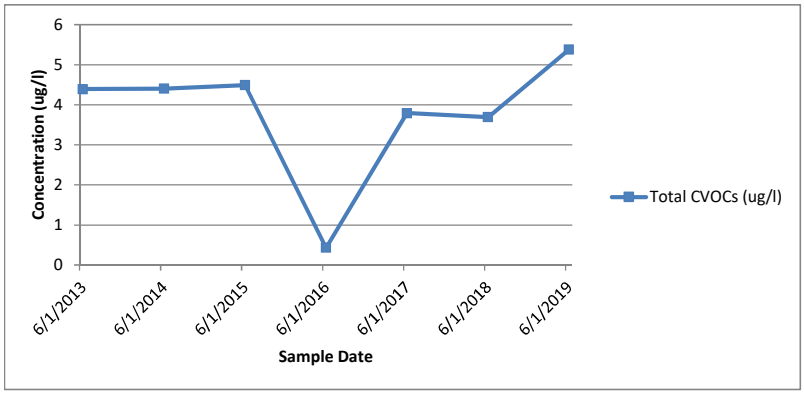


Notes:

1. Total CVOCs were calculated by adding the concentrations of the following VOCs:
   - 1,1,1-Trichloroethane
   - 1,1-Dichloroethane
   - 1,1-Dichloroethene
   - Chloroform
   - Chloromethane
   - cis-1,2-Dichloroethene
   - Tetrachloroethene
   - Trichloroethene
   - Vinyl Chloride
2. For non-detect (U qualified) results, a value of 0 was used.
3. NS = Not Sampled
4. Qualifiers were defined as follows:
   - J - Estimated values (- indicates likely biased low, + indicates likely biased high)
   - U - Non-Detect Value

MPW-05-C

		Sample Date	6/13/2013		6/16/2014		6/8/2015		6/10/2016		6/7/2017		6/6/2018		6/5/2019	
CVOC	CAS RN	Units	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual
1,1,1-Trichloroethane	71-55-6	ug/l	0.69		0.64		0.71			U	0.51		0.38	J		U
1,1-Dichloroethane	75-34-3	ug/l	0.7		0.66		0.77		0.43	J	0.64		0.47	J	0.53	
1,1-Dichloroethene	75-35-4	ug/l		U	0.19	J+		U		UJ		U		U		U
Chloroform	67-66-3	ug/l		U	0.44	J	0.48	J		U	0.56		0.48	J	0.73	
Chloromethane	74-87-3	ug/l		U		U		U		U		U		U	0.94	K
cis-1,2-Dichloroethylene	156-59-2	ug/l		U		U		U		UJ		U		U		U
Tetrachloroethylene(PCE)	127-18-4	ug/l		U	0.27	J	0.33	J		U	0.48	J	0.66		0.98	
Trichloroethene (TCE)	79-01-6	ug/l	3		2.2		1.7			U	1.60		1.7		2.2	
Vinyl Chloride	75-01-4	ug/l		U		U	0.5	UJ		U		U		U		UJ
Total CVOCs		**ug/l**	**4.39**		**4.4**		**4.49**		**0.43**		**3.79**		**3.69**		**5.38**	

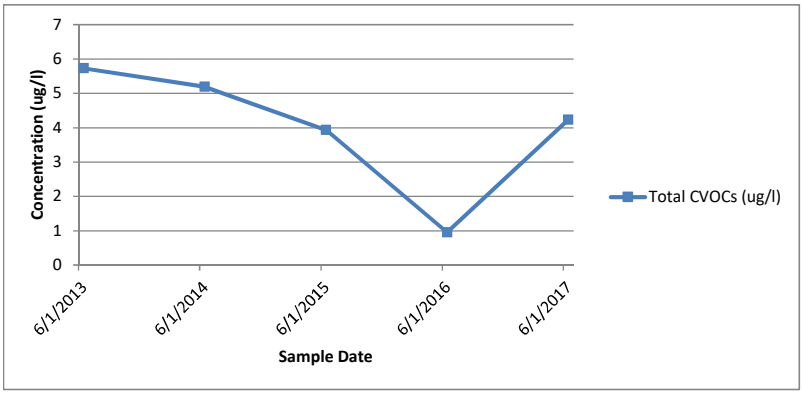


Notes:

1. Total CVOCs were calculated by adding the concentrations of the following VOCs:
   - 1,1,1-Trichloroethane
   - 1,1-Dichloroethane
   - 1,1-Dichloroethene
   - Chloroform
   - Chloromethane
   - cis-1,2-Dichloroethene
   - Tetrachloroethene
   - Trichloroethene
   - Vinyl Chloride
2. For non-detect (U qualified) results, a value of 0 was used.
3. NS = Not Sampled
4. Qualifiers were defined as follows:
   - J - Estimated values (- indicates likely biased low, + indicates likely biased high)
   - U - Non-Detect Value

MPW-05-D

		Sample Date	6/13/2013		6/16/2014		6/8/2015		6/10/2016		6/7/2017		6/6/2018		6/5/2019	
CVOC	CAS RN	Units	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual
1,1,1-Trichloroethane	71-55-6	ug/l	0.78		0.71		0.65		0.41	J	0.73		0.62		0.75	
1,1-Dichloroethane	75-34-3	ug/l	0.85		0.89		0.76		0.54		0.94		0.87		0.89	
1,1-Dichloroethene	75-35-4	ug/l		U	0.23	J+		U		UJ		U	0.26	J		U
Chloroform	67-66-3	ug/l		U	0.36	J		U		U	0.56		0.54		0.73	
Chloromethane	74-87-3	ug/l		U		U		U		U		U		U		U
cis-1,2-Dichloroethylene	156-59-2	ug/l		U		U		U		UJ		U		U		U
Tetrachloroethylene(PCE)	127-18-4	ug/l		U	0.3	J	0.32	J		U	0.40	J	0.54		1.1	
Trichloroethene (TCE)	79-01-6	ug/l	4.1		2.7		2.2			U	1.60		1.6		2.4	
Vinyl Chloride	75-01-4	ug/l		U		U		U		U		U		U		UJ
Total CVOCs		**ug/l**	**5.73**		**5.19**		**3.93**		**0.95**		**4.23**		**4.43**		**5.87**	

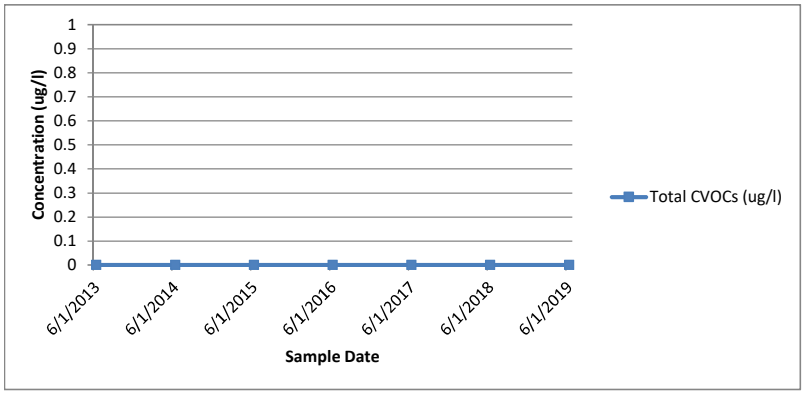


Notes:

1. Total CVOCs were calculated by adding the concentrations of the following VOCs:
   - 1,1,1-Trichloroethane
   - 1,1-Dichloroethane
   - 1,1-Dichloroethene
   - Chloroform
   - Chloromethane
   - cis-1,2-Dichloroethene
   - Tetrachloroethene
   - Trichloroethene
   - Vinyl Chloride
2. For non-detect (U qualified) results, a value of 0 was used.
3. NS = Not Sampled
4. Qualifiers were defined as follows:
   - J - Estimated values (- indicates likely biased low, + indicates likely biased high)
   - U - Non-Detect Value

MPW-06-A

		Sample Date	6/17/2013		6/18/2014		6/8/2015		6/14/2016		6/7/2017		6/6/2018		6/5/2019	
CVOC	CAS RN	Units	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual
1,1,1-Trichloroethane	71-55-6	ug/l		U		U		U		U		U		U		U
1,1-Dichloroethane	75-34-3	ug/l		U		U		U		U		U		U		U
1,1-Dichloroethene	75-35-4	ug/l		U		U		U		U		UJ		U		U
Chloroform	67-66-3	ug/l		U		U		U		U		U		U		U
Chloromethane	74-87-3	ug/l		U		U		U		U		U		U		U
cis-1,2-Dichloroethylene	156-59-2	ug/l		U		U		U		U		UJ		U		U
Tetrachloroethylene(PCE)	127-18-4	ug/l		U		U		U		U		U		U		U
Trichloroethene (TCE)	79-01-6	ug/l		U		U		U		U		U		U		U
Vinyl Chloride	75-01-4	ug/l		U		U		U		U		U		U		UJ
Total CVOCs		**ug/l**	**0**		**0**		**0**		**0**		**0**		**0**		**0**	

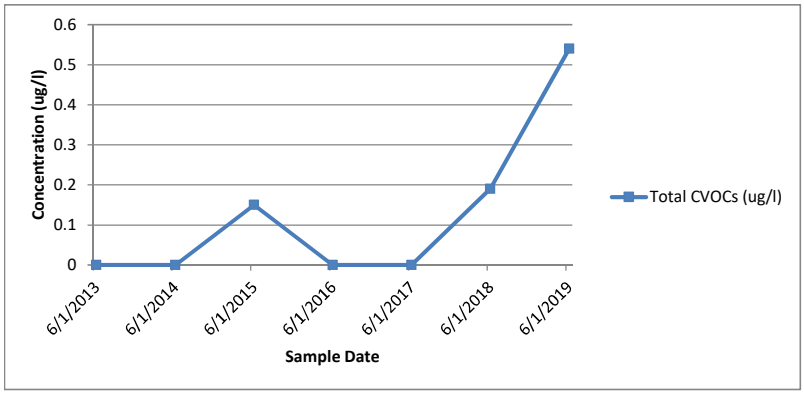


Notes:

1. Total CVOCs were calculated by adding the concentrations of the following VOCs:
   - 1,1,1-Trichloroethane
   - 1,1-Dichloroethane
   - 1,1-Dichloroethene
   - Chloroform
   - Chloromethane
   - cis-1,2-Dichloroethene
   - Tetrachloroethene
   - Trichloroethene
   - Vinyl Chloride
2. For non-detect (U qualified) results, a value of 0 was used.
3. NS = Not Sampled
4. Qualifiers were defined as follows:
   - J - Estimated values (- indicates likely biased low, + indicates likely biased high)
   - U - Non-Detect Value

MPW-06-B

		Sample Date	6/17/2013		6/18/2014		6/8/2015		6/14/2016		6/7/2017		6/6/2018		6/5/2019	
CVOC	CAS RN	Units	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual
1,1,1-Trichloroethane	71-55-6	ug/l		U		U		U		U		U		U		U
1,1-Dichloroethane	75-34-3	ug/l		U		U		U		U		U		U		U
1,1-Dichloroethene	75-35-4	ug/l		U		U		U		U		UJ		U		U
Chloroform	67-66-3	ug/l		U		U		U		U		U		U		U
Chloromethane	74-87-3	ug/l		U		U		U		U		U		U		U
cis-1,2-Dichloroethylene	156-59-2	ug/l		U		U		U		U		UJ		U		U
Tetrachloroethylene(PCE)	127-18-4	ug/l		U		U		U		U		U		U		U
Trichloroethene (TCE)	79-01-6	ug/l		U		U	0.15	J		U		U	0.19	J	0.54	
Vinyl Chloride	75-01-4	ug/l		U		U		U		U		U		U		UJ
Total CVOCs		**ug/l**	**0**		**0**		**0.15**		**0**		**0**		**0.19**		**0.54**	

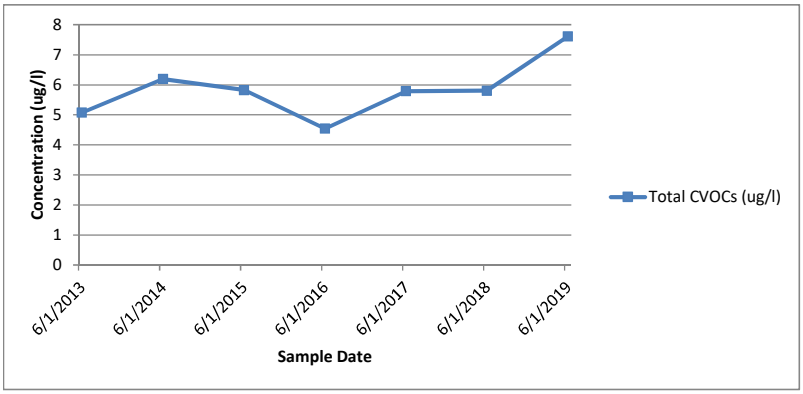


Notes:

1. Total CVOCs were calculated by adding the concentrations of the following VOCs:
   - 1,1,1-Trichloroethane
   - 1,1-Dichloroethane
   - 1,1-Dichloroethene
   - Chloroform
   - Chloromethane
   - cis-1,2-Dichloroethene
   - Tetrachloroethene
   - Trichloroethene
   - Vinyl Chloride
2. For non-detect (U qualified) results, a value of 0 was used.
3. NS = Not Sampled
4. Qualifiers were defined as follows:
   - J - Estimated values (- indicates likely biased low, + indicates likely biased high)
   - U - Non-Detect Value

MPW-06-D

		Sample Date	6/17/2013		6/18/2014		6/8/2015		6/14/2016		6/7/2017		6/6/2018		6/5/2019	
CVOC	CAS RN	Units	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual
1,1,1-Trichloroethane	71-55-6	ug/l		U	0.4	J	0.47	J	0.4	J	0.57		0.56		0.77	
1,1-Dichloroethane	75-34-3	ug/l	0.77		0.8		1		0.84		1.2		1.1		1.4	
1,1-Dichloroethene	75-35-4	ug/l		U	0.25	J		U		U		U	0.37	J		U
Chloroform	67-66-3	ug/l		U	0.53		0.54			U	0.51		0.47	J	0.62	
Chloromethane	74-87-3	ug/l		U		U		U		U		U		U	0.82	K
cis-1,2-Dichloroethylene	156-59-2	ug/l		U	0.11	J		U		U		U		U		U
Tetrachloroethylene(PCE)	127-18-4	ug/l		U		U	0.11	J		U		U		U		U
Trichloroethene (TCE)	79-01-6	ug/l	4.3		4.1		3.7		3.3		3.5		3.3		4	
Vinyl Chloride	75-01-4	ug/l		U		U		U		U		U		U		UJ
Total CVOCs		**ug/l**	**5.07**		**6.19**		**5.82**		**4.54**		**5.78**		**5.8**		**7.61**	

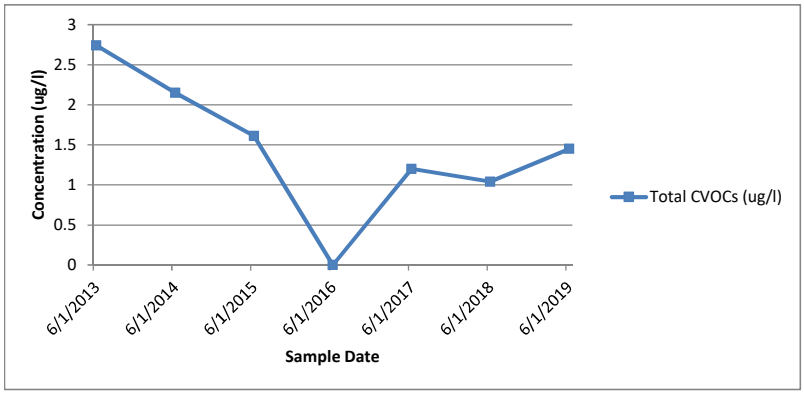


Notes:

1. Total CVOCs were calculated by adding the concentrations of the following VOCs:
   - 1,1,1-Trichloroethane
   - 1,1-Dichloroethane
   - 1,1-Dichloroethene
   - Chloroform
   - Chloromethane
   - cis-1,2-Dichloroethene
   - Tetrachloroethene
   - Trichloroethene
   - Vinyl Chloride
2. For non-detect (U qualified) results, a value of 0 was used.
3. NS = Not Sampled
4. Qualifiers were defined as follows:
   - J - Estimated values (- indicates likely biased low, + indicates likely biased high)
   - U - Non-Detect Value

MPW-08-A

		Sample Date	6/12/2013		6/17/2014		6/9/2015		6/7/2016		6/6/2017		6/5/2018		6/4/2019	
CVOC	CAS RN	Units	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual
1,1,1-Trichloroethane	71-55-6	ug/l		U		U		U		U		U		U		U
1,1-Dichloroethane	75-34-3	ug/l		U		U		U		U		U		U		U
1,1-Dichloroethene	75-35-4	ug/l		U		U		U		U		U		U		U
Chloroform	67-66-3	ug/l	0.84		0.85		0.85			U	0.67		0.7		0.85	
Chloromethane	74-87-3	ug/l		U		U		U		U		U		U	0.6	
cis-1,2-Dichloroethylene	156-59-2	ug/l		U		U		U		U		U		U		U
Tetrachloroethylene(PCE)	127-18-4	ug/l		U		U		U		U		U		U		U
Trichloroethene (TCE)	79-01-6	ug/l	1.9		1.3		0.76			U	0.53		0.34	J		U
Vinyl Chloride	75-01-4	ug/l		U		U		U		U		U		U		UJ
Total CVOCs		**ug/l**	**2.74**		**2.15**		**1.61**		**0**		**1.2**		**1.04**		**1.45**	

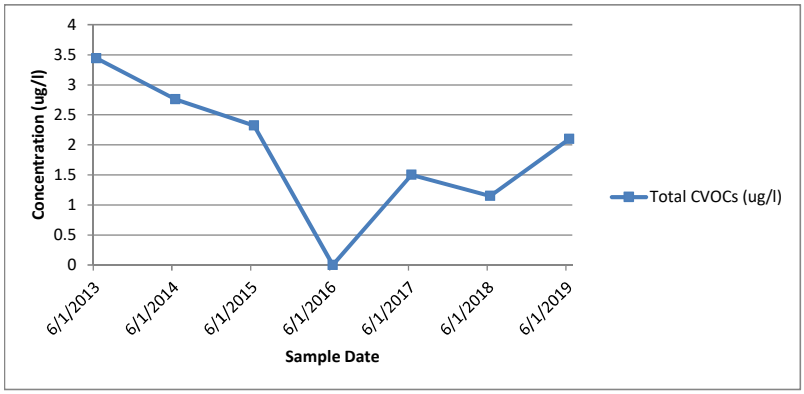


Notes:

1. Total CVOCs were calculated by adding the concentrations of the following VOCs:
   - 1,1,1-Trichloroethane
   - 1,1-Dichloroethane
   - 1,1-Dichloroethene
   - Chloroform
   - Chloromethane
   - cis-1,2-Dichloroethene
   - Tetrachloroethene
   - Trichloroethene
   - Vinyl Chloride
2. For non-detect (U qualified) results, a value of 0 was used.
3. NS = Not Sampled
4. Qualifiers were defined as follows:
   - J - Estimated values (- indicates likely biased low, + indicates likely biased high)
   - U - Non-Detect Value

MPW-08-B

		Sample Date	6/12/2013		6/17/2014		6/9/2015		6/8/2016		6/6/2017		6/5/2018		6/4/2019	
CVOC	CAS RN	Units	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual
1,1,1-Trichloroethane	71-55-6	ug/l		U		U		U		U		U		U		U
1,1-Dichloroethane	75-34-3	ug/l		U		U		U		U		U		U		U
1,1-Dichloroethene	75-35-4	ug/l		U		U		U		U		U		U		U
Chloroform	67-66-3	ug/l	0.54		0.64		0.72			U	0.59		0.59		0.82	
Chloromethane	74-87-3	ug/l		U		U		U		U		U		U	0.57	
cis-1,2-Dichloroethylene	156-59-2	ug/l		U		U		U		U		U		U		U
Tetrachloroethylene(PCE)	127-18-4	ug/l		U	0.12	J	0.1	J		U		U		U		U
Trichloroethene (TCE)	79-01-6	ug/l	2.9		2		1.5			U	0.91		0.56		0.71	
Vinyl Chloride	75-01-4	ug/l		U		U		U		U		U		U		UJ
Total CVOCs		**ug/l**	**3.44**		**2.76**		**2.32**		**0**	**U**	**1.5**		**1.15**		**2.1**	

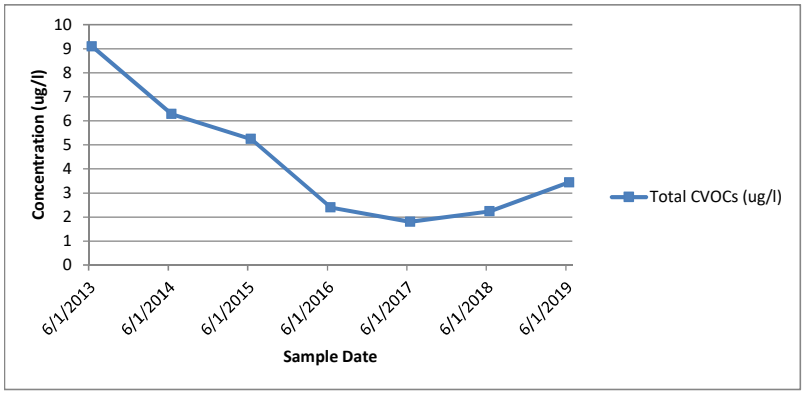


Notes:

1. Total CVOCs were calculated by adding the concentrations of the following VOCs:
   - 1,1,1-Trichloroethane
   - 1,1-Dichloroethane
   - 1,1-Dichloroethene
   - Chloroform
   - Chloromethane
   - cis-1,2-Dichloroethene
   - Tetrachloroethene
   - Trichloroethene
   - Vinyl Chloride
2. For non-detect (U qualified) results, a value of 0 was used.
3. NS = Not Sampled
4. Qualifiers were defined as follows:
   - J - Estimated values (- indicates likely biased low, + indicates likely biased high)
   - U - Non-Detect Value

MPW-08-C

		Sample Date	6/12/2013		6/17/2014		6/9/2015		6/8/2016		6/6/2017		6/5/2018		6/4/2019	
CVOC	CAS RN	Units	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual
1,1,1-Trichloroethane	71-55-6	ug/l		U		U		U		U		U		U		U
1,1-Dichloroethane	75-34-3	ug/l		U	0.13	J	0.15	J		U		U		U		U
1,1-Dichloroethene	75-35-4	ug/l		U		U		U		U		UJ		U		U
Chloroform	67-66-3	ug/l		U	0.44	J	0.4	J		U		U	0.34	J		U
Chloromethane	74-87-3	ug/l		U		U		U		U		U		U	0.64	
cis-1,2-Dichloroethylene	156-59-2	ug/l		U		U		U		U		UJ		U		U
Tetrachloroethylene(PCE)	127-18-4	ug/l		U	0.11	J		U		U		U		U		U
Trichloroethene (TCE)	79-01-6	ug/l	9.1		5.6		4.7		2.4		1.8		1.9		2.8	
Vinyl Chloride	75-01-4	ug/l		U		U		U		U		U		U		UJ
Total CVOCs		**ug/l**	**9.1**		**6.28**		**5.25**		**2.4**		**1.8**		**2.24**		**3.44**	

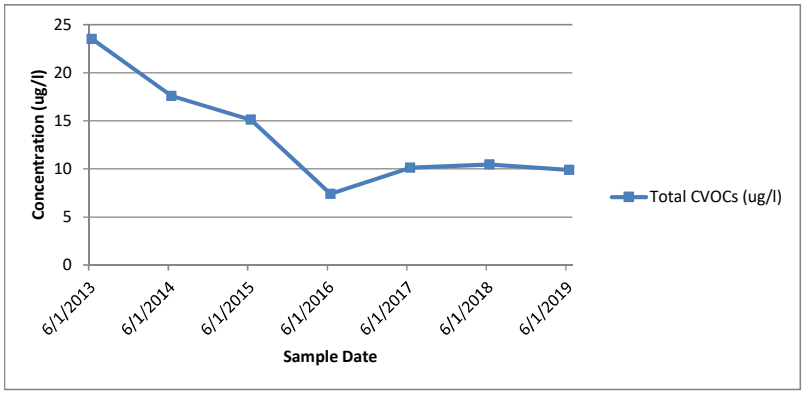


Notes:

1. Total CVOCs were calculated by adding the concentrations of the following VOCs:
   - 1,1,1-Trichloroethane
   - 1,1-Dichloroethane
   - 1,1-Dichloroethene
   - Chloroform
   - Chloromethane
   - cis-1,2-Dichloroethene
   - Tetrachloroethene
   - Trichloroethene
   - Vinyl Chloride
2. For non-detect (U qualified) results, a value of 0 was used.
3. NS = Not Sampled
4. Qualifiers were defined as follows:
   - J - Estimated values (- indicates likely biased low, + indicates likely biased high)
   - U - Non-Detect Value

MPW-08-D

		Sample Date	6/12/2013		6/17/2014		6/9/2015		6/8/2016		6/6/2017		6/5/2018		6/4/2019	
CVOC	CAS RN	Units	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual
1,1,1-Trichloroethane	71-55-6	ug/l		U	0.21	J	0.2	J		U		U		U		U
1,1-Dichloroethane	75-34-3	ug/l		U	0.37	J	0.39	J		U	0.23	J	0.26	J		U
1,1-Dichloroethene	75-35-4	ug/l		U	0.15	J		U		UJ		U		U		U
Chloroform	67-66-3	ug/l		U	0.29	J		U		U		U	0.18	J		U
Chloromethane	74-87-3	ug/l		U		U		U		U		U		U	0.68	
cis-1,2-Dichloroethylene	156-59-2	ug/l	0.51		0.37	J	0.3	J		UJ		U		U		U
Tetrachloroethylene(PCE)	127-18-4	ug/l		U	0.2	J	0.21	J		U		U		U		U
Trichloroethene (TCE)	79-01-6	ug/l	23		16		14		7.4		9.9		10		9.2	
Vinyl Chloride	75-01-4	ug/l		U		U		U		U		U		U		UJ
Total CVOCs		**ug/l**	**23.51**	**U**	**17.59**		**15.1**		**7.4**		**10.13**		**10.44**		**9.88**	

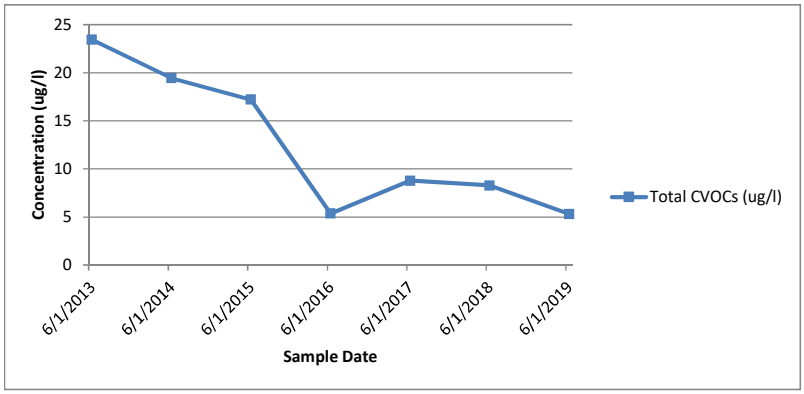


Notes:

1. Total CVOCs were calculated by adding the concentrations of the following VOCs:
   - 1,1,1-Trichloroethane
   - 1,1-Dichloroethane
   - 1,1-Dichloroethene
   - Chloroform
   - Chloromethane
   - cis-1,2-Dichloroethene
   - Tetrachloroethene
   - Trichloroethene
   - Vinyl Chloride
2. For non-detect (U qualified) results, a value of 0 was used.
3. NS = Not Sampled
4. Qualifiers were defined as follows:
   - J - Estimated values (- indicates likely biased low, + indicates likely biased high)
   - U - Non-Detect Value

MPW-08-E

		Sample Date	6/12/2013		6/17/2014		6/9/2015		6/8/2016		6/6/2017		6/5/2018		6/11/2019	
CVOC	CAS RN	Units	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual
1,1,1-Trichloroethane	71-55-6	ug/l	0.59		0.42	J	0.41	J		U	0.36	J	0.38	J	0.6	
1,1-Dichloroethane	75-34-3	ug/l	0.85		0.69		0.75		0.36	J	0.6		0.72		1	
1,1-Dichloroethene	75-35-4	ug/l		U	0.23	J		U		U		U	0.29	J		U
Chloroform	67-66-3	ug/l		U	0.4	J	0.39	J		U		U	0.24	J		U
Chloromethane	74-87-3	ug/l		U		U		U		U		U		U		U
cis-1,2-Dichloroethylene	156-59-2	ug/l		U	0.46	J	0.46	J		U	0.21	J	0.14	J		U
Tetrachloroethylene(PCE)	127-18-4	ug/l		U	0.25	J	0.21	J		U		U		U		U
Trichloroethene (TCE)	79-01-6	ug/l	22		17		15		5		7.6		6.5		3.7	
Vinyl Chloride	75-01-4	ug/l		U		U		U		U		U		U		UJ
Total CVOCs		**ug/l**	**23.44**		**19.45**		**17.22**		**5.36**		**8.77**		**8.27**		**5.3**	

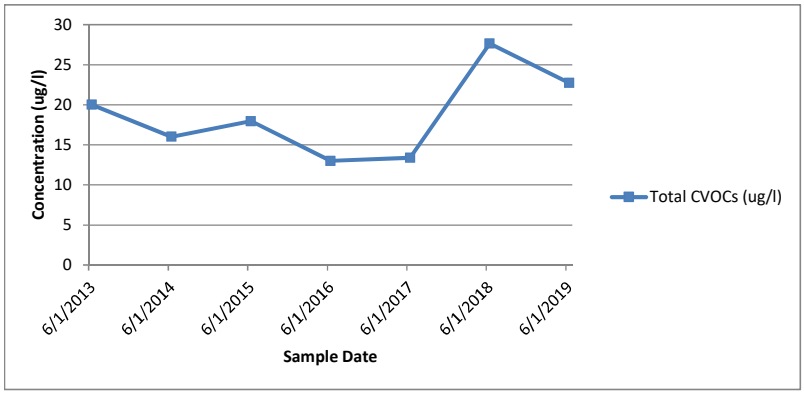


Notes:

1. Total CVOCs were calculated by adding the concentrations of the following VOCs:
   - 1,1,1-Trichloroethane
   - 1,1-Dichloroethane
   - 1,1-Dichloroethene
   - Chloroform
   - Chloromethane
   - cis-1,2-Dichloroethene
   - Tetrachloroethene
   - Trichloroethene
   - Vinyl Chloride
2. For non-detect (U qualified) results, a value of 0 was used.
3. NS = Not Sampled
4. Qualifiers were defined as follows:
   - J - Estimated values (- indicates likely biased low, + indicates likely biased high)
   - U - Non-Detect Value

MPW-09-A

		Sample Date	6/13/2013		6/13/2014		6/4/2015		6/14/2016		6/13/2017		6/7/2018		6/4/2019	
CVOC	CAS RN	Units	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual
1,1,1-Trichloroethane	71-55-6	ug/l		U	0.13	J	0.17	J		U		U		UJ		U
1,1-Dichloroethane	75-34-3	ug/l		U	0.14	J	0.17	J		U		U		UJ		U
1,1-Dichloroethene	75-35-4	ug/l		U		U		U		U		U		UJ		U
Chloroform	67-66-3	ug/l		U	0.2	J		U		U		U	0.16	J		U
Chloromethane	74-87-3	ug/l		U		U		U		U		U		UJ	0.72	
cis-1,2-Dichloroethylene	156-59-2	ug/l		U	0.22	J	0.24	J		U		U	0.49	J		U
Tetrachloroethylene(PCE)	127-18-4	ug/l		U	0.33	J	0.37	J		U	0.37	J		UJ		U
Trichloroethene (TCE)	79-01-6	ug/l	20		15		17	J	13		13		27	J	22	
Vinyl Chloride	75-01-4	ug/l		U		U		U		U		U		UJ		UJ
Total CVOCs		**ug/l**	**20**		**16.02**		**17.95**		**13**		**13.37**		**27.65**		**22.72**	

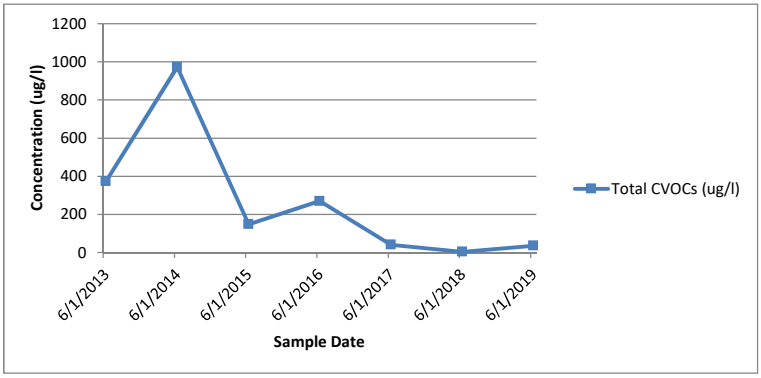


Notes:

1. Total CVOCs were calculated by adding the concentrations of the following VOCs:
   - 1,1,1-Trichloroethane
   - 1,1-Dichloroethane
   - 1,1-Dichloroethene
   - Chloroform
   - Chloromethane
   - cis-1,2-Dichloroethene
   - Tetrachloroethene
   - Trichloroethene
   - Vinyl Chloride
2. For non-detect (U qualified) results, a value of 0 was used.
3. NS = Not Sampled
4. Qualifiers were defined as follows:
   - J - Estimated values (- indicates likely biased low, + indicates likely biased high)
   - U - Non-Detect Value

MPW-09-B

		Sample Date	6/13/2013		6/13/2014		6/4/2015		6/14/2016		6/13/2017		6/7/2018		6/4/2019	
CVOC	CAS RN	Units	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual
1,1,1-Trichloroethane	71-55-6	ug/l	0.88		0.77		0.13	J	0.73			U		UJ		U
1,1-Dichloroethane	75-34-3	ug/l	1.2		1.4		0.19	J	1.2			U		UJ		U
1,1-Dichloroethene	75-35-4	ug/l		U	0.56	J+		U	0.37	J		UJ		UJ		U
Chloroform	67-66-3	ug/l		U	0.42	J	1.3			U		U	0.74	J		U
Chloromethane	74-87-3	ug/l		U		U		U		U		U		UJ	0.76	
cis-1,2-Dichloroethylene	156-59-2	ug/l	5.7		8.8	J+	1.3		2.9		0.25	J-		UJ		U
Tetrachloroethylene(PCE)	127-18-4	ug/l	5.5		10		5.7		4.8		2.8		0.34	J	3.9	
Trichloroethene (TCE)	79-01-6	ug/l	360		950		140		260	D	38		2.9	J	32	
Vinyl Chloride	75-01-4	ug/l		U		U		U		U		U		UJ		UJ
Total CVOCs		**ug/l**	**373.28**		**971.95**		**148.62**		**270**		**41.05**		**3.98**		**36.66**	

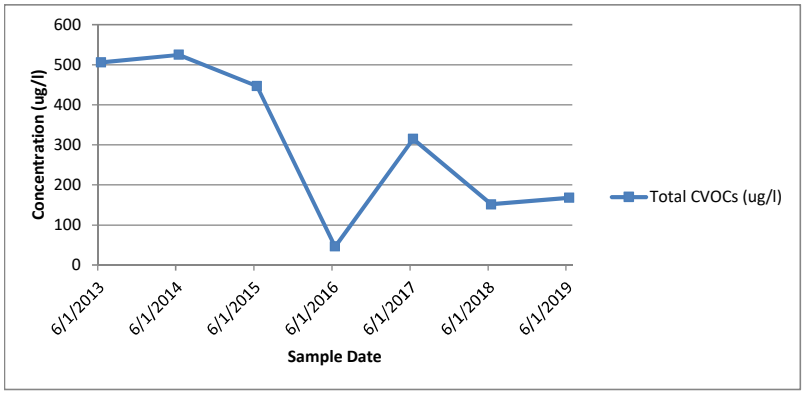


Notes:

1. Total CVOCs were calculated by adding the concentrations of the following VOCs:
   - 1,1,1-Trichloroethane
   - 1,1-Dichloroethane
   - 1,1-Dichloroethene
   - Chloroform
   - Chloromethane
   - cis-1,2-Dichloroethene
   - Tetrachloroethene
   - Trichloroethene
   - Vinyl Chloride
2. For non-detect (U qualified) results, a value of 0 was used.
3. NS = Not Sampled
4. Qualifiers were defined as follows:
   - J - Estimated values (- indicates likely biased low, + indicates likely biased high)
   - U - Non-Detect Value

MPW-09-C

		Sample Date	6/13/2013		6/13/2014		6/4/2015		6/14/2016		6/13/2017		6/7/2018		6/4/2019	
CVOC	CAS RN	Units	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual
1,1,1-Trichloroethane	71-55-6	ug/l	1.5		1.4		1.2			U	0.84		0.57		0.77	
1,1-Dichloroethane	75-34-3	ug/l	2.8		2.7		1.8			U	1.5		0.82		1	
1,1-Dichloroethene	75-35-4	ug/l	0.71		0.66	J+		U		U	0.49	J	0.29	J		U
Chloroform	67-66-3	ug/l	0.54		0.59		0.94			U		U	0.33	J		U
Chloromethane	74-87-3	ug/l		U		U		U		U		U		U		U
cis-1,2-Dichloroethylene	156-59-2	ug/l	4.8		4.1	J+	4.9		0.5		3.9		2.6		2.9	
Tetrachloroethylene(PCE)	127-18-4	ug/l	5.4		5.1		8		2.6		8.2		6.7		13	
Trichloroethene (TCE)	79-01-6	ug/l	490		510		430		43	D	300		140	D	150	
Vinyl Chloride	75-01-4	ug/l		U		U		U		U		U		U		UJ
Total CVOCs		**ug/l**	**505.8**		**524.6**		**446.8**		**46.1**		**314.9**		**151.3**		**167.67**	

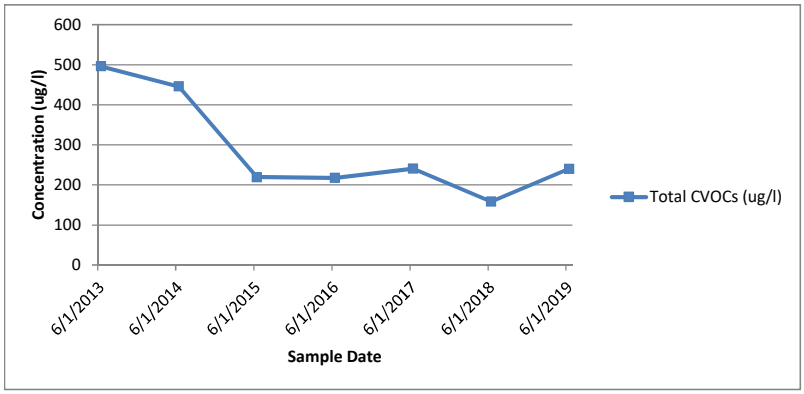


Notes:

1. Total CVOCs were calculated by adding the concentrations of the following VOCs:
   - 1,1,1-Trichloroethane
   - 1,1-Dichloroethane
   - 1,1-Dichloroethene
   - Chloroform
   - Chloromethane
   - cis-1,2-Dichloroethene
   - Tetrachloroethene
   - Trichloroethene
   - Vinyl Chloride
2. For non-detect (U qualified) results, a value of 0 was used.
3. NS = Not Sampled
4. Qualifiers were defined as follows:
   - J - Estimated values (- indicates likely biased low, + indicates likely biased high)
   - U - Non-Detect Value

MPW-09-D

		Sample Date	6/13/2013		6/13/2014		6/4/2015		6/14/2016		6/13/2017		6/7/2018		6/4/2019	
CVOC	CAS RN	Units	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual
1,1,1-Trichloroethane	71-55-6	ug/l	1.2		1.2		0.95			U	0.5			U	0.73	
1,1-Dichloroethane	75-34-3	ug/l	2.1		2.1		1.3		0.88		1.3		1.1	J	1.5	
1,1-Dichloroethene	75-35-4	ug/l	0.6		0.69	J+		U		U		U		U	0.56	
Chloroform	67-66-3	ug/l	0.53		0.5		1.1			U	0.59		0.84	J	0.54	
Chloromethane	74-87-3	ug/l		U		U		U		U		U		U		U
cis-1,2-Dichloroethylene	156-59-2	ug/l	6.9		5.8	J+	3.9		4.8		5.4		4.3	D	4.3	
Tetrachloroethylene(PCE)	127-18-4	ug/l	4.7		5.3		12		1.8		2.5		2	J	2.4	
Trichloroethene (TCE)	79-01-6	ug/l	480		430		200		210	D	230		150	D	230	
Vinyl Chloride	75-01-4	ug/l		U		U		U		U		U		U		UJ
Total CVOCs		**ug/l**	**496**		**445.6**		**219.3**		**217.5**		**240.3**		**158.2**		**240.03**	

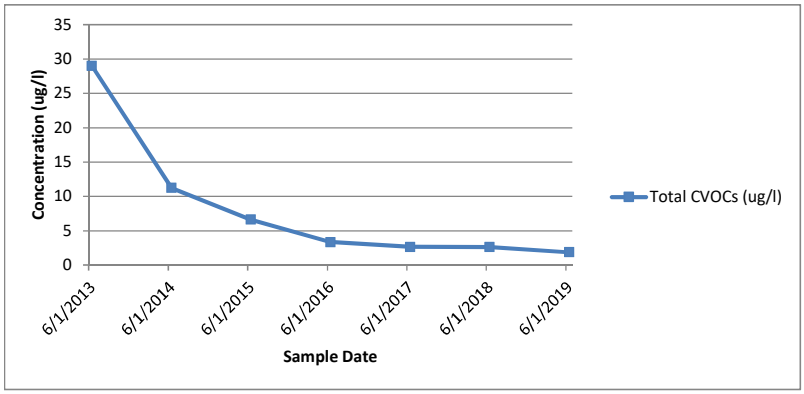


Notes:

1. Total CVOCs were calculated by adding the concentrations of the following VOCs:
   - 1,1,1-Trichloroethane
   - 1,1-Dichloroethane
   - 1,1-Dichloroethene
   - Chloroform
   - Chloromethane
   - cis-1,2-Dichloroethene
   - Tetrachloroethene
   - Trichloroethene
   - Vinyl Chloride
2. For non-detect (U qualified) results, a value of 0 was used.
3. NS = Not Sampled
4. Qualifiers were defined as follows:
   - J - Estimated values (- indicates likely biased low, + indicates likely biased high)
   - U - Non-Detect Value

MPW-09-E

		Sample Date	6/13/2013		6/13/2014		6/4/2015		6/15/2016		6/13/2017		6/7/2018		6/4/2019	
CVOC	CAS RN	Units	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual
1,1,1-Trichloroethane	71-55-6	ug/l	1.2		0.78		0.72		0.37	J	0.38	J	0.41	J		U
1,1-Dichloroethane	75-34-3	ug/l	1.5		1.2		1.1		0.56		0.78		0.8		0.75	
1,1-Dichloroethene	75-35-4	ug/l		U	0.34	J		U		U		U	0.25	J		U
Chloroform	67-66-3	ug/l	0.55		0.5			U		U	0.53		0.36	J		U
Chloromethane	74-87-3	ug/l		U		U		U		U		U		U		U
cis-1,2-Dichloroethylene	156-59-2	ug/l		U		U		U		U		U		U		U
Tetrachloroethylene(PCE)	127-18-4	ug/l	0.73		0.41	J	0.31	J		U		U		U		U
Trichloroethene (TCE)	79-01-6	ug/l	25		8		4.5		2.4		0.94		0.79		1.1	
Vinyl Chloride	75-01-4	ug/l		U		U		U		U		U		U		UJ
Total CVOCs		**ug/l**	**28.98**		**11.23**		**6.63**		**3.33**		**2.63**		**2.61**		**1.85**	

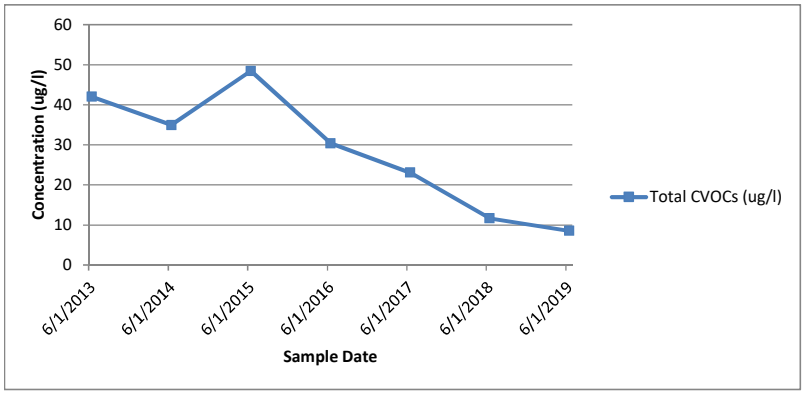


Notes:

1. Total CVOCs were calculated by adding the concentrations of the following VOCs:
   - 1,1,1-Trichloroethane
   - 1,1-Dichloroethane
   - 1,1-Dichloroethene
   - Chloroform
   - Chloromethane
   - cis-1,2-Dichloroethene
   - Tetrachloroethene
   - Trichloroethene
   - Vinyl Chloride
2. For non-detect (U qualified) results, a value of 0 was used.
3. NS = Not Sampled
4. Qualifiers were defined as follows:
   - J - Estimated values (- indicates likely biased low, + indicates likely biased high)
   - U - Non-Detect Value

MPW-10-A

		Sample Date	6/11/2013		6/11/2014		6/3/2015		6/13/2016		6/8/2017		6/8/2018		6/6/2019	
CVOC	CAS RN	Units	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual
1,1,1-Trichloroethane	71-55-6	ug/l		U	0.14	J		U		U		U		U		U
1,1-Dichloroethane	75-34-3	ug/l		U	0.14	J		U		U		U		U		U
1,1-Dichloroethene	75-35-4	ug/l		U		U		U		UJ		UJ		U		U
Chloroform	67-66-3	ug/l	0.5		0.38	J		U		U		U	0.46	J	0.53	
Chloromethane	74-87-3	ug/l		U		U		U		U		U		U	1.1	K
cis-1,2-Dichloroethylene	156-59-2	ug/l		U	0.29	J	0.45	J	0.4	J	0.26	J-		U		U
Tetrachloroethylene(PCE)	127-18-4	ug/l	7.5		8		16	J	10		7.8		4.4		3	
Trichloroethene (TCE)	79-01-6	ug/l	34		26		32	J	20	D	15	J	6.8		3.9	L
Vinyl Chloride	75-01-4	ug/l		U		U		U		U		U		U		UJ
Total CVOCs		**ug/l**	**42**		**34.95**		**48.45**		**30.4**		**23.06**		**11.66**		**8.53**	

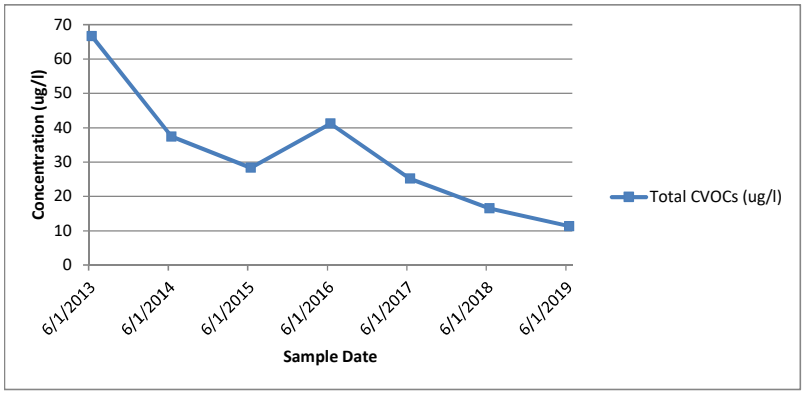


Notes:

1. Total CVOCs were calculated by adding the concentrations of the following VOCs:
   - 1,1,1-Trichloroethane
   - 1,1-Dichloroethane
   - 1,1-Dichloroethene
   - Chloroform
   - Chloromethane
   - cis-1,2-Dichloroethene
   - Tetrachloroethene
   - Trichloroethene
   - Vinyl Chloride
2. For non-detect (U qualified) results, a value of 0 was used.
3. NS = Not Sampled
4. Qualifiers were defined as follows:
   - J - Estimated values (- indicates likely biased low, + indicates likely biased high)
   - U - Non-Detect Value

MPW-10-B

		Sample Date	6/11/2013		6/11/2014		6/3/2015		6/13/2016		6/8/2017		6/8/2018		6/6/2019	
CVOC	CAS RN	Units	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual
1,1,1-Trichloroethane	71-55-6	ug/l		U	0.12	J		U		U		U		U		U
1,1-Dichloroethane	75-34-3	ug/l		U		U		U		U		U	0.16	J		U
1,1-Dichloroethene	75-35-4	ug/l		U	0.1	J		U		U		UJ		U		U
Chloroform	67-66-3	ug/l		U	0.38	J	0.59			U	0.63		0.65		0.82	
Chloromethane	74-87-3	ug/l		U		U		U		U		U		U	0.91	K
cis-1,2-Dichloroethylene	156-59-2	ug/l	0.61		0.31	J	0.45	J	0.4	J	0.35	J-	0.15	J		U
Tetrachloroethylene(PCE)	127-18-4	ug/l	13		8.5		7.3		5.8		7.2		5.5		3.6	
Trichloroethene (TCE)	79-01-6	ug/l	53		28		20		35	D	17	J	10		6	
Vinyl Chloride	75-01-4	ug/l		U		U		U		U		U		U		UJ
Total CVOCs		**ug/l**	**66.61**		**37.41**		**28.34**		**41.2**		**25.18**		**16.46**		**11.33**	

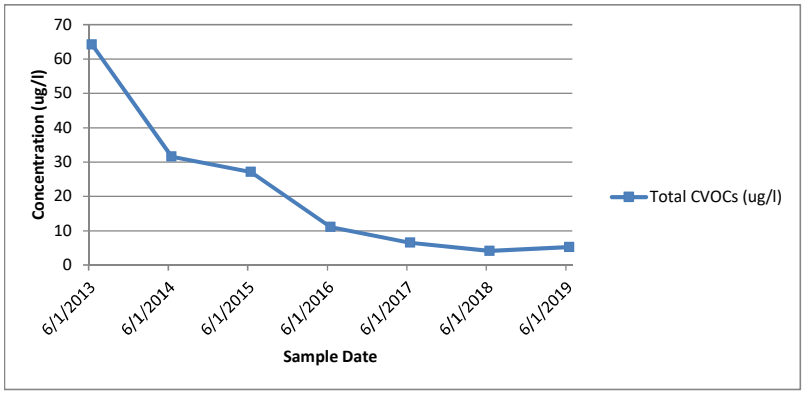


Notes:

1. Total CVOCs were calculated by adding the concentrations of the following VOCs:
   - 1,1,1-Trichloroethane
   - 1,1-Dichloroethane
   - 1,1-Dichloroethene
   - Chloroform
   - Chloromethane
   - cis-1,2-Dichloroethene
   - Tetrachloroethene
   - Trichloroethene
   - Vinyl Chloride
2. For non-detect (U qualified) results, a value of 0 was used.
3. NS = Not Sampled
4. Qualifiers were defined as follows:
   - J - Estimated values (- indicates likely biased low, + indicates likely biased high)
   - U - Non-Detect Value

MPW-10-C

		Sample Date	6/11/2013		6/11/2014		6/3/2015		6/13/2016		6/8/2017		6/8/2018		6/6/2019	
CVOC	CAS RN	Units	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual
1,1,1-Trichloroethane	71-55-6	ug/l		U	0.31	J	0.28	J		U	0.52		0.62		0.56	
1,1-Dichloroethane	75-34-3	ug/l		U	0.32	J	0.3	J	0.41	J	0.93		1.1		0.94	
1,1-Dichloroethene	75-35-4	ug/l		U	0.17	J		U		U		UJ	0.4	J		U
Chloroform	67-66-3	ug/l	0.5		0.41	J	0.51			U	0.74		0.64		0.9	
Chloromethane	74-87-3	ug/l		U		U		U		U		U		U	0.93	K
cis-1,2-Dichloroethylene	156-59-2	ug/l	0.73		0.31	J	0.35	J		U		UJ		U		U
Tetrachloroethylene(PCE)	127-18-4	ug/l	12		6.1		3.7		1.7		1.1		0.59		0.97	
Trichloroethene (TCE)	79-01-6	ug/l	51		24		22		9		3.2	J	0.74		0.91	
Vinyl Chloride	75-01-4	ug/l		U		U		U		U		U		U		UJ
Total CVOCs		**ug/l**	**64.23**		**31.62**		**27.14**		**11.11**		**6.49**		**4.09**		**5.21**	

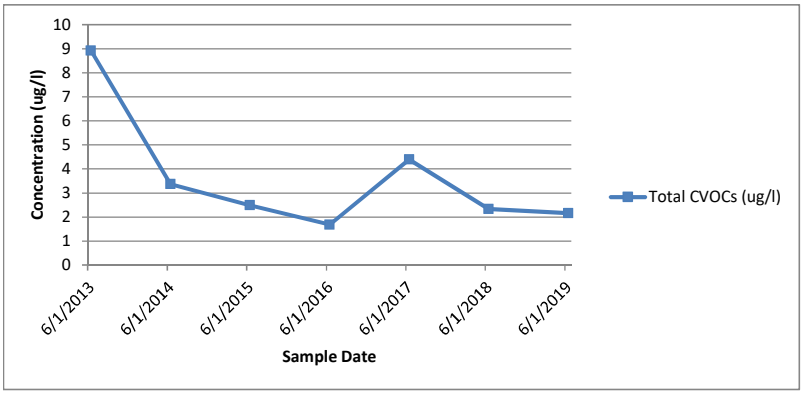


Notes:

1. Total CVOCs were calculated by adding the concentrations of the following VOCs:
   - 1,1,1-Trichloroethane
   - 1,1-Dichloroethane
   - 1,1-Dichloroethene
   - Chloroform
   - Chloromethane
   - cis-1,2-Dichloroethene
   - Tetrachloroethene
   - Trichloroethene
   - Vinyl Chloride
2. For non-detect (U qualified) results, a value of 0 was used.
3. NS = Not Sampled
4. Qualifiers were defined as follows:
   - J - Estimated values (- indicates likely biased low, + indicates likely biased high)
   - U - Non-Detect Value

MPW-10-D

		Sample Date	6/11/2013		6/11/2014		6/3/2015		6/14/2016		6/8/2017		6/8/2018		6/6/2019	
CVOC	CAS RN	Units	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual
1,1,1-Trichloroethane	71-55-6	ug/l	1		0.53		0.41	J		U	0.24	J	0.19	J		U
1,1-Dichloroethane	75-34-3	ug/l	1.2		0.62		0.42	J		U	0.21	J	0.23	J		U
1,1-Dichloroethene	75-35-4	ug/l		U	0.28	J		U		U		UJ		U		U
Chloroform	67-66-3	ug/l	0.62		0.54		0.68			U	0.64		0.64		0.91	
Chloromethane	74-87-3	ug/l		U		U		U		U		U		U		U
cis-1,2-Dichloroethylene	156-59-2	ug/l		U		U		U		U		UJ		U		U
Tetrachloroethylene(PCE)	127-18-4	ug/l	3.7		1.4		0.98		0.88		2		0.72		0.61	
Trichloroethene (TCE)	79-01-6	ug/l	2.4			U			0.8		1.3	J	0.55		0.64	
Vinyl Chloride	75-01-4	ug/l		U		U		U		U		U		U		UJ
Total CVOCs		**ug/l**	**8.92**		**3.37**		**2.49**		**1.68**		**4.39**		**2.33**		**2.16**	

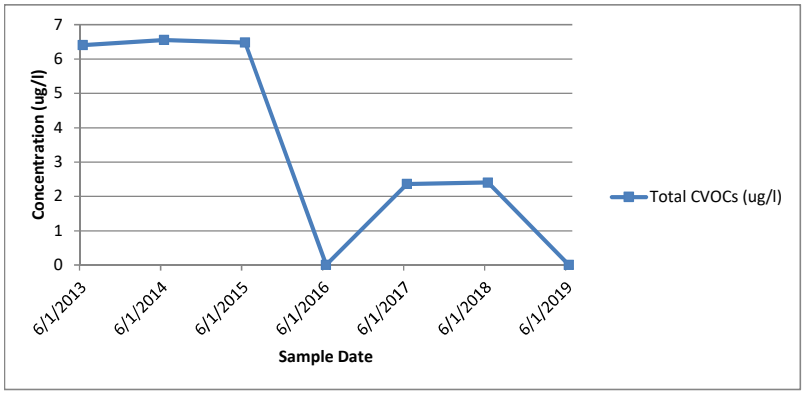


Notes:

1. Total CVOCs were calculated by adding the concentrations of the following VOCs:
   - 1,1,1-Trichloroethane
   - 1,1-Dichloroethane
   - 1,1-Dichloroethene
   - Chloroform
   - Chloromethane
   - cis-1,2-Dichloroethene
   - Tetrachloroethene
   - Trichloroethene
   - Vinyl Chloride
2. For non-detect (U qualified) results, a value of 0 was used.
3. NS = Not Sampled
4. Qualifiers were defined as follows:
   - J - Estimated values (- indicates likely biased low, + indicates likely biased high)
   - U - Non-Detect Value

MW-05

		Sample Date	6/20/2013		6/18/2014		6/3/2015		6/16/2016		6/13/2017		6/12/2018		6/6/2019	
CVOC	CAS RN	Units	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual
1,1,1-Trichloroethane	71-55-6	ug/l		U		U		U		U		U		U		U
1,1-Dichloroethane	75-34-3	ug/l		U		U		U		U		U		U		U
1,1-Dichloroethene	75-35-4	ug/l		U		U		U		UJ		U		UJ		U
Chloroform	67-66-3	ug/l		U	0.25	J	0.91	J		U	1.4		0.8			U
Chloromethane	74-87-3	ug/l		U		U		U		U		U		U		U
cis-1,2-Dichloroethylene	156-59-2	ug/l		U		U		U		UJ		U		UJ		U
Tetrachloroethylene(PCE)	127-18-4	ug/l	0.5		0.5		0.47	J		U		U		U		U
Trichloroethene (TCE)	79-01-6	ug/l	5.9		5.8		5.1	J		U	0.96		1.6			U
Vinyl Chloride	75-01-4	ug/l		U		U		U		U		U		U		UJ
Total CVOCs		**ug/l**	**6.4**		**6.55**		**6.48**		**0**		**2.36**		**2.4**		**0**	

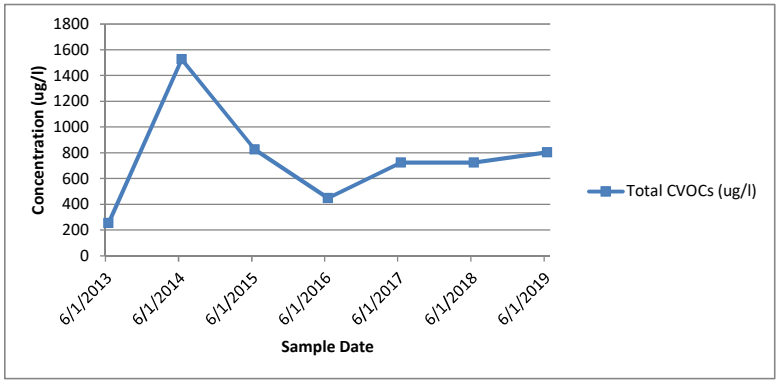


Notes:

1. Total CVOCs were calculated by adding the concentrations of the following VOCs:
   - 1,1,1-Trichloroethane
   - 1,1-Dichloroethane
   - 1,1-Dichloroethene
   - Chloroform
   - Chloromethane
   - cis-1,2-Dichloroethene
   - Tetrachloroethene
   - Trichloroethene
   - Vinyl Chloride
2. For non-detect (U qualified) results, a value of 0 was used.
3. NS = Not Sampled
4. Qualifiers were defined as follows:
   - J - Estimated values (- indicates likely biased low, + indicates likely biased high)
   - U - Non-Detect Value

MW-ISCO-02

		Sample Date	6/19/2013		6/18/2014		6/3/2015		6/15/2016		6/15/2017		6/13/2018		6/11/2019	
CVOC	CAS RN	Units	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual
1,1,1-Trichloroethane	71-55-6	ug/l		U		U		U		U		U		U		U
1,1-Dichloroethane	75-34-3	ug/l		U		U		U		U		U		U		U
1,1-Dichloroethene	75-35-4	ug/l		U		U		U		U		UJ		U		U
Chloroform	67-66-3	ug/l		U		U		U		U		U		U		U
Chloromethane	74-87-3	ug/l		U		U		U		U		U		U		U
cis-1,2-Dichloroethylene	156-59-2	ug/l		U	1.3	J+		U	0.49	J	0.74	J-	0.78		0.7	
Tetrachloroethylene(PCE)	127-18-4	ug/l	4.4		25		17		8.3		14		15		23	
Trichloroethene (TCE)	79-01-6	ug/l	250		1500		810		440	D	710		710	D	780	
Vinyl Chloride	75-01-4	ug/l		U		U		U		U		U		U		UJ
Total CVOCs		**ug/l**	**254.4**		**1526.3**		**827**		**448.8**		**724.7**		**725.8**		**803.7**	

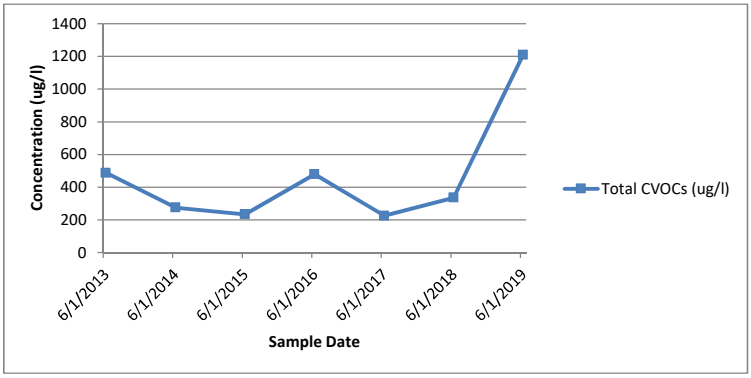


Notes:

1. Total CVOCs were calculated by adding the concentrations of the following VOCs:
   - 1,1,1-Trichloroethane
   - 1,1-Dichloroethane
   - 1,1-Dichloroethene
   - Chloroform
   - Chloromethane
   - cis-1,2-Dichloroethene
   - Tetrachloroethene
   - Trichloroethene
   - Vinyl Chloride
2. For non-detect (U qualified) results, a value of 0 was used.
3. NS = Not Sampled
4. Qualifiers were defined as follows:
   - J - Estimated values (- indicates likely biased low, + indicates likely biased high)
   - U - Non-Detect Value

MW-ISCO-4

		Sample Date	6/18/2013		6/18/2014		6/10/2015		6/15/2016		6/14/2017		6/14/2018		6/11/2019	
CVOC	CAS RN	Units	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual
1,1,1-Trichloroethane	71-55-6	ug/l		U		U		U		U		U		U		U
1,1-Dichloroethane	75-34-3	ug/l		U		U		U		U		U		U		U
1,1-Dichloroethene	75-35-4	ug/l		U		U		U		U		U		U		U
Chloroform	67-66-3	ug/l		U		U		U		U		U		U		U
Chloromethane	74-87-3	ug/l		U		U		U		U		U		U		U
cis-1,2-Dichloroethylene	156-59-2	ug/l		U	0.25	J	0.25	J	0.61	J		U		U		U
Tetrachloroethylene(PCE)	127-18-4	ug/l	7.5		4.7		4	J	7.8		4.9		5.6	D	9.4	
Trichloroethene (TCE)	79-01-6	ug/l	480		270		230	J	470	D	220		330	D	1200	
Vinyl Chloride	75-01-4	ug/l		U		U		U		U		U		U		UJ
Total CVOCs		**ug/l**	**487.5**		**274.95**		**234.3**		**478.41**		**224.9**		**335.6**		**1209.4**	

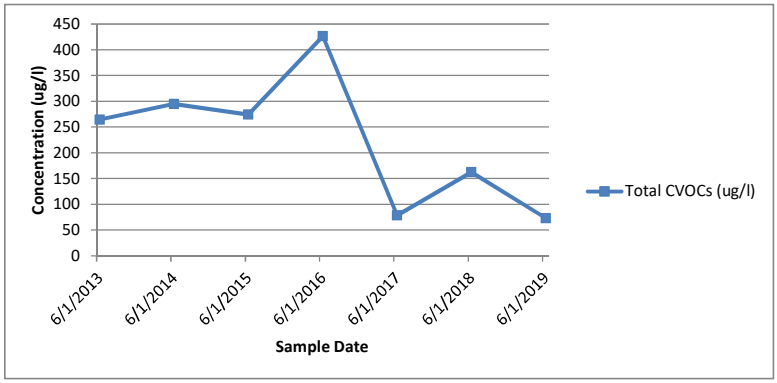


Notes:

1. Total CVOCs were calculated by adding the concentrations of the following VOCs:
   - 1,1,1-Trichloroethane
   - 1,1-Dichloroethane
   - 1,1-Dichloroethene
   - Chloroform
   - Chloromethane
   - cis-1,2-Dichloroethene
   - Tetrachloroethene
   - Trichloroethene
   - Vinyl Chloride
2. For non-detect (U qualified) results, a value of 0 was used.
3. NS = Not Sampled
4. Qualifiers were defined as follows:
   - J - Estimated values (- indicates likely biased low, + indicates likely biased high)
   - U - Non-Detect Value

MW-ISCO-05

		Sample Date	6/18/2013		6/17/2014		6/9/2015		6/15/2016		6/15/2017		6/14/2018		6/11/2019	
CVOC	CAS RN	Units	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual
1,1,1-Trichloroethane	71-55-6	ug/l		U		U		U		U		U		U		U
1,1-Dichloroethane	75-34-3	ug/l		U		U		U		U		U		U		U
1,1-Dichloroethene	75-35-4	ug/l		U		U		U		U		UJ		U		U
Chloroform	67-66-3	ug/l		U		U		U		U		U		U		U
Chloromethane	74-87-3	ug/l		U		U		U		U		U		U		U
cis-1,2-Dichloroethylene	156-59-2	ug/l		U	0.31	J	0.3	J	0.41	J		UJ		U		U
Tetrachloroethylene(PCE)	127-18-4	ug/l	4.7		4.6		4.1		6		1.6		2.8		1.5	
Trichloroethene (TCE)	79-01-6	ug/l	260		290		270		420	D	77		160	D	72	
Vinyl Chloride	75-01-4	ug/l		U		U		U		U		U		U		UJ
Total CVOCs		**ug/l**	**264.7**		**294.91**		**274.4**		**426.4**		**78.6**		**162.8**		**73.5**	

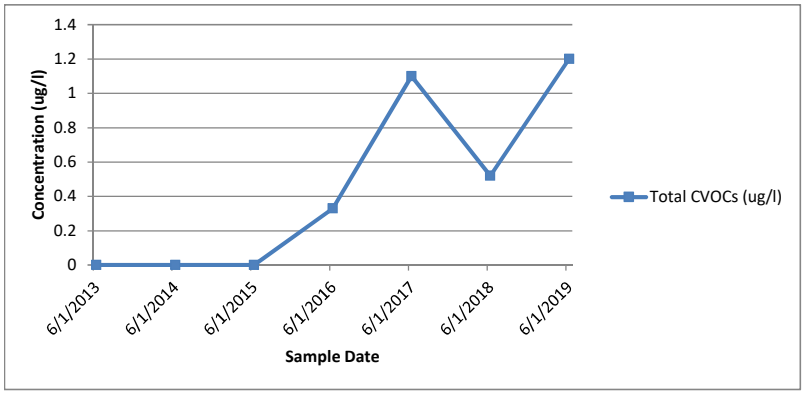


Notes:

1. Total CVOCs were calculated by adding the concentrations of the following VOCs:
   - 1,1,1-Trichloroethane
   - 1,1-Dichloroethane
   - 1,1-Dichloroethene
   - Chloroform
   - Chloromethane
   - cis-1,2-Dichloroethene
   - Tetrachloroethene
   - Trichloroethene
   - Vinyl Chloride
2. For non-detect (U qualified) results, a value of 0 was used.
3. NS = Not Sampled
4. Qualifiers were defined as follows:
   - J - Estimated values (- indicates likely biased low, + indicates likely biased high)
   - U - Non-Detect Value

MW-PD-11

		Sample Date	6/17/2013		6/12/2014		6/4/2015		6/16/2016		6/12/2017		6/11/2018		6/10/2019	
CVOC	CAS RN	Units	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual
1,1,1-Trichloroethane	71-55-6	ug/l		U		U		U		U		U		U		U
1,1-Dichloroethane	75-34-3	ug/l		U		U		U	0.33	J		U		U		U
1,1-Dichloroethene	75-35-4	ug/l		U		U		U		U		U		U		U
Chloroform	67-66-3	ug/l		U		U		U		U	1.1		0.52		1.2	
Chloromethane	74-87-3	ug/l		U		UJ		U		U		U		U		U
cis-1,2-Dichloroethylene	156-59-2	ug/l		U		U		U		U		U		U		U
Tetrachloroethylene(PCE)	127-18-4	ug/l		U		U		U		U		U		U		U
Trichloroethene (TCE)	79-01-6	ug/l		U		U		U		U		U		U		U
Vinyl Chloride	75-01-4	ug/l		U		U		U		U		U		U		UJ
Total CVOCs		**ug/l**	**0**		**0**		**0**		**0.33**		**1.1**		**0.52**		**1.2**	

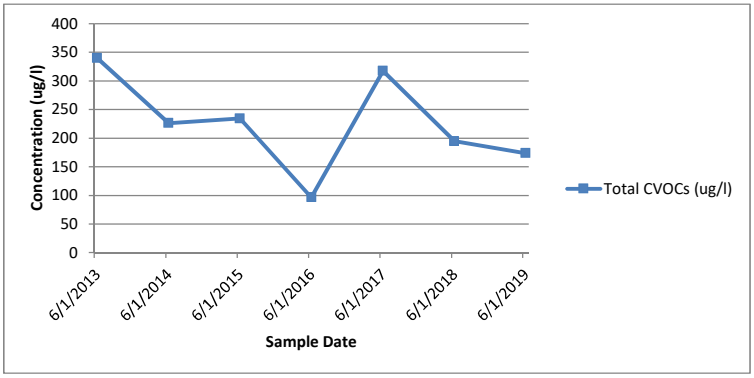


Notes:

1. Total CVOCs were calculated by adding the concentrations of the following VOCs:
   - 1,1,1-Trichloroethane
   - 1,1-Dichloroethane
   - 1,1-Dichloroethene
   - Chloroform
   - Chloromethane
   - cis-1,2-Dichloroethene
   - Tetrachloroethene
   - Trichloroethene
   - Vinyl Chloride
2. For non-detect (U qualified) results, a value of 0 was used.
3. NS = Not Sampled
4. Qualifiers were defined as follows:
   - J - Estimated values (- indicates likely biased low, + indicates likely biased high)
   - U - Non-Detect Value

MW-PD-12

		Sample Date	6/13/2013		6/11/2014		6/3/2015		6/15/2016		6/13/2017		6/11/2018		6/6/2019	
CVOC	CAS RN	Units	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual
1,1,1-Trichloroethane	71-55-6	ug/l		U		U	0.12	J		U		U		U		U
1,1-Dichloroethane	75-34-3	ug/l		U		U		U		U		U		U		U
1,1-Dichloroethene	75-35-4	ug/l		U		U		U		U		U		U		U
Chloroform	67-66-3	ug/l		U	0.32	J		U		U		U	0.14	J		U
Chloromethane	74-87-3	ug/l		U		U		U	0.27	J		U		U		U
cis-1,2-Dichloroethylene	156-59-2	ug/l	1.2		0.58	J+		U	0.44	J	0.78		0.3	J		U
Tetrachloroethylene(PCE)	127-18-4	ug/l	8.6		5.4		4.3	J	3.6		6.4		4.1		3.8	
Trichloroethene (TCE)	79-01-6	ug/l	330		220		230	J	92	D	310		190	D	170	
Vinyl Chloride	75-01-4	ug/l		U		U		U		U		U		U		UJ
Total CVOCs		**ug/l**	**339.8**		**226.3**		**234.3**		**96.31**		**317.18**		**194.54**		**173.8**	

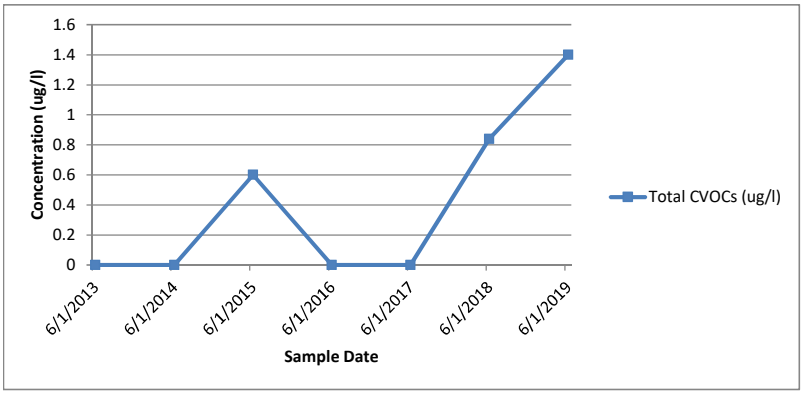


Notes:

1. Total CVOCs were calculated by adding the concentrations of the following VOCs:
   - 1,1,1-Trichloroethane
   - 1,1-Dichloroethane
   - 1,1-Dichloroethene
   - Chloroform
   - Chloromethane
   - cis-1,2-Dichloroethene
   - Tetrachloroethene
   - Trichloroethene
   - Vinyl Chloride
2. For non-detect (U qualified) results, a value of 0 was used.
3. NS = Not Sampled
4. Qualifiers were defined as follows:
   - J - Estimated values (- indicates likely biased low, + indicates likely biased high)
   - U - Non-Detect Value

MW-PD-13

		Sample Date	6/13/2013		6/13/2014		6/3/2015		6/16/2016		6/9/2017		6/12/2018		6/10/2019	
CVOC	CAS RN	Units	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual
1,1,1-Trichloroethane	71-55-6	ug/l		U		UJ		U		U		U		U		U
1,1-Dichloroethane	75-34-3	ug/l		U		UJ		U		U		U		U		U
1,1-Dichloroethene	75-35-4	ug/l		U		UJ		U		U		U		U		U
Chloroform	67-66-3	ug/l		U		UJ	0.6	J		U		U	0.63		1.4	
Chloromethane	74-87-3	ug/l		U		UJ		U		U		U		U		U
cis-1,2-Dichloroethylene	156-59-2	ug/l		U		UJ		U		U		U		U		U
Tetrachloroethylene(PCE)	127-18-4	ug/l		U		UJ		U		U		U		U		U
Trichloroethene (TCE)	79-01-6	ug/l		U		UJ		U		U		U	0.21	J		U
Vinyl Chloride	75-01-4	ug/l		U		UJ		U		U		U		U		UJ
Total CVOCs		**ug/l**	**0**		**0**		**0.6**		**0**		**0**		**0.84**		**1.4**	

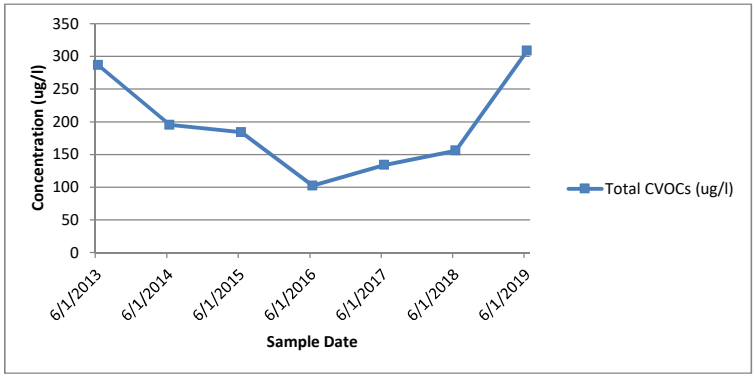


Notes:

1. Total CVOCs were calculated by adding the concentrations of the following VOCs:
   - 1,1,1-Trichloroethane
   - 1,1-Dichloroethane
   - 1,1-Dichloroethene
   - Chloroform
   - Chloromethane
   - cis-1,2-Dichloroethene
   - Tetrachloroethene
   - Trichloroethene
   - Vinyl Chloride
2. For non-detect (U qualified) results, a value of 0 was used.
3. NS = Not Sampled
4. Qualifiers were defined as follows:
   - J - Estimated values (- indicates likely biased low, + indicates likely biased high)
   - U - Non-Detect Value

MW-PD-14

		Sample Date	6/13/2013		6/12/2014		6/4/2015		6/16/2016		6/12/2017		6/8/2018		6/10/2019	
CVOC	CAS RN	Units	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual
1,1,1-Trichloroethane	71-55-6	ug/l		U		U		U		U		U		U		U
1,1-Dichloroethane	75-34-3	ug/l		U	0.1	J	0.11	J		U		U		U		U
1,1-Dichloroethene	75-35-4	ug/l		U		U		U		UJ		U		U		U
Chloroform	67-66-3	ug/l		U	0.17	J		U		U		U	0.19	J		U
Chloromethane	74-87-3	ug/l		U		U		U		U		U		U		U
cis-1,2-Dichloroethylene	156-59-2	ug/l	1.8		1.2		1.2	J	0.84	J-	0.76		0.86		1.2	
Tetrachloroethylene(PCE)	127-18-4	ug/l	4.7		3.7		2.6	J	2.4		3.1		4.9		7.5	
Trichloroethene (TCE)	79-01-6	ug/l	280		190		180	J	99	D	130		150	D	300	
Vinyl Chloride	75-01-4	ug/l		U		U		U		U		U		U		UJ
Total CVOCs		**ug/l**	**286.5**		**195.17**		**183.91**		**102.24**		**133.86**		**155.95**		**308.7**	

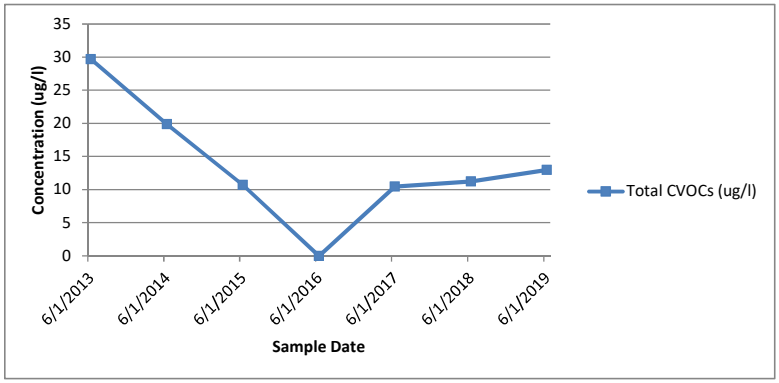


Notes:

1. Total CVOCs were calculated by adding the concentrations of the following VOCs:
   - 1,1,1-Trichloroethane
   - 1,1-Dichloroethane
   - 1,1-Dichloroethene
   - Chloroform
   - Chloromethane
   - cis-1,2-Dichloroethene
   - Tetrachloroethene
   - Trichloroethene
   - Vinyl Chloride
2. For non-detect (U qualified) results, a value of 0 was used.
3. NS = Not Sampled
4. Qualifiers were defined as follows:
   - J - Estimated values (- indicates likely biased low, + indicates likely biased high)
   - U - Non-Detect Value

MW-PD-15

		Sample Date	6/13/2013		6/11/2014		6/4/2015		6/16/2016		6/8/2017		6/8/2018		6/5/2019	
CVOC	CAS RN	Units	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual
1,1,1-Trichloroethane	71-55-6	ug/l	1.1		0.58		0.45	J		U	0.47	J	0.53		0.79	
1,1-Dichloroethane	75-34-3	ug/l	1.5		0.89		0.52	J		U	0.66		0.85		1.2	
1,1-Dichloroethene	75-35-4	ug/l		U	0.23	J		U		U		UJ	0.23	J		U
Chloroform	67-66-3	ug/l		U	0.36	J		U		U		U	0.32	J	0.54	
Chloromethane	74-87-3	ug/l		U		U		U		U		U		U	0.97	K
cis-1,2-Dichloroethylene	156-59-2	ug/l	1.2		0.73	J+	0.45	J		U	0.33	J-	0.23	J		U
Tetrachloroethylene(PCE)	127-18-4	ug/l	1.9		1.1		1.1	J		U	1.4		1.7		2.4	
Trichloroethene (TCE)	79-01-6	ug/l	24		16		8.2	J		U	7.6	J	7.4		7.1	
Vinyl Chloride	75-01-4	ug/l		U		U		U		U		U		U		UJ
Total CVOCs		**ug/l**	**29.7**		**19.89**		**10.72**		**0**		**10.46**		**11.26**		**13**	

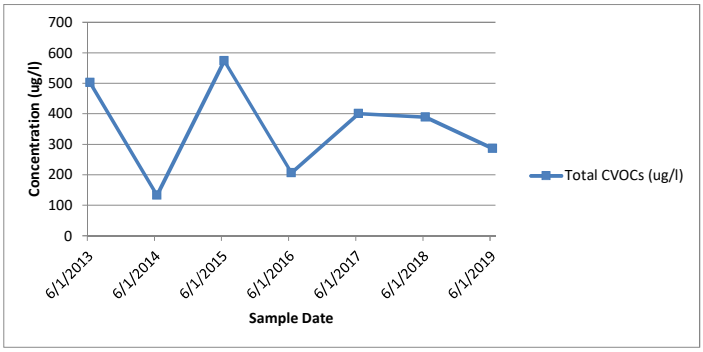


Notes:

1. Total CVOCs were calculated by adding the concentrations of the following VOCs:
   - 1,1,1-Trichloroethane
   - 1,1-Dichloroethane
   - 1,1-Dichloroethene
   - Chloroform
   - Chloromethane
   - cis-1,2-Dichloroethene
   - Tetrachloroethene
   - Trichloroethene
   - Vinyl Chloride
2. For non-detect (U qualified) results, a value of 0 was used.
3. NS = Not Sampled
4. Qualifiers were defined as follows:
   - J - Estimated values (- indicates likely biased low, + indicates likely biased high)
   - U - Non-Detect Value

MW-PD-16

		Sample Date	6/14/2013		6/12/2014		6/3/2015		6/13/2016		6/12/2017		6/11/2018		6/6/2019	
CVOC	CAS RN	Units	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual
1,1,1-Trichloroethane	71-55-6	ug/l	0.64			U	0.82	J		U	0.41	J		U		U
1,1-Dichloroethane	75-34-3	ug/l	0.97			U	1.5	J	0.55	J-	1		0.94	J		U
1,1-Dichloroethene	75-35-4	ug/l		U		U		U		UJ		U		U		U
Chloroform	67-66-3	ug/l		U		U	0.89	J		UJ	0.63		0.73	J		U
Chloromethane	74-87-3	ug/l		U		U		U		U		U		U		U
cis-1,2-Dichloroethylene	156-59-2	ug/l	3.5		0.56	J+	3.2	J	1.4	J-	2.2		1.6	J	0.66	
Tetrachloroethylene(PCE)	127-18-4	ug/l	6.7		2.1		7.2	J	4		6.7		5.2	D	6	
Trichloroethene (TCE)	79-01-6	ug/l	490		130		560	J	200	D	390		380	D	280	
Vinyl Chloride	75-01-4	ug/l		U		U		U		U		U		U		UJ
Total CVOCs		**ug/l**	**501.8**		**132.66**		**573.61**		**205.95**		**400.94**		**388.47**		**286.66**	

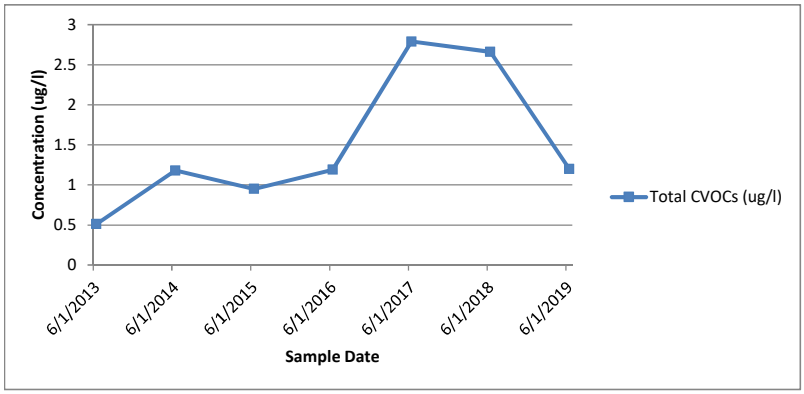


Notes:

1. Total CVOCs were calculated by adding the concentrations of the following VOCs:
   - 1,1,1-Trichloroethane
   - 1,1-Dichloroethane
   - 1,1-Dichloroethene
   - Chloroform
   - Chloromethane
   - cis-1,2-Dichloroethene
   - Tetrachloroethene
   - Trichloroethene
   - Vinyl Chloride
2. For non-detect (U qualified) results, a value of 0 was used.
3. NS = Not Sampled
4. Qualifiers were defined as follows:
   - J - Estimated values (- indicates likely biased low, + indicates likely biased high)
   - U - Non-Detect Value

MW-PD-17

		Sample Date	6/12/2013		6/12/2014		6/4/2015		6/13/2016		6/12/2017		6/11/2018		6/6/2019	
CVOC	CAS RN	Units	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual
1,1,1-Trichloroethane	71-55-6	ug/l	0.51		0.52	J	0.65	J	0.89		1.4		1.1		1.2	
1,1-Dichloroethane	75-34-3	ug/l		U	0.29	J	0.3	J	0.3	J	0.63		0.54			U
1,1-Dichloroethene	75-35-4	ug/l		U	0.16	J		U		U	0.46	J	0.49	J		U
Chloroform	67-66-3	ug/l		U	0.21	J		U		U		U		U		U
Chloromethane	74-87-3	ug/l		U		UJ		U		U		U		U		U
cis-1,2-Dichloroethylene	156-59-2	ug/l		U		UJ		U		U		U		U		U
Tetrachloroethylene(PCE)	127-18-4	ug/l		U		UJ		U		U		U		U		U
Trichloroethene (TCE)	79-01-6	ug/l		U		UJ		U		U	0.3	J	0.53		0.83	
Vinyl Chloride	75-01-4	ug/l		U		UJ		U		U		U		U		UJ
Total CVOCs		**ug/l**	**0.51**		**1.18**		**0.95**		**1.19**		**2.79**		**2.66**		**1.2**	

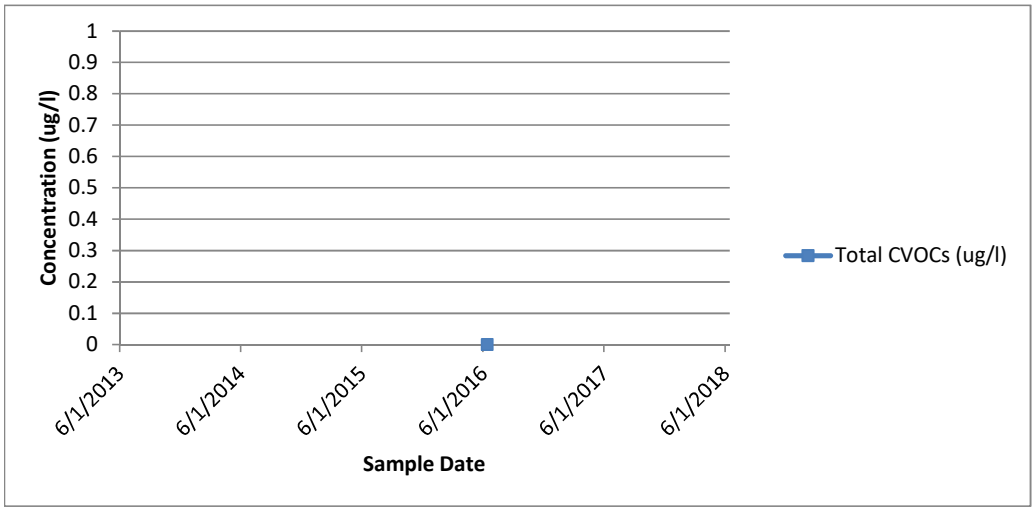


Notes:

1. Total CVOCs were calculated by adding the concentrations of the following VOCs:
   - 1,1,1-Trichloroethane
   - 1,1-Dichloroethane
   - 1,1-Dichloroethene
   - Chloroform
   - Chloromethane
   - cis-1,2-Dichloroethene
   - Tetrachloroethene
   - Trichloroethene
   - Vinyl Chloride
2. For non-detect (U qualified) results, a value of 0 was used.
3. NS = Not Sampled
4. Qualifiers were defined as follows:
   - J - Estimated values (- indicates likely biased low, + indicates likely biased high)
   - U - Non-Detect Value

PZ-03

			Sample Date	6/14/2016
CVOC	CAS RN	Units	Result	Qual
1,1,1-Trichloroethane	71-55-6	ug/l		U
1,1-Dichloroethane	75-34-3	ug/l		U
1,1-Dichloroethene	75-35-4	ug/l		U
Chloroform	67-66-3	ug/l		U
Chloromethane	74-87-3	ug/l		U
cis-1,2-Dichloroethylene	156-59-2	ug/l		U
Tetrachloroethylene(PCE)	127-18-4	ug/l		U
Trichloroethene (TCE)	79-01-6	ug/l		U
Vinyl Chloride	75-01-4	ug/l		U
Total CVOCs		**ug/l**	**0**	



Notes:

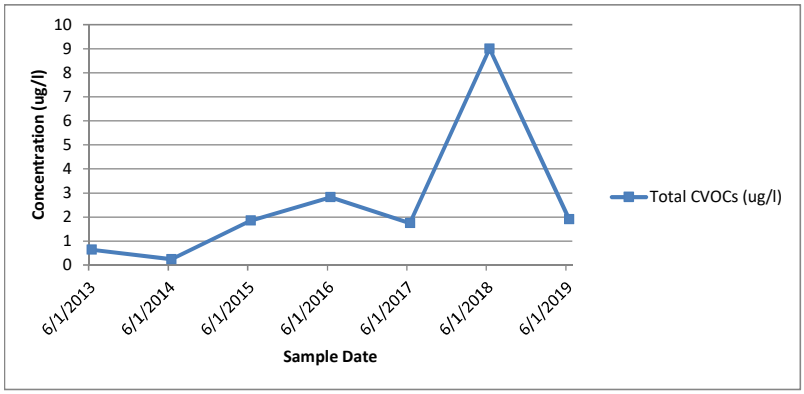
1. Total CVOCs were calculated by adding the concentrations of the following VOCs:
   - 1,1,1-Trichloroethane
   - 1,1-Dichloroethane
   - 1,1-Dichloroethene
   - Chloroform
   - Chloromethane
   - cis-1,2-Dichloroethene
   - Tetrachloroethene
   - Trichloroethene
   - Vinyl Chloride

***PZ-03 was not sampled in 2017 or 2018 or 2019.**

2. For non-detect (U qualified) results, a value of 0 was used.
3. NS = Not Sampled
4. Qualifiers were defined as follows:
   - J - Estimated values (- indicates likely biased low, + indicates likely biased high)
   - U - Non-Detect Value

PZ-05

		Sample Date	6/19/2013		6/10/2014		6/2/2015		6/14/2016		6/13/2017		6/13/2018		6/10/2019	
CVOC	CAS RN	Units	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual
1,1,1-Trichloroethane	71-55-6	ug/l		U		U		U		U		U		U		U
1,1-Dichloroethane	75-34-3	ug/l		U		U		U		U		U		U		U
1,1-Dichloroethene	75-35-4	ug/l		U		U		U		U		U		U		U
Chloroform	67-66-3	ug/l	0.64		0.24	J		U		U		U		U		U
Chloromethane	74-87-3	ug/l		U		U		U		U		U		U		U
cis-1,2-Dichloroethylene	156-59-2	ug/l		U		U		U		U		U		U		U
Tetrachloroethylene(PCE)	127-18-4	ug/l		U		U	0.45	J	0.52		0.44	J	2.8			U
Trichloroethene (TCE)	79-01-6	ug/l		U		U	1.4	J	2.3		1.3		6.2		1.9	
Vinyl Chloride	75-01-4	ug/l		U		U		U		U		U		U		UJ
Total CVOCs		**ug/l**	**0.64**		**0.24**		**1.85**		**2.82**		**1.74**		**9**		**1.9**	

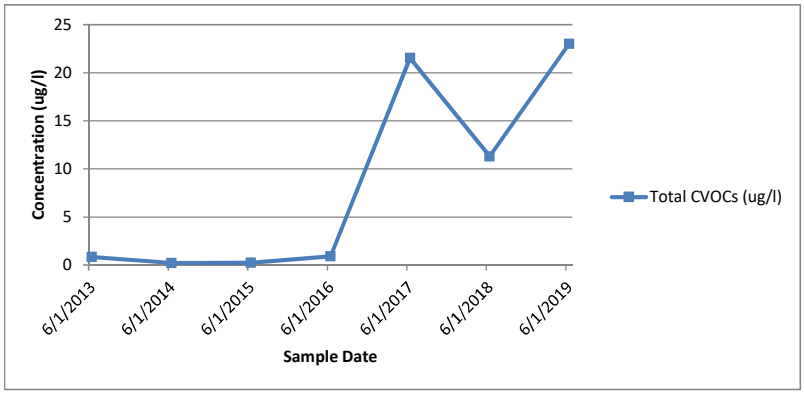


Notes:

1. Total CVOCs were calculated by adding the concentrations of the following VOCs:
   - 1,1,1-Trichloroethane
   - 1,1-Dichloroethane
   - 1,1-Dichloroethene
   - Chloroform
   - Chloromethane
   - cis-1,2-Dichloroethene
   - Tetrachloroethene
   - Trichloroethene
   - Vinyl Chloride
2. For non-detect (U qualified) results, a value of 0 was used.
3. NS = Not Sampled
4. Qualifiers were defined as follows:
   - J - Estimated values (- indicates likely biased low, + indicates likely biased high)
   - U - Non-Detect Value

PZ-06

		Sample Date	6/19/2013		6/10/2014		6/2/2015		6/16/2016		6/14/2017		6/12/2018		6/7/2019	
CVOC	CAS RN	Units	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual
1,1,1-Trichloroethane	71-55-6	ug/l		U		U		U		U		U		U		U
1,1-Dichloroethane	75-34-3	ug/l		U		U		U		U		U		U		U
1,1-Dichloroethene	75-35-4	ug/l		U		U		U		UJ		UJ		U		U
Chloroform	67-66-3	ug/l		U	0.22	J		U		U		U		U		U
Chloromethane	74-87-3	ug/l		U		U		U		U		U		U		U
cis-1,2-Dichloroethylene	156-59-2	ug/l		U		U		U		UJ		UJ		U		U
Tetrachloroethylene(PCE)	127-18-4	ug/l		U		U		U		U	0.53		0.3	J	0.99	
Trichloroethene (TCE)	79-01-6	ug/l	0.84			U	0.23	J	0.9		21		11		22	
Vinyl Chloride	75-01-4	ug/l		U		U		U		U		U		U		UJ
Total CVOCs		**ug/l**	**0.84**		**0.22**		**0.23**		**0.9**		**21.53**		**11.3**		**22.99**	

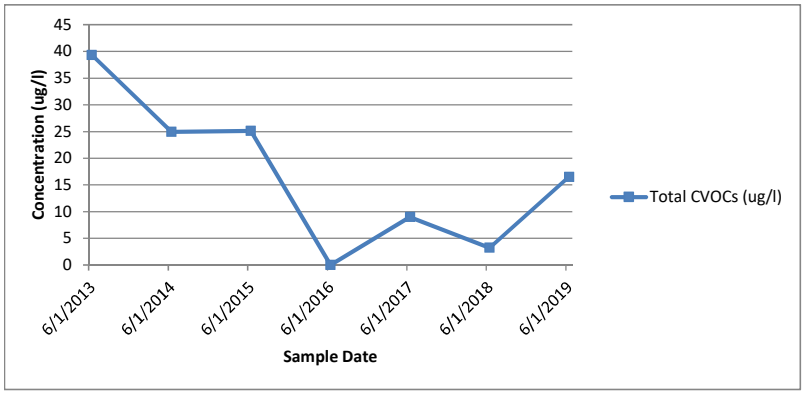


Notes:

1. Total CVOCs were calculated by adding the concentrations of the following VOCs:
   - 1,1,1-Trichloroethane
   - 1,1-Dichloroethane
   - 1,1-Dichloroethene
   - Chloroform
   - Chloromethane
   - cis-1,2-Dichloroethene
   - Tetrachloroethene
   - Trichloroethene
   - Vinyl Chloride
2. For non-detect (U qualified) results, a value of 0 was used.
3. NS = Not Sampled
4. Qualifiers were defined as follows:
   - J - Estimated values (- indicates likely biased low, + indicates likely biased high)
   - U - Non-Detect Value

PZ-07

		Sample Date	6/19/2013		6/10/2014		6/2/2015		6/15/2016		6/14/2017		6/12/2018		6/7/2019	
CVOC	CAS RN	Units	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual
1,1,1-Trichloroethane	71-55-6	ug/l		U		U		U		U		U		U		U
1,1-Dichloroethane	75-34-3	ug/l		U		U		U		U		U		U		U
1,1-Dichloroethene	75-35-4	ug/l		U		U		U		UJ		U		U		U
Chloroform	67-66-3	ug/l		U		U		U		U		U	0.48	J		U
Chloromethane	74-87-3	ug/l		U		U		U		U		U		U		U
cis-1,2-Dichloroethylene	156-59-2	ug/l		U		U	0.1	J		UJ		U		U		U
Tetrachloroethylene(PCE)	127-18-4	ug/l	2.3		1.9		2	J		U	0.87		0.25	J	1.5	
Trichloroethene (TCE)	79-01-6	ug/l	37		23		23	J		U	8.1		2.5		15	
Vinyl Chloride	75-01-4	ug/l		U		U		U		U		U		U		UJ
Total CVOCs		**ug/l**	**39.3**		**24.9**		**25.1**		**0**		**8.97**		**3.23**		**16.5**	

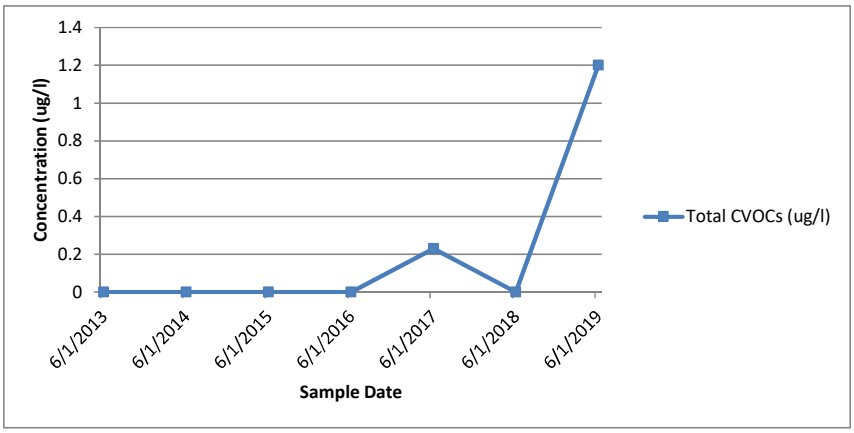


Notes:

1. Total CVOCs were calculated by adding the concentrations of the following VOCs:
   - 1,1,1-Trichloroethane
   - 1,1-Dichloroethane
   - 1,1-Dichloroethene
   - Chloroform
   - Chloromethane
   - cis-1,2-Dichloroethene
   - Tetrachloroethene
   - Trichloroethene
   - Vinyl Chloride
2. For non-detect (U qualified) results, a value of 0 was used.
3. NS = Not Sampled
4. Qualifiers were defined as follows:
   - J - Estimated values (- indicates likely biased low, + indicates likely biased high)
   - U - Non-Detect Value

SDW-01

		Sample Date	6/13/2013		6/11/2014		6/5/2015		6/7/2016		6/6/2017		6/6/2018		6/5/2019	
CVOC	CAS RN	Units	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual
1,1,1-Trichloroethane	71-55-6	ug/l		U		U		U		U		U		U		U
1,1-Dichloroethane	75-34-3	ug/l		U		U		U		U		U		U		U
1,1-Dichloroethene	75-35-4	ug/l		U		U		U		U		U		U		U
Chloroform	67-66-3	ug/l		U		U		U		U		U		U		U
Chloromethane	74-87-3	ug/l		U		U		U		U		U		U	1.2	K
cis-1,2-Dichloroethylene	156-59-2	ug/l		U		U		U		U		U		U		U
Tetrachloroethylene(PCE)	127-18-4	ug/l		U		U		U		U		U		U		U
Trichloroethene (TCE)	79-01-6	ug/l		U		U		U		U	0.23	J		U		U
Vinyl Chloride	75-01-4	ug/l		U		U		U		U		U		U		UJ
Total CVOCs		**ug/l**	**0**		**0**		**0**		**0**		**0.23**		**0**		**1.2**	



Notes:

1. Total CVOCs were calculated by adding the concentrations of the following VOCs:
   - 1,1,1-Trichloroethane
   - 1,1-Dichloroethane
   - 1,1-Dichloroethene
   - Chloroform
   - Chloromethane
   - cis-1,2-Dichloroethene
   - Tetrachloroethene
   - Trichloroethene
   - Vinyl Chloride
2. For non-detect (U qualified) results, a value of 0 was used.
3. NS = Not Sampled
4. Qualifiers were defined as follows:
   - J - Estimated values (- indicates likely biased low, + indicates likely biased high)
   - U - Non-Detect Value