PERIODIC REVIEW REPORT (2021)
BALDWIN PLACE SHOPPING CENTER
NYSDEC SITE NO. 360023

WORK ASSIGNMENT NO. D009809-10

Prepared for:

New York State Department of Environmental Conservation
Albany, New York

Prepared by:

MACTEC Engineering and Geology, P.C.
Portland, Maine

MACTEC: 3616206104

MARCH 2022

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GLOSSARY OF ACRONYMS AND ABBREVIATIONS

1,2-DCE	dichloroethene
EC	engineering controls
GWETS	groundwater extraction and treatment system
IC	institutional controls
LaBella	LaBella Associates
LMSE	Lawler, Matusky, & Skelly Engineers
LTM	long term monitoring
MACTEC	MACTEC Engineering and Consulting, PC or MACTEC Engineering and Geology, P.C.
MTBE	Methyl-tert-butyl-ether
µg/L	micrograms per liter
NYS	New York State
NYSDEC	New York State Department of Environmental Conservation
NYSDOH	New York Department of Health
PCE	tetrachloroethene
PFAS	per-and Polyfluoroalkyl substances
PFOA	perfluorooctanoic acid
PFOS	perfluorooctanesulfonic acid
POET	Point of Entry Treatment
PRR	Periodic Review Report
RI/FS	Remedial Investigation/Feasibility Study
ROD	Record of Decision
RSO	Remedial System Optimization
Site	Baldwin Place Shopping Center site
SM	Site Management
SMP	Site Management Plan

TCE	trichloroethene
USEPA	United States Environmental Protection Agency
VOC	volatile organic compound

EXECUTIVE SUMMARY

Site Information			
Site Name:	Baldwin Place Shopping Center	**NYSDEC Site No:**	360023
Site Location:	80 U.S. Route 6 Somers, Westchester County, New York	**Remedial Program:**	Inactive Hazardous Waste Disposal
Site Type:	Commercial	**Site Classification:**	04
Parcel Identification(s):	4.20-1-11.1 4.20-1-11.6	**Parcel Acreage:**	28.0
Selected Remedy:	Excavation, Groundwater Extraction Treatment System, Long-term monitoring	**Site COC(s):**	tetrachloroethene (PCE), trichloroethene (TCE) 1,2-dichloroethene (1,2-DCE)

Category	**Summary/Results**
Engineering Controls	• Groundwater Extraction and Treatment System, (Plant 1) • Plant 1 access restriction via chain link fence
Institutional Controls	• Record of Decision • Deed Restriction • Site Management Plan
Site Classification	Class 4 Inactive Hazardous Waste Disposal Site
Site Management Plan	SMP – March 2016
Certification/Reporting Period	January 1, 2021 – December 31, 2021
Inspection	**Frequency**
Site Inspection	Every 15 months
Remedial System Inspection	Monthly
Monitoring	**Frequency**
Groundwater	• Two extraction wells – monthly • Ten on-site monitoring wells – every 15 months
Soil Vapor	• Indoor air and sub-slab vapor – every 3 years
Site Management Activities	The following activities were conducted during this reporting period (January 2021 – December 2021). • Monthly remedial system inspections and sampling of two extraction wells.

Site Management Activities (continued)	• 11/16/21: Groundwater level measurements • 11/16/21: Site-wide inspection • 11/16/21 – 11/17/21: Groundwater samples were collected from ten monitoring wells. Samples were submitted for laboratory analysis of VOCs and PFAS. • 11/16/21: Water sample for VOCs from one residential well located at 264 Mahopac Avenue, Somers, NY.
Additional Site Activities	1. April 2021: Remedial System Optimization (RSO) evaluation was completed. 2. October/November 2021: Groundwater Rebound Evaluation began as part of the RSO. 3. 11/16/21 – 11/17/21: Groundwater samples were collected and were submitted for laboratory analysis of PFAS.
Recommendations	1. Discontinue routine GWETS maintenance during 2022 while the groundwater rebound evaluation is conducted. 2. Continue the implementation and evaluation of the existing IC/ECs, with the exception of the GWETS. 3. Revise the SMP to reflect the current groundwater rebound evaluation for O&M activities 4. Replace the bolts on monitoring wells MW-3D and MW-3DD 5. Add PFAS sampling to the LTM Plan and SMP 6. Utilize PFAS-free hydrasleeves for all monitoring locations associated with the LTM
Cost Evaluation	The total cost of site management activities this reporting period was $40,638. This cost includes engineering (e.g., labor and expense) and subcontractor costs (e.g., laboratory, equipment, rentals, etc.) for the OM&M activities, LTM activities, and reporting activities for both MACTEC and LaBella Associates.

1.0 SITE OVERVIEW

This Periodic Review Report (PRR) summarizes Site Management (SM) activities completed at the Site from January 1, 2021 to December 31, 2021 and evaluates the effectiveness of the remedial actions. Activities conducted at the Site between January 2021 and December 2021 include monthly remedial system inspections, monthly sampling of the recovery wells, and LTM activities. As requested by the New York State Department of Environmental Conservation (NYSDEC), MACTEC Engineering and Geology (MACTEC) collected groundwater samples for emerging contaminants per- and polyfluoroalkyl substances (PFAS). Additionally, MACTEC collected a water sample from one residential well located at 264 Mahopac Avenue, Somers, NY. During the reporting period, SM requirements were met. MACTEC concludes that the remedy for the Site is appropriate. The Site Management Periodic Review Report Notice Institutional and Engineering Controls Certification Form and Institutional and Engineering Controls Property Owner Survey are attached as Appendix A and B, respectively.

1.1 SITE HISTORY AND DESCRIPTION

The Baldwin Place Shopping Center (now Somers Commons) site (Site No. 360023; herein referred to as the Site) is located at 80 U.S. Route 6 in the Town of Somers, Westchester County, New York, (Figure 1.1). Per the Record of Decision (ROD) (New York State Department of Environmental Conservation [NYSDEC], 1995), the Site is an approximately 28.5-acre property bounded by Route 6 and Tomahawk Street to the north, vacant forested land to the south, a rail-trail and residential property to the east, and Clayton Boulevard and an apartment complex to the west. A Deed Restriction is in place for 1.6 acres of the east central portion of the property referred to as Unit Six (Figure 1.2). This Deed Restriction requires adherence to the Site Management Plan and includes a prohibition for use of the property for residential purposes, use of groundwater without proper treatment, and a provision to provide a periodic certification that states compliance with the institutional controls.

A dry-cleaning facility operated at the site from approximately 1965 through 1991. In 1979, the Westchester County Health Department discovered dry cleaning chemicals and their associated breakdown products (tetrachloroethene [PCE], trichloroethene [TCE] and 1,2-dichloroethene [1,2-DCE]) in the mall's two bedrock water supply wells (PW-1 and PW-2). Subsequently, two offsite

areas including the commercial area along Route 6 to the west, and part of the Meadow Park Road community to the southeast were impacted by Site-related contaminants. The original structure where the contaminant release occurred no longer exists; the Site was a mostly vacant shopping center in the early 2000's, when it was demolished to make way for the current shopping center (Somers Commons) located on the property.

Following the closing of the dry cleaners, point of entry treatment (POET) systems were installed at nearby private residences affected by groundwater contamination. In 1989 the Site was listed on the NYSDEC Registry of Inactive Hazardous Waste Disposal sites and subject to environmental investigation and remedial action.

A remedial investigation (RI) was conducted at the Site in August of 1994 by Vincent Uhl & Associates (Vincent Uhl & Associates, 1994). A Feasibility Study (FS) was completed in June of 1995 by LMSE, 1995. From those reports, the NYSDEC issued a ROD in 1995 specifying the removal of contaminated soils from the Site (NYSDEC, 1995) and remediation of the groundwater. The soil excavation was completed in 1997 followed by the construction of a source area groundwater extraction and treatment system (GWETS) in 1998 (Plant 1). As part of the remedy, a water distribution system was constructed at the Site to supply water to the adjacent Meadow Park Road community (Plant 2) in 1999. When the community was subsequently connected to the public water supply in November of 2001, Plant 2 was kept online as a secondary pump and treat system. Both Plant 1 and Plant 2 (Figure 1.2) operated onsite and treated contaminated groundwater through granular carbon vessels. In early 2011, Plant 2 was shut down.

Groundwater extraction and treatment of the source area was conducted onsite through the Plant 1 GWETS. The GWETS was built in 1998 and consists of two extraction wells installed within the source area (RW-1S, an overburden well, and RW-2D, an upper bedrock well), subsurface conveyance piping to the treatment building, controls, utility service connections, and an activated carbon filtration treatment system. Treated water is discharged to a nearby drainage ditch under a State Pollution Discharge Elimination System (SPDES) Permit Equivalent. Access to Pump House 1 (Plant 1) is restricted by a six- foot chain link fence with locked gates. In April 2021, a Remedial System Optimization (RSO) evaluation was conducted to determine the extent of residual tetrachloroethene (PCE) contamination in soil in the vicinity of the former remedial excavation limits

to evaluate the extent of PCE soil contamination that could be contributing to groundwater contamination.

The results of the evaluation indicated that the contamination appears to be in small, discontinuous layers within the shallow overburden, and recommended the shutdown of the GWETS with comprehensive monitoring and evaluation of groundwater data to demonstrate that the concentration of contaminants in groundwater are remaining stable and not progressing off-site (MACTEC, 2021a). In November 2021, the GWETS was shut down for a groundwater rebound evaluation which will run for at least 18-months.

1.2 PHYSICAL SETTING

The physical setting of the Site is discussed in the subsections below.

1.2.1 Land Use

The Site consists of a multi-unit shopping plaza with multiple tenants, and surrounding parking lots. The Site is zoned commercial and is currently utilized for commercial use.

The properties adjoining the Site and, in the neighborhood, surrounding the Site consist of primarily commercial and residential properties, including:

- South - vacant properties
- North - commercial properties
- East - residential properties
- West - commercial and residential properties

1.2.2 Geology

The overburden at the Site consists of a sandy silty till and is approximately 60 feet in thickness in the source area. The till is thinnest near the western/northwestern Site boundary and thickens to the south-southeast. Below the till is a thin mantle of weathered saprolitic granitic gneiss, which is underlain by the fractured granitic gneiss bedrock. The depth to competent bedrock ranges from approximately 11 feet below ground surface (bgs) in the western portion of the Site (vicinity of MW-

9S) to approximately 100 feet bgs in the eastern/southeastern portion of the Site (vicinity of MW-3D) (Aztech, 2014).

1.2.3 Hydrogeology

The saturated thickness of the till ranges from less than 1 foot along the western edge of the mall, to approximately 75 feet along the eastern portion of the mall. The depth to water in the till ranges from approximately 5 feet bgs in the southwestern portion of the Site (i.e., at monitoring well MW-2S) to 13 feet bgs just west of the source area (i.e., at monitoring well MW-7S).

Shallow groundwater across the site area is interpreted to flow primarily to the west/southwest, and bedrock groundwater is interpreted to flow primarily to the southwest. Vertical hydraulic gradients in the source area are in the downward direction (i.e., from the overburden into the fractured bedrock).

Groundwater contours are presented on Figures 1.3 (overburden) and 1.4 (bedrock).

1.3 REMEDIAL GOALS AND REMEDIAL PROGRESS

Remedial goals, outlined in the ROD, for the Site are to prevent direct contact with contaminated soil and/or groundwater, restore groundwater quality to acceptable levels within a reasonable time frame, and to prevent contaminated groundwater from migrating off-Site. In accordance with the Site Management Plan (SMP) Revision 1, current SM requirements for monitoring the performance and effectiveness of the remedial measures completed at the Site consist of monthly operation and maintenance (O&M), Site inspections, and environmental long-term monitoring (LTM) (MACTEC, 2016).

1.3.1 Record of Decision

NYSDEC listed the Site as an Inactive Hazardous Waste Site (ID No. 360023) in 1987. Big V Supermarkets, the responsible party, entered into an Order on Consent with the NYSDEC in September 1991, where as part of an Interim Remedial Measure undertaken prior to issuance of the ROD, they installed new POET systems and/or assumed maintenance and operation of existing POET systems for the water supplies of commercial and/or residential properties impacted with site-

related volatile organic compounds (VOCs). An RI/FS was subsequently completed to address the soil and groundwater contamination. On November 9, 1995, the NYSDEC issued the ROD which required the following actions to remediate the presence of PCE and related compounds at the Site:

- Excavation of source area contaminated soils to remove the source of contamination to the groundwater.
- Groundwater treatment in the source area. A groundwater pump and treat system (Plant 1) was installed in proximity to the source area to capture vertical and horizontal flow from within and around the source area as well as to capture contaminants that might leach into the groundwater from any residual contaminated soil left in place after the excavation and thereby prevent further contamination of the underlying bedrock aquifer.
- Supply potable water to 19 residences on Meadow Park Road. This was accomplished by developing a new water district that derived its water supply from the two water supply wells associated with the former shopping center and treating that water with granular activated carbon (GAC) prior to distribution to the 19 residences. That water supply would later become known as "Plant 2".
- Maintain POET systems along US Route 6. This would be accomplished by continuing maintenance and operation of individual POET systems installed on commercial and/or residential properties located along US Route 6. Use of these POET systems would continue until groundwater quality is restored to drinking water standards or, an alternate source of water supply became available. Additionally, any future wells along Route 6 that became impacted by site-related VOCs in excess of drinking water standards would be equipped with a POET system.
- Connection to alternate water supply. Each of the residences and/or commercial establishments equipped with POET systems would be connected to the regional municipal system when it became available.

1.3.2 Remedial Actions

Big V Supermarkets assumed responsibility for implementing remedial actions required by the ROD until August 6, 2003, when liquidation of their assets under a bankruptcy proceeding terminated their funding of remedial efforts. NYSDEC has assumed direct responsibility for the continued implementation of the ROD since that time.

Source Removal

Source removal was conducted in February 1997 and involved excavation of shallow soil from above the footers of the former building foundation and installation of sheet piling to facilitate the excavation of impacted soils at depth. Altogether, approximately 135 cubic yards of source area soil (236 tons) to a depth of 16 feet bgs was removed. In 2015, contamination was detected directly beneath the previously excavated source area.

Potable Water Supply – Meadow Park Road

The community water supply system for the Meadow Park Road residences was constructed in 1998 and began operating in February 1999. This system delivered treated water obtained from the shopping center water supply to 17 of the 19 residences located on Meadow Park Road. These 17 residences in the Meadow Park Road Area were connected to the regional municipal water system when it became available in November 2001 and the connection between the Site's former water supply and Meadow Park Road was terminated. The individual supply wells serving two residences that were not connected into the municipal water system in 2001 were sampled quarterly until 2003, followed by annual sampling in 2004, 2006, and 2007. Analytical results indicated that these two wells were not impacted by VOCs related to the Site, and are therefore sampling was ceased (Aztech, 2014).

The Site's former water supply wells continued operation as a groundwater pump and treat system (Plant 2) until 2011 when operation of Plant 2 was suspended. Plant 2 was recommended for decommissioning in a 2014 Remedial System Optimization (RSO) completed by MACTEC and has since been decommissioned/demolished.

2.0 EVALUATION OF REMEDY PERFORMANCE, EFFECTIVENESS AND PROTECTIVENESS

The SMP for the Site includes an institutional controls/engineering controls (ICs/ECs) Plan, Operation and Maintenance (O&M) Plan, LTM Plan, and associated reporting (MACTEC, 2016). SM requirements are summarized in Table 2.1.

This Periodic Review Report (PRR) documents the SM activities conducted from January 2021 to December 2021:

- Synoptic groundwater measurements: November
- LTM Activities: November
- Site Inspections: November
- Remedial System Inspections: Monthly (except December)

Soil vapor intrusion (SVI) monitoring is an existing EC for Unit Six (Home Goods); however this monitoring is completed every three years, and not included within the timeframe of the 2021 PRR. SVI sampling was last completed in January 2020 (Aztech, 2020). Other Activities conducted during the reporting period per request by the NYSDEC included:

- During the November 2021 LTM sampling event, MACTEC collected groundwater samples for PFAS.
- During the November 2021 LTM sampling event, MACTEC collected a water sample for VOCs from one residential well located at 264 Mahopac Avenue, Somers, NY.

This PRR was completed using Site-specific documentation, which includes:

- ROD (NYSDEC, 1995)
- SMP (MACTEC, 2016)
- Deed Restriction (Westchester County, NY, 2015)
- LaBella Associates (LaBella) Quarterly Inspection Reports (LaBella, 2021a; LaBella, 2021b; LaBella, 2021c: LaBella, 2022)
    - First Quarter 2021 Operating Summary Report dated October 27, 2021
    - Second Quarter 2021 Operating Summary Report dated October 28, 2021
    - Third Quarter 2021 Operating Summary Report dated October 28, 2021
    - Fourth Quarter 2021 Operating Summary Report dated January 11, 2022

This PRR was prepared to document that established controls required by the SMP are operational and effective, that the SMP is being implemented and conducted accordingly, and that the remedy remains protective of the environment and/or public health. SM activities were completed during the reporting period and an evaluation of the performance, protectiveness, and effectiveness of the remedy is summarized below.

2.1 INSTITUTIONAL CONTROLS/ENGINEERING CONTROLS

Contaminated soil and groundwater exist beneath the ground surface; therefore IC/ECs are required to protect human health and the environment. ICs were established via a deed restriction in order to (1) ensure access to the Site for the unimpeded operation of the EC systems (ground water collection system); (2) restrict future residential use of the Site; and (3) restrict future use of the groundwater. These measures help ensure that the remedy remains protective in the future. The ICs for the Site include the ROD, Deed Restriction and Site Management Plan.

ECs for the Site include a GWETS (i.e., Plant 1) which is comprised of two extraction wells installed within the source area (RW-1S, an overburden well, and RW-2D, an upper bedrock well), subsurface conveyance piping to Plant 1, controls, utility service connections, and the Plant 1 activated carbon filtration treatment system. Groundwater is treated prior to discharge to a nearby drainage ditch under a SPDES Permit Equivalent. Access to Pump House 1 (Plant 1) is restricted by a six- foot chain link fence with locked gates (Figure 1.2).

During the reporting period, the treatment system was inspected monthly (except for December due to shutdown of the GWETS). ECs were determined to be in place and functioning as intended with the exception of the following:

- When LaBella arrived on-site in February, the system was not operational. The system was rebooted and was fully operational at the time of departure.
- The system was shut down on November 18, 2021 to evaluate the effect on contaminant groundwater concentrations at and downgradient of the source. It is anticipated that this evaluation will be conducted for at least 18-month, remaining off until 2023.

A comprehensive Site inspection was conducted by MACTEC on November 18, 2021 which included an evaluation of the visible components of Plant 1. The GWETS building is secure, and the components appeared to be in good working order.

2.2 OPERATIONS & MAINTENANCE

Monthly Site visits have been conducted by LaBella (formally Aztech Environmental Technologies) during this 2021 reporting period except for December 2021. In accordance with the SMP, the Site visits include monitoring of the flow rate and water levels in extraction wells RW-1S and RW-2D as well as pressure differential across the bag filter units and carbon vessels. Visual inspection of the remedial system shed & components, condition/cleanliness of the shed and surrounding area, and routine maintenance are also conducted as needed.

2.2.1 Inspection & Monitoring

During the reporting period, system monthly (except December) operation and maintenance inspections were performed in accordance with the SMP. Routine activities included collection of GWETS performance monitoring samples from RW-1S and RW-2D combined influent, mid carbon treatment, and effluent sample ports for analysis of VOCs by United States Environmental Protection Agency (USEPA) method 8260, as well as bag filter changes (except as noted below). A summary of other maintenance activities conducted, and observations documented during the Site inspections are described below:

- January 2021

  - The system was operational upon arrival.
  - The pump in RW-1 was removed, cleaned and placed back in well RW-1.
  - RW-2 was cleaned and bag filters replaced.
  - The system was restarted and was fully operational upon departure.
- February 2021
  - The system was down and not operational upon arrival to the Site.
  - The system was rebooted and began running.
  - Pressure gauges were adjusted and bag filters were changed.
  - The system was operational upon departure from the Site.
- March 2021
  - The system was operational upon arrival to the Site.
  - The human machine interface (HMI) was malfunctioning so the system was restarted and the HMI began working correctly.
  - Bag filters were changed.
  - The system was operational upon departure from the Site.
- April 2021
  - The system was operational upon arrival.
  - RW-1 and RW-2 were cleaned and bag filters were changed.
  - The system was restarted after the completion of maintenance activities and fully operational upon departure.
- May 2021
  - The system was operational upon arrival
  - Pressure gauges were adjusted and bag filters were changed.
  - It was noted that the pump head needed to be replaced.
  - The system was restarted and operational upon departure from the Site.
- June 2021
  - The system was operational upon arrival to the Site.
  - RW-1 and RW-2 were cleaned and bag filters were changed.
  - The system was operational upon departure from the Site.
- July 2021
  - The system was operational upon arrival to the Site.
  - RW-1 and RW-2 were cleaned and the bag filters were changed,
  - The system was restarted and was fully operational upon departure from the Site.

- August 2021
  - The system was operational upon arrival to the Site.
  - Pressure gauges were adjusted and bag filters were changed.
  - The pump head was changed.
  - The pipe after the flow meter broke and parts were listed for repair.
  - The system was fully operational upon departure from the Site.
- September 2021
  - The system was operational upon arrival to the Site.
  - RW-1 and RW-2 were cleaned and bag filters were changed.
  - The pipe after the flow meter was replaced.
  - The pump wire was noted to be damaged and was replaced.
  - The system was fully operational upon departure from the Site.
- October 2021
  - The system was operational upon arrival to the Site.
  - RW-1 and RW-2 were cleaned and the bag filters were changed.
  - The system was restarted and operational upon departure from the Site.
- November 2021
  - The system was fully operational upon arrival.
  - The system was shut down in accordance with the planned 18-month shutdown.
- December 2021
  - As a result of the November 2021 system shutdown, the Site visit and sampling were not conducted in December 2021.

System Performance Sampling Results:

Performance sample results identified Site-related VOCs in both recovery wells during each monthly sampling event. PCE was the compound identified at the highest concentration (4,200 µg/L in well RW-1S in June and 7,400 µg/L in well RW-2D in August). A summary of the O&M analytical results for wells RW-1S and RW-2D provided by LaBella for this reporting period are presented in Appendix C-1.

VOC results from system effluent samples (Appendix C-1) collected from Plant 1 during the 2021 reporting period were consistently below the analytical laboratory reporting limit (1.0 µg/L per compound). As such, the laboratory analytical results indicate that the treatment and discharge of

groundwater captured by Plant 1 is effective and protective of human health and the environment. Therefore, the GAC treatment is effectively removing Site-related VOCs present in the groundwater extracted via wells RW-1S and RW-2D prior to its discharge into the unnamed stream adjacent to the eastern side of the Site.

During the reporting period, a total of 179,240 gallons of groundwater were treated through the GWETS at Plant 1. Total contaminant mass removed from January to December 2021 is estimated to be 6.15 lbs. Total run time hours are estimated due to system resets during this time. Plant 1 Operational Data is presented in Appendix C-2.

2.3 LONG TERM MONITORING

The LTM program described in the SMP includes groundwater elevation monitoring, monitoring well inventory and repair, groundwater sampling and analysis, and soil vapor intrusion monitoring. There are currently 20 groundwater monitoring wells at the Site (Figure 1.2). Since January 2016, ten groundwater monitoring locations, designated as MW-4S, -4D, -5S, -7S, -7D, -8S, -9S, -9D, -12S and -101M, have been sampled at 15-month intervals for VOCs. At the request of the NYSDEC, MACTEC also collected groundwater samples for PFAS. Results of the LTM activities conducted between January and December 2021 are discussed below and in Section 2.3.3. The LTM monitoring well locations are shown on Figure 1.2. Table 2.2 summarizes the sampling and analysis plan for LTM groundwater sampling locations.

2.3.1 Groundwater Elevation Monitoring

Groundwater levels were measured in November in the 20 on-site monitoring wells during an initial Site visit.

Groundwater elevations are summarized on Table 2.3. Shallow and deep groundwater potentiometric surfaces are shown on Figure 1.3 and Figure 1.4, respectively.

2.3.2 Monitoring Well Inventory and Repair

Monitoring well conditions were inspected in November 2021 during the synoptic water level round. Site inspection records and photographs taken during the inspections are included in Appendix D-2 and

Appendix D-3, respectively. The monitoring wells were observed to be in good-to-fair condition (Table 2.4). Monitoring well repairs were which were recommended in the 2020 PRR were conducted during the July 2021 Site visit and included:

- Repaired eight (8) monitoring wells to maintain integrity:
  - Installed locks on monitoring wells MW-2S and MW-2D.
  - Replaced the bolts on monitoring wells MW-7D, MW-12S1 and MW-12M.
  - Replaced the PVC cap on monitoring well MW-8S.
- Further evaluated the structural integrity of monitoring well MW-10D by removing excess soil from the annular space, and determined the well is in good condition.

It was noted during the November 2021 inventory that monitoring wells MW-3D and MW-3DD require new bolts rethreaded to maintain integrity. These locations were obstructed by vehicles during the July 2021 Site visit.

2.3.3 Environmental Sampling and Analysis

The LTM program includes collection of groundwater samples from 10 monitoring wells. Groundwater samples were collected using passive diffusion bags for VOCs at 10 monitoring locations. Samples were submitted to Test America Laboratory in Buffalo, NY for analysis of VOCs by USEPA method 8260. Field Data Records (FDRs) from this event are included in Appendix D-1.

Compounds detected in groundwater were tabulated and compared to the New York State (NYS) Class GA groundwater (GA) standards (NYS, 1999) and NYS Guidance Values (GV). Results for compounds detected in one or more groundwater samples are discussed below and presented in Table 2.5.

- PCE and/or its degradation products, trichloroethene (TCE), cis-1,2-dichloroethene (cis-1-2 DCE), and/or Vinyl Chloride (VC) were detected at or above the GA standard in six of the ten monitoring wells sampled.
  - The highest PCE detection, 3,000 micrograms per liter (µg/L), was from monitoring well MW-12S, located immediately downgradient of the source area.
- Methyl tert-butyl ether (MTBE) was detected below the GV limits in all monitoring wells except MW-4D (and MW-4D duplicate), at concentrations of 28 µg/L and 27 µg/L, respectively. These concentrations exceed the GV of 10 µg/L. Note that MTBE is not a Site COC and is historically found north and hydraulically upgradient of the site due to fuel spills

at multiple gas stations along Route 6 (1998 Engineers Report prepared for the Water Supply Application for Baldwin Place Mall [Lawler, Matusky & Skelly, 1998]), and is believed to be the result of a separate source.

- VOCs were not detected above the GA standard in groundwater samples from two monitoring well locations upgradient of the source area (MW-4S and MW-8S).

The interpreted volatile organic compounds plume radiates southwest from MW-12S as shown in the PCE isopleth map (Figure 2.1). PCE concentrations were observed in shallow and intermediate, and deep wells with the highest concentrations in the intermediate overburden well (MW-12S). PCE degradation products, TCE, 1,2-DCE, cis-1,2-DCE, and VC, were observed in shallow, intermediate and deep wells with the highest concentrations in deep well MW-101M. The presence of the degradation products indicates that the primary contamination, PCE, is being degraded in the sub-surface, likely through biological processes.

The interpreted PCE plume flows west from monitoring well MW-12S toward monitoring well MW-9S (Figure 2.1). Time series plots showing concentrations of PCE in select overburden monitoring wells MW-5S (within the source area as shown on Figure 1.2), MW-12S (immediately downgradient of the source area), and MW-9S (further downgradient) are included in Appendix E. Since the implementation of the GWETS, PCE concentrations have declined, and have remained relatively consistent in recent years, see Appendix E for the PCE Time Series Plot.

2.4 SOIL VAPOR INTRUSION MONITORING

The 2016 SMP for the Site establishes a frequency of every three years for conducting SVI monitoring. Sampling includes sub-slab vapor, indoor air and outdoor air associated with Building 6. This location is adjacent to (and south of) the former source area. The most recent SVI monitoring event was conducted on January 8, 2020, and included two sub-slab locations, two corresponding indoor air locations, and one outdoor air location. Samples were collected via summa canisters and analyzed via analytical method TO-15 (Aztech, 2020).

The sample results of the January 2020 SVI event were evaluated against the decision NYSDOH matrices provided in the Guidance for Evaluating Soil Vapor Intrusion in the State of New York (NYSDOH, 2006), and the associated 2013, 2015 and 2017 addendums. An evaluation SVI data in

accordance with the Decision Matrices suggests that "No Further Action" is needed based on the concentrations of the compounds identified.

2.5 ADDITIONAL SITE ACTIVITIES

Additional Site activities conducted in 2021 are described below.

2.5.1 Remedial System Optimization Evaluation

In April 2021, MACTEC conducted a Remedial System Optimization (RSO) evaluation to evaluate the extent of residual PCE contamination in soil in the vicinity of the former remedial excavation that could be contributing to groundwater contamination (MACTEC, 2021b). RSO evaluation activities included advancing eight soil borings and collecting soil samples for VOC analysis. A total of 60 soil samples were collected from eight soil borings within and surrounding the previously excavated source area. Concentrations of PCE were detected above the 6 New York Codes Rules and Regulations Part 375 Soil Cleanup Objective (SCO) for the protection of groundwater of 1.3 mg/kg in three samples located within and downgradient of the previously excavated source area Findings are further discussed below in Section 2.4.2.

2.5.2 Groundwater Rebound Evaluation

The results of the April 2021 RSO evaluation indicated that the contamination appears to be in small, discontinuous areas within the shallow overburden, and recommended the shutdown of the GWETS with comprehensive monitoring and evaluation of groundwater data to demonstrate that the concentration of contaminants in groundwater are remaining stable near the source and not progressing downgradient of the source (MACTEC, 2021a). The following activities were completed for the groundwater rebound evaluation (MACTEB 2021b):

October 2021: Installation of transducers to evaluate water levels before, during, and after shutdown of the GWETS to help evaluate radius of influence of the GWETS and potential changes in groundwater flow direction. Passive Diffusion Bags (PBDs) were installed every five feet within the screened intervals in monitoring wells MW-5S, MW-7S, MW-7D, MW-12S, MW-12SI, MW-12M, and MW-101M to further evaluate potential contaminant flow paths and potential areas of higher contaminant concentrations in groundwater.

Two weeks subsequent to the installation of transducers and PDBs, the PDBs were retrieved and samples were collected and submitted to the laboratory for VOCs via USEPA 8260, sodium via USEPA ICP 6010, and bromide/fluoride via USEPA 300.0.

November 2021: The GWETS was shut down and the pumps were removed from extraction wells RW-1S and RW-2D and transducers were installed. Tracer compounds sodium fluoride and sodium bromide were introduced to extraction wells (RW-1S and RW-2D, respectively) to evaluate the rate and vertical direction of groundwater flow. Two weeks subsequent, transducers were removed from monitoring wells and PDBs were installed in the extraction and monitoring wells.

Quarterly groundwater monitoring for VOCs and tracer compounds at, near, and downgradient of the source area will begin in February 2022 to evaluate for potential changes in groundwater concentration, as well as potential groundwater and contaminant preferential flow paths.

2.5.3 Emerging Contaminant Sampling (PFAS)

At the request of the NYSDEC, MACTEC collected samples from seven monitoring wells (MW-101M, MW-12S, MW-4S, MW-4D, , MW-7D, MW-9S, and MW-9D), two extraction wells (RW-1 and RW-2), and the system effluent for PFAS. Table 2.6 shows a breakdown of detected analytes; there were detections in monitoring and recovery well samples. PFOS and/or PFOA was at or exceeded the NYS MCL of 10 nanograms per liter (ng/l) at all monitoring and recovery well locations. Concentrations of PFOS exceeded the NYS MCL at five monitoring locations ranging from 3.2 (MW-4D) to 30 ng/L (MW-12S).. Concentrations of PFOA exceeded the NYS MCL at eight monitoring locations ranging from 7.3 (MW-12S) to 19 ng/L (MW-7D).

PFAS, PFOA, and PFOS related analytes were below laboratory reporting limits within the system effluent sample.

2.5.4 Residential Sampling

At the request of the NYSDEC, MACTEC collected a water tap sample from one residential well located at 264 Mahopac Avenue, Somers, NY for VOCs by USEPA Method 524.2.

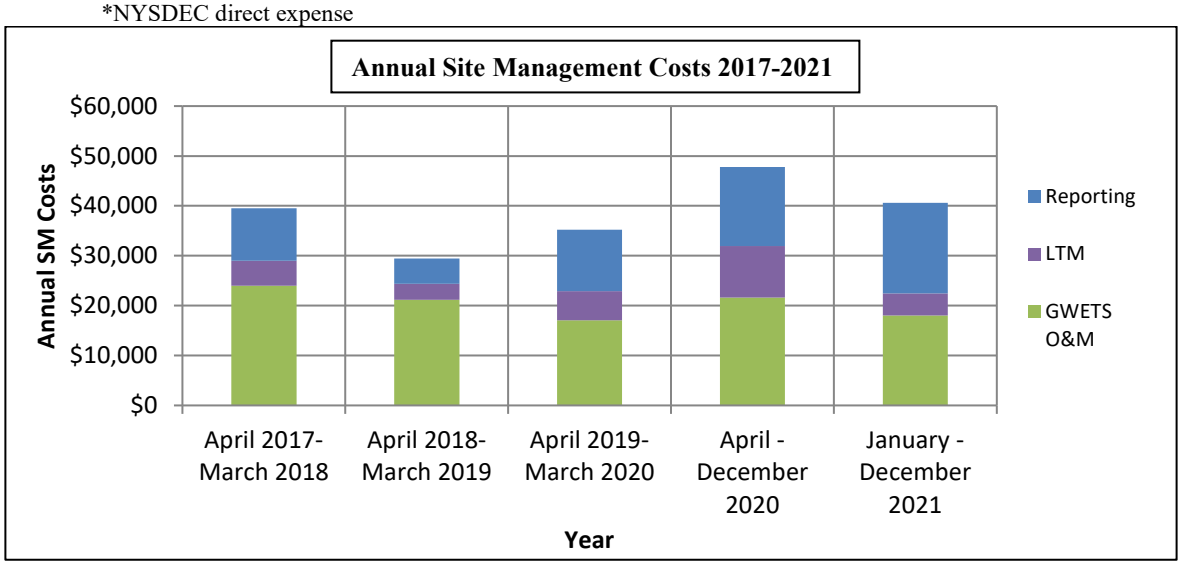
The results showed that VOCs were non detected above the laboratory reporting limit.

3.0 EVALUATION OF COSTS

A cost summary for the reporting period is provided below. As shown, most of the SM costs for the reporting period were incurred for reporting and operation and maintenance of the GWETS. Costs per pound of PCE for this reporting period are approximately $2,934.

2021 Annual Site Management Cost Breakdown	
GWETS OM&M	
Aztech Reported Costs	$18,042
	$18,042
LTM	
Labor, Lodging, Travel, and shipping	$4,454
Laboratory Services*	$83
	$4,354
Reporting, including PRR	
Aztech Reported Labor	$5,698
MACTEC Labor	$12,461
	$18,159
Annual Total:	**$40,638**

NOTES:
*NYSDEC direct expense



Notes:
2017-March 2020: Costs obtained from Aztech PRRs
2017-2018: LTM Costs include Soil Vapor Sampling
2019-2020: LTM Costs include Soil Vapor Sampling and Emergent Contaminant Sampling
2020: Reporting Costs include LTM & Site Inspection Report, Quarterly Reports (Aztech), and PRR
2021: Reporting Costs include LTM & Site Inspection Report, Quarterly Reports (LaBella), and PRR

4.0 SUSTAINABILITY AND RESILENCY

The following section describes sustainability and resiliency actions that can be taken at the Site based upon the revised NYSDEC DER 31-Green Remediation (NYSDEC, 2011) and CP-49-Climate Change and DEC Action (NYSDEC, 2021), and CP-75- DEC Sustainability (NYSDEC, 2022).

4.1 GREEN REMEDIATION

DER-31, revised in January 2011, describes the strategies for developing and promoting innovative cleanup while restore contaminated sites to productive use, promote environmental stewardship, and reduce associated costs while minimizing ancillary environmental impacts from these cleanups (NYSDEC, 2011).

The following green remediation techniques applicable to Site Management will be considered for the Site:

- Increase energy efficiency/minimize total energy use and greenhouse gas emissions to the air by replacing equipment, altering operation, or shutting down unnecessary equipment.
- Incorporate sustainability into periodic reviews to identify opportunities to reduce energy and other impacts.

Green remediation actions which will be considered during current groundwater rebound evaluation associated with the RSO evaluation will include:

- Focus on optimization to reduce energy use and time to closure
- Identify opportunities to reduce energy
- Reduce O&M visit frequency

4.2 CLIMATE CHANGE

CP-49 provides the NYSDEC's policy for incorporating climate change considerations into activities to comply with the specific requirements of the Climate Leadership and Community Protection Act of 2019 and the Community Risk and Resilience Act of 2014 (NYSDEC, 2021).

MACTEC will submit a climate vulnerability assessment report in February 2022 that will describe current and future conditions at the Site that are vulnerable to climate change and evaluate baseline GHG emissions.

4.3 SUSTAINABILITY

On January 3, 2022, The NYSDEC issued CP-75, a sustainability plan which describes NYSDEC goals for transitioning to lower carbon emissions which will contribute to sustainable economy for the future (NYSDEC, 2022).

The policy includes guidance for the following:

- Eliminating greenhouse gasses
- Electrified vehicle fleets
- Energy efficiency in facilities
- Preventative maintenance to existing infrastructure to minimize life-cycle carbon
- Lower emissions while commuting
- Strive for zero waste
- Minimize hazardous materials and chemicals
- Minimize water usage
- Utilize green products and services
- Utilize low carbon equipment and technologies
- Demonstrate sustainable practices and technologies

MACTEC will continue to be cognizant of the new sustainability policy and will incorporate sustainable products, technologies and equipment when feasible. As the GWETS has been shut down, NYCDEC is only using energy to heat Plant 1 during the colder months and therefore, emissions output from the Site have significantly decreased.

5.0 CONCLUSIONS AND RECOMMENDATIONS

Current SM activities being conducted at the Site are in compliance with the requirements of the Site's SMP, and SM activities are effective in monitoring the status of the following remedial goals established in the ROD:

- Prevent exposure to contaminated soil;
- Prevent continued degradation of groundwater quality through migration of PCE and its break down products from soils to groundwater;
- Prevent exposure (inhalation, ingestion, and dermal) to contaminated groundwater;
- Restore groundwater quality (impacted by PCE and breakdown products) to acceptable levels within a reasonable time frame; and
- Prevent migration and discharge of site contaminants in groundwater to adjacent surface water bodies.

Restoration of groundwater quality at the Site is ongoing.

5.1 INSTITUTIONAL CONTROLS/ENGINEERING CONTROLS

The current ICs/ECs are adequate to achieve the objectives for protection of human health and the environment based on current Site use. ICs for the Site via a deed restriction, including (1) ensuring access to the Site for the unimpeded operation of the EC systems (ground water collection system); (2) restricting future residential use of the Site; and (3) restricting future use of the groundwater, remain in-place and adhered to.

ECs for the Site include a GWETS with two extraction wells, subsurface conveyance piping to Plant 1, controls, utility service connections, and the Plant 1 activated carbon filtration treatment system. During the reporting period, ECs were determined to be in place and functioning as intended with the exception of those described in Section 2.1. The GWETS was shut down in November 2021 as described in Section 2.4.2.

SVI monitoring completed in January 2020 meets the criteria established via the NYSDOH Decision Matrices (and their subsequent addenda). The current SVI monitoring program meets the goals of the ROD.

5.2 OPERATION AND MAINTENANCE PLAN

The remedial measures in place require routine inspection, sampling, and maintenance to provide effective remediation and reduction of exposure to site-related contaminants. Compliance with procedures and requirements in the SMP was maintained during the reporting period. Site-related VOCs in effluent water samples did not exceed the New York State Class GA Groundwater Standards criteria during the reporting period, thus meeting discharge limits. Quarterly progress reports, generated during the reporting period summarizing GWETS operational and maintenance data, were generated by LaBella and submitted to the NYSDEC. Since November 2021, while the GWETS is shut down for the groundwater rebound evaluation, monthly site visits and sampling for O&M have ceased.

5.3 LONG TERM MONITORING PLAN

Monitoring the current condition (location and contaminant concentrations) of the plume is accomplished through the LTM program in accordance with the SMP with the addition of collecting samples for PFAS as directed by the NYSDEC. Data from the 2021 events continue to show the core of the plume is in the vicinity of the Site near MW-12S. Changes in groundwater concentrations and plume movement will continue to be monitored during the 15-month sampling events. The next LTM sampling event will be conducted in February 2023.

5.4 EMERGING CONTAMINANT SAMPLING

At the request of the NYSDEC, MACTEC will continue to collect samples from nine on-Site monitoring locations during the 2023 LTM sampling event for PFAS.

5.5 SITE MANAGEMENT PLAN

The 2016 SMP directs that the off-Site bedrock monitoring wells in the Meadow Park Road area be sampled every fifth quarter (5/4 sampling). However, these wells were abandoned when the residential properties they serviced were connected to the municipal water system and, therefore,

they are no longer available for groundwater sampling. The monitoring schedule, as defined in the SMP, should be revised to reflect this change in the monitoring program for the Site.

The 2016 SMP directs that bi-weekly O&M visits be made to the Site to check its operation and to perform routine maintenance tasks, as necessary. However, monthly (rather than bi-weekly) Site visits have been made during the reporting period and ceased in November 2021 for the next 18 months during the groundwater rebound evaluation as directed by the NYSDEC. The O&M schedule, as defined in the SMP, should be revised to reflect this change in the monitoring program for the Site.

5.6 RECOMMENDATIONS

In an effort to continue optimizing system efficiency and remedial progress at the Site, the following are recommended.

5.6.1 Institutional Controls/Engineering Controls

The implementation and evaluation of existing IC/ECs should continue, with the exception of the shutdown of the GWETS. Quarterly groundwater monitoring associated with the groundwater rebound evaluation will continue at the Site for the next 18-month period beginning in February 2022.

5.6.2 Operation And Maintenance Plan

The SMP will be updated in the first quarter of 2022 to reflect the ongoing groundwater rebound evaluation.

5.6.3 Long Term Monitoring Plan

MACTEC recommends the following activities associated with the LTM:

- Replace the bolts on monitoring wells MW-3D and MW-3DD to maintain integrity.
- Addition of PFAS sampling to the LTM
- Complete LTM sampling utilizing PFAS-free hydrasleeves for monitoring locations associated with the LTM, with the exception of monitoring locations currently utilized in the groundwater rebound evaluation. Utilizing hysdrasleeves will:
    - Allow for sampling VOCs and PFAS simultaneously during future LTM events; and
    - Reduce time and costs of sampling (i.e. decrease in equipment required and labor spent).

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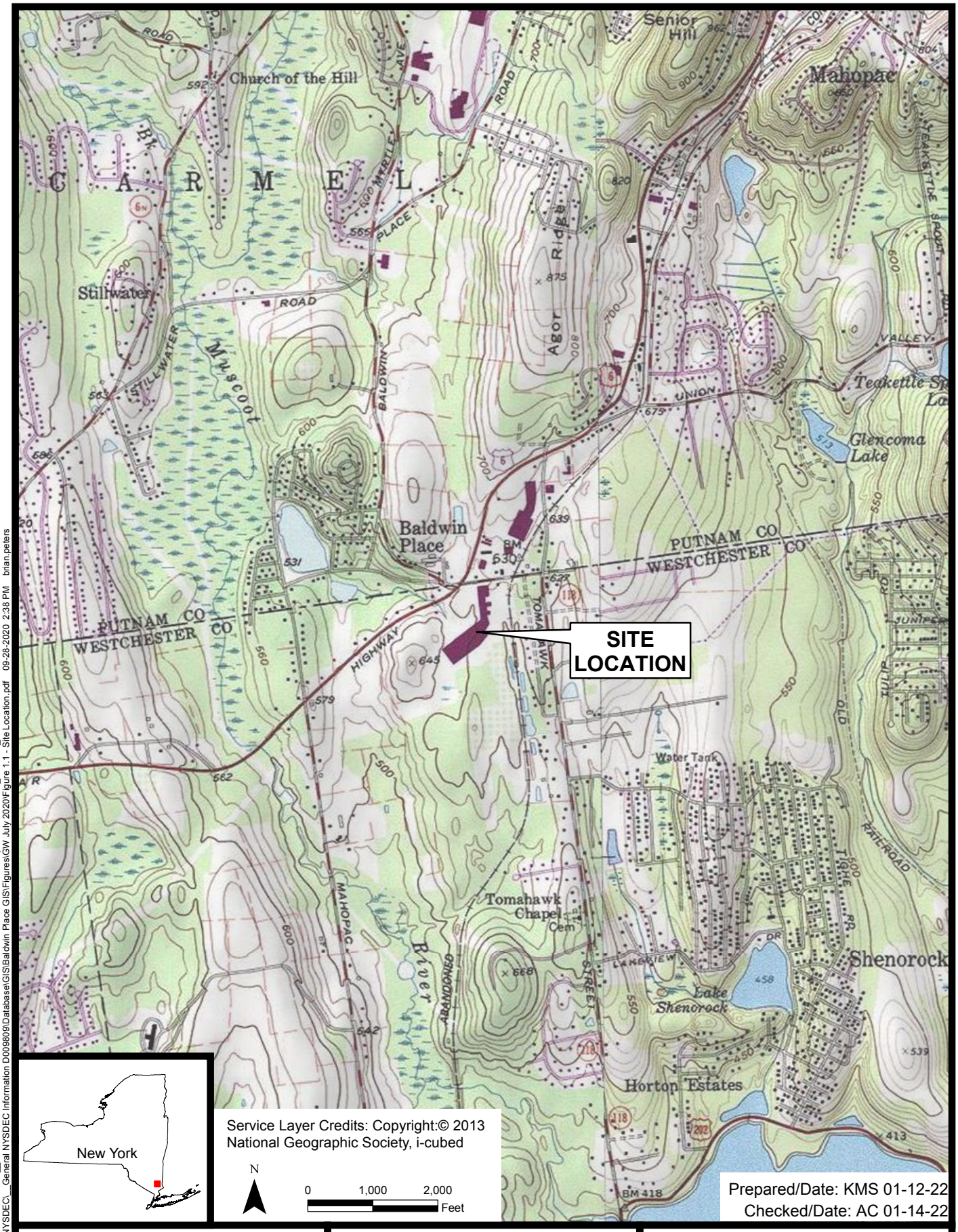
FIGURES

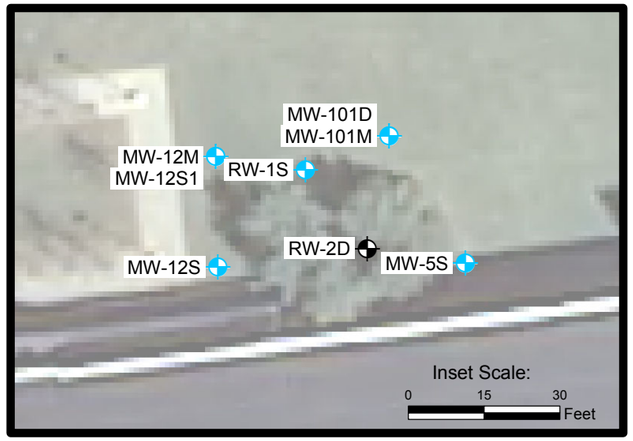


BALDWIN PLACE
SOMERS, NEW YORK

MACTEC

Site Location

Project 3616206104 Figure 1.1



Baldwin Place Road
State Highway 118
MW-4S
MW-4D
MW-8S
Route 6
Clayton Boulevard
RW-1S
MW-101M
MW-101D
MW-12S1
MW-12M
MW-5S
MW-7S
MW-7M1
MW-7M2
MW-12S
RW-2D
MW-3D
MW-3DD
MW-7D
Plant 1
MW-9D
MW-9S
Unit Six
(Location of Deed Restriction)
MW-10D
Meadow Park Road
PW-1
Plant 2
PW-2
MW-2S
MW-2D

Legend

- Overburden Well
- Bedrock Well
- Approximate Unit 6 Deed Restriction
- Approximate Site Property Line

N

0 75 150 Feet

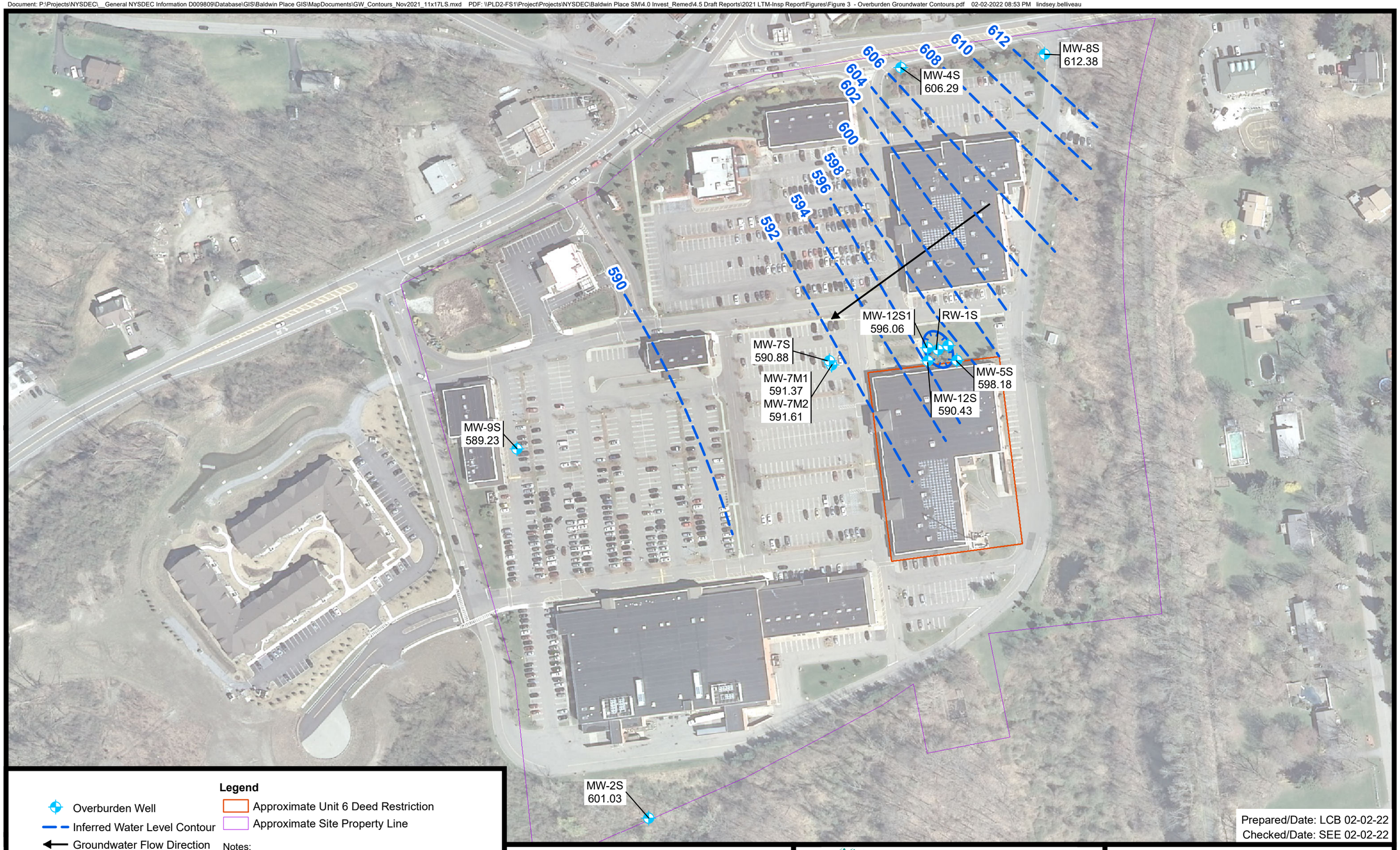
Putnam County color digital orthoimagery (2013) obtained from New York State GIS Clearinghouse at: gis.ny.gov

Prepared/Date: KMS 01-12-22
Checked/Date: ANC 01-14-22

BALDWIN PLACE
SOMERS, NEW YORK

MACTEC

Site Features and
Monitoring Well Locations
Project 3616206104 Figure 1.2



Legend

- Overburden Well
- Inferred Water Level Contour
- Groundwater Flow Direction
- Approximate Unit 6 Deed Restriction
- Approximate Site Property Line

N

0 75 150 Feet

Notes:
1. 2' Water Level Contour Interval
2. Putnam County color digital orthoimagery (2013) obtained from New York State GIS Clearinghouse at: gis.ny.gov

Prepared/Date: LCB 02-02-22
Checked/Date: SEE 02-02-22

BALDWIN PLACE
SOMERS, NEW YORK

MACTEC

Shallow Groundwater Contours
November 2021
Project 3616206104 Figure 1.3

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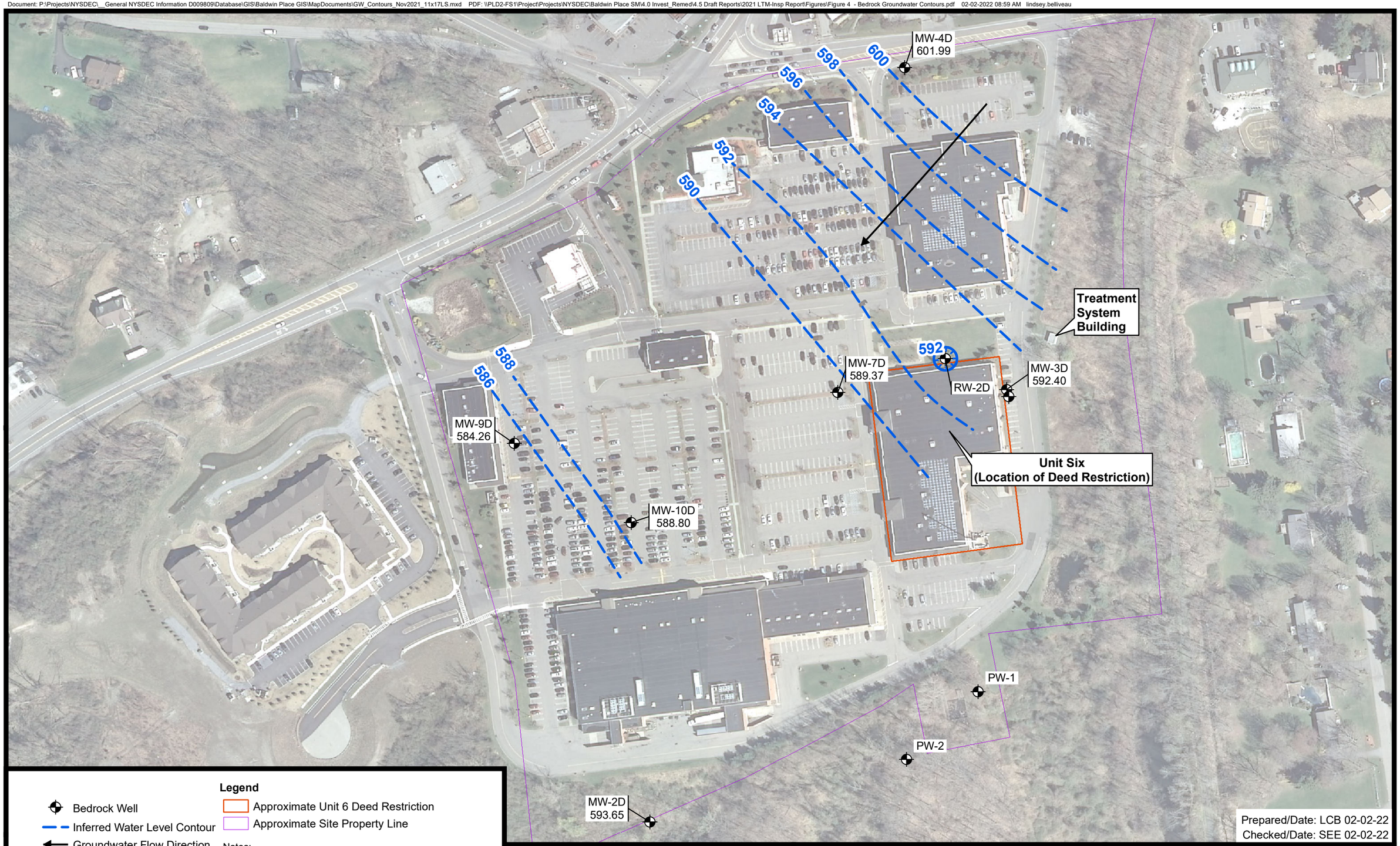


Legend

- Bedrock Well
- Inferred Water Level Contour
- Groundwater Flow Direction
- Approximate Unit 6 Deed Restriction
- Approximate Site Property Line

N

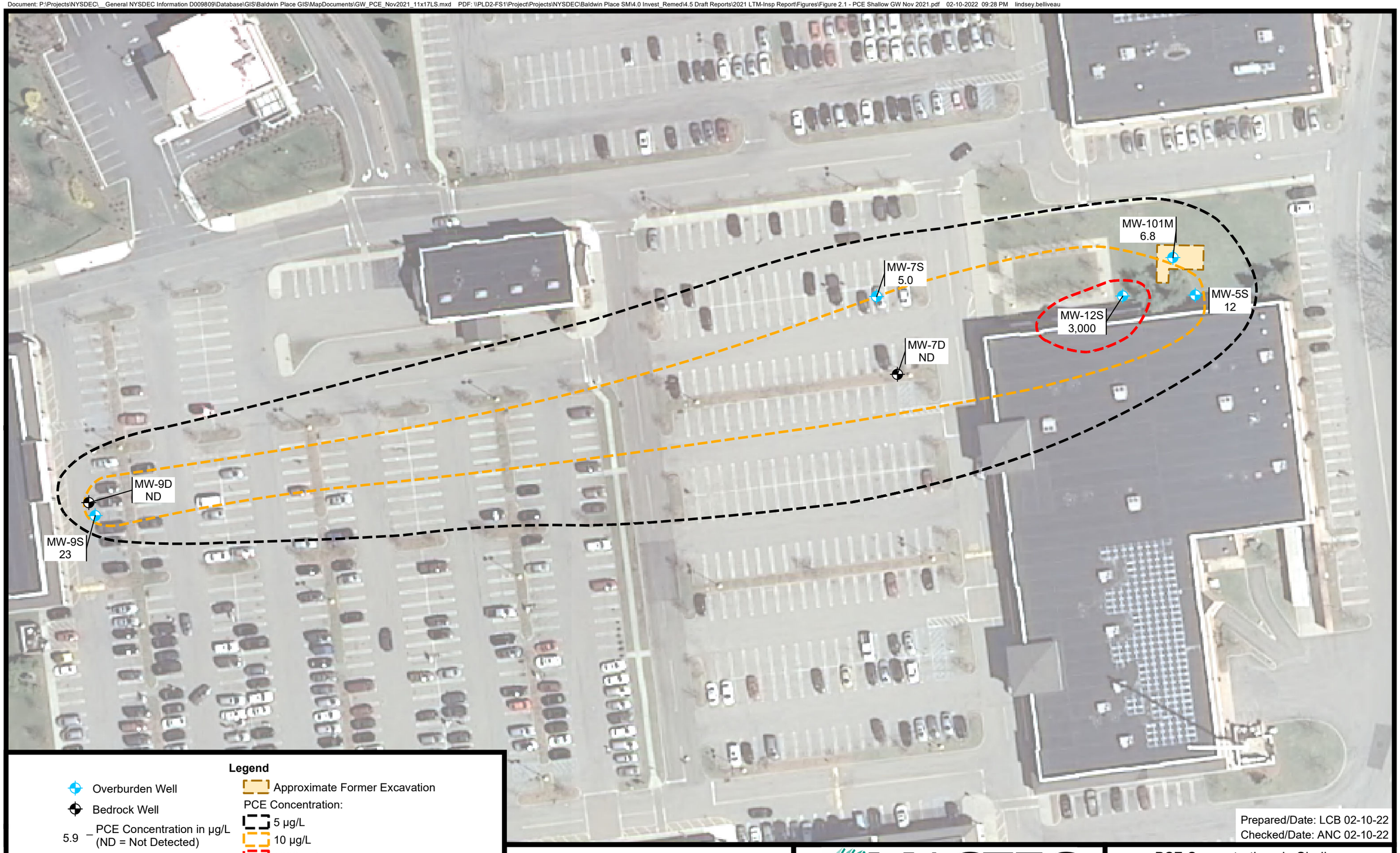
0 75 150 Feet

Notes:
1. 2' Water Level Contour Interval
2. Putnam County color digital orthoimagery (2013) obtained from New York State GIS Clearinghouse at: gis.ny.gov

BALDWIN PLACE
SOMERS, NEW YORK

MACTEC

Deep Groundwater Contours
November 2021
Project 3616206104 Figure 1.4



Legend

- Overburden Well
- Bedrock Well
- 5.9 – PCE Concentration in µg/L (ND = Not Detected)
- Approximate Former Excavation
- PCE Concentration:
  - 5 µg/L
  - 10 µg/L
  - 1000 µg/L

N

0 30 60 Feet

Putnam County color digital orthoimagery (2013) obtained from New York State GIS Clearinghouse at: http://www.nysgis.state.ny.us

Prepared/Date: LCB 02-10-22
Checked/Date: ANC 02-10-22

BALDWIN PLACE SHOPPING CENTER
SOMERS, NEW YORK

MACTEC

PCE Concentrations in Shallow Monitoring Wells
Project 3616206104 Figure 2.1

TABLES

Table 2.1: Site Management Requirements

Component	Action	Required Frequency	Comments/Recommendations
Groundwater Extraction and Treatment System			
GWETS Operation - Checklist	Inspection	Monthly	Check water treatment operation: flow rates, meter readings, system components.
Extraction wells	Inspection	Monthly	Check extraction wells, housing, control panels.
Ground Water Monitoring System	Inspection	15 Months	Visually inspect well pads/locks at site wells; repair as necessary to maintain integrity and security.
System Performance Monitoring			
Recovery Wells RW-1S and RW-2D	Influent water sampling	Monthly	Grab sample collected to evaluate and monitor GWETS system performance.
GWETS Performance Sampling	Influent & Effluent water sampling	Monthly	Grab sample collected from influent, mid-carbon, and effluent to evaluate and monitor GWETS system performance.
Environmental Monitoring			
Groundwater Monitoring Program	Groundwater sampling of 10 wells	15-month sampling interval	Samples collected from 10 on-site monitoring well locations
Unit 6 (Home Goods) Air Sampling	Air sampling of 5 locations	3-year sampling interval	Air sampling of two sub slab soil vapor points, two indoor air locations, and one ambient (outside) sample location.

Prepared by: KS 01/07/2022
Checked by: ANC 01/19/2022

Table 2.2: Long Term Monitoring and Analysis Plan

Sample Type	Media	Location ID	Sampling Depth (feet bgs)	Sample ID	VOCs USEPA 8260	PFAS
Monitoring Well Sampling						
Monitoring Well	Groundwater	MW-4S	17	360023-MW004S017	1	1
Monitoring Well	Groundwater	MW-4D	75	360023-MW004D075	1	1
Monitoring Well	Groundwater	MW-5S	20	360023-MW005S020	1	
Monitoring Well	Groundwater	MW-7S	17	360023-MW007S017	1	1
Monitoring Well	Groundwater	MW-7D	73	360023-MW007D073	1	1
Monitoring Well	Groundwater	MW-8S	19	360023-MW008S019	1	
Monitoring Well	Groundwater	MW-9S	17	360023-MW009S017	1	1
Monitoring Well	Groundwater	MW-9D	75	360023-MW009D075	1	
Monitoring Well	Groundwater	MW-12S	33	360023-MW012S033	1	1
Monitoring Well	Groundwater	MW-101M	41	360023-MW101M041	1	1
Extraction Well	Groundwater	RW-1S	40	360023-RW001S040		1
Extraction Well	Groundwater	RW-2D	75	360023-RW002D075		1
Trip Blanks						
Trip Blank	DI Water	TB-01	NA	360023-TB01	1	

NOTES:
Sample ID: 360023 = NYSDEC Site No.
USEPA= Unites States Enviromnetal Protection Agency
USEPA 8260: Volatile Organic Compounds by Gas Chromatography/Mass Spectrometry (GC/MS)
PFAS = Per-and Poly-fluoroalkynated Substances

Created by: SEE 1/11/22
Reveiwed by: ANC 1/22/22

Table 2.3: Groundwater Elevation Summary - November 2021

Location ID	Northing	Easting	Ground Elevation	Measuring Point Elevation	Screening Interval (ft bgs)	Screen or Open Hole	Screen Location	Measurement Reference Point Marked (Y/N)	Protective Casing Stickup (ft.)	TOC-TOR Difference (ft.)	Depth to Water 11/16/2021 (ft bmp)	Depth to Bottom 11/16/2021 (ft bmp)	Water Elevation (ft msl)
RW-1S[2]	NA	NA	NA	602.03	8 - 47.5	Screen	Overburden	NA	NA	NA	34.86	NA	NA
RW-2D[2]	NA	NA	NA	602.02	48 - 82.5	Screen	Competent Rock	NA	NA	NA	45.91	NA	NA
MW-2S[1]	489208.54	657911.87	601.53	604.05	1 -14	Screen	Overburden	N	NM	NM	3.02	16.62	601.03
MW-2D[1]	489201.58	657911.87	601.66	603.41	60 - 90	Screen	Overburden	N	NM	NM	9.76	61.30	593.65
MW-3D[1]	489928.54	658517.37	602.25	604.23	60 - 90	Screen	Overburden and Weathered Rock	N	NA	NM	11.83	87.22	592.40
MW-3DD[1]	489916.33	658522.03	602.22	604.21	170 - 200	Open Hole	Competent Rock	N	NA	NM	9.41	200.15	594.80
MW-4S[1]	490472.33	658342.09	609.68	611.64	3.6 - 23.6	Screen	Overburden	N	NM	NM	5.35	24.42	604.26
MW-4D[1]	490472.33	658348.70	609.72	611.84	58.4 - 90.5	Open Hole	Competent Rock	N	NM	NA	9.85	91.70	600.58
MW-5S[3]	915252.51	696420.56	603.45	605.47	3 - 23	Screen	Shallow Overburden	N	2.15	0.13	7.29	24.00	596.54
MW-7S[3]	915251.45	696205.63	602.58	602.23	5 - 25	Screen	Overburden	N	NA	0.42	34.86	25.00	590.50
MW-7M1[3]	915244.46	696209.25	602.54	602.17	25.5 - 35.5	Screen	Weathered Rock	N	NA	NM	10.80	35.25	591.37
MW-7M2[3]	915244.46	696209.25	602.54	602.26	39.6 - 44.6	Screen	Competent Rock	N	NA	NM	10.65	44.28	591.61
MW-7D[3]	915199.02	696219.69	602.86	602.31	60 - 90	Open Hole	Competent Rock	N	NA	0.62	11.95	92.13	590.36
MW-8S[1]	490494.34	658582.67	618.28	618.02	4 - 24	Screen	Overburden	N	NA	0.00	5.64	22.00	612.38
MW-9S[1]	489830.91	657691.12	596.21	595.99	10.5 - 30.5	Screen	Weathered and Competent Rock	N	NA	0.14	6.76	28.36	589.23
MW-9D[1]	489839.13	657686.69	595.99	595.68	60 - 90	Open Hole	Competent Rock	N	NA	0.67	11.42	89.91	584.26
MW-10D[1]	489705.74	657883.78	600.52	600.22	59.5 - 90	Open Hole	Competent Rock	N	NA	NM	11.42	89.45	NA
MW-12S[3]	915251.73	696371.52	603.99	606.35	20 - 39.75	Screen	Overburden	N	NM	0.79	15.92	44.19	593.69
MW-12S1[3]	915273.58	696371.16	604.41	604.01	12.2 - 22.2	Screen	Shallow Overburden	N	NA	NM	7.95	20.50	596.06
MW-12M[3]	915273.58	696371.16	604.41	603.94	39 - 49	Screen	Deep Overburden	N	NA	NM	17.16	46.44	586.78
MW-101M[3]	915277.71	696405.45	604.19	603.43	37.8 - 47.8	Screen	Deep Overburden	N	NA	NM	18.78	87.40	584.65
MW-101D[3]	915277.71	696405.45	604.19	603.77	52 - 57	Screen	Overburden and Weathered Rock	N	NA	NM	24.98	55.77	578.79

Notes:
MW = monitoring well; RW = recovery (extraction) well
ft bgs = feet below ground surface
ft bmp = feet below measuring point
msl = mean sea level
NM = not measured
NA = not available
Y/N = Yes/No
1 = Northing/Easting = North American Datum 1927 NYSPCS East (US Survey ft); Elevations = National Geodetic Vertical Datum 1929 (US survey ft)
2 = Both RW-1S and RW-2D have transducers installed within, and transducer depths below top of casing are **42.7 ft** for RW-1S and **56 ft** for RW-2D. Water levels in these wells are monitored with the submerged transducer and the depth of water above the transducer is displayed in the treatment building. Due to possibility of faulted transducer readings, no water elevation data is presented from these wells.

3 = Northing/Easting = North American Datum 83 - NYSPCS EAST (US survey ft); Elevations = North American Vertical Datum 88 (US survey ft)

Created by KMS 01/25/22
Checked by ANC 01/25/22

Table 2.4: Monitoring Well Inspection Summary - November 2021

Location ID	Northing	Easting	Screening Interval (ft bgs)	Screen or Open Hole	Screen Location	Well ID Clearly Labeled (Y/N)	Well Lock/Cap (G/F/P)	Protective Casing (G/F/P)	Water in Annular Space (Y/N)	Concrete Pad (G/F/P)	Well Riser/Cap (G/F/P)	Well Obstruction (Y/N)	Comments	Recommended Repairs
Data from Final Remedial Investigation Report, August 1994[1]														
RW-1S[2]	NA	NA	8 - 47.5	Screen	Overburden	N	G	G	NA	NA	G	N		
RW-2D[2]	NA	NA	48 - 82.5	Screen	Competent Rock	N	G	G	N	NA	G	N		
MW-2S	489208.54	657911.87	1 -14	Screen	Overburden	Y	G	G	N	G	G	N		
MW-2D	489201.58	657911.87	60 - 90	Screen	Overburden	Y	G	G	N	G	G	N		
MW-3D	489928.54	658517.37	60 - 90	Screen	Overburden and Weathered Rock	N	G	F	N	G	F	N	Needs new bolts	
MW-3DD	489916.33	658522.03	170 - 200	Open Hole	Competent Rock	N	F	F	N	G	G	N	Needs new bolts	
MW-4S	490472.33	658342.09	3.6 - 23.6	Screen	Overburden	N	G	G	N	NA	G	N		
MW-4D	490472.33	658348.70	58.4 - 90.5	Open Hole	Competent Rock	N	G	G	N	NA	NA	N	Steel casing - no PVC riser	
MW-8S	490494.34	658582.67	4 - 24	Screen	Overburden	N	G	F	Y	NA	F	N		
MW-9S	489830.91	657691.12	10.5 - 30.5	Screen	Weathered and Competent Rock	N	G	G	N	NA	G	N		
MW-9D	489839.13	657686.69	60 - 90	Open Hole	Competent Rock	N	G	G	N	F	G	N		
MW-10D	489705.74	657883.78	59.5 - 90	Open Hole	Competent Rock	N	G	G	N	G	P	N		
Data from June 2015[3] Survey														
MW-5S	915252.51	696420.56	3 - 23	Screen	Shallow Overburden	Y	G	G	N	NA	G	N		
MW-7S	915251.45	696205.63	5 - 25	Screen	Overburden	N	G	G	N	G	G	N		
MW-7M1	915244.46	696209.25	25.5 - 35.5	Screen	Weathered Rock	Y	G	G	N	G	G	N		
MW-7M2	915244.46	696209.25	39.6 - 44.6	Screen	Competent Rock	Y	G	G	N	G	G	N		
MW-7D	915199.02	696219.69	60 - 90	Open Hole	Competent Rock	N	G	G	N	G	G	N		
MW-12S	915251.73	696371.52	20 - 39.75	Screen	Overburden	Y	G	G	N	NA	G	N	DTW from TOC.	
MW-12S1	915273.58	696371.16	12.2 - 22.2	Screen	Shallow Overburden	Y	G	G	N	G	G	N		
MW-12M	915273.58	696371.16	39 - 49	Screen	Deep Overburden	Y	G	G	N	G	G	N		
MW-101M	915277.71	696405.45	37.8 - 47.8	Screen	Deep Overburden	Y	G	G	N	G	G	N		
MW-101D	915277.71	696405.45	52 - 57	Screen	Overburden and Weathered Rock	Y	G	G	N	G	G	N		

Notes:
MW = monitoring well; RW = recovery (extraction) well
ft bgs = feet below ground surface
ft bmp = feet below measuring point
msl = mean sea level
NA = not available
G/F/P = Good/Fair/Poor
Y/N = Yes/No
1 = Northing/Easting = North American Datum 1927 NYSPCS East (US Survey ft); Elevations = National Geodetic Vertical Datum 1929 (US survey ft)
2 = Both RW-1S and RW-2D have transducers installed within, and transducer depths below top of
3 = Northing/Easting = North American Datum 83 - NYSPCS EAST (US survey ft); Elevations = North

Created by: KMS 01/25/22
Reviewed by: ANC 01/25/22

Table 2.5: Long Term Monitoring Groundwater Analytical Results

				Location	MW-101M		MW-12S		MW-4D		MW-4D		MW-4S	
				Sample Date	11/16/21		11/16/21		11/17/21		11/17/21		11/17/21	
				Sample ID	360023-MW101M041		360023-MW012S033		360023-MW004D075		60023-MW004D075DU		360023-MW004S017	
				Qc Code	FS		FS		FS		FD		FS	
Class	**Parameter**	**GA**	**GV**	**Units**	Result	Qualifier	Result	Qualifier	Result	Qualifier	Result	Qualifier	Result	Qualifier
VOCs	1,1-Dichloroethane	5	NS	ug/L	2	U	100	U	**0.57**	**J**	**0.5**	**J**	1	U
VOCs	Acetone	NS	50	ug/L	20	U	1,000	U	**24**		**26**		10	U
VOCs	cis-1,2-Dichloroethene	5	NS	ug/L	**26**		100	U	1	U	1	U	1	U
VOCs	Cyclohexane	NS	NS	ug/L	2	U	100	U	1	U	1	U	1	U
VOCs	Methyl Tertbutyl Ether	NS	10	ug/L	**0.36**	J	100	U	**28**		**27**		1	U
VOCs	Tetrachloroethene	5	NS	ug/L	**6.8**		**3,000**		1	U	1	U	1	U
VOCs	Trichloroethene	5	NS	ug/L	**1**	J	100	U	1	U	1	U	1	U
VOCs	Vinyl chloride	2	NS	ug/L	**2.5**		100	U	1	U	1	U	1	U

Notes:
GA = New York State Class GA Groundwater Standards
GV = New York State Guidance Values
ug/L = micrograms per liter or parts per billion
mg/L = parts per million
Bold = analyte detected
Shaded = analyte exceeds standard
NS = not specified
Qualifier: U = not detected; J = estimated
QC Code: FS = field sample; FD = field duplicate

Created/Date: KMS 01/25/22
Checked/Date: ANC 01/12/22

Table 2.5: Long Term Monitoring VOC Analytical Results - November 2021

				Location	MW-5S		MW-7D		MW-7S		MW-8S		MW-9S		MW-9D	
				Sample Date	11/16/21		11/16/21		11/16/21		11/18/21		11/17/21		11/17/21	
				Sample ID	360023-MW005S020		360023-MW007D073		360023-MW007S017		360023-MW0083019		360023-MW009S017		360023-MW009D075	
				Qc Code	FS		FS		FS		FS		FS		FS	
Class	**Parameter**	**GA**	**GV**	**Units**	Result	Qualifier	Result	Qualifier	Result	Qualifier	Result	Qualifier	Result	Qualifier	Result	Qualifier
VOCs	1,1-Dichloroethane	5	NS	ug/L	1	U	1	U	1	U	1	U	1	U	1	U
VOCs	Acetone	NS	50	ug/L	10	U	10	U	10	U	**16**		**13**		**17**	
VOCs	cis-1,2-Dichloroethene	5	NS	ug/L	**1.8**		**3.3**		1	U	1	U	**3.8**		**1.2**	
VOCs	Cyclohexane	NS	NS	ug/L	1	U	1	U	**1.4**		**1.1**		1	U	**0.88**	**J**
VOCs	Methyl Tertbutyl Ether	NS	10	ug/L	1	U	1	U	1	U	1	U	**0.29**	**J**	**1.1**	
VOCs	Tetrachloroethene	5	NS	ug/L	**12**		1	U	**5**		1	U	**23**		**0.66**	**J**
VOCs	Trichloroethene	5	NS	ug/L	**2.1**		**2**		**1.3**		1	U	**4.2**		**3.5**	
VOCs	Vinyl chloride	2	NS	ug/L	1	U	1	U	1	U	1	U	1	U	1	U

Notes:
GA = New York State Class GA Groundwater Standards
GV = New York State Guidance Values
ug/L = micrograms per liter or parts per billion
mg/L = parts per million
Bold = analyte detected
Shaded = analyte exceeds standard
NS = not specified
Qualifier: U = not detected; J = estimated
QC Code: FS = field sample; FD = field duplicate

Created/Date: KMS 01/25/22
Checked/Date: ANC 01/12/22

Table 2.6: Long Term Monitoring PFAS Analytical Results - November 2021

				Location	MW-101M		MW-12S		MW-4D		MW-4D		MW-4S		MW-7D		MW-9S		MW-9D		RW-1S		RW-2D		SYSTEM EFF	
				Sample Date	11/17/21		11/17/21		11/17/21		11/17/21		11/17/21		11/17/21		11/17/21		11/17/21		11/18/21		11/18/21		11/18/21	
				Sample ID	360023-MW101M042		360023-MW012S030		360023-MW004D075		360023-MW004D075DUP		360023-MW004S017		360023-MW007D075		360023-MW009S017		360023-MW009D075		360023-RW001S040		360023-RW002D075		360023-EFFLUENT	
				Qc Code	FS		FS		FS		FD		FS		FS		FS		FS		FS		FS		FS	
Class	**Parameter**	**EPA***	**MCL****	**Units**	Result	Qualifier	Result	Qualifier	Result	Qualifier	Result	Qualifier	Result	Qualifier	Result	Qualifier	Result	Qualifier	Result	Qualifier	Result	Qualifier	Result	Qualifier	Result	Qualifier
PFAS	Perfluorobutanesulfonic acid (PFBS)	NS	NS	ng/L	**3.1**		**2.5**		**1.3**	**J**	**1.4**	**J**	**6.9**		**4.1**		**6.1**		**4.2**		**5**		**2.2**		1.9	U
PFAS	Perfluorobutanoic acid (PFBA)	NS	NS	ng/L	**4**		**5.7**		**4**	**J**	**4**	**J**	**8.2**		**5**		**8.9**		**6.8**		**6.5**		**3.5**	**J**	4.8	U
PFAS	Perfluorodecanoic acid (PFDA)	NS	NS	ng/L	1.6	U	**0.29**	**J**	1.7	U	1.8	U	1.6	U	1.7	U	1.6	U	1.6	U	**0.56**	**J**	1.9	U	1.9	U
PFAS	Perfluoroheptanesulfonic acid (PFHpS)	NS	NS	ng/L	**0.23**	**J**	**0.27**	**J**	1.7	U	1.8	U	**0.42**	**J**	**0.2**	**J**	1.6	U	**0.32**	**J**	**0.47**	**J**	1.9	U	1.9	U
PFAS	Perfluoroheptanoic acid (PFHpA)	NS	NS	ng/L	**1.7**		**2.5**		**2**		**2.2**		**3.4**		**5.4**		**5.9**		**3**		**4.5**		**2.4**		1.9	U
PFAS	Perfluorohexanesulfonic acid (PFHxS)	NS	NS	ng/L	**2.4**		**1.5**	**J**	**3.2**		**3.5**		**3.2**		**2.8**		**1.9**		**5.7**		**3.7**		**2.7**		1.9	U
PFAS	Perfluorononanoic acid (PFNA)	NS	NS	ng/L	**0.95**	**J**	**1**	**J**	**12**		**13**		**1.9**		**1.4**	**J**	**1.3**	**J**	**5.2**		**1.8**	**J**	**0.82**	**J**	1.9	U
PFAS	Perfluorooctanesulfonamide (FOSA)	NS	NS	ng/L	1.6	U	**0.98**	**J**	1.7	U	1.8	U	1.6	U	1.7	U	1.6	U	1.6	U	1.9	U	**0.95**	**J**	1.9	U
PFAS	Perfluorooctanesulfonic acid (PFOS)	70	10	ng/L	**13**		**30**		**3.2**		**3.3**		**26**		**8.5**		**9.5**		**15**		**24**		**8.7**		1.9	U
PFAS	Perfluorooctanoic acid (PFOA)	70	10	ng/L	**9.4**		**7.3**		**10**		**11**		**17**		**19**		**15**		**14**		**17**		**10**		1.9	U
PFAS	Perfluoropentanoic acid (PFPeA)	NS	NS	ng/L	**2**		**4.6**		**3.1**		**3.3**		**5.9**		**7.3**		**17**		**5.2**		**5.2**		**3.2**		1.9	U
PFAS	Perfluorohexanoic acid (PFHxA)	NS	NS	ng/L	**2**		**3.9**		**3.6**		**3.9**		**4.8**		**7.5**		**14**		**4.6**		**5.5**		**3.6**		1.9	U

Notes:
PFAS = Per-and Poly-fluoroalkynated Substances
United States Environmental Protection Agency (EPA*) Health Advisory Limit: for PFOS and PFOA, the limit of 70 ng/L is for the combined concentration.
MCL** = New York State Groundwater Quality Council maximum contaminant level.
ng/L = nanograms per liter or parts per trillion
Bold = analyte detected
Shaded = analyte exceeds standard
NS = not specified
FS = Field Sample
Qualifier: U = not detected; J = estimated
QC Code: FS = field sample; FD = field duplicate

Created/Date: LCB 01/11/22
Checked/Date: ANC 01/12/22

APPENDICES

APPENDIX A

ENGINEERING CONTROLS

STANDBY CONSULTANT/CONTRACTOR CERTIFICATION FORM

Enclosure 1
Engineering Controls - Standby Consultant/Contractor Certification Form

Site Details **Box 1**

Site No. 360023

Site Name Baldwin Place Shopping Center (now Somers Commons)

Site Address: 80 Route 6 Zip Code: 10505
City/Town: Baldwin Place
County: Westchester
Site Acreage: 28.0

Reporting Period: ~~January 31, 2021 to January 31, 2022~~

January 1, 2021 to December 31, 2021 ANC

	YES	NO
1. Is the information above correct?	☐	☒
If NO, include handwritten above or on a separate sheet.	See above	
2. To your knowledge has some or all of the site property been sold, subdivided, merged, or undergone a tax map amendment during this Reporting Period?	☐	☒
3. To your knowledge has there been any change of use at the site during this Reporting Period (see 6NYCRR 375-1.11(d))?	☐	☒
4. To your knowledge have any federal, state, and/or local permits (e.g., building, discharge) been issued for or at the property during this Reporting Period?	☒	☐

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

	YES	NO
5. To your knowledge is the site currently undergoing development?	☐	☒

Box 2

	YES	NO
6. Is the current site use consistent with the use(s) listed below? Restricted-Residential, Commercial, and Industrial	☒	☐
7. Are all ICs/ECs in place and functioning as designed?	☒	☐

IF THE ANSWER TO EITHER QUESTION 6 OR 7 IS NO, sign and date below and contact the DEC PM regarding the development of a Corrective Measures Work Plan to address these issues.

_____ _____
Signature of Standby Consultant/Contractor Date

SITE NO. 360023 **Box 3**

Description of Institutional Controls

Parcel	Owner	Institutional Control
4.20-1-11.1 ANC	UB SOMERS INC. (c/o Urstadt Biddle Prop.)	Monitoring Plan Site Management Plan O&M Plan

A Long Term Monitoring and Operation and Maintenance Plan is in place.

4.20-1-11.6	UB Somer, Inc. c/o Urstadt Biddle Prop.	IC/EC Plan Ground Water Use Restriction Site Management Plan O&M Plan Soil Management Plan Landuse Restriction Monitoring Plan

A deed restriction is in place for Unit #6 that requires adherence to the Site Management Plan, including allowing access by the Department, and includes a prohibition for use of the property for residential purposes, use of the groundwater without proper treatment and a provision to provide a periodic certification that states compliance with the institutional controls.

Box 4

Description of Engineering Controls

Parcel	Engineering Control
4.20-1-11.1 ANC	Groundwater Treatment System

One groundwater pump and treat system (Plant 1)is currently in operation in the former source area to address residual contamination/shallow plume containment. A monitoring well system is in place to perform long-term groundwater monitoring. Vapor monitoring is required in Unit 6 (Home Goods store).

4.20-1-11.6	Groundwater Treatment System

Groundwater extraction system
Groundwater monitoring well system

Box 5

Periodic Review Report (PRR) Certification Statements

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

   a) the Periodic Review report and all attachments were prepared under the direction of, and reviewed by, the party making the certification, including data and material prepared by previous contractors for the current certifying period, if any;

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

YES	NO
X	☐

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

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

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

   (c) nothing has occurred that would constitute a failure to comply with the Site Management Plan, or equivalent if no Site Management Plan exists.

YES	NO
X	☐

IF THE ANSWER TO QUESTION 2 IS NO, sign and date below and contact the DEC PM regarding the development of a Corrective Measures Work Plan to address these issues.

_____ _____

Signature of Standby Consultant/Contractor Date

Box 6

IC/EC CERTIFICATIONS

Qualified Environmental Professional Signature

I certify that all information in Boxes 2 through 5 are true. I understand that a false statement made herein is punishable as a Class "A" misdemeanor, pursuant to Section 210.45 of the Penal Law.

I __Nicole Murry Bonsteel_____ at _____MACTEC Engineering and Geology, P.C._____
print name

_____511 Congress Street, Suite 200_____

_____Portland, ME 04101_____,
(print business address)

am certifying as a Qualified Environmental Professional.

Signature of Qualified Environmental Professional

Stamp
(Required for PE)

February 11, 2022
Date

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION
Division of Water, Bureau of Water Permits
625 Broadway, Albany, New York 12233
www.dec.ny.gov

M E M O R A N D U M
SPDES Permit Equivalent

TO: Robert Strang, EIT, DER
FROM: Carol Lamb-Lafay, P.E. Bureau Director, Bureau of Water Permits, DOW
SUBJECT: SPDES Permit Equivalent: Baldwin Place center (currently called Somers Corner), DER Site ID# 360023
DATE: July 10, 2020

DRAINAGE BASIN: 13 / 02

In response to your request dated May 15, 2020, attached please find the effluent limitations and monitoring requirements for the above noted remediation discharge.

The discharge consists of treated water from contaminated groundwater associated with releases of dry cleaning solvent. The treatment system consists of two activated granular carbon canisters.

The DOW does not have any regulatory authority over a discharge from a State, PRP, or Federal Superfund Site. DER will be responsible for ensuring compliance with the attached effluent limitations and monitoring requirements, and approval of all engineering submissions. Footnote 1 identifies the appropriate DER contact person who will receive all effluent results, engineering submissions, and modification requests. The Regional Water Engineer should be kept appraised of the status of this discharge and, in accordance with the attached criteria, receive a copy of the effluent results for informational purposes.

If you have any questions, please call Carol Lamb-Lafay, P.E. Bureau Director at 518-402-8113.

Attachment (Effluent Limitations and Monitoring Requirements)

cc: Region 03 Regional Water Engineer (via email, w/attach)
BWP Section Chief, DOW (via email, w/attach)

EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

OUTFALL	DISCHARGE TYPE	RECEIVING WATER and CLASS	EFFECTIVE	EXPIRING
002 (41° 20'37.2" N & 73° 45' 17")	Treated groundwater from remedial project	Tributary of Muscoot River, Class C	7/30/2020	6/30/2025

The discharges from the treatment facility shall be limited and monitored by the operator as specified below:

Outfall and Parameters	**CAS No.**	**Daily Max limits**	**Units**	**Minimum Monitoring Requirements**		**FN**
Outfall 001				**Measurement Frequency**	**Sample Type**	
Flow	NA	Monitor	GPD	Continuous	Recorder	
pH	NA	6.5 - 8.5	SU	Quarterly	Grab	
Oil and Grease	NA	15	mg/l	Quarterly	Grab	
1,2-Dichloroethane (DCE)	107-06-2	10	µg/l	Quarterly	Grab	
Tetrachloroethene (PCE)	127-18-4	10	µg/l	Quarterly	Grab	
Trichloroethene (TCE)	79-01-6	10	µg/l	Quarterly	Grab	
Methylene Chloride	75-9-2	10	µg/l	Quarterly	Grab	

Special Conditions:

1. The discharge rate may not exceed the effective or design treatment system capacity. All monitoring data, engineering submissions and modification requests must be submitted to:

   Robert Strang, E.I.T
   Division of Environmental Remediation
   NYSDEC, 625 Broadway, Albany, New York 12233- 7015,
   Tel: 518-402- 8642

   With a copy sent to:

   Regional Water Engineer, Region 3
   100 Hillside Avenue Suite 1W
   White Plains, New York, 10603-2860

2. Samples and measurements, to comply with the monitoring requirements specified above, must be taken from the effluent side of the final treatment unit prior to discharge to the receiving water body unless otherwise noted above.

3. Only site generated wastewater is authorized for treatment and discharge.

4. Authorization to discharge is valid only for the period noted above but may be renewed if appropriate. A request for renewal must be received 6 months prior to the expiration date to allow for a review of monitoring data and reassessment of monitoring requirements.

5. Both concentration (mg/l or µg/l) and mass loadings (lbs/day) must be reported to the Department for all parameters except flow and pH.

6. Any use of corrosion/scale inhibitors, biocidal-type compounds, or other water treatment chemicals used in the treatment process must be approved by the department prior to use.

7. This discharge and administration of this discharge must comply with the substantive requirements of 6NYCRR Part 750.

APPENDIX B
INSTITUTIONAL AND ENGINEERING CONTROLS
PROPERTY OWNER SURVEY

Enclosure 1
Institutional and Engineering Controls - Property Owner Survey

Site Details **Box 1**

Site No. **360023**

Site Name Baldwin Place Shopping Center (now Somers Commons)

Site Address: 80 Route 6 Zip Code: 10505
City/Town: Baldwin Place
County: Westchester
Site Acreage: 28.0

Reporting Period: April 04, 2020 to January 31, 2021

	YES	NO
1. Is the information above correct?	X	☐
If NO, include handwritten above or on a separate sheet.		
2. Has some or all of the site property been sold, subdivided, merged, or undergone a tax map amendment during this Reporting Period?	☐	X
3. Has there been any change of use at the site during this Reporting Period (see 6NYCRR 375-1.11(d))?	☐	X
4. Have any federal, state, and/or local permits (e.g., building, discharge) been issued for or at the property during this Reporting Period?	☐	X
If you answered YES to questions 2, 3 or 4, include documentation with this form.		
5. Is the site currently undergoing development?	☐	X

Box 2

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

Signature of Property Owner

1/27/22
Date

SITE NO. 360023 **Box 3**

Description of Institutional Controls

Parcel	Owner	Institutional Control
4.20-1-11.6	UB Somers Inc. (c/o Urstadt Biddle Properties Inc.)	Ground Water Use Restriction Soil Management Plan Landuse Restriction Monitoring Plan Site Management Plan O&M Plan IC/EC Plan

A deed restriction is in place for Unit #6 that requires adherence to the Site Management Plan, including allowing access by the Department, and includes a prohibition for use of the property for residential purposes, use of the groundwater without proper treatment and a provision to provide a periodic certification that states compliance with the institutional controls.

Box 4

Description of Engineering Controls

Parcel	Engineering Control
4.20-1-11.6	Groundwater Treatment System
Groundwater extraction system Groundwater monitoring well system	

Box 5

Periodic Review Report (PRR) Survey Statements

For each Institutional or Engineering control listed in Boxes 3 and/or 4, by checking "YES" below I believe all of the following statements to be true:

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

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

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

(d) if a Site Management Plan (SMP) exists, nothing has occurred that would constitute a violation or failure to comply with the SMP for this Control.

YES	NO
☒	☐

Signature of Property Owner

1/27/22
Date

Enclosure 1
Institutional and Engineering Controls - Property Owner Survey

Site Details **Box 1**

Site No. **360023**

Site Name Baldwin Place Shopping Center (now Somers Commons)

Site Address: 80 Route 6 Zip Code: 10505
City/Town: Baldwin Place
County: Westchester
Site Acreage: 28.0

Reporting Period: January 31, 2021 to January 31, 2022

	YES	NO
1. Is the information above correct?	X	☐
If NO, include handwritten above or on a separate sheet.		
2. Has some or all of the site property been sold, subdivided, merged, or undergone a tax map amendment during this Reporting Period?	☐	X
3. Has there been any change of use at the site during this Reporting Period (see 6NYCRR 375-1.11(d))?	☐	X
4. Have any federal, state, and/or local permits (e.g., building, discharge) been issued for or at the property during this Reporting Period?	☐	X
If you answered YES to questions 2, 3 or 4, include documentation with this form.		
5. Is the site currently undergoing development?	☐	X

Box 2

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

Signature of Property Owner

1/27/22
Date

SITE NO. 360023 **Box 3**

Description of Institutional Controls

Parcel	Owner	Institutional Control
4.20-1-11	UB SOMERS INC. (c/o Urstadt Biddle Properties Inc.)	Site Management Plan Monitoring Plan O&M Plan

A Long Term Monitoring and Operation and Maintenance Plan is in place.

Box 4

Description of Engineering Controls

Parcel	Engineering Control
4.20-1-11	Groundwater Treatment System

One groundwater pump and treat system (Plant 1)is currently in operation in the former source area to addre residual contamination/shallow plume containment. A monitoring well system is in place to perform long-term groundwater monitoring. Vapor monitoring is required in Unit 6 (Home Goods store).

Box 5

Periodic Review Report (PRR) Survey Statements

For each Institutional or Engineering control listed in Boxes 3 and/or 4, by checking "YES" below I believe all of the following statements to be true:

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

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

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

(d) if a Site Management Plan (SMP) exists, nothing has occurred that would constitute a violation or failure to comply with the SMP for this Control.

YES ☒ NO ☐

Signature of Property Owner

11/27/22
Date

APPENDIX C
OPERATIONS AND MAINTENANCE DATA (AZTECH)

APPENDIX C-1

OPERATION & MAINTENANCE SAMPLE RESULTS – JANUARY 2021 TO DECEMBER 2021

Operation & Maintenance Sample Results – January 2021 to December 2021

		Parameter	cis-1,2-Dichloroethene		Trichloroethene		Tetrachloroethene	
		GA	5		5		5	
		GV	NS		NS		NS	
		Units	ug/L		ug/L		ug/L	
Location	Sample Date	Sample ID	Result	Qualifier	Result	Qualifier	Result	Qualifier
RW-1S	1/7/2021	RW-1S	<25	U	<25	U	**360**	
RW-1S	2/3/2021	RW-1S	**17**		**24**		**1,500**	
RW-1S	3/1/2021	RW-1S	**20**		<10	U	**830**	
RW-1S	4/7/2021	RW-1S	**20**		**16**		**1,100**	
RW-1S	5/3/2021	RW-1S	**27**		<25	U	**1,400**	
RW-1S	6/1/2021	RW-1S	**39**		**84**		**4,200**	
RW-1S	7/2/2021	RW-1S	<50	U	<50	U	**2,000**	
RW-1S	8/4/2021	RW-1S	<25	U	**26**		**2,300**	
RW-1S	9/28/2021	RW-1S	<25	U	<25	U	**3,200**	
RW-1S	10/13/2021	RW-1S	<25	U	<25	U	**2,500**	
RW-1S	11/8/2021	RW-1S	**25**		<25	U	**2,000**	
RW-2D	1/7/2021	RW-2D	<50	U	**81**		**5,500**	
RW-2D	2/3/2021	RW-2D	<50	U	**64**		**5,600**	
RW-2D	3/1/2021	RW-2D	<50	U	<50	U	**4,900**	
RW-2D	4/7/2021	RW-2D	<50	U	**84**		**6,300**	
RW-2D	5/3/2021	RW-2D	**72**		**110**		**5,600**	
RW-2D	6/1/2021	RW-2D	<50	U	**100**		**5,500**	
RW-2D	7/2/2021	RW-2D	<50	U	**110**		**5,400**	
RW-2D	8/4/2021	RW-2D	<50	U	**140**		**7,400**	
RW-2D	9/28/2021	RW-2D	**210**		**98**		**2,700**	
RW-2D	10/13/2021	RW-2D	<50	U	**76**		**4,900**	
RW-2D	11/8/2021	RW-2D	<50	U	**120**		**6,100**	
Combined Influent	1/7/2021	Combined Influent	<50	U	**60**		**4,100**	
Combined Influent	2/3/2021	Combined Influent	<50	U	**51**		**4,600**	
Combined Influent	3/1/2021	Combined Influent	<50	U	<50	U	**4,200**	
Combined Influent	4/7/2021	Combined Influent	<50	U	**82**		**6,000**	
Combined Influent	5/3/2021	Combined Influent	<50	U	**52**		**3,800**	
Combined Influent	6/1/2021	Combined Influent	<50	U	**120**		**5,800**	
Combined Influent	7/2/2021	Combined Influent	<100	U	<100	U	**5,000**	
Combined Influent	8/4/2021	Combined Influent	<50	U	**120**		**6,300**	
Combined Influent	9/28/2021	Combined Influent	<50	U	**66**		**4,800**	
Combined Influent	10/13/2021	Combined Influent	<50	U	**88**		**5,200**	
Combined Influent	11/8/2021	Combined Influent	<50	U	**81**		**4,700**	
Mid-Carbon	1/7/2021	Mid-Carbon	<1	U	<1	U	**9.7**	
Mid-Carbon	2/3/2021	Mid-Carbon	<1	U	<1	U	**16**	
Mid-Carbon	3/1/2021	Mid-Carbon	**2.7**		<1	U	**51**	
Mid-Carbon	4/7/2021	Mid-Carbon	**2.6**		**1.4**		**24**	
Mid-Carbon	5/3/2021	Mid-Carbon	**1.9**		<1	U	**19**	
Mid-Carbon	6/1/2021	Mid-Carbon	**1.9**		**1.0**		**16**	
Mid-Carbon	7/2/2021	Mid-Carbon	**1.9**		**1.2**		**18**	
Mid-Carbon	8/4/2021	Mid-Carbon	**2.5**		**1.1**		**18**	
Mid-Carbon	9/28/2021	Mid-Carbon	**2.9**		**1.5**		**25**	
Mid-Carbon	10/13/2021	Mid-Carbon	**4.3**		**3.1**		**74**	
Mid-Carbon	11/8/2021	Mid-Carbon	**3.3**		**1.7**		**20**	
Effluent	1/7/2021	Effluent	<1	U	<1	U	<1	U
Effluent	2/3/2021	Effluent	<1	U	<1	U	<1	U
Effluent	3/1/2021	Effluent	<1	U	<1	U	<1	U
Effluent	4/7/2021	Effluent	<1	U	<1	U	<1	U
Effluent	5/3/2021	Effluent	<1	U	<1	U	<1	U
Effluent	6/1/2021	Effluent	<1	U	<1	U	<1	U
Effluent	7/2/2021	Effluent	<1	U	<1	U	<1	U
Effluent	8/4/2021	Effluent	<1	U	<1	U	<1	U
Effluent	9/28/2021	Effluent	<1	U	<1	U	<1	U
Effluent	10/13/2021	Effluent	<1	U	<1	U	<1	U
Effluent	11/8/2021	Effluent	<1	U	<1	U	<1	U

Notes:
No samples were collected in December 2021 due to treatment system shutdown
VOC= Volitile Organic Compound
GA = New York State Class GA Groundwater Standards
GV = New York State Guidance Values
ug/L = micrograms per liter or parts per billion
Bold = analyte detected
Shaded = analyte exceeds standard
NS = no standard
NA = Not Applicable FS = Field Sample
U = nondetect

APPENDIX C-2

PLANT 1 OPERATIONAL DATA – JANUARY 2021 TO DECEMBER 2021

Plant 1 Operational Data - January to December 2021

WELL RW-1S

Date	Days Elapsed	Water Meter	Total Gallons Treated	Run Time	Gallons/ Minute	Influent PCE Concentration	PCE Recovered	
				Hours This Time period		(ug/l)	(g)	(lbs)
1/7/21	0	45,214	0	0.00	0.00	360	0.0	0.000
2/3/21	27	52,891	7,677	648.00	0.20	1,500	43.6	0.096
3/1/21	26	59,654	6,763	624.00	0.18	830	21.2	0.047
4/7/21	37	70,685	11,031	888.00	0.21	1,100	45.9	0.101
5/3/21	26	79,082	8,397	624.00	0.22	1,400	44.5	0.098
6/1/21	29	97,431	18,349	696.00	0.44	4,200	291.7	0.643
7/2/21	31	98,444	1,013	744.00	0.02	2,000	7.7	0.017
8/4/21	33	106,985	8,541	792.00	0.18	2,300	74.4	0.164
9/28/21	55	128,078	21,093	1,320.00	0.27	3,200	255.5	0.563
10/13/21	15	133,083	5,005	360.00	0.23	2,500	47.4	0.104
11/18/21	36	NR	NR	NR	NR	2,000	NR	NR

.

Total Days Elapsed:	**315**	**days**
Total Treated:	**87,869**	**gallons**
Total Hours Operational:	**6,696.00**	**hours**
Average Flow Rate When Operating:	**0.22**	**gpm**
Total Mass Removed:	**1.83**	**pounds**

WELL RW-2D

Date	Days Elapsed	Water Meter	Total Gallons Treated	Run Time	Gallons/ Minute	Influent PCE Concentration	PCE Recovered	
				Hours This Time period		(ug/l)	(g)	(lbs)
1/7/21	0	92,788	0	0.00	0.00	5,500	0.0	0.000
2/3/21	27	112,877	20,089	648.00	0.52	5,600	425.8	0.939
3/1/21	26	131,535	18,658	624.00	0.50	4,900	346.0	0.763
4/7/21	37	168,393	36,858	888.00	0.69	6,300	878.9	1.938
5/3/21	26	174,158	5,765	624.00	0.15	5,600	122.2	0.269
6/1/21	29	174,170	12	0.00	0.00	5,500	0.2	0.001
7/2/21	31	174,170	0	0.00	0.00	5,400	0.0	0.000
8/4/21	33	174,170	0	0.00	0.00	7,400	0.0	0.000
9/28/21	55	174,179	9	0.00	0.00	2,700	0.1	0.000
10/13/21	15	184,159	9,980	360.00	0.46	4,900	185.1	0.408
11/18/21	36	NR	NR	NR	NR	6,100	NR	NR

.

Total Days Elapsed:	**279**	**days**
Total Treated:	**91,371**	**gallons**
Total Hours Operational:	**3,144.00**	**hours**
Average Flow Rate When Operating:	**0.48**	**gpm**
Total Mass Removed:	**4.32**	**pounds**

Combined - Plant 1:

Total Treated:	**179,240**	**gallons**
Average Flow Rate When Operating:	**0.30**	**gpm**
Total Mass PCE Removed:	**6.15**	**pounds**

APPENDIX D
FIELD DATA RECORDS

APPENDIX D-1

LONG TERM MONITORING FIELD DATA RECORDS

NOVEMBER 2021

FIELD INSTRUMENT CALIBRATION RECORD

PROJECT NAME: NYSDEC- Baldwin Place
PROJECT NUMBER: 3616206104
PROJECT LOCATION: Baldwin Place, NY
WEATHER CONDITIONS (AM): partly sunny, 30°
WEATHER CONDITIONS (PM): cloudy, 55°
TASK NO: 04.**** DATE: 11/17/2021
MACTEC CREW: ML/JM
SAMPLER NAME: Michael Lackey
SAMPLER SIGNATURE: Michael Lackey
CHECKED BY: SM DATE: 11/30

MULTI-PARAMETER WATER QUALITY METER

METER TYPE YSI
MODEL NO. 556
UNIT ID NO. MO15-02

AM CALIBRATION Start Time 7:50 /End Time 8:20
POST CALIBRATION CHECK Start Time 4:45 /End Time 5:10

	Units	Standard Value	Meter Value	*Acceptance Criteria (AM)	Standard Value	Meter Value	*Acceptance Criteria (PM)
pH (4)	SU	4.0	4.14	+/- 0.1 pH Units			
pH (7)	SU	7.0	6.94	+/- 0.1 pH Units	7.0	7.15	+/- 0.3 pH Units
pH (10)	SU	10.0	—	+/- 0.1 pH Units			
Redox	+/- mV	240	240.9	+/- 10 mV	240	234.6	+/- 10 mV
Conductivity	mS/cm	1.413	1.407	+/- 0.5 % of standard	1.413	1.359	+/- 5% of standard
DO (saturated)	%	100	98.5	+/- 2% of standard			
DO (saturated)	mg/L[1] (see Chart 1)	11.2	11.03	+/- 0.2 mg/L	9.9	9.5	+/- 0.5 mg/L of standard
DO (<0.1)	mg/L	<0.1	—	< 0.5 mg/L			
Temperature	°C		10.57			14.67	
Baro. Press.	mmHg		754.7			751.9	

TURBIDITY METER

METER TYPE HACH
MODEL NO. 2100Q
UNIT ID NO. MO24-26

	Units	Standard Value	Meter Value	Standard Value	Meter Value	*Acceptance Criteria (PM)
10 Standard	NTU	10	9.94	10	10.5	+/- 5% of standard
20 Standard	NTU	20	20.9	20	19.8	+/- 5% of standard
100 Standard	NTU	100	104	100	100	+/- 5% of standard
800 Standard	NTU	800	802	800	810	+/- 5% of standard

PHOTOIONIZATION DETECTOR

METER TYPE
MODEL NO.
UNIT ID NO.

Background	ppmv	<0.1		<0.1		within 5 ppmv of BG
Span Gas	ppmv	100		100		+/- 10% of standard

O_2-LEL 4 GAS METER

METER TYPE
MODEL NO.
UNIT ID NO.

Methane	%	50		50		+/- 10% of standard
O_2	%	20.9		20.9		+/- 10% of standard
H_2S	ppmv	25		25		+/- 10% of standard
CO	ppmv	50		50		+/- 10% of standard

OTHER METER

METER TYPE
MODEL NO.
UNIT ID NO.

See Notes Below for Additional Information

☑ Equipment calibrated within the Acceptance Criteria specified for each of the parameters listed above. SM
☐ Equipment (not) calibrated within the Acceptance Criteria specified for each of the parameters listed above**.

MATERIALS RECORD

Deionized Water Source: Portland FOS
Lot#/Date Produced:
Trip Blank Source: Laboratory provided
Sample Preservatives Source: Laboratory provided
Disposable Filter Type: in-line 0.45µm cellulose
Calibration Fluids / Standard Source:
- DO Calibration Fluid (<0.1 mg/L): Portland FOS
- Other
- Other
- Other

	Cal. Standard Lot Number	Exp. Date
pH (4)	16H1124	23-Aug
pH (7)	16G1081	23-Sep
pH (10)	NA	NA
ORP	16F945	22-Mar
Conductivity	16H998	22-Aug
<0.1 Turb. Stan.	A10916	7/22
20 Turb. Stan.	A1069	6/22
100 Turb. Stan.	A1069	6/22
800 Turb. Stan.	A1082	6/22
PID Span Gas	NA	NA
O_2-LEL Span Gas	NA	NA
Other		

NOTES:

* = Unless otherwise noted, calibration procedures and acceptance criteria are in general accordance with USEPA Region 1 SOPs for Field Instrument Calibration (EQASOP-FieldCalibrat) and Low Stress Purging and Sampling (EQASOP-GW001), each dated 1/19/2010. Additonal acceptance criteria obtained from instrument specific manufacturer recommendations.
** = If meter reading is not within acceptance criteria, clean/replace probe and re-calibrate, or use calibrated back-up meter if available. If project requirements necessitate use of the instrument, clearly document any deviations from acceptance criteria on all data sheets and log book entries.
1 = DO Saturated standard value is calculated based on Oxygen Solubility at Indicated Pressure Chart from the USEPA Region 1 SOP for Field Instrument Calibration (EQASOP-FieldCalibrat), dated 1/19/2010.

MACTEC
511 Congress Street, Portland Maine 04101

FIELD INSTRUMENT CALIBRATION RECORD

FIELD INSTRUMENT CALIBRATION RECORD

PROJECT NAME:	NYSDEC- Baldwin Place	TASK NO: 04.****	DATE: 11/18/21
PROJECT NUMBER:	3616206104	MACTEC CREW: JM + ML	
PROJECT LOCATION:	Baldwin Place, NY	SAMPLER NAME: J. Mingard	
WEATHER CONDITIONS (AM):	Sunny 20-30	SAMPLER SIGNATURE: [signature]	
WEATHER CONDITIONS (PM):	Sunny 30-40	CHECKED BY: DR	DATE: 11/22/21

MULTI-PARAMETER WATER QUALITY METER

METER TYPE YSI
MODEL NO. 556MP
UNIT ID NO. M015-04

AM CALIBRATION Start Time 8:02 /End Time 08:50

POST CALIBRATION CHECK Start Time 1616 /End Time 1621

	Units	Standard Value (AM)	Meter Value (AM)	*Acceptance Criteria (AM)	Standard Value (PM)	Meter Value (PM)	*Acceptance Criteria (PM)
pH (4)	SU	4.0	~~4.0~~ 3.97	+/- 0.1 pH Units			
pH (7)	SU	7.0	7.08	+/- 0.1 pH Units	7.0	7.10	+/- 0.3 pH Units
pH (10)	SU	10.0	—	+/- 0.1 pH Units			
Redox	+/- mV	240	245	+/- 10 mV	240	233.7	+/- 10 mV
Conductivity	mS/cm	1.413	1.476	+/- 0.5 % of standard	1.413	1.375	+/- 5% of standard
DO (saturated)	%	100	92.5 ~~115.2~~	+/- 2% of standard			
DO (saturated) mg/L[1] (see Chart 1)		10.4	9.28 ~~2.0~~	+/- 0.2 mg/L	10.4	10.02	+/- 0.5 mg/L of standard
DO (<0.1)	mg/L	<0.1	—	< 0.5 mg/L			
Temperature	°C		2.17			13.06	
Baro. Press.	mmHg		752.1			748.9	

TURBIDITY METER

METER TYPE Hach
MODEL NO. 2100Q
UNIT ID NO. M024-33

	Units	Standard Value	Meter Value	Standard Value	Meter Value	*Acceptance Criteria (PM)
10 Standard	NTU	10	10.1	10	10.2	+/- 5% of standard
20 Standard	NTU	20	20.5	20	21.6	+/- 5% of standard
100 Standard	NTU	100	101	100	103	+/- 5% of standard
800 Standard	NTU	800	806	800	803	+/- 5% of standard

PHOTOIONIZATION DETECTOR

METER TYPE ______
MODEL NO. ______
UNIT ID NO. ______

	Units	Standard Value	Meter Value	Standard Value	Meter Value	*Acceptance Criteria (PM)
Background	ppmv	<0.1		<0.1		within 5 ppmv of BG
Span Gas	ppmv	100		100		+/- 10% of standard

O_2-LEL 4 GAS METER

METER TYPE ______
MODEL NO. ______
UNIT ID NO. ______

	Units	Standard Value	Meter Value	Standard Value	Meter Value	*Acceptance Criteria (PM)
Methane	%	50		50		+/- 10% of standard
O_2	%	20.9		20.9		+/- 10% of standard
H_2S	ppmv	25		25		+/- 10% of standard
CO	ppmv	50		50		+/- 10% of standard

OTHER METER

METER TYPE ______
MODEL NO. ______
UNIT ID NO. ______

See Notes Below for Additional Information

- [x] Equipment calibrated within the Acceptance Criteria specified for each of the parameters listed above.
- [ ] Equipment (not) calibrated within the Acceptance Criteria specified for each of the parameters listed above**.

MATERIALS RECORD

Deionized Water Source: Portland FOS
Lot#/Date Produced:
Trip Blank Source: Laboratory provided
Sample Preservatives Source: Laboratory provided
Disposable Filter Type: in-line 0.45µm cellulose
Calibration Fluids / Standard Source:
- DO Calibration Fluid (<0.1 mg/L) Portland FOS
- Other
- Other
- Other

	Cal. Standard Lot Number	Exp. Date
pH (4)	16K1124	Aug 23
pH (7)	~~16G081~~ 16G1081	Sep 23
pH (10)	NA	NA
ORP	16F945	Mar 22
Conductivity	16H498	Aug 22
<0.1 Turb. Stan.	A0230	Nov 21
20 Turb. Stan.	A0231	Nov 21
100 Turb. Stan.	A0239	Nov 21
800 Turb. Stan.	A0239	Nov 21
PID Span Gas	NA	NA
O_2-LEL Span Gas	NA	NA
Other		

NOTES: ~~AMDO~~ OOR JM

* = Unless otherwise noted, calibration procedures and acceptance criteria are in general accordance with USEPA Region 1 SOPs for Field Instrument Calibration (EQASOP-FieldCalibrat) and Low Stress Purging and Sampling (EQASOP-GW001), each dated 1/19/2010. Additonal acceptance criteria obtained from instrument specific manufacturer recommendations.
** = If meter reading is not within acceptance criteria, clean/replace probe and re-calibrate, or use calibrated back-up meter if available. If project requirements necessitate use of the instrument, clearly document any deviations from acceptance criteria on all data sheets and log book entries.
1 = DO Saturated standard value is calculated based on Oxygen Solubility at Indicated Pressure Chart from the USEPA Region 1 SOP for Field Instrument Calibration (EQASOP-FieldCalibrat), dated 1/19/2010.

MACTEC
511 Congress Street, Portland Maine 04101

FIELD INSTRUMENT CALIBRATION RECORD

LOW FLOW GROUNDWATER SAMPLING RECORD

MACTEC

511 Congress Street
Suite 200
Portland, Maine 04101

PROJECT NAME	NYSDEC- Baldwin Place
PROJECT NUMBER	3616206104.04.****
SAMPLE ID	360023-MW0045018
SAMPLE TIME	1105

LOCATION ID	MW-4S
DATE	11/17/21
START TIME	0950
END TIME	
SITE NAME/INSTALLATION	Baldwin Place
PAGE	1 OF 1

WELL DIAMETER (IN.) [ ] 1 [ ] 2 [x] 4 [ ] 6 [ ] 8 [ ] OTHER

TUBING ID (INCHES) [ ] 1/8 [x] 1/4 [ ] 3/8 [ ] 1/2 [ ] 5/8 [ ] OTHER

MEASUREMENT POINT (MP) [ ] TOP OF RISER (TOR) [ ] TOP OF CASING (TOC) [ ] OTHER

WELL INTEGRITY

	YES	NO	N/A
CAP	x		
CASING	x		
LOCKED	x		
COLLAR	x		

INITIAL DTW (BMP)	5.50 FT	**FINAL DTW (BMP)**	5.60 FT	**PROT. CASING STICKUP (AGS)**	NM FT	**TOC/TOR DIFFERENCE**	NM FT
WELL DEPTH (BMP)	24.40 FT	**SCREEN INTERVAL**	10 FT	**PID AMBIENT AIR**	NA PPM	**REFILL TIMER SETTING**	NA SEC
WATER COLUMN	18.9 FT	**DRAWDOWN VOLUME** (final DTW- initial DTW X well diam. squared X 0.041)	0.05 GAL	**PID WELL MOUTH**	NA PPM	**DISCHARGE TIMER SETTING**	NA SEC
CALCULATED GAL/VOL (water column X well diameter^2 X 0.041)	9.31 GAL	**TOTAL VOL. PURGED** (mL per minute X total minutes X 0.00026 gal/mL)	1.56 GAL	**DRAWDOWN/ TOTAL PURGED**	0.03	**PRESSURE TO PUMP**	NA PSI

FIELD PARAMETERS WITH PROGRAM STABILIZATION CRITERIA

TIME	DTW (FT)	PURGE RATE (mL/min)	TEMP. (^{o}C) ±3%	SP. CONDUCTANCE (mS/cm) ±3%	DISS. O_2 (mg/L) ±10% or 3 values <0.5 mg/L	pH (units) ±0.1	REDOX (mv) ±10 mv	TURBIDITY (ntu) ±10% or <10 ntu	PUMP INTAKE DEPTH (ft)	COMMENTS
0950	**BEGIN PURGING**									
1000	5.60	100	15.51	1.25	1.26	6.94	218.3	86.4	18	
1005	Missed reading-getting VOAs									
1010	5.60	100	15.15	4.027	1.65	6.92	192.7	65.0	18	
1015	5.60	100	15.25	4.036	1.83	6.94	180.2	49.9	18	
1020	5.60	100	15.24	4.032	2.47	6.93	167.2	46.1	18	
1025	5.60	100	15.20	4.033	2.58	6.93	160.9	43.6	18	
1030	5.60	100	15.17	4.035	2.31	6.93	150.2	37.4	18	
1035	5.60	100	15.18	4.036	2.15	6.93	142.6	30.8	18	
1040	5.60	100	15.24	4.035	2.02	6.93	135.9	26.6	18	
1045	5.60	100	15.26	4.036	1.91	6.93	130.7	25.1	18	
1050	5.60	100	15.33	4.040	1.82	6.93	125.9	24.5	18	stable
FINAL STABILIZED FIELD PARAMETERS (rounded to appropriate significant figures)										
			15	4.04	1.8	6.9	126	25		

TEMP.: nearest degree (ex. 10.1 = 10)
COND.: 3 significant figure max (ex. 1.686 = 1.69)
pH: nearest tenth (ex. 5.53 = 5.5)
DO: nearest tenth (ex. 3.51 = 3.5)
TURB: 3 SF max, nearest tenth (6.19 = 6.2, 101 = 101)
ORP: 2 SF (44.1 = 44, 191 = 190)

EQUIPMENT DOCUMENTATION

TYPE OF PUMP
- [X] PERISTALTIC
- [ ] SUBMERSIBLE
- [ ] BLADDER
- [ ] WATTERA
- [ ] OTHER
- [ ] OTHER

DECON FLUIDS USED
- [ ] ALCONOX
- [ ] DEIONIZED WATER
- [X] POTABLE WATER
- [ ] NITRIC ACID
- [ ] HEXANE
- [ ] METHANOL
- [ ] OTHER

TUBING/PUMP/BLADDER MATERIALS
- [ ] SILICON TUBING
- [ ] HDPE TUBING
- [X] LDPE TUBING
- [ ] OTHER
- [ ] OTHER

TUBING/PUMP/BLADDER MATERIALS
- [ ] S. STEEL PUMP MATERIAL
- [ ] PVC PUMP MATERIAL
- [ ] GEOPROBE SCREEN
- [ ] OTHER
- [ ] OTHER
- [ ] OTHER

EQUIPMENT USED
- [X] WL METER M200-80
- [ ] PID
- [X] WQ METER M012-04
- [x] TURB. METER M024-33
- [ ] PUMP
- [ ] OTHER
- [ ] FILTERS NO. TYPE

ANALYTICAL PARAMETERS

	PARAMETER	METHOD NUMBER	ANALYTE LIST	FIELD FILTERED	PRESERVATION METHOD	VOLUME REQUIRED	QC COLLECTED
X	VOCs	8260		N	HCL	3 x 40ml	
x	PFAS			N	None	2x250ML	

PURGE OBSERVATIONS

	YES	NO
PURGE WATER CONTAINERIZED	X	
NO-PURGE METHOD UTILIZED	X	

NUMBER OF GALLONS GENERATED: 1.56+

NOTES VOC collected through PDB

DEVIATIONS FROM THE WORK PLAN

Sampler Signature: JJM Print Name: J. Minardi

Checked By: JJM Date: 11/30

REV. 3/29/2019

LOW FLOW GROUNDWATER SAMPLING RECORD

MACTEC

511 Congress Street
Suite 200
Portland, Maine 04101

PROJECT NAME		LOCATION ID	DATE
NYSDEC- Baldwin Place		MW-4D	11/17/21
PROJECT NUMBER		**START TIME**	**END TIME**
3616206104.04.****		1201	1415
SAMPLE ID	**SAMPLE TIME**	**SITE NAME/INSTALLATION**	**PAGE**
360023-MW004D075	1408	Baldwin Place	1 OF 2

WELL DIAMETER (IN.) [ ] 1 [ ] 2 [ ] 4 [x] 6 [ ] 8 [ ] OTHER

TUBING ID (INCHES) [ ] 1/8 [ ] 1/4 [ ] 3/8 [ ] 1/2 [ ] 5/8 [ ] OTHER

MEASUREMENT POINT (MP) [ ] TOP OF RISER (TOR) [x] TOP OF CASING (TOC) [ ] OTHER

WELL INTEGRITY

	YES	NO	N/A
CAP	x		
CASING	x		
LOCKED	x		
COLLAR	x		

INITIAL DTW (BMP)	9.50 FT	**FINAL DTW (BMP)**	10.20 FT	**PROT. CASING STICKUP (AGS)**	NM FT	**TOC/TOR DIFFERENCE**	NM FT
WELL DEPTH (BMP)	90 FT	**SCREEN INTERVAL**	32 FT	**PID AMBIENT AIR**	NA PPM	**REFILL TIMER SETTING**	NA SEC
WATER COLUMN	80.5 FT	**DRAWDOWN VOLUME** (final DTW- initial DTW X well diam. squared X 0.041)	1.03 GAL	**PID WELL MOUTH**	NA PPM	**DISCHARGE TIMER SETTING**	NA SEC
CALCULATED GAL/VOL (water column X well diameter^2 X 0.041)	118.8 GAL	**TOTAL VOL. PURGED** (mL per minute X total minutes X 0.00026 gal/mL)	4.68 GAL	**DRAWDOWN/ TOTAL PURGED**	0.22	**PRESSURE TO PUMP**	NA PSI

FIELD PARAMETERS WITH PROGRAM STABILIZATION CRITERIA

TIME	DTW (FT)	PURGE RATE (mL/min)	TEMP. (^{o}C) ±3%	SP. CONDUCTANCE (mS/cm) ±3%	DISS. O_2 (mg/L) ±10% or 3 values <0.5 mg/L	pH (units) ±0.1	REDOX (mv) ±10 mv	TURBIDITY (ntu) ±10% or <10 ntu	PUMP INTAKE DEPTH (ft)	COMMENTS
1201	**BEGIN PURGING**									
1215	10.10	100	14.55	0.746	0.49	7.38	-54.5	632	75	
1220	10.10	100	14.50	0.742	0.47	7.36	-59.0	244	75	
1225	10.10	100	14.50	0.741	0.51	7.35	-62.0	452	75	
1230	10.10	100	14.52	0.741	0.54	7.35	-67.8	166	75	
1235	wait for turb to	drop							75	
1245	10.10	100	14.54	0.739	0.64	7.36	-79.5	119	75	
1250	10.10	150	14.73	0.736	0.69	7.36	-84.5	307	75	
1255	10.20	150	15.15	0.735	0.76	7.36	-93.2	235	75	
1300	10.20	150	15.38	0.733	2.33	7.38	-99.4	146	75	
1305	10.20	150	15.34	0.735	0.80	7.38	-111.4	142	75	
1310	10.20	150	15.26	0.739	0.73	7.39	-118.5	146	75	
FINAL STABILIZED FIELD PARAMETERS (rounded to appropriate significant figures)										**TEMP.**: nearest degree (ex. 10.1 = 10) **COND.**: 3 significant figure max (ex. 1.686 = 1.69) **pH**: nearest tenth (ex. 5.53 = 5.5) **DO**: nearest tenth (ex. 3.51 = 3.5) **TURB**: 3 SF max, nearest tenth (6.19 = 6.2, 101 = 101) **ORP**: 2 SF (44.1 = 44, 191 = 190)
			15	0.73	1.0	7.4	-115	48		

EQUIPMENT DOCUMENTATION

TYPE OF PUMP
- [X] PERISTALTIC
- [ ] SUBMERSIBLE
- [ ] BLADDER
- [ ] WATTERA
- [ ] OTHER
- [ ] OTHER

DECON FLUIDS USED
- [ ] ALCONOX
- [ ] DEIONIZED WATER
- [X] POTABLE WATER
- [ ] NITRIC ACID
- [ ] HEXANE
- [ ] METHANOL
- [ ] OTHER

TUBING/PUMP/BLADDER MATERIALS
- [ ] SILICON TUBING
- [ ] HDPE TUBING
- [X] LDPE TUBING
- [ ] OTHER
- [ ] OTHER

- [ ] S. STEEL PUMP MATERIAL
- [ ] PVC PUMP MATERIAL
- [ ] GEOPROBE SCREEN
- [ ] OTHER
- [ ] OTHER
- [ ] OTHER

EQUIPMENT USED
- [X] WL METER M200-80
- [ ] PID
- [X] WQ METER M015-04
- [x] TURB. METER M024-33
- [ ] PUMP
- [ ] OTHER
- [ ] FILTERS NO. TYPE

ANALYTICAL PARAMETERS

	PARAMETER	METHOD NUMBER	ANALYTE LIST	FIELD FILTERED	PRESERVATION METHOD	VOLUME REQUIRED	QC COLLECTED
X	VOCs	8260		N	HCL	3 x 40ml	yes
X	PFAS			N	None		

PURGE OBSERVATIONS

PURGE WATER CONTAINERIZED: YES [X] NO [ ]

NUMBER OF GALLONS GENERATED: 4.68

NO-PURGE METHOD UTILIZED: YES [X] NO [ ]

PDB for VOAs

NOTES

steel casing-no PVC riser

Josh Minardi

Sampler Signature: JJM Print Name:

Checked By: DK Date: 11//

DEVIATIONS FROM THE WORK PLAN

QAQC collected DUP

LOW FLOW GROUNDWATER SAMPLING RECORD

MACTEC

511 Congress Street
Suite 200
Portland, Maine 04101

PROJECT NAME		LOCATION ID	DATE
NYSDEC- Baldwin Place		MW-4D	11/17/22
PROJECT NUMBER		**START TIME**	**END TIME**
3616206104.04.****		1201	1415
SAMPLE ID	**SAMPLE TIME**	**SITE NAME/INSTALLATION**	**PAGE**
360023-MW004D075	1408	Baldwin Place	2 OF 2

WELL DIAMETER (IN.) [ ] 1 [ ] 2 [ ] 4 [x] 6 [ ] 8 [ ] OTHER

TUBING ID (INCHES) [ ] 1/8 [ ] 1/4 [ ] 3/8 [ ] 1/2 [ ] 5/8 [ ] OTHER

MEASUREMENT POINT (MP) [ ] TOP OF RISER (TOR) [x] TOP OF CASING (TOC) [ ] OTHER

WELL INTEGRITY

	YES	NO	N/A
CAP	x		
CASING	x		
LOCKED	x		
COLLAR	x		

INITIAL DTW (BMP)	9.50 FT	**FINAL DTW (BMP)**	10.20 FT	**PROT. CASING STICKUP (AGS)**	NM FT	**TOC/TOR DIFFERENCE**	NM FT
WELL DEPTH (BMP)	90 FT	**SCREEN INTERVAL**	32 FT	**PID AMBIENT AIR**	NA PPM	**REFILL TIMER SETTING**	NA SEC
WATER COLUMN	80.5 FT	**DRAWDOWN VOLUME** (final DTW- initial DTW X well diam. squared X 0.041)	1.03 GAL	**PID WELL MOUTH**	NA PPM	**DISCHARGE TIMER SETTING**	NA SEC
CALCULATED GAL/VOL (water column X well diameter^2 X 0.041)	118.8 GAL	**TOTAL VOL. PURGED** (mL per minute X total minutes X 0.00026 gal/mL)	4.68 GAL	**DRAWDOWN/ TOTAL PURGED**	0.22	**PRESSURE TO PUMP**	NA PSI

FIELD PARAMETERS WITH PROGRAM STABILIZATION CRITERIA

TIME	DTW (FT)	PURGE RATE (mL/min)	TEMP. (^{o}C) ±3%	SP. CONDUCTANCE (mS/cm) ±3%	DISS. O_2 (mg/L) ±10% or 3 values <0.5 mg/L	pH (units) ±0.1	REDOX (mv) ±10 mv	TURBIDITY (ntu) ±10% or <10 ntu	PUMP INTAKE DEPTH (ft)	COMMENTS
	BEGIN PURGING									
1315	10.20	150	15.24	0.733	0.69	7.40	-120.3	143	75	
1320	10.20	150	15.24	0.732	0.65	7.40	-125.6	132	75	
1325	10.20	150	15.30	0.731	0.61	7.39	-126.0	74.2	75	
1330	10.20	150	15.19	0.731	0.80	7.39	-125.4	125	75	
1335	10.20	150	15.17	0.732	0.79	7.39	-124.5	86.9	75	
1340	10.20	150	15.13	0.730	0.79	7.39	-123.0	61.9	75	
1345	10.20	150	15.07	0.728	0.83	7.35	-119.7	72.3	75	
1350	10.20	150	15.01	0.729	0.85	7.38	-118.3	40.6	75	
1355	10.20	150	15.08	0.727	0.87	7.38	-114.0	56.1	75	
1400	10.20	150	15.07	0.728	0.91	7.38	-109.3	56.1	75	
1405	10.20	150	14.99	0.727	0.98	7.41	-115.3	48.3	75	not stable
FINAL STABILIZED FIELD PARAMETERS (rounded to appropriate significant figures)										**TEMP**.: nearest degree (ex. 10.1 = 10) **COND**.: 3 significant figure max (ex. 1.686 = 1.69) **pH**: nearest tenth (ex. 5.53 = 5.5) **DO**: nearest tenth (ex. 3.51 = 3.5) **TURB**: 3 SF max, nearest tenth (6.19 = 6.2, 101 = 101) **ORP**: 2 SF (44.1 = 44, 191 = 190)
			15	0.73	1.0	7.4	-115	48		

EQUIPMENT DOCUMENTATION

TYPE OF PUMP	DECON FLUIDS USED	TUBING/PUMP/BLADDER MATERIALS		EQUIPMENT USED
[X] PERISTALTIC	[ ] ALCONOX	[ ] SILICON TUBING	[ ] S. STEEL PUMP MATERIAL	[X] WL METER
[ ] SUBMERSIBLE	[ ] DEIONIZED WATER	[ ] HDPE TUBING	[ ] PVC PUMP MATERIAL	[ ] PID
[ ] BLADDER	[X] POTABLE WATER	[X] LDPE TUBING	[ ] GEOPROBE SCREEN	[X] WQ METER
[ ] WATTERA	[ ] NITRIC ACID	[ ] OTHER	[ ] OTHER	[ ] TURB. METER
[ ] OTHER	[ ] HEXANE	[ ] OTHER	[ ] OTHER	[ ] PUMP
[ ] OTHER	[ ] METHANOL		[ ] OTHER	[ ] OTHER
	[ ] OTHER			[ ] FILTERS NO. TYPE

ANALYTICAL PARAMETERS

	PARAMETER	METHOD NUMBER	ANALYTE LIST	FIELD FILTERED	PRESERVATION METHOD	VOLUME REQUIRED	QC COLLECTED
X	VOCs	8260		N	HCL	3 x 40ml	

PURGE OBSERVATIONS

	YES	NO
PURGE WATER CONTAINERIZED	X	
NO-PURGE METHOD UTILIZED	X	

NUMBER OF GALLONS GENERATED: 4.68

NOTES

Turb not stable

Josh Minardi

Sampler Signature: JJM Print Name:

Checked By: DK Date: 11/22/2021

DEVIATIONS FROM THE WORK PLAN

REV. 3/29/2019

LOW FLOW GROUNDWATER SAMPLING RECORD

MACTEC

511 Congress Street
Suite 200
Portland, Maine 04101

PROJECT NAME	NYSDEC- Baldwin Place
PROJECT NUMBER	3616206104.04.****
SAMPLE ID	360023-MW101M042
SAMPLE TIME	1605

LOCATION ID	MW101M
DATE	11/17/21
START TIME	1455
END TIME	1610
SITE NAME/INSTALLATION	Baldwin Place
PAGE	1 OF 1

WELL DIAMETER (IN.) [ ] 1 [x] 2 [ ] 4 [ ] 6 [ ] 8 [ ] OTHER

TUBING ID (INCHES) [ ] 1/8 [x] 1/4 [ ] 3/8 [ ] 1/2 [ ] 5/8 [ ] OTHER

MEASUREMENT POINT (MP) [x] TOP OF RISER (TOR) [ ] TOP OF CASING (TOC) [ ] OTHER

WELL INTEGRITY

	YES	NO	N/A
CAP	x		
CASING	x		
LOCKED	x		
COLLAR	x		

INITIAL DTW (BMP)	18.72 FT	**FINAL DTW (BMP)**	22.30 FT	**PROT. CASING STICKUP (AGS)**	NA FT	**TOC/TOR DIFFERENCE**	NM FT
WELL DEPTH (BMP)	47 FT	**SCREEN INTERVAL**	10 FT	**PID AMBIENT AIR**	NA PPM	**REFILL TIMER SETTING**	NA SEC
WATER COLUMN	28.28 FT	**DRAWDOWN VOLUME** (final DTW- initial DTW X well diam. squared X 0.041)	0.59 GAL	**PID WELL MOUTH**	NA PPM	**DISCHARGE TIMER SETTING**	NA SEC
CALCULATED GAL/VOL (water column X well diameter^2 X 0.041)	4.64 GAL	**TOTAL VOL. PURGED** (mL per minute X total minutes X 0.00026 gal/mL)	1.56 GAL	**DRAWDOWN/ TOTAL PURGED**	0.38	**PRESSURE TO PUMP**	NA PSI

FIELD PARAMETERS WITH PROGRAM STABILIZATION CRITERIA

TIME	DTW (FT)	PURGE RATE (mL/min)	TEMP. (^{o}C) ±3%	SP. CONDUCTANCE (mS/cm) ±3%	DISS. O_2 (mg/L) ±10% or 3 values <0.5 mg/L	pH (units) ±0.1	REDOX (mv) ±10 mv	TURBIDITY (ntu) ±10% or <10 ntu	PUMP INTAKE DEPTH (ft)	COMMENTS
1455	**BEGIN PURGING**									
1515	21.30	150	14.00	1.770	2.03	7.18	-67.7	39.2	42	lowered rate to 100
1520	21.50	100	13.92	1.816	0.84	7.18	-70.1	27.7	42	
1525	21.70	100	13.88	1.875	0.77	7.18	-69.4	25.4	42	
1530	21.75	100	13.81	1.900	0.70	7.19	-70.1	15.0	42	
1535	21.80	100	13.76	1.930	0.70	7.20	-70.4	15.2	42	
1540	21.90	100	13.75	1.932	0.71	7.21	-71.9	14.9	42	
1545	22.10	100	13.75	1.932	0.78	7.21	-70.3	14.9	42	
1550	22.20	100	13.76	1.936	0.82	7.21	-70.0	14.8	42	
1555	22.30	100	13.72	1.940	0.85	7.21	-70.7	14.8	42	
well stable-sampled at 1605										

FINAL STABILIZED FIELD PARAMETERS (rounded to appropriate significant figures)

	14	1.94	0.8	7.2	-70.7	15

TEMP.: nearest degree (ex. 10.1 = 10)
COND.: 3 significant figure max (ex. 1.686 = 1.69)
pH: nearest tenth (ex. 5.53 = 5.5)
DO: nearest tenth (ex. 3.51 = 3.5)
TURB: 3 SF max, nearest tenth (6.19 = 6.2, 101 = 101)
ORP: 2 SF (44.1 = 44, 191 = 190)

EQUIPMENT DOCUMENTATION

TYPE OF PUMP
- [X] PERISTALTIC
- [ ] SUBMERSIBLE
- [ ] BLADDER
- [ ] WATTERA
- [ ] OTHER
- [ ] OTHER

DECON FLUIDS USED
- [ ] ALCONOX
- [ ] DEIONIZED WATER
- [X] POTABLE WATER
- [ ] NITRIC ACID
- [ ] HEXANE
- [ ] METHANOL
- [ ] OTHER

TUBING/PUMP/BLADDER MATERIALS
- [ ] SILICON TUBING
- [ ] HDPE TUBING
- [X] LDPE TUBING
- [ ] OTHER
- [ ] OTHER

TUBING/PUMP/BLADDER MATERIALS
- [ ] S. STEEL PUMP MATERIAL
- [ ] PVC PUMP MATERIAL
- [ ] GEOPROBE SCREEN
- [ ] OTHER
- [ ] OTHER
- [ ] OTHER

EQUIPMENT USED
- [X] WL METER M200-80
- [ ] PID
- [X] WQ METER M015-04
- [x] TURB. METER M024-33
- [ ] PUMP
- [ ] OTHER
- [ ] FILTERS NO. TYPE

ANALYTICAL PARAMETERS

	PARAMETER	METHOD NUMBER	ANALYTE LIST	FIELD FILTERED	PRESERVATION METHOD	VOLUME REQUIRED	QC COLLECTED
X	VOCs	8260		N	HCL	3 x 40ml	
x	PFAS			N	None	2x250ML	

PURGE OBSERVATIONS

	YES	NO
PURGE WATER CONTAINERIZED	X	
NO-PURGE METHOD UTILIZED		x

NUMBER OF GALLONS GENERATED: 1.56

NOTES VOC collected 11/16 via DMPDB

J. Minardi

Sampler Signature: JJM Print Name:

Checked By: DK Date: 11/22/2021

DEVIATIONS FROM THE WORK PLAN

REV. 3/29/2019

LOW FLOW GROUNDWATER SAMPLING RECORD

MACTEC

511 Congress Street
Suite 200
Portland, Maine 04101

PROJECT NAME	NYSDEC- Baldwin Place
PROJECT NUMBER	3616206104.04.****
SAMPLE ID	360023-MW009D075
SAMPLE TIME	1315

LOCATION ID	MW-9D
DATE	11/17/21
START TIME	1115
END TIME	1330
SITE NAME/INSTALLATION	Baldwin Place
PAGE	1 OF 1

WELL DIAMETER (IN.) [ ] 1 [ ] 2 [ ] 4 [x] 6 [ ] 8 [ ] OTHER

TUBING ID (INCHES) [ ] 1/8 [x] 1/4 [ ] 3/8 [ ] 1/2 [ ] 5/8 [ ] OTHER

MEASUREMENT POINT (MP) [x] TOP OF RISER (TOR) [ ] TOP OF CASING (TOC) [ ] OTHER

WELL INTEGRITY

	YES	NO	N/A
CAP	x		
CASING	x		
LOCKED		x	
COLLAR	x		

INITIAL DTW (BMP)	7.00 FT	**FINAL DTW (BMP)**	7.94 FT	**PROT. CASING STICKUP (AGS)**	NA FT	**TOC/TOR DIFFERENCE**	0.66 FT
WELL DEPTH (BMP)	89.91 FT	**SCREEN INTERVAL**	60.90 FT	**PID AMBIENT AIR**	NA PPM	**REFILL TIMER SETTING**	NA SEC
WATER COLUMN	82.91 FT	**DRAWDOWN VOLUME** (final DTW- initial DTW X well diam. squared X 0.041)	1.38 GAL	**PID WELL MOUTH**	NA PPM	**DISCHARGE TIMER SETTING**	NA SEC
CALCULATED GAL/VOL (water column X well diameter^2 X 0.041)	122.37 GAL	**TOTAL VOL. PURGED** (mL per minute X total minutes X 0.00026 gal/mL)	1.43 GAL	**DRAWDOWN/ TOTAL PURGED**	0.965	**PRESSURE TO PUMP**	NA PSI

FIELD PARAMETERS WITH PROGRAM STABILIZATION CRITERIA

TIME	DTW (FT)	PURGE RATE (mL/min)	TEMP. (^{o}C) ±3%	SP. CONDUCTANCE (mS/cm) ±3%	DISS. O_2 (mg/L) ±10% or 3 values <0.5 mg/L	pH (units) ±0.1	REDOX (mv) ±10 mv	TURBIDITY (ntu) ±10% or <10 ntu	PUMP INTAKE DEPTH (ft)	COMMENTS
1215	**BEGIN PURGING**									
1220	7.11	100	15.90	2.883	9.58	7.09	-110.5	53.9	75	
1225	7.25	100	15.91	2.872	8.58	7.08	-121.3	53.6	75	
1230	7.33	100	16.16	2.874	7.92	7.07	-94.8	53.2	75	
1235	7.42	100	16.27	2.878	7.61	7.07	-95.3	47.1	75	
1240	7.50	100	16.28	2.879	7.26	7.07	-107.4	47..7	75	
1245	7.58	100	16.29	2.879	7.01	7.07	-128.8	48.2	75	
1250	7.66	100	16.31	2.880	6.63	7.07	-130.9	48.4	75	
1255	7.75	100	16.51	2.891	5.78	7.06	-131.6	48.9	75	
1300	7.83	100	16.51	2.891	5.78	7.06	-129.7	48.9	75	
1305	7.89	100	16.52	2.892	5.54	7.06	-128.1	49.8	75	
1310	7.94	100	16.50	2.890	5.27	7.06	-127.4	50.4	75	
FINAL STABILIZED FIELD PARAMETERS (rounded to appropriate significant figures)										
			16.50	2.890	5.27	7.06	-127.4	50.4		

TEMP.: nearest degree (ex. 10.1 = 10)
COND.: 3 significant figure max (ex. 1.686 = 1.69)
pH: nearest tenth (ex. 5.53 = 5.5)
DO: nearest tenth (ex. 3.51 = 3.5)
TURB: 3 SF max, nearest tenth (6.19 = 6.2, 101 = 101)
ORP: 2 SF (44.1 = 44, 191 = 190)

EQUIPMENT DOCUMENTATION

TYPE OF PUMP
- [X] PERISTALTIC
- [ ] SUBMERSIBLE
- [ ] BLADDER
- [ ] WATTERA
- [ ] OTHER
- [ ] OTHER

DECON FLUIDS USED
- [ ] ALCONOX
- [ ] DEIONIZED WATER
- [X] POTABLE WATER
- [ ] NITRIC ACID
- [ ] HEXANE
- [ ] METHANOL
- [ ] OTHER

TUBING/PUMP/BLADDER MATERIALS
- [ ] SILICON TUBING
- [ ] HDPE TUBING
- [X] LDPE TUBING
- [ ] OTHER
- [ ] OTHER

- [ ] S. STEEL PUMP MATERIAL
- [ ] PVC PUMP MATERIAL
- [ ] GEOPROBE SCREEN
- [ ] OTHER
- [ ] OTHER
- [ ] OTHER

EQUIPMENT USED
- [X] WL METER M200-44
- [ ] PID
- [X] WQ METER M015-02
- [x] TURB. METER M024-26
- [x] PUMP S008-31
- [ ] OTHER
- [ ] FILTERS NO. TYPE

ANALYTICAL PARAMETERS

	PARAMETER	METHOD NUMBER	ANALYTE LIST	FIELD FILTERED	PRESERVATION METHOD	VOLUME REQUIRED	QC COLLECTED
X	VOCs	8260		N	HCL	3 x 40ml	
x	PFAS			N	None	2xunpreserved plastic	

PURGE OBSERVATIONS

PURGE WATER CONTAINERIZED: YES [X] NO [ ]

NUMBER OF GALLONS GENERATED: 1.43

NO-PURGE METHOD UTILIZED: YES [ ] NO [ ]

NOTES Had to use nuts to weight tubing to get to correct depth

Sampler Signature: ML

Print Name: Michael Ladny

Checked By: DK

Date: 11/22/2021

DEVIATIONS FROM THE WORK PLAN

REV. 3/29/2019

LOW FLOW GROUNDWATER SAMPLING RECORD

MACTEC

511 Congress Street
Suite 200
Portland, Maine 04101

PROJECT NAME	NYSDEC- Baldwin Place
PROJECT NUMBER	3616206104.04.****
SAMPLE ID	360023-MW012S030
SAMPLE TIME	1620

LOCATION ID	MW-12S
DATE	11/17/21
START TIME	1535
END TIME	1630
SITE NAME/INSTALLATION	Baldwin Place
PAGE	1 OF 1

WELL DIAMETER (IN.) [ ] 1 [x] 2 [ ] 4 [ ] 6 [ ] 8 [ ] OTHER

TUBING ID (INCHES) [ ] 1/8 [x] 1/4 [ ] 3/8 [ ] 1/2 [ ] 5/8 [ ] OTHER

MEASUREMENT POINT (MP) [ ] TOP OF RISER (TOR) [x] TOP OF CASING (TOC) [ ] OTHER

WELL INTEGRITY

	YES	NO	N/A
CAP	x		
CASING	x		
LOCKED	x		
COLLAR	x		

INITIAL DTW (BMP)	15.83 FT	**FINAL DTW (BMP)**	18.40 FT	**PROT. CASING STICKUP (AGS)**	3.04 FT	**TOC/TOR DIFFERENCE**	NM FT
WELL DEPTH (BMP)	44.19 FT	**SCREEN INTERVAL**	20 FT	**PID AMBIENT AIR**	NA PPM	**REFILL TIMER SETTING**	NA SEC
WATER COLUMN	28.36 FT	**DRAWDOWN VOLUME** (final DTW- initial DTW X well diam. squared X 0.041)	0.42 GAL	**PID WELL MOUTH**	NA PPM	**DISCHARGE TIMER SETTING**	NA SEC
CALCULATED GAL/VOL (water column X well diameter^2 X 0.041)	4.65 GAL	**TOTAL VOL. PURGED** (mL per minute X total minutes X 0.00026 gal/mL)	0.91 GAL	**DRAWDOWN/ TOTAL PURGED**	0.461	**PRESSURE TO PUMP**	NA PSI

FIELD PARAMETERS WITH PROGRAM STABILIZATION CRITERIA

TIME	DTW (FT)	PURGE RATE (mL/min)	TEMP. (^{o}C) ±3%	SP. CONDUCTANCE (mS/cm) ±3%	DISS. O_2 (mg/L) ±10% or 3 values <0.5 mg/L	pH (units) ±0.1	REDOX (mv) ±10 mv	TURBIDITY (ntu) ±10% or <10 ntu	PUMP INTAKE DEPTH (ft)	COMMENTS
1540	**BEGIN PURGING**									
1550	17.12	100	14.42	0.884	2.82	7.49	21.0	12.6	30	
1555	17.45	100	14.25	0.876	2.44	7.43	-12.4	8.94	30	
1600	17.71	100	14.17	0.869	2.41	7.40	-18.5	9.92	30	
1605	18.01	100	14.12	0.854	2.40	7.38	-19.0	7.78	30	
1610	18.20	100	14.07	0.843	2.34	7.39	-19.4	8.28	30	
1615	18.40	100	14.00	0.837	2.24	7.37	-19.7	9.27	30	
	sampled at 1620 well stabilized									

FINAL STABILIZED FIELD PARAMETERS (rounded to appropriate significant figures)

	14.00	0.837	2.24	7.37	-19.7	9.27

TEMP.: nearest degree (ex. 10.1 = 10)
COND.: 3 significant figure max (ex. 1.686 = 1.69)
pH: nearest tenth (ex. 5.53 = 5.5)
DO: nearest tenth (ex. 3.51 = 3.5)
TURB: 3 SF max, nearest tenth (6.19 = 6.2, 101 = 101)
ORP: 2 SF (44.1 = 44, 191 = 190)

EQUIPMENT DOCUMENTATION

TYPE OF PUMP
- [X] PERISTALTIC
- [ ] SUBMERSIBLE
- [ ] BLADDER
- [ ] WATTERA
- [ ] OTHER
- [ ] OTHER

DECON FLUIDS USED
- [ ] ALCONOX
- [ ] DEIONIZED WATER
- [X] POTABLE WATER
- [ ] NITRIC ACID
- [ ] HEXANE
- [ ] METHANOL
- [ ] OTHER

TUBING/PUMP/BLADDER MATERIALS
- [ ] SILICON TUBING
- [ ] HDPE TUBING
- [X] LDPE TUBING
- [ ] OTHER
- [ ] OTHER

- [ ] S. STEEL PUMP MATERIAL
- [ ] PVC PUMP MATERIAL
- [ ] GEOPROBE SCREEN
- [ ] OTHER
- [ ] OTHER
- [ ] OTHER

EQUIPMENT USED
- [X] WL METER M200-44
- [ ] PID
- [X] WQ METER M015-02
- [x] TURB. METER M024-26
- [x] PUMP S008-31
- [ ] OTHER
- [ ] FILTERS NO. TYPE

ANALYTICAL PARAMETERS

	PARAMETER	METHOD NUMBER	ANALYTE LIST	FIELD FILTERED	PRESERVATION METHOD	VOLUME REQUIRED	QC COLLECTED
X	VOCs	8260		N	HCL	3 x 40ml	
x	PFAS			N	None	2xunpreserved plastic	

PURGE OBSERVATIONS

	YES	NO
PURGE WATER CONTAINERIZED	X	
NO-PURGE METHOD UTILIZED		

NUMBER OF GALLONS GENERATED: _____

NOTES

Michael Ladny

Sampler Signature: ML Print Name:

Checked By: DK Date: 11/22/2021

DEVIATIONS FROM THE WORK PLAN

REV. 3/29/2019

LOW FLOW GROUNDWATER SAMPLING RECORD

MACTEC

511 Congress Street
Suite 200
Portland, Maine 04101

PROJECT NAME	NYSDEC- Baldwin Place
PROJECT NUMBER	3616206104.04.****
SAMPLE ID	360023-MW007D75
SAMPLE TIME	1520

LOCATION ID	MW-7D
DATE	
START TIME	1400
END TIME	1530
SITE NAME/INSTALLATION	Baldwin Place
PAGE	1 OF 1

WELL DIAMETER (IN.) [ ] 1 [ ] 2 [ ] 4 [x] 6 [ ] 8 [ ] OTHER _____

TUBING ID (INCHES) [ ] 1/8 [x] 1/4 [ ] 3/8 [ ] 1/2 [ ] 5/8 [ ] OTHER _____

MEASUREMENT POINT (MP) [x] TOP OF RISER (TOR) [ ] TOP OF CASING (TOC) [ ] OTHER _____

WELL INTEGRITY

	YES	NO	N/A
CAP	x		
CASING	x		
LOCKED		x	
COLLAR	x		

INITIAL DTW (BMP)	12.80 FT	**FINAL DTW (BMP)**	13.93 FT	**PROT. CASING STICKUP (AGS)**	NA FT	**TOC/TOR DIFFERENCE**	0.60 FT
WELL DEPTH (BMP)	92.13 FT	**SCREEN INTERVAL**	60.90 FT	**PID AMBIENT AIR**	NA PPM	**REFILL TIMER SETTING**	NA SEC
WATER COLUMN	79.33 FT	**DRAWDOWN VOLUME** (final DTW- initial DTW X well diam. squared X 0.041)	0.27 GAL	**PID WELL MOUTH**	NA PPM	**DISCHARGE TIMER SETTING**	NA SEC
CALCULATED GAL/VOL (water column X well diameter^2 X 0.041)	117.09 GAL	**TOTAL VOL. PURGED** (mL per minute X total minutes X 0.00026 gal/mL)	1.17 GAL	**DRAWDOWN/ TOTAL PURGED**	0.230	**PRESSURE TO PUMP**	NA PSI

FIELD PARAMETERS WITH PROGRAM STABILIZATION CRITERIA

TIME	DTW (FT)	PURGE RATE (mL/min)	TEMP. (^{o}C) ±3%	SP. CONDUCTANCE (mS/cm) ±3%	DISS. O_2 (mg/L) ±10% or 3 values <0.5 mg/L	pH (units) ±0.1	REDOX (mv) ±10 mv	TURBIDITY (ntu) ±10% or <10 ntu	PUMP INTAKE DEPTH (ft)	COMMENTS
1430	**BEGIN PURGING**									
1435	13.27	100	15.41	2.930	3.93	7.13	-101.2	13.5	75	
1440	13.37	100	15.46	2.937	2.25	7.12	-122.4	10.6	75	
1445	13.45	100	15.54	2.946	1.67	7.11	-127.5	10.9	75	
1450	13.52	100	15.55	2.947	1.40	7.11	-130.2	11.6	75	
1455	1357	100	15.55	2.947	1.24	7.10	-131.5	8.98	75	
1500	13.69	100	15.52	2.946	1.12	7.10	-132.3	10.0	75	
1505	13.80	100	15.48	2.943	1.06	7.10	-131.7	9.51	75	
1510	13.86	100	15.45	2.939	1.07	7.10	-130.8	9.88	75	
1515	13.93	100	15.44	2.938	1.02	7.09	-132.4	9.25	75	
	sampled at 1520									
	well stabilized									

FINAL STABILIZED FIELD PARAMETERS (rounded to appropriate significant figures)

	15.44	2.938	1.05	7.09	-132.4	9.25

TEMP.: nearest degree (ex. 10.1 = 10)
COND.: 3 significant figure max (ex. 1.686 = 1.69)
pH: nearest tenth (ex. 5.53 = 5.5)
DO: nearest tenth (ex. 3.51 = 3.5)
TURB: 3 SF max, nearest tenth (6.19 = 6.2, 101 = 101)
ORP: 2 SF (44.1 = 44, 191 = 190)

EQUIPMENT DOCUMENTATION

TYPE OF PUMP
- [X] PERISTALTIC
- [ ] SUBMERSIBLE
- [ ] BLADDER _____
- [ ] WATTERA
- [ ] OTHER _____
- [ ] OTHER _____

DECON FLUIDS USED
- [ ] ALCONOX
- [ ] DEIONIZED WATER
- [X] POTABLE WATER
- [ ] NITRIC ACID
- [ ] HEXANE
- [ ] METHANOL
- [ ] OTHER _____

TUBING/PUMP/BLADDER MATERIALS
- [ ] SILICON TUBING
- [ ] HDPE TUBING
- [X] LDPE TUBING
- [ ] OTHER _____
- [ ] OTHER _____

- [ ] S. STEEL PUMP MATERIAL
- [ ] PVC PUMP MATERIAL
- [ ] GEOPROBE SCREEN
- [ ] OTHER _____
- [ ] OTHER _____
- [ ] OTHER _____

EQUIPMENT USED
- [X] WL METER M200-44
- [ ] PID
- [X] WQ METER M015-02
- [X] TURB. METER M024-26
- [X] PUMP S008-31
- [ ] OTHER _____
- [ ] FILTERS NO. ____ TYPE _____

ANALYTICAL PARAMETERS

	PARAMETER	METHOD NUMBER	ANALYTE LIST	FIELD FILTERED	PRESERVATION METHOD	VOLUME REQUIRED	QC COLLECTED
X	VOCs	8260		N	HCL	3 x 40ml	
x	PFAS			N	None	2xunpreserved plastic	

PURGE OBSERVATIONS

	YES	NO
PURGE WATER CONTAINERIZED	X	
NO-PURGE METHOD UTILIZED		

NUMBER OF GALLONS GENERATED: 1.17

NOTES

Sampler Signature: ML

Print Name: Michael Ladny

Checked By: DK

Date: 11/22/2021

DEVIATIONS FROM THE WORK PLAN

LOW FLOW GROUNDWATER SAMPLING RECORD

MACTEC
511 Congress Street
Suite 200
Portland, Maine 04101

PROJECT NAME		LOCATION ID	DATE
NYSDEC- Baldwin Place		MW-9S	11/17/21
PROJECT NUMBER		**START TIME**	**END TIME**
3616206104.04.****		0900	1045
SAMPLE ID	**SAMPLE TIME**	**SITE NAME/INSTALLATION**	**PAGE**
360023-MW009S019	1035	Baldwin Place	1 OF 2

WELL DIAMETER (IN.) [ ] 1 [ ] 2 [x] 4 [ ] 6 [ ] 8 [ ] OTHER

TUBING ID (INCHES) [ ] 1/8 [x] 1/4 [ ] 3/8 [ ] 1/2 [ ] 5/8 [ ] OTHER

MEASUREMENT POINT (MP) [x] TOP OF RISER (TOR) [ ] TOP OF CASING (TOC) [ ] OTHER

WELL INTEGRITY

	YES	NO	N/A
CAP	x		
CASING	x		
LOCKED		x	
COLLAR	x		

INITIAL DTW (BMP)	6.12 FT	**FINAL DTW (BMP)**	6.12 FT	**PROT. CASING STICKUP (AGS)**	NA FT	**TOC/TOR DIFFERENCE**	0.75 FT
WELL DEPTH (BMP)	28.36 FT	**SCREEN INTERVAL**	18.28 FT	**PID AMBIENT AIR**	NA PPM	**REFILL TIMER SETTING**	NA SEC
WATER COLUMN	22.24 FT	**DRAWDOWN VOLUME** (final DTW- initial DTW X well diam. squared X 0.041)	0.00 GAL	**PID WELL MOUTH**	NA PPM	**DISCHARGE TIMER SETTING**	NA SEC
CALCULATED GAL/VOL (water column X well diameter^2 X 0.041)	14.58 GAL	**TOTAL VOL. PURGED** (mL per minute X total minutes X 0.00026 gal/mL)	2.08 GAL	**DRAWDOWN/ TOTAL PURGED**	0.00	**PRESSURE TO PUMP**	NA PSI

FIELD PARAMETERS WITH PROGRAM STABILIZATION CRITERIA

TIME	DTW (FT)	PURGE RATE (mL/min)	TEMP. (^{o}C) ±3%	SP. CONDUCTANCE (mS/cm) ±3%	DISS. O_2 (mg/L) ±10% or 3 values <0.5 mg/L	pH (units) ±0.1	REDOX (mv) ±10 mv	TURBIDITY (ntu) ±10% or <10 ntu	PUMP INTAKE DEPTH (ft)	COMMENTS
0910	**BEGIN PURGING**									
0920	6.12	100	16.30	4.700	5.07	6.25	93.9	21.7	19	
0925	6.12	100	16.37	4.706	4.06	6.26	71.3	16.9	19	
0930	6.12	100	16.61	4.709	2.82	6.28	38.3	15.9	19	
0935	6.12	100	16.74	4.715	2.48	6.28	26.9	14.2	19	
0940	6.12	100	16.83	4.724	2.12	6.27	16.8	14.5	19	
0945	6.12	100	16.90	4.728	2.09	6.26	7.9	12.9	19	
0950	6.12	100	16.93	4.733	1.85	6.25	2.8	11.7	19	
0955	6.12	100	16.92	4.732	1.68	6.25	-0.3	11.5	19	
1000	6.12	100	16.94	4.734	1.61	6.25	-1.0	11.0	19	
1005	6.12	100	16.95	4.739	1.51	6.25	-2.0	11.2	19	
1010	6.12	100	16.94	4.737	1.33	6.25	-2.7	10.6	19	
FINAL STABILIZED FIELD PARAMETERS (rounded to appropriate significant figures)										
			17.18	4.754	1.14	6.26	-2.2	9.02		

TEMP.: nearest degree (ex. 10.1 = 10)
COND.: 3 significant figure max (ex. 1.686 = 1.69)
pH: nearest tenth (ex. 5.53 = 5.5)
DO: nearest tenth (ex. 3.51 = 3.5)
TURB: 3 SF max, nearest tenth (6.19 = 6.2, 101 = 101)
ORP: 2 SF (44.1 = 44, 191 = 190)

EQUIPMENT DOCUMENTATION

TYPE OF PUMP
- [X] PERISTALTIC
- [ ] SUBMERSIBLE
- [ ] BLADDER
- [ ] WATTERA
- [ ] OTHER
- [ ] OTHER

DECON FLUIDS USED
- [ ] ALCONOX
- [ ] DEIONIZED WATER
- [X] POTABLE WATER
- [ ] NITRIC ACID
- [ ] HEXANE
- [ ] METHANOL
- [ ] OTHER

TUBING/PUMP/BLADDER MATERIALS
- [ ] SILICON TUBING
- [ ] HDPE TUBING
- [X] LDPE TUBING
- [ ] OTHER
- [ ] OTHER

- [ ] S. STEEL PUMP MATERIAL
- [ ] PVC PUMP MATERIAL
- [ ] GEOPROBE SCREEN
- [ ] OTHER
- [ ] OTHER
- [ ] OTHER

EQUIPMENT USED
- [X] WL METER M200-44
- [ ] PID
- [X] WQ METER M015-02
- [x] TURB. METER M024-26
- [x] PUMP S008-31
- [ ] OTHER
- [ ] FILTERS NO. TYPE

ANALYTICAL PARAMETERS

	PARAMETER	METHOD NUMBER	ANALYTE LIST	FIELD FILTERED	PRESERVATION METHOD	VOLUME REQUIRED	QC COLLECTED
X	VOCs	8260		N	HCL	3 x 40ml	
x	PFAS			N	None	2xunpreserved plastic	

PURGE OBSERVATIONS

	YES	NO
PURGE WATER CONTAINERIZED	X	
NO-PURGE METHOD UTILIZED		

NUMBER OF GALLONS GENERATED: 2.08

NOTES VOCs sampled at 1105

Sampler Signature: ML Print Name: Michael Ladny

Checked By: DK Date: 11/22/2021

DEVIATIONS FROM THE WORK PLAN

LOW FLOW GROUNDWATER SAMPLING RECORD

MACTEC

511 Congress Street
Suite 200
Portland, Maine 04101

PROJECT NAME	NYSDEC- Baldwin Place
PROJECT NUMBER	3616206104.04.****
SAMPLE ID	360023-MW009S019
SAMPLE TIME	1035

LOCATION ID	MW-9S
DATE	11/17/2021
START TIME	0900
END TIME	1045
SITE NAME/INSTALLATION	Baldwin Place
PAGE	2 OF 2

WELL DIAMETER (IN.) [ ] 1 [ ] 2 [x] 4 [ ] 6 [ ] 8 [ ] OTHER _____

TUBING ID (INCHES) [ ] 1/8 [x] 1/4 [ ] 3/8 [ ] 1/2 [ ] 5/8 [ ] OTHER _____

MEASUREMENT POINT (MP) [x] TOP OF RISER (TOR) [ ] TOP OF CASING (TOC) [ ] OTHER _____

WELL INTEGRITY

	YES	NO	N/A
CAP	x		
CASING	x		
LOCKED		x	
COLLAR	x		

INITIAL DTW (BMP)	6.12 FT	**FINAL DTW (BMP)**	6.12 FT	**PROT. CASING STICKUP (AGS)**	NA FT	**TOC/TOR DIFFERENCE**	0.75 FT
WELL DEPTH (BMP)	28.36 FT	**SCREEN INTERVAL**	18.28 FT	**PID AMBIENT AIR**	NA PPM	**REFILL TIMER SETTING**	NA SEC
WATER COLUMN	22.24 FT	**DRAWDOWN VOLUME** (final DTW- initial DTW X well diam. squared X 0.041)	0 GAL	**PID WELL MOUTH**	NA PPM	**DISCHARGE TIMER SETTING**	NA SEC
CALCULATED GAL/VOL (water column X well diameter^2 X 0.041)	14.58 GAL	**TOTAL VOL. PURGED** (mL per minute X total minutes X 0.00026 gal/mL)	2.08 GAL	**DRAWDOWN/ TOTAL PURGED**	0.00	**PRESSURE TO PUMP**	NA PSI

FIELD PARAMETERS WITH PROGRAM STABILIZATION CRITERIA

TIME	DTW (FT)	PURGE RATE (mL/min)	TEMP. (^{o}C) ±3%	SP. CONDUCTANCE (mS/cm) ±3%	DISS. O_2 (mg/L) ±10% or 3 values <0.5 mg/L	pH (units) ±0.1	REDOX (mv) ±10 mv	TURBIDITY (ntu) ±10% or <10 ntu	PUMP INTAKE DEPTH (ft)	COMMENTS
0910	**BEGIN PURGING**									
1015	6.12	100	17.00	4.743	1.36	6.25	-1.9	9.39	19	
1020	6.12	100	17.06	7.747	1.15	6.24	-1.8	9.79	19	
1025	6.12	100	17.09	4.750	1.19	6.25	-2.2	9.02	19	
1030	6.12	100	17.18	4.754	1.14	6.26	-2.2	9.02	19	
	sampled at 1035									
	well stabilized									

FINAL STABILIZED FIELD PARAMETERS (rounded to appropriate significant figures)

	17.18	4.754	1.14	6.26	-2.2	9.02

TEMP.: nearest degree (ex. 10.1 = 10)
COND.: 3 significant figure max (ex. 1.686 = 1.69)
pH: nearest tenth (ex. 5.53 = 5.5)
DO: nearest tenth (ex. 3.51 = 3.5)
TURB: 3 SF max, nearest tenth (6.19 = 6.2, 101 = 101)
ORP: 2 SF (44.1 = 44, 191 = 190)

EQUIPMENT DOCUMENTATION

TYPE OF PUMP
- [X] PERISTALTIC
- [ ] SUBMERSIBLE
- [ ] BLADDER _____
- [ ] WATTERA
- [ ] OTHER _____
- [ ] OTHER _____

DECON FLUIDS USED
- [ ] ALCONOX
- [ ] DEIONIZED WATER
- [X] POTABLE WATER
- [ ] NITRIC ACID
- [ ] HEXANE
- [ ] METHANOL
- [ ] OTHER _____

TUBING/PUMP/BLADDER MATERIALS
- [ ] SILICON TUBING
- [ ] HDPE TUBING
- [X] LDPE TUBING
- [ ] OTHER _____
- [ ] OTHER _____

- [ ] S. STEEL PUMP MATERIAL
- [ ] PVC PUMP MATERIAL
- [ ] GEOPROBE SCREEN
- [ ] OTHER _____
- [ ] OTHER _____
- [ ] OTHER _____

EQUIPMENT USED
- [X] WL METER M200-44
- [ ] PID _____
- [X] WQ METER M015-02
- [x] TURB. METER M024-26
- [x] PUMP S008-31
- [ ] OTHER _____
- [ ] FILTERS NO. ____ TYPE _____

ANALYTICAL PARAMETERS

	PARAMETER	METHOD NUMBER	ANALYTE LIST	FIELD FILTERED	PRESERVATION METHOD	VOLUME REQUIRED	QC COLLECTED
[X]	VOCs	8260		N	HCL	3 x 40ml	
[x]	PFAS			N	None	2xunpreserved plastic	
[ ]							
[ ]							
[ ]							
[ ]							
[ ]							

PURGE OBSERVATIONS

	YES	NO
PURGE WATER CONTAINERIZED	[X]	[ ]
NO-PURGE METHOD UTILIZED	[ ]	[ ]

NUMBER OF GALLONS GENERATED: 2.08

NOTES VOCs sampled at 1105

Michael Ladny

Sampler Signature: ML Print Name:

Checked By: DK Date: 11/22/2021

DEVIATIONS FROM THE WORK PLAN

REV. 3/29/2019

APPENDIX D-2

TREATMENT SYSTEM INSPECTION FORM

NOVEMBER 2021

New York Department of Environmental Conservation
Inactive Hazardous Waste Site
Inspection Form-Treatment Systems

Site Name: *Baldwin Place*		**NYSDEC Site Number:** *360023*	**NYSDEC PM:** Robert Strang
Site Location: *80 US 6, Baldwin Place, NY*		**Site Classification # :** 4	**Primary Site Contact:** *Robert Strang*
Site Inspection Date: November 18, 2021	**Purpose of Inspection:** *15-month Inspection*		
Name of Inspector: J. Minardi & M. Landy	**Title:** FOL	**Agency/Company:**	**Address:** *511 Congress Street, Suite 200*
Phone Number: 207-553-0645		MACTEC/Wood	*Portland, ME 04101*

Treatment Systems

System Status		**General Observations:** Slight buildup/corrosion on effluent pipe.
System in operation during visit?	*No*	
Manned on a fulltime basis?	*No*	
Pump on?	*No*	
Condition of Operational Controls		
Condition of gauges?	*Good*	
Condition of flow meters	*Good*	
Condition of effluent pipe?	*Good*	
Condition of flow pipes and hoses?	*Poor*	
Pipes labeled with direction of flow and contents?	*No*	
Condition of valves?	*Good*	
Evidence of leaking?	*Yes*	
Condition of sump pump?	*Good*	
Lighting in Work Areas Adequate?	*Yes*	
Collection Vault		
RW-1 & RW-2 Vault condition - ground surface	*Good*	

Site Features

Site Security and Fence		**General Observations:**
Condition of the access gates and locks?	*Good*	
Condition of building?	*Good*	
Condition of the perimeter fence	*Good*	
Is vegetation infringing on the fence?	*Yes*	Minor pole damage.
Was a monitoring well inspection completed?	*Yes - see attached*	

NE- not evaluated, provide explanation

Additional Observation Notes: Check samples were collected during the Site inspection. Samples were collected from the effluent pipe. Samples were collected for PFAS and sent to Test America for analytical.

Previously observed: Review and comment as to status (include photo documentation)

APPENDIX D-3

SITE INSPECTION PHOTO LOGS

NOVEMBER 2021

Attachment 1 –Photographic Log

Client:	NYSDEC	***Project Number:***	3616206104
Site Name:	Baldwin Place	***Site Location:***	Somers, NY

Photographer:
Joshua Minardi

Date:
11/18/2021

Photograph: 1

Direction:
n/a

Description:
Influent sampling ports.

Photographer:
Joshua Minardi

Date:
11/18/2021

Photograph: 2

Direction:
n/a

Description:
Influent valves/piping.

Attachment 1 –Photographic Log

Client:	NYSDEC	***Project Number:***	3616206104
Site Name:	Baldwin Place	***Site Location:***	Somers, NY

Photographer: Joshua Minardi ***Date:*** 11/18/2021 ***Photograph:*** 3 ***Direction:*** n/a ***Description:*** Sump pump.	
Photographer: Joshua Minardi ***Date:*** 11/18/2021 ***Photograph:*** 4 ***Direction:*** n/a ***Description:*** Bag filter number 1 and valves/piping.	

Attachment 1 –Photographic Log

Client:	NYSDEC	***Project Number:***	3616206104
Site Name:	Baldwin Place	***Site Location:***	Somers, NY

Photographer: Joshua Minardi ***Date:*** 11/18/2021 ***Photograph:*** 5 ***Direction:*** n/a ***Description:*** Bag filter number 1 and piping.	
Photographer: Joshua Minardi ***Date:*** 11/18/2021 ***Photograph:*** 6 ***Direction:*** n/a ***Description:*** Effluent valve and piping.	

Attachment 1 –Photographic Log

Client:	NYSDEC	***Project Number:***	3616206104
Site Name:	Baldwin Place	***Site Location:***	Somers, NY

Photographer: Joshua Minardi ***Date:*** 11/18/2021 ***Photograph:*** 7 ***Direction:*** n/a ***Description:*** Bag filter number 2.	
Photographer: Joshua Minardi ***Date:*** 11/15/2021 ***Photograph:*** 8 ***Direction:*** n/a ***Description:*** GAC unit overview.	

Attachment 1 –Photographic Log

Client:	NYSDEC	***Project Number:***	3616206104
Site Name:	Baldwin Place	***Site Location:***	Somers, NY

Photographer: Joshua Minardi ***Date:*** 11/18/2021 ***Photograph:*** 9 ***Direction:*** n/a ***Description:*** Mid GAC unit sampling port.	
Photographer: Joshua Minardi ***Date:*** 11/18/2021 ***Photograph:*** 10 ***Direction:*** n/a ***Description:*** Discharge pipe and ditch.	

Attachment 1 –Photographic Log

Client:	NYSDEC	***Project Number:***	3616206104
Site Name:	Baldwin Place	***Site Location:***	Somers, NY

Photographer: Joshua Minardi ***Date:*** 11/18/2021 ***Photograph:*** 11 ***Direction:*** n/a ***Description:*** Dent in front fence	
Photographer: Joshua Minardi ***Date:*** 11/18/2021 ***Photograph:*** 12 ***Direction:*** n/a ***Description:*** Fence in rear of building with encroaching tree	

Attachment 1 –Photographic Log

Client:	NYSDEC	***Project Number:***	3616206104
Site Name:	Baldwin Place	***Site Location:***	Somers, NY

Photographer:

Joshua Minardi

Date:

11/18/2021

Photograph: 13

Direction:

n/a

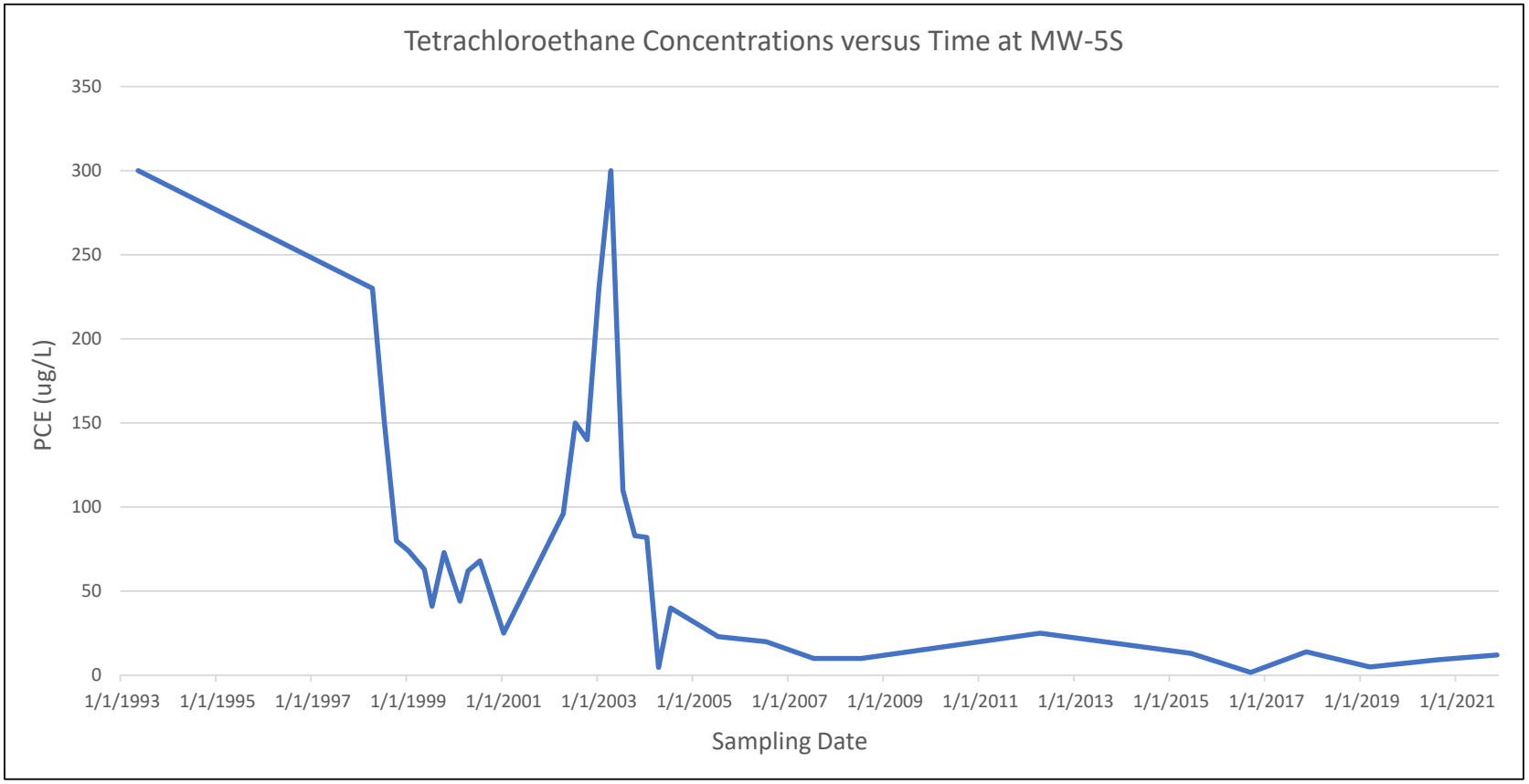
Description:

Evidence of leaking in Effluent Pipe

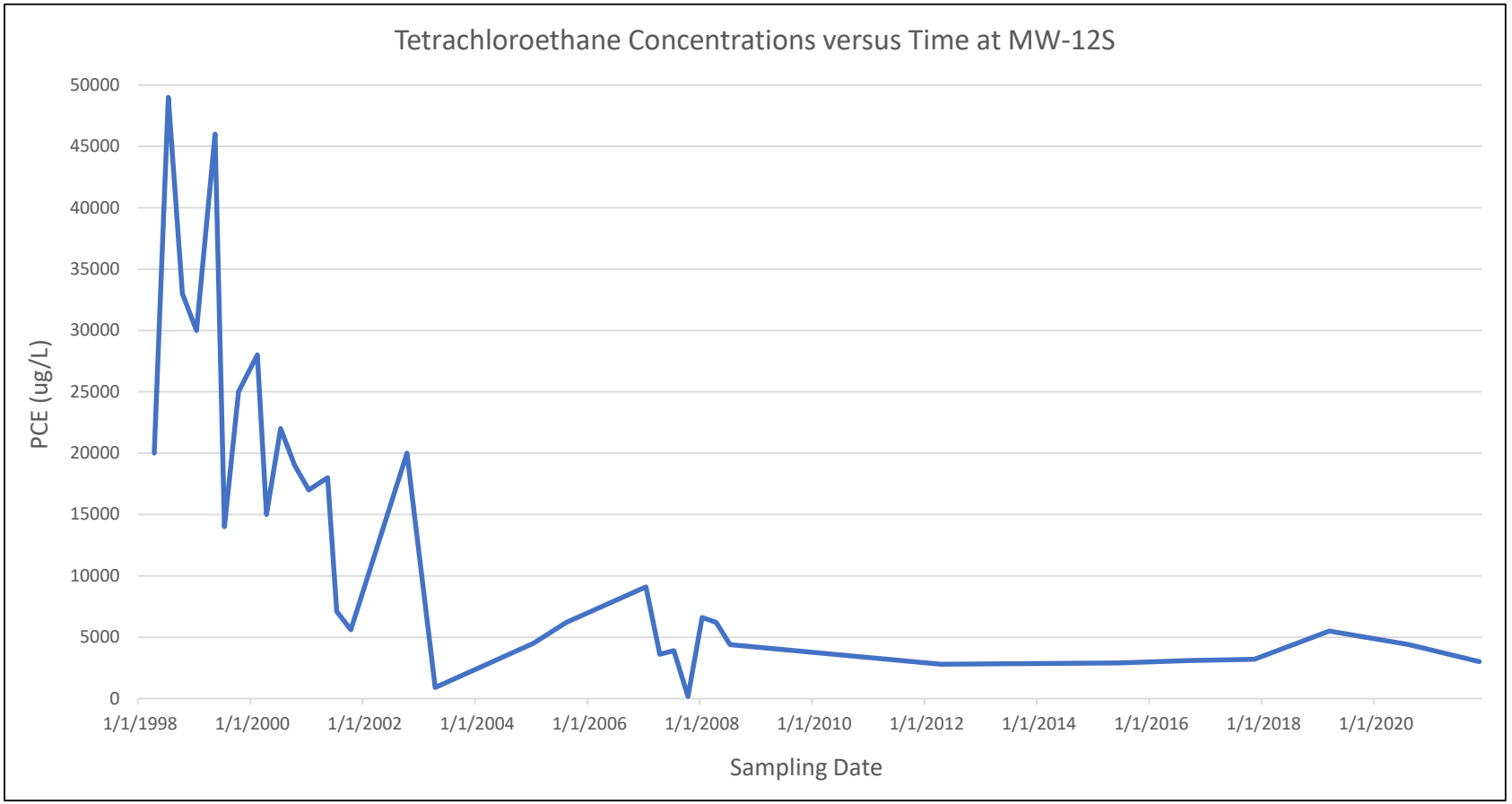
APPENDIX E

TIME SERIES PLOTS:

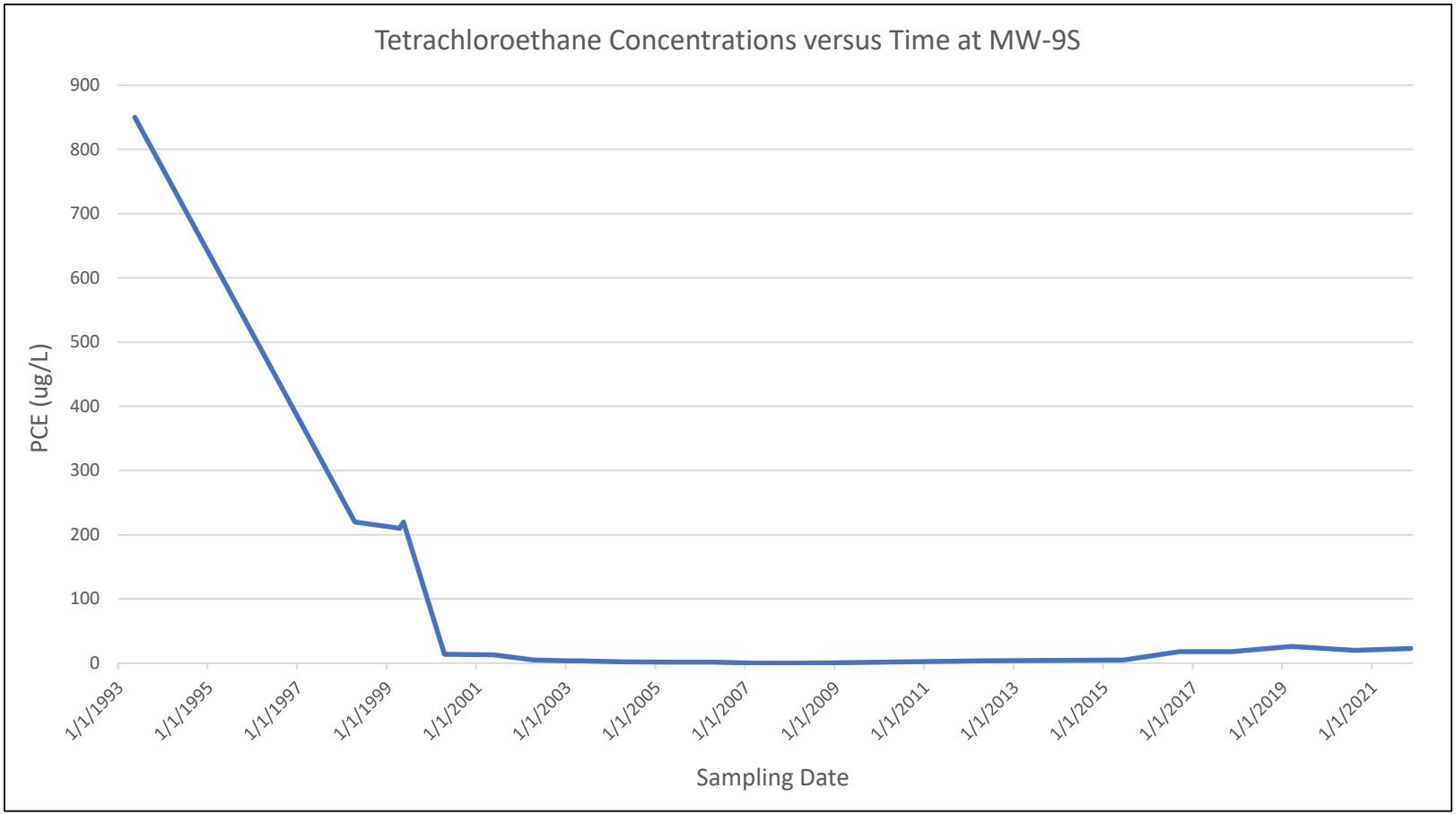
PCE CONCENTRATIONS AT MW-5S, MW-9S, AND MW-12S



Created by KS 01/07/2022
Checked by ANC 01/08/2022



Created by KS 01/07/2022
Checked by ANC 01/08/2022



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Checked by ANC 01/08/2022