FINAL
REMEDIAL INVESTIGATION REPORT
CLAREMONT POLYCHEMICAL RI/FS
OFF-SITE GROUNDWATER PLUME
(NYSDEC Site Number 130015)

NYSDEC STANDBY ENGINEERING CONTRACT
Work Assignment #D007625-43

PREPARED FOR
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ACRONYMS AND ABBREVIATIONS

µg/L	micrograms per liter
1,1-DCE	1,1-dichloroethylene
1,1,1-TCA	1,1,1-trichloroethane
1,1-DCA	1,1-dichloroethane
ACOE	Army Corps of Engineers
Amsl	above mean sea level
bgs	below ground surface
BTEX	Benzene, Toluene, Ethylbenzene, and Xylene
CAMP	Community Air Monitoring Plan
Class GA	Class GA groundwater
cDCE	cis-1,2-dichloroethene
CDM	Camp Dresser and McKee
COCs	contaminants of concern
CPC	Claremont Polychemical Corp.
CSM	conceptual site model
DER	Division of Environmental Remediation
DCE	1,2 dichloroethene
DUSR	Data Usability Summary Report
ESD	Explanation of Significant Differences
FAP	field action plan
Gpd	Gallons per day
GPR	ground penetrating radar
GPRS	Ground Penetrating Radar Systems
GWE&T	groundwater extraction and treatment
GWQS	ground water quality standards
HDR	Henningson, Durham & Richardson Architecture and Engineering, PC.
ID	internal diameter
LIRR	Long Island Rail Road
MCL	Maximum Contaminant Level
MTBE	methyl tertiary butyl ether
MW	monitoring well
NCDOH	Nassau County Department of Health
NCDPW	Nassau County Department of Public Works
NCFTC	Nassau County Fireman's Training Center
NPL	National Priorities List
NYSDEC	New York State Department of Environmental Conservation
NYSDOH	New York State Department of Health
OBL	Old Bethpage Landfill
OBSWDL	Town of Oyster Bay Solid Waste Disposal Complex
OBV	Old Bethpage Village
OD	Outer Diameter
OU	Operable Unit
PCE	tetrachloroethene
PFC	Perfluorinated Chemicals
PFOA	Perfluorooctanoic acid
PFOS	Perfluorooctane sulfonate
PID	photoionization detector
ppb	parts per billion
ppm	parts per million
PVC	polyvinyl chloride
PWS	public water supply
QAPP	quality assurance project plan
QC	quality control
RI	remedial investigation
RAOs	remedial action objectives
ROD	Record of Decision
TCE	trichloroethene
TCL	target compound list
TOGs	Technical Operations Guidance

TVOC	Total Volatile Organic Compounds
UCMR3	Unregulated Contaminant Monitoring Rule
USEPA/EPA	United States Environmental Protection Agency
VPB	Vertical Profile Boring
VC	vinyl chloride
VOA	volatile organic analysis
VOCs	volatile organic compounds

EXECUTIVE SUMMARY

This RI was conducted to further delineate the extent of VOC contamination in the underlying aquifers to the south-southeast of the Claremont Polychemical site and to evaluate the potential for contamination to reach a downgradient public supply well. The investigation involved installation of four vertical profile borings (VPBs) with push ahead groundwater sampling up to 450 ft. bgs, and installation and sampling of four permanent monitoring wells. Forty-four groundwater samples from the VPBs and one round of low-flow samples from the wells were used to obtain data at the southernmost extent of the study area plume(s).

Compounds exceeding NYSDEC Class GA standards in the VPB samples include Benzene, Toluene, Ethylbenzene and Total Xylenes (BTEX) compounds (18 samples), Acetone (12 samples), chlorinated solvents (3 samples), Methyl ethyl ketone (MEK) (5 samples), Chloromethane (3 samples), Styrene (2 samples), Carbon Disulfide (1 sample), and 2-Hexanone (1 sample). Monitoring well samples had detections of 1,4-Dioxane, 16 detections of perfluorinated compounds, and 17 VOCs. Results show cDCE, PCE, TCE, Benzene, and DCA concentrations exceeded the Class GA Groundwater Standards in some samples.

MW-CPC-37 was installed as a sentinel well to monitor future impacts approximately 800 feet upgradient and at the same depth of the public water supply well. There were no exceedances above criteria at this depth interval in the monitoring well, however there were detections of 1,1-DCA, cDCE, and VC. Based on the presence of chlorinated solvent breakdown products at concentrations just below standards at a location only 800 ft. upgradient of the public supply well, VOC contaminated groundwater associated with the known plume(s) has already reached or will soon reach the public supply well. Detections of these compounds including cDCE at 4 µg/l (standard of 5 µg/l), confirms a faster rate of contaminant transport than the maximum simulated TVOC concentrations described in the previous contaminant transport simulations (CDM 2017).

1,4-Dioxane has already been detected in the public supply well. The source(s) of the 1,4-Dioxane have yet to be determined relative to the known plume(s) in the area.

The horizontal and vertical extents of the upgradient, comingled plume(s) between the Claremont Polychemical site and the MW-11 series monitoring wells are still undetermined.

1.0 INTRODUCTION

This Remedial Investigation (RI) Report for the Claremont Polychemical Site (Site) was prepared by Henningson, Durham & Richardson, Architecture and Engineering PC (HDR), in association with HDR Engineering, Inc. as part of the NYSDEC Contract D007625, Work Assignment #43. This RI has been developed to further characterize and delineate the extents of subsurface off-site contamination upgradient of public water supply (PWS) well N-07852. RI field activities were conducted by HDR July 27, 2018 through November 9, 2018.

1.1 Site Description

RI/FS Study Area

The study area for this remedial investigation is located south of the Bethpage State Park Golf Course in the Village of Farmingdale, New York (Figure 1). The field investigation area is approximately one-half mile from west to east running parallel to the Long Island Railroad (LIRR). Surrounding land use is predominately residential, with downtown mixed use properties to the south. The Site is downgradient of the Claremont Polychemical monitoring well network, and upgradient of the Village of Farmingdale PWS well N-07852.

Claremont Polychemical

The Claremont Polychemical (CPC) site is located on a 9.5-acre parcel in an industrial section of Old Bethpage, Nassau County, New York (Figure 2). The CPC Site lies approximately 800 feet west of the border between Nassau and Suffolk Counties and is accessed via Winding Road on the property's western boundary. Surrounding land use consists of commercial and light industrial to the north, Bethpage State Park to the south, Farmingdale University to the east, and the Old Bethpage Landfill to the west. The former 35,000 square foot Process Building, demolished in 2012, was the only building historically on the property.

1.2 Site History and Background

Claremont Polychemical Corporation, a former manufacturer of pigments for plastics and inks, coated metal flakes, and vinyl stabilizers, operated from 1966 to 1980. According to the "Second Five-Year Review Report for Claremont Polychemical Corporation" prepared by the Environmental Protection Agency (EPA), dated March 2014, during its operation, CPC disposed

of liquid waste in three leaching basins and deposited solid wastes and treatment sludges in drums or in aboveground metal tanks. The principal wastes generated were organic solvents, resins, and wash wastes (mineral spirits). A solvent recovery system (steam distillation), two pigment dust collectors, and a sump were located inside the Process Building. Five concrete treatment basins, each with a capacity of 5,000 gallons which contained sediments and water, were to the west of the building. Six aboveground tanks, three of which contained wastes, were located east of the building. Other features included an underground tank farm, construction and demolition debris, dry wells and a water supply well (EPA 2014).

In 1979, the Nassau County Department of Health (NCDH) found 2,000 to 3,000 drums of inks, resins, and organic solvents throughout the CPC Site during a series of inspections. Inspectors identified releases associated with damaged or mishandled drums in several areas including one larger release located east of the Process Building (referred to as the "spill area"). CPC sorted and removed the drums in 1980 (EPA 2014). In October 1980, NYSDEC ordered CPC to commence clean-up activities at the Site. CPC did not perform the clean-up activities required by NYSDEC and CPC ceased operations at the Site in 1980 (EPA 2014). EPA proposed the Site for listing on the National Priorities List (NPL) in October 1984 (because of CPC's refusal to perform the clean-up) and CPC was subsequently listed on the NPL as a Superfund site in June 1986.

A Remedial Investigation Feasibility Study (RI/FS) was initiated in March 1988 under the oversight of the EPA. Surface and subsurface soil, groundwater, underground storage tanks, and the Process Building were sampled as part of the RI. The RI/FS reports were released to the public in August 1990. The RI/FS findings indicated that on-site soils contaminated with tetrachloroethylene (PCE), located in the former "spill area", constituted a potential threat to groundwater resources. The spill area is in between the Claremont OU-4 GWE&T facility and former Process Building (Figure 2). Other VOCs including 2-Butanone, Toluene, Xylene, 1,2-Dichloroethene (DCE), Trichloroethene (TCE), 1,1,1-Trichloroethane (1,1,1-TCA), Ethylbenzene, 1,2-Dichloroethane (1,2-DCA), Methylene Chloride, and Vinyl Chloride (VC) were detected in groundwater at concentrations exceeding federal and state standards.

The EPA conducted a Remedial Investigation at the CPC site which resulted in the selection of several remedial actions. These remedial actions have been documented in two Records of

Decision (RODs) signed in September 1989 and September 1990 and two Explanations of Significant Differences (ESDs) signed in September 2000 and April 2003 since completion of the RI/FS. The operable units (OUs) addressed by the RODs and ESDs are described in Table 1 and below.

Table 1 – CPC Addressed Operable Units

Operable Unit	Description	Status
OU-1	Treatment and removal of wastes in 14 underground storage tanks	14 USTs and contents removed. Achieved cleanup levels allowing for unlimited use and unrestricted exposure.
OU-2	Wastes stabilized during the Sept. 1988 removal action	Testing, consolidation, treatment, and disposal of wastes in containers and basins performed. Achieved unlimited use and unrestricted exposure, later changed to commercial/light industrial because of remaining contamination below the building. 2003 ESD added additional remedial actions for OU-2 under the former Process Building including an SVE system and using the building's concrete slab as a cap for cadmium contaminated soil.
OU-3	Soil contaminated with PCE at the "spill area"	Approximately 8,800 tons of PCE contaminated soils excavated, treated and backfilled on Site. Achieved cleanup levels allowing for unlimited use and unrestricted exposure.
OU-6	Decontamination of the former Process Building	Vacuuming and dusting surfaces, asbestos abatement, pressure washing walls and interior surfaces. Achieved cleanup levels allowing for unlimited use and unrestricted exposure.

Operable Unit 4

Operable Unit 4 addresses the onsite extraction and treatment of groundwater via metals precipitation, air stripping, carbon adsorption, and reinjection. The 5,200 square foot groundwater extraction and treatment (GWE&T) system building was constructed as part of the OU-4 remedy by the EPA and Army Corps of Engineers (ACOE) to hydraulically contain VOCs in groundwater. GWE&T system operation began in February 2000, reportedly pumping and treating over 400 gallons per day (gpd). SAIC Inc. operated and maintained the GWE&T system, collected plant effluent samples and performed quarterly groundwater sampling at 41 wells from 2000 to May 2011. In May 2011, the project was transferred from the ACOE/EPA to the NYSDEC. HRP Associates, Inc. performed the same scope of work as SAIC under contract to NYSDEC from May 2011 to August 2015. HDR, also under contract to NYSDEC, took over HRP's scope of work on

September 1, 2015. The OU-4 GWE&T system was shut down on October 1, 2016 and has not been in operation since that time.

Operable Unit 5

Operable Unit 5 (OU-5) addresses offsite extraction and treatment of groundwater via air stripping and off-site reinjection using the Old Bethpage Landfill (OBL) treatment system extraction wells south-southeast of the CPC Site. The OU-5 GWE&T system is located across the street at 150 Winding Road within the Town of Oyster Bay Solid Waste Disposal Complex (OBSWDC). The OU-5 GWE&T system includes a groundwater recovery system, water conveyance system, discharge system, monitoring wells, air stripper, and a 3,100 square foot facility for monitoring and controlling the system. The treated effluent discharges to Recharge Basin No. 1 located west of OBL. Secondary discharge is directed to a recharge basin west of the Bethpage State Park Black Course for golf course irrigation in the summer. The five extraction/recovery well pump houses (RW-1, RW-2, RW-3, RW-4 and RW-5) and network of 43 monitoring wells are located on the Bethpage Black Course (Figure 3).

The OBSWDC includes the closed OBL, solid waste transfer operations, and the OU-5 GWE&T system currently operated by HDR under contract to NYSDEC. The Nassau County Fireman's Training Center (NCFTC), which has also contributed to soil and groundwater contamination in the area, is located approximately 500 feet south of the OBL portion of the OBSWDC. NCFTC had a GWE&T system that ceased operations in 2011 having achieved the cleanup objectives. The closest residences are approximately one-half mile from the complex, immediately west of the OBL.

EPA issued an ESD on September 29, 2000 that the OLB's GWE&T was inadvertently capturing the CPC OU-5 off-site groundwater plume; therefore the OBL GWE&T would be used to capture the off-site plume instead of constructing a new treatment facility. At that time the Town of Oyster Bay owned and operated the OBL GWE&T (USEPA 2000). The Town of Oyster Bay operated the OBL GWE&T under a Municipal Response Action Reimbursement Agreement for treating the contaminated groundwater associated with CPC OU-5 from January 1997 through January 2007, followed by a State Assistance Contract (SAC No. C303223) from January 2007 through 2017.

The NYSDEC terminated the SAC with the Town of Oyster Bay in August 2016 in a Site Transfer Agreement that outlined the schedule, terms, and responsibilities of the transfer (NYSDEC 2016).

In October 2016, the OU-4 GWE&T was shut down, and HDR took over the operation and maintenance of the OBL/CPC OU-5 GWE&T. At that time, NYSDEC had also given the Town of Oyster Bay permission to discontinue treatment for the OBL plume which involved shutting down recovery wells RW-1 and RW-2. HDR continues to operate, maintain, and monitor activities for CPC OU-5 consisting of former OBL GWE&T recovery wells RW-3, RW-4 and RW-5, and monitoring well network.

1.3 Previous Investigations

A number of investigations and remedial activities have been conducted at the Claremont Polychemical Corp site. Detailed descriptions of investigations conducted prior to this downgradient investigation can be found in the EPA Remedial Action Report (2014). A summary of activities that are still on-going is provided below.

Claremont Polychemical OU5 GWE&T

Since 2016 HDR has performed the operation, maintenance, and monitoring of the Claremont Polychemcial OU5 GWE&T system and associated groundwater plume under NYSDEC Work Assignment (WA# 28). A network of 43 monitoring wells from OU4 and OU5 are sampled quarterly to monitor the groundwater quality and effectiveness of the GWE&T system (Figure 3). The groundwater samples are collected using passive diffusion bags (PDBs) inserted at mid-point in the screens in each monitoring well, and sampled for VOCs.

In 2017 NYSDEC requested HDR sample monitoring wells within and surrounding OUs 4 and 5 of the Claremont Polychemical Superfund site for the emerging contaminants perfluorinated compounds (PFCs) and 1,4-Dioxane. Samples were submitted to TestAmerica Laboratory of Edison, New Jersey, an NYSDOH ELAP-approved laboratory (#11452), to be analyzed for 1,4-Dioxane via EPA Method 8260C-SIM, and TestAmerica of Sacramento, California (11666) to be analyzed for the UCMR3 list of PFCs via a modified 537 method. The groundwater sampling event was in association with the 2017 Second Quarter Groundwater Monitoring Report. Emerging contaminant sample locations were selected based on historical 1,4-Dioxane data. Sample location

rationale for 1,4Dioxane and PFOS/PFOA were compiled and submitted to the NYSDEC for review. Nine NCFTC cluster wells were proposed to be sampled, however these wells had dedicated in-situ pumps. HDR on behalf of NYSDEC, coordinated sampling efforts and locations for the emerging contaminant groundwater sampling event with Nassau County Department of Public Works (NCDPW). NCDPW sampled each of its wells from July 31 through September 11, 2017.

NCDPW sampled each of its wells using conventional methods with in-situ dedicated submersible pumps and tubing. Samples were collected from monitoring wells downgradient from Fireman's Training Center (BP series wells), west of the former Fireman's Training Center plume (Nassau County Wells), and upgradient of both the landfill and industrial area at Old Bethpage Village (OBV series wells). The OBV wells were selected as representative of groundwater quality upgradient of all known plumes. NCDPW also provided 1,4-Dioxane sampling results from the Nassau County Department of Health (NCDOH) for sampling dates 2015 to 2017 (Figure 4).

HDR sampled 25 locations including 22 monitoring wells and the three in-service recovery wells at the Claremont Polychemical OU-5 GWE&T system. The wells were purged of three well volumes with a Grunfos Redi-Flo 2™ pump to flush out any residual PFCs in the water column resulting from the long-term use of PDBs for VOC sample collection. HDR sampled the wells July 20 to 31, 2017 with a Geo-Tech PFC-free portable bladder pump using low flow methods. Additional discussion of the analytical results of these sampling events are further described in Section 4.2.

1.4 Project Objectives

The RI was conducted to address two objectives related to the extent of potential subsurface off-site contamination. The first objective was to determine the horizontal and vertical extent of groundwater contamination downgradient of the Old Bethpage Industrial Park within the deeper underlying Magothy aquifer. Previous off-site investigations did not include the area downgradient of the CPC OU-5 recovery wells, below both laterally continuous clay units in the deeper aquifer zones, and just upgradient of the potential PWS receptor. Vertical profile borings (VPBs) with

push ahead groundwater sample collection were installed in off-site areas with known or suspected groundwater contamination.

The second objective was to address the potential for the off-site contamination to immediately impact the Village of Farmingdale PWS N-07852. To accomplish this task, one VPB was installed approximately 800 feet upgradient of N-07852. Push ahead groundwater samples were collected for screening purposes, and the monitoring well screen was installed at the equivalent depth of the base of the PWS N-07852 screen zone.

1.5 Applicable Criteria

To determine the nature and extent of contamination within the downgradient area, standards and sscreening criteria were used during the RI to evaluate the groundwater analytical data.

Groundwater

Groundwater analytical results were compared to NYSDEC groundwater quality standards (GWQS) 6 NYCRR Part 703 (NYSDEC 1999). For compounds without established GWQS, the applicable groundwater values from the Division of Water Technical and Operational Guidance Series 1.1.1 (TOGS 1.1.1) were used as screening criteria. Groundwater results for 1,4-Dioxane and the perfluorinated compounds Perflyorooctance sulfonamide (PFOS) and Perfluorooctanoic acid (PFOA) were compared to the New York State Drinking Water Quality Council recommended Maximum Contaminant Levels (MCL) of 1 part per billion (ppb) and 10 parts per trillion (ppt), respectively. The criteria values are included in the analytical data tables appended to the RI report (Appendix A).

1.6 CSM

A regional conceptual site model (CSM) was developed prior to initiation of the RI to develop a generalized understanding of the surrounding sites and to evaluate potential human exposure pathways and impacts to the environment. The CSM identifies potential sources of contamination, types of contaminants and affected media, release mechanisms and potential contaminant pathways, and actual/potential human and environmental receptors including off-site receptors. A

flow chart depicting the CSM for the upgradient sites as well as the off-site study area is included on the following page.

For this particular investigation, the sources of contamination are the area's groundwater plumes originating upgradient from multiple sites, the types of contaminants are VOCs, and the affected medium is groundwater. Regional groundwater flow is south-southeast towards PWS N-07852. Receptors are those using or consuming potable water provided by the Village of Farmingdale Water Department.

Regional Conceptual Site Model (CSM) Flow Chart – Source, Pathway and Exposure Assessment

Primary Source/Types of Contaminants	Investigation Release Mechanisms (as part of RI or previously by others)	Secondary Sources Determined by Investigators	Potential Release Mechanism	Exposure Media	Exposure Route/ Contaminant Pathway	Indoor	Outdoor		Offsite
						On-Site Commercial Worker	Construction Worker	On-site Commercial Worker**	Residential Area
Old Bethpage Industrial Facilities (State and Federal Superfund Sites), and Nassau County Fireman's Training Center	Discharge of wastewater to cesspools through sanitary waste lines. Site operations with ignition sources in direct contact with ground surface.	Subsurface and subsurface soil, groundwater, sediments in storm water drywells	Volatilization (soil vapor); wind erosion and atmospheric dispersion (soil particulates); soil leaching; sediment leaching in drywells	Ambient Air	Inhalation	X	X	X	O
Town of Oyster Bay Landfill	Landfill and incineration wastes impact underlying groundwater quality			Soil	*Inhalation /Ingestion/ Dermal*	O O O	X X X	O O O	O O O
USTs and ASTs (Volatile Organic Compounds, Petroleum Hydrocarbons)	Leaks, overfills, loose piping joints, directly to ground surface (AST) or subsurface (UST)			Groundwater	+Ingestion /Dermal+	P P	P P	P P	P P
Outdoor Storage of Chemicals (Volatile Organic Compounds)	Leaks, overfills, poor housekeeping practices; inadvertent discharge to storm water drywells and directly to ground surface								

Notes:
** - Extensive use of outdoor areas as part of working environment
* - No exposure contaminated soil areas exist- all are under pavement
+ Depth to groundwater is greater than 25 ft; no groundwater exposure assooated with construction

X- Complete exposure pathway
O- Incomplete exposure pathway
P- Potential exposure pathway

2.0 FIELD INVESTIGATION PROCEDURES

HDR conducted a site visit on July 12, 2018 with the NYSDEC to review the existing Site conditions, confirm potential boring locations, and circulate fact sheets throughout the residential neighborhood. Preliminary boring locations were selected considering access concerns, overhead utilities, subsurface utilities, and the footprint of drilling activities (refer to Photologs in Appendix B). The site visit was used to refine the final boring locations with the additional input from the NYSDEC, Northside Elementary School representatives, and Village of Farmingdale prior to the RI field program.

2.1 Subsurface Investigation

The 2018 subsurface investigation consisted of the following activities:

1. A geophysical survey to mark underground utilities and subsurface features prior to undertaking intrusive activities;

2. Installation and push ahead groundwater sampling of VPBs at four locations upgradient and crossgradient of PWS N-07852;

3. Construction of four monitoring wells at the VPB locations using the push ahead groundwater sampling results to determine screen depths; and

4. Groundwater sampling at the newly installed monitoring wells and analysis for VOCs, PFOS/PFOA, and 1-4 Dioxane.

All field activities were conducted in accordance with the HDR – NYSDEC Program Field Activities Plan (FAP) and Program Quality Assurance Project Plan (QAPP).

2.1.1 Geophysical Survey

A geophysical survey was conducted on July 27, 2018 by Ground Penetrating Radar Systems (GPRS) of Toledo, Ohio prior to the commencement of intrusive activities at proposed drilling locations. GPRS used both ground penetrating radar (GPR) and utility locating equipment to verify the existence/absence of underground utilities in a minimum 10-foot radius of the proposed boring

locations. In areas near permanent objects and temporary obstructions, or where interferences were noted, the clearing/survey distances were adjusted to site conditions. If any utilities were observed during the investigation, GPRS marked out the location with appropriate spray paint colors. All boring locations were hand cleared by the driller to five feet below ground surface (bgs) prior to drilling activities.

2.2 Groundwater Sampling

The groundwater sampling program was conducted in two phases: grab samples from VPBs and monitoring well sampling. To assess aquifer conditions prior to completion of well construction, groundwater samples were collected from discrete 20 foot intervals in advance of the drill string at all four boring locations. The VPB samples provided screening quality groundwater data to inform the horizontal and vertical delineation of impacted groundwater and to support both the placement and design of the permanent monitoring well screen zones.

2.2.1 Vertical Profile Sampling

The four VPBs were installed with termination depths of 400 ft. bgs., with one location immediately upgradient of N-07852 to 450 ft. bgs. The four VPBs were placed along a west to east transect with MW-CPC-36 south of the Northside Elementary School, MW-CPC-37 upgradient of the PWS well, and MW-CPC-38 and MW-CPC-39 located east of the PWS well on Sinclair Street and Jervis Avenue, respectively (Figure 3). Groundwater samples were collected from discrete 20 foot intervals in advance of the drill string starting at the top of the first continuous massive clay unit at 180 ft. bgs, which was identified from previous investigation cross sections (EAR, 2017).

Groundwater samples were collected by advancing the push ahead point to the maximum depth beyond the drilling zone of influence, approximately 5 feet into the undisturbed formation. To ensure the seal was intact during deployment, HDR lowered a water level meter into the sampling rod to confirm dry conditions. The driller opened the sampling rod and retracted the approximately one foot screen to allow formation water into the rods for a minimum of thirty minutes. This was enough time to allow fines to settle out prior to sample collection. Groundwater from the target depth was collected using a bailer and decanted into volatile organic analysis (VOA) vials for

laboratory analysis. In total, 44 VPB groundwater samples were collected and analyzed on an expedited turnaround time (24 hours) for VOCs to allow for real time decisions on boring depth termination and well screen depth.

2.2.1 Monitoring Well Installation and Sampling

The second phase of the groundwater investigation consisted of construction and sampling of four monitoring wells installed at the VPB boreholes. Three of the well screen intervals were installed at the depth of the highest VOC concentrations detected in the VPB samples. One was installed as a sentinel well with a screen at the same depth as the PWS well for monitoring of upgradient groundwater in close proximity to the PWS well. The monitoring well locations are shown on Figure 3 and the construction information is presented in Table 2.

Table 2 – Monitoring Well Construction Details

Monitoring Well	Screened Zone (ft. bgs)	Well Diameter (inch)	Northing	Easting	Number of Push Ahead Samples
MW-CPC-36	246-256	2.5	1138189.16	208965.80	9
MW-CPC-37	440-450	2.5	1139664.98	208768.84	13
MW-CPC-38	384-394	2.5	1139992.26	208995.95	12
MW-CPC-39	370-390	2.5	1140843.03	208739.78	10

Cascade Drilling L.P. (Cascade) of Flint, Michigan performed the VPB borings/sampling, monitoring well construction and development under direct HDR supervision. The monitoring wells were installed using Roto-sonic drilling techniques with a sonic drive head of 2-7/8 inch inner diameter (ID), 6 inch outer diameter (OD) core barrel, and 7-8 inch OD override casing. The recovered subsurface soil cores were visually inspected by the onsite HDR geologist, and observations including lithology, odor, and photoionization detector (PID) readings, were recorded in field boring logs (Appendix C). HDR also provided Community Air Monitoring (CAMP) during all subsurface intrusive activities at upwind and downwind stations within the drilling operation footprint.

Following the field observations and vertical profile sampling, monitoring well screen depths were determined and installed in the open boreholes. Monitoring wells installed at shallower depths than drilling completion were backfilled with sand to prevent bridging. Confining silt and clay zones were sealed with slow release bentonite pellets installed using the tremmie method to minimize

the potential for cross contamination between units during backfilling activities. Boreholes were reamed to a diameter of eight inches to accommodate the 2.5 inch, Schedule 80 PVC monitoring wells, with a 0.010 inch slot size. The riser pipe and screen were both flush thread 2.5 inch Schedule 80 PVC.

The screen lengths and depths vary based on the groundwater profiling results (Table 2). The sand pack constructed at each well extended at least five feet above the top of the screen, and was sealed with a minimum of five feet of bentonite pellets. Following the bentonite seal, the remainder of the boring was completed with a bentonite/Portland cement grout to one foot bgs. Grout used to seal the borehole was made in batches consisting of approximately five 94 pound bags of Portland cement, one 50 pound bag of bentonite powder, and 50 gallons of potable water per batch. At the surface, each well was finished with a concrete pad and a twelve inch diameter flush mount manhole.

Well development was performed using the airlift method. Wells were developed with a minimum of four well volumes removed (in addition to drilling water), and three consecutive turbidity readings below 50 NTUs. HDR re-developed the wells following the initial groundwater sampling event at wells MW-CPC-36, MW-CPC-38, and MW-CPC-39 between October 31 and November 2, 2018 because of sample turbidity significantly above 50 NTUs. MW-CPC-39 was developed for two days; fines were still present in the screen zone, measuring 2250 NTU, at the end of development activities. The twenty foot screen in well MW-CPC-39 is set in a fine sand and silt unit, with lenses of silt throughout the 370 to 390 ft. zone. The sample collected from MW-CPC-39 was laboratory filtered for PFOS/PFOA analysis. Well development logs are located in Appendix D.

HDR sampled the monitoring wells on October 31 through November 9, 2018. Groundwater samples were collected using the low-flow sampling method “USEPA Low Stress (Low Flow) Purging and Sampling Procedure for the Collection of Groundwater Samples from monitoring Wells dated January 19, 2010”.

The intake of the Geo-Tech PFC-free portable bladder pump was installed at the mid-point in the screens, or biased to a high concentration value observed during the push ahead sampling. Monitoring wells were purged until the low-flow parameters (turbidity, dissolved oxygen, specific

conductivity, temperature, pH, and oxidation/reduction potential) stabilized in accordance with EPA's low-flow method. Low flow sampling logs are provided in Appendix E.

Special sample handling and equipment considerations were required when collecting samples for PFOS/PFOA analysis because of the frequent presence of PFCs in common consumer products and in equipment typically used for groundwater sampling. Prior sampling for PFOS/PFOA analysis, the field crews completed PFC Sampling Checklists to document the steps taken to minimize the risk for cross-contamination in the field (Appendix E). Field QC samples including equipment blanks were collected to confirm no residual PFCs were present on sampling equipment and consumables. Decontamination between samples was conducted for all non-dedicated equipment to prevent possible cross-contamination of samples. Following sample collection, the disposable bladders in the pump were replaced, and the pump and drop down tubing were decontaminated with Alconox® Powdered Precision Cleaner and deionized water.

All groundwater samples were analyzed for Target Compound List (TCL) VOCs by EPA Method 8260C; and the permanent monitoring well samples were also analyzed for 1,4-Dioxane by EPA Method 8270C SIM and PFAS/PFOA by modified EPA Method 537. NYSDEC Standby Laboratory Contractor Test America of Edison, NJ conducted all of the laboratory analyses with the exception of one split sample for VOCs analyzed by Pace. A data usability summary report (DUSR) was completed by Data Validation Services as a subcontractor to HDR (Appendix F).

2.3 Site Survey

Following the completion of monitoring well installation, Donald Stedge P.L.S. surveyed the horizontal locations and elevations of the monitoring wells. The survey well reference point and locations were utilized in preparing the groundwater flow contours discussed in more detail in Section 4.2 of the report. Survey data are provided in Appendix G.

2.4 Investigation Derived Waste

HDR subcontracted with Innovative Recycling Technologies (IRT) of Lindenhurst, NY and Planet Wastes Services (PWS) of Maspeth, New York to manage and dispose of the investigation-derived waste (IDW). A total of eight tons of soil cuttings and approximately 5.7 tons of highly turbid slurry from frac tank cleaning were disposed of as non-hazardous waste at Route 110 Sand

Company, in Melville, NY, and 11 tons of soil cuttings, also non-hazardous, at the Conestoga Landfill in Morganstown, PA. A total of 10,000 gallons of formation, development and purge water were disposed of as non-hazardous waste water at Clear Flo Technologies, Inc. in Lindenhurst, NY. Soil and groundwater disposal manifests and weight tickets are included in Appendix H.

3.0 PHYSICAL SETTING

3.1 Climatology, Topography and Surface Water Features

The climate of Long Island is characterized by warm, humid summers and cool, wet winters. Temperatures in Nassau County average from 30.7 °F in winter and 73.8 °F in summer. Annual precipitation averages are 48 inches for rain and 22 inches for snow.

The Site is located in a suburban area that is serviced by the Village of Farmingdale municipal water system. The nearest PWS well is the Village of Farmingdale N-07852, 800 feet south south-east of the newly installed monitoring well MW-CPC-37. Two additional Village of Farmingdale municipal wells, N-06644 and N-11004, are approximately 0.5 miles east southeast of the RI study area. A review of the 2017 NYSDEC Division of Water, Region 1 Village of Farmingdale pumpage data identifies the average pumping volume of N-07852 as 9,541,000 gallons per month. The three wells service a population of 8,744 and generate over 372,700,000 gallons annually (NYSDEC 2017).

The Claremont RI/FS study area for this investigation lies at an elevation of approximately 74 and 80 feet above mean sea level (amsl). The primarily residential area is mostly level, sloping gently to the south. The Bethpage State Park Black 18-hole golf course to the north ranges in elevation from 75 to 160 feet amsl within the fairway and slopes of the park. The golf course is home to the Claremont Polychemical OU-5 recovery wells and monitoring well network (Figure 3). Refer to the USGS topographic map used to prepare the Site Location Map (Figure 1).

Stormwater drainage in the area incorporates both storm sewer pipes and overland drainage within the residential area. Overland drainage includes run-off from roofs and paved areas that is funneled into existing drains and infrastructure, and infiltration into grass lawns or unpaved areas. There are no natural water bodies within one mile of the Site in any direction. The nearest man-made

ephemeral water body is a Nassau County stormwater recharge basin at the intersection of Oakdale Blvd and Jervis Road approximately 400 feet southeast of boring MW-CPC-37. North of the study area at Bethpage State Park is an expansive golf course with almost no impervious cover. Stormwater within the park infiltrates the surface and is returned as recharge to the groundwater system.

3.2 Land Use and Ecology

This RI/FS study area is a residential community of primarily single-family homes with the North Park Elementary School north of boring MW-CPC-36, commercial businesses to the south and east, Bethpage State Park to the north, and residential uses to the west. The area's ecology consists of typical suburban vegetation (i.e., lawns, ornamental plants) and wildlife. No wetlands, water bodies or other ecological resources exist in the area.

3.3 Geology

The study area is located in the Village of Farmingdale, Town of Oyster Bay, Nassau County, in the west-central part of Long Island, New York. Long Island consists predominantly of a thick sequence of Cretaceous and Quaternary unconsolidated sediments that were deposited during periods of sea level transgression and regression and, more recently, continental glaciations. The Cretaceous and Quaternary deposits overlie crystalline basement bedrock of Precambrian to Early Paleozoic age. The top surface of the bedrock is an erosional surface that dips southward toward the Atlantic Ocean. A thick sequence of Cretaceous sediments unconformably overlies this erosional surface, with the sequence thickening progressively down dip toward the Atlantic Ocean. The more recent deposits, including the focus of this investigation, are remnant moraine and outwash sediments deposited during the final period of glacial advance and retreat in the later stages of the Wisconsin glaciations. In general, these Quaternary deposits form only a relative thin layer over the much thicker Cretaceous units (Raritan and Magothy Formation) below.

The upper glacial coastal plain deposits upgradient of the Site have been mapped as gravel, silt, and sand units approximately 0-60 feet thick that dip south. The upper glacial deposits are underlain by the Magothy, Raritan, and Lloyd formations. These formations are generally composed of silty clay, glauconitic sand clay, sand, and or/gravel. The stratigraphic unit of concern for the RI was the Magothy Formation. The Magothy Formation is the principle aquifer in the area

with a thickness of approximately 700 thick (EPA, 2007). In the vicinity of the Site, it is present in approximately the first 50 feet of the subsurface.

Cross sections from previous upgradient investigations depict two laterally extensive clay units at approximately 90 and 200 feet below msl (EAR 2017). These units are characterized as a silty sand and clay unit underlain by a gray to black lignitic clay zone deeper in the Magothy (Figure 5). The silty sand and clay confining unit was only observed during drilling at MW-CPC-36. The dark gray lignitic confining unit was encountered at all of the boring locations and is depicted as laterally continuous in the geologic cross section B-B' (Figure 6). Push ahead samples were collected beginning at the top of the first clay unit (180 ft. bgs) until the predetermined termination depth below the lignitic clay was reached. Stratigraphic cross-sections created from well construction logs are presented in Figures 5 through 6.

3.4 Hydrogeology

The hydrogeologic setting in the study area is primarily composed of a relatively thick sequence of unconsolidated deposits. The unconsolidated deposits straddle two distinct site specific confining units in the Magothy sequence are the primary concern for this investigation. Previous investigations upgradient of the Site focus on the shallow hydrogeology, and the zone beneath the silty sand and clay confining unit, specifically the uppermost 300 feet of the subsurface. Concerns with potential water quality impacts to deeper groundwater were addressed by investigating the deeper portions of the aquifer for the purposes of this RI.

The water table is in the Magothy Formation which is roughly 700 feet thick in the area. Most public supply wells are screened in the deeper portions of the Magothy. The Raritan Clay below acts as a barrier between the Magothy and Lloyd aquifers. The Magothy aquifer is part of the Nassau-Suffolk Aquifer System which has been designated as a sole-source aquifer by the EPA and as a Class GA water by NYSDEC. The best usage for Class GA waters is as a source of potable water supply.

The observed depth to groundwater in the study area ranged from approximately 26 to 30 feet bgs. Previous work conducted at the Claremont Polychemical site and adjacent off-site areas indicate that groundwater flow is generally to the south-southeast (HDR 2019). The five Claremont Polychemical recovery wells and PWS N-0782 influence groundwater flow locally. In order to

produce a groundwater contour map in the zone of the newly constructed wells, additional groundwater elevations were needed to understand the regional flow system. On December 6, 2018, HDR measured synoptic water levels as part of the 2018 Fourth Quarter Groundwater Monitoring Report for Claremont Polychemical, adding the four newly installed wells to the data set (HDR 2019). The information on the direction of groundwater flow at the site and its vicinity obtained during the RI is presented in Section 4.2.

4.0 NATURE AND EXTENT OF CONTAMINATION

The screening criteria identified in Section 1.5 were used for comparison to groundwater analytical results. The horizontal extent of groundwater contamination has yet to be determined. Vertical extent has been established for some, but not all of the new monitoring wells.

4.1 Groundwater Sampling Results

The VPB groundwater sampling results and those for samples from the permanent wells are presented in Sections 4.1.1 and 4.1.2. The ranges of concentrations and detections are presented in Appendix A.

4.1.1 Vertical Profile Groundwater Samples

VPB groundwater samples were collected every 20 feet beginning at 180 ft. bgs until termination depth, for a total of 44 samples. The VPB samples were analyzed for VOCs by EPA Method 8260C with expedited 24-hour turn around to inform decisions on where to set the well screens. Compounds that exceed NYSDEC Class GA standards include Benzene, Toluene, Ethylbenzene and Total Xylenes (BTEX) compounds (18 samples), Acetone (12 samples), chlorinated solvents (3 samples), Methyl ethyl ketone (MEK) (5 samples), Chloromethane (3 samples), Styrene (2 samples), Carbon Disulfide (1 sample), and 2-Hexanone (1 sample).

Table 3- Ranges of Concentrations of Exceedances in Push Ahead Samples

Detected Constituents	Standard or Criteria (µg/L)	Concentration Range Detected (µg/L)		Frequency Exceeding Standard/Total # of Samples
Benzene	1	1	240	18/44
Acetone	50	5	3900	12/44
Toluene	5	0.43	290	9/44
Xylenes, Total	5	1	150	6/44
MEK (2-Butanone)	50	1.9	1100	5/44
Chloromethane	5	1	44	3/44
Cis-1,2-Dichloroethylene (cDCE)	5	0.27	22	3/44
Ethylbenzene	5	0.59	47	3/44
Tetrachloroethylene (PCE)	5	0.72	61	3/44
Styrene	5	0.85	19	2/44
1,2-Dichloroethane (DCA)	0.6	1	5	1/44
2-Hexanone	50	5	73	1/44
Carbon Disulfide	60	0.31	92	1/44
O-Xylene (1,2-Dimethylbenzene)	5	1	57	1/2
Trichloroethylene (TCE)	5	0.76	6.7	1/44
Criteria: Part 703: Groundwater Quality Standards (Class GA).				

Benzene was detected more frequently than any other constituent. Of the 18 Benzene results above the NYSDEC Class GA standard of 5 µg/L, the five highest concentrations (53 to 240 µg/L) were reported in samples from locations MW-CPC-36 and MW-CPC-38 at the surface of the lignitic clay unit, and in MW-CPC-37 and MW-CPC-38 below the lignitic clay unit. Benzene was detected in each of the four boring locations at various depths above and below the continuous lignitic clay layer.

The five highest concentrations of toluene (9.9 to 290 µg/L) and the three exceedances of Ethylbenzene above the NYSDEC Class GA standard of 5 µg/L also correspond with the depths and locations of the highest Benzene concentrations in the VPB samples (Figure 6). The highest concentration of total BTEX compounds was detected at MW-CPC-36 from the 255 to 256 ft. bgs interval. This sample also included the highest detected concentration of MEK at 1,100 µg/L (standard of 50 µg/L).

Chlorinated solvents exceeding the NYSDEC Class GA standards in the VPB samples included cDCE and PCE in three samples, and TCE and DCA in one sample. All exceedances for these compounds were in samples collected from location MW-CPC-36 at intervals 194 to 195, 235 to 236, and 255 to 256 ft. bgs, above the lignitic clay unit. PCE was also detected in a sample from MW-CPC-39 at 175 to 176 ft. bgs.

Acetone was detected in 12 of the push ahead samples with a range in concentration of 5-3200 µg/L. The highest concentrations of Acetone correlate with the samples exceeding the NYSDEC Class GA standards in BTEX and chlorinated compounds. The Acetone detections could potentially be the result of laboratory contamination, therefore a split sample was collected during the low-flow sampling round.

4.1.2 Low-Flow Samples

Approximately three weeks after demobilization of the drilling contractor, HDR sampled the wells using low-flow methods. The sampling event included four groundwater samples, one from each monitoring well, two equipment blanks, two duplicate samples, one split sample, and three trip blanks. There were five detections of 1,4-Dioxane, 16 detections of perfluorinated compounds, and 17 VOCs (Appendix A). The concentration ranges of detected VOCs, 1-4 Dioxane, and PFOS/PFOA above the applicable standards are presented in Appendix A.

Table 4- Ranges of Concentrations of Exceedances in Low-Flow Samples

Detected Constituents	Standard or Criteria	Concentration Range Detected		Frequency Exceeding Standard/Total # of Samples
E537-LL (Modified)	**(ng/L)**	**(ng/L)**		
Perfluorooctanoic acid (PFOA)	10	0.37	134	2/9
Perfluorooctane sulfonic acid (PFOS)	10	1.74	191	2/9
SW8260C	**(µg/L)**	**(µg/L)**		
1,4-Dioxane	1	0.021	7.8	4/9
Cis-1,2-Dichloroethylene (cDCE)	5	1	37	3/9
Tetrachloroethylene (PCE)	5	1	66	3/9
Benzene	1	1	53	3/9
Trichloroethylene (TCE)	5	1	9	3/9
1,2-Dichloroethane (DCA)	0.6	1	2.1	3/9
Criteria: VOCs using EPA Method 8260C, 1,4-Dioxane using EPA Method 8270C SIM, and for PFAS/PFOA using a modified EPA Method 537. There is no promulgated standard for 1,4-Dioxane and Test America reports ran some samples 8260C with a 50 ppb RL.				

1,4-Dioxane was detected in samples from all of the new wells at concentrations ranging from 0.021 to 7.8 µg/L. Currently there is no promulgated New York State standard for 1,4-Dioxane. For comparison purposes, the recommended MCL of 1 µg/L was used. The highest result value of 7.8 µg/L at location MW-CPC-37 was one of four results that exceeded the screening level.

There are also no current New York standards for PFOS or PFOA. Results were compared to the recommended MCL of 10 ng/L. PFOS/PFOA compounds were detected in samples from all of the new wells. The two highest exceedances for PFOS and PFOA from location MW-CPC-36 were detected in the normal and duplicate samples ranging from 180 to 191 ng/L of PFOS, and 133 to 134 ng/L of PFOA. These exceedances are more than an order of magnitude above the recommended MCL. MW-CPC-37 normal and duplicate sample results exceeded the proposed MCL of 10 ng/L with PFOS results ranging from 10.4 to 10.8 ng/L and PFOA results ranging from 29.1 to 32.1 ng/L.

Because Acetone was not previously thought to be a contaminant of concern and was present at high concentrations in the VPB samples, HDR collected a split sample from well MW-CPC-36 and sent it to be analyzed at Pace Analytical in addition to the sample analyzed by TestAmerica. Acetone was detected in both samples at concentrations of 7.0 µg/L and 7.8 J µg/L. Acetone was not detected in any other sample collected from the permanent monitoring wells. Acetone is likely a contaminant of concern associated with one or more of the plumes upgradient of the new wells rather than a laboratory contaminant.

VOC analytical results show cDCE, PCE, TCE, Benzene, and DCA concentrations exceeded the Class GA Groundwater Standard in more than one sample:

- MW-CPC-36: 14 VOC detections and exceedances of standards for DCA, Benzene, cDCE, PCE, and TCE. The well screen (246-256 ft. bgs) was installed in the zone with the highest contamination based on the VPB sample results from just above the very stiff lignitic clay unit.

- MW-CPC-37: Detections of 1,1-DCA, cDCE, and VC. No concentrations exceeded standards. The presence of these chlorinated solvent breakdown products are notable as

they are present at the same depth interval as the base of the screen at the downgradient public supply well.

- MW-CPC-38: One detection of Toluene at 0.38 J µg/L. The well screen placement at 384 to 394 ft. bgs was just above a two foot thick, very stiff clay lens where a strong degraded gasoline odor was observed in the 395 ft. bgs VPB sample.

- MW-CPC-39: One detection of Toluene at 0.43 J µg/L, with a notably high total TIC concentration of 1883 J. MW-CPC-39's well screen is from 370 to 390 ft. bgs, and the well is considered a cross gradient sentinel well. The VPB sample results at 374 ft. bgs had exceedances of Benzene, Toluene, Total Xylenes, and MEK. The pump intake within this 20 ft. long screen was set at the 374 ft. bgs interval for sample collection.

There are considerable differences between the VPB and permanent well groundwater sampling results. VPB samples were collected with a bailer, were observed to have entrained sediment and were highly turbid. Groundwater samples from the permanent wells were obtained using the low-flow method, were less turbid in most wells, and are considered more representative of the surrounding formation.

4.1.3 Village of Farmingdale PWS Well N-07852

NYSDEC provided potable water analytical data for PWS N-07852 for the analytes 1,4-Dioxane and PFOS/PFOA. The New York State Department of Health (NYSDOH) and Village of Farmingdale samples did not have detections of PFOS/PFOA above the reporting limits. The 1,4-Dioxane detection in March 2017 of 0.21 µg/L increased to 0.37 µg/L in March 2018. The highest 1,4-Dioxane concentration from the wells installed for this RI was 7.8 µg/L at MW-CPC-37, approximately 800 feet upgradient of N-07852. This exceeds the recommended MCL of 1 µg/L.

4.2 Claremont OU5 Sampling Results

<u>VOCs</u>

The 2018 Third Quarter Groundwater Monitoring samples were collected September 10 and 11, 2018 approximately one month prior to the first round sampling event of the newly installed MW-

CPC wells. HDR sampled 41 monitoring wells for this quarter. The results from the third quarter 2018 groundwater sampling event show the following compounds detected above the NYSDEC Part 703 Class GA groundwater criteria: PCE, TCE, cis- 1,2-DCE, 1,1-DCE, 1,1,1-TCA, 1,2-DCA, 1,1-DCA, 1,4-dichlorobenzene, benzene, 1,4- dichlorobenzene, and chlorobenzene (Figure 7). Third quarter 2018 groundwater sampling exceedances are summarized on Table 5.

Table 5- Monitoring Well VOC Exceedances- Third Quarter 2018

Well	PCE	TCE	cis-1,2-DCE	1,1-DCE	1,1,1-TCA	1,2-DCA	1,1-DCA	Benzene	Chloro benzene	1,4 Dichloro benzene
BP-3B	**150**	**7.9**	**45**	0.50 J	0.64 J	ND	**5.0**	ND	ND	ND
BP-3C	**150**	**8.2**	**46**	0.44 J	0.53 J	ND	**5.1**	ND	ND	ND
DW-1	**6.5**	1.5	**11**	ND	ND	ND	ND	ND	ND	ND
EW-2C	0.3 J	4.0	0.46 J	0.14 J	ND	ND	ND	ND	ND	ND
EW-2D	0.53 J	ND	ND	ND	ND	ND	ND	ND	ND	ND
EW-4A	**19**	4.9	**73**	0.12 J	ND	ND	ND	ND	ND	ND
EW-4B	1.1	**5.8**	0.33 J	0.19 J	ND	ND	ND	ND	ND	ND
EW-4C	**9.5**	**50**	1.2	0.22 J	0.30 J	ND	ND	ND	ND	ND
EW-4D	**6**	1.2	ND	ND	ND	ND	ND	ND	ND	ND
EW-7C	**10**	**200**	3.4	0.34 J	0.47 J	ND	0.31 J	ND	ND	ND
EW-12D	**28**	**290**	**8.8**	**5.5**	4.0	ND	2.7	ND	ND	ND
EW-14D	2.6	**100**	0.84 J	**8.7**	**7.6**	**2**	0.28 J	ND	ND	ND
MW-06B	ND	ND	0.38 J	ND	ND	ND	ND	0.88 J	2.5	2.1
MW-06C	ND	ND	0.66 J	ND	ND	ND	ND	ND	0.40 J	ND
MW-06D	ND	ND	ND	ND	ND	ND	ND	0.56 J	1.1	**3.7**
MW-06E	ND	ND	ND	ND	ND	ND	ND	**4**	**9.4**	ND
MW-7B-R	**11**	**390**	**23**	4.7	3.5	ND	0.57 J	ND	ND	ND
MW-08A	4.3	0.42 J	0.38 J	ND	ND	ND	ND	ND	ND	ND
MW-09B	ND	2.3	ND	ND	ND	ND	ND	ND	ND	ND
MW-10D	0.82 J	1.1	0.26 J	ND	ND	**0.68 J**	ND	ND	ND	ND
MW-11A	3.0	4.3	**37**	0.62 J	0.64 J	ND	4.5	ND	ND	ND
MW-11B	ND	1.0	**20**	0.99 J	1.3	ND	**5.5**	ND	ND	ND

Results units are µg/l. Bold, underlined, italicized results are exceedances of the NYSDEC Part 703 Class GA criteria. See Attachment A for complete analytical results and comparison criteria. PCE – tetrachloroethylene; TCE – trichloroethylene; cis-1,2-DCE – cis-1,2-dichloroethylene; 1,1-DCE – 1,1-dichloroethene; 1,1,1-TCA – 1,1,1-trichloroethane; 1,2-DCA – 1,2-dichloroethane; 1,1-DCA – 1,1-dichloroethane; ND – not detected; J – estimated value.

The on-site plume (OU4) originates on the CPC site and is predominantly PCE with concentrations an order of magnitude greater than those of TCE. What is often referred to as the "eastern" plume originates upgradient of the EW-7-series well cluster and the Claremont Polychemical site extending as far south-southeast as well MW-7B-R. The eastern plume is predominantly TCE and is intercepted by wells EW-7C, EW-7D, EW-4B, EW-12D, EW-14D, MW-7B-R, EW-5, EW-1C, and EW-1B. MW-7B-R frequently has the highest TCE concentrations and in the second and third quarters of 2018, TCE was present at 270 µg/l and 390 µg/l, respectively. The well furthest to the east, EW-14D, has the greatest variability in TCE concentrations ranging from 250 µg/l in the fourth quarter of 2017, to 29 µg/l in the first quarter of 2018, to 100 µg/l in the third quarter of 2018. South of the Claremont OU5 recovery wells are the BP-3 series wells. The PCE concentrations at all three BP-3 series wells are higher than those for TCE. In BP-3A, concentrations were below the criterion of 5 µg/l for both PCE and TCE in the third quarter of 2018 (Table 5). The source of groundwater contamination at the BP-3 series wells is undetermined as PCE is mostly absent in wells between the OU5 recovery wells and the BP-3 series wells.

Emerging Contaminants

The 22 monitoring well and three recovery well samples to investigate PFCs and 1,4-Dioxane were collected on July 20 to 31, 2017 (Figures 4 and 8). Eighteen of the 22 monitoring well locations HDR sampled and analyzed for 1,4-Dioxane exceeded the New York State Drinking Water Quality Council recommended Maximum Contaminant Levels (MCL) of 1 part per billion (ppb), with concentrations ranging from 2.8 µg/l to 390 µg/l .

- Four wells associated with the OU4 PCE plume exceeded the screening level: MW-10C (12 µg/l), EW-04C (11µg/l), MW-08B (11 µg/l), and MW-10B (9.8 µg/l).
- Samples from five monitoring wells associated with the eastern plume had 1,4-dioxane concentrations exceeding the screening level: MW-7B-R (16 µg/l), EW-12D (11 µg/l), DW-1 (8.2 µg/l), EW-07C (7.7 µg/l), and EW-07D (4.7 µg/l).
- The sample from monitoring well EW-14D exceeded the screening level at a concentration of 33 µg/l.

- The three online Claremont Polychemical OU5 recovery wells each exceeded the screening level with concentrations of 30 µg/l at RW-3, 23 µg/l at RW-4, and 14 µg/l at RW-5.
- Results south of the Claremont Polychemical OU5 recovery wells include 6.9 µg/l at BP-3B, 5.1 µg/l at BP-3C, and 2.8 µg/l at MW-11B.
- Results from wells located in closest proximity to the Old Bethpage Landfill range in concentration from 3.3 µg/l to 390 µg/l. The wells with the highest concentrations include 390 µg/l at LF-1, 250 µg/l at MW-6B, 160 µg/l at MW-6D, and 130 µg/l at MW-6E. These wells are presently sampled as part of the Claremont OU-5 quarterly program, and the Old Bethpage Landfill post-termination groundwater monitoring.

Sixteen of the 22 monitoring wells sampled and analyzed for PFOS/PFOA exceeded the New York State Drinking Water Quality Council recommended MCL of 10 part per trillion (ppt), with concentrations ranging from 11.2 ng/l to 443 ng/l (Figure 8). The highest concentrations are along the eastern edge of the Old Bethpage Landfill including 443 ng/l at well LF- 2, 323.3 ng/l at MW-06B, 255.2 ng/l at MW-06D, 247.4 ng/l at MW-06E, 280.1 ng/l at LF-3, 124 ng/l at MW-08B, and 79.2 ng/l at LF-1. South-southeast of this group of wells in the direction of groundwater flow, the remaining two highest sample concentrations were 259 ng/l at OBS-1 and 300 ng/l at W-9.

The highest concentrations of 1,4-Dioxane and PFOA/PFOS are at the western edge of the investigation area closest to the landfill and downgradient of the CPC site. Based on the limited data available at this time, the main source of the emerging contaminants appears to be the landfill.

4.3 Groundwater Elevations

Groundwater elevation measurements were collected during groundwater sampling, and in conjunction with the Claremont Polychemical Fourth Quarter 2018 Monitoring Report synoptic level measurements on December 6, 2018. Groundwater elevations were highest to the northwest near the corner of Round Swamp Road and Winding Road (approximately 61 to 62 ft. NAVD 88) and decreased towards the south-southeast (approximately 50 feet in a well along Jervis Avenue). The 17 wells measured from the Claremont Polychemical monitoring network are screened in the lower Magothy deeper than -143 ft. In the newly installed wells, water elevations for screens set

at -332 to -372 elevation (400 to 450 ft. bgs) zone varied from MW-CPC-36 screen elevation -170 to -180 (screen depth 246 to 256 ft. bgs) which was set above the lignitic clay unit.

Water table and potentiometric contours created from the elevation measurements, indicate regional groundwater flow is southeast near the Old Bethpage Industrial Area and Town of Oyster Bay Landfill, and south-southeast to the north of the RI study area. Claremont Polychemical's OU-5 Groundwater Treatment Facility, which has three currently operating groundwater extraction wells, was offline during the synoptic water level measurements. Groundwater elevations and contours for December 2018 are shown on Figure 9.

5.0 SUMMARY OF THE REMEDIAL INVESTIGATION

The approximately 32 ft. thick lignitic silty clay layer was encountered between 256 to 273 feet bgs in each of the four boring/well locations. MW-CPC-36's screen is just above the clay layer and had the highest concentrations of VOCs of the four new wells. This is indicative of a plume or plumes above the confining layer at this location.

There were no exceedances in the VPB samples above the lignitic confining unit at MW-CPC-37. The two samples with the highest contaminant concentrations at MW-CPC-37 were from 315 and 335 ft. bgs. The sample collected from the screened interval had the highest concentration of 1,4-Dioxane at 7.8 µg/l, but no exceedances of VOCs.

MW-CPC-38 had one exceedance of benzene at 175 ft. bgs. in the VPB sample above the confining unit. The two samples with the highest contaminant concentrations at MW-CPC-38 were from 295 and 395 ft. bgs. The sample collected from the screened interval had 1,4-Dioxane at 2 µg/l, but no exceedances of VOCs.

MW-CPC-39 had exceedances of multiple VOCs in the VPB samples; the highest concentrations occurring below the lignitic clay at 373 ft. bgs. No exceedances were reported for the sample from the screened interval.

The contaminants detected during this investigation included BTEX compounds, chlorinated solvents, PFOS/PFOA, and 1,4-Dioxane. Documented upgradient plumes include those

originating at the Former Aluminum Louvre, Claremont Polychemical, Town of Oyster Bay Landfill, and Nassau County Fireman's Training Center.

Table 6- Contaminants of Concern in Upgradient Sources

Potential Source	Primary Groundwater COCs	Source
Claremont Polychemical Corp	PCE, TCE, Toluene, Xylene	2014 Remedial Action Report
Aluminum Louvre	TCE, PCE, and 1,1,1-TCA	2015 OU2 Remedial Investigation Report
Town of Oyster Bay Landfill	1,2-DCE, VC, TCE, Benzene, Toluene, Ethylbenzene, and Xylenes	2007 USEPA Five Year Review
Nassau County Fireman's Training Center	Benzene, cDCE, PCE, TCE	2011 Evaluation of GW Treatment Status and Achievement of System Termination Criteria

Portions of the known upgradient plumes are captured by three online recovery wells for the Claremont OU-5 pump and treat system. The recovery wells for the Old Bethpage Landfill have been taken off line and the Nassau County Firemen's Training Center treatment system has also been shutdown (USEPA 2007).

The highest recent PCE concentrations in the area can be found at monitoring well BP-3C (89 µg/l), originally installed to monitor the OBL plume. The BP-3 series wells also have TCE and cDCE exceedances. Review of the boring logs for wells BP-3A, BP-3B and BP-3C do not depict any laterality continuous clay units, including the very stiff lignitic clay. In the case of the BP-3 series wells, there is groundwater contamination at each depth without any corresponding significant confining layers (Figure 5).

The presence of confining layers downgradient of the BP-3 series wells, such as those observed in the VPB borings for this RI, could potentially bifurcate the plume(s) into upper and lower portions. A bifurcated plume was previously presented in a simulation of a water table release at Claremont, and confirmed with the lithology for the borings (CDM, 2008, Fig. 3-13c). The scarcity of wells south of the BP-3 series limit any additional lines of evidence to evaluate the presence or absence of a bifurcated plume and the horizontal and vertical extents of the known plumes.

5.1 Qualitative Human Health Exposure Assessment

The purpose of a Qualitative Human Health Exposure Assessment is to evaluate and document how people might be exposed to site-related contaminants, and to identify and characterize the

potentially exposed population(s) now and under the reasonably anticipated future use of the site. To evaluate if an exposure pathway exists, the exposure assessment must assess the quality, representativeness and adequacy of the available data. In addition, the qualitative exposure assessment must consider the nature of populations currently exposed or that have the potential to be exposed to site related contaminants both on- and off-site, and must describe the reasonably anticipated future land use of the site and affected off-site areas.

The exposure assessment evaluates five elements associated with exposure pathways, and describes how each of these elements pertains to the site and surrounding area:

1. Description of the contaminant source(s). Groundwater contamination originates upgradient of the RI study area at the following sites (refer to Table 4):
    a. Nassau County Fireman's Training Center (NCFTC) contaminated groundwater and soil by washing unburned fuel and solvents into on-site drywells. Additionally, leaking underground fuel pipes and potential discharges from tanks contributed to on-site contamination. The groundwater extraction system was shut off in the spring of 2011.
    b. Town of Oyster Bay Landfill impacted underlying groundwater quality through incineration and landfill wastes. The capped landfill has a leachate collection system and as of 2016, is no longer required to operate the recovery wells.
    c. As discussed in Section 1.2, Claremont Polychemical was a former manufacturer of pigments for plastics and inks, coated metal flakes, and vinyl stabilizers. The on-site groundwater treatment facility went offline in 2016, and the offsite OU-5 extraction system is currently operational.
    d. Aluminum Louvre manufactured louvers (window blinds), which involved the stamping, cutting, and shaping of metal stock and degreasing and painting. The on-site (OU1) and off-site (OU2) investigations were completed in 2015, however the Record of Decision (ROD) has not been finalized for OU2.
2. Contaminant release and transport mechanisms to the exposed population. The upgradient plumes have mostly resulted from stormwater drywell discharges, leaking containers and tanks impacted underlying groundwater and soil, in addition to landfill leachate and run-off from fire-fighting training activities. Refer to CSM for additional details.

3. Potential exposure point(s) where actual or potential human contact with a contaminated medium may occur. Contact with contaminated soil associated with the upgradient sites is very unlikely since these areas are covered by buildings and impervious surfaces. Groundwater is too deep (greater than 25 ft. below ground) for direct contact to occur; however there are potable supply wells downgradient of the impacted groundwater area that in time could be affected.
4. Route(s) of exposure (ingestion, inhalation, and dermal absorption). Inhalation of soil vapor in the upgradient source areas by building occupants (i.e. tenants, business clients, and visitors) and to a lesser extent by construction workers is the primary route of exposure. Ingestion and dermal absorption of soil and/or groundwater are unlikely for the reasons discussed in #3 above.
5. Characterization of the receptor populations who may be exposed to contaminants at a point of exposure. The industrial park area is zoned for industrial use. The primary population exposed to contaminants in the industrial park is commercial and industrial workers, other types of tenants, business clients, and visitors. At residential areas, contaminated media are deeper than 25 ft. bgs, eliminating points of exposure at residential properties. As the downgradient public water supply is not currently treated, residents could be exposed to groundwater contamination by consuming potable water.

5.1.1 Summary of Environmental Media and Transport Mechanisms

Groundwater

The nearest PWS wells to the north of the Old Bethpage Industrial Park are approximately 0.4 miles to the northwest and 1 mile to the northeast (both upgradient). PWS N-07852 is approximately 1.75 miles to the south of the industrial park (CDM 2008, Malcolm Pirnie 2010), but only 800 ft. south of MW-CPC-37. Two irrigation wells at Bethpage State Park located south of the Nassau County Firemen's Training Center, were closed in 1981 after VOC contamination was discovered. Recovery wells for the Claremont Polychemical OU-5 groundwater treatment system are located between the Old Bethpage Industrial Park and the municipal supply wells to the south. The only identifiable exposure pathway for groundwater would be downgradient migration of contamination to nearby public water supply wells. More specifically PWS N-07852, located 800 feet downgradient of MW-

CPC-37, could be impacted now or in the near future by one or more of the upgradient plumes.

Table 7- Summary Qualitative Human Health Exposure Assessment

Environmental Media & Exposure Route	Human Exposure Assessment
Direct contact with surface soils (and incidental ingestion) (on-site only)	No surface soil contamination has been identified
Direct contact with subsurface soils (and incidental ingestion) (on-site only)	People are not coming into contact because contaminated subsurface soils are covered with pavement and building foundations and contaminated soil is at least 10 ft. bgs. People can come into contact if they complete ground-intrusive work or utility work on-site that requires excavation to 10 ft. bgs.
Ingestion of groundwater	Contaminated groundwater is not being used for drinking water, however in the future there is a potential for the contamination to impact the public water supply.
Direct contact with groundwater	Groundwater is greater than 25 feet bgs, so direct contact during ground-intrusive work is unlikely.
Inhalation of air (exposures related to soil vapor intrusion)	Exposures to contaminated soil vapor may occur if soil vapor migrates through cracks or other openings in building floors or foundations on or proximate to the contaminated sites discussed above. There is no risk of soil vapor exposure at the downgradient areas investigated in this RI as groundwater is too deep and concentrations are too low.

5.2 Fish and Wildlife Resources Impact Analysis

The off-site RI data show that the contamination is located at depth and the area is almost exclusively paved or covered with buildings. While contaminated groundwater has migrated offsite, given its depth (greater than 25 feet below ground), it does not have the potential to migrate to, erode into or otherwise impact any on-site or off-site habitat of endangered, threatened or special concern species or other fish and wildlife resource. Based on the conditions described above (and it does not have the potential to migrate to, erode or otherwise impact resources), according to Appendix 3C of DER 10, this eliminates the need fully perform a Fish and Wildlife

Resources Impact Analysis. It is unlikely that the deep contamination in the study area has an impact on the local surface ecological resources.

5.3 Remedial Action Objectives

The objectives for the remedial program have been established through the remedy selection process stated in 6 NYCRR Part 375. The goal for the remedial program is to restore the site to pre-disposal conditions to the extent feasible. At a minimum, the remedy shall eliminate or mitigate all significant threats to public health and the environment presented by the contamination identified at the site through the proper application of scientific and engineering principles. The remedial action objectives (RAOs) for the RI are:

Groundwater RAOs for Public Health Protection

- Prevent ingestion of groundwater with contaminant levels exceeding drinking water standards.
- Prevent contact with, or inhalation of volatiles, from contaminated groundwater.

RAOs for Environmental Protection

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

6.0 CONCLUSIONS AND RECOMMENDATIONS

This RI was conducted to address two objectives related to the extent of potential subsurface off-site contamination. The first objective was to determine the horizontal and vertical extents of groundwater contamination downgradient of the Old Bethpage Industrial Park within the deeper underlying Magothy aquifer, and the second was to evaluate the potential for the plume(s) to impact the Village of Farmingdale PWS N-07852.

Horizontal and Vertical Plume Extents

Contaminated groundwater above the continuous lignitic clay zone extends as far south and west as MW-CPC-36. The extents of the shallower plume(s) above the lignitic clay beyond MW-CPC-36 to the south and west are unknown.

Contaminated groundwater below the confining unit extends as far south as new wells MW-CPC-37, MW-CPC-38 and MW-CPC-39. MW-CPC-39 is also the known eastern extent of the plume in the study area. The extents of the deeper plume(s) below the lignitic clay beyond MW-CPC-37, -38, and -39 to the south, and also MW-CPC-39 to the east are unknown. The vertical extent of the deeper plume is at least as deep as 450 ft. bgs., but at that depth, concentrations are currently below GWQS.

Continued investigation is necessary to horizontally delineate the plume fronts further west, south and east. Vertical delineation is incomplete in the study area as well as at some upgradient locations, like MW-7B-R, where contamination is found in the deepest wells.

Potential Impacts to Public Supply Well PWS N-07852

Monitoring well MW-CPC-37 is 800 ft. north of PWS N-07852. MW-CPC-37 is screened from 440 to 450 ft. bgs within the same depth bgs range as PWS N-07852's screen zone of 400 to 450 ft. bgs. Breakdown products of the chlorinated solvents PCE and TCE found in the upgradient plumes were detected in MW-CPC-37 at concentrations below GWQS. The CDM model predicted the plume(s) would reach PWS N-07852 at low levels as early as 2019. This is consistent with the findings of this RI which indicate the plume(s) extend as far as well MW-CPC-37 which is only 800 ft. to the north and upgradient of the public supply well. CDM's model also predicted TVOC

concentrations would exceed 5 µg/l in PWS N-07852 by 2029. The current concentration of cDCE in MW-CPC-37 is 4 µg/l. This portends a faster rate of contaminant transport than the maximum simulated TVOC concentrations described in the model runs. There is a potential that PWS N-07852 will require treatment in the near future.

HDR recommends the following:

- Quarterly sampling of wells MW-CPC-36, -37, -38, and -39 for at least eight quarters to establish contaminant trends at each of the new wells and monitor the concentrations in the plume(s) as the contamination approaches PWS N-07852.
- The quarterly sampling of the new wells should be concurrent with the quarterly sampling being conducted for Claremont Polychemical OU5.
- Address data gaps at existing well locations where vertical delineation has not been achieved and to locate the plume front to the west, south and east in the study area. This effort may include installation and sampling of additional wells and evaluation of existing well data south of PWS N-07852 at other contaminated sites with suitable monitoring wells, if they exist.
- Installing transducers in the four new wells to monitor the effects of pumping PWS N-07852.
- Evaluate the possibility of using geophysical methods to locate continuous confining units such as the lignitic clay perpendicular to the plume(s). This information would aid in selecting future monitoring well locations and provide an additional line of evidence to refine the CSM.

7.0 CERTIFICATION

I, Patricia Parvis, certify that I am currently a NYS registered professional geologist and that this Remedial Investigation Report was prepared in accordance with all applicable statutes and regulations and in substantial conformance with the DER Technical Guidance for Site Investigation and Remediation (DER-10) and that all activities were performed in full accordance with the DER-approved work plan and any DER-approved modifications.

Patricia Parvis, P.G.

NYS License #000323

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NYSDEC 2018 Village of Farmingdale Table of Perflourinated Compounds Lab Results- Village Wells N-7852, N-6644, N-11004, NYSDEC Division of Water Region 1, May 2018.

USEPA 2007 Five-Year Review Report, Old Bethpage Landfill Superfund Site Old Bethpage Nassau County, New York. U.S. EPA Region 2 New York, New York, September 2007.

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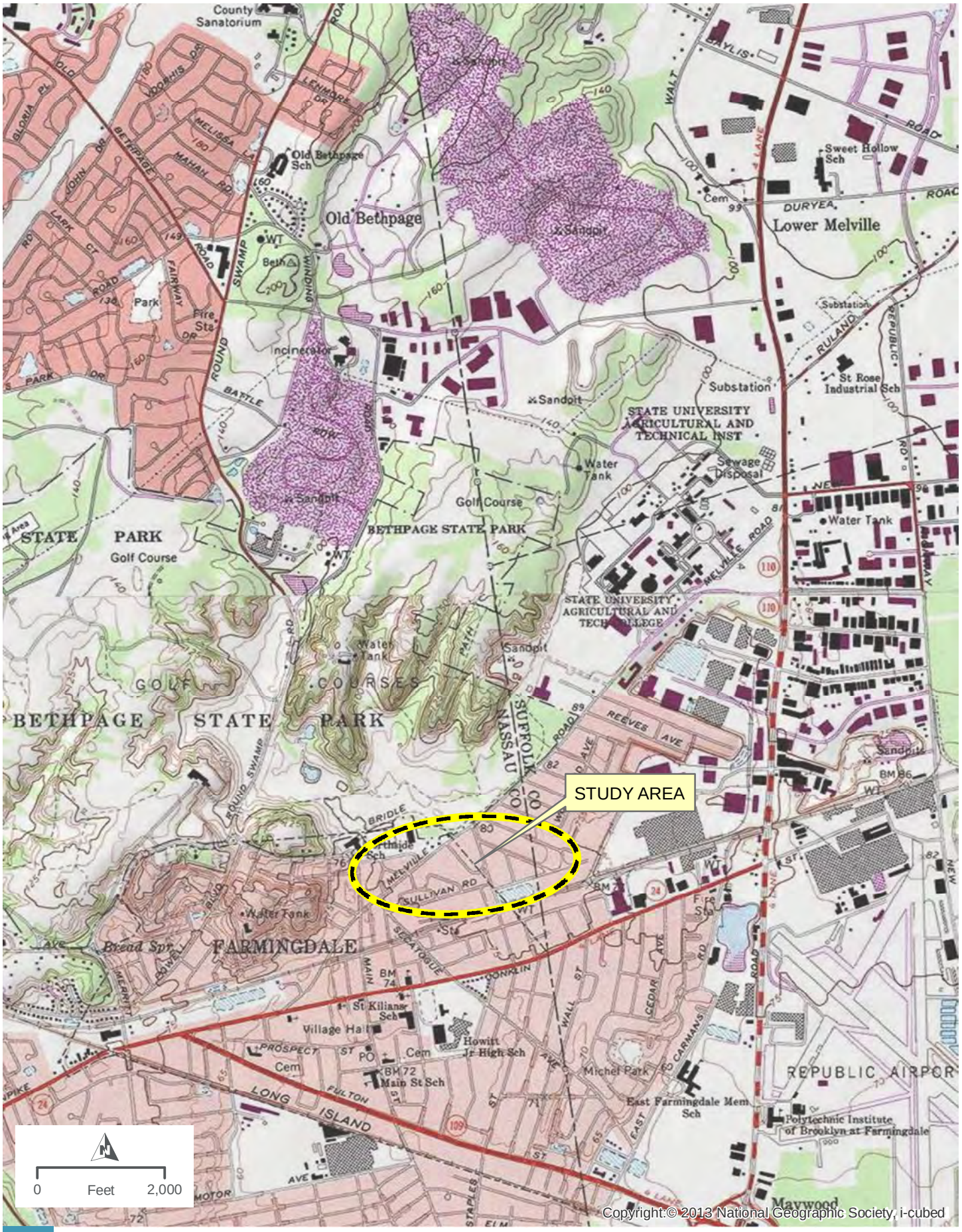
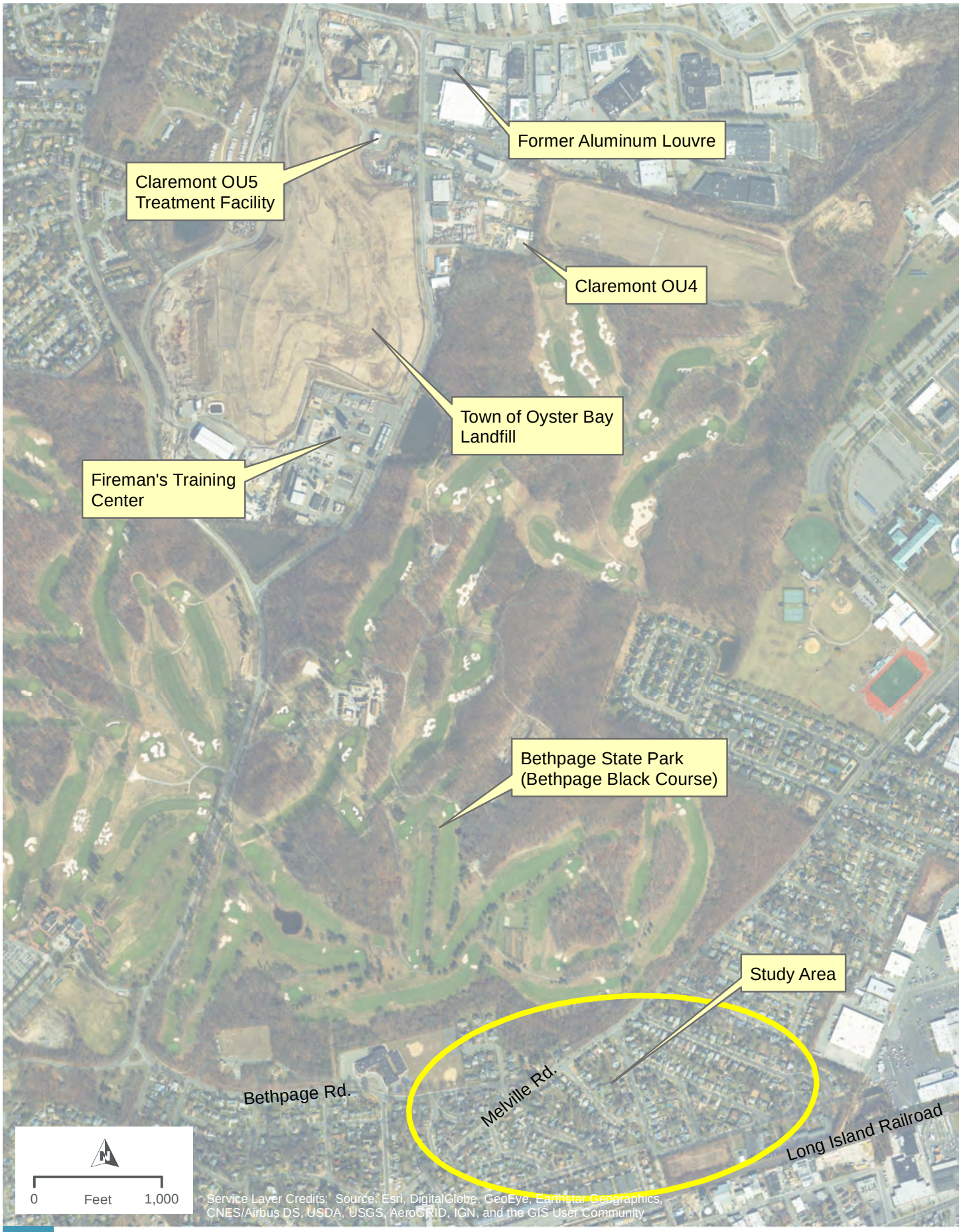
Figures



SITE LOCATION (OLD BETHPAGE, NY)

NYSDEC SITE #130015 CLAREMONT POLYCHEMICAL RI

FIGURE 1



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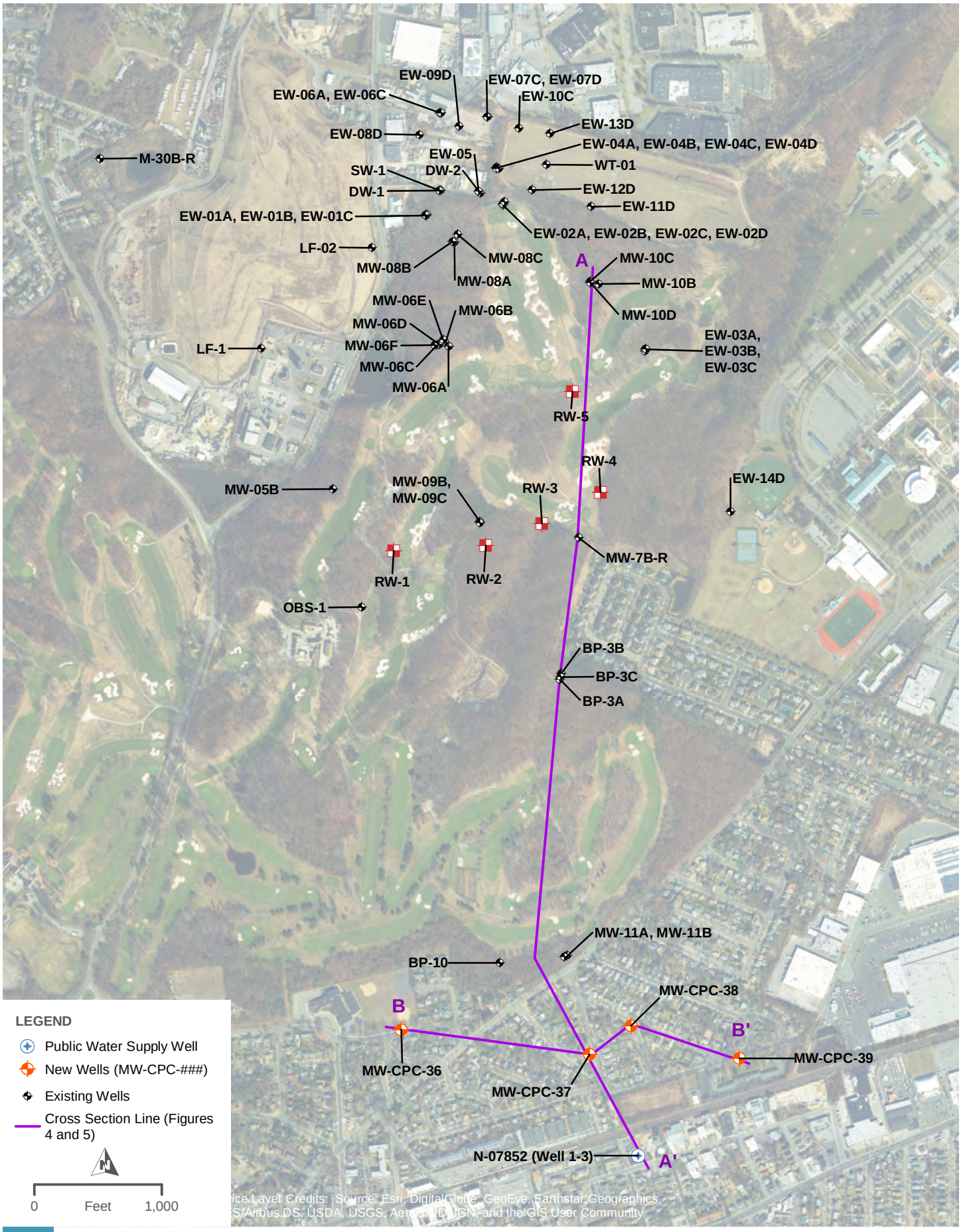
SITE FEATURES

NYSDEC SITE #130015 CLAREMONT POLYCHEMICAL RI

FIGURE 2

PATH: \\ANY-SRV1\ACTIVEPROJECTS\4492\101092181\7.0_GIS_MODELS\7.2_WIP\MAP_DOCS\RI 2018\FIGURE 2 - SITE FEATURES.MXD - USER: HROSADO - DATE: 2/21/2019

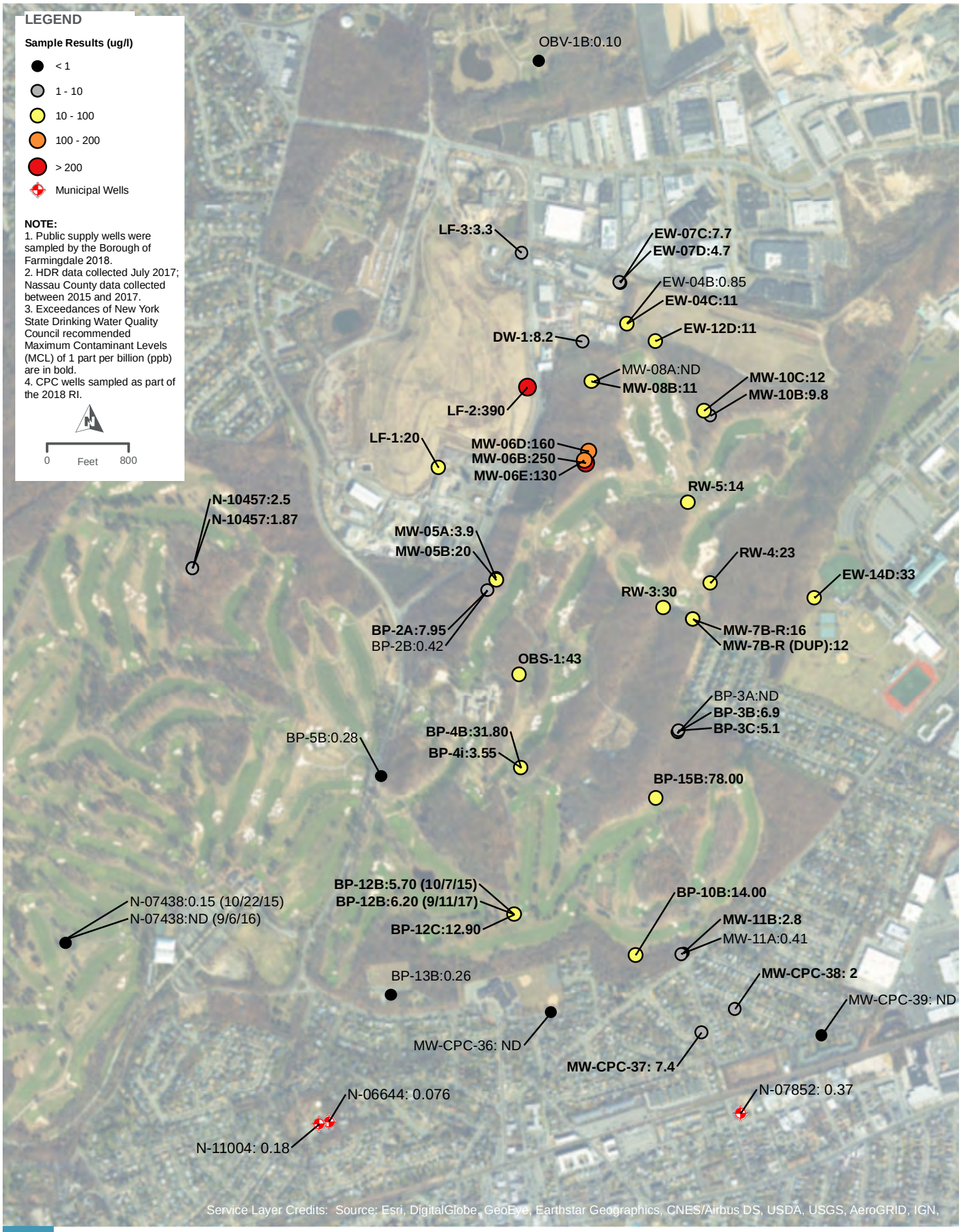


MONITORING WELLS AND CROSS SECTION LINES

NYSDEC SITE #130015 CLAREMONT POLYCHEMICAL RI

FIGURE 3

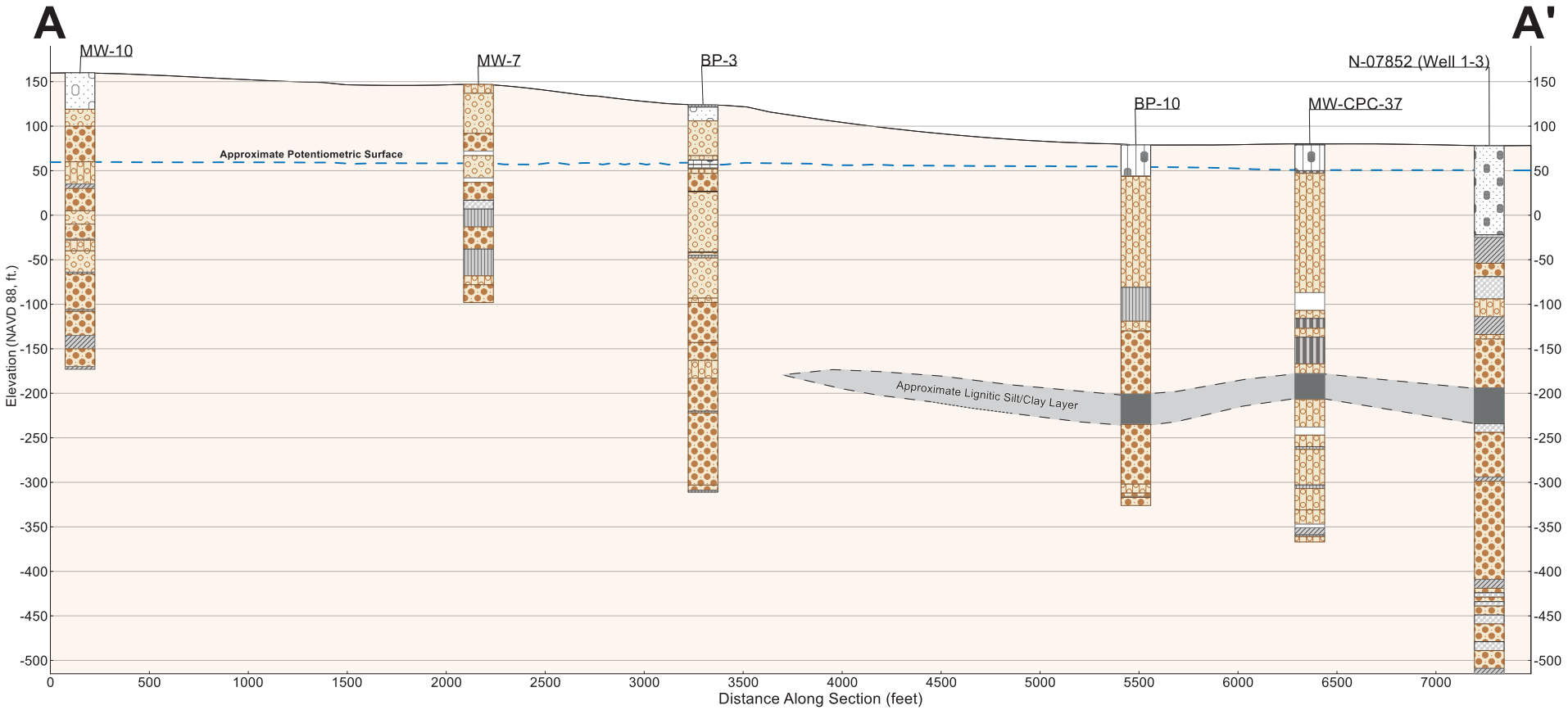
PATH: \\ANY-SRV1\ACTIVEPROJECTS\4492\10109218\7.0_GIS_MODELS\7.2_WIP\MAP_DOCS\RI 2018\FIGURE 3 - MONITORING WELLS AND SECTION LINES.MXD - USER: CMILLS - DATE: 12/11/2018



1,4-DIOXANE SAMPLING RESULTS

CLAREMONT POLYCHEMICAL CORPORATION

FIGURE 4

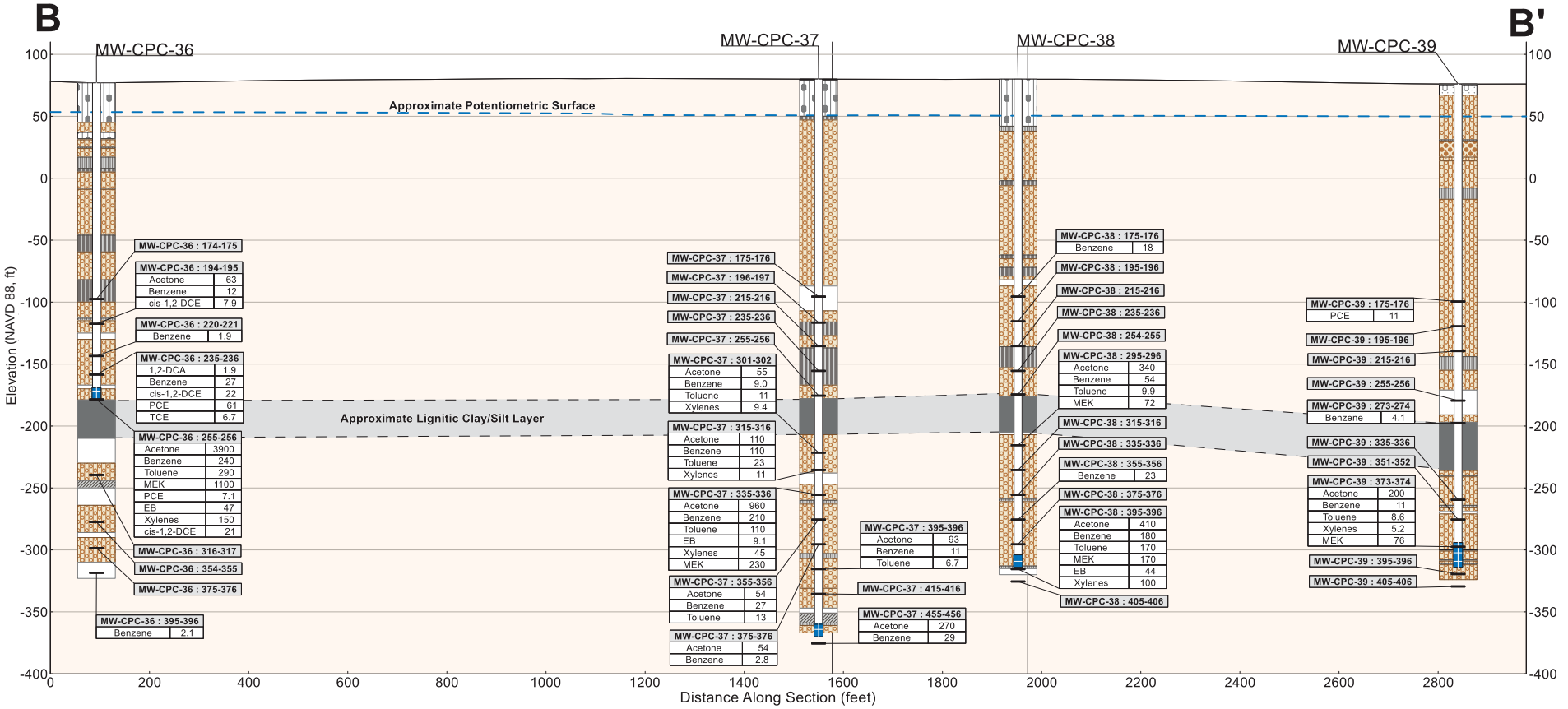


Soil Classification Symbology

- GW - Well graded gravel. Sandy gravel; little/no fines.
- GP - Poorly graded gravel. Gravel-sand mix little/no fines
- GM - Silty gravels. Sand-silt-gravel mixtures.
- SW - Well graded sand. Gravelly sands; little/no fines.
- SP - Poorly graded sand. Gravelly sands; little/no fines.
- SM - Silt/Sand mixtures. Silty sand.
- SC - Clayey sands, sand-clay mixtures.
- ML - Inorganic silts and very fine sands. Clayey fine sands.
- MH - Inorganic silts, micaceous fine sand or silty soils.
- CL - Inorganic clays of low-medium plasticity. Gravelly/sandy/silty clays.
- Lignitic Silts and Clays
- No Recovery/No Data

General Figure Notes

- Geologic data for wells other than those installed by HDR obtained from historic reports produced by various consultants.



Criteria	Constituent
50	Acetone
1	Benzene
5	cis-1,2-DCE (cis,1-2-Dichloroethylene)
0.6	1,2-DCA (1,2-Dichloroethane)
50	MEK (Methy Ethyl Ketone)
5	TCE (Trichloroethane)
5	PCE (Tetrachloroethylene)
5	Toluene
5	Xylenes (Total)

Criteria: 6 NYCRR Part 703.5 Water quality standards for taste-, color- and odor-producing, toxic and other deleterious substances; and TOGS 1.1.1 Ambient Water Quality Standards and Guidance Values and Groundwater Effluent Limitations, June 1998 (and addendums).

Soil Classification Symbology

- GW - Well graded gravel. Sandy gravel; little/no fines.
- GP - Poorly graded gravel. Gravel-sand mix little/no fines
- GM - Silty gravels. Sand-silt-gravel mixtures.
- SW - Well graded sand. Gravelly sands; little/no fines.
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- SC - Clayey sands, sand-clay mixtures.
- ML - Inorganic silts and very fine sands. Clayey fine sands.
- MH - Inorganic silts, micaceous fine sand or silty soils.
- CL - Inorganic clays of low-medium plasticity. Gravelly/sandy/silty clays.
- PT - Peat / highly organic.
- Lignitic Silts and Clays
- No Recovery/No Data

General Figure Notes

- All concentrations and criteria shown in micrograms per liter (ug/L).
- Groundwater samples collected using Push-Ahead sampler during sonic drilling.
- Samples collected between July 31st and September 18th, 2018.
- Detected concentrations of select analytes (acetone, benzene, cis-1,2-dichloroethylene, 1,2-dichloroethane, methyl ethyl ketone, trichloroethylene, tetrachloroethylene, toluene, and xylenes) shown. See Remedial Investigation Report for full listing of analytical results.
- Labels without specific chemistry data indicate that detected concentrations of the select analyte list did not exceed criteria.

EW-7C
EW-7D
EW-4A
EW-4B
EW-4C
EW-4D
EW-5
WT-01
EW-12D
EW-1A
EW-1B
EW-1C
DW-1
EW-11D
EW-2A
EW-2B
EW-2C
EW-2D
MW-8A
MW-8B
MW-8C
MW-6B
MW-6C
MW-6D
MW-6E
MW-6F
MW-10D
RW-5
RW-4
RW-3
RW-1
RW-2
MW-5B
MW-7B-R
EW-14D
MW-9B
MW-9C
OBS-1
BP-3A
BP-3B
BP-3C
MW-11A
MW-11B
MW-CPC-36
MW-CPC-37
MW-CPC-38
MW-CPC-39

Aerial Image Source: ESRI, DigitalGlobe, GeoEye, EarthStar Geographics, CNES/Airbus DS, USDA, USGS, AEX, Getmapping, Aerogrid, IGN, swisstopo, and the GIS User Community

Wells

N

0 250 500 ft

TETRACHLOROETHYLENE(PCE)
VINYL CHLORIDE
TRICHLOROETHYLENE (TCE)
1,1-DICHLOROETHENE
CIS-1,2-DICHLOROETHYLENE
TRANS-1,2-DICHLOROETHENE

Sum of CVOCs (ug/l)

- 0 - 10
- 10 - 100
- 100 - 500
- 500 - 1000

Notes:
- Pie Charts shown are for samples with results from the seleted constituents that were above the detection limit (no J qualified data).
- Wells without a Pie Chart did not have reported results above the detection limit for the selected constituents.
- CPC wells were sampled in October and November of 2018 as part of the 2018 RI.

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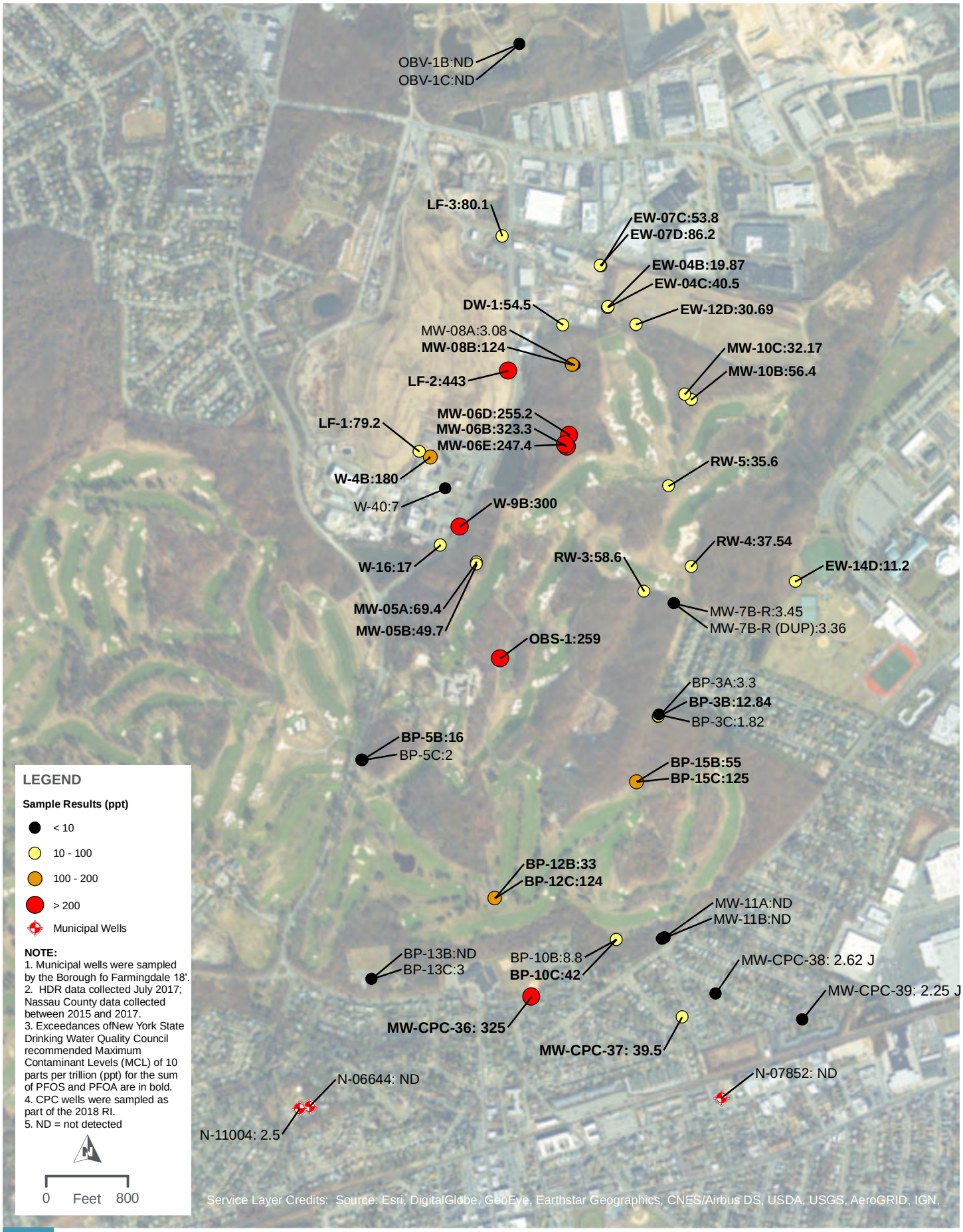
DETECTED CHLORINATED COMPOUNDS AND BREAKDOWN PRODUCTS
CLAREMONT POLYCHEMICAL CORPORATION

FIGURE 7



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PFOS/PFOA SAMPLING RESULTS

CLAREMONT POLYCHEMICAL CORPORATION

FIGURE 8

PATH: \\NY-ALBANY\ACTIVEPROJECTS\4492\10109218\7.0_GIS_MODELS\7.2_WIP\MAP_DOCS\RI 2018\FIGURE 8 - PFOS PFOA SAMPLING RESULTS.MXD - USER: HROSADO - DATE: 3/1/2019

LEGEND

- Claremont Monitoring Wells
- Nassau County DPW Monitoring Wells
- Recovery Wells
- Public Water Supply Well
- Water Level Elevation Contours
- Dashed Where Inferred
- Groundwater Flow Direction

All elevations given in ft amsl.
ND - No data. Unable to obtain measurement.
Depth to groundwater measurements completed 12/6/2018.
Recovery wells (RW-1 to RW-5) not operational during this period.

N

0 Miles 0.1

EW-13D (61.19)
EW-2D (60.79)
MW-10D (59.73)
MW-6F (60)
RW-5
BP-7C (61.54)
61
59
RW-4
60
RW-1
RW-3
RW-2
BP-8C (58.19)
BP-6C (59.72)
58
BP-3C (57.45)
BP-4C (57.56)
BP-5C (57.96)
BP-15C (57.43)
57
56
BP-9C (55.53)
BP-12C (55.43)
55
55
MW-11B (54.48)
BP-10C (ND)
54
54
MW-CPC-38 (50.46)
BP-13C (54.37)
BP-13B (55.12)
MW-CPC-36 (53.44)
MW-CPC-37 (50.73)
MW-CPC-39 (49.91)
N-07852
N-11004
N-06644

Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community

REGIONAL GROUNDWATER CONTOUR MAP LOWER MAGOTHY: DEEPER THAN -143 FT AMSL

CLAREMONT POLYCHEMICAL CORPORATION

FIGURE 9

PATH: \\MAHPI-FILE01\ACTIVEPROJECTS\275962\7.0_GIS_MODELS\7.2_WORK_IN_PROGRESS\MAP_DOCS\2018_Q4\FIG3_TO_5_GROUNDWATERCONTOURS.MXD - USER: CMILLS - DATE: 1/15/2019

Appendix A
Data Summary Tables

Target Compound or TIC/Method/Analyte	CAS	GWQS	Sample Name: MW-CPC-36-GW-175 Lab ID: 460-161671-1 Sample Date/Time: 7/31/2018 Sample Depth (ft. bgs): 175 Result/Qual	Sample Name: MW-CPC-36-GW-195 Lab ID: 460-161671-2 Sample Date/Time: 8/1/2018 Sample Depth (ft. bgs): 195 Result/Qual	Sample Name: MW-CPC-36-GW-221 Lab ID: 460-161671-3 Sample Date/Time: 8/1/2018 Sample Depth (ft. bgs): 221 Result/Qual	Sample Name: MW-CPC-36-GW-236 Lab ID: 460-161783-1 Sample Date/Time: 8/1/2018 Sample Depth (ft. bgs): 236 Result/Qual
Target						
SW8260C						
1,1,1-Trichloroethane	71-55-6	5	1 U	1 U	1 U	1.8
1,1,2,2-Tetrachloroethane	79-34-5	5	1 U	1 U	1 U	1 U
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	5	1 U	1 U	1 U	1 U
1,1,2-Trichloroethane	79-00-5	1	1 U	1 U	1 U	1 U
1,1-Dichloroethane	75-34-3	5	0.29 J	0.9 J	1 U	0.76 J
1,1-Dichloroethene	75-35-4	5	1 U	1 U	1 U	1.5
1,2,3-Trichlorobenzene	87-61-6	5	NR	NR	NR	1 U
1,2,4-Trichlorobenzene	120-82-1	10	1 U	1 U	1 U	1 U
1,2-Dibromo-3-Chloropropane	96-12-8	0.04	***1*** U	***1*** U	***1*** U	***1*** U
1,2-Dibromoethane (Ethylene Dibromide)	106-93-4	0.0006	***1*** U	***1*** U	***1*** U	***1*** U
1,2-Dichlorobenzene	95-50-1	3	1 U	1 U	1 U	1 U
1,2-Dichloroethane	107-06-2	0.6	***1*** U	***1*** U	***1*** U	**1.9**
1,2-Dichloropropane	78-87-5	1	1 U	1 U	1 U	1 U
1,3-Dichlorobenzene	541-73-1	3	1 U	1 U	1 U	1 U
1,4-Dichlorobenzene	106-46-7	3	1 U	1 U	1 U	1 U
2-Hexanone	591-78-6	50	5 U	5 U	5 U	5 U
Acetone	67-64-1	50	5 U	**63**	28	5 U
Benzene	71-43-2	1	1 U	**12**	**1.9**	**27**
Bromochloromethane	74-97-5	5	NR	NR	NR	1 U
Bromodichloromethane	75-27-4	50	1 U	1 U	1 U	1 U
Bromoform	75-25-2	50	1 U	1 U	1 U	1 U
Bromomethane	74-83-9	5	1 U	1 U	1 U	1 U
Carbon Disulfide	75-15-0	60	1 U	1 U	1 U	1 U
Carbon Tetrachloride	56-23-5	5	1 U	1 U	1 U	1 U
Chlorobenzene	108-90-7	5	1 U	1 U	1 U	1 U
Chloroethane	75-00-3	5	1 U	1 U	1 U	1 U
Chloroform	67-66-3	7	0.98 J	0.44 J	1 U	1 U
Chloromethane	74-87-3	5	1 U	1 U	1 U	1 U
Cis-1,2-Dichloroethylene	156-59-2	5	2.6	**7.9**	0.64 J	**22**
Cis-1,3-Dichloropropene	10061-01-5	5	1 U	1 U	1 U	1 U
Cyclohexane	110-82-7	NS	1 U	1 U	1 U	1.5
Dibromochloromethane	124-48-1	50	1 U	1 U	1 U	1 U
Dichlorodifluoromethane	75-71-8	5	1 U	1 U	1 U	1 U
Ethylbenzene	100-41-4	5	1 U	1 U	1 U	1 U
Isopropylbenzene (Cumene)	98-82-8	5	1 U	1 U	1 U	1 U
m,p-Xylene	179601-23-1	NS	NR	NR	NR	1 U
Methyl Acetate	79-20-9	NS	5 U	5 U	5 U	5 U
Methyl Ethyl Ketone (2-Butanone)	78-93-3	50	5 U	13	6.4	3.3 J
Methyl Isobutyl Ketone (4-Methyl-2-Pentanone)	108-10-1	NS	5 U	5 U	5 U	5 U
Methylcyclohexane	108-87-2	NS	1 U	1 U	1 U	0.44 J

Target Compound or TIC/Method/Analyte	CAS	GWQS	Sample Name:	MW-CPC-36-GW-175	MW-CPC-36-GW-195	MW-CPC-36-GW-221	MW-CPC-36-GW-236
			Lab ID:	460-161671-1	460-161671-2	460-161671-3	460-161783-1
			Sample Date/Time:	7/31/2018	8/1/2018	8/1/2018	8/1/2018
			Sample Depth (ft. bgs):	175	195	221	236
				Result/Qual	Result/Qual	Result/Qual	Result/Qual
Methylene Chloride	75-09-2	5		1 U	1 U	1 U	1 U
O-Xylene (1,2-Dimethylbenzene)	95-47-6	5		NR	NR	NR	1 U
Styrene	100-42-5	5		1 U	1 U	1 U	1 U
Tert-Butyl Alcohol	75-65-0	NS		10 U	10 U	10 U	10 U
Tert-Butyl Methyl Ether	1634-04-4	10		1 U	1 U	1 U	1 U
Tetrachloroethylene (PCE)	127-18-4	5		0.72 J	1.5	1	**61**
Toluene	108-88-3	5		1 U	1.7	0.59 J	1 U
Trans-1,2-Dichloroethene	156-60-5	5		1 U	1 U	1 U	1 U
Trans-1,3-Dichloropropene	10061-02-6	5		1 U	1 U	1 U	1 U
Trichloroethylene (TCE)	79-01-6	5		0.76 J	1.9	1 U	**6.7**
Trichlorofluoromethane	75-69-4	5		1 U	1 U	1 U	1 U
Vinyl Chloride	75-01-4	2		1 U	1 U	1 U	0.64 J
Xylenes, Total	1330-20-7	5		2 U	2 U	2 U	2 U
SW8270DSIM/SW8260C							
1,4-Dioxane	123-91-1	1		NR	NR	NR	***50*** U
TIC							
SW8260C							
1,3,5-Trimethylbenzene (Mesitylene)	108-67-8	5		NR	NR	NR	NR
1-Butene	106-98-9	NS		NR	17 JN	68 JN	NR
1-Ethylidene- Indene	2471-83-2	NS		NR	NR	NR	NR
1-Hexene	592-41-6	NS		NR	NR	5.7 JN	NR
1-Nonanal	124-19-6	NS		NR	6.7 JN	NR	NR
1-Pentene	109-67-1	NS		NR	NR	16 JN	NR
1-Propanethiol	107-03-9	NS		NR	NR	NR	NR
2,3-Dimethylthiophene	632-16-6	NS		NR	NR	NR	NR
2-Ethylhexyl Aldehyde	123-05-7	NS		NR	NR	NR	NR
2-Ethylthiophene	872-55-9	NS		NR	NR	NR	NR
2-Heptanone	110-43-0	NS		NR	NR	NR	NR
2-Methyl Butane	78-78-4	NS		NR	NR	NR	7.2 JN
2-Methyl-1-Butene	563-46-2	NS		NR	NR	5.6 JN	NR
2-Methyl-1-Pentene	763-29-1	NS		NR	NR	NR	NR
2-Methylnaphthalene	91-57-6	NS		NR	NR	NR	NR
2-Methylthiophene	554-14-3	NS		NR	NR	NR	NR
2-Octanone	111-13-7	NS		NR	NR	NR	NR
3-Methylthiophene	616-44-4	NS		NR	NR	NR	NR
Acetaldehyde	75-07-0	NS		NR	NR	NR	NR
Acrolein	107-02-8	5		NR	NR	NR	NR
Cis-2-Pentene	627-20-3	NS		NR	NR	6.8 JN	NR
Cyclohexene	110-83-8	NS		NR	NR	NR	NR
Ethanethiol	75-08-1	NS		NR	NR	NR	NR
Ethylcyclopropane	1191-96-4	NS		NR	NR	NR	NR
Heptanal	111-71-7	NS		NR	NR	NR	NR

	Sample Name:	MW-CPC-36-GW-175	MW-CPC-36-GW-195	MW-CPC-36-GW-221	MW-CPC-36-GW-236
	Lab ID:	460-161671-1	460-161671-2	460-161671-3	460-161783-1
	Sample Date/Time:	7/31/2018	8/1/2018	8/1/2018	8/1/2018
	Sample Depth (ft. bgs):	175	195	221	236
Target Compound or TIC/Method/Analyte	**CAS** **GWQS**	Result/Qual	Result/Qual	Result/Qual	Result/Qual
Hexanal	66-25-1 NS	NR	NR	NR	NR
Isobutylene	115-11-7 NS	NR	NR	9.2 JN	NR
Methanethiol	74-93-1 NS	NR	NR	NR	NR
Methyl Disulfide	624-92-0 NS	NR	NR	NR	NR
Methyl N-Propyl Ketone	107-87-9 NS	NR	NR	NR	NR
Methyl Sulfide	75-18-3 NS	NR	NR	NR	NR
Octanal	124-13-0 NS	NR	NR	NR	NR
Pentanal (Valeraldehyde)	110-62-3 NS	NR	NR	NR	NR
Propylene	115-07-1 NS	NR	31 JN	110 JN	NR
Thiophene	110-02-1 NS	NR	NR	NR	NR
Unknown Alkane 1	UNKALKANE1 NS	NR	NR	NR	NR
Unknown Volatile Organic With 1st Highest Conc.	UNKVOA1 NS	NR	7.8 J	NR	NR
Unknown Volatile Organic With 2nd Highest Conc.	UNKVOA2 NS	NR	NR	NR	NR
Unknown Volatile Organic With 3rd Highest Conc.	UNKVOA3 NS	NR	NR	NR	NR
Unknown Volatile Organic With 4th Highest Conc.	UNKVOA4 NS	NR	NR	NR	NR
Unknown Volatile Organic With 5th Highest Conc.	UNKVOA5 NS	NR	NR	NR	NR
Unknown With 1st Highest Conc.	UNKNOWN1 NS	NR	NR	NR	NR
Total TICs		0	62.5 J	221.3 J	7.2 J

Footnotes:
GWQS and Results Units: µg/l (micrograms per liter)
Bold, highlighted result - exceeds standard
Bold, italicized result - non-detect but reporting limit exceeds standard
"Standards" - 6 NYCRR Part 703 Surface Water and Groundwater
Quality Standards (GWQS) and Guidance Values; and TOGs 1.1.1 Ambient
Water Quality Standards and Guidance Values, June 1998
1,4-Dioxane were compared to suggested NYS Drinking Water Quality Council MCL 1 ppb
NS - no standard or criterion. B - analyte in lab blank
U - analyzed for but not detected
J - estimated concentration. N - presumptive evidence of a compound
T - result is a tentatively identified compound (TIC) and an estimated value
NR - result analysis not reported or performed by laboratory
Sample Name end letters : D - dup; B - blank; P - Pace;
MS - matrix spike; MSD - matrix spike duplicate

		Sample Name:	MW-CPC-36-R1-GW-251	MW-CPC-36-R1-GW-251-D	MW-CPC-36-R1-GW-251-P
		Lab ID:	200-46151-1	200-46151-2	7070542001
		Sample Date/Time:	11/7/2018	11/7/2018	11/7/2018
		Sample Depth (ft. bgs):	251	251	251
Target Compound or TIC/Method/Analyte	**CAS**	**GWQS**	Result/Qual	Result/Qual	Result/Qual
Target					
SW8260C					
1,1,1-Trichloroethane	71-55-6	5	1.8	1.6	1.8
1,1,2,2-Tetrachloroethane	79-34-5	5	1 U	1 U	1 U
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	5	1 U	1 U	1 U
1,1,2-Trichloroethane	79-00-5	1	1 U	1 U	1 U
1,1-Dichloroethane	75-34-3	5	1.1	1	1.1
1,1-Dichloroethene	75-35-4	5	2	1.9	1.9
1,2,3-Trichlorobenzene	87-61-6	5	1 U	1 U	NR
1,2,4-Trichlorobenzene	120-82-1	10	1 U	1 U	1 U
1,2-Dibromo-3-Chloropropane	96-12-8	0.04	***1*** U	***1*** U	***1*** U
1,2-Dibromoethane (Ethylene Dibromide)	106-93-4	0.0006	***1*** U	***1*** U	***1*** U
1,2-Dichlorobenzene	95-50-1	3	1 U	1 U	1 U
1,2-Dichloroethane	107-06-2	0.6	**2**	**1.8**	**2.1**
1,2-Dichloropropane	78-87-5	1	1 U	1 U	1 U
1,3-Dichlorobenzene	541-73-1	3	1 U	1 U	1 U
1,4-Dichlorobenzene	106-46-7	3	1 U	1 U	1 U
2-Hexanone	591-78-6	50	5 U	5 U	5 U
Acetone	67-64-1	50	7	6.5	7.8 J+
Benzene	71-43-2	1	**53**	**52**	**52.6**
Bromochloromethane	74-97-5	5	NR	NR	NR
Bromodichloromethane	75-27-4	50	1 U	1 U	1 U
Bromoform	75-25-2	50	1 U	1 U	1 U
Bromomethane	74-83-9	5	1 UJ	1 UJ	1 U
Carbon Disulfide	75-15-0	60	0.21 J	0.26 J	1 U
Carbon Tetrachloride	56-23-5	5	1 U	1 U	1 U
Chlorobenzene	108-90-7	5	1 U	1 U	1 U
Chloroethane	75-00-3	5	1 U	1 U	1 U
Chloroform	67-66-3	7	1 U	1 U	1 U
Chloromethane	74-87-3	5	1 U	1 U	1 U
Cis-1,2-Dichloroethylene	156-59-2	5	**37**	**37**	**36.3**
Cis-1,3-Dichloropropene	10061-01-5	5	1 U	1 U	1 UJ
Cyclohexane	110-82-7	NS	2	2	3
Dibromochloromethane	124-48-1	50	1 U	1 U	1 U
Dichlorodifluoromethane	75-71-8	5	1 U	0.18 J	1 U
Ethylbenzene	100-41-4	5	1 U	1 U	1 U
Isopropylbenzene (Cumene)	98-82-8	5	1 U	1 U	1 U
m,p-Xylene	179601-23-1	NS	NR	NR	NR
Methyl Acetate	79-20-9	NS	5 U	5 U	1 U
Methyl Ethyl Ketone (2-Butanone)	78-93-3	50	5 U	5 U	5 U
Methyl Isobutyl Ketone (4-Methyl-2-Pentanone)	108-10-1	NS	5 U	5 U	5 U
Methylcyclohexane	108-87-2	NS	0.5 J	0.43 J	1 U

Sample Name:	MW-CPC-36-R1-GW-251	MW-CPC-36-R1-GW-251-D	MW-CPC-36-R1-GW-251-P
Lab ID:	200-46151-1	200-46151-2	7070542001
Sample Date/Time:	11/7/2018	11/7/2018	11/7/2018
Sample Depth (ft. bgs):	251	251	251
Target Compound or TIC/Method/Analyte **CAS** **GWQS**	Result/Qual	Result/Qual	Result/Qual
Methylene Chloride 75-09-2 5	1 U	1 U	1 U
O-Xylene (1,2-Dimethylbenzene) 95-47-6 5	NR	NR	NR
Styrene 100-42-5 5	1 U	1 U	1 U
Tert-Butyl Alcohol 75-65-0 NS	10 U	10 U	NR
Tert-Butyl Methyl Ether 1634-04-4 10	1 U	1 U	1 U
Tetrachloroethylene (PCE) 127-18-4 5	**66**	**65**	**56.5**
Toluene 108-88-3 5	0.42 J	1 U	1 U
Trans-1,2-Dichloroethene 156-60-5 5	1 U	1 U	2
Trans-1,3-Dichloropropene 10061-02-6 5	1 U	1 U	1 UJ
Trichloroethylene (TCE) 79-01-6 5	**8**	**7.8**	**9**
Trichlorofluoromethane 75-69-4 5	1 U	1 U	1 U
Vinyl Chloride 75-01-4 2	1.2	1	1.3
Xylenes, Total 1330-20-7 5	2 U	2 U	3 U
SW8270DSIM/SW8260C			
1,4-Dioxane 123-91-1 1	***50*** U	**2.5**	NR
TIC			
SW8260C			
1,3,5-Trimethylbenzene (Mesitylene) 108-67-8 5	NR	NR	NR
1-Butene 106-98-9 NS	NR	NR	NR
1-Ethylidene- Indene 2471-83-2 NS	NR	NR	NR
1-Hexene 592-41-6 NS	NR	NR	NR
1-Nonanal 124-19-6 NS	NR	NR	NR
1-Pentene 109-67-1 NS	NR	NR	NR
1-Propanethiol 107-03-9 NS	NR	NR	NR
2,3-Dimethylthiophene 632-16-6 NS	NR	NR	NR
2-Ethylhexyl Aldehyde 123-05-7 NS	NR	NR	NR
2-Ethylthiophene 872-55-9 NS	NR	NR	NR
2-Heptanone 110-43-0 NS	NR	NR	NR
2-Methyl Butane 78-78-4 NS	9.8 JN	9.3 JN	NR
2-Methyl-1-Butene 563-46-2 NS	NR	NR	NR
2-Methyl-1-Pentene 763-29-1 NS	NR	NR	NR
2-Methylnaphthalene 91-57-6 NS	NR	NR	NR
2-Methylthiophene 554-14-3 NS	NR	NR	NR
2-Octanone 111-13-7 NS	NR	NR	NR
3-Methylthiophene 616-44-4 NS	NR	NR	NR
Acetaldehyde 75-07-0 NS	NR	NR	NR
Acrolein 107-02-8 5	NR	NR	NR
Cis-2-Pentene 627-20-3 NS	NR	NR	NR
Cyclohexene 110-83-8 NS	NR	NR	NR
Ethanethiol 75-08-1 NS	NR	NR	NR
Ethylcyclopropane 1191-96-4 NS	NR	NR	NR
Heptanal 111-71-7 NS	NR	NR	NR

	Sample Name:		MW-CPC-36-R1-GW-251	MW-CPC-36-R1-GW-251-D	MW-CPC-36-R1-GW-251-P
	Lab ID:		200-46151-1	200-46151-2	7070542001
	Sample Date/Time:		11/7/2018	11/7/2018	11/7/2018
	Sample Depth (ft. bgs):		251	251	251
Target Compound or TIC/Method/Analyte	**CAS**	**GWQS**	Result/Qual	Result/Qual	Result/Qual
Hexanal	66-25-1	NS	NR	NR	NR
Isobutylene	115-11-7	NS	NR	NR	NR
Methanethiol	74-93-1	NS	NR	NR	NR
Methyl Disulfide	624-92-0	NS	NR	NR	NR
Methyl N-Propyl Ketone	107-87-9	NS	NR	NR	NR
Methyl Sulfide	75-18-3	NS	NR	NR	NR
Octanal	124-13-0	NS	NR	NR	NR
Pentanal (Valeraldehyde)	110-62-3	NS	NR	NR	NR
Propylene	115-07-1	NS	NR	NR	NR
Thiophene	110-02-1	NS	NR	NR	NR
Unknown Alkane 1	UNKALKANE1	NS	NR	NR	29.5 J
Unknown Volatile Organic With 1st Highest Conc.	UNKVOA1	NS	5.7 J	8.8 J	NR
Unknown Volatile Organic With 2nd Highest Conc.	UNKVOA2	NS	NR	NR	NR
Unknown Volatile Organic With 3rd Highest Conc.	UNKVOA3	NS	NR	NR	NR
Unknown Volatile Organic With 4th Highest Conc.	UNKVOA4	NS	NR	NR	NR
Unknown Volatile Organic With 5th Highest Conc.	UNKVOA5	NS	NR	NR	NR
Unknown With 1st Highest Conc.	UNKNOWN1	NS	NR	NR	NR
Total TICs			15.5 J	18.1 J	29.5 J

Footnotes:
GWQS and Results Units: µg/l (micrograms per liter)
Bold, highlighted result - exceeds standard
Bold, italicized result - non-detect but reporting limit exceeds standard
"Standards" - 6 NYCRR Part 703 Surface Water and Groundwater
Quality Standards (GWQS) and Guidance Values; and TOGs 1.1.1 Ambient
Water Quality Standards and Guidance Values, June 1998
1,4-Dioxane were compared to suggested NYS Drinking Water Quality Council MCL 1 ppb
NS - no standard or criterion. B - analyte in lab blank
U - analyzed for but not detected
J - estimated concentration. N - presumptive evidence of a compound
T - result is a tentatively identified compound (TIC) and an estimated value
NR - result analysis not reported or performed by laboratory
Sample Name end letters : D - dup; B - blank; P - Pace;
MS - matrix spike; MSD - matrix spike duplicate

Target Compound or TIC/Method/Analyte	CAS	GWQS	Sample Name: MW-CPC-36-R1-GW-251-B Lab ID: 200-46151-3 Sample Date/Time: 11/7/2018 Sample Depth (ft. bgs): -NA-	MW-CPC-36-GW-256 460-161783-2 8/2/2018 256	MW-CPC-36-GW-317 460-161999-1 8/6/2018 317	MW-CPC-36-GW-355 460-162078-1 8/6/2018 355
			Result/Qual	Result/Qual	Result/Qual	Result/Qual
Target						
SW8260C						
1,1,1-Trichloroethane	71-55-6	5	1 U	2.6 J	1 U	1 U
1,1,2,2-Tetrachloroethane	79-34-5	5	1 U	5 U	1 U	1 U
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	5	1 U	5 U	1 U	1 U
1,1,2-Trichloroethane	79-00-5	1	1 U	***5*** U	1 U	1 U
1,1-Dichloroethane	75-34-3	5	1 U	5 U	1 U	1 U
1,1-Dichloroethene	75-35-4	5	1 U	5 U	1 U	1 U
1,2,3-Trichlorobenzene	87-61-6	5	1 U	5 U	NR	NR
1,2,4-Trichlorobenzene	120-82-1	10	1 U	5 U	1 U	1 U
1,2-Dibromo-3-Chloropropane	96-12-8	0.04	***1*** U	***5*** U	***1*** U	***1*** U
1,2-Dibromoethane (Ethylene Dibromide)	106-93-4	0.0006	***1*** U	***5*** U	***1*** U	***1*** U
1,2-Dichlorobenzene	95-50-1	3	1 U	***5*** U	1 U	1 U
1,2-Dichloroethane	107-06-2	0.6	***1*** U	***5*** U	***1*** U	***1*** U
1,2-Dichloropropane	78-87-5	1	1 U	***5*** U	1 U	1 U
1,3-Dichlorobenzene	541-73-1	3	1 U	***5*** U	1 U	1 U
1,4-Dichlorobenzene	106-46-7	3	1 U	***5*** U	1 U	1 U
2-Hexanone	591-78-6	50	5 U	**73**	5 U	5 U
Acetone	67-64-1	50	5 U	**3900**	7.3	8.6
Benzene	71-43-2	1	1 U	**240**	1 U	1 U
Bromochloromethane	74-97-5	5	NR	5 U	NR	NR
Bromodichloromethane	75-27-4	50	1 U	5 U	0.78 J	1 U
Bromoform	75-25-2	50	1 U	5 U	1 U	1 UT
Bromomethane	74-83-9	5	1 UJ	5 U	1 UT	1 U
Carbon Disulfide	75-15-0	60	1 U	**92**	1 U	0.77 J
Carbon Tetrachloride	56-23-5	5	1 U	5 U	1 U	1 U
Chlorobenzene	108-90-7	5	1 U	5 U	1 U	1 U
Chloroethane	75-00-3	5	1 U	5 U	1 U	1 U
Chloroform	67-66-3	7	1 U	5 U	0.63 J	1 U
Chloromethane	74-87-3	5	1 U	5 U	1 U	1 U
Cis-1,2-Dichloroethylene	156-59-2	5	1 U	**21**	1 U	1 U
Cis-1,3-Dichloropropene	10061-01-5	5	1 U	5 U	1 U	1 U
Cyclohexane	110-82-7	NS	1 U	2.2 J	1 U	1 U
Dibromochloromethane	124-48-1	50	1 U	5 U	1	1 UT
Dichlorodifluoromethane	75-71-8	5	1 U	5 U	1 U	1 U
Ethylbenzene	100-41-4	5	1 U	**47**	1 U	1 U
Isopropylbenzene (Cumene)	98-82-8	5	1 U	1.7 J	1 U	1 U
m,p-Xylene	179601-23-1	NS	NR	89	NR	NR
Methyl Acetate	79-20-9	NS	5 U	140	5 U	5 UT
Methyl Ethyl Ketone (2-Butanone)	78-93-3	50	5 U	**1100**	3.2 J	3.5 J
Methyl Isobutyl Ketone (4-Methyl-2-Pentanone)	108-10-1	NS	5 U	16 J	5 U	5 UT
Methylcyclohexane	108-87-2	NS	1 U	5 U	1 U	1 U

Sample Name:	MW-CPC-36-R1-GW-251-B	MW-CPC-36-GW-256	MW-CPC-36-GW-317	MW-CPC-36-GW-355
Lab ID:	200-46151-3	460-161783-2	460-161999-1	460-162078-1
Sample Date/Time:	11/7/2018	8/2/2018	8/6/2018	8/6/2018
Sample Depth (ft. bgs):	-NA-	256	317	355

Target Compound or TIC/Method/Analyte	CAS	GWQS	Result/Qual	Result/Qual	Result/Qual	Result/Qual
Methylene Chloride	75-09-2	5	1 U	5 U	1 U	1 U
O-Xylene (1,2-Dimethylbenzene)	95-47-6	5	NR	**57**	NR	NR
Styrene	100-42-5	5	1 U	**15**	1 U	1 U
Tert-Butyl Alcohol	75-65-0	NS	10 U	130	10 U	10 U
Tert-Butyl Methyl Ether	1634-04-4	10	1 U	5 U	1 U	1 U
Tetrachloroethylene (PCE)	127-18-4	5	1 U	**7.1**	1 U	1 U
Toluene	108-88-3	5	1 U	**290**	1 U	0.44 J
Trans-1,2-Dichloroethene	156-60-5	5	1 U	5 U	1 U	1 U
Trans-1,3-Dichloropropene	10061-02-6	5	1 U	5 U	1 U	1 U
Trichloroethylene (TCE)	79-01-6	5	1 U	2.7 J	1 U	1 U
Trichlorofluoromethane	75-69-4	5	1 U	5 U	1 U	1 U
Vinyl Chloride	75-01-4	2	1 U	***5*** U	1 U	1 U
Xylenes, Total	1330-20-7	5	2 U	**150**	2 U	2 U
SW8270DSIM/SW8260C						
1,4-Dioxane	123-91-1	1	0.021 J	***250*** U	NR	NR
TIC						
SW8260C						
1,3,5-Trimethylbenzene (Mesitylene)	108-67-8	5	NR	NR	NR	NR
1-Butene	106-98-9	NS	NR	NR	NR	NR
1-Ethylidene- Indene	2471-83-2	NS	NR	NR	NR	NR
1-Hexene	592-41-6	NS	NR	NR	NR	NR
1-Nonanal	124-19-6	NS	NR	NR	NR	NR
1-Pentene	109-67-1	NS	NR	NR	NR	NR
1-Propanethiol	107-03-9	NS	NR	NR	NR	NR
2,3-Dimethylthiophene	632-16-6	NS	NR	75 JN	NR	NR
2-Ethylhexyl Aldehyde	123-05-7	NS	NR	NR	NR	NR
2-Ethylthiophene	872-55-9	NS	NR	46 JN	NR	NR
2-Heptanone	110-43-0	NS	NR	NR	NR	NR
2-Methyl Butane	78-78-4	NS	NR	NR	NR	NR
2-Methyl-1-Butene	563-46-2	NS	NR	NR	NR	NR
2-Methyl-1-Pentene	763-29-1	NS	NR	NR	NR	NR
2-Methylnaphthalene	91-57-6	NS	NR	NR	NR	NR
2-Methylthiophene	554-14-3	NS	NR	240 JN	NR	NR
2-Octanone	111-13-7	NS	NR	NR	NR	NR
3-Methylthiophene	616-44-4	NS	NR	120 JN	NR	NR
Acetaldehyde	75-07-0	NS	NR	NR	NR	NR
Acrolein	107-02-8	5	NR	NR	NR	NR
Cis-2-Pentene	627-20-3	NS	NR	NR	NR	NR
Cyclohexene	110-83-8	NS	NR	NR	NR	NR
Ethanethiol	75-08-1	NS	NR	NR	NR	NR
Ethylcyclopropane	1191-96-4	NS	NR	NR	NR	NR
Heptanal	111-71-7	NS	NR	NR	NR	NR

Target Compound or TIC/Method/Analyte	CAS	GWQS	Sample Name:	MW-CPC-36-R1-GW-251-B	MW-CPC-36-GW-256	MW-CPC-36-GW-317	MW-CPC-36-GW-355
			Lab ID:	200-46151-3	460-161783-2	460-161999-1	460-162078-1
			Sample Date/Time:	11/7/2018	8/2/2018	8/6/2018	8/6/2018
			Sample Depth (ft. bgs):	-NA-	256	317	355
				Result/Qual	Result/Qual	Result/Qual	Result/Qual
Hexanal	66-25-1	NS		NR	NR	NR	NR
Isobutylene	115-11-7	NS		NR	140 JN	NR	28 JN
Methanethiol	74-93-1	NS		NR	270 JN	NR	NR
Methyl Disulfide	624-92-0	NS		NR	54 JN	NR	NR
Methyl N-Propyl Ketone	107-87-9	NS		NR	37 JN	NR	NR
Methyl Sulfide	75-18-3	NS		NR	320 JN	NR	NR
Octanal	124-13-0	NS		NR	NR	NR	NR
Pentanal (Valeraldehyde)	110-62-3	NS		NR	NR	NR	NR
Propylene	115-07-1	NS		NR	190 JN	NR	47 JN
Thiophene	110-02-1	NS		NR	140 JN	NR	NR
Unknown Alkane 1	UNKALKANE1	NS		NR	NR	NR	NR
Unknown Volatile Organic With 1st Highest Conc.	UNKVOA1	NS		NR	89 J	NR	7.6 J
Unknown Volatile Organic With 2nd Highest Conc.	UNKVOA2	NS		NR	60 J	NR	NR
Unknown Volatile Organic With 3rd Highest Conc.	UNKVOA3	NS		NR	41 J	NR	NR
Unknown Volatile Organic With 4th Highest Conc.	UNKVOA4	NS		NR	NR	NR	NR
Unknown Volatile Organic With 5th Highest Conc.	UNKVOA5	NS		NR	NR	NR	NR
Unknown With 1st Highest Conc.	UNKNOWN1	NS		NR	61 JN	NR	NR
Total TICs				0	1883 J	0	82.6 J

Footnotes:
GWQS and Results Units: µg/l (micrograms per liter)
Bold, highlighted result - exceeds standard
Bold, italicized result - non-detect but reporting limit exceeds standard
"Standards" - 6 NYCRR Part 703 Surface Water and Groundwater
Quality Standards (GWQS) and Guidance Values; and TOGs 1.1.1 Ambient
Water Quality Standards and Guidance Values, June 1998
1,4-Dioxane were compared to suggested NYS Drinking Water Quality Council MCL 1 ppb
NS - no standard or criterion. B - analyte in lab blank
U - analyzed for but not detected
J - estimated concentration. N - presumptive evidence of a compound
T - result is a tentatively identified compound (TIC) and an estimated value
NR - result analysis not reported or performed by laboratory
Sample Name end letters : D - dup; B - blank; P - Pace;
MS - matrix spike; MSD - matrix spike duplicate

			Sample Name:	MW-CPC-36-GW-376	MW-CPC-36-GW-396	MW-CPC-37-GW-176	MW-CPC-37-GW-197
			Lab ID:	460-162078-2	460-162078-3	460-162533-1	460-162629-1
			Sample Date/Time:	8/7/2018	8/7/2018	8/14/2018	8/14/2018
			Sample Depth (ft. bgs):	376	396	176	197
Target Compound or TIC/Method/Analyte	**CAS**	**GWQS**		Result/Qual	Result/Qual	Result/Qual	Result/Qual
Target							
SW8260C							
1,1,1-Trichloroethane	71-55-6	5		1 U	1 U	1 U	1 U
1,1,2,2-Tetrachloroethane	79-34-5	5		1 U	1 U	1 U	1 U
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	5		1 U	1 U	1 U	1 U
1,1,2-Trichloroethane	79-00-5	1		1 U	1 U	1 U	1 U
1,1-Dichloroethane	75-34-3	5		1 U	1 U	1 U	1 U
1,1-Dichloroethene	75-35-4	5		1 U	1 U	1 U	1 U
1,2,3-Trichlorobenzene	87-61-6	5		NR	NR	NR	1 U
1,2,4-Trichlorobenzene	120-82-1	10		1 U	1 U	1 U	1 U
1,2-Dibromo-3-Chloropropane	96-12-8	0.04		***1*** U	***1*** U	***1*** U	***1*** U
1,2-Dibromoethane (Ethylene Dibromide)	106-93-4	0.0006		***1*** U	***1*** U	***1*** U	***1*** U
1,2-Dichlorobenzene	95-50-1	3		1 U	1 U	1 U	1 U
1,2-Dichloroethane	107-06-2	0.6		***1*** U	***1*** U	***1*** U	***1*** U
1,2-Dichloropropane	78-87-5	1		1 U	1 U	1 U	1 U
1,3-Dichlorobenzene	541-73-1	3		1 U	1 U	1 U	1 U
1,4-Dichlorobenzene	106-46-7	3		1 U	1 U	1 U	1 U
2-Hexanone	591-78-6	50		5 U	5 U	5 U	5 U
Acetone	67-64-1	50		5.5	12	5 U	8.6
Benzene	71-43-2	1		1 U	**2.1**	1 U	1 U
Bromochloromethane	74-97-5	5		NR	NR	NR	NR
Bromodichloromethane	75-27-4	50		1 U	1 U	1 U	1 U
Bromoform	75-25-2	50		1 UT	1 UT	1 U	1 U
Bromomethane	74-83-9	5		1 U	1 U	1 U	1 UT
Carbon Disulfide	75-15-0	60		1 U	1 U	1 U	1 U
Carbon Tetrachloride	56-23-5	5		1 U	1 U	1 U	1 U
Chlorobenzene	108-90-7	5		1 U	1 U	1 U	1 U
Chloroethane	75-00-3	5		1 U	1 U	1 U	1 UT
Chloroform	67-66-3	7		1 U	1 U	1 U	1 U
Chloromethane	74-87-3	5		1 U	1 U	1 U	1 U
Cis-1,2-Dichloroethylene	156-59-2	5		1 U	1 U	0.66 J	0.31 J
Cis-1,3-Dichloropropene	10061-01-5	5		1 U	1 U	1 U	1 U
Cyclohexane	110-82-7	NS		1 U	1 U	1 U	1 U
Dibromochloromethane	124-48-1	50		1 UT	1 UT	1 U	1 U
Dichlorodifluoromethane	75-71-8	5		1 U	1 U	0.52 J	0.28 J
Ethylbenzene	100-41-4	5		1 U	1 U	1 U	1 U
Isopropylbenzene (Cumene)	98-82-8	5		1 U	1 U	1 U	1 U
m,p-Xylene	179601-23-1	NS		NR	NR	NR	NR
Methyl Acetate	79-20-9	NS		5 UT	5 UT	5 U	5 U
Methyl Ethyl Ketone (2-Butanone)	78-93-3	50		5 U	5 U	5 U	5 U
Methyl Isobutyl Ketone (4-Methyl-2-Pentanone)	108-10-1	NS		5 UT	5 UT	5 U	5 U
Methylcyclohexane	108-87-2	NS		1 U	1 U	1 U	1 U

Sample Name:			MW-CPC-36-GW-376	MW-CPC-36-GW-396	MW-CPC-37-GW-176	MW-CPC-37-GW-197
Lab ID:			460-162078-2	460-162078-3	460-162533-1	460-162629-1
Sample Date/Time:			8/7/2018	8/7/2018	8/14/2018	8/14/2018
Sample Depth (ft. bgs):			376	396	176	197
Target Compound or TIC/Method/Analyte	**CAS**	**GWQS**	Result/Qual	Result/Qual	Result/Qual	Result/Qual
Methylene Chloride	75-09-2	5	1 U	1 U	1 U	1 U
O-Xylene (1,2-Dimethylbenzene)	95-47-6	5	NR	NR	NR	NR
Styrene	100-42-5	5	1 U	1 U	1 U	1 U
Tert-Butyl Alcohol	75-65-0	NS	10 U	10 U	10 U	10 U
Tert-Butyl Methyl Ether	1634-04-4	10	1 U	1 U	1 U	1 U
Tetrachloroethylene (PCE)	127-18-4	5	1 U	1 U	1 U	1 U
Toluene	108-88-3	5	1 U	1.2	1 U	1 U
Trans-1,2-Dichloroethene	156-60-5	5	1 U	1 U	1 U	1 U
Trans-1,3-Dichloropropene	10061-02-6	5	1 U	1 U	1 U	1 U
Trichloroethylene (TCE)	79-01-6	5	1 U	1 U	1 U	1 U
Trichlorofluoromethane	75-69-4	5	1 U	1 U	0.31 J	1 U
Vinyl Chloride	75-01-4	2	1 U	1 U	1 U	1 U
Xylenes, Total	1330-20-7	5	2 U	2 U	2 U	2 U
SW8270DSIM/SW8260C						
1,4-Dioxane	123-91-1	1	NR	NR	NR	NR
TIC						
SW8260C						
1,3,5-Trimethylbenzene (Mesitylene)	108-67-8	5	NR	NR	NR	NR
1-Butene	106-98-9	NS	NR	NR	NR	NR
1-Ethylidene- Indene	2471-83-2	NS	NR	NR	NR	NR
1-Hexene	592-41-6	NS	NR	NR	NR	NR
1-Nonanal	124-19-6	NS	NR	NR	NR	NR
1-Pentene	109-67-1	NS	NR	NR	NR	NR
1-Propanethiol	107-03-9	NS	NR	NR	NR	NR
2,3-Dimethylthiophene	632-16-6	NS	NR	NR	NR	NR
2-Ethylhexyl Aldehyde	123-05-7	NS	NR	NR	NR	NR
2-Ethylthiophene	872-55-9	NS	NR	NR	NR	NR
2-Heptanone	110-43-0	NS	NR	NR	NR	NR
2-Methyl Butane	78-78-4	NS	NR	NR	NR	NR
2-Methyl-1-Butene	563-46-2	NS	NR	NR	NR	NR
2-Methyl-1-Pentene	763-29-1	NS	NR	NR	NR	NR
2-Methylnaphthalene	91-57-6	NS	NR	NR	NR	NR
2-Methylthiophene	554-14-3	NS	NR	NR	NR	NR
2-Octanone	111-13-7	NS	NR	NR	NR	NR
3-Methylthiophene	616-44-4	NS	NR	NR	NR	NR
Acetaldehyde	75-07-0	NS	NR	NR	NR	NR
Acrolein	107-02-8	5	NR	NR	NR	NR
Cis-2-Pentene	627-20-3	NS	NR	NR	NR	NR
Cyclohexene	110-83-8	NS	NR	NR	NR	NR
Ethanethiol	75-08-1	NS	NR	NR	NR	NR
Ethylcyclopropane	1191-96-4	NS	NR	NR	NR	NR
Heptanal	111-71-7	NS	NR	NR	NR	NR

	Sample Name:	MW-CPC-36-GW-376	MW-CPC-36-GW-396	MW-CPC-37-GW-176	MW-CPC-37-GW-197
	Lab ID:	460-162078-2	460-162078-3	460-162533-1	460-162629-1
	Sample Date/Time:	8/7/2018	8/7/2018	8/14/2018	8/14/2018
	Sample Depth (ft. bgs):	376	396	176	197
Target Compound or TIC/Method/Analyte	**CAS** **GWQS**	Result/Qual	Result/Qual	Result/Qual	Result/Qual
Hexanal	66-25-1 NS	NR	NR	NR	NR
Isobutylene	115-11-7 NS	NR	NR	NR	NR
Methanethiol	74-93-1 NS	NR	NR	NR	NR
Methyl Disulfide	624-92-0 NS	NR	NR	NR	NR
Methyl N-Propyl Ketone	107-87-9 NS	NR	NR	NR	NR
Methyl Sulfide	75-18-3 NS	NR	NR	NR	NR
Octanal	124-13-0 NS	NR	NR	NR	NR
Pentanal (Valeraldehyde)	110-62-3 NS	NR	NR	NR	NR
Propylene	115-07-1 NS	NR	NR	NR	NR
Thiophene	110-02-1 NS	NR	NR	NR	NR
Unknown Alkane 1	UNKALKANE1 NS	NR	NR	NR	NR
Unknown Volatile Organic With 1st Highest Conc.	UNKVOA1 NS	NR	13 J	NR	NR
Unknown Volatile Organic With 2nd Highest Conc.	UNKVOA2 NS	NR	9.1 J	NR	NR
Unknown Volatile Organic With 3rd Highest Conc.	UNKVOA3 NS	NR	NR	NR	NR
Unknown Volatile Organic With 4th Highest Conc.	UNKVOA4 NS	NR	NR	NR	NR
Unknown Volatile Organic With 5th Highest Conc.	UNKVOA5 NS	NR	NR	NR	NR
Unknown With 1st Highest Conc.	UNKNOWN1 NS	NR	NR	NR	NR
Total TICs		0	22.1 J	0	0

Footnotes:
GWQS and Results Units: µg/l (micrograms per liter)
Bold, highlighted result - exceeds standard
Bold, italicized result - non-detect but reporting limit exceeds standard
"Standards" - 6 NYCRR Part 703 Surface Water and Groundwater
Quality Standards (GWQS) and Guidance Values; and TOGs 1.1.1 Ambient
Water Quality Standards and Guidance Values, June 1998
1,4-Dioxane were compared to suggested NYS Drinking Water Quality Council MCL 1 ppb
NS - no standard or criterion. B - analyte in lab blank
U - analyzed for but not detected
J - estimated concentration. N - presumptive evidence of a compound
T - result is a tentatively identified compound (TIC) and an estimated value
NR - result analysis not reported or performed by laboratory
Sample Name end letters : D - dup; B - blank; P - Pace;
MS - matrix spike; MSD - matrix spike duplicate

	Sample Name:	MW-CPC-37-GW-216	MW-CPC-37-GW-236	MW-CPC-37-GW-256	MW-CPC-37-GW-302
	Lab ID:	460-162629-2	460-162629-3	460-162726-1	460-162726-2
	Sample Date/Time:	8/15/2018	8/15/2018	8/15/2018	8/16/2018
	Sample Depth (ft. bgs):	216	236	256	302
Target Compound or TIC/Method/Analyte	**CAS** **GWQS**	Result/Qual	Result/Qual	Result/Qual	Result/Qual
Target					
SW8260C					
1,1,1-Trichloroethane	71-55-6 5	1 U	1 U	1 U	1 U
1,1,2,2-Tetrachloroethane	79-34-5 5	1 U	1 U	1 U	1 U
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1 5	1 U	1 U	1 U	1 U
1,1,2-Trichloroethane	79-00-5 1	1 U	1 U	1 U	1 U
1,1-Dichloroethane	75-34-3 5	1 U	1 U	1 U	1 U
1,1-Dichloroethene	75-35-4 5	1 U	1 U	1 U	1 U
1,2,3-Trichlorobenzene	87-61-6 5	1 U	1 U	1 U	1 U
1,2,4-Trichlorobenzene	120-82-1 10	1 U	1 U	1 U	1 U
1,2-Dibromo-3-Chloropropane	96-12-8 0.04	***1*** U	***1*** U	***1*** U	***1*** U
1,2-Dibromoethane (Ethylene Dibromide)	106-93-4 0.0006	***1*** U	***1*** U	***1*** U	***1*** U
1,2-Dichlorobenzene	95-50-1 3	1 U	1 U	1 U	1 U
1,2-Dichloroethane	107-06-2 0.6	***1*** U	***1*** U	***1*** U	***1*** U
1,2-Dichloropropane	78-87-5 1	1 U	1 U	1 U	1 U
1,3-Dichlorobenzene	541-73-1 3	1 U	1 U	1 U	1 U
1,4-Dichlorobenzene	106-46-7 3	1 U	1 U	1 U	1 U
2-Hexanone	591-78-6 50	5 U	5 U	5 U	5 U
Acetone	67-64-1 50	7.8	8.1	8.4	**55**
Benzene	71-43-2 1	1 U	1 U	1 U	**9**
Bromochloromethane	74-97-5 5	NR	NR	NR	NR
Bromodichloromethane	75-27-4 50	1 U	1 U	1 U	1 U
Bromoform	75-25-2 50	1 U	1 U	1 U	1 U
Bromomethane	74-83-9 5	1 UT	1 UT	1 U	1 U
Carbon Disulfide	75-15-0 60	1 U	1 U	1.7	1 U
Carbon Tetrachloride	56-23-5 5	1 U	1 U	1 U	1 U
Chlorobenzene	108-90-7 5	1 U	1 U	1 U	1 U
Chloroethane	75-00-3 5	1 UT	1 UT	1 U	1 U
Chloroform	67-66-3 7	1 U	1 U	1 U	1 U
Chloromethane	74-87-3 5	1 U	1 U	1 U	1 U
Cis-1,2-Dichloroethylene	156-59-2 5	1 U	1 U	1 U	1 U
Cis-1,3-Dichloropropene	10061-01-5 5	1 U	1 U	1 U	1 U
Cyclohexane	110-82-7 NS	1 U	1 U	1 U	1 U
Dibromochloromethane	124-48-1 50	1 U	1 U	1 U	1 U
Dichlorodifluoromethane	75-71-8 5	1 U	1 U	1 U	1 U
Ethylbenzene	100-41-4 5	1 U	1 U	1 U	1.9
Isopropylbenzene (Cumene)	98-82-8 5	1 U	1 U	1 U	1 U
m,p-Xylene	179601-23-1 NS	NR	NR	NR	NR
Methyl Acetate	79-20-9 NS	5 U	5 U	5 U	7.8
Methyl Ethyl Ketone (2-Butanone)	78-93-3 50	2.5 J	5 U	2.2 J	14
Methyl Isobutyl Ketone (4-Methyl-2-Pentanone)	108-10-1 NS	5 U	5 U	5 U	5 U
Methylcyclohexane	108-87-2 NS	1 U	1 U	1 U	1 U

Target Compound or TIC/Method/Analyte	CAS	GWQS	Sample Name: MW-CPC-37-GW-216 Lab ID: 460-162629-2 Sample Date/Time: 8/15/2018 Sample Depth (ft. bgs): 216 Result/Qual	Sample Name: MW-CPC-37-GW-236 Lab ID: 460-162629-3 Sample Date/Time: 8/15/2018 Sample Depth (ft. bgs): 236 Result/Qual	Sample Name: MW-CPC-37-GW-256 Lab ID: 460-162726-1 Sample Date/Time: 8/15/2018 Sample Depth (ft. bgs): 256 Result/Qual	Sample Name: MW-CPC-37-GW-302 Lab ID: 460-162726-2 Sample Date/Time: 8/16/2018 Sample Depth (ft. bgs): 302 Result/Qual
Methylene Chloride	75-09-2	5	1 U	1 U	1 U	1 U
O-Xylene (1,2-Dimethylbenzene)	95-47-6	5	NR	NR	NR	NR
Styrene	100-42-5	5	1 U	1 U	1 U	1 U
Tert-Butyl Alcohol	75-65-0	NS	10 U	10 U	10 U	10
Tert-Butyl Methyl Ether	1634-04-4	10	1 U	1 U	1 U	1 U
Tetrachloroethylene (PCE)	127-18-4	5	1 U	1 U	1 U	1 U
Toluene	108-88-3	5	1 U	1 U	1 U	**11**
Trans-1,2-Dichloroethene	156-60-5	5	1 U	1 U	1 U	1 U
Trans-1,3-Dichloropropene	10061-02-6	5	1 U	1 U	1 U	1 U
Trichloroethylene (TCE)	79-01-6	5	1 U	1 U	1 U	1 U
Trichlorofluoromethane	75-69-4	5	1 U	1 U	1 U	1 U
Vinyl Chloride	75-01-4	2	1 U	1 U	1 U	1 U
Xylenes, Total	1330-20-7	5	2 U	2 U	2 U	**9.4**
SW8270DSIM/SW8260C						
1,4-Dioxane	123-91-1	1	NR	NR	NR	NR
TIC						
SW8260C						
1,3,5-Trimethylbenzene (Mesitylene)	108-67-8	5	NR	NR	NR	NR
1-Butene	106-98-9	NS	NR	NR	NR	11 JN
1-Ethylidene- Indene	2471-83-2	NS	NR	NR	NR	NR
1-Hexene	592-41-6	NS	NR	NR	NR	NR
1-Nonanal	124-19-6	NS	NR	NR	NR	NR
1-Pentene	109-67-1	NS	NR	NR	NR	NR
1-Propanethiol	107-03-9	NS	NR	NR	NR	NR
2,3-Dimethylthiophene	632-16-6	NS	NR	NR	NR	NR
2-Ethylhexyl Aldehyde	123-05-7	NS	NR	NR	NR	NR
2-Ethylthiophene	872-55-9	NS	NR	NR	NR	NR
2-Heptanone	110-43-0	NS	NR	NR	NR	NR
2-Methyl Butane	78-78-4	NS	NR	NR	NR	NR
2-Methyl-1-Butene	563-46-2	NS	NR	NR	NR	NR
2-Methyl-1-Pentene	763-29-1	NS	NR	NR	NR	NR
2-Methylnaphthalene	91-57-6	NS	NR	NR	NR	NR
2-Methylthiophene	554-14-3	NS	NR	NR	NR	NR
2-Octanone	111-13-7	NS	NR	NR	NR	NR
3-Methylthiophene	616-44-4	NS	NR	NR	NR	NR
Acetaldehyde	75-07-0	NS	NR	NR	NR	NR
Acrolein	107-02-8	5	NR	NR	NR	NR
Cis-2-Pentene	627-20-3	NS	NR	NR	NR	NR
Cyclohexene	110-83-8	NS	NR	NR	NR	NR
Ethanethiol	75-08-1	NS	NR	NR	NR	NR
Ethylcyclopropane	1191-96-4	NS	NR	NR	NR	NR
Heptanal	111-71-7	NS	NR	NR	NR	NR

Target Compound or TIC/Method/Analyte	CAS	GWQS	Sample Name:	MW-CPC-37-GW-216	MW-CPC-37-GW-236	MW-CPC-37-GW-256	MW-CPC-37-GW-302
			Lab ID:	460-162629-2	460-162629-3	460-162726-1	460-162726-2
			Sample Date/Time:	8/15/2018	8/15/2018	8/15/2018	8/16/2018
			Sample Depth (ft. bgs):	216	236	256	302
				Result/Qual	Result/Qual	Result/Qual	Result/Qual
Hexanal	66-25-1	NS		NR	NR	NR	NR
Isobutylene	115-11-7	NS		NR	NR	NR	NR
Methanethiol	74-93-1	NS		NR	NR	9.7 JN	NR
Methyl Disulfide	624-92-0	NS		NR	NR	NR	NR
Methyl N-Propyl Ketone	107-87-9	NS		NR	NR	NR	NR
Methyl Sulfide	75-18-3	NS		NR	NR	NR	NR
Octanal	124-13-0	NS		NR	NR	NR	NR
Pentanal (Valeraldehyde)	110-62-3	NS		NR	NR	NR	NR
Propylene	115-07-1	NS		NR	NR	NR	21 JN
Thiophene	110-02-1	NS		NR	NR	NR	NR
Unknown Alkane 1	UNKALKANE1	NS		NR	NR	NR	NR
Unknown Volatile Organic With 1st Highest Conc.	UNKVOA1	NS		NR	NR	6.4 J	NR
Unknown Volatile Organic With 2nd Highest Conc.	UNKVOA2	NS		NR	NR	NR	NR
Unknown Volatile Organic With 3rd Highest Conc.	UNKVOA3	NS		NR	NR	NR	NR
Unknown Volatile Organic With 4th Highest Conc.	UNKVOA4	NS		NR	NR	NR	NR
Unknown Volatile Organic With 5th Highest Conc.	UNKVOA5	NS		NR	NR	NR	NR
Unknown With 1st Highest Conc.	UNKNOWN1	NS		NR	NR	NR	NR
Total TICs				0	0	16.1 J	32 J

Footnotes:
GWQS and Results Units: µg/l (micrograms per liter)
Bold, highlighted result - exceeds standard
Bold, italicized result - non-detect but reporting limit exceeds standard
"Standards" - 6 NYCRR Part 703 Surface Water and Groundwater
Quality Standards (GWQS) and Guidance Values; and TOGs 1.1.1 Ambient
Water Quality Standards and Guidance Values, June 1998
1,4-Dioxane were compared to suggested NYS Drinking Water Quality Council MCL 1 ppb
NS - no standard or criterion. B - analyte in lab blank
U - analyzed for but not detected
J - estimated concentration. N - presumptive evidence of a compound
T - result is a tentatively identified compound (TIC) and an estimated value
NR - result analysis not reported or performed by laboratory
Sample Name end letters : D - dup; B - blank; P - Pace;
MS - matrix spike; MSD - matrix spike duplicate

Target Compound or TIC/Method/Analyte	CAS	GWQS	Sample Name: MW-CPC-37-GW-316 Lab ID: 460-162726-3 Sample Date/Time: 8/16/2018 Sample Depth (ft. bgs): 316 Result/Qual	Sample Name: MW-CPC-37-GW-336 Lab ID: 460-162726-4 Sample Date/Time: 8/16/2018 Sample Depth (ft. bgs): 336 Result/Qual	Sample Name: MW-CPC-37-GW-356 Lab ID: 460-162828-1 Sample Date/Time: 8/17/2018 Sample Depth (ft. bgs): 356 Result/Qual	Sample Name: MW-CPC-37-GW-376 Lab ID: 460-162828-2 Sample Date/Time: 8/17/2018 Sample Depth (ft. bgs): 376 Result/Qual
Target						
SW8260C						
1,1,1-Trichloroethane	71-55-6	5	1 U	1 U	1 U	1 U
1,1,2,2-Tetrachloroethane	79-34-5	5	1 U	1 U	1 U	1 U
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	5	1 U	1 U	1 U	1 U
1,1,2-Trichloroethane	79-00-5	1	1 U	1 U	1 U	1 U
1,1-Dichloroethane	75-34-3	5	1 U	1 U	1 U	1 U
1,1-Dichloroethene	75-35-4	5	1 U	1 U	1 U	1 U
1,2,3-Trichlorobenzene	87-61-6	5	1 U	1 U	1 U	1 U
1,2,4-Trichlorobenzene	120-82-1	10	1 U	1 U	1 U	1 U
1,2-Dibromo-3-Chloropropane	96-12-8	0.04	***1*** U	***1*** U	***1*** U	***1*** U
1,2-Dibromoethane (Ethylene Dibromide)	106-93-4	0.0006	***1*** U	***1*** U	***1*** U	***1*** U
1,2-Dichlorobenzene	95-50-1	3	1 U	1 U	1 U	1 U
1,2-Dichloroethane	107-06-2	0.6	***1*** U	***1*** U	***1*** U	***1*** U
1,2-Dichloropropane	78-87-5	1	1 U	1 U	1 U	1 U
1,3-Dichlorobenzene	541-73-1	3	1 U	1 U	1 U	1 U
1,4-Dichlorobenzene	106-46-7	3	1 U	1 U	1 U	1 U
2-Hexanone	591-78-6	50	5 U	6.2	5 U	5 U
Acetone	67-64-1	50	**110**	**960**	**54**	**54**
Benzene	71-43-2	1	**110**	**210**	**27**	**2.8**
Bromochloromethane	74-97-5	5	NR	NR	NR	NR
Bromodichloromethane	75-27-4	50	1 U	1 U	1 U	1 U
Bromoform	75-25-2	50	1 U	1 U	1 U	1 U
Bromomethane	74-83-9	5	1 U	1 U	1 U	1 U
Carbon Disulfide	75-15-0	60	1 U	1 U	0.51 J	0.31 J
Carbon Tetrachloride	56-23-5	5	1 U	1 U	1 U	1 U
Chlorobenzene	108-90-7	5	1 U	1 U	1 U	1 U
Chloroethane	75-00-3	5	1 U	1 U	1 U	1 U
Chloroform	67-66-3	7	1 U	1 U	1 U	1 U
Chloromethane	74-87-3	5	1 U	**44**	1 U	1 U
Cis-1,2-Dichloroethylene	156-59-2	5	1 U	1 U	1 U	1 U
Cis-1,3-Dichloropropene	10061-01-5	5	1 U	1 U	1 U	1 U
Cyclohexane	110-82-7	NS	1 U	1 U	1 U	1 U
Dibromochloromethane	124-48-1	50	1 U	1 U	1 U	1 U
Dichlorodifluoromethane	75-71-8	5	1 U	1 U	1 U	1 U
Ethylbenzene	100-41-4	5	2.1	**9.1**	0.95 J	1 U
Isopropylbenzene (Cumene)	98-82-8	5	1 U	0.57 J	1 U	1 U
m,p-Xylene	179601-23-1	NS	NR	NR	NR	NR
Methyl Acetate	79-20-9	NS	0.82 J	19	5 U	5 U
Methyl Ethyl Ketone (2-Butanone)	78-93-3	50	27	**230**	13	16
Methyl Isobutyl Ketone (4-Methyl-2-Pentanone)	108-10-1	NS	5 U	3 J	5 U	5 U
Methylcyclohexane	108-87-2	NS	1 U	1 U	1 U	1 U

Target Compound or TIC/Method/Analyte	CAS	GWQS	Sample Name: MW-CPC-37-GW-316 Lab ID: 460-162726-3 Sample Date/Time: 8/16/2018 Sample Depth (ft. bgs): 316 Result/Qual	Sample Name: MW-CPC-37-GW-336 Lab ID: 460-162726-4 Sample Date/Time: 8/16/2018 Sample Depth (ft. bgs): 336 Result/Qual	Sample Name: MW-CPC-37-GW-356 Lab ID: 460-162828-1 Sample Date/Time: 8/17/2018 Sample Depth (ft. bgs): 356 Result/Qual	Sample Name: MW-CPC-37-GW-376 Lab ID: 460-162828-2 Sample Date/Time: 8/17/2018 Sample Depth (ft. bgs): 376 Result/Qual
Methylene Chloride	75-09-2	5	1 U	1 U	1 U	1 U
O-Xylene (1,2-Dimethylbenzene)	95-47-6	5	NR	NR	NR	NR
Styrene	100-42-5	5	1 U	1 U	1 U	1 U
Tert-Butyl Alcohol	75-65-0	NS	10 U	15	10 U	10 U
Tert-Butyl Methyl Ether	1634-04-4	10	1 U	1 U	1 U	1 U
Tetrachloroethylene (PCE)	127-18-4	5	1 U	1 U	1 U	1 U
Toluene	108-88-3	5	**23**	**110**	**13**	1.9
Trans-1,2-Dichloroethene	156-60-5	5	1 U	1 U	1 U	1 U
Trans-1,3-Dichloropropene	10061-02-6	5	1 U	1 U	1 U	1 U
Trichloroethylene (TCE)	79-01-6	5	1 U	1 U	1 U	1 U
Trichlorofluoromethane	75-69-4	5	1 U	1 U	1 U	1 U
Vinyl Chloride	75-01-4	2	1 U	1 U	1 U	1 U
Xylenes, Total	1330-20-7	5	**11**	**45**	3.6	1.1 J
SW8270DSIM/SW8260C						
1,4-Dioxane	123-91-1	1	NR	NR	***50*** U	***50*** U
TIC						
SW8260C						
1,3,5-Trimethylbenzene (Mesitylene)	108-67-8	5	NR	NR	NR	NR
1-Butene	106-98-9	NS	NR	NR	NR	NR
1-Ethylidene- Indene	2471-83-2	NS	NR	NR	NR	NR
1-Hexene	592-41-6	NS	NR	NR	NR	NR
1-Nonanal	124-19-6	NS	NR	NR	NR	NR
1-Pentene	109-67-1	NS	NR	NR	NR	NR
1-Propanethiol	107-03-9	NS	NR	15 JN	NR	6.9 JN
2,3-Dimethylthiophene	632-16-6	NS	NR	NR	NR	NR
2-Ethylhexyl Aldehyde	123-05-7	NS	NR	NR	NR	NR
2-Ethylthiophene	872-55-9	NS	NR	NR	NR	NR
2-Heptanone	110-43-0	NS	NR	NR	NR	NR
2-Methyl Butane	78-78-4	NS	NR	NR	NR	NR
2-Methyl-1-Butene	563-46-2	NS	NR	NR	NR	NR
2-Methyl-1-Pentene	763-29-1	NS	NR	NR	NR	NR
2-Methylnaphthalene	91-57-6	NS	NR	NR	NR	NR
2-Methylthiophene	554-14-3	NS	NR	12 JN	NR	NR
2-Octanone	111-13-7	NS	NR	NR	NR	NR
3-Methylthiophene	616-44-4	NS	NR	21 JN	NR	NR
Acetaldehyde	75-07-0	NS	NR	NR	NR	NR
Acrolein	107-02-8	5	NR	NR	NR	NR
Cis-2-Pentene	627-20-3	NS	NR	NR	NR	NR
Cyclohexene	110-83-8	NS	NR	NR	NR	NR
Ethanethiol	75-08-1	NS	NR	30 JN	NR	13 JN
Ethylcyclopropane	1191-96-4	NS	NR	NR	NR	NR
Heptanal	111-71-7	NS	NR	NR	NR	NR

Sample Name:	MW-CPC-37-GW-316	MW-CPC-37-GW-336	MW-CPC-37-GW-356	MW-CPC-37-GW-376
Lab ID:	460-162726-3	460-162726-4	460-162828-1	460-162828-2
Sample Date/Time:	8/16/2018	8/16/2018	8/17/2018	8/17/2018
Sample Depth (ft. bgs):	316	336	356	376
Target Compound or TIC/Method/Analyte	Result/Qual	Result/Qual	Result/Qual	Result/Qual
CAS				
GWQS				
Hexanal 66-25-1 NS	NR	NR	NR	NR
Isobutylene 115-11-7 NS	NR	NR	NR	NR
Methanethiol 74-93-1 NS	NR	81 JN	NR	22 JN
Methyl Disulfide 624-92-0 NS	NR	NR	NR	NR
Methyl N-Propyl Ketone 107-87-9 NS	NR	NR	NR	NR
Methyl Sulfide 75-18-3 NS	NR	94 JN	NR	NR
Octanal 124-13-0 NS	NR	NR	NR	NR
Pentanal (Valeraldehyde) 110-62-3 NS	NR	NR	NR	NR
Propylene 115-07-1 NS	NR	47 JN	NR	NR
Thiophene 110-02-1 NS	5 JN	26 JN	NR	NR
Unknown Alkane 1 UNKALKANE1 NS	NR	NR	NR	NR
Unknown Volatile Organic With 1st Highest Conc. UNKVOA1 NS	6 J	NR	9.1 J	27 J
Unknown Volatile Organic With 2nd Highest Conc. UNKVOA2 NS	NR	NR	NR	NR
Unknown Volatile Organic With 3rd Highest Conc. UNKVOA3 NS	NR	NR	NR	NR
Unknown Volatile Organic With 4th Highest Conc. UNKVOA4 NS	NR	NR	NR	NR
Unknown Volatile Organic With 5th Highest Conc. UNKVOA5 NS	NR	NR	NR	NR
Unknown With 1st Highest Conc. UNKNOWN1 NS	NR	NR	NR	NR
Total TICs	11 J	326 J	9.1 J	68.9 J

Footnotes:
GWQS and Results Units: µg/l (micrograms per liter)
Bold, highlighted result - exceeds standard
Bold, italicized result - non-detect but reporting limit exceeds standard
"Standards" - 6 NYCRR Part 703 Surface Water and Groundwater
Quality Standards (GWQS) and Guidance Values; and TOGs 1.1.1 Ambient
Water Quality Standards and Guidance Values, June 1998
1,4-Dioxane were compared to suggested NYS Drinking Water Quality Council MCL 1 ppb
NS - no standard or criterion. B - analyte in lab blank
U - analyzed for but not detected
J - estimated concentration. N - presumptive evidence of a compound
T - result is a tentatively identified compound (TIC) and an estimated value
NR - result analysis not reported or performed by laboratory
Sample Name end letters : D - dup; B - blank; P - Pace;
MS - matrix spike; MSD - matrix spike duplicate

	Sample Name:	MW-CPC-37-GW-396	MW-CPC-37-GW-416	MW-CPC-37-R1-GW-445	MW-CPC-37-R1-GW-445-D
	Lab ID:	460-162910-1	460-162910-2	460-166807-3	460-166807-1
	Sample Date/Time:	8/20/2018	8/20/2018	10/11/2018	10/11/2018
	Sample Depth (ft. bgs):	396	416	445	445
Target Compound or TIC/Method/Analyte	**CAS** **GWQS**	Result/Qual	Result/Qual	Result/Qual	Result/Qual
Target					
SW8260C					
1,1,1-Trichloroethane	71-55-6 5	1 U	1 U	1 U	1 U
1,1,2,2-Tetrachloroethane	79-34-5 5	1 U	1 U	1 U	1 U
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1 5	1 U	1 U	1 U	1 U
1,1,2-Trichloroethane	79-00-5 1	1 U	1 U	1 U	1 U
1,1-Dichloroethane	75-34-3 5	1 U	1 U	1.4	1.6
1,1-Dichloroethene	75-35-4 5	1 U	1 U	1 U	1 U
1,2,3-Trichlorobenzene	87-61-6 5	1 U	1 U	1 U	1 U
1,2,4-Trichlorobenzene	120-82-1 10	1 U	1 U	1 U	1 U
1,2-Dibromo-3-Chloropropane	96-12-8 0.04	***1*** U	***1*** U	***1*** U	***1*** U
1,2-Dibromoethane (Ethylene Dibromide)	106-93-4 0.0006	***1*** U	***1*** U	***1*** U	***1*** U
1,2-Dichlorobenzene	95-50-1 3	1 U	1 U	1 U	1 U
1,2-Dichloroethane	107-06-2 0.6	***1*** U	***1*** U	***1*** U	***1*** U
1,2-Dichloropropane	78-87-5 1	1 U	1 U	1 U	1 U
1,3-Dichlorobenzene	541-73-1 3	1 U	1 U	1 U	1 U
1,4-Dichlorobenzene	106-46-7 3	1 U	1 U	1 U	1 U
2-Hexanone	591-78-6 50	5 U	5 U	5 U	5 U
Acetone	67-64-1 50	**93**	14	5 U	5 U
Benzene	71-43-2 1	**11**	1 U	1 U	1 U
Bromochloromethane	74-97-5 5	NR	NR	NR	NR
Bromodichloromethane	75-27-4 50	1 U	1 U	1 U	1 U
Bromoform	75-25-2 50	1 U	1 U	1 U	1 U
Bromomethane	74-83-9 5	1 U	1 U	1 U	1 U
Carbon Disulfide	75-15-0 60	1 U	1 U	1 U	1 U
Carbon Tetrachloride	56-23-5 5	1 U	1 U	1 U	1 U
Chlorobenzene	108-90-7 5	1 U	1 U	1 U	1 U
Chloroethane	75-00-3 5	1 U	1 U	1 U	1 U
Chloroform	67-66-3 7	1 U	0.95 J	1 U	1 U
Chloromethane	74-87-3 5	1 U	1 U	1 U	1 U
Cis-1,2-Dichloroethylene	156-59-2 5	1 U	1 U	4	4
Cis-1,3-Dichloropropene	10061-01-5 5	1 U	1 U	1 U	1 U
Cyclohexane	110-82-7 NS	1 U	1 U	1 U	1 U
Dibromochloromethane	124-48-1 50	1 U	1 U	1 U	1 U
Dichlorodifluoromethane	75-71-8 5	1 U	1 U	1 U	1 U
Ethylbenzene	100-41-4 5	0.78 J	1 U	1 U	1 U
Isopropylbenzene (Cumene)	98-82-8 5	1 U	1 U	1 U	1 U
m,p-Xylene	179601-23-1 NS	NR	NR	NR	NR
Methyl Acetate	79-20-9 NS	5 U	5 U	5 U	5 U
Methyl Ethyl Ketone (2-Butanone)	78-93-3 50	17	5 U	5 U	5 U
Methyl Isobutyl Ketone (4-Methyl-2-Pentanone)	108-10-1 NS	5 U	5 U	5 U	5 U
Methylcyclohexane	108-87-2 NS	1 U	1 U	1 U	1 U

	Sample Name:	MW-CPC-37-GW-396	MW-CPC-37-GW-416	MW-CPC-37-R1-GW-445	MW-CPC-37-R1-GW-445-D
	Lab ID:	460-162910-1	460-162910-2	460-166807-3	460-166807-1
	Sample Date/Time:	8/20/2018	8/20/2018	10/11/2018	10/11/2018
	Sample Depth (ft. bgs):	396	416	445	445
Target Compound or TIC/Method/Analyte	**CAS** **GWQS**	Result/Qual	Result/Qual	Result/Qual	Result/Qual
Methylene Chloride	75-09-2 5	1 U	1 U	1 U	1 U
O-Xylene (1,2-Dimethylbenzene)	95-47-6 5	NR	NR	NR	NR
Styrene	100-42-5 5	1 U	1 U	1 U	1 U
Tert-Butyl Alcohol	75-65-0 NS	10 U	10 U	10 U	10 U
Tert-Butyl Methyl Ether	1634-04-4 10	1 U	1 U	1 U	1 U
Tetrachloroethylene (PCE)	127-18-4 5	1 U	1 U	1 U	1 U
Toluene	108-88-3 5	**6.7**	0.43 J	1 U	1 U
Trans-1,2-Dichloroethene	156-60-5 5	1 U	1 U	1 U	1 U
Trans-1,3-Dichloropropene	10061-02-6 5	1 U	1 U	1 U	1 U
Trichloroethylene (TCE)	79-01-6 5	1 U	1 U	1 U	1 U
Trichlorofluoromethane	75-69-4 5	1 U	1 U	1 U	1 U
Vinyl Chloride	75-01-4 2	1 U	1 U	0.51 J	0.64 J
Xylenes, Total	1330-20-7 5	3.9	2 U	2 U	2 U
SW8270DSIM/SW8260C					
1,4-Dioxane	123-91-1 1	***50*** U	***50*** U	**7.4**	**7.8**
TIC					
SW8260C					
1,3,5-Trimethylbenzene (Mesitylene)	108-67-8 5	NR	NR	NR	NR
1-Butene	106-98-9 NS	NR	NR	NR	NR
1-Ethylidene- Indene	2471-83-2 NS	NR	NR	NR	NR
1-Hexene	592-41-6 NS	NR	NR	NR	NR
1-Nonanal	124-19-6 NS	NR	6.1 JN	NR	NR
1-Pentene	109-67-1 NS	NR	NR	NR	NR
1-Propanethiol	107-03-9 NS	NR	NR	NR	NR
2,3-Dimethylthiophene	632-16-6 NS	NR	NR	NR	NR
2-Ethylhexyl Aldehyde	123-05-7 NS	NR	NR	NR	NR
2-Ethylthiophene	872-55-9 NS	NR	NR	NR	NR
2-Heptanone	110-43-0 NS	NR	NR	NR	NR
2-Methyl Butane	78-78-4 NS	NR	NR	NR	NR
2-Methyl-1-Butene	563-46-2 NS	NR	NR	NR	NR
2-Methyl-1-Pentene	763-29-1 NS	NR	NR	NR	NR
2-Methylnaphthalene	91-57-6 NS	NR	6.7 JN	NR	NR
2-Methylthiophene	554-14-3 NS	NR	NR	NR	NR
2-Octanone	111-13-7 NS	NR	NR	NR	NR
3-Methylthiophene	616-44-4 NS	NR	NR	NR	NR
Acetaldehyde	75-07-0 NS	NR	NR	NR	NR
Acrolein	107-02-8 5	NR	NR	NR	NR
Cis-2-Pentene	627-20-3 NS	NR	NR	NR	NR
Cyclohexene	110-83-8 NS	NR	NR	NR	NR
Ethanethiol	75-08-1 NS	NR	NR	NR	NR
Ethylcyclopropane	1191-96-4 NS	NR	NR	NR	NR
Heptanal	111-71-7 NS	NR	NR	NR	NR

Target Compound or TIC/Method/Analyte	CAS	GWQS	Sample Name:	MW-CPC-37-GW-396	MW-CPC-37-GW-416	MW-CPC-37-R1-GW-445	MW-CPC-37-R1-GW-445-D
			Lab ID:	460-162910-1	460-162910-2	460-166807-3	460-166807-1
			Sample Date/Time:	8/20/2018	8/20/2018	10/11/2018	10/11/2018
			Sample Depth (ft. bgs):	396	416	445	445
				Result/Qual	Result/Qual	Result/Qual	Result/Qual
Hexanal	66-25-1	NS		NR	8.4 JN	NR	NR
Isobutylene	115-11-7	NS		NR	NR	NR	NR
Methanethiol	74-93-1	NS		NR	NR	NR	NR
Methyl Disulfide	624-92-0	NS		NR	NR	NR	NR
Methyl N-Propyl Ketone	107-87-9	NS		NR	NR	NR	NR
Methyl Sulfide	75-18-3	NS		NR	NR	NR	NR
Octanal	124-13-0	NS		NR	NR	NR	NR
Pentanal (Valeraldehyde)	110-62-3	NS		NR	NR	NR	NR
Propylene	115-07-1	NS		23 JN	NR	NR	8.9 JN
Thiophene	110-02-1	NS		NR	NR	NR	NR
Unknown Alkane 1	UNKALKANE1	NS		NR	NR	NR	NR
Unknown Volatile Organic With 1st Highest Conc.	UNKVOA1	NS		9.3 J	NR	9 J	5.4 J
Unknown Volatile Organic With 2nd Highest Conc.	UNKVOA2	NS		NR	NR	5.3 J	NR
Unknown Volatile Organic With 3rd Highest Conc.	UNKVOA3	NS		NR	NR	NR	NR
Unknown Volatile Organic With 4th Highest Conc.	UNKVOA4	NS		NR	NR	NR	NR
Unknown Volatile Organic With 5th Highest Conc.	UNKVOA5	NS		NR	NR	NR	NR
Unknown With 1st Highest Conc.	UNKNOWN1	NS		NR	NR	NR	NR
Total TICs				32.3 J	21.2 J	14.3 J	14.3 J

Footnotes:
GWQS and Results Units: µg/l (micrograms per liter)
Bold, highlighted result - exceeds standard
Bold, italicized result - non-detect but reporting limit exceeds standard
"Standards" - 6 NYCRR Part 703 Surface Water and Groundwater
Quality Standards (GWQS) and Guidance Values; and TOGs 1.1.1 Ambient
Water Quality Standards and Guidance Values, June 1998
1,4-Dioxane were compared to suggested NYS Drinking Water Quality Council MCL 1 ppb
NS - no standard or criterion. B - analyte in lab blank
U - analyzed for but not detected
J - estimated concentration. N - presumptive evidence of a compound
T - result is a tentatively identified compound (TIC) and an estimated value
NR - result analysis not reported or performed by laboratory
Sample Name end letters : D - dup; B - blank; P - Pace;
MS - matrix spike; MSD - matrix spike duplicate

Target Compound or TIC/Method/Analyte	CAS	GWQS	Sample Name:	MW-CPC-37-R1-GW-445-B	MW-CPC-37-GW-456	MW-CPC-38-GW-176	MW-CPC-38-GW-196
			Lab ID:	460-166807-2	460-162987-1	460-163494-1	460-163603-1
			Sample Date/Time:	10/11/2018	8/21/2018	8/29/2018	8/29/2018
			Sample Depth (ft. bgs):	-NA-	456	176	196
				Result/Qual	Result/Qual	Result/Qual	Result/Qual
Target							
SW8260C							
1,1,1-Trichloroethane	71-55-6	5		1 U	1 U	1 U	1 U
1,1,2,2-Tetrachloroethane	79-34-5	5		1 U	1 U	1 U	1 U
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	5		1 U	1 U	1 U	1 U
1,1,2-Trichloroethane	79-00-5	1		1 U	1 U	1 U	1 U
1,1-Dichloroethane	75-34-3	5		1 U	0.34 J	1 U	1 U
1,1-Dichloroethene	75-35-4	5		1 U	1 U	1 U	1 U
1,2,3-Trichlorobenzene	87-61-6	5		1 U	1 U	1 U	1 U
1,2,4-Trichlorobenzene	120-82-1	10		1 U	1 U	1 U	1 U
1,2-Dibromo-3-Chloropropane	96-12-8	0.04		***1*** U	***1*** U	***1*** U	***1*** U
1,2-Dibromoethane (Ethylene Dibromide)	106-93-4	0.0006		***1*** U	***1*** U	***1*** U	***1*** U
1,2-Dichlorobenzene	95-50-1	3		1 U	1 U	1 U	1 U
1,2-Dichloroethane	107-06-2	0.6		***1*** U	***1*** U	***1*** U	***1*** U
1,2-Dichloropropane	78-87-5	1		1 U	1 U	1 U	1 U
1,3-Dichlorobenzene	541-73-1	3		1 U	1 U	1 U	1 U
1,4-Dichlorobenzene	106-46-7	3		1 U	1 U	1 U	1 U
2-Hexanone	591-78-6	50		5 U	5 U	5 U	5 U
Acetone	67-64-1	50		5 U	**270**	19	8.5
Benzene	71-43-2	1		1 U	**29**	**18**	1 U
Bromochloromethane	74-97-5	5		NR	NR	NR	NR
Bromodichloromethane	75-27-4	50		1 U	1 U	1 U	1 U
Bromoform	75-25-2	50		1 U	1 UT	1 U	1 U
Bromomethane	74-83-9	5		1 U	1 U	1 U	1 U
Carbon Disulfide	75-15-0	60		1 U	1.4 B	1.5	1 U
Carbon Tetrachloride	56-23-5	5		1 U	1 U	1 U	1 U
Chlorobenzene	108-90-7	5		1 U	1 U	1 U	1 U
Chloroethane	75-00-3	5		1 U	1 U	1 U	1 U
Chloroform	67-66-3	7		1 U	1 U	1 U	1 U
Chloromethane	74-87-3	5		1 U	1 U	1 U	3.8
Cis-1,2-Dichloroethylene	156-59-2	5		1 U	0.27 J	1.4	1 U
Cis-1,3-Dichloropropene	10061-01-5	5		1 U	1 U	1 U	1 U
Cyclohexane	110-82-7	NS		1 U	1 U	1 U	1 U
Dibromochloromethane	124-48-1	50		1 U	1 U	1 U	0.42 J
Dichlorodifluoromethane	75-71-8	5		1 U	1 U	1 U	1 U
Ethylbenzene	100-41-4	5		1 U	1 U	0.59 J	1 U
Isopropylbenzene (Cumene)	98-82-8	5		1 U	1 U	1 U	1 U
m,p-Xylene	179601-23-1	NS		NR	NR	NR	NR
Methyl Acetate	79-20-9	NS		5 U	4.7 J	5 U	5 U
Methyl Ethyl Ketone (2-Butanone)	78-93-3	50		5 U	24	8.7	5 U
Methyl Isobutyl Ketone (4-Methyl-2-Pentanone)	108-10-1	NS		5 U	5 U	5 U	5 U
Methylcyclohexane	108-87-2	NS		1 U	1 UT	1 U	1 U

Target Compound or TIC/Method/Analyte	CAS	GWQS	Sample Name: MW-CPC-37-R1-GW-445-B Lab ID: 460-166807-2 Sample Date/Time: 10/11/2018 Sample Depth (ft. bgs): -NA-	MW-CPC-37-GW-456 460-162987-1 8/21/2018 456	MW-CPC-38-GW-176 460-163494-1 8/29/2018 176	MW-CPC-38-GW-196 460-163603-1 8/29/2018 196
			Result/Qual	Result/Qual	Result/Qual	Result/Qual
Methylene Chloride	75-09-2	5	1 U	1 U	1 U	1 U
O-Xylene (1,2-Dimethylbenzene)	95-47-6	5	NR	NR	NR	NR
Styrene	100-42-5	5	1 U	1 U	1 U	1 U
Tert-Butyl Alcohol	75-65-0	NS	10 U	10 U	12	10 U
Tert-Butyl Methyl Ether	1634-04-4	10	1 U	1 U	1 U	1 U
Tetrachloroethylene (PCE)	127-18-4	5	1 U	1 U	1.8	1 U
Toluene	108-88-3	5	1 U	2.1	3.8	1 U
Trans-1,2-Dichloroethene	156-60-5	5	1 U	1 U	1 U	1 U
Trans-1,3-Dichloropropene	10061-02-6	5	1 U	1 U	1 U	1 U
Trichloroethylene (TCE)	79-01-6	5	1 U	1 U	1 U	1 U
Trichlorofluoromethane	75-69-4	5	1 U	1 U	1 U	1 U
Vinyl Chloride	75-01-4	2	1 U	1 U	1 U	1 U
Xylenes, Total	1330-20-7	5	2 U	2 U	2 U	2 U
SW8270DSIM/SW8260C						
1,4-Dioxane	123-91-1	1	0.21 U	***50*** U	***50*** U	***50*** U
TIC						
SW8260C						
1,3,5-Trimethylbenzene (Mesitylene)	108-67-8	5	NR	NR	NR	NR
1-Butene	106-98-9	NS	NR	NR	NR	NR
1-Ethylidene- Indene	2471-83-2	NS	NR	NR	NR	5.5 JN
1-Hexene	592-41-6	NS	NR	NR	NR	NR
1-Nonanal	124-19-6	NS	NR	NR	15 JN	21 JN
1-Pentene	109-67-1	NS	NR	NR	NR	NR
1-Propanethiol	107-03-9	NS	NR	NR	66 JN	NR
2,3-Dimethylthiophene	632-16-6	NS	NR	NR	NR	NR
2-Ethylhexyl Aldehyde	123-05-7	NS	NR	NR	NR	8.1 JN
2-Ethylthiophene	872-55-9	NS	NR	NR	NR	NR
2-Heptanone	110-43-0	NS	NR	NR	NR	NR
2-Methyl Butane	78-78-4	NS	NR	NR	NR	NR
2-Methyl-1-Butene	563-46-2	NS	NR	NR	NR	NR
2-Methyl-1-Pentene	763-29-1	NS	NR	NR	NR	NR
2-Methylnaphthalene	91-57-6	NS	NR	NR	9.8 JN	9 JN
2-Methylthiophene	554-14-3	NS	NR	NR	NR	NR
2-Octanone	111-13-7	NS	NR	NR	NR	NR
3-Methylthiophene	616-44-4	NS	NR	NR	NR	NR
Acetaldehyde	75-07-0	NS	NR	NR	NR	NR
Acrolein	107-02-8	5	NR	**57** JN	NR	NR
Cis-2-Pentene	627-20-3	NS	NR	NR	NR	NR
Cyclohexene	110-83-8	NS	NR	NR	NR	NR
Ethanethiol	75-08-1	NS	NR	NR	75 JN	NR
Ethylcyclopropane	1191-96-4	NS	NR	NR	12 JN	NR
Heptanal	111-71-7	NS	NR	NR	NR	NR

Target Compound or TIC/Method/Analyte	CAS	GWQS	Sample Name:	MW-CPC-37-R1-GW-445-B	MW-CPC-37-GW-456	MW-CPC-38-GW-176	MW-CPC-38-GW-196
			Lab ID:	460-166807-2	460-162987-1	460-163494-1	460-163603-1
			Sample Date/Time:	10/11/2018	8/21/2018	8/29/2018	8/29/2018
			Sample Depth (ft. bgs):	-NA-	456	176	196
				Result/Qual	Result/Qual	Result/Qual	Result/Qual
Hexanal	66-25-1	NS		NR	NR	NR	12 JN
Isobutylene	115-11-7	NS		NR	NR	64 JN	NR
Methanethiol	74-93-1	NS		NR	NR	130 JN	NR
Methyl Disulfide	624-92-0	NS		NR	NR	NR	NR
Methyl N-Propyl Ketone	107-87-9	NS		NR	NR	NR	NR
Methyl Sulfide	75-18-3	NS		NR	NR	NR	NR
Octanal	124-13-0	NS		NR	NR	NR	6.8 JN
Pentanal (Valeraldehyde)	110-62-3	NS		NR	5.5 JN	NR	NR
Propylene	115-07-1	NS		NR	NR	160 JN	NR
Thiophene	110-02-1	NS		NR	NR	NR	NR
Unknown Alkane 1	UNKALKANE1	NS		NR	NR	NR	NR
Unknown Volatile Organic With 1st Highest Conc.	UNKVOA1	NS		NR	20 J	9 J	NR
Unknown Volatile Organic With 2nd Highest Conc.	UNKVOA2	NS		NR	12 J	NR	NR
Unknown Volatile Organic With 3rd Highest Conc.	UNKVOA3	NS		NR	8.3 J	NR	NR
Unknown Volatile Organic With 4th Highest Conc.	UNKVOA4	NS		NR	NR	NR	NR
Unknown Volatile Organic With 5th Highest Conc.	UNKVOA5	NS		NR	NR	NR	NR
Unknown With 1st Highest Conc.	UNKNOWN1	NS		NR	NR	15 JN	NR
Total TICs				0	102.8 J	555.8 J	62.4 J

Footnotes:
GWQS and Results Units: µg/l (micrograms per liter)
Bold, highlighted result - exceeds standard
Bold, italicized result - non-detect but reporting limit exceeds standard
"Standards" - 6 NYCRR Part 703 Surface Water and Groundwater
Quality Standards (GWQS) and Guidance Values; and TOGs 1.1.1 Ambient
Water Quality Standards and Guidance Values, June 1998
1,4-Dioxane were compared to suggested NYS Drinking Water Quality Council MCL 1 ppb
NS - no standard or criterion. B - analyte in lab blank
U - analyzed for but not detected
J - estimated concentration. N - presumptive evidence of a compound
T - result is a tentatively identified compound (TIC) and an estimated value
NR - result analysis not reported or performed by laboratory
Sample Name end letters : D - dup; B - blank; P - Pace;
MS - matrix spike; MSD - matrix spike duplicate

Target Compound or TIC/Method/Analyte	CAS	GWQS	Sample Name: MW-CPC-38-GW-216 Lab ID: 460-163603-2 Sample Date/Time: 8/29/2018 Sample Depth (ft. bgs): 216 Result/Qual	Sample Name: MW-CPC-38-GW-236 Lab ID: 460-163603-3 Sample Date/Time: 8/30/2018 Sample Depth (ft. bgs): 236 Result/Qual	Sample Name: MW-CPC-38-GW-255 Lab ID: 460-163603-4 Sample Date/Time: 8/30/2018 Sample Depth (ft. bgs): 255 Result/Qual	Sample Name: MW-CPC-38-GW-296 Lab ID: 460-163682-1 Sample Date/Time: 8/30/2018 Sample Depth (ft. bgs): 296 Result/Qual
Target						
SW8260C						
1,1,1-Trichloroethane	71-55-6	5	1 U	1 U	1 U	1 U
1,1,2,2-Tetrachloroethane	79-34-5	5	1 U	1 U	1 U	1 U
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	5	1 U	1 U	1 U	1 U
1,1,2-Trichloroethane	79-00-5	1	1 U	1 U	1 U	1 U
1,1-Dichloroethane	75-34-3	5	1 U	1 U	1 U	1 U
1,1-Dichloroethene	75-35-4	5	1 U	1 U	1 U	1 U
1,2,3-Trichlorobenzene	87-61-6	5	1 U	1 U	1 U	1 U
1,2,4-Trichlorobenzene	120-82-1	10	1 U	1 U	1 U	1 U
1,2-Dibromo-3-Chloropropane	96-12-8	0.04	***1*** U	***1*** U	***1*** U	***1*** U
1,2-Dibromoethane (Ethylene Dibromide)	106-93-4	0.0006	***1*** U	***1*** U	***1*** U	***1*** U
1,2-Dichlorobenzene	95-50-1	3	1 U	1 U	1 U	1 U
1,2-Dichloroethane	107-06-2	0.6	***1*** U	***1*** U	***1*** U	***1*** U
1,2-Dichloropropane	78-87-5	1	1 U	1 U	1 U	1 U
1,3-Dichlorobenzene	541-73-1	3	1 U	1 U	1 U	1 U
1,4-Dichlorobenzene	106-46-7	3	1 U	1 U	1 U	1 U
2-Hexanone	591-78-6	50	5 U	5 U	5 U	6.2
Acetone	67-64-1	50	5.5	5.2	5 U	**340**
Benzene	71-43-2	1	1 U	1 U	1 U	**54**
Bromochloromethane	74-97-5	5	NR	NR	NR	NR
Bromodichloromethane	75-27-4	50	1 U	1 U	0.37 J	1 U
Bromoform	75-25-2	50	1 U	1 U	1 U	1 U
Bromomethane	74-83-9	5	1 U	1 U	1 U	1 U
Carbon Disulfide	75-15-0	60	1 U	1 U	1 U	0.39 J
Carbon Tetrachloride	56-23-5	5	1 U	1 U	1 U	1 U
Chlorobenzene	108-90-7	5	1 U	1 U	1 U	1 U
Chloroethane	75-00-3	5	1 U	1 U	1 U	1 U
Chloroform	67-66-3	7	1 U	1 U	1 U	1 U
Chloromethane	74-87-3	5	3.7	1 U	1 U	**12**
Cis-1,2-Dichloroethylene	156-59-2	5	1 U	1 U	1 U	1 U
Cis-1,3-Dichloropropene	10061-01-5	5	1 U	1 U	1 U	1 U
Cyclohexane	110-82-7	NS	1 U	1 U	1 U	1 U
Dibromochloromethane	124-48-1	50	1 U	1 U	0.88 J	1 U
Dichlorodifluoromethane	75-71-8	5	1 U	1 U	1 U	1 U
Ethylbenzene	100-41-4	5	1 U	1 U	1 U	2.6
Isopropylbenzene (Cumene)	98-82-8	5	1 U	1 U	1 U	1 U
m,p-Xylene	179601-23-1	NS	NR	NR	NR	NR
Methyl Acetate	79-20-9	NS	5 U	5 U	5 U	39
Methyl Ethyl Ketone (2-Butanone)	78-93-3	50	5 U	5 U	5 U	**72**
Methyl Isobutyl Ketone (4-Methyl-2-Pentanone)	108-10-1	NS	5 U	5 U	5 U	5 U
Methylcyclohexane	108-87-2	NS	1 U	1 U	1 U	1 U

Target Compound or TIC/Method/Analyte	CAS	GWQS	Sample Name: MW-CPC-38-GW-216 Lab ID: 460-163603-2 Sample Date/Time: 8/29/2018 Sample Depth (ft. bgs): 216 Result/Qual	Sample Name: MW-CPC-38-GW-236 Lab ID: 460-163603-3 Sample Date/Time: 8/30/2018 Sample Depth (ft. bgs): 236 Result/Qual	Sample Name: MW-CPC-38-GW-255 Lab ID: 460-163603-4 Sample Date/Time: 8/30/2018 Sample Depth (ft. bgs): 255 Result/Qual	Sample Name: MW-CPC-38-GW-296 Lab ID: 460-163682-1 Sample Date/Time: 8/30/2018 Sample Depth (ft. bgs): 296 Result/Qual
Methylene Chloride	75-09-2	5	1 U	1 U	1 U	1 U
O-Xylene (1,2-Dimethylbenzene)	95-47-6	5	NR	NR	NR	NR
Styrene	100-42-5	5	1 U	1 U	1 U	0.85 J
Tert-Butyl Alcohol	75-65-0	NS	10 U	10 U	10 U	21
Tert-Butyl Methyl Ether	1634-04-4	10	1 U	1 U	1 U	1 U
Tetrachloroethylene (PCE)	127-18-4	5	1 U	1 U	1 U	1 U
Toluene	108-88-3	5	1 U	1 U	1 U	**9.9**
Trans-1,2-Dichloroethene	156-60-5	5	1 U	1 U	1 U	1 U
Trans-1,3-Dichloropropene	10061-02-6	5	1 U	1 U	1 U	1 U
Trichloroethylene (TCE)	79-01-6	5	1 U	1 U	1 U	1 U
Trichlorofluoromethane	75-69-4	5	1 U	1 U	1 U	1 U
Vinyl Chloride	75-01-4	2	1 U	1 U	1 U	1 U
Xylenes, Total	1330-20-7	5	2 U	2 U	2 U	3.4
SW8270DSIM/SW8260C						
1,4-Dioxane	123-91-1	1	***50*** U	***50*** U	***50*** U	***50*** U
TIC						
SW8260C						
1,3,5-Trimethylbenzene (Mesitylene)	108-67-8	5	NR	NR	NR	NR
1-Butene	106-98-9	NS	NR	NR	NR	NR
1-Ethylidene- Indene	2471-83-2	NS	NR	NR	NR	NR
1-Hexene	592-41-6	NS	NR	NR	NR	NR
1-Nonanal	124-19-6	NS	NR	20 JN	16 JN	NR
1-Pentene	109-67-1	NS	NR	NR	NR	NR
1-Propanethiol	107-03-9	NS	NR	NR	NR	NR
2,3-Dimethylthiophene	632-16-6	NS	NR	NR	NR	NR
2-Ethylhexyl Aldehyde	123-05-7	NS	NR	NR	NR	NR
2-Ethylthiophene	872-55-9	NS	NR	NR	NR	NR
2-Heptanone	110-43-0	NS	NR	NR	NR	8.2 JN
2-Methyl Butane	78-78-4	NS	NR	NR	NR	NR
2-Methyl-1-Butene	563-46-2	NS	NR	NR	NR	NR
2-Methyl-1-Pentene	763-29-1	NS	NR	NR	NR	NR
2-Methylnaphthalene	91-57-6	NS	NR	NR	NR	NR
2-Methylthiophene	554-14-3	NS	NR	NR	NR	NR
2-Octanone	111-13-7	NS	NR	NR	NR	35 JN
3-Methylthiophene	616-44-4	NS	NR	NR	NR	NR
Acetaldehyde	75-07-0	NS	NR	NR	NR	NR
Acrolein	107-02-8	5	NR	NR	NR	NR
Cis-2-Pentene	627-20-3	NS	NR	NR	NR	NR
Cyclohexene	110-83-8	NS	NR	NR	NR	NR
Ethanethiol	75-08-1	NS	NR	NR	NR	NR
Ethylcyclopropane	1191-96-4	NS	NR	NR	NR	NR
Heptanal	111-71-7	NS	NR	NR	NR	21 JN

Target Compound or TIC/Method/Analyte	CAS	GWQS	Sample Name: MW-CPC-38-GW-216 Lab ID: 460-163603-2 Sample Date/Time: 8/29/2018 Sample Depth (ft. bgs): 216 Result/Qual	Sample Name: MW-CPC-38-GW-236 Lab ID: 460-163603-3 Sample Date/Time: 8/30/2018 Sample Depth (ft. bgs): 236 Result/Qual	Sample Name: MW-CPC-38-GW-255 Lab ID: 460-163603-4 Sample Date/Time: 8/30/2018 Sample Depth (ft. bgs): 255 Result/Qual	Sample Name: MW-CPC-38-GW-296 Lab ID: 460-163682-1 Sample Date/Time: 8/30/2018 Sample Depth (ft. bgs): 296 Result/Qual
Hexanal	66-25-1	NS	NR	7.8 JN	NR	19 JN
Isobutylene	115-11-7	NS	NR	NR	NR	NR
Methanethiol	74-93-1	NS	NR	NR	NR	NR
Methyl Disulfide	624-92-0	NS	NR	NR	NR	NR
Methyl N-Propyl Ketone	107-87-9	NS	NR	NR	NR	NR
Methyl Sulfide	75-18-3	NS	NR	NR	NR	NR
Octanal	124-13-0	NS	NR	6.2 JN	NR	9.4 JN
Pentanal (Valeraldehyde)	110-62-3	NS	NR	NR	NR	NR
Propylene	115-07-1	NS	NR	NR	NR	NR
Thiophene	110-02-1	NS	NR	NR	NR	NR
Unknown Alkane 1	UNKALKANE1	NS	NR	NR	NR	NR
Unknown Volatile Organic With 1st Highest Conc.	UNKVOA1	NS	NR	NR	NR	44 J
Unknown Volatile Organic With 2nd Highest Conc.	UNKVOA2	NS	NR	NR	NR	40 J
Unknown Volatile Organic With 3rd Highest Conc.	UNKVOA3	NS	NR	NR	NR	33 J
Unknown Volatile Organic With 4th Highest Conc.	UNKVOA4	NS	NR	NR	NR	19 J
Unknown Volatile Organic With 5th Highest Conc.	UNKVOA5	NS	NR	NR	NR	6.7 J
Unknown With 1st Highest Conc.	UNKNOWN1	NS	NR	NR	NR	NR
Total TICs			0	34 J	16 J	235.3 J

Footnotes:
GWQS and Results Units: µg/l (micrograms per liter)
Bold, highlighted result - exceeds standard
Bold, italicized result - non-detect but reporting limit exceeds standard
"Standards" - 6 NYCRR Part 703 Surface Water and Groundwater
Quality Standards (GWQS) and Guidance Values; and TOGs 1.1.1 Ambient
Water Quality Standards and Guidance Values, June 1998
1,4-Dioxane were compared to suggested NYS Drinking Water Quality Council MCL 1 ppb
NS - no standard or criterion. B - analyte in lab blank
U - analyzed for but not detected
J - estimated concentration. N - presumptive evidence of a compound
T - result is a tentatively identified compound (TIC) and an estimated value
NR - result analysis not reported or performed by laboratory
Sample Name end letters : D - dup; B - blank; P - Pace;
MS - matrix spike; MSD - matrix spike duplicate

	Sample Name:	MW-CPC-38-GW-316	MW-CPC-38-GW-336	MW-CPC-38-GW-356	MW-CPC-38-GW-376
	Lab ID:	460-163682-2	460-163802-1	460-163878-1	460-163878-2
	Sample Date/Time:	8/31/2018	9/4/2018	9/4/2018	9/4/2018
	Sample Depth (ft. bgs):	316	336	356	376
Target Compound or TIC/Method/Analyte	**CAS** **GWQS**	Result/Qual	Result/Qual	Result/Qual	Result/Qual
Target					
SW8260C					
1,1,1-Trichloroethane	71-55-6 5	1 U	1 U	1 U	1 U
1,1,2,2-Tetrachloroethane	79-34-5 5	1 U	1 U	1 U	1 U
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1 5	1 U	1 U	1 U	1 U
1,1,2-Trichloroethane	79-00-5 1	1 U	1 U	1 U	1 U
1,1-Dichloroethane	75-34-3 5	1 U	1 U	1 U	1 U
1,1-Dichloroethene	75-35-4 5	1 U	1 U	1 U	1 U
1,2,3-Trichlorobenzene	87-61-6 5	1 U	1 U	1 U	1 U
1,2,4-Trichlorobenzene	120-82-1 10	1 U	1 U	1 U	1 U
1,2-Dibromo-3-Chloropropane	96-12-8 0.04	***1*** U	***1*** U	***1*** U	***1*** U
1,2-Dibromoethane (Ethylene Dibromide)	106-93-4 0.0006	***1*** U	***1*** U	***1*** U	***1*** U
1,2-Dichlorobenzene	95-50-1 3	1 U	1 U	1 U	1 U
1,2-Dichloroethane	107-06-2 0.6	***1*** U	***1*** U	***1*** U	***1*** U
1,2-Dichloropropane	78-87-5 1	1 U	1 U	1 U	1 U
1,3-Dichlorobenzene	541-73-1 3	1 U	1 U	1 U	1 U
1,4-Dichlorobenzene	106-46-7 3	1 U	1 U	1 U	1 U
2-Hexanone	591-78-6 50	5 U	5 U	5 U	5 U
Acetone	67-64-1 50	7.6	5 U	26	5 U
Benzene	71-43-2 1	1 U	1 U	**23**	1 U
Bromochloromethane	74-97-5 5	NR	NR	NR	NR
Bromodichloromethane	75-27-4 50	1 U	1 U	1 U	1 U
Bromoform	75-25-2 50	1 U	1 U	1 U	1 U
Bromomethane	74-83-9 5	1 U	1 U	1 U	1 U
Carbon Disulfide	75-15-0 60	0.33 J	0.62 JB	1 U	1 U
Carbon Tetrachloride	56-23-5 5	1 U	1 U	1 U	1 U
Chlorobenzene	108-90-7 5	1 U	1 U	1 U	1 U
Chloroethane	75-00-3 5	1 U	1 U	1 U	1 U
Chloroform	67-66-3 7	1 U	1 U	1 U	1 U
Chloromethane	74-87-3 5	1 U	1 U	1 U	1 U
Cis-1,2-Dichloroethylene	156-59-2 5	1 U	1 U	1 U	1 U
Cis-1,3-Dichloropropene	10061-01-5 5	1 U	1 U	1 U	1 U
Cyclohexane	110-82-7 NS	1 U	1 U	1 U	1 U
Dibromochloromethane	124-48-1 50	1 U	1 U	1 U	1 U
Dichlorodifluoromethane	75-71-8 5	1 U	1 U	1 U	1 U
Ethylbenzene	100-41-4 5	1 U	1 U	1 U	1 U
Isopropylbenzene (Cumene)	98-82-8 5	1 U	1 U	1 U	1 U
m,p-Xylene	179601-23-1 NS	NR	NR	NR	NR
Methyl Acetate	79-20-9 NS	5 U	5 U	1.7 J	5 U
Methyl Ethyl Ketone (2-Butanone)	78-93-3 50	1.9 J	5 U	5	5 U
Methyl Isobutyl Ketone (4-Methyl-2-Pentanone)	108-10-1 NS	5 U	5 U	5 U	5 U
Methylcyclohexane	108-87-2 NS	1 U	1 U	1 U	1 U

	Sample Name:	MW-CPC-38-GW-316	MW-CPC-38-GW-336	MW-CPC-38-GW-356	MW-CPC-38-GW-376
	Lab ID:	460-163682-2	460-163802-1	460-163878-1	460-163878-2
	Sample Date/Time:	8/31/2018	9/4/2018	9/4/2018	9/4/2018
	Sample Depth (ft. bgs):	316	336	356	376
Target Compound or TIC/Method/Analyte	**CAS**	**GWQS**	Result/Qual	Result/Qual	Result/Qual	Result/Qual
Methylene Chloride	75-09-2	5	1 U	1 U	1 U	1 U
O-Xylene (1,2-Dimethylbenzene)	95-47-6	5	NR	NR	NR	NR
Styrene	100-42-5	5	1 U	1 U	1 U	1 U
Tert-Butyl Alcohol	75-65-0	NS	10 U	10 U	10 U	10 U
Tert-Butyl Methyl Ether	1634-04-4	10	1 U	1 U	1 U	1 U
Tetrachloroethylene (PCE)	127-18-4	5	1 U	1 U	1 U	1 U
Toluene	108-88-3	5	1 U	1 U	4.9	1 U
Trans-1,2-Dichloroethene	156-60-5	5	1 U	1 U	1 UT	1 UT
Trans-1,3-Dichloropropene	10061-02-6	5	1 U	1 U	1 U	1 U
Trichloroethylene (TCE)	79-01-6	5	1 U	1 U	1 U	1 U
Trichlorofluoromethane	75-69-4	5	1 U	1 U	1 U	1 U
Vinyl Chloride	75-01-4	2	1 U	1 U	1 U	1 U
Xylenes, Total	1330-20-7	5	2 U	2 U	1 J	2 U
SW8270DSIM/SW8260C						
1,4-Dioxane	123-91-1	1	***50*** U	***50*** U	***50*** U	***50*** U
TIC						
SW8260C						
1,3,5-Trimethylbenzene (Mesitylene)	108-67-8	5	NR	NR	NR	NR
1-Butene	106-98-9	NS	NR	NR	NR	NR
1-Ethylidene- Indene	2471-83-2	NS	NR	NR	NR	NR
1-Hexene	592-41-6	NS	NR	NR	NR	NR
1-Nonanal	124-19-6	NS	6.5 JN	NR	6 JN	NR
1-Pentene	109-67-1	NS	NR	NR	NR	NR
1-Propanethiol	107-03-9	NS	NR	NR	NR	NR
2,3-Dimethylthiophene	632-16-6	NS	NR	NR	NR	NR
2-Ethylhexyl Aldehyde	123-05-7	NS	NR	NR	NR	NR
2-Ethylthiophene	872-55-9	NS	NR	NR	NR	NR
2-Heptanone	110-43-0	NS	NR	NR	NR	NR
2-Methyl Butane	78-78-4	NS	NR	NR	NR	NR
2-Methyl-1-Butene	563-46-2	NS	NR	NR	NR	NR
2-Methyl-1-Pentene	763-29-1	NS	NR	NR	NR	NR
2-Methylnaphthalene	91-57-6	NS	NR	NR	NR	NR
2-Methylthiophene	554-14-3	NS	NR	NR	NR	NR
2-Octanone	111-13-7	NS	NR	NR	NR	NR
3-Methylthiophene	616-44-4	NS	NR	NR	NR	NR
Acetaldehyde	75-07-0	NS	NR	NR	NR	NR
Acrolein	107-02-8	5	NR	NR	NR	NR
Cis-2-Pentene	627-20-3	NS	NR	NR	NR	NR
Cyclohexene	110-83-8	NS	NR	NR	NR	NR
Ethanethiol	75-08-1	NS	NR	NR	NR	NR
Ethylcyclopropane	1191-96-4	NS	NR	NR	NR	NR
Heptanal	111-71-7	NS	NR	NR	5.9 JN	NR

Target Compound or TIC/Method/Analyte	CAS	GWQS	Sample Name: MW-CPC-38-GW-316 Lab ID: 460-163682-2 Sample Date/Time: 8/31/2018 Sample Depth (ft. bgs): 316 Result/Qual	Sample Name: MW-CPC-38-GW-336 Lab ID: 460-163802-1 Sample Date/Time: 9/4/2018 Sample Depth (ft. bgs): 336 Result/Qual	Sample Name: MW-CPC-38-GW-356 Lab ID: 460-163878-1 Sample Date/Time: 9/4/2018 Sample Depth (ft. bgs): 356 Result/Qual	Sample Name: MW-CPC-38-GW-376 Lab ID: 460-163878-2 Sample Date/Time: 9/4/2018 Sample Depth (ft. bgs): 376 Result/Qual
Hexanal	66-25-1	NS	NR	NR	12 JN	NR
Isobutylene	115-11-7	NS	NR	NR	NR	NR
Methanethiol	74-93-1	NS	NR	NR	NR	NR
Methyl Disulfide	624-92-0	NS	NR	NR	NR	NR
Methyl N-Propyl Ketone	107-87-9	NS	NR	NR	NR	NR
Methyl Sulfide	75-18-3	NS	NR	NR	NR	NR
Octanal	124-13-0	NS	NR	NR	NR	NR
Pentanal (Valeraldehyde)	110-62-3	NS	NR	NR	NR	NR
Propylene	115-07-1	NS	NR	NR	NR	NR
Thiophene	110-02-1	NS	NR	NR	NR	NR
Unknown Alkane 1	UNKALKANE1	NS	NR	NR	NR	NR
Unknown Volatile Organic With 1st Highest Conc.	UNKVOA1	NS	NR	21 J	NR	NR
Unknown Volatile Organic With 2nd Highest Conc.	UNKVOA2	NS	NR	12 J	NR	NR
Unknown Volatile Organic With 3rd Highest Conc.	UNKVOA3	NS	NR	7.8 J	NR	NR
Unknown Volatile Organic With 4th Highest Conc.	UNKVOA4	NS	NR	5 J	NR	NR
Unknown Volatile Organic With 5th Highest Conc.	UNKVOA5	NS	NR	NR	NR	NR
Unknown With 1st Highest Conc.	UNKNOWN1	NS	NR	NR	NR	NR
Total TICs			6.5 J	45.8 J	23.9 J	0

Footnotes:
GWQS and Results Units: µg/l (micrograms per liter)
Bold, highlighted result - exceeds standard
Bold, italicized result - non-detect but reporting limit exceeds standard
"Standards" - 6 NYCRR Part 703 Surface Water and Groundwater
Quality Standards (GWQS) and Guidance Values; and TOGs 1.1.1 Ambient
Water Quality Standards and Guidance Values, June 1998
1,4-Dioxane were compared to suggested NYS Drinking Water Quality Council MCL 1 ppb
NS - no standard or criterion. B - analyte in lab blank
U - analyzed for but not detected
J - estimated concentration. N - presumptive evidence of a compound
T - result is a tentatively identified compound (TIC) and an estimated value
NR - result analysis not reported or performed by laboratory
Sample Name end letters : D - dup; B - blank; P - Pace;
MS - matrix spike; MSD - matrix spike duplicate

Target Compound or TIC/Method/Analyte	CAS	GWQS	Sample Name:	MW-CPC-38-R1-GW-391	MW-CPC-38-GW-396	MW-CPC-38-GW-406	MW-CPC-39-GW-176
			Lab ID:	460-169051-1	460-163878-3	460-163878-4	460-164455-1
			Sample Date/Time:	11/9/2018	9/5/2018	9/5/2018	9/12/2018
			Sample Depth (ft. bgs):	391	396	406	176
				Result/Qual	Result/Qual	Result/Qual	Result/Qual
Target							
SW8260C							
1,1,1-Trichloroethane	71-55-6	5		1 U	1 U	1 U	1 U
1,1,2,2-Tetrachloroethane	79-34-5	5		1 U	1 U	1 U	1 U
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	5		1 UT	1 U	1 U	1 U
1,1,2-Trichloroethane	79-00-5	1		1 U	1 U	1 U	1 U
1,1-Dichloroethane	75-34-3	5		1 U	1 U	1 U	1 U
1,1-Dichloroethene	75-35-4	5		1 U	1 U	1 U	1 U
1,2,3-Trichlorobenzene	87-61-6	5		1 U	1 U	1 U	1 U
1,2,4-Trichlorobenzene	120-82-1	10		1 U	1 U	1 U	1 U
1,2-Dibromo-3-Chloropropane	96-12-8	0.04		***1*** U	***1*** U	***1*** U	***1*** U
1,2-Dibromoethane (Ethylene Dibromide)	106-93-4	0.0006		***1*** U	***1*** U	***1*** U	***1*** U
1,2-Dichlorobenzene	95-50-1	3		1 U	1 U	1 U	1 U
1,2-Dichloroethane	107-06-2	0.6		***1*** U	***1*** U	***1*** U	***1*** U
1,2-Dichloropropane	78-87-5	1		1 U	1 U	1 U	1 U
1,3-Dichlorobenzene	541-73-1	3		1 U	1 U	1 U	1 U
1,4-Dichlorobenzene	106-46-7	3		1 U	1 U	1 U	1 U
2-Hexanone	591-78-6	50		5 U	50	5 U	5 U
Acetone	67-64-1	50		5 U	**410**	5 U	5 U
Benzene	71-43-2	1		1 U	**180**	1 U	1 U
Bromochloromethane	74-97-5	5		NR	NR	NR	NR
Bromodichloromethane	75-27-4	50		1 U	1 U	1 U	1 U
Bromoform	75-25-2	50		1 U	1 U	1 U	1 U
Bromomethane	74-83-9	5		1 U	1 U	1 U	1 U
Carbon Disulfide	75-15-0	60		1 U	0.59 J	1 U	1 U
Carbon Tetrachloride	56-23-5	5		1 U	1 U	1 U	1 U
Chlorobenzene	108-90-7	5		1 U	1 U	1 U	1 U
Chloroethane	75-00-3	5		1 U	1 U	1 U	1 U
Chloroform	67-66-3	7		1 U	1 U	1 U	1 U
Chloromethane	74-87-3	5		1 U	1 U	1 U	1 U
Cis-1,2-Dichloroethylene	156-59-2	5		1 U	1 U	1 U	0.64 J
Cis-1,3-Dichloropropene	10061-01-5	5		1 U	1 U	1 U	1 U
Cyclohexane	110-82-7	NS		1 UT	1.9	1 U	1 U
Dibromochloromethane	124-48-1	50		1 U	1 U	1 U	1 U
Dichlorodifluoromethane	75-71-8	5		1 UT	1 U	1 U	1 U
Ethylbenzene	100-41-4	5		1 U	**44**	1 U	1 U
Isopropylbenzene (Cumene)	98-82-8	5		1 U	2	1 U	1 U
m,p-Xylene	179601-23-1	NS		NR	NR	NR	NR
Methyl Acetate	79-20-9	NS		5 U	14	5 U	5 U
Methyl Ethyl Ketone (2-Butanone)	78-93-3	50		5 U	**170**	5 U	5 U
Methyl Isobutyl Ketone (4-Methyl-2-Pentanone)	108-10-1	NS		5 U	5 U	5 U	5 U
Methylcyclohexane	108-87-2	NS		1 UT	2.2	1 U	1 U

	Sample Name:		MW-CPC-38-R1-GW-391	MW-CPC-38-GW-396	MW-CPC-38-GW-406	MW-CPC-39-GW-176
	Lab ID:		460-169051-1	460-163878-3	460-163878-4	460-164455-1
	Sample Date/Time:		11/9/2018	9/5/2018	9/5/2018	9/12/2018
	Sample Depth (ft. bgs):		391	396	406	176
Target Compound or TIC/Method/Analyte	**CAS**	**GWQS**	Result/Qual	Result/Qual	Result/Qual	Result/Qual
Methylene Chloride	75-09-2	5	1 U	1 U	1 U	1 U
O-Xylene (1,2-Dimethylbenzene)	95-47-6	5	NR	NR	NR	NR
Styrene	100-42-5	5	1 U	**19**	1 U	1 U
Tert-Butyl Alcohol	75-65-0	NS	10 U	56	10 U	10 U
Tert-Butyl Methyl Ether	1634-04-4	10	1 U	1 U	1 U	1 U
Tetrachloroethylene (PCE)	127-18-4	5	1 U	1 U	1 U	**11**
Toluene	108-88-3	5	0.38 J	**170**	1 U	1 U
Trans-1,2-Dichloroethene	156-60-5	5	1 U	1 UT	1 U	1 U
Trans-1,3-Dichloropropene	10061-02-6	5	1 U	1 U	1 U	1 U
Trichloroethylene (TCE)	79-01-6	5	1 U	1 U	1 U	1 U
Trichlorofluoromethane	75-69-4	5	1 U	1 U	1 U	1 U
Vinyl Chloride	75-01-4	2	1 U	1 U	1 U	1 U
Xylenes, Total	1330-20-7	5	2 U	**100**	2 U	2 U
SW8270DSIM/SW8260C						
1,4-Dioxane	123-91-1	1	**2**	***50*** U	***50*** U	***50*** U
TIC						
SW8260C						
1,3,5-Trimethylbenzene (Mesitylene)	108-67-8	5	NR	**17** JN	NR	NR
1-Butene	106-98-9	NS	NR	NR	NR	NR
1-Ethylidene- Indene	2471-83-2	NS	NR	NR	NR	NR
1-Hexene	592-41-6	NS	NR	17 JN	NR	NR
1-Nonanal	124-19-6	NS	NR	NR	NR	NR
1-Pentene	109-67-1	NS	NR	NR	NR	NR
1-Propanethiol	107-03-9	NS	NR	NR	NR	NR
2,3-Dimethylthiophene	632-16-6	NS	NR	NR	NR	NR
2-Ethylhexyl Aldehyde	123-05-7	NS	NR	NR	NR	NR
2-Ethylthiophene	872-55-9	NS	NR	NR	NR	NR
2-Heptanone	110-43-0	NS	NR	24 JN	NR	NR
2-Methyl Butane	78-78-4	NS	NR	NR	NR	NR
2-Methyl-1-Butene	563-46-2	NS	NR	NR	NR	NR
2-Methyl-1-Pentene	763-29-1	NS	NR	NR	NR	NR
2-Methylnaphthalene	91-57-6	NS	NR	NR	NR	NR
2-Methylthiophene	554-14-3	NS	NR	NR	NR	NR
2-Octanone	111-13-7	NS	NR	23 JN	NR	NR
3-Methylthiophene	616-44-4	NS	NR	NR	NR	NR
Acetaldehyde	75-07-0	NS	NR	NR	NR	NR
Acrolein	107-02-8	5	NR	NR	NR	NR
Cis-2-Pentene	627-20-3	NS	NR	NR	NR	NR
Cyclohexene	110-83-8	NS	NR	16 JN	NR	NR
Ethanethiol	75-08-1	NS	NR	NR	NR	NR
Ethylcyclopropane	1191-96-4	NS	NR	NR	NR	NR
Heptanal	111-71-7	NS	NR	NR	NR	NR

	Sample Name:		MW-CPC-38-R1-GW-391	MW-CPC-38-GW-396	MW-CPC-38-GW-406	MW-CPC-39-GW-176
	Lab ID:		460-169051-1	460-163878-3	460-163878-4	460-164455-1
	Sample Date/Time:		11/9/2018	9/5/2018	9/5/2018	9/12/2018
	Sample Depth (ft. bgs):		391	396	406	176
Target Compound or TIC/Method/Analyte	**CAS**	**GWQS**	Result/Qual	Result/Qual	Result/Qual	Result/Qual
Hexanal	66-25-1	NS	NR	NR	NR	NR
Isobutylene	115-11-7	NS	NR	110 JN	NR	NR
Methanethiol	74-93-1	NS	NR	NR	NR	NR
Methyl Disulfide	624-92-0	NS	NR	NR	NR	NR
Methyl N-Propyl Ketone	107-87-9	NS	NR	NR	NR	NR
Methyl Sulfide	75-18-3	NS	NR	NR	NR	NR
Octanal	124-13-0	NS	NR	NR	NR	NR
Pentanal (Valeraldehyde)	110-62-3	NS	NR	NR	NR	NR
Propylene	115-07-1	NS	NR	57 JN	NR	NR
Thiophene	110-02-1	NS	NR	NR	NR	NR
Unknown Alkane 1	UNKALKANE1	NS	NR	NR	NR	NR
Unknown Volatile Organic With 1st Highest Conc.	UNKVOA1	NS	NR	38 J	NR	NR
Unknown Volatile Organic With 2nd Highest Conc.	UNKVOA2	NS	NR	21 J	NR	NR
Unknown Volatile Organic With 3rd Highest Conc.	UNKVOA3	NS	NR	17 J	NR	NR
Unknown Volatile Organic With 4th Highest Conc.	UNKVOA4	NS	NR	NR	NR	NR
Unknown Volatile Organic With 5th Highest Conc.	UNKVOA5	NS	NR	NR	NR	NR
Unknown With 1st Highest Conc.	UNKNOWN1	NS	NR	NR	NR	NR
Total TICs			0	340 J	0	0

Footnotes:
GWQS and Results Units: µg/l (micrograms per liter)
Bold, highlighted result - exceeds standard
Bold, italicized result - non-detect but reporting limit exceeds standard
"Standards" - 6 NYCRR Part 703 Surface Water and Groundwater
Quality Standards (GWQS) and Guidance Values; and TOGs 1.1.1 Ambient
Water Quality Standards and Guidance Values, June 1998
1,4-Dioxane were compared to suggested NYS Drinking Water Quality Council MCL 1 ppb
NS - no standard or criterion. B - analyte in lab blank
U - analyzed for but not detected
J - estimated concentration. N - presumptive evidence of a compound
T - result is a tentatively identified compound (TIC) and an estimated value
NR - result analysis not reported or performed by laboratory
Sample Name end letters : D - dup; B - blank; P - Pace;
MS - matrix spike; MSD - matrix spike duplicate

Target Compound or TIC/Method/Analyte	CAS	GWQS	Sample Name: MW-CPC-39-GW-196 Lab ID: 460-164455-2 Sample Date/Time: 9/12/2018 Sample Depth (ft. bgs): 196 Result/Qual	MW-CPC-39-GW-216 460-164546-1 9/12/2018 216 Result/Qual	MW-CPC-39-GW-256 460-164546-2 9/13/2018 256 Result/Qual	MW-CPC-39-GW-274 460-164667-1 9/14/2018 274 Result/Qual
Target						
SW8260C						
1,1,1-Trichloroethane	71-55-6	5	1 U	1 U	1 U	1 U
1,1,2,2-Tetrachloroethane	79-34-5	5	1 U	1 U	1 U	1 U
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	5	1 U	1 U	1 U	1 U
1,1,2-Trichloroethane	79-00-5	1	1 U	1 U	1 U	1 U
1,1-Dichloroethane	75-34-3	5	1 U	1 U	1 U	1 U
1,1-Dichloroethene	75-35-4	5	1 U	1 U	1 U	1 U
1,2,3-Trichlorobenzene	87-61-6	5	1 U	1 U	1 U	1 U
1,2,4-Trichlorobenzene	120-82-1	10	1 U	1 U	1 U	1 U
1,2-Dibromo-3-Chloropropane	96-12-8	0.04	***1*** U	***1*** U	***1*** U	***1*** U
1,2-Dibromoethane (Ethylene Dibromide)	106-93-4	0.0006	***1*** U	***1*** U	***1*** U	***1*** U
1,2-Dichlorobenzene	95-50-1	3	1 U	1 U	1 U	1 U
1,2-Dichloroethane	107-06-2	0.6	***1*** U	***1*** U	***1*** U	***1*** U
1,2-Dichloropropane	78-87-5	1	1 U	1 U	1 U	1 U
1,3-Dichlorobenzene	541-73-1	3	1 U	1 U	1 U	1 U
1,4-Dichlorobenzene	106-46-7	3	1 U	1 U	1 U	1 U
2-Hexanone	591-78-6	50	5 U	5 U	5 U	5 U
Acetone	67-64-1	50	5 U	5.4	5 U	42
Benzene	71-43-2	1	1 U	1 U	1 U	**4.1**
Bromochloromethane	74-97-5	5	NR	NR	NR	NR
Bromodichloromethane	75-27-4	50	1 U	1 U	1 U	1 U
Bromoform	75-25-2	50	1 U	1 U	1 U	1 U
Bromomethane	74-83-9	5	1 U	1 U	1 U	1 UT
Carbon Disulfide	75-15-0	60	1 U	1 U	0.46 JB	0.94 J
Carbon Tetrachloride	56-23-5	5	1 U	1 U	1 U	1 U
Chlorobenzene	108-90-7	5	1 U	1 U	1 U	1 U
Chloroethane	75-00-3	5	1 U	1 U	1 U	1 U
Chloroform	67-66-3	7	1 U	1 U	1 U	1 U
Chloromethane	74-87-3	5	1 U	1 U	1 U	1 U
Cis-1,2-Dichloroethylene	156-59-2	5	1 U	1 U	1 U	1 U
Cis-1,3-Dichloropropene	10061-01-5	5	1 U	1 U	1 U	1 U
Cyclohexane	110-82-7	NS	1 U	1 U	1 U	1 U
Dibromochloromethane	124-48-1	50	1 U	1 U	1 U	1 U
Dichlorodifluoromethane	75-71-8	5	1 U	1 U	1 U	1 U
Ethylbenzene	100-41-4	5	1 U	1 U	1 U	0.76 J
Isopropylbenzene (Cumene)	98-82-8	5	1 U	1 U	1 U	1 U
m,p-Xylene	179601-23-1	NS	NR	NR	NR	NR
Methyl Acetate	79-20-9	NS	5 U	5 U	5 U	6.3
Methyl Ethyl Ketone (2-Butanone)	78-93-3	50	5 U	5 U	5 U	17
Methyl Isobutyl Ketone (4-Methyl-2-Pentanone)	108-10-1	NS	5 U	5 U	5 U	5 U
Methylcyclohexane	108-87-2	NS	1 U	1 U	1 U	1 U

	Sample Name:		MW-CPC-39-GW-196	MW-CPC-39-GW-216	MW-CPC-39-GW-256	MW-CPC-39-GW-274
	Lab ID:		460-164455-2	460-164546-1	460-164546-2	460-164667-1
	Sample Date/Time:		9/12/2018	9/12/2018	9/13/2018	9/14/2018
	Sample Depth (ft. bgs):		196	216	256	274
Target Compound or TIC/Method/Analyte	**CAS**	**GWQS**	Result/Qual	Result/Qual	Result/Qual	Result/Qual
Methylene Chloride	75-09-2	5	1 U	1 U	1 U	1 U
O-Xylene (1,2-Dimethylbenzene)	95-47-6	5	NR	NR	NR	NR
Styrene	100-42-5	5	1 U	1 U	1 U	1 U
Tert-Butyl Alcohol	75-65-0	NS	10 U	10 U	10 U	10 U
Tert-Butyl Methyl Ether	1634-04-4	10	1 U	1 U	1 U	1 U
Tetrachloroethylene (PCE)	127-18-4	5	1 U	1 U	1 U	1 U
Toluene	108-88-3	5	1 U	1 U	1 U	4
Trans-1,2-Dichloroethene	156-60-5	5	1 U	1 U	1 U	1 U
Trans-1,3-Dichloropropene	10061-02-6	5	1 U	1 U	1 U	1 U
Trichloroethylene (TCE)	79-01-6	5	1 U	1 U	1 U	1 U
Trichlorofluoromethane	75-69-4	5	1 U	1 U	1 U	1 U
Vinyl Chloride	75-01-4	2	1 U	1 U	1 U	1 U
Xylenes, Total	1330-20-7	5	2 U	2 U	2 U	2.1
SW8270DSIM/SW8260C						
1,4-Dioxane	123-91-1	1	***50*** U	***50*** U	***50*** U	***50*** U
TIC						
SW8260C						
1,3,5-Trimethylbenzene (Mesitylene)	108-67-8	5	NR	NR	NR	NR
1-Butene	106-98-9	NS	NR	NR	NR	NR
1-Ethylidene- Indene	2471-83-2	NS	NR	NR	NR	NR
1-Hexene	592-41-6	NS	NR	NR	NR	NR
1-Nonanal	124-19-6	NS	NR	NR	NR	NR
1-Pentene	109-67-1	NS	NR	NR	NR	NR
1-Propanethiol	107-03-9	NS	NR	NR	NR	NR
2,3-Dimethylthiophene	632-16-6	NS	NR	NR	NR	NR
2-Ethylhexyl Aldehyde	123-05-7	NS	NR	NR	NR	NR
2-Ethylthiophene	872-55-9	NS	NR	NR	NR	NR
2-Heptanone	110-43-0	NS	NR	NR	NR	NR
2-Methyl Butane	78-78-4	NS	NR	NR	NR	NR
2-Methyl-1-Butene	563-46-2	NS	NR	NR	NR	NR
2-Methyl-1-Pentene	763-29-1	NS	NR	NR	NR	NR
2-Methylnaphthalene	91-57-6	NS	5.1 JN	NR	NR	NR
2-Methylthiophene	554-14-3	NS	NR	NR	NR	NR
2-Octanone	111-13-7	NS	NR	NR	NR	NR
3-Methylthiophene	616-44-4	NS	NR	NR	NR	NR
Acetaldehyde	75-07-0	NS	NR	NR	NR	NR
Acrolein	107-02-8	5	NR	NR	NR	NR
Cis-2-Pentene	627-20-3	NS	NR	NR	NR	NR
Cyclohexene	110-83-8	NS	NR	NR	NR	NR
Ethanethiol	75-08-1	NS	NR	NR	NR	NR
Ethylcyclopropane	1191-96-4	NS	NR	NR	NR	NR
Heptanal	111-71-7	NS	NR	NR	NR	NR

		Sample Name:	MW-CPC-39-GW-196	MW-CPC-39-GW-216	MW-CPC-39-GW-256	MW-CPC-39-GW-274
		Lab ID:	460-164455-2	460-164546-1	460-164546-2	460-164667-1
		Sample Date/Time:	9/12/2018	9/12/2018	9/13/2018	9/14/2018
		Sample Depth (ft. bgs):	196	216	256	274
Target Compound or TIC/Method/Analyte	**CAS**	**GWQS**	Result/Qual	Result/Qual	Result/Qual	Result/Qual
Hexanal	66-25-1	NS	NR	NR	NR	NR
Isobutylene	115-11-7	NS	NR	NR	NR	7.8 JN
Methanethiol	74-93-1	NS	NR	NR	NR	NR
Methyl Disulfide	624-92-0	NS	NR	NR	NR	NR
Methyl N-Propyl Ketone	107-87-9	NS	NR	NR	NR	NR
Methyl Sulfide	75-18-3	NS	NR	NR	NR	NR
Octanal	124-13-0	NS	NR	NR	NR	NR
Pentanal (Valeraldehyde)	110-62-3	NS	NR	NR	NR	NR
Propylene	115-07-1	NS	11 JN	NR	NR	12 JN
Thiophene	110-02-1	NS	NR	NR	NR	NR
Unknown Alkane 1	UNKALKANE1	NS	NR	NR	NR	NR
Unknown Volatile Organic With 1st Highest Conc.	UNKVOA1	NS	7 J	NR	NR	NR
Unknown Volatile Organic With 2nd Highest Conc.	UNKVOA2	NS	5.1 J	NR	NR	NR
Unknown Volatile Organic With 3rd Highest Conc.	UNKVOA3	NS	NR	NR	NR	NR
Unknown Volatile Organic With 4th Highest Conc.	UNKVOA4	NS	NR	NR	NR	NR
Unknown Volatile Organic With 5th Highest Conc.	UNKVOA5	NS	NR	NR	NR	NR
Unknown With 1st Highest Conc.	UNKNOWN1	NS	NR	NR	NR	NR
Total TICs			28.2 J	0	0	19.8 J

Footnotes:
GWQS and Results Units: µg/l (micrograms per liter)
Bold, highlighted result - exceeds standard
Bold, italicized result - non-detect but reporting limit exceeds standard
"Standards" - 6 NYCRR Part 703 Surface Water and Groundwater
Quality Standards (GWQS) and Guidance Values; and TOGs 1.1.1 Ambient
Water Quality Standards and Guidance Values, June 1998
1,4-Dioxane were compared to suggested NYS Drinking Water Quality Council MCL 1 ppb
NS - no standard or criterion. B - analyte in lab blank
U - analyzed for but not detected
J - estimated concentration. N - presumptive evidence of a compound
T - result is a tentatively identified compound (TIC) and an estimated value
NR - result analysis not reported or performed by laboratory
Sample Name end letters : D - dup; B - blank; P - Pace;
MS - matrix spike; MSD - matrix spike duplicate

	Sample Name:	MW-CPC-39-GW-336	MW-CPC-39-GW-352	MW-CPC-39-GW-374	MW-CPC-39-R1-GW-374
	Lab ID:	460-164812-1	460-164812-2	460-164892-1	200-46151-4
	Sample Date/Time:	9/17/2018	9/17/2018	9/17/2018	11/8/2018
	Sample Depth (ft. bgs):	336	352	374	374
Target Compound or TIC/Method/Analyte	**CAS** **GWQS**	Result/Qual	Result/Qual	Result/Qual	Result/Qual
Target					
SW8260C					
1,1,1-Trichloroethane	71-55-6 5	1 U	1 U	1 U	1 U
1,1,2,2-Tetrachloroethane	79-34-5 5	1 U	1 U	1 U	1 U
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1 5	1 U	1 U	1 U	1 U
1,1,2-Trichloroethane	79-00-5 1	1 U	1 U	1 U	1 U
1,1-Dichloroethane	75-34-3 5	1 U	1 U	1 U	1 U
1,1-Dichloroethene	75-35-4 5	1 U	1 U	1 U	1 U
1,2,3-Trichlorobenzene	87-61-6 5	1 U	1 U	1 U	1 U
1,2,4-Trichlorobenzene	120-82-1 10	1 U	1 U	1 U	1 U
1,2-Dibromo-3-Chloropropane	96-12-8 0.04	***1*** U	***1*** U	***1*** U	***1*** U
1,2-Dibromoethane (Ethylene Dibromide)	106-93-4 0.0006	***1*** U	***1*** U	***1*** U	***1*** U
1,2-Dichlorobenzene	95-50-1 3	1 U	1 U	1 U	1 U
1,2-Dichloroethane	107-06-2 0.6	***1*** U	***1*** U	***1*** U	***1*** U
1,2-Dichloropropane	78-87-5 1	1 U	1 U	1 U	1 U
1,3-Dichlorobenzene	541-73-1 3	1 U	1 U	1 U	1 U
1,4-Dichlorobenzene	106-46-7 3	1 U	1 U	1 U	1 U
2-Hexanone	591-78-6 50	5 U	5 U	5 U	5 U
Acetone	67-64-1 50	5 U	10	**200**	5 U
Benzene	71-43-2 1	1 U	1 U	**11**	1 U
Bromochloromethane	74-97-5 5	NR	NR	NR	NR
Bromodichloromethane	75-27-4 50	1 U	1 U	1 U	1 U
Bromoform	75-25-2 50	1 U	1 U	1 U	1 U
Bromomethane	74-83-9 5	1 U	1 U	1 U	1 UJ
Carbon Disulfide	75-15-0 60	1 U	0.35 J	0.73 J	1 U
Carbon Tetrachloride	56-23-5 5	1 U	1 U	1 U	1 U
Chlorobenzene	108-90-7 5	1 U	1 U	1 U	1 U
Chloroethane	75-00-3 5	1 U	1 U	1 U	1 U
Chloroform	67-66-3 7	1 U	1 U	1 U	1 U
Chloromethane	74-87-3 5	1 U	1 U	**5.7**	1 U
Cis-1,2-Dichloroethylene	156-59-2 5	1 U	1 U	1 U	1 U
Cis-1,3-Dichloropropene	10061-01-5 5	1 U	1 U	1 U	1 U
Cyclohexane	110-82-7 NS	1 U	1 U	1 U	1 U
Dibromochloromethane	124-48-1 50	1 U	1 U	1 U	1 U
Dichlorodifluoromethane	75-71-8 5	1 U	1 U	1 U	1 U
Ethylbenzene	100-41-4 5	1 U	1 U	2.3	1 U
Isopropylbenzene (Cumene)	98-82-8 5	1 U	1 U	1 U	1 U
m,p-Xylene	179601-23-1 NS	NR	NR	NR	NR
Methyl Acetate	79-20-9 NS	5 U	5 U	30	5 U
Methyl Ethyl Ketone (2-Butanone)	78-93-3 50	5 U	2.8 J	**76**	5 U
Methyl Isobutyl Ketone (4-Methyl-2-Pentanone)	108-10-1 NS	5 U	5 U	5 U	5 U
Methylcyclohexane	108-87-2 NS	1 U	1 U	1 U	1 U

	Sample Name:	MW-CPC-39-GW-336	MW-CPC-39-GW-352	MW-CPC-39-GW-374	MW-CPC-39-R1-GW-374
	Lab ID:	460-164812-1	460-164812-2	460-164892-1	200-46151-4
	Sample Date/Time:	9/17/2018	9/17/2018	9/17/2018	11/8/2018
	Sample Depth (ft. bgs):	336	352	374	374
Target Compound or TIC/Method/Analyte	**CAS** **GWQS**	Result/Qual	Result/Qual	Result/Qual	Result/Qual
Methylene Chloride	75-09-2 5	1 U	1 U	1 U	1 U
O-Xylene (1,2-Dimethylbenzene)	95-47-6 5	NR	NR	NR	NR
Styrene	100-42-5 5	1 U	1 U	1.3	1 U
Tert-Butyl Alcohol	75-65-0 NS	10 U	10 U	24	10 U
Tert-Butyl Methyl Ether	1634-04-4 10	1 U	1 U	1 U	1 U
Tetrachloroethylene (PCE)	127-18-4 5	1 U	1 U	1 U	1 U
Toluene	108-88-3 5	1 U	1 U	**8.6**	0.43 J
Trans-1,2-Dichloroethene	156-60-5 5	1 U	1 U	1 U	1 U
Trans-1,3-Dichloropropene	10061-02-6 5	1 U	1 U	1 U	1 U
Trichloroethylene (TCE)	79-01-6 5	1 U	1 U	1 U	1 U
Trichlorofluoromethane	75-69-4 5	1 U	1 U	1 U	1 U
Vinyl Chloride	75-01-4 2	1 U	1 U	1 U	1 U
Xylenes, Total	1330-20-7 5	2 U	2 U	**5.2**	2 U
SW8270DSIM/SW8260C					
1,4-Dioxane	123-91-1 1	***50*** U	***50*** U	***50*** U	0.21 U
TIC					
SW8260C					
1,3,5-Trimethylbenzene (Mesitylene)	108-67-8 5	NR	NR	NR	NR
1-Butene	106-98-9 NS	NR	5.2 JN	NR	NR
1-Ethylidene- Indene	2471-83-2 NS	NR	NR	NR	NR
1-Hexene	592-41-6 NS	NR	NR	NR	NR
1-Nonanal	124-19-6 NS	NR	8.2 JN	25 JN	NR
1-Pentene	109-67-1 NS	NR	NR	NR	NR
1-Propanethiol	107-03-9 NS	NR	NR	NR	NR
2,3-Dimethylthiophene	632-16-6 NS	NR	NR	NR	NR
2-Ethylhexyl Aldehyde	123-05-7 NS	NR	NR	11 JN	NR
2-Ethylthiophene	872-55-9 NS	NR	NR	NR	NR
2-Heptanone	110-43-0 NS	NR	NR	NR	NR
2-Methyl Butane	78-78-4 NS	NR	5.7 JN	NR	NR
2-Methyl-1-Butene	563-46-2 NS	NR	NR	NR	NR
2-Methyl-1-Pentene	763-29-1 NS	NR	6.8 JN	NR	NR
2-Methylnaphthalene	91-57-6 NS	NR	NR	8.3 JN	NR
2-Methylthiophene	554-14-3 NS	NR	NR	NR	NR
2-Octanone	111-13-7 NS	NR	NR	9.6 JN	NR
3-Methylthiophene	616-44-4 NS	NR	NR	NR	NR
Acetaldehyde	75-07-0 NS	NR	NR	29 JN	NR
Acrolein	107-02-8 5	NR	NR	**160** JN	NR
Cis-2-Pentene	627-20-3 NS	NR	NR	NR	NR
Cyclohexene	110-83-8 NS	NR	NR	NR	NR
Ethanethiol	75-08-1 NS	NR	NR	NR	NR
Ethylcyclopropane	1191-96-4 NS	NR	17 JN	NR	NR
Heptanal	111-71-7 NS	NR	NR	29 JN	NR

	Sample Name:		MW-CPC-39-GW-336	MW-CPC-39-GW-352	MW-CPC-39-GW-374	MW-CPC-39-R1-GW-374
	Lab ID:		460-164812-1	460-164812-2	460-164892-1	200-46151-4
	Sample Date/Time:		9/17/2018	9/17/2018	9/17/2018	11/8/2018
	Sample Depth (ft. bgs):		336	352	374	374
Target Compound or TIC/Method/Analyte	**CAS**	**GWQS**	Result/Qual	Result/Qual	Result/Qual	Result/Qual
Hexanal	66-25-1	NS	NR	NR	64 JN	NR
Isobutylene	115-11-7	NS	NR	41 JN	NR	NR
Methanethiol	74-93-1	NS	NR	NR	NR	NR
Methyl Disulfide	624-92-0	NS	NR	NR	NR	NR
Methyl N-Propyl Ketone	107-87-9	NS	NR	NR	NR	NR
Methyl Sulfide	75-18-3	NS	NR	NR	NR	NR
Octanal	124-13-0	NS	NR	NR	12 JN	NR
Pentanal (Valeraldehyde)	110-62-3	NS	NR	NR	13 JN	NR
Propylene	115-07-1	NS	NR	67 JN	NR	NR
Thiophene	110-02-1	NS	NR	NR	NR	NR
Unknown Alkane 1	UNKALKANE1	NS	NR	NR	NR	NR
Unknown Volatile Organic With 1st Highest Conc.	UNKVOA1	NS	NR	NR	NR	NR
Unknown Volatile Organic With 2nd Highest Conc.	UNKVOA2	NS	NR	NR	NR	NR
Unknown Volatile Organic With 3rd Highest Conc.	UNKVOA3	NS	NR	NR	NR	NR
Unknown Volatile Organic With 4th Highest Conc.	UNKVOA4	NS	NR	NR	NR	NR
Unknown Volatile Organic With 5th Highest Conc.	UNKVOA5	NS	NR	NR	NR	NR
Unknown With 1st Highest Conc.	UNKNOWN1	NS	NR	NR	NR	NR
Total TICs			0	150.9 J	360.9 J	0

Footnotes:
GWQS and Results Units: µg/l (micrograms per liter)
Bold, highlighted result - exceeds standard
Bold, italicized result - non-detect but reporting limit exceeds standard
"Standards" - 6 NYCRR Part 703 Surface Water and Groundwater
Quality Standards (GWQS) and Guidance Values; and TOGs 1.1.1 Ambient
Water Quality Standards and Guidance Values, June 1998
1,4-Dioxane were compared to suggested NYS Drinking Water Quality Council MCL 1 ppb
NS - no standard or criterion. B - analyte in lab blank
U - analyzed for but not detected
J - estimated concentration. N - presumptive evidence of a compound
T - result is a tentatively identified compound (TIC) and an estimated value
NR - result analysis not reported or performed by laboratory
Sample Name end letters : D - dup; B - blank; P - Pace;
MS - matrix spike; MSD - matrix spike duplicate

Target Compound or TIC/Method/Analyte	CAS	GWQS	Sample Name: MW-CPC-39-GW-396 Lab ID: 460-164892-2 Sample Date/Time: 9/18/2018 Sample Depth (ft. bgs): 396 Result/Qual	Sample Name: MW-CPC-39-GW-406 Lab ID: 460-164892-3 Sample Date/Time: 9/18/2018 Sample Depth (ft. bgs): 406 Result/Qual	TB-20181012 460-166807-4 10/12/2018 -NA- Result/Qual	TB-20181108 200-46151-5 11/8/2018 -NA- Result/Qual	TB-20181109 460-169051-2 11/9/2018 -NA- Result/Qual
Target							
SW8260C							
1,1,1-Trichloroethane	71-55-6	5	1 U	1 U	1 U	1 U	1 U
1,1,2,2-Tetrachloroethane	79-34-5	5	1 U	1 U	1 U	1 U	1 U
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	5	1 U	1 U	1 U	1 U	1 UT
1,1,2-Trichloroethane	79-00-5	1	1 U	1 U	1 U	1 U	1 U
1,1-Dichloroethane	75-34-3	5	1 U	1 U	1 U	1 U	1 U
1,1-Dichloroethene	75-35-4	5	1 U	1 U	1 U	1 U	1 U
1,2,3-Trichlorobenzene	87-61-6	5	1 U	1 U	1 U	1 U	1 U
1,2,4-Trichlorobenzene	120-82-1	10	1 U	1 U	1 U	1 U	1 U
1,2-Dibromo-3-Chloropropane	96-12-8	0.04	***1*** U	***1*** U	***1*** U	***1*** U	***1*** U
1,2-Dibromoethane (Ethylene Dibromide)	106-93-4	0.0006	***1*** U	***1*** U	***1*** U	***1*** U	***1*** U
1,2-Dichlorobenzene	95-50-1	3	1 U	1 U	1 U	1 U	1 U
1,2-Dichloroethane	107-06-2	0.6	***1*** U	***1*** U	***1*** U	***1*** U	***1*** U
1,2-Dichloropropane	78-87-5	1	1 U	1 U	1 U	1 U	1 U
1,3-Dichlorobenzene	541-73-1	3	1 U	1 U	1 U	1 U	1 U
1,4-Dichlorobenzene	106-46-7	3	1 U	1 U	1 U	1 U	1 U
2-Hexanone	591-78-6	50	5 U	5 U	5 U	5 U	5 U
Acetone	67-64-1	50	5 U	5 U	5 U	5 U	5 U
Benzene	71-43-2	1	1 U	1 U	1 U	1 U	1 U
Bromochloromethane	74-97-5	5	NR	NR	NR	NR	NR
Bromodichloromethane	75-27-4	50	1 U	1 U	1 U	1 U	1 U
Bromoform	75-25-2	50	1 U	1 U	1 U	1 U	1 U
Bromomethane	74-83-9	5	1 U	1 U	1 U	1 UJ	1 U
Carbon Disulfide	75-15-0	60	1 U	1 U	1 U	1 U	1 U
Carbon Tetrachloride	56-23-5	5	1 U	1 U	1 U	1 U	1 U
Chlorobenzene	108-90-7	5	1 U	1 U	1 U	1 U	1 U
Chloroethane	75-00-3	5	1 U	1 U	1 U	1 U	1 U
Chloroform	67-66-3	7	1 U	1 U	1 U	1 U	1 U
Chloromethane	74-87-3	5	1 U	1 U	1 U	1 U	1 U
Cis-1,2-Dichloroethylene	156-59-2	5	1 U	1 U	1 U	1 U	1 U
Cis-1,3-Dichloropropene	10061-01-5	5	1 U	1 U	1 U	1 U	1 U
Cyclohexane	110-82-7	NS	1 U	1 U	1 U	1 U	1 UT
Dibromochloromethane	124-48-1	50	1 U	1 U	1 U	1 U	1 U
Dichlorodifluoromethane	75-71-8	5	1 U	1 U	1 U	1 U	1 UT
Ethylbenzene	100-41-4	5	1 U	1 U	1 U	1 U	1 U
Isopropylbenzene (Cumene)	98-82-8	5	1 U	1 U	1 U	1 U	1 U
m,p-Xylene	179601-23-1	NS	NR	NR	NR	NR	NR
Methyl Acetate	79-20-9	NS	5 U	5 U	5 U	5 U	5 U
Methyl Ethyl Ketone (2-Butanone)	78-93-3	50	5 U	5 U	5 U	5 U	5 U
Methyl Isobutyl Ketone (4-Methyl-2-Pentanone)	108-10-1	NS	5 U	5 U	5 U	5 U	5 U
Methylcyclohexane	108-87-2	NS	1 U	1 U	1 U	1 U	1 UT

Target Compound or TIC/Method/Analyte	CAS	GWQS	Sample Name: MW-CPC-39-GW-396 Lab ID: 460-164892-2 Sample Date/Time: 9/18/2018 Sample Depth (ft. bgs): 396 Result/Qual	Sample Name: MW-CPC-39-GW-406 Lab ID: 460-164892-3 Sample Date/Time: 9/18/2018 Sample Depth (ft. bgs): 406 Result/Qual	TB-20181012 460-166807-4 10/12/2018 -NA- Result/Qual	TB-20181108 200-46151-5 11/8/2018 -NA- Result/Qual	TB-20181109 460-169051-2 11/9/2018 -NA- Result/Qual
Methylene Chloride	75-09-2	5	1 U	1 U	1 U	1 U	1 U
O-Xylene (1,2-Dimethylbenzene)	95-47-6	5	NR	NR	NR	NR	NR
Styrene	100-42-5	5	1 U	1 U	1 U	1 U	1 U
Tert-Butyl Alcohol	75-65-0	NS	10 U	10 U	10 U	10 U	10 U
Tert-Butyl Methyl Ether	1634-04-4	10	1 U	1 U	1 U	1 U	1 U
Tetrachloroethylene (PCE)	127-18-4	5	1 U	1 U	1 U	1 U	1 U
Toluene	108-88-3	5	1 U	1 U	1 U	1 U	1 U
Trans-1,2-Dichloroethene	156-60-5	5	1 U	1 U	1 U	1 U	1 U
Trans-1,3-Dichloropropene	10061-02-6	5	1 U	1 U	1 U	1 U	1 U
Trichloroethylene (TCE)	79-01-6	5	1 U	1 U	1 U	1 U	1 U
Trichlorofluoromethane	75-69-4	5	1 U	1 U	1 U	1 U	1 U
Vinyl Chloride	75-01-4	2	1 U	1 U	1 U	1 U	1 U
Xylenes, Total	1330-20-7	5	2 U	2 U	2 U	2 U	2 U
SW8270DSIM/SW8260C							
1,4-Dioxane	123-91-1	1	***50*** U	***50*** U	***50*** U	***50*** U	***50*** U
TIC							
SW8260C							
1,3,5-Trimethylbenzene (Mesitylene)	108-67-8	5	NR	NR	NR	NR	NR
1-Butene	106-98-9	NS	NR	NR	NR	NR	NR
1-Ethylidene- Indene	2471-83-2	NS	NR	NR	NR	NR	NR
1-Hexene	592-41-6	NS	NR	NR	NR	NR	NR
1-Nonanal	124-19-6	NS	NR	NR	NR	NR	NR
1-Pentene	109-67-1	NS	NR	NR	NR	NR	NR
1-Propanethiol	107-03-9	NS	NR	NR	NR	NR	NR
2,3-Dimethylthiophene	632-16-6	NS	NR	NR	NR	NR	NR
2-Ethylhexyl Aldehyde	123-05-7	NS	NR	NR	NR	NR	NR
2-Ethylthiophene	872-55-9	NS	NR	NR	NR	NR	NR
2-Heptanone	110-43-0	NS	NR	NR	NR	NR	NR
2-Methyl Butane	78-78-4	NS	NR	NR	NR	NR	NR
2-Methyl-1-Butene	563-46-2	NS	NR	NR	NR	NR	NR
2-Methyl-1-Pentene	763-29-1	NS	NR	NR	NR	NR	NR
2-Methylnaphthalene	91-57-6	NS	NR	NR	NR	NR	NR
2-Methylthiophene	554-14-3	NS	NR	NR	NR	NR	NR
2-Octanone	111-13-7	NS	NR	NR	NR	NR	NR
3-Methylthiophene	616-44-4	NS	NR	NR	NR	NR	NR
Acetaldehyde	75-07-0	NS	NR	NR	NR	NR	NR
Acrolein	107-02-8	5	NR	NR	NR	NR	NR
Cis-2-Pentene	627-20-3	NS	NR	NR	NR	NR	NR
Cyclohexene	110-83-8	NS	NR	NR	NR	NR	NR
Ethanethiol	75-08-1	NS	NR	NR	NR	NR	NR
Ethylcyclopropane	1191-96-4	NS	NR	NR	NR	NR	NR
Heptanal	111-71-7	NS	NR	NR	NR	NR	NR

Target Compound or TIC/Method/Analyte	CAS	GWQS	Sample Name:	MW-CPC-39-GW-396	MW-CPC-39-GW-406	TB-20181012	TB-20181108	TB-20181109
			Lab ID:	460-164892-2	460-164892-3	460-166807-4	200-46151-5	460-169051-2
			Sample Date/Time:	9/18/2018	9/18/2018	10/12/2018	11/8/2018	11/9/2018
			Sample Depth (ft. bgs):	396	406	-NA-	-NA-	-NA-
				Result/Qual	Result/Qual	Result/Qual	Result/Qual	Result/Qual
Hexanal	66-25-1	NS		NR	NR	NR	NR	NR
Isobutylene	115-11-7	NS		NR	NR	NR	NR	NR
Methanethiol	74-93-1	NS		NR	NR	NR	NR	NR
Methyl Disulfide	624-92-0	NS		NR	NR	NR	NR	NR
Methyl N-Propyl Ketone	107-87-9	NS		NR	NR	NR	NR	NR
Methyl Sulfide	75-18-3	NS		NR	NR	NR	NR	NR
Octanal	124-13-0	NS		NR	NR	NR	NR	NR
Pentanal (Valeraldehyde)	110-62-3	NS		NR	NR	NR	NR	NR
Propylene	115-07-1	NS		NR	NR	NR	NR	NR
Thiophene	110-02-1	NS		NR	NR	NR	NR	NR
Unknown Alkane 1	UNKALKANE1	NS		NR	NR	NR	NR	NR
Unknown Volatile Organic With 1st Highest Conc.	UNKVOA1	NS		NR	NR	NR	NR	NR
Unknown Volatile Organic With 2nd Highest Conc.	UNKVOA2	NS		NR	NR	NR	NR	NR
Unknown Volatile Organic With 3rd Highest Conc.	UNKVOA3	NS		NR	NR	NR	NR	NR
Unknown Volatile Organic With 4th Highest Conc.	UNKVOA4	NS		NR	NR	NR	NR	NR
Unknown Volatile Organic With 5th Highest Conc.	UNKVOA5	NS		NR	NR	NR	NR	NR
Unknown With 1st Highest Conc.	UNKNOWN1	NS		NR	NR	NR	NR	NR
Total TICs				0	0	0	0	0

Footnotes:
GWQS and Results Units: µg/l (micrograms per liter)
Bold, highlighted result - exceeds standard
Bold, italicized result - non-detect but reporting limit exceeds standard
"Standards" - 6 NYCRR Part 703 Surface Water and Groundwater
Quality Standards (GWQS) and Guidance Values; and TOGs 1.1.1 Ambient
Water Quality Standards and Guidance Values, June 1998
1,4-Dioxane were compared to suggested NYS Drinking Water Quality Council MCL 1 ppb
NS - no standard or criterion. B - analyte in lab blank
U - analyzed for but not detected
J - estimated concentration. N - presumptive evidence of a compound
T - result is a tentatively identified compound (TIC) and an estimated value
NR - result analysis not reported or performed by laboratory
Sample Name end letters : D - dup; B - blank; P - Pace;
MS - matrix spike; MSD - matrix spike duplicate

Sample Name:	MW-CPC-36-R1-GW-251	MW-CPC-36-R1-GW-251-D	MW-CPC-36-R1-GW-251-B	MW-CPC-36-R1-GW-251-B	MW-CPC-37-R1-GW-445
Lab ID:	200-46151-1	200-46151-2	320-44873-1	200-46151-3	460-166807-3
Sample Date/Time:	11/7/2018	11/7/2018	10/31/2018	11/7/2018	10/11/2018
Sample Depth (ft. bgs):	251	251	-NA-	-NA-	445
Target Compound or TIC/Method/Analyte	Result/Qual	Result/Qual	Result/Qual	Result/Qual	Result/Qual
Target					
E537-LL (modified)					
1H,1H,2H,2H-Perfluorodecane Sulfonate (8:2)	21.5 J	22.5 J	101 U	17.4 U	17.1 U
1H,1H,2H,2H-Perfluorooctane Sulfonate (6:2)	56 J	57.7 J	101 U	17.4 U	4.7 J
2-(N-methyl perfluorooctanesulfonamido) acetic acid	18.2 U	17.8 U	101 U	17.4 U	17.1 U
N-Ethyl-N-((heptadecafluorooctyl)sulphonyl) glycine	18.2 U	17.8 U	101 U	17.4 U	17.1 U
Pefluorododecanoic acid (PFDoA)	0.42 J	0.55 J	10.1 U	1.74 U	0.32 J
Perflorobutanesulfonic acid	8.28	9.08	10.1 U	1.74 U	2.21
Perfluornonanoic acid	472	455	10.1 U	1.74 U	0.47 J
Perfluorobutyric acid (PFBA)	50.7 B	58.6 B	4.8 J	1.74 U	13.8
Perfluorodecane sulfonic acid	1.82 U	1.78 U	10.1 U	1.74 U	1.71 U
Perfluorodecanoic acid (PFDA)	8.83 J	7.79 J	10.1 U	1.74 U	1.79
Perfluoroheptane sulfonate (PFHpS)	4.23	3.95	10.1 U	1.74 U	1.71 U
Perfluoroheptanoic acid (PFHpA)	77	76.7	10.1 U	1.74 U	4.66
Perfluorohexanesulfonic acid	39.7	35.9	10.1 U	1.74 U	2.64
Perfluorohexanoic acid (PFHxA)	50.7	52.4	10.1 U	1.74 U	7.21
Perfluorooctane sulfonamide (FOSA)	0.55 J	1.78 U	10.1 U	1.74 U	1.71 U
Perfluorooctane sulfonic acid (PFOS)	***191***	***180***	***10.1*** U	1.74 U	***10.4***
Perfluorooctanoic acid (PFOA)	***134***	***133***	***10.1*** U	1.74 U	***29.1***
Perfluorotetradecanoic acid (PFTeA)	1.82 U	1.78 U	10.1 U	1.74 U	1.71 U
Perfluorotridecanoic aid (PFTriA)	1.82 U	1.78 U	10.1 U	1.74 U	1.71 U
Perfluoroundecnoic acid (PFUnA)	37.8 B	38.9 B	10.1 U	0.24 JB	0.47 JB
Perfluropentanoic acid (PFPeA)	67	50.6	10.1 U	1.74 U	3.64
Sum of PFOS and PFOA	**325**	**313**	**20.2** U	3.48 U	**39.5**

CAS	HAL
39108-34-4	NS
27619-97-2	NS
2355-31-9	NS
2991-50-6	NS
307-55-1	NS
375-73-5	NS
375-95-1	NS
375-22-4	NS
335-77-3	NS
335-76-2	NS
375-92-8	NS
375-85-9	NS
355-46-4	NS
307-24-4	NS
754-91-6	NS
1763-23-1	10
335-67-1	10
376-06-7	NS
72629-94-8	NS
2058-94-8	NS
2706-90-3	NS
NA	10

Footnotes:
Result Units: ng/l (nanograms per liter)
Bold, highlighted result - exceeds standard
NYS Drinking Water Quality Council MCL; 10 ng/L ea or sum of PFOS/PFOA
NS - no standard or criterion. B - analyte in lab blank
U - analyzed for but not detected
J - estimated concentration
Sample Name end letters : D - dup; B - blank

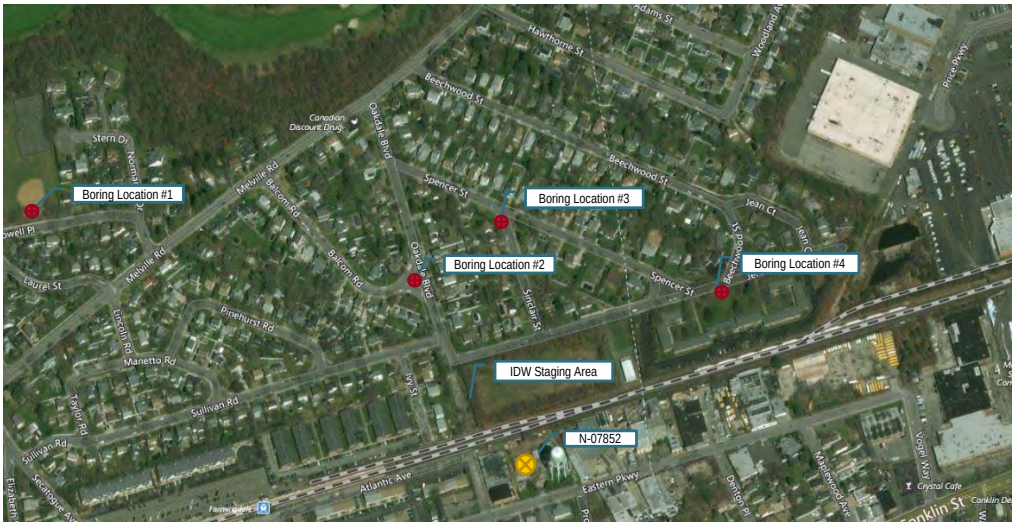
	Sample Name:	MW-CPC-37-R1-GW-445-D	MW-CPC-37-R1-GW-445-B	MW-CPC-38-R1-GW-391	MW-CPC-39-R1-GW-374
	Lab ID:	460-166807-1	460-166807-2	460-169051-1	200-46151-4
	Sample Date/Time:	10/11/2018	10/11/2018	11/9/2018	11/8/2018
	Sample Depth (ft. bgs):	445	-NA-	391	374
Target Compound or TIC/Method/Analyte	**CAS** **HAL**	Result/Qual	Result/Qual	Result/Qual	Result/Qual
Target					
E537-LL (modified)					
1H,1H,2H,2H-Perfluorodecane Sulfonate (8:2)	39108-34-4 NS	16.6 U	19.3 U	18.6 U	18.5 U
1H,1H,2H,2H-Perfluorooctane Sulfonate (6:2)	27619-97-2 NS	5.42 J	19.3 U	10.3 J	18.5 U
2-(N-methyl perfluorooctanesulfonamido) acetic acid	2355-31-9 NS	16.6 U	19.3 U	18.6 U	18.5 U
N-Ethyl-N-((heptadecafluorooctyl)sulphonyl) glycine	2991-50-6 NS	16.6 U	19.3 U	18.6 U	18.5 U
Pefluorododecanoic acid (PFDoA)	307-55-1 NS	1.66 U	1.93 U	3.07	1.85 U
Perflorobutanesulfonic acid	375-73-5 NS	1.83	1.93 U	1.86 U	1.85 U
Perfluornonanoic acid	375-95-1 NS	0.38 J	1.93 U	0.44 J	1.85 U
Perfluorobutyric acid (PFBA)	375-22-4 NS	13.3	1.93 U	1.19 JB	0.59 JB
Perfluorodecane sulfonic acid	335-77-3 NS	1.66 U	1.93 U	1.86 U	1.85 U
Perfluorodecanoic acid (PFDA)	335-76-2 NS	1.29 J	1.93 U	0.7 J	1.85 U
Perfluoroheptane sulfonate (PFHpS)	375-92-8 NS	1.66 U	1.93 U	1.86 U	1.85 U
Perfluoroheptanoic acid (PFHpA)	375-85-9 NS	4.56	1.93 U	1.86 U	1.85 U
Perfluorohexanesulfonic acid	355-46-4 NS	2.79	1.93 U	1.86 U	1.85 U
Perfluorohexanoic acid (PFHxA)	307-24-4 NS	7.22	1.93 U	0.31 J	0.32 J
Perfluorooctane sulfonamide (FOSA)	754-91-6 NS	1.66 U	1.93 U	1.86 U	1.85 U
Perfluorooctane sulfonic acid (PFOS)	1763-23-1 10	***10.8***	1.93 U	1.86 U	1.85 U
Perfluorooctanoic acid (PFOA)	335-67-1 10	***32.1***	0.37 J	0.76 J	0.4 J
Perfluorotetradecanoic acid (PFTeA)	376-06-7 NS	1.66 U	1.93 U	1.86 U	1.85 U
Perfluorotridecanoic aid (PFTriA)	72629-94-8 NS	1.66 U	1.93 U	1.86 U	1.85 U
Perfluoroundecnoic acid (PFUnA)	2058-94-8 NS	0.46 JB	1.93 U	2.15 B	1.85 U
Perfluropentanoic acid (PFPeA)	2706-90-3 NS	3.67	1.93 U	1.86 U	1.85 U
Sum of PFOS and PFOA	NA 10	***42.9***	2.3 U	2.62 J	2.25 J

Footnotes:
Result Units: ng/l (nanograms per liter)
Bold, highlighted result - exceeds standard
NYS Drinking Water Quality Council MCL; 10 ng/L ea or sum of PFOS/PFOA
NS - no standard or criterion. B - analyte in lab blank
U - analyzed for but not detected
J - estimated concentration
Sample Name end letters : D - dup; B - blank

Appendix B
Photolog

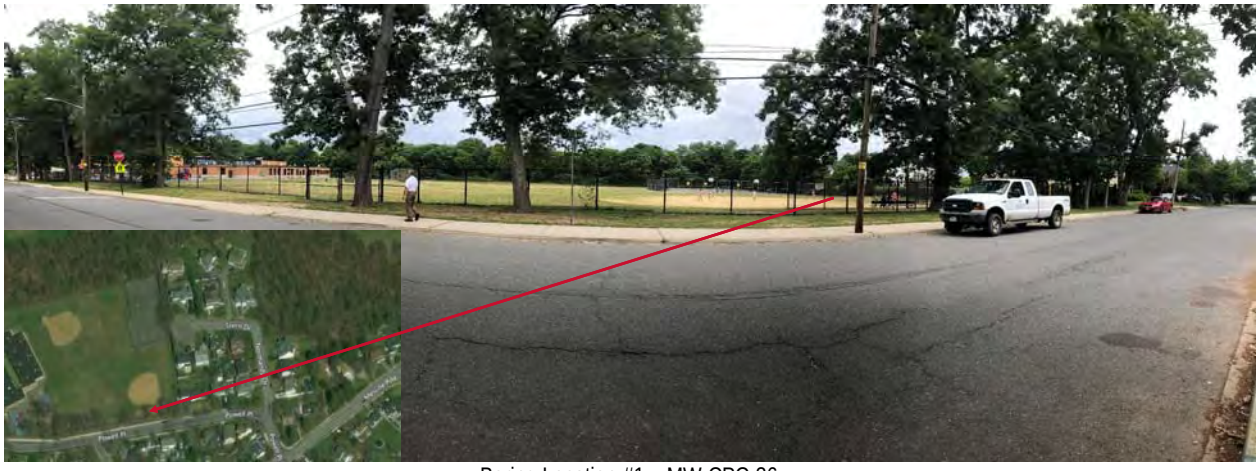
NYSDEC WA#43 Claremont Polychemical RI/FS

HDR Field Investigation 2018



Boring Locations

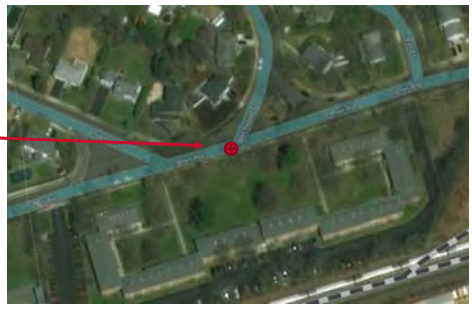
IDW Staging Area



Boring Location #1 – MW-CPC-36

Boring Location #2- MW-CPC-37

Boring Location #3- MW-CPC-38



Boring Location #4- MW-CPC-39

Subsurface utility mark out at MW-CPC-36

Subsurface utility mark out at MW-CPC-38

Subsurface utility mark out at MW-CPC-39

Delivery of frac tank and roll-off

IDW secured and locked at the end of each field day.

Drill rig and support truck setup on MW-CPC-36

Soil boring MW-CPC-36 – silt lenses in sand matrix

Soil boring MW-CPC-36 – dark gray very stiff dry clay

Soil boring MW-CPC-36 – lignite in clay unit

Soil boring MW-CPC-36 – gray moist silty clay unit

Soil boring MW-CPC-36 – tan-brown mottled fine-coarse sand

Drillers lowering sampling bailer down MW-CPC-36

Well construction material MW-CPC-36

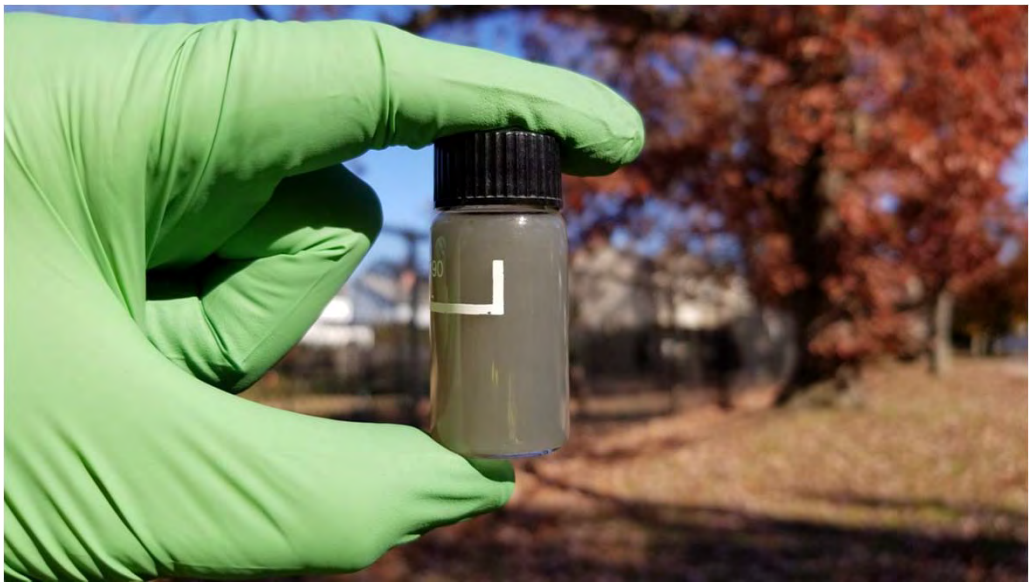
Cascade building monitoring well MW-CPC-36

Cascade steam cleans well casing as it is removed from subsurface.

MW-CPC-36 well completed

Cascade begins setup to airlift MW-CPC-37

Well development of MW-CPC-37



HDR collects turbidity measurements throughout well development process.

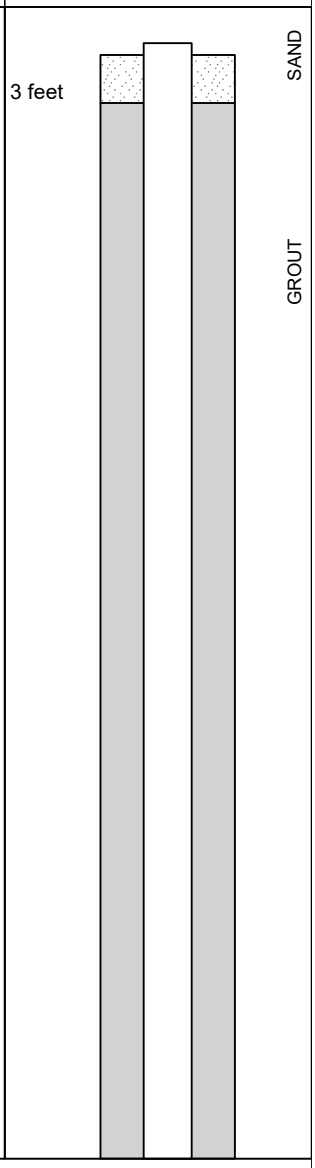
Low flow sampling to collect samples at four boring locations.

Appendix C
Boring Well Construction Logs

GEOLOGIC AND WELL CONSTRUCTION LOG		PROJECT NAME: Claremont Polychemical RI/FS		BORING ID: MW-CPC-36	
LOCATION	Old Bethpage, NY	METHOD	RotoSonic	DEPTH TO WATER	26.56 ft btoc
CLIENT	NYSDEC	BORING DIAM.	7 inch	MEASURE DATE	8/21/2018
CONTRACT	D007625-43	SAMPLER TYPE	6 in. Sonic Core	METHOD	Solinst DTW Meter
ASSIGNMENT	WA #43	START DATE	8/1/2018	WELL DEPTH	256 ft bgs
HDR PROJECT #	10109218	END DATE	8/7/2018	SCREEN ZONE	246 - 256 ft bgs
HDR INSPECTOR	Edward Brandt	X 1138189.2	Y 208965.8	CASING TYPE	2.5 inch Sch. 80 PVC
CONTRACTOR	Cascade Drilling LP	GROUND ELEV.	76.5	SCREEN TYPE	2.5 inch Sch. 80 0.010" PVC
DRILLER	Matthew Osterberg	TOC ELEV.	75.9	FINISH TYPE	12" Manhole; Concrete Pad
EQUIPMENT	ProSonic PS-600T	COORD SYSTEM	NAD83 NYSP LI (US FT)		

DEPTH (FT)	USCS	MATERIAL DESCRIPTION	REMARKS	SAMPLE	PUSH-AHEAD GROUNDWATER SAMPLE EXCEEDANCES (Parameter (Result) ug/L)
0	GM	Dark brown-brown dry SILT with sand, some fine to coarse subrounded gravel, trace cobble.	Slight earthy odor. Roots throughout.		
	GM		Slight earthy odor. Roots throughout.		
5	GM	Brown SILT and SAND, some fine to coarse subrounded gravel.	Coarsening downward.		
		Tan to light brown SILT and fine SAND, some fine to coarse gravel, trace rounded cobble.			
10	GM	Yellow-orange fine to coarse SAND and SILT, with fine to coarse rounded gravel.	Dry, no odor.		
15					
20					
25					
30	GM	Yellow-orange fine to coarse SAND and SILT, with fine to coarse rounded gravel.	Wet at approx 27 ft bgs. No odor or PID elevation		
35	SM	Yellow- orange mottled fine to medium SAND, trace mica flakes.	Wet, No odor, No PID elevation		
	SM	Medium dark brown and yellow-orange mottled fine to medium SAND and SILT, trace mica flakes.	Wet, No odor, No PID elevation		
40	GM	Medium dark brown and yellow-orange mottled fine to coarse SAND, SILT, and fine to medium rounded GRAVEL, trace mica flakes.	Wet, No odor, No PID elevation		
45	ML	Light gray and orange mottled SILT lens.	Wet, No odor, No PID elevation		
	SM				

WELL CONSTRUCTION



GWQS	Constituent	GWQS	Constituent
0.6	1,2-DCA = 1,2-Dichloroethane	5	EB = Ethylbenzene
50	2-Hex = 2-Hexanone	50	MEK = Methyl Ethyl Ketone
50	Acetone	5	o-Xylene
5	Acrolein	5	Styrene
1	Benzene	5	PCE = Tetrachloroethylene
60	CD = Carbon Disulfide	5	Toluene
5	MC = Chloromethane	5	TCE = Trichloroethylene
5	cis-1,2-DCE = cis-1,2-Dichloroethylene	5	Total Xylenes

Additional Well Construction Details

SAND PACK = #1 Sand | GROUT = Portland/Bentonite grout mixture.
HOLE PLUG = Bentonite chips | Well pad 2.5 ft square with 12 inch cast iron manhole.

Exceedances

GWQS = Groundwater Quality Standards (NYS TOGS 1.1.1 Class GA)
Only constituents with detected results exceeding GWQS criteria shown (in ug/L).

GEOLOGIC AND WELL CONSTRUCTION LOG

PROJECT NAME
Claremont Polychemical RI/FS

BORING ID
MW-CPC-36

DEPTH (FT)	USCS	MATERIAL DESCRIPTION	REMARKS	SAMPLE	PUSH-AHEAD GROUNDWATER SAMPLE EXCEEDANCES Parameter (Result) ug/L	WELL CONSTRUCTION
50	SM	Medium dark brown and yellow-orange mottled fine to medium SAND and SILT, trace mica flakes.	Wet, No odor, No PID elevation			
	ML	Light gray and orange mottled SILT lens.	Wet, No odor, No PID elevation			
55	SM	Yellow-orange and light brown fine to medium SAND and SILT, trace mica flakes.	Wet, No odor, No PID elevation			
60	ML	Dark gray micaceous SILT.	Dry, no odor.			
65						
70	MH	Medium brown, light gray, yellow-orange SILT and fine SAND, trace mica flakes.	Wet, No odor, No PID elevation			
75	SM	Yellow-orange fine to medium SAND and SILT, trace mica flakes.	Wet, No odor, No PID elevation			
80	SM	Medium brown, light gray, yellow-orange mottled fine to medium SAND and SILT, trace mica flakes.	Wet, No odor, No PID elevation			GROUT
85	ML	Light gray and light brown SILT lens.	Dry, no odor.			
90	SM	Medium brown, orange-yellow, light gray mottled fine to coarse SAND and SILT, mica flakes.	Wet, No odor, No PID elevation			
95						
100	SM	Medium and light brown, tan, yellow-orange, and light gray fine to coarse SAND, some silt.	Wet, No odor, No PID elevation Two thin Silt layers at 107 ft bgs			
105						

GWQS	Constituent	GWQS	Constituent
0.6	1,2-DCA = 1,2-Dichloroethane	5	EB = Ethylbenzene
50	2-Hex = 2-Hexanone	50	MEK = Methyl Ethyl Ketone
50	Acetone	5	o-Xylene
5	Acrolein	5	Styrene
1	Benzene	5	PCE = Tetrachloroethylene
60	CD = Carbon Disulfide	5	Toluene
5	MC = Chloromethane	5	TCE = Trichloroethylene
5	cis-1,2-DCE = cis-1,2-Dichloroethylene	5	Total Xylenes

Additional Well Construction Details

SAND PACK = #1 Sand | GROUT = Portland/Bentonite grout mixture.
HOLE PLUG = Bentonite chips | Well pad 2.5 ft square with 12 inch cast iron manhole.

Exceedances

GWQS = Groundwater Quality Standards (NYS TOGS 1.1.1 Class GA)
Only constituents with detected results exceeding GWQS criteria shown (in ug/L).

GEOLOGIC AND WELL CONSTRUCTION LOG

PROJECT NAME
Claremont Polychemical RI/FS

BORING ID
MW-CPC-36

DEPTH (FT)	USCS	MATERIAL DESCRIPTION	REMARKS	SAMPLE	PUSH-AHEAD GROUNDWATER SAMPLE EXCEEDANCES Parameter (Result) ug/L	WELL CONSTRUCTION
110	SM	Medium and light brown, tan, yellow-orange, and light gray fine to coarse SAND, some silt.	Wet, No odor, No PID elevation Two thin Silt layers at 107 ft bgs			
120	SM	Light brown fine SAND and SILT.	Wet, No odor, No PID elevation			
125	MH	Very stiff dark gray/black micaceous SILT.	Dry, no odor.			
130						
135	SM	Medium brown, gray, yellow-orange fine to medium SAND, some silt, mica flakes.	Wet, No odors, No PID Elevation			
140						
145	SM	Medium brown, light gray, yellow-orange mottled fine to medium SAND and SILT, trace mica flakes.	Wet, No odors, No PID Elevation			
150	SM	Medium brown, light gray, yellow-orange mottled fine to medium SAND and SILT, trace coarse sand and mica flakes.	Wet, No odors, No PID Elevation			
155	SM	Medium gray and tan mottled fine SAND and SILT, with some mica flakes.	Wet, No odors, No PID Elevation			
160	MH	Medium brown, gray, orange SILT, mica flakes.	Wet, No odors, No PID Elevation			
165						
170						

GROUT

GWQS	Constituent	GWQS	Constituent
0.6	1,2-DCA = 1,2-Dichloroethane	5	EB = Ethylbenzene
50	2-Hex = 2-Hexanone	50	MEK = Methyl Ethyl Ketone
50	Acetone	5	o-Xylene
5	Acrolein	5	Styrene
1	Benzene	5	PCE = Tetrachloroethylene
60	CD = Carbon Disulfide	5	Toluene
5	MC = Chloromethane	5	TCE = Trichloroethylene
5	cis-1,2-DCE = cis-1,2-Dichloroethylene	5	Total Xylenes

Additional Well Construction Details

SAND PACK = #1 Sand | GROUT = Portland/Bentonite grout mixture.
HOLE PLUG = Bentonite chips | Well pad 2.5 ft square with 12 inch cast iron manhole.

Exceedances

GWQS = Groundwater Quality Standards (NYS TOGS 1.1.1 Class GA)
Only constituents with detected results exceeding GWQS criteria shown (in ug/L).

GEOLOGIC AND WELL CONSTRUCTION LOG

PROJECT NAME
Claremont Polychemical RI/FS

BORING ID
MW-CPC-36

DEPTH (FT)	USCS	MATERIAL DESCRIPTION	REMARKS	SAMPLE	PUSH-AHEAD GROUNDWATER SAMPLE EXCEEDANCES Parameter (Result) ug/L	WELL CONSTRUCTION
175	MH	Medium brown, gray, orange SILT, mica flakes.	Wet, No odors, No PID Elevation	X	No Exceedances	
180	SM	Medium brown, tan, orange, light gray mottled fine SAND and SILT, some mica flakes.	Wet, No odors, No PID Elevation Silt Lens at 181 ft bgs			
185						
190	SM	Medium brown, yellow-orange, light gray mottled fine to medium SAND, some silt and mica flakes.	Wet, No odors, No PID Elevation			
	ML	Light gray/tan silt.	Wet, No odors, No PID Elevation			
195	SM	Medium brown, yellow-orange, light gray mottled fine to medium SAND, some silt and mica flakes.	Wet, No odors, No PID Elevation	X	Acetone (63) Benzene (12) cis-1,2-DCE (7.9)	
200						
205	NR	No recovery.				GROUT
210	SM	Light brown, tan, light gray fine SAND, some silt, trace mica flakes. thin silt lens at 223 ft bgs, 226 ft bgs, and 240 ft bgs.	Wet, No odors, No PID Elevation			
215						
220				X	Benzene (1.9)	
225						
230						

GWQS	Constituent	GWQS	Constituent
0.6	1,2-DCA = 1,2-Dichloroethane	5	EB = Ethylbenzene
50	2-Hex = 2-Hexanone	50	MEK = Methyl Ethyl Ketone
50	Acetone	5	o-Xylene
5	Acrolein	5	Styrene
1	Benzene	5	PCE = Tetrachloroethylene
60	CD = Carbon Disulfide	5	Toluene
5	MC = Chloromethane	5	TCE = Trichloroethylene
5	cis-1,2-DCE = cis-1,2-Dichloroethylene	5	Total Xylenes

Additional Well Construction Details

SAND PACK = #1 Sand | GROUT = Portland/Bentonite grout mixture.
HOLE PLUG = Bentonite chips | Well pad 2.5 ft square with 12 inch cast iron manhole.

Exceedances

GWQS = Groundwater Quality Standards (NYS TOGS 1.1.1 Class GA)
Only constituents with detected results exceeding GWQS criteria shown (in ug/L).

GEOLOGIC AND WELL CONSTRUCTION LOG

PROJECT NAME
Claremont Polychemical RI/FS

BORING ID
MW-CPC-36

DEPTH (FT)	USCS	MATERIAL DESCRIPTION	REMARKS	SAMPLE	PUSH-AHEAD GROUNDWATER SAMPLE EXCEEDANCES Parameter (Result) ug/L	WELL CONSTRUCTION
235–240	SM	Light brown, tan, light gray fine SAND, some silt, trace mica flakes. thin silt lens at 223 ft bgs, 226 ft bgs, and 240 ft bgs.	Wet, No odors, No PID Elevation	X	1,2-DCA (1.9) Benzene (27) cis-1,2-DCE (22) PCE (61) TCE (6.7)	238 feet 243 feet
245	NR	No recovery.				
250–255	SM	Light brown, tan, light gray fine SAND, some silt, trace mica flakes.	Wet, Some Organic Decay odors, No PID Elevation			
255–260	CL	Very stiff dark gray lignitic CLAY (wood chips in clay matrix).	Dry, Organic Decay odor	X	2-Hex (73) Acetone (3900) Benzene (240) CD (92) cis-1,2-DCE (21) EB (47) MEK (1100) o-Xylene (57) Styrene (15) PCE (7.1) Toluene (290) Xylenes (150)	257 feet
265	CL	Medium stiff dark gray SILT.	Dry, no odor.			
270–285	CL	Very still dark gray SILT.	Dry, no odor.			
285	CL	Medium stiff dark gray SILT.	Dry, no odor.			
290–295	NR	No recovery.	Casing Joint Failure			

SAND P.HOLE PLUG GROUT

HOLE PLUG

GWQS	Constituent	GWQS	Constituent
0.6	1,2-DCA = 1,2-Dichloroethane	5	EB = Ethylbenzene
50	2-Hex = 2-Hexanone	50	MEK = Methyl Ethyl Ketone
50	Acetone	5	o-Xylene
5	Acrolein	5	Styrene
1	Benzene	5	PCE = Tetrachloroethylene
60	CD = Carbon Disulfide	5	Toluene
5	MC = Chloromethane	5	TCE = Trichloroethylene
5	cis-1,2-DCE = cis-1,2-Dichloroethylene	5	Total Xylenes

Additional Well Construction Details

SAND PACK = #1 Sand | GROUT = Portland/Bentonite grout mixture.
HOLE PLUG = Bentonite chips | Well pad 2.5 ft square with 12 inch cast iron manhole.

Exceedances

GWQS = Groundwater Quality Standards (NYS TOGS 1.1.1 Class GA)
Only constituents with detected results exceeding GWQS criteria shown (in ug/L).

GEOLOGIC AND WELL CONSTRUCTION LOG	PROJECT NAME: Claremont Polychemical RI/FS	BORING ID: MW-CPC-36

DEPTH (FT)	USCS	MATERIAL DESCRIPTION	REMARKS	SAMPLE	PUSH-AHEAD GROUNDWATER SAMPLE EXCEEDANCES Parameter (Result) ug/L	WELL CONSTRUCTION
300	NR	No recovery.	Casing Joint Failure			
305						
310	SM	Light gray (mottled) fine SAND and SILT, mica flakes.	Wet, No odors, No PID Elevation			
315				X	No Exceedances	
320						
325	CL	Very stiff dark gray and brown CLAY.	Dry, no odor.			
330	NR	No recovery.	Very Tough Drilling			
335						
340						
345	SM	Light gray and brown mottled fine SAND and SILT, mica flakes.	Wet, No odors, No PID Elevation			
350	SM	Light gray and light brown mottled fine SAND and SILT, some mica flakes.	Wet, No odors, No PID Elevation			
355				X	No Exceedances	HOLE PLUG

GWQS	Constituent	GWQS	Constituent
0.6	1,2-DCA = 1,2-Dichloroethane	5	EB = Ethylbenzene
50	2-Hex = 2-Hexanone	50	MEK = Methyl Ethyl Ketone
50	Acetone	5	o-Xylene
5	Acrolein	5	Styrene
1	Benzene	5	PCE = Tetrachloroethylene
60	CD = Carbon Disulfide	5	Toluene
5	MC = Chloromethane	5	TCE = Trichloroethylene
5	cis-1,2-DCE = cis-1,2-Dichloroethylene	5	Total Xylenes

Additional Well Construction Details

SAND PACK = #1 Sand | GROUT = Portland/Bentonite grout mixture.
HOLE PLUG = Bentonite chips | Well pad 2.5 ft square with 12 inch cast iron manhole.

Exceedances

GWQS = Groundwater Quality Standards (NYS TOGS 1.1.1 Class GA)
Only constituents with detected results exceeding GWQS criteria shown (in ug/L).

GEOLOGIC AND WELL CONSTRUCTION LOG

PROJECT NAME
Claremont Polychemical RI/FS

BORING ID
MW-CPC-36

DEPTH (FT)	USCS	MATERIAL DESCRIPTION	REMARKS	SAMPLE	PUSH-AHEAD GROUNDWATER SAMPLE EXCEEDANCES Parameter (Result) ug/L	WELL CONSTRUCTION
360	SM	Light gray and light brown mottled fine SAND and SILT, some mica flakes.	Wet, No odors, No PID Elevation			
	NR	No recovery.				
365						
	SM	Light gray and light brown mottled fine SAND and SILT, some mica flakes.	Wet, No odors, No PID Elevation			
370						
375				X	No Exceedances	
	SM	Light gray, light brown, medium brown, mottled fine SAND and SILT, mica flakes. Silt lenses at 378 ft bgs, 381 ft bgs, and 387 ft bgs.	Wet, No odors, No PID Elevation			
380						
385						
	NR	No recovery.	End of Boring at 400 ft bgs			
390						
395				X	Benzene (2.1)	
400						400 feet
405						
410						
415						
420						

HOLE PLUG

GWQS	Constituent	GWQS	Constituent
0.6	1,2-DCA = 1,2-Dichloroethane	5	EB = Ethylbenzene
50	2-Hex = 2-Hexanone	50	MEK = Methyl Ethyl Ketone
50	Acetone	5	o-Xylene
5	Acrolein	5	Styrene
1	Benzene	5	PCE = Tetrachloroethylene
60	CD = Carbon Disulfide	5	Toluene
5	MC = Chloromethane	5	TCE = Trichloroethylene
5	cis-1,2-DCE = cis-1,2-Dichloroethylene	5	Total Xylenes

Additional Well Construction Details

SAND PACK = #1 Sand | GROUT = Portland/Bentonite grout mixture.
HOLE PLUG = Bentonite chips | Well pad 2.5 ft square with 12 inch cast iron manhole.

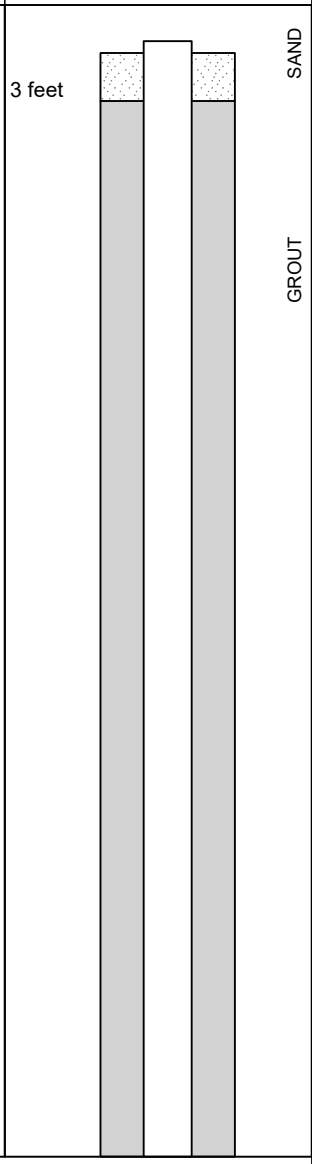
Exceedances

GWQS = Groundwater Quality Standards (NYS TOGS 1.1.1 Class GA)
Only constituents with detected results exceeding GWQS criteria shown (in ug/L).

GEOLOGIC AND WELL CONSTRUCTION LOG		PROJECT NAME: Claremont Polychemical RI/FS		BORING ID: MW-CPC-37	
LOCATION	Old Bethpage, NY	**METHOD**	RotoSonic	**DEPTH TO WATER**	29.48 ft btoc
CLIENT	NYSDEC	**BORING DIAM.**	7 inch	**MEASURE DATE**	9/6/2018
CONTRACT	D007625-43	**SAMPLER TYPE**	6 in. Sonic Core	**METHOD**	Solinst DTW Meter
ASSIGNMENT	WA #43	**START DATE**	8/13/2018	**WELL DEPTH**	450 ft bgs
HDR PROJECT #	10109218	**END DATE**	8/20/2018	**SCREEN ZONE**	440 - 450 ft bgs
HDR INSPECTOR	Edward Brandt	**X** 1139665.0	**Y** 208768.8	**CASING TYPE**	2.5 inch Sch. 80 PVC
CONTRACTOR	Cascade Drilling LP	**GROUND ELEV.**	78.3	**SCREEN TYPE**	2.5 inch Sch. 80 0.010" PVC
DRILLER	Matthew Osterberg	**TOC ELEV.**	77.9	**FINISH TYPE**	12" Manhole; Concrete Pad
EQUIPMENT	ProSonic PS-600T	**COORD SYSTEM**	NAD83 NYSP LI (US FT)		

DEPTH (FT)	USCS	MATERIAL DESCRIPTION	REMARKS	SAMPLE	PUSH-AHEAD GROUNDWATER SAMPLE EXCEEDANCES Parameter (Result) ug/L
0	Asphalt	Asphalt.			
	GM	Medium brown fine to coarse sand and fine to coarse rounded GRAVEL and SILT.	Dry, no odor. Hand Cleared.		
25	GM	Medium brown fine to coarse rounded GRAVEL and fine SAND with silt.	Wet at approx. 28 ft bgs. No odor or PID elevation		
30	MH	Dark gray micaceous SILT.			
35	SM	Medium brown, orange, tan mottled fine SAND and SILT, mica flakes. Intermittent silt lenses approx. 1 inch thick.	Wet, No odors or PID.		
40	SM	Orange and tan fine SAND and SILT, some mica flakes.	Wet, No odors or PID.		
45	SM	Light brown, tan, orange mottled fine SAND and SILT, some mica flakes.	Wet, No odors or PID.		

WELL CONSTRUCTION



GWQS	Constituent	GWQS	Constituent
0.6	1,2-DCA = 1,2-Dichloroethane	5	EB = Ethylbenzene
50	2-Hex = 2-Hexanone	50	MEK = Methyl Ethyl Ketone
50	Acetone	5	o-Xylene
5	Acrolein	5	Styrene
1	Benzene	5	PCE = Tetrachloroethylene
60	CD = Carbon Disulfide	5	Toluene
5	MC = Chloromethane	5	TCE = Trichloroethylene
5	cis-1,2-DCE = cis-1,2-Dichloroethylene	5	Total Xylenes

Additional Well Construction Details

SAND PACK = #1 Sand | GROUT = Portland/Bentonite grout mixture.
HOLE PLUG = Bentonite chips | Well pad 2.5 ft square with 12 inch cast iron manhole.

Exceedances

GWQS = Groundwater Quality Standards (NYS TOGS 1.1.1 Class GA)
Only constituents with detected results exceeding GWQS criteria shown (in ug/L).

GEOLOGIC AND WELL CONSTRUCTION LOG

PROJECT NAME
Claremont Polychemical RI/FS

BORING ID
MW-CPC-37

DEPTH (FT)	USCS	MATERIAL DESCRIPTION	REMARKS	SAMPLE	PUSH-AHEAD GROUNDWATER SAMPLE EXCEEDANCES Parameter (Result) ug/L	WELL CONSTRUCTION
50–80	SM	Light brown, tan, orange mottled fine SAND and SILT, some mica flakes.	Wet, No odors or PID.			GROUT
80–90	SM	Dark gray, tan, brown mottled fine SAND and SILT, mica flakes. Silt lens at approx. 85 ft.	Wet, No odors or PID.			
90–100	SM	Orange, tan, brown, and gray mottled fine SAND and SILT. Silt lens at approx. 96 ft.	Wet, No odors or PID.			
100–105	SM	Light brown, gray, tan mottled fine SAND and SILT,, mica flakes.	Wet, No odors or PID.			

GWQS	Constituent	GWQS	Constituent
0.6	1,2-DCA = 1,2-Dichloroethane	5	EB = Ethylbenzene
50	2-Hex = 2-Hexanone	50	MEK = Methyl Ethyl Ketone
50	Acetone	5	o-Xylene
5	Acrolein	5	Styrene
1	Benzene	5	PCE = Tetrachloroethylene
60	CD = Carbon Disulfide	5	Toluene
5	MC = Chloromethane	5	TCE = Trichloroethylene
5	cis-1,2-DCE = cis-1,2-Dichloroethylene	5	Total Xylenes

Additional Well Construction Details

SAND PACK = #1 Sand | GROUT = Portland/Bentonite grout mixture.
HOLE PLUG = Bentonite chips | Well pad 2.5 ft square with 12 inch cast iron manhole.

Exceedances

GWQS = Groundwater Quality Standards (NYS TOGS 1.1.1 Class GA)
Only constituents with detected results exceeding GWQS criteria shown (in ug/L).

GEOLOGIC AND WELL CONSTRUCTION LOG	PROJECT NAME	BORING ID
	Claremont Polychemical RI/FS	MW-CPC-37

DEPTH (FT)	USCS	MATERIAL DESCRIPTION	REMARKS	SAMPLE	PUSH-AHEAD GROUNDWATER SAMPLE EXCEEDANCES Parameter (Result) ug/L	WELL CONSTRUCTION
110	SM	Light brown, gray, tan mottled fine SAND and SILT,, mica flakes.	Wet, No odors or PID.			GROUT
115						
120						
125						
130	SM	Light brown, gray, tan mottled fine to medium SAND and SILT,, mica flakes.	Wet, No odors or PID.			
135						
140						
145						
150						
155	SM	Orange, tan, brown, and dark gray mottled fine SAND and SILT, mica flakes. Some silt/mica lenses.	Wet, No odors or PID.			
160						
165						
170	NR	No recovery.	No Recovery			

GWQS	Constituent	GWQS	Constituent
0.6	1,2-DCA = 1,2-Dichloroethane	5	EB = Ethylbenzene
50	2-Hex = 2-Hexanone	50	MEK = Methyl Ethyl Ketone
50	Acetone	5	o-Xylene
5	Acrolein	5	Styrene
1	Benzene	5	PCE = Tetrachloroethylene
60	CD = Carbon Disulfide	5	Toluene
5	MC = Chloromethane	5	TCE = Trichloroethylene
5	cis-1,2-DCE = cis-1,2-Dichloroethylene	5	Total Xylenes

Additional Well Construction Details

SAND PACK = #1 Sand | GROUT = Portland/Bentonite grout mixture.
HOLE PLUG = Bentonite chips | Well pad 2.5 ft square with 12 inch cast iron manhole.

Exceedances

GWQS = Groundwater Quality Standards (NYS TOGS 1.1.1 Class GA)
Only constituents with detected results exceeding GWQS criteria shown (in ug/L).

GEOLOGIC AND WELL CONSTRUCTION LOG	PROJECT NAME	BORING ID
	Claremont Polychemical RI/FS	MW-CPC-37

DEPTH (FT)	USCS	MATERIAL DESCRIPTION	REMARKS	SAMPLE	PUSH-AHEAD GROUNDWATER SAMPLE EXCEEDANCES Parameter (Result) ug/L	WELL CONSTRUCTION
175	NR	No recovery.	No Recovery	X	No Exceedances	
180						
185						
190	SM	Light brown, tan, orange mottled fine to medium SAND, some silt, mica flakes.	Wet, No odors or PID.			
195						
200	MH	Medium gray, brown, tan banded SILT with some fine sand, mica flakes.	Wet, No odors or PID. Note - GW Sampler Point stuck at 197 feet.	X	No Exceedances	GROUT
205						
210	SM	Medium and dark brown and tan mottled fine to medium SAND, some silt and mica flakes.	Wet, No odors or PID.			
215				X	No Exceedances	
220	MH	Medium gray, brown, tan banded SILT, mica flakes.	Wet, No odors or PID.			
225						
230						

GWQS	Constituent	GWQS	Constituent
0.6	1,2-DCA = 1,2-Dichloroethane	5	EB = Ethylbenzene
50	2-Hex = 2-Hexanone	50	MEK = Methyl Ethyl Ketone
50	Acetone	5	o-Xylene
5	Acrolein	5	Styrene
1	Benzene	5	PCE = Tetrachloroethylene
60	CD = Carbon Disulfide	5	Toluene
5	MC = Chloromethane	5	TCE = Trichloroethylene
5	cis-1,2-DCE = cis-1,2-Dichloroethylene	5	Total Xylenes

Additional Well Construction Details

SAND PACK = #1 Sand | GROUT = Portland/Bentonite grout mixture.
HOLE PLUG = Bentonite chips | Well pad 2.5 ft square with 12 inch cast iron manhole.

Exceedances

GWQS = Groundwater Quality Standards (NYS TOGS 1.1.1 Class GA)
Only constituents with detected results exceeding GWQS criteria shown (in ug/L).

GEOLOGIC AND WELL CONSTRUCTION LOG

PROJECT NAME
Claremont Polychemical RI/FS

BORING ID
MW-CPC-37

DEPTH (FT)	USCS	MATERIAL DESCRIPTION	REMARKS	SAMPLE	PUSH-AHEAD GROUNDWATER SAMPLE EXCEEDANCES Parameter (Result) ug/L	WELL CONSTRUCTION
235	MH	Medium gray, brown, tan banded SILT, mica flakes.	Wet, No odors or PID.	X	No Exceedances	
240						
245	SM	Light brown fine to medium SAND and SILT, mica flakes.	Wet, No odors or PID.			
250	SM	Medium to dark gray fine SAND and SILT, mica flakes.	Wet, Decay odor, No PID.			
255				X	No Exceedances	
	CL	Lignitic CLAY.	Dry, Very Stiff.			
260	CL	Medium gray CLAY; lignite in clay matrix.	Dry, Very Stiff.			
265						GROUT
270						
275						
	CL	Medium gray CLAY; lignite in clay matrix.	Wet, Very Soft			
280	CL	Medium gray CLAY.				
285						
	SM	Medium gray fine SAND and SILT, mica flakes.	Wet, No odors or PID.			
290						
295						

GWQS	Constituent	GWQS	Constituent
0.6	1,2-DCA = 1,2-Dichloroethane	5	EB = Ethylbenzene
50	2-Hex = 2-Hexanone	50	MEK = Methyl Ethyl Ketone
50	Acetone	5	o-Xylene
5	Acrolein	5	Styrene
1	Benzene	5	PCE = Tetrachloroethylene
60	CD = Carbon Disulfide	5	Toluene
5	MC = Chloromethane	5	TCE = Trichloroethylene
5	cis-1,2-DCE = cis-1,2-Dichloroethylene	5	Total Xylenes

Additional Well Construction Details

SAND PACK = #1 Sand | GROUT = Portland/Bentonite grout mixture.
HOLE PLUG = Bentonite chips | Well pad 2.5 ft square with 12 inch cast iron manhole.

Exceedances

GWQS = Groundwater Quality Standards (NYS TOGS 1.1.1 Class GA)
Only constituents with detected results exceeding GWQS criteria shown (in ug/L).

GEOLOGIC AND WELL CONSTRUCTION LOG

PROJECT NAME
Claremont Polychemical RI/FS

BORING ID
MW-CPC-37

DEPTH (FT)	USCS	MATERIAL DESCRIPTION	REMARKS	SAMPLE	PUSH-AHEAD GROUNDWATER SAMPLE EXCEEDANCES Parameter (Result) ug/L	WELL CONSTRUCTION
300	SM	Medium gray fine SAND and SILT, mica flakes.	Wet, No odors or PID.			
	SM	Medium dark fine SAND and SILT, mica flakes.	Wet, Decay odor at 301 - 305 ft bgs (PID, H2S, CO)	X	Acetone (55) Benzene (9) Toluene (11) Xylenes (9.4)	
305						
310						
315				X	Acetone (110) Benzene (110) Toluene (23) Xylenes (11)	
320	NR	No recovery.				
325						
330	SM	Dark and medium gray mottled fine SAND, some silt, mica flakes.	Wet, Decay odor.			GROUT
335				X	Acetone (960) Benzene (210) MC (44) EB (9.1) MEK (230) Toluene (110) Xylenes (45)	
340	ML	Dark gray micaceous SILT.	Dry, Very Stiff.			
345	SM	Light gray fine SAND and SILT, mica flakes.	Wet, No odors or PID			
350						
355				X	Acetone (54) Benzene (27) Toluene (13)	

GWQS	Constituent	GWQS	Constituent
0.6	1,2-DCA = 1,2-Dichloroethane	5	EB = Ethylbenzene
50	2-Hex = 2-Hexanone	50	MEK = Methyl Ethyl Ketone
50	Acetone	5	o-Xylene
5	Acrolein	5	Styrene
1	Benzene	5	PCE = Tetrachloroethylene
60	CD = Carbon Disulfide	5	Toluene
5	MC = Chloromethane	5	TCE = Trichloroethylene
5	cis-1,2-DCE = cis-1,2-Dichloroethylene	5	Total Xylenes

Additional Well Construction Details

SAND PACK = #1 Sand | GROUT = Portland/Bentonite grout mixture.
HOLE PLUG = Bentonite chips | Well pad 2.5 ft square with 12 inch cast iron manhole.

Exceedances

GWQS = Groundwater Quality Standards (NYS TOGS 1.1.1 Class GA)
Only constituents with detected results exceeding GWQS criteria shown (in ug/L).

GEOLOGIC AND WELL CONSTRUCTION LOG

PROJECT NAME
Claremont Polychemical RI/FS

BORING ID
MW-CPC-37

DEPTH (FT)	USCS	MATERIAL DESCRIPTION	REMARKS	SAMPLE	PUSH-AHEAD GROUNDWATER SAMPLE EXCEEDANCES Parameter (Result) ug/L	WELL CONSTRUCTION
360	SM	Light gray fine SAND and SILT, mica flakes.	Wet, No odors or PID			
365	SM	Light gray fine SAND, some silt, mica flakes.	Wet, No odors or PID			
370						
375	SM	Light gray fine SAND and SILT, mica flakes.	Wet, No odors or PID	X	Acetone (54) Benzene (2.8)	
380	ML	Light gray micaceous SILT.	Dry, Stiff.			
385	ML	Dark gray SILT with mica layers.	Very Stiff.			
	SM	Dark gray fine SAND and SILT, mica flakes.	Wet, No odors or PID			
390	SM	Dark and light gray mottled fine SAND and SILT, mica flakes. Lenses of mica flakes and silt.	Wet, No odors or PID			
395				X	Acetone (93) Benzene (11) Toluene (6.7)	
400						
405						
410	SM	Light and dark gray, orange mottled fine SAND and SILT; lenses of mica.	Wet, No odors or PID			
415				X	No Exceedances	
420						GROUT

GWQS	Constituent	GWQS	Constituent
0.6	1,2-DCA = 1,2-Dichloroethane	5	EB = Ethylbenzene
50	2-Hex = 2-Hexanone	50	MEK = Methyl Ethyl Ketone
50	Acetone	5	o-Xylene
5	Acrolein	5	Styrene
1	Benzene	5	PCE = Tetrachloroethylene
60	CD = Carbon Disulfide	5	Toluene
5	MC = Chloromethane	5	TCE = Trichloroethylene
5	cis-1,2-DCE = cis-1,2-Dichloroethylene	5	Total Xylenes

Additional Well Construction Details

SAND PACK = #1 Sand | GROUT = Portland/Bentonite grout mixture.
HOLE PLUG = Bentonite chips | Well pad 2.5 ft square with 12 inch cast iron manhole.

Exceedances

GWQS = Groundwater Quality Standards (NYS TOGS 1.1.1 Class GA)
Only constituents with detected results exceeding GWQS criteria shown (in ug/L).

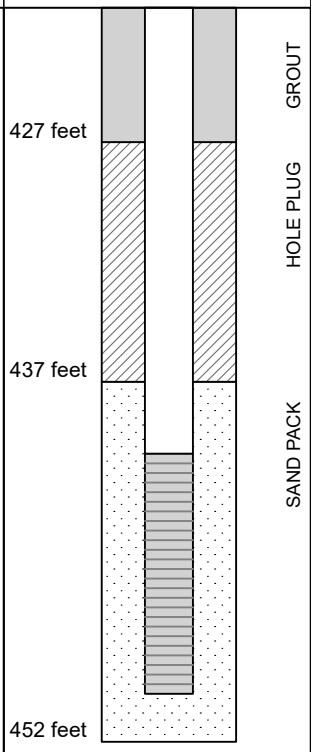
GEOLOGIC AND WELL CONSTRUCTION LOG

PROJECT NAME
Claremont Polychemical RI/FS

BORING ID
MW-CPC-37

DEPTH (FT)	USCS	MATERIAL DESCRIPTION	REMARKS	SAMPLE	PUSH-AHEAD GROUNDWATER SAMPLE EXCEEDANCES Parameter (Result) ug/L
425	SM	Light and dark gray, orange mottled fine SAND and SILT; lenses of mica.	Wet, No odors or PID		
	NR	No recovery.	Wash out core.		
430					
	CL	Dark gray silty CLAY, mica flakes.	Dry, Very Stiff.		
435					
440	ML	Medium gray, orange, brown mottled and banded fine sandy SILT.	Wet, No odors or PID		
	SM	Medium gray, orange, brown mottled and banded fine SAND and SILT, mica flakes.	Wet, No odors or PID		
445					
450					
455				X	Acetone (270) Acrolien (57 JN) Benzene (29)
460					
465					
470					
475					
480					

WELL CONSTRUCTION



GWQS	Constituent	GWQS	Constituent
0.6	1,2-DCA = 1,2-Dichloroethane	5	EB = Ethylbenzene
50	2-Hex = 2-Hexanone	50	MEK = Methyl Ethyl Ketone
50	Acetone	5	o-Xylene
5	Acrolein	5	Styrene
1	Benzene	5	PCE = Tetrachloroethylene
60	CD = Carbon Disulfide	5	Toluene
5	MC = Chloromethane	5	TCE = Trichloroethylene
5	cis-1,2-DCE = cis-1,2-Dichloroethylene	5	Total Xylenes

Additional Well Construction Details

SAND PACK = #1 Sand | GROUT = Portland/Bentonite grout mixture.
HOLE PLUG = Bentonite chips | Well pad 2.5 ft square with 12 inch cast iron manhole.

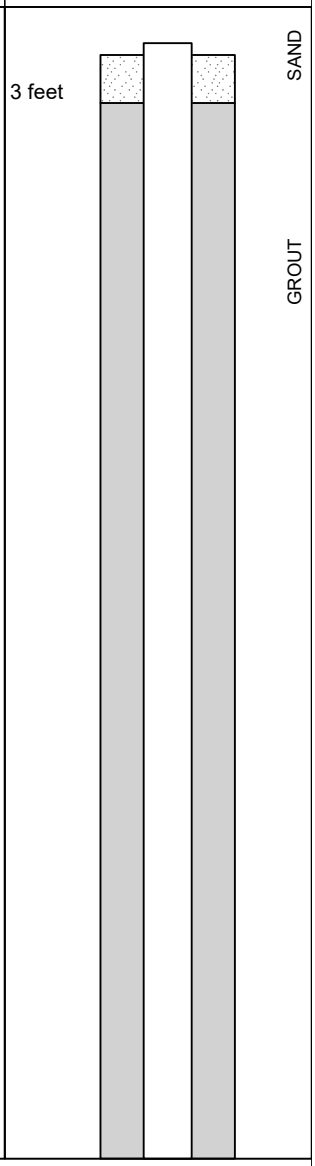
Exceedances

GWQS = Groundwater Quality Standards (NYS TOGS 1.1.1 Class GA)
Only constituents with detected results exceeding GWQS criteria shown (in ug/L).

GEOLOGIC AND WELL CONSTRUCTION LOG		PROJECT NAME: Claremont Polychemical RI/FS		BORING ID: **MW-CPC-38**	
LOCATION	Old Bethpage, NY	**METHOD**	RotoSonic	**DEPTH TO WATER**	30.74 ft btoc
CLIENT	NYSDEC	**BORING DIAM.**	7 inch	**MEASURE DATE**	9/19/2018
CONTRACT	D007625-43	**SAMPLER TYPE**	6 in. Sonic Core	**METHOD**	Solinst DTW Meter
ASSIGNMENT	WA #43	**START DATE**	8/28/2018	**WELL DEPTH**	394.5 ft bgs
HDR PROJECT #	10109218	**END DATE**	9/5/2018	**SCREEN ZONE**	384 - 394 ft bgs
HDR INSPECTOR	Edward Brandt	**X** 1139992.3	**Y** 208996.0	**CASING TYPE**	2.5 inch Sch. 80 PVC
CONTRACTOR	Cascade Drilling LP	**GROUND ELEV.**	79.4	**SCREEN TYPE**	2.5 inch Sch. 80 0.010" PVC
DRILLER	Matthew Osterberg	**TOC ELEV.**	78.9	**FINISH TYPE**	12" Manhole; Concrete Pad
EQUIPMENT	ProSonic PS-600T	**COORD SYSTEM**	NAD83 NYSP LI (US FT)		

DEPTH (FT)	USCS	MATERIAL DESCRIPTION	REMARKS	SAMPLE	PUSH-AHEAD GROUNDWATER SAMPLE EXCEEDANCES Parameter (Result) ug/L
0	GM	Topsoil and grass.	Hand Clear. Dry, No odors or PID.		
	GM	Yellowish orange, tan, light brown fine to coarse SAND and fine to coarse rounded GRAVEL, some silt.	Hand Clear. Dry, No odors or PID.		
5	GM	Yellowish orange, tan, light brown fine to coarse SAND and fine to coarse rounded GRAVEL, trace silt.	Dry, No odors or PID. Wet at approx. 26 ft bgs.		
40	ML	Dark gray micaceous SILT.	Very Stiff.		
45	SM	Light brown, yellowish orange, tan, burnt orange fine SAND and SILT, some mica flakes.	Wet, No odors or PID		

WELL CONSTRUCTION



GWQS	Constituent	GWQS	Constituent
0.6	1,2-DCA = 1,2-Dichloroethane	5	EB = Ethylbenzene
50	2-Hex = 2-Hexanone	50	MEK = Methyl Ethyl Ketone
50	Acetone	5	o-Xylene
5	Acrolein	5	Styrene
1	Benzene	5	PCE = Tetrachloroethylene
60	CD = Carbon Disulfide	5	Toluene
5	MC = Chloromethane	5	TCE = Trichloroethylene
5	cis-1,2-DCE = cis-1,2-Dichloroethylene	5	Total Xylenes

Additional Well Construction Details

SAND PACK = #1 Sand | GROUT = Portland/Bentonite grout mixture.
HOLE PLUG = Bentonite chips | Well pad 2.5 ft square with 12 inch cast iron manhole.

Exceedances

GWQS = Groundwater Quality Standards (NYS TOGS 1.1.1 Class GA)
Only constituents with detected results exceeding GWQS criteria shown (in ug/L).

GEOLOGIC AND WELL CONSTRUCTION LOG	PROJECT NAME	BORING ID
	Claremont Polychemical RI/FS	MW-CPC-38

DEPTH (FT)	USCS	MATERIAL DESCRIPTION	REMARKS	SAMPLE	PUSH-AHEAD GROUNDWATER SAMPLE EXCEEDANCES Parameter (Result) ug/L	WELL CONSTRUCTION
50	SM	Light brown, yellowish orange, tan, burnt orange fine SAND and SILT, some mica flakes.	Wet, No odors or PID			
55	SM	Brick red fine SAND and SILT, mica flakes.	Wet, No odors or PID			
60	SM	Light brown, tan, orange, and dark gray fine SAND and SILT, mica flakes.	Wet, No odors or PID			
65						
70						
75						
80	SP	Yellowish orange medium to coarse SAND some fine sand, silt, mica flakes.	Wet, No odors or PID			
85	MH	Light gray, light brown mottled micaceous SILT.	Wet, No odors or PID			
90	SM	Light brown fine SAND and SILT, mica flakes.	Wet, No odors or PID			
95						
100	SM	Light gray and light brown fine SAND and SILT, mica flakes. Silt lense at top of sample.	Wet, No odors or PID			
105	SM	Light brown, tan, gray, orange mottled fine SAND and SILT, mica flakes.	Wet, No odors or PID			
	SM	Light brown, tan, gray, orange, light gray mottled fine to medium SAND and SILT,	Wet, No odors or PID			GROUT

GWQS	Constituent	GWQS	Constituent
0.6	1,2-DCA = 1,2-Dichloroethane	5	EB = Ethylbenzene
50	2-Hex = 2-Hexanone	50	MEK = Methyl Ethyl Ketone
50	Acetone	5	o-Xylene
5	Acrolein	5	Styrene
1	Benzene	5	PCE = Tetrachloroethylene
60	CD = Carbon Disulfide	5	Toluene
5	MC = Chloromethane	5	TCE = Trichloroethylene
5	cis-1,2-DCE = cis-1,2-Dichloroethylene	5	Total Xylenes

Additional Well Construction Details

SAND PACK = #1 Sand | GROUT = Portland/Bentonite grout mixture.
HOLE PLUG = Bentonite chips | Well pad 2.5 ft square with 12 inch cast iron manhole.

Exceedances

GWQS = Groundwater Quality Standards (NYS TOGS 1.1.1 Class GA)
Only constituents with detected results exceeding GWQS criteria shown (in ug/L).

GEOLOGIC AND WELL CONSTRUCTION LOG	PROJECT NAME: Claremont Polychemical RI/FS	BORING ID: MW-CPC-38

DEPTH (FT)	USCS	MATERIAL DESCRIPTION	REMARKS	SAMPLE	PUSH-AHEAD GROUNDWATER SAMPLE EXCEEDANCES Parameter (Result) ug/L	WELL CONSTRUCTION
110	SM	Light brown, tan, gray, orange, light gray mottled fine to medium SAND and SILT, mica flakes.	Wet, No odors or PID			
140	SM	Orange, tan, light brown, and light gray mottled fine SAND and SILT, mica flakes.	Wet, No odors or PID			
	MH	Light gray, brown, tan, orange and green SILT, mica flakes.	Wet, No odors or PID Very Soft			
145	SM	Light gray, brown, tan, orange and green fine SAND and SILT, mica flakes.	Wet, No odors or PID			
150	MH	Light gray, brown, tan, orange and green fine sandy SILT, mica flakes.	Wet, No odors or PID			
155	SM	Light brown, tan, and orange fine SAND and SILT, mica flakes.	Wet, No odors or PID			
160	NR	No recovery.				
165	SM	Light brown, tan, and orange fine SAND and SILT, mica flakes.	Wet, No odors or PID			
170						GROUT

GWQS	Constituent	GWQS	Constituent
0.6	1,2-DCA = 1,2-Dichloroethane	5	EB = Ethylbenzene
50	2-Hex = 2-Hexanone	50	MEK = Methyl Ethyl Ketone
50	Acetone	5	o-Xylene
5	Acrolein	5	Styrene
1	Benzene	5	PCE = Tetrachloroethylene
60	CD = Carbon Disulfide	5	Toluene
5	MC = Chloromethane	5	TCE = Trichloroethylene
5	cis-1,2-DCE = cis-1,2-Dichloroethylene	5	Total Xylenes

Additional Well Construction Details

SAND PACK = #1 Sand | GROUT = Portland/Bentonite grout mixture.
HOLE PLUG = Bentonite chips | Well pad 2.5 ft square with 12 inch cast iron manhole.

Exceedances

GWQS = Groundwater Quality Standards (NYS TOGS 1.1.1 Class GA)
Only constituents with detected results exceeding GWQS criteria shown (in ug/L).

GEOLOGIC AND WELL CONSTRUCTION LOG

PROJECT NAME
Claremont Polychemical RI/FS

BORING ID
MW-CPC-38

DEPTH (FT)	USCS	MATERIAL DESCRIPTION	REMARKS	SAMPLE	PUSH-AHEAD GROUNDWATER SAMPLE EXCEEDANCES Parameter (Result) ug/L	WELL CONSTRUCTION
175	SM	Light brown, tan, and orange fine SAND and SILT, mica flakes.	Wet, No odors or PID			
	SM	Light brown, greenish blue, and tan fine SAND and SILT, mica flkaes. Silt lens at 198 ft bgs.	Wet, No odors or PID	X	Benzene (18)	
180						
185						
190						
195				X	No Exceedances	
200						
205						GROUT
210						
215						
	MH	Light gray, and light brown fine sandy SILT, mica flakes.	Wet, No odors or PID Very Soft	X	No Exceedances	
220						
225						
230						
	SM	Light brown, gray, tan, and orange fine	Wet, No odors or PID			

GWQS	Constituent	GWQS	Constituent
0.6	1,2-DCA = 1,2-Dichloroethane	5	EB = Ethylbenzene
50	2-Hex = 2-Hexanone	50	MEK = Methyl Ethyl Ketone
50	Acetone	5	o-Xylene
5	Acrolein	5	Styrene
1	Benzene	5	PCE = Tetrachloroethylene
60	CD = Carbon Disulfide	5	Toluene
5	MC = Chloromethane	5	TCE = Trichloroethylene
5	cis-1,2-DCE = cis-1,2-Dichloroethylene	5	Total Xylenes

Additional Well Construction Details

SAND PACK = #1 Sand | GROUT = Portland/Bentonite grout mixture.
HOLE PLUG = Bentonite chips | Well pad 2.5 ft square with 12 inch cast iron manhole.

Exceedances

GWQS = Groundwater Quality Standards (NYS TOGS 1.1.1 Class GA)
Only constituents with detected results exceeding GWQS criteria shown (in ug/L).

GEOLOGIC AND WELL CONSTRUCTION LOG

PROJECT NAME
Claremont Polychemical RI/FS

BORING ID
MW-CPC-38

DEPTH (FT)	USCS	MATERIAL DESCRIPTION	REMARKS	SAMPLE	PUSH-AHEAD GROUNDWATER SAMPLE EXCEEDANCES Parameter (Result) ug/L	WELL CONSTRUCTION
235	SM	Light brown, gray, tan, and orange fine SAND and SILT, mica flakes.	Wet, No odors or PID	X	No Exceedances	
240						
245						
250	SM	Dark brown and olive gray fine SAND and SILT, mica flakes.	Wet, No odors or PID			
255				X	No Exceedances	
260	CL	Dark gray lignitic CLAY.	Dry, Very Stiff.			
265						GROUT
270	CL	Dark gray silty micaceous CLAY.	Dry, Very Stiff.			
275						
280						
285	NR	No recovery.	Driller notes soft drilling action - possibly sand.			
290	SM	Light and medium gray fine SAND, some silt, mica flakes. Silt layer at 294-295 ft bgs.	Wet, No odors or PID			
295				X		

GWQS	Constituent	GWQS	Constituent
0.6	1,2-DCA = 1,2-Dichloroethane	5	EB = Ethylbenzene
50	2-Hex = 2-Hexanone	50	MEK = Methyl Ethyl Ketone
50	Acetone	5	o-Xylene
5	Acrolein	5	Styrene
1	Benzene	5	PCE = Tetrachloroethylene
60	CD = Carbon Disulfide	5	Toluene
5	MC = Chloromethane	5	TCE = Trichloroethylene
5	cis-1,2-DCE = cis-1,2-Dichloroethylene	5	Total Xylenes

Additional Well Construction Details

SAND PACK = #1 Sand | GROUT = Portland/Bentonite grout mixture.
HOLE PLUG = Bentonite chips | Well pad 2.5 ft square with 12 inch cast iron manhole.

Exceedances

GWQS = Groundwater Quality Standards (NYS TOGS 1.1.1 Class GA)
Only constituents with detected results exceeding GWQS criteria shown (in ug/L).

GEOLOGIC AND WELL CONSTRUCTION LOG

PROJECT NAME
Claremont Polychemical RI/FS

BORING ID
MW-CPC-38

DEPTH (FT)	USCS	MATERIAL DESCRIPTION	REMARKS	SAMPLE	PUSH-AHEAD GROUNDWATER SAMPLE EXCEEDANCES Parameter (Result) ug/L	WELL CONSTRUCTION
300	SM	Light and medium gray fine SAND, some silt, mica flakes. Silt layer at 294-295 ft bgs.	Wet, No odors or PID	X	Acetone (340) Benzene (54) MC (12) MEK (72) Toluene (9.9)	
305						
310						
315				X	No Exceedances	
320	SM	Tan, medium brown, light gray fine SAND, little silt, mica flakes.	Wet, No odors or PID			
325						
330						
335				X	No Exceedances	
340	ML	Dark gray SILT with fine sand, mica flakes.	Wet, No odors or PID			
345	SM	Medium and dark gray mottled fine SAND, some silt, mica flakes. Lignite present at 358 ft bgs.	Wet, No odors or PID			
350						
355				X	Benzene (23)	GROUT

GWQS	Constituent	GWQS	Constituent
0.6	1,2-DCA = 1,2-Dichloroethane	5	EB = Ethylbenzene
50	2-Hex = 2-Hexanone	50	MEK = Methyl Ethyl Ketone
50	Acetone	5	o-Xylene
5	Acrolein	5	Styrene
1	Benzene	5	PCE = Tetrachloroethylene
60	CD = Carbon Disulfide	5	Toluene
5	MC = Chloromethane	5	TCE = Trichloroethylene
5	cis-1,2-DCE = cis-1,2-Dichloroethylene	5	Total Xylenes

Additional Well Construction Details

SAND PACK = #1 Sand | GROUT = Portland/Bentonite grout mixture.
HOLE PLUG = Bentonite chips | Well pad 2.5 ft square with 12 inch cast iron manhole.

Exceedances

GWQS = Groundwater Quality Standards (NYS TOGS 1.1.1 Class GA)
Only constituents with detected results exceeding GWQS criteria shown (in ug/L).

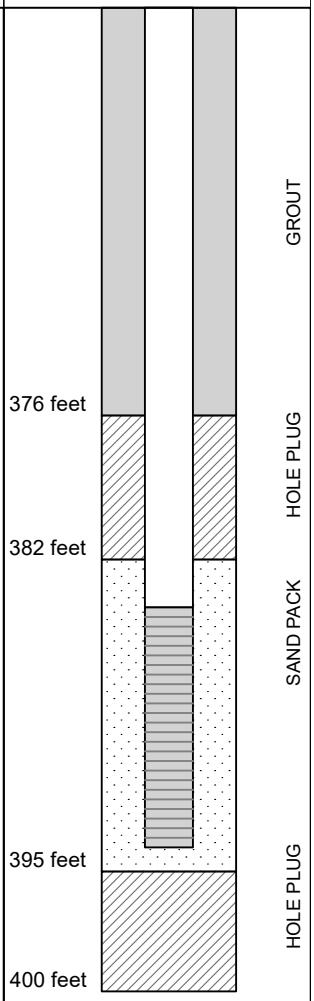
GEOLOGIC AND WELL CONSTRUCTION LOG

PROJECT NAME
Claremont Polychemical RI/FS

BORING ID
MW-CPC-38

DEPTH (FT)	USCS	MATERIAL DESCRIPTION	REMARKS	SAMPLE	PUSH-AHEAD GROUNDWATER SAMPLE EXCEEDANCES Parameter (Result) ug/L
360	SM	Medium and dark gray mottled fine SAND, some silt, mica flakes. Lignite present at 358 ft bgs.	Wet, No odors or PID		
365	SM	Light brown, tan, and gray mottled fine SAND, some silt, mica flakes.	Wet, No odors or PID		
370					
375	SM	Light gray fine SAND and SILT, mica flakes.	Wet, No odors or PID	X	No Exceedances
380					
385					
390					
	ML	Dark gray SILT.	Dry, Very Stiff.		
395	SM	Light gray fine SAND and SILT, mica flakes.	Wet, No odors or PID	X	Acetone (410) Acrolien (17 JN) Benzene (180) EB (44) MEK (170) Styrene (19) Toluene (170) Xylenes (100)
	NR	No recovery.			
400					
405				X	No Exceedances
410					
415					
420					

WELL CONSTRUCTION



GWQS	Constituent	GWQS	Constituent
0.6	1,2-DCA = 1,2-Dichloroethane	5	EB = Ethylbenzene
50	2-Hex = 2-Hexanone	50	MEK = Methyl Ethyl Ketone
50	Acetone	5	o-Xylene
5	Acrolein	5	Styrene
1	Benzene	5	PCE = Tetrachloroethylene
60	CD = Carbon Disulfide	5	Toluene
5	MC = Chloromethane	5	TCE = Trichloroethylene
5	cis-1,2-DCE = cis-1,2-Dichloroethylene	5	Total Xylenes

Additional Well Construction Details

SAND PACK = #1 Sand | GROUT = Portland/Bentonite grout mixture.
HOLE PLUG = Bentonite chips | Well pad 2.5 ft square with 12 inch cast iron manhole.

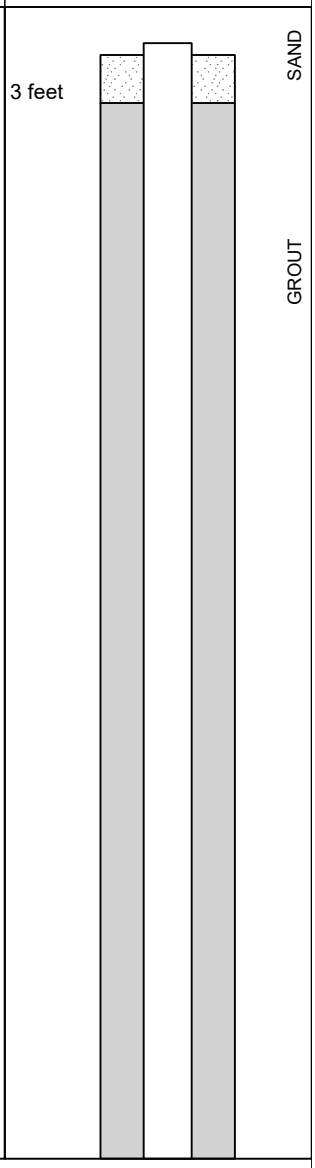
Exceedances

GWQS = Groundwater Quality Standards (NYS TOGS 1.1.1 Class GA)
Only constituents with detected results exceeding GWQS criteria shown (in ug/L).

GEOLOGIC AND WELL CONSTRUCTION LOG		PROJECT NAME: Claremont Polychemical RI/FS		BORING ID: **MW-CPC-39**	
LOCATION	Old Bethpage, NY	**METHOD**	RotoSonic	**DEPTH TO WATER**	26.97 ft btoc
CLIENT	NYSDEC	**BORING DIAM.**	7 inch	**MEASURE DATE**	9/25/2018
CONTRACT	D007625-43	**SAMPLER TYPE**	6 in. Sonic Core	**METHOD**	Solinst DTW Meter
ASSIGNMENT	WA #43	**START DATE**	9/11/2018	**WELL DEPTH**	390 ft bgs
HDR PROJECT #	10109218	**END DATE**	9/18/2018	**SCREEN ZONE**	370 - 390 ft bgs
HDR INSPECTOR	Edward Brandt	**X** 1140843.0	**Y** 208739.8	**CASING TYPE**	2.5 inch Sch. 80 PVC
CONTRACTOR	Cascade Drilling LP	**GROUND ELEV.**	75.8	**SCREEN TYPE**	2.5 inch Sch. 80 0.010" PVC
DRILLER	Matthew Osterberg	**TOC ELEV.**	75.3	**FINISH TYPE**	12" Manhole; Concrete Pad
EQUIPMENT	ProSonic PS-600T	**COORD SYSTEM**	NAD83 NYSP LI (US FT)		

DEPTH (FT)	USCS	MATERIAL DESCRIPTION	REMARKS	SAMPLE	PUSH-AHEAD GROUNDWATER SAMPLE EXCEEDANCES Parameter (Result) ug/L
0	Asphalt	Asphalt.			
	GW	Yellowish orange fine to coarse SAND and fine to coarse rounded GRAVEL.	Dry, No odors or PID.		
5					
	GW	Yellowish orange fine to coarse SAND and fine to coarse rounded GRAVEL, trace silt.	Dry, No odors or PID.		
10	SM	Medium brown, tan, orange fine to coarse SAND and SILT, some fine to coarse rounded gravel.	Dry, No odors or PID. Wet at approx. 29 ft bgs.		
15					
20					
25					
30					
35					
40					
45	ML	Medium brown SILT.	Wet, No odors or PID.		
	SP				

WELL CONSTRUCTION



GWQS	Constituent	GWQS	Constituent
0.6	1,2-DCA = 1,2-Dichloroethane	5	EB = Ethylbenzene
50	2-Hex = 2-Hexanone	50	MEK = Methyl Ethyl Ketone
50	Acetone	5	o-Xylene
5	Acrolein	5	Styrene
1	Benzene	5	PCE = Tetrachloroethylene
60	CD = Carbon Disulfide	5	Toluene
5	MC = Chloromethane	5	TCE = Trichloroethylene
5	cis-1,2-DCE = cis-1,2-Dichloroethylene	5	Total Xylenes

Additional Well Construction Details

SAND PACK = #1 Sand | GROUT = Portland/Bentonite grout mixture.
HOLE PLUG = Bentonite chips | Well pad 2.5 ft square with 12 inch cast iron manhole.

Exceedances

GWQS = Groundwater Quality Standards (NYS TOGS 1.1.1 Class GA)
Only constituents with detected results exceeding GWQS criteria shown (in ug/L).

GEOLOGIC AND WELL CONSTRUCTION LOG

PROJECT NAME
Claremont Polychemical RI/FS

BORING ID
MW-CPC-39

DEPTH (FT)	USCS	MATERIAL DESCRIPTION	REMARKS	SAMPLE	PUSH-AHEAD GROUNDWATER SAMPLE EXCEEDANCES Parameter (Result) ug/L	WELL CONSTRUCTION
50	SP	Medium brown fine SAND and SILT.	Wet, No odors or PID.			GROUT
55						
60	SW	Medium brown and tan fine to coarse SAND and fine to coarse rounded GRAVEL, trace silt.	Wet, No odors or PID.			
65	SM	Light brown fine SAND and SILT, trace mica flakes.	Wet, No odors or PID.			
70						
75						
80	SM	Olive gray fine to coarse SAND and SILT, mica flakes.	Wet, No odors or PID.			
85	ML	Dark gray micaceous SILT, some pyrite.	Dry, Very Stiff.			
90						
95	SM	Medium and light brown fine to medium SAND and SILT, mica flakes.	Wet, No odors or PID.			
100	SM	Medium gray, brown, tan, and olive mottled fine SAND and SILT.	Wet, No odors or PID.			
105	SM	Brown, gray, tan, and orange fine to medium SAND, some silt, mica flakes.	Wet, No odors or PID.			

GWQS	Constituent	GWQS	Constituent
0.6	1,2-DCA = 1,2-Dichloroethane	5	EB = Ethylbenzene
50	2-Hex = 2-Hexanone	50	MEK = Methyl Ethyl Ketone
50	Acetone	5	o-Xylene
5	Acrolein	5	Styrene
1	Benzene	5	PCE = Tetrachloroethylene
60	CD = Carbon Disulfide	5	Toluene
5	MC = Chloromethane	5	TCE = Trichloroethylene
5	cis-1,2-DCE = cis-1,2-Dichloroethylene	5	Total Xylenes

Additional Well Construction Details

SAND PACK = #1 Sand | GROUT = Portland/Bentonite grout mixture.
HOLE PLUG = Bentonite chips | Well pad 2.5 ft square with 12 inch cast iron manhole.

Exceedances

GWQS = Groundwater Quality Standards (NYS TOGS 1.1.1 Class GA)
Only constituents with detected results exceeding GWQS criteria shown (in ug/L).

GEOLOGIC AND WELL CONSTRUCTION LOG

PROJECT NAME
Claremont Polychemical RI/FS

BORING ID
MW-CPC-39

DEPTH (FT)	USCS	MATERIAL DESCRIPTION	REMARKS	SAMPLE	PUSH-AHEAD GROUNDWATER SAMPLE EXCEEDANCES Parameter (Result) ug/L	WELL CONSTRUCTION
110–145	SM	Brown, gray, tan, and orange fine to medium SAND, some silt, mica flakes.	Wet, No odors or PID.			GROUT
145–155	SM	Light gray, light brown, and tan banded fine SAND and SILT, mica flakes.	Wet, No odors or PID.			
155–170	SM	Light brown, gray, orange fine SAND and SILT, mica flakes, trace medium sand.	Wet, No odors or PID.			

GWQS	Constituent	GWQS	Constituent
0.6	1,2-DCA = 1,2-Dichloroethane	5	EB = Ethylbenzene
50	2-Hex = 2-Hexanone	50	MEK = Methyl Ethyl Ketone
50	Acetone	5	o-Xylene
5	Acrolein	5	Styrene
1	Benzene	5	PCE = Tetrachloroethylene
60	CD = Carbon Disulfide	5	Toluene
5	MC = Chloromethane	5	TCE = Trichloroethylene
5	cis-1,2-DCE = cis-1,2-Dichloroethylene	5	Total Xylenes

Additional Well Construction Details

SAND PACK = #1 Sand | GROUT = Portland/Bentonite grout mixture.
HOLE PLUG = Bentonite chips | Well pad 2.5 ft square with 12 inch cast iron manhole.

Exceedances

GWQS = Groundwater Quality Standards (NYS TOGS 1.1.1 Class GA)
Only constituents with detected results exceeding GWQS criteria shown (in ug/L).

GEOLOGIC AND WELL CONSTRUCTION LOG

PROJECT NAME
Claremont Polychemical RI/FS

BORING ID
MW-CPC-39

DEPTH (FT)	USCS	MATERIAL DESCRIPTION	REMARKS	SAMPLE	PUSH-AHEAD GROUNDWATER SAMPLE EXCEEDANCES Parameter (Result) ug/L	WELL CONSTRUCTION
175	SM	Light brown, gray, orange fine SAND and SILT, mica flakes, trace medium sand.	Wet, No odors or PID.	X	PCE (11)	
180						
185						
190	SM	Light gray, tan, orange banded fine SAND and SILT, mica flakes.	Wet, No odors or PID.			
195	SM	Light brown, gray, tan, and orange fine to medium SAND and SILT, mica flakes.	Wet, No odors or PID.	X	No Exceedances	
200						
205						GROUT
210	SM	Tan, light brown, dark brown, and gray banded fine SAND and SILT, mica flakes.	Wet, No odors or PID.			
215				X	No Exceedances	
220	ML	Dark gray micaceous SILT. (6 inch layer of sand in silt).	Dry, Organic Decay odor, Very Stiff			
225						
230	SM	Medium gray fine SAND and SILT, mica flakes.	Wet, No odors or PID.			

GWQS	Constituent	GWQS	Constituent
0.6	1,2-DCA = 1,2-Dichloroethane	5	EB = Ethylbenzene
50	2-Hex = 2-Hexanone	50	MEK = Methyl Ethyl Ketone
50	Acetone	5	o-Xylene
5	Acrolein	5	Styrene
1	Benzene	5	PCE = Tetrachloroethylene
60	CD = Carbon Disulfide	5	Toluene
5	MC = Chloromethane	5	TCE = Trichloroethylene
5	cis-1,2-DCE = cis-1,2-Dichloroethylene	5	Total Xylenes

Additional Well Construction Details

SAND PACK = #1 Sand | GROUT = Portland/Bentonite grout mixture.
HOLE PLUG = Bentonite chips | Well pad 2.5 ft square with 12 inch cast iron manhole.

Exceedances

GWQS = Groundwater Quality Standards (NYS TOGS 1.1.1 Class GA)
Only constituents with detected results exceeding GWQS criteria shown (in ug/L).

GEOLOGIC AND WELL CONSTRUCTION LOG

PROJECT NAME
Claremont Polychemical RI/FS

BORING ID
MW-CPC-39

DEPTH (FT)	USCS	MATERIAL DESCRIPTION	REMARKS	SAMPLE	PUSH-AHEAD GROUNDWATER SAMPLE EXCEEDANCES Parameter (Result) ug/L	WELL CONSTRUCTION
235–245	SM	Medium gray fine SAND and SILT, mica flakes.	Wet, No odors or PID.			
245–265	NR	No recovery.	Casing Joint Failure	X	No Exceedances	GROUT
265–270	SM	Medium and dark gray fine SAND and SILT, mica flakes.	Wet, No odors or PID.			
270–295	ML	Dark gray micaceous SILT. Pyrite and lignite throughout core.	Dry, Varies from Very Stiff to Very Soft.	X	Benzene (4.1)	

GWQS	Constituent	GWQS	Constituent
0.6	1,2-DCA = 1,2-Dichloroethane	5	EB = Ethylbenzene
50	2-Hex = 2-Hexanone	50	MEK = Methyl Ethyl Ketone
50	Acetone	5	o-Xylene
5	Acrolein	5	Styrene
1	Benzene	5	PCE = Tetrachloroethylene
60	CD = Carbon Disulfide	5	Toluene
5	MC = Chloromethane	5	TCE = Trichloroethylene
5	cis-1,2-DCE = cis-1,2-Dichloroethylene	5	Total Xylenes

Additional Well Construction Details

SAND PACK = #1 Sand | GROUT = Portland/Bentonite grout mixture.
HOLE PLUG = Bentonite chips | Well pad 2.5 ft square with 12 inch cast iron manhole.

Exceedances

GWQS = Groundwater Quality Standards (NYS TOGS 1.1.1 Class GA)
Only constituents with detected results exceeding GWQS criteria shown (in ug/L).

GEOLOGIC AND WELL CONSTRUCTION LOG

PROJECT NAME
Claremont Polychemical RI/FS

BORING ID
MW-CPC-39

DEPTH (FT)	USCS	MATERIAL DESCRIPTION	REMARKS	SAMPLE	PUSH-AHEAD GROUNDWATER SAMPLE EXCEEDANCES Parameter (Result) ug/L	WELL CONSTRUCTION
300	ML	Dark gray micaceous SILT. Pyrite and lignite throughout core.	Dry, Varies from Very Stiff to Very Soft.			
305						
310						
315	SM	Light gray fine SAND and SILT, mica flakes.	Wet, No odors or PID.			
	ML	Dark gray micaceous SILT.	Dry, Very Stiff.			
320	SM	Light and dark gray mottled fine SAND and SILT. mica flakes; some banding of mica.	Wet, No odors or PID.			
325						
330						
335	SM	Light gray, brown tan, orange mottled fine to medium SAND and SILT, mica flakes.	Wet, No odors or PID.	X	No Exceedances	
340	ML	Orange, brown, gray, and tan SILT, mica flakes.	Dry, Very Stiff.			
	SM	Light gray, brown tan, orange mottled fine to medium SAND and SILT, mica flakes.	Wet, No odors or PID.			
345	NR	No recovery.				
	SM	Medium brown and tan mottled fine to medium SAND and SILT, mica flakes.	Wet, No odors or PID.			
350				X	No Exceedances	
355						357 feet
	SM					

GROUT

HOLE PLUG

GWQS	Constituent	GWQS	Constituent
0.6	1,2-DCA = 1,2-Dichloroethane	5	EB = Ethylbenzene
50	2-Hex = 2-Hexanone	50	MEK = Methyl Ethyl Ketone
50	Acetone	5	o-Xylene
5	Acrolein	5	Styrene
1	Benzene	5	PCE = Tetrachloroethylene
60	CD = Carbon Disulfide	5	Toluene
5	MC = Chloromethane	5	TCE = Trichloroethylene
5	cis-1,2-DCE = cis-1,2-Dichloroethylene	5	Total Xylenes

Additional Well Construction Details

SAND PACK = #1 Sand | GROUT = Portland/Bentonite grout mixture.
HOLE PLUG = Bentonite chips | Well pad 2.5 ft square with 12 inch cast iron manhole.

Exceedances

GWQS = Groundwater Quality Standards (NYS TOGS 1.1.1 Class GA)
Only constituents with detected results exceeding GWQS criteria shown (in ug/L).

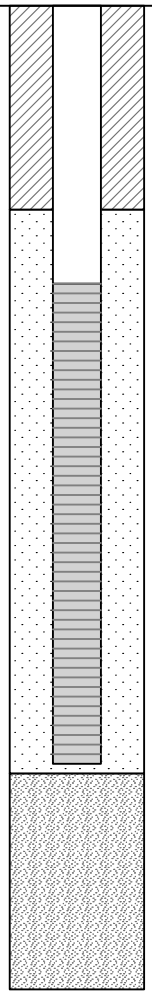
GEOLOGIC AND WELL CONSTRUCTION LOG

PROJECT NAME
Claremont Polychemical RI/FS

BORING ID
MW-CPC-39

DEPTH (FT)	USCS	MATERIAL DESCRIPTION	REMARKS	SAMPLE	PUSH-AHEAD GROUNDWATER SAMPLE EXCEEDANCES Parameter (Result) ug/L
360–375	SM	Light gray, brown, tan, and orange fine SAND and SILT, mica flakes.	Wet, No odors or PID.	X	Acetone (200) Acrolien (160 JN) Benzene (11) MC (5.7) MEK (76) Toluene (8.6) Xylenes (5.2)
375	PT	Lignite.	Wet, No odors or PID.		
375–380	SM	Light gray fine SAND and SILT, mica flakes.	Wet, No odors or PID.		
380–385	ML	Light gray micaceous SILT.	Dry, Very Stiff.		
385–390	SM	Light gray fine SAND and SILT, mica flakes.	Wet, No odors or PID.		
390	ML	Light gray micaceous SILT.	Dry, Very Stiff.		
390–395	SM	Light gray fine SAND and SILT, mica flakes.	Wet, No odors or PID.		
395–400	SM	Light brown fine SAND and SILT, mica flakes.	Wet, No odors or PID.	X	No Exceedances
400–420				X	No Exceedances

WELL CONSTRUCTION



GWQS	Constituent	GWQS	Constituent
0.6	1,2-DCA = 1,2-Dichloroethane	5	EB = Ethylbenzene
50	2-Hex = 2-Hexanone	50	MEK = Methyl Ethyl Ketone
50	Acetone	5	o-Xylene
5	Acrolein	5	Styrene
1	Benzene	5	PCE = Tetrachloroethylene
60	CD = Carbon Disulfide	5	Toluene
5	MC = Chloromethane	5	TCE = Trichloroethylene
5	cis-1,2-DCE = cis-1,2-Dichloroethylene	5	Total Xylenes

Additional Well Construction Details

SAND PACK = #1 Sand | GROUT = Portland/Bentonite grout mixture.
HOLE PLUG = Bentonite chips | Well pad 2.5 ft square with 12 inch cast iron manhole.

Exceedances

GWQS = Groundwater Quality Standards (NYS TOGS 1.1.1 Class GA)
Only constituents with detected results exceeding GWQS criteria shown (in ug/L).

Appendix D
Well Development Logs

Well Development Log

Round 1- Well Development

Site: NYSDEC Claremont RI/FS WA#43, Old Bethpage, NY
Well #: MW-CPC-36
Date Started: 8/20/2018
Date Finished: 8/20/2018

Start SWL: 26.56
Finish SWL: 25.76
DTB: 256.6

Developed By: E. Brandt
Method: Air Lift - Nitrogen
(Cascade - Matt, Greg, Brynt)

Meters

pH: YSI-63
Conductivity: YSI-63
Temp: YSI-63
Turb.: LeMotte 2020WE

1 well Volume (gal):	67.1
3 Well Volumes (gal):	201.3
Water added during Drilling (gal):	225.0
Min Development Volume (gal):	**426.3**

Time	pH	Temp	Conductivity	Turb.	Est. Purged Vol. (gals)	Comments
1155	6.46	14.0	0.310	55.0	225	Clearing, Silica Flock
1201						Halt to empty tote
1228						Resume Development
1304	6.25	14.1	0.290	40.0	350	Silica Flock - Clearing
1330	6.14	13.1	0.300	17.3	450	Cleaning up - Tubing in Riser
1343						Pause Development
1404						Resume Development
1406	6.06	14.6	0.190	43.2	500	Clearing - Silica Flock
1430	6.09	14.2	0.120	16.3	625	Clearing - Silica Flock
1440	6.02	13.9	0.180	30.8	800	Clear, Colorless
1450						End Development

Comments: Removed 6 well volumes, & well clear and colorless.

Note:
Temperature is measured in Celsius
Turbidity is measured in NTU
Volume is measured in gallons

Well Development Log

Round 2- Well Development

Site: NYSDEC Claremont RI/FS WA#43, Old Bethpage, NY
Well #: MW-CPC-36
Date Started: 10/31/2018
Date Finished: 10/31/2018

Start SWL: 23.9
Finish SWL: 24.36
DTB: 256.2

Developed By: Jen Becker
Method: Watterra and Grunfos (Cascade/ADT - Joe)

Meters
pH: U-52
Conductivity: U-52
Temp: U-52
Turb.: LeMotte 2020WE

1 well Volume (gal):	67.1
3 Well Volumes (gal):	201.3
Water added during Drilling (gal):	225.0
Min Development Volume (gal):	**426.3**

Time	pH	Temp	Conductivity	Turb.	Est. Purged Vol. (gals)	Comments
0845	-	-	-	OR	0	Extremely Turbid. OR= Out of range
0855	-	-	-	OR	3	Utilize Waterra Method
0906	-	-	-	OR	4.5	
0918	-	-	-	1091	8	
0933	-	-	-	773	12	
0948	6.03	11.70	0.362	768.0	16	
1005	6.56	11.88	0.294	119.0	20	Clearing up
1020	6.50	12.19	0.286	94.0	24	Move 1.5' up in screen
1022	-	-	-	78.0	25	Slightly darker color fines
1038	6.47	12.15	0.281	49.6	28	Clearing up
1050	6.44	12.00	0.279	41.3	32	Move 1.5' up in screen
1105	6.37	12.28	0.281	50.1	36	Clearing up
1122	6.38	12.51	0.271	80.3	40	
1135	6.34	12.60	0.272	77.4	43	DTW- 23.40
1149	6.34	12.84	0.270	66.9	47	Move 1.5' up in screen
1203	6.37	13.51	0.266	82.9	51	Gray fines
1217	6.34	13.57	0.266	68.0	55	
1235	6.34	13.57	0.260	67.3	59	Move 2' up in screen
1252	6.34	13.57	0.266	75.2	64	
1315	-	-	-	-	-	Purge Rate- 1.5 gals/min
1338	-	-	-	628	115	Switch to Grunfos pump
1340	6.41	13.21	0.263	157	-	Surge
1345	6.38	13.07	0.266	958	-	Surge
1350	6.24	12.57	0.266	170	-	Surge
1355	6.14	12.57	0.266	188	-	Surge
1400	5.97	12.58	0.263	149	140	Surge
1405	5.93	12.25	0.237	175	-	Surge
1415	5.94	12.30	0.235	79.1	-	Surge
1425	6.00	12.33	0.233	50.0	-	Surge
1435	5.96	12.37	0.233	75.00	180	Surge
1445	5.96	12.38	0.233	40.5	-	Drop back to the screen bottom
1450	5.98	12.31	0.233	40.00	-	Surge
1500	5.82	12.34	0.232	32.3	230	Stopped purge; 250 gals removed.

Comments: Total removed 1,050 gallons

Note:
Temperature is measured in Celsius
Turbidity is measured in NTU
Volume is measured in gallons

Well Development Log

Round 1- Well Development

Site: NYSDEC Claremont RI/FS WA#43, Old Bethpage, NY
Well #: MW-CPC-37
Date Started: 9/6/2018
Date Finished: 9/6/2018

Start SWL: 29.96
Finish SWL: 29.48
DTB: 449.57

Developed By: E. Brandt
Method: Air Lift - Nitrogen (Cascade - Matt, Greg, Brynt)

Meters
pH: YSI-556
Conductivity: YSI-556
Temp: YSI-556
Turb.: LeMotte 2020WE

1 well Volume (gal):	115.5
3 Well Volumes (gal):	346.5
Water added during Drilling (gal):	115.0
Min Development Volume (gal):	**461.5**

Time	pH	Temp	Conductivity	Turb.	Est. Purged Vol. (gals)	Comments
0926					0	Start Development
0935	7.29	14.99	0.180	1459 AU	25	
0955	6.36	13.51	0.264	1477 AU	75	Silica Flock
1025	6.26	13.78	0.250	18.70	200	Clearing up
1115	6.11	13.51	0.243	0.90	300	Clear, Colorless
1145	6.17	13.98	0.235	1.66	450	Clear, Colorless
1225	5.78	12.97	0.243	1.47	525	Clear, Colorless
1230						Stop Development

Comments: Removed over 4 well volumes, & well clear and colorless.
Well clear no additional development required.

Note:
Temperature is measured in Celsius
Turbidity is measured in NTU
Volume is measured in gallons

Well Development Log

Round 1- Well Development

Site: NYSDEC Claremont RI/FS WA#43, Old Bethpage, NY
Well #: MW-CPC-38
Date Started: 9/19/2018
Date Finished: 9/19/2018

Start SWL: 30.90
Finish SWL: 30.74
DTB: 394.5

Developed By: E. Brandt
Method: Air Lift - Nitrogen
(Cascade - Matt, Greg, Brynt)

Meters
pH: YSI-556
Conductivity: YSI-556
Temp: YSI-556
Turb.: LeMotte 2020WE

1 well Volume (gal):	101.2
3 Well Volumes (gal):	303.6
Water added during Drilling (gal):	60
Min Development Volume (gal):	**363.6**

Time	pH	Temp	Conductivity	Turb.	Est. Purged Vol. (gals)	Comments
907						Start Development
915	7.57	13.15	0.174	OR	25	Cloudy
940	7.45	12.87	0.084	1920 AU	100	Cloudy
1000	6.62	12.57	0.077	1296 AU	150	Cloudy
1010	6.55	13	0.063	880 AU	200	Silica Flock
1135	6.56	13.04	0.049	84	375	Silica Flock
1150	6.61	12.99	0.046	54.5	425	Clearing Up
1255	7.46	13.05	0.053	65.1	550	Clearing Up
1300	7.64	13.1	0.043	28.5	575	Clearing Up
1302						END OF DEVELOPMENT

Comments: Removed over 5 well volumes, & well clear and colorless.

Note:
Temperature is measured in Celsius
Turbidity is measured in NTU
Volume is measured in gallons

Well Development Log

Round 2- Well Development

Site: NYSDEC Claremont RI/FS WA#43, Old Bethpage, NY
Well #: MW-CPC-38
Date Started: 11/1/2018
Date Finished: 11/1/2018

Start SWL: 29.65
Finish SWL: 32.2
DTB: 394.5

Developed By: A. Watson
Method: Surge with Grunfos (Cascade/ADT - Joe)

Meters
pH: U-52
Conductivity: U-52
Temp: U-52
Turb.: LeMotte 2020WE

1 well Volume (gal):	67.1
3 Well Volumes (gal):	201.3
Water added during Drilling (gal):	225.0
Min Development Volume (gal):	**426.3**

Time	pH	Temp	Conductivity	Turb.	Est. Purged Vol. (gals)	Comments
0853	-	-	-	-	-	0855 Pump On
0900	4.72	14.15	0.188	OR	3	Milky color- gray
0912	5.39	13.30	0.088	OR	15	surge ever 10 mins
0925	5.27	13.03	0.091	OR	30	
0935	5.22	13.06	0.063	OR	40	
0945	5.16	12.96	0.071	OR	50	
1000	5.14	12.87	0.059	210	70	clearing up- resurge
1015	4.99	13.08	0.055	123	85	surge
1030	4.91	13.58	0.052	158	100	surge
1045	4.87	13.87	0.050	234	115	surge
1105	4.85	14.12	0.050	148	130	pump off- 1050-1055
1120	4.79	13.99	0.047	OR	135	move pump to mid-screen
1130	4.82	13.95	0.044	71.9	145	surge
1205	4.76	14.49	0.043	OR	160	cloudy; surge
1222	4.75	13.66	0.045	233	175	
1240	4.73	13.94	0.042	182	248	approx. 1 gal/min
1250	4.73	13.93	0.042	30.1	260	clearing up- surge
1300	4.69	14.03	0.043	633	280	surge
1315	4.68	14.23	0.040	211	295	surge
1325	4.57	14.04	0.057	92.0	310	surge
1405	4.84	14.36	0.059	45.9	350	surge- move to top of screen
1430	4.72	14.05	0.038	31.5	375	surge
1440	4.70	0.04	0.038	69.5	385	surge
1450	4.54	13.95	0.038	43.0	400	move pump to bottom of screen
1455	4.55	13.92	0.034	108	405	surge
1500	4.50	13.95	0.038	27.4	410	clearing up
1505	4.48	13.45	0.037	43.9	415	
1510	4.49	13.66	0.037	14.0	420	Development Complete
1540						DTW= 32.3 ft. bgs and recovering

Comments: Total removed 995 gallons

Note:
Temperature is measured in Celsius
Turbidity is measured in NTU
Volume is measured in gallons

Well Development Log

Round 1- Well Development

Site: NYSDEC Claremont RI/FS WA#43, Old Bethpage, NY
Well #: MW-CPC-39
Date Started: 9/24/2018
Date Finished: 9/25/2018

Start SWL: 27.64
Finish SWL: 26.97
DTB: 389.96 (Solid at Bottom)

Developed By: E. Brandt
Method: Air Lift - Nitrogen
(Cascade - Matt, Greg, Brynt)

Meters

pH: Myron 6P
Temp: Myron 6P
Conductivity: Myron 6P
Turb.: LeMotte 2020WE

1 well Volume (gal):	107.9
3 Well Volumes (gal):	323.7
Water added during Drilling (gal):	236.6
Min Development Volume (gal):	**560.3**

Time	pH	Temp	Conductivity	Turb.	Est. Purged Vol. (gals)	Comments
855					0	START DEVELOPMENT
900	8.24	14.2	117.300	OR	25	Opaque
920	7.42	12.5	54.69	1216 AU	130	
940	6.61	12.4	60.87	983 AU	225	Silica Flock
1020	6.71	12.6	52.67	955 AU	350	Silica Flock
1045	6.61	12.5	46.98	233	450	Silica Flock
1200	6.55	12.7	45.75	215	600	Silica Flock
1225	6.52	12.6	41.42	228	700	Silica Flock
1235	6.48	12.4	38.5	129	740	Silica Flock - Clearing Up
1340	6.47	12.9	54.870	160	850	Silica Flock - Clearing Up
1355	6.57	12.8	39.190	170	925	Silica Flock - Clearing Up
1405	6.52	12.5	37.580	130	975	Silica Flock - Clearing Up
1450	6.53	13.1	37.200	179	1100	Silica Flock - Clearing Up
1515	6.45	12.8	36.470	133	1200	Formation Flock - Clearing Up
1550	6.87	12.2	36.430	128	1300	Formation Flock - Clearing Up
1655	6.65	12	37.120	106	1400	Formation Flock - Clearing Up
1715	6.41	12.1	36.73	79.3	1450	Formation Flock - Clearing Up
1720					1500	Stop Development for Day - 9/24
730						Resume Development - 9/25
805	6.85	12.3	38.35	114	1650	Some formation flock
820	6.53	12.2	36.88	80.9	1700	Clearing Up - Formation Flock
930	6.75	13.2	38.61	85.2	1900	Clearing Up - Formation Flock
950	6.65	12.8	34.96	65.7	2000	Clearing Up - Formation Flock
1230	6.85	12.9	36.130	99.2	2125	Clearing Up - Formation Flock
1250	6.51	13.1	34.940	59.8	2200	Clearing Up - Formation Flock
1255	6.51	13.1	34.640	55	2225	Clearing Up - Formation Flock
1303	6.44	13.2	34.340	48.4	2250	Clearing Up - Formation Flock
1305						END OF DEVELOPMENT

Comments: Removed over 22 well volumes, & well clear and colorless.

Note:
Temperature is measured in Celsius
Turbidity is measured in NTU
Volume is measured in gallons

Well Development Log

Round 2- Well Development

Site: NYSDEC Claremont RI/FS WA#43, Old Bethpage, NY
Well #: MW-CPC-39
Date Started: 11/2/2018
Date Finished: 11/2/2018

Start SWL: 26.05
Finish SWL:
DTB: 389.96

Developed By: J. Becker
Method: Surge with Grunfos (Cascade/ADT - Joe)

Meters
pH: U-52
Temp: U-52
Conductivity: U-52
Turb.: LeMotte 2020WE

1 well Volume (gal):	67.1
3 Well Volumes (gal):	201.3
Water added during Drilling (gal):	225.0
Min Development Volume (gal):	**426.3**

Time	pH	Temp	Conductivity	Turb.	Est. Purged Vol. (gals)	Comments
0833						Begin development
0900	5.56	14.33	0.089	2500	50	surge every 5 mins; very turbid
0910	6.11	13.65	0.035	3772	60	silt on bottom
0920	6.11	13.07	0.030	1452	70	continue to surge
0930	6.04	12.80	0.029	OR	88	dark orange; very turbid
0940	6.02	12.87	0.029	1456	100	continue to surge
0950	6.24	12.92	0.031	OR	125	DTW: 39.60
1000	6.13	13.01	0.032	2099	145	continue to surge
1010	6.15	12.87	0.029	1512	160	continue to surge bottom
1020	6.14	12.63	0.030	2312	175	continue to surge
1030	6.13	12.52	0.029	1460	190	Very turbid
1050	6.20	13.20	0.028	1143	210	continue to surge
1110	6.11	13.28	0.027	920	225	continue to surge
1120	6.08	13.08	0.029	948	240	continue to surge
1130	5.95	13.30	0.027	1334	255	continue to surge
1140	6.01	13.23	0.027	2806	270	continue to surge bottom
1200	5.97	13.04	0.026	2124	290	Very turbid
1210	5.99	13.20	0.028	2008	310	Swapped totes and moved pump 10 ft
1220	6.12	13.53	0.026	1305	330	Very turbid
1230	5.92	13.39	0.026	218	345	unit slightly less turbid
1240	5.92	13.26	0.025	1034	355	continue to surge mid-screen
1250	5.89	13.43	0.025	1113	370	continue to surge mid-screen
1300	5.90	13.53	0.025	897	390	continue to surge mid-screen
1310	5.84	13.47	0.029	912	410	continue to surge mid-screen
1320	5.84	13.50	0.028	560	430	continue to surge mid-screen
1330	5.90	13.38	0.027	834	450	continue to surge mid-screen
1350	5.85	13.69	0.025	777	470	continue to surge mid-screen
1400	5.83	13.43	0.024	338	490	continue to surge mid-screen
1410	5.93	13.56	0.024	800	510	continue to surge mid-screen
1420	5.84	13.41	0.025	780	530	continue to surge mid-screen
1430	5.89	13.35	0.025	217	550	Clearing up
1440	5.97	13.62	0.025	196	570	continue to surge mid-screen
1450	5.83	13.57	0.025	330	590	continue to surge mid-screen
1500	5.96	13.43	0.025	174	600	continue to surge mid-screen
1510	5.98	13.60	0.025	256	620	continue to surge mid-screen

Comments: Two totes full and end of day.

Note:
Temperature is measured in Celsius
Turbidity is measured in NTU
Volume is measured in gallons

Appendix E

Monitoring Well Sampling Logs and Field Checklists

Well Sampling Log

Well ID No.: MW-CPC-36

Well Casing Type:	2.5" Sch 80 PVC	**Start SWL:**	24.36	**Project:**	WA#43 Claremont Polychemical RI/FS
Well Depth:**	256	**Water Column Ht.:**		**Date:**	10/10/2018
Screened Interval:	246 - 255.7	**Well Volume (gallons):**		**Crew:**	DA, KM
Well Elevation:**		**SWL During Sampling:**	24.3	**Pump Intake (ft)**	**251**
Well Diameter (in.)	2.5	**Sample Time:**		**Meters Used:**	Horiba U-52
Well Condition:	New	**Sample Method:**	Pump	**PID Head Space (ppm):**	0
Weather Conditions:	77 F, mostly cloudy	**Sample Analyses:**	VOC, PFCs, 1,4-Dioxane	**Sample ID:**	

Comments: Sample was discarded due to the high turbidity as per HDR Proj Mgr

Notes: * - Measurement taken from top of well casing

Time	Est. Liters. Purged	Purge Rate (Lpm)	Temp. (C°)	Cond. (ms/cm)	ORP (mV)	D.O. (mg/L)	pH	TDS	Salinity (ppth)	Turbidity (NTU)	Depth to Water*	Comments
1230	5	0.35	17.27	0.316	-61	0	7.49	0.204	0.1	OVR	24.9	Prepurged for 15 minutes while waiting for Pine to
1235	6.75	0.35	14.65	0.309	-65	0	7.56	0.202	0.1	OVR	24.7	drop off correct flow-through cell
1240	8.5	0.35	14.33	0.314	-56	0	7.35	0.205	0.1	OVR	24.66	
1245	10.25	0.35	14.05	0.318	-46	0	7.08	0.207	0.1	OVR	24.52	
1250	12	0.35	13.9	0.323	-43	0	6.93	0.21	0.2	OVR	24.44	
1255	13.75	0.35	13.88	0.325	-43	0	6.88	0.21	0.2	OVR	24.5	
1300	15.5	0.35	13.82	0.325	-41	0	6.86	0.211	0.2	OVR	24.52	
1305	17.25	0.35	13.44	0.324	-36	0	6.83	0.213	0.2	OVR	24.56	After reading, cleaned flow-through cell
1310	19	0.35	13.64	0.323	-44	0	6.92	0.211	0.2	OVR	24.58	due to high turbidity
1315	20.75	0.35	13.26	0.327	-46	0	6.92	0.213	0.2	OVR	24.57	
1320	22.5	0.35	13.06	0.326	-43	0	6.84	0.211	0.2	OVR	24.57	
1325	24.25	0.35	13.02	0.322	-44	0	6.85	0.209	0.2	OVR	24.58	
1330	26	0.35	13	0.32	-40	0	6.8	0.208	0.2	OVR	24.58	
1335	27.75	0.35	12.97	0.316	-36	0	6.77	0.206	0.2	OVR	24.58	
1340	29.5	0.35	13.04	0.314	-34	0	6.74	0.203	0.2	OVR	24.58	
1345	31.25	0.35	13.03	0.313	-34	0	6.75	0.204	0.1	OVR	24.56	
1350	33	0.35	13.15	0.312	-34	0	6.74	0.203	0.1	OVR	24.57	
1355	34.75	0.35	13.26	0.31	-33	0	6.73	0.201	0.1	OVR	24.56	
1400	36.5	0.35	13.29	0.308	-33	0	6.72	0.201	0.1	OVR	24.56	Pine delivered LaMotte Turbidity meter
1405	38.25	0.35	13.39	0.307	-34	0	6.73	0.199	0.1	OVR	24.58	LaMotte Turbidity: 1099 AU
1410	40	0.35	13.28	0.306	-35	0	6.73	0.198	0.1	OVR	24.58	LaMotte Turbidity: 1078 AU
1415	41.75	0.35	13.27	0.307	-35	0	6.74	0.198	0.1	OVR	24.56	LaMotte Turbidity: 1061 AU
												Cleaned flow-through cell, decreased flow to 250ml/min
1430	47	0.25	14.63	0.297	-29	0	6.54	0.195	0.1	OVR	24.45	LaMotte Turbidity: 974 AU
1435	48.25	0.25	14.22	0.289	-33	0	6.57	0.188	0.1	OVR	24.4	LaMotte Turbidity: 894 AU
1440	49.5	0.25	13.95	0.286	-32	0	6.57	0.187	0.1	OVR	24.4	LaMotte Turbidity: 797 AU
1445	50.75	0.25	14.06	0.287	-34	0	6.6	0.186	0.1	OVR	24.4	LaMotte Turbidity: 909 AU
1450	52	0.25	14.07	0.288	-35	0	6.61	0.187	0.1	OVR	24.4	LaMotte Turbidity: 897 AU
1455	53.25	0.25	14.25	0.287	-34	0	6.6	0.186	0.1	OVR	24.4	LaMotte Turbidity: 834 AU
1500	54.5	0.25	14.49	0.288	-36	0	6.61	0.187	0.1	705	24.4	LaMotte Turbidity: 888 AU
1505	55.75	0.25	14.89	0.288	-37	0	6.62	0.187	0.1	OVR	24.4	LaMotte Turbidity: 979 AU
1510	57	0.25	15.34	0.288	-40	0	6.64	0.187	0.1	OVR	24.4	LaMotte Turbidity: 989 AU
1515	58.25	0.25	15.66	0.287	-41	0	6.64	0.187	0.1	OVR	24.4	LaMotte Turbidity: 977 AU
1525	59.5	0.25	14.94	0.286	-31	0	6.6	0.185	0.1	OVR	24.4	LaMotte Turbidity 1035 AU
1530	60.75	0.25	14.76	0.284	-32	0	6.6	0.184	0.1	OVR	24.4	LaMotte Turbidity 1082 AU
1535	62	0.25	14.3	0.285	-34	0	6.6	0.185	0.1	OVR	24.4	LaMotte Turbidity 1075 AU
1540	63.25	0.25	14.12	0.286	-35	0	6.58	0.186	0.1	OVR	24.4	LaMotte Turbidity: 1250 AU
1545	64.5	0.25	14.07	0.292	-40	0	6.6	0.19	0.1	OVR	24.4	LaMotte Turbidity: 1507 AU
1550	65.75	0.25	13.84	0.293	-40	0	6.58	0.19	0.1	OVR	24.4	LaMotte Turbidity:1233 AU
												Cleaned flow-through cell: 1550-1605
1605	67	0.25	15.12	0.281	-29	0	6.58	0.183	0.1	OVR	24.3	LaMotte Turbidity: 1025 AU
1610	68.25	0.25	14.28	0.283	-29	0	6.59	0.184	0.1	OVR	24.3	LaMotte Turbidity: 1014 AU
1615	69.5	0.25	14.17	0.283	-29	0	6.55	0.185	0.1	OVR	24.3	LaMotte Turbidity: 879 AU
1620	70.75	0.25	13.74	0.283	-33	0	6.56	0.185	0.1	OVR	24.3	LaMotte Turbidity: 839 AU
1625												Sample collected but not analyzed due to high turbidity

Comments: Sample collected but not run analyzed due to high turbidity

PFC Sampling – Prohibited and Acceptable Items

Prohibited	Acceptable
Field Equipment	
Teflon® containing materials	High-density polyethylene (HDPE) materials
Low density polyethylene (LDPE) materials	Acetate Liners
	Silicon Tubing
Waterproof field books	Loose paper (non-waterproof)
Plastic clipboards, binders, or spiral hard cover notebooks	Aluminum field clipboards or with Masonite
	Sharpies®, pens
Post-It Notes®	
Chemical (blue) ice packs	Regular ice
Field Clothing and PPE	
New cotton clothing or synthetic water resistant, waterproof, or stain-treated clothing, clothing containing Gore-Tex™	Well-laundered clothing made of natural fibers (preferable cotton)
Clothing laundered using fabric softener	No fabric softener
Boots containing Gore-Tex™	Boots made with polyurethane and PVC
Tyvek®	Cotton clothing
No cosmetics, moisturizers, hand cream, or other related products as part of personal cleaning/showering routine on the morning of sampling	**Sunscreens** - Alba Organics Natural Sunscreen, Yes To Cucumbers, Aubrey Organics, Jason Natural Sun Block, Kiss my face, Baby sunscreens that are "free" or "natural" **Insect Repellents** - Jason Natural Quit Bugging Me, Repel Lemon Eucalyptus Insect repellant, Herbal Armor, California Baby Natural Bug Spray, BabyGanics **Sunscreen and insect repellant** - Avon Skin So Soft Bug Guard Plus – SPF 30 Lotion
Sample Containers	
LDPE or glass containers	HDPE or polypropylene
Teflon-lined caps	Unlined polypropylene caps
Rain Events	
Waterproof or resistant rain gear	Gazebo tent that is only touched or moved prior to and following sampling activities
Equipment Decontamination	
Decon 90®	Alconox® and/or Liquinox®
Water from an on-site well	Potable water from municipal drinking water supply
Food Considerations	
All food and drink, with exceptions noted on right	Bottled water and hydration fluids (i.e, Gatorade® and Powerade®) to be brought and consumed only in the staging areas

PFCs Sampling Checklist

Date: 10/10/18

Weather (*temp./precipitation*): 70°F, cloudy Site Name: NYSDEC – Claremont

Field Clothing and PPE:

- [x] No clothing or boots containing Gore-Tex™
- [x] All safety boots made from polyurethane and PVC
- [x] No materials containing Tyvek®
- [x] Field crew has not used fabric softener on clothing
- [x] Field crew has not used cosmetics, moisturizers, hand cream, or other related products this morning
- [x] Field crew has not applied unauthorized sunscreen or insect repellant

Field Equipment:

- [x] No Teflon® or LDPE containing materials on-site
- [x] All sample materials made from stainless steel, HDPE, acetate, silicon, or polypropylene
- [x] No waterproof field books on-site
- [x] No plastic clipboards, binders, or spiral hard cover notebooks on-site
- [x] No adhesives (Post-It Notes) on-site
- [x] Coolers filled with regular ice only. No chemical (blue) ice packs in possession

Sample Containers:

- [x] All sample containers made of HDPE or polypropylene
- [x] Caps are unlined and made of HDPE or polypropylene

Wet Weather (as applicable):

- [ ] NA Wet weather gear made of polyurethane and PVC only

Equipment Decontamination:

- [x] "PFC-free" water on-site for decontamination of sample equipment. No other water sources to be used.
- [x] Alconox and Liquinox to be used as decontamination materials

Food Considerations:

- [x] No food or drink on-site with exception of bottled water and/or hydration drinks (i.e., Gatorade and Powerade) that is available for consumption only in the staging area

If any applicable boxes cannot be checked, the Field Lead shall describe the noncompliance issues below and work with field personnel to address noncompliance issues prior to commencement of that day's work. Corrective action shall include removal of noncompliance items from the site or removal of worker offsite until in compliance.

Describe the noncompliance issues (include personnel not in compliance) and action/outcome of noncompliance:

None

Field Lead Name: David Avudzega

Field Lead Signature: Avudzega Time: 08:00

Well Sampling Log

Well ID No.: MW-CPC-37

Well Casing Type:	2.5" Sch 80 PVC	**Start SWL:**	28.12	**Project:**	WA#43 Claremont Polychemical RI/FS
Well Depth:**	450	**Water Column Ht.:**		**Date:**	10/11/2018
Screened Interval:	440 - 450	**Well Volume (gallons):**		**Crew:**	DA, KM
Well Elevation:**		**SWL During Sampling:**	28.05	**Pump Intake (ft)**	**445**
Well Diameter (in.)	2.5	**Sample Time:**	12:30	**Meters Used:**	Horiba U-52
Well Condition:	New	**Sample Method:**	Pump	**PID Head Space (ppm):**	0
Weather Conditions:	70 F, rain	**Sample Analyses:**	VOC, PFCs, 1,4-Dioxane	**Sample ID:**	MW-CPC-37-R1-GW-445-20181011-0
Comments:					MW-CPC-37-R1-GW-445-20181011-1

Notes: * - Measurement taken from top of well casing

Time	Est. Liters. Purged	Purge Rate (Lpm)	Temp. (C^o)	Cond. (ms/cm)	ORP (mV)	D.O. (mg/L)	pH	TDS	Salinity (ppth)	Turbidity (NTU)	Depth to Water*	Comments
1138	0	0.325	18.71	0.13	85	1.38	6.69	0.085	0.1	6.9	28.05	
1143	1.625	0.325	15.17	0.125	-30	0.04	6.57	0.081	0.1	38.9	28.05	
1148	3.25	0.325	14.42	**0.133**	**-24**	**0**	**6.26**	**0.086**	**0.1**	**61.7**	**28.05**	
1153	4.875	0.325	**14.33**	**0.146**	**-23**	**0**	**6.06**	0.095	**0.1**	**34.7**	**28.05**	
1158	6.5	0.325	**14.58**	**0.162**	**-33**	**0**	**5.97**	0.105	**0.1**	**21.2**	**28.05**	
1203	8.125	0.325	**14.00**	**0.179**	**-31**	**0**	**5.92**	0.118	**0.1**	**13**	**28.05**	
1208	9.75	0.325	**13.94**	**0.197**	**-29**	**0**	**5.87**	0.127	**0.1**	**0**	**28.04**	
1213	11.375	0.325	**13.98**	**0.199**	**-29**	**0**	**5.87**	0.131	**0.1**	**0**	**28.02**	
1218	13	0.325	**13.69**	**0.207**	**-28**	**0**	**5.86**	**0.133**	**0.1**	**0**	**28.03**	
1223	14.625	0.325	**13.67**	**0.211**	**-28**	**0**	**5.86**	**0.138**	**0.1**	**0**	**28.03**	
1228	16.25	0.325	**13.59**	**0.212**	**-28**	**0**	**5.88**	**0.139**	**0.1**	**0**	**28.05**	Stabilized HDR collects sample 12:30

Comments: Sample collected and analyzed by the laboratory.

Well Sampling Log

Well ID No.: MW-CPC-38

Well Casing Type:	2.5" Sch 80 PVC	**Start SWL:**	29.83	**Project:**	WA#43 Claremont Polychemical RI/FS
Well Depth:**	394.5	**Water Column Ht.:**		**Date:**	10/11/2018
Screened Interval:	384 - 395	**Well Volume (gallons):**		**Crew:**	DA, KM
Well Elevation:**		**SWL During Sampling:**	29.77	**Pump Intake (ft)**	**391**
Well Diameter (in.)	2.5	**Sample Time:**		**Meters Used:**	Horiba U-52
Well Condition:	New	**Sample Method:**	Pump	**PID Head Space (ppm):**	0
Weather Conditions:	73 F, rain	**Sample Analyses:**	VOC, PFCs, 1,4-Dioxane	**Sample ID:**	

Comments: Sample was discarded due to the high turbidity as per HDR Proj Mgr

Notes: * - Measurement taken from top of well casing

Time	Est. Liters. Purged	Purge Rate (Lpm)	Temp. (C^o)	Cond. (ms/cm)	ORP (mV)	D.O. (mg/L)	pH	TDS	Salinity (ppth)	Turbidity (NTU)	Depth to Water*	Comments
1645		0.375	14.19	0.069	-99	0	6.92	0.045	0	OVR		Purging 1505-1645 not connected to U-52;
1650		0.375	14.05	0.068	-107	0	6.84	0.044	0	OVR	29.77	due to high turbidity
1655		0.375	13.78	0.067	-113	0	6.82	0.044	0	OVR	29.77	LaMotte Turbidity: 693 AU
1700		0.375	13.66	0.067	-133	0	6.85	0.044	0	OVR	29.77	LaMotte Turbidity: 652 AU
1705		0.375	13.63	0.066	-160	0	6.82	0.043	0	OVR	29.77	LaMotte Turbidity: 624 AU
1710		0.375	13.73	0.066	-168	0	6.82	0.043	0	OVR	29.77	LaMotte Turbidity: 657 AU
1715		0.375	13.57	0.066	-186	0	6.79	0.043	0	OVR	29.77	LaMotte Turbidity: 636 AU
1720		0.375	13.5	0.066	-216	0	6.78	0.043	0	OVR	29.77	LaMotte Turbidity: 624 AU
1725		0.375	13.48	0.066	-222	0	6.78	0.043	0	OVR	29.77	LaMotte Turbidity: 608 AU
1730		0.375	13.52	0.066	-224	0	6.75	0.043	0	OVR	29.77	LaMotte Turbidity: 644 AU
	1.875											

Comments: Sample collected but not run analyzed due to high turbidity
Unable to read turbidity; extremely turbid

PFCs Sampling Checklist

Date: 10/11/18

Weather (*temp./precipitation*): 70's, rain Site Name: NYSDEC - Claremont

Field Clothing and PPE:

- [x] No clothing or boots containing Gore-Tex™
- [x] All safety boots made from polyurethane and PVC
- [x] No materials containing Tyvek®
- [x] Field crew has not used fabric softener on clothing
- [x] Field crew has not used cosmetics, moisturizers, hand cream, or other related products this morning
- [x] Field crew has not applied unauthorized sunscreen or insect repellant

Field Equipment:

- [x] No Teflon® or LDPE containing materials on-site
- [x] All sample materials made from stainless steel, HDPE, acetate, silicon, or polypropylene
- [x] No waterproof field books on-site
- [x] No plastic clipboards, binders, or spiral hard cover notebooks on-site
- [x] No adhesives (Post-It Notes) on-site
- [x] Coolers filled with regular ice only. No chemical (blue) ice packs in possession

Sample Containers:

- [x] All sample containers made of HDPE or polypropylene
- [x] Caps are unlined and made of HDPE or polypropylene

Wet Weather (as applicable):

- [x] Wet weather gear made of polyurethane and PVC only

Equipment Decontamination:

- [x] "PFC-free" water on-site for decontamination of sample equipment. No other water sources to be used.
- [x] Alconox and Liquinox to be used as decontamination materials

Food Considerations:

- [x] No food or drink on-site with exception of bottled water and/or hydration drinks (i.e., Gatorade and Powerade) that is available for consumption only in the staging area

If any applicable boxes cannot be checked, the Field Lead shall describe the noncompliance issues below and work with field personnel to address noncompliance issues prior to commencement of that day's work. Corrective action shall include removal of noncompliance items from the site or removal of worker offsite until in compliance.

Describe the noncompliance issues (include personnel not in compliance) and action/outcome of noncompliance:

None

Field Lead Name: David Arndzega

Field Lead Signature: [signature] Time: 08:10

Well Sampling Log

Well ID No.: MW-CPC-39

Well Casing Type:	2.5" Sch 80 PVC	**Start SWL:**	26.40	**Project:**	WA#43 Claremont Polychemical RI/FS
Well Depth:**	390	**Water Column Ht.:**		**Date:**	10/12/2018
Screened Interval:	370.6 - 390	**Well Volume (gallons):**		**Crew:**	DA, MK
Well Elevation:**		**SWL During Sampling:**	26.33	**Pump Intake (ft)**	**374**
Well Diameter (in.)	2.5	**Sample Time:**		**Meters Used:**	Horiba U-52
Well Condition:	New	**Sample Method:**	Pump	**PID Head Space (ppm):**	0
Weather Conditions:	70 F, cloudy	**Sample Analyses:**	VOC, PFCs, 1,4-Dioxane	**Sample ID:**	

Comments: Sample was discarded due to the high turbidity as per HDR Proj Mgr

Notes: * - Measurement taken from top of well casing

Time	Est. Liters. Purged	Purge Rate (Lpm)	Temp. (C°)	Cond. (ms/cm)	ORP (mV)	D.O. (mg/L)	pH	TDS	Salinity (ppth)	Turbidity (NTU)	Depth to Water*	Comments
12:00	7	0.162	15.62	0.059	-157	0	6.59	0.038	0	980	26.34	Turbidity in AU
12:05		0.243	15.23	0.054	-183	0	6.75	0.035	0	860	26.34	Turbidity in AU
12:10		0.213	14.82	0.054	-192	0	6.77	0.035	0	806	26.34	Turbidity in AU
12:15		0.255	14.66	0.054	-201	0	6.78	0.035	0	796	26.34	Turbidity in AU
12:20		0.239	14.75	0.054	-218	0	6.8	0.035	0	774	26.33	Turbidity in AU
12:25		0.216	14.81	0.053	-233	0	6.77	0.035	0	754	26.33	Turbidity in AU
12:30		0.216	14.74	0.053	-241	0	6.77	0.034	0	732	26.33	Turbidity in AU
12:35		0.215	14.7	0.053	-243	0	6.78	0.034	0	703	26.33	Sample highly turbid- additional development needed

Comments: Sample collected but not run analyzed due to high turbidity

PFCs Sampling Checklist

Date: 10/12/18

Weather (*temp./precipitation*): 60's, cloudy Site Name: NYSDEC - Claremont

Field Clothing and PPE:

- [x] No clothing or boots containing Gore-Tex™
- [x] All safety boots made from polyurethane and PVC
- [x] No materials containing Tyvek®
- [x] Field crew has not used fabric softener on clothing
- [x] Field crew has not used cosmetics, moisturizers, hand cream, or other related products this morning
- [x] Field crew has not applied unauthorized sunscreen or insect repellant

Field Equipment:

- [x] No Teflon® or LDPE containing materials on-site
- [x] All sample materials made from stainless steel, HDPE, acetate, silicon, or polypropylene
- [x] No waterproof field books on-site
- [x] No plastic clipboards, binders, or spiral hard cover notebooks on-site
- [x] No adhesives (Post-It Notes) on-site
- [x] Coolers filled with regular ice only. No chemical (blue) ice packs in possession

Sample Containers:

- [x] All sample containers made of HDPE or polypropylene
- [x] Caps are unlined and made of HDPE or polypropylene

Wet Weather (as applicable):

- [ ] NA Wet weather gear made of polyurethane and PVC only

Equipment Decontamination:

- [ ] "PFC-free" water on-site for decontamination of sample equipment. No other water sources to be used.
- [ ] Alconox and Liquinox to be used as decontamination materials

Food Considerations:

- [x] No food or drink on-site with exception of bottled water and/or hydration drinks (i.e., Gatorade and Powerade) that is available for consumption only in the staging area

If any applicable boxes cannot be checked, the Field Lead shall describe the noncompliance issues below and work with field personnel to address noncompliance issues prior to commencement of that day's work. Corrective action shall include removal of noncompliance items from the site or removal of worker offsite until in compliance.

Describe the noncompliance issues (include personnel not in compliance) and action/outcome of noncompliance:

None

Field Lead Name: David Arndzega

Field Lead Signature: [signature] Time: 08:50

Well Sampling Log

Well ID No.: MW-CPC-36

Well Casing Type:	2.5" Sch 80 PVC	**Start SWL:**	23.76	**Project:**	WA#43 Claremont Polychemical RI/FS
Well Depth:**	256	**Water Column Ht.:**	232.24	**Date:**	11/7/2018
Screened Interval:	244 - 255.5	**Well Volume (gallons):**	67.7	**Crew:**	EB, PT
Well Elevation:**	75.93	**SWL During Sampling:**	23.8	**Pump Intake (ft)**	**251**
Well Diameter (in.)	2.5	**Sample Time:**	1435	**Meters Used:**	Horiba U-52 / LaMotte 2020WE
Well Condition:	New	**Sample Method:**	Geotech Pump	**PID Head Space (ppm):**	0
Weather Conditions:	55F Clear, Breezy	**Sample Analyses:**	VOC, PFCs, 1,4-Dioxane	**Sample ID:**	MW-CPC-36-GW-251-20181107-0
					DUPE: MW-CPC-36-GW-251-20181107-1

Comments: Geotech 36" Pump at 150' with drop tube to 251'.
45 psi, 4 CPM, 7.5s fill/purge.
Water is turbid, color of the clay layer below the bottom of well.

Notes: * - Measurement taken from top of well casing

Time	Est. Liters. Purged	Purge Rate (mL/min)	Temp. (C°)	Cond. (ms/cm)	ORP (mV)	D.O. (mg/L)	pH	TDS	Salinity (ppth)	Turbidity (NTU)	Depth to Water*	Comments
1105	0											Start Pump
1110	~1	250	14.28	0.332	-24	0	7.29	0.215	0.2	OR	23.85	Very turbid
1125	5	250	13.19	**0.304**	**-18**	**0**	**6.72**	0.197	0.1	**3184 AU**	23.85	Very turbid
1135	7	200	**13.21**	**0.302**	**-22**	**0**	**6.72**	**0.196**	0.1	**3116 AU**	**23.80**	Very turbid
1145	9	200	**13.24**	**0.302**	**-24**	**0**	**6.72**	**0.196**	**0.1**	**3077 AU**	**23.80**	Very turbid
1155	10.7	170	**13.23**	**0.302**	**-26**	**0**	**6.73**	**0.196**	**0.1**	**3010 AU**	**23.78**	Very turbid
1205	12.4	170	**13.27**	**0.301**	**-27**	**0**	**6.73**	**0.196**	**0.1**	**2896 AU**	**23.83**	Very turbid
1215	14.1	170	**13.25**	**0.302**	**-30**	**0**	**6.73**	**0.196**	**0.1**	**2801 AU**	**23.82**	Very turbid
1230	16.6	170	**13.55**	**0.303**	**-34**	**0**	**6.72**	**0.197**	**0.1**	**2503 AU**	**23.8**	Very turbid
1245	19	175	**13.75**	**0.305**	**-38**	**0**	**6.71**	**0.198**	**0.1**	**2169 AU**	**23.78**	Very turbid
1300	21.7	170	**13.78**	**0.308**	**-42**	**0**	**6.68**	**0.2**	**0.1**	**1780 AU**	**23.82**	Very turbid
1315	25.2	235	**12.85**	**0.311**	**-40**	**0.51**	**6.57**	**0.202**	**0.1**	**1201**	**23.83**	Very turbid
1330	28.8	235	**13.09**	**0.309**	**-39**	**0.3**	**6.54**	**0.201**	**0.1**	**1033 AU**	**23.83**	Very turbid
1345	32.3	235	**12.89**	**0.308**	**-36**	**0**	**6.5**	**0.2**	**0.1**	**840 au**	**23.83**	Very turbid
1400	35.8	235	**12.79**	**0.305**	**-32**	**0**	**6.45**	**0.198**	**0.1**	**649 AU**	**23.83**	Turbid
1415		235	**12.75**	**0.302**	**-27**	**0**	**6.42**	**0.196**	**0.1**	**49**	**23.83**	Clearing
1420		235	**12.84**	**0.301**	**-26**	**0**	**6.41**	**0.195**	**0.1**	**32**	**23.83**	Clearing
1425		235	**12.81**	**0.3**	**-25**	**0**	**6.4**	**0.195**	**0.1**	**41**	**23.8**	Clearing
1430		235	**12.79**	**0.299**	**-23**	**0**	**6.39**	**0.194**	**0.1**	**35**	**23.8**	Clearing
1435												Sample Collected

Comments: Round 2 groundwater sampling following additional well development.

PFCs Sampling Checklist

Date: 11/7/2018

Weather (*temp./precipitation*): SSF, clear Site Name: Clermont RI/FS

Field Clothing and PPE:

- ☑ No clothing or boots containing Gore-Tex™
- ☑ All safety boots made from polyurethane and PVC
- ☑ No materials containing Tyvek®
- ☑ Field crew has not used fabric softener on clothing
- ☑ Field crew has not used cosmetics, moisturizers, hand cream, or other related products this morning
- ☑ Field crew has not applied unauthorized sunscreen or insect repellant

Field Equipment:

- ☑ No Teflon® or LDPE containing materials on-site
- ☑ All sample materials made from stainless steel, HDPE, acetate, silicon, or polypropylene
- ☑ No waterproof field books on-site
- ☑ No plastic clipboards, binders, or spiral hard cover notebooks on-site
- ☑ No adhesives (Post-It Notes) on-site
- ☑ Coolers filled with regular ice only. No chemical (blue) ice packs in possession

Sample Containers:

- ☑ All sample containers made of HDPE or polypropylene
- ☑ Caps are unlined and made of HDPE or polypropylene

Wet Weather (as applicable):

- ☐ Wet weather gear made of polyurethane and PVC only

Equipment Decontamination:

- ☑ "PFC-free" water on-site for decontamination of sample equipment. No other water sources to be used.
- ☑ Alconox and Liquinox to be used as decontamination materials

Food Considerations:

- ☑ No food or drink on-site with exception of bottled water and/or hydration drinks (i.e., Gatorade and Powerade) that is available for consumption only in the staging area

If any applicable boxes cannot be checked, the Field Lead shall describe the noncompliance issues below and work with field personnel to address noncompliance issues prior to commencement of that day's work. Corrective action shall include removal of noncompliance items from the site or removal of worker offsite until in compliance.

Describe the noncompliance issues (include personnel not in compliance) and action/outcome of noncompliance:

Field Lead Name: Edward Barrett

Field Lead Signature: [signature] Time: 0900

Well Sampling Log

Well ID No.: MW-CPC-38

Well Casing Type:	2.5" Sch 80 PVC	**Start SWL:**	28.78	**Project:**	WA#43 Claremont Polychemical RI/FS
Well Depth:**	394.5	**Water Column Ht.:**	365.72	**Date:**	11/8/2018
Screened Interval:	384 - 395	**Well Volume (gallons):**	101.7	**Crew:**	EB, PT
Well Elevation:**	78.91	**SWL During Sampling:**	29.91	**Pump Intake (ft)**	**391**
Well Diameter (in.)	2.5	**Sample Time:**	1205	**Meters Used:**	Horiba U-52 / LaMotte 2020WE
Well Condition:	New	**Sample Method:**	Geotech Pump	**PID Head Space (ppm):**	0.0
Weather Conditions:	45F, Clear, Breezy	**Sample Analyses:**	VOC, PFCs, 1,4-Dioxane	**Sample ID:**	MW-CPC-38-GW-391-20181109-0

Comments: Geotech 36" Pump at 150' with 241 foot Drop Tube to 391'.
60 psi, 4 CPM, 7.5sec fill/purge = 225 mL/min.
70 psi, 4 CPM, 7.5 sec fill/purge = 415 mL/min.

Notes: * - Measurement taken from top of well casing

Time	Est. Liters. Purged	Purge Rate (mLpm)	Temp. (C^o)	Cond. (ms/cm)	ORP (mV)	D.O. (mg/L)	pH	TDS	Salinity (ppth)	Turbidity (NTU)	Depth to Water*	Comments
0758												Start Pump
0805	~1	275	12.49	0.158	-94	1.30	10.18	0.101	0.1	OR	28.78	Very Turbid
0810	1.3	275	12.55	0.137	-117	1.12	9.95	0.088	0.1	OR	28.78	Very Turbid
0815	2.8	275	12.57	0.120	-130	0.27	9.72	0.077	0.1	OR	28.85	Very Turbid
0820	4.1	275	12.51	0.097	-118	0.00	9.12	0.062	0.0	OR	28.85	Very Turbid
0830	6.6	250	12.55	0.071	-64	0.00	7.70	0.046	0.0	2309 AU	28.85	Very Turbid
0840	9.1	250	12.64	0.068	-62	0.00	7.41	0.044	0.0	1893 AU	28.85	Very Turbid
0850	11.6	250	12.68	0.066	-64	0.00	7.28	0.043	0.0	1724 AU	28.85	Very Turbid
0900	14.1	250	12.68	0.065	-65	0.00	7.20	0.042	0.0	1472 AU	28.85	Very Turbid
0910	16.6	250	12.64	0.065	-64	0.00	7.13	0.042	0.0	1324 AU	28.85	Very Turbid
0920	19.1	250	12.64	0.064	-61	0.00	7.07	0.041	0.0	1137 AU	28.85	Very Turbid
0930	21.4	225	12.63	0.061	-58	0.00	7.00	0.039	0.0	1003 AU	28.85	Very Turbid
0940	23.6	225	12.63	0.06	-58	0.00	6.96	0.039	0.0	947 AU	28.85	Very Turbid
0950	25.8	225	12.67	0.059	-55	0.00	6.91	0.038	0.0	882 AU	28.95	Very Turbid, increase flow rate
1000	30	415	12.21	0.058	-60	0.00	6.96	0.038	0.0	805 AU	29.91	Very Turbid
1010	34.1	415	12.14	0.057	-55	0.00	6.91	0.037	0.0	706 AU	29.91	Turbid
1020	38.3	415	12.08	0.055	-50	0.00	6.85	0.036	0.0	139	29.91	Turbid, Clearing Up
1030	42.4	415	12.05	0.054	-46	0.00	6.84	0.035	0.0	131	29.91	Turbid, Clearing Up
1040	46.6	415	12.04	0.052	-41	0.00	6.75	0.034	0.0	110	29.91	Turbid, Clearing Up
1050	50.7	415	12.03	0.050	-37	0.00	6.79	0.033	0.0	116	29.91	Turbid, Clearing Up

Well Sampling Log

Well ID No.: MW-CPC-38

Well Casing Type:	2.5" Sch 80 PVC	**Start SWL:**	28.78	**Project:**	WA#43 Claremont Polychemical RI/FS
Well Depth:**	394.5	**Water Column Ht.:**	365.72	**Date:**	11/8/2018
Screened Interval:	384 - 395	**Well Volume (gallons):**	101.7	**Crew:**	EB, PT
Well Elevation:**	78.91	**SWL During Sampling:**	29.91	**Pump Intake (ft)**	**391**
Well Diameter (in.)	2.5	**Sample Time:**	1205	**Meters Used:**	Horiba U-52 / LaMotte 2020WE
Well Condition:	New	**Sample Method:**	Geotech Pump	**PID Head Space (ppm):**	0.0
Weather Conditions:	45F, Clear, Breezy	**Sample Analyses:**	VOC, PFCs, 1,4-Dioxane	**Sample ID:**	MW-CPC-38-GW-391-20181109-0

Comments: Geotech 36" Pump at 150' with 241 foot Drop Tube to 391'.
60 psi, 4 CPM, 7.5sec fill/purge = 225 mL/min.
70 psi, 4 CPM, 7.5 sec fill/purge = 415 mL/min.

Notes: * - Measurement taken from top of well casing

Time	Est. Liters. Purged	Purge Rate (mLpm)	Temp. (C^o)	Cond. (ms/cm)	ORP (mV)	D.O. (mg/L)	pH	TDS	Salinity (ppth)	Turbidity (NTU)	Depth to Water*	Comments
1100	54.8	415	12.01	0.049	-32	0.00	6.71	0.032	0.0	103	29.92	Turbid, Clearing Up
1110	59	415	12.03	0.049	-33	0.00	6.77	0.032	0.0	135	29.91	Turbid, Clearing Up
1120	63.1	415	12.00	0.049	-31	0.00	6.72	0.032	0.0	135	29.91	Turbid, Clearing Up
1130	67.3	415	11.98	0.049	-23	0.00	6.65	0.032	0.0	154	29.91	Turbid
1135		415	12.00	0.049	-25	0.00	6.64	0.032	0.0	164	29.91	Turbid
1140		415	12.00	0.048	-21	0.00	6.60	0.031	0.0	337	29.91	Turbid
1145		415	12.00	0.048	-18	0.00	6.54	0.031	0.0	160	29.91	Turbid
1150		415	11.99	0.047	-19	0.00	6.53	0.031	0.0	183	29.91	Turbid
1155		415	11.99	0.047	-19	0.00	6.55	0.030	0.0	182	29.91	Turbid
1200		415	11.98	0.047	-18	0.00	6.54	0.030	0.0	238	29.91	Turbid
1205										167		Sample Collected

Comments: Round 2 groundwater sampling following additional well development.

PFCs Sampling Checklist

Date: 11/8/2018

Weather (*temp./precipitation*): 49 F, Clear Site Name: Claremont RI/FS

Field Clothing and PPE:

- ☑ No clothing or boots containing Gore-Tex™
- ☑ All safety boots made from polyurethane and PVC
- ☑ No materials containing Tyvek®
- ☑ Field crew has not used fabric softener on clothing
- ☑ Field crew has not used cosmetics, moisturizers, hand cream, or other related products this morning
- ☑ Field crew has not applied unauthorized sunscreen or insect repellant

Field Equipment:

- ☑ No Teflon® or LDPE containing materials on-site
- ☑ All sample materials made from stainless steel, HDPE, acetate, silicon, or polypropylene
- ☑ No waterproof field books on-site
- ☑ No plastic clipboards, binders, or spiral hard cover notebooks on-site
- ☑ No adhesives (Post-It Notes) on-site
- ☑ Coolers filled with regular ice only. No chemical (blue) ice packs in possession

Sample Containers:

- ☑ All sample containers made of HDPE or polypropylene
- ☑ Caps are unlined and made of HDPE or polypropylene

Wet Weather (as applicable):

- ☐ Wet weather gear made of polyurethane and PVC only

Equipment Decontamination:

- ☑ "PFC-free" water on-site for decontamination of sample equipment. No other water sources to be used.
- ☑ Alconox and Liquinox to be used as decontamination materials

Food Considerations:

- ☑ No food or drink on-site with exception of bottled water and/or hydration drinks (i.e., Gatorade and Powerade) that is available for consumption only in the staging area

If any applicable boxes cannot be checked, the Field Lead shall describe the noncompliance issues below and work with field personnel to address noncompliance issues prior to commencement of that day's work. Corrective action shall include removal of noncompliance items from the site or removal of worker offsite until in compliance.

Describe the noncompliance issues (include personnel not in compliance) and action/outcome of noncompliance:

Field Lead Name: E. Brault

Field Lead Signature: _____ Time: 0806

Well Sampling Log

Well ID No.: MW-CPC-39

Well Casing Type:	2.5" Sch 80 PVC	**Start SWL:**	25.53	**Project:**	WA#43 Claremont Polychemical RI/FS
Well Depth:**	390	**Water Column Ht.:**	364.47	**Date:**	11/9/2018
Screened Interval:	370.6 - 390	**Well Volume (gallons):**	108.5	**Crew:**	EB, PT
Well Elevation:**	75.25	**SWL During Sampling:**	25.70	**Pump Intake (ft)**	**374**
Well Diameter (in.)	2.5	**Sample Time:**	1305	**Meters Used:**	Horiba U-52 / LaMotte 2020WE
Well Condition:	New	**Sample Method:**	Pump	**PID Head Space (ppm):**	0.0
Weather Conditions:	55F, Partly Cloudy	**Sample Analyses:**	VOC, PFCs, 1,4-Dioxane	**Sample ID:**	MW-CPC-39-GW-374-20181108-0

Comments: Geotech 36" Pump at 150' with drop tube to 374'.
60 psi, 4 CPM, 7.5s fill/purge

Notes: * - Measurement taken from top of well casing

Time	Est. Liters. Purged	Purge Rate (Lpm)	Temp. (C°)	Cond. (ms/cm)	ORP (mV)	D.O. (mg/L)	pH	TDS	Salinity (ppth)	Turbidity (NTU)	Depth to Water*	Comments
850												Start Pump
900	~1	325	13.56	0.101	-6	1.18	8.32	0.065	0.0	2946 AU	25.7	Very Turbid
905	1.6	325	13.33	0.084	-25	0.01	8.26	0.054	0.0	2840 AU	25.7	Very Turbid
910	3.2	325	13.13	0.077	-41	0.00	7.92	0.05	0.0	2671 AU	25.65	Very Turbid
915	4.8	325	13.05	0.07	-45	0.00	7.45	0.045	0.0	1847 AU	25.65	Very Turbid
920	6.3	310	13.10	0.054	-27	0.00	6.95	0.035	0.0	1081 AU	25.65	Very Turbid
930	9.4	310	13.00	0.049	-30	0.00	6.57	0.032	0.0	885 AU	25.65	Beginning to Clear up some
940	12.5	310	12.97	0.048	-29	0.00	6.46	0.031	0.0	804 AU	25.65	Turbid
950	15.6	310	12.97	0.048	-31	0.00	6.45	0.031	0.0	795 AU	25.65	Turbid
1000	18.7	300	13.00	0.048	-35	0.00	6.53	0.031	0.0	673 AU	25.65	Turbid
1010	21.7	310	13.04	0.047	-31	0.00	6.44	0.031	0.0	616 AU	25.65	Turbid
1020	24.8	310	12.99	0.047	-35	0.00	6.44	0.031	0.0	175	25.70	Turbid
1030	27.9	310	13.01	0.047	-29	0.00	6.42	0.031	0.0	161	25.70	Turbid
1040	31.2	330	12.94	0.047	-30	0.00	6.42	0.030	0.0	178	25.70	Turbid
1050	34.5	330	12.88	0.046	-24	0.00	6.37	0.030	0.0	179	25.70	Turbid
1100	37.8	330	12.74	0.045	-21	0.00	6.37	0.029	0.0	633 AU	25.70	Turbid
1110	41.1	330	12.74	0.045	-15	0.00	6.31	0.028	0.0	711 AU	25.70	Turbid
1120	43.7	260	12.73	0.042	-3	0.00	6.23	0.027	0.0	873 AU	25.70	Turbid
1130	46.3	260	12.92	0.041	0	0.00	6.27	0.027	0.0	985 AU	25.70	Turbid
1140	48.9	260	12.97	0.040	4	0.00	6.23	0.026	0.0	959 AU	25.70	Turbid
1150	51.1	260	12.97	0.040	8	0.00	6.23	0.026	0.0	1048 AU	25.70	Turbid
1200	54.1	260	12.97	0.039	11	0.00	6.23	0.025	0.0	1118 AU	25.70	Turbid

Well Sampling Log

Well ID No.: MW-CPC-39

Well Casing Type:	2.5" Sch 80 PVC	**Start SWL:**	25.53	**Project:**	WA#43 Claremont Polychemical RI/FS
Well Depth:**	390	**Water Column Ht.:**	364.47	**Date:**	11/9/2018
Screened Interval:	370.6 - 390	**Well Volume (gallons):**	108.5	**Crew:**	EB, PT
Well Elevation:**	75.25	**SWL During Sampling:**	25.70	**Pump Intake (ft)**	**374**
Well Diameter (in.)	2.5	**Sample Time:**	1305	**Meters Used:**	Horiba U-52 / LaMotte 2020WE
Well Condition:	New	**Sample Method:**	Pump	**PID Head Space (ppm):**	0.0
Weather Conditions:	55F, Partly Cloudy	**Sample Analyses:**	VOC, PFCs, 1,4-Dioxane	**Sample ID:**	MW-CPC-39-GW-374-20181108-0

Comments: Geotech 36" Pump at 150' with drop tube to 374'.
60 psi, 4 CPM, 7.5s fill/purge

Notes: * - Measurement taken from top of well casing

Time	Est. Liters. Purged	Purge Rate (Lpm)	Temp. (C^o)	Cond. (ms/cm)	ORP (mV)	D.O. (mg/L)	pH	TDS	Salinity (ppth)	Turbidity (NTU)	Depth to Water*	Comments
1210	56.7	260	13.02	0.039	14	0.00	6.21	0.025	0.0	1186 AU	25.70	Turbid
1220	59.3	260	13.00	0.038	16	0.00	6.22	0.025	0.0	1118 AU	25.70	Turbid
1230	61.9	260	12.97	0.037	19	0.00	6.15	0.024	0.0	1105 AU	25.70	Turbid
1235	64.5	260	12.95	0.037	18	0.00	6.19	0.024	0.0	1121 AU	25.70	Turbid
1240	67.1	260	12.97	0.037	21	0.00	6.18	0.024	0.0	1073 AU	25.70	Turbid
1245	69.7	260	12.99	0.037	22	0.00	6.17	0.024	0.0	1146AU	25.70	Turbid
1250	72.3	260	12.96	0.037	21	0.00	6.18	0.024	0.0	1142 AU	25.70	Turbid
1255	74.9	260	12.92	0.037	23	0.00	6.15	0.024	0.0	1046 AU	25.70	Turbid
1300	77.5	260	12.97	0.037	24	0.00	6.17	0.024	0.0	1071 AU	25.70	Turbid
1305												Sample Collected.

Comments: Round 2 groundwater sampling following additional well development. MW-CPC-39 very turbid and sample will be analyzed and lab filtered.

PFCs Sampling Checklist

Date: 9Nov 2018

Weather (*temp./precipitation*): 40F, Clear Site Name: NYSDEC Claremont RI/FS

Field Clothing and PPE:

- ☐ No clothing or boots containing Gore-Tex™
- ☑ All safety boots made from polyurethane and PVC
- ☑ No materials containing Tyvek®
- ☑ Field crew has not used fabric softener on clothing
- ☑ Field crew has not used cosmetics, moisturizers, hand cream, or other related products this morning
- ☑ Field crew has not applied unauthorized sunscreen or insect repellant

Field Equipment:

- ☑ No Teflon® or LDPE containing materials on-site
- ☑ All sample materials made from stainless steel, HDPE, acetate, silicon, or polypropylene
- ☑ No waterproof field books on-site
- ☑ No plastic clipboards, binders, or spiral hard cover notebooks on-site
- ☑ No adhesives (Post-It Notes) on-site
- ☑ Coolers filled with regular ice only. No chemical (blue) ice packs in possession

Sample Containers:

- ☑ All sample containers made of HDPE or polypropylene
- ☑ Caps are unlined and made of HDPE or polypropylene

Wet Weather (as applicable):

- ☐ Wet weather gear made of polyurethane and PVC only

Equipment Decontamination:

- ☑ "PFC-free" water on-site for decontamination of sample equipment. No other water sources to be used.
- ☐ Alconox and Liquinox to be used as decontamination materials

Food Considerations:

- ☐ No food or drink on-site with exception of bottled water and/or hydration drinks (i.e., Gatorade and Powerade) that is available for consumption only in the staging area

If any applicable boxes cannot be checked, the Field Lead shall describe the noncompliance issues below and work with field personnel to address noncompliance issues prior to commencement of that day's work. Corrective action shall include removal of noncompliance items from the site or removal of worker offsite until in compliance.

Describe the noncompliance issues (include personnel not in compliance) and action/outcome of noncompliance:

Field Lead Name: E Bennett

Field Lead Signature: [signature] Time: 0800

Appendix F
Data Validation Reports

Data Validation Services

120 Cobble Creek Road P.O. Box 208
North Creek, NY 12853

Phone 518-251-4429
harry@frontiernet.net

December 14, 2018

Jennifer Becker
HDR
1 International Blvd
Mahwah, NJ 07495

RE: Validation of the NYSDEC Claremont Polychemical Group RI/FS Site Laboratory Analytical Data Packages
Project No. D007625 WA # 43
Data Usability Summary Report (DUSR)
TestAmerica Laboratories SDBG Nos. 320-44873, 200-46151, 460-166807, and 460-169051
Pace Analytical Services SDG No. 7070542

Dear Ms. Becker:

Review has been completed for the data packages generated by TestAmerica Laboratories and Pace Analytical Services that pertain to aqueous samples collected between 10/11/18 and 11/07/18 at the Claremont Polychemical Group RI/FS site. Four aqueous samples and two field duplicates were processed for per- and poly fluorinated alkyl substances (PFAS) by a modified USEPA method 537 and 1,4-dioxane by USEPA SW846 method 8270D SIM. Two of these samples and a field duplicate were also processed for TCL volatiles by USEPA SW846 method 8260C. One additional split sample was processed for TCL volatiles by Pace Analytical Services. Three equipment blanks and three trip blanks were also processed.

The data packages submitted by the laboratories contain full deliverables for validation, but this usability report is generated from review of the QC summary form information, with full review of sample raw data and limited review of associated QC raw data. The reported QC summary forms and sample raw data have been reviewed for application of validation qualifiers, with guidance from the USEPA national and regional validation documents, and in consideration for the specific requirements of the analytical methodology. The following items were reviewed:

* Data Completeness
* Case Narrative
* Custody Documentation
* Holding Times
* Surrogate/Isotopic and Internal Standard Recoveries
* Method and Preparation Blanks
* Matrix Spike Recoveries/Duplicate Correlations
* Blind Field Duplicate Correlations
* Laboratory Control Sample (LCS)
* Instrumental Tunes
* Initial and Continuing Calibration Standards
* Method Compliance
* Sample Result Verification

Those items listed above which show deficiencies are discussed within the text of this narrative. All of the other items were determined to be acceptable for the DUSR level review, as discussed in NYS DER-10 Appendix B Section 2.0 (c). Documentation of the outlying parameters cited in this report can be found in the laboratory data package.

In summary, results for the samples are usable either as reported or with minor qualification.

Data completeness, representativeness, precision, reproducibility, sensitivity, and comparability are acceptable. No matrix spike samples were submitted for PFAS and 1,4-dioxane, and therefore the matrix accuracy parameter for those analytes have not been evaluated. The field duplicates show acceptable precision for all analytes.

The laboratory modifications to the USEPA method 537 are significant, including acceptance ranges, consistent in many respects to the advances in the available monitoring compounds. Validation actions are based on the laboratory procedures, in consideration that the laboratory undergoes NYS DOH certifications and NYS SOP review.

Copies of the client sample identifications are attached to this text. Also included in this report are TestAmerica EQuIS EDDs with recommended qualifiers/edits applied in red.

Chain-of-Custody

The date and time were omitted from an interim receipt entry for samples reported in SDG 200-46151

Blind Field Duplicate

The blind field duplicate evaluations of MW-CPC-37-445-20181011-0 and M<W-CPC-36-251-20181107-0 show correlations within validation guidelines.

TCL Volatile Analyses by EPA 8260C

The matrix spike/duplicate evaluations performed on the split sample MW-CPC-36-G-W-251-20181107-0 show acceptable recoveries and correlations.

Calibration standards showed acceptable responses, with the following exceptions, results for which are qualified as estimated in the split sample:

- acetone, cis-1,3-dichloropropene, and trans-1,3-dichloropropene in the calibration associated with the split sample
- bromomethane in samples reported in SDG 200-46151

Holding times were met, and surrogate and internal standard recoveries are compliant. Blanks show no contamination.

1,4-Dioxane by EPA8270D SIM

The detected result for 1,4-dioxane in MW-CPC-39-374-20181108-0 is considered external contamination and edited to reflect non-detection and edited to reflect non-detection due to presence in the associated equipment blank.

Holding times were met. Surrogate and internal standard responses are compliant. Instrument tunes meet fragmentation requirements. Calibration standards show responses within validation action levels.

PFAS by Modified EPA Method 537

PFAS compounds are identified by their common acronyms in this report. The EDDs reference both the technical names and the acronyms.

Due to elevated recoveries in the associated isotopic dilution surrogate standards, the results for 6:2-FTS and 8:2-FTS in MW-CPC-36-251-20181107-0 and MW-CPC-36-251-20181107-1.

The low level blank contamination does not affect sample reported results.

Holding times were met. Internal standard responses are compliant. Instrument tunes meet fragmentation requirements. Calibration standards show responses within validation action levels.

Please do not hesitate to contact me if questions or comments arise during your review of this report.

Very truly yours,

Judy Harry

Attachments: Validation Qualifier Definitions
Sample Identifications
Qualified Laboratory EQuIS EDDs

VALIDATION DATA QUALIFIER DEFINITIONS

U	The analyte was analyzed for, but was not detected above the level of the associated reported quantitation limit.
J	The analyte was positively identified; the associated numerical value is an approximate concentration of the analyte in the sample.
J-	The analyte was positively identified; the associated numerical value is an estimated quantity that may be biased low.
J+	The analyte was positively identified; the associated numerical value is an estimated quantity that may be biased high.
UJ	The analyte was analyzed for, but was not detected. The associated reported quantitation limit is approximate and may be inaccurate or imprecise.
NJ	The detection is tentative in identification and estimated in value. Although there is presumptive evidence of the analyte, the result should be used with caution as a potential false positive and/or elevated quantitative value.
R	The data are unusable. The sample results are rejected due to serious deficiencies in meeting Quality Control limits. The analyte may or may not be present.
EMPC	The results do not meet all criteria for a confirmed identification. The quantitative value represents the Estimated Maximum Possible Concentration of the analyte in the sample.

Client and Laboratory Sample Identifications

Sample Summary

Client: HDR Engineering, Inc.
Project/Site: WA#43 Claremont Polychemical RI/FS

TestAmerica Job ID: 200-46151-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
200-46151-1	MW-CPC-36-251-20181107-0	Water	11/07/18 14:35	11/09/18 10:47
200-46151-2	MW-CPC-36-251-20181107-1	Water	11/07/18 14:35	11/09/18 10:47
200-46151-3	MW-CPC-36-251-20181107-2	Water	11/07/18 15:30	11/09/18 10:47
200-46151-4	MW-CPC-39-374-20181108-0	Water	11/08/18 13:05	11/09/18 10:47
200-46151-5	TB-20181108-0	Water	11/08/18 14:00	11/09/18 10:47

Sample Summary

Client: HDR Engineering, Inc.
Project/Site: DEC Claremont Polychemical

TestAmerica Job ID: 320-44873-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
320-44873-1	MW-CPC-36-20181031-2	Water	10/31/18 12:45	11/02/18 09:20

Sample Summary

Client: HDR Engineering, Inc.
Project/Site: WA#43 Claremont Polychemical RI/FS

TestAmerica Job ID: 460-166807-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
460-166807-1	MW-CPC-37-R1-GW-445-20181011-1	Water	10/11/18 12:30	10/12/18 20:00
460-166807-2	MW-CPC-37-R1-GW-445-20181011-2	Water	10/11/18 08:45	10/12/18 20:00
460-166807-3	MW-CPC-37-R1-GW-445-20181011-0	Water	10/11/18 12:30	10/12/18 20:00
460-166807-4	TB-20181012	Water	10/12/18 12:30	10/12/18 20:00

Sample Summary

Client: HDR Engineering, Inc.
Project/Site: WA#43 Claremont Polychemical RI/FS

TestAmerica Job ID: 460-169051-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
460-169051-1	MW-CPC-38-GW-391-20181109-0	Water	11/09/18 12:05	11/09/18 20:00
460-169051-2	TB-20181109	Water	11/09/18 12:15	11/09/18 20:00

Pace Analytical Services, LLC
575 Broad Hollow Road
Melville, NY 11747
(631)694-3040

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: NYSDEC CLAREMONT RI/FS WA #43
Pace Project No.: 7070542

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
7070542001	MW-CPC-36-GW-251-20181107-0	EPA 8260C/5030C	90799		

Appendix G
Survey Data

WA#43 CLAREMONT POLYCHEMICAL WELLS
OLD BETHPAGE, NY

WELL I.D.	NORTHING	EASTING	NORTH LATITUDE	WEST LONGITUDE	GROUND	CASING	RISER	WELL TYPE
MW-CPC-36	208965.80	1138189.16	40°44'20.03892"	73°26'40.19263"	76.45	76.45	75.93	Flush Mount
MW-CPC-37	208768.84	1139664.98	40°44'17.99982"	73°26'21.03738"	78.26	78.26	77.87	Flush Mount
MW-CPC-38	208995.95	1139992.26	40°44'20.22321"	73°26'16.76693"	79.40	79.40	78.91	Flush Mount
MW-CPC-39	208739.78	1140843.03	40°44'17.63788"	73°26'05.73644"	75.77	75.77	75.25	Flush Mount

HORIZONTAL DATUM: NAD 83, LONG ISLAND ZONE FROM GPS OBSERVATIONS
VERTICAL DATUM: NAVD 88 FROM GPS OBSERVATIONS
DATE OF FIELD SURVEY: OCTOBER 4, 2018 - DONALD R. STEDGE, P.L.S.

Appendix H
IDW Manifests

NON-HAZARDOUS WASTE MANIFEST

1. Generator ID Number	2. Page 1 of	3. Emergency Response Phone	4. Waste Tracking Number
N / A	1	(267) 406-0083	28116

GENERATOR

5. Generator's Name and Mailing Address
NYSDEC
625 Broadway, 12th Floor
Albany NY 12233-7256
Generator's Phone: 518 402-9525

Generator's Site Address (if different than mailing address)
NYSDEC-Site 5130015
Oakdale Blvd.
Farmingdale NY 11735

6. Transporter 1 Company Name: Freehold Cartage, Inc.
U.S. EPA ID Number: NJD054126164

7. Transporter 2 Company Name
U.S. EPA ID Number

8. Designated Facility Name and Site Address
Conestoga Landfill
420 Quarry Road
Morgantown PA 19543
Facility's Phone: 610 286-6844
U.S. EPA ID Number: PA0000015867

	9. Waste Shipping Name and Description	10. Containers No.	10. Containers Type	11. Total Quantity	12. Unit Wt./Vol.	
1.	Non Hazardous Soil Non-DOT Regulated Material	001	CM	EST. 00010	Y	
2.						
3.						
4.						

13. Special Handling Instructions and Additional Information
9.1) Approval: 50811816409

14. **GENERATOR'S/OFFEROR'S CERTIFICATION:** I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations.

Generator's/Offeror's Printed/Typed Name | Signature | Month | Day | Year

INT'L

15. International Shipments ☐ Import to U.S. ☐ Export from U.S. Port of entry/exit:
Transporter Signature (for exports only): Date leaving U.S.:

TRANSPORTER

16. Transporter Acknowledgment of Receipt of Materials

Transporter 1 Printed/Typed Name: Alan Schmitz | Signature | Month: 10 | Day: 10 | Year: 18

Transporter 2 Printed/Typed Name | Signature | Month | Day | Year

DESIGNATED FACILITY

17. Discrepancy

17a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection

Manifest Reference Number:

17b. Alternate Facility (or Generator) | U.S. EPA ID Number
Facility's Phone:

17c. Signature of Alternate Facility (or Generator) | Month | Day | Year

18. Designated Facility Owner or Operator: Certification of receipt of materials covered by the manifest except as noted in Item 17a

Printed/Typed Name | Signature | Month | Day | Year

GENERATOR'S/SHIPPER'S INITIAL COPY

NON-HAZARDOUS WASTE MANIFEST

1. Generator ID Number

2. Page 1 of 1

3. Emergency Response Phone: 518-324-7873

4. Waste Tracking Number: DR 1810-006

5. Generator's Name and Mailing Address
NYSDEC #130015 c/o [illegible] Ettenbarst
625 Broadway 12th Floor Albany NY 12233

Generator's Site Address (if different than mailing address)
Former Cenument Properties
Island Site

Generator's Phone:

6. Transporter 1 Company Name: American Env. Assessment Corp.
U.S. EPA ID Number

7. Transporter 2 Company Name
U.S. EPA ID Number

8. Designated Facility Name and Site Address
Power Crush Inc
140 Old Northport Rd. Kings Park NY 11754

U.S. EPA ID Number

Facility's Phone: 631-368-4000

	9. Waste Shipping Name and Description	10. Containers No.	10. Containers Type	11. Total Quantity	12. Unit Wt./Vol.	
	1. NON RCRA NON DOT Regulated Material (Concrete)	xx1	CM	xx10	YDS	
	2.					
	3.					
	4.					

13. Special Handling Instructions and Additional Information

14. **GENERATOR'S/OFFEROR'S CERTIFICATION:** I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations.

Generator's/Offeror's Printed/Typed Name	Signature	Month	Day	Year
As Agent of NYSDEC - Colin Mills (HDR)	[signature]	10	17	18

15. International Shipments ☐ Import to U.S. ☐ Export from U.S. Port of entry/exit:

Transporter Signature (for exports only): Date leaving U.S.:

16. Transporter Acknowledgment of Receipt of Materials

	Printed/Typed Name	Signature	Month	Day	Year
Transporter 1	Robert Gryzcil	[signature]	10	17	18
Transporter 2					

17. Discrepancy

17a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection

Manifest Reference Number:

17b. Alternate Facility (or Generator)

U.S. EPA ID Number

Facility's Phone:

17c. Signature of Alternate Facility (or Generator) Month Day Year

18. Designated Facility Owner or Operator: Certification of receipt of materials covered by the manifest except as noted in Item 17a

Printed/Typed Name Signature Month Day Year

GENERATOR | INT'L | TRANSPORTER | DESIGNATED FACILITY

NON-HAZARDOUS WASTE MANIFEST

1. Generator ID Number:
2. Page 1 of: 1
3. Emergency Response Phone: 516-924-7873
4. Waste Tracking Number: DR1810-006

GENERATOR

5. Generator's Name and Mailing Address: NYSDEC #130015 c/o Caroline Eigenbrodt, 625 Broadway, 12th Floor, Albany NY 12233
Generator's Site Address (if different than mailing address): Former Claremont Polychemical IRM site
Generator's Phone:

6. Transporter 1 Company Name: American Env. Assessment Corp.
U.S. EPA ID Number:

7. Transporter 2 Company Name:
U.S. EPA ID Number:

8. Designated Facility Name and Site Address: Power Crush Inc, 140 Old Northport Rd, Kings Park NY 11754
Facility's Phone: 631-368-4000
U.S. EPA ID Number:

	9. Waste Shipping Name and Description	10. Containers No.	10. Containers Type	11. Total Quantity	12. Unit Wt./Vol.	
1.	Non RCRA, non DOT Regulated Material (Cuttings)	xx1	CM	xx10	G/DS	
2.						
3.						
4.						

13. Special Handling Instructions and Additional Information

14. GENERATOR'S/OFFEROR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations.

Generator's/Offeror's Printed/Typed Name: As Agent of NYSDEC - Colin Mills (HDR)
Signature: C. Mills
Month: 10 Day: 17 Year: 18

INT'L

15. International Shipments ☐ Import to U.S. ☐ Export from U.S. Port of entry/exit:
Transporter Signature (for exports only): Date leaving U.S.:

TRANSPORTER

16. Transporter Acknowledgment of Receipt of Materials

Transporter 1 Printed/Typed Name: Peter Grayno
Signature:
Month: 10 Day: 17 Year: 18

Transporter 2 Printed/Typed Name:
Signature:
Month: Day: Year:

DESIGNATED FACILITY

17. Discrepancy

17a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection

Manifest Reference Number:
U.S. EPA ID Number:

17b. Alternate Facility (or Generator): 110 Sand Company / 136 Spagnoli Road, Melville NY
Facility's Phone:

17c. Signature of Alternate Facility (or Generator)
Month: Day: Year:

18. Designated Facility Owner or Operator: Certification of receipt of materials covered by the manifest except as noted in Item 17a

Printed/Typed Name: Bryan Winter
Signature:
Month: 10 Day: 18 Year: 18

110 Sand Company

136 Spagnoli Road
Melville, NY 11747

Business Office:
170 Cabot Street
West Babylon NY, 11704

Ticket #: 523049
Date: 10/18/2018 12:27 PM
Phone: (631) 249-4108
Fax: (631) 249-4126

Customer: 999161
PLANET WASTE / TNT IND. INC.
847 SHEPHERO AVENUE
BROOKLYN NEW YORK, 11208

Manifest #: DR1810-006
PO #:
Job #

Order Number: 6
DEC APPROVED FILL - CLAREMONT
Tons: 8.070
Loads: 1

6714 - AMER ENVIR ASSMNT-1-20 - 67149PA
BCW - Bryan Winter Lic.#604948
110 Sand Co - Suffolk
Remarks: 20 CYD BOX

Payment Information

Type	Amount	Check Number
Credit Card	$468.06	34008

Material	Location Address	Quantity	Price	Misc $	Tax $	Line Total $
950 NYS DEC APPROVED...		8.07 tn	$58.00	$0.00	$0.00	$468.06

Gross	Tare	Net	Time IN	Time OUT
25.24 Tn 50,480 Lb	17.17 Tn 34,340 lb	8.07 Tn 16,140 Lb	12:00 PM	12:26 PM

Driver 

CLEAR FLO TECHNOLOGIES, INC.
1110 Rte. 109
N. Lindenhurst, N.Y. 11757
Tel: (631) 956-7600
Fax: (631) 956-7020

MANIFEST NUMBER		
Part 1	Part 2	Part 3
100818	1115	
Date of Pick-Up	Time of Pick-Up	Chronological Number /Also Used as Sample #
(Use 2 Digit Numbers) Example 040103	(Military Time)	(Assigned at Clear Flo-Receiving Station)

LIQUID WASTE DISCHARGE MANIFEST

1. WASTEWATER STREAM IDENTIFICATION (Sections 1A, 1B, & 1C must be completed by generator or hauler)

A. Volume:	**Gallons:** 3023	**Wt. In:**		**Wt. Out:**	
B. Type:	☐ Condensate Water	☐ Decant Grease	☐ Grease	☒ Industrial Rinse	☐ Leachate
	☐ Leachate Pool	☐ Pharmaceutical	☐ Septic/Septage	☐ Sludge	☐ Storm Water
	☐ STP Effluent	☐ Transfer Leachate	**Other:**		
C. Source	☐ Home/Apt.	☐ Office/Commercial	☐ Municipal	☒ Industrial	☐ Other

Description of Other and special handling instructions, if any _____

2. GENERATOR OF WASTEWATER (Sections 2A, 2B, & 2C must be completed by generator or hauler)

A. Complete Name (print or type): NYSDEC Site #130015 B. Tel. No: (516) 402-9575

C. Complete Pickup Address: Oakdale Blvd - Farmingdale NY 11735

ALL WASTEWATERS ARE SUBJECT TO THE TERMS AND CONDITIONS CONTAINED IN THE DISCHARGE PERMIT

The undersigned, being duly authorized, does hereby certify to the best of their knowledge to the accuracy of the source and type of wastewater identified and subject to this manifest. **SECTION D GENERATOR SIGNATURE REQUIRED**

D. Signature of Generator or Agent: _____ Date: 10/8/18

3. **HAULER OF LIQUID WASTE** (Sections 3A, 3B, 3C, 3D and 3E must be completed by hauler)

A. Company name (print or type): Innovative Recycling Technologies, Inc.
B. SCDPW Permit No.: _____ C. Vehicle License No.: _____ D. Pump Out Date: 10/8/18
E. NYS DEC Permit No.: _____

The above described liquid waste was picked up and hauled by me to the disposal facility named below and was discharged. I certify under penalty of perjury that the foregoing is true and correct.

F. Signature of authorized agent and title: _____ DRIVER

4. **ACCEPTANCE BY CLEAR FLO TECHNOLOGIES, INC.** (must be completed by disposer)

The above hauler delivered the described wastewater to the disposal facility and it was accepted.

Disposal Date: _____ Sample ID No.: _____

Signature of authorized agent and title: _____

PINK-GENERATOR YELLOW-TRANSPORTER WHITE_DISPOSAL FACILITY GOLD-FILE

CLEAR FLO TECHNOLOGIES, INC.
1110 Rte. 109
N. Lindenhurst, N.Y. 11757
Tel: (631) 956-7600
Fax: (631) 956-7020

MANIFEST NUMBER		
Part 1	Part 2	Part 3
100818		
Date of Pick-Up	Time of Pick-Up	Chronological Number /Also Used as Sample #
(Use 2 Digit Numbers) Example 040103	(Military Time)	(Assigned at Clear Flo-Receiving Station)

LIQUID WASTE DISCHARGE MANIFEST

1. WASTEWATER STREAM IDENTIFICATION (Sections 1A, 1B, & 1C must be completed by generator or hauler)

A. Volume:	**Gallons:** 3048	**Wt. In:**		**Wt. Out:**	
B. Type:	☐ Condensate Water	☐ Decant Grease	☐ Grease	☒ Industrial Rinse	☐ Leachate
	☐ Leachate Pool	☐ Pharmaceutical	☐ Septic/Septage	☐ Sludge	☐ Storm Water
	☐ STP Effluent	☐ Transfer Leachate	**Other:**		
C. Source	☐ Home/Apt.	☐ Office/Commercial	☐ Municipal	☒ Industrial	☐ Other

Description of Other and special handling instructions, if any _____

2. GENERATOR OF WASTEWATER (Sections 2A, 2B, & 2C must be completed by generator or hauler)

A. Complete Name (print or type): NYSDEC Site #130015 B. Tel. No: (518)402-9575

C. Complete Pickup Address: Oakdale Blvd. – Farmingdale, NY 11735

ALL WASTEWATERS ARE SUBJECT TO THE TERMS AND CONDITIONS CONTAINED IN THE DISCHARGE PERMIT

The undersigned, being duly authorized, does hereby certify to the best of their knowledge to the accuracy of the source and type of wastewater identified and subject to this manifest. SECTION D GENERATOR SIGNATURE REQUIRED

D. Signature of Generator or Agent: Jon Becker (As an agent of NYSDEC) Date: 10/8/18

3. **HAULER OF LIQUID WASTE** (Sections 3A, 3B, 3C, 3D and 3E must be completed by hauler)

A. Company name (print or type): Innovative Recycling Technologies, Inc.
B. SCDPW Permit No.: _____ C. Vehicle License No.: _____ D. Pump Out Date: 10/8/18
E. NYS DEC Permit No.: _____

The above described liquid waste was picked up and hauled by me to the disposal facility named below and was discharged. I certify under penalty of perjury that the foregoing is true and correct.

F. Signature of authorized agent and title: [signature] DRIVER

4. **ACCEPTANCE BY CLEAR FLO TECHNOLOGIES, INC.** (must be completed by disposer)

The above hauler delivered the described wastewater to the disposal facility and it was accepted.

Disposal Date: _____ Sample ID No.: _____

Signature of authorized agent and title: _____

PINK-GENERATOR YELLOW-TRANSPORTER WHITE_DISPOSAL FACILITY GOLD-FILE

CLEAR FLO TECHNOLOGIES, INC.
1110 Rte. 109
N. Lindenhurst, N.Y. 11757
Tel: (631) 956-7600
Fax: (631) 956-7020

MANIFEST NUMBER		
Part 1	Part 2	Part 3
Date of Pick-Up	Time of Pick-Up	Chronological Number /Also Used as Sample #
(Use 2 Digit Numbers) Example 040103	(Military Time)	(Assigned at Clear Flo-Receiving Station)

LIQUID WASTE DISCHARGE MANIFEST

1. WASTEWATER STREAM IDENTIFICATION (Sections 1A, 1B, & 1C must be completed by generator or hauler)

A. Volume:	**Gallons:** 4000	**Wt. In:**		**Wt. Out:**	
B. Type:	☐ Condensate Water	☐ Decant Grease	☐ Grease	☑ Industrial Rinse	☐ Leachate
	☐ Leachate Pool	☐ Pharmaceutical	☐ Septic/Septage	☐ Sludge	☐ Storm Water
	☐ STP Effluent	☐ Transfer Leachate	**Other:**		
C. Source	☐ Home/Apt.	☐ Office/Commercial	☐ Municipal	☐ Industrial	☐ Other

Description of Other and special handling instructions, if any _____

2. GENERATOR OF WASTEWATER (Sections 2A, 2B, & 2C must be completed by generator or hauler)

A. Complete Name (print or type): NYSDEC (CLAREMONT) (SITE 130015) B. Tel. No: _____

C. Complete Pickup Address: ~~OAK~~ OAKDALE BLVD YAPHANK DALE NY 11735

ALL WASTEWATERS ARE SUBJECT TO THE TERMS AND CONDITIONS CONTAINED IN THE DISCHARGE PERMIT

The undersigned, being duly authorized, does hereby certify to the best of their knowledge to the accuracy of the source and type of wastewater identified and subject to this manifest. SECTION D GENERATOR SIGNATURE REQUIRED

D. Signature of Generator or Agent: ~~Andrew~~ (As agent for NYSDEC) Date: 12/4/18

3. **HAULER OF LIQUID WASTE** (Sections 3A, 3B, 3C, 3D and 3E must be completed by hauler)

A. Company name (print or type): Direct Drainage

B. SCDPW Permit No.: _____ C. Vehicle License No.: _____ D. Pump Out Date: 12/4/18

E. NYS DEC Permit No.: 1A-153

The above described liquid waste was picked up and hauled by me to the disposal facility named below and was discharged. I certify under penalty of perjury that the foregoing is true and correct.

F. Signature of authorized agent and title: _____

4. **ACCEPTANCE BY CLEAR FLO TECHNOLOGIES, INC.** (must be completed by disposer)

The above hauler delivered the described wastewater to the disposal facility and it was accepted.

Disposal Date: _____ Sample ID No.: _____

Signature of authorized agent and title: _____

PINK-GENERATOR YELLOW-TRANSPORTER WHITE_DISPOSAL FACILITY GOLD-FILE

CLEAR FLO TECHNOLOGIES, INC.
1110 Rte. 109
N. Lindenhurst, N.Y. 11757
Tel: (631) 956-7600
Fax: (631) 956-7020

MANIFEST NUMBER		
Part 1	Part 2	Part 3
Date of Pick-Up	Time of Pick-Up	Chronological Number /Also Used as Sample #
(Use 2 Digit Numbers) Example 040103	(Military Time)	(Assigned at Clear Flo-Receiving Station)

LIQUID WASTE DISCHARGE MANIFEST

1. WASTEWATER STREAM IDENTIFICATION (Sections 1A, 1B, & 1C must be completed by generator or hauler)

A. Volume:	**Gallons:** 4,000 Gal	**Wt. In:**		**Wt. Out:**	
B. Type:	☐ Condensate Water	☐ Decant Grease	☐ Grease	☑ Industrial Rinse	☐ Leachate
	☐ Leachate Pool	☐ Pharmaceutical	☐ Septic/Septage	☐ Sludge	☐ Storm Water
	☐ STP Effluent	☐ Transfer Leachate	**Other:**		
C. Source	☐ Home/Apt.	☐ Office/Commercial	☐ Municipal	☐ Industrial	☐ Other

Description of Other and special handling instructions, if any_____

2. GENERATOR OF WASTEWATER (Sections 2A, 2B, & 2C must be completed by generator or hauler)

A. Complete Name (print or type): NYSDEC (Claremont) (Site 130015) B. Tel. No.:_____

C. Complete Pickup Address: OAKDALE BLVD FARMINGDALE NY 11735

ALL WASTEWATERS ARE SUBJECT TO THE TERMS AND CONDITIONS CONTAINED IN THE DISCHARGE PERMIT

The undersigned, being duly authorized, does hereby certify to the best of their knowledge to the accuracy of the source and type of wastewater identified and subject to this manifest. SECTION D GENERATOR SIGNATURE REQUIRED

D. Signature of Generator or Agent: [signature] (As agent for NYSDEC) Date: 12/4/18

3. **HAULER OF LIQUID WASTE** (Sections 3A, 3B, 3C, 3D and 3E must be completed by hauler)

A. Company name (print or type): Direct Drainage
B. SCDPW Permit No.:_____ C. Vehicle License No.: 54161-ML D. Pump Out Date: 12/4/18
E. NYS DEC Permit No.: 14-628

The above described liquid waste was picked up and hauled by me to the disposal facility named below and was discharged. I certify under penalty of perjury that the foregoing is true and correct.

F. Signature of authorized agent and title: [signature]

4. **ACCEPTANCE BY CLEAR FLO TECHNOLOGIES, INC.** (must be completed by disposer)

The above hauler delivered the described wastewater to the disposal facility and it was accepted.

Disposal Date:_____ Sample ID No.:_____

Signature of authorized agent and title: _____

PINK-GENERATOR YELLOW-TRANSPORTER WHITE_DISPOSAL FACILITY GOLD-FILE

CLEAR FLO TECHNOLOGIES, INC.
1110 Rte. 109
N. Lindenhurst, N.Y. 11757
Tel: (631) 956-7600
Fax: (631) 956-7020

LIQUID WASTE DISCHARGE MANIFEST

MANIFEST NUMBER		
Part 1	Part 2	Part 3
10-08-18	1115	218582
Date of Pick-Up	Time of Pick-Up	Chronological Number /Also Used as Sample #
(Use 2 Digit Numbers) Example 040103	(Military Time)	(Assigned at Clear Flo-Receiving Station)

1. WASTEWATER STREAM IDENTIFICATION (Sections 1A, 1B, & 1C must be completed by generator or hauler)

A. Volume:	Gallons: 3023	Wt. In: 3200		Wt. Out:	
B. Type:	☐ Condensate Water	☐ Decant Grease	☐ Grease	☒ Industrial Rinse	☐ Leachate
	☐ Leachate Pool	☐ Pharmaceutical	☐ Septic/Septage	☐ Sludge	☐ Storm Water
	☐ STP Effluent	☐ Transfer Leachate	Other:		
C. Source	☐ Home/Apt.	☐ Office/Commercial	☐ Municipal	☒ Industrial	☐ Other

Description of Other and special handling instructions, if any _____

2. GENERATOR OF WASTEWATER (Sections 2A, 2B, & 2C must be completed by generator or hauler)

A. Complete Name (print or type): NYSDEC Site #130015 B. Tel. No: (516) 402-9575

C. Complete Pickup Address: Oakdale Blvd - Farmingdale NY 11735

ALL WASTEWATERS ARE SUBJECT TO THE TERMS AND CONDITIONS CONTAINED IN THE DISCHARGE PERMIT

The undersigned, being duly authorized, does hereby certify to the best of their knowledge to the accuracy of the source and type of wastewater identified and subject to this manifest. SECTION D GENERATOR SIGNATURE REQUIRED

D. Signature of Generator or Agent: Jon Becker (As an agent of NYSDEC) Date: 10/8/18

3. HAULER OF LIQUID WASTE (Sections 3A, 3B, 3C, 3D and 3E must be completed by hauler)

A. Company name (print or type): Innovative Recycling Technologies, Inc.
B. SCDPW Permit No.: _____ C. Vehicle License No.: _____ D. Pump Out Date: 10/8/18
E. NYS DEC Permit No.: 56429 PC

The above described liquid waste was picked up and hauled by me to the disposal facility named below and was discharged. I certify under penalty of perjury that the foregoing is true and correct.

F. Signature of authorized agent and title: _____ DRIVER

4. ACCEPTANCE BY CLEAR FLO TECHNOLOGIES, INC. (must be completed by disposer)

The above hauler delivered the described wastewater to the disposal facility and it was accepted.

Disposal Date: 10-8-18 Sample ID No.: 218582

Signature of authorized agent and title: _____

PINK-GENERATOR YELLOW-TRANSPORTER WHITE_DISPOSAL FACILITY GOLD-FILE

CLEAR FLO TECHNOLOGIES, INC.
1110 Rte. 109
N. Lindenhurst, N.Y. 11757
Tel: (631) 956-7600
Fax: (631) 956-7020

MANIFEST NUMBER		
Part 1	Part 2	Part 3
100818	0830	218555
Date of Pick-Up	Time of Pick-Up	Chronological Number /Also Used as Sample #
(Use 2 Digit Numbers) Example 040103	(Military Time)	(Assigned at Clear Flo-Receiving Station)

LIQUID WASTE DISCHARGE MANIFEST

1. WASTEWATER STREAM IDENTIFICATION (Sections 1A, 1B, & 1C must be completed by generator or hauler)

A. Volume:	Gallons: 3048	Wt. In: 3200		Wt. Out:	
B. Type:	☐ Condensate Water	☐ Decant Grease	☐ Grease	☒ Industrial Rinse	☐ Leachate
	☐ Leachate Pool	☐ Pharmaceutical	☐ Septic/Septage	☐ Sludge	☐ Storm Water
	☐ STP Effluent	☐ Transfer Leachate	Other:		
C. Source	☐ Home/Apt.	☐ Office/Commercial	☐ Municipal	☒ Industrial	☐ Other

Description of Other and special handling instructions, if any_____

2. GENERATOR OF WASTEWATER (Sections 2A, 2B, & 2C must be completed by generator or hauler)

A. Complete Name (print or type): NYSDEC Site #130015 B. Tel. No: (518) 402-9575

C. Complete Pickup Address: Oakdale Blvd. - Farmingdale, NY 11735

ALL WASTEWATERS ARE SUBJECT TO THE TERMS AND CONDITIONS CONTAINED IN THE DISCHARGE PERMIT

The undersigned, being duly authorized, does hereby certify to the best of their knowledge to the accuracy of the source and type of wastewater identified and subject to this manifest. SECTION D GENERATOR SIGNATURE REQUIRED.

D. Signature of Generator or Agent: Jon Becker (As an agent of NYSDEC) Date: 10/8/18

3. HAULER OF LIQUID WASTE (Sections 3A, 3B, 3C, 3D and 3E must be completed by hauler)

A. Company name (print or type): Innovative Recycling Technologies, Inc.
B. SCDPW Permit No.:_____ C. Vehicle License No.:_____ D. Pump Out Date: 10/8/18
E. NYS DEC Permit No.: 564004-PC

The above described liquid waste was picked up and hauled by me to the disposal facility named below and was discharged. I certify under penalty of perjury that the foregoing is true and correct.

F. Signature of authorized agent and title: DRIVER

4. ACCEPTANCE BY CLEAR FLO TECHNOLOGIES, INC. (must be completed by disposer)

The above hauler delivered the described wastewater to the disposal facility and it was accepted.

Disposal Date: 10-8-18 Sample ID No.: 218555

Signature of authorized agent and title:

PINK-GENERATOR YELLOW-TRANSPORTER WHITE-DISPOSAL FACILITY GOLD-FILE

NON-HAZARDOUS WASTE MANIFEST	1. Generator ID Number	2. Page 1 of	3. Emergency Response Phone	4. Waste Tracking Number
	N / A	1	(287) 406-0063	20116

GENERATOR

5. Generator's Name and Mailing Address
NYSDEC
625 Broadway, 12th Floor
Albany NY 12233-7255
Generator's Phone: 518 402-8706

Generator's Site Address (if different than mailing address)
NYSDEC-Site #130015
Colonie Blvd.
Farmingdale NY 11735

6. Transporter 1 Company Name
Freehold Cartage, Inc.
U.S. EPA ID Number
NJD054120184

7. Transporter 2 Company Name
U.S. EPA ID Number

8. Designated Facility Name and Site Address
Camelback Landfill
420 Quarry Road
Marshalton PA 18343
Facility's Phone: 610 296-6444
U.S. EPA ID Number
PA0000015867

	9. Waste Shipping Name and Description	10. Containers No.	10. Containers Type	11. Total Quantity	12. Unit Wt./Vol.	
1	Non Hazardous Soil Non-DOT Regulated Material	001	CM	EST. 0010	Y	
2.						
3.						
4.						

13. Special Handling Instructions and Additional Information
9.1) Approval: 508116116409

14. GENERATOR'S/OFFEROR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations.

Generator's/Offeror's Printed/Typed Name: David Anderson (As Agent for NYSDEC) Signature: [signature] Month: 10 Day: 10 Year: 18

INT'L

15. International Shipments ☐ Import to U.S. ☐ Export from U.S. Port of entry/exit:
Transporter Signature (for exports only): Date leaving U.S.:

TRANSPORTER

16. Transporter Acknowledgment of Receipt of Materials

Transporter 1 Printed/Typed Name: Ryan Schultz Signature: [signature] Month: 10 Day: 10 Year: 18

Transporter 2 Printed/Typed Name: Signature: Month: Day: Year:

DESIGNATED FACILITY

17. Discrepancy

17a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection

Manifest Reference Number:

17b. Alternate Facility (or Generator) U.S. EPA ID Number
Facility's Phone:

17c. Signature of Alternate Facility (or Generator) Month: Day: Year:

18. Designated Facility Owner of Operator: Certification of receipt of materials covered by the manifest except as noted in Item 17a

Printed/Typed Name: [illegible] Signature: [signature] Month: 10 Day: 16 Year: 18

169-BLC-O 6 10498 (Rev. 9/09) COPY

CONESTOGA LF
420 QUARRY ROAD
Morgantown, PA 19543 610-286-6844

SCALEHOUSE COPY
Void-Customer Do Not Accept

SITE CL License 40.17217N/75.90322W,4
WEIGHMASTER IN - Bruce E. OUT - Bryan H
Ticket 1171635

CUSTOMER
042399
INNOVATIVE RECYCLING TECHNOLOGIES, INC.
690 N. QUEENS AVE.

LICENSE:
TYPE: Miscellaneous

DATE IN 10/16/18 7:34 am DATE OUT 10/16/18 8:17 am
VEHICLE SPEC
CONTAINER

Contract:50811816409 Generator:NYSDEC Site # 130015
REFERENCE 902
INVOICE

Scale In	GROSS WEIGHT	57,900			
Scale Out	TARE WEIGHT	35,920	NET TONS	10.99	
	NET WEIGHT	21,980	NET WEIGHT	21,980	

BILL OF LADING 28116
INBOUND
VEHICLE DESC:
CONTAINER DESC

QTY.	UNIT.	DESCRIPTION	RATE.	EXTENSION.	TAX.	TOTAL
0.00	YD	TRACKING QTY				
10.99	TN	SW-DRILLING MUD/SOILS Origin:NEW YORK 100%				

NET AMOUNT
TENDERED
CHANGE
CHECK#

DRIVER: WEIGHMASTER

CONESTOGA LF
420 QUARRY ROAD
Morgantown, PA 19543 610-286-6844

CUSTOMER COPY

SITE CL License 40.17217N/75.90322W,4
WEIGHMASTER IN - Bruce E. OUT - Bryan H
Ticket 1171635

CUSTOMER
042399
INNOVATIVE RECYCLING TECHNOLOGIES, INC.
690 N. QUEENS AVE.

LICENSE:
TYPE: Miscellaneous

DATE IN 10/16/18 7:34 am DATE OUT 10/16/18 8:17 am
VEHICLE SPEC
CONTAINER

Contract:50811816409 Generator:NYSDEC Site # 130015
REFERENCE 902
INVOICE

Scale In	GROSS WEIGHT	57,900			
Scale Out	TARE WEIGHT	35,920	NET TONS	10.99	
	NET WEIGHT	21,980	NET WEIGHT	21,980	

BILL OF LADING 28116
INBOUND
VEHICLE DESC:
CONTAINER DESC

QTY.	UNIT.	DESCRIPTION	RATE.	EXTENSION.	TAX.	TOTAL
0.00	YD	TRACKING QTY				
10.99	TN	SW-DRILLING MUD/SOILS Origin:NEW YORK 100%				

NET AMOUNT
TENDERED
CHANGE
CHECK#

DRIVER: WEIGHMASTER

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NON-HAZARDOUS WASTE MANIFEST

1. Generator ID Number

2. Page 1 of: 1

3. Emergency Response Phone: 516-924-7873

4. Waste Tracking Number: DR1812-011

5. Generator's Name and Mailing Address
NYS DEPT OF ENVIRONMENTAL CONSERVATION
625 BROADWAY, 12TH FLOOR, ALBANY NY 12233
Generator's Phone:

Generator's Site Address (if different than mailing address)
FORMER CLAREMONT POLYCHEMICAL
NYSDEC SITE # 130015
IDW OAKDALE BLVD, FARMINGDALE NY 11735

6. Transporter 1 Company Name: EASTERN ENV. SOLUTIONS
U.S. EPA ID Number:

7. Transporter 2 Company Name
U.S. EPA ID Number:

8. Designated Facility Name and Site Address
ROUTE 110 LANDFILL
136 SPAGNOLI RD, MELVILLE NY 11747
Facility's Phone:
U.S. EPA ID Number:

GENERATOR

	9. Waste Shipping Name and Description	10. Containers No.	10. Containers Type	11. Total Quantity	12. Unit Wt./Vol.	
1.	NON RCRA, NON DOT REGULATED (G.W SETTLEMENT SLURRY)	XX1	VT	XX10	YD	
2.						
3.						
4.						

13. Special Handling Instructions and Additional Information
ACCT: PLANET WASTE SERVICES

14. **GENERATOR'S/OFFEROR'S CERTIFICATION:** I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations.

Generator's/Offeror's Printed/Typed Name: As an agent of the NYSDEC - Andrew Wadden
Signature: As an agent of the NYSDEC - AJ Wadden
Month: 12 Day: 12 Year: 18

INT'L

15. International Shipments ☐ Import to U.S. ☐ Export from U.S. Port of entry/exit:
Transporter Signature (for exports only): Date leaving U.S.:

TRANSPORTER

16. Transporter Acknowledgment of Receipt of Materials

Transporter 1 Printed/Typed Name: Signature: Month: Day: Year:

Transporter 2 Printed/Typed Name: Signature: Month: Day: Year:

DESIGNATED FACILITY

17. Discrepancy

17a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection
Manifest Reference Number:

17b. Alternate Facility (or Generator)
U.S. EPA ID Number:
Facility's Phone:

17c. Signature of Alternate Facility (or Generator) Month: Day: Year:

18. Designated Facility Owner or Operator: Certification of receipt of materials covered by the manifest except as noted in Item 17a

Printed/Typed Name: Signature: Month: Day: Year:

DESIGNATED FACILITY TO GENERATOR

NON-HAZARDOUS WASTE MANIFEST

1. Generator ID Number:

2. Page 1 of: 1

3. Emergency Response Phone: 516-924-7873

4. Waste Tracking Number: DR1812-011

GENERATOR

5. Generator's Name and Mailing Address:
NYS DEPT OF ENVIRONMENTAL CONSERVATION
625 BROADWAY, 12TH FLOOR, ALBANY NY 12233
Generator's Phone:

Generator's Site Address (if different than mailing address):
FORMER CLAREMONT POLYCHEMICAL
NYSDEC SITE # 130015
1200 OAKDALE BLVD, FARMINGDALE NY 11735

6. Transporter 1 Company Name: EASTERN ENV. SOLUTIONS
U.S. EPA ID Number: NYR000135624

7. Transporter 2 Company Name:
U.S. EPA ID Number:

8. Designated Facility Name and Site Address:
ROUTE 110 LANDFILL
136 SPAGNOLI RD, MELVILLE NY 11747
U.S. EPA ID Number:
Facility's Phone:

	9. Waste Shipping Name and Description	10. Containers No.	10. Containers Type	11. Total Quantity	12. Unit Wt./Vol.	
1.	NON RCRA, NON DOT REGULATED (G.W SETTLEMENT SLURRY)	XX1	VT	XX10	YD	
2.						
3.						
4.						

13. Special Handling Instructions and Additional Information:
ACCT: PLANET WASTE SERVICES

E-30

S14

14. GENERATOR'S/OFFEROR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations.

Generator's/Offeror's Printed/Typed Name: As an agent of the NYSDEC - Andrew Wadden
Signature: As an agent of the NYSDEC - AJ Wadden
Month: 12 Day: 12 Year: 18

INT'L

15. International Shipments ☐ Import to U.S. ☐ Export from U.S. Port of entry/exit:
Transporter Signature (for exports only): Date leaving U.S.:

TRANSPORTER

16. Transporter Acknowledgment of Receipt of Materials

Transporter 1 Printed/Typed Name: Dave Schoenboom
Signature:
Month: 12 Day: 12 Year: 18

Transporter 2 Printed/Typed Name:
Signature:
Month: Day: Year:

DESIGNATED FACILITY

17. Discrepancy

17a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection

Manifest Reference Number:

17b. Alternate Facility (or Generator)
U.S. EPA ID Number:
Facility's Phone:

17c. Signature of Alternate Facility (or Generator)
Month: Day: Year:

18. Designated Facility Owner or Operator: Certification of receipt of materials covered by the manifest except as noted in Item 17a

Printed/Typed Name: M. Fritz
Signature:
1 of 1
Month: 12 Day: 12 Year: 18

169-BLS-C 6 10497 (Rev. 9/09)

DESIGNATED FACILITY TO GENERATOR

110 Sand Company
136 Spagnoli Road
Melville, NY 11747

Business Office:
170 Cabot Street
West Babylon NY, 11704

Ticket #: 534844
Date: 12/12/2018 11:52 AM
Phone: (631) 249-4108
Fax: (631) 249-4126

Customer: 999161
PLANET WASTE / TNT IND. INC.
847 SHEPHERO AVENUE
BROOKLYN NEW YORK, 11208

Manifest #: DR1812011
PO #:
Job #

Order Number: 7
SLURRY - FARMINGDALE
Tons: 5.770
Loads: 1

2135 - EASTERN E-30-15Y - 21354MA
MTF - Michael Fritz License#602339
110 Sand Co - Suffolk
Remarks:

Payment Information

Type	Amount	Check Number
Credit Card	$870.00	35005

Material	Location Address	Quantity	Price	Misc $	Tax $	Line Total $
970 #SLURRY		15.000 CY	$58.00	$0.00	$0.00	$870.00

Gross	Tare	Net	Time IN	Time OUT
29.21 Tn	23.44 Tn	5.77 Tn	11:51 AM	11:51 AM
58,420 Lb	46,880 lb	11,540 Lb		

Driver