REMEDIAL INVESTIGATION / ALTERNATIVES ANALYSIS / REMEDIAL WORK PLAN

REPORT

FOR

BCP SITE NO. C915385
24 LABORERS WAY SITE
24 LABORERS WAY
CITY OF BUFFALO, ERIE COUNTY, NEW YORK

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OCTOBER 2022

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Acronym List

AA	Alternatives Analysis
ACM	Asbestos-containing Material
ASP	Analytical Services Protocol
BCA	Brownfield Cleanup Agreement
BCP	Brownfield cleanup Program
BGS	Below Ground Surface
CAMP	Community Air Monitoring Plan
CIS-1,2-DCE	Cis-1,2-dichloroethene
CVOC	Chlorinated Volatile Organic Compound
DER	Department of Environmental Remediation
DUSR	Data Usability and Summary Report
EDD	Electronic Data Deliverable
ELAP	Environmental Laboratory Accreditation Program
ESA	Environmental Site Assessment
FER	Final Engineering Report
GPR	Ground Penetrating Radar
HASP	Health and Safety Plan
IA	Indoor Air
ISMP	Interim Site Management Plan
IRM	Interim Remedial Measures
IRM WP	Interim Remedial Measures Work Plan
MS/MSD	Matrix Spike / Matrix Spike Duplicate
MSL	Mean Sea Level
NAPL	Non-Aqueous Phase Liquid
NYSDEC	New York State Department of Environmental Conservation
NYSDOH	New York State Department of Health
NYSDOL	New York State Department of Labor
OA	Outdoor Air
PAH	Polycyclic Aromatic Hydrocarbons
PPM	Parts per Million
PCB	Polychlorinated Biphenyl

PID	Photo-ionization Detector
PCE	Tetrachloroethylene
PFAS	Per- and Polyfluoroalkyl Substances
PVC	Poly Vinyl Chloride
QA/QC	Quality Assurance / Quality Control
RAO	Remedial Action Objective
REC	Recognized Environmental Condition
RI	Remedial Investigation
RIWP	Remedial Investigation Work Plan
RWP	Remedial Work Plan
SCG	Standards, Criteria, Guidance
SCO	Soil Cleanup Objective
Site	310 Ship Canal Parkway, Buffalo, New York
SMP	Site management Plan
SS	Sub-Slab
SSDS	Sub-Slab Depressurization System
SVOC	Semi volatile Organic Compound
TAL	Target Analyte List
TCE	Trichloroethene
TCL	Target Compound List
TCLP	Toxicity Characteristic leaching Procedure
TOGS	technical and Operational Guidance Series
µG/M^3	Microgram per Cubic Meter
USEPA	United States Environmental Protection Agency
USGS	United States Geologic Service
UST	Underground Storage Tank
VOC	Volatile Organic Compound
VOV	Volatile Organic Vapor

EXECUTIVE SUMMARY

This document presents the Remedial Investigation Report (RIR), Alternatives Analysis (AA), and Remedial Work Plan (RWP) for Brownfield Cleanup Program Site No. C915385 located at 24 Laborer's Way in Buffalo, New York (the "Site"). The RI Report reports on the data and findings resulting from implementation of previous investigations; the AA reviews remedial alternatives and recommends final remedial actions for the Site; and the RWP summarizes the steps that will be taken to remediate the Site. The project details are summarized below:

Contaminant Source and Constituents

Contamination exceeding soil cleanup objectives (SCO) is generally associated with historic fill located on the Site. Constituents in the fill at concentrations that exceed the Commercial Use SCOs are primarily metals and PAHs. Site groundwater does not appear to be impacted.

Radiological sampling collected on the property has indicated that the slag material noted to depths of 10 to 12 feet below grade is classified as Technologically Enhanced Naturally Occurring Radioactive Material (TENORM). Composite sampling efforts were focused within the top four feet of soils on the Site based upon depths of future development activities. Sample results depict low levels of radioactivity. Of the eight samples collected; one sample detected concentrations of Radium-226 (Ra-226) marginally above 5 pCi/g at 5.19 pCi/g. The primary contributing elements to radioactivity appear to be radium and uranium, which is typical of slag material produced in the WNY region.

Extent of Contamination

The historic fill generally extends from the surface down to a depth of 10 to 12 feet below grade. Contamination appears to exist primarily within the fill material and native soils below the fill do not appear impacted. Groundwater on the property also does not appear to be impacted from soils contamination.

Proposed Site Redevelopment

The Site will be redeveloped and currently planned to include an approximate 136,000-square foot proposed manufacturing building, parking areas, and landscaped grass areas. The building will be ready for tenant improvements, once a tenant is confirmed.

Remedial Investigation

To characterize site conditions and identify the appropriate remedy for the Site, a RI was implemented. The RI includes data from the 2019 Site Characterization Report completed by Groundwater & Environmental Services under NYSDEC

supervision and the August through September 2022 investigation efforts completed by C&S. The RI included the collection and analysis of 36 soil samples and two rounds of groundwater sampling.

Historic contaminated fill is present at the Site at depths ranging from the surface to as deep as 16 feet below grade. Fill material is located across the entire Site. Contaminants of concern are associated with historic fill on the Site. Constituents include the metals arsenic, cadmium, copper and cyanide as well as PAHs in soils. Groundwater and soil vapor are not concerns at the Site.

The radiological contamination present in slag material appears to be across the Site and has been found to be at relatively low levels.

Groundwater sampling does not show impacts related to onsite soils contamination. The primary exceedances in groundwater is related to sodium, which is likely a general characteristic of local groundwater.

Conclusions

Based on the work described in this document:

- Excess soils excavated or regraded to meet proposed grades will be reused onsite under the cover system or managed at an off-site solid waste facility.
- The entire Site will be finished with a pavement and soil cover system.
- A SSDS will be installed in the new building to be constructed to mitigate radon gas exposure.

Based on the above, the Site will achieve a Track 4 level of cleanup.

1 INTRODUCTION

C&S Engineers, Inc. (C&S) has prepared this Remedial Investigation Report (RIR) / Alternatives Analysis (AA), and Remedial Work Plan (RWP) on behalf of the applicants for Brownfield Cleanup Program (BCP) Site No. C915385, Laborers Way 2, LLC (hereafter known as "Applicant"), for the 24 Laborers Way site located at 310 Ship Canal Parkway in the City of Buffalo, New York (the "Site"). The Site location is depicted on **Figure 1**. On July 25, 2022, the Applicants, acting as BCP Volunteers, submitted a BCP Application to remediate and develop the Site.

The Brownfield Cleanup Agreement (BCA) has yet to be executed for this Site. Due to construction scheduling, the Applicant has chosen to complete this investigation and complete the RI/AA and RWP outside of the BCP in an effort to streamline reporting and minimize delays in construction schedule.

Initial investigation efforts were completed in 2018 into 2019 at the Site by Groundwater & Environmental Services under the supervision of the NYSDEC. The investigation included the completion of nine soil borings to approximately 15 to 20 feet below grade and collection of 28 soil samples. Soil samples were collected from the nine soil borings within the BCP limits and analyzed for volatile organic compound (VOC), semi-volatile organic compound (SVOC), metals, pesticides and polychlorinated biphenyls, and cyanide. Two soil borings at the Site were converted to monitoring wells. Groundwater samples collected from the onsite monitoring wells were analyzed for VOCs, SVOCs, metals, pesticides, and PCBs.

In coordination with the NYSDEC C&S remobilized to the Site in August and September 2022. C&S completed additional investigations for soil and groundwater which included the excavation of eight test pits and installation of three additional monitoring wells at the Site. Soil samples were collected from each test pit location to provide a more complete characterization across the Site. Eight soil samples, one from each test pit, were collected and analyzed for Per-and Polyfluoroalkyl Substances (PFAS). Groundwater sampling was completed on all five wells on the Site. Groundwater samples collected from the onsite monitoring wells were analyzed for a combination of VOCs, SVOCs, metals, PCBs, pesticides, PFAs, and pH.

The combination of investigations completed by GES (2018) and C&S (2022) are presented within this report as the RI. The report is organized in the following sections:

1. Remedial Investigation (Sections 2 to 5)
2. Alternative Analysis (Section 6)
3. Remedial Work Plan (Section 7)

2 PROJECT BACKGROUND

2.1 Site Description

The Site is addressed as 24 Laborers Way and includes 5.40 acres of vacant land, identified as SBL # 132.15-2-2. The Site is bound to the west by a vacant parcel (70 Laborers Way), to the north by a vacant parcel; 310 Ship Canal Parkway, Ship Canal Parkway to the east beyond which is Sonwil Distribution, and to the south by the street Laborers Way. The property is located within an urban area, utilized for industrial and commercial purposes. Site location is depicted on **Figure 1**.

The Site is vacant, undeveloped land. Drainage features on Site include a drainage ditch along the western property limit. Stormwater generated at the Site, currently discharges to the drainage ditches, then southerly towards the Ship Canal and Lake Erie.

2.2 Site History

The Site is currently located within the Buffalo Lakeside Commerce Park (BLCP) Development and includes approximately 5.40 acres of vacant land which is underutilized, underdeveloped property located in the City of Buffalo. BLCP occupies over 200 acres, which was originally a lake margin swamp. However, in the early 1900s, the BLCP area was purchased by Buffalo Union Steel Corporation for the purpose of manufacturing pig iron, with construction blast furnaces completed by 1915. By 1929, the properties were purchased by National Steel Company, and the new corporate entity became known as Hanna Furnace Corporation.

The Site area was historically used for slag dumping and use as a railroad corridor. Slag and other industrial fill materials use as rail ballasts were noted to be present throughout the properties. Additionally, historical reports also noted possible dumping or landfill activities from at least the 1960s through 2005.

The Site was formerly part of the larger NYSDEC Inactive Hazardous Waste Site (IHWS) #915322, aka "Parcel 5", which was reclassified on June 22, 2020 after the completion of a Site Characterization Report for the NYSDEC by Groundwater & Environmental Services, Inc. (GES). The NYSDEC determined that the Site does not qualify for placement on the IHWS Registry. However, NYSDEC and New York State Department of Health (NYSDOH) recognized "there is the potential for exposures to metals in the soil above NYCRR Part 375 soil cleanup objectives for commercial use on the property.

2.3 Investigations Completed by Others

In January 2019, GES completed a Site Characterization Report on "Parcel 5", which included the present day 24 Laborers Way BCP Site as well as other property. The

report included an extensive subsurface investigation of 50 soil borings that were advanced to depths of up to 20 feet below ground surface (bgs). Nine soil borings, including SB-101, SB-102, SB-103, SB-111, SB-112, SB-113, SB-121, SB-122, and SB-123 were completed within the BCP Site limits, as shown on **Figure 2**.

GES generally collected three analytical soil samples from each soil boring location within the BCP limits, and four samples from SB-121. Therefore, a total of 28 soil samples were collected from the nine soil borings within and adjacent to the BCP limits and analyzed for volatile organic compounds (VOCs), semi-volatile organic compounds (SVOCs), metals, pesticides, polychlorinated biphenyls (PCBs), cyanide, and pH.

As a part of the Site Characterization Report, GES converted 10 of the soil borings across Parcel 5 into two-inch diameter, stick-up monitoring wells. Borings SB-101 and SB-123, located on the 24 Laborers Way BCP Site, were converted to monitoring wells. The wells were installed to a depth of approximately 15 feet below grade, constructed of two-inch diameter PCV well casing and risers. Each well has filter sand pack, bentonite seal, and finished with grout and protective casing.

The findings of the Site Characterization Report have been compiled with the recent additional investigative work completed by C&S in Section 4 below. The Site Characterization Report completed by GES for the NYSDEC is also attached to this Report (**Appendix A**).

2.4 Remedial Investigation Objectives, Scope, and Rationale

The objectives of the RI were to evaluate contaminant impacts to soil and groundwater and identify and evaluate appropriate remedial actions necessary to redevelop the Site. The investigation work included evaluating the magnitude and extent of contaminant impacts, conducting a qualitative exposure assessment for actual or potential exposures to contaminants at the Site and/or emanating from the Site, and producing data that will support the development of an acceptable RIR, AAR, and RWP.

The RI scope of work was based on information previously gathered regarding historical operations conducted at the Site, the results of the previously completed Site Characterization Report pertaining to the newly defined BCP Site, and the project objectives. The RI included the following:

- Soil Evaluation – This task consisted of assessing several distinct areas / elements:

    a) <u>Fill material.</u> The historic fill was characterized to identify the extent and magnitude of contamination within the fill.

b) Native soils located across the Site. Native soils were characterized to determine the depth of impacts from the overlying historic fill.

- Radiological Characterization – Due to the known presence of slag material on Site, a Gamma Walkover Survey and subsequent Radiological Characterization Sampling was completed at the Site. A total of eight radiological characterization samples were collected by a certified radiological technician.

- Groundwater Evaluation – Five groundwater monitoring wells were installed on Site to assess groundwater quality and determine groundwater flow.

The locations of all explorations are shown on **Figure 2**.

The RI activities were completed consistent with NYSDEC Division of Environmental Remediation: Technical Guidance for Site Investigation and Remediation dated May 2010 (DER-10).

3 METHODOLOGY

The RI intended to characterize site conditions by the advancement of soil borings, the advancement of test pits, the installation of groundwater monitoring wells, and by collecting and analyzing soil and groundwater samples.

3.1 Soil Characterization

3.1.1 Test Pit Completion

On August 24, 2022, C&S mobilized to the Site to complete test pits. Eight test pits were excavated at areas identified as not previously assessed across the Site. The purpose of the test pits was to visually assess soils located across the Site in areas not previously assessed during the Site Characterization Report and collect additional soil samples. Additionally, a certified radiological technician accompanied C&S to determine if radiological impacts to the slag material onsite varied with depth. The location of the test pits are shown on **Figure 2**. A mini-excavator with an appropriately sized bucket was utilized to complete the excavations.

Soils from the test pits were screened in the field for visible impairment, olfactory indications of impairment, evidence of NAPLs, and/or indication of detectable VOCs with a PID, collectively referred to as "evidence of impairment" and the results were recorded on test pit logs.

Test pit logs were prepared and include soil description, PID readings, etc. The logs are included in **Appendix B**.

3.1.1.1 Soil Sampling

Soil samples were collected from each test pit location to provide a more complete characterization across the Site. A total of eight soil samples were collected and analyzed for Per-and Polyfluoroalkyl Substances (PFAS).

3.2 Radiological Characterization

Soil investigations on the Site revealed the presence of slag material in site soils as deep as 12 feet bgs in some locations. Because of this, a radiological characterization consisting of a gamma walkover survey and radiological sampling was warranted in an attempt to characterize the radiological material present onsite.

3.2.1 Gamma Walkover Survey

A gamma walkover survey was completed by Advanced Construction Services, Inc. (ACS), a qualified radiological consulting firm, across the entire 5.4-acre BCP Site on

May 31 through June 2, 2022. A radiological technician from ACS completed a gamma walkover survey of any accessible areas within the Site Boundary to evaluate these areas for elevated radiation. A Ludlum Model 2221 ratemeter with a 44-10 probe (sodium iodide) was coupled to a Global Positioning System (GPS) unit and radioactivity readings were measured and their locations recorded. Gamma rates measured during the May/June 2022 survey were then recorded on a map of the site, which is attached as **Figure 3**.

3.2.2 Radiological Sampling

Results of the gamma walkover survey conveyed the need to collect radiological characterization sampling. Sampling was completed on August 24, 2022 by a NYSDOH licensed radiological contractor, MJW Corporation. Each bucket removed from test pit excavations was screened using a Ludlum Model 2221 ratemeter with a 44-10 probe, and eight composite samples were collected from the upper two to four feet of material onsite.

A total of eight composite samples were collected from within the top two to four feet of soils material on the Site. These depths were chosen based upon the likely depth of soils disturbance in future site development. Samples were analyzed by GEL Laboratories LLC for gamma spectroscopy analysis (DOE HASL 300, 4.5.2.3/Ga-01-R), following a 21-day ingrowth period. Radiological sample locations are depicted on **Figure 3**. **Appendix C** includes the Site Sampling Report completed by MJW Corporation.

3.3 Groundwater Characterization

Well Construction

To characterize groundwater conditions at the Site, three additional groundwater monitoring wells were constructed. The wells were distributed across the Site, as shown in **Figures 2** and **4.** MW-01through MW-03 were installed on September 6, 2022 based on locations discussed with the NYSDEC to help determine local groundwater flow direction.

A rotary drill was used to advance 4-1/4-inch hollow stem augers. The overburden wells were constructed to intersect the top of the water table. Each well was completed with approximately 10 feet of two-inch Schedule 40 0.010-slot well screen connected to an appropriate length of schedule 40 PVC well riser to complete the well. The annulus was sand packed with quartz sand to approximately one to two feet above the screened section, and two feet of bentonite chips or pellets above the sand. The remaining annulus was backfilled with a bentonite concrete mix to ground surface. Each well was completed with an aboveground steel riser pipe. Well construction logs are included in **Appendix D.** Following installation, the

monitoring wells were developed through the removal of a minimum of three well volumes using low-flow pumping devices.

As a part of the Site Characterization Report, GES converted SB-123 and SB-101 associated with the 24 Laborers Way BCP Site to monitoring wells. The wells were installed to a depth of approximately 15 feet below grade, constructed of two-inch diameter PCV well casing and risers. Each well has filter sand pack, bentonite seal, and finished with grout and protective casing. GES' construction logs have also been included in **Appendix D**.

Groundwater Sampling

Groundwater sampling was conducted using low-flow purging and sampling techniques. Before purging the wells, water levels were measured using an electric water level sounder capable of measuring to the 0.01-foot accuracy. A Peristaltic Pump was utilized. According to the equipment supplier, the pumping system when fitted with HDPE tubing, does not contain materials that could affect per- and polyfluoroalkyl (PFAS) sampling results. Calibration, purging and sampling procedures were performed as specified by the USEPA and NYSDEC[1] for low-flow and emerging contaminant sampling. Decontamination was conducted after each well was sampled to reduce the likelihood of cross contamination. Calibration times, purging volumes, water levels and field measurements were recorded in a field log and are included in **Appendix D**.

GES completed one round of groundwater sampling on monitoring well locations SB-101 (MW-101) and SB-123 (MW-123) on October 29 and 30, 2018 as a part of the Site Characterization Report. The second round of groundwater sampling was completed by C&S on September 12, 2022 for all five wells on the Site.

Analysis for the wells varied as shown in **Table 3-1:**

Table 3-1
Groundwater Sampling Analysis

Well No.	Round	TCL VOCs	TCL SVOCs	TCL pesticides	TAL metals (+ mercury)	Cyanide	PCBs	PFAS, 1,4-dioxane	pH
MW-101/ SB-101	1	X	X	X	X	X	X		
MW-123/ SB-123	1	X	X	X	X	X	X		
MW-101/ SB-101	2		X		X			X	X
MW-123/ SB-123	2		X		X			X	X
MW-01	2		X		X			X	X
MW-02	2		X		X			X	X
MW-03	2	X	X	X	X		X	X	X

Notes:

- In coordination with the NYSDEC, the list of parameters analyzed for the second round of sampling for all wells was reduced, but also included PFAs and lab analysis of pH.

Drilling decontamination, development, and purge fluids were allowed to infiltrate the ground surface of the Site in the vicinity of each groundwater sampling location since these fluids did not exhibit evidence of contamination.

3.4 Quality Assurance / Quality Control / Data Usability

Quality Assurance / Quality Control (QA/QC) samples were collected based on the following minimum number of samples per media:

- Soil samples (C&S Samples September 2022)
    - Blind duplicate – 5%
    - Matrix Spike / Matrix Spike Duplicate (MS/MSD) – 5%

- Groundwater samples
    - Trip blank – 1 per shipment
    - Blind Duplicate – 5%
    - Matrix Spike / Matrix Spike Duplicate (MS/MSD) – 5%

Eight soil samples were collected as a part of C&S' continued investigation of the Site. QA/QC samples included one MS / MSD sample and one blind duplicate, meeting the 5% criteria. A total of five groundwater samples were also collected by C&S during the September 2022 round of groundwater sampling with an additional QA/QC sample: one MS/MSD, one blind duplicate, and one equipment blank; also meeting the 5% criteria.

A third-party data consultant, Environmental Data Usability, prepared the Data Usability and Summary Report ("DUSR"). The DUSR is included as **Appendix E.** The following items were reviewed:

- Laboratory Narrative Discussion
- Custody Documentation
- Holding Times
- Surrogate Standard Recoveries
- Matrix Spike Recoveries. Duplicate Recoveries
- Blind Field Duplicate Correlations
- Preparation/calibration Blanks
- Laboratory Control Samples (LCSs)
- Calibration/Low Level Standards
- ICP Serial Dilution
- Instrument MDLs
- Sample Result Verification.

Eurofins TestAmerica, Inc. a New York State Department of Health (NYSDOH) Environmental Laboratory Approval Program (ELAP) certified laboratory, performed the analytical testing. The laboratory results for the samples were reported in a Category B deliverables package to facilitate validation of the data, and a third party validator reviewed the laboratory data and prepared a Data Usability and Summary Report (DUSR). The validator evaluated the analytical results for the field samples and quality assurance / quality control samples and compared the findings to USEPA guidance to determine the accuracy and validity of the results.

Data has yet to be submitted to the NYSDEC, however, upon submission, will be in approved electronic data deliverable (EDD) format.

4 FINDINGS

4.1 Geology and Hydrogeology

4.1.1 Site Geology

The following geologic information is based on observations made during the 2019 Site Characterization Report completed by GES and the 2022 investigation activities completed by C&S.

The Site is generally flat, with the surface covered by slag and soil with limited vegetation. Site topography is crowned across the middle portion of the Site and generally slopes downward in all directions at the Site borders. A drainage ditch exists along the western property limit. The drainage ditch generally flows southerly with discharge to the nearby Ship Canal and ultimately Lake Erie.

The Site contains historic fill with observed thicknesses ranging up to 10 to 12 feet below grade. Historic fill is defined as material coming from anthropogenic sources of the material re-worked to build a site to a defined grade. The historic fill material at the Site contains:

- Slag
- Sands
- Silts
- Clay
- Concrete
- Brick

Native soil encountered beneath the fill consisted of black peat material atop brown and gray silts and clays with some sand. Bedrock was not encountered at the Site, however, previous reporting indicates bedrock at the site is the Levanna Shale Member of the Middle Devonian Age Skaneateles Formation.

4.1.2 Site Hydrogeology

Measurements collected from all five monitoring wells on the Site during C&S' July 2022 investigation found groundwater on the Site to range in depth from 7.5 to approximately 10.5 feet below the top of riser. Given these measurements, it appears that groundwater flows generally to the west, southwest towards the Ship Canal and Lake Erie.

The primary drinking water source for the City of Buffalo is Lake Erie. Water processed in City of Buffalo potable water plants undergo varying levels of treatment to ensure that drinking water meets NYSDEC and United States Environmental Protection Agency (USEPA) standards. Groundwater at and in the

vicinity of the Site is prohibited for use as drinking water.

Table 4-1 presents water level measurements and **Figure 4** presents groundwater contours at the site.

Table 4-1
Groundwater Elevations

Well No.	Top of Riser Elevation	Depth	Elevation
Date	--	9/12/2022	
SB-101/ MW-101	590.36	7.4	582.96
SB-123/ MW-123	592.51	9.8	582.71
MW-1	593.31	10.4	582.91
MW-2	590.69	7.9	582.79
MW-3	590.28	7.7	582.58

Notes:

- All units in feet.
- In order to accommodate future grades, the groundwater monitoring wells PVC riser pipes were left several feet higher than existing grade. When surveyed, the top of PVC was measured and used to compute the elevation of groundwater contours on **Figure 4**.
- Depth to groundwater during sampling was recorded as the depth from TOR.

4.2 Field Observations

Throughout the majority of the Site, staining, odors, or elevated PID measurements were not observed in the soil and fill material. Fill material on the Site was noted to contain slag material, likely generated from historic operations in the area down to depths as deep as 12 feet bgs. Signs of impacts such as unidentified material below fill material were observed in soil boring SB-122 during GIS' 2018 assessment, which prompted the collection of an additional sample to further assess impacts.

4.3 Analytical Results

The following sections summarize and discuss the analytical results generated during the 2018 and 2022 investigations. Soil and groundwater samples were collected for chemical analysis to determine the magnitude and extent of potential contamination occurring in various media at the Site.

For discussion purposes, this data was compared with the Standards Criteria and Guidance values (SCGs) applicable to each medium sampled, and included:

- Soil / Fill: NYSDEC's 6NYCRR Part 375 Environmental Remediation Programs: Part 375-6.8: Unrestricted, Residential, Restricted Residential, Commercial and Industrial Use SCOs; and

- Groundwater: NYSDEC's June 1998 Ambient Water Quality Standards and Guidance Values and Groundwater Effluent Limitations in the Technical and Operational Guidance Series (TOGS) 1.1.1.

Consistent with NYSDEC guidelines, the ASP Category B deliverables are not presented as appendices to the RI Report. The data collected by C&S' August/September 2022 investigation will be transmitted electronically to the NYSDEC in a format consistent with the EDD Manual. The associated DUSRs for the July 2022 sampling events have been included in **Appendix E**.

4.3.1 Surface Soil

Nine surface soil samples were collected during the 2018 GES investigation. The analytical results are summarized in **Table 1**, and **Figures 2** and **5** shows the sampling locations and results. Each sample was collected and submitted for analysis of VOCs via United States Environmental Protection Agency (USEPA) Method 8260C, SVOCs via USEPA Method 8270D, organochlorine pesticides via USEPA Method 8081B, PCBs via USEPA Method 8082A, metals including mercury via USEPA Method 6010C/7471B, and general chemistry parameters for total cyanide and pH.

Table 4-2 below summarizes the analytes that exceeded the SCOs in surface soil for Unrestricted and Commercial Use SCOs as well as the highest and lowest exceedance concentrations.

Table 4-2:
Surface Soil
Summary of Exceedances

Analyte	Samples with Detections above SCOs		Low Concentration (ppm)	High Concentration (ppm)
	UR	CM		
VOCs				
Acetone	1		150	150
SVOCs / PAHs				
Benzo(b)fluoranthene	3	1	1100	27000
Benzo(a)anthracene	1	1	3100	18000
Benzo(a)pyrene		2	2400	17000
Benzo(k)fluoranthene	2		1400	10000
Chrysene	2		3000	18000
Dibenz(a,h)anthracene		1	1500	1500
Indeno(1,2,3-cd)pyrene	3		530	4800
Pesticides				

4,4'-DDD	1		14	14
4'4-DDE	1		7.3	7.3
4,4'-DDT	1		3.9	3.9
Beta-BHC	1		130	130
Metals				
Arsenic	1	2	14.3	42.0
Cyanide		2	28.1	33.1
Cadmium	1	1	3.4	9.8
Copper	2	1	54.6	419
Lead	5		88.4	363
Manganese	3		2630	5340
Nickel	1		39.4	39.4
Selenium	3		4.1	5.2
Zinc	8		122	3260

Notes: UR = Unrestricted Use SCOs
CM = Commercial Use SCOs

4.3.2 Subsurface Soil

Tables 1 and **2** summarizes the analytical results and **Figures 2** and **4** show the sampling locations and results.

4.3.3 Site-Wide Fill Material Sampling

Subsurface fill material sampling was collected primarily during the 2018 Site Characterization Report completed by GES. In general, samples were collected within the fill material at various intervals between the depths of 2 to 12 feet bgs. A total of 9 samples were collected from within the fill material. Each sample was collected for analysis of VOCs via USEPA Method 8260C, SVOCs via USEPA Method 8270D, organochlorine pesticides via USEPA Method 8081B, PCBs via USEPA Method 8082A, metals including mercury via USEPA Method 6010C/7471B, and general chemistry parameters for total cyanide and pH.

As a supplement to this previously completed investigation, C&S collected subsurface samples for PFAs compounds in August 2022. A total of 8 samples were collected, one from each test pit onsite. Each sample was analyzed for PFAs using EPA method 537.

The results of the August 2022 sampling for PFAs in soil detected PFAs in all soil samples except for TP-05. When compared to the NYDEC's guidance values in the June 2021 Sampling, Analysis, and Assessment of Per- and Polyfluoroalkyl Substances, detections for PFOA and PFOS did not exceed Unrestricted Use in any sample.

Table 4-3 below summarizes the analytes that exceeded the Unrestricted and Commercial Use SCOs, including the lowest and highest exceedance concentrations. **Tables 1** and **2** attached to the rear of this report summarizes the analytical results.

Table 4-3
Fill Material
Summary of Exceedances

Analyte	Samples with Detections above SCOs		Low Concentration (ppm)	High Concentration (ppm)
	UR	CM		
VOCs				
Acetone	1		150	150
SVOCs / PAHs				
No SVOCs were detected at concentrations above SCOs.				
PCBs				
No PCBs were detected at concentrations above SCOs.				
Pesticides				
Beta-BHC	1		59	59
Metals				
Barium	3		351	394
Beryllium	1		9.0	9.0
Cyanide		1	31.5	31.5
Manganese	3		3370	6880
Selenium	7		5.1	12.0

Notes: UR = Unrestricted Use SCOs
CM = Commercial Use SCOs

4.3.4 Site-Wide Native Samples

Subsurface native material sampling was collected primarily during the 2018 Site Characterization Report completed by GES. In general, samples were collected just below the fill material at various intervals between the depths of 10 to 20 feet bgs. A total of 10 samples were collected from the native material. Each sample was collected for analysis of VOCs via USEPA Method 8260C, SVOCs via USEPA Method 8270D, organochlorine pesticides via USEPA Method 8081B, PCBs via USEPA Method 8082A, metals including mercury via USEPA Method 6010C/7471B, and general chemistry parameters for total cyanide and pH.

Table 4-4 below summarizes the analytes that exceeded the Unrestricted and Commercial Use SCOs, including the lowest and highest exceedance concentrations. **Table 1** attached to the rear of this report summarizes the analytical results.

Table 4-4
Site-Wide Native Soil
Summary of Exceedances

Analyte	Samples with Detections above SCOs		Low Concentration (ppm)	High Concentration (ppm)
	UR	CM		
VOCs				
2-butanone	1		730	730
acetone	1		2900	2900
SVOCs / PAHs				
No SVOCs were detected at concentrations above SCOs.				
PCBs				
No PCBs were detected at concentrations above SCOs.				
Pesticides				
No Pesticides were detected at concentrations above SCOs.				
Metals				
Nickel	6		32.1	37.5
Selenium	2		4.8	5.5

Notes: UR = Unrestricted Use SCOs
CM = Commercial Use SCOs

4.3.5 Groundwater

Two groundwater sampling events took place in October 2018 (GES) and September 2022 (C&S). Groundwater samples were collected from six groundwater monitoring wells installed during the RI. As previously detailed in **Table 3-1**, the groundwater samples were analyzed for a combination of TCL VOCs, TCL SVOCs, pesticides, PCBs, TAL metals, total mercury, total cyanide, PFAS, and pH.

Table 3 and **4** attached to the rear of this report, summarizes the analytical results for the groundwater samples, and the locations of monitoring wells are depicted on **Figures 2, 4,** and **5**.

VOCs

VOCs were analyzed for during GES' 2018 Report at MW-101 and MW-123. MW-03 was also analyzed for VOCs during the C&S' 2022 investigation. No VOCs were detected in the 2018 samples. Marginal concentrations of acetone were detected below TOGS guidance values in the sample collected from MW-3 during the 2022 sampling event.

SVOCs

SVOCs were detected in both the 2018 and 2022 groundwater sampling events; however, none of the concentrations detected exceeded TOGS guidance values.

Pesticides

Pesticides were not detected at concentrations exceeding TOGS guidance values in the 2018 and 2022 sampling events.

PCBs

PCBs were not detected in any of the groundwater samples collected.

Metals

GES' 2018 sampling of wells MW-131 and MW-148 detected metals in both wells. Sodium was detected within both groundwater samples at concentrations that marginally exceeded NYS TOGS.

The second round of sampling completed by C&S in July 2022 detected metals in all six wells onsite. Sodium was detected within all groundwater samples at concentrations that marginally exceeded NYS TOGS.

No other metals were detected at concentrations that exceeded the NYS TOGS.

PFAS

PFAs sampling of all six wells was completed by C&S in July 2022. PFAs compounds were detected in all wells, however, no sample was found to exceed the NYSDEC June 2021 Sampling, Analysis, and Assessment of Per- and Polyfluoroalkyl Substances guidance values.

pH

All six groundwater samples collected by C&S in July 2022 were analyzed for pH. Groundwater pH appears relatively consistent in all samples and varies from 11.3 to 11.7.

4.4 Radiological Characterization Results

Radiological impacts on the Site were discovered during subsurface explorations which noted the presence of slag. A gamma walkover survey was completed May 31 to June 2, 2022 by ACS, a qualified radiological technician, to further assess the radiological impacts at the surface of the Site. **Figure 3** attached to this report

depicts the gamma rates collected at the time of the survey. Daily background measurements were collected from the grass area on the adjacent property (**Figure 3**) and the average daily background was found to be 5,400 counts per minute (cpm). Results of the gamma walkover survey found that gamma rates at the Site surface were primarily two to three times the background measurement. Areas in the northeast and southeast corners as well as the western perimeter were found to have higher gamma rates in the 15,000 to 20,000 cpm range, or four times background. Of the approximate 14,300 gamma rates recorded, a total of 31 points were found to have gamma rates greater than 20,000 cpm. These locations are also illustrated on **Figure 3** and the Gamma Walkover Survey letter report is attached in **Appendix C**.

Radiological sampling was completed on August 24, 2022 by a NYSDOH licensed radiological contractor, MJW Corporation. Test pits were excavated to approximately two to four ft below ground surface in randomly selected locations with two locations biased towards locations identified with elevated surface gamma radiation readings. These depths were chosen based upon the likely depth of soils disturbance in future site development. Samples were analyzed by GEL Laboratories LLC for gamma spectroscopy analysis (DOE HASL 300, 4.5.2.3/Ga-01-R), following a 21-day ingrowth period. Radiological sample locations are depicted on **Figure 3**. **Appendix C** includes the Site Sampling Report completed by MJW Corporation.

Laboratory results from the eight composite samples identified radiological concentrations for uranium-238 (U-238) and radium-226 (Ra-226) ranging from near background levels at location TP-04, to approximately five times background at location TP-01. Sample results for U-238 and Ra-226 range from 2.21– 6.28 pCi/g and 0.972 to 5.19 pCi/g respectively. Of the eight samples collected; one at TP-01 detected concentrations of Ra-226 marginally above 5 pCi/g at 5.19 pCi/g. Sample analytical results for thorium-232 (Th-232) were at representative background levels i.e., >1 pCi/g.

5 CONTAMINANT ASSESSMENT

5.1 Nature, Extent, and Source of Contamination

5.1.1 Surface Soil

Surface soils contain the metals arsenic, barium, and cyanide at concentrations above the Commercial Use SCOs. **Table 4-2** summarizes the contaminants that exceeded the SCOs in this soil, including the lowest and highest exceedance concentrations. **Table 1** and **2** attached to the rear of this report provides analytical results compared to SCOs for each sample and **Figure 5** shows the sampling locations and results. The following table identifies the contaminants detected in soil above Commercial Use SCOs.

Table 5-1: Detected Contaminants in Surface Soil

VOCs	SVOCs	PCBs	Herbicides	Pesticides	Metals
None	Benzo(b)fluoranthene Benzo(a)anthracene Benzo(a)pyrene Dibenz(a,h)anthracene	None	None	None	Arsenic Cadmium Cyanide Copper

Surface soils were noted to consist of historic fill with observed thicknesses ranging up to 10 to 12 feet below grade. Historic fill is defined as material coming from anthropogenic sources of the material re-worked to build a site to a defined grade. The historic fill material at the Site contains: slag; sands; silts; clay; concrete; coal; and brick.

Due to the nature of the slag material within the fill, radiological impacts are also a concern.

It is understood that the contaminant sources are related to the material deposited at the Site over 100 years ago, prior to the BCP Volunteer owning the Site.

5.1.2 Subsurface Soil

The fill material present in the subsurface is consistent with that in the surface soils. Subsurface soils contain the metals arsenic, barium, and cyanide at concentrations above the Commercial Use SCOs. **Table 4-3** summarizes the contaminants that exceeded the SCOs in this soil, including the lowest and highest exceedance concentrations. **Table 1** and **2** attached to the rear of this report provides analytical results compared to SCOs for each sample and **Figure 5** show the sampling locations and results. The following table identifies the contaminants detected in the soil above Commercial Use SCOs.

Table 5-2: Detected Contaminants in Subsurface Fill Material

VOCs	SVOCs	PCBs	Herbicides	Pesticides	Metals
None	None	None	None	None	Cyanide

Subsurface soils were noted to consist of historic fill with observed thicknesses ranging up to 10 to 12 feet below grade. Historic fill is defined as material coming from anthropogenic sources of the material re-worked to build a site to a defined grade. The historic fill material at the Site contains: slag; sands; silts; clay; concrete; coal; and brick. No physical indications of contamination such as staining or odors were noted in the subsurface soils.

Due to the nature of the slag material within the fill, radiological impacts are also a concern.

5.1.3 Native Soil

Native soil encountered beneath the fill consisted of black peat material atop brown and gray silts and clays. **Table 4-4** summarizes the contaminants that exceeded the SCOs in this soil, including the lowest and highest exceedance concentrations. **Table 1** and **2** attached to the rear of this report provides analytical results compared to SCOs for each sample and **Figure 5** show the sampling locations and results. Native materials have minimal impacts and have minor unrestricted use SCO exceedances. None of the exceedances in native soils correlate to overlying fill material contaminants and are likely naturally occurring within the native soils.

5.1.4 Groundwater

Groundwater contamination was not detected at the Site. The only analyte detected at notable concentrations above the guidance values was sodium, which was not detected at significantly elevated concentrations in the soils at the Site. Additionally, sodium is not a contaminant of concern: the element is associated with aesthetics rather than contaminant-related health concerns.

5.1.5 Soil Vapor

Because volatile organic compounds are not a concern at the Site, soil vapor issues were not considered as part of this evaluation. However, the slag material has the potential to emit radiation that becomes concentrated in buildings.

5.2 Contaminant Fate and Transport

The probable fate and transport of contaminants detected on the Site is a function of the properties of the individual contaminants and available pathways for the contaminants to migrate. The degree to which, as well as the route by which,

contaminants migrate is dependent on the physical characteristics of the site and the type and distribution of contaminants. The following sections discuss the probable fate and transport of contaminants in the different types of media at the Site.

Contaminants of concern are associated with historic fill on the Site. Constituents include the metals arsenic, cadmium, copper and cyanide as well as PAHs in soils. Groundwater and soil vapor are not concerns at the Site.

The poly aromatic hydrocarbons (PAHs) detected are characterized by low water solubilities and, therefore, have a tendency to adsorb onto soil particles. Because of their low vapor pressures, compounds with five or more aromatic rings, which include a majority of the detected PAHs, will exist mainly adsorbed to airborne particulate matter, such as fly ash and soot. Those with four or fewer rings, such as benzo(a)anthracene, will occur both in the vapor phase and adsorbed to particles. The detected compounds have relatively low vapor pressures and are expected to remain in a solid or liquid state and undergo degradation via naturally occurring microbes. Due to the low solubility, these contaminants are not expected to impact groundwater quality or migrate substantially into the subsurface. This is supported by the lack of these compounds in the on-site groundwater.

The heavy metals arsenic, cadmium, copper and cyanide are non-biodegradable pollutants that are generally transported through anthropogenic activities. In contaminated soils, they tend to persist for many years in the surface layers of soil. In aquatic systems, heavy metals may become blocked as sinks in bottom sediments, where they may remain for many years. Metals can be remobilized in water if the pH falls, thus increasing heavy metal solubility. Due to the low solubility, these contaminants are not expected to impact groundwater quality or migrate substantially into the subsurface. This is supported by the lack of these analytes in the on-site groundwater.

Radiological impacts in slag materials has two components: in soils and in air. Regarding soils impacts, radiation may be encountered when in close proximity to the slag material. The presence of a shielding material, such as soil, stone, or pavement, has been shown to be sufficiently protective. The radiological impacts to soil are not significantly soluble and do not move with groundwater, although airborne dust is a possible mode of transport. The radiation in slag does break down over extended periods through half-life decay.

The NYSDEC and NYSDOH have in recent times expressed concern regarding the movement of radiation through soil vapor which may concentrate in buildings. As with the impacts to soil, over time the radiological signature will decrease via half-life decay.

5.3 Evaluation of Potential Receptors

The Site is currently vacant but is planned to be redeveloped for commercial or industrial uses. The Site is located in an area of Buffalo that is solely commercial and industrial. A passive public park is located beyond other commercial and industrial property to the south, beyond which is the Union Ship Canal. To the north of the Site, wetlands are present beyond a 100-foot buffer. In fact, the Site parcel boundary was specifically selected to remain outside of that 100-foot buffer.

The Site and surrounding area is serviced by the municipal water supply system from the City of Buffalo. A strict prohibition on the use of groundwater for potable supply exists throughout the entire City of Buffalo.

The Site is currently vacant. Redevelopment of the site is planned to occur in the near future and will include two large buildings used for commercial or industrial purposes, with surrounding asphalt paving and landscaped areas. Access to the Site is currently unrestricted and trespassers are free to enter the Site from any direction.

Under current conditions, potential human receptors include persons working or trespassing on the Site; persons working in the area surrounding the Site; and persons involved in utility work on and adjacent to the Site. In addition, potential environmental receptors include wildlife living on and migrating through the Site (e.g., rodents, birds, etc.).

The planned future use of the Site is for a commercial or industrial development. The redevelopment of the Site will be controlled through the implementation of engineering and institutional controls as part of the Track 4 cleanup.

5.4 Potential Exposure Pathways

5.4.1 Surface Soil

Under the current use, trespassers and persons working in the vicinity of the project site and/or persons trespassing on the site could be exposed to metals and radiological impacts in the surface soil via inhalation of airborne particles, incidental ingestion of, or dermal contact with the contaminated media. Additionally, the slag exposed at the surface is not shielded so anyone in very close proximity to the slag could be exposed to radiation.

Construction workers, site visitors, and persons working and traveling through the area near the project site could be exposed to the metals in the surface soil during excavation of the contaminated soil in connection with site redevelopment. Potential exposure routes for these receptors include inhalation of contaminated

dust and incidental ingestion of, and/or dermal contact with the contaminated soil/fill. However, the use of appropriate personal protective equipment, dust suppression techniques and personal/air monitoring, and the development and implementation of a Health and Safety Plan (HASP – **Appendix F**) would minimize the risk of exposure during this stage of the project.

No complete exposure pathways to the chemical contaminants in the surface soil have been identified in connection with the post-redevelopment period.

5.4.2 Groundwater

Groundwater is not considered a relevant mechanism for exposure due to the municipal water servicing the Site and the City of Buffalo's prohibition on groundwater use.

5.4.3 Soil Vapor

Under the site's current condition, there are no complete exposure pathways to the radiological impacts in the soil vapor. Post-development, the NYSDEC and NYSDOS have expressed concerns regarding the migration of radiological impacts via the vapor intrusion pathway into the buildings.

5.4.4 Exposure Assessment Summary

The human health exposure assessment identified exposure scenarios for the Site.

- Exposed fill material during construction presents a potential route of exposure to construction or remediation workers via contact, fugitive dust and surface water. Upon completion of planned construction activities, the Site will be covered by buildings, paved parking lots, as well as a graded grass cover system. The proposed structures / features will prevent direct human exposure to any materials that may be left in-place. The planned cover system will also mitigate any radiological impacts through shielding effects.

- A potential route of exposure includes soil vapor to human receptors via inhalation inside the building. Vapor intrusion for future use scenario present a low but potential route of exposure. However, this will be addressed by the installation of a SSDS.

- Groundwater is not considered a relevant mechanism for exposure due to the municipal water servicing the Site and a city-wide ban on the use of groundwater.

5.5 Qualitative Human and Fish / Wildlife Resources Exposure Assessment

The Site was used for industrial purposes, is currently vacant, and is planned for redevelopment for commercial or industrial uses. Based on its past use and current condition, there is limited wildlife exposure.

The Site and surrounding area consists of urban land adjacent to Lake Erie and the Union Shio Canal, which connects to Lake Erie. A review of information concerning endangered and threatened species in Erie County, available via the NYSDEC Environmental Resource Mapper indicated that rare plants and rare animals (a Significant Gull Colony) are located approximately one mile from the Site. Wildlife that could potentially be present at the Site was evaluated using the NYSDEC Nature Explorer. According to the NYSDEC Nature Explorer, the Site is not located in a Critical Environmental Area designated pursuant to Article 8 or the ECL and 6 NYCRR 617. The area is listed as being as a generalized area of rare plants and animals, although no restricted species were identified.

Based upon the information summarized above, there are no ecological resources present on or in the vicinity of the site and, consequently, no fish and wildlife resource impacts have been identified.

6 ALTERNATIVES ANALYSIS

6.1 Objectives

The objectives of this portion of the document, the AA Report, are to evaluate remedial alternatives to address the contamination presented above and select remedial actions to be implemented. As defined in NYSDEC DER-10 (Section 4.0), remedial alternatives will be evaluated based on the following criteria:

a. Overall Protection of Public Health and the Environment: This criterion evaluates exposure and residual risks to human health and the environment during or subsequent to implementation of the alternative.

b. Compliance with SCGs: This criterion evaluates whether the remedial alternative will ultimately result in compliance with SCGs, to the extent practicable.

c. Long-Term Effectiveness and Permanence: This criterion evaluates if the remedy is effective in the long-term after implementation (e.g., potential rebound). In the event that residual impacts will remain as part of the alternative, then the risks and adequacy/reliability of the controls are also evaluated.

d. Reduction of Toxicity, Mobility, or Volume with Treatment: This criterion evaluates the reduction of contaminant toxicity, mobility or volume as a result of the remedial alternative. In addition, the reversibility of the contaminant destruction or treatment is evaluated.

e. Short-Term Effectives: This criterion evaluates if the remedial alternative protects the community, workers and the environment during implementation.

f. Implementability: This criterion evaluates the remedial alternative based on its suitability, implementability at the specific site, and availability of services and materials that will be required.

g. Cost: This criterion evaluates the capital, operation, maintenance, and monitoring costs for the remedial alternative. The estimated costs are presented on a present worth basis.

h. Community Acceptance: This criterion takes into account concerns of the community regarding the proposed remedy. Any public comments and overall public perception are addressed as part of the criterion.

i. Land Use: This criterion evaluates the proposed remedial approach against

the current, intended, and reasonably anticipated future use of the land and its surroundings.

6.2 Remedial Action Objectives

Remedial Action Objectives (RAOs) are medium-specific objectives for the protection of public health and the environment and are developed based on contaminant-specific standards, criteria, and guidance (SCGs) established by NYSDEC and / or NYSDOH. The site-specific RAOs are based on the anticipated use of the site for mixed use commercial and residential use.

Soil/Fill RAOs

The RAOs for fill used in this AA are:

- RAOs for Public Health Protection
  - Prevent ingestion/direct contact with contaminated fill.
  - Meet the NYCRR Subpart 375-6 Remedial Program SCOs for Commercial Use.
  - Reduce the toxicity, mobility, or volume of contaminants at the Site.
- RAOs for Environmental Protection
  - Prevent migration of contaminants that would result in groundwater or surface water contamination.

Soil Vapor RAOs

The RAOs for soil vapor used in this AA are:

- RAOs for Public Health Protection
  - Mitigate impacts to public health resulting from existing, or the potential for, soil vapor intrusion into buildings at a Site.

6.3 Future Use Evaluation

When evaluating remedial alternatives, reasonableness of the anticipated future land use should be considered. The Site is currently vacant but is planned to be redeveloped for pair of large industrial buildings to accommodate manufacturing tenants. Therefore, the remedial alternatives assume the future use of the Site will be industrial use.

6.4 Development and Detailed Analysis of Alternatives

This section identifies potential remedial alternatives being considered to address the Site. The remedial alternatives evaluated are summarized below:

6.4.1 No Action

6.4.1.1 Description

The No Action Alternative is included as a procedural requirement and as a baseline to evaluate other alternatives. Under this alternative, no further remedial or monitoring activities would occur and no environmental easement would be recorded. The fill / soils at the Site would remain virtually as is and change in use would not be limited except by existing land use controls such as zoning.

6.4.1.2 Assessment

Overall Protection of Public Health and the Environment

The No Action Alternative is not protective of public health and the environment because fill material would be present at the surface of the Site and exposure pathways would exist.

Compliance with SCGs

The No Action Alternative does not comply with the SCGs for soils because contaminants in the surface soils and fill are present at concentrations above Commercial Use SCOs.

Short-term Impacts and Effectiveness

The No Action Alternative is not effective in the short-term because it would leave the Site with elevated concentrations of contaminants in fill and soils with no long term monitoring or treatment. During future construction, this alternative would increase potential exposure to contamination by workers excavating the contaminated fill.

Long-term Effectiveness and Permanence

The No Action Alternative is not effective in the long-term or a permanent basis because it would leave the Site with elevated concentrations of contaminants in the exposed fill in perpetuity.

Reduction of Toxicity, Mobility and Volume

Four methodologies must be evaluated relative to reduction of toxicity, mobility and volume:

- Destruction, on / off-site
- Separation or treatment

- Solidification or chemical fixation
- Control or Isolation

The No Action Alternative would not employ any additional methodologies and will not reduce the toxicity, mobility or volume of contamination. Therefore, this alternative would not be in compliance with the RAOs for the fill materials and contaminated soil.

Implementability

The No Action Remedial Alternative can be implemented with no technical or cost concerns.

Cost Effectiveness

There are no costs associated with this alternative. A No Action Alternative would not take any steps to reduce contamination and therefore, would not incur future remedial costs for the Site.

Community Acceptance

The public will likely not accept this alternative, due to the Sites proposed use for residential apartments. The public will likely not accept when invasive activities associated with site redevelopment begin, if no action is taken to reduce contamination exposure prior to development.

Land Use

The No Action Alternative would not allow the use of the Site for commercial uses.

6.4.1.3 Summary

The No Action Alternative would be the least expensive alternative. It would not limit direct human exposure to contamination in the surface soils or fill material. This alternative would leave the fill in place and potentially impact site workers and those in areas surrounding the Site during redevelopment. Therefore, the No Action Alternative is not the preferred alternative.

6.4.2 Track 4 – Cover System and Sub-Slab Depressurization System

6.4.2.1 Description

Under this Track 4 – Cover System and Sub-Slab Depressurization System Alternative, the fill material across the Site would be covered with a cover that consists of impervious cover (asphalt or concrete) or one foot of clean soil cover

material.

Based on the civil engineering plans, the total area of the Site is 235,834 square feet. Based on current redevelopment plans for the Site, the total area includes:

- Landscaped area: 47,989 square feet
- Paved area: 51,270 square feet
- Building area: 136,575 square feet

In order to properly grade the Site, clean fill material will be imported to the Site. In the landscaped area, a minimum of one foot of clean fill material will be placed on top of a demarcation layer. In paved areas and areas within the building footprint, crushed stone will be placed on the surface to form the subbase and the asphalt or concrete will be placed above the subbase.

Additionally, a sub-slab depressurization system (SSDS) would be required for any buildings constructed at the Site.

Institutional controls consisting of an environmental easement will be placed on the Site, and include requires for a Site Management Plan (SMP) and periodic monitoring.

6.4.2.2 Assessment

Overall Protection of Human Health and the Environment

In general, the types and concentrations of contaminants in the soil / fill across the remainder of the Site are typical of an urban area and the RAOs can be achieved by a cover system. This alternative would be protective of human health and the environment. Soil / fill with contaminant concentrations above RAOs will be isolated by the cover system. Although not anticipated, any impacts of slag fill with elevated radiological to indoor air will be mitigated via the SSDS.

Compliance with SCGs

The alternative complies with the SCGs, as on-site fill with contaminant concentrations above the SCOs would be left under a cover system.

Any potential indoor soil vapor impacts will be mitigated with a SSDS in each of the buildings.

Short-term Impacts and Effectiveness

This alternative increases the short-term risks for the community and the workers implementing the alternative (i.e., through the disturbance of impacted fill), because

the Site will undergo grading of contaminated fill. However, these risks would be minimized through the implementation of appropriate fill / soil handling procedures, air monitoring, and dust suppression techniques.

Long-term Effectiveness and Permanence

This alternative would be a permanent remedy to address the contaminant concentrations in the soil / fill throughout the Site. The site cover will remain in place in perpetuity to mitigate potential exposure to the underlying fill. Periodic inspections and adherence to the Site Management Plan as required by the environmental easement will ensure that future exposure to the fill material does not occur.

Reduction of Toxicity, Mobility and Volume

This alternative would result in the reduction of the mobility of contaminants in the fill. Therefore, the removal of fill and contaminated soil would be in compliance with the SCGs. However, the toxicity and volume of the material will not be reduced.

Implementability

This alternative is implementable using existing construction methods and equipment. The expected duration is less than one construction season. This alternative would result in a Site suitable for redevelopment for commercial use.

Cost Effectiveness

The estimated cost of this alternative at $4,085,000 requires a greater investment than the No Action Alternative. However, the alternative eliminates exposure to the contaminants through the placement of a cover system and prepares the Site for use.

Table 6-1: Summary of Track 4 Remedial Action Costs

Category	***Recommended Remedy Estimated Cost***
Mobilization	$25,000
Clearing and Grubbing	$25,000
Grading	$35,000
Sub-slab Depressurization System	$120,000
Demarcation Layer	$70,000
Cover Soil and Top Soil	$60,000
Concrete Cover	$2,750,000
Asphalt Cover	$1,000,000
Total	**$4,085,000**

Community Acceptance

Based on the findings of the studies performed to date, it is anticipated that the results of this alternative would be acceptable to the community.

Land Use

This alternative would allow for the use of the parcel for commercial or industrial purposes, which conforms to the City of Buffalo's development plans for the area. Therefore, this alternative would allow for the highest and best use of the land.

6.4.2.3 Summary

The Track 4 – Cover System and Sub-Slab Depressurization System Alternative is an effective approach to eliminating exposure to contaminants in the fill material. The alternative is effective in the short- and long-term, is cost-effective, and allows for the reuse of the Site.

6.4.3 Unrestricted Use – Complete Fill Removal

6.4.3.1 Description

Under this Track 1 - Unrestricted Use Alternative, all fill will be removed from the Site and disposed of off-site in accordance with applicable regulations. The Site will be backfilled with clean material. Based on the results of the RI, the estimated volume of soil requiring removal is approximately 95,000 cubic yards. Assuming a conversion rate of 1.80 tons per cubic yard, the weight of this fill material is estimated at 172,000 tons.

6.4.3.2 Assessment

Overall Protection of Human Health and the Environment

This alternative would be protective of human health and the environment. All fill with contaminant concentrations above RAOs on-site would be removed and disposed of off-site.

Compliance with SCGs

The alternative complies with the SCGs, as all on-site fill with contaminant concentrations above the SCOs would be removed and disposed of off-site.

Short-term Impacts and Effectiveness

This alternative increases the short-term risks for the community and the workers implementing the alternative (i.e., through the disturbance of impacted fill), because the Site will undergo complete removal of contaminated fill. However, these risks would be minimized through the implementation of appropriate fill / soil handling procedures, air monitoring, and dust suppression techniques. Furthermore, this alternative would be effective in the long-term.

Long-term Effectiveness and Permanence

The Unrestricted Use Alternative would be a permanent remedy to address the contaminant concentrations in the fill throughout the Site.

Reduction of Toxicity, Mobility and Volume

This alternative would result in the reduction of the toxicity, mobility, and volume of contaminants in the fill. Therefore, the removal of fill and contaminated soil would be in compliance with the SCGs.

Implementability

This alternative is implementable using existing construction methods and equipment. Although the expected duration two construction seasons, the primary issue with this alternative is the number of trucks on the road during implementation. Approximately 8,500 trips will be required to haul the material to the landfill, and another 8,500 will be required to import clean material to the Site.

Cost Effectiveness

This alternative is not cost effective due to an estimated cost at $21,100,000. This alternative requires a far greater investment than the Cover and Sub-slab Depressurization System Alternative but does not confer a significant reduction in potential for exposure.

Table 6-2: Summary of Track 1 Remedial Action Costs

Category	Track 1 Remedy Estimated Cost
Mobilization	$125,000
Clearing and Grubbing	$25,000
Excavation and Off-Site Disposal	$14,450,000
Clean Fill	$4,000,000
Top Soil	$500,000
Dewatering	$2,000,000
Total	**$21,100,000**

Community Acceptance

Based on the findings of the studies performed to date, it is anticipated that the results of this alternative would be acceptable to the community. However, the community will be put at risk during the two-year implementation via the additional of 17,000 trucks on the roads, increasing congestion, the risk of accidents, and the consumption of fossil fuels.

Land Use

This alternative would allow for the use of the parcel as a mixed use building containing residential and commercial space, which conforms to the City of Buffalo's development plans for the area. Therefore, this alternative would allow for the highest and best use of the land.

6.4.3.3 Summary

The Unrestricted Use Alternative was designed to remediate the Site to its most restrictive level – Unrestricted Use – and prepare the Site for redevelopment for commercial and industrial uses. While implementable, this alternative is expensive and will result in an unacceptable 17,000 trips by dump trucks.

6.5 Comparative Evaluation of Alternatives and Recommended Actions

This section of the report compares the remedial alternatives proposed for each of the impacted media and presents the recommended action for each media group.

6.5.1 No Action Alternative

The No Action Alternative will not be protective of human health and the environment and would likely not be acceptable to the community in the long term. In addition, development of the Site is anticipated to take place and, as such, impacts are likely to be encountered, which indicates a level of risk in relation to exposure to on-site workers and those working and living in the vicinity of the Site. Therefore, this alternative is not the recommended remedy for the Site.

6.5.2 Track 4 – Cover and Sub-slab Depressurization System Alternative

The Track 4 – Cover and Sub-slab Depressurization System Alternative would be a long-term remedy and is anticipated to be acceptable to the community. This alternative reduces the toxicity, mobility, and volume of impacted media through the installation of a cover system across the Site and installation of an SSDS for the building. This alternative was designed to:

- Remediate the Site to a reasonable level that protects human health and the environment
- Provide a cost effective effort that meets SCGs and the future land use of the Site
- Prepare the Site for redevelopment for commercial and industrial uses

6.5.3 Unrestricted Use Cleanup Alternative

The Unrestricted Use Alternative would be a long-term remedy but is not anticipated to be acceptable to the community due to excessive truck traffic. This alternative effectively reduces the toxicity, mobility, and volume of impacted media through the removal of all fill from the Site and replacement with clean material. However, the cost of this alternative is prohibitive.

6.6 Recommended Remedial Alternative

Based on the alternative analysis evaluation, the Track 4 – Cover and Sub-slab Depressurization System Alternative is the recommended final remedial approach for the Site. This alternative is fully protective of public health and the environment; significantly less disruptive to the community; consistent with current and future land use; and represents a far more cost effective approach than the Track 1 Alternative, while fully satisfying the RAOs.

The recommended remedial alternative would involve:

- A cover system, which includes:
    - The placement of a demarcation layer.
    - The installation of a cover system consisting of asphalt or concrete pavement or a minimum of one foot of clean cover soil.
    - The placement of additional backfill consisting of clean fill and / or building materials to meet proposed grades where necessary.
    - Any materials excavated during site development activities will be screened with a PID and placed under the cover system if not grossly contaminated.
    - The excavated materials will also be screened by a radiological technician. To address radiological issues within the fill at the Site, a variance will be requested from the NYSDEC to allow for the placement of any disturbed material with radiological impacts under the cover system.

- A Sub-slab Depressurization System consisting of laterals of four-inch perforated Schedule 40 PVC connected to six-inch schedule 40 PVC risers and vent stacks. **Appendix G** contains the current design for the SSDS. The final

design documents and certificate of construction of the SSDS will be provided in the FER.

- Implementation of the CAMP during site work involving the disturbance of contaminated fill.

- Institutional Controls:
  - Environmental Easement
  - Site Management Plan (SMP)
  - Requirements for inclusion of an SSDS in any new buildings developed on Site.

This remedy is protective of human health and the environment, and is implementable in one construction season. This remedy utilizes a soil cover system in targeted areas and fully satisfies the RAOs for the Site. As such, this remedy is significantly less expensive than the Track 1 only remedy but is as effective in eliminating potential exposure to the fill material.

7 REMEDIAL WORK PLAN

7.1 Introduction

This section is the Remedial Work Plan (RWP) for the Site. This plan is based on the data collected during the RI of the Site and the recommended remedial alternative presented in the Section 6.

7.2 Community Participation

The project will be conducted in accordance NYSDEC guidance for community participation and public outreach. As such, as Citizen Participation Plan (CPP) will be prepared for the project once an executed BCA has been signed.

7.3 Site Control

Site control is an important aspect of this remedial program. In order to safeguard the health and safety of site workers and the general public, access to all remedial work areas will be restricted. Perimeter fencing will be installed to facilitate site control. Additionally, temporary construction fencing will be erected around accessible excavations and staging areas to prevent unauthorized personnel from entering these areas as appropriate.

7.4 Health and Safety

To verify the safety of the workers and the local community during the performance of the work, monitoring practices of the work environment will be in place during all phases of RI activities. A Health and Safety Plan (HASP) was prepared that details procedures for maintaining safe working conditions and minimizing the potential for exposure to contaminated material. The HASP is provided in **Appendix F**.

Air monitoring during RI activities will be conducted using a PID and particulate monitors. Details on air monitoring are provided in Section 7.9 and the Community Air Monitoring Plan (CAMP). The CAMP is provided in **Appendix H**.

7.5 Site Preparation

Site preparation activities include:

- Installation of temporary construction fencing where appropriate to restrict access to remedial work areas.
- Site clearing including the removal of debris, shrubs, and vegetation (including root masses).

7.6 Excavation

The Site is generally level and no significant grading is planned. Additionally, the only excavation expected on-site is shallow excavation for the placement of utilities and foundations. No other significant excavation or earth-moving is expected.

An Excavation Work Plan has been provided in **Appendix I**. Fill excavated at the Site will not be re-used at other sites. A C&S scientist or engineer will screen the removed fill for visual and olfactory observations and for total volatile compounds using a PID. If grossly contaminated fill is observed, the impacted material will be evaluated and may be handled separately from the remaining fill at the Site.

To address radiological issues within the fill at the Site, a properly certified radiological technician will screen the excavated soils for radiological impacts. Based upon initial radiological sampling, disturbed fill materials do not appear to have radiological impacts requiring off site disposal, however, further characterization of excavated soils may be required by the NYSDEC. Any fill materials that exhibit radiological impacts that significantly exceed those previously measured at the Site will be stockpiled, evaluated, and may be handled separately from the remaining fill at the Site. Dependent upon sampling results, this material may be required by the NYSDEC to be disposed of at an out-of-state landfill.

Excavated fill to be trucked off-site, if any, may be direct-loaded onto trucks for off-site disposal or stockpiled and loaded onto trucks for off-site disposal. Excavated fill to be stockpiled on-site will be placed on and covered by a minimum of double 6-millimeter polyethylene sheeting which is sufficiently anchored to prevent any wind and water erosion. The cover will be inspected at least once per day with corrective action taken as needed. The inspections and any corrective actions will be documented in logs and will occur until the fill materials have been properly removed and disposed off-site.

Good housekeeping practices will be followed during excavation activities to prevent leaving contaminated material on the ground surface (e.g., precautions will be taken to prevent impacts to the ground surface due to material spilled from the excavator bucket).

Transportation of wastes, if any, will be completed by properly permitted vehicles. To the extent practicable, trucks will travel along routes that avoid residential areas. Any soils removed from the Site will be disposed at a landfill that is properly permitted to receive the type of material being transported.

7.7 Imported Material

Soil and construction materials will be imported to the Site to fill excavations; create a subbase for building and paved areas; and to construct the soil cover. This

imported material will be documented in accordance with NYSDEC DER-10 guidance prior to transport to the Site.

For each source of backfill that is imported to the Site, one of the following will be completed prior to importing the backfill.

a. Documentation will be provided to NYSDEC as to the source of the material and the consistency of the material in accordance with the exemption for no chemical testing listed in DER-10 Section 5.4(e)(5); **OR**

b. Chemical testing will be completed in accordance with the following table:

Table 9-1
DER-10 5.4(e)10

Recommended Number of Soil Samples for Soil Imported To or Exported From a Site			
Contaminant	**VOCs**	**SVOCs, Inorganics & PCBs/Pesticides**	
Soil Quantity (cubic yards)	**Discrete Samples**	**Composite**	**Discrete Samples/Composite**
0-50	1	1	3-5 discrete samples from different locations in the fill being provided will comprise a composite sample for analysis
50-100	2	1	
100-200	3	1	
200-300	4	1	
300-400	4	2	
400-500	5	2	
500-800	6	2	
800-1000	7	2	
1000	Add an additional 2 VOC and 1 composite for each additional 1000 Cubic yards or consult with DER		

Taken from DER-10 - Table 5.4(e)10

It is also our understanding that imported fill must also be tested for 1,4-dioxane and PFAS. 1,4-dioxane shall be sampled as discrete samples per the above table. PFAS shall be sampled as composite samples per the table above.

For materials that must undergo laboratory analytical testing, the results for each new source of fill must meet the values provided in Appendix 5 of DER-10 for Commercial Use and must receive approval by the NYSDEC prior to being imported to the Site.

7.8 Soil Cover System

The entire Site will require the construction of a cover system. Because the surface of the Site is flat and relatively uniform, re-grading of the Site will not be required to construct the cover system. **Figure 6** presents the extent of the soil cover system throughout the Site.

The soil cover system will be comprised of the following elements:

- Placement of a demarcation layer consisting of geotextile fabric at the bottom of the soil/hard surface cover system. The demarcation layer will also be placed in utility excavations prior to backfilling. The delineating layer will allow identification, segregation and proper handling of contaminated soil/fill that may be excavated during any intrusive work at the Site for redevelopment in the future.
- Placement of clean backfill material (backfill material described in the previous section) at a minimum thickness of 12 inches in areas not planned to be covered by hardscape (buildings, pavement, sidewalks, etc.).
- Installation and/or maintenance of hard surfaces (concrete building slabs, asphalt parking lots, sidewalks, etc.).
- The inspection, monitoring and maintenance of the soil cover system will be described in a Site Management Plan that will be prepared for the Site.

7.9 Air Monitoring

When intrusive subsurface work is being performed at the Site, the CAMP included in **Appendix H** will be implemented by C&S Engineers.

The action threshold for VOCs established in the CAMP is 5 ppm above background. If this value is exceeded for the 15-minute average work will be halted and work may resume once instantaneous readings fall below 5 ppm work.

The action level for dust is 100 ($\mu g/m^3$) over background during a 15-minute average. If this limit is exceeded, dust suppression techniques will be employed, including using water to wet the area.

7.10 Erosion and Dust Controls

As part of the remedial actions to be performed at the Site, measures will be needed to limit erosion and dust generation. Erosion control and dust suppression techniques will be employed as necessary to limit erosion and fugitive dust generated in disturbed areas during remediation and redevelopment activities. Such techniques may be employed even if the community air monitoring results indicate that particulate levels are below action levels. Techniques may include but are not limited to:

- Using silt fencing, hay bales, and/or mulching
- Applying water on haul roads and ingress / egress points
- Wetting equipment and excavation surfaces
- Hauling materials in properly tarped or watertight containers
- Limiting vehicle speed on the Site

- Limiting the size of excavations
- Covering excavated areas and materials following excavation

Effectiveness of the dust suppression measures will be evaluated based on the results of the air monitoring that will be conducted under the CAMP provided in **Appendix H**.

7.11 Schedule

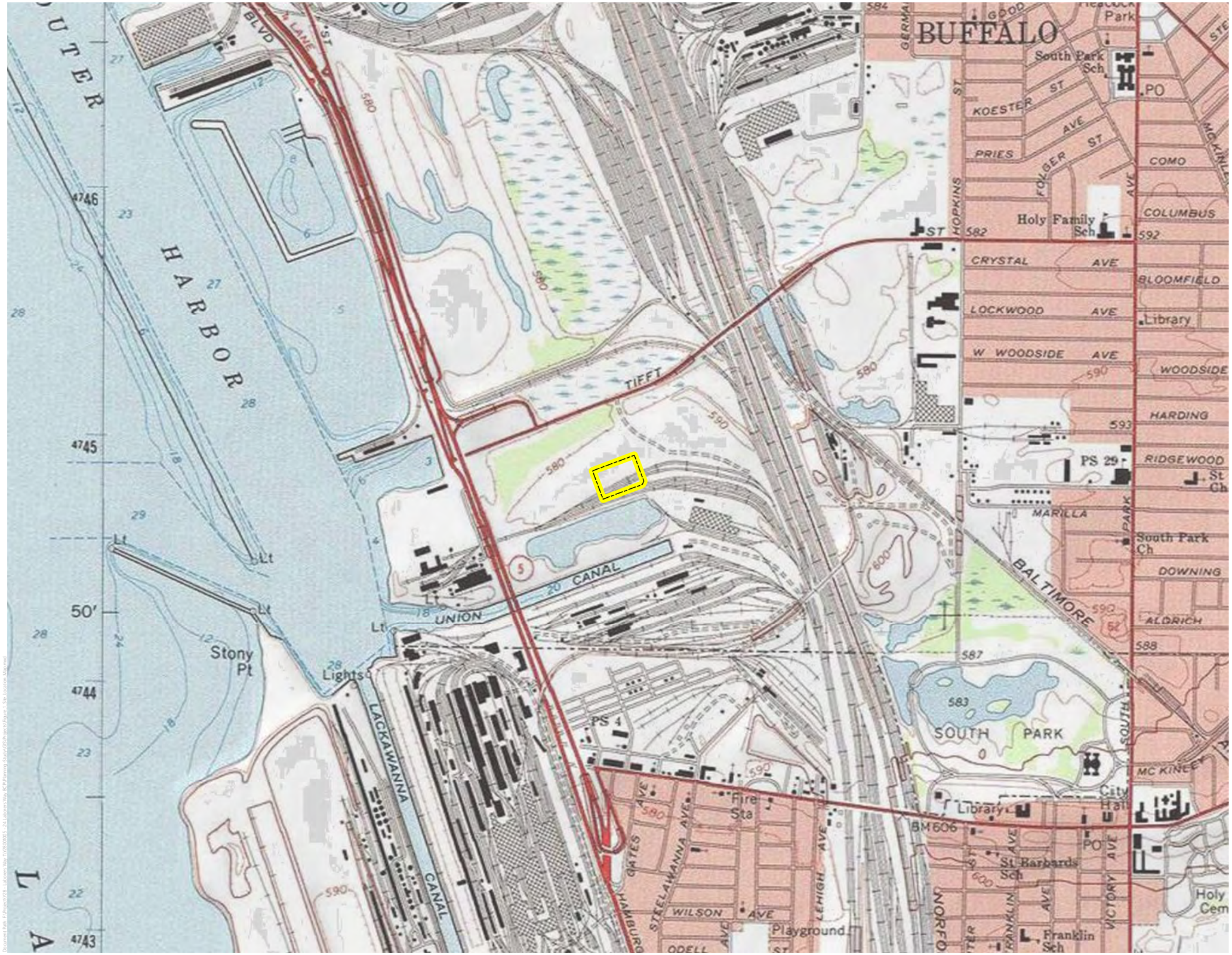
Below is an anticipated schedule of milestones for the remediation of the Site.

Anticipated Date	Milestone
October 2022	RIR/AAR/RWP Submission
December 2022	RWP Approved
March 2023	Remedial Work Begins
May 2023	Remedial Work Ends
July 2023	Final Engineering Report Submission
September 2023	FER Approved
July 2023	Site Management Plan (SMP) Submission
September 2023	SMP Approved

7.12 Final Engineering Report

Upon completion of the work described within this RWP, a Final Engineering Report will be developed documenting the conformance and implementation of the approved RWP. All documents and data generated as a part of the RAWP will be submitted in accordance with DER protocols. The FER will be certified by a Professional Engineer in accordance with DER10-1.5(b)(4). All as-builts presented in the FER will be stamped by a licensed professional engineer.

Figures



C&S COMPANIES®

Figure 1

Project Location Map

Legend

BCP Boundary

N

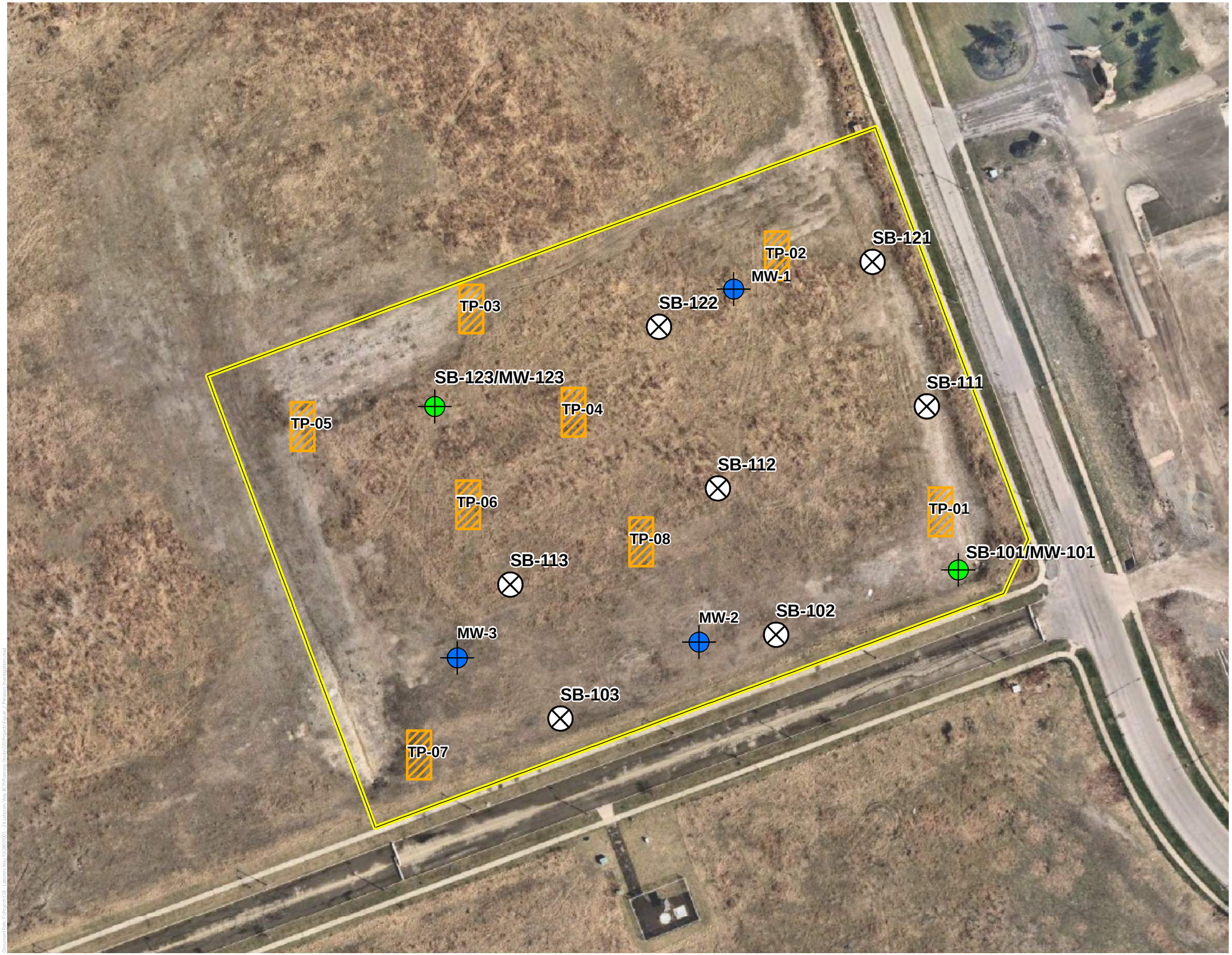
0 600 1,200 2,400 Feet

1 inch = 1,200 feet
When printed at 11 in. by 17 in.

24 Laborers Way BCP

Sources: . Created by C&S Engineers, Inc.

Document Path: P:\Projects\08 - Laborers Way, 10\20200505 - 24 Laborers Way, BCP\Planning & Exh\GIS\Projects\Figure 1 Site Location Mapmxd



C&S COMPANIES®

Figure 2

Sample Location Map

Legend

- BCP Boundary
- Soil Borings/Well - 2019
- Soil Borings - 2019
- Test Pits - 2022
- Monitoring Wells - 2022

N

0 37.5 75 150 Feet

1 inch = 75 feet
When printed at 11 in. by 17 in.

24 Laborers Way BCP

Sources: . Created by C&S Engineers, Inc.

Document Path: I:\Projects\VOB_Laborers Way BCP\2019\05 - 24 Laborers Way BCP\Planning Study\GIS\Projects\Figure 2 - Previous Investigations.mxd



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Figure 3

Radiological Characterization Map

Legend

- BCP Boundary
- Radiological Sample Location (August 2022)
- Building Footprint

Gamma Rate (CPM) (June 2022)

- 0 - 5000
- 5001 - 10000
- 10001 - 15000
- 15001 - 20000
- 20001 - 25000

Background Measurement Location (June 2022)

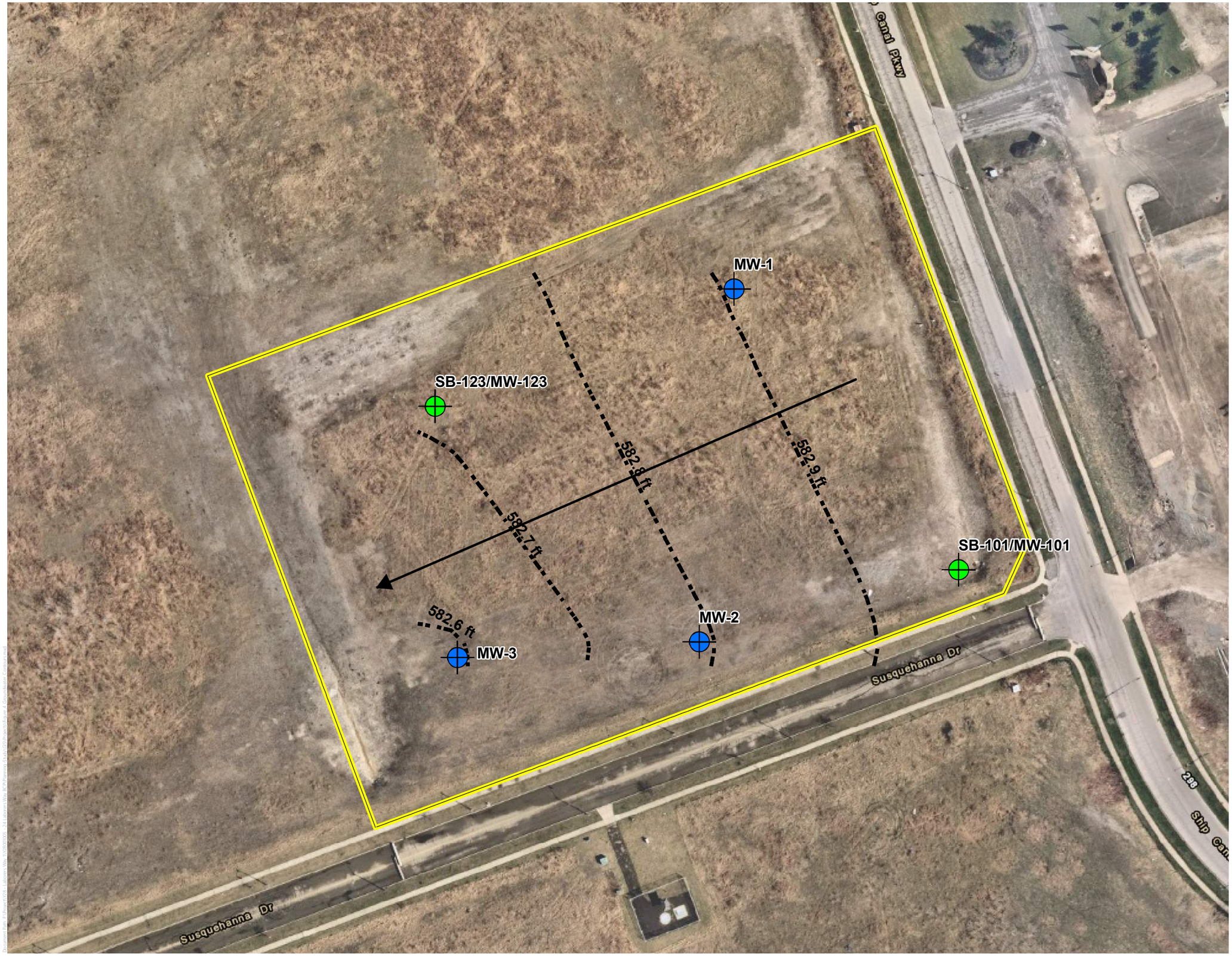
N

0 37.5 75 150 Feet

1 inch = 75 feet
When printed at 11 in. by 17 in.

24 Laborers Way BCP

Sources: . Created by C&S Engineers, Inc.



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Figure 4

Groundwater Contours Map

Legend

- BCP Boundary
- Monitoring Wells - 2022
- Soil Borings/Well - 2019
- Groundwater Contour and Flow Direction (September 2022)

N

0 37.5 75 150 Feet

1 inch = 75 feet
When printed at 11 in. by 17 in.

24 Laborers Way BCP

Sources: . Created by C&S Engineers, Inc.



Soil Sample ID	SB-123A
Depth	0-1'
Sample Date	10/16/2018
Arsenic	42

Soil Sample ID	SB-112A
Depth	0-1'
Sample Date	10/16/2018
Arsenic	35.9
Cadmium	9.8 J
Copper	419 J

Soil Sample ID	SB-111A	SB-111B
Depth	0-1'	6-8'
Sample Date	10/16/2018	10/16/2018
Arsenic	2400	<100 U
Cyanide	13.5 J	31.5 J

Soil Sample ID	SB-113A
Depth	0-1'
Sample Date	10/16/2018
Benzo(b)fluoranthene	27000
Benzo(a)anthracene	18000
Benzo(a)pyrene	17000
dibenzo(a)anthracene	1500
Cyanide	28.1 J

Soil Sample ID	SB-102A
Depth	0-1'
Sample Date	10/16/2018
Cyanide	33.1

Soil Sample ID	SB-103A	SB-103C
Depth	0-1'	12-24'
Sample Date	10/16/2018	10/16/2018
Arsenic	11.1 J	16.8 J
Cyanide	28.1 J	1.2 UJ

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Figure 5

Soil Sample Results – Investigations by Others

Legend

- BCP Boundary
- Monitoring Wells - 2022
- Soil Borings/Well - 2019
- Soil Borings - 2019
- Test Pits - 2022

Analyte	Commercial Use SCO (ppm)
Arsenic	16
Cadmium	9.3
Copper	270
Benzo(b)fluoranthene	5600
Benzo(a)anthracene	5600
Benzo(a)pyrene	1000
dibenzo(a)anthracene	560
Cyanide	27

N

0 37.5 75 150 Feet

1 inch = 100 feet
When printed at 11 in. by 17 in.

24 Laborers Way BCP

Sources: . Created by C&S Engineers, Inc.

G:\Projects\Data\Projects\2025 - 24 Laborers Way (V2500905 - 24 Laborers Way, BCP)\Planning Study\GIS\Projects\Figure 5 Investigations by Others.mxd



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Figure 6

Site-Wide Cover System Map

Legend

- BCP Boundary
- Building Slab
- Asphalt
- Concrete
- Soil Cover/Landscape (minimum one-foot)
- Bioretention Area (one-foot soil cover)

N

0 37.5 75 150 Feet

1 inch = 75 feet
When printed at 11 in. by 17 in.

24 Laborers Way BCP

Sources: . Created by C&S Engineers, Inc.

Document Path: U:\Projects\25_Laborers Way\25300105_24 Laborers Way BCP\Planning Study\GIS\Projects\Figure 6_SiteCoverMap.mxd

Tables

Table 1
Soil Analytical Data

Soil Sample ID				SB-101-A	SB-101-B	SB-101-C	SB-102-A	SB-102-B	SB-102-C	SB-103-A	SB-103-B	SB-103-C	SB-104-A	SB-104-B	SB-104-C	SB-105-A	SB-105-B	SB-105-C	SB-105-D	SB-106-A	SB-106-B	SB-106-C	SB-107-A	SB-107-B	SB-107-C	SB-108-A	SB-108-B	SB-108-C	SB-109-A	SB-109-B	SB-109-C	SB-110-A	SB-110-B	SB-110-C	SB-110-D
Start Depth (ft bgs)				0	8	12	0	4	12	0	4	12	0	4	14	0	4	10	12	0	4	14	0	6	13	0	8	10	0	4	16	0	4	17.5	10
End Depth (ft bgs)				1	10	14	1	6	14	1	6	14	1	6	16	1	6	12	14	1	8	16	2	8	18	1	10	14	1	6	18	1	6	20	12.5
Sample Date				10/10/2018	10/10/2018	10/10/2018	10/10/2018	10/10/2018	10/10/2018	10/10/2018	10/10/2018	10/10/2018	10/10/2018	10/10/2018	10/10/2018	10/10/2018	10/10/2018	10/10/2018	10/10/2018	10/10/2018	10/10/2018	10/10/2018	10/11/2018	10/11/2018	10/11/2018	10/11/2018	10/11/2018	10/11/2018	10/11/2018	10/11/2018	10/11/2018	10/11/2018	10/11/2018	10/11/2018	10/11/2018
Analyte	Units	6 NYCRR PART 375 UNRESTRICTED USE SCO	6 NYCRR PART 375 COMMERCIAL USE SCO																																
SW6010C																																			
Aluminum	mg/kg	-	-	20400 J	17900 J	14100 J	19800 J	30000 J	14700 J	20700 J	47100 J	14600 J	14100 J	23400 J	12200 J	24600 J	43700 J	29100 J	14500 J	28100 J	43100 J	16500 J	10600 J	40800 J	11000 J	23000 J	42000 J	18200 J	9920 J	26700 J	5730 J	10100 J	44900 J	11000 J	13100 J
Antimony	mg/kg	-	-	< 16.9 UJ	< 22.5 UJ	< 18.4 UJ	< 18.5 UJ	< 18.3 UJ	< 17.6 UJ	< 20.1 UJ	< 18.2 UJ	< 17.5 UJ	< 18.4 UJ	3.1 UJ	< 18.4 UJ	< 18.6 UJ	< 92.4 UJ	< 49.4 UJ	< 19.2 UJ	< 18.9 UJ	< 19.5 UJ	< 31.3 UJ	< 17.7 UJ	< 89.6 UJ	< 17.7 UJ	< 18.1 UJ	< 17.8 UJ	< 33.4 UJ	< 76.7 UJ	< 19.1 UJ	< 17.5 UJ	< 15.8 UJ	< 88.9 UJ	< 17.8 UJ	< 21.7 UJ
Arsenic	mg/kg	**13**	16	6.5 J	2.1 UJ	8.3 J	6.9 J	9.3 J	8.4 J	11.1 J	1.0 UJ	**16.8 J**	6.3 J	**22.4 J**	3.7 J	10.1 J	5.2 UJ	9.7 J	2.6 J	7.8 J	4.8 J	5.0 J	4.9	4.1	7.3	**13.1**	2.0 UJ	7.3	**18.6**	**16.5**	3.5	5.0	4.4 UJ	3.2	3.2
Barium	mg/kg	**350**	400	161 J	157 J	84.9 J	157 J	247 J	90.0 J	156 J	347 J	83.9 J	89.5 J	258 J	64.4 J	195 J	298 J	138 J	62.5 J	184 J	263 J	168 J	80.0 J	259 J	57.8 J	237 J	159 J	111 J	**451 J**	196 J	34.7 J	71.4 J	331 J	52.7 J	107 J
Beryllium	mg/kg	**7.2**	590	3.4 J	2.6 J	0.68 J	3.2 J	5.0 J	0.68 J	3.4 J	**9.0 J**	0.74 J	0.72 J	3.5 J	0.57 J	3.6 J	**8.3 J**	0.99 J	0.40 J	2.9 J	**7.6 J**	1.7 J	1.3	**7.6**	0.53	3.4	**8.0**	1.3	1.2	4.8	0.27	0.77	**8.6**	0.53	1.3
Cadmium	mg/kg	**2.5**	9.3	0.78 J	0.36 J	0.21 UJ	0.58 J	0.095 UJ	0.20 UJ	1.6 J	< 0.24 UJ	0.20 UJ	0.30 J	0.34 UJ	0.17 UJ	0.86 J	< 1.2 UJ	0.45 UJ	0.19 UJ	0.33 J	0.051 UJ	0.47 J	0.66	< 1.2	0.21	1.9	0.040 UJ	0.64	2.1	**2.9**	0.19 UJ	0.60	< 1.2 U	0.31	0.23 UJ
Calcium	mg/kg	-	-	148000 J	101000 J	29700 J	106000 J	221000 J	30700 J	101000 J	245000 J	27100 J	20800 J	165000 J	7720 J	166000 J	215000 J	7730 J	3050 J	85800 J	225000 J	51400 UJ	57600 J B	201000 J B	27000 J B	94200 J B	232000 J B	44500 J B	55000 J B	140000 J B	8070 J B	71500 J B	217000 J B	29500 J B	30900 J B
Chromium	mg/kg	-	-	13.3 J	5.5 J	19.7 J	8.1 J	11.0 J	20.2 J	19.5 J	0.65 J	19.8 J	18.5 J	15.5 J	15.5 J	11.8 J	< 3.1 UJ	28.6 J	14.1 J	14.4 J	2.4 UJ	10.2 J	12.4 J	2.4 UJ	15.4 J	19.7 J	1.5 J	23.5 J	38.2 J	27.4 J	7.8 J	16.3 J	2.5 UJ	14.7 J	9.3 J
Cobalt	mg/kg	-	-	3.7 J	1.3 J	12.5 J	3.8 J	3.8 J	13.1 J	6.1 J	0.81 J	13.5 J	10.1 J	11.7 J	10.6 J	5.3 J	2.0 J	11.2 J	4.9 J	9.9 J	2.1 J	3.9 J	4.7	1.7	11.3	6.9	1.1	13.4	6.5	7.4	4.5	5.5	1.7	10.7	5.5
Copper	mg/kg	**50**	270	20.2 J	11.0 J	25.0 J	18.5 J	8.2 J	27.0 J	**107 J**	< 6.1 UJ	27.1 J	23.8 J	19.1 J	20.3 J	32.5 J	< 6.2 UJ	17.6 J	8.2 J	22.3 J	1.6 UJ	15.5 J	21.1	< 6.0	22.1	41.9	< 5.9 U	41.4	**109**	39.0	13.1	29.9	< 5.9 U	24.4	12.4
Iron	mg/kg	-	-	31200 J	7290 J	22400 J	51300 J	39500 J	22800 J	49200 J	3650 J	28000 J	21700 J	142000 J	28100 J	38200 J	16200 J	21100 J	10300 J	21100 J	16000 J	17000 J	21100 J B	17000 J B	22700 J B	43900 J B	10500 J B	31600 J B	73300 J B	83700 J B	6520 J B	15100 J B	5500 J B	22300 J B	7660 J B
Lead	mg/kg	**63**	1000	62.4 J	6.2 J	13.0 J	52.5 J	< 1.2 UJ	12.5 J	**127 J**	< 6.1 UJ	15.5 J	23.4 J	< 5.8 UJ	12.5 J	**106 J**	< 6.2 UJ	18.1 J	8.7 J	38.8 J	< 1.3 UJ	16.4 J	61.9	< 6.0	13.0	**236**	< 5.9 U	40.5	**713**	**344**	6.1	**111**	< 5.9 U	13.4	6.9
Magnesium	mg/kg	-	-	11500 J	4040 J	11800 J	9950 J	4580 J	11300 J	3510 J	4850 J	10700 J	8790 J	3840 J	4650 J	6370 J	6180 J	4990 J	2820 J	10500 J	7390 J	3360 J	15400 J	6260 J	9780 J	8070 J	4160 J	11300 J B	9030 J B	4330 J B	3460 J B	8900 J B	6870 J B	10500 J B	4870 J B
Manganese	mg/kg	**1600**	10000	1120 J	779 J	364 J	1120 J	1200 J	373 J	1510 J	428 J	351 J	333 J	**2600 J**	513 J	1580 J	1430 J	148 J	77.7 J	972 J	972 J	555 UJ	559 J B	1430 J B	388 J B	1360 J B	775 J B	597 J B	**1930 J B**	1330 J B	93.9 J B	547 J B	**1850 J B**	316 J B	270 J B
Nickel	mg/kg	**30**	310	12.2 J	5.4 UJ	**32.1 J**	11.0 J	9.8 J	**32.6 J**	22.0 J	0.41 UJ	**34.9 J**	26.8 J	**32.2 J**	25.7 J	14.5 J	2.1 UJ	26.2 J	12.0 J	23.2 J	2.9 UJ	11.7 J	12.8	2.5	29.0	22.1	1.7 UJ	**36.1**	**33.8**	28.8	12.3	17.1	0.74 UJ	25.3	15.7
Potassium	mg/kg	-	-	1050 J	1300 J	3060 J	1390 J	831 J	3120 J	1220 J	528 J	2820 J	1900 J	907 J	1410 J	1640 J	985 J	2510 J	1210 J	3800 J	476 J	1910 J	1440 J	824 J	2220 J	1390 J	764 J	3540 J	1350 J	2130 J	808 J	1850 J	1580 J	2560 J	1630 J
Selenium	mg/kg	**3.9**	1500	**4.1 UJ**	0.74 UJ	< 4.9 UJ	1.7 UJ	**5.2 J**	< 4.7 UJ	2.5 UJ	**7.0 J**	< 4.7 UJ	< 4.9 UJ	3.7 UJ	< 4.9 UJ	2.1 UJ	**7.8 UJ**	2.1 UJ	< 5.1 UJ	1.9 UJ	3.3 UJ	1.7 UJ	0.72 UJ	**7.4 UJ**	< 4.7 UJ	2.5 UJ	2.7 UJ	1.3 UJ	1.9 UJ	2.4 UJ	< 4.7 UJ	< 4.2 UJ	**4.5 UJ**	0.48 UJ	1.2 UJ
Silver	mg/kg	2	1500	< 0.68 UJ	< 0.90 UJ	< 0.74 UJ	< 0.74 UJ	< 0.73 UJ	< 0.70 UJ	< 0.80 UJ	< 0.73 UJ	< 0.70 UJ	< 0.74 UJ	< 3.5 UJ	< 0.74 UJ	< 0.74 UJ	< 3.7 UJ	< 2.0 UJ	< 0.77 UJ	< 0.75 UJ	< 3.9 UJ	< 1.3 UJ	< 0.71	< 3.6	< 0.71 U	< 0.72 U	< 0.71 U	< 1.3 U	< 3.1 U	< 0.76 U	< 0.70 U	< 0.63 U	< 3.6 U	< 0.71 U	< 0.87 U
Sodium	mg/kg	-	-	304 J	330 J	137 UJ	323 J	386 J	127 UJ	253 J	260 UJ	118 UJ	102 UJ	455 J	74.7 UJ	302 J	540 UJ	238 UJ	105 UJ	405 J	369 UJ	239 UJ	175	682	104	303	474 UJ	228 UJ	266	399 UJ	61.0 UJ	193	1230	126 UJ	155 UJ
Thallium	mg/kg	-	-	< 6.8 UJ	< 9.0 UJ	< 7.4 UJ	< 7.4 UJ	< 7.3 UJ	< 7.0 UJ	< 8.0 UJ	< 7.3 UJ	< 7.0 UJ	< 7.4 UJ	< 6.9 UJ	< 7.4 UJ	< 7.4 UJ	< 7.4 UJ	< 19.8 UJ	< 7.7 UJ	< 7.5 UJ	< 7.8 UJ	< 12.5 UJ	< 7.1	< 7.2	< 7.1 U	< 7.2 U	< 7.1 U	< 13.4 U	< 6.1 U	< 7.6 U	< 7.0 U	< 6.3 U	< 7.1 U	< 7.1 U	< 8.7 U
Vanadium	mg/kg	-	-	11.3 J	11.6 J	26.3 J	21.7 J	20.5 J	26.8 J	13.6 J	1.8 J	28.7 J	27.6 J	53.2 J	24.8 J	18.1 J	9.4 J	55.9 J	27.6 J	22.3 J	9.2 J	18.7 J	14.6	8.8	20.5	14.3	7.5	30.5	32.1	18.9	13.8	19.4	9.9	21.1	12.4
Zinc	mg/kg	**109**	10000	**168 J**	50.3 J	62.3 J	**168 J**	< 2.4 UJ	62.8 J	**287 J**	< 2.4 UJ	63.4 J	85.6 J	1.3 UJ	48.3 J	**211 J**	< 12.3 UJ	80.6 J	38.3 J	86.5 J	< 13.0 UJ	55.6 J	**167 J**	< 11.9 UJ	56.8 J	**381 J**	< 2.4 UJ	**110 J**	**869 J**	**477 J**	29.0 J	**139 J**	< 11.8 UJ	55.9 J	33.4 J
SW7471B																																			
Mercury	mg/kg	**0.81**	2.8	0.044	< 0.030 U	< 0.026 U	0.041	< 0.025 U	0.019 UJ	0.094	< 0.023 U	0.014 UJ	0.024	< 0.023 U	0.019 UJ	0.071	< 0.023 U	0.042 UJ	0.024	0.075	< 0.026 U	0.061	0.047	< 0.023 U	0.011 UJ	0.083	< 0.023 U	0.031 UJ	0.13	0.079	0.011 UJ	0.22	< 0.022 U	0.011 UJ	0.028

Notes:

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Qualifiers:

U = Analyte analyzed for, but not detected above the sample's reported quantitation limit

J = Analyte positively identified at a numerical value that is the approximate concentration of the analyte in the sample

J+ = Sample likely to have a high bias

J- = Sample likely to have a low bias

UJ = Analyte not detected above the sample quantitation limit; the associated quantitation limit is approximate and may or may not represent the actual limit of quantitation necessary to accurately and precisely measure the analyte in the sample

N = The analysis indicates the present of an analyte for which there is presumptive evidence to make a "tentative identification."

NJ = The analysis indicates the presence of an analyte that has been "tentatively identified" and the associated numerical value represents its approximate oncentration.

R = Sample result rejected due to serious deficiency in ability to analyze sample and meet quality control criteria; the presence or absence of the analyte cannot be confirmed. This qualifier also may apply when more than one sample result is generated for a target analyte (i.e., dilutions or re-analyses), the most technically acceptable result is considered acceptable.

B/EB/TB/BB = An analyte identified in method blank (B), aqueous equipment (EB), trip (TB), or bottle blanks (BB) used to assess field contamination associated with soil or sediment samples mandates these qualifiers for only soil and sediment sample results.

P = Use professional judgment based on data use. It usually has an "M" with it, which indicates that a manual check should be made if the data that are qualified with the "P" are important to the data user. In addition, "PM" also means a decision is necessary from the Project Manager (or a delegate) concerning the need for further review of the data (see below).

PM = A manual review of the raw data is recommended to determine if the defect affects data use, as in "R" above. This review should include consideration of potential affects that could result from using the "P" qualified data. For example, in the case of holding-time exceedance, the Project Manager or delegate can decide to use the data with no qualification when analytes of interest are known not to be adversely affected by holding-time exceedances. Another example is the case where soil sample duplicate analyses for metals exceed the precision criteria; because this is likely due to sample non-homogeneity rather than contract laboratory error, then the manager or delegate must decide how to use the data.

Table 1
Soil Analytical Data

Soil Sample ID				SB-111-A	SB-111-B	SB-111-C	SB-112-A	SB-112-B	SB-112-C	SB-113-A	SB-113-B	SB-113-C	SB-114-A	SB-114-B	SB-114-C	SB-115-A	SB-115-B	SB-115-C	SB-116-A	SB-116-B	SB-116-C	SB-117-A	SB-117-B	SB-117-C	SB-117-D	SB-118-A	SB-118-B	SB-118-C	SB-119-A	SB-119-B	SB-119-C	SB-120-A	SB-120-B	SB-120-C
Start Depth (ft bgs)				0	6	18	0	8	12	0	6	18	0	8	10	0	7	15	0	5	14	0	4	10	16	0	6	16	0	8	13	0	4	16
End Depth (ft bgs)				1	8	20	1	10	15	1	8	20	1	10	20	1	10	17	1	7	18	2	7	12	20	1	8	20	1	10	15	1	6	20
Sample Date				10/16/2018	10/16/2018	10/16/2018	10/16/2018	10/16/2018	10/16/2018	10/16/2018	10/16/2018	10/16/2018	10/16/2018	10/16/2018	10/16/2018	10/12/2018	10/12/2018	10/12/2018	10/12/2018	10/12/2018	10/12/2018	10/12/2018	10/12/2018	10/12/2018	10/12/2018	10/12/2018	10/12/2018	10/12/2018	10/11/2018	10/11/2018	10/11/2018	10/11/2018	10/11/2018	10/11/2018
Analyte	Units	6 NYCRR PART 375 UNRESTRICTED USE SCO	6 NYCRR PART 375 COMMERCIAL USE SCO																															
SW6010C																																		
Aluminum	mg/kg	-	-	29200 J	38100 J	14900 J	18100 J	34300 J	11700 J	7550 J	32200 J	12600 J	11000 J	28300 J	35300 J	17100 J	33100 J	2430 J	12100 J	9630 J	15400 J	27300 J	27100 J	25900 J	14600 J	8290 J	29900 J	9230 J	10500 J	34100 J	4680 J	6510 J	18500 J	15800 J
Antimony	mg/kg	-	-	0.71 UJ	0.47 UJ	< 2.0 UJ	2.4 UJ	0.46 UJ	< 6.3 UJ	< 1.9 UJ	0.56 UJ	< 1.7 UJ	< 2.1 UJ	< 1.8 UJ	< 2.3 UJ	< 18.8 UJ	< 17.6 UJ	< 17.1 UJ	2.9 UJ	7.4 UJ	< 19.4 UJ	< 17.2 UJ	< 17.3 UJ	< 24.9 UJ	< 18.5 UJ	< 183 UJ	< 18.0 UJ	< 17.6 UJ	< 18.6 UJ	< 17.9 UJ	< 19.4 UJ	< 16.1 UJ	< 90.3 UJ	< 22.5 UJ
Arsenic	mg/kg	**13**	16	7.5	4.7 UJ	11.8	**35.9**	1.6 UJ	4.4 UJ	8.6	2.7	10.5	11.2	< 6.8 U	4.8 UJ	9.7	0.89 UJ	0.84 UJ	**15.9**	**45.1**	**15.8**	**14.9**	10.1	4.2	**24.3**	**13.8**	< 2.4 U	3.3	8.6	3.3	2.4 UJ	7.0	**37.2**	**21.0**
Barium	mg/kg	**350**	400	183 UJ	**351 J**	92.9 J	168 J	165 J	117 J	45.8 J	202 J	80.7 J	63.5 UJ	158 J	207 J	147 J	172 J	18.0 J	128 J	288 J	78.9 J	208 J	283 J	186 J	82.8 J	117 J	232 J	42.8 J	161 J	344 J	21.0 J	71.9 J	198 J	69.3 J
Beryllium	mg/kg	**7.2**	590	5.1 UJ	**8.5 J**	0.68 J	2.7 J	6.0 J	0.88 UJ	0.44 UJ	6.2 J	0.56 J	0.61 UJ	5.1 J	5.9 J	2.0	6.8	0.10 UJ	1.6	2.0	0.73	4.0	3.5	4.2	0.71	1.4	4.1	0.43	1.0	5.2	0.24 UJ	0.70	2.5	0.71
Cadmium	mg/kg	**2.5**	9.3	0.085 UJ	< 0.49 UJ	0.14 UJ	**9.8 J**	< 0.62 UJ	0.62 UJ	0.22 UJ	< 0.54 UJ	0.12 UJ	0.24 UJ	0.043 UJ	< 0.58 UJ	1.1	0.043 UJ	0.050 UJ	1.7	< 2.6 U	0.21 UJ	**3.9**	0.13 UJ	0.25 UJ	0.19 UJ	1.6 UJ	0.049 UJ	0.19 UJ	0.90	0.070 UJ	0.13 UJ	0.36	0.44 UJ	0.33
Calcium	mg/kg	-	-	162000 J	225000 J	25100 J	98000 J	269000 J	25100 J	72600 J	265000 J	30000 J	18700 UJ	220000 J	254000 J	66400 J	264000 J	1260 J	57700 J	25700 J	30900 J	179000 J	230000 J	131000 J	27100 J	33900 J	264000 J	30300 J	50200 J B	251000 J B	18100 J B	144000 J B	158000 J B	36900 J B
Chromium	mg/kg	-	-	3.9 UJ	1.8 J	21.9 J	42.1 J	1.4 J	15.2 J	10.8 J	0.87 UJ	18.9 J	14.8 J	1.4 J	5.2 J	25.4 J	1.7 J	2.8 J	51.1 J	48.5 J	20.9 J	26.4 J	13.1 J	5.7 J	19.3 J	88.0 J	1.0 J	12.8 J	26.6 J	3.1 J	6.9 J	9.1 J	65.8 J	21.8 J
Cobalt	mg/kg	-	-	2.6 J	1.4 J	15.1 J	9.8 J	0.47 UJ	4.0 J	8.2 J	0.63 UJ	14.5 J	19.8 UJ	0.58 UJ	1.1 UJ	7.5	0.83	1.4	7.5	18.9	13.7	4.9	4.5	2.9	14.0	8.4	0.37 UJ	9.4	7.1	1.8	4.4	4.3	14.3	19.6
Copper	mg/kg	**50**	270	8.5 J	4.8 UJ	26.1 J	**419 J**	3.8 UJ	34.8 J	21.8 J	3.8 UJ	26.0 J	29.8 UJ	2.5 UJ	5.5 UJ	**56.9**	< 5.9 U	3.0	**59.4**	45.7	30.7	33.8	8.5	8.3	26.4	**162**	< 6.0 U	21.9	43.8	< 6.0 U	12.5	13.9	15.6	31.5
Iron	mg/kg	-	-	28500 J	9020 J	28300 J	120000 J	976 J	13600 J	17400 J	1920 J	26200 J	26500 J	618 J	6210 J	40700 J	2200 J	1840 J	110000 J	348000 J	24400 J	47500 J	43900 J	12000 J	28700 J	184000 J	643 J	19500 J	40600 J B	9360 J B	8160 J B	16000 J B	212000 J B	23800 J B
Lead	mg/kg	**63**	1000	11.0 UJ	0.91 UJ	12.6 J	**363 J**	0.43 UJ	12.2 J	17.9 J	0.36 UJ	11.2 J	20.6 UJ	0.28 UJ	0.78 UJ	**136**	< 5.9 U	2.2	**165**	50.6	15.0	**254**	1.5	9.4	15.4	**367**	< 6.0 U	11.0	**211**	< 6.0 U	5.0	32.4	7.1	18.5
Magnesium	mg/kg	-	-	5810 UJ	6690 J	12400 J	3770 J	5900 J	1910 J	9600 J	5280 J	11800 J	4320 J	4680 J	5180 J	9080 J	5530 J	476 J	10100 J	4120 J	11800 J	7400 J	6850 J	3790 J	9850 J	6680 J	13400 J	10600 J	8610 J B	6140 J B	7880 J B	7200 J B	26000 J B	14100 J B
Manganese	mg/kg	**1600**	10000	1400 J	**3370 J**	433 J	**3630 J**	1100 J	261 J	420 J	1000 J	392 J	506 J	**1670 J**	**2750 J**	1080 J	1130 J	49.7 J	**2100 J**	**6650 J**	346 J	**1730 J**	**1970 J**	1020 J	356 J	**3590 J**	1010 J	402 J	1060 J B	**2220 J B**	197 J B	862 J B	**3830 J B**	408 J B
Nickel	mg/kg	**30**	310	8.9	3.6 UJ	**37.1**	**39.4**	1.8 UJ	18.0	23.8	2.1 UJ	**37.5**	**31.5**	1.4 UJ	3.8 UJ	27.0	< 5.9 U	3.1 UJ	**31.6**	**65.4**	**36.7**	22.7	15.2	7.7 UJ	**35.0**	**54.9 UJ**	< 6.0 U	23.3	**38.6**	2.1 UJ	10.1	12.7	17.7 UJ	**40.7**
Potassium	mg/kg	-	-	820 UJ	1720 UJ	2860 J	1560 J	600 UJ	2420 J	881 J	368 UJ	1900 J	990 J	1140 J	1290 J	1820 J	1170 J	377 J	1590 J	666 J	3600 J	1940 J	1380 J	1860 J	3420 J	1420 J	618 J	2010 J	1950 J	692 J	877 J	852 J	926 J	3440 J
Selenium	mg/kg	**3.9**	1500	**5.2**	**11.0**	0.60 UJ	3.1 UJ	**6.1**	**4.2 UJ**	< 1.9 U	**7.0**	0.58 UJ	0.73 UJ	**8.8 UJ**	**6.5 UJ**	0.99 UJ	**6.5**	< 4.6 U	1.4 UJ	0.84 UJ	< 5.2 U	2.4 UJ	3.9 UJ	3.0 UJ	< 4.9 U	1.3 UJ	**4.3 UJ**	< 4.7 U	1.3 UJ	**4.8 J**	< 5.2 UJ	0.66 UJ	3.6 UJ	< 6.0 UJ
Silver	mg/kg	2	1500	0.11 UJ	0.12 UJ	< 1.0 UJ	1.1 J	< 1.2 UJ	< 3.2 UJ	< 0.93 UJ	< 1.1 UJ	< 0.85 UJ	< 1.1 UJ	< 0.90 UJ	< 1.2 UJ	< 0.75 U	< 0.70 U	< 0.68 U	< 3.5 U	< 7.7 U	< 0.77 U	< 0.69 U	< 0.69 U	< 1.0 U	< 0.74 U	< 7.3 U	< 0.72 U	< 0.71 U	< 0.74 U	< 0.71 U	< 0.78 U	< 0.65 U	< 3.6 U	< 0.90 U
Sodium	mg/kg	-	-	335 UJ	935 UJ	212 UJ	287 UJ	422 UJ	< 1580 UJ	127 UJ	301 UJ	109 UJ	79.7 UJ	462 J	581 UJ	223	513	64.8 UJ	308	185	192	592	521	441	155 UJ	252	282	142 UJ	228	360	87.6 UJ	195	293	171 UJ
Thallium	mg/kg	-	-	< 4.4 U	< 9.8 U	< 2.0 U	< 9.3 U	< 2.5 U	< 6.3 U	< 1.9 U	< 2.2 U	< 1.7 U	< 2.1 U	< 9.0 U	< 11.7 U	< 7.5 U	< 7.0 U	< 6.8 U	< 7.0 U	< 7.7 U	< 7.7 U	< 6.9 U	< 6.9 U	< 10 U	< 7.4 U	< 7.3 U	< 7.2 U	< 7.1 U	< 7.4 U	< 7.1 U	< 7.8 U	< 6.5 U	< 7.2 U	< 9.0 U
Vanadium	mg/kg	-	-	10.1 UJ	8.6 UJ	27.9 J	40.0 J	4.7 UJ	19.3 J	15.6 J	3.3 UJ	22.4 J	19.8 UJ	3.7 UJ	7.4 J	19.2	8.3	5.1	35.0	89.7	29.3	17.2	18.8	11.5	26.2	32.0	2.8	18.3	23.4	13.5	13.0	13.3	52.0	27.9
Zinc	mg/kg	**109**	10000	46.8 UJ	1.3 UJ	82.1 J	**3260 J**	< 6.2 UJ	63.9 J	**122 J**	< 5.4 UJ	83.9 J	89.2 UJ	< 4.5 UJ	3.0 UJ	**307 J**	< 2.3 UJ	10 J	**466 J**	**804 J**	71.8 J	**603 J**	7.9 J	50.8 J	65.2 J	**576 J**	0.81 UJ	51.2 J	**355 J**	1.2 UJ	30.6 J	89.9 J	17.2 J	80.6 J
SW7471B																																		
Mercury	mg/kg	**0.81**	2.8	< 0.14 U	< 0.13 U	< 0.12 U	0.12	< 0.17 U	0.14 UJ	0.040 UJ	< 0.13 U	< 0.12 U	0.025 UJ	< 0.14 U	< 0.11 U	0.10	< 0.023 U	0.017 UJ	< 0.022 U	< 0.026 U	0.010 UJ	0.012 UJ	< 0.024 U	0.031 UJ	0.0094 UJ	0.12	0.012 UJ	0.012 UJ	0.24	< 0.024 U	< 0.022 U	0.033	< 0.026 U	0.020 UJ

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B/EB/TB/BB = An analyte identified in method blank (B), aqueous equipment (EB), trip (TB), or bottle blanks (BB) used to assess field contamination associated with soil or sediment samples mandates these qualifiers for only soil and sediment sample results.

P = Use professional judgment based on data use. It usually has an "M" with it, which indicates that a manual check should be made if the data that are qualified with the "P" are important to the data user. In addition, "PM" also means a decision is necessary from the Project Manager (or a delegate) concerning the need for further review of the data (see below).

PM = A manual review of the raw data is recommended to determine if the defect affects data use, as in "R" above. This review should include consideration of potential affects that could result from using the "P" qualified data. For example, in the case of holding-time exceedance, the Project Manager or delegate can decide to use the data with no qualification when analytes of interest are known not to be adversely affected by holding-time exceedances. Another example is the case where soil sample duplicate analyses for metals exceed the precision criteria; because this is likely due to sample non-homogeneity rather than contract laboratory error, then the manager or delegate must decide how to use the data.

Table 1
Soil Analytical Data

				Soil Sample ID	SB-121-A	SB-121-B	SB-121-C	SB-121-D	SB-122-A	SB-122-B	SB-122-C	SB-123-A	SB-123-B	SB-123-C	SB-124-A	SB-124-B	SB-124-C	SB-125-A	SB-125-B	SB-125-C	SB-126-A	SB-126-B	SB-126-C	SB-127-A	SB-127-B	SB-127-C	SB-128-A	SB-128-B	SB-128-C	SB-129-A	SB-129-B	SB-129-C	SB-130-A	SB-130-B	SB-130-C
				Start Depth (ft bgs)	0	8	17	10	0	8	18	0	10	18	0	12	18	0	5	16.5	0	1	14.5	0	5	18	0	5	14	0	6	16	0	6	15
				End Depth (ft bgs)	1	10	20	12	2	10	20	1	12	20	1	14	20	1	6	18	1	4	15.5	5	10	20	2	7	16	2	7	17	3	10	18
				Sample Date	10/16/2018	10/16/2018	10/16/2018	10/16/2018	10/16/2018	10/16/2018	10/16/2018	10/16/2018	10/16/2018	10/16/2018	10/16/2018	10/16/2018	10/16/2018	10/17/2018	10/17/2018	10/17/2018	10/17/2018	10/17/2018	10/17/2018	10/17/2018	10/17/2018	10/17/2018	10/17/2018	10/17/2018	10/17/2018	10/17/2018	10/17/2018	10/17/2018	10/17/2018	10/17/2018	10/17/2018	10/17/2018
Analyte	Units	6 NYCRR PART 375 UNRESTRICTED USE SCO	6 NYCRR PART 375 COMMERCIAL USE SCO																																		
SW6010C																																					
Aluminum	mg/kg	-	-		18700 J	29900 J	12600 J	11000 J	7230 J	35100 J	29300 J	11900	34900	8150	13100	57900	6250	13800 J	31100 J	12700 J	8680 J	6370 J	6740 J	38700 J	31900 J	6780 J	8050 J	18800 J	8110 J	9030 J	30400 J	4290 J	25000 J	8040 J	6490 J
Antimony	mg/kg	-	-		1.6 UJ	0.32 UJ	< 2.0 UJ	< 4.1 UJ	0.48 UJ	0.50 UJ	< 5.1 UJ	< 20.9 U	0.52 UJ	< 2.1 U	1.2 UJ	< 3.8 U	< 1.9 U	0.73 UJ	< 2.2 UJ	< 8.1 UJ	1.3 UJ	0.69 UJ	< 4.6 UJ	< 2.0 UJ	0.50 UJ	< 5.9 UJ	2.0 UJ	< 9.1 UJ	< 7.6 UJ	< 40.9 UJ	0.61 UJ	< 1.7 UJ	0.46 UJ	< 10.1 UJ	< 2.0 UJ
Arsenic	mg/kg	**13**	16		**14.3**	1.7	7.1	5.1	4.0	7.2 UJ	5.2	**42.0**	4.1 UJ	5.5	**20.9**	6.9 UJ	2.2	10.8	1.5 UJ	**15.5**	**18.7**	7.1	4.2	3.2 UJ	5.5 UJ	6.8	**18.2**	11.3	4.8 UJ	**57.8**	5.4 UJ	1.4	2.8 UJ	**18.1**	2.9
Barium	mg/kg	**350**	400		209 J	194 J	62.9 J	163 J	74.2 J	**394 J**	270 J	256	**382**	39.1	156	**565**	52.8	140	**549**	70.7 UJ	132	194	85.6	**657**	326	75.0	122	204	130	225	**403**	24.5	234	118	35.2
Beryllium	mg/kg	**7.2**	590		2.3 J	5.3 J	0.59 J	0.71 UJ	1.3 J	3.9 J	3.8 J	2.2	4.8	0.40 UJ	1.6	**8.7**	0.36 UJ	1.9	5.0	0.67 UJ	0.80	0.37 UJ	0.75 UJ	6.9	4.6	0.56 UJ	1.7	3.8	0.53 UJ	1.8	5.2	0.23 UJ	6.3	1.3	0.38 UJ
Cadmium	mg/kg	**2.5**	9.3		0.95 UJ	< 0.45 UJ	0.14 UJ	0.19 UJ	0.41 UJ	< 0.43 UJ	0.73 UJ	**3.4 UJ**	0.067 UJ	0.14 UJ	1.0	0.10 UJ	0.11 UJ	1.0	< 0.54 U	0.54 UJ	1.2	0.76	0.19 UJ	< 0.51 U	< 0.57 U	0.36 UJ	1.4 UJ	1.0 UJ	0.51 UJ	< 10.2 U	< 0.55 U	0.057 UJ	< 0.62 U	1.1 UJ	0.17 UJ
Calcium	mg/kg	-	-		87100 J	207000 J	15500 J	67800 J	183000 J	225000 J	120000 J	42700	238000	29600	58500	477000	2410	68400	216000	15600	25100	54100	23400	256000	236000	16000	43000	148000	22700	19000	236000	4220	149000	33600	22700
Chromium	mg/kg	-	-		21.4 J	0.97 J	18.6 J	11.5 J	7.3 J	8.2 J	11.0 J	38.7	2.6	12.3	14.8	1.9	8.4	19.5	0.80 UJ	18.5	25.3	14.2	7.1	0.94 UJ	6.6	9.4	98.1	32.2	10.2	21.1	3.1	6.0	8.8	20.4	10.1
Cobalt	mg/kg	-	-		8.9 J	0.55 UJ	13.2 J	2.6 J	1.9 J	1.5 J	2.8 J	12.6	0.88 UJ	9.0	6.8	1.2 UJ	5.2	6.6	0.45 UJ	10.3	5.9	4.2	1.1 UJ	0.62 UJ	0.85 UJ	3.2	8.5	4.9	2.5 UJ	14.4	1.2	3.2	0.99 UJ	7.4	6.6
Copper	mg/kg	**50**	270		34.3 J	3.3 UJ	26.9 J	16.8 J	12.1 UJ	5.4 UJ	24.4 J	**54.6**	6.8 UJ	24.5	**52.6**	8.6 UJ	15.4	38.2	< 13.6 U	36.6	**89.4**	31.7	15.4	3.5 UJ	3.3 UJ	26.0	**256**	**104**	25.4	36.2 UJ	4.6 UJ	7.8	6.9	45.6	20.5
Iron	mg/kg	-	-		65900 J	1770 J	25400 J	8200 J	15000 J	12300 J	12100 J	225000	5240	17500	30300	4670	8480	40800 J	487 J	19200 J	48700 J	18600 J	5680 J	1370 J	3830 J	10400 J	167000 J	77800 J	6720 J	342000 J	8360 J	6080 J	8130 J	116000 J	15400 J
Lead	mg/kg	**63**	1000		**88.4 J**	< 0.89 UJ	13.9 J	15.4 J	18.5 J	0.80 UJ	7.9 J	**214**	2.4	9.1	**131**	2.6	8.5	**96.6**	0.37 UJ	12.8	**223**	**83.9**	5.0	0.52 UJ	1.0 UJ	7.2	**401**	**190**	7.6	33.5	0.91 UJ	5.0	1.8	**103**	9.7
Magnesium	mg/kg	-	-		8220 J	5050 J	10500 J	1550 J	8090 J	6510 J	5200 J	3330	7490	9990	9480	9250	2160	6940	7460	4810	4350	11200	905 UJ	8110	7590	2170	9710	6120	1700 UJ	934	4080	1940	25200	8010	6070
Manganese	mg/kg	**1600**	10000		**2630 J**	735 J	308 J	170 J	792 J	**6880 J**	1100 J	**5340**	**3160**	277	1080	**4650**	62.0	**1880**	814	208	1150	414	78.5	**2440**	**4750**	146	**4530**	**3140**	159	**7310**	**3350**	74.0	1580	**2470**	233
Nickel	mg/kg	**30**	310		24.3	1.9 UJ	**35.9**	15.9	10.3	5.6	15.2	**35.4 UJ**	2.6 UJ	25.2	18.0	3.9 UJ	16.5	21.7	1.4 UJ	**36.5**	28.5	15.7	9.1 UJ	1.6 UJ	2.6 UJ	14.7	**64.9**	29.4	16.2	29.3 UJ	2.5 UJ	9.8	4.2 UJ	18.5 UJ	20.5
Potassium	mg/kg	-	-		1380 J	521 J	2010 J	3380 J	838 J	1450 J	2390 J	1040	645	1150	1030	1020	452 UJ	1350	391 UJ	2180	983	1280	1950	946 UJ	1310	1550	757	1150	2050	1790	1230	432	1790	1040	925
Selenium	mg/kg	**3.9**	1500		2.1 UJ	**5.1**	0.68 UJ	2.6 UJ	0.92 UJ	**12.0 UJ**	**5.5**	**4.9 UJ**	**7.6 UJ**	< 2.1 U	3.0 UJ	**11.3 UJ**	0.54 UJ	2.0 UJ	**15.8**	< 8.1 U	1.2 UJ	0.50 UJ	**9.7**	**7.6 UJ**	**5.8 UJ**	1.9 UJ	**5.1 UJ**	**5.4 UJ**	2.1 UJ	**10 UJ**	**7.1 UJ**	< 1.7 U	3.8 UJ	2.7 UJ	< 2.0 U
Silver	mg/kg	2	1500		0.39 UJ	< 0.89 UJ	< 0.98 UJ	< 2.1 UJ	0.099 UJ	0.37 UJ	< 2.6 UJ	1.0	0.21 UJ	< 1.1 U	0.29 UJ	< 1.9 U	< 0.93 U	0.36 UJ	< 1.1 U	< 4.0 U	0.36 UJ	0.085 UJ	< 2.3 U	< 1.0 U	0.27 UJ	< 3.0 U	1.1	0.51 UJ	< 3.8 U	1.0	0.14 UJ	< 0.83 U	0.18 UJ	0.61 UJ	< 1.0 U
Sodium	mg/kg	-	-		276 UJ	244 UJ	130 UJ	253 UJ	306 UJ	592 J	539 UJ	206 UJ	450 UJ	87.1 UJ	195 UJ	583 UJ	< 463 U	247 UJ	334 UJ	< 2020 U	125 UJ	153 UJ	160 UJ	839 UJ	381 UJ	< 1480 U	199 UJ	347 UJ	< 1890 U	211 UJ	644	< 413 U	947	222 UJ	69.2 UJ
Thallium	mg/kg	-	-		< 4.4 U	< 1.8 U	< 2.0 U	< 4.1 U	0.46 UJ	< 17.2 U	< 5.1 U	< 20.9 U	< 11.6 U	< 2.1 U	< 9.4 U	< 37.6 U	< 1.9 U	0.92 UJ	< 2.2 U	< 8.1 U	< 3.5 U	< 1.9 U	< 4.6 U	< 10.2 U	< 11.5 U	< 5.9 U	< 10.4 U	< 9.1 U	< 7.6 U	< 40.9 U	< 11.0 U	< 1.7 U	< 5.0 U	< 10.1 U	< 2.0 U
Vanadium	mg/kg	-	-		24.6 J	1.3 UJ	23.4 J	19.5 J	14.2 J	11.9 J	17.3 J	51.7 UJ	3.3 UJ	15.7	15.6	4.2 UJ	13.4	16.2	< 5.4 U	23.0	18.7	13.8	9.8 UJ	< 25.6 U	11.0	12.7 UJ	20.0 UJ	11.7 UJ	14.1 UJ	62.4 UJ	9.2	9.2	2.8 UJ	29.6	13.9
Zinc	mg/kg	**109**	10000		**516 J**	< 4.5 UJ	85.5 J	62.8 J	**178 J**	< 4.3 UJ	35.1 J	**1260**	20.4	56.4	**353**	17.2	37.4	**438**	< 5.4 U	73.2	**414**	**378**	92.5	< 5.1 U	< 5.7 U	36.9	**764**	**434**	50.0	**681**	36.2	26.4	8.1	**874**	67.5
SW7471B																																					
Mercury	mg/kg	**0.81**	2.8		0.046 UJ	< 0.10 U	< 0.12 U	0.088 UJ	< 0.11 U	< 0.11 U	0.070 UJ	0.077 UJ	< 0.13 U	< 0.11 U	0.13 UJ	< 0.25 U	< 0.12 U	0.23	< 0.11 U	0.095 UJ	0.16	0.10 UJ	0.11 UJ	< 0.13 U	< 0.11 U	0.076 UJ	0.16	0.082 UJ	0.098 UJ	< 0.11 U	< 0.15 U	< 0.12 U	< 0.13 U	0.11 UJ	< 0.12 U

Notes:

ft bgs = feet below ground surface

mg/kg = milligrams per kilogram

µg/kg = micrograms per kilogram

6 NYCRR Part 375 SCO = Title 6 Official Compilation of New York Codes, Rules and Regulations Part 375 Soil Cleanup Objectives

- = no SCO established

NA = not applicable/analyzed

Qualifiers:

U = Analyte analyzed for, but not detected above the sample's reported quantitation limit

J = Analyte positively identified at a numerical value that is the approximate concentration of the analyte in the sample

J+ = Sample likely to have a high bias

J- = Sample likely to have a low bias

UJ = Analyte not detected above the sample quantitation limit; the associated quantitation limit is approximate and may or may not represent the actual limit of quantitation necessary to accurately and precisely measure the analyte in the sample

N = The analysis indicates the present of an analyte for which there is presumptive evidence to make a "tentative identification."
NJ = The analysis indicates the presence of an analyte that has been "tentatively identified" and the associated numerical value represents its approximate concentration.

R = Sample result rejected due to serious deficiency in ability to analyze sample and meet quality control criteria; the presence or absence of the analyte cannot be confirmed. This qualifier also may apply when more than one sample result is generated for a target analyte (i.e., dilutions or re-analyses), the most technically acceptable result is considered acceptable.

B/EB/TB/BB = An analyte identified in method blank (B), aqueous equipment (EB), trip (TB), or bottle blanks (BB) used to assess field contamination associated with soil or sediment samples mandates these qualifiers for only soil and sediment sample results.

P = Use professional judgment based on data use. It usually has an "M" with it, which indicates that a manual check should be made if the data that are qualified with the "P" are important to the data user. In addition, "PM" also means a decision is necessary from the Project Manager (or a delegate) concerning the need for further review of the data (see below).

PM = A manual review of the raw data is recommended to determine if the defect affects data use, as in "R" above. This review should include consideration of potential affects that could result from using the "P" qualified data. For example, in the case of holding-time exceedance, the Project Manager or delegate can decide to use the data with no qualification when analytes of interest are known not to be adversely affected by holding-time exceedances. Another example is the case where soil sample duplicate analyses for metals exceed the precision criteria; because this is likely due to sample non-homogeneity rather than contract laboratory error, then the manager or delegate must decide how to use the data.

Table 1
Soil Analytical Data

				SB-101-A	SB-101-B	SB-101-C	SB-102-A	SB-102-B	SB-102-C	SB-103-A	SB-103-B	SB-103-C	SB-104-A	SB-104-B	SB-104-C	SB-105-A	SB-105-B	SB-105-C	SB-105-D	SB-106-A	SB-106-B	SB-106-C	SB-107-A	SB-107-B	SB-107-C	SB-108-A	SB-108-B	SB-108-C	SB-109-A	SB-109-B	SB-109-C	SB-110-A	SB-110-B	SB-110-C	SB-110-D
			Soil Sample ID																														
			Start Depth (ft bgs)	0	8	12	0	4	12	0	4	12	0	4	14	0	4	10	12	0	4	14	0	6	13	0	8	10	0	4	16	0	4	17.5	10
			End Depth (ft bgs)	1	10	14	1	6	14	1	6	14	1	6	16	1	6	12	14	1	8	16	2	8	18	1	10	14	1	6	18	1	6	20	12.5
			Sample Date	10/10/2018	10/10/2018	10/10/2018	10/10/2018	10/10/2018	10/10/2018	10/10/2018	10/10/2018	10/10/2018	10/10/2018	10/10/2018	10/10/2018	10/10/2018	10/10/2018	10/10/2018	10/10/2018	10/10/2018	10/10/2018	10/10/2018	10/11/2018	10/11/2018	10/11/2018	10/11/2018	10/11/2018	10/11/2018	10/11/2018	10/11/2018	10/11/2018	10/11/2018	10/11/2018	10/11/2018	10/11/2018
Analyte	Units	6 NYCRR PART 375 UNRESTRICTED USE SCO	6 NYCRR PART 375 COMMERCIAL USE SCO																														
SW8081B																																	
4,4'-DDD	ug/kg	**3.3**	92000	< 1.9 UJ	< 2.5 UJ	< 2.1 UJ	< 2.1 UJ	< 2.1 UJ	< 2.0 UJ	< 2.2 UJ	< 2.0 UJ	< 2.0 UJ	< 2.0 UJ	< 1.9 UJ	< 2.0 UJ	< 2.1 UJ	< 2.0 UJ	< 28 UJ	< 2.1 UJ	< 2.1 UJ	< 2.1 UJ	< 3.4 UJ	< 9.9 UJ	< 2.0 UJ	< 1.9 UJ	< 20 UJ	< 1.9 UJ	< 38 UJ	< 34 UJ	< 20 UJ	< 2.0 UJ	< 170 UJ	< 2.0 UJ	< 1.9 UJ	< 47 UJ
4,4'-DDE	ug/kg	**3.3**	62000	< 1.9 UJ	< 2.5 UJ	< 2.1 UJ	< 2.1 UJ	< 2.1 UJ	< 2.0 UJ	0.89 UJ	< 2.0 UJ	< 2.0 UJ	< 2.0 UJ	< 1.9 UJ	< 2.0 UJ	0.59 UJ	< 2.0 UJ	< 28 UJ	< 2.1 UJ	< 2.1 UJ	< 2.1 UJ	< 3.4 UJ	< 9.9 UJ	< 2.0 UJ	< 1.9 UJ	< 20 UJ	< 1.9 UJ	< 38 UJ	< 34 UJ	< 20 UJ	< 2.0 UJ	< 170 UJ	< 2.0 UJ	< 1.9 UJ	< 47 UJ
4,4'-DDT	ug/kg	**3.3**	47000	1.1 UJ	< 2.5 UJ	< 2.1 UJ	0.68 UJ	< 2.1 UJ	< 2.0 UJ	**3.9 J**	< 2.0 UJ	< 2.0 UJ	< 2.0 UJ	< 1.9 UJ	< 2.0 UJ	2.6 J	< 2.0 UJ	< 28 UJ	< 2.1 UJ	< 2.1 UJ	< 2.1 UJ	< 3.4 UJ	< 9.9 UJ	< 2.0 UJ	< 1.9 UJ	**5.9 UJ**	< 1.9 UJ	< 38 UJ	**33 UJ**	< 20 UJ	< 2.0 UJ	< 170 UJ	< 2.0 UJ	< 1.9 UJ	< 47 UJ
Aldrin	ug/kg	**5**	680	< 1.9 UJ	< 2.5 UJ	< 2.1 UJ	< 2.1 UJ	< 2.1 UJ	< 2.0 UJ	< 2.2 UJ	< 2.0 UJ	< 2.0 UJ	< 2.0 UJ	< 1.9 UJ	< 2.0 UJ	< 2.1 UJ	< 2.0 UJ	< 28 UJ	< 2.1 UJ	< 2.1 UJ	< 2.1 UJ	< 3.4 UJ	< 9.9 UJ	< 2.0 UJ	< 1.9 UJ	< 20 UJ	< 1.9 UJ	< 38 UJ	< 34 UJ	< 20 UJ	< 2.0 UJ	< 170 UJ	< 2.0 UJ	< 1.9 UJ	< 47 UJ
Alpha-BHC	ug/kg	20	3400	< 1.9 UJ	< 2.5 UJ	< 2.1 UJ	1.1 UJ	< 2.1 UJ	< 2.0 UJ	1.3 UJ	< 2.0 UJ	< 2.0 UJ	< 2.0 UJ	< 1.9 UJ	< 2.0 UJ	< 2.1 UJ	< 2.0 UJ	< 28 UJ	< 2.1 UJ	< 2.1 UJ	< 2.1 UJ	< 3.4 UJ	< 9.9 UJ	< 2.0 UJ	< 1.9 UJ	< 20 UJ	< 1.9 UJ	< 38 UJ	< 34 UJ	< 20 UJ	< 2.0 UJ	< 170 UJ	< 2.0 UJ	< 1.9 UJ	< 47 UJ
alpha-Chlordane	ug/kg	94	24000	< 1.9 UJ	< 2.5 UJ	< 2.1 UJ	< 2.1 UJ	< 2.1 UJ	< 2.0 UJ	< 2.2 UJ	< 2.0 UJ	< 2.0 UJ	< 2.0 UJ	< 1.9 UJ	< 2.0 UJ	< 2.1 UJ	< 2.0 UJ	< 28 UJ	< 2.1 UJ	< 2.1 UJ	< 2.1 UJ	< 3.4 UJ	< 9.9 UJ	< 2.0 UJ	< 1.9 UJ	< 20 UJ	< 1.9 UJ	< 38 UJ	< 34 UJ	< 20 UJ	< 2.0 UJ	< 170 UJ	< 2.0 UJ	< 1.9 UJ	< 47 UJ
Beta-BHC	ug/kg	**36**	3000	< 1.9 UJ	< 2.5 UJ	< 2.1 UJ	< 2.1 UJ	< 2.1 UJ	< 2.0 UJ	< 2.2 UJ	< 2.0 UJ	< 2.0 UJ	< 2.0 UJ	< 1.9 UJ	< 2.0 UJ	< 2.1 UJ	< 2.0 UJ	< 28 UJ	< 2.1 UJ	< 2.1 UJ	< 2.1 UJ	< 3.4 UJ	< 9.9 UJ	< 2.0 UJ	< 1.9 UJ	< 20 UJ	< 1.9 UJ	< 38 UJ	< 34 UJ	< 20 UJ	< 2.0 UJ	< 170 UJ	< 2.0 UJ	< 1.9 UJ	< 47 UJ
Delta-BHC	ug/kg	40	500000	0.57 UJ	< 2.5 UJ	< 2.1 UJ	< 2.1 UJ	< 2.1 UJ	< 2.0 UJ	< 2.2 UJ	< 2.0 UJ	< 2.0 UJ	< 2.0 UJ	< 1.9 UJ	< 2.0 UJ	< 2.1 UJ	< 2.0 UJ	< 28 UJ	< 2.1 UJ	< 2.1 UJ	< 2.1 UJ	< 3.4 UJ	< 9.9 UJ	< 2.0 UJ	< 1.9 UJ	< 20 UJ	< 1.9 UJ	< 38 UJ	< 34 UJ	< 20 UJ	< 2.0 UJ	< 170 UJ	< 2.0 UJ	< 1.9 UJ	< 47 UJ
Dieldrin	ug/kg	**5**	1400	< 1.9 UJ	< 2.5 UJ	< 2.1 UJ	< 2.1 UJ	< 2.1 UJ	< 2.0 UJ	< 2.2 UJ	< 2.0 UJ	< 2.0 UJ	< 2.0 UJ	< 1.9 UJ	< 2.0 UJ	< 2.1 UJ	< 2.0 UJ	< 28 UJ	< 2.1 UJ	0.93 UJ	< 2.1 UJ	< 3.4 UJ	< 9.9 UJ	< 2.0 UJ	< 1.9 UJ	< 20 UJ	< 1.9 UJ	< 38 UJ	**10 UJ**	< 20 UJ	< 2.0 UJ	< 170 UJ	< 2.0 UJ	< 1.9 UJ	< 47 UJ
Endosulfan I	ug/kg	2400	200000	< 1.9 UJ	< 2.5 UJ	< 2.1 UJ	< 2.1 UJ	< 2.1 UJ	< 2.0 UJ	< 2.2 UJ	< 2.0 UJ	< 2.0 UJ	< 2.0 UJ	< 1.9 UJ	< 2.0 UJ	< 2.1 UJ	< 2.0 UJ	< 28 UJ	< 2.1 UJ	< 2.1 UJ	< 2.1 UJ	< 3.4 UJ	< 9.9 UJ	< 2.0 UJ	< 1.9 UJ	< 20 UJ	< 1.9 UJ	< 38 UJ	< 34 UJ	< 20 UJ	< 2.0 UJ	< 170 UJ	< 2.0 UJ	< 1.9 UJ	< 47 UJ
Endosulfan II	ug/kg	2400	200000	< 1.9 UJ	< 2.5 UJ	< 2.1 UJ	< 2.1 UJ	< 2.1 UJ	< 2.0 UJ	< 2.2 UJ	< 2.0 UJ	< 2.0 UJ	< 2.0 UJ	< 1.9 UJ	< 2.0 UJ	< 2.1 UJ	< 2.0 UJ	< 28 UJ	< 2.1 UJ	< 2.1 UJ	< 2.1 UJ	< 3.4 UJ	< 9.9 UJ	< 2.0 UJ	< 1.9 UJ	< 20 UJ	< 1.9 UJ	< 38 UJ	< 34 UJ	< 20 UJ	< 2.0 UJ	< 170 UJ	< 2.0 UJ	< 1.9 UJ	< 47 UJ
Endosulfan Sulfate	ug/kg	2400	200000	< 1.9 UJ	< 2.5 UJ	< 2.1 UJ	< 2.1 UJ	< 2.1 UJ	< 2.0 UJ	< 2.2 UJ	< 2.0 UJ	< 2.0 UJ	< 2.0 UJ	< 1.9 UJ	< 2.0 UJ	< 2.1 UJ	< 2.0 UJ	< 28 UJ	< 2.1 UJ	< 2.1 UJ	< 2.1 UJ	< 3.4 UJ	< 9.9 UJ	< 2.0 UJ	< 1.9 UJ	< 20 UJ	< 1.9 UJ	< 38 UJ	< 34 UJ	< 20 UJ	< 2.0 UJ	< 170 UJ	< 2.0 UJ	< 1.9 UJ	< 47 UJ
Endrin	ug/kg	14	89000	< 1.9 UJ	< 2.5 UJ	< 2.1 UJ	< 2.1 UJ	< 2.1 UJ	< 2.0 UJ	1.1 UJ	< 2.0 UJ	< 2.0 UJ	< 2.0 UJ	< 1.9 UJ	< 2.0 UJ	< 2.1 UJ	< 2.0 UJ	< 28 UJ	< 2.1 UJ	< 2.1 UJ	< 2.1 UJ	< 3.4 UJ	< 9.9 UJ	< 2.0 UJ	< 1.9 UJ	< 20 UJ	< 1.9 UJ	< 38 UJ	< 34 UJ	< 20 UJ	< 2.0 UJ	< 170 UJ	< 2.0 UJ	< 1.9 UJ	< 47 UJ
Endrin Aldehyde	ug/kg	-	-	< 1.9 UJ	< 2.5 UJ	< 2.1 UJ	0.98 UJ	< 2.1 UJ	< 2.0 UJ	6.1 J	< 2.0 UJ	< 2.0 UJ	< 2.0 UJ	< 1.9 UJ	< 2.0 UJ	< 2.1 UJ	< 2.0 UJ	< 28 UJ	< 2.1 UJ	< 2.1 UJ	< 2.1 UJ	< 3.4 UJ	< 9.9 UJ	< 2.0 UJ	< 1.9 UJ	< 20 UJ	< 1.9 UJ	< 38 UJ	< 34 UJ	< 20 UJ	< 2.0 UJ	< 170 UJ	< 2.0 UJ	< 1.9 UJ	< 47 UJ
Endrin Ketone	ug/kg	-	-	< 1.9 UJ	< 2.5 UJ	< 2.1 UJ	< 2.1 UJ	< 2.1 UJ	< 2.0 UJ	6.3 J	< 2.0 UJ	< 2.0 UJ	< 2.0 UJ	< 1.9 UJ	< 2.0 UJ	< 2.1 UJ	< 2.0 UJ	< 28 UJ	< 2.1 UJ	< 2.1 UJ	< 2.1 UJ	< 3.4 UJ	< 9.9 UJ	< 2.0 UJ	< 1.9 UJ	< 20 UJ	< 1.9 UJ	< 38 UJ	< 34 UJ	< 20 UJ	< 2.0 UJ	< 170 UJ	< 2.0 UJ	< 1.9 UJ	< 47 UJ
Gamma-BHC	ug/kg	100	9200	< 1.9 UJ	< 2.5 UJ	< 2.1 UJ	< 2.1 UJ	< 2.1 UJ	< 2.0 UJ	< 2.2 UJ	< 2.0 UJ	< 2.0 UJ	< 2.0 UJ	< 1.9 UJ	< 2.0 UJ	< 2.1 UJ	< 2.0 UJ	< 28 UJ	< 2.1 UJ	< 2.1 UJ	< 2.1 UJ	< 3.4 UJ	< 9.9 UJ	< 2.0 UJ	< 1.9 UJ	< 20 UJ	< 1.9 UJ	< 38 UJ	< 34 UJ	< 20 UJ	< 2.0 UJ	< 170 UJ	< 2.0 UJ	< 1.9 UJ	< 47 UJ
Gamma-Chlordane	ug/kg			< 1.9 UJ	< 2.5 UJ	< 2.1 UJ	< 2.1 UJ	< 2.1 UJ	< 2.0 UJ	< 2.2 UJ	< 2.0 UJ	< 2.0 UJ	< 2.0 UJ	< 1.9 UJ	< 2.0 UJ	< 2.1 UJ	< 2.0 UJ	< 28 UJ	< 2.1 UJ	< 2.1 UJ	< 2.1 UJ	< 3.4 UJ	< 9.9 UJ	< 2.0 UJ	< 1.9 UJ	< 20 UJ	< 1.9 UJ	< 38 UJ	< 34 UJ	< 20 UJ	< 2.0 UJ	< 170 UJ	< 2.0 UJ	< 1.9 UJ	< 47 UJ
Heptachlor	ug/kg	42	15000	< 1.9 UJ	< 2.5 UJ	< 2.1 UJ	< 2.1 UJ	< 2.1 UJ	< 2.0 UJ	< 2.2 UJ	< 2.0 UJ	< 2.0 UJ	< 2.0 UJ	< 1.9 UJ	< 2.0 UJ	< 2.1 UJ	< 2.0 UJ	< 28 UJ	< 2.1 UJ	< 2.1 UJ	< 2.1 UJ	< 3.4 UJ	< 9.9 UJ	< 2.0 UJ	< 1.9 UJ	< 20 UJ	< 1.9 UJ	< 38 UJ	< 34 UJ	< 20 UJ	< 2.0 UJ	< 170 UJ	< 2.0 UJ	< 1.9 UJ	< 47 UJ
Heptachlor Epoxide	ug/kg	-	-	< 1.9 UJ	< 2.5 UJ	< 2.1 UJ	< 2.1 UJ	< 2.1 UJ	< 2.0 UJ	< 2.2 UJ	< 2.0 UJ	< 2.0 UJ	< 2.0 UJ	< 1.9 UJ	< 2.0 UJ	< 2.1 UJ	< 2.0 UJ	< 28 UJ	< 2.1 UJ	< 2.1 UJ	< 2.1 UJ	< 3.4 UJ	< 9.9 UJ	< 2.0 UJ	< 1.9 UJ	< 20 UJ	< 1.9 UJ	< 38 UJ	< 34 UJ	< 20 UJ	< 2.0 UJ	< 170 UJ	< 2.0 UJ	< 1.9 UJ	< 47 UJ
Methoxychlor	ug/kg	-	-	< 1.9 UJ	< 2.5 UJ	< 2.1 UJ	< 2.1 UJ	< 2.1 UJ	< 2.0 UJ	< 2.2 UJ	< 2.0 UJ	< 2.0 UJ	< 2.0 UJ	< 1.9 UJ	< 2.0 UJ	< 2.1 UJ	< 2.0 UJ	< 28 UJ	< 2.1 UJ	< 2.1 UJ	< 2.1 UJ	< 3.4 UJ	< 9.9 UJ	< 2.0 UJ	< 1.9 UJ	< 20 UJ	< 1.9 UJ	< 38 UJ	< 34 UJ	< 20 UJ	0.99 UJ	< 170 UJ	< 2.0 UJ	< 1.9 UJ	< 47 UJ
Toxaphene	ug/kg	-	-	< 19 UJ	< 25 UJ	< 21 UJ	< 21 UJ	< 21 UJ	< 20 UJ	< 22 UJ	< 20 UJ	< 20 UJ	< 20 UJ	< 19 UJ	< 20 UJ	< 21 UJ	< 20 UJ	< 280 UJ	< 21 UJ	< 21 UJ	< 21 UJ	< 34 UJ	< 99 UJ	< 20 UJ	< 19 UJ	< 200 UJ	< 19 UJ	< 380 UJ	< 340 UJ	< 200 UJ	< 20 UJ	< 1700 UJ	< 20 UJ	< 19 UJ	< 470 UJ
SW8082A																																	
Aroclor 1016	ug/kg			< 260 UJ	< 300 UJ	< 250 UJ	< 280 UJ	< 220 UJ	< 280 UJ	< 290 UJ	< 240 UJ	< 290 UJ	< 300 UJ	< 260 UJ	< 270 UJ	< 300 UJ	< 240 UJ	< 760 UJ	< 280 UJ	< 240 UJ	< 230 UJ	< 400 UJ	< 280 UJ	< 220 UJ	< 260 UJ	< 280 UJ	< 270 UJ	< 510 UJ	< 200 UJ	< 270 UJ	< 250 UJ	< 190 UJ	< 300 UJ	< 220 UJ	< 350 UJ
Aroclor 1221	ug/kg			< 260 UJ	< 300 UJ	< 250 UJ	< 280 UJ	< 220 UJ	< 280 UJ	< 290 UJ	< 240 UJ	< 290 UJ	< 300 UJ	< 260 UJ	< 270 UJ	< 300 UJ	< 240 UJ	< 760 UJ	< 280 UJ	< 240 UJ	< 230 UJ	< 400 UJ	< 280 UJ	< 220 UJ	< 260 UJ	< 280 UJ	< 270 UJ	< 510 UJ	< 200 UJ	< 270 UJ	< 250 UJ	< 190 UJ	< 300 UJ	< 220 UJ	< 350 UJ
Aroclor 1232	ug/kg			< 260 UJ	< 300 UJ	< 250 UJ	< 280 UJ	< 220 UJ	< 280 UJ	< 290 UJ	< 240 UJ	< 290 UJ	< 300 UJ	< 260 UJ	< 270 UJ	< 300 UJ	< 240 UJ	< 760 UJ	< 280 UJ	< 240 UJ	< 230 UJ	< 400 UJ	< 280 UJ	< 220 UJ	< 260 UJ	< 280 UJ	< 270 UJ	< 510 UJ	< 200 UJ	< 270 UJ	< 250 UJ	< 190 UJ	< 300 UJ	< 220 UJ	< 350 UJ
Aroclor 1242	ug/kg			< 260 UJ	< 300 UJ	< 250 UJ	< 280 UJ	< 220 UJ	< 280 UJ	< 290 UJ	< 240 UJ	< 290 UJ	< 300 UJ	< 260 UJ	< 270 UJ	< 300 UJ	< 240 UJ	< 760 UJ	< 280 UJ	< 240 UJ	< 230 UJ	< 400 UJ	< 280 UJ	< 220 UJ	< 260 UJ	< 280 UJ	< 270 UJ	< 510 UJ	< 200 UJ	< 270 UJ	< 250 UJ	< 190 UJ	< 300 UJ	< 220 UJ	< 350 UJ
Aroclor 1248	ug/kg	**100**	1000	< 260 UJ	< 300 UJ	< 250 UJ	< 280 UJ	< 220 UJ	< 280 UJ	< 290 UJ	< 240 UJ	< 290 UJ	< 300 UJ	< 260 UJ	< 270 UJ	< 300 UJ	< 240 UJ	< 760 UJ	< 280 UJ	< 240 UJ	< 230 UJ	< 400 UJ	< 280 UJ	< 220 UJ	< 260 UJ	< 280 UJ	< 270 UJ	< 510 UJ	< 200 UJ	< 270 UJ	< 250 UJ	< 190 UJ	< 300 UJ	< 220 UJ	< 350 UJ
Aroclor 1254	ug/kg			< 260 UJ	< 300 UJ	< 250 UJ	< 280 UJ	< 220 UJ	< 280 UJ	< 290 UJ	< 240 UJ	< 290 UJ	< 300 UJ	< 260 UJ	< 270 UJ	< 300 UJ	< 240 UJ	< 760 UJ	< 280 UJ	< 240 UJ	< 230 UJ	< 400 UJ	< 280 UJ	< 220 UJ	< 260 UJ	< 280 UJ	< 270 UJ	< 510 UJ	< 200 UJ	< 270 UJ	< 250 UJ	< 190 UJ	< 300 UJ	< 220 UJ	< 350 UJ
Aroclor 1260	ug/kg			< 260 UJ	< 300 UJ	< 250 UJ	< 280 UJ	< 220 UJ	< 280 UJ	< 290 UJ	< 240 UJ	< 290 UJ	< 300 UJ	< 260 UJ	< 270 UJ	< 300 UJ	< 240 UJ	< 760 UJ	< 280 UJ	< 240 UJ	< 230 UJ	< 400 UJ	< 280 UJ	< 220 UJ	< 260 UJ	< 280 UJ	< 270 UJ	< 510 UJ	< 200 UJ	< 270 UJ	< 250 UJ	< 190 UJ	< 300 UJ	< 220 UJ	< 350 UJ
Aroclor 1262	ug/kg			< 260 UJ	< 300 UJ	< 250 UJ	< 280 UJ	< 220 UJ	< 280 UJ	< 290 UJ	< 240 UJ	< 290 UJ	< 300 UJ	< 260 UJ	< 270 UJ	< 300 UJ	< 240 UJ	< 760 UJ	< 280 UJ	< 240 UJ	< 230 UJ	< 400 UJ	< 280 UJ	< 220 UJ	< 260 UJ	< 280 UJ	< 270 UJ	< 510 UJ	< 200 UJ	< 270 UJ	< 250 UJ	< 190 UJ	< 300 UJ	< 220 UJ	< 350 UJ
Aroclor 1268	ug/kg			< 260 UJ	< 300 UJ	< 250 UJ	< 280 UJ	< 220 UJ	< 280 UJ	< 290 UJ	< 240 UJ	< 290 UJ	< 300 UJ	< 260 UJ	< 270 UJ	< 300 UJ	< 240 UJ	< 760 UJ	< 280 UJ	< 240 UJ	< 230 UJ	< 400 UJ	< 280 UJ	< 220 UJ	< 260 UJ	< 280 UJ	< 270 UJ	< 510 UJ	< 200 UJ	< 270 UJ	< 250 UJ	< 190 UJ	< 300 UJ	< 220 UJ	< 350 UJ

Notes:
ft bgs = feet below ground surface
mg/kg = milligrams per kilogram
µg/kg = micrograms per kilogram
6 NYCRR Part 375 SCO = Title 6 Official Compilation of New York Codes, Rules and Regulations Part 375 Soil Cleanup Objectives
- = no SCO established
NA = not applicable/analyzed
Qualifiers:
U = Analyte analyzed for, but not detected above the sample's reported quantitation limit
J = Analyte positively identified at a numerical value that is the approximate concentration of the analyte in the sample
J+ = Sample likely to have a high bias
J- = Sample likely to have a low bias
UJ = Analyte not detected above the sample quantitation limit; the associated quantitation limit is approximate and may or may not represent the actual limit of quantitation necessary to accurately and precisely measure the analyte in the sample
N = The analysis indicates the present of an analyte for which there is presumptive evidence to make a "tentative identification."
NJ = The analysis indicates the presence of an analyte that has been "tentatively identified" and the associated numerical value represents its approximate concentration.
R = Sample result rejected due to serious deficiency in ability to analyze sample and meet quality control criteria; the presence or absence of the analyte cannot be confirmed. This qualifier also may apply when more than one sample result is generated for a target analyte (i.e., dilutions or re-analyses), the most technically acceptable result is considered acceptable.
B/EB/TB/BB = An analyte identified in method blank (B), aqueous equipment (EB), trip (TB), or bottle blanks (BB) used to assess field contamination associated with soil or sediment samples mandates these qualifiers for only soil and sediment sample results.
P = Use professional judgment based on data use. It usually has an "M" with it, which indicates that a manual check should be made if the data that are qualified with the "P" are important to the data user. In addition, "PM" also means a decision is necessary from the Project Manager (or a delegate) concerning the need for further review of the data (see below).
PM = A manual review of the raw data is recommended to determine if the defect affects data use, as in "R" above. This review should include consideration of potential affects that could result from using the "P" qualified data. For example, in the case of holding-time exceedance, the Project Manager or delegate can decide to use the data with no qualification when analytes of interest are known not to be adversely affected by holding-time exceedances. Another example is the case where soil sample duplicate analyses for metals exceed the precision criteria; because this is likely due to sample non-homogeneity rather than contract laboratory error, then the manager or delegate must decide how to use the data.

Table 1
Soil Analytical Data

				SB-111-A	SB-111-B	SB-111-C	SB-112-A	SB-112-B	SB-112-C	SB-113-A	SB-113-B	SB-113-C	SB-114-A	SB-114-B	SB-114-C	SB-115-A	SB-115-B	SB-115-C	SB-116-A	SB-116-B	SB-116-C	SB-117-A	SB-117-B	SB-117-C	SB-117-D	SB-118-A	SB-118-B	SB-118-C	SB-119-A	SB-119-B	SB-119-C	SB-120-A	SB-120-B	SB-120-C
			Soil Sample ID																													
			Start Depth (ft bgs)	0	6	18	0	8	12	0	6	18	0	8	10	0	7	15	0	5	14	0	4	10	16	0	6	16	0	8	13	0	4	16
			End Depth (ft bgs)	1	8	20	1	10	15	1	8	20	1	10	20	1	10	17	1	7	18	2	7	12	20	1	8	20	1	10	15	1	6	20
			Sample Date	10/16/2018	10/16/2018	10/16/2018	10/16/2018	10/16/2018	10/16/2018	10/16/2018	10/16/2018	10/16/2018	10/16/2018	10/16/2018	10/16/2018	10/12/2018	10/12/2018	10/12/2018	10/12/2018	10/12/2018	10/12/2018	10/12/2018	10/12/2018	10/12/2018	10/12/2018	10/12/2018	10/12/2018	10/12/2018	10/11/2018	10/11/2018	10/11/2018	10/11/2018	10/11/2018	10/11/2018
Analyte	Units	6 NYCRR PART 375 UNRESTRICTED USE SCO	6 NYCRR PART 375 COMMERCIAL USE SCO																													
SW8081B																																
4,4'-DDD	ug/kg	**3.3**	92000	< 6.1 UJ	< 6.0 U	< 6.4 U	< 5.5 U	< 140 U	< 16 UJ	< 66 U	< 7.0 UJ	< 6.1 U	< 6.0 U	< 29 U	< 31 U	< 20 UJ	< 1.9 UJ	< 1.9 UJ	< 19 UJ	< 2.2 UJ	< 2.1 UJ	< 1.9 UJ	< 2.0 UJ	< 2.8 UJ	< 2.0 UJ	< 10 UJ	< 2.0 UJ	< 2.0 UJ	< 41 UJ	< 1.9 UJ	< 2.1 UJ	< 180 UJ	< 2.0 UJ	< 2.4 UJ
4,4'-DDE	ug/kg	**3.3**	62000	< 6.1 UJ	< 6.0 U	< 6.4 U	< 5.5 U	< 140 U	< 16 UJ	< 66 U	< 7.0 UJ	< 6.1 U	< 6.0 U	< 29 U	< 31 U	< 20 UJ	< 1.9 UJ	< 1.9 UJ	< 19 UJ	< 2.2 UJ	< 2.1 UJ	1.6 UJ	< 2.0 UJ	< 2.8 UJ	< 2.0 UJ	< 10 UJ	< 2.0 UJ	< 2.0 UJ	< 41 UJ	< 1.9 UJ	< 2.1 UJ	< 180 UJ	< 2.0 UJ	< 2.4 UJ
4,4'-DDT	ug/kg	**3.3**	47000	< 6.1 UJ	< 6.0 U	< 6.4 U	< 5.5 U	< 140 U	< 16 UJ	< 66 U	< 7.0 UJ	< 6.1 U	< 6.0 U	< 29 U	< 31 U	< 20 UJ	< 1.9 UJ	< 1.9 UJ	**9.4 UJ**	< 2.2 UJ	< 2.1 UJ	2.4 J	< 2.0 UJ	< 2.8 UJ	< 2.0 UJ	**5.2 UJ**	< 2.0 UJ	< 2.0 UJ	**20 UJ**	< 1.9 UJ	< 2.1 UJ	< 180 UJ	0.73 UJ	< 2.4 UJ
Aldrin	ug/kg	**5**	680	< 6.1 UJ	< 6.0 U	< 6.4 U	< 5.5 U	< 140 U	< 16 UJ	< 66 U	< 7.0 UJ	< 6.1 U	< 6.0 U	< 29 U	< 31 U	< 20 UJ	< 1.9 UJ	< 1.9 UJ	< 19 UJ	< 2.2 UJ	< 2.1 UJ	< 1.9 UJ	< 2.0 UJ	< 2.8 UJ	< 2.0 UJ	< 10 UJ	< 2.0 UJ	< 2.0 UJ	< 41 UJ	< 1.9 UJ	< 2.1 UJ	< 180 UJ	< 2.0 UJ	< 2.4 UJ
Alpha-BHC	ug/kg	20	3400	< 6.1 UJ	< 6.0 U	< 6.4 U	< 5.5 U	< 140 U	< 16 UJ	< 66 U	< 7.0 UJ	< 6.1 U	< 6.0 U	< 29 U	< 31 U	< 20 UJ	< 1.9 UJ	< 1.9 UJ	7.5 UJ	< 2.2 UJ	< 2.1 UJ	< 1.9 UJ	< 2.0 UJ	< 2.8 UJ	< 2.0 UJ	4.1 UJ	< 2.0 UJ	< 2.0 UJ	< 41 UJ	< 1.9 UJ	0.98 UJ	< 180 UJ	< 2.0 UJ	< 2.4 UJ
alpha-Chlordane	ug/kg	94	24000	< 6.1 UJ	< 6.0 U	< 6.4 U	< 5.5 U	< 140 U	< 16 UJ	< 66 U	< 7.0 UJ	< 6.1 U	< 6.0 U	< 29 U	< 31 U	< 20 UJ	< 1.9 UJ	< 1.9 UJ	< 19 UJ	< 2.2 UJ	< 2.1 UJ	< 1.9 UJ	< 2.0 UJ	< 2.8 UJ	< 2.0 UJ	< 10 UJ	< 2.0 UJ	< 2.0 UJ	< 41 UJ	< 1.9 UJ	< 2.1 UJ	< 180 UJ	< 2.0 UJ	< 2.4 UJ
Beta-BHC	ug/kg	**36**	3000	< 6.1 UJ	5.8 UJ	< 6.4 UJ	< 5.5 UJ	**130 UJ**	< 16 UJ	< 66 UJ	6.3 UJ	< 6.1 UJ	5.1 UJ	23 UJ	31 UJ	5.8 UJ	< 1.9 UJ	< 1.9 UJ	13 UJ	< 2.2 UJ	< 2.1 UJ	< 1.9 UJ	< 2.0 UJ	< 2.8 UJ	< 2.0 UJ	4.7 UJ	< 2.0 UJ	< 2.0 UJ	< 41 UJ	< 1.9 UJ	< 2.1 UJ	< 180 UJ	< 2.0 UJ	< 2.4 UJ
Delta-BHC	ug/kg	40	500000	< 120 UJ	< 120 U	< 6.4 U	< 110 U	< 140 U	< 3300 UJ	< 66 U	< 7.0 UJ	< 6.1 U	< 6.0 U	< 29 U	< 31 U	< 20 UJ	< 1.9 UJ	< 1.9 UJ	< 19 UJ	0.44 UJ	< 2.1 UJ	< 1.9 UJ	< 2.0 UJ	< 2.8 UJ	< 2.0 UJ	< 10 UJ	< 2.0 UJ	< 2.0 UJ	< 41 UJ	< 1.9 UJ	< 2.1 UJ	< 180 UJ	< 2.0 UJ	< 2.4 UJ
Dieldrin	ug/kg	**5**	1400	< 6.1 UJ	< 6.0 U	< 6.4 U	< 5.5 U	< 140 U	< 16 UJ	< 66 U	< 7.0 UJ	< 6.1 U	< 6.0 U	< 29 U	< 31 U	< 20 UJ	< 1.9 UJ	< 1.9 UJ	< 19 UJ	< 2.2 UJ	< 2.1 UJ	< 1.9 UJ	< 2.0 UJ	< 2.8 UJ	< 2.0 UJ	< 10 UJ	< 2.0 UJ	< 2.0 UJ	< 41 UJ	< 1.9 UJ	< 2.1 UJ	< 180 UJ	< 2.0 UJ	< 2.4 UJ
Endosulfan I	ug/kg	2400	200000	< 6.1 UJ	< 6.0 U	< 6.4 U	< 5.5 U	< 140 U	< 16 UJ	< 66 U	< 7.0 UJ	< 6.1 U	< 6.0 U	< 29 U	< 31 U	< 20 UJ	< 1.9 UJ	< 1.9 UJ	< 19 UJ	< 2.2 UJ	< 2.1 UJ	< 1.9 UJ	< 2.0 UJ	< 2.8 UJ	< 2.0 UJ	< 10 UJ	< 2.0 UJ	< 2.0 UJ	< 41 UJ	< 1.9 UJ	< 2.1 UJ	< 180 UJ	< 2.0 UJ	< 2.4 UJ
Endosulfan II	ug/kg	2400	200000	< 6.1 UJ	< 6.0 U	< 6.4 U	< 5.5 U	< 140 U	7.2 UJ	< 66 U	< 7.0 UJ	< 6.1 U	< 6.0 U	< 29 U	< 31 U	< 20 UJ	< 1.9 UJ	< 1.9 UJ	< 19 UJ	< 2.2 UJ	< 2.1 UJ	< 1.9 UJ	< 2.0 UJ	< 2.8 UJ	< 2.0 UJ	< 10 UJ	< 2.0 UJ	< 2.0 UJ	< 41 UJ	< 1.9 UJ	< 2.1 UJ	< 180 UJ	< 2.0 UJ	< 2.4 UJ
Endosulfan Sulfate	ug/kg	2400	200000	< 120 UJ	< 120 U	< 6.4 U	< 110 U	< 140 U	< 3300 UJ	< 66 U	< 7.0 UJ	< 6.1 U	< 6.0 U	< 29 U	< 31 U	< 20 UJ	< 1.9 UJ	< 1.9 UJ	< 19 UJ	< 2.2 UJ	< 2.1 UJ	< 1.9 UJ	< 2.0 UJ	0.79 UJ	< 2.0 UJ	< 10 UJ	< 2.0 UJ	< 2.0 UJ	< 41 UJ	< 1.9 UJ	< 2.1 UJ	< 180 UJ	< 2.0 UJ	< 2.4 UJ
Endrin	ug/kg	14	89000	< 6.1 UJ	< 6.0 U	< 6.4 U	< 5.5 U	< 140 U	< 16 UJ	< 66 U	< 7.0 UJ	< 6.1 U	< 6.0 U	< 29 U	< 31 U	< 20 UJ	< 1.9 UJ	< 1.9 UJ	< 19 UJ	< 2.2 UJ	< 2.1 UJ	< 1.9 UJ	< 2.0 UJ	< 2.8 UJ	< 2.0 UJ	< 10 UJ	< 2.0 UJ	< 2.0 UJ	< 41 UJ	< 1.9 UJ	< 2.1 UJ	< 180 UJ	< 2.0 UJ	< 2.4 UJ
Endrin Aldehyde	ug/kg	-	-	< 120 UJ	< 120 U	< 6.4 U	< 110 U	< 140 U	< 3300 UJ	< 66 U	< 7.0 UJ	< 6.1 U	< 6.0 U	< 29 U	< 31 U	< 20 UJ	< 1.9 UJ	< 1.9 UJ	< 19 UJ	< 2.2 UJ	< 2.1 UJ	< 1.9 UJ	< 2.0 UJ	< 2.8 UJ	< 2.0 UJ	< 10 UJ	< 2.0 UJ	< 2.0 UJ	< 41 UJ	< 1.9 UJ	< 2.1 UJ	< 180 UJ	< 2.0 UJ	< 2.4 UJ
Endrin Ketone	ug/kg	-	-	< 6.1 UJ	< 6.0 U	< 6.4 U	< 5.5 U	< 140 U	< 16 UJ	< 66 U	< 7.0 UJ	< 6.1 U	< 6.0 U	< 29 U	< 31 U	< 20 UJ	< 1.9 UJ	< 1.9 UJ	< 19 UJ	< 2.2 UJ	< 2.1 UJ	< 1.9 UJ	< 2.0 UJ	< 2.8 UJ	< 2.0 UJ	< 10 UJ	< 2.0 UJ	< 2.0 UJ	< 41 UJ	< 1.9 UJ	< 2.1 UJ	< 180 UJ	< 2.0 UJ	< 2.4 UJ
Gamma-BHC	ug/kg	100	9200	< 6.1 UJ	< 6.0 U	< 6.4 U	< 5.5 U	< 140 U	< 16 UJ	< 66 U	< 7.0 UJ	< 6.1 U	< 6.0 U	< 29 U	< 31 U	< 20 UJ	< 1.9 UJ	< 1.9 UJ	< 19 UJ	< 2.2 UJ	0.47 UJ	< 1.9 UJ	< 2.0 UJ	< 2.8 UJ	< 2.0 UJ	< 10 UJ	< 2.0 UJ	< 2.0 UJ	< 41 UJ	< 1.9 UJ	< 2.1 UJ	< 180 UJ	< 2.0 UJ	< 2.4 UJ
Gamma-Chlordane	ug/kg			< 6.1 UJ	< 6.0 U	< 6.4 U	< 5.5 U	< 140 U	< 16 UJ	< 66 U	< 7.0 UJ	< 6.1 U	< 6.0 U	< 29 U	< 31 U	< 20 UJ	< 1.9 UJ	< 1.9 UJ	< 19 UJ	< 2.2 UJ	< 2.1 UJ	< 1.9 UJ	< 2.0 UJ	< 2.8 UJ	< 2.0 UJ	< 10 UJ	< 2.0 UJ	< 2.0 UJ	< 41 UJ	< 1.9 UJ	< 2.1 UJ	< 180 UJ	< 2.0 UJ	< 2.4 UJ
Heptachlor	ug/kg	42	15000	< 6.1 UJ	< 6.0 U	< 6.4 U	< 5.5 U	< 140 U	< 16 UJ	< 66 U	< 7.0 UJ	< 6.1 U	< 6.0 U	< 29 U	< 31 U	< 20 UJ	< 1.9 UJ	< 1.9 UJ	< 19 UJ	< 2.2 UJ	< 2.1 UJ	< 1.9 UJ	< 2.0 UJ	< 2.8 UJ	< 2.0 UJ	< 10 UJ	< 2.0 UJ	< 2.0 UJ	< 41 UJ	< 1.9 UJ	< 2.1 UJ	< 180 UJ	< 2.0 UJ	< 2.4 UJ
Heptachlor Epoxide	ug/kg	-	-	< 6.1 UJ	< 6.0 U	< 6.4 U	< 5.5 U	< 140 U	< 16 UJ	< 66 U	< 7.0 UJ	< 6.1 U	< 6.0 U	< 29 U	< 31 U	< 20 UJ	< 1.9 UJ	< 1.9 UJ	< 19 UJ	< 2.2 UJ	< 2.1 UJ	< 1.9 UJ	< 2.0 UJ	< 2.8 UJ	< 2.0 UJ	< 10 UJ	< 2.0 UJ	< 2.0 UJ	< 41 UJ	< 1.9 UJ	< 2.1 UJ	< 180 UJ	< 2.0 UJ	< 2.4 UJ
Methoxychlor	ug/kg	-	-	< 12 UJ	< 12 U	< 13 U	< 11 U	< 270 U	< 33 UJ	< 130 U	< 14 UJ	< 12 U	< 12 U	< 59 U	< 62 U	< 20 UJ	< 1.9 UJ	< 1.9 UJ	< 19 UJ	< 2.2 UJ	< 2.1 UJ	< 1.9 UJ	< 2.0 UJ	< 2.8 UJ	< 2.0 UJ	< 10 UJ	< 2.0 UJ	< 2.0 UJ	< 41 UJ	< 1.9 UJ	< 2.1 UJ	< 180 UJ	< 2.0 UJ	< 2.4 UJ
Toxaphene	ug/kg	-	-	< 120 UJ	< 120 U	< 130 U	< 110 U	< 2700 U	< 330 UJ	< 1300 U	< 140 UJ	< 120 U	< 120 U	< 590 U	< 620 U	< 200 UJ	< 19 UJ	< 19 UJ	< 190 UJ	< 22 UJ	< 21 UJ	< 19 UJ	< 20 UJ	< 28 UJ	< 20 UJ	< 100 UJ	< 20 UJ	< 20 UJ	< 410 UJ	< 19 UJ	< 21 UJ	< 1800 UJ	< 20 UJ	< 24 UJ
SW8082A																																
Aroclor 1016	ug/kg			< 61 UJ	< 120 UJ	< 67 UJ	< 58 UJ	< 140 UJ	< 160 UJ	< 65 UJ	< 140 UJ	< 64 UJ	< 62 UJ	< 120 UJ	< 120 UJ	< 250 UJ	< 250 UJ	< 220 UJ	< 210 UJ	< 280 UJ	< 280 UJ	< 250 UJ	< 210 UJ	< 320 UJ	< 250 UJ	< 260 UJ	< 250 UJ	< 250 UJ	< 240 UJ	< 230 UJ	< 230 UJ	< 210 UJ	< 220 UJ	< 290 UJ
Aroclor 1221	ug/kg			< 61 UJ	< 120 UJ	< 67 UJ	< 58 UJ	< 140 UJ	< 160 UJ	< 65 UJ	< 140 UJ	< 64 UJ	< 62 UJ	< 120 UJ	< 120 UJ	< 250 UJ	< 250 UJ	< 220 UJ	< 210 UJ	< 280 UJ	< 280 UJ	< 250 UJ	< 210 UJ	< 320 UJ	< 250 UJ	< 260 UJ	< 250 UJ	< 250 UJ	< 240 UJ	< 230 UJ	< 230 UJ	< 210 UJ	< 220 UJ	< 290 UJ
Aroclor 1232	ug/kg			< 61 UJ	< 120 UJ	< 67 UJ	< 58 UJ	< 140 UJ	< 160 UJ	< 65 UJ	< 140 UJ	< 64 UJ	< 62 UJ	< 120 UJ	< 120 UJ	< 250 UJ	< 250 UJ	< 220 UJ	< 210 UJ	< 280 UJ	< 280 UJ	< 250 UJ	< 210 UJ	< 320 UJ	< 250 UJ	< 260 UJ	< 250 UJ	< 250 UJ	< 240 UJ	< 230 UJ	< 230 UJ	< 210 UJ	< 220 UJ	< 290 UJ
Aroclor 1242	ug/kg			< 61 UJ	< 120 UJ	< 67 UJ	< 58 UJ	< 140 UJ	< 160 UJ	< 65 UJ	< 140 UJ	< 64 UJ	< 62 UJ	< 120 UJ	< 120 UJ	< 250 UJ	< 250 UJ	< 220 UJ	< 210 UJ	< 280 UJ	< 280 UJ	< 250 UJ	< 210 UJ	< 320 UJ	< 250 UJ	< 260 UJ	< 250 UJ	< 250 UJ	< 240 UJ	< 230 UJ	< 230 UJ	< 210 UJ	< 220 UJ	< 290 UJ
Aroclor 1248	ug/kg	**100**	1000	< 61 UJ	< 120 UJ	< 67 UJ	< 58 UJ	< 140 UJ	< 160 UJ	< 65 UJ	< 140 UJ	< 64 UJ	< 62 UJ	< 120 UJ	< 120 UJ	< 250 UJ	< 250 UJ	< 220 UJ	< 210 UJ	< 280 UJ	< 280 UJ	< 250 UJ	< 210 UJ	< 320 UJ	< 250 UJ	< 260 UJ	< 250 UJ	< 250 UJ	< 240 UJ	< 230 UJ	< 230 UJ	< 210 UJ	< 220 UJ	< 290 UJ
Aroclor 1254	ug/kg			< 61 UJ	< 120 UJ	< 67 UJ	< 58 UJ	< 140 UJ	< 160 UJ	< 65 UJ	< 140 UJ	< 64 UJ	< 62 UJ	< 120 UJ	< 120 UJ	< 250 UJ	< 250 UJ	< 220 UJ	< 210 UJ	< 280 UJ	< 280 UJ	< 250 UJ	< 210 UJ	< 320 UJ	< 250 UJ	< 260 UJ	< 250 UJ	< 250 UJ	< 240 UJ	< 230 UJ	< 230 UJ	< 210 UJ	< 220 UJ	< 290 UJ
Aroclor 1260	ug/kg			< 61 UJ	< 120 UJ	< 67 UJ	< 58 UJ	< 140 UJ	< 160 UJ	< 65 UJ	< 140 UJ	< 64 UJ	< 62 UJ	< 120 UJ	< 120 UJ	< 250 UJ	< 250 UJ	< 220 UJ	< 210 UJ	< 280 UJ	< 280 UJ	< 250 UJ	< 210 UJ	< 320 UJ	< 250 UJ	< 260 UJ	< 250 UJ	< 250 UJ	< 240 UJ	< 230 UJ	< 230 UJ	< 210 UJ	< 220 UJ	< 290 UJ
Aroclor 1262	ug/kg			< 61 UJ	< 120 UJ	< 67 UJ	< 58 UJ	< 140 UJ	< 160 UJ	< 65 UJ	< 140 UJ	< 64 UJ	< 62 UJ	< 120 UJ	< 120 UJ	< 250 UJ	< 250 UJ	< 220 UJ	< 210 UJ	< 280 UJ	< 280 UJ	< 250 UJ	< 210 UJ	< 320 UJ	< 250 UJ	< 260 UJ	< 250 UJ	< 250 UJ	< 240 UJ	< 230 UJ	< 230 UJ	< 210 UJ	< 220 UJ	< 290 UJ
Aroclor 1268	ug/kg			< 61 UJ	< 120 UJ	< 67 UJ	< 58 UJ	< 140 UJ	< 160 UJ	< 65 UJ	< 140 UJ	< 64 UJ	< 62 UJ	< 120 UJ	< 120 UJ	< 250 UJ	< 250 UJ	< 220 UJ	< 210 UJ	< 280 UJ	< 280 UJ	< 250 UJ	< 210 UJ	< 320 UJ	< 250 UJ	< 260 UJ	< 250 UJ	< 250 UJ	< 240 UJ	< 230 UJ	< 230 UJ	< 210 UJ	< 220 UJ	< 290 UJ

Notes:
ft bgs = feet below ground surface
mg/kg = milligrams per kilogram
µg/kg = micrograms per kilogram
6 NYCRR Part 375 SCO = Title 6 Official Compilation of New York Codes, Rules and Regulations Part 375 Soil Cleanup Objectives
- = no SCO established
NA = not applicable/analyzed
Qualifiers:
U = Analyte analyzed for, but not detected above the sample's reported quantitation limit
J = Analyte positively identified at a numerical value that is the approximate concentration of the analyte in the sample
J+ = Sample likely to have a high bias
J- = Sample likely to have a low bias
UJ = Analyte not detected above the sample quantitation limit; the associated quantitation limit is approximate and may or may not represent the actual limit of quantitation necessary to accurately and precisely measure the analyte in the sample
N = The analysis indicates the present of an analyte for which there is presumptive evidence to make a "tentative identification."
NJ = The analysis indicates the presence of an analyte that has been "tentatively identified" and the associated numerical value represents its approximate concentration.
R = Sample result rejected due to serious deficiency in ability to analyze sample and meet quality control criteria; the presence or absence of the analyte cannot be confirmed. This qualifier also may apply when more than one sample result is generated for a target analyte (i.e., dilutions or re-analyses), the most technically acceptable result is considered acceptable.
B/EB/TB/BB = An analyte identified in method blank (B), aqueous equipment (EB), trip (TB), or bottle blanks (BB) used to assess field contamination associated with soil or sediment samples mandates these qualifiers for only soil and sediment sample results.
P = Use professional judgment based on data use. It usually has an "M" with it, which indicates that a manual check should be made if the data that are qualified with the "P" are important to the data user. In addition, "PM" also means a decision is necessary from the Project Manager (or a delegate) concerning the need for further review of the data (see below).
PM = A manual review of the raw data is recommended to determine if the defect affects data use, as in "R" above. This review should include consideration of potential affects that could result from using the "P" qualified data. For example, in the case of holding-time exceedance, the Project Manager or delegate can decide to use the data with no qualification when analytes of interest are known not to be adversely affected by holding-time exceedances. Another example is the case where soil sample duplicate analyses for metals exceed the precision criteria; because this is likely due to sample non-homogeneity rather than contract laboratory error, then the manager or delegate must decide how to use the data.

Table 1
Soil Analytical Data

				SB-121-A	SB-121-B	SB-121-C	SB-121-D	SB-122-A	SB-122-B	SB-122-C	SB-123-A	SB-123-B	SB-123-C	SB-124-A	SB-124-B	SB-124-C	SB-125-A	SB-125-B	SB-125-C	SB-126-A	SB-126-B	SB-126-C	SB-127-A	SB-127-B	SB-127-C	SB-128-A	SB-128-B	SB-128-C	SB-129-A	SB-129-B	SB-129-C	SB-130-A	SB-130-B	SB-130-C
			Soil Sample ID																													
			Start Depth (ft bgs)	0	8	17	10	0	8	18	0	10	18	0	12	18	0	5	16.5	0	1	14.5	0	5	18	0	5	14	0	6	16	0	6	15
			End Depth (ft bgs)	1	10	20	12	2	10	20	1	12	20	1	14	20	1	6	18	1	4	15.5	5	10	20	2	7	16	2	7	17	3	10	18
			Sample Date	10/16/2018	10/16/2018	10/16/2018	10/16/2018	10/16/2018	10/16/2018	10/16/2018	10/16/2018	10/16/2018	10/16/2018	10/16/2018	10/16/2018	10/16/2018	10/17/2018	10/17/2018	10/17/2018	10/17/2018	10/17/2018	10/17/2018	10/17/2018	10/17/2018	10/17/2018	10/17/2018	10/17/2018	10/17/2018	10/17/2018	10/17/2018	10/17/2018	10/17/2018	10/17/2018	10/17/2018
Analyte	Units	6 NYCRR PART 375 UNRESTRICTED USE SCO	6 NYCRR PART 375 COMMERCIAL USE SCO																													
SW8081B																																
4,4'-DDD	ug/kg	**3.3**	92000	< 120 U	< 30 U	< 61 U	< 11 U	< 5.9 U	< 5.6 U	< 15 UJ	**14 UJ**	< 30 UJ	< 6.2 U	< 30 U	< 11 UJ	< 5.8 U	< 6.1 UJ	< 6.1 UJ	< 110 UJ	< 6.3 UJ	**6.4 J**	< 12 UJ	< 28 UJ	< 110 UJ	< 19 UJ	< 6.1 UJ	< 5.6 UJ	< 20 UJ	< 6.2 UJ	< 6.3 UJ	< 5.7 UJ	< 6.8 UJ	< 6.4 UJ	< 5.9 UJ
4,4'-DDE	ug/kg	**3.3**	62000	< 120 U	< 30 U	< 61 U	< 11 U	**7.3**	< 5.6 U	< 15 UJ	< 31 UJ	< 30 UJ	< 6.2 U	< 30 U	< 11 UJ	< 5.8 U	1.8 UJ	< 6.1 UJ	< 110 UJ	< 6.3 UJ	**3.4 UJ**	< 12 UJ	< 28 UJ	< 110 UJ	< 19 UJ	< 6.1 UJ	< 5.6 UJ	< 20 UJ	< 6.2 UJ	< 6.3 UJ	< 5.7 UJ	< 6.8 UJ	< 6.4 UJ	< 5.9 UJ
4,4'-DDT	ug/kg	**3.3**	47000	< 120 U	< 30 U	< 61 U	< 11 U	< 5.9 U	< 5.6 U	< 15 UJ	< 31 UJ	< 30 UJ	< 6.2 U	**26 UJ**	< 11 UJ	< 5.8 U	< 6.1 UJ	< 6.1 UJ	< 110 UJ	< 6.3 UJ	**5.4 UJ**	**11 UJ**	< 28 UJ	< 110 UJ	< 19 UJ	< 6.1 UJ	< 5.6 UJ	< 20 UJ	< 6.2 UJ	< 6.3 UJ	< 5.7 UJ	< 6.8 UJ	< 6.4 UJ	< 5.9 UJ
Aldrin	ug/kg	**5**	680	< 120 U	< 30 U	< 61 U	< 11 U	< 5.9 U	< 5.6 U	< 15 UJ	< 31 UJ	< 30 UJ	< 6.2 U	< 30 U	< 11 UJ	< 5.8 U	< 6.1 UJ	< 6.1 UJ	< 110 UJ	< 6.3 UJ	< 5.9 UJ	< 12 UJ	< 28 UJ	< 110 UJ	3.6 UJ	< 6.1 UJ	2.0 UJ	**8.2 UJ**	< 6.2 UJ	< 6.3 UJ	< 5.7 UJ	1.0 UJ	< 6.4 UJ	< 5.9 UJ
Alpha-BHC	ug/kg	20	3400	< 120 U	< 30 U	< 61 U	< 11 U	< 5.9 U	< 5.6 U	< 15 UJ	< 31 UJ	< 30 UJ	< 6.2 U	< 30 U	< 11 UJ	< 5.8 U	< 6.1 UJ	< 6.1 UJ	< 110 UJ	< 6.3 UJ	< 5.9 UJ	< 12 UJ	< 28 UJ	< 110 UJ	< 19 UJ	< 6.1 UJ	< 5.6 UJ	< 20 UJ	< 6.2 UJ	< 6.3 UJ	< 5.7 UJ	< 6.8 UJ	< 6.4 UJ	< 5.9 UJ
alpha-Chlordane	ug/kg	94	24000	< 120 U	< 30 U	< 61 U	< 11 U	< 5.9 U	< 5.6 U	< 15 UJ	< 31 UJ	< 30 UJ	< 6.2 U	< 30 U	< 11 UJ	< 5.8 U	< 6.1 UJ	< 6.1 UJ	< 110 UJ	< 6.3 UJ	< 5.9 UJ	< 12 UJ	< 28 UJ	< 110 UJ	< 19 UJ	< 6.1 UJ	< 5.6 UJ	< 20 UJ	< 6.2 UJ	< 6.3 UJ	< 5.7 UJ	< 6.8 UJ	< 6.4 UJ	< 5.9 UJ
Beta-BHC	ug/kg	**36**	3000	< 120 UJ	< 30 UJ	< 61 UJ	< 11 UJ	3.1 UJ	3.2 UJ	< 15 UJ	< 31 UJ	< 30 UJ	2.5 UJ	< 30 U	< 11 UJ	4.1 UJ	< 6.1 UJ	26 J	**190 J**	< 6.3 UJ	< 5.9 UJ	< 12 UJ	27 UJ	**320 J**	< 19 UJ	< 6.1 UJ	< 5.6 UJ	< 20 UJ	3.1 UJ	< 6.3 UJ	6.7 J	< 6.8 UJ	2.3 UJ	< 5.9 UJ
Delta-BHC	ug/kg	40	500000	< 120 U	< 30 U	< 61 U	< 1100 U	< 290 U	< 110 U	< 310 UJ	< 31 UJ	< 30 UJ	< 6.2 U	< 30 U	< 1100 UJ	< 5.8 U	< 120 UJ	< 6.1 UJ	< 110 UJ	< 63 UJ	< 120 UJ	< 1200 UJ	< 28 UJ	< 110 UJ	< 190 UJ	< 120 UJ	< 110 UJ	< 200 UJ	< 62 UJ	< 63 UJ	< 5.7 UJ	< 140 UJ	< 640 UJ	< 59 UJ
Dieldrin	ug/kg	**5**	1400	< 120 U	< 30 U	< 61 U	< 11 U	< 5.9 U	< 5.6 U	< 15 UJ	< 31 UJ	< 30 UJ	< 6.2 U	< 30 U	< 11 UJ	< 5.8 U	< 6.1 UJ	< 6.1 UJ	< 110 UJ	1.8 UJ	< 5.9 UJ	< 12 UJ	< 28 UJ	< 110 UJ	< 19 UJ	< 6.1 UJ	< 5.6 UJ	< 20 UJ	< 6.2 UJ	< 6.3 UJ	< 5.7 UJ	< 6.8 UJ	< 6.4 UJ	< 5.9 UJ
Endosulfan I	ug/kg	2400	200000	< 120 U	< 30 U	< 61 U	< 11 U	< 5.9 U	< 5.6 U	< 15 UJ	< 31 UJ	< 30 UJ	< 6.2 U	< 30 U	< 11 UJ	< 5.8 U	< 6.1 UJ	< 6.1 UJ	< 110 UJ	< 6.3 UJ	< 5.9 UJ	< 12 UJ	< 28 UJ	< 110 UJ	< 19 UJ	< 6.1 UJ	< 5.6 UJ	< 20 UJ	< 6.2 UJ	< 6.3 UJ	< 5.7 UJ	< 6.8 UJ	< 6.4 UJ	< 5.9 UJ
Endosulfan II	ug/kg	2400	200000	< 120 U	< 30 U	< 61 U	< 11 U	< 5.9 U	< 5.6 U	< 15 UJ	< 31 UJ	< 30 UJ	< 6.2 U	< 30 U	< 11 UJ	< 5.8 U	2.0 UJ	< 6.1 UJ	< 110 UJ	< 6.3 UJ	< 5.9 UJ	< 12 UJ	< 28 UJ	< 110 UJ	< 19 UJ	< 6.1 UJ	< 5.6 UJ	< 20 UJ	< 6.2 UJ	< 6.3 UJ	< 5.7 UJ	< 6.8 UJ	< 6.4 UJ	< 5.9 UJ
Endosulfan Sulfate	ug/kg	2400	200000	< 120 U	< 30 U	< 61 U	< 1100 U	< 290 U	< 110 U	< 310 UJ	< 31 UJ	< 30 UJ	< 6.2 U	< 30 U	< 1100 UJ	< 5.8 U	< 120 UJ	< 6.1 UJ	< 110 UJ	< 63 UJ	< 120 UJ	< 1200 UJ	< 28 UJ	< 110 UJ	< 190 UJ	< 120 UJ	< 110 UJ	< 200 UJ	< 62 UJ	< 63 UJ	< 5.7 UJ	< 140 UJ	< 640 UJ	< 59 UJ
Endrin	ug/kg	14	89000	< 120 U	< 30 U	< 61 U	< 11 U	< 5.9 U	< 5.6 U	< 15 UJ	< 31 UJ	< 30 UJ	< 6.2 U	< 30 U	< 11 UJ	< 5.8 U	< 6.1 UJ	< 6.1 UJ	< 110 UJ	2.9 UJ	< 5.9 UJ	< 12 UJ	< 28 UJ	< 110 UJ	< 19 UJ	< 6.1 UJ	< 5.6 UJ	< 20 UJ	< 6.2 UJ	< 6.3 UJ	< 5.7 UJ	< 6.8 UJ	< 6.4 UJ	< 5.9 UJ
Endrin Aldehyde	ug/kg	-	-	< 120 U	< 30 U	< 61 U	< 1100 U	< 290 U	< 110 U	< 310 UJ	< 31 UJ	< 30 UJ	< 6.2 U	< 30 U	< 1100 UJ	< 5.8 U	< 120 UJ	< 6.1 UJ	< 110 UJ	< 63 UJ	< 120 UJ	< 1200 UJ	< 28 UJ	< 110 UJ	< 190 UJ	< 120 UJ	< 110 UJ	< 200 UJ	< 62 UJ	< 63 UJ	< 5.7 UJ	< 140 UJ	< 640 UJ	< 59 UJ
Endrin Ketone	ug/kg	-	-	< 120 U	< 30 U	< 61 U	< 11 U	< 5.9 U	< 5.6 U	< 15 UJ	< 31 UJ	< 30 UJ	< 6.2 U	< 30 U	< 11 UJ	< 5.8 U	2.1 UJ	< 6.1 UJ	< 110 UJ	3.2 UJ	< 5.9 UJ	< 12 UJ	< 28 UJ	< 110 UJ	< 19 UJ	< 6.1 UJ	< 5.6 UJ	< 20 UJ	< 6.2 UJ	< 6.3 UJ	< 5.7 UJ	< 6.8 UJ	< 6.4 UJ	< 5.9 UJ
Gamma-BHC	ug/kg	100	9200	< 120 U	< 30 U	< 61 U	< 11 U	< 5.9 U	< 5.6 U	< 15 UJ	< 31 UJ	< 30 UJ	< 6.2 U	< 30 U	< 11 UJ	< 5.8 U	< 6.1 UJ	< 6.1 UJ	< 110 UJ	< 6.3 UJ	< 5.9 UJ	< 12 UJ	< 28 UJ	< 110 UJ	< 19 UJ	< 6.1 UJ	< 5.6 UJ	< 20 UJ	< 6.2 UJ	< 6.3 UJ	< 5.7 UJ	< 6.8 UJ	< 6.4 UJ	< 5.9 UJ
Gamma-Chlordane	ug/kg			< 120 U	< 30 U	< 61 U	< 11 U	< 5.9 U	< 5.6 U	< 15 UJ	< 31 UJ	< 30 UJ	< 6.2 U	< 30 U	< 11 UJ	< 5.8 U	< 6.1 UJ	< 6.1 UJ	< 110 UJ	< 6.3 UJ	< 5.9 UJ	< 12 UJ	< 28 UJ	< 110 UJ	< 19 UJ	< 6.1 UJ	< 5.6 UJ	< 20 UJ	< 6.2 UJ	< 6.3 UJ	< 5.7 UJ	< 6.8 UJ	< 6.4 UJ	< 5.9 UJ
Heptachlor	ug/kg	42	15000	< 120 U	< 30 U	< 61 U	< 11 U	< 5.9 U	< 5.6 U	< 15 UJ	< 31 UJ	< 30 UJ	< 6.2 U	< 30 U	< 11 UJ	< 5.8 U	< 6.1 UJ	< 6.1 UJ	< 110 UJ	< 6.3 UJ	< 5.9 UJ	< 12 UJ	< 28 UJ	< 110 UJ	< 19 UJ	< 6.1 UJ	< 5.6 UJ	< 20 UJ	< 6.2 UJ	< 6.3 UJ	< 5.7 UJ	< 6.8 UJ	< 6.4 UJ	< 5.9 UJ
Heptachlor Epoxide	ug/kg	-	-	< 120 U	< 30 U	< 61 U	< 11 U	< 5.9 U	< 5.6 U	< 15 UJ	< 31 UJ	< 30 UJ	< 6.2 U	< 30 U	< 11 UJ	< 5.8 U	< 6.1 UJ	< 6.1 UJ	< 110 UJ	6.7 J	3.5 UJ	< 12 UJ	< 28 UJ	< 110 UJ	< 19 UJ	< 6.1 UJ	< 5.6 UJ	< 20 UJ	< 6.2 UJ	< 6.3 UJ	< 5.7 UJ	< 6.8 UJ	< 6.4 UJ	< 5.9 UJ
Methoxychlor	ug/kg	-	-	< 240 U	< 61 U	< 120 U	< 23 U	< 12 U	< 11 U	< 31 UJ	< 61 UJ+	< 60 UJ+	< 12 UJ+	< 60 UJ+	< 23 UJ+	< 12 UJ+	< 61 UJ+	< 12 UJ+	< 220 UJ+	< 13 UJ+	< 12 UJ+	< 25 UJ+	< 57 UJ+	< 230 UJ+	< 38 UJ+	< 12 UJ+	< 11 UJ+	< 41 UJ+	< 12 UJ+	< 13 UJ+	< 11 UJ+	< 14 UJ+	< 13 UJ+	< 12 UJ+
Toxaphene	ug/kg	-	-	< 2400 U	< 610 U	< 1200 U	< 230 U	< 120 U	< 110 U	< 310 UJ	< 610 UJ	< 600 UJ	< 120 U	< 600 U	< 230 UJ	< 120 U	< 120 UJ	< 120 UJ	< 2200 UJ	< 130 UJ	< 120 UJ	< 250 UJ	< 570 UJ	< 2300 UJ	< 380 UJ	< 120 UJ	< 110 UJ	< 410 UJ	< 120 UJ	< 130 UJ	< 110 UJ	< 140 UJ	< 130 UJ	< 120 UJ
SW8082A																																
Aroclor 1016	ug/kg			< 62 UJ	< 120 UJ	< 62 UJ	< 110 UJ	< 300 UJ	< 110 UJ	< 150 UJ	< 62 U	< 120 U	< 61 U	< 61 U	< 120 U	< 58 U	< 61 UJ	< 120 U	< 220 UJ	< 64 UJ	< 59 UJ	< 120 U	< 110 U	< 110 U	< 190 U	< 60 U	< 57 U	< 200 U	< 63 U	< 130 U	< 58 U	< 66 U	< 64 UJ	< 60 U
Aroclor 1221	ug/kg			< 62 UJ	< 120 UJ	< 62 UJ	< 110 UJ	< 300 UJ	< 110 UJ	< 150 UJ	< 62 U	< 120 U	< 61 U	< 61 U	< 120 U	< 58 U	< 61 UJ	< 120 U	< 220 UJ	< 64 UJ	< 59 UJ	< 120 U	< 110 U	< 110 U	< 190 U	< 60 U	< 57 U	< 200 U	< 63 U	< 130 U	< 58 U	< 66 U	< 64 UJ	< 60 U
Aroclor 1232	ug/kg			< 62 UJ	< 120 UJ	< 62 UJ	< 110 UJ	< 300 UJ	< 110 UJ	< 150 UJ	< 62 U	< 120 U	< 61 U	< 61 U	< 120 U	< 58 U	< 61 UJ	< 120 U	< 220 UJ	< 64 UJ	< 59 UJ	< 120 U	< 110 U	< 110 U	< 190 U	< 60 U	< 57 U	< 200 U	< 63 U	< 130 U	< 58 U	< 66 U	< 64 UJ	< 60 U
Aroclor 1242	ug/kg			< 62 UJ	< 120 UJ	< 62 UJ	< 110 UJ	< 300 UJ	< 110 UJ	< 150 UJ	< 62 U	< 120 U	< 61 U	< 61 U	< 120 U	< 58 U	< 61 UJ	< 120 U	< 220 UJ	< 64 UJ	< 59 UJ	< 120 U	< 110 U	< 110 U	< 190 U	< 60 U	< 57 U	< 200 U	< 63 U	< 130 U	< 58 U	< 66 U	< 64 UJ	< 60 U
Aroclor 1248	ug/kg	**100**	1000	< 62 UJ	< 120 UJ	< 62 UJ	< 110 UJ	< 300 UJ	< 110 UJ	< 150 UJ	< 62 U	< 120 U	< 61 U	< 61 U	< 120 U	< 58 U	< 61 UJ	< 120 U	< 220 UJ	< 64 UJ	< 59 UJ	< 120 U	< 110 U	< 110 U	< 190 U	< 60 U	< 57 U	< 200 U	< 63 U	< 130 U	< 58 U	< 66 U	< 64 UJ	< 60 U
Aroclor 1254	ug/kg			< 62 UJ	< 120 UJ	< 62 UJ	< 110 UJ	< 300 UJ	< 110 UJ	< 150 UJ	< 62 U	< 120 U	< 61 U	< 61 U	< 120 U	< 58 U	< 61 UJ	< 120 U	< 220 UJ	< 64 UJ	**190 J**	< 120 U	< 110 U	< 110 U	< 190 U	< 60 U	< 57 U	< 200 U	< 63 U	< 130 U	< 58 U	< 66 U	< 64 UJ	< 60 U
Aroclor 1260	ug/kg			37 UJ	< 120 UJ	< 62 UJ	< 110 UJ	< 300 UJ	< 110 UJ	< 150 UJ	< 62 U	< 120 U	< 61 U	< 61 U	< 120 U	< 58 U	36 UJ	< 120 U	< 220 UJ	**140 J**	< 59 UJ	< 120 U	< 110 U	< 110 U	< 190 U	**200**	< 57 U	< 200 U	< 63 U	< 130 U	< 58 U	< 66 U	< 64 UJ	< 60 U
Aroclor 1262	ug/kg			< 62 UJ	< 120 UJ	< 62 UJ	< 110 UJ	< 300 UJ	< 110 UJ	< 150 UJ	< 62 U	< 120 U	< 61 U	< 61 U	< 120 U	< 58 U	< 61 UJ	< 120 U	< 220 UJ	< 64 UJ	< 59 UJ	< 120 U	< 110 U	< 110 U	< 190 U	< 60 U	< 57 U	< 200 U	< 63 U	< 130 U	< 58 U	< 66 U	< 64 UJ	< 60 U
Aroclor 1268	ug/kg			< 62 UJ	< 120 UJ	< 62 UJ	< 110 UJ	< 300 UJ	< 110 UJ	< 150 UJ	< 62 U	< 120 U	< 61 U	< 61 U	< 120 U	< 58 U	< 61 UJ	< 120 U	< 220 UJ	< 64 UJ	< 59 UJ	< 120 U	< 110 U	< 110 U	< 190 U	< 60 U	< 57 U	< 200 U	< 63 U	< 130 U	< 58 U	< 66 U	< 64 UJ	< 60 U

Notes:
ft bgs = feet below ground surface
mg/kg = milligrams per kilogram
µg/kg = micrograms per kilogram
6 NYCRR Part 375 SCO = Title 6 Official Compilation of New York Codes, Rules and Regulations Part 375 Soil Cleanup Objectives
- = no SCO established
NA = not applicable/analyzed
Qualifiers:
U = Analyte analyzed for, but not detected above the sample's reported quantitation limit
J = Analyte positively identified at a numerical value that is the approximate concentration of the analyte in the sample
J+ = Sample likely to have a high bias
J- = Sample likely to have a low bias
UJ = Analyte not detected above the sample quantitation limit; the associated quantitation limit is approximate and may or may not represent the actual limit of quantitation necessary to accurately and precisely measure the analyte in the sample
N = The analysis indicates the present of an analyte for which there is presumptive evidence to make a "tentative identification."
NJ = The analysis indicates the presence of an analyte that has been "tentatively identified" and the associated numerical value represents its approximate oncentration.
R = Sample result rejected due to serious deficiency in ability to analyze sample and meet quality control criteria; the presence or absence of the analyte cannot be confirmed. This qualifier also may apply when more than one sample result is generated for a target analyte (*i.e.*, dilutions or re-analyses), the most technically acceptable result is considered acceptable.
B/EB/TB/BB = An analyte identified in method blank (B), aqueous equipment (EB), trip (TB), or bottle blanks (BB) used to assess field contamination associated with soil or sediment samples mandates these qualifiers for only soil and sediment sample results.
P = Use professional judgment based on data use. It usually has an "M" with it, which indicates that a manual check should be made if the data that are qualified with the "P" are important to the data user. In addition, "PM" also means a decision is necessary from the Project Manager (or a delegate) concerning the need for further review of the data (see below).
PM = A manual review of the raw data is recommended to determine if the defect affects data use, as in "R" above. This review should include consideration of potential affects that could result from using the "P" qualified data. For example, in the case of holding-time exceedance, the Project Manager or delegate can decide to use the data with no qualification when analytes of interest are known not to be adversely affected by holding-time exceedances. Another example is the case where soil sample duplicate analyses for metals exceed the precision criteria; because this is likely due to sample non-homogeneity rather than contract laboratory error, then the manager or delegate must decide how to use the data.

Table 1
Soil Analytical Data

			Soil Sample ID	SB-101-A	SB-101-B	SB-101-C	SB-102-A	SB-102-B	SB-102-C	SB-103-A	SB-103-B	SB-103-C	SB-104-A	SB-104-B	SB-104-C	SB-105-A	SB-105-B	SB-105-C	SB-105-D	SB-106-A	SB-106-B	SB-106-C	SB-107-A	SB-107-B	SB-107-C	SB-108-A	SB-108-B	SB-108-C	SB-109-A	SB-109-B	SB-109-C	SB-110-A	SB-110-B	SB-110-C	SB-110-D
			Start Depth (ft bgs)	0	8	12	0	4	12	0	4	12	0	4	14	0	4	10	12	0	4	14	0	6	13	0	8	10	0	4	16	0	4	17.5	10
			End Depth (ft bgs)	1	10	14	1	6	14	1	6	14	1	6	16	1	6	12	14	1	8	16	2	8	18	1	10	14	1	6	18	1	6	20	12.5
			Sample Date	10/10/2018	10/10/2018	10/10/2018	10/10/2018	10/10/2018	10/10/2018	10/10/2018	10/10/2018	10/10/2018	10/10/2018	10/10/2018	10/10/2018	10/10/2018	10/10/2018	10/10/2018	10/10/2018	10/10/2018	10/10/2018	10/10/2018	10/11/2018	10/11/2018	10/11/2018	10/11/2018	10/11/2018	10/11/2018	10/11/2018	10/11/2018	10/11/2018	10/11/2018	10/11/2018	10/11/2018	10/11/2018
Analyte	Units	6 NYCRR PART 375 UNRESTRICTED USE SCO	6 NYCRR PART 375 COMMERCIAL USE SCO																																
SW8260C																																			
1,1,1-Trichloroethane	ug/kg	680	500000	< 5.7 UJ	< 7.4 UJ	< 6.3 UJ	< 6.2 UJ	< 6.2 UJ	< 5.8 UJ	< 6.5 UJ	< 5.9 UJ	< 5.9 UJ	< 6.0 UJ	< 5.7 UJ	< 6.3 UJ	< 6.2 UJ	< 6.1 UJ	< 16 UJ	< 6.2 UJ	< 6.4 UJ	< 6.4 UJ	< 10 UJ	< 5.9 UJ	< 5.8 UJ	< 5.8 UJ	< 6.0 UJ	< 5.8 UJ	< 11 UJ	< 5.0 UJ	< 6.2 UJ	< 5.9 UJ	< 5.1 UJ	< 5.9 UJ	< 5.8 UJ	< 7.2 UJ
1,1,2,2-Tetrachloroethane	ug/kg	-	-	< 5.7 UJ	< 7.4 UJ	< 6.3 UJ	< 6.2 UJ	< 6.2 UJ	< 5.8 UJ	< 6.5 UJ	< 5.9 UJ	< 5.9 UJ	< 6.0 UJ	< 5.7 UJ	< 6.3 UJ	< 6.2 UJ	< 6.1 UJ	< 16 UJ	< 6.2 UJ	< 6.4 UJ	< 6.4 UJ	< 10 UJ	< 5.9 UJ	< 5.8 UJ	< 5.8 UJ	< 6.0 UJ	< 5.8 UJ	< 11 UJ	< 5.0 UJ	< 6.2 UJ	< 5.9 UJ	< 5.1 UJ	< 5.9 UJ	< 5.8 UJ	< 7.2 UJ
1,1,2-Trichloro-1,2,2-trifluoroethane	ug/kg	-	-	< 5.7 UJ-	< 7.4 UJ-	< 6.3 UJ-	< 6.2 UJ-	< 6.2 UJ	< 5.8 UJ	< 6.5 UJ-	< 5.9 UJ-	< 5.9 UJ-	< 6.0 UJ-	< 5.7 UJ-	< 6.3 UJ-	< 6.2 UJ-	< 6.1 UJ-	< 16 UJ-	< 6.2 UJ-	< 6.4 UJ-	< 6.4 UJ-	< 10 UJ-	< 5.9 UJ	< 5.8 UJ	< 5.8 UJ	< 6.0 UJ	< 5.8 UJ	< 11 UJ	< 5.0 UJ	< 6.2 UJ	< 5.9 UJ	< 5.1 UJ	< 5.9 UJ	< 5.8 UJ	< 7.2 UJ
1,1,2-Trichloroethane	ug/kg	-	-	< 5.7 UJ	< 7.4 UJ	< 6.3 UJ	< 6.2 UJ	< 6.2 UJ	< 5.8 UJ	< 6.5 UJ	< 5.9 UJ	< 5.9 UJ	< 6.0 UJ	< 5.7 UJ	< 6.3 UJ	< 6.2 UJ	< 6.1 UJ	< 16 UJ	< 6.2 UJ	< 6.4 UJ	< 6.4 UJ	< 10 UJ	< 5.9 UJ	< 5.8 UJ	< 5.8 UJ	< 6.0 UJ	< 5.8 UJ	< 11 UJ	< 5.0 UJ	< 6.2 UJ	< 5.9 UJ	< 5.1 UJ	< 5.9 UJ	< 5.8 UJ	< 7.2 UJ
1,1-Dichloroethane	ug/kg	270	240000	< 5.7 UJ	< 7.4 UJ	< 6.3 UJ	< 6.2 UJ	< 6.2 UJ	< 5.8 UJ	< 6.5 UJ	< 5.9 UJ	< 5.9 UJ	< 6.0 UJ	< 5.7 UJ	< 6.3 UJ	< 6.2 UJ	< 6.1 UJ	< 16 UJ	< 6.2 UJ	< 6.4 UJ	< 6.4 UJ	< 10 UJ	< 5.9 UJ	< 5.8 UJ	< 5.8 UJ	< 6.0 UJ	< 5.8 UJ	< 11 UJ	< 5.0 UJ	< 6.2 UJ	< 5.9 UJ	< 5.1 UJ	< 5.9 UJ	< 5.8 UJ	< 7.2 UJ
1,1-Dichloroethene	ug/kg	330	500000	< 5.7 UJ	< 7.4 UJ	< 6.3 UJ	< 6.2 UJ	< 6.2 UJ	< 5.8 UJ	< 6.5 UJ	< 5.9 UJ	< 5.9 UJ	< 6.0 UJ	< 5.7 UJ	< 6.3 UJ	< 6.2 UJ	< 6.1 UJ	< 16 UJ	< 6.2 UJ	< 6.4 UJ	< 6.4 UJ	< 10 UJ	< 5.9 UJ	< 5.8 UJ	< 5.8 UJ	< 6.0 UJ	< 5.8 UJ	< 11 UJ	< 5.0 UJ	< 6.2 UJ	< 5.9 UJ	< 5.1 UJ	< 5.9 UJ	< 5.8 UJ	< 7.2 UJ
1,2,4-Trichlorobenzene	ug/kg	330	-	< 5.7 UJ	< 7.4 UJ	< 6.3 UJ	< 6.2 UJ	< 6.2 UJ	< 5.8 UJ	< 6.5 UJ	< 5.9 UJ	< 5.9 UJ	< 6.0 UJ	< 5.7 UJ	< 6.3 UJ	< 6.2 UJ	< 6.1 UJ	< 16 UJ	< 6.2 UJ	< 6.4 UJ	< 6.4 UJ	< 10 UJ	< 5.9 UJ	< 5.8 UJ	< 5.8 UJ	< 6.0 UJ	< 5.8 UJ	< 11 UJ	< 5.0 UJ	< 6.2 UJ	< 5.9 UJ	< 5.1 UJ	< 5.9 UJ	< 5.8 UJ	< 7.2 UJ
1,2-Dibromo-3-chloropropane	ug/kg	-	-	< 5.7 UJ	< 7.4 UJ	< 6.3 UJ	< 6.2 UJ	< 6.2 UJ	< 5.8 UJ	< 6.5 UJ	< 5.9 UJ	< 5.9 UJ	< 6.0 UJ	< 5.7 UJ	< 6.3 UJ	< 6.2 UJ	< 6.1 UJ	< 16 UJ	< 6.2 UJ	< 6.4 UJ	< 6.4 UJ	< 10 UJ	< 5.9 UJ	< 5.8 UJ	< 5.8 UJ	< 6.0 UJ	< 5.8 UJ	< 11 UJ	< 5.0 UJ	< 6.2 UJ	< 5.9 UJ	< 5.1 UJ	< 5.9 UJ	< 5.8 UJ	< 7.2 UJ
1,2-Dibromoethane	ug/kg	-	-	< 5.7 UJ	< 7.4 UJ	< 6.3 UJ	< 6.2 UJ	< 6.2 UJ	< 5.8 UJ	< 6.5 UJ	< 5.9 UJ	< 5.9 UJ	< 6.0 UJ	< 5.7 UJ	< 6.3 UJ	< 6.2 UJ	< 6.1 UJ	< 16 UJ	< 6.2 UJ	< 6.4 UJ	< 6.4 UJ	< 10 UJ	< 5.9 UJ	< 5.8 UJ	< 5.8 UJ	< 6.0 UJ	< 5.8 UJ	< 11 UJ	< 5.0 UJ	< 6.2 UJ	< 5.9 UJ	< 5.1 UJ	< 5.9 UJ	< 5.8 UJ	< 7.2 UJ
1,2-Dichlorobenzene	ug/kg	1100	500000	< 5.7 UJ	< 7.4 UJ	< 6.3 UJ	< 6.2 UJ	< 6.2 UJ	< 5.8 UJ	< 6.5 UJ	< 5.9 UJ	< 5.9 UJ	< 6.0 UJ	< 5.7 UJ	< 6.3 UJ	< 6.2 UJ	< 6.1 UJ	< 16 UJ	< 6.2 UJ	< 6.4 UJ	< 6.4 UJ	< 10 UJ	< 5.9 UJ	< 5.8 UJ	< 5.8 UJ	< 6.0 UJ	< 5.8 UJ	< 11 UJ	< 5.0 UJ	< 6.2 UJ	< 5.9 UJ	< 5.1 UJ	< 5.9 UJ	< 5.8 UJ	< 7.2 UJ
1,2-Dichloroethane	ug/kg	20	30000	< 5.7 UJ	< 7.4 UJ	< 6.3 UJ	< 6.2 UJ	< 6.2 UJ	< 5.8 UJ	< 6.5 UJ	< 5.9 UJ	< 5.9 UJ	< 6.0 UJ	< 5.7 UJ	< 6.3 UJ	< 6.2 UJ	< 6.1 UJ	< 16 UJ	< 6.2 UJ	< 6.4 UJ	< 6.4 UJ	< 10 UJ	< 5.9 UJ	< 5.8 UJ	< 5.8 UJ	< 6.0 UJ	< 5.8 UJ	< 11 UJ	< 5.0 UJ	< 6.2 UJ	< 5.9 UJ	< 5.1 UJ	< 5.9 UJ	< 5.8 UJ	< 7.2 UJ
1,2-Dichloropropane	ug/kg	-	-	< 5.7 UJ	< 7.4 UJ	< 6.3 UJ	< 6.2 UJ	< 6.2 UJ	< 5.8 UJ	< 6.5 UJ	< 5.9 UJ	< 5.9 UJ	< 6.0 UJ	< 5.7 UJ	< 6.3 UJ	< 6.2 UJ	< 6.1 UJ	< 16 UJ	< 6.2 UJ	< 6.4 UJ	< 6.4 UJ	< 10 UJ	< 5.9 UJ	< 5.8 UJ	< 5.8 UJ	< 6.0 UJ	< 5.8 UJ	< 11 UJ	< 5.0 UJ	< 6.2 UJ	< 5.9 UJ	< 5.1 UJ	< 5.9 UJ	< 5.8 UJ	< 7.2 UJ
1,3-Dichlorobenzene	ug/kg	2400	280000	< 5.7 UJ	< 7.4 UJ	< 6.3 UJ	< 6.2 UJ	< 6.2 UJ	< 5.8 UJ	< 6.5 UJ	< 5.9 UJ	< 5.9 UJ	< 6.0 UJ	< 5.7 UJ	< 6.3 UJ	< 6.2 UJ	< 6.1 UJ	< 16 UJ	< 6.2 UJ	< 6.4 UJ	< 6.4 UJ	< 10 UJ	< 5.9 UJ	< 5.8 UJ	< 5.8 UJ	< 6.0 UJ	< 5.8 UJ	< 11 UJ	< 5.0 UJ	< 6.2 UJ	< 5.9 UJ	< 5.1 UJ	< 5.9 UJ	< 5.8 UJ	< 7.2 UJ
1,4-Dichlorobenzene	ug/kg	1800	130000	< 5.7 UJ	< 7.4 UJ	< 6.3 UJ	< 6.2 UJ	< 6.2 UJ	< 5.8 UJ	< 6.5 UJ	< 5.9 UJ	< 5.9 UJ	< 6.0 UJ	< 5.7 UJ	< 6.3 UJ	< 6.2 UJ	< 6.1 UJ	< 16 UJ	< 6.2 UJ	< 6.4 UJ	< 6.4 UJ	< 10 UJ	< 5.9 UJ	< 5.8 UJ	< 5.8 UJ	< 6.0 UJ	< 5.8 UJ	< 11 UJ	< 5.0 UJ	< 6.2 UJ	< 5.9 UJ	< 5.1 UJ	< 5.9 UJ	< 5.8 UJ	< 7.2 UJ
2-Butanone	ug/kg	**120**	500000	< 28 UJ	48 J	< 31 UJ	< 31 UJ	< 31 UJ	< 29 UJ	< 32 UJ	< 29 UJ	< 29 UJ	< 30 UJ	< 28 UJ	< 31 UJ	< 31 UJ	< 30 UJ	**140 J**	< 31 UJ	< 32 UJ	< 32 UJ	50 UJ	< 30 UJ	< 29 UJ	< 29 UJ	< 30 UJ	< 29 UJ+	40 UJ+	< 25 UJ+	< 31 UJ+	< 29 UJ+	< 26 UJ+	< 29 UJ+	< 29 UJ+	30 UJ+
2-Hexanone	ug/kg	-	-	< 28 UJ	< 37 UJ	< 31 UJ	< 31 UJ	< 31 UJ	< 29 UJ	< 32 UJ	< 29 UJ	< 29 UJ	< 30 UJ	< 28 UJ	< 31 UJ	< 31 UJ	< 30 UJ	< 81 UJ	< 31 UJ	< 32 UJ	< 32 UJ	< 51 UJ	< 30 UJ	< 29 UJ	< 29 UJ	< 30 UJ	< 29 UJ	< 57 UJ	< 25 UJ	< 31 UJ	< 29 UJ	< 26 UJ	< 29 UJ	< 29 UJ	< 36 UJ
4-Methyl-2-pentanone	ug/kg	-	-	< 28 UJ	< 37 UJ	< 31 UJ	< 31 UJ	< 31 UJ	< 29 UJ	< 32 UJ	< 29 UJ	< 29 UJ	< 30 UJ	< 28 UJ	< 31 UJ	< 31 UJ	< 30 UJ	< 81 UJ	< 31 UJ	< 32 UJ	< 32 UJ	< 51 UJ	< 30 UJ	< 29 UJ	< 29 UJ	< 30 UJ	< 29 UJ	< 57 UJ	< 25 UJ	< 31 UJ	< 29 UJ	< 26 UJ	< 29 UJ	< 29 UJ	< 36 UJ
Acetone	ug/kg	**50**	500000	13 UJ	**360 J**	39 J	< 31 UJ	13 UJ	42 J	< 32 UJ	17 UJ	45 J	6.2 UJ	14 UJ	39 J	< 31 UJ	13 UJ	**660 J**	33 J	11 UJ	7.9 UJ	**300 J**	< 30 UJ	14 UJ	12 UJ	< 30 UJ	29 J	**240 J**	< 25 UJ	< 31 UJ	14 UJ	25 UJ	8.9 UJ	8.6 UJ	**120 J**
Benzene	ug/kg	60	44000	< 5.7 UJ	< 7.4 UJ	< 6.3 UJ	< 6.2 UJ	< 6.2 UJ	< 5.8 UJ	< 6.5 UJ	< 5.9 UJ	< 5.9 UJ	< 6.0 UJ	< 5.7 UJ	< 6.3 UJ	< 6.2 UJ	< 6.1 UJ	< 16 UJ	< 6.2 UJ	< 6.4 UJ	< 6.4 UJ	< 10 UJ	< 5.9 UJ	< 5.8 UJ	< 5.8 UJ	< 6.0 UJ	< 5.8 UJ	< 11 UJ	< 5.0 UJ	< 6.2 UJ	< 5.9 UJ	< 5.1 UJ	< 5.9 UJ	< 5.8 UJ	< 7.2 UJ
Bromodichloromethane	ug/kg	-	-	< 5.7 UJ	< 7.4 UJ	< 6.3 UJ	< 6.2 UJ	< 6.2 UJ	< 5.8 UJ	< 6.5 UJ	< 5.9 UJ	< 5.9 UJ	< 6.0 UJ	< 5.7 UJ	< 6.3 UJ	< 6.2 UJ	< 6.1 UJ	< 16 UJ	< 6.2 UJ	< 6.4 UJ	< 6.4 UJ	< 10 UJ	< 5.9 UJ	< 5.8 UJ	< 5.8 UJ	< 6.0 UJ	< 5.8 UJ	< 11 UJ	< 5.0 UJ	< 6.2 UJ	< 5.9 UJ	< 5.1 UJ	< 5.9 UJ	< 5.8 UJ	< 7.2 UJ
Bromoform	ug/kg	-	-	< 5.7 UJ	< 7.4 UJ	< 6.3 UJ	< 6.2 UJ	< 6.2 UJ	< 5.8 UJ	< 6.5 UJ	< 5.9 UJ	< 5.9 UJ	< 6.0 UJ	< 5.7 UJ	< 6.3 UJ	< 6.2 UJ	< 6.1 UJ	< 16 UJ	< 6.2 UJ	< 6.4 UJ	< 6.4 UJ	< 10 UJ	< 5.9 UJ	< 5.8 UJ	< 5.8 UJ	< 6.0 UJ	< 5.8 UJ	< 11 UJ	< 5.0 UJ	< 6.2 UJ	< 5.9 UJ	< 5.1 UJ	< 5.9 UJ	< 5.8 UJ	< 7.2 UJ
Bromomethane	ug/kg	-	-	< 5.7 UJ	< 7.4 UJ	< 6.3 UJ	< 6.2 UJ	< 6.2 UJ	< 5.8 UJ	< 6.5 UJ	< 5.9 UJ	< 5.9 UJ	< 6.0 UJ	< 5.7 UJ	< 6.3 UJ	< 6.2 UJ	< 6.1 UJ	< 16 UJ	< 6.2 UJ	< 6.4 UJ	< 6.4 UJ	< 10 UJ	< 5.9 UJ	< 5.8 UJ	< 5.8 UJ	< 6.0 UJ	< 5.8 UJ	< 11 UJ	< 5.0 UJ	< 6.2 UJ	< 5.9 UJ	< 5.1 UJ	< 5.9 UJ	< 5.8 UJ	< 7.2 UJ
Carbon Disulfide	ug/kg	-	-	< 5.7 UJ	6.7 UJ	< 6.3 UJ	< 6.2 UJ	< 6.2 UJ	< 5.8 UJ	< 6.5 UJ	< 5.9 UJ	< 5.9 UJ	< 6.0 UJ	< 5.7 UJ	< 6.3 UJ	< 6.2 UJ	< 6.1 UJ	< 16 UJ	< 6.2 UJ	< 6.4 UJ	< 6.4 UJ	12 J	< 5.9 UJ	< 5.8 UJ	< 5.8 UJ	< 6.0 UJ	< 5.8 UJ	< 11 UJ	< 5.0 UJ	< 6.2 UJ	< 5.9 UJ	< 5.1 UJ	< 5.9 UJ	< 5.8 UJ	4.6 UJ
Carbon tetrachloride	ug/kg	760	22000	< 5.7 UJ	< 7.4 UJ	< 6.3 UJ	< 6.2 UJ	< 6.2 UJ	< 5.8 UJ	< 6.5 UJ	< 5.9 UJ	< 5.9 UJ	< 6.0 UJ	< 5.7 UJ	< 6.3 UJ	< 6.2 UJ	< 6.1 UJ	< 16 UJ	< 6.2 UJ	< 6.4 UJ	< 6.4 UJ	< 10 UJ	< 5.9 UJ	< 5.8 UJ	< 5.8 UJ	< 6.0 UJ	< 5.8 UJ	< 11 UJ	< 5.0 UJ	< 6.2 UJ	< 5.9 UJ	< 5.1 UJ	< 5.9 UJ	< 5.8 UJ	< 7.2 UJ
Chlorobenzene	ug/kg	1100	500000	< 5.7 UJ	< 7.4 UJ	< 6.3 UJ	< 6.2 UJ	< 6.2 UJ	< 5.8 UJ	< 6.5 UJ	< 5.9 UJ	< 5.9 UJ	< 6.0 UJ	< 5.7 UJ	< 6.3 UJ	< 6.2 UJ	< 6.1 UJ	< 16 UJ	< 6.2 UJ	< 6.4 UJ	< 6.4 UJ	< 10 UJ	< 5.9 UJ	< 5.8 UJ	< 5.8 UJ	< 6.0 UJ	< 5.8 UJ	< 11 UJ	< 5.0 UJ	< 6.2 UJ	< 5.9 UJ	< 5.1 UJ	< 5.9 UJ	< 5.8 UJ	< 7.2 UJ
Chloroethane	ug/kg	-	-	< 5.7 UJ	< 7.4 UJ	< 6.3 UJ	< 6.2 UJ	< 6.2 UJ	< 5.8 UJ	< 6.5 UJ	< 5.9 UJ	< 5.9 UJ	< 6.0 UJ	< 5.7 UJ	< 6.3 UJ	< 6.2 UJ	< 6.1 UJ	< 16 UJ	< 6.2 UJ	< 6.4 UJ	< 6.4 UJ	< 10 UJ	< 5.9 UJ	< 5.8 UJ	< 5.8 UJ	< 6.0 UJ	< 5.8 UJ	< 11 UJ	< 5.0 UJ	< 6.2 UJ	< 5.9 UJ	< 5.1 UJ	< 5.9 UJ	< 5.8 UJ	< 7.2 UJ
Chloroform	ug/kg	370	350000	0.49 UJ	1.1 UJ	0.74 UJ	0.42 UJ	< 6.2 UJ	0.65 UJ	0.43 UJ	< 5.9 UJ	< 5.9 UJ	< 6.0 UJ	< 5.7 UJ	0.52 UJ	< 6.2 UJ	< 6.1 UJ	1.6 UJ	0.61 UJ	< 6.4 UJ	< 6.4 UJ	1.5 UJ	0.45 UJ	< 5.8 UJ	< 5.8 UJ	< 6.0 UJ	0.36 UJ	< 11 UJ	0.33 UJ	< 6.2 UJ	< 5.9 UJ	0.32 UJ	< 5.9 UJ	< 5.8 UJ	< 7.2 UJ
Chloromethane	ug/kg	-	-	< 5.7 UJ-	< 7.4 UJ-	< 6.3 UJ-	< 6.2 UJ-	< 6.2 UJ	< 5.8 UJ	< 6.5 UJ-	< 5.9 UJ-	< 5.9 UJ-	< 6.0 UJ-	< 5.7 UJ-	< 6.3 UJ-	< 6.2 UJ-	< 6.1 UJ-	< 16 UJ-	< 6.2 UJ-	< 6.4 UJ-	< 6.4 UJ-	< 10 UJ-	< 5.9 UJ	< 5.8 UJ	< 5.8 UJ	< 6.0 UJ	< 5.8 UJ	< 11 UJ	< 5.0 UJ	< 6.2 UJ	< 5.9 UJ	< 5.1 UJ	< 5.9 UJ	< 5.8 UJ	< 7.2 UJ
cis-1,2-Dichloroethene	ug/kg	250	500000	< 5.7 UJ	< 7.4 UJ	< 6.3 UJ	< 6.2 UJ	< 6.2 UJ	< 5.8 UJ	< 6.5 UJ	< 5.9 UJ	< 5.9 UJ	< 6.0 UJ	< 5.7 UJ	< 6.3 UJ	< 6.2 UJ	< 6.1 UJ	< 16 UJ	< 6.2 UJ	< 6.4 UJ	< 6.4 UJ	< 10 UJ	< 5.9 UJ	< 5.8 UJ	< 5.8 UJ	< 6.0 UJ	< 5.8 UJ	< 11 UJ	< 5.0 UJ	< 6.2 UJ	< 5.9 UJ	< 5.1 UJ	< 5.9 UJ	< 5.8 UJ	< 7.2 UJ
cis-1,3-Dichloropropene	ug/kg	-	-	< 5.7 UJ	< 7.4 UJ	< 6.3 UJ	< 6.2 UJ	< 6.2 UJ	< 5.8 UJ	< 6.5 UJ	< 5.9 UJ	< 5.9 UJ	< 6.0 UJ	< 5.7 UJ	< 6.3 UJ	< 6.2 UJ	< 6.1 UJ	< 16 UJ	< 6.2 UJ	< 6.4 UJ	< 6.4 UJ	< 10 UJ	< 5.9 UJ	< 5.8 UJ	< 5.8 UJ	< 6.0 UJ	< 5.8 UJ	< 11 UJ	< 5.0 UJ	< 6.2 UJ	< 5.9 UJ	< 5.1 UJ	< 5.9 UJ	< 5.8 UJ	< 7.2 UJ
Cyclohexane	ug/kg	-	-	< 5.7 UJ	< 7.4 UJ	< 6.3 UJ	< 6.2 UJ	< 6.2 UJ	< 5.8 UJ	< 6.5 UJ	< 5.9 UJ	< 5.9 UJ	< 6.0 UJ	< 5.7 UJ	< 6.3 UJ	< 6.2 UJ	< 6.1 UJ	< 16 UJ	< 6.2 UJ	< 6.4 UJ	< 6.4 UJ	< 10 UJ	< 5.9 UJ	< 5.8 UJ	< 5.8 UJ	< 6.0 UJ	< 5.8 UJ	< 11 UJ	< 5.0 UJ	< 6.2 UJ	< 5.9 UJ	< 5.1 UJ	< 5.9 UJ	< 5.8 UJ	< 7.2 UJ
Dibromochloromethane	ug/kg	-	-	< 5.7 UJ	< 7.4 UJ	< 6.3 UJ	< 6.2 UJ	< 6.2 UJ	< 5.8 UJ	< 6.5 UJ	< 5.9 UJ	< 5.9 UJ	< 6.0 UJ	< 5.7 UJ	< 6.3 UJ	< 6.2 UJ	< 6.1 UJ	< 16 UJ	< 6.2 UJ	< 6.4 UJ	< 6.4 UJ	< 10 UJ	< 5.9 UJ	< 5.8 UJ	< 5.8 UJ	< 6.0 UJ	< 5.8 UJ	< 11 UJ	< 5.0 UJ	< 6.2 UJ	< 5.9 UJ	< 5.1 UJ	< 5.9 UJ	< 5.8 UJ	< 7.2 UJ
Dichlorodifluoromethane	ug/kg	-	-	< 5.7 UJ	< 7.4 UJ	< 6.3 UJ	< 6.2 UJ	< 6.2 UJ	< 5.8 UJ	< 6.5 UJ	< 5.9 UJ	< 5.9 UJ	< 6.0 UJ	< 5.7 UJ	< 6.3 UJ	< 6.2 UJ	< 6.1 UJ	< 16 UJ	< 6.2 UJ	< 6.4 UJ	< 6.4 UJ	< 10 UJ	< 5.9 UJ	< 5.8 UJ	< 5.8 UJ	< 6.0 UJ	< 5.8 UJ	< 11 UJ	< 5.0 UJ	< 6.2 UJ	< 5.9 UJ	< 5.1 UJ	< 5.9 UJ	< 5.8 UJ	< 7.2 UJ
Ethylbenzene	ug/kg	1000	390000	< 5.7 UJ	< 7.4 UJ	< 6.3 UJ	< 6.2 UJ	< 6.2 UJ	< 5.8 UJ	< 6.5 UJ	< 5.9 UJ	< 5.9 UJ	< 6.0 UJ	< 5.7 UJ	< 6.3 UJ	< 6.2 UJ	< 6.1 UJ	< 16 UJ	< 6.2 UJ	< 6.4 UJ	< 6.4 UJ	< 10 UJ	< 5.9 UJ	< 5.8 UJ	< 5.8 UJ	< 6.0 UJ	< 5.8 UJ	< 11 UJ	< 5.0 UJ	< 6.2 UJ	< 5.9 UJ	< 5.1 UJ	< 5.9 UJ	< 5.8 UJ	< 7.2 UJ
Isopropylbenzene	ug/kg	-	-	< 5.7 UJ	< 7.4 UJ	< 6.3 UJ	< 6.2 UJ	< 6.2 UJ	< 5.8 UJ	< 6.5 UJ	< 5.9 UJ	< 5.9 UJ	< 6.0 UJ	< 5.7 UJ	< 6.3 UJ	< 6.2 UJ	< 6.1 UJ	< 16 UJ	< 6.2 UJ	< 6.4 UJ	< 6.4 UJ	< 10 UJ	< 5.9 UJ	< 5.8 UJ	< 5.8 UJ	< 6.0 UJ	< 5.8 UJ	< 11 UJ	< 5.0 UJ	< 6.2 UJ	< 5.9 UJ	< 5.1 UJ	< 5.9 UJ	< 5.8 UJ	< 7.2 UJ
Methyl acetate	ug/kg	-	-	< 28 UJ	< 37 UJ	< 31 UJ	< 31 UJ	< 31 UJ	< 29 UJ	< 32 UJ	< 29 UJ	< 29 UJ	< 30 UJ	< 28 UJ	< 31 UJ	< 31 UJ	< 30 UJ	< 81 UJ	< 31 UJ	< 32 UJ	< 32 UJ	< 51 UJ	< 30 UJ	< 29 UJ	< 29 UJ	< 30 UJ	< 29 UJ	< 57 UJ	< 25 UJ	< 31 UJ	< 29 UJ	< 26 UJ	< 29 UJ	< 29 UJ	< 36 UJ
Methyl tert-butyl ether	ug/kg	930	500000	< 5.7 UJ	< 7.4 UJ	< 6.3 UJ	< 6.2 UJ	< 6.2 UJ	< 5.8 UJ	< 6.5 UJ	< 5.9 UJ	< 5.9 UJ	< 6.0 UJ	< 5.7 UJ	< 6.3 UJ	< 6.2 UJ	< 6.1 UJ	< 16 UJ	< 6.2 UJ	< 6.4 UJ	< 6.4 UJ	< 10 UJ	< 5.9 UJ	< 5.8 UJ	< 5.8 UJ	< 6.0 UJ	< 5.8 UJ	< 11 UJ	< 5.0 UJ	< 6.2 UJ	< 5.9 UJ	< 5.1 UJ	< 5.9 UJ	< 5.8 UJ	< 7.2 UJ
Methylcyclohexane	ug/kg	-	-	< 5.7 UJ	< 7.4 UJ	< 6.3 UJ	< 6.2 UJ	< 6.2 UJ	< 5.8 UJ	< 6.5 UJ	< 5.9 UJ	< 5.9 UJ	< 6.0 UJ	< 5.7 UJ	< 6.3 UJ	< 6.2 UJ	< 6.1 UJ	< 16 UJ	< 6.2 UJ	< 6.4 UJ	< 6.4 UJ	< 10 UJ	< 5.9 UJ	< 5.8 UJ	< 5.8 UJ	< 6.0 UJ	< 5.8 UJ	< 11 UJ	< 5.0 UJ	< 6.2 UJ	< 5.9 UJ	< 5.1 UJ	< 5.9 UJ	< 5.8 UJ	< 7.2 UJ
Methylene chloride	ug/kg	**50**	500000	7.1 J	11 J	7.1 J	4.0 UJ	8.4 J	10 J	6.6 J	4.8 UJ	4.8 UJ	5.2 UJ	4.9 UJ	8.7 J	3.6 UJ	3.0 UJ	16 J	5.8 UJ	< 6.4 UJ	< 6.4 UJ	19 J	5.4 UJ	4.5 UJ	6.3 J	3.1 UJ	5.2 UJ	8.8 UJ	3.7 UJ	2.8 UJ	6.7 J	5.1 J	4.1 UJ	4.0 UJ	6.6 UJ
Styrene	ug/kg	-	-	< 5.7 UJ	< 7.4 UJ	< 6.3 UJ	< 6.2 UJ	< 6.2 UJ	< 5.8 UJ	< 6.5 UJ	< 5.9 UJ	< 5.9 UJ	< 6.0 UJ	< 5.7 UJ	< 6.3 UJ	< 6.2 UJ	< 6.1 UJ	< 16 UJ	< 6.2 UJ	< 6.4 UJ	< 6.4 UJ	< 10 UJ	< 5.9 UJ	< 5.8 UJ	< 5.8 UJ	< 6.0 UJ	< 5.8 UJ	< 11 UJ	< 5.0 UJ	< 6.2 UJ	< 5.9 UJ	< 5.1 UJ	< 5.9 UJ	< 5.8 UJ	< 7.2 UJ
Tetrachloroethene	ug/kg	1300	150000	< 5.7 UJ	< 7.4 UJ	< 6.3 UJ	< 6.2 UJ	< 6.2 UJ	< 5.8 UJ	< 6.5 UJ	< 5.9 UJ	< 5.9 UJ	< 6.0 UJ	< 5.7 UJ	< 6.3 UJ	< 6.2 UJ	< 6.1 UJ	< 16 UJ	< 6.2 UJ	< 6.4 UJ	< 6.4 UJ	< 10 UJ	< 5.9 UJ	< 5.8 UJ	< 5.8 UJ	< 6.0 UJ	< 5.8 UJ	< 11 UJ	< 5.0 UJ	< 6.2 UJ	< 5.9 UJ	< 5.1 UJ	< 5.9 UJ	< 5.8 UJ	< 7.2 UJ
Toluene	ug/kg	700	500000	< 5.7 UJ	0.78 UJ	< 6.3 UJ	< 6.2 UJ	< 6.2 UJ	< 5.8 UJ	< 6.5 UJ	< 5.9 UJ	< 5.9 UJ	< 6.0 UJ	< 5.7 UJ	< 6.3 UJ	< 6.2 UJ	< 6.1 UJ	1.5 UJ	< 6.2 UJ	< 6.4 UJ	< 6.4 UJ	2.2 UJ	< 5.9 UJ	< 5.8 UJ	< 5.8 UJ	< 6.0 UJ	< 5.8 UJ	< 11 UJ	< 5.0 UJ	< 6.2 UJ	< 5.9 UJ	0.51 UJ	< 5.9 UJ	< 5.8 UJ	< 7.2 UJ
trans-1,2-Dichloroethene	ug/kg	190	500000	< 5.7 UJ	< 7.4 UJ	< 6.3 UJ	< 6.2 UJ	< 6.2 UJ	< 5.8 UJ	< 6.5 UJ	< 5.9 UJ	< 5.9 UJ	< 6.0 UJ	< 5.7 UJ	< 6.3 UJ	< 6.2 UJ	< 6.1 UJ	< 16 UJ	< 6.2 UJ	< 6.4 UJ	< 6.4 UJ	< 10 UJ	< 5.9 UJ	< 5.8 UJ	< 5.8 UJ	< 6.0 UJ	< 5.8 UJ	< 11 UJ	< 5.0 UJ	< 6.2 UJ	< 5.9 UJ	< 5.1 UJ	< 5.9 UJ	< 5.8 UJ	< 7.2 UJ
trans-1,3-Dichloropropene	ug/kg	-	-	< 5.7 UJ	< 7.4 UJ	< 6.3 UJ	< 6.2 UJ	< 6.2 UJ	< 5.8 UJ	< 6.5 UJ	< 5.9 UJ	< 5.9 UJ	< 6.0 UJ	< 5.7 UJ	< 6.3 UJ	< 6.2 UJ	< 6.1 UJ	< 16 UJ	< 6.2 UJ	< 6.4 UJ	< 6.4 UJ	< 10 UJ	< 5.9 UJ	< 5.8 UJ	< 5.8 UJ	< 6.0 UJ	< 5.8 UJ	< 11 UJ	< 5.0 UJ	< 6.2 UJ	< 5.9 UJ	< 5.1 UJ	< 5.9 UJ	< 5.8 UJ	< 7.2 UJ
Trichloroethene	ug/kg	470	200000	< 5.7 UJ	< 7.4 UJ	< 6.3 UJ	< 6.2 UJ	< 6.2 UJ	< 5.8 UJ	< 6.5 UJ	< 5.9 UJ	< 5.9 UJ	< 6.0 UJ	< 5.7 UJ	< 6.3 UJ	< 6.2 UJ	< 6.1 UJ	< 16 UJ	< 6.2 UJ	< 6.4 UJ	< 6.4 UJ	< 10 UJ	< 5.9 UJ	< 5.8 UJ	< 5.8 UJ	< 6.0 UJ	< 5.8 UJ	< 11 UJ	< 5.0 UJ	< 6.2 UJ	< 5.9 UJ	< 5.1 UJ	< 5.9 UJ	< 5.8 UJ	< 7.2 UJ
Trichlorofluoromethane	ug/kg	-	-	< 5.7 UJ-	< 7.4 UJ-	< 6.3 UJ-	< 6.2 UJ-	< 6.2 UJ	< 5.8 UJ	< 6.5 UJ-	< 5.9 UJ-	< 5.9 UJ-	< 6.0 UJ-	< 5.7 UJ-	< 6.3 UJ-	< 6.2 UJ-	< 6.1 UJ-	< 16 UJ-	< 6.2 UJ-	< 6.4 UJ-	< 6.4 UJ-	< 10 UJ-	< 5.9 UJ	< 5.8 UJ	< 5.8 UJ	< 6.0 UJ	< 5.8 UJ	< 11 UJ	< 5.0 UJ	< 6.2 UJ	< 5.9 UJ	< 5.1 UJ	< 5.9 UJ	< 5.8 UJ	< 7.2 UJ
Vinyl Chloride	ug/kg	20	13000	< 5.7 UJ-	< 7.4 UJ-	< 6.3 UJ-	< 6.2 UJ-	< 6.2 UJ	< 5.8 UJ	< 6.5 UJ-	< 5.9 UJ-	< 5.9 UJ-	< 6.0 UJ-	< 5.7 UJ-	< 6.3 UJ-	< 6.2 UJ-	< 6.1 UJ-	< 16 UJ-	< 6.2 UJ-	< 6.4 UJ-	< 6.4 UJ-	< 10 UJ-	< 5.9 UJ	< 5.8 UJ	< 5.8 UJ	< 6.0 UJ	< 5.8 UJ	< 11 UJ	< 5.0 UJ	< 6.2 UJ	< 5.9 UJ	< 5.1 UJ	< 5.9 UJ	< 5.8 UJ	< 7.2 UJ
Xylenes, Total	ug/kg	260	500000	< 11 UJ	< 15 UJ	< 13 UJ	< 12 UJ	< 12 UJ	< 12 UJ	< 13 UJ	< 12 UJ	< 12 UJ	< 12 UJ	< 11 UJ	< 13 UJ	< 12 UJ	< 12 UJ	< 32 UJ	< 12 UJ	< 13 UJ	< 13 UJ	< 21 UJ	< 12 UJ	< 12 UJ	< 12 UJ	< 12 UJ	< 12 UJ	< 23 UJ	< 10 UJ	< 12 UJ	< 12 UJ	1.4 UJ	< 12 UJ	< 12 UJ	< 14 UJ

Notes:

ft bgs = feet below ground surface

mg/kg = milligrams per kilogram

µg/kg = micrograms per kilogram

6 NYCRR Part 375 SCO = Title 6 Official Compilation of New York Codes, Rules and Regulations Part 375 Soil Cleanup Objectives

- = no SCO established

NA = not applicable/analyzed

Qualifiers:

U = Analyte analyzed for, but not detected above the sample's reported quantitation limit

J = Analyte positively identified at a numerical value that is the approximate concentration of the analyte in the sample

J+ = Sample likely to have a high bias

J- = Sample likely to have a low bias

UJ = Analyte not detected above the sample quantitation limit; the associated quantitation limit is approximate and may or may not represent the actual limit of quantitation necessary to accurately and precisely measure the analyte in the sample

N = The analysis indicates the present of an analyte for which there is presumptive evidence to make a "tentative identification."

NJ = The analysis indicates the presence of an analyte that has been "tentatively identified" and the associated numerical value represents its approximate oncentration.

R = Sample result rejected due to serious deficiency in ability to analyze sample and meet quality control criteria; the presence or absence of the analyte cannot be confirmed. This qualifier also may apply when more than one sample result is generated for a target analyte (i.e., dilutions or re-analyses), the most technically acceptable result is considered acceptable.

B/EB/TB/BB = An analyte identified in method blank (B), aqueous equipment (EB), trip (TB), or bottle blanks (BB) used to assess field contamination associated with soil or sediment samples mandates these qualifiers for only soil and sediment sample results.

P = Use professional judgment based on data use. It usually has an "M" with it, which indicates that a manual check should be made if the data that are qualified with the "P" are important to the data user. In addition, "PM" also means a decision is necessary from the Project Manager (or a delegate) concerning the need for further review of the data (see below).

PM = A manual review of the raw data is recommended to determine if the defect affects data use, as in "R" above. This review should include consideration of potential affects that could result from using the "P" qualified data. For example, in the case of holding-time exceedance, the Project Manager or delegate can decide to use the data with no qualification when analytes of interest are known not to be adversely affected by holding-time exceedances. Another example is the case where soil sample duplicate analyses for metals exceed the precision criteria; because this is likely due to sample non-homogeneity rather than contract laboratory error, then the manager or delegate must decide how to use the data.

Table 1
Soil Analytical Data

Analyte	Units	6 NYCRR PART 375 UNRESTRICTED USE SCO	6 NYCRR PART 375 COMMERCIAL USE SCO	SB-111-A	SB-111-B	SB-111-C	SB-112-A	SB-112-B	SB-112-C	SB-113-A	SB-113-B	SB-113-C	SB-114-A	SB-114-B	SB-114-C	SB-115-A	SB-115-B	SB-115-C
Start Depth (ft bgs)				0	6	18	0	8	12	0	6	18	0	8	10	0	7	15
End Depth (ft bgs)				1	8	20	1	10	15	1	8	20	1	10	20	1	10	17
Sample Date				10/16/2018	10/16/2018	10/16/2018	10/16/2018	10/16/2018	10/16/2018	10/16/2018	10/16/2018	10/16/2018	10/16/2018	10/16/2018	10/16/2018	10/12/2018	10/12/2018	10/12/2018
SW8260C																		
1,1,1-Trichloroethane	ug/kg	680	500000	< 6.1 UJ	< 5.6 UJ	< 6.4 UJ	< 5.4 UJ	< 6.8 UJ	< 82 UJ	< 6.3 UJ	< 6.6 UJ	< 6.2 UJ	< 6.0 UJ	< 5.6 UJ	< 5.2 UJ	< 6.1 UJ	< 5.7 UJ	< 5.7 UJ
1,1,2,2-Tetrachloroethane	ug/kg	-	-	< 6.1 UJ	< 5.6 UJ	< 6.4 UJ	< 5.4 UJ	< 6.8 UJ	< 82 UJ	< 6.3 UJ	< 6.6 UJ	< 6.2 UJ	< 6.0 UJ	< 5.6 UJ	< 5.2 UJ	< 6.1 UJ	< 5.7 UJ	< 5.7 UJ
1,1,2-Trichloro-1,2,2-trifluoroethane	ug/kg	-	-	< 6.1 UJ	< 5.6 UJ	< 6.4 UJ	< 5.4 UJ	< 6.8 UJ	< 82 UJ	< 6.3 UJ	< 6.6 UJ	< 6.2 UJ	< 6.0 UJ	< 5.6 UJ	< 5.2 UJ	< 6.1 UJ	< 5.7 UJ	< 5.7 UJ
1,1,2-Trichloroethane	ug/kg	-	-	< 6.1 UJ	< 5.6 UJ	< 6.4 UJ	< 5.4 UJ	< 6.8 UJ	< 82 UJ	< 6.3 UJ	< 6.6 UJ	< 6.2 UJ	< 6.0 UJ	< 5.6 UJ	< 5.2 UJ	< 6.1 UJ	< 5.7 UJ	< 5.7 UJ
1,1-Dichloroethane	ug/kg	270	240000	< 6.1 UJ	< 5.6 UJ	< 6.4 UJ	< 5.4 UJ	< 6.8 UJ	< 82 UJ	< 6.3 UJ	< 6.6 UJ	< 6.2 UJ	< 6.0 UJ	< 5.6 UJ	< 5.2 UJ	< 6.1 UJ	< 5.7 UJ	< 5.7 UJ
1,1-Dichloroethene	ug/kg	330	500000	< 6.1 UJ	< 5.6 UJ	< 6.4 UJ	< 5.4 UJ	< 6.8 UJ	< 82 UJ	< 6.3 UJ	< 6.6 UJ	< 6.2 UJ	< 6.0 UJ	< 5.6 UJ	< 5.2 UJ	< 6.1 UJ	< 5.7 UJ	< 5.7 UJ
1,2,4-Trichlorobenzene	ug/kg	330	-	< 6.1 UJ	< 5.6 UJ	< 6.4 UJ	< 5.4 UJ	< 6.8 UJ	< 82 UJ	< 6.3 UJ	< 6.6 UJ	< 6.2 UJ	< 6.0 UJ	< 5.6 UJ	< 5.2 UJ	< 6.1 UJ	< 5.7 UJ	< 5.7 UJ
1,2-Dibromo-3-chloropropane	ug/kg	-	-	< 12 UJ	< 11 UJ	< 13 UJ	< 11 UJ	< 14 UJ	< 160 UJ	< 13 UJ	< 13 UJ	< 12 UJ	< 12 UJ	< 11 UJ	< 10 UJ	< 6.1 UJ	< 5.7 UJ	< 5.7 UJ
1,2-Dibromoethane	ug/kg	-	-	< 6.1 UJ	< 5.6 UJ	< 6.4 UJ	< 5.4 UJ	< 6.8 UJ	< 82 UJ	< 6.3 UJ	< 6.6 UJ	< 6.2 UJ	< 6.0 UJ	< 5.6 UJ	< 5.2 UJ	< 6.1 UJ	< 5.7 UJ	< 5.7 UJ
1,2-Dichlorobenzene	ug/kg	1100	500000	< 6.1 UJ	< 5.6 UJ	< 6.4 UJ	< 5.4 UJ	< 6.8 UJ	< 82 UJ	< 6.3 UJ	< 6.6 UJ	< 6.2 UJ	< 6.0 UJ	< 5.6 UJ	< 5.2 UJ	< 6.1 UJ	< 5.7 UJ	< 5.7 UJ
1,2-Dichloroethane	ug/kg	20	30000	< 6.1 UJ	< 5.6 UJ	< 6.4 UJ	< 5.4 UJ	< 6.8 UJ	< 82 UJ	< 6.3 UJ	< 6.6 UJ	< 6.2 UJ	< 6.0 UJ	< 5.6 UJ	< 5.2 UJ	< 6.1 UJ	< 5.7 UJ	< 5.7 UJ
1,2-Dichloropropane	ug/kg	-	-	< 6.1 UJ	< 5.6 UJ	< 6.4 UJ	< 5.4 UJ	< 6.8 UJ	< 82 UJ	< 6.3 UJ	< 6.6 UJ	< 6.2 UJ	< 6.0 UJ	< 5.6 UJ	< 5.2 UJ	< 6.1 UJ	< 5.7 UJ	< 5.7 UJ
1,3-Dichlorobenzene	ug/kg	2400	280000	< 6.1 UJ	< 5.6 UJ	< 6.4 UJ	< 5.4 UJ	< 6.8 UJ	< 82 UJ	< 6.3 UJ	< 6.6 UJ	< 6.2 UJ	< 6.0 UJ	< 5.6 UJ	< 5.2 UJ	< 6.1 UJ	< 5.7 UJ	< 5.7 UJ
1,4-Dichlorobenzene	ug/kg	1800	130000	< 6.1 UJ	< 5.6 UJ	< 6.4 UJ	< 5.4 UJ	< 6.8 UJ	< 82 UJ	< 6.3 UJ	< 6.6 UJ	< 6.2 UJ	< 6.0 UJ	< 5.6 UJ	< 5.2 UJ	< 6.1 UJ	< 5.7 UJ	< 5.7 UJ
2-Butanone	ug/kg	**120**	500000	5.9 UJ	< 22 UJ	< 26 UJ	< 22 UJ	< 27 UJ	**730 J**	< 25 UJ	< 26 UJ	6.0 UJ	12 UJ	< 23 UJ	4.4 UJ	7.9 UJ+	< 29 UJ+	4.3 UJ+
2-Hexanone	ug/kg	-	-	< 24 UJ	< 22 UJ	< 26 UJ	< 22 UJ	< 27 UJ	< 330 UJ	< 25 UJ	< 26 UJ	< 25 UJ	< 24 UJ	< 23 UJ	< 21 UJ	< 30 UJ	< 29 UJ	< 29 UJ
4-Methyl-2-pentanone	ug/kg	-	-	< 24 UJ	< 22 UJ	< 26 UJ	< 22 UJ	< 27 UJ	< 330 UJ	< 25 UJ	< 26 UJ	< 25 UJ	< 24 UJ	< 23 UJ	< 21 UJ	< 30 UJ	< 29 UJ	< 29 UJ
Acetone	ug/kg	**50**	500000	< 30 UJ	< 28 UJ	< 32 UJ	< 27 UJ	< 34 UJ	**2900 J**	< 31 UJ	< 33 UJ	35 J	< 30 UJ	< 28 UJ	23 UJ	35 J	11 UJ	27 UJ
Benzene	ug/kg	60	44000	< 6.1 UJ	< 5.6 UJ	< 6.4 UJ	< 5.4 UJ	< 6.8 UJ	< 82 UJ	< 6.3 UJ	< 6.6 UJ	< 6.2 UJ	< 6.0 UJ	< 5.6 UJ	< 5.2 UJ	< 6.1 UJ	< 5.7 UJ	< 5.7 UJ
Bromodichloromethane	ug/kg	-	-	< 6.1 UJ	< 5.6 UJ	< 6.4 UJ	< 5.4 UJ	< 6.8 UJ	< 82 UJ	< 6.3 UJ	< 6.6 UJ	< 6.2 UJ	< 6.0 UJ	< 5.6 UJ	< 5.2 UJ	< 6.1 UJ	< 5.7 UJ	< 5.7 UJ
Bromoform	ug/kg	-	-	< 6.1 UJ	< 5.6 UJ	< 6.4 UJ	< 5.4 UJ	< 6.8 UJ	< 82 UJ	< 6.3 UJ	< 6.6 UJ	< 6.2 UJ	< 6.0 UJ	< 5.6 UJ	< 5.2 UJ	< 6.1 UJ	< 5.7 UJ	< 5.7 UJ
Bromomethane	ug/kg	-	-	< 6.1 UJ	< 5.6 UJ	< 6.4 UJ	< 5.4 UJ	< 6.8 UJ	< 82 UJ	< 6.3 UJ	< 6.6 UJ	< 6.2 UJ	< 6.0 UJ	< 5.6 UJ	< 5.2 UJ	< 6.1 UJ	< 5.7 UJ	< 5.7 UJ
Carbon Disulfide	ug/kg	-	-	< 6.1 UJ	< 5.6 UJ	< 6.4 UJ	< 5.4 UJ	< 6.8 UJ	130 J	< 6.3 UJ	< 6.6 UJ	< 6.2 UJ	< 6.0 UJ	< 5.6 UJ	2.8 UJ	< 6.1 UJ	< 5.7 UJ	< 5.7 UJ
Carbon tetrachloride	ug/kg	760	22000	< 6.1 UJ	< 5.6 UJ	< 6.4 UJ	< 5.4 UJ	< 6.8 UJ	< 82 UJ	< 6.3 UJ	< 6.6 UJ	< 6.2 UJ	< 6.0 UJ	< 5.6 UJ	< 5.2 UJ	< 6.1 UJ	< 5.7 UJ	< 5.7 UJ
Chlorobenzene	ug/kg	1100	500000	< 6.1 UJ	< 5.6 UJ	< 6.4 UJ	< 5.4 UJ	< 6.8 UJ	< 82 UJ	< 6.3 UJ	< 6.6 UJ	< 6.2 UJ	< 6.0 UJ	< 5.6 UJ	< 5.2 UJ	< 6.1 UJ	< 5.7 UJ	< 5.7 UJ
Chloroethane	ug/kg	-	-	< 6.1 UJ	< 5.6 UJ	< 6.4 UJ	< 5.4 UJ	< 6.8 UJ	< 82 UJ	< 6.3 UJ	< 6.6 UJ	< 6.2 UJ	< 6.0 UJ	< 5.6 UJ	< 5.2 UJ	< 6.1 UJ	< 5.7 UJ	< 5.7 UJ
Chloroform	ug/kg	370	350000	< 6.1 UJ	< 5.6 UJ	< 6.4 UJ	< 5.4 UJ	< 6.8 UJ	< 82 UJ	< 6.3 UJ	< 6.6 UJ	< 6.2 UJ	< 6.0 UJ	< 5.6 UJ	< 5.2 UJ	< 6.1 UJ	< 5.7 UJ	< 5.7 UJ
Chloromethane	ug/kg	-	-	< 6.1 UJ	< 5.6 UJ	< 6.4 UJ	< 5.4 UJ	< 6.8 UJ	< 82 UJ	< 6.3 UJ	< 6.6 UJ	< 6.2 UJ	< 6.0 UJ	< 5.6 UJ	< 5.2 UJ	< 6.1 UJ	< 5.7 UJ	< 5.7 UJ
cis-1,2-Dichloroethene	ug/kg	250	500000	< 6.1 UJ	< 5.6 UJ	< 6.4 UJ	< 5.4 UJ	< 6.8 UJ	< 82 UJ	< 6.3 UJ	< 6.6 UJ	< 6.2 UJ	< 6.0 UJ	< 5.6 UJ	< 5.2 UJ	< 6.1 UJ	< 5.7 UJ	< 5.7 UJ
cis-1,3-Dichloropropene	ug/kg	-	-	< 6.1 UJ	< 5.6 UJ	< 6.4 UJ	< 5.4 UJ	< 6.8 UJ	< 82 UJ	< 6.3 UJ	< 6.6 UJ	< 6.2 UJ	< 6.0 UJ	< 5.6 UJ	< 5.2 UJ	< 6.1 UJ	< 5.7 UJ	< 5.7 UJ
Cyclohexane	ug/kg	-	-	< 12 UJ	< 11 UJ	< 13 UJ	< 11 UJ	< 14 UJ	< 160 UJ	< 13 UJ	< 13 UJ	< 12 UJ	< 12 UJ	< 11 UJ	< 10 UJ	< 6.1 UJ	< 5.7 UJ	< 5.7 UJ
Dibromochloromethane	ug/kg	-	-	< 6.1 UJ	< 5.6 UJ	< 6.4 UJ	< 5.4 UJ	< 6.8 UJ	< 82 UJ	< 6.3 UJ	< 6.6 UJ	< 6.2 UJ	< 6.0 UJ	< 5.6 UJ	< 5.2 UJ	< 6.1 UJ	< 5.7 UJ	< 5.7 UJ
Dichlorodifluoromethane	ug/kg	-	-	< 6.1 UJ	< 5.6 UJ	< 6.4 UJ	< 5.4 UJ	< 6.8 UJ	< 82 UJ	< 6.3 UJ	< 6.6 UJ	< 6.2 UJ	< 6.0 UJ	< 5.6 UJ	< 5.2 UJ	< 6.1 UJ	< 5.7 UJ	< 5.7 UJ
Ethylbenzene	ug/kg	1000	390000	< 6.1 UJ	< 5.6 UJ	< 6.4 UJ	< 5.4 UJ	< 6.8 UJ	< 82 UJ	< 6.3 UJ	< 6.6 UJ	< 6.2 UJ	< 6.0 UJ	< 5.6 UJ	< 5.2 UJ	< 6.1 UJ	< 5.7 UJ	< 5.7 UJ
Isopropylbenzene	ug/kg	-	-	< 6.1 UJ	< 5.6 UJ	< 6.4 UJ	< 5.4 UJ	< 6.8 UJ	< 82 UJ	< 6.3 UJ	< 6.6 UJ	< 6.2 UJ	< 6.0 UJ	< 5.6 UJ	< 5.2 UJ	< 6.1 UJ	< 5.7 UJ	< 5.7 UJ
Methyl acetate	ug/kg	-	-	< 30 UJ	< 28 UJ	< 32 UJ	< 27 UJ	< 34 UJ	< 410 UJ	< 31 UJ	< 33 UJ	< 31 UJ	< 30 UJ	< 28 UJ	< 26 UJ	< 30 UJ	< 29 UJ	< 29 UJ
Methyl tert-butyl ether	ug/kg	930	500000	< 6.1 UJ	< 5.6 UJ	< 6.4 UJ	< 5.4 UJ	< 6.8 UJ	< 82 UJ	< 6.3 UJ	< 6.6 UJ	< 6.2 UJ	< 6.0 UJ	< 5.6 UJ	< 5.2 UJ	< 6.1 UJ	< 5.7 UJ	< 5.7 UJ
Methylcyclohexane	ug/kg	-	-	< 12 UJ	< 11 UJ	< 13 UJ	< 11 UJ	< 14 UJ	< 160 UJ	< 13 UJ	< 13 UJ	< 12 UJ	< 12 UJ	< 11 UJ	< 10 UJ	< 6.1 UJ	< 5.7 UJ	< 5.7 UJ
Methylene chloride	ug/kg	**50**	500000	< 30 UJ	< 28 UJ	< 32 UJ	33 J	< 34 UJ	< 410 UJ	< 31 UJ	< 33 UJ	< 31 UJ	< 30 UJ	< 28 UJ	< 26 UJ	< 6.1 UJ	< 5.7 UJ	< 5.7 UJ
Styrene	ug/kg	-	-	< 6.1 UJ	< 5.6 UJ	< 6.4 UJ	< 5.4 UJ	< 6.8 UJ	< 82 UJ	< 6.3 UJ	< 6.6 UJ	< 6.2 UJ	< 6.0 UJ	< 5.6 UJ	< 5.2 UJ	< 6.1 UJ	< 5.7 UJ	< 5.7 UJ
Tetrachloroethene	ug/kg	1300	150000	< 6.1 UJ	< 5.6 UJ	< 6.4 UJ	< 5.4 UJ	< 6.8 UJ	< 82 UJ	< 6.3 UJ	< 6.6 UJ	< 6.2 UJ	< 6.0 UJ	< 5.6 UJ	< 5.2 UJ	< 6.1 UJ	< 5.7 UJ	< 5.7 UJ
Toluene	ug/kg	700	500000	< 6.1 UJ	< 5.6 UJ	< 6.4 UJ	< 5.4 UJ	< 6.8 UJ	40 UJ	< 6.3 UJ	< 6.6 UJ	< 6.2 UJ	< 6.0 UJ	< 5.6 UJ	< 5.2 UJ	0.83 UJ	0.50 UJ	0.48 UJ
trans-1,2-Dichloroethene	ug/kg	190	500000	< 6.1 UJ	< 5.6 UJ	< 6.4 UJ	< 5.4 UJ	< 6.8 UJ	< 82 UJ	< 6.3 UJ	< 6.6 UJ	< 6.2 UJ	< 6.0 UJ	< 5.6 UJ	< 5.2 UJ	< 6.1 UJ	< 5.7 UJ	< 5.7 UJ
trans-1,3-Dichloropropene	ug/kg	-	-	< 6.1 UJ	< 5.6 UJ	< 6.4 UJ	< 5.4 UJ	< 6.8 UJ	< 82 UJ	< 6.3 UJ	< 6.6 UJ	< 6.2 UJ	< 6.0 UJ	< 5.6 UJ	< 5.2 UJ	< 6.1 UJ	< 5.7 UJ	< 5.7 UJ
Trichloroethene	ug/kg	470	200000	< 6.1 UJ	< 5.6 UJ	< 6.4 UJ	< 5.4 UJ	< 6.8 UJ	< 82 UJ	< 6.3 UJ	< 6.6 UJ	< 6.2 UJ	< 6.0 UJ	< 5.6 UJ	< 5.2 UJ	< 6.1 UJ	< 5.7 UJ	< 5.7 UJ
Trichlorofluoromethane	ug/kg	-	-	< 6.1 UJ	< 5.6 UJ	< 6.4 UJ	< 5.4 UJ	< 6.8 UJ	< 82 UJ	< 6.3 UJ	< 6.6 UJ	< 6.2 UJ	< 6.0 UJ	< 5.6 UJ	< 5.2 UJ	< 6.1 UJ	< 5.7 UJ	< 5.7 UJ
Vinyl Chloride	ug/kg	20	13000	< 6.1 UJ	< 5.6 UJ	< 6.4 UJ	< 5.4 UJ	< 6.8 UJ	< 82 UJ	< 6.3 UJ	< 6.6 UJ	< 6.2 UJ	< 6.0 UJ	< 5.6 UJ	< 5.2 UJ	< 6.1 UJ	< 5.7 UJ	< 5.7 UJ
Xylenes, Total	ug/kg	260	500000	< 12 UJ	< 11 UJ	< 13 UJ	< 11 UJ	< 14 UJ	< 160 UJ	< 13 UJ	< 13 UJ	< 12 UJ	< 12 UJ	< 11 UJ	< 10 UJ	< 12 UJ	< 11 UJ	< 11 UJ

Analyte	SB-116-A	SB-116-B	SB-116-C	SB-117-A	SB-117-B	SB-117-C	SB-117-D	SB-118-A	SB-118-B	SB-118-C	SB-119-A	SB-119-B	SB-119-C	SB-120-A	SB-120-B	SB-120-C
Start Depth (ft bgs)	0	5	14	0	4	10	16	0	6	16	0	8	13	0	4	16
End Depth (ft bgs)	1	7	18	2	7	12	20	1	8	20	1	10	15	1	6	20
Sample Date	10/12/2018	10/12/2018	10/12/2018	10/12/2018	10/12/2018	10/12/2018	10/12/2018	10/12/2018	10/12/2018	10/12/2018	10/11/2018	10/11/2018	10/11/2018	10/11/2018	10/11/2018	10/11/2018
SW8260C																
1,1,1-Trichloroethane	< 5.8 UJ	< 6.5 UJ	< 6.4 UJ	< 5.7 UJ	< 6.0 UJ	< 8.3 UJ	< 6.0 UJ	< 6.1 UJ	< 6.2 UJ	< 5.9 UJ	< 6.1 UJ	< 5.7 UJ	< 6.3 UJ	< 5.5 UJ	< 5.9 UJ	< 7.5 UJ
1,1,2,2-Tetrachloroethane	< 5.8 UJ	< 6.5 UJ	< 6.4 UJ	< 5.7 UJ	< 6.0 UJ	< 8.3 UJ	< 6.0 UJ	< 6.1 UJ	< 6.2 UJ	< 5.9 UJ	< 6.1 UJ	< 5.7 UJ	< 6.3 UJ	< 5.5 UJ	< 5.9 UJ	< 7.5 UJ
1,1,2-Trichloro-1,2,2-trifluoroethane	< 5.8 UJ	< 6.5 UJ	< 6.4 UJ	< 5.7 UJ	< 6.0 UJ	< 8.3 UJ	< 6.0 UJ	< 6.1 UJ	< 6.2 UJ	< 5.9 UJ	< 6.1 UJ	< 5.7 UJ	< 6.3 UJ	< 5.5 UJ	< 5.9 UJ	< 7.5 UJ
1,1,2-Trichloroethane	< 5.8 UJ	< 6.5 UJ	< 6.4 UJ	< 5.7 UJ	< 6.0 UJ	< 8.3 UJ	< 6.0 UJ	< 6.1 UJ	< 6.2 UJ	< 5.9 UJ	< 6.1 UJ	< 5.7 UJ	< 6.3 UJ	< 5.5 UJ	< 5.9 UJ	< 7.5 UJ
1,1-Dichloroethane	< 5.8 UJ	< 6.5 UJ	< 6.4 UJ	< 5.7 UJ	< 6.0 UJ	< 8.3 UJ	< 6.0 UJ	< 6.1 UJ	< 6.2 UJ	< 5.9 UJ	< 6.1 UJ	< 5.7 UJ	< 6.3 UJ	< 5.5 UJ	< 5.9 UJ	< 7.5 UJ
1,1-Dichloroethene	< 5.8 UJ	< 6.5 UJ	< 6.4 UJ	< 5.7 UJ	< 6.0 UJ	< 8.3 UJ	< 6.0 UJ	< 6.1 UJ	< 6.2 UJ	< 5.9 UJ	< 6.1 UJ	< 5.7 UJ	< 6.3 UJ	< 5.5 UJ	< 5.9 UJ	< 7.5 UJ
1,2,4-Trichlorobenzene	< 5.8 UJ	< 6.5 UJ	< 6.4 UJ	< 5.7 UJ	< 6.0 UJ	< 8.3 UJ	< 6.0 UJ	< 6.1 UJ	< 6.2 UJ	< 5.9 UJ	< 6.1 UJ	< 5.7 UJ	< 6.3 UJ	< 5.5 UJ	< 5.9 UJ	< 7.5 UJ
1,2-Dibromo-3-chloropropane	< 5.8 UJ	< 6.5 UJ	< 6.4 UJ	< 5.7 UJ	< 6.0 UJ	< 8.3 UJ	< 6.0 UJ	< 6.1 UJ	< 6.2 UJ	< 5.9 UJ	< 6.1 UJ	< 5.7 UJ	< 6.3 UJ	< 5.5 UJ	< 5.9 UJ	< 7.5 UJ
1,2-Dibromoethane	< 5.8 UJ	< 6.5 UJ	< 6.4 UJ	< 5.7 UJ	< 6.0 UJ	< 8.3 UJ	< 6.0 UJ	< 6.1 UJ	< 6.2 UJ	< 5.9 UJ	< 6.1 UJ	< 5.7 UJ	< 6.3 UJ	< 5.5 UJ	< 5.9 UJ	< 7.5 UJ
1,2-Dichlorobenzene	< 5.8 UJ	< 6.5 UJ	< 6.4 UJ	< 5.7 UJ	< 6.0 UJ	< 8.3 UJ	< 6.0 UJ	< 6.1 UJ	< 6.2 UJ	< 5.9 UJ	< 6.1 UJ	< 5.7 UJ	< 6.3 UJ	< 5.5 UJ	< 5.9 UJ	< 7.5 UJ
1,2-Dichloroethane	< 5.8 UJ	< 6.5 UJ	< 6.4 UJ	< 5.7 UJ	< 6.0 UJ	< 8.3 UJ	< 6.0 UJ	< 6.1 UJ	< 6.2 UJ	< 5.9 UJ	< 6.1 UJ	< 5.7 UJ	< 6.3 UJ	< 5.5 UJ	< 5.9 UJ	< 7.5 UJ
1,2-Dichloropropane	< 5.8 UJ	< 6.5 UJ	< 6.4 UJ	< 5.7 UJ	< 6.0 UJ	< 8.3 UJ	< 6.0 UJ	< 6.1 UJ	< 6.2 UJ	< 5.9 UJ	< 6.1 UJ	< 5.7 UJ	< 6.3 UJ	< 5.5 UJ	< 5.9 UJ	< 7.5 UJ
1,3-Dichlorobenzene	< 5.8 UJ	< 6.5 UJ	< 6.4 UJ	< 5.7 UJ	< 6.0 UJ	< 8.3 UJ	< 6.0 UJ	< 6.1 UJ	< 6.2 UJ	< 5.9 UJ	< 6.1 UJ	< 5.7 UJ	< 6.3 UJ	< 5.5 UJ	< 5.9 UJ	< 7.5 UJ
1,4-Dichlorobenzene	< 5.8 UJ	< 6.5 UJ	< 6.4 UJ	< 5.7 UJ	< 6.0 UJ	< 8.3 UJ	< 6.0 UJ	< 6.1 UJ	< 6.2 UJ	< 5.9 UJ	< 6.1 UJ	< 5.7 UJ	< 6.3 UJ	< 5.5 UJ	< 5.9 UJ	< 7.5 UJ
2-Butanone	< 29 UJ+	< 32 UJ+	< 32 UJ+	< 28 UJ+	< 30 UJ+	85 J+	< 30 UJ+	< 30 UJ+	< 31 UJ+	< 29 UJ+	< 30 UJ+	< 29 UJ+	< 31 UJ+	< 27 UJ+	< 30 UJ+	< 37 UJ+
2-Hexanone	< 29 UJ	< 32 UJ	< 32 UJ	< 28 UJ	< 30 UJ	< 41 UJ	< 30 UJ	< 30 UJ	< 31 UJ	< 29 UJ	< 30 UJ	< 29 UJ	< 31 UJ	< 27 UJ	< 30 UJ	< 37 UJ
4-Methyl-2-pentanone	< 29 UJ	< 32 UJ	< 32 UJ	< 28 UJ	< 30 UJ	< 41 UJ	< 30 UJ	< 30 UJ	< 31 UJ	< 29 UJ	< 30 UJ	< 29 UJ	< 31 UJ	< 27 UJ	< 30 UJ	< 37 UJ
Acetone	< 29 UJ	24 UJ	12 UJ	< 28 UJ	7.2 UJ	**490 J**	10 UJ	9.4 UJ	13 UJ	15 UJ	< 30 UJ	16 UJ	8.9 UJ	< 27 UJ	25 UJ	22 UJ
Benzene	< 5.8 UJ	< 6.5 UJ	< 6.4 UJ	< 5.7 UJ	< 6.0 UJ	1.3 UJ	< 6.0 UJ	< 6.1 UJ	< 6.2 UJ	< 5.9 UJ	< 6.1 UJ	< 5.7 UJ	< 6.3 UJ	< 5.5 UJ	< 5.9 UJ	< 7.5 UJ
Bromodichloromethane	< 5.8 UJ	< 6.5 UJ	< 6.4 UJ	< 5.7 UJ	< 6.0 UJ	< 8.3 UJ	< 6.0 UJ	< 6.1 UJ	< 6.2 UJ	< 5.9 UJ	< 6.1 UJ	< 5.7 UJ	< 6.3 UJ	< 5.5 UJ	< 5.9 UJ	< 7.5 UJ
Bromoform	< 5.8 UJ	< 6.5 UJ	< 6.4 UJ	< 5.7 UJ	< 6.0 UJ	< 8.3 UJ	< 6.0 UJ	< 6.1 UJ	< 6.2 UJ	< 5.9 UJ	< 6.1 UJ	< 5.7 UJ	< 6.3 UJ	< 5.5 UJ	< 5.9 UJ	< 7.5 UJ
Bromomethane	< 5.8 UJ	< 6.5 UJ	< 6.4 UJ	< 5.7 UJ	< 6.0 UJ	< 8.3 UJ	< 6.0 UJ	< 6.1 UJ	< 6.2 UJ	< 5.9 UJ	< 6.1 UJ	< 5.7 UJ	< 6.3 UJ	< 5.5 UJ	< 5.9 UJ	< 7.5 UJ
Carbon Disulfide	< 5.8 UJ	< 6.5 UJ	< 6.4 UJ	< 5.7 UJ	< 6.0 UJ	51 J	< 6.0 UJ	< 6.1 UJ	< 6.2 UJ	< 5.9 UJ	< 6.1 UJ	< 5.7 UJ	< 6.3 UJ	< 5.5 UJ	< 5.9 UJ	< 7.5 UJ
Carbon tetrachloride	< 5.8 UJ	< 6.5 UJ	< 6.4 UJ	< 5.7 UJ	< 6.0 UJ	< 8.3 UJ	< 6.0 UJ	< 6.1 UJ	< 6.2 UJ	< 5.9 UJ	< 6.1 UJ	< 5.7 UJ	< 6.3 UJ	< 5.5 UJ	< 5.9 UJ	< 7.5 UJ
Chlorobenzene	< 5.8 UJ	< 6.5 UJ	< 6.4 UJ	< 5.7 UJ	< 6.0 UJ	< 8.3 UJ	< 6.0 UJ	< 6.1 UJ	< 6.2 UJ	< 5.9 UJ	< 6.1 UJ	< 5.7 UJ	< 6.3 UJ	< 5.5 UJ	< 5.9 UJ	< 7.5 UJ
Chloroethane	< 5.8 UJ	< 6.5 UJ	< 6.4 UJ	< 5.7 UJ	< 6.0 UJ	< 8.3 UJ	< 6.0 UJ	< 6.1 UJ	< 6.2 UJ	< 5.9 UJ	< 6.1 UJ	< 5.7 UJ	< 6.3 UJ	< 5.5 UJ	< 5.9 UJ	< 7.5 UJ
Chloroform	< 5.8 UJ	< 6.5 UJ	< 6.4 UJ	< 5.7 UJ	< 6.0 UJ	< 8.3 UJ	< 6.0 UJ	0.60 UJ	< 6.2 UJ	< 5.9 UJ	0.44 UJ	< 5.7 UJ	< 6.3 UJ	< 5.5 UJ	0.41 UJ	< 7.5 UJ
Chloromethane	< 5.8 UJ	< 6.5 UJ	< 6.4 UJ	< 5.7 UJ	< 6.0 UJ	< 8.3 UJ	< 6.0 UJ	< 6.1 UJ-	< 6.2 UJ	< 5.9 UJ	< 6.1 UJ	< 5.7 UJ	< 6.3 UJ	< 5.5 UJ	< 5.9 UJ	< 7.5 UJ
cis-1,2-Dichloroethene	< 5.8 UJ	< 6.5 UJ	< 6.4 UJ	< 5.7 UJ	< 6.0 UJ	< 8.3 UJ	< 6.0 UJ	< 6.1 UJ	< 6.2 UJ	< 5.9 UJ	< 6.1 UJ	< 5.7 UJ	< 6.3 UJ	< 5.5 UJ	< 5.9 UJ	< 7.5 UJ
cis-1,3-Dichloropropene	< 5.8 UJ	< 6.5 UJ	< 6.4 UJ	< 5.7 UJ	< 6.0 UJ	< 8.3 UJ	< 6.0 UJ	< 6.1 UJ	< 6.2 UJ	< 5.9 UJ	< 6.1 UJ	< 5.7 UJ	< 6.3 UJ	< 5.5 UJ	< 5.9 UJ	< 7.5 UJ
Cyclohexane	< 5.8 UJ	< 6.5 UJ	< 6.4 UJ	< 5.7 UJ	< 6.0 UJ	< 8.3 UJ	< 6.0 UJ	< 6.1 UJ	< 6.2 UJ	< 5.9 UJ	< 6.1 UJ	< 5.7 UJ	< 6.3 UJ	< 5.5 UJ	< 5.9 UJ	< 7.5 UJ
Dibromochloromethane	< 5.8 UJ	< 6.5 UJ	< 6.4 UJ	< 5.7 UJ	< 6.0 UJ	< 8.3 UJ	< 6.0 UJ	< 6.1 UJ	< 6.2 UJ	< 5.9 UJ	< 6.1 UJ	< 5.7 UJ	< 6.3 UJ	< 5.5 UJ	< 5.9 UJ	< 7.5 UJ
Dichlorodifluoromethane	< 5.8 UJ	< 6.5 UJ	< 6.4 UJ	< 5.7 UJ	< 6.0 UJ	< 8.3 UJ	< 6.0 UJ	< 6.1 UJ	< 6.2 UJ	< 5.9 UJ	< 6.1 UJ	< 5.7 UJ	< 6.3 UJ	< 5.5 UJ	< 5.9 UJ	< 7.5 UJ
Ethylbenzene	< 5.8 UJ	< 6.5 UJ	< 6.4 UJ	< 5.7 UJ	< 6.0 UJ	2.3 UJ	< 6.0 UJ	< 6.1 UJ	< 6.2 UJ	< 5.9 UJ	< 6.1 UJ	< 5.7 UJ	< 6.3 UJ	< 5.5 UJ	< 5.9 UJ	< 7.5 UJ
Isopropylbenzene	< 5.8 UJ	< 6.5 UJ	< 6.4 UJ	< 5.7 UJ	< 6.0 UJ	< 8.3 UJ	< 6.0 UJ	< 6.1 UJ	< 6.2 UJ	< 5.9 UJ	< 6.1 UJ	< 5.7 UJ	< 6.3 UJ	< 5.5 UJ	< 5.9 UJ	< 7.5 UJ
Methyl acetate	< 29 UJ	< 32 UJ	< 32 UJ	< 28 UJ	< 30 UJ	< 41 UJ	< 30 UJ	< 30 UJ	< 31 UJ	< 29 UJ	< 30 UJ	< 29 UJ	< 31 UJ	< 27 UJ	< 30 UJ	< 37 UJ
Methyl tert-butyl ether	< 5.8 UJ	< 6.5 UJ	< 6.4 UJ	< 5.7 UJ	< 6.0 UJ	< 8.3 UJ	< 6.0 UJ	< 6.1 UJ	< 6.2 UJ	< 5.9 UJ	< 6.1 UJ	< 5.7 UJ	< 6.3 UJ	< 5.5 UJ	< 5.9 UJ	< 7.5 UJ
Methylcyclohexane	< 5.8 UJ	< 6.5 UJ	< 6.4 UJ	< 5.7 UJ	< 6.0 UJ	< 8.3 UJ	< 6.0 UJ	< 6.1 UJ	< 6.2 UJ	< 5.9 UJ	< 6.1 UJ	< 5.7 UJ	< 6.3 UJ	< 5.5 UJ	< 5.9 UJ	< 7.5 UJ
Methylene chloride	< 5.8 UJ	< 6.5 UJ	< 6.4 UJ	< 5.7 UJ	< 6.0 UJ	< 8.3 UJ	< 6.0 UJ	3.2 UJ	< 6.2 UJ	< 5.9 UJ	5.1 UJ	4.8 UJ	3.8 UJ	4.0 UJ	7.0 J	5.4 UJ
Styrene	< 5.8 UJ	< 6.5 UJ	< 6.4 UJ	< 5.7 UJ	< 6.0 UJ	< 8.3 UJ	< 6.0 UJ	< 6.1 UJ	< 6.2 UJ	< 5.9 UJ	< 6.1 UJ	< 5.7 UJ	< 6.3 UJ	< 5.5 UJ	< 5.9 UJ	< 7.5 UJ
Tetrachloroethene	< 5.8 UJ	< 6.5 UJ	< 6.4 UJ	< 5.7 UJ	< 6.0 UJ	< 8.3 UJ	< 6.0 UJ	< 6.1 UJ	< 6.2 UJ	< 5.9 UJ	< 6.1 UJ	< 5.7 UJ	< 6.3 UJ	< 5.5 UJ	< 5.9 UJ	< 7.5 UJ
Toluene	< 5.8 UJ	1.1 UJ	< 6.4 UJ	0.99 UJ	0.86 UJ	7.2 UJ	0.63 UJ	< 6.1 UJ	< 6.2 UJ	0.45 UJ	< 6.1 UJ	< 5.7 UJ	< 6.3 UJ	< 5.5 UJ	< 5.9 UJ	< 7.5 UJ
trans-1,2-Dichloroethene	< 5.8 UJ	< 6.5 UJ	< 6.4 UJ	< 5.7 UJ	< 6.0 UJ	< 8.3 UJ	< 6.0 UJ	< 6.1 UJ	< 6.2 UJ	< 5.9 UJ	< 6.1 UJ	< 5.7 UJ	< 6.3 UJ	< 5.5 UJ	< 5.9 UJ	< 7.5 UJ
trans-1,3-Dichloropropene	< 5.8 UJ	< 6.5 UJ	< 6.4 UJ	< 5.7 UJ	< 6.0 UJ	< 8.3 UJ	< 6.0 UJ	< 6.1 UJ	< 6.2 UJ	< 5.9 UJ	< 6.1 UJ	< 5.7 UJ	< 6.3 UJ	< 5.5 UJ	< 5.9 UJ	< 7.5 UJ
Trichloroethene	< 5.8 UJ	< 6.5 UJ	< 6.4 UJ	< 5.7 UJ	< 6.0 UJ	< 8.3 UJ	< 6.0 UJ	< 6.1 UJ	< 6.2 UJ	< 5.9 UJ	< 6.1 UJ	< 5.7 UJ	< 6.3 UJ	< 5.5 UJ	< 5.9 UJ	< 7.5 UJ
Trichlorofluoromethane	< 5.8 UJ	< 6.5 UJ	< 6.4 UJ	< 5.7 UJ	< 6.0 UJ	< 8.3 UJ	< 6.0 UJ	< 6.1 UJ	< 6.2 UJ	< 5.9 UJ	< 6.1 UJ	< 5.7 UJ	< 6.3 UJ	< 5.5 UJ	< 5.9 UJ	< 7.5 UJ
Vinyl Chloride	< 5.8 UJ	< 6.5 UJ	< 6.4 UJ	< 5.7 UJ	< 6.0 UJ	< 8.3 UJ	< 6.0 UJ	< 6.1 UJ-	< 6.2 UJ	< 5.9 UJ	< 6.1 UJ	< 5.7 UJ	< 6.3 UJ	< 5.5 UJ	< 5.9 UJ	< 7.5 UJ
Xylenes, Total	< 12 UJ	< 13 UJ	< 13 UJ	< 11 UJ	< 12 UJ	< 17 UJ	< 12 UJ	< 12 UJ	< 12 UJ	< 12 UJ	< 12 UJ	< 11 UJ	< 13 UJ	< 11 UJ	< 12 UJ	< 15 UJ

Notes:

ft bgs = feet below ground surface

mg/kg = milligrams per kilogram

µg/kg = micrograms per kilogram

6 NYCRR Part 375 SCO = Title 6 Official Compilation of New York Codes, Rules and Regulations Part 375 Soil Cleanup Objectives

\- = no SCO established

NA = not applicable/analyzed

Qualifiers:

U = Analyte analyzed for, but not detected above the sample's reported quantitation limit

J = Analyte positively identified at a numerical value that is the approximate concentration of the analyte in the sample

J+ = Sample likely to have a high bias

J- = Sample likely to have a low bias

UJ = Analyte not detected above the sample quantitation limit; the associated quantitation limit is approximate and may or may not represent the actual limit of quantitation necessary to accurately and precisely measure the analyte in the sample

N = The analysis indicates the present of an analyte for which there is presumptive evidence to make a "tentative identification."

NJ = The analysis indicates the presence of an analyte that has been "tentatively identified" and the associated numerical value represents its approximate oncentration.

R = Sample result rejected due to serious deficiency in ability to analyze sample and meet quality control criteria; the presence or absence of the analyte cannot be confirmed. This qualifier also may apply when more than one sample result is generated for a target analyte (i.e., dilutions or re-analyses), the most technically acceptable result is considered acceptable.

B/EB/TB/BB = An analyte identified in method blank (B), aqueous equipment (EB), trip (TB), or bottle blanks (BB) used to assess field contamination associated with soil or sediment samples mandates these qualifiers for only soil and sediment sample results.

P = Use professional judgment based on data use. It usually has an "M" with it, which indicates that a manual check should be made if the data that are qualified with the "P" are important to the data user. In addition, "PM" also means a decision is necessary from the Project Manager (or a delegate) concerning the need for further review of the data (see below).

PM = A manual review of the raw data is recommended to determine if the defect affects data use, as in "R" above. This review should include consideration of potential affects that could result from using the "P" qualified data. For example, in the case of holding-time exceedance, the Project Manager or delegate can decide to use the data with no qualification when analytes of interest are known not to be adversely affected by holding-time exceedances. Another example is the case where soil sample duplicate analyses for metals exceed the precision criteria; because this is likely due to sample non-homogeneity rather than contract laboratory error, then the manager or delegate must decide how to use the data.

Table 1
Soil Analytical Data

Analyte	Units	6 NYCRR PART 375 UNRESTRICTED USE SCO	6 NYCRR PART 375 COMMERCIAL USE SCO	SB-121-A	SB-121-B	SB-121-C	SB-121-D	SB-122-A	SB-122-B	SB-122-C	SB-123-A	SB-123-B	SB-123-C	SB-124-A	SB-124-B	SB-124-C
Start Depth (ft bgs)				0	8	17	10	0	8	18	0	10	18	0	12	18
End Depth (ft bgs)				1	10	20	12	2	10	20	1	12	20	1	14	20
Sample Date				10/16/2018	10/16/2018	10/16/2018	10/16/2018	10/16/2018	10/16/2018	10/16/2018	10/16/2018	10/16/2018	10/16/2018	10/16/2018	10/16/2018	10/16/2018
SW8260C																
1,1,1-Trichloroethane	ug/kg	680	500000	< 5.8 UJ	< 6.0 UJ	< 5.9 UJ	< 58 UJ	< 5.2 UJ	< 5.4 UJ	< 15 UJ	< 5.7 UJ	< 5.7 U	< 5.7 U	< 5.4 U	< 11 U	< 5.8 U
1,1,2,2-Tetrachloroethane	ug/kg	-	-	< 5.8 UJ	< 6.0 UJ	< 5.9 UJ	< 58 UJ	< 5.2 UJ	< 5.4 UJ	< 15 UJ	< 5.7 UJ	< 5.7 U	< 5.7 U	< 5.4 U	< 11 U	< 5.8 U
1,1,2-Trichloro-1,2,2-trifluoroethane	ug/kg	-	-	< 5.8 UJ	< 6.0 UJ	< 5.9 UJ	< 58 UJ	< 5.2 UJ	< 5.4 UJ	< 15 UJ	< 5.7 UJ	< 5.7 U	< 5.7 U	< 5.4 U	< 11 U	< 5.8 U
1,1,2-Trichloroethane	ug/kg	-	-	< 5.8 UJ	< 6.0 UJ	< 5.9 UJ	< 58 UJ	< 5.2 UJ	< 5.4 UJ	< 15 UJ	< 5.7 UJ	< 5.7 U	< 5.7 U	< 5.4 U	< 11 U	< 5.8 U
1,1-Dichloroethane	ug/kg	270	240000	< 5.8 UJ	< 6.0 UJ	< 5.9 UJ	< 58 UJ	< 5.2 UJ	< 5.4 UJ	< 15 UJ	< 5.7 UJ	< 5.7 U	< 5.7 U	< 5.4 U	< 11 U	< 5.8 U
1,1-Dichloroethene	ug/kg	330	500000	< 5.8 UJ	< 6.0 UJ	< 5.9 UJ	< 58 UJ	< 5.2 UJ	< 5.4 UJ	< 15 UJ	< 5.7 UJ	< 5.7 U	< 5.7 U	< 5.4 U	< 11 U	< 5.8 U
1,2,4-Trichlorobenzene	ug/kg	330	-	< 5.8 UJ	< 6.0 UJ	< 5.9 UJ	< 58 UJ	< 5.2 UJ	< 5.4 UJ	< 15 UJ	< 5.7 UJ	< 5.7 U	< 5.7 U	< 5.4 U	< 11 U	< 5.8 U
1,2-Dibromo-3-chloropropane	ug/kg	-	-	< 12 UJ	< 12 UJ	< 12 UJ	< 120 UJ	< 10 UJ	< 11 UJ	< 30 UJ	< 11 UJ	< 11 U	< 11 U	< 11 U	< 23 U	< 12 U
1,2-Dibromoethane	ug/kg	-	-	< 5.8 UJ	< 6.0 UJ	< 5.9 UJ	< 58 UJ	< 5.2 UJ	< 5.4 UJ	< 15 UJ	< 5.7 UJ	< 5.7 U	< 5.7 U	< 5.4 U	< 11 U	< 5.8 U
1,2-Dichlorobenzene	ug/kg	1100	500000	< 5.8 UJ	< 6.0 UJ	< 5.9 UJ	< 58 UJ	< 5.2 UJ	< 5.4 UJ	< 15 UJ	< 5.7 UJ	< 5.7 U	< 5.7 U	< 5.4 U	< 11 U	< 5.8 U
1,2-Dichloroethane	ug/kg	20	30000	< 5.8 UJ	< 6.0 UJ	< 5.9 UJ	< 58 UJ	< 5.2 UJ	< 5.4 UJ	< 15 UJ	< 5.7 UJ	< 5.7 U	< 5.7 U	< 5.4 U	< 11 U	< 5.8 U
1,2-Dichloropropane	ug/kg	-	-	< 5.8 UJ	< 6.0 UJ	< 5.9 UJ	< 58 UJ	< 5.2 UJ	< 5.4 UJ	< 15 UJ	< 5.7 UJ	< 5.7 U	< 5.7 U	< 5.4 U	< 11 U	< 5.8 U
1,3-Dichlorobenzene	ug/kg	2400	280000	< 5.8 UJ	< 6.0 UJ	< 5.9 UJ	< 58 UJ	< 5.2 UJ	< 5.4 UJ	< 15 UJ	< 5.7 UJ	< 5.7 U	< 5.7 U	< 5.4 U	< 11 U	< 5.8 U
1,4-Dichlorobenzene	ug/kg	1800	130000	< 5.8 UJ	< 6.0 UJ	< 5.9 UJ	< 58 UJ	< 5.2 UJ	< 5.4 UJ	< 15 UJ	< 5.7 UJ	< 5.7 U	< 5.7 U	< 5.4 U	< 11 U	< 5.8 U
2-Butanone	ug/kg	**120**	500000	< 23 UJ	< 24 UJ	4.8 UJ	**650 J**	22 J	< 22 UJ	73 J	< 23 UJ	< 23 U	< 23 U	< 22 U	53	< 23 U
2-Hexanone	ug/kg	-	-	< 23 UJ	< 24 UJ	< 23 UJ	< 230 UJ	< 21 UJ	< 22 UJ	< 60 UJ	< 23 UJ	< 23 UJ	< 23 UJ	< 22 UJ	< 45 UJ	< 23 UJ
4-Methyl-2-pentanone	ug/kg	-	-	< 23 UJ	< 24 UJ	< 23 UJ	< 230 UJ	< 21 UJ	< 22 UJ	< 60 UJ	< 23 UJ	< 23 UJ	< 23 UJ	< 22 UJ	< 45 UJ	< 23 UJ
Acetone	ug/kg	**50**	500000	< 29 UJ	< 30 UJ	< 29 UJ	**3000 J**	**150 J**	< 27 UJ	**380 J**	< 29 UJ	< 28 U	< 28 U	< 27 U	**300**	< 29 U
Benzene	ug/kg	60	44000	< 5.8 UJ	< 6.0 UJ	< 5.9 UJ	< 58 UJ	6.0 J	< 5.4 UJ	< 15 UJ	< 5.7 UJ	< 5.7 U	< 5.7 U	< 5.4 U	< 11 U	< 5.8 U
Bromodichloromethane	ug/kg	-	-	< 5.8 UJ	< 6.0 UJ	< 5.9 UJ	< 58 UJ	< 5.2 UJ	< 5.4 UJ	< 15 UJ	< 5.7 UJ	< 5.7 U	< 5.7 U	< 5.4 U	< 11 U	< 5.8 U
Bromoform	ug/kg	-	-	< 5.8 UJ	< 6.0 UJ	< 5.9 UJ	< 58 UJ	< 5.2 UJ	< 5.4 UJ	< 15 UJ	< 5.7 UJ	< 5.7 U	< 5.7 U	< 5.4 U	< 11 U	< 5.8 U
Bromomethane	ug/kg	-	-	< 5.8 UJ	< 6.0 UJ	< 5.9 UJ	< 58 UJ	< 5.2 UJ	< 5.4 UJ	< 15 UJ	< 5.7 UJ	< 5.7 U	< 5.7 U	< 5.4 U	< 11 U	< 5.8 U
Carbon Disulfide	ug/kg	-	-	1.3 UJ	< 6.0 UJ	< 5.9 UJ	390 J	9.0 J	1.7 UJ	73 J	1.9 UJ	2.0 UJ	< 5.7 U	< 5.4 U	26	< 5.8 U
Carbon tetrachloride	ug/kg	760	22000	< 5.8 UJ	< 6.0 UJ	< 5.9 UJ	< 58 UJ	< 5.2 UJ	< 5.4 UJ	< 15 UJ	< 5.7 UJ	< 5.7 U	< 5.7 U	< 5.4 U	< 11 U	< 5.8 U
Chlorobenzene	ug/kg	1100	500000	< 5.8 UJ	< 6.0 UJ	< 5.9 UJ	< 58 UJ	< 5.2 UJ	< 5.4 UJ	< 15 UJ	< 5.7 UJ	< 5.7 U	< 5.7 U	< 5.4 U	< 11 U	< 5.8 U
Chloroethane	ug/kg	-	-	< 5.8 UJ	< 6.0 UJ	< 5.9 UJ	< 58 UJ	< 5.2 UJ	< 5.4 UJ	< 15 UJ	< 5.7 UJ	< 5.7 U	< 5.7 U	< 5.4 U	< 11 U	< 5.8 U
Chloroform	ug/kg	370	350000	< 5.8 UJ	< 6.0 UJ	< 5.9 UJ	< 58 UJ	0.92 UJ	< 5.4 UJ	< 15 UJ	< 5.7 UJ	< 5.7 U	< 5.7 U	< 5.4 U	< 11 U	< 5.8 U
Chloromethane	ug/kg	-	-	< 5.8 UJ	< 6.0 UJ	< 5.9 UJ	< 58 UJ	< 5.2 UJ	< 5.4 UJ	< 15 UJ	< 5.7 UJ	< 5.7 U	< 5.7 U	< 5.4 U	< 11 U	< 5.8 U
cis-1,2-Dichloroethene	ug/kg	250	500000	< 5.8 UJ	< 6.0 UJ	< 5.9 UJ	< 58 UJ	< 5.2 UJ	< 5.4 UJ	< 15 UJ	< 5.7 UJ	< 5.7 U	< 5.7 U	< 5.4 U	< 11 U	< 5.8 U
cis-1,3-Dichloropropene	ug/kg	-	-	< 5.8 UJ	< 6.0 UJ	< 5.9 UJ	< 58 UJ	< 5.2 UJ	< 5.4 UJ	< 15 UJ	< 5.7 UJ	< 5.7 U	< 5.7 U	< 5.4 U	< 11 U	< 5.8 U
Cyclohexane	ug/kg	-	-	< 12 UJ	< 12 UJ	< 12 UJ	< 120 UJ	3.3 UJ	< 11 UJ	< 30 UJ	< 11 UJ	< 11 UJ	< 11 UJ	< 11 UJ	< 23 UJ	< 12 UJ
Dibromochloromethane	ug/kg	-	-	< 5.8 UJ	< 6.0 UJ	< 5.9 UJ	< 58 UJ	< 5.2 UJ	< 5.4 UJ	< 15 UJ	< 5.7 UJ	< 5.7 U	< 5.7 U	< 5.4 U	< 11 U	< 5.8 U
Dichlorodifluoromethane	ug/kg	-	-	< 5.8 UJ	< 6.0 UJ	< 5.9 UJ	< 58 UJ	< 5.2 UJ	< 5.4 UJ	< 15 UJ	< 5.7 UJ	< 5.7 U	< 5.7 U	< 5.4 U	< 11 U	< 5.8 U
Ethylbenzene	ug/kg	1000	390000	< 5.8 UJ	< 6.0 UJ	< 5.9 UJ	< 58 UJ	8.4 J	< 5.4 UJ	< 15 UJ	< 5.7 UJ	< 5.7 U	< 5.7 U	< 5.4 U	< 11 U	< 5.8 U
Isopropylbenzene	ug/kg	-	-	< 5.8 UJ	< 6.0 UJ	< 5.9 UJ	< 58 UJ	< 5.2 UJ	< 5.4 UJ	< 15 UJ	< 5.7 UJ	< 5.7 U	< 5.7 U	< 5.4 U	< 11 U	< 5.8 U
Methyl acetate	ug/kg	-	-	< 29 UJ	< 30 UJ	< 29 UJ	< 290 UJ	< 26 UJ	< 27 UJ	< 75 UJ	< 29 UJ	< 28 U	< 28 U	< 27 U	< 57 U	< 29 U
Methyl tert-butyl ether	ug/kg	930	500000	< 5.8 UJ	< 6.0 UJ	< 5.9 UJ	< 58 UJ	1.0 UJ	< 5.4 UJ	< 15 UJ	< 5.7 UJ	< 5.7 UJ	< 5.7 UJ	< 5.4 UJ	< 11 UJ	< 5.8 UJ
Methylcyclohexane	ug/kg	-	-	< 12 UJ	< 12 UJ	< 12 UJ	< 120 UJ	2.9 UJ	< 11 UJ	< 30 UJ	< 11 UJ	< 11 U	< 11 U	< 11 U	< 23 U	< 12 U
Methylene chloride	ug/kg	**50**	500000	29 J	< 30 UJ	< 29 UJ	< 290 UJ	< 26 UJ	< 27 UJ	**70 UJ**	< 29 UJ	< 28 U	< 28 U	< 27 U	< 57 U	< 29 U
Styrene	ug/kg	-	-	< 5.8 UJ	< 6.0 UJ	< 5.9 UJ	< 58 UJ	< 5.2 UJ	< 5.4 UJ	< 15 UJ	< 5.7 UJ	< 5.7 U	< 5.7 U	< 5.4 U	< 11 U	< 5.8 U
Tetrachloroethene	ug/kg	1300	150000	< 5.8 UJ	< 6.0 UJ	< 5.9 UJ	< 58 UJ	< 5.2 UJ	< 5.4 UJ	< 15 UJ	< 5.7 UJ	< 5.7 U	< 5.7 U	< 5.4 U	< 11 U	< 5.8 U
Toluene	ug/kg	700	500000	< 5.8 UJ	< 6.0 UJ	< 5.9 UJ	13 UJ	41 J	< 5.4 UJ	5.1 UJ	< 5.7 UJ	< 5.7 U	< 5.7 U	< 5.4 U	2.4 UJ	< 5.8 U
trans-1,2-Dichloroethene	ug/kg	190	500000	< 5.8 UJ	< 6.0 UJ	< 5.9 UJ	< 58 UJ	< 5.2 UJ	< 5.4 UJ	< 15 UJ	< 5.7 UJ	< 5.7 U	< 5.7 U	< 5.4 U	< 11 U	< 5.8 U
trans-1,3-Dichloropropene	ug/kg	-	-	< 5.8 UJ	< 6.0 UJ	< 5.9 UJ	< 58 UJ	< 5.2 UJ	< 5.4 UJ	< 15 UJ	< 5.7 UJ	< 5.7 U	< 5.7 U	< 5.4 U	< 11 U	< 5.8 U
Trichloroethene	ug/kg	470	200000	< 5.8 UJ	< 6.0 UJ	< 5.9 UJ	< 58 UJ	< 5.2 UJ	< 5.4 UJ	< 15 UJ	< 5.7 UJ	< 5.7 U	< 5.7 U	< 5.4 U	< 11 U	< 5.8 U
Trichlorofluoromethane	ug/kg	-	-	< 5.8 UJ	< 6.0 UJ	< 5.9 UJ	< 58 UJ	< 5.2 UJ	< 5.4 UJ	< 15 UJ	< 5.7 UJ	< 5.7 U	< 5.7 U	< 5.4 U	< 11 U	< 5.8 U
Vinyl Chloride	ug/kg	20	13000	< 5.8 UJ	< 6.0 UJ	< 5.9 UJ	< 58 UJ	< 5.2 UJ	< 5.4 UJ	< 15 UJ	< 5.7 UJ	< 5.7 U	< 5.7 U	< 5.4 U	< 11 U	< 5.8 U
Xylenes, Total	ug/kg	260	500000	< 12 UJ	< 12 UJ	< 12 UJ	< 120 UJ	53 J	< 11 UJ	< 30 UJ	< 11 UJ	< 11 U	< 11 U	< 11 U	< 23 U	< 12 U

Analyte	SB-125-A	SB-125-B	SB-125-C	SB-126-A	SB-126-B	SB-126-C	SB-127-A	SB-127-B	SB-127-C	SB-128-A	SB-128-B	SB-128-C	SB-129-A	SB-129-B	SB-129-C	SB-130-A	SB-130-B	SB-130-C
Start Depth (ft bgs)	0	5	16.5	0	1	14.5	0	5	18	0	5	14	0	6	16	0	6	15
End Depth (ft bgs)	1	6	18	1	4	15.5	5	10	20	2	7	16	2	7	17	3	10	18
Sample Date	10/17/2018	10/17/2018	10/17/2018	10/17/2018	10/17/2018	10/17/2018	10/17/2018	10/17/2018	10/17/2018	10/17/2018	10/17/2018	10/17/2018	10/17/2018	10/17/2018	10/17/2018	10/17/2018	10/17/2018	10/17/2018
SW8260C																		
1,1,1-Trichloroethane	< 5.8 UJ	< 5.9 UJ	< 22 UJ	< 5.5 UJ	< 5.7 UJ	< 25 UJ	< 5.5 UJ	< 5.5 UJ	< 18 UJ	< 6.0 UJ	< 5.7 UJ	< 20 UJ	< 6.0 UJ	< 5.9 UJ	< 5.7 UJ	< 6.6 UJ	< 5.8 UJ	< 5.8 UJ
1,1,2,2-Tetrachloroethane	< 5.8 UJ	< 5.9 UJ	< 22 UJ	< 5.5 UJ	< 5.7 UJ	< 25 UJ	< 5.5 UJ	< 5.5 UJ	< 18 UJ	< 6.0 UJ	< 5.7 UJ	< 20 UJ	< 6.0 UJ	< 5.9 UJ	< 5.7 UJ	< 6.6 UJ	< 5.8 UJ	< 5.8 UJ
1,1,2-Trichloro-1,2,2-trifluoroethane	< 5.8 UJ	< 5.9 UJ	< 22 UJ	< 5.5 UJ	< 5.7 UJ	< 25 UJ	< 5.5 UJ	< 5.5 UJ	< 18 UJ	< 6.0 UJ	< 5.7 UJ	< 20 UJ	< 6.0 UJ	< 5.9 UJ	< 5.7 UJ	< 6.6 UJ	< 5.8 UJ	< 5.8 UJ
1,1,2-Trichloroethane	< 5.8 UJ	< 5.9 UJ	< 22 UJ	< 5.5 UJ	< 5.7 UJ	< 25 UJ	< 5.5 UJ	< 5.5 UJ	< 18 UJ	< 6.0 UJ	< 5.7 UJ	< 20 UJ	< 6.0 UJ	< 5.9 UJ	< 5.7 UJ	< 6.6 UJ	< 5.8 UJ	< 5.8 UJ
1,1-Dichloroethane	< 5.8 UJ	< 5.9 UJ	< 22 UJ	< 5.5 UJ	< 5.7 UJ	< 25 UJ	< 5.5 UJ	< 5.5 UJ	< 18 UJ	< 6.0 UJ	< 5.7 UJ	< 20 UJ	< 6.0 UJ	< 5.9 UJ	< 5.7 UJ	< 6.6 UJ	< 5.8 UJ	< 5.8 UJ
1,1-Dichloroethene	< 5.8 UJ	< 5.9 UJ	< 22 UJ	< 5.5 UJ	< 5.7 UJ	< 25 UJ	< 5.5 UJ	< 5.5 UJ	< 18 UJ	< 6.0 UJ	< 5.7 UJ	< 20 UJ	< 6.0 UJ	< 5.9 UJ	< 5.7 UJ	< 6.6 UJ	< 5.8 UJ	< 5.8 UJ
1,2,4-Trichlorobenzene	< 5.8 UJ	< 5.9 UJ	< 22 UJ	< 5.5 UJ	< 5.7 UJ	3.1 UJ	< 5.5 UJ	< 5.5 UJ	< 18 UJ	< 6.0 UJ	< 5.7 UJ	< 20 UJ	< 6.0 UJ	< 5.9 UJ	< 5.7 UJ	< 6.6 UJ	< 5.8 UJ	< 5.8 UJ
1,2-Dibromo-3-chloropropane	< 12 UJ	< 12 UJ	< 43 UJ	< 11 UJ	< 11 UJ	< 49 UJ	< 11 UJ	< 11 UJ	< 36 UJ	< 12 UJ	< 11 UJ	< 40 UJ	< 12 UJ	< 12 UJ	< 11 UJ	< 13 UJ	< 12 UJ	< 12 UJ
1,2-Dibromoethane	< 5.8 UJ	< 5.9 UJ	< 22 UJ	< 5.5 UJ	< 5.7 UJ	< 25 UJ	< 5.5 UJ	< 5.5 UJ	< 18 UJ	< 6.0 UJ	< 5.7 UJ	< 20 UJ	< 6.0 UJ	< 5.9 UJ	< 5.7 UJ	< 6.6 UJ	< 5.8 UJ	< 5.8 UJ
1,2-Dichlorobenzene	< 5.8 UJ	< 5.9 UJ	< 22 UJ	< 5.5 UJ	< 5.7 UJ	< 25 UJ	< 5.5 UJ	< 5.5 UJ	< 18 UJ	< 6.0 UJ	< 5.7 UJ	< 20 UJ	< 6.0 UJ	< 5.9 UJ	< 5.7 UJ	< 6.6 UJ	< 5.8 UJ	< 5.8 UJ
1,2-Dichloroethane	< 5.8 UJ	< 5.9 UJ	< 22 UJ	< 5.5 UJ	< 5.7 UJ	< 25 UJ	< 5.5 UJ	< 5.5 UJ	< 18 UJ	< 6.0 UJ	< 5.7 UJ	< 20 UJ	< 6.0 UJ	< 5.9 UJ	< 5.7 UJ	< 6.6 UJ	< 5.8 UJ	< 5.8 UJ
1,2-Dichloropropane	< 5.8 UJ	< 5.9 UJ	< 22 UJ	< 5.5 UJ	< 5.7 UJ	< 25 UJ	< 5.5 UJ	< 5.5 UJ	< 18 UJ	< 6.0 UJ	< 5.7 UJ	< 20 UJ	< 6.0 UJ	< 5.9 UJ	< 5.7 UJ	< 6.6 UJ	< 5.8 UJ	< 5.8 UJ
1,3-Dichlorobenzene	< 5.8 UJ	< 5.9 UJ	< 22 UJ	< 5.5 UJ	< 5.7 UJ	< 25 UJ	< 5.5 UJ	< 5.5 UJ	< 18 UJ	< 6.0 UJ	< 5.7 UJ	< 20 UJ	< 6.0 UJ	< 5.9 UJ	< 5.7 UJ	< 6.6 UJ	< 5.8 UJ	< 5.8 UJ
1,4-Dichlorobenzene	< 5.8 UJ	< 5.9 UJ	< 22 UJ	< 5.5 UJ	< 5.7 UJ	< 25 UJ	< 5.5 UJ	< 5.5 UJ	< 18 UJ	< 6.0 UJ	< 5.7 UJ	< 20 UJ	< 6.0 UJ	< 5.9 UJ	< 5.7 UJ	< 6.6 UJ	< 5.8 UJ	< 5.8 UJ
2-Butanone	4.3 UJ	< 23 UJ	**180 J**	< 22 UJ	< 23 UJ	**380 J**	< 22 UJ	< 22 UJ	**320 J**	< 24 UJ	13 UJ	84 J	< 24 UJ	< 24 UJ	11 UJ	< 26 UJ	< 23 UJ	5.4 UJ
2-Hexanone	< 23 UJ	< 23 UJ	< 87 UJ	< 22 UJ	< 23 UJ	< 99 UJ	< 22 UJ	< 22 UJ	< 72 UJ	< 24 UJ	< 23 UJ	< 81 UJ	< 24 UJ	< 24 UJ	< 23 UJ	< 26 UJ	< 23 UJ	< 23 UJ
4-Methyl-2-pentanone	< 23 UJ	< 23 UJ	< 87 UJ	< 22 UJ	< 23 UJ	< 99 UJ	< 22 UJ	< 22 UJ	< 72 UJ	< 24 UJ	< 23 UJ	< 81 UJ	< 24 UJ	< 24 UJ	< 23 UJ	< 26 UJ	< 23 UJ	< 23 UJ
Acetone	< 29 UJ	< 29 UJ	**720 J**	< 28 UJ	< 28 UJ	**1500 J**	< 27 UJ	< 28 UJ	**1300 J**	< 30 UJ	37 J	**410 J**	< 30 UJ	< 30 UJ	48 J	< 33 UJ	< 29 UJ	< 29 UJ
Benzene	< 5.8 UJ	< 5.9 UJ	< 22 UJ	< 5.5 UJ	< 5.7 UJ	< 25 UJ	< 5.5 UJ	< 5.5 UJ	< 18 UJ	< 6.0 UJ	< 5.7 UJ	< 20 UJ	< 6.0 UJ	< 5.9 UJ	< 5.7 UJ	< 6.6 UJ	< 5.8 UJ	< 5.8 UJ
Bromodichloromethane	< 5.8 UJ	< 5.9 UJ	< 22 UJ	< 5.5 UJ	< 5.7 UJ	< 25 UJ	< 5.5 UJ	< 5.5 UJ	< 18 UJ	< 6.0 UJ	< 5.7 UJ	< 20 UJ	< 6.0 UJ	< 5.9 UJ	< 5.7 UJ	< 6.6 UJ	< 5.8 UJ	< 5.8 UJ
Bromoform	< 5.8 UJ	< 5.9 UJ	< 22 UJ	< 5.5 UJ	< 5.7 UJ	< 25 UJ	< 5.5 UJ	< 5.5 UJ	< 18 UJ	< 6.0 UJ	< 5.7 UJ	< 20 UJ	< 6.0 UJ	< 5.9 UJ	< 5.7 UJ	< 6.6 UJ	< 5.8 UJ	< 5.8 UJ
Bromomethane	< 5.8 UJ	< 5.9 UJ	< 22 UJ	< 5.5 UJ	< 5.7 UJ	< 25 UJ	< 5.5 UJ	< 5.5 UJ	< 18 UJ	< 6.0 UJ	< 5.7 UJ	< 20 UJ	< 6.0 UJ	< 5.9 UJ	< 5.7 UJ	< 6.6 UJ	< 5.8 UJ	< 5.8 UJ
Carbon Disulfide	1.5 UJ	< 5.9 UJ	7.1 UJ	< 5.5 UJ	< 5.7 UJ	110 J	< 5.5 UJ	< 5.5 UJ	22 J	< 6.0 UJ	7.8 J	180 J	< 6.0 UJ	< 5.9 UJ	< 5.7 UJ	1.5 UJ	2.4 UJ	< 5.8 UJ
Carbon tetrachloride	< 5.8 UJ	< 5.9 UJ	< 22 UJ	< 5.5 UJ	< 5.7 UJ	< 25 UJ	< 5.5 UJ	< 5.5 UJ	< 18 UJ	< 6.0 UJ	< 5.7 UJ	< 20 UJ	< 6.0 UJ	< 5.9 UJ	< 5.7 UJ	< 6.6 UJ	< 5.8 UJ	< 5.8 UJ
Chlorobenzene	< 5.8 UJ	< 5.9 UJ	< 22 UJ	< 5.5 UJ	< 5.7 UJ	< 25 UJ	< 5.5 UJ	< 5.5 UJ	< 18 UJ	< 6.0 UJ	< 5.7 UJ	< 20 UJ	< 6.0 UJ	< 5.9 UJ	< 5.7 UJ	< 6.6 UJ	< 5.8 UJ	< 5.8 UJ
Chloroethane	< 5.8 UJ	< 5.9 UJ	< 22 UJ	< 5.5 UJ	< 5.7 UJ	< 25 UJ	< 5.5 UJ	< 5.5 UJ	< 18 UJ	< 6.0 UJ	< 5.7 UJ	< 20 UJ	< 6.0 UJ	< 5.9 UJ	< 5.7 UJ	< 6.6 UJ	< 5.8 UJ	< 5.8 UJ
Chloroform	< 5.8 UJ	< 5.9 UJ	< 22 UJ	< 5.5 UJ	< 5.7 UJ	< 25 UJ	< 5.5 UJ	< 5.5 UJ	< 18 UJ	< 6.0 UJ	< 5.7 UJ	< 20 UJ	< 6.0 UJ	< 5.9 UJ	< 5.7 UJ	< 6.6 UJ	< 5.8 UJ	< 5.8 UJ
Chloromethane	< 5.8 UJ	< 5.9 UJ	< 22 UJ	< 5.5 UJ	< 5.7 UJ	< 25 UJ	< 5.5 UJ	< 5.5 UJ	< 18 UJ	< 6.0 UJ	< 5.7 UJ	< 20 UJ	< 6.0 UJ	< 5.9 UJ	< 5.7 UJ	< 6.6 UJ	< 5.8 UJ	< 5.8 UJ
cis-1,2-Dichloroethene	< 5.8 UJ	< 5.9 UJ	< 22 UJ	< 5.5 UJ	< 5.7 UJ	< 25 UJ	< 5.5 UJ	< 5.5 UJ	< 18 UJ	< 6.0 UJ	< 5.7 UJ	< 20 UJ	< 6.0 UJ	< 5.9 UJ	< 5.7 UJ	< 6.6 UJ	< 5.8 UJ	< 5.8 UJ
cis-1,3-Dichloropropene	< 5.8 UJ	< 5.9 UJ	< 22 UJ	< 5.5 UJ	< 5.7 UJ	< 25 UJ	< 5.5 UJ	< 5.5 UJ	< 18 UJ	< 6.0 UJ	< 5.7 UJ	< 20 UJ	< 6.0 UJ	< 5.9 UJ	< 5.7 UJ	< 6.6 UJ	< 5.8 UJ	< 5.8 UJ
Cyclohexane	< 12 UJ	< 12 UJ	< 43 UJ	< 11 UJ	< 11 UJ	< 49 UJ	< 11 UJ	< 11 UJ	< 36 UJ	< 12 UJ	< 11 UJ	< 40 UJ	< 12 UJ	< 12 UJ	< 11 UJ	< 13 UJ	< 12 UJ	< 12 UJ
Dibromochloromethane	< 5.8 UJ	< 5.9 UJ	< 22 UJ	< 5.5 UJ	< 5.7 UJ	< 25 UJ	< 5.5 UJ	< 5.5 UJ	< 18 UJ	< 6.0 UJ	< 5.7 UJ	< 20 UJ	< 6.0 UJ	< 5.9 UJ	< 5.7 UJ	< 6.6 UJ	< 5.8 UJ	< 5.8 UJ
Dichlorodifluoromethane	< 5.8 UJ	< 5.9 UJ	< 22 UJ	< 5.5 UJ	< 5.7 UJ	< 25 UJ	< 5.5 UJ	< 5.5 UJ	< 18 UJ	< 6.0 UJ	< 5.7 UJ	< 20 UJ	< 6.0 UJ	< 5.9 UJ	< 5.7 UJ	< 6.6 UJ	< 5.8 UJ	< 5.8 UJ
Ethylbenzene	< 5.8 UJ	< 5.9 UJ	< 22 UJ	< 5.5 UJ	< 5.7 UJ	< 25 UJ	< 5.5 UJ	< 5.5 UJ	< 18 UJ	< 6.0 UJ	< 5.7 UJ	< 20 UJ	< 6.0 UJ	< 5.9 UJ	< 5.7 UJ	< 6.6 UJ	< 5.8 UJ	< 5.8 UJ
Isopropylbenzene	< 5.8 UJ	< 5.9 UJ	< 22 UJ	< 5.5 UJ	< 5.7 UJ	< 25 UJ	< 5.5 UJ	< 5.5 UJ	< 18 UJ	< 6.0 UJ	< 5.7 UJ	< 20 UJ	< 6.0 UJ	< 5.9 UJ	< 5.7 UJ	< 6.6 UJ	< 5.8 UJ	< 5.8 UJ
Methyl acetate	< 29 UJ	< 29 UJ	< 110 UJ	< 28 UJ	< 28 UJ	< 120 UJ	< 27 UJ	< 28 UJ	< 91 UJ	< 30 UJ	< 29 UJ	< 100 UJ	< 30 UJ	< 30 UJ	< 29 UJ	< 33 UJ	< 29 UJ	< 29 UJ
Methyl tert-butyl ether	< 5.8 UJ	< 5.9 UJ	< 22 UJ	< 5.5 UJ	< 5.7 UJ	< 25 UJ	< 5.5 UJ	< 5.5 UJ	< 18 UJ	< 6.0 UJ	< 5.7 UJ	< 20 UJ	< 6.0 UJ	< 5.9 UJ	< 5.7 UJ	< 6.6 UJ	< 5.8 UJ	< 5.8 UJ
Methylcyclohexane	< 12 UJ	< 12 UJ	< 43 UJ	< 11 UJ	< 11 UJ	< 49 UJ	< 11 UJ	< 11 UJ	< 36 UJ	< 12 UJ	< 11 UJ	< 40 UJ	< 12 UJ	< 12 UJ	< 11 UJ	< 13 UJ	< 12 UJ	< 12 UJ
Methylene chloride	< 29 UJ	< 29 UJ	< 110 UJ	< 28 UJ	< 28 UJ	< 120 UJ	< 27 UJ	< 28 UJ	**3600 J**	< 30 UJ	< 29 UJ	< 100 UJ	< 30 UJ	< 30 UJ	< 29 UJ	< 33 UJ	< 29 UJ	< 29 UJ
Styrene	< 5.8 UJ	< 5.9 UJ	< 22 UJ	< 5.5 UJ	< 5.7 UJ	< 25 UJ	< 5.5 UJ	< 5.5 UJ	< 18 UJ	< 6.0 UJ	< 5.7 UJ	< 20 UJ	< 6.0 UJ	< 5.9 UJ	< 5.7 UJ	< 6.6 UJ	< 5.8 UJ	< 5.8 UJ
Tetrachloroethene	< 5.8 UJ	< 5.9 UJ	< 22 UJ	< 5.5 UJ	< 5.7 UJ	< 25 UJ	< 5.5 UJ	< 5.5 UJ	< 18 UJ	< 6.0 UJ	< 5.7 UJ	< 20 UJ	< 6.0 UJ	< 5.9 UJ	< 5.7 UJ	< 6.6 UJ	< 5.8 UJ	< 5.8 UJ
Toluene	< 5.8 UJ	< 5.9 UJ	< 22 UJ	< 5.5 UJ	< 5.7 UJ	8.6 UJ	< 5.5 UJ	< 5.5 UJ	2.9 UJ	< 6.0 UJ	< 5.7 UJ	8.0 UJ	< 6.0 UJ	< 5.9 UJ	< 5.7 UJ	< 6.6 UJ	< 5.8 UJ	< 5.8 UJ
trans-1,2-Dichloroethene	< 5.8 UJ	< 5.9 UJ	< 22 UJ	< 5.5 UJ	< 5.7 UJ	< 25 UJ	< 5.5 UJ	< 5.5 UJ	< 18 UJ	< 6.0 UJ	< 5.7 UJ	< 20 UJ	< 6.0 UJ	< 5.9 UJ	< 5.7 UJ	< 6.6 UJ	< 5.8 UJ	< 5.8 UJ
trans-1,3-Dichloropropene	< 5.8 UJ	< 5.9 UJ	< 22 UJ	< 5.5 UJ	< 5.7 UJ	< 25 UJ	< 5.5 UJ	< 5.5 UJ	< 18 UJ	< 6.0 UJ	< 5.7 UJ	< 20 UJ	< 6.0 UJ	< 5.9 UJ	< 5.7 UJ	< 6.6 UJ	< 5.8 UJ	< 5.8 UJ
Trichloroethene	< 5.8 UJ	< 5.9 UJ	< 22 UJ	< 5.5 UJ	< 5.7 UJ	< 25 UJ	< 5.5 UJ	< 5.5 UJ	< 18 UJ	< 6.0 UJ	< 5.7 UJ	< 20 UJ	< 6.0 UJ	< 5.9 UJ	< 5.7 UJ	< 6.6 UJ	< 5.8 UJ	< 5.8 UJ
Trichlorofluoromethane	< 5.8 UJ	< 5.9 UJ	< 22 UJ	< 5.5 UJ	< 5.7 UJ	< 25 UJ	< 5.5 UJ	< 5.5 UJ	< 18 UJ	< 6.0 UJ	< 5.7 UJ	< 20 UJ	< 6.0 UJ	< 5.9 UJ	< 5.7 UJ	< 6.6 UJ	< 5.8 UJ	< 5.8 UJ
Vinyl Chloride	< 5.8 UJ	< 5.9 UJ	< 22 UJ	< 5.5 UJ	< 5.7 UJ	< 25 UJ	< 5.5 UJ	< 5.5 UJ	< 18 UJ	< 6.0 UJ	< 5.7 UJ	< 20 UJ	< 6.0 UJ	< 5.9 UJ	< 5.7 UJ	< 6.6 UJ	< 5.8 UJ	< 5.8 UJ
Xylenes, Total	< 12 UJ	< 12 UJ	< 43 UJ	< 11 UJ	< 11 UJ	< 49 UJ	< 11 UJ	< 11 UJ	< 36 UJ	< 12 UJ	< 11 UJ	< 40 UJ	< 12 UJ	< 12 UJ	< 11 UJ	< 13 UJ	< 12 UJ	< 12 UJ

Notes:

ft bgs = feet below ground surface

mg/kg = milligrams per kilogram

µg/kg = micrograms per kilogram

6 NYCRR Part 375 SCO = Title 6 Official Compilation of New York Codes, Rules and Regulations Part 375 Soil Cleanup Objectives

- = no SCO established

NA = not applicable/analyzed

Qualifiers:

U = Analyte analyzed for, but not detected above the sample's reported quantitation limit

J = Analyte positively identified at a numerical value that is the approximate concentration of the analyte in the sample

J+ = Sample likely to have a high bias

J- = Sample likely to have a low bias

UJ = Analyte not detected above the sample quantitation limit; the associated quantitation limit is approximate and may or may not represent the actual limit of quantitation necessary to accurately and precisely measure the analyte in the sample

N = The analysis indicates the present of an analyte for which there is presumptive evidence to make a "tentative identification."

NJ = The analysis indicates the presence of an analyte that has been "tentatively identified" and the associated numerical value represents its approximate oncentration.

R = Sample result rejected due to serious deficiency in ability to analyze sample and meet quality control criteria; the presence or absence of the analyte cannot be confirmed. This qualifier also may apply when more than one sample result is generated for a target analyte (i.e., dilutions or re-analyses), the most technically acceptable result is considered acceptable.

B/EB/TB/BB = An analyte identified in method blank (B), aqueous equipment (EB), trip (TB), or bottle blanks (BB) used to assess field contamination associated with soil or sediment samples mandates these qualifiers for only soil and sediment sample results.

P = Use professional judgment based on data use. It usually has an "M" with it, which indicates that a manual check should be made if the data that are qualified with the "P" are important to the data user. In addition, "PM" also means a decision is necessary from the Project Manager (or a delegate) concerning the need for further review of the data (see below).

PM = A manual review of the raw data is recommended to determine if the defect affects data use, as in "R" above. This review should include consideration of potential affects that could result from using the "P" qualified data. For example, in the case of holding-time exceedance, the Project Manager or delegate can decide to use the data with no qualification when analytes of interest are known not to be adversely affected by holding-time exceedances. Another example is the case where soil sample duplicate analyses for metals exceed the precision criteria; because this is likely due to sample non-homogeneity rather than contract laboratory error, then the manager or delegate must decide how to use the data.

Table 1
Soil Analytical Data

			Soil Sample ID	SB-101-A	SB-101-B	SB-101-C	SB-102-A	SB-102-B	SB-102-C	SB-103-A	SB-103-B	SB-103-C	SB-104-A	SB-104-B	SB-104-C
			Start Depth (ft bgs)	0	8	12	0	4	12	0	4	12	0	4	14
			End Depth (ft bgs)	1	10	14	1	6	14	1	6	14	1	6	16
			Sample Date	10/10/2018	10/10/2018	10/10/2018	10/10/2018	10/10/2018	10/10/2018	10/10/2018	10/10/2018	10/10/2018	10/10/2018	10/10/2018	10/10/2018
Analyte	**Units**	**6 NYCRR PART 375 UNRESTRICTED USE SCO**	**6 NYCRR PART 375 COMMERCIAL USE SCO**												
SW8270D															
1,1'-Biphenyl	ug/kg	-	-	< 950 U	< 250 U	< 210 U	< 210 U	< 210 U	< 200 U	< 220 U	< 200 U	< 200 U	< 200 U	< 200 U	< 210 U
2,4,5-Trichlorophenol	ug/kg	-	-	< 950 U	< 250 U	< 210 U	< 210 U	< 210 U	< 200 U	< 220 U	< 200 U	< 200 U	< 200 U	< 200 U	< 210 U
2,4,6-Trichlorophenol	ug/kg	-	-	< 950 U	< 250 U	< 210 U	< 210 U	< 210 U	< 200 U	< 220 U	< 200 U	< 200 U	< 200 U	< 200 U	< 210 U
2,4-Dichlorophenol	ug/kg	-	-	< 950 U	< 250 U	< 210 U	< 210 U	< 210 U	< 200 U	< 220 U	< 200 U	< 200 U	< 200 U	< 200 U	< 210 U
2,4-Dimethylphenol	ug/kg	-	-	< 950 U	< 250 U	< 210 U	< 210 U	< 210 U	< 200 U	< 220 U	< 200 U	< 200 U	< 200 U	< 200 U	< 210 U
2,4-Dinitrophenol	ug/kg	-	-	< 9300 U	< 2400 U	< 2100 U	< 2100 U	< 2000 U	< 2000 U	< 2200 U	< 1900 U	< 1900 U	< 2000 U	< 1900 U	< 2000 U
2,4-Dinitrotoluene	ug/kg	-	-	< 950 U	< 250 U	< 210 U	< 210 U	< 210 U	< 200 U	< 220 U	< 200 U	< 200 U	< 200 U	< 200 U	< 210 U
2,6-Dinitrotoluene	ug/kg	-	-	< 950 U	< 250 U	< 210 U	< 210 U	< 210 U	< 200 U	< 220 U	< 200 U	< 200 U	< 200 U	< 200 U	< 210 U
2-Chloronaphthalene	ug/kg	-	-	< 950 U	< 250 U	< 210 U	< 210 U	< 210 U	< 200 U	< 220 U	< 200 U	< 200 U	< 200 U	< 200 U	< 210 U
2-Chlorophenol	ug/kg	-	-	< 950 U	< 250 U	< 210 U	< 210 U	< 210 U	< 200 U	< 220 U	< 200 U	< 200 U	< 200 U	< 200 U	< 210 U
2-Methylnaphthalene	ug/kg	-	-	< 950 U	< 250 U	< 210 U	110 UJ	< 210 U	< 200 U	340	< 200 U	< 200 U	< 200 U	< 200 U	< 210 U
2-Methylphenol	ug/kg	330	500000	< 950 U	< 250 U	< 210 U	< 210 U	< 210 U	< 200 U	< 220 U	< 200 U	< 200 U	< 200 U	< 200 U	< 210 U
2-Nitroaniline	ug/kg	-	-	< 1800 U	< 490 U	< 410 U	< 410 U	< 400 U	< 390 U	< 440 U	< 390 U	< 380 U	< 400 U	< 380 U	< 400 U
2-Nitrophenol	ug/kg	-	-	< 950 U	< 250 U	< 210 U	< 210 U	< 210 U	< 200 U	< 220 U	< 200 U	< 200 U	< 200 U	< 200 U	< 210 U
3 & 4 Methylphenol	ug/kg	-	-	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3,3'-Dichlorobenzidine	ug/kg	-	-	< 1800 U	< 490 U	< 410 U	< 410 U	< 400 U	< 390 U	< 440 U	< 390 U	< 380 U	< 400 U	< 380 U	< 400 U
3-Nitroaniline	ug/kg	-	-	< 1800 U	< 490 U	< 410 U	< 410 U	< 400 U	< 390 U	< 440 U	< 390 U	< 380 U	< 400 U	< 380 U	< 400 U
4,6-Dinitro-2-methylphenol	ug/kg	-	-	< 1800 U	< 490 U	< 410 U	< 410 U	< 400 U	< 390 U	< 440 U	< 390 U	< 380 U	< 400 U	< 380 U	< 400 U
4-Bromophenyl phenyl ether	ug/kg	-	-	< 950 U	< 250 U	< 210 U	< 210 U	< 210 U	< 200 U	< 220 U	< 200 U	< 200 U	< 200 U	< 200 U	< 210 U
4-Chloro-3-methylphenol	ug/kg	-	-	< 950 U	< 250 U	< 210 U	< 210 U	< 210 U	< 200 U	< 220 U	< 200 U	< 200 U	< 200 U	< 200 U	< 210 U
4-Chloroaniline	ug/kg	-	-	< 950 U	< 250 U	< 210 U	< 210 U	< 210 U	< 200 U	< 220 U	< 200 U	< 200 U	< 200 U	< 200 U	< 210 U
4-Chlorophenyl phenyl ether	ug/kg	-	-	< 950 U	< 250 U	< 210 U	< 210 U	< 210 U	< 200 U	< 220 U	< 200 U	< 200 U	< 200 U	< 200 U	< 210 U
4-Methylphenol	ug/kg	330	500000	< 1800 U	< 490 U	< 410 U	< 410 U	< 400 U	< 390 U	< 440 U	< 390 U	< 380 U	< 400 U	< 380 U	< 400 U
4-Nitroaniline	ug/kg	-	-	< 1800 U	< 490 U	< 410 U	< 410 U	< 400 U	< 390 U	< 440 U	< 390 U	< 380 U	< 400 U	< 380 U	< 400 U
4-Nitrophenol	ug/kg	-	-	< 1800 U	< 490 U	< 410 U	< 410 U	< 400 U	< 390 U	< 440 U	< 390 U	< 380 U	< 400 U	< 380 U	< 400 U
Acenaphthene	ug/kg	20000	500000	< 950 U	< 250 U	< 210 U	< 210 U	< 210 U	< 200 U	< 220 U	< 200 U	< 200 U	< 200 U	< 200 U	< 210 U
Acenaphthylene	ug/kg	100000	500000	< 950 U	< 250 U	< 210 U	74 UJ	< 210 U	< 200 U	59 UJ	< 200 U	< 200 U	< 200 U	< 200 U	< 210 U
Acetophenone	ug/kg	-	-	< 950 U	< 250 U	< 210 U	< 210 U	< 210 U	< 200 U	< 220 U	< 200 U	< 200 U	< 200 U	< 200 U	< 210 U
Anthracene	ug/kg	100000	500000	< 950 U	< 250 U	< 210 U	130 UJ	< 210 U	< 200 U	120 UJ	< 200 U	< 200 U	< 200 U	< 200 U	< 210 U
Atrazine	ug/kg	-	-	< 950 U	< 250 U	< 210 U	< 210 U	< 210 U	< 200 U	< 220 U	< 200 U	< 200 U	< 200 U	< 200 U	< 210 U
Benzaldehyde	ug/kg	-	-	< 950 UJ	< 250 UJ	< 210 UJ	< 210 UJ	< 210 UJ	< 200 UJ	< 220 UJ	< 200 UJ	< 200 UJ	< 200 UJ	< 200 UJ	< 210 UJ
Benzo(b)fluoranthene	ug/kg	**1000**	5600	< 950 U	< 250 U	< 210 U	< 210 U	< 210 U	< 200 U	**1100**	< 200 U	< 200 U	140 UJ	< 200 U	< 210 U
Benzo[a]anthracene	ug/kg	**1000**	5600	< 950 U	< 250 U	< 210 U	300	< 210 U	< 200 U	370	< 200 U	< 200 U	< 200 U	< 200 U	< 210 U
Benzo[a]pyrene	ug/kg	**1000**	1000	280 UJ	< 250 U	< 210 U	380	< 210 U	< 200 U	500	< 200 U	< 200 U	< 200 U	< 200 U	< 210 U
Benzo[g,h,i]perylene	ug/kg	100000	500000	160 UJ	< 250 U	< 210 U	350	< 210 U	< 200 U	670	< 200 U	< 200 U	79 UJ	< 200 U	< 210 U
Benzo[k]fluoranthene	ug/kg	**800**	56000	170 UJ	< 250 U	< 210 U	< 210 U	< 210 U	< 200 U	430	< 200 U	< 200 U	< 200 U	< 200 U	< 210 U
bis (2-chloroisopropyl) ether	ug/kg	-	-	< 950 U	< 250 U	< 210 U	< 210 U	< 210 U	< 200 U	< 220 U	< 200 U	< 200 U	< 200 U	< 200 U	< 210 U
bis(2-Chloroethoxy)methane	ug/kg	-	-	< 950 U	< 250 U	< 210 U	< 210 U	< 210 U	< 200 U	< 220 U	< 200 U	< 200 U	< 200 U	< 200 U	< 210 U
bis(2-Chloroethyl) ether	ug/kg	-	-	< 950 U	< 250 U	< 210 U	< 210 U	< 210 U	< 200 U	< 220 U	< 200 U	< 200 U	< 200 U	< 200 U	< 210 U
bis(2-Ethylhexyl) phthalate	ug/kg	-	-	< 950 U	< 250 U	< 210 U	< 210 U	< 210 U	< 200 U	160 UJ	< 200 U	< 200 U	< 200 U	< 200 U	< 210 U
Butyl benzyl phthalate	ug/kg	-	-	< 950 U	< 250 U	< 210 U	< 210 U	< 210 U	< 200 U	< 220 U	< 200 U	< 200 U	< 200 U	< 200 U	< 210 U
Caprolactam	ug/kg	-	-	< 950 U	< 250 U	< 210 U	< 210 U	< 210 U	< 200 U	< 220 U	< 200 U	< 200 U	< 200 U	< 200 U	< 210 U
Carbazole	ug/kg	-	-	< 950 U	< 250 U	< 210 U	35 UJ	< 210 U	< 200 U	100 UJ	< 200 U	< 200 U	< 200 U	< 200 U	< 210 U
Chrysene	ug/kg	**1000**	56000	< 950 U	< 250 U	< 210 U	380	< 210 U	< 200 U	620	< 200 U	< 200 U	< 200 U	< 200 U	< 210 U
Dibenz[a,h]anthracene	ug/kg	**330**	560	< 950 U	< 250 U	< 210 U	< 210 U	< 210 U	< 200 U	< 220 U	< 200 U	< 200 U	< 200 U	< 200 U	< 210 U
Dibenzofuran	ug/kg	7000	350000	< 950 U	< 250 U	< 210 U	46 UJ	< 210 U	< 200 U	130 UJ	< 200 U	< 200 U	< 200 U	< 200 U	< 210 U
Diethyl phthalate	ug/kg	-	-	< 950 U	< 250 U	< 210 U	< 210 U	< 210 U	< 200 U	< 220 U	< 200 U	< 200 U	< 200 U	< 200 U	< 210 U
Dimethyl phthalate	ug/kg	-	-	< 950 U	< 250 U	< 210 U	< 210 U	< 210 U	< 200 U	< 220 U	< 200 U	< 200 U	< 200 U	< 200 U	< 210 U
Di-n-butyl phthalate	ug/kg	-	-	< 950 U	< 250 U	< 210 U	< 210 U	< 210 U	< 200 U	< 220 U	< 200 U	< 200 U	< 200 U	< 200 U	< 210 U
Di-n-octyl phthalate	ug/kg	-	-	< 950 U	< 250 U	< 210 U	< 210 U	< 210 U	< 200 U	< 220 U	< 200 U	< 200 U	< 200 U	< 200 U	< 210 U
Fluoranthene	ug/kg	100000	500000	310 UJ	< 250 U	< 210 U	470	< 210 U	< 200 U	520	< 200 U	< 200 U	80 UJ	< 200 U	< 210 U
Fluorene	ug/kg	30000	500000	< 950 U	< 250 U	< 210 U	50 UJ	< 210 U	< 200 U	< 220 U	< 200 U	< 200 U	< 200 U	< 200 U	< 210 U
Hexachlorobenzene	ug/kg	330	6000	< 950 U	< 250 U	< 210 U	< 210 U	< 210 U	< 200 U	< 220 U	< 200 U	< 200 U	< 200 U	< 200 U	< 210 U
Hexachlorobutadiene	ug/kg	-	-	< 950 U	< 250 U	< 210 U	< 210 U	< 210 U	< 200 U	< 220 U	< 200 U	< 200 U	< 200 U	< 200 U	< 210 U
Hexachlorocyclopentadiene	ug/kg	-	-	< 950 U	< 250 U	< 210 U	< 210 U	< 210 U	< 200 U	< 220 U	< 200 U	< 200 U	< 200 U	< 200 U	< 210 U
Hexachloroethane	ug/kg	-	-	< 950 U	< 250 U	< 210 U	< 210 U	< 210 U	< 200 U	< 220 U	< 200 U	< 200 U	< 200 U	< 200 U	< 210 U
Indeno[1,2,3-cd]pyrene	ug/kg	**500**	5600	130 UJ	< 250 U	< 210 U	300	< 210 U	< 200 U	**530**	< 200 U	< 200 U	69 UJ	< 200 U	< 210 U
Isophorone	ug/kg	-	-	< 950 U	< 250 U	< 210 U	< 210 U	< 210 U	< 200 U	< 220 U	< 200 U	< 200 U	< 200 U	< 200 U	< 210 U
Naphthalene	ug/kg	12000	500000	< 950 U	< 250 U	< 210 U	< 210 U	< 210 U	< 200 U	270	< 200 U	< 200 U	< 200 U	< 200 U	< 210 U
Nitrobenzene	ug/kg	-	-	< 950 U	< 250 U	< 210 U	< 210 U	< 210 U	< 200 U	< 220 U	< 200 U	< 200 U	< 200 U	< 200 U	< 210 U
N-Nitrosodi-n-propylamine	ug/kg	-	-	< 950 U	< 250 U	< 210 U	< 210 U	< 210 U	< 200 U	< 220 U	< 200 U	< 200 U	< 200 U	< 200 U	< 210 U
N-Nitrosodiphenylamine	ug/kg	-	-	< 950 U	< 250 U	< 210 U	< 210 U	< 210 U	< 200 U	< 220 U	< 200 U	< 200 U	< 200 U	< 200 U	< 210 U
Pentachlorophenol	ug/kg	800	6700	< 1800 U	< 490 U	< 410 U	< 410 U	< 400 U	< 390 U	< 440 U	< 390 U	< 380 U	< 400 U	< 380 U	< 400 U
Phenanthrene	ug/kg	100000	500000	220 UJ	< 250 U	< 210 U	280	< 210 U	< 200 U	430	< 200 U	< 200 U	< 200 U	< 200 U	< 210 U
Phenol	ug/kg	**330**	500000	< 950 U	< 250 U	< 210 U	< 210 U	< 210 U	< 200 U	< 220 U	< 200 U	< 200 U	< 200 U	< 200 U	< 210 U
Pyrene	ug/kg	100000	500000	230 UJ	< 250 U	< 210 U	600	< 210 U	< 200 U	560	< 200 U	< 200 U	91 UJ	< 200 U	< 210 U

Soil Sample ID	SB-105-A	SB-105-B	SB-105-C	SB-105-D	SB-106-A	SB-106-B	SB-106-C	SB-107-A	SB-107-B	SB-107-C	SB-108-A	SB-108-B	SB-108-C	SB-109-A	SB-109-B	SB-109-C	SB-110-A	SB-110-B	SB-110-C	SB-110-D
Start Depth (ft bgs)	0	4	10	12	0	4	14	0	6	13	0	8	10	0	4	16	0	4	17.5	10
End Depth (ft bgs)	1	6	12	14	1	8	16	2	8	18	1	10	14	1	6	18	1	6	20	12.5
Sample Date	10/10/2018	10/10/2018	10/10/2018	10/10/2018	10/10/2018	10/10/2018	10/10/2018	10/11/2018	10/11/2018	10/11/2018	10/11/2018	10/11/2018	10/11/2018	10/11/2018	10/11/2018	10/11/2018	10/11/2018	10/11/2018	10/11/2018	10/11/2018
Analyte																				
SW8270D																				
1,1'-Biphenyl	< 210 U	< 210 U	< 560 U	< 210 U	< 220 U	< 220 U	< 350 U	< 210 U	< 200 U	< 200 U	< 210 U	< 200 UJ	< 390 U	< 1700 U	< 210 U	< 200 U	< 35000 UJ	< 200 U	< 200 U	< 250 U
2,4,5-Trichlorophenol	< 210 U	< 210 U	< 560 U	< 210 U	< 220 U	< 220 U	< 350 U	< 210 U	< 200 U	< 200 U	< 210 U	< 200 UJ	< 390 U	< 1700 U	< 210 U	< 200 U	< 35000 UJ	< 200 U	< 200 U	< 250 U
2,4,6-Trichlorophenol	< 210 U	< 210 U	< 560 U	< 210 U	< 220 U	< 220 U	< 350 U	< 210 U	< 200 U	< 200 U	< 210 U	< 200 UJ	< 390 U	< 1700 U	< 210 U	< 200 U	< 35000 UJ	< 200 U	< 200 U	< 250 U
2,4-Dichlorophenol	< 210 U	< 210 U	< 560 U	< 210 U	< 220 U	< 220 U	< 350 U	< 210 U	< 200 U	< 200 U	< 210 U	< 200 UJ	< 390 U	< 1700 U	< 210 U	< 200 U	< 35000 UJ	< 200 U	< 200 U	< 250 U
2,4-Dimethylphenol	< 210 U	< 210 U	< 560 U	< 210 U	< 220 U	< 220 U	< 350 U	< 210 U	< 200 U	< 200 U	< 210 U	< 200 UJ	< 390 U	< 1700 U	< 210 U	< 200 U	< 35000 UJ	< 200 U	< 200 U	< 250 U
2,4-Dinitrophenol	< 2100 U	< 2000 U	< 5500 U	< 2100 U	< 2100 U	< 2100 U	< 3400 U	< 2000 U	< 2000 U	< 1900 U	< 2000 U	< 1900 UJ	< 3800 U	< 17000 U	< 2100 U	< 2000 U	< 340000 UJ	< 2000 U	< 1900 U	< 2400 U
2,4-Dinitrotoluene	< 210 U	< 210 U	< 560 U	< 210 U	< 220 U	< 220 U	< 350 U	< 210 U	< 200 U	< 200 U	< 210 U	< 200 UJ	< 390 U	< 1700 U	< 210 U	< 200 U	< 35000 UJ	< 200 U	< 200 U	< 250 U
2,6-Dinitrotoluene	< 210 U	< 210 U	< 560 U	< 210 U	< 220 U	< 220 U	< 350 U	< 210 U	< 200 U	< 200 U	< 210 U	< 200 UJ	< 390 U	< 1700 U	< 210 U	< 200 U	< 35000 UJ	< 200 U	< 200 U	< 250 U
2-Chloronaphthalene	< 210 U	< 210 U	< 560 U	< 210 U	< 220 U	< 220 U	< 350 U	< 210 U	< 200 U	< 200 U	< 210 U	< 200 UJ	< 390 U	< 1700 U	< 210 U	< 200 U	< 35000 UJ	< 200 U	< 200 U	< 250 U
2-Chlorophenol	< 210 U	< 210 U	< 560 U	< 210 U	< 220 U	< 220 U	< 350 U	< 210 U	< 200 U	< 200 U	< 210 U	< 200 UJ	< 390 U	< 1700 U	< 210 U	< 200 U	< 35000 UJ	< 200 U	< 200 U	< 250 U
2-Methylnaphthalene	160 UJ	< 210 U	< 560 U	< 210 U	< 220 U	< 220 U	< 350 U	48 UJ	< 200 U	< 200 U	200 UJ	< 200 UJ	< 390 U	< 1700 U	240	< 200 U	< 35000 UJ	< 200 U	< 200 U	< 250 U
2-Methylphenol	< 210 U	< 210 U	< 560 U	< 210 U	< 220 U	< 220 U	< 350 U	< 210 U	< 200 U	< 200 U	< 210 U	< 200 UJ	< 390 U	< 1700 U	< 210 U	< 200 U	< 35000 UJ	< 200 U	< 200 U	< 250 U
2-Nitroaniline	< 410 U	< 400 U	< 1100 U	< 420 U	< 420 U	< 420 U	< 680 U	< 400 U	< 390 U	< 390 U	< 400 U	< 380 UJ	< 760 U	< 3300 U	< 410 U	< 390 U	< 68000 UJ	< 390 U	< 380 U	< 480 U
2-Nitrophenol	< 210 U	< 210 U	< 560 U	< 210 U	< 220 U	< 220 U	< 350 U	< 210 U	< 200 U	< 200 U	< 210 U	< 200 UJ	< 390 U	< 1700 U	< 210 U	< 200 U	< 35000 UJ	< 200 U	< 200 U	< 250 U
3 & 4 Methylphenol	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3,3'-Dichlorobenzidine	< 410 U	< 400 U	< 1100 U	< 420 U	< 420 U	< 420 U	< 680 U	< 400 U	< 390 U	< 390 U	< 400 U	< 380 UJ	< 760 U	< 3300 U	< 410 U	< 390 U	< 68000 UJ	< 390 U	< 380 U	< 480 U
3-Nitroaniline	< 410 U	< 400 U	< 1100 U	< 420 U	< 420 U	< 420 U	< 680 U	< 400 U	< 390 U	< 390 U	< 400 U	< 380 UJ	< 760 U	< 3300 U	< 410 U	< 390 U	< 68000 UJ	< 390 U	< 380 U	< 480 U
4,6-Dinitro-2-methylphenol	< 410 U	< 400 U	< 1100 U	< 420 U	< 420 U	< 420 U	< 680 U	< 400 U	< 390 U	< 390 U	< 400 U	< 380 UJ	< 760 U	< 3300 U	< 410 U	< 390 U	< 68000 UJ	< 390 U	< 380 U	< 480 U
4-Bromophenyl phenyl ether	< 210 U	< 210 U	< 560 U	< 210 U	< 220 U	< 220 U	< 350 U	< 210 U	< 200 U	< 200 U	< 210 U	< 200 UJ	< 390 U	< 1700 U	< 210 U	< 200 U	< 35000 UJ	< 200 U	< 200 U	< 250 U
4-Chloro-3-methylphenol	< 210 U	< 210 U	< 560 U	< 210 U	< 220 U	< 220 U	< 350 U	< 210 U	< 200 U	< 200 U	< 210 U	< 200 UJ	< 390 U	< 1700 U	< 210 U	< 200 U	< 35000 UJ	< 200 U	< 200 U	< 250 U
4-Chloroaniline	< 210 U	< 210 U	< 560 U	< 210 U	< 220 U	< 220 U	< 350 U	< 210 U	< 200 U	< 200 U	< 210 U	< 200 UJ	< 390 U	< 1700 U	< 210 U	< 200 U	< 35000 UJ	< 200 U	< 200 U	< 250 U
4-Chlorophenyl phenyl ether	< 210 U	< 210 U	< 560 U	< 210 U	< 220 U	< 220 U	< 350 U	< 210 U	< 200 U	< 200 U	< 210 U	< 200 UJ	< 390 U	< 1700 U	< 210 U	< 200 U	< 35000 UJ	< 200 U	< 200 U	< 250 U
4-Methylphenol	< 410 U	< 400 U	< 1100 U	< 420 U	< 420 U	< 420 U	< 680 U	< 400 U	< 390 U	< 390 U	< 400 U	< 380 UJ	< 760 U	< 3300 U	< 410 U	< 390 U	< 68000 UJ	< 390 U	< 380 U	< 480 U
4-Nitroaniline	< 410 U	< 400 U	< 1100 U	< 420 U	< 420 U	< 420 U	< 680 U	< 400 U	< 390 U	< 390 U	< 400 U	< 380 UJ	< 760 U	< 3300 U	< 410 U	< 390 U	< 68000 UJ	< 390 U	< 380 U	< 480 U
4-Nitrophenol	< 410 U	< 400 U	< 1100 U	< 420 U	< 420 U	< 420 U	< 680 U	< 400 U	< 390 U	< 390 U	< 400 U	< 380 UJ	< 760 U	< 3300 U	< 410 U	< 390 U	< 68000 UJ	< 390 U	< 380 U	< 480 U
Acenaphthene	< 210 U	< 210 U	< 560 U	< 210 U	< 220 U	< 220 U	< 350 U	< 210 U	< 200 U	< 200 U	< 210 U	< 200 UJ	< 390 U	1400 UJ	< 210 U	< 200 U	< 35000 UJ	< 200 U	< 200 U	< 250 U
Acenaphthylene	130 UJ	< 210 U	< 560 U	< 210 U	< 220 U	< 220 U	< 350 U	110 UJ	< 200 U	< 200 U	170 UJ	< 200 UJ	< 390 U	270 UJ	92 UJ	< 200 U	< 35000 UJ	< 200 U	< 200 U	< 250 U
Acetophenone	< 210 U	< 210 U	< 560 U	< 210 U	< 220 U	< 220 U	< 350 U	< 210 U	< 200 U	< 200 U	< 210 U	< 200 UJ	< 390 U	< 1700 U	< 210 U	< 200 U	< 35000 UJ	< 200 U	< 200 U	< 250 U
Anthracene	120 UJ	< 210 U	< 560 U	< 210 U	< 220 U	< 220 U	< 350 U	130 UJ	< 200 U	< 200 U	210	< 200 UJ	< 390 U	4000	140 UJ	< 200 U	< 35000 UJ	< 200 U	< 200 U	91 UJ
Atrazine	< 210 U	< 210 U	< 560 U	< 210 U	< 220 U	< 220 U	< 350 U	< 210 U	< 200 U	< 200 U	< 210 U	< 200 UJ	< 390 U	< 1700 U	< 210 U	< 200 U	< 35000 UJ	< 200 U	< 200 U	< 250 U
Benzaldehyde	< 210 UJ	< 210 UJ	< 560 UJ	< 210 UJ	< 220 UJ	< 220 UJ	< 350 UJ	< 210 U	< 200 U	< 200 U	< 210 U	< 200 UJ	< 390 U	< 1700 U	< 210 U	< 200 U	< 35000 UJ	< 200 U	< 200 U	< 250 U
Benzo(b)fluoranthene	**1100**	< 210 U	< 560 U	< 210 U	200 UJ	< 220 U	< 350 U	800	< 200 U	< 200 U	**1300**	< 200 UJ	< 390 U	**9200**	**1200**	< 200 U	< 35000 UJ	< 200 U	< 200 U	150 UJ
Benzo[a]anthracene	560	< 210 U	< 560 U	< 210 U	< 220 U	< 220 U	< 350 U	540	< 200 U	< 200 U	630	< 200 UJ	< 390 U	**8700**	540	< 200 U	< 35000 UJ	< 200 U	< 200 U	< 250 U
Benzo[a]pyrene	700	< 210 U	< 560 U	< 210 U	130 UJ	< 220 U	< 350 U	570	< 200 U	< 200 U	760	< 200 UJ	< 390 U	**7400**	720	< 200 U	< 35000 UJ	< 200 U	< 200 U	150 UJ
Benzo[g,h,i]perylene	670	< 210 U	< 560 U	< 210 U	100 UJ	< 220 U	< 350 U	500	< 200 U	< 200 U	780	< 200 UJ	< 390 U	5200	800	< 200 U	< 35000 UJ	< 200 U	< 200 U	86 UJ
Benzo[k]fluoranthene	650	< 210 U	< 560 U	< 210 U	< 220 U	< 220 U	< 350 U	< 210 U	< 200 U	< 200 U	690	< 200 UJ	< 390 U	< 1700 U	< 210 U	< 200 U	< 35000 UJ	< 200 U	< 200 U	< 250 U
bis (2-chloroisopropyl) ether	< 210 U	< 210 U	< 560 U	< 210 U	< 220 U	< 220 U	< 350 U	< 210 U	< 200 U	< 200 U	< 210 U	< 200 UJ	< 390 U	< 1700 U	< 210 U	< 200 U	< 35000 UJ	< 200 U	< 200 U	< 250 U
bis(2-Chloroethoxy)methane	< 210 U	< 210 U	< 560 U	< 210 U	< 220 U	< 220 U	< 350 U	< 210 U	< 200 U	< 200 U	< 210 U	< 200 UJ	< 390 U	< 1700 U	< 210 U	< 200 U	< 35000 UJ	< 200 U	< 200 U	< 250 U
bis(2-Chloroethyl) ether	< 210 U	< 210 U	< 560 U	< 210 U	< 220 U	< 220 U	< 350 U	< 210 U	< 200 U	< 200 U	< 210 U	< 200 UJ	< 390 U	< 1700 U	< 210 U	< 200 U	< 35000 UJ	< 200 U	< 200 U	< 250 U
bis(2-Ethylhexyl) phthalate	< 210 U	< 210 U	< 560 U	< 210 U	< 220 U	< 220 U	< 350 U	< 210 U	< 200 U	< 200 U	< 210 U	< 200 UJ	< 390 U	< 1700 U	< 210 U	< 200 U	< 35000 UJ	< 200 U	< 200 U	< 250 U
Butyl benzyl phthalate	< 210 U	< 210 U	< 560 U	< 210 U	< 220 U	< 220 U	< 350 U	< 210 U	< 200 U	< 200 U	< 210 U	< 200 UJ	< 390 U	< 1700 U	< 210 U	< 200 U	< 35000 UJ	< 200 U	< 200 U	< 250 U
Caprolactam	< 210 U	< 210 U	< 560 U	< 210 U	< 220 U	< 220 U	< 350 U	< 210 U	< 200 U	< 200 U	< 210 U	< 200 UJ	< 390 U	< 1700 U	< 210 U	< 200 U	< 35000 UJ	< 200 U	< 200 U	< 250 U
Carbazole	70 UJ	< 210 U	< 560 U	< 210 U	< 220 U	< 220 U	< 350 U	52 UJ	< 200 U	< 200 U	98 UJ	< 200 UJ	< 390 U	1600 UJ	66 UJ	< 200 U	< 35000 UJ	< 200 U	< 200 U	< 250 U
Chrysene	780	< 210 U	< 560 U	< 210 U	< 220 U	< 220 U	< 350 U	630	< 200 U	< 200 U	900	< 200 UJ	< 390 U	**8300**	760	< 200 U	< 35000 UJ	< 200 U	< 200 U	180 UJ
Dibenz[a,h]anthracene	< 210 U	< 210 U	< 560 U	< 210 U	< 220 U	< 220 U	< 350 U	< 210 U	< 200 U	< 200 U	< 210 U	< 200 UJ	< 390 U	< 1700 U	< 210 U	< 200 U	< 35000 UJ	< 200 U	< 200 U	< 250 U
Dibenzofuran	67 UJ	< 210 U	< 560 U	< 210 U	< 220 U	< 220 U	< 350 U	25 UJ	< 200 U	< 200 U	81 UJ	< 200 UJ	< 390 U	790 UJ	81 UJ	< 200 U	< 35000 UJ	< 200 U	< 200 U	35 UJ
Diethyl phthalate	< 210 U	< 210 U	< 560 U	< 210 U	< 220 U	< 220 U	< 350 U	92 UJ	72 UJ	64 UJ	61 UJ	46 UJ	110 UJ	430 UJ	52 UJ	38 UJ	6600 UJ	< 200 U	< 200 U	< 250 U
Dimethyl phthalate	< 210 U	< 210 U	< 560 U	< 210 U	< 220 U	< 220 U	< 350 U	< 210 U	< 200 U	< 200 U	< 210 U	< 200 UJ	< 390 U	< 1700 U	< 210 U	< 200 U	< 35000 UJ	< 200 U	< 200 U	< 250 U
Di-n-butyl phthalate	< 210 U	< 210 U	< 560 U	< 210 U	< 220 U	< 220 U	< 350 U	44 UJ	39 UJ	39 UJ	42 UJ	< 200 UJ	< 390 U	< 1700 U	41 UJ	< 200 U	< 35000 UJ	< 200 U	< 200 U	< 250 U
Di-n-octyl phthalate	< 210 U	< 210 U	< 560 U	< 210 U	< 220 U	< 220 U	< 350 U	< 210 U	< 200 U	< 200 U	< 210 U	< 200 UJ	< 390 U	< 1700 U	< 210 U	< 200 U	< 35000 UJ	< 200 U	< 200 U	< 250 U
Fluoranthene	820	< 210 U	< 560 U	< 210 U	120 UJ	24 UJ	< 350 U	1000	< 200 U	< 200 U	890	< 200 UJ	< 390 U	17000	850	< 200 U	7200 UJ	< 200 U	< 200 U	400
Fluorene	< 210 U	< 210 U	< 560 U	< 210 U	< 220 U	< 220 U	< 350 U	34 UJ	< 200 U	< 200 U	< 210 U	< 200 UJ	< 390 U	1400 UJ	< 210 U	< 200 U	< 35000 UJ	< 200 U	< 200 U	44 UJ
Hexachlorobenzene	< 210 U	< 210 U	< 560 U	< 210 U	< 220 U	< 220 U	< 350 U	< 210 U	< 200 U	< 200 U	< 210 U	< 200 UJ	< 390 U	< 1700 U	< 210 U	< 200 U	< 35000 UJ	< 200 U	< 200 U	< 250 U
Hexachlorobutadiene	< 210 U	< 210 U	< 560 U	< 210 U	< 220 U	< 220 U	< 350 U	< 210 U	< 200 U	< 200 U	< 210 U	< 200 UJ	< 390 U	< 1700 U	< 210 U	< 200 U	< 35000 UJ	< 200 U	< 200 U	< 250 U
Hexachlorocyclopentadiene	< 210 U	< 210 U	< 560 U	< 210 U	< 220 U	< 220 U	< 350 U	< 210 U	< 200 U	< 200 U	< 210 U	< 200 UJ	< 390 U	< 1700 U	< 210 U	< 200 U	< 35000 UJ	< 200 U	< 200 U	< 250 U
Hexachloroethane	< 210 U	< 210 U	< 560 U	< 210 U	< 220 U	< 220 U	< 350 U	< 210 U	< 200 U	< 200 U	< 210 U	< 200 UJ	< 390 U	< 1700 U	< 210 U	< 200 U	< 35000 UJ	< 200 U	< 200 U	< 250 U
Indeno[1,2,3-cd]pyrene	**570**	< 210 U	< 560 U	< 210 U	94 UJ	< 220 U	< 350 U	420	< 200 U	< 200 U	**680**	< 200 UJ	< 390 U	**4600**	**660**	< 200 U	< 35000 UJ	< 200 U	< 200 U	82 UJ
Isophorone	< 210 U	< 210 U	< 560 U	< 210 U	< 220 U	< 220 U	< 350 U	< 210 U	< 200 U	< 200 U	< 210 U	< 200 UJ	< 390 U	< 1700 U	< 210 U	< 200 U	< 35000 UJ	< 200 U	< 200 U	< 250 U
Naphthalene	130 UJ	< 210 U	< 560 U	< 210 U	< 220 U	< 220 U	< 350 U	37 UJ	< 200 U	< 200 U	150 UJ	< 200 UJ	< 390 U	< 1700 U	140 UJ	< 200 U	< 35000 UJ	< 200 U	< 200 U	< 250 U
Nitrobenzene	< 210 U	< 210 U	< 560 U	< 210 U	< 220 U	< 220 U	< 350 U	< 210 U	< 200 U	< 200 U	< 210 U	< 200 UJ	< 390 U	< 1700 U	< 210 U	< 200 U	< 35000 UJ	< 200 U	< 200 U	< 250 U
N-Nitrosodi-n-propylamine	< 210 U	< 210 U	< 560 U	< 210 U	< 220 U	< 220 U	< 350 U	< 210 U	< 200 U	< 200 U	< 210 U	< 200 UJ	< 390 U	< 1700 U	< 210 U	< 200 U	< 35000 UJ	< 200 U	< 200 U	< 250 U
N-Nitrosodiphenylamine	< 210 U	< 210 U	< 560 U	< 210 U	< 220 U	< 220 U	< 350 U	< 210 U	< 200 U	< 200 U	< 210 U	< 200 UJ	< 390 U	< 1700 U	< 210 U	< 200 U	< 35000 UJ	< 200 U	< 200 U	< 250 U
Pentachlorophenol	< 410 U	< 400 U	< 1100 U	< 420 U	< 420 U	< 420 U	< 680 U	< 400 U	< 390 U	< 390 U	< 400 U	< 380 UJ	< 760 U	< 3300 U	< 410 U	< 390 U	< 68000 UJ	< 390 U	< 380 U	< 480 U
Phenanthrene	430	< 210 U	< 560 U	< 210 U	< 220 U	< 220 U	< 350 U	640	< 200 U	< 200 U	390	< 200 UJ	< 390 U	13000	490	< 200 U	< 35000 UJ	< 200 U	< 200 U	380
Phenol	< 210 U	< 210 U	< 560 U	< 210 U	< 220 U	< 220 U	< 350 U	< 210 U	< 200 U	< 200 U	< 210 U	< 200 UJ	< 390 U	< 1700 U	< 210 U	< 200 U	< 35000 UJ	< 200 U	< 200 U	< 250 U
Pyrene	860	< 210 U	< 560 U	< 210 U	180 UJ	26 UJ	< 350 U	1100 J	< 200 UJ	< 200 UJ	900 J	< 200 UJ	< 390 UJ	14000 J	770 J	< 200 UJ	4200 UJ	< 200 UJ	< 200 UJ	300 J

Notes:

ft bgs = feet below ground surface

mg/kg = milligrams per kilogram

µg/kg = micrograms per kilogram

6 NYCRR Part 375 SCO = Title 6 Official Compilation of New York Codes, Rules and Regulations Part 375 Soil Cleanup Objectives

\- = no SCO established

NA = not applicable/analyzed

Qualifiers:

U = Analyte analyzed for, but not detected above the sample's reported quantitation limit

J = Analyte positively identified at a numerical value that is the approximate concentration of the analyte in the sample

J+ = Sample likely to have a high bias

J- = Sample likely to have a low bias

UJ = Analyte not detected above the sample quantitation limit; the associated quantitation limit is approximate and may or may not represent the actual limit of quantitation necessary to accurately and precisely measure the analyte in the sample

N = The analysis indicates the present of an analyte for which there is presumptive evidence to make a “tentative identification.”

NJ = The analysis indicates the presence of an analyte that has been “tentatively identified” and the associated numerical value represents its approximate oncentration.

R = Sample result rejected due to serious deficiency in ability to analyze sample and meet quality control criteria; the presence or absence of the analyte cannot be confirmed. This qualifier also may apply when more than one sample result is generated for a target analyte (i.e., dilutions or re-analyses), the most technically acceptable result is considered acceptable.

B/EB/TB/BB = An analyte identified in method blank (B), aqueous equipment (EB), trip (TB), or bottle blanks (BB) used to assess field contamination associated with soil or sediment samples mandates these qualifiers for only soil and sediment sample results.

P = Use professional judgment based on data use. It usually has an “M” with it, which indicates that a manual check should be made if the data that are qualified with the “P” are important to the data user. In addition, “PM” also means a decision is necessary from the Project Manager (or a delegate) concerning the need for further review of the data (see below).

PM = A manual review of the raw data is recommended to determine if the defect affects data use, as in “R” above. This review should include consideration of potential affects that could result from using the “P” qualified data. For example, in the case of holding-time exceedance, the Project Manager or delegate can decide to use the data with no qualification when analytes of interest are known not to be adversely affected by holding-time exceedances. Another example is the case where soil sample duplicate analyses for metals exceed the precision criteria; because this is likely due to sample non-homogeneity rather than contract laboratory error, then the manager or delegate must decide how to use the data.

Table 1
Soil Analytical Data

Analyte	Units	6 NYCRR PART 375 UNRESTRICTED USE SCO	6 NYCRR PART 375 COMMERCIAL USE SCO	SB-111-A	SB-111-B	SB-111-C	SB-112-A	SB-112-B	SB-112-C	SB-113-A	SB-113-B	SB-113-C	SB-114-A	SB-114-B	SB-114-C
Start Depth (ft bgs)				0	6	18	0	8	12	0	6	18	0	8	10
End Depth (ft bgs)				1	8	20	1	10	15	1	8	20	1	10	20
Sample Date				10/16/2018	10/16/2018	10/16/2018	10/16/2018	10/16/2018	10/16/2018	10/16/2018	10/16/2018	10/16/2018	10/16/2018	10/16/2018	10/16/2018
SW8270D															
1,1'-Biphenyl	ug/kg	-	-	< 310 U	< 350 U	< 65 U	140	< 380 U	< 160 U	< 1700 U	< 420 U	< 62 U	< 61 U	< 330 U	< 350 U
2,4,5-Trichlorophenol	ug/kg	-	-	< 930 U	< 1000 U	< 190 U	< 330 U	< 1100 U	< 490 U	< 5000 U	< 1300 U	< 190 U	< 180 U	< 990 U	< 1100 U
2,4,6-Trichlorophenol	ug/kg	-	-	< 930 U	< 1000 U	< 190 U	< 330 U	< 1100 U	< 490 U	< 5000 U	< 1300 U	< 190 U	< 180 U	< 990 U	< 1100 U
2,4-Dichlorophenol	ug/kg	-	-	< 930 U	< 1000 U	< 190 U	< 330 U	< 1100 U	< 490 U	< 5000 U	< 1300 U	< 190 U	< 180 U	< 990 U	< 1100 U
2,4-Dimethylphenol	ug/kg	-	-	< 930 U	< 1000 U	< 190 U	< 330 U	< 1100 U	< 490 U	< 5000 U	< 1300 U	< 190 U	< 180 U	< 990 U	< 1100 U
2,4-Dinitrophenol	ug/kg	-	-	< 2000 U	< 2300 U	< 430 U	< 730 U	< 2500 U	< 1100 U	< 11000 U	< 2800 U	< 410 U	< 410 U	< 2200 U	< 2300 U
2,4-Dinitrotoluene	ug/kg	-	-	< 1200 U	< 1400 U	< 260 U	< 450 U	< 1500 U	< 660 U	< 6600 U	< 1700 U	< 250 U	< 250 U	< 1300 U	< 1400 U
2,6-Dinitrotoluene	ug/kg	-	-	< 1200 U	< 1400 U	< 260 U	< 450 U	< 1500 U	< 660 U	< 6600 U	< 1700 U	< 250 U	< 250 U	< 1300 U	< 1400 U
2-Chloronaphthalene	ug/kg	-	-	< 310 U	< 350 U	< 65 U	< 110 U	< 380 U	< 160 U	< 1700 U	< 420 U	< 62 U	< 61 U	< 330 U	< 350 U
2-Chlorophenol	ug/kg	-	-	< 310 U	< 350 U	< 65 U	< 110 U	< 380 U	< 160 U	< 1700 U	< 420 U	< 62 U	< 61 U	< 330 U	< 350 U
2-Methylnaphthalene	ug/kg	-	-	340	< 100 U	< 19 U	1400	< 110 U	< 49 U	130 UJ	< 130 U	< 19 U	16 UJ	< 99 U	< 110 U
2-Methylphenol	ug/kg	330	500000	< 1200 U	< 1400 U	< 260 U	< 450 U	< 1500 U	< 660 U	< 6600 U	< 1700 U	< 250 U	< 250 U	< 1300 U	< 1400 U
2-Nitroaniline	ug/kg	-	-	< 1200 U	< 1400 U	< 260 U	< 450 U	< 1500 U	< 660 U	< 6600 U	< 1700 U	< 250 U	< 250 U	< 1300 U	< 1400 U
2-Nitrophenol	ug/kg	-	-	< 310 U	< 350 U	< 65 U	< 110 U	< 380 U	< 160 U	< 1700 U	< 420 U	< 62 U	< 61 U	< 330 U	< 350 U
3 & 4 Methylphenol	ug/kg	-	-	< 2500 U	< 2800 U	< 520 U	< 890 U	< 3100 U	< 1300 U	< 13000 U	< 3300 U	< 500 U	< 490 U	< 2600 U	< 2800 U
3,3'-Dichlorobenzidine	ug/kg	-	-	< 620 U	< 700 U	< 130 U	< 220 U	< 760 U	< 330 U	< 3300 U	< 840 U	< 120 U	< 120 U	< 660 U	< 710 U
3-Nitroaniline	ug/kg	-	-	< 1200 U	< 1400 U	< 260 U	< 450 U	< 1500 U	< 660 U	< 6600 U	< 1700 U	< 250 U	< 250 U	< 1300 U	< 1400 U
4,6-Dinitro-2-methylphenol	ug/kg	-	-	< 2000 U	< 2300 U	< 430 U	< 730 U	< 2500 U	< 1100 U	< 11000 U	< 2800 U	< 410 U	< 410 U	< 2200 U	< 2300 U
4-Bromophenyl phenyl ether	ug/kg	-	-	< 310 U	< 350 U	< 65 U	< 110 U	< 380 U	< 160 U	< 1700 U	< 420 U	< 62 U	< 61 U	< 330 U	< 350 U
4-Chloro-3-methylphenol	ug/kg	-	-	< 930 U	< 1000 U	< 190 U	< 330 U	< 1100 U	< 490 U	< 5000 U	< 1300 U	< 190 U	< 180 U	< 990 U	< 1100 U
4-Chloroaniline	ug/kg	-	-	< 930 U	< 1000 U	< 190 U	< 330 U	< 1100 U	< 490 U	< 5000 U	< 1300 U	< 190 U	< 180 U	< 990 U	< 1100 U
4-Chlorophenyl phenyl ether	ug/kg	-	-	< 310 U	< 350 U	< 65 U	< 110 U	< 380 U	< 160 U	< 1700 U	< 420 U	< 62 U	< 61 U	< 330 U	< 350 U
4-Methylphenol	ug/kg	330	500000	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitroaniline	ug/kg	-	-	< 1200 U	< 1400 U	< 260 U	< 450 U	< 1500 U	< 660 U	< 6600 U	< 1700 U	< 250 U	< 250 U	< 1300 U	< 1400 U
4-Nitrophenol	ug/kg	-	-	< 2000 U	< 2300 U	< 430 U	< 730 U	< 2500 U	< 1100 U	< 11000 U	< 2800 U	< 410 U	< 410 U	< 2200 U	< 2300 U
Acenaphthene	ug/kg	20000	500000	800	< 100 U	< 19 U	72	< 110 U	< 49 U	830	< 130 U	< 19 U	< 18 U	< 99 U	< 110 U
Acenaphthylene	ug/kg	100000	500000	41 UJ	< 100 U	< 19 U	79	< 110 U	< 49 U	6100	< 130 U	< 19 U	15 UJ	< 99 U	< 110 U
Acetophenone	ug/kg	-	-	< 620 U	< 700 U	< 130 U	150 UJ	< 760 U	47 UJ	< 3300 U	< 840 U	< 120 U	< 120 U	< 660 U	< 710 U
Anthracene	ug/kg	100000	500000	1900	< 100 U	< 19 U	160	< 110 U	< 49 U	7000	< 130 U	< 19 U	9.7 UJ	< 99 U	< 110 U
Atrazine	ug/kg	-	-	< 1200 U	< 1400 U	< 260 U	< 450 U	< 1500 U	< 660 U	< 6600 U	< 1700 U	< 250 U	< 250 U	< 1300 U	< 1400 U
Benzaldehyde	ug/kg	-	-	< 620 U	< 700 U	< 130 U	130 UJ	< 760 U	120 UJ	< 3300 U	< 840 U	< 120 U	< 120 U	< 660 U	< 710 U
Benzo(b)fluoranthene	ug/kg	**1000**	5600	**3900**	< 100 U	< 19 U	**1500**	< 110 U	< 49 U	**27000**	< 130 U	< 19 U	100	< 99 U	< 110 U
Benzo[a]anthracene	ug/kg	**1000**	5600	**3100**	< 100 U	< 19 U	680	< 110 U	< 49 U	**18000**	< 130 U	< 19 U	46	< 99 U	< 110 U
Benzo[a]pyrene	ug/kg	**1000**	1000	**2400**	< 100 U	< 19 U	760	< 110 U	< 49 U	**17000**	< 130 U	< 19 U	51	< 99 U	< 110 U
Benzo[g,h,i]perylene	ug/kg	100000	500000	570	< 100 U	< 19 U	260	< 110 U	< 49 U	4100	< 130 U	< 19 U	20	< 99 U	< 110 U
Benzo[k]fluoranthene	ug/kg	**800**	56000	**1400**	< 100 U	< 19 U	440	< 110 U	< 49 U	**10000**	< 130 U	< 19 U	30	< 99 U	< 110 U
bis (2-chloroisopropyl) ether	ug/kg	-	-	< 620 U	< 700 U	< 130 U	< 220 U	< 760 U	< 330 U	< 3300 U	< 840 U	< 120 U	< 120 U	< 660 U	< 710 U
bis(2-Chloroethoxy)methane	ug/kg	-	-	< 620 U	< 700 U	< 130 U	< 220 U	< 760 U	< 330 U	< 3300 U	< 840 U	< 120 U	< 120 U	< 660 U	< 710 U
bis(2-Chloroethyl) ether	ug/kg	-	-	< 620 U	< 700 U	< 130 U	< 220 U	< 760 U	< 330 U	< 3300 U	< 840 U	< 120 U	< 120 U	< 660 U	< 710 U
bis(2-Ethylhexyl) phthalate	ug/kg	-	-	< 430 U	< 490 U	< 91 U	< 160 U	560	< 230 U	< 2300 U	< 590 U	< 87 U	180	< 460 U	400 UJ
Butyl benzyl phthalate	ug/kg	-	-	< 430 U	< 490 U	< 91 U	< 160 U	< 540 U	< 230 U	< 2300 U	< 590 U	< 87 U	< 86 U	< 460 U	< 490 U
Caprolactam	ug/kg	-	-	< 2000 U	< 2300 U	< 430 U	< 730 U	< 2500 U	< 1100 U	< 11000 U	< 2800 U	< 410 U	< 410 U	< 2200 U	< 2300 U
Carbazole	ug/kg	-	-	990	< 350 U	< 65 U	120	< 380 U	< 160 U	3000	< 420 U	< 62 U	< 61 U	< 330 U	< 350 U
Chrysene	ug/kg	**1000**	56000	**3000**	< 100 U	< 19 U	1000	< 110 U	< 49 U	**18000**	< 130 U	< 19 U	58	< 99 U	< 110 U
Dibenz[a,h]anthracene	ug/kg	**330**	560	200	< 100 U	< 19 U	79	< 110 U	< 49 U	**1500**	< 130 U	< 19 U	< 18 U	< 99 U	< 110 U
Dibenzofuran	ug/kg	7000	350000	570	< 350 U	< 65 U	410	< 380 U	< 160 U	910 UJ	< 420 U	< 62 U	< 61 U	< 330 U	< 350 U
Diethyl phthalate	ug/kg	-	-	< 430 U	< 490 U	< 91 U	< 160 U	< 540 U	< 230 U	< 2300 U	< 590 U	< 87 U	< 86 U	< 460 U	< 490 U
Dimethyl phthalate	ug/kg	-	-	< 430 U	< 490 U	< 91 U	< 160 U	< 540 U	< 230 U	< 2300 U	< 590 U	< 87 U	< 86 U	< 460 U	< 490 U
Di-n-butyl phthalate	ug/kg	-	-	< 430 U	< 490 U	< 91 U	< 160 U	< 540 U	< 230 U	< 2300 U	< 590 U	< 87 U	< 86 U	< 460 U	< 490 U
Di-n-octyl phthalate	ug/kg	-	-	< 430 UJ	< 490 UJ	< 91 UJ	< 160 UJ	< 540 UJ	< 230 UJ	< 2300 UJ	< 590 UJ	< 87 UJ	< 86 UJ	< 460 UJ	< 490 UJ
Fluoranthene	ug/kg	100000	500000	8200	< 100 U	< 19 U	1400	< 110 U	< 49 U	45000	< 130 U	< 19 U	76	< 99 U	< 110 U
Fluorene	ug/kg	30000	500000	910	< 100 U	< 19 U	63	< 110 U	< 49 U	3300	< 130 U	< 19 U	< 18 U	< 99 U	< 110 U
Hexachlorobenzene	ug/kg	330	6000	< 93 U	< 100 U	< 19 U	< 33 U	< 110 U	< 49 U	< 500 U	< 130 U	< 19 U	< 18 U	< 99 U	< 110 U
Hexachlorobutadiene	ug/kg	-	-	< 310 U	< 350 U	< 65 U	< 110 U	< 380 U	< 160 U	< 1700 U	< 420 U	< 62 U	< 61 U	< 330 U	< 350 U
Hexachlorocyclopentadiene	ug/kg	-	-	< 2000 UJ	< 2300 UJ	< 430 UJ	< 730 UJ	< 2500 UJ	< 1100 UJ	< 11000 UJ	< 2800 UJ	< 410 UJ	< 410 UJ	< 2200 UJ	< 2300 UJ
Hexachloroethane	ug/kg	-	-	< 310 U	< 350 U	< 65 U	< 110 U	< 380 U	< 160 U	< 1700 U	< 420 U	< 62 U	< 61 U	< 330 U	< 350 U
Indeno[1,2,3-cd]pyrene	ug/kg	**500**	5600	**620**	< 100 U	< 19 U	270	< 110 U	< 49 U	**4800**	< 130 U	< 19 U	20	< 99 U	< 110 U
Isophorone	ug/kg	-	-	< 310 U	< 350 U	< 65 U	< 110 U	< 380 U	< 160 U	< 1700 U	< 420 U	< 62 U	< 61 U	< 330 U	< 350 U
Naphthalene	ug/kg	12000	500000	370	< 100 U	< 19 U	1000	< 110 U	< 49 U	260 UJ	< 130 U	< 19 U	14 UJ	< 99 U	< 110 U
Nitrobenzene	ug/kg	-	-	< 620 U	< 700 U	< 130 U	< 220 U	< 760 U	< 330 U	< 3300 U	< 840 U	< 120 U	< 120 U	< 660 U	< 710 U
N-Nitrosodi-n-propylamine	ug/kg	-	-	< 310 U	< 350 U	< 65 U	< 110 U	< 380 U	< 160 U	< 1700 U	< 420 U	< 62 U	< 61 U	< 330 U	< 350 U
N-Nitrosodiphenylamine	ug/kg	-	-	< 310 U	< 350 U	< 65 U	< 110 U	< 380 U	< 160 U	< 1700 U	< 420 U	< 62 U	< 61 U	< 330 U	< 350 U
Pentachlorophenol	ug/kg	800	6700	< 930 U	< 1000 U	< 190 U	< 330 U	< 1100 U	< 490 U	< 5000 U	< 1300 U	< 190 U	< 180 U	< 990 U	< 1100 U
Phenanthrene	ug/kg	100000	500000	6700	< 100 U	< 19 U	1400	< 110 U	< 49 U	25000	< 130 U	< 19 U	31	< 99 U	< 110 U
Phenol	ug/kg	**330**	500000	< 310 U	< 350 U	< 65 U	23 UJ	< 380 U	< 160 U	< 1700 U	< 420 U	< 62 U	< 61 U	< 330 U	< 350 U
Pyrene	ug/kg	100000	500000	6000	< 100 U	7.4 UJ	1200	< 110 U	< 49 U	30000	< 130 U	< 19 U	62	< 99 U	< 110 U

Analyte	SB-115-A	SB-115-B	SB-115-C	SB-116-A	SB-116-B	SB-116-C	SB-117-A	SB-117-B	SB-117-C	SB-117-D	SB-118-A	SB-118-B	SB-118-C	SB-119-A	SB-119-B	SB-119-C	SB-120-A	SB-120-B	SB-120-C
Start Depth (ft bgs)	0	7	15	0	5	14	0	4	10	16	0	6	16	0	8	13	0	4	16
End Depth (ft bgs)	1	10	17	1	7	18	2	7	12	20	1	8	20	1	10	15	1	6	20
Sample Date	10/12/2018	10/12/2018	10/12/2018	10/12/2018	10/12/2018	10/12/2018	10/12/2018	10/12/2018	10/12/2018	10/12/2018	10/12/2018	10/12/2018	10/12/2018	10/11/2018	10/11/2018	10/11/2018	10/11/2018	10/11/2018	10/11/2018
SW8270D																			
1,1'-Biphenyl	< 200 U	< 200 UJ	< 190 U	< 980 UJ	< 1100 UJ	< 220 U	< 190 U	< 200 U	< 280 U	< 200 U	< 200 U	< 210 UJ	< 200 U	< 1000 U	< 200 U	< 210 U	< 54000 UJ	< 200 U	< 250 U
2,4,5-Trichlorophenol	< 200 U	< 200 UJ	< 190 U	< 980 UJ	< 1100 UJ	< 220 U	< 190 U	< 200 U	< 280 U	< 200 U	< 200 U	< 210 UJ	< 200 U	< 1000 U	< 200 U	< 210 U	< 54000 UJ	< 200 U	< 250 U
2,4,6-Trichlorophenol	< 200 U	< 200 UJ	< 190 U	< 980 UJ	< 1100 UJ	< 220 U	< 190 U	< 200 U	< 280 U	< 200 U	< 200 U	< 210 UJ	< 200 U	< 1000 U	< 200 U	< 210 U	< 54000 UJ	< 200 U	< 250 U
2,4-Dichlorophenol	< 200 U	< 200 UJ	< 190 U	< 980 UJ	< 1100 UJ	< 220 U	< 190 U	< 200 U	< 280 U	< 200 U	< 200 U	< 210 UJ	< 200 U	< 1000 U	< 200 U	< 210 U	< 54000 UJ	< 200 U	< 250 U
2,4-Dimethylphenol	< 200 U	< 200 UJ	< 190 U	< 980 UJ	< 1100 UJ	< 220 U	< 190 U	< 200 U	< 280 U	< 200 U	< 200 U	< 210 UJ	< 200 U	< 1000 U	< 200 U	< 210 U	< 54000 UJ	< 200 U	< 250 U
2,4-Dinitrophenol	< 2000 U	< 1900 UJ	< 1900 U	< 9500 UJ	< 11000 UJ	< 2200 U	< 1900 U	< 2000 U	< 2800 U	< 2000 U	< 2000 U	< 2100 UJ	< 2000 U	< 10000 U	< 1900 U	< 2100 U	< 530000 UJ	< 2000 U	< 2500 U
2,4-Dinitrotoluene	< 200 U	< 200 UJ	< 190 U	< 980 UJ	< 1100 UJ	< 220 U	< 190 U	< 200 U	< 280 U	< 200 U	< 200 U	< 210 UJ	< 200 U	< 1000 U	< 200 U	< 210 U	< 54000 UJ	< 200 U	< 250 U
2,6-Dinitrotoluene	< 200 U	< 200 UJ	< 190 U	< 980 UJ	< 1100 UJ	< 220 U	< 190 U	< 200 U	< 280 U	< 200 U	< 200 U	< 210 UJ	< 200 U	< 1000 U	< 200 U	< 210 U	< 54000 UJ	< 200 U	< 250 U
2-Chloronaphthalene	< 200 U	< 200 UJ	< 190 U	< 980 UJ	< 1100 UJ	< 220 U	< 190 U	< 200 U	< 280 U	< 200 U	< 200 U	< 210 UJ	< 200 U	< 1000 U	< 200 U	< 210 U	< 54000 UJ	< 200 U	< 250 U
2-Chlorophenol	< 200 U	< 200 UJ	< 190 U	< 980 UJ	< 1100 UJ	< 220 U	< 190 U	< 200 U	< 280 U	< 200 U	< 200 U	< 210 UJ	< 200 U	< 1000 U	< 200 U	< 210 U	< 54000 UJ	< 200 U	< 250 U
2-Methylnaphthalene	66 UJ	< 200 UJ	< 190 U	< 980 UJ	< 1100 UJ	< 220 U	390	< 200 U	< 280 U	< 200 U	87 UJ	< 210 UJ	< 200 U	< 1000 U	< 200 U	< 210 U	< 54000 UJ	< 200 U	< 250 U
2-Methylphenol	< 200 U	< 200 UJ	< 190 U	< 980 UJ	< 1100 UJ	< 220 U	< 190 U	< 200 U	< 280 U	< 200 U	< 200 U	< 210 UJ	< 200 U	< 1000 U	< 200 U	< 210 U	< 54000 UJ	< 200 U	< 250 U
2-Nitroaniline	< 400 U	< 380 UJ	< 380 U	< 1900 UJ	< 2200 UJ	< 430 U	< 380 U	< 390 U	< 550 U	< 400 U	< 400 U	< 410 UJ	< 390 U	< 2000 U	< 390 U	< 410 U	< 110000 UJ	< 390 U	< 490 U
2-Nitrophenol	< 200 U	< 200 UJ	< 190 U	< 980 UJ	< 1100 UJ	< 220 U	< 190 U	< 200 U	< 280 U	< 200 U	< 200 U	< 210 UJ	< 200 U	< 1000 U	< 200 U	< 210 U	< 54000 UJ	< 200 U	< 250 U
3 & 4 Methylphenol	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3,3'-Dichlorobenzidine	< 400 U	< 380 UJ	< 380 U	< 1900 UJ	< 2200 UJ	< 430 U	< 380 U	< 390 U	< 550 U	< 400 U	< 400 U	< 410 UJ	< 390 U	< 2000 U	< 390 U	< 410 U	< 110000 UJ	< 390 U	< 490 U
3-Nitroaniline	< 400 U	< 380 UJ	< 380 U	< 1900 UJ	< 2200 UJ	< 430 U	< 380 U	< 390 U	< 550 U	< 400 U	< 400 U	< 410 UJ	< 390 U	< 2000 U	< 390 U	< 410 U	< 110000 UJ	< 390 U	< 490 U
4,6-Dinitro-2-methylphenol	< 400 U	< 380 UJ	< 380 U	< 1900 UJ	< 2200 UJ	< 430 U	< 380 U	< 390 U	< 550 U	< 400 U	< 400 U	< 410 UJ	< 390 U	< 2000 U	< 390 U	< 410 U	< 110000 UJ	< 390 U	< 490 U
4-Bromophenyl phenyl ether	< 200 U	< 200 UJ	< 190 U	< 980 UJ	< 1100 UJ	< 220 U	< 190 U	< 200 U	< 280 U	< 200 U	< 200 U	< 210 UJ	< 200 U	< 1000 U	< 200 U	< 210 U	< 54000 UJ	< 200 U	< 250 U
4-Chloro-3-methylphenol	< 200 U	< 200 UJ	< 190 U	< 980 UJ	< 1100 UJ	< 220 U	< 190 U	< 200 U	< 280 U	< 200 U	< 200 U	< 210 UJ	< 200 U	< 1000 U	< 200 U	< 210 U	< 54000 UJ	< 200 U	< 250 U
4-Chloroaniline	< 200 U	< 200 UJ	< 190 U	< 980 UJ	< 1100 UJ	< 220 U	< 190 U	< 200 U	< 280 U	< 200 U	< 200 U	< 210 UJ	< 200 U	< 1000 U	< 200 U	< 210 U	< 54000 UJ	< 200 U	< 250 U
4-Chlorophenyl phenyl ether	< 200 U	< 200 UJ	< 190 U	< 980 UJ	< 1100 UJ	< 220 U	< 190 U	< 200 U	< 280 U	< 200 U	< 200 U	< 210 UJ	< 200 U	< 1000 U	< 200 U	< 210 U	< 54000 UJ	< 200 U	< 250 U
4-Methylphenol	< 400 U	< 380 UJ	< 380 U	< 1900 UJ	< 2200 UJ	< 430 U	< 380 U	< 390 U	< 550 U	< 400 U	< 400 U	< 410 UJ	< 390 U	< 2000 U	< 390 U	< 410 U	< 110000 UJ	< 390 U	< 490 U
4-Nitroaniline	< 400 U	< 380 UJ	< 380 U	< 1900 UJ	< 2200 UJ	< 430 U	< 380 U	< 390 U	< 550 U	< 400 U	< 400 U	< 410 UJ	< 390 U	< 2000 U	< 390 U	< 410 U	< 110000 UJ	< 390 U	< 490 U
4-Nitrophenol	< 400 U	< 380 UJ	< 380 U	< 1900 UJ	< 2200 UJ	< 430 U	< 380 U	< 390 U	< 550 U	< 400 U	< 400 U	< 410 UJ	< 390 U	< 2000 U	< 390 U	< 410 U	< 110000 UJ	< 390 U	< 490 U
Acenaphthene	< 200 U	< 200 UJ	< 190 U	< 980 UJ	< 1100 UJ	< 220 U	< 190 U	< 200 U	< 280 U	< 200 U	150 UJ	< 210 UJ	< 200 U	< 1000 U	< 200 U	< 210 U	< 54000 UJ	< 200 U	< 250 U
Acenaphthylene	62 UJ	< 200 UJ	< 190 U	< 980 UJ	< 1100 UJ	< 220 U	53 UJ	< 200 U	< 280 U	< 200 U	70 UJ	< 210 UJ	< 200 U	220 UJ	< 200 U	< 210 U	< 54000 UJ	< 200 U	< 250 U
Acetophenone	< 200 U	< 200 UJ	< 190 U	< 980 UJ	< 1100 UJ	< 220 U	< 190 U	< 200 U	< 280 U	< 200 U	< 200 U	< 210 UJ	< 200 U	< 1000 U	< 200 U	< 210 U	< 54000 UJ	< 200 U	< 250 U
Anthracene	86 UJ	< 200 UJ	< 190 U	340 UJ	< 1100 UJ	< 220 U	60 UJ	< 200 U	< 280 U	< 200 U	120 UJ	< 210 UJ	< 200 U	1300	< 200 U	< 210 U	< 54000 UJ	< 200 U	< 250 U
Atrazine	< 200 U	< 200 UJ	< 190 U	< 980 UJ	< 1100 UJ	< 220 U	< 190 U	< 200 U	< 280 U	< 200 U	< 200 U	< 210 UJ	< 200 U	< 1000 U	< 200 U	< 210 U	< 54000 UJ	< 200 U	< 250 U
Benzaldehyde	< 200 U	< 200 UJ	< 190 U	< 980 UJ	< 1100 UJ	< 220 U	< 190 U	< 200 U	< 280 U	< 200 U	< 200 U	< 210 UJ	< 200 U	< 1000 U	< 200 U	< 210 U	< 54000 UJ	< 200 U	< 250 U
Benzo(b)fluoranthene	640	< 200 UJ	< 190 U	**1400 J**	< 1100 UJ	< 220 U	600	< 200 U	< 280 U	< 200 U	**2400 J**	< 210 UJ	< 200 U	**4200**	< 200 U	< 210 U	< 54000 UJ	83 UJ	< 250 U
Benzo[a]anthracene	370	< 200 UJ	< 190 U	960 UJ	< 1100 UJ	< 220 U	350	< 200 U	< 280 U	< 200 U	1000	< 210 UJ	< 200 U	**3000**	< 200 U	< 210 U	< 54000 UJ	< 200 U	< 250 U
Benzo[a]pyrene	490	< 200 UJ	< 190 U	**1100 J**	< 1100 UJ	< 220 U	440	< 200 U	< 280 U	< 200 U	**1900 J**	< 210 UJ	< 200 U	**2900**	< 200 U	< 210 U	< 54000 UJ	77 UJ	< 250 U
Benzo[g,h,i]perylene	560	< 200 UJ	< 190 U	940 UJ	< 1100 UJ	< 220 U	430	< 200 U	< 280 U	< 200 U	2500 J	< 210 UJ	< 200 U	2400	< 200 U	< 210 U	< 54000 UJ	< 200 U	< 250 U
Benzo[k]fluoranthene	< 200 U	< 200 UJ	< 190 U	490 UJ	< 1100 UJ	< 220 U	< 190 U	< 200 U	< 280 U	< 200 U	**1000**	< 210 UJ	< 200 U	< 1000 U	< 200 U	< 210 U	< 54000 UJ	< 200 U	< 250 U
bis (2-chloroisopropyl) ether	< 200 U	< 200 UJ	< 190 U	< 980 UJ	< 1100 UJ	< 220 U	< 190 U	< 200 U	< 280 U	< 200 U	< 200 U	< 210 UJ	< 200 U	< 1000 U	< 200 U	< 210 U	< 54000 UJ	< 200 U	< 250 U
bis(2-Chloroethoxy)methane	< 200 U	< 200 UJ	< 190 U	< 980 UJ	< 1100 UJ	< 220 U	< 190 U	< 200 U	< 280 U	< 200 U	< 200 U	< 210 UJ	< 200 U	< 1000 U	< 200 U	< 210 U	< 54000 UJ	< 200 U	< 250 U
bis(2-Chloroethyl) ether	< 200 U	< 200 UJ	< 190 U	< 980 UJ	< 1100 UJ	< 220 U	< 190 U	< 200 U	< 280 U	< 200 U	< 200 U	< 210 UJ	< 200 U	< 1000 U	< 200 U	< 210 U	< 54000 UJ	< 200 U	< 250 U
bis(2-Ethylhexyl) phthalate	< 200 U	< 200 UJ	< 190 U	< 980 UJ	< 1100 UJ	< 220 U	< 190 U	< 200 U	< 280 U	< 200 U	< 200 U	< 210 UJ	< 200 U	< 1000 U	< 200 U	< 210 U	< 54000 UJ	< 200 U	< 250 U
Butyl benzyl phthalate	< 200 U	< 200 UJ	< 190 U	< 980 UJ	< 1100 UJ	< 220 U	< 190 U	< 200 U	< 280 U	< 200 U	< 200 U	< 210 UJ	< 200 U	< 1000 U	< 200 U	< 210 U	< 54000 UJ	< 200 U	< 250 U
Caprolactam	< 200 U	< 200 UJ	< 190 U	< 980 UJ	< 1100 UJ	< 220 U	< 190 U	< 200 U	< 280 U	< 200 U	< 200 U	< 210 UJ	< 200 U	< 1000 U	< 200 U	< 210 U	< 54000 UJ	< 200 U	< 250 U
Carbazole	< 200 U	< 200 UJ	< 190 U	160 UJ	< 1100 UJ	< 220 U	< 190 U	< 200 U	< 280 U	< 200 U	60 UJ	< 210 UJ	< 200 U	580 UJ	< 200 U	< 210 U	< 54000 UJ	< 200 U	< 250 U
Chrysene	470	< 200 UJ	< 190 U	1000 J	< 1100 UJ	< 220 U	520	< 200 U	< 280 U	< 200 U	**1200**	< 210 UJ	< 200 U	**3300**	< 200 U	< 210 U	< 54000 UJ	90 UJ	< 250 U
Dibenz[a,h]anthracene	120 UJ	< 200 UJ	< 190 U	< 980 UJ	< 1100 UJ	< 220 U	< 190 U	< 200 U	< 280 U	< 200 U	**490 J**	< 210 UJ	< 200 U	< 1000 U	< 200 U	< 210 U	< 54000 UJ	< 200 U	< 250 U
Dibenzofuran	32 UJ	< 200 UJ	< 190 U	< 980 UJ	< 1100 UJ	< 220 U	120 UJ	< 200 U	< 280 U	< 200 U	39 UJ	< 210 UJ	< 200 U	270 UJ	< 200 U	< 210 U	< 54000 UJ	< 200 U	< 250 U
Diethyl phthalate	< 200 U	< 200 UJ	< 190 U	< 980 UJ	< 1100 UJ	< 220 U	< 190 U	< 200 U	< 280 U	< 200 U	< 200 U	< 210 UJ	< 200 U	< 1000 U	< 200 U	< 210 U	< 54000 UJ	< 200 U	< 250 U
Dimethyl phthalate	< 200 U	< 200 UJ	< 190 U	< 980 UJ	< 1100 UJ	< 220 U	< 190 U	< 200 U	< 280 U	< 200 U	< 200 U	< 210 UJ	< 200 U	< 1000 U	< 200 U	< 210 U	< 54000 UJ	< 200 U	< 250 U
Di-n-butyl phthalate	< 200 U	< 200 UJ	< 190 U	< 980 UJ	< 1100 UJ	< 220 U	< 190 U	< 200 U	< 280 U	< 200 U	< 200 U	< 210 UJ	< 200 U	< 1000 U	< 200 U	< 210 U	< 54000 UJ	< 200 U	< 250 U
Di-n-octyl phthalate	< 200 U	< 200 UJ	< 190 U	< 980 UJ	< 1100 UJ	< 220 U	< 190 U	< 200 U	< 280 U	< 200 U	< 200 U	< 210 UJ	< 200 U	< 1000 U	< 200 U	< 210 U	< 54000 UJ	< 200 U	< 250 U
Fluoranthene	610	< 200 UJ	< 190 U	2000 J	< 1100 UJ	< 220 U	570	< 200 U	< 280 U	< 200 U	1100 J	< 210 UJ	< 200 U	6900	< 200 U	< 210 U	< 54000 UJ	160 UJ	< 250 U
Fluorene	24 UJ	< 200 UJ	< 190 U	< 980 UJ	< 1100 UJ	< 220 U	< 190 U	< 200 U	< 280 U	< 200 U	50 UJ	< 210 UJ	< 200 U	440 UJ	< 200 U	< 210 U	< 54000 UJ	< 200 U	< 250 U
Hexachlorobenzene	< 200 U	< 200 UJ	< 190 U	< 980 UJ	< 1100 UJ	< 220 U	< 190 U	< 200 U	< 280 U	< 200 U	< 200 U	< 210 UJ	< 200 U	< 1000 U	< 200 U	< 210 U	< 54000 UJ	< 200 U	< 250 U
Hexachlorobutadiene	< 200 U	< 200 UJ	< 190 U	< 980 UJ	< 1100 UJ	< 220 U	< 190 U	< 200 U	< 280 U	< 200 U	< 200 U	< 210 UJ	< 200 U	< 1000 U	< 200 U	< 210 U	< 54000 UJ	< 200 U	< 250 U
Hexachlorocyclopentadiene	< 200 U	< 200 UJ	< 190 U	< 980 UJ	< 1100 UJ	< 220 U	< 190 U	< 200 U	< 280 U	< 200 U	< 200 U	< 210 UJ	< 200 U	< 1000 U	< 200 U	< 210 U	< 54000 UJ	< 200 U	< 250 U
Hexachloroethane	< 200 U	< 200 UJ	< 190 U	< 980 UJ	< 1100 UJ	< 220 U	< 190 U	< 200 U	< 280 U	< 200 U	< 200 U	< 210 UJ	< 200 U	< 1000 U	< 200 U	< 210 U	< 54000 UJ	< 200 U	< 250 U
Indeno[1,2,3-cd]pyrene	440	< 200 UJ	< 190 U	**750 UJ**	< 1100 UJ	< 220 U	360	< 200 U	< 280 U	< 200 U	**1900 J**	< 210 UJ	< 200 U	**2000**	< 200 U	< 210 U	< 54000 UJ	< 200 U	< 250 U
Isophorone	< 200 U	< 200 UJ	< 190 U	< 980 UJ	< 1100 UJ	< 220 U	< 190 U	< 200 U	< 280 U	< 200 U	< 200 U	< 210 UJ	< 200 U	< 1000 U	< 200 U	< 210 U	< 54000 UJ	< 200 U	< 250 U
Naphthalene	66 UJ	< 200 UJ	< 190 U	< 980 UJ	< 1100 UJ	< 220 U	280	< 200 U	< 280 U	< 200 U	85 UJ	< 210 UJ	< 200 U	< 1000 U	< 200 U	< 210 U	< 54000 UJ	< 200 U	< 250 U
Nitrobenzene	< 200 U	< 200 UJ	< 190 U	< 980 UJ	< 1100 UJ	< 220 U	< 190 U	< 200 U	< 280 U	< 200 U	< 200 U	< 210 UJ	< 200 U	< 1000 U	< 200 U	< 210 U	< 54000 UJ	< 200 U	< 250 U
N-Nitrosodi-n-propylamine	< 200 U	< 200 UJ	< 190 U	< 980 UJ	< 1100 UJ	< 220 U	< 190 U	< 200 U	< 280 U	< 200 U	< 200 U	< 210 UJ	< 200 U	< 1000 U	< 200 U	< 210 U	< 54000 UJ	< 200 U	< 250 U
N-Nitrosodiphenylamine	< 200 U	< 200 UJ	< 190 U	< 980 UJ	< 1100 UJ	< 220 U	< 190 U	< 200 U	< 280 U	< 200 U	< 200 U	< 210 UJ	< 200 U	< 1000 U	< 200 U	< 210 U	< 54000 UJ	< 200 U	< 250 U
Pentachlorophenol	< 400 U	< 380 UJ	< 380 U	< 1900 UJ	< 2200 UJ	< 430 U	< 380 U	< 390 U	< 550 U	< 400 U	< 400 U	< 410 UJ	< 390 U	< 2000 U	< 390 U	< 410 U	< 110000 UJ	< 390 U	< 490 U
Phenanthrene	310	< 200 UJ	< 190 U	1400 J	< 1100 UJ	< 220 U	460	< 200 U	< 280 U	< 200 U	450 J	< 210 UJ	< 200 U	4600	< 200 U	< 210 U	< 54000 UJ	120 UJ	< 250 U
Phenol	< 200 U	< 200 UJ	< 190 U	< 980 UJ	< 1100 UJ	< 220 U	< 190 U	< 200 U	< 280 U	< 200 U	< 200 U	< 210 UJ	< 200 U	< 1000 U	< 200 U	< 210 U	< 54000 UJ	< 200 U	< 250 U
Pyrene	520	< 200 UJ	< 190 U	1500 J	< 1100 UJ	< 220 U	520	< 200 U	< 280 U	< 200 U	1000	< 210 UJ	< 200 U	5100 J	< 200 UJ	< 210 UJ	< 54000 UJ	130 UJ	< 250 UJ

Notes:
ft bgs = feet below ground surface
mg/kg = milligrams per kilogram
µg/kg = micrograms per kilogram
6 NYCRR Part 375 SCO = Title 6 Official Compilation of New York Codes, Rules and Regulations Part 375 Soil Cleanup Objectives
- = no SCO established
NA = not applicable/analyzed
Qualifiers:
U = Analyte analyzed for, but not detected above the sample's reported quantitation limit
J = Analyte positively identified at a numerical value that is the approximate concentration of the analyte in the sample
J+ = Sample likely to have a high bias
J- = Sample likely to have a low bias
UJ = Analyte not detected above the sample quantitation limit; the associated quantitation limit is approximate and may or may not represent the actual limit of quantitation necessary to accurately and precisely measure the analyte in the sample
N = The analysis indicates the present of an analyte for which there is presumptive evidence to make a "tentative identification."
NJ = The analysis indicates the presence of an analyte that has been "tentatively identified" and the associated numerical value represents its approximate oncentration.
R = Sample result rejected due to serious deficiency in ability to analyze sample and meet quality control criteria; the presence or absence of the analyte cannot be confirmed. This qualifier also may apply when more than one sample result is generated for a target analyte (i.e., dilutions or re-analyses), the most technically acceptable result is considered acceptable.
B/EB/TB/BB = An analyte identified in method blank (B), aqueous equipment (EB), trip (TB), or bottle blanks (BB) used to assess field contamination associated with soil or sediment samples mandates these qualifiers for only soil and sediment sample results.
P = Use professional judgment based on data use. It usually has an "M" with it, which indicates that a manual check should be made if the data that are qualified with the "P" are important to the data user. In addition, "PM" also means a decision is necessary from the Project Manager (or a delegate) concerning the need for further review of the data (see below).
PM = A manual review of the raw data is recommended to determine if the defect affects data use, as in "R" above. This review should include consideration of potential affects that could result from using the "P" qualified data. For example, in the case of holding-time exceedance, the Project Manager or delegate can decide to use the data with no qualification when analytes of interest are known not to be adversely affected by holding-time exceedances. Another example is the case where soil sample duplicate analyses for metals exceed the precision criteria; because this is likely due to sample non-homogeneity rather than contract laboratory error, then the manager or delegate must decide how to use the data.

Table 1
Soil Analytical Data

Analyte	Units	6 NYCRR PART 375 UNRESTRICTED USE SCO	6 NYCRR PART 375 COMMERCIAL USE SCO	SB-121-A	SB-121-B	SB-121-C	SB-121-D	SB-122-A	SB-122-B	SB-122-C	SB-123-A	SB-123-B	SB-123-C	SB-124-A	SB-124-B	SB-124-C
Start Depth (ft bgs)				0	8	17	10	0	8	18	0	10	18	0	12	18
End Depth (ft bgs)				1	10	20	12	2	10	20	1	12	20	1	14	20
Sample Date				10/16/2018	10/16/2018	10/16/2018	10/16/2018	10/16/2018	10/16/2018	10/16/2018	10/16/2018	10/16/2018	10/16/2018	10/16/2018	10/16/2018	10/16/2018
SW8270D																
1,1'-Biphenyl	ug/kg	-	-	31 UJ	< 350 U	< 63 U	< 110 U	33 UJ	< 320 U	< 150 U	32 UJ	< 340 U	< 62 U	< 62 U	< 120 U	< 58 U
2,4,5-Trichlorophenol	ug/kg	-	-	< 190 U	< 1000 U	< 190 U	< 340 U	< 180 U	< 950 U	< 460 U	< 190 U	< 1000 U	< 180 U	< 190 U	< 350 U	< 180 U
2,4,6-Trichlorophenol	ug/kg	-	-	< 190 U	< 1000 U	< 190 U	< 340 U	< 180 U	< 950 U	< 460 U	< 190 U	< 1000 U	< 180 U	< 190 U	< 350 U	< 180 U
2,4-Dichlorophenol	ug/kg	-	-	< 190 U	< 1000 U	< 190 U	< 340 U	< 180 U	< 950 U	< 460 U	< 190 U	< 1000 U	< 180 U	< 190 U	< 350 U	< 180 U
2,4-Dimethylphenol	ug/kg	-	-	< 190 U	< 1000 U	< 190 U	< 340 U	< 180 U	< 950 U	< 460 U	< 190 U	< 1000 U	< 180 U	< 190 U	< 350 U	< 180 U
2,4-Dinitrophenol	ug/kg	-	-	< 410 U	< 2300 U	< 410 U	< 760 U	< 400 U	< 2100 U	< 1000 U	< 420 U	< 2200 U	< 410 U	< 410 U	< 760 U	< 390 U
2,4-Dinitrotoluene	ug/kg	-	-	< 250 U	< 1400 U	< 250 U	< 460 U	< 240 U	< 1300 U	< 610 U	< 250 U	< 1300 U	< 250 U	< 250 U	< 460 U	< 230 U
2,6-Dinitrotoluene	ug/kg	-	-	< 250 U	< 1400 U	< 250 U	< 460 U	< 240 U	< 1300 U	< 610 U	< 250 U	< 1300 U	< 250 U	< 250 U	< 460 U	< 230 U
2-Chloronaphthalene	ug/kg	-	-	< 62 U	< 350 U	< 63 U	< 110 U	< 61 U	< 320 U	< 150 U	< 63 U	< 340 U	< 62 U	< 62 U	< 120 U	< 58 U
2-Chlorophenol	ug/kg	-	-	< 62 U	< 350 U	< 63 U	< 110 U	< 61 U	< 320 U	< 150 U	< 63 U	< 340 U	< 62 U	< 62 U	< 120 U	< 58 U
2-Methylnaphthalene	ug/kg	-	-	240	< 100 U	< 19 U	< 34 U	550	< 95 U	< 46 U	330	< 100 U	< 18 U	150	< 35 U	< 18 U
2-Methylphenol	ug/kg	330	500000	< 250 U	< 1400 U	< 250 U	< 460 U	< 240 U	< 1300 U	< 610 U	< 250 U	< 1300 U	< 250 U	< 250 U	< 460 U	< 230 U
2-Nitroaniline	ug/kg	-	-	< 250 U	< 1400 U	< 250 U	< 460 U	< 240 U	< 1300 U	< 610 U	< 250 U	< 1300 U	< 250 U	< 250 U	< 460 U	< 230 U
2-Nitrophenol	ug/kg	-	-	< 62 U	< 350 U	< 63 U	< 110 U	< 61 U	< 320 U	< 150 U	< 63 U	< 340 U	< 62 U	< 62 U	< 120 U	< 58 U
3 & 4 Methylphenol	ug/kg	-	-	< 500 U	< 2800 U	< 500 U	76 UJ	< 480 U	< 2500 U	< 1200 U	< 500 U	< 2700 U	< 490 U	< 500 U	2700	< 470 U
3,3'-Dichlorobenzidine	ug/kg	-	-	< 120 U	< 700 U	< 130 U	< 230 U	< 120 U	< 630 U	< 310 U	< 130 U	< 670 U	< 120 U	< 120 U	< 230 U	< 120 U
3-Nitroaniline	ug/kg	-	-	< 250 U	< 1400 U	< 250 U	< 460 U	< 240 U	< 1300 U	< 610 U	< 250 U	< 1300 U	< 250 U	< 250 U	< 460 U	< 230 U
4,6-Dinitro-2-methylphenol	ug/kg	-	-	< 410 U	< 2300 U	< 410 U	< 760 U	< 400 U	< 2100 U	< 1000 U	< 420 U	< 2200 U	< 410 U	< 410 U	< 760 U	< 390 U
4-Bromophenyl phenyl ether	ug/kg	-	-	< 62 U	< 350 U	< 63 U	< 110 U	< 61 U	< 320 U	< 150 U	< 63 U	< 340 U	< 62 U	< 62 U	< 120 U	< 58 U
4-Chloro-3-methylphenol	ug/kg	-	-	< 190 U	< 1000 U	< 190 U	< 340 U	< 180 U	< 950 U	< 460 U	< 190 U	< 1000 U	< 180 U	< 190 U	< 350 U	< 180 U
4-Chloroaniline	ug/kg	-	-	< 190 U	< 1000 U	< 190 U	< 340 U	< 180 U	< 950 U	< 460 U	< 190 U	< 1000 U	< 180 U	< 190 U	< 350 U	< 180 U
4-Chlorophenyl phenyl ether	ug/kg	-	-	< 62 U	< 350 U	< 63 U	< 110 U	< 61 U	< 320 U	< 150 U	< 63 U	< 340 U	< 62 U	< 62 U	< 120 U	< 58 U
4-Methylphenol	ug/kg	330	500000	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitroaniline	ug/kg	-	-	< 250 U	< 1400 U	< 250 U	< 460 U	< 240 U	< 1300 U	< 610 U	< 250 U	< 1300 U	< 250 U	< 250 U	< 460 U	< 230 U
4-Nitrophenol	ug/kg	-	-	< 410 U	< 2300 U	< 410 U	< 760 U	< 400 U	< 2100 U	< 1000 U	< 420 U	< 2200 U	< 410 U	< 410 U	< 760 U	< 390 U
Acenaphthene	ug/kg	20000	500000	45	< 100 U	< 19 U	< 34 U	44	< 95 U	< 46 U	22	< 100 U	< 18 U	< 19 U	< 35 U	< 18 U
Acenaphthylene	ug/kg	100000	500000	110	< 100 U	< 19 U	< 34 U	18	< 95 U	< 46 U	40	< 100 U	< 18 U	27	< 35 U	< 18 U
Acetophenone	ug/kg	-	-	26 UJ	< 700 U	< 130 U	< 230 U	< 120 U	< 630 U	< 310 U	40 UJ	< 670 U	< 120 U	23 UJ	44 UJ	< 120 U
Anthracene	ug/kg	100000	500000	170	< 100 U	< 19 U	< 34 U	32	< 95 U	< 46 U	53	< 100 U	< 18 U	39	< 35 U	< 18 U
Atrazine	ug/kg	-	-	< 250 U	< 1400 U	< 250 U	< 460 U	< 240 U	< 1300 U	< 610 U	< 250 U	< 1300 U	< 250 U	< 250 U	< 460 U	< 230 U
Benzaldehyde	ug/kg	-	-	46 UJ	< 700 U	< 130 U	110 UJ	< 120 U	< 630 U	< 310 U	80 UJ	< 670 U	< 120 U	48 UJ	53 UJ	< 120 U
Benzo(b)fluoranthene	ug/kg	**1000**	5600	1000	< 100 U	< 19 U	< 34 U	180	< 95 U	< 46 U	390	< 100 U	< 18 U	260	20 UJ	< 18 U
Benzo[a]anthracene	ug/kg	**1000**	5600	690	< 100 U	< 19 U	< 34 U	91	< 95 U	< 46 U	250	< 100 U	< 18 U	160	< 35 U	< 18 U
Benzo[a]pyrene	ug/kg	**1000**	1000	640	< 100 U	< 19 U	< 34 U	110	< 95 U	< 46 U	290	< 100 U	< 18 U	170	< 35 U	< 18 U
Benzo[g,h,i]perylene	ug/kg	100000	500000	250	< 100 U	< 19 U	< 34 U	53	< 95 U	< 46 U	180	< 100 U	< 18 U	110	< 35 U	< 18 U
Benzo[k]fluoranthene	ug/kg	**800**	56000	370	< 100 U	< 19 U	< 34 U	67	< 95 U	< 46 U	150	< 100 U	< 18 U	75	< 35 U	< 18 U
bis (2-chloroisopropyl) ether	ug/kg	-	-	< 120 U	< 700 U	< 130 U	< 230 U	< 120 U	< 630 U	< 310 U	< 130 U	< 670 U	< 120 U	< 120 U	< 230 U	< 120 U
bis(2-Chloroethoxy)methane	ug/kg	-	-	< 120 U	< 700 U	< 130 U	< 230 U	< 120 U	< 630 U	< 310 U	< 130 U	< 670 U	< 120 U	< 120 U	< 230 U	< 120 U
bis(2-Chloroethyl) ether	ug/kg	-	-	< 120 U	< 700 U	< 130 U	< 230 U	< 120 U	< 630 U	< 310 U	< 130 U	< 670 U	< 120 U	< 120 U	< 230 U	< 120 U
bis(2-Ethylhexyl) phthalate	ug/kg	-	-	480	< 490 U	< 88 U	< 160 U	69 UJ	< 440 U	< 210 U	71 UJ	< 470 U	< 86 U	64 UJ	150 UJ	110
Butyl benzyl phthalate	ug/kg	-	-	< 87 U	< 490 U	< 88 U	< 160 U	< 85 U	520	< 210 U	< 88 U	< 470 U	< 86 U	< 87 U	< 160 U	< 82 U
Caprolactam	ug/kg	-	-	< 410 U	< 2300 U	< 410 U	< 760 U	< 400 U	< 2100 U	< 1000 U	< 420 U	< 2200 U	< 410 U	< 410 U	< 760 U	< 390 U
Carbazole	ug/kg	-	-	76	< 350 U	< 63 U	< 110 U	< 61 U	< 320 U	< 150 U	42 UJ	< 340 U	< 62 U	< 62 U	< 120 U	< 58 U
Chrysene	ug/kg	**1000**	56000	760	< 100 U	< 19 U	< 34 U	200	< 95 U	< 46 U	330	< 100 U	< 18 U	200	< 35 U	< 18 U
Dibenz[a,h]anthracene	ug/kg	**330**	560	84	< 100 U	< 19 U	< 34 U	< 18 U	< 95 U	< 46 U	62	< 100 U	< 18 U	37	< 35 U	< 18 U
Dibenzofuran	ug/kg	7000	350000	100	< 350 U	< 63 U	< 110 U	35 UJ	< 320 U	< 150 U	110	< 340 U	< 62 U	48 UJ	< 120 U	< 58 U
Diethyl phthalate	ug/kg	-	-	< 87 U	< 490 U	< 88 U	< 160 U	< 85 U	< 440 U	< 210 U	< 88 U	< 470 U	< 86 U	< 87 U	< 160 U	< 82 U
Dimethyl phthalate	ug/kg	-	-	< 87 U	< 490 U	< 88 U	< 160 U	< 85 U	< 440 U	< 210 U	< 88 U	< 470 U	< 86 U	< 87 U	< 160 U	< 82 U
Di-n-butyl phthalate	ug/kg	-	-	< 87 U	< 490 U	< 88 U	< 160 U	< 85 U	< 440 U	< 210 U	< 88 U	< 470 U	< 86 U	< 87 U	< 160 U	< 82 U
Di-n-octyl phthalate	ug/kg	-	-	< 87 UJ	< 490 UJ	< 88 UJ	< 160 UJ	< 85 UJ	< 440 UJ	< 210 UJ	< 88 U	< 470 U	< 86 U	< 87 U	< 160 U	< 82 U
Fluoranthene	ug/kg	100000	500000	1300	< 100 U	< 19 U	< 34 U	210	< 95 U	< 46 U	490	< 100 U	< 18 U	290	16 UJ	< 18 U
Fluorene	ug/kg	30000	500000	51	< 100 U	< 19 U	< 34 U	62	< 95 U	< 46 U	26	< 100 U	< 18 U	12 UJ	11 UJ	< 18 U
Hexachlorobenzene	ug/kg	330	6000	< 19 U	< 100 U	< 19 U	< 34 U	< 18 U	< 95 U	< 46 U	< 19 U	< 100 U	< 18 U	< 19 U	< 35 U	< 18 U
Hexachlorobutadiene	ug/kg	-	-	< 62 U	< 350 U	< 63 U	< 110 U	< 61 U	< 320 U	< 150 U	< 63 U	< 340 U	< 62 U	< 62 U	< 120 U	< 58 U
Hexachlorocyclopentadiene	ug/kg	-	-	< 410 UJ	< 2300 UJ	< 410 UJ	< 760 UJ	< 400 UJ	< 2100 UJ	< 1000 UJ	< 420 U	< 2200 U	< 410 U	< 410 U	< 760 U	< 390 U
Hexachloroethane	ug/kg	-	-	< 62 U	< 350 U	< 63 U	< 110 U	< 61 U	< 320 U	< 150 U	< 63 U	< 340 U	< 62 U	< 62 U	< 120 U	< 58 U
Indeno[1,2,3-cd]pyrene	ug/kg	**500**	5600	260	< 100 U	< 19 U	< 34 U	< 18 U	< 95 U	< 46 U	170	< 100 U	< 18 U	100	< 35 U	< 18 U
Isophorone	ug/kg	-	-	< 62 U	< 350 U	< 63 U	< 110 U	< 61 U	< 320 U	< 150 U	< 63 U	< 340 U	< 62 U	< 62 U	< 120 U	< 58 U
Naphthalene	ug/kg	12000	500000	170	< 100 U	< 19 U	< 34 U	160	< 95 U	< 46 U	230	< 100 U	< 18 U	120	< 35 U	< 18 U
Nitrobenzene	ug/kg	-	-	< 120 U	< 700 U	< 130 U	< 230 U	< 120 U	< 630 U	< 310 U	< 130 U	< 670 U	< 120 U	< 120 U	< 230 U	< 120 U
N-Nitrosodi-n-propylamine	ug/kg	-	-	< 62 U	< 350 U	< 63 U	< 110 U	< 61 U	< 320 U	< 150 U	< 63 U	< 340 U	< 62 U	< 62 U	< 120 U	< 58 U
N-Nitrosodiphenylamine	ug/kg	-	-	< 62 U	< 350 U	< 63 U	< 110 U	< 61 U	< 320 U	< 150 U	< 63 U	< 340 U	< 62 U	< 62 U	< 120 U	< 58 U
Pentachlorophenol	ug/kg	800	6700	< 190 U	< 1000 U	< 190 U	< 340 U	< 180 U	< 950 U	< 460 U	< 190 U	< 1000 U	< 180 U	< 190 U	< 350 U	< 180 U
Phenanthrene	ug/kg	100000	500000	750	< 100 U	< 19 U	14 UJ	310	< 95 U	< 46 U	390	< 100 U	< 18 U	190	< 35 U	< 18 U
Phenol	ug/kg	**330**	500000	< 62 U	< 350 U	< 63 U	27 UJ	< 61 U	< 320 U	< 150 U	< 63 U	< 340 U	< 62 U	< 62 U	65 UJ	< 58 U
Pyrene	ug/kg	100000	500000	1100	< 100 U	9.8 UJ	16 UJ	220	< 95 U	< 46 U	380	< 100 U	< 18 U	230	9.0 UJ	4.1 UJ

Analyte	SB-125-A	SB-125-B	SB-125-C	SB-126-A	SB-126-B	SB-126-C	SB-127-A	SB-127-B	SB-127-C	SB-128-A	SB-128-B	SB-128-C	SB-129-A	SB-129-B	SB-129-C	SB-130-A	SB-130-B	SB-130-C
Start Depth (ft bgs)	0	5	16.5	0	1	14.5	0	5	18	0	5	14	0	6	16	0	6	15
End Depth (ft bgs)	1	6	18	1	4	15.5	5	10	20	2	7	16	2	7	17	3	10	18
Sample Date	10/17/2018	10/17/2018	10/17/2018	10/17/2018	10/17/2018	10/17/2018	10/17/2018	10/17/2018	10/17/2018	10/17/2018	10/17/2018	10/17/2018	10/17/2018	10/17/2018	10/17/2018	10/17/2018	10/17/2018	10/17/2018
SW8270D																		
1,1'-Biphenyl	< 120 UJ	< 370 UJ	< 220 UJ	< 260 UJ	< 61 UJ	< 130 UJ	< 340 UJ	< 320 UJ	< 190 UJ	< 240 UJ	< 150 UJ	< 200 UJ	< 64 UJ	< 64 UJ	< 58 UJ	< 68 UJ	49 UJ	< 62 UJ
2,4,5-Trichlorophenol	< 370 UJ	< 1100 UJ	< 670 UJ	< 770 UJ	< 180 UJ	< 380 UJ	< 1000 UJ	< 970 UJ	< 570 UJ	< 730 UJ	< 440 UJ	< 610 UJ	< 190 UJ	< 190 UJ	< 180 UJ	< 200 UJ	< 190 UJ	< 180 UJ
2,4,6-Trichlorophenol	< 370 UJ	< 1100 UJ	< 670 UJ	< 770 UJ	< 180 UJ	< 380 UJ	< 1000 UJ	< 970 UJ	< 570 UJ	< 730 UJ	< 440 UJ	< 610 UJ	< 190 UJ	< 190 UJ	< 180 UJ	< 200 UJ	< 190 UJ	< 180 UJ
2,4-Dichlorophenol	< 370 UJ	< 1100 UJ	< 670 UJ	< 770 UJ	< 180 UJ	< 380 UJ	< 1000 UJ	< 970 UJ	< 570 UJ	< 730 UJ	< 440 UJ	< 610 UJ	< 190 UJ	< 190 UJ	< 180 UJ	< 200 UJ	< 190 UJ	< 180 UJ
2,4-Dimethylphenol	< 370 UJ	< 1100 UJ	< 670 UJ	< 770 UJ	< 180 UJ	< 380 UJ	< 1000 UJ	< 970 UJ	< 570 UJ	< 730 UJ	< 440 UJ	< 610 UJ	< 190 UJ	< 190 UJ	< 180 UJ	< 200 UJ	< 190 UJ	< 180 UJ
2,4-Dinitrophenol	< 820 UJ	< 2400 UJ	< 1500 UJ	< 1700 UJ	< 400 UJ	< 840 UJ	< 2300 UJ	< 2100 UJ	< 1300 UJ	< 1600 UJ	< 960 UJ	< 1300 UJ	< 420 UJ	< 420 UJ	< 390 UJ	< 450 UJ	< 420 UJ	< 410 UJ
2,4-Dinitrotoluene	< 490 UJ	< 1500 UJ	< 890 UJ	< 1000 UJ	< 240 UJ	< 510 UJ	< 1400 UJ	< 1300 UJ	< 770 UJ	< 970 UJ	< 580 UJ	< 820 UJ	< 260 UJ	< 260 UJ	< 230 UJ	< 270 UJ	< 260 UJ	< 250 UJ
2,6-Dinitrotoluene	< 490 UJ	< 1500 UJ	< 890 UJ	< 1000 UJ	< 240 UJ	< 510 UJ	< 1400 UJ	< 1300 UJ	< 770 UJ	< 970 UJ	< 580 UJ	< 820 UJ	< 260 UJ	< 260 UJ	< 230 UJ	< 270 UJ	< 260 UJ	< 250 UJ
2-Chloronaphthalene	< 120 UJ	< 370 UJ	< 220 UJ	< 260 UJ	< 61 UJ	< 130 UJ	< 340 UJ	< 320 UJ	< 190 UJ	< 240 UJ	< 150 UJ	< 200 UJ	< 64 UJ	< 64 UJ	< 58 UJ	< 68 UJ	< 64 UJ	< 62 UJ
2-Chlorophenol	< 120 UJ	< 370 UJ	< 220 UJ	< 260 UJ	< 61 UJ	< 130 UJ	< 340 UJ	< 320 UJ	< 190 UJ	< 240 UJ	< 150 UJ	< 200 UJ	< 64 UJ	< 64 UJ	< 58 UJ	< 68 UJ	< 64 UJ	< 62 UJ
2-Methylnaphthalene	270 J	< 110 UJ	< 67 UJ	290 J	100 J	< 38 UJ	< 100 UJ	< 97 UJ	19 UJ	250 J	52 J	< 61 UJ	19 J	< 19 UJ	< 18 UJ	9.9 UJ	190 J	< 18 UJ
2-Methylphenol	< 490 UJ	< 1500 UJ	< 890 UJ	< 1000 UJ	< 240 UJ	< 510 UJ	< 1400 UJ	< 1300 UJ	< 770 UJ	< 970 UJ	< 580 UJ	< 820 UJ	< 260 UJ	< 260 UJ	< 230 UJ	< 270 UJ	< 260 UJ	< 250 UJ
2-Nitroaniline	< 490 UJ	< 1500 UJ	< 890 UJ	< 1000 UJ	< 240 UJ	< 510 UJ	< 1400 UJ	< 1300 UJ	< 770 UJ	< 970 UJ	< 580 UJ	< 820 UJ	< 260 UJ	< 260 UJ	< 230 UJ	< 270 UJ	< 260 UJ	< 250 UJ
2-Nitrophenol	< 120 UJ	< 370 UJ	< 220 UJ	< 260 UJ	< 61 UJ	< 130 UJ	< 340 UJ	< 320 UJ	< 190 UJ	< 240 UJ	< 150 UJ	< 200 UJ	< 64 UJ	< 64 UJ	< 58 UJ	< 68 UJ	< 64 UJ	< 62 UJ
3 & 4 Methylphenol	< 990 UJ	< 2900 UJ	< 1800 UJ	< 2100 UJ	< 490 UJ	< 1000 UJ	< 2700 UJ	< 2600 UJ	< 1500 UJ	< 1900 UJ	< 1200 UJ	< 1600 UJ	< 510 UJ	< 510 UJ	< 470 UJ	< 540 UJ	< 510 UJ	< 490 UJ
3,3'-Dichlorobenzidine	< 250 UJ	< 740 UJ	< 440 UJ	< 510 UJ	< 120 UJ	< 250 UJ	< 680 UJ	< 650 UJ	< 380 UJ	< 490 UJ	< 290 UJ	< 410 UJ	< 130 UJ	< 130 UJ	< 120 UJ	< 140 UJ	< 130 UJ	< 120 UJ
3-Nitroaniline	< 490 UJ	< 1500 UJ	< 890 UJ	< 1000 UJ	< 240 UJ	< 510 UJ	< 1400 UJ	< 1300 UJ	< 770 UJ	< 970 UJ	< 580 UJ	< 820 UJ	< 260 UJ	< 260 UJ	< 230 UJ	< 270 UJ	< 260 UJ	< 250 UJ
4,6-Dinitro-2-methylphenol	< 820 UJ	< 2400 UJ	< 1500 UJ	< 1700 UJ	< 400 UJ	< 840 UJ	< 2300 UJ	< 2100 UJ	< 1300 UJ	< 1600 UJ	< 960 UJ	< 1300 UJ	< 420 UJ	< 420 UJ	< 390 UJ	< 450 UJ	< 420 UJ	< 410 UJ
4-Bromophenyl phenyl ether	< 120 UJ	< 370 UJ	< 220 UJ	< 260 UJ	< 61 UJ	< 130 UJ	< 340 UJ	< 320 UJ	< 190 UJ	< 240 UJ	< 150 UJ	< 200 UJ	< 64 UJ	< 64 UJ	< 58 UJ	< 68 UJ	< 64 UJ	< 62 UJ
4-Chloro-3-methylphenol	< 370 UJ	< 1100 UJ	< 670 UJ	< 770 UJ	< 180 UJ	< 380 UJ	< 1000 UJ	< 970 UJ	< 570 UJ	< 730 UJ	< 440 UJ	< 610 UJ	< 190 UJ	< 190 UJ	< 180 UJ	< 200 UJ	< 190 UJ	< 180 UJ
4-Chloroaniline	< 370 UJ	< 1100 UJ	< 670 UJ	< 770 UJ	< 180 UJ	< 380 UJ	< 1000 UJ	< 970 UJ	< 570 UJ	< 730 UJ	< 440 UJ	< 610 UJ	< 190 UJ	< 190 UJ	< 180 UJ	< 200 UJ	< 190 UJ	< 180 UJ
4-Chlorophenyl phenyl ether	< 120 UJ	< 370 UJ	< 220 UJ	< 260 UJ	< 61 UJ	< 130 UJ	< 340 UJ	< 320 UJ	< 190 UJ	< 240 UJ	< 150 UJ	< 200 UJ	< 64 UJ	< 64 UJ	< 58 UJ	< 68 UJ	< 64 UJ	< 62 UJ
4-Methylphenol	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitroaniline	< 490 UJ	< 1500 UJ	< 890 UJ	< 1000 UJ	< 240 UJ	< 510 UJ	< 1400 UJ	< 1300 UJ	< 770 UJ	< 970 UJ	< 580 UJ	< 820 UJ	< 260 UJ	< 260 UJ	< 230 UJ	< 270 UJ	< 260 UJ	< 250 UJ
4-Nitrophenol	< 820 UJ	< 2400 UJ	< 1500 UJ	< 1700 UJ	< 400 UJ	< 840 UJ	< 2300 UJ	< 2100 UJ	< 1300 UJ	< 1600 UJ	< 960 UJ	< 1300 UJ	< 420 UJ	< 420 UJ	< 390 UJ	< 450 UJ	< 420 UJ	< 410 UJ
Acenaphthene	120 J	< 110 UJ	< 67 UJ	210 J	80 J	< 38 UJ	< 100 UJ	< 97 UJ	< 57 UJ	69 UJ	< 44 UJ	< 61 UJ	< 19 UJ	< 19 UJ	< 18 UJ	< 20 UJ	29 J	< 18 UJ
Acenaphthylene	120 J	< 110 UJ	< 67 UJ	190 J	47 J	< 38 UJ	< 100 UJ	< 97 UJ	< 57 UJ	37 UJ	< 44 UJ	< 61 UJ	< 19 UJ	< 19 UJ	< 18 UJ	< 20 UJ	36 J	< 18 UJ
Acetophenone	< 250 UJ	< 740 UJ	< 440 UJ	< 510 UJ	< 120 UJ	29 UJ	< 680 UJ	< 650 UJ	< 380 UJ	< 490 UJ	< 290 UJ	< 410 UJ	< 130 UJ	< 130 UJ	< 120 UJ	< 140 UJ	27 UJ	< 120 UJ
Anthracene	300 J	< 110 UJ	< 67 UJ	650 J	220 J	< 38 UJ	< 100 UJ	< 97 UJ	< 57 UJ	150 J	16 UJ	< 61 UJ	< 19 UJ	< 19 UJ	< 18 UJ	< 20 UJ	89 J	< 18 UJ
Atrazine	< 490 UJ	< 1500 UJ	< 890 UJ	< 1000 UJ	< 240 UJ	< 510 UJ	< 1400 UJ	< 1300 UJ	< 770 UJ	< 970 UJ	< 580 UJ	< 820 UJ	< 260 UJ	< 260 UJ	< 230 UJ	< 270 UJ	< 260 UJ	< 250 UJ
Benzaldehyde	< 250 UJ	< 740 UJ	110 UJ	< 510 UJ	< 120 UJ	180 UJ	< 680 UJ	< 650 UJ	150 UJ	< 490 UJ	< 290 UJ	< 410 UJ	< 130 UJ	< 130 UJ	< 120 UJ	< 140 UJ	34 UJ	< 120 UJ
Benzo(b)fluoranthene	**1600 J**	< 110 UJ	< 67 UJ	**2700 J**	660 J	< 38 UJ	< 100 UJ	< 97 UJ	< 57 UJ	**1800 J**	130 J	< 61 UJ	24 J	< 19 UJ	< 18 UJ	23 J	380 J	< 18 UJ
Benzo[a]anthracene	**1200 J**	< 110 UJ	< 67 UJ	**2000 J**	530 J	< 38 UJ	< 100 UJ	< 97 UJ	< 57 UJ	820 J	69 J	< 61 UJ	12 UJ	< 19 UJ	< 18 UJ	14 UJ	260 J	< 18 UJ
Benzo[a]pyrene	**1200 J**	< 110 UJ	< 67 UJ	**2100 J**	460 J	< 38 UJ	< 100 UJ	< 97 UJ	< 57 UJ	**1400 J**	85 J	< 61 UJ	12 UJ	< 19 UJ	< 18 UJ	18 UJ	200 J	< 18 UJ
Benzo[g,h,i]perylene	610 J	< 110 UJ	< 67 UJ	1200 J	290 J	< 38 UJ	< 100 UJ	< 97 UJ	< 57 UJ	1000 J	75 J	< 61 UJ	9.8 UJ	< 19 UJ	< 18 UJ	17 UJ	170 J	< 18 UJ
Benzo[k]fluoranthene	520 J	< 110 UJ	< 67 UJ	**980 J**	190 J	< 38 UJ	< 100 UJ	< 97 UJ	< 57 UJ	620 J	48 J	< 61 UJ	< 19 UJ	< 19 UJ	< 18 UJ	11 UJ	140 J	< 18 UJ
bis (2-chloroisopropyl) ether	< 250 UJ	< 740 UJ	< 440 UJ	< 510 UJ	< 120 UJ	< 250 UJ	< 680 UJ	< 650 UJ	< 380 UJ	< 490 UJ	< 290 UJ	< 410 UJ	< 130 UJ	< 130 UJ	< 120 UJ	< 140 UJ	< 130 UJ	< 120 UJ
bis(2-Chloroethoxy)methane	< 250 UJ	< 740 UJ	< 440 UJ	< 510 UJ	< 120 UJ	< 250 UJ	< 680 UJ	< 650 UJ	< 380 UJ	< 490 UJ	< 290 UJ	< 410 UJ	< 130 UJ	< 130 UJ	< 120 UJ	< 140 UJ	< 130 UJ	< 120 UJ
bis(2-Chloroethyl) ether	< 250 UJ	< 740 UJ	< 440 UJ	< 510 UJ	< 120 UJ	< 250 UJ	< 680 UJ	< 650 UJ	< 380 UJ	< 490 UJ	< 290 UJ	< 410 UJ	< 130 UJ	< 130 UJ	< 120 UJ	< 140 UJ	< 130 UJ	< 120 UJ
bis(2-Ethylhexyl) phthalate	< 170 UJ	< 510 UJ	< 310 UJ	< 360 UJ	< 85 UJ	< 180 UJ	< 480 UJ	< 450 UJ	380 J	< 340 UJ	< 200 UJ	< 290 UJ	< 90 UJ	< 89 UJ	< 82 UJ	< 95 UJ	< 90 UJ	< 86 UJ
Butyl benzyl phthalate	< 170 UJ	< 510 UJ	< 310 UJ	< 360 UJ	< 85 UJ	< 180 UJ	< 480 UJ	< 450 UJ	< 270 UJ	< 340 UJ	< 200 UJ	< 290 UJ	< 90 UJ	< 89 UJ	< 82 UJ	< 95 UJ	< 90 UJ	< 86 UJ
Caprolactam	< 820 UJ	< 2400 UJ	< 1500 UJ	< 1700 UJ	< 400 UJ	< 840 UJ	< 2300 UJ	< 2100 UJ	< 1300 UJ	< 1600 UJ	< 960 UJ	< 1300 UJ	< 420 UJ	< 420 UJ	< 390 UJ	< 450 UJ	< 420 UJ	< 410 UJ
Carbazole	110 UJ	< 370 UJ	< 220 UJ	260 J	87 J	< 130 UJ	< 340 UJ	< 320 UJ	< 190 UJ	< 240 UJ	< 150 UJ	< 200 UJ	< 64 UJ	< 64 UJ	< 58 UJ	< 68 UJ	50 UJ	< 62 UJ
Chrysene	**1300 J**	< 110 UJ	< 67 UJ	**2000 J**	510 J	< 38 UJ	< 100 UJ	< 97 UJ	< 57 UJ	**1100 J**	100 J	< 61 UJ	21 J	< 19 UJ	< 18 UJ	18 UJ	390 J	< 18 UJ
Dibenz[a,h]anthracene	220 J	< 110 UJ	< 67 UJ	**400 J**	77 J	< 38 UJ	< 100 UJ	< 97 UJ	< 57 UJ	270 J	< 44 UJ	< 61 UJ	< 19 UJ	< 19 UJ	< 18 UJ	< 20 UJ	58 J	< 18 UJ
Dibenzofuran	120 J	< 370 UJ	< 220 UJ	210 UJ	100 J	< 130 UJ	< 340 UJ	< 320 UJ	< 190 UJ	100 UJ	< 150 UJ	< 200 UJ	< 64 UJ	< 64 UJ	< 58 UJ	< 68 UJ	88 J	< 62 UJ
Diethyl phthalate	< 170 UJ	< 510 UJ	< 310 UJ	< 360 UJ	< 85 UJ	< 180 UJ	< 480 UJ	< 450 UJ	< 270 UJ	< 340 UJ	< 200 UJ	< 290 UJ	< 90 UJ	< 89 UJ	< 82 UJ	< 95 UJ	< 90 UJ	< 86 UJ
Dimethyl phthalate	< 170 UJ	< 510 UJ	< 310 UJ	< 360 UJ	< 85 UJ	< 180 UJ	< 480 UJ	< 450 UJ	< 270 UJ	< 340 UJ	< 200 UJ	< 290 UJ	< 90 UJ	< 89 UJ	< 82 UJ	< 95 UJ	< 90 UJ	< 86 UJ
Di-n-butyl phthalate	< 170 UJ	< 510 UJ	< 310 UJ	< 360 UJ	< 85 UJ	< 180 UJ	< 480 UJ	< 450 UJ	< 270 UJ	< 340 UJ	< 200 UJ	< 290 UJ	< 90 UJ	< 89 UJ	< 82 UJ	< 95 UJ	< 90 UJ	< 86 UJ
Di-n-octyl phthalate	< 170 UJ	< 510 UJ	< 310 UJ	< 360 UJ	< 85 UJ	< 180 UJ	< 480 UJ	< 450 UJ	< 270 UJ	< 340 UJ	< 200 UJ	< 290 UJ	< 90 UJ	< 89 UJ	< 82 UJ	< 95 UJ	< 90 UJ	< 86 UJ
Fluoranthene	2600 J	< 110 UJ	< 67 UJ	3600 J	1100 J	< 38 UJ	< 100 UJ	< 97 UJ	19 UJ	930 J	110 J	< 61 UJ	29 J	< 19 UJ	< 18 UJ	29 J	470 J	< 18 UJ
Fluorene	130 J	< 110 UJ	< 67 UJ	230 J	110 J	< 38 UJ	< 100 UJ	< 97 UJ	< 57 UJ	43 UJ	< 44 UJ	< 61 UJ	< 19 UJ	< 19 UJ	< 18 UJ	< 20 UJ	34 J	< 18 UJ
Hexachlorobenzene	< 37 UJ	< 110 UJ	< 67 UJ	< 77 UJ	< 18 UJ	< 38 UJ	< 100 UJ	< 97 UJ	< 57 UJ	< 73 UJ	< 44 UJ	< 61 UJ	< 19 UJ	< 19 UJ	< 18 UJ	< 20 UJ	< 19 UJ	< 18 UJ
Hexachlorobutadiene	< 120 UJ	< 370 UJ	< 220 UJ	< 260 UJ	< 61 UJ	< 130 UJ	< 340 UJ	< 320 UJ	< 190 UJ	< 240 UJ	< 150 UJ	< 200 UJ	< 64 UJ	< 64 UJ	< 58 UJ	< 68 UJ	< 64 UJ	< 62 UJ
Hexachlorocyclopentadiene	< 820 UJ	< 2400 UJ	< 1500 UJ	< 1700 UJ	< 400 UJ	< 840 UJ	< 2300 UJ	< 2100 UJ	< 1300 UJ	< 1600 UJ	< 960 UJ	< 1300 UJ	< 420 UJ	< 420 UJ	< 390 UJ	< 450 UJ	< 420 UJ	< 410 UJ
Hexachloroethane	< 120 UJ	< 370 UJ	< 220 UJ	< 260 UJ	< 61 UJ	< 130 UJ	< 340 UJ	< 320 UJ	< 190 UJ	< 240 UJ	< 150 UJ	< 200 UJ	< 64 UJ	< 64 UJ	< 58 UJ	< 68 UJ	< 64 UJ	< 62 UJ
Indeno[1,2,3-cd]pyrene	**650 J**	< 110 UJ	< 67 UJ	**1200 J**	270 J	< 38 UJ	< 100 UJ	< 97 UJ	< 57 UJ	**940 J**	64 J	< 61 UJ	< 19 UJ	< 19 UJ	< 18 UJ	12 UJ	150 J	< 18 UJ
Isophorone	< 120 UJ	< 370 UJ	< 220 UJ	< 260 UJ	< 61 UJ	< 130 UJ	< 340 UJ	< 320 UJ	< 190 UJ	< 240 UJ	< 150 UJ	< 200 UJ	< 64 UJ	< 64 UJ	< 58 UJ	< 68 UJ	< 64 UJ	< 62 UJ
Naphthalene	210 J	< 110 UJ	< 67 UJ	1100 J	160 J	13 UJ	< 100 UJ	< 97 UJ	< 57 UJ	220 J	43 UJ	< 61 UJ	14 UJ	< 19 UJ	< 18 UJ	5.1 UJ	250 J	< 18 UJ
Nitrobenzene	< 250 UJ	< 740 UJ	< 440 UJ	< 510 UJ	< 120 UJ	< 250 UJ	< 680 UJ	< 650 UJ	< 380 UJ	< 490 UJ	< 290 UJ	< 410 UJ	< 130 UJ	< 130 UJ	< 120 UJ	< 140 UJ	< 130 UJ	< 120 UJ
N-Nitrosodi-n-propylamine	< 120 UJ	< 370 UJ	< 220 UJ	< 260 UJ	< 61 UJ	< 130 UJ	< 340 UJ	< 320 UJ	< 190 UJ	< 240 UJ	< 150 UJ	< 200 UJ	< 64 UJ	< 64 UJ	< 58 UJ	< 68 UJ	< 64 UJ	< 62 UJ
N-Nitrosodiphenylamine	< 120 UJ	< 370 UJ	< 220 UJ	< 260 UJ	< 61 UJ	< 130 UJ	< 340 UJ	< 320 UJ	< 190 UJ	< 240 UJ	< 150 UJ	< 200 UJ	< 64 UJ	< 64 UJ	< 58 UJ	< 68 UJ	< 64 UJ	< 62 UJ
Pentachlorophenol	< 370 UJ	< 1100 UJ	< 670 UJ	< 770 UJ	< 180 UJ	< 380 UJ	< 1000 UJ	< 970 UJ	< 570 UJ	< 730 UJ	< 440 UJ	< 610 UJ	< 190 UJ	< 190 UJ	< 180 UJ	< 200 UJ	< 190 UJ	< 180 UJ
Phenanthrene	1500 J	< 110 UJ	< 67 UJ	2200 J	850 J	11 UJ	< 100 UJ	< 97 UJ	13 UJ	550 J	93 J	< 61 UJ	28 J	< 19 UJ	< 18 UJ	13 UJ	440 J	4.7 UJ
Phenol	< 120 UJ	< 370 UJ	< 220 UJ	< 260 UJ	< 61 UJ	36 UJ	< 340 UJ	< 320 UJ	< 190 UJ	< 240 UJ	< 150 UJ	< 200 UJ	< 64 UJ	< 64 UJ	< 58 UJ	< 68 UJ	< 64 UJ	< 62 UJ
Pyrene	1900 J	< 110 UJ	< 67 UJ	2800 J	830 J	< 38 UJ	< 100 UJ	< 97 UJ	< 57 UJ	870 J	94 J	< 61 UJ	21 J	< 19 UJ	< 18 UJ	26 J	360 J	4.1 UJ

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Table 1
Soil Analytical Data

			Soil Sample ID	SB-101-A	SB-101-B	SB-101-C	SB-102-A	SB-102-B	SB-102-C	SB-103-A	SB-103-B	SB-103-C	SB-104-A	SB-104-B	SB-104-C	SB-105-A	SB-105-B	SB-105-C	SB-105-D	SB-106-A	SB-106-B	SB-106-C	SB-107-A	SB-107-B	SB-107-C	SB-108-A	SB-108-B	SB-108-C	SB-109-A	SB-109-B	SB-109-C	SB-110-A	SB-110-B	SB-110-C	SB-110-D
			Start Depth (ft bgs)	0	8	12	0	4	12	0	4	12	0	4	14	0	4	10	12	0	4	14	0	6	13	0	8	10	0	4	16	0	4	17.5	10
			End Depth (ft bgs)	1	10	14	1	6	14	1	6	14	1	6	16	1	6	12	14	1	8	16	2	8	18	1	10	14	1	6	18	1	6	20	12.5
			Sample Date	10/10/2018	10/10/2018	10/10/2018	10/10/2018	10/10/2018	10/10/2018	10/10/2018	10/10/2018	10/10/2018	10/10/2018	10/10/2018	10/10/2018	10/10/2018	10/10/2018	10/10/2018	10/10/2018	10/10/2018	10/10/2018	10/10/2018	10/11/2018	10/11/2018	10/11/2018	10/11/2018	10/11/2018	10/11/2018	10/11/2018	10/11/2018	10/11/2018	10/11/2018	10/11/2018	10/11/2018	10/11/2018	10/11/2018
Analyte	Units	6 NYCRR PART 375 UNRESTRICTED USE SCO	6 NYCRR PART 375 COMMERCIAL USE SCO																																			
SW9012																																						
Cyanide, Total	mg/kg	**27**	27	19.6 J	< 1.5 UJ	< 1.2 UJ	**33.1 J**	1.2 J	< 1.2 UJ	**28.1 J**	1.6 J	< 1.2 UJ	< 1.2 UJ	2.0 J	0.62 UJ	25.6 J	2.5 J	< 3.3 UJ	< 1.3 UJ	6.8 J	8.9 J	< 2.1 UJ	4.6 J	2.1 J	< 1.2 UJ	**52.1 J**	9.7 J	1.5 UJ	3.5 J	**73.8 J**	0.91 UJ	3.1 J	5.5 J	0.62 UJ	< 1.4 UJ
SW9045D																																						
CORROSIVITY	pH UNITS	-	-	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
pH	pH UNITS	-	-	10.4 J	11.2 J	8.7 J	9.6 J	11.9 J	8.6 J	9.1 J	11.9 J	8.4 J	8.5 J	11.6 J	7.7 J	8.6 J	12.0 J	7.6 J	8.3 J	9.8 J	11.5 J	9.8 J	8.4 J	12.0 J	8.3 J	8.4 J	12.2 J	10.2 J	8.4 J	8.3 J	8.0 J	10.7 J	10.7 J	8.1 J	7.8 J
Temperature	Celcius	-	-	19.4 J	25.3 J	19.6 J	19.5 J	25.1 J	19.7 J	19.6 J	25.2 J	19.8 J	19.9 J	19.7 J	19.7 J	19.7 J	19.6 J	19.6 J	19.6 J	19.6 J	19.5 J	19.6 J	19.0 J	19.4 J	19.5 J	19.3 J	19.2 J	19.4 J	18.9 J	19.3 J	19.3 J	19.3 J	19.7 J	18.8 J	18.9 J

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Table 1
Soil Analytical Data

Soil Sample ID				SB-111-A	SB-111-B	SB-111-C	SB-112-A	SB-112-B	SB-112-C	SB-113-A	SB-113-B	SB-113-C	SB-114-A	SB-114-B	SB-114-C	SB-115-A	SB-115-B	SB-115-C	SB-116-A	SB-116-B	SB-116-C	SB-117-A	SB-117-B	SB-117-C	SB-117-D	SB-118-A	SB-118-B	SB-118-C	SB-119-A	SB-119-B	SB-119-C	SB-120-A	SB-120-B	SB-120-C
Start Depth (ft bgs)				0	6	18	0	8	12	0	6	18	0	8	10	0	7	15	0	5	14	0	4	10	16	0	6	16	0	8	13	0	4	16
End Depth (ft bgs)				1	8	20	1	10	15	1	8	20	1	10	20	1	10	17	1	7	18	2	7	12	20	1	8	20	1	10	15	1	6	20
Sample Date				10/16/2018	10/16/2018	10/16/2018	10/16/2018	10/16/2018	10/16/2018	10/16/2018	10/16/2018	10/16/2018	10/16/2018	10/16/2018	10/16/2018	10/12/2018	10/12/2018	10/12/2018	10/12/2018	10/12/2018	10/12/2018	10/12/2018	10/12/2018	10/12/2018	10/12/2018	10/12/2018	10/12/2018	10/12/2018	10/11/2018	10/11/2018	10/11/2018	10/11/2018	10/11/2018	10/11/2018
Analyte	Units	6 NYCRR PART 375 UNRESTRICTED USE SCO	6 NYCRR PART 375 COMMERCIAL USE SCO																															
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Cyanide, Total	mg/kg	**27**	27	13.5 J	**31.5 J**	< 0.66 UJ	6.4 J	6.1 J	0.62 UJ	0.36 UJ	1.3 J	< 0.56 UJ	1.2 J	4.9 J	10.5 J	11.3 J	4.1 J	< 1.1 UJ	7.3 J	1.6 J	< 1.3 UJ	22.7 J	25.7 J	1.8 J	< 1.2 UJ	7.0 J	1.3 J	< 1.2 UJ	14.4 J	19.9 J	< 1.3 UJ	6.3 J	2.3 J	< 1.5 UJ
SW9045D																																		
CORROSIVITY	pH UNITS	-	-	10.1 J	11.9 J	8.3 J	8.0 J	12.0 J	7.8 J	8.8 J	12.0 J	8.3 J	8.3 J	11.9 J	11.5 J	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
pH	pH UNITS	-	-	10.1 J	11.9 J	8.3 J	8.0 J	12.0 J	7.8 J	8.8 J	12.0 J	8.3 J	8.3 J	11.9 J	11.5 J	10 J	11.9 J	7.9 J	9.0 J	9.3 J	8.4 J	8.3 J	11.1 J	10.7 J	8.2 J	8.8 J	12.3 J	8.4 J	8.1 J	12.2 J	8.3 J	9.9 J	11.0 J	8.3 J
Temperature	Celcius	-	-	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	18.9 J	18.8 J	19.5 J	18.8 J	18.7 J	19.0 J	19.7 J	19.7 J	19.1 J	19.6 J	19.7 J	19.4 J	18.9 J	18.9 J	18.8 J	18.8 J	18.9 J	19.0 J	18.6 J

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Table 1
Soil Analytical Data

			Soil Sample ID	SB-121-A	SB-121-B	SB-121-C	SB-121-D	SB-122-A	SB-122-B	SB-122-C	SB-123-A	SB-123-B	SB-123-C	SB-124-A	SB-124-B	SB-124-C	SB-125-A	SB-125-B	SB-125-C	SB-126-A	SB-126-B	SB-126-C	SB-127-A	SB-127-B	SB-127-C	SB-128-A	SB-128-B	SB-128-C	SB-129-A	SB-129-B	SB-129-C	SB-130-A	SB-130-B	SB-130-C
			Start Depth (ft bgs)	0	8	17	10	0	8	18	0	10	18	0	12	18	0	5	16.5	0	1	14.5	0	5	18	0	5	14	0	6	16	0	6	15
			End Depth (ft bgs)	1	10	20	12	2	10	20	1	12	20	1	14	20	1	6	18	1	4	15.5	5	10	20	2	7	16	2	7	17	3	10	18
			Sample Date	10/16/2018	10/16/2018	10/16/2018	10/16/2018	10/16/2018	10/16/2018	10/16/2018	10/16/2018	10/16/2018	10/16/2018	10/16/2018	10/16/2018	10/16/2018	10/17/2018	10/17/2018	10/17/2018	10/17/2018	10/17/2018	10/17/2018	10/17/2018	10/17/2018	10/17/2018	10/17/2018	10/17/2018	10/17/2018	10/17/2018	10/17/2018	10/17/2018	10/17/2018	10/17/2018	10/17/2018
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Cyanide, Total	mg/kg	**27**	27	5.1 J	4.9 J	< 0.66 UJ	0.85 UJ	4.1 J	2.5 J	1.9 J	8.3 J	16.5 J	< 0.58 UJ	4.1 J	2.1 J	< 0.59 UJ	5.1 J	0.60 UJ	< 2.4 UJ	2.2 J	1.6 J	< 1.3 UJ	9.6 J	8.2 J	1.6 UJ	5.6 J	24.1 J	< 2.0 UJ	0.57 UJ	1.0 J	< 0.61 UJ	**44.6 J**	1.8 J	< 0.57 UJ
SW9045D																																			
CORROSIVITY	pH UNITS	-	-	8.8 J	12.0 J	8.4 J	7.8 J	12.0 J	11.9 J	8.3 J	8.0 J	12.0 J	7.8 J	9.5 J	10.2 J	8.1 J	9.3 J	12.1 J	7.7 J	8.1 J	8.2 J	8.9 J	12.2 J	12.0 J	7.7 J	8.4 J	11.0 J	7.7 J	8.3 J	11.7 J	8.1 J	9.7 J	10.1 J	8.2 J
pH	pH UNITS	-	-	8.8 J	12.0 J	8.4 J	7.8 J	12.0 J	11.9 J	8.3 J	8.0 J	12.0 J	7.8 J	9.5 J	10.2 J	8.1 J	9.3 J	12.1 J	7.7 J	8.1 J	8.2 J	8.9 J	12.2 J	12.0 J	7.7 J	8.4 J	11.0 J	7.7 J	8.3 J	11.7 J	8.1 J	9.7 J	10.1 J	8.2 J
Temperature	Celcius	-	-	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

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J- = Sample likely to have a low bias

UJ = Analyte not detected above the sample quantitation limit; the associated quantitation limit is approximate and may or may not represent the actual limit of quantitation necessary to accurately and precisely measure the analyte in the sample

N = The analysis indicates the present of an analyte for which there is presumptive evidence to make a "tentative identification."

NJ = The analysis indicates the presence of an analyte that has been "tentatively identified" and the associated numerical value represents its approximate oncentration.

R = Sample result rejected due to serious deficiency in ability to analyze sample and meet quality control criteria; the presence or absence of the analyte cannot be confirmed. This qualifier also may apply when more than one sample result is generated for a target analyte (i.e., dilutions or re-analyses), the most technically acceptable result is considered acceptable.

B/EB/TB/BB = An analyte identified in method blank (B), aqueous equipment (EB), trip (TB), or bottle blanks (BB) used to assess field contamination associated with soil or sediment samples mandates these qualifiers for only soil and sediment sample results.

P = Use professional judgment based on data use. It usually has an "M" with it, which indicates that a manual check should be made if the data that are qualified with the "P" are important to the data user. In addition, "PM" also means a decision is necessary from the Project Manager (or a delegate) concerning the need for further review of the data (see below).

PM = A manual review of the raw data is recommended to determine if the defect affects data use, as in "R" above. This review should include consideration of potential affects that could result from using the "P" qualified data. For example, in the case of holding-time exceedance, the Project Manager or delegate can decide to use the data with no qualification when analytes of interest are known not to be adversely affected by holding-time exceedances. Another example is the case where soil sample duplicate analyses for metals exceed the precision criteria; because this is likely due to sample non-homogeneity rather than contract laboratory error, then the manager or delegate must decide how to use the data.

24 Laborers Way BCP
Soil Sample Data Summary
Table 2

Location ID	Unrestricted Use	Residential Use	Restricted Residential Use	Commercial Use	Industrial Use	TP-1	TP-2	TP-3	TP-4	TP-5	TP-6	TP-7	TP-8	FD-220824
Sample Depth						0-1'	1-2'	0-1'	0-1'	0-1'	2-2.5'	0-1'	0-1'	
Date Sampled						08/24/2022	08/24/2022	08/24/2022	08/24/2022	08/24/2022	08/24/2022	08/24/2022	08/24/2022	08/24/2022
Sample Matrix						Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil
Units						ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
LCMS														
6:2 Fluorotelomer sulfonic acid						ND	ND	ND	ND	ND	ND	ND	ND	ND
8:2 Fluorotelomer sulfonic acid						ND	ND	ND	ND	ND	ND	ND	ND	ND
NEtFOSAA						ND	ND	ND	ND	ND	ND	ND	ND	ND
NMeFOSAA						ND	ND	ND	ND	ND	ND	ND	ND	ND
Perfluorobutanesulfonic acid						ND	ND	ND	ND	ND	ND	ND	ND	ND
Perfluorobutanoic acid						ND	ND	0.079 J	0.080 J	ND	0.14 J	0.14 J	0.099 J	ND
Perfluorodecanesulfonic acid						ND	ND	ND	ND	ND	ND	ND	ND	ND
Perfluorodecanoic acid						0.045 J	ND	ND	ND	ND	ND	0.037 J	ND	ND
Perfluorododecanoic acid						ND	ND	ND	ND	ND	ND	ND	ND	ND
Perfluoroheptanesulfonic acid						ND	ND	ND	ND	ND	ND	ND	ND	ND
Perfluoroheptanoic acid						0.039 J	0.046 J	ND	0.033 J	ND	0.047 J	0.075 J	0.031 J	ND
Perfluorohexanesulfonic acid						ND	ND	ND	ND	ND	ND	ND	ND	ND
Perfluorohexanoic acid						0.053 J	0.072 J	0.040 J	0.056 J	ND	0.065 J	0.085 J	0.048 J	ND
Perfluorononanoic acid						0.041 J	0.076 J	0.052 J	0.040 J	ND	0.10 J	0.12 J	0.033 J	ND
Perfluorooctanesulfonamide						ND	ND	ND	ND	ND	ND	ND	ND	ND
Perfluorooctanesulfonic acid (PFOS)	0.88	8.8	44	440	440	0.10 J	0.24 J	0.22	0.24	ND	0.30	0.27	0.18 J	ND
Perfluorooctanoic acid (PFOA)	0.66	6.6	33	500	600	0.040 J	0.16 J	0.063 J	0.056 J	ND	0.17 J	0.094 J	0.065 J	ND
Perfluoropentanoic acid						0.11 J	0.058 J	0.050 J	0.038 J	ND	0.054 J	0.11 J	0.048 J	0.059 J
Perfluorotetradecanoic acid						ND	ND	ND	ND	ND	ND	ND	ND	ND
Perfluorotridecanoic acid						ND	ND	ND	ND	ND	ND	ND	ND	ND
Perfluoroundecanoic acid						ND	ND	ND	ND	ND	ND	ND	ND	ND

Analytical Data compared to Part 375 Standards and DER-10

ND indicates analyte was not detected.

Blank space indicates analyte was not analyzed for in that sample.

J - Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

Table 2
Groundwater/Surface Water Analytical Data

				Monitoring Well/Surface Sample ID	MW-101	MW-105	MW-108	MW-120	MW-123	MW-126	MW-128	MW-131	MW-144	MW-148	SW-1	SW-2	DUP-102918	DUP-110918
				Groundwater Elevation (fmsl)	576.42	576.26	576.23	576.32	576.44	576.32	576.27	576.54	576.35	576.36	NA	NA	NA	NA
				Sample Date	10/29/2018	10/29/2018	10/29/2018	10/30/2018	10/30/2018	10/30/2018	10/30/2018	10/29/2018	10/30/2018	10/30/2018	11/9/2018	11/9/2018	10/29/2018	11/9/2018
Analyte	Units	NY TOGS 1.1.1 GWQS (CLASS GA)	NY TOGS 1.1.1 SWQS (CLASS A, A-S, AA, AA-S)															
SW6010C																		
Aluminum	mg/l	2	-		0.64	1.1	1.3	0.92	0.42	0.66	0.55	0.25	0.83	0.71	0.099 UJ	< 0.20 U	0.27	0.065 UJ
Antimony	mg/l	0.003	0.003		< 0.020 U	< 0.020 U	< 0.020 U	< 0.020 U	< 0.020 U	< 0.020 U	< 0.020 U	< 0.020 U	< 0.020 U	< 0.020 U	< 0.020 U	< 0.020 U	< 0.020 U	< 0.020 U
Arsenic	mg/l	0.025	0.050		< 0.015 U	< 0.015 U	< 0.015 U	< 0.015 U	< 0.015 U	< 0.015 U	< 0.015 U	< 0.015 U	< 0.015 U	< 0.015 U	< 0.015 U	< 0.015 U	< 0.015 U	< 0.015 U
Barium	mg/l	1.000	1.000		0.10	0.14	0.084	0.072	0.17	0.20	0.14	0.20	0.21	0.19	0.16	0.17	0.21	0.17
Beryllium	mg/l	0.003	0.003		< 0.0020 U	< 0.0020 U	< 0.0020 U	< 0.0020 U	< 0.0020 U	< 0.0020 U	< 0.0020 U	< 0.0020 U	< 0.0020 U	< 0.0020 U	< 0.0020 U	< 0.0020 U	< 0.0020 U	< 0.0020 U
Cadmium	mg/l	0.005	0.005		< 0.0020 U	< 0.0020 U	< 0.0020 U	< 0.0020 U	< 0.0020 U	< 0.0020 U	< 0.0020 U	< 0.0020 U	< 0.0020 U	< 0.0020 U	< 0.0020 U	< 0.0020 U	< 0.0020 U	< 0.0020 U
Calcium	mg/l	-	-		163	207	145	150	241	263	208	257	236	198	264	265	261	247
Chromium	mg/l	**0.05**	0.05		< 0.0040 U	< 0.0040 U	< 0.0040 U	< 0.0040 U	< 0.0040 U	**0.063**	0.0012 UJ	< 0.0040 U	< 0.0040 U	< 0.0040 U	< 0.0040 U	< 0.0040 U	< 0.0040 U	0.0016 UJ
Cobalt	mg/l	-	-		< 0.0040 U	< 0.0040 U	< 0.0040 U	< 0.0040 U	< 0.0040 U	< 0.0040 U	< 0.0040 U	< 0.0040 U	< 0.0040 U	< 0.0040 U	< 0.0040 U	< 0.0040 U	< 0.0040 U	< 0.0040 U
Copper	mg/l	0.200	0.200		< 0.010 U	< 0.010 U	< 0.010 U	< 0.010 U	0.0020 UJ	0.084	< 0.010 U	< 0.010 U	0.0026 UJ	< 0.010 U	< 0.010 U	< 0.010 U	< 0.010 U	< 0.010 U
Iron	mg/l	**0.300**	0.300		0.041 U	< 0.050 U	0.097	0.038 UJ	0.019 UJ	**0.66**	0.052	0.024 U	0.18	0.17	0.12	0.032 UJ	0.026 U	0.084
Lead	mg/l	0.025	0.050		< 0.010 U	< 0.010 U	< 0.010 U	< 0.010 U	< 0.010 U	< 0.010 U	< 0.010 U	< 0.010 U	< 0.010 U	< 0.010 U	< 0.010 U	< 0.010 U	< 0.010 U	< 0.010 U
Magnesium	mg/l	35	35		< 0.20 U	< 0.20 U	0.098 UJ	< 0.20 U	< 0.20 U	0.087 UJ	0.12 UJ	< 0.20 U	0.12 UJ	0.071 UJ	0.19 UJ	< 0.20 U	< 0.20 U	0.063 UJ
Manganese	mg/l	0.300	0.300		0.0014 U	0.00072 U	0.0024 U	0.0021 UJ	0.0012 UJ	0.020	0.0080	0.0021 U	0.0083	0.019	0.0049	0.0012 UJ	0.0021 U	0.0033
Nickel	mg/l	0.100	0.100		< 0.010 U	< 0.010 U	0.0022 UJ	< 0.010 U	< 0.010 U	0.014	< 0.010 U	< 0.010 U	< 0.010 U	< 0.010 U	< 0.010 U	< 0.010 U	< 0.010 U	< 0.010 U
Potassium	mg/l	-	-		10.6	19.8	264	25.3	14.3	22.9	23.0	11.5	21.2	16.1	16.7	27.0	11.2	25.3
Selenium	mg/l	**0.010**	0.010		< 0.025 U	0.010 UJ	**0.017 UJ**	< 0.025 U	< 0.025 U	< 0.025 U	< 0.025 U	< 0.025 U	< 0.025 U	0.0092 UJ	< 0.025 U	0.0090 UJ	< 0.025 U	< 0.025 U
Silver	mg/l	0.050	0.050		< 0.0060 U	< 0.0060 U	< 0.0060 U	< 0.0060 U	< 0.0060 U	< 0.0060 U	< 0.0060 U	< 0.0060 U	< 0.0060 U	< 0.0060 U	< 0.0060 U	< 0.0060 U	< 0.0060 U	< 0.0060 U
Sodium	mg/l	**20**	-		**152**	**38.5**	**80.3**	**63.3**	**199**	**37.7**	**34.5**	**38.4**	**37.7**	**44.3**	92.8	38.9	**40.9**	37.9
Thallium	mg/l	0.005	0.005		< 0.020 U	< 0.020 U	< 0.020 U	< 0.020 U	< 0.020 U	< 0.020 U	< 0.020 U	< 0.020 U	< 0.020 U	< 0.020 U	< 0.020 U	< 0.020 U	< 0.020 U	< 0.020 U
Vanadium	mg/l	-	-		0.0022 UJ	0.0029 UJ	0.0042 UJ	0.0065	0.0031 UJ	0.0020 UJ	0.0015 UJ	0.0017 UJ	0.0029 UJ	0.0017 UJ	< 0.0050 U	< 0.0050 U	0.0016 UJ	< 0.0050 U
Zinc	mg/l	2	2		0.0031 U	0.0045 U	0.0037 U	0.0043 UJ	0.0026 UJ	0.0058 UJ	0.0061 UJ	0.0028 U	0.0044 UJ	0.0034 UJ	0.0039 UJ	0.0049 UJ	0.0033 U	0.0035 UJ
SW7470A																		
Mercury	mg/l	0.0007	0.0007		< 0.00020 U	< 0.00020 U	0.00015 UJ	< 0.00020 U	< 0.00020 U	< 0.00020 U	< 0.00020 U	< 0.00020 U	< 0.00020 U	< 0.00020 U	< 0.00020 U	< 0.00020 U	< 0.00020 U	< 0.00020 U
SW8081B																		
4,4'-DDD	µg/l	0.3	0.3		< 0.050 U	< 0.050 U	< 0.050 U	< 0.050 U	< 0.050 U	< 0.050 U	< 0.050 U	< 0.050 U	< 0.050 U	< 0.050 U	< 0.050 U	< 0.050 U	< 0.050 U	< 0.050 U
4,4'-DDE	µg/l	0.2	0.2		< 0.050 U	< 0.050 U	< 0.050 U	< 0.050 U	< 0.050 U	< 0.050 U	< 0.050 U	< 0.050 U	< 0.050 U	< 0.050 U	< 0.050 U	< 0.050 U	< 0.050 U	< 0.050 U
4,4'-DDT	µg/l	0.2	0.2		< 0.050 U	< 0.050 U	< 0.050 U	< 0.050 U	< 0.050 U	< 0.050 U	< 0.050 U	< 0.050 U	< 0.050 U	< 0.050 U	< 0.050 U	< 0.050 U	< 0.050 U	< 0.050 U
Aldrin	µg/l	0	0.002		< 0.050 U	< 0.050 U	< 0.050 U	< 0.050 U	< 0.050 U	< 0.050 U	< 0.050 U	< 0.050 U	< 0.050 U	< 0.050 U	< 0.050 UJ	< 0.050 UJ	< 0.050 U	< 0.050 UJ
Alpha-BHC	µg/l	0.01	0.01		< 0.050 U	< 0.050 U	< 0.050 U	< 0.050 U	< 0.050 U	< 0.050 U	< 0.050 U	< 0.050 U	< 0.050 U	< 0.050 U	< 0.050 U	< 0.050 U	< 0.050 U	< 0.050 U
alpha-Chlordane	µg/l	-	-		< 0.050 U	< 0.050 U	< 0.050 U	< 0.050 U	< 0.050 U	< 0.050 U	< 0.050 U	< 0.050 U	< 0.050 U	< 0.050 U	< 0.050 U	< 0.050 U	< 0.050 U	< 0.050 U
Beta-BHC	µg/l	**0.04**	0.04		< 0.050 U	**0.050**	< 0.050 U	< 0.050 U	< 0.050 U	< 0.050 U	< 0.050 U	< 0.050 U	< 0.050 U	< 0.050 U	< 0.050 U	< 0.050 U	< 0.050 U	0.045 UJ
Delta-BHC	µg/l	0.04	0.04		< 0.050 U	< 0.050 U	< 0.050 U	< 0.050 U	< 0.050 U	< 0.050 U	< 0.050 U	< 0.050 U	< 0.050 U	< 0.050 U	< 0.050 UJ	< 0.050 UJ	< 0.050 U	< 0.050 UJ
Dieldrin	µg/l	0.004	0.004		< 0.050 U	< 0.050 U	< 0.050 U	< 0.050 U	< 0.050 U	< 0.050 U	< 0.050 U	< 0.050 U	< 0.050 U	< 0.050 U	< 0.050 U	< 0.050 U	< 0.050 U	< 0.050 U
Endosulfan I	µg/l	-	-		< 0.050 UJ	< 0.050 UJ	< 0.050 UJ	< 0.050 U	< 0.050 U	< 0.050 U	< 0.050 U	< 0.050 U	< 0.050 U	< 0.050 U	< 0.050 UJ	< 0.050 UJ	< 0.050 UJ	< 0.050 UJ
Endosulfan II	µg/l	-	-		< 0.050 UJ	< 0.050 UJ	< 0.050 UJ	< 0.050 U	< 0.050 U	< 0.050 U	< 0.050 U	< 0.050 UJ	< 0.050 U	< 0.050 U	< 0.050 UJ	< 0.050 UJ	< 0.050 UJ	< 0.050 UJ
Endosulfan Sulfate	µg/l	-	-		< 0.050 U	< 0.050 U	< 0.050 U	< 0.050 U	< 0.050 U	< 0.050 U	< 0.050 U	< 0.050 U	< 0.050 U	< 0.050 U	< 0.050 U	< 0.050 U	< 0.050 U	< 0.050 U
Endrin	µg/l	0	0.2		< 0.050 U	< 0.050 U	< 0.050 U	< 0.050 U	< 0.050 U	< 0.050 U	< 0.050 U	< 0.050 U	< 0.050 U	< 0.050 U	< 0.050 U	< 0.050 U	< 0.050 U	< 0.050 U
Endrin Aldehyde	µg/l	5	5		< 0.050 U	< 0.050 U	< 0.050 U	< 0.050 U	< 0.050 U	< 0.050 U	< 0.050 U	< 0.050 U	< 0.050 U	< 0.050 U	< 0.050 U	< 0.050 U	< 0.050 U	< 0.050 U
Endrin Ketone	µg/l	5	5		< 0.050 U	< 0.050 U	< 0.050 U	< 0.050 U	< 0.050 U	< 0.050 U	< 0.050 U	< 0.050 U	< 0.050 U	< 0.050 U	< 0.050 U	< 0.050 U	< 0.050 U	< 0.050 U
Gamma-BHC	µg/l	0.05	0.05		< 0.050 U	< 0.050 U	< 0.050 U	< 0.050 U	< 0.050 U	< 0.050 U	< 0.050 U	< 0.050 U	< 0.050 U	< 0.050 U	< 0.050 U	< 0.050 U	< 0.050 U	< 0.050 U
Gamma-Chlordane	µg/l	-	-		< 0.050 U	< 0.050 U	< 0.050 U	< 0.050 U	< 0.050 U	< 0.050 U	< 0.050 U	< 0.050 U	< 0.050 U	< 0.050 U	< 0.050 UJ	< 0.050 UJ	< 0.050 U	< 0.050 UJ
Heptachlor	µg/l	0.04	0.04		< 0.050 U	< 0.050 U	< 0.050 U	< 0.050 U	< 0.050 U	< 0.050 U	< 0.050 U	< 0.050 U	< 0.050 U	< 0.050 U	< 0.050 UJ	< 0.050 UJ	< 0.050 U	< 0.050 UJ
Heptachlor Epoxide	µg/l	0.03	0.03		< 0.050 U	< 0.050 U	< 0.050 U	< 0.050 U	< 0.050 U	< 0.050 U	< 0.050 U	< 0.050 U	< 0.050 U	< 0.050 U	< 0.050 UJ	< 0.050 UJ	< 0.050 U	< 0.050 UJ
Methoxychlor	µg/l	35	35		< 0.050 U	< 0.050 U	< 0.050 U	< 0.050 U	< 0.050 U	< 0.050 U	< 0.050 U	< 0.050 U	< 0.050 U	< 0.050 U	< 0.050 U	< 0.050 U	< 0.050 U	< 0.050 U
Toxaphene	µg/l	0.06	0.06		< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 UJ	< 0.50 UJ	< 0.50 U	< 0.50 UJ
SW8082A																		
Aroclor 1016	µg/l				< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U
Aroclor 1221	µg/l				< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U
Aroclor 1232	µg/l				< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 UJ	< 0.50 UJ	< 0.50 U	< 0.50 UJ
Aroclor 1242	µg/l				< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U
Aroclor 1248	µg/l	0.09	0.09		< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U
Aroclor 1254	µg/l				< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U
Aroclor 1260	µg/l				< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U
Aroclor-1262	µg/l				< 0.50 UJ	< 0.50 UJ	< 0.50 UJ	< 0.50 UJ	< 0.50 UJ	< 0.50 UJ	< 0.50 UJ	< 0.50 UJ	< 0.50 UJ	< 0.50 UJ	< 0.50 UJ	< 0.50 U	< 0.50 UJ	< 0.50 U
Aroclor-1268	µg/l				< 0.50 UJ	< 0.50 UJ	< 0.50 UJ	< 0.50 UJ	< 0.50 UJ	< 0.50 UJ	< 0.50 UJ	< 0.50 UJ	< 0.50 UJ	< 0.50 UJ	< 0.50 U	< 0.50 U	< 0.50 UJ	< 0.50 U

Table 2
Groundwater/Surface Water Analytical Data

			Monitoring Well/Surface Sample ID	MW-101	MW-105	MW-108	MW-120	MW-123	MW-126	MW-128	MW-131	MW-144	MW-148	SW-1	SW-2	DUP-102918	DUP-110918
			Groundwater Elevation (fmsl)	576.42	576.26	576.23	576.32	576.44	576.32	576.27	576.54	576.35	576.36	NA	NA	NA	NA
			Sample Date	10/29/2018	10/29/2018	10/29/2018	10/30/2018	10/30/2018	10/30/2018	10/30/2018	10/29/2018	10/30/2018	10/30/2018	11/9/2018	11/9/2018	10/29/2018	11/9/2018
Analyte	Units	NY TOGS 1.1.1 GWQS (CLASS GA)	NY TOGS 1.1.1 SWQS (CLASS A, A-S, AA, AA-S)														
SW8260C																	
1,1,1-Trichloroethane	µg/l	5	5	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
1,1,2,2-Tetrachloroethane	µg/l	5	0.2	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
1,1,2-Trichloro-1,2,2-trifluoroethane	µg/l	5	5	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
1,1,2-Trichloroethane	µg/l	1	1	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
1,1-Dichloroethane	µg/l	5	5	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
1,1-Dichloroethene	µg/l	5	0.7	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
1,2,4-Trichlorobenzene	µg/l	5	5	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
1,2-Dibromo-3-chloropropane	µg/l	0.04	0.04	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
1,2-Dibromoethane	µg/l	0.0006	0.0006	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
1,2-Dichlorobenzene	µg/l	3	3	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
1,2-Dichloroethane	µg/l	0.6	0.6	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
1,2-Dichloropropane	µg/l	1	1	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
1,3-Dichlorobenzene	µg/l	3	3	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
1,4-Dichlorobenzene	µg/l	3	3	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
2-Butanone	µg/l	50	50	1.3 UJ	1.4 UJ	3.4 UJ	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	1.4 UJ	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U
2-Hexanone	µg/l	50	50	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U
4-Methyl-2-pentanone	µg/l	-	-	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U
Acetone	µg/l	50	50	7.4 UJ	12	28	5.6 UJ	9.5 UJ	5.9 UJ	3.6 UJ	< 10 U	10	< 10 U	< 10 U	< 10 U	3.6 UJ	< 10 U
Benzene	µg/l	1	1	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
Bromodichloromethane	µg/l	50	50	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
Bromoform	µg/l	50	50	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
Bromomethane	µg/l	5	5	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
Carbon Disulfide	µg/l	60	60	1.0	0.46 UJ	1.3	0.21 UJ	0.66 UJ	0.63 UJ	0.55 UJ	0.49 UJ	2.7	0.27 UJ	0.30 UJ	1.1	0.94 UJ	0.68 UJ
Carbon tetrachloride	µg/l	5	0.4	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
Chlorobenzene	µg/l	5	5	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
Chloroethane	µg/l	5	5	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
Chloroform	µg/l	7	7	1.7	0.60 UJ	0.67 UJ	< 1.0 U	0.34 UJ	< 1.0 U	< 1.0 U	< 1.0 U	0.65 UJ	< 1.0 U	< 1.0 U	< 1.0 U	0.36 UJ	< 1.0 U
Chloromethane	µg/l	5	5	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
cis-1,2-Dichloroethene	µg/l	5	5	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
cis-1,3-Dichloropropene	µg/l	0.4	0.4	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
Cyclohexane	µg/l	-	-	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	0.21 UJ	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
Dibromochloromethane	µg/l	50	50	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
Dichlorodifluoromethane	µg/l	5	5	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
Ethylbenzene	µg/l	5	5	< 1.0 U	< 1.0 U	0.95 UJ	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
Isopropylbenzene	µg/l	5	5	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
Methyl acetate	µg/l	-	-	< 2.5 U	< 2.5 U	< 2.5 U	< 2.5 U	< 2.5 U	< 2.5 U	< 2.5 U	< 2.5 U	< 2.5 U	< 2.5 U	< 2.5 U	< 2.5 U	< 2.5 U	< 2.5 U
Methyl tert-butyl ether	µg/l	10	10	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
Methylcyclohexane	µg/l	-	-	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	0.16 UJ	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
Methylene chloride	µg/l	5	5	1.9	1.9	2.0	2.2	3.5	2.5	2.5	1.5	2.0	2.2	< 1.0 U	< 1.0 U	1.7	< 1.0 U
Styrene	µg/l	5	5	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
Tetrachloroethene	µg/l	5	0.7	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
Toluene	µg/l	5	5	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
trans-1,2-Dichloroethene	µg/l	5	5	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
trans-1,3-Dichloropropene	µg/l	0.4	0.4	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
Trichloroethene	µg/l	5	5	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
Trichlorofluoromethane	µg/l	5	5	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
Vinyl Chloride	µg/l	2	0.3	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
Xylenes, Total	µg/l	**5	**5	< 2.0 U	< 2.0 U	**6.0**	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U

Table 3
Groundwater/Surface Water Analytical Data

Monitoring Well/Surface Sample ID				MW-101	MW-105	MW-108	MW-120	MW-123	MW-126	MW-128	MW-131	MW-144	MW-148	SW-1	SW-2	DUP-102918	DUP-110918
Groundwater Elevation (fmsl)				576.42	576.26	576.23	576.32	576.44	576.32	576.27	576.54	576.35	576.36	NA	NA	NA	NA
Sample Date				10/29/2018	10/29/2018	10/29/2018	10/30/2018	10/30/2018	10/30/2018	10/30/2018	10/29/2018	10/30/2018	10/30/2018	11/9/2018	11/9/2018	10/29/2018	11/9/2018
Analyte	Units	NY TOGS 1.1.1 GWQS (CLASS GA)	NY TOGS 1.1.1 SWQS (CLASS A, A-S, AA, AA-S)														
SW8270D																	
1,1'-Biphenyl	µg/l	5	5	< 5.0 U	< 5.0 U	< 25 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U
2,2'-oxybis(1-Chloropropane)	µg/l	-	-	< 5.0 U	< 5.0 U	< 25 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U
2,4,5-Trichlorophenol	µg/l	***1	***1	< 5.0 U	< 5.0 U	< 25 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U
2,4,6-Trichlorophenol	µg/l	***1	***1	< 5.0 U	< 5.0 U	< 25 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U
2,4-Dichlorophenol	µg/l	5	5	< 5.0 U	< 5.0 U	< 25 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U
2,4-Dimethylphenol	µg/l	50	50	< 5.0 U	< 5.0 U	< 25 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U
2,4-Dinitrophenol	µg/l	10	10	< 10 U	< 10 U	< 50 U	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U
2,4-Dinitrotoluene	µg/l	5	5	< 5.0 U	< 5.0 U	< 25 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U
2,6-Dinitrotoluene	µg/l	5	0.07	< 5.0 U	< 5.0 U	< 25 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U
2-Chloronaphthalene	µg/l	10	10	< 5.0 U	< 5.0 U	< 25 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U
2-Chlorophenol	µg/l	***1	***1	< 5.0 U	< 5.0 U	< 25 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U
2-Methylnaphthalene	µg/l	-	-	< 5.0 U	< 5.0 U	< 25 U	0.62 UJ	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U
2-Methylphenol	µg/l	***1	***1	< 5.0 U	< 5.0 U	< 25 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U
2-Nitroaniline	µg/l	5	5	< 10 U	< 10 U	< 50 U	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U
2-Nitrophenol	µg/l	***1	***1	< 5.0 U	< 5.0 U	< 25 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U
3,3'-Dichlorobenzidine	µg/l	5	5	< 5.0 U	< 5.0 U	< 25 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U
3-Nitroaniline	µg/l	5	5	< 10 U	< 10 U	< 50 U	< 10 UJ	< 10 UJ	< 10 UJ	< 10 UJ	< 10 U	< 10 UJ	< 10 UJ	< 10 U	< 10 U	< 10 U	< 10 U
4,6-Dinitro-2-methylphenol	µg/l	***1	***1	< 10 U	< 10 U	< 50 U	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U
4-Bromophenyl phenyl ether	µg/l	-	-	< 5.0 U	< 5.0 U	< 25 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U
4-Chloro-3-methylphenol	µg/l	***1	***1	< 5.0 U	< 5.0 U	< 25 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U
4-Chloroaniline	µg/l	5		< 5.0 U	< 5.0 U	< 25 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U
4-Chlorophenyl phenyl ether	µg/l	-	-	< 5.0 U	< 5.0 U	< 25 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U
4-Methylphenol	µg/l	***1	***1	< 10 U	**0.65 UJ**	**2.1 UJ**	**1.0 UJ**	**0.41 UJ**	**0.69 UJ**	**1.1 UJ**	< 10 U	**1.2 UJ**	< 10 U	< 10 U	0.89 UJ	< 10 U	0.97 UJ
4-Nitroaniline	µg/l	5	5	< 10 U	< 10 U	< 50 U	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U
4-Nitrophenol	µg/l	***1	***1	< 10 U	< 10 U	< 50 U	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U
Acenaphthene	µg/l	20	20	< 5.0 U	< 5.0 U	< 25 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U
Acenaphthylene	µg/l	-	-	< 5.0 U	< 5.0 U	< 25 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U
Acetophenone	µg/l	-	-	< 5.0 U	< 5.0 U	< 25 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U
Anthracene	µg/l	50	50	< 5.0 U	< 5.0 U	< 25 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U
Atrazine	µg/l	7.5	3	< 5.0 U	< 5.0 U	< 25 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U
Benzaldehyde	µg/l	-	-	< 5.0 U	< 5.0 U	< 25 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U
Benzo(b)fluoranthene	µg/l	0.002	0.002	< 5.0 U	< 5.0 U	< 25 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U
Benzo[a]anthracene	µg/l	0.002	0.002	< 5.0 U	< 5.0 U	< 25 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U
Benzo[a]pyrene	µg/l	0	0.002	< 5.0 U	< 5.0 U	< 25 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U
Benzo[g,h,i]perylene	µg/l	-	-	< 5.0 U	< 5.0 U	< 25 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U
Benzo[k]fluoranthene	µg/l	0.002	0.002	< 5.0 U	< 5.0 U	< 25 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U
bis(2-Chloroethoxy)methane	µg/l	5	5	< 5.0 U	< 5.0 U	< 25 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U
bis(2-Chloroethyl) ether	µg/l	1.0	0.03	< 5.0 U	< 5.0 U	< 25 U	< 5.0 UJ	< 5.0 UJ	< 5.0 UJ	< 5.0 UJ	< 5.0 U	< 5.0 UJ	< 5.0 UJ	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U
bis(2-Ethylhexyl) phthalate	µg/l	5	5	< 5.0 U	< 5.0 U	< 25 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U
Butyl benzyl phthalate	µg/l	50	50	< 5.0 U	< 5.0 U	< 25 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U
Caprolactam	µg/l	-	-	< 5.0 U	< 5.0 U	< 25 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U
Carbazole	µg/l	-	-	< 5.0 U	< 5.0 U	< 25 U	0.32 UJ	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U
Chrysene	µg/l	0.002	0.002	< 5.0 U	< 5.0 U	< 25 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U
Dibenz[a,h]anthracene	µg/l	-	-	< 5.0 U	< 5.0 U	< 25 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U
Dibenzofuran	µg/l	-	-	< 10 U	< 10 U	< 50 U	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U
Diethyl phthalate	µg/l	50	50	< 5.0 U	< 5.0 U	< 25 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U
Dimethyl phthalate	µg/l	50	50	< 5.0 U	< 5.0 U	< 25 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U
Di-n-butyl phthalate	µg/l	50	50	< 5.0 U	< 5.0 U	< 25 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 UJ	< 5.0 UJ	< 5.0 U	0.33 UJ
Di-n-octyl phthalate	µg/l	50	50	< 5.0 U	< 5.0 U	< 25 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 UJ	< 5.0 UJ	< 5.0 U	< 5.0 UJ
Fluoranthene	µg/l	50	50	< 5.0 U	< 5.0 U	< 25 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U
Fluorene	µg/l	50	50	< 5.0 U	< 5.0 U	< 25 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U
Hexachlorobenzene	µg/l	0.04	0.04	< 5.0 U	< 5.0 U	< 25 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U
Hexachlorobutadiene	µg/l	0.5	0.5	< 5.0 U	< 5.0 U	< 25 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U
Hexachlorocyclopentadiene	µg/l	5	5	< 5.0 U	< 5.0 U	< 25 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U
Hexachloroethane	µg/l	5	5	< 5.0 U	< 5.0 U	< 25 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U
Indeno[1,2,3-cd]pyrene	µg/l	0.002	0.002	< 5.0 U	< 5.0 U	< 25 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U
Isophorone	µg/l	50	50	< 5.0 U	< 5.0 U	< 25 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U
Naphthalene	µg/l	10	10	< 5.0 U	< 5.0 U	< 25 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U
Nitrobenzene	µg/l	0.4	0.4	< 5.0 U	< 5.0 U	< 25 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U
N-Nitrosodi-n-propylamine	µg/l	-	-	< 5.0 U	< 5.0 U	< 25 U	< 5.0 UJ	< 5.0 UJ	< 5.0 UJ	< 5.0 UJ	< 5.0 U	< 5.0 UJ	< 5.0 UJ	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U
N-Nitrosodiphenylamine	µg/l	50	50	< 5.0 U	< 5.0 U	< 25 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U
Pentachlorophenol	µg/l	***1	***1	< 10 U	**2.7 UJ**	**11 UJ**	**2.4 UJ**	**2.3 UJ**	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	< 10 UJ	< 10 UJ	< 10 U	< 10 UJ
Phenanthrene	µg/l	50		< 5.0 U	< 5.0 U	< 25 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U
Phenol	µg/l	***1	***1	**3.7 UJ**	**11**	**14 UJ**	**4.2 UJ**	**1.7 UJ**	**3.0 UJ**	**0.77 UJ**	0.57 UJ	**0.59 UJ**	< 5.0 U	< 5.0 U	< 5.0 U	0.59 UJ	< 5.0 U
Pyrene	µg/l	50	50	< 5.0 U	< 5.0 U	< 25 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U

Table 3
Groundwater/Surface Water Analytical Data

				Monitoring Well/Surface Sample ID	MW-101	MW-105	MW-108	MW-120	MW-123	MW-126	MW-128	MW-131	MW-144	MW-148	SW-1	SW-2	DUP-102918	DUP-110918
				Groundwater Elevation (fmsl)	576.42	576.26	576.23	576.32	576.44	576.32	576.27	576.54	576.35	576.36	NA	NA	NA	NA
				Sample Date	10/29/2018	10/29/2018	10/29/2018	10/30/2018	10/30/2018	10/30/2018	10/30/2018	10/29/2018	10/30/2018	10/30/2018	11/9/2018	11/9/2018	10/29/2018	11/9/2018
Analyte	Units	NY TOGS 1.1.1 GWQS (CLASS GA)	NY TOGS 1.1.1 SWQS (CLASS A, A-S, AA, AA-S)															
SW9012																		
Cyanide, Total	mg/l	0.2	0.2		< 0.010 U	0.0091 UJ	0.043	0.0078 UJ	0.010	0.011	0.010	< 0.010 U	0.016	< 0.010 UJ	0.010 J+	0.012 J+	< 0.010 U	0.013 J+
SW9040C																		
pH	NA	-	-		11.7 J	11.9 J	11.8 J	11.4 J	6.27 J	11.8 J	11.8 J	12.0 J	6.08 J	5.46 J	12.2 J	12.2 J	12.0 J	12.2 J
Temperature	Celcius	-	-		25.3 J	25.1 J	25.1 J	19.8 J	19.7 J	19.9 J	19.8 J	25.3 J	19.1 J	19.5 J	19.7 J	20.0 J	25.2 J	20.2 J

Notes:
ft bgs = feet below ground surface
mg/L = milligrams per liter
µg/L = micrograms per liter
TOGS 1.1.1 = Technical and Operational Guidance Series 1.1.1
GWQS = Ambient Groundwater Quality Standards and Guidance Values (Table 1)
SWQS = Ambient Surface Water Quailty Sandards and Guidance Values (Table 1) - only applies to SW-1, SW-2 and DUP-110918
- = no GWQS or SWQS established
NA = not applicable/analyzed
Qualifiers as indicated by validator:
U = Analyte analyzed for, but not detected above the sample's reported quantitation limit
J = Analyte positively identified at a numerical value that is the approximate concentration of the analyte in the sample
J+ = Sample likely to have a high bias
J- = Sample likely to have a low bias
UJ = Analyte not detected above the sample quantitation limit; the associated quantitation limit is approximate and may or may not represent the actual limit of quantitation necessary to accurately and precisely measure the analyte in the sample
N = The analysis indicates the present of an analyte for which there is presumptive evidence to make a "tentative identification."
NJ = The analysis indicates the presence of an analyte that has been "tentatively identified" and the associated numerical value represents its approximate oncentration.

R = Sample result rejected due to serious deficiency in ability to analyze sample and meet quality control criteria; the presence or absence of the analyte cannot be confirmed. This qualifier also may apply when more than one sample result is generated for a target analyte (i.e., dilutions or re-analyses), the most technically acceptable result is considered acceptable.
B/EB/TB/BB = An analyte identified in method blank (B), aqueous equipment (EB), trip (TB), or bottle blanks (BB) used to assess field contamination associated with soil or sediment samples mandates these qualifiers for only soil and sediment sample results.

P = Use professional judgment based on data use. It usually has an "M" with it, which indicates that a manual check should be made if the data that are qualified with the "P" are important to the data user. In addition, "PM" also means a decision is necessary from the Project Manager (or a delegate) concerning the need for further review of the data (see below).

PM = A manual review of the raw data is recommended to determine if the defect affects data use, as in "R" above. This review should include consideration of potential affects that could result from using the "P" qualified data. For example, in the case of holding-time exceedance, the Project Manager or delegate can decide to use the data with no qualification when analytes of interest are known not to be adversely affected by holding-time exceedances. Another example is the case where soil sample duplicate analyses for metals exceed the precision criteria; because this is likely due to sample non-homogeneity rather than contract laboratory error, then the manager or delegate must decide how to use the data.

C&S COMPANIES®

24 Laborers Way BCP
Groundwater Data Summary
Table 4

LOCATION			MW-1		MW-2		MW-3		SB-101		SB-123		FD		EQUIPMENT BLANK	
SAMPLING DATE			09/12/2022		09/12/2022		09/12/2022		09/12/2022		09/12/2022		09/12/2022		09/12/2022	
SAMPLE TYPE			WATER		WATER		WATER		WATER		WATER		WATER		WATER	
	NY-TOGS-GA	Units	Results	Qual	Results	Qual	Results	Qual	Results	Qual	Results	Qual	Results	Qual	Results	Qual
Volatile Organics																
1,1,1-Trichloroethane	5	ug/l					ND						ND			
1,1,2,2-Tetrachloroethane	5	ug/l					ND						ND			
1,1,2-Trichloro-1,2,2-trifluoroethane	5	ug/l					ND						ND			
1,1,2-Trichloroethane	1	ug/l					ND						ND			
1,1-Dichloroethane	5	ug/l					ND						ND			
1,1-Dichloroethene	5	ug/l					ND						ND			
1,2,4-Trichlorobenzene	5	ug/l					ND						ND			
1,2,4-Trimethylbenzene	5	ug/l					ND						ND			
1,2-Dibromo-3-Chloropropane	0.04	ug/l					ND						ND			
1,2-Dichlorobenzene	3	ug/l					ND						ND			
1,2-Dichloroethane	0.6	ug/l					ND						ND			
1,2-Dichloropropane	5	ug/l					ND						ND			
1,3,5-Trimethylbenzene	5	ug/l					ND						ND			
1,3-Dichlorobenzene	3	ug/l					ND						ND			
1,4-Dichlorobenzene	3	ug/l					ND						ND			
2-Butanone (MEK)	50	ug/l					ND						ND			
2-Hexanone	50	ug/l					ND						ND			
4-Isopropyltoluene	5	ug/l					ND						ND			
4-Methyl-2-pentanone (MIBK)		ug/l					ND						ND			
Acetone	50	ug/l					3.8 J						3.4 J			
Benzene	1	ug/l					ND						ND			
Bromoform	50	ug/l					ND						ND			
Bromomethane	5	ug/l					ND						ND			
Carbon disulfide	60	ug/l					ND						ND			
Carbon tetrachloride	5	ug/l					ND						ND			
Chlorobenzene	5	ug/l					ND						ND			
Dibromochloromethane	50	ug/l					ND						ND			
Chloroethane	5	ug/l					ND						ND			
Chloroform	7	ug/l					3.6						3.9			
Chloromethane	5	ug/l					ND						ND			
cis-1,2-Dichloroethene	5	ug/l					ND						ND			
Cyclohexane		ug/l					ND						ND			
Bromodichloromethane	50	ug/l					ND						ND			
Dichlorodifluoromethane	5	ug/l					ND						ND			
Ethylbenzene	5	ug/l					ND						ND			
1,2-Dibromoethane	0.0006	ug/l					ND						ND			
Isopropylbenzene	5	ug/l					ND						ND			
Methyl acetate		ug/l					ND						ND			
Methyl tert-butyl ether	10	ug/l					ND						ND			
Methylcyclohexane		ug/l					ND						ND			
Methylene Chloride	5	ug/l					ND						ND			
m,p-Xylene		ug/l					ND						ND			
n-Butylbenzene	5	ug/l					ND						ND			
N-Propylbenzene	5	ug/l					ND						ND			
o-Xylene	5	ug/l					ND						ND			
sec-Butylbenzene	5	ug/l					ND						ND			
Tetrachloroethene	5	ug/l					ND						ND			
Toluene	5	ug/l					ND						ND			
trans-1,2-Dichloroethene	5	ug/l					ND						ND			
trans-1,3-Dichloropropene		ug/l					ND						ND			
Trichloroethene	5	ug/l					ND						ND			
Trichlorofluoromethane	5	ug/l					ND						ND			
Vinyl chloride	2	ug/l					ND						ND			
Xylenes, Total		ug/l					ND						ND			
cis-1,3-Dichloropropene		ug/l					ND						ND			
Naphthalene	10	ug/l					ND						ND			
Styrene	5	ug/l					ND						ND			
tert-Butylbenzene	5	ug/l					ND						ND			

LOCATION			MW-1		MW-2		MW-3		SB-101		SB-123		FD		EQUIPMENT BLANK	
SAMPLING DATE			09/12/2022		09/12/2022		09/12/2022		09/12/2022		09/12/2022		09/12/2022		09/12/2022	
SAMPLE TYPE			WATER		WATER		WATER		WATER		WATER		WATER		WATER	
	NY-TOGS-GA	Units	Results	Qual	Results	Qual	Results	Qual	Results	Qual	Results	Qual	Results	Qual	Results	Qual
Semivolatile Organics																
1,4-Dioxane		ug/l	ND		0.18 J		ND		ND		ND		0.2			
2,4,5-Trichlorophenol		ug/l	ND		ND		ND		ND		ND		ND			
2,4,6-Trichlorophenol		ug/l	ND		ND		ND		ND		ND		ND			
2,4-Dichlorophenol	2	ug/l	ND		ND		ND		ND		ND		ND			
2,4-Dimethylphenol	2	ug/l	ND		ND		ND		ND		ND		ND			
2,4-Dinitrophenol	2	ug/l	ND		ND		ND		ND		ND		ND			
2,4-Dinitrotoluene	5	ug/l	ND		ND		ND		ND		ND		ND			
2,6-Dinitrotoluene	5	ug/l	ND		ND		ND		ND		ND		ND			
2-Chloronaphthalene	10	ug/l	ND		ND		ND		ND		ND		ND			
2-Chlorophenol		ug/l	ND		ND		ND		ND		ND		ND			
2-Methylnaphthalene		ug/l	ND		ND		ND		ND		ND		ND			
2-Methylphenol		ug/l	0.77 J		ND		ND		ND		0.75 J		ND			
2-Nitroaniline	5	ug/l	ND		ND		ND		ND		ND		ND			
2-Nitrophenol		ug/l	ND		ND		ND		ND		ND		ND			
3,3'-Dichlorobenzidine	5	ug/l	ND		ND		ND		ND		ND		ND			
3-Nitroaniline	5	ug/l	ND		ND		ND		ND		ND		ND			
4,6-Dinitro-2-methylphenol		ug/l	ND		ND		ND		ND		ND		ND			
4-Bromophenyl phenyl ether		ug/l	ND		ND		ND		ND		ND		ND			
4-Chloro-3-methylphenol		ug/l	ND		ND		ND		ND		ND		ND			
4-Chloroaniline	5	ug/l	ND		ND		ND		ND		ND		ND			
4-Chlorophenyl phenyl ether		ug/l	ND		ND		ND		ND		ND		ND			
4-Methylphenol		ug/l	1.8 J		ND		ND		ND		1.1 J		ND			
4-Nitroaniline	5	ug/l	ND		ND		ND		ND		ND		ND			
4-Nitrophenol		ug/l	ND		ND		ND		ND		ND		ND			
Acenaphthene	20	ug/l	ND		ND		ND		ND		ND		ND			
Acenaphthylene		ug/l	ND		ND		ND		ND		ND		ND			
Acetophenone		ug/l	ND		ND		ND		ND		ND		ND			
Anthracene	50	ug/l	ND		ND		ND		ND		ND		ND			
Atrazine	7.5	ug/l	ND		ND		ND		ND		ND		ND			
Benzaldehyde		ug/l	ND		ND		ND		ND		ND		ND			
Benzo(a)anthracene	0.002	ug/l	ND		ND		ND		ND		ND		ND			
Benzo(a)pyrene	0	ug/l	ND		ND		ND		ND		ND		ND			
Benzo(b)fluoranthene	0.002	ug/l	ND		ND		ND		ND		ND		ND			
Benzo(ghi)perylene		ug/l	ND		ND		ND		ND		ND		ND			
Benzo(k)fluoranthene	0.002	ug/l	ND		ND		ND		ND		ND		ND			
Biphenyl		ug/l	ND		ND		ND		ND		ND		ND			
Bis(2-chloroisopropyl)ether	5	ug/l	ND		ND		ND		ND		ND		ND			
Bis(2-chloroethoxy)methane	5	ug/l	ND		ND		ND		ND		ND		ND			
Bis(2-chloroethyl)ether	1	ug/l	ND		ND		ND		ND		ND		ND			
Bis(2-ethylhexyl)phthalate	5	ug/l	ND		ND		ND		ND		ND		ND			
Butyl benzyl phthalate	50	ug/l	ND		ND		ND		ND		ND		ND			
Caprolactam		ug/l	2.7 J		ND		ND		ND		ND		ND			
Carbazole		ug/l	ND		ND		ND		ND		ND		ND			
Chrysene	0.002	ug/l	ND		ND		ND		ND		ND		ND			
Di-n-butylphthalate	50	ug/l	ND		ND		ND		ND		ND		ND			
Di-n-octylphthalate	50	ug/l	ND		ND		ND		ND		ND		ND			
Dibenzo(a,h)anthracene		ug/l	ND		ND		ND		ND		ND		ND			
Dibenzofuran		ug/l	1.3 J		ND		ND		ND		ND		ND			
Diethyl phthalate	50	ug/l	ND		ND		ND		ND		ND		ND			
Dimethyl phthalate	50	ug/l	ND		ND		ND		ND		ND		ND			
Fluoranthene	50	ug/l	ND		ND		ND		ND		ND		ND			
Fluorene	50	ug/l	ND		ND		ND		ND		ND		ND			
Hexachlorobenzene	0.04	ug/l	ND		ND		ND		ND		ND		ND			
Hexachlorobutadiene	0.5	ug/l	ND		ND		ND		ND		ND		ND			
Hexachlorocyclopentadiene	5	ug/l	ND		ND		ND		ND		ND		ND			
Hexachloroethane	5	ug/l	ND		ND		ND		ND		ND		ND			
Indeno(1,2,3-cd)pyrene	0.002	ug/l	ND		ND		ND		ND		ND		ND			
Isophorone	50	ug/l	ND		ND		ND		ND		ND		ND			
n-Nitrosodi-n-propylamine		ug/l	ND		ND		ND		ND		ND		ND			
N-Nitrosodiphenylamine		ug/l	ND		ND		ND		ND		ND		ND			
Naphthalene	10	ug/l	ND		ND		ND		ND		ND		ND			
Nitrobenzene	0.4	ug/l	ND		ND		ND		ND		ND		ND			
n-Nitrosodi-n-propylamine		ug/l	ND		2.3 J		ND		ND		2.2 J		ND			
N-Nitrosodiphenylamine		ug/l	ND		ND		ND		ND		ND		ND			
Pentachlorophenol	1	ug/l	4.1 J		0.64 J		ND		ND		0.82 J		0.44 J			
Phenanthrene	50	ug/l	ND		ND		ND		ND		ND		ND			
Phenol	1	ug/l	ND		ND		ND		ND		ND		ND			
Pyrene	50	ug/l	ND		ND		ND		ND		ND		ND			

24 Laborers Way BCP
Groundwater Data Summary
Table 4

LOCATION			MW-1		MW-2		MW-3		SB-101		SB-123		FD		EQUIPMENT BLANK	
SAMPLING DATE			09/12/2022		09/12/2022		09/12/2022		09/12/2022		09/12/2022		09/12/2022		09/12/2022	
SAMPLE TYPE			WATER		WATER		WATER		WATER		WATER		WATER		WATER	
	NY-TOGS-GA	Units	Results	Qual	Results	Qual	Results	Qual	Results	Qual	Results	Qual	Results	Qual	Results	Qual
PCBs																
PCB-1016		ug/l					ND						ND			
PCB-1221		ug/l					ND						ND			
PCB-1232		ug/l					ND						ND			
PCB-1242		ug/l					ND						ND			
PCB-1248		ug/l					ND						ND			
PCB-1254		ug/l					ND						ND			
PCB-1260		ug/l					ND						ND			
Total Metals																
Aluminum		mg/l	1.1		1.3		0.67		0.22		0.13	J	0.38			
Mercury	0.0007	mg/l	ND		ND		ND		ND		ND		ND			
Antimony	0.003	mg/l	ND		ND		ND		ND		ND		ND			
Arsenic	0.025	mg/l	ND		ND		ND		ND		ND		ND			
Barium	1	mg/l	0.08		0.098		0.14		0.09		0.2		0.14			
Beryllium	0.003	mg/l	ND		ND		ND		ND		ND		ND			
Cadmium	0.005	mg/l	ND		ND		ND		ND		ND		ND			
Calcium		mg/l	230		153		243		107		239		242			
Chromium	0.05	mg/l	ND		ND		ND		ND		ND		ND			
Cobalt		mg/l	ND		ND		ND		ND		ND		ND			
Copper	0.2	mg/l	0.0033	J	0.0026	J	0.0031	J	0.0021	J	0.0037	J	0.0035	J		
Iron	0.3	mg/l	0.17		0.053		0.15		ND		0.042	J	0.021	J		
Lead	0.025	mg/l	ND		ND		ND		ND		ND		ND			
Magnesium	35	mg/l	0.072	J	ND		0.12	J	ND		ND		ND			
Manganese	0.3	mg/l	0.012		0.0013	J	0.0049		0.00057	J	0.0018	J	ND			
Nickel	0.1	mg/l	0.0015	J	ND		ND		ND		ND		ND			
Potassium		mg/l	18.8	B	6.5	B	12.3	B	9	B	16.5	B	11.9	B		
Selenium	0.01	mg/l	ND		ND		ND		ND		ND		ND			
Silver	0.05	mg/l	ND		ND		ND		ND		ND		ND			
Sodium	20	mg/l	**31.6**		**23**		**34.8**		**24.7**		**117**		**34.3**			
Thallium	0.0005	mg/l	ND		ND		ND		ND		ND		ND			
Vanadium		mg/l	0.0022	J	0.0057		0.0038	J	ND		ND		0.0027	J		
Zinc	2	mg/l	ND		0.0032	JB	ND		0.0024	JB	0.0017	JB				
Pesticides																
4,4'-DDD	0.3	ug/l					ND						ND			
4,4'-DDE	0.2	ug/l					ND						ND			
4,4'-DDT	0.2	ug/l					0.038	JB*+					0.038	JB*+		
Aldrin		ug/l					ND						ND			
alpha-BHC	0.01	ug/l					ND						ND			
cis-Chlordane		ug/l					ND						ND			
beta-BHC	0.04	ug/l					ND						ND			
delta-BHC	0.04	ug/l					ND						ND			
Dieldrin	0.004	ug/l					ND						ND			
Endosulfan I		ug/l					ND						ND			
Endosulfan II		ug/l					ND						ND			
Endosulfan sulfate		ug/l					ND						ND			
Endrin		ug/l					ND						ND			
Endrin aldehyde	5	ug/l					0.017	J					0.017	J		
Endrin ketone	5	ug/l					0.018	J					ND			
gamma-BHC (Lindane)	0.05	ug/l					ND						ND			
trans-Chlordane		ug/l					ND						ND			
Heptachlor	0.04	ug/l					ND						ND			
Heptachlor epoxide	0.03	ug/l					ND						ND			
Methoxychlor	35	ug/l					ND	F1					ND			
Toxaphene	0.06	ug/l					ND						ND			

24 Laborers Way BCP
Groundwater Data Summary
Table 4

LOCATION			MW-1		MW-2		MW-3		SB-101		SB-123		FD		EQUIPMENT BLANK	
SAMPLING DATE			09/12/2022		09/12/2022		09/12/2022		09/12/2022		09/12/2022		09/12/2022		09/12/2022	
SAMPLE TYPE			WATER		WATER		WATER		WATER		WATER		WATER		WATER	
	NY-TOGS-GA	Units	Results	Qual	Results	Qual	Results	Qual	Results	Qual	Results	Qual	Results	Qual	Results	Qual
Perfluorinated Alkyl Acids																
1H,1H,2H-perfluorodecanesulfonic acid (8:2)	100	ppt	ND		ND		ND		ND		ND		ND		ND	
1H,1H,2H-Perfluorooctanesulfonic Acid (6:2FTS)	100	ppt	ND		ND		ND		ND		4.7		ND		ND	
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	100	ppt	ND		ND		ND		ND		ND		ND		ND	
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	100	ppt	ND		ND		ND		ND		ND		ND		ND	
Perfluorobutanesulfonic Acid (PFBS)	100	ppt	2.1		0.65	J	1.6	J	0.84	J	2.6		1.4	J	ND	
Perfluorobutanoic Acid (PFBA)	100	ppt	ND		ND		15		ND		21		15		ND	
Perfluorodecanesulfonic acid (PFDS)	100	ppt	ND		ND		ND		ND		ND		ND		ND	
Perfluorodecanoic Acid (PFDA)	100	ppt	ND		ND		ND		ND		ND		ND		ND	
Perfluorododecanoic acid (PFDoA)	100	ppt	ND		ND		ND		ND		ND		ND		ND	
Perfluoroheptanesulfonic Acid (PFHpS)	100	ppt	ND		ND		ND		ND		ND		ND		ND	
Perfluoroheptanoic Acid (PFHpA)	100	ppt	3.2		1	J	2.2		1	J	3.8		2.1		ND	
Perfluorohexanesulfonic Acid (PFHxS)	100	ppt	0.88	J	0.55	J	0.75	J	0.5	J	1.1	J	0.72	J	ND	
Perfluorohexanoic Acid (PFHxA)	100	ppt	5.7		2		4.4		2		7.1		3.7		ND	
Perfluorononanoic Acid (PFNA)	100	ppt	0.5	J	ND		0.45	J	ND		0.93	J	0.46	J	ND	
Perfluorooctanesulfonamide (PFOSA)	100	ppt	ND		ND		ND		ND		ND		ND		ND	
Perfluorooctanesulfonic Acid (PFOS)	10	ppt	3.8		1.9		3.2		2.2		5		3.1		ND	
Perfluorooctanoic Acid (PFOA)	10	ppt	5.3		2.4		5.9		2.2		7.4		5		ND	
Perfluoropentanoic Acid (PFPeA)	100	ppt	13		4.2		5.7		2.2		9.5		4.3		ND	
Perfluorotetradecanoic acid (PFTeA)	100	ppt	ND		ND		ND		ND		ND		ND		ND	
Perfluorotridecanoic acid (PFTriA)	100	ppt	ND		ND		ND	F2	ND		ND		ND		ND	
Perfluoroundecanoic acid (PFUnA)	100	ppt	ND		ND		ND		ND		ND		ND		ND	
Total PFOS including PFOA and PFOS	500	ppt	34.48		12.7		39.2		10.94		63.13		35.78		0	
Total PFOS / PFOA	70	ppt	9.10		4.30		9.10		4.40		12.40		8.10		0.00	
Wet Chemistry																
pH		SU	11.5	HF	11.5	HF	11.6	HF	11.3	HF	11.7	HF	11.6	HF		
Temperature		Degrees C	20.8	HF	20.8	HF	20.8	HF	20.8	HF	20.9	HF	20.7	HF		

Notes:
- Except for PFOA / PFOS, analytical results compared to NYSDEC Division of Water Technical and Operational Guidance Series (1.1.1) Ambient Water Quality Standards and Guidance Values. PFOA / PFOS compared to thresholds provided in RI/AA/IRM/RWP Report Review Letter by NYSDEC, dated July 31, 2019.
- Highlighted cell indicates the respective groundwater limitation exceeded.
- Blank space indicates that a threshold does not exist
- "- -" indicates analysis not performed.
- ND indicates analyte was not detected.
-FIELD DUP (duplicate) collected from SB-131.
- ppt = parts per trillion
- *+ - LCS and/or LCSD is outside acceptance limits, high biased.
- B - Compound was found in the blank and sample.
- F1 - MS and/or MSD recovery exceeds control limits.
- HF - Field parameter with a holding time of 15 minutes. Test performed by laboratory at client's request.
- I - Value is EMPC (estimated maximum possible concentration).
- J - Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

Appendix A
Historical Environmental Reports

Groundwater & Environmental Services, Inc.

415 Lawrence Bell Drive, Suite 6
Williamsville, NY 14221

T. 800.287.7857

January 25, 2019

Ms. Sarah Saucier
NYSDEC Division of Environmental Remediation
625 Broadway, 12th Floor Remedial Bureau E, Section A
Albany, New York 12233-5060

Re: Site Characterization Report
Buffalo Lakeside Commercial Park Parcel 5
Laborers Way and Ship Canal Parkway
Buffalo, New York 14218
NYSDEC Site No. 915322

Dear Ms. Saucier:

Groundwater & Environmental Services, Inc. (GES) has prepared the enclosed Site Characterization Report for the Buffalo Lakeside Commercial Park Parcel 5 (the Site), located in Buffalo, New York. The purpose of the activities conducted at the Site was to investigate subsurface contamination. The work was completed in accordance with the call-out issued on August 27, 2018, by New York State Department of Environmental Conservation (NYSDEC).

If you have any questions or comments, please do not hesitate to contact GES at your convenience.

Sincerely,

Eric D. Popken, PG
Senior Project Manager

Enclosure

New York State Department of Environmental Conservation, Division of Environmental Remediation

Site Characterization Report

Buffalo Lakeside Commercial Park Parcel 5

Laborers Way and Ship Canal Parkway, Buffalo, NY 14218

NYSDEC Site No. 915322

January 25, 2019

Site Characterization Report

Buffalo Lakeside Commercial Park Parcel 5
Laborers Way and Ship Canal Parkway
Buffalo, NY 14218

Prepared for:
New York State Department of Environmental Conservation, Division of Environmental Remediation
625 Broadway, 12th Floor Remedial Bureau E, Section A
Albany, NY 1223-5060

Prepared by:
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TEL: 800-287-7857
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GES Project:
0901752

Date:
January 25, 2019

Jennifer Clay
Staff Geologist

Eric D. Popken, PG
Senior Project Manager

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Appendix A – Soil Boring and Monitoring Well Logs
Appendix B – Laboratory Analytical Reports
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Acronyms

bgs	Below ground surface
BLCP	Buffalo Lakeside Commercial Park
BUDC	Buffalo Urban Development Corporation
Cascade	Cascade Drilling, L.P.
CP-51	Commissioners Policy-51
DO	Dissolved oxygen
DOT	Department of Transportation
DUSR	Data Usability Summary Report
ESG	Environmental Service Group, Inc.
ESRD	Environmental Site Remediation Database
eV	electron volts
GES	Groundwater & Environmental Services, Inc.
GWQS	Ambient groundwater quality standards and guidance values
IDW	Investigation derived waste
N&C	Nussbaumer & Clarke, Inc.
6 NYCRR	Title 6 Official Compilation of New York Codes, Rules and Regulations
NYSDEC	New York State Department of Environmental Conservation
ORP	Oxidation reduction potential
PCBs	Polychlorinated biphenyls
PID	Photoionization detector
ppm	Parts per million
PVC	Polyvinyl chloride
SCOs	Soil cleanup objectives
Site	Buffalo Lakeside Commercial Park Parcel 5
SVOC	Semi-volatile organic compound
SWQS	Ambient surface water quality standards and guidance values
TestAmerica	TestAmerica Laboratories, Inc.
TOGS 1.1.1	Technical and Operational Guidance Series 1.1.1
USEPA	United States Environmental Protection Agency
VOC	Volatile organic compound

1 Introduction

This report has been prepared by Groundwater & Environmental Services, Inc. (GES) to document the site characterization field activities conducted at Buffalo Lakeside Commercial Park Parcel 5, located in the northwest quadrant of Laborers Way and Ship Canal Parkway in Buffalo, New York (the Site). The purpose of the activities conducted was to characterize and delineate subsurface contamination at the Site. The work was completed in accordance with the call-out issued on August 27, 2018, by New York State Department of Environmental Conservation (NYSDEC). A site location map has been included as **Figure 1**. A site map illustrating the site layout has been included as **Figure 2.**

2 Site History

Information on the site history was obtained by GES from NYSDEC Environmental Site Remediation Database (ESRD) and has been summarized below, an environmental site investigation was completed in 2006.

The Site is located at the Buffalo Lakeside Commerce Park (BCLP) at the southern edge of the City of Buffalo. The Site is a 51-acre, vacant parcel located on the northwestern corner of the BLCP. The site is bordered to the west by New York State Route 5, to the north by Tifft Street, to the east by Ship Canal Parkway, and to the south by Laborers Way. The current zoning for the Site is light industrial/commercial use by Buffalo Urban Development Corporation (BUDC), owner of the BLCP. The primary features of the Site consists of vacant undeveloped land and is generally covered with brush vegetation, as well as areas of slag and gravel. The northern portion of the Site is covered with wetland type vegetation and ponded water. Historically, the Site has been used for slag dumping and a railroad corridor. Historic adjacent and nearby sites included rail yards and heavy industrial sites, including the Hanna Furnace Corporation site located south of the Site. Site geology can be characterized as non-native slag fill materials overlying silty clay. The fill materials primarily consist of slag (light gray, dark gray, black/blue and/or gray/blue) at depths ranging from approximately ground surface to 18 feet below ground surface (bgs) with the majority of the fill ending at 10 feet bgs. Groundwater was encountered on-site from approximately 1 to 12 feet bgs and flows to the southwest. The bedrock at the site is the Levanna Shale Member of the Middle Devonian Age Skaneateles Formation. The Levanna shale is described as a fissile shale, dark gray or black near the bottom and lighter gray in color near the top. Some calcareous (limey) beds and some pyrite concretions are present within this shale member. The Levanna is reportedly 45 feet thick and typically produces low quantities of groundwater in the range of 10 to 15 gallons per minute.

During the 2006 site investigation the following contaminants of concern were identified:

- Soil Samples – barium, copper, lead, manganese, mercury, selenium, and zinc;
- Groundwater – arsenic, barium, beryllium, iron, lead, manganese, and selenium;
- Elevated pH readings were also encountered in soil and groundwater.

3 Site Characterization Activities

3.1 Soil Borings

GES personnel over saw the advancement of 50 soil borings (SB-101 through SB-150) performed by Cascade Drilling, L.P. (Cascade) of Flint, Michigan. Soil borings were advanced using a Sonic drill rig due to the fill material at the Site which is dominated by slag debris.

Soil borings were advanced to a depth of 20 feet bgs. Soil samples were collected in 10-foot long sonic tubes for logging of color, moisture content, grain size, and visual evidence of impacts. Samples were collected at intervals, for each soil type or roughly 2 feet in length, and placed in a re-sealable plastic bag, then screened for volatile organic vapors. GES personnel used a MiniRae 3000 photoionization detector (PID) with a 10.6 electronvolt (eV) lamp to collect readings. The PID, per manufacturer specifications, is able to detect volatile organic compounds (VOCs) as low as 0.1 parts per million (ppm). Readings were recorded in ppm on the bore logs. Bore logs are included in **Appendix A**.

In general, soil samples were collected from the surface ranging from 0 to 2 feet bgs, fill material ranging from 2 to 14 feet bgs, and native sedimentary sample ranging from 14 to 20 feet bgs; however some soil borings (SB-105, SB-110, SB-117, SB-121, SB-133, SB-136, SB-139 and SB-148) collected an additional soil sample due to signs of impacts, such as staining or unidentified material. Samples were collected in laboratory supplied bottleware and submitted to TestAmerica Laboratories, Inc. (TestAmerica) of Amherst, New York, for analysis of VOCs via United States Environmental Protection Agency (USEPA) Method 8260C, semi-volatile organic compounds (SVOCs) via USEPA Method 8270D, organochlorine pesticides via USEPA Method 8081B, polychlorinated biphenyls (PCBs) via USEPA Method 8082A, metals including mercury via USEPA Method 6010C/7471B, and general chemistry parameters for total cyanide, pH, and temperature.

Soil boring locations are shown on **Figure 3**.

3.2 Monitoring Well Installation

Upon completion of the 50 soil borings, from October 22 through 24, 2018, 10 locations (MW-101, MW-105, MW-108, MW-120, MW-123, MW-126, MW-128, MW-131, MW-144, and MW-148) were chosen to be converted to monitoring wells and were installed under the guidance of GES personnel. Wells were installed to a depth of 15 feet bgs, with the exception of MW-126 which was installed to a depth of 14 feet bgs. Monitoring wells were constructed of 2-inch diameter Schedule 40 polyvinyl chloride (PVC) well casing and 0.010-inch slot screens. The table below summarizes monitoring well construction.

Table 3.2 – Monitoring Well Construction Summary

Monitoring Well ID	Total Installation Depth (feet bg)	Screened Interval (feet bg)
MW-101	15	5 - 15
MW-105	15	5 – 15
MW-108	15	5 – 15
MW-120	15	5 – 15
MW-123	15	5 – 15
MW-126	14	4 – 14
MW-128	15	5 – 15
MW-131	15	5 – 15
MW-144	15	5 – 15
MW-148	15	5 – 15

Each well was constructed with type 20 to 40 mesh filter sand pack to 1 foot above screen followed by at least 2 feet of medium bentonite chips. The top foot of the wells was backfilled with grout and finished with a 3-foot tall steel protective casing in an approximately 1.5-foot diameter concrete pad.

Monitoring well locations can been seen on **Figure 2** and monitoring well construction is located in **Appendix A**.

3.3 Monitoring Well Development

On October 24, 2018, GES personnel oversaw Cascade develop the newly installed monitoring wells. Development was performed through mechanical surging and bailing using a submersible pump. Monitoring wells were developed until visual clarity was achieved.

Development water was collected and stored onsite in a 275-gallon tote.

3.4 Monitoring Well Gauging and Sampling

On October 29 and 30, 2018, GES personnel performed site-wide gauging and sampling. All newly installed site monitoring wells were gauged followed by low flow purging using a peristaltic pump until groundwater parameters (temperature, pH, specific conductivity, oxidation reduction potential (ORP), dissolved oxygen (DO) and turbidity). Samples were then immediately collected in laboratory supplied bottleware to be submitted for analysis. Samples were placed on ice and submitted to TestAmerica for laboratory analysis of VOCs via USEPA Method 8260C, SVOCs via USEPA Method 8270D, organochlorine pesticides via USEPA Method 8081B, PCBs via USEPA Method 8082A, metals including mercury via USEPA Method 6010C/7471B, and general chemistry parameters for total cyanide, pH, and temperature. Groundwater contours are shown on **Figure 4**.

3.5 Surface Water Sampling

On November 9, 2018, GES personnel performed surface water sampling. Samples were collected using a peristaltic pump and tubing due to the shallow nature of the surface water, samples were then placed in laboratory supplied bottleware to be submitted for analysis. Samples were placed on ice and submitted to TestAmerica for laboratory analysis of VOCs via USEPA Method 8260C, SVOCs via USEPA Method 8270D, organochlorine pesticides via USEPA Method 8081B, PCBs via USEPA Method 8082A, metals including mercury via USEPA Method 6010C/7471B, and general chemistry parameters for total cyanide, pH, and temperature. Sample locations are shown on **Figure 2**.

3.6 Site Survey Activities

Upon completion of all field activities a survey was performed by Nussbaumer & Clarke, Inc. (N&C) of Buffalo, New York. The newly installed monitoring wells were tied into existing features on-site including existing temporary monitoring wells, ground surface and visible utilities.

3.7 Investigation Derived Waste

Investigation derived waste (IDW) in the form of soil cuttings and decontamination/purge water were generated during the subsurface investigation activities conducted in fall 2018.

3.7.1 Soil

The soil IDW was staged in Department of Transportation (DOT)-approved 55-gallon steel drums and labeled. Based on clusters of drums, 3 composite samples of the soil cuttings were collected for waste characterization and to establish a disposal profile. Analytical results of waste sampling are determined to be non-hazardous and will be transported by Environmental Service Group, Inc. (ESG) located in Tonawanda, New York to American Recyclers Company located in Tonawanda, New York for disposal.

3.7.2 Purge and Decontamination Water

Decontamination and purge water from field activities was stored in 2 (275-gallon) totes and staged onsite. The water was sampled from each tote for waste characterization and to establish a disposal profile. Analytical results of waste sampling are determined to be non-hazardous and will be transported by ESG to American Recyclers Company located in Tonawanda, New York for disposal.

3.8 Laboratory Sample Analysis: Quality Assurance/Quality Control

TestAmerica in Amherst, New York and North Canton, Ohio analyzed the groundwater samples collected at the Site. TestAmerica provided full category B deliverables with laboratory analytical data and are included as **Appendix B**. Additionally, a Quality Assessment Data Usability Summary Report (DUSR) was performed by RemVer of Colchester, Connecticut and is included

as **Appendix C**. RemVer found all results included in the laboratory analytical reports to be acceptable for use.

Care was taken during all aspects of the sample collection to ensure that high quality data was obtained. Duplicate (DUP) samples, matrix spike, and matrix spike duplicate (MS/MSD) samples were collected for every twenty (20) field samples and submitted for analysis to assure quality of both the sample collection procedure and the laboratory preparation/analytical method. All samples were submitted to TestAmerica under a chain of custody.

4 Supplemental Site Investigation Results

4.1 Soil Analytical Results

Soil analytical results were compared with Title 6 Official Compilation of New York Codes, Rules and Regulations (6 NYCRR) Part 375 Environmental Remediation Program Table 375-6.8 Unrestricted and Restricted Commercial Use Soil Cleanup Objectives and NYSDEC Commissioner Policy-15 (CP-51) Supplemental Soil Cleanup Objectives (SCOs). Exceedances are summarized as follows:

- VOC concentrations exceeded Unrestricted SCOs in thirty-four (34) sample locations:
  - One or more VOC concentration exceeded in SB-101-B, SB-105-C, SB-106-C, SB-108-C, SB-110-D, SB-112-C, SB-117-C, SB-121-D, SB-122-A, SB-122-C, SB-124-B, SB-125-C, SB-126-C, SB-127-C, SB-128-C, SB-131-C, SB-132-C, SB-133-C, SB-133-D, SB-134-C, SB-136-C, SB-137-C, SB-138-C, SB-139-C, SB-140-B, SB-140-C, SB-141-C, SB-142-C, SB-143-C, SB-144-C, SB-145-C, SB-146-C, SB-147-C and SB-150-B.
- VOC concentrations did not exceed Commercial SCOs in any sample collected.
- SVOC concentrations exceeded Unrestricted SCOs in nineteen (19) sample locations.
  - One or more SVOC concentration exceeded in SB-103-A, SB-105-A, SB-108-A, SB-109-A, SB-109-B, SB-111-A, SB-112-A, SB-113-A, SB-116-A, SB-118-A, SB-119-A, SB-125-A, SB-126-A, SB-128-A, SB-132-A, SB-135-A, SB-141-A, SB-143-C and SB-149-A.
- SVOC concentrations did not exceed Commercial SCOs in any sample locations.
- Pesticide concentrations exceeded Unrestricted SCOs in twenty-seven (27) sample locations.
  - One or more pesticide concentrations exceeded in SB-103-A, SB-108-A, SB-109-A, SB-112-B, SB-116-A, SB-118-A, SB-119-A, SB-122-A, SB-123-A, SB-124-A, SB-125-C, SB-126-B, SB-126-C, SB-127-B, SB-128-C, SB-132-B, SB-133-A, SB-136-A, SB-136-B, SB-136-D, SB-142-A, SB-142-B, SB-143-A, SB-143-C, SB-144-A, SB-145-B and SB-147-A.
- Pesticide concentrations did not exceed Commercial SCOs in any sample collected.
- PCB concentrations exceeded Unrestricted SCOs in four (4) sample locations.
  - SB-126-A, SB-126-B, SB-128-A and SB-135-A.
- PCB concentrations did not exceed Commercial SCOs in any sample collected.

- Metals concentrations exceeded Unrestricted SCOs in all sample locations.
  - Exceedances were in Arsenic, Barium, Beryllium, Cadmium, Copper, Manganese, Nickel, Selenium, and Zinc.
- Metals concentrations exceeded Commercial SCOs in forty-one (41) sample locations.
  - One or more metals concentrations exceeded in SB-103-C, SB-104-B, SB-109-A, SB-109-B, SB-112-A, SB-116-B, SB-117-D, SB-120-B, SB-120-C, SB-123-A, SB-124-A, SB-124-B, SB-125-B, SB-126-A, SB-127-A, SB-128-A, SB-129-A, SB-129-B, SB-130-B, SB-131-A, SB-132-B, SB-133-A, SB-133-B, SB-134-B, SB-136-A, SB-137-A, SB-137-B, SB-138-A, SB-138-B, SB-139-A, SB-139-B, SB-142-A, SB-143-B, SB-145-B, SB-146-A, SB-146-B, SB-147-B, SB-148-A, SB-148-B, SB-148-D and SB-150-B.
- Cyanide concentrations exceeded Unrestricted/Commercial (same value) SCOs in eight (8) sample locations.
  - Cyanide concentration exceeded in SB-102-A, SB-103-A, SB-108-A, SB-109-B, SB-111-B, SB-130-A, SB-139-A, SB-148-B.

Details of the soil analytical data are summarized in **Table 1**. Analytical reports are included in **Appendix B**.

4.2 Groundwater Analytical Results

Groundwater analytical results were compared with NYSDEC Technical and Operational Guidance Series 1.1.1 (TOGS 1.1.1) Table 1 Ambient Groundwater Quality Standards and Guidance Values (GWQS). Exceedances are summarized as follows:

- VOC concentrations exceeded TOGS 1.1.1 GWQS in one (1) sample location.
  - VOC concentration exceeded in MW-108.
- SVOC concentrations exceeded TOGS 1.1.1 GWQS in eight (8) sample locations.
  - SVOC concentration exceeded MW-101, MW-105, MW-108, MW-120, MW-123, MW-126, MW-128 and MW-144.
- Pesticide concentrations exceeded TOGS 1.1.1 GWQS in one (1) sample location.
  - Pesticide concentration exceeded in MW-105.
- PCB concentrations did not exceeded TOGS 1.1.1 GWQS in any sample location.
- Metals concentrations exceeded TOGS 1.1.1 GWQS in all sample locations.
  - Exceeded analytes are Chromium, Iron, Selenium and Sodium.
- Cyanide concentrations did not exceeded TOGS 1.1.1 GWQS in any sample location.

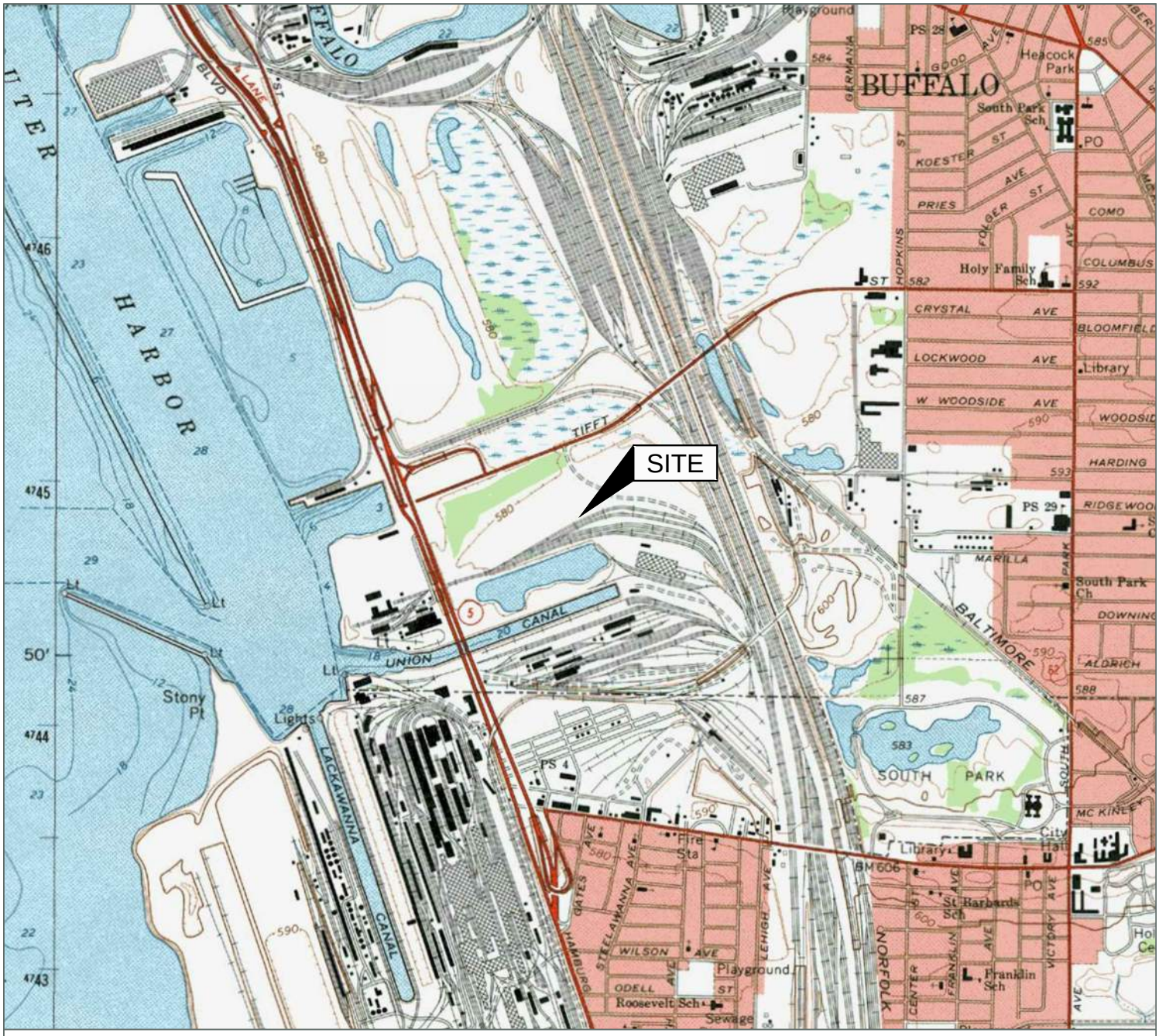
Details of the groundwater analytical data are summarized in **Table 2**. Analytical reports are included in **Appendix B**.

4.3 Surface Water Analytical Results

Surface water analytical results were compared with NYSDEC TOGS 1.1.1 Table 1 Ambient Surface Water Quality Standards and Guidance Values (SWQS). Concentrations did not exceeded TOGS 1.1.1 SWQS in any sample location, with the exception of the duplicate sample (DUP-110918), this sample was collected from the SW-2 location shown on **Figure 2**. The value was below the reporting limit, but above the minimum detection limit and is approximate.

Details of the surface water analytical data are summarized in **Table 2**. Analytical reports are included in **Appendix B**.

Figures



Source:
USGS 7.5 Minute Series
Topographic Quadrangle, 1965
Buffalo SE, New York
Contour Interval = 10'



Quadrangle Location

Site Location Map

NYSDEC
Buffalo Lakeside Commercial Park-Parcel 5
Laborers Way and Ship Canal Parkway
Buffalo, New York

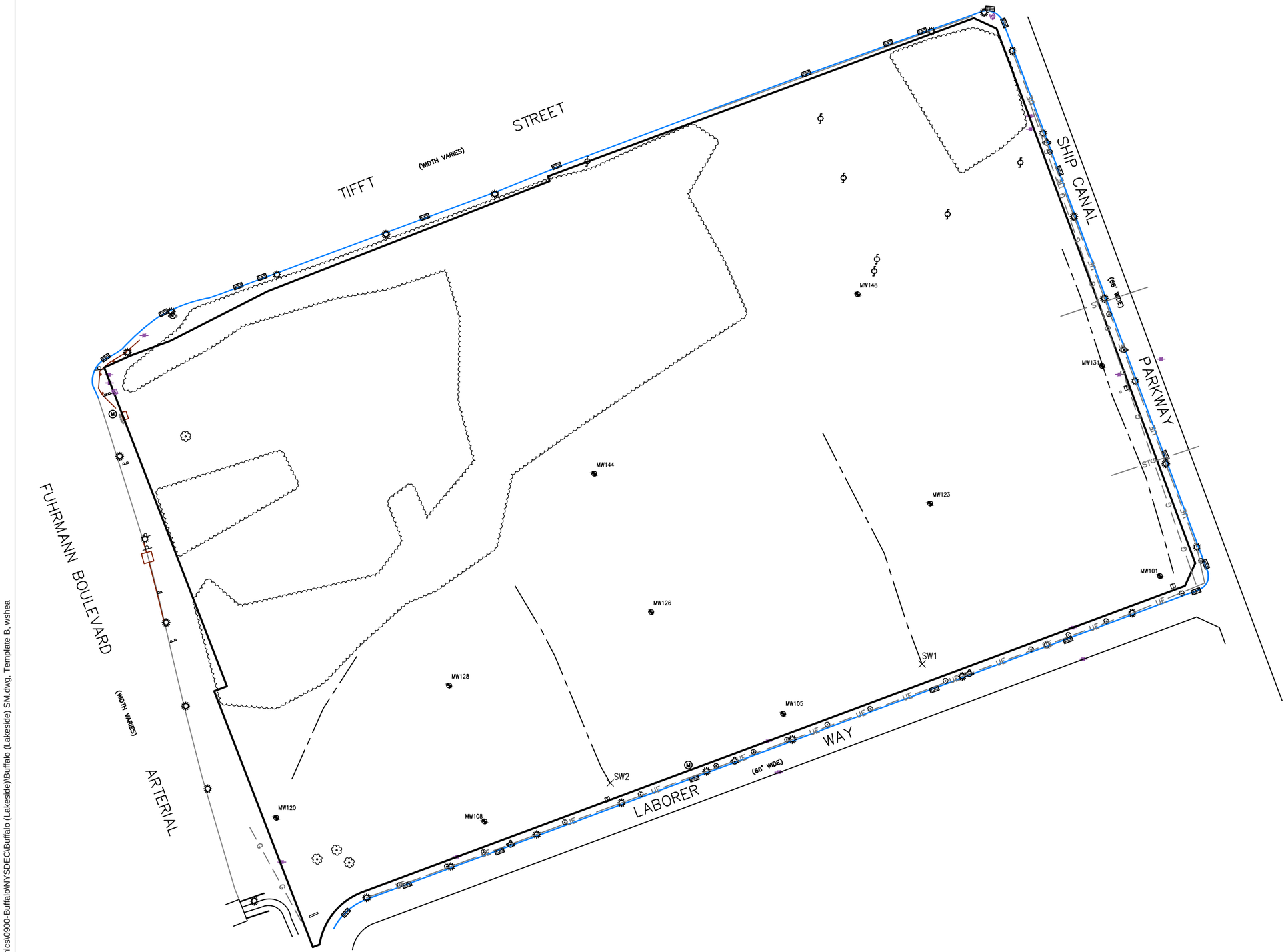
Drawn
W.G.S.
Designed
J.K.C.
Approved
E.P.

Date
10/16/18
Figure
1

Scale In Feet
0 2000

Groundwater & Environmental Services, Inc.

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LEGEND

- PROPERTY BOUNDARY
- TREE LINE
- UTILITY MANHOLE
- FIRE HYDRANT
- LIGHT POLE
- UTILITY POLE
- CATCH BASIN
- MONITORING WELL
- SURFACE WATER SAMPLE
- UNDERGROUND ELECTRIC LINE
- UNDERGROUND STORM SEWER LINE
- UNDERGROUND GAS LINE

Site Map

NYSDEC
Buffalo Lakeside Commercial Park-Parcel 5
Laborers Way and Ship Canal Parkway
Buffalo, New York

Drawn
W.G.S.
Designed
J.K.C.
Approved
E.P.

Date
1/24/19
Figure
2

Scale In Feet
0 200

Groundwater & Environmental Services, Inc.

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LEGEND

- PROPERTY BOUNDARY
- TREE LINE
- UTILITY MANHOLE
- FIRE HYDRANT
- LIGHT POLE
- UTILITY POLE
- CATCH BASIN
- MONITORING WELL
- UE — UNDERGROUND ELECTRIC LINE
- ST — UNDERGROUND STORM SEWER LINE
- G — UNDERGROUND GAS LINE
- SOIL BORING
- GEOPROBE BORING

Soil Sample Location Map

NYSDEC
Buffalo Lakeside Commercial Park-Parcel 5
Laborers Way and Ship Canal Parkway
Buffalo, New York

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J.K.C.
Approved
E.P.

Date
1/23/19
Figure
3

Scale In Feet
0 200

Groundwater & Environmental Services, Inc.

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LEGEND

- PROPERTY BOUNDARY
- TREE LINE
- UTILITY MANHOLE
- FIRE HYDRANT
- LIGHT POLE
- UTILITY POLE
- CATCH BASIN
- MONITORING WELL
- (576.42) GROUNDWATER ELEVATION (feet)
- GROUNDWATER CONTOUR (feet msl)

Groundwater Contour Map
October 29-30, 2018

NYSDEC
Buffalo Lakeside Commercial Park-Parcel 5
Laborers Way and Ship Canal Parkway
Buffalo, New York

Drawn
W.G.S.
Designed
J.K.C.
Approved
E.P.

Date
12/26/18
Figure
4

Scale In Feet
0 200

Groundwater & Environmental Services, Inc.

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Tables

Table 1
Soil Analytical Data

Soil Sample ID				SB-101-A	SB-101-B	SB-101-C	SB-102-A	SB-102-B	SB-102-C	SB-103-A	SB-103-B	SB-103-C	SB-104-A	SB-104-B	SB-104-C	SB-105-A	SB-105-B	SB-105-C	SB-105-D	SB-106-A	SB-106-B	SB-106-C	SB-107-A	SB-107-B	SB-107-C	SB-108-A	SB-108-B	SB-108-C	SB-109-A	SB-109-B	SB-109-C	SB-110-A	SB-110-B	SB-110-C	SB-110-D
Start Depth (ft bgs)				0	8	12	0	4	12	0	4	12	0	4	14	0	4	10	12	0	4	14	0	6	13	0	8	10	0	4	16	0	4	17.5	10
End Depth (ft bgs)				1	10	14	1	6	14	1	6	14	1	6	16	1	6	12	14	1	8	16	2	8	18	1	10	14	1	6	18	1	6	20	12.5
Sample Date				10/10/2018	10/10/2018	10/10/2018	10/10/2018	10/10/2018	10/10/2018	10/10/2018	10/10/2018	10/10/2018	10/10/2018	10/10/2018	10/10/2018	10/10/2018	10/10/2018	10/10/2018	10/10/2018	10/10/2018	10/10/2018	10/10/2018	10/11/2018	10/11/2018	10/11/2018	10/11/2018	10/11/2018	10/11/2018	10/11/2018	10/11/2018	10/11/2018	10/11/2018	10/11/2018	10/11/2018	10/11/2018
Analyte	Units	6 NYCRR PART 375 UNRESTRICTED USE SCO	6 NYCRR PART 375 COMMERCIAL USE SCO																																
SW6010C																																			
Aluminum	mg/kg	-	-	20400 J	17900 J	14100 J	19800 J	30000 J	14700 J	20700 J	47100 J	14600 J	14100 J	23400 J	12200 J	24600 J	43700 J	29100 J	14500 J	28100 J	43100 J	16500 J	10600 J	40800 J	11000 J	23000 J	42000 J	18200 J	9920 J	26700 J	5730 J	10100 J	44900 J	11000 J	13100 J
Antimony	mg/kg	-	-	< 16.9 UJ	< 22.5 UJ	< 18.4 UJ	< 18.5 UJ	< 18.3 UJ	< 17.6 UJ	< 20.1 UJ	< 18.2 UJ	< 17.5 UJ	< 18.4 UJ	3.1 UJ	< 18.4 UJ	< 18.6 UJ	< 92.4 UJ	< 49.4 UJ	< 19.2 UJ	< 18.9 UJ	< 19.5 UJ	< 31.3 UJ	< 17.7 UJ	< 89.6 UJ	< 17.7 UJ	< 18.1 UJ	< 17.8 UJ	< 33.4 UJ	< 76.7 UJ	< 19.1 UJ	< 17.5 UJ	< 15.8 UJ	< 88.9 UJ	< 17.8 UJ	< 21.7 UJ
Arsenic	mg/kg	**13**	16	6.5 J	2.1 UJ	8.3 J	6.9 J	9.3 J	8.4 J	11.1 J	1.0 UJ	**16.8 J**	6.3 J	**22.4 J**	3.7 J	10.1 J	5.2 UJ	9.7 J	2.6 J	7.8 J	4.8 J	5.0 J	4.9	4.1	7.3	**13.1**	2.0 UJ	7.3	**18.6**	**16.5**	3.5	5.0	4.4 UJ	3.2	3.2
Barium	mg/kg	**350**	400	161 J	157 J	84.9 J	157 J	247 J	90.0 J	156 J	347 J	83.9 J	89.5 J	258 J	64.4 J	195 J	298 J	138 J	62.5 J	184 J	263 J	168 J	80.0 J	259 J	57.8 J	237 J	159 J	111 J	**451 J**	196 J	34.7 J	71.4 J	331 J	52.7 J	107 J
Beryllium	mg/kg	**7.2**	590	3.4 J	2.6 J	0.68 J	3.2 J	5.0 J	0.68 J	3.4 J	**9.0 J**	0.74 J	0.72 J	3.5 J	0.57 J	3.6 J	**8.3 J**	0.99 J	0.40 J	2.9 J	**7.6 J**	1.7 J	1.3	**7.6**	0.53	3.4	**8.0**	1.3	1.2	4.8	0.27	0.77	**8.6**	0.53	1.3
Cadmium	mg/kg	**2.5**	9.3	0.78 J	0.36 J	0.21 UJ	0.58 J	0.095 UJ	0.20 UJ	1.6 J	< 0.24 UJ	0.20 UJ	0.30 J	0.34 UJ	0.17 UJ	0.86 J	< 1.2 UJ	0.45 UJ	0.19 UJ	0.33 J	0.051 UJ	0.47 J	0.66	< 1.2	0.21	1.9	0.040 UJ	0.64	2.1	**2.9**	0.19 UJ	0.60	< 1.2 U	0.31	0.23 UJ
Calcium	mg/kg	-	-	148000 J	101000 J	29700 J	106000 J	221000 J	30700 J	101000 J	245000 J	27100 J	20800 J	165000 J	7720 J	166000 J	215000 J	7730 J	3050 J	85800 J	225000 J	51400 UJ	57600 J B	201000 J B	27000 J B	94200 J B	232000 J B	44500 J B	55000 J B	140000 J B	8070 J B	71500 J B	217000 J B	29500 J B	30900 J B
Chromium	mg/kg	-	-	13.3 J	5.5 J	19.7 J	8.1 J	11.0 J	20.2 J	19.5 J	0.65 J	19.8 J	18.5 J	15.5 J	15.5 J	11.8 J	< 3.1 UJ	28.6 J	14.1 J	14.4 J	2.4 UJ	10.2 J	12.4 J	2.4 UJ	15.4 J	19.7 J	1.5 J	23.5 J	38.2 J	27.4 J	7.8 J	16.3 J	2.5 UJ	14.7 J	9.3 J
Cobalt	mg/kg	-	-	3.7 J	1.3 J	12.5 J	3.8 J	3.8 J	13.1 J	6.1 J	0.81 J	13.5 J	10.1 J	11.7 J	10.6 J	5.3 J	2.0 J	11.2 J	4.9 J	9.9 J	2.1 J	3.9 J	4.7	1.7	11.3	6.9	1.1	13.4	6.5	7.4	4.5	5.5	1.7	10.7	5.5
Copper	mg/kg	**50**	270	20.2 J	11.0 J	25.0 J	18.5 J	8.2 J	27.0 J	**107 J**	< 6.1 UJ	27.1 J	23.8 J	19.1 J	20.3 J	32.5 J	< 6.2 UJ	17.6 J	8.2 J	22.3 J	1.6 UJ	15.5 J	21.1	< 6.0	22.1	41.9	< 5.9 U	41.4	**109**	39.0	13.1	29.9	< 5.9 U	24.4	12.4
Iron	mg/kg	-	-	31200 J	7290 J	22400 J	51300 J	39500 J	22800 J	49200 J	3650 J	28000 J	21700 J	142000 J	28100 J	38200 J	16200 J	21100 J	10300 J	21100 J	16000 J	17000 J	21100 J B	17000 J B	22700 J B	43900 J B	10500 J B	31600 J B	73300 J B	83700 J B	6520 J B	15100 J B	5500 J B	22300 J B	7660 J B
Lead	mg/kg	**63**	1000	62.4 J	6.2 J	13.0 J	52.5 J	< 1.2 UJ	12.5 J	**127 J**	< 6.1 UJ	15.5 J	23.4 J	< 5.8 UJ	12.5 J	**106 J**	< 6.2 UJ	18.1 J	8.7 J	38.8 J	< 1.3 UJ	16.4 J	61.9	< 6.0	13.0	**236**	< 5.9 U	40.5	**713**	**344**	6.1	**111**	< 5.9 U	13.4	6.9
Magnesium	mg/kg	-	-	11500 J	4040 J	11800 J	9950 J	4580 J	11300 J	3510 J	4850 J	10700 J	8790 J	3840 J	4650 J	6370 J	6180 J	4990 J	2820 J	10500 J	7390 J	3360 J	15400 J	6260 J	9780 J	8070 J	4160 J	11300 J B	9030 J B	4330 J B	3460 J B	8900 J B	6870 J B	10500 J B	4870 J B
Manganese	mg/kg	**1600**	10000	1120 J	779 J	364 J	1120 J	1200 J	373 J	1510 J	428 J	351 J	333 J	**2600 J**	513 J	1580 J	1430 J	148 J	77.7 J	972 J	972 J	555 UJ	559 J B	1430 J B	388 J B	1360 J B	775 J B	597 J B	**1930 J B**	1330 J B	93.9 J B	547 J B	**1850 J B**	316 J B	270 J B
Nickel	mg/kg	**30**	310	12.2 J	5.4 UJ	**32.1 J**	11.0 J	9.8 J	**32.6 J**	22.0 J	0.41 UJ	**34.9 J**	26.8 J	**32.2 J**	25.7 J	14.5 J	2.1 UJ	26.2 J	12.0 J	23.2 J	2.9 UJ	11.7 J	12.8	2.5	29.0	22.1	1.7 UJ	**36.1**	**33.8**	28.8	12.3	17.1	0.74 UJ	25.3	15.7
Potassium	mg/kg	-	-	1050 J	1300 J	3060 J	1390 J	831 J	3120 J	1220 J	528 J	2820 J	1900 J	907 J	1410 J	1640 J	985 J	2510 J	1210 J	3800 J	476 J	1910 J	1440 J	824 J	2220 J	1390 J	764 J	3540 J	1350 J	2130 J	808 J	1850 J	1580 J	2560 J	1630 J
Selenium	mg/kg	**3.9**	1500	**4.1 UJ**	0.74 UJ	< 4.9 UJ	1.7 UJ	**5.2 J**	< 4.7 UJ	2.5 UJ	**7.0 J**	< 4.7 UJ	< 4.9 UJ	3.7 UJ	< 4.9 UJ	2.1 UJ	**7.8 UJ**	2.1 UJ	< 5.1 UJ	1.9 UJ	3.3 UJ	1.7 UJ	0.72 UJ	**7.4 UJ**	< 4.7 UJ	2.5 UJ	2.7 UJ	1.3 UJ	1.9 UJ	2.4 UJ	< 4.7 UJ	< 4.2 UJ	**4.5 UJ**	0.48 UJ	1.2 UJ
Silver	mg/kg	2	1500	< 0.68 UJ	< 0.90 UJ	< 0.74 UJ	< 0.74 UJ	< 0.73 UJ	< 0.70 UJ	< 0.80 UJ	< 0.73 UJ	< 0.70 UJ	< 0.74 UJ	< 3.5 UJ	< 0.74 UJ	< 0.74 UJ	< 3.7 UJ	< 2.0 UJ	< 0.77 UJ	< 0.75 UJ	< 3.9 UJ	< 1.3 UJ	< 0.71	< 3.6	< 0.71 U	< 0.72 U	< 0.71 U	< 1.3 U	< 3.1 U	< 0.76 U	< 0.70 U	< 0.63 U	< 3.6 U	< 0.71 U	< 0.87 U
Sodium	mg/kg	-	-	304 J	330 J	137 UJ	323 J	386 J	127 UJ	253 J	260 UJ	118 UJ	102 UJ	455 J	74.7 UJ	302 J	540 UJ	238 UJ	105 UJ	405 J	369 UJ	239 UJ	175	682	104	303	474 UJ	228 UJ	266	399 UJ	61.0 UJ	193	1230	126 UJ	155 UJ
Thallium	mg/kg	-	-	< 6.8 UJ	< 9.0 UJ	< 7.4 UJ	< 7.4 UJ	< 7.3 UJ	< 7.0 UJ	< 8.0 UJ	< 7.3 UJ	< 7.0 UJ	< 7.4 UJ	< 6.9 UJ	< 7.4 UJ	< 7.4 UJ	< 7.4 UJ	< 19.8 UJ	< 7.7 UJ	< 7.5 UJ	< 7.8 UJ	< 12.5 UJ	< 7.1	< 7.2	< 7.1 U	< 7.2 U	< 7.1 U	< 13.4 U	< 6.1 U	< 7.6 U	< 7.0 U	< 6.3 U	< 7.1 U	< 7.1 U	< 8.7 U
Vanadium	mg/kg	-	-	11.3 J	11.6 J	26.3 J	21.7 J	20.5 J	26.8 J	13.6 J	1.8 J	28.7 J	27.6 J	53.2 J	24.8 J	18.1 J	9.4 J	55.9 J	27.6 J	22.3 J	9.2 J	18.7 J	14.6	8.8	20.5	14.3	7.5	30.5	32.1	18.9	13.8	19.4	9.9	21.1	12.4
Zinc	mg/kg	**109**	10000	**168 J**	50.3 J	62.3 J	**168 J**	< 2.4 UJ	62.8 J	**287 J**	< 2.4 UJ	63.4 J	85.6 J	1.3 UJ	48.3 J	**211 J**	< 12.3 UJ	80.6 J	38.3 J	86.5 J	< 13.0 UJ	55.6 J	**167 J**	< 11.9 UJ	56.8 J	**381 J**	< 2.4 UJ	**110 J**	**869 J**	**477 J**	29.0 J	**139 J**	< 11.8 UJ	55.9 J	33.4 J
SW7471B																																			
Mercury	mg/kg	**0.81**	2.8	0.044	< 0.030 U	< 0.026 U	0.041	< 0.025 U	0.019 UJ	0.094	< 0.023 U	0.014 UJ	0.024	< 0.023 U	0.019 UJ	0.071	< 0.023 U	0.042 UJ	0.024	0.075	< 0.026 U	0.061	0.047	< 0.023 U	0.011 UJ	0.083	< 0.023 U	0.031 UJ	0.13	0.079	0.011 UJ	0.22	< 0.022 U	0.011 UJ	0.028

Notes:
ft bgs = feet below ground surface
mg/kg = milligrams per kilogram
µg/kg = micrograms per kilogram
6 NYCRR Part 375 SCO = Title 6 Official Compilation of New York Codes, Rules and Regulations Part 375 Soil Cleanup Objectives
- = no SCO established
NA = not applicable/analyzed
Qualifiers:
U = Analyte analyzed for, but not detected above the sample's reported quantitation limit
J = Analyte positively identified at a numerical value that is the approximate concentration of the analyte in the sample
J+ = Sample likely to have a high bias
J- = Sample likely to have a low bias
UJ = Analyte not detected above the sample quantitation limit; the associated quantitation limit is approximate and may or may not represent the actual limit of quantitation necessary to accurately and precisely measure the analyte in the sample
N = The analysis indicates the present of an analyte for which there is presumptive evidence to make a "tentative identification."
NJ = The analysis indicates the presence of an analyte that has been "tentatively identified" and the associated numerical value represents its approximate oncentration.
R = Sample result rejected due to serious deficiency in ability to analyze sample and meet quality control criteria; the presence or absence of the analyte cannot be confirmed. This qualifier also may apply when more than one sample result is generated for a target analyte (i.e., dilutions or re-analyses), the most technicaly acceptable result is considered acceptable.
B/EB/TB/BB = An analyte identified in method blank (B), aqueous equipment (EB), trip (TB), or bottle blanks (BB) used to assess field contamination associated with soil or sediment samples mandates these qualifiers for only soil and sediment sample results.
P = Use professional judgment based on data use. It usually has an "M" with it, which indicates that a manual check should be made if the data that are qualified with the "P" are important to the data user. In addition, "PM" also means a decision is necessary from the Project Manager (or a delegate) concerning the need for further review of the data (see below).
PM = A manual review of the raw data is recommended to determine if the defect affects data use, as in "R" above. This review should include consideration of potential affects that could result from using the "P" qualified data. For example, in the case of holding-time exceedance, the Project Manager or delegate can decide to use the data with no qualification when analytes of interest are known not to be adversely affected by holding-time exceedances. Another example is the case where soil sample duplicate analyses for metals exceed the precision criteria; because this is likely due to sample non-homogeneity rather than contract laboratory error, then the manager or delegate must decide how to use the data.

Table 1
Soil Analytical Data

				Soil Sample ID	SB-111-A	SB-111-B	SB-111-C	SB-112-A	SB-112-B	SB-112-C	SB-113-A	SB-113-B	SB-113-C	SB-114-A	SB-114-B	SB-114-C	SB-115-A	SB-115-B	SB-115-C	SB-116-A	SB-116-B	SB-116-C	SB-117-A	SB-117-B	SB-117-C	SB-117-D	SB-118-A	SB-118-B	SB-118-C	SB-119-A	SB-119-B	SB-119-C	SB-120-A	SB-120-B	SB-120-C
				Start Depth (ft bgs)	0	6	18	0	8	12	0	6	18	0	8	10	0	7	15	0	5	14	0	4	10	16	0	6	16	0	8	13	0	4	16
				End Depth (ft bgs)	1	8	20	1	10	15	1	8	20	1	10	20	1	10	17	1	7	18	2	7	12	20	1	8	20	1	10	15	1	6	20
				Sample Date	10/16/2018	10/16/2018	10/16/2018	10/16/2018	10/16/2018	10/16/2018	10/16/2018	10/16/2018	10/16/2018	10/16/2018	10/16/2018	10/16/2018	10/12/2018	10/12/2018	10/12/2018	10/12/2018	10/12/2018	10/12/2018	10/12/2018	10/12/2018	10/12/2018	10/12/2018	10/12/2018	10/12/2018	10/12/2018	10/11/2018	10/11/2018	10/11/2018	10/11/2018	10/11/2018	10/11/2018
Analyte	Units	6 NYCRR PART 375 UNRESTRICTED USE SCO	6 NYCRR PART 375 COMMERCIAL USE SCO																																
SW6010C																																			
Aluminum	mg/kg	-	-		29200 J	38100 J	14900 J	18100 J	34300 J	11700 J	7550 J	32200 J	12600 J	11000 J	28300 J	35300 J	17100 J	33100 J	2430 J	12100 J	9630 J	15400 J	27300 J	27100 J	25900 J	14600 J	8290 J	29900 J	9230 J	10500 J	34100 J	4680 J	6510 J	18500 J	15800 J
Antimony	mg/kg	-	-		0.71 UJ	0.47 UJ	< 2.0 UJ	2.4 UJ	0.46 UJ	< 6.3 UJ	< 1.9 UJ	0.56 UJ	< 1.7 UJ	< 2.1 UJ	< 1.8 UJ	< 2.3 UJ	< 18.8 UJ	< 17.6 UJ	< 17.1 UJ	2.9 UJ	7.4 UJ	< 19.4 UJ	< 17.2 UJ	< 17.3 UJ	< 24.9 UJ	< 18.5 UJ	< 183 UJ	< 18.0 UJ	< 17.6 UJ	< 18.6 UJ	< 17.9 UJ	< 19.4 UJ	< 16.1 UJ	< 90.3 UJ	< 22.5 UJ
Arsenic	mg/kg	**13**	16		7.5	4.7 UJ	11.8	**35.9**	1.6 UJ	4.4 UJ	8.6	2.7	10.5	11.2	< 6.8 U	4.8 UJ	9.7	0.89 UJ	0.84 UJ	**15.9**	**45.1**	**15.8**	**14.9**	10.1	4.2	**24.3**	**13.8**	< 2.4 U	3.3	8.6	3.3	2.4 UJ	7.0	**37.2**	**21.0**
Barium	mg/kg	**350**	400		183 UJ	**351 J**	92.9 J	168 J	165 J	117 J	45.8 J	202 J	80.7 J	63.5 UJ	158 J	207 J	147 J	172 J	18.0 J	128 J	288 J	78.9 J	208 J	283 J	186 J	82.8 J	117 J	232 J	42.8 J	161 J	344 J	21.0 J	71.9 J	198 J	69.3 J
Beryllium	mg/kg	**7.2**	590		5.1 UJ	**8.5 J**	0.68 J	2.7 J	6.0 J	0.88 UJ	0.44 UJ	6.2 J	0.56 J	0.61 UJ	5.1 J	5.9 J	2.0	6.8	0.10 UJ	1.6	2.0	0.73	4.0	3.5	4.2	0.71	1.4	4.1	0.43	1.0	5.2	0.24 UJ	0.70	2.5	0.71
Cadmium	mg/kg	**2.5**	9.3		0.085 UJ	< 0.49 UJ	0.14 UJ	**9.8 J**	< 0.62 UJ	0.62 UJ	0.22 UJ	< 0.54 UJ	0.12 UJ	0.24 UJ	0.043 UJ	< 0.58 UJ	1.1	0.043 UJ	0.050 UJ	1.7	< 2.6 U	0.21 UJ	**3.9**	0.13 UJ	0.25 UJ	0.19 UJ	1.6 UJ	0.049 UJ	0.19 UJ	0.90	0.070 UJ	0.13 UJ	0.36	0.44 UJ	0.33
Calcium	mg/kg	-	-		162000 J	225000 J	25100 J	98000 J	269000 J	25100 J	72600 J	265000 J	30000 J	18700 UJ	220000 J	254000 J	66400 J	264000 J	1260 J	57700 J	25700 J	30900 J	179000 J	230000 J	131000 J	27100 J	33900 J	264000 J	30300 J	50200 J B	251000 J B	18100 J B	144000 J B	158000 J B	36900 J B
Chromium	mg/kg	-	-		3.9 UJ	1.8 J	21.9 J	42.1 J	1.4 J	15.2 J	10.8 J	0.87 UJ	18.9 J	14.8 J	1.4 J	5.2 J	25.4 J	1.7 J	2.8 J	51.1 J	48.5 J	20.9 J	26.4 J	13.1 J	5.7 J	19.3 J	88.0 J	1.0 J	12.8 J	26.6 J	3.1 J	6.9 J	9.1 J	65.8 J	21.8 J
Cobalt	mg/kg	-	-		2.6 J	1.4 J	15.1 J	9.8 J	0.47 UJ	4.0 J	8.2 J	0.63 UJ	14.5 J	19.8 UJ	0.58 UJ	1.1 UJ	7.5	0.83	1.4	7.5	18.9	13.7	4.9	4.5	2.9	14.0	8.4	0.37 UJ	9.4	7.1	1.8	4.4	4.3	14.3	19.6
Copper	mg/kg	**50**	270		8.5 J	4.8 UJ	26.1 J	**419 J**	3.8 UJ	34.8 J	21.8 J	3.8 UJ	26.0 J	29.8 UJ	2.5 UJ	5.5 UJ	**56.9**	< 5.9 U	3.0	**59.4**	45.7	30.7	33.8	8.5	8.3	26.4	**162**	< 6.0 U	21.9	43.8	< 6.0 U	12.5	13.9	15.6	31.5
Iron	mg/kg	-	-		28500 J	9020 J	28300 J	120000 J	976 J	13600 J	17400 J	1920 J	26200 J	26500 J	618 J	6210 J	40700 J	2200 J	1840 J	110000 J	348000 J	24400 J	47500 J	43900 J	12000 J	28700 J	184000 J	643 J	19500 J	40600 J B	9360 J B	8160 J B	16000 J B	212000 J B	23800 J B
Lead	mg/kg	**63**	1000		11.0 UJ	0.91 UJ	12.6 J	**363 J**	0.43 UJ	12.2 J	17.9 J	0.36 UJ	11.2 J	20.6 UJ	0.28 UJ	0.78 UJ	**136**	< 5.9 U	2.2	**165**	50.6	15.0	**254**	1.5	9.4	15.4	**367**	< 6.0 U	11.0	**211**	< 6.0 U	5.0	32.4	7.1	18.5
Magnesium	mg/kg	-	-		5810 UJ	6690 J	12400 J	3770 J	5900 J	1910 J	9600 J	5280 J	11800 J	4320 J	4680 J	5180 J	9080 J	5530 J	476 J	10100 J	4120 J	11800 J	7400 J	6850 J	3790 J	9850 J	6680 J	13400 J	10600 J	8610 J B	6140 J B	7880 J B	7200 J B	26000 J B	14100 J B
Manganese	mg/kg	**1600**	10000		1400 J	**3370 J**	433 J	**3630 J**	1100 J	261 J	420 J	1000 J	392 J	506 J	**1670 J**	**2750 J**	1080 J	1130 J	49.7 J	**2100 J**	**6650 J**	346 J	**1730 J**	**1970 J**	1020 J	356 J	**3590 J**	1010 J	402 J	1060 J B	**2220 J B**	197 J B	862 J B	**3830 J B**	408 J B
Nickel	mg/kg	**30**	310		8.9	3.6 UJ	**37.1**	**39.4**	1.8 UJ	18.0	23.8	2.1 UJ	**37.5**	**31.5**	1.4 UJ	3.8 UJ	27.0	< 5.9 U	3.1 UJ	**31.6**	**65.4**	**36.7**	22.7	15.2	7.7 UJ	**35.0**	**54.9 UJ**	< 6.0 U	23.3	**38.6**	2.1 UJ	10.1	12.7	17.7 UJ	**40.7**
Potassium	mg/kg	-	-		820 UJ	1720 UJ	2860 J	1560 J	600 UJ	2420 J	881 J	368 UJ	1900 J	990 J	1140 J	1290 J	1820 J	1170 J	377 J	1590 J	666 J	3600 J	1940 J	1380 J	1860 J	3420 J	1420 J	618 J	2010 J	1950 J	692 J	877 J	852 J	926 J	3440 J
Selenium	mg/kg	**3.9**	1500		**5.2**	**11.0**	0.60 UJ	3.1 UJ	**6.1**	**4.2 UJ**	< 1.9 U	**7.0**	0.58 UJ	0.73 UJ	**8.8 UJ**	**6.5 UJ**	0.99 UJ	**6.5**	< 4.6 U	1.4 UJ	0.84 UJ	< 5.2 U	2.4 UJ	3.9 UJ	3.0 UJ	< 4.9 U	1.3 UJ	**4.3 UJ**	< 4.7 U	1.3 UJ	**4.8 J**	< 5.2 U	0.66 UJ	3.6 UJ	< 6.0 UJ
Silver	mg/kg	2	1500		0.11 UJ	0.12 UJ	< 1.0 UJ	1.1 J	< 1.2 UJ	< 3.2 UJ	< 0.93 UJ	< 1.1 UJ	< 0.85 UJ	< 1.1 UJ	< 0.90 UJ	< 1.2 UJ	< 0.75 U	< 0.70 U	< 0.68 U	< 3.5 U	< 7.7 U	< 0.77 U	< 0.69 U	< 0.69 U	< 1.0 U	< 0.74 U	< 7.3 U	< 0.72 U	< 0.71 U	< 0.74 U	< 0.71 U	< 0.78 U	< 0.65 U	< 3.6 U	< 0.90 U
Sodium	mg/kg	-	-		335 UJ	935 UJ	212 UJ	287 UJ	422 UJ	< 1580 UJ	127 UJ	301 UJ	109 UJ	79.7 UJ	462 J	581 UJ	223	513	64.8 UJ	308	185	192	592	521	441	155 UJ	252	282	142 UJ	228	360	87.6 UJ	195	293	171 UJ
Thallium	mg/kg	-	-		< 4.4 U	< 9.8 U	< 2.0 U	< 9.3 U	< 2.5 U	< 6.3 U	< 1.9 U	< 2.2 U	< 1.7 U	< 2.1 U	< 9.0 U	< 11.7 U	< 7.5 U	< 7.0 U	< 6.8 U	< 7.0 U	< 7.7 U	< 7.7 U	< 6.9 U	< 6.9 U	< 10 U	< 7.4 U	< 7.3 U	< 7.2 U	< 7.1 U	< 7.4 U	< 7.1 U	< 7.8 U	< 6.5 U	< 7.2 U	< 9.0 U
Vanadium	mg/kg	-	-		10.1 UJ	8.6 UJ	27.9 J	40.0 J	4.7 UJ	19.3 J	15.6 J	3.3 UJ	22.4 J	19.8 UJ	3.7 UJ	7.4 J	19.2	8.3	5.1	35.0	89.7	29.3	17.2	18.8	11.5	26.2	32.0	2.8	18.3	23.4	13.5	13.0	13.3	52.0	27.9
Zinc	mg/kg	**109**	10000		46.8 UJ	1.3 UJ	82.1 J	**3260 J**	< 6.2 UJ	63.9 J	**122 J**	< 5.4 UJ	83.9 J	89.2 UJ	< 4.5 UJ	3.0 UJ	**307 J**	< 2.3 UJ	10 J	**466 J**	**804 J**	71.8 J	**603 J**	7.9 J	50.8 J	65.2 J	**576 J**	0.81 UJ	51.2 J	**355 J**	1.2 UJ	30.6 J	89.9 J	17.2 J	80.6 J
SW7471B																																			
Mercury	mg/kg	**0.81**	2.8		< 0.14 U	< 0.13 U	< 0.12 U	0.12	< 0.17 U	0.14 UJ	0.040 UJ	< 0.13 U	< 0.12 U	0.025 UJ	< 0.14 U	< 0.11 U	0.10	< 0.023 U	0.017 UJ	< 0.022 U	< 0.026 U	0.010 UJ	0.012 UJ	< 0.024 U	0.031 UJ	0.0094 UJ	0.12	0.012 UJ	0.012 UJ	0.24	< 0.024 U	< 0.022 U	0.033	< 0.026 U	0.020 UJ

Notes:

ft bgs = feet below ground surface

mg/kg = milligrams per kilogram

µg/kg = micrograms per kilogram

6 NYCRR Part 375 SCO = Title 6 Official Compilation of New York Codes, Rules and Regulations Part 375 Soil Cleanup Objectives

- = no SCO established

NA = not applicable/analyzed

Qualifiers:

U = Analyte analyzed for, but not detected above the sample's reported quantitation limit

J = Analyte positively identified at a numerical value that is the approximate concentration of the analyte in the sample

J+ = Sample likely to have a high bias

J- = Sample likely to have a low bias

UJ = Analyte not detected above the sample quantitation limit; the associated quantitation limit is approximate and may or may not represent the actual limit of quantitation necessary to accurately and precisely measure the analyte in the sample

N = The analysis indicates the present of an analyte for which there is presumptive evidence to make a "tentative identification."
NJ = The analysis indicates the presence of an analyte that has been "tentatively identified" and the associated numerical value represents its approximate oncentration.

R = Sample result rejected due to serious deficiency in ability to analyze sample and meet quality control criteria; the presence or absence of the analyte cannot be confirmed. This qualifier also may apply when more than one sample result is generated for a target analyte (i.e., dilutions or re-analyses), the most technically acceptable result is considered acceptable.

B/EB/TB/BB = An analyte identified in method blank (B), aqueous equipment (EB), trip (TB), or bottle blanks (BB) used to assess field contamination associated with soil or sediment samples mandates these qualifiers for only soil and sediment sample results.

P = Use professional judgment based on data use. It usually has an "M" with it, which indicates that a manual check should be made if the data that are qualified with the "P" are important to the data user. In addition, "PM" also means a decision is necessary from the Project Manager (or a delegate) concerning the need for further review of the data (see below).

PM = A manual review of the raw data is recommended to determine if the defect affects data use, as in "R" above. This review should include consideration of potential affects that could result from using the "P" qualified data. For example, in the case of holding-time exceedance, the Project Manager or delegate can decide to use the data with no qualification when analytes of interest are known not to be adversely affected by holding-time exceedances. Another example is the case where soil sample duplicate analyses for metals exceed the precision criteria; because this is likely due to sample non-homogeneity rather than contract laboratory error, then the manager or delegate must decide how to use the data.

Table 1
Soil Analytical Data

			Soil Sample ID	**SB-121-A**	**SB-121-B**	**SB-121-C**	**SB-121-D**	**SB-122-A**	**SB-122-B**	**SB-122-C**	**SB-123-A**	**SB-123-B**	**SB-123-C**	**SB-124-A**	**SB-124-B**	**SB-124-C**	**SB-125-A**	**SB-125-B**	**SB-125-C**	**SB-126-A**	**SB-126-B**	**SB-126-C**	**SB-127-A**	**SB-127-B**	**SB-127-C**	**SB-128-A**	**SB-128-B**	**SB-128-C**	**SB-129-A**	**SB-129-B**	**SB-129-C**	**SB-130-A**	**SB-130-B**	**SB-130-C**
			Start Depth (ft bgs)	**0**	**8**	**17**	**10**	**0**	**8**	**18**	**0**	**10**	**18**	**0**	**12**	**18**	**0**	**5**	**16.5**	**0**	**1**	**14.5**	**0**	**5**	**18**	**0**	**5**	**14**	**0**	**6**	**16**	**0**	**6**	**15**
			End Depth (ft bgs)	**1**	**10**	**20**	**12**	**2**	**10**	**20**	**1**	**12**	**20**	**1**	**14**	**20**	**1**	**6**	**18**	**1**	**4**	**15.5**	**5**	**10**	**20**	**2**	**7**	**16**	**2**	**7**	**17**	**3**	**10**	**18**
			Sample Date	**10/16/2018**	**10/16/2018**	**10/16/2018**	**10/16/2018**	**10/16/2018**	**10/16/2018**	**10/16/2018**	**10/16/2018**	**10/16/2018**	**10/16/2018**	**10/16/2018**	**10/16/2018**	**10/16/2018**	**10/17/2018**	**10/17/2018**	**10/17/2018**	**10/17/2018**	**10/17/2018**	**10/17/2018**	**10/17/2018**	**10/17/2018**	**10/17/2018**	**10/17/2018**	**10/17/2018**	**10/17/2018**	**10/17/2018**	**10/17/2018**	**10/17/2018**	**10/17/2018**	**10/17/2018**	**10/17/2018**
Analyte	Units	**6 NYCRR PART 375 UNRESTRICTED USE SCO**	6 NYCRR PART 375 COMMERCIAL USE SCO																																	
SW6010C																																				
Aluminum	mg/kg	-	-	18700 J	29900 J	12600 J	11000 J	7230 J	35100 J	29300 J	11900	34900	8150	13100	57900	6250	13800 J	31100 J	12700 J	8680 J	6370 J	6740 J	38700 J	31900 J	6780 J	8050 J	18800 J	8110 J	9030 J	30400 J	4290 J	25000 J	8040 J	6490 J
Antimony	mg/kg	-	-	1.6 UJ	0.32 UJ	< 2.0 UJ	< 4.1 UJ	0.48 UJ	0.50 UJ	< 5.1 UJ	< 20.9 U	0.52 UJ	< 2.1 U	1.2 UJ	< 3.8 U	< 1.9 U	0.73 UJ	< 2.2 UJ	< 8.1 UJ	1.3 UJ	0.69 UJ	< 4.6 UJ	< 2.0 UJ	0.50 UJ	< 5.9 UJ	2.0 UJ	< 9.1 UJ	< 7.6 UJ	< 40.9 UJ	0.61 UJ	< 1.7 UJ	0.46 UJ	< 10.1 UJ	< 2.0 UJ
Arsenic	mg/kg	**13**	16	**14.3**	1.7	7.1	5.1	4.0	7.2 UJ	5.2	**42.0**	4.1 UJ	5.5	**20.9**	6.9 UJ	2.2	10.8	1.5 UJ	**15.5**	**18.7**	7.1	4.2	3.2 UJ	5.5 UJ	6.8	**18.2**	11.3	4.8 UJ	**57.8**	5.4 UJ	1.4	2.8 UJ	**18.1**	2.9
Barium	mg/kg	**350**	400	209 J	194 J	62.9 J	163 J	74.2 J	**394 J**	270 J	256	**382**	39.1	156	**565**	52.8	140	**549**	70.7 UJ	132	194	85.6	**657**	326	75.0	122	204	130	225	**403**	24.5	234	118	35.2
Beryllium	mg/kg	**7.2**	590	2.3 J	5.3 J	0.59 J	0.71 UJ	1.3 J	3.9 J	3.8 J	2.2	4.8	0.40 UJ	1.6	**8.7**	0.36 UJ	1.9	5.0	0.67 UJ	0.80	0.37 UJ	0.75 UJ	6.9	4.6	0.56 UJ	1.7	3.8	0.53 UJ	1.8	5.2	0.23 UJ	6.3	1.3	0.38 UJ
Cadmium	mg/kg	**2.5**	9.3	0.95 UJ	< 0.45 UJ	0.14 UJ	0.19 UJ	0.41 UJ	< 0.43 UJ	0.73 UJ	**3.4 UJ**	0.067 UJ	0.14 UJ	1.0	0.10 UJ	0.11 UJ	1.0	< 0.54 U	0.54 UJ	1.2	0.76	0.19 UJ	< 0.51 U	< 0.57 U	0.36 UJ	1.4 UJ	1.0 UJ	0.51 UJ	< 10.2 U	< 0.55 U	0.057 UJ	< 0.62 U	1.1 UJ	0.17 UJ
Calcium	mg/kg	-	-	87100 J	207000 J	15500 J	67800 J	183000 J	225000 J	120000 J	42700	238000	29600	58500	477000	2410	68400	216000	15600	25100	54100	23400	256000	236000	16000	43000	148000	22700	19000	236000	4220	149000	33600	22700
Chromium	mg/kg	-	-	21.4 J	0.97 J	18.6 J	11.5 J	7.3 J	8.2 J	11.0 J	38.7	2.6	12.3	14.8	1.9	8.4	19.5	0.80 UJ	18.5	25.3	14.2	7.1	0.94 UJ	6.6	9.4	98.1	32.2	10.2	21.1	3.1	6.0	8.8	20.4	10.1
Cobalt	mg/kg	-	-	8.9 J	0.55 UJ	13.2 J	2.6 J	1.9 J	1.5 J	2.8 J	12.6	0.88 UJ	9.0	6.8	1.2 UJ	5.2	6.6	0.45 UJ	10.3	5.9	4.2	1.1 UJ	0.62 UJ	0.85 UJ	3.2	8.5	4.9	2.5 UJ	14.4	1.2	3.2	0.99 UJ	7.4	6.6
Copper	mg/kg	**50**	270	34.3 J	3.3 UJ	26.9 J	16.8 J	12.1 UJ	5.4 UJ	24.4 J	**54.6**	6.8 UJ	24.5	**52.6**	8.6 UJ	15.4	38.2	< 13.6 U	36.6	**89.4**	31.7	15.4	3.5 UJ	3.3 UJ	26.0	**256**	**104**	25.4	36.2 UJ	4.6 UJ	7.8	6.9	45.6	20.5
Iron	mg/kg	-	-	65900 J	1770 J	25400 J	8200 J	15000 J	12300 J	12100 J	225000	5240	17500	30300	4670	8480	40800 J	487 J	19200 J	48700 J	18600 J	5680 J	1370 J	3830 J	10400 J	167000 J	77800 J	6720 J	342000 J	8360 J	6080 J	8130 J	116000 J	15400 J
Lead	mg/kg	**63**	1000	**88.4 J**	< 0.89 UJ	13.9 J	15.4 J	18.5 J	0.80 UJ	7.9 J	**214**	2.4	9.1	**131**	2.6	8.5	**96.6**	0.37 UJ	12.8	**223**	**83.9**	5.0	0.52 UJ	1.0 UJ	7.2	**401**	**190**	7.6	33.5	0.91 UJ	5.0	1.8	**103**	9.7
Magnesium	mg/kg	-	-	8220 J	5050 J	10500 J	1550 J	8090 J	6510 J	5200 J	3330	7490	9990	9480	9250	2160	6940	7460	4810	4350	11200	905 UJ	8110	7590	2170	9710	6120	1700 UJ	934	4080	1940	25200	8010	6070
Manganese	mg/kg	**1600**	10000	**2630 J**	735 J	308 J	170 J	792 J	**6880 J**	1100 J	**5340**	**3160**	277	1080	**4650**	62.0	**1880**	814	208	1150	414	78.5	**2440**	**4750**	146	**4530**	**3140**	159	**7310**	**3350**	74.0	1580	**2470**	233
Nickel	mg/kg	**30**	310	24.3	1.9 UJ	**35.9**	15.9	10.3	5.6	15.2	**35.4 UJ**	2.6 UJ	25.2	18.0	3.9 UJ	16.5	21.7	1.4 UJ	**36.5**	28.5	15.7	9.1 UJ	1.6 UJ	2.6 UJ	14.7	**64.9**	29.4	16.2	29.3 UJ	2.5 UJ	9.8	4.2 UJ	18.5 UJ	20.5
Potassium	mg/kg	-	-	1380 J	521 J	2010 J	3380 J	838 J	1450 J	2390 J	1040	645	1150	1030	1020	452 UJ	1350	391 UJ	2180	983	1280	1950	946 UJ	1310	1550	757	1150	2050	1790	1230	432	1790	1040	925
Selenium	mg/kg	**3.9**	1500	2.1 UJ	**5.1**	0.68 UJ	2.6 UJ	0.92 UJ	**12.0 UJ**	**5.5**	**4.9 UJ**	**7.6 UJ**	< 2.1 U	3.0 UJ	**11.3 UJ**	0.54 UJ	2.0 UJ	**15.8**	< 8.1 U	1.2 UJ	0.50 UJ	**9.7**	**7.6 UJ**	**5.8 UJ**	1.9 UJ	**5.1 UJ**	**5.4 UJ**	2.1 UJ	**10 UJ**	**7.1 UJ**	< 1.7 U	3.8 UJ	2.7 UJ	< 2.0 U
Silver	mg/kg	2	1500	0.39 UJ	< 0.89 UJ	< 0.98 UJ	< 2.1 UJ	0.099 UJ	0.37 UJ	< 2.6 UJ	1.0	0.21 UJ	< 1.1 U	0.29 UJ	< 1.9 U	< 0.93 U	0.36 UJ	< 1.1 U	< 4.0 U	0.36 UJ	0.085 UJ	< 2.3 U	< 1.0 U	0.27 UJ	< 3.0 U	1.1	0.51 UJ	< 3.8 U	1.0	0.14 UJ	< 0.83 U	0.18 UJ	0.61 UJ	< 1.0 U
Sodium	mg/kg	-	-	276 UJ	244 UJ	130 UJ	253 UJ	306 UJ	592 J	539 UJ	206 UJ	450 UJ	87.1 UJ	195 UJ	583 UJ	< 463 U	247 UJ	334 UJ	< 2020 U	125 UJ	153 UJ	160 UJ	839 UJ	381 UJ	< 1480 U	199 UJ	347 UJ	< 1890 U	211 UJ	644	< 413 U	947	222 UJ	69.2 UJ
Thallium	mg/kg	-	-	< 4.4 U	< 1.8 U	< 2.0 U	< 4.1 U	0.46 UJ	< 17.2 U	< 5.1 U	< 20.9 U	< 11.6 U	< 2.1 U	< 9.4 U	< 37.6 U	< 1.9 U	0.92 UJ	< 2.2 U	< 8.1 U	< 3.5 U	< 1.9 U	< 4.6 U	< 10.2 U	< 11.5 U	< 5.9 U	< 10.4 U	< 9.1 U	< 7.6 U	< 40.9 U	< 11.0 U	< 1.7 U	< 5.0 U	< 10.1 U	< 2.0 U
Vanadium	mg/kg	-	-	24.6 J	1.3 UJ	23.4 J	19.5 J	14.2 J	11.9 J	17.3 J	51.7 UJ	3.3 UJ	15.7	15.6	4.2 UJ	13.4	16.2	< 5.4 U	23.0	18.7	13.8	9.8 UJ	< 25.6 U	11.0	12.7 UJ	20.0 UJ	11.7 UJ	14.1 UJ	62.4 UJ	9.2	9.2	2.8 UJ	29.6	13.9
Zinc	mg/kg	**109**	10000	**516 J**	< 4.5 UJ	85.5 J	62.8 J	**178 J**	< 4.3 UJ	35.1 J	**1260**	20.4	56.4	**353**	17.2	37.4	**438**	< 5.4 U	73.2	**414**	**378**	92.5	< 5.1 U	< 5.7 U	36.9	**764**	**434**	50.0	**681**	36.2	26.4	8.1	**874**	67.5
SW7471B																																				
Mercury	mg/kg	**0.81**	2.8	0.046 UJ	< 0.10 U	< 0.12 U	0.088 UJ	< 0.11 U	< 0.11 U	0.070 UJ	0.077 UJ	< 0.13 U	< 0.11 U	0.13 UJ	< 0.25 U	< 0.12 U	0.23	< 0.11 U	0.095 UJ	0.16	0.10 UJ	0.11 UJ	< 0.13 U	< 0.11 U	0.076 UJ	0.16	0.082 UJ	0.098 UJ	< 0.11 U	< 0.15 U	< 0.12 U	< 0.13 U	0.11 UJ	< 0.12 U

Notes:

ft bgs = feet below ground surface

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6 NYCRR Part 375 SCO = Title 6 Official Compilation of New York Codes, Rules and Regulations Part 375 Soil Cleanup Objectives

- = no SCO established

NA = not applicable/analyzed

Qualifiers:

U = Analyte analyzed for, but not detected above the sample's reported quantitation limit

J = Analyte positively identified at a numerical value that is the approximate concentration of the analyte in the sample

J+ = Sample likely to have a high bias

J- = Sample likely to have a low bias

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N = The analysis indicates the present of an analyte for which there is presumptive evidence to make a "tentative identification."
NJ = The analysis indicates the presence of an analyte that has been "tentatively identified" and the associated numerical value represents its approximate concentration.

R = Sample result rejected due to serious deficiency in ability to analyze sample and meet quality control criteria; the presence or absence of the analyte cannot be confirmed. This qualifier also may apply when more than one sample result is generated for a target analyte (i.e., dilutions or re-analyses), the most technically acceptable result is considered acceptable.

B/EB/TB/BB = An analyte identified in method blank (B), aqueous equipment (EB), trip (TB), or bottle blanks (BB) used to assess field contamination associated with soil or sediment samples mandates these qualifiers for only soil and sediment sample results.

P = Use professional judgment based on data use. It usually has an "M" with it, which indicates that a manual check should be made if the data that are qualified with the "P" are important to the data user. In addition, "PM" also means a decision is necessary from the Project Manager (or a delegate) concerning the need for further review of the data (see below).

PM = A manual review of the raw data is recommended to determine if the defect affects data use, as in "R" above. This review should include consideration of potential affects that could result from using the "P" qualified data. For example, in the case of holding-time exceedance, the Project Manager or delegate can decide to use the data with no qualification when analytes of interest are known not to be adversely affected by holding-time exceedances. Another example is the case where soil sample duplicate analyses for metals exceed the precision criteria; because this is likely due to sample non-homogeneity rather than contract laboratory error, then the manager or delegate must decide how to use the data.

Table 1
Soil Analytical Data

Soil Sample ID				SB-131A	SB-131B	SB-131C	SB-132A	SB-132B	SB-132C	SB-133A	SB-133B	SB-133C	SB-133D	SB-134A	SB-134B	SB-134C	SB-135A	SB-135B	SB-135C	SB-136-A	SB-136-B	SB-136-C	SB-136-D	SB-137-A	SB-137-B	SB-137-C	SB-138-A	SB-138-B	SB-138-C	SB-139A	SB-139B	SB-139C	SB-139D	SB-140A	SB-140B	SB-140C	SB-141A	SB-141B	SB-141C
Start Depth (ft bgs)				0	6	14	0	14	17	0	4	17	14	0	6	12	0	6	18	0	5	17	12	0	4	14	0	5	15	0	6	13	17	0	15	17	0	5	18
End Depth (ft bgs)				1	8	16	2	16	19	1	6	19	16	1	8	14	2	8	20	1	8	20	15	1	5	16	2	8	17	2	8	15	18	2	17	19	2	7	20
Sample Date				10/18/2018	10/18/2018	10/18/2018	10/18/2018	10/18/2018	10/18/2018	10/18/2018	10/18/2018	10/18/2018	10/18/2018	10/18/2018	10/18/2018	10/18/2018	10/18/2018	10/18/2018	10/18/2018	10/17/2018	10/17/2018	10/17/2018	10/17/2018	10/17/2018	10/17/2018	10/17/2018	10/17/2018	10/17/2018	10/17/2018	10/18/2018	10/18/2018	10/18/2018	10/18/2018	10/18/2018	10/18/2018	10/18/2018	10/18/2018	10/18/2018	10/18/2018
Analyte	Units	6 NYCRR PART 375 UNRESTRICTED USE SCO	6 NYCRR PART 375 COMMERCIAL USE SCO																																			
SW6010C																																						
Aluminum	mg/kg	-	-	32500 J	31500 J	14600 J	13800 J	34100 J	9260 J	24300 J	41900 J	9710 J	7660 J	10500 J	35800 J	9220 J	15700 J	35300 J	8070 J	16400 J	27100 J	8700 J	46500 J	7320 J	15700 J	9830 J	9950 J	35400 J	7850 J	28000 J	50000 J	15400 J	4240 J	10800 J	20000 J	7690 J	15100 J	30100 J	3510 J
Antimony	mg/kg	-	-	0.88 UJ	0.76 UJ	< 3.5 UJ	3.9 J	0.88 UJ	< 2.5 UJ	0.96 UJ	< 8.3 UJ	< 2.9 UJ	< 6.3 UJ	0.35 UJ	< 2.3 UJ	< 6.9 UJ	1.1 UJ	0.51 UJ	< 2.1 UJ	< 8.6 UJ	< 2.4 UJ	< 5.3 UJ	< 2.2 UJ	< 19.8 UJ	3.5 UJ	< 3.1 UJ	2.8 UJ	0.47 UJ	< 7.0 UJ	< 9.9 UJ	0.57 UJ	< 5.2 UJ	< 2.2 U	1.0 UJ	< 4.0 UJ	< 2.6 UJ	0.93 UJ	< 2.3 UJ	< 3.4 UJ
Arsenic	mg/kg	**13**	16	6.8 UJ	3.6 UJ	8.6	12.4	4.8 UJ	5.0	**18.2**	**31.8**	8.0	3.7 UJ	5.2	7.7 UJ	5.1	10.7	2.6	4.0	**23.1**	2.4 UJ	4.3	8.3 UJ	**33.2**	**36.5**	4.4	**38.2**	3.4	4.4 UJ	**18.6**	3.0	5.8	2.7	10.4	7.3	4.6	8.2	1.9	5.2
Barium	mg/kg	**350**	400	**495**	**395**	180	145	**448**	37.1	271	**600**	51.7	73.2	130	**476**	103	191	214	46.5	284	284	141	**371**	95.9	249	**398**	183	**453**	120	240	**639**	107	27.5	116	**355**	31.2	127	290	42.8
Beryllium	mg/kg	**7.2**	590	5.4	4.7	1.5	2.3	5.2	0.39 UJ	3.8	6.1	0.49 UJ	0.56 UJ	1.1	5.7	0.85 UJ	2.5	**7.4**	0.40 UJ	2.5	5.6	1.2 UJ	**9.3**	1.5	3.7	1.4	1.5	6.3	0.68 UJ	5.4	**8.0**	0.82 UJ	0.33 UJ	1.6	2.9	0.43 UJ	2.4	5.9	0.26 UJ
Cadmium	mg/kg	**2.5**	9.3	< 0.52 U	< 0.53 U	< 0.87 U	0.80	< 0.57 U	0.36 UJ	2.5	< 2.1 U	0.40 UJ	1.5 UJ	0.24 UJ	< 0.58 U	0.92 UJ	0.86	< 0.68 U	0.17 UJ	1.5 UJ	< 0.60 U	0.35 UJ	< 0.56 U	0.66 UJ	0.33 UJ	0.34 UJ	2.0 UJ	< 0.62 U	0.46 UJ	< 2.5 U	< 0.49 U	0.31 UJ	0.19 UJ	0.36 UJ	0.20 UJ	0.32 UJ	0.88	< 0.59 U	0.38 UJ
Calcium	mg/kg	-	-	240000	223000	65000	118000	258000	3020	165000	198000	2950	17900	93000	246000	28400	79500	268000	31600	100000	252000	45900	258000	29100	118000	106000	35400	240000	26200	211000	245000	8800	1620	71800	95500	3620	156000	229000	6140
Chromium	mg/kg	-	-	3.3	2.0	12.3	17.2	2.6	13.8	38.9	18.0	14.8	10.0	10.0	2.1	10.1	18.8	2.2	12.4	24.5	4.7	6.7	3.4	41.1	45.7	7.6	29.7	2.2	10.2	8.2	1.2	22.4	6.3	11.2	8.2	11.6	20.2	0.73 UJ	4.0
Cobalt	mg/kg	-	-	1.6	0.54 UJ	3.9	5.6	1.0 UJ	8.2	5.3	8.1	17.2	6.6	6.5	1.1 UJ	5.1	5.4	0.75 UJ	10.7	6.7	0.35 UJ	1.7 UJ	1.5	9.1	8.5	3.7	13.2	1.1 UJ	1.7 UJ	4.6	0.99	9.3	3.8	6.0	2.5	10.4	5.3	0.47 UJ	1.8
Copper	mg/kg	**50**	270	4.7 UJ	2.8 UJ	18.3	45.1	3.5 UJ	23.9	38.8	20.3	26.4	44.2	41.6	1.9 UJ	38.4	35.0	3.3 UJ	23.1	27.6	< 15.0 U	16.1	3.9 UJ	20.6 UJ	30.3	18.3	43.1	2.7 UJ	20.3	11.1 UJ	3.9 UJ	31.4	8.9	35.3	14.5	19.8	24.3	< 14.7 U	15.1
Iron	mg/kg	-	-	11900 J	1380 J	31100 J	36600 J	2900 J	14100 J	54100 J	137000 J	16100 J	15200 J	16700 J	8170 J	14200 J	37800 J	4060 J	23600 J	106000 J	2490 J	8720 J	23100 J	261000 J	180000 J	20000 J	201000 J	7940 J	5050 J	85800 J	7600 J	19500 J	6120 J	34400 J	25300 J	12800 J	25300 J	1170 J	4470 J
Lead	mg/kg	**63**	1000	0.58 UJ	0.62 UJ	19.0	**126**	0.94 UJ	9.6	**142**	1.3 UJ	12.0	11.1	28.3	0.73 UJ	10.7	**116**	0.71 UJ	10	**95.9**	0.64 UJ	6.0	0.80 UJ	45.7	35.2	12.1	**135**	0.60 UJ	7.0	< 5.0 U	0.55 UJ	14.3	6.4 J	46.8 J	17.3 J	8.2 J	**91.7 J**	0.55 UJ	2.9 J
Magnesium	mg/kg	-	-	5150	6320	3010	12200	9230	3860	7970	7310	4000	1950	24400	6780	1980	7670	6600	10700	5580	5720	1760	10900	1310	3140	1800	4580	5690	1120 UJ	5280	8140	5250	1500	11200	3490	3540	14500	6520	1030
Manganese	mg/kg	**1600**	10000	**2690**	**2330**	597	1230	**2660**	136	**3800**	**3390**	139	163	574	**2230**	199	**1810**	1130	480	**1950**	**3820**	276	**2670**	**1960**	**2310**	501	**3010**	**1910**	97.4	**2200**	658	209	45.9	1200	727	129	856	826	51.8
Nickel	mg/kg	**30**	310	4.0 UJ	1.4 UJ	16.0	21.0	2.3 UJ	25.6	19.2	20.9	**41.5**	20.6	17.8	3.2 UJ	19.5	17.9	2.9 UJ	28.0	17.5	1.7 UJ	10.7	6.8	11.1 UJ	20.6	10.2	**30.6**	3.4 UJ	15.7	17.8 UJ	2.9 UJ	**34.9**	10.5	17.4	11.3	27.5	19.2	1.6 UJ	8.4
Potassium	mg/kg	-	-	863	830	3000	1090	1190	1180	1840	1380 UJ	1140	2060	1280	993	2170	1410	854	995	1170	1170	1200 UJ	809 UJ	985	580	1470	1480	1080	2720	1440	819 UJ	2520	457 UJ	1260	1620	844	1510	495 UJ	477 UJ
Selenium	mg/kg	**3.9**	1500	**7.7 UJ**	**6.2 UJ**	3.4 UJ	3.4	**6.9 UJ**	< 2.5 U	3.6 UJ	**9.1**	1.1 UJ	2.3 UJ	1.0 UJ	**5.5 UJ**	**5.4 UJ**	2.1 UJ	**7.2**	< 2.1 U	< 8.6 U	**4.3 UJ**	2.9 UJ	**8.6 UJ**	< 19.8 U	2.0 UJ	**9.9**	3.3 UJ	**5.4**	**4.7 UJ**	**9.3 UJ**	**6.6**	1.3 UJ	0.90 UJ	0.80 UJ	**7.3**	< 2.6 U	3.8	**7.7**	1.6 UJ
Silver	mg/kg	2	1500	0.095 UJ	0.089 UJ	< 1.7 U	0.23 UJ	0.11 UJ	< 1.3 U	0.79 UJ	0.22 UJ	< 1.4 U	< 3.2 U	< 0.83 U	< 1.2 U	< 3.4 U	0.40 UJ	< 1.4 U	< 1.0 U	0.45 UJ	0.30 UJ	< 2.6 U	0.12 UJ	0.53 UJ	0.56 UJ	< 1.6 U	0.98	0.14 UJ	< 3.5 U	0.12 UJ	< 0.97 U	< 2.6 U	< 1.1 U	0.18 UJ	< 2.0 U	< 1.3 U	0.33 UJ	< 1.2 U	0.17 UJ
Sodium	mg/kg	-	-	378 UJ	450 UJ	296 UJ	378 UJ	499 UJ	< 636 U	389 UJ	950 UJ	< 723 U	< 1590 U	189 UJ	558 UJ	268 UJ	270 UJ	543 UJ	86.6 UJ	350 UJ	588 UJ	275 UJ	548 UJ	233 UJ	257 UJ	305 UJ	195 UJ	552 UJ	364 UJ	488 UJ	796 UJ	171 UJ	78.1 UJ	299 UJ	335 UJ	103 UJ	526 UJ	326 UJ	135 UJ
Thallium	mg/kg	-	-	< 10.5 U	< 10.7 U	< 3.5 U	0.45 UJ	< 11.4 U	< 2.5 U	< 12.8 U	< 8.3 U	< 2.9 U	< 6.3 U	< 1.7 U	< 11.6 U	< 6.9 U	< 4.3 U	< 2.7 U	< 2.1 U	< 8.6 U	< 12.0 U	< 5.3 U	< 11.2 U	< 19.8 U	< 8.5 U	< 3.1 U	< 9.6 U	< 2.5 U	< 7.0 U	< 9.9 U	< 1.9 U	< 5.2 U	< 2.2 U	< 2.2 U	< 4.0 U	< 2.6 U	0.44 UJ	< 2.3 U	< 3.4 U
Vanadium	mg/kg	-	-	5.4	2.5 UJ	21.1	12.2	4.0 UJ	13.8	33.1	46.8	15.7	14.3 UJ	12.3	3.3 UJ	21.3	15.6	3.2 UJ	14.7	26.6	9.8	10.9 UJ	11.7 UJ	31.4 UJ	41.2	18.9	52.4	3.8 UJ	18.3	21.3 UJ	< 24.3 U	21.4	16.6	14.3	14.7	13.2	12.8	< 5.9 U	4.7 UJ
Zinc	mg/kg	**109**	10000	< 5.2 U	< 5.3 U	101	**303**	2.6 UJ	68.8	**720**	< 4.1 U	81.5	**155**	94.9	< 5.8 U	50.3	**420**	< 6.8 U	64.6	**609**	1.7 UJ	30.6	< 5.6 U	**292**	**736**	79.1	**1410**	2.7 UJ	15.1 UJ	2.7 UJ	< 4.9 U	97.2	31.0	**143**	94.2	65.8	**294**	< 5.9 U	21.9
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Table 1
Soil Analytical Data

Analyte	Units	6 NYCRR PART 375 UNRESTRICTED USE SCO	6 NYCRR PART 375 COMMERCIAL USE SCO	Soil Sample ID	SB-142A	SB-142B	SB-142C	SB-143A	SB-143B	SB-143C	SB-144A	SB-144B	SB-144C	SB-145A	SB-145B	SB-145C	SB-146-A	SB-146-B	SB-146-C	SB-147-A	SB-147-B	SB-147-C	SB-148-A	SB-148-B	SB-148-C	SB-148-D	SB-149-A	SB-149-B	SB-149-C	SB-150A	SB-150B	SB-150C	DUP-101018	DUP-101118	DUP-101618	DUP-101718	DUP-101818	DUP-101918	DUP-102318
				Start Depth (ft bgs)	0	8	15	0	8	13	0	7	15	0	10	18	0	2	13	0	5	16	0	4	15	12	0	5	16	0	14	18	NA	NA	NA	NA	NA	NA	NA
				End Depth (ft bgs)	1	10	16	1	10	15	2	9	17	1	12	20	2	5	15	1	7	17	1.5	5	17.5	14	1	6	18	2	16	20	NA	NA	NA	NA	NA	NA	NA
				Sample Date	10/19/2018	10/19/2018	10/19/2018	10/19/2018	10/19/2018	10/19/2018	10/19/2018	10/19/2018	10/19/2018	10/19/2018	10/19/2018	10/19/2018	10/23/2018	10/23/2018	10/23/2018	10/23/2018	10/23/2018	10/23/2018	10/23/2018	10/23/2018	10/23/2018	10/23/2018	10/23/2018	10/23/2018	10/23/2018	10/23/2018	10/19/2018	10/19/2018	10/19/2018	10/10/2018	10/11/2018	10/16/2018	10/17/2018	10/18/2018	10/19/2018	10/23/2018
SW6010C																																						
Aluminum	mg/kg	-	-		8640 J	30200 J	12400 J	20800 J	33600 J	11000 J	5160 J	5070 J	15500 J	6730 J	46300 J	7140 J	16600 J	35700 J	15000 J	10400 J	20100 J	15000 J	32000 J	31400 J	20800 J	42800 J	10700 J	1330 J	13100 J	28700 J	24300 J	5560 J	40100 J	26000 J B	7440 J	5630 J	10600 J	13400 J	20900 J
Antimony	mg/kg	-	-		< 12.4 UJ	0.40 UJ	< 3.6 UJ	1.4 UJ	0.50 UJ	< 5.4 UJ	< 2.5 UJ	0.46 UJ	< 7.6 UJ	< 2.0 UJ	0.88 UJ	< 3.9 UJ	< 97.7 UJ	< 18.5 UJ	< 47.8 UJ	3.6 UJ	< 78.6 UJ	1.1 UJ	3.4 UJ	< 17.6 UJ	< 42.7 UJ	< 19.0 UJ	1.0 UJ	< 15.0 UJ	< 35.6 UJ	0.62 UJ	< 5.2 UJ	0.34 UJ	< 94.3 UJ	< 20.0 U	< 4.7 UJ	< 1.7 UJ	< 3.0 UJ	< 6.4 UJ	< 49.0 UJ
Arsenic	mg/kg	**13**	16		**35.4**	5.1 UJ	6.2	11.5	4.0	4.7	2.5	1.9	3.6 UJ	3.1	8.4	2.4 UJ	**33.9 J**	1.2 UJ	4.0 UJ	**14.0 J**	**41.6 J**	6.0 J	10.6 J	2.3 J	4.8 UJ	2.9 J	4.2 J	1.4 UJ	2.5 UJ	7.1	4.7	2.6	4.7 UJ	10.4	5.3	2.9	10.8	2.4 UJ	5.3 UJ
Barium	mg/kg	**350**	400		161	328	51.2	226	**474**	72.1	35.7	35.7	164	40.5	**650**	99.1	**576 J**	**765 J**	149 J	99.0 J	**413 J**	181 J	**449 J**	**460 J**	123 J	**709 J**	78.0 J	6.4 J	127 J	252	**562**	30.3	268 J	214 J B	88.0 J	43.7	55.9	171	207 J
Beryllium	mg/kg	**7.2**	590		1.6	5.2	0.61 UJ	3.5	4.8	0.60 UJ	0.56 UJ	0.34 UJ	1.6 UJ	0.57	**7.8**	0.73 UJ	2.6	5.4	1.0	0.86	2.9	0.90	4.8	4.3	1.1	6.0	0.59	0.069 UJ	0.78	4.5	4.1	0.28 UJ	7.1 J	3.9	0.61 UJ	0.40 UJ	0.58 UJ	1.2 UJ	1.9
Cadmium	mg/kg	**2.5**	9.3		**3.1**	0.057 UJ	0.33 UJ	0.78 UJ	< 0.51 U	0.33 UJ	0.23 UJ	0.11 UJ	0.57 UJ	0.18 UJ	< 0.52 U	0.27 UJ	< 1.3 U	< 0.25 U	1.3	1.7	< 0.21 U	0.52	0.17 UJ	< 0.23 U	0.65	< 0.25 U	0.27	0.17 UJ	0.88	< 0.59 U	0.40 UJ	0.092 UJ	< 1.3 UJ	0.12 UJ	0.69 UJ	0.25 UJ	0.37 UJ	0.63 UJ	1.2
Calcium	mg/kg	-	-		24800 J	222000 J	3540 J	90700 J	223000 J	9750 J	86000 J	145000 J	68300 J	55800 J	206000 J	28300 J	69500 J	220000 J	28000 J	69000 J	80000 UJ	28600 J	178000 J	227000 J	25100 J	255000 J	32700 J	167000 J	19100 J	147000 J	167000 J	21400 J	215000 J	238000 J B	23000 J	11800	4440	42500 J	62500 J
Chromium	mg/kg	-	-		60.9 J	6.0 J	18.6 J	12.3 J	6.0 J	15.5 J	7.9 J	9.7 J	10.2 J	6.8 J	4.2 J	6.8 J	30.2 J	0.88 J	16.1 J	23.9 J	35.2 J	17.1 J	10.2 J	6.1 J	25.8 J	4.4 J	14.9 J	4.0 J	15.6 J	10.1 J	11.3 J	8.7 J	2.2 UJ	30.3 J	9.9 J	8.8	15.6	12.0 J	16.6 J
Cobalt	mg/kg	-	-		9.9	1.4	12.4	4.8	1.5	6.3	3.0	1.4	3.0 UJ	3.5	2.3	1.3 UJ	9.3	0.37 UJ	2.7	6.9	13.4	4.1	4.1	1.4	3.1	1.1	5.2	0.72	3.3	2.4	3.8	7.6	1.6 J	4.8	3.6 J	5.1	11.5	2.4 UJ	2.3
Copper	mg/kg	**50**	270		44.8	4.9 UJ	30.4	20.4	4.4 UJ	27.6	10.3	5.1 UJ	25.9	12.6	6.2 UJ	13.2	30.0 J	< 2.5 UJ	45.0 J	**71.3 J**	36.6 J	17.1 J	12.1 J	**85.0 J**	32.8 J	< 6.3 UJ	16.1 J	2.4 J	28.8 J	5.2 UJ	25.7	17.8	< 6.3 UJ	5.6 UJ	36.2 J	17.9	27.5	31.9	40.8 J
Iron	mg/kg	-	-		225000 J	8730 J	19100 J	77400 J	12300 J	14100 J	8130 J	7520 J	10900 J	11000 J	28800 J	5190 J	233000	1550	11800	37200	237000	16400	53700	8920	7710	7630	14100	2090	6830	30600 J	31300 J	15300 J	19400 J	46600 J B	7050 J	17000 J	16200 J	7570 J	17200
Lead	mg/kg	**63**	1000		**209**	1.1	14.3	53.8	0.56 UJ	11.1	27.8	5.8	10.2	18.3	1.9	5.4	19.5	< 1.2 U	14.8	**146**	13.5	15.4	31.6	1.6	13.4	< 1.3 U	**206**	4.1	9.8	5.5	24.0	7.6	< 1.3 UJ	8.7	6.9 J	19.8	12.1	9.6	19.0
Magnesium	mg/kg	-	-		2500	5550	5010	5610	6800	3550	37000	15400	2330	18200	6480	1220	2060	5860	1740	19600	3100	1860	4800	4680	2640	6400	8480	5540	1610	5390	5510	7880	6860 J	6230	1240 J	3370	4120	1530 UJ	2780
Manganese	mg/kg	**1600**	10000		**2360 J**	**2990 J**	167 J	1360 J	748 J	168 J	346 J	243 J	348 J	408 J	**2250 J**	268 J	**2580**	897	185	727	**4030**	190	**2290**	**1650**	116	**1630**	331	73.9	80.3	989 J	**1610 J**	339 J	815 J	**2990 J B**	117 J	263	132	171 J	368
Nickel	mg/kg	**30**	310		**30.9**	3.6 UJ	**38.6**	12.0	4.1	25.2	11.2	7.2	13.5 UJ	8.5	6.1	8.3	17.3 UJ	0.40 UJ	17.7 J	23.0 J	**31.0 J**	19.1 J	9.6 J	3.2 UJ	19.7 J	1.5 UJ	11.2 J	7.1 J	17.0 J	6.5	13.0	19.9	2.4 UJ	6.7	17.5	15.6	**33.3**	11.9 UJ	16.1 UJ
Potassium	mg/kg	-	-		1060	1170	1430	1030	513	1980	898	917	2350	765	686 UJ	1340	2240 J	465 J	3840 J	2480 J	1510 J	3620 J	1590 J	1690 J	5370 J	1330 J	2080 J	695 J	4000 J	434 UJ	1960	730	444 J	1210 J	1570 J	715	1560	2750	3990 J
Selenium	mg/kg	**3.9**	1500		< 12.4 U	**6.5 UJ**	1.0 UJ	2.4 UJ	**4.3**	< 5.4 U	< 2.5 U	< 2.3 U	**16.6**	< 2.0 U	**6.5 UJ**	2.4 UJ	**4.3 UJ**	**6.3 J**	**5.0 UJ**	1.2 UJ	**4.3 J**	**5.1 UJ**	**5.6 J**	**4.4 UJ**	**4.8 UJ**	**4.7 UJ**	0.60 UJ	< 4.0 UJ	2.7 UJ	**4.7**	**11.8**	< 1.7 U	**6.8 UJ**	**4.4 UJ**	2.9 UJ	0.60 UJ	0.84 UJ	**16.4**	**7.1 UJ**
Silver	mg/kg	2	1500		0.86 UJ	0.22 UJ	< 1.8 U	0.33 UJ	< 1.0 U	< 2.7 U	< 1.3 U	< 1.1 U	< 3.8 U	< 0.99 U	0.099 UJ	< 1.9 U	< 0.78 U	< 0.74 U	< 1.9 U	< 0.74 U	< 0.63 U	< 1.4 U	< 0.74 U	< 0.70 U	< 1.7 U	< 0.76 U	< 0.67 U	< 0.60 U	< 1.4 U	< 1.2 U	< 2.6 U	< 0.87 U	< 3.8 UJ	< 0.80 U	< 2.3 UJ	0.13 UJ	< 1.5 U	< 3.2 U	< 2.0 U
Sodium	mg/kg	-	-		163 UJ	568	< 901 U	325 UJ	299 UJ	< 1340 U	188 UJ	311 UJ	292 UJ	120 UJ	470 UJ	122 UJ	444	347	266 UJ	231	385	176 UJ	605	677	225 UJ	615	232	137 UJ	216 UJ	280 UJ	418 UJ	70.9 UJ	287 UJ	499	148 UJ	104 UJ	100 UJ	207 UJ	335 UJ
Thallium	mg/kg	-	-		< 12.4 U	< 10.9 U	< 3.6 U	< 4.6 U	< 2.0 U	< 5.4 U	< 2.5 U	< 2.3 U	< 7.6 U	< 2.0 U	< 10.5 U	< 3.9 U	< 7.8 U	< 7.4 U	< 19.1 U	< 7.4 U	< 6.3 U	< 13.9 U	< 7.4 U	< 7.0 U	< 17.1 U	< 7.6 U	< 6.7 U	< 6.0 U	0.78 UJ	< 2.4 U	< 5.2 U	< 1.7 U	< 7.5 UJ	< 8.0 U	< 4.7 U	< 1.7 U	< 3.0 U	< 6.4 U	< 19.6 U
Vanadium	mg/kg	-	-		39.9	7.0	19.8	15.3	3.7 UJ	18.0	8.5	11.3	14.9 UJ	11.2	8.0 UJ	7.8 UJ	57.7 J	1.5 J	26.0 J	22.6 J	76.6 J	29.9 J	21.0 J	12.5 J	34.5 J	6.2 J	21.7 J	14.6 J	23.6 J	7.2	17.7	11.9	7.0 J	26.9	18.5 J	13.7	18.4	15.9	27.2 J
Zinc	mg/kg	**109**	10000		**1060 J**	18.1 J	94.9 J	**465 J**	< 5.1 UJ	63.2 J	67.3 J	64.0 J	50.2 J	69.1 J	22.0 J	22.5 J	**459 J**	1.3 UJ	85.8 J	**364 J**	**518 J**	**121 J**	**158 J**	8.7 J	73.8 J	1.6 UJ	106 J	30.9 J	35.0 J	**181 J**	**118 J**	51.9 J	< 12.6 UJ	8.9 J	29.3 J	**164**	81.0	31.5 J	97.6 J
SW7471B																																						
Mercury	mg/kg	**0.81**	2.8		0.093 UJ	< 0.13 U	0.047 UJ	0.069 UJ	< 0.10 U	< 0.30 U	0.054 UJ	< 0.12 U	0.11 UJ	0.043 UJ	< 0.13 U	0.047 UJ	< 0.025 U	< 0.024 U	0.12	0.26	< 0.020 UJ	0.089 J	0.016 UJ	< 0.022 UJ	0.070 J	< 0.024 UJ	0.27	< 0.019 U	0.10	< 0.15 U	0.092 UJ	< 0.11 U	< 0.024 U	< 0.027 U	0.085 UJ	0.024 UJ	0.041 UJ	0.16 UJ	0.12

Notes:

ft bgs = feet below ground surface

mg/kg = milligrams per kilogram

ug/kg = micrograms per kilogram

6 NYCRR Part 375 SCO = Title 6 Official Compilation of New York Codes, Rules and Regulations Part 375 Soil Cleanup Objectives

- = no SCO established

NA = not applicable/analyzed

Qualifiers:

U = Analyte analyzed for, but not detected above the sample's reported quantitation limit

J = Analyte positively identified at a numerical value that is the approximate concentration of the analyte in the sample

J+ = Sample likely to have a high bias

J- = Sample likely to have a low bias

UJ = Analyte not detected above the sample quantitation limit; the associated quantitation limit is approximate and may or may not represent the actual limit of quantitation necessary to accurately and precisely measure the analyte in the sample

N = The analysis indicates the present of an analyte for which there is presumptive evidence to make a "tentative identification."

NJ = The analysis indicates the presence of an analyte that has been "tentatively identified" and the associated numerical value represents its approximate oncentration.

R = Sample result rejected due to serious deficiency in ability to analyze sample and meet quality control criteria; the presence or absence of the analyte cannot be confirmed. This qualifier also may apply when more than one sample result is generated for a target analyte (i.e., dilutions or re-analyses), the most technically acceptable result is considered acceptable.

B/EB/TB/BB = An analyte identified in method blank (B), aqueous equipment (EB), trip (TB), or bottle blanks (BB) used to assess field contamination associated with soil or sediment samples mandates these qualifiers for only soil and sediment sample results.

P = Use professional judgment based on data use. It usually has an "M" with it, which indicates that a manual check should be made if the data that are qualified with the "P" are important to the data user. In addition, "PM" also means a decision is necessary from the Project Manager (or a delegate) concerning the need for further review of the data (see below).

PM = A manual review of the raw data is recommended to determine if the defect affects data use, as in "R" above. This review should include consideration of potential affects that could result from using the "P" qualified data. For example, in the case of holding-time exceedance, the Project Manager or delegate can decide to use the data with no qualification when analytes of interest are known not to be adversely affected by holding-time exceedances. Another example is the case where soil sample duplicate analyses for metals exceed the precision criteria; because this is likely due to sample non-homogeneity rather than contract laboratory error, then the manager or delegate must decide how to use the data.

Table 1
Soil Analytical Data

Analyte	Units	6 NYCRR PART 375 UNRESTRICTED USE SCO	6 NYCRR PART 375 COMMERCIAL USE SCO	SB-101-A	SB-101-B	SB-101-C	SB-102-A	SB-102-B	SB-102-C	SB-103-A	SB-103-B	SB-103-C	SB-104-A	SB-104-B
Start Depth (ft bgs)				**0**	**8**	**12**	**0**	**4**	**12**	**0**	**4**	**12**	**0**	**4**
End Depth (ft bgs)				**1**	**10**	**14**	**1**	**6**	**14**	**1**	**6**	**14**	**1**	**6**
Sample Date				**10/10/2018**	**10/10/2018**	**10/10/2018**	**10/10/2018**	**10/10/2018**	**10/10/2018**	**10/10/2018**	**10/10/2018**	**10/10/2018**	**10/10/2018**	**10/10/2018**
SW8081B														
4,4'-DDD	ug/kg	**3.3**	92000	< 1.9 UJ	< 2.5 UJ	< 2.1 UJ	< 2.1 UJ	< 2.1 UJ	< 2.0 UJ	< 2.2 UJ	< 2.0 UJ	< 2.0 UJ	< 2.0 UJ	< 1.9 UJ
4,4'-DDE	ug/kg	**3.3**	62000	< 1.9 UJ	< 2.5 UJ	< 2.1 UJ	< 2.1 UJ	< 2.1 UJ	< 2.0 UJ	0.89 UJ	< 2.0 UJ	< 2.0 UJ	< 2.0 UJ	< 1.9 UJ
4,4'-DDT	ug/kg	**3.3**	47000	1.1 UJ	< 2.5 UJ	< 2.1 UJ	0.68 UJ	< 2.1 UJ	< 2.0 UJ	**3.9 J**	< 2.0 UJ	< 2.0 UJ	< 2.0 UJ	< 1.9 UJ
Aldrin	ug/kg	**5**	680	< 1.9 UJ	< 2.5 UJ	< 2.1 UJ	< 2.1 UJ	< 2.1 UJ	< 2.0 UJ	< 2.2 UJ	< 2.0 UJ	< 2.0 UJ	< 2.0 UJ	< 1.9 UJ
Alpha-BHC	ug/kg	20	3400	< 1.9 UJ	< 2.5 UJ	< 2.1 UJ	1.1 UJ	< 2.1 UJ	< 2.0 UJ	1.3 UJ	< 2.0 UJ	< 2.0 UJ	< 2.0 UJ	< 1.9 UJ
alpha-Chlordane	ug/kg	94	24000	< 1.9 UJ	< 2.5 UJ	< 2.1 UJ	< 2.1 UJ	< 2.1 UJ	< 2.0 UJ	< 2.2 UJ	< 2.0 UJ	< 2.0 UJ	< 2.0 UJ	< 1.9 UJ
Beta-BHC	ug/kg	**36**	3000	< 1.9 UJ	< 2.5 UJ	< 2.1 UJ	< 2.1 UJ	< 2.1 UJ	< 2.0 UJ	< 2.2 UJ	< 2.0 UJ	< 2.0 UJ	< 2.0 UJ	< 1.9 UJ
Delta-BHC	ug/kg	40	500000	0.57 UJ	< 2.5 UJ	< 2.1 UJ	< 2.1 UJ	< 2.1 UJ	< 2.0 UJ	< 2.2 UJ	< 2.0 UJ	< 2.0 UJ	< 2.0 UJ	< 1.9 UJ
Dieldrin	ug/kg	**5**	1400	< 1.9 UJ	< 2.5 UJ	< 2.1 UJ	< 2.1 UJ	< 2.1 UJ	< 2.0 UJ	< 2.2 UJ	< 2.0 UJ	< 2.0 UJ	< 2.0 UJ	< 1.9 UJ
Endosulfan I	ug/kg	2400	200000	< 1.9 UJ	< 2.5 UJ	< 2.1 UJ	< 2.1 UJ	< 2.1 UJ	< 2.0 UJ	< 2.2 UJ	< 2.0 UJ	< 2.0 UJ	< 2.0 UJ	< 1.9 UJ
Endosulfan II	ug/kg	2400	200000	< 1.9 UJ	< 2.5 UJ	< 2.1 UJ	< 2.1 UJ	< 2.1 UJ	< 2.0 UJ	< 2.2 UJ	< 2.0 UJ	< 2.0 UJ	< 2.0 UJ	< 1.9 UJ
Endosulfan Sulfate	ug/kg	2400	200000	< 1.9 UJ	< 2.5 UJ	< 2.1 UJ	< 2.1 UJ	< 2.1 UJ	< 2.0 UJ	< 2.2 UJ	< 2.0 UJ	< 2.0 UJ	< 2.0 UJ	< 1.9 UJ
Endrin	ug/kg	14	89000	< 1.9 UJ	< 2.5 UJ	< 2.1 UJ	< 2.1 UJ	< 2.1 UJ	< 2.0 UJ	1.1 UJ	< 2.0 UJ	< 2.0 UJ	< 2.0 UJ	< 1.9 UJ
Endrin Aldehyde	ug/kg	-	-	< 1.9 UJ	< 2.5 UJ	< 2.1 UJ	0.98 UJ	< 2.1 UJ	< 2.0 UJ	6.1 J	< 2.0 UJ	< 2.0 UJ	< 2.0 UJ	< 1.9 UJ
Endrin Ketone	ug/kg	-	-	< 1.9 UJ	< 2.5 UJ	< 2.1 UJ	< 2.1 UJ	< 2.1 UJ	< 2.0 UJ	6.3 J	< 2.0 UJ	< 2.0 UJ	< 2.0 UJ	< 1.9 UJ
Gamma-BHC	ug/kg	100	9200	< 1.9 UJ	< 2.5 UJ	< 2.1 UJ	< 2.1 UJ	< 2.1 UJ	< 2.0 UJ	< 2.2 UJ	< 2.0 UJ	< 2.0 UJ	< 2.0 UJ	< 1.9 UJ
Gamma-Chlordane	ug/kg			< 1.9 UJ	< 2.5 UJ	< 2.1 UJ	< 2.1 UJ	< 2.1 UJ	< 2.0 UJ	< 2.2 UJ	< 2.0 UJ	< 2.0 UJ	< 2.0 UJ	< 1.9 UJ
Heptachlor	ug/kg	42	15000	< 1.9 UJ	< 2.5 UJ	< 2.1 UJ	< 2.1 UJ	< 2.1 UJ	< 2.0 UJ	< 2.2 UJ	< 2.0 UJ	< 2.0 UJ	< 2.0 UJ	< 1.9 UJ
Heptachlor Epoxide	ug/kg	-	-	< 1.9 UJ	< 2.5 UJ	< 2.1 UJ	< 2.1 UJ	< 2.1 UJ	< 2.0 UJ	< 2.2 UJ	< 2.0 UJ	< 2.0 UJ	< 2.0 UJ	< 1.9 UJ
Methoxychlor	ug/kg	-	-	< 1.9 UJ	< 2.5 UJ	< 2.1 UJ	< 2.1 UJ	< 2.1 UJ	< 2.0 UJ	< 2.2 UJ	< 2.0 UJ	< 2.0 UJ	< 2.0 UJ	< 1.9 UJ
Toxaphene	ug/kg	-	-	< 19 UJ	< 25 UJ	< 21 UJ	< 21 UJ	< 21 UJ	< 20 UJ	< 22 UJ	< 20 UJ	< 20 UJ	< 20 UJ	< 19 UJ
SW8082A														
Aroclor 1016	ug/kg			< 260 UJ	< 300 UJ	< 250 UJ	< 280 UJ	< 220 UJ	< 280 UJ	< 290 UJ	< 240 UJ	< 290 UJ	< 300 UJ	< 260 UJ
Aroclor 1221	ug/kg			< 260 UJ	< 300 UJ	< 250 UJ	< 280 UJ	< 220 UJ	< 280 UJ	< 290 UJ	< 240 UJ	< 290 UJ	< 300 UJ	< 260 UJ
Aroclor 1232	ug/kg			< 260 UJ	< 300 UJ	< 250 UJ	< 280 UJ	< 220 UJ	< 280 UJ	< 290 UJ	< 240 UJ	< 290 UJ	< 300 UJ	< 260 UJ
Aroclor 1242	ug/kg			< 260 UJ	< 300 UJ	< 250 UJ	< 280 UJ	< 220 UJ	< 280 UJ	< 290 UJ	< 240 UJ	< 290 UJ	< 300 UJ	< 260 UJ
Aroclor 1248	ug/kg	**100**	1000	< 260 UJ	< 300 UJ	< 250 UJ	< 280 UJ	< 220 UJ	< 280 UJ	< 290 UJ	< 240 UJ	< 290 UJ	< 300 UJ	< 260 UJ
Aroclor 1254	ug/kg			< 260 UJ	< 300 UJ	< 250 UJ	< 280 UJ	< 220 UJ	< 280 UJ	< 290 UJ	< 240 UJ	< 290 UJ	< 300 UJ	< 260 UJ
Aroclor 1260	ug/kg			< 260 UJ	< 300 UJ	< 250 UJ	< 280 UJ	< 220 UJ	< 280 UJ	< 290 UJ	< 240 UJ	< 290 UJ	< 300 UJ	< 260 UJ
Aroclor 1262	ug/kg			< 260 UJ	< 300 UJ	< 250 UJ	< 280 UJ	< 220 UJ	< 280 UJ	< 290 UJ	< 240 UJ	< 290 UJ	< 300 UJ	< 260 UJ
Aroclor 1268	ug/kg			< 260 UJ	< 300 UJ	< 250 UJ	< 280 UJ	< 220 UJ	< 280 UJ	< 290 UJ	< 240 UJ	< 290 UJ	< 300 UJ	< 260 UJ

Analyte	SB-104-C	SB-105-A	SB-105-B	SB-105-C	SB-105-D	SB-106-A	SB-106-B	SB-106-C	SB-107-A	SB-107-B	SB-107-C
Start Depth (ft bgs)	**14**	**0**	**4**	**10**	**12**	**0**	**4**	**14**	**0**	**6**	**13**
End Depth (ft bgs)	**16**	**1**	**6**	**12**	**14**	**1**	**8**	**16**	**2**	**8**	**18**
Sample Date	**10/10/2018**	**10/10/2018**	**10/10/2018**	**10/10/2018**	**10/10/2018**	**10/10/2018**	**10/10/2018**	**10/10/2018**	**10/11/2018**	**10/11/2018**	**10/11/2018**
SW8081B											
4,4'-DDD	< 2.0 UJ	< 2.1 UJ	< 2.0 UJ	< 28 UJ	< 2.1 UJ	< 2.1 UJ	< 2.1 UJ	< 3.4 UJ	< 9.9 UJ	< 2.0 UJ	< 1.9 UJ
4,4'-DDE	< 2.0 UJ	0.59 UJ	< 2.0 UJ	< 28 UJ	< 2.1 UJ	< 2.1 UJ	< 2.1 UJ	< 3.4 UJ	< 9.9 UJ	< 2.0 UJ	< 1.9 UJ
4,4'-DDT	< 2.0 UJ	2.6 J	< 2.0 UJ	< 28 UJ	< 2.1 UJ	< 2.1 UJ	< 2.1 UJ	< 3.4 UJ	< 9.9 UJ	< 2.0 UJ	< 1.9 UJ
Aldrin	< 2.0 UJ	< 2.1 UJ	< 2.0 UJ	< 28 UJ	< 2.1 UJ	< 2.1 UJ	< 2.1 UJ	< 3.4 UJ	< 9.9 UJ	< 2.0 UJ	< 1.9 UJ
Alpha-BHC	< 2.0 UJ	< 2.1 UJ	< 2.0 UJ	< 28 UJ	< 2.1 UJ	< 2.1 UJ	< 2.1 UJ	< 3.4 UJ	< 9.9 UJ	< 2.0 UJ	< 1.9 UJ
alpha-Chlordane	< 2.0 UJ	< 2.1 UJ	< 2.0 UJ	< 28 UJ	< 2.1 UJ	< 2.1 UJ	< 2.1 UJ	< 3.4 UJ	< 9.9 UJ	< 2.0 UJ	< 1.9 UJ
Beta-BHC	< 2.0 UJ	< 2.1 UJ	< 2.0 UJ	< 28 UJ	< 2.1 UJ	< 2.1 UJ	< 2.1 UJ	< 3.4 UJ	< 9.9 UJ	< 2.0 UJ	< 1.9 UJ
Delta-BHC	< 2.0 UJ	< 2.1 UJ	< 2.0 UJ	< 28 UJ	< 2.1 UJ	< 2.1 UJ	< 2.1 UJ	< 3.4 UJ	< 9.9 UJ	< 2.0 UJ	< 1.9 UJ
Dieldrin	< 2.0 UJ	< 2.1 UJ	< 2.0 UJ	< 28 UJ	< 2.1 UJ	0.93 UJ	< 2.1 UJ	< 3.4 UJ	< 9.9 UJ	< 2.0 UJ	< 1.9 UJ
Endosulfan I	< 2.0 UJ	< 2.1 UJ	< 2.0 UJ	< 28 UJ	< 2.1 UJ	< 2.1 UJ	< 2.1 UJ	< 3.4 UJ	< 9.9 UJ	< 2.0 UJ	< 1.9 UJ
Endosulfan II	< 2.0 UJ	< 2.1 UJ	< 2.0 UJ	< 28 UJ	< 2.1 UJ	< 2.1 UJ	< 2.1 UJ	< 3.4 UJ	< 9.9 UJ	< 2.0 UJ	< 1.9 UJ
Endosulfan Sulfate	< 2.0 UJ	< 2.1 UJ	< 2.0 UJ	< 28 UJ	< 2.1 UJ	< 2.1 UJ	< 2.1 UJ	< 3.4 UJ	< 9.9 UJ	< 2.0 UJ	< 1.9 UJ
Endrin	< 2.0 UJ	< 2.1 UJ	< 2.0 UJ	< 28 UJ	< 2.1 UJ	< 2.1 UJ	< 2.1 UJ	< 3.4 UJ	< 9.9 UJ	< 2.0 UJ	< 1.9 UJ
Endrin Aldehyde	< 2.0 UJ	< 2.1 UJ	< 2.0 UJ	< 28 UJ	< 2.1 UJ	< 2.1 UJ	< 2.1 UJ	< 3.4 UJ	< 9.9 UJ	< 2.0 UJ	< 1.9 UJ
Endrin Ketone	< 2.0 UJ	< 2.1 UJ	< 2.0 UJ	< 28 UJ	< 2.1 UJ	< 2.1 UJ	< 2.1 UJ	< 3.4 UJ	< 9.9 UJ	< 2.0 UJ	< 1.9 UJ
Gamma-BHC	< 2.0 UJ	< 2.1 UJ	< 2.0 UJ	< 28 UJ	< 2.1 UJ	< 2.1 UJ	< 2.1 UJ	< 3.4 UJ	< 9.9 UJ	< 2.0 UJ	< 1.9 UJ
Gamma-Chlordane	< 2.0 UJ	< 2.1 UJ	< 2.0 UJ	< 28 UJ	< 2.1 UJ	< 2.1 UJ	< 2.1 UJ	< 3.4 UJ	< 9.9 UJ	< 2.0 UJ	< 1.9 UJ
Heptachlor	< 2.0 UJ	< 2.1 UJ	< 2.0 UJ	< 28 UJ	< 2.1 UJ	< 2.1 UJ	< 2.1 UJ	< 3.4 UJ	< 9.9 UJ	< 2.0 UJ	< 1.9 UJ
Heptachlor Epoxide	< 2.0 UJ	< 2.1 UJ	< 2.0 UJ	< 28 UJ	< 2.1 UJ	< 2.1 UJ	< 2.1 UJ	< 3.4 UJ	< 9.9 UJ	< 2.0 UJ	< 1.9 UJ
Methoxychlor	< 2.0 UJ	< 2.1 UJ	< 2.0 UJ	< 28 UJ	< 2.1 UJ	< 2.1 UJ	< 2.1 UJ	< 3.4 UJ	< 9.9 UJ	< 2.0 UJ	< 1.9 UJ
Toxaphene	< 20 UJ	< 21 UJ	< 20 UJ	< 280 UJ	< 21 UJ	< 21 UJ	< 21 UJ	< 34 UJ	< 99 UJ	< 20 UJ	< 19 UJ
SW8082A											
Aroclor 1016	< 270 UJ	< 300 UJ	< 240 UJ	< 760 UJ	< 280 UJ	< 240 UJ	< 230 UJ	< 400 UJ	< 280 UJ	< 220 UJ	< 260 UJ
Aroclor 1221	< 270 UJ	< 300 UJ	< 240 UJ	< 760 UJ	< 280 UJ	< 240 UJ	< 230 UJ	< 400 UJ	< 280 UJ	< 220 UJ	< 260 UJ
Aroclor 1232	< 270 UJ	< 300 UJ	< 240 UJ	< 760 UJ	< 280 UJ	< 240 UJ	< 230 UJ	< 400 UJ	< 280 UJ	< 220 UJ	< 260 UJ
Aroclor 1242	< 270 UJ	< 300 UJ	< 240 UJ	< 760 UJ	< 280 UJ	< 240 UJ	< 230 UJ	< 400 UJ	< 280 UJ	< 220 UJ	< 260 UJ
Aroclor 1248	< 270 UJ	< 300 UJ	< 240 UJ	< 760 UJ	< 280 UJ	< 240 UJ	< 230 UJ	< 400 UJ	< 280 UJ	< 220 UJ	< 260 UJ
Aroclor 1254	< 270 UJ	< 300 UJ	< 240 UJ	< 760 UJ	< 280 UJ	< 240 UJ	< 230 UJ	< 400 UJ	< 280 UJ	< 220 UJ	< 260 UJ
Aroclor 1260	< 270 UJ	< 300 UJ	< 240 UJ	< 760 UJ	< 280 UJ	< 240 UJ	< 230 UJ	< 400 UJ	< 280 UJ	< 220 UJ	< 260 UJ
Aroclor 1262	< 270 UJ	< 300 UJ	< 240 UJ	< 760 UJ	< 280 UJ	< 240 UJ	< 230 UJ	< 400 UJ	< 280 UJ	< 220 UJ	< 260 UJ
Aroclor 1268	< 270 UJ	< 300 UJ	< 240 UJ	< 760 UJ	< 280 UJ	< 240 UJ	< 230 UJ	< 400 UJ	< 280 UJ	< 220 UJ	< 260 UJ

Analyte	SB-108-A	SB-108-B	SB-108-C	SB-109-A	SB-109-B	SB-109-C	SB-110-A	SB-110-B	SB-110-C	SB-110-D
Start Depth (ft bgs)	**0**	**8**	**10**	**0**	**4**	**16**	**0**	**4**	**17.5**	**10**
End Depth (ft bgs)	**1**	**10**	**14**	**1**	**6**	**18**	**1**	**6**	**20**	**12.5**
Sample Date	**10/11/2018**	**10/11/2018**	**10/11/2018**	**10/11/2018**	**10/11/2018**	**10/11/2018**	**10/11/2018**	**10/11/2018**	**10/11/2018**	**10/11/2018**
SW8081B										
4,4'-DDD	< 20 UJ	< 1.9 UJ	< 38 UJ	< 34 UJ	< 20 UJ	< 2.0 UJ	< 170 UJ	< 2.0 UJ	< 1.9 UJ	< 47 UJ
4,4'-DDE	< 20 UJ	< 1.9 UJ	< 38 UJ	< 34 UJ	< 20 UJ	< 2.0 UJ	< 170 UJ	< 2.0 UJ	< 1.9 UJ	< 47 UJ
4,4'-DDT	**5.9 UJ**	< 1.9 UJ	< 38 UJ	**33 UJ**	< 20 UJ	< 2.0 UJ	< 170 UJ	< 2.0 UJ	< 1.9 UJ	< 47 UJ
Aldrin	< 20 UJ	< 1.9 UJ	< 38 UJ	< 34 UJ	< 20 UJ	< 2.0 UJ	< 170 UJ	< 2.0 UJ	< 1.9 UJ	< 47 UJ
Alpha-BHC	< 20 UJ	< 1.9 UJ	< 38 UJ	< 34 UJ	< 20 UJ	< 2.0 UJ	< 170 UJ	< 2.0 UJ	< 1.9 UJ	< 47 UJ
alpha-Chlordane	< 20 UJ	< 1.9 UJ	< 38 UJ	< 34 UJ	< 20 UJ	< 2.0 UJ	< 170 UJ	< 2.0 UJ	< 1.9 UJ	< 47 UJ
Beta-BHC	< 20 UJ	< 1.9 UJ	< 38 UJ	< 34 UJ	< 20 UJ	< 2.0 UJ	< 170 UJ	< 2.0 UJ	< 1.9 UJ	< 47 UJ
Delta-BHC	< 20 UJ	< 1.9 UJ	< 38 UJ	< 34 UJ	< 20 UJ	< 2.0 UJ	< 170 UJ	< 2.0 UJ	< 1.9 UJ	< 47 UJ
Dieldrin	< 20 UJ	< 1.9 UJ	< 38 UJ	**10 UJ**	< 20 UJ	< 2.0 UJ	< 170 UJ	< 2.0 UJ	< 1.9 UJ	< 47 UJ
Endosulfan I	< 20 UJ	< 1.9 UJ	< 38 UJ	< 34 UJ	< 20 UJ	< 2.0 UJ	< 170 UJ	< 2.0 UJ	< 1.9 UJ	< 47 UJ
Endosulfan II	< 20 UJ	< 1.9 UJ	< 38 UJ	< 34 UJ	< 20 UJ	< 2.0 UJ	< 170 UJ	< 2.0 UJ	< 1.9 UJ	< 47 UJ
Endosulfan Sulfate	< 20 UJ	< 1.9 UJ	< 38 UJ	< 34 UJ	< 20 UJ	< 2.0 UJ	< 170 UJ	< 2.0 UJ	< 1.9 UJ	< 47 UJ
Endrin	< 20 UJ	< 1.9 UJ	< 38 UJ	< 34 UJ	< 20 UJ	< 2.0 UJ	< 170 UJ	< 2.0 UJ	< 1.9 UJ	< 47 UJ
Endrin Aldehyde	< 20 UJ	< 1.9 UJ	< 38 UJ	< 34 UJ	< 20 UJ	< 2.0 UJ	< 170 UJ	< 2.0 UJ	< 1.9 UJ	< 47 UJ
Endrin Ketone	< 20 UJ	< 1.9 UJ	< 38 UJ	< 34 UJ	< 20 UJ	< 2.0 UJ	< 170 UJ	< 2.0 UJ	< 1.9 UJ	< 47 UJ
Gamma-BHC	< 20 UJ	< 1.9 UJ	< 38 UJ	< 34 UJ	< 20 UJ	< 2.0 UJ	< 170 UJ	< 2.0 UJ	< 1.9 UJ	< 47 UJ
Gamma-Chlordane	< 20 UJ	< 1.9 UJ	< 38 UJ	< 34 UJ	< 20 UJ	< 2.0 UJ	< 170 UJ	< 2.0 UJ	< 1.9 UJ	< 47 UJ
Heptachlor	< 20 UJ	< 1.9 UJ	< 38 UJ	< 34 UJ	< 20 UJ	< 2.0 UJ	< 170 UJ	< 2.0 UJ	< 1.9 UJ	< 47 UJ
Heptachlor Epoxide	< 20 UJ	< 1.9 UJ	< 38 UJ	< 34 UJ	< 20 UJ	< 2.0 UJ	< 170 UJ	< 2.0 UJ	< 1.9 UJ	< 47 UJ
Methoxychlor	< 20 UJ	< 1.9 UJ	< 38 UJ	< 34 UJ	< 20 UJ	0.99 UJ	< 170 UJ	< 2.0 UJ	< 1.9 UJ	< 47 UJ
Toxaphene	< 200 UJ	< 19 UJ	< 380 UJ	< 340 UJ	< 200 UJ	< 20 UJ	< 1700 UJ	< 20 UJ	< 19 UJ	< 470 UJ
SW8082A										
Aroclor 1016	< 280 UJ	< 270 UJ	< 510 UJ	< 200 UJ	< 270 UJ	< 250 UJ	< 190 UJ	< 300 UJ	< 220 UJ	< 350 UJ
Aroclor 1221	< 280 UJ	< 270 UJ	< 510 UJ	< 200 UJ	< 270 UJ	< 250 UJ	< 190 UJ	< 300 UJ	< 220 UJ	< 350 UJ
Aroclor 1232	< 280 UJ	< 270 UJ	< 510 UJ	< 200 UJ	< 270 UJ	< 250 UJ	< 190 UJ	< 300 UJ	< 220 UJ	< 350 UJ
Aroclor 1242	< 280 UJ	< 270 UJ	< 510 UJ	< 200 UJ	< 270 UJ	< 250 UJ	< 190 UJ	< 300 UJ	< 220 UJ	< 350 UJ
Aroclor 1248	< 280 UJ	< 270 UJ	< 510 UJ	< 200 UJ	< 270 UJ	< 250 UJ	< 190 UJ	< 300 UJ	< 220 UJ	< 350 UJ
Aroclor 1254	< 280 UJ	< 270 UJ	< 510 UJ	< 200 UJ	< 270 UJ	< 250 UJ	< 190 UJ	< 300 UJ	< 220 UJ	< 350 UJ
Aroclor 1260	< 280 UJ	< 270 UJ	< 510 UJ	< 200 UJ	< 270 UJ	< 250 UJ	< 190 UJ	< 300 UJ	< 220 UJ	< 350 UJ
Aroclor 1262	< 280 UJ	< 270 UJ	< 510 UJ	< 200 UJ	< 270 UJ	< 250 UJ	< 190 UJ	< 300 UJ	< 220 UJ	< 350 UJ
Aroclor 1268	< 280 UJ	< 270 UJ	< 510 UJ	< 200 UJ	< 270 UJ	< 250 UJ	< 190 UJ	< 300 UJ	< 220 UJ	< 350 UJ

Notes:

ft bgs = feet below ground surface

mg/kg = milligrams per kilogram

µg/kg = micrograms per kilogram

6 NYCRR Part 375 SCO = Title 6 Official Compilation of New York Codes, Rules and Regulations Part 375 Soil Cleanup Objectives

\- = no SCO established

NA = not applicable/analyzed

Qualifiers:

U = Analyte analyzed for, but not detected above the sample's reported quantitation limit

J = Analyte positively identified at a numerical value that is the approximate concentration of the analyte in the sample

J+ = Sample likely to have a high bias

J- = Sample likely to have a low bias

UJ = Analyte not detected above the sample quantitation limit; the associated quantitation limit is approximate and may or may not represent the actual limit of quantitation necessary to accurately and precisely measure the analyte in the sample

N = The analysis indicates the present of an analyte for which there is presumptive evidence to make a "tentative identification."

NJ = The analysis indicates the presence of an analyte that has been "tentatively identified" and the associated numerical value represents its approximate oncentration.

R = Sample result rejected due to serious deficiency in ability to analyze sample and meet quality control criteria; the presence or absence of the analyte cannot be confirmed. This qualifier also may apply when more than one sample result is generated for a target analyte (i.e., dilutions or re-analyses), the most technically acceptable result is considered acceptable.

B/EB/TB/BB = An analyte identified in method blank (B), aqueous equipment (EB), trip (TB), or bottle blanks (BB) used to assess field contamination associated with soil or sediment samples mandates these qualifiers for only soil and sediment sample results.

P = Use professional judgment based on data use. It usually has an "M" with it, which indicates that a manual check should be made if the data that are qualified with the "P" are important to the data user. In addition, "PM" also means a decision is necessary from the Project Manager (or a delegate) concerning the need for further review of the data (see below).

PM = A manual review of the raw data is recommended to determine if the defect affects data use, as in "R" above. This review should include consideration of potential affects that could result from using the "P" qualified data. For example, in the case of holding-time exceedance, the Project Manager or delegate can decide to use the data with no qualification when analytes of interest are known not to be adversely affected by holding-time exceedances. Another example is the case where soil sample duplicate analyses for metals exceed the precision criteria; because this is likely due to sample non-homogeneity rather than contract laboratory error, then the manager or delegate must decide how to use the data.

Table 1
Soil Analytical Data

	Soil Sample ID			SB-111-A	SB-111-B	SB-111-C	SB-112-A	SB-112-B	SB-112-C	SB-113-A	SB-113-B	SB-113-C	SB-114-A	SB-114-B	SB-114-C	SB-115-A	SB-115-B	SB-115-C	SB-116-A	SB-116-B	SB-116-C	SB-117-A	SB-117-B	SB-117-C	SB-117-D	SB-118-A	SB-118-B	SB-118-C	SB-119-A	SB-119-B	SB-119-C	SB-120-A	SB-120-B	SB-120-C
	Start Depth (ft bgs)			0	6	18	0	8	12	0	6	18	0	8	10	0	7	15	0	5	14	0	4	10	16	0	6	16	0	8	13	0	4	16
	End Depth (ft bgs)			1	8	20	1	10	15	1	8	20	1	10	20	1	10	17	1	7	18	2	7	12	20	1	8	20	1	10	15	1	6	20
	Sample Date			10/16/2018	10/16/2018	10/16/2018	10/16/2018	10/16/2018	10/16/2018	10/16/2018	10/16/2018	10/16/2018	10/16/2018	10/16/2018	10/16/2018	10/12/2018	10/12/2018	10/12/2018	10/12/2018	10/12/2018	10/12/2018	10/12/2018	10/12/2018	10/12/2018	10/12/2018	10/12/2018	10/12/2018	10/12/2018	10/11/2018	10/11/2018	10/11/2018	10/11/2018	10/11/2018	10/11/2018
Analyte	Units	6 NYCRR PART 375 UNRESTRICTED USE SCO	6 NYCRR PART 375 COMMERCIAL USE SCO																																	
SW8081B																																				
4,4'-DDD	ug/kg	**3.3**	92000	< 6.1 UJ	< 6.0 U	< 6.4 U	< 5.5 U	< 140 U	< 16 UJ	< 66 U	< 7.0 UJ	< 6.1 U	< 6.0 U	< 29 U	< 31 U	< 20 UJ	< 1.9 UJ	< 1.9 UJ	< 19 UJ	< 2.2 UJ	< 2.1 UJ	< 1.9 UJ	< 2.0 UJ	< 2.8 UJ	< 2.0 UJ	< 10 UJ	< 2.0 UJ	< 2.0 UJ	< 41 UJ	< 1.9 UJ	< 2.1 UJ	< 180 UJ	< 2.0 UJ	< 2.4 UJ
4,4'-DDE	ug/kg	**3.3**	62000	< 6.1 UJ	< 6.0 U	< 6.4 U	< 5.5 U	< 140 U	< 16 UJ	< 66 U	< 7.0 UJ	< 6.1 U	< 6.0 U	< 29 U	< 31 U	< 20 UJ	< 1.9 UJ	< 1.9 UJ	< 19 UJ	< 2.2 UJ	< 2.1 UJ	1.6 UJ	< 2.0 UJ	< 2.8 UJ	< 2.0 UJ	< 10 UJ	< 2.0 UJ	< 2.0 UJ	< 41 UJ	< 1.9 UJ	< 2.1 UJ	< 180 UJ	< 2.0 UJ	< 2.4 UJ
4,4'-DDT	ug/kg	**3.3**	47000	< 6.1 UJ	< 6.0 U	< 6.4 U	< 5.5 U	< 140 U	< 16 UJ	< 66 U	< 7.0 UJ	< 6.1 U	< 6.0 U	< 29 U	< 31 U	< 20 UJ	< 1.9 UJ	< 1.9 UJ	**9.4 UJ**	< 2.2 UJ	< 2.1 UJ	2.4 J	< 2.0 UJ	< 2.8 UJ	< 2.0 UJ	**5.2 UJ**	< 2.0 UJ	< 2.0 UJ	**20 UJ**	< 1.9 UJ	< 2.1 UJ	< 180 UJ	0.73 UJ	< 2.4 UJ
Aldrin	ug/kg	**5**	680	< 6.1 UJ	< 6.0 U	< 6.4 U	< 5.5 U	< 140 U	< 16 UJ	< 66 U	< 7.0 UJ	< 6.1 U	< 6.0 U	< 29 U	< 31 U	< 20 UJ	< 1.9 UJ	< 1.9 UJ	< 19 UJ	< 2.2 UJ	< 2.1 UJ	< 1.9 UJ	< 2.0 UJ	< 2.8 UJ	< 2.0 UJ	< 10 UJ	< 2.0 UJ	< 2.0 UJ	< 41 UJ	< 1.9 UJ	< 2.1 UJ	< 180 UJ	< 2.0 UJ	< 2.4 UJ
Alpha-BHC	ug/kg	20	3400	< 6.1 UJ	< 6.0 U	< 6.4 U	< 5.5 U	< 140 U	< 16 UJ	< 66 U	< 7.0 UJ	< 6.1 U	< 6.0 U	< 29 U	< 31 U	< 20 UJ	< 1.9 UJ	< 1.9 UJ	7.5 UJ	< 2.2 UJ	< 2.1 UJ	< 1.9 UJ	< 2.0 UJ	< 2.8 UJ	< 2.0 UJ	4.1 UJ	< 2.0 UJ	< 2.0 UJ	< 41 UJ	< 1.9 UJ	0.98 UJ	< 180 UJ	< 2.0 UJ	< 2.4 UJ
alpha-Chlordane	ug/kg	94	24000	< 6.1 UJ	< 6.0 U	< 6.4 U	< 5.5 U	< 140 U	< 16 UJ	< 66 U	< 7.0 UJ	< 6.1 U	< 6.0 U	< 29 U	< 31 U	< 20 UJ	< 1.9 UJ	< 1.9 UJ	< 19 UJ	< 2.2 UJ	< 2.1 UJ	< 1.9 UJ	< 2.0 UJ	< 2.8 UJ	< 2.0 UJ	< 10 UJ	< 2.0 UJ	< 2.0 UJ	< 41 UJ	< 1.9 UJ	< 2.1 UJ	< 180 UJ	< 2.0 UJ	< 2.4 UJ
Beta-BHC	ug/kg	**36**	3000	< 6.1 UJ	5.8 UJ	< 6.4 UJ	< 5.5 UJ	**130 UJ**	< 16 UJ	< 66 UJ	6.3 UJ	< 6.1 UJ	5.1 UJ	23 UJ	31 UJ	5.8 UJ	< 1.9 UJ	< 1.9 UJ	13 UJ	< 2.2 UJ	< 2.1 UJ	< 1.9 UJ	< 2.0 UJ	< 2.8 UJ	< 2.0 UJ	4.7 UJ	< 2.0 UJ	< 2.0 UJ	< 41 UJ	< 1.9 UJ	< 2.1 UJ	< 180 UJ	< 2.0 UJ	< 2.4 UJ
Delta-BHC	ug/kg	40	500000	< 120 UJ	< 120 U	< 6.4 U	< 110 U	< 140 U	< 3300 UJ	< 66 U	< 7.0 UJ	< 6.1 U	< 6.0 U	< 29 U	< 31 U	< 20 UJ	< 1.9 UJ	< 1.9 UJ	< 19 UJ	0.44 UJ	< 2.1 UJ	< 1.9 UJ	< 2.0 UJ	< 2.8 UJ	< 2.0 UJ	< 10 UJ	< 2.0 UJ	< 2.0 UJ	< 41 UJ	< 1.9 UJ	< 2.1 UJ	< 180 UJ	< 2.0 UJ	< 2.4 UJ
Dieldrin	ug/kg	**5**	1400	< 6.1 UJ	< 6.0 U	< 6.4 U	< 5.5 U	< 140 U	< 16 UJ	< 66 U	< 7.0 UJ	< 6.1 U	< 6.0 U	< 29 U	< 31 U	< 20 UJ	< 1.9 UJ	< 1.9 UJ	< 19 UJ	< 2.2 UJ	< 2.1 UJ	< 1.9 UJ	< 2.0 UJ	< 2.8 UJ	< 2.0 UJ	< 10 UJ	< 2.0 UJ	< 2.0 UJ	< 41 UJ	< 1.9 UJ	< 2.1 UJ	< 180 UJ	< 2.0 UJ	< 2.4 UJ
Endosulfan I	ug/kg	2400	200000	< 6.1 UJ	< 6.0 U	< 6.4 U	< 5.5 U	< 140 U	< 16 UJ	< 66 U	< 7.0 UJ	< 6.1 U	< 6.0 U	< 29 U	< 31 U	< 20 UJ	< 1.9 UJ	< 1.9 UJ	< 19 UJ	< 2.2 UJ	< 2.1 UJ	< 1.9 UJ	< 2.0 UJ	< 2.8 UJ	< 2.0 UJ	< 10 UJ	< 2.0 UJ	< 2.0 UJ	< 41 UJ	< 1.9 UJ	< 2.1 UJ	< 180 UJ	< 2.0 UJ	< 2.4 UJ
Endosulfan II	ug/kg	2400	200000	< 6.1 UJ	< 6.0 U	< 6.4 U	< 5.5 U	< 140 U	7.2 UJ	< 66 U	< 7.0 UJ	< 6.1 U	< 6.0 U	< 29 U	< 31 U	< 20 UJ	< 1.9 UJ	< 1.9 UJ	< 19 UJ	< 2.2 UJ	< 2.1 UJ	< 1.9 UJ	< 2.0 UJ	< 2.8 UJ	< 2.0 UJ	< 10 UJ	< 2.0 UJ	< 2.0 UJ	< 41 UJ	< 1.9 UJ	< 2.1 UJ	< 180 UJ	< 2.0 UJ	< 2.4 UJ
Endosulfan Sulfate	ug/kg	2400	200000	< 120 UJ	< 120 U	< 6.4 U	< 110 U	< 140 U	< 3300 UJ	< 66 U	< 7.0 UJ	< 6.1 U	< 6.0 U	< 29 U	< 31 U	< 20 UJ	< 1.9 UJ	< 1.9 UJ	< 19 UJ	< 2.2 UJ	< 2.1 UJ	< 1.9 UJ	< 2.0 UJ	0.79 UJ	< 2.0 UJ	< 10 UJ	< 2.0 UJ	< 2.0 UJ	< 41 UJ	< 1.9 UJ	< 2.1 UJ	< 180 UJ	< 2.0 UJ	< 2.4 UJ
Endrin	ug/kg	14	89000	< 6.1 UJ	< 6.0 U	< 6.4 U	< 5.5 U	< 140 U	< 16 UJ	< 66 U	< 7.0 UJ	< 6.1 U	< 6.0 U	< 29 U	< 31 U	< 20 UJ	< 1.9 UJ	< 1.9 UJ	< 19 UJ	< 2.2 UJ	< 2.1 UJ	< 1.9 UJ	< 2.0 UJ	< 2.8 UJ	< 2.0 UJ	< 10 UJ	< 2.0 UJ	< 2.0 UJ	< 41 UJ	< 1.9 UJ	< 2.1 UJ	< 180 UJ	< 2.0 UJ	< 2.4 UJ
Endrin Aldehyde	ug/kg	-	-	< 120 UJ	< 120 U	< 6.4 U	< 110 U	< 140 U	< 3300 UJ	< 66 U	< 7.0 UJ	< 6.1 U	< 6.0 U	< 29 U	< 31 U	< 20 UJ	< 1.9 UJ	< 1.9 UJ	< 19 UJ	< 2.2 UJ	< 2.1 UJ	< 1.9 UJ	< 2.0 UJ	< 2.8 UJ	< 2.0 UJ	< 10 UJ	< 2.0 UJ	< 2.0 UJ	< 41 UJ	< 1.9 UJ	< 2.1 UJ	< 180 UJ	< 2.0 UJ	< 2.4 UJ
Endrin Ketone	ug/kg	-	-	< 6.1 UJ	< 6.0 U	< 6.4 U	< 5.5 U	< 140 U	< 16 UJ	< 66 U	< 7.0 UJ	< 6.1 U	< 6.0 U	< 29 U	< 31 U	< 20 UJ	< 1.9 UJ	< 1.9 UJ	< 19 UJ	< 2.2 UJ	< 2.1 UJ	< 1.9 UJ	< 2.0 UJ	< 2.8 UJ	< 2.0 UJ	< 10 UJ	< 2.0 UJ	< 2.0 UJ	< 41 UJ	< 1.9 UJ	< 2.1 UJ	< 180 UJ	< 2.0 UJ	< 2.4 UJ
Gamma-BHC	ug/kg	100	9200	< 6.1 UJ	< 6.0 U	< 6.4 U	< 5.5 U	< 140 U	< 16 UJ	< 66 U	< 7.0 UJ	< 6.1 U	< 6.0 U	< 29 U	< 31 U	< 20 UJ	< 1.9 UJ	< 1.9 UJ	< 19 UJ	< 2.2 UJ	0.47 UJ	< 1.9 UJ	< 2.0 UJ	< 2.8 UJ	< 2.0 UJ	< 10 UJ	< 2.0 UJ	< 2.0 UJ	< 41 UJ	< 1.9 UJ	< 2.1 UJ	< 180 UJ	< 2.0 UJ	< 2.4 UJ
Gamma-Chlordane	ug/kg			< 6.1 UJ	< 6.0 U	< 6.4 U	< 5.5 U	< 140 U	< 16 UJ	< 66 U	< 7.0 UJ	< 6.1 U	< 6.0 U	< 29 U	< 31 U	< 20 UJ	< 1.9 UJ	< 1.9 UJ	< 19 UJ	< 2.2 UJ	< 2.1 UJ	< 1.9 UJ	< 2.0 UJ	< 2.8 UJ	< 2.0 UJ	< 10 UJ	< 2.0 UJ	< 2.0 UJ	< 41 UJ	< 1.9 UJ	< 2.1 UJ	< 180 UJ	< 2.0 UJ	< 2.4 UJ
Heptachlor	ug/kg	42	15000	< 6.1 UJ	< 6.0 U	< 6.4 U	< 5.5 U	< 140 U	< 16 UJ	< 66 U	< 7.0 UJ	< 6.1 U	< 6.0 U	< 29 U	< 31 U	< 20 UJ	< 1.9 UJ	< 1.9 UJ	< 19 UJ	< 2.2 UJ	< 2.1 UJ	< 1.9 UJ	< 2.0 UJ	< 2.8 UJ	< 2.0 UJ	< 10 UJ	< 2.0 UJ	< 2.0 UJ	< 41 UJ	< 1.9 UJ	< 2.1 UJ	< 180 UJ	< 2.0 UJ	< 2.4 UJ
Heptachlor Epoxide	ug/kg	-	-	< 6.1 UJ	< 6.0 U	< 6.4 U	< 5.5 U	< 140 U	< 16 UJ	< 66 U	< 7.0 UJ	< 6.1 U	< 6.0 U	< 29 U	< 31 U	< 20 UJ	< 1.9 UJ	< 1.9 UJ	< 19 UJ	< 2.2 UJ	< 2.1 UJ	< 1.9 UJ	< 2.0 UJ	< 2.8 UJ	< 2.0 UJ	< 10 UJ	< 2.0 UJ	< 2.0 UJ	< 41 UJ	< 1.9 UJ	< 2.1 UJ	< 180 UJ	< 2.0 UJ	< 2.4 UJ
Methoxychlor	ug/kg	-	-	< 12 UJ	< 12 U	< 13 U	< 11 U	< 270 U	< 33 UJ	< 130 U	< 14 UJ	< 12 U	< 12 U	< 59 U	< 62 U	< 20 UJ	< 1.9 UJ	< 1.9 UJ	< 19 UJ	< 2.2 UJ	< 2.1 UJ	< 1.9 UJ	< 2.0 UJ	< 2.8 UJ	< 2.0 UJ	< 10 UJ	< 2.0 UJ	< 2.0 UJ	< 41 UJ	< 1.9 UJ	< 2.1 UJ	< 180 UJ	< 2.0 UJ	< 2.4 UJ
Toxaphene	ug/kg	-	-	< 120 UJ	< 120 U	< 130 U	< 110 U	< 2700 U	< 330 UJ	< 1300 U	< 140 UJ	< 120 U	< 120 U	< 590 U	< 620 U	< 200 UJ	< 19 UJ	< 19 UJ	< 190 UJ	< 22 UJ	< 21 UJ	< 19 UJ	< 20 UJ	< 28 UJ	< 20 UJ	< 100 UJ	< 20 UJ	< 20 UJ	< 410 UJ	< 19 UJ	< 21 UJ	< 1800 UJ	< 20 UJ	< 24 UJ
SW8082A																																				
Aroclor 1016	ug/kg			< 61 UJ	< 120 UJ	< 67 UJ	< 58 UJ	< 140 UJ	< 160 UJ	< 65 UJ	< 140 UJ	< 64 UJ	< 62 UJ	< 120 UJ	< 120 UJ	< 250 UJ	< 250 UJ	< 220 UJ	< 210 UJ	< 280 UJ	< 280 UJ	< 250 UJ	< 210 UJ	< 320 UJ	< 250 UJ	< 260 UJ	< 250 UJ	< 250 UJ	< 240 UJ	< 230 UJ	< 230 UJ	< 210 UJ	< 220 UJ	< 290 UJ
Aroclor 1221	ug/kg			< 61 UJ	< 120 UJ	< 67 UJ	< 58 UJ	< 140 UJ	< 160 UJ	< 65 UJ	< 140 UJ	< 64 UJ	< 62 UJ	< 120 UJ	< 120 UJ	< 250 UJ	< 250 UJ	< 220 UJ	< 210 UJ	< 280 UJ	< 280 UJ	< 250 UJ	< 210 UJ	< 320 UJ	< 250 UJ	< 260 UJ	< 250 UJ	< 250 UJ	< 240 UJ	< 230 UJ	< 230 UJ	< 210 UJ	< 220 UJ	< 290 UJ
Aroclor 1232	ug/kg			< 61 UJ	< 120 UJ	< 67 UJ	< 58 UJ	< 140 UJ	< 160 UJ	< 65 UJ	< 140 UJ	< 64 UJ	< 62 UJ	< 120 UJ	< 120 UJ	< 250 UJ	< 250 UJ	< 220 UJ	< 210 UJ	< 280 UJ	< 280 UJ	< 250 UJ	< 210 UJ	< 320 UJ	< 250 UJ	< 260 UJ	< 250 UJ	< 250 UJ	< 240 UJ	< 230 UJ	< 230 UJ	< 210 UJ	< 220 UJ	< 290 UJ
Aroclor 1242	ug/kg			< 61 UJ	< 120 UJ	< 67 UJ	< 58 UJ	< 140 UJ	< 160 UJ	< 65 UJ	< 140 UJ	< 64 UJ	< 62 UJ	< 120 UJ	< 120 UJ	< 250 UJ	< 250 UJ	< 220 UJ	< 210 UJ	< 280 UJ	< 280 UJ	< 250 UJ	< 210 UJ	< 320 UJ	< 250 UJ	< 260 UJ	< 250 UJ	< 250 UJ	< 240 UJ	< 230 UJ	< 230 UJ	< 210 UJ	< 220 UJ	< 290 UJ
Aroclor 1248	ug/kg	**100**	1000	< 61 UJ	< 120 UJ	< 67 UJ	< 58 UJ	< 140 UJ	< 160 UJ	< 65 UJ	< 140 UJ	< 64 UJ	< 62 UJ	< 120 UJ	< 120 UJ	< 250 UJ	< 250 UJ	< 220 UJ	< 210 UJ	< 280 UJ	< 280 UJ	< 250 UJ	< 210 UJ	< 320 UJ	< 250 UJ	< 260 UJ	< 250 UJ	< 250 UJ	< 240 UJ	< 230 UJ	< 230 UJ	< 210 UJ	< 220 UJ	< 290 UJ
Aroclor 1254	ug/kg			< 61 UJ	< 120 UJ	< 67 UJ	< 58 UJ	< 140 UJ	< 160 UJ	< 65 UJ	< 140 UJ	< 64 UJ	< 62 UJ	< 120 UJ	< 120 UJ	< 250 UJ	< 250 UJ	< 220 UJ	< 210 UJ	< 280 UJ	< 280 UJ	< 250 UJ	< 210 UJ	< 320 UJ	< 250 UJ	< 260 UJ	< 250 UJ	< 250 UJ	< 240 UJ	< 230 UJ	< 230 UJ	< 210 UJ	< 220 UJ	< 290 UJ
Aroclor 1260	ug/kg			< 61 UJ	< 120 UJ	< 67 UJ	< 58 UJ	< 140 UJ	< 160 UJ	< 65 UJ	< 140 UJ	< 64 UJ	< 62 UJ	< 120 UJ	< 120 UJ	< 250 UJ	< 250 UJ	< 220 UJ	< 210 UJ	< 280 UJ	< 280 UJ	< 250 UJ	< 210 UJ	< 320 UJ	< 250 UJ	< 260 UJ	< 250 UJ	< 250 UJ	< 240 UJ	< 230 UJ	< 230 UJ	< 210 UJ	< 220 UJ	< 290 UJ
Aroclor 1262	ug/kg			< 61 UJ	< 120 UJ	< 67 UJ	< 58 UJ	< 140 UJ	< 160 UJ	< 65 UJ	< 140 UJ	< 64 UJ	< 62 UJ	< 120 UJ	< 120 UJ	< 250 UJ	< 250 UJ	< 220 UJ	< 210 UJ	< 280 UJ	< 280 UJ	< 250 UJ	< 210 UJ	< 320 UJ	< 250 UJ	< 260 UJ	< 250 UJ	< 250 UJ	< 240 UJ	< 230 UJ	< 230 UJ	< 210 UJ	< 220 UJ	< 290 UJ
Aroclor 1268	ug/kg			< 61 UJ	< 120 UJ	< 67 UJ	< 58 UJ	< 140 UJ	< 160 UJ	< 65 UJ	< 140 UJ	< 64 UJ	< 62 UJ	< 120 UJ	< 120 UJ	< 250 UJ	< 250 UJ	< 220 UJ	< 210 UJ	< 280 UJ	< 280 UJ	< 250 UJ	< 210 UJ	< 320 UJ	< 250 UJ	< 260 UJ	< 250 UJ	< 250 UJ	< 240 UJ	< 230 UJ	< 230 UJ	< 210 UJ	< 220 UJ	< 290 UJ

Notes:
ft bgs = feet below ground surface
mg/kg = milligrams per kilogram
µg/kg = micrograms per kilogram
6 NYCRR Part 375 SCO = Title 6 Official Compilation of New York Codes, Rules and Regulations Part 375 Soil Cleanup Objectives
- = no SCO established
NA = not applicable/analyzed
Qualifiers:
U = Analyte analyzed for, but not detected above the sample's reported quantitation limit
J = Analyte positively identified at a numerical value that is the approximate concentration of the analyte in the sample
J+ = Sample likely to have a high bias
J- = Sample likely to have a low bias
UJ = Analyte not detected above the sample quantitation limit; the associated quantitation limit is approximate and may or may not represent the actual limit of quantitation necessary to accurately and precisely measure the analyte in the sample
N = The analysis indicates the present of an analyte for which there is presumptive evidence to make a "tentative identification."
NJ = The analysis indicates the presence of an analyte that has been "tentatively identified" and the associated numerical value represents its approximate concentration.
R = Sample result rejected due to serious deficiency in ability to analyze sample and meet quality control criteria; the presence or absence of the analyte cannot be confirmed. This qualifier also may apply when more than one sample result is generated for a target analyte (i.e., dilutions or re-analyses), the most technically acceptable result is considered acceptable.
B/EB/TB/BB = An analyte identified in method blank (B), aqueous equipment (EB), trip (TB), or bottle blanks (BB) used to assess field contamination associated with soil or sediment samples mandates these qualifiers for only soil and sediment sample results.
P = Use professional judgment based on data use. It usually has an "M" with it, which indicates that a manual check should be made if the data that are qualified with the "P" are important to the data user. In addition, "PM" also means a decision is necessary from the Project Manager (or a delegate) concerning the need for further review of the data (see below).
PM = A manual review of the raw data is recommended to determine if the defect affects data use, as in "R" above. This review should include consideration of potential affects that could result from using the "P" qualified data. For example, in the case of holding-time exceedance, the Project Manager or delegate can decide to use the data with no qualification when analytes of interest are known not to be adversely affected by holding-time exceedances. Another example is the case where soil sample duplicate analyses for metals exceed the precision criteria; because this is likely due to sample non-homogeneity rather than contract laboratory error, then the manager or delegate must decide how to use the data.

Table 1
Soil Analytical Data

				Soil Sample ID	SB-121-A	SB-121-B	SB-121-C	SB-121-D	SB-122-A	SB-122-B	SB-122-C	SB-123-A	SB-123-B	SB-123-C	SB-124-A	SB-124-B	SB-124-C	SB-125-A	SB-125-B	SB-125-C	SB-126-A	SB-126-B	SB-126-C	SB-127-A	SB-127-B	SB-127-C	SB-128-A	SB-128-B	SB-128-C	SB-129-A	SB-129-B	SB-129-C	SB-130-A	SB-130-B	SB-130-C
				Start Depth (ft bgs)	0	8	17	10	0	8	18	0	10	18	0	12	18	0	5	16.5	0	1	14.5	0	5	18	0	5	14	0	6	16	0	6	15
				End Depth (ft bgs)	1	10	20	12	2	10	20	1	12	20	1	14	20	1	6	18	1	4	15.5	5	10	20	2	7	16	2	7	17	3	10	18
				Sample Date	10/16/2018	10/16/2018	10/16/2018	10/16/2018	10/16/2018	10/16/2018	10/16/2018	10/16/2018	10/16/2018	10/16/2018	10/16/2018	10/16/2018	10/16/2018	10/17/2018	10/17/2018	10/17/2018	10/17/2018	10/17/2018	10/17/2018	10/17/2018	10/17/2018	10/17/2018	10/17/2018	10/17/2018	10/17/2018	10/17/2018	10/17/2018	10/17/2018	10/17/2018	10/17/2018	10/17/2018	10/17/2018
Analyte	Units	6 NYCRR PART 375 UNRESTRICTED USE SCO	6 NYCRR PART 375 COMMERCIAL USE SCO																																	
SW8081B																																				
4,4'-DDD	ug/kg	**3.3**	92000		< 120 U	< 30 U	< 61 U	< 11 U	< 5.9 U	< 5.6 U	< 15 UJ	**14 UJ**	< 30 UJ	< 6.2 U	< 30 U	< 11 UJ	< 5.8 U	< 6.1 UJ	< 6.1 UJ	< 110 UJ	< 6.3 UJ	**6.4 J**	< 12 UJ	< 28 UJ	< 110 UJ	< 19 UJ	< 6.1 UJ	< 5.6 UJ	< 20 UJ	< 6.2 UJ	< 6.3 UJ	< 5.7 UJ	< 6.8 UJ	< 6.4 UJ	< 5.9 UJ
4,4'-DDE	ug/kg	**3.3**	62000		< 120 U	< 30 U	< 61 U	< 11 U	**7.3**	< 5.6 U	< 15 UJ	< 31 UJ	< 30 UJ	< 6.2 U	< 30 U	< 11 UJ	< 5.8 U	1.8 UJ	< 6.1 UJ	< 110 UJ	< 6.3 UJ	**3.4 UJ**	< 12 UJ	< 28 UJ	< 110 UJ	< 19 UJ	< 6.1 UJ	< 5.6 UJ	< 20 UJ	< 6.2 UJ	< 6.3 UJ	< 5.7 UJ	< 6.8 UJ	< 6.4 UJ	< 5.9 UJ
4,4'-DDT	ug/kg	**3.3**	47000		< 120 U	< 30 U	< 61 U	< 11 U	< 5.9 U	< 5.6 U	< 15 UJ	< 31 UJ	< 30 UJ	< 6.2 U	**26 UJ**	< 11 UJ	< 5.8 U	< 6.1 UJ	< 6.1 UJ	< 110 UJ	< 6.3 UJ	**5.4 UJ**	**11 UJ**	< 28 UJ	< 110 UJ	< 19 UJ	< 6.1 UJ	< 5.6 UJ	< 20 UJ	< 6.2 UJ	< 6.3 UJ	< 5.7 UJ	< 6.8 UJ	< 6.4 UJ	< 5.9 UJ
Aldrin	ug/kg	**5**	680		< 120 U	< 30 U	< 61 U	< 11 U	< 5.9 U	< 5.6 U	< 15 UJ	< 31 UJ	< 30 UJ	< 6.2 U	< 30 U	< 11 UJ	< 5.8 U	< 6.1 UJ	< 6.1 UJ	< 110 UJ	< 6.3 UJ	< 5.9 UJ	< 12 UJ	< 28 UJ	< 110 UJ	3.6 UJ	< 6.1 UJ	2.0 UJ	**8.2 UJ**	< 6.2 UJ	< 6.3 UJ	< 5.7 UJ	1.0 UJ	< 6.4 UJ	< 5.9 UJ
Alpha-BHC	ug/kg	20	3400		< 120 U	< 30 U	< 61 U	< 11 U	< 5.9 U	< 5.6 U	< 15 UJ	< 31 UJ	< 30 UJ	< 6.2 U	< 30 U	< 11 UJ	< 5.8 U	< 6.1 UJ	< 6.1 UJ	< 110 UJ	< 6.3 UJ	< 5.9 UJ	< 12 UJ	< 28 UJ	< 110 UJ	< 19 UJ	< 6.1 UJ	< 5.6 UJ	< 20 UJ	< 6.2 UJ	< 6.3 UJ	< 5.7 UJ	< 6.8 UJ	< 6.4 UJ	< 5.9 UJ
alpha-Chlordane	ug/kg	94	24000		< 120 U	< 30 U	< 61 U	< 11 U	< 5.9 U	< 5.6 U	< 15 UJ	< 31 UJ	< 30 UJ	< 6.2 U	< 30 U	< 11 UJ	< 5.8 U	< 6.1 UJ	< 6.1 UJ	< 110 UJ	< 6.3 UJ	< 5.9 UJ	< 12 UJ	< 28 UJ	< 110 UJ	< 19 UJ	< 6.1 UJ	< 5.6 UJ	< 20 UJ	< 6.2 UJ	< 6.3 UJ	< 5.7 UJ	< 6.8 UJ	< 6.4 UJ	< 5.9 UJ
Beta-BHC	ug/kg	**36**	3000		< 120 UJ	< 30 UJ	< 61 UJ	< 11 UJ	3.1 UJ	3.2 UJ	< 15 UJ	< 31 UJ	< 30 UJ	2.5 UJ	< 30 U	< 11 UJ	4.1 UJ	< 6.1 UJ	26 J	**190 J**	< 6.3 UJ	< 5.9 UJ	< 12 UJ	27 UJ	**320 J**	< 19 UJ	< 6.1 UJ	< 5.6 UJ	< 20 UJ	3.1 UJ	< 6.3 UJ	6.7 J	< 6.8 UJ	2.3 UJ	< 5.9 UJ
Delta-BHC	ug/kg	40	500000		< 120 U	< 30 U	< 61 U	< 1100 U	< 290 U	< 110 U	< 310 UJ	< 31 UJ	< 30 UJ	< 6.2 U	< 30 U	< 1100 UJ	< 5.8 U	< 120 UJ	< 6.1 UJ	< 110 UJ	< 63 UJ	< 120 UJ	< 1200 UJ	< 28 UJ	< 110 UJ	< 190 UJ	< 120 UJ	< 110 UJ	< 200 UJ	< 62 UJ	< 63 UJ	< 5.7 UJ	< 140 UJ	< 640 UJ	< 59 UJ
Dieldrin	ug/kg	**5**	1400		< 120 U	< 30 U	< 61 U	< 11 U	< 5.9 U	< 5.6 U	< 15 UJ	< 31 UJ	< 30 UJ	< 6.2 U	< 30 U	< 11 UJ	< 5.8 U	< 6.1 UJ	< 6.1 UJ	< 110 UJ	1.8 UJ	< 5.9 UJ	< 12 UJ	< 28 UJ	< 110 UJ	< 19 UJ	< 6.1 UJ	< 5.6 UJ	< 20 UJ	< 6.2 UJ	< 6.3 UJ	< 5.7 UJ	< 6.8 UJ	< 6.4 UJ	< 5.9 UJ
Endosulfan I	ug/kg	2400	200000		< 120 U	< 30 U	< 61 U	< 11 U	< 5.9 U	< 5.6 U	< 15 UJ	< 31 UJ	< 30 UJ	< 6.2 U	< 30 U	< 11 UJ	< 5.8 U	< 6.1 UJ	< 6.1 UJ	< 110 UJ	< 6.3 UJ	< 5.9 UJ	< 12 UJ	< 28 UJ	< 110 UJ	< 19 UJ	< 6.1 UJ	< 5.6 UJ	< 20 UJ	< 6.2 UJ	< 6.3 UJ	< 5.7 UJ	< 6.8 UJ	< 6.4 UJ	< 5.9 UJ
Endosulfan II	ug/kg	2400	200000		< 120 U	< 30 U	< 61 U	< 11 U	< 5.9 U	< 5.6 U	< 15 UJ	< 31 UJ	< 30 UJ	< 6.2 U	< 30 U	< 11 UJ	< 5.8 U	2.0 UJ	< 6.1 UJ	< 110 UJ	< 6.3 UJ	< 5.9 UJ	< 12 UJ	< 28 UJ	< 110 UJ	< 19 UJ	< 6.1 UJ	< 5.6 UJ	< 20 UJ	< 6.2 UJ	< 6.3 UJ	< 5.7 UJ	< 6.8 UJ	< 6.4 UJ	< 5.9 UJ
Endosulfan Sulfate	ug/kg	2400	200000		< 120 U	< 30 U	< 61 U	< 1100 U	< 290 U	< 110 U	< 310 UJ	< 31 UJ	< 30 UJ	< 6.2 U	< 30 U	< 1100 UJ	< 5.8 U	< 120 UJ	< 6.1 UJ	< 110 UJ	< 63 UJ	< 120 UJ	< 1200 UJ	< 28 UJ	< 110 UJ	< 190 UJ	< 120 UJ	< 110 UJ	< 200 UJ	< 62 UJ	< 63 UJ	< 5.7 UJ	< 140 UJ	< 640 UJ	< 59 UJ
Endrin	ug/kg	14	89000		< 120 U	< 30 U	< 61 U	< 11 U	< 5.9 U	< 5.6 U	< 15 UJ	< 31 UJ	< 30 UJ	< 6.2 U	< 30 U	< 11 UJ	< 5.8 U	< 6.1 UJ	< 6.1 UJ	< 110 UJ	2.9 UJ	< 5.9 UJ	< 12 UJ	< 28 UJ	< 110 UJ	< 19 UJ	< 6.1 UJ	< 5.6 UJ	< 20 UJ	< 6.2 UJ	< 6.3 UJ	< 5.7 UJ	< 6.8 UJ	< 6.4 UJ	< 5.9 UJ
Endrin Aldehyde	ug/kg	-	-		< 120 U	< 30 U	< 61 U	< 1100 U	< 290 U	< 110 U	< 310 UJ	< 31 UJ	< 30 UJ	< 6.2 U	< 30 U	< 1100 UJ	< 5.8 U	< 120 UJ	< 6.1 UJ	< 110 UJ	< 63 UJ	< 120 UJ	< 1200 UJ	< 28 UJ	< 110 UJ	< 190 UJ	< 120 UJ	< 110 UJ	< 200 UJ	< 62 UJ	< 63 UJ	< 5.7 UJ	< 140 UJ	< 640 UJ	< 59 UJ
Endrin Ketone	ug/kg	-	-		< 120 U	< 30 U	< 61 U	< 11 U	< 5.9 U	< 5.6 U	< 15 UJ	< 31 UJ	< 30 UJ	< 6.2 U	< 30 U	< 11 UJ	< 5.8 U	2.1 UJ	< 6.1 UJ	< 110 UJ	3.2 UJ	< 5.9 UJ	< 12 UJ	< 28 UJ	< 110 UJ	< 19 UJ	< 6.1 UJ	< 5.6 UJ	< 20 UJ	< 6.2 UJ	< 6.3 UJ	< 5.7 UJ	< 6.8 UJ	< 6.4 UJ	< 5.9 UJ
Gamma-BHC	ug/kg	100	9200		< 120 U	< 30 U	< 61 U	< 11 U	< 5.9 U	< 5.6 U	< 15 UJ	< 31 UJ	< 30 UJ	< 6.2 U	< 30 U	< 11 UJ	< 5.8 U	< 6.1 UJ	< 6.1 UJ	< 110 UJ	< 6.3 UJ	< 5.9 UJ	< 12 UJ	< 28 UJ	< 110 UJ	< 19 UJ	< 6.1 UJ	< 5.6 UJ	< 20 UJ	< 6.2 UJ	< 6.3 UJ	< 5.7 UJ	< 6.8 UJ	< 6.4 UJ	< 5.9 UJ
Gamma-Chlordane	ug/kg				< 120 U	< 30 U	< 61 U	< 11 U	< 5.9 U	< 5.6 U	< 15 UJ	< 31 UJ	< 30 UJ	< 6.2 U	< 30 U	< 11 UJ	< 5.8 U	< 6.1 UJ	< 6.1 UJ	< 110 UJ	< 6.3 UJ	< 5.9 UJ	< 12 UJ	< 28 UJ	< 110 UJ	< 19 UJ	< 6.1 UJ	< 5.6 UJ	< 20 UJ	< 6.2 UJ	< 6.3 UJ	< 5.7 UJ	< 6.8 UJ	< 6.4 UJ	< 5.9 UJ
Heptachlor	ug/kg	42	15000		< 120 U	< 30 U	< 61 U	< 11 U	< 5.9 U	< 5.6 U	< 15 UJ	< 31 UJ	< 30 UJ	< 6.2 U	< 30 U	< 11 UJ	< 5.8 U	< 6.1 UJ	< 6.1 UJ	< 110 UJ	< 6.3 UJ	< 5.9 UJ	< 12 UJ	< 28 UJ	< 110 UJ	< 19 UJ	< 6.1 UJ	< 5.6 UJ	< 20 UJ	< 6.2 UJ	< 6.3 UJ	< 5.7 UJ	< 6.8 UJ	< 6.4 UJ	< 5.9 UJ
Heptachlor Epoxide	ug/kg	-	-		< 120 U	< 30 U	< 61 U	< 11 U	< 5.9 U	< 5.6 U	< 15 UJ	< 31 UJ	< 30 UJ	< 6.2 U	< 30 U	< 11 UJ	< 5.8 U	< 6.1 UJ	< 6.1 UJ	< 110 UJ	6.7 J	3.5 UJ	< 12 UJ	< 28 UJ	< 110 UJ	< 19 UJ	< 6.1 UJ	< 5.6 UJ	< 20 UJ	< 6.2 UJ	< 6.3 UJ	< 5.7 UJ	< 6.8 UJ	< 6.4 UJ	< 5.9 UJ
Methoxychlor	ug/kg	-	-		< 240 U	< 61 U	< 120 U	< 23 U	< 12 U	< 11 U	< 31 UJ	< 61 UJ+	< 60 UJ+	< 12 UJ+	< 60 UJ+	< 23 UJ+	< 12 UJ+	< 120 UJ+	< 12 UJ+	< 220 UJ+	< 13 UJ+	< 12 UJ+	< 25 UJ+	< 57 UJ+	< 230 UJ+	< 38 UJ+	< 12 UJ+	< 11 UJ+	< 41 UJ+	< 12 UJ+	< 13 UJ+	< 11 UJ+	< 14 UJ+	< 13 UJ+	< 12 UJ+
Toxaphene	ug/kg	-	-		< 2400 U	< 610 U	< 1200 U	< 230 U	< 120 U	< 110 U	< 310 UJ	< 610 UJ	< 600 UJ	< 120 U	< 600 U	< 230 UJ	< 120 U	< 120 UJ	< 120 UJ	< 2200 UJ	< 130 UJ	< 120 UJ	< 250 UJ	< 570 UJ	< 2300 UJ	< 380 UJ	< 120 UJ	< 110 UJ	< 410 UJ	< 120 UJ	< 130 UJ	< 110 UJ	< 140 UJ	< 130 UJ	< 120 UJ
SW8082A																																				
Aroclor 1016	ug/kg				< 62 UJ	< 120 UJ	< 62 UJ	< 110 UJ	< 300 UJ	< 110 UJ	< 150 UJ	< 62 U	< 120 U	< 61 U	< 61 U	< 120 U	< 58 U	< 61 UJ	< 120 U	< 220 UJ	< 64 UJ	< 59 UJ	< 120 U	< 110 U	< 110 U	< 190 U	< 60 U	< 57 U	< 200 U	< 63 U	< 130 U	< 58 U	< 66 U	< 64 UJ	< 60 U
Aroclor 1221	ug/kg				< 62 UJ	< 120 UJ	< 62 UJ	< 110 UJ	< 300 UJ	< 110 UJ	< 150 UJ	< 62 U	< 120 U	< 61 U	< 61 U	< 120 U	< 58 U	< 61 UJ	< 120 U	< 220 UJ	< 64 UJ	< 59 UJ	< 120 U	< 110 U	< 110 U	< 190 U	< 60 U	< 57 U	< 200 U	< 63 U	< 130 U	< 58 U	< 66 U	< 64 UJ	< 60 U
Aroclor 1232	ug/kg				< 62 UJ	< 120 UJ	< 62 UJ	< 110 UJ	< 300 UJ	< 110 UJ	< 150 UJ	< 62 U	< 120 U	< 61 U	< 61 U	< 120 U	< 58 U	< 61 UJ	< 120 U	< 220 UJ	< 64 UJ	< 59 UJ	< 120 U	< 110 U	< 110 U	< 190 U	< 60 U	< 57 U	< 200 U	< 63 U	< 130 U	< 58 U	< 66 U	< 64 UJ	< 60 U
Aroclor 1242	ug/kg				< 62 UJ	< 120 UJ	< 62 UJ	< 110 UJ	< 300 UJ	< 110 UJ	< 150 UJ	< 62 U	< 120 U	< 61 U	< 61 U	< 120 U	< 58 U	< 61 UJ	< 120 U	< 220 UJ	< 64 UJ	< 59 UJ	< 120 U	< 110 U	< 110 U	< 190 U	< 60 U	< 57 U	< 200 U	< 63 U	< 130 U	< 58 U	< 66 U	< 64 UJ	< 60 U
Aroclor 1248	ug/kg	**100**	1000		< 62 UJ	< 120 UJ	< 62 UJ	< 110 UJ	< 300 UJ	< 110 UJ	< 150 UJ	< 62 U	< 120 U	< 61 U	< 61 U	< 120 U	< 58 U	< 61 UJ	< 120 U	< 220 UJ	< 64 UJ	< 59 UJ	< 120 U	< 110 U	< 110 U	< 190 U	< 60 U	< 57 U	< 200 U	< 63 U	< 130 U	< 58 U	< 66 U	< 64 UJ	< 60 U
Aroclor 1254	ug/kg				< 62 UJ	< 120 UJ	< 62 UJ	< 110 UJ	< 300 UJ	< 110 UJ	< 150 UJ	< 62 U	< 120 U	< 61 U	< 61 U	< 120 U	< 58 U	< 61 UJ	< 120 U	< 220 UJ	< 64 UJ	**190 J**	< 120 U	< 110 U	< 110 U	< 190 U	< 60 U	< 57 U	< 200 U	< 63 U	< 130 U	< 58 U	< 66 U	< 64 UJ	< 60 U
Aroclor 1260	ug/kg				37 UJ	< 120 UJ	< 62 UJ	< 110 UJ	< 300 UJ	< 110 UJ	< 150 UJ	< 62 U	< 120 U	< 61 U	< 61 U	< 120 U	< 58 U	36 UJ	< 120 U	< 220 UJ	**140 J**	< 59 UJ	< 120 U	< 110 U	< 110 U	< 190 U	**200**	< 57 U	< 200 U	< 63 U	< 130 U	< 58 U	< 66 U	< 64 UJ	< 60 U
Aroclor 1262	ug/kg				< 62 UJ	< 120 UJ	< 62 UJ	< 110 UJ	< 300 UJ	< 110 UJ	< 150 UJ	< 62 U	< 120 U	< 61 U	< 61 U	< 120 U	< 58 U	< 61 UJ	< 120 U	< 220 UJ	< 64 UJ	< 59 UJ	< 120 U	< 110 U	< 110 U	< 190 U	< 60 U	< 57 U	< 200 U	< 63 U	< 130 U	< 58 U	< 66 U	< 64 UJ	< 60 U
Aroclor 1268	ug/kg				< 62 UJ	< 120 UJ	< 62 UJ	< 110 UJ	< 300 UJ	< 110 UJ	< 150 UJ	< 62 U	< 120 U	< 61 U	< 61 U	< 120 U	< 58 U	< 61 UJ	< 120 U	< 220 UJ	< 64 UJ	< 59 UJ	< 120 U	< 110 U	< 110 U	< 190 U	< 60 U	< 57 U	< 200 U	< 63 U	< 130 U	< 58 U	< 66 U	< 64 UJ	< 60 U

Notes:
ft bgs = feet below ground surface
mg/kg = milligrams per kilogram
µg/kg = micrograms per kilogram
6 NYCRR Part 375 SCO = Title 6 Official Compilation of New York Codes, Rules and Regulations Part 375 Soil Cleanup Objectives
- = no SCO established
NA = not applicable/analyzed
Qualifiers:
U = Analyte analyzed for, but not detected above the sample's reported quantitation limit
J = Analyte positively identified at a numerical value that is the approximate concentration of the analyte in the sample
J+ = Sample likely to have a high bias
J- = Sample likely to have a low bias
UJ = Analyte not detected above the sample quantitation limit; the associated quantitation limit is approximate and may or may not represent the actual limit of quantitation necessary to accurately and precisely measure the analyte in the sample
N = The analysis indicates the present of an analyte for which there is presumptive evidence to make a "tentative identification."
NJ = The analysis indicates the presence of an analyte that has been "tentatively identified" and the associated numerical value represents its approximate concentration.
R = Sample result rejected due to serious deficiency in ability to analyze sample and meet quality control criteria; the presence or absence of the analyte cannot be confirmed. This qualifier also may apply when more than one sample result is generated for a target analyte (*i.e.*, dilutions or re-analyses), the most technically acceptable result is considered acceptable.
B/EB/TB/BB = An analyte identified in method blank (B), aqueous equipment (EB), trip (TB), or bottle blanks (BB) used to assess field contamination associated with soil or sediment samples mandates these qualifiers for only soil and sediment sample results.
P = Use professional judgment based on data use. It usually has an "M" with it, which indicates that a manual check should be made if the data that are qualified with the "P" are important to the data user. In addition, "PM" also means a decision is necessary from the Project Manager (or a delegate) concerning the need for further review of the data (see below).
PM = A manual review of the raw data is recommended to determine if the defect affects data use, as in "R" above. This review should include consideration of potential affects that could result from using the "P" qualified data. For example, in the case of holding-time exceedance, the Project Manager or delegate can decide to use the data with no qualification when analytes of interest are known not to be adversely affected by holding-time exceedances. Another example is the case where soil sample duplicate analyses for metals exceed the precision criteria; because this is likely due to sample non-homogeneity rather than contract laboratory error, then the manager or delegate must decide how to use the data.

Table 1
Soil Analytical Data

Analyte	Units	6 NYCRR PART 375 UNRESTRICTED USE SCO	6 NYCRR PART 375 COMMERCIAL USE SCO	SB-131A	SB-131B	SB-131C	SB-132A	SB-132B	SB-132C	SB-133A	SB-133B	SB-133C	SB-133D	SB-134A	SB-134B	SB-134C	SB-135A	SB-135B	SB-135C	SB-136-A	SB-136-B	SB-136-C	SB-136-D	SB-137-A	SB-137-B	SB-137-C	SB-138-A	SB-138-B	SB-138-C	SB-139A	SB-139B	SB-139C	SB-139D	SB-140A	SB-140B	SB-140C	SB-141A	SB-141B	SB-141C
Soil Sample ID																																						
Start Depth (ft bgs)				0	6	14	0	14	17	0	4	17	14	0	6	12	0	6	18	0	5	17	12	0	4	14	0	5	15	0	6	13	17	0	15	17	0	5	18
End Depth (ft bgs)				1	8	16	2	16	19	1	6	19	16	1	8	14	2	8	20	1	8	20	15	1	5	16	2	8	17	2	8	15	18	2	17	19	2	7	20
Sample Date				10/18/2018	10/18/2018	10/18/2018	10/18/2018	10/18/2018	10/18/2018	10/18/2018	10/18/2018	10/18/2018	10/18/2018	10/18/2018	10/18/2018	10/18/2018	10/18/2018	10/18/2018	10/18/2018	10/17/2018	10/17/2018	10/17/2018	10/17/2018	10/17/2018	10/17/2018	10/17/2018	10/17/2018	10/17/2018	10/17/2018	10/17/2018	10/18/2018	10/18/2018	10/18/2018	10/18/2018	10/18/2018	10/18/2018	10/18/2018	10/18/2018	10/18/2018	10/18/2018
SW8081B																																						
4,4'-DDD	ug/kg	**3.3**	92000	< 5.6 UJ	< 29 UJ	< 9.9 UJ	< 5.8 UJ	< 62 UJ	< 36 UJ	< 6.6 UJ	< 6.0 UJ	< 8.1 UJ	< 16 UJ	< 5.9 UJ	< 29 UJ	< 200 UJ	< 5.6 UJ	< 36 UJ	< 5.7 UJ	< 6.0 U	< 63 U	< 14 U	< 67 U	< 6.9 U	< 5.9 U	< 12 U	< 6.2 UJ	< 6.4 UJ	< 180 U	< 5.8 UJ	< 6.2 UJ	< 14 UJ	< 120 UJ	< 5.9 UJ	< 9.6 UJ	< 8.1 U	2.9 UJ	< 6.9 U	< 8.8 U
4,4'-DDE	ug/kg	**3.3**	62000	< 5.6 UJ	< 29 UJ	< 9.9 UJ	< 5.8 UJ	< 62 UJ	< 36 UJ	2.9 UJ	< 6.0 UJ	< 8.1 UJ	< 16 UJ	< 5.9 UJ	< 29 UJ	< 200 UJ	< 5.6 UJ	< 36 UJ	< 5.7 UJ	1.9 UJ	< 63 U	< 14 U	< 67 U	< 6.9 U	< 5.9 U	< 12 U	< 6.2 UJ	< 6.4 UJ	< 180 U	< 5.8 UJ	< 6.2 UJ	< 14 UJ	< 120 UJ	< 5.9 UJ	< 9.6 UJ	< 8.1 U	< 6.0 UJ	< 6.9 U	< 8.8 U
4,4'-DDT	ug/kg	**3.3**	47000	< 5.6 UJ	< 29 UJ	< 9.9 UJ	< 5.8 UJ	< 62 UJ	< 36 UJ	**4.9 UJ**	< 6.0 UJ	< 8.1 UJ	< 16 UJ	< 5.9 UJ	< 29 UJ	< 200 UJ	< 5.6 UJ	< 36 UJ	< 5.7 UJ	**7.9**	< 63 U	< 14 U	< 67 U	< 6.9 U	< 5.9 U	< 12 U	< 6.2 UJ	< 6.4 UJ	< 180 U	< 5.8 UJ	< 6.2 UJ	< 14 UJ	< 120 UJ	< 5.9 UJ	< 9.6 UJ	< 8.1 U	< 6.0 UJ	< 6.9 U	< 8.8 U
Aldrin	ug/kg	**5**	680	< 5.6 UJ	< 29 UJ	< 9.9 UJ	< 5.8 UJ	< 62 UJ	< 36 UJ	< 6.6 UJ	< 6.0 UJ	< 8.1 UJ	< 16 UJ	< 5.9 UJ	< 29 UJ	< 200 UJ	< 5.6 UJ	< 36 UJ	< 5.7 UJ	< 6.0 U	< 63 U	< 14 U	< 67 U	< 6.9 U	< 5.9 U	< 12 U	< 6.2 UJ	< 6.4 UJ	< 180 U	< 5.8 UJ	< 6.2 UJ	< 14 UJ	< 120 UJ	< 5.9 UJ	< 9.6 UJ	< 8.1 U	< 6.0 UJ	< 6.9 U	< 8.8 U
Alpha-BHC	ug/kg	20	3400	< 5.6 UJ	< 29 UJ	< 9.9 UJ	< 5.8 UJ	< 62 UJ	< 36 UJ	< 6.6 UJ	< 6.0 UJ	< 8.1 UJ	< 16 UJ	< 5.9 UJ	< 29 UJ	< 200 UJ	< 5.6 UJ	< 36 UJ	< 5.7 UJ	< 6.0 U	< 63 U	< 14 U	< 67 U	< 6.9 U	< 5.9 U	< 12 U	< 6.2 UJ	< 6.4 UJ	< 180 U	< 5.8 UJ	< 6.2 UJ	< 14 UJ	< 120 UJ	< 5.9 UJ	< 9.6 UJ	< 8.1 U	< 6.0 UJ	< 6.9 U	< 8.8 U
alpha-Chlordane	ug/kg	94	24000	< 5.6 UJ	< 29 UJ	< 9.9 UJ	< 5.8 UJ	< 62 UJ	< 36 UJ	< 6.6 UJ	< 6.0 UJ	< 8.1 UJ	< 16 UJ	< 5.9 UJ	< 29 UJ	< 200 UJ	< 5.6 UJ	< 36 UJ	< 5.7 UJ	< 6.0 U	< 63 U	< 14 U	< 67 U	< 6.9 U	< 5.9 U	< 12 U	< 6.2 UJ	< 6.4 UJ	< 180 U	< 5.8 UJ	< 6.2 UJ	< 14 UJ	< 120 UJ	< 5.9 UJ	< 9.6 UJ	< 8.1 U	< 6.0 UJ	< 6.9 U	< 8.8 U
Beta-BHC	ug/kg	**36**	3000	< 5.6 UJ	29 J	< 9.9 UJ	< 5.8 UJ	**59 UJ**	34 UJ	< 6.6 UJ	2.8 UJ	4.8 UJ	< 16 UJ	< 5.9 UJ	27 UJ	< 200 UJ	< 5.6 UJ	< 36 UJ	< 5.7 UJ	< 6.0 U	**84 UJ**	< 14 U	**44 UJ**	< 6.9 U	< 5.9 U	4.6 UJ	< 6.2 UJ	3.9 UJ	< 180 U	< 5.8 UJ	8.5 J	< 14 UJ	< 120 UJ	< 5.9 UJ	< 9.6 UJ	10 J	< 6.0 UJ	11 J	< 8.8 U
Delta-BHC	ug/kg	40	500000	< 5.6 UJ	< 29 UJ	< 200 UJ	< 5.8 UJ	< 62 UJ	< 36 UJ	< 6.6 UJ	< 6.0 UJ	< 8.1 UJ	< 16 UJ	< 5.9 UJ	< 29 UJ	< 200 UJ	< 5.6 UJ	< 36 UJ	< 5.7 UJ	< 6.0 U	< 63 U	< 14 U	< 67 U	< 6.9 U	< 5.9 U	< 12 U	< 62 UJ	< 6.4 UJ	< 180 U	< 120 UJ	< 6.2 UJ	< 140 UJ	< 120 UJ	< 5.9 UJ	< 480 UJ	< 8.1 U	< 120 UJ	< 6.9 U	< 8.8 U
Dieldrin	ug/kg	**5**	1400	< 5.6 UJ	< 29 UJ	< 9.9 UJ	< 5.8 UJ	< 62 UJ	< 36 UJ	< 6.6 UJ	< 6.0 UJ	< 8.1 UJ	< 16 UJ	< 5.9 UJ	< 29 UJ	< 200 UJ	< 5.6 UJ	< 36 UJ	< 5.7 UJ	< 6.0 U	< 63 U	< 14 U	< 67 U	< 6.9 U	< 5.9 U	< 12 U	< 6.2 UJ	< 6.4 UJ	< 180 U	< 5.8 UJ	< 6.2 UJ	< 14 UJ	< 120 UJ	< 5.9 UJ	< 9.6 UJ	< 8.1 U	< 6.0 UJ	< 6.9 U	< 8.8 U
Endosulfan I	ug/kg	2400	200000	< 5.6 UJ	< 29 UJ	< 9.9 UJ	< 5.8 UJ	< 62 UJ	< 36 UJ	< 6.6 UJ	< 6.0 UJ	< 8.1 UJ	< 16 UJ	< 5.9 UJ	< 29 UJ	< 200 UJ	< 5.6 UJ	< 36 UJ	< 5.7 UJ	< 6.0 U	< 63 U	< 14 U	< 67 U	< 6.9 U	< 5.9 U	< 12 U	< 6.2 UJ	< 6.4 UJ	< 180 U	< 5.8 UJ	< 6.2 UJ	< 14 UJ	< 120 UJ	< 5.9 UJ	< 9.6 UJ	< 8.1 U	< 6.0 UJ	< 6.9 U	< 8.8 U
Endosulfan II	ug/kg	2400	200000	< 5.6 UJ	< 29 UJ	< 9.9 UJ	< 5.8 UJ	< 62 UJ	< 36 UJ	< 6.6 UJ	< 6.0 UJ	< 8.1 UJ	< 16 UJ	< 5.9 UJ	< 29 UJ	< 200 UJ	< 5.6 UJ	< 36 UJ	< 5.7 UJ	< 6.0 U	< 63 U	< 14 U	< 67 U	< 6.9 U	< 5.9 U	< 12 U	< 6.2 UJ	< 6.4 UJ	< 180 U	< 5.8 UJ	< 6.2 UJ	< 14 UJ	< 120 UJ	< 5.9 UJ	3.0 UJ	< 8.1 U	< 6.0 UJ	< 6.9 U	< 8.8 U
Endosulfan Sulfate	ug/kg	2400	200000	< 5.6 UJ	< 29 UJ	< 200 UJ	< 5.8 UJ	< 62 UJ	< 36 UJ	< 6.6 UJ	< 6.0 UJ	< 8.1 UJ	20 J	< 300 UJ	< 29 UJ	< 200 UJ	< 280 UJ	< 36 UJ	< 5.7 UJ	< 600 U	< 63 U	< 720 U	< 67 U	< 6.9 U	< 300 U	< 1200 U	< 62 UJ	< 320 UJ	< 180 U	< 120 UJ	< 6.2 UJ	< 140 UJ	< 120 UJ	< 120 UJ	< 480 UJ	< 8.1 U	< 120 UJ	< 6.9 U	< 8.8 U
Endrin	ug/kg	14	89000	< 5.6 UJ	< 29 UJ	< 9.9 UJ	< 5.8 UJ	< 62 UJ	< 36 UJ	< 6.6 UJ	< 6.0 UJ	< 8.1 UJ	< 16 UJ	< 5.9 UJ	< 29 UJ	< 200 UJ	< 5.6 UJ	< 36 UJ	< 5.7 UJ	< 6.0 U	< 63 U	< 14 U	< 67 U	< 6.9 U	< 5.9 U	< 12 U	< 6.2 UJ	< 6.4 UJ	< 180 U	< 5.8 UJ	< 6.2 UJ	< 14 UJ	< 120 UJ	< 5.9 UJ	< 9.6 UJ	< 8.1 U	< 6.0 UJ	< 6.9 U	< 8.8 U
Endrin Aldehyde	ug/kg	-	-	< 110 UJ	< 29 UJ	< 200 UJ	< 290 UJ	< 62 UJ	< 36 UJ	< 130 UJ	< 300 UJ	< 8.1 UJ	< 800 UJ	< 300 UJ	< 29 UJ	< 200 UJ	< 280 UJ	< 36 UJ	< 5.7 UJ	< 600 U	< 63 U	< 720 U	< 67 U	< 6.9 U	< 300 U	< 1200 U	< 62 UJ	< 320 UJ	< 180 U	< 120 UJ	< 6.2 UJ	< 140 UJ	< 120 UJ	< 120 UJ	< 480 UJ	< 8.1 U	< 120 UJ	< 6.9 U	< 8.8 U
Endrin Ketone	ug/kg	-	-	< 5.6 UJ	< 29 UJ	< 9.9 UJ	< 5.8 UJ	< 62 UJ	< 36 UJ	< 6.6 UJ	< 6.0 UJ	< 8.1 UJ	< 16 UJ	< 5.9 UJ	< 29 UJ	< 200 UJ	< 5.6 UJ	< 36 UJ	< 5.7 UJ	< 6.0 U	< 63 U	< 14 U	< 67 U	< 6.9 U	< 5.9 U	< 12 U	< 6.2 UJ	< 6.4 UJ	< 180 U	< 5.8 UJ	< 6.2 UJ	< 14 UJ	< 120 UJ	< 5.9 UJ	< 9.6 UJ	< 8.1 U	< 6.0 UJ	< 6.9 U	< 8.8 U
Gamma-BHC	ug/kg	100	9200	< 5.6 UJ	< 29 UJ	< 200 UJ	< 5.8 UJ	< 62 UJ	< 36 UJ	< 6.6 UJ	< 6.0 UJ	< 8.1 UJ	< 16 UJ	< 5.9 UJ	< 29 UJ	< 200 UJ	< 5.6 UJ	< 36 UJ	< 5.7 UJ	< 6.0 U	< 63 U	< 14 U	< 67 U	< 6.9 U	< 5.9 U	< 12 U	< 6.2 UJ	< 6.4 UJ	< 180 U	< 120 UJ	< 6.2 UJ	< 140 UJ	< 120 UJ	< 120 UJ	< 480 UJ	< 8.1 U	< 120 UJ	< 6.9 U	< 8.8 U
Gamma-Chlordane	ug/kg			< 5.6 UJ	< 29 UJ	< 9.9 UJ	< 5.8 UJ	< 62 UJ	< 36 UJ	< 6.6 UJ	< 6.0 UJ	< 8.1 UJ	< 16 UJ	< 5.9 UJ	< 29 UJ	< 200 UJ	< 5.6 UJ	< 36 UJ	< 5.7 UJ	< 6.0 U	< 63 U	< 14 U	< 67 U	< 6.9 U	< 5.9 U	< 12 U	< 6.2 UJ	< 6.4 UJ	< 180 U	< 5.8 UJ	< 6.2 UJ	< 14 UJ	< 120 UJ	< 5.9 UJ	< 9.6 UJ	< 8.1 U	< 6.0 UJ	< 6.9 U	< 8.8 U
Heptachlor	ug/kg	42	15000	< 5.6 UJ	< 29 UJ	< 9.9 UJ	< 5.8 UJ	< 62 UJ	< 36 UJ	< 6.6 UJ	< 6.0 UJ	< 8.1 UJ	< 16 UJ	< 5.9 UJ	< 29 UJ	< 200 UJ	< 5.6 UJ	< 36 UJ	< 5.7 UJ	< 6.0 U	< 63 U	< 14 U	< 67 U	< 6.9 U	< 5.9 U	6.4 UJ	< 6.2 UJ	< 6.4 UJ	< 180 U	< 5.8 UJ	< 6.2 UJ	< 14 UJ	< 120 UJ	< 5.9 UJ	< 9.6 UJ	< 8.1 U	< 6.0 UJ	< 6.9 U	< 8.8 U
Heptachlor Epoxide	ug/kg	-	-	< 5.6 UJ	< 29 UJ	< 9.9 UJ	< 5.8 UJ	< 62 UJ	< 36 UJ	< 6.6 UJ	< 6.0 UJ	< 8.1 UJ	< 16 UJ	< 5.9 UJ	< 29 UJ	< 200 UJ	< 5.6 UJ	< 36 UJ	< 5.7 UJ	< 6.0 U	< 63 U	< 14 U	< 67 U	< 6.9 U	< 5.9 U	< 12 U	< 6.2 UJ	< 6.4 UJ	< 180 U	< 5.8 UJ	< 6.2 UJ	< 14 UJ	< 120 UJ	< 5.9 UJ	< 9.6 UJ	< 8.1 U	< 6.0 UJ	< 6.9 U	< 8.8 U
Methoxychlor	ug/kg	-	-	< 11 UJ	< 59 UJ+	< 20 UJ+	< 12 UJ+	< 120 UJ+	< 72 UJ+	< 13 UJ+	< 12 UJ+	< 16 UJ+	< 32 UJ+	< 12 UJ+	< 59 UJ+	< 390 UJ+	< 11 UJ+	< 71 UJ+	< 11 UJ+	< 12 UJ	< 130 UJ	< 29 UJ	< 130 UJ	< 14 U	< 12 U	< 23 UJ	< 12 UJ+	< 13 UJ+	< 370 UJ	< 12 UJ+	< 12 UJ+	< 28 UJ+	< 250 UJ	< 12 UJ	< 19 UJ	< 16 UJ	< 12 U	< 14 U	< 18 U
Toxaphene	ug/kg	-	-	< 110 UJ	< 590 UJ	< 200 UJ	< 120 UJ	< 1200 UJ	< 720 UJ	< 130 UJ	< 120 UJ	< 160 UJ	< 320 UJ	< 120 UJ	< 590 UJ	< 3900 UJ	< 110 UJ	< 710 UJ	< 110 UJ	< 120 U	< 1300 U	< 290 U	< 1300 U	< 140 U	< 120 U	< 230 U	< 120 UJ	< 130 UJ	< 3700 U	< 120 UJ	< 120 UJ	< 280 UJ	< 2500 UJ	< 120 UJ	< 190 UJ	< 160 U	< 120 UJ	< 140 U	< 180 U
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Aroclor 1016	ug/kg			< 110 U	< 120 U	< 95 U	< 56 U	< 62 U	< 74 U	< 66 U	< 120 U	< 79 U	< 160 U	< 60 U	< 110 U	< 190 U	< 55 U	< 140 U	< 58 U	< 57 U	< 120 U	< 140 U	< 130 U	< 67 U	< 58 U	< 110 U	< 62 U	< 130 U	< 180 U	< 59 U	< 120 U	< 140 U	< 59 U	< 59 U	< 97 U	< 81 U	< 59 U	< 130 U	< 85 U
Aroclor 1221	ug/kg			< 110 U	< 120 U	< 95 U	< 56 U	< 62 U	< 74 U	< 66 U	< 120 U	< 79 U	< 160 U	< 60 U	< 110 U	< 190 U	< 55 U	< 140 U	< 58 U	< 57 U	< 120 U	< 140 U	< 130 U	< 67 U	< 58 U	< 110 U	< 62 U	< 130 U	< 180 U	< 59 U	< 120 U	< 140 U	< 59 U	< 59 U	< 97 U	< 81 U	< 59 U	< 130 U	< 85 U
Aroclor 1232	ug/kg			< 110 U	< 120 U	< 95 U	< 56 U	< 62 U	< 74 U	< 66 U	< 120 U	< 79 U	< 160 U	< 60 U	< 110 U	< 190 U	< 55 U	< 140 U	< 58 U	< 57 U	< 120 U	< 140 U	< 130 U	< 67 U	< 58 U	< 110 U	< 62 U	< 130 U	< 180 U	< 59 U	< 120 U	< 140 U	< 59 U	< 59 U	< 97 U	< 81 U	< 59 U	< 130 U	< 85 U
Aroclor 1242	ug/kg			< 110 U	< 120 U	< 95 U	< 56 U	< 62 U	< 74 U	< 66 U	< 120 U	< 79 U	< 160 U	< 60 U	< 110 U	< 190 U	< 55 U	< 140 U	< 58 U	< 57 U	< 120 U	< 140 U	< 130 U	< 67 U	< 58 U	< 110 U	< 62 U	< 130 U	< 180 U	< 59 U	< 120 U	< 140 U	< 59 U	< 59 U	< 97 U	< 81 U	< 59 U	< 130 U	< 85 U
Aroclor 1248	ug/kg	**100**	1000	< 110 U	< 120 U	< 95 U	< 56 U	< 62 U	< 74 U	< 66 U	< 120 U	< 79 U	< 160 U	< 60 U	< 110 U	< 190 U	< 55 U	< 140 U	< 58 U	< 57 U	< 120 U	< 140 U	< 130 U	< 67 U	< 58 U	< 110 U	< 62 U	< 130 U	< 180 U	< 59 U	< 120 U	< 140 U	< 59 U	< 59 U	< 97 U	< 81 U	< 59 U	< 130 U	< 85 U
Aroclor 1254	ug/kg			< 110 U	< 120 U	< 95 U	< 56 U	38 UJ	< 74 U	< 66 U	< 120 U	< 79 U	< 160 U	< 60 U	< 110 U	< 190 U	< 55 U	< 140 U	< 58 U	< 57 U	< 120 U	< 140 U	< 130 U	< 67 U	< 58 U	< 110 U	< 62 U	< 130 U	< 180 U	< 59 U	< 120 U	< 140 U	< 59 U	< 59 U	< 97 U	< 81 U	84	< 130 U	< 85 U
Aroclor 1260	ug/kg			< 110 U	< 120 U	< 95 U	< 56 U	< 62 U	< 74 U	67	< 120 U	< 79 U	< 160 U	< 60 U	< 110 U	< 190 U	**140**	< 140 U	< 58 U	< 57 U	< 120 U	< 140 U	< 130 U	< 67 U	< 58 U	< 110 U	< 62 U	< 130 U	< 180 U	< 59 U	< 120 U	< 140 U	< 59 U	< 59 U	< 97 U	< 81 U	< 59 U	< 130 U	< 85 U
Aroclor 1262	ug/kg			< 110 U	< 120 U	< 95 U	< 56 U	< 62 U	< 74 U	< 66 U	< 120 U	< 79 U	< 160 U	< 60 U	< 110 U	< 190 U	< 55 U	< 140 U	< 58 U	< 57 U	< 120 U	< 140 U	< 130 U	< 67 U	< 58 U	< 110 U	< 62 U	< 130 U	< 180 U	< 59 U	< 120 U	< 140 U	< 59 U	< 59 U	< 97 U	< 81 U	< 59 U	< 130 U	< 85 U
Aroclor 1268	ug/kg			< 110 U	< 120 U	< 95 U	< 56 U	< 62 U	< 74 U	< 66 U	< 120 U	< 79 U	< 160 U	< 60 U	< 110 U	< 190 U	< 55 U	< 140 U	< 58 U	< 57 U	< 120 U	< 140 U	< 130 U	< 67 U	< 58 U	< 110 U	< 62 U	< 130 U	< 180 U	< 59 U	< 120 U	< 140 U	< 59 U	< 59 U	< 97 U	< 81 U	< 59 U	< 130 U	< 85 U

Notes:
ft bgs = feet below ground surface
mg/kg = milligrams per kilogram
µg/kg = micrograms per kilogram
6 NYCRR Part 375 SCO = Title 6 Official Compilation of New York Codes, Rules and Regulations Part 375 Soil Cleanup Objectives
- = no SCO established
NA = not applicable/analyzed
Qualifiers:
U = Analyte analyzed for, but not detected above the sample's reported quantitation limit
J = Analyte positively identified at a numerical value that is the approximate concentration of the analyte in the sample
J+ = Sample likely to have a high bias
J- = Sample likely to have a low bias
UJ = Analyte not detected above the sample quantitation limit; the associated quantitation limit is approximate and may or may not represent the actual limit of quantitation necessary to accurately and precisely measure the analyte in the sample
N = The analysis indicates the present of an analyte for which there is presumptive evidence to make a "tentative identification."
NJ = The analysis indicates the presence of an analyte that has been "tentatively identified" and the associated numerical value represents its approximate concentration.
R = Sample result rejected due to serious deficiency in ability to analyze sample and meet quality control criteria; the presence or absence of the analyte cannot be confirmed. This qualifier also may apply when more than one sample result is generated for a target analyte (i.e., dilutions or re-analyses), the most technically acceptable result is considered acceptable.
B/EB/TB/BB = An analyte identified in method blank (B), aqueous equipment (EB), trip (TB), or bottle blanks (BB) used to assess field contamination associated with soil or sediment samples mandates these qualifiers for only soil and sediment sample results.
P = Use professional judgment based on data use. It usually has an "M" with it, which indicates that a manual check should be made if the data that are qualified with the "P" are important to the data user. In addition, "PM" also means a decision is necessary from the Project Manager (or a delegate) concerning the need for further review of the data (see below).
PM = A manual review of the raw data is recommended to determine if the defect affects data use, as in "R" above. This review should include consideration of potential affects that could result from using the "P" qualified data. For example, in the case of holding-time exceedance, the Project Manager or delegate can decide to use the data with no qualification when analytes of interest are known not to be adversely affected by holding-time exceedances. Another example is the case where soil sample duplicate analyses for metals exceed the precision criteria; because this is likely due to sample non-homogeneity rather than contract laboratory error, then the manager or delegate must decide how to use the data.

Table 1
Soil Analytical Data

Analyte	Units	6 NYCRR PART 375 UNRESTRICTED USE SCO	6 NYCRR PART 375 COMMERCIAL USE SCO	Soil Sample ID	SB-142A	SB-142B	SB-142C	SB-143A	SB-143B	SB-143C	SB-144A	SB-144B	SB-144C	SB-145A	SB-145B	SB-145C	SB-146-A	SB-146-B	SB-146-C	SB-147-A	SB-147-B	SB-147-C	SB-148-A	SB-148-B	SB-148-C	SB-148-D	SB-149-A	SB-149-B	SB-149-C	SB-150A	SB-150B	SB-150C	DUP-101018	DUP-101118	DUP-101618	DUP-101718	DUP-101818	DUP-101918	DUP-102318
				Start Depth (ft bgs)	0	8	15	0	8	13	0	7	15	0	10	18	0	2	13	0	5	16	0	4	15	12	0	5	16	0	14	18	NA	NA	NA	NA	NA	NA	NA
				End Depth (ft bgs)	1	10	16	1	10	15	2	9	17	1	12	20	2	5	15	1	7	17	1.5	5	17.5	14	1	6	18	2	16	20	NA	NA	NA	NA	NA	NA	NA
				Sample Date	10/19/2018	10/19/2018	10/19/2018	10/19/2018	10/19/2018	10/19/2018	10/19/2018	10/19/2018	10/19/2018	10/19/2018	10/19/2018	10/19/2018	10/23/2018	10/23/2018	10/23/2018	10/23/2018	10/23/2018	10/23/2018	10/23/2018	10/23/2018	10/23/2018	10/23/2018	10/23/2018	10/23/2018	10/23/2018	10/23/2018	10/19/2018	10/19/2018	10/19/2018	10/10/2018	10/11/2018	10/16/2018	10/17/2018	10/18/2018	10/19/2018	10/23/2018
SW8081B																																						
4,4'-DDD	ug/kg	**3.3**	92000		< 140 U	< 63 UJ	< 9.2 U	< 110 UJ	< 30 U	< 150 U	< 33 UJ	< 5.9 U	< 990 UJ	< 28 UJ	< 68 U	< 200 U	< 2.1 U	< 2.1 U	< 11 UJ	**6.7 J**	< 1.7 U	< 3.7 U	< 2.0 U	< 2.0 U	< 4.7 U	< 2.1 U	< 9.0 UJ	< 820 UJ	< 3.9 UJ	< 7.2 UJ	< 1400 UJ	< 6.0 U	< 2.1 UJ	< 2.2 UJ	< 86 U	< 60 U	< 41 UJ	< 800 U	< 5.3 U
4,4'-DDE	ug/kg	**3.3**	62000		2.6 UJ	< 63 UJ	< 9.2 U	< 5.7 UJ	< 30 U	< 150 U	**19 UJ**	< 5.9 U	< 20 UJ	< 28 UJ	< 68 U	< 9.8 U	< 2.1 U	< 2.1 U	< 11 UJ	**4.9 J**	< 1.7 U	< 3.7 U	< 2.0 U	< 2.0 U	< 4.7 U	< 2.1 U	< 9.0 UJ	< 820 UJ	< 3.9 UJ	< 7.2 UJ	< 14 UJ	< 6.0 U	< 2.1 UJ	< 2.2 UJ	< 86 U	< 60 U	< 41 UJ	< 16 U	< 5.3 U
4,4'-DDT	ug/kg	**3.3**	47000		**8.9**	< 63 UJ	< 9.2 U	**6.0 J**	< 30 U	< 150 U	**62 J**	< 5.9 U	< 20 UJ	< 28 UJ	< 68 U	< 9.8 U	< 2.1 U	< 2.1 U	< 11 UJ	**9.4 J**	< 1.7 U	< 3.7 U	0.57 UJ	< 2.0 U	< 4.7 U	< 2.1 U	< 9.0 UJ	< 820 UJ	< 3.9 UJ	< 7.2 UJ	< 14 UJ	< 6.0 U	< 2.1 UJ	< 2.2 UJ	< 86 U	< 60 U	< 41 UJ	< 16 U	< 5.3 U
Aldrin	ug/kg	**5**	680		< 7.0 U	< 63 UJ	< 9.2 U	< 5.7 UJ	< 30 U	< 150 U	< 33 UJ	< 5.9 U	< 20 UJ	< 28 UJ	< 68 U	< 9.8 U	< 2.1 U	< 2.1 U	< 11 UJ	< 4.2 UJ	< 1.7 U	< 3.7 U	< 2.0 U	< 2.0 U	< 4.7 U	< 2.1 U	< 9.0 UJ	< 820 UJ	< 3.9 UJ	< 7.2 UJ	< 14 UJ	< 6.0 U	< 2.1 UJ	< 2.2 UJ	< 86 U	< 60 U	< 41 UJ	< 16 U	< 5.3 U
Alpha-BHC	ug/kg	20	3400		< 7.0 U	< 63 UJ	< 9.2 U	< 5.7 UJ	< 30 U	< 150 U	< 33 UJ	< 5.9 U	8.9 UJ	< 28 UJ	< 68 U	3.1 UJ	< 2.1 U	< 2.1 U	< 11 UJ	< 4.2 UJ	< 1.7 U	< 3.7 U	< 2.0 U	< 2.0 U	< 4.7 U	< 2.1 U	< 9.0 UJ	< 820 UJ	< 3.9 UJ	< 7.2 UJ	< 14 UJ	< 6.0 U	< 2.1 UJ	< 2.2 UJ	< 86 U	< 60 U	< 41 UJ	4.9 UJ	< 5.3 U
alpha-Chlordane	ug/kg	94	24000		< 7.0 U	< 63 UJ	< 9.2 U	< 5.7 UJ	< 30 U	< 150 U	< 33 UJ	< 5.9 U	< 20 UJ	< 28 UJ	< 68 U	< 9.8 U	< 2.1 U	< 2.1 U	< 11 UJ	< 4.2 UJ	< 1.7 U	< 3.7 U	< 2.0 U	< 2.0 U	< 4.7 U	< 2.1 U	< 9.0 UJ	< 820 UJ	< 3.9 UJ	< 7.2 UJ	< 14 UJ	< 6.0 U	< 2.1 UJ	< 2.2 UJ	< 86 U	< 60 U	< 41 UJ	< 16 U	< 5.3 U
Beta-BHC	ug/kg	**36**	3000		< 7.0 U	**510 J**	< 9.2 U	< 5.7 UJ	15 UJ	**60 UJ**	< 33 UJ	< 5.9 U	< 20 UJ	< 28 UJ	**63 UJ**	< 9.8 U	< 2.1 U	< 2.1 U	< 11 UJ	< 4.2 UJ	< 1.7 U	< 3.7 U	< 2.0 U	< 2.0 U	< 4.7 U	< 2.1 U	< 9.0 UJ	< 820 UJ	< 3.9 UJ	3.7 UJ	8.8 UJ	2.9 UJ	< 2.1 UJ	< 2.2 UJ	**63 UJ**	< 60 U	16 UJ	< 16 U	< 5.3 U
Delta-BHC	ug/kg	40	500000		< 140 U	< 63 UJ	< 9.2 U	< 110 UJ	< 30 U	< 150 U	< 33 UJ	< 5.9 U	< 990 UJ	< 28 UJ	< 68 U	< 200 U	< 2.1 U	< 2.1 U	< 11 UJ	< 4.2 UJ	< 1.7 U	< 3.7 U	< 2.0 U	< 2.0 U	< 4.7 U	< 2.1 U	< 9.0 UJ	< 820 UJ	< 3.9 UJ	< 7.2 UJ	< 1400 UJ	< 6.0 U	< 2.1 UJ	< 2.2 UJ	< 86 U	< 60 U	< 41 UJ	< 800 U	< 5.3 U
Dieldrin	ug/kg	**5**	1400		< 7.0 U	< 63 UJ	< 9.2 U	< 5.7 UJ	< 30 U	< 150 U	< 33 UJ	< 5.9 U	< 20 UJ	< 28 UJ	< 68 U	< 9.8 U	< 2.1 U	< 2.1 U	< 11 UJ	< 4.2 UJ	< 1.7 U	< 3.7 U	< 2.0 U	< 2.0 U	< 4.7 U	< 2.1 U	< 9.0 UJ	< 820 UJ	< 3.9 UJ	< 7.2 UJ	< 14 UJ	< 6.0 U	< 2.1 UJ	< 2.2 UJ	< 86 U	< 60 U	< 41 UJ	< 16 U	< 5.3 U
Endosulfan I	ug/kg	2400	200000		< 7.0 U	< 63 UJ	< 9.2 U	< 5.7 UJ	< 30 U	< 150 U	< 33 UJ	< 5.9 U	< 20 UJ	< 28 UJ	< 68 U	< 9.8 U	< 2.1 U	< 2.1 U	< 11 UJ	< 4.2 UJ	< 1.7 U	< 3.7 U	< 2.0 U	< 2.0 U	< 4.7 U	< 2.1 U	< 9.0 UJ	< 820 UJ	< 3.9 UJ	< 7.2 UJ	< 14 UJ	< 6.0 U	< 2.1 UJ	< 2.2 UJ	< 86 U	< 60 U	< 41 UJ	< 16 U	< 5.3 U
Endosulfan II	ug/kg	2400	200000		< 7.0 U	< 63 UJ	< 9.2 U	< 5.7 UJ	< 30 U	< 150 U	< 33 UJ	< 5.9 U	< 20 UJ	< 28 UJ	< 68 U	< 9.8 U	< 2.1 U	< 2.1 U	2.6 UJ	< 4.2 UJ	< 1.7 U	< 3.7 U	< 2.0 U	< 2.0 U	< 4.7 U	< 2.1 U	< 9.0 UJ	< 820 UJ	< 3.9 UJ	< 7.2 UJ	< 14 UJ	< 6.0 U	< 2.1 UJ	< 2.2 UJ	< 86 U	< 60 U	< 41 UJ	< 16 U	1.6 UJ
Endosulfan Sulfate	ug/kg	2400	200000		< 140 U	< 63 UJ	< 9.2 U	< 110 UJ	< 30 U	< 150 U	< 33 UJ	< 5.9 U	< 990 UJ	< 28 UJ	< 68 U	< 200 U	< 2.1 U	< 2.1 U	5.2 UJ	< 4.2 UJ	< 1.7 U	< 3.7 U	< 2.0 U	< 2.0 U	< 4.7 U	< 2.1 U	< 9.0 UJ	< 820 UJ	< 3.9 UJ	< 7.2 UJ	< 1400 UJ	< 6.0 U	< 2.1 UJ	< 2.2 UJ	< 86 U	< 60 U	< 41 UJ	< 800 U	5.8
Endrin	ug/kg	14	89000		< 7.0 U	< 63 UJ	< 9.2 U	< 5.7 UJ	< 30 U	< 150 U	< 33 UJ	< 5.9 U	< 20 UJ	< 28 UJ	< 68 U	< 9.8 U	< 2.1 U	< 2.1 U	3.3 UJ	< 4.2 UJ	< 1.7 U	< 3.7 U	< 2.0 U	< 2.0 U	< 4.7 U	< 2.1 U	< 9.0 UJ	< 820 UJ	1.8 UJ	< 7.2 UJ	< 14 UJ	< 6.0 U	< 2.1 UJ	< 2.2 UJ	< 86 U	< 60 U	< 41 UJ	< 16 U	< 5.3 U
Endrin Aldehyde	ug/kg	-	-		< 140 U	< 63 UJ	< 9.2 U	< 110 UJ	< 30 U	< 150 U	< 33 UJ	< 5.9 U	< 990 UJ	< 28 UJ	< 68 U	< 200 U	< 2.1 U	< 2.1 U	< 11 UJ	< 4.2 UJ	< 1.7 U	< 3.7 U	< 2.0 U	< 2.0 U	< 4.7 U	< 2.1 U	2.9 UJ	< 820 UJ	< 3.9 UJ	< 7.2 UJ	< 1400 UJ	< 6.0 U	< 2.1 UJ	< 2.2 UJ	< 86 U	< 60 U	< 41 UJ	< 800 U	< 5.3 U
Endrin Ketone	ug/kg	-	-		< 7.0 U	< 63 UJ	< 9.2 U	< 5.7 UJ	< 30 U	< 150 U	< 33 UJ	< 5.9 U	< 20 UJ	< 28 UJ	< 68 U	< 9.8 U	< 2.1 U	< 2.1 U	< 11 UJ	< 4.2 UJ	< 1.7 U	< 3.7 U	< 2.0 U	< 2.0 U	< 4.7 U	< 2.1 U	< 9.0 UJ	< 820 UJ	< 3.9 UJ	< 7.2 UJ	< 14 UJ	< 6.0 U	< 2.1 UJ	< 2.2 UJ	< 86 U	< 60 U	< 41 UJ	< 16 U	< 5.3 U
Gamma-BHC	ug/kg	100	9200		< 140 UJ	< 63 UJ	< 9.2 UJ	< 110 UJ	< 30 UJ	< 150 UJ	< 33 UJ	< 5.9 UJ	< 990 UJ	< 28 UJ	< 68 UJ	< 200 UJ	< 2.1 U	< 2.1 U	< 11 UJ	< 4.2 UJ	< 1.7 U	< 3.7 U	1.5 UJ	< 2.0 U	< 4.7 U	< 2.1 U	< 9.0 UJ	< 820 UJ	< 3.9 UJ	< 7.2 UJ	< 1400 UJ	< 6.0 UJ	< 2.1 UJ	< 2.2 UJ	< 86 U	< 60 U	< 41 UJ	< 800 UJ	< 5.3 U
Gamma-Chlordane	ug/kg				< 7.0 U	< 63 UJ	< 9.2 U	< 5.7 UJ	< 30 U	< 150 U	< 33 UJ	< 5.9 U	< 20 UJ	< 28 UJ	< 68 U	< 9.8 U	< 2.1 U	< 2.1 U	< 11 UJ	2.4 UJ	< 1.7 U	< 3.7 U	< 2.0 U	< 2.0 U	< 4.7 U	< 2.1 U	< 9.0 UJ	< 820 UJ	< 3.9 UJ	< 7.2 UJ	< 14 UJ	< 6.0 U	< 2.1 UJ	< 2.2 UJ	< 86 U	< 60 U	< 41 UJ	< 16 U	< 5.3 U
Heptachlor	ug/kg	42	15000		< 7.0 U	< 63 UJ	< 9.2 U	< 5.7 UJ	< 30 U	< 150 U	< 33 UJ	< 5.9 U	< 20 UJ	< 28 UJ	< 68 U	< 9.8 U	< 2.1 U	< 2.1 U	< 11 UJ	< 4.2 UJ	< 1.7 U	< 3.7 U	< 2.0 U	< 2.0 U	< 4.7 U	< 2.1 U	< 9.0 UJ	< 820 UJ	< 3.9 UJ	< 7.2 UJ	< 14 UJ	< 6.0 U	< 2.1 UJ	< 2.2 UJ	< 86 U	< 60 U	< 41 UJ	< 16 U	< 5.3 U
Heptachlor Epoxide	ug/kg	-	-		< 7.0 U	< 63 UJ	< 9.2 U	< 5.7 UJ	< 30 U	< 150 U	< 33 UJ	< 5.9 U	< 20 UJ	< 28 UJ	< 68 U	< 9.8 U	< 2.1 U	< 2.1 U	< 11 UJ	< 4.2 UJ	< 1.7 U	< 3.7 U	< 2.0 U	< 2.0 U	< 4.7 U	< 2.1 U	< 9.0 UJ	< 820 UJ	< 3.9 UJ	< 7.2 UJ	< 14 UJ	< 6.0 U	< 2.1 UJ	< 2.2 UJ	< 86 U	< 60 U	< 41 UJ	< 16 U	< 5.3 U
Methoxychlor	ug/kg	-	-		< 14 UJ+	< 130 UJ+	< 18 UJ+	< 11 UJ+	< 59 UJ+	< 300 UJ+	< 66 UJ+	< 12 UJ+	< 40 UJ+	< 57 UJ+	< 140 UJ+	< 20 UJ+	< 2.1 U	< 2.1 U	< 11 UJ	< 4.2 UJ	< 1.7 U	< 3.7 U	< 2.0 U	< 2.0 U	< 4.7 U	< 2.1 U	< 9.0 UJ	< 820 UJ	< 3.9 UJ	< 14 UJ+	< 28 UJ+	< 12 UJ+	< 2.1 UJ	< 2.2 UJ	< 170 U	< 120 UJ	< 82 UJ+	< 32 UJ+	< 5.3 U
Toxaphene	ug/kg	-	-		< 140 U	< 1300 UJ	< 180 U	< 110 UJ	< 590 U	< 3000 U	< 660 UJ	< 120 U	< 400 UJ	< 570 UJ	< 1400 U	< 200 U	< 21 U	< 21 U	< 110 UJ	< 42 UJ	< 17 U	< 37 U	< 20 U	< 20 U	< 47 U	< 21 U	< 90 UJ	< 8200 UJ	< 39 UJ	< 140 UJ	< 280 UJ	< 120 U	< 21 UJ	< 22 UJ	< 1700 U	< 1200 U	< 820 UJ	< 320 U	< 53 U
SW8082A																																						
Aroclor 1016	ug/kg				< 67 U	< 120 U	< 94 U	< 58 U	< 110 U	< 140 U	< 62 U	< 56 U	< 190 U	< 55 U	< 130 U	< 95 U	< 220 UJ	< 280 UJ	< 480 UJ	< 290 UJ	< 250 UJ	< 550 UJ	< 220 UJ	< 280 UJ	< 700 UJ	< 300 UJ	< 250 UJ	< 220 UJ	< 580 UJ	< 140 U	< 140 U	< 61 U	< 280 UJ	< 300 UJ	< 160 UJ	< 58 U	< 80 U	< 150 U	< 730 UJ
Aroclor 1221	ug/kg				< 67 U	< 120 U	< 94 U	< 58 U	< 110 U	< 140 U	< 62 U	< 56 U	< 190 U	< 55 U	< 130 U	< 95 U	< 220 UJ	< 280 UJ	< 480 UJ	< 290 UJ	< 250 UJ	< 550 UJ	< 220 UJ	< 280 UJ	< 700 UJ	< 300 UJ	< 250 UJ	< 220 UJ	< 580 UJ	< 140 U	< 140 U	< 61 U	< 280 UJ	< 300 UJ	< 160 UJ	< 58 U	< 80 U	< 150 U	< 730 UJ
Aroclor 1232	ug/kg				< 67 U	< 120 U	< 94 U	< 58 U	< 110 U	< 140 U	< 62 U	< 56 U	< 190 U	< 55 U	< 130 U	< 95 U	< 220 UJ	< 280 UJ	< 480 UJ	< 290 UJ	< 250 UJ	< 550 UJ	< 220 UJ	< 280 UJ	< 700 UJ	< 300 UJ	< 250 UJ	< 220 UJ	< 580 UJ	< 140 U	< 140 U	< 61 U	< 280 UJ	< 300 UJ	< 160 UJ	< 58 U	< 80 U	< 150 U	< 730 UJ
Aroclor 1242	ug/kg				< 67 U	< 120 U	< 94 U	< 58 U	< 110 U	< 140 U	< 62 U	< 56 U	< 190 U	< 55 U	< 130 U	< 95 U	< 220 UJ	< 280 UJ	< 480 UJ	< 290 UJ	< 250 UJ	< 550 UJ	< 220 UJ	< 280 UJ	< 700 UJ	< 300 UJ	< 250 UJ	< 220 UJ	< 580 UJ	< 140 U	< 140 U	< 61 U	< 280 UJ	< 300 UJ	< 160 UJ	< 58 U	< 80 U	< 150 U	< 730 UJ
Aroclor 1248	ug/kg	**100**	1000		< 67 U	< 120 U	< 94 U	< 58 U	< 110 U	< 140 U	< 62 U	< 56 U	< 190 U	< 55 U	< 130 U	< 95 U	< 220 UJ	< 280 UJ	< 480 UJ	< 290 UJ	< 250 UJ	< 550 UJ	< 220 UJ	< 280 UJ	< 700 UJ	< 300 UJ	< 250 UJ	< 220 UJ	< 580 UJ	< 140 U	< 140 U	< 61 U	< 280 UJ	< 300 UJ	< 160 UJ	< 58 U	< 80 U	< 150 U	< 730 UJ
Aroclor 1254	ug/kg				< 67 U	< 120 U	< 94 U	< 58 U	< 110 U	< 140 U	< 62 U	< 56 U	< 190 U	< 55 U	< 130 U	< 95 U	< 220 UJ	< 280 UJ	< 480 UJ	< 290 UJ	< 250 UJ	< 550 UJ	< 220 UJ	< 280 UJ	< 700 UJ	< 300 UJ	< 250 UJ	< 220 UJ	< 580 UJ	< 140 U	< 140 U	< 61 U	< 280 UJ	< 300 UJ	< 160 UJ	< 58 U	< 80 U	< 150 U	< 730 UJ
Aroclor 1260	ug/kg				32 U	< 120 U	< 94 U	< 58 U	< 110 U	< 140 U	< 62 U	< 56 U	< 190 U	< 55 U	< 130 U	< 95 U	< 220 UJ	< 280 UJ	< 480 UJ	< 290 UJ	< 250 UJ	< 550 UJ	< 220 UJ	< 280 UJ	< 700 UJ	< 300 UJ	< 250 UJ	< 220 UJ	< 580 UJ	< 140 U	< 140 U	< 61 U	< 280 UJ	< 300 UJ	< 160 UJ	< 58 U	< 80 U	< 150 U	< 730 UJ
Aroclor 1262	ug/kg				< 67 U	< 120 U	< 94 U	< 58 U	< 110 U	< 140 U	< 62 U	< 56 U	< 190 U	< 55 U	< 130 U	< 95 U	< 220 UJ	< 280 UJ	< 480 UJ	< 290 UJ	< 250 UJ	< 550 UJ	< 220 UJ	< 280 UJ	< 700 UJ	< 300 UJ	< 250 UJ	< 220 UJ	< 580 UJ	< 140 U	< 140 U	< 61 U	< 280 UJ	< 300 UJ	< 160 UJ	< 58 U	< 80 U	< 150 U	< 730 UJ
Aroclor 1268	ug/kg				< 67 U	< 120 U	< 94 U	< 58 U	< 110 U	< 140 U	< 62 U	< 56 U	< 190 U	< 55 U	< 130 U	< 95 U	< 220 UJ	< 280 UJ	< 480 UJ	< 290 UJ	< 250 UJ	< 550 UJ	< 220 UJ	< 280 UJ	< 700 UJ	< 300 UJ	< 250 UJ	< 220 UJ	< 580 UJ	< 140 U	< 140 U	< 61 U	< 280 UJ	< 300 UJ	< 160 UJ	< 58 U	< 80 U	< 150 U	< 730 UJ

Notes:

ft bgs = feet below ground surface

mg/kg = milligrams per kilogram

µg/kg = micrograms per kilogram

6 NYCRR Part 375 SCO = Title 6 Official Compilation of New York Codes, Rules and Regulations Part 375 Soil Cleanup Objectives

- = no SCO established

NA = not applicable/analyzed

Qualifiers:

U = Analyte analyzed for, but not detected above the sample's reported quantitation limit

J = Analyte positively identified at a numerical value that is the approximate concentration of the analyte in the sample

J+ = Sample likely to have a high bias

J- = Sample likely to have a low bias

UJ = Analyte not detected above the sample quantitation limit; the associated quantitation limit is approximate and may or may not represent the actual limit of quantitation necessary to accurately and precisely measure the analyte in the sample

N = The analysis indicates the present of an analyte for which there is presumptive evidence to make a "tentative identification."

NJ = The analysis indicates the presence of an analyte that has been "tentatively identified" and the associated numerical value represents its approximate concentration.

R = Sample result rejected due to serious deficiency in ability to analyze sample and meet quality control criteria; the presence or absence of the analyte cannot be confirmed. This qualifier also may apply when more than one sample result is generated for a target analyte (i.e., dilutions or re-analyses), the most technically acceptable result is considered acceptable.

B/EB/TB/BB = An analyte identified in method blank (B), aqueous equipment (EB), trip (TB), or bottle blanks (BB) used to assess field contamination associated with soil or sediment samples mandates these qualifiers for only soil and sediment sample results.

P = Use professional judgment based on data use. It usually has an "M" with it, which indicates that a manual check should be made if the data that are qualified with the "P" are important to the data user. In addition, "PM" also means a decision is necessary from the Project Manager (or a delegate) concerning the need for further review of the data (see below).

PM = A manual review of the raw data is recommended to determine if the defect affects data use, as in "R" above. This review should include consideration of potential affects that could result from using the "P" qualified data. For example, in the case of holding-time exceedance, the Project Manager or delegate can decide to use the data with no qualification when analytes of interest are known not to be adversely affected by holding-time exceedances. Another example is the case where soil sample duplicate analyses for metals exceed the precision criteria; because this is likely due to sample non-homogeneity rather than contract laboratory error, then the manager or delegate must decide how to use the data.

Table 1
Soil Analytical Data

Analyte	Units	6 NYCRR PART 375 UNRESTRICTED USE SCO	6 NYCRR PART 375 COMMERCIAL USE SCO	SB-101-A	SB-101-B	SB-101-C	SB-102-A	SB-102-B	SB-102-C	SB-103-A	SB-103-B	SB-103-C	SB-104-A	SB-104-B	SB-104-C
			Start Depth (ft bgs)	0	8	12	0	4	12	0	4	12	0	4	14
			End Depth (ft bgs)	1	10	14	1	6	14	1	6	14	1	6	16
			Sample Date	10/10/2018	10/10/2018	10/10/2018	10/10/2018	10/10/2018	10/10/2018	10/10/2018	10/10/2018	10/10/2018	10/10/2018	10/10/2018	10/10/2018
SW8260C															
1,1,1-Trichloroethane	ug/kg	680	500000	< 5.7 UJ	< 7.4 UJ	< 6.3 UJ	< 6.2 UJ	< 6.2 UJ	< 5.8 UJ	< 6.5 UJ	< 5.9 UJ	< 5.9 UJ	< 6.0 UJ	< 5.7 UJ	< 6.3 UJ
1,1,2,2-Tetrachloroethane	ug/kg	-	-	< 5.7 UJ	< 7.4 UJ	< 6.3 UJ	< 6.2 UJ	< 6.2 UJ	< 5.8 UJ	< 6.5 UJ	< 5.9 UJ	< 5.9 UJ	< 6.0 UJ	< 5.7 UJ	< 6.3 UJ
1,1,2-Trichloro-1,2,2-trifluoroethane	ug/kg	-	-	< 5.7 UJ-	< 7.4 UJ-	< 6.3 UJ-	< 6.2 UJ-	< 6.2 UJ	< 5.8 UJ	< 6.5 UJ-	< 5.9 UJ-	< 5.9 UJ-	< 6.0 UJ-	< 5.7 UJ-	< 6.3 UJ-
1,1,2-Trichloroethane	ug/kg	-	-	< 5.7 UJ	< 7.4 UJ	< 6.3 UJ	< 6.2 UJ	< 6.2 UJ	< 5.8 UJ	< 6.5 UJ	< 5.9 UJ	< 5.9 UJ	< 6.0 UJ	< 5.7 UJ	< 6.3 UJ
1,1-Dichloroethane	ug/kg	270	240000	< 5.7 UJ	< 7.4 UJ	< 6.3 UJ	< 6.2 UJ	< 6.2 UJ	< 5.8 UJ	< 6.5 UJ	< 5.9 UJ	< 5.9 UJ	< 6.0 UJ	< 5.7 UJ	< 6.3 UJ
1,1-Dichloroethene	ug/kg	330	500000	< 5.7 UJ	< 7.4 UJ	< 6.3 UJ	< 6.2 UJ	< 6.2 UJ	< 5.8 UJ	< 6.5 UJ	< 5.9 UJ	< 5.9 UJ	< 6.0 UJ	< 5.7 UJ	< 6.3 UJ
1,2,4-Trichlorobenzene	ug/kg	330	-	< 5.7 UJ	< 7.4 UJ	< 6.3 UJ	< 6.2 UJ	< 6.2 UJ	< 5.8 UJ	< 6.5 UJ	< 5.9 UJ	< 5.9 UJ	< 6.0 UJ	< 5.7 UJ	< 6.3 UJ
1,2-Dibromo-3-chloropropane	ug/kg	-	-	< 5.7 UJ	< 7.4 UJ	< 6.3 UJ	< 6.2 UJ	< 6.2 UJ	< 5.8 UJ	< 6.5 UJ	< 5.9 UJ	< 5.9 UJ	< 6.0 UJ	< 5.7 UJ	< 6.3 UJ
1,2-Dibromoethane	ug/kg	-	-	< 5.7 UJ	< 7.4 UJ	< 6.3 UJ	< 6.2 UJ	< 6.2 UJ	< 5.8 UJ	< 6.5 UJ	< 5.9 UJ	< 5.9 UJ	< 6.0 UJ	< 5.7 UJ	< 6.3 UJ
1,2-Dichlorobenzene	ug/kg	1100	500000	< 5.7 UJ	< 7.4 UJ	< 6.3 UJ	< 6.2 UJ	< 6.2 UJ	< 5.8 UJ	< 6.5 UJ	< 5.9 UJ	< 5.9 UJ	< 6.0 UJ	< 5.7 UJ	< 6.3 UJ
1,2-Dichloroethane	ug/kg	20	30000	< 5.7 UJ	< 7.4 UJ	< 6.3 UJ	< 6.2 UJ	< 6.2 UJ	< 5.8 UJ	< 6.5 UJ	< 5.9 UJ	< 5.9 UJ	< 6.0 UJ	< 5.7 UJ	< 6.3 UJ
1,2-Dichloropropane	ug/kg	-	-	< 5.7 UJ	< 7.4 UJ	< 6.3 UJ	< 6.2 UJ	< 6.2 UJ	< 5.8 UJ	< 6.5 UJ	< 5.9 UJ	< 5.9 UJ	< 6.0 UJ	< 5.7 UJ	< 6.3 UJ
1,3-Dichlorobenzene	ug/kg	2400	280000	< 5.7 UJ	< 7.4 UJ	< 6.3 UJ	< 6.2 UJ	< 6.2 UJ	< 5.8 UJ	< 6.5 UJ	< 5.9 UJ	< 5.9 UJ	< 6.0 UJ	< 5.7 UJ	< 6.3 UJ
1,4-Dichlorobenzene	ug/kg	1800	130000	< 5.7 UJ	< 7.4 UJ	< 6.3 UJ	< 6.2 UJ	< 6.2 UJ	< 5.8 UJ	< 6.5 UJ	< 5.9 UJ	< 5.9 UJ	< 6.0 UJ	< 5.7 UJ	< 6.3 UJ
2-Butanone	ug/kg	**120**	500000	< 28 UJ	48 J	< 31 UJ	< 31 UJ	< 31 UJ	< 29 UJ	< 32 UJ	< 29 UJ	< 29 UJ	< 30 UJ	< 28 UJ	< 31 UJ
2-Hexanone	ug/kg	-	-	< 28 UJ	< 37 UJ	< 31 UJ	< 31 UJ	< 31 UJ	< 29 UJ	< 32 UJ	< 29 UJ	< 29 UJ	< 30 UJ	< 28 UJ	< 31 UJ
4-Methyl-2-pentanone	ug/kg	-	-	< 28 UJ	< 37 UJ	< 31 UJ	< 31 UJ	< 31 UJ	< 29 UJ	< 32 UJ	< 29 UJ	< 29 UJ	< 30 UJ	< 28 UJ	< 31 UJ
Acetone	ug/kg	**50**	500000	13 UJ	**360 J**	39 J	< 31 UJ	13 UJ	42 J	< 32 UJ	17 UJ	45 J	6.2 UJ	14 UJ	39 J
Benzene	ug/kg	60	44000	< 5.7 UJ	< 7.4 UJ	< 6.3 UJ	< 6.2 UJ	< 6.2 UJ	< 5.8 UJ	< 6.5 UJ	< 5.9 UJ	< 5.9 UJ	< 6.0 UJ	< 5.7 UJ	< 6.3 UJ
Bromodichloromethane	ug/kg	-	-	< 5.7 UJ	< 7.4 UJ	< 6.3 UJ	< 6.2 UJ	< 6.2 UJ	< 5.8 UJ	< 6.5 UJ	< 5.9 UJ	< 5.9 UJ	< 6.0 UJ	< 5.7 UJ	< 6.3 UJ
Bromoform	ug/kg	-	-	< 5.7 UJ	< 7.4 UJ	< 6.3 UJ	< 6.2 UJ	< 6.2 UJ	< 5.8 UJ	< 6.5 UJ	< 5.9 UJ	< 5.9 UJ	< 6.0 UJ	< 5.7 UJ	< 6.3 UJ
Bromomethane	ug/kg	-	-	< 5.7 UJ	< 7.4 UJ	< 6.3 UJ	< 6.2 UJ	< 6.2 UJ	< 5.8 UJ	< 6.5 UJ	< 5.9 UJ	< 5.9 UJ	< 6.0 UJ	< 5.7 UJ	< 6.3 UJ
Carbon Disulfide	ug/kg	-	-	< 5.7 UJ	6.7 UJ	< 6.3 UJ	< 6.2 UJ	< 6.2 UJ	< 5.8 UJ	< 6.5 UJ	< 5.9 UJ	< 5.9 UJ	< 6.0 UJ	< 5.7 UJ	< 6.3 UJ
Carbon tetrachloride	ug/kg	760	22000	< 5.7 UJ	< 7.4 UJ	< 6.3 UJ	< 6.2 UJ	< 6.2 UJ	< 5.8 UJ	< 6.5 UJ	< 5.9 UJ	< 5.9 UJ	< 6.0 UJ	< 5.7 UJ	< 6.3 UJ
Chlorobenzene	ug/kg	1100	500000	< 5.7 UJ	< 7.4 UJ	< 6.3 UJ	< 6.2 UJ	< 6.2 UJ	< 5.8 UJ	< 6.5 UJ	< 5.9 UJ	< 5.9 UJ	< 6.0 UJ	< 5.7 UJ	< 6.3 UJ
Chloroethane	ug/kg	-	-	< 5.7 UJ	< 7.4 UJ	< 6.3 UJ	< 6.2 UJ	< 6.2 UJ	< 5.8 UJ	< 6.5 UJ	< 5.9 UJ	< 5.9 UJ	< 6.0 UJ	< 5.7 UJ	< 6.3 UJ
Chloroform	ug/kg	370	350000	0.49 UJ	1.1 UJ	0.74 UJ	0.42 UJ	< 6.2 UJ	0.65 UJ	0.43 UJ	< 5.9 UJ	< 5.9 UJ	< 6.0 UJ	< 5.7 UJ	0.52 UJ
Chloromethane	ug/kg	-	-	< 5.7 UJ-	< 7.4 UJ-	< 6.3 UJ-	< 6.2 UJ-	< 6.2 UJ	< 5.8 UJ	< 6.5 UJ-	< 5.9 UJ-	< 5.9 UJ-	< 6.0 UJ-	< 5.7 UJ-	< 6.3 UJ-
cis-1,2-Dichloroethene	ug/kg	250	500000	< 5.7 UJ	< 7.4 UJ	< 6.3 UJ	< 6.2 UJ	< 6.2 UJ	< 5.8 UJ	< 6.5 UJ	< 5.9 UJ	< 5.9 UJ	< 6.0 UJ	< 5.7 UJ	< 6.3 UJ
cis-1,3-Dichloropropene	ug/kg	-	-	< 5.7 UJ	< 7.4 UJ	< 6.3 UJ	< 6.2 UJ	< 6.2 UJ	< 5.8 UJ	< 6.5 UJ	< 5.9 UJ	< 5.9 UJ	< 6.0 UJ	< 5.7 UJ	< 6.3 UJ
Cyclohexane	ug/kg	-	-	< 5.7 UJ	< 7.4 UJ	< 6.3 UJ	< 6.2 UJ	< 6.2 UJ	< 5.8 UJ	< 6.5 UJ	< 5.9 UJ	< 5.9 UJ	< 6.0 UJ	< 5.7 UJ	< 6.3 UJ
Dibromochloromethane	ug/kg	-	-	< 5.7 UJ	< 7.4 UJ	< 6.3 UJ	< 6.2 UJ	< 6.2 UJ	< 5.8 UJ	< 6.5 UJ	< 5.9 UJ	< 5.9 UJ	< 6.0 UJ	< 5.7 UJ	< 6.3 UJ
Dichlorodifluoromethane	ug/kg	-	-	< 5.7 UJ	< 7.4 UJ	< 6.3 UJ	< 6.2 UJ	< 6.2 UJ	< 5.8 UJ	< 6.5 UJ	< 5.9 UJ	< 5.9 UJ	< 6.0 UJ	< 5.7 UJ	< 6.3 UJ
Ethylbenzene	ug/kg	1000	390000	< 5.7 UJ	< 7.4 UJ	< 6.3 UJ	< 6.2 UJ	< 6.2 UJ	< 5.8 UJ	< 6.5 UJ	< 5.9 UJ	< 5.9 UJ	< 6.0 UJ	< 5.7 UJ	< 6.3 UJ
Isopropylbenzene	ug/kg	-	-	< 5.7 UJ	< 7.4 UJ	< 6.3 UJ	< 6.2 UJ	< 6.2 UJ	< 5.8 UJ	< 6.5 UJ	< 5.9 UJ	< 5.9 UJ	< 6.0 UJ	< 5.7 UJ	< 6.3 UJ
Methyl acetate	ug/kg	-	-	< 28 UJ	< 37 UJ	< 31 UJ	< 31 UJ	< 31 UJ	< 29 UJ	< 32 UJ	< 29 UJ	< 29 UJ	< 30 UJ	< 28 UJ	< 31 UJ
Methyl tert-butyl ether	ug/kg	930	500000	< 5.7 UJ	< 7.4 UJ	< 6.3 UJ	< 6.2 UJ	< 6.2 UJ	< 5.8 UJ	< 6.5 UJ	< 5.9 UJ	< 5.9 UJ	< 6.0 UJ	< 5.7 UJ	< 6.3 UJ
Methylcyclohexane	ug/kg	-	-	< 5.7 UJ	< 7.4 UJ	< 6.3 UJ	< 6.2 UJ	< 6.2 UJ	< 5.8 UJ	< 6.5 UJ	< 5.9 UJ	< 5.9 UJ	< 6.0 UJ	< 5.7 UJ	< 6.3 UJ
Methylene chloride	ug/kg	**50**	500000	7.1 J	11 J	7.1 J	4.0 UJ	8.4 J	10 J	6.6 J	4.8 UJ	4.8 UJ	5.2 UJ	4.9 UJ	8.7 J
Styrene	ug/kg	-	-	< 5.7 UJ	< 7.4 UJ	< 6.3 UJ	< 6.2 UJ	< 6.2 UJ	< 5.8 UJ	< 6.5 UJ	< 5.9 UJ	< 5.9 UJ	< 6.0 UJ	< 5.7 UJ	< 6.3 UJ
Tetrachloroethene	ug/kg	1300	150000	< 5.7 UJ	< 7.4 UJ	< 6.3 UJ	< 6.2 UJ	< 6.2 UJ	< 5.8 UJ	< 6.5 UJ	< 5.9 UJ	< 5.9 UJ	< 6.0 UJ	< 5.7 UJ	< 6.3 UJ
Toluene	ug/kg	700	500000	< 5.7 UJ	0.78 UJ	< 6.3 UJ	< 6.2 UJ	< 6.2 UJ	< 5.8 UJ	< 6.5 UJ	< 5.9 UJ	< 5.9 UJ	< 6.0 UJ	< 5.7 UJ	< 6.3 UJ
trans-1,2-Dichloroethene	ug/kg	190	500000	< 5.7 UJ	< 7.4 UJ	< 6.3 UJ	< 6.2 UJ	< 6.2 UJ	< 5.8 UJ	< 6.5 UJ	< 5.9 UJ	< 5.9 UJ	< 6.0 UJ	< 5.7 UJ	< 6.3 UJ
trans-1,3-Dichloropropene	ug/kg	-	-	< 5.7 UJ	< 7.4 UJ	< 6.3 UJ	< 6.2 UJ	< 6.2 UJ	< 5.8 UJ	< 6.5 UJ	< 5.9 UJ	< 5.9 UJ	< 6.0 UJ	< 5.7 UJ	< 6.3 UJ
Trichloroethene	ug/kg	470	200000	< 5.7 UJ	< 7.4 UJ	< 6.3 UJ	< 6.2 UJ	< 6.2 UJ	< 5.8 UJ	< 6.5 UJ	< 5.9 UJ	< 5.9 UJ	< 6.0 UJ	< 5.7 UJ	< 6.3 UJ
Trichlorofluoromethane	ug/kg	-	-	< 5.7 UJ-	< 7.4 UJ-	< 6.3 UJ-	< 6.2 UJ-	< 6.2 UJ	< 5.8 UJ	< 6.5 UJ-	< 5.9 UJ-	< 5.9 UJ-	< 6.0 UJ-	< 5.7 UJ-	< 6.3 UJ-
Vinyl Chloride	ug/kg	20	13000	< 5.7 UJ-	< 7.4 UJ-	< 6.3 UJ-	< 6.2 UJ-	< 6.2 UJ	< 5.8 UJ	< 6.5 UJ-	< 5.9 UJ-	< 5.9 UJ-	< 6.0 UJ-	< 5.7 UJ-	< 6.3 UJ-
Xylenes, Total	ug/kg	260	500000	< 11 UJ	< 15 UJ	< 13 UJ	< 12 UJ	< 12 UJ	< 12 UJ	< 13 UJ	< 12 UJ	< 12 UJ	< 12 UJ	< 11 UJ	< 13 UJ

Analyte	SB-105-A	SB-105-B	SB-105-C	SB-105-D	SB-106-A	SB-106-B	SB-106-C	SB-107-A	SB-107-B	SB-107-C	SB-108-A	SB-108-B	SB-108-C	SB-109-A	SB-109-B	SB-109-C	SB-110-A	SB-110-B	SB-110-C	SB-110-D
Start Depth (ft bgs)	0	4	10	12	0	4	14	0	6	13	0	8	10	0	4	16	0	4	17.5	10
End Depth (ft bgs)	1	6	12	14	1	8	16	2	8	18	1	10	14	1	6	18	1	6	20	12.5
Sample Date	10/10/2018	10/10/2018	10/10/2018	10/10/2018	10/10/2018	10/10/2018	10/10/2018	10/11/2018	10/11/2018	10/11/2018	10/11/2018	10/11/2018	10/11/2018	10/11/2018	10/11/2018	10/11/2018	10/11/2018	10/11/2018	10/11/2018	10/11/2018
SW8260C																				
1,1,1-Trichloroethane	< 6.2 UJ	< 6.1 UJ	< 16 UJ	< 6.2 UJ	< 6.4 UJ	< 6.4 UJ	< 10 UJ	< 5.9 UJ	< 5.8 UJ	< 5.8 UJ	< 6.0 UJ	< 5.8 UJ	< 11 UJ	< 5.0 UJ	< 6.2 UJ	< 5.9 UJ	< 5.1 UJ	< 5.9 UJ	< 5.8 UJ	< 7.2 UJ
1,1,2,2-Tetrachloroethane	< 6.2 UJ	< 6.1 UJ	< 16 UJ	< 6.2 UJ	< 6.4 UJ	< 6.4 UJ	< 10 UJ	< 5.9 UJ	< 5.8 UJ	< 5.8 UJ	< 6.0 UJ	< 5.8 UJ	< 11 UJ	< 5.0 UJ	< 6.2 UJ	< 5.9 UJ	< 5.1 UJ	< 5.9 UJ	< 5.8 UJ	< 7.2 UJ
1,1,2-Trichloro-1,2,2-trifluoroethane	< 6.2 UJ-	< 6.1 UJ-	< 16 UJ-	< 6.2 UJ-	< 6.4 UJ-	< 6.4 UJ-	< 10 UJ-	< 5.9 UJ	< 5.8 UJ	< 5.8 UJ	< 6.0 UJ	< 5.8 UJ	< 11 UJ	< 5.0 UJ	< 6.2 UJ	< 5.9 UJ	< 5.1 UJ	< 5.9 UJ	< 5.8 UJ	< 7.2 UJ
1,1,2-Trichloroethane	< 6.2 UJ	< 6.1 UJ	< 16 UJ	< 6.2 UJ	< 6.4 UJ	< 6.4 UJ	< 10 UJ	< 5.9 UJ	< 5.8 UJ	< 5.8 UJ	< 6.0 UJ	< 5.8 UJ	< 11 UJ	< 5.0 UJ	< 6.2 UJ	< 5.9 UJ	< 5.1 UJ	< 5.9 UJ	< 5.8 UJ	< 7.2 UJ
1,1-Dichloroethane	< 6.2 UJ	< 6.1 UJ	< 16 UJ	< 6.2 UJ	< 6.4 UJ	< 6.4 UJ	< 10 UJ	< 5.9 UJ	< 5.8 UJ	< 5.8 UJ	< 6.0 UJ	< 5.8 UJ	< 11 UJ	< 5.0 UJ	< 6.2 UJ	< 5.9 UJ	< 5.1 UJ	< 5.9 UJ	< 5.8 UJ	< 7.2 UJ
1,1-Dichloroethene	< 6.2 UJ	< 6.1 UJ	< 16 UJ	< 6.2 UJ	< 6.4 UJ	< 6.4 UJ	< 10 UJ	< 5.9 UJ	< 5.8 UJ	< 5.8 UJ	< 6.0 UJ	< 5.8 UJ	< 11 UJ	< 5.0 UJ	< 6.2 UJ	< 5.9 UJ	< 5.1 UJ	< 5.9 UJ	< 5.8 UJ	< 7.2 UJ
1,2,4-Trichlorobenzene	< 6.2 UJ	< 6.1 UJ	< 16 UJ	< 6.2 UJ	< 6.4 UJ	< 6.4 UJ	< 10 UJ	< 5.9 UJ	< 5.8 UJ	< 5.8 UJ	< 6.0 UJ	< 5.8 UJ	< 11 UJ	< 5.0 UJ	< 6.2 UJ	< 5.9 UJ	< 5.1 UJ	< 5.9 UJ	< 5.8 UJ	< 7.2 UJ
1,2-Dibromo-3-chloropropane	< 6.2 UJ	< 6.1 UJ	< 16 UJ	< 6.2 UJ	< 6.4 UJ	< 6.4 UJ	< 10 UJ	< 5.9 UJ	< 5.8 UJ	< 5.8 UJ	< 6.0 UJ	< 5.8 UJ	< 11 UJ	< 5.0 UJ	< 6.2 UJ	< 5.9 UJ	< 5.1 UJ	< 5.9 UJ	< 5.8 UJ	< 7.2 UJ
1,2-Dibromoethane	< 6.2 UJ	< 6.1 UJ	< 16 UJ	< 6.2 UJ	< 6.4 UJ	< 6.4 UJ	< 10 UJ	< 5.9 UJ	< 5.8 UJ	< 5.8 UJ	< 6.0 UJ	< 5.8 UJ	< 11 UJ	< 5.0 UJ	< 6.2 UJ	< 5.9 UJ	< 5.1 UJ	< 5.9 UJ	< 5.8 UJ	< 7.2 UJ
1,2-Dichlorobenzene	< 6.2 UJ	< 6.1 UJ	< 16 UJ	< 6.2 UJ	< 6.4 UJ	< 6.4 UJ	< 10 UJ	< 5.9 UJ	< 5.8 UJ	< 5.8 UJ	< 6.0 UJ	< 5.8 UJ	< 11 UJ	< 5.0 UJ	< 6.2 UJ	< 5.9 UJ	< 5.1 UJ	< 5.9 UJ	< 5.8 UJ	< 7.2 UJ
1,2-Dichloroethane	< 6.2 UJ	< 6.1 UJ	< 16 UJ	< 6.2 UJ	< 6.4 UJ	< 6.4 UJ	< 10 UJ	< 5.9 UJ	< 5.8 UJ	< 5.8 UJ	< 6.0 UJ	< 5.8 UJ	< 11 UJ	< 5.0 UJ	< 6.2 UJ	< 5.9 UJ	< 5.1 UJ	< 5.9 UJ	< 5.8 UJ	< 7.2 UJ
1,2-Dichloropropane	< 6.2 UJ	< 6.1 UJ	< 16 UJ	< 6.2 UJ	< 6.4 UJ	< 6.4 UJ	< 10 UJ	< 5.9 UJ	< 5.8 UJ	< 5.8 UJ	< 6.0 UJ	< 5.8 UJ	< 11 UJ	< 5.0 UJ	< 6.2 UJ	< 5.9 UJ	< 5.1 UJ	< 5.9 UJ	< 5.8 UJ	< 7.2 UJ
1,3-Dichlorobenzene	< 6.2 UJ	< 6.1 UJ	< 16 UJ	< 6.2 UJ	< 6.4 UJ	< 6.4 UJ	< 10 UJ	< 5.9 UJ	< 5.8 UJ	< 5.8 UJ	< 6.0 UJ	< 5.8 UJ	< 11 UJ	< 5.0 UJ	< 6.2 UJ	< 5.9 UJ	< 5.1 UJ	< 5.9 UJ	< 5.8 UJ	< 7.2 UJ
1,4-Dichlorobenzene	< 6.2 UJ	< 6.1 UJ	< 16 UJ	< 6.2 UJ	< 6.4 UJ	< 6.4 UJ	< 10 UJ	< 5.9 UJ	< 5.8 UJ	< 5.8 UJ	< 6.0 UJ	< 5.8 UJ	< 11 UJ	< 5.0 UJ	< 6.2 UJ	< 5.9 UJ	< 5.1 UJ	< 5.9 UJ	< 5.8 UJ	< 7.2 UJ
2-Butanone	< 31 UJ	< 30 UJ	**140 J**	< 31 UJ	< 32 UJ	< 32 UJ	50 UJ	< 30 UJ	< 29 UJ	< 29 UJ	< 30 UJ	< 29 UJ+	40 UJ+	< 25 UJ+	< 31 UJ+	< 29 UJ+	< 26 UJ+	< 29 UJ+	< 29 UJ+	30 UJ+
2-Hexanone	< 31 UJ	< 30 UJ	< 81 UJ	< 31 UJ	< 32 UJ	< 32 UJ	< 51 UJ	< 30 UJ	< 29 UJ	< 29 UJ	< 30 UJ	< 29 UJ	< 57 UJ	< 25 UJ	< 31 UJ	< 29 UJ	< 26 UJ	< 29 UJ	< 29 UJ	< 36 UJ
4-Methyl-2-pentanone	< 31 UJ	< 30 UJ	< 81 UJ	< 31 UJ	< 32 UJ	< 32 UJ	< 51 UJ	< 30 UJ	< 29 UJ	< 29 UJ	< 30 UJ	< 29 UJ	< 57 UJ	< 25 UJ	< 31 UJ	< 29 UJ	< 26 UJ	< 29 UJ	< 29 UJ	< 36 UJ
Acetone	< 31 UJ	13 UJ	**660 J**	33 J	11 UJ	7.9 UJ	**300 J**	< 30 UJ	14 UJ	12 UJ	< 30 UJ	29 J	**240 J**	< 25 UJ	< 31 UJ	14 UJ	25 UJ	8.9 UJ	8.6 UJ	**120 J**
Benzene	< 6.2 UJ	< 6.1 UJ	< 16 UJ	< 6.2 UJ	< 6.4 UJ	< 6.4 UJ	< 10 UJ	< 5.9 UJ	< 5.8 UJ	< 5.8 UJ	< 6.0 UJ	< 5.8 UJ	< 11 UJ	< 5.0 UJ	< 6.2 UJ	< 5.9 UJ	< 5.1 UJ	< 5.9 UJ	< 5.8 UJ	< 7.2 UJ
Bromodichloromethane	< 6.2 UJ	< 6.1 UJ	< 16 UJ	< 6.2 UJ	< 6.4 UJ	< 6.4 UJ	< 10 UJ	< 5.9 UJ	< 5.8 UJ	< 5.8 UJ	< 6.0 UJ	< 5.8 UJ	< 11 UJ	< 5.0 UJ	< 6.2 UJ	< 5.9 UJ	< 5.1 UJ	< 5.9 UJ	< 5.8 UJ	< 7.2 UJ
Bromoform	< 6.2 UJ	< 6.1 UJ	< 16 UJ	< 6.2 UJ	< 6.4 UJ	< 6.4 UJ	< 10 UJ	< 5.9 UJ	< 5.8 UJ	< 5.8 UJ	< 6.0 UJ	< 5.8 UJ	< 11 UJ	< 5.0 UJ	< 6.2 UJ	< 5.9 UJ	< 5.1 UJ	< 5.9 UJ	< 5.8 UJ	< 7.2 UJ
Bromomethane	< 6.2 UJ	< 6.1 UJ	< 16 UJ	< 6.2 UJ	< 6.4 UJ	< 6.4 UJ	< 10 UJ	< 5.9 UJ	< 5.8 UJ	< 5.8 UJ	< 6.0 UJ	< 5.8 UJ	< 11 UJ	< 5.0 UJ	< 6.2 UJ	< 5.9 UJ	< 5.1 UJ	< 5.9 UJ	< 5.8 UJ	< 7.2 UJ
Carbon Disulfide	< 6.2 UJ	< 6.1 UJ	< 16 UJ	< 6.2 UJ	< 6.4 UJ	< 6.4 UJ	12 J	< 5.9 UJ	< 5.8 UJ	< 5.8 UJ	< 6.0 UJ	< 5.8 UJ	< 11 UJ	< 5.0 UJ	< 6.2 UJ	< 5.9 UJ	< 5.1 UJ	< 5.9 UJ	< 5.8 UJ	4.6 UJ
Carbon tetrachloride	< 6.2 UJ	< 6.1 UJ	< 16 UJ	< 6.2 UJ	< 6.4 UJ	< 6.4 UJ	< 10 UJ	< 5.9 UJ	< 5.8 UJ	< 5.8 UJ	< 6.0 UJ	< 5.8 UJ	< 11 UJ	< 5.0 UJ	< 6.2 UJ	< 5.9 UJ	< 5.1 UJ	< 5.9 UJ	< 5.8 UJ	< 7.2 UJ
Chlorobenzene	< 6.2 UJ	< 6.1 UJ	< 16 UJ	< 6.2 UJ	< 6.4 UJ	< 6.4 UJ	< 10 UJ	< 5.9 UJ	< 5.8 UJ	< 5.8 UJ	< 6.0 UJ	< 5.8 UJ	< 11 UJ	< 5.0 UJ	< 6.2 UJ	< 5.9 UJ	< 5.1 UJ	< 5.9 UJ	< 5.8 UJ	< 7.2 UJ
Chloroethane	< 6.2 UJ	< 6.1 UJ	< 16 UJ	< 6.2 UJ	< 6.4 UJ	< 6.4 UJ	< 10 UJ	< 5.9 UJ	< 5.8 UJ	< 5.8 UJ	< 6.0 UJ	< 5.8 UJ	< 11 UJ	< 5.0 UJ	< 6.2 UJ	< 5.9 UJ	< 5.1 UJ	< 5.9 UJ	< 5.8 UJ	< 7.2 UJ
Chloroform	< 6.2 UJ	< 6.1 UJ	1.6 UJ	0.61 UJ	< 6.4 UJ	< 6.4 UJ	1.5 UJ	0.45 UJ	< 5.8 UJ	< 5.8 UJ	< 6.0 UJ	0.36 UJ	< 11 UJ	0.33 UJ	< 6.2 UJ	< 5.9 UJ	0.32 UJ	< 5.9 UJ	< 5.8 UJ	< 7.2 UJ
Chloromethane	< 6.2 UJ-	< 6.1 UJ-	< 16 UJ-	< 6.2 UJ-	< 6.4 UJ-	< 6.4 UJ-	< 10 UJ-	< 5.9 UJ	< 5.8 UJ	< 5.8 UJ	< 6.0 UJ	< 5.8 UJ	< 11 UJ	< 5.0 UJ	< 6.2 UJ	< 5.9 UJ	< 5.1 UJ	< 5.9 UJ	< 5.8 UJ	< 7.2 UJ
cis-1,2-Dichloroethene	< 6.2 UJ	< 6.1 UJ	< 16 UJ	< 6.2 UJ	< 6.4 UJ	< 6.4 UJ	< 10 UJ	< 5.9 UJ	< 5.8 UJ	< 5.8 UJ	< 6.0 UJ	< 5.8 UJ	< 11 UJ	< 5.0 UJ	< 6.2 UJ	< 5.9 UJ	< 5.1 UJ	< 5.9 UJ	< 5.8 UJ	< 7.2 UJ
cis-1,3-Dichloropropene	< 6.2 UJ	< 6.1 UJ	< 16 UJ	< 6.2 UJ	< 6.4 UJ	< 6.4 UJ	< 10 UJ	< 5.9 UJ	< 5.8 UJ	< 5.8 UJ	< 6.0 UJ	< 5.8 UJ	< 11 UJ	< 5.0 UJ	< 6.2 UJ	< 5.9 UJ	< 5.1 UJ	< 5.9 UJ	< 5.8 UJ	< 7.2 UJ
Cyclohexane	< 6.2 UJ	< 6.1 UJ	< 16 UJ	< 6.2 UJ	< 6.4 UJ	< 6.4 UJ	< 10 UJ	< 5.9 UJ	< 5.8 UJ	< 5.8 UJ	< 6.0 UJ	< 5.8 UJ	< 11 UJ	< 5.0 UJ	< 6.2 UJ	< 5.9 UJ	< 5.1 UJ	< 5.9 UJ	< 5.8 UJ	< 7.2 UJ
Dibromochloromethane	< 6.2 UJ	< 6.1 UJ	< 16 UJ	< 6.2 UJ	< 6.4 UJ	< 6.4 UJ	< 10 UJ	< 5.9 UJ	< 5.8 UJ	< 5.8 UJ	< 6.0 UJ	< 5.8 UJ	< 11 UJ	< 5.0 UJ	< 6.2 UJ	< 5.9 UJ	< 5.1 UJ	< 5.9 UJ	< 5.8 UJ	< 7.2 UJ
Dichlorodifluoromethane	< 6.2 UJ	< 6.1 UJ	< 16 UJ	< 6.2 UJ	< 6.4 UJ	< 6.4 UJ	< 10 UJ	< 5.9 UJ	< 5.8 UJ	< 5.8 UJ	< 6.0 UJ	< 5.8 UJ	< 11 UJ	< 5.0 UJ	< 6.2 UJ	< 5.9 UJ	< 5.1 UJ	< 5.9 UJ	< 5.8 UJ	< 7.2 UJ
Ethylbenzene	< 6.2 UJ	< 6.1 UJ	< 16 UJ	< 6.2 UJ	< 6.4 UJ	< 6.4 UJ	< 10 UJ	< 5.9 UJ	< 5.8 UJ	< 5.8 UJ	< 6.0 UJ	< 5.8 UJ	< 11 UJ	< 5.0 UJ	< 6.2 UJ	< 5.9 UJ	< 5.1 UJ	< 5.9 UJ	< 5.8 UJ	< 7.2 UJ
Isopropylbenzene	< 6.2 UJ	< 6.1 UJ	< 16 UJ	< 6.2 UJ	< 6.4 UJ	< 6.4 UJ	< 10 UJ	< 5.9 UJ	< 5.8 UJ	< 5.8 UJ	< 6.0 UJ	< 5.8 UJ	< 11 UJ	< 5.0 UJ	< 6.2 UJ	< 5.9 UJ	< 5.1 UJ	< 5.9 UJ	< 5.8 UJ	< 7.2 UJ
Methyl acetate	< 31 UJ	< 30 UJ	< 81 UJ	< 31 UJ	< 32 UJ	< 32 UJ	< 51 UJ	< 30 UJ	< 29 UJ	< 29 UJ	< 30 UJ	< 29 UJ	< 57 UJ	< 25 UJ	< 31 UJ	< 29 UJ	< 26 UJ	< 29 UJ	< 29 UJ	< 36 UJ
Methyl tert-butyl ether	< 6.2 UJ	< 6.1 UJ	< 16 UJ	< 6.2 UJ	< 6.4 UJ	< 6.4 UJ	< 10 UJ	< 5.9 UJ	< 5.8 UJ	< 5.8 UJ	< 6.0 UJ	< 5.8 UJ	< 11 UJ	< 5.0 UJ	< 6.2 UJ	< 5.9 UJ	< 5.1 UJ	< 5.9 UJ	< 5.8 UJ	< 7.2 UJ
Methylcyclohexane	< 6.2 UJ	< 6.1 UJ	< 16 UJ	< 6.2 UJ	< 6.4 UJ	< 6.4 UJ	< 10 UJ	< 5.9 UJ	< 5.8 UJ	< 5.8 UJ	< 6.0 UJ	< 5.8 UJ	< 11 UJ	< 5.0 UJ	< 6.2 UJ	< 5.9 UJ	< 5.1 UJ	< 5.9 UJ	< 5.8 UJ	< 7.2 UJ
Methylene chloride	3.6 UJ	3.0 UJ	16 J	5.8 UJ	< 6.4 UJ	< 6.4 UJ	19 J	5.4 UJ	4.5 UJ	6.3 J	3.1 UJ	5.2 UJ	8.8 UJ	3.7 UJ	2.8 UJ	6.7 J	5.1 J	4.1 UJ	4.0 UJ	6.6 UJ
Styrene	< 6.2 UJ	< 6.1 UJ	< 16 UJ	< 6.2 UJ	< 6.4 UJ	< 6.4 UJ	< 10 UJ	< 5.9 UJ	< 5.8 UJ	< 5.8 UJ	< 6.0 UJ	< 5.8 UJ	< 11 UJ	< 5.0 UJ	< 6.2 UJ	< 5.9 UJ	< 5.1 UJ	< 5.9 UJ	< 5.8 UJ	< 7.2 UJ
Tetrachloroethene	< 6.2 UJ	< 6.1 UJ	< 16 UJ	< 6.2 UJ	< 6.4 UJ	< 6.4 UJ	< 10 UJ	< 5.9 UJ	< 5.8 UJ	< 5.8 UJ	< 6.0 UJ	< 5.8 UJ	< 11 UJ	< 5.0 UJ	< 6.2 UJ	< 5.9 UJ	< 5.1 UJ	< 5.9 UJ	< 5.8 UJ	< 7.2 UJ
Toluene	< 6.2 UJ	< 6.1 UJ	1.5 UJ	< 6.2 UJ	< 6.4 UJ	< 6.4 UJ	2.2 UJ	< 5.9 UJ	< 5.8 UJ	< 5.8 UJ	< 6.0 UJ	< 5.8 UJ	< 11 UJ	< 5.0 UJ	< 6.2 UJ	< 5.9 UJ	0.51 UJ	< 5.9 UJ	< 5.8 UJ	< 7.2 UJ
trans-1,2-Dichloroethene	< 6.2 UJ	< 6.1 UJ	< 16 UJ	< 6.2 UJ	< 6.4 UJ	< 6.4 UJ	< 10 UJ	< 5.9 UJ	< 5.8 UJ	< 5.8 UJ	< 6.0 UJ	< 5.8 UJ	< 11 UJ	< 5.0 UJ	< 6.2 UJ	< 5.9 UJ	< 5.1 UJ	< 5.9 UJ	< 5.8 UJ	< 7.2 UJ
trans-1,3-Dichloropropene	< 6.2 UJ	< 6.1 UJ	< 16 UJ	< 6.2 UJ	< 6.4 UJ	< 6.4 UJ	< 10 UJ	< 5.9 UJ	< 5.8 UJ	< 5.8 UJ	< 6.0 UJ	< 5.8 UJ	< 11 UJ	< 5.0 UJ	< 6.2 UJ	< 5.9 UJ	< 5.1 UJ	< 5.9 UJ	< 5.8 UJ	< 7.2 UJ
Trichloroethene	< 6.2 UJ	< 6.1 UJ	< 16 UJ	< 6.2 UJ	< 6.4 UJ	< 6.4 UJ	< 10 UJ	< 5.9 UJ	< 5.8 UJ	< 5.8 UJ	< 6.0 UJ	< 5.8 UJ	< 11 UJ	< 5.0 UJ	< 6.2 UJ	< 5.9 UJ	< 5.1 UJ	< 5.9 UJ	< 5.8 UJ	< 7.2 UJ
Trichlorofluoromethane	< 6.2 UJ-	< 6.1 UJ-	< 16 UJ-	< 6.2 UJ-	< 6.4 UJ-	< 6.4 UJ-	< 10 UJ-	< 5.9 UJ	< 5.8 UJ	< 5.8 UJ	< 6.0 UJ	< 5.8 UJ	< 11 UJ	< 5.0 UJ	< 6.2 UJ	< 5.9 UJ	< 5.1 UJ	< 5.9 UJ	< 5.8 UJ	< 7.2 UJ
Vinyl Chloride	< 6.2 UJ-	< 6.1 UJ-	< 16 UJ-	< 6.2 UJ-	< 6.4 UJ-	< 6.4 UJ-	< 10 UJ-	< 5.9 UJ	< 5.8 UJ	< 5.8 UJ	< 6.0 UJ	< 5.8 UJ	< 11 UJ	< 5.0 UJ	< 6.2 UJ	< 5.9 UJ	< 5.1 UJ	< 5.9 UJ	< 5.8 UJ	< 7.2 UJ
Xylenes, Total	< 12 UJ	< 12 UJ	< 32 UJ	< 12 UJ	< 13 UJ	< 13 UJ	< 21 UJ	< 12 UJ	< 12 UJ	< 12 UJ	< 12 UJ	< 12 UJ	< 23 UJ	< 10 UJ	< 12 UJ	< 12 UJ	1.4 UJ	< 12 UJ	< 12 UJ	< 14 UJ

Notes:

ft bgs = feet below ground surface

mg/kg = milligrams per kilogram

µg/kg = micrograms per kilogram

6 NYCRR Part 375 SCO = Title 6 Official Compilation of New York Codes, Rules and Regulations Part 375 Soil Cleanup Objectives

- = no SCO established

NA = not applicable/analyzed

Qualifiers:

U = Analyte analyzed for, but not detected above the sample's reported quantitation limit

J = Analyte positively identified at a numerical value that is the approximate concentration of the analyte in the sample

J+ = Sample likely to have a high bias

J- = Sample likely to have a low bias

UJ = Analyte not detected above the sample quantitation limit; the associated quantitation limit is approximate and may or may not represent the actual limit of quantitation necessary to accurately and precisely measure the analyte in the sample

N = The analysis indicates the present of an analyte for which there is presumptive evidence to make a "tentative identification."

NJ = The analysis indicates the presence of an analyte that has been "tentatively identified" and the associated numerical value represents its approximate oncentration.

R = Sample result rejected due to serious deficiency in ability to analyze sample and meet quality control criteria; the presence or absence of the analyte cannot be confirmed. This qualifier also may apply when more than one sample result is generated for a target analyte (i.e., dilutions or re-analyses), the most technically acceptable result is considered acceptable.

B/EB/TB/BB = An analyte identified in method blank (B), aqueous equipment (EB), trip (TB), or bottle blanks (BB) used to assess field contamination associated with soil or sediment samples mandates these qualifiers for only soil and sediment sample results.

P = Use professional judgment based on data use. It usually has an "M" with it, which indicates that a manual check should be made if the data that are qualified with the "P" are important to the data user. In addition, "PM" also means a decision is necessary from the Project Manager (or a delegate) concerning the need for further review of the data (see below).

PM = A manual review of the raw data is recommended to determine if the defect affects data use, as in "R" above. This review should include consideration of potential affects that could result from using the "P" qualified data. For example, in the case of holding-time exceedance, the Project Manager or delegate can decide to use the data with no qualification when analytes of interest are known not to be adversely affected by holding-time exceedances. Another example is the case where soil sample duplicate analyses for metals exceed the precision criteria; because this is likely due to sample non-homogeneity rather than contract laboratory error, then the manager or delegate must decide how to use the data.

Table 1
Soil Analytical Data

			Soil Sample ID	SB-111-A	SB-111-B	SB-111-C	SB-112-A	SB-112-B	SB-112-C	SB-113-A	SB-113-B	SB-113-C	SB-114-A	SB-114-B	SB-114-C	SB-115-A	SB-115-B	SB-115-C	SB-116-A	SB-116-B	SB-116-C	SB-117-A	SB-117-B	SB-117-C	SB-117-D	SB-118-A	SB-118-B	SB-118-C	SB-119-A	SB-119-B	SB-119-C	SB-120-A	SB-120-B	SB-120-C
			Start Depth (ft bgs)	0	6	18	0	8	12	0	6	18	0	8	10	0	7	15	0	5	14	0	4	10	16	0	6	16	0	8	13	0	4	16
			End Depth (ft bgs)	1	8	20	1	10	15	1	8	20	1	10	20	1	10	17	1	7	18	2	7	12	20	1	8	20	1	10	15	1	6	20
			Sample Date	10/16/2018	10/16/2018	10/16/2018	10/16/2018	10/16/2018	10/16/2018	10/16/2018	10/16/2018	10/16/2018	10/16/2018	10/16/2018	10/16/2018	10/12/2018	10/12/2018	10/12/2018	10/12/2018	10/12/2018	10/12/2018	10/12/2018	10/12/2018	10/12/2018	10/12/2018	10/12/2018	10/12/2018	10/12/2018	10/11/2018	10/11/2018	10/11/2018	10/11/2018	10/11/2018	10/11/2018
Analyte	Units	6 NYCRR PART 375 UNRESTRICTED USE SCO	6 NYCRR PART 375 COMMERCIAL USE SCO																															
SW8260C																																		
1,1,1-Trichloroethane	ug/kg	680	500000	< 6.1 UJ	< 5.6 UJ	< 6.4 UJ	< 5.4 UJ	< 6.8 UJ	< 82 UJ	< 6.3 UJ	< 6.6 UJ	< 6.2 UJ	< 6.0 UJ	< 5.6 UJ	< 5.2 UJ	< 6.1 UJ	< 5.7 UJ	< 5.7 UJ	< 5.8 UJ	< 6.5 UJ	< 6.4 UJ	< 5.7 UJ	< 6.0 UJ	< 8.3 UJ	< 6.0 UJ	< 6.1 UJ	< 6.2 UJ	< 5.9 UJ	< 6.1 UJ	< 5.7 UJ	< 6.3 UJ	< 5.5 UJ	< 5.9 UJ	< 7.5 UJ
1,1,2,2-Tetrachloroethane	ug/kg	-	-	< 6.1 UJ	< 5.6 UJ	< 6.4 UJ	< 5.4 UJ	< 6.8 UJ	< 82 UJ	< 6.3 UJ	< 6.6 UJ	< 6.2 UJ	< 6.0 UJ	< 5.6 UJ	< 5.2 UJ	< 6.1 UJ	< 5.7 UJ	< 5.7 UJ	< 5.8 UJ	< 6.5 UJ	< 6.4 UJ	< 5.7 UJ	< 6.0 UJ	< 8.3 UJ	< 6.0 UJ	< 6.1 UJ	< 6.2 UJ	< 5.9 UJ	< 6.1 UJ	< 5.7 UJ	< 6.3 UJ	< 5.5 UJ	< 5.9 UJ	< 7.5 UJ
1,1,2-Trichloro-1,2,2-trifluoroethane	ug/kg	-	-	< 6.1 UJ	< 5.6 UJ	< 6.4 UJ	< 5.4 UJ	< 6.8 UJ	< 82 UJ	< 6.3 UJ	< 6.6 UJ	< 6.2 UJ	< 6.0 UJ	< 5.6 UJ	< 5.2 UJ	< 6.1 UJ	< 5.7 UJ	< 5.7 UJ	< 5.8 UJ	< 6.5 UJ	< 6.4 UJ	< 5.7 UJ	< 6.0 UJ	< 8.3 UJ	< 6.0 UJ	< 6.1 UJ	< 6.2 UJ	< 5.9 UJ	< 6.1 UJ	< 5.7 UJ	< 6.3 UJ	< 5.5 UJ	< 5.9 UJ	< 7.5 UJ
1,1,2-Trichloroethane	ug/kg	-	-	< 6.1 UJ	< 5.6 UJ	< 6.4 UJ	< 5.4 UJ	< 6.8 UJ	< 82 UJ	< 6.3 UJ	< 6.6 UJ	< 6.2 UJ	< 6.0 UJ	< 5.6 UJ	< 5.2 UJ	< 6.1 UJ	< 5.7 UJ	< 5.7 UJ	< 5.8 UJ	< 6.5 UJ	< 6.4 UJ	< 5.7 UJ	< 6.0 UJ	< 8.3 UJ	< 6.0 UJ	< 6.1 UJ	< 6.2 UJ	< 5.9 UJ	< 6.1 UJ	< 5.7 UJ	< 6.3 UJ	< 5.5 UJ	< 5.9 UJ	< 7.5 UJ
1,1-Dichloroethane	ug/kg	270	240000	< 6.1 UJ	< 5.6 UJ	< 6.4 UJ	< 5.4 UJ	< 6.8 UJ	< 82 UJ	< 6.3 UJ	< 6.6 UJ	< 6.2 UJ	< 6.0 UJ	< 5.6 UJ	< 5.2 UJ	< 6.1 UJ	< 5.7 UJ	< 5.7 UJ	< 5.8 UJ	< 6.5 UJ	< 6.4 UJ	< 5.7 UJ	< 6.0 UJ	< 8.3 UJ	< 6.0 UJ	< 6.1 UJ	< 6.2 UJ	< 5.9 UJ	< 6.1 UJ	< 5.7 UJ	< 6.3 UJ	< 5.5 UJ	< 5.9 UJ	< 7.5 UJ
1,1-Dichloroethene	ug/kg	330	500000	< 6.1 UJ	< 5.6 UJ	< 6.4 UJ	< 5.4 UJ	< 6.8 UJ	< 82 UJ	< 6.3 UJ	< 6.6 UJ	< 6.2 UJ	< 6.0 UJ	< 5.6 UJ	< 5.2 UJ	< 6.1 UJ	< 5.7 UJ	< 5.7 UJ	< 5.8 UJ	< 6.5 UJ	< 6.4 UJ	< 5.7 UJ	< 6.0 UJ	< 8.3 UJ	< 6.0 UJ	< 6.1 UJ	< 6.2 UJ	< 5.9 UJ	< 6.1 UJ	< 5.7 UJ	< 6.3 UJ	< 5.5 UJ	< 5.9 UJ	< 7.5 UJ
1,2,4-Trichlorobenzene	ug/kg	330	-	< 6.1 UJ	< 5.6 UJ	< 6.4 UJ	< 5.4 UJ	< 6.8 UJ	< 82 UJ	< 6.3 UJ	< 6.6 UJ	< 6.2 UJ	< 6.0 UJ	< 5.6 UJ	< 5.2 UJ	< 6.1 UJ	< 5.7 UJ	< 5.7 UJ	< 5.8 UJ	< 6.5 UJ	< 6.4 UJ	< 5.7 UJ	< 6.0 UJ	< 8.3 UJ	< 6.0 UJ	< 6.1 UJ	< 6.2 UJ	< 5.9 UJ	< 6.1 UJ	< 5.7 UJ	< 6.3 UJ	< 5.5 UJ	< 5.9 UJ	< 7.5 UJ
1,2-Dibromo-3-chloropropane	ug/kg	-	-	< 12 UJ	< 11 UJ	< 13 UJ	< 11 UJ	< 14 UJ	< 160 UJ	< 13 UJ	< 13 UJ	< 12 UJ	< 12 UJ	< 11 UJ	< 10 UJ	< 6.1 UJ	< 5.7 UJ	< 5.7 UJ	< 5.8 UJ	< 6.5 UJ	< 6.4 UJ	< 5.7 UJ	< 6.0 UJ	< 8.3 UJ	< 6.0 UJ	< 6.1 UJ	< 6.2 UJ	< 5.9 UJ	< 6.1 UJ	< 5.7 UJ	< 6.3 UJ	< 5.5 UJ	< 5.9 UJ	< 7.5 UJ
1,2-Dibromoethane	ug/kg	-	-	< 6.1 UJ	< 5.6 UJ	< 6.4 UJ	< 5.4 UJ	< 6.8 UJ	< 82 UJ	< 6.3 UJ	< 6.6 UJ	< 6.2 UJ	< 6.0 UJ	< 5.6 UJ	< 5.2 UJ	< 6.1 UJ	< 5.7 UJ	< 5.7 UJ	< 5.8 UJ	< 6.5 UJ	< 6.4 UJ	< 5.7 UJ	< 6.0 UJ	< 8.3 UJ	< 6.0 UJ	< 6.1 UJ	< 6.2 UJ	< 5.9 UJ	< 6.1 UJ	< 5.7 UJ	< 6.3 UJ	< 5.5 UJ	< 5.9 UJ	< 7.5 UJ
1,2-Dichlorobenzene	ug/kg	1100	500000	< 6.1 UJ	< 5.6 UJ	< 6.4 UJ	< 5.4 UJ	< 6.8 UJ	< 82 UJ	< 6.3 UJ	< 6.6 UJ	< 6.2 UJ	< 6.0 UJ	< 5.6 UJ	< 5.2 UJ	< 6.1 UJ	< 5.7 UJ	< 5.7 UJ	< 5.8 UJ	< 6.5 UJ	< 6.4 UJ	< 5.7 UJ	< 6.0 UJ	< 8.3 UJ	< 6.0 UJ	< 6.1 UJ	< 6.2 UJ	< 5.9 UJ	< 6.1 UJ	< 5.7 UJ	< 6.3 UJ	< 5.5 UJ	< 5.9 UJ	< 7.5 UJ
1,2-Dichloroethane	ug/kg	20	30000	< 6.1 UJ	< 5.6 UJ	< 6.4 UJ	< 5.4 UJ	< 6.8 UJ	< 82 UJ	< 6.3 UJ	< 6.6 UJ	< 6.2 UJ	< 6.0 UJ	< 5.6 UJ	< 5.2 UJ	< 6.1 UJ	< 5.7 UJ	< 5.7 UJ	< 5.8 UJ	< 6.5 UJ	< 6.4 UJ	< 5.7 UJ	< 6.0 UJ	< 8.3 UJ	< 6.0 UJ	< 6.1 UJ	< 6.2 UJ	< 5.9 UJ	< 6.1 UJ	< 5.7 UJ	< 6.3 UJ	< 5.5 UJ	< 5.9 UJ	< 7.5 UJ
1,2-Dichloropropane	ug/kg	-	-	< 6.1 UJ	< 5.6 UJ	< 6.4 UJ	< 5.4 UJ	< 6.8 UJ	< 82 UJ	< 6.3 UJ	< 6.6 UJ	< 6.2 UJ	< 6.0 UJ	< 5.6 UJ	< 5.2 UJ	< 6.1 UJ	< 5.7 UJ	< 5.7 UJ	< 5.8 UJ	< 6.5 UJ	< 6.4 UJ	< 5.7 UJ	< 6.0 UJ	< 8.3 UJ	< 6.0 UJ	< 6.1 UJ	< 6.2 UJ	< 5.9 UJ	< 6.1 UJ	< 5.7 UJ	< 6.3 UJ	< 5.5 UJ	< 5.9 UJ	< 7.5 UJ
1,3-Dichlorobenzene	ug/kg	2400	280000	< 6.1 UJ	< 5.6 UJ	< 6.4 UJ	< 5.4 UJ	< 6.8 UJ	< 82 UJ	< 6.3 UJ	< 6.6 UJ	< 6.2 UJ	< 6.0 UJ	< 5.6 UJ	< 5.2 UJ	< 6.1 UJ	< 5.7 UJ	< 5.7 UJ	< 5.8 UJ	< 6.5 UJ	< 6.4 UJ	< 5.7 UJ	< 6.0 UJ	< 8.3 UJ	< 6.0 UJ	< 6.1 UJ	< 6.2 UJ	< 5.9 UJ	< 6.1 UJ	< 5.7 UJ	< 6.3 UJ	< 5.5 UJ	< 5.9 UJ	< 7.5 UJ
1,4-Dichlorobenzene	ug/kg	1800	130000	< 6.1 UJ	< 5.6 UJ	< 6.4 UJ	< 5.4 UJ	< 6.8 UJ	< 82 UJ	< 6.3 UJ	< 6.6 UJ	< 6.2 UJ	< 6.0 UJ	< 5.6 UJ	< 5.2 UJ	< 6.1 UJ	< 5.7 UJ	< 5.7 UJ	< 5.8 UJ	< 6.5 UJ	< 6.4 UJ	< 5.7 UJ	< 6.0 UJ	< 8.3 UJ	< 6.0 UJ	< 6.1 UJ	< 6.2 UJ	< 5.9 UJ	< 6.1 UJ	< 5.7 UJ	< 6.3 UJ	< 5.5 UJ	< 5.9 UJ	< 7.5 UJ
2-Butanone	ug/kg	**120**	500000	5.9 UJ	< 22 UJ	< 26 UJ	< 22 UJ	< 27 UJ	**730 J**	< 25 UJ	< 26 UJ	6.0 UJ	12 UJ	< 23 UJ	4.4 UJ	7.9 UJ+	< 29 UJ+	4.3 UJ+	< 29 UJ+	< 32 UJ+	< 32 UJ+	< 28 UJ+	< 30 UJ+	85 J+	< 30 UJ+	< 30 UJ+	< 31 UJ+	< 29 UJ+	< 30 UJ+	< 29 UJ+	< 31 UJ+	< 27 UJ+	< 30 UJ+	< 37 UJ+
2-Hexanone	ug/kg	-	-	< 24 UJ	< 22 UJ	< 26 UJ	< 22 UJ	< 27 UJ	< 330 UJ	< 25 UJ	< 26 UJ	< 25 UJ	< 24 UJ	< 23 UJ	< 21 UJ	< 30 UJ	< 29 UJ	< 29 UJ	< 29 UJ	< 32 UJ	< 32 UJ	< 28 UJ	< 30 UJ	< 41 UJ	< 30 UJ	< 30 UJ	< 31 UJ	< 29 UJ	< 30 UJ	< 29 UJ	< 31 UJ	< 27 UJ	< 30 UJ	< 37 UJ
4-Methyl-2-pentanone	ug/kg	-	-	< 24 UJ	< 22 UJ	< 26 UJ	< 22 UJ	< 27 UJ	< 330 UJ	< 25 UJ	< 26 UJ	< 25 UJ	< 24 UJ	< 23 UJ	< 21 UJ	< 30 UJ	< 29 UJ	< 29 UJ	< 29 UJ	< 32 UJ	< 32 UJ	< 28 UJ	< 30 UJ	< 41 UJ	< 30 UJ	< 30 UJ	< 31 UJ	< 29 UJ	< 30 UJ	< 29 UJ	< 31 UJ	< 27 UJ	< 30 UJ	< 37 UJ
Acetone	ug/kg	**50**	500000	< 30 UJ	< 28 UJ	< 32 UJ	< 27 UJ	< 34 UJ	**2900 J**	< 31 UJ	< 33 UJ	35 J	< 30 UJ	< 28 UJ	23 UJ	35 J	11 UJ	27 UJ	< 29 UJ	24 UJ	12 UJ	< 28 UJ	7.2 UJ	**490 J**	10 UJ	9.4 UJ	13 UJ	15 UJ	< 30 UJ	16 UJ	8.9 UJ	< 27 UJ	25 UJ	22 UJ
Benzene	ug/kg	60	44000	< 6.1 UJ	< 5.6 UJ	< 6.4 UJ	< 5.4 UJ	< 6.8 UJ	< 82 UJ	< 6.3 UJ	< 6.6 UJ	< 6.2 UJ	< 6.0 UJ	< 5.6 UJ	< 5.2 UJ	< 6.1 UJ	< 5.7 UJ	< 5.7 UJ	< 5.8 UJ	< 6.5 UJ	< 6.4 UJ	< 5.7 UJ	< 6.0 UJ	1.3 UJ	< 6.0 UJ	< 6.1 UJ	< 6.2 UJ	< 5.9 UJ	< 6.1 UJ	< 5.7 UJ	< 6.3 UJ	< 5.5 UJ	< 5.9 UJ	< 7.5 UJ
Bromodichloromethane	ug/kg	-	-	< 6.1 UJ	< 5.6 UJ	< 6.4 UJ	< 5.4 UJ	< 6.8 UJ	< 82 UJ	< 6.3 UJ	< 6.6 UJ	< 6.2 UJ	< 6.0 UJ	< 5.6 UJ	< 5.2 UJ	< 6.1 UJ	< 5.7 UJ	< 5.7 UJ	< 5.8 UJ	< 6.5 UJ	< 6.4 UJ	< 5.7 UJ	< 6.0 UJ	< 8.3 UJ	< 6.0 UJ	< 6.1 UJ	< 6.2 UJ	< 5.9 UJ	< 6.1 UJ	< 5.7 UJ	< 6.3 UJ	< 5.5 UJ	< 5.9 UJ	< 7.5 UJ
Bromoform	ug/kg	-	-	< 6.1 UJ	< 5.6 UJ	< 6.4 UJ	< 5.4 UJ	< 6.8 UJ	< 82 UJ	< 6.3 UJ	< 6.6 UJ	< 6.2 UJ	< 6.0 UJ	< 5.6 UJ	< 5.2 UJ	< 6.1 UJ	< 5.7 UJ	< 5.7 UJ	< 5.8 UJ	< 6.5 UJ	< 6.4 UJ	< 5.7 UJ	< 6.0 UJ	< 8.3 UJ	< 6.0 UJ	< 6.1 UJ	< 6.2 UJ	< 5.9 UJ	< 6.1 UJ	< 5.7 UJ	< 6.3 UJ	< 5.5 UJ	< 5.9 UJ	< 7.5 UJ
Bromomethane	ug/kg	-	-	< 6.1 UJ	< 5.6 UJ	< 6.4 UJ	< 5.4 UJ	< 6.8 UJ	< 82 UJ	< 6.3 UJ	< 6.6 UJ	< 6.2 UJ	< 6.0 UJ	< 5.6 UJ	< 5.2 UJ	< 6.1 UJ	< 5.7 UJ	< 5.7 UJ	< 5.8 UJ	< 6.5 UJ	< 6.4 UJ	< 5.7 UJ	< 6.0 UJ	< 8.3 UJ	< 6.0 UJ	< 6.1 UJ	< 6.2 UJ	< 5.9 UJ	< 6.1 UJ	< 5.7 UJ	< 6.3 UJ	< 5.5 UJ	< 5.9 UJ	< 7.5 UJ
Carbon Disulfide	ug/kg	-	-	< 6.1 UJ	< 5.6 UJ	< 6.4 UJ	< 5.4 UJ	< 6.8 UJ	130 J	< 6.3 UJ	< 6.6 UJ	< 6.2 UJ	< 6.0 UJ	< 5.6 UJ	2.8 UJ	< 6.1 UJ	< 5.7 UJ	< 5.7 UJ	< 5.8 UJ	< 6.5 UJ	< 6.4 UJ	< 5.7 UJ	< 6.0 UJ	51 J	< 6.0 UJ	< 6.1 UJ	< 6.2 UJ	< 5.9 UJ	< 6.1 UJ	< 5.7 UJ	< 6.3 UJ	< 5.5 UJ	< 5.9 UJ	< 7.5 UJ
Carbon tetrachloride	ug/kg	760	22000	< 6.1 UJ	< 5.6 UJ	< 6.4 UJ	< 5.4 UJ	< 6.8 UJ	< 82 UJ	< 6.3 UJ	< 6.6 UJ	< 6.2 UJ	< 6.0 UJ	< 5.6 UJ	< 5.2 UJ	< 6.1 UJ	< 5.7 UJ	< 5.7 UJ	< 5.8 UJ	< 6.5 UJ	< 6.4 UJ	< 5.7 UJ	< 6.0 UJ	< 8.3 UJ	< 6.0 UJ	< 6.1 UJ	< 6.2 UJ	< 5.9 UJ	< 6.1 UJ	< 5.7 UJ	< 6.3 UJ	< 5.5 UJ	< 5.9 UJ	< 7.5 UJ
Chlorobenzene	ug/kg	1100	500000	< 6.1 UJ	< 5.6 UJ	< 6.4 UJ	< 5.4 UJ	< 6.8 UJ	< 82 UJ	< 6.3 UJ	< 6.6 UJ	< 6.2 UJ	< 6.0 UJ	< 5.6 UJ	< 5.2 UJ	< 6.1 UJ	< 5.7 UJ	< 5.7 UJ	< 5.8 UJ	< 6.5 UJ	< 6.4 UJ	< 5.7 UJ	< 6.0 UJ	< 8.3 UJ	< 6.0 UJ	< 6.1 UJ	< 6.2 UJ	< 5.9 UJ	< 6.1 UJ	< 5.7 UJ	< 6.3 UJ	< 5.5 UJ	< 5.9 UJ	< 7.5 UJ
Chloroethane	ug/kg	-	-	< 6.1 UJ	< 5.6 UJ	< 6.4 UJ	< 5.4 UJ	< 6.8 UJ	< 82 UJ	< 6.3 UJ	< 6.6 UJ	< 6.2 UJ	< 6.0 UJ	< 5.6 UJ	< 5.2 UJ	< 6.1 UJ	< 5.7 UJ	< 5.7 UJ	< 5.8 UJ	< 6.5 UJ	< 6.4 UJ	< 5.7 UJ	< 6.0 UJ	< 8.3 UJ	< 6.0 UJ	< 6.1 UJ	< 6.2 UJ	< 5.9 UJ	< 6.1 UJ	< 5.7 UJ	< 6.3 UJ	< 5.5 UJ	< 5.9 UJ	< 7.5 UJ
Chloroform	ug/kg	370	350000	< 6.1 UJ	< 5.6 UJ	< 6.4 UJ	< 5.4 UJ	< 6.8 UJ	< 82 UJ	< 6.3 UJ	< 6.6 UJ	< 6.2 UJ	< 6.0 UJ	< 5.6 UJ	< 5.2 UJ	< 6.1 UJ	< 5.7 UJ	< 5.7 UJ	< 5.8 UJ	< 6.5 UJ	< 6.4 UJ	< 5.7 UJ	< 6.0 UJ	< 8.3 UJ	< 6.0 UJ	0.60 UJ	< 6.2 UJ	< 5.9 UJ	0.44 UJ	< 5.7 UJ	< 6.3 UJ	< 5.5 UJ	0.41 UJ	< 7.5 UJ
Chloromethane	ug/kg	-	-	< 6.1 UJ	< 5.6 UJ	< 6.4 UJ	< 5.4 UJ	< 6.8 UJ	< 82 UJ	< 6.3 UJ	< 6.6 UJ	< 6.2 UJ	< 6.0 UJ	< 5.6 UJ	< 5.2 UJ	< 6.1 UJ	< 5.7 UJ	< 5.7 UJ	< 5.8 UJ	< 6.5 UJ	< 6.4 UJ	< 5.7 UJ	< 6.0 UJ	< 8.3 UJ	< 6.0 UJ	< 6.1 UJ-	< 6.2 UJ	< 5.9 UJ	< 6.1 UJ	< 5.7 UJ	< 6.3 UJ	< 5.5 UJ	< 5.9 UJ	< 7.5 UJ
cis-1,2-Dichloroethene	ug/kg	250	500000	< 6.1 UJ	< 5.6 UJ	< 6.4 UJ	< 5.4 UJ	< 6.8 UJ	< 82 UJ	< 6.3 UJ	< 6.6 UJ	< 6.2 UJ	< 6.0 UJ	< 5.6 UJ	< 5.2 UJ	< 6.1 UJ	< 5.7 UJ	< 5.7 UJ	< 5.8 UJ	< 6.5 UJ	< 6.4 UJ	< 5.7 UJ	< 6.0 UJ	< 8.3 UJ	< 6.0 UJ	< 6.1 UJ	< 6.2 UJ	< 5.9 UJ	< 6.1 UJ	< 5.7 UJ	< 6.3 UJ	< 5.5 UJ	< 5.9 UJ	< 7.5 UJ
cis-1,3-Dichloropropene	ug/kg	-	-	< 6.1 UJ	< 5.6 UJ	< 6.4 UJ	< 5.4 UJ	< 6.8 UJ	< 82 UJ	< 6.3 UJ	< 6.6 UJ	< 6.2 UJ	< 6.0 UJ	< 5.6 UJ	< 5.2 UJ	< 6.1 UJ	< 5.7 UJ	< 5.7 UJ	< 5.8 UJ	< 6.5 UJ	< 6.4 UJ	< 5.7 UJ	< 6.0 UJ	< 8.3 UJ	< 6.0 UJ	< 6.1 UJ	< 6.2 UJ	< 5.9 UJ	< 6.1 UJ	< 5.7 UJ	< 6.3 UJ	< 5.5 UJ	< 5.9 UJ	< 7.5 UJ
Cyclohexane	ug/kg	-	-	< 12 UJ	< 11 UJ	< 13 UJ	< 11 UJ	< 14 UJ	< 160 UJ	< 13 UJ	< 13 UJ	< 12 UJ	< 12 UJ	< 11 UJ	< 10 UJ	< 6.1 UJ	< 5.7 UJ	< 5.7 UJ	< 5.8 UJ	< 6.5 UJ	< 6.4 UJ	< 5.7 UJ	< 6.0 UJ	< 8.3 UJ	< 6.0 UJ	< 6.1 UJ	< 6.2 UJ	< 5.9 UJ	< 6.1 UJ	< 5.7 UJ	< 6.3 UJ	< 5.5 UJ	< 5.9 UJ	< 7.5 UJ
Dibromochloromethane	ug/kg	-	-	< 6.1 UJ	< 5.6 UJ	< 6.4 UJ	< 5.4 UJ	< 6.8 UJ	< 82 UJ	< 6.3 UJ	< 6.6 UJ	< 6.2 UJ	< 6.0 UJ	< 5.6 UJ	< 5.2 UJ	< 6.1 UJ	< 5.7 UJ	< 5.7 UJ	< 5.8 UJ	< 6.5 UJ	< 6.4 UJ	< 5.7 UJ	< 6.0 UJ	< 8.3 UJ	< 6.0 UJ	< 6.1 UJ	< 6.2 UJ	< 5.9 UJ	< 6.1 UJ	< 5.7 UJ	< 6.3 UJ	< 5.5 UJ	< 5.9 UJ	< 7.5 UJ
Dichlorodifluoromethane	ug/kg	-	-	< 6.1 UJ	< 5.6 UJ	< 6.4 UJ	< 5.4 UJ	< 6.8 UJ	< 82 UJ	< 6.3 UJ	< 6.6 UJ	< 6.2 UJ	< 6.0 UJ	< 5.6 UJ	< 5.2 UJ	< 6.1 UJ	< 5.7 UJ	< 5.7 UJ	< 5.8 UJ	< 6.5 UJ	< 6.4 UJ	< 5.7 UJ	< 6.0 UJ	< 8.3 UJ	< 6.0 UJ	< 6.1 UJ	< 6.2 UJ	< 5.9 UJ	< 6.1 UJ	< 5.7 UJ	< 6.3 UJ	< 5.5 UJ	< 5.9 UJ	< 7.5 UJ
Ethylbenzene	ug/kg	1000	390000	< 6.1 UJ	< 5.6 UJ	< 6.4 UJ	< 5.4 UJ	< 6.8 UJ	< 82 UJ	< 6.3 UJ	< 6.6 UJ	< 6.2 UJ	< 6.0 UJ	< 5.6 UJ	< 5.2 UJ	< 6.1 UJ	< 5.7 UJ	< 5.7 UJ	< 5.8 UJ	< 6.5 UJ	< 6.4 UJ	< 5.7 UJ	< 6.0 UJ	2.3 UJ	< 6.0 UJ	< 6.1 UJ	< 6.2 UJ	< 5.9 UJ	< 6.1 UJ	< 5.7 UJ	< 6.3 UJ	< 5.5 UJ	< 5.9 UJ	< 7.5 UJ
Isopropylbenzene	ug/kg	-	-	< 6.1 UJ	< 5.6 UJ	< 6.4 UJ	< 5.4 UJ	< 6.8 UJ	< 82 UJ	< 6.3 UJ	< 6.6 UJ	< 6.2 UJ	< 6.0 UJ	< 5.6 UJ	< 5.2 UJ	< 6.1 UJ	< 5.7 UJ	< 5.7 UJ	< 5.8 UJ	< 6.5 UJ	< 6.4 UJ	< 5.7 UJ	< 6.0 UJ	< 8.3 UJ	< 6.0 UJ	< 6.1 UJ	< 6.2 UJ	< 5.9 UJ	< 6.1 UJ	< 5.7 UJ	< 6.3 UJ	< 5.5 UJ	< 5.9 UJ	< 7.5 UJ
Methyl acetate	ug/kg	-	-	< 30 UJ	< 28 UJ	< 32 UJ	< 27 UJ	< 34 UJ	< 410 UJ	< 31 UJ	< 33 UJ	< 31 UJ	< 30 UJ	< 28 UJ	< 26 UJ	< 30 UJ	< 29 UJ	< 29 UJ	< 29 UJ	< 32 UJ	< 32 UJ	< 28 UJ	< 30 UJ	< 41 UJ	< 30 UJ	< 30 UJ	< 31 UJ	< 29 UJ	< 30 UJ	< 29 UJ	< 31 UJ	< 27 UJ	< 30 UJ	< 37 UJ
Methyl tert-butyl ether	ug/kg	930	500000	< 6.1 UJ	< 5.6 UJ	< 6.4 UJ	< 5.4 UJ	< 6.8 UJ	< 82 UJ	< 6.3 UJ	< 6.6 UJ	< 6.2 UJ	< 6.0 UJ	< 5.6 UJ	< 5.2 UJ	< 6.1 UJ	< 5.7 UJ	< 5.7 UJ	< 5.8 UJ	< 6.5 UJ	< 6.4 UJ	< 5.7 UJ	< 6.0 UJ	< 8.3 UJ	< 6.0 UJ	< 6.1 UJ	< 6.2 UJ	< 5.9 UJ	< 6.1 UJ	< 5.7 UJ	< 6.3 UJ	< 5.5 UJ	< 5.9 UJ	< 7.5 UJ
Methylcyclohexane	ug/kg	-	-	< 12 UJ	< 11 UJ	< 13 UJ	< 11 UJ	< 14 UJ	< 160 UJ	< 13 UJ	< 13 UJ	< 12 UJ	< 12 UJ	< 11 UJ	< 10 UJ	< 6.1 UJ	< 5.7 UJ	< 5.7 UJ	< 5.8 UJ	< 6.5 UJ	< 6.4 UJ	< 5.7 UJ	< 6.0 UJ	< 8.3 UJ	< 6.0 UJ	< 6.1 UJ	< 6.2 UJ	< 5.9 UJ	< 6.1 UJ	< 5.7 UJ	< 6.3 UJ	< 5.5 UJ	< 5.9 UJ	< 7.5 UJ
Methylene chloride	ug/kg	**50**	500000	< 30 UJ	< 28 UJ	< 32 UJ	33 J	< 34 UJ	< 410 UJ	< 31 UJ	< 33 UJ	< 31 UJ	< 30 UJ	< 28 UJ	< 26 UJ	< 6.1 UJ	< 5.7 UJ	< 5.7 UJ	< 5.8 UJ	< 6.5 UJ	< 6.4 UJ	< 5.7 UJ	< 6.0 UJ	< 8.3 UJ	< 6.0 UJ	3.2 UJ	< 6.2 UJ	< 5.9 UJ	5.1 UJ	4.8 UJ	3.8 UJ	4.0 UJ	7.0 J	5.4 UJ
Styrene	ug/kg	-	-	< 6.1 UJ	< 5.6 UJ	< 6.4 UJ	< 5.4 UJ	< 6.8 UJ	< 82 UJ	< 6.3 UJ	< 6.6 UJ	< 6.2 UJ	< 6.0 UJ	< 5.6 UJ	< 5.2 UJ	< 6.1 UJ	< 5.7 UJ	< 5.7 UJ	< 5.8 UJ	< 6.5 UJ	< 6.4 UJ	< 5.7 UJ	< 6.0 UJ	< 8.3 UJ	< 6.0 UJ	< 6.1 UJ	< 6.2 UJ	< 5.9 UJ	< 6.1 UJ	< 5.7 UJ	< 6.3 UJ	< 5.5 UJ	< 5.9 UJ	< 7.5 UJ
Tetrachloroethene	ug/kg	1300	150000	< 6.1 UJ	< 5.6 UJ	< 6.4 UJ	< 5.4 UJ	< 6.8 UJ	< 82 UJ	< 6.3 UJ	< 6.6 UJ	< 6.2 UJ	< 6.0 UJ	< 5.6 UJ	< 5.2 UJ	< 6.1 UJ	< 5.7 UJ	< 5.7 UJ	< 5.8 UJ	< 6.5 UJ	< 6.4 UJ	< 5.7 UJ	< 6.0 UJ	< 8.3 UJ	< 6.0 UJ	< 6.1 UJ	< 6.2 UJ	< 5.9 UJ	< 6.1 UJ	< 5.7 UJ	< 6.3 UJ	< 5.5 UJ	< 5.9 UJ	< 7.5 UJ
Toluene	ug/kg	700	500000	< 6.1 UJ	< 5.6 UJ	< 6.4 UJ	< 5.4 UJ	< 6.8 UJ	40 UJ	< 6.3 UJ	< 6.6 UJ	< 6.2 UJ	< 6.0 UJ	< 5.6 UJ	< 5.2 UJ	0.83 UJ	0.50 UJ	0.48 UJ	< 5.8 UJ	1.1 UJ	< 6.4 UJ	0.99 UJ	0.86 UJ	7.2 UJ	0.63 UJ	< 6.1 UJ	< 6.2 UJ	0.45 UJ	< 6.1 UJ	< 5.7 UJ	< 6.3 UJ	< 5.5 UJ	< 5.9 UJ	< 7.5 UJ
trans-1,2-Dichloroethene	ug/kg	190	500000	< 6.1 UJ	< 5.6 UJ	< 6.4 UJ	< 5.4 UJ	< 6.8 UJ	< 82 UJ	< 6.3 UJ	< 6.6 UJ	< 6.2 UJ	< 6.0 UJ	< 5.6 UJ	< 5.2 UJ	< 6.1 UJ	< 5.7 UJ	< 5.7 UJ	< 5.8 UJ	< 6.5 UJ	< 6.4 UJ	< 5.7 UJ	< 6.0 UJ	< 8.3 UJ	< 6.0 UJ	< 6.1 UJ	< 6.2 UJ	< 5.9 UJ	< 6.1 UJ	< 5.7 UJ	< 6.3 UJ	< 5.5 UJ	< 5.9 UJ	< 7.5 UJ
trans-1,3-Dichloropropene	ug/kg	-	-	< 6.1 UJ	< 5.6 UJ	< 6.4 UJ	< 5.4 UJ	< 6.8 UJ	< 82 UJ	< 6.3 UJ	< 6.6 UJ	< 6.2 UJ	< 6.0 UJ	< 5.6 UJ	< 5.2 UJ	< 6.1 UJ	< 5.7 UJ	< 5.7 UJ	< 5.8 UJ	< 6.5 UJ	< 6.4 UJ	< 5.7 UJ	< 6.0 UJ	< 8.3 UJ	< 6.0 UJ	< 6.1 UJ	< 6.2 UJ	< 5.9 UJ	< 6.1 UJ	< 5.7 UJ	< 6.3 UJ	< 5.5 UJ	< 5.9 UJ	< 7.5 UJ
Trichloroethene	ug/kg	470	200000	< 6.1 UJ	< 5.6 UJ	< 6.4 UJ	< 5.4 UJ	< 6.8 UJ	< 82 UJ	< 6.3 UJ	< 6.6 UJ	< 6.2 UJ	< 6.0 UJ	< 5.6 UJ	< 5.2 UJ	< 6.1 UJ	< 5.7 UJ	< 5.7 UJ	< 5.8 UJ	< 6.5 UJ	< 6.4 UJ	< 5.7 UJ	< 6.0 UJ	< 8.3 UJ	< 6.0 UJ	< 6.1 UJ	< 6.2 UJ	< 5.9 UJ	< 6.1 UJ	< 5.7 UJ	< 6.3 UJ	< 5.5 UJ	< 5.9 UJ	< 7.5 UJ
Trichlorofluoromethane	ug/kg	-	-	< 6.1 UJ	< 5.6 UJ	< 6.4 UJ	< 5.4 UJ	< 6.8 UJ	< 82 UJ	< 6.3 UJ	< 6.6 UJ	< 6.2 UJ	< 6.0 UJ	< 5.6 UJ	< 5.2 UJ	< 6.1 UJ	< 5.7 UJ	< 5.7 UJ	< 5.8 UJ	< 6.5 UJ	< 6.4 UJ	< 5.7 UJ	< 6.0 UJ	< 8.3 UJ	< 6.0 UJ	< 6.1 UJ	< 6.2 UJ	< 5.9 UJ	< 6.1 UJ	< 5.7 UJ	< 6.3 UJ	< 5.5 UJ	< 5.9 UJ	< 7.5 UJ
Vinyl Chloride	ug/kg	20	13000	< 6.1 UJ	< 5.6 UJ	< 6.4 UJ	< 5.4 UJ	< 6.8 UJ	< 82 UJ	< 6.3 UJ	< 6.6 UJ	< 6.2 UJ	< 6.0 UJ	< 5.6 UJ	< 5.2 UJ	< 6.1 UJ	< 5.7 UJ	< 5.7 UJ	< 5.8 UJ	< 6.5 UJ	< 6.4 UJ	< 5.7 UJ	< 6.0 UJ	< 8.3 UJ	< 6.0 UJ	< 6.1 UJ-	< 6.2 UJ	< 5.9 UJ	< 6.1 UJ	< 5.7 UJ	< 6.3 UJ	< 5.5 UJ	< 5.9 UJ	< 7.5 UJ
Xylenes, Total	ug/kg	260	500000	< 12 UJ	< 11 UJ	< 13 UJ	< 11 UJ	< 14 UJ	< 160 UJ	< 13 UJ	< 13 UJ	< 12 UJ	< 12 UJ	< 11 UJ	< 10 UJ	< 12 UJ	< 11 UJ	< 11 UJ	< 12 UJ	< 13 UJ	< 13 UJ	< 11 UJ	< 12 UJ	< 17 UJ	< 12 UJ	< 12 UJ	< 12 UJ	< 12 UJ	< 12 UJ	< 11 UJ	< 13 UJ	< 11 UJ	< 12 UJ	< 15 UJ

Notes:

ft bgs = feet below ground surface

mg/kg = milligrams per kilogram

μg/kg = micrograms per kilogram

6 NYCRR Part 375 SCO = Title 6 Official Compilation of New York Codes, Rules and Regulations Part 375 Soil Cleanup Objectives

\- = no SCO established

NA = not applicable/analyzed

Qualifiers:

U = Analyte analyzed for, but not detected above the sample's reported quantitation limit

J = Analyte positively identified at a numerical value that is the approximate concentration of the analyte in the sample

J+ = Sample likely to have a high bias

J- = Sample likely to have a low bias

UJ = Analyte not detected above the sample quantitation limit; the associated quantitation limit is approximate and may or may not represent the actual limit of quantitation necessary to accurately and precisely measure the analyte in the sample

N = The analysis indicates the present of an analyte for which there is presumptive evidence to make a "tentative identification."

NJ = The analysis indicates the presence of an analyte that has been "tentatively identified" and the associated numerical value represents its approximate oncentration.

R = Sample result rejected due to serious deficiency in ability to analyze sample and meet quality control criteria; the presence or absence of the analyte cannot be confirmed. This qualifier also may apply when more than one sample result is generated for a target analyte (i.e., dilutions or re-analyses), the most technically acceptable result is considered acceptable.

B/EB/TB/BB = An analyte identified in method blank (B), aqueous equipment (EB), trip (TB), or bottle blanks (BB) used to assess field contamination associated with soil or sediment samples mandates these qualifiers for only soil and sediment sample results.

P = Use professional judgment based on data use. It usually has an "M" with it, which indicates that a manual check should be made if the data that are qualified with the "P" are important to the data user. In addition, "PM" also means a decision is necessary from the Project Manager (or a delegate) concerning the need for further review of the data (see below).

PM = A manual review of the raw data is recommended to determine if the defect affects data use, as in "R" above. This review should include consideration of potential affects that could result from using the "P" qualified data. For example, in the case of holding-time exceedance, the Project Manager or delegate can decide to use the data with no qualification when analytes of interest are known not to be adversely affected by holding-time exceedances. Another example is the case where soil sample duplicate analyses for metals exceed the precision criteria; because this is likely due to sample non-homogeneity rather than contract laboratory error, then the manager or delegate must decide how to use the data.

Table 1
Soil Analytical Data

Analyte	Units	6 NYCRR PART 375 UNRESTRICTED USE SCO	6 NYCRR PART 375 COMMERCIAL USE SCO	SB-121-A	SB-121-B	SB-121-C	SB-121-D	SB-122-A	SB-122-B	SB-122-C	SB-123-A	SB-123-B	SB-123-C	SB-124-A	SB-124-B	SB-124-C
Start Depth (ft bgs)				0	8	17	10	0	8	18	0	10	18	0	12	18
End Depth (ft bgs)				1	10	20	12	2	10	20	1	12	20	1	14	20
Sample Date				10/16/2018	10/16/2018	10/16/2018	10/16/2018	10/16/2018	10/16/2018	10/16/2018	10/16/2018	10/16/2018	10/16/2018	10/16/2018	10/16/2018	10/16/2018
SW8260C																
1,1,1-Trichloroethane	ug/kg	680	500000	< 5.8 UJ	< 6.0 UJ	< 5.9 UJ	< 58 UJ	< 5.2 UJ	< 5.4 UJ	< 15 UJ	< 5.7 UJ	< 5.7 U	< 5.7 U	< 5.4 U	< 11 U	< 5.8 U
1,1,2,2-Tetrachloroethane	ug/kg	-	-	< 5.8 UJ	< 6.0 UJ	< 5.9 UJ	< 58 UJ	< 5.2 UJ	< 5.4 UJ	< 15 UJ	< 5.7 UJ	< 5.7 U	< 5.7 U	< 5.4 U	< 11 U	< 5.8 U
1,1,2-Trichloro-1,2,2-trifluoroethane	ug/kg	-	-	< 5.8 UJ	< 6.0 UJ	< 5.9 UJ	< 58 UJ	< 5.2 UJ	< 5.4 UJ	< 15 UJ	< 5.7 UJ	< 5.7 U	< 5.7 U	< 5.4 U	< 11 U	< 5.8 U
1,1,2-Trichloroethane	ug/kg	-	-	< 5.8 UJ	< 6.0 UJ	< 5.9 UJ	< 58 UJ	< 5.2 UJ	< 5.4 UJ	< 15 UJ	< 5.7 UJ	< 5.7 U	< 5.7 U	< 5.4 U	< 11 U	< 5.8 U
1,1-Dichloroethane	ug/kg	270	240000	< 5.8 UJ	< 6.0 UJ	< 5.9 UJ	< 58 UJ	< 5.2 UJ	< 5.4 UJ	< 15 UJ	< 5.7 UJ	< 5.7 U	< 5.7 U	< 5.4 U	< 11 U	< 5.8 U
1,1-Dichloroethene	ug/kg	330	500000	< 5.8 UJ	< 6.0 UJ	< 5.9 UJ	< 58 UJ	< 5.2 UJ	< 5.4 UJ	< 15 UJ	< 5.7 UJ	< 5.7 U	< 5.7 U	< 5.4 U	< 11 U	< 5.8 U
1,2,4-Trichlorobenzene	ug/kg	330	-	< 5.8 UJ	< 6.0 UJ	< 5.9 UJ	< 58 UJ	< 5.2 UJ	< 5.4 UJ	< 15 UJ	< 5.7 UJ	< 5.7 U	< 5.7 U	< 5.4 U	< 11 U	< 5.8 U
1,2-Dibromo-3-chloropropane	ug/kg	-	-	< 12 UJ	< 12 UJ	< 12 UJ	< 120 UJ	< 10 UJ	< 11 UJ	< 30 UJ	< 11 UJ	< 11 U	< 11 U	< 11 U	< 23 U	< 12 U
1,2-Dibromoethane	ug/kg	-	-	< 5.8 UJ	< 6.0 UJ	< 5.9 UJ	< 58 UJ	< 5.2 UJ	< 5.4 UJ	< 15 UJ	< 5.7 UJ	< 5.7 U	< 5.7 U	< 5.4 U	< 11 U	< 5.8 U
1,2-Dichlorobenzene	ug/kg	1100	500000	< 5.8 UJ	< 6.0 UJ	< 5.9 UJ	< 58 UJ	< 5.2 UJ	< 5.4 UJ	< 15 UJ	< 5.7 UJ	< 5.7 U	< 5.7 U	< 5.4 U	< 11 U	< 5.8 U
1,2-Dichloroethane	ug/kg	20	30000	< 5.8 UJ	< 6.0 UJ	< 5.9 UJ	< 58 UJ	< 5.2 UJ	< 5.4 UJ	< 15 UJ	< 5.7 UJ	< 5.7 U	< 5.7 U	< 5.4 U	< 11 U	< 5.8 U
1,2-Dichloropropane	ug/kg	-	-	< 5.8 UJ	< 6.0 UJ	< 5.9 UJ	< 58 UJ	< 5.2 UJ	< 5.4 UJ	< 15 UJ	< 5.7 UJ	< 5.7 U	< 5.7 U	< 5.4 U	< 11 U	< 5.8 U
1,3-Dichlorobenzene	ug/kg	2400	280000	< 5.8 UJ	< 6.0 UJ	< 5.9 UJ	< 58 UJ	< 5.2 UJ	< 5.4 UJ	< 15 UJ	< 5.7 UJ	< 5.7 U	< 5.7 U	< 5.4 U	< 11 U	< 5.8 U
1,4-Dichlorobenzene	ug/kg	1800	130000	< 5.8 UJ	< 6.0 UJ	< 5.9 UJ	< 58 UJ	< 5.2 UJ	< 5.4 UJ	< 15 UJ	< 5.7 UJ	< 5.7 U	< 5.7 U	< 5.4 U	< 11 U	< 5.8 U
2-Butanone	ug/kg	**120**	500000	< 23 UJ	< 24 UJ	4.8 UJ	**650 J**	22 J	< 22 UJ	73 J	< 23 UJ	< 23 U	< 23 U	< 22 U	53	< 23 U
2-Hexanone	ug/kg	-	-	< 23 UJ	< 24 UJ	< 23 UJ	< 230 UJ	< 21 UJ	< 22 UJ	< 60 UJ	< 23 UJ	< 23 UJ	< 23 UJ	< 22 UJ	< 45 UJ	< 23 UJ
4-Methyl-2-pentanone	ug/kg	-	-	< 23 UJ	< 24 UJ	< 23 UJ	< 230 UJ	< 21 UJ	< 22 UJ	< 60 UJ	< 23 UJ	< 23 UJ	< 23 UJ	< 22 UJ	< 45 UJ	< 23 UJ
Acetone	ug/kg	**50**	500000	< 29 UJ	< 30 UJ	< 29 UJ	**3000 J**	**150 J**	< 27 UJ	**380 J**	< 29 UJ	< 28 U	< 28 U	< 27 U	**300**	< 29 U
Benzene	ug/kg	60	44000	< 5.8 UJ	< 6.0 UJ	< 5.9 UJ	< 58 UJ	6.0 J	< 5.4 UJ	< 15 UJ	< 5.7 UJ	< 5.7 U	< 5.7 U	< 5.4 U	< 11 U	< 5.8 U
Bromodichloromethane	ug/kg	-	-	< 5.8 UJ	< 6.0 UJ	< 5.9 UJ	< 58 UJ	< 5.2 UJ	< 5.4 UJ	< 15 UJ	< 5.7 UJ	< 5.7 U	< 5.7 U	< 5.4 U	< 11 U	< 5.8 U
Bromoform	ug/kg	-	-	< 5.8 UJ	< 6.0 UJ	< 5.9 UJ	< 58 UJ	< 5.2 UJ	< 5.4 UJ	< 15 UJ	< 5.7 UJ	< 5.7 U	< 5.7 U	< 5.4 U	< 11 U	< 5.8 U
Bromomethane	ug/kg	-	-	< 5.8 UJ	< 6.0 UJ	< 5.9 UJ	< 58 UJ	< 5.2 UJ	< 5.4 UJ	< 15 UJ	< 5.7 UJ	< 5.7 U	< 5.7 U	< 5.4 U	< 11 U	< 5.8 U
Carbon Disulfide	ug/kg	-	-	1.3 UJ	< 6.0 UJ	< 5.9 UJ	390 J	9.0 J	1.7 UJ	73 J	1.9 UJ	2.0 UJ	< 5.7 U	< 5.4 U	26	< 5.8 U
Carbon tetrachloride	ug/kg	760	22000	< 5.8 UJ	< 6.0 UJ	< 5.9 UJ	< 58 UJ	< 5.2 UJ	< 5.4 UJ	< 15 UJ	< 5.7 UJ	< 5.7 U	< 5.7 U	< 5.4 U	< 11 U	< 5.8 U
Chlorobenzene	ug/kg	1100	500000	< 5.8 UJ	< 6.0 UJ	< 5.9 UJ	< 58 UJ	< 5.2 UJ	< 5.4 UJ	< 15 UJ	< 5.7 UJ	< 5.7 U	< 5.7 U	< 5.4 U	< 11 U	< 5.8 U
Chloroethane	ug/kg	-	-	< 5.8 UJ	< 6.0 UJ	< 5.9 UJ	< 58 UJ	< 5.2 UJ	< 5.4 UJ	< 15 UJ	< 5.7 UJ	< 5.7 U	< 5.7 U	< 5.4 U	< 11 U	< 5.8 U
Chloroform	ug/kg	370	350000	< 5.8 UJ	< 6.0 UJ	< 5.9 UJ	< 58 UJ	0.92 UJ	< 5.4 UJ	< 15 UJ	< 5.7 UJ	< 5.7 U	< 5.7 U	< 5.4 U	< 11 U	< 5.8 U
Chloromethane	ug/kg	-	-	< 5.8 UJ	< 6.0 UJ	< 5.9 UJ	< 58 UJ	< 5.2 UJ	< 5.4 UJ	< 15 UJ	< 5.7 UJ	< 5.7 U	< 5.7 U	< 5.4 U	< 11 U	< 5.8 U
cis-1,2-Dichloroethene	ug/kg	250	500000	< 5.8 UJ	< 6.0 UJ	< 5.9 UJ	< 58 UJ	< 5.2 UJ	< 5.4 UJ	< 15 UJ	< 5.7 UJ	< 5.7 U	< 5.7 U	< 5.4 U	< 11 U	< 5.8 U
cis-1,3-Dichloropropene	ug/kg	-	-	< 5.8 UJ	< 6.0 UJ	< 5.9 UJ	< 58 UJ	< 5.2 UJ	< 5.4 UJ	< 15 UJ	< 5.7 UJ	< 5.7 U	< 5.7 U	< 5.4 U	< 11 U	< 5.8 U
Cyclohexane	ug/kg	-	-	< 12 UJ	< 12 UJ	< 12 UJ	< 120 UJ	3.3 UJ	< 11 UJ	< 30 UJ	< 11 UJ	< 11 UJ	< 11 UJ	< 11 UJ	< 23 UJ	< 12 UJ
Dibromochloromethane	ug/kg	-	-	< 5.8 UJ	< 6.0 UJ	< 5.9 UJ	< 58 UJ	< 5.2 UJ	< 5.4 UJ	< 15 UJ	< 5.7 UJ	< 5.7 U	< 5.7 U	< 5.4 U	< 11 U	< 5.8 U
Dichlorodifluoromethane	ug/kg	-	-	< 5.8 UJ	< 6.0 UJ	< 5.9 UJ	< 58 UJ	< 5.2 UJ	< 5.4 UJ	< 15 UJ	< 5.7 UJ	< 5.7 U	< 5.7 U	< 5.4 U	< 11 U	< 5.8 U
Ethylbenzene	ug/kg	1000	390000	< 5.8 UJ	< 6.0 UJ	< 5.9 UJ	< 58 UJ	8.4 J	< 5.4 UJ	< 15 UJ	< 5.7 UJ	< 5.7 U	< 5.7 U	< 5.4 U	< 11 U	< 5.8 U
Isopropylbenzene	ug/kg	-	-	< 5.8 UJ	< 6.0 UJ	< 5.9 UJ	< 58 UJ	< 5.2 UJ	< 5.4 UJ	< 15 UJ	< 5.7 UJ	< 5.7 U	< 5.7 U	< 5.4 U	< 11 U	< 5.8 U
Methyl acetate	ug/kg	-	-	< 29 UJ	< 30 UJ	< 29 UJ	< 290 UJ	< 26 UJ	< 27 UJ	< 75 UJ	< 29 UJ	< 28 U	< 28 U	< 27 U	< 57 U	< 29 U
Methyl tert-butyl ether	ug/kg	930	500000	< 5.8 UJ	< 6.0 UJ	< 5.9 UJ	< 58 UJ	1.0 UJ	< 5.4 UJ	< 15 UJ	< 5.7 UJ	< 5.7 UJ	< 5.7 UJ	< 5.4 UJ	< 11 UJ	< 5.8 UJ
Methylcyclohexane	ug/kg	-	-	< 12 UJ	< 12 UJ	< 12 UJ	< 120 UJ	2.9 UJ	< 11 UJ	< 30 UJ	< 11 UJ	< 11 U	< 11 U	< 11 U	< 23 U	< 12 U
Methylene chloride	ug/kg	**50**	500000	29 J	< 30 UJ	< 29 UJ	< 290 UJ	< 26 UJ	< 27 UJ	**70 UJ**	< 29 UJ	< 28 U	< 28 U	< 27 U	< 57 U	< 29 U
Styrene	ug/kg	-	-	< 5.8 UJ	< 6.0 UJ	< 5.9 UJ	< 58 UJ	< 5.2 UJ	< 5.4 UJ	< 15 UJ	< 5.7 UJ	< 5.7 U	< 5.7 U	< 5.4 U	< 11 U	< 5.8 U
Tetrachloroethene	ug/kg	1300	150000	< 5.8 UJ	< 6.0 UJ	< 5.9 UJ	< 58 UJ	< 5.2 UJ	< 5.4 UJ	< 15 UJ	< 5.7 UJ	< 5.7 U	< 5.7 U	< 5.4 U	< 11 U	< 5.8 U
Toluene	ug/kg	700	500000	< 5.8 UJ	< 6.0 UJ	< 5.9 UJ	13 UJ	41 J	< 5.4 UJ	5.1 UJ	< 5.7 UJ	< 5.7 U	< 5.7 U	< 5.4 U	2.4 UJ	< 5.8 U
trans-1,2-Dichloroethene	ug/kg	190	500000	< 5.8 UJ	< 6.0 UJ	< 5.9 UJ	< 58 UJ	< 5.2 UJ	< 5.4 UJ	< 15 UJ	< 5.7 UJ	< 5.7 U	< 5.7 U	< 5.4 U	< 11 U	< 5.8 U
trans-1,3-Dichloropropene	ug/kg	-	-	< 5.8 UJ	< 6.0 UJ	< 5.9 UJ	< 58 UJ	< 5.2 UJ	< 5.4 UJ	< 15 UJ	< 5.7 UJ	< 5.7 U	< 5.7 U	< 5.4 U	< 11 U	< 5.8 U
Trichloroethene	ug/kg	470	200000	< 5.8 UJ	< 6.0 UJ	< 5.9 UJ	< 58 UJ	< 5.2 UJ	< 5.4 UJ	< 15 UJ	< 5.7 UJ	< 5.7 U	< 5.7 U	< 5.4 U	< 11 U	< 5.8 U
Trichlorofluoromethane	ug/kg	-	-	< 5.8 UJ	< 6.0 UJ	< 5.9 UJ	< 58 UJ	< 5.2 UJ	< 5.4 UJ	< 15 UJ	< 5.7 UJ	< 5.7 U	< 5.7 U	< 5.4 U	< 11 U	< 5.8 U
Vinyl Chloride	ug/kg	20	13000	< 5.8 UJ	< 6.0 UJ	< 5.9 UJ	< 58 UJ	< 5.2 UJ	< 5.4 UJ	< 15 UJ	< 5.7 UJ	< 5.7 U	< 5.7 U	< 5.4 U	< 11 U	< 5.8 U
Xylenes, Total	ug/kg	260	500000	< 12 UJ	< 12 UJ	< 12 UJ	< 120 UJ	53 J	< 11 UJ	< 30 UJ	< 11 UJ	< 11 U	< 11 U	< 11 U	< 23 U	< 12 U

Analyte	SB-125-A	SB-125-B	SB-125-C	SB-126-A	SB-126-B	SB-126-C	SB-127-A	SB-127-B	SB-127-C	SB-128-A	SB-128-B	SB-128-C	SB-129-A	SB-129-B	SB-129-C	SB-130-A	SB-130-B	SB-130-C
Start Depth (ft bgs)	0	5	16.5	0	1	14.5	0	5	18	0	5	14	0	6	16	0	6	15
End Depth (ft bgs)	1	6	18	1	4	15.5	5	10	20	2	7	16	2	7	17	3	10	18
Sample Date	10/17/2018	10/17/2018	10/17/2018	10/17/2018	10/17/2018	10/17/2018	10/17/2018	10/17/2018	10/17/2018	10/17/2018	10/17/2018	10/17/2018	10/17/2018	10/17/2018	10/17/2018	10/17/2018	10/17/2018	10/17/2018
SW8260C																		
1,1,1-Trichloroethane	< 5.8 UJ	< 5.9 UJ	< 22 UJ	< 5.5 UJ	< 5.7 UJ	< 25 UJ	< 5.5 UJ	< 5.5 UJ	< 18 UJ	< 6.0 UJ	< 5.7 UJ	< 20 UJ	< 6.0 UJ	< 5.9 UJ	< 5.7 UJ	< 6.6 UJ	< 5.8 UJ	< 5.8 UJ
1,1,2,2-Tetrachloroethane	< 5.8 UJ	< 5.9 UJ	< 22 UJ	< 5.5 UJ	< 5.7 UJ	< 25 UJ	< 5.5 UJ	< 5.5 UJ	< 18 UJ	< 6.0 UJ	< 5.7 UJ	< 20 UJ	< 6.0 UJ	< 5.9 UJ	< 5.7 UJ	< 6.6 UJ	< 5.8 UJ	< 5.8 UJ
1,1,2-Trichloro-1,2,2-trifluoroethane	< 5.8 UJ	< 5.9 UJ	< 22 UJ	< 5.5 UJ	< 5.7 UJ	< 25 UJ	< 5.5 UJ	< 5.5 UJ	< 18 UJ	< 6.0 UJ	< 5.7 UJ	< 20 UJ	< 6.0 UJ	< 5.9 UJ	< 5.7 UJ	< 6.6 UJ	< 5.8 UJ	< 5.8 UJ
1,1,2-Trichloroethane	< 5.8 UJ	< 5.9 UJ	< 22 UJ	< 5.5 UJ	< 5.7 UJ	< 25 UJ	< 5.5 UJ	< 5.5 UJ	< 18 UJ	< 6.0 UJ	< 5.7 UJ	< 20 UJ	< 6.0 UJ	< 5.9 UJ	< 5.7 UJ	< 6.6 UJ	< 5.8 UJ	< 5.8 UJ
1,1-Dichloroethane	< 5.8 UJ	< 5.9 UJ	< 22 UJ	< 5.5 UJ	< 5.7 UJ	< 25 UJ	< 5.5 UJ	< 5.5 UJ	< 18 UJ	< 6.0 UJ	< 5.7 UJ	< 20 UJ	< 6.0 UJ	< 5.9 UJ	< 5.7 UJ	< 6.6 UJ	< 5.8 UJ	< 5.8 UJ
1,1-Dichloroethene	< 5.8 UJ	< 5.9 UJ	< 22 UJ	< 5.5 UJ	< 5.7 UJ	< 25 UJ	< 5.5 UJ	< 5.5 UJ	< 18 UJ	< 6.0 UJ	< 5.7 UJ	< 20 UJ	< 6.0 UJ	< 5.9 UJ	< 5.7 UJ	< 6.6 UJ	< 5.8 UJ	< 5.8 UJ
1,2,4-Trichlorobenzene	< 5.8 UJ	< 5.9 UJ	< 22 UJ	< 5.5 UJ	< 5.7 UJ	3.1 UJ	< 5.5 UJ	< 5.5 UJ	< 18 UJ	< 6.0 UJ	< 5.7 UJ	< 20 UJ	< 6.0 UJ	< 5.9 UJ	< 5.7 UJ	< 6.6 UJ	< 5.8 UJ	< 5.8 UJ
1,2-Dibromo-3-chloropropane	< 12 UJ	< 12 UJ	< 43 UJ	< 11 UJ	< 11 UJ	< 49 UJ	< 11 UJ	< 11 UJ	< 36 UJ	< 12 UJ	< 11 UJ	< 40 UJ	< 12 UJ	< 12 UJ	< 11 UJ	< 13 UJ	< 12 UJ	< 12 UJ
1,2-Dibromoethane	< 5.8 UJ	< 5.9 UJ	< 22 UJ	< 5.5 UJ	< 5.7 UJ	< 25 UJ	< 5.5 UJ	< 5.5 UJ	< 18 UJ	< 6.0 UJ	< 5.7 UJ	< 20 UJ	< 6.0 UJ	< 5.9 UJ	< 5.7 UJ	< 6.6 UJ	< 5.8 UJ	< 5.8 UJ
1,2-Dichlorobenzene	< 5.8 UJ	< 5.9 UJ	< 22 UJ	< 5.5 UJ	< 5.7 UJ	< 25 UJ	< 5.5 UJ	< 5.5 UJ	< 18 UJ	< 6.0 UJ	< 5.7 UJ	< 20 UJ	< 6.0 UJ	< 5.9 UJ	< 5.7 UJ	< 6.6 UJ	< 5.8 UJ	< 5.8 UJ
1,2-Dichloroethane	< 5.8 UJ	< 5.9 UJ	< 22 UJ	< 5.5 UJ	< 5.7 UJ	< 25 UJ	< 5.5 UJ	< 5.5 UJ	< 18 UJ	< 6.0 UJ	< 5.7 UJ	< 20 UJ	< 6.0 UJ	< 5.9 UJ	< 5.7 UJ	< 6.6 UJ	< 5.8 UJ	< 5.8 UJ
1,2-Dichloropropane	< 5.8 UJ	< 5.9 UJ	< 22 UJ	< 5.5 UJ	< 5.7 UJ	< 25 UJ	< 5.5 UJ	< 5.5 UJ	< 18 UJ	< 6.0 UJ	< 5.7 UJ	< 20 UJ	< 6.0 UJ	< 5.9 UJ	< 5.7 UJ	< 6.6 UJ	< 5.8 UJ	< 5.8 UJ
1,3-Dichlorobenzene	< 5.8 UJ	< 5.9 UJ	< 22 UJ	< 5.5 UJ	< 5.7 UJ	< 25 UJ	< 5.5 UJ	< 5.5 UJ	< 18 UJ	< 6.0 UJ	< 5.7 UJ	< 20 UJ	< 6.0 UJ	< 5.9 UJ	< 5.7 UJ	< 6.6 UJ	< 5.8 UJ	< 5.8 UJ
1,4-Dichlorobenzene	< 5.8 UJ	< 5.9 UJ	< 22 UJ	< 5.5 UJ	< 5.7 UJ	< 25 UJ	< 5.5 UJ	< 5.5 UJ	< 18 UJ	< 6.0 UJ	< 5.7 UJ	< 20 UJ	< 6.0 UJ	< 5.9 UJ	< 5.7 UJ	< 6.6 UJ	< 5.8 UJ	< 5.8 UJ
2-Butanone	4.3 UJ	< 23 UJ	**180 J**	< 22 UJ	< 23 UJ	**380 J**	< 22 UJ	< 22 UJ	**320 J**	< 24 UJ	13 UJ	84 J	< 24 UJ	< 24 UJ	11 UJ	< 26 UJ	< 23 UJ	5.4 UJ
2-Hexanone	< 23 UJ	< 23 UJ	< 87 UJ	< 22 UJ	< 23 UJ	< 99 UJ	< 22 UJ	< 22 UJ	< 72 UJ	< 24 UJ	< 23 UJ	< 81 UJ	< 24 UJ	< 24 UJ	< 23 UJ	< 26 UJ	< 23 UJ	< 23 UJ
4-Methyl-2-pentanone	< 23 UJ	< 23 UJ	< 87 UJ	< 22 UJ	< 23 UJ	< 99 UJ	< 22 UJ	< 22 UJ	< 72 UJ	< 24 UJ	< 23 UJ	< 81 UJ	< 24 UJ	< 24 UJ	< 23 UJ	< 26 UJ	< 23 UJ	< 23 UJ
Acetone	< 29 UJ	< 29 UJ	**720 J**	< 28 UJ	< 28 UJ	**1500 J**	< 27 UJ	< 28 UJ	**1300 J**	< 30 UJ	37 J	**410 J**	< 30 UJ	< 30 UJ	48 J	< 33 UJ	< 29 UJ	< 29 UJ
Benzene	< 5.8 UJ	< 5.9 UJ	< 22 UJ	< 5.5 UJ	< 5.7 UJ	< 25 UJ	< 5.5 UJ	< 5.5 UJ	< 18 UJ	< 6.0 UJ	< 5.7 UJ	< 20 UJ	< 6.0 UJ	< 5.9 UJ	< 5.7 UJ	< 6.6 UJ	< 5.8 UJ	< 5.8 UJ
Bromodichloromethane	< 5.8 UJ	< 5.9 UJ	< 22 UJ	< 5.5 UJ	< 5.7 UJ	< 25 UJ	< 5.5 UJ	< 5.5 UJ	< 18 UJ	< 6.0 UJ	< 5.7 UJ	< 20 UJ	< 6.0 UJ	< 5.9 UJ	< 5.7 UJ	< 6.6 UJ	< 5.8 UJ	< 5.8 UJ
Bromoform	< 5.8 UJ	< 5.9 UJ	< 22 UJ	< 5.5 UJ	< 5.7 UJ	< 25 UJ	< 5.5 UJ	< 5.5 UJ	< 18 UJ	< 6.0 UJ	< 5.7 UJ	< 20 UJ	< 6.0 UJ	< 5.9 UJ	< 5.7 UJ	< 6.6 UJ	< 5.8 UJ	< 5.8 UJ
Bromomethane	< 5.8 UJ	< 5.9 UJ	< 22 UJ	< 5.5 UJ	< 5.7 UJ	< 25 UJ	< 5.5 UJ	< 5.5 UJ	< 18 UJ	< 6.0 UJ	< 5.7 UJ	< 20 UJ	< 6.0 UJ	< 5.9 UJ	< 5.7 UJ	< 6.6 UJ	< 5.8 UJ	< 5.8 UJ
Carbon Disulfide	1.5 UJ	< 5.9 UJ	7.1 UJ	< 5.5 UJ	< 5.7 UJ	110 J	< 5.5 UJ	< 5.5 UJ	22 J	< 6.0 UJ	7.8 J	180 J	< 6.0 UJ	< 5.9 UJ	< 5.7 UJ	1.5 UJ	2.4 UJ	< 5.8 UJ
Carbon tetrachloride	< 5.8 UJ	< 5.9 UJ	< 22 UJ	< 5.5 UJ	< 5.7 UJ	< 25 UJ	< 5.5 UJ	< 5.5 UJ	< 18 UJ	< 6.0 UJ	< 5.7 UJ	< 20 UJ	< 6.0 UJ	< 5.9 UJ	< 5.7 UJ	< 6.6 UJ	< 5.8 UJ	< 5.8 UJ
Chlorobenzene	< 5.8 UJ	< 5.9 UJ	< 22 UJ	< 5.5 UJ	< 5.7 UJ	< 25 UJ	< 5.5 UJ	< 5.5 UJ	< 18 UJ	< 6.0 UJ	< 5.7 UJ	< 20 UJ	< 6.0 UJ	< 5.9 UJ	< 5.7 UJ	< 6.6 UJ	< 5.8 UJ	< 5.8 UJ
Chloroethane	< 5.8 UJ	< 5.9 UJ	< 22 UJ	< 5.5 UJ	< 5.7 UJ	< 25 UJ	< 5.5 UJ	< 5.5 UJ	< 18 UJ	< 6.0 UJ	< 5.7 UJ	< 20 UJ	< 6.0 UJ	< 5.9 UJ	< 5.7 UJ	< 6.6 UJ	< 5.8 UJ	< 5.8 UJ
Chloroform	< 5.8 UJ	< 5.9 UJ	< 22 UJ	< 5.5 UJ	< 5.7 UJ	< 25 UJ	< 5.5 UJ	< 5.5 UJ	< 18 UJ	< 6.0 UJ	< 5.7 UJ	< 20 UJ	< 6.0 UJ	< 5.9 UJ	< 5.7 UJ	< 6.6 UJ	< 5.8 UJ	< 5.8 UJ
Chloromethane	< 5.8 UJ	< 5.9 UJ	< 22 UJ	< 5.5 UJ	< 5.7 UJ	< 25 UJ	< 5.5 UJ	< 5.5 UJ	< 18 UJ	< 6.0 UJ	< 5.7 UJ	< 20 UJ	< 6.0 UJ	< 5.9 UJ	< 5.7 UJ	< 6.6 UJ	< 5.8 UJ	< 5.8 UJ
cis-1,2-Dichloroethene	< 5.8 UJ	< 5.9 UJ	< 22 UJ	< 5.5 UJ	< 5.7 UJ	< 25 UJ	< 5.5 UJ	< 5.5 UJ	< 18 UJ	< 6.0 UJ	< 5.7 UJ	< 20 UJ	< 6.0 UJ	< 5.9 UJ	< 5.7 UJ	< 6.6 UJ	< 5.8 UJ	< 5.8 UJ
cis-1,3-Dichloropropene	< 5.8 UJ	< 5.9 UJ	< 22 UJ	< 5.5 UJ	< 5.7 UJ	< 25 UJ	< 5.5 UJ	< 5.5 UJ	< 18 UJ	< 6.0 UJ	< 5.7 UJ	< 20 UJ	< 6.0 UJ	< 5.9 UJ	< 5.7 UJ	< 6.6 UJ	< 5.8 UJ	< 5.8 UJ
Cyclohexane	< 12 UJ	< 12 UJ	< 43 UJ	< 11 UJ	< 11 UJ	< 49 UJ	< 11 UJ	< 11 UJ	< 36 UJ	< 12 UJ	< 11 UJ	< 40 UJ	< 12 UJ	< 12 UJ	< 11 UJ	< 13 UJ	< 12 UJ	< 12 UJ
Dibromochloromethane	< 5.8 UJ	< 5.9 UJ	< 22 UJ	< 5.5 UJ	< 5.7 UJ	< 25 UJ	< 5.5 UJ	< 5.5 UJ	< 18 UJ	< 6.0 UJ	< 5.7 UJ	< 20 UJ	< 6.0 UJ	< 5.9 UJ	< 5.7 UJ	< 6.6 UJ	< 5.8 UJ	< 5.8 UJ
Dichlorodifluoromethane	< 5.8 UJ	< 5.9 UJ	< 22 UJ	< 5.5 UJ	< 5.7 UJ	< 25 UJ	< 5.5 UJ	< 5.5 UJ	< 18 UJ	< 6.0 UJ	< 5.7 UJ	< 20 UJ	< 6.0 UJ	< 5.9 UJ	< 5.7 UJ	< 6.6 UJ	< 5.8 UJ	< 5.8 UJ
Ethylbenzene	< 5.8 UJ	< 5.9 UJ	< 22 UJ	< 5.5 UJ	< 5.7 UJ	< 25 UJ	< 5.5 UJ	< 5.5 UJ	< 18 UJ	< 6.0 UJ	< 5.7 UJ	< 20 UJ	< 6.0 UJ	< 5.9 UJ	< 5.7 UJ	< 6.6 UJ	< 5.8 UJ	< 5.8 UJ
Isopropylbenzene	< 5.8 UJ	< 5.9 UJ	< 22 UJ	< 5.5 UJ	< 5.7 UJ	< 25 UJ	< 5.5 UJ	< 5.5 UJ	< 18 UJ	< 6.0 UJ	< 5.7 UJ	< 20 UJ	< 6.0 UJ	< 5.9 UJ	< 5.7 UJ	< 6.6 UJ	< 5.8 UJ	< 5.8 UJ
Methyl acetate	< 29 UJ	< 29 UJ	< 110 UJ	< 28 UJ	< 28 UJ	< 120 UJ	< 27 UJ	< 28 UJ	< 91 UJ	< 30 UJ	< 29 UJ	< 100 UJ	< 30 UJ	< 30 UJ	< 29 UJ	< 33 UJ	< 29 UJ	< 29 UJ
Methyl tert-butyl ether	< 5.8 UJ	< 5.9 UJ	< 22 UJ	< 5.5 UJ	< 5.7 UJ	< 25 UJ	< 5.5 UJ	< 5.5 UJ	< 18 UJ	< 6.0 UJ	< 5.7 UJ	< 20 UJ	< 6.0 UJ	< 5.9 UJ	< 5.7 UJ	< 6.6 UJ	< 5.8 UJ	< 5.8 UJ
Methylcyclohexane	< 12 UJ	< 12 UJ	< 43 UJ	< 11 UJ	< 11 UJ	< 49 UJ	< 11 UJ	< 11 UJ	< 36 UJ	< 12 UJ	< 11 UJ	< 40 UJ	< 12 UJ	< 12 UJ	< 11 UJ	< 13 UJ	< 12 UJ	< 12 UJ
Methylene chloride	< 29 UJ	< 29 UJ	< 110 UJ	< 28 UJ	< 28 UJ	< 120 UJ	< 27 UJ	< 28 UJ	**3600 J**	< 30 UJ	< 29 UJ	< 100 UJ	< 30 UJ	< 30 UJ	< 29 UJ	< 33 UJ	< 29 UJ	< 29 UJ
Styrene	< 5.8 UJ	< 5.9 UJ	< 22 UJ	< 5.5 UJ	< 5.7 UJ	< 25 UJ	< 5.5 UJ	< 5.5 UJ	< 18 UJ	< 6.0 UJ	< 5.7 UJ	< 20 UJ	< 6.0 UJ	< 5.9 UJ	< 5.7 UJ	< 6.6 UJ	< 5.8 UJ	< 5.8 UJ
Tetrachloroethene	< 5.8 UJ	< 5.9 UJ	< 22 UJ	< 5.5 UJ	< 5.7 UJ	< 25 UJ	< 5.5 UJ	< 5.5 UJ	< 18 UJ	< 6.0 UJ	< 5.7 UJ	< 20 UJ	< 6.0 UJ	< 5.9 UJ	< 5.7 UJ	< 6.6 UJ	< 5.8 UJ	< 5.8 UJ
Toluene	< 5.8 UJ	< 5.9 UJ	< 22 UJ	< 5.5 UJ	< 5.7 UJ	8.6 UJ	< 5.5 UJ	< 5.5 UJ	2.9 UJ	< 6.0 UJ	< 5.7 UJ	8.0 UJ	< 6.0 UJ	< 5.9 UJ	< 5.7 UJ	< 6.6 UJ	< 5.8 UJ	< 5.8 UJ
trans-1,2-Dichloroethene	< 5.8 UJ	< 5.9 UJ	< 22 UJ	< 5.5 UJ	< 5.7 UJ	< 25 UJ	< 5.5 UJ	< 5.5 UJ	< 18 UJ	< 6.0 UJ	< 5.7 UJ	< 20 UJ	< 6.0 UJ	< 5.9 UJ	< 5.7 UJ	< 6.6 UJ	< 5.8 UJ	< 5.8 UJ
trans-1,3-Dichloropropene	< 5.8 UJ	< 5.9 UJ	< 22 UJ	< 5.5 UJ	< 5.7 UJ	< 25 UJ	< 5.5 UJ	< 5.5 UJ	< 18 UJ	< 6.0 UJ	< 5.7 UJ	< 20 UJ	< 6.0 UJ	< 5.9 UJ	< 5.7 UJ	< 6.6 UJ	< 5.8 UJ	< 5.8 UJ
Trichloroethene	< 5.8 UJ	< 5.9 UJ	< 22 UJ	< 5.5 UJ	< 5.7 UJ	< 25 UJ	< 5.5 UJ	< 5.5 UJ	< 18 UJ	< 6.0 UJ	< 5.7 UJ	< 20 UJ	< 6.0 UJ	< 5.9 UJ	< 5.7 UJ	< 6.6 UJ	< 5.8 UJ	< 5.8 UJ
Trichlorofluoromethane	< 5.8 UJ	< 5.9 UJ	< 22 UJ	< 5.5 UJ	< 5.7 UJ	< 25 UJ	< 5.5 UJ	< 5.5 UJ	< 18 UJ	< 6.0 UJ	< 5.7 UJ	< 20 UJ	< 6.0 UJ	< 5.9 UJ	< 5.7 UJ	< 6.6 UJ	< 5.8 UJ	< 5.8 UJ
Vinyl Chloride	< 5.8 UJ	< 5.9 UJ	< 22 UJ	< 5.5 UJ	< 5.7 UJ	< 25 UJ	< 5.5 UJ	< 5.5 UJ	< 18 UJ	< 6.0 UJ	< 5.7 UJ	< 20 UJ	< 6.0 UJ	< 5.9 UJ	< 5.7 UJ	< 6.6 UJ	< 5.8 UJ	< 5.8 UJ
Xylenes, Total	< 12 UJ	< 12 UJ	< 43 UJ	< 11 UJ	< 11 UJ	< 49 UJ	< 11 UJ	< 11 UJ	< 36 UJ	< 12 UJ	< 11 UJ	< 40 UJ	< 12 UJ	< 12 UJ	< 11 UJ	< 13 UJ	< 12 UJ	< 12 UJ

Notes:

ft bgs = feet below ground surface

mg/kg = milligrams per kilogram

μg/kg = micrograms per kilogram

6 NYCRR Part 375 SCO = Title 6 Official Compilation of New York Codes, Rules and Regulations Part 375 Soil Cleanup Objectives

\- = no SCO established

NA = not applicable/analyzed

Qualifiers:

U = Analyte analyzed for, but not detected above the sample's reported quantitation limit

J = Analyte positively identified at a numerical value that is the approximate concentration of the analyte in the sample

J+ = Sample likely to have a high bias

J- = Sample likely to have a low bias

UJ = Analyte not detected above the sample quantitation limit; the associated quantitation limit is approximate and may or may not represent the actual limit of quantitation necessary to accurately and precisely measure the analyte in the sample

N = The analysis indicates the present of an analyte for which there is presumptive evidence to make a "tentative identification."

NJ = The analysis indicates the presence of an analyte that has been "tentatively identified" and the associated numerical value represents its approximate oncentration.

R = Sample result rejected due to serious deficiency in ability to analyze sample and meet quality control criteria; the presence or absence of the analyte cannot be confirmed. This qualifier also may apply when more than one sample result is generated for a target analyte (i.e., dilutions or re-analyses), the most technically acceptable result is considered acceptable.

B/EB/TB/BB = An analyte identified in method blank (B), aqueous equipment (EB), trip (TB), or bottle blanks (BB) used to assess field contamination associated with soil or sediment samples mandates these qualifiers for only soil and sediment sample results.

P = Use professional judgment based on data use. It usually has an "M" with it, which indicates that a manual check should be made if the data that are qualified with the "P" are important to the data user. In addition, "PM" also means a decision is necessary from the Project Manager (or a delegate) concerning the need for further review of the data (see below).

PM = A manual review of the raw data is recommended to determine if the defect affects data use, as in "R" above. This review should include consideration of potential affects that could result from using the "P" qualified data. For example, in the case of holding-time exceedance, the Project Manager or delegate can decide to use the data with no qualification when analytes of interest are known not to be adversely affected by holding-time exceedances. Another example is the case where soil sample duplicate analyses for metals exceed the precision criteria; because this is likely due to sample non-homogeneity rather than contract laboratory error, then the manager or delegate must decide how to use the data.

Table 1
Soil Analytical Data

Soil Sample ID				SB-131A	SB-131B	SB-131C	SB-132A	SB-132B	SB-132C	SB-133A	SB-133B	SB-133C	SB-133D	SB-134A	SB-134B	SB-134C	SB-135A	SB-135B	SB-135C
Start Depth (ft bgs)				0	6	14	0	14	17	0	4	17	14	0	6	12	0	6	18
End Depth (ft bgs)				1	8	16	2	16	19	1	6	19	16	1	8	14	2	8	20
Sample Date				10/18/2018	10/18/2018	10/18/2018	10/18/2018	10/18/2018	10/18/2018	10/18/2018	10/18/2018	10/18/2018	10/18/2018	10/18/2018	10/18/2018	10/18/2018	10/18/2018	10/18/2018	10/18/2018
Analyte	Units	6 NYCRR PART 375 UNRESTRICTED USE SCO	6 NYCRR PART 375 COMMERCIAL USE SCO																
SW8260C																			
1,1,1-Trichloroethane	ug/kg	680	500000	< 5.6 UJ	< 5.7 UJ	< 19 UJ	< 5.5 UJ	< 5.8 UJ	< 6.9 UJ	< 6.3 UJ	< 5.6 UJ	< 8.1 UJ	< 16 UJ	< 5.8 UJ	< 5.9 UJ	< 37 UJ	< 5.5 UJ	< 6.9 UJ	< 5.7 UJ
1,1,2,2-Tetrachloroethane	ug/kg	-	-	< 5.6 UJ	< 5.7 UJ	< 19 UJ	< 5.5 UJ	< 5.8 UJ	< 6.9 UJ	< 6.3 UJ	< 5.6 UJ	< 8.1 UJ	< 16 UJ	< 5.8 UJ	< 5.9 UJ	< 37 UJ	< 5.5 UJ	< 6.9 UJ	< 5.7 UJ
1,1,2-Trichloro-1,2,2-trifluoroethane	ug/kg	-	-	< 5.6 UJ	< 5.7 UJ	< 19 UJ	< 5.5 UJ	< 5.8 UJ	< 6.9 UJ	< 6.3 UJ	< 5.6 UJ	< 8.1 UJ	< 16 UJ	< 5.8 UJ	< 5.9 UJ	< 37 UJ	< 5.5 UJ	< 6.9 UJ	< 5.7 UJ
1,1,2-Trichloroethane	ug/kg	-	-	< 5.6 UJ	< 5.7 UJ	< 19 UJ	< 5.5 UJ	< 5.8 UJ	< 6.9 UJ	< 6.3 UJ	< 5.6 UJ	< 8.1 UJ	< 16 UJ	< 5.8 UJ	< 5.9 UJ	< 37 UJ	< 5.5 UJ	< 6.9 UJ	< 5.7 UJ
1,1-Dichloroethane	ug/kg	270	240000	< 5.6 UJ	< 5.7 UJ	< 19 UJ	< 5.5 UJ	< 5.8 UJ	< 6.9 UJ	< 6.3 UJ	< 5.6 UJ	< 8.1 UJ	< 16 UJ	< 5.8 UJ	< 5.9 UJ	< 37 UJ	< 5.5 UJ	< 6.9 UJ	< 5.7 UJ
1,1-Dichloroethene	ug/kg	330	500000	< 5.6 UJ	< 5.7 UJ	< 19 UJ	< 5.5 UJ	< 5.8 UJ	< 6.9 UJ	< 6.3 UJ	< 5.6 UJ	< 8.1 UJ	< 16 UJ	< 5.8 UJ	< 5.9 UJ	< 37 UJ	< 5.5 UJ	< 6.9 UJ	< 5.7 UJ
1,2,4-Trichlorobenzene	ug/kg	330	-	< 5.6 UJ	< 5.7 UJ	< 19 UJ	< 5.5 UJ	< 5.8 UJ	< 6.9 UJ	< 6.3 UJ	< 5.6 UJ	< 8.1 UJ	< 16 UJ	< 5.8 UJ	< 5.9 UJ	< 37 UJ	< 5.5 UJ	< 6.9 UJ	< 5.7 UJ
1,2-Dibromo-3-chloropropane	ug/kg	-	-	< 11 UJ	< 11 UJ	< 38 UJ	< 11 UJ	< 12 UJ	< 14 UJ	< 13 UJ	< 11 UJ	< 16 UJ	< 32 UJ	< 12 UJ	< 12 UJ	< 75 UJ	< 11 UJ	< 14 UJ	< 11 UJ
1,2-Dibromoethane	ug/kg	-	-	< 5.6 UJ	< 5.7 UJ	< 19 UJ	< 5.5 UJ	< 5.8 UJ	< 6.9 UJ	< 6.3 UJ	< 5.6 UJ	< 8.1 UJ	< 16 UJ	< 5.8 UJ	< 5.9 UJ	< 37 UJ	< 5.5 UJ	< 6.9 UJ	< 5.7 UJ
1,2-Dichlorobenzene	ug/kg	1100	500000	< 5.6 UJ	< 5.7 UJ	< 19 UJ	< 5.5 UJ	< 5.8 UJ	< 6.9 UJ	< 6.3 UJ	< 5.6 UJ	< 8.1 UJ	< 16 UJ	< 5.8 UJ	< 5.9 UJ	< 37 UJ	< 5.5 UJ	< 6.9 UJ	< 5.7 UJ
1,2-Dichloroethane	ug/kg	20	30000	< 5.6 UJ	< 5.7 UJ	< 19 UJ	< 5.5 UJ	< 5.8 UJ	< 6.9 UJ	< 6.3 UJ	< 5.6 UJ	< 8.1 UJ	< 16 UJ	< 5.8 UJ	< 5.9 UJ	< 37 UJ	< 5.5 UJ	< 6.9 UJ	< 5.7 UJ
1,2-Dichloropropane	ug/kg	-	-	< 5.6 UJ	< 5.7 UJ	< 19 UJ	< 5.5 UJ	< 5.8 UJ	< 6.9 UJ	< 6.3 UJ	< 5.6 UJ	< 8.1 UJ	< 16 UJ	< 5.8 UJ	< 5.9 UJ	< 37 UJ	< 5.5 UJ	< 6.9 UJ	< 5.7 UJ
1,3-Dichlorobenzene	ug/kg	2400	280000	< 5.6 UJ	< 5.7 UJ	< 19 UJ	< 5.5 UJ	< 5.8 UJ	< 6.9 UJ	< 6.3 UJ	< 5.6 UJ	< 8.1 UJ	< 16 UJ	< 5.8 UJ	< 5.9 UJ	< 37 UJ	< 5.5 UJ	< 6.9 UJ	< 5.7 UJ
1,4-Dichlorobenzene	ug/kg	1800	130000	< 5.6 UJ	< 5.7 UJ	< 19 UJ	< 5.5 UJ	< 5.8 UJ	< 6.9 UJ	< 6.3 UJ	< 5.6 UJ	< 8.1 UJ	< 16 UJ	< 5.8 UJ	< 5.9 UJ	< 37 UJ	< 5.5 UJ	< 6.9 UJ	< 5.7 UJ
2-Butanone	ug/kg	**120**	500000	< 23 UJ	< 23 UJ	**260 J**	< 22 UJ	< 23 UJ	15 UJ	< 25 UJ	< 22 UJ	22 UJ	**160 J**	< 23 UJ	< 24 UJ	**470 J**	< 22 UJ	< 28 UJ	< 23 UJ
2-Hexanone	ug/kg	-	-	< 23 UJ	< 23 UJ	< 76 UJ	< 22 UJ	< 23 UJ	< 28 UJ	< 25 UJ	< 22 UJ	< 32 UJ	< 64 UJ	< 23 UJ	< 24 UJ	< 150 UJ	< 22 UJ	< 28 UJ	< 23 UJ
4-Methyl-2-pentanone	ug/kg	-	-	< 23 UJ	< 23 UJ	< 76 UJ	< 22 UJ	< 23 UJ	< 28 UJ	< 25 UJ	< 22 UJ	< 32 UJ	< 64 UJ	< 23 UJ	< 24 UJ	< 150 UJ	< 22 UJ	< 28 UJ	< 23 UJ
Acetone	ug/kg	**50**	500000	< 28 UJ	< 28 UJ	**1200 J**	< 28 UJ	< 29 UJ	**71 J**	< 32 UJ	< 28 UJ	**110 J**	**740 J**	< 29 UJ	< 29 UJ	**1900 J**	< 28 UJ	< 35 UJ	< 28 UJ
Benzene	ug/kg	60	44000	< 5.6 UJ	< 5.7 UJ	< 19 UJ	< 5.5 UJ	< 5.8 UJ	< 6.9 UJ	< 6.3 UJ	< 5.6 UJ	< 8.1 UJ	< 16 UJ	< 5.8 UJ	< 5.9 UJ	< 37 UJ	< 5.5 UJ	< 6.9 UJ	< 5.7 UJ
Bromodichloromethane	ug/kg	-	-	< 5.6 UJ	< 5.7 UJ	< 19 UJ	< 5.5 UJ	< 5.8 UJ	< 6.9 UJ	< 6.3 UJ	< 5.6 UJ	< 8.1 UJ	< 16 UJ	< 5.8 UJ	< 5.9 UJ	< 37 UJ	< 5.5 UJ	< 6.9 UJ	< 5.7 UJ
Bromoform	ug/kg	-	-	< 5.6 UJ	< 5.7 UJ	< 19 UJ	< 5.5 UJ	< 5.8 UJ	< 6.9 UJ	< 6.3 UJ	< 5.6 UJ	< 8.1 UJ	< 16 UJ	< 5.8 UJ	< 5.9 UJ	< 37 UJ	< 5.5 UJ	< 6.9 UJ	< 5.7 UJ
Bromomethane	ug/kg	-	-	< 5.6 UJ	< 5.7 UJ	< 19 UJ	< 5.5 UJ	< 5.8 UJ	< 6.9 UJ	< 6.3 UJ	< 5.6 UJ	< 8.1 UJ	< 16 UJ	< 5.8 UJ	< 5.9 UJ	< 37 UJ	< 5.5 UJ	< 6.9 UJ	< 5.7 UJ
Carbon Disulfide	ug/kg	-	-	< 5.6 UJ	< 5.7 UJ	290 J	1.9 UJ	< 5.8 UJ	4.1 UJ	1.6 UJ	< 5.6 UJ	< 8.1 UJ	45 J	2.6 UJ	< 5.9 UJ	85 J	< 5.5 UJ	< 6.9 UJ	< 5.7 UJ
Carbon tetrachloride	ug/kg	760	22000	< 5.6 UJ	< 5.7 UJ	< 19 UJ	< 5.5 UJ	< 5.8 UJ	< 6.9 UJ	< 6.3 UJ	< 5.6 UJ	< 8.1 UJ	< 16 UJ	< 5.8 UJ	< 5.9 UJ	< 37 UJ	< 5.5 UJ	< 6.9 UJ	< 5.7 UJ
Chlorobenzene	ug/kg	1100	500000	< 5.6 UJ	< 5.7 UJ	< 19 UJ	< 5.5 UJ	< 5.8 UJ	< 6.9 UJ	< 6.3 UJ	< 5.6 UJ	< 8.1 UJ	< 16 UJ	< 5.8 UJ	< 5.9 UJ	< 37 UJ	< 5.5 UJ	< 6.9 UJ	< 5.7 UJ
Chloroethane	ug/kg	-	-	< 5.6 UJ	< 5.7 UJ	< 19 UJ	< 5.5 UJ	< 5.8 UJ	< 6.9 UJ	< 6.3 UJ	< 5.6 UJ	< 8.1 UJ	< 16 UJ	< 5.8 UJ	< 5.9 UJ	< 37 UJ	< 5.5 UJ	< 6.9 UJ	< 5.7 UJ
Chloroform	ug/kg	370	350000	< 5.6 UJ	< 5.7 UJ	< 19 UJ	< 5.5 UJ	< 5.8 UJ	< 6.9 UJ	< 6.3 UJ	< 5.6 UJ	< 8.1 UJ	< 16 UJ	< 5.8 UJ	< 5.9 UJ	< 37 UJ	< 5.5 UJ	< 6.9 UJ	< 5.7 UJ
Chloromethane	ug/kg	-	-	< 5.6 UJ	< 5.7 UJ	< 19 UJ	< 5.5 UJ	< 5.8 UJ	< 6.9 UJ	< 6.3 UJ	< 5.6 UJ	< 8.1 UJ	< 16 UJ	< 5.8 UJ	< 5.9 UJ	< 37 UJ	< 5.5 UJ	< 6.9 UJ	< 5.7 UJ
cis-1,2-Dichloroethene	ug/kg	250	500000	< 5.6 UJ	< 5.7 UJ	< 19 UJ	< 5.5 UJ	< 5.8 UJ	< 6.9 UJ	< 6.3 UJ	< 5.6 UJ	< 8.1 UJ	< 16 UJ	< 5.8 UJ	< 5.9 UJ	< 37 UJ	< 5.5 UJ	< 6.9 UJ	< 5.7 UJ
cis-1,3-Dichloropropene	ug/kg	-	-	< 5.6 UJ	< 5.7 UJ	< 19 UJ	< 5.5 UJ	< 5.8 UJ	< 6.9 UJ	< 6.3 UJ	< 5.6 UJ	< 8.1 UJ	< 16 UJ	< 5.8 UJ	< 5.9 UJ	< 37 UJ	< 5.5 UJ	< 6.9 UJ	< 5.7 UJ
Cyclohexane	ug/kg	-	-	< 11 UJ	< 11 UJ	< 38 UJ	< 11 UJ	< 12 UJ	< 14 UJ	< 13 UJ	< 11 UJ	< 16 UJ	< 32 UJ	< 12 UJ	< 12 UJ	< 75 UJ	< 11 UJ	< 14 UJ	< 11 UJ
Dibromochloromethane	ug/kg	-	-	< 5.6 UJ	< 5.7 UJ	< 19 UJ	< 5.5 UJ	< 5.8 UJ	< 6.9 UJ	< 6.3 UJ	< 5.6 UJ	< 8.1 UJ	< 16 UJ	< 5.8 UJ	< 5.9 UJ	< 37 UJ	< 5.5 UJ	< 6.9 UJ	< 5.7 UJ
Dichlorodifluoromethane	ug/kg	-	-	< 5.6 UJ	< 5.7 UJ	< 19 UJ	< 5.5 UJ	< 5.8 UJ	< 6.9 UJ	< 6.3 UJ	< 5.6 UJ	< 8.1 UJ	< 16 UJ	< 5.8 UJ	< 5.9 UJ	< 37 UJ	< 5.5 UJ	< 6.9 UJ	< 5.7 UJ
Ethylbenzene	ug/kg	1000	390000	< 5.6 UJ	< 5.7 UJ	< 19 UJ	< 5.5 UJ	< 5.8 UJ	< 6.9 UJ	< 6.3 UJ	< 5.6 UJ	< 8.1 UJ	< 16 UJ	< 5.8 UJ	< 5.9 UJ	< 37 UJ	< 5.5 UJ	< 6.9 UJ	< 5.7 UJ
Isopropylbenzene	ug/kg	-	-	< 5.6 UJ	< 5.7 UJ	< 19 UJ	< 5.5 UJ	< 5.8 UJ	< 6.9 UJ	< 6.3 UJ	< 5.6 UJ	< 8.1 UJ	< 16 UJ	< 5.8 UJ	< 5.9 UJ	< 37 UJ	< 5.5 UJ	< 6.9 UJ	< 5.7 UJ
Methyl acetate	ug/kg	-	-	< 28 UJ	< 28 UJ	< 95 UJ	< 28 UJ	< 29 UJ	< 34 UJ	< 32 UJ	< 28 UJ	< 40 UJ	< 80 UJ	< 29 UJ	< 29 UJ	< 190 UJ	< 28 UJ	< 35 UJ	< 28 UJ
Methyl tert-butyl ether	ug/kg	930	500000	< 5.6 UJ	< 5.7 UJ	< 19 UJ	< 5.5 UJ	< 5.8 UJ	< 6.9 UJ	< 6.3 UJ	< 5.6 UJ	< 8.1 UJ	< 16 UJ	< 5.8 UJ	< 5.9 UJ	< 37 UJ	< 5.5 UJ	< 6.9 UJ	< 5.7 UJ
Methylcyclohexane	ug/kg	-	-	< 11 UJ	< 11 UJ	< 38 UJ	< 11 UJ	< 12 UJ	< 14 UJ	< 13 UJ	< 11 UJ	< 16 UJ	< 32 UJ	< 12 UJ	< 12 UJ	< 75 UJ	< 11 UJ	< 14 UJ	< 11 UJ
Methylene chloride	ug/kg	**50**	500000	< 28 UJ	< 28 UJ	< 95 UJ	< 28 UJ	< 29 UJ	< 34 UJ	< 32 UJ	< 28 UJ	< 40 UJ	< 80 UJ	< 29 UJ	< 29 UJ	< 190 UJ	< 28 UJ	< 35 UJ	< 28 UJ
Styrene	ug/kg	-	-	< 5.6 UJ	< 5.7 UJ	< 19 UJ	< 5.5 UJ	< 5.8 UJ	< 6.9 UJ	< 6.3 UJ	< 5.6 UJ	< 8.1 UJ	< 16 UJ	< 5.8 UJ	< 5.9 UJ	< 37 UJ	< 5.5 UJ	< 6.9 UJ	< 5.7 UJ
Tetrachloroethene	ug/kg	1300	150000	< 5.6 UJ	< 5.7 UJ	< 19 UJ	< 5.5 UJ	< 5.8 UJ	< 6.9 UJ	< 6.3 UJ	< 5.6 UJ	< 8.1 UJ	< 16 UJ	< 5.8 UJ	< 5.9 UJ	< 37 UJ	< 5.5 UJ	< 6.9 UJ	< 5.7 UJ
Toluene	ug/kg	700	500000	< 5.6 UJ	< 5.7 UJ	12 UJ	< 5.5 UJ	< 5.8 UJ	< 6.9 UJ	1.0 UJ	< 5.6 UJ	< 8.1 UJ	< 16 UJ	< 5.8 UJ	< 5.9 UJ	11 UJ	< 5.5 UJ	< 6.9 UJ	< 5.7 UJ
trans-1,2-Dichloroethene	ug/kg	190	500000	< 5.6 UJ	< 5.7 UJ	< 19 UJ	< 5.5 UJ	< 5.8 UJ	< 6.9 UJ	< 6.3 UJ	< 5.6 UJ	< 8.1 UJ	< 16 UJ	< 5.8 UJ	< 5.9 UJ	< 37 UJ	< 5.5 UJ	< 6.9 UJ	< 5.7 UJ
trans-1,3-Dichloropropene	ug/kg	-	-	< 5.6 UJ	< 5.7 UJ	< 19 UJ	< 5.5 UJ	< 5.8 UJ	< 6.9 UJ	< 6.3 UJ	< 5.6 UJ	< 8.1 UJ	< 16 UJ	< 5.8 UJ	< 5.9 UJ	< 37 UJ	< 5.5 UJ	< 6.9 UJ	< 5.7 UJ
Trichloroethene	ug/kg	470	200000	< 5.6 UJ	< 5.7 UJ	< 19 UJ	< 5.5 UJ	< 5.8 UJ	< 6.9 UJ	< 6.3 UJ	< 5.6 UJ	< 8.1 UJ	< 16 UJ	< 5.8 UJ	< 5.9 UJ	< 37 UJ	< 5.5 UJ	< 6.9 UJ	< 5.7 UJ
Trichlorofluoromethane	ug/kg	-	-	< 5.6 UJ	< 5.7 UJ	< 19 UJ	< 5.5 UJ	< 5.8 UJ	< 6.9 UJ	< 6.3 UJ	< 5.6 UJ	< 8.1 UJ	< 16 UJ	< 5.8 UJ	< 5.9 UJ	< 37 UJ	< 5.5 UJ	< 6.9 UJ	< 5.7 UJ
Vinyl Chloride	ug/kg	20	13000	< 5.6 UJ	< 5.7 UJ	< 19 UJ	< 5.5 UJ	< 5.8 UJ	< 6.9 UJ	< 6.3 UJ	< 5.6 UJ	< 8.1 UJ	< 16 UJ	< 5.8 UJ	< 5.9 UJ	< 37 UJ	< 5.5 UJ	< 6.9 UJ	< 5.7 UJ
Xylenes, Total	ug/kg	260	500000	< 11 UJ	< 11 UJ	< 38 UJ	< 11 UJ	< 12 UJ	< 14 UJ	< 13 UJ	< 11 UJ	< 16 UJ	< 32 UJ	< 12 UJ	< 12 UJ	< 75 UJ	< 11 UJ	< 14 UJ	< 11 UJ

Soil Sample ID	SB-136-A	SB-136-B	SB-136-C	SB-136-D	SB-137-A	SB-137-B	SB-137-C	SB-138-A	SB-138-B	SB-138-C	SB-139A	SB-139B	SB-139C	SB-139D	SB-140A	SB-140B	SB-140C	SB-141A	SB-141B	SB-141C
Start Depth (ft bgs)	0	5	17	12	0	4	14	0	5	15	0	6	13	17	0	15	17	0	5	18
End Depth (ft bgs)	1	8	20	15	1	5	16	2	8	17	2	8	15	18	2	17	19	2	7	20
Sample Date	10/17/2018	10/17/2018	10/17/2018	10/17/2018	10/17/2018	10/17/2018	10/17/2018	10/17/2018	10/17/2018	10/17/2018	10/18/2018	10/18/2018	10/18/2018	10/18/2018	10/18/2018	10/18/2018	10/18/2018	10/18/2018	10/18/2018	10/18/2018
SW8260C																				
1,1,1-Trichloroethane	< 5.4 U	< 6.2 U	< 14 U	< 6.3 U	< 6.6 U	< 5.8 U	< 11 U	< 5.8 UJ	< 5.6 UJ	< 17 UJ	< 5.7 UJ	< 6.1 UJ	< 13 UJ	< 5.7 UJ	< 5.6 UJ	< 9.5 UJ	< 8.0 UJ	< 5.4 UJ	< 6.1 UJ	< 8.8 UJ
1,1,2,2-Tetrachloroethane	< 5.4 U	< 6.2 U	< 14 U	< 6.3 U	< 6.6 U	< 5.8 U	< 11 U	< 5.8 UJ	< 5.6 UJ	< 17 UJ	< 5.7 UJ	< 6.1 UJ	< 13 UJ	< 5.7 UJ	< 5.6 UJ	< 9.5 UJ	< 8.0 UJ	< 5.4 UJ	< 6.1 UJ	< 8.8 UJ
1,1,2-Trichloro-1,2,2-trifluoroethane	< 5.4 U	< 6.2 U	< 14 U	< 6.3 U	< 6.6 U	< 5.8 U	< 11 U	< 5.8 UJ	< 5.6 UJ	< 17 UJ	< 5.7 UJ	< 6.1 UJ	< 13 UJ	< 5.7 UJ	< 5.6 UJ	< 9.5 UJ	< 8.0 UJ	< 5.4 UJ	< 6.1 UJ	< 8.8 UJ
1,1,2-Trichloroethane	< 5.4 U	< 6.2 U	< 14 U	< 6.3 U	< 6.6 U	< 5.8 U	< 11 U	< 5.8 UJ	< 5.6 UJ	< 17 UJ	< 5.7 UJ	< 6.1 UJ	< 13 UJ	< 5.7 UJ	< 5.6 UJ	< 9.5 UJ	< 8.0 UJ	< 5.4 UJ	< 6.1 UJ	< 8.8 UJ
1,1-Dichloroethane	< 5.4 U	< 6.2 U	< 14 U	< 6.3 U	< 6.6 U	< 5.8 U	< 11 U	< 5.8 UJ	< 5.6 UJ	< 17 UJ	< 5.7 UJ	< 6.1 UJ	< 13 UJ	< 5.7 UJ	< 5.6 UJ	< 9.5 UJ	< 8.0 UJ	< 5.4 UJ	< 6.1 UJ	< 8.8 UJ
1,1-Dichloroethene	< 5.4 U	< 6.2 U	< 14 U	< 6.3 U	< 6.6 U	< 5.8 U	< 11 U	< 5.8 UJ	< 5.6 UJ	< 17 UJ	< 5.7 UJ	< 6.1 UJ	< 13 UJ	< 5.7 UJ	< 5.6 UJ	< 9.5 UJ	< 8.0 UJ	< 5.4 UJ	< 6.1 UJ	< 8.8 UJ
1,2,4-Trichlorobenzene	< 5.4 U	< 6.2 U	< 14 U	< 6.3 U	< 6.6 U	< 5.8 U	< 11 U	< 5.8 UJ	< 5.6 UJ	< 17 UJ	< 5.7 UJ	< 6.1 UJ	< 13 UJ	< 5.7 UJ	< 5.6 UJ	< 9.5 UJ	< 8.0 UJ	< 5.4 UJ	< 6.1 UJ	< 8.8 UJ
1,2-Dibromo-3-chloropropane	< 11 U	< 12 U	< 28 U	< 13 U	< 13 U	< 12 U	< 22 U	< 12 UJ	< 11 UJ	< 35 UJ	< 11 UJ	< 12 UJ	< 27 UJ	< 11 UJ	< 11 UJ	< 19 UJ	< 16 UJ	< 11 UJ	< 12 UJ	< 18 UJ
1,2-Dibromoethane	< 5.4 U	< 6.2 U	< 14 U	< 6.3 U	< 6.6 U	< 5.8 U	< 11 U	< 5.8 UJ	< 5.6 UJ	< 17 UJ	< 5.7 UJ	< 6.1 UJ	< 13 UJ	< 5.7 UJ	< 5.6 UJ	< 9.5 UJ	< 8.0 UJ	< 5.4 UJ	< 6.1 UJ	< 8.8 UJ
1,2-Dichlorobenzene	< 5.4 U	< 6.2 U	< 14 U	< 6.3 U	< 6.6 U	< 5.8 U	< 11 U	< 5.8 UJ	< 5.6 UJ	< 17 UJ	< 5.7 UJ	< 6.1 UJ	< 13 UJ	< 5.7 UJ	< 5.6 UJ	< 9.5 UJ	< 8.0 UJ	< 5.4 UJ	< 6.1 UJ	< 8.8 UJ
1,2-Dichloroethane	< 5.4 U	< 6.2 U	< 14 U	< 6.3 U	< 6.6 U	< 5.8 U	< 11 U	< 5.8 UJ	< 5.6 UJ	< 17 UJ	< 5.7 UJ	< 6.1 UJ	< 13 UJ	< 5.7 UJ	< 5.6 UJ	< 9.5 UJ	< 8.0 UJ	< 5.4 UJ	< 6.1 UJ	< 8.8 UJ
1,2-Dichloropropane	< 5.4 U	< 6.2 U	< 14 U	< 6.3 U	< 6.6 U	< 5.8 U	< 11 U	< 5.8 UJ	< 5.6 UJ	< 17 UJ	< 5.7 UJ	< 6.1 UJ	< 13 UJ	< 5.7 UJ	< 5.6 UJ	< 9.5 UJ	< 8.0 UJ	< 5.4 UJ	< 6.1 UJ	< 8.8 UJ
1,3-Dichlorobenzene	< 5.4 U	< 6.2 U	< 14 U	< 6.3 U	< 6.6 U	< 5.8 U	< 11 U	< 5.8 UJ	< 5.6 UJ	< 17 UJ	< 5.7 UJ	< 6.1 UJ	< 13 UJ	< 5.7 UJ	< 5.6 UJ	< 9.5 UJ	< 8.0 UJ	< 5.4 UJ	< 6.1 UJ	< 8.8 UJ
1,4-Dichlorobenzene	< 5.4 U	< 6.2 U	< 14 U	< 6.3 U	< 6.6 U	< 5.8 U	< 11 U	< 5.8 UJ	< 5.6 UJ	< 17 UJ	< 5.7 UJ	< 6.1 UJ	< 13 UJ	< 5.7 UJ	< 5.6 UJ	< 9.5 UJ	< 8.0 UJ	< 5.4 UJ	< 6.1 UJ	< 8.8 UJ
2-Butanone	< 22 U	< 25 U	100	< 25 U	< 27 U	< 23 U	27 UJ	< 23 UJ	< 22 UJ	**270 J**	< 23 UJ	< 24 UJ	**180 J**	< 23 UJ	11 UJ	36 UJ	25 UJ	8.3 UJ	< 24 UJ	97 J
2-Hexanone	< 22 UJ	< 25 UJ	< 55 UJ	< 25 UJ	< 27 UJ	< 23 UJ	< 44 UJ	< 23 UJ	< 22 UJ	< 70 UJ	< 23 UJ	< 24 UJ	< 53 UJ	< 23 UJ	< 22 UJ	< 38 UJ	< 32 UJ	< 22 UJ	< 24 UJ	< 35 UJ
4-Methyl-2-pentanone	< 22 UJ	< 25 UJ	< 55 UJ	< 25 UJ	< 27 UJ	< 23 UJ	< 44 UJ	< 23 UJ	< 22 UJ	< 70 UJ	< 23 UJ	< 24 UJ	< 53 UJ	< 23 UJ	< 22 UJ	< 38 UJ	< 32 UJ	< 22 UJ	< 24 UJ	< 35 UJ
Acetone	< 27 U	26 UJ	**360**	< 32 U	< 33 U	< 29 U	**200**	< 29 UJ	< 28 UJ	**1100 J**	< 29 UJ	< 30 UJ	**680 J**	< 28 UJ	< 28 UJ	**200 J**	**90 J**	< 27 UJ	< 31 UJ	**380 J**
Benzene	< 5.4 U	< 6.2 U	< 14 U	< 6.3 U	< 6.6 U	< 5.8 U	< 11 U	< 5.8 UJ	< 5.6 UJ	< 17 UJ	< 5.7 UJ	< 6.1 UJ	< 13 UJ	< 5.7 UJ	< 5.6 UJ	< 9.5 UJ	< 8.0 UJ	< 5.4 UJ	< 6.1 UJ	< 8.8 UJ
Bromodichloromethane	< 5.4 U	< 6.2 U	< 14 U	< 6.3 U	< 6.6 U	< 5.8 U	< 11 U	< 5.8 UJ	< 5.6 UJ	< 17 UJ	< 5.7 UJ	< 6.1 UJ	< 13 UJ	< 5.7 UJ	< 5.6 UJ	< 9.5 UJ	< 8.0 UJ	< 5.4 UJ	< 6.1 UJ	< 8.8 UJ
Bromoform	< 5.4 U	< 6.2 U	< 14 U	< 6.3 U	< 6.6 U	< 5.8 U	< 11 U	< 5.8 UJ	< 5.6 UJ	< 17 UJ	< 5.7 UJ	< 6.1 UJ	< 13 UJ	< 5.7 UJ	< 5.6 UJ	< 9.5 UJ	< 8.0 UJ	< 5.4 UJ	< 6.1 UJ	< 8.8 UJ
Bromomethane	< 5.4 U	< 6.2 U	< 14 U	< 6.3 U	< 6.6 U	< 5.8 U	< 11 U	< 5.8 UJ	< 5.6 UJ	< 17 UJ	< 5.7 UJ	< 6.1 UJ	< 13 UJ	< 5.7 UJ	< 5.6 UJ	< 9.5 UJ	< 8.0 UJ	< 5.4 UJ	< 6.1 UJ	< 8.8 UJ
Carbon Disulfide	2.4 UJ	< 6.2 U	< 14 U	1.6 UJ	< 6.6 U	2.6 UJ	17	2.2 UJ	1.3 UJ	49 J	1.3 UJ	2.1 UJ	160 J	< 5.7 UJ	< 5.6 UJ	13 J	< 8.0 UJ	2.4 UJ	< 6.1 UJ	5.1 UJ
Carbon tetrachloride	< 5.4 U	< 6.2 U	< 14 U	< 6.3 U	< 6.6 U	< 5.8 U	< 11 U	< 5.8 UJ	< 5.6 UJ	< 17 UJ	< 5.7 UJ	< 6.1 UJ	< 13 UJ	< 5.7 UJ	< 5.6 UJ	< 9.5 UJ	< 8.0 UJ	< 5.4 UJ	< 6.1 UJ	< 8.8 UJ
Chlorobenzene	< 5.4 U	< 6.2 U	< 14 U	< 6.3 U	< 6.6 U	< 5.8 U	< 11 U	< 5.8 UJ	< 5.6 UJ	< 17 UJ	< 5.7 UJ	< 6.1 UJ	< 13 UJ	< 5.7 UJ	< 5.6 UJ	< 9.5 UJ	< 8.0 UJ	< 5.4 UJ	< 6.1 UJ	< 8.8 UJ
Chloroethane	< 5.4 U	< 6.2 U	< 14 U	< 6.3 U	< 6.6 U	< 5.8 U	< 11 U	< 5.8 UJ	< 5.6 UJ	< 17 UJ	< 5.7 UJ	< 6.1 UJ	< 13 UJ	< 5.7 UJ	< 5.6 UJ	< 9.5 UJ	< 8.0 UJ	< 5.4 UJ	< 6.1 UJ	< 8.8 UJ
Chloroform	< 5.4 U	< 6.2 U	< 14 U	< 6.3 U	< 6.6 U	< 5.8 U	< 11 U	< 5.8 UJ	< 5.6 UJ	< 17 UJ	< 5.7 UJ	< 6.1 UJ	< 13 UJ	< 5.7 UJ	< 5.6 UJ	< 9.5 UJ	< 8.0 UJ	< 5.4 UJ	< 6.1 UJ	< 8.8 UJ
Chloromethane	< 5.4 U	< 6.2 U	< 14 U	< 6.3 U	< 6.6 U	< 5.8 U	< 11 U	< 5.8 UJ	< 5.6 UJ	< 17 UJ	< 5.7 UJ	< 6.1 UJ	< 13 UJ	< 5.7 UJ	< 5.6 UJ	< 9.5 UJ	< 8.0 UJ	< 5.4 UJ	< 6.1 UJ	< 8.8 UJ
cis-1,2-Dichloroethene	< 5.4 U	< 6.2 U	< 14 U	< 6.3 U	< 6.6 U	< 5.8 U	< 11 U	< 5.8 UJ	< 5.6 UJ	< 17 UJ	< 5.7 UJ	< 6.1 UJ	< 13 UJ	< 5.7 UJ	< 5.6 UJ	< 9.5 UJ	< 8.0 UJ	< 5.4 UJ	< 6.1 UJ	< 8.8 UJ
cis-1,3-Dichloropropene	< 5.4 U	< 6.2 U	< 14 U	< 6.3 U	< 6.6 U	< 5.8 U	< 11 U	< 5.8 UJ	< 5.6 UJ	< 17 UJ	< 5.7 UJ	< 6.1 UJ	< 13 UJ	< 5.7 UJ	< 5.6 UJ	< 9.5 UJ	< 8.0 UJ	< 5.4 UJ	< 6.1 UJ	< 8.8 UJ
Cyclohexane	< 11 U	< 12 U	< 28 U	< 13 U	< 13 U	< 12 U	< 22 U	< 12 UJ	< 11 UJ	< 35 UJ	< 11 UJ	< 12 UJ	< 27 UJ	< 11 UJ	< 11 UJ	< 19 UJ	< 16 UJ	< 11 UJ	< 12 UJ	< 18 UJ
Dibromochloromethane	< 5.4 U	< 6.2 U	< 14 U	< 6.3 U	< 6.6 U	< 5.8 U	< 11 U	< 5.8 UJ	< 5.6 UJ	< 17 UJ	< 5.7 UJ	< 6.1 UJ	< 13 UJ	< 5.7 UJ	< 5.6 UJ	< 9.5 UJ	< 8.0 UJ	< 5.4 UJ	< 6.1 UJ	< 8.8 UJ
Dichlorodifluoromethane	< 5.4 U	< 6.2 U	< 14 U	< 6.3 U	< 6.6 U	< 5.8 U	< 11 U	< 5.8 UJ	< 5.6 UJ	< 17 UJ	< 5.7 UJ	< 6.1 UJ	< 13 UJ	< 5.7 UJ	< 5.6 UJ	< 9.5 UJ	< 8.0 UJ	< 5.4 UJ	< 6.1 UJ	< 8.8 UJ
Ethylbenzene	< 5.4 U	< 6.2 U	< 14 U	< 6.3 U	< 6.6 U	< 5.8 U	< 11 U	< 5.8 UJ	< 5.6 UJ	< 17 UJ	< 5.7 UJ	< 6.1 UJ	< 13 UJ	< 5.7 UJ	< 5.6 UJ	< 9.5 UJ	< 8.0 UJ	< 5.4 UJ	< 6.1 UJ	< 8.8 UJ
Isopropylbenzene	< 5.4 U	< 6.2 U	< 14 U	< 6.3 U	< 6.6 U	< 5.8 U	< 11 U	< 5.8 UJ	< 5.6 UJ	< 17 UJ	< 5.7 UJ	< 6.1 UJ	< 13 UJ	< 5.7 UJ	< 5.6 UJ	< 9.5 UJ	< 8.0 UJ	< 5.4 UJ	< 6.1 UJ	< 8.8 UJ
Methyl acetate	< 27 U	< 31 U	< 69 U	< 32 U	< 33 U	< 29 U	< 56 U	< 29 UJ	< 28 UJ	< 87 UJ	< 29 UJ	< 30 UJ	< 66 UJ	< 28 UJ	< 28 UJ	< 48 UJ	< 40 UJ	< 27 UJ	< 31 UJ	< 44 UJ
Methyl tert-butyl ether	< 5.4 UJ	< 6.2 UJ	< 14 UJ	< 6.3 UJ	< 6.6 UJ	< 5.8 UJ	< 11 UJ	< 5.8 UJ	< 5.6 UJ	< 17 UJ	< 5.7 UJ	< 6.1 UJ	< 13 UJ	< 5.7 UJ	< 5.6 UJ	< 9.5 UJ	< 8.0 UJ	< 5.4 UJ	< 6.1 UJ	< 8.8 UJ
Methylcyclohexane	< 11 U	< 12 U	< 28 U	< 13 U	< 13 U	< 12 U	< 22 U	< 12 UJ	< 11 UJ	< 35 UJ	< 11 UJ	< 12 UJ	< 27 UJ	< 11 UJ	< 11 UJ	< 19 UJ	< 16 UJ	< 11 UJ	< 12 UJ	< 18 UJ
Methylene chloride	< 27 U	< 31 U	< 69 U	< 32 U	< 33 U	< 29 U	< 56 U	< 29 UJ	< 28 UJ	< 87 UJ	< 29 UJ	< 30 UJ	< 66 UJ	< 28 UJ	< 28 UJ	< 48 UJ	< 40 UJ	< 27 UJ	< 31 UJ	< 44 UJ
Styrene	< 5.4 U	< 6.2 U	< 14 U	< 6.3 U	< 6.6 U	< 5.8 U	< 11 U	< 5.8 UJ	< 5.6 UJ	< 17 UJ	< 5.7 UJ	< 6.1 UJ	< 13 UJ	< 5.7 UJ	< 5.6 UJ	< 9.5 UJ	< 8.0 UJ	< 5.4 UJ	< 6.1 UJ	< 8.8 UJ
Tetrachloroethene	< 5.4 U	< 6.2 U	< 14 U	< 6.3 U	< 6.6 U	< 5.8 U	< 11 U	< 5.8 UJ	< 5.6 UJ	< 17 UJ	< 5.7 UJ	< 6.1 UJ	< 13 UJ	< 5.7 UJ	< 5.6 UJ	< 9.5 UJ	< 8.0 UJ	< 5.4 UJ	< 6.1 UJ	< 8.8 UJ
Toluene	< 5.4 U	< 6.2 U	< 14 U	< 6.3 U	< 6.6 U	< 5.8 U	1.8 UJ	< 5.8 UJ	< 5.6 UJ	4.6 UJ	< 5.7 UJ	< 6.1 UJ	17 J	< 5.7 UJ	< 5.6 UJ	< 9.5 UJ	< 8.0 UJ	< 5.4 UJ	< 6.1 UJ	2.0 UJ
trans-1,2-Dichloroethene	< 5.4 U	< 6.2 U	< 14 U	< 6.3 U	< 6.6 U	< 5.8 U	< 11 U	< 5.8 UJ	< 5.6 UJ	< 17 UJ	< 5.7 UJ	< 6.1 UJ	< 13 UJ	< 5.7 UJ	< 5.6 UJ	< 9.5 UJ	< 8.0 UJ	< 5.4 UJ	< 6.1 UJ	< 8.8 UJ
trans-1,3-Dichloropropene	< 5.4 U	< 6.2 U	< 14 U	< 6.3 U	< 6.6 U	< 5.8 U	< 11 U	< 5.8 UJ	< 5.6 UJ	< 17 UJ	< 5.7 UJ	< 6.1 UJ	< 13 UJ	< 5.7 UJ	< 5.6 UJ	< 9.5 UJ	< 8.0 UJ	< 5.4 UJ	< 6.1 UJ	< 8.8 UJ
Trichloroethene	< 5.4 U	< 6.2 U	< 14 U	< 6.3 U	< 6.6 U	< 5.8 U	< 11 U	< 5.8 UJ	< 5.6 UJ	< 17 UJ	< 5.7 UJ	< 6.1 UJ	< 13 UJ	< 5.7 UJ	< 5.6 UJ	< 9.5 UJ	< 8.0 UJ	< 5.4 UJ	< 6.1 UJ	< 8.8 UJ
Trichlorofluoromethane	< 5.4 U	< 6.2 U	< 14 U	< 6.3 U	< 6.6 U	< 5.8 U	< 11 U	< 5.8 UJ	< 5.6 UJ	< 17 UJ	< 5.7 UJ	< 6.1 UJ	< 13 UJ	< 5.7 UJ	< 5.6 UJ	< 9.5 UJ	< 8.0 UJ	< 5.4 UJ	< 6.1 UJ	< 8.8 UJ
Vinyl Chloride	< 5.4 U	< 6.2 U	< 14 U	< 6.3 U	< 6.6 U	< 5.8 U	< 11 U	< 5.8 UJ	< 5.6 UJ	< 17 UJ	< 5.7 UJ	< 6.1 UJ	< 13 UJ	< 5.7 UJ	< 5.6 UJ	< 9.5 UJ	< 8.0 UJ	< 5.4 UJ	< 6.1 UJ	< 8.8 UJ
Xylenes, Total	< 11 U	< 12 U	< 28 U	< 13 U	< 13 U	< 12 U	< 22 U	< 12 UJ	< 11 UJ	< 35 UJ	< 11 UJ	< 12 UJ	< 27 UJ	< 11 UJ	< 11 UJ	< 19 UJ	< 16 UJ	< 11 UJ	< 12 UJ	< 18 UJ

Notes:

ft bgs = feet below ground surface

mg/kg = milligrams per kilogram

µg/kg = micrograms per kilogram

6 NYCRR Part 375 SCO = Title 6 Official Compilation of New York Codes, Rules and Regulations Part 375 Soil Cleanup Objectives

- = no SCO established

NA = not applicable/analyzed

Qualifiers:

U = Analyte analyzed for, but not detected above the sample's reported quantitation limit

J = Analyte positively identified at a numerical value that is the approximate concentration of the analyte in the sample

J+ = Sample likely to have a high bias

J- = Sample likely to have a low bias

UJ = Analyte not detected above the sample quantitation limit; the associated quantitation limit is approximate and may or may not represent the actual limit of quantitation necessary to accurately and precisely measure the analyte in the sample

N = The analysis indicates the present of an analyte for which there is presumptive evidence to make a "tentative identification."
NJ = The analysis indicates the presence of an analyte that has been "tentatively identified" and the associated numerical value represents its approximate oncentration.
R = Sample result rejected due to serious deficiency in ability to analyze sample and meet quality control criteria; the presence or absence of the analyte cannot be confirmed. This qualifier also may apply when more than one sample result is generated for a target analyte (i.e., dilutions or re-analyses), the most technically acceptable result is considered acceptable.
B/EB/TB/BB = An analyte identified in method blank (B), aqueous equipment (EB), trip (TB), or bottle blanks (BB) used to assess field contamination associated with soil or sediment samples mandates these qualifiers for only soil and sediment sample results.
P = Use professional judgment based on data use. It usually has an "M" with it, which indicates that a manual check should be made if the data that are qualified with the "P" are important to the data user. In addition, "PM" also means a decision is necessary from the Project Manager (or a delegate) concerning the need for further review of the data (see below).
PM = A manual review of the raw data is recommended to determine if the defect affects data use, as in "R" above. This review should include consideration of potential affects that could result from using the "P" qualified data. For example, in the case of holding-time exceedance, the Project Manager or delegate can decide to use the data with no qualification when analytes of interest are known not to be adversely affected by holding-time exceedances. Another example is the case where soil sample duplicate analyses for metals exceed the precision criteria; because this is likely due to sample non-homogeneity rather than contract laboratory error, then the manager or delegate must decide how to use the data.

Table 1
Soil Analytical Data

Analyte	Units	6 NYCRR PART 375 UNRESTRICTED USE SCO	6 NYCRR PART 375 COMMERCIAL USE SCO	SB-142A	SB-142B	SB-142C	SB-143A	SB-143B	SB-143C	SB-144A	SB-144B	SB-144C	SB-145A	SB-145B	SB-145C
Start Depth (ft bgs)				0	8	15	0	8	13	0	7	15	0	10	18
End Depth (ft bgs)				1	10	16	1	10	15	2	9	17	1	12	20
Sample Date				10/19/2018	10/19/2018	10/19/2018	10/19/2018	10/19/2018	10/19/2018	10/19/2018	10/19/2018	10/19/2018	10/19/2018	10/19/2018	10/19/2018
SW8260C															
1,1,1-Trichloroethane	ug/kg	680	500000	< 6.3 UJ	< 6.1 UJ	< 9.4 UJ	< 5.8 UJ	< 5.4 UJ	< 14 UJ	< 6.1 UJ	< 5.6 UJ	< 18 UJ	< 5.4 UJ	< 6.5 UJ	< 9.6 UJ
1,1,2,2-Tetrachloroethane	ug/kg	-	-	< 6.3 UJ	< 6.1 UJ	< 9.4 UJ	< 5.8 UJ	< 5.4 UJ	< 14 UJ	< 6.1 UJ	< 5.6 UJ	< 18 UJ	< 5.4 UJ	< 6.5 UJ	< 9.6 UJ
1,1,2-Trichloro-1,2,2-trifluoroethane	ug/kg	-	-	< 6.3 UJ	< 6.1 UJ	< 9.4 UJ	< 5.8 UJ	< 5.4 UJ	< 14 UJ	< 6.1 UJ	< 5.6 UJ	< 18 UJ	< 5.4 UJ	< 6.5 UJ	< 9.6 UJ
1,1,2-Trichloroethane	ug/kg	-	-	< 6.3 UJ	< 6.1 UJ	< 9.4 UJ	< 5.8 UJ	< 5.4 UJ	< 14 UJ	< 6.1 UJ	< 5.6 UJ	< 18 UJ	< 5.4 UJ	< 6.5 UJ	< 9.6 UJ
1,1-Dichloroethane	ug/kg	270	240000	< 6.3 UJ	< 6.1 UJ	< 9.4 UJ	< 5.8 UJ	< 5.4 UJ	< 14 UJ	< 6.1 UJ	< 5.6 UJ	< 18 UJ	< 5.4 UJ	< 6.5 UJ	< 9.6 UJ
1,1-Dichloroethene	ug/kg	330	500000	< 6.3 UJ	< 6.1 UJ	< 9.4 UJ	< 5.8 UJ	< 5.4 UJ	< 14 UJ	< 6.1 UJ	< 5.6 UJ	< 18 UJ	< 5.4 UJ	< 6.5 UJ	< 9.6 UJ
1,2,4-Trichlorobenzene	ug/kg	330	-	< 6.3 UJ	< 6.1 UJ	< 9.4 UJ	< 5.8 UJ	< 5.4 UJ	< 14 UJ	< 6.1 UJ	< 5.6 UJ	< 18 UJ	< 5.4 UJ	< 6.5 UJ	< 9.6 UJ
1,2-Dibromo-3-chloropropane	ug/kg	-	-	< 13 UJ	< 12 UJ	< 19 UJ	< 12 UJ	< 11 UJ	< 28 UJ	< 12 UJ	< 11 UJ	< 36 UJ	< 11 UJ	< 13 UJ	< 19 UJ
1,2-Dibromoethane	ug/kg	-	-	< 6.3 UJ	< 6.1 UJ	< 9.4 UJ	< 5.8 UJ	< 5.4 UJ	< 14 UJ	< 6.1 UJ	< 5.6 UJ	< 18 UJ	< 5.4 UJ	< 6.5 UJ	< 9.6 UJ
1,2-Dichlorobenzene	ug/kg	1100	500000	< 6.3 UJ	< 6.1 UJ	< 9.4 UJ	< 5.8 UJ	< 5.4 UJ	< 14 UJ	< 6.1 UJ	< 5.6 UJ	< 18 UJ	< 5.4 UJ	< 6.5 UJ	< 9.6 UJ
1,2-Dichloroethane	ug/kg	20	30000	< 6.3 UJ	< 6.1 UJ	< 9.4 UJ	< 5.8 UJ	< 5.4 UJ	< 14 UJ	< 6.1 UJ	< 5.6 UJ	< 18 UJ	< 5.4 UJ	< 6.5 UJ	< 9.6 UJ
1,2-Dichloropropane	ug/kg	-	-	< 6.3 UJ	< 6.1 UJ	< 9.4 UJ	< 5.8 UJ	< 5.4 UJ	< 14 UJ	< 6.1 UJ	< 5.6 UJ	< 18 UJ	< 5.4 UJ	< 6.5 UJ	< 9.6 UJ
1,3-Dichlorobenzene	ug/kg	2400	280000	< 6.3 UJ	< 6.1 UJ	< 9.4 UJ	< 5.8 UJ	< 5.4 UJ	< 14 UJ	< 6.1 UJ	< 5.6 UJ	< 18 UJ	< 5.4 UJ	< 6.5 UJ	< 9.6 UJ
1,4-Dichlorobenzene	ug/kg	1800	130000	< 6.3 UJ	< 6.1 UJ	< 9.4 UJ	< 5.8 UJ	< 5.4 UJ	< 14 UJ	< 6.1 UJ	< 5.6 UJ	< 18 UJ	< 5.4 UJ	< 6.5 UJ	< 9.6 UJ
2-Butanone	ug/kg	**120**	500000	< 25 UJ	< 24 UJ	38 J	4.7 UJ	8.2 UJ	70 J	< 24 UJ	11 UJ	**210 J**	8.5 UJ	10 UJ	34 UJ
2-Hexanone	ug/kg	-	-	< 25 UJ	< 24 UJ	< 38 UJ	< 23 UJ	< 22 UJ	< 55 UJ	< 24 UJ	< 22 UJ	< 71 UJ	< 22 UJ	< 26 UJ	< 38 UJ
4-Methyl-2-pentanone	ug/kg	-	-	< 25 UJ	< 24 UJ	< 38 UJ	< 23 UJ	< 22 UJ	< 55 UJ	< 24 UJ	< 22 UJ	< 71 UJ	< 22 UJ	< 26 UJ	< 38 UJ
Acetone	ug/kg	**50**	500000	< 32 UJ	< 30 UJ	**160 J**	< 29 UJ	< 27 UJ	**370 J**	< 30 UJ	< 28 UJ	**950 J**	< 27 UJ	< 33 UJ	**160 J**
Benzene	ug/kg	60	44000	< 6.3 UJ	< 6.1 UJ	< 9.4 UJ	< 5.8 UJ	< 5.4 UJ	< 14 UJ	< 6.1 UJ	< 5.6 UJ	< 18 UJ	< 5.4 UJ	< 6.5 UJ	< 9.6 UJ
Bromodichloromethane	ug/kg	-	-	< 6.3 UJ	< 6.1 UJ	< 9.4 UJ	< 5.8 UJ	< 5.4 UJ	< 14 UJ	< 6.1 UJ	< 5.6 UJ	< 18 UJ	< 5.4 UJ	< 6.5 UJ	< 9.6 UJ
Bromoform	ug/kg	-	-	< 6.3 UJ	< 6.1 UJ	< 9.4 UJ	< 5.8 UJ	< 5.4 UJ	< 14 UJ	< 6.1 UJ	< 5.6 UJ	< 18 UJ	< 5.4 UJ	< 6.5 UJ	< 9.6 UJ
Bromomethane	ug/kg	-	-	< 6.3 UJ	< 6.1 UJ	< 9.4 UJ	< 5.8 UJ	< 5.4 UJ	< 14 UJ	< 6.1 UJ	< 5.6 UJ	< 18 UJ	< 5.4 UJ	< 6.5 UJ	< 9.6 UJ
Carbon Disulfide	ug/kg	-	-	< 6.3 UJ	3.8 UJ	3.0 UJ	1.8 UJ	< 5.4 UJ	52 J	< 6.1 UJ	< 5.6 UJ	130 J	< 5.4 UJ	< 6.5 UJ	4.3 UJ
Carbon tetrachloride	ug/kg	760	22000	< 6.3 UJ	< 6.1 UJ	< 9.4 UJ	< 5.8 UJ	< 5.4 UJ	< 14 UJ	< 6.1 UJ	< 5.6 UJ	< 18 UJ	< 5.4 UJ	< 6.5 UJ	< 9.6 UJ
Chlorobenzene	ug/kg	1100	500000	< 6.3 UJ	< 6.1 UJ	< 9.4 UJ	< 5.8 UJ	< 5.4 UJ	< 14 UJ	< 6.1 UJ	< 5.6 UJ	< 18 UJ	< 5.4 UJ	< 6.5 UJ	< 9.6 UJ
Chloroethane	ug/kg	-	-	< 6.3 UJ	< 6.1 UJ	< 9.4 UJ	< 5.8 UJ	< 5.4 UJ	< 14 UJ	< 6.1 UJ	< 5.6 UJ	< 18 UJ	< 5.4 UJ	< 6.5 UJ	< 9.6 UJ
Chloroform	ug/kg	370	350000	< 6.3 UJ	< 6.1 UJ	< 9.4 UJ	< 5.8 UJ	< 5.4 UJ	< 14 UJ	< 6.1 UJ	< 5.6 UJ	< 18 UJ	< 5.4 UJ	< 6.5 UJ	< 9.6 UJ
Chloromethane	ug/kg	-	-	< 6.3 UJ	< 6.1 UJ	< 9.4 UJ	< 5.8 UJ	< 5.4 UJ	< 14 UJ	< 6.1 UJ	< 5.6 UJ	< 18 UJ	< 5.4 UJ	< 6.5 UJ	< 9.6 UJ
cis-1,2-Dichloroethene	ug/kg	250	500000	< 6.3 UJ	< 6.1 UJ	< 9.4 UJ	< 5.8 UJ	< 5.4 UJ	< 14 UJ	< 6.1 UJ	< 5.6 UJ	< 18 UJ	< 5.4 UJ	< 6.5 UJ	< 9.6 UJ
cis-1,3-Dichloropropene	ug/kg	-	-	< 6.3 UJ	< 6.1 UJ	< 9.4 UJ	< 5.8 UJ	< 5.4 UJ	< 14 UJ	< 6.1 UJ	< 5.6 UJ	< 18 UJ	< 5.4 UJ	< 6.5 UJ	< 9.6 UJ
Cyclohexane	ug/kg	-	-	< 13 UJ	< 12 UJ	< 19 UJ	< 12 UJ	< 11 UJ	< 28 UJ	< 12 UJ	5.9 UJ	< 36 UJ	< 11 UJ	< 13 UJ	< 19 UJ
Dibromochloromethane	ug/kg	-	-	< 6.3 UJ	< 6.1 UJ	< 9.4 UJ	< 5.8 UJ	< 5.4 UJ	< 14 UJ	< 6.1 UJ	< 5.6 UJ	< 18 UJ	< 5.4 UJ	< 6.5 UJ	< 9.6 UJ
Dichlorodifluoromethane	ug/kg	-	-	< 6.3 UJ	< 6.1 UJ	< 9.4 UJ	< 5.8 UJ	< 5.4 UJ	< 14 UJ	< 6.1 UJ	< 5.6 UJ	< 18 UJ	< 5.4 UJ	< 6.5 UJ	< 9.6 UJ
Ethylbenzene	ug/kg	1000	390000	< 6.3 UJ	< 6.1 UJ	< 9.4 UJ	< 5.8 UJ	< 5.4 UJ	< 14 UJ	< 6.1 UJ	1.2 UJ	4.1 UJ	< 5.4 UJ	< 6.5 UJ	< 9.6 UJ
Isopropylbenzene	ug/kg	-	-	< 6.3 UJ	< 6.1 UJ	< 9.4 UJ	< 5.8 UJ	< 5.4 UJ	< 14 UJ	< 6.1 UJ	< 5.6 UJ	< 18 UJ	< 5.4 UJ	< 6.5 UJ	< 9.6 UJ
Methyl acetate	ug/kg	-	-	< 32 UJ	< 30 UJ	< 47 UJ	< 29 UJ	< 27 UJ	< 69 UJ	< 30 UJ	< 28 UJ	< 89 UJ	< 27 UJ	< 33 UJ	< 48 UJ
Methyl tert-butyl ether	ug/kg	930	500000	< 6.3 UJ	< 6.1 UJ	< 9.4 UJ	< 5.8 UJ	< 5.4 UJ	< 14 UJ	< 6.1 UJ	< 5.6 UJ	< 18 UJ	< 5.4 UJ	< 6.5 UJ	< 9.6 UJ
Methylcyclohexane	ug/kg	-	-	< 13 UJ	< 12 UJ	< 19 UJ	< 12 UJ	< 11 UJ	< 28 UJ	< 12 UJ	9.8 UJ	< 36 UJ	< 11 UJ	< 13 UJ	< 19 UJ
Methylene chloride	ug/kg	**50**	500000	34 J	< 30 UJ	23 UJ	< 29 UJ	< 27 UJ	< 69 UJ	< 30 UJ	< 28 UJ	**75 UJ**	< 27 UJ	< 33 UJ	< 48 UJ
Styrene	ug/kg	-	-	< 6.3 UJ	< 6.1 UJ	< 9.4 UJ	< 5.8 UJ	< 5.4 UJ	< 14 UJ	< 6.1 UJ	< 5.6 UJ	< 18 UJ	< 5.4 UJ	< 6.5 UJ	< 9.6 UJ
Tetrachloroethene	ug/kg	1300	150000	< 6.3 UJ	< 6.1 UJ	< 9.4 UJ	< 5.8 UJ	< 5.4 UJ	< 14 UJ	< 6.1 UJ	< 5.6 UJ	< 18 UJ	< 5.4 UJ	< 6.5 UJ	< 9.6 UJ
Toluene	ug/kg	700	500000	< 6.3 UJ	< 6.1 UJ	< 9.4 UJ	< 5.8 UJ	< 5.4 UJ	< 14 UJ	1.1 UJ	2.9 UJ	17 UJ	< 5.4 UJ	< 6.5 UJ	< 9.6 UJ
trans-1,2-Dichloroethene	ug/kg	190	500000	< 6.3 UJ	< 6.1 UJ	< 9.4 UJ	< 5.8 UJ	< 5.4 UJ	< 14 UJ	< 6.1 UJ	< 5.6 UJ	< 18 UJ	< 5.4 UJ	< 6.5 UJ	< 9.6 UJ
trans-1,3-Dichloropropene	ug/kg	-	-	< 6.3 UJ	< 6.1 UJ	< 9.4 UJ	< 5.8 UJ	< 5.4 UJ	< 14 UJ	< 6.1 UJ	< 5.6 UJ	< 18 UJ	< 5.4 UJ	< 6.5 UJ	< 9.6 UJ
Trichloroethene	ug/kg	470	200000	< 6.3 UJ	< 6.1 UJ	< 9.4 UJ	< 5.8 UJ	< 5.4 UJ	< 14 UJ	< 6.1 UJ	< 5.6 UJ	< 18 UJ	< 5.4 UJ	< 6.5 UJ	< 9.6 UJ
Trichlorofluoromethane	ug/kg	-	-	< 6.3 UJ	< 6.1 UJ	< 9.4 UJ	< 5.8 UJ	< 5.4 UJ	< 14 UJ	3.0 UJ	< 5.6 UJ	< 18 UJ	< 5.4 UJ	< 6.5 UJ	< 9.6 UJ
Vinyl Chloride	ug/kg	20	13000	< 6.3 UJ	< 6.1 UJ	< 9.4 UJ	< 5.8 UJ	< 5.4 UJ	< 14 UJ	< 6.1 UJ	< 5.6 UJ	< 18 UJ	< 5.4 UJ	< 6.5 UJ	< 9.6 UJ
Xylenes, Total	ug/kg	260	500000	< 13 UJ	< 12 UJ	< 19 UJ	< 12 UJ	< 11 UJ	< 28 UJ	< 12 UJ	9.9 UJ	< 36 UJ	< 11 UJ	< 13 UJ	< 19 UJ

Analyte	SB-146-A	SB-146-B	SB-146-C	SB-147-A	SB-147-B	SB-147-C	SB-148-A	SB-148-B	SB-148-C	SB-148-D	SB-149-A	SB-149-B	SB-149-C
Start Depth (ft bgs)	0	2	13	0	5	16	0	4	15	12	0	5	16
End Depth (ft bgs)	2	5	15	1	7	17	1.5	5	17.5	14	1	6	18
Sample Date	10/23/2018	10/23/2018	10/23/2018	10/23/2018	10/23/2018	10/23/2018	10/23/2018	10/23/2018	10/23/2018	10/23/2018	10/23/2018	10/23/2018	10/23/2018
SW8260C													
1,1,1-Trichloroethane	< 6.2 UJ	< 6.3 UJ	< 16 UJ	< 6.3 UJ	< 5.0 UJ	< 11 UJ	< 6.2 UJ	< 5.8 UJ	< 14 UJ	< 6.2 UJ	< 5.4 UJ	< 4.9 UJ	< 12 UJ
1,1,2,2-Tetrachloroethane	< 6.2 UJ	< 6.3 UJ	< 16 UJ	< 6.3 UJ	< 5.0 UJ	< 11 UJ	< 6.2 UJ	< 5.8 UJ	< 14 UJ	< 6.2 UJ	< 5.4 UJ	< 4.9 UJ	< 12 UJ
1,1,2-Trichloro-1,2,2-trifluoroethane	< 6.2 UJ	< 6.3 UJ	< 16 UJ	< 6.3 UJ	< 5.0 UJ	< 11 UJ	< 6.2 UJ	< 5.8 UJ	< 14 UJ	< 6.2 UJ	< 5.4 UJ	< 4.9 UJ	< 12 UJ
1,1,2-Trichloroethane	< 6.2 UJ	< 6.3 UJ	< 16 UJ	< 6.3 UJ	< 5.0 UJ	< 11 UJ	< 6.2 UJ	< 5.8 UJ	< 14 UJ	< 6.2 UJ	< 5.4 UJ	< 4.9 UJ	< 12 UJ
1,1-Dichloroethane	< 6.2 UJ	< 6.3 UJ	< 16 UJ	< 6.3 UJ	< 5.0 UJ	< 11 UJ	< 6.2 UJ	< 5.8 UJ	< 14 UJ	< 6.2 UJ	< 5.4 UJ	< 4.9 UJ	< 12 UJ
1,1-Dichloroethene	< 6.2 UJ	< 6.3 UJ	< 16 UJ	< 6.3 UJ	< 5.0 UJ	< 11 UJ	< 6.2 UJ	< 5.8 UJ	< 14 UJ	< 6.2 UJ	< 5.4 UJ	< 4.9 UJ	< 12 UJ
1,2,4-Trichlorobenzene	< 6.2 UJ	< 6.3 UJ	< 16 UJ	< 6.3 UJ	< 5.0 UJ	< 11 UJ	< 6.2 UJ	< 5.8 UJ	< 14 UJ	< 6.2 UJ	< 5.4 UJ	< 4.9 UJ	< 12 UJ
1,2-Dibromo-3-chloropropane	< 6.2 UJ	< 6.3 UJ	< 16 UJ	< 6.3 UJ	< 5.0 UJ	< 11 UJ	< 6.2 UJ	< 5.8 UJ	< 14 UJ	< 6.2 UJ	< 5.4 UJ	< 4.9 UJ	< 12 UJ
1,2-Dibromoethane	< 6.2 UJ	< 6.3 UJ	< 16 UJ	< 6.3 UJ	< 5.0 UJ	< 11 UJ	< 6.2 UJ	< 5.8 UJ	< 14 UJ	< 6.2 UJ	< 5.4 UJ	< 4.9 UJ	< 12 UJ
1,2-Dichlorobenzene	< 6.2 UJ	< 6.3 UJ	< 16 UJ	< 6.3 UJ	< 5.0 UJ	< 11 UJ	< 6.2 UJ	< 5.8 UJ	< 14 UJ	< 6.2 UJ	< 5.4 UJ	< 4.9 UJ	< 12 UJ
1,2-Dichloroethane	< 6.2 UJ	< 6.3 UJ	< 16 UJ	< 6.3 UJ	< 5.0 UJ	< 11 UJ	< 6.2 UJ	< 5.8 UJ	< 14 UJ	< 6.2 UJ	< 5.4 UJ	< 4.9 UJ	< 12 UJ
1,2-Dichloropropane	< 6.2 UJ	< 6.3 UJ	< 16 UJ	< 6.3 UJ	< 5.0 UJ	< 11 UJ	< 6.2 UJ	< 5.8 UJ	< 14 UJ	< 6.2 UJ	< 5.4 UJ	< 4.9 UJ	< 12 UJ
1,3-Dichlorobenzene	< 6.2 UJ	< 6.3 UJ	< 16 UJ	< 6.3 UJ	< 5.0 UJ	< 11 UJ	< 6.2 UJ	< 5.8 UJ	< 14 UJ	< 6.2 UJ	< 5.4 UJ	< 4.9 UJ	< 12 UJ
1,4-Dichlorobenzene	< 6.2 UJ	< 6.3 UJ	< 16 UJ	< 6.3 UJ	< 5.0 UJ	< 11 UJ	< 6.2 UJ	< 5.8 UJ	< 14 UJ	< 6.2 UJ	< 5.4 UJ	< 4.9 UJ	< 12 UJ
2-Butanone	< 31 UJ	< 31 UJ	**270 J**	< 31 UJ	< 25 UJ	**520 J**	2.6 UJ	< 29 UJ	120 J	< 31 UJ	< 27 UJ	< 25 UJ	89 J
2-Hexanone	< 31 UJ	< 31 UJ	< 81 UJ	< 31 UJ	< 25 UJ	< 56 UJ	< 31 UJ	< 29 UJ	< 70 UJ	< 31 UJ	< 27 UJ	< 25 UJ	< 58 UJ
4-Methyl-2-pentanone	< 31 UJ	< 31 UJ	< 81 UJ	< 31 UJ	< 25 UJ	< 56 UJ	< 31 UJ	< 29 UJ	< 70 UJ	< 31 UJ	< 27 UJ	< 25 UJ	< 58 UJ
Acetone	< 31 UJ	< 31 UJ	**1100 J**	< 31 UJ	4.7 UJ	**2000 J**	29 UJ	5.1 UJ	**560 J**	7.2 UJ	< 27 UJ	6.7 UJ	**490 J**
Benzene	< 6.2 UJ	< 6.3 UJ	< 16 UJ	< 6.3 UJ	< 5.0 UJ	< 11 UJ	< 6.2 UJ	< 5.8 UJ	< 14 UJ	< 6.2 UJ	< 5.4 UJ	0.25 UJ	< 12 UJ
Bromodichloromethane	< 6.2 UJ	< 6.3 UJ	< 16 UJ	< 6.3 UJ	< 5.0 UJ	< 11 UJ	< 6.2 UJ	< 5.8 UJ	< 14 UJ	< 6.2 UJ	< 5.4 UJ	< 4.9 UJ	< 12 UJ
Bromoform	< 6.2 UJ	< 6.3 UJ	< 16 UJ	< 6.3 UJ	< 5.0 UJ	< 11 UJ	< 6.2 UJ	< 5.8 UJ	< 14 UJ	< 6.2 UJ	< 5.4 UJ	< 4.9 UJ	< 12 UJ
Bromomethane	< 6.2 UJ	< 6.3 UJ	< 16 UJ	< 6.3 UJ	< 5.0 UJ	< 11 UJ	< 6.2 UJ	< 5.8 UJ	< 14 UJ	< 6.2 UJ	< 5.4 UJ	< 4.9 UJ	< 12 UJ
Carbon Disulfide	< 6.2 UJ	< 6.3 UJ	84 J	< 6.3 UJ	< 5.0 UJ	83 J	< 6.2 UJ	< 5.8 UJ	71 J	< 6.2 UJ	< 5.4 UJ	< 4.9 UJ	25 J
Carbon tetrachloride	< 6.2 UJ	< 6.3 UJ	< 16 UJ	< 6.3 UJ	< 5.0 UJ	< 11 UJ	< 6.2 UJ	< 5.8 UJ	< 14 UJ	< 6.2 UJ	< 5.4 UJ	< 4.9 UJ	< 12 UJ
Chlorobenzene	< 6.2 UJ	< 6.3 UJ	< 16 UJ	< 6.3 UJ	< 5.0 UJ	< 11 UJ	< 6.2 UJ	< 5.8 UJ	< 14 UJ	< 6.2 UJ	< 5.4 UJ	< 4.9 UJ	< 12 UJ
Chloroethane	< 6.2 UJ	< 6.3 UJ	< 16 UJ	< 6.3 UJ	< 5.0 UJ	< 11 UJ	< 6.2 UJ	< 5.8 UJ	< 14 UJ	< 6.2 UJ	< 5.4 UJ	< 4.9 UJ	< 12 UJ
Chloroform	< 6.2 UJ	< 6.3 UJ	< 16 UJ	< 6.3 UJ	< 5.0 UJ	< 11 UJ	0.44 UJ	< 5.8 UJ	< 14 UJ	< 6.2 UJ	< 5.4 UJ	< 4.9 UJ	< 12 UJ
Chloromethane	< 6.2 UJ	< 6.3 UJ	< 16 UJ	< 6.3 UJ	< 5.0 UJ	< 11 UJ	< 6.2 UJ	< 5.8 UJ	< 14 UJ	< 6.2 UJ	< 5.4 UJ	< 4.9 UJ	< 12 UJ
cis-1,2-Dichloroethene	< 6.2 UJ	< 6.3 UJ	< 16 UJ	< 6.3 UJ	< 5.0 UJ	< 11 UJ	< 6.2 UJ	< 5.8 UJ	< 14 UJ	< 6.2 UJ	< 5.4 UJ	< 4.9 UJ	< 12 UJ
cis-1,3-Dichloropropene	< 6.2 UJ	< 6.3 UJ	< 16 UJ	< 6.3 UJ	< 5.0 UJ	< 11 UJ	< 6.2 UJ	< 5.8 UJ	< 14 UJ	< 6.2 UJ	< 5.4 UJ	< 4.9 UJ	< 12 UJ
Cyclohexane	< 6.2 UJ	< 6.3 UJ	< 16 UJ	< 6.3 UJ	< 5.0 UJ	< 11 UJ	< 6.2 UJ	< 5.8 UJ	< 14 UJ	< 6.2 UJ	< 5.4 UJ	< 4.9 UJ	< 12 UJ
Dibromochloromethane	< 6.2 UJ	< 6.3 UJ	< 16 UJ	< 6.3 UJ	< 5.0 UJ	< 11 UJ	< 6.2 UJ	< 5.8 UJ	< 14 UJ	< 6.2 UJ	< 5.4 UJ	< 4.9 UJ	< 12 UJ
Dichlorodifluoromethane	< 6.2 UJ	< 6.3 UJ	< 16 UJ	< 6.3 UJ	< 5.0 UJ	< 11 UJ	< 6.2 UJ	< 5.8 UJ	< 14 UJ	< 6.2 UJ	< 5.4 UJ	< 4.9 UJ	< 12 UJ
Ethylbenzene	< 6.2 UJ	< 6.3 UJ	1.2 UJ	< 6.3 UJ	< 5.0 UJ	< 11 UJ	< 6.2 UJ	< 5.8 UJ	< 14 UJ	< 6.2 UJ	< 5.4 UJ	< 4.9 UJ	< 12 UJ
Isopropylbenzene	< 6.2 UJ	< 6.3 UJ	< 16 UJ	< 6.3 UJ	< 5.0 UJ	< 11 UJ	< 6.2 UJ	< 5.8 UJ	< 14 UJ	< 6.2 UJ	< 5.4 UJ	< 4.9 UJ	< 12 UJ
Methyl acetate	< 31 UJ	< 31 UJ	< 81 UJ	< 31 UJ	< 25 UJ	< 56 UJ	< 31 UJ	< 29 UJ	< 70 UJ	< 31 UJ	< 27 UJ	< 25 UJ	< 58 UJ
Methyl tert-butyl ether	< 6.2 UJ	< 6.3 UJ	< 16 UJ	< 6.3 UJ	< 5.0 UJ	< 11 UJ	< 6.2 UJ	< 5.8 UJ	< 14 UJ	< 6.2 UJ	< 5.4 UJ	< 4.9 UJ	< 12 UJ
Methylcyclohexane	< 6.2 UJ	< 6.3 UJ	< 16 UJ	< 6.3 UJ	< 5.0 UJ	< 11 UJ	< 6.2 UJ	< 5.8 UJ	< 14 UJ	< 6.2 UJ	< 5.4 UJ	< 4.9 UJ	< 12 UJ
Methylene chloride	< 6.2 UJ	< 6.3 UJ	< 16 UJ	< 6.3 UJ	< 5.0 UJ	< 11 UJ	< 6.2 UJ	< 5.8 UJ	< 14 UJ	7.8 J	< 5.4 UJ	< 4.9 UJ	< 12 UJ
Styrene	< 6.2 UJ	< 6.3 UJ	< 16 UJ	< 6.3 UJ	< 5.0 UJ	< 11 UJ	< 6.2 UJ	< 5.8 UJ	< 14 UJ	< 6.2 UJ	< 5.4 UJ	< 4.9 UJ	< 12 UJ
Tetrachloroethene	< 6.2 UJ	< 6.3 UJ	< 16 UJ	< 6.3 UJ	< 5.0 UJ	< 11 UJ	< 6.2 UJ	< 5.8 UJ	< 14 UJ	< 6.2 UJ	< 5.4 UJ	< 4.9 UJ	< 12 UJ
Toluene	< 6.2 UJ	< 6.3 UJ	5.0 UJ	< 6.3 UJ	< 5.0 UJ	4.6 UJ	< 6.2 UJ	< 5.8 UJ	2.0 UJ	< 6.2 UJ	< 5.4 UJ	0.72 UJ	6.9 UJ
trans-1,2-Dichloroethene	< 6.2 UJ	< 6.3 UJ	< 16 UJ	< 6.3 UJ	< 5.0 UJ	< 11 UJ	< 6.2 UJ	< 5.8 UJ	< 14 UJ	< 6.2 UJ	< 5.4 UJ	< 4.9 UJ	< 12 UJ
trans-1,3-Dichloropropene	< 6.2 UJ	< 6.3 UJ	< 16 UJ	< 6.3 UJ	< 5.0 UJ	< 11 UJ	< 6.2 UJ	< 5.8 UJ	< 14 UJ	< 6.2 UJ	< 5.4 UJ	< 4.9 UJ	< 12 UJ
Trichloroethene	< 6.2 UJ	< 6.3 UJ	< 16 UJ	< 6.3 UJ	< 5.0 UJ	< 11 UJ	< 6.2 UJ	< 5.8 UJ	< 14 UJ	< 6.2 UJ	< 5.4 UJ	< 4.9 UJ	< 12 UJ
Trichlorofluoromethane	< 6.2 UJ	< 6.3 UJ	< 16 UJ	< 6.3 UJ	< 5.0 UJ	< 11 UJ	< 6.2 UJ	< 5.8 UJ	< 14 UJ	< 6.2 UJ	< 5.4 UJ	< 4.9 UJ	< 12 UJ
Vinyl Chloride	< 6.2 UJ	< 6.3 UJ	< 16 UJ	< 6.3 UJ	< 5.0 UJ	< 11 UJ	< 6.2 UJ	< 5.8 UJ	< 14 UJ	< 6.2 UJ	< 5.4 UJ	< 4.9 UJ	< 12 UJ
Xylenes, Total	< 12 UJ	< 13 UJ	< 32 UJ	< 13 UJ	< 10 UJ	< 22 UJ	< 12 UJ	< 12 UJ	< 28 UJ	< 12 UJ	< 11 UJ	< 9.8 UJ	< 23 UJ

Analyte	SB-150A	SB-150B	SB-150C	DUP-101018	DUP-101118	DUP-101618	DUP-101718	DUP-101818	DUP-101918	DUP-102318
Start Depth (ft bgs)	0	14	18	NA	NA	NA	NA	NA	NA	NA
End Depth (ft bgs)	2	16	20	NA	NA	NA	NA	NA	NA	NA
Sample Date	10/19/2018	10/19/2018	10/19/2018	10/10/2018	10/11/2018	10/16/2018	10/17/2018	10/18/2018	10/19/2018	10/23/2018
SW8260C										
1,1,1-Trichloroethane	< 6.7 UJ	< 14 UJ	< 6.0 UJ	< 6.3 UJ	< 6.4 UJ	< 42 UJ	< 5.7 U	< 7.8 UJ	< 31 UJ	< 16 UJ
1,1,2,2-Tetrachloroethane	< 6.7 UJ	< 14 UJ	< 6.0 UJ	< 6.3 UJ	< 6.4 UJ	< 42 UJ	< 5.7 U	< 7.8 UJ	< 31 UJ	< 16 UJ
1,1,2-Trichloro-1,2,2-trifluoroethane	< 6.7 UJ	< 14 UJ	< 6.0 UJ	< 6.3 UJ-	< 6.4 UJ	< 42 UJ	< 5.7 U	< 7.8 UJ	< 31 UJ	< 16 UJ
1,1,2-Trichloroethane	< 6.7 UJ	< 14 UJ	< 6.0 UJ	< 6.3 UJ	< 6.4 UJ	< 42 UJ	< 5.7 U	< 7.8 UJ	< 31 UJ	< 16 UJ
1,1-Dichloroethane	< 6.7 UJ	< 14 UJ	< 6.0 UJ	< 6.3 UJ	< 6.4 UJ	< 42 UJ	< 5.7 U	< 7.8 UJ	< 31 UJ	< 16 UJ
1,1-Dichloroethene	< 6.7 UJ	< 14 UJ	< 6.0 UJ	< 6.3 UJ	< 6.4 UJ	< 42 UJ	< 5.7 U	< 7.8 UJ	< 31 UJ	< 16 UJ
1,2,4-Trichlorobenzene	< 6.7 UJ	< 14 UJ	< 6.0 UJ	< 6.3 UJ	< 6.4 UJ	< 42 UJ	< 5.7 U	< 7.8 UJ	< 31 UJ	< 16 UJ
1,2-Dibromo-3-chloropropane	< 13 UJ	< 28 UJ	< 12 UJ	< 6.3 UJ	< 6.4 UJ	< 83 UJ	< 11 U	< 16 UJ	< 63 UJ	< 16 UJ
1,2-Dibromoethane	< 6.7 UJ	< 14 UJ	< 6.0 UJ	< 6.3 UJ	< 6.4 UJ	< 42 UJ	< 5.7 U	< 7.8 UJ	< 31 UJ	< 16 UJ
1,2-Dichlorobenzene	< 6.7 UJ	< 14 UJ	< 6.0 UJ	< 6.3 UJ	< 6.4 UJ	< 42 UJ	< 5.7 U	< 7.8 UJ	< 31 UJ	< 16 UJ
1,2-Dichloroethane	< 6.7 UJ	< 14 UJ	< 6.0 UJ	< 6.3 UJ	< 6.4 UJ	< 42 UJ	< 5.7 U	< 7.8 UJ	< 31 UJ	< 16 UJ
1,2-Dichloropropane	< 6.7 UJ	< 14 UJ	< 6.0 UJ	< 6.3 UJ	< 6.4 UJ	< 42 UJ	< 5.7 U	< 7.8 UJ	< 31 UJ	< 16 UJ
1,3-Dichlorobenzene	< 6.7 UJ	< 14 UJ	< 6.0 UJ	< 6.3 UJ	< 6.4 UJ	< 42 UJ	< 5.7 U	< 7.8 UJ	< 31 UJ	< 16 UJ
1,4-Dichlorobenzene	< 6.7 UJ	< 14 UJ	< 6.0 UJ	< 6.3 UJ	< 6.4 UJ	< 42 UJ	< 5.7 U	< 7.8 UJ	< 31 UJ	< 16 UJ
2-Butanone	< 27 UJ	36 UJ	9.7 UJ	< 32 UJ	< 32 UJ+	**500 J**	< 23 U	120 J	**480 J**	**210 J**
2-Hexanone	< 27 UJ	< 56 UJ	< 24 UJ	< 32 UJ	< 32 UJ	< 170 UJ	< 23 UJ	< 31 UJ	< 130 UJ	< 79 UJ
4-Methyl-2-pentanone	< 27 UJ	< 56 UJ	< 24 UJ	< 32 UJ	< 32 UJ	< 170 UJ	< 23 UJ	< 31 UJ	< 130 UJ	< 79 UJ
Acetone	< 33 UJ	**340 J**	< 30 UJ	7.5 UJ	37 J	**2000 J**	< 28 U	**480 J**	**1600 J**	**940 J**
Benzene	< 6.7 UJ	< 14 UJ	< 6.0 UJ	< 6.3 UJ	< 6.4 UJ	< 42 UJ	< 5.7 U	< 7.8 UJ	< 31 UJ	< 16 UJ
Bromodichloromethane	< 6.7 UJ	< 14 UJ	< 6.0 UJ	< 6.3 UJ	< 6.4 UJ	< 42 UJ	< 5.7 U	< 7.8 UJ	< 31 UJ	< 16 UJ
Bromoform	< 6.7 UJ	< 14 UJ	< 6.0 UJ	< 6.3 UJ	< 6.4 UJ	< 42 UJ	< 5.7 U	< 7.8 UJ	< 31 UJ	< 16 UJ
Bromomethane	< 6.7 UJ	< 14 UJ	< 6.0 UJ	< 6.3 UJ	< 6.4 UJ	< 42 UJ	< 5.7 U	< 7.8 UJ	< 31 UJ	< 16 UJ
Carbon Disulfide	1.6 UJ	35 J	< 6.0 UJ	< 6.3 UJ	< 6.4 UJ	66 J	< 5.7 U	8.8 J	100 J	26 J
Carbon tetrachloride	< 6.7 UJ	< 14 UJ	< 6.0 UJ	< 6.3 UJ	< 6.4 UJ	< 42 UJ	< 5.7 U	< 7.8 UJ	< 31 UJ	< 16 UJ
Chlorobenzene	< 6.7 UJ	< 14 UJ	< 6.0 UJ	< 6.3 UJ	< 6.4 UJ	< 42 UJ	< 5.7 U	< 7.8 UJ	< 31 UJ	< 16 UJ
Chloroethane	< 6.7 UJ	< 14 UJ	< 6.0 UJ	< 6.3 UJ	< 6.4 UJ	< 42 UJ	< 5.7 U	< 7.8 UJ	< 31 UJ	< 16 UJ
Chloroform	< 6.7 UJ	< 14 UJ	< 6.0 UJ	< 6.3 UJ	0.51 UJ	< 42 UJ	< 5.7 U	< 7.8 UJ	< 31 UJ	< 16 UJ
Chloromethane	< 6.7 UJ	< 14 UJ	< 6.0 UJ	< 6.3 UJ-	< 6.4 UJ	< 42 UJ	< 5.7 U	< 7.8 UJ	< 31 UJ	< 16 UJ
cis-1,2-Dichloroethene	< 6.7 UJ	< 14 UJ	< 6.0 UJ	< 6.3 UJ	< 6.4 UJ	< 42 UJ	< 5.7 U	< 7.8 UJ	< 31 UJ	< 16 UJ
cis-1,3-Dichloropropene	< 6.7 UJ	< 14 UJ	< 6.0 UJ	< 6.3 UJ	< 6.4 UJ	< 42 UJ	< 5.7 U	< 7.8 UJ	< 31 UJ	< 16 UJ
Cyclohexane	< 13 UJ	< 28 UJ	< 12 UJ	< 6.3 UJ	< 6.4 UJ	< 83 UJ	< 11 U	< 16 UJ	< 63 UJ	< 16 UJ
Dibromochloromethane	< 6.7 UJ	< 14 UJ	< 6.0 UJ	< 6.3 UJ	< 6.4 UJ	< 42 UJ	< 5.7 U	< 7.8 UJ	< 31 UJ	< 16 UJ
Dichlorodifluoromethane	< 6.7 UJ	< 14 UJ	< 6.0 UJ	< 6.3 UJ	< 6.4 UJ	< 42 UJ	< 5.7 U	< 7.8 UJ	< 31 UJ	< 16 UJ
Ethylbenzene	< 6.7 UJ	5.5 UJ	< 6.0 UJ	< 6.3 UJ	< 6.4 UJ	< 42 UJ	< 5.7 U	< 7.8 UJ	< 31 UJ	< 16 UJ
Isopropylbenzene	< 6.7 UJ	< 14 UJ	< 6.0 UJ	< 6.3 UJ	< 6.4 UJ	< 42 UJ	< 5.7 U	< 7.8 UJ	< 31 UJ	< 16 UJ
Methyl acetate	< 33 UJ	< 70 UJ	< 30 UJ	< 32 UJ	< 32 UJ	< 210 UJ	< 28 U	< 39 UJ	< 160 UJ	< 79 UJ
Methyl tert-butyl ether	< 6.7 UJ	< 14 UJ	< 6.0 UJ	< 6.3 UJ	< 6.4 UJ	< 42 UJ	< 5.7 UJ	< 7.8 UJ	< 31 UJ	< 16 UJ
Methylcyclohexane	< 13 UJ	< 28 UJ	< 12 UJ	< 6.3 UJ	< 6.4 UJ	< 83 UJ	< 11 U	< 16 UJ	< 63 UJ	< 16 UJ
Methylene chloride	< 33 UJ	38 UJ	< 30 UJ	3.8 UJ	9.4 J	< 210 UJ	< 28 U	< 39 UJ	< 160 UJ	< 16 UJ
Styrene	< 6.7 UJ	< 14 UJ	< 6.0 UJ	< 6.3 UJ	< 6.4 UJ	< 42 UJ	< 5.7 U	< 7.8 UJ	< 31 UJ	< 16 UJ
Tetrachloroethene	< 6.7 UJ	< 14 UJ	< 6.0 UJ	< 6.3 UJ	< 6.4 UJ	< 42 UJ	< 5.7 U	< 7.8 UJ	< 31 UJ	< 16 UJ
Toluene	< 6.7 UJ	11 UJ	< 6.0 UJ	< 6.3 UJ	< 6.4 UJ	21 UJ	< 5.7 U	< 7.8 UJ	24 UJ	< 16 UJ
trans-1,2-Dichloroethene	< 6.7 UJ	< 14 UJ	< 6.0 UJ	< 6.3 UJ	< 6.4 UJ	< 42 UJ	< 5.7 U	< 7.8 UJ	< 31 UJ	< 16 UJ
trans-1,3-Dichloropropene	< 6.7 UJ	< 14 UJ	< 6.0 UJ	< 6.3 UJ	< 6.4 UJ	< 42 UJ	< 5.7 U	< 7.8 UJ	< 31 UJ	< 16 UJ
Trichloroethene	< 6.7 UJ	< 14 UJ	< 6.0 UJ	< 6.3 UJ	< 6.4 UJ	< 42 UJ	< 5.7 U	< 7.8 UJ	< 31 UJ	< 16 UJ
Trichlorofluoromethane	< 6.7 UJ	< 14 UJ	< 6.0 UJ	< 6.3 UJ-	< 6.4 UJ	< 42 UJ	< 5.7 U	< 7.8 UJ	< 31 UJ	< 16 UJ
Vinyl Chloride	< 6.7 UJ	< 14 UJ	< 6.0 UJ	< 6.3 UJ-	< 6.4 UJ	< 42 UJ	< 5.7 U	< 7.8 UJ	< 31 UJ	< 16 UJ
Xylenes, Total	< 13 UJ	< 28 UJ	< 12 UJ	< 13 UJ	< 13 UJ	< 83 UJ	< 11 U	< 16 UJ	< 63 UJ	< 32 UJ

Notes:

ft bgs = feet below ground surface

mg/kg = milligrams per kilogram

µg/kg = micrograms per kilogram

6 NYCRR Part 375 SCO = Title 6 Official Compilation of New York Codes, Rules and Regulations Part 375 Soil Cleanup Objectives

- = no SCO established

NA = not applicable/analyzed

Qualifiers:

U = Analyte analyzed for, but not detected above the sample's reported quantitation limit

J = Analyte positively identified at a numerical value that is the approximate concentration of the analyte in the sample

J+ = Sample likely to have a high bias

J- = Sample likely to have a low bias

UJ = Analyte not detected above the sample quantitation limit; the associated quantitation limit is approximate and may or may not represent the actual limit of quantitation necessary to accurately and precisely measure the analyte in the sample

N = The analysis indicates the present of an analyte for which there is presumptive evidence to make a "tentative identification."

NJ = The analysis indicates the presence of an analyte that has been "tentatively identified" and the associated numerical value represents its approximate oncentration.

R = Sample result rejected due to serious deficiency in ability to analyze sample and meet quality control criteria; the presence or absence of the analyte cannot be confirmed. This qualifier also may apply when more than one sample result is generated for a target analyte (i.e., dilutions or re-analyses), the most technically acceptable result is considered acceptable.

B/EB/TB/BB = An analyte identified in method blank (B), aqueous equipment (EB), trip (TB), or bottle blanks (BB) used to assess field contamination associated with soil or sediment samples mandates these qualifiers for only soil and sediment sample results.

P = Use professional judgment based on data use. It usually has an "M" with it, which indicates that a manual check should be made if the data that are qualified with the "P" are important to the data user. In addition, "PM" also means a decision is necessary from the Project Manager (or a delegate) concerning the need for further review of the data (see below).

PM = A manual review of the raw data is recommended to determine if the defect affects data use, as in "R" above. This review should include consideration of potential affects that could result from using the "P" qualified data. For example, in the case of holding-time exceedance, the Project Manager or delegate can decide to use the data with no qualification when analytes of interest are known not to be adversely affected by holding-time exceedances. Another example is the case where soil sample duplicate analyses for metals exceed the precision criteria; because this is likely due to sample non-homogeneity rather than contract laboratory error, then the manager or delegate must decide how to use the data.

Table 1
Soil Analytical Data

Analyte	Units	6 NYCRR PART 375 UNRESTRICTED USE SCO	6 NYCRR PART 375 COMMERCIAL USE SCO	SB-101-A	SB-101-B	SB-101-C	SB-102-A	SB-102-B	SB-102-C	SB-103-A	SB-103-B
Start Depth (ft bgs)				0	8	12	0	4	12	0	4
End Depth (ft bgs)				1	10	14	1	6	14	1	6
Sample Date				10/10/2018	10/10/2018	10/10/2018	10/10/2018	10/10/2018	10/10/2018	10/10/2018	10/10/2018
SW8270D											
1,1'-Biphenyl	ug/kg	-	-	< 950 U	< 250 U	< 210 U	< 210 U	< 210 U	< 200 U	< 220 U	< 200 U
2,4,5-Trichlorophenol	ug/kg	-	-	< 950 U	< 250 U	< 210 U	< 210 U	< 210 U	< 200 U	< 220 U	< 200 U
2,4,6-Trichlorophenol	ug/kg	-	-	< 950 U	< 250 U	< 210 U	< 210 U	< 210 U	< 200 U	< 220 U	< 200 U
2,4-Dichlorophenol	ug/kg	-	-	< 950 U	< 250 U	< 210 U	< 210 U	< 210 U	< 200 U	< 220 U	< 200 U
2,4-Dimethylphenol	ug/kg	-	-	< 950 U	< 250 U	< 210 U	< 210 U	< 210 U	< 200 U	< 220 U	< 200 U
2,4-Dinitrophenol	ug/kg	-	-	< 9300 U	< 2400 U	< 2100 U	< 2100 U	< 2000 U	< 2000 U	< 2200 U	< 1900 U
2,4-Dinitrotoluene	ug/kg	-	-	< 950 U	< 250 U	< 210 U	< 210 U	< 210 U	< 200 U	< 220 U	< 200 U
2,6-Dinitrotoluene	ug/kg	-	-	< 950 U	< 250 U	< 210 U	< 210 U	< 210 U	< 200 U	< 220 U	< 200 U
2-Chloronaphthalene	ug/kg	-	-	< 950 U	< 250 U	< 210 U	< 210 U	< 210 U	< 200 U	< 220 U	< 200 U
2-Chlorophenol	ug/kg	-	-	< 950 U	< 250 U	< 210 U	< 210 U	< 210 U	< 200 U	< 220 U	< 200 U
2-Methylnaphthalene	ug/kg	-	-	< 950 U	< 250 U	< 210 U	110 UJ	< 210 U	< 200 U	340	< 200 U
2-Methylphenol	ug/kg	330	500000	< 950 U	< 250 U	< 210 U	< 210 U	< 210 U	< 200 U	< 220 U	< 200 U
2-Nitroaniline	ug/kg	-	-	< 1800 U	< 490 U	< 410 U	< 410 U	< 400 U	< 390 U	< 440 U	< 390 U
2-Nitrophenol	ug/kg	-	-	< 950 U	< 250 U	< 210 U	< 210 U	< 210 U	< 200 U	< 220 U	< 200 U
3 & 4 Methylphenol	ug/kg	-	-	NA	NA	NA	NA	NA	NA	NA	NA
3,3'-Dichlorobenzidine	ug/kg	-	-	< 1800 U	< 490 U	< 410 U	< 410 U	< 400 U	< 390 U	< 440 U	< 390 U
3-Nitroaniline	ug/kg	-	-	< 1800 U	< 490 U	< 410 U	< 410 U	< 400 U	< 390 U	< 440 U	< 390 U
4,6-Dinitro-2-methylphenol	ug/kg	-	-	< 1800 U	< 490 U	< 410 U	< 410 U	< 400 U	< 390 U	< 440 U	< 390 U
4-Bromophenyl phenyl ether	ug/kg	-	-	< 950 U	< 250 U	< 210 U	< 210 U	< 210 U	< 200 U	< 220 U	< 200 U
4-Chloro-3-methylphenol	ug/kg	-	-	< 950 U	< 250 U	< 210 U	< 210 U	< 210 U	< 200 U	< 220 U	< 200 U
4-Chloroaniline	ug/kg	-	-	< 950 U	< 250 U	< 210 U	< 210 U	< 210 U	< 200 U	< 220 U	< 200 U
4-Chlorophenyl phenyl ether	ug/kg	-	-	< 950 U	< 250 U	< 210 U	< 210 U	< 210 U	< 200 U	< 220 U	< 200 U
4-Methylphenol	ug/kg	330	500000	< 1800 U	< 490 U	< 410 U	< 410 U	< 400 U	< 390 U	< 440 U	< 390 U
4-Nitroaniline	ug/kg	-	-	< 1800 U	< 490 U	< 410 U	< 410 U	< 400 U	< 390 U	< 440 U	< 390 U
4-Nitrophenol	ug/kg	-	-	< 1800 U	< 490 U	< 410 U	< 410 U	< 400 U	< 390 U	< 440 U	< 390 U
Acenaphthene	ug/kg	20000	500000	< 950 U	< 250 U	< 210 U	< 210 U	< 210 U	< 200 U	< 220 U	< 200 U
Acenaphthylene	ug/kg	100000	500000	< 950 U	< 250 U	< 210 U	74 UJ	< 210 U	< 200 U	59 UJ	< 200 U
Acetophenone	ug/kg	-	-	< 950 U	< 250 U	< 210 U	< 210 U	< 210 U	< 200 U	< 220 U	< 200 U
Anthracene	ug/kg	100000	500000	< 950 U	< 250 U	< 210 U	130 UJ	< 210 U	< 200 U	120 UJ	< 200 U
Atrazine	ug/kg	-	-	< 950 U	< 250 U	< 210 U	< 210 U	< 210 U	< 200 U	< 220 U	< 200 U
Benzaldehyde	ug/kg	-	-	< 950 UJ	< 250 UJ	< 210 UJ	< 210 UJ	< 210 UJ	< 200 UJ	< 220 UJ	< 200 UJ
Benzo(b)fluoranthene	ug/kg	**1000**	5600	< 950 U	< 250 U	< 210 U	< 210 U	< 210 U	< 200 U	**1100**	< 200 U
Benzo[a]anthracene	ug/kg	**1000**	5600	< 950 U	< 250 U	< 210 U	300	< 210 U	< 200 U	370	< 200 U
Benzo[a]pyrene	ug/kg	**1000**	1000	280 UJ	< 250 U	< 210 U	380	< 210 U	< 200 U	500	< 200 U
Benzo[g,h,i]perylene	ug/kg	100000	500000	160 UJ	< 250 U	< 210 U	350	< 210 U	< 200 U	670	< 200 U
Benzo[k]fluoranthene	ug/kg	**800**	56000	170 UJ	< 250 U	< 210 U	< 210 U	< 210 U	< 200 U	430	< 200 U
bis (2-chloroisopropyl) ether	ug/kg	-	-	< 950 U	< 250 U	< 210 U	< 210 U	< 210 U	< 200 U	< 220 U	< 200 U
bis(2-Chloroethoxy)methane	ug/kg	-	-	< 950 U	< 250 U	< 210 U	< 210 U	< 210 U	< 200 U	< 220 U	< 200 U
bis(2-Chloroethyl) ether	ug/kg	-	-	< 950 U	< 250 U	< 210 U	< 210 U	< 210 U	< 200 U	< 220 U	< 200 U
bis(2-Ethylhexyl) phthalate	ug/kg	-	-	< 950 U	< 250 U	< 210 U	< 210 U	< 210 U	< 200 U	160 UJ	< 200 U
Butyl benzyl phthalate	ug/kg	-	-	< 950 U	< 250 U	< 210 U	< 210 U	< 210 U	< 200 U	< 220 U	< 200 U
Caprolactam	ug/kg	-	-	< 950 U	< 250 U	< 210 U	< 210 U	< 210 U	< 200 U	< 220 U	< 200 U
Carbazole	ug/kg	-	-	< 950 U	< 250 U	< 210 U	35 UJ	< 210 U	< 200 U	100 UJ	< 200 U
Chrysene	ug/kg	**1000**	56000	< 950 U	< 250 U	< 210 U	380	< 210 U	< 200 U	620	< 200 U
Dibenz[a,h]anthracene	ug/kg	**330**	560	< 950 U	< 250 U	< 210 U	< 210 U	< 210 U	< 200 U	< 220 U	< 200 U
Dibenzofuran	ug/kg	7000	350000	< 950 U	< 250 U	< 210 U	46 UJ	< 210 U	< 200 U	130 UJ	< 200 U
Diethyl phthalate	ug/kg	-	-	< 950 U	< 250 U	< 210 U	< 210 U	< 210 U	< 200 U	< 220 U	< 200 U
Dimethyl phthalate	ug/kg	-	-	< 950 U	< 250 U	< 210 U	< 210 U	< 210 U	< 200 U	< 220 U	< 200 U
Di-n-butyl phthalate	ug/kg	-	-	< 950 U	< 250 U	< 210 U	< 210 U	< 210 U	< 200 U	< 220 U	< 200 U
Di-n-octyl phthalate	ug/kg	-	-	< 950 U	< 250 U	< 210 U	< 210 U	< 210 U	< 200 U	< 220 U	< 200 U
Fluoranthene	ug/kg	100000	500000	310 UJ	< 250 U	< 210 U	470	< 210 U	< 200 U	520	< 200 U
Fluorene	ug/kg	30000	500000	< 950 U	< 250 U	< 210 U	50 UJ	< 210 U	< 200 U	< 220 U	< 200 U
Hexachlorobenzene	ug/kg	330	6000	< 950 U	< 250 U	< 210 U	< 210 U	< 210 U	< 200 U	< 220 U	< 200 U
Hexachlorobutadiene	ug/kg	-	-	< 950 U	< 250 U	< 210 U	< 210 U	< 210 U	< 200 U	< 220 U	< 200 U
Hexachlorocyclopentadiene	ug/kg	-	-	< 950 U	< 250 U	< 210 U	< 210 U	< 210 U	< 200 U	< 220 U	< 200 U
Hexachloroethane	ug/kg	-	-	< 950 U	< 250 U	< 210 U	< 210 U	< 210 U	< 200 U	< 220 U	< 200 U
Indeno[1,2,3-cd]pyrene	ug/kg	**500**	5600	130 UJ	< 250 U	< 210 U	300	< 210 U	< 200 U	**530**	< 200 U
Isophorone	ug/kg	-	-	< 950 U	< 250 U	< 210 U	< 210 U	< 210 U	< 200 U	< 220 U	< 200 U
Naphthalene	ug/kg	12000	500000	< 950 U	< 250 U	< 210 U	< 210 U	< 210 U	< 200 U	270	< 200 U
Nitrobenzene	ug/kg	-	-	< 950 U	< 250 U	< 210 U	< 210 U	< 210 U	< 200 U	< 220 U	< 200 U
N-Nitrosodi-n-propylamine	ug/kg	-	-	< 950 U	< 250 U	< 210 U	< 210 U	< 210 U	< 200 U	< 220 U	< 200 U
N-Nitrosodiphenylamine	ug/kg	-	-	< 950 U	< 250 U	< 210 U	< 210 U	< 210 U	< 200 U	< 220 U	< 200 U
Pentachlorophenol	ug/kg	800	6700	< 1800 U	< 490 U	< 410 U	< 410 U	< 400 U	< 390 U	< 440 U	< 390 U
Phenanthrene	ug/kg	100000	500000	220 UJ	< 250 U	< 210 U	280	< 210 U	< 200 U	430	< 200 U
Phenol	ug/kg	**330**	500000	< 950 U	< 250 U	< 210 U	< 210 U	< 210 U	< 200 U	< 220 U	< 200 U
Pyrene	ug/kg	100000	500000	230 UJ	< 250 U	< 210 U	600	< 210 U	< 200 U	560	< 200 U

Analyte	Units	SB-103-C	SB-104-A	SB-104-B	SB-104-C	SB-105-A	SB-105-B	SB-105-C	SB-105-D	SB-106-A	SB-106-B	SB-106-C	SB-107-A
Start Depth (ft bgs)		12	0	4	14	0	4	10	12	0	4	14	0
End Depth (ft bgs)		14	1	6	16	1	6	12	14	1	8	16	2
Sample Date		10/10/2018	10/10/2018	10/10/2018	10/10/2018	10/10/2018	10/10/2018	10/10/2018	10/10/2018	10/10/2018	10/10/2018	10/10/2018	10/11/2018
SW8270D													
1,1'-Biphenyl	ug/kg	< 200 U	< 200 U	< 200 U	< 210 U	< 210 U	< 210 U	< 560 U	< 210 U	< 220 U	< 220 U	< 350 U	< 210 U
2,4,5-Trichlorophenol	ug/kg	< 200 U	< 200 U	< 200 U	< 210 U	< 210 U	< 210 U	< 560 U	< 210 U	< 220 U	< 220 U	< 350 U	< 210 U
2,4,6-Trichlorophenol	ug/kg	< 200 U	< 200 U	< 200 U	< 210 U	< 210 U	< 210 U	< 560 U	< 210 U	< 220 U	< 220 U	< 350 U	< 210 U
2,4-Dichlorophenol	ug/kg	< 200 U	< 200 U	< 200 U	< 210 U	< 210 U	< 210 U	< 560 U	< 210 U	< 220 U	< 220 U	< 350 U	< 210 U
2,4-Dimethylphenol	ug/kg	< 200 U	< 200 U	< 200 U	< 210 U	< 210 U	< 210 U	< 560 U	< 210 U	< 220 U	< 220 U	< 350 U	< 210 U
2,4-Dinitrophenol	ug/kg	< 1900 U	< 2000 U	< 1900 U	< 2000 U	< 2100 U	< 2000 U	< 5500 U	< 2100 U	< 2100 U	< 2100 U	< 3400 U	< 2000 U
2,4-Dinitrotoluene	ug/kg	< 200 U	< 200 U	< 200 U	< 210 U	< 210 U	< 210 U	< 560 U	< 210 U	< 220 U	< 220 U	< 350 U	< 210 U
2,6-Dinitrotoluene	ug/kg	< 200 U	< 200 U	< 200 U	< 210 U	< 210 U	< 210 U	< 560 U	< 210 U	< 220 U	< 220 U	< 350 U	< 210 U
2-Chloronaphthalene	ug/kg	< 200 U	< 200 U	< 200 U	< 210 U	< 210 U	< 210 U	< 560 U	< 210 U	< 220 U	< 220 U	< 350 U	< 210 U
2-Chlorophenol	ug/kg	< 200 U	< 200 U	< 200 U	< 210 U	< 210 U	< 210 U	< 560 U	< 210 U	< 220 U	< 220 U	< 350 U	< 210 U
2-Methylnaphthalene	ug/kg	< 200 U	< 200 U	< 200 U	< 210 U	160 UJ	< 210 U	< 560 U	< 210 U	< 220 U	< 220 U	< 350 U	48 UJ
2-Methylphenol	ug/kg	< 200 U	< 200 U	< 200 U	< 210 U	< 210 U	< 210 U	< 560 U	< 210 U	< 220 U	< 220 U	< 350 U	< 210 U
2-Nitroaniline	ug/kg	< 380 U	< 400 U	< 380 U	< 400 U	< 410 U	< 400 U	< 1100 U	< 420 U	< 420 U	< 420 U	< 680 U	< 400 U
2-Nitrophenol	ug/kg	< 200 U	< 200 U	< 200 U	< 210 U	< 210 U	< 210 U	< 560 U	< 210 U	< 220 U	< 220 U	< 350 U	< 210 U
3 & 4 Methylphenol	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3,3'-Dichlorobenzidine	ug/kg	< 380 U	< 400 U	< 380 U	< 400 U	< 410 U	< 400 U	< 1100 U	< 420 U	< 420 U	< 420 U	< 680 U	< 400 U
3-Nitroaniline	ug/kg	< 380 U	< 400 U	< 380 U	< 400 U	< 410 U	< 400 U	< 1100 U	< 420 U	< 420 U	< 420 U	< 680 U	< 400 U
4,6-Dinitro-2-methylphenol	ug/kg	< 380 U	< 400 U	< 380 U	< 400 U	< 410 U	< 400 U	< 1100 U	< 420 U	< 420 U	< 420 U	< 680 U	< 400 U
4-Bromophenyl phenyl ether	ug/kg	< 200 U	< 200 U	< 200 U	< 210 U	< 210 U	< 210 U	< 560 U	< 210 U	< 220 U	< 220 U	< 350 U	< 210 U
4-Chloro-3-methylphenol	ug/kg	< 200 U	< 200 U	< 200 U	< 210 U	< 210 U	< 210 U	< 560 U	< 210 U	< 220 U	< 220 U	< 350 U	< 210 U
4-Chloroaniline	ug/kg	< 200 U	< 200 U	< 200 U	< 210 U	< 210 U	< 210 U	< 560 U	< 210 U	< 220 U	< 220 U	< 350 U	< 210 U
4-Chlorophenyl phenyl ether	ug/kg	< 200 U	< 200 U	< 200 U	< 210 U	< 210 U	< 210 U	< 560 U	< 210 U	< 220 U	< 220 U	< 350 U	< 210 U
4-Methylphenol	ug/kg	< 380 U	< 400 U	< 380 U	< 400 U	< 410 U	< 400 U	< 1100 U	< 420 U	< 420 U	< 420 U	< 680 U	< 400 U
4-Nitroaniline	ug/kg	< 380 U	< 400 U	< 380 U	< 400 U	< 410 U	< 400 U	< 1100 U	< 420 U	< 420 U	< 420 U	< 680 U	< 400 U
4-Nitrophenol	ug/kg	< 380 U	< 400 U	< 380 U	< 400 U	< 410 U	< 400 U	< 1100 U	< 420 U	< 420 U	< 420 U	< 680 U	< 400 U
Acenaphthene	ug/kg	< 200 U	< 200 U	< 200 U	< 210 U	< 210 U	< 210 U	< 560 U	< 210 U	< 220 U	< 220 U	< 350 U	< 210 U
Acenaphthylene	ug/kg	< 200 U	< 200 U	< 200 U	< 210 U	130 UJ	< 210 U	< 560 U	< 210 U	< 220 U	< 220 U	< 350 U	110 UJ
Acetophenone	ug/kg	< 200 U	< 200 U	< 200 U	< 210 U	< 210 U	< 210 U	< 560 U	< 210 U	< 220 U	< 220 U	< 350 U	< 210 U
Anthracene	ug/kg	< 200 U	< 200 U	< 200 U	< 210 U	120 UJ	< 210 U	< 560 U	< 210 U	< 220 U	< 220 U	< 350 U	130 UJ
Atrazine	ug/kg	< 200 U	< 200 U	< 200 U	< 210 U	< 210 U	< 210 U	< 560 U	< 210 U	< 220 U	< 220 U	< 350 U	< 210 U
Benzaldehyde	ug/kg	< 200 UJ	< 200 UJ	< 200 UJ	< 210 UJ	< 210 UJ	< 210 UJ	< 560 UJ	< 210 UJ	< 220 UJ	< 220 UJ	< 350 UJ	< 210 U
Benzo(b)fluoranthene	ug/kg	< 200 U	140 UJ	< 200 U	< 210 U	**1100**	< 210 U	< 560 U	< 210 U	200 UJ	< 220 U	< 350 U	800
Benzo[a]anthracene	ug/kg	< 200 U	< 200 U	< 200 U	< 210 U	560	< 210 U	< 560 U	< 210 U	< 220 U	< 220 U	< 350 U	540
Benzo[a]pyrene	ug/kg	< 200 U	< 200 U	< 200 U	< 210 U	700	< 210 U	< 560 U	< 210 U	130 UJ	< 220 U	< 350 U	570
Benzo[g,h,i]perylene	ug/kg	< 200 U	79 UJ	< 200 U	< 210 U	670	< 210 U	< 560 U	< 210 U	100 UJ	< 220 U	< 350 U	500
Benzo[k]fluoranthene	ug/kg	< 200 U	< 200 U	< 200 U	< 210 U	650	< 210 U	< 560 U	< 210 U	< 220 U	< 220 U	< 350 U	< 210 U
bis (2-chloroisopropyl) ether	ug/kg	< 200 U	< 200 U	< 200 U	< 210 U	< 210 U	< 210 U	< 560 U	< 210 U	< 220 U	< 220 U	< 350 U	< 210 U
bis(2-Chloroethoxy)methane	ug/kg	< 200 U	< 200 U	< 200 U	< 210 U	< 210 U	< 210 U	< 560 U	< 210 U	< 220 U	< 220 U	< 350 U	< 210 U
bis(2-Chloroethyl) ether	ug/kg	< 200 U	< 200 U	< 200 U	< 210 U	< 210 U	< 210 U	< 560 U	< 210 U	< 220 U	< 220 U	< 350 U	< 210 U
bis(2-Ethylhexyl) phthalate	ug/kg	< 200 U	< 200 U	< 200 U	< 210 U	< 210 U	< 210 U	< 560 U	< 210 U	< 220 U	< 220 U	< 350 U	< 210 U
Butyl benzyl phthalate	ug/kg	< 200 U	< 200 U	< 200 U	< 210 U	< 210 U	< 210 U	< 560 U	< 210 U	< 220 U	< 220 U	< 350 U	< 210 U
Caprolactam	ug/kg	< 200 U	< 200 U	< 200 U	< 210 U	< 210 U	< 210 U	< 560 U	< 210 U	< 220 U	< 220 U	< 350 U	< 210 U
Carbazole	ug/kg	< 200 U	< 200 U	< 200 U	< 210 U	70 UJ	< 210 U	< 560 U	< 210 U	< 220 U	< 220 U	< 350 U	52 UJ
Chrysene	ug/kg	< 200 U	< 200 U	< 200 U	< 210 U	780	< 210 U	< 560 U	< 210 U	< 220 U	< 220 U	< 350 U	630
Dibenz[a,h]anthracene	ug/kg	< 200 U	< 200 U	< 200 U	< 210 U	< 210 U	< 210 U	< 560 U	< 210 U	< 220 U	< 220 U	< 350 U	< 210 U
Dibenzofuran	ug/kg	< 200 U	< 200 U	< 200 U	< 210 U	67 UJ	< 210 U	< 560 U	< 210 U	< 220 U	< 220 U	< 350 U	25 UJ
Diethyl phthalate	ug/kg	< 200 U	< 200 U	< 200 U	< 210 U	< 210 U	< 210 U	< 560 U	< 210 U	< 220 U	< 220 U	< 350 U	92 UJ
Dimethyl phthalate	ug/kg	< 200 U	< 200 U	< 200 U	< 210 U	< 210 U	< 210 U	< 560 U	< 210 U	< 220 U	< 220 U	< 350 U	< 210 U
Di-n-butyl phthalate	ug/kg	< 200 U	< 200 U	< 200 U	< 210 U	< 210 U	< 210 U	< 560 U	< 210 U	< 220 U	< 220 U	< 350 U	44 UJ
Di-n-octyl phthalate	ug/kg	< 200 U	< 200 U	< 200 U	< 210 U	< 210 U	< 210 U	< 560 U	< 210 U	< 220 U	< 220 U	< 350 U	< 210 U
Fluoranthene	ug/kg	< 200 U	80 UJ	< 200 U	< 210 U	820	< 210 U	< 560 U	< 210 U	120 UJ	24 UJ	< 350 U	1000
Fluorene	ug/kg	< 200 U	< 200 U	< 200 U	< 210 U	< 210 U	< 210 U	< 560 U	< 210 U	< 220 U	< 220 U	< 350 U	34 UJ
Hexachlorobenzene	ug/kg	< 200 U	< 200 U	< 200 U	< 210 U	< 210 U	< 210 U	< 560 U	< 210 U	< 220 U	< 220 U	< 350 U	< 210 U
Hexachlorobutadiene	ug/kg	< 200 U	< 200 U	< 200 U	< 210 U	< 210 U	< 210 U	< 560 U	< 210 U	< 220 U	< 220 U	< 350 U	< 210 U
Hexachlorocyclopentadiene	ug/kg	< 200 U	< 200 U	< 200 U	< 210 U	< 210 U	< 210 U	< 560 U	< 210 U	< 220 U	< 220 U	< 350 U	< 210 U
Hexachloroethane	ug/kg	< 200 U	< 200 U	< 200 U	< 210 U	< 210 U	< 210 U	< 560 U	< 210 U	< 220 U	< 220 U	< 350 U	< 210 U
Indeno[1,2,3-cd]pyrene	ug/kg	< 200 U	69 UJ	< 200 U	< 210 U	**570**	< 210 U	< 560 U	< 210 U	94 UJ	< 220 U	< 350 U	420
Isophorone	ug/kg	< 200 U	< 200 U	< 200 U	< 210 U	< 210 U	< 210 U	< 560 U	< 210 U	< 220 U	< 220 U	< 350 U	< 210 U
Naphthalene	ug/kg	< 200 U	< 200 U	< 200 U	< 210 U	130 UJ	< 210 U	< 560 U	< 210 U	< 220 U	< 220 U	< 350 U	37 UJ
Nitrobenzene	ug/kg	< 200 U	< 200 U	< 200 U	< 210 U	< 210 U	< 210 U	< 560 U	< 210 U	< 220 U	< 220 U	< 350 U	< 210 U
N-Nitrosodi-n-propylamine	ug/kg	< 200 U	< 200 U	< 200 U	< 210 U	< 210 U	< 210 U	< 560 U	< 210 U	< 220 U	< 220 U	< 350 U	< 210 U
N-Nitrosodiphenylamine	ug/kg	< 200 U	< 200 U	< 200 U	< 210 U	< 210 U	< 210 U	< 560 U	< 210 U	< 220 U	< 220 U	< 350 U	< 210 U
Pentachlorophenol	ug/kg	< 380 U	< 400 U	< 380 U	< 400 U	< 410 U	< 400 U	< 1100 U	< 420 U	< 420 U	< 420 U	< 680 U	< 400 U
Phenanthrene	ug/kg	< 200 U	< 200 U	< 200 U	< 210 U	430	< 210 U	< 560 U	< 210 U	< 220 U	< 220 U	< 350 U	640
Phenol	ug/kg	< 200 U	< 200 U	< 200 U	< 210 U	< 210 U	< 210 U	< 560 U	< 210 U	< 220 U	< 220 U	< 350 U	< 210 U
Pyrene	ug/kg	< 200 U	91 UJ	< 200 U	< 210 U	860	< 210 U	< 560 U	< 210 U	180 UJ	26 UJ	< 350 U	1100 J

Analyte	Units	SB-107-B	SB-107-C	SB-108-A	SB-108-B	SB-108-C	SB-109-A	SB-109-B	SB-109-C	SB-110-A	SB-110-B	SB-110-C	SB-110-D
Start Depth (ft bgs)		6	13	0	8	10	0	4	16	0	4	17.5	10
End Depth (ft bgs)		8	18	1	10	14	1	6	18	1	6	20	12.5
Sample Date		10/11/2018	10/11/2018	10/11/2018	10/11/2018	10/11/2018	10/11/2018	10/11/2018	10/11/2018	10/11/2018	10/11/2018	10/11/2018	10/11/2018
SW8270D													
1,1'-Biphenyl	ug/kg	< 200 U	< 200 U	< 210 U	< 200 UJ	< 390 U	< 1700 U	< 210 U	< 200 U	< 35000 UJ	< 200 U	< 200 U	< 250 U
2,4,5-Trichlorophenol	ug/kg	< 200 U	< 200 U	< 210 U	< 200 UJ	< 390 U	< 1700 U	< 210 U	< 200 U	< 35000 UJ	< 200 U	< 200 U	< 250 U
2,4,6-Trichlorophenol	ug/kg	< 200 U	< 200 U	< 210 U	< 200 UJ	< 390 U	< 1700 U	< 210 U	< 200 U	< 35000 UJ	< 200 U	< 200 U	< 250 U
2,4-Dichlorophenol	ug/kg	< 200 U	< 200 U	< 210 U	< 200 UJ	< 390 U	< 1700 U	< 210 U	< 200 U	< 35000 UJ	< 200 U	< 200 U	< 250 U
2,4-Dimethylphenol	ug/kg	< 200 U	< 200 U	< 210 U	< 200 UJ	< 390 U	< 1700 U	< 210 U	< 200 U	< 35000 UJ	< 200 U	< 200 U	< 250 U
2,4-Dinitrophenol	ug/kg	< 2000 U	< 1900 U	< 2000 U	< 1900 UJ	< 3800 U	< 17000 U	< 2100 U	< 2000 U	< 340000 UJ	< 2000 U	< 1900 U	< 2400 U
2,4-Dinitrotoluene	ug/kg	< 200 U	< 200 U	< 210 U	< 200 UJ	< 390 U	< 1700 U	< 210 U	< 200 U	< 35000 UJ	< 200 U	< 200 U	< 250 U
2,6-Dinitrotoluene	ug/kg	< 200 U	< 200 U	< 210 U	< 200 UJ	< 390 U	< 1700 U	< 210 U	< 200 U	< 35000 UJ	< 200 U	< 200 U	< 250 U
2-Chloronaphthalene	ug/kg	< 200 U	< 200 U	< 210 U	< 200 UJ	< 390 U	< 1700 U	< 210 U	< 200 U	< 35000 UJ	< 200 U	< 200 U	< 250 U
2-Chlorophenol	ug/kg	< 200 U	< 200 U	< 210 U	< 200 UJ	< 390 U	< 1700 U	< 210 U	< 200 U	< 35000 UJ	< 200 U	< 200 U	< 250 U
2-Methylnaphthalene	ug/kg	< 200 U	< 200 U	200 UJ	< 200 UJ	< 390 U	< 1700 U	240	< 200 U	< 35000 UJ	< 200 U	< 200 U	< 250 U
2-Methylphenol	ug/kg	< 200 U	< 200 U	< 210 U	< 200 UJ	< 390 U	< 1700 U	< 210 U	< 200 U	< 35000 UJ	< 200 U	< 200 U	< 250 U
2-Nitroaniline	ug/kg	< 390 U	< 390 U	< 400 U	< 380 UJ	< 760 U	< 3300 U	< 410 U	< 390 U	< 68000 UJ	< 390 U	< 380 U	< 480 U
2-Nitrophenol	ug/kg	< 200 U	< 200 U	< 210 U	< 200 UJ	< 390 U	< 1700 U	< 210 U	< 200 U	< 35000 UJ	< 200 U	< 200 U	< 250 U
3 & 4 Methylphenol	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3,3'-Dichlorobenzidine	ug/kg	< 390 U	< 390 U	< 400 U	< 380 UJ	< 760 U	< 3300 U	< 410 U	< 390 U	< 68000 UJ	< 390 U	< 380 U	< 480 U
3-Nitroaniline	ug/kg	< 390 U	< 390 U	< 400 U	< 380 UJ	< 760 U	< 3300 U	< 410 U	< 390 U	< 68000 UJ	< 390 U	< 380 U	< 480 U
4,6-Dinitro-2-methylphenol	ug/kg	< 390 U	< 390 U	< 400 U	< 380 UJ	< 760 U	< 3300 U	< 410 U	< 390 U	< 68000 UJ	< 390 U	< 380 U	< 480 U
4-Bromophenyl phenyl ether	ug/kg	< 200 U	< 200 U	< 210 U	< 200 UJ	< 390 U	< 1700 U	< 210 U	< 200 U	< 35000 UJ	< 200 U	< 200 U	< 250 U
4-Chloro-3-methylphenol	ug/kg	< 200 U	< 200 U	< 210 U	< 200 UJ	< 390 U	< 1700 U	< 210 U	< 200 U	< 35000 UJ	< 200 U	< 200 U	< 250 U
4-Chloroaniline	ug/kg	< 200 U	< 200 U	< 210 U	< 200 UJ	< 390 U	< 1700 U	< 210 U	< 200 U	< 35000 UJ	< 200 U	< 200 U	< 250 U
4-Chlorophenyl phenyl ether	ug/kg	< 200 U	< 200 U	< 210 U	< 200 UJ	< 390 U	< 1700 U	< 210 U	< 200 U	< 35000 UJ	< 200 U	< 200 U	< 250 U
4-Methylphenol	ug/kg	< 390 U	< 390 U	< 400 U	< 380 UJ	< 760 U	< 3300 U	< 410 U	< 390 U	< 68000 UJ	< 390 U	< 380 U	< 480 U
4-Nitroaniline	ug/kg	< 390 U	< 390 U	< 400 U	< 380 UJ	< 760 U	< 3300 U	< 410 U	< 390 U	< 68000 UJ	< 390 U	< 380 U	< 480 U
4-Nitrophenol	ug/kg	< 390 U	< 390 U	< 400 U	< 380 UJ	< 760 U	< 3300 U	< 410 U	< 390 U	< 68000 UJ	< 390 U	< 380 U	< 480 U
Acenaphthene	ug/kg	< 200 U	< 200 U	< 210 U	< 200 UJ	< 390 U	1400 UJ	< 210 U	< 200 U	< 35000 UJ	< 200 U	< 200 U	< 250 U
Acenaphthylene	ug/kg	< 200 U	< 200 U	170 UJ	< 200 UJ	< 390 U	270 UJ	92 UJ	< 200 U	< 35000 UJ	< 200 U	< 200 U	< 250 U
Acetophenone	ug/kg	< 200 U	< 200 U	< 210 U	< 200 UJ	< 390 U	< 1700 U	< 210 U	< 200 U	< 35000 UJ	< 200 U	< 200 U	< 250 U
Anthracene	ug/kg	< 200 U	< 200 U	210	< 200 UJ	< 390 U	4000	140 UJ	< 200 U	< 35000 UJ	< 200 U	< 200 U	91 UJ
Atrazine	ug/kg	< 200 U	< 200 U	< 210 U	< 200 UJ	< 390 U	< 1700 U	< 210 U	< 200 U	< 35000 UJ	< 200 U	< 200 U	< 250 U
Benzaldehyde	ug/kg	< 200 U	< 200 U	< 210 U	< 200 UJ	< 390 U	< 1700 U	< 210 U	< 200 U	< 35000 UJ	< 200 U	< 200 U	< 250 U
Benzo(b)fluoranthene	ug/kg	< 200 U	< 200 U	**1300**	< 200 UJ	< 390 U	**9200**	**1200**	< 200 U	< 35000 UJ	< 200 U	< 200 U	150 UJ
Benzo[a]anthracene	ug/kg	< 200 U	< 200 U	630	< 200 UJ	< 390 U	**8700**	540	< 200 U	< 35000 UJ	< 200 U	< 200 U	< 250 U
Benzo[a]pyrene	ug/kg	< 200 U	< 200 U	760	< 200 UJ	< 390 U	**7400**	720	< 200 U	< 35000 UJ	< 200 U	< 200 U	150 UJ
Benzo[g,h,i]perylene	ug/kg	< 200 U	< 200 U	780	< 200 UJ	< 390 U	5200	800	< 200 U	< 35000 UJ	< 200 U	< 200 U	86 UJ
Benzo[k]fluoranthene	ug/kg	< 200 U	< 200 U	690	< 200 UJ	< 390 U	< 1700 U	< 210 U	< 200 U	< 35000 UJ	< 200 U	< 200 U	< 250 U
bis (2-chloroisopropyl) ether	ug/kg	< 200 U	< 200 U	< 210 U	< 200 UJ	< 390 U	< 1700 U	< 210 U	< 200 U	< 35000 UJ	< 200 U	< 200 U	< 250 U
bis(2-Chloroethoxy)methane	ug/kg	< 200 U	< 200 U	< 210 U	< 200 UJ	< 390 U	< 1700 U	< 210 U	< 200 U	< 35000 UJ	< 200 U	< 200 U	< 250 U
bis(2-Chloroethyl) ether	ug/kg	< 200 U	< 200 U	< 210 U	< 200 UJ	< 390 U	< 1700 U	< 210 U	< 200 U	< 35000 UJ	< 200 U	< 200 U	< 250 U
bis(2-Ethylhexyl) phthalate	ug/kg	< 200 U	< 200 U	< 210 U	< 200 UJ	< 390 U	< 1700 U	< 210 U	< 200 U	< 35000 UJ	< 200 U	< 200 U	< 250 U
Butyl benzyl phthalate	ug/kg	< 200 U	< 200 U	< 210 U	< 200 UJ	< 390 U	< 1700 U	< 210 U	< 200 U	< 35000 UJ	< 200 U	< 200 U	< 250 U
Caprolactam	ug/kg	< 200 U	< 200 U	< 210 U	< 200 UJ	< 390 U	< 1700 U	< 210 U	< 200 U	< 35000 UJ	< 200 U	< 200 U	< 250 U
Carbazole	ug/kg	< 200 U	< 200 U	98 UJ	< 200 UJ	< 390 U	1600 UJ	66 UJ	< 200 U	< 35000 UJ	< 200 U	< 200 U	< 250 U
Chrysene	ug/kg	< 200 U	< 200 U	900	< 200 UJ	< 390 U	**8300**	760	< 200 U	< 35000 UJ	< 200 U	< 200 U	180 UJ
Dibenz[a,h]anthracene	ug/kg	< 200 U	< 200 U	< 210 U	< 200 UJ	< 390 U	< 1700 U	< 210 U	< 200 U	< 35000 UJ	< 200 U	< 200 U	< 250 U
Dibenzofuran	ug/kg	< 200 U	< 200 U	81 UJ	< 200 UJ	< 390 U	790 UJ	81 UJ	< 200 U	< 35000 UJ	< 200 U	< 200 U	35 UJ
Diethyl phthalate	ug/kg	72 UJ	64 UJ	61 UJ	46 UJ	110 UJ	430 UJ	52 UJ	38 UJ	6600 UJ	< 200 U	< 200 U	< 250 U
Dimethyl phthalate	ug/kg	< 200 U	< 200 U	< 210 U	< 200 UJ	< 390 U	< 1700 U	< 210 U	< 200 U	< 35000 UJ	< 200 U	< 200 U	< 250 U
Di-n-butyl phthalate	ug/kg	39 UJ	39 UJ	42 UJ	< 200 UJ	< 390 U	< 1700 U	41 UJ	< 200 U	< 35000 UJ	< 200 U	< 200 U	< 250 U
Di-n-octyl phthalate	ug/kg	< 200 U	< 200 U	< 210 U	< 200 UJ	< 390 U	< 1700 U	< 210 U	< 200 U	< 35000 UJ	< 200 U	< 200 U	< 250 U
Fluoranthene	ug/kg	< 200 U	< 200 U	890	< 200 UJ	< 390 U	17000	850	< 200 U	7200 UJ	< 200 U	< 200 U	400
Fluorene	ug/kg	< 200 U	< 200 U	< 210 U	< 200 UJ	< 390 U	1400 UJ	< 210 U	< 200 U	< 35000 UJ	< 200 U	< 200 U	44 UJ
Hexachlorobenzene	ug/kg	< 200 U	< 200 U	< 210 U	< 200 UJ	< 390 U	< 1700 U	< 210 U	< 200 U	< 35000 UJ	< 200 U	< 200 U	< 250 U
Hexachlorobutadiene	ug/kg	< 200 U	< 200 U	< 210 U	< 200 UJ	< 390 U	< 1700 U	< 210 U	< 200 U	< 35000 UJ	< 200 U	< 200 U	< 250 U
Hexachlorocyclopentadiene	ug/kg	< 200 U	< 200 U	< 210 U	< 200 UJ	< 390 U	< 1700 U	< 210 U	< 200 U	< 35000 UJ	< 200 U	< 200 U	< 250 U
Hexachloroethane	ug/kg	< 200 U	< 200 U	< 210 U	< 200 UJ	< 390 U	< 1700 U	< 210 U	< 200 U	< 35000 UJ	< 200 U	< 200 U	< 250 U
Indeno[1,2,3-cd]pyrene	ug/kg	< 200 U	< 200 U	**680**	< 200 UJ	< 390 U	**4600**	**660**	< 200 U	< 35000 UJ	< 200 U	< 200 U	82 UJ
Isophorone	ug/kg	< 200 U	< 200 U	< 210 U	< 200 UJ	< 390 U	< 1700 U	< 210 U	< 200 U	< 35000 UJ	< 200 U	< 200 U	< 250 U
Naphthalene	ug/kg	< 200 U	< 200 U	150 UJ	< 200 UJ	< 390 U	< 1700 U	140 UJ	< 200 U	< 35000 UJ	< 200 U	< 200 U	< 250 U
Nitrobenzene	ug/kg	< 200 U	< 200 U	< 210 U	< 200 UJ	< 390 U	< 1700 U	< 210 U	< 200 U	< 35000 UJ	< 200 U	< 200 U	< 250 U
N-Nitrosodi-n-propylamine	ug/kg	< 200 U	< 200 U	< 210 U	< 200 UJ	< 390 U	< 1700 U	< 210 U	< 200 U	< 35000 UJ	< 200 U	< 200 U	< 250 U
N-Nitrosodiphenylamine	ug/kg	< 200 U	< 200 U	< 210 U	< 200 UJ	< 390 U	< 1700 U	< 210 U	< 200 U	< 35000 UJ	< 200 U	< 200 U	< 250 U
Pentachlorophenol	ug/kg	< 390 U	< 390 U	< 400 U	< 380 UJ	< 760 U	< 3300 U	< 410 U	< 390 U	< 68000 UJ	< 390 U	< 380 U	< 480 U
Phenanthrene	ug/kg	< 200 U	< 200 U	390	< 200 UJ	< 390 U	13000	490	< 200 U	< 35000 UJ	< 200 U	< 200 U	380
Phenol	ug/kg	< 200 U	< 200 U	< 210 U	< 200 UJ	< 390 U	< 1700 U	< 210 U	< 200 U	< 35000 UJ	< 200 U	< 200 U	< 250 U
Pyrene	ug/kg	< 200 UJ	< 200 UJ	900 J	< 200 UJ	< 390 UJ	14000 J	770 J	< 200 UJ	4200 UJ	< 200 UJ	< 200 UJ	300 J

Notes:

ft bgs = feet below ground surface

mg/kg = milligrams per kilogram

µg/kg = micrograms per kilogram

6 NYCRR Part 375 SCO = Title 6 Official Compilation of New York Codes, Rules and Regulations Part 375 Soil Cleanup Objectives

- = no SCO established

NA = not applicable/analyzed

Qualifiers:

U = Analyte analyzed for, but not detected above the sample’s reported quantitation limit

J = Analyte positively identified at a numerical value that is the approximate concentration of the analyte in the sample

J+ = Sample likely to have a high bias

J- = Sample likely to have a low bias

UJ = Analyte not detected above the sample quantitation limit; the associated quantitation limit is approximate and may or may not represent the actual limit of quantitation necessary to accurately and precisely measure the analyte in the sample

N = The analysis indicates the present of an analyte for which there is presumptive evidence to make a “tentative identification.”

NJ = The analysis indicates the presence of an analyte that has been “tentatively identified” and the associated numerical value represents its approximate oncentration.

R = Sample result rejected due to serious deficiency in ability to analyze sample and meet quality control criteria; the presence or absence of the analyte cannot be confirmed. This qualifier also may apply when more than one sample result is generated for a target analyte (i.e., dilutions or re-analyses), the most technically acceptable result is considered acceptable.

B/EB/TB/BB = An analyte identified in method blank (B), aqueous equipment (EB), trip (TB), or bottle blanks (BB) used to assess field contamination associated with soil or sediment samples mandates these qualifiers for only soil and sediment sample results.

P = Use professional judgment based on data use. It usually has an “M” with it, which indicates that a manual check should be made if the data that are qualified with the “P” are important to the data user. In addition, “PM” also means a decision is necessary from the Project Manager (or a delegate) concerning the need for further review of the data (see below).

PM = A manual review of the raw data is recommended to determine if the defect affects data use, as in “R” above. This review should include consideration of potential affects that could result from using the “P” qualified data. For example, in the case of holding-time exceedance, the Project Manager or delegate can decide to use the data with no qualification when analytes of interest are known not to be adversely affected by holding-time exceedances. Another example is the case where soil sample duplicate analyses for metals exceed the precision criteria; because this is likely due to sample non-homogeneity rather than contract laboratory error, then the manager or delegate must decide how to use the data.

Table 1
Soil Analytical Data

Analyte	Units	6 NYCRR PART 375 UNRESTRICTED USE SCO	6 NYCRR PART 375 COMMERCIAL USE SCO	SB-111-A	SB-111-B	SB-111-C	SB-112-A	SB-112-B	SB-112-C	SB-113-A	SB-113-B	SB-113-C	SB-114-A	SB-114-B	SB-114-C
Start Depth (ft bgs)				0	6	18	0	8	12	0	6	18	0	8	10
End Depth (ft bgs)				1	8	20	1	10	15	1	8	20	1	10	20
Sample Date				10/16/2018	10/16/2018	10/16/2018	10/16/2018	10/16/2018	10/16/2018	10/16/2018	10/16/2018	10/16/2018	10/16/2018	10/16/2018	10/16/2018
SW8270D															
1,1'-Biphenyl	ug/kg	-	-	< 310 U	< 350 U	< 65 U	140	< 380 U	< 160 U	< 1700 U	< 420 U	< 62 U	< 61 U	< 330 U	< 350 U
2,4,5-Trichlorophenol	ug/kg	-	-	< 930 U	< 1000 U	< 190 U	< 330 U	< 1100 U	< 490 U	< 5000 U	< 1300 U	< 190 U	< 180 U	< 990 U	< 1100 U
2,4,6-Trichlorophenol	ug/kg	-	-	< 930 U	< 1000 U	< 190 U	< 330 U	< 1100 U	< 490 U	< 5000 U	< 1300 U	< 190 U	< 180 U	< 990 U	< 1100 U
2,4-Dichlorophenol	ug/kg	-	-	< 930 U	< 1000 U	< 190 U	< 330 U	< 1100 U	< 490 U	< 5000 U	< 1300 U	< 190 U	< 180 U	< 990 U	< 1100 U
2,4-Dimethylphenol	ug/kg	-	-	< 930 U	< 1000 U	< 190 U	< 330 U	< 1100 U	< 490 U	< 5000 U	< 1300 U	< 190 U	< 180 U	< 990 U	< 1100 U
2,4-Dinitrophenol	ug/kg	-	-	< 2000 U	< 2300 U	< 430 U	< 730 U	< 2500 U	< 1100 U	< 11000 U	< 2800 U	< 410 U	< 410 U	< 2200 U	< 2300 U
2,4-Dinitrotoluene	ug/kg	-	-	< 1200 U	< 1400 U	< 260 U	< 450 U	< 1500 U	< 660 U	< 6600 U	< 1700 U	< 250 U	< 250 U	< 1300 U	< 1400 U
2,6-Dinitrotoluene	ug/kg	-	-	< 1200 U	< 1400 U	< 260 U	< 450 U	< 1500 U	< 660 U	< 6600 U	< 1700 U	< 250 U	< 250 U	< 1300 U	< 1400 U
2-Chloronaphthalene	ug/kg	-	-	< 310 U	< 350 U	< 65 U	< 110 U	< 380 U	< 160 U	< 1700 U	< 420 U	< 62 U	< 61 U	< 330 U	< 350 U
2-Chlorophenol	ug/kg	-	-	< 310 U	< 350 U	< 65 U	< 110 U	< 380 U	< 160 U	< 1700 U	< 420 U	< 62 U	< 61 U	< 330 U	< 350 U
2-Methylnaphthalene	ug/kg	-	-	340	< 100 U	< 19 U	1400	< 110 U	< 49 U	130 UJ	< 130 U	< 19 U	16 UJ	< 99 U	< 110 U
2-Methylphenol	ug/kg	330	500000	< 1200 U	< 1400 U	< 260 U	< 450 U	< 1500 U	< 660 U	< 6600 U	< 1700 U	< 250 U	< 250 U	< 1300 U	< 1400 U
2-Nitroaniline	ug/kg	-	-	< 1200 U	< 1400 U	< 260 U	< 450 U	< 1500 U	< 660 U	< 6600 U	< 1700 U	< 250 U	< 250 U	< 1300 U	< 1400 U
2-Nitrophenol	ug/kg	-	-	< 310 U	< 350 U	< 65 U	< 110 U	< 380 U	< 160 U	< 1700 U	< 420 U	< 62 U	< 61 U	< 330 U	< 350 U
3 & 4 Methylphenol	ug/kg	-	-	< 2500 U	< 2800 U	< 520 U	< 890 U	< 3100 U	< 1300 U	< 13000 U	< 3300 U	< 500 U	< 490 U	< 2600 U	< 2800 U
3,3'-Dichlorobenzidine	ug/kg	-	-	< 620 U	< 700 U	< 130 U	< 220 U	< 760 U	< 330 U	< 3300 U	< 840 U	< 120 U	< 120 U	< 660 U	< 710 U
3-Nitroaniline	ug/kg	-	-	< 1200 U	< 1400 U	< 260 U	< 450 U	< 1500 U	< 660 U	< 6600 U	< 1700 U	< 250 U	< 250 U	< 1300 U	< 1400 U
4,6-Dinitro-2-methylphenol	ug/kg	-	-	< 2000 U	< 2300 U	< 430 U	< 730 U	< 2500 U	< 1100 U	< 11000 U	< 2800 U	< 410 U	< 410 U	< 2200 U	< 2300 U
4-Bromophenyl phenyl ether	ug/kg	-	-	< 310 U	< 350 U	< 65 U	< 110 U	< 380 U	< 160 U	< 1700 U	< 420 U	< 62 U	< 61 U	< 330 U	< 350 U
4-Chloro-3-methylphenol	ug/kg	-	-	< 930 U	< 1000 U	< 190 U	< 330 U	< 1100 U	< 490 U	< 5000 U	< 1300 U	< 190 U	< 180 U	< 990 U	< 1100 U
4-Chloroaniline	ug/kg	-	-	< 930 U	< 1000 U	< 190 U	< 330 U	< 1100 U	< 490 U	< 5000 U	< 1300 U	< 190 U	< 180 U	< 990 U	< 1100 U
4-Chlorophenyl phenyl ether	ug/kg	-	-	< 310 U	< 350 U	< 65 U	< 110 U	< 380 U	< 160 U	< 1700 U	< 420 U	< 62 U	< 61 U	< 330 U	< 350 U
4-Methylphenol	ug/kg	330	500000	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitroaniline	ug/kg	-	-	< 1200 U	< 1400 U	< 260 U	< 450 U	< 1500 U	< 660 U	< 6600 U	< 1700 U	< 250 U	< 250 U	< 1300 U	< 1400 U
4-Nitrophenol	ug/kg	-	-	< 2000 U	< 2300 U	< 430 U	< 730 U	< 2500 U	< 1100 U	< 11000 U	< 2800 U	< 410 U	< 410 U	< 2200 U	< 2300 U
Acenaphthene	ug/kg	20000	500000	800	< 100 U	< 19 U	72	< 110 U	< 49 U	830	< 130 U	< 19 U	< 18 U	< 99 U	< 110 U
Acenaphthylene	ug/kg	100000	500000	41 UJ	< 100 U	< 19 U	79	< 110 U	< 49 U	6100	< 130 U	< 19 U	15 UJ	< 99 U	< 110 U
Acetophenone	ug/kg	-	-	< 620 U	< 700 U	< 130 U	150 UJ	< 760 U	47 UJ	< 3300 U	< 840 U	< 120 U	< 120 U	< 660 U	< 710 U
Anthracene	ug/kg	100000	500000	1900	< 100 U	< 19 U	160	< 110 U	< 49 U	7000	< 130 U	< 19 U	9.7 UJ	< 99 U	< 110 U
Atrazine	ug/kg	-	-	< 1200 U	< 1400 U	< 260 U	< 450 U	< 1500 U	< 660 U	< 6600 U	< 1700 U	< 250 U	< 250 U	< 1300 U	< 1400 U
Benzaldehyde	ug/kg	-	-	< 620 U	< 700 U	< 130 U	130 UJ	< 760 U	120 UJ	< 3300 U	< 840 U	< 120 U	< 120 U	< 660 U	< 710 U
Benzo(b)fluoranthene	ug/kg	**1000**	5600	**3900**	< 100 U	< 19 U	**1500**	< 110 U	< 49 U	**27000**	< 130 U	< 19 U	100	< 99 U	< 110 U
Benzo[a]anthracene	ug/kg	**1000**	5600	**3100**	< 100 U	< 19 U	680	< 110 U	< 49 U	**18000**	< 130 U	< 19 U	46	< 99 U	< 110 U
Benzo[a]pyrene	ug/kg	**1000**	1000	**2400**	< 100 U	< 19 U	760	< 110 U	< 49 U	**17000**	< 130 U	< 19 U	51	< 99 U	< 110 U
Benzo[g,h,i]perylene	ug/kg	100000	500000	570	< 100 U	< 19 U	260	< 110 U	< 49 U	4100	< 130 U	< 19 U	20	< 99 U	< 110 U
Benzo[k]fluoranthene	ug/kg	**800**	56000	**1400**	< 100 U	< 19 U	440	< 110 U	< 49 U	**10000**	< 130 U	< 19 U	30	< 99 U	< 110 U
bis (2-chloroisopropyl) ether	ug/kg	-	-	< 620 U	< 700 U	< 130 U	< 220 U	< 760 U	< 330 U	< 3300 U	< 840 U	< 120 U	< 120 U	< 660 U	< 710 U
bis(2-Chloroethoxy)methane	ug/kg	-	-	< 620 U	< 700 U	< 130 U	< 220 U	< 760 U	< 330 U	< 3300 U	< 840 U	< 120 U	< 120 U	< 660 U	< 710 U
bis(2-Chloroethyl) ether	ug/kg	-	-	< 620 U	< 700 U	< 130 U	< 220 U	< 760 U	< 330 U	< 3300 U	< 840 U	< 120 U	< 120 U	< 660 U	< 710 U
bis(2-Ethylhexyl) phthalate	ug/kg	-	-	< 430 U	< 490 U	< 91 U	< 160 U	560	< 230 U	< 2300 U	< 590 U	< 87 U	180	< 460 U	400 UJ
Butyl benzyl phthalate	ug/kg	-	-	< 430 U	< 490 U	< 91 U	< 160 U	< 540 U	< 230 U	< 2300 U	< 590 U	< 87 U	< 86 U	< 460 U	< 490 U
Caprolactam	ug/kg	-	-	< 2000 U	< 2300 U	< 430 U	< 730 U	< 2500 U	< 1100 U	< 11000 U	< 2800 U	< 410 U	< 410 U	< 2200 U	< 2300 U
Carbazole	ug/kg	-	-	990	< 350 U	< 65 U	120	< 380 U	< 160 U	3000	< 420 U	< 62 U	< 61 U	< 330 U	< 350 U
Chrysene	ug/kg	**1000**	56000	**3000**	< 100 U	< 19 U	1000	< 110 U	< 49 U	**18000**	< 130 U	< 19 U	58	< 99 U	< 110 U
Dibenz[a,h]anthracene	ug/kg	**330**	560	200	< 100 U	< 19 U	79	< 110 U	< 49 U	**1500**	< 130 U	< 19 U	< 18 U	< 99 U	< 110 U
Dibenzofuran	ug/kg	7000	350000	570	< 350 U	< 65 U	410	< 380 U	< 160 U	910 UJ	< 420 U	< 62 U	< 61 U	< 330 U	< 350 U
Diethyl phthalate	ug/kg	-	-	< 430 U	< 490 U	< 91 U	< 160 U	< 540 U	< 230 U	< 2300 U	< 590 U	< 87 U	< 86 U	< 460 U	< 490 U
Dimethyl phthalate	ug/kg	-	-	< 430 U	< 490 U	< 91 U	< 160 U	< 540 U	< 230 U	< 2300 U	< 590 U	< 87 U	< 86 U	< 460 U	< 490 U
Di-n-butyl phthalate	ug/kg	-	-	< 430 U	< 490 U	< 91 U	< 160 U	< 540 U	< 230 U	< 2300 U	< 590 U	< 87 U	< 86 U	< 460 U	< 490 U
Di-n-octyl phthalate	ug/kg	-	-	< 430 UJ	< 490 UJ	< 91 UJ	< 160 UJ	< 540 UJ	< 230 UJ	< 2300 UJ	< 590 UJ	< 87 UJ	< 86 UJ	< 460 UJ	< 490 UJ
Fluoranthene	ug/kg	100000	500000	8200	< 100 U	< 19 U	1400	< 110 U	< 49 U	45000	< 130 U	< 19 U	76	< 99 U	< 110 U
Fluorene	ug/kg	30000	500000	910	< 100 U	< 19 U	63	< 110 U	< 49 U	3300	< 130 U	< 19 U	< 18 U	< 99 U	< 110 U
Hexachlorobenzene	ug/kg	330	6000	< 93 U	< 100 U	< 19 U	< 33 U	< 110 U	< 49 U	< 500 U	< 130 U	< 19 U	< 18 U	< 99 U	< 110 U
Hexachlorobutadiene	ug/kg	-	-	< 310 U	< 350 U	< 65 U	< 110 U	< 380 U	< 160 U	< 1700 U	< 420 U	< 62 U	< 61 U	< 330 U	< 350 U
Hexachlorocyclopentadiene	ug/kg	-	-	< 2000 UJ	< 2300 UJ	< 430 UJ	< 730 UJ	< 2500 UJ	< 1100 UJ	< 11000 UJ	< 2800 UJ	< 410 UJ	< 410 UJ	< 2200 UJ	< 2300 UJ
Hexachloroethane	ug/kg	-	-	< 310 U	< 350 U	< 65 U	< 110 U	< 380 U	< 160 U	< 1700 U	< 420 U	< 62 U	< 61 U	< 330 U	< 350 U
Indeno[1,2,3-cd]pyrene	ug/kg	**500**	5600	**620**	< 100 U	< 19 U	270	< 110 U	< 49 U	**4800**	< 130 U	< 19 U	20	< 99 U	< 110 U
Isophorone	ug/kg	-	-	< 310 U	< 350 U	< 65 U	< 110 U	< 380 U	< 160 U	< 1700 U	< 420 U	< 62 U	< 61 U	< 330 U	< 350 U
Naphthalene	ug/kg	12000	500000	370	< 100 U	< 19 U	1000	< 110 U	< 49 U	260 UJ	< 130 U	< 19 U	14 UJ	< 99 U	< 110 U
Nitrobenzene	ug/kg	-	-	< 620 U	< 700 U	< 130 U	< 220 U	< 760 U	< 330 U	< 3300 U	< 840 U	< 120 U	< 120 U	< 660 U	< 710 U
N-Nitrosodi-n-propylamine	ug/kg	-	-	< 310 U	< 350 U	< 65 U	< 110 U	< 380 U	< 160 U	< 1700 U	< 420 U	< 62 U	< 61 U	< 330 U	< 350 U
N-Nitrosodiphenylamine	ug/kg	-	-	< 310 U	< 350 U	< 65 U	< 110 U	< 380 U	< 160 U	< 1700 U	< 420 U	< 62 U	< 61 U	< 330 U	< 350 U
Pentachlorophenol	ug/kg	800	6700	< 930 U	< 1000 U	< 190 U	< 330 U	< 1100 U	< 490 U	< 5000 U	< 1300 U	< 190 U	< 180 U	< 990 U	< 1100 U
Phenanthrene	ug/kg	100000	500000	6700	< 100 U	< 19 U	1400	< 110 U	< 49 U	25000	< 130 U	< 19 U	31	< 99 U	< 110 U
Phenol	ug/kg	**330**	500000	< 310 U	< 350 U	< 65 U	23 UJ	< 380 U	< 160 U	< 1700 U	< 420 U	< 62 U	< 61 U	< 330 U	< 350 U
Pyrene	ug/kg	100000	500000	6000	< 100 U	7.4 UJ	1200	< 110 U	< 49 U	30000	< 130 U	< 19 U	62	< 99 U	< 110 U

Analyte	SB-115-A	SB-115-B	SB-115-C	SB-116-A	SB-116-B	SB-116-C	SB-117-A	SB-117-B	SB-117-C	SB-117-D	SB-118-A	SB-118-B	SB-118-C	SB-119-A	SB-119-B	SB-119-C	SB-120-A	SB-120-B	SB-120-C
Start Depth (ft bgs)	0	7	15	0	5	14	0	4	10	16	0	6	16	0	8	13	0	4	16
End Depth (ft bgs)	1	10	17	1	7	18	2	7	12	20	1	8	20	1	10	15	1	6	20
Sample Date	10/12/2018	10/12/2018	10/12/2018	10/12/2018	10/12/2018	10/12/2018	10/12/2018	10/12/2018	10/12/2018	10/12/2018	10/12/2018	10/12/2018	10/12/2018	10/11/2018	10/11/2018	10/11/2018	10/11/2018	10/11/2018	10/11/2018
SW8270D																			
1,1'-Biphenyl	< 200 U	< 200 UJ	< 190 U	< 980 UJ	< 1100 UJ	< 220 U	< 190 U	< 200 U	< 280 U	< 200 U	< 200 U	< 210 UJ	< 200 U	< 1000 U	< 200 U	< 210 U	< 54000 UJ	< 200 U	< 250 U
2,4,5-Trichlorophenol	< 200 U	< 200 UJ	< 190 U	< 980 UJ	< 1100 UJ	< 220 U	< 190 U	< 200 U	< 280 U	< 200 U	< 200 U	< 210 UJ	< 200 U	< 1000 U	< 200 U	< 210 U	< 54000 UJ	< 200 U	< 250 U
2,4,6-Trichlorophenol	< 200 U	< 200 UJ	< 190 U	< 980 UJ	< 1100 UJ	< 220 U	< 190 U	< 200 U	< 280 U	< 200 U	< 200 U	< 210 UJ	< 200 U	< 1000 U	< 200 U	< 210 U	< 54000 UJ	< 200 U	< 250 U
2,4-Dichlorophenol	< 200 U	< 200 UJ	< 190 U	< 980 UJ	< 1100 UJ	< 220 U	< 190 U	< 200 U	< 280 U	< 200 U	< 200 U	< 210 UJ	< 200 U	< 1000 U	< 200 U	< 210 U	< 54000 UJ	< 200 U	< 250 U
2,4-Dimethylphenol	< 200 U	< 200 UJ	< 190 U	< 980 UJ	< 1100 UJ	< 220 U	< 190 U	< 200 U	< 280 U	< 200 U	< 200 U	< 210 UJ	< 200 U	< 1000 U	< 200 U	< 210 U	< 54000 UJ	< 200 U	< 250 U
2,4-Dinitrophenol	< 2000 U	< 1900 UJ	< 1900 U	< 9500 UJ	< 11000 UJ	< 2200 U	< 1900 U	< 2000 U	< 2800 U	< 2000 U	< 2000 U	< 2100 UJ	< 2000 U	< 10000 U	< 1900 U	< 2100 U	< 530000 UJ	< 2000 U	< 2500 U
2,4-Dinitrotoluene	< 200 U	< 200 UJ	< 190 U	< 980 UJ	< 1100 UJ	< 220 U	< 190 U	< 200 U	< 280 U	< 200 U	< 200 U	< 210 UJ	< 200 U	< 1000 U	< 200 U	< 210 U	< 54000 UJ	< 200 U	< 250 U
2,6-Dinitrotoluene	< 200 U	< 200 UJ	< 190 U	< 980 UJ	< 1100 UJ	< 220 U	< 190 U	< 200 U	< 280 U	< 200 U	< 200 U	< 210 UJ	< 200 U	< 1000 U	< 200 U	< 210 U	< 54000 UJ	< 200 U	< 250 U
2-Chloronaphthalene	< 200 U	< 200 UJ	< 190 U	< 980 UJ	< 1100 UJ	< 220 U	< 190 U	< 200 U	< 280 U	< 200 U	< 200 U	< 210 UJ	< 200 U	< 1000 U	< 200 U	< 210 U	< 54000 UJ	< 200 U	< 250 U
2-Chlorophenol	< 200 U	< 200 UJ	< 190 U	< 980 UJ	< 1100 UJ	< 220 U	< 190 U	< 200 U	< 280 U	< 200 U	< 200 U	< 210 UJ	< 200 U	< 1000 U	< 200 U	< 210 U	< 54000 UJ	< 200 U	< 250 U
2-Methylnaphthalene	66 UJ	< 200 UJ	< 190 U	< 980 UJ	< 1100 UJ	< 220 U	390	< 200 U	< 280 U	< 200 U	87 UJ	< 210 UJ	< 200 U	< 1000 U	< 200 U	< 210 U	< 54000 UJ	< 200 U	< 250 U
2-Methylphenol	< 200 U	< 200 UJ	< 190 U	< 980 UJ	< 1100 UJ	< 220 U	< 190 U	< 200 U	< 280 U	< 200 U	< 200 U	< 210 UJ	< 200 U	< 1000 U	< 200 U	< 210 U	< 54000 UJ	< 200 U	< 250 U
2-Nitroaniline	< 400 U	< 380 UJ	< 380 U	< 1900 UJ	< 2200 UJ	< 430 U	< 380 U	< 390 U	< 550 U	< 400 U	< 400 U	< 410 UJ	< 390 U	< 2000 U	< 390 U	< 410 U	< 110000 UJ	< 390 U	< 490 U
2-Nitrophenol	< 200 U	< 200 UJ	< 190 U	< 980 UJ	< 1100 UJ	< 220 U	< 190 U	< 200 U	< 280 U	< 200 U	< 200 U	< 210 UJ	< 200 U	< 1000 U	< 200 U	< 210 U	< 54000 UJ	< 200 U	< 250 U
3 & 4 Methylphenol	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3,3'-Dichlorobenzidine	< 400 U	< 380 UJ	< 380 U	< 1900 UJ	< 2200 UJ	< 430 U	< 380 U	< 390 U	< 550 U	< 400 U	< 400 U	< 410 UJ	< 390 U	< 2000 U	< 390 U	< 410 U	< 110000 UJ	< 390 U	< 490 U
3-Nitroaniline	< 400 U	< 380 UJ	< 380 U	< 1900 UJ	< 2200 UJ	< 430 U	< 380 U	< 390 U	< 550 U	< 400 U	< 400 U	< 410 UJ	< 390 U	< 2000 U	< 390 U	< 410 U	< 110000 UJ	< 390 U	< 490 U
4,6-Dinitro-2-methylphenol	< 400 U	< 380 UJ	< 380 U	< 1900 UJ	< 2200 UJ	< 430 U	< 380 U	< 390 U	< 550 U	< 400 U	< 400 U	< 410 UJ	< 390 U	< 2000 U	< 390 U	< 410 U	< 110000 UJ	< 390 U	< 490 U
4-Bromophenyl phenyl ether	< 200 U	< 200 UJ	< 190 U	< 980 UJ	< 1100 UJ	< 220 U	< 190 U	< 200 U	< 280 U	< 200 U	< 200 U	< 210 UJ	< 200 U	< 1000 U	< 200 U	< 210 U	< 54000 UJ	< 200 U	< 250 U
4-Chloro-3-methylphenol	< 200 U	< 200 UJ	< 190 U	< 980 UJ	< 1100 UJ	< 220 U	< 190 U	< 200 U	< 280 U	< 200 U	< 200 U	< 210 UJ	< 200 U	< 1000 U	< 200 U	< 210 U	< 54000 UJ	< 200 U	< 250 U
4-Chloroaniline	< 200 U	< 200 UJ	< 190 U	< 980 UJ	< 1100 UJ	< 220 U	< 190 U	< 200 U	< 280 U	< 200 U	< 200 U	< 210 UJ	< 200 U	< 1000 U	< 200 U	< 210 U	< 54000 UJ	< 200 U	< 250 U
4-Chlorophenyl phenyl ether	< 200 U	< 200 UJ	< 190 U	< 980 UJ	< 1100 UJ	< 220 U	< 190 U	< 200 U	< 280 U	< 200 U	< 200 U	< 210 UJ	< 200 U	< 1000 U	< 200 U	< 210 U	< 54000 UJ	< 200 U	< 250 U
4-Methylphenol	< 400 U	< 380 UJ	< 380 U	< 1900 UJ	< 2200 UJ	< 430 U	< 380 U	< 390 U	< 550 U	< 400 U	< 400 U	< 410 UJ	< 390 U	< 2000 U	< 390 U	< 410 U	< 110000 UJ	< 390 U	< 490 U
4-Nitroaniline	< 400 U	< 380 UJ	< 380 U	< 1900 UJ	< 2200 UJ	< 430 U	< 380 U	< 390 U	< 550 U	< 400 U	< 400 U	< 410 UJ	< 390 U	< 2000 U	< 390 U	< 410 U	< 110000 UJ	< 390 U	< 490 U
4-Nitrophenol	< 400 U	< 380 UJ	< 380 U	< 1900 UJ	< 2200 UJ	< 430 U	< 380 U	< 390 U	< 550 U	< 400 U	< 400 U	< 410 UJ	< 390 U	< 2000 U	< 390 U	< 410 U	< 110000 UJ	< 390 U	< 490 U
Acenaphthene	< 200 U	< 200 UJ	< 190 U	< 980 UJ	< 1100 UJ	< 220 U	< 190 U	< 200 U	< 280 U	< 200 U	150 UJ	< 210 UJ	< 200 U	< 1000 U	< 200 U	< 210 U	< 54000 UJ	< 200 U	< 250 U
Acenaphthylene	62 UJ	< 200 UJ	< 190 U	< 980 UJ	< 1100 UJ	< 220 U	53 UJ	< 200 U	< 280 U	< 200 U	70 UJ	< 210 UJ	< 200 U	220 UJ	< 200 U	< 210 U	< 54000 UJ	< 200 U	< 250 U
Acetophenone	< 200 U	< 200 UJ	< 190 U	< 980 UJ	< 1100 UJ	< 220 U	< 190 U	< 200 U	< 280 U	< 200 U	< 200 U	< 210 UJ	< 200 U	< 1000 U	< 200 U	< 210 U	< 54000 UJ	< 200 U	< 250 U
Anthracene	86 UJ	< 200 UJ	< 190 U	340 UJ	< 1100 UJ	< 220 U	60 UJ	< 200 U	< 280 U	< 200 U	120 UJ	< 210 UJ	< 200 U	1300	< 200 U	< 210 U	< 54000 UJ	< 200 U	< 250 U
Atrazine	< 200 U	< 200 UJ	< 190 U	< 980 UJ	< 1100 UJ	< 220 U	< 190 U	< 200 U	< 280 U	< 200 U	< 200 U	< 210 UJ	< 200 U	< 1000 U	< 200 U	< 210 U	< 54000 UJ	< 200 U	< 250 U
Benzaldehyde	< 200 U	< 200 UJ	< 190 U	< 980 UJ	< 1100 UJ	< 220 U	< 190 U	< 200 U	< 280 U	< 200 U	< 200 U	< 210 UJ	< 200 U	< 1000 U	< 200 U	< 210 U	< 54000 UJ	< 200 U	< 250 U
Benzo(b)fluoranthene	640	< 200 UJ	< 190 U	**1400 J**	< 1100 UJ	< 220 U	600	< 200 U	< 280 U	< 200 U	**2400 J**	< 210 UJ	< 200 U	**4200**	< 200 U	< 210 U	< 54000 UJ	83 UJ	< 250 U
Benzo[a]anthracene	370	< 200 UJ	< 190 U	960 UJ	< 1100 UJ	< 220 U	350	< 200 U	< 280 U	< 200 U	1000	< 210 UJ	< 200 U	**3000**	< 200 U	< 210 U	< 54000 UJ	< 200 U	< 250 U
Benzo[a]pyrene	490	< 200 UJ	< 190 U	**1100 J**	< 1100 UJ	< 220 U	440	< 200 U	< 280 U	< 200 U	**1900 J**	< 210 UJ	< 200 U	**2900**	< 200 U	< 210 U	< 54000 UJ	77 UJ	< 250 U
Benzo[g,h,i]perylene	560	< 200 UJ	< 190 U	940 UJ	< 1100 UJ	< 220 U	430	< 200 U	< 280 U	< 200 U	2500 J	< 210 UJ	< 200 U	2400	< 200 U	< 210 U	< 54000 UJ	< 200 U	< 250 U
Benzo[k]fluoranthene	< 200 U	< 200 UJ	< 190 U	490 UJ	< 1100 UJ	< 220 U	< 190 U	< 200 U	< 280 U	< 200 U	**1000**	< 210 UJ	< 200 U	< 1000 U	< 200 U	< 210 U	< 54000 UJ	< 200 U	< 250 U
bis (2-chloroisopropyl) ether	< 200 U	< 200 UJ	< 190 U	< 980 UJ	< 1100 UJ	< 220 U	< 190 U	< 200 U	< 280 U	< 200 U	< 200 U	< 210 UJ	< 200 U	< 1000 U	< 200 U	< 210 U	< 54000 UJ	< 200 U	< 250 U
bis(2-Chloroethoxy)methane	< 200 U	< 200 UJ	< 190 U	< 980 UJ	< 1100 UJ	< 220 U	< 190 U	< 200 U	< 280 U	< 200 U	< 200 U	< 210 UJ	< 200 U	< 1000 U	< 200 U	< 210 U	< 54000 UJ	< 200 U	< 250 U
bis(2-Chloroethyl) ether	< 200 U	< 200 UJ	< 190 U	< 980 UJ	< 1100 UJ	< 220 U	< 190 U	< 200 U	< 280 U	< 200 U	< 200 U	< 210 UJ	< 200 U	< 1000 U	< 200 U	< 210 U	< 54000 UJ	< 200 U	< 250 U
bis(2-Ethylhexyl) phthalate	< 200 U	< 200 UJ	< 190 U	< 980 UJ	< 1100 UJ	< 220 U	< 190 U	< 200 U	< 280 U	< 200 U	< 200 U	< 210 UJ	< 200 U	< 1000 U	< 200 U	< 210 U	< 54000 UJ	< 200 U	< 250 U
Butyl benzyl phthalate	< 200 U	< 200 UJ	< 190 U	< 980 UJ	< 1100 UJ	< 220 U	< 190 U	< 200 U	< 280 U	< 200 U	< 200 U	< 210 UJ	< 200 U	< 1000 U	< 200 U	< 210 U	< 54000 UJ	< 200 U	< 250 U
Caprolactam	< 200 U	< 200 UJ	< 190 U	< 980 UJ	< 1100 UJ	< 220 U	< 190 U	< 200 U	< 280 U	< 200 U	< 200 U	< 210 UJ	< 200 U	< 1000 U	< 200 U	< 210 U	< 54000 UJ	< 200 U	< 250 U
Carbazole	< 200 U	< 200 UJ	< 190 U	160 UJ	< 1100 UJ	< 220 U	< 190 U	< 200 U	< 280 U	< 200 U	60 UJ	< 210 UJ	< 200 U	580 UJ	< 200 U	< 210 U	< 54000 UJ	< 200 U	< 250 U
Chrysene	470	< 200 UJ	< 190 U	1000 J	< 1100 UJ	< 220 U	520	< 200 U	< 280 U	< 200 U	**1200**	< 210 UJ	< 200 U	**3300**	< 200 U	< 210 U	< 54000 UJ	90 UJ	< 250 U
Dibenz[a,h]anthracene	120 UJ	< 200 UJ	< 190 U	< 980 UJ	< 1100 UJ	< 220 U	< 190 U	< 200 U	< 280 U	< 200 U	**490 J**	< 210 UJ	< 200 U	< 1000 U	< 200 U	< 210 U	< 54000 UJ	< 200 U	< 250 U
Dibenzofuran	32 UJ	< 200 UJ	< 190 U	< 980 UJ	< 1100 UJ	< 220 U	120 UJ	< 200 U	< 280 U	< 200 U	39 UJ	< 210 UJ	< 200 U	270 UJ	< 200 U	< 210 U	< 54000 UJ	< 200 U	< 250 U
Diethyl phthalate	< 200 U	< 200 UJ	< 190 U	< 980 UJ	< 1100 UJ	< 220 U	< 190 U	< 200 U	< 280 U	< 200 U	< 200 U	< 210 UJ	< 200 U	< 1000 U	< 200 U	< 210 U	< 54000 UJ	< 200 U	< 250 U
Dimethyl phthalate	< 200 U	< 200 UJ	< 190 U	< 980 UJ	< 1100 UJ	< 220 U	< 190 U	< 200 U	< 280 U	< 200 U	< 200 U	< 210 UJ	< 200 U	< 1000 U	< 200 U	< 210 U	< 54000 UJ	< 200 U	< 250 U
Di-n-butyl phthalate	< 200 U	< 200 UJ	< 190 U	< 980 UJ	< 1100 UJ	< 220 U	< 190 U	< 200 U	< 280 U	< 200 U	< 200 U	< 210 UJ	< 200 U	< 1000 U	< 200 U	< 210 U	< 54000 UJ	< 200 U	< 250 U
Di-n-octyl phthalate	< 200 U	< 200 UJ	< 190 U	< 980 UJ	< 1100 UJ	< 220 U	< 190 U	< 200 U	< 280 U	< 200 U	< 200 U	< 210 UJ	< 200 U	< 1000 U	< 200 U	< 210 U	< 54000 UJ	< 200 U	< 250 U
Fluoranthene	610	< 200 UJ	< 190 U	2000 J	< 1100 UJ	< 220 U	570	< 200 U	< 280 U	< 200 U	1100 J	< 210 UJ	< 200 U	6900	< 200 U	< 210 U	< 54000 UJ	160 UJ	< 250 U
Fluorene	24 UJ	< 200 UJ	< 190 U	< 980 UJ	< 1100 UJ	< 220 U	< 190 U	< 200 U	< 280 U	< 200 U	50 UJ	< 210 UJ	< 200 U	440 UJ	< 200 U	< 210 U	< 54000 UJ	< 200 U	< 250 U
Hexachlorobenzene	< 200 U	< 200 UJ	< 190 U	< 980 UJ	< 1100 UJ	< 220 U	< 190 U	< 200 U	< 280 U	< 200 U	< 200 U	< 210 UJ	< 200 U	< 1000 U	< 200 U	< 210 U	< 54000 UJ	< 200 U	< 250 U
Hexachlorobutadiene	< 200 U	< 200 UJ	< 190 U	< 980 UJ	< 1100 UJ	< 220 U	< 190 U	< 200 U	< 280 U	< 200 U	< 200 U	< 210 UJ	< 200 U	< 1000 U	< 200 U	< 210 U	< 54000 UJ	< 200 U	< 250 U
Hexachlorocyclopentadiene	< 200 U	< 200 UJ	< 190 U	< 980 UJ	< 1100 UJ	< 220 U	< 190 U	< 200 U	< 280 U	< 200 U	< 200 U	< 210 UJ	< 200 U	< 1000 U	< 200 U	< 210 U	< 54000 UJ	< 200 U	< 250 U
Hexachloroethane	< 200 U	< 200 UJ	< 190 U	< 980 UJ	< 1100 UJ	< 220 U	< 190 U	< 200 U	< 280 U	< 200 U	< 200 U	< 210 UJ	< 200 U	< 1000 U	< 200 U	< 210 U	< 54000 UJ	< 200 U	< 250 U
Indeno[1,2,3-cd]pyrene	440	< 200 UJ	< 190 U	**750 UJ**	< 1100 UJ	< 220 U	360	< 200 U	< 280 U	< 200 U	**1900 J**	< 210 UJ	< 200 U	**2000**	< 200 U	< 210 U	< 54000 UJ	< 200 U	< 250 U
Isophorone	< 200 U	< 200 UJ	< 190 U	< 980 UJ	< 1100 UJ	< 220 U	< 190 U	< 200 U	< 280 U	< 200 U	< 200 U	< 210 UJ	< 200 U	< 1000 U	< 200 U	< 210 U	< 54000 UJ	< 200 U	< 250 U
Naphthalene	66 UJ	< 200 UJ	< 190 U	< 980 UJ	< 1100 UJ	< 220 U	280	< 200 U	< 280 U	< 200 U	85 UJ	< 210 UJ	< 200 U	< 1000 U	< 200 U	< 210 U	< 54000 UJ	< 200 U	< 250 U
Nitrobenzene	< 200 U	< 200 UJ	< 190 U	< 980 UJ	< 1100 UJ	< 220 U	< 190 U	< 200 U	< 280 U	< 200 U	< 200 U	< 210 UJ	< 200 U	< 1000 U	< 200 U	< 210 U	< 54000 UJ	< 200 U	< 250 U
N-Nitrosodi-n-propylamine	< 200 U	< 200 UJ	< 190 U	< 980 UJ	< 1100 UJ	< 220 U	< 190 U	< 200 U	< 280 U	< 200 U	< 200 U	< 210 UJ	< 200 U	< 1000 U	< 200 U	< 210 U	< 54000 UJ	< 200 U	< 250 U
N-Nitrosodiphenylamine	< 200 U	< 200 UJ	< 190 U	< 980 UJ	< 1100 UJ	< 220 U	< 190 U	< 200 U	< 280 U	< 200 U	< 200 U	< 210 UJ	< 200 U	< 1000 U	< 200 U	< 210 U	< 54000 UJ	< 200 U	< 250 U
Pentachlorophenol	< 400 U	< 380 UJ	< 380 U	< 1900 UJ	< 2200 UJ	< 430 U	< 380 U	< 390 U	< 550 U	< 400 U	< 400 U	< 410 UJ	< 390 U	< 2000 U	< 390 U	< 410 U	< 110000 UJ	< 390 U	< 490 U
Phenanthrene	310	< 200 UJ	< 190 U	1400 J	< 1100 UJ	< 220 U	460	< 200 U	< 280 U	< 200 U	450 J	< 210 UJ	< 200 U	4600	< 200 U	< 210 U	< 54000 UJ	120 UJ	< 250 U
Phenol	< 200 U	< 200 UJ	< 190 U	< 980 UJ	< 1100 UJ	< 220 U	< 190 U	< 200 U	< 280 U	< 200 U	< 200 U	< 210 UJ	< 200 U	< 1000 U	< 200 U	< 210 U	< 54000 UJ	< 200 U	< 250 U
Pyrene	520	< 200 UJ	< 190 U	1500 J	< 1100 UJ	< 220 U	520	< 200 U	< 280 U	< 200 U	1000	< 210 UJ	< 200 U	5100 J	< 200 UJ	< 210 UJ	< 54000 UJ	130 UJ	< 250 UJ

Notes:

ft bgs = feet below ground surface

mg/kg = milligrams per kilogram

μg/kg = micrograms per kilogram

6 NYCRR Part 375 SCO = Title 6 Official Compilation of New York Codes, Rules and Regulations Part 375 Soil Cleanup Objectives

\- = no SCO established

NA = not applicable/analyzed

Qualifiers:

U = Analyte analyzed for, but not detected above the sample's reported quantitation limit

J = Analyte positively identified at a numerical value that is the approximate concentration of the analyte in the sample

J+ = Sample likely to have a high bias

J- = Sample likely to have a low bias

UJ = Analyte not detected above the sample quantitation limit; the associated quantitation limit is approximate and may or may not represent the actual limit of quantitation necessary to accurately and precisely measure the analyte in the sample

N = The analysis indicates the present of an analyte for which there is presumptive evidence to make a "tentative identification."

NJ = The analysis indicates the presence of an analyte that has been "tentatively identified" and the associated numerical value represents its approximate oncentration.

R = Sample result rejected due to serious deficiency in ability to analyze sample and meet quality control criteria; the presence or absence of the analyte cannot be confirmed. This qualifier also may apply when more than one sample result is generated for a target analyte (i.e., dilutions or re-analyses), the most technically acceptable result is considered acceptable.

B/EB/TB/BB = An analyte identified in method blank (B), aqueous equipment (EB), trip (TB), or bottle blanks (BB) used to assess field contamination associated with soil or sediment samples mandates these qualifiers for only soil and sediment sample results.

P = Use professional judgment based on data use. It usually has an "M" with it, which indicates that a manual check should be made if the data that are qualified with the "P" are important to the data user. In addition, "PM" also means a decision is necessary from the Project Manager (or a delegate) concerning the need for further review of the data (see below).

PM = A manual review of the raw data is recommended to determine if the defect affects data use, as in "R" above. This review should include consideration of potential affects that could result from using the "P" qualified data. For example, in the case of holding-time exceedance, the Project Manager or delegate can decide to use the data with no qualification when analytes of interest are known not to be adversely affected by holding-time exceedances. Another example is the case where soil sample duplicate analyses for metals exceed the precision criteria; because this is likely due to sample non-homogeneity rather than contract laboratory error, then the manager or delegate must decide how to use the data.

Table 1
Soil Analytical Data

Analyte	Units	6 NYCRR PART 375 UNRESTRICTED USE SCO	6 NYCRR PART 375 COMMERCIAL USE SCO	SB-121-A	SB-121-B	SB-121-C	SB-121-D	SB-122-A	SB-122-B	SB-122-C	SB-123-A	SB-123-B	SB-123-C	SB-124-A	SB-124-B	SB-124-C
Start Depth (ft bgs)				0	8	17	10	0	8	18	0	10	18	0	12	18
End Depth (ft bgs)				1	10	20	12	2	10	20	1	12	20	1	14	20
Sample Date				10/16/2018	10/16/2018	10/16/2018	10/16/2018	10/16/2018	10/16/2018	10/16/2018	10/16/2018	10/16/2018	10/16/2018	10/16/2018	10/16/2018	10/16/2018
SW8270D																
1,1'-Biphenyl	ug/kg	-	-	31 UJ	< 350 U	< 63 U	< 110 U	33 UJ	< 320 U	< 150 U	32 UJ	< 340 U	< 62 U	< 62 U	< 120 U	< 58 U
2,4,5-Trichlorophenol	ug/kg	-	-	< 190 U	< 1000 U	< 190 U	< 340 U	< 180 U	< 950 U	< 460 U	< 190 U	< 1000 U	< 180 U	< 190 U	< 350 U	< 180 U
2,4,6-Trichlorophenol	ug/kg	-	-	< 190 U	< 1000 U	< 190 U	< 340 U	< 180 U	< 950 U	< 460 U	< 190 U	< 1000 U	< 180 U	< 190 U	< 350 U	< 180 U
2,4-Dichlorophenol	ug/kg	-	-	< 190 U	< 1000 U	< 190 U	< 340 U	< 180 U	< 950 U	< 460 U	< 190 U	< 1000 U	< 180 U	< 190 U	< 350 U	< 180 U
2,4-Dimethylphenol	ug/kg	-	-	< 190 U	< 1000 U	< 190 U	< 340 U	< 180 U	< 950 U	< 460 U	< 190 U	< 1000 U	< 180 U	< 190 U	< 350 U	< 180 U
2,4-Dinitrophenol	ug/kg	-	-	< 410 U	< 2300 U	< 410 U	< 760 U	< 400 U	< 2100 U	< 1000 U	< 420 U	< 2200 U	< 410 U	< 410 U	< 760 U	< 390 U
2,4-Dinitrotoluene	ug/kg	-	-	< 250 U	< 1400 U	< 250 U	< 460 U	< 240 U	< 1300 U	< 610 U	< 250 U	< 1300 U	< 250 U	< 250 U	< 460 U	< 230 U
2,6-Dinitrotoluene	ug/kg	-	-	< 250 U	< 1400 U	< 250 U	< 460 U	< 240 U	< 1300 U	< 610 U	< 250 U	< 1300 U	< 250 U	< 250 U	< 460 U	< 230 U
2-Chloronaphthalene	ug/kg	-	-	< 62 U	< 350 U	< 63 U	< 110 U	< 61 U	< 320 U	< 150 U	< 63 U	< 340 U	< 62 U	< 62 U	< 120 U	< 58 U
2-Chlorophenol	ug/kg	-	-	< 62 U	< 350 U	< 63 U	< 110 U	< 61 U	< 320 U	< 150 U	< 63 U	< 340 U	< 62 U	< 62 U	< 120 U	< 58 U
2-Methylnaphthalene	ug/kg	-	-	240	< 100 U	< 19 U	< 34 U	550	< 95 U	< 46 U	330	< 100 U	< 18 U	150	< 35 U	< 18 U
2-Methylphenol	ug/kg	330	500000	< 250 U	< 1400 U	< 250 U	< 460 U	< 240 U	< 1300 U	< 610 U	< 250 U	< 1300 U	< 250 U	< 250 U	< 460 U	< 230 U
2-Nitroaniline	ug/kg	-	-	< 250 U	< 1400 U	< 250 U	< 460 U	< 240 U	< 1300 U	< 610 U	< 250 U	< 1300 U	< 250 U	< 250 U	< 460 U	< 230 U
2-Nitrophenol	ug/kg	-	-	< 62 U	< 350 U	< 63 U	< 110 U	< 61 U	< 320 U	< 150 U	< 63 U	< 340 U	< 62 U	< 62 U	< 120 U	< 58 U
3 & 4 Methylphenol	ug/kg	-	-	< 500 U	< 2800 U	< 500 U	76 UJ	< 480 U	< 2500 U	< 1200 U	< 500 U	< 2700 U	< 490 U	< 500 U	2700	< 470 U
3,3'-Dichlorobenzidine	ug/kg	-	-	< 120 U	< 700 U	< 130 U	< 230 U	< 120 U	< 630 U	< 310 U	< 130 U	< 670 U	< 120 U	< 120 U	< 230 U	< 120 U
3-Nitroaniline	ug/kg	-	-	< 250 U	< 1400 U	< 250 U	< 460 U	< 240 U	< 1300 U	< 610 U	< 250 U	< 1300 U	< 250 U	< 250 U	< 460 U	< 230 U
4,6-Dinitro-2-methylphenol	ug/kg	-	-	< 410 U	< 2300 U	< 410 U	< 760 U	< 400 U	< 2100 U	< 1000 U	< 420 U	< 2200 U	< 410 U	< 410 U	< 760 U	< 390 U
4-Bromophenyl phenyl ether	ug/kg	-	-	< 62 U	< 350 U	< 63 U	< 110 U	< 61 U	< 320 U	< 150 U	< 63 U	< 340 U	< 62 U	< 62 U	< 120 U	< 58 U
4-Chloro-3-methylphenol	ug/kg	-	-	< 190 U	< 1000 U	< 190 U	< 340 U	< 180 U	< 950 U	< 460 U	< 190 U	< 1000 U	< 180 U	< 190 U	< 350 U	< 180 U
4-Chloroaniline	ug/kg	-	-	< 190 U	< 1000 U	< 190 U	< 340 U	< 180 U	< 950 U	< 460 U	< 190 U	< 1000 U	< 180 U	< 190 U	< 350 U	< 180 U
4-Chlorophenyl phenyl ether	ug/kg	-	-	< 62 U	< 350 U	< 63 U	< 110 U	< 61 U	< 320 U	< 150 U	< 63 U	< 340 U	< 62 U	< 62 U	< 120 U	< 58 U
4-Methylphenol	ug/kg	330	500000	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitroaniline	ug/kg	-	-	< 250 U	< 1400 U	< 250 U	< 460 U	< 240 U	< 1300 U	< 610 U	< 250 U	< 1300 U	< 250 U	< 250 U	< 460 U	< 230 U
4-Nitrophenol	ug/kg	-	-	< 410 U	< 2300 U	< 410 U	< 760 U	< 400 U	< 2100 U	< 1000 U	< 420 U	< 2200 U	< 410 U	< 410 U	< 760 U	< 390 U
Acenaphthene	ug/kg	20000	500000	45	< 100 U	< 19 U	< 34 U	44	< 95 U	< 46 U	22	< 100 U	< 18 U	< 19 U	< 35 U	< 18 U
Acenaphthylene	ug/kg	100000	500000	110	< 100 U	< 19 U	< 34 U	18	< 95 U	< 46 U	40	< 100 U	< 18 U	27	< 35 U	< 18 U
Acetophenone	ug/kg	-	-	26 UJ	< 700 U	< 130 U	< 230 U	< 120 U	< 630 U	< 310 U	40 UJ	< 670 U	< 120 U	23 UJ	44 UJ	< 120 U
Anthracene	ug/kg	100000	500000	170	< 100 U	< 19 U	< 34 U	32	< 95 U	< 46 U	53	< 100 U	< 18 U	39	< 35 U	< 18 U
Atrazine	ug/kg	-	-	< 250 U	< 1400 U	< 250 U	< 460 U	< 240 U	< 1300 U	< 610 U	< 250 U	< 1300 U	< 250 U	< 250 U	< 460 U	< 230 U
Benzaldehyde	ug/kg	-	-	46 UJ	< 700 U	< 130 U	110 UJ	< 120 U	< 630 U	< 310 U	80 UJ	< 670 U	< 120 U	48 UJ	53 UJ	< 120 U
Benzo(b)fluoranthene	ug/kg	**1000**	5600	1000	< 100 U	< 19 U	< 34 U	180	< 95 U	< 46 U	390	< 100 U	< 18 U	260	20 UJ	< 18 U
Benzo[a]anthracene	ug/kg	**1000**	5600	690	< 100 U	< 19 U	< 34 U	91	< 95 U	< 46 U	250	< 100 U	< 18 U	160	< 35 U	< 18 U
Benzo[a]pyrene	ug/kg	**1000**	1000	640	< 100 U	< 19 U	< 34 U	110	< 95 U	< 46 U	290	< 100 U	< 18 U	170	< 35 U	< 18 U
Benzo[g,h,i]perylene	ug/kg	100000	500000	250	< 100 U	< 19 U	< 34 U	53	< 95 U	< 46 U	180	< 100 U	< 18 U	110	< 35 U	< 18 U
Benzo[k]fluoranthene	ug/kg	**800**	56000	370	< 100 U	< 19 U	< 34 U	67	< 95 U	< 46 U	150	< 100 U	< 18 U	75	< 35 U	< 18 U
bis (2-chloroisopropyl) ether	ug/kg	-	-	< 120 U	< 700 U	< 130 U	< 230 U	< 120 U	< 630 U	< 310 U	< 130 U	< 670 U	< 120 U	< 120 U	< 230 U	< 120 U
bis(2-Chloroethoxy)methane	ug/kg	-	-	< 120 U	< 700 U	< 130 U	< 230 U	< 120 U	< 630 U	< 310 U	< 130 U	< 670 U	< 120 U	< 120 U	< 230 U	< 120 U
bis(2-Chloroethyl) ether	ug/kg	-	-	< 120 U	< 700 U	< 130 U	< 230 U	< 120 U	< 630 U	< 310 U	< 130 U	< 670 U	< 120 U	< 120 U	< 230 U	< 120 U
bis(2-Ethylhexyl) phthalate	ug/kg	-	-	480	< 490 U	< 88 U	< 160 U	69 UJ	< 440 U	< 210 U	71 UJ	< 470 U	< 86 U	64 UJ	150 UJ	110
Butyl benzyl phthalate	ug/kg	-	-	< 87 U	< 490 U	< 88 U	< 160 U	< 85 U	520	< 210 U	< 88 U	< 470 U	< 86 U	< 87 U	< 160 U	< 82 U
Caprolactam	ug/kg	-	-	< 410 U	< 2300 U	< 410 U	< 760 U	< 400 U	< 2100 U	< 1000 U	< 420 U	< 2200 U	< 410 U	< 410 U	< 760 U	< 390 U
Carbazole	ug/kg	-	-	76	< 350 U	< 63 U	< 110 U	< 61 U	< 320 U	< 150 U	42 UJ	< 340 U	< 62 U	< 62 U	< 120 U	< 58 U
Chrysene	ug/kg	**1000**	56000	760	< 100 U	< 19 U	< 34 U	200	< 95 U	< 46 U	330	< 100 U	< 18 U	200	< 35 U	< 18 U
Dibenz[a,h]anthracene	ug/kg	**330**	560	84	< 100 U	< 19 U	< 34 U	< 18 U	< 95 U	< 46 U	62	< 100 U	< 18 U	37	< 35 U	< 18 U
Dibenzofuran	ug/kg	7000	350000	100	< 350 U	< 63 U	< 110 U	35 UJ	< 320 U	< 150 U	110	< 340 U	< 62 U	48 UJ	< 120 U	< 58 U
Diethyl phthalate	ug/kg	-	-	< 87 U	< 490 U	< 88 U	< 160 U	< 85 U	< 440 U	< 210 U	< 88 U	< 470 U	< 86 U	< 87 U	< 160 U	< 82 U
Dimethyl phthalate	ug/kg	-	-	< 87 U	< 490 U	< 88 U	< 160 U	< 85 U	< 440 U	< 210 U	< 88 U	< 470 U	< 86 U	< 87 U	< 160 U	< 82 U
Di-n-butyl phthalate	ug/kg	-	-	< 87 U	< 490 U	< 88 U	< 160 U	< 85 U	< 440 U	< 210 U	< 88 U	< 470 U	< 86 U	< 87 U	< 160 U	< 82 U
Di-n-octyl phthalate	ug/kg	-	-	< 87 UJ	< 490 UJ	< 88 UJ	< 160 UJ	< 85 UJ	< 440 UJ	< 210 UJ	< 88 U	< 470 U	< 86 U	< 87 U	< 160 U	< 82 U
Fluoranthene	ug/kg	100000	500000	1300	< 100 U	< 19 U	< 34 U	210	< 95 U	< 46 U	490	< 100 U	< 18 U	290	16 UJ	< 18 U
Fluorene	ug/kg	30000	500000	51	< 100 U	< 19 U	< 34 U	62	< 95 U	< 46 U	26	< 100 U	< 18 U	12 UJ	11 UJ	< 18 U
Hexachlorobenzene	ug/kg	330	6000	< 19 U	< 100 U	< 19 U	< 34 U	< 18 U	< 95 U	< 46 U	< 19 U	< 100 U	< 18 U	< 19 U	< 35 U	< 18 U
Hexachlorobutadiene	ug/kg	-	-	< 62 U	< 350 U	< 63 U	< 110 U	< 61 U	< 320 U	< 150 U	< 63 U	< 340 U	< 62 U	< 62 U	< 120 U	< 58 U
Hexachlorocyclopentadiene	ug/kg	-	-	< 410 UJ	< 2300 UJ	< 410 UJ	< 760 UJ	< 400 UJ	< 2100 UJ	< 1000 UJ	< 420 U	< 2200 U	< 410 U	< 410 U	< 760 U	< 390 U
Hexachloroethane	ug/kg	-	-	< 62 U	< 350 U	< 63 U	< 110 U	< 61 U	< 320 U	< 150 U	< 63 U	< 340 U	< 62 U	< 62 U	< 120 U	< 58 U
Indeno[1,2,3-cd]pyrene	ug/kg	**500**	5600	260	< 100 U	< 19 U	< 34 U	< 18 U	< 95 U	< 46 U	170	< 100 U	< 18 U	100	< 35 U	< 18 U
Isophorone	ug/kg	-	-	< 62 U	< 350 U	< 63 U	< 110 U	< 61 U	< 320 U	< 150 U	< 63 U	< 340 U	< 62 U	< 62 U	< 120 U	< 58 U
Naphthalene	ug/kg	12000	500000	170	< 100 U	< 19 U	< 34 U	160	< 95 U	< 46 U	230	< 100 U	< 18 U	120	< 35 U	< 18 U
Nitrobenzene	ug/kg	-	-	< 120 U	< 700 U	< 130 U	< 230 U	< 120 U	< 630 U	< 310 U	< 130 U	< 670 U	< 120 U	< 120 U	< 230 U	< 120 U
N-Nitrosodi-n-propylamine	ug/kg	-	-	< 62 U	< 350 U	< 63 U	< 110 U	< 61 U	< 320 U	< 150 U	< 63 U	< 340 U	< 62 U	< 62 U	< 120 U	< 58 U
N-Nitrosodiphenylamine	ug/kg	-	-	< 62 U	< 350 U	< 63 U	< 110 U	< 61 U	< 320 U	< 150 U	< 63 U	< 340 U	< 62 U	< 62 U	< 120 U	< 58 U
Pentachlorophenol	ug/kg	800	6700	< 190 U	< 1000 U	< 190 U	< 340 U	< 180 U	< 950 U	< 460 U	< 190 U	< 1000 U	< 180 U	< 190 U	< 350 U	< 180 U
Phenanthrene	ug/kg	100000	500000	750	< 100 U	< 19 U	14 UJ	310	< 95 U	< 46 U	390	< 100 U	< 18 U	190	< 35 U	< 18 U
Phenol	ug/kg	**330**	500000	< 62 U	< 350 U	< 63 U	27 UJ	< 61 U	< 320 U	< 150 U	< 63 U	< 340 U	< 62 U	< 62 U	65 UJ	< 58 U
Pyrene	ug/kg	100000	500000	1100	< 100 U	9.8 UJ	16 UJ	220	< 95 U	< 46 U	380	< 100 U	< 18 U	230	9.0 UJ	4.1 UJ

Analyte	SB-125-A	SB-125-B	SB-125-C	SB-126-A	SB-126-B	SB-126-C	SB-127-A	SB-127-B	SB-127-C	SB-128-A	SB-128-B	SB-128-C	SB-129-A	SB-129-B	SB-129-C	SB-130-A	SB-130-B	SB-130-C
Start Depth (ft bgs)	0	5	16.5	0	1	14.5	0	5	18	0	5	14	0	6	16	0	6	15
End Depth (ft bgs)	1	6	18	1	4	15.5	5	10	20	2	7	16	2	7	17	3	10	18
Sample Date	10/17/2018	10/17/2018	10/17/2018	10/17/2018	10/17/2018	10/17/2018	10/17/2018	10/17/2018	10/17/2018	10/17/2018	10/17/2018	10/17/2018	10/17/2018	10/17/2018	10/17/2018	10/17/2018	10/17/2018	10/17/2018
SW8270D																		
1,1'-Biphenyl	< 120 UJ	< 370 UJ	< 220 UJ	< 260 UJ	< 61 UJ	< 130 UJ	< 340 UJ	< 320 UJ	< 190 UJ	< 240 UJ	< 150 UJ	< 200 UJ	< 64 UJ	< 64 UJ	< 58 UJ	< 68 UJ	49 UJ	< 62 UJ
2,4,5-Trichlorophenol	< 370 UJ	< 1100 UJ	< 670 UJ	< 770 UJ	< 180 UJ	< 380 UJ	< 1000 UJ	< 970 UJ	< 570 UJ	< 730 UJ	< 440 UJ	< 610 UJ	< 190 UJ	< 190 UJ	< 180 UJ	< 200 UJ	< 190 UJ	< 180 UJ
2,4,6-Trichlorophenol	< 370 UJ	< 1100 UJ	< 670 UJ	< 770 UJ	< 180 UJ	< 380 UJ	< 1000 UJ	< 970 UJ	< 570 UJ	< 730 UJ	< 440 UJ	< 610 UJ	< 190 UJ	< 190 UJ	< 180 UJ	< 200 UJ	< 190 UJ	< 180 UJ
2,4-Dichlorophenol	< 370 UJ	< 1100 UJ	< 670 UJ	< 770 UJ	< 180 UJ	< 380 UJ	< 1000 UJ	< 970 UJ	< 570 UJ	< 730 UJ	< 440 UJ	< 610 UJ	< 190 UJ	< 190 UJ	< 180 UJ	< 200 UJ	< 190 UJ	< 180 UJ
2,4-Dimethylphenol	< 370 UJ	< 1100 UJ	< 670 UJ	< 770 UJ	< 180 UJ	< 380 UJ	< 1000 UJ	< 970 UJ	< 570 UJ	< 730 UJ	< 440 UJ	< 610 UJ	< 190 UJ	< 190 UJ	< 180 UJ	< 200 UJ	< 190 UJ	< 180 UJ
2,4-Dinitrophenol	< 820 UJ	< 2400 UJ	< 1500 UJ	< 1700 UJ	< 400 UJ	< 840 UJ	< 2300 UJ	< 2100 UJ	< 1300 UJ	< 1600 UJ	< 960 UJ	< 1300 UJ	< 420 UJ	< 420 UJ	< 390 UJ	< 450 UJ	< 420 UJ	< 410 UJ
2,4-Dinitrotoluene	< 490 UJ	< 1500 UJ	< 890 UJ	< 1000 UJ	< 240 UJ	< 510 UJ	< 1400 UJ	< 1300 UJ	< 770 UJ	< 970 UJ	< 580 UJ	< 820 UJ	< 260 UJ	< 260 UJ	< 230 UJ	< 270 UJ	< 260 UJ	< 250 UJ
2,6-Dinitrotoluene	< 490 UJ	< 1500 UJ	< 890 UJ	< 1000 UJ	< 240 UJ	< 510 UJ	< 1400 UJ	< 1300 UJ	< 770 UJ	< 970 UJ	< 580 UJ	< 820 UJ	< 260 UJ	< 260 UJ	< 230 UJ	< 270 UJ	< 260 UJ	< 250 UJ
2-Chloronaphthalene	< 120 UJ	< 370 UJ	< 220 UJ	< 260 UJ	< 61 UJ	< 130 UJ	< 340 UJ	< 320 UJ	< 190 UJ	< 240 UJ	< 150 UJ	< 200 UJ	< 64 UJ	< 64 UJ	< 58 UJ	< 68 UJ	< 64 UJ	< 62 UJ
2-Chlorophenol	< 120 UJ	< 370 UJ	< 220 UJ	< 260 UJ	< 61 UJ	< 130 UJ	< 340 UJ	< 320 UJ	< 190 UJ	< 240 UJ	< 150 UJ	< 200 UJ	< 64 UJ	< 64 UJ	< 58 UJ	< 68 UJ	< 64 UJ	< 62 UJ
2-Methylnaphthalene	270 J	< 110 UJ	< 67 UJ	290 J	100 J	< 38 UJ	< 100 UJ	< 97 UJ	19 UJ	250 J	52 J	< 61 UJ	19 J	< 19 UJ	< 18 UJ	9.9 UJ	190 J	< 18 UJ
2-Methylphenol	< 490 UJ	< 1500 UJ	< 890 UJ	< 1000 UJ	< 240 UJ	< 510 UJ	< 1400 UJ	< 1300 UJ	< 770 UJ	< 970 UJ	< 580 UJ	< 820 UJ	< 260 UJ	< 260 UJ	< 230 UJ	< 270 UJ	< 260 UJ	< 250 UJ
2-Nitroaniline	< 490 UJ	< 1500 UJ	< 890 UJ	< 1000 UJ	< 240 UJ	< 510 UJ	< 1400 UJ	< 1300 UJ	< 770 UJ	< 970 UJ	< 580 UJ	< 820 UJ	< 260 UJ	< 260 UJ	< 230 UJ	< 270 UJ	< 260 UJ	< 250 UJ
2-Nitrophenol	< 120 UJ	< 370 UJ	< 220 UJ	< 260 UJ	< 61 UJ	< 130 UJ	< 340 UJ	< 320 UJ	< 190 UJ	< 240 UJ	< 150 UJ	< 200 UJ	< 64 UJ	< 64 UJ	< 58 UJ	< 68 UJ	< 64 UJ	< 62 UJ
3 & 4 Methylphenol	< 990 UJ	< 2900 UJ	< 1800 UJ	< 2100 UJ	< 490 UJ	< 1000 UJ	< 2700 UJ	< 2600 UJ	< 1500 UJ	< 1900 UJ	< 1200 UJ	< 1600 UJ	< 510 UJ	< 510 UJ	< 470 UJ	< 540 UJ	< 510 UJ	< 490 UJ
3,3'-Dichlorobenzidine	< 250 UJ	< 740 UJ	< 440 UJ	< 510 UJ	< 120 UJ	< 250 UJ	< 680 UJ	< 650 UJ	< 380 UJ	< 490 UJ	< 290 UJ	< 410 UJ	< 130 UJ	< 130 UJ	< 120 UJ	< 140 UJ	< 130 UJ	< 120 UJ
3-Nitroaniline	< 490 UJ	< 1500 UJ	< 890 UJ	< 1000 UJ	< 240 UJ	< 510 UJ	< 1400 UJ	< 1300 UJ	< 770 UJ	< 970 UJ	< 580 UJ	< 820 UJ	< 260 UJ	< 260 UJ	< 230 UJ	< 270 UJ	< 260 UJ	< 250 UJ
4,6-Dinitro-2-methylphenol	< 820 UJ	< 2400 UJ	< 1500 UJ	< 1700 UJ	< 400 UJ	< 840 UJ	< 2300 UJ	< 2100 UJ	< 1300 UJ	< 1600 UJ	< 960 UJ	< 1300 UJ	< 420 UJ	< 420 UJ	< 390 UJ	< 450 UJ	< 420 UJ	< 410 UJ
4-Bromophenyl phenyl ether	< 120 UJ	< 370 UJ	< 220 UJ	< 260 UJ	< 61 UJ	< 130 UJ	< 340 UJ	< 320 UJ	< 190 UJ	< 240 UJ	< 150 UJ	< 200 UJ	< 64 UJ	< 64 UJ	< 58 UJ	< 68 UJ	< 64 UJ	< 62 UJ
4-Chloro-3-methylphenol	< 370 UJ	< 1100 UJ	< 670 UJ	< 770 UJ	< 180 UJ	< 380 UJ	< 1000 UJ	< 970 UJ	< 570 UJ	< 730 UJ	< 440 UJ	< 610 UJ	< 190 UJ	< 190 UJ	< 180 UJ	< 200 UJ	< 190 UJ	< 180 UJ
4-Chloroaniline	< 370 UJ	< 1100 UJ	< 670 UJ	< 770 UJ	< 180 UJ	< 380 UJ	< 1000 UJ	< 970 UJ	< 570 UJ	< 730 UJ	< 440 UJ	< 610 UJ	< 190 UJ	< 190 UJ	< 180 UJ	< 200 UJ	< 190 UJ	< 180 UJ
4-Chlorophenyl phenyl ether	< 120 UJ	< 370 UJ	< 220 UJ	< 260 UJ	< 61 UJ	< 130 UJ	< 340 UJ	< 320 UJ	< 190 UJ	< 240 UJ	< 150 UJ	< 200 UJ	< 64 UJ	< 64 UJ	< 58 UJ	< 68 UJ	< 64 UJ	< 62 UJ
4-Methylphenol	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitroaniline	< 490 UJ	< 1500 UJ	< 890 UJ	< 1000 UJ	< 240 UJ	< 510 UJ	< 1400 UJ	< 1300 UJ	< 770 UJ	< 970 UJ	< 580 UJ	< 820 UJ	< 260 UJ	< 260 UJ	< 230 UJ	< 270 UJ	< 260 UJ	< 250 UJ
4-Nitrophenol	< 820 UJ	< 2400 UJ	< 1500 UJ	< 1700 UJ	< 400 UJ	< 840 UJ	< 2300 UJ	< 2100 UJ	< 1300 UJ	< 1600 UJ	< 960 UJ	< 1300 UJ	< 420 UJ	< 420 UJ	< 390 UJ	< 450 UJ	< 420 UJ	< 410 UJ
Acenaphthene	120 J	< 110 UJ	< 67 UJ	210 J	80 J	< 38 UJ	< 100 UJ	< 97 UJ	< 57 UJ	69 UJ	< 44 UJ	< 61 UJ	< 19 UJ	< 19 UJ	< 18 UJ	< 20 UJ	29 J	< 18 UJ
Acenaphthylene	120 J	< 110 UJ	< 67 UJ	190 J	47 J	< 38 UJ	< 100 UJ	< 97 UJ	< 57 UJ	37 UJ	< 44 UJ	< 61 UJ	< 19 UJ	< 19 UJ	< 18 UJ	< 20 UJ	36 J	< 18 UJ
Acetophenone	< 250 UJ	< 740 UJ	< 440 UJ	< 510 UJ	< 120 UJ	29 UJ	< 680 UJ	< 650 UJ	< 380 UJ	< 490 UJ	< 290 UJ	< 410 UJ	< 130 UJ	< 130 UJ	< 120 UJ	< 140 UJ	27 UJ	< 120 UJ
Anthracene	300 J	< 110 UJ	< 67 UJ	650 J	220 J	< 38 UJ	< 100 UJ	< 97 UJ	< 57 UJ	150 J	16 UJ	< 61 UJ	< 19 UJ	< 19 UJ	< 18 UJ	< 20 UJ	89 J	< 18 UJ
Atrazine	< 490 UJ	< 1500 UJ	< 890 UJ	< 1000 UJ	< 240 UJ	< 510 UJ	< 1400 UJ	< 1300 UJ	< 770 UJ	< 970 UJ	< 580 UJ	< 820 UJ	< 260 UJ	< 260 UJ	< 230 UJ	< 270 UJ	< 260 UJ	< 250 UJ
Benzaldehyde	< 250 UJ	< 740 UJ	110 UJ	< 510 UJ	< 120 UJ	180 UJ	< 680 UJ	< 650 UJ	150 UJ	< 490 UJ	< 290 UJ	< 410 UJ	< 130 UJ	< 130 UJ	< 120 UJ	< 140 UJ	34 UJ	< 120 UJ
Benzo(b)fluoranthene	**1600 J**	< 110 UJ	< 67 UJ	**2700 J**	660 J	< 38 UJ	< 100 UJ	< 97 UJ	< 57 UJ	**1800 J**	130 J	< 61 UJ	24 J	< 19 UJ	< 18 UJ	23 J	380 J	< 18 UJ
Benzo[a]anthracene	**1200 J**	< 110 UJ	< 67 UJ	**2000 J**	530 J	< 38 UJ	< 100 UJ	< 97 UJ	< 57 UJ	820 J	69 J	< 61 UJ	12 UJ	< 19 UJ	< 18 UJ	14 UJ	260 J	< 18 UJ
Benzo[a]pyrene	**1200 J**	< 110 UJ	< 67 UJ	**2100 J**	460 J	< 38 UJ	< 100 UJ	< 97 UJ	< 57 UJ	**1400 J**	85 J	< 61 UJ	12 UJ	< 19 UJ	< 18 UJ	18 UJ	200 J	< 18 UJ
Benzo[g,h,i]perylene	610 J	< 110 UJ	< 67 UJ	1200 J	290 J	< 38 UJ	< 100 UJ	< 97 UJ	< 57 UJ	1000 J	75 J	< 61 UJ	9.8 UJ	< 19 UJ	< 18 UJ	17 UJ	170 J	< 18 UJ
Benzo[k]fluoranthene	520 J	< 110 UJ	< 67 UJ	**980 J**	190 J	< 38 UJ	< 100 UJ	< 97 UJ	< 57 UJ	620 J	48 J	< 61 UJ	< 19 UJ	< 19 UJ	< 18 UJ	11 UJ	140 J	< 18 UJ
bis (2-chloroisopropyl) ether	< 250 UJ	< 740 UJ	< 440 UJ	< 510 UJ	< 120 UJ	< 250 UJ	< 680 UJ	< 650 UJ	< 380 UJ	< 490 UJ	< 290 UJ	< 410 UJ	< 130 UJ	< 130 UJ	< 120 UJ	< 140 UJ	< 130 UJ	< 120 UJ
bis(2-Chloroethoxy)methane	< 250 UJ	< 740 UJ	< 440 UJ	< 510 UJ	< 120 UJ	< 250 UJ	< 680 UJ	< 650 UJ	< 380 UJ	< 490 UJ	< 290 UJ	< 410 UJ	< 130 UJ	< 130 UJ	< 120 UJ	< 140 UJ	< 130 UJ	< 120 UJ
bis(2-Chloroethyl) ether	< 250 UJ	< 740 UJ	< 440 UJ	< 510 UJ	< 120 UJ	< 250 UJ	< 680 UJ	< 650 UJ	< 380 UJ	< 490 UJ	< 290 UJ	< 410 UJ	< 130 UJ	< 130 UJ	< 120 UJ	< 140 UJ	< 130 UJ	< 120 UJ
bis(2-Ethylhexyl) phthalate	< 170 UJ	< 510 UJ	< 310 UJ	< 360 UJ	< 85 UJ	< 180 UJ	< 480 UJ	< 450 UJ	380 J	< 340 UJ	< 200 UJ	< 290 UJ	< 90 UJ	< 89 UJ	< 82 UJ	< 95 UJ	< 90 UJ	< 86 UJ
Butyl benzyl phthalate	< 170 UJ	< 510 UJ	< 310 UJ	< 360 UJ	< 85 UJ	< 180 UJ	< 480 UJ	< 450 UJ	< 270 UJ	< 340 UJ	< 200 UJ	< 290 UJ	< 90 UJ	< 89 UJ	< 82 UJ	< 95 UJ	< 90 UJ	< 86 UJ
Caprolactam	< 820 UJ	< 2400 UJ	< 1500 UJ	< 1700 UJ	< 400 UJ	< 840 UJ	< 2300 UJ	< 2100 UJ	< 1300 UJ	< 1600 UJ	< 960 UJ	< 1300 UJ	< 420 UJ	< 420 UJ	< 390 UJ	< 450 UJ	< 420 UJ	< 410 UJ
Carbazole	110 UJ	< 370 UJ	< 220 UJ	260 J	87 J	< 130 UJ	< 340 UJ	< 320 UJ	< 190 UJ	< 240 UJ	< 150 UJ	< 200 UJ	< 64 UJ	< 64 UJ	< 58 UJ	< 68 UJ	50 UJ	< 62 UJ
Chrysene	**1300 J**	< 110 UJ	< 67 UJ	**2000 J**	510 J	< 38 UJ	< 100 UJ	< 97 UJ	< 57 UJ	**1100 J**	100 J	< 61 UJ	21 J	< 19 UJ	< 18 UJ	18 UJ	390 J	< 18 UJ
Dibenz[a,h]anthracene	220 J	< 110 UJ	< 67 UJ	**400 J**	77 J	< 38 UJ	< 100 UJ	< 97 UJ	< 57 UJ	270 J	< 44 UJ	< 61 UJ	< 19 UJ	< 19 UJ	< 18 UJ	< 20 UJ	58 J	< 18 UJ
Dibenzofuran	120 J	< 370 UJ	< 220 UJ	210 UJ	100 J	< 130 UJ	< 340 UJ	< 320 UJ	< 190 UJ	100 UJ	< 150 UJ	< 200 UJ	< 64 UJ	< 64 UJ	< 58 UJ	< 68 UJ	88 J	< 62 UJ
Diethyl phthalate	< 170 UJ	< 510 UJ	< 310 UJ	< 360 UJ	< 85 UJ	< 180 UJ	< 480 UJ	< 450 UJ	< 270 UJ	< 340 UJ	< 200 UJ	< 290 UJ	< 90 UJ	< 89 UJ	< 82 UJ	< 95 UJ	< 90 UJ	< 86 UJ
Dimethyl phthalate	< 170 UJ	< 510 UJ	< 310 UJ	< 360 UJ	< 85 UJ	< 180 UJ	< 480 UJ	< 450 UJ	< 270 UJ	< 340 UJ	< 200 UJ	< 290 UJ	< 90 UJ	< 89 UJ	< 82 UJ	< 95 UJ	< 90 UJ	< 86 UJ
Di-n-butyl phthalate	< 170 UJ	< 510 UJ	< 310 UJ	< 360 UJ	< 85 UJ	< 180 UJ	< 480 UJ	< 450 UJ	< 270 UJ	< 340 UJ	< 200 UJ	< 290 UJ	< 90 UJ	< 89 UJ	< 82 UJ	< 95 UJ	< 90 UJ	< 86 UJ
Di-n-octyl phthalate	< 170 UJ	< 510 UJ	< 310 UJ	< 360 UJ	< 85 UJ	< 180 UJ	< 480 UJ	< 450 UJ	< 270 UJ	< 340 UJ	< 200 UJ	< 290 UJ	< 90 UJ	< 89 UJ	< 82 UJ	< 95 UJ	< 90 UJ	< 86 UJ
Fluoranthene	2600 J	< 110 UJ	< 67 UJ	3600 J	1100 J	< 38 UJ	< 100 UJ	< 97 UJ	19 UJ	930 J	110 J	< 61 UJ	29 J	< 19 UJ	< 18 UJ	29 J	470 J	< 18 UJ
Fluorene	130 J	< 110 UJ	< 67 UJ	230 J	110 J	< 38 UJ	< 100 UJ	< 97 UJ	< 57 UJ	43 UJ	< 44 UJ	< 61 UJ	< 19 UJ	< 19 UJ	< 18 UJ	< 20 UJ	34 J	< 18 UJ
Hexachlorobenzene	< 37 UJ	< 110 UJ	< 67 UJ	< 77 UJ	< 18 UJ	< 38 UJ	< 100 UJ	< 97 UJ	< 57 UJ	< 73 UJ	< 44 UJ	< 61 UJ	< 19 UJ	< 19 UJ	< 18 UJ	< 20 UJ	< 19 UJ	< 18 UJ
Hexachlorobutadiene	< 120 UJ	< 370 UJ	< 220 UJ	< 260 UJ	< 61 UJ	< 130 UJ	< 340 UJ	< 320 UJ	< 190 UJ	< 240 UJ	< 150 UJ	< 200 UJ	< 64 UJ	< 64 UJ	< 58 UJ	< 68 UJ	< 64 UJ	< 62 UJ
Hexachlorocyclopentadiene	< 820 UJ	< 2400 UJ	< 1500 UJ	< 1700 UJ	< 400 UJ	< 840 UJ	< 2300 UJ	< 2100 UJ	< 1300 UJ	< 1600 UJ	< 960 UJ	< 1300 UJ	< 420 UJ	< 420 UJ	< 390 UJ	< 450 UJ	< 420 UJ	< 410 UJ
Hexachloroethane	< 120 UJ	< 370 UJ	< 220 UJ	< 260 UJ	< 61 UJ	< 130 UJ	< 340 UJ	< 320 UJ	< 190 UJ	< 240 UJ	< 150 UJ	< 200 UJ	< 64 UJ	< 64 UJ	< 58 UJ	< 68 UJ	< 64 UJ	< 62 UJ
Indeno[1,2,3-cd]pyrene	**650 J**	< 110 UJ	< 67 UJ	**1200 J**	270 J	< 38 UJ	< 100 UJ	< 97 UJ	< 57 UJ	**940 J**	64 J	< 61 UJ	< 19 UJ	< 19 UJ	< 18 UJ	12 UJ	150 J	< 18 UJ
Isophorone	< 120 UJ	< 370 UJ	< 220 UJ	< 260 UJ	< 61 UJ	< 130 UJ	< 340 UJ	< 320 UJ	< 190 UJ	< 240 UJ	< 150 UJ	< 200 UJ	< 64 UJ	< 64 UJ	< 58 UJ	< 68 UJ	< 64 UJ	< 62 UJ
Naphthalene	210 J	< 110 UJ	< 67 UJ	1100 J	160 J	13 UJ	< 100 UJ	< 97 UJ	< 57 UJ	220 J	43 UJ	< 61 UJ	14 UJ	< 19 UJ	< 18 UJ	5.1 UJ	250 J	< 18 UJ
Nitrobenzene	< 250 UJ	< 740 UJ	< 440 UJ	< 510 UJ	< 120 UJ	< 250 UJ	< 680 UJ	< 650 UJ	< 380 UJ	< 490 UJ	< 290 UJ	< 410 UJ	< 130 UJ	< 130 UJ	< 120 UJ	< 140 UJ	< 130 UJ	< 120 UJ
N-Nitrosodi-n-propylamine	< 120 UJ	< 370 UJ	< 220 UJ	< 260 UJ	< 61 UJ	< 130 UJ	< 340 UJ	< 320 UJ	< 190 UJ	< 240 UJ	< 150 UJ	< 200 UJ	< 64 UJ	< 64 UJ	< 58 UJ	< 68 UJ	< 64 UJ	< 62 UJ
N-Nitrosodiphenylamine	< 120 UJ	< 370 UJ	< 220 UJ	< 260 UJ	< 61 UJ	< 130 UJ	< 340 UJ	< 320 UJ	< 190 UJ	< 240 UJ	< 150 UJ	< 200 UJ	< 64 UJ	< 64 UJ	< 58 UJ	< 68 UJ	< 64 UJ	< 62 UJ
Pentachlorophenol	< 370 UJ	< 1100 UJ	< 670 UJ	< 770 UJ	< 180 UJ	< 380 UJ	< 1000 UJ	< 970 UJ	< 570 UJ	< 730 UJ	< 440 UJ	< 610 UJ	< 190 UJ	< 190 UJ	< 180 UJ	< 200 UJ	< 190 UJ	< 180 UJ
Phenanthrene	1500 J	< 110 UJ	< 67 UJ	2200 J	850 J	11 UJ	< 100 UJ	< 97 UJ	13 UJ	550 J	93 J	< 61 UJ	28 J	< 19 UJ	< 18 UJ	13 UJ	440 J	4.7 UJ
Phenol	< 120 UJ	< 370 UJ	< 220 UJ	< 260 UJ	< 61 UJ	36 UJ	< 340 UJ	< 320 UJ	< 190 UJ	< 240 UJ	< 150 UJ	< 200 UJ	< 64 UJ	< 64 UJ	< 58 UJ	< 68 UJ	< 64 UJ	< 62 UJ
Pyrene	1900 J	< 110 UJ	< 67 UJ	2800 J	830 J	< 38 UJ	< 100 UJ	< 97 UJ	< 57 UJ	870 J	94 J	< 61 UJ	21 J	< 19 UJ	< 18 UJ	26 J	360 J	4.1 UJ

Notes:

ft bgs = feet below ground surface

mg/kg = milligrams per kilogram

μg/kg = micrograms per kilogram

6 NYCRR Part 375 SCO = Title 6 Official Compilation of New York Codes, Rules and Regulations Part 375 Soil Cleanup Objectives

- = no SCO established

NA = not applicable/analyzed

Qualifiers:

U = Analyte analyzed for, but not detected above the sample's reported quantitation limit

J = Analyte positively identified at a numerical value that is the approximate concentration of the analyte in the sample

J+ = Sample likely to have a high bias

J- = Sample likely to have a low bias

UJ = Analyte not detected above the sample quantitation limit; the associated quantitation limit is approximate and may or may not represent the actual limit of quantitation necessary to accurately and precisely measure the analyte in the sample

N = The analysis indicates the present of an analyte for which there is presumptive evidence to make a "tentative identification."

NJ = The analysis indicates the presence of an analyte that has been "tentatively identified" and the associated numerical value represents its approximate oncentration.

R = Sample result rejected due to serious deficiency in ability to analyze sample and meet quality control criteria; the presence or absence of the analyte cannot be confirmed. This qualifier also may apply when more than one sample result is generated for a target analyte (i.e., dilutions or re-analyses), the most technically acceptable result is considered acceptable.

B/EB/TB/BB = An analyte identified in method blank (B), aqueous equipment (EB), trip (TB), or bottle blanks (BB) used to assess field contamination associated with soil or sediment samples mandates these qualifiers for only soil and sediment sample results.

P = Use professional judgment based on data use. It usually has an "M" with it, which indicates that a manual check should be made if the data that are qualified with the "P" are important to the data user. In addition, "PM" also means a decision is necessary from the Project Manager (or a delegate) concerning the need for further review of the data (see below).

PM = A manual review of the raw data is recommended to determine if the defect affects data use, as in "R" above. This review should include consideration of potential affects that could result from using the "P" qualified data. For example, in the case of holding-time exceedance, the Project Manager or delegate can decide to use the data with no qualification when analytes of interest are known not to be adversely affected by holding-time exceedances. Another example is the case where soil sample duplicate analyses for metals exceed the precision criteria; because this is likely due to sample non-homogeneity rather than contract laboratory error, then the manager or delegate must decide how to use the data.

Table 1
Soil Analytical Data

Analyte	Units	6 NYCRR PART 375 UNRESTRICTED USE SCO	6 NYCRR PART 375 COMMERCIAL USE SCO	SB-131A	SB-131B	SB-131C	SB-132A	SB-132B	SB-132C	SB-133A	SB-133B	SB-133C	SB-133D	SB-134A	SB-134B	SB-134C	SB-135A
Start Depth (ft bgs)				0	6	14	0	14	17	0	4	17	14	0	6	12	0
End Depth (ft bgs)				1	8	16	2	16	19	1	6	19	16	1	8	14	2
Sample Date				10/18/2018	10/18/2018	10/18/2018	10/18/2018	10/18/2018	10/18/2018	10/18/2018	10/18/2018	10/18/2018	10/18/2018	10/18/2018	10/18/2018	10/18/2018	10/18/2018
SW8270D																	
1,1'-Biphenyl	ug/kg	-	-	< 340 U	< 350 U	< 390 U	110 UJ	< 350 U	< 72 U	45 UJ	< 350 U	< 81 U	< 160 U	< 59 U	< 350 U	< 190 U	67 UJ
2,4,5-Trichlorophenol	ug/kg	-	-	< 1000 U	< 1000 U	< 1200 U	< 350 U	< 1100 U	< 220 U	< 190 U	< 1100 U	< 240 U	< 490 U	< 180 U	< 1000 U	< 560 U	< 340 U
2,4,6-Trichlorophenol	ug/kg	-	-	< 1000 U	< 1000 U	< 1200 U	< 350 U	< 1100 U	< 220 U	< 190 U	< 1100 U	< 240 U	< 490 U	< 180 U	< 1000 U	< 560 U	< 340 U
2,4-Dichlorophenol	ug/kg	-	-	< 1000 U	< 1000 U	< 1200 U	< 350 U	< 1100 U	< 220 U	< 190 U	< 1100 U	< 240 U	< 490 U	< 180 U	< 1000 U	< 560 U	< 340 U
2,4-Dimethylphenol	ug/kg	-	-	< 1000 U	< 1000 U	< 1200 U	< 350 U	< 1100 U	< 220 U	< 190 U	< 1100 U	< 240 U	< 490 U	< 180 U	< 1000 U	< 560 U	< 340 U
2,4-Dinitrophenol	ug/kg	-	-	< 2200 U	< 2300 U	< 2600 U	< 760 U	< 2300 U	< 480 U	< 420 U	< 2300 U	< 530 U	< 1100 U	< 390 U	< 2300 U	< 1200 U	< 750 U
2,4-Dinitrotoluene	ug/kg	-	-	< 1300 U	< 1400 U	< 1600 U	< 460 U	< 1400 U	< 290 U	< 260 U	< 1400 U	< 320 U	< 660 U	< 230 U	< 1400 U	< 750 U	< 450 U
2,6-Dinitrotoluene	ug/kg	-	-	< 1300 U	< 1400 U	< 1600 U	< 460 U	< 1400 U	< 290 U	< 260 U	< 1400 U	< 320 U	< 660 U	< 230 U	< 1400 U	< 750 U	< 450 U
2-Chloronaphthalene	ug/kg	-	-	< 340 U	< 350 U	< 390 U	< 120 U	< 350 U	< 72 U	< 64 U	< 350 U	< 81 U	< 160 U	< 59 U	< 350 U	< 190 U	< 110 U
2-Chlorophenol	ug/kg	-	-	< 340 U	< 350 U	< 390 U	< 120 U	< 350 U	< 72 U	< 64 U	< 350 U	< 81 U	< 160 U	< 59 U	< 350 U	< 190 U	< 110 U
2-Methylnaphthalene	ug/kg	-	-	< 100 U	< 100 U	38 UJ	890	< 110 U	< 22 U	400	< 110 U	< 24 U	< 49 U	36	< 100 U	< 56 U	440
2-Methylphenol	ug/kg	330	500000	< 1300 U	< 1400 U	< 1600 U	< 460 U	< 1400 U	< 290 U	< 260 U	< 1400 U	< 320 U	< 660 U	< 230 U	< 1400 U	< 750 U	< 450 U
2-Nitroaniline	ug/kg	-	-	< 1300 U	< 1400 UJ	< 1600 U	< 460 U	< 1400 U	< 290 U	< 260 U	< 1400 U	< 320 U	< 660 U	< 230 U	< 1400 U	< 750 U	< 450 U
2-Nitrophenol	ug/kg	-	-	< 340 U	< 350 U	< 390 U	< 120 U	< 350 U	< 72 U	< 64 U	< 350 U	< 81 U	< 160 U	< 59 U	< 350 U	< 190 U	< 110 U
3 & 4 Methylphenol	ug/kg	-	-	< 2700 U	< 2800 U	< 3100 U	< 920 U	< 2800 U	< 580 U	< 510 U	< 2800 U	< 640 U	< 1300 U	< 470 U	< 2800 U	< 1500 U	< 900 U
3,3'-Dichlorobenzidine	ug/kg	-	-	< 670 U	< 690 U	< 780 U	< 230 U	< 710 U	< 140 U	< 130 U	< 700 U	< 160 U	< 330 U	< 120 U	< 700 U	< 380 U	< 230 U
3-Nitroaniline	ug/kg	-	-	< 1300 U	< 1400 U	< 1600 U	< 460 U	< 1400 U	< 290 U	< 260 U	< 1400 U	< 320 U	< 660 U	< 230 U	< 1400 U	< 750 U	< 450 U
4,6-Dinitro-2-methylphenol	ug/kg	-	-	< 2200 U	< 2300 U	< 2600 U	< 760 U	< 2300 U	< 480 U	< 420 U	< 2300 U	< 530 U	< 1100 U	< 390 U	< 2300 U	< 1200 U	< 750 U
4-Bromophenyl phenyl ether	ug/kg	-	-	< 340 U	< 350 U	< 390 U	< 120 U	< 350 U	< 72 U	< 64 U	< 350 U	< 81 U	< 160 U	< 59 U	< 350 U	< 190 U	< 110 U
4-Chloro-3-methylphenol	ug/kg	-	-	< 1000 UJ	< 1000 UJ	< 1200 UJ	< 350 UJ	< 1100 UJ	< 220 UJ	< 190 UJ	< 1100 UJ	< 240 UJ	< 490 UJ	< 180 UJ	< 1000 UJ	< 560 UJ	< 340 UJ
4-Chloroaniline	ug/kg	-	-	< 1000 U	< 1000 U	< 1200 U	< 350 U	< 1100 U	< 220 U	< 190 U	< 1100 U	< 240 U	< 490 U	< 180 U	< 1000 U	< 560 U	< 340 U
4-Chlorophenyl phenyl ether	ug/kg	-	-	< 340 U	< 350 U	< 390 U	< 120 U	< 350 U	< 72 U	< 64 U	< 350 U	< 81 U	< 160 U	< 59 U	< 350 U	< 190 U	< 110 U
4-Methylphenol	ug/kg	330	500000	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitroaniline	ug/kg	-	-	< 1300 U	< 1400 U	< 1600 U	< 460 U	< 1400 U	< 290 U	< 260 U	< 1400 U	< 320 U	< 660 U	< 230 U	< 1400 U	< 750 U	< 450 U
4-Nitrophenol	ug/kg	-	-	< 2200 U	< 2300 UJ	< 2600 U	< 760 U	< 2300 U	< 480 U	< 420 U	< 2300 U	< 530 U	< 1100 U	< 390 U	< 2300 U	< 1200 U	< 750 U
Acenaphthene	ug/kg	20000	500000	< 100 U	< 100 U	< 120 U	170	< 110 U	< 22 U	26	< 110 U	< 24 U	< 49 U	< 18 U	< 100 U	< 56 U	220
Acenaphthylene	ug/kg	100000	500000	< 100 U	< 100 U	< 120 U	71	< 110 U	< 22 U	100	< 110 U	< 24 U	< 49 U	4.7 UJ	< 100 U	< 56 U	53
Acetophenone	ug/kg	-	-	< 670 U	< 690 U	< 780 U	80 UJ	< 710 U	< 140 U	47 UJ	< 700 U	< 160 U	< 330 U	< 120 U	< 700 U	< 380 U	48 UJ
Anthracene	ug/kg	100000	500000	< 100 U	< 100 U	< 120 U	330	< 110 U	< 22 U	95	< 110 U	< 24 U	< 49 U	13 UJ	< 100 U	< 56 U	580
Atrazine	ug/kg	-	-	< 1300 U	< 1400 U	< 1600 U	< 460 U	< 1400 U	< 290 U	< 260 U	< 1400 U	< 320 U	< 660 U	< 230 U	< 1400 U	< 750 U	< 450 U
Benzaldehyde	ug/kg	-	-	< 670 U	< 690 UJ	< 780 U	83 UJ	< 710 U	< 140 U	64 UJ	< 700 U	< 160 U	110 UJ	< 120 U	< 700 U	94 UJ	53 UJ
Benzo(b)fluoranthene	ug/kg	**1000**	5600	< 100 U	< 100 U	91 UJ	**1500**	< 110 U	< 22 U	1000	< 110 U	< 24 U	< 49 U	61	< 100 U	< 56 U	**1500**
Benzo[a]anthracene	ug/kg	**1000**	5600	< 100 U	< 100 U	37 UJ	820	< 110 U	< 22 U	520	< 110 U	< 24 U	< 49 U	38	< 100 U	< 56 U	**1100**
Benzo[a]pyrene	ug/kg	**1000**	1000	< 100 U	< 100 U	< 120 U	900	< 110 U	< 22 U	580	< 110 U	< 24 U	< 49 U	45	< 100 U	< 56 U	1000
Benzo[g,h,i]perylene	ug/kg	100000	500000	< 100 U	< 100 U	< 120 U	350	< 110 U	< 22 U	290	< 110 U	< 24 U	< 49 U	65	< 100 U	< 56 U	370
Benzo[k]fluoranthene	ug/kg	**800**	56000	< 100 U	< 100 U	< 120 U	570	< 110 U	< 22 U	430	< 110 U	< 24 U	< 49 U	22	< 100 U	< 56 U	580
bis (2-chloroisopropyl) ether	ug/kg	-	-	< 670 U	< 690 UJ	< 780 U	< 230 U	< 710 U	< 140 U	< 130 U	< 700 U	< 160 U	< 330 U	< 120 U	< 700 U	< 380 U	< 230 U
bis(2-Chloroethoxy)methane	ug/kg	-	-	< 670 U	< 690 U	< 780 U	< 230 U	< 710 U	< 140 U	< 130 U	< 700 U	< 160 U	< 330 U	< 120 U	< 700 U	< 380 U	< 230 U
bis(2-Chloroethyl) ether	ug/kg	-	-	< 670 U	< 690 U	< 780 U	< 230 U	< 710 U	< 140 U	< 130 U	< 700 U	< 160 U	< 330 U	< 120 U	< 700 U	< 380 U	< 230 U
bis(2-Ethylhexyl) phthalate	ug/kg	-	-	< 470 U	610	< 540 U	< 160 U	< 500 U	< 100 U	< 90 U	< 490 U	< 110 U	< 230 U	< 82 U	< 490 U	< 260 U	< 160 U
Butyl benzyl phthalate	ug/kg	-	-	< 470 U	< 480 U	< 540 U	< 160 U	< 500 U	< 100 U	< 90 U	< 490 U	< 110 U	< 230 U	< 82 U	< 490 U	< 260 U	< 160 U
Caprolactam	ug/kg	-	-	< 2200 U	< 2300 U	< 2600 U	< 760 U	< 2300 U	< 480 U	< 420 U	< 2300 U	< 530 U	< 1100 U	< 390 U	< 2300 U	< 1200 U	< 750 U
Carbazole	ug/kg	-	-	< 340 U	< 350 U	< 390 U	240	< 350 U	< 72 U	85	< 350 U	< 81 U	< 160 U	< 59 U	< 350 U	< 190 U	290
Chrysene	ug/kg	**1000**	56000	< 100 U	< 100 U	63 UJ	980	< 110 U	< 22 U	700	< 110 U	< 24 U	< 49 U	52	< 100 U	< 56 U	**1100**
Dibenz[a,h]anthracene	ug/kg	**330**	560	< 100 U	< 100 U	< 120 U	120	< 110 U	< 22 U	100	< 110 U	< 24 U	< 49 U	17 UJ	< 100 U	< 56 U	140
Dibenzofuran	ug/kg	7000	350000	< 340 U	< 350 U	< 390 U	330	< 350 U	< 72 U	140	< 350 U	< 81 U	< 160 U	< 59 U	< 350 U	< 190 U	220
Diethyl phthalate	ug/kg	-	-	< 470 U	< 480 U	< 540 U	< 160 U	< 500 U	< 100 U	< 90 U	< 490 U	< 110 U	< 230 U	< 82 U	< 490 U	< 260 U	< 160 U
Dimethyl phthalate	ug/kg	-	-	< 470 U	< 480 U	< 540 U	< 160 U	< 500 U	< 100 U	< 90 U	< 490 U	< 110 U	< 230 U	< 82 U	< 490 U	< 260 U	< 160 U
Di-n-butyl phthalate	ug/kg	-	-	< 470 U	660	< 540 U	< 160 U	< 500 U	< 100 U	< 90 U	< 490 U	< 110 U	< 230 U	< 82 U	< 490 U	< 260 U	< 160 U
Di-n-octyl phthalate	ug/kg	-	-	< 470 U	< 480 U	< 540 U	< 160 U	< 500 U	< 100 U	< 90 U	< 490 U	< 110 U	< 230 U	< 82 U	< 490 U	< 260 U	< 160 U
Fluoranthene	ug/kg	100000	500000	< 100 U	40 UJ	120	1500	< 110 U	< 22 U	1100	< 110 U	< 24 U	< 49 U	75	< 100 U	< 56 U	2700
Fluorene	ug/kg	30000	500000	< 100 U	< 100 U	< 120 U	200	< 110 U	< 22 U	30	< 110 U	< 24 U	< 49 U	7.3 UJ	< 100 U	< 56 U	250
Hexachlorobenzene	ug/kg	330	6000	< 100 U	< 100 U	< 120 U	< 35 U	< 110 U	< 22 U	< 19 U	< 110 U	< 24 U	< 49 U	< 18 U	< 100 U	< 56 U	< 34 U
Hexachlorobutadiene	ug/kg	-	-	< 340 U	< 350 U	< 390 U	< 120 U	< 350 U	< 72 U	< 64 U	< 350 U	< 81 U	< 160 U	< 59 U	< 350 U	< 190 U	< 110 U
Hexachlorocyclopentadiene	ug/kg	-	-	< 2200 UJ	< 2300 UJ	< 2600 UJ	< 760 UJ	< 2300 UJ	< 480 UJ	< 420 UJ	< 2300 UJ	< 530 UJ	< 1100 UJ	< 390 UJ	< 2300 UJ	< 1200 UJ	< 750 UJ
Hexachloroethane	ug/kg	-	-	< 340 UJ	< 350 UJ	< 390 UJ	< 120 UJ	< 350 UJ	< 72 UJ	< 64 UJ	< 350 UJ	< 81 UJ	< 160 UJ	< 59 UJ	< 350 UJ	< 190 UJ	< 110 UJ
Indeno[1,2,3-cd]pyrene	ug/kg	**500**	5600	< 100 U	< 100 U	< 120 U	340	< 110 U	< 22 U	300	< 110 U	< 24 U	< 49 U	39	< 100 U	< 56 U	400
Isophorone	ug/kg	-	-	< 340 U	< 350 U	< 390 U	< 120 U	< 350 U	< 72 U	< 64 U	< 350 U	< 81 U	< 160 U	< 59 U	< 350 U	< 190 U	< 110 U
Naphthalene	ug/kg	12000	500000	< 100 U	< 100 U	51 UJ	670	< 110 U	< 22 U	330	< 110 U	< 24 U	< 49 U	22	< 100 U	< 56 U	320
Nitrobenzene	ug/kg	-	-	< 670 U	< 690 UJ	< 780 U	< 230 U	< 710 U	< 140 U	< 130 U	< 700 U	< 160 U	< 330 U	< 120 U	< 700 U	< 380 U	< 230 U
N-Nitrosodi-n-propylamine	ug/kg	-	-	< 340 U	< 350 U	< 390 U	< 120 U	< 350 U	< 72 U	< 64 U	< 350 U	< 81 U	< 160 U	< 59 U	< 350 U	< 190 U	< 110 U
N-Nitrosodiphenylamine	ug/kg	-	-	< 340 U	< 350 U	< 390 U	< 120 U	< 350 U	< 72 U	< 64 U	< 350 U	< 81 U	< 160 U	< 59 U	< 350 U	< 190 U	< 110 U
Pentachlorophenol	ug/kg	800	6700	< 1000 U	< 1000 U	< 1200 U	< 350 U	< 1100 U	< 220 U	< 190 U	< 1100 U	< 240 U	< 490 U	< 180 U	< 1000 U	< 560 U	< 340 U
Phenanthrene	ug/kg	100000	500000	< 100 U	40 UJ	77 UJ	1500	< 110 U	< 22 U	620	< 110 U	< 24 U	< 49 U	59	< 100 U	< 56 U	2100
Phenol	ug/kg	**330**	500000	< 340 U	< 350 U	< 390 U	< 120 U	< 350 U	< 72 U	< 64 U	< 350 U	< 81 U	< 160 U	< 59 U	< 350 U	< 190 U	< 110 U
Pyrene	ug/kg	100000	500000	< 100 U	24 UJ	72 UJ	1100	< 110 U	< 22 U	850	< 110 U	< 24 U	< 49 U	63	< 100 U	< 56 U	1900

Analyte	SB-135B	SB-135C	SB-136-A	SB-136-B	SB-136-C	SB-136-D	SB-137-A	SB-137-B	SB-137-C	SB-138-A	SB-138-B	SB-138-C	SB-139A	SB-139B	SB-139C	SB-139D	SB-140A	SB-140B	SB-140C	SB-141A	SB-141B	SB-141C
Start Depth (ft bgs)	6	18	0	5	17	12	0	4	14	0	5	15	0	6	13	17	0	15	17	0	5	18
End Depth (ft bgs)	8	20	1	8	20	15	1	5	16	2	8	17	2	8	15	18	2	17	19	2	7	20
Sample Date	10/18/2018	10/18/2018	10/17/2018	10/17/2018	10/17/2018	10/17/2018	10/17/2018	10/17/2018	10/17/2018	10/17/2018	10/17/2018	10/17/2018	10/18/2018	10/18/2018	10/18/2018	10/18/2018	10/18/2018	10/18/2018	10/18/2018	10/18/2018	10/18/2018	10/18/2018
SW8270D																						
1,1'-Biphenyl	< 410 U	< 59 U	< 59 U	< 380 U	< 140 U	< 390 U	< 67 U	< 59 U	< 110 U	22 UJ	< 65 UJ	< 180 U	< 59 U	< 360 U	< 140 U	< 59 U	42 UJ	< 99 U	< 81 U	42 UJ	< 400 U	< 88 U
2,4,5-Trichlorophenol	< 1200 U	< 180 U	< 180 U	< 1100 U	< 430 U	< 1200 U	< 200 U	< 180 U	< 340 U	< 190 UJ	< 200 UJ	< 550 U	< 180 U	< 1100 U	< 410 U	< 180 U	< 180 U	< 300 U	< 240 U	< 180 U	< 1200 U	< 260 U
2,4,6-Trichlorophenol	< 1200 U	< 180 U	< 180 U	< 1100 U	< 430 U	< 1200 U	< 200 U	< 180 U	< 340 U	< 190 UJ	< 200 UJ	< 550 U	< 180 U	< 1100 U	< 410 U	< 180 U	< 180 U	< 300 U	< 240 U	< 180 U	< 1200 U	< 260 U
2,4-Dichlorophenol	< 1200 U	< 180 U	< 180 U	< 1100 U	< 430 U	< 1200 U	< 200 U	< 180 U	< 340 U	< 190 UJ	< 200 UJ	< 550 U	< 180 U	< 1100 U	< 410 U	< 180 U	< 180 U	< 300 U	< 240 U	< 180 U	< 1200 U	< 260 U
2,4-Dimethylphenol	< 1200 U	< 180 U	< 180 U	< 1100 U	< 430 U	< 1200 U	< 200 U	< 180 U	< 340 U	< 190 UJ	< 200 UJ	< 550 U	< 180 U	< 1100 U	< 410 U	< 180 UJ	< 180 UJ	< 300 UJ	< 240 UJ	< 180 UJ	< 1200 UJ	< 260 UJ
2,4-Dinitrophenol	< 2700 U	< 390 U	< 390 U	< 2500 U	< 940 U	< 2600 U	< 440 UJ	< 390 UJ	< 740 UJ	< 410 UJ	< 430 UJ	< 1200 UJ	< 390 U	< 2300 U	< 900 U	< 390 U	< 400 U	< 650 U	< 530 U	< 390 U	< 2600 U	< 580 U
2,4-Dinitrotoluene	< 1600 U	< 240 U	< 230 U	< 1500 U	< 570 U	< 1600 U	< 270 U	< 240 U	< 450 U	< 250 UJ	< 260 UJ	< 730 U	< 240 U	< 1400 U	< 550 U	< 240 U	< 240 U	< 390 U	< 320 U	< 240 U	< 1600 U	< 350 U
2,6-Dinitrotoluene	< 1600 U	< 240 U	< 230 U	< 1500 U	< 570 U	< 1600 U	< 270 U	< 240 U	< 450 U	< 250 UJ	< 260 UJ	< 730 U	< 240 U	< 1400 U	< 550 U	< 240 U	< 240 U	< 390 U	< 320 U	< 240 U	< 1600 U	< 350 U
2-Chloronaphthalene	< 410 U	< 59 U	< 59 U	< 380 U	< 140 U	< 390 U	< 67 U	< 59 U	< 110 U	< 62 UJ	< 65 UJ	< 180 U	< 59 U	< 360 U	< 140 U	< 59 U	< 60 U	< 99 U	< 81 U	< 59 U	< 400 U	< 88 U
2-Chlorophenol	< 410 U	< 59 U	< 59 U	< 380 U	< 140 U	< 390 U	< 67 U	< 59 U	< 110 U	< 62 UJ	< 65 UJ	< 180 U	< 59 U	< 360 U	< 140 U	< 59 U	< 60 U	< 99 U	< 81 U	< 59 U	< 400 U	< 88 U
2-Methylnaphthalene	< 120 U	< 18 U	100	< 110 U	< 43 U	< 120 U	30	4.7 UJ	11 UJ	110 J	< 20 UJ	< 55 U	< 18 U	< 110 U	< 41 U	< 18 U	400	30	< 24 U	280	< 120 U	< 26 U
2-Methylphenol	< 1600 U	< 240 U	< 230 U	< 1500 U	< 570 U	< 1600 U	< 270 U	< 240 U	< 450 U	< 250 UJ	< 260 UJ	< 730 U	< 240 U	< 1400 U	< 550 U	< 240 U	< 240 U	< 390 U	< 320 U	< 240 U	< 1600 U	< 350 U
2-Nitroaniline	< 1600 U	< 240 U	< 230 U	< 1500 U	< 570 U	< 1600 U	< 270 U	< 240 U	< 450 U	< 250 UJ	< 260 UJ	< 730 U	< 240 UJ	< 1400 U	< 550 U	< 240 U	< 240 U	< 390 U	< 320 U	< 240 U	< 1600 U	< 350 U
2-Nitrophenol	< 410 U	< 59 U	< 59 U	< 380 U	< 140 U	< 390 U	< 67 U	< 59 U	< 110 U	< 62 UJ	< 65 UJ	< 180 U	< 59 U	< 360 U	< 140 U	< 59 U	< 60 U	< 99 U	< 81 U	< 59 U	< 400 U	< 88 U
3 & 4 Methylphenol	< 3300 U	< 480 U	< 470 U	< 3000 U	< 1100 U	< 3100 U	< 540 U	< 470 U	370 UJ	< 490 UJ	< 520 UJ	< 1500 U	< 480 U	< 2800 U	< 1100 U	< 470 U	< 480 U	61 UJ	< 650 U	< 470 U	< 3200 U	< 700 U
3,3'-Dichlorobenzidine	< 820 U	< 120 U	< 120 U	< 760 U	< 290 U	< 780 U	< 130 U	< 120 U	< 220 U	< 120 UJ	< 130 UJ	< 360 U	< 120 U	< 710 U	< 270 U	< 120 UJ	< 120 UJ	< 200 UJ	< 160 UJ	< 120 UJ	< 790 UJ	< 180 UJ
3-Nitroaniline	< 1600 U	< 240 U	< 230 U	< 1500 U	< 570 U	< 1600 U	< 270 U	< 240 U	< 450 U	< 250 UJ	< 260 UJ	< 730 U	< 240 U	< 1400 U	< 550 U	< 240 UJ	< 240 UJ	< 390 UJ	< 320 UJ	< 240 UJ	< 1600 UJ	< 350 UJ
4,6-Dinitro-2-methylphenol	< 2700 U	< 390 U	< 390 U	< 2500 U	< 940 U	< 2600 U	< 440 UJ	< 390 UJ	< 740 UJ	< 410 UJ	< 430 UJ	< 1200 UJ	< 390 U	< 2300 U	< 900 U	< 390 U	< 400 U	< 650 U	< 530 U	< 390 U	< 2600 U	< 580 U
4-Bromophenyl phenyl ether	< 410 U	< 59 U	< 59 U	< 380 U	< 140 U	< 390 U	< 67 U	< 59 U	< 110 U	< 62 UJ	< 65 UJ	< 180 U	< 59 U	< 360 U	< 140 U	< 59 U	< 60 U	< 99 U	< 81 U	< 59 U	< 400 U	< 88 U
4-Chloro-3-methylphenol	< 1200 UJ	< 180 UJ	< 180 U	< 1100 U	< 430 U	< 1200 U	< 200 U	< 180 U	< 340 U	< 190 UJ	< 200 UJ	< 550 U	< 180 UJ	< 1100 UJ	< 410 UJ	< 180 U	< 180 U	< 300 U	< 240 U	< 180 U	< 1200 U	< 260 U
4-Chloroaniline	< 1200 U	< 180 U	< 180 U	< 1100 U	< 430 U	< 1200 U	< 200 U	< 180 U	< 340 U	< 190 UJ	< 200 UJ	< 550 U	< 180 U	< 1100 U	< 410 U	< 180 UJ	< 180 UJ	< 300 UJ	< 240 UJ	< 180 UJ	< 1200 UJ	< 260 UJ
4-Chlorophenyl phenyl ether	< 410 U	< 59 U	< 59 U	< 380 U	< 140 U	< 390 U	< 67 U	< 59 U	< 110 U	< 62 UJ	< 65 UJ	< 180 U	< 59 U	< 360 U	< 140 U	< 59 U	< 60 U	< 99 U	< 81 U	< 59 U	< 400 U	< 88 U
4-Methylphenol	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitroaniline	< 1600 U	< 240 U	< 230 U	< 1500 U	< 570 U	< 1600 U	< 270 U	< 240 U	< 450 U	< 250 UJ	< 260 UJ	< 730 U	< 240 U	< 1400 U	< 550 U	< 240 UJ	< 240 UJ	< 390 UJ	< 320 UJ	< 240 UJ	< 1600 UJ	< 350 UJ
4-Nitrophenol	< 2700 U	< 390 U	< 390 U	< 2500 U	< 940 U	< 2600 U	< 440 U	< 390 U	< 740 U	< 410 UJ	< 430 UJ	< 1200 U	< 390 UJ	< 2300 U	< 900 U	< 390 U	< 400 U	< 650 U	< 530 U	< 390 U	< 2600 U	< 580 U
Acenaphthene	< 120 U	< 18 U	39	< 110 U	< 43 U	< 120 U	< 20 U	< 18 U	< 34 U	7.1 UJ	< 20 UJ	< 55 U	< 18 U	< 110 U	< 41 U	< 18 U	28	< 30 U	< 24 U	41	< 120 U	< 26 U
Acenaphthylene	< 120 U	< 18 U	43	< 110 U	< 43 U	< 120 U	< 20 U	< 18 U	< 34 U	11 UJ	< 20 UJ	< 55 U	< 18 U	< 110 U	< 41 U	< 18 U	66	< 30 U	< 24 U	140	< 120 U	< 26 U
Acetophenone	< 820 U	< 120 U	< 120 U	< 760 U	< 290 U	< 780 U	< 130 U	< 120 U	66 UJ	15 UJ	< 130 UJ	< 360 U	< 120 U	< 710 U	< 270 U	< 120 U	40 UJ	< 200 U	< 160 U	24 UJ	< 790 U	< 180 U
Anthracene	< 120 U	< 18 U	100	< 110 U	< 43 U	< 120 U	< 20 U	< 18 U	< 34 U	18 UJ	< 20 UJ	< 55 U	< 18 U	< 110 U	< 41 U	< 18 U	75	12 UJ	< 24 U	180	< 120 U	< 26 U
Atrazine	< 1600 U	< 240 U	< 230 U	< 1500 U	< 570 U	< 1600 U	< 270 U	< 240 U	< 450 U	< 250 UJ	< 260 UJ	< 730 U	< 240 U	< 1400 U	< 550 U	< 240 U	< 240 U	< 390 U	< 320 U	< 240 U	< 1600 U	< 350 U
Benzaldehyde	< 820 U	< 120 U	< 120 U	< 760 U	100 UJ	< 780 U	< 130 U	< 120 U	< 220 U	43 UJ	< 130 UJ	230 UJ	< 120 UJ	< 710 U	< 270 U	< 120 UJ	47 UJ	52 UJ	< 160 UJ	74 UJ	< 790 UJ	< 180 UJ
Benzo(b)fluoranthene	< 120 U	< 18 U	450	< 110 U	< 43 U	< 120 U	33	< 18 U	21 UJ	110 J	< 20 UJ	< 55 U	< 18 U	< 110 U	< 41 U	< 18 U	590	43	< 24 U	**1200**	< 120 U	< 26 U
Benzo[a]anthracene	< 120 U	< 18 U	350	< 110 U	< 43 U	< 120 U	13 UJ	< 18 U	< 34 U	76 J	< 20 UJ	< 55 U	< 18 U	< 110 U	< 41 U	< 18 U	260	21 UJ	< 24 U	590	< 120 U	< 26 U
Benzo[a]pyrene	< 120 U	< 18 U	310	< 110 U	< 43 U	< 120 U	13 UJ	< 18 U	< 34 U	72 J	< 20 UJ	< 55 U	< 18 U	< 110 U	< 41 U	< 18 U	300	< 30 U	< 24 U	670	< 120 U	< 26 U
Benzo[g,h,i]perylene	< 120 U	< 18 U	130	< 110 U	< 43 U	< 120 U	< 20 U	< 18 U	< 34 U	44 J	< 20 UJ	< 55 U	< 18 U	< 110 U	< 41 U	< 18 U	200	25 UJ	< 24 U	390	< 120 U	< 26 U
Benzo[k]fluoranthene	< 120 U	< 18 U	160	< 110 U	< 43 U	< 120 U	< 20 U	< 18 U	< 34 U	41 J	< 20 UJ	< 55 U	< 18 U	< 110 U	< 41 U	< 18 U	200	14 UJ	< 24 U	420	< 120 U	< 26 U
bis (2-chloroisopropyl) ether	< 820 U	< 120 U	< 120 U	< 760 U	< 290 U	< 780 U	< 130 U	< 120 U	< 220 U	< 120 UJ	< 130 UJ	< 360 U	< 120 UJ	< 710 U	< 270 U	< 120 UJ	< 120 UJ	< 200 UJ	< 160 UJ	< 120 UJ	< 790 UJ	< 180 UJ
bis(2-Chloroethoxy)methane	< 820 U	< 120 U	< 120 U	< 760 U	< 290 U	< 780 U	< 130 U	< 120 U	< 220 U	< 120 UJ	< 130 UJ	< 360 U	< 120 U	< 710 U	< 270 U	< 120 U	< 120 U	< 200 U	< 160 U	< 120 U	< 790 U	< 180 U
bis(2-Chloroethyl) ether	< 820 U	< 120 U	< 120 U	< 760 U	< 290 U	< 780 U	< 130 U	< 120 U	< 220 U	< 120 UJ	< 130 UJ	< 360 U	< 120 U	< 710 U	< 270 U	< 120 UJ	< 120 UJ	< 200 UJ	< 160 UJ	< 120 UJ	< 790 UJ	< 180 UJ
bis(2-Ethylhexyl) phthalate	< 580 U	< 83 U	< 82 U	680	< 200 U	< 540 U	< 94 U	< 83 U	< 160 U	< 86 UJ	< 92 UJ	< 250 U	< 83 U	< 500 U	< 190 U	< 83 U	< 84 U	< 140 U	< 110 U	< 83 U	< 550 U	< 120 U
Butyl benzyl phthalate	< 580 U	< 83 U	< 82 U	< 530 U	< 200 U	< 540 U	< 94 U	< 83 U	< 160 U	< 86 UJ	< 92 UJ	< 250 U	< 83 U	< 500 U	< 190 U	< 83 U	< 84 U	< 140 U	< 110 U	< 83 U	< 550 U	< 120 U
Caprolactam	< 2700 U	< 390 U	< 390 U	< 2500 U	< 940 U	< 2600 U	< 440 U	< 390 U	< 740 U	< 410 UJ	< 430 UJ	< 1200 U	< 390 U	< 2300 U	< 900 U	< 390 U	< 400 U	< 650 U	< 530 U	< 390 U	< 2600 U	< 580 U
Carbazole	< 410 U	< 59 U	56 UJ	< 380 U	< 140 U	< 390 U	< 67 U	< 59 U	< 110 U	< 62 UJ	< 65 UJ	< 180 U	< 59 U	< 360 U	< 140 U	< 59 U	37 UJ	< 99 U	< 81 U	63	< 400 U	< 88 U
Chrysene	< 120 U	< 18 U	410	< 110 U	< 43 U	< 120 U	30	< 18 U	17 UJ	120 J	< 20 UJ	< 55 U	< 18 U	< 110 U	< 41 U	8.1 UJ	360	31	< 24 U	720	< 120 U	< 26 U
Dibenz[a,h]anthracene	< 120 U	< 18 U	48	< 110 U	< 43 U	< 120 U	< 20 U	< 18 U	< 34 U	17 UJ	< 20 UJ	< 55 U	< 18 U	< 110 U	< 41 U	< 18 U	< 18 U	< 30 U	< 24 U	< 18 U	< 120 U	< 26 U
Dibenzofuran	< 410 U	< 59 U	50 UJ	< 380 U	< 140 U	< 390 U	< 67 U	< 59 U	< 110 U	39 UJ	< 65 UJ	< 180 U	< 59 U	< 360 U	< 140 U	< 59 U	120	29 UJ	< 81 U	140	< 400 U	< 88 U
Diethyl phthalate	< 580 U	< 83 U	< 82 U	< 530 U	< 200 U	< 540 U	< 94 U	< 83 U	< 160 U	< 86 UJ	< 92 UJ	< 250 U	< 83 U	< 500 U	< 190 U	< 83 U	< 84 U	< 140 U	< 110 U	< 83 U	< 550 U	< 120 U
Dimethyl phthalate	< 580 U	< 83 U	< 82 U	< 530 U	< 200 U	< 540 U	< 94 U	< 83 U	< 160 U	< 86 UJ	< 92 UJ	< 250 U	< 83 U	< 500 U	< 190 U	< 83 U	< 84 U	< 140 U	< 110 U	< 83 U	< 550 U	< 120 U
Di-n-butyl phthalate	< 580 U	< 83 U	< 82 U	< 530 U	< 200 U	< 540 U	< 94 U	< 83 U	< 160 U	< 86 UJ	< 92 UJ	< 250 U	< 83 U	< 500 U	< 190 U	< 83 U	< 84 U	< 140 U	< 110 U	< 83 U	< 550 U	< 120 U
Di-n-octyl phthalate	< 580 U	< 83 U	< 82 U	< 530 U	< 200 U	< 540 U	< 94 U	< 83 U	< 160 U	< 86 UJ	< 92 UJ	< 250 U	< 83 U	< 500 U	< 190 U	< 83 U	< 84 U	< 140 U	< 110 U	< 83 U	< 550 U	< 120 U
Fluoranthene	< 120 U	< 18 U	710	< 110 U	20 UJ	< 120 U	28	11 UJ	< 34 U	140 J	< 20 UJ	< 55 U	< 18 U	< 110 U	13 UJ	< 18 U	330	82	< 24 U	910	< 120 U	< 26 U
Fluorene	< 120 U	< 18 U	45	< 110 U	< 43 U	< 120 U	< 20 U	< 18 U	< 34 U	< 19 UJ	< 20 UJ	< 55 U	< 18 U	< 110 U	< 41 U	< 18 U	27	14 UJ	< 24 U	56	< 120 U	< 26 U
Hexachlorobenzene	< 120 U	< 18 U	< 18 U	< 110 U	< 43 U	< 120 U	< 20 U	< 18 U	< 34 U	< 19 UJ	< 20 UJ	< 55 U	< 18 U	< 110 U	< 41 U	< 18 UJ	< 18 UJ	< 30 UJ	< 24 UJ	< 18 UJ	< 120 UJ	< 26 UJ
Hexachlorobutadiene	< 410 U	< 59 U	< 59 U	< 380 U	< 140 U	< 390 U	< 67 U	< 59 U	< 110 U	< 62 UJ	< 65 UJ	< 180 U	< 59 U	< 360 U	< 140 U	< 59 U	< 60 U	< 99 U	< 81 U	< 59 U	< 400 U	< 88 U
Hexachlorocyclopentadiene	< 2700 UJ	< 390 UJ	< 390 U	< 2500 U	< 940 U	< 2600 U	< 440 UJ	< 390 UJ	< 740 UJ	< 410 UJ	< 430 UJ	< 1200 UJ	< 390 UJ	< 2300 UJ	< 900 UJ	< 390 UJ	< 400 UJ	< 650 UJ	< 530 UJ	< 390 UJ	< 2600 UJ	< 580 UJ
Hexachloroethane	< 410 UJ	< 59 UJ	< 59 U	< 380 U	< 140 U	< 390 U	< 67 U	< 59 U	< 110 U	< 62 UJ	< 65 UJ	< 180 U	< 59 UJ	< 360 UJ	< 140 UJ	< 59 UJ	< 60 UJ	< 99 UJ	< 81 UJ	< 59 UJ	< 400 UJ	< 88 UJ
Indeno[1,2,3-cd]pyrene	< 120 U	< 18 U	120	< 110 U	< 43 U	< 120 U	< 20 U	< 18 U	< 34 U	43 J	< 20 UJ	< 55 U	< 18 U	< 110 U	< 41 U	< 18 U	190	20 UJ	< 24 U	400	< 120 U	< 26 U
Isophorone	< 410 U	< 59 U	< 59 U	< 380 U	< 140 U	< 390 U	< 67 U	< 59 U	< 110 U	< 62 UJ	< 65 UJ	< 180 U	< 59 U	< 360 U	< 140 U	< 59 U	< 60 U	< 99 U	< 81 U	< 59 U	< 400 U	< 88 U
Naphthalene	< 120 U	< 18 U	89	< 110 U	< 43 U	< 120 U	22	14 UJ	19 UJ	82 J	< 20 UJ	< 55 U	16 UJ	< 110 U	< 41 U	< 18 U	240	36	< 24 U	310	< 120 U	< 26 U
Nitrobenzene	< 820 U	< 120 U	< 120 U	< 760 U	< 290 U	< 780 U	< 130 U	< 120 U	< 220 U	< 120 UJ	< 130 UJ	< 360 U	< 120 UJ	< 710 U	< 270 U	< 120 U	< 120 U	< 200 U	< 160 U	< 120 U	< 790 U	< 180 U
N-Nitrosodi-n-propylamine	< 410 U	< 59 U	< 59 U	< 380 U	< 140 U	< 390 U	< 67 U	< 59 U	< 110 U	< 62 UJ	< 65 UJ	< 180 U	< 59 U	< 360 U	< 140 U	< 59 U	< 60 U	< 99 U	< 81 U	< 59 U	< 400 U	< 88 U
N-Nitrosodiphenylamine	< 410 U	< 59 U	< 59 U	< 380 U	< 140 U	< 390 U	< 67 U	< 59 U	< 110 U	< 62 UJ	< 65 UJ	< 180 U	< 59 U	< 360 U	< 140 U	< 59 U	< 60 U	< 99 U	< 81 U	< 59 U	< 400 U	< 88 U
Pentachlorophenol	< 1200 U	< 180 U	< 180 U	< 1100 U	< 430 U	< 1200 U	< 200 U	< 180 U	< 340 U	< 190 UJ	< 200 UJ	< 550 U	< 180 U	< 1100 U	< 410 U	< 180 U	< 180 U	< 300 U	< 240 U	< 180 U	< 1200 U	< 260 U
Phenanthrene	< 120 U	4.0 UJ	470	< 110 U	< 43 U	< 120 U	29	28	24 UJ	150 J	< 20 UJ	< 55 U	< 18 U	< 110 U	< 41 U	< 18 U	350	54	< 24 U	410	< 120 U	< 26 U
Phenol	< 410 U	< 59 U	< 59 U	< 380 U	39 UJ	< 390 U	< 67 U	< 59 U	270	< 62 UJ	< 65 UJ	< 180 U	< 59 U	< 360 U	< 140 U	< 59 U	< 60 U	< 99 U	< 81 U	< 59 U	< 400 U	< 88 U
Pyrene	< 120 U	7.6 UJ	610	< 110 U	12 UJ	< 120 U	21	7.4 UJ	15 UJ	110 J	< 20 UJ	< 55 U	< 18 U	< 110 U	< 41 U	< 18 U	330	52	< 24 U	810	< 120 U	< 26 U

Notes:

ft bgs = feet below ground surface

mg/kg = milligrams per kilogram

µg/kg = micrograms per kilogram

6 NYCRR Part 375 SCO = Title 6 Official Compilation of New York Codes, Rules and Regulations Part 375 Soil Cleanup Objectives

- = no SCO established

NA = not applicable/analyzed

Qualifiers:

U = Analyte analyzed for, but not detected above the sample's reported quantitation limit

J = Analyte positively identified at a numerical value that is the approximate concentration of the analyte in the sample

J+ = Sample likely to have a high bias

J- = Sample likely to have a low bias

UJ = Analyte not detected above the sample quantitation limit; the associated quantitation limit is approximate and may or may not represent the actual limit of quantitation necessary to accurately and precisely measure the analyte in the sample

N = The analysis indicates the present of an analyte for which there is presumptive evidence to make a "tentative identification."

NJ = The analysis indicates the presence of an analyte that has been "tentatively identified" and the associated numerical value represents its approximate oncentration.

R = Sample result rejected due to serious deficiency in ability to analyze sample and meet quality control criteria; the presence or absence of the analyte cannot be confirmed. This qualifier also may apply when more than one sample result is generated for a target analyte (i.e., dilutions or re-analyses), the most technically acceptable result is considered acceptable.

B/EB/TB/BB = An analyte identified in method blank (B), aqueous equipment (EB), trip (TB), or bottle blanks (BB) used to assess field contamination associated with soil or sediment samples mandates these qualifiers for only soil and sediment sample results.

P = Use professional judgment based on data use. It usually has an "M" with it, which indicates that a manual check should be made if the data that are qualified with the "P" are important to the data user. In addition, "PM" also means a decision is necessary from the Project Manager (or a delegate) concerning the need for further review of the data (see below).

PM = A manual review of the raw data is recommended to determine if the defect affects data use, as in "R" above. This review should include consideration of potential affects that could result from using the "P" qualified data. For example, in the case of holding-time exceedance, the Project Manager or delegate can decide to use the data with no qualification when analytes of interest are known not to be adversely affected by holding-time exceedances. Another example is the case where soil sample duplicate analyses for metals exceed the precision criteria; because this is likely due to sample non-homogeneity rather than contract laboratory error, then the manager or delegate must decide how to use the data.

Table 1
Soil Analytical Data

Analyte	Units	6 NYCRR PART 375 UNRESTRICTED USE SCO	6 NYCRR PART 375 COMMERCIAL USE SCO	SB-142A	SB-142B	SB-142C	SB-143A	SB-143B	SB-143C	SB-144A	SB-144B	SB-144C	SB-145A
Start Depth (ft bgs)				0	8	15	0	8	13	0	7	15	0
End Depth (ft bgs)				1	10	16	1	10	15	2	9	17	1
Sample Date				10/19/2018	10/19/2018	10/19/2018	10/19/2018	10/19/2018	10/19/2018	10/19/2018	10/19/2018	10/19/2018	10/19/2018
SW8270D													
1,1'-Biphenyl	ug/kg	-	-	25 UJ	< 370 U	< 94 U	< 59 U	< 350 U	< 140 U	< 63 U	< 140 U	< 190 U	< 56 U
2,4,5-Trichlorophenol	ug/kg	-	-	< 200 U	< 1100 U	< 280 U	< 180 U	< 1000 U	< 430 U	< 190 U	< 430 U	< 570 U	< 170 U
2,4,6-Trichlorophenol	ug/kg	-	-	< 200 U	< 1100 U	< 280 U	< 180 U	< 1000 U	< 430 U	< 190 U	< 430 U	< 570 U	< 170 U
2,4-Dichlorophenol	ug/kg	-	-	< 200 U	< 1100 U	< 280 U	< 180 U	< 1000 U	< 430 U	< 190 U	< 430 U	< 570 U	< 170 U
2,4-Dimethylphenol	ug/kg	-	-	< 200 U	< 1100 U	< 280 U	< 180 U	< 1000 U	< 430 U	< 190 U	< 430 U	< 570 U	< 170 U
2,4-Dinitrophenol	ug/kg	-	-	< 440 U	< 2400 U	< 620 U	< 390 U	< 2300 U	< 940 U	< 420 U	< 940 U	< 1300 U	< 370 U
2,4-Dinitrotoluene	ug/kg	-	-	< 270 U	< 1500 U	< 380 U	< 240 U	< 1400 U	< 570 U	< 250 U	< 570 U	< 760 U	< 220 U
2,6-Dinitrotoluene	ug/kg	-	-	< 270 U	< 1500 U	< 380 U	< 240 U	< 1400 U	< 570 U	< 250 U	< 570 U	< 760 U	< 220 U
2-Chloronaphthalene	ug/kg	-	-	< 67 U	< 370 U	< 94 U	< 59 U	< 350 U	< 140 U	< 63 U	< 140 U	< 190 U	< 56 U
2-Chlorophenol	ug/kg	-	-	< 67 U	< 370 U	< 94 U	< 59 U	< 350 U	< 140 U	< 63 U	< 140 U	< 190 U	< 56 U
2-Methylnaphthalene	ug/kg	-	-	240	< 110 U	< 28 U	170	< 100 U	< 43 U	25	130	19 UJ	9.8 UJ
2-Methylphenol	ug/kg	330	500000	< 270 U	< 1500 U	< 380 U	< 240 U	< 1400 U	< 570 U	< 250 U	< 570 U	< 760 U	< 220 U
2-Nitroaniline	ug/kg	-	-	< 270 U	< 1500 U	< 380 U	< 240 U	< 1400 U	< 570 U	< 250 U	< 570 U	< 760 U	< 220 U
2-Nitrophenol	ug/kg	-	-	< 67 U	< 370 U	< 94 U	< 59 U	< 350 U	< 140 U	< 63 U	< 140 U	< 190 U	< 56 U
3 & 4 Methylphenol	ug/kg	-	-	56 UJ	< 3000 U	< 750 U	< 470 U	< 2800 U	2100	< 510 U	< 1100 U	180 UJ	< 440 U
3,3'-Dichlorobenzidine	ug/kg	-	-	< 130 UJ	< 740 U	< 190 U	< 120 U	< 700 U	< 280 U	< 130 U	< 280 U	< 380 U	< 110 U
3-Nitroaniline	ug/kg	-	-	< 270 UJ	< 1500 U	< 380 U	< 240 U	< 1400 U	< 570 U	< 250 U	< 570 U	< 760 U	< 220 U
4,6-Dinitro-2-methylphenol	ug/kg	-	-	< 440 U	< 2400 U	< 620 U	< 390 U	< 2300 U	< 940 U	< 420 U	< 940 U	< 1300 U	< 370 U
4-Bromophenyl phenyl ether	ug/kg	-	-	< 67 U	< 370 U	< 94 U	< 59 U	< 350 U	< 140 U	< 63 U	< 140 U	< 190 U	< 56 U
4-Chloro-3-methylphenol	ug/kg	-	-	< 200 U	< 1100 U	< 280 U	< 180 U	< 1000 U	< 430 U	< 190 U	< 430 U	< 570 U	< 170 U
4-Chloroaniline	ug/kg	-	-	< 200 U	< 1100 U	< 280 U	< 180 U	< 1000 U	< 430 U	< 190 U	< 430 U	< 570 U	< 170 U
4-Chlorophenyl phenyl ether	ug/kg	-	-	< 67 U	< 370 U	< 94 U	< 59 U	< 350 U	< 140 U	< 63 U	< 140 U	< 190 U	< 56 U
4-Methylphenol	ug/kg	330	500000	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitroaniline	ug/kg	-	-	< 270 UJ	< 1500 U	< 380 U	< 240 U	< 1400 U	< 570 U	< 250 U	< 570 U	< 760 U	< 220 U
4-Nitrophenol	ug/kg	-	-	< 440 U	< 2400 U	< 620 U	< 390 U	< 2300 U	< 940 U	< 420 U	< 940 U	< 1300 U	< 370 U
Acenaphthene	ug/kg	20000	500000	17 UJ	< 110 U	< 28 U	< 18 U	< 100 U	< 43 U	7.4 UJ	31 UJ	< 57 U	< 17 U
Acenaphthylene	ug/kg	100000	500000	42	< 110 U	< 28 U	22	< 100 U	< 43 U	14 UJ	< 43 U	< 57 U	5.6 UJ
Acetophenone	ug/kg	-	-	< 130 U	< 740 U	< 190 U	< 120 U	< 700 U	< 280 U	< 130 U	< 280 U	< 380 U	< 110 U
Anthracene	ug/kg	100000	500000	54	< 110 U	< 28 U	34	< 100 U	< 43 U	28	39 UJ	< 57 U	18
Atrazine	ug/kg	-	-	< 270 U	< 1500 U	< 380 U	< 240 U	< 1400 U	< 570 U	< 250 U	< 570 U	< 760 U	< 220 U
Benzaldehyde	ug/kg	-	-	68 UJ	< 740 U	< 190 U	53 UJ	< 700 U	< 280 U	< 130 U	< 280 U	260 UJ	< 110 U
Benzo(b)fluoranthene	ug/kg	**1000**	5600	400	< 110 U	< 28 U	170	< 100 U	< 43 U	120	88	36 UJ	76
Benzo[a]anthracene	ug/kg	**1000**	5600	240	< 110 U	< 28 U	130	< 100 U	< 43 U	97	98	< 57 U	85
Benzo[a]pyrene	ug/kg	**1000**	1000	270	< 110 U	< 28 U	120	< 100 U	< 43 U	89	72	< 57 U	68
Benzo[g,h,i]perylene	ug/kg	100000	500000	190	< 110 U	< 28 U	81	< 100 U	< 43 U	45	35 UJ	< 57 U	37
Benzo[k]fluoranthene	ug/kg	**800**	56000	140	< 110 U	< 28 U	65	< 100 U	< 43 U	37	42 UJ	< 57 U	25
bis (2-chloroisopropyl) ether	ug/kg	-	-	< 130 U	< 740 U	< 190 U	< 120 U	< 700 U	< 280 U	< 130 U	< 280 U	< 380 U	< 110 U
bis(2-Chloroethoxy)methane	ug/kg	-	-	< 130 U	< 740 U	< 190 U	< 120 U	< 700 U	< 280 U	< 130 U	< 280 U	< 380 U	< 110 U
bis(2-Chloroethyl) ether	ug/kg	-	-	< 130 U	< 740 U	< 190 U	< 120 U	< 700 U	< 280 U	< 130 U	< 280 U	< 380 U	< 110 U
bis(2-Ethylhexyl) phthalate	ug/kg	-	-	71 UJ	< 520 U	< 130 U	< 82 U	< 490 U	< 200 U	< 88 U	< 200 U	< 270 U	< 78 U
Butyl benzyl phthalate	ug/kg	-	-	< 94 U	< 520 U	< 130 U	< 82 U	< 490 U	< 200 U	< 88 U	< 200 U	< 270 U	< 78 U
Caprolactam	ug/kg	-	-	< 440 U	< 2400 U	< 620 U	< 390 U	< 2300 U	< 940 U	< 420 U	< 940 U	< 1300 U	< 370 U
Carbazole	ug/kg	-	-	35 UJ	< 370 U	< 94 U	< 59 U	< 350 U	< 140 U	< 63 U	< 140 U	< 190 U	< 56 U
Chrysene	ug/kg	**1000**	56000	310	< 110 U	< 28 U	150	< 100 U	< 43 U	93	99	< 57 U	87
Dibenz[a,h]anthracene	ug/kg	**330**	560	65	< 110 U	< 28 U	29	< 100 U	< 43 U	15 UJ	< 43 U	< 57 U	12 UJ
Dibenzofuran	ug/kg	7000	350000	95	< 370 U	< 94 U	55 UJ	< 350 U	< 140 U	< 63 U	< 140 U	< 190 U	< 56 U
Diethyl phthalate	ug/kg	-	-	< 94 U	< 520 U	< 130 U	< 82 U	< 490 U	< 200 U	< 88 U	< 200 U	< 270 U	< 78 U
Dimethyl phthalate	ug/kg	-	-	< 94 U	< 520 U	< 130 U	< 82 U	< 490 U	< 200 U	< 88 U	< 200 U	< 270 U	< 78 U
Di-n-butyl phthalate	ug/kg	-	-	< 94 U	< 520 U	< 130 U	< 82 U	< 490 U	< 200 U	< 88 U	< 200 U	< 270 U	< 78 U
Di-n-octyl phthalate	ug/kg	-	-	< 94 U	< 520 U	< 130 U	< 82 U	< 490 U	< 200 U	< 88 U	< 200 U	< 270 U	< 78 U
Fluoranthene	ug/kg	100000	500000	430	< 110 U	< 28 U	220	< 100 U	18 UJ	180	180	36 UJ	110
Fluorene	ug/kg	30000	500000	21	< 110 U	< 28 U	12 UJ	< 100 U	< 43 U	10 UJ	37 UJ	< 57 U	< 17 U
Hexachlorobenzene	ug/kg	330	6000	< 20 U	< 110 U	< 28 U	< 18 U	< 100 U	< 43 U	< 19 U	< 43 U	< 57 U	< 17 U
Hexachlorobutadiene	ug/kg	-	-	< 67 U	< 370 U	< 94 U	< 59 U	< 350 U	< 140 U	< 63 U	< 140 U	< 190 U	< 56 U
Hexachlorocyclopentadiene	ug/kg	-	-	< 440 UJ	< 2400 U	< 620 U	< 390 U	< 2300 U	< 940 U	< 420 U	< 940 U	< 1300 U	< 370 U
Hexachloroethane	ug/kg	-	-	< 67 U	< 370 U	< 94 U	< 59 U	< 350 U	< 140 U	< 63 U	< 140 U	< 190 U	< 56 U
Indeno[1,2,3-cd]pyrene	ug/kg	**500**	5600	180	< 110 U	< 28 U	77	< 100 U	< 43 U	45	33 UJ	< 57 U	31
Isophorone	ug/kg	-	-	< 67 U	< 370 U	< 94 U	< 59 U	< 350 U	< 140 U	< 63 U	< 140 U	< 190 U	< 56 U
Naphthalene	ug/kg	12000	500000	180	< 110 U	< 28 U	110	< 100 U	< 43 U	19	30 UJ	27 UJ	9.0 UJ
Nitrobenzene	ug/kg	-	-	< 130 U	< 740 U	< 190 U	< 120 U	< 700 U	< 280 U	< 130 U	< 280 U	< 380 U	< 110 U
N-Nitrosodi-n-propylamine	ug/kg	-	-	< 67 U	< 370 U	< 94 U	< 59 U	< 350 U	< 140 U	< 63 U	< 140 U	< 190 U	< 56 U
N-Nitrosodiphenylamine	ug/kg	-	-	< 67 U	< 370 U	< 94 U	< 59 U	< 350 U	< 140 U	< 63 U	< 140 U	< 190 U	< 56 U
Pentachlorophenol	ug/kg	800	6700	< 200 U	< 1100 U	< 280 U	< 180 U	< 1000 U	< 430 U	< 190 U	< 430 U	< 570 U	< 170 U
Phenanthrene	ug/kg	100000	500000	350	< 110 U	< 28 U	190	< 100 U	17 UJ	97	180	31 UJ	66
Phenol	ug/kg	**330**	500000	< 67 U	< 370 U	< 94 U	< 59 U	< 350 U	**880**	< 63 U	< 140 U	100 UJ	< 56 U
Pyrene	ug/kg	100000	500000	340	< 110 U	< 28 U	190	< 100 U	14 UJ	150	140	20 UJ	150

Analyte	SB-145B	SB-145C	SB-146-A	SB-146-B	SB-146-C	SB-147-A	SB-147-B	SB-147-C	SB-148-A	SB-148-B	SB-148-C	SB-148-D	SB-149-A
Start Depth (ft bgs)	10	18	0	2	13	0	5	16	0	4	15	12	0
End Depth (ft bgs)	12	20	2	5	15	1	7	17	1.5	5	17.5	14	1
Sample Date	10/19/2018	10/19/2018	10/23/2018	10/23/2018	10/23/2018	10/23/2018	10/23/2018	10/23/2018	10/23/2018	10/23/2018	10/23/2018	10/23/2018	10/23/2018
SW8270D													
1,1'-Biphenyl	< 400 U	< 97 U	< 220 UJ	< 210 UJ	< 540 UJ	< 210 UJ	< 170 UJ	< 390 UJ	< 210 UJ	< 200 UJ	< 480 UJ	< 210 UJ	< 930 UJ
2,4,5-Trichlorophenol	< 1200 U	< 290 U	< 220 UJ	< 210 UJ	< 540 UJ	< 210 UJ	< 170 UJ	< 390 UJ	< 210 UJ	< 200 UJ	< 480 UJ	< 210 UJ	< 930 UJ
2,4,6-Trichlorophenol	< 1200 U	< 290 U	< 220 UJ	< 210 UJ	< 540 UJ	< 210 UJ	< 170 UJ	< 390 UJ	< 210 UJ	< 200 UJ	< 480 UJ	< 210 UJ	< 930 UJ
2,4-Dichlorophenol	< 1200 U	< 290 U	< 220 UJ	< 210 UJ	< 540 UJ	< 210 UJ	< 170 UJ	< 390 UJ	< 210 UJ	< 200 UJ	< 480 UJ	< 210 UJ	< 930 UJ
2,4-Dimethylphenol	< 1200 U	< 290 U	< 220 UJ	< 210 UJ	< 540 UJ	< 210 UJ	< 170 UJ	< 390 UJ	< 210 UJ	< 200 UJ	< 480 UJ	< 210 UJ	< 930 UJ
2,4-Dinitrophenol	< 2600 U	< 640 U	< 2100 UJ	< 2100 UJ	< 5300 UJ	< 2100 UJ	< 1700 UJ	< 3800 UJ	< 2000 UJ	< 1900 UJ	< 4700 UJ	< 2100 UJ	< 9100 UJ
2,4-Dinitrotoluene	< 1600 U	< 390 U	< 220 UJ	< 210 UJ	< 540 UJ	< 210 UJ	< 170 UJ	< 390 UJ	< 210 UJ	< 200 UJ	< 480 UJ	< 210 UJ	< 930 UJ
2,6-Dinitrotoluene	< 1600 U	< 390 U	< 220 UJ	< 210 UJ	< 540 UJ	< 210 UJ	< 170 UJ	< 390 UJ	< 210 UJ	< 200 UJ	< 480 UJ	< 210 UJ	< 930 UJ
2-Chloronaphthalene	< 400 U	< 97 U	< 220 UJ	< 210 UJ	< 540 UJ	< 210 UJ	< 170 UJ	< 390 UJ	< 210 UJ	< 200 UJ	< 480 UJ	< 210 UJ	< 930 UJ
2-Chlorophenol	< 400 U	< 97 U	< 220 UJ	< 210 UJ	< 540 UJ	< 210 UJ	< 170 UJ	< 390 UJ	< 210 UJ	< 200 UJ	< 480 UJ	< 210 UJ	< 930 UJ
2-Methylnaphthalene	< 120 U	< 29 U	< 220 UJ	< 210 UJ	< 540 UJ	79 UJ	< 170 UJ	< 390 UJ	< 210 UJ	< 200 UJ	< 480 UJ	< 210 UJ	200 UJ
2-Methylphenol	< 1600 U	< 390 U	< 220 UJ	< 210 UJ	< 540 UJ	< 210 UJ	< 170 UJ	< 390 UJ	< 210 UJ	< 200 UJ	< 480 UJ	< 210 UJ	< 930 UJ
2-Nitroaniline	< 1600 U	< 390 U	< 420 UJ	< 410 UJ	< 1100 UJ	< 420 UJ	< 340 UJ	< 750 UJ	< 410 UJ	< 380 UJ	< 930 UJ	< 410 UJ	< 1800 UJ
2-Nitrophenol	< 400 U	< 97 U	< 220 UJ	< 210 UJ	< 540 UJ	< 210 UJ	< 170 UJ	< 390 UJ	< 210 UJ	< 200 UJ	< 480 UJ	< 210 UJ	< 930 UJ
3 & 4 Methylphenol	< 3200 U	< 770 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3,3'-Dichlorobenzidine	< 790 U	< 190 U	< 420 UJ	< 410 UJ	< 1100 UJ	< 420 UJ	< 340 UJ	< 750 UJ	< 410 UJ	< 380 UJ	< 930 UJ	< 410 UJ	< 1800 UJ
3-Nitroaniline	< 1600 U	< 390 U	< 420 UJ	< 410 UJ	< 1100 UJ	< 420 UJ	< 340 UJ	< 750 UJ	< 410 UJ	< 380 UJ	< 930 UJ	< 410 UJ	< 1800 UJ
4,6-Dinitro-2-methylphenol	< 2600 U	< 640 U	< 420 UJ	< 410 UJ	< 1100 UJ	< 420 UJ	< 340 UJ	< 750 UJ	< 410 UJ	< 380 UJ	< 930 UJ	< 410 UJ	< 1800 UJ
4-Bromophenyl phenyl ether	< 400 U	< 97 U	< 220 UJ	< 210 UJ	< 540 UJ	< 210 UJ	< 170 UJ	< 390 UJ	< 210 UJ	< 200 UJ	< 480 UJ	< 210 UJ	< 930 UJ
4-Chloro-3-methylphenol	< 1200 U	< 290 U	< 220 UJ	< 210 UJ	< 540 UJ	< 210 UJ	< 170 UJ	< 390 UJ	< 210 UJ	< 200 UJ	< 480 UJ	< 210 UJ	< 930 UJ
4-Chloroaniline	< 1200 U	< 290 U	< 220 UJ	< 210 UJ	< 540 UJ	< 210 UJ	< 170 UJ	< 390 UJ	< 210 UJ	< 200 UJ	< 480 UJ	< 210 UJ	< 930 UJ
4-Chlorophenyl phenyl ether	< 400 U	< 97 U	< 220 UJ	< 210 UJ	< 540 UJ	< 210 UJ	< 170 UJ	< 390 UJ	< 210 UJ	< 200 UJ	< 480 UJ	< 210 UJ	< 930 UJ
4-Methylphenol	NA	NA	< 420 UJ	< 410 UJ	< 1100 UJ	< 420 UJ	< 340 UJ	< 750 UJ	< 410 UJ	< 380 UJ	< 930 UJ	< 410 UJ	< 1800 UJ
4-Nitroaniline	< 1600 U	< 390 U	< 420 UJ	< 410 UJ	< 1100 UJ	< 420 UJ	< 340 UJ	< 750 UJ	< 410 UJ	< 380 UJ	< 930 UJ	< 410 UJ	< 1800 UJ
4-Nitrophenol	< 2600 U	< 640 U	< 420 UJ	< 410 UJ	< 1100 UJ	< 420 UJ	< 340 UJ	< 750 UJ	< 410 UJ	< 380 UJ	< 930 UJ	< 410 UJ	< 1800 UJ
Acenaphthene	< 120 U	< 29 U	< 220 UJ	< 210 UJ	< 540 UJ	36 UJ	< 170 UJ	< 390 UJ	< 210 UJ	< 200 UJ	< 480 UJ	< 210 UJ	440 UJ
Acenaphthylene	< 120 U	< 29 U	< 220 UJ	< 210 UJ	< 540 UJ	51 UJ	< 170 UJ	< 390 UJ	< 210 UJ	< 200 UJ	< 480 UJ	< 210 UJ	< 930 UJ
Acetophenone	< 790 U	< 190 U	< 220 UJ	< 210 UJ	73 UJ	< 210 UJ	< 170 UJ	< 390 UJ	< 210 UJ	< 200 UJ	< 480 UJ	< 210 UJ	< 930 UJ
Anthracene	< 120 U	< 29 U	< 220 UJ	< 210 UJ	< 540 UJ	100 UJ	< 170 UJ	< 390 UJ	< 210 UJ	< 200 UJ	< 480 UJ	< 210 UJ	880 UJ
Atrazine	< 1600 U	< 390 U	< 220 UJ	< 210 UJ	< 540 UJ	< 210 UJ	< 170 UJ	< 390 UJ	< 210 UJ	< 200 UJ	< 480 UJ	< 210 UJ	< 930 UJ
Benzaldehyde	< 790 U	< 190 U	< 220 UJ	< 210 UJ	< 540 UJ	< 210 UJ	< 170 UJ	< 390 UJ	< 210 UJ	< 200 UJ	< 480 UJ	< 210 UJ	< 930 UJ
Benzo(b)fluoranthene	< 120 U	< 29 U	< 220 UJ	< 210 UJ	< 540 UJ	630 J	44 UJ	< 390 UJ	110 UJ	< 200 UJ	< 480 UJ	< 210 UJ	970 J
Benzo[a]anthracene	< 120 U	< 29 U	< 220 UJ	< 210 UJ	< 540 UJ	440 J	32 UJ	< 390 UJ	72 UJ	< 200 UJ	< 480 UJ	< 210 UJ	**1200 J**
Benzo[a]pyrene	< 120 U	< 29 U	< 220 UJ	< 210 UJ	< 540 UJ	480 J	28 UJ	< 390 UJ	85 UJ	< 200 UJ	< 480 UJ	< 210 UJ	870 UJ
Benzo[g,h,i]perylene	< 120 U	< 29 U	< 220 UJ	< 210 UJ	< 540 UJ	350 J	24 UJ	< 390 UJ	65 UJ	< 200 UJ	< 480 UJ	< 210 UJ	380 UJ
Benzo[k]fluoranthene	< 120 U	< 29 U	< 220 UJ	< 210 UJ	< 540 UJ	260 J	< 170 UJ	< 390 UJ	51 UJ	< 200 UJ	< 480 UJ	< 210 UJ	620 UJ
bis (2-chloroisopropyl) ether	< 790 U	< 190 U	< 220 UJ	< 210 UJ	< 540 UJ	< 210 UJ	< 170 UJ	< 390 UJ	< 210 UJ	< 200 UJ	< 480 UJ	< 210 UJ	< 930 UJ
bis(2-Chloroethoxy)methane	< 790 U	< 190 U	< 220 UJ	< 210 UJ	< 540 UJ	< 210 UJ	< 170 UJ	< 390 UJ	< 210 UJ	< 200 UJ	< 480 UJ	< 210 UJ	< 930 UJ
bis(2-Chloroethyl) ether	< 790 U	< 190 U	< 220 UJ	< 210 UJ	< 540 UJ	< 210 UJ	< 170 UJ	< 390 UJ	< 210 UJ	< 200 UJ	< 480 UJ	< 210 UJ	< 930 UJ
bis(2-Ethylhexyl) phthalate	740	< 140 U	< 220 UJ	< 210 UJ	< 540 UJ	< 210 UJ	< 170 UJ	< 390 UJ	< 210 UJ	< 200 UJ	< 480 UJ	< 210 UJ	< 930 UJ
Butyl benzyl phthalate	< 560 U	< 140 U	< 220 UJ	< 210 UJ	< 540 UJ	< 210 UJ	< 170 UJ	< 390 UJ	< 210 UJ	< 200 UJ	< 480 UJ	< 210 UJ	< 930 UJ
Caprolactam	< 2600 U	< 640 U	< 220 UJ	< 210 UJ	< 540 UJ	< 210 UJ	< 170 UJ	< 390 UJ	< 210 UJ	< 200 UJ	< 480 UJ	< 210 UJ	< 930 UJ
Carbazole	< 400 U	< 97 U	< 220 UJ	< 210 UJ	< 540 UJ	46 UJ	< 170 UJ	< 390 UJ	< 210 UJ	< 200 UJ	< 480 UJ	< 210 UJ	280 UJ
Chrysene	< 120 U	< 29 U	< 220 UJ	< 210 UJ	< 540 UJ	530 J	46 UJ	< 390 UJ	80 UJ	< 200 UJ	< 480 UJ	< 210 UJ	**1200 J**
Dibenz[a,h]anthracene	< 120 U	< 29 U	< 220 UJ	< 210 UJ	< 540 UJ	< 210 UJ	< 170 UJ	< 390 UJ	< 210 UJ	< 200 UJ	< 480 UJ	< 210 UJ	< 930 UJ
Dibenzofuran	< 400 U	< 97 U	< 220 UJ	< 210 UJ	< 540 UJ	44 UJ	< 170 UJ	< 390 UJ	< 210 UJ	< 200 UJ	< 480 UJ	< 210 UJ	330 UJ
Diethyl phthalate	< 560 U	< 140 U	< 220 UJ	< 210 UJ	< 540 UJ	< 210 UJ	< 170 UJ	< 390 UJ	< 210 UJ	< 200 UJ	< 480 UJ	< 210 UJ	< 930 UJ
Dimethyl phthalate	< 560 U	< 140 U	< 220 UJ	< 210 UJ	< 540 UJ	< 210 UJ	< 170 UJ	< 390 UJ	< 210 UJ	< 200 UJ	< 480 UJ	< 210 UJ	< 930 UJ
Di-n-butyl phthalate	< 560 U	< 140 U	< 220 UJ	< 210 UJ	< 540 UJ	< 210 UJ	< 170 UJ	< 390 UJ	< 210 UJ	< 200 UJ	< 480 UJ	< 210 UJ	< 930 UJ
Di-n-octyl phthalate	< 560 U	< 140 U	< 220 UJ	< 210 UJ	< 540 UJ	< 210 UJ	< 170 UJ	< 390 UJ	< 210 UJ	< 200 UJ	< 480 UJ	< 210 UJ	< 930 UJ
Fluoranthene	< 120 U	< 29 U	< 220 UJ	< 210 UJ	< 540 UJ	650 J	40 UJ	< 390 UJ	100 UJ	< 200 UJ	< 480 UJ	< 210 UJ	2600 J
Fluorene	< 120 U	< 29 U	< 220 UJ	< 210 UJ	< 540 UJ	34 UJ	< 170 UJ	< 390 UJ	< 210 UJ	< 200 UJ	< 480 UJ	< 210 UJ	450 UJ
Hexachlorobenzene	< 120 U	< 29 U	< 220 UJ	< 210 UJ	< 540 UJ	< 210 UJ	< 170 UJ	< 390 UJ	< 210 UJ	< 200 UJ	< 480 UJ	< 210 UJ	< 930 UJ
Hexachlorobutadiene	< 400 U	< 97 U	< 220 UJ	< 210 UJ	< 540 UJ	< 210 UJ	< 170 UJ	< 390 UJ	< 210 UJ	< 200 UJ	< 480 UJ	< 210 UJ	< 930 UJ
Hexachlorocyclopentadiene	< 2600 U	< 640 U	< 220 UJ	< 210 UJ	< 540 UJ	< 210 UJ	< 170 UJ	< 390 UJ	< 210 UJ	< 200 UJ	< 480 UJ	< 210 UJ	< 930 UJ
Hexachloroethane	< 400 U	< 97 U	< 220 UJ	< 210 UJ	< 540 UJ	< 210 UJ	< 170 UJ	< 390 UJ	< 210 UJ	< 200 UJ	< 480 UJ	< 210 UJ	< 930 UJ
Indeno[1,2,3-cd]pyrene	< 120 U	< 29 U	< 220 UJ	< 210 UJ	< 540 UJ	300 J	< 170 UJ	< 390 UJ	53 UJ	< 200 UJ	< 480 UJ	< 210 UJ	380 UJ
Isophorone	< 400 U	< 97 U	< 220 UJ	< 210 UJ	< 540 UJ	< 210 UJ	< 170 UJ	< 390 UJ	< 210 UJ	< 200 UJ	< 480 UJ	< 210 UJ	< 930 UJ
Naphthalene	< 120 U	< 29 U	< 220 UJ	< 210 UJ	< 540 UJ	120 UJ	< 170 UJ	< 390 UJ	< 210 UJ	< 200 UJ	< 480 UJ	< 210 UJ	170 UJ
Nitrobenzene	< 790 U	< 190 U	< 220 UJ	< 210 UJ	< 540 UJ	< 210 UJ	< 170 UJ	< 390 UJ	< 210 UJ	< 200 UJ	< 480 UJ	< 210 UJ	< 930 UJ
N-Nitrosodi-n-propylamine	< 400 U	< 97 U	< 220 UJ	< 210 UJ	< 540 UJ	< 210 UJ	< 170 UJ	< 390 UJ	< 210 UJ	< 200 UJ	< 480 UJ	< 210 UJ	< 930 UJ
N-Nitrosodiphenylamine	< 400 U	< 97 U	< 220 UJ	< 210 UJ	< 540 UJ	< 210 UJ	< 170 UJ	< 390 UJ	< 210 UJ	< 200 UJ	< 480 UJ	< 210 UJ	< 930 UJ
Pentachlorophenol	< 1200 U	< 290 U	< 420 UJ	< 410 UJ	< 1100 UJ	< 420 UJ	< 340 UJ	< 750 UJ	< 410 UJ	< 380 UJ	< 930 UJ	< 410 UJ	< 1800 UJ
Phenanthrene	< 120 U	< 29 U	< 220 UJ	< 210 UJ	< 540 UJ	320 J	50 UJ	< 390 UJ	55 UJ	< 200 UJ	< 480 UJ	< 210 UJ	2800 J
Phenol	< 400 U	< 97 U	< 220 UJ	< 210 UJ	< 540 UJ	< 210 UJ	< 170 UJ	< 390 UJ	< 210 UJ	< 200 UJ	< 480 UJ	< 210 UJ	< 930 UJ
Pyrene	< 120 U	< 29 U	< 220 UJ	< 210 UJ	< 540 UJ	720 J	37 UJ	< 390 UJ	93 UJ	< 200 UJ	< 480 UJ	< 210 UJ	2100 J

Analyte	SB-149-B	SB-149-C	SB-150A	SB-150B	SB-150C	DUP-101018	DUP-101118	DUP-101618	DUP-101718	DUP-101818	DUP-101918	DUP-102318
Start Depth (ft bgs)	5	16	0	14	18	NA	NA	NA	NA	NA	NA	NA
End Depth (ft bgs)	6	18	2	16	20	NA	NA	NA	NA	NA	NA	NA
Sample Date	10/23/2018	10/23/2018	10/19/2018	10/19/2018	10/19/2018	10/10/2018	10/11/2018	10/16/2018	10/17/2018	10/18/2018	10/19/2018	10/23/2018
SW8270D												
1,1'-Biphenyl	< 34000 UJ	< 400 UJ	< 420 U	< 140 U	< 62 U	< 210 U	< 230 U	< 170 U	< 60 U	< 80 U	< 160 U	< 550 UJ
2,4,5-Trichlorophenol	< 34000 UJ	< 400 UJ	< 1300 U	< 420 U	< 190 U	< 210 U	< 230 U	< 510 U	< 180 U	< 240 U	< 470 U	< 550 UJ
2,4,6-Trichlorophenol	< 34000 UJ	< 400 UJ	< 1300 U	< 420 U	< 190 U	< 210 U	< 230 U	< 510 U	< 180 U	< 240 U	< 470 U	< 550 UJ
2,4-Dichlorophenol	< 34000 UJ	< 400 UJ	< 1300 U	< 420 U	< 190 U	< 210 U	< 230 U	< 510 U	< 180 U	< 240 U	< 470 U	< 550 UJ
2,4-Dimethylphenol	< 34000 UJ	< 400 UJ	< 1300 U	< 420 U	< 190 U	< 210 U	< 230 U	< 510 U	< 180 U	< 240 U	< 470 U	< 550 UJ
2,4-Dinitrophenol	< 330000 UJ	< 3900 UJ	< 2800 U	< 920 U	< 410 U	< 2100 U	< 2200 U	< 1100 U	< 390 UJ	< 530 U	< 1000 U	< 5300 UJ
2,4-Dinitrotoluene	< 34000 UJ	< 400 UJ	< 1700 U	< 560 U	< 250 U	< 210 U	< 230 U	< 690 U	< 240 U	< 320 U	< 630 U	< 550 UJ
2,6-Dinitrotoluene	< 34000 UJ	< 400 UJ	< 1700 U	< 560 U	< 250 U	< 210 U	< 230 U	< 690 U	< 240 U	< 320 U	< 630 U	< 550 UJ
2-Chloronaphthalene	< 34000 UJ	< 400 UJ	< 420 U	< 140 U	< 62 U	< 210 U	< 230 U	< 170 U	< 60 U	< 80 U	< 160 U	< 550 UJ
2-Chlorophenol	< 34000 UJ	< 400 UJ	< 420 U	< 140 U	< 62 U	< 210 U	< 230 U	< 170 U	< 60 U	< 80 U	< 160 U	< 550 UJ
2-Methylnaphthalene	< 34000 UJ	< 400 UJ	< 130 U	< 42 U	< 19 U	< 210 U	77 UJ	< 51 U	< 18 U	< 24 U	< 47 U	< 550 UJ
2-Methylphenol	< 34000 UJ	< 400 UJ	< 1700 U	< 560 U	< 250 U	< 210 U	< 230 U	< 690 U	< 240 U	< 320 U	< 630 U	< 550 UJ
2-Nitroaniline	< 66000 UJ	< 780 UJ	< 1700 U	< 560 U	< 250 U	< 410 U	< 440 U	< 690 U	< 240 U	< 320 U	< 630 U	< 1100 UJ
2-Nitrophenol	< 34000 UJ	< 400 UJ	< 420 U	< 140 U	< 62 U	< 210 U	< 230 U	< 170 U	< 60 U	< 80 U	< 160 U	< 550 UJ
3 & 4 Methylphenol	NA	NA	< 3300 U	150 UJ	< 500 U	NA	NA	< 1400 U	< 480 U	< 640 U	< 1300 U	NA
3,3'-Dichlorobenzidine	< 66000 UJ	< 780 UJ	< 830 U	< 280 U	< 120 U	< 410 U	< 440 U	< 340 U	< 120 U	< 160 U	< 320 U	< 1100 UJ
3-Nitroaniline	< 66000 UJ	< 780 UJ	< 1700 U	< 560 U	< 250 U	< 410 U	< 440 U	< 690 U	< 240 U	< 320 U	< 630 U	< 1100 UJ
4,6-Dinitro-2-methylphenol	< 66000 UJ	< 780 UJ	< 2800 U	< 920 U	< 410 U	< 410 U	< 440 U	< 1100 U	< 390 UJ	< 530 U	< 1000 U	< 1100 UJ
4-Bromophenyl phenyl ether	< 34000 UJ	< 400 UJ	< 420 U	< 140 U	< 62 U	< 210 U	< 230 U	< 170 U	< 60 U	< 80 U	< 160 U	< 550 UJ
4-Chloro-3-methylphenol	< 34000 UJ	< 400 UJ	< 1300 U	< 420 U	< 190 U	< 210 U	< 230 U	< 510 U	< 180 U	< 240 UJ	< 470 U	< 550 UJ
4-Chloroaniline	< 34000 UJ	< 400 UJ	< 1300 U	< 420 U	< 190 U	< 210 U	< 230 U	< 510 U	< 180 U	< 240 U	< 470 U	< 550 UJ
4-Chlorophenyl phenyl ether	< 34000 UJ	< 400 UJ	< 420 U	< 140 U	< 62 U	< 210 U	< 230 U	< 170 U	< 60 U	< 80 U	< 160 U	< 550 UJ
4-Methylphenol	< 66000 UJ	< 780 UJ	NA	NA	NA	< 410 U	< 440 U	NA	NA	NA	NA	< 1100 UJ
4-Nitroaniline	< 66000 UJ	< 780 UJ	< 1700 U	< 560 U	< 250 U	< 410 U	< 440 U	< 690 U	< 240 U	< 320 U	< 630 U	< 1100 UJ
4-Nitrophenol	< 66000 UJ	< 780 UJ	< 2800 U	< 920 U	< 410 U	< 410 U	< 440 U	< 1100 U	< 390 U	< 530 U	< 1000 U	< 1100 UJ
Acenaphthene	< 34000 UJ	< 400 UJ	< 130 U	< 42 U	< 19 U	< 210 U	< 230 U	< 51 U	< 18 U	< 24 U	< 47 U	< 550 UJ
Acenaphthylene	< 34000 UJ	< 400 UJ	< 130 U	< 42 U	< 19 U	< 210 U	67 UJ	< 51 U	< 18 U	< 24 U	< 47 U	< 550 UJ
Acetophenone	< 34000 UJ	< 400 UJ	< 830 U	94 UJ	< 120 U	< 210 U	< 230 U	< 340 U	< 120 U	< 160 U	< 320 U	< 550 UJ
Anthracene	< 34000 UJ	< 400 UJ	< 130 U	< 42 U	< 19 U	< 210 U	340	< 51 U	< 18 U	< 24 U	< 47 U	< 550 UJ
Atrazine	< 34000 UJ	< 400 UJ	< 1700 U	< 560 U	< 250 U	< 210 U	< 230 U	< 690 U	< 240 U	< 320 U	< 630 U	< 550 UJ
Benzaldehyde	< 34000 UJ	< 400 UJ	< 830 U	110 UJ	< 120 U	< 210 UJ	< 230 U	100 U	< 120 U	81 UJ	310 UJ	< 550 UJ
Benzo(b)fluoranthene	< 34000 UJ	< 400 UJ	< 130 U	19 UJ	< 19 U	< 210 U	720	< 51 U	< 18 U	< 24 U	< 47 U	< 550 UJ
Benzo[a]anthracene	< 34000 UJ	< 400 UJ	< 130 U	< 42 U	< 19 U	< 210 U	760	< 51 U	< 18 U	< 24 U	< 47 U	< 550 UJ
Benzo[a]pyrene	< 34000 UJ	< 400 UJ	< 130 U	< 42 U	< 19 U	< 210 U	570	< 51 U	< 18 U	< 24 U	< 47 U	< 550 UJ
Benzo[g,h,i]perylene	< 34000 UJ	< 400 UJ	< 130 U	< 42 U	< 19 U	< 210 U	400	< 51 U	< 18 U	< 24 U	< 47 U	< 550 UJ
Benzo[k]fluoranthene	< 34000 UJ	< 400 UJ	< 130 U	< 42 U	< 19 U	< 210 U	< 230 U	< 51 U	< 18 U	< 24 U	< 47 U	< 550 UJ
bis (2-chloroisopropyl) ether	< 34000 UJ	< 400 UJ	< 830 U	< 280 U	< 120 U	< 210 U	< 230 U	< 340 U	< 120 U	< 160 U	< 320 U	< 550 UJ
bis(2-Chloroethoxy)methane	< 34000 UJ	< 400 UJ	< 830 U	< 280 U	< 120 U	< 210 U	< 230 U	< 340 U	< 120 U	< 160 U	< 320 U	< 550 UJ
bis(2-Chloroethyl) ether	< 34000 UJ	< 400 UJ	< 830 U	< 280 U	< 120 U	< 210 U	< 230 U	< 340 U	< 120 U	< 160 U	< 320 U	< 550 UJ
bis(2-Ethylhexyl) phthalate	< 34000 UJ	< 400 UJ	< 580 U	< 190 U	88	< 210 U	< 230 U	< 240 U	< 84 U	< 110 U	< 220 U	< 550 UJ
Butyl benzyl phthalate	< 34000 UJ	< 400 UJ	< 580 U	< 190 U	< 87 U	< 210 U	< 230 U	< 240 U	< 84 U	< 110 U	< 220 U	< 550 UJ
Caprolactam	< 34000 UJ	< 400 UJ	< 2800 U	< 920 U	< 410 U	< 210 U	< 230 U	< 1100 U	< 390 U	< 530 U	< 1000 U	< 550 UJ
Carbazole	< 34000 UJ	< 400 UJ	< 420 U	< 140 U	< 62 U	< 210 U	120 UJ	< 170 U	< 60 U	< 80 U	< 160 U	< 550 UJ
Chrysene	< 34000 UJ	< 400 UJ	< 130 U	15 UJ	< 19 U	< 210 U	710	< 51 U	< 18 U	< 24 U	< 47 U	< 550 UJ
Dibenz[a,h]anthracene	< 34000 UJ	< 400 UJ	< 130 U	< 42 U	< 19 U	< 210 U	< 230 U	< 51 U	< 18 U	< 24 U	< 47 U	< 550 UJ
Dibenzofuran	< 34000 UJ	< 400 UJ	< 420 U	< 140 U	< 62 U	< 210 U	66 UJ	< 170 U	< 60 U	< 80 U	< 160 U	< 550 UJ
Diethyl phthalate	< 34000 UJ	< 400 UJ	< 580 U	< 190 U	< 87 U	< 210 U	< 230 U	< 240 U	< 84 U	< 110 U	< 220 U	< 550 UJ
Dimethyl phthalate	< 34000 UJ	< 400 UJ	< 580 U	< 190 U	< 87 U	< 210 U	< 230 U	< 240 U	< 84 U	< 110 U	< 220 U	< 550 UJ
Di-n-butyl phthalate	< 34000 UJ	< 400 UJ	< 580 U	< 190 U	< 87 U	< 210 U	< 230 U	< 240 U	< 84 U	< 110 U	< 220 U	< 550 UJ
Di-n-octyl phthalate	< 34000 UJ	< 400 UJ	< 580 U	< 190 U	< 87 U	< 210 U	< 230 U	< 240 UJ	< 84 U	< 110 U	< 220 U	< 550 UJ
Fluoranthene	< 34000 UJ	< 400 UJ	< 130 U	24 UJ	< 19 U	< 210 U	1500	16 UJ	< 18 U	< 24 U	< 47 U	< 550 UJ
Fluorene	< 34000 UJ	< 400 UJ	< 130 U	< 42 U	< 19 U	< 210 U	140 UJ	< 51 U	< 18 U	< 24 U	< 47 U	< 550 UJ
Hexachlorobenzene	< 34000 UJ	< 400 UJ	< 130 U	< 42 U	< 19 U	< 210 U	< 230 U	< 51 U	< 18 U	< 24 U	< 47 U	< 550 UJ
Hexachlorobutadiene	< 34000 UJ	< 400 UJ	< 420 U	< 140 U	< 62 U	< 210 U	< 230 U	< 170 U	< 60 U	< 80 U	< 160 U	< 550 UJ
Hexachlorocyclopentadiene	< 34000 UJ	< 400 UJ	< 2800 U	< 920 U	< 410 U	< 210 U	< 230 U	< 1100 UJ	< 390 UJ	< 530 UJ	< 1000 U	< 550 UJ
Hexachloroethane	< 34000 UJ	< 400 UJ	< 420 U	< 140 U	< 62 U	< 210 U	< 230 U	< 170 U	< 60 U	< 80 UJ	< 160 U	< 550 UJ
Indeno[1,2,3-cd]pyrene	< 34000 UJ	< 400 UJ	< 130 U	< 42 U	< 19 U	< 210 U	380	< 51 U	< 18 U	< 24 U	< 47 U	< 550 UJ
Isophorone	< 34000 UJ	< 400 UJ	< 420 U	< 140 U	< 62 U	< 210 U	< 230 U	< 170 U	< 60 U	< 80 U	< 160 U	< 550 UJ
Naphthalene	< 34000 UJ	< 400 UJ	< 130 U	19 UJ	< 19 U	< 210 U	< 230 U	< 51 U	< 18 U	< 24 U	< 47 U	< 550 UJ
Nitrobenzene	< 34000 UJ	< 400 UJ	< 830 U	< 280 U	< 120 U	< 210 U	< 230 U	< 340 U	< 120 U	< 160 U	< 320 U	< 550 UJ
N-Nitrosodi-n-propylamine	< 34000 UJ	< 400 UJ	< 420 U	< 140 U	< 62 U	< 210 U	< 230 U	< 170 U	< 60 U	< 80 U	< 160 U	< 550 UJ
N-Nitrosodiphenylamine	< 34000 UJ	< 400 UJ	< 420 U	< 140 U	< 62 U	< 210 U	< 230 U	< 170 U	< 60 U	< 80 U	< 160 U	< 550 UJ
Pentachlorophenol	< 66000 UJ	< 780 UJ	< 1300 U	< 420 U	< 190 U	< 410 U	< 440 U	< 510 U	< 180 U	< 240 U	< 470 U	< 1100 UJ
Phenanthrene	< 34000 UJ	< 400 UJ	< 130 U	19 UJ	< 19 U	< 210 U	1300	< 51 U	< 18 U	< 24 U	< 47 U	< 550 UJ
Phenol	< 34000 UJ	< 400 UJ	< 420 U	330	< 62 U	< 210 U	< 230 U	< 170 U	< 60 U	< 80 U	< 160 U	< 550 UJ
Pyrene	< 34000 UJ	< 400 UJ	< 130 U	15 UJ	< 19 U	< 210 U	1100 J	12 UJ	< 18 U	< 24 U	< 47 U	< 550 UJ

Notes:

ft bgs = feet below ground surface

mg/kg = milligrams per kilogram

µg/kg = micrograms per kilogram

6 NYCRR Part 375 SCO = Title 6 Official Compilation of New York Codes, Rules and Regulations Part 375 Soil Cleanup Objectives

- = no SCO established

NA = not applicable/analyzed

Qualifiers:

U = Analyte analyzed for, but not detected above the sample's reported quantitation limit

J = Analyte positively identified at a numerical value that is the approximate concentration of the analyte in the sample

J+ = Sample likely to have a high bias

J- = Sample likely to have a low bias

UJ = Analyte not detected above the sample quantitation limit; the associated quantitation limit is approximate and may or may not represent the actual limit of quantitation necessary to accurately and precisely measure the analyte in the sample

N = The analysis indicates the present of an analyte for which there is presumptive evidence to make a "tentative identification."

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B/EB/TB/BB = An analyte identified in method blank (B), aqueous equipment (EB), trip (TB), or bottle blanks (BB) used to assess field contamination associated with soil or sediment samples mandates these qualifiers for only soil and sediment sample results.

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PM = A manual review of the raw data is recommended to determine if the defect affects data use, as in "R" above. This review should include consideration of potential affects that could result from using the "P" qualified data. For example, in the case of holding-time exceedance, the Project Manager or delegate can decide to use the data with no qualification when analytes of interest are known not to be adversely affected by holding-time exceedances. Another example is the case where soil sample duplicate analyses for metals exceed the precision criteria; because this is likely due to sample non-homogeneity rather than contract laboratory error, then the manager or delegate must decide how to use the data.

Table 1
Soil Analytical Data

				SB-101-A	SB-101-B	SB-101-C	SB-102-A	SB-102-B	SB-102-C	SB-103-A	SB-103-B	SB-103-C	SB-104-A	SB-104-B	SB-104-C	SB-105-A	SB-105-B	SB-105-C	SB-105-D	SB-106-A	SB-106-B	SB-106-C	SB-107-A	SB-107-B	SB-107-C	SB-108-A	SB-108-B	SB-108-C	SB-109-A	SB-109-B	SB-109-C	SB-110-A	SB-110-B	SB-110-C	SB-110-D
			Soil Sample ID																														
			Start Depth (ft bgs)	0	8	12	0	4	12	0	4	12	0	4	14	0	4	10	12	0	4	14	0	6	13	0	8	10	0	4	16	0	4	17.5	10
			End Depth (ft bgs)	1	10	14	1	6	14	1	6	14	1	6	16	1	6	12	14	1	8	16	2	8	18	1	10	14	1	6	18	1	6	20	12.5
			Sample Date	10/10/2018	10/10/2018	10/10/2018	10/10/2018	10/10/2018	10/10/2018	10/10/2018	10/10/2018	10/10/2018	10/10/2018	10/10/2018	10/10/2018	10/10/2018	10/10/2018	10/10/2018	10/10/2018	10/10/2018	10/10/2018	10/10/2018	10/11/2018	10/11/2018	10/11/2018	10/11/2018	10/11/2018	10/11/2018	10/11/2018	10/11/2018	10/11/2018	10/11/2018	10/11/2018	10/11/2018	10/11/2018
Analyte	Units	6 NYCRR PART 375 UNRESTRICTED USE SCO	6 NYCRR PART 375 COMMERCIAL USE SCO																														
SW9012																																	
Cyanide, Total	mg/kg	**27**	27	19.6 J	< 1.5 UJ	< 1.2 UJ	**33.1 J**	1.2 J	< 1.2 UJ	**28.1 J**	1.6 J	< 1.2 UJ	< 1.2 UJ	2.0 J	0.62 UJ	25.6 J	2.5 J	< 3.3 UJ	< 1.3 UJ	6.8 J	8.9 J	< 2.1 UJ	4.6 J	2.1 J	< 1.2 UJ	**52.1 J**	9.7 J	1.5 UJ	3.5 J	**73.8 J**	0.91 UJ	3.1 J	5.5 J	0.62 UJ	< 1.4 UJ
SW9045D																																	
CORROSIVITY	pH UNITS	-	-	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
pH	pH UNITS	-	-	10.4 J	11.2 J	8.7 J	9.6 J	11.9 J	8.6 J	9.1 J	11.9 J	8.4 J	8.5 J	11.6 J	7.7 J	8.6 J	12.0 J	7.6 J	8.3 J	9.8 J	11.5 J	9.8 J	8.4 J	12.0 J	8.3 J	8.4 J	12.2 J	10.2 J	8.4 J	8.3 J	8.0 J	10.7 J	10.7 J	8.1 J	7.8 J
Temperature	Celcius	-	-	19.4 J	25.3 J	19.6 J	19.5 J	25.1 J	19.7 J	19.6 J	25.2 J	19.8 J	19.9 J	19.7 J	19.7 J	19.7 J	19.6 J	19.6 J	19.6 J	19.6 J	19.5 J	19.6 J	19.0 J	19.4 J	19.5 J	19.3 J	19.2 J	19.4 J	18.9 J	19.3 J	19.3 J	19.3 J	19.7 J	18.8 J	18.9 J

Notes:

ft bgs = feet below ground surface

mg/kg = milligrams per kilogram

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Table 1
Soil Analytical Data

				SB-111-A	SB-111-B	SB-111-C	SB-112-A	SB-112-B	SB-112-C	SB-113-A	SB-113-B	SB-113-C	SB-114-A	SB-114-B	SB-114-C	SB-115-A	SB-115-B	SB-115-C	SB-116-A	SB-116-B	SB-116-C	SB-117-A	SB-117-B	SB-117-C	SB-117-D	SB-118-A	SB-118-B	SB-118-C	SB-119-A	SB-119-B	SB-119-C	SB-120-A	SB-120-B	SB-120-C
			Soil Sample ID																													
			Start Depth (ft bgs)	0	6	18	0	8	12	0	6	18	0	8	10	0	7	15	0	5	14	0	4	10	16	0	6	16	0	8	13	0	4	16
			End Depth (ft bgs)	1	8	20	1	10	15	1	8	20	1	10	20	1	10	17	1	7	18	2	7	12	20	1	8	20	1	10	15	1	6	20
			Sample Date	10/16/2018	10/16/2018	10/16/2018	10/16/2018	10/16/2018	10/16/2018	10/16/2018	10/16/2018	10/16/2018	10/16/2018	10/16/2018	10/16/2018	10/12/2018	10/12/2018	10/12/2018	10/12/2018	10/12/2018	10/12/2018	10/12/2018	10/12/2018	10/12/2018	10/12/2018	10/12/2018	10/12/2018	10/12/2018	10/11/2018	10/11/2018	10/11/2018	10/11/2018	10/11/2018	10/11/2018
Analyte	Units	6 NYCRR PART 375 UNRESTRICTED USE SCO	6 NYCRR PART 375 COMMERCIAL USE SCO																													
SW9012																																
Cyanide, Total	mg/kg	**27**	27	13.5 J	**31.5 J**	< 0.66 UJ	6.4 J	6.1 J	0.62 UJ	0.36 UJ	1.3 J	< 0.56 UJ	1.2 J	4.9 J	10.5 J	11.3 J	4.1 J	< 1.1 UJ	7.3 J	1.6 J	< 1.3 UJ	22.7 J	25.7 J	1.8 J	< 1.2 UJ	7.0 J	1.3 J	< 1.2 UJ	14.4 J	19.9 J	< 1.3 UJ	6.3 J	2.3 J	< 1.5 UJ
SW9045D																																
CORROSIVITY	pH UNITS	-	-	10.1 J	11.9 J	8.3 J	8.0 J	12.0 J	7.8 J	8.8 J	12.0 J	8.3 J	8.3 J	11.9 J	11.5 J	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
pH	pH UNITS	-	-	10.1 J	11.9 J	8.3 J	8.0 J	12.0 J	7.8 J	8.8 J	12.0 J	8.3 J	8.3 J	11.9 J	11.5 J	10 J	11.9 J	7.9 J	9.0 J	9.3 J	8.4 J	8.3 J	11.1 J	10.7 J	8.2 J	8.8 J	12.3 J	8.4 J	8.1 J	12.2 J	8.3 J	9.9 J	11.0 J	8.3 J
Temperature	Celcius	-	-	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	18.9 J	18.8 J	19.5 J	18.8 J	18.7 J	19.0 J	19.7 J	19.7 J	19.1 J	19.6 J	19.7 J	19.4 J	18.9 J	18.9 J	18.8 J	18.8 J	18.9 J	19.0 J	18.6 J

Notes:

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Table 1
Soil Analytical Data

			Soil Sample ID	SB-121-A	SB-121-B	SB-121-C	SB-121-D	SB-122-A	SB-122-B	SB-122-C	SB-123-A	SB-123-B	SB-123-C	SB-124-A	SB-124-B	SB-124-C	SB-125-A	SB-125-B	SB-125-C	SB-126-A	SB-126-B	SB-126-C	SB-127-A	SB-127-B	SB-127-C	SB-128-A	SB-128-B	SB-128-C	SB-129-A	SB-129-B	SB-129-C	SB-130-A	SB-130-B	SB-130-C
			Start Depth (ft bgs)	0	8	17	10	0	8	18	0	10	18	0	12	18	0	5	16.5	0	1	14.5	0	5	18	0	5	14	0	6	16	0	6	15
			End Depth (ft bgs)	1	10	20	12	2	10	20	1	12	20	1	14	20	1	6	18	1	4	15.5	5	10	20	2	7	16	2	7	17	3	10	18
			Sample Date	10/16/2018	10/16/2018	10/16/2018	10/16/2018	10/16/2018	10/16/2018	10/16/2018	10/16/2018	10/16/2018	10/16/2018	10/16/2018	10/16/2018	10/16/2018	10/17/2018	10/17/2018	10/17/2018	10/17/2018	10/17/2018	10/17/2018	10/17/2018	10/17/2018	10/17/2018	10/17/2018	10/17/2018	10/17/2018	10/17/2018	10/17/2018	10/17/2018	10/17/2018	10/17/2018	10/17/2018
Analyte	Units	6 NYCRR PART 375 UNRESTRICTED USE SCO	6 NYCRR PART 375 COMMERCIAL USE SCO																																
SW9012																																			
Cyanide, Total	mg/kg	**27**	27	5.1 J	4.9 J	< 0.66 UJ	0.85 UJ	4.1 J	2.5 J	1.9 J	8.3 J	16.5 J	< 0.58 UJ	4.1 J	2.1 J	< 0.59 UJ	5.1 J	0.60 UJ	< 2.4 UJ	2.2 J	1.6 J	< 1.3 UJ	9.6 J	8.2 J	1.6 UJ	5.6 J	24.1 J	< 2.0 UJ	0.57 UJ	1.0 J	< 0.61 UJ	**44.6 J**	1.8 J	< 0.57 UJ
SW9045D																																			
CORROSIVITY	pH UNITS	-	-	8.8 J	12.0 J	8.4 J	7.8 J	12.0 J	11.9 J	8.3 J	8.0 J	12.0 J	7.8 J	9.5 J	10.2 J	8.1 J	9.3 J	12.1 J	7.7 J	8.1 J	8.2 J	8.9 J	12.2 J	12.0 J	7.7 J	8.4 J	11.0 J	7.7 J	8.3 J	11.7 J	8.1 J	9.7 J	10.1 J	8.2 J
pH	pH UNITS	-	-	8.8 J	12.0 J	8.4 J	7.8 J	12.0 J	11.9 J	8.3 J	8.0 J	12.0 J	7.8 J	9.5 J	10.2 J	8.1 J	9.3 J	12.1 J	7.7 J	8.1 J	8.2 J	8.9 J	12.2 J	12.0 J	7.7 J	8.4 J	11.0 J	7.7 J	8.3 J	11.7 J	8.1 J	9.7 J	10.1 J	8.2 J
Temperature	Celcius	-	-	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

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Table 1
Soil Analytical Data

				SB-131A	SB-131B	SB-131C	SB-132A	SB-132B	SB-132C	SB-133A	SB-133B	SB-133C	SB-133D	SB-134A	SB-134B	SB-134C	SB-135A	SB-135B	SB-135C	SB-136-A	SB-136-B	SB-136-C	SB-136-D	SB-137-A	SB-137-B	SB-137-C	SB-138-A	SB-138-B	SB-138-C	SB-139A	SB-139B	SB-139C	SB-139D	SB-140A	SB-140B	SB-140C	SB-141A	SB-141B	SB-141C
			Soil Sample ID																																				
			Start Depth (ft bgs)	0	6	14	0	14	17	0	4	17	14	0	6	12	0	6	18	0	5	17	12	0	4	14	0	5	15	0	6	13	17	0	15	17	0	5	18
			End Depth (ft bgs)	1	8	16	2	16	19	1	6	19	16	1	8	14	2	8	20	1	8	20	15	1	5	16	2	8	17	2	8	15	18	2	17	19	2	7	20
			Sample Date	10/18/2018	10/18/2018	10/18/2018	10/18/2018	10/18/2018	10/18/2018	10/18/2018	10/18/2018	10/18/2018	10/18/2018	10/18/2018	10/18/2018	10/18/2018	10/18/2018	10/18/2018	10/18/2018	10/17/2018	10/17/2018	10/17/2018	10/17/2018	10/17/2018	10/17/2018	10/17/2018	10/17/2018	10/17/2018	10/17/2018	10/18/2018	10/18/2018	10/18/2018	10/18/2018	10/18/2018	10/18/2018	10/18/2018	10/18/2018	10/18/2018	10/18/2018
Analyte	Units	**6 NYCRR PART 375 UNRESTRICTED USE SCO**	6 NYCRR PART 375 COMMERCIAL USE SCO																																			
SW9012																																						
Cyanide, Total	mg/kg	**27**	27	5.2 J	3.2 J	8.1 J	5.1 J	6.1 J	< 0.79 UJ	10.9 J	1.0 J	< 0.78 UJ	< 1.8 UJ	1.7 J	1.1 J	0.82 UJ	7.5 J	1.7 J	< 0.58 UJ	2.1	5.0	1.4 UJ	3.0	7.5	2.1	0.70 UJ	2.7 J	16.3 J	< 2.0 U	**30.2 J**	0.93 J	0.59 UJ	< 0.55 UJ	3.4 J	3.2 J	< 0.78 UJ	1.9 J	0.92 J	< 0.92 UJ
SW9045D																																						
CORROSIVITY	pH UNITS	-	-	11.6 J	12.2 J	8.1 J	9.2 J	11.3 J	8.3 J	8.8 J	11.5 J	8.2 J	7.6 J	10.1 J	11.3 J	7.7 J	8.5 J	11.6 J	8.9 J	8.7 J	11.9 J	7.2 J	12.2 J	8.9 J	11.5 J	11.1 J	10.1 J	11.8 J	7.8 J	10.7 J	12.3 J	7.4 J	7.4 J	8.8 J	8.7 J	7.9 J	9.8 J	11.6 J	7.7 J
pH	pH UNITS	-	-	11.6 J	12.2 J	8.1 J	9.2 J	11.3 J	8.3 J	8.8 J	11.5 J	8.2 J	7.6 J	10.1 J	11.3 J	7.7 J	8.5 J	11.6 J	8.9 J	8.7 J	11.9 J	7.2 J	12.2 J	8.9 J	11.5 J	11.1 J	10.1 J	11.8 J	7.8 J	10.7 J	12.3 J	7.4 J	7.4 J	8.8 J	8.7 J	7.9 J	9.8 J	11.6 J	7.7 J
Temperature	Celcius	-	-	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

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PM = A manual review of the raw data is recommended to determine if the defect affects data use, as in "R" above. This review should include consideration of potential affects that could result from using the "P" qualified data. For example, in the case of holding-time exceedance, the Project Manager or delegate can decide to use the data with no qualification when analytes of interest are known not to be adversely affected by holding-time exceedances. Another example is the case where soil sample duplicate analyses for metals exceed the precision criteria; because this is likely due to sample non-homogeneity rather than contract laboratory error, then the manager or delegate must decide how to use the data.

Table 1
Soil Analytical Data

Analyte	Units	6 NYCRR PART 375 UNRESTRICTED USE SCO	6 NYCRR PART 375 COMMERCIAL USE SCO	SB-142A	SB-142B	SB-142C	SB-143A	SB-143B	SB-143C	SB-144A	SB-144B	SB-144C	SB-145A	SB-145B	SB-145C
Start Depth (ft bgs)				0	8	15	0	8	13	0	7	15	0	10	18
End Depth (ft bgs)				1	10	16	1	10	15	2	9	17	1	12	20
Sample Date				10/19/2018	10/19/2018	10/19/2018	10/19/2018	10/19/2018	10/19/2018	10/19/2018	10/19/2018	10/19/2018	10/19/2018	10/19/2018	10/19/2018
SW9012															
Cyanide, Total	mg/kg	**27**	27	3.0 J	23.3 J	< 0.95 UJ	10.7 J	2.4 J	< 1.6 UJ	0.25 UJ	< 0.63 UJ	< 2.1 UJ	< 0.61 UJ	4.7 J	< 0.98 UJ
SW9045D															
CORROSIVITY	pH UNITS	-	-	8.2 J	11.9 J	7.8 J	9.4 J	12.3 J	7.4 J	9.9 J	12.5 J	8.4 J	8.9 J	11.8 J	7.7 J
pH	pH UNITS	-	-	8.2 J	11.9 J	7.8 J	9.4 J	12.3 J	7.4 J	9.9 J	12.5 J	8.4 J	8.9 J	11.8 J	7.7 J
Temperature	Celcius	-	-	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Analyte	SB-146-A	SB-146-B	SB-146-C	SB-147-A	SB-147-B	SB-147-C	SB-148-A	SB-148-B	SB-148-C	SB-148-D	SB-149-A	SB-149-B
Start Depth (ft bgs)	0	2	13	0	5	16	0	4	15	12	0	5
End Depth (ft bgs)	2	5	15	1	7	17	1.5	5	17.5	14	1	6
Sample Date	10/23/2018	10/23/2018	10/23/2018	10/23/2018	10/23/2018	10/23/2018	10/23/2018	10/23/2018	10/23/2018	10/23/2018	10/23/2018	10/23/2018
SW9012												
Cyanide, Total	7.5 J	0.57 UJ	1.5 UJ	1.5 J	9.9 J	< 2.2 UJ	6.9 J	**31.0 J**	< 2.6 UJ	10.4 J	< 1.0 UJ	1.2 J
SW9045D												
CORROSIVITY	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
pH	10.0 J	11.9 J	7.8 J	8.3 J	9.9 J	7.8 J	9.9 J	10.6 J	7.6 J	11.7 J	8.6 J	8.9 J
Temperature	25.1 J	25.4 J	18.4 J	18.3 J	25.5 J	18.6 J	25.3 J	25.1 J	18.3 J	25.2 J	18.7 J	18.7 J

Analyte	SB-149-C	SB-150A	SB-150B	SB-150C	DUP-101018	DUP-101118	DUP-101618	DUP-101718	DUP-101818	DUP-101918	DUP-102318
Start Depth (ft bgs)	16	0	14	18	NA	NA	NA	NA	NA	NA	NA
End Depth (ft bgs)	18	2	16	20	NA	NA	NA	NA	NA	NA	NA
Sample Date	10/23/2018	10/19/2018	10/19/2018	10/19/2018	10/10/2018	10/11/2018	10/16/2018	10/17/2018	10/18/2018	10/19/2018	10/23/2018
SW9012											
Cyanide, Total	1.5 UJ	0.60 UJ	3.7 J	< 0.56 U	6.0 J	4.5 J	< 1.5 UJ	< 0.58 U	< 0.92 UJ	0.76 UJ	2.2 UJ
SW9045D											
CORROSIVITY	NA	11.0 J	11.6 J	8.1 J	NA	NA	8.0 J	8.1 J	7.3 J	9.0 J	NA
pH	7.8 J	11.0 J	11.6 J	8.1 J	11.5 J	11.3 J	8.0 J	8.1 J	7.3 J	9.0 J	7.7 J
Temperature	18.5 J	NA	NA	NA	19.6 J	19.1 J	NA	NA	NA	NA	18.4 J

Notes:

ft bgs = feet below ground surface

mg/kg = milligrams per kilogram

μg/kg = micrograms per kilogram

6 NYCRR Part 375 SCO = Title 6 Official Compilation of New York Codes, Rules and Regulations Part 375 Soil Cleanup Objectives

- = no SCO established

NA = not applicable/analyzed

** =The SCO for this specific compound (or family of compounds) is considered to be met if the analysis for the total species of this contaminant is below the specific SCO (CrVI & CrIII)

Qualifiers:

U = Analyte analyzed for, but not detected above the sample's reported quantitation limit

J = Analyte positively identified at a numerical value that is the approximate concentration of the analyte in the sample

J+ = Sample likely to have a high bias

J- = Sample likely to have a low bias

UJ = Analyte not detected above the sample quantitation limit; the associated quantitation limit is approximate and may or may not represent the actual limit of quantitation necessary to accurately and precisely measure the analyte in the sample

N = The analysis indicates the present of an analyte for which there is presumptive evidence to make a "tentative identification."

NJ = The analysis indicates the presence of an analyte that has been "tentatively identified" and the associated numerical value represents its approximate oncentration.

R = Sample result rejected due to serious deficiency in ability to analyze sample and meet quality control criteria; the presence or absence of the analyte cannot be confirmed. This qualifier also may apply when more than one sample result is generated for a target analyte (i.e., dilutions or re-analyses), the most technically acceptable result is considered acceptable.

B/EB/TB/BB = An analyte identified in method blank (B), aqueous equipment (EB), trip (TB), or bottle blanks (BB) used to assess field contamination associated with soil or sediment samples mandates these qualifiers for only soil and sediment sample results.

P = Use professional judgment based on data use. It usually has an "M" with it, which indicates that a manual check should be made if the data that are qualified with the "P" are important to the data user. In addition, "PM" also means a decision is necessary from the Project Manager (or a delegate) concerning the need for further review of the data (see below).

PM = A manual review of the raw data is recommended to determine if the defect affects data use, as in "R" above. This review should include consideration of potential affects that could result from using the "P" qualified data. For example, in the case of holding-time exceedance, the Project Manager or delegate can decide to use the data with no qualification when analytes of interest are known not to be adversely affected by holding-time exceedances. Another example is the case where soil sample duplicate analyses for metals exceed the precision criteria; because this is likely due to sample non-homogeneity rather than contract laboratory error, then the manager or delegate must decide how to use the data.

Table 2
Groundwater/Surface Water Analytical Data

			Monitoring Well/Surface Sample ID	MW-101	MW-105	MW-108	MW-120	MW-123	MW-126	MW-128	MW-131	MW-144	MW-148	SW-1	SW-2	DUP-102918	DUP-110918
			Groundwater Elevation (fmsl)	576.42	576.26	576.23	576.32	576.44	576.32	576.27	576.54	576.35	576.36	NA	NA	NA	NA
			Sample Date	10/29/2018	10/29/2018	10/29/2018	10/30/2018	10/30/2018	10/30/2018	10/30/2018	10/29/2018	10/30/2018	10/30/2018	11/9/2018	11/9/2018	10/29/2018	11/9/2018
Analyte	Units	NY TOGS 1.1.1 GWQS (CLASS GA)	NY TOGS 1.1.1 SWQS (CLASS A, A-S, AA, AA-S)														
SW6010C																	
Aluminum	mg/l	2	-	0.64	1.1	1.3	0.92	0.42	0.66	0.55	0.25	0.83	0.71	0.099 UJ	< 0.20 U	0.27	0.065 UJ
Antimony	mg/l	0.003	0.003	< 0.020 U	< 0.020 U	< 0.020 U	< 0.020 U	< 0.020 U	< 0.020 U	< 0.020 U	< 0.020 U	< 0.020 U	< 0.020 U	< 0.020 U	< 0.020 U	< 0.020 U	< 0.020 U
Arsenic	mg/l	0.025	0.050	< 0.015 U	< 0.015 U	< 0.015 U	< 0.015 U	< 0.015 U	< 0.015 U	< 0.015 U	< 0.015 U	< 0.015 U	< 0.015 U	< 0.015 U	< 0.015 U	< 0.015 U	< 0.015 U
Barium	mg/l	1.000	1.000	0.10	0.14	0.084	0.072	0.17	0.20	0.14	0.20	0.21	0.19	0.16	0.17	0.21	0.17
Beryllium	mg/l	0.003	0.003	< 0.0020 U	< 0.0020 U	< 0.0020 U	< 0.0020 U	< 0.0020 U	< 0.0020 U	< 0.0020 U	< 0.0020 U	< 0.0020 U	< 0.0020 U	< 0.0020 U	< 0.0020 U	< 0.0020 U	< 0.0020 U
Cadmium	mg/l	0.005	0.005	< 0.0020 U	< 0.0020 U	< 0.0020 U	< 0.0020 U	< 0.0020 U	< 0.0020 U	< 0.0020 U	< 0.0020 U	< 0.0020 U	< 0.0020 U	< 0.0020 U	< 0.0020 U	< 0.0020 U	< 0.0020 U
Calcium	mg/l	-	-	163	207	145	150	241	263	208	257	236	198	264	265	261	247
Chromium	mg/l	**0.05**	0.05	< 0.0040 U	< 0.0040 U	< 0.0040 U	< 0.0040 U	< 0.0040 U	**0.063**	0.0012 UJ	< 0.0040 U	< 0.0040 U	< 0.0040 U	< 0.0040 U	< 0.0040 U	< 0.0040 U	0.0016 UJ
Cobalt	mg/l	-	-	< 0.0040 U	< 0.0040 U	< 0.0040 U	< 0.0040 U	< 0.0040 U	< 0.0040 U	< 0.0040 U	< 0.0040 U	< 0.0040 U	< 0.0040 U	< 0.0040 U	< 0.0040 U	< 0.0040 U	< 0.0040 U
Copper	mg/l	0.200	0.200	< 0.010 U	< 0.010 U	< 0.010 U	< 0.010 U	0.0020 UJ	0.084	< 0.010 U	< 0.010 U	0.0026 UJ	< 0.010 U	< 0.010 U	< 0.010 U	< 0.010 U	< 0.010 U
Iron	mg/l	**0.300**	0.300	0.041 U	< 0.050 U	0.097	0.038 UJ	0.019 UJ	**0.66**	0.052	0.024 U	0.18	0.17	0.12	0.032 UJ	0.026 U	0.084
Lead	mg/l	0.025	0.050	< 0.010 U	< 0.010 U	< 0.010 U	< 0.010 U	< 0.010 U	< 0.010 U	< 0.010 U	< 0.010 U	< 0.010 U	< 0.010 U	< 0.010 U	< 0.010 U	< 0.010 U	< 0.010 U
Magnesium	mg/l	35	35	< 0.20 U	< 0.20 U	0.098 UJ	< 0.20 U	< 0.20 U	0.087 UJ	0.12 UJ	< 0.20 U	0.12 UJ	0.071 UJ	0.19 UJ	< 0.20 U	< 0.20 U	0.063 UJ
Manganese	mg/l	0.300	0.300	0.0014 U	0.00072 U	0.0024 U	0.0021 UJ	0.0012 UJ	0.020	0.0080	0.0021 U	0.0083	0.019	0.0049	0.0012 UJ	0.0021 U	0.0033
Nickel	mg/l	0.100	0.100	< 0.010 U	< 0.010 U	0.0022 UJ	< 0.010 U	< 0.010 U	0.014	< 0.010 U	< 0.010 U	< 0.010 U	< 0.010 U	< 0.010 U	< 0.010 U	< 0.010 U	< 0.010 U
Potassium	mg/l	-	-	10.6	19.8	264	25.3	14.3	22.9	23.0	11.5	21.2	16.1	16.7	27.0	11.2	25.3
Selenium	mg/l	**0.010**	0.010	< 0.025 U	0.010 UJ	**0.017 UJ**	< 0.025 U	< 0.025 U	< 0.025 U	< 0.025 U	< 0.025 U	< 0.025 U	0.0092 UJ	< 0.025 U	0.0090 UJ	< 0.025 U	< 0.025 U
Silver	mg/l	0.050	0.050	< 0.0060 U	< 0.0060 U	< 0.0060 U	< 0.0060 U	< 0.0060 U	< 0.0060 U	< 0.0060 U	< 0.0060 U	< 0.0060 U	< 0.0060 U	< 0.0060 U	< 0.0060 U	< 0.0060 U	< 0.0060 U
Sodium	mg/l	**20**	-	**152**	**38.5**	**80.3**	**63.3**	**199**	**37.7**	**34.5**	**38.4**	**37.7**	**44.3**	92.8	38.9	**40.9**	37.9
Thallium	mg/l	0.005	0.005	< 0.020 U	< 0.020 U	< 0.020 U	< 0.020 U	< 0.020 U	< 0.020 U	< 0.020 U	< 0.020 U	< 0.020 U	< 0.020 U	< 0.020 U	< 0.020 U	< 0.020 U	< 0.020 U
Vanadium	mg/l	-	-	0.0022 UJ	0.0029 UJ	0.0042 UJ	0.0065	0.0031 UJ	0.0020 UJ	0.0015 UJ	0.0017 UJ	0.0029 UJ	0.0017 UJ	< 0.0050 U	< 0.0050 U	0.0016 UJ	< 0.0050 U
Zinc	mg/l	2	2	0.0031 U	0.0045 U	0.0037 U	0.0043 UJ	0.0026 UJ	0.0058 UJ	0.0061 UJ	0.0028 U	0.0044 UJ	0.0034 UJ	0.0039 UJ	0.0049 UJ	0.0033 U	0.0035 UJ
SW7470A																	
Mercury	mg/l	0.0007	0.0007	< 0.00020 U	< 0.00020 U	0.00015 UJ	< 0.00020 U	< 0.00020 U	< 0.00020 U	< 0.00020 U	< 0.00020 U	< 0.00020 U	< 0.00020 U	< 0.00020 U	< 0.00020 U	< 0.00020 U	< 0.00020 U
SW8081B																	
4,4'-DDD	µg/l	0.3	0.3	< 0.050 U	< 0.050 U	< 0.050 U	< 0.050 U	< 0.050 U	< 0.050 U	< 0.050 U	< 0.050 U	< 0.050 U	< 0.050 U	< 0.050 U	< 0.050 U	< 0.050 U	< 0.050 U
4,4'-DDE	µg/l	0.2	0.2	< 0.050 U	< 0.050 U	< 0.050 U	< 0.050 U	< 0.050 U	< 0.050 U	< 0.050 U	< 0.050 U	< 0.050 U	< 0.050 U	< 0.050 U	< 0.050 U	< 0.050 U	< 0.050 U
4,4'-DDT	µg/l	0.2	0.2	< 0.050 U	< 0.050 U	< 0.050 U	< 0.050 U	< 0.050 U	< 0.050 U	< 0.050 U	< 0.050 U	< 0.050 U	< 0.050 U	< 0.050 U	< 0.050 U	< 0.050 U	< 0.050 U
Aldrin	µg/l	0	0.002	< 0.050 U	< 0.050 U	< 0.050 U	< 0.050 U	< 0.050 U	< 0.050 U	< 0.050 U	< 0.050 U	< 0.050 U	< 0.050 U	< 0.050 UJ	< 0.050 UJ	< 0.050 U	< 0.050 UJ
Alpha-BHC	µg/l	0.01	0.01	< 0.050 U	< 0.050 U	< 0.050 U	< 0.050 U	< 0.050 U	< 0.050 U	< 0.050 U	< 0.050 U	< 0.050 U	< 0.050 U	< 0.050 U	< 0.050 U	< 0.050 U	< 0.050 U
alpha-Chlordane	µg/l	-	-	< 0.050 U	< 0.050 U	< 0.050 U	< 0.050 U	< 0.050 U	< 0.050 U	< 0.050 U	< 0.050 U	< 0.050 U	< 0.050 U	< 0.050 U	< 0.050 U	< 0.050 U	< 0.050 U
Beta-BHC	µg/l	**0.04**	0.04	< 0.050 U	**0.050**	< 0.050 U	< 0.050 U	< 0.050 U	< 0.050 U	< 0.050 U	< 0.050 U	< 0.050 U	< 0.050 U	< 0.050 U	< 0.050 U	< 0.050 U	0.045 UJ
Delta-BHC	µg/l	0.04	0.04	< 0.050 U	< 0.050 U	< 0.050 U	< 0.050 U	< 0.050 U	< 0.050 U	< 0.050 U	< 0.050 U	< 0.050 U	< 0.050 U	< 0.050 UJ	< 0.050 UJ	< 0.050 U	< 0.050 UJ
Dieldrin	µg/l	0.004	0.004	< 0.050 U	< 0.050 U	< 0.050 U	< 0.050 U	< 0.050 U	< 0.050 U	< 0.050 U	< 0.050 U	< 0.050 U	< 0.050 U	< 0.050 U	< 0.050 U	< 0.050 U	< 0.050 U
Endosulfan I	µg/l	-	-	< 0.050 UJ	< 0.050 UJ	< 0.050 UJ	< 0.050 U	< 0.050 U	< 0.050 U	< 0.050 U	< 0.050 U	< 0.050 U	< 0.050 U	< 0.050 UJ	< 0.050 UJ	< 0.050 UJ	< 0.050 UJ
Endosulfan II	µg/l	-	-	< 0.050 UJ	< 0.050 UJ	< 0.050 UJ	< 0.050 U	< 0.050 U	< 0.050 U	< 0.050 U	< 0.050 UJ	< 0.050 U	< 0.050 U	< 0.050 UJ	< 0.050 UJ	< 0.050 UJ	< 0.050 UJ
Endosulfan Sulfate	µg/l	-	-	< 0.050 U	< 0.050 U	< 0.050 U	< 0.050 U	< 0.050 U	< 0.050 U	< 0.050 U	< 0.050 U	< 0.050 U	< 0.050 U	< 0.050 U	< 0.050 U	< 0.050 U	< 0.050 U
Endrin	µg/l	0	0.2	< 0.050 U	< 0.050 U	< 0.050 U	< 0.050 U	< 0.050 U	< 0.050 U	< 0.050 U	< 0.050 U	< 0.050 U	< 0.050 U	< 0.050 U	< 0.050 U	< 0.050 U	< 0.050 U
Endrin Aldehyde	µg/l	5	5	< 0.050 U	< 0.050 U	< 0.050 U	< 0.050 U	< 0.050 U	< 0.050 U	< 0.050 U	< 0.050 U	< 0.050 U	< 0.050 U	< 0.050 U	< 0.050 U	< 0.050 U	< 0.050 U
Endrin Ketone	µg/l	5	5	< 0.050 U	< 0.050 U	< 0.050 U	< 0.050 U	< 0.050 U	< 0.050 U	< 0.050 U	< 0.050 U	< 0.050 U	< 0.050 U	< 0.050 U	< 0.050 U	< 0.050 U	< 0.050 U
Gamma-BHC	µg/l	0.05	0.05	< 0.050 U	< 0.050 U	< 0.050 U	< 0.050 U	< 0.050 U	< 0.050 U	< 0.050 U	< 0.050 U	< 0.050 U	< 0.050 U	< 0.050 U	< 0.050 U	< 0.050 U	< 0.050 U
Gamma-Chlordane	µg/l	-	-	< 0.050 U	< 0.050 U	< 0.050 U	< 0.050 U	< 0.050 U	< 0.050 U	< 0.050 U	< 0.050 U	< 0.050 U	< 0.050 U	< 0.050 UJ	< 0.050 UJ	< 0.050 U	< 0.050 UJ
Heptachlor	µg/l	0.04	0.04	< 0.050 U	< 0.050 U	< 0.050 U	< 0.050 U	< 0.050 U	< 0.050 U	< 0.050 U	< 0.050 U	< 0.050 U	< 0.050 U	< 0.050 UJ	< 0.050 UJ	< 0.050 U	< 0.050 UJ
Heptachlor Epoxide	µg/l	0.03	0.03	< 0.050 U	< 0.050 U	< 0.050 U	< 0.050 U	< 0.050 U	< 0.050 U	< 0.050 U	< 0.050 U	< 0.050 U	< 0.050 U	< 0.050 UJ	< 0.050 UJ	< 0.050 U	< 0.050 UJ
Methoxychlor	µg/l	35	35	< 0.050 U	< 0.050 U	< 0.050 U	< 0.050 U	< 0.050 U	< 0.050 U	< 0.050 U	< 0.050 U	< 0.050 U	< 0.050 U	< 0.050 U	< 0.050 U	< 0.050 U	< 0.050 U
Toxaphene	µg/l	0.06	0.06	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 UJ	< 0.50 UJ	< 0.50 U	< 0.50 UJ
SW8082A																	
Aroclor 1016	µg/l			< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U
Aroclor 1221	µg/l			< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U
Aroclor 1232	µg/l			< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 UJ	< 0.50 UJ	< 0.50 U	< 0.50 UJ
Aroclor 1242	µg/l			< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U
Aroclor 1248	µg/l	0.09	0.09	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U
Aroclor 1254	µg/l			< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U
Aroclor 1260	µg/l			< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U
Aroclor-1262	µg/l			< 0.50 UJ	< 0.50 UJ	< 0.50 UJ	< 0.50 UJ	< 0.50 UJ	< 0.50 UJ	< 0.50 UJ	< 0.50 UJ	< 0.50 UJ	< 0.50 UJ	< 0.50 U	< 0.50 U	< 0.50 UJ	< 0.50 U
Aroclor-1268	µg/l			< 0.50 UJ	< 0.50 UJ	< 0.50 UJ	< 0.50 UJ	< 0.50 UJ	< 0.50 UJ	< 0.50 UJ	< 0.50 UJ	< 0.50 UJ	< 0.50 UJ	< 0.50 U	< 0.50 U	< 0.50 UJ	< 0.50 U

Table 2
Groundwater/Surface Water Analytical Data

			Monitoring Well/Surface Sample ID	MW-101	MW-105	MW-108	MW-120	MW-123	MW-126	MW-128	MW-131	MW-144	MW-148	SW-1	SW-2	DUP-102918	DUP-110918
			Groundwater Elevation (fmsl)	576.42	576.26	576.23	576.32	576.44	576.32	576.27	576.54	576.35	576.36	NA	NA	NA	NA
			Sample Date	10/29/2018	10/29/2018	10/29/2018	10/30/2018	10/30/2018	10/30/2018	10/30/2018	10/29/2018	10/30/2018	10/30/2018	11/9/2018	11/9/2018	10/29/2018	11/9/2018
Analyte	Units	**NY TOGS 1.1.1 GWQS (CLASS GA)**	NY TOGS 1.1.1 SWQS (CLASS A, A-S, AA, AA-S)														
SW8260C																	
1,1,1-Trichloroethane	µg/l	5	5	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
1,1,2,2-Tetrachloroethane	µg/l	5	0.2	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
1,1,2-Trichloro-1,2,2-trifluoroethane	µg/l	5	5	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
1,1,2-Trichloroethane	µg/l	1	1	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
1,1-Dichloroethane	µg/l	5	5	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
1,1-Dichloroethene	µg/l	5	0.7	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
1,2,4-Trichlorobenzene	µg/l	5	5	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
1,2-Dibromo-3-chloropropane	µg/l	0.04	0.04	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
1,2-Dibromoethane	µg/l	0.0006	0.0006	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
1,2-Dichlorobenzene	µg/l	3	3	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
1,2-Dichloroethane	µg/l	0.6	0.6	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
1,2-Dichloropropane	µg/l	1	1	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
1,3-Dichlorobenzene	µg/l	3	3	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
1,4-Dichlorobenzene	µg/l	3	3	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
2-Butanone	µg/l	50	50	1.3 UJ	1.4 UJ	3.4 UJ	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	1.4 UJ	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U
2-Hexanone	µg/l	50	50	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U
4-Methyl-2-pentanone	µg/l	-	-	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U
Acetone	µg/l	50	50	7.4 UJ	12	28	5.6 UJ	9.5 UJ	5.9 UJ	3.6 UJ	< 10 U	10	< 10 U	< 10 U	< 10 U	3.6 UJ	< 10 U
Benzene	µg/l	1	1	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
Bromodichloromethane	µg/l	50	50	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
Bromoform	µg/l	50	50	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
Bromomethane	µg/l	5	5	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
Carbon Disulfide	µg/l	60	60	1.0	0.46 UJ	1.3	0.21 UJ	0.66 UJ	0.63 UJ	0.55 UJ	0.49 UJ	2.7	0.27 UJ	0.30 UJ	1.1	0.94 UJ	0.68 UJ
Carbon tetrachloride	µg/l	5	0.4	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
Chlorobenzene	µg/l	5	5	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
Chloroethane	µg/l	5	5	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
Chloroform	µg/l	7	7	1.7	0.60 UJ	0.67 UJ	< 1.0 U	0.34 UJ	< 1.0 U	< 1.0 U	< 1.0 U	0.65 UJ	< 1.0 U	< 1.0 U	< 1.0 U	0.36 UJ	< 1.0 U
Chloromethane	µg/l	5	5	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
cis-1,2-Dichloroethene	µg/l	5	5	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
cis-1,3-Dichloropropene	µg/l	0.4	0.4	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
Cyclohexane	µg/l	-	-	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	0.21 UJ	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
Dibromochloromethane	µg/l	50	50	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
Dichlorodifluoromethane	µg/l	5	5	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
Ethylbenzene	µg/l	5	5	< 1.0 U	< 1.0 U	0.95 UJ	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
Isopropylbenzene	µg/l	5	5	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
Methyl acetate	µg/l	-	-	< 2.5 U	< 2.5 U	< 2.5 U	< 2.5 U	< 2.5 U	< 2.5 U	< 2.5 U	< 2.5 U	< 2.5 U	< 2.5 U	< 2.5 U	< 2.5 U	< 2.5 U	< 2.5 U
Methyl tert-butyl ether	µg/l	10	10	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
Methylcyclohexane	µg/l	-	-	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	0.16 UJ	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
Methylene chloride	µg/l	5	5	1.9	1.9	2.0	2.2	3.5	2.5	2.5	1.5	2.0	2.2	< 1.0 U	< 1.0 U	1.7	< 1.0 U
Styrene	µg/l	5	5	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
Tetrachloroethene	µg/l	5	0.7	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
Toluene	µg/l	5	5	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
trans-1,2-Dichloroethene	µg/l	5	5	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
trans-1,3-Dichloropropene	µg/l	0.4	0.4	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
Trichloroethene	µg/l	5	5	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
Trichlorofluoromethane	µg/l	5	5	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
Vinyl Chloride	µg/l	2	0.3	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
Xylenes, Total	µg/l	****5**	**5	< 2.0 U	< 2.0 U	**6.0**	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U

Table 2
Groundwater/Surface Water Analytical Data

			Monitoring Well/Surface Sample ID	MW-101	MW-105	MW-108	MW-120	MW-123	MW-126	MW-128	MW-131	MW-144	MW-148	SW-1	SW-2	DUP-102918	DUP-110918
			Groundwater Elevation (fmsl)	576.42	576.26	576.23	576.32	576.44	576.32	576.27	576.54	576.35	576.36	NA	NA	NA	NA
			Sample Date	10/29/2018	10/29/2018	10/29/2018	10/30/2018	10/30/2018	10/30/2018	10/30/2018	10/29/2018	10/30/2018	10/30/2018	11/9/2018	11/9/2018	10/29/2018	11/9/2018
Analyte	Units	**NY TOGS 1.1.1 GWQS (CLASS GA)**	NY TOGS 1.1.1 SWQS (CLASS A, A-S, AA, AA-S)														
SW8270D																	
1,1'-Biphenyl	µg/l	5	5	< 5.0 U	< 5.0 U	< 25 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U
2,2'-oxybis(1-Chloropropane)	µg/l	-	-	< 5.0 U	< 5.0 U	< 25 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U
2,4,5-Trichlorophenol	µg/l	***1	***1	< 5.0 U	< 5.0 U	< 25 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U
2,4,6-Trichlorophenol	µg/l	***1	***1	< 5.0 U	< 5.0 U	< 25 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U
2,4-Dichlorophenol	µg/l	5	5	< 5.0 U	< 5.0 U	< 25 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U
2,4-Dimethylphenol	µg/l	50	50	< 5.0 U	< 5.0 U	< 25 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U
2,4-Dinitrophenol	µg/l	10	10	< 10 U	< 10 U	< 50 U	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U
2,4-Dinitrotoluene	µg/l	5	5	< 5.0 U	< 5.0 U	< 25 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U
2,6-Dinitrotoluene	µg/l	5	0.07	< 5.0 U	< 5.0 U	< 25 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U
2-Chloronaphthalene	µg/l	10	10	< 5.0 U	< 5.0 U	< 25 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U
2-Chlorophenol	µg/l	***1	***1	< 5.0 U	< 5.0 U	< 25 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U
2-Methylnaphthalene	µg/l	-	-	< 5.0 U	< 5.0 U	< 25 U	0.62 UJ	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U
2-Methylphenol	µg/l	***1	***1	< 5.0 U	< 5.0 U	< 25 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U
2-Nitroaniline	µg/l	5	5	< 10 U	< 10 U	< 50 U	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U
2-Nitrophenol	µg/l	***1	***1	< 5.0 U	< 5.0 U	< 25 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U
3,3'-Dichlorobenzidine	µg/l	5	5	< 5.0 U	< 5.0 U	< 25 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U
3-Nitroaniline	µg/l	5	5	< 10 U	< 10 U	< 50 U	< 10 UJ	< 10 UJ	< 10 UJ	< 10 UJ	< 10 U	< 10 UJ	< 10 UJ	< 10 U	< 10 U	< 10 U	< 10 U
4,6-Dinitro-2-methylphenol	µg/l	***1	***1	< 10 U	< 10 U	< 50 U	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U
4-Bromophenyl phenyl ether	µg/l	-	-	< 5.0 U	< 5.0 U	< 25 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U
4-Chloro-3-methylphenol	µg/l	***1	***1	< 5.0 U	< 5.0 U	< 25 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U
4-Chloroaniline	µg/l	5		< 5.0 U	< 5.0 U	< 25 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U
4-Chlorophenyl phenyl ether	µg/l	-	-	< 5.0 U	< 5.0 U	< 25 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U
4-Methylphenol	µg/l	***1	***1	< 10 U	**0.65 UJ**	**2.1 UJ**	**1.0 UJ**	**0.41 UJ**	**0.69 UJ**	**1.1 UJ**	< 10 U	**1.2 UJ**	< 10 U	< 10 U	0.89 UJ	< 10 U	0.97 UJ
4-Nitroaniline	µg/l	5	5	< 10 U	< 10 U	< 50 U	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U
4-Nitrophenol	µg/l	***1	***1	< 10 U	< 10 U	< 50 U	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U
Acenaphthene	µg/l	20	20	< 5.0 U	< 5.0 U	< 25 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U
Acenaphthylene	µg/l	-	-	< 5.0 U	< 5.0 U	< 25 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U
Acetophenone	µg/l	-	-	< 5.0 U	< 5.0 U	< 25 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U
Anthracene	µg/l	50	50	< 5.0 U	< 5.0 U	< 25 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U
Atrazine	µg/l	7.5	3	< 5.0 U	< 5.0 U	< 25 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U
Benzaldehyde	µg/l	-	-	< 5.0 U	< 5.0 U	< 25 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U
Benzo(b)fluoranthene	µg/l	0.002	0.002	< 5.0 U	< 5.0 U	< 25 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U
Benzo[a]anthracene	µg/l	0.002	0.002	< 5.0 U	< 5.0 U	< 25 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U
Benzo[a]pyrene	µg/l	0	0.002	< 5.0 U	< 5.0 U	< 25 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U
Benzo[g,h,i]perylene	µg/l	-	-	< 5.0 U	< 5.0 U	< 25 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U
Benzo[k]fluoranthene	µg/l	0.002	0.002	< 5.0 U	< 5.0 U	< 25 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U
bis(2-Chloroethoxy)methane	µg/l	5	5	< 5.0 U	< 5.0 U	< 25 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U
bis(2-Chloroethyl) ether	µg/l	1.0	0.03	< 5.0 U	< 5.0 U	< 25 U	< 5.0 UJ	< 5.0 UJ	< 5.0 UJ	< 5.0 UJ	< 5.0 U	< 5.0 UJ	< 5.0 UJ	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U
bis(2-Ethylhexyl) phthalate	µg/l	5	5	< 5.0 U	< 5.0 U	< 25 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U
Butyl benzyl phthalate	µg/l	50	50	< 5.0 U	< 5.0 U	< 25 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U
Caprolactam	µg/l	-	-	< 5.0 U	< 5.0 U	< 25 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U
Carbazole	µg/l	-	-	< 5.0 U	< 5.0 U	< 25 U	0.32 UJ	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U
Chrysene	µg/l	0.002	0.002	< 5.0 U	< 5.0 U	< 25 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U
Dibenz[a,h]anthracene	µg/l	-	-	< 5.0 U	< 5.0 U	< 25 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U
Dibenzofuran	µg/l	-	-	< 10 U	< 10 U	< 50 U	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U
Diethyl phthalate	µg/l	50	50	< 5.0 U	< 5.0 U	< 25 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U
Dimethyl phthalate	µg/l	50	50	< 5.0 U	< 5.0 U	< 25 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U
Di-n-butyl phthalate	µg/l	50	50	< 5.0 U	< 5.0 U	< 25 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 UJ	< 5.0 UJ	< 5.0 U	0.33 UJ
Di-n-octyl phthalate	µg/l	50	50	< 5.0 U	< 5.0 U	< 25 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 UJ	< 5.0 UJ	< 5.0 U	< 5.0 UJ
Fluoranthene	µg/l	50	50	< 5.0 U	< 5.0 U	< 25 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U
Fluorene	µg/l	50	50	< 5.0 U	< 5.0 U	< 25 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U
Hexachlorobenzene	µg/l	0.04	0.04	< 5.0 U	< 5.0 U	< 25 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U
Hexachlorobutadiene	µg/l	0.5	0.5	< 5.0 U	< 5.0 U	< 25 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U
Hexachlorocyclopentadiene	µg/l	5	5	< 5.0 U	< 5.0 U	< 25 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U
Hexachloroethane	µg/l	5	5	< 5.0 U	< 5.0 U	< 25 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U
Indeno[1,2,3-cd]pyrene	µg/l	0.002	0.002	< 5.0 U	< 5.0 U	< 25 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U
Isophorone	µg/l	50	50	< 5.0 U	< 5.0 U	< 25 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U
Naphthalene	µg/l	10	10	< 5.0 U	< 5.0 U	< 25 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U
Nitrobenzene	µg/l	0.4	0.4	< 5.0 U	< 5.0 U	< 25 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U
N-Nitrosodi-n-propylamine	µg/l	-	-	< 5.0 U	< 5.0 U	< 25 U	< 5.0 UJ	< 5.0 UJ	< 5.0 UJ	< 5.0 UJ	< 5.0 U	< 5.0 UJ	< 5.0 UJ	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U
N-Nitrosodiphenylamine	µg/l	50	50	< 5.0 U	< 5.0 U	< 25 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U
Pentachlorophenol	µg/l	***1	***1	< 10 U	**2.7 UJ**	**11 UJ**	**2.4 UJ**	**2.3 UJ**	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	< 10 UJ	< 10 UJ	< 10 U	< 10 UJ
Phenanthrene	µg/l	50		< 5.0 U	< 5.0 U	< 25 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U
Phenol	µg/l	***1	***1	**3.7 UJ**	**11**	**14 UJ**	**4.2 UJ**	**1.7 UJ**	**3.0 UJ**	**0.77 UJ**	0.57 UJ	**0.59 UJ**	< 5.0 U	< 5.0 U	< 5.0 U	0.59 UJ	< 5.0 U
Pyrene	µg/l	50	50	< 5.0 U	< 5.0 U	< 25 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U

Table 2
Groundwater/Surface Water Analytical Data

			Monitoring Well/Surface Sample ID	**MW-101**	**MW-105**	**MW-108**	**MW-120**	**MW-123**	**MW-126**	**MW-128**	**MW-131**	**MW-144**	**MW-148**	**SW-1**	**SW-2**	**DUP-102918**	**DUP-110918**
			Groundwater Elevation (fmsl)	**576.42**	**576.26**	**576.23**	**576.32**	**576.44**	**576.32**	**576.27**	**576.54**	**576.35**	**576.36**	**NA**	**NA**	**NA**	**NA**
			Sample Date	**10/29/2018**	**10/29/2018**	**10/29/2018**	**10/30/2018**	**10/30/2018**	**10/30/2018**	**10/30/2018**	**10/29/2018**	**10/30/2018**	**10/30/2018**	**11/9/2018**	**11/9/2018**	**10/29/2018**	**11/9/2018**
Analyte	Units	**NY TOGS 1.1.1 GWQS (CLASS GA)**	NY TOGS 1.1.1 SWQS (CLASS A, A-S, AA, AA-S)														
SW9012																	
Cyanide, Total	mg/l	0.2	0.2	< 0.010 U	0.0091 UJ	0.043	0.0078 UJ	0.010	0.011	0.010	< 0.010 U	0.016	< 0.010 UJ	0.010 J+	0.012 J+	< 0.010 U	0.013 J+
SW9040C																	
pH	NA	-	-	11.7 J	11.9 J	11.8 J	11.4 J	6.27 J	11.8 J	11.8 J	12.0 J	6.08 J	5.46 J	12.2 J	12.2 J	12.0 J	12.2 J
Temperature	Celcius	-	-	25.3 J	25.1 J	25.1 J	19.8 J	19.7 J	19.9 J	19.8 J	25.3 J	19.1 J	19.5 J	19.7 J	20.0 J	25.2 J	20.2 J

Notes:
ft bgs = feet below ground surface
mg/L = milligrams per liter
µg/L = micrograms per liter
TOGS 1.1.1 = Technical and Operational Guidance Series 1.1.1
GWQS = Ambient Groundwater Quality Standards and Guidance Values (Table 1)
SWQS = Ambient Surface Water Quailty Sandards and Guidance Values (Table 1) - only applies to SW-1, SW-2 and DUP-110918
- = no GWQS or SWQS established
NA = not applicable/analyzed
Qualifiers as indicated by validator:
U = Analyte analyzed for, but not detected above the sample's reported quantitation limit
J = Analyte positively identified at a numerical value that is the approximate concentration of the analyte in the sample
J+ = Sample likely to have a high bias
J- = Sample likely to have a low bias
UJ = Analyte not detected above the sample quantitation limit; the associated quantitation limit is approximate and may or may not represent the actual limit of quantitation necessary to accurately and precisely measure the analyte in the sample
N = The analysis indicates the present of an analyte for which there is presumptive evidence to make a "tentative identification."
NJ = The analysis indicates the presence of an analyte that has been "tentatively identified" and the associated numerical value represents its approximate oncentration.

R = Sample result rejected due to serious deficiency in ability to analyze sample and meet quality control criteria; the presence or absence of the analyte cannot be confirmed. This qualifier also may apply when more than one sample result is generated for a target analyte (i.e., dilutions or re-analyses), the most technically acceptable result is considered acceptable.
B/EB/TB/BB = An analyte identified in method blank (B), aqueous equipment (EB), trip (TB), or bottle blanks (BB) used to assess field contamination associated with soil or sediment samples mandates these qualifiers for only soil and sediment sample results.

P = Use professional judgment based on data use. It usually has an "M" with it, which indicates that a manual check should be made if the data that are qualified with the "P" are important to the data user. In addition, "PM" also means a decision is necessary from the Project Manager (or a delegate) concerning the need for further review of the data (see below).

PM = A manual review of the raw data is recommended to determine if the defect affects data use, as in "R" above. This review should include consideration of potential affects that could result from using the "P" qualified data. For example, in the case of holding-time exceedance, the Project Manager or delegate can decide to use the data with no qualification when analytes of interest are known not to be adversely affected by holding-time exceedances. Another example is the case where soil sample duplicate analyses for metals exceed the precision criteria; because this is likely due to sample non-homogeneity rather than contract laboratory error, then the manager or delegate must decide how to use the data.

Appendix A – Soil Boring and Monitoring Well Logs

Soil Boring/Monitoring Well

Groundwater & Environmental Services, Inc.

ID NO. **SB-101/MW-101**

Project: **Buffalo Lakeside Commercial Park**	Client: **NYSDEC**	Regulatory Case #: **Site No. 915322**
Address: **Laborers Way & Ship Canal Pkwy, Buffalo, NY**		Regulatory Case Mgr: **Jenelle Gaylord**
County: **Erie**	GES Job #: **0901752**	GES Project Mgr: **Eric D. Popken**
Logged By: **J. Clay/P. Colern**	Date Drilled: **10-10-2018**	Sample Tool Diameter: **NA**
Drilling Company: **Cascade Drilling**	Completion Date: **10-25-2018**	Sample Tool Length: **10 ft.**
Drill Operator: **Arlen Little**	Drilling Method: **Sonic Rig**	Soil Classification System: **Modified Burmister**
Drill Rig Type: **Sonic**	Sampling Method: **Sonic Tube**	Field Screening: **MiniRae3000 10.6 eV**
Latitude: **NA**	Longitude: **NA**	Top of Bentonite Seal: **2 fbgs.**
TOC Elevation: **583.73 famsl.**	Borehole Diameter: **4.5 in.**	Type of Seal: **Bentonite Chips**
Total Depth: **20 fbgs.**	Well Diameter: **2 in.**	Top of Sand: **4 fbgs.**
Refusal Depth: **Not Encountered**	Riser Length: **8 ft. (3 ftag)**	Sand Type: **20-40 Mesh Sand Pack**
Initial Depth to Water: **~6 fbgs.**	Screen Slot Size: **0.010-in.**	Well Material Type: **Schedule 40 PVC**
Static Depth to Water: **7.31 ft. btoc.**	Screen Length: **10 ft.**	Top of Grout: **1 fbgs.**

Depth (fbgs)	Sample Interval (feet)	Recovery (ft/ft)	Field Screen (ppm)	Geologic Description	Comments
0	0-1	5.5/10	2.2	TOPSOIL & FILL fine to coarse SAND and GRAVEL, dark brown, moist, loose, no odor	SB-101-A @ 0-1'
	1-2		NA	FILL, fine to coarse SLAG debris, gray, very moist to wet	3 ft. stick up protective casing
	3-4		0.9	FILL, fine to coarse SLAG debris, gray, very moist to wet	
	4-6		1.0	FILL, fine to coarse SLAG debris, gray, very moist to wet	
5	6-8		0.9	FILL, fine to coarse SLAG debris, gray, wet	
	8-10		1.3	FILL, fine to coarse SLAG debris, gray, very moist to wet, at 10 fbgs. CLAY and FILL debris, dark brown-black, very moist-wet, organic odor	SB-101-B @ 8-10'
10	10-12	8.5/10	0.7	CLAY, little SILT, gray, some brown veins, moist	
	12-14		0.6	CLAY, little SILT, gray, some brown veins, moist	SB-101-C @ 12-14'
	14-16		0.5	CLAY, veins of fine SAND, gray, some brown veins, moist	
15	16-18		0.6	CLAY, veins of fine SAND, gray, some brown veins, moist	
	18-20		0.9	CLAY, gray, moist, very soft	Boring ended at 20 fbgs.
20					

Completion Detail: Pro-Casing (1'-3 ftag); Concrete (1-0'); Grout (2-1'); Riser (5'-3 ftag); Bentonite (4-2'); Sand (15-4'); Screen (15-5'); Backfilled (20-15')

Proportions Used:

Trace =	<5%
Little =	6-15%
Few =	16-30%
Some =	31-49%
And =	>50%

Notes:

NA = not available; fbgs. = feet below ground surface
in. = inches; ft.= feet; ppm.= parts per million
Soil Lithologies based on field observations only.
famsl. = feet above mean sea level
btoc = below top-of-casing; ftag = feet above grade
eV = electron volt; PVC = polyvinyl chloride

Blow Count Pentration Resistance:

Consistency (M&C)		Density (G&S)	
<2 =	Very Soft	0-4 =	Very Loose
2-4 =	Soft	4-10 =	Loose
4-8 =	Medium	10-30 =	Medium
8-15 =	Stiff	30-50 =	Dense
15-30 =	Very Stiff	>50 =	Very Dense
>30 =	Hard		

Symbol Legend

Static Water Level

Lab Sample Location

Soil Boring

Groundwater & Environmental Services, Inc.

ID NO. SB-102

Project: **Buffalo Lakeside Commercial Park**	Client: **NYSDEC**	Regulatory Case #: **Site No. 915322**
Address: **Laborers Way & Ship Canal Pkwy, Buffalo, NY**		Regulatory Case Mgr: **Jenelle Gaylord**
County: **Erie**	GES Job #: **0901752**	GES Project Mgr: **Eric D. Popken**
Logged By: **J. Clay/P. Colern**	Date Drilled: **10-10-2018**	Sample Tool Diameter: **NA**
Drilling Company: **Cascade Drilling**	Completion Date: **10-10-2018**	Sample Tool Length: **10 ft.**
Drill Operator: **Arlen Little**	Drilling Method: **Sonic Rig**	Soil Classification System: **Modified Burmister**
Drill Rig Type: **Sonic**	Sampling Method: **Sonic Tube**	Field Screening: **MiniRae3000 10.6 eV**
Latitude: **NA**	Longitude: **NA**	Top of Bentonite Seal: **NA**
TOC Elevation: **NA**	Borehole Diameter: **4.5 in.**	Type of Seal: **NA**
Total Depth: **20 fbgs.**	Well Diameter: **NA**	Top of Sand: **NA**
Refusal Depth: **Not Encountered**	Riser Length: **NA**	Sand Type: **NA**
Initial Depth to Water: **NA**	Screen Slot Size: **NA**	Well Material Type: **NA**
Static Depth to Water: **NA**	Screen Length: **NA**	Top of Grout: **NA**

Depth (fbgs)	Sample Interval (feet)	Recovery (ft/ft)	Field Screen (pom) 0 5	Geologic Description	Comments	Completion Detail
0	0-1	7.5/10	0.6	TOPSOIL and SLAG debris, brown, slightly moist		
	1-4		3.4	SLAG debris, some fine to coarse SAND and GRAVEL, brown and gray, moist	SB-102-A @ 0-1'	
	4-6		0.4	SLAG debris, some fine to coarse SAND and GRAVEL, gray, wet	SB-102-B @ 4-6'	
5	6-8		1.1	SLAG debris, some fine to coarse SAND and GRAVEL, gray, saturated		
	8-10		0.6	organic CLAY, wood and SLAG debris, black, wet		
10	10-12	8/10	0.6	Clay and fine SAND, interbedded layers, gray, slightly moist		Backfilled with cuttings
	12-14		0.3	CLAY, trace medium GRAVEL, gray and brown, mottling, slightly moist, stiff	SB-102-C @ 12-14'	
	14-16		0.2	CLAY, trace medium GRAVEL, gray and brown, mottling, slightly moist, stiff, gray is dominant at 15 fbgs.		
15	16-18		0.1	CLAY and fine SAND, interbedded layers, gray with brown veins, slightly moist		
	18-20		0.1	CLAY, gray, slightly moist, soft	Boring ended at 20 fbgs.	
20						

Proportions Used:

Trace =	<5%
Little =	6-15%
Few =	16-30%
Some =	31-49%
And =	>50%

Notes:

NA = not available; fbgs. = feet below ground surface
in. = inches; ft.= feet; ppm.= parts per million
Soil Lithologies based on field observations only.
famsl. = feet above mean sea level
btoc = below top-of-casing; ftag = feet above grade
eV = electron volt; PVC = polyvinyl chloride

Blow Count Pentration Resistance:

Consistency (M&C)		Density (G&S)	
<2 =	Very Soft	0-4 =	Very Loose
2-4 =	Soft	4-10 =	Loose
4-8 =	Medium	10-30 =	Medium
8-15 =	Stiff	30-50 =	Dense
15-30 =	Very Stiff	>50 =	Very Dense
>30 =	Hard		

Symbol Legend

Static Water Level

Lab Sample Location

Soil Boring

Groundwater & Environmental Services, Inc.

ID NO. **SB-103**

Project: **Buffalo Lakeside Commercial Park**	Client: **NYSDEC**	Regulatory Case #: **Site No. 915322**
Address: **Laborers Way & Ship Canal Pkwy, Buffalo, NY**		Regulatory Case Mgr: **Jenelle Gaylord**
County: **Erie**	GES Job #: **0901752**	GES Project Mgr: **Eric D. Popken**
Logged By: **J. Clay/P. Colern**	Date Drilled: **10-10-2018**	Sample Tool Diameter: **NA**
Drilling Company: **Cascade Drilling**	Completion Date: **10-10-2018**	Sample Tool Length: **10 ft.**
Drill Operator: **Arlen Little**	Drilling Method: **Sonic Rig**	Soil Classification System: **Modified Burmister**
Drill Rig Type: **Sonic**	Sampling Method: **Sonic Tube**	Field Screening: **MiniRae3000 10.6 eV**
Latitude: **NA**	Longitude: **NA**	Top of Bentonite Seal: **NA**
TOC Elevation: **NA**	Borehole Diameter: **4.5 in.**	Type of Seal: **NA**
Total Depth: **20 fbgs.**	Well Diameter: **NA**	Top of Sand: **NA**
Refusal Depth: **Not Encountered**	Riser Length: **NA**	Sand Type: **NA**
Initial Depth to Water: **NA**	Screen Slot Size: **NA**	Well Material Type: **NA**
Static Depth to Water: **NA**	Screen Length: **NA**	Top of Grout: **NA**

Depth (fbgs)	Sample Interval (feet)	Recovery (ft/ft)	Field Screen (ppm)	Geologic Description	Comments	Completion Detail
0	0-1	7/10	0.3	TOPSOIL and fine to coarse SLAG debris, brown, moist		
	1-4		0.3	FILL, SLAG debris, some fine to coarse SAND and GRAVEL, brown and gray, moist	SB-103-A @ 0-1'	
	4-6		0.2	FILL, SLAG debris, little fine to coarse SAND and GRAVEL, gray, wet	SB-103-B @ 4-6'	
5	6-8		0.3	FILL, SLAG debris, little fine to coarse SAND and GRAVEL, gray, wet		
	8-10		0.4	Organic CLAY, wood debris, some SLAG debris, black, moist to wet		
10	10-12	10/10	0.4	Organic CLAY, wood debris, some SLAG debris, black, wet		Backfilled with cuttings
	12-14		0.3	CLAY, some fine SAND veins, gray, moist	SB-103-C @ 12-14'	
	14-16		0.2	CLAY, gray, moist, stiff		
15	16-18		0.3	CLAY, gray, moist, stiff		
	18-20		0.2	CLAY, gray, very moist, soft	Boring ended at 20 fbgs.	
20						

Proportions Used:

Trace =	<5%
Little =	6-15%
Few =	16-30%
Some =	31-49%
And =	>50%

Notes:

NA = not available; fbgs. = feet below ground surface
in. = inches; ft.= feet; ppm.= parts per million
Soil Lithologies based on field observations only.
famsl. = feet above mean sea level
btoc = below top-of-casing; ftag = feet above grade
eV = electron volt; PVC = polyvinyl chloride

Blow Count Pentration Resistance:

Consistency (M&C)		Density (G&S)	
<2 =	Very Soft	0-4 =	Very Loose
2-4 =	Soft	4-10 =	Loose
4-8 =	Medium	10-30 =	Medium
8-15 =	Stiff	30-50 =	Dense
15-30 =	Very Stiff	>50 =	Very Dense
>30 =	Hard		

Symbol Legend

Static Water Level

Lab Sample Location

Soil Boring

Groundwater & Environmental Services, Inc.

ID NO. SB-104

Project: **Buffalo Lakeside Commercial Park**	Client: **NYSDEC**	Regulatory Case #: **Site No. 915322**
Address: **Laborers Way & Ship Canal Pkwy, Buffalo, NY**		Regulatory Case Mgr: **Jenelle Gaylord**
County: **Erie**	GES Job #: **0901752**	GES Project Mgr: **Eric D. Popken**
Logged By: **J. Clay/P. Colern**	Date Drilled: **10-10-2018**	Sample Tool Diameter: **NA**
Drilling Company: **Cascade Drilling**	Completion Date: **10-10-2018**	Sample Tool Length: **10 ft.**
Drill Operator: **Arlen Little**	Drilling Method: **Sonic Rig**	Soil Classification System: **Modified Burmister**
Drill Rig Type: **Sonic**	Sampling Method: **Sonic Tube**	Field Screening: **MiniRae3000 10.6 eV**
Latitude: **NA**	Longitude: **NA**	Top of Bentonite Seal: **NA**
TOC Elevation: **NA**	Borehole Diameter: **4.5 in.**	Type of Seal: **NA**
Total Depth: **20 fbgs.**	Well Diameter: **NA**	Top of Sand: **NA**
Refusal Depth: **Not Encountered**	Riser Length: **NA**	Sand Type: **NA**
Initial Depth to Water: **NA**	Screen Slot Size: **NA**	Well Material Type: **NA**
Static Depth to Water: **NA**	Screen Length: **NA**	Top of Grout: **NA**

Depth (fbgs)	Sample Interval (feet)	Recovery (ft/ft)	Field Screen (pom) 0 5	Geologic Description	Comments	Completion Detail
0	0-1	5/10	0.5	TOPSOIL, SLAG debris and CLAY, dark brown, wet	SB-104-A @ 0-1'	
	1-4		2.6	CLAY and gray fine to coarse SLAG debris, dark brown, moist		
	4-6		0.5	SLAG debris, gray, wet	SB-104-B @ 4-6'	
5	6-8		0.2	SLAG debris, gray, wet		
	8-10		0.2	SLAG debris, gray, wet		
10	10-12	9/10	0.7	Organic CLAY, some wood debris, dark brown-black		Backfilled with cuttings
	12-14		0.2	Organic CLAY, some wood debris, dark brown-black		
	14-16		0.3	CLAY, some fine Sand, gray, moist, medium stiff	SB-104-C @ 14-16'	
15	16-18		0.3	CLAY, little fine SAND, gray with brown layers, sligtly moist, stiff		
	18-20		0.2	CLAY, little fine SAND, gray with brown layers, sligtly moist, stiff	Boring ended at 20 fbgs.	
20				CLAY, some black organic CLAY, gray, soft		

Proportions Used:

Trace =	<5%
Little =	6-15%
Few =	16-30%
Some =	31-49%
And =	>50%

Notes:

NA = not available; fbgs. = feet below ground surface
in. = inches; ft.= feet; ppm.= parts per million
Soil Lithologies based on field observations only.
famsl. = feet above mean sea level
btoc = below top-of-casing; ftag = feet above grade
eV = electron volt; PVC = polyvinyl chloride

Blow Count Pentration Resistance:

Consistency (M&C)		Density (G&S)	
<2 =	Very Soft	0-4 =	Very Loose
2-4 =	Soft	4-10 =	Loose
4-8 =	Medium	10-30 =	Medium
8-15 =	Stiff	30-50 =	Dense
15-30 =	Very Stiff	>50 =	Very Dense
>30 =	Hard		

Symbol Legend

Static Water Level

Lab Sample Location

Soil Boring/Monitoring Well

Groundwater & Environmental Services, Inc.

ID NO. **SB-105/MW-105**

Project: **Buffalo Lakeside Commercial Park**	Client: **NYSDEC**	Regulatory Case #: **Site No. 915322**
Address: **Laborers Way & Ship Canal Pkwy, Buffalo, NY**		Regulatory Case Mgr: **Jenelle Gaylord**
County: **Erie**	GES Job #: **0901752**	GES Project Mgr: **Eric D. Popken**
Logged By: **J. Clay/P. Colern**	Date Drilled: **10-10-2018**	Sample Tool Diameter: **4.5 in.**
Drilling Company: **Cascade Drilling**	Completion Date: **10-25-2018**	Sample Tool Length: **10 ft.**
Drill Operator: **Arlen Little**	Drilling Method: **Sonic Rig**	Soil Classification System: **Modified Burmister**
Drill Rig Type: **Sonic**	Sampling Method: **Sonic Tube**	Field Screening: **MiniRae3000 10.6 eV**
Latitude: **NA**	Longitude: **NA**	Top of Bentonite Seal: **2 fbgs.**
TOC Elevation: **584.12 famsl.**	Borehole Diameter: **4.5 in.**	Type of Seal: **Medium Bentonite Chips**
Total Depth: **20 fbgs.**	Well Diameter: **2 in.**	Top of Sand: **4 fbgs.**
Refusal Depth: **Not Encountered**	Riser Length: **8 ft. (3 ftag)**	Sand Type: **20-40 Mesh Sand Pack**
Initial Depth to Water: **~4 fbgs.**	Screen Slot Size: **0.010-in.**	Well Material Type: **Schedule 40 PVC**
Static Depth to Water: **8.84 ft. btoc.**	Screen Length: **10 ft.**	Top of Grout: **1 fbgs.**

Depth (fbgs)	Sample Interval (feet)	Recovery (ft/ft)	Field Screen (ppm) 0 3	Geologic Description	Comments	Completion Detail
0	0-1	6/10	1.2	TOPSOIL and SLAG debris, dark brown, slightly moist, loose	SB-105-A @ 0-1'	Pro-Casing (1'-3 ftag)
	1-4		0.8	FILL, fine to coarse SLAG debris, gray/brown, moist	3 ft. stick up protective casing	Concrete (1-0')
						Grout (2-1')
						Riser (5'-3 ftag)
	4-6		0.3	FILL, fine to coarse GRAVEL and SLAG debris, gray, wet		Bentonite (4-2')
5					SB-105-B @ 4-6'	
	6-8		0.3	FILL, fine to coarse GRAVEL and SLAG debris, gray, wet		
	8-10		0.7	FILL, fine to coarse GRAVEL and SLAG debris, gray-brown, wet		
				Organic CLAY, trance fine to medium SAND, black, wet		Sand (15-4')
10	10-12	9/10	0.7	PEAT and WOOD debris, brown, moist	SB-105-C @ 10-12'	Screen (15-5')
	12-14		0.3	CLAY, gray with brown veins, some SAND, moist		
				CLAY, gray with brown veins, moist	SB-105-D @ 12-14'	
	14-16		0.4	CLAY, gray with brown veins, moist		
15						
	16-18		0.3	CLAY, gray with brown veins, moist		Backfilled (20-15')
	18-20		0.5	Fine to medium SAND, some CLAY, little fine to coarse GRAVEL, brown, moist, 19-20 fbgs. nodules of PEAT	Boring ended at 20 fbgs.	
20						

Proportions Used:

Trace =	<5%
Little =	6-15%
Few =	16-30%
Some =	31-49%
And =	>50%

Notes:

NA = not available; fbgs. = feet below ground surface
in. = inches; ft.= feet; ppm.= parts per million
Soil Lithologies based on field observations only.
famsl. = feet above mean sea level
btoc = below top-of-casing; ftag = feet above grade
eV = electron volt; PVC = polyvinyl chloride

Blow Count Pentration Resistance:

Consistency (M&C)		Density (G&S)	
<2 =	Very Soft	0-4 =	Very Loose
2-4 =	Soft	4-10 =	Loose
4-8 =	Medium	10-30 =	Medium
8-15 =	Stiff	30-50 =	Dense
15-30 =	Very Stiff	>50 =	Very Dense
>30 =	Hard		

Symbol Legend

Static Water Level

Lab Sample Location

Soil Boring

Groundwater & Environmental Services, Inc.

ID NO. SB-106

Project: **Buffalo Lakeside Commercial Park**	Client: **NYSDEC**	Regulatory Case #: **Site No. 915322**
Address: **Laborers Way & Ship Canal Pkwy, Buffalo, NY**		Regulatory Case Mgr: **Jenelle Gaylord**
County: **Erie**	GES Job #: **0901752**	GES Project Mgr: **Eric D. Popken**
Logged By: **J. Clay/P. Colern**	Date Drilled: **10-10-2018**	Sample Tool Diameter: **NA**
Drilling Company: **Cascade Drilling**	Completion Date: **10-10-2018**	Sample Tool Length: **10 ft.**
Drill Operator: **Arlen Little**	Drilling Method: **Sonic Rig**	Soil Classification System: **Modified Burmister**
Drill Rig Type: **Sonic**	Sampling Method: **Sonic Tube**	Field Screening: **MiniRae3000 10.6 eV**
Latitude: **NA**	Longitude: **NA**	Top of Bentonite Seal: **NA**
TOC Elevation: **NA**	Borehole Diameter: **4.5 in.**	Type of Seal: **NA**
Total Depth: **20 fbgs.**	Well Diameter: **NA**	Top of Sand: **NA**
Refusal Depth: **Not Encountered**	Riser Length: **NA**	Sand Type: **NA**
Initial Depth to Water: **NA**	Screen Slot Size: **NA**	Well Material Type: **NA**
Static Depth to Water: **NA**	Screen Length: **NA**	Top of Grout: **NA**

Depth (fbgs)	Sample Interval (feet)	Recovery (ft/ft)	Field Screen (pom) 0–3	Geologic Description	Comments	Completion Detail
0	0-1	6.5/10	0.3	TOPSOIL, roots, some SLAG and GRAVEL debris, dark brown, wet		
	1-4		1.1	FILL, fine to coarse GRAVEL and SAND, some SLAG debris, dark brown-brown, moist	SB-106-A @ 0-1'	
	4-6		0.5	FILL, fine to coarse SAND and GRAVEL, dark brown/black, followed by fine to coarse SLAG and GRAVEL, gray, wet	SB-106-B & DUP-101018 @ 4-8'	
5	6-8		0.1	FILL, fine to coarse SLAG and GRAVEL, gray, wet		
	8-10		0.1	FILL, fine to coarse SLAG and GRAVEL, gray, wet		
10	10-11	10/10	0.1	Organic CLAY, black, wet		Backfilled with cuttings
	11-14		0.5	PEAT, dark brown, moist		
	14-16		0.1	CLAY, trace fine SAND veins, gray, medium stiff to stiff, moist	SB-106-C @ 14-16'	
15	16-18		0.2	CLAY, trace fine SAND veins, gray, medium stiff to stiff, moist		
	18-20		0.2	CLAY, little fine SAND veins, gray with red-brown veins, slightly moist, at 20' organic CLAY, black	Boring ended at 20 fbgs.	
20						

Proportions Used:

Trace =	<5%
Little =	6-15%
Few =	16-30%
Some =	31-49%
And =	>50%

Notes:

NA = not available; fbgs. = feet below ground surface
in. = inches; ft.= feet; ppm.= parts per million
Soil Lithologies based on field observations only.
famsl. = feet above mean sea level
btoc = below top-of-casing; ftag = feet above grade
eV = electron volt; PVC = polyvinyl chloride

Blow Count Pentration Resistance:

Consistency (M&C)		Density (G&S)	
<2 =	Very Soft	0-4 =	Very Loose
2-4 =	Soft	4-10 =	Loose
4-8 =	Medium	10-30 =	Medium
8-15 =	Stiff	30-50 =	Dense
15-30 =	Very Stiff	>50 =	Very Dense
>30 =	Hard		

Symbol Legend

Static Water Level

Lab Sample Location

Soil Boring

Groundwater & Environmental Services, Inc.

ID NO. SB-107

Project: **Buffalo Lakeside Commercial Park**	Client: **NYSDEC**	Regulatory Case #: **Site No. 915322**
Address: **Laborers Way & Ship Canal Pkwy, Buffalo, NY**		Regulatory Case Mgr: **Jenelle Gaylord**
County: **Erie**	GES Job #: **0901752**	GES Project Mgr: **Eric D. Popken**
Logged By: **J. Clay/P. Colern**	Date Drilled: **10-11-2018**	Sample Tool Diameter: **NA**
Drilling Company: **Cascade Drilling**	Completion Date: **10-11-2018**	Sample Tool Length: **10 ft.**
Drill Operator: **Arlen Little**	Drilling Method: **Sonic Rig**	Soil Classification System: **Modified Burmister**
Drill Rig Type: **Sonic**	Sampling Method: **Sonic Tube**	Field Screening: **MiniRae3000 10.6 eV**
Latitude: **NA**	Longitude: **NA**	Top of Bentonite Seal: **NA**
TOC Elevation: **NA**	Borehole Diameter: **4.5 in.**	Type of Seal: **NA**
Total Depth: **20 fbgs.**	Well Diameter: **NA**	Top of Sand: **NA**
Refusal Depth: **Not Encountered**	Riser Length: **NA**	Sand Type: **NA**
Initial Depth to Water: **NA**	Screen Slot Size: **NA**	Well Material Type: **NA**
Static Depth to Water: **NA**	Screen Length: **NA**	Top of Grout: **NA**

Depth (fbgs)	Sample Interval (feet)	Recovery (ft/ft)	Field Screen (ppm) 0 3	Geologic Description	Comments	Completion Detail
0	0-2	6/10	0.3	TOPSOIL and SLAG debris, some fine to medium SAND and GRAVEL, dark brown, moist	SB-107-A & MS/MSD @ 0-2'	Backfilled with cuttings
	2-4		2.1	FILL, SLAG debris and fine to coarse SAND, some medium GRAVEL, gray and dark gray, very moist		
	4-6		1.0	FILL, SLAG debris and fine to coarse GRAVEL, gray, wet		
5	6-8		0.4	FILL, SLAG debris and fine to coarse GRAVEL, light gray, wet	SB-107-B @ 6-8'	
	8-10		0.4	FILL, SLAG debris and fine to coarse GRAVEL, light gray, wet		
10	10-11	10/10	0.3	Organic CLAY, little SLAG debris, black, saturated		
	11-13		0.3	PEAT, dark brown, very moist		
	13-18		0.4	CLAY, layers of fine SAND, gray, wet	SB-107-C @ 13-18'	
15						
	18-20		0.6	CLAY, layers of fine SAND, gray, wet, at 20' some black organic CLAY	Boring ended at 20 fbgs.	
20						

Proportions Used:

Trace =	<5%
Little =	6-15%
Few =	16-30%
Some =	31-49%
And =	>50%

Notes:

NA = not available; fbgs. = feet below ground surface
in. = inches; ft.= feet; ppm.= parts per million
Soil Lithologies based on field observations only.
famsl. = feet above mean sea level
btoc = below top-of-casing; ftag = feet above grade
eV = electron volt; PVC = polyvinyl chloride

Blow Count Pentration Resistance:

Consistency (M&C)		Density (G&S)	
<2 =	Very Soft	0-4 =	Very Loose
2-4 =	Soft	4-10 =	Loose
4-8 =	Medium	10-30 =	Medium
8-15 =	Stiff	30-50 =	Dense
15-30 =	Very Stiff	>50 =	Very Dense
>30 =	Hard		

Symbol Legend

Static Water Level

Lab Sample Location

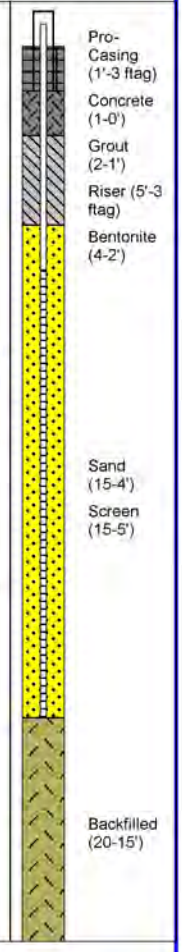
Soil Boring/Monitoring Well

Groundwater & Environmental Services, Inc.

ID NO. **SB-108/MW-108**

Project: **Buffalo Lakeside Commercial Park**	Client: **NYSDEC**	Regulatory Case #: **Site No. 915322**
Address: **Laborers Way & Ship Canal Pkwy, Buffalo, NY**		Regulatory Case Mgr: **Jenelle Gaylord**
County: **Erie**	GES Job #: **0901752**	GES Project Mgr: **Eric D. Popken**
Logged By: **J. Clay/P. Colern**	Date Drilled: **10-11-2018**	Sample Tool Diameter: **4.5 in.**
Drilling Company: **Cascade Drilling**	Completion Date: **10-25-2018**	Sample Tool Length: **10 ft.**
Drill Operator: **Arlen Little**	Drilling Method: **Sonic Rig**	Soil Classification System: **Modified Burmister**
Drill Rig Type: **Sonic**	Sampling Method: **Sonic Tube**	Field Screening: **MiniRae3000 10.6 eV**
Latitude: **NA**	Longitude: **NA**	Top of Bentonite Seal: **2 fbgs.**
TOC Elevation: **580.92 famsl.**	Borehole Diameter: **4.5 in.**	Type of Seal: **Medium Bentonite Chips**
Total Depth: **20 fbgs.**	Well Diameter: **2 in.**	Top of Sand: **4 fbgs.**
Refusal Depth: **Not Encountered**	Riser Length: **8 ft. (3 ftag)**	Sand Type: **20-40 Mesh Sand Pack**
Initial Depth to Water: **~7 fbgs.**	Screen Slot Size: **0.010-in.**	Well Material Type: **Schedule 40 PVC**
Static Depth to Water: **7.43 ft. btoc.**	Screen Length: **10 ft.**	Top of Grout: **1 fbgs.**

Depth (fbgs)	Sample Interval (feet)	Recovery (ft/ft)	Field Screen (ppm)	Geologic Description	Comments
0	0-1	7.5/10	0.3	TOPSOIL and SLAG debris, some fine to coarse SAND, dark brown, moist	SB-108-A @ 0-1'
	1-4		0.9	FILL, GRAVEL and SLAG debris, some fine to coarse SAND, dark brown, slightly moist	3 ft. stick up protective casing
5	4-6		1.2	FILL, GRAVEL and SLAG debris, some fine to coarse SAND, gray, slightly moist	
	6-8		0.8	FILL, GRAVEL and SLAG debris, few fine to coarse SAND, dark gray/light gray, wet	
	8-10		0.9	FILL, GRAVEL and SLAG debris, few fine to coarse SAND, gray, wet	SB-108-B @ 8-10'
10	10-14	7.5/10	0.5	CLAY and PEAT and SLAG debris, dark brown/black, wet	SB-108-C @ 10-14'
15	14-16		0.6	CLAY, some fine SAND, gray, moist	
	16-18		0.5	CLAY, some fine SAND, gray, moist	
	18-20		0.5	CLAY, some fine SAND, gray, moist, (vein of fine to coarse SAND at 19fbgs.)	Boring ended at 20 fbgs.
20				Organic CLAY, gray, moist	



Proportions Used:

Trace =	<5%
Little =	6-15%
Few =	16-30%
Some =	31-49%
And =	>50%

Notes:

NA = not available; fbgs. = feet below ground surface
in. = inches; ft.= feet; ppm.= parts per million
Soil Lithologies based on field observations only.
famsl. = feet above mean sea level
btoc = below top-of-casing; ftag = feet above grade
eV = electron volt; PVC = polyvinyl chloride

Blow Count Pentration Resistance:

Consistency (M&C)		Density (G&S)	
<2 =	Very Soft	0-4 =	Very Loose
2-4 =	Soft	4-10 =	Loose
4-8 =	Medium	10-30 =	Medium
8-15 =	Stiff	30-50 =	Dense
15-30 =	Very Stiff	>50 =	Very Dense
>30 =	Hard		

Symbol Legend

Static Water Level

Lab Sample Location

Soil Boring

Groundwater & Environmental Services, Inc.

ID NO. **SB-109**

Project: **Buffalo Lakeside Commercial Park**	Client: **NYSDEC**	Regulatory Case #: **Site No. 915322**
Address: **Laborers Way & Ship Canal Pkwy, Buffalo, NY**		Regulatory Case Mgr: **Jenelle Gaylord**
County: **Erie**	GES Job #: **0901752**	GES Project Mgr: **Eric D. Popken**
Logged By: **J. Clay/P. Colern**	Date Drilled: **10-11-2018**	Sample Tool Diameter: **NA**
Drilling Company: **Cascade Drilling**	Completion Date: **10-11-2018**	Sample Tool Length: **10 ft.**
Drill Operator: **Arlen Little**	Drilling Method: **Sonic Rig**	Soil Classification System: **Modified Burmister**
Drill Rig Type: **Sonic**	Sampling Method: **Sonic Tube**	Field Screening: **MiniRae3000 10.6 eV**
Latitude: **NA**	Longitude: **NA**	Top of Bentonite Seal: **NA**
TOC Elevation: **NA**	Borehole Diameter: **4.5 in.**	Type of Seal: **NA**
Total Depth: **20 fbgs.**	Well Diameter: **NA**	Top of Sand: **NA**
Refusal Depth: **Not Encountered**	Riser Length: **NA**	Sand Type: **NA**
Initial Depth to Water: **NA**	Screen Slot Size: **NA**	Well Material Type: **NA**
Static Depth to Water: **NA**	Screen Length: **NA**	Top of Grout: **NA**

Depth (fbgs)	Sample Interval (feet)	Recovery (ft/ft)	Field Screen (pom) 0 5	Geologic Description	Comments	Completion Detail
0	0-1	7.5/10	0.4	TOPSOIL and SLAG debris, dark brown, moist	SB-109-A @ 0-1'	
	1-4		1.1	FILL, SLAG and fine to coarse GRAVEL debris, many fine to coarse SAND, dark brown/black, slightly moist		
5	4-6		4.6	FILL, SLAG and fine to coarse GRAVEL debris, many fine to coarse SAND, light gray/white, slightly moist	SB-109-B @ 4-6'	
	6-8		0.9	FILL, SLAG and fine to coarse GRAVEL, some fine to coarse SAND, light gray-white, moist		
	8-10		0.9	FILL, SLAG and fine to coarse GRAVEL debris, little fine to coarse SAND, light gray, wet		
10	10-16	9.5/10	0.6	PEAT, dark brown, very moist		Backfilled with cuttings
15	16-18		0.5	Fine SAND, some layers of CLAY, gray, wet	SB-109-C @ 16-18'	
	18-20		0.6	Fine SAND, some layers of CLAY, gray, wet	Boring ended at 20 fbgs.	
20						

Proportions Used:

Trace =	<5%
Little =	6-15%
Few =	16-30%
Some =	31-49%
And =	>50%

Notes:

NA = not available; fbgs. = feet below ground surface
in. = inches; ft.= feet; ppm.= parts per million
Soil Lithologies based on field observations only.
famsl. = feet above mean sea level
btoc = below top-of-casing; ftag = feet above grade
eV = electron volt; PVC = polyvinyl chloride

Blow Count Pentration Resistance:

Consistency (M&C)		Density (G&S)	
<2 =	Very Soft	0-4 =	Very Loose
2-4 =	Soft	4-10 =	Loose
4-8 =	Medium	10-30 =	Medium
8-15 =	Stiff	30-50 =	Dense
15-30 =	Very Stiff	>50 =	Very Dense
>30 =	Hard		

Symbol Legend

Static Water Level

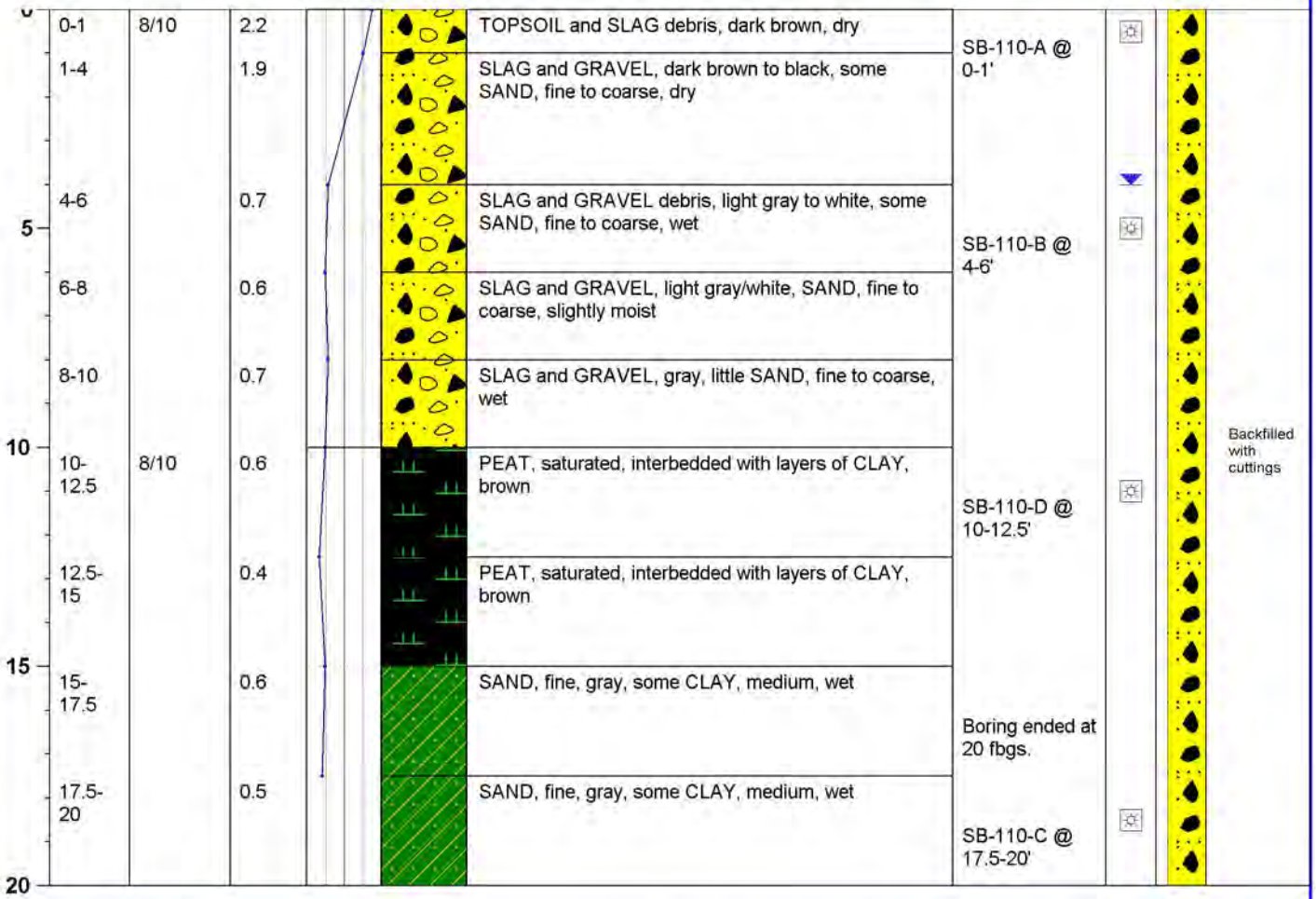
Lab Sample Location

Soil Boring

Groundwater & Environmental Services, Inc.

ID NO. SB-110

Project: **Buffalo Lakeside Commercial Park**	Client: **NYSDEC**	Regulatory Case #: **Site No. 915322**
Address: **Laborers Way & Ship Canal Pkwy, Buffalo, NY**		Regulatory Case Mgr: **Jenelle Gaylord**
County: **Erie**	GES Job #: **0901752**	GES Project Mgr: **Eric D. Popken**
Logged By: **J. Clay/P. Colern**	Date Drilled: **10-11-2018**	Sample Tool Diameter: **NA**
Drilling Company: **Cascade Drilling**	Completion Date: **10-11-2018**	Sample Tool Length: **10 ft.**
Drill Operator: **Arlen Little**	Drilling Method: **Sonic Rig**	Soil Classification System: **Modified Burmister**
Drill Rig Type: **Sonic**	Sampling Method: **Sonic Tube**	Field Screening: **MiniRae3000 10.6 eV**
Latitude: **NA**	Longitude: **NA**	Top of Bentonite Seal: **NA**
TOC Elevation: **NA**	Borehole Diameter: **4.5 in.**	Type of Seal: **NA**
Total Depth: **20 fbgs.**	Well Diameter: **NA**	Top of Sand: **NA**
Refusal Depth: **Not Encountered**	Riser Length: **NA**	Sand Type: **NA**
Initial Depth to Water: **NA**	Screen Slot Size: **NA**	Well Material Type: **NA**
Static Depth to Water: **NA**	Screen Length: **NA**	Top of Grout: **NA**



Proportions Used:

Trace =	<5%
Little =	6-15%
Few =	16-30%
Some =	31-49%
And =	>50%

Notes:

NA = not available; fbgs. = feet below ground surface
in. = inches; ft.= feet; ppm.= parts per million
Soil Lithologies based on field observations only.
famsl. = feet above mean sea level
btoc = below top-of-casing; ftag = feet above grade
eV = electron volt; PVC = polyvinyl chloride

Blow Count Pentration Resistance:

Consistency (M&C)		Density (G&S)	
<2 =	Very Soft	0-4 =	Very Loose
2-4 =	Soft	4-10 =	Loose
4-8 =	Medium	10-30 =	Medium
8-15 =	Stiff	30-50 =	Dense
15-30 =	Very Stiff	>50 =	Very Dense
>30 =	Hard		

Symbol Legend

Static Water Level

Lab Sample Location

Soil Boring

Groundwater & Environmental Services, Inc.

ID NO. **SB-111**

Project: **Buffalo Lakeside Commercial Park**	Client: **NYSDEC**	Regulatory Case #: **Site No. 915322**
Address: **Laborers Way & Ship Canal Pkwy, Buffalo, NY**		Regulatory Case Mgr: **Jenelle Gaylord**
County: **Erie**	GES Job #: **0901752**	GES Project Mgr: **Eric D. Popken**
Logged By: **P. Colern/D. Zordan**	Date Drilled: **10-16-2018**	Sample Tool Diameter: **NA**
Drilling Company: **Cascade Drilling**	Completion Date: **10-16-2018**	Sample Tool Length: **10 ft.**
Drill Operator: **Arlen Little**	Drilling Method: **Sonic Rig**	Soil Classification System: **Modified Burmister**
Drill Rig Type: **Sonic**	Sampling Method: **Sonic Tube**	Field Screening: **MiniRae3000 10.6 eV**
Latitude: **NA**	Longitude: **NA**	Top of Bentonite Seal: **NA**
TOC Elevation: **NA**	Borehole Diameter: **4.5 in.**	Type of Seal: **NA**
Total Depth: **20 fbgs.**	Well Diameter: **NA**	Top of Sand: **NA**
Refusal Depth: **Not Encountered**	Riser Length: **NA**	Sand Type: **NA**
Initial Depth to Water: **NA**	Screen Slot Size: **NA**	Well Material Type: **NA**
Static Depth to Water: **NA**	Screen Length: **NA**	Top of Grout: **NA**

Depth (fbgs)	Sample Interval (feet)	Recovery (ft/ft)	Field Screen (pom) 0 100	Geologic Description	Comments	Completion Detail
0	0-1	10/10	0.0	TOPSOIL, some SAND and SLAG debris, brown, dry	SB-111-A @ 0-1'	
	1-4		0.0	FILL, SLAG debris, some SAND, light gray, slightly moist		
5	4-6		0.0	FILL, SLAG debris, few SAND and SILT, gray, slightly moist		
	6-8		0.0	FILL, large SLAG debris, some SAND and SILT, dark gray to white, moist	SB-111-B @ 6-8'	
	8-10		0.0	FILL, large SLAG debris, some SAND and SILT, dark gray to white, wet		
10	10-13	8/10	0.0	CLAY, some PEAT, few SILT, little SAND, dark brown-gray, wet		Backfilled with cuttings
	13-18		NA	CLAY, some SAND, few SILT, gray, slightly moist		
15					Boring ended at 20 fbgs.	
	18-20		NA	CLAY, trace SAND and SILT, gray, moist	SB-111-C @ 18-20'	
20						

Proportions Used:

Trace =	<5%
Little =	6-15%
Few =	16-30%
Some =	31-49%
And =	>50%

Notes:

NA = not available; fbgs. = feet below ground surface
in. = inches; ft.= feet; ppm.= parts per million
Soil Lithologies based on field observations only.
famsl. = feet above mean sea level
btoc = below top-of-casing; ftag = feet above grade
eV = electron volt; PVC = polyvinyl chloride

Blow Count Pentration Resistance:

Consistency (M&C)		Density (G&S)	
<2 =	Very Soft	0-4 =	Very Loose
2-4 =	Soft	4-10 =	Loose
4-8 =	Medium	10-30 =	Medium
8-15 =	Stiff	30-50 =	Dense
15-30 =	Very Stiff	>50 =	Very Dense
>30 =	Hard		

Symbol Legend

Static Water Level

Lab Sample Location

Soil Boring

Groundwater & Environmental Services, Inc.

ID NO. **SB-112**

Project: **Buffalo Lakeside Commercial Park**	Client: **NYSDEC**	Regulatory Case #: **Site No. 915322**
Address: **Laborers Way & Ship Canal Pkwy, Buffalo, NY**		Regulatory Case Mgr: **Jenelle Gaylord**
County: **Erie**	GES Job #: **0901752**	GES Project Mgr: **Eric D. Popken**
Logged By: **P. Colern/D. Zordan**	Date Drilled: **10-16-2018**	Sample Tool Diameter: **NA**
Drilling Company: **Cascade Drilling**	Completion Date: **10-16-2018**	Sample Tool Length: **10 ft.**
Drill Operator: **Arlen Little**	Drilling Method: **Sonic Rig**	Soil Classification System: **Modified Burmister**
Drill Rig Type: **Sonic**	Sampling Method: **Sonic Tube**	Field Screening: **MiniRae3000 10.6 eV**
Latitude: **NA**	Longitude: **NA**	Top of Bentonite Seal: **NA**
TOC Elevation: **NA**	Borehole Diameter: **4.5 in.**	Type of Seal: **NA**
Total Depth: **20 fbgs.**	Well Diameter: **NA**	Top of Sand: **NA**
Refusal Depth: **Not Encountered**	Riser Length: **NA**	Sand Type: **NA**
Initial Depth to Water: **NA**	Screen Slot Size: **NA**	Well Material Type: **NA**
Static Depth to Water: **NA**	Screen Length: **NA**	Top of Grout: **NA**

Depth (fbgs)	Sample Interval (feet)	Recovery (ft/ft)	Field Screen (pom)	Geologic Description	Comments	Completion Detail
0	0-1		0.0	TOPSOIL, some SAND and SLAG debris, dark brown, dry	SB-112-A @ 0-1'	
	1-4	8/10	0.0	FILL, fine to coarse SAND, some SLAG debris, light brown-white, dry		
	4-6		0.0	FILL, SLAG debris, some fine to medium SAND, black-gray, slightly moist		
5	6-8		0.0	FILL, SLAG debris, some SAND, moist		
	8-10		0.0	FILL, fine SAND, some SLAG debris, white, moist	SB-112-B @ 8-10	
10	10-12	10/10	0.0	PEAT, little CLAY and fine SAND, black		Backfilled with cuttings
	12-15		0.0	PEAT, little CLAY and fine SAND, black	SB-112-C & DUP-101618 @ 12-15'	
15	15-18		0.0	CLAY, some fine to medium SAND, gray, slightly mosit		
	18-20		0.1	CLAY, gray, slightly moist	Boring ended at 20 fbgs.	
20						

Proportions Used:

Trace =	<5%
Little =	6-15%
Few =	16-30%
Some =	31-49%
And =	>50%

Notes:

NA = not available; fbgs. = feet below ground surface
in. = inches; ft.= feet; ppm.= parts per million
Soil Lithologies based on field observations only.
famsl. = feet above mean sea level
btoc = below top-of-casing; ftag = feet above grade
eV = electron volt; PVC = polyvinyl chloride

Blow Count Pentration Resistance:

Consistency (M&C)		Density (G&S)	
<2 =	Very Soft	0-4 =	Very Loose
2-4 =	Soft	4-10 =	Loose
4-8 =	Medium	10-30 =	Medium
8-15 =	Stiff	30-50 =	Dense
15-30 =	Very Stiff	>50 =	Very Dense
>30 =	Hard		

Symbol Legend

Static Water Level

Lab Sample Location

Soil Boring

Groundwater & Environmental Services, Inc.

ID NO. SB-113

Project: **Buffalo Lakeside Commercial Park**	Client: **NYSDEC**	Regulatory Case #: **Site No. 915322**
Address: **Laborers Way & Ship Canal Pkwy, Buffalo, NY**		Regulatory Case Mgr: **Jenelle Gaylord**
County: **Erie**	GES Job #: **0901752**	GES Project Mgr: **Eric D. Popken**
Logged By: **P. Colern/D. Zordan**	Date Drilled: **10-16-2018**	Sample Tool Diameter: **NA**
Drilling Company: **Cascade Drilling**	Completion Date: **10-16-2018**	Sample Tool Length: **10 ft.**
Drill Operator: **Arlen Little**	Drilling Method: **Sonic Rig**	Soil Classification System: **Modified Burmister**
Drill Rig Type: **Sonic**	Sampling Method: **Sonic Tube**	Field Screening: **MiniRae3000 10.6 eV**
Latitude: **NA**	Longitude: **NA**	Top of Bentonite Seal: **NA**
TOC Elevation: **NA**	Borehole Diameter: **4.5 in.**	Type of Seal: **NA**
Total Depth: **20 fbgs.**	Well Diameter: **NA**	Top of Sand: **NA**
Refusal Depth: **Not Encountered**	Riser Length: **NA**	Sand Type: **NA**
Initial Depth to Water: **NA**	Screen Slot Size: **NA**	Well Material Type: **NA**
Static Depth to Water: **NA**	Screen Length: **NA**	Top of Grout: **NA**

Depth (fbgs)	Sample Interval (feet)	Recovery (ft/ft)	Field Screen (pom)	Geologic Description	Comments	Completion Detail
0	0-1		0.0	TOPSOIL, little fine to coarse SAND and SILT, light brown	SB-113-A @ 0-1'	
	1-4	7.5/10	0.0	FILL, fine to coarse SAND and coarse SLAG debris, brown, dry		
	4-6		0.0	FILL, fine to coarse SLAG debris, few fine to medium SAND, light gray, dry		
5	6-8		0.0	FILL, fine to coarse SLAG debris, few fine to medium SAND, dark gray, slightly moist	SB-113-B @ 6-8'	
	8-10		0.0	FILL, fine to coarse SLAG debris, few fine to medium SAND, dark gray, slightly moist		
10	10-12	8/10	0.0	PEAT, black, moist		Backfilled with cuttings
	12-14		0.0	PEAT, little organic CLAY and SILT, light brown to black, moist		
	14-18		0.0	CLAY, some SAND and SILT, gray, moist		
15					Boring ended at 20 fbgs.	
	18-20		0.1	CLAY, little SAND and SILT, gray, slightly moist	SB-113-C @ 18-20'	
20						

Proportions Used:

Trace =	<5%
Little =	6-15%
Few =	16-30%
Some =	31-49%
And =	>50%

Notes:

NA = not available; fbgs. = feet below ground surface
in. = inches; ft.= feet; ppm.= parts per million
Soil Lithologies based on field observations only.
famsl. = feet above mean sea level
btoc = below top-of-casing; ftag = feet above grade
eV = electron volt; PVC = polyvinyl chloride

Blow Count Pentration Resistance:

Consistency (M&C)		Density (G&S)	
<2 =	Very Soft	0-4 =	Very Loose
2-4 =	Soft	4-10 =	Loose
4-8 =	Medium	10-30 =	Medium
8-15 =	Stiff	30-50 =	Dense
15-30 =	Very Stiff	>50 =	Very Dense
>30 =	Hard		

Symbol Legend

Static Water Level

Lab Sample Location

Soil Boring/Monitoring Well

Groundwater & Environmental Services, Inc.

ID NO. **SB-114**

Project: **Buffalo Lakeside Commercial Park**	Client: **NYSDEC**	Regulatory Case #: **Site No. 915322**
Address: **Laborers Way & Ship Canal Pkwy, Buffalo, NY**		Regulatory Case Mgr: **Jenelle Gaylord**
County: **Erie**	GES Job #: **0901752**	GES Project Mgr: **Eric D. Popken**
Logged By: **P. Colern/D. Zordan**	Date Drilled: **10-16-2018**	Sample Tool Diameter: **NA**
Drilling Company: **Cascade Drilling**	Completion Date: **10-16-2018**	Sample Tool Length: **10 ft.**
Drill Operator: **Arlen Little**	Drilling Method: **Sonic Rig**	Soil Classification System: **Modified Burmister**
Drill Rig Type: **Sonic**	Sampling Method: **Sonic Tube**	Field Screening: **MiniRae3000 10.6 eV**
Latitude: **NA**	Longitude: **NA**	Top of Bentonite Seal: **NA**
TOC Elevation: **NA**	Borehole Diameter: **4.5 in.**	Type of Seal: **NA**
Total Depth: **20 fbgs.**	Well Diameter: **NA**	Top of Sand: **NA**
Refusal Depth: **Not Encountered**	Riser Length: **NA**	Sand Type: **NA**
Initial Depth to Water: **NA**	Screen Slot Size: **NA**	Well Material Type: **NA**
Static Depth to Water: **NA**	Screen Length: **NA**	Top of Grout: **NA**

Depth (fbgs)	Sample Interval (feet)	Recovery (ft/ft)	Field Screen (pom) 0 100	Geologic Description	Comments	Completion Detail
0	0-1		0.0	TOPSOIL, little CLAY and fine to coarse SAND and SILT, some SLAG debris, light brown, dry	SB-114-A & MS/MSD @ 0-1'	
	1-4	10/10	0.0	FILL, some fine to coarse SAND and gray SLAG debris, brown		
	4-6		NA	FILL, SLAG debris, few fine to coarse SAND, dark gray, wet		
5	6-8		0.0	FILL, SLAG debris, few fine to coarse SAND, dark gray, wet		
	8-10		0.0	FILL, SLAG debris, few fine to coarse SAND, light gray, wet	SB-114-B @ 8-10'	
10	10-20	1/10	0.0	FILL large SLAG debris, little SAND, wet to saturated Note: Lithology description may be incomplete due to sample loss in soil boring.		Backfilled with cuttings
15					SB-114-C @ 10-20'	
					Boring ended at 20 fbgs.	
20						

Proportions Used:

Trace =	<5%
Little =	6-15%
Few =	16-30%
Some =	31-49%
And =	>50%

Notes:

NA = not available; fbgs. = feet below ground surface
in. = inches; ft.= feet; ppm.= parts per million
Soil Lithologies based on field observations only.
famsl. = feet above mean sea level
btoc = below top-of-casing; ftag = feet above grade
eV = electron volt; PVC = polyvinyl chloride

Blow Count Pentration Resistance:

Consistency (M&C)		Density (G&S)	
<2 =	Very Soft	0-4 =	Very Loose
2-4 =	Soft	4-10 =	Loose
4-8 =	Medium	10-30 =	Medium
8-15 =	Stiff	30-50 =	Dense
15-30 =	Very Stiff	>50 =	Very Dense
>30 =	Hard		

Symbol Legend

Static Water Level

Lab Sample Location

Soil Boring

Groundwater & Environmental Services, Inc.

ID NO. SB-115

Project: **Buffalo Lakeside Commercial Park**	Client: **NYSDEC**	Regulatory Case #: **Site No. 915322**
Address: **Laborers Way & Ship Canal Pkwy, Buffalo, NY**		Regulatory Case Mgr: **Jenelle Gaylord**
County: **Erie**	GES Job #: **0901752**	GES Project Mgr: **Eric D. Popken**
Logged By: **J. Clay/P. Colern**	Date Drilled: **10-12-2018**	Sample Tool Diameter: **NA**
Drilling Company: **Cascade Drilling**	Completion Date: **10-12-2018**	Sample Tool Length: **10 ft.**
Drill Operator: **Arlen Little**	Drilling Method: **Sonic Rig**	Soil Classification System: **Modified Burmister**
Drill Rig Type: **Sonic**	Sampling Method: **Sonic Tube**	Field Screening: **MiniRae3000 10.6 eV**
Latitude: **NA**	Longitude: **NA**	Top of Bentonite Seal: **NA**
TOC Elevation: **NA**	Borehole Diameter: **4.5 in.**	Type of Seal: **NA**
Total Depth: **20 fbgs.**	Well Diameter: **NA**	Top of Sand: **NA**
Refusal Depth: **Not Encountered**	Riser Length: **NA**	Sand Type: **NA**
Initial Depth to Water: **NA**	Screen Slot Size: **NA**	Well Material Type: **NA**
Static Depth to Water: **NA**	Screen Length: **NA**	Top of Grout: **NA**

Depth (fbgs)	Sample Interval (feet)	Recovery (ft/ft)	Field Screen (pom)	Geologic Description	Comments	Completion Detail
0	0-1	6.5/10	0.2	TOPSOIL and SLAG debris, dark brown, moist	SB-115-A @ 0-1'	
	1-4		0.2	FILL, fine to coarse SAND, some SLAG debris, dark brown/black, slightly moist		
5	4-6		0.1	FILL, fine to coarse SLAG debris and GRAVEL, some fine to coarse SAND, brown-gray, moist		
	6-7		0.1	FILL, fine to coarse SLAG debris and GRAVEL, some fine to coarse SAND, gray, moist		
	7-10		0.1	FILL, SLAG debris and GRAVEL, little fine to coarse SAND, gray, wet	SB-115-B @ 7-10'	
10	10-12	8/10	0.2	FILL, SLAG debris and GRAVEL, little fine to coarse SAND, gray, wet		Backfilled with cuttings
	12-13		0.2	Organic CLAY, black, wet		
	13-15		0.2	PEAT, brown, moist		
15	15-17		0.2	Fine to medium SAND, gray, wet	SB-115-C @ 15-17'	
	17-20		0.2	CLAY, trace SAND, gray with brown veins, moist	Boring ended at 20 fbgs.	
20						

Proportions Used:

Trace =	<5%
Little =	6-15%
Few =	16-30%
Some =	31-49%
And =	>50%

Notes:

NA = not available; fbgs. = feet below ground surface
in. = inches; ft.= feet; ppm.= parts per million
Soil Lithologies based on field observations only.
famsl. = feet above mean sea level
btoc = below top-of-casing; ftag = feet above grade
eV = electron volt; PVC = polyvinyl chloride

Blow Count Pentration Resistance:

Consistency (M&C)		Density (G&S)	
<2 =	Very Soft	0-4 =	Very Loose
2-4 =	Soft	4-10 =	Loose
4-8 =	Medium	10-30 =	Medium
8-15 =	Stiff	30-50 =	Dense
15-30 =	Very Stiff	>50 =	Very Dense
>30 =	Hard		

Symbol Legend

Static Water Level

Lab Sample Location

Soil Boring

Groundwater & Environmental Services, Inc.

ID NO. **SB-116**

Project: **Buffalo Lakeside Commercial Park**	Client: **NYSDEC**	Regulatory Case #: **Site No. 915322**
Address: **Laborers Way & Ship Canal Pkwy, Buffalo, NY**		Regulatory Case Mgr: **Jenelle Gaylord**
County: **Erie**	GES Job #: **0901752**	GES Project Mgr: **Eric D. Popken**
Logged By: **J. Clay/P. Colern**	Date Drilled: **10-12-2018**	Sample Tool Diameter: **NA**
Drilling Company: **Cascade Drilling**	Completion Date: **10-12-2018**	Sample Tool Length: **10 ft.**
Drill Operator: **Arlen Little**	Drilling Method: **Sonic Rig**	Soil Classification System: **Modified Burmister**
Drill Rig Type: **Sonic**	Sampling Method: **Sonic Tube**	Field Screening: **MiniRae3000 10.6 eV**
Latitude: **NA**	Longitude: **NA**	Top of Bentonite Seal: **NA**
TOC Elevation: **NA**	Borehole Diameter: **4.5 in.**	Type of Seal: **NA**
Total Depth: **20 fbgs.**	Well Diameter: **NA**	Top of Sand: **NA**
Refusal Depth: **Not Encountered**	Riser Length: **NA**	Sand Type: **NA**
Initial Depth to Water: **NA**	Screen Slot Size: **NA**	Well Material Type: **NA**
Static Depth to Water: **NA**	Screen Length: **NA**	Top of Grout: **NA**

Depth (fbgs)	Sample Interval (feet)	Recovery (ft/ft)	Field Screen (pom)	Geologic Description	Comments	Completion Detail
0	0-1	6.5/10	0.1	TOPSOIL and SLAG, dark brown, moist	SB-116-A @ 0-1'	
	1-5		0.1	FILL, fine to coarse SAND and GRAVEL, many SLAG debris, dark brown, very moist		
5	5-7		0.1	FILL, fine to coarse SAND, little GRAVEL and SLAG debris, dark brown-black, wet	SB-116-B @ 5-7'	
	7-10		0.1	FILL, GRAVEL and SLAG debris, some fine to coarse SAND, gray/light gray, wet		
10	10-12	7/10	0.2	FILL, GRAVEL and SLAG, gray, some fine to coarse SAND, gray, wet at 11' organic CLAY, black, wet		Backfilled with cuttings
	12-14		0.2	PEAT, brown, moist		
	14-18		0.1	Fine SAND, some CLAY, gray with some brown veins, wet	SB-116-C @ 14-18'	
15						
	18-20		0.1	CLAY, some fine SAND, gray, moist, stiff	Boring ended at 20 fbgs.	
20						

Proportions Used:

Trace =	<5%
Little =	6-15%
Few =	16-30%
Some =	31-49%
And =	>50%

Notes:

NA = not available; fbgs. = feet below ground surface
in. = inches; ft.= feet; ppm.= parts per million
Soil Lithologies based on field observations only.
famsl. = feet above mean sea level
btoc = below top-of-casing; ftag = feet above grade
eV = electron volt; PVC = polyvinyl chloride

Blow Count Pentration Resistance:

Consistency (M&C)		Density (G&S)	
<2 =	Very Soft	0-4 =	Very Loose
2-4 =	Soft	4-10 =	Loose
4-8 =	Medium	10-30 =	Medium
8-15 =	Stiff	30-50 =	Dense
15-30 =	Very Stiff	>50 =	Very Dense
>30 =	Hard		

Symbol Legend

Static Water Level

Lab Sample Location

Soil Boring

Groundwater & Environmental Services, Inc.

ID NO. **SB-117**

Project: **Buffalo Lakeside Commercial Park**	Client: **NYSDEC**	Regulatory Case #: **Site No. 915322**
Address: **Laborers Way & Ship Canal Pkwy, Buffalo, NY**		Regulatory Case Mgr: **Jenelle Gaylord**
County: **Erie**	GES Job #: **0901752**	GES Project Mgr: **Eric D. Popken**
Logged By: **J. Clay/P. Colern**	Date Drilled: **10-12-2018**	Sample Tool Diameter: **NA**
Drilling Company: **Cascade Drilling**	Completion Date: **10-12-2018**	Sample Tool Length: **10 ft.**
Drill Operator: **Arlen Little**	Drilling Method: **Sonic Rig**	Soil Classification System: **Modified Burmister**
Drill Rig Type: **Sonic**	Sampling Method: **Sonic Tube**	Field Screening: **MiniRae3000 10.6 eV**
Latitude: **NA**	Longitude: **NA**	Top of Bentonite Seal: **NA**
TOC Elevation: **NA**	Borehole Diameter: **4.5 in.**	Type of Seal: **NA**
Total Depth: **20 fbgs.**	Well Diameter: **NA**	Top of Sand: **NA**
Refusal Depth: **Not Encountered**	Riser Length: **NA**	Sand Type: **NA**
Initial Depth to Water: **NA**	Screen Slot Size: **NA**	Well Material Type: **NA**
Static Depth to Water: **NA**	Screen Length: **NA**	Top of Grout: **NA**

Depth (fbgs)	Sample Interval (feet)	Recovery (ft/ft)	Field Screen (ppm)	Geologic Description	Comments	Completion Detail
0	0-2	6/10	0.1	TOPSOIL and fine to coarse SLAG debris and GRAVEL, dark brown, moist	SB-117-A @ 0-1'	
	2-4		0.1	FILL, GRAVEL and SLAG debris, many fine to coarse SAND, gray/black, slightly moist		
5	4-7		0.1	FILL, fine to coarse GRAVEL and SLAG debris, some fine to coarse SAND, gray, wet	SB-117-B @ 4-7'	
	7-10		0.1	FILL, fine to coarse GRAVEL and SLAG debris, some fine to coarse SAND, light gray, wet		
10	10-12	8.5/10	0.2	Organic CLAY, some PEAT, some SLAG debris, black, wet	SB-117-C @ 10-12'	Backfilled with cuttings
	12-14		0.4	PEAT,some layers of gray CLAY, brown, moist		
15	14-16		0.2	PEAT, black, wet		
	16-20		0.2	CLAY, some SAND, fine, gray, moist	Boring ended at 20 fbgs. SB-117-D @ 16-20'	
20						

Proportions Used:

Trace =	<5%
Little =	6-15%
Few =	16-30%
Some =	31-49%
And =	>50%

Notes:

NA = not available; fbgs. = feet below ground surface
in. = inches; ft.= feet; ppm.= parts per million
Soil Lithologies based on field observations only.
famsl. = feet above mean sea level
btoc = below top-of-casing; ftag = feet above grade
eV = electron volt; PVC = polyvinyl chloride

Blow Count Pentration Resistance:

Consistency (M&C)		Density (G&S)	
<2 =	Very Soft	0-4 =	Very Loose
2-4 =	Soft	4-10 =	Loose
4-8 =	Medium	10-30 =	Medium
8-15 =	Stiff	30-50 =	Dense
15-30 =	Very Stiff	>50 =	Very Dense
>30 =	Hard		

Symbol Legend

Static Water Level

Lab Sample Location

Soil Boring

Groundwater & Environmental Services, Inc.

ID NO. **SB-118**

Project: **Buffalo Lakeside Commercial Park**	Client: **NYSDEC**	Regulatory Case #: **Site No. 915322**
Address: **Laborers Way & Ship Canal Pkwy, Buffalo, NY**		Regulatory Case Mgr: **Jenelle Gaylord**
County: **Erie**	GES Job #: **0901752**	GES Project Mgr: **Eric D. Popken**
Logged By: **J. Clay/P. Colern**	Date Drilled: **10-12-2018**	Sample Tool Diameter: **NA**
Drilling Company: **Cascade Drilling**	Completion Date: **10-12-2018**	Sample Tool Length: **10 ft.**
Drill Operator: **Arlen Little**	Drilling Method: **Sonic Rig**	Soil Classification System: **Modified Burmister**
Drill Rig Type: **Sonic**	Sampling Method: **Sonic Tube**	Field Screening: **MiniRae3000 10.6 eV**
Latitude: **NA**	Longitude: **NA**	Top of Bentonite Seal: **NA**
TOC Elevation: **NA**	Borehole Diameter: **4.5 in.**	Type of Seal: **NA**
Total Depth: **20 fbgs.**	Well Diameter: **NA**	Top of Sand: **NA**
Refusal Depth: **Not Encountered**	Riser Length: **NA**	Sand Type: **NA**
Initial Depth to Water: **NA**	Screen Slot Size: **NA**	Well Material Type: **NA**
Static Depth to Water: **NA**	Screen Length: **NA**	Top of Grout: **NA**

Depth (fbgs)	Sample Interval (feet)	Recovery (ft/ft)	Field Screen (pom)	Geologic Description	Comments	Completion Detail
0	0-1	6.5/10	0.1	TOPSOIL and GRAVEL/SLAG debris, dark brown, moist	SB-118-A & MS/MSD @ 0-1'	
	1-4		0.1	FILL, fine to coarse SAND and GRAVEL, some SLAG debris, dark brown, slightly moist		
	4-6		0.1	FILL, fine to coarse SLAG and GRAVEL, little fine to coarse SAND, dark gray, moist		
5	6-8		0.1	FILL, fine to coarse SLAG and GRAVEL, little fine to coarse SAND, white, moist	SB-118-B @ 6-8'	
	8-10		0.0	FILL, fine to coarse SLAG and GRAVEL, light gray, wet		
10	10-12	6/10	0.1	FILL, SLAG and GRAVEL, some fine to coarse SAND, gray and black, wet		Backfilled with cuttings
	12-16		0.1	PEAT, many layers of CLAY, brown, very moist		
15	16-20		0.0	CLAY, many fine SAND, gray, very moist	Boring ended at 20 fbgs. SB-118-C @ 16-20'	
20						

Proportions Used:

Trace =	<5%
Little =	6-15%
Few =	16-30%
Some =	31-49%
And =	>50%

Notes:

NA = not available; fbgs. = feet below ground surface
in. = inches; ft.= feet; ppm.= parts per million
Soil Lithologies based on field observations only.
famsl. = feet above mean sea level
btoc = below top-of-casing; ftag = feet above grade
eV = electron volt; PVC = polyvinyl chloride

Blow Count Pentration Resistance:

Consistency (M&C)		Density (G&S)	
<2 =	Very Soft	0-4 =	Very Loose
2-4 =	Soft	4-10 =	Loose
4-8 =	Medium	10-30 =	Medium
8-15 =	Stiff	30-50 =	Dense
15-30 =	Very Stiff	>50 =	Very Dense
>30 =	Hard		

Symbol Legend

Static Water Level

Lab Sample Location

Soil Boring

Groundwater & Environmental Services, Inc.

ID NO. SB-119

Project: **Buffalo Lakeside Commercial Park**	Client: **NYSDEC**	Regulatory Case #: **Site No. 915322**
Address: **Laborers Way & Ship Canal Pkwy, Buffalo, NY**		Regulatory Case Mgr: **Jenelle Gaylord**
County: **Erie**	GES Job #: **0901752**	GES Project Mgr: **Eric D. Popken**
Logged By: **J. Clay/P. Colern**	Date Drilled: **10-11-2018**	Sample Tool Diameter: **NA**
Drilling Company: **Cascade Drilling**	Completion Date: **10-11-2018**	Sample Tool Length: **10 ft.**
Drill Operator: **Arlen Little**	Drilling Method: **Sonic Rig**	Soil Classification System: **Modified Burmister**
Drill Rig Type: **Sonic**	Sampling Method: **Sonic Tube**	Field Screening: **MiniRae3000 10.6 eV**
Latitude: **NA**	Longitude: **NA**	Top of Bentonite Seal: **NA**
TOC Elevation: **NA**	Borehole Diameter: **4.5 in.**	Type of Seal: **NA**
Total Depth: **20 fbgs.**	Well Diameter: **NA**	Top of Sand: **NA**
Refusal Depth: **Not Encountered**	Riser Length: **NA**	Sand Type: **NA**
Initial Depth to Water: **NA**	Screen Slot Size: **NA**	Well Material Type: **NA**
Static Depth to Water: **NA**	Screen Length: **NA**	Top of Grout: **NA**

Depth (fbgs)	Sample Interval (feet)	Recovery (ft/ft)	Field Screen (ppm)	Geologic Description	Comments	Completion Detail
0	0-1	7/10	0.4	TOPSOIL and SLAG debris, dark brown, wet	SB-119-A @ 0-1'	
	1-4		0.3	FILL, fine to coarse SAND and GRAVEL, some SLAG debris, dark brown/black, slightly moist		
5	4-6		0.3	FILL, fine to coarse SAND and GRAVEL, some SLAG debris, dark brown/black, slightly moist		
	6-8		0.4	FILL, fine to coarse SLAG debris and GRAVEL, little fine to coarse SAND, dark gray-gray, moist-wet		
	8-10		0.4	FILL, fine to coarse SLAG debris and GRAVEL, little fine to coarse SAND, gray-light gray, wet	SB-119-B @ 8-10'	
10	10-11	4/10	0.3	FILL, fine to coarse SLAG debris and GRAVEL, little fine to coarse SAND, gray-light gray, wet		Backfilled with cuttings
	11-13		0.4	Organic CLAY and PEAT, black, wet		
	13-15		0.4	Fine SAND, gray, wet	SB-119-C @ 13-15'	
15	15-20		NA	No recovery		
20					Boring ended at 20 fbgs.	

Proportions Used:

Trace =	<5%
Little =	6-15%
Few =	16-30%
Some =	31-49%
And =	>50%

Notes:

NA = not available; fbgs. = feet below ground surface
in. = inches; ft.= feet; ppm.= parts per million
Soil Lithologies based on field observations only.
famsl. = feet above mean sea level
btoc = below top-of-casing; ftag = feet above grade
eV = electron volt; PVC = polyvinyl chloride

Blow Count Pentration Resistance:

Consistency (M&C)		Density (G&S)	
<2 =	Very Soft	0-4 =	Very Loose
2-4 =	Soft	4-10 =	Loose
4-8 =	Medium	10-30 =	Medium
8-15 =	Stiff	30-50 =	Dense
15-30 =	Very Stiff	>50 =	Very Dense
>30 =	Hard		

Symbol Legend

Static Water Level

Lab Sample Location

Soil Boring/Monitoring Well

Groundwater & Environmental Services, Inc.

ID NO. **SB-120/MW-120**

Project: **Buffalo Lakeside Commercial Park**	Client: **NYSDEC**	Regulatory Case #: **Site No. 915322**
Address: **Laborers Way & Ship Canal Pkwy, Buffalo, NY**		Regulatory Case Mgr: **Jenelle Gaylord**
County: **Erie**	GES Job #: **0901752**	GES Project Mgr: **Eric D. Popken**
Logged By: **J. Clay/P. Colern**	Date Drilled: **10-11-2018**	Sample Tool Diameter: **4.5 in.**
Drilling Company: **Cascade Drilling**	Completion Date: **10-25-2018**	Sample Tool Length: **10 ft.**
Drill Operator: **Arlen Little**	Drilling Method: **Sonic Rig**	Soil Classification System: **Modified Burmister**
Drill Rig Type: **Sonic**	Sampling Method: **Sonic Tube**	Field Screening: **MiniRae3000 10.6 eV**
Latitude: **NA**	Longitude: **NA**	Top of Bentonite Seal: **2 fbgs.**
TOC Elevation: **582.47 famsl.**	Borehole Diameter: **4.5 in.**	Type of Seal: **Medium Bentonite Chips**
Total Depth: **20 fbgs.**	Well Diameter: **2 in.**	Top of Sand: **4 fbgs.**
Refusal Depth: **Not Encountered**	Riser Length: **8 ft. (3 ftag)**	Sand Type: **20-40 Mesh Sand Pack**
Initial Depth to Water: **~6 fbgs.**	Screen Slot Size: **0.010-in.**	Well Material Type: **Schedule 40 PVC**
Static Depth to Water: **6.15 ft. btoc.**	Screen Length: **10 ft.**	Top of Grout: **1 fbgs.**

Depth (fbgs)	Sample Interval (feet)	Recovery (ft/ft)	Field Screen (ppm)	Geologic Description	Comments
0	0-1	6/10	0.4	TOPSOIL and SLAG debris, dark brown, wet	
	1-4		1.1	FILL, fine to coarse SAND and GRAVEL, some SLAG debris, dark brown, slightly moist	SB-120-A @ 0-1' 3 ft. stick up protective casing
5	4-6		2.7	FILL, fine to coarse GRAVEL and SLAG debris, some fine to coarse SAND, mottled color, slightly moist	SB-120-B & DUP-101118 @ 4-6'
	6-8		0.7	FILL, GRAVEL and SLAG debris, some fine to coarse SAND, gray, wet	
	8-10		0.8	FILL, GRAVEL and SLAG debris, some fine to coarse SAND, dark gray, saturated	
10	10-11	4/10	0.4	FILL, GRAVEL and CONCRETE and SLAG debris, saturated	
	11-16		6.3	PEAT, layers of brown/black CLAY, brown, saturated, strong organic odor	
15	16-20		13.6	CLAY, some fine SAND layers, gray, wet	SB-120-C @ 16-20' Boring ended at 20 fbgs.
20					

Completion Detail: Pro-Casing (1'-3 ftag); Concrete (1-0'); Grout (2-1'); Riser (5'-3 ftag); Bentonite (4-2'); Sand (15-4'); Screen (15-5'); Backfilled (20-15')

Proportions Used:

Trace =	<5%
Little =	6-15%
Few =	16-30%
Some =	31-49%
And =	>50%

Notes:

NA = not available; fbgs. = feet below ground surface
in. = inches; ft.= feet; ppm.= parts per million
Soil Lithologies based on field observations only.
famsl. = feet above mean sea level
btoc = below top-of-casing; ftag = feet above grade
eV = electron volt; PVC = polyvinyl chloride

Blow Count Pentration Resistance:

Consistency (M&C)		Density (G&S)	
<2 =	Very Soft	0-4 =	Very Loose
2-4 =	Soft	4-10 =	Loose
4-8 =	Medium	10-30 =	Medium
8-15 =	Stiff	30-50 =	Dense
15-30 =	Very Stiff	>50 =	Very Dense
>30 =	Hard		

Symbol Legend

Static Water Level

Lab Sample Location

Soil Boring

Groundwater & Environmental Services, Inc.

ID NO. SB-121

Project: **Buffalo Lakeside Commercial Park**	Client: **NYSDEC**	Regulatory Case #: **Site No. 915322**
Address: **Laborers Way & Ship Canal Pkwy, Buffalo, NY**		Regulatory Case Mgr: **Jenelle Gaylord**
County: **Erie**	GES Job #: **0901752**	GES Project Mgr: **Eric D. Popken**
Logged By: **P. Colern/D. Zordan**	Date Drilled: **10-16-2018**	Sample Tool Diameter: **NA**
Drilling Company: **Cascade Drilling**	Completion Date: **10-16-2018**	Sample Tool Length: **10 ft.**
Drill Operator: **Arlen Little**	Drilling Method: **Sonic Rig**	Soil Classification System: **Modified Burmister**
Drill Rig Type: **Sonic**	Sampling Method: **Sonic Tube**	Field Screening: **MiniRae3000 10.6 eV**
Latitude: **NA**	Longitude: **NA**	Top of Bentonite Seal: **NA**
TOC Elevation: **NA**	Borehole Diameter: **4.5 in.**	Type of Seal: **NA**
Total Depth: **20 fbgs.**	Well Diameter: **NA**	Top of Sand: **NA**
Refusal Depth: **Not Encountered**	Riser Length: **NA**	Sand Type: **NA**
Initial Depth to Water: **NA**	Screen Slot Size: **NA**	Well Material Type: **NA**
Static Depth to Water: **NA**	Screen Length: **NA**	Top of Grout: **NA**

Depth (fbgs)	Sample Interval (feet)	Recovery (ft/ft)	Field Screen (pom) 0 10	Geologic Description	Comments	Completion Detail
0	0-1	9/10	NA	TOPSOIL, little SAND, light brown, slightly moist	SB-121-A @ 0-1'	Backfilled with cuttings
	1-4		NA	FILL, SLAG/CONCRETE debris and GRAVEL, some fine to medium SAND, brown-gray, moist		
5	4-6		NA	FILL, SLAG/CONCRETE debris and GRAVEL, some fine to medium SAND, brown-gray, moist		
	6-8		NA	FILL, SLAG/CONCRETE debris and GRAVEL, some fine to medium SAND, brown-gray, slightly moist		
	8-10		NA	FILL, SLAG/CONCRETE debris and GRAVEL, some fine to medium SAND, brown-gray, wet	SB-121-B @ 8-10'	
10	10-12	9/10	9.6	PEAT, little organic CLAY and SILT, black, moist	SB-121-D @ 10-12'	
	12-14		9.2	CLAY, some PEAT and SAND, moist		
15	14-17		NA	CLAY and fine to medium SAND, gray, moist		
	17-20		0.0	CLAY, gray, moist	Boring ended at 20 fbgs. SB-121-C @ 17-20'	
20						

Proportions Used:

Trace =	<5%
Little =	6-15%
Few =	16-30%
Some =	31-49%
And =	>50%

Notes:

NA = not available; fbgs. = feet below ground surface
in. = inches; ft.= feet; ppm.= parts per million
Soil Lithologies based on field observations only.
famsl. = feet above mean sea level
btoc = below top-of-casing; ftag = feet above grade
eV = electron volt; PVC = polyvinyl chloride

Blow Count Pentration Resistance:

Consistency (M&C)		Density (G&S)	
<2 =	Very Soft	0-4 =	Very Loose
2-4 =	Soft	4-10 =	Loose
4-8 =	Medium	10-30 =	Medium
8-15 =	Stiff	30-50 =	Dense
15-30 =	Very Stiff	>50 =	Very Dense
>30 =	Hard		

Symbol Legend

Static Water Level

Lab Sample Location

Soil Boring

Groundwater & Environmental Services, Inc.

ID NO. SB-122

Project: **Buffalo Lakeside Commercial Park**	Client: **NYSDEC**	Regulatory Case #: **Site No. 915322**
Address: **Laborers Way & Ship Canal Pkwy, Buffalo, NY**		Regulatory Case Mgr: **Jenelle Gaylord**
County: **Erie**	GES Job #: **0901752**	GES Project Mgr: **Eric D. Popken**
Logged By: **P. Colern/D. Zordan**	Date Drilled: **10-16-2018**	Sample Tool Diameter: **NA**
Drilling Company: **Cascade Drilling**	Completion Date: **10-16-2018**	Sample Tool Length: **10 ft.**
Drill Operator: **Arlen Little**	Drilling Method: **Sonic Rig**	Soil Classification System: **Modified Burmister**
Drill Rig Type: **Sonic**	Sampling Method: **Sonic Tube**	Field Screening: **MiniRae3000 10.6 eV**
Latitude: **NA**	Longitude: **NA**	Top of Bentonite Seal: **NA**
TOC Elevation: **NA**	Borehole Diameter: **4.5 in.**	Type of Seal: **NA**
Total Depth: **20 fbgs.**	Well Diameter: **NA**	Top of Sand: **NA**
Refusal Depth: **Not Encountered**	Riser Length: **NA**	Sand Type: **NA**
Initial Depth to Water: **NA**	Screen Slot Size: **NA**	Well Material Type: **NA**
Static Depth to Water: **NA**	Screen Length: **NA**	Top of Grout: **NA**

Depth (fbgs)	Sample Interval (feet)	Recovery (ft/ft)	Field Screen (pom) 0 10	Geologic Description	Comments	Completion Detail
0	0-2	8/10	9.2	TOPSOIL, some SLAG and ASPHALT/GLASS debris, brown, moist	SB-122-A @ 0-2'	
	2-4		0.0	FILL, TOPSOIL and SLAG debris, few fine to medium SAND, brown, moist		
	4-6		0.0	FILL, TOPSOIL and SLAG debris, few fine to medium SAND, dark brown, moist		
5	6-8		NA	FILL, TOPSOIL and SLAG debris, few fine to medium SAND, dark brown, moist		
	8-10		NA	FILL, SLAG debris, some SAND and CLAY, gray, wet	SB-122-B @ 8-10'	
10	10-18	4.5/10	NA	FILL, SLAG debris, some SAND and CLAY, gray, wet		Backfilled with cuttings
15					Boring ended at 20 fbgs.	
	18-20		NA	CLAY and PEAT, little fine to medium SAND, black	SB-122-C @ 18-20'	
20						

Proportions Used:

Trace =	<5%
Little =	6-15%
Few =	16-30%
Some =	31-49%
And =	>50%

Notes:

NA = not available; fbgs. = feet below ground surface
in. = inches; ft.= feet; ppm.= parts per million
Soil Lithologies based on field observations only.
famsl. = feet above mean sea level
btoc = below top-of-casing; ftag = feet above grade
eV = electron volt; PVC = polyvinyl chloride

Blow Count Pentration Resistance:

Consistency (M&C)		Density (G&S)	
<2 =	Very Soft	0-4 =	Very Loose
2-4 =	Soft	4-10 =	Loose
4-8 =	Medium	10-30 =	Medium
8-15 =	Stiff	30-50 =	Dense
15-30 =	Very Stiff	>50 =	Very Dense
>30 =	Hard		

Symbol Legend

Static Water Level

Lab Sample Location

Soil Boring/Monitoring Well

Groundwater & Environmental Services, Inc.

ID NO. **SB-123/MW-123**

Project: **Buffalo Lakeside Commercial Park**	Client: **NYSDEC**	Regulatory Case #: **Site No. 915322**
Address: **Laborers Way & Ship Canal Pkwy, Buffalo, NY**		Regulatory Case Mgr: **Jenelle Gaylord**
County: **Erie**	GES Job #: **0901752**	GES Project Mgr: **Eric D. Popken**
Logged By: **P. Colern/D. Zordan**	Date Drilled: **10-16-2018**	Sample Tool Diameter: **4.5 in.**
Drilling Company: **Cascade Drilling**	Completion Date: **10-25-2018**	Sample Tool Length: **10 ft.**
Drill Operator: **Arlen Little**	Drilling Method: **Sonic Rig**	Soil Classification System: **Modified Burmister**
Drill Rig Type: **Sonic**	Sampling Method: **Sonic Tube**	Field Screening: **MiniRae3000 10.6 eV**
Latitude: **NA**	Longitude: **NA**	Top of Bentonite Seal: **2 fbgs.**
TOC Elevation: **584.12 famsl.**	Borehole Diameter: **4.5 in.**	Type of Seal: **Medium Bentonite Chips**
Total Depth: **20 fbgs.**	Well Diameter: **2 in.**	Top of Sand: **4 fbgs.**
Refusal Depth: **Not Encountered**	Riser Length: **8 ft. (3 ftag)**	Sand Type: **20-40 Mesh Sand Pack**
Initial Depth to Water: **~10 fbgs.**	Screen Slot Size: **0.010-in.**	Well Material Type: **Schedule 40 PVC**
Static Depth to Water: **9.46 ft. btoc.**	Screen Length: **10 ft.**	Top of Grout: **1 fbgs.**

Depth (fbgs)	Sample Interval (feet)	Recovery (ft/ft)	Field Screen (ppm) 0 100	Geologic Description	Comments	Completion Detail
0	0-1	9.5/10	0.0	TOPSOIL and SLAG debris, with little SAND, brown, dry	SB-123-A @ 0-1'	Pro-Casing (1'-3 ftag)
	1-4		0.0	FILL, SLAG debris, some SAND, light brown/gray, slightly moist	3 ft. stick up protective casing	Concrete (1-0')
						Grout (2-1')
						Riser (5'-3 ftag)
	4-6		0.0	FILL, SLAG debris, some SAND, light brown/gray, slightly moist		Bentonite (4-2')
5	6-8		0.0	FILL, SLAG debris, some SAND, light brown/gray, slightly moist		
	8-10		NA	FILL, SLAG debris, few SAND and CLAY, gray, saturated		
10	10-12	-	NA	FILL, SLAG debris, some SAND, gray, saturated	SB-123-B @ 10-12'	Sand (15-4')
						Screen (15-5')
	12-14		NA	PEAT, some WOOD material, little SAND and CLAY, black, moist		
15	14-16		NA	PEAT, some WOOD material, little SAND and CLAY, black, moist		
	16-18		NA	CLAY, some SAND, gray, moist	SB-123-C @ 18-20'	Backfilled (20-15')
	18-20		NA	CLAY, some SAND, gray, moist	Boring ended at 20 fbgs.	
20						

Proportions Used:

Trace =	<5%
Little =	6-15%
Few =	16-30%
Some =	31-49%
And =	>50%

Notes:

NA = not available; fbgs. = feet below ground surface
in. = inches; ft.= feet; ppm.= parts per million
Soil Lithologies based on field observations only.
famsl. = feet above mean sea level
btoc = below top-of-casing; ftag = feet above grade
eV = electron volt; PVC = polyvinyl chloride

Blow Count Pentration Resistance:

Consistency (M&C)		Density (G&S)	
<2 =	Very Soft	0-4 =	Very Loose
2-4 =	Soft	4-10 =	Loose
4-8 =	Medium	10-30 =	Medium
8-15 =	Stiff	30-50 =	Dense
15-30 =	Very Stiff	>50 =	Very Dense
>30 =	Hard		

Symbol Legend

Static Water Level

Lab Sample Location

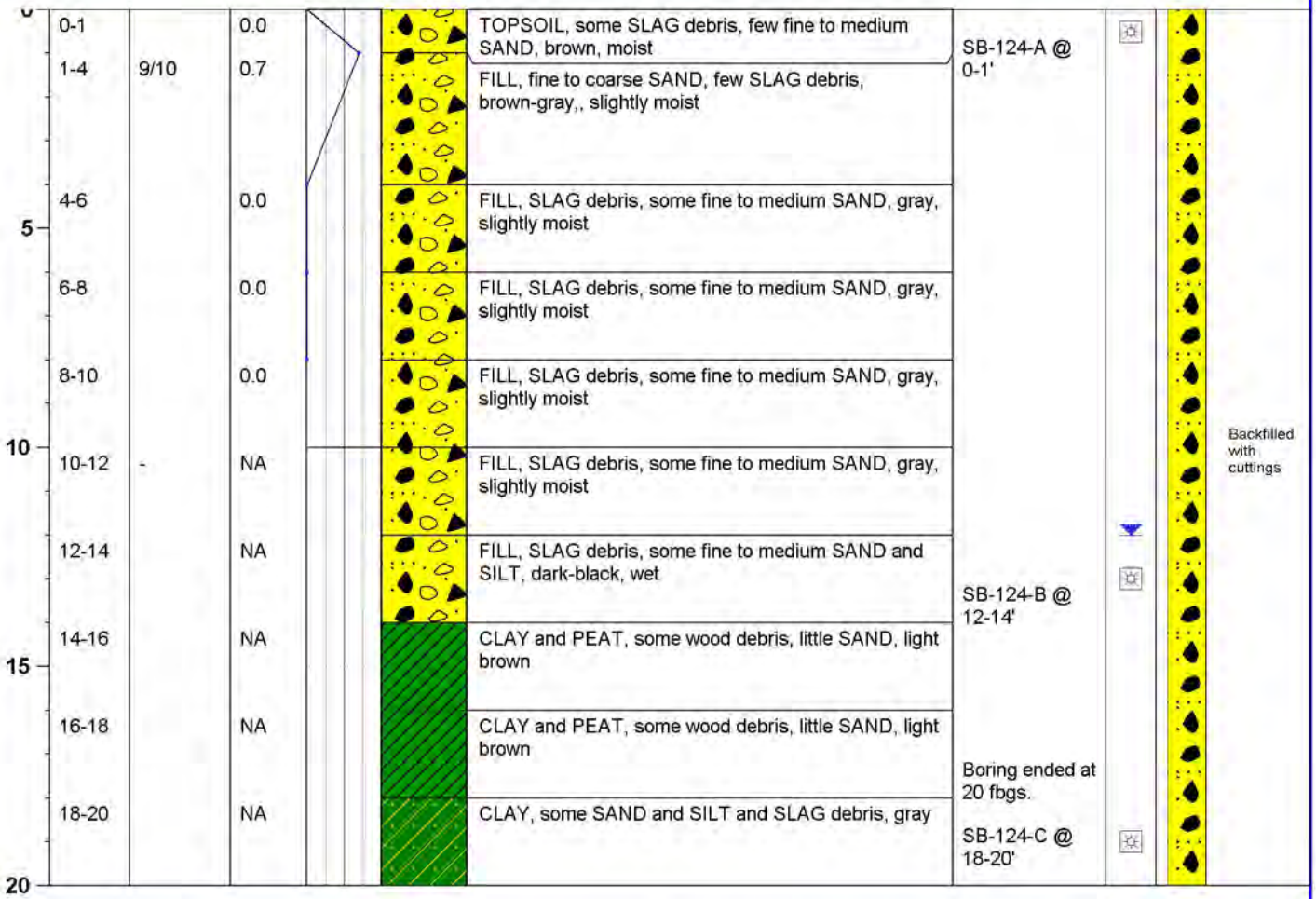
Soil Boring

Groundwater & Environmental Services, Inc.

ID NO. SB-124

Project: **Buffalo Lakeside Commercial Park**	Client: **NYSDEC**	Regulatory Case #: **Site No. 915322**
Address: **Laborers Way & Ship Canal Pkwy, Buffalo, NY**		Regulatory Case Mgr: **Jenelle Gaylord**
County: **Erie**	GES Job #: **0901752**	GES Project Mgr: **Eric D. Popken**
Logged By: **P. Colern/D. Zordan**	Date Drilled: **10-16-2018**	Sample Tool Diameter: **NA**
Drilling Company: **Cascade Drilling**	Completion Date: **10-16-2018**	Sample Tool Length: **10 ft.**
Drill Operator: **Arlen Little**	Drilling Method: **Sonic Rig**	Soil Classification System: **Modified Burmister**
Drill Rig Type: **Sonic**	Sampling Method: **Sonic Tube**	Field Screening: **MiniRae3000 10.6 eV**
Latitude: **NA**	Longitude: **NA**	Top of Bentonite Seal: **NA**
TOC Elevation: **NA**	Borehole Diameter: **4.5 in.**	Type of Seal: **NA**
Total Depth: **20 fbgs.**	Well Diameter: **NA**	Top of Sand: **NA**
Refusal Depth: **Not Encountered**	Riser Length: **NA**	Sand Type: **NA**
Initial Depth to Water: **NA**	Screen Slot Size: **NA**	Well Material Type: **NA**
Static Depth to Water: **NA**	Screen Length: **NA**	Top of Grout: **NA**

Depth (fbgs)	Sample Interval (feet)	Recovery (ft/ft)	Field Screen (pom)	Geologic Description	Comments	Completion Detail
0	0-1		0.0	TOPSOIL, some SLAG debris, few fine to medium SAND, brown, moist	SB-124-A @ 0-1'	
	1-4	9/10	0.7	FILL, fine to coarse SAND, few SLAG debris, brown-gray,, slightly moist		
	4-6		0.0	FILL, SLAG debris, some fine to medium SAND, gray, slightly moist		
5	6-8		0.0	FILL, SLAG debris, some fine to medium SAND, gray, slightly moist		
	8-10		0.0	FILL, SLAG debris, some fine to medium SAND, gray, slightly moist		
10	10-12	-	NA	FILL, SLAG debris, some fine to medium SAND, gray, slightly moist		Backfilled with cuttings
	12-14		NA	FILL, SLAG debris, some fine to medium SAND and SILT, dark-black, wet	SB-124-B @ 12-14'	
15	14-16		NA	CLAY and PEAT, some wood debris, little SAND, light brown		
	16-18		NA	CLAY and PEAT, some wood debris, little SAND, light brown	Boring ended at 20 fbgs.	
	18-20		NA	CLAY, some SAND and SILT and SLAG debris, gray	SB-124-C @ 18-20'	
20						



Proportions Used:

Trace =	<5%
Little =	6-15%
Few =	16-30%
Some =	31-49%
And =	>50%

Notes:

NA = not available; fbgs. = feet below ground surface
in. = inches; ft.= feet; ppm.= parts per million
Soil Lithologies based on field observations only.
famsl. = feet above mean sea level
btoc = below top-of-casing; ftag = feet above grade
eV = electron volt; PVC = polyvinyl chloride

Blow Count Pentration Resistance:

Consistency (M&C)		Density (G&S)	
<2 =	Very Soft	0-4 =	Very Loose
2-4 =	Soft	4-10 =	Loose
4-8 =	Medium	10-30 =	Medium
8-15 =	Stiff	30-50 =	Dense
15-30 =	Very Stiff	>50 =	Very Dense
>30 =	Hard		

Symbol Legend

Static Water Level

Lab Sample Location

Soil Boring

Groundwater & Environmental Services, Inc.

ID NO. SB-125

Project: **Buffalo Lakeside Commercial Park**	Client: **NYSDEC**	Regulatory Case #: **Site No. 915322**
Address: **Laborers Way & Ship Canal Pkwy, Buffalo, NY**		Regulatory Case Mgr: **Jenelle Gaylord**
County: **Erie**	GES Job #: **0901752**	GES Project Mgr: **Eric D. Popken**
Logged By: **J. Clay/D. Zordan**	Date Drilled: **10-17-2018**	Sample Tool Diameter: **NA**
Drilling Company: **Cascade Drilling**	Completion Date: **10-17-2018**	Sample Tool Length: **10 ft.**
Drill Operator: **Arlen Little**	Drilling Method: **Sonic Rig**	Soil Classification System: **Modified Burmister**
Drill Rig Type: **Sonic**	Sampling Method: **Sonic Tube**	Field Screening: **MiniRae3000 10.6 eV**
Latitude: **NA**	Longitude: **NA**	Top of Bentonite Seal: **NA**
TOC Elevation: **NA**	Borehole Diameter: **4.5 in.**	Type of Seal: **NA**
Total Depth: **20 fbgs.**	Well Diameter: **NA**	Top of Sand: **NA**
Refusal Depth: **Not Encountered**	Riser Length: **NA**	Sand Type: **NA**
Initial Depth to Water: **NA**	Screen Slot Size: **NA**	Well Material Type: **NA**
Static Depth to Water: **NA**	Screen Length: **NA**	Top of Grout: **NA**

Depth (fbgs)	Sample Interval (feet)	Recovery (ft/ft)	Field Screen (ppm) 0 5	Geologic Description	Comments	Completion Detail
0	0-1	10/10	0.0	TOPSOIL and SLAG debris, dark brown, moist	SB-125-A @ 0-1'	
	1-4		0.0	FILL, fine to coarse SAND and GRAVEL, some SLAG debris, dark brown, slightly moist		
	4-5		0.0	FILL, fine to coarse SLAG debris and GRAVEL, some fine to coarse SAND, gray, moist		
5	5-6		0.0	FILL, fine to coarse SAND, many fine to coarse GRAVEL, white with tan spots, wet	SB-125-B @ 5-6'	
	6-10		0.0	FILL, fine to coarse SLAG debris and GRAVEL, some fine to coarse SAND, gray, wet		
10	10-14	10/10	0.0	FILL, fine to coarse SLAG debris and GRAVEL, some fine to coarse SAND, gray, saturated		Backfilled with cuttings
	14-16.5		0.3	Organic CLAY, black, moist		
15	16.5-18		2.5	PEAT and WOOD, some brown clay, dark brown, moist, strong methane odor	SB-125-C @ 16.5-18'	
	18-20		0.0	Fine SAND, little CLAY, gray, wet	Boring ended at 20 fbgs.	
20						

Proportions Used:

Trace =	<5%
Little =	6-15%
Few =	16-30%
Some =	31-49%
And =	>50%

Notes:

NA = not available; fbgs. = feet below ground surface
in. = inches; ft.= feet; ppm.= parts per million
Soil Lithologies based on field observations only.
famsl. = feet above mean sea level
btoc = below top-of-casing; ftag = feet above grade
eV = electron volt; PVC = polyvinyl chloride

Blow Count Pentration Resistance:

Consistency (M&C)		Density (G&S)	
<2 =	Very Soft	0-4 =	Very Loose
2-4 =	Soft	4-10 =	Loose
4-8 =	Medium	10-30 =	Medium
8-15 =	Stiff	30-50 =	Dense
15-30 =	Very Stiff	>50 =	Very Dense
>30 =	Hard		

Symbol Legend

Static Water Level

Lab Sample Location

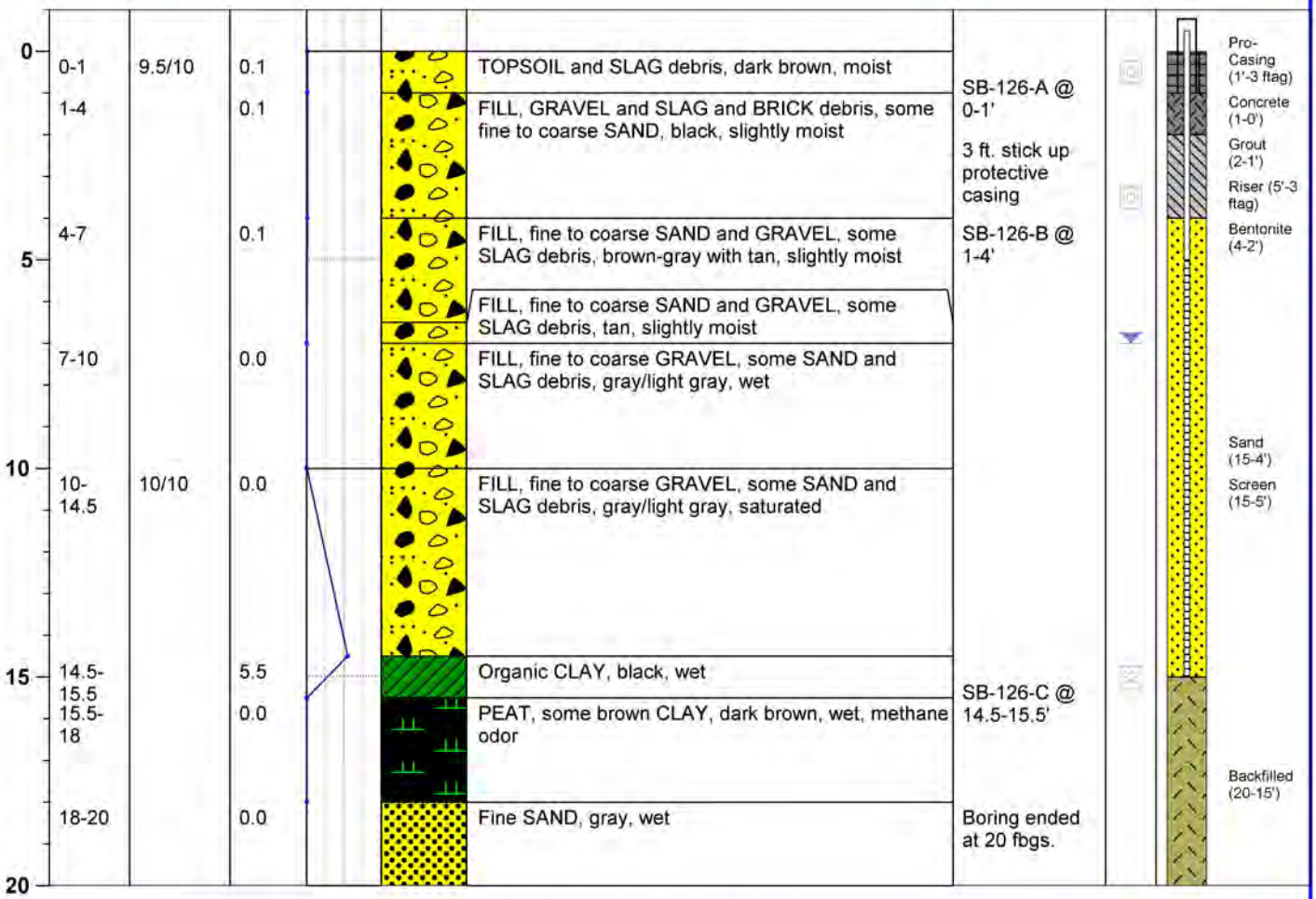
Soil Boring/Monitoring Well

Groundwater & Environmental Services, Inc.

ID NO. **SB-126/MW-126**

Project: **Buffalo Lakeside Commercial Park**	Client: **NYSDEC**	Regulatory Case #: **Site No. 915322**
Address: **Laborers Way & Ship Canal Pkwy, Buffalo, NY**		Regulatory Case Mgr: **Jenelle Gaylord**
County: **Erie**	GES Job #: **0901752**	GES Project Mgr: **Eric D. Popken**
Logged By: **J. Clay/D. Zordan**	Date Drilled: **10-17-2018**	Sample Tool Diameter: **4.5 in.**
Drilling Company: **Cascade Drilling**	Completion Date: **10-25-2018**	Sample Tool Length: **10 ft.**
Drill Operator: **Arlen Little**	Drilling Method: **Sonic Rig**	Soil Classification System: **Modified Burmister**
Drill Rig Type: **Sonic**	Sampling Method: **Sonic Tube**	Field Screening: **MiniRae3000 10.6 eV**
Latitude: **NA**	Longitude: **NA**	Top of Bentonite Seal: **1 fbgs.**
TOC Elevation: **587.00 famsl.**	Borehole Diameter: **4.5 in.**	Type of Seal: **Medium Bentonite Chips**
Total Depth: **20 fbgs.**	Well Diameter: **2 in.**	Top of Sand: **3 fbgs.**
Refusal Depth: **Not Encountered**	Riser Length: **7 ft. (3 ftag)**	Sand Type: **20-40 Mesh Sand Pack**
Initial Depth to Water: **~7 fbgs.**	Screen Slot Size: **0.010-in.**	Well Material Type: **Schedule 40 PVC**
Static Depth to Water: **10.68 ft. btoc.**	Screen Length: **10 ft.**	Top of Grout: **NA**

Depth (fbgs)	Sample Interval (feet)	Recovery (ft/ft)	Field Screen (ppm) 0 10	Geologic Description	Comments
0	0-1	9.5/10	0.1	TOPSOIL and SLAG debris, dark brown, moist	SB-126-A @ 0-1'
	1-4		0.1	FILL, GRAVEL and SLAG and BRICK debris, some fine to coarse SAND, black, slightly moist	3 ft. stick up protective casing
5	4-7		0.1	FILL, fine to coarse SAND and GRAVEL, some SLAG debris, brown-gray with tan, slightly moist	SB-126-B @ 1-4'
				FILL, fine to coarse SAND and GRAVEL, some SLAG debris, tan, slightly moist	
	7-10		0.0	FILL, fine to coarse GRAVEL, some SAND and SLAG debris, gray/light gray, wet	
10	10-14.5	10/10	0.0	FILL, fine to coarse GRAVEL, some SAND and SLAG debris, gray/light gray, saturated	
15	14.5-15.5		5.5	Organic CLAY, black, wet	SB-126-C @ 14.5-15.5'
	15.5-18		0.0	PEAT, some brown CLAY, dark brown, wet, methane odor	
	18-20		0.0	Fine SAND, gray, wet	Boring ended at 20 fbgs.
20					



Proportions Used:

Trace =	<5%
Little =	6-15%
Few =	16-30%
Some =	31-49%
And =	>50%

Notes:

NA = not available; fbgs. = feet below ground surface
in. = inches; ft.= feet; ppm.= parts per million
Soil Lithologies based on field observations only.
famsl. = feet above mean sea level
btoc = below top-of-casing; ftag = feet above grade
eV = electron volt; PVC = polyvinyl chloride

Blow Count Pentration Resistance:

Consistency (M&C)		Density (G&S)	
<2 =	Very Soft	0-4 =	Very Loose
2-4 =	Soft	4-10 =	Loose
4-8 =	Medium	10-30 =	Medium
8-15 =	Stiff	30-50 =	Dense
15-30 =	Very Stiff	>50 =	Very Dense
>30 =	Hard		

Symbol Legend

Static Water Level

Lab Sample Location

Soil Boring

Groundwater & Environmental Services, Inc.

ID NO. SB-127

Project: **Buffalo Lakeside Commercial Park**	Client: **NYSDEC**	Regulatory Case #: **Site No. 915322**
Address: **Laborers Way & Ship Canal Pkwy, Buffalo, NY**		Regulatory Case Mgr: **Jenelle Gaylord**
County: **Erie**	GES Job #: **0901752**	GES Project Mgr: **Eric D. Popken**
Logged By: **J. Clay/D. Zordan**	Date Drilled: **10-17-2018**	Sample Tool Diameter: **NA**
Drilling Company: **Cascade Drilling**	Completion Date: **10-17-2018**	Sample Tool Length: **10 ft.**
Drill Operator: **Arlen Little**	Drilling Method: **Sonic Rig**	Soil Classification System: **Modified Burmister**
Drill Rig Type: **Sonic**	Sampling Method: **Sonic Tube**	Field Screening: **MiniRae3000 10.6 eV**
Latitude: **NA**	Longitude: **NA**	Top of Bentonite Seal: **NA**
TOC Elevation: **NA**	Borehole Diameter: **4.5 in.**	Type of Seal: **NA**
Total Depth: **20 fbgs.**	Well Diameter: **NA**	Top of Sand: **NA**
Refusal Depth: **Not Encountered**	Riser Length: **NA**	Sand Type: **NA**
Initial Depth to Water: **NA**	Screen Slot Size: **NA**	Well Material Type: **NA**
Static Depth to Water: **NA**	Screen Length: **NA**	Top of Grout: **NA**

Depth (fbgs)	Sample Interval (feet)	Recovery (ft/ft)	Field Screen (pom) 0 3	Geologic Description	Comments	Completion Detail
0	0-5	5/5	0.0	FILL, coarse GRAVEL and SLAG debris, some fine to coarse SAND, gray, wet	SB-127-A @ 0-1'	
5	5-10	3/5	0.0	FILL, coarse GRAVEL and SLAG debris, some fine to coarse SAND, gray, wet	SB-127-B @ 5-10'	
10	10-16	5/10	0.1	FILL, fine to coarse SAND and GRAVEL, some SLAG debris, gray, saturated		Backfilled with cuttings
15	16-18		0.1	Organic CLAY, some SLAG debris, black	Boring ended at 20 fbgs.	
20	18-20		1.3	PEAT, some layers of gray-brown CLAY, dark brown	SB-127-C & MS/MSD @ 18-20'	

Proportions Used:

Trace =	<5%
Little =	6-15%
Few =	16-30%
Some =	31-49%
And =	>50%

Notes:

NA = not available; fbgs. = feet below ground surface
in. = inches; ft.= feet; ppm.= parts per million
Soil Lithologies based on field observations only.
famsl. = feet above mean sea level
btoc = below top-of-casing; ftag = feet above grade
eV = electron volt; PVC = polyvinyl chloride

Blow Count Pentration Resistance:

Consistency (M&C)		Density (G&S)	
<2 =	Very Soft	0-4 =	Very Loose
2-4 =	Soft	4-10 =	Loose
4-8 =	Medium	10-30 =	Medium
8-15 =	Stiff	30-50 =	Dense
15-30 =	Very Stiff	>50 =	Very Dense
>30 =	Hard		

Symbol Legend

Static Water Level

Lab Sample Location

Soil Boring/Monitoring Well

Groundwater & Environmental Services, Inc.

ID NO. **SB-128/MW-128**

Project: **Buffalo Lakeside Commercial Park**	Client: **NYSDEC**	Regulatory Case #: **Site No. 915322**
Address: **Laborers Way & Ship Canal Pkwy, Buffalo, NY**		Regulatory Case Mgr: **Jenelle Gaylord**
County: **Erie**	GES Job #: **0901752**	GES Project Mgr: **Eric D. Popken**
Logged By: **J. Clay/D. Zordan**	Date Drilled: **10-17-2018**	Sample Tool Diameter: **4.5 in.**
Drilling Company: **Cascade Drilling**	Completion Date: **10-25-2018**	Sample Tool Length: **10 ft.**
Drill Operator: **Arlen Little**	Drilling Method: **Sonic Rig**	Soil Classification System: **Modified Burmister**
Drill Rig Type: **Sonic**	Sampling Method: **Sonic Tube**	Field Screening: **MiniRae3000 10.6 eV**
Latitude: **NA**	Longitude: **NA**	Top of Bentonite Seal: **2 fbgs.**
TOC Elevation: **586.08 famsl.**	Borehole Diameter: **4.5 in.**	Type of Seal: **Medium Bentonite Chips**
Total Depth: **20 fbgs.**	Well Diameter: **2 in.**	Top of Sand: **4 fbgs.**
Refusal Depth: **Not Encountered**	Riser Length: **8 ft. (3 ftag)**	Sand Type: **20-40 Mesh Sand Pack**
Initial Depth to Water: **~4 fbgs.**	Screen Slot Size: **0.010-in.**	Well Material Type: **Schedule 40 PVC**
Static Depth to Water: **9.81 ft. btoc.**	Screen Length: **10 ft.**	Top of Grout: **1 fbgs.**

Depth (fbgs)	Sample Interval (feet)	Recovery (ft/ft)	Field Screen (ppm) 0 3	Geologic Description	Comments	Completion Detail
0	0-2	5/5	0.1	TOPSOIL and SLAG debris, dark brown, slightly moist, large SLAG at surface	SB-128-A @ 0-2'	Pro-Casing (1'-3 ftag); Concrete (1-0'); Grout (2-1'); Riser (5'-3 ftag); Bentonite (4-2'); Sand (15-4'); Screen (15-5'); Backfilled (20-15')
	2-4		0.0	FILL, fine to coarse GRAVEL and SLAG debris, some fine to coarse SAND, gray, moist	3 ft. stick up protective casing	
	4-5		NA	FILL, fine to coarse GRAVEL and SLAG debris, some fine to coarse SAND, gray, wet		
5	5-7	5/5	0.5	FILL, fine to coarse GRAVEL and SLAG debris, some fine to coarse SAND, brown, slightly moist	SB-128-B @ 5-7'	
	7-10		0.0	FILL, fine to coarse GRAVEL and SLAG debris, gray, wet		
10	10-12	7/10	0.1	FILL, fine to coarse GRAVEL and SLAG debris, gray, wet		
	12-14		1.5	Organic CLAY, black, moist, methane odor		
	14-20		0.5	PEAT, layers of gray-brown CLAY, dark brown, moist	SB-128-C @ 14-16'	
15					Boring ended at 20 fbgs.	
20						

Proportions Used:

Trace =	<5%
Little =	6-15%
Few =	16-30%
Some =	31-49%
And =	>50%

Notes:

NA = not available; fbgs. = feet below ground surface
in. = inches; ft.= feet; ppm.= parts per million
Soil Lithologies based on field observations only.
famsl. = feet above mean sea level
btoc = below top-of-casing; ftag = feet above grade
eV = electron volt; PVC = polyvinyl chloride

Blow Count Pentration Resistance:

Consistency (M&C)		Density (G&S)	
<2 =	Very Soft	0-4 =	Very Loose
2-4 =	Soft	4-10 =	Loose
4-8 =	Medium	10-30 =	Medium
8-15 =	Stiff	30-50 =	Dense
15-30 =	Very Stiff	>50 =	Very Dense
>30 =	Hard		

Symbol Legend

Static Water Level

Lab Sample Location

Soil Boring

Groundwater & Environmental Services, Inc.

ID NO. SB-129

Project: **Buffalo Lakeside Commercial Park**	Client: **NYSDEC**	Regulatory Case #: **Site No. 915322**
Address: **Laborers Way & Ship Canal Pkwy, Buffalo, NY**		Regulatory Case Mgr: **Jenelle Gaylord**
County: **Erie**	GES Job #: **0901752**	GES Project Mgr: **Eric D. Popken**
Logged By: **J. Clay/D. Zordan**	Date Drilled: **10-17-2018**	Sample Tool Diameter: **NA**
Drilling Company: **Cascade Drilling**	Completion Date: **10-17-2018**	Sample Tool Length: **10 ft.**
Drill Operator: **Arlen Little**	Drilling Method: **Sonic Rig**	Soil Classification System: **Modified Burmister**
Drill Rig Type: **Sonic**	Sampling Method: **Sonic Tube**	Field Screening: **MiniRae3000 10.6 eV**
Latitude: **NA**	Longitude: **NA**	Top of Bentonite Seal: **NA**
TOC Elevation: **NA**	Borehole Diameter: **4.5 in.**	Type of Seal: **NA**
Total Depth: **20 fbgs.**	Well Diameter: **NA**	Top of Sand: **NA**
Refusal Depth: **Not Encountered**	Riser Length: **NA**	Sand Type: **NA**
Initial Depth to Water: **NA**	Screen Slot Size: **NA**	Well Material Type: **NA**
Static Depth to Water: **NA**	Screen Length: **NA**	Top of Grout: **NA**

Depth (fbgs)	Sample Interval (feet)	Recovery (ft/ft)	Field Screen (pom) 0 5	Geologic Description	Comments	Completion Detail
0	0-2	8/10	0.2	TOPSOIL and SLAG debris, dark brown, moist	SB-129-A @ 0-2'	
	2-5		0.1	FILL, fine to coarse SAND and GRAVEL, some SLAG debris, white-tan, slightly moist		
5	5-6		0.1	FILL, SLAG debris and GRAVEL, some fine to coarse SAND, dark brown, moist		
	6-9		0.1	FILL, SLAG debris and GRAVEL, some fine to coarse SAND, gray, wet	SB-129-B @ 6-7'	
	9-10		0.1	FILL, SLAG debris and GRAVEL, some fine to coarse SAND, gray, saturated		
10	10-12	10/10	0.5	Organic CLAY, black, moist		Backfilled with cuttings
	12-14		2.9	PEAT, some layers of gray/brown CLAY, brown, moist		
	14-16		0.2	PEAT, some layers of gray/brown CLAY, brown, moist		
15	16-17		0.1	Fine SAND, gray, wet	SB-129-C @ 16-17'	
	17-20		0.1	Fine SAND and CLAY, gray, wet	Boring ended at 20 fbgs.	
20						

Proportions Used:

Trace =	<5%
Little =	6-15%
Few =	16-30%
Some =	31-49%
And =	>50%

Notes:

NA = not available; fbgs. = feet below ground surface
in. = inches; ft.= feet; ppm.= parts per million
Soil Lithologies based on field observations only.
famsl. = feet above mean sea level
btoc = below top-of-casing; ftag = feet above grade
eV = electron volt; PVC = polyvinyl chloride

Blow Count Pentration Resistance:

Consistency (M&C)		Density (G&S)	
<2 =	Very Soft	0-4 =	Very Loose
2-4 =	Soft	4-10 =	Loose
4-8 =	Medium	10-30 =	Medium
8-15 =	Stiff	30-50 =	Dense
15-30 =	Very Stiff	>50 =	Very Dense
>30 =	Hard		

Symbol Legend

Static Water Level

Lab Sample Location

Soil Boring

Groundwater & Environmental Services, Inc.

ID NO. SB-130

Project: **Buffalo Lakeside Commercial Park**	Client: **NYSDEC**	Regulatory Case #: **Site No. 915322**
Address: **Laborers Way & Ship Canal Pkwy, Buffalo, NY**		Regulatory Case Mgr: **Jenelle Gaylord**
County: **Erie**	GES Job #: **0901752**	GES Project Mgr: **Eric D. Popken**
Logged By: **J. Clay/D. Zordan**	Date Drilled: **10-17-2018**	Sample Tool Diameter: **NA**
Drilling Company: **Cascade Drilling**	Completion Date: **10-17-2018**	Sample Tool Length: **10 ft.**
Drill Operator: **Arlen Little**	Drilling Method: **Sonic Rig**	Soil Classification System: **Modified Burmister**
Drill Rig Type: **Sonic**	Sampling Method: **Sonic Tube**	Field Screening: **MiniRae3000 10.6 eV**
Latitude: **NA**	Longitude: **NA**	Top of Bentonite Seal: **NA**
TOC Elevation: **NA**	Borehole Diameter: **4.5 in.**	Type of Seal: **NA**
Total Depth: **20 fbgs.**	Well Diameter: **NA**	Top of Sand: **NA**
Refusal Depth: **Not Encountered**	Riser Length: **NA**	Sand Type: **NA**
Initial Depth to Water: **NA**	Screen Slot Size: **NA**	Well Material Type: **NA**
Static Depth to Water: **NA**	Screen Length: **NA**	Top of Grout: **NA**

Depth (fbgs)	Sample Interval (feet)	Recovery (ft/ft)	Field Screen (pom) 0 3	Geologic Description	Comments	Completion Detail
0	0-3	6.5/10	0.0	FILL, fine to coarse SAND, gray, slightly moist	SB-130-A @ 0-3'	
	3-6		0.4	FILL, fine to coarse SAND, gray, slightly moist		
5	6-10		1.1	FILL, fine to coarse SAND, many fine to coarse GRAVEL, some BRICK and SLAG debris, some SILT, wet	SB-130-B @ 6-10'	
10	10-11	10/10	0.1	Organic CLAY and fine SAND, black, wet		Backfilled with cuttings
	11-13		0.1	PEAT, some layers of brown CLAY, gray-brown, moist		
	13-15		0.2	PEAT, some layers of brown CLAY, gray-brown, moist		
15	15-18		0.0	Fine SAND, gray, wet	SB-130-C @ 15-18'	
	18-20		0.1	CLAY, trace fine SAND, gray, slightly moist, stiff	Boring ended at 20 fbgs.	
20						

Proportions Used:

Trace =	<5%
Little =	6-15%
Few =	16-30%
Some =	31-49%
And =	>50%

Notes:

NA = not available; fbgs. = feet below ground surface
in. = inches; ft.= feet; ppm.= parts per million
Soil Lithologies based on field observations only.
famsl. = feet above mean sea level
btoc = below top-of-casing; ftag = feet above grade
eV = electron volt; PVC = polyvinyl chloride

Blow Count Pentration Resistance:

Consistency (M&C)		Density (G&S)	
<2 =	Very Soft	0-4 =	Very Loose
2-4 =	Soft	4-10 =	Loose
4-8 =	Medium	10-30 =	Medium
8-15 =	Stiff	30-50 =	Dense
15-30 =	Very Stiff	>50 =	Very Dense
>30 =	Hard		

Symbol Legend

Static Water Level

Lab Sample Location

Soil Boring/Monitoring Well

Groundwater & Environmental Services, Inc.

ID NO. **SB-131/MW-131**

Project: **Buffalo Lakeside Commercial Park**	Client: **NYSDEC**	Regulatory Case #: **Site No. 915322**
Address: **Laborers Way & Ship Canal Pkwy, Buffalo, NY**		Regulatory Case Mgr: **Jenelle Gaylord**
County: **Erie**	GES Job #: **0901752**	GES Project Mgr: **Eric D. Popken**
Logged By: **P. Colern/D. Zordan**	Date Drilled: **10-18-2018**	Sample Tool Diameter: **4.5 in.**
Drilling Company: **Cascade Drilling**	Completion Date: **10-25-2018**	Sample Tool Length: **10 ft.**
Drill Operator: **Arlen Little**	Drilling Method: **Sonic Rig**	Soil Classification System: **Modified Burmister**
Drill Rig Type: **Sonic**	Sampling Method: **Sonic Tube**	Field Screening: **MiniRae3000 10.6 eV**
Latitude: **NA**	Longitude: **NA**	Top of Bentonite Seal: **2 fbgs.**
TOC Elevation: **586.81 famsl.**	Borehole Diameter: **4.5 in.**	Type of Seal: **Medium Bentonite Chips**
Total Depth: **20 fbgs.**	Well Diameter: **2 in.**	Top of Sand: **4 fbgs.**
Refusal Depth: **Not Encountered**	Riser Length: **8 ft. (3 ftag)**	Sand Type: **20-40 Mesh Sand Pack**
Initial Depth to Water: **~1 fbgs.**	Screen Slot Size: **0.010-in.**	Well Material Type: **Schedule 40 PVC**
Static Depth to Water: **10.27 ft. btoc.**	Screen Length: **10 ft.**	Top of Grout: **1 fbgs.**

Depth (fbgs)	Sample Interval (feet)	Recovery (ft/ft)	Field Screen (ppm) 0 50	Geologic Description	Comments	Completion Detail
0	0-1	10/10	0.0	FILL, SLAG debris, brown/gray, moist	SB-131-A @ 0-1'	Pro-Casing (1'-3 ftag)
	1-6		0.0	FILL, SLAG debris, gray/blue, wet	3 ft. stick up protective casing	Concrete (1-0')
5						Grout (2-1')
						Riser (5'-3 ftag)
						Bentonite (4-2')
	6-10		0.0	FILL, SLAG debris, gray/blue, saturated	SB-131-B @ 6-8'	
10	10-14	10/10	0.0	FILL, SLAG debris, gray/blue, saturated		Sand (15-4')
						Screen (15-5')
	14-16		48.7	FILL, SLAG debris, gray/blue, saturated		
15				PEAT, few SLAG, black, moist, H2S - 11.8ppm	SB-131-C @ 14-16'	
	16-18		7.6	Organic CLAY, tan/light brown, very moist		Backfilled (20-15')
	18-19		0.0	Fine SAND, few interbedded SILT, gray	Boring ended at 20 fbgs.	
	19-20		0.0	Fine SAND and CLAY, gray, wet		
20						

Proportions Used:

Trace =	<5%
Little =	6-15%
Few =	16-30%
Some =	31-49%
And =	>50%

Notes:

NA = not available; fbgs. = feet below ground surface
in. = inches; ft.= feet; ppm.= parts per million
Soil Lithologies based on field observations only.
famsl. = feet above mean sea level
btoc = below top-of-casing; ftag = feet above grade
eV = electron volt; PVC = polyvinyl chloride

Blow Count Pentration Resistance:

Consistency (M&C)		Density (G&S)	
<2 =	Very Soft	0-4 =	Very Loose
2-4 =	Soft	4-10 =	Loose
4-8 =	Medium	10-30 =	Medium
8-15 =	Stiff	30-50 =	Dense
15-30 =	Very Stiff	>50 =	Very Dense
>30 =	Hard		

Symbol Legend

Static Water Level

Lab Sample Location

Soil Boring

Groundwater & Environmental Services, Inc.

ID NO. SB-132

Project: **Buffalo Lakeside Commercial Park**	Client: **NYSDEC**	Regulatory Case #: **Site No. 915322**
Address: **Laborers Way & Ship Canal Pkwy, Buffalo, NY**		Regulatory Case Mgr: **Jenelle Gaylord**
County: **Erie**	GES Job #: **0901752**	GES Project Mgr: **Eric D. Popken**
Logged By: **P. Colern/D. Zordan**	Date Drilled: **10-18-2018**	Sample Tool Diameter: **NA**
Drilling Company: **Cascade Drilling**	Completion Date: **10-18-2018**	Sample Tool Length: **10 ft.**
Drill Operator: **Arlen Little**	Drilling Method: **Sonic Rig**	Soil Classification System: **Modified Burmister**
Drill Rig Type: **Sonic**	Sampling Method: **Sonic Tube**	Field Screening: **MiniRae3000 10.6 eV**
Latitude: **NA**	Longitude: **NA**	Top of Bentonite Seal: **NA**
TOC Elevation: **NA**	Borehole Diameter: **4.5 in.**	Type of Seal: **NA**
Total Depth: **20 fbgs.**	Well Diameter: **NA**	Top of Sand: **NA**
Refusal Depth: **Not Encountered**	Riser Length: **NA**	Sand Type: **NA**
Initial Depth to Water: **NA**	Screen Slot Size: **NA**	Well Material Type: **NA**
Static Depth to Water: **NA**	Screen Length: **NA**	Top of Grout: **NA**

Depth (fbgs)	Sample Interval (feet)	Recovery (ft/ft)	Field Screen (pom) 0 25	Geologic Description	Comments	Completion Detail
0	0-2	10/10	0.0	TOPSOIL, SLAG debris, fine to medium GRAVEL, dark brown, moist	SB-132-A @ 0-2'	
	2-4		0.0	FILL, CLAY, fine to coarse GRAVEL and SAND, fine to coarse, SLAG, moist		
	4-5		0.0	FILL, SLAG debris, gray, moist to wet		
5	5-16		0.0	FILL, SLAG debris, blueish/gray, saturated, 5 to 16' blue		
10		10/10				Backfilled with cuttings
15					SB-132-B @ 14-16'	
	16-17		18.6	PEAT, little CLAY, black, moist		
	17-19		4.7	Organic CLAY and SILT, gray, moist	Boring ended at 20 fbgs.	
	19-20		0.5	PEAT, little interbedded CLAY, dark brown	SB-132-C @ 17-19'	
20						

Proportions Used:

Trace =	<5%
Little =	6-15%
Few =	16-30%
Some =	31-49%
And =	>50%

Notes:

NA = not available; fbgs. = feet below ground surface
in. = inches; ft.= feet; ppm.= parts per million
Soil Lithologies based on field observations only.
famsl. = feet above mean sea level
btoc = below top-of-casing; ftag = feet above grade
eV = electron volt; PVC = polyvinyl chloride

Blow Count Pentration Resistance:

Consistency (M&C)		Density (G&S)	
<2 =	Very Soft	0-4 =	Very Loose
2-4 =	Soft	4-10 =	Loose
4-8 =	Medium	10-30 =	Medium
8-15 =	Stiff	30-50 =	Dense
15-30 =	Very Stiff	>50 =	Very Dense
>30 =	Hard		

Symbol Legend

Static Water Level

Lab Sample Location

Soil Boring

Groundwater & Environmental Services, Inc.

ID NO. SB-133

Project: **Buffalo Lakeside Commercial Park**	Client: **NYSDEC**	Regulatory Case #: **Site No. 915322**
Address: **Laborers Way & Ship Canal Pkwy, Buffalo, NY**		Regulatory Case Mgr: **Jenelle Gaylord**
County: **Erie**	GES Job #: **0901752**	GES Project Mgr: **Eric D. Popken**
Logged By: **P. Colern/D. Zordan**	Date Drilled: **10-18-2018**	Sample Tool Diameter: **NA**
Drilling Company: **Cascade Drilling**	Completion Date: **10-18-2018**	Sample Tool Length: **10 ft.**
Drill Operator: **Arlen Little**	Drilling Method: **Sonic Rig**	Soil Classification System: **Modified Burmister**
Drill Rig Type: **Sonic**	Sampling Method: **Sonic Tube**	Field Screening: **MiniRae3000 10.6 eV**
Latitude: **NA**	Longitude: **NA**	Top of Bentonite Seal: **NA**
TOC Elevation: **NA**	Borehole Diameter: **4.5 in.**	Type of Seal: **NA**
Total Depth: **20 fbgs.**	Well Diameter: **NA**	Top of Sand: **NA**
Refusal Depth: **Not Encountered**	Riser Length: **NA**	Sand Type: **NA**
Initial Depth to Water: **NA**	Screen Slot Size: **NA**	Well Material Type: **NA**
Static Depth to Water: **NA**	Screen Length: **NA**	Top of Grout: **NA**

Depth (fbgs)	Sample Interval (feet)	Recovery (ft/ft)	Field Screen (pom) 0 25	Geologic Description	Comments	Completion Detail
0	0-1	10/10	0	TOPSOIL and SLAG debris, wet	SB-133-A @ 0-1'	
	1-3		0	FILL, SLAG debris, few fine to coarse SAND and GRAVEL, moist		
	3-6		0	FILL, SLAG debris, white/gray, moist	SB-133-B @ 4-6'	
5	6-10		0	FILL, SLAG debris, gray, wet		
10	10-14	10/10	NA	FILL, SLAG debris, gray, saturated		Backfilled with cuttings
	14-16		10.7	Organic CLAY, black, moist	Boring ended at 20 fbgs.	
15	16-17		10.7	PEAT, interbedded CLAY, dark brown, very moist	SB-133-D @ 15-17'	
	17-19		0	CLAY and SILT, little interbedded organics, gray, very moist	SB-133-C & MS/MSD @ 17-19'	
20	19-20		0	PEAT and interbedded organic CLAY, dark brown, very moist		

Proportions Used:

Trace =	<5%
Little =	6-15%
Few =	16-30%
Some =	31-49%
And =	>50%

Notes:

NA = not available; fbgs. = feet below ground surface
in. = inches; ft.= feet; ppm.= parts per million
Soil Lithologies based on field observations only.
famsl. = feet above mean sea level
btoc = below top-of-casing; ftag = feet above grade
eV = electron volt; PVC = polyvinyl chloride

Blow Count Pentration Resistance:

Consistency (M&C)		Density (G&S)	
<2 =	Very Soft	0-4 =	Very Loose
2-4 =	Soft	4-10 =	Loose
4-8 =	Medium	10-30 =	Medium
8-15 =	Stiff	30-50 =	Dense
15-30 =	Very Stiff	>50 =	Very Dense
>30 =	Hard		

Symbol Legend

Static Water Level

Lab Sample Location

Soil Boring

Groundwater & Environmental Services, Inc.

ID NO. SB-134

Project: **Buffalo Lakeside Commercial Park**	Client: **NYSDEC**	Regulatory Case #: **Site No. 915322**
Address: **Laborers Way & Ship Canal Pkwy, Buffalo, NY**		Regulatory Case Mgr: **Jenelle Gaylord**
County: **Erie**	GES Job #: **0901752**	GES Project Mgr: **Eric D. Popken**
Logged By: **P. Colern/D. Zordan**	Date Drilled: **10-18-2018**	Sample Tool Diameter: **NA**
Drilling Company: **Cascade Drilling**	Completion Date: **10-18-2018**	Sample Tool Length: **10 ft.**
Drill Operator: **Arlen Little**	Drilling Method: **Sonic Rig**	Soil Classification System: **Modified Burmister**
Drill Rig Type: **Sonic**	Sampling Method: **Sonic Tube**	Field Screening: **MiniRae3000 10.6 eV**
Latitude: **NA**	Longitude: **NA**	Top of Bentonite Seal: **NA**
TOC Elevation: **NA**	Borehole Diameter: **4.5 in.**	Type of Seal: **NA**
Total Depth: **20 fbgs.**	Well Diameter: **NA**	Top of Sand: **NA**
Refusal Depth: **Not Encountered**	Riser Length: **NA**	Sand Type: **NA**
Initial Depth to Water: **NA**	Screen Slot Size: **NA**	Well Material Type: **NA**
Static Depth to Water: **NA**	Screen Length: **NA**	Top of Grout: **NA**

Depth (fbgs)	Sample Interval (feet)	Recovery (ft/ft)	Field Screen (ppm) 0 10	Geologic Description	Comments	Completion Detail
0	0-1	10/10	0.0	TOPSOIL and SLAG debris, moist	SB-134-A @ 0-1'	Backfilled with cuttings
	1-3		0.0	FILL, SLAG debris, gray, dry		
	3-6		0.0	FILL, SLAG debris, gray, moist		
5	6-10		4.6	FILL, SLAG debris, gray, wet	SB-134-B @ 6-8'	
10	10-11		0.0	FILL, SLAG debris, gray, wet		
	11-12		0.0	Organic CLAY, little SLAG debris, black, very moist		
	12-17		6.8	PEAT and interbedded CLAY, brown, moist	SB-134-C @ 12-14'	
15						
	17-20		0.0	CLAY and interbedded fine SAND, very moist	Boring ended at 20 fbgs.	
20						

Proportions Used:

Trace =	<5%
Little =	6-15%
Few =	16-30%
Some =	31-49%
And =	>50%

Notes:

NA = not available; fbgs. = feet below ground surface
in. = inches; ft.= feet; ppm.= parts per million
Soil Lithologies based on field observations only.
famsl. = feet above mean sea level
btoc = below top-of-casing; ftag = feet above grade
eV = electron volt; PVC = polyvinyl chloride

Blow Count Pentration Resistance:

Consistency (M&C)		Density (G&S)	
<2 =	Very Soft	0-4 =	Very Loose
2-4 =	Soft	4-10 =	Loose
4-8 =	Medium	10-30 =	Medium
8-15 =	Stiff	30-50 =	Dense
15-30 =	Very Stiff	>50 =	Very Dense
>30 =	Hard		

Symbol Legend

Static Water Level

Lab Sample Location

Soil Boring

Groundwater & Environmental Services, Inc.

ID NO. SB-135

Project: **Buffalo Lakeside Commercial Park**	Client: **NYSDEC**	Regulatory Case #: **Site No. 915322**
Address: **Laborers Way & Ship Canal Pkwy, Buffalo, NY**		Regulatory Case Mgr: **Jenelle Gaylord**
County: **Erie**	GES Job #: **0901752**	GES Project Mgr: **Eric D. Popken**
Logged By: **P. Colern/D. Zordan**	Date Drilled: **10-18-2018**	Sample Tool Diameter: **NA**
Drilling Company: **Cascade Drilling**	Completion Date: **10-18-2018**	Sample Tool Length: **10 ft.**
Drill Operator: **Arlen Little**	Drilling Method: **Sonic Rig**	Soil Classification System: **Modified Burmister**
Drill Rig Type: **Sonic**	Sampling Method: **Sonic Tube**	Field Screening: **MiniRae3000 10.6 eV**
Latitude: **NA**	Longitude: **NA**	Top of Bentonite Seal: **NA**
TOC Elevation: **NA**	Borehole Diameter: **4.5 in.**	Type of Seal: **NA**
Total Depth: **20 fbgs.**	Well Diameter: **NA**	Top of Sand: **NA**
Refusal Depth: **Not Encountered**	Riser Length: **NA**	Sand Type: **NA**
Initial Depth to Water: **NA**	Screen Slot Size: **NA**	Well Material Type: **NA**
Static Depth to Water: **NA**	Screen Length: **NA**	Top of Grout: **NA**

Depth (fbgs)	Sample Interval (feet)	Recovery (ft/ft)	Field Screen (pom) 0 5	Geologic Description	Comments	Completion Detail
0	0-2	8/10	0.0	TOPSOIL and SLAG debris, trace BRICK fragments, dark brown, moist	SB-135-A @ 0-2'	
	2-6		0.0	FILL, fine to coarse GRAVEL and SAND, some SLAG fragments, tan, dry		
5	6-8		0.0	FILL, SLAG debris, gray, moist	SB-135-B @ 6-8'	
	8-10		0.0	FILL, SLAG debris, gray, moist		
10	10-12	10/10	0.5	FILL, SLAG debris, gray, moist		Backfilled with cuttings
	12-14		2.7	FILL, SLAG debris, gray, moist		
	14-15		0.8	Organic CLAY, some SLAG debris, black, moist		
15	15-18		0.0	PEAT, layers of organic CLAY, dark brown, moist	Boring ended at 20 fbgs.	
	18-20		2.8	Interbedded CLAY and fine SAND, gray, very moist	SB-135-C @ 18-20'	
20						

Proportions Used:

Trace =	<5%
Little =	6-15%
Few =	16-30%
Some =	31-49%
And =	>50%

Notes:

NA = not available; fbgs. = feet below ground surface
in. = inches; ft.= feet; ppm.= parts per million
Soil Lithologies based on field observations only.
famsl. = feet above mean sea level
btoc = below top-of-casing; ftag = feet above grade
eV = electron volt; PVC = polyvinyl chloride

Blow Count Pentration Resistance:

Consistency (M&C)		Density (G&S)	
<2 =	Very Soft	0-4 =	Very Loose
2-4 =	Soft	4-10 =	Loose
4-8 =	Medium	10-30 =	Medium
8-15 =	Stiff	30-50 =	Dense
15-30 =	Very Stiff	>50 =	Very Dense
>30 =	Hard		

Symbol Legend

Static Water Level

Lab Sample Location

Soil Boring

Groundwater & Environmental Services, Inc.

ID NO. SB-136

Project: **Buffalo Lakeside Commercial Park**	Client: **NYSDEC**	Regulatory Case #: **Site No. 915322**
Address: **Laborers Way & Ship Canal Pkwy, Buffalo, NY**		Regulatory Case Mgr: **Jenelle Gaylord**
County: **Erie**	GES Job #: **0901752**	GES Project Mgr: **Eric D. Popken**
Logged By: **J. Clay/D. Zordan**	Date Drilled: **10-17-2018**	Sample Tool Diameter: **NA**
Drilling Company: **Cascade Drilling**	Completion Date: **10-17-2018**	Sample Tool Length: **10 ft.**
Drill Operator: **Arlen Little**	Drilling Method: **Sonic Rig**	Soil Classification System: **Modified Burmister**
Drill Rig Type: **Sonic**	Sampling Method: **Sonic Tube**	Field Screening: **MiniRae3000 10.6 eV**
Latitude: **NA**	Longitude: **NA**	Top of Bentonite Seal: **NA**
TOC Elevation: **NA**	Borehole Diameter: **4.5 in.**	Type of Seal: **NA**
Total Depth: **20 fbgs.**	Well Diameter: **NA**	Top of Sand: **NA**
Refusal Depth: **Not Encountered**	Riser Length: **NA**	Sand Type: **NA**
Initial Depth to Water: **NA**	Screen Slot Size: **NA**	Well Material Type: **NA**
Static Depth to Water: **NA**	Screen Length: **NA**	Top of Grout: **NA**

Depth (fbgs)	Sample Interval (feet)	Recovery (ft/ft)	Field Screen (ppm)	Geologic Description	Comments	Completion Detail
0	0-1	8/10	0.1	TOPSOIL and some SLAG/BRICK debris, dark brown, slightly moist	SB-136-A @ 0-1'	
	1-4		0.1	TOPSOIL and some SLAG debris, slightly, moist		
	4-5		0.2	FILL, fine to coarse SAND and GRAVEL, some SLAG debris, tan/gray, slightly moist		
5	5-8		0.1	FILL, fine to coarse SLAG debris and GRAVEL, some fine to coarse SAND, gray, wet	SB-136-B @ 5-8'	
	8-10		0.5	FILL, fine to coarse SLAG debris and GRAVEL, some fine to coarse SAND, gray, saturated		
10	10-12	8/10	0.1	FILL, fine to coarse SLAG debris and GRAVEL, some fine to coarse SAND, gray, saturated		
	12-15		0.1	FILL, SAND and GRAVEL some fine to coarse SLAG debris, green-gray, saturated	SB-136-D @ 12-15'	
15	15-17		0.1	FILL, SLAG debris, wet		
	17-20		0.1	Organic CLAY, some interbedded brown PEAT, black, moist-wet	Boring ended at 20 fbgs. SB-136-C @ 17-20'	
20						

Backfilled with cuttings

Proportions Used:

Trace =	<5%
Little =	6-15%
Few =	16-30%
Some =	31-49%
And =	>50%

Notes:

NA = not available; fbgs. = feet below ground surface
in. = inches; ft.= feet; ppm.= parts per million
Soil Lithologies based on field observations only.
famsl. = feet above mean sea level
btoc = below top-of-casing; ftag = feet above grade
eV = electron volt; PVC = polyvinyl chloride

Blow Count Pentration Resistance:

Consistency (M&C)		Density (G&S)	
<2 =	Very Soft	0-4 =	Very Loose
2-4 =	Soft	4-10 =	Loose
4-8 =	Medium	10-30 =	Medium
8-15 =	Stiff	30-50 =	Dense
15-30 =	Very Stiff	>50 =	Very Dense
>30 =	Hard		

Symbol Legend

Static Water Level

Lab Sample Location

Soil Boring

Groundwater & Environmental Services, Inc.

ID NO. SB-137

Project: **Buffalo Lakeside Commercial Park**	Client: **NYSDEC**	Regulatory Case #: **Site No. 915322**
Address: **Laborers Way & Ship Canal Pkwy, Buffalo, NY**		Regulatory Case Mgr: **Jenelle Gaylord**
County: **Erie**	GES Job #: **0901752**	GES Project Mgr: **Eric D. Popken**
Logged By: **J. Clay/D. Zordan**	Date Drilled: **10-17-2018**	Sample Tool Diameter: **NA**
Drilling Company: **Cascade Drilling**	Completion Date: **10-17-2018**	Sample Tool Length: **10 ft.**
Drill Operator: **Arlen Little**	Drilling Method: **Sonic Rig**	Soil Classification System: **Modified Burmister**
Drill Rig Type: **Sonic**	Sampling Method: **Sonic Tube**	Field Screening: **MiniRae3000 10.6 eV**
Latitude: **NA**	Longitude: **NA**	Top of Bentonite Seal: **NA**
TOC Elevation: **NA**	Borehole Diameter: **4.5 in.**	Type of Seal: **NA**
Total Depth: **20 fbgs.**	Well Diameter: **NA**	Top of Sand: **NA**
Refusal Depth: **Not Encountered**	Riser Length: **NA**	Sand Type: **NA**
Initial Depth to Water: **NA**	Screen Slot Size: **NA**	Well Material Type: **NA**
Static Depth to Water: **NA**	Screen Length: **NA**	Top of Grout: **NA**

Depth (fbgs)	Sample Interval (feet)	Recovery (ft/ft)	Field Screen (ppm)	Geologic Description	Comments	Completion Detail
0	0-1	5/5	0.1	TOPSOIL and SLAG debris, dark brown, moist	SB-137-A @ 0-1'	
	1-4		0.1	FILL, fine to coarse SLAG debris and GRAVEL, little fine to coarse SAND, gray slightly moist		
	4-5		0.1	FILL, SLAG debris and GRAVEL, some fine to coarse SAND, brown/dark brown, slightly moist, large piece of metal debris	SB-137-B @ 4-5'	
5	5-6	4/5	0.2	FILL, SLAG debris and GRAVEL, some fine to coarse SAND, brown/dark brown, slightly moist		
	6-10		0.0	FILL, fine to coarse SLAG debris and GRAVEL, little fine to coarse SAND, gray, wet-saturated		
10	10-14	8/10	0.1	FILL, fine to coarse SLAG debris and GRAVEL, little fine to coarse SAND, gray, wet-saturated		Backfilled with cuttings
	14-16		0.5	Organic CLAY interbedded with PEAT/WOOD debris, black, wet	SB-137-C @ 14-16'	
15	16-20		0.2	CLAY interbedded with PEAT, gray-brown, moist		
20					Boring ended at 20 fbgs.	

Proportions Used:

Trace =	<5%
Little =	6-15%
Few =	16-30%
Some =	31-49%
And =	>50%

Notes:

NA = not available; fbgs. = feet below ground surface
in. = inches; ft.= feet; ppm.= parts per million
Soil Lithologies based on field observations only.
famsl. = feet above mean sea level
btoc = below top-of-casing; ftag = feet above grade
eV = electron volt; PVC = polyvinyl chloride

Blow Count Pentration Resistance:

Consistency (M&C)		Density (G&S)	
<2 =	Very Soft	0-4 =	Very Loose
2-4 =	Soft	4-10 =	Loose
4-8 =	Medium	10-30 =	Medium
8-15 =	Stiff	30-50 =	Dense
15-30 =	Very Stiff	>50 =	Very Dense
>30 =	Hard		

Symbol Legend

Static Water Level

Lab Sample Location

Soil Boring

Groundwater & Environmental Services, Inc.

ID NO. SB-138

Project: **Buffalo Lakeside Commercial Park**	Client: **NYSDEC**	Regulatory Case #: **Site No. 915322**
Address: **Laborers Way & Ship Canal Pkwy, Buffalo, NY**		Regulatory Case Mgr: **Jenelle Gaylord**
County: **Erie**	GES Job #: **0901752**	GES Project Mgr: **Eric D. Popken**
Logged By: **P. Colern/D. Zordan**	Date Drilled: **10-17-2018**	Sample Tool Diameter: **NA**
Drilling Company: **Cascade Drilling**	Completion Date: **10-17-2018**	Sample Tool Length: **10 ft.**
Drill Operator: **Arlen Little**	Drilling Method: **Sonic Rig**	Soil Classification System: **Modified Burmister**
Drill Rig Type: **Sonic**	Sampling Method: **Sonic Tube**	Field Screening: **MiniRae3000 10.6 eV**
Latitude: **NA**	Longitude: **NA**	Top of Bentonite Seal: **NA**
TOC Elevation: **NA**	Borehole Diameter: **4.5 in.**	Type of Seal: **NA**
Total Depth: **20 fbgs.**	Well Diameter: **NA**	Top of Sand: **NA**
Refusal Depth: **Not Encountered**	Riser Length: **NA**	Sand Type: **NA**
Initial Depth to Water: **NA**	Screen Slot Size: **NA**	Well Material Type: **NA**
Static Depth to Water: **NA**	Screen Length: **NA**	Top of Grout: **NA**

Depth (fbgs)	Sample Interval (feet)	Recovery (ft/ft)	Field Screen (pom) 0 5	Geologic Description	Comments	Completion Detail
0	0-2	10/10	0.1	TOPSOIL and BRICK / SLAG debris, dark brown, moist	SB-138-A @ 0-2'	
	2-5		0.0	FILL, fine to coarse GRAVEL and SLAG debris, some fine to coarse SAND, gray, moist		
5	5-8		0.0	FILL, fine to coarse GRAVEL and SLAG debris, some fine to coarse SAND, gray, moist	SB-138-B @ 5-8'	
	8-10		0.0	FILL, fine to coarse GRAVEL and SLAG debris, some fine to coarse SAND, gray, wet		
10	10-14	10/10	0.1	FILL, fine to coarse GRAVEL and SLAG debris, some fine to coarse SAND, gray, wet		Backfilled with cuttings
	14-15		0.3	Organic CLAY, black, moist		
15	15-17		3.2	PEAT, layers of gray-brown CLAY, dark brown, moist	SB-138-C @ 15-17'	
	17-19		0.3	PEAT, layers of gray-brown CLAY, dark brown, moist		
	19-20		0.2	Interbedded CLAY and fine SAND, gray, very moist	Boring ended at 20 fbgs.	
20						

Proportions Used:

Trace =	<5%
Little =	6-15%
Few =	16-30%
Some =	31-49%
And =	>50%

Notes:

NA = not available; fbgs. = feet below ground surface
in. = inches; ft.= feet; ppm.= parts per million
Soil Lithologies based on field observations only.
famsl. = feet above mean sea level
btoc = below top-of-casing; ftag = feet above grade
eV = electron volt; PVC = polyvinyl chloride

Blow Count Pentration Resistance:

Consistency (M&C)		Density (G&S)	
<2 =	Very Soft	0-4 =	Very Loose
2-4 =	Soft	4-10 =	Loose
4-8 =	Medium	10-30 =	Medium
8-15 =	Stiff	30-50 =	Dense
15-30 =	Very Stiff	>50 =	Very Dense
>30 =	Hard		

Symbol Legend

Static Water Level

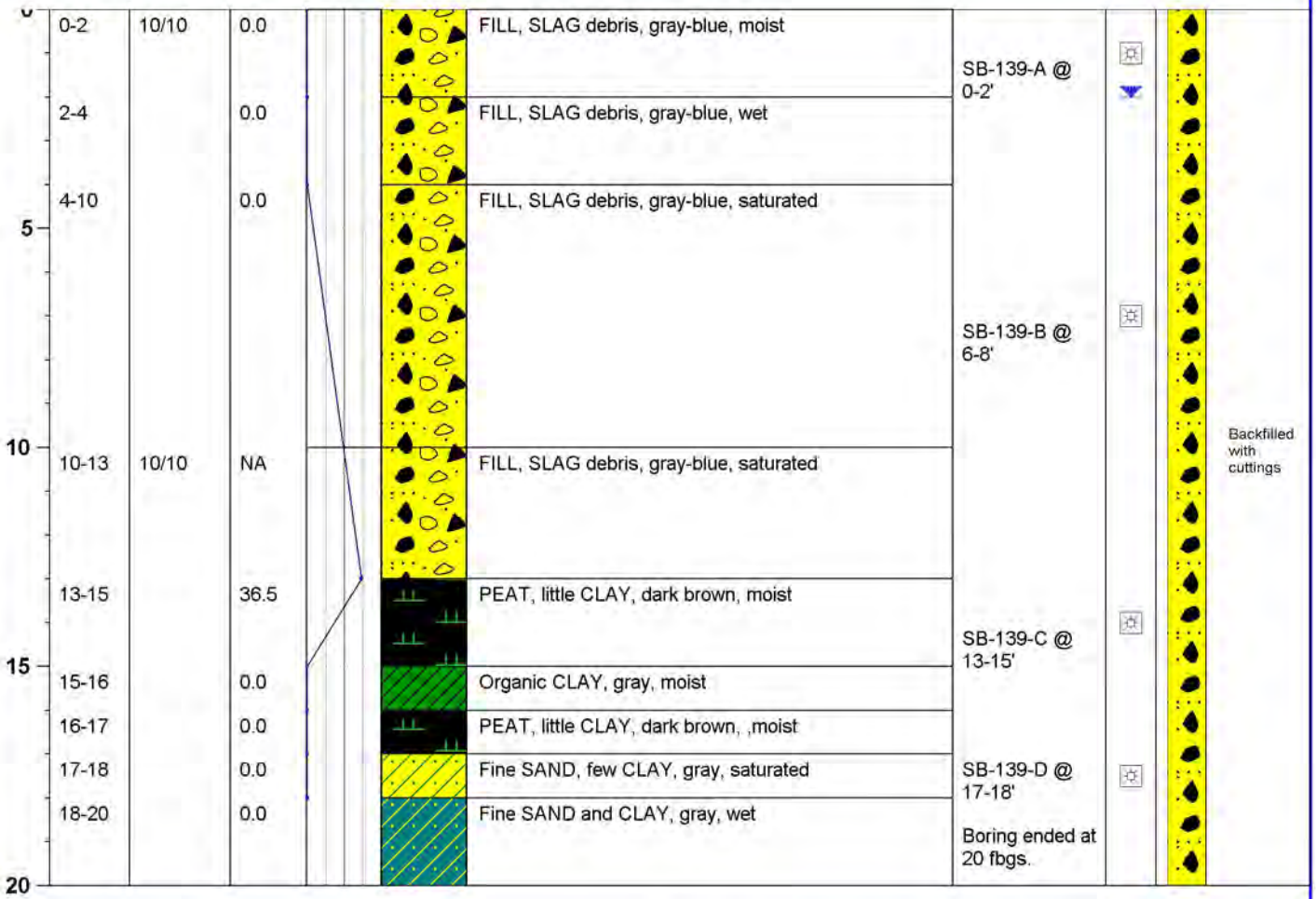
Lab Sample Location

Soil Boring

Groundwater & Environmental Services, Inc.

ID NO. SB-139

Project: **Buffalo Lakeside Commercial Park**	Client: **NYSDEC**	Regulatory Case #: **Site No. 915322**
Address: **Laborers Way & Ship Canal Pkwy, Buffalo, NY**		Regulatory Case Mgr: **Jenelle Gaylord**
County: **Erie**	GES Job #: **0901752**	GES Project Mgr: **Eric D. Popken**
Logged By: **P. Colern/D. Zordan**	Date Drilled: **10-18-2018**	Sample Tool Diameter: **NA**
Drilling Company: **Cascade Drilling**	Completion Date: **10-18-2018**	Sample Tool Length: **10 ft.**
Drill Operator: **Arlen Little**	Drilling Method: **Sonic Rig**	Soil Classification System: **Modified Burmister**
Drill Rig Type: **Sonic**	Sampling Method: **Sonic Tube**	Field Screening: **MiniRae3000 10.6 eV**
Latitude: **NA**	Longitude: **NA**	Top of Bentonite Seal: **NA**
TOC Elevation: **NA**	Borehole Diameter: **4.5 in.**	Type of Seal: **NA**
Total Depth: **20 fbgs.**	Well Diameter: **NA**	Top of Sand: **NA**
Refusal Depth: **Not Encountered**	Riser Length: **NA**	Sand Type: **NA**
Initial Depth to Water: **NA**	Screen Slot Size: **NA**	Well Material Type: **NA**
Static Depth to Water: **NA**	Screen Length: **NA**	Top of Grout: **NA**



Proportions Used:

Trace =	<5%
Little =	6-15%
Few =	16-30%
Some =	31-49%
And =	>50%

Notes:

NA = not available; fbgs. = feet below ground surface
in. = inches; ft.= feet; ppm.= parts per million
Soil Lithologies based on field observations only.
famsl. = feet above mean sea level
btoc = below top-of-casing; ftag = feet above grade
eV = electron volt; PVC = polyvinyl chloride

Blow Count Pentration Resistance:

Consistency (M&C)		Density (G&S)	
<2 =	Very Soft	0-4 =	Very Loose
2-4 =	Soft	4-10 =	Loose
4-8 =	Medium	10-30 =	Medium
8-15 =	Stiff	30-50 =	Dense
15-30 =	Very Stiff	>50 =	Very Dense
>30 =	Hard		

Symbol Legend

Static Water Level

Lab Sample Location

Soil Boring

Groundwater & Environmental Services, Inc.

ID NO. **SB-140**

Project: **Buffalo Lakeside Commercial Park**	Client: **NYSDEC**	Regulatory Case #: **Site No. 915322**
Address: **Laborers Way & Ship Canal Pkwy, Buffalo, NY**		Regulatory Case Mgr: **Jenelle Gaylord**
County: **Erie**	GES Job #: **0901752**	GES Project Mgr: **Eric D. Popken**
Logged By: **P. Colern/D. Zordan**	Date Drilled: **10-18-2018**	Sample Tool Diameter: **NA**
Drilling Company: **Cascade Drilling**	Completion Date: **10-18-2018**	Sample Tool Length: **10 ft.**
Drill Operator: **Arlen Little**	Drilling Method: **Sonic Rig**	Soil Classification System: **Modified Burmister**
Drill Rig Type: **Sonic**	Sampling Method: **Sonic Tube**	Field Screening: **MiniRae3000 10.6 eV**
Latitude: **NA**	Longitude: **NA**	Top of Bentonite Seal: **NA**
TOC Elevation: **NA**	Borehole Diameter: **4.5 in.**	Type of Seal: **NA**
Total Depth: **20 fbgs.**	Well Diameter: **NA**	Top of Sand: **NA**
Refusal Depth: **Not Encountered**	Riser Length: **NA**	Sand Type: **NA**
Initial Depth to Water: **NA**	Screen Slot Size: **NA**	Well Material Type: **NA**
Static Depth to Water: **NA**	Screen Length: **NA**	Top of Grout: **NA**

Depth (fbgs)	Sample Interval (feet)	Recovery (ft/ft)	Field Screen (ppm) 0 25	Geologic Description	Comments	Completion Detail
0	0-2	8/10	0.0	TOPSOIL and SLAG debris, dark brown, moist	SB-140-A @ 0-2'	
	2-5		0.0	FILL, CLAY, some SLAG debris, dark brown, moist		
5	5-7		0.0	FILL, fine SAND, some fine to coarse GRAVEL, trace SLAG debris, tan, dry		
	7-10		0.0	FILL, SLAG debris, light gray/blue, wet		
10	10-15	-	0.0	FILL, SLAG debris, light gray/blue, wet		Backfilled with cuttings
15	15-17		3.5	PEAT, little interbedded CLAY, trace SLAG debris, dark brown/black, moist	SB-140-B @ 15-17'	
	17-19		19.2	Organic CLAY, tan/gray, moist	Boring ended at 20 fbgs.	
20	19-20		0.0	PEAT, little interbedded CLAY, trace SLAG debris, dark brown/black, moist	SB-140-C @ 17-19'	

Proportions Used:

Trace =	<5%
Little =	6-15%
Few =	16-30%
Some =	31-49%
And =	>50%

Notes:

NA = not available; fbgs. = feet below ground surface
in. = inches; ft.= feet; ppm.= parts per million
Soil Lithologies based on field observations only.
famsl. = feet above mean sea level
btoc = below top-of-casing; ftag = feet above grade
eV = electron volt; PVC = polyvinyl chloride

Blow Count Pentration Resistance:

Consistency (M&C)		Density (G&S)	
<2 =	Very Soft	0-4 =	Very Loose
2-4 =	Soft	4-10 =	Loose
4-8 =	Medium	10-30 =	Medium
8-15 =	Stiff	30-50 =	Dense
15-30 =	Very Stiff	>50 =	Very Dense
>30 =	Hard		

Symbol Legend

Static Water Level

Lab Sample Location

Soil Boring

Groundwater & Environmental Services, Inc.

ID NO. **SB-141**

Project: **Buffalo Lakeside Commercial Park**	Client: **NYSDEC**	Regulatory Case #: **Site No. 915322**
Address: **Laborers Way & Ship Canal Pkwy, Buffalo, NY**		Regulatory Case Mgr: **Jenelle Gaylord**
County: **Erie**	GES Job #: **0901752**	GES Project Mgr: **Eric D. Popken**
Logged By: **P. Colern/D. Zordan**	Date Drilled: **10-18-2018**	Sample Tool Diameter: **NA**
Drilling Company: **Cascade Drilling**	Completion Date: **10-18-2018**	Sample Tool Length: **10 ft.**
Drill Operator: **Arlen Little**	Drilling Method: **Sonic Rig**	Soil Classification System: **Modified Burmister**
Drill Rig Type: **Sonic**	Sampling Method: **Sonic Tube**	Field Screening: **MiniRae3000 10.6 eV**
Latitude: **NA**	Longitude: **NA**	Top of Bentonite Seal: **NA**
TOC Elevation: **NA**	Borehole Diameter: **4.5 in.**	Type of Seal: **NA**
Total Depth: **20 fbgs.**	Well Diameter: **NA**	Top of Sand: **NA**
Refusal Depth: **Not Encountered**	Riser Length: **NA**	Sand Type: **NA**
Initial Depth to Water: **NA**	Screen Slot Size: **NA**	Well Material Type: **NA**
Static Depth to Water: **NA**	Screen Length: **NA**	Top of Grout: **NA**

Depth (fbgs)	Sample Interval (feet)	Recovery (ft/ft)	Field Screen (ppm) 0 5	Geologic Description	Comments	Completion Detail
0	0-2	10/10	0.0	TOPSOIL and fine to coarse GRAVEL, moist	SB-141-A @ 0-2'	
	2-5		0.0	FILL, SLAG debris, gray-blueish, moist		
5	5-10		0.0	FILL, SLAG debris, gray-blueish, wet	SB-141-B @ 5-7'	
				FILL, SLAG debris, gray-blueish, saturated		
10	10-16	-	0.0	FILL, SLAG debris, gray-blueish, saturated		Backfilled with cuttings
15	16-18		2.8	PEAT, little interbedded CLAY, dark brown/black, moist	Boring ended at 20 fbgs.	
	18-20		0.5	Organic CLAY, tan/light brown, very moist	SB-141-C @ 18-20'	
20						

Proportions Used:

Trace =	<5%
Little =	6-15%
Few =	16-30%
Some =	31-49%
And =	>50%

Notes:

NA = not available; fbgs. = feet below ground surface
in. = inches; ft.= feet; ppm.= parts per million
Soil Lithologies based on field observations only.
famsl. = feet above mean sea level
btoc = below top-of-casing; ftag = feet above grade
eV = electron volt; PVC = polyvinyl chloride

Blow Count Pentration Resistance:

Consistency (M&C)		Density (G&S)	
<2 =	Very Soft	0-4 =	Very Loose
2-4 =	Soft	4-10 =	Loose
4-8 =	Medium	10-30 =	Medium
8-15 =	Stiff	30-50 =	Dense
15-30 =	Very Stiff	>50 =	Very Dense
>30 =	Hard		

Symbol Legend

Static Water Level

Lab Sample Location

Soil Boring

Groundwater & Environmental Services, Inc.

ID NO. SB-142

Project: **Buffalo Lakeside Commercial Park**	Client: **NYSDEC**	Regulatory Case #: **Site No. 915322**
Address: **Laborers Way & Ship Canal Pkwy, Buffalo, NY**		Regulatory Case Mgr: **Jenelle Gaylord**
County: **Erie**	GES Job #: **0901752**	GES Project Mgr: **Eric D. Popken**
Logged By: **P. Colern/D. Zordan**	Date Drilled: **10-19-2018**	Sample Tool Diameter: **NA**
Drilling Company: **Cascade Drilling**	Completion Date: **10-19-2018**	Sample Tool Length: **10 ft.**
Drill Operator: **Arlen Little**	Drilling Method: **Sonic Rig**	Soil Classification System: **Modified Burmister**
Drill Rig Type: **Sonic**	Sampling Method: **Sonic Tube**	Field Screening: **MiniRae3000 10.6 eV**
Latitude: **NA**	Longitude: **NA**	Top of Bentonite Seal: **NA**
TOC Elevation: **NA**	Borehole Diameter: **4.5 in.**	Type of Seal: **NA**
Total Depth: **20 fbgs.**	Well Diameter: **NA**	Top of Sand: **NA**
Refusal Depth: **Not Encountered**	Riser Length: **NA**	Sand Type: **NA**
Initial Depth to Water: **NA**	Screen Slot Size: **NA**	Well Material Type: **NA**
Static Depth to Water: **NA**	Screen Length: **NA**	Top of Grout: **NA**

Depth (fbgs)	Sample Interval (feet)	Recovery (ft/ft)	Field Screen (ppm) 0 100	Geologic Description	Comments	Completion Detail
0	0-1	9/10	0.0	TOPSOIL and SLAG debris	SB-142-A & MS/MSD @ 0-1'	Backfilled with cuttings
	1-5		0.0	FILL, SLAG debris, blue-gray, dry		
5	5-10		0.0	FILL, SLAG debris, blue-gray, moist-wet		
10	10-13	10/10	0.0	FILL, SLAG debris, blue-gray, saturated	SB-142-B @ 8-10'	
	13-15		0.0	PEAT, interbedded CLAY, dark brown/black, moist		
15	15-16		0.0	Organic CLAY, tan/light gray, very moist	SB-142-C @ 15-16'	
	16-18		0.0	PEAT, interbedded CLAY, dark brown/black, moist		
	18-20		0.0	Fine SAND and CLAY, gray, wet	Boring ended at 20 fbgs.	
20						

Proportions Used:

Trace =	<5%
Little =	6-15%
Few =	16-30%
Some =	31-49%
And =	>50%

Notes:

NA = not available; fbgs. = feet below ground surface
in. = inches; ft.= feet; ppm.= parts per million
Soil Lithologies based on field observations only.
famsl. = feet above mean sea level
btoc = below top-of-casing; ftag = feet above grade
eV = electron volt; PVC = polyvinyl chloride

Blow Count Pentration Resistance:

Consistency (M&C)		Density (G&S)	
<2 =	Very Soft	0-4 =	Very Loose
2-4 =	Soft	4-10 =	Loose
4-8 =	Medium	10-30 =	Medium
8-15 =	Stiff	30-50 =	Dense
15-30 =	Very Stiff	>50 =	Very Dense
>30 =	Hard		

Symbol Legend

Static Water Level

Lab Sample Location

Soil Boring

Groundwater & Environmental Services, Inc.

ID NO. SB-143

Project: **Buffalo Lakeside Commercial Park**	Client: **NYSDEC**	Regulatory Case #: **Site No. 915322**
Address: **Laborers Way & Ship Canal Pkwy, Buffalo, NY**		Regulatory Case Mgr: **Jenelle Gaylord**
County: **Erie**	GES Job #: **0901752**	GES Project Mgr: **Eric D. Popken**
Logged By: **P. Colern/D. Zordan**	Date Drilled: **10-19-2018**	Sample Tool Diameter: **NA**
Drilling Company: **Cascade Drilling**	Completion Date: **10-19-2018**	Sample Tool Length: **10 ft.**
Drill Operator: **Arlen Little**	Drilling Method: **Sonic Rig**	Soil Classification System: **Modified Burmister**
Drill Rig Type: **Sonic**	Sampling Method: **Sonic Tube**	Field Screening: **MiniRae3000 10.6 eV**
Latitude: **NA**	Longitude: **NA**	Top of Bentonite Seal: **NA**
TOC Elevation: **NA**	Borehole Diameter: **4.5 in.**	Type of Seal: **NA**
Total Depth: **20 fbgs.**	Well Diameter: **NA**	Top of Sand: **NA**
Refusal Depth: **Not Encountered**	Riser Length: **NA**	Sand Type: **NA**
Initial Depth to Water: **NA**	Screen Slot Size: **NA**	Well Material Type: **NA**
Static Depth to Water: **NA**	Screen Length: **NA**	Top of Grout: **NA**

Depth (fbgs)	Sample Interval (feet)	Recovery (ft/ft)	Field Screen (ppm) 0 50	Geologic Description	Comments	Completion Detail
0	0-1	8/10	0.0	TOPSOIL and SLAG debris, moist	SB-143-A @ 0-1'	
	2-4		0.0	FILL, SLAG debris, light gray/blue, dry		
	4-6		0.0	FILL, fine to coarse SAND and GRAVEL, some SLAG debris, light brown/tan, dry		
5	6-10		0.0	FILL, SLAG debris, light gray/blue, wet		
10	10-13	-	0.0	FILL, SLAG debris, light gray/blue, wet	SB-143-B @ 8-10'	Backfilled with cuttings
	13-15		25.7	PEAT, little interbedded CLAY, dark brown/black, moist		
15	15-15.5		7.5	Organic CLAY, light brown, moist	SB-143-C @ 13-15'	
	15.5-17		0.0	PEAT, little interbedded CLAY, dark brown/black, moist		
	17-19		0.0	Fine SAND and SILT, gray, very moist		
20	19-20		NA	CLAY, gray, moist	Boring ended at 20 fbgs.	

Proportions Used:

Trace =	<5%
Little =	6-15%
Few =	16-30%
Some =	31-49%
And =	>50%

Notes:

NA = not available; fbgs. = feet below ground surface
in. = inches; ft.= feet; ppm.= parts per million
Soil Lithologies based on field observations only.
famsl. = feet above mean sea level
btoc = below top-of-casing; ftag = feet above grade
eV = electron volt; PVC = polyvinyl chloride

Blow Count Pentration Resistance:

Consistency (M&C)		Density (G&S)	
<2 =	Very Soft	0-4 =	Very Loose
2-4 =	Soft	4-10 =	Loose
4-8 =	Medium	10-30 =	Medium
8-15 =	Stiff	30-50 =	Dense
15-30 =	Very Stiff	>50 =	Very Dense
>30 =	Hard		

Symbol Legend

Static Water Level

Lab Sample Location

Soil Boring/Monitoring Well

Groundwater & Environmental Services, Inc.

ID NO. **SB-144/MW-144**

Project: **Buffalo Lakeside Commercial Park**	Client: **NYSDEC**	Regulatory Case #: **Site No. 915322**
Address: **Laborers Way & Ship Canal Pkwy, Buffalo, NY**		Regulatory Case Mgr: **Jenelle Gaylord**
County: **Erie**	GES Job #: **0901752**	GES Project Mgr: **Eric D. Popken**
Logged By: **P. Colern/D. Zordan**	Date Drilled: **10-19-2018**	Sample Tool Diameter: **4.5 in.**
Drilling Company: **Cascade Drilling**	Completion Date: **10-25-2018**	Sample Tool Length: **10 ft.**
Drill Operator: **Arlen Little**	Drilling Method: **Sonic Rig**	Soil Classification System: **Modified Burmister**
Drill Rig Type: **Sonic**	Sampling Method: **Sonic Tube**	Field Screening: **MiniRae3000 10.6 eV**
Latitude: **NA**	Longitude: **NA**	Top of Bentonite Seal: **2 fbgs.**
TOC Elevation: **588.35 famsl.**	Borehole Diameter: **4.5 in.**	Type of Seal: **Medium Bentonite Chips**
Total Depth: **20 fbgs.**	Well Diameter: **2 in.**	Top of Sand: **4 fbgs.**
Refusal Depth: **Not Encountered**	Riser Length: **8 ft. (3 ftag)**	Sand Type: **20-40 Mesh Sand Pack**
Initial Depth to Water: **~7 fbgs.**	Screen Slot Size: **0.010-in.**	Well Material Type: **Schedule 40 PVC**
Static Depth to Water: **12.00 ft. btoc.**	Screen Length: **10 ft.**	Top of Grout: **1 fbgs.**

Depth (fbgs)	Sample Interval (feet)	Recovery (ft/ft)	Field Screen (ppm) 0 25	Geologic Description	Comments	Completion Detail
0	0-2	10/10	0.0	TOPSOIL and SLAG debris, dry	SB-144-A @ 0-2'	Pro-Casing (1'-3 ftag); Concrete (1-0')
	2-4		0.0	FILL, fine to coarse SAND and GRAVEL, some SLAG, brown, dry	3 ft. stick up protective casing	Grout (2-1'); Riser (5'-3 ftag)
5	4-7		0.0	FILL, SLAG and BRICK debris		Bentonite (4-2')
	7-10		2.4	FILL, SLAG debris, some fine to coarse SAND, wet	SB-144-B @ 7-9'	
10	10-15	10/10	0.0	FILL, SLAG debris, gray/blue, saturated		Sand (15-4'); Screen (15-5')
15	15-17		24.6	PEAT, black, very moist	SB-144-C @ 15-17'	
	17-20		11.3	PEAT and organic CLAY layers, dark brown, very moists	Boring ended at 20 fbgs.	Backfilled (20-15')
20						

Proportions Used:

Trace =	<5%
Little =	6-15%
Few =	16-30%
Some =	31-49%
And =	>50%

Notes:

NA = not available; fbgs. = feet below ground surface
in. = inches; ft.= feet; ppm.= parts per million
Soil Lithologies based on field observations only.
famsl. = feet above mean sea level
btoc = below top-of-casing; ftag = feet above grade
eV = electron volt; PVC = polyvinyl chloride

Blow Count Pentration Resistance:

Consistency (M&C)		Density (G&S)	
<2 =	Very Soft	0-4 =	Very Loose
2-4 =	Soft	4-10 =	Loose
4-8 =	Medium	10-30 =	Medium
8-15 =	Stiff	30-50 =	Dense
15-30 =	Very Stiff	>50 =	Very Dense
>30 =	Hard		

Symbol Legend

Static Water Level

Lab Sample Location

Soil Boring

Groundwater & Environmental Services, Inc.

ID NO. **SB-145**

Project: **Buffalo Lakeside Commercial Park**	Client: **NYSDEC**	Regulatory Case #: **Site No. 915322**
Address: **Laborers Way & Ship Canal Pkwy, Buffalo, NY**		Regulatory Case Mgr: **Jenelle Gaylord**
County: **Erie**	GES Job #: **0901752**	GES Project Mgr: **Eric D. Popken**
Logged By: **P. Colern/D. Zordan**	Date Drilled: **10-19-2018**	Sample Tool Diameter: **NA**
Drilling Company: **Cascade Drilling**	Completion Date: **10-19-2018**	Sample Tool Length: **10 ft.**
Drill Operator: **Arlen Little**	Drilling Method: **Sonic Rig**	Soil Classification System: **Modified Burmister**
Drill Rig Type: **Sonic**	Sampling Method: **Sonic Tube**	Field Screening: **MiniRae3000 10.6 eV**
Latitude: **NA**	Longitude: **NA**	Top of Bentonite Seal: **NA**
TOC Elevation: **NA**	Borehole Diameter: **4.5 in.**	Type of Seal: **NA**
Total Depth: **20 fbgs.**	Well Diameter: **NA**	Top of Sand: **NA**
Refusal Depth: **Not Encountered**	Riser Length: **NA**	Sand Type: **NA**
Initial Depth to Water: **NA**	Screen Slot Size: **NA**	Well Material Type: **NA**
Static Depth to Water: **NA**	Screen Length: **NA**	Top of Grout: **NA**

Depth (fbgs)	Sample Interval (feet)	Recovery (ft/ft)	Field Screen (ppm) 0 5	Geologic Description	Comments	Completion Detail
0	0-1	6/10	0.0	TOPSOIL and SLAG debris	SB-145-A @ 0-1'	
	1-8		0.0	FILL, fine to coarse SAND and GRAVEL, some gray-blue SLAG debris, trace BRICK debris, brown, dry		
5						
	8-10		0.0	FILL, SLAG debris, gray-blue, dry		
10	10-18	6/10	0.0	FILL, SLAG debris, gray-blue, saturated	SB-145-B @ 10-12'	Backfilled with cuttings
15					Boring ended at 20 fbgs.	
	18-20		2.7	PEAT, some organic CLAY and SLAG debris, brown, wet	SB-145-C @ 18-20'	
20						

Proportions Used:

Trace =	<5%
Little =	6-15%
Few =	16-30%
Some =	31-49%
And =	>50%

Notes:

NA = not available; fbgs. = feet below ground surface
in. = inches; ft.= feet; ppm.= parts per million
Soil Lithologies based on field observations only.
famsl. = feet above mean sea level
btoc = below top-of-casing; ftag = feet above grade
eV = electron volt; PVC = polyvinyl chloride

Blow Count Pentration Resistance:

Consistency (M&C)		Density (G&S)	
<2 =	Very Soft	0-4 =	Very Loose
2-4 =	Soft	4-10 =	Loose
4-8 =	Medium	10-30 =	Medium
8-15 =	Stiff	30-50 =	Dense
15-30 =	Very Stiff	>50 =	Very Dense
>30 =	Hard		

Symbol Legend

Static Water Level

Lab Sample Location

Soil Boring

Groundwater & Environmental Services, Inc.

ID NO. SB-146

Project: **Buffalo Lakeside Commercial Park**	Client: **NYSDEC**	Regulatory Case #: **Site No. 915322**
Address: **Laborers Way & Ship Canal Pkwy, Buffalo, NY**		Regulatory Case Mgr: **Jenelle Gaylord**
County: **Erie**	GES Job #: **0901752**	GES Project Mgr: **Eric D. Popken**
Logged By: **J. Clay**	Date Drilled: **10/23/2018**	Sample Tool Diameter: **NA**
Drilling Company: **Cascade Drilling**	Completion Date: **10/23/2018**	Sample Tool Length: **10 ft.**
Drill Operator: **Arlen Little**	Drilling Method: **Sonic Rig**	Soil Classification System: **Modified Burmister**
Drill Rig Type: **Sonic**	Sampling Method: **Sonic Tube**	Field Screening: **MiniRae3000 10.6 eV**
Latitude: **NA**	Longitude: **NA**	Top of Bentonite Seal: **NA**
TOC Elevation: **NA**	Borehole Diameter: **4.5 in.**	Type of Seal: **NA**
Total Depth: **20 fbgs.**	Well Diameter: **NA**	Top of Sand: **NA**
Refusal Depth: **Not Encountered**	Riser Length: **NA**	Sand Type: **NA**
Initial Depth to Water: **NA**	Screen Slot Size: **NA**	Well Material Type: **NA**
Static Depth to Water: **NA**	Screen Length: **NA**	Top of Grout: **NA**

Depth (fbgs)	Sample Interval (feet)	Recovery (ft/ft)	Field Screen (ppm)	Geologic Description	Comments	Completion Detail
0	0-2	10/10	0.4	TOPSOIL and GRAVEL, possible SLAG debris, dark brown, moist	SB-146-A @ 0-2'	
	2-5		0.7	FILL, SLAG debris, some GRAVEL, white with some gray/dark gray, wet	SB-146-B @ 2-5'	
5	5-7		0.9	FILL, fine to coarse SAND and GRAVEL, some SLAG debris, gray, slightly moist-moist, loose		
	7-8		0.7	FILL, fine to coarse SAND and GRAVEL, some SLAG debris, dark gray, wet, loose		
	8-10		0.6	FILL, fine to coarse SAND and GRAVEL, some SLAG debris, gray, saturated, loose		
10	10-13	10/10	0.4	FILL, fine to coarse SAND and GRAVEL, some SLAG debris, dark gray, saturated, loose		Backfilled with cuttings
	13-15		2.9	PEAT and layers of CLAY, dark brown, moist	SB-146-C & DUP-102318 @ 13-15'	
15	15-17		NA	Fine SAND, little CLAY and PEAT, tan-brown, moist		
	17-19		NA	PEAT and layers of CLAY, dark brown, moist		
	19-20		NA	CLAY, little PEAT and fine SAND, gray, slightly moist	Boring ended at 20 fbgs.	
20						

Proportions Used:

Trace =	<5%
Little =	6-15%
Few =	16-30%
Some =	31-49%
And =	>50%

Notes:

NA = not available; fbgs. = feet below ground surface
in. = inches; ft.= feet; ppm.= parts per million
Soil Lithologies based on field observations only.
famsl. = feet above mean sea level
btoc = below top-of-casing; ftag = feet above grade
eV = electron volt; PVC = polyvinyl chloride

Blow Count Pentration Resistance:

Consistency (M&C)		Density (G&S)	
<2 =	Very Soft	0-4 =	Very Loose
2-4 =	Soft	4-10 =	Loose
4-8 =	Medium	10-30 =	Medium
8-15 =	Stiff	30-50 =	Dense
15-30 =	Very Stiff	>50 =	Very Dense
>30 =	Hard		

Symbol Legend

Static Water Level

Lab Sample Location

Soil Boring

Groundwater & Environmental Services, Inc.

ID NO. **SB-147**

Project: **Buffalo Lakeside Commercial Park**	Client: **NYSDEC**	Regulatory Case #: **Site No. 915322**
Address: **Laborers Way & Ship Canal Pkwy, Buffalo, NY**		Regulatory Case Mgr: **Jenelle Gaylord**
County: **Erie**	GES Job #: **0901752**	GES Project Mgr: **Eric D. Popken**
Logged By: **J. Clay**	Date Drilled: **10/23/2018**	Sample Tool Diameter: **NA**
Drilling Company: **Cascade Drilling**	Completion Date: **10/23/2018**	Sample Tool Length: **10 ft.**
Drill Operator: **Arlen Little**	Drilling Method: **Sonic Rig**	Soil Classification System: **Modified Burmister**
Drill Rig Type: **Sonic**	Sampling Method: **Sonic Tube**	Field Screening: **MiniRae3000 10.6 eV**
Latitude: **NA**	Longitude: **NA**	Top of Bentonite Seal: **NA**
TOC Elevation: **NA**	Borehole Diameter: **4.5 in.**	Type of Seal: **NA**
Total Depth: **20 fbgs.**	Well Diameter: **NA**	Top of Sand: **NA**
Refusal Depth: **Not Encountered**	Riser Length: **NA**	Sand Type: **NA**
Initial Depth to Water: **NA**	Screen Slot Size: **NA**	Well Material Type: **NA**
Static Depth to Water: **NA**	Screen Length: **NA**	Top of Grout: **NA**

Depth (fbgs)	Sample Interval (feet)	Recovery (ft/ft)	Field Screen (ppm) 0 5	Geologic Description	Comments	Completion Detail
0	0-1	8/10	0.8	TOPSOIL and FILL, little GRAVEL, dark brown, moist	SB-147-A @ 0-1'	Backfilled with cuttings
	1-5		0.5	FILL, fine to coarse SAND, little fine to coarse GRAVEL, red-orange, slightly moist, loose		
5	5-7		4.1	FILL, SAND, some SLAG debris, little fine to coarse GRAVEL, black/dark brown, slightly moist, loose	SB-147-B & MS/MSD @ 5-7'	
	7-8.5		3.0	FILL, SLAG debris, some fine to coarse SAND, dark brown, moist		
	8.5-10		0.9	FILL, White substance, SAND and GRAVEL size, wet		
10	10-13	10/10	0.5	FILL, SLAG debris and GRAVEL, little fine to coarse SAND, gray, saturated		
	13-16		0.5	FILL, SLAG debris and GRAVEL, little fine to coarse SAND, gray, saturated		
15	16-17		0.9	Organic CLAY, black, wet	SB-147-C @ 16-17'	
	17-18.5		0.8	PEAT, some CLAY, dark brown, moist		
	18.5-20		0.6	CLAY, layers of PEAT, brown, moist	Boring ended at 20 fbgs.	
20						

Proportions Used:

Trace =	<5%
Little =	6-15%
Few =	16-30%
Some =	31-49%
And =	>50%

Notes:

NA = not available; fbgs. = feet below ground surface
in. = inches; ft.= feet; ppm.= parts per million
Soil Lithologies based on field observations only.
famsl. = feet above mean sea level
btoc = below top-of-casing; ftag = feet above grade
eV = electron volt; PVC = polyvinyl chloride

Blow Count Pentration Resistance:

Consistency (M&C)		Density (G&S)	
<2 =	Very Soft	0-4 =	Very Loose
2-4 =	Soft	4-10 =	Loose
4-8 =	Medium	10-30 =	Medium
8-15 =	Stiff	30-50 =	Dense
15-30 =	Very Stiff	>50 =	Very Dense
>30 =	Hard		

Symbol Legend

Static Water Level

Lab Sample Location

Soil Boring/Monitoring Well

Groundwater & Environmental Services, Inc.

ID NO. **SB-148/MW-148**

Project: **Buffalo Lakeside Commercial Park**	Client: **NYSDEC**	Regulatory Case #: **Site No. 915322**
Address: **Laborers Way & Ship Canal Pkwy, Buffalo, NY**		Regulatory Case Mgr: **Jenelle Gaylord**
County: **Erie**	GES Job #: **0901752**	GES Project Mgr: **Eric D. Popken**
Logged By: **J. Clay**	Date Drilled: **10-23-2018**	Sample Tool Diameter: **4.5 in.**
Drilling Company: **Cascade Drilling**	Completion Date: **10-25-2018**	Sample Tool Length: **10 ft.**
Drill Operator: **Arlen Little**	Drilling Method: **Sonic Rig**	Soil Classification System: **Modified Burmister**
Drill Rig Type: **Sonic**	Sampling Method: **Sonic Tube**	Field Screening: **MiniRae3000 10.6 eV**
Latitude: **NA**	Longitude: **NA**	Top of Bentonite Seal: **2 fbgs.**
TOC Elevation: **NA**	Borehole Diameter: **4.5 in.**	Type of Seal: **Medium Bentonite Chips**
Total Depth: **20 fbgs.**	Well Diameter: **2 in.**	Top of Sand: **4 fbgs.**
Refusal Depth: **Not Encountered**	Riser Length: **8 ft. (3 ftag)**	Sand Type: **20-40 Mesh Sand Pack**
Initial Depth to Water: **~7 fbgs.**	Screen Slot Size: **0.010-in.**	Well Material Type: **Schedule 40 PVC**
Static Depth to Water: **10.84 ft. btoc.**	Screen Length: **10 ft.**	Top of Grout: **1 fbgs.**

Depth (fbgs)	Sample Interval (feet)	Recovery (ft/ft)	Field Screen (pom) 0 3	Geologic Description	Comments	Completion Detail
0	0-1.5	9.5/10	0.6	TOPSOIL and SLAG debris, some fine to coarse GRAVEL, brown, ,moist	SB-148-A @ 0-1.5'	Pro-Casing (1'-3 ftag)
	1.5-4		0.8	FILL, GRAVEL and SLAG debris, some fine to coarse SAND, gray, slightly moist	3 ft. stick up protective casing	Concrete (1-0')
						Grout (2-1')
						Riser (5'-3 ftag)
	4-5		1.2	FILL, GRAVEL and SLAG debris, some fine to coarse SAND, gray with white and blue-green, slightly moist	SB-148-B @ 4-5'	Bentonite (4-2')
5	5-7		1.2	FILL, GRAVEL and SLAG debris, trace fine to coarse SAND, brown/gray		
	7-10		1.1	FILL, fine and coarse GRAVEL and SLAG debris, few fine to coarse SAND, dark gray, wet		
				FILL, fine and coarse GRAVEL and SLAG debris, few fine to coarse SAND, gray, wet		
						Sand (15-4')
10	10-12	10/10	0.8	FILL, SLAG debris, some GRAVEL, little fine to coarse SAND, gray, wet		Screen (15-5')
	12-14		1.2	FILL, SLAG debris, some GRAVEL, little fine to coarse SAND, dark blue/gray, saturated	SB-148-D @ 12-14'	
	14-15		1.4	Organic CLAY, little PEAT, black, wet		
15	15-17.5		2.3	PEAT and CLAY layers, brown, moist	SB-148-C @ 15-17.5'	
	17.5-20		1.1	PEAT and CLAY layers, dark brown, moist	Boring ended at 20 fbgs.	Backfilled (20-15')
20						

Proportions Used:

Trace =	<5%
Little =	6-15%
Few =	16-30%
Some =	31-49%
And =	>50%

Notes:

NA = not available; fbgs. = feet below ground surface
in. = inches; ft.= feet; ppm.= parts per million
Soil Lithologies based on field observations only.
famsl. = feet above mean sea level
btoc = below top-of-casing; ftag = feet above grade
eV = electron volt; PVC = polyvinyl chloride

Blow Count Pentration Resistance:

Consistency (M&C)		Density (G&S)	
<2 =	Very Soft	0-4 =	Very Loose
2-4 =	Soft	4-10 =	Loose
4-8 =	Medium	10-30 =	Medium
8-15 =	Stiff	30-50 =	Dense
15-30 =	Very Stiff	>50 =	Very Dense
>30 =	Hard		

Symbol Legend

Static Water Level

Lab Sample Location

Soil Boring

Groundwater & Environmental Services, Inc.

ID NO. SB-149

Project: **Buffalo Lakeside Commercial Park**	Client: **NYSDEC**	Regulatory Case #: **Site No. 915322**
Address: **Laborers Way & Ship Canal Pkwy, Buffalo, NY**		Regulatory Case Mgr: **Jenelle Gaylord**
County: **Erie**	GES Job #: **0901752**	GES Project Mgr: **Eric D. Popken**
Logged By: **J. Clay**	Date Drilled: **10/23/2018**	Sample Tool Diameter: **NA**
Drilling Company: **Cascade Drilling**	Completion Date: **10/23/2018**	Sample Tool Length: **10 ft.**
Drill Operator: **Arlen Little**	Drilling Method: **Sonic Rig**	Soil Classification System: **Modified Burmister**
Drill Rig Type: **Sonic**	Sampling Method: **Sonic Tube**	Field Screening: **MiniRae3000 10.6 eV**
Latitude: **NA**	Longitude: **NA**	Top of Bentonite Seal: **NA**
TOC Elevation: **NA**	Borehole Diameter: **4.5 in.**	Type of Seal: **NA**
Total Depth: **20 fbgs.**	Well Diameter: **NA**	Top of Sand: **NA**
Refusal Depth: **Not Encountered**	Riser Length: **NA**	Sand Type: **NA**
Initial Depth to Water: **NA**	Screen Slot Size: **NA**	Well Material Type: **NA**
Static Depth to Water: **NA**	Screen Length: **NA**	Top of Grout: **NA**

Depth (fbgs)	Sample Interval (feet)	Recovery (ft/ft)	Field Screen (ppm)	Geologic Description	Comments	Completion Detail
0	0-1	8/10	0.4	TOPSOIL and BRICK debris, brown, slightly moist, dense	SB-149-A @ 0-1'	
	1-5		0.8	FILL, fine to medium SAND, few fine to coarse GRAVEL, brown some red-brown, slightly moist, loose		
5	5-6		1.0	FILL, Possible SLAG debris, some fine to coarse SAND, black, slightly moist, highly fractured	SB-149-B @ 5-6'	
	6-8		0.7	FILL, fine to medium SAND, few fine to coarse GRAVEL, brown, slightly moist, loose		
	8-9		0.8	FILL, fine SAND, some fine to coarse GRAVEL, brown, slightly moist, medium dense		
	9-10		1.0	FILL, fine to coarse SAND and GRAVEL, black, moist		
10	10-16	10/10	0.4	FILL, fine to course GRAVEL and SLAG debris, little fine to coarse SAND, gray, wet		Backfilled with cuttings
15	16-18		0.5	PEAT and organic CLAY, dark brown, moist	SB-149-C @ 16-18'	
	18-20		0.8	SILT and CLAY, some PEAT, gray-brown, moist	Boring ended at 20 fbgs.	
20						

Proportions Used:

Trace =	<5%
Little =	6-15%
Few =	16-30%
Some =	31-49%
And =	>50%

Notes:

NA = not available; fbgs. = feet below ground surface
in. = inches; ft.= feet; ppm.= parts per million
Soil Lithologies based on field observations only.
famsl. = feet above mean sea level
btoc = below top-of-casing; ftag = feet above grade
eV = electron volt; PVC = polyvinyl chloride

Blow Count Pentration Resistance:

Consistency (M&C)		Density (G&S)	
<2 =	Very Soft	0-4 =	Very Loose
2-4 =	Soft	4-10 =	Loose
4-8 =	Medium	10-30 =	Medium
8-15 =	Stiff	30-50 =	Dense
15-30 =	Very Stiff	>50 =	Very Dense
>30 =	Hard		

Symbol Legend

Static Water Level

Lab Sample Location

Soil Boring

Groundwater & Environmental Services, Inc.

ID NO. SB-150

Project: **Buffalo Lakeside Commercial Park**	Client: **NYSDEC**	Regulatory Case #: **Site No. 915322**
Address: **Laborers Way & Ship Canal Pkwy, Buffalo, NY**		Regulatory Case Mgr: **Jenelle Gaylord**
County: **Erie**	GES Job #: **0901752**	GES Project Mgr: **Eric D. Popken**
Logged By: **P. Colern/D. Zordan**	Date Drilled: **10/19/2018**	Sample Tool Diameter: **NA**
Drilling Company: **Cascade Drilling**	Completion Date: **10/19/2018**	Sample Tool Length: **10 ft.**
Drill Operator: **Arlen Little**	Drilling Method: **Sonic Rig**	Soil Classification System: **Modified Burmister**
Drill Rig Type: **Sonic**	Sampling Method: **Sonic Tube**	Field Screening: **MiniRae3000 10.6 eV**
Latitude: **NA**	Longitude: **NA**	Top of Bentonite Seal: **NA**
TOC Elevation: **NA**	Borehole Diameter: **4.5 in.**	Type of Seal: **NA**
Total Depth: **20 fbgs.**	Well Diameter: **NA**	Top of Sand: **NA**
Refusal Depth: **Not Encountered**	Riser Length: **NA**	Sand Type: **NA**
Initial Depth to Water: **NA**	Screen Slot Size: **NA**	Well Material Type: **NA**
Static Depth to Water: **NA**	Screen Length: **NA**	Top of Grout: **NA**

Depth (fbgs)	Sample Interval (feet)	Recovery (ft/ft)	Field Screen (ppm)	Geologic Description	Comments	Completion Detail
0	0-10	10/10	0.0	FILL, SLAG debris, gray-blue, dry	SB-150-A @ 0-2'	
5				FILL, SLAG debris, gray-blue, wet		
10	10-14	10/10	0.0	FILL, SLAG debris, gray-blue, wet		Backfilled with cuttings
	14-17		0.4	PEAT, few interbedded CLAY, dark brown/black, moist	SB-150-B @ 14-16'	
15				Organic CLAY lense		
	17-18		0.0	CLAY and fine SAND, gray, moist	Boring ended at 20 fbgs.	
	18-19		0.0	Fine SAND, little SILT, gray, wet		
	19-20		0.0	CLAY, little interbedded SILT, gray, moist	SB-150-C @ 18-20'	
20						

Proportions Used:

Trace =	<5%
Little =	6-15%
Few =	16-30%
Some =	31-49%
And =	>50%

Notes:

NA = not available; fbgs. = feet below ground surface
in. = inches; ft.= feet; ppm.= parts per million
Soil Lithologies based on field observations only.
famsl. = feet above mean sea level
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Blow Count Pentration Resistance:

Consistency (M&C)		Density (G&S)	
<2 =	Very Soft	0-4 =	Very Loose
2-4 =	Soft	4-10 =	Loose
4-8 =	Medium	10-30 =	Medium
8-15 =	Stiff	30-50 =	Dense
15-30 =	Very Stiff	>50 =	Very Dense
>30 =	Hard		

Symbol Legend

Static Water Level

Lab Sample Location

Appendix B – Laboratory Analytical Reports

Appendix C – DUSR Validation Package

RemVer

Quality Assessment
Data Usability Summary Report

			RemVer Project #2018GE13 Client Project #0901752-02-840
Site:	Buffalo Lakeside Commercial Park, Parcel 5 Buffalo, NY	**Site #:**	915322
Client:	NYSDEC via GES, Inc.	**Site Owner:**	–N/A–
Sample Delivery Groups (SDGs)	See Table 1		
Sample Matrix:	☐ Drinking water ☒ Groundwater ☒ Surface water ☒ Soil ☐ Sediment ☐ Air ☐ Biota (tissue, type: _____) ☐ Other: _____		

Introduction

Groundwater & Environmental Services (GES) contracted RemVer to perform a data quality assessment (DQA) on the analytical data for groundwater samples. reported in multiple Sample Delivery Groups (SDGs) from Test America. Table 1 (attached) lists fourteen (14) SDGs. Table 2 provides a cross-list of the samples associated with each SDG; some samples occur in two different SDGs.

RemVer prepared a separate DQA sub-report for each SDG, evaluating the performance of the analytical procedures and the quality of the resulting data. RemVer followed the requirements of the New York State Department of Environmental Conservation (NYSDEC) Data Usability Summary Report (DUSR) guidelines for an Analytical Services Protocol (ASP) Category B Data Deliverable. Each sub-report includes a narrative discussion of sample results qualified during the DQA/DUSR.

Reported Methods

☐ Method 1311 TCLP
☐ Method 1312 SPLP
☒ Method 6010A, B & C / 6020 Trace Metals
☐ Method 7000 Metals
☐ Method 7196 Hexavalent Chromium (other:_____)
☒ Method 7470A or 7471 Mercury
☐ Method 8021 Volatile Organic Compounds (VOCs) GC
☒ Method 8081B or ☐ 608 Pesticides
☒ Method 8082 or ☐ 608 PCBs
☐ Method 8151 Chlorinated Herbicides
☒ Method 8260C VOCs GC/MS
☒ Method 8270D Semi-VOCs (sVOCs) GC/MS or SIM
☒ Method 9010/9012/9014 Cyanides (_____)
☐ Method TO-13A PAHs (air)
☐ Method TO-14A / -15 VOCs (air, summa) (_____)
☐ Method TO-17 VOCs (air, sorbent)
☐ Method 537 PFCs via SPE & LC/MS-MS
☐ Volatile Petroleum Hydrocarbons (VPH) Method
☐ Extractable Petroleum Hydrocarbons (EPH)
☒ Other Methods:
- ☑ Method 3535 Solid-Phase Extraction (SPE)
- ☑ Method 3510C Liquid-Liquid Extraction
- ☑ Method 5030C/5035A_L Purge & Trap
- ☑ Method 3005A/3050B Total Metals Prep.
- ☑ 9045D pH
- ☑ Percent Moisture
- ☑ 3540C Soxhlet Extraction
- ☑ 3550C Ultrasonic Extraction

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Intended Use of Data Under Review

NYSDEC contracted GES to perform a 2018 site-wide synoptic soil, groundwater, and surface water monitoring event at the referenced site. The monitoring event (10 October through 09 November) was to update the existing environmental dataset with current synoptic conditions. Sampling was to provide analyses of environmental conditions for the presence of volatile organic compounds (VOCs), semi-volatile organic compounds (SVOCs), organochlorine pesticides, polychlorinated biphenyls (PCBs), metals/metalloids, pH, and Cyanides.

Significant Data Usability Issues

The laboratory (Test America) reported the data in fourteen separate laboratory reports, under distinct Sample Delivery Group (SDG) numbers. RemVer prepared fourteen sub-reports, one DUSR per SDG. RemVer rejected no results; therefore, all results are acceptable for use, although the results of some analytes are flagged due to sample handling, or laboratory accuracy or precision issues. Please refer to the Lab Results and Data Usability Narrative section in each DUSR sub-report (listed below by SDG#) for further detail.

- SDG#240-103104 16 soil samples (including MS/MSD & 1 duplicate [dup]) collected on 19Oct2018
- SDG#240-103106 20 soil samples (including MS/MSD & 1 dup) collected 16Oct2018
- SDG#240-103107 6 soil samples (including MS/MSD) collected 16Oct2018
- SDG#240-103108 20 soil samples (including MS/MSD) collected 17Oct2018
- SDG#240-103109 9 soil samples (including MS/MSD & 1 dup) collected 17Oct2018
- SDG#240-103111 20 soil samples (including MS/MSD & 1 dup) collected 18Oct2018
- SDG#240-103112 7 soil samples (including MS/MSD) collected 18Oct2018
- SDG#480-143282 20 soil samples (including MS/MSD & 1 dup) collected 10Oct2018
- SDG480-143525-1 20 soil samples (including MS/MSD & 1 dup) collected 11Oct2018
- SDG#480-143525-2 13 soil samples (including MS/MSD) collected 12Oct2018
- SDG#480-144091 14 soil samples (including MS/MSD & 1 dup) collected 23Oct2018
- SDG#480-144395 5 groundwater samples (including MS/MSD & 1 dup) collected 29Oct2018
- SDG#480-144471 7 groundwater samples (including MS/MSD & 1 Equip. Blank) collected 30Oct2018
- SDG#480-145042 4 surface water samples (including MS/MSD, dup, & 1 Trip Blank) collected 09Nov2018

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References

NYSDEC, 2010, *Technical Guidance for Site Investigation and Remediation*, "DER-10," Division of Environmental Remediation: Albany, NY, May, 232p

NYSDEC, 2010, *Guidance for Data Deliverables and the Development of Data Usability Summary Reports*, Appendix 2B IN *Technical Guidance for Site Investigation and Remediation*, Division of Environmental Remediation: Albany, NY, May, 232p

USEPA, 2008, *Contract Laboratory Program National Functional Guidelines for Organic Data Review*, OSWER 9240.1-48, USEPA-540-R-08-01, Office of Superfund Remediation and Technology Innovation: Washington, DC, June, 225p

USEPA, 2010, *Contract Laboratory Program National Functional Guidelines for Inorganic Data Review*, OSWER 9240.1-51, USEPA-540-R-10-011, Office of Superfund Remediation and Technology Innovation: Washington, DC, January, 110p

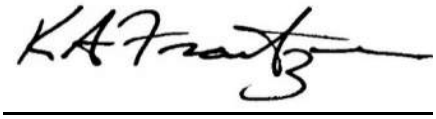
USEPA, 2012, *Test Methods for Evaluating Solid Waste, Physical/Chemical Methods, SW-846*, Current Online Revision: http://www.epa.gov/epawaste/hazard/testmethods/sw846/online/index.htm, accessed April 2012

Attachments

Biography
Qualifier Flags

Tables

1. Sample Data Group List
2. Sample and SDG Cross-List



Prepared by: Kurt A. Frantzen, PhD
December 18, 2018

GES PO#751457-1109

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Attachment

Biography
Data Usability Reviewer: Kurt A. Frantzen, PhD

Experience

2014-Present	AECC	Senior EHS Consultant
2013-Present	d/b/a RemVer	Owner
2011-2012	RemVer, Inc.	President
2006-2011	Kleinfelder	Senior Principal Scientist
2005	Kleinfelder	Principal Scientist, Part-Time/On Call
2004-2006	d/b/a Environmental Risk Group	Owner
2004-2006	RemVer, Inc., Larchmont, NY	Founder, President
1999-2004	VHB, Inc.	ERM Director & Associate
1997-1998	GEI Consultants, Inc.	Senior Project Manager
1992-1997	Ecology and Environment, Inc.	Technical Chief
1991-1992	EA Engineering, Science, & Technology, Inc.	Project Manager III
1990-1991	Ecology and Environment, Inc.	Technical Group Manager
1986-1990	Ecology and Environment, Inc.	Senior Environmental Scientist

Education

Am Cancer Soc. Post-Doctoral Fellow, U Washington 1985-1986

PhD—Life Sci. / Biochem, NU—Lincoln	1985
MS—Plant Pathology, Kansas State Univ.	1980
BS—Biology, NU—Omaha	1978

Registrations

Certified Hazardous Materials Manager, since 2007-2018, #14143

Professional Affiliations

Society Risk Analysis ('09 & '11 Chair, Eco-Risk Assessment)
Am. Chemistry Society
Am. Assoc. Advance Science
NY Academy of Science
Am. Institute of Biological Sciences
LSP Association

Other

- CERCLA & RCRA experience, as well as DOD (Air Force & Army) & DOE (INEL)
- NE Regional Experience—NY BCP; Mass MCP; & various sites in CT, RI & NH
- National Experience: NE, SE, Gulf & West Coast, Mid-west, Inter-mountain, California, Alaska
- International: Germany, Israel, Kuwait, Australia
- Selected Publications
    - *Using Risk Appraisals to Manage Environmentally Impaired Properties*, 2000, VHB Site Works, Report 108
    - *Risk-Based Analysis for Environmental Managers*, 2001, CRC/Lewis
    - Chapter 7 Risk Assessment, *Managing Hazardous Materials*, 2002 & 2009, IHMM
    - Chapter 22 Cleanup Goals, *Brownfields Law & Practice*, 2004-Present, Lexis/Nexis
    - *Use of Risk Assessment in Risk Management of Contaminated Sites*, 2008, ITRC
- 61 Conference Papers & Invited Professional Presentations
    - 1999-2018, Visiting Lecturer, Brownfields Program, Harvard Graduate School of Design
    - 2010-2013, Invited Lecturer, Pace University Law School

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Attachment
Qualifier Flags

Qualifier	Quality Implication
U	Analyte analyzed for, but not detected above the sample's reported quantitation limit
J	Analyte positively identified at a numerical value that is the approximate concentration of the analyte in the sample
J +	Sample likely to have a high bias
J –	Sample likely to have a low bias
UJ	Analyte not detected above the sample quantitation limit; the associated quantitation limit is approximate and may or may not represent the actual limit of quantitation necessary to accurately and precisely measure the analyte in the sample
N	The analysis indicates the present of an analyte for which there is presumptive evidence to make a "tentative identification."
NJ	The analysis indicates the presence of an analyte that has been "tentatively identified" and the associated numerical value represents its approximate concentration.
R	Sample result rejected due to serious deficiency in ability to analyze sample and meet quality control criteria; the presence or absence of the analyte cannot be confirmed. This qualifier also may apply when more than one sample result is generated for a target analyte (*i.e.*, dilutions or re-analyses), the most technically acceptable result is considered acceptable.
B | EB TB | BB	An analyte identified in method blank (B), aqueous equipment (EB), trip (TB), or bottle blanks (BB) used to assess field contamination associated with soil or sediment samples mandates these qualifiers for only soil and sediment sample results.
P	Use professional judgment based on data use. It usually has an "M" with it, which indicates that a manual check should be made if the data that are qualified with the "P" are important to the data user. In addition, "PM" also means a decision is necessary from the Project Manager (or a delegate) concerning the need for further review of the data (*see below*).
PM	A manual review of the raw data is recommended to determine if the defect affects data use, as in "R" above. This review should include consideration of potential affects that could result from using the "P" qualified data. For example, in the case of holding-time exceedance, the Project Manager or delegate can decide to use the data with no qualification when analytes of interest are known not to be adversely affected by holding-time exceedances. Another example is the case where soil sample duplicate analyses for metals exceed the precision criteria; because this is likely due to sample non-homogeneity rather than contract laboratory error, then the manager or delegate must decide how to use the data.

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Table 1
Sample Data Group List
Al-Tech NYSDEC Site #907022
Dunkirk, New York

RemVer

Count	SDG	Report Date	Matrix	# of Samples	Receipt by Lab	# of Coolers	Temps (°C)											
1	240-103104	11/06/18	Soil	16	10/20/18 10:15	12	1.3	1.5	1.5	1.7	1.7	1.9	1.9	2.1	2.1	2.5	2.7	3.5
2	240-103106	11/06/18	Soil	20	10/20/18 10:15	12	1.3	1.5	1.5	1.7	1.7	1.9	1.9	2.1	2.1	2.5	2.7	3.5
3	240-103107	11/06/18	Soil	6	10/20/18 10:15	12	1.3	1.5	1.5	1.7	1.7	1.9	1.9	2.1	2.1	2.5	2.7	3.5
4	240-103108	11/06/18	Soil	20	10/20/18 10:15	12	1.3	1.5	1.5	1.7	1.7	1.9	1.9	2.1	2.1	2.5	2.7	3.5
5	240-103109	11/05/18	Soil	9	10/20/18 10:15	12	1.3	1.5	1.5	1.7	1.7	1.9	1.9	2.1	2.1	2.5	2.7	3.5
6	240-103111	11/07/18	Soil	20	10/20/18 10:15	12	1.3	1.5	1.5	1.7	1.7	1.9	1.9	2.1	2.1	2.5	2.7	3.5
7	240-103112	11/06/18	Soil	7	10/20/18 10:15	12	1.3	1.5	1.5	1.7	1.7	1.9	1.9	2.1	2.1	2.5	2.7	3.5
8	480-143282	10/31/18	Soil	20	10/11/18 13:25	2	3.0	3.2										
9	480-143525-1	11/12/18	Soil	20	10/16/18 13:10	8	1.3	1.8	2.2	2.3	2.6	2.9	3.1	3.1				
10	480-143525-2	11/09/18	Soil	13	10/16/18 13:10	8	1.3	1.8	2.2	2.3	2.6	2.9	3.1	3.1				
11	480-144091	11/16/18	Soil	14	10/24/18 13:15	1	4.4											
12	480-144395	11/15/18	Groundwater	5	10/30/18 12:35	3	7.9	7.9	8.4									
13	480-144471	11/27/18	Groundwater	7	10/31/18 13:20	2	3.1	3.3										
14	480-145042	12/04/18	Surface Water	4	11/09/18 14:00	2	4.7	5.2										

Table 2
Sample List and Sample Data Group Cross-List
Al-Tech NYSDEC Site #907022
Dunkirk, New York

RemVer

Count	Sample ID	QA/QC	Matrix	Sample Date	Lab-SDG-#	Receipt by Lab
1	SB-142A		Soil	10/19/18	240-103104-1	10/20/18 10:15
2	SB-142B		Soil	10/19/18	240-103104-2	10/20/18 10:15
3	SB-142C		Soil	10/19/18	240-103104-3	10/20/18 10:15
4	SB-143A		Soil	10/19/18	240-103104-4	10/20/18 10:15
5	SB-143B		Soil	10/19/18	240-103104-5	10/20/18 10:15
6	SB-143C		Soil	10/19/18	240-103104-6	10/20/18 10:15
7	DUP-10/19/18	X	Soil	10/19/18	240-103104-7	10/20/18 10:15
8	SB-144A		Soil	10/19/18	240-103104-8	10/20/18 10:15
9	SB-144B		Soil	10/19/18	240-103104-9	10/20/18 10:15
10	SB-144C		Soil	10/19/18	240-103104-10	10/20/18 10:15
11	SB-150A		Soil	10/19/18	240-103104-11	10/20/18 10:15
12	SB-150B		Soil	10/19/18	240-103104-12	10/20/18 10:15
13	SB-150C		Soil	10/19/18	240-103104-13	10/20/18 10:15
14	SB-145A		Soil	10/19/18	240-103104-14	10/20/18 10:15
15	SB-145B		Soil	10/19/18	240-103104-15	10/20/18 10:15
16	SB-145C		Soil	10/19/18	240-103104-16	10/20/18 10:15
17	SB-111-A		Soil	10/16/18	240-103106-1	10/20/18 10:15
18	SB-111-B		Soil	10/16/18	240-103106-2	10/20/18 10:15
19	SB-111-C		Soil	10/16/18	240-103106-3	10/20/18 10:15
20	SB-112-A		Soil	10/16/18	240-103106-4	10/20/18 10:15
21	SB-112-B		Soil	10/16/18	240-103106-5	10/20/18 10:15
22	SB-112-C		Soil	10/16/18	240-103106-6	10/20/18 10:15
23	DUP-101618	X	Soil	10/16/18	240-103106-7	10/20/18 10:15
24	SB-113-A		Soil	10/16/18	240-103106-8	10/20/18 10:15
25	SB-113-B		Soil	10/16/18	240-103106-9	10/20/18 10:15
26	SB-113-C		Soil	10/16/18	240-103106-10	10/20/18 10:15
27	SB-114-A		Soil	10/16/18	240-103106-11	10/20/18 10:15
28	SB-114-B		Soil	10/16/18	240-103106-12	10/20/18 10:15
29	SB-114-C		Soil	10/16/18	240-103106-13	10/20/18 10:15
30	SB-121-A		Soil	10/16/18	240-103106-14	10/20/18 10:15
31	SB-121-B		Soil	10/16/18	240-103106-15	10/20/18 10:15
32	SB-121-C		Soil	10/16/18	240-103106-16	10/20/18 10:15
33	SB-121-D		Soil	10/16/18	240-103106-17	10/20/18 10:15
34	SB-122-A		Soil	10/16/18	240-103106-18	10/20/18 10:15
35	SB-122-B		Soil	10/16/18	240-103106-19	10/20/18 10:15
36	SB-122-C		Soil	10/16/18	240-103106-20	10/20/18 10:15
37	SB-123-A		Soil	10/16/18	240-103107-1	10/20/18 10:15
38	SB-123-B		Soil	10/16/18	240-103107-2	10/20/18 10:15
39	SB-123-C		Soil	10/16/18	240-103107-3	10/20/18 10:15
40	SB-124-A		Soil	10/16/18	240-103107-4	10/20/18 10:15
41	SB-124-B		Soil	10/16/18	240-103107-5	10/20/18 10:15
42	SB-124-C		Soil	10/16/18	240-103107-6	10/20/18 10:15
43	SB-125-A		Soil	10/17/18	240-103108-1	10/20/18 10:15
44	SB-125-B		Soil	10/17/18	240-103108-2	10/20/18 10:15
45	SB-125-C		Soil	10/17/18	240-103108-3	10/20/18 10:15
46	SB-126-A		Soil	10/17/18	240-103108-4	10/20/18 10:15
47	SB-126-B		Soil	10/17/18	240-103108-5	10/20/18 10:15
48	SB-126-C		Soil	10/17/18	240-103108-6	10/20/18 10:15

Table 2
Sample List and Sample Data Group Cross-List
Al-Tech NYSDEC Site #907022
Dunkirk, New York

RemVer

Count	Sample ID	QA/QC	Matrix	Sample Date	Lab-SDG-#	Receipt by Lab
49	SB-127-A		Soil	10/17/18	240-103108-7	10/20/18 10:15
50	SB-127-B		Soil	10/17/18	240-103108-8	10/20/18 10:15
51	SB-127-C		Soil	10/17/18	240-103108-9	10/20/18 10:15
52	SB-128-A		Soil	10/17/18	240-103108-10	10/20/18 10:15
53	SB-128-B		Soil	10/17/18	240-103108-11	10/20/18 10:15
54	SB-128-C		Soil	10/17/18	240-103108-12	10/20/18 10:15
55	SB-129-A		Soil	10/17/18	240-103108-13	10/20/18 10:15
56	SB-129-B		Soil	10/17/18	240-103108-14	10/20/18 10:15
57	SB-129-C		Soil	10/17/18	240-103108-15	10/20/18 10:15
58	SB-130-A		Soil	10/17/18	240-103108-16	10/20/18 10:15
59	SB-130-B		Soil	10/17/18	240-103108-17	10/20/18 10:15
60	SB-130-C		Soil	10/17/18	240-103108-18	10/20/18 10:15
61	SB-138-A		Soil	10/17/18	240-103108-19	10/20/18 10:15
62	SB-138-B		Soil	10/17/18	240-103108-20	10/20/18 10:15
63	SB-138-C		Soil	10/17/18	240-103109-1	10/20/18 10:15
64	SB-137-A		Soil	10/17/18	240-103109-2	10/20/18 10:15
65	SB-137-B		Soil	10/17/18	240-103109-3	10/20/18 10:15
66	SB-137-C		Soil	10/17/18	240-103109-4	10/20/18 10:15
67	SB-136-A		Soil	10/17/18	240-103109-5	10/20/18 10:15
68	SB-136-B		Soil	10/17/18	240-103109-6	10/20/18 10:15
69	SB-136-C		Soil	10/17/18	240-103109-7	10/20/18 10:15
70	SB-136-D		Soil	10/17/18	240-103109-8	10/20/18 10:15
71	DUP	X	Soil	10/17/18	240-103109-9	10/20/18 10:15
72	SB-135A		Soil	10/18/18	240-103111-1	10/20/18 10:15
73	SB-135B		Soil	10/18/18	240-103111-2	10/20/18 10:15
74	SB-135C		Soil	10/18/18	240-103111-3	10/20/18 10:15
75	SB-134A		Soil	10/18/18	240-103111-4	10/20/18 10:15
76	SB-134B		Soil	10/18/18	240-103111-5	10/20/18 10:15
77	SB-134C		Soil	10/18/18	240-103111-6	10/20/18 10:15
78	SB-133A		Soil	10/18/18	240-103111-7	10/20/18 10:15
79	SB-133B		Soil	10/18/18	240-103111-8	10/20/18 10:15
80	SB-133C		Soil	10/18/18	240-103111-9	10/20/18 10:15
81	SB-133D		Soil	10/18/18	240-103111-10	10/20/18 10:15
82	SB-132A		Soil	10/18/18	240-103111-11	10/20/18 10:15
83	SB-132B		Soil	10/18/18	240-103111-12	10/20/18 10:15
84	SB-132C		Soil	10/18/18	240-103111-13	10/20/18 10:15
85	DUP 10/18/18	X	Soil	10/18/18	240-103111-14	10/20/18 10:15
86	SB-131A		Soil	10/18/18	240-103111-15	10/20/18 10:15
87	SB-131B		Soil	10/18/18	240-103111-16	10/20/18 10:15
88	SB-131C		Soil	10/18/18	240-103111-17	10/20/18 10:15
89	SB-139A		Soil	10/18/18	240-103111-18	10/20/18 10:15
90	SB-139B		Soil	10/18/18	240-103111-19	10/20/18 10:15
91	SB-139C		Soil	10/18/18	240-103111-20	10/20/18 10:15
92	SB-139D		Soil	10/18/18	240-103112-1	10/20/18 10:15
93	SB-140A		Soil	10/18/18	240-103112-2	10/20/18 10:15
94	SB-140B		Soil	10/18/18	240-103112-3	10/20/18 10:15
95	SB-140C		Soil	10/18/18	240-103112-4	10/20/18 10:15
96	SB-141A		Soil	10/18/18	240-103112-5	10/20/18 10:15

Table 2
Sample List and Sample Data Group Cross-List
Al-Tech NYSDEC Site #907022
Dunkirk, New York

RemVer

Count	Sample ID	QA/QC	Matrix	Sample Date	Lab-SDG-#	Receipt by Lab
97	SB-141B		Soil	10/18/18	240-103112-6	10/20/18 10:15
98	SB-141C		Soil	10/18/18	240-103112-7	10/20/18 10:15
99	SB-105-A		Soil	10/10/18	480-143282-1	10/11/18 13:25
100	SB-105-B		Soil	10/10/18	480-143282-2	10/11/18 13:25
101	SB-105-C		Soil	10/10/18	480-143282-3	10/11/18 13:25
102	SB-105-D		Soil	10/10/18	480-143282-4	10/11/18 13:25
103	SB-106-A		Soil	10/10/18	480-143282-5	10/11/18 13:25
104	SB-106-B		Soil	10/10/18	480-143282-6	10/11/18 13:25
105	SB-106-C		Soil	10/10/18	480-143282-7	10/11/18 13:25
106	DUP-101018	X	Soil	10/10/18	480-143282-8	10/11/18 13:25
107	SB-101-A		Soil	10/10/18	480-143282-9	10/11/18 13:25
108	SB-101-B		Soil	10/10/18	480-143282-10	10/11/18 13:25
109	SB-101-C		Soil	10/10/18	480-143282-11	10/11/18 13:25
110	SB-102-A		Soil	10/10/18	480-143282-12	10/11/18 13:25
111	SB-102-B		Soil	10/10/18	480-143282-13	10/11/18 13:25
112	SB-102-C		Soil	10/10/18	480-143282-14	10/11/18 13:25
113	SB-103-A		Soil	10/10/18	480-143282-15	10/11/18 13:25
114	SB-103-B		Soil	10/10/18	480-143282-16	10/11/18 13:25
115	SB-103-C		Soil	10/10/18	480-143282-17	10/11/18 13:25
116	SB-104-A		Soil	10/10/18	480-143282-18	10/11/18 13:25
117	SB-104-B		Soil	10/10/18	480-143282-19	10/11/18 13:25
118	SB-104-C		Soil	10/10/18	480-143282-20	10/11/18 13:25
119	SB-107-A		Soil	10/11/18	480-143525-1	10/16/18 13:10
120	SB-107-B		Soil	10/11/18	480-143525-2	10/16/18 13:10
121	SB-107-C		Soil	10/11/18	480-143525-3	10/16/18 13:10
122	SB-108-A		Soil	10/11/18	480-143525-4	10/16/18 13:10
123	SB-108-B		Soil	10/11/18	480-143525-5	10/16/18 13:10
124	SB-108-C		Soil	10/11/18	480-143525-6	10/16/18 13:10
125	SB-109-A		Soil	10/11/18	480-143525-7	10/16/18 13:10
126	SB-109-B		Soil	10/11/18	480-143525-8	10/16/18 13:10
127	SB-109-C		Soil	10/11/18	480-143525-9	10/16/18 13:10
128	SB-110-A		Soil	10/11/18	480-143525-10	10/16/18 13:10
129	SB-110-B		Soil	10/11/18	480-143525-11	10/16/18 13:10
130	SB-110-C		Soil	10/11/18	480-143525-12	10/16/18 13:10
131	SB-110-D		Soil	10/11/18	480-143525-13	10/16/18 13:10
132	SB-120-A		Soil	10/11/18	480-143525-14	10/16/18 13:10
133	SB-120-B		Soil	10/11/18	480-143525-15	10/16/18 13:10
134	SB-120-C		Soil	10/11/18	480-143525-16	10/16/18 13:10
135	SB-119-A		Soil	10/11/18	480-143525-17	10/16/18 13:10
136	SB-119-B		Soil	10/11/18	480-143525-18	10/16/18 13:10
137	SB-119-C		Soil	10/11/18	480-143525-19	10/16/18 13:10
138	DUP-101118	X	Soil	10/11/18	480-143525-20	10/16/18 13:10
139	SB-117-A		Soil	10/12/18	480-143525-21	10/16/18 13:10
140	SB-117-B		Soil	10/12/18	480-143525-22	10/16/18 13:10
141	SB-117-C		Soil	10/12/18	480-143525-23	10/16/18 13:10
142	SB-117-D		Soil	10/12/18	480-143525-24	10/16/18 13:10
143	SB-118-A		Soil	10/12/18	480-143525-25	10/16/18 13:10
144	SB-118-B		Soil	10/12/18	480-143525-26	10/16/18 13:10

Table 2
Sample List and Sample Data Group Cross-List
Al-Tech NYSDEC Site #907022
Dunkirk, New York

RemVer

Count	Sample ID	QA/QC	Matrix	Sample Date	Lab-SDG-#	Receipt by Lab
145	SB-118-C		Soil	10/12/18	480-143525-27	10/16/18 13:10
146	SB-116-A		Soil	10/12/18	480-143525-28	10/16/18 13:10
147	SB-116-B		Soil	10/12/18	480-143525-29	10/16/18 13:10
148	SB-116-C		Soil	10/12/18	480-143525-30	10/16/18 13:10
149	SB-115-A		Soil	10/12/18	480-143525-31	10/16/18 13:10
150	SB-115-B		Soil	10/12/18	480-143525-32	10/16/18 13:10
151	SB-115-C		Soil	10/12/18	480-143525-33	10/16/18 13:10
152	SB-129-A		Soil	10/23/18	480-144091-1	10/24/18 13:15
153	SB-129-B		Soil	10/23/18	480-144091-2	10/24/18 13:15
154	SB-129-C		Soil	10/23/18	480-144091-3	10/24/18 13:15
155	SB-126-A		Soil	10/23/18	480-144091-4	10/24/18 13:15
156	SB-126-B		Soil	10/23/18	480-144091-5	10/24/18 13:15
157	SB-126-C		Soil	10/23/18	480-144091-6	10/24/18 13:15
158	SB-127-A		Soil	10/23/18	480-144091-7	10/24/18 13:15
159	SB-127-B		Soil	10/23/18	480-144091-8	10/24/18 13:15
160	SB-127-C		Soil	10/23/18	480-144091-9	10/24/18 13:15
161	SB-128-A		Soil	10/23/18	480-144091-10	10/24/18 13:15
162	SB-128-B		Soil	10/23/18	480-144091-11	10/24/18 13:15
163	SB-128-C		Soil	10/23/18	480-144091-12	10/24/18 13:15
164	SB-128-D		Soil	10/23/18	480-144091-13	10/24/18 13:15
165	DUP-102318	X	Soil	10/23/18	480-144091-14	10/24/18 13:15
166	MW-101		Water	10/29/18	480-144395-1	10/30/18 10:35
167	MW-131		Water	10/29/18	480-144395-2	10/30/18 12:35
168	DUP-102918	X	Water	10/29/18	480-144395-3	10/30/18 12:35
169	MW-105		Water	10/29/18	480-144395-4	10/30/18 12:35
170	MW-108		Water	10/29/18	480-144395-5	10/30/18 12:35
171	MW-120		Water	10/30/18	480-144471-1	10/31/18 13:20
172	MW-128		Water	10/30/18	480-144471-2	10/31/18 13:20
173	EQUIPMENT BLANK-01	X	Water	10/30/18	480-144471-3	10/31/18 13:20
174	MW-126		Water	10/30/18	480-144471-4	10/31/18 13:20
175	MW-123		Water	10/30/18	480-144471-5	10/31/18 13:20
176	MW-144		Water	10/30/18	480-144471-6	10/31/18 13:20
177	MW-148		Water	10/30/18	480-144471-7	10/31/18 13:20
178	SW-1		Water	11/09/18	480-145042-1	11/09/18 14:00
179	SW-2		Water	11/09/18	480-145042-2	11/09/18 14:00
180	DUP-11918	X	Water	11/09/18	480-145042-3	11/09/18 14:00
181	TRIP BLANK	X	Water	11/09/18	480-145042-4	11/09/18 14:00

RemVer

Quality Assessment
Data Usability Summary Report

			RemVer Project #2018GE13 Client Project #0901752-02-840
Site:	Buffalo Lakeside Commercial Park, Parcel 5 Buffalo, NY	**Site #:**	915322
Client:	NYSDEC via GES, Inc.	**Site Owner:**	–N/A–
Sample Delivery Groups (SDGs)	240-103104		
Sample Matrix:	☐ Drinking water ☐ Groundwater ☐ Surface water ☒ Soil ☐ Sediment ☐ Air ☐ Biota (tissue, type: _____) ☐ Other: _____		

Introduction

RemVer performed a data quality assessment (DQA) on the analytical data for soil samples. reported in Sample Delivery Groups (SDGs) #240-103104 from Test America (TA). A DQA is an evaluation of the performance of analytical procedures and quality of the resulting data. RemVer followed the requirements of the New York State Department of Environmental Conservation (NYSDEC) Data Usability Summary Report (DUSR) guidelines for an Analytical Services Protocol (ASP) Category B Data Deliverable. This report includes a narrative discussion of sample results qualified during the DQA. Attached to the main report is a list describing the final reported qualification flags applied to the data by RemVer during this DQA process.

Reported Methods

- ☐ Method 1311 TCLP
- ☐ Method 1312 SPLP
- ☒ Method 6010A, B & C / 6020 Trace Metals
- ☐ Method 7000 Metals
- ☐ Method 7196 Hexavalent Chromium (other:_____)
- ☒ Method 7470A or 7471 Mercury
- ☐ Method 8021 Volatile Organic Compounds (VOCs) GC
- ☒ Method 8081B or ☐ 608 Pesticides
- ☒ Method 8082 or ☐ 608 PCBs
- ☐ Method 8151 Chlorinated Herbicides
- ☒ Method 8260C VOCs GC/MS
- ☒ Method 8270D Semi-VOCs (sVOCs) GC/MS &/or SIM-ID
- ☒ Method 9010/9012/9014 Cyanides (_____)
- ☐ Method TO-13A PAHs (air)
- ☐ Method TO-14A / -15 VOCs (air, summa) (_____)
- ☐ Method TO-17 VOCs (air, sorbent)
- ☐ Method 537 PFCs via SPE & LC/MS-MS
- ☐ Volatile Petroleum Hydrocarbons (VPH) Method
- ☐ Extractable Petroleum Hydrocarbons (EPH)
- ☒ Other Methods:
  - ☑ Method Percent Moisture
  - ☑ Method 3550C Ultrasonic Extraction
  - ☑ Method 5035A_L Purge & Trap, closed
  - ☑ Method 3005B Total Metals Prep.
  - ☑ Method 9045D pH

Quality Control Requirements Summary

- ☒ Duplicate
- ☒ Matrix Spike [MS] / Matrix Spike Duplicate [MSD]
- ☐ Trip Blanks
- ☒ Equipment, Method, &/or Rinsate Blank
- ☐ Other Field QC: Field notes regarding sampling
- ☐ Special QAPP Requirements: _____
  _____

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Intended Use of Data Under Review

NYSDEC contracted GES to perform a 2018 site-wide synoptic soil, groundwater, and surface water monitoring event at the referenced site. The monitoring event (10 October through 09 November) purpose was to update the existing environmental dataset with current synoptic conditions. Sampling was to provide analyses of environmental conditions for the presence of volatile organic compounds (VOCs), semi-volatile organic compounds (SVOCs), organochlorine pesticides, polychlorinated biphenyls (PCBs), metals (including metalloids), pH, and Cyanides.

This DUSR addresses SDG #240-103104. The soil samples came from a collection event on October 19, 2018.

Significant Data Usability Issues In SDG: #240-103104

Of the sixteen samples (including one Duplicate) discussed herein, RemVer rejected no results. The other results are acceptable for use although the results of some analytes are flagged due to sample handling, or laboratory accuracy or precision issues. Please refer to the Lab Results and Data Usability Narrative section for further detail.

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Detailed Quality Review

Field Notes Review

	Y	N	NA	COMMENTS
Sampling notes	☒	☐	☐	
Field meteorological data	☐	☐	☒	No review required under QAPP
Associated sampling location and plan included	☐	☒	☐	See RAP/QAPP
Associated drilling logs available, reviewed	☐	☐	☒	No review required under QAPP
Identification of QC samples in notes	☒	☐	☐	Sample IDs
Sampling instrument decontamination records	☐	☐	☒	No review required under QAPP
Sampling instrument calibration logs	☐	☐	☒	No review required under QAPP
Chain of custody included	☒	☐	☐	With analytical report
Notes include communication logs	☐	☒	☐	
Any corrective action (CA) reports	☐	☒	☐	If so, CA documentation of results required.
Any deviation from methods noted? If so, explain	☐	☒	☐	None
Any electronic data deliverables	☐	☒	☐	None
Sampling Report (by Field Team Leader)	☒	☐	☐	Field Notes

Lab Report Contents (Test America SDG Reports: #240-103104)

☒ SDG Narrative
☒ Contract Lab Sample Information Sheets
☒ Data Package Summary Forms
☒ Chain-of-Custody (COC) Forms
☒ Test Results (no tentatively identified compounds [TICs])
☒ Calibration standards
☒ Surrogate recoveries
☒ Blank results
☒ Spike recoveries
☒ Duplicate results
☒ Confirmation (lab check/QC) samples
☒ Internal standard area & retention time summary
☒ Chromatograms
☒ Raw data files
☒ Other specific information

The SDG reported the following samples:

Sample ID	SDG #240-103104–sample #	Matrix	Sampled	Received
SB-142A	#–1	Soil	10/19/18	10/20/18
SB-142B	#–2	Soil	10/19/18	10/20/18
SB-142C	#–3	Soil	10/19/18	10/20/18
SB-143A	#–4	Soil	10/19/18	10/20/18
SB-143B	#–5	Soil	10/19/18	10/20/18
SB-143C	#–6	Soil	10/19/18	10/20/18
DUP-10/19/18	#–7	Soil	10/19/18	10/20/18
SB-144A	#–8	Soil	10/19/18	10/20/18
SB-144B	#–9	Soil	10/19/18	10/20/18
SB-144C	#–10	Soil	10/19/18	10/20/18
SB-150A	#–11	Soil	10/19/18	10/20/18
SB-150B	#–12	Soil	10/19/18	10/20/18
SB-150C	#–13	Soil	10/19/18	10/20/18
SB-145A	#–14	Soil	10/19/18	10/20/18
SB-145B	#–15	Soil	10/19/18	10/20/18
SB-145C	#–16	Soil	10/19/18	10/20/18

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The SDG included the following samples with their analyses:

143282	Sample	VOCs	SVOCs	Pest	PCBs	TAL & Hg	Cyanide	pH	Temp
#–1	SB-142A	X	X	X	X	X	X	X	X
#–2	SB-142B	X	X	X	X	X	X	X	X
#-3	SB-142C	X	X	X	X	X	X	X	X
#-4	SB-143A	X	X	X	X	X	X	X	X
#–5	SB-143B	X	X	X	X	X	X	X	X
#–6	SB-143C	X	X	X	X	X	X	X	X
#–7	DUP10/19/18	X	X	X	X	X	X	X	X
#–8	SB-144A	X	X	X	X	X	X	X	X
#–9	SB-144B	X	X	X	X	X	X	X	X
#–10	SB-144C	X	X	X	X	X	X	X	X
#–11	SB-150A	X	X	X	X	X	X	X	X
#–12	SB-150B	X	X	X	X	X	X	X	X
#–13	SB-150C	X	X	X	X	X	X	X	X
#–14	SB-145A	X	X	X	X	X	X	X	X
#–15	SB-145B	X	X	X	X	X	X	X	X
#–16	SB-145C	X	X	X	X	X	X	X	X

VOC: Volatile Organic Compounds (8260) | SVOC: Semi-VOCs (8270) | Pest: Pesticides (8081) | PCBs (8082)
TAL: Total Analyte List (6010) | Hg: Mercury (7470) | Cyanide (9012) | pH (9040)
| * Dry, no sample † No sample

Is the data package complete as defined under the requirements for the NYSDEC ASP Category B?		
Laboratory Report	**Complete (Y/N)**	**Comments**
240-103104	Y	No

Sample Preservation Requirements & Holding Times Met?			
Laboratory Report	**Hold Times (Y/N)**	**Preservation (Y/N)**	**Exception Comment**
240-103104	N (pH & temp) Y	Y	15-min holding time missed, qualified None

Do the QC data fall within the protocol required limits and specifications?
(1) blanks, (2) instrument tunings, (3) calibration standards, (4) calibration verifications, (5) surrogate recoveries, (6) spike recoveries, (7) replicate analyses, (8) laboratory controls, (9) and sample data

SDG	1	2	3	4	5	6	7	8	9
240-103104	☐	☐	☒	☒	☒	☒	☐	☒	☒

The narrative section, below, discusses these deficiencies in detail, see Attachment 1 as well.

Have the data been generated using established and agreed upon analytical protocols?		
Laboratory Report	**Protocols (Y/N)**	**Exception Comment**
240-103104	Y	No

Do the raw data confirm the results provided in the data summary sheets and quality control verification forms?		
Laboratory Report	**Confirmation (Y/N)**	**Exception Comment**
240-103104	Y	No

Have the correct data qualifiers been used and are they consistent with the most current guidance?		
Laboratory Report	**Qualifiers (Y/N)**	**Comment**
240-103104	Y	The laboratory generally applied appropriate qualifiers.

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Have any quality control (QC) exceedances been specifically noted in this DUSR and the corresponding QC summary sheets from the data packages referenced?		
Laboratory Report	**QC Exceedances Documented (Y/N)**	**Comment**
240-103104	Y	Several data qualifications were applied as described below

Data Quality and Usability Narrative

Field Notes Inspection

The soil boring samples came from a collection event October 16, 2018. RemVer reviewed the field notes (soil boring logs) as part of this DUSR.

Laboratory Report Inspection

TA produced an SDG report #240-103104 (dated 6-Nov-18). The SDG report had the required data and information.

Chain of Custody (COC) Evaluation

NYSDEC/GES produced a COC for the referenced fieldwork (GES Project PSID#739392): SDG: #240-103104—single, two-page COC; laboratory noted no issues at the time of acceptance.

Sample Preservation & Holding Time Evaluation

Laboratory received twelve coolers with samples on 10/20/2018 @ 10:15 AM (designated as SDG-#240-103104). The temperatures of the coolers at receipt were 1.3, 1.5, 1.5, 1.7, 1.7, 1.9, 1.9, 2.1, 2.1, 2.5, 2.7, 3.5, and 3.2ºC. The samples arrived in good condition, properly preserved, and where necessary under ice. Holding times and preservation requirements were met with one exception:

- Analysis of pH (Method 9040 and includes temperature measurement) has a 15-minute holding time, which was violated; therefore, RemVer qualified these results with a J.

Detection Limits

Analytical detection limits (DLs) were acceptable for all analytes causing no QA issues other than those noted below:

- If an analyte was above the method detection limit (MDL) but below the reporting limit (RL), then it was flagged as “UJ”.
- Method 8081 (Pesticides)—the relative percent difference (RPD) between the primary and confirmation column / detector was >40%; the laboratory reported the lower detected value. This occurred with gamma-BHC in all samples. RemVer qualified these results with a UJ or J flag, as appropriate.

Blank Evaluation

SDG #240-103104 had Method Blanks (MBs) for each method. The MBs were acceptable (no detectable analytes), with the following exception(s):

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- VOC analysis (Method 8260) had 1,2,4-Trichlorobenzene and 2-Butanone (MEK) in the MBs either greater than the MDL but less than the RL or less than 5X greater than the RL. Therefore, RemVer did not flag these analytes with B-flag.

Laboratory Control Samples (LCS)

The various method LCS' (LCS & LCS duplicates [LCSD]) were within the acceptable control ranges and relative percent differences (RPDs) for their particular analyses in SDG 240-103104, with the following exceptions:

- Method 8081 (Pesticides)—Methoxychlor had LCS/LCSD recoveries beyond control limits (RPD beyond criteria) causing the results to be biased high. Therefore, RemVer flagged the results UJ+ or J+ in the samples and duplicate.

Surrogates

Surrogates added to a sample allow testing of preparatory and instrument behavior resulting in recoveries within appropriate method ranges for the analytes. In SDG #240-103104 there were no exceptions requiring flagging of the sample results.

- Method 8260 (VOCs)—recoveries for Sample #-9 were outside control limits. RemVer flagged the results as UJ or J as appropriate.
- Method 8081 (Pesticides)—recoveries for Samples #-2, #-4, #-8, #-10, #-11, #-12, and #-14 were outside control limits, as were the MS/MSD runs. RemVer flagged the results as UJ or J as appropriate.

Site-Specific Matrix Spikes and Matrix Spike Duplicates

The matrix spike/matrix spike duplicate (MS/MSD) runs for all analyses met the QA criteria in SDG 240-103104 with the following exceptions:

- Method 8260—several analytes (1,1-Dichloroethane, 1,1-Dichloroethene, 1,2,4-Trichlorobenzene, 1,2-Dichloroethane, 1,2-Dichloropropane, Chloroform, cis-1,2-Dichloroethene, 1,2-Dibromoethane, Methylene Chloride, and trans-1,2-Dichloroethene) had poor MS/MSD recoveries or RPDs beyond limits. RemVer flagged all samples as UJ or J for these analytes.
- Method 6010—MS recoveries for Aluminum, Antimony, Calcium, Chromium, Iron, Manganese, and Zinc were beyond limits and/or had RPD beyond limits. RemVer flagged all results as UJ or J as appropriate.
- Method 9012—the Cyanide batch MS's were beyond control limits due to low sample homogeneity. As a result, RemVer flagged all results as UJ or J as appropriate.

Duplicates

GES collected a field replicate (sample #-7). RemVer did not evaluate the duplicate to judge sampling performance because the source of the replicate was unclear. This is not a significant quality issue as it can be handled by GES directly (*note: if the Relative Percent Difference [RPD] between the original sample and its associated replicate are less than 20%, then sampling performance precision is within acceptable limits*). Regardless, the analytical Method Duplicates met their RPD performance criteria.

Tentatively Identified Compounds (TICs)

This SDG had no analysis of TICs.

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Calibration Standards and Continuing Calibration Verification (CCV)

Calibration standards (external or internal) were acceptable for all analytes with the following exceptions:

- Method 8260—the internal standard responses and retention were beyond method criteria method criteria for Samples #-7, #-10 and #-12. Therefore, RemVer flagged results for this analyte as UJ or J as appropriate.

CCVs were acceptable in the SDG for all methods and analytes, with the following exceptions:

- Method 8260C—several batches had recoveries greater than the upper control limit (UCL) for differing analytes. RemVer flagged the results as UJ or J in the samples corresponding to the different batches.
  - Batch #352205/352209: Methyl tert-butyl ether in Samples #-1 and #-2
  - Batch #352300/352302: 2-Hexanone, 4-Methyl-2-pentanone, Cyclohexane, Methyl tert-butyl ether, and Trichlorofluoromethane in Samples #-3, #-4, #-6, #-8, #-10, #-11, and #-12
  - Batch #352567/352571: 4-Methyl-2-pentanone, Methyl tert-butyl ether, and Trichlorofluoromethane in Samples #-5, #-7, #-9, #-13, #-14, and #-15
  - Batch #352999/353025: 1,1,2-Trichloro-1,2,2-trifluoroethane, 1,1-Dichloroethene, 1,2-Dichlorobenzene, Dichloro-difluoromethane, Isopropylbenzene, Methylcyclohexane, Trichlorofluoromethane, o-Xylene, and Total Xylenes in Samples #-16
- Method 8081B—Batch #445452 had recoveries greater than the UCL for Methoxychlor and effect all samples. RemVer flagged the results as UJ or J.

Sample Result and Usability Evaluation

Due to certain sample issues or laboratory performance, some results were qualified; however, the data are usable. No data received an R (rejected) flag.

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References

NYSDEC, 2010, *Technical Guidance for Site Investigation and Remediation*, "DER-10," Division of Environmental Remediation: Albany, NY, May, 232p

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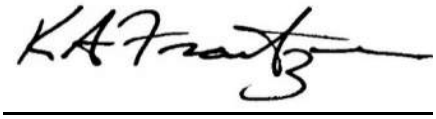
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USEPA, 2012, *Test Methods for Evaluating Solid Waste, Physical/Chemical Methods, SW-846*, Current Online Revision: http://www.epa.gov/epawaste/hazard/testmethods/sw846/online/index.htm, accessed April 2012

Attachments

1. DQA Detail Worksheet
2. DQA Non-Conformance Summary Workheet
3. 240-103104_EquaNysdec.xls (EXCEL annotated EDD with validation, attached)



Prepared by: Kurt A. Frantzen, PhD
December 18, 2018

GES PO#751457-1109

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Attachment 1
DQA Detail Worksheet

BLANKS	>RL?	Compounds	Notes
VOC (8260)	No	None	No Comment
SVOC (8270)	No	None	No Comment
Pest (8081)	No	None	No Comment
PCBs (8082)	No	None	No Comment
Metals (6010)	No	None	No Comment
Hg (7470)	No	None	No Comment
Cyanide (9012)	No	None	No Comment

LCS	SV <10%	Low Bias > 10% & < LCL	High Bias >UCL	Compound(s)	Notes
VOC (8260)	—	—	—	None	No Comment
SVOC (8270)	—	—	—	None	No Comment
Pest (8081)	—	—	—	None	No Comment
	—	—	X	Methoxychlor	Flag UJ+ or J+
PCBs (8082)	—	—	—	None	No Comment
Metals (6010)	—	—	—	None	No Comment
Hg (7470)	—	—	—	None	No Comment
Cyanide (9012)	—	—	—	None	No Comment

SURROGATES	SV <10%	> 10% & < LCL	>UCL	Compound(s)	Notes
VOC (8260)	—	—	—	—	No Comment
	—	—	X	All in #-9	Flag UJ or J
SVOC (8270)	—	—	—	—	No Comment
Pest (8081)	—	—	—	—	No Comment
	—	—	X	All in #-2, #-4, #-8, #-10, #-11, #-12, & #-14	Flag UJ or J
PCBs (8082)	—	—	—	—	No Comment
Metals (6010)	—	—	—	—	No Comment
Hg (7470)	—	—	—	—	No Comment
Cyanide (9012)	—	—	—	—	No Comment

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Attachment 1 continued

MS/MSDs	SV <10%	Low Bias > 10% & < LCL	High Bias >UCL	QC Source	RPDs	Notes
VOC (8260)	—	—	—	Batch	—	No Comment
1,1-Dichloroethane, 1,1-Dichloroethene, 1,2,4-Trichlorobenzene, 1,2-Dichloroethane, 1,2-Dichloropropane, Chloroform, cis-1,2-Dichloroethene, 1,2-Dibromoethane, Methylene Chloride, and trans-1,2-Dichloroethene	—	—	X	Batch	X	Flag UJ or J
SVOC (8270)	—	—	—	Batch	—	No Comment
Pest (8081)	—	—	—	Batch	—	No Comment
PCBs (8082)	—	—	—	Batch	—	No Comment
Metals (6010)	—	—	—	Batch	—	No Comment
Aluminum, Antimony, Calcium, Chromium, Iron, Manganese, & Zinc	—	—	X	Batch	X	Flag UJ or J
Hg (7470)	—	—	—	Batch	—	No Comment
Cyanide (9012)	—	—	X	Batch	X	Flag UJ or J

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Attachment 1 continued

FIELD DUPLICATES RPDs	QC Source	Soil RPD > 50%	Water RPD > 20%	Compounds	Notes
#-7 (Dup 11918)	Site		N/A	—	
			N/A	—	
			N/A	—	
LAB DUPLICATES					
All Methods	Batch	N/A	—	As listed	No Comment

Reasonable Confidence Achieved	☐ Y	☐ N—Not Applicable
Significant QC Variances Noted	☒ Y	☐ N
Requested Reporting Limits Achieved	☒ Y	☐ N
Preservation Requirements Met	☒ Y	☐ N
Holding Time Requirements Met	☐ Y	☒ N

Abbreviations:
RL = Reporting Limit LCS = Laboratory Control Sample SV = Significant QC Variance
RPD = Relative Percent Difference LCL= RCP Lower Control Limit UCL= RCP Upper Control Limit
VOCs = Volatile Organic Compounds SVOCs = Semi-volatile Organic Compounds Pest = Pesticides
EPH = Extractable Petroleum Hydrocarbons VPH = Volatile Petroleum Hydrocarbons ETPH = EPH-Total
PCBs = Polychlorinated Biphenyls N/A = Not Applicable N/C = Not Collected -- = nothing to report
Notes: * Typical lab contaminants, not site-related

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Attachment 2
DQA Non-Conformance Summary Worksheet

Only Flagged Results Shown Below

SDG #240-103104						
Sample Number(s)	**Compound(s)**	**QC Non-Conformance**	**% Recovery**	**% RPD †**	**High or Low Bias ‡**	**Comments**
ALL	All	MDL>result<RDL	—	—	—	Validator Flag UJ Interpreted Flag U
	Methoxychlor	LCS CCV	>UCL	—	—	Flag UJ or J
	1,1-Dichloroethane, 1,1-Dichloroethene, 1,2,4-Trichlorobenzene, 1,2-Dichloroethane, 1,2-Dichloropropane, Chloroform, cis-1,2-Dichloroethene, 1,2-Dibromoethane, Methylene Chloride, and trans-1,2-Dichloroethene	MS/MSD	>UCL	X	—	Flag UJ or J
	Aluminum, Antimony, Calcium, Chromium, Iron, Manganese, & Zinc	MS/MSD	>UCL	X	—	Flag UJ or J
	Cyanide	MS/MSD	>UCL	X	—	Flag UJ or J
	pH	Holding Time	—	—	—	Flag J
#-1 & 2	Methyl tert-butyl ether	CCV	X	—	—	Flag UJ or J
#-5, #-7, #-9, #-13, #-14, & #-15	4-Methyl-2-pentanone, Methyl tert-butyl ether, & Trichlorofluoro-methane	CCV	X	—	—	Flag UJ or J
#-3, #-4, #-6, #-8, #-10, #-11, & #-12	2-Hexanone, 4-Methyl-2-pentanone, Cyclohexane, Methyl tert-butyl ether, and Trichlorofluoro-methane	CCV	X	—	—	Flag UJ or J
#-9	All VOCs	Surrogates	>UCL	X	—	Flag UJ or J
#-7, #-10 & #-12	All VOCs	Calib. Stnd.	X	—	—	Flag UJ or J
#-2, #-4, #-8, #-10, #-11, #-12, & #-14	All Pesticides	Surrogates	>UCL	X	—	Flag UJ or J

Notes: † RPD—Relative Percent Difference

‡ Bias High—Reported result may be lower, Reporting Limit (RL) is acceptable as reported. Bias Low—Reported results may be higher, RL may be higher than reported.

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Quality Assessment
Data Usability Summary Report

			RemVer Project #2018GE13 Client Project #0901752-02-840
Site:	Buffalo Lakeside Commercial Park, Parcel 5 Buffalo, NY	**Site #:**	915322
Client:	NYSDEC via GES, Inc.	**Site Owner:**	–N/A–
Sample Delivery Groups (SDGs)	240-103106		
Sample Matrix:	☐ Drinking water ☐ Groundwater ☐ Surface water ☒ Soil ☐ Sediment ☐ Air ☐ Biota (tissue, type: _____) ☐ Other: _____		

Introduction

RemVer performed a data quality assessment (DQA) on the analytical data for soil samples. reported in Sample Delivery Groups (SDGs) #240-103106 from Test America (TA). A DQA is an evaluation of the performance of analytical procedures and quality of the resulting data. RemVer followed the requirements of the New York State Department of Environmental Conservation (NYSDEC) Data Usability Summary Report (DUSR) guidelines for an Analytical Services Protocol (ASP) Category B Data Deliverable. This report includes a narrative discussion of sample results qualified during the DQA. Attached to the main report is a list describing the final reported qualification flags applied to the data by RemVer during this DQA process.

Reported Methods

- ☐ Method 1311 TCLP
- ☐ Method 1312 SPLP
- ☒ Method 6010A, B & C / 6020 Trace Metals
- ☐ Method 7000 Metals
- ☐ Method 7196 Hexavalent Chromium (other:_____)
- ☒ Method 7470A or 7471 Mercury
- ☐ Method 8021 Volatile Organic Compounds (VOCs) GC
- ☒ Method 8081B or ☐ 608 Pesticides
- ☒ Method 8082 or ☐ 608 PCBs
- ☐ Method 8151 Chlorinated Herbicides
- ☒ Method 8260C VOCs GC/MS
- ☒ Method 8270D Semi-VOCs (sVOCs) GC/MS &/or SIM-ID
- ☒ Method 9010/9012/9014 Cyanides (_____)
- ☐ Method TO-13A PAHs (air)
- ☐ Method TO-14A / -15 VOCs (air, summa) (_____)
- ☐ Method TO-17 VOCs (air, sorbent)
- ☐ Method 537 PFCs via SPE & LC/MS-MS
- ☐ Volatile Petroleum Hydrocarbons (VPH) Method
- ☐ Extractable Petroleum Hydrocarbons (EPH)
- ☒ Other Methods:
  - ☑ Method Percent Moisture
  - ☑ Method 3550C Ultrasonic Extraction
  - ☑ Method 5035A_L Purge & Trap, closed
  - ☑ Method 3005B Total Metals Prep.
  - ☑ Method 9045D pH

Quality Control Requirements Summary

- ☒ Duplicate
- ☒ Matrix Spike [MS] / Matrix Spike Duplicate [MSD]
- ☐ Trip Blanks
- ☒ Equipment, Method, &/or Rinsate Blank
- ☐ Other Field QC: Field notes regarding sampling
- ☐ Special QAPP Requirements: _____
  _____

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Intended Use of Data Under Review

NYSDEC contracted GES to perform a 2018 site-wide synoptic soil, groundwater, and surface water monitoring event at the referenced site. The monitoring event (10 October through 09 November) purpose was to update the existing environmental dataset with current synoptic conditions. Sampling was to provide analyses of environmental conditions for the presence of volatile organic compounds (VOCs), semi-volatile organic compounds (SVOCs), organochlorine pesticides, polychlorinated biphenyls (PCBs), metals (including metalloids), pH, and Cyanides.

This DUSR addresses SDG #240-103106. The soil samples came from a collection event on October 16, 2018.

Significant Data Usability Issues In SDG: #240-103106

Of the twenty samples (including one Duplicate) discussed herein, RemVer rejected no results. The other results are acceptable for use although the results of some analytes are flagged due to sample handling, or laboratory accuracy or precision issues. Please refer to the Lab Results and Data Usability Narrative section for further detail.

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Detailed Quality Review

Field Notes Review

	Y	N	NA	COMMENTS
Sampling notes	☒	☐	☐	
Field meteorological data	☐	☐	☒	No review required under QAPP
Associated sampling location and plan included	☐	☒	☐	See RAP/QAPP
Associated drilling logs available, reviewed	☐	☐	☒	No review required under QAPP
Identification of QC samples in notes	☒	☐	☐	Sample IDs
Sampling instrument decontamination records	☐	☐	☒	No review required under QAPP
Sampling instrument calibration logs	☐	☐	☒	No review required under QAPP
Chain of custody included	☒	☐	☐	With analytical report
Notes include communication logs	☐	☒	☐	
Any corrective action (CA) reports	☐	☒	☐	If so, CA documentation of results required.
Any deviation from methods noted? If so, explain	☐	☒	☐	None
Any electronic data deliverables	☐	☒	☐	None
Sampling Report (by Field Team Leader)	☒	☐	☐	Field Notes

Lab Report Contents (Test America SDG Reports: #240-103106)

☒ SDG Narrative
☒ Contract Lab Sample Information Sheets
☒ Data Package Summary Forms
☒ Chain-of-Custody (COC) Forms
☒ Test Results (no tentatively identified compounds [TICs])
☒ Calibration standards
☒ Surrogate recoveries
☒ Blank results
☒ Spike recoveries
☒ Duplicate results
☒ Confirmation (lab check/QC) samples
☒ Internal standard area & retention time summary
☒ Chromatograms
☒ Raw data files
☒ Other specific information

The SDG reported the following samples:

Sample ID	SDG #240-103106–sample #	Matrix	Sampled	Received
SB-111-A	#–1	Soil	10/16/18	10/20/18
SB-111-B	#–2	Soil	10/16/18	10/20/18
SB-111-C	#–3	Soil	10/16/18	10/20/18
SB-112-A	#–4	Soil	10/16/18	10/20/18
SB-112-B	#–5	Soil	10/16/18	10/20/18
SB-112-C	#–6	Soil	10/16/18	10/20/18
DUP-101618	#–7	Soil	10/16/18	10/20/18
SB-113-A	#–8	Soil	10/16/18	10/20/18
SB-113-B	#–9	Soil	10/16/18	10/20/18
SB-113-C	#–10	Soil	10/16/18	10/20/18
SB-114-A	#–11	Soil	10/16/18	10/20/18
SB-114-B	#–12	Soil	10/16/18	10/20/18
SB-114-C	#–13	Soil	10/16/18	10/20/18
SB-121-A	#–14	Soil	10/16/18	10/20/18
SB-121-B	#–15	Soil	10/16/18	10/20/18
SB-121-C	#–16	Soil	10/16/18	10/20/18
SB-121-D	#–17	Soil	10/16/18	10/20/18
SB-122-A	#–18	Soil	10/16/18	10/20/18
SB-122-B	#–19	Soil	10/16/18	10/20/18
SB-122-C	#–20	Soil	10/16/18	10/20/18

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The SDG included the following samples with their analyses:

143282	Sample	VOCs	SVOCs	Pest	PCBs	TAL & Hg	Cyanide	pH	Temp
#–1	SB-111-A	X	X	X	X	X	X	X	X
#–2	SB-111-B	X	X	X	X	X	X	X	X
#-3	SB-111-C	X	X	X	X	X	X	X	X
#-4	SB-112-A	X	X	X	X	X	X	X	X
#–5	SB-112-B	X	X	X	X	X	X	X	X
#–6	SB-112-C	X	X	X	X	X	X	X	X
#–7	DUP-101618	X	X	X	X	X	X	X	X
#–8	SB-113-A	X	X	X	X	X	X	X	X
#–9	SB-113-B	X	X	X	X	X	X	X	X
#–10	SB-113-C	X	X	X	X	X	X	X	X
#–11	SB-114-A	X	X	X	X	X	X	X	X
#–12	SB-114-B	X	X	X	X	X	X	X	X
#–13	SB-114-C	X	X	X	X	X	X	X	X
#–14	SB-121-A	X	X	X	X	X	X	X	X
#–15	SB-121-B	X	X	X	X	X	X	X	X
#–16	SB-121-C	X	X	X	X	X	X	X	X
#–17	SB-121-D	X	X	X	X	X	X	X	X
#–18	SB-122-A	X	X	X	X	X	X	X	X
#–19	SB-122-B	X	X	X	X	X	X	X	X
#–20	SB-122-C	X	X	X	X	X	X	X	X

VOC: Volatile Organic Compounds (8260) | SVOC: Semi-VOCs (8270) | Pest: Pesticides (8081) | PCBs (8082)
TAL: Total Analyte List (6010) | Hg: Mercury (7470) | Cyanide (9012) | pH (9040)
| * Dry, no sample † No sample

Is the data package complete as defined under the requirements for the NYSDEC ASP Category B?		
Laboratory Report	**Complete (Y/N)**	**Comments**
240-103106	Y	No

Sample Preservation Requirements & Holding Times Met?			
Laboratory Report	**Hold Times (Y/N)**	**Preservation (Y/N)**	**Exception Comment**
240-103106	N (pH corrosivity) Y	Y	15-min holding time missed, qualified None

Do the QC data fall within the protocol required limits and specifications?

(1) blanks, (2) instrument tunings, (3) calibration standards, (4) calibration verifications, (5) surrogate recoveries, (6) spike recoveries, (7) replicate analyses, (8) laboratory controls, (9) and sample data

SDG	1	2	3	4	5	6	7	8	9
240-103106	☐	☐	☒	☒	☒	☒	☐	☐	☒

The narrative section, below, discusses these deficiencies in detail, see Attachment 1 as well.

Have the data been generated using established and agreed upon analytical protocols?		
Laboratory Report	**Protocols (Y/N)**	**Exception Comment**
240-103106	Y	No

Do the raw data confirm the results provided in the data summary sheets and quality control verification forms?		
Laboratory Report	**Confirmation (Y/N)**	**Exception Comment**
240-103106	Y	No

Have the correct data qualifiers been used and are they consistent with the most current guidance?

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Laboratory Report	Qualifiers (Y/N)	Comment
240-103106	Y	The laboratory generally applied appropriate qualifiers.

Have any quality control (QC) exceedances been specifically noted in this DUSR and the corresponding QC summary sheets from the data packages referenced?		
Laboratory Report	**QC Exceedances Documented (Y/N)**	**Comment**
240-103106	Y	Several data qualifications were applied as described below

Data Quality and Usability Narrative

Field Notes Inspection

The soil boring samples came from a collection event October 16, 2018. RemVer reviewed the field notes (soil boring logs) as part of this DUSR.

Laboratory Report Inspection

TA produced an SDG report #240-103106 (dated 6-Nov-18). The SDG report had the required data and information.

Chain of Custody (COC) Evaluation

NYSDEC/GES produced a COC for the referenced fieldwork (GES Project PSID#739391): SDG: #240-103106—single, three-page COC; laboratory noted no issues at the time of acceptance.

Sample Preservation & Holding Time Evaluation

Laboratory received twelve coolers with samples on 10/20/2018 @ 10:15 AM (designated as SDG-#240-103106). The temperatures of the coolers at receipt were 1.3, 1.5, 1.5, 1.7, 1.7, 1.9, 1.9, 2.1, 2.1, 2.5, 2.7, 3.5, and 3.2ºC. The samples arrived in good condition, properly preserved, and where necessary under ice. Holding times and preservation requirements were met with one exception:

- Analysis of pH (Method 9040 and includes temperature measurement) has a 15-minute holding time, which was violated; therefore, RemVer qualified these results with a J.

Detection Limits

Analytical detection limits (DLs) were acceptable for all analytes causing no QA issues other than those noted below:

- If an analyte was above the method detection limit (MDL) but below the reporting limit (RL), then it was flagged as “UJ”.
- Method 8082 (Pesticides)—the relative percent difference (RPD) between the primary and confirmation column / detector was >40%; the laboratory reported the lower detected value. This occurred with surrogates (DCBP and TCX) in Samples #-9, #-13, and #-20, and Beta-BHC in the MS/MSD runs. RemVer qualified these results with a UJ or J flag, as appropriate.
- Method 8082 (PCBs)—the relative percent difference (RPD) between the primary and confirmation column / detector was >40%; the laboratory reported the lower detected

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value. This occurred with PCB surrogate TCX in Sample #-16. RemVer qualified these results with a UJ or J flag, as appropriate.

Blank Evaluation

SDG #240-103106 had Method Blanks (MBs) for each method. The MBs were acceptable (no detectable analytes), with the following exception(s):

- VOC analysis (Method 8260) had 1,2,4-Trichlorobenzene and Bis(2-ethylhexyl) phthalate in the MBs either greater than the MDL but less than the RL. Therefore, RemVer did not flag these analytes with B-flag.
- SVOC analysis (Method 8270) had Bis(2-ethylhexyl) phthalate in the MB either greater than the MDL but less than the RL. Therefore, RemVer did not flag these analytes with a B-flag.
- Mercury analysis (Method 7471B) had the analyte in the MB greater than the MDL but less than the RL. Therefore, RemVer did not flag this analyte with a B-flag.

Laboratory Control Samples (LCS)

The various method LCS' (LCS & LCS duplicates [LCSD]) were within the acceptable control ranges and relative percent differences (RPDs) for their particular analyses in SDG 240-103106, with no exceptions.

Surrogates

Surrogates added to a sample allow testing of preparatory and instrument behavior resulting in recoveries within appropriate method ranges for the analytes. In SDG #240-103106 there were no exceptions requiring flagging of the sample results.

- Method 8260—one surrogate (DBFM) had poor recovery in Samples #-2 and #-5, while the other three surrogates performed within limits. Therefore, RemVer did not flag these samples.
- Method 8081—Pesticide surrogate recovery was outside control limits for the following samples: #-1, #-6, #-9, and #-20. This was due to matrix interference requiring dilutions and effecting recovery. RemVer flagged the results as UJ or J as appropriate.
- Method 8082—PCB surrogate (DCBP & TCX) performance had anomalies while recoveries fell within limits. DCB in the continuing calibration verification (CCV) failed to meet criteria. The TCX surrogate failed the inter-column comparison in the MS/MSD runs (parent sample runs had acceptable surrogate performance). RemVer flagged all results as UJ or J as appropriate.

Site-Specific Matrix Spikes and Matrix Spike Duplicates

The matrix spike/matrix spike duplicate (MS/MSD) runs for all analyses met the QA criteria in SDG 240-103106 with the following exceptions:

- Method 8260— the internal standards (ISTD) were beyond method criteria in the MS/MSD runs (based on Sample #-11) and in the parent sample (see below). Therefore, RemVer flagged results for all samples as UJ or J as appropriate.

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- Method 8270—spike recoveries and/or relative percent difference (RPD) was beyond criteria for Di-n-octyl phthalate and Hexachlorocyclopentadiene in the MS/MSD runs. RemVer flagged these analytes as UJ or J in all samples.
- Method 8081—Beta-BHC had poor inter-column performance in the MS/MSD runs beyond limits. Therefore, RemVer flagged all samples as UJ or J for these analytes.
- Method 8082—surrogates in the MS/MSD runs were beyond control limits (see discussion above).
- Method 6010—MS/MSD performance (spike recovery and RPD) were beyond control limits for the following analytes in all samples: Aluminum, Antimony, Barium, Beryllium, Cadmium, Calcium, total Chromium, Cobalt, Copper, Iron, Lead, Magnesium, Manganese, Potassium, Silver, Sodium, Vanadium, and Zinc. RemVer flagged these results as UJ or J as appropriate.
- Method 9012—the Cyanide batch MS's were beyond control limits (and RPD beyond criteria) due to low sample homogeneity because the associated LCS recovery acceptable. As a result, RemVer flagged all results as UJ or J as appropriate.

Duplicates

GES collected a field replicate (sample #-7). RemVer did not evaluate the duplicate to judge sampling performance because the source of the replicate was unclear. This is not a significant quality issue as it can be handled by GES directly (*note: if the Relative Percent Difference [RPD] between the original sample and its associated replicate are less than 20%, then sampling performance precision is within acceptable limits*). Regardless, the analytical Method Duplicates met their RPD performance criteria.

Tentatively Identified Compounds (TICs)

This SDG had no analysis of TICs.

Calibration Standards and Continuing Calibration Verification (CCV)

Calibration standards (external or internal) were acceptable for all analytes with the following exceptions:

- Method 8260—the ISTDs were beyond method criteria for Samples #-6, #-7, #-11, #-17, #-18, and #-20; therefore, RemVer flagged results for this Sample as UJ or J as appropriate.

CCVs were acceptable in the SDG for all methods and analytes, with the following exceptions:

- Method 8270D—Batch #351630 had recoveries greater than the upper control limit (UCL) for 2,4-Dinitrophenol, 4,6-Dinitro-2-methyl phenol, and Hexachlorocyclopentadiene in Samples #-3, #-10, #-11, and #-16, which were non-detect or less than the RL. Therefore, RemVer did not flag the results.
- Method 8270D—Batch #352849 had recoveries greater than the UCL for Butyl benzyl phthalate, bis (2-chloroisopropyl) ether, and 2-Nitroaniline in Sample #-6, which were non-detect or less than the RL. Therefore, RemVer did not flag the results.
- Method 8082—see discussion of surrogates above.

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Sample Result and Usability Evaluation

Due to certain sample issues or laboratory performance, some results were qualified; however, the data are usable. No data received an R (rejected) flag.

References

NYSDEC, 2010, *Technical Guidance for Site Investigation and Remediation*, "DER-10," Division of Environmental Remediation: Albany, NY, May, 232p

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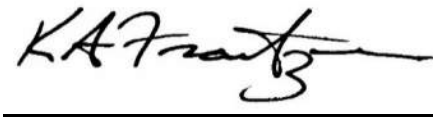
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USEPA, 2012, *Test Methods for Evaluating Solid Waste, Physical/Chemical Methods, SW-846*, Current Online Revision: http://www.epa.gov/epawaste/hazard/testmethods/sw846/online/index.htm, accessed April 2012

Attachments

1. DQA Detail Worksheet
2. DQA Non-Conformance Summary Workheet
3. 240-103106_EquaNysdec.xls (EXCEL annotated EDD with validation, attached)



Prepared by: Kurt A. Frantzen, PhD
December 18, 2018

GES PO#751457-1109

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Attachment 1
DQA Detail Worksheet

BLANKS	>RL?	Compounds	Notes
VOC (8260)	No	None	No Comment
SVOC (8270)	No	None	No Comment
Pest (8081)	No	None	No Comment
PCBs (8082)	No	None	No Comment
Metals (6010)	No	None	No Comment
Hg (7470)	No	None	No Comment
Cyanide (9012)	No	None	No Comment

LCS	SV <10%	Low Bias > 10% & < LCL	High Bias >UCL	Compound(s)	Notes
VOC (8260)	—	—	—	None	No Comment
SVOC (8270)	—	—	—	None	No Comment
Pest (8081)	—	—	—	None	No Comment
PCBs (8082)	—	—	—	None	No Comment
Metals (6010)	—	—	—	None	No Comment
Hg (7470)	—	—	—	None	No Comment
Cyanide (9012)	—	—	X	Cyanide	Flag UJ+ or J+

SURROGATES	SV <10%	> 10% & < LCL	>UCL	Compound(s)	Notes
VOC (8260)	—	—	—	—	No Comment
SVOC (8270)	—	—	—	—	No Comment
Pest (8081)	—	—	—	—	No Comment
#-1, 6, 9, 20	—	—	X	DCBP & TCX	Flag UJ or J
PCBs (8082)	—	—	X	In MS/MSD—TCX	Flag UJ or J
Metals (6010)	—	—	—	—	No Comment
Hg (7470)	—	—	—	—	No Comment
Cyanide (9012)	—	—	—	—	No Comment

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Attachment 1 continued

MS/MSDs	SV <10%	Low Bias > 10% & < LCL	High Bias >UCL	QC Source	RPDs	Notes
VOC (8260)	ISTD beyond criteria			Batch	—	Flag UJ or J
SVOC (8270)	—	—	—	Batch	—	No Comment
Di-n-octyl phthalate & Hexachloro-cyclopentadiene	—	X	X	Batch	X	Flag UJ or J
Pest (8081)	—	—	—	Batch	—	No Comment
Beta-BHC	—	—	X	Batch	—	Flag UJ or J
PCBs (8082)	—	—	X	Batch	—	Flag UJ or J
Metals (6010)	—	—	—	Batch	—	No Comment
Aluminum, Antimony, Barium, Beryllium, Cadmium, Calcium, Chromium, Cobalt, Copper, Iron, Lead, Magnesium, Manganese, Potassium, Silver, Sodium, Vanadium, & Zinc	—	X	X	Batch	>UCL	Flag UJ or J
Hg (7470)	—	—	—	Batch	—	No Comment
Cyanide (9012)	—	X	X	Batch	>UCL	Flag UJ or J

FIELD DUPLICATES RPDs	QC Source	Soil RPD > 50%	Water RPD > 20%	Compounds	Notes
#-7 (Dup 101618)	Site		N/A	—	No Comment
			N/A	—	
			N/A	—	
LAB DUPLICATES					
All Methods	Batch	N/A	—	As listed	No Comment

Reasonable Confidence Achieved	☐ Y	☐ N—Not Applicable
Significant QC Variances Noted	☒ Y	☐ N
Requested Reporting Limits Achieved	☒ Y	☐ N
Preservation Requirements Met	☒ Y	☐ N
Holding Time Requirements Met	☐ Y	☒ N

Abbreviations:
RL = Reporting Limit LCS = Laboratory Control Sample SV = Significant QC Variance
RPD = Relative Percent Difference LCL= RCP Lower Control Limit UCL= RCP Upper Control Limit
VOCs = Volatile Organic Compounds SVOCs = Semi-volatile Organic Compounds Pest = Pesticides
EPH = Extractable Petroleum Hydrocarbons VPH = Volatile Petroleum Hydrocarbons ETPH = EPH-Total
PCBs = Polychlorinated Biphenyls N/A = Not Applicable N/C = Not Collected -- = nothing to report
Notes: * Typical lab contaminants, not site-related

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Attachment 2
DQA Non-Conformance Summary Worksheet

Only Flagged Results Shown Below

SDG #240-103106						
Sample Number(s)	**Compound(s)**	**QC Non-Conformance**	**% Recovery**	**% RPD †**	**High or Low Bias ‡**	**Comments**
ALL	All	MDL>result<RDL	—	—	—	Validator Flag UJ Interpreted Flag U
	All VOCs	MS/MSD (ISTD)	X	—	—	Flag UJ or J
	Di-n-octyl phthalate & Hexachlorocyclo-pentadiene	MS/MSD	X	X	—	Flag UJ or J
	Beta-BHC	MS/MSD Inter-colum	Beyond method criteria		—	Flag UJ or J
	PCBs	MS/MSD Surrogates	X	—	—	Flag UJ or J
	Aluminum, Antimony, Barium, Beryllium, Cadmium, Calcium, total Chromium, Cobalt, Copper, Iron, Lead, Magnesium, Manganese, Potassium, Silver, Sodium, Vanadium, and Zinc	MS	>UCL or <LCL	X	—	Flag UJ or J
	Cyanide	MS	>UCL	—	—	Flag UJ or J
	pH	Holding Time	—	—	—	Flag J
#-6, 7, 11, 17, 18, & 20	All VOCs	Calibration Internal Stnd.	Beyond method criteria		—	Flag UJ or J
#-1, 6, 9, & 20	All Pesticides	Surrogates	>UCL	—	—	Flag UJ or J

Notes: † RPD—Relative Percent Difference

‡ Bias High—Reported result may be lower, Reporting Limit (RL) is acceptable as reported. Bias Low—Reported results may be higher, RL may be higher than reported.

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Quality Assessment
Data Usability Summary Report

			RemVer Project #2018GE13 Client Project #0901752-02-840
Site:	Buffalo Lakeside Commercial Park, Parcel 5 Buffalo, NY	**Site #:**	915322
Client:	NYSDEC via GES, Inc.	**Site Owner:**	–N/A–
Sample Delivery Groups (SDGs)	240-103107		
Sample Matrix:	☐ Drinking water ☐ Groundwater ☐ Surface water ☒ Soil ☐ Sediment ☐ Air ☐ Biota (tissue, type: _____) ☐ Other: _____		

Introduction

RemVer performed a data quality assessment (DQA) on the analytical data for soil samples. reported in Sample Delivery Groups (SDGs) #240-103107 from Test America (TA). A DQA is an evaluation of the performance of analytical procedures and quality of the resulting data. RemVer followed the requirements of the New York State Department of Environmental Conservation (NYSDEC) Data Usability Summary Report (DUSR) guidelines for an Analytical Services Protocol (ASP) Category B Data Deliverable. This report includes a narrative discussion of sample results qualified during the DQA. Attached to the main report is a list describing the final reported qualification flags applied to the data by RemVer during this DQA process.

Reported Methods

- ☐ Method 1311 TCLP
- ☐ Method 1312 SPLP
- ☒ Method 6010A, B & C / 6020 Trace Metals
- ☐ Method 7000 Metals
- ☐ Method 7196 Hexavalent Chromium (other:_____)
- ☒ Method 7470A or 7471 Mercury
- ☐ Method 8021 Volatile Organic Compounds (VOCs) GC
- ☒ Method 8081B or ☐ 608 Pesticides
- ☒ Method 8082 or ☐ 608 PCBs
- ☐ Method 8151 Chlorinated Herbicides
- ☒ Method 8260C VOCs GC/MS
- ☒ Method 8270D Semi-VOCs (sVOCs) GC/MS &/or SIM-ID
- ☒ Method 9010/9012/9014 Cyanides (_____)
- ☐ Method TO-13A PAHs (air)
- ☐ Method TO-14A / -15 VOCs (air, summa) (_____)
- ☐ Method TO-17 VOCs (air, sorbent)
- ☐ Method 537 PFCs via SPE & LC/MS-MS
- ☐ Volatile Petroleum Hydrocarbons (VPH) Method
- ☐ Extractable Petroleum Hydrocarbons (EPH)
- ☒ Other Methods:
  - ☑ Method Percent Moisture
  - ☑ Method 3550C Ultrasonic Extraction
  - ☑ Method 5035A_L Purge & Trap, closed
  - ☑ Method 3005B Total Metals Prep.
  - ☑ Method 9045D pH

Quality Control Requirements Summary

- ☒ Duplicate
- ☒ Matrix Spike [MS] / Matrix Spike Duplicate [MSD]
- ☐ Trip Blanks
- ☒ Equipment, Method, &/or Rinsate Blank
- ☐ Other Field QC: Field notes regarding sampling
- ☐ Special QAPP Requirements: _____
  _____

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Intended Use of Data Under Review

NYSDEC contracted GES to perform a 2018 site-wide synoptic soil, groundwater, and surface water monitoring event at the referenced site. The monitoring event (10 October through 09 November) purpose was to update the existing environmental dataset with current synoptic conditions. Sampling was to provide analyses of environmental conditions for the presence of volatile organic compounds (VOCs), semi-volatile organic compounds (SVOCs), organochlorine pesticides, polychlorinated biphenyls (PCBs), metals (including metalloids), pH, and Cyanides.

This DUSR addresses SDG #240-103107. The soil samples came from a collection event on October 16, 2018.

Significant Data Usability Issues In SDG: #240-103107

Of the six samples discussed herein, RemVer rejected no results. The other results are acceptable for use although the results of some analytes are flagged due to sample handling, or laboratory accuracy or precision issues. Please refer to the Lab Results and Data Usability Narrative section for further detail.

The samples associated with this SDG contained no Field Duplicate. RemVer did not evaluate the duplicate to judge sampling performance in this instance. Regardless, the analytical Method Duplicates met their RPD performance criteria. This was a multi-day sampling event covered by multiple SDGs; herein the reader will find a cross-listing of the samples and their association with other SDGs. RemVer did not find this is to be a significant quality issue as it can be handled by GES directly (*note: if the Relative Percent Difference [RPD] between the original sample and its associated replicate are less than 20%, then sampling performance precision is within acceptable limits*).

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Detailed Quality Review

Field Notes Review

	Y	N	NA	COMMENTS
Sampling notes	☒	☐	☐	
Field meteorological data	☐	☐	☒	No review required under QAPP
Associated sampling location and plan included	☐	☒	☐	See RAP/QAPP
Associated drilling logs available, reviewed	☐	☐	☒	No review required under QAPP
Identification of QC samples in notes	☒	☐	☐	Sample IDs
Sampling instrument decontamination records	☐	☐	☒	No review required under QAPP
Sampling instrument calibration logs	☐	☐	☒	No review required under QAPP
Chain of custody included	☒	☐	☐	With analytical report
Notes include communication logs	☐	☒	☐	
Any corrective action (CA) reports	☐	☒	☐	If so, CA documentation of results required.
Any deviation from methods noted? If so, explain	☐	☒	☐	None
Any electronic data deliverables	☐	☒	☐	None
Sampling Report (by Field Team Leader)	☒	☐	☐	Field Notes

Lab Report Contents (Test America SDG Reports: #240-103107)

☒ SDG Narrative
☒ Contract Lab Sample Information Sheets
☒ Data Package Summary Forms
☒ Chain-of-Custody (COC) Forms
☒ Test Results (no tentatively identified compounds [TICs])
☒ Calibration standards
☒ Surrogate recoveries
☒ Blank results
☒ Spike recoveries
☒ Duplicate results
☒ Confirmation (lab check/QC) samples
☒ Internal standard area & retention time summary
☒ Chromatograms
☒ Raw data files
☒ Other specific information

The SDG reported the following samples:

Sample ID	SDG #240-103107–sample #	Matrix	Sampled	Received
SB-123-A	#–1	Soil	10/16/18	10/20/18
SB-123-B	#–2	Soil	10/16/18	10/20/18
SB-123-C	#–3	Soil	10/16/18	10/20/18
SB-124-A	#–4	Soil	10/16/18	10/20/18
SB-124-B	#–5	Soil	10/16/18	10/20/18
SB-124-C	#–6	Soil	10/16/18	10/20/18

The SDG included the following samples with their analyses:

103107	Sample	VOCs	SVOCs	Pest	PCBs	TAL & Hg	Cyanide	pH	Temp
#–1	SB-123-A	X	X	X	X	X	X	X	X
#–2	SB-123-B	X	X	X	X	X	X	X	X
#-3	SB-123-C	X	X	X	X	X	X	X	X
#-4	SB-124-A	X	X	X	X	X	X	X	X
#–5	SB-124-B	X	X	X	X	X	X	X	X
#–6	SB-124-C	X	X	X	X	X	X	X	X

VOC: Volatile Organic Compounds (8260) | SVOC: Semi-VOCs (8270) | Pest: Pesticides (8081) | PCBs (8082)
TAL: Total Analyte List (6010) | Hg: Mercury (7470) | Cyanide (9012) | pH (9040)
| * Dry, no sample † No sample

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Is the data package complete as defined under the requirements for the NYSDEC ASP Category B?		
Laboratory Report	**Complete (Y/N)**	**Comments**
240-103107	Y	No

Sample Preservation Requirements & Holding Times Met?			
Laboratory Report	**Hold Times (Y/N)**	**Preservation (Y/N)**	**Exception Comment**
240-103107	N (pH) Y	Y	15-min holding time missed, qualified None

Do the QC data fall within the protocol required limits and specifications? *(1) blanks, (2) instrument tunings, (3) calibration standards, (4) calibration verifications, (5) surrogate recoveries, (6) spike recoveries, (7) replicate analyses, (8) laboratory controls, (9) and sample data*									
SDG	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**
240-103107	☐	☐	☒	☒	☒	☒	☐	☒	☒
The narrative section, below, discusses these deficiencies in detail, see Attachment 1 as well.									

Have the data been generated using established and agreed upon analytical protocols?		
Laboratory Report	**Protocols (Y/N)**	**Exception Comment**
240-103107	Y	No

Do the raw data confirm the results provided in the data summary sheets and quality control verification forms?		
Laboratory Report	**Confirmation (Y/N)**	**Exception Comment**
240-103107	Y	No

Have the correct data qualifiers been used and are they consistent with the most current guidance?		
Laboratory Report	**Qualifiers (Y/N)**	**Comment**
240-103107	Y	The laboratory generally applied appropriate qualifiers.

Have any quality control (QC) exceedances been specifically noted in this DUSR and the corresponding QC summary sheets from the data packages referenced?		
Laboratory Report	**QC Exceedances Documented (Y/N)**	**Comment**
240-103107	Y	Several data qualifications were applied as described below

Data Quality and Usability Narrative

Field Notes Inspection

The soil boring samples came from a collection event October 16, 2018. RemVer reviewed the field notes (soil boring logs) as part of this DUSR.

Laboratory Report Inspection

TA produced an SDG report #240-103107 (dated 6-Nov-18). The SDG report had the required data and information.

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Chain of Custody (COC) Evaluation

NYSDEC/GES produced a COC for the referenced fieldwork (GES Project PSID#739391/2): SDG: #240-103107—single, three-page COC; laboratory noted no issues at the time of acceptance.

Sample Preservation & Holding Time Evaluation

Laboratory received twelve coolers with samples on 10/20/2018 @ 10:15 AM (designated as SDG-#240-103107). The temperatures of the coolers at receipt were 1.3, 1.5, 1.5, 1.7, 1.7, 1.9, 1.9, 2.1, 2.1, 2.5, 2.7, 3.5, and 3.2ºC. The samples arrived in good condition, properly preserved, and where necessary under ice. Holding times and preservation requirements were met with one exception:

- Analysis of pH (Method 9040 and includes temperature measurement) has a 15-minute holding time, which was violated; therefore, RemVer qualified these results with a J.

Detection Limits

Analytical detection limits (DLs) were acceptable for all analytes causing no QA issues other than those noted below:

- If an analyte was above the method detection limit (MDL) but below the reporting limit (RL), then it was flagged as “UJ”.
- Method 8081 (Pesticides)—the relative percent difference (RPD) between the primary and confirmation column / detector was >40%; the laboratory reported the lower detected value. This occurred with Beta-BHC in Samples #-3 and #-6. RemVer qualified these results with a UJ or J flag, as appropriate.

Blank Evaluation

SDG #240-103107 had Method Blanks (MBs) for each method. The MBs were acceptable (no detectable analytes), with the following exception(s):

- VOC analysis (Method 8260) had 1,2,4-Trichlorobenzene in the MB either greater than the MDL but less than the RL or less than 5X greater than the RL. Therefore, RemVer did not flag this analyte with B-flag.
- Metals analysis (Method 6010) had Selenium in the MB greater than the MDL but less than the RL and less than 5X greater than the RL. Therefore, RemVer did not flag this analyte with a B-flag.

Laboratory Control Samples (LCS)

The various method LCS’ (LCS & LCS duplicates [LCSD]) were within the acceptable control ranges and relative percent differences (RPDs) for their particular analyses in SDG 240-103107, with the following exceptions:

- Method 8081 (Pesticides)—had LCS/LCSD recoveries beyond control limits (RPD >UCL) causing the results to be biased high for Methoxychlor. Therefore, RemVer flagged the results as UJ+ or J+ as appropriate.

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Surrogates

Surrogates added to a sample allow testing of preparatory and instrument behavior resulting in recoveries within appropriate method ranges for the analytes. In SDG #240-103107 there were no exceptions requiring flagging of the sample results, except for the following:

- Method 8081—surrogate recoveries (DCBP & TCX) were outside control limits for the method in Samples #-1, 2, and 5. This was due to matrix interference requiring dilutions and effecting recovery. RemVer flagged the results as UJ or J as appropriate.

Site-Specific Matrix Spikes and Matrix Spike Duplicates

The matrix spike/matrix spike duplicate (MS/MSD) runs for all analyses met the QA criteria in SDG 240-103107 with the following exceptions:

- Method 9012—the Cyanide batch MS's were beyond control limits due to low sample homogeneity. As a result, RemVer flagged all results as UJ or J as appropriate.

Duplicates

The samples associated with this SDG did not have an accompanying field replicate. RemVer did not evaluate a field duplicate to judge sampling performance in this instance; however, as this was a multi-day sampling event covered by multiple SDGs. Therefore, this is not a significant quality issue. Regardless, the analytical Method Duplicates met their RPD performance criteria.

The analytical Method Duplicates met their RPD performance criteria of <20%, with no exceptions.

Tentatively Identified Compounds (TICs)

This SDG had no analysis of TICs.

Calibration Standards and Continuing Calibration Verification (CCV)

Calibration standards (external or internal) were acceptable for all analytes with the following exceptions:

- Method 8260—the internal standard responses and retention were beyond method criteria method criteria for Sample #-1. Therefore, RemVer flagged results for this analyte as UJ or J as appropriate.

CCVs were acceptable in the SDG for all methods and analytes, with the following exceptions:

- Method 8260 (VOCs)—Batch #351228 had recoveries greater than the upper control limit (UCL) for 2-Hexanone, Cyclohexane, 4-Methyl-2-pentanone, and Methyl tert-Butyl Ether in all samples, LCS and MS/MSD. Therefore, RemVer did flag the results as UJ or J.

Sample Result and Usability Evaluation

Due to certain sample issues or laboratory performance, some results were qualified; however, the data are usable. No data received an R (rejected) flag.

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References

NYSDEC, 2010, *Technical Guidance for Site Investigation and Remediation*, "DER-10," Division of Environmental Remediation: Albany, NY, May, 232p

NYSDEC, 2010, *Guidance for Data Deliverables and the Development of Data Usability Summary Reports*, Appendix 2B IN *Technical Guidance for Site Investigation and Remediation*, Division of Environmental Remediation: Albany, NY, May, 232p

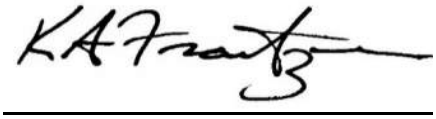
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Attachments

1. DQA Detail Worksheet
2. DQA Non-Conformance Summary Workheet
3. 240-103107_EquaNysdec.xls (EXCEL annotated EDD with validation, attached)



Prepared by: Kurt A. Frantzen, PhD
December 18, 2018

GES PO#751457-1109

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Attachment 1
DQA Detail Worksheet

BLANKS	>RL?	Compounds	Notes
VOC (8260)	No	None	No Comment
SVOC (8270)	No	None	No Comment
Pest (8081)	No	None	No Comment
PCBs (8082)	No	None	No Comment
Metals (6010)	No	None	No Comment
Hg (7470)	No	None	No Comment
Cyanide (9012)	No	None	No Comment

LCS	SV <10%	Low Bias > 10% & < LCL	High Bias >UCL	Compound(s)	Notes
VOC (8260)	—	—	—	None	No Comment
SVOC (8270)	—	—	—	None	No Comment
Pest (8081)	—	—	—	None	No Comment
		—	X	Methoxychlor	Flag UJ+ or J+
PCBs (8082)	—	—	—	None	No Comment
Metals (6010)	—	—	—	None	No Comment
Hg (7470)	—	—	—	None	No Comment
Cyanide (9012)	—	—	—	None	No Comment

SURROGATES	SV <10%	> 10% & < LCL	>UCL	Compound(s)	Notes
VOC (8260)	—	—	—	—	No Comment
SVOC (8270)	—	—	—	—	No Comment
Pest (8081)	—	—	—	—	No Comment
#1, 2, & 5	—	—	X	DCBP & TCX	Flag UJ or J
PCBs (8082)	—	—	—	—	No Comment
Metals (6010)	—	—	—	—	No Comment
Hg (7470)	—	—	—	—	No Comment
Cyanide (9012)	—	—	—	—	No Comment

MS/MSDs	SV <10%	Low Bias > 10% & < LCL	High Bias >UCL	QC Source	RPDs	Notes
VOC (8260)	—	—	—	Batch	—	No Comment
SVOC (8270)	—	—	—	Batch	—	No Comment
Pest (8081)	—	—	—	Batch	—	No Comment
PCBs (8082)	—	—	—	Batch	—	No Comment
Metals (6010)	—	—	—	Batch	—	No Comment
Hg (7470)	—	—	—	Batch	—	No Comment
Cyanide (9012)	—	X	X	Batch	>UCL	Flag UJ or J

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Attachment 1 continued

FIELD DUPLICATES RPDs	QC Source	Soil RPD > 50%	Water RPD > 20%	Compounds	Notes
Not in this SDG	Site	N/A	—	—	No Comment
		N/A	—	—	
		N/A	—	—	
LAB DUPLICATES					
All Methods	Batch	N/A	—	As listed	No Comment

Reasonable Confidence Achieved	☐ Y	☐ N—Not Applicable
Significant QC Variances Noted	☒ Y	☐ N
Requested Reporting Limits Achieved	☒ Y	☐ N
Preservation Requirements Met	☒ Y	☐ N
Holding Time Requirements Met	☐ Y	☒ N

Abbreviations:
RL = Reporting Limit LCS = Laboratory Control Sample SV = Significant QC Variance
RPD = Relative Percent Difference LCL= RCP Lower Control Limit UCL= RCP Upper Control Limit
VOCs = Volatile Organic Compounds SVOCs = Semi-volatile Organic Compounds Pest = Pesticides
EPH = Extractable Petroleum Hydrocarbons VPH = Volatile Petroleum Hydrocarbons ETPH = EPH-Total
PCBs = Polychlorinated Biphenyls N/A = Not Applicable N/C = Not Collected -- = nothing to report
Notes: * Typical lab contaminants, not site-related

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Attachment 2
DQA Non-Conformance Summary Worksheet

Only Flagged Results Shown Below

SDG #240-103107						
Sample Number(s)	**Compound(s)**	**QC Non-Conformance**	**% Recovery**	**% RPD †**	**High or Low Bias ‡**	**Comments**
ALL	All	MDL>result<RDL	—	—	—	Validator Flag UJ Interpreted Flag U
	2-Hexanone, Cyclohexane, 4-Methyl-2-pentanone, & Methyl tert-Butyl Ether	CCV	X	—	—	Flag UJ or J
	Methoxychlor	LCS	X	X	Hi	Flag UJ+ or J+
	Cyanide	MS	>UCL	—	—	Flag UJ or J
	pH	Holding Time	—	—	—	Flag J
#1	All VOCs	Calibration Internal Stnd.	Beyond method criteria		—	Flag UJ or J
#-3 & #-6	Beta-BHC	Column Comparison	Beyond method criteria		—	Flag UJ or J
#1, 2, & 5	All Pesticides	Surrogates	>UCL	—	—	Flag UJ or J

Notes: † RPD—Relative Percent Difference

‡ Bias High—Reported result may be lower, Reporting Limit (RL) is acceptable as reported. Bias Low—Reported results may be higher, RL may be higher than reported.

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Quality Assessment
Data Usability Summary Report

			RemVer Project #2018GE13 Client Project #0901752-02-840
Site:	Buffalo Lakeside Commercial Park, Parcel 5 Buffalo, NY	**Site #:**	915322
Client:	NYSDEC via GES, Inc.	**Site Owner:**	–N/A–
Sample Delivery Groups (SDGs)	240-103108		
Sample Matrix:	☐ Drinking water ☐ Groundwater ☐ Surface water ☒ Soil ☐ Sediment ☐ Air ☐ Biota (tissue, type: _____) ☐ Other: _____		

Introduction

RemVer performed a data quality assessment (DQA) on the analytical data for soil samples. reported in Sample Delivery Groups (SDGs) #240-103108 from Test America (TA). A DQA is an evaluation of the performance of analytical procedures and quality of the resulting data. RemVer followed the requirements of the New York State Department of Environmental Conservation (NYSDEC) Data Usability Summary Report (DUSR) guidelines for an Analytical Services Protocol (ASP) Category B Data Deliverable. This report includes a narrative discussion of sample results qualified during the DQA. Attached to the main report is a list describing the final reported qualification flags applied to the data by RemVer during this DQA process.

Reported Methods

☐ Method 1311 TCLP
☐ Method 1312 SPLP
☒ Method 6010A, B & C / 6020 Trace Metals
☐ Method 7000 Metals
☐ Method 7196 Hexavalent Chromium (other:_____)
☒ Method 7470A or 7471 Mercury
☐ Method 8021 Volatile Organic Compounds (VOCs) GC
☒ Method 8081B or ☐ 608 Pesticides
☒ Method 8082 or ☐ 608 PCBs
☐ Method 8151 Chlorinated Herbicides
☒ Method 8260C VOCs GC/MS
☒ Method 8270D Semi-VOCs (sVOCs) GC/MS &/or SIM-ID
☒ Method 9010/9012/9014 Cyanides (_____)

☐ Method TO-13A PAHs (air)
☐ Method TO-14A / -15 VOCs (air, summa) (_____)
☐ Method TO-17 VOCs (air, sorbent)
☐ Method 537 PFCs via SPE & LC/MS-MS
☐ Volatile Petroleum Hydrocarbons (VPH) Method
☐ Extractable Petroleum Hydrocarbons (EPH)
☒ Other Methods:
- ☑ Method Percent Moisture
- ☑ Method 3550C Ultrasonic Extraction
- ☑ Method 5035A_L Purge & Trap, closed
- ☑ Method 3005B Total Metals Prep.
- ☑ Method 9045D pH

Quality Control Requirements Summary

☒ Duplicate
☒ Matrix Spike [MS] / Matrix Spike Duplicate [MSD]
☐ Trip Blanks
☒ Equipment, Method, &/or Rinsate Blank

☐ Other Field QC: Field notes regarding sampling
☐ Special QAPP Requirements: _____
_____

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Intended Use of Data Under Review

NYSDEC contracted GES to perform a 2018 site-wide synoptic soil, groundwater, and surface water monitoring event at the referenced site. The monitoring event (10 October through 09 November) purpose was to update the existing environmental dataset with current synoptic conditions. Sampling was to provide analyses of environmental conditions for the presence of volatile organic compounds (VOCs), semi-volatile organic compounds (SVOCs), organochlorine pesticides, polychlorinated biphenyls (PCBs), metals (including metalloids), pH, and Cyanides.

This DUSR addresses SDG #240-103108. The soil samples came from a collection event on October 17, 2018.

Significant Data Usability Issues In SDG: #240-103108

Of the twenty samples discussed herein, RemVer rejected no results. The other results are acceptable for use although the results of some analytes are flagged due to sample handling, or laboratory accuracy or precision issues. Please refer to the Lab Results and Data Usability Narrative section for further detail.

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Detailed Quality Review

Field Notes Review

	Y	N	NA	COMMENTS
Sampling notes	☒	☐	☐	
Field meteorological data	☐	☐	☒	No review required under QAPP
Associated sampling location and plan included	☐	☒	☐	See RAP/QAPP
Associated drilling logs available, reviewed	☐	☐	☒	No review required under QAPP
Identification of QC samples in notes	☒	☐	☐	Sample IDs
Sampling instrument decontamination records	☐	☐	☒	No review required under QAPP
Sampling instrument calibration logs	☐	☐	☒	No review required under QAPP
Chain of custody included	☒	☐	☐	With analytical report
Notes include communication logs	☐	☒	☐	
Any corrective action (CA) reports	☐	☒	☐	If so, CA documentation of results required.
Any deviation from methods noted? If so, explain	☐	☒	☐	None
Any electronic data deliverables	☐	☒	☐	None
Sampling Report (by Field Team Leader)	☒	☐	☐	Field Notes

Lab Report Contents (Test America SDG Reports: #240-103108)

☒ SDG Narrative
☒ Contract Lab Sample Information Sheets
☒ Data Package Summary Forms
☒ Chain-of-Custody (COC) Forms
☒ Test Results (no tentatively identified compounds [TICs])
☒ Calibration standards
☒ Surrogate recoveries
☒ Blank results
☒ Spike recoveries
☒ Duplicate results
☒ Confirmation (lab check/QC) samples
☒ Internal standard area & retention time summary
☒ Chromatograms
☒ Raw data files
☒ Other specific information

The SDG reported the following samples:

Sample ID	SDG #240-103108–sample #	Matrix	Sampled	Received
SB-125-A	#–1	Soil	10/17/18	10/20/18
SB-125-B	#–2	Soil	10/17/18	10/20/18
SB-125-C	#–3	Soil	10/17/18	10/20/18
SB-126-A	#–4	Soil	10/17/18	10/20/18
SB-126-B	#–5	Soil	10/17/18	10/20/18
SB-126-C	#–6	Soil	10/17/18	10/20/18
SB-127-A	#–7	Soil	10/17/18	10/20/18
SB-127-B	#–8	Soil	10/17/18	10/20/18
SB-127-C	#–9	Soil	10/17/18	10/20/18
SB-128-A	#–10	Soil	10/17/18	10/20/18
SB-128-B	#–11	Soil	10/17/18	10/20/18
SB-128-C	#–12	Soil	10/17/18	10/20/18
SB-129-A	#–13	Soil	10/17/18	10/20/18
SB-129-B	#–14	Soil	10/17/18	10/20/18
SB-129-C	#–15	Soil	10/17/18	10/20/18
SB-130-A	#–16	Soil	10/17/18	10/20/18
SB-130-B	#–17	Soil	10/17/18	10/20/18
SB-130-C	#–18	Soil	10/17/18	10/20/18
SB-138-A	#–19	Soil	10/17/18	10/20/18
SB-138-B	#–20	Soil	10/17/18	10/20/18

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The SDG included the following samples with their analyses:

143282	Sample	VOCs	SVOCs	Pest	PCBs	TAL & Hg	Cyanide	pH	Temp
#–1	SB-125-A	X	X	X	X	X	X	X	X
#–2	SB-125-B	X	X	X	X	X	X	X	X
#-3	SB-125-C	X	X	X	X	X	X	X	X
#-4	SB-126-A	X	X	X	X	X	X	X	X
#–5	SB-126-B	X	X	X	X	X	X	X	X
#–6	SB-126-C	X	X	X	X	X	X	X	X
#–7	SB-127-A	X	X	X	X	X	X	X	X
#–8	SB-127-B	X	X	X	X	X	X	X	X
#–9	SB-127-C	X	X	X	X	X	X	X	X
#–10	SB-128-A	X	X	X	X	X	X	X	X
#–11	SB-128-B	X	X	X	X	X	X	X	X
#–12	SB-128-C	X	X	X	X	X	X	X	X
#–13	SB-129-A	X	X	X	X	X	X	X	X
#–14	SB-129-B	X	X	X	X	X	X	X	X
#–15	SB-129-C	X	X	X	X	X	X	X	X
#–16	SB-130-A	X	X	X	X	X	X	X	X
#–17	SB-130-B	X	X	X	X	X	X	X	X
#–18	SB-130-C	X	X	X	X	X	X	X	X
#–19	SB-138-A	X	X	X	X	X	X	X	X
#–20	SB-138-B	X	X	X	X	X	X	X	X

VOC: Volatile Organic Compounds (8260) | SVOC: Semi-VOCs (8270) | Pest: Pesticides (8081) | PCBs (8082)
TAL: Total Analyte List (6010) | Hg: Mercury (7470) | Cyanide (9012) | pH (9040)
| * Dry, no sample † No sample

Is the data package complete as defined under the requirements for the NYSDEC ASP Category B?		
Laboratory Report	**Complete (Y/N)**	**Comments**
240-103108	Y	No

Sample Preservation Requirements & Holding Times Met?			
Laboratory Report	**Hold Times (Y/N)**	**Preservation (Y/N)**	**Exception Comment**
240-103108	N (pH & temp) Y	Y	15-min holding time missed, qualified None

Do the QC data fall within the protocol required limits and specifications?
(1) blanks, (2) instrument tunings, (3) calibration standards, (4) calibration verifications, (5) surrogate recoveries, (6) spike recoveries, (7) replicate analyses, (8) laboratory controls, (9) and sample data

SDG	1	2	3	4	5	6	7	8	9
240-103108	☐	☒	☒	☒	☒	☒	☐	☒	☒

The narrative section, below, discusses these deficiencies in detail, see Attachment 1 as well.

Have the data been generated using established and agreed upon analytical protocols?		
Laboratory Report	**Protocols (Y/N)**	**Exception Comment**
240-103108	Y	No

Do the raw data confirm the results provided in the data summary sheets and quality control verification forms?		
Laboratory Report	**Confirmation (Y/N)**	**Exception Comment**
240-103108	Y	No

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Have the correct data qualifiers been used and are they consistent with the most current guidance?		
Laboratory Report	**Qualifiers (Y/N)**	**Comment**
240-103108	Y	The laboratory generally applied appropriate qualifiers.

Have any quality control (QC) exceedances been specifically noted in this DUSR and the corresponding QC summary sheets from the data packages referenced?		
Laboratory Report	**QC Exceedances Documented (Y/N)**	**Comment**
240-103108	Y	Several data qualifications were applied as described below

Data Quality and Usability Narrative

Field Notes Inspection

The soil boring samples came from a collection event October 17, 2018. RemVer reviewed the field notes (soil boring logs) as part of this DUSR.

Laboratory Report Inspection

TA produced an SDG report #240-103108 (dated 6-Nov-18). The SDG report had the required data and information.

Chain of Custody (COC) Evaluation

NYSDEC/GES produced a COC for the referenced fieldwork (GES Project PSID#739392): SDG: #240-103108—single, three-page COC; laboratory noted no issues at the time of acceptance.

Sample Preservation & Holding Time Evaluation

Laboratory received twelve coolers with samples on 10/20/2018 @ 10:15 AM (designated as SDG-#240-103108). The temperatures of the coolers at receipt were 1.3, 1.5, 1.5, 1.7, 1.7, 1.9, 1.9, 2.1, 2.1, 2.5, 2.7, 3.5, and 3.2ºC. The samples arrived in good condition, properly preserved, and where necessary under ice. Holding times and preservation requirements were met with one exception:

- Analysis of pH (Method 9040 and includes temperature measurement) has a 15-minute holding time, which was violated; therefore, RemVer qualified these results with a J.

Detection Limits

Analytical detection limits (DLs) were acceptable for all analytes causing no QA issues other than those noted below:

- If an analyte was above the method detection limit (MDL) but below the reporting limit (RL), then it was flagged as “UJ”.
- Method 9045—pH measurements in Samples #-2 and #-7 were beyond the instrument calibration range of 2 to 12. RemVer flagged the results with a J.
- Method 8082 (PCBs)—the Aroclor pattern was weathered in Samples #-4 and #-5 and the laboratory applied the best match for the two Aroclors in question as follows: This occurred with PCB-1260 in Sample #-4 and PCB-1254 in Sample #-5. RemVer qualified these results with a UJ or J flag, as appropriate.

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Blank Evaluation

SDG #240-103108 had Method Blanks (MBs) for each method. The MBs were acceptable (no detectable analytes), with the following exception(s):

- VOC analysis (Method 8260) had 1,2,4-Trichlorobenzene in the MB either greater than the MDL but less than the RL or less than 5X greater than the RL. Therefore, RemVer did not flag this analyte with B-flag.
- Metals analysis (Method 6010) had Aluminum and Iron in the MB either greater than the MDL but less than the RL or less than 5X greater than the RL. Therefore, RemVer did not flag these analytes with a B-flag.

Laboratory Control Samples (LCS)

The various method LCS' (LCS & LCS duplicates [LCSD]) were within the acceptable control ranges and relative percent differences (RPDs) for their particular analyses in SDG 240-103108, with the following exceptions:

- Method 8081—Batch #351862/352445 had LCS/LCSD recoveries >UCL (RPD acceptable) but biased high for Methoxychlor. Therefore, RemVer flagged the results UJ+ or J+ as appropriate.

Surrogates

Surrogates added to a sample allow testing of preparatory and instrument behavior resulting in recoveries within appropriate method ranges for the analytes. In SDG #240-103108 there were no exceptions requiring flagging of the sample results.

- Method 8081—DCBP and TCX were beyond control limits in multiple samples (#1, 3, 4, 5, 6 ,7 8, 12, 17, 19, & 20) and in the MS run. DCBP consistently failed in CCV (see below). See MS/MSD discussion below.

Site-Specific Matrix Spikes and Matrix Spike Duplicates

The matrix spike/matrix spike duplicate (MS/MSD) runs for all analyses met the QA criteria in SDG 240-103108 with the following exceptions:

- Method 8260—while the LCS performed well, MS/MSD spike recoveries were beyond limits and the RPD above criteria. Sample #-9 was used as the primary MS/MSD source, which was reported as potentially having suffered cross-contamination in the laboratory. A secondary MS/MSD run using Sample #-5 had better performance but was qualified due to ISTD issues (see below). RemVer flagged all results in all samples UJ or J as appropriate.
- Method 8081—MS/MSD recoveries were beyond control limits and/or RPDs were above criteria leading to poor precision across the runs. The MS run also had poor surrogate performance. Sample matrix interference and/or non-homogeneity are suspected. RemVer flagged all results in all samples UJ or J as appropriate.
- Method 8082—Batch #351389 spike recoveries within control limits but the RPD was beyond criteria for PCB-1260. RemVer flagged the analyte UJ or J in Samples #-1, 3, 4, and 5.
- Method 6010—MS's for Aluminum, Iron, and Antimony were beyond control limits. In the case of Aluminum and Iron, the sample concentration was >4X greater than the spike.

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The Antimony spike was below the LCL but the RPD was acceptable. RemVer flagged these results as UJ or J as appropriate.

- Method 9012—the Cyanide batch (#352674/#352718) MS's were beyond control limits due to low sample homogeneity. As a result, RemVer flagged all results as UJ or J as appropriate.

Duplicates

The samples associated with this SDG did not have an accompanying field replicate. RemVer did not evaluate a field duplicate to judge sampling performance in this instance; however, as this was a multi-day sampling event covered by multiple SDGs. Therefore, this is not a significant quality issue. Regardless, the analytical Method Duplicates met their RPD performance criteria.

Tentatively Identified Compounds (TICs)

This SDG had no analysis of TICs.

Calibration Standards and Continuing Calibration Verification (CCV)

Calibration standards (external or internal) were acceptable for all analytes with the following exceptions:

- Method 8260— the internal standard (ISTD) were beyond method criteria method criteria for Samples #-9, 6, 12, and 19. Therefore, RemVer flagged results for this analyte as UJ or J as appropriate.
- Method 8082—ISTD responses and retention were beyond method criteria method criteria for Sample #-17. Therefore, RemVer flagged results for this analyte as UJ or J as appropriate.

CCVs were acceptable in the SDG for all methods and analytes, with the following exceptions:

- Method 8260—
  - CCV in Batch 351290 was outside method criteria for: Chloroethane, Chloromethane, 1,1,2-Trichloro-1,2,2-Trifluoroethane, and Bromomethane in Samples #-1, 2, 3, 4, 5, 11, 13, 14, 16, 17, and 20. See MS/MSD discussion above.
  - CCV in Batch 351558 was outside method criteria for: 2-Hexanone; 4-Methyl-2-pentanone; Methyl tert-butyl ether in Samples #-6, 7, 8, 9, 10, 12, 15, 18, and 19. See MS/MSD discussion above.
- Method 8270—CCV associated with Batch 240-352641 was >UCL for Butyl benzyl phthalate and 3,3'-Dichlorobenzidine. This effected Samples #-4, 5, 6, 7, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, and 20. RemVer flagged the results as UJ or J.
- Method 8081—DCBP consistently failed recoveries contributing to the surrogate issue discussed above.

Sample Result and Usability Evaluation

Due to certain sample issues or laboratory performance, some results were qualified; however, the data are usable. No data received an R (rejected) flag.

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References

NYSDEC, 2010, *Technical Guidance for Site Investigation and Remediation*, "DER-10," Division of Environmental Remediation: Albany, NY, May, 232p

NYSDEC, 2010, *Guidance for Data Deliverables and the Development of Data Usability Summary Reports*, Appendix 2B IN *Technical Guidance for Site Investigation and Remediation*, Division of Environmental Remediation: Albany, NY, May, 232p

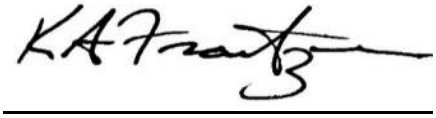
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Attachments

1. DQA Detail Worksheet
2. DQA Non-Conformance Summary Workheet
3. 240-103108_EquaNysdec.xls (EXCEL annotated EDD with validation, attached)



Prepared by: Kurt A. Frantzen, PhD
December 18, 2018

GES PO#751457-1109

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Attachment 1
DQA Detail Worksheet

BLANKS	>RL?	Compounds	Notes
VOC (8260)	No	None	No Comment
SVOC (8270)	No	None	No Comment
Pest (8081)	No	None	No Comment
PCBs (8082)	No	None	No Comment
Metals (6010)	No	None	No Comment
Hg (7470)	No	None	No Comment
Cyanide (9012)	No	None	No Comment

LCS	SV <10%	Low Bias > 10% & < LCL	High Bias >UCL	Compound(s)	Notes
VOC (8260)	—	—	—	None	No Comment
SVOC (8270)	—	—	—	None	No Comment
Pest (8081)	— —	— —	— >UCL	None Methoxychlor	No Comment Flag UJ+ or J+
PCBs (8082)	—	—	—	None	No Comment
Metals (6010)	—	—	—	None	No Comment
Hg (7470)	—	—	—	None	No Comment
Cyanide (9012)	—	—	X	Cyanide	Flag UJ+ or J+

SURROGATES	SV <10%	> 10% & < LCL	>UCL	Compound(s)	Notes
VOC (8260)	—	—	—	—	No Comment
SVOC (8270)	—	—	—	—	No Comment
#1, 3, 4, 5, 6 ,7 8, 12, 17, 19, & 20	—	—	X	DCBP & TCX	See MS/MSD
Pest (8081)	—	—	X	DCBP & TCX	See MS/MSD
PCBs (8082)	—	—	—	—	No Comment
Metals (6010)	—	—	—	—	No Comment
Hg (7470)	—	—	—	—	No Comment
Cyanide (9012)	—	—	—	—	No Comment

MS/MSDs	SV <10%	Low Bias > 10% & < LCL	High Bias >UCL	QC Source	RPDs	Notes
VOC (8260)	—	X	X	Batch	X	Flag UJ or J
SVOC (8270)	—	X	X	Batch	X	Flag UJ or J
Pest (8081)	—	X	X	Batch	X	Flag UJ or J
PCBs (8082)	—	—	—	Batch	—	No Comment
PCB-1260	—	—	—	Batch	X	Flag UJ or J #-1, 3, 4, & 5
Metals (6010)	—	—	—	Batch	—	No Comment
Aluminum, Iron, & Antimony	—	X	X	Batch	X	Flag UJ or J
Hg (7470)	—	—	—	Batch	—	No Comment
Cyanide (9012)	—	X	X	Batch	>UCL	Flag UJ or J

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Attachment 1 continued

FIELD DUPLICATES RPDs	QC Source	Soil RPD > 50%	Water RPD > 20%	Compounds	Notes
See other SDGs	Site	—	N/A	—	No Comment
		—	N/A	—	
		—	N/A	—	
LAB DUPLICATES					
All Methods	Batch	N/A	—	As listed	No Comment

Reasonable Confidence Achieved	☐ Y	☐ N—Not Applicable
Significant QC Variances Noted	☒ Y	☐ N
Requested Reporting Limits Achieved	☒ Y	☐ N
Preservation Requirements Met	☒ Y	☐ N
Holding Time Requirements Met	☐ Y	☒ N

Abbreviations:
RL = Reporting Limit LCS = Laboratory Control Sample SV = Significant QC Variance
RPD = Relative Percent Difference LCL= RCP Lower Control Limit UCL= RCP Upper Control Limit
VOCs = Volatile Organic Compounds SVOCs = Semi-volatile Organic Compounds Pest = Pesticides
EPH = Extractable Petroleum Hydrocarbons VPH = Volatile Petroleum Hydrocarbons ETPH = EPH-Total
PCBs = Polychlorinated Biphenyls N/A = Not Applicable N/C = Not Collected -- = nothing to report
Notes: * Typical lab contaminants, not site-related

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Attachment 2
DQA Non-Conformance Summary Worksheet

Only Flagged Results Shown Below

SDG #240-103108						
Sample Number(s)	**Compound(s)**	**QC Non-Conformance**	**% Recovery**	**% RPD †**	**High or Low Bias ‡**	**Comments**
ALL	All	MDL>result<RDL	—	—	—	Validator Flag UJ Interpreted Flag U
	All VOCs	MS/MSD (cross-contamination?) Calib. & CCV	>UCL <LCL	>UCL	—	Flag UJ or J
	Methoxychlor	LCS	>UCL	—	Hi	Flag UJ+ or J+
	SVOCs	MS/MSD	>UCL <LCL	>UCL	—	Flag UJ or J
	Pesticides	MS/MSD Surrogates	>UCL <LCL	>UCL	—	Flag UJ or J
	Al, Fe, & Sb	MS/MSD	>UCL <LCL	>UCL	—	Flag UJ or J
	Cyanide	MS	>UCL	—	—	Flag UJ or J
	pH	Holding Time	—	—	—	Flag J
#-4, 5, 6, 7, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, & 20	Butyl benzyl phthalate & 3,3'-Dichlorobenzidine	CCV	X	—	—	Flag UJ or J
#1, 3, 4, 5, 6 ,7 8, 12, 17, 19, & 20	SVOCs	Surrogates	X	—	—	Flag UJ or J
#-1, 3, 4, & 5	PCB-1260	MS/MSD	—	X	—	Flag UJ or J
#-5 #-4	PCB-1254 PCB-1260	Detection	—	—	—	Flag UJ or J
#-17	PCBs	Calibration (ISTD)	Beyond method criteria		—	Flag UJ or J
#-2 & #-7	pH	Calibration	Out of range		—	Flag J

Notes: † RPD—Relative Percent Difference

‡ Bias High—Reported result may be lower, Reporting Limit (RL) is acceptable as reported. Bias Low—Reported results may be higher, RL may be higher than reported.

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Quality Assessment
Data Usability Summary Report

			RemVer Project #2018GE13 Client Project #0901752-02-840
Site:	Buffalo Lakeside Commercial Park, Parcel 5 Buffalo, NY	**Site #:**	915322
Client:	NYSDEC via GES, Inc.	**Site Owner:**	–N/A–
Sample Delivery Groups (SDGs)	240-103109		
Sample Matrix:	☐ Drinking water ☐ Groundwater ☐ Surface water ☒ Soil ☐ Sediment ☐ Air ☐ Biota (tissue, type: _____) ☐ Other: _____		

Introduction

RemVer performed a data quality assessment (DQA) on the analytical data for soil samples. reported in Sample Delivery Groups (SDGs) #240-103109 from Test America (TA). A DQA is an evaluation of the performance of analytical procedures and quality of the resulting data. RemVer followed the requirements of the New York State Department of Environmental Conservation (NYSDEC) Data Usability Summary Report (DUSR) guidelines for an Analytical Services Protocol (ASP) Category B Data Deliverable. This report includes a narrative discussion of sample results qualified during the DQA. Attached to the main report is a list describing the final reported qualification flags applied to the data by RemVer during this DQA process.

Reported Methods

- ☐ Method 1311 TCLP
- ☐ Method 1312 SPLP
- ☒ Method 6010A, B & C / 6020 Trace Metals
- ☐ Method 7000 Metals
- ☐ Method 7196 Hexavalent Chromium (other:_____)
- ☒ Method 7470A or 7471 Mercury
- ☐ Method 8021 Volatile Organic Compounds (VOCs) GC
- ☒ Method 8081B or ☐ 608 Pesticides
- ☒ Method 8082 or ☐ 608 PCBs
- ☐ Method 8151 Chlorinated Herbicides
- ☒ Method 8260C VOCs GC/MS
- ☒ Method 8270D Semi-VOCs (sVOCs) GC/MS &/or SIM-ID
- ☒ Method 9010/9012/9014 Cyanides (_____)
- ☐ Method TO-13A PAHs (air)
- ☐ Method TO-14A / -15 VOCs (air, summa) (_____)
- ☐ Method TO-17 VOCs (air, sorbent)
- ☐ Method 537 PFCs via SPE & LC/MS-MS
- ☐ Volatile Petroleum Hydrocarbons (VPH) Method
- ☐ Extractable Petroleum Hydrocarbons (EPH)
- ☒ Other Methods:
  - ☑ Method Percent Moisture
  - ☑ Method 3550C Ultrasonic Extraction
  - ☑ Method 5035A_L Purge & Trap, closed
  - ☑ Method 3005B Total Metals Prep.
  - ☑ Method 9045D pH

Quality Control Requirements Summary

- ☒ Duplicate
- ☒ Matrix Spike [MS] / Matrix Spike Duplicate [MSD]
- ☐ Trip Blanks
- ☒ Equipment, Method, &/or Rinsate Blank
- ☐ Other Field QC: Field notes regarding sampling
- ☐ Special QAPP Requirements: _____
  _____

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Intended Use of Data Under Review

NYSDEC contracted GES to perform a 2018 site-wide synoptic soil, groundwater, and surface water monitoring event at the referenced site. The monitoring event (10 October through 09 November) purpose was to update the existing environmental dataset with current synoptic conditions. Sampling was to provide analyses of environmental conditions for the presence of volatile organic compounds (VOCs), semi-volatile organic compounds (SVOCs), organochlorine pesticides, polychlorinated biphenyls (PCBs), metals (including metalloids), pH, and Cyanides.

This DUSR addresses SDG #240-103109. The soil samples came from a collection event on October 17, 2018.

Significant Data Usability Issues In SDG: #240-103109

Of the nine samples discussed herein, RemVer rejected no results. The other results are acceptable for use although the results of some analytes are flagged due to sample handling, or laboratory accuracy or precision issues. Please refer to the Lab Results and Data Usability Narrative section for further detail.

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Detailed Quality Review

Field Notes Review

	Y	N	NA	COMMENTS
Sampling notes	☒	☐	☐	
Field meteorological data	☐	☐	☒	No review required under QAPP
Associated sampling location and plan included	☐	☒	☐	See RAP/QAPP
Associated drilling logs available, reviewed	☐	☐	☒	No review required under QAPP
Identification of QC samples in notes	☒	☐	☐	Sample IDs
Sampling instrument decontamination records	☐	☐	☒	No review required under QAPP
Sampling instrument calibration logs	☐	☐	☒	No review required under QAPP
Chain of custody included	☒	☐	☐	With analytical report
Notes include communication logs	☐	☒	☐	
Any corrective action (CA) reports	☐	☒	☐	If so, CA documentation of results required.
Any deviation from methods noted? If so, explain	☐	☒	☐	None
Any electronic data deliverables	☐	☒	☐	None
Sampling Report (by Field Team Leader)	☒	☐	☐	Field Notes

Lab Report Contents (Test America SDG Reports: #240-103109)

☒ SDG Narrative
☒ Contract Lab Sample Information Sheets
☒ Data Package Summary Forms
☒ Chain-of-Custody (COC) Forms
☒ Test Results (no tentatively identified compounds [TICs])
☒ Calibration standards
☒ Surrogate recoveries
☒ Blank results
☒ Spike recoveries
☒ Duplicate results
☒ Confirmation (lab check/QC) samples
☒ Internal standard area & retention time summary
☒ Chromatograms
☒ Raw data files
☒ Other specific information

The SDG reported the following samples:

Sample ID	SDG #240-103109–sample #	Matrix	Sampled	Received
SB-138-C	#–1	Soil	10/17/18	10/20/18
SB-137-A	#–2	Soil	10/17/18	10/20/18
SB-137-B	#–3	Soil	10/17/18	10/20/18
SB-137-C	#–4	Soil	10/17/18	10/20/18
SB-136-A	#–5	Soil	10/17/18	10/20/18
SB-136-B	#–6	Soil	10/17/18	10/20/18
SB-136-C	#–7	Soil	10/17/18	10/20/18
SB-136-D	#–8	Soil	10/17/18	10/20/18
DUP	#–9	Soil	10/17/18	10/20/18

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The SDG included the following samples with their analyses:

143282	Sample	VOCs	SVOCs	Pest	PCBs	TAL & Hg	Cyanide	pH	Temp
#–1	SB-138-C	X	X	X	X	X	X	X	X
#–2	SB-137-A	X	X	X	X	X	X	X	X
#-3	SB-137-B	X	X	X	X	X	X	X	X
#-4	SB-137-C	X	X	X	X	X	X	X	X
#–5	SB-136-A	X	X	X	X	X	X	X	X
#–6	SB-136-B	X	X	X	X	X	X	X	X
#–7	SB-136-C	X	X	X	X	X	X	X	X
#–8	SB-136-D	X	X	X	X	X	X	X	X
#–9	DUP	X	X	X	X	X	X	X	X

VOC: Volatile Organic Compounds (8260) | SVOC: Semi-VOCs (8270) | Pest: Pesticides (8081) | PCBs (8082)
TAL: Total Analyte List (6010) | Hg: Mercury (7470) | Cyanide (9012) | pH (9040)
| * Dry, no sample † No sample

Is the data package complete as defined under the requirements for the NYSDEC ASP Category B?		
Laboratory Report	**Complete (Y/N)**	**Comments**
240-103109	Y	No

Sample Preservation Requirements & Holding Times Met?			
Laboratory Report	**Hold Times (Y/N)**	**Preservation (Y/N)**	**Exception Comment**
240-103109	N (pH & temp) Y	Y	15-min holding time missed, qualified None

Do the QC data fall within the protocol required limits and specifications?
(1) blanks, (2) instrument tunings, (3) calibration standards, (4) calibration verifications, (5) surrogate recoveries, (6) spike recoveries, (7) replicate analyses, (8) laboratory controls, (9) and sample data

SDG	1	2	3	4	5	6	7	8	9
240-103109	☐	☐	☒	☒	☐	☒	☐	☒	☒

The narrative section, below, discusses these deficiencies in detail, see Attachment 1 as well.

Have the data been generated using established and agreed upon analytical protocols?		
Laboratory Report	**Protocols (Y/N)**	**Exception Comment**
240-103109	Y	No

Do the raw data confirm the results provided in the data summary sheets and quality control verification forms?		
Laboratory Report	**Confirmation (Y/N)**	**Exception Comment**
240-103109	Y	No

Have the correct data qualifiers been used and are they consistent with the most current guidance?		
Laboratory Report	**Qualifiers (Y/N)**	**Comment**
240-103109	Y	The laboratory generally applied appropriate qualifiers.

Have any quality control (QC) exceedances been specifically noted in this DUSR and the corresponding QC summary sheets from the data packages referenced?		
Laboratory Report	**QC Exceedances Documented (Y/N)**	**Comment**
240-103109	Y	Several data qualifications were applied as described below

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Data Quality and Usability Narrative

Field Notes Inspection

The soil boring samples came from a collection event October 17, 2018. RemVer reviewed the field notes (soil boring logs) as part of this DUSR.

Laboratory Report Inspection

TA produced an SDG report #240-103109 (dated 5-Nov-18). The SDG report had the required data and information.

Chain of Custody (COC) Evaluation

NYSDEC/GES produced a COC for the referenced fieldwork (GES Project PSID#739392): SDG: #240-103109—single, three-page COC; laboratory noted no issues at the time of acceptance.

Sample Preservation & Holding Time Evaluation

Laboratory received twelve coolers with samples on 10/20/2018 @ 10:15 AM (designated as SDG-#240-103109). The temperatures of the coolers at receipt were 1.3, 1.5, 1.5, 1.7, 1.7, 1.9, 1.9, 2.1, 2.1, 2.5, 2.7, 3.5, and 3.2ºC. The samples arrived in good condition, properly preserved, and where necessary under ice. Holding times and preservation requirements were met with one exception:

- Analysis of pH (Method 9040 and includes temperature measurement) has a 15-minute holding time, which was violated; therefore, RemVer qualified these results with a J.

Detection Limits

Analytical detection limits (DLs) were acceptable for all analytes causing no QA issues other than those noted below:

- If an analyte was above the method detection limit (MDL) but below the reporting limit (RL), then it was flagged as “UJ”.
- Method 8081 (Pesticides)—the relative percent difference (RPD) between the primary and confirmation column / detector was >40%; the laboratory reported the lower detected value. This occurred with Beta-BHC and Heptachlor in Samples #-4, #-6, and #-8. RemVer qualified these results with a UJ or J flag, as appropriate.

Blank Evaluation

SDG #240-103109 had Method Blanks (MBs) for each method. The MBs were acceptable (no detectable analytes), with the following exception(s):

- Metals analysis (Method 6010) had Sodium in the MB either greater than the MDL but less than the RL or less than 5X greater than the RL. Therefore, RemVer did not flag these analytes with a B-flag.

Laboratory Control Samples (LCS)

The various method LCS’ (LCS & LCS duplicates [LCSD]) were within the acceptable control ranges and relative percent differences (RPDs) for their particular analyses in SDG 240-103109, with the following exceptions:

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- Method 8081 (Pesticides)—had LCS/LCSD recoveries beyond control limits (RPD >UCL) causing the results to be biased high for Methoxychlor. Therefore, RemVer flagged the results as UJ+ or J+ as appropriate.

Surrogates

Surrogates added to a sample allow testing of preparatory and instrument behavior resulting in recoveries within appropriate method ranges for the analytes. In SDG #240-103109 there were no exceptions requiring flagging of the sample results.

- Method 8260—surrogate (DBFM) recovery was beyond control limits in Sample #-6. Other surrogates were acceptable and re-analysis had concurring results. RemVer did not set a qualifying flag.

Site-Specific Matrix Spikes and Matrix Spike Duplicates

The matrix spike/matrix spike duplicate (MS/MSD) runs for all analyses met the QA criteria in SDG 240-103109 with the following exceptions:

- Method 6010—while the associated LCS met acceptance criteria, the MS for batch #351908 had poor recovery or RPDs beyond limits for Aluminum, Antimony, and Iron. Sample matrix interference and/or non-homogeneity are suspected because the associated LCS recovery acceptable. Therefore, RemVer flagged these analytes in all samples as UJ or J for these analytes.

Duplicates

GES collected a field replicate (Sample #-9); however, RemVer was not informed as to the replicate source and did not evaluate the field duplicate to judge sampling performance. Therefore, this is not a significant quality issue. All other analytical Method Duplicates met their RPD performance criteria of <20%. The user of this report may perform the analysis (note: if the Relative Percent Difference [RPD] between the original sample and its associated replicate are less than 20%, then sampling performance precision is within acceptable limits).

Tentatively Identified Compounds (TICs)

This SDG had no analysis of TICs.

Calibration Standards and Continuing Calibration Verification (CCV)

Calibration standards (external or internal) were acceptable for all analytes with the following exceptions:

- Method 8260—the internal standard responses and retention were beyond method criteria method criteria for Sample #-1. Therefore, RemVer flagged results for this analyte as UJ or J as appropriate.

CCVs were acceptable in the SDG for all methods and analytes, with the following exceptions:

- Method 8260C—Batch #351558 was outside method criteria for 2-Hexanone, 4-Methyl-2-pentanone, and Methyl tert-butyl ether (also in Batch #351767). in all samples. Therefore, RemVer flagged the results as UJ or J.
- Method 8270D—Batch #351630 was outside method criteria for 2,4-Dinitrophenol, 4,6-Dinitro-2-methylphenol and Hexachlorocyclopentadiene in Samples #-1, 2, 3, 4, and 9. Therefore, RemVer flagged the results as UJ or J.

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- Method 8081B—Batch #445452 was outside method criteria for Methoxychlor, effecting all samples. RemVer flagged the results as UJ or J.

Sample Result and Usability Evaluation

Due to certain sample issues or laboratory performance, some results were qualified; however, the data are usable. No data received an R (rejected) flag.

References

NYSDEC, 2010, *Technical Guidance for Site Investigation and Remediation*, "DER-10," Division of Environmental Remediation: Albany, NY, May, 232p

NYSDEC, 2010, *Guidance for Data Deliverables and the Development of Data Usability Summary Reports*, Appendix 2B IN *Technical Guidance for Site Investigation and Remediation*, Division of Environmental Remediation: Albany, NY, May, 232p

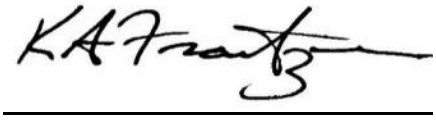
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USEPA, 2010, *Contract Laboratory Program National Functional Guidelines for Inorganic Data Review*, OSWER 9240.1-51, USEPA-540-R-10-011, Office of Superfund Remediation and Technology Innovation: Washington, DC, January, 110p

USEPA, 2012, *Test Methods for Evaluating Solid Waste, Physical/Chemical Methods, SW-846*, Current Online Revision: http://www.epa.gov/epawaste/hazard/testmethods/sw846/online/index.htm, accessed April 2012

Attachments

1. DQA Detail Worksheet
2. DQA Non-Conformance Summary Workheet
3. 240-103109_EquaNysdec.xls (EXCEL annotated EDD with validation, attached)



Prepared by: Kurt A. Frantzen, PhD
December 18, 2018

GES PO#751457-1109

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Attachment 1
DQA Detail Worksheet

BLANKS	>RL?	Compounds	Notes
VOC (8260)	No	None	No Comment
SVOC (8270)	No	None	No Comment
Pest (8081)	No	None	No Comment
PCBs (8082)	No	None	No Comment
Metals (6010)	No	None	No Comment
Hg (7470)	No	None	No Comment
Cyanide (9012)	No	None	No Comment

LCS	SV <10%	Low Bias > 10% & < LCL	High Bias >UCL	Compound(s)	Notes
VOC (8260)	—	—	—	None	No Comment
SVOC (8270)	—	—	—	None	No Comment
Pest (8081)	—	—	—	None	No Comment
	—	—	X	Methoxychlor	Flag UJ+ or J+
PCBs (8082)	—	—	—	None	No Comment
Metals (6010)	—	—	—	None	No Comment
Hg (7470)	—	—	—	None	No Comment
Cyanide (9012)	—	—	—	None	No Comment

SURROGATES	SV <10%	> 10% & < LCL	>UCL	Compound(s)	Notes
VOC (8260)	—	—	—	—	No Comment
SVOC (8270)	—	—	—	—	No Comment
Pest (8081)	—	—	—	—	No Comment
PCBs (8082)	—	—	—	—	No Comment
Metals (6010)	—	—	—	—	No Comment
Hg (7470)	—	—	—	—	No Comment
Cyanide (9012)	—	—	—	—	No Comment

MS/MSDs	SV <10%	Low Bias > 10% & < LCL	High Bias >UCL	QC Source	RPDs	Notes
VOC (8260)	—	—	—	Batch	—	No Comment
SVOC (8270)	—	—	—	Batch	—	No Comment
Pest (8081)	—	—	—	Batch	—	No Comment
PCBs (8082)	—	—	—	Batch	—	No Comment
Metals (6010)	—	—	—	Batch	—	No Comment
Aluminum, Antimony, & Iron	—	—	X	Batch	X	Flag UJ or J
Hg (7470)	—	—	—	Batch	—	No Comment
Cyanide (9012)	—	—	—	Batch	—	No Comment

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Attachment 1 continued

FIELD DUPLICATES RPDs	QC Source	Soil RPD > 50%	Water RPD > 20%	Compounds	Notes
#-9 (Dup)	Site	N/A	N/A	—	—
		N/A	N/A	—	—
		N/A	N/A	—	—
LAB DUPLICATES					
All Methods	Batch	N/A	—	As listed	No Comment

Reasonable Confidence Achieved	☐ Y	☐ N—Not Applicable
Significant QC Variances Noted	☒ Y	☐ N
Requested Reporting Limits Achieved	☒ Y	☐ N
Preservation Requirements Met	☒ Y	☐ N
Holding Time Requirements Met	☐ Y	☒ N

Abbreviations:
RL = Reporting Limit LCS = Laboratory Control Sample SV = Significant QC Variance
RPD = Relative Percent Difference LCL= RCP Lower Control Limit UCL= RCP Upper Control Limit
VOCs = Volatile Organic Compounds SVOCs = Semi-volatile Organic Compounds Pest = Pesticides
EPH = Extractable Petroleum Hydrocarbons VPH = Volatile Petroleum Hydrocarbons ETPH = EPH-Total
PCBs = Polychlorinated Biphenyls N/A = Not Applicable N/C = Not Collected -- = nothing to report
Notes: * Typical lab contaminants, not site-related

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Attachment 2
DQA Non-Conformance Summary Worksheet

Only Flagged Results Shown Below

SDG #240-103109						
Sample Number(s)	**Compound(s)**	**QC Non-Conformance**	**% Recovery**	**% RPD †**	**High or Low Bias ‡**	**Comments**
ALL	All	MDL>result<RDL	—	—	—	Validator Flag UJ Interpreted Flag U
		Calibration	Beyond method criteria		—	Flag UJ or J
	2-Hexanone, 4-Methyl-2-pentanone, & Methyl tert-butyl ether	CCV	X	—	—	Flag UJ or J
	Methoxychlor	CCV	X	—	—	Flag UJ or J
	Aluminum, Antimony, & Iron	MS	>UCL	>UCL	—	Flag UJ or J
	pH	Holding Time	—	—	—	Flag J
#4, 6, & 8	Beta-BHC & Heptachlor	Comparative Columns	Beyond Method Criteria		—	Flag UJ or J
#-1, 2, 3, 4, & 9	2,4-Dinitrophenol, 4,6-Dinitro-2-methylphenol & Hexachloro-cyclopentadiene	CCV	X	—	—	Flag UJ or J

Notes: † RPD—Relative Percent Difference

‡ Bias High—Reported result may be lower, Reporting Limit (RL) is acceptable as reported. Bias Low—Reported results may be higher, RL may be higher than reported.

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Quality Assessment
Data Usability Summary Report

			RemVer Project #2018GE13 Client Project #0901752-02-840
Site:	Buffalo Lakeside Commercial Park, Parcel 5 Buffalo, NY	**Site #:**	915322
Client:	NYSDEC via GES, Inc.	**Site Owner:**	–N/A–
Sample Delivery Groups (SDGs)	240-103111		
Sample Matrix:	☐ Drinking water ☐ Groundwater ☐ Surface water ☒ Soil ☐ Sediment ☐ Air ☐ Biota (tissue, type: _____) ☐ Other: _____		

Introduction

RemVer performed a data quality assessment (DQA) on the analytical data for soil samples. reported in Sample Delivery Groups (SDGs) #240-103111 from Test America (TA). A DQA is an evaluation of the performance of analytical procedures and quality of the resulting data. RemVer followed the requirements of the New York State Department of Environmental Conservation (NYSDEC) Data Usability Summary Report (DUSR) guidelines for an Analytical Services Protocol (ASP) Category B Data Deliverable. This report includes a narrative discussion of sample results qualified during the DQA. Attached to the main report is a list describing the final reported qualification flags applied to the data by RemVer during this DQA process.

Reported Methods

- ☐ Method 1311 TCLP
- ☐ Method 1312 SPLP
- ☒ Method 6010A, B & C / 6020 Trace Metals
- ☐ Method 7000 Metals
- ☐ Method 7196 Hexavalent Chromium (other:_____)
- ☒ Method 7470A or 7471 Mercury
- ☐ Method 8021 Volatile Organic Compounds (VOCs) GC
- ☒ Method 8081B or ☐ 608 Pesticides
- ☒ Method 8082 or ☐ 608 PCBs
- ☐ Method 8151 Chlorinated Herbicides
- ☒ Method 8260C VOCs GC/MS
- ☒ Method 8270D Semi-VOCs (sVOCs) GC/MS &/or SIM-ID
- ☒ Method 9010/9012/9014 Cyanides (_____)
- ☐ Method TO-13A PAHs (air)
- ☐ Method TO-14A / -15 VOCs (air, summa) (_____)
- ☐ Method TO-17 VOCs (air, sorbent)
- ☐ Method 537 PFCs via SPE & LC/MS-MS
- ☐ Volatile Petroleum Hydrocarbons (VPH) Method
- ☐ Extractable Petroleum Hydrocarbons (EPH)
- ☒ Other Methods:
  - ☑ Method Percent Moisture
  - ☑ Method 3550C Ultrasonic Extraction
  - ☑ Method 5035A_L Purge & Trap, closed
  - ☑ Method 3005B Total Metals Prep.
  - ☑ Method 9045D pH

Quality Control Requirements Summary

- ☒ Duplicate
- ☒ Matrix Spike [MS] / Matrix Spike Duplicate [MSD]
- ☐ Trip Blanks
- ☒ Equipment, Method, &/or Rinsate Blank
- ☐ Other Field QC: Field notes regarding sampling
- ☐ Special QAPP Requirements: _____
  _____

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Intended Use of Data Under Review

NYSDEC contracted GES to perform a 2018 site-wide synoptic soil, groundwater, and surface water monitoring event at the referenced site. The monitoring event (10 October through 09 November) purpose was to update the existing environmental dataset with current synoptic conditions. Sampling was to provide analyses of environmental conditions for the presence of volatile organic compounds (VOCs), semi-volatile organic compounds (SVOCs), organochlorine pesticides, polychlorinated biphenyls (PCBs), metals (including metalloids), pH, and Cyanides.

This DUSR addresses SDG #240-103111. The soil samples came from a collection event on October 18, 2018.

Significant Data Usability Issues In SDG: #240-103111

Of the twenty samples discussed herein, RemVer rejected no results. The other results are acceptable for use although the results of some analytes are flagged due to sample handling, or laboratory accuracy or precision issues. Please refer to the Lab Results and Data Usability Narrative section for further detail.

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Detailed Quality Review

Field Notes Review

	Y	N	NA	COMMENTS
Sampling notes	☒	☐	☐	
Field meteorological data	☐	☐	☒	No review required under QAPP
Associated sampling location and plan included	☐	☒	☐	See RAP/QAPP
Associated drilling logs available, reviewed	☐	☐	☒	No review required under QAPP
Identification of QC samples in notes	☒	☐	☐	Sample IDs
Sampling instrument decontamination records	☐	☐	☒	No review required under QAPP
Sampling instrument calibration logs	☐	☐	☒	No review required under QAPP
Chain of custody included	☒	☐	☐	With analytical report
Notes include communication logs	☐	☒	☐	
Any corrective action (CA) reports	☐	☒	☐	If so, CA documentation of results required.
Any deviation from methods noted? If so, explain	☐	☒	☐	None
Any electronic data deliverables	☐	☒	☐	None
Sampling Report (by Field Team Leader)	☒	☐	☐	Field Notes

Lab Report Contents (Test America SDG Reports: #240-103111)

☒ SDG Narrative
☒ Contract Lab Sample Information Sheets
☒ Data Package Summary Forms
☒ Chain-of-Custody (COC) Forms
☒ Test Results (no tentatively identified compounds [TICs])
☒ Calibration standards
☒ Surrogate recoveries
☒ Blank results
☒ Spike recoveries
☒ Duplicate results
☒ Confirmation (lab check/QC) samples
☒ Internal standard area & retention time summary
☒ Chromatograms
☒ Raw data files
☒ Other specific information

The SDG reported the following samples:

Sample ID	SDG #240-103111–sample #	Matrix	Sampled	Received
SB-135A	#–1	Soil	10/18/18	10/20/18
SB-135B	#–2	Soil	10/18/18	10/20/18
SB-135C	#–3	Soil	10/18/18	10/20/18
SB-134A	#–4	Soil	10/18/18	10/20/18
SB-134B	#–5	Soil	10/18/18	10/20/18
SB-134C	#–6	Soil	10/18/18	10/20/18
SB-133A	#–7	Soil	10/18/18	10/20/18
SB-133B	#–8	Soil	10/18/18	10/20/18
SB-133C	#–9	Soil	10/18/18	10/20/18
SB-133D	#–10	Soil	10/18/18	10/20/18
SB-132A	#–11	Soil	10/18/18	10/20/18
SB-132B	#–12	Soil	10/18/18	10/20/18
SB-132C	#–13	Soil	10/18/18	10/20/18
DUP 10/18/18	#–14	Soil	10/18/18	10/20/18
SB-131A	#–15	Soil	10/18/18	10/20/18
SB-131B	#–16	Soil	10/18/18	10/20/18
SB-131C	#–17	Soil	10/18/18	10/20/18
SB-139A	#–18	Soil	10/18/18	10/20/18
SB-139B	#–19	Soil	10/18/18	10/20/18
SB-139C	#–20	Soil	10/18/18	10/20/18

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The SDG included the following samples with their analyses:

143282	Sample	VOCs	SVOCs	Pest	PCBs	TAL & Hg	Cyanide	pH	Temp
#–1	SB-135A	X	X	X	X	X	X	X	X
#–2	SB-135B	X	X	X	X	X	X	X	X
#-3	SB-135C	X	X	X	X	X	X	X	X
#-4	SB-134A	X	X	X	X	X	X	X	X
#–5	SB-134B	X	X	X	X	X	X	X	X
#–6	SB-134C	X	X	X	X	X	X	X	X
#–7	SB-133A	X	X	X	X	X	X	X	X
#–8	SB-133B	X	X	X	X	X	X	X	X
#–9	SB-133C	X	X	X	X	X	X	X	X
#–10	SB-133D	X	X	X	X	X	X	X	X
#–11	SB-132A	X	X	X	X	X	X	X	X
#–12	SB-132B	X	X	X	X	X	X	X	X
#–13	SB-132C	X	X	X	X	X	X	X	X
#–14	DUP 10/18/18	X	X	X	X	X	X	X	X
#–15	SB-131A	X	X	X	X	X	X	X	X
#–16	SB-131B	X	X	X	X	X	X	X	X
#–17	SB-131C	X	X	X	X	X	X	X	X
#–18	SB-139A	X	X	X	X	X	X	X	X
#–19	SB-139B	X	X	X	X	X	X	X	X
#–20	SB-139C	X	X	X	X	X	X	X	X

VOC: Volatile Organic Compounds (8260) | SVOC: Semi-VOCs (8270) | Pest: Pesticides (8081) | PCBs (8082)
TAL: Total Analyte List (6010) | Hg: Mercury (7470) | Cyanide (9012) | pH (9040)
| * Dry, no sample † No sample

Is the data package complete as defined under the requirements for the NYSDEC ASP Category B?		
Laboratory Report	**Complete (Y/N)**	**Comments**
240-103111	Y	No

Sample Preservation Requirements & Holding Times Met?			
Laboratory Report	**Hold Times (Y/N)**	**Preservation (Y/N)**	**Exception Comment**
240-103111	N (pH & temp) Y	Y	15-min holding time missed, qualified None

Do the QC data fall within the protocol required limits and specifications?
(1) blanks, (2) instrument tunings, (3) calibration standards, (4) calibration verifications, (5) surrogate recoveries, (6) spike recoveries, (7) replicate analyses, (8) laboratory controls, (9) and sample data

SDG	1	2	3	4	5	6	7	8	9
240-103111	☐	☐	☒	☒	☒	☒	☐	☒	☒

The narrative section, below, discusses these deficiencies in detail, see Attachment 1 as well.

Have the data been generated using established and agreed upon analytical protocols?		
Laboratory Report	**Protocols (Y/N)**	**Exception Comment**
240-103111	Y	No

Do the raw data confirm the results provided in the data summary sheets and quality control verification forms?		
Laboratory Report	**Confirmation (Y/N)**	**Exception Comment**
240-103111	Y	No

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Have the correct data qualifiers been used and are they consistent with the most current guidance?		
Laboratory Report	**Qualifiers (Y/N)**	**Comment**
240-103111	Y	The laboratory generally applied appropriate qualifiers.

Have any quality control (QC) exceedances been specifically noted in this DUSR and the corresponding QC summary sheets from the data packages referenced?		
Laboratory Report	**QC Exceedances Documented (Y/N)**	**Comment**
240-103111	Y	Several data qualifications were applied as described below

Data Quality and Usability Narrative

Field Notes Inspection

The soil boring samples came from a collection event October 18, 2018. RemVer reviewed the field notes (soil boring logs) as part of this DUSR.

Laboratory Report Inspection

TA produced an SDG report #240-103111 (dated 7-Nov-18). The SDG report had the required data and information.

Chain of Custody (COC) Evaluation

NYSDEC/GES produced a COC for the referenced fieldwork (GES Project PSID#739392): SDG: #240-103111—single, three-page COC; laboratory noted no issues at the time of acceptance.

Sample Preservation & Holding Time Evaluation

Laboratory received twelve coolers with samples on 10/20/2018 @ 10:15 AM (designated as SDG-#240-103111). The temperatures of the coolers at receipt were 1.3, 1.5, 1.5, 1.7, 1.7, 1.9, 1.9, 2.1, 2.1, 2.5, 2.7, 3.5, and 3.2ºC. The samples arrived in good condition, properly preserved, and where necessary under ice. Holding times and preservation requirements were met with one exception:

- Analysis of pH (Method 9045 and includes temperature measurement) has a 15-minute holding time, which was violated; therefore, RemVer qualified these results with a J.

Detection Limits

Analytical detection limits (DLs) were acceptable for all analytes causing no QA issues other than those noted below:

- If an analyte was above the method detection limit (MDL) but below the reporting limit (RL), then it was flagged as “UJ”.
- Method 8260—several analytes (bis (2-chloroisopropyl) ether, Nitrobenzene, 2-Nitroaniline, Benzaldehyde, and 4-Nitrophenol) had response factors that were below method recommendations in Samples #-16 and #-18. RemVer flagged these analytes in these samples UJ or J.
- Method 9045—pH in Samples #-16 and 19 were beyond the instrument calibration range of 2 to 12. RemVer flagged the results with a J.

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Blank Evaluation

SDG #240-103111 had Method Blanks (MBs) for each method. The MBs were acceptable (no detectable analytes), with the following exception(s):

- VOC analysis (Method 8260) had 1,2,4-Trichlorobenzene in the MB either greater than the MDL but less than the RL or less than 5X greater than the RL. Therefore, RemVer did not flag this analyte with B-flag.
- Metals analysis (Method 6010) had Lead, Manganese, and Sodium in the MB either greater than the MDL but less than the RL or less than 5X greater than the RL. Therefore, RemVer did not flag these analytes with a B-flag.

Laboratory Control Samples (LCS)

The various method LCS' (LCS & LCS duplicates [LCSD]) were within the acceptable control ranges and relative percent differences (RPDs) for their particular analyses in SDG 240-103111, with the following exceptions:

- Method 8082—spike recovery for Methoxychlor was greater than the upper control limit (UCL) (RPD above criteria) causing the results to be biased high. Therefore, RemVer flagged the results UJ+ or J+.

Surrogates

Surrogates added to a sample allow testing of preparatory and instrument behavior resulting in recoveries within appropriate method ranges for the analytes. In SDG #240-103111 there were no exceptions requiring flagging of the sample results.

- Method 8260—DBFM recoveries were beyond limits in Samples #-16 and #-19. RemVer flagged the analytes with UJ or J as appropriate.
- Method 8082—DCBP and or TCX recoveries were beyond limits across samples and method blanks. RemVer flagged the analytes with UJ or J as appropriate.

Site-Specific Matrix Spikes and Matrix Spike Duplicates

The matrix spike/matrix spike duplicate (MS/MSD) runs for all analyses met the QA criteria in SDG 240-103111 with the following exceptions:

- Method 8260—spike recoveries were beyond limits and RPDs above criteria across the analytes. RemVer flagged the results UJ or J.
- Method 8270—4-Chloro-3-methyl phenol, Hexachlorocyclopentadiene, and Hexachloroethane had spike recoveries beyond control limits and RPDs above criteria. RemVer flagged these analytes as UJ or J as appropriate in all samples.
- Method 6010—Aluminum, Iron, and Antimony had spike recoveries beyond limits. RemVer flagged these analytes as UJ or J as appropriate in all samples.
- Method 7471—the Mercury batch MS's were beyond control limits (RPD was acceptable) due to low sample homogeneity because the associated LCS recovery acceptable. As a result, RemVer flagged all results as UJ or J as appropriate.
- Method 9012—the Cyanide batch MS's were beyond control limits (and RPD beyond criteria) due to low sample homogeneity because the associated LCS recovery acceptable. As a result, RemVer flagged all results as UJ or J as appropriate.

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Duplicates

GES collected a field replicate (sample #-14). RemVer did not evaluate the duplicate to judge sampling performance because the source of the replicate was unclear. This is not a significant quality issue as it can be handled by GES directly (note: if the Relative Percent Difference [RPD] between the original sample and its associated replicate are less than 20%, then sampling performance precision is within acceptable limits). Regardless, the analytical Method Duplicates met their RPD performance criteria.

Tentatively Identified Compounds (TICs)

This SDG had no analysis of TICs.

Calibration Standards and Continuing Calibration Verification (CCV)

Calibration standards (external or internal) were acceptable for all analytes with the following exceptions:

- Method 8260—the ISTDs were beyond method criteria for Samples #-1, 6, 7, 10, 11, 17, and 20. RemVer flagged results for this analyte as UJ or J as appropriate.

CCVs were acceptable in the SDG for all methods and analytes, with the following exceptions:

- Method 8260—CCV in multiple batches was outside the method criteria for Methyl tert-butyl ether. RemVer flagged the results as UJ or J in all samples.
- Method 8081B—Batch #352419 had recoveries greater than the UCL for Methoxychlor, and effects Samples #-2 and 3. RemVer flagged the results as UJ or J.
- Method 8082—Batch #352214 had recoveries below the LCL for PCB-1260 on the confirmation column; they were acceptable on the primary column. This effects Samples #-1 and 7. RemVer did not flag the results.

Sample Result and Usability Evaluation

Due to certain sample issues or laboratory performance, some results were qualified; however, the data are usable. No data received an R (rejected) flag.

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References

NYSDEC, 2010, *Technical Guidance for Site Investigation and Remediation*, "DER-10," Division of Environmental Remediation: Albany, NY, May, 232p

NYSDEC, 2010, *Guidance for Data Deliverables and the Development of Data Usability Summary Reports*, Appendix 2B IN *Technical Guidance for Site Investigation and Remediation*, Division of Environmental Remediation: Albany, NY, May, 232p

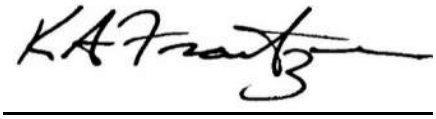
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USEPA, 2012, *Test Methods for Evaluating Solid Waste, Physical/Chemical Methods, SW-846*, Current Online Revision: http://www.epa.gov/epawaste/hazard/testmethods/sw846/online/index.htm, accessed April 2012

Attachments

1. DQA Detail Worksheet
2. DQA Non-Conformance Summary Workheet
3. 240-103111_EquaNysdec.xls (EXCEL annotated EDD with validation, attached)



Prepared by: Kurt A. Frantzen, PhD
December 18, 2018

GES PO#751457-1109

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Attachment 1
DQA Detail Worksheet

BLANKS	>RL?	Compounds	Notes
VOC (8260)	No	None	No Comment
SVOC (8270)	No	None	No Comment
Pest (8081)	No	None	No Comment
PCBs (8082)	No	None	No Comment
Metals (6010)	No	None	No Comment
Hg (7470)	No	None	No Comment
Cyanide (9012)	No	None	No Comment

LCS	SV <10%	Low Bias > 10% & < LCL	High Bias >UCL	Compound(s)	Notes
VOC (8260)	—	—	—	None	No Comment
SVOC (8270)	—	—	—	None	No Comment
Pest (8081)	— —	— —	— X	Others Methoxychlor	No Comment Flag UJ+ or J+
PCBs (8082)	—	—	—	None	No Comment
	—	—	—	None	No Comment
Metals (6010)	—	—	—	None	No Comment
Hg (7470)	—	—	—	None	No Comment
Cyanide (9012)	—	—	X	Cyanide	Flag UJ+ or J+

SURROGATES	SV <10%	> 10% & < LCL	>UCL	Compound(s)	Notes
VOC (8260) #-16 & 19	— —	— —	— X	— DBFM	No Comment Flag UJ or J
SVOC (8270)	—	—	—	—	No Comment
Pest (8081)	—	—	X	DCBP & TCX	Flag UJ or J
PCBs (8082)	—	—	—	—	No Comment
Metals (6010)	—	—	—	—	No Comment
Hg (7470)	—	—	—	—	No Comment
Cyanide (9012)	—	—	—	—	No Comment

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Attachment 1 continued

MS/MSDs	SV <10%	Low Bias > 10% & < LCL	High Bias >UCL	QC Source	RPDs	Notes
VOC (8260)	—	X	X	Batch	X	Flag UJ or J
SVOC (8270)	—	—	—	Batch	—	No Comment
4-Chloro-3-methyl phenol, Hexachlorocyclo-pentadiene, & Hexachloroethane	—	X	X	Batch	X	Flag UJ or J
Pest (8081)	—	—	—	Batch	—	No Comment
	—	X	X	Batch	X	Flag UJ or J
PCBs (8082)	—	—	—	Batch	—	No Comment
Metals (6010)	—	—	—	Batch	—	No Comment
Aluminum, Iron, & Antimony	—	—	X	Batch	—	Flag UJ or J
Hg (7470)	—	X	X	Batch	—	Flag UJ or J
Cyanide (9012)	—	X	X	Batch	X	Flag UJ or J

FIELD DUPLICATES RPDs	QC Source	Soil RPD > 50%	Water RPD > 20%	Compounds	Notes
#-14 (Dup 101818)	Site	—	N/A	—	No Comment
		—	N/A	—	
		—	N/A	—	
LAB DUPLICATES					
All Methods	Batch	N/A	—	As listed	No Comment

Reasonable Confidence Achieved ☐ Y ☐ N—Not Applicable
Significant QC Variances Noted ☒ Y ☐ N
Requested Reporting Limits Achieved ☒ Y ☐ N
Preservation Requirements Met ☒ Y ☐ N
Holding Time Requirements Met ☐ Y ☒ N

Abbreviations:
RL = Reporting Limit LCS = Laboratory Control Sample SV = Significant QC Variance
RPD = Relative Percent Difference LCL= RCP Lower Control Limit UCL= RCP Upper Control Limit
VOCs = Volatile Organic Compounds SVOCs = Semi-volatile Organic Compounds Pest = Pesticides
EPH = Extractable Petroleum Hydrocarbons VPH = Volatile Petroleum Hydrocarbons ETPH = EPH-Total
PCBs = Polychlorinated Biphenyls N/A = Not Applicable N/C = Not Collected -- = nothing to report
Notes: * Typical lab contaminants, not site-related

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Attachment 2
DQA Non-Conformance Summary Worksheet

Only Flagged Results Shown Below

SDG #240-103111						
Sample Number(s)	**Compound(s)**	**QC Non-Conformance**	**% Recovery**	**% RPD †**	**High or Low Bias ‡**	**Comments**
ALL	All	MDL>result<RDL	—	—	—	Validator Flag UJ Interpreted Flag U
	VOCs	MSDS	X	—	—	Flag UJ or J
	Aluminum, Iron, & Antimony	MS/MSD	X	—	—	Flag UJ or J
	Pesticides	Surrogates	>UCL	—	—	Flag UJ or J
	Methoxychlor	LCS CCVs	>UCL	>UCL	—	Flag UJ+ or J+
	Mercury	MS/MSD	>UCL	—	—	Flag UJ or J
	Cyanide	MS/MSD	>UCL	X	—	Flag UJ or J
	pH #-16 & 19	Holding Time Detection Level	—	—	—	Flag J
#-16 & 19	VOCs	Surrogates	X	—	—	Flag UJ or J
#-17	4-Chloro-3-methylphenol	CCV	<LCL	—	—	Flag UJ or J
#16- & -18	bis (2-chloroiso-propyl) ether, Nitrobenzene, 2-Nitroaniline, Benzaldehyde, & 4-Nitrophenol	MS/MSD Level of Detection	<LCL & RPD> Response factor below criteria		—	Flag UJ or J

Notes: † RPD—Relative Percent Difference

‡ Bias High—Reported result may be lower, Reporting Limit (RL) is acceptable as reported. Bias Low—Reported results may be higher, RL may be higher than reported.

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Quality Assessment
Data Usability Summary Report

			RemVer Project #2018GE13 Client Project #0901752-02-840
Site:	Buffalo Lakeside Commercial Park, Parcel 5 Buffalo, NY	**Site #:**	915322
Client:	NYSDEC via GES, Inc.	**Site Owner:**	–N/A–
Sample Delivery Groups (SDGs)	240-103112		
Sample Matrix:	☐ Drinking water ☐ Groundwater ☐ Surface water ☒ Soil ☐ Sediment ☐ Air ☐ Biota (tissue, type: _____) ☐ Other: _____		

Introduction

RemVer performed a data quality assessment (DQA) on the analytical data for soil samples. reported in Sample Delivery Groups (SDGs) #240-103112 from Test America (TA). A DQA is an evaluation of the performance of analytical procedures and quality of the resulting data. RemVer followed the requirements of the New York State Department of Environmental Conservation (NYSDEC) Data Usability Summary Report (DUSR) guidelines for an Analytical Services Protocol (ASP) Category B Data Deliverable. This report includes a narrative discussion of sample results qualified during the DQA. Attached to the main report is a list describing the final reported qualification flags applied to the data by RemVer during this DQA process.

Reported Methods

- ☐ Method 1311 TCLP
- ☐ Method 1312 SPLP
- ☒ Method 6010A, B & C / 6020 Trace Metals
- ☐ Method 7000 Metals
- ☐ Method 7196 Hexavalent Chromium (other:_____)
- ☒ Method 7470A or 7471 Mercury
- ☐ Method 8021 Volatile Organic Compounds (VOCs) GC
- ☒ Method 8081B or ☐ 608 Pesticides
- ☒ Method 8082 or ☐ 608 PCBs
- ☐ Method 8151 Chlorinated Herbicides
- ☒ Method 8260C VOCs GC/MS
- ☒ Method 8270D Semi-VOCs (sVOCs) GC/MS &/or SIM-ID
- ☒ Method 9010/9012/9014 Cyanides (_____)
- ☐ Method TO-13A PAHs (air)
- ☐ Method TO-14A / -15 VOCs (air, summa) (_____)
- ☐ Method TO-17 VOCs (air, sorbent)
- ☐ Method 537 PFCs via SPE & LC/MS-MS
- ☐ Volatile Petroleum Hydrocarbons (VPH) Method
- ☐ Extractable Petroleum Hydrocarbons (EPH)
- ☒ Other Methods:
  - ☑ Method Percent Moisture
  - ☑ Method 3550C Ultrasonic Extraction
  - ☑ Method 5035A_L Purge & Trap, closed
  - ☑ Method 3005B Total Metals Prep.
  - ☑ Method 9045D pH

Quality Control Requirements Summary

- ☒ Duplicate
- ☒ Matrix Spike [MS] / Matrix Spike Duplicate [MSD]
- ☐ Trip Blanks
- ☒ Equipment, Method, &/or Rinsate Blank
- ☐ Other Field QC: Field notes regarding sampling
- ☐ Special QAPP Requirements: _____
  _____

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Intended Use of Data Under Review

NYSDEC contracted GES to perform a 2018 site-wide synoptic soil, groundwater, and surface water monitoring event at the referenced site. The monitoring event (10 October through 09 November) purpose was to update the existing environmental dataset with current synoptic conditions. Sampling was to provide analyses of environmental conditions for the presence of volatile organic compounds (VOCs), semi-volatile organic compounds (SVOCs), organochlorine pesticides, polychlorinated biphenyls (PCBs), metals (including metalloids), pH, and Cyanides.

This DUSR addresses SDG #240-103112. The soil samples came from a collection event on October 18, 2018.

Significant Data Usability Issues In SDG: #240-103112

Of the seven samples discussed herein, RemVer rejected no results. The other results are acceptable for use although the results of some analytes are flagged due to sample handling, or laboratory accuracy or precision issues. Please refer to the Lab Results and Data Usability Narrative section for further detail.

The samples associated with this SDG contained no Field Duplicate. RemVer did not evaluate the duplicate to judge sampling performance in this instance. Regardless, the analytical Method Duplicates met their RPD performance criteria. This was a multi-day sampling event covered by multiple SDGs; herein the reader will find a cross-listing of the samples and their association with other SDGs. RemVer did not find this is to be a significant quality issue as it can be handled by GES directly (*note: if the Relative Percent Difference [RPD] between the original sample and its associated replicate are less than 20%, then sampling performance precision is within acceptable limits*).

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Detailed Quality Review

Field Notes Review

	Y	N	NA	COMMENTS
Sampling notes	☒	☐	☐	
Field meteorological data	☐	☐	☒	No review required under QAPP
Associated sampling location and plan included	☐	☒	☐	See RAP/QAPP
Associated drilling logs available, reviewed	☐	☐	☒	No review required under QAPP
Identification of QC samples in notes	☒	☐	☐	Sample IDs
Sampling instrument decontamination records	☐	☐	☒	No review required under QAPP
Sampling instrument calibration logs	☐	☐	☒	No review required under QAPP
Chain of custody included	☒	☐	☐	With analytical report
Notes include communication logs	☐	☒	☐	
Any corrective action (CA) reports	☐	☒	☐	If so, CA documentation of results required.
Any deviation from methods noted? If so, explain	☐	☒	☐	None
Any electronic data deliverables	☐	☒	☐	None
Sampling Report (by Field Team Leader)	☒	☐	☐	Field Notes

Lab Report Contents (Test America SDG Reports: #240-103112)

☒ SDG Narrative
☒ Contract Lab Sample Information Sheets
☒ Data Package Summary Forms
☒ Chain-of-Custody (COC) Forms
☒ Test Results (no tentatively identified compounds [TICs])
☒ Calibration standards
☒ Surrogate recoveries
☒ Blank results
☒ Spike recoveries
☒ Duplicate results
☒ Confirmation (lab check/QC) samples
☒ Internal standard area & retention time summary
☒ Chromatograms
☒ Raw data files
☒ Other specific information

The SDG reported the following samples:

Sample ID	SDG #240-103112–sample #	Matrix	Sampled	Received
SB-139D	#–1	Soil	10/18/18	10/20/18
SB-140A	#–2	Soil	10/18/18	10/20/18
SB-140B	#–3	Soil	10/18/18	10/20/18
SB-140C	#–4	Soil	10/18/18	10/20/18
SB-141A	#–5	Soil	10/18/18	10/20/18
SB-141B	#–6	Soil	10/18/18	10/20/18
SB-141C	#–7	Soil	10/18/18	10/20/18

The SDG included the following samples with their analyses:

143282	Sample	VOCs	SVOCs	Pest	PCBs	TAL & Hg	Cyanide	pH	Temp
#–1	SB-139D	X	X	X	X	X	X	X	X
#–2	SB-140A	X	X	X	X	X	X	X	X
#-3	SB-140B	X	X	X	X	X	X	X	X
#-4	SB-140C	X	X	X	X	X	X	X	X
#–5	SB-141A	X	X	X	X	X	X	X	X
#–6	SB-141B	X	X	X	X	X	X	X	X
#–7	SB-141C	X	X	X	X	X	X	X	X

VOC: Volatile Organic Compounds (8260) | SVOC: Semi-VOCs (8270) | Pest: Pesticides (8081) | PCBs (8082)
TAL: Total Analyte List (6010) | Hg: Mercury (7470) | Cyanide (9012) | pH (9040)
| * Dry, no sample † No sample

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Is the data package complete as defined under the requirements for the NYSDEC ASP Category B?		
Laboratory Report	**Complete (Y/N)**	**Comments**
240-103112	Y	No

Sample Preservation Requirements & Holding Times Met?			
Laboratory Report	**Hold Times (Y/N)**	**Preservation (Y/N)**	**Exception Comment**
240-103112	N (pH & temp) Y	Y	15-min holding time missed, qualified None

Do the QC data fall within the protocol required limits and specifications? *(1) blanks, (2) instrument tunings, (3) calibration standards, (4) calibration verifications, (5) surrogate recoveries, (6) spike recoveries, (7) replicate analyses, (8) laboratory controls, (9) and sample data*									
SDG	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**
240-103112	☐	☐	☒	☒	☒	☒	☐	☐	☒
The narrative section, below, discusses these deficiencies in detail, see Attachment 1 as well.									

Have the data been generated using established and agreed upon analytical protocols?		
Laboratory Report	**Protocols (Y/N)**	**Exception Comment**
240-103112	Y	No

Do the raw data confirm the results provided in the data summary sheets and quality control verification forms?		
Laboratory Report	**Confirmation (Y/N)**	**Exception Comment**
240-103112	Y	No

Have the correct data qualifiers been used and are they consistent with the most current guidance?		
Laboratory Report	**Qualifiers (Y/N)**	**Comment**
240-103112	Y	The laboratory generally applied appropriate qualifiers.

Have any quality control (QC) exceedances been specifically noted in this DUSR and the corresponding QC summary sheets from the data packages referenced?		
Laboratory Report	**QC Exceedances Documented (Y/N)**	**Comment**
240-103112	Y	Several data qualifications were applied as described below

Data Quality and Usability Narrative

Field Notes Inspection

The soil boring samples came from a collection event October 18, 2018. RemVer reviewed the field notes (soil boring logs) as part of this DUSR.

Laboratory Report Inspection

TA produced an SDG report #240-103112 (dated 6-Nov-18). The SDG report had the required data and information.

Chain of Custody (COC) Evaluation

NYSDEC/GES produced a COC for the referenced fieldwork (GES Project PSID#739392): SDG: #240-103112—single, three-page COC; laboratory noted no issues at the time of acceptance.

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Sample Preservation & Holding Time Evaluation

Laboratory received twelve coolers with samples on 10/20/2018 @ 10:15 AM (designated as SDG-#240-103112). The temperatures of the coolers at receipt were 1.3, 1.5, 1.5, 1.7, 1.7, 1.9, 1.9, 2.1, 2.1, 2.5, 2.7, 3.5, and 3.2ºC. The samples arrived in good condition, properly preserved, and where necessary under ice. Holding times and preservation requirements were met with the following exceptions:

- Analysis of pH/corrosivity (Method 9040 and includes temperature measurement) has a 15-minute holding time, which was violated; therefore, RemVer qualified these results with a J.

Detection Limits

Analytical detection limits (DLs) were acceptable for all analytes causing no QA issues other than those noted below:

- If an analyte was above the method detection limit (MDL) but below the reporting limit (RL), then it was flagged as "UJ".
- Method 8081—the relative percent difference (RPD) between the primary and confirmation column/detector was >40% for Beta-BHC. RemVer qualified the results as UJ or J.

Blank Evaluation

SDG #240-103112 had Method Blanks (MBs) for each method. The MBs were acceptable (no detectable analytes), with the following exception(s):

- Metals analysis (Method 6010) had Lead and Manganese in the MB either greater than the MDL but less than the RL or less than 5X greater than the RL. Therefore, RemVer did not flag these analytes with a B-flag.

Laboratory Control Samples (LCS)

The various method LCS' (LCS & LCS duplicates [LCSD]) were within the acceptable control ranges and relative percent differences (RPDs) for their particular analyses in SDG 240-103112, with no exceptions.

Surrogates

Surrogates added to a sample allow testing of preparatory and instrument behavior resulting in recoveries within appropriate method ranges for the analytes. In SDG #240-103112 there were no exceptions requiring flagging of the sample results.

- Method 8260—all four surrogates were beyond control limits in the MS/MS sample (#-5).
- Method 8081—surrogate recoveries were beyond control limits for Samples #-1, 2, 3, and 5. RemVer flagged the results for these samples as UJ or J as appropriate.

Site-Specific Matrix Spikes and Matrix Spike Duplicates

The matrix spike/matrix spike duplicate (MS/MSD) runs for all analyses met the QA criteria in SDG 240-103112 with the following exceptions:

- Method 8260—considering the surrogate response (see above) and the internal calibration standard (see below) all VOC results were flagged as UJ or J.

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- Method 8270—MS and/or MSD recoveries were outside acceptance limits and/or the RPD was above control limits for 2,4-Dimethylphenol, 3,3'-Dichlorobenzidine, 3-Nitroaniline, 4-Chloroaniline, 4-Nitroaniline, Benzaldehyde, bis (2-chloroisopropyl) ether, Bis(2-chloroethyl) ether, Hexachlorobenzene, Hexachlorocyclopentadiene, and Hexachloroethane in all samples. Therefore, RemVer flagged all samples as UJ or J for these analytes.
- Method 6010—while the associated LCS met acceptance criteria, the MS for Batch 351908 had recoveries either >UCL or <LCL for Aluminum, Iron, Antimony, and Lead. Sample matrix interference and/or non-homogeneity are suspected because the associated LCS recovery acceptable. Therefore, RemVer flagged all samples as UJ or J for these analytes.
- Method 9012—the Cyanide batch MS/MSD had poor sample homogeneity resulting in precision being beyond control limits. RemVer flagged all results as UJ or J as appropriate.

Duplicates

The samples associated with this SDG did not have an accompanying field replicate. RemVer did not evaluate a field duplicate to judge sampling performance in this instance; however, as this was a multi-day sampling event covered by multiple SDGs. Therefore, this is not a significant quality issue. Regardless, the analytical Method Duplicates met their RPD performance criteria.

Tentatively Identified Compounds (TICs)

This SDG had no analysis of TICs.

Calibration Standards and Continuing Calibration Verification (CCV)

Calibration standards (external or internal) were acceptable for all analytes with the following exceptions:

- Method 8260—the MS/MSD run (which used Sample #-5) and Sample #-7 had Internal standard (ISTD) responses outside control limits, requiring flagging all analytes as UJ or J, as appropriate.

CCVs were acceptable in the SDG for all methods and analytes, with the following exceptions:

- Method 8260—Batch 352205 was outside the method criteria for the following analyte: Methyl tert-butyl ether. RemVer flagged the results as UJ or J.
- Method 8270D—Batch #352598 had recoveries below the lower control limit (LCL) for 4-Chloro-3-methylphenol in all samples, which were non-detect or less than the RL. Therefore, RemVer did not flag the results.
- Method 8081B—Batch #353550 had recoveries greater than the UCL for Methoxychlor and effects all samples. RemVer flagged the results as UJ or J.

Sample Result and Usability Evaluation

Due to certain sample issues or laboratory performance, some results were qualified; however, the data are usable. No data received an R (rejected) flag.

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References

NYSDEC, 2010, *Technical Guidance for Site Investigation and Remediation*, "DER-10," Division of Environmental Remediation: Albany, NY, May, 232p

NYSDEC, 2010, *Guidance for Data Deliverables and the Development of Data Usability Summary Reports*, Appendix 2B IN *Technical Guidance for Site Investigation and Remediation*, Division of Environmental Remediation: Albany, NY, May, 232p

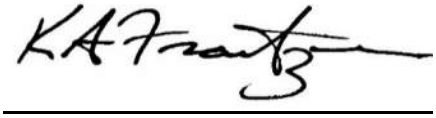
USEPA, 2008, *Contract Laboratory Program National Functional Guidelines for Organic Data Review*, OSWER 9240.1-48, USEPA-540-R-08-01, Office of Superfund Remediation and Technology Innovation: Washington, DC, June, 225p

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USEPA, 2012, *Test Methods for Evaluating Solid Waste, Physical/Chemical Methods, SW-846*, Current Online Revision: http://www.epa.gov/epawaste/hazard/testmethods/sw846/online/index.htm, accessed April 2012

Attachments

1. DQA Detail Worksheet
2. DQA Non-Conformance Summary Workheet
3. 240-103112_EquaNysdec.xls (EXCEL annotated EDD with validation, attached)



Prepared by: Kurt A. Frantzen, PhD
December 18, 2018

GES PO#751457-1109

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Attachment 1
DQA Detail Worksheet

BLANKS	>RL?	Compounds	Notes
VOC (8260)	No	None	No Comment
SVOC (8270)	No	None	No Comment
Pest (8081)	No	None	No Comment
PCBs (8082)	No	None	No Comment
Metals (6010)	No	None	No Comment
Hg (7470)	No	None	No Comment
Cyanide (9012)	No	None	No Comment

LCS	SV <10%	Low Bias > 10% & < LCL	High Bias >UCL	Compound(s)	Notes
VOC (8260)	—	—	—	None	No Comment
SVOC (8270)	—	—	—	None	No Comment
Pest (8081)	—	—	—	None	No Comment
PCBs (8082)	—	—	—	None	No Comment
Metals (6010)	—	—	—	None	No Comment
Hg (7470)	—	—	—	None	No Comment
Cyanide (9012)	—	—	—	None	No Comment

SURROGATES	SV <10%	> 10% & < LCL	>UCL	Compound(s)	Notes
VOC (8260)	—	—	—	—	No Comment
	—	—	X	All in #-5	Flag UJ or J
SVOC (8270)	—	—	—	—	No Comment
Pest (8081)	—	—	—	—	No Comment
	—	—	X	All in #-1, 2,3, & 5	Flag UJ or J
PCBs (8082)	—	—	—	—	No Comment
Metals (6010)	—	—	—	—	No Comment
Hg (7470)	—	—	—	—	No Comment
Cyanide (9012)	—	—	—	—	No Comment

MS/MSDs	SV <10%	Low Bias > 10% & < LCL	High Bias >UCL	QC Source	RPDs	Notes
VOC (8260)	—	X	X	Batch	X	Flag UJ or J
SVOC (8270)	—	—	—	Batch	—	No Comment
2,4-Dimethyl-phenol, 3,3'-Dichlorobenzidin 3-Nitroaniline, 4-Chloroaniline, 4-Nitroaniline, Benzaldehyde, bis (2-chloroiso-propyl) ether, Bis (2-chloroethyl) ether,	—	—	X	Batch	X	Flag UJ or J

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MS/MSDs	SV <10%	Low Bias > 10% & < LCL	High Bias >UCL	QC Source	RPDs	Notes
Hexachloro-benzene, Hexachlorocyclop entadiene, & Hexachloroethane						
Pest (8081)	—	—	—	Batch	—	No Comment
PCBs (8082)	—	—	—	Batch	—	No Comment
Metals (6010)	—	—	—	Batch	—	No Comment
Aluminum, Iron, Antimony, & Lead	—	X	X	Batch	X	Flag UJ or J
Hg (7470)	—	—	—	Batch	—	No Comment
Cyanide (9012)	—	—	X	Batch	—	Flag UJ or J

FIELD DUPLICATES RPDs	QC Source	Soil RPD > 50%	Water RPD > 20%	Compounds	Notes
No Duplicate within SDG	Site	N/A	N/A	—	No Comment
		N/A	N/A	—	
		N/A	N/A	—	
LAB DUPLICATES					
All Methods	Batch	N/A	—	As listed	No Comment

Reasonable Confidence Achieved	☐ Y	☐ N—Not Applicable
Significant QC Variances Noted	☒ Y	☐ N
Requested Reporting Limits Achieved	☒ Y	☐ N
Preservation Requirements Met	☒ Y	☐ N
Holding Time Requirements Met	☐ Y	☒ N

Abbreviations:
RL = Reporting Limit LCS = Laboratory Control Sample SV = Significant QC Variance
RPD = Relative Percent Difference LCL= RCP Lower Control Limit UCL= RCP Upper Control Limit
VOCs = Volatile Organic Compounds SVOCs = Semi-volatile Organic Compounds Pest = Pesticides
EPH = Extractable Petroleum Hydrocarbons VPH = Volatile Petroleum Hydrocarbons ETPH = EPH-Total
PCBs = Polychlorinated Biphenyls N/A = Not Applicable N/C = Not Collected -- = nothing to report
Notes: * Typical lab contaminants, not site-related

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Attachment 2
DQA Non-Conformance Summary Worksheet

Only Flagged Results Shown Below

SDG #240-103112						
Sample Number(s)	**Compound(s)**	**QC Non-Conformance**	**% Recovery**	**% RPD †**	**High or Low Bias ‡**	**Comments**
ALL	All	MDL>result<RDL	—	—	—	Validator Flag UJ Interpreted Flag U
	All VOCs	ISTD & MS/MSD	X	—	—	Flag UJ or J
	Methyl tert-butyl ether	CCV	X	—	—	Flag UJ or J
	Methoxychlor	CCV	X	—	—	Flag UJ or J
	2,4-Dimethyl-phenol, 3,3'-Dichlorobenzidine 3-Nitroaniline, 4-Chloroaniline, 4-Nitroaniline, Benzaldehyde, bis (2-chloroiso-propyl) ether, Bis (2-chloroethyl) ether, Hexachlorobenzene, Hexachlorocyclo-pentadiene, & Hexachloroethane	MS/MSD	X	—	—	Flag UJ or J
	Beta-BHC	Column	<LCL	—	—	Flag UJ or J
	Aluminum, Iron, Antimony, & Lead	MS/MSD	>UCL	>UCL	—	Flag UJ or J
	Cyanide	MS	>UCL	X	Hi	Flag UJ or J
	pH	Holding Time	—	—	—	Flag J
#5	VOCs	Surrogates	>UCL	—	—	Flag UJ or J
#-1, 2,3, & 5	Pesticides	Surrogates	>UCL	—	—	Flag UJ or J

Notes: † RPD—Relative Percent Difference

‡ Bias High—Reported result may be lower, Reporting Limit (RL) is acceptable as reported. Bias Low—Reported results may be higher, RL may be higher than reported.

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Quality Assessment
Data Usability Summary Report

			RemVer Project #2018GE13 Client Project #0901752-02-840
Site:	Buffalo Lakeside Commercial Park, Parcel 5 Buffalo, NY	**Site #:**	915322
Client:	NYSDEC via GES, Inc.	**Site Owner:**	–N/A–
Sample Delivery Groups (SDGs)	480-143282		
Sample Matrix:	☐ Drinking water ☐ Groundwater ☐ Surface water ☒ Soil ☐ Sediment ☐ Air ☐ Biota (tissue, type: _____) ☐ Other: _____		

Introduction

RemVer performed a data quality assessment (DQA) on the analytical data for soil samples. reported in Sample Delivery Groups (SDGs) #480-143282 from Test America (TA). A DQA is an evaluation of the performance of analytical procedures and quality of the resulting data. RemVer followed the requirements of the New York State Department of Environmental Conservation (NYSDEC) Data Usability Summary Report (DUSR) guidelines for an Analytical Services Protocol (ASP) Category B Data Deliverable. This report includes a narrative discussion of sample results qualified during the DQA. Attached to the main report is a list describing the final reported qualification flags applied to the data by RemVer during this DQA process.

Reported Methods

- ☐ Method 1311 TCLP
- ☐ Method 1312 SPLP
- ☒ Method 6010A, B & C / 6020 Trace Metals
- ☐ Method 7000 Metals
- ☐ Method 7196 Hexavalent Chromium (other:_____)
- ☒ Method 7470A or 7471 Mercury
- ☐ Method 8021 Volatile Organic Compounds (VOCs) GC
- ☒ Method 8081B or ☐ 608 Pesticides
- ☒ Method 8082 or ☐ 608 PCBs
- ☐ Method 8151 Chlorinated Herbicides
- ☒ Method 8260C VOCs GC/MS
- ☒ Method 8270D Semi-VOCs (sVOCs) GC/MS &/or SIM-ID
- ☒ Method 9010/9012/9014 Cyanides (_____)
- ☐ Method TO-13A PAHs (air)
- ☐ Method TO-14A / -15 VOCs (air, summa) (_____)
- ☐ Method TO-17 VOCs (air, sorbent)
- ☐ Method 537 PFCs via SPE & LC/MS-MS
- ☐ Volatile Petroleum Hydrocarbons (VPH) Method
- ☐ Extractable Petroleum Hydrocarbons (EPH)
- ☒ Other Methods:
  - ☑ Method Percent Moisture
  - ☑ Method 3550C Ultrasonic Extraction
  - ☑ Method 5035A_L Purge & Trap, closed
  - ☑ Method 3005B Total Metals Prep.
  - ☑ Method 9045D pH

Quality Control Requirements Summary

- ☒ Duplicate
- ☒ Matrix Spike [MS] / Matrix Spike Duplicate [MSD]
- ☐ Trip Blanks
- ☒ Equipment, Method, &/or Rinsate Blank
- ☐ Other Field QC: Field notes regarding sampling
- ☐ Special QAPP Requirements: _____
  _____

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Intended Use of Data Under Review

NYSDEC contracted GES to perform a 2018 site-wide synoptic soil, groundwater, and surface water monitoring event at the referenced site. The monitoring event (10 October through 09 November) purpose was to update the existing environmental dataset with current synoptic conditions. Sampling was to provide analyses of environmental conditions for the presence of volatile organic compounds (VOCs), semi-volatile organic compounds (SVOCs), organochlorine pesticides, polychlorinated biphenyls (PCBs), metals (including metalloids), pH, and Cyanides.

This DUSR addresses SDG #480-143282. The soil samples came from a collection event on October 10, 2018.

Significant Data Usability Issues In SDG: #480-143282

Of the twenty samples (including one Duplicate) discussed herein, RemVer rejected no results. The other results are acceptable for use although the results of some analytes are flagged due to sample handling, or laboratory accuracy or precision issues. Please refer to the Lab Results and Data Usability Narrative section for further detail.

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Detailed Quality Review

Field Notes Review

	Y	N	NA	COMMENTS
Sampling notes	☒	☐	☐	
Field meteorological data	☐	☐	☒	No review required under QAPP
Associated sampling location and plan included	☐	☒	☐	See RAP/QAPP
Associated drilling logs available, reviewed	☐	☐	☒	No review required under QAPP
Identification of QC samples in notes	☒	☐	☐	Sample IDs
Sampling instrument decontamination records	☐	☐	☒	No review required under QAPP
Sampling instrument calibration logs	☐	☐	☒	No review required under QAPP
Chain of custody included	☒	☐	☐	With analytical report
Notes include communication logs	☐	☒	☐	
Any corrective action (CA) reports	☐	☒	☐	If so, CA documentation of results required.
Any deviation from methods noted? If so, explain	☐	☒	☐	None
Any electronic data deliverables	☐	☒	☐	None
Sampling Report (by Field Team Leader)	☒	☐	☐	Field Notes

Lab Report Contents (Test America SDG Reports: #480-143282)

☒ SDG Narrative
☒ Contract Lab Sample Information Sheets
☒ Data Package Summary Forms
☒ Chain-of-Custody (COC) Forms
☒ Test Results (no tentatively identified compounds [TICs])
☒ Calibration standards
☒ Surrogate recoveries
☒ Blank results
☒ Spike recoveries
☒ Duplicate results
☒ Confirmation (lab check/QC) samples
☒ Internal standard area & retention time summary
☒ Chromatograms
☒ Raw data files
☒ Other specific information

The SDG reported the following samples:

Sample ID	SDG #480-143282–sample #	Matrix	Sampled	Received
SB-105-A	#–1	Soil	10/10/18	10/11/18
SB-105-B	#–2	Soil	10/10/18	10/11/18
SB-105-C	#–3	Soil	10/10/18	10/11/18
SB-105-D	#–4	Soil	10/10/18	10/11/18
SB-106-A	#–5	Soil	10/10/18	10/11/18
SB-106-B	#–6	Soil	10/10/18	10/11/18
SB-106-C	#–7	Soil	10/10/18	10/11/18
DUP-101018	#–8	Soil	10/10/18	10/11/18
SB-101-A	#–9	Soil	10/10/18	10/11/18
SB-101-B	#–10	Soil	10/10/18	10/11/18
SB-101-C	#–11	Soil	10/10/18	10/11/18
SB-102-A	#–12	Soil	10/10/18	10/11/18
SB-102-B	#–13	Soil	10/10/18	10/11/18
SB-102-C	#–14	Soil	10/10/18	10/11/18
SB-103-A	#–15	Soil	10/10/18	10/11/18
SB-103-B	#–16	Soil	10/10/18	10/11/18
SB-103-C	#–17	Soil	10/10/18	10/11/18
SB-104-A	#–18	Soil	10/10/18	10/11/18
SB-104-B	#–19	Soil	10/10/18	10/11/18
SB-104-C	#–20	Soil	10/10/18	10/11/18

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The SDG included the following samples with their analyses:

143282	Sample	VOCs	SVOCs	Pest	PCBs	TAL & Hg	Cyanide	pH	Temp
#–1	SB-105-A	X	X	X	X	X	X	X	X
#–2	SB-105-B	X	X	X	X	X	X	X	X
#-3	SB-105-C	X	X	X	X	X	X	X	X
#-4	SB-105-D	X	X	X	X	X	X	X	X
#–5	SB-106-A	X	X	X	X	X	X	X	X
#–6	SB-106-B	X	X	X	X	X	X	X	X
#–7	SB-106-C	X	X	X	X	X	X	X	X
#–8	DUP-101018	X	X	X	X	X	X	X	X
#–9	SB-101-A	X	X	X	X	X	X	X	X
#–10	SB-101-B	X	X	X	X	X	X	X	X
#–11	SB-101-C	X	X	X	X	X	X	X	X
#–12	SB-102-A	X	X	X	X	X	X	X	X
#–13	SB-102-B	X	X	X	X	X	X	X	X
#–14	SB-102-C	X	X	X	X	X	X	X	X
#–15	SB-103-A	X	X	X	X	X	X	X	X
#–16	SB-103-B	X	X	X	X	X	X	X	X
#–17	SB-103-C	X	X	X	X	X	X	X	X
#–18	SB-104-A	X	X	X	X	X	X	X	X
#–19	SB-104-B	X	X	X	X	X	X	X	X
#–20	SB-104-C	X	X	X	X	X	X	X	X

VOC: Volatile Organic Compounds (8260) | SVOC: Semi-VOCs (8270) | Pest: Pesticides (8081) | PCBs (8082)
TAL: Total Analyte List (6010) | Hg: Mercury (7470) | Cyanide (9012) | pH (9040)
| * Dry, no sample † No sample

Is the data package complete as defined under the requirements for the NYSDEC ASP Category B?		
Laboratory Report	**Complete (Y/N)**	**Comments**
480-143282	Y	No

Sample Preservation Requirements & Holding Times Met?			
Laboratory Report	**Hold Times (Y/N)**	**Preservation (Y/N)**	**Exception Comment**
480-143282	N (pH & temp) N (#-9 Cyanide) Y	Y	15-min holding time missed, qualified Re-analysis caused holding time miss, qualified None

Do the QC data fall within the protocol required limits and specifications?
(1) blanks, (2) instrument tunings, (3) calibration standards, (4) calibration verifications, (5) surrogate recoveries, (6) spike recoveries, (7) replicate analyses, (8) laboratory controls, (9) and sample data

SDG	1	2	3	4	5	6	7	8	9
480-143282	☐	☐	☒	☒	☒	☒	☐	☒	☒

The narrative section, below, discusses these deficiencies in detail, see Attachment 1 as well.

Have the data been generated using established and agreed upon analytical protocols?		
Laboratory Report	**Protocols (Y/N)**	**Exception Comment**
480-143282	Y	No

Do the raw data confirm the results provided in the data summary sheets and quality control verification forms?		
Laboratory Report	**Confirmation (Y/N)**	**Exception Comment**
480-143282	Y	No

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Have the correct data qualifiers been used and are they consistent with the most current guidance?		
Laboratory Report	**Qualifiers (Y/N)**	**Comment**
480-143282	Y	The laboratory generally applied appropriate qualifiers.

Have any quality control (QC) exceedances been specifically noted in this DUSR and the corresponding QC summary sheets from the data packages referenced?		
Laboratory Report	**QC Exceedances Documented (Y/N)**	**Comment**
480-143282	Y	Several data qualifications were applied as described below

Data Quality and Usability Narrative

Field Notes Inspection

The soil boring samples came from a collection event October 10, 2018. RemVer reviewed the field notes (soil boring logs) as part of this DUSR.

Laboratory Report Inspection

TA produced an SDG report #480-143282 (dated 31-Oct-18). The SDG report had the required data and information.

Chain of Custody (COC) Evaluation

NYSDEC/GES produced a COC for the referenced fieldwork (GES Project PSID#739391): SDG: #480-143282—single, two-page COC; laboratory noted no issues at the time of acceptance.

Sample Preservation & Holding Time Evaluation

Laboratory received two coolers with samples on 10/11/2018 @ 13:25 PM (designated as SDG-#480-143282). The temperatures of the coolers at receipt were 3.0 and 3.2ºC. The samples arrived in good condition, properly preserved, and where necessary under ice. Holding times and preservation requirements were met with two exceptions:

- Analysis of pH (Method 9040 and includes temperature measurement) has a 15-minute holding time, which was violated; therefore, RemVer qualified these results with a J.
- The initial analysis for Cyanide (Method 9012) in Sample #-9 had quality issues requiring re-analysis. The re-analysis occurred outside of holding times. The laboratory reported the re-analysis only. RemVer qualified the initial and re-analysis results UJ / J, as appropriate.

Detection Limits

Analytical detection limits (DLs) were acceptable for all analytes causing no QA issues. If an analyte was above the method detection limit (MDL) but below the reporting limit (RL), then it was flagged as “UJ”.

Blank Evaluation

SDG #480-143282 had Method Blanks (MBs) for each method. The MBs were acceptable (no detectable analytes), with the following exception(s):

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- VOC analysis (Method 8260) had Methylene Chloride and Chloroform in the MB either greater than the MDL but less than the RL or less than 5X greater than the RL. Therefore, RemVer did not flag this analyte with B-flag.
- Metals analysis (Method 6010)
  - Several batches had Calcium, Iron, Manganese, and/or Sodium in the MB either greater than the MDL but less than the RL or less than 10X greater than the RL. Therefore, RemVer did not flag these analytes with a B-flag.
  - Several batches had Potassium in the MB greater than the RL but less than 10X the RL in Samples #-1 – #6. RemVer did not flag these analytes with a B-flag.

Laboratory Control Samples (LCS)

The various method LCS' (LCS & LCS duplicates [LCSD]) were within the acceptable control ranges and relative percent differences (RPDs) for their particular analyses in SDG 480-143282, with the following exceptions:

- Method 8270—Benzaldehyde was detected beyond the calibration range in the LCS (and the associated MS) due to a dropped upper calibration point; nevertheless, the analyte was within control limits. RemVer flagged this analyte in all samples as UJ or J.
- Method 8082—PCB 1260 result in the LCS exceeded calibration range. RemVer flagged all samples as UJ or J for this analyte.

Surrogates

Surrogates added to a sample allow testing of preparatory and instrument behavior resulting in recoveries within appropriate method ranges for the analytes. In SDG #480-143282 there were no exceptions requiring flagging of the sample results.

- Method 8081—recovery of DCBP (both checks) in Samples #-1 and #-15 exceeded quality control limits due to the sample matrix. Recovery of the secondary surrogate was acceptable. RemVer flagged these samples as UJ or J.

Site-Specific Matrix Spikes and Matrix Spike Duplicates

The matrix spike/matrix spike duplicate (MS/MSD) runs for all analyses met the QA criteria in SDG 480-143282 with the following exceptions:

- Method 8260—MS/MSD recoveries for Batch #439844/#439852 were outside control limits. Sample matrix interference is suspected because the associated LCS was within acceptance limits. Most reported analyte concentrations were below 200 ug/kg and may be biased low because sample collection was not for low-level specifications. RemVer flagged all analytes in all samples as UJ or J.
- Method 8270—Benzaldehyde was detected beyond the calibration range in the MS (and the associated LCS) due to a dropped upper calibration point; nevertheless, the analyte was within control limits. RemVer flagged this analyte in all samples as UJ or J.
- Method 8081—spike recoveries for Batch #440016/440174 were outside control limits. Sample matrix interference and/or non-homogeneity are suspected because the associated LCS recovery were acceptable. Sample matrix interference and/or non-homogeneity are suspected because the associated LCS recovery acceptable. Therefore, RemVer flagged all samples as UJ or J for these analytes.

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- Method 8082—MS/MSD precision of Batch 439932/440242 was outside control limits, likely due to sample matrix interference. Surrogate DCBP also was beyond limits in the MS/MSD runs. Therefore, RemVer flagged all results as UJ or J as appropriate.
- Method 6010—MS/MSD spike recoveries were beyond control limits and/or the RPDs were above criteria. RemVer flagged all results as UJ or J as appropriate.
- Method 9012—the Cyanide batch MS's were beyond control limits due to low sample homogeneity. As a result, RemVer flagged all results as UJ or J as appropriate.

Duplicates

GES collected a field replicate (sample #-8). RemVer did not evaluate the duplicate to judge sampling performance because the source of the replicate was unclear. This is not a significant quality issue as it can be handled by GES directly (*note: if the Relative Percent Difference [RPD] between the original sample and its associated replicate are less than 20%, then sampling performance precision is within acceptable limits*). Regardless, the analytical Method Duplicates met their RPD performance criteria, with the following exceptions:

- Method 9012—Batch 441220/441431 sample duplicate (#-1 [SB-105-A] and 480-143282-B-1-H DU) precision associated with preparation was outside control limits, likely due to sample non-homogeneity. RemVer flagged all samples as UJ or J for these analytes.

Tentatively Identified Compounds (TICs)

This SDG had no analysis of TICs.

Calibration Standards and Continuing Calibration Verification (CCV)

Calibration standards (external or internal) were acceptable for all analytes with the following exceptions:

- Method 8260—Internal standard (ISTD) response for Sample #-7 was outside control limits. RemVer flagged results for this analyte as UJ or J as appropriate.

CCVs were acceptable in the SDG for all methods and analytes, with the following exceptions:

- Method 8260—CVVs were recovered outside acceptance criteria, low biased, for the following analytes in different samples. RemVer flagged the results as UJ- or J-.
  - Batch #439852 (Samples #-1, #-2, #-3, #-4, #-5, #-6, #-8, #-9, #-10, #-11, &#-12) Analytes: Vinyl chloride, Chloromethane, 1,1,2-Trichloro-1,2,2-trifluoroethane, and Trichlorofluoromethane
  - Batch #440087 (Samples #-15, #-16, #-17, #-18, #-19, & #-20) Analytes: 1,1,2-Trichloro-1,2,2-trifluoroethane, Chloromethane, Trichlorofluoromethane and Vinyl chloride
- Method 6010—Samples #-3, 4, and 6 had recoveries greater than the UCL for Cadmium. RemVer flagged the results as UJ or J.
- Method 6010— Samples #-3 and 4 had recoveries greater than the UCL for Zinc. RemVer flagged the results as UJ or J.

Sample Result and Usability Evaluation

Due to certain sample issues or laboratory performance, some results were qualified; however, the data are usable. No data received an R (rejected) flag.

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References

NYSDEC, 2010, *Technical Guidance for Site Investigation and Remediation*, "DER-10," Division of Environmental Remediation: Albany, NY, May, 232p

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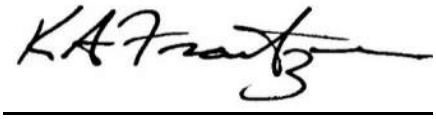
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Attachments

1. DQA Detail Worksheet
2. DQA Non-Conformance Summary Workheet
3. 480-143282_EquaNysdec.xls (EXCEL annotated EDD with validation, attached)



Prepared by: Kurt A. Frantzen, PhD
December 18, 2018

GES PO#751457-1109

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Attachment 1
DQA Detail Worksheet

BLANKS	>RL?	Compounds	Notes
VOC (8260)	No	None	No Comment
SVOC (8270)	No	None	No Comment
Pest (8081)	No	None	No Comment
PCBs (8082)	No	None	No Comment
Metals (6010)	No	None	No Comment
Hg (7470)	No	None	No Comment
Cyanide (9012)	No	None	No Comment

LCS	SV <10%	Low Bias > 10% & < LCL	High Bias >UCL	Compound(s)	Notes
VOC (8260)	—	—	—	None	No Comment
SVOC (8270)	—	—	— calibration	None Benzaldehyde	No Comment Flag UJ or J
Pest (8081)	—	—	—	None	No Comment
PCBs (8082)	—	—	— X	Others PCB 1260	No Comment Flag UJ or J
Metals (6010)	—	—	—	None	No Comment
Hg (7470)	—	—	—	None	No Comment
Cyanide (9012)	—	—	X	Cyanide	Flag UJ+ or J+

SURROGATES	SV <10%	> 10% & < LCL	>UCL	Compound(s)	Notes
VOC (8260)	—	—	—	—	No Comment
SVOC (8270)	—	—	—	—	No Comment
Pest (8081)	—	—	—	—	No Comment
#-1 & 15	—	—	X	DCBP	Flag UJ or J
PCBs (8082)	—	—	—	—	No Comment
Metals (6010)	—	—	—	—	No Comment
Hg (7470)	—	—	—	—	No Comment
Cyanide (9012)	—	—	—	—	No Comment

MS/MSDs	SV <10%	Low Bias > 10% & < LCL	High Bias >UCL	QC Source	RPDs	Notes
VOC (8260)	—	X	X	Batch	X	Flag UJ or J
SVOC (8270)	—	—	—	Batch	—	No Comment
Benzaldehyde	—	—	calibration	Batch	—	Flag UJ or J
Pest (8081)	—	X	X	Batch	X	Flag UJ or J
PCBs (8082)	—	—	X	Batch	—	Flag UJ or J
Metals (6010)	—	X	X	Batch	X	Flag UJ or J
Hg (7470)	—	—	—	Batch	—	No Comment
Cyanide (9012)	—	—	X	Batch	—	Flag UJ or J

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Attachment 1 continued

FIELD DUPLICATES RPDs	QC Source	Soil RPD > 50%	Water RPD > 20%	Compounds	Notes
#-8 (Dup 101018)	Site	—	N/A	—	No Comment
		—	N/A	—	
		—	N/A	—	
LAB DUPLICATES					
All Methods	Batch	N/A	—	As listed	No Comment

Reasonable Confidence Achieved	☐ Y	☐ N—Not Applicable
Significant QC Variances Noted	☒ Y	☐ N
Requested Reporting Limits Achieved	☒ Y	☐ N
Preservation Requirements Met	☒ Y	☐ N
Holding Time Requirements Met	☐ Y	☒ N

Abbreviations:
RL = Reporting Limit LCS = Laboratory Control Sample SV = Significant QC Variance
RPD = Relative Percent Difference LCL= RCP Lower Control Limit UCL= RCP Upper Control Limit
VOCs = Volatile Organic Compounds SVOCs = Semi-volatile Organic Compounds Pest = Pesticides
EPH = Extractable Petroleum Hydrocarbons VPH = Volatile Petroleum Hydrocarbons ETPH = EPH-Total
PCBs = Polychlorinated Biphenyls N/A = Not Applicable N/C = Not Collected -- = nothing to report
Notes: * Typical lab contaminants, not site-related

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Attachment 2
DQA Non-Conformance Summary Worksheet

Only Flagged Results Shown Below

SDG #480-143282						
Sample Number(s)	**Compound(s)**	**QC Non-Conformance**	**% Recovery**	**% RPD †**	**High or Low Bias ‡**	**Comments**
ALL	All	MDL>result<RDL	—	—	—	Validator Flag UJ Interpreted Flag U
	VOCs	MS/MSD	>UCL <LCL	X	—	Flag UJ or J
	Benzaldehyde	LCS & MS	Beyond calibration		—	Flag UJ or J
	All PCBs PCB 1260	MS/MSD LCS calibration	>UCL	—	—	Flag UJ or J
	Pesticides	MS/MSD	>UCL	—	—	Flag UJ or J
	Metals	MS/MSD	>UCL <LCL	X	—	Flag UJ or J
	Cyanide	Holding Time (#-9) Lab Duplicate (#-1) MS/MSD	>UCL	—	—	Flag UJ or J
	pH	Holding Time	—	—	—	Flag J
#1 & #-15	Pesticides	Surrogate DCBP	>UCL	—	—	Flag UJ or J
#-7	VOCs	Calibration ISTD	X	—	—	Flag UJ or J
#-1, #-2, #-3, #-4, #-5, #-6, #-8, #-9, #-10, #-11, &#-12	1,1,2-Trichloro-1,2,2-trifluoroethane, Chloromethane, Trichlorofluoromethane and Vinyl chloride	CCV	X	—	—	Flag UJ- or J-
#-15, #-16, #-17, #-18, #-19, & #-20	1,1,2-Trichloro-1,2,2-trifluoroethane, Chloromethane, Trichlorofluoromethane and Vinyl chloride	CCV	X	—	—	Flag UJ- or J-
#-3, 4, & 6	Cadmium	CCV	X	—	—	Flag UJ or J
#-3 & 4	Zinc	CCV	X	—	—	Flag UJ or J

Notes: † RPD—Relative Percent Difference

‡ Bias High—Reported result may be lower, Reporting Limit (RL) is acceptable as reported. Bias Low—Reported results may be higher, RL may be higher than reported.

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Quality Assessment
Data Usability Summary Report

			RemVer Project #2018GE13 Client Project #0901752-02-840
Site:	Buffalo Lakeside Commercial Park, Parcel 5 Buffalo, NY	**Site #:**	915322
Client:	NYSDEC via GES, Inc.	**Site Owner:**	–N/A–
Sample Delivery Groups (SDGs)	480-143525-1		
Sample Matrix:	☐ Drinking water ☐ Groundwater ☐ Surface water ☒ Soil ☐ Sediment ☐ Air ☐ Biota (tissue, type: _____) ☐ Other: _____		

Introduction

RemVer performed a data quality assessment (DQA) on the analytical data for soil samples. reported in Sample Delivery Groups (SDGs) #480-143525-1 from Test America (TA). A DQA is an evaluation of the performance of analytical procedures and quality of the resulting data. RemVer followed the requirements of the New York State Department of Environmental Conservation (NYSDEC) Data Usability Summary Report (DUSR) guidelines for an Analytical Services Protocol (ASP) Category B Data Deliverable. This report includes a narrative discussion of sample results qualified during the DQA. Attached to the main report is a list describing the final reported qualification flags applied to the data by RemVer during this DQA process.

Reported Methods

☐ Method 1311 TCLP
☐ Method 1312 SPLP
☒ Method 6010A, B & C / 6020 Trace Metals
☐ Method 7000 Metals
☐ Method 7196 Hexavalent Chromium (other:_____)
☒ Method 7470A or 7471 Mercury
☐ Method 8021 Volatile Organic Compounds (VOCs) GC
☒ Method 8081B or ☐ 608 Pesticides
☒ Method 8082 or ☐ 608 PCBs
☐ Method 8151 Chlorinated Herbicides
☒ Method 8260C VOCs GC/MS
☒ Method 8270D Semi-VOCs (sVOCs) GC/MS &/or SIM-ID
☒ Method 9010/9012/9014 Cyanides (_____)

☐ Method TO-13A PAHs (air)
☐ Method TO-14A / -15 VOCs (air, summa) (_____)
☐ Method TO-17 VOCs (air, sorbent)
☐ Method 537 PFCs via SPE & LC/MS-MS
☐ Volatile Petroleum Hydrocarbons (VPH) Method
☐ Extractable Petroleum Hydrocarbons (EPH)
☒ Other Methods:
- ☑ Method Percent Moisture
- ☑ Method 3550C Ultrasonic Extraction
- ☑ Method 5035A_L Purge & Trap, closed
- ☑ Method 3005B Total Metals Prep.
- ☑ Method 9045D pH

Quality Control Requirements Summary

☒ Duplicate
☒ Matrix Spike [MS] / Matrix Spike Duplicate [MSD]
☐ Trip Blanks
☒ Equipment, Method, &/or Rinsate Blank

☐ Other Field QC: Field notes regarding sampling
☐ Special QAPP Requirements: _____
_____

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Intended Use of Data Under Review

NYSDEC contracted GES to perform a 2018 site-wide synoptic soil, groundwater, and surface water monitoring event at the referenced site. The monitoring event (10 October through 09 November) was to update the existing environmental dataset with current synoptic conditions. Sampling was to provide analyses of environmental conditions for the presence of volatile organic compounds (VOCs), semi-volatile organic compounds (SVOCs), organochlorine pesticides, polychlorinated biphenyls (PCBs), metals (including metalloids), pH, and Cyanides.

This DUSR addresses SDG #480-143525-1. The analytical results in this SDG came from a collection event on October 11, 2018.

Significant Data Usability Issues In SDG: #480-143525-1

Of the twenty samples (including one Duplicate) discussed herein, RemVer rejected no results. The other results are acceptable for use although the results of some analytes are flagged due to sample handling, or laboratory accuracy or precision issues. Please refer to the Lab Results and Data Usability Narrative section for further detail.

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Detailed Quality Review

Field Notes Review

	Y	N	NA	COMMENTS
Sampling notes	☒	☐	☐	
Field meteorological data	☐	☐	☒	No review required under QAPP
Associated sampling location and plan included	☐	☒	☐	See RAP/QAPP
Associated drilling logs available, reviewed	☐	☐	☒	No review required under QAPP
Identification of QC samples in notes	☒	☐	☐	Sample IDs
Sampling instrument decontamination records	☐	☐	☒	No review required under QAPP
Sampling instrument calibration logs	☐	☐	☒	No review required under QAPP
Chain of custody included	☒	☐	☐	With analytical report
Notes include communication logs	☐	☒	☐	
Any corrective action (CA) reports	☐	☒	☐	If so, CA documentation of results required.
Any deviation from methods noted? If so, explain	☐	☒	☐	None
Any electronic data deliverables	☐	☒	☐	None
Sampling Report (by Field Team Leader)	☒	☐	☐	Field Notes

Lab Report Contents (Test America SDG Reports: #480-143525-1)

☒ SDG Narrative
☒ Contract Lab Sample Information Sheets
☒ Data Package Summary Forms
☒ Chain-of-Custody (COC) Forms
☒ Test Results (no tentatively identified compounds [TICs])
☒ Calibration standards
☒ Surrogate recoveries
☒ Blank results
☒ Spike recoveries
☒ Duplicate results
☒ Confirmation (lab check/QC) samples
☒ Internal standard area & retention time summary
☒ Chromatograms
☒ Raw data files
☒ Other specific information

The SDG reported the following samples:

Sample ID	SDG #480-143525-1–sample #	Matrix	Sampled	Received
SB-107-A	#–1	Soil	10/11/18	10/16/18
SB-107-B	#–2	Soil	10/11/18	10/16/18
SB-107-C	#–3	Soil	10/11/18	10/16/18
SB-108-A	#–4	Soil	10/11/18	10/16/18
SB-108-B	#–5	Soil	10/11/18	10/16/18
SB-108-C	#–6	Soil	10/11/18	10/16/18
SB-109-A	#–7	Soil	10/11/18	10/16/18
SB-109-B	#–8	Soil	10/11/18	10/16/18
SB-109-C	#–9	Soil	10/11/18	10/16/18
SB-110-A	#–10	Soil	10/11/18	10/16/18
SB-110-B	#–11	Soil	10/11/18	10/16/18
SB-110-C	#–12	Soil	10/11/18	10/16/18
SB-110-D	#–13	Soil	10/11/18	10/16/18
SB-120-A	#–14	Soil	10/11/18	10/16/18
SB-120-B	#–15	Soil	10/11/18	10/16/18
SB-120-C	#–16	Soil	10/11/18	10/16/18
SB-119-A	#–17	Soil	10/11/18	10/16/18
SB-119-B	#–18	Soil	10/11/18	10/16/18
SB-119-C	#–19	Soil	10/11/18	10/16/18
DUP-101118	#–20	Soil	10/11/18	10/16/18

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The SDG included the following samples with their analyses:

143525-1	Sample	VOCs	SVOCs	Pest	PCBs	TAL & Hg	Cyanide	pH	Temp
#–1	SB-107-A	X	X	X	X	X	X	X	X
#–2	SB-107-B	X	X	X	X	X	X	X	X
#-3	SB-107-C	X	X	X	X	X	X	X	X
#-4	SB-108-A	X	X	X	X	X	X	X	X
#–5	SB-108-B	X	X	X	X	X	X	X	X
#–6	SB-108-C	X	X	X	X	X	X	X	X
#–7	SB-109-A	X	X	X	X	X	X	X	X
#–8	SB-109-B	X	X	X	X	X	X	X	X
#–9	SB-109-C	X	X	X	X	X	X	X	X
#–10	SB-110-A	X	X	X	X	X	X	X	X
#–11	SB-110-B	X	X	X	X	X	X	X	X
#–12	SB-110-C	X	X	X	X	X	X	X	X
#–13	SB-110-D	X	X	X	X	X	X	X	X
#–14	SB-120-A	X	X	X	X	X	X	X	X
#–15	SB-120-B	X	X	X	X	X	X	X	X
#–16	SB-120-C	X	X	X	X	X	X	X	X
#–17	SB-119-A	X	X	X	X	X	X	X	X
#–18	SB-119-B	X	X	X	X	X	X	X	X
#–19	SB-119-C	X	X	X	X	X	X	X	X
#–20	DUP-101118	X	X	X	X	X	X	X	X

VOC: Volatile Organic Compounds (8260) | SVOC: Semi-VOCs (8270) | Pest: Pesticides (8081) | PCBs (8082)
TAL: Total Analyte List (6010) | Hg: Mercury (7470) | Cyanide (9012) | pH (9040)
| * Dry, no sample † No sample

Is the data package complete as defined under the requirements for the NYSDEC ASP Category B?		
Laboratory Report	**Complete (Y/N)**	**Comments**
480-143525-1	Y	No

Sample Preservation Requirements & Holding Times Met?			
Laboratory Report	**Hold Times (Y/N)**	**Preservation (Y/N)**	**Exception Comment**
480-143525-1	N (pH & temp) N (#-4 VOCs) Y	Y	15-min holding time missed, qualified Re-analysis caused holding time miss, qualified None

Do the QC data fall within the protocol required limits and specifications? *(1) blanks, (2) instrument tunings, (3) calibration standards, (4) calibration verifications, (5) surrogate recoveries, (6) spike recoveries, (7) replicate analyses, (8) laboratory controls, (9) and sample data*									
SDG	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**
480-143525-1	☐	☐	☒	☒	☐	☒	☐	☒	☒
The narrative section, below, discusses these deficiencies in detail, see Attachment 1 as well.									

Have the data been generated using established and agreed upon analytical protocols?		
Laboratory Report	**Protocols (Y/N)**	**Exception Comment**
480-143525-1	Y	No

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Do the raw data confirm the results provided in the data summary sheets and quality control verification forms?		
Laboratory Report	**Confirmation (Y/N)**	**Exception Comment**
480-143525-1	Y	No

Have the correct data qualifiers been used and are they consistent with the most current guidance?		
Laboratory Report	**Qualifiers (Y/N)**	**Comment**
480-143525-1	Y	The laboratory generally applied appropriate qualifiers.

Have any quality control (QC) exceedances been specifically noted in this DUSR and the corresponding QC summary sheets from the data packages referenced?		
Laboratory Report	**QC Exceedances Documented (Y/N)**	**Comment**
480-143525-1	Y	Several data qualifications were applied as described below

Data Quality and Usability Narrative

Field Notes Inspection

The soil boring samples came from a collection event October 11, 2018. RemVer reviewed the field notes (soil boring logs) as part of this DUSR.

Laboratory Report Inspection

TA produced an SDG report #480-143525-1 (dated 12-Nov-18). The SDG report had the required data and information.

Chain of Custody (COC) Evaluation

NYSDEC/GES produced a COC for the referenced fieldwork (GES Project PSID#739391): SDG: #480-143525-1—single, four-page COC; laboratory noted no issues at the time of acceptance.

Sample Preservation & Holding Time Evaluation

Laboratory received eight coolers with samples on 10/16/2018 @ 13:10 PM (designated as SDG-#480-143525-1). The temperatures of the coolers at receipt were 1.3,1.8, 2.2, 2.3, 2.6, 2.9, 3.1, and 3.1ºC. The samples arrived in good condition, properly preserved, and where necessary under ice. Holding times and preservation requirements were met with one exception:

- Analysis of pH (Method 9040 and includes temperature measurement) has a 15-minute holding time, which was violated; therefore, RemVer qualified these results with a J.
- Method 8260 #-4
- The initial analysis for Cyanide (Method 9012) in Sample #-9 (SB-101-A) had significant quality issues requiring re-analysis. The re-analysis occurred outside of holding times. The laboratory reported both results. RemVer qualified both results UJ / J, as appropriate.

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Detection Limits

Analytical detection limits (DLs) were acceptable for all analytes causing no QA issues. If an analyte was above the method detection limit (MDL) but below the reporting limit (RL), then it was flagged as "UJ".

The following analyses and samples required dilutions due to matrix effects resulting in elevation of the RLs:

- Method 8270D (SVOCs)—
  - In the LCS and MS/MSD runs, Benzaldehyde was beyond calibration due to the upper calibration point being removed. Benzaldehyde recovery was within control limits. RemVer set no qualification flag due to this issue.
  - Samples #-7, 10, 14, and 17 were diluted due to color and appearance resulting in elevated RLs. RemVer set no qualification flag due to this issue.
- Method 8081 (Pesticides)—the matrix in Sample #-1, which was used as the MS/MSD control, required dilution resulting in RL elevation and effecting the spike and surrogate recoveries. See the discussion in the following sections.
- Method 6010 (Metals)—the matrix in the samples required dilution resulting in RL elevation and effecting multiple analytes. RemVer set no qualification flag due to this issue.

Blank Evaluation

SDG #480-143525-1 had Method Blanks (MBs) for each method. The MBs were acceptable (no detectable analytes), with the following exception(s):

- VOC analysis (Method 8260) had Methylene Chloride in the MB either greater than the MDL but less than the RL or less than 5X greater than the RL. Therefore, RemVer did not flag this analyte with B-flag.
- SVOC analysis (Method 8260) had Diethyl Phthalate and di-n-Butyl Phthalate in the MB either greater than the MDL but less than the RL or less than 5X greater than the RL. Therefore, RemVer did not flag these analytes with B-flag.
- Metals analysis (Method 6010)
  - Several batches had Barium, Calcium, Iron, Magnesium, and/or Manganese in the MB either greater than the MDL but less than the RL or less than 10X greater than the RL. Therefore, RemVer did not flag these analytes with a B-flag.
  - Batch #441159 had Aluminum, Iron, and Manganese in the MB greater than 10X the RL. Therefore, RemVer flagged these analytes with a B-flag, only in Sample #-20.

Laboratory Control Samples (LCS)

The various method LCS' (LCS & LCS duplicates [LCSD]) were within the acceptable control ranges and relative percent differences (RPDs) for their particular analyses in SDG 480-143525-1, with the following exceptions:

- Method 8260—Batch 480-440216/480-440187 had 2-Butanone (MEK) recovery greater than the upper control level (UCL) and relative percent difference above criteria (high bias). RemVer flagged the results as UJ+ or J+ as appropriate in Samples #-5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, and 20.

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- Method 8082—the LCS had poor surrogate performance. See discussion below.

Surrogates

Surrogates added to a sample allow testing of preparatory and instrument behavior resulting in recoveries within appropriate method ranges for the analytes. In SDG #480-143525-1 there were no exceptions requiring flagging of the sample results.

- Method 8260—Sample #-4 had poor calibration and poor surrogate recoveries requiring sample re-analyzed, which was beyond the holding time. The initial and re-analysis results required flagging UJ or J.
- Method 8270—Samples #-5, #-10, and #-14 had recoveries beyond control limits in two or more surrogates. RemVer flagged these samples UJ or J.
- Method 8081—the MS/MSD and sample runs had poor surrogate recoveries requiring sample re-analyzed. RemVer flagged the samples UJ or J.
- Method 8082—the samples, LCS, and MS/MSD had poor surrogate recoveries. RemVer flagged all results UJ or J.

Site-Specific Matrix Spikes and Matrix Spike Duplicates

The matrix spike/matrix spike duplicate (MS/MSD) runs for all analyses met the QA criteria in SDG 480-143525-1 with the following exceptions:

- Method 8260—spike recoveries of multiple analytes were beyond control limits and/or had RPDs beyond criteria. RemVer flagged all samples as UJ or J.
- Method 8270—
    - 4,6-Dinitro-2-methylphenol was beyond the calibration curve (lab E-flag qualified) in the LCS and MS/MSD associated with preparation batch 445623, however, the spike recoveries were within control limits. The sample results were within their respective calibration curves. Therefore, no qualification was necessary.
    - Pyrene had spike recoveries less than the lower control limit (LCL) (while RPD was acceptable). RemVer flagged Pyrene in all samples as UJ or J.
- Method 8081—while the associated LCS met acceptance criteria, the MS/MSD runs had poor recovery for Aldrin. Therefore, RemVer flagged all samples as UJ or J.
- Method 8082—the MS/MSD had poor surrogate performance. See discussion above.
- Method 6010—analytical batches #441423 and #441868 had MS/MSD recoveries beyond control limits and RPDs above criteria requiring flagging (UJ or J) of the following analytes in all samples: Aluminum, Antimony, Barium, Calcium, Chromium, Iron, Lead, Magnesium, Manganese, Potassium, Selenium, and Zinc.
- Method 9012—the Cyanide batch MS's were beyond control limits due to low sample homogeneity. As a result, RemVer flagged all results as UJ or J as appropriate.

Duplicates

GES collected a field replicate (sample #-20). RemVer did not evaluate the duplicate to judge sampling performance because the source of the replicate was unclear. This is not a significant quality issue as it can be handled by GES directly (*note: if the Relative Percent Difference [RPD] between the original sample and its associated replicate are less than 20%, then sampling*

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performance precision is within acceptable limits). Regardless, the analytical Method Duplicates met their RPD performance criteria.

Tentatively Identified Compounds (TICs)

This SDG had no analysis of TICs.

Calibration Standards and Continuing Calibration Verification (CCV)

Calibration standards (external or internal) were acceptable for all analytes. CCVs were acceptable in the SDG for all methods and analytes, with the following exceptions:

- Method 8082—all sample had recoveries greater than the UCL for PCB-1260 and PCB-1268. RemVer flagged the results as UJ or J.

Sample Result and Usability Evaluation

Due to certain sample issues or laboratory performance, some results were qualified; however, the data are usable. No data received an R (rejected) flag.

References

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USEPA, 2012, *Test Methods for Evaluating Solid Waste, Physical/Chemical Methods, SW-846*, Current Online Revision: http://www.epa.gov/epawaste/hazard/testmethods/sw846/online/index.htm, accessed April 2012

Attachments

1. DQA Detail Worksheet
2. DQA Non-Conformance Summary Workheet
3. 480-143525-1_EquaNysdec.xls (annotated EDD with validation separate EXCEL workbook, attached)

Prepared by: Kurt A. Frantzen, PhD
December 18, 2018

GES PO#751457-1109

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Attachment 1
DQA Detail Worksheet

BLANKS	>RL?	Compounds	Notes
VOC (8260)	No	None	No Comment
SVOC (8270)	No	None	No Comment
Pest (8081)	No	None	No Comment
PCBs (8082)	No	None	No Comment
Metals (6010)	No	None	No Comment
	10X >	Aluminum, Iron, and Manganese	Flag B
Hg (7471)	No	None	No Comment
Cyanide (9012)	No	None	No Comment

LCS	SV <10%	Low Bias > 10% & < LCL	High Bias >UCL	Compound(s)	Notes
VOC (8260)	—	—	—	None	No Comment
2-Butanone (MEK)	—	—	X	2-Butanone (MEK)	Flag UJ+ or J+
SVOC (8270)	—	—	—	None	No Comment
Pest (8081)	—	—	—	None	No Comment
PCBs (8082)	—	—	—	None	Surrogate See below
Metals (6010)	—	—	—	None	No Comment
Hg (7471)	—	—	—	None	No Comment
Cyanide (9012)	—	—	X	Cyanide	Flag UJ+ or J+

SURROGATES	SV <10%	> 10% & < LCL	>UCL	Compound(s)	Notes
VOC (8260)	—	—	—	—	No Comment
SVOC (8270)	—	—	—	—	No Comment
#-5, 10, 14	—	—	X	TCX / DCBP	Flag UJ or J
Pest (8081)	—	—	X	TCX / DCBP	Flag UJ or J
PCBs (8082)	—	—	X	DCBP	Flag UJ or J
Metals (6010)	—	—	—	—	No Comment
Hg (7471)	—	—	—	—	No Comment
Cyanide (9012)	—	—	—	—	No Comment

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Attachment 1 continued

MS/MSDs	SV <10%	Low Bias > 10% & < LCL	High Bias >UCL	QC Source	RPDs	Notes
VOC (8260)	—	X	X	Batch	X	Flag UJ or J
SVOC (8270)	—	—	—	Batch	—	No Comment
4,6-Dinitro-2-methylphenol	—	—	—	Batch	—	MS calibration, no flag
Pyrene	—	X	—	Batch	—	Flag UJ or J
Pest (8081)	—	—	—	Batch	—	No Comment
Aldrin	—	—	X	Batch	X	Flag UJ or J
PCBs (8082)	—	—	—	Batch	—	Surrogate See below
Metals (6010)	—	—	—	Batch	—	No Comment
Al, Sb, Ba, Ca, Cr, Fe, Pb, Mg, Mn, K, Se, & Zn	—	X	X	Batch	X	Flag UJ or J
Hg (7471)	—	—	—	Batch	—	No Comment
Cyanide (9012)	—	—	X	Batch	—	Flag UJ or J

FIELD DUPLICATES RPDs	QC Source	Soil RPD > 50%	Water RPD > 20%	Compounds	Notes
#-20 (Dup 101118)	Site	—	N/A	—	No Comment
		—	N/A	—	
		—	N/A	—	
LAB DUPLICATES					
All Methods	Batch	N/A	—	As listed	No Comment

Reasonable Confidence Achieved	☐ Y	☐ N—Not Applicable
Significant QC Variances Noted	☒ Y	☐ N
Requested Reporting Limits Achieved	☒ Y	☐ N
Preservation Requirements Met	☒ Y	☐ N
Holding Time Requirements Met	☐ Y	☒ N

Abbreviations:
RL = Reporting Limit LCS = Laboratory Control Sample SV = Significant QC Variance
RPD = Relative Percent Difference LCL= RCP Lower Control Limit UCL= RCP Upper Control Limit
VOCs = Volatile Organic Compounds SVOCs = Semi-volatile Organic Compounds Pest = Pesticides
EPH = Extractable Petroleum Hydrocarbons VPH = Volatile Petroleum Hydrocarbons ETPH = EPH-Total
PCBs = Polychlorinated Biphenyls N/A = Not Applicable N/C = Not Collected -- = nothing to report
Notes: * Typical lab contaminants, not site-related

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Attachment 2
DQA Non-Conformance Summary Worksheet

Only Flagged Results Shown Below

SDG #480-143525-1						
Sample Number(s)	**Compound(s)**	**QC Non-Conformance**	**% Recovery**	**% RPD †**	**High or Low Bias ‡**	**Comments**
ALL	All	MDL>result<RDL	—	—	—	Validator Flag UJ Interpreted Flag U
		Calibration	Beyond method criteria		—	Flag UJ or J
	Pyrene	MS/MSD	<LCLC	—	—	Flag UJ or J
	All VOCs	MS/MSD	<LCL / >UCL	>UCL	—	Flag UJ or J
	PCB-1260 & 1268	CCV	X	—	—	Flag UJ or J
	All PCBs	Surrogates	X	—	—	Flag UJ or J
	All Pesticides	Surrogates	X	—	—	Flag UJ or J
	Aldrin	MS/MSD	>UCL	—	—	Flag UJ or J
	Al, Sb, Ba, Ca, Cr, Fe, Pb, Mg, Mn, K, Se, & Zn	MS/MSD	>UCL	>UCL	—	Flag UJ or J
	Cyanide	MS/MSD	>UCL	—	—	Flag UJ or J
	pH (temp.)	Holding Time	—	—	—	Flag J
#-20	Aluminum, Iron, and Manganese	Blank	—	—	—	Flag B
#-5 – #-20	2-Butanone (MEK)	LCS	>UCL	X	Hi	Flag UJ+ or J+
#-5, 10, & 14	SVOCs	Surrogates	>UCL	—	—	Flag UJ or J

Notes: † RPD—Relative Percent Difference

‡ Bias High—Reported result may be lower, Reporting Limit (RL) is acceptable as reported. Bias Low—Reported results may be higher, RL may be higher than reported.

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Quality Assessment
Data Usability Summary Report

			RemVer Project #2018GE13 Client Project #0901752-02-840
Site:	Buffalo Lakeside Commercial Park, Parcel 5 Buffalo, NY	**Site #:**	915322
Client:	NYSDEC via GES, Inc.	**Site Owner:**	–N/A–
Sample Delivery Groups (SDGs)	480-143525-2		
Sample Matrix:	☐ Drinking water ☐ Groundwater ☐ Surface water ☒ Soil ☐ Sediment ☐ Air ☐ Biota (tissue, type: _____) ☐ Other: _____		

Introduction

RemVer performed a data quality assessment (DQA) on the analytical data for soil samples. reported in Sample Delivery Groups (SDGs) #480-143525-2 from Test America (TA). A DQA is an evaluation of the performance of analytical procedures and quality of the resulting data. RemVer followed the requirements of the New York State Department of Environmental Conservation (NYSDEC) Data Usability Summary Report (DUSR) guidelines for an Analytical Services Protocol (ASP) Category B Data Deliverable. This report includes a narrative discussion of sample results qualified during the DQA. Attached to the main report is a list describing the final reported qualification flags applied to the data by RemVer during this DQA process.

Reported Methods

☐ Method 1311 TCLP
☐ Method 1312 SPLP
☒ Method 6010A, B & C / 6020 Trace Metals
☐ Method 7000 Metals
☐ Method 7196 Hexavalent Chromium (other:_____)
☒ Method 7470A or 7471 Mercury
☐ Method 8021 Volatile Organic Compounds (VOCs) GC
☒ Method 8081B or ☐ 608 Pesticides
☒ Method 8082 or ☐ 608 PCBs
☐ Method 8151 Chlorinated Herbicides
☒ Method 8260C VOCs GC/MS
☒ Method 8270D Semi-VOCs (sVOCs) GC/MS &/or SIM-ID
☒ Method 9010/9012/9014 Cyanides (_____)

☐ Method TO-13A PAHs (air)
☐ Method TO-14A / -15 VOCs (air, summa) (_____)
☐ Method TO-17 VOCs (air, sorbent)
☐ Method 537 PFCs via SPE & LC/MS-MS
☐ Volatile Petroleum Hydrocarbons (VPH) Method
☐ Extractable Petroleum Hydrocarbons (EPH)
☒ Other Methods:
- ☑ Method Percent Moisture
- ☑ Method 3550C Ultrasonic Extraction
- ☑ Method 5035A_L Purge & Trap, closed
- ☑ Method 3005B Total Metals Prep.
- ☑ Method 9045D pH

Quality Control Requirements Summary

☒ Duplicate
☒ Matrix Spike [MS] / Matrix Spike Duplicate [MSD]
☐ Trip Blanks
☒ Equipment, Method, &/or Rinsate Blank

☐ Other Field QC: Field notes regarding sampling
☐ Special QAPP Requirements: _____
_____

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Intended Use of Data Under Review

NYSDEC contracted GES to perform a 2018 site-wide synoptic soil, groundwater, and surface water monitoring event at the referenced site. The monitoring event (10 October through 09 November) was to update the existing environmental dataset with current synoptic conditions. Sampling was to provide analyses of environmental conditions for the presence of volatile organic compounds (VOCs), semi-volatile organic compounds (SVOCs), organochlorine pesticides, polychlorinated biphenyls (PCBs), metals (including metalloids), pH, and Cyanides.

This DUSR addresses SDG #480-143525-2. The soil samples came from a collection event on October 12, 2018.

Significant Data Usability Issues In SDG: #480-143525-2

Of the thirteen samples discussed herein, RemVer rejected no results. The other results are acceptable for use although the results of some analytes are flagged due to sample handling, or laboratory accuracy or precision issues. Please refer to the Lab Results and Data Usability Narrative section for further detail.

The samples associated with this SDG contained no Field Duplicate. RemVer did not evaluate the duplicate to judge sampling performance in this instance. Regardless, the analytical Method Duplicates met their RPD performance criteria. This was a multi-day sampling event covered by multiple SDGs. RemVer did not find this is to be a significant quality issue as it can be handled by GES directly (*note: if the Relative Percent Difference [RPD] between the original sample and its associated replicate are less than 20%, then sampling performance precision is within acceptable limits*).

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Detailed Quality Review

Field Notes Review

	Y	N	NA	COMMENTS
Sampling notes	☒	☐	☐	
Field meteorological data	☐	☐	☒	No review required under QAPP
Associated sampling location and plan included	☐	☒	☐	See RAP/QAPP
Associated drilling logs available, reviewed	☐	☐	☒	No review required under QAPP
Identification of QC samples in notes	☒	☐	☐	Sample IDs
Sampling instrument decontamination records	☐	☐	☒	No review required under QAPP
Sampling instrument calibration logs	☐	☐	☒	No review required under QAPP
Chain of custody included	☒	☐	☐	With analytical report
Notes include communication logs	☐	☒	☐	
Any corrective action (CA) reports	☐	☒	☐	If so, CA documentation of results required.
Any deviation from methods noted? If so, explain	☐	☒	☐	None
Any electronic data deliverables	☐	☒	☐	None
Sampling Report (by Field Team Leader)	☒	☐	☐	Field Notes

Lab Report Contents (Test America SDG Reports: #480-143525-2)

☒ SDG Narrative
☒ Contract Lab Sample Information Sheets
☒ Data Package Summary Forms
☒ Chain-of-Custody (COC) Forms
☒ Test Results (no tentatively identified compounds [TICs])
☒ Calibration standards
☒ Surrogate recoveries
☒ Blank results
☒ Spike recoveries
☒ Duplicate results
☒ Confirmation (lab check/QC) samples
☒ Internal standard area & retention time summary
☒ Chromatograms
☒ Raw data files
☒ Other specific information

The SDG reported the following samples:

Sample ID	SDG #480-143525-2–sample #	Matrix	Sampled	Received
SB-117-A	#–21	Soil	10/11/18	10/16/18
SB-117-B	#–22	Soil	10/11/18	10/16/18
SB-117-C	#–23	Soil	10/11/18	10/16/18
SB-117-D	#–24	Soil	10/11/18	10/16/18
SB-118-A	#–25	Soil	10/11/18	10/16/18
SB-118-B	#–26	Soil	10/11/18	10/16/18
SB-118-C	#–27	Soil	10/11/18	10/16/18
SB-116-A	#–28	Soil	10/11/18	10/16/18
SB-116-B	#–29	Soil	10/11/18	10/16/18
SB-116-C	#–30	Soil	10/11/18	10/16/18
SB-115-A	#–31	Soil	10/11/18	10/16/18
SB-115-B	#–32	Soil	10/11/18	10/16/18
SB-115-C	#–33	Soil	10/11/18	10/16/18

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The SDG included the following samples with their analyses:

143525-2	Sample	VOCs	SVOCs	Pest	PCBs	TAL & Hg	Cyanide	pH	Temp
#–21	SB-117-A	X	X	X	X	X	X	X	X
#–22	SB-117-B	X	X	X	X	X	X	X	X
#–23	SB-117-C	X	X	X	X	X	X	X	X
#–24	SB-117-D	X	X	X	X	X	X	X	X
#–25	SB-118-A	X	X	X	X	X	X	X	X
#–26	SB-118-B	X	X	X	X	X	X	X	X
#–27	SB-118-C	X	X	X	X	X	X	X	X
#–28	SB-116-A	X	X	X	X	X	X	X	X
#–29	SB-116-B	X	X	X	X	X	X	X	X
#–30	SB-116-C	X	X	X	X	X	X	X	X
#–31	SB-115-A	X	X	X	X	X	X	X	X
#–32	SB-115-B	X	X	X	X	X	X	X	X
#–33	SB-115-C	X	X	X	X	X	X	X	X

VOC: Volatile Organic Compounds (8260) | SVOC: Semi-VOCs (8270) | Pest: Pesticides (8081) | PCBs (8082)
TAL: Total Analyte List (6010) | Hg: Mercury (7470) | Cyanide (9012) | pH (9040)
| * Dry, no sample † No sample

Is the data package complete as defined under the requirements for the NYSDEC ASP Category B?		
Laboratory Report	**Complete (Y/N)**	**Comments**
480-143525-2	Y	No

Sample Preservation Requirements & Holding Times Met?			
Laboratory Report	**Hold Times (Y/N)**	**Preservation (Y/N)**	**Exception Comment**
480-143525-2	N (pH & temp) Y	Y	15-min holding time missed, qualified None

Do the QC data fall within the protocol required limits and specifications?
(1) blanks, (2) instrument tunings, (3) calibration standards, (4) calibration verifications, (5) surrogate recoveries, (6) spike recoveries, (7) replicate analyses, (8) laboratory controls, (9) and sample data

SDG	1	2	3	4	5	6	7	8	9
480-143525-2	☐	☐	☐	☒	☒	☒	☐	☒	☒

The narrative section, below, discusses these deficiencies in detail, see Attachment 1 as well.

Have the data been generated using established and agreed upon analytical protocols?		
Laboratory Report	**Protocols (Y/N)**	**Exception Comment**
480-143525-2	Y	No

Do the raw data confirm the results provided in the data summary sheets and quality control verification forms?		
Laboratory Report	**Confirmation (Y/N)**	**Exception Comment**
480-143525-2	Y	No

Have the correct data qualifiers been used and are they consistent with the most current guidance?		
Laboratory Report	**Qualifiers (Y/N)**	**Comment**
480-143525-2	Y	The laboratory generally applied appropriate qualifiers.

Have any quality control (QC) exceedances been specifically noted in this DUSR and the corresponding QC summary sheets from the data packages referenced?

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Laboratory Report	QC Exceedances Documented (Y/N)	Comment
480-143525-2	Y	Several data qualifications were applied as described below

Data Quality and Usability Narrative

Field Notes Inspection

The soil boring samples came from a collection event October 12, 2018. RemVer reviewed the field notes (soil boring logs) as part of this DUSR.

Laboratory Report Inspection

TA produced an SDG report #480-143525-2 (dated 9-Nov-18). The SDG report had the required data and information.

Chain of Custody (COC) Evaluation

NYSDEC/GES produced a COC for the referenced fieldwork (GES Project PSID#739391): SDG: #480-143525-2—single, four-page COC; laboratory noted no issues at the time of acceptance.

Sample Preservation & Holding Time Evaluation

Laboratory received eight coolers with samples on 10/16/2018 @ 13:10 PM (designated as SDG-#480-143525-2). The temperatures of the coolers at receipt were 1.3,1.8, 2.2, 2.3, 2.6, 2.9, 3.1, and 3.1ºC. The samples arrived in good condition, properly preserved, and where necessary under ice. Holding times and preservation requirements were met with one exception:

- Analysis of pH (Method 9040 and includes temperature measurement) has a 15-minute holding time, which was violated; therefore, RemVer qualified these results with a J.

Detection Limits

Analytical detection limits (DLs) were acceptable for all analytes causing no QA issues other than those noted below:

- If an analyte was above the method detection limit (MDL) but below the reporting limit (RL), then it was flagged as “UJ”.

Blank Evaluation

SDG #480-143525-2 had Method Blanks (MBs) for each method. The MBs were acceptable (no detectable analytes), with the following exception(s):

- VOC analysis (Method 8260) had Methylene Chloride in the MB greater than the MDL but less than the RL. Therefore, RemVer did not flag this analyte with B-flag.
- Metals analysis (Method 6010) had Aluminum, Barium, Calcium, Iron, Magnesium, and Manganese in the MB either greater than the MDL but less than the RL or less than 5-10X greater than the RL. Therefore, RemVer did not flag these analytes with a B-flag.

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Laboratory Control Samples (LCS)

The various method LCS' (LCS & LCS duplicates [LCSD]) were within the acceptable control ranges and relative percent differences (RPDs) for their particular analyses in SDG 480-143525-2, with the following exceptions:

- Method 8260—Batch 440187 had spike recoveries of Methyl ethyl ketone (2-Butanone) beyond limits with high bias. This effected all samples, and RemVer flagged the results UJ+ or J+, as appropriate.

Surrogates

Surrogates added to a sample allow testing of preparatory and instrument behavior resulting in recoveries within appropriate method ranges for the analytes. In SDG #480-143525-2 there were no exceptions requiring flagging of the sample results.

- Method 8260—performance of the surrogate DBFM was beyond criteria in Sample #-26. RemVer flagged the sample for all analytes as UJ or J as appropriate.
- Method 8270—had two surrogate performance issues:
  - Performance of the surrogates TBP and 2FP were beyond criteria in Sample #-26. RemVer flagged the sample for all analytes as UJ or J as appropriate.
  - Performance of the surrogate TBP was beyond criteria in Samples #-28, #-29, and #-32. RemVer flagged the sample for all analytes as UJ or J as appropriate.
- Method 8081—Samples 21, #-25 (including the MS/MSD runs), #-28, and #-31 had poor surrogate (DCBP and/or TCS) performance. RemVer flagged all samples and analytes due to the MS/MSD runs.
- Method 8082—one of the DCBP surrogates had recoveries (and CCVs) beyond limits in all samples, including the MS/MSD runs. RemVer flagged all sample for Aroclors as UJ or J as appropriate.

Site-Specific Matrix Spikes and Matrix Spike Duplicates

The matrix spike/matrix spike duplicate (MS/MSD) runs for all analyses met the QA criteria in SDG 480-143525-2 with the following exceptions:

- Method 8260—MS/MSD runs were beyond control limits. RemVer flagged all samples as UJ or J for these analytes.
- Method 8270—the spike recoveries were beyond limits (and/or RPD beyond criteria) for Benzo[a]pyrene, Benzo[b]fluoranthene, Benzo[g,h,i]perylene, Dibenz(a,h)anthracene, Fluoranthene, Indeno[1,2,3-cd]pyrene, and Phenanthrene. RemVer flagged all samples as UJ or J for these analytes.
- Method 8081—both MS/MSD runs had poor surrogate (DCBP) performance (see above) and poor spike recovery and/or RPDs beyond limits for Beta-BHC, Gamma-BHC, Heptachlor, and trans-Chlordane. Therefore, RemVer flagged all samples as UJ or J for these analytes.
- Method 8082—both MS/MSD runs had RPDs beyond criteria. RemVer flagged all samples as UJ or J for PCBs.
- Method 6010—MS performance was beyond limits for the following analytes: Aluminum, Antimony, Barium, Calcium, Chromium, Iron, Magnesium, Manganese, Potassium, and Zinc. RemVer flagged the results for these analytes UJ or J as appropriate in all samples.

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- Method 9012—the Cyanide batch MS's were beyond control limits due to low sample homogeneity. As a result, RemVer flagged all results as UJ or J as appropriate.

Duplicates

The samples associated with this SDG did not have an accompanying field replicate. RemVer did not evaluate a field duplicate to judge sampling performance in this instance; however, as this was a multi-day sampling event covered by multiple SDGs. Therefore, this is not a significant quality issue. Regardless, the analytical Method Duplicates met their RPD performance criteria.

Tentatively Identified Compounds (TICs)

This SDG had no analysis of TICs.

Calibration Standards and Continuing Calibration Verification (CCV)

Calibration standards (external or internal) were acceptable for all analytes with no exceptions.

CCVs were acceptable in the SDG for all methods and analytes, with the following exceptions:

- Method 8260—Batch #440187 had poor recoveries in Sample #-25:
  - Recovery was <LCL (low bias) for Chloromethane and Vinyl chloride. RemVer flagged the results as UJ- or J-.
  - Recovery was >UCL for 2-Butanone (MEK). RemVer flagged the results as UJ or J.
- Method 6010—had recoveries greater than the UCL for Potassium and effected all samples. RemVer flagged the results as UJ or J.

Sample Result and Usability Evaluation

Due to certain sample issues or laboratory performance, some results were qualified; however, the data are usable. No data received an R (rejected) flag.

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NYSDEC, 2010, *Technical Guidance for Site Investigation and Remediation*, "DER-10," Division of Environmental Remediation: Albany, NY, May, 232p

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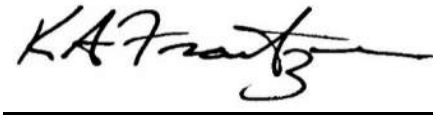
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Attachments

1. DQA Detail Worksheet
2. DQA Non-Conformance Summary Workheet
3. 480-143525-2_EquaNysdec.xls (separate EXCEL annotated EDD with validation, attached)



Prepared by: Kurt A. Frantzen, PhD
December 18, 2018

GES PO#751457-1109

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Attachment 1
DQA Detail Worksheet

BLANKS	>RL?	Compounds	Notes
VOC (8260)	No	None	No Comment
SVOC (8270)	No	None	No Comment
Pest (8081)	No	None	No Comment
PCBs (8082)	No	None	No Comment
Metals (6010)	No	None	No Comment
Hg (7470)	No	None	No Comment
Cyanide (9012)	No	None	No Comment

LCS	SV <10%	Low Bias > 10% & < LCL	High Bias >UCL	Compound(s)	Notes
VOC (8260)	—	—	—	None	No Comment
	—	—	X	MEK	Flag UJ+ or J+
SVOC (8270)	—	—	—	None	No Comment
Pest (8081)	—	—	—	None	No Comment
PCBs (8082)	—	—	—	None	No Comment
Metals (6010)	—	—	—	None	No Comment
Hg (7470)	—	—	—	None	No Comment
Cyanide (9012)	—	—	X	Cyanide	Flag UJ+ or J+

SURROGATES	SV <10%	> 10% & < LCL	>UCL	Compound(s)	Notes
VOC (8260)	—	—	—	—	No Comment
SVOC (8270)	—	—	—	—	No Comment
	—	—	X (TBP/2FP)	All in #-26	Flag UJ or J
	—	—	X (TBP)	All in #-28, 29, & 32	Flag UJ or J
Pest (8081)	—	—	X	All (MS/MSD)	Flag UJ or J
PCBs (8082)	—	—	X	All Aroclors	Flag UJ or J
Metals (6010)	—	—	—	—	No Comment
Hg (7470)	—	—	—	—	No Comment
Cyanide (9012)	—	—	—	—	No Comment

MS/MSDs	SV <10%	Low Bias > 10% & < LCL	High Bias >UCL	QC Source	RPDs	Notes
VOC (8260)	—	X	X	Batch	X	Flag UJ or J
SVOC (8270)	—	—	—	Batch	—	No Comment
BaP, BbF, BghiP, DahA, Fluoranthene, I123cdP, & Phenanthrene	—	X	X	Batch	X	Flag UJ or J
Pest (8081)	—	—	—	See Surrogate	—	Flag UJ or J
Beta-BHC, Gamma-BHC, Heptachlor, and trans-Chlordane	—	X	X	Batch	X	Flag UJ or J

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MS/MSDs	SV <10%	Low Bias > 10% & < LCL	High Bias >UCL	QC Source	RPDs	Notes
PCBs (8082)	—	—	—	Batch	X	Flag UJ or J
Metals (6010)	—	—	—	Batch	—	No Comment
Aluminum, Antimony, Barium, Calcium, Chromium, Iron, Magnesium, Manganese, Potassium, & Zinc	—	X	X	Batch	X	Flag UJ or J
Hg (7470)	—	—	—	Batch	—	No Comment
Cyanide (9012)	—	X	X	Batch	>UCL	Flag UJ or J

Attachment 1 continued

FIELD DUPLICATES RPDs	QC Source	Soil RPD > 50%	Water RPD > 20%	Compounds	Notes
See Other SDGs	Site	N/A	N/A	—	No Comment
		N/A	N/A	—	
		N/A	N/A	—	
LAB DUPLICATES					
All Methods	Batch	N/A	—	As listed	No Comment

Reasonable Confidence Achieved	☐ Y	☐ N—Not Applicable
Significant QC Variances Noted	☒ Y	☐ N
Requested Reporting Limits Achieved	☒ Y	☐ N
Preservation Requirements Met	☒ Y	☐ N
Holding Time Requirements Met	☐ Y	☒ N

Abbreviations:
RL = Reporting Limit LCS = Laboratory Control Sample SV = Significant QC Variance
RPD = Relative Percent Difference LCL= RCP Lower Control Limit UCL= RCP Upper Control Limit
VOCs = Volatile Organic Compounds SVOCs = Semi-volatile Organic Compounds Pest = Pesticides
EPH = Extractable Petroleum Hydrocarbons VPH = Volatile Petroleum Hydrocarbons ETPH = EPH-Total
PCBs = Polychlorinated Biphenyls N/A = Not Applicable N/C = Not Collected -- = nothing to report
Notes: * Typical lab contaminants, not site-related

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Attachment 2
DQA Non-Conformance Summary Worksheet

Only Flagged Results Shown Below

SDG #480-143525-2						
Sample Number(s)	**Compound(s)**	**QC Non-Conformance**	**% Recovery**	**% RPD †**	**High or Low Bias ‡**	**Comments**
ALL	All	MDL>result<RDL	—	—	—	Validator Flag UJ Interpreted Flag U
	Potassium	CCV	X	—	—	Flag UJ or J
	2-Butanone (MEK)	LCS	X	X	Hi	Flag UJ+ or J+
	All PCBs	Surrogates MS/MSD	X —	— X	—	Flag UJ or J
	All VOCs	MS/MSD	X	—	—	Flag UJ or J
	BaP, BbF, BghiP, DahA, Fluoranthene, I123cdP, & Phenanthrene	MS/MSD	>UCL <LCL	X	—	Flag UJ or J
	All Pesticides	Surrogates MS/MSD	X	X	—	Flag UJ or J
	Aluminum, Antimony, Barium, Calcium, Chromium, Iron, Magnesium, Manganese, Potassium, & Zinc	MS	>UCL <LCL	X	—	Flag UJ or J
	Cyanide	MS	>UCL	—	—	Flag UJ or J
	pH	Holding Time	—	—	—	Flag J
#-25	Chloromethane & Vinyl chloride	CCV	<LCL	X	Lo	Flag UJ- or J-
	2-Butanone (MEK)	CCV	X	—	—	Flag UJ or J
#-26	All VOCs	Surrogate DBFM	Beyond method criteria		—	Flag UJ or J
#26, 28, 29, & 32	SVOCs	Surrogates	>UCL	—	—	Flag UJ or J

Notes: † RPD—Relative Percent Difference

‡ Bias High—Reported result may be lower, Reporting Limit (RL) is acceptable as reported. Bias Low—Reported results may be higher, RL may be higher than reported.

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Quality Assessment
Data Usability Summary Report

			RemVer Project #2018GE13 Client Project #0901752-02-840
Site:	Buffalo Lakeside Commercial Park, Parcel 5 Buffalo, NY	**Site #:**	915322
Client:	NYSDEC via GES, Inc.	**Site Owner:**	–N/A–
Sample Delivery Groups (SDGs)	480-144091		
Sample Matrix:	☐ Drinking water ☐ Groundwater ☐ Surface water ☒ Soil ☐ Sediment ☐ Air ☐ Biota (tissue, type: _____) ☐ Other: _____		

Introduction

RemVer performed a data quality assessment (DQA) on the analytical data for soil samples. reported in Sample Delivery Groups (SDGs) #480-144091 from Test America (TA). A DQA is an evaluation of the performance of analytical procedures and quality of the resulting data. RemVer followed the requirements of the New York State Department of Environmental Conservation (NYSDEC) Data Usability Summary Report (DUSR) guidelines for an Analytical Services Protocol (ASP) Category B Data Deliverable. This report includes a narrative discussion of sample results qualified during the DQA. Attached to the main report is a list describing the final reported qualification flags applied to the data by RemVer during this DQA process.

Reported Methods

- ☐ Method 1311 TCLP
- ☐ Method 1312 SPLP
- ☒ Method 6010A, B & C / 6020 Trace Metals
- ☐ Method 7000 Metals
- ☐ Method 7196 Hexavalent Chromium (other:_____)
- ☒ Method 7470A or 7471 Mercury
- ☐ Method 8021 Volatile Organic Compounds (VOCs) GC
- ☒ Method 8081B or ☐ 608 Pesticides
- ☒ Method 8082 or ☐ 608 PCBs
- ☐ Method 8151 Chlorinated Herbicides
- ☒ Method 8260C VOCs GC/MS
- ☒ Method 8270D Semi-VOCs (sVOCs) GC/MS &/or SIM-ID
- ☒ Method 9010/9012/9014 Cyanides (_____)
- ☐ Method TO-13A PAHs (air)
- ☐ Method TO-14A / -15 VOCs (air, summa) (_____)
- ☐ Method TO-17 VOCs (air, sorbent)
- ☐ Method 537 PFCs via SPE & LC/MS-MS
- ☐ Volatile Petroleum Hydrocarbons (VPH) Method
- ☐ Extractable Petroleum Hydrocarbons (EPH)
- ☒ Other Methods:
  - ☑ Method Percent Moisture
  - ☑ Method 3550C Ultrasonic Extraction
  - ☑ Method 5035A_L Purge & Trap, closed
  - ☑ Method 3005B Total Metals Prep.
  - ☑ Method 9045D pH

Quality Control Requirements Summary

- ☒ Duplicate
- ☒ Matrix Spike [MS] / Matrix Spike Duplicate [MSD]
- ☐ Trip Blanks
- ☒ Equipment, Method, &/or Rinsate Blank
- ☐ Other Field QC: Field notes regarding sampling
- ☐ Special QAPP Requirements: _____
  _____

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Intended Use of Data Under Review

NYSDEC contracted GES to perform a 2018 site-wide synoptic soil, groundwater, and surface water monitoring event at the referenced site. The monitoring event (10 October through 09 November) purpose was to update the existing environmental dataset with current synoptic conditions. Sampling was to provide analyses of environmental conditions for the presence of volatile organic compounds (VOCs), semi-volatile organic compounds (SVOCs), organochlorine pesticides, polychlorinated biphenyls (PCBs), metals (including metalloids), pH, and Cyanides.

This DUSR addresses SDG #480-144091. The soil samples came from a collection event on October 23, 2018.

Significant Data Usability Issues In SDG: #480-144091

Of the fourteen samples (including one Duplicate) discussed herein, RemVer rejected no results. The other results are acceptable for use although the results of some analytes are flagged due to sample handling, or laboratory accuracy or precision issues. Please refer to the Lab Results and Data Usability Narrative section for further detail.

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Detailed Quality Review

Field Notes Review

	Y	N	NA	COMMENTS
Sampling notes	☒	☐	☐	
Field meteorological data	☐	☐	☒	No review required under QAPP
Associated sampling location and plan included	☐	☒	☐	See RAP/QAPP
Associated drilling logs available, reviewed	☐	☐	☒	No review required under QAPP
Identification of QC samples in notes	☒	☐	☐	Sample IDs
Sampling instrument decontamination records	☐	☐	☒	No review required under QAPP
Sampling instrument calibration logs	☐	☐	☒	No review required under QAPP
Chain of custody included	☒	☐	☐	With analytical report
Notes include communication logs	☐	☒	☐	
Any corrective action (CA) reports	☐	☒	☐	If so, CA documentation of results required.
Any deviation from methods noted? If so, explain	☐	☒	☐	None
Any electronic data deliverables	☐	☒	☐	None
Sampling Report (by Field Team Leader)	☒	☐	☐	Field Notes

Lab Report Contents (Test America SDG Reports: #480-144091)

☒ SDG Narrative
☒ Contract Lab Sample Information Sheets
☒ Data Package Summary Forms
☒ Chain-of-Custody (COC) Forms
☒ Test Results (no tentatively identified compounds [TICs])
☒ Calibration standards
☒ Surrogate recoveries
☒ Blank results
☒ Spike recoveries
☒ Duplicate results
☒ Confirmation (lab check/QC) samples
☒ Internal standard area & retention time summary
☒ Chromatograms
☒ Raw data files
☒ Other specific information

The SDG reported the following samples:

Sample ID	SDG #480-144091–sample #	Matrix	Sampled	Received
SB-129-A	#–1	Soil	10/23/18	10/24/18
SB-129-B	#–2	Soil	10/23/18	10/24/18
SB-129-C	#–3	Soil	10/23/18	10/24/18
SB-126-A	#–4	Soil	10/23/18	10/24/18
SB-126-B	#–5	Soil	10/23/18	10/24/18
SB-126-C	#–6	Soil	10/23/18	10/24/18
SB-127-A	#–7	Soil	10/23/18	10/24/18
SB-127-B	#–8	Soil	10/23/18	10/24/18
SB-127-C	#–9	Soil	10/23/18	10/24/18
SB-128-A	#–10	Soil	10/23/18	10/24/18
SB-128-B	#–11	Soil	10/23/18	10/24/18
SB-128-C	#–12	Soil	10/23/18	10/24/18
SB-128-D	#–13	Soil	10/23/18	10/24/18
DUP-102318	#–14	Soil	10/23/18	10/24/18

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The SDG included the following samples with their analyses:

144091	Sample	VOCs	SVOCs	Pest	PCBs	TAL & Hg	Cyanide	pH	Temp
#–1	SB-129-A	X	X	X	X	X	X	X	X
#–2	SB-129-B	X	X	X	X	X	X	X	X
#-3	SB-129-C	X	X	X	X	X	X	X	X
#-4	SB-126-A	X	X	X	X	X	X	X	X
#–5	SB-126-B	X	X	X	X	X	X	X	X
#–6	SB-126-C	X	X	X	X	X	X	X	X
#–7	SB-127-A	X	X	X	X	X	X	X	X
#–8	SB-127-B	X	X	X	X	X	X	X	X
#–9	SB-127-C	X	X	X	X	X	X	X	X
#–10	SB-128-A	X	X	X	X	X	X	X	X
#–11	SB-128-B	X	X	X	X	X	X	X	X
#–12	SB-128-C	X	X	X	X	X	X	X	X
#–13	SB-128-D	X	X	X	X	X	X	X	X
#–14	DUP-102318	X	X	X	X	X	X	X	X

VOC: Volatile Organic Compounds (8260) | SVOC: Semi-VOCs (8270) | Pest: Pesticides (8081) | PCBs (8082)
TAL: Total Analyte List (6010) | Hg: Mercury (7470) | Cyanide (9012) | pH (9040)
| * Dry, no sample † No sample

Is the data package complete as defined under the requirements for the NYSDEC ASP Category B?		
Laboratory Report	**Complete (Y/N)**	**Comments**
480-144091	Y	No

Sample Preservation Requirements & Holding Times Met?			
Laboratory Report	**Hold Times (Y/N)**	**Preservation (Y/N)**	**Exception Comment**
480-144091	N (pH & temp) N (#8&13 SVOC) Y	Y	15-min holding time missed, qualified Analysis hold time missed, qualified None

Do the QC data fall within the protocol required limits and specifications?
(1) blanks, (2) instrument tunings, (3) calibration standards, (4) calibration verifications, (5) surrogate recoveries, (6) spike recoveries, (7) replicate analyses, (8) laboratory controls, (9) and sample data

SDG	1	2	3	4	5	6	7	8	9
480-144091	☐	☐	☒	☒	☒	☒	☐	☒	☒

The narrative section, below, discusses these deficiencies in detail, see Attachment 1 as well.

Have the data been generated using established and agreed upon analytical protocols?		
Laboratory Report	**Protocols (Y/N)**	**Exception Comment**
480-144091	Y	No

Do the raw data confirm the results provided in the data summary sheets and quality control verification forms?		
Laboratory Report	**Confirmation (Y/N)**	**Exception Comment**
480-144091	Y	No

Have the correct data qualifiers been used and are they consistent with the most current guidance?		
Laboratory Report	**Qualifiers (Y/N)**	**Comment**
480-144091	Y	The laboratory generally applied appropriate qualifiers.

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Have any quality control (QC) exceedances been specifically noted in this DUSR and the corresponding QC summary sheets from the data packages referenced?		
Laboratory Report	**QC Exceedances Documented (Y/N)**	**Comment**
480-144091	Y	Several data qualifications were applied as described below

Data Quality and Usability Narrative

Field Notes Inspection

The soil boring samples came from a collection event October 23, 2018. RemVer reviewed the field notes (soil boring logs) as part of this DUSR.

Laboratory Report Inspection

TA produced an SDG report #480-144091 (dated 16-Nov-18). The SDG report had the required data and information.

Chain of Custody (COC) Evaluation

NYSDEC/GES produced a COC for the referenced fieldwork (GES Project PSID#739393): SDG: #480-144091—single, two-page COC; laboratory noted no issues at the time of acceptance.

Sample Preservation & Holding Time Evaluation

Laboratory received a cooler with samples on 10/24/2018 @ 13:15 PM (designated as SDG-#480-144091). The temperature of the cooler at receipt was 4.4ºC. The samples arrived in good condition, properly preserved, and where necessary under ice. Holding times and preservation requirements were met with one exception:

- Analysis of pH (Method 9040 and includes temperature measurement) has a 15-minute holding time, which was violated; therefore, RemVer qualified these results with a J.
- Method 8270—Samples #-5 and #-8 had initial surrogate issues requiring re-analysis, which ended up beyond allowable holding times. The analytes in these samples were flagged UJ or J.

Detection Limits

Analytical detection limits (DLs) were acceptable for all analytes causing no QA issues other than those noted below:

- If an analyte was above the method detection limit (MDL) but below the reporting limit (RL), then it was flagged as “UJ”.
- Method 8260—the laboratory qualified some VOC results with low bias because the reported analyte concentrations were below 200 ug/kg. The qualifier arose due to sample collection inconsistent with low-level specifications.

Blank Evaluation

SDG #480-144091 had Method Blanks (MBs) for each method. The MBs were acceptable (no detectable analytes), with the following exception(s):

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- Method 8081 (Pesticides) had DDE in the MB either greater than the MDL but less than the RL or less than 5X greater than the RL. Therefore, RemVer did not flag these analytes with a B-flag.
- Metals analysis (Method 6010) had Calcium, Magnesium, Manganese, and Sodium in the MB either greater than the MDL but less than the RL or less than 5X greater than the RL. Therefore, RemVer did not flag these analytes with a B-flag.

Laboratory Control Samples (LCS)

The various method LCS' (LCS & LCS duplicates [LCSD]) were within the acceptable control ranges and relative percent differences (RPDs) for their particular analyses in SDG 480-144091, with the following exceptions:

- Method 8082—surrogate (TCX & DCBP) performance was beyond limits in the LCS. See Surrogate discussion below.
- Method 9012B—the Cyanide LCS had a calibration curve exceedance while recovery was within limits. The associated MS/MSD had spike recovery excursions (see below). Therefore, RemVer flagged the results as UJ or J.

Surrogates

Surrogates added to a sample allow testing of preparatory and instrument behavior resulting in recoveries within appropriate method ranges for the analytes. In SDG #480-144091 there were no exceptions requiring flagging of the sample results.

- Method 8270—surrogate performance was beyond limits in Samples #-5, 8, and 13 (TCX) and in Sample #-2 (DCBP and TCX). RemVer flagged these samples as UJ or J for this analysis.
- Method 8081—surrogate performance was beyond limits in Samples #-1, 3, 6, and 7 (DCBP) and in Sample #-2 (DCBP and TCX). RemVer flagged these samples as UJ or J for this analysis.
- Method 8082—surrogate performance was beyond limits in Sample #-3, the LCS, and MS/MSD runs. RemVer flagged all samples as UJ or J for these analytes.

Site-Specific Matrix Spikes and Matrix Spike Duplicates

The matrix spike/matrix spike duplicate (MS/MSD) runs for all analyses met the QA criteria in SDG 480-144091 with the following exceptions:

- Method 8260—spike recoveries and RPDs were beyond control limits. Sample matrix interference and/or non-homogeneity are suspected because the associated LCS recovery acceptable. Therefore, RemVer flagged all samples as UJ or J for these analytes.
- Method 8270—spike recoveries and RPDs were beyond control limits. Sample matrix interference and/or non-homogeneity are suspected because the associated LCS recovery acceptable. Therefore, RemVer flagged all samples as UJ or J for these analytes.
- Method 8082—surrogate (DCBP) performance was beyond limits in the LCS. See Surrogate discussion above.
- Method 6010—the following analytes had spike recoveries beyond limits and/or RPDs beyond criteria: Aluminum, Antimony, Arsenic, Barium, Calcium, Chromium, Copper,

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Potassium, Nickel, Selenium, Vanadium, & Zinc. As a result, RemVer flagged the results in all samples as UJ or J as appropriate.

- Method 7471—the Mercury batch MS's were beyond control limits, for Samples #-8, 9, 10, 11, 12, and13, due to low sample homogeneity. As a result, RemVer flagged all results as UJ or J as appropriate.
- Method 9012—the Cyanide batch MS's were beyond control limits due to low sample homogeneity. As a result, RemVer flagged all results as UJ or J as appropriate.

Duplicates

GES collected a field replicate (Sample #-9); however, RemVer was not informed as to the replicate source and did not evaluate the field duplicate to judge sampling performance. Therefore, this is not a significant quality issue. All other analytical Method Duplicates met their RPD performance criteria of <20%. The user of this report may perform the analysis (*note: if the Relative Percent Difference [RPD] between the original sample and its associated replicate are less than 20%, then sampling performance precision is within acceptable limits*).

Tentatively Identified Compounds (TICs)

This SDG had no analysis of TICs.

Calibration Standards and Continuing Calibration Verification (CCV)

Calibration standards (external or internal) were acceptable for all analytes with the following exceptions:

- Method 8260—internal standard (ISTD) response were outside control limits for samples #-3, #-6, and #-9. RemVer flagged results for these samples as UJ or J as appropriate.

CCVs were acceptable in the SDG for all methods and analytes, with the following exceptions:

- Method 8082—CCV for PCB-1268 had recoveries beyond criteria in all samples. RemVer flagged the results as UJ or J.

Sample Result and Usability Evaluation

Due to certain sample issues or laboratory performance, some results were qualified; however, the data are usable. No data received an R (rejected) flag.

RemVer rejected (R flag) one Cyanide analysis result (Sample #-1 [SB-101-A]); however, the laboratory also reported a re-analysis result, which was accepted (albeit qualified due to a holding time violation). Nevertheless, the reported result is usable.

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NYSDEC, 2010, *Technical Guidance for Site Investigation and Remediation*, "DER-10," Division of Environmental Remediation: Albany, NY, May, 232p

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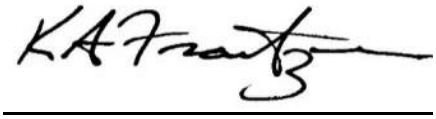
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Attachments

1. DQA Detail Worksheet
2. DQA Non-Conformance Summary Workheet
3. 480-144091_EquaNysdec.xls (EXCEL annotated EDD with validation, attached)



Prepared by: Kurt A. Frantzen, PhD
December 18, 2018

GES PO#751457-1109

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Attachment 1
DQA Detail Worksheet

BLANKS	>RL?	Compounds	Notes
VOC (8260)	No	None	No Comment
SVOC (8270)	No	None	No Comment
Pest (8081)	No	None	No Comment
PCBs (8082)	No	None	No Comment
Metals (6010)	No	None	No Comment
Hg (7470)	No	None	No Comment
Cyanide (9012)	No	None	No Comment

LCS	SV <10%	Low Bias > 10% & < LCL	High Bias >UCL	Compound(s)	Notes
VOC (8260)	—	—	—	None	No Comment
SVOC (8270)	—	—	—	None	No Comment
Pest (8081)	—	—	—	None	No Comment
PCBs (8082)	—	—	—	All	See Surrogates
Metals (6010)	—	—	—	None	No Comment
Hg (7470)	—	—	—	None	No Comment
Cyanide (9012)	—	—	Calibration	Cyanide	Flag UJ+ or J+

SURROGATES	SV <10%	> 10% & < LCL	>UCL	Compound(s)	Notes
VOC (8260)	—	—	—	—	No Comment
SVOC (8270)	—	—	X	TCX & DCBP	Flag UJ or J Samples #5, 8, & 13
Pest (8081)	—	—	X	TCX & DCBP	Flag UJ or J Samples #-1, 2, 3, 6, & 7
PCBs (8082)	—	—	X	TCX & DCBP	Flag UJ or J
Metals (6010)	—	—	—	—	No Comment
Hg (7470)	—	—	—	—	No Comment
Cyanide (9012)	—	—	—	—	No Comment

MS/MSDs	SV <10%	Low Bias > 10% & < LCL	High Bias >UCL	QC Source	RPDs	Notes
VOC (8260)	—	X	X	Batch	X	Flag UJ or J
SVOC (8270)	—	X	X	Batch	X	Flag UJ or J
Pest (8081)	—	—	—	Batch	—	No Comment
PCBs (8082)	—	—	—	Batch	—	See Surrogates
Metals (6010)	—	—	—	Batch	—	No Comment
Al, Sb, As, Ba, Ca, Cr, Cu, K, Ni, Se, V, & Zn	—	X	X	Batch	X	Flag UJ or J
Hg (7470)	—	—	—	Batch #444188	—	No Comment
#8, 9, 10, 11, 12, 13	—	X	X	Batch #4434777	X	Flag UJ or J
Cyanide (9012)	—	—	X	Batch	—	Flag UJ or J

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Attachment 1 continued

FIELD DUPLICATES RPDs	QC Source	Soil RPD > 50%	Water RPD > 20%	Compounds	Notes
#-14 (DUP-102318)	Site	—	N/A	—	No Comment
		—	N/A	—	
		—	N/A	—	
LAB DUPLICATES					
All Methods	Batch	N/A	—	As listed	No Comment

Reasonable Confidence Achieved	☐ Y	☐ N—Not Applicable
Significant QC Variances Noted	☒ Y	☐ N
Requested Reporting Limits Achieved	☒ Y	☐ N
Preservation Requirements Met	☒ Y	☐ N
Holding Time Requirements Met	☐ Y	☒ N

Abbreviations:
RL = Reporting Limit LCS = Laboratory Control Sample SV = Significant QC Variance
RPD = Relative Percent Difference LCL= RCP Lower Control Limit UCL= RCP Upper Control Limit
VOCs = Volatile Organic Compounds SVOCs = Semi-volatile Organic Compounds Pest = Pesticides
EPH = Extractable Petroleum Hydrocarbons VPH = Volatile Petroleum Hydrocarbons ETPH = EPH-Total
PCBs = Polychlorinated Biphenyls N/A = Not Applicable N/C = Not Collected -- = nothing to report
Notes: * Typical lab contaminants, not site-related

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Attachment 2
DQA Non-Conformance Summary Worksheet

Only Flagged Results Shown Below

SDG #480-144091						
Sample Number(s)	**Compound(s)**	**QC Non-Conformance**	**% Recovery**	**% RPD †**	**High or Low Bias ‡**	**Comments**
ALL	All	MDL>result<RDL	—	—	—	Validator Flag UJ Interpreted Flag U
	PCB-1268	CCV	X	—	—	Flag UJ or J
	All PCBs	Surrogates (LCS & MS/MSD)	>UCL	>criteria	—	Flag UJ or J
	All VOCs	MS	>UCL	>criteria	—	Flag UJ or J
	All SVOCs	MS/MSD	>UCL	>criteria	—	Flag UJ or J
	Al, Sb, As, Ba, Ca, Cr, Cu, K, Ni, Se, V, & Zn	MS	>UCL	>criteria	—	Flag UJ or J
	Cyanide	MS	>UCL	>criteria	—	Flag UJ or J
	pH	Holding Time	—	—	—	Flag J
#3, 6, & 9	All VOCs	ISTD	Beyond Method Criteria		—	Flag UJ or J
#-8 & 13	SVOCs	Holding Time	—	—	—	Flag UJ or J
#-5, 8 & 13	SVOCs	Surrogates	X	X	—	Flag UJ or J
#-1, 2, 3, 6, & 7	Pesticides	Surrogates	X	X	—	Flag UJ or J
#8, 9, 10, 11, 12, 13	Mercury	MS	X	X	—	Flag UJ or J

Notes: † RPD—Relative Percent Difference

‡ Bias High—Reported result may be lower, Reporting Limit (RL) is acceptable as reported. Bias Low—Reported results may be higher, RL may be higher than reported.

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Quality Assessment
Data Usability Summary Report

			RemVer Project #2018GE13 Client Project #0901752-02-840
Site:	Buffalo Lakeside Commercial Park, Parcel 5 Buffalo, NY	**Site #:**	915322
Client:	NYSDEC via GES, Inc.	**Site Owner:**	–N/A–
Sample Delivery Groups (SDGs)	480-144395		
Sample Matrix:	☐ Drinking water ☒ Groundwater ☐ Surface water ☐ Soil ☐ Sediment ☐ Air ☐ Biota (tissue, type: _____) ☐ Other: _____		

Introduction

RemVer performed a data quality assessment (DQA) on the analytical data for groundwater samples. reported in Sample Delivery Groups (SDGs) #480-144395 from Test America (TA). A DQA is an evaluation of the performance of analytical procedures and quality of the resulting data. RemVer followed the requirements of the New York State Department of Environmental Conservation (NYSDEC) Data Usability Summary Report (DUSR) guidelines for an Analytical Services Protocol (ASP) Category B Data Deliverable. This report includes a narrative discussion of sample results qualified during the DQA. Attached to the main report is a list describing the final reported qualification flags applied to the data by RemVer during this DQA process.

Reported Methods

☐ Method 1311 TCLP
☐ Method 1312 SPLP
☒ Method 6010A, B & C / 6020 Trace Metals
☐ Method 7000 Metals
☐ Method 7196 Hexavalent Chromium (other:_____)
☒ Method 7470A or 7471 Mercury
☐ Method 8021 Volatile Organic Compounds (VOCs) GC
☒ Method 8081B or ☐ 608 Pesticides
☒ Method 8082 or ☐ 608 PCBs
☐ Method 8151 Chlorinated Herbicides
☒ Method 8260C VOCs GC/MS
☒ Method 8270D Semi-VOCs (sVOCs) GC/MS &/or SIM-ID
☒ Method 9010/9012/9014 Cyanides (_____)

☐ Method TO-13A PAHs (air)
☐ Method TO-14A / -15 VOCs (air, summa) (_____)
☐ Method TO-17 VOCs (air, sorbent)
☐ Method 537 PFCs via SPE & LC/MS-MS
☐ Volatile Petroleum Hydrocarbons (VPH) Method
☐ Extractable Petroleum Hydrocarbons (EPH)
☒ Other Methods:
- ☑ Method 3510C Liquid-Liquid Extraction
- ☑ Method 5030C Purge & Trap
- ☑ Method 3005A Total Metals Prep.

Quality Control Requirements Summary

☒ Duplicate
☒ Matrix Spike [MS] / Matrix Spike Duplicate [MSD]
☐ Trip Blanks
☒ Equipment, Method, &/or Rinsate Blank

☐ Other Field QC: Field notes regarding sampling
☐ Special QAPP Requirements: _____
_____

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Intended Use of Data Under Review

NYSDEC contracted GES to perform a 2018 site-wide synoptic soil, groundwater, and surface water monitoring event at the referenced site. The monitoring event (10 October through 09 November) was to update the existing environmental dataset with current synoptic conditions. Sampling was to provide analyses of environmental conditions for the presence of volatile organic compounds (VOCs), semi-volatile organic compounds (SVOCs), organochlorine pesticides, polychlorinated biphenyls (PCBs), metals/metalloids, pH, and Cyanides.

This DUSR addresses SDG #480-144395; the groundwater samples included in this report came from a collection event on October 29, 2018.

Significant Data Usability Issues In SDG: #480-144395

Of the four samples and Duplicate discussed herein, RemVer rejected no results. The results are acceptable for use although the results of some analytes are flagged due to sample handling, or laboratory accuracy or precision issues. Please refer to the Lab Results and Data Usability Narrative section for further detail.

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Detailed Quality Review

Field Notes Review

	Y	N	NA	COMMENTS
Sampling notes	☒	☐	☐	
Field meteorological data	☐	☐	☒	No review required under QAPP
Associated sampling location and plan included	☐	☒	☐	See RAP/QAPP
Associated drilling logs available, reviewed	☐	☐	☒	No review required under QAPP
Identification of QC samples in notes	☒	☐	☐	Sample IDs
Sampling instrument decontamination records	☐	☐	☒	No review required under QAPP
Sampling instrument calibration logs	☐	☐	☒	No review required under QAPP
Chain of custody included	☒	☐	☐	With analytical report
Notes include communication logs	☐	☒	☐	
Any corrective action (CA) reports	☐	☒	☐	If so, CA documentation of results required.
Any deviation from methods noted? If so, explain	☐	☒	☐	None
Any electronic data deliverables	☐	☒	☐	None
Sampling Report (by Field Team Leader)	☒	☐	☐	Field Notes

Lab Report Contents (Test America SDG Reports: #480-144395)

☒ SDG Narrative
☒ Contract Lab Sample Information Sheets
☒ Data Package Summary Forms
☒ Chain-of-Custody (COC) Forms
☒ Test Results (no tentatively identified compounds [TICs])
☒ Calibration standards
☒ Surrogate recoveries
☒ Blank results
☒ Spike recoveries
☒ Duplicate results
☒ Confirmation (lab check/QC) samples
☒ Internal standard area & retention time summary
☒ Chromatograms
☒ Raw data files
☒ Other specific information

The SDG reported the following samples:

Sample ID	SDG #480-144395 –Sample #	Matrix	Sampled	Received
MW-101	#-1	Water	10/29/18	10/30/18
MW-131	#-2	Water	10/29/18	10/30/18
DUP-102918	#-3	Water	10/29/18	10/30/18
MW-105	#-4	Water	10/29/18	10/30/18
MW-108	#-5	Water	10/29/18	10/30/18

The SDG included the following samples with their analyses:

145042	Sample	VOCs	SVOCs	Pest	PCBs	TAL & Hg	Cyanide	pH	Temp
#–1	MW-101	X	X	X	X	X	X	X	X
#–2	MW-131	X	X	X	X	X	X	X	X
#-3	DUP-102918	X	X	X	X	X	X	X	X
#-4	MW-105	X	X	X	X	X	X	X	X
#-5	MW-108	X	X	X	X	X	X	X	X

VOC: Volatile Organic Compounds (8260) | SVOC: Semi-VOCs (8270) | Pest: Pesticides (8081) | PCBs (8082)
TAL: Total Analyte List (6010) | Hg: Mercury (7470) | Cyanide (9012) | pH (9040)
| * Dry, no sample † No sample

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Is the data package complete as defined under the requirements for the NYSDEC ASP Category B?		
Laboratory Report	**Complete (Y/N)**	**Comments**
480-144395	Y	No

Sample Preservation Requirements & Holding Times Met?			
Laboratory Report	**Hold Times (Y/N)**	**Preservation (Y/N)**	**Exception Comment**
480-144395	N (pH & temp) Y	Y Y	15-min holding time missed, qualified None

Do the QC data fall within the protocol required limits and specifications? *(1) blanks, (2) instrument tunings, (3) calibration standards, (4) calibration verifications, (5) surrogate recoveries, (6) spike recoveries, (7) replicate analyses, (8) laboratory controls, (9) and sample data*									
SDG	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**
480-144395	☐	☐	☐	☒	☐	☒	☐	☐	☒
The narrative section, below, discusses these deficiencies in detail, see Attachment 1 as well.									

Have the data been generated using established and agreed upon analytical protocols?		
Laboratory Report	**Protocols (Y/N)**	**Exception Comment**
480-144395	Y	No

Do the raw data confirm the results provided in the data summary sheets and quality control verification forms?		
Laboratory Report	**Confirmation (Y/N)**	**Exception Comment**
480-144395	Y	No

Have the correct data qualifiers been used and are they consistent with the most current guidance?		
Laboratory Report	**Qualifiers (Y/N)**	**Comment**
480-144395	Y	The laboratory generally applied appropriate qualifiers.

Have any quality control (QC) exceedances been specifically noted in this DUSR and the corresponding QC summary sheets from the data packages referenced?		
Laboratory Report	**QC Exceedances Documented (Y/N)**	**Comment**
480-144395	Y	Several data qualifications were applied as described below

Data Quality and Usability Narrative

Field Notes Inspection

The groundwater samples came from a single collection event October 29, 2018. RemVer reviewed the low-flow field notes.

Laboratory Report Inspection

TA produced an SDG report #480-144395 (dated 15-Nov-18). The SDG report had the required data and information.

Chain of Custody (COC) Evaluation

NYSDEC/GES produced a COC for the referenced fieldwork (GES Project PSID#734683): SDG: #480-144395—single, one-page COC, laboratory noted no issues at the time of acceptance.

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However, RemVer noticed that there were hand written notes on the COC indicating the samples were not on ice, whereas the Laboratory stated that they were.

Sample Preservation & Holding Time Evaluation

Laboratory received three coolers with samples on 10/30/2018 @ 12:35 PM (designated as SDG-#480-144395). The temperatures of the coolers at receipt were 7.9, 7.9, and 8.4ºC. The samples arrived in good condition, properly preserved, and where necessary under ice. Holding times and preservation requirements were met with two exceptions:

- The sample pH was basic at the time of receipt, requiring acidification by the laboratory per the requirements of the organic preparation under Method 3510. The available Field Notes indicate that the nature of water samples from this Site have a highly basic (>10.0 s.u.) nature. Therefore, RemVer did not qualify these results.
- Analysis of pH (Method 9040, which includes a temperature measurement) has a holding time of 15 minutes, which was violated; therefore, RemVer qualified these results as appropriate (J).

Detection Limits

Analytical detection limits (DLs) were acceptable for all analytes causing no QA issues, other than the following:

- If an analyte was above the method detection limit (MDL) but below the reporting limit (RL), then it was flagged as “UJ” per validation guidance. EDD interpretation under NYSDEC guidance recommends rendering this as a non-detect and returning a “U” flag.
- Method 8270D—Sample #-8 (MW-108, including the MS/MSD runs) required dilution due to the sample matrix resulting in elevated reporting limits (RLs).

Blank Evaluation

The SDG #480-144395 had Method Blanks (MBs) for each method. The MBs were acceptable (no detectable analytes), with the following exception(s):

- Metals analysis (Method 6010) had Iron, Manganese, and Zinc in the MB either greater than the MDL but less than the RL or less than 5X greater than the RL. Therefore, RemVer did not flag these analytes with a B-flag.

The samples in this SDG included no field associated Blanks (either Equipment, Field, or Trip). This poses a limitation on these samples in that it provides no quality measure of operational performance of the sampling itself. Because this was a multi-day sampling event covered by multiple SDGs, this is not a significant quality issue.

Laboratory Control Samples (LCS)

The various method LCS’ (LCS & LCS duplicates [LCSD]) were within the acceptable control ranges and relative percent differences (RPDs) for their particular analyses in SDG 480-144395, with no exceptions.

Surrogates

Surrogates added to a sample allow testing of preparatory and instrument behavior resulting in recoveries within appropriate method ranges for the analytes. In SDG #480-144395 there were no exceptions.

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Site-Specific Matrix Spikes and Matrix Spike Duplicates

The matrix spike/matrix spike duplicate (MS/MSD) runs for all analyses met the QA criteria in SDG #480-144395, with the following exceptions:

- Method 8081—while the associated LCS met acceptance criteria, the MS/MSD for preparation batch 480-443088 and analytical batch 480-443230 had poor recovery or RPDs beyond limits for Endosulfan I and II. Sample matrix interference and/or non-homogeneity are suspected because the associated LCS recovery acceptable. Therefore, RemVer flagged all samples as UJ or J for these analytes.

Duplicates

GES collected a field replicate (compare samples #-2 and #-3). The VOC, SVOC, Metals, and pH analytes met the RPD performance criteria of <20%. All other analytical Method Duplicates met their RPD performance criteria as well.

Tentatively Identified Compounds (TICs)

This SDG had no analysis of TICs.

Calibration Standards and Continuing Calibration Verification (CCV)

Calibration standards (external or internal) and CCVs were acceptable for all analytes with the following exceptions:

- Method 8270D—Batch # 445163 had recoveries greater than the upper control limit (UCL) for 3-Nitroaniline in all samples, which were non-detect or less than the RL. Therefore, RemVer did not flag the results.
- Method 8082—
    - Batch # 443284 had recoveries greater than the UCL for PCB-1262 in all samples, which were non-detect or less than the RL. Therefore, RemVer flagged the results as UJ, but should be interpreted as U.
    - Batch # 443284 had recoveries less than the LCL for PCB-1268 in all samples, which were non-detect or less than the RL. Therefore, RemVer flagged the results as UJ, but should be interpreted as U.

Sample Result and Usability Evaluation

Due to certain sample issues or laboratory performance, some results were qualified; however, the data are usable. No data received an R (rejected) flag.

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References

NYSDEC, 2010, *Technical Guidance for Site Investigation and Remediation*, "DER-10," Division of Environmental Remediation: Albany, NY, May, 232p

NYSDEC, 2010, *Guidance for Data Deliverables and the Development of Data Usability Summary Reports*, Appendix 2B IN *Technical Guidance for Site Investigation and Remediation*, Division of Environmental Remediation: Albany, NY, May, 232p

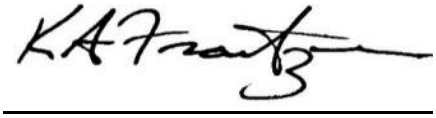
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USEPA, 2012, *Test Methods for Evaluating Solid Waste, Physical/Chemical Methods, SW-846*, Current Online Revision: http://www.epa.gov/epawaste/hazard/testmethods/sw846/online/index.htm, accessed April 2012

Attachments

1. DQA Detail Worksheet
2. DQA Non-Conformance Summary Workheet
3. 480-144395-1_EquNysdec.xls (separate EXCEL annotated EDD with validation, attached)



Prepared by: Kurt A. Frantzen, PhD
December 18, 2018

GES PO#751457-1109

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Attachment 1
DQA Detail Worksheet

BLANKS	>RL?	Compounds	Notes
VOC (8260)	No	—	No Comment
SVOC (8270)	No	—	No Comment
Pest (8081)	No	—	No Comment
PCBs (8082)	No	—	No Comment
Metals (6010)	Yes & No, but < 5X RL	Iron, Manganese, & Zinc	No Flag
Hg (7470)	No	—	No Comment
Cyanide (9012)	No	—	No Comment

LCS	SV <10%	Low Bias > 10% & < LCL	High Bias >UCL	Compound(s)	Notes
VOC (8260)	—	—	—	All	No Comment
SVOC (8270)	—	—	—	All	No Comment
Pest (8081)	—	—	—	All	No Comment
PCBs (8082)	—	—	—	All	No Comment
Metals (6010)	—	—	—	All	No Comment
Hg (7470)	—	—	—	Mercury	No Comment
Cyanide (9012)	—	—	—	Cyanide	No Comment

SURROGATES	SV <10%	> 10% & < LCL	>UCL	Compound(s)	Notes
VOC (8260)	—	—	—	All	No Comment
SVOC (8270)	—	—	—	All	No Comment
Pest (8081)	—	—	—	All	No Comment
PCBs (8082)	—	—	—	All	No Comment
Metals (6010)	—	—	—	All	No Comment
Hg (7470)	—	—	—	Mercury	No Comment
Cyanide (9012)	—	—	—	Cyanide	No Comment

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Attachment 1 continued

MS/MSDs	SV <10%	Low Bias > 10% & < LCL	High Bias >UCL	QC Source	RPDs	Notes
VOC (8260)	—	—	—	Batch	—	No Comment
SVOC (8270)	—	—	—	Batch	—	No Comment
Pest (8081)	—	—	—	Batch	—	No Comment
Endosulfan I & II	—	X	X	Batch	X	Flag UJ or J
PCBs (8082)	—	—	—	Batch	—	No Comment
Metals (6010)	—	—	—	Batch	—	No Comment
Hg (7470)	—	—	—	Batch	—	No Comment
Cyanide (9012)	—	—	—	Batch	—	No Comment

FIELD DUPLICATES RPDs	QC Source	Soil RPD > 50%	Water RPD > 20%	Compounds	Notes
#-3 (Dup-102918)	#-2 MW-131	N/A	—	VOCs	No Comment
		N/A	—	SVOCs	
		N/A	—	Metals	
		N/A	—	pH	
LAB DUPLICATES					
-------	Batch	N/A	—	As listed	No Comment

Reasonable Confidence Achieved	☐ Y	☐ N—Not Applicable
Significant QC Variances Noted	☒ Y	☐ N
Requested Reporting Limits Achieved	☒ Y	☐ N
Preservation Requirements Met	☒ Y	☐ N
Holding Time Requirements Met	☐ Y	☒ N

Abbreviations:
RL = Reporting Limit LCS = Laboratory Control Sample SV = Significant QC Variance
RPD = Relative Percent Difference LCL= RCP Lower Control Limit UCL= RCP Upper Control Limit
VOCs = Volatile Organic Compounds SVOCs = Semi-volatile Organic Compounds Pest = Pesticides
EPH = Extractable Petroleum Hydrocarbons VPH = Volatile Petroleum Hydrocarbons ETPH = EPH-Total
PCBs = Polychlorinated Biphenyls N/A = Not Applicable N/C = Not Collected -- = nothing to report
Notes: * Typical lab contaminants, not site-related

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Attachment 2
DQA Non-Conformance Summary Worksheet

Only Flagged Results Shown Below

SDG #480-144395						
Sample Number(s)	**Compound(s)**	**QC Non-Conformance**	**% Recovery**	**% RPD †**	**High or Low Bias ‡**	**Comments**
ALL	All	MDL>result<RDL	—	—	—	Validator Flag UJ Interpreted Flag U
	PCB-1232 PCB-1268	CCV	>UCL	—	—	Flag UJ or J
	Endosulfan I & II	MS/MSD	>UCL	>UCL	—	Flag UJ or J
	pH / Temperature	Holding Time	—	—	—	Flag J

Notes: † RPD—Relative Percent Difference

‡ Bias High—Reported result may be lower, Reporting Limit (RL) is acceptable as reported. Bias Low—Reported results may be higher, RL may be higher than reported.

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Quality Assessment
Data Usability Summary Report

			RemVer Project #2018GE13 Client Project #0901752-02-840
Site:	Buffalo Lakeside Commercial Park, Parcel 5 Buffalo, NY	**Site #:**	915322
Client:	NYSDEC via GES, Inc.	**Site Owner:**	–N/A–
Sample Delivery Groups (SDGs)	480-144471		
Sample Matrix:	☐ Drinking water ☒ Groundwater ☐ Surface water ☐ Soil ☐ Sediment ☐ Air ☐ Biota (tissue, type: _____) ☐ Other: _____		

Introduction

RemVer performed a data quality assessment (DQA) on the analytical data for groundwater samples. reported in Sample Delivery Groups (SDGs) #480-144471 from Test America (TA). A DQA is an evaluation of the performance of analytical procedures and quality of the resulting data. RemVer followed the requirements of the New York State Department of Environmental Conservation (NYSDEC) Data Usability Summary Report (DUSR) guidelines for an Analytical Services Protocol (ASP) Category B Data Deliverable. This report includes a narrative discussion of sample results qualified during the DQA. Attached to the main report is a list describing the final reported qualification flags applied to the data by RemVer during this DQA process.

Reported Methods

☐ Method 1311 TCLP
☐ Method 1312 SPLP
☒ Method 6010A, B & C / 6020 Trace Metals
☐ Method 7000 Metals
☐ Method 7196 Hexavalent Chromium (other:_____)
☒ Method 7470A or 7471 Mercury
☐ Method 8021 Volatile Organic Compounds (VOCs) GC
☒ Method 8081B or ☐ 608 Pesticides
☒ Method 8082 or ☐ 608 PCBs
☐ Method 8151 Chlorinated Herbicides
☒ Method 8260C VOCs GC/MS
☒ Method 8270D Semi-VOCs (sVOCs) GC/MS &/or SIM-ID
☒ Method 9010/9012/9014 Cyanides (_____)

☐ Method TO-13A PAHs (air)
☐ Method TO-14A / -15 VOCs (air, summa) (_____)
☐ Method TO-17 VOCs (air, sorbent)
☐ Method 537 PFCs via SPE & LC/MS-MS
☐ Volatile Petroleum Hydrocarbons (VPH) Method
☐ Extractable Petroleum Hydrocarbons (EPH)
☒ Other Methods:
- ☑ Method 3510C Liquid-Liquid Extraction
- ☑ Method 5030C Purge & Trap
- ☑ Method 3005A Total Metals Prep.

Quality Control Requirements Summary

☐ Duplicate
☒ Matrix Spike [MS] / Matrix Spike Duplicate [MSD]
☐ Trip Blanks
☒ Equipment, Method, &/or Rinsate Blank

☐ Other Field QC: Field notes regarding sampling
☐ Special QAPP Requirements: _____
_____

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Intended Use of Data Under Review

NYSDEC contracted GES to perform a 2018 site-wide soil, groundwater, and surface water monitoring event at the referenced site. The monitoring event (10 October through 09 November) was to update the existing environmental dataset with current synoptic conditions. Sampling was to provide analyses of environmental conditions for the presence of volatile organic compounds (VOCs), semi-volatile organic compounds (SVOCs), organochlorine pesticides, polychlorinated biphenyls (PCBs), metals/metalloids, pH, and Cyanides.

This DUSR addresses SDG #480-144471; the groundwater samples included in this report came from a collection event on October 30, 2018.

Significant Data Usability Issues In SDG: #480-144471

Of the six samples and Equipment Blank discussed herein, RemVer rejected one result (Cyanide in Sample #-7 [MW-148]); however, the rejected result was re-analyzed by the laboratory, albeit outside holding times. The re-analysis result was acceptable. The results are acceptable for use although the results of some analytes are flagged due to sample handling, or laboratory accuracy or precision issues. Please refer to the Lab Results and Data Usability Narrative section for further detail.

The samples associated with this SDG contained an Equipment Blank but no Field Duplicate sample or Trip/Field Blank(s). RemVer did not evaluate the duplicate or field-associated blanks to judge sampling performance in this instance. Regardless, the analytical Method Duplicates met their RPD performance criteria. This was a multi-day sampling event covered by multiple SDGs; herein the reader will find a cross-listing of the samples and their association with other SDGs. RemVer did not find this is to be a significant quality issue as it can be handled by GES directly (*note: if the Relative Percent Difference [RPD] between the original sample and its associated replicate are less than 20%, then sampling performance precision is within acceptable limits*).

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Detailed Quality Review

Field Notes Review

	Y	N	NA	COMMENTS
Sampling notes	☒	☐	☐	
Field meteorological data	☐	☐	☒	No review required under QAPP
Associated sampling location and plan included	☐	☒	☐	See RAP/QAPP
Associated drilling logs available, reviewed	☐	☐	☒	No review required under QAPP
Identification of QC samples in notes	☒	☐	☐	Sample IDs
Sampling instrument decontamination records	☐	☐	☒	No review required under QAPP
Sampling instrument calibration logs	☐	☐	☒	No review required under QAPP
Chain of custody included	☒	☐	☐	With analytical report
Notes include communication logs	☐	☒	☐	
Any corrective action (CA) reports	☐	☒	☐	If so, CA documentation of results required.
Any deviation from methods noted? If so, explain	☐	☒	☐	None
Any electronic data deliverables	☐	☒	☐	None
Sampling Report (by Field Team Leader)	☒	☐	☐	Field Notes

Lab Report Contents (Test America SDG Reports: #480-144471)

☒ SDG Narrative
☒ Contract Lab Sample Information Sheets
☒ Data Package Summary Forms
☒ Chain-of-Custody (COC) Forms
☒ Test Results (no tentatively identified compounds [TICs])
☒ Calibration standards
☒ Surrogate recoveries
☒ Blank results
☒ Spike recoveries
☒ Duplicate results
☒ Confirmation (lab check/QC) samples
☒ Internal standard area & retention time summary
☒ Chromatograms
☒ Raw data files
☒ Other specific information

The SDG reported the following samples:

Sample ID	SDG #480-144471 –Sample #	Matrix	Sampled	Received
MW-120	#-1	Water	10/30/18	10/31/18
MW-128	#-2	Water	10/30/18	10/31/18
Equipment Blank-01	#-3	Water	10/30/18	10/31/18
MW-126	#-4	Water	10/30/18	10/31/18
MW-123	#-5	Water	10/30/18	10/31/18
MW-144	#-6	Water	10/30/18	10/31/18
MW-148	#-7	Water	10/30/18	10/31/18

The SDG included the following samples with their analyses:

145042	Sample	VOCs	SVOCs	Pest	PCBs	TAL & Hg	Cyanide	pH	Temp
#–1	MW-120	X	X	X	X	X	X	X	X
#–2	MW-128	X	X	X	X	X	X	X	X
#-3	Equip. Blank-01	X	X	X	X	X	X	X	X
#-4	MW-126	X	X	X	X	X	X	X	X
#-5	MW-123	X	X	X	X	X	X	X	X
#-6	MW-144	X	X	X	X	X	X	X	X
#-7	MW-148	X	X	X	X	X	X	X	X

VOC: Volatile Organic Compounds (8260) | SVOC: Semi-VOCs (8270) | Pest: Pesticides (8081) | PCBs (8082)
TAL: Total Analyte List (6010) | Hg: Mercury (7470) | Cyanide (9012) | pH (9040)
| * Dry, no sample † No sample

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Is the data package complete as defined under the requirements for the NYSDEC ASP Category B?		
Laboratory Report	**Complete (Y/N)**	**Comments**
480-144471	Y	No

Sample Preservation Requirements & Holding Times Met?			
Laboratory Report	**Hold Times (Y/N)**	**Preservation (Y/N)**	**Exception Comment**
480-144471	N (pH & temp) N #-8 Cyanide Y	Y Y Y	15-min holding time missed, qualified holding time missed for re-analysis, qualified None

Do the QC data fall within the protocol required limits and specifications? *(1) blanks, (2) instrument tunings, (3) calibration standards, (4) calibration verifications, (5) surrogate recoveries, (6) spike recoveries, (7) replicate analyses, (8) laboratory controls, (9) and sample data*									
SDG	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**
480-144471	☐	☐	☐	☒	☐	☐	☐	☐	☒
The narrative section, below, discusses these deficiencies in detail, see Attachment 1 as well.									

Have the data been generated using established and agreed upon analytical protocols?		
Laboratory Report	**Protocols (Y/N)**	**Exception Comment**
480-144471	Y	No

Do the raw data confirm the results provided in the data summary sheets and quality control verification forms?		
Laboratory Report	**Confirmation (Y/N)**	**Exception Comment**
480-144471	Y	No

Have the correct data qualifiers been used and are they consistent with the most current guidance?		
Laboratory Report	**Qualifiers (Y/N)**	**Comment**
480-144471	Y	The laboratory generally applied appropriate qualifiers.

Have any quality control (QC) exceedances been specifically noted in this DUSR and the corresponding QC summary sheets from the data packages referenced?		
Laboratory Report	**QC Exceedances Documented (Y/N)**	**Comment**
480-144471	Y	Several data qualifications were applied as described below

Data Quality and Usability Narrative

Field Notes Inspection

The groundwater samples came from a single collection event October 30, 2018. RemVer reviewed the low-flow field notes and observed no issues.

Laboratory Report Inspection

TA produced an SDG report #480-144471 (dated 27-Nov-18). The SDG report had the required data and information.

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Chain of Custody (COC) Evaluation

NYSDEC/GES produced a COC for the referenced fieldwork (GES Project PSID#739395): SDG: #480-144471—single, one-page COC, laboratory noted no issues at the time of acceptance.

Sample Preservation & Holding Time Evaluation

Laboratory received three coolers with samples on 10/31/2018 @ 13:20 PM (designated as SDG-#480-144471). The temperatures of the coolers at receipt were 3.1 and 3.3ºC. The samples arrived in good condition, properly preserved, and where necessary under ice. Holding times and preservation requirements were met with two exceptions:

- The sample pH was basic at the time of receipt, requiring acidification by the laboratory per the requirements of the organic preparation under Method 3510. The available Field Notes indicate that the nature of water samples from this Site have a highly basic (>10.0 s.u.) nature. Therefore, RemVer did not qualify these results.
- Analysis of pH (Method 9040, which includes a temperature measurement) has a holding time of 15 minutes, which was violated; therefore, RemVer qualified these results as appropriate (J).
- The initial analysis for Cyanide (Method 9012) in Sample #-7 (MW-148) had significant quality issues requiring re-analysis. The re-analysis occurred outside of holding times. The laboratory reported both results. RemVer rejected the initial result but accepted and qualified the re-analysis result UJ / J, as appropriate.

Detection Limits

Analytical detection limits (DLs) were acceptable for all analytes causing no QA issues. If an analyte was above the method detection limit (MDL) but below the reporting limit (RL), then it was flagged as “UJ”.

Blank Evaluation

The SDG #480-144471 had Method Blanks (MBs) for each method. The MBs were acceptable (no detectable analytes), with the following exception(s):

- Metals analysis (Method 6010) had Iron, Manganese, and Zinc in the MB either greater than the MDL but less than the RL or less than 5X greater than the RL. Therefore, RemVer did not flag these analytes with a B-flag.

The samples in this SDG included no field associated Trip Blank but did have an Equipment Blank. This poses a limitation on these samples in that it provides no quality measure of operational performance of the sampling itself. Because this was a multi-day sampling event covered by multiple SDGs, this is not a significant quality issue. The Equipment Blank had several detected analytes: Methylene Chloride, Chromium, and Cyanide. The Methylene Chloride (a common laboratory contaminant) Chromium, and Cyanide concentrations were less than 5X greater than the RL; therefore, RemVer did not flag them with B-flag.

Laboratory Control Samples (LCS)

The various method LCS’ (LCS & LCS duplicates [LCSD]) were within the acceptable control ranges and relative percent differences (RPDs) for their particular analyses in SDG 480-144471, with no exceptions.

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Surrogates

Surrogates added to a sample allow testing of preparatory and instrument behavior resulting in recoveries within appropriate method ranges for the analytes. In SDG #480-144471 there were no exceptions requiring flagging of the sample results.

Site-Specific Matrix Spikes and Matrix Spike Duplicates

The matrix spike/matrix spike duplicate (MS/MSD) runs for all analyses met the QA criteria in SDG #480-144471 with the following exceptions:

Duplicates

The samples associated with this SDG did not have an accompanying field replicate. RemVer did not evaluate a field duplicate to judge sampling performance in this instance; however, as this was a multi-day sampling event covered by multiple SDGs. Therefore, this is not a significant quality issue. Regardless, the analytical Method Duplicates met their RPD performance criteria.

Tentatively Identified Compounds (TICs)

This SDG had no analysis of TICs.

Calibration Standards and Continuing Calibration Verification (CCV)

Calibration standards (external or internal) and CCVs were acceptable for all analytes with the following exceptions:

- Method 8270D—Batch #443975 had recoveries less than the lower control limit (LCL), low biased, for bis(2-chloroisopropyl) ether, N-Nitroso-di-n-propylamine, and 3-Nitroaniline in all samples, which were non-detect or less than the RL. RemVer flagged the results as UJ- or J-.
- Method 8082—Batch # 443284 had recoveries greater than the UCL for PCB-1262, whereas recoveries were less than the lower criterion for PCB-1268, and these affected all samples. RemVer flagged the results as UJ or J.

Sample Result and Usability Evaluation

Due to certain sample issues or laboratory performance, some results were qualified; however, the data are usable.

RemVer rejected (R flag) one Cyanide analysis result (Sample #-7 [MW-148]); however, the laboratory also reported a re-analysis result, which was accepted (albeit qualified due to a holding time violation). Nevertheless, this Cyanide result is usable.

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References

NYSDEC, 2010, *Technical Guidance for Site Investigation and Remediation*, "DER-10," Division of Environmental Remediation: Albany, NY, May, 232p

NYSDEC, 2010, *Guidance for Data Deliverables and the Development of Data Usability Summary Reports*, Appendix 2B IN *Technical Guidance for Site Investigation and Remediation*, Division of Environmental Remediation: Albany, NY, May, 232p

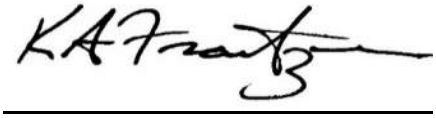
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USEPA, 2012, *Test Methods for Evaluating Solid Waste, Physical/Chemical Methods, SW-846*, Current Online Revision: http://www.epa.gov/epawaste/hazard/testmethods/sw846/online/index.htm, accessed April 2012

Attachments

1. DQA Detail Worksheet
2. DQA Non-Conformance Summary Workheet
3. 480-144471-1_EquNysdec.xls (separate EXCEL annotated EDD with Validation, attached)



Prepared by: Kurt A. Frantzen, PhD
December 18, 2018

GES PO#751457-1109

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Attachment 1
DQA Detail Worksheet

BLANKS	>RL?	Compounds	Notes
VOC (8260)	No	None	No Comment
SVOC (8270)	No	None	No Comment
Pest (8081)	No	None	No Comment
PCBs (8082)	No	None	No Comment
Metals (6010)	No	None	No Comment
Hg (7470)	No	None	No Comment
Cyanide (9012)	No	None	No Comment

LCS	SV <10%	Low Bias > 10% & < LCL	High Bias >UCL	Compound(s)	Notes
VOC (8260)	—	—	—	None	No Comment
SVOC (8270)	—	—	—	None	No Comment
Pest (8081)	—	—	—	None	No Comment
PCBs (8082)	—	—	—	None	No Comment
	—	—	—	None	No Comment
Metals (6010)	—	—	—	None	No Comment
Hg (7470)	—	—	—	None	No Comment
Cyanide (9012)	—	—	—	None	No Comment

SURROGATES	SV <10%	> 10% & < LCL	>UCL	Compound(s)	Notes
VOC (8260)	—	—	—	—	No Comment
SVOC (8270)	—	—	—	—	No Comment
Pest (8081)	—	—	—	—	No Comment
PCBs (8082)	—	—	—	—	No Comment
Metals (6010)	—	—	—	—	No Comment
Hg (7470)	—	—	—	—	No Comment
Cyanide (9012)	—	—	—	—	No Comment

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Attachment 1 continued

MS/MSDs	SV <10%	Low Bias > 10% & < LCL	High Bias >UCL	QC Source	RPDs	Notes
VOC (8260)	—	—	—	Batch	—	No Comment
SVOC (8270)	—	—	—	Batch	—	No Comment
Pest (8081)	—	—	—	Batch	—	No Comment
PCBs (8082)	—	—	—	Batch	—	No Comment
Metals (6010)	—	—	—	Batch	—	No Comment
Hg (7470)	—	—	—	Batch	—	No Comment
Cyanide (9012)	—	—	—	Batch	—	No Comment

FIELD DUPLICATES RPDs	QC Source	Soil RPD > 50%	Water RPD > 20%	Compounds	Notes
None	Unknown	N/A	—	—	Did Not Evaluate
		N/A	—	—	
		N/A	—	—	
LAB DUPLICATES					
-------	Batch	N/A	—	As listed	No Comment

Reasonable Confidence Achieved	☐ Y	☐ N—Not Applicable
Significant QC Variances Noted	☒ Y	☐ N
Requested Reporting Limits Achieved	☒ Y	☐ N
Preservation Requirements Met	☒ Y	☐ N
Holding Time Requirements Met	☐ Y	☒ N

Abbreviations:
RL = Reporting Limit LCS = Laboratory Control Sample SV = Significant QC Variance
RPD = Relative Percent Difference LCL= RCP Lower Control Limit UCL= RCP Upper Control Limit
VOCs = Volatile Organic Compounds SVOCs = Semi-volatile Organic Compounds Pest = Pesticides
EPH = Extractable Petroleum Hydrocarbons VPH = Volatile Petroleum Hydrocarbons ETPH = EPH-Total
PCBs = Polychlorinated Biphenyls N/A = Not Applicable N/C = Not Collected -- = nothing to report
Notes: * Typical lab contaminants, not site-related

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Attachment 2
DQA Non-Conformance Summary Worksheet

Only Flagged Results Shown Below

SDG #480-144471						
Sample Number(s)	**Compound(s)**	**QC Non-Conformance**	**% Recovery**	**% RPD †**	**High or Low Bias ‡**	**Comments**
ALL	All	MDL>result<RDL	—	—	—	Validator Flag UJ Interpreted Flag U
	bis(2-chloroisopropyl) ether, N-Nitroso-di-n-propylamine, & 3-Nitroaniline	CCV	<LCL	—	Lo	Flag UJ- or J-
	PCB-1232 PCB-1268	CCV	>UCL <LCL	—	—	Flag UJ or J
	Endosulfan I & II trans-Chlordane	MS/MSD	>UCL	>UCL	—	Flag UJ or J
	pH & Temperature	Holding Time	—	—	—	Flag J
#7 MW-148	Cyanide	Initial analysis had various issues	—	—	—	Initial: Rejected (R)
		Holding Time	—	—	—	Flag UJ or J

Notes: † RPD—Relative Percent Difference
‡ Bias High—Reported result may be lower, Reporting Limit (RL) is acceptable as reported. Bias Low—Reported results may be higher, RL may be higher than reported.

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Quality Assessment
Data Usability Summary Report

			RemVer Project #2018GE13 Client Project #0901752-02-840
Site:	Buffalo Lakeside Commercial Park, Parcel 5 Buffalo, NY	**Site #:**	915322
Client:	NYSDEC via GES, Inc.	**Site Owner:**	–N/A–
Sample Delivery Groups (SDGs)	480-145042		
Sample Matrix:	☐ Drinking water ☐ Groundwater ☒ Surface water ☐ Soil ☐ Sediment ☐ Air ☐ Biota (tissue, type: _____) ☐ Other: _____		

Introduction

RemVer performed a data quality assessment (DQA) on the analytical data for groundwater samples. reported in Sample Delivery Groups (SDGs) #480-145042 from Test America (TA). A DQA is an evaluation of the performance of analytical procedures and quality of the resulting data. RemVer followed the requirements of the New York State Department of Environmental Conservation (NYSDEC) Data Usability Summary Report (DUSR) guidelines for an Analytical Services Protocol (ASP) Category B Data Deliverable. This report includes a narrative discussion of sample results qualified during the DQA. Attached to the main report is a list describing the final reported qualification flags applied to the data by RemVer during this DQA process.

Reported Methods

☐ Method 1311 TCLP
☐ Method 1312 SPLP
☒ Method 6010A, B & C / 6020 Trace Metals
☐ Method 7000 Metals
☐ Method 7196 Hexavalent Chromium (other:_____)
☒ Method 7470A or 7471 Mercury
☐ Method 8021 Volatile Organic Compounds (VOCs) GC
☒ Method 8081B or ☐ 608 Pesticides
☒ Method 8082 or ☐ 608 PCBs
☐ Method 8151 Chlorinated Herbicides
☒ Method 8260C VOCs GC/MS
☒ Method 8270D Semi-VOCs (sVOCs) GC/MS &/or SIM-ID
☒ Method 9010/9012/9014 Cyanides (_____)

☐ Method TO-13A PAHs (air)
☐ Method TO-14A / -15 VOCs (air, summa) (_____)
☐ Method TO-17 VOCs (air, sorbent)
☐ Method 537 PFCs via SPE & LC/MS-MS
☐ Volatile Petroleum Hydrocarbons (VPH) Method
☐ Extractable Petroleum Hydrocarbons (EPH)
☒ Other Methods:
- ☑ Method 3510C Liquid-Liquid Extraction
- ☑ Method 5030C Purge & Trap
- ☑ Method 3005A Total Metals Prep.

Quality Control Requirements Summary

☒ Duplicate
☒ Matrix Spike [MS] / Matrix Spike Duplicate [MSD]
☒ Trip Blanks
☒ Equipment, Method, &/or Rinsate Blank

☐ Other Field QC: Field notes regarding sampling
☐ Special QAPP Requirements: _____
_____

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Intended Use of Data Under Review

NYSDEC contracted GES to perform a 2018 site-wide synoptic soil, groundwater, and surface water monitoring event at the referenced site. The monitoring event (10 October through 09 November) was to update the existing environmental dataset with current synoptic conditions. Sampling was to provide analyses of environmental conditions for the presence of volatile organic compounds (VOCs), semi-volatile organic compounds (SVOCs), organochlorine pesticides, polychlorinated biphenyls (PCBs), metals/metalloids, pH, and Cyanides.

This DUSR addresses SDG #480-145042. The surface water samples came from a collection event on November 9, 2018.

Significant Data Usability Issues In SDG: #480-145042

Of the two samples, Duplicate, and Trip Blank discussed herein, RemVer rejected no results. The results are acceptable for use although the results of some analytes are flagged due to sample handling, or laboratory accuracy or precision issues. Please refer to the Lab Results and Data Usability Narrative section for further detail.

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Detailed Quality Review

Field Notes Review

	Y	N	NA	COMMENTS
Sampling notes	☒	☐	☐	
Field meteorological data	☐	☐	☒	No review required under QAPP
Associated sampling location and plan included	☐	☒	☐	See RAP/QAPP
Associated drilling logs available, reviewed	☐	☐	☒	No review required under QAPP
Identification of QC samples in notes	☒	☐	☐	Sample IDs
Sampling instrument decontamination records	☐	☐	☒	No review required under QAPP
Sampling instrument calibration logs	☐	☐	☒	No review required under QAPP
Chain of custody included	☒	☐	☐	With analytical report
Notes include communication logs	☐	☒	☐	
Any corrective action (CA) reports	☐	☒	☐	If so, CA documentation of results required.
Any deviation from methods noted? If so, explain	☐	☒	☐	None
Any electronic data deliverables	☐	☒	☐	None
Sampling Report (by Field Team Leader)	☒	☐	☐	Field Notes

Lab Report Contents (Test America SDG Reports: #480-145042)

☒ SDG Narrative
☒ Contract Lab Sample Information Sheets
☒ Data Package Summary Forms
☒ Chain-of-Custody (COC) Forms
☒ Test Results (no tentatively identified compounds [TICs])
☒ Calibration standards
☒ Surrogate recoveries
☒ Blank results
☒ Spike recoveries
☒ Duplicate results
☒ Confirmation (lab check/QC) samples
☒ Internal standard area & retention time summary
☒ Chromatograms
☒ Raw data files
☒ Other specific information

The SDG reported the following samples:

Sample ID	SDG #480-145042 –Sample #	Matrix	Sampled	Received
SW-1	#-1	Water	11/09/18	11/09/18
SW-2	#-2	Water	11/09/18	11/09/18
DUP-11918	#-3	Water	11/09/18	11/09/18
TRIP BLANK (TB)	#-4	Water	11/09/18	11/09/18

The SDG included the following samples with their analyses:

145042	Sample	VOCs	SVOCs	Pest	PCBs	TAL & Hg	Cyanide	pH	Temp
#–1	SW-1	X	X	X	X	X	X	X	X
#–2	SW-2	X	X	X	X	X	X	X	X
#-3	DUP-11918	X	X	X	X	X	X	X	X
#-4	TB	X	—	—	—	—	—	—	—

VOC: Volatile Organic Compounds (8260) | SVOC: Semi-VOCs (8270) | Pest: Pesticides (8081) | PCBs (8082)
TAL: Total Analyte List (6010) | Hg: Mercury (7470) | Cyanide (9012) | pH (9040)
| * Dry, no sample † No sample

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Is the data package complete as defined under the requirements for the NYSDEC ASP Category B?		
Laboratory Report	**Complete (Y/N)**	**Comments**
480-145042	Y	No

Sample Preservation Requirements & Holding Times Met?			
Laboratory Report	**Hold Times (Y/N)**	**Preservation (Y/N)**	**Exception Comment**
480-145042	N (pH & temp) Y	Y Y	15-min holding time missed, qualified None

Do the QC data fall within the protocol required limits and specifications? *(1) blanks, (2) instrument tunings, (3) calibration standards, (4) calibration verifications, (5) surrogate recoveries, (6) spike recoveries, (7) replicate analyses, (8) laboratory controls, (9) and sample data*									
SDG	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**
480-145042	☐	☐	☒	☒	☐	☒	☐	☒	☒
The narrative section, below, discusses these deficiencies in detail, see Attachment 1 as well.									

Have the data been generated using established and agreed upon analytical protocols?		
Laboratory Report	**Protocols (Y/N)**	**Exception Comment**
480-145042	Y	No

Do the raw data confirm the results provided in the data summary sheets and quality control verification forms?		
Laboratory Report	**Confirmation (Y/N)**	**Exception Comment**
480-145042	Y	No

Have the correct data qualifiers been used and are they consistent with the most current guidance?		
Laboratory Report	**Qualifiers (Y/N)**	**Comment**
480-145042	Y	The laboratory generally applied appropriate qualifiers.

Have any quality control (QC) exceedances been specifically noted in this DUSR and the corresponding QC summary sheets from the data packages referenced?		
Laboratory Report	**QC Exceedances Documented (Y/N)**	**Comment**
480-145042	Y	Several data qualifications were applied as described below

Data Quality and Usability Narrative

Field Notes Inspection

The surface water samples came from a single collection event November 9, 2018. A review of the field notes was not performed for this DUSR because GES did not provide them.

Laboratory Report Inspection

TA produced an SDG report #480-145042 (dated 4-Dec-18). The SDG report had the required data and information.

Chain of Custody (COC) Evaluation

NYSDEC/GES produced a COC for the referenced fieldwork (GES Project PSID#734683): SDG: #480-145042—single, one-page COC, laboratory noted no issues at the time of acceptance.

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Sample Preservation & Holding Time Evaluation

Laboratory received two coolers with samples on 11/9/2018 @ 14:00 PM (designated as SDG-#480-145042) directly from the field. The temperatures of the coolers at receipt were 4.7 and 5.2ºC. The samples arrived in good condition, properly preserved, and where necessary under ice. Holding times and preservation requirements were met with two exceptions:

- The sample pH was basic at the time of receipt, requiring acidification by the laboratory per the requirements of the organic preparation under Method 3510. The available Field Notes indicate that the nature of water samples from this Site have a highly basic (>9.0 s.u.) nature and the samples were delivered within three hours of collection. Therefore, RemVer did not qualify these results.
- Analysis of pH (Method 9040 and includes temperature measurement) has a 15-minute holding time, which was violated; therefore, RemVer qualified these results with a J. RemVer also notes that the laboratory results were not distinctly different compared to the field low-flow results.

Detection Limits

Analytical detection limits (DLs) were acceptable for all analytes causing no QA issues. If an analyte was above the method detection limit (MDL) but below the reporting limit (RL), then it was flagged as “UJ”.

Blank Evaluation

SDG #480-145042 had Method Blanks (MBs) for each method. The MBs were acceptable (no detectable analytes), with the following exception(s):

- VOC analysis (Method 8260) had Carbon Disulfide in the MB either greater than the MDL but less than the RL or less than 5X greater than the RL. Therefore, RemVer did not flag this analyte with B-flag.
- Metals analysis (Method 6010) had Iron and Zinc in the MB either greater than the MDL but less than the RL or less than 5X greater than the RL. Therefore, RemVer did not flag these analytes with a B-flag.

SDG #480-145042 had a Trip Blank (TB, #-4) to support analysis of VOCs (Method 8260). The TB had a single detected analyte: Methylene Chloride. The Methylene Chloride (a common laboratory contaminant) concentration was less than 5X greater than the RL; therefore, RemVer did not flag this analyte with B-flag.

Laboratory Control Samples (LCS)

The various method LCS’ (LCS & LCS duplicates [LCSD]) were within the acceptable control ranges and relative percent differences (RPDs) for their particular analyses in SDG 480-145042, with the following exceptions:

- Method 9012B Cyanide Analytical Batch #480- 447002 had LCS/LCSD recoveries beyond control limits (RPD acceptable) causing the results to be biased high. Therefore, RemVer flagged the results J+ in the samples and duplicate.

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Surrogates

Surrogates added to a sample allow testing of preparatory and instrument behavior resulting in recoveries within appropriate method ranges for the analytes. In SDG #480-145042 there were no exceptions requiring flagging of the sample results.

Site-Specific Matrix Spikes and Matrix Spike Duplicates

The matrix spike/matrix spike duplicate (MS/MSD) runs for all analyses met the QA criteria in SDG 480-145042 with the following exceptions:

- Method 8270—4,6-Dinitro-2-methylphenol was beyond the calibration curve (lab E-flag qualified) in the LCS and MS/MSD associated with preparation batch 445623, however, the spike recoveries were within control limits. The sample results were within their respective calibration curves. Therefore, no qualification was necessary.
- Method 8081—while the associated LCS met acceptance criteria, the MS/MSD for preparation batch 480-445224 and analytical batch 480-445452 had poor recovery or RPDs beyond limits for Endosulfan I & II and trans-Chlordane. Sample matrix interference and/or non-homogeneity are suspected because the associated LCS recovery acceptable. Therefore, RemVer flagged all samples as UJ or J for these analytes.

Duplicates

GES collected a field replicate (compare samples #-2 and #-3). The VOC analytes met the RPD performance criteria of <20%. All other analytical Method Duplicates met their RPD performance criteria of <20%.

Tentatively Identified Compounds (TICs)

This SDG had no analysis of TICs.

Calibration Standards and Continuing Calibration Verification (CCV)

Calibration standards (external or internal) were acceptable for all analytes with the following exceptions:

- Method 8270D—Batch #445037 had an initial calibration curve beyond method criteria method criteria for Pentachlorophenol; therefore, RemVer flagged results for this analyte as UJ or J as appropriate.

CCVs were acceptable in the SDG for all methods and analytes, with the following exceptions:

- Method 8270D—Batch #446418 had recoveries greater than the upper control limit (UCL) for Di-n-butyl phthalate and Di-n-octyl phthalate in all samples, which were non-detect or less than the RL. Therefore, RemVer did not flag the results.
- Method 8081B—Batch #445452 had recoveries greater than the UCL for Aldrin, delta-BHC, Heptachlor, Heptachlor epoxide, and Toxaphene, and effect all samples. RemVer flagged the results as UJ or J.
- Method 8082—Batch #445797 had recoveries greater than the UCL for PCB-1232 and effect all samples. RemVer flagged the results as UJ or J.
- Method 6010—Batch #446805 had recoveries greater than the UCL for Manganese and effect all samples. RemVer flagged the results as UJ or J.

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Sample Result and Usability Evaluation

Due to certain sample issues or laboratory performance, some results were qualified; however, the data are usable. No data received an R (rejected) flag.

References

NYSDEC, 2010, *Technical Guidance for Site Investigation and Remediation*, "DER-10," Division of Environmental Remediation: Albany, NY, May, 232p

NYSDEC, 2010, *Guidance for Data Deliverables and the Development of Data Usability Summary Reports*, Appendix 2B IN *Technical Guidance for Site Investigation and Remediation*, Division of Environmental Remediation: Albany, NY, May, 232p

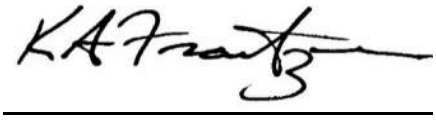
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USEPA, 2012, *Test Methods for Evaluating Solid Waste, Physical/Chemical Methods, SW-846*, Current Online Revision: http://www.epa.gov/epawaste/hazard/testmethods/sw846/online/index.htm, accessed April 2012

Attachments

1. DQA Detail Worksheet
2. DQA Non-Conformance Summary Workheet
3. 480-145042_EquaNysdec.xls (annotated EDD with validation separate EXCEL workbook, attached)



Prepared by: Kurt A. Frantzen, PhD
December 18, 2018

GES PO#751457-1109

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Attachment 1
DQA Detail Worksheet

BLANKS	>RL?	Compounds	Notes
VOC (8260)	No	None	No Comment
SVOC (8270)	No	None	No Comment
Pest (8081)	No	None	No Comment
PCBs (8082)	No	None	No Comment
Metals (6010)	No	None	No Comment
Hg (7470)	No	None	No Comment
Cyanide (9012)	No	None	No Comment

LCS	SV <10%	Low Bias > 10% & < LCL	High Bias >UCL	Compound(s)	Notes
VOC (8260)	—	—	—	None	No Comment
SVOC (8270)	—	—	—	None	No Comment
Pest (8081)	—	—	—	None	No Comment
PCBs (8082)	—	—	—	None	No Comment
	—	—	—	None	No Comment
Metals (6010)	—	—	—	None	No Comment
Hg (7470)	—	—	—	None	No Comment
Cyanide (9012)	—	—	X	Cyanide	Flag UJ+ or J+

SURROGATES	SV <10%	> 10% & < LCL	>UCL	Compound(s)	Notes
VOC (8260)	—	—	—	—	No Comment
SVOC (8270)	—	—	—	—	No Comment
Pest (8081)	—	—	—	—	No Comment
PCBs (8082)	—	—	—	—	No Comment
Metals (6010)	—	—	—	—	No Comment
Hg (7470)	—	—	—	—	No Comment
Cyanide (9012)	—	—	—	—	No Comment

MS/MSDs	SV <10%	Low Bias > 10% & < LCL	High Bias >UCL	QC Source	RPDs	Notes
VOC (8260)	—	—	—	Batch	—	No Comment
SVOC (8270)	—	—	—	Batch	—	No Comment
4,6-Dinitro-2-methylphenol	—	—	—	Batch	—	MS calibration, no flag
Pest (8081)	—	—	—	Batch	—	No Comment
Endosulfan I & II & trans-Chlordane	—	X	X	Batch	X	Flag UJ or J
PCBs (8082)	—	—	—	Batch	—	No Comment
Metals (6010)	—	—	—	Batch	—	No Comment
Hg (7470)	—	—	—	Batch	—	No Comment
Cyanide (9012)	—	—	—	Batch	—	No Comment

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Attachment 1 continued

FIELD DUPLICATES RPDs	QC Source	Soil RPD > 50%	Water RPD > 20%	Compounds	Notes
#-3 (Dup 11918)	Site	N/A	—	—	No Comment
		N/A	—	—	
		N/A	—	—	
LAB DUPLICATES					
All Methods	Batch	N/A	—	As listed	No Comment

Reasonable Confidence Achieved	☐ Y	☐ N—Not Applicable
Significant QC Variances Noted	☒ Y	☐ N
Requested Reporting Limits Achieved	☒ Y	☐ N
Preservation Requirements Met	☒ Y	☐ N
Holding Time Requirements Met	☐ Y	☒ N

Abbreviations:
RL = Reporting Limit LCS = Laboratory Control Sample SV = Significant QC Variance
RPD = Relative Percent Difference LCL= RCP Lower Control Limit UCL= RCP Upper Control Limit
VOCs = Volatile Organic Compounds SVOCs = Semi-volatile Organic Compounds Pest = Pesticides
EPH = Extractable Petroleum Hydrocarbons VPH = Volatile Petroleum Hydrocarbons ETPH = EPH-Total
PCBs = Polychlorinated Biphenyls N/A = Not Applicable N/C = Not Collected -- = nothing to report
Notes: * Typical lab contaminants, not site-related

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Attachment 2
DQA Non-Conformance Summary Worksheet

Only Flagged Results Shown Below

SDG #480-145042						
Sample Number(s)	**Compound(s)**	**QC Non-Conformance**	**% Recovery**	**% RPD †**	**High or Low Bias ‡**	**Comments**
ALL	All	MDL>result<RDL	—	—	—	Validator Flag UJ Interpreted Flag U
	Pentachlorophenol	Calibration	Beyond method criteria		—	Flag UJ or J
	Di-n-butyl phthalate Di-n-octyl phthalate	CCV	X	—	—	Flag UJ or J
	Aldrin, Δ-BHC Heptachlor Heptachlor epoxide Toxaphene	CCV	X	—	—	Flag UJ or J
	PCB-1232	CCV	X	—	—	Flag UJ or J
	Endosulfan I & II trans-Chlordane	MS/MSD	>UCL	>UCL	—	Flag UJ or J
	Cyanide	LCS	>UCL	X	Hi	Flag J+
	pH	Holding Time	—	—	—	Flag J

Notes: † RPD—Relative Percent Difference

‡ Bias High—Reported result may be lower, Reporting Limit (RL) is acceptable as reported. Bias Low—Reported results may be higher, RL may be higher than reported.

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Appendix B
Soil Investigation Logs

Soil Boring/Monitoring Well

Groundwater & Environmental Services, Inc.

ID NO. **SB-101/MW-101**

Project: **Buffalo Lakeside Commercial Park**	Client: **NYSDEC**	Regulatory Case #: **Site No. 915322**
Address: **Laborers Way & Ship Canal Pkwy, Buffalo, NY**		Regulatory Case Mgr: **Jenelle Gaylord**
County: **Erie**	GES Job #: **0901752**	GES Project Mgr: **Eric D. Popken**
Logged By: **J. Clay/P. Colern**	Date Drilled: **10-10-2018**	Sample Tool Diameter: **NA**
Drilling Company: **Cascade Drilling**	Completion Date: **10-25-2018**	Sample Tool Length: **10 ft.**
Drill Operator: **Arlen Little**	Drilling Method: **Sonic Rig**	Soil Classification System: **Modified Burmister**
Drill Rig Type: **Sonic**	Sampling Method: **Sonic Tube**	Field Screening: **MiniRae3000 10.6 eV**
Latitude: **NA**	Longitude: **NA**	Top of Bentonite Seal: **2 fbgs.**
TOC Elevation: **583.73 famsl.**	Borehole Diameter: **4.5 in.**	Type of Seal: **Bentonite Chips**
Total Depth: **20 fbgs.**	Well Diameter: **2 in.**	Top of Sand: **4 fbgs.**
Refusal Depth: **Not Encountered**	Riser Length: **8 ft. (3 ftag)**	Sand Type: **20-40 Mesh Sand Pack**
Initial Depth to Water: **~6 fbgs.**	Screen Slot Size: **0.010-in.**	Well Material Type: **Schedule 40 PVC**
Static Depth to Water: **7.31 ft. btoc.**	Screen Length: **10 ft.**	Top of Grout: **1 fbgs.**

Depth (fbgs)	Sample Interval (feet)	Recovery (ft/ft)	Field Screen (ppm)	Geologic Description	Comments
0	0-1	5.5/10	2.2	TOPSOIL & FILL fine to coarse SAND and GRAVEL, dark brown, moist, loose, no odor	SB-101-A @ 0-1'
	1-2		NA	FILL, fine to coarse SLAG debris, gray, very moist to wet	3 ft. stick up protective casing
	3-4		0.9	FILL, fine to coarse SLAG debris, gray, very moist to wet	
	4-6		1.0	FILL, fine to coarse SLAG debris, gray, very moist to wet	
5	6-8		0.9	FILL, fine to coarse SLAG debris, gray, wet	
	8-10		1.3	FILL, fine to coarse SLAG debris, gray, very moist to wet, at 10 fbgs. CLAY and FILL debris, dark brown-black, very moist-wet, organic odor	SB-101-B @ 8-10'
10	10-12	8.5/10	0.7	CLAY, little SILT, gray, some brown veins, moist	
	12-14		0.6	CLAY, little SILT, gray, some brown veins, moist	SB-101-C @ 12-14'
	14-16		0.5	CLAY, veins of fine SAND, gray, some brown veins, moist	
15	16-18		0.6	CLAY, veins of fine SAND, gray, some brown veins, moist	
	18-20		0.9	CLAY, gray, moist, very soft	Boring ended at 20 fbgs.
20					

Completion Detail: Pro-Casing (1'-3 ftag); Concrete (1-0'); Grout (2-1'); Riser (5'-3 ftag); Bentonite (4-2'); Sand (15-4'); Screen (15-5'); Backfilled (20-15')

Proportions Used:

Trace =	<5%
Little =	6-15%
Few =	16-30%
Some =	31-49%
And =	>50%

Notes:

NA = not available; fbgs. = feet below ground surface
in. = inches; ft.= feet; ppm.= parts per million
Soil Lithologies based on field observations only.
famsl. = feet above mean sea level
btoc = below top-of-casing; ftag = feet above grade
eV = electron volt; PVC = polyvinyl chloride

Blow Count Pentration Resistance:

Consistency (M&C)		Density (G&S)	
<2 =	Very Soft	0-4 =	Very Loose
2-4 =	Soft	4-10 =	Loose
4-8 =	Medium	10-30 =	Medium
8-15 =	Stiff	30-50 =	Dense
15-30 =	Very Stiff	>50 =	Very Dense
>30 =	Hard		

Symbol Legend

Static Water Level

Lab Sample Location

Soil Boring

Groundwater & Environmental Services, Inc.

ID NO. SB-102

Project: **Buffalo Lakeside Commercial Park**	Client: **NYSDEC**	Regulatory Case #: **Site No. 915322**
Address: **Laborers Way & Ship Canal Pkwy, Buffalo, NY**		Regulatory Case Mgr: **Jenelle Gaylord**
County: **Erie**	GES Job #: **0901752**	GES Project Mgr: **Eric D. Popken**
Logged By: **J. Clay/P. Colern**	Date Drilled: **10-10-2018**	Sample Tool Diameter: **NA**
Drilling Company: **Cascade Drilling**	Completion Date: **10-10-2018**	Sample Tool Length: **10 ft.**
Drill Operator: **Arlen Little**	Drilling Method: **Sonic Rig**	Soil Classification System: **Modified Burmister**
Drill Rig Type: **Sonic**	Sampling Method: **Sonic Tube**	Field Screening: **MiniRae3000 10.6 eV**
Latitude: **NA**	Longitude: **NA**	Top of Bentonite Seal: **NA**
TOC Elevation: **NA**	Borehole Diameter: **4.5 in.**	Type of Seal: **NA**
Total Depth: **20 fbgs.**	Well Diameter: **NA**	Top of Sand: **NA**
Refusal Depth: **Not Encountered**	Riser Length: **NA**	Sand Type: **NA**
Initial Depth to Water: **NA**	Screen Slot Size: **NA**	Well Material Type: **NA**
Static Depth to Water: **NA**	Screen Length: **NA**	Top of Grout: **NA**

Depth (fbgs)	Sample Interval (feet)	Recovery (ft/ft)	Field Screen (pom) 0 5	Geologic Description	Comments	Completion Detail
0	0-1	7.5/10	0.6	TOPSOIL and SLAG debris, brown, slightly moist		
	1-4		3.4	SLAG debris, some fine to coarse SAND and GRAVEL, brown and gray, moist	SB-102-A @ 0-1'	
	4-6		0.4	SLAG debris, some fine to coarse SAND and GRAVEL, gray, wet	SB-102-B @ 4-6'	
5	6-8		1.1	SLAG debris, some fine to coarse SAND and GRAVEL, gray, saturated		
	8-10		0.6	organic CLAY, wood and SLAG debris, black, wet		
10	10-12	8/10	0.6	Clay and fine SAND, interbedded layers, gray, slightly moist		Backfilled with cuttings
	12-14		0.3	CLAY, trace medium GRAVEL, gray and brown, mottling, slightly moist, stiff	SB-102-C @ 12-14'	
	14-16		0.2	CLAY, trace medium GRAVEL, gray and brown, mottling, slightly moist, stiff, gray is dominant at 15 fbgs.		
15	16-18		0.1	CLAY and fine SAND, interbedded layers, gray with brown veins, slightly moist		
	18-20		0.1	CLAY, gray, slightly moist, soft	Boring ended at 20 fbgs.	
20						

Proportions Used:

Trace =	<5%
Little =	6-15%
Few =	16-30%
Some =	31-49%
And =	>50%

Notes:

NA = not available; fbgs. = feet below ground surface
in. = inches; ft.= feet; ppm.= parts per million
Soil Lithologies based on field observations only.
famsl. = feet above mean sea level
btoc = below top-of-casing; ftag = feet above grade
eV = electron volt; PVC = polyvinyl chloride

Blow Count Pentration Resistance:

Consistency (M&C)		Density (G&S)	
<2 =	Very Soft	0-4 =	Very Loose
2-4 =	Soft	4-10 =	Loose
4-8 =	Medium	10-30 =	Medium
8-15 =	Stiff	30-50 =	Dense
15-30 =	Very Stiff	>50 =	Very Dense
>30 =	Hard		

Symbol Legend

Static Water Level

Lab Sample Location

Soil Boring

Groundwater & Environmental Services, Inc.

ID NO. **SB-103**

Project: **Buffalo Lakeside Commercial Park**	Client: **NYSDEC**	Regulatory Case #: **Site No. 915322**
Address: **Laborers Way & Ship Canal Pkwy, Buffalo, NY**		Regulatory Case Mgr: **Jenelle Gaylord**
County: **Erie**	GES Job #: **0901752**	GES Project Mgr: **Eric D. Popken**
Logged By: **J. Clay/P. Colern**	Date Drilled: **10-10-2018**	Sample Tool Diameter: **NA**
Drilling Company: **Cascade Drilling**	Completion Date: **10-10-2018**	Sample Tool Length: **10 ft.**
Drill Operator: **Arlen Little**	Drilling Method: **Sonic Rig**	Soil Classification System: **Modified Burmister**
Drill Rig Type: **Sonic**	Sampling Method: **Sonic Tube**	Field Screening: **MiniRae3000 10.6 eV**
Latitude: **NA**	Longitude: **NA**	Top of Bentonite Seal: **NA**
TOC Elevation: **NA**	Borehole Diameter: **4.5 in.**	Type of Seal: **NA**
Total Depth: **20 fbgs.**	Well Diameter: **NA**	Top of Sand: **NA**
Refusal Depth: **Not Encountered**	Riser Length: **NA**	Sand Type: **NA**
Initial Depth to Water: **NA**	Screen Slot Size: **NA**	Well Material Type: **NA**
Static Depth to Water: **NA**	Screen Length: **NA**	Top of Grout: **NA**

Depth (fbgs)	Sample Interval (feet)	Recovery (ft/ft)	Field Screen (ppm)	Geologic Description	Comments	Completion Detail
0	0-1	7/10	0.3	TOPSOIL and fine to coarse SLAG debris, brown, moist		
	1-4		0.3	FILL, SLAG debris, some fine to coarse SAND and GRAVEL, brown and gray, moist	SB-103-A @ 0-1'	
	4-6		0.2	FILL, SLAG debris, little fine to coarse SAND and GRAVEL, gray, wet	SB-103-B @ 4-6'	
5	6-8		0.3	FILL, SLAG debris, little fine to coarse SAND and GRAVEL, gray, wet		
	8-10		0.4	Organic CLAY, wood debris, some SLAG debris, black, moist to wet		
10	10-12	10/10	0.4	Organic CLAY, wood debris, some SLAG debris, black, wet		Backfilled with cuttings
	12-14		0.3	CLAY, some fine SAND veins, gray, moist	SB-103-C @ 12-14'	
	14-16		0.2	CLAY, gray, moist, stiff		
15	16-18		0.3	CLAY, gray, moist, stiff		
	18-20		0.2	CLAY, gray, very moist, soft	Boring ended at 20 fbgs.	
20						

Proportions Used:

Trace =	<5%
Little =	6-15%
Few =	16-30%
Some =	31-49%
And =	>50%

Notes:

NA = not available; fbgs. = feet below ground surface
in. = inches; ft.= feet; ppm.= parts per million
Soil Lithologies based on field observations only.
famsl. = feet above mean sea level
btoc = below top-of-casing; ftag = feet above grade
eV = electron volt; PVC = polyvinyl chloride

Blow Count Pentration Resistance:

Consistency (M&C)		Density (G&S)	
<2 =	Very Soft	0-4 =	Very Loose
2-4 =	Soft	4-10 =	Loose
4-8 =	Medium	10-30 =	Medium
8-15 =	Stiff	30-50 =	Dense
15-30 =	Very Stiff	>50 =	Very Dense
>30 =	Hard		

Symbol Legend

Static Water Level

Lab Sample Location

Soil Boring

Groundwater & Environmental Services, Inc.

ID NO. **SB-111**

Project: **Buffalo Lakeside Commercial Park**	Client: **NYSDEC**	Regulatory Case #: **Site No. 915322**
Address: **Laborers Way & Ship Canal Pkwy, Buffalo, NY**		Regulatory Case Mgr: **Jenelle Gaylord**
County: **Erie**	GES Job #: **0901752**	GES Project Mgr: **Eric D. Popken**
Logged By: **P. Colern/D. Zordan**	Date Drilled: **10-16-2018**	Sample Tool Diameter: **NA**
Drilling Company: **Cascade Drilling**	Completion Date: **10-16-2018**	Sample Tool Length: **10 ft.**
Drill Operator: **Arlen Little**	Drilling Method: **Sonic Rig**	Soil Classification System: **Modified Burmister**
Drill Rig Type: **Sonic**	Sampling Method: **Sonic Tube**	Field Screening: **MiniRae3000 10.6 eV**
Latitude: **NA**	Longitude: **NA**	Top of Bentonite Seal: **NA**
TOC Elevation: **NA**	Borehole Diameter: **4.5 in.**	Type of Seal: **NA**
Total Depth: **20 fbgs.**	Well Diameter: **NA**	Top of Sand: **NA**
Refusal Depth: **Not Encountered**	Riser Length: **NA**	Sand Type: **NA**
Initial Depth to Water: **NA**	Screen Slot Size: **NA**	Well Material Type: **NA**
Static Depth to Water: **NA**	Screen Length: **NA**	Top of Grout: **NA**

Depth (fbgs)	Sample Interval (feet)	Recovery (ft/ft)	Field Screen (pom) 0 100	Geologic Description	Comments	Completion Detail
0	0-1	10/10	0.0	TOPSOIL, some SAND and SLAG debris, brown, dry	SB-111-A @ 0-1'	
	1-4		0.0	FILL, SLAG debris, some SAND, light gray, slightly moist		
5	4-6		0.0	FILL, SLAG debris, few SAND and SILT, gray, slightly moist		
	6-8		0.0	FILL, large SLAG debris, some SAND and SILT, dark gray to white, moist	SB-111-B @ 6-8'	
	8-10		0.0	FILL, large SLAG debris, some SAND and SILT, dark gray to white, wet		
10	10-13	8/10	0.0	CLAY, some PEAT, few SILT, little SAND, dark brown-gray, wet		Backfilled with cuttings
	13-18		NA	CLAY, some SAND, few SILT, gray, slightly moist		
15					Boring ended at 20 fbgs.	
	18-20		NA	CLAY, trace SAND and SILT, gray, moist	SB-111-C @ 18-20'	
20						

Proportions Used:

Trace =	<5%
Little =	6-15%
Few =	16-30%
Some =	31-49%
And =	>50%

Notes:

NA = not available; fbgs. = feet below ground surface
in. = inches; ft.= feet; ppm.= parts per million
Soil Lithologies based on field observations only.
famsl. = feet above mean sea level
btoc = below top-of-casing; ftag = feet above grade
eV = electron volt; PVC = polyvinyl chloride

Blow Count Pentration Resistance:

Consistency (M&C)		Density (G&S)	
<2 =	Very Soft	0-4 =	Very Loose
2-4 =	Soft	4-10 =	Loose
4-8 =	Medium	10-30 =	Medium
8-15 =	Stiff	30-50 =	Dense
15-30 =	Very Stiff	>50 =	Very Dense
>30 =	Hard		

Symbol Legend

Static Water Level

Lab Sample Location

Soil Boring

Groundwater & Environmental Services, Inc.

ID NO. **SB-112**

Project: **Buffalo Lakeside Commercial Park**	Client: **NYSDEC**	Regulatory Case #: **Site No. 915322**
Address: **Laborers Way & Ship Canal Pkwy, Buffalo, NY**		Regulatory Case Mgr: **Jenelle Gaylord**
County: **Erie**	GES Job #: **0901752**	GES Project Mgr: **Eric D. Popken**
Logged By: **P. Colern/D. Zordan**	Date Drilled: **10-16-2018**	Sample Tool Diameter: **NA**
Drilling Company: **Cascade Drilling**	Completion Date: **10-16-2018**	Sample Tool Length: **10 ft.**
Drill Operator: **Arlen Little**	Drilling Method: **Sonic Rig**	Soil Classification System: **Modified Burmister**
Drill Rig Type: **Sonic**	Sampling Method: **Sonic Tube**	Field Screening: **MiniRae3000 10.6 eV**
Latitude: **NA**	Longitude: **NA**	Top of Bentonite Seal: **NA**
TOC Elevation: **NA**	Borehole Diameter: **4.5 in.**	Type of Seal: **NA**
Total Depth: **20 fbgs.**	Well Diameter: **NA**	Top of Sand: **NA**
Refusal Depth: **Not Encountered**	Riser Length: **NA**	Sand Type: **NA**
Initial Depth to Water: **NA**	Screen Slot Size: **NA**	Well Material Type: **NA**
Static Depth to Water: **NA**	Screen Length: **NA**	Top of Grout: **NA**

Depth (fbgs)	Sample Interval (feet)	Recovery (ft/ft)	Field Screen (pom)	Geologic Description	Comments	Completion Detail
0	0-1		0.0	TOPSOIL, some SAND and SLAG debris, dark brown, dry	SB-112-A @ 0-1'	
	1-4	8/10	0.0	FILL, fine to coarse SAND, some SLAG debris, light brown-white, dry		
	4-6		0.0	FILL, SLAG debris, some fine to medium SAND, black-gray, slightly moist		
5	6-8		0.0	FILL, SLAG debris, some SAND, moist		
	8-10		0.0	FILL, fine SAND, some SLAG debris, white, moist	SB-112-B @ 8-10	
10	10-12	10/10	0.0	PEAT, little CLAY and fine SAND, black		Backfilled with cuttings
	12-15		0.0	PEAT, little CLAY and fine SAND, black	SB-112-C & DUP-101618 @ 12-15'	
15	15-18		0.0	CLAY, some fine to medium SAND, gray, slightly mosit		
	18-20		0.1	CLAY, gray, slightly moist	Boring ended at 20 fbgs.	
20						

Proportions Used:

Trace =	<5%
Little =	6-15%
Few =	16-30%
Some =	31-49%
And =	>50%

Notes:

NA = not available; fbgs. = feet below ground surface
in. = inches; ft.= feet; ppm.= parts per million
Soil Lithologies based on field observations only.
famsl. = feet above mean sea level
btoc = below top-of-casing; ftag = feet above grade
eV = electron volt; PVC = polyvinyl chloride

Blow Count Pentration Resistance:

Consistency (M&C)		Density (G&S)	
<2 =	Very Soft	0-4 =	Very Loose
2-4 =	Soft	4-10 =	Loose
4-8 =	Medium	10-30 =	Medium
8-15 =	Stiff	30-50 =	Dense
15-30 =	Very Stiff	>50 =	Very Dense
>30 =	Hard		

Symbol Legend

Static Water Level

Lab Sample Location

Soil Boring

Groundwater & Environmental Services, Inc.

ID NO. SB-113

Project: **Buffalo Lakeside Commercial Park**	Client: **NYSDEC**	Regulatory Case #: **Site No. 915322**
Address: **Laborers Way & Ship Canal Pkwy, Buffalo, NY**		Regulatory Case Mgr: **Jenelle Gaylord**
County: **Erie**	GES Job #: **0901752**	GES Project Mgr: **Eric D. Popken**
Logged By: **P. Colern/D. Zordan**	Date Drilled: **10-16-2018**	Sample Tool Diameter: **NA**
Drilling Company: **Cascade Drilling**	Completion Date: **10-16-2018**	Sample Tool Length: **10 ft.**
Drill Operator: **Arlen Little**	Drilling Method: **Sonic Rig**	Soil Classification System: **Modified Burmister**
Drill Rig Type: **Sonic**	Sampling Method: **Sonic Tube**	Field Screening: **MiniRae3000 10.6 eV**
Latitude: **NA**	Longitude: **NA**	Top of Bentonite Seal: **NA**
TOC Elevation: **NA**	Borehole Diameter: **4.5 in.**	Type of Seal: **NA**
Total Depth: **20 fbgs.**	Well Diameter: **NA**	Top of Sand: **NA**
Refusal Depth: **Not Encountered**	Riser Length: **NA**	Sand Type: **NA**
Initial Depth to Water: **NA**	Screen Slot Size: **NA**	Well Material Type: **NA**
Static Depth to Water: **NA**	Screen Length: **NA**	Top of Grout: **NA**

Depth (fbgs)	Sample Interval (feet)	Recovery (ft/ft)	Field Screen (pom)	Geologic Description	Comments	Completion Detail
0	0-1		0.0	TOPSOIL, little fine to coarse SAND and SILT, light brown	SB-113-A @ 0-1'	
	1-4	7.5/10	0.0	FILL, fine to coarse SAND and coarse SLAG debris, brown, dry		
	4-6		0.0	FILL, fine to coarse SLAG debris, few fine to medium SAND, light gray, dry		
5	6-8		0.0	FILL, fine to coarse SLAG debris, few fine to medium SAND, dark gray, slightly moist	SB-113-B @ 6-8'	
	8-10		0.0	FILL, fine to coarse SLAG debris, few fine to medium SAND, dark gray, slightly moist		
10	10-12	8/10	0.0	PEAT, black, moist		Backfilled with cuttings
	12-14		0.0	PEAT, little organic CLAY and SILT, light brown to black, moist		
	14-18		0.0	CLAY, some SAND and SILT, gray, moist		
15					Boring ended at 20 fbgs.	
	18-20		0.1	CLAY, little SAND and SILT, gray, slightly moist	SB-113-C @ 18-20'	
20						

Proportions Used:

Trace =	<5%
Little =	6-15%
Few =	16-30%
Some =	31-49%
And =	>50%

Notes:

NA = not available; fbgs. = feet below ground surface
in. = inches; ft.= feet; ppm.= parts per million
Soil Lithologies based on field observations only.
famsl. = feet above mean sea level
btoc = below top-of-casing; ftag = feet above grade
eV = electron volt; PVC = polyvinyl chloride

Blow Count Pentration Resistance:

Consistency (M&C)		Density (G&S)	
<2 =	Very Soft	0-4 =	Very Loose
2-4 =	Soft	4-10 =	Loose
4-8 =	Medium	10-30 =	Medium
8-15 =	Stiff	30-50 =	Dense
15-30 =	Very Stiff	>50 =	Very Dense
>30 =	Hard		

Symbol Legend

Static Water Level

Lab Sample Location

Soil Boring

Groundwater & Environmental Services, Inc.

ID NO. SB-121

Project: **Buffalo Lakeside Commercial Park**	Client: **NYSDEC**	Regulatory Case #: **Site No. 915322**
Address: **Laborers Way & Ship Canal Pkwy, Buffalo, NY**		Regulatory Case Mgr: **Jenelle Gaylord**
County: **Erie**	GES Job #: **0901752**	GES Project Mgr: **Eric D. Popken**
Logged By: **P. Colern/D. Zordan**	Date Drilled: **10-16-2018**	Sample Tool Diameter: **NA**
Drilling Company: **Cascade Drilling**	Completion Date: **10-16-2018**	Sample Tool Length: **10 ft.**
Drill Operator: **Arlen Little**	Drilling Method: **Sonic Rig**	Soil Classification System: **Modified Burmister**
Drill Rig Type: **Sonic**	Sampling Method: **Sonic Tube**	Field Screening: **MiniRae3000 10.6 eV**
Latitude: **NA**	Longitude: **NA**	Top of Bentonite Seal: **NA**
TOC Elevation: **NA**	Borehole Diameter: **4.5 in.**	Type of Seal: **NA**
Total Depth: **20 fbgs.**	Well Diameter: **NA**	Top of Sand: **NA**
Refusal Depth: **Not Encountered**	Riser Length: **NA**	Sand Type: **NA**
Initial Depth to Water: **NA**	Screen Slot Size: **NA**	Well Material Type: **NA**
Static Depth to Water: **NA**	Screen Length: **NA**	Top of Grout: **NA**

Depth (fbgs)	Sample Interval (feet)	Recovery (ft/ft)	Field Screen (pom) 0 10	Geologic Description	Comments	Completion Detail
0	0-1	9/10	NA	TOPSOIL, little SAND, light brown, slightly moist	SB-121-A @ 0-1'	Backfilled with cuttings
	1-4		NA	FILL, SLAG/CONCRETE debris and GRAVEL, some fine to medium SAND, brown-gray, moist		
5	4-6		NA	FILL, SLAG/CONCRETE debris and GRAVEL, some fine to medium SAND, brown-gray, moist		
	6-8		NA	FILL, SLAG/CONCRETE debris and GRAVEL, some fine to medium SAND, brown-gray, slightly moist		
	8-10		NA	FILL, SLAG/CONCRETE debris and GRAVEL, some fine to medium SAND, brown-gray, wet	SB-121-B @ 8-10'	
10	10-12	9/10	9.6	PEAT, little organic CLAY and SILT, black, moist	SB-121-D @ 10-12'	
	12-14		9.2	CLAY, some PEAT and SAND, moist		
15	14-17		NA	CLAY and fine to medium SAND, gray, moist		
	17-20		0.0	CLAY, gray, moist	Boring ended at 20 fbgs. SB-121-C @ 17-20'	
20						

Proportions Used:

Trace =	<5%
Little =	6-15%
Few =	16-30%
Some =	31-49%
And =	>50%

Notes:

NA = not available; fbgs. = feet below ground surface
in. = inches; ft.= feet; ppm.= parts per million
Soil Lithologies based on field observations only.
famsl. = feet above mean sea level
btoc = below top-of-casing; ftag = feet above grade
eV = electron volt; PVC = polyvinyl chloride

Blow Count Pentration Resistance:

Consistency (M&C)		Density (G&S)	
<2 =	Very Soft	0-4 =	Very Loose
2-4 =	Soft	4-10 =	Loose
4-8 =	Medium	10-30 =	Medium
8-15 =	Stiff	30-50 =	Dense
15-30 =	Very Stiff	>50 =	Very Dense
>30 =	Hard		

Symbol Legend

Static Water Level

Lab Sample Location

Soil Boring

Groundwater & Environmental Services, Inc.

ID NO. SB-122

Project: **Buffalo Lakeside Commercial Park**	Client: **NYSDEC**	Regulatory Case #: **Site No. 915322**
Address: **Laborers Way & Ship Canal Pkwy, Buffalo, NY**		Regulatory Case Mgr: **Jenelle Gaylord**
County: **Erie**	GES Job #: **0901752**	GES Project Mgr: **Eric D. Popken**
Logged By: **P. Colern/D. Zordan**	Date Drilled: **10-16-2018**	Sample Tool Diameter: **NA**
Drilling Company: **Cascade Drilling**	Completion Date: **10-16-2018**	Sample Tool Length: **10 ft.**
Drill Operator: **Arlen Little**	Drilling Method: **Sonic Rig**	Soil Classification System: **Modified Burmister**
Drill Rig Type: **Sonic**	Sampling Method: **Sonic Tube**	Field Screening: **MiniRae3000 10.6 eV**
Latitude: **NA**	Longitude: **NA**	Top of Bentonite Seal: **NA**
TOC Elevation: **NA**	Borehole Diameter: **4.5 in.**	Type of Seal: **NA**
Total Depth: **20 fbgs.**	Well Diameter: **NA**	Top of Sand: **NA**
Refusal Depth: **Not Encountered**	Riser Length: **NA**	Sand Type: **NA**
Initial Depth to Water: **NA**	Screen Slot Size: **NA**	Well Material Type: **NA**
Static Depth to Water: **NA**	Screen Length: **NA**	Top of Grout: **NA**

Depth (fbgs)	Sample Interval (feet)	Recovery (ft/ft)	Field Screen (pom) 0 10	Geologic Description	Comments	Completion Detail
0	0-2	8/10	9.2	TOPSOIL, some SLAG and ASPHALT/GLASS debris, brown, moist	SB-122-A @ 0-2'	
	2-4		0.0	FILL, TOPSOIL and SLAG debris, few fine to medium SAND, brown, moist		
	4-6		0.0	FILL, TOPSOIL and SLAG debris, few fine to medium SAND, dark brown, moist		
5	6-8		NA	FILL, TOPSOIL and SLAG debris, few fine to medium SAND, dark brown, moist		
	8-10		NA	FILL, SLAG debris, some SAND and CLAY, gray, wet	SB-122-B @ 8-10'	
10	10-18	4.5/10	NA	FILL, SLAG debris, some SAND and CLAY, gray, wet		Backfilled with cuttings
15					Boring ended at 20 fbgs.	
	18-20		NA	CLAY and PEAT, little fine to medium SAND, black	SB-122-C @ 18-20'	
20						

Proportions Used:

Trace =	<5%
Little =	6-15%
Few =	16-30%
Some =	31-49%
And =	>50%

Notes:

NA = not available; fbgs. = feet below ground surface
in. = inches; ft.= feet; ppm.= parts per million
Soil Lithologies based on field observations only.
famsl. = feet above mean sea level
btoc = below top-of-casing; ftag = feet above grade
eV = electron volt; PVC = polyvinyl chloride

Blow Count Pentration Resistance:

Consistency (M&C)		Density (G&S)	
<2 =	Very Soft	0-4 =	Very Loose
2-4 =	Soft	4-10 =	Loose
4-8 =	Medium	10-30 =	Medium
8-15 =	Stiff	30-50 =	Dense
15-30 =	Very Stiff	>50 =	Very Dense
>30 =	Hard		

Symbol Legend

Static Water Level

Lab Sample Location

Soil Boring/Monitoring Well

Groundwater & Environmental Services, Inc.

ID NO. **SB-123/MW-123**

Project: **Buffalo Lakeside Commercial Park**	Client: **NYSDEC**	Regulatory Case #: **Site No. 915322**
Address: **Laborers Way & Ship Canal Pkwy, Buffalo, NY**		Regulatory Case Mgr: **Jenelle Gaylord**
County: **Erie**	GES Job #: **0901752**	GES Project Mgr: **Eric D. Popken**
Logged By: **P. Colern/D. Zordan**	Date Drilled: **10-16-2018**	Sample Tool Diameter: **4.5 in.**
Drilling Company: **Cascade Drilling**	Completion Date: **10-25-2018**	Sample Tool Length: **10 ft.**
Drill Operator: **Arlen Little**	Drilling Method: **Sonic Rig**	Soil Classification System: **Modified Burmister**
Drill Rig Type: **Sonic**	Sampling Method: **Sonic Tube**	Field Screening: **MiniRae3000 10.6 eV**
Latitude: **NA**	Longitude: **NA**	Top of Bentonite Seal: **2 fbgs.**
TOC Elevation: **584.12 famsl.**	Borehole Diameter: **4.5 in.**	Type of Seal: **Medium Bentonite Chips**
Total Depth: **20 fbgs.**	Well Diameter: **2 in.**	Top of Sand: **4 fbgs.**
Refusal Depth: **Not Encountered**	Riser Length: **8 ft. (3 ftag)**	Sand Type: **20-40 Mesh Sand Pack**
Initial Depth to Water: **~10 fbgs.**	Screen Slot Size: **0.010-in.**	Well Material Type: **Schedule 40 PVC**
Static Depth to Water: **9.46 ft. btoc.**	Screen Length: **10 ft.**	Top of Grout: **1 fbgs.**

Depth (fbgs)	Sample Interval (feet)	Recovery (ft/ft)	Field Screen (ppm) 0 100	Geologic Description	Comments	Completion Detail
0	0-1	9.5/10	0.0	TOPSOIL and SLAG debris, with little SAND, brown, dry	SB-123-A @ 0-1'	Pro-Casing (1'-3 ftag)
	1-4		0.0	FILL, SLAG debris, some SAND, light brown/gray, slightly moist	3 ft. stick up protective casing	Concrete (1-0')
						Grout (2-1')
						Riser (5'-3 ftag)
	4-6		0.0	FILL, SLAG debris, some SAND, light brown/gray, slightly moist		Bentonite (4-2')
5	6-8		0.0	FILL, SLAG debris, some SAND, light brown/gray, slightly moist		
	8-10		NA	FILL, SLAG debris, few SAND and CLAY, gray, saturated		
10	10-12	-	NA	FILL, SLAG debris, some SAND, gray, saturated	SB-123-B @ 10-12'	Sand (15-4')
						Screen (15-5')
	12-14		NA	PEAT, some WOOD material, little SAND and CLAY, black, moist		
15	14-16		NA	PEAT, some WOOD material, little SAND and CLAY, black, moist		
	16-18		NA	CLAY, some SAND, gray, moist	SB-123-C @ 18-20'	Backfilled (20-15')
	18-20		NA	CLAY, some SAND, gray, moist	Boring ended at 20 fbgs.	
20						

Proportions Used:

Trace =	<5%
Little =	6-15%
Few =	16-30%
Some =	31-49%
And =	>50%

Notes:

NA = not available; fbgs. = feet below ground surface
in. = inches; ft.= feet; ppm.= parts per million
Soil Lithologies based on field observations only.
famsl. = feet above mean sea level
btoc = below top-of-casing; ftag = feet above grade
eV = electron volt; PVC = polyvinyl chloride

Blow Count Pentration Resistance:

Consistency (M&C)		Density (G&S)	
<2 =	Very Soft	0-4 =	Very Loose
2-4 =	Soft	4-10 =	Loose
4-8 =	Medium	10-30 =	Medium
8-15 =	Stiff	30-50 =	Dense
15-30 =	Very Stiff	>50 =	Very Dense
>30 =	Hard		

Symbol Legend

Static Water Level

Lab Sample Location

C&S COMPANIES	C&S Engineers, Inc. 141 Elm Street Buffalo, New York 14203 Phone: 716-847-1630 Fax: 716-847-1454	**TEST PIT**	***Test Pit No.***	**TP-01**
			Sheet 1 of:	
			Project No.:	

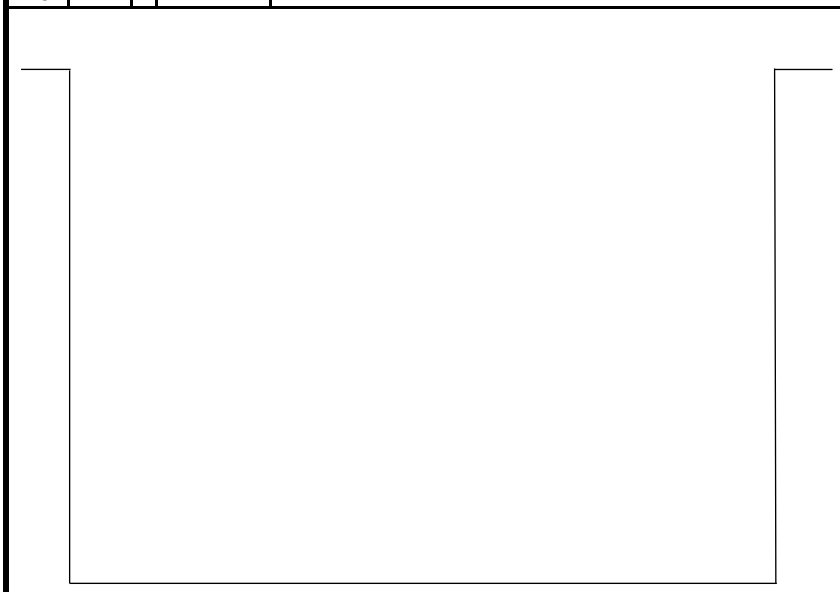
Project Name:	24 Laborers Way BCP			***Start Date:***	8/24/22
Location:	Buffalo, NY	***Operator:***	NW Contracting	***Finish Date:***	8/24/22
Client:	Laborers Way 2 LLC	***Equipment:***	Mini Excavator	***Inspector:***	A. Brennen

Depth (ft)	Sample No.	Symbol	Exc. Depth	MATERIAL DESCRIPTION c - coarse, m - medium, f - fine a - and - 35-50%, s - some - 20-35%, l - little - 10-20%, t - trace - 0-10% S - Sand, $ - Silt, G - Gravel, C - Clay, cly - clayey	COMMENTS (e.g., caving of sidewalls, excavation difficulties, PID readings)
	X			***0' - grey sands, F-C angular gravel, FILL, porous blue/grey rack (slag)***	0.0 ppm
1				***SAA***	0.0 ppm
2					0.0 ppm
3				***Refusal at 2.5'***	0.0 ppm
4					
5					
6					
7					
8					
9					
10					
11					
12					
13					
14					
15					

C&S COMPANIES	C&S Engineers, Inc. 141 Elm Street Buffalo, New York 14203 Phone: 716-847-1630 Fax: 716-847-1454	**TEST PIT**	***Test Pit No.***	**TP-02**
			Sheet 1 of:	
			Project No.:	

Project Name:	24 Laborers Way BCP			***Start Date:***	8/24/22
Location:	Buffalo, NY	***Operator:***	NW Contracting	***Finish Date:***	8/24/22
Client:	Laborers Way 2 LLC	***Equipment:***	Mini Excavator	***Inspector:***	A. Brennen

Depth (ft)	Sample No.	Symbol	Exc. Depth	**MATERIAL DESCRIPTION** c - coarse, m - medium, f - fine a - and - 35-50%, s - some - 20-35%, l - little - 10-20%, t - trace - 0-10% S - Sand, $ - Silt, G - Gravel, C - Clay, cly - clayey	**COMMENTS** (e.g., caving of sidewalls, excavation difficulties, PID readings)
	X			***0-0.2' topsoil, organics***	0.0 ppm
				0.2' Brown silty sands and F-C gravel, concrete, grey rock	
1				***slag***	0.0 ppm
2					0.0 ppm
				SAA	
3					0.0 ppm
4				***Refusal at 3.5'***	
5					
6					
7					
8					
9					
10					
11					
12					
13					
14					
15					



C&S Engineers, Inc. 141 Elm Street Buffalo, New York 14203 Phone: 716-847-1630 Fax: 716-847-1454	**TEST PIT**	***Test Pit No.***	**TP-03**
		Sheet 1 of:	
		Project No.:	

Project Name:	24 Laborers Way BCP			***Start Date:***	8/24/22
Location:	Buffalo, NY	***Operator:***	NW Contracting	***Finish Date:***	8/24/22
Client:	Laborers Way 2 LLC	***Equipment:***	Mini Excavator	***Inspector:***	A. Brennen

Depth (ft)	Sample No.	Symbol	Exc. Depth	MATERIAL DESCRIPTION c - coarse, m - medium, f - fine a - and - 35-50%, s - some - 20-35%, l - little - 10-20%, t - trace - 0-10% S - Sand, $ - Silt, G - Gravel, C - Clay, cly - clayey	COMMENTS (e.g., caving of sidewalls, excavation difficulties, PID readings)
				0-0.2' Topsoil	0.0 ppm
				0.2' Brown silty sands and F-C gravel, concrete, grey rock slag	
1					0.0 ppm
2				***Refusal at 2'***	0.0 ppm
3					
4					
5					
6					
7					
8					
9					
10					
11					
12					
13					
14					
15					

C&S Engineers, Inc. 141 Elm Street Buffalo, New York 14203 Phone: 716-847-1630 Fax: 716-847-1454	**TEST PIT**	***Test Pit No.***	**TP-04**
		Sheet 1 of:	
		Project No.:	

Project Name:	24 Laborers Way BCP			***Start Date:***	8/24/22
Location:	Buffalo, NY	***Operator:***	NW Contracting	***Finish Date:***	8/24/22
Client:	Laborers Way 2 LLC	***Equipment:***	Mini Excavator	***Inspector:***	A. Brennen

Depth (ft)	Sample No.	Symbol	Exc. Depth	MATERIAL DESCRIPTION c - coarse, m - medium, f - fine a - and - 35-50%, s - some - 20-35%, l - little - 10-20%, t - trace - 0-10% S - Sand, $ - Silt, G - Gravel, C - Clay, cly - clayey	COMMENTS (e.g., caving of sidewalls, excavation difficulties, PID readings)
				0-0.2' Topsoil	0.0 ppm
				0.2' light brown sands, F-C angular gravel	
1				***slag***	0.0 ppm
2					0.0 ppm
3				***3' - clayey silts, some F-C gravel***	0.0 ppm
4				***Refusal at 4' - slag material present***	0.0 ppm
5					
6					
7					
8					
9					
10					
11					
12					
13					
14					
15					

C&S Engineers, Inc. 141 Elm Street Buffalo, New York 14203 Phone: 716-847-1630 Fax: 716-847-1454	**TEST PIT**	***Test Pit No.***	**TP-05**
		Sheet 1 of:	
		Project No.:	

Project Name:	24 Laborers Way BCP			***Start Date:***	8/24/22
Location:	Buffalo, NY	***Operator:***	NW Contracting	***Finish Date:***	8/24/22
Client:	Laborers Way 2 LLC	***Equipment:***	Mini Excavator	***Inspector:***	A. Brennen

Depth (ft)	Sample No.	Symbol	Exc. Depth	**MATERIAL DESCRIPTION** c - coarse, m - medium, f - fine a - and - 35-50%, s - some - 20-35%, l - little - 10-20%, t - trace - 0-10% S - Sand, $ - Silt, G - Gravel, C - Clay, cly - clayey	**COMMENTS** (e.g., caving of sidewalls, excavation difficulties, PID readings)
				0' - grey sands, F-C angular gravel, FILL,	0.0 ppm
				porous blue/grey rack (slag), increasing size with depth	
1					0.0 ppm
				SAA with lens of grey sands at 1'	
2					0.0 ppm
3				***Refusal at 2.5'***	0.0 ppm
4					
5					
6					
7					
8					
9					
10					
11					
12					
13					
14					
15					

C&S Engineers, Inc. 141 Elm Street Buffalo, New York 14203 Phone: 716-847-1630 Fax: 716-847-1454	**TEST PIT**	***Test Pit No.***	**TP-06**
		Sheet 1 of:	
		Project No.:	

Project Name:	24 Laborers Way BCP			***Start Date:***	8/24/22
Location:	Buffalo, NY	***Operator:***	NW Contracting	***Finish Date:***	8/24/22
Client:	Laborers Way 2 LLC	***Equipment:***	Mini Excavator	***Inspector:***	A. Brennen

Depth (ft)	Sample No.	Symbol	Exc. Depth	MATERIAL DESCRIPTION c - coarse, m - medium, f - fine a - and - 35-50%, s - some - 20-35%, l - little - 10-20%, t - trace - 0-10% S - Sand, $ - Silt, G - Gravel, C - Clay, cly - clayey	COMMENTS (e.g., caving of sidewalls, excavation difficulties, PID readings)
				0-0.2' topsoil	0.0 ppm
				0.2' light brown silty sands, F-C gravel	
1					0.0 ppm
2				***1.5-1.7' lens of brown/orange sands***	0.0 ppm
				2' white sands and gravel	
3				***Refusal at 2.5 - concrete and slag***	0.0 ppm
4					
5					
6					
7					
8					
9					
10					
11					
12					
13					
14					
15					

C&S Engineers, Inc. 141 Elm Street Buffalo, New York 14203 Phone: 716-847-1630 Fax: 716-847-1454	**TEST PIT**	***Test Pit No.***	**TP-07**
		Sheet 1 of:	
		Project No.:	

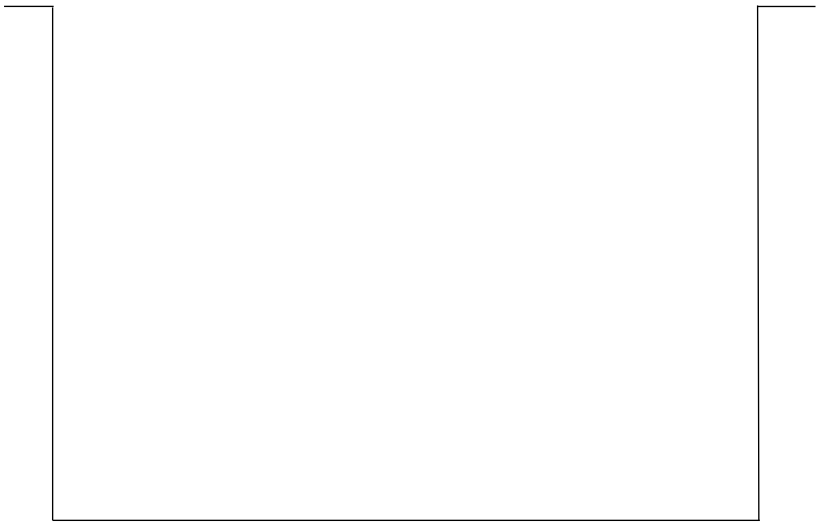
Project Name:	24 Laborers Way BCP			***Start Date:***	8/24/22
Location:	Buffalo, NY	***Operator:***	NW Contracting	***Finish Date:***	8/24/22
Client:	Laborers Way 2 LLC	***Equipment:***	Mini Excavator	***Inspector:***	A. Brennen

Depth (ft)	Sample No.	Symbol	Exc. Depth	MATERIAL DESCRIPTION c - coarse, m - medium, f - fine a - and - 35-50%, s - some - 20-35%, l - little - 10-20%, t - trace - 0-10% S - Sand, $ - Silt, G - Gravel, C - Clay, cly - clayey	COMMENTS (e.g., caving of sidewalls, excavation difficulties, PID readings)
				0' - grey sands, F-C angular gravel, FILL,	0.0 ppm
				porous blue/grey rack (slag), increasing size with depth	
					0.0 ppm
1				***SAA with lens of grey sands at 1'***	
					0.0 ppm
2				***Refusal at 2'***	
3					
4					
5					
6					
7					
8					
9					
10					
11					
12					
13					
14					
15					

C&S COMPANIES	C&S Engineers, Inc. 141 Elm Street Buffalo, New York 14203 Phone: 716-847-1630 Fax: 716-847-1454	**TEST PIT**	***Test Pit No.***	**TP-08**
			Sheet 1 of:	
			Project No.:	

Project Name:	24 Laborers Way BCP			***Start Date:***	8/24/22
Location:	Buffalo, NY	***Operator:***	NW Contracting	***Finish Date:***	8/24/22
Client:	Laborers Way 2 LLC	***Equipment:***	Mini Excavator	***Inspector:***	A. Brennen

Depth (ft)	Sample No.	Symbol	Exc. Depth	MATERIAL DESCRIPTION c - coarse, m - medium, f - fine a - and - 35-50%, s - some - 20-35%, l - little - 10-20%, t - trace - 0-10% S - Sand, $ - Silt, G - Gravel, C - Clay, cly - clayey	COMMENTS (e.g., caving of sidewalls, excavation difficulties, PID readings)
				0-0.2' topsoil	0.0 ppm
				0.2' light brown silty sands, F-C gravel	
1					0.0 ppm
				1' lens of brown/orange sands	
2				***1.25' light brown/white sands, F-M gravel***	0.0 ppm
				2' Fill, concrete, slag - hard	
3				***Refusal at 2.5 - concrete and slag***	0.0 ppm
4					
5					
6					
7					
8					
9					
10					
11					
12					
13					
14					
15					



Appendix C
Radiological Characterization Reports

June 13, 2022

Ryan Herrell
Laborers Way, LLC
700 Second Street
Encinitas, California 92024
rherrell@zephyrpartners.com

Re: **Radiological Gamma Walkover Survey**
24 Laborers Way Development – Subplot 5

Dear Mr. Herrell:

Laborers Way, LLC has requested that C&S Engineers provide environmental investigation and consulting services related to the 24 Laborers Way Development (Site or Subplot 5), which is a part of the newly proposed Buffalo Lakeside Commerce Park in Buffalo, New York. The parcel is currently vacant and is approximately 5.4 acres in size. A survey of the property and the current proposed BCP boundary can be seen on **Figure 1**.

BACKGROUND

Laborers Way, LLC is in the early stages of redeveloping Subplot 5 and intends to enter the parcel in the Brownfield Cleanup Program (BCP). Recent correspondence with the New York State Department of Environmental Conservation (NYSDEC) has raised concerns regarding the potential existence of radiological impacted material at the Site due to similar contamination found at nearby developments. The NYSDEC has requested a screening and assessment of radiological impacts on the Site. Laborers Way, LLC does not currently intend to remove any soils from the Site as a part of development nor is disposal of radiologically impacted material planned as a part of their current budget.

Due to the potential financial burdens of the management and possible disposal of radiologically impacted material, Laborers Way, LLC has opted to complete a Radiological Survey of the parcel to preliminarily assess the presence and magnitude of radiologically impacted material at the Site.

METHODOLOGY

Advanced Construction Services, Inc. (ACS), a qualified radiological consulting firm, performed an area specific radiological survey across the entire 5.4-acre BCP parcel on May 31 through June 2, 2022. A radiological technician from ACS completed a gamma walkover survey of any accessible areas within the Site Boundary to evaluate these areas for elevated radiation. A Ludlum Model 2221 ratemeter with a 44-10 probe (sodium iodide) was utilized to facilitate identification of areas of elevated radiation, which were then recorded on a map of the site. A known limitation of this approach is that the scan assesses conditions from the surface to depths up to 18 inches, below which any radiation is shielded by the overlying materials.

Following the field survey. Austin Master Services (AMS) was contracted to map and interpret the cumulative scan data collected by ACS in the field. **Attachment A** contains AMS' letter report of findings: *Surface Scan Measurements for 24 Laborers Way Subplot 5 Site*. **Figures 2** and **3** have been pulled from Attachment A and are presented for discussion purposes.

FINDINGS

A summarization of ACS' and AMS' findings have been described below:

- Surface soils on the property were noted as a mixture of grass bearing soils and material noted as resembling slag.

- Background counts were collected in a grass area approximately 30 - 40 yards away from the Site each day. The daily background average was found to be 5400 counts per minute (cpm).

- ACS' instrumentation logged over 14,000 readings and geolocated the readings onto aerial photographs, which are attached as **Figures 2** and **3.** The majority of the radiological readings collected during the gamma walkover survey ranged from approximately 6,500 cpm to approximately 20,000 cpm.

- AMS derived an Upper Tolerance Level (UTL) of 7,868 cpm. The was UTL used to delineate where contamination at concentrations greater than background were likely to be found. Most of the readings taken on the Site were above the UTL.

- Based upon the readings, AMS concluded that the Site has a relatively consistent and extensive layer of radiological impacted material at the surface. However, further interpreting the data as shown on **Figure 3** indicates that a majority of the Site appears to be at or just above two times the background level, which is the typical threshold used to evaluate the significance of radiological impacts.

- **Figure 3** depicts the areas shown to be greater than three times background in orange and red. These areas are located on the eastern boundary and northwestern and southwestern corners of the Site.

RECOMMENDATIONS

Review of the findings presented by AMS in **Attachment A** details the presence of radiologically impacted material across the Site. The presence of radiologically impacted material is not uncommon on sites which are known to contain slag material from former steel operations. Given the site history and noted slag material on the property at depths of up to 10 feet, the readings collected by ACS during their gamma walkover survey are not surprising.

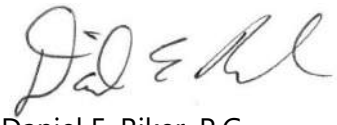
The proposed redevelopment for 24 Laborers Way is a light manufacturing and warehouse use. Discussion of the future grading plans (also to be generated by C&S Engineers) details that redevelopment grading will be balanced onsite and no material is planned to be hauled offsite. Additionally, redevelopment plans indicate that a majority of the new redevelopment will be capped with competent hardscape or newly poured concrete building foundations. These areas as designed are expected to provide at least 18 inches of shielding through imported subbase, pavement, concrete, etc. Given this information and considering the relatively low levels of surface radiological impacts (below 20,000 cpm), C&S' expects that the future use and required engineering controls (capping) of the Site will adequately shield workers and visitors on the Site from elevated radiological levels. In addition, the NYSDEC has recently indicated that sub-slab vapor mitigation systems will be required on all BCP sites that are shown to contain radiological impacts. Based on this new requirement and the results of this survey, a sub-slab vapor mitigation system will likely be required if the Site is entered into the BCP.

It is assumed that proper dust monitoring and suppression techniques will be used during ground intrusive activities on the Site. This should actively mitigate exposure to construction workers and those near the Site at the time of construction from migrating dust.

Because this investigation only included a surficial gamma walkover survey, C&S recommends the onsite monitoring be completed by a qualified radiological technician during all excavation work planned at depths deeper than 18 inches (i.e., foundation and utility line excavation).

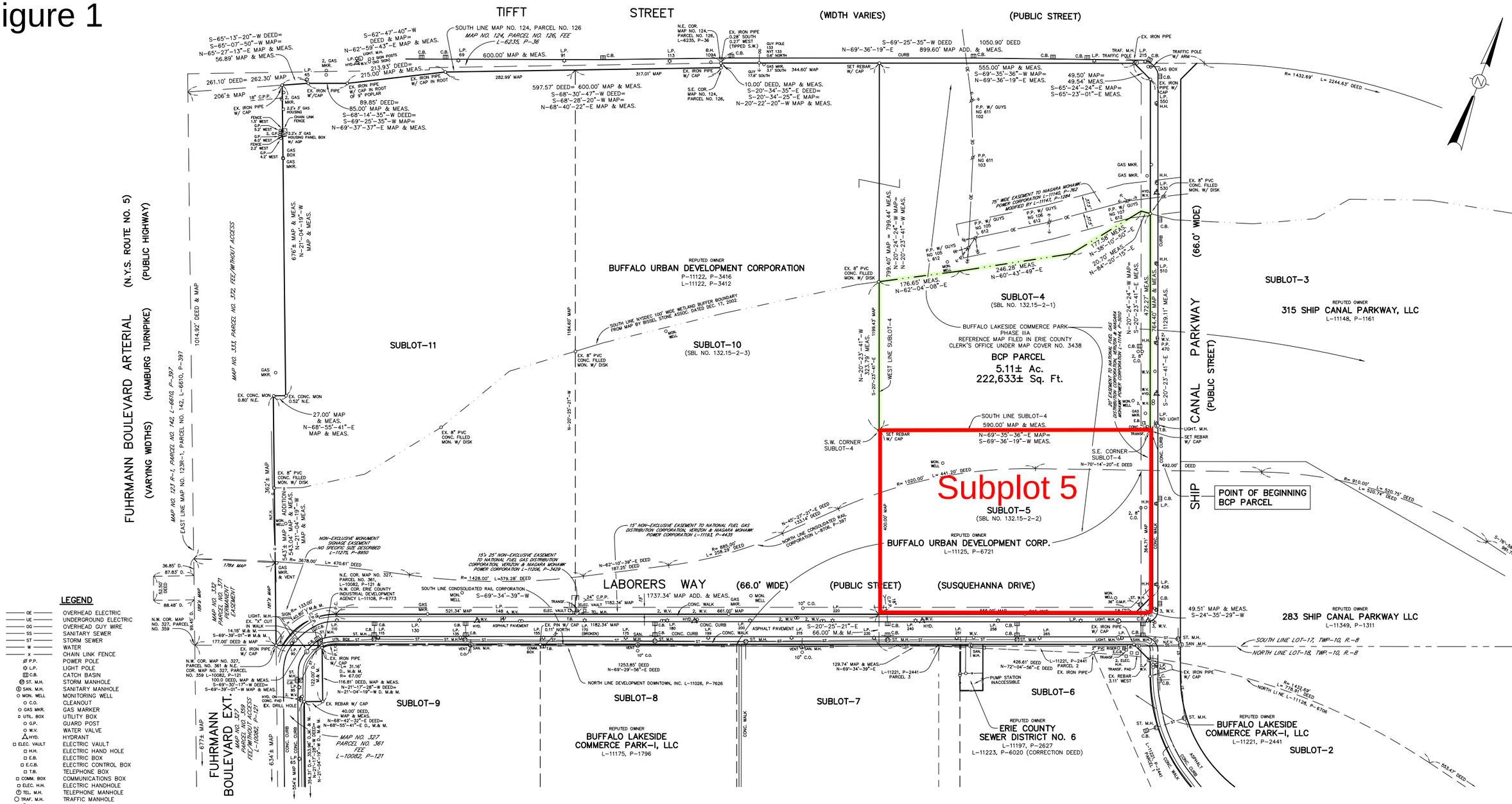
Sincerely,

C&S Engineers, INC.



Daniel E. Riker, P.G.
Department Manager – Environmental Services

Figure 1



LEGEND

OE	OVERHEAD ELECTRIC
UE	UNDERGROUND ELECTRIC
OG	OVERHEAD GUY WIRE
SS	SANITARY SEWER
ST	STORM SEWER
W	WATER
X	CHAIN LINK FENCE
⌀ P.P.	POWER POLE
☼ L.P.	LIGHT POLE
C.B.	CATCH BASIN
ST. M.H.	STORM MANHOLE
S SAN. M.H.	SANITARY MANHOLE
MON. WELL	MONITORING WELL
C.O.	CLEANOUT
GAS MKR.	GAS MARKER
UTIL. BOX	UTILITY BOX
G.P.	GUARD POST
W.V.	WATER VALVE
HYD.	HYDRANT
ELEC. VAULT	ELECTRIC VAULT
H.H.	ELECTRIC HAND HOLE
E.B.	ELECTRIC BOX
E.C.B.	ELECTRIC CONTROL BOX
T.B.	TELEPHONE BOX
COMM. BOX	COMMUNICATIONS BOX
ELEC. H.H.	ELECTRIC HANDHOLE
TEL. M.H.	TELEPHONE MANHOLE
TRAF. M.H.	TRAFFIC MANHOLE
M.H.	MANHOLE
	SIGN
TRANSF.	TRANSFORMER
D.D.	DUB DOWN
AGP	ABOVE GROUND PIPE
N.F.V.	NOT FIELD VERIFIED
D., M.& M.	DEED, MAP & MEASURE
D., M.A.& M.	DEED, MAP ADDITION & MEASURE
	BCP BOUNDARY

GRAPHIC SCALE
(IN METERS)
47.5 0 22.5 27.5 47.5 72.5 95 120
1 : 1200
GRAPHIC SCALE
100 0 50 100 200 400
(IN FEET)
1 inch = 100 ft.

NOTES

1) BEARINGS SHOWN REFER TO LANDS APPROPRIATED BY THE PEOPLE OF THE STATE OF NEW YORK FOR CITY OF BUFFALO ARTERIAL ROUTE, FUHRMANN BOULEVARD–HAMBURG TURNPIKE MAP NO. 333, PARCEL NO. 372 & MAP NO. 327, PARCEL NO'S 356–362, 366, 374 & 375.
2) SBL: CITY OF BUFFALO TAX MAP NO. 132.15–2–1
3) REFERENCE MAP: ALTA/NSPS LAND TITLE SURVEY PREPARED BY McINTOSH & McINTOSH, P.C. DATED APRIL 20, 2012, LAST RESURVEYED RESURVEYED NOVEMBER 4, 2021 AND IDENTIFIED AS JOB NO. 7948–C

NYSDEC BCP DESCRIPTION
310 SHIP CANAL PARKWAY
NYSDEC BCP SITE NO. ?

ALL THAT TRACT OR PARCEL OF LAND situate in the City of Buffalo, County of Erie, State of New York and being part of Lot 17, Township 10, Range 8, of the Ogden Gore Tract, bounded and described as follows:
BEGINNING AT A POINT on the west line of Ship Canal Parkway at the southeast corner of Sublot 4 as shown on a map for Buffalo Lakeside Commerce Park, Phase III A as filed in the Erie County Clerk's Office under Cover Map No. 3438;
RUNNING THENCE: S–69°–36'–19"–W, along the south line of said Sublot 4, a distance of 590.00 feet to the southwest corner thereof;
RUNNING THENCE: N–20°–23'–41"–W, along the west line of said Sublot 4, a distance of 323.79 feet to a point on the south line of a New York State Department of Environmental Conservation 100 foot wide wetland buffer boundary;
RUNNING THENCE: The following four (4) courses and distances along the south line of said wetland buffer boundary:
1. N–62°–04'–08"–E, a distance of 176.65 feet to a point;
2. N–60°–43'–49"–E, a distance of 246.28 feet to a point;
3. N–38°–10'–50"–E, a distance of 177.58 feet to a point;
4. N–84°–20'–15"–E, a distance of 20.70 feet to a point on the west line of Ship Canal parkway;
RUNNING THENCE: S–20°–23'–41"–E, along the west line of Ship Canal Parkway, a distance of 472.27 feet to the POINT OR PLACE OF BEGINNING, containing 5.11 Acres, be the same, more or less.
SUBJECT TO easements, rights of way and restrictions of record.
BEING AND INTENDED TO BE a portion of lands conveyed to Buffalo Urban Development Corporation by deeds recorded in the Erie County Clerk's Office in Liber 11122 of Deeds at Page 3412 and in Liber 11122 of Deeds at Page 3416.

ALSO BEING SUBLOT–4, BUFFALO LAKESIDE COMMERCE PARK, PHASE IIIA &

NYS DEC BCP SITE NO. ?
SITE ADDRESS: 310 SHIP CANAL PARKWAY

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ALL RIGHTS RESERVED

NOTE: THIS SURVEY WAS PREPARED WITHOUT THE BENEFIT OF AN ABSTRACT OF TITLE AND IS SUBJECT TO ANY STATE OF FACTS THAT MAY BE REVEALED BY AN EXAMINATION OF SUCH.

NOTE: UNAUTHORIZED ALTERATION OR ADDITION TO THIS SURVEY IS A VIOLATION OF SECTION 7209, PROVISION 2 OF THE NEW YORK STATE EDUCATION LAW.

RESURVEY	REVISION

McINTOSH & McINTOSH, P.C.
CONSULTING ENGINEERS, LAND SURVEYORS, PLANNERS
429 PINE STREET, LOCKPORT, NEW YORK 14094
PHONE 433–2535 PHONE 625–8360

SURVEY OF PART OF LOT–17, TWP.–10, R.–8 OF THE OGDEN GORE TRACT
LOCATION CITY OF BUFFALO, ERIE COUNTY, NEW YORK
REFERENCE MAPS FILED IN E.C.C.O. UNDER MAP COVER NO. 3438
JOB No. 7948–4–EE | SCALE: 1"= 100' | DATE: NOVEMBER 4, 2021
DRAWN: MAS | COMP.: JEM, III | DESC.:
CADFILE 7948–4–EE.DWG

Figure 2

Scan Map Using the Background UTL and Six Sigma plus the Background Mean to Establish Area Intervals

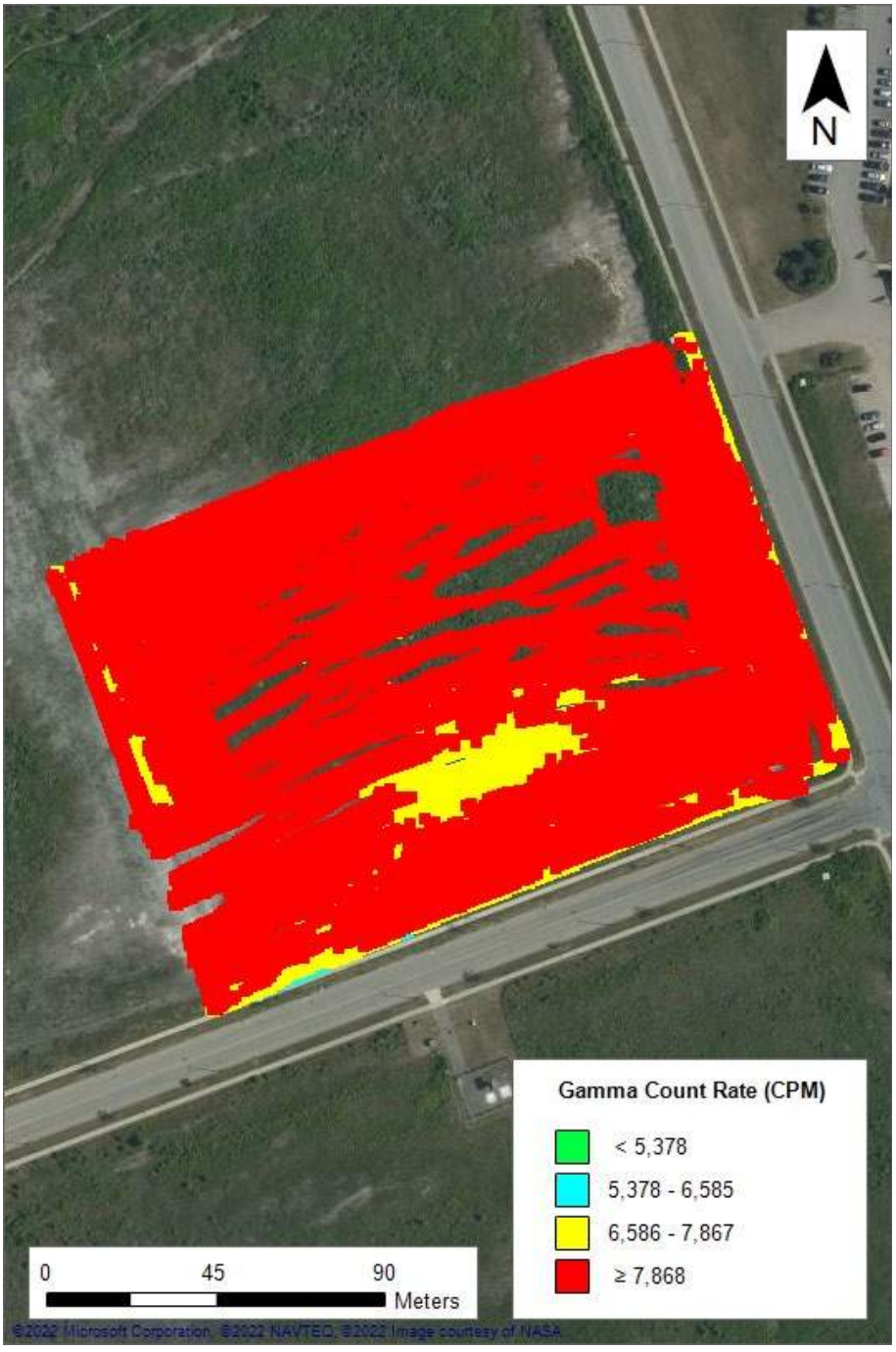
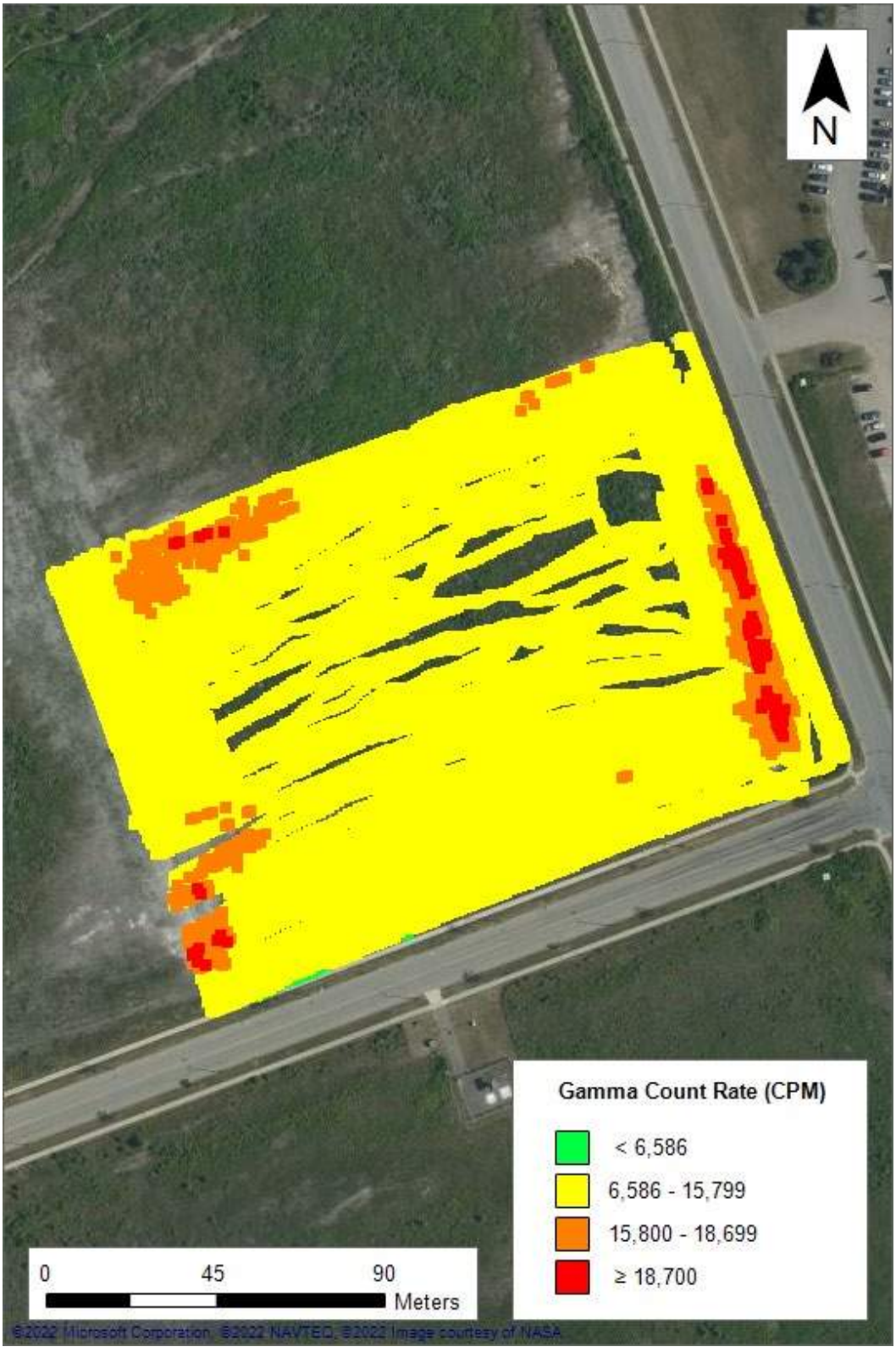


Figure 3

Scan Map Separating Regions by Histogram Intervals



Austin Master Services
Letter Report of Findings

Surface Scan Measurements of 24 Laborers Way Subplot 5 Site

Austin Master Services
801 N 1st St
Martins Ferry, OH
740-609-3806 Main Number

6/6/2022

Raj Chopra
ACS, Inc.
PO Box 986
Grand Island NY 14072

Re: **Surface Scan Measurements for 24 Laborers Way Subplot 5 Site**

Dear Mr. Chopra:

In June of 2022, ACS was contracted to perform surface radiological scans of a parcel (noted as Unit#5) located at 24 Laborers Way, Buffalo (Lackawanna), NY. The data was forwarded to Austin Master Services, LLC (AMS) Certified Health Physicist for review and assessment. This report provides a summary of the results of that scan assessment.

Prior to scanning the Unit#5 site, background count rate data for the 2"x 2" NaI detector being used for the scans was obtained. This background data is shown in Attachment 2 to this report. EPA's ProUCL, a statistical software program, was used assess the quality of the background data collected. The data was normally distributed and considered to be of sufficient quality to use as background count rate data for comparison with the scan data.

For the gamma "walk over" survey a Ludlum 2221 ratemeter and Ludlum 44-10 sodium iodide detector (the same detector used for the background measurements) were placed in data logging mode and connected to ERG's proprietary GPS system to allow simultaneous logging of gamma count rates and the easting and northing coordinates.

The "walk-over" process involves scanning the surface at a rate of 0.5 m/s with the detector to ground surface distance of 10 cm. The scan rate is an industry standard in keeping with EPA/NRC guidance in their Multi-Agency Radiation Survey and Site Investigation Manual (MARSSIM)[1].During scanning the data logger will log both the location count rate but also the GPS UTM easting and northing coordinates.

The results were then transferred to an aerial photograph of the site and exhibited as colors based on use of background data to develop "bins" of count rate data. The first scan map shown in Attachment 1 was coded by using intervals related to the Upper Tolerance Level (UTL) of the background and the six value above the background mean.

[1] NUREG-1575, Rev. 1 EPA 402-R-97-016, Rev. 1 DOE/EH-0624, Rev. 1 (August 2000)

Austin Master Services
801 N 1st St
Martins Ferry, OH
740-609-3806 Main Number

In Attachment 1 the first scan map figure shown indicates the site has a fairly extensive cover that contains radioactive materials greater than normal background concentrations. The Upper Tolerance Level (UTL) was used to delineate where contamination at concentrations greater than background were likely to be found. This is in keeping with use of the UTL as a measure when a contaminant is found to occur naturally in the soil and a means is needed to distinguish between natural background radioactivity and that occurring due to human activity.

Because the site was known to contain radiological contaminants from steel slag used as fill, ACS's client also requested a map that would provide a better delineation of the areas of significant levels of contamination. Intervals were then established using the Histogram data shown in Attachment 1 and a second map focusing on higher count rate values was created. The second scan map shown in Attachment 1 has several sub areas (those in orange and red) within the scan footprint that are greater than three times the background count rate.

After review of the data, AMS notes the following regarding scan uncertainties, conclusions, and recommendations:

Uncertainties:

1. If contaminants are present at depths greater than 18 inches or under an asphalt surface the scan data may result in a false-negative conclusion relative to whether contamination is present.
2. If the contaminants present, do not decay by emission of a gamma photon then detection of those contaminants is not possible. This is an unlikely scenario in that most of the historical contamination from steel slag in the Lackawanna area is the result of uranium, thorium and their decay progeny being present, and those decay chains all have significant photon emissions.

Please call or email me with any questions or concerns.

Respectfully,

Peter Collopy

Peter Collopy, CHP, CIH, CSP

AMS Radiation Safety Officer

Austin Master Services
801 N 1st St
Martins Ferry, OH
740-609-3806 Main Number

Enclosures:

Attachment 1: Surface Scan Measurements Map and Histogram
Attachment 2: Background Measurements and Calculations
Attachment 3: Instrument Quality Assurance Data

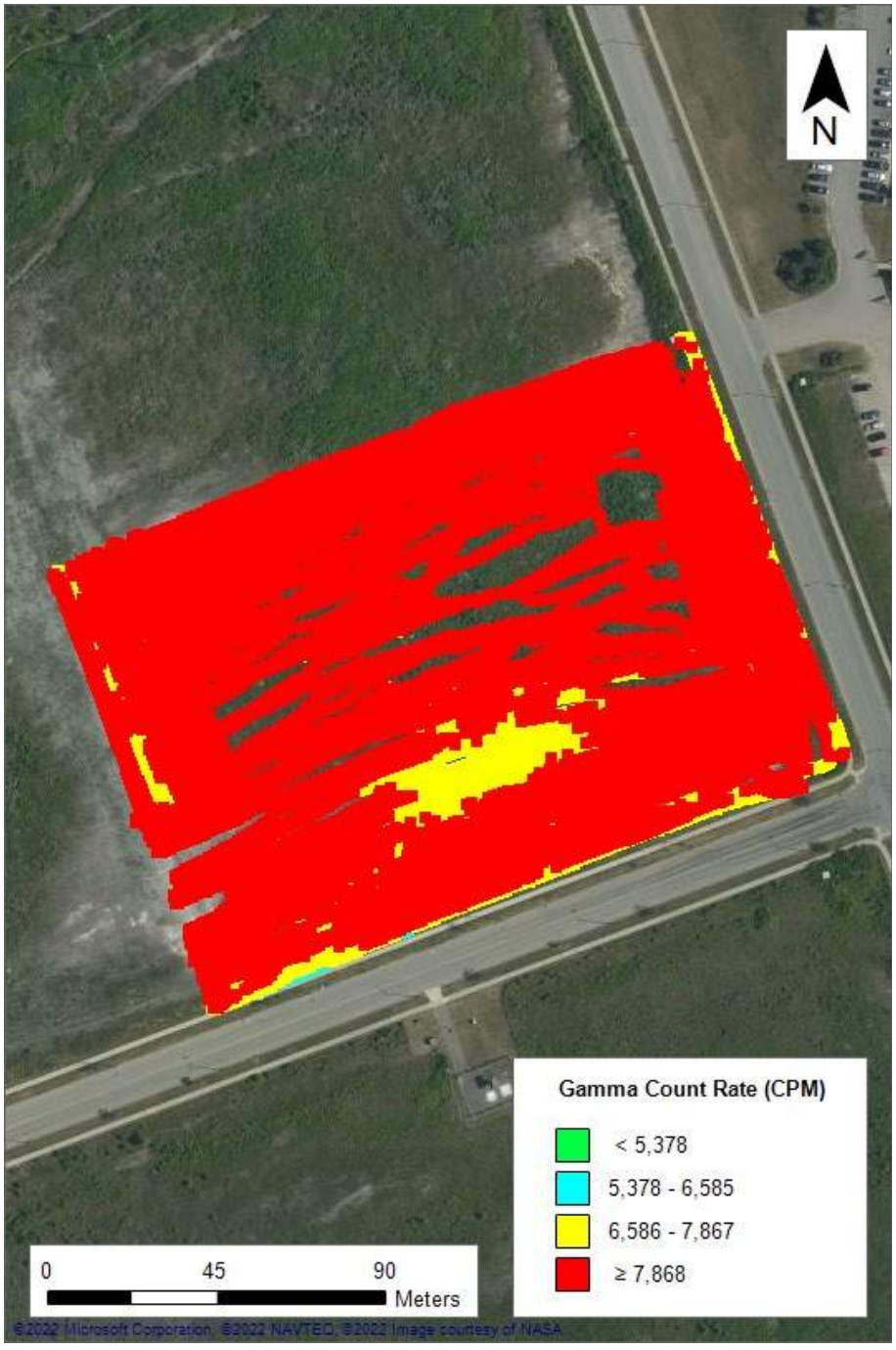
cc: Patrick Horkman, NRRPT

Attachment 1

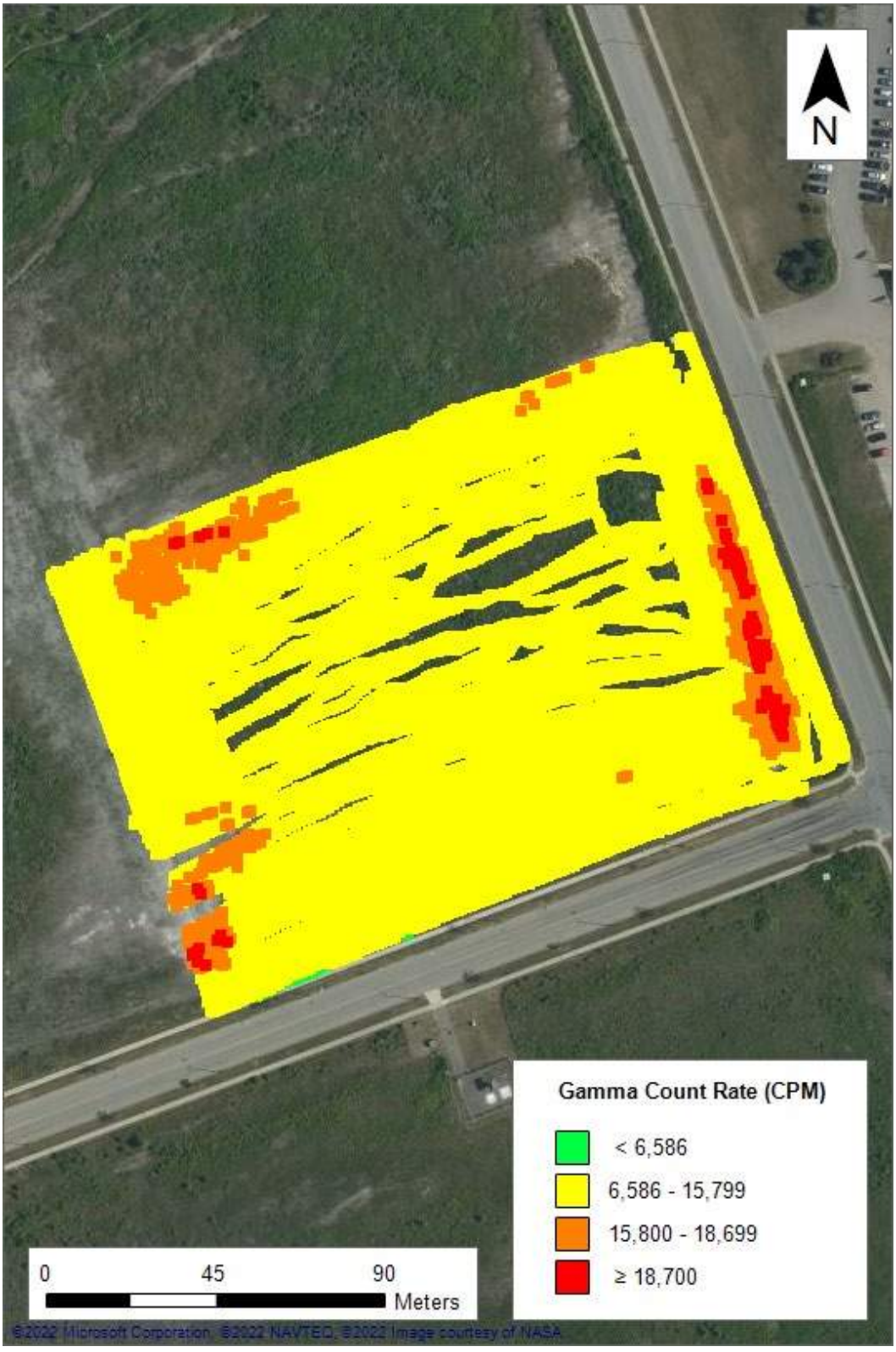
29 Laborers Way Subplot 5

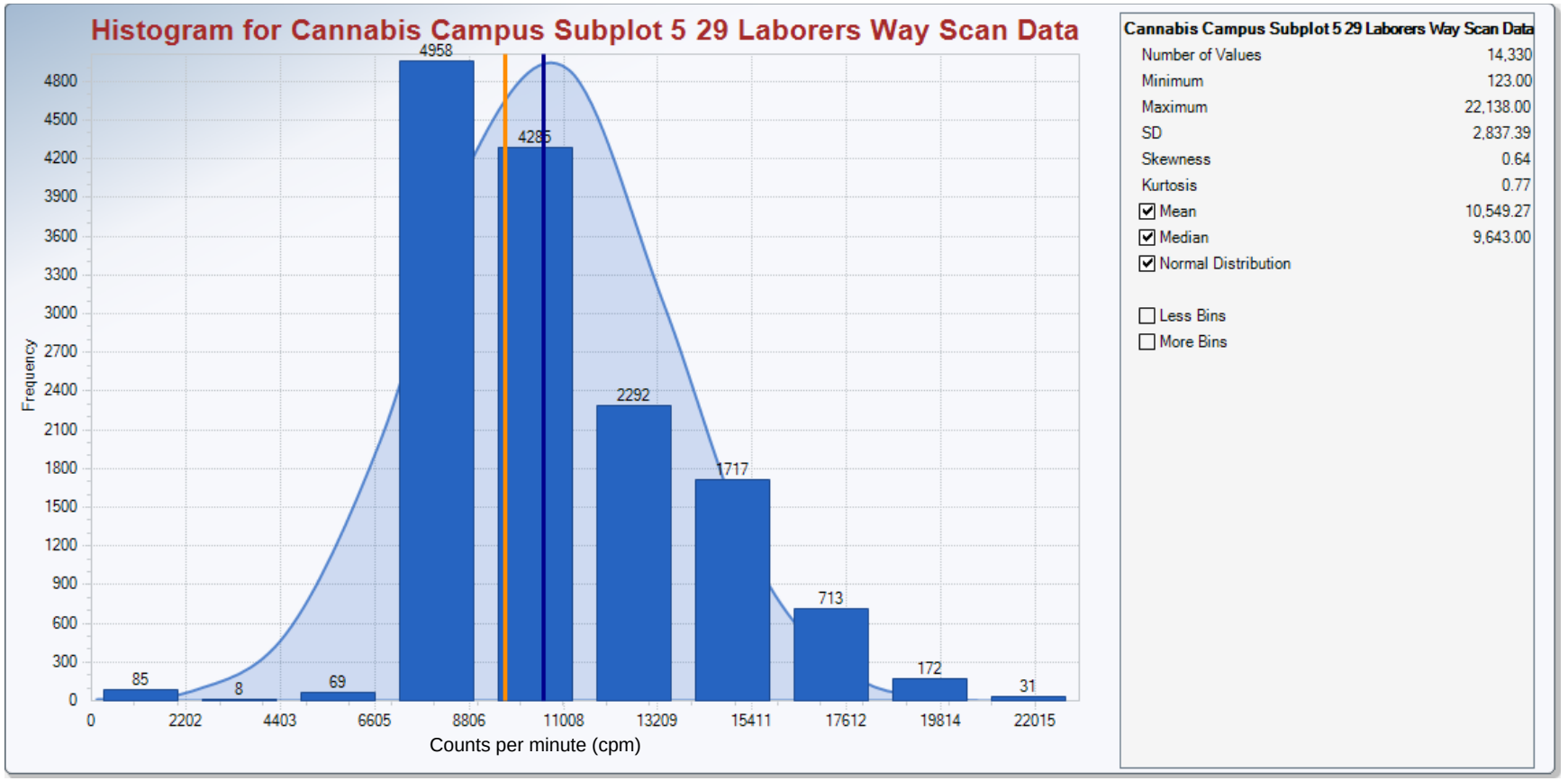
Gamma Scan Map and Data Histogram

Scan Map Using the Background UTL and Six Sigma plus the Background Mean to Establish Area Intervals



Scan Map Separating Regions by Histogram Intervals




Histogram for Cannabis Campus Subplot 5 29 Laborers Way Scan Data
Frequency
Counts per minute (cpm)
4958
4285
2292
1717
713
172
85
8
69
31
0
2202
4403
6605
8806
11008
13209
15411
17612
19814
22015
Cannabis Campus Subplot 5 29 Laborers Way Scan Data
Number of Values 14,330
Minimum 123.00
Maximum 22,138.00
SD 2,837.39
Skewness 0.64
Kurtosis 0.77
Mean 10,549.27
Median 9,643.00
Normal Distribution
Less Bins
More Bins

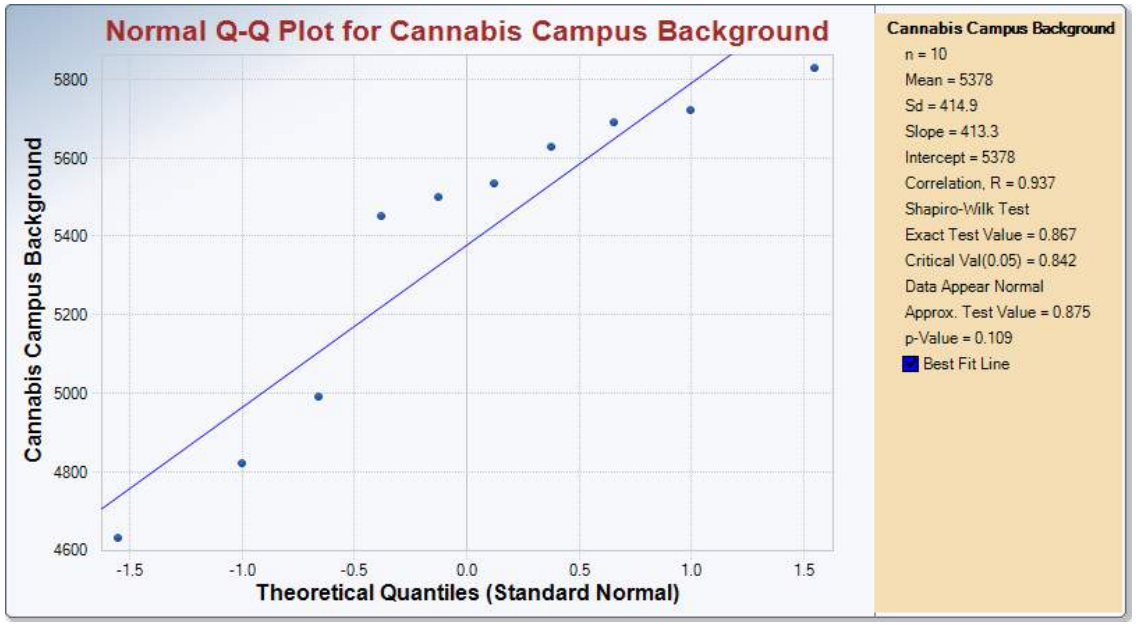
Attachment 2
Background Data and Statistical Analysis

50% gravel/50%grass

Background for Cannabis Campus

1 minut reading (cpm)

#1	5721
#2	5533
#3	4628
#4	5688
#5	5829
#6	5499
#7	4818
#8	5450
#9	5627
#10	4990
Mean (υ)	5378
S_D (σ)	415
UTL	6586
υ + 6 σ	7868



Cannabis Campus Background

ProUCL Calculation for Background UTL

General Statistics

Total Number of Observations	10	Number of Distinct Observations	10
Minimum	4628	First Quartile	5105
Second Largest	5721	Median	5516
Maximum	5829	Third Quartile	5673
Mean	5378	SD	414.9
Coefficient of Variation	0.0772	Skewness	-0.922
Mean of logged Data	8.587	SD of logged Data	0.0797

Critical Values for Background Threshold Values (BTVs)

Tolerance Factor K (For UTL)	2.911	d2max (for USL)	2.176

Normal GOF Test

Shapiro Wilk Test Statistic	0.867	**Shapiro Wilk GOF Test**	
5% Shapiro Wilk Critical Value	0.842	Data appear Normal at 5% Significance Level	
Lilliefors Test Statistic	0.269	**Lilliefors GOF Test**	
5% Lilliefors Critical Value	0.262	Data Not Normal at 5% Significance Level	

Data appear Approximate Normal at 5% Significance Level

Background Statistics Assuming Normal Distribution

95% UTL with 95% Coverage	6586	90% Percentile (z)	5910
95% UPL (t)	6176	95% Percentile (z)	6061
95% USL	6281	99% Percentile (z)	6344

Attachment 3
Instrument Quality Assurance Data

Inst.# 271429/PR373560		
QC Daily Source		
Date	Result (cpm)	P/F
5/5/2022	4219	Pass
5/6/2022	4332	Pass
5/7/2022	4406	Pass
5/9/2022	4391	Pass
5/10/2022	4245	Pass
5/11/2022	4287	Pass
5/12/2022	4239	Pass
5/13/2022	4308	Pass
5/14/2022	4326	Pass
5/16/2022	4355	Pass
5/17/2022	4290	Pass
5/18/2022	4267	Pass
5/19/2022	4340	Pass
5/20/2022	4326	Pass
5/21/2022	4352	Pass
5/23/2022	4249	Pass
5/24/2022	4352	Pass
5/25/2022	4489	Pass
5/26/2022	4409	Pass
5/27/2022	4525	Pass
5/30/2022	4628	Pass
5/31/2022	4573	Pass
6/1/2022	4647	Pass
6/2/2022	4583	Pass

Inst.# 271429/PR373560		Source Ser. #	BKG
Initial Source Readings		Nuclide	N/A
Date	Result (cpm)		
5/5/2022	4247		
5/5/2022	4448		
5/5/2022	4563		
5/5/2022	4664		
5/5/2022	4322		
5/5/2022	4636		
5/5/2022	4293		
5/5/2022	4411		
5/5/2022	4348		
5/5/2022	4318		
	Average		
	4425		

Inst.# 271429/PR373560		
QC Daily Source		
Date	Result (cpm)	P/F
5/5/2022	105989	Pass
5/6/2022	104323	Pass
5/7/2022	104989	Pass
5/9/2022	105237	Pass
5/10/2022	104898	Pass
5/11/2022	105231	Pass
5/12/2022	105189	Pass
5/13/2022	105618	Pass
5/14/2022	104893	Pass
5/16/2022	104952	Pass
5/17/2022	105230	Pass
5/18/2022	105410	Pass
5/19/2022	104996	Pass
5/20/2022	104838	Pass
5/21/2022	104255	Pass
5/23/2022	105089	Pass
5/24/2022	104889	Pass
5/25/2022	105177	Pass
5/26/2022	105021	Pass
5/27/2022	104637	Pass
5/30/2022	105396	Pass
5/31/2022	105427	Pass
6/1/2022	105339	Pass
6/2/2022	104892	Pass

Inst.# 271429/PR373560		Source Ser. #	May-91
Initial Source Readings		Nuclide	Cs-137
Date	Result (cpm)		
5/5/2022	111969		
5/5/2022	109881		
5/5/2022	108167		
5/5/2022	113940		
5/5/2022	103649		
5/5/2022	99840		
5/5/2022	104553		
5/5/2022	106887		
5/5/2022	102914		
5/5/2022	108419		
	Average		
	107022		

Environmental Restoration Group, Inc.
8809 Washington St NE, Suite #150
Albuquerque, NM 87113
(505) 298-4224
www.ERGoffice.com

Certificate of Calibration

Calibration and Voltage Plateau

Meter: Manufacturer:	Ludlum	Model Number:	2221	Serial Number:	271429
Detector: Manufacturer:	Ludlum	Model Number:	44-10	Serial Number:	PR373560

HV Check (+/- 2.5%): ☑ 500 V ☑ 1000 V ☑ 1500 V

☑ Mechanical Check ☑ THR/WIN Operation
☑ F/S Response Check ☑ Reset Check
☑ Geotropism ☑ Audio Check
☑ Meter Zeroed ☑ Battery Check

Cable Length: ☐ 39-inch ☑ 60-inch ☐ Other:

Source Distance: ☐ Contact ☑ 6 inches ☐ Other:
Source Geometry: ☑ Side ☐ Below ☐ Other:

Threshold: 10 mV
Window:

Barometric Pressure: 24.36 inches Hg
Temperature: 74 °F
Relative Humidity: 20 %

Pulser: Ludlum 500-1 sn 201932 Multimeter: n/a

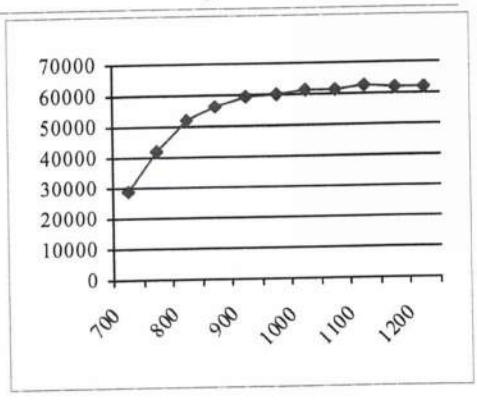
Instrument found within tolerance: ☑ Yes ☐ No

Range/Multiplier	Reference Setting	"As Found Reading"	Meter Reading	Integrated 1-Min. Count	Log Scale Count
x 1000	400	400	400	400650	400
x 1000	100	100	100		100
x 100	400	400	400	40065	400
x 100	100	100	100		100
x 10	400	400	400	4007	400
x 10	100	100	100		100
x 1	400	400	400	400	400
x 1	100	100	100		100

Count Time (min): 1.0

High Voltage	Source Counts	Background Counts	Net Counts
700	28445	2051	26394
750	42113	3995	38118
800	51749	6355	45394
850	56311	8044	48267
900	59179	8807	50372
950	60157	8854	51303
1000	60958	9084	51874
1050	61470	9240	52230
1100	62211	9265	52946
1150	61840	9258	52582
1200	62137	9295	52842

Voltage Plateau



Recommended HV (VDC): 1,100

Additional Comments:

Source 1 Cs-137 sn:4097-03 5.2µCi (1/4/12) button — Total Efficiency: n/a — 4π Efficiency: n/a

Source 2 — Total Efficiency: n/a — 4π Efficiency: n/a

NOTE: The total efficiency provided is calculated per ISO-7503/NUREG 1575 (MARSSIM): Total Efficiency = Instrument Efficiency × Source Efficiency; where Instrument Efficiency is calculated as net counts ÷ source 2π emission rate. The 4π efficiency is calculated as net counts ÷ source 4π activity. The provided efficiencies are radionuclide specific and are calculated using source counts and background counts at the recommended operating HV. The provided efficiencies are for general information purposes only and are not intended to replace user efficiency calculation method or results.

Calibrated By: [signature] Calibration Date: 4/26/22 Calibration Due: 4/26/23

Reviewed By: [signature] Date: 4/28/22

ERG Form ITC. 101.A

This calibration conforms to the requirements and acceptable calibration conditions of ANSI N323A - 1997

October 19, 2022

Mr. Alex Brennen
C&S Engineering
141 Elm Street
Buffalo, New York 14203

Dear Mr. Brennen:

On August 24, 2022, MJW Corporation, Inc. (MJW) provided radiological characterization and radiation safety support services for C and S Engineering at 24 Laborers Way. Previous surface gamma measurements and site history indicate the presence of TENORM, requiring additional radiological characterization. MJW staff was on site to provide radiation safety support services to the excavation crew during the excavation of 8 test pits. The scope of work was to provide radiological characterization of the materials anticipated to be excavated during site development.

Summary of Field Activities

MJW RCT's arrived on site at 0800 and held a safety briefing regarding radiological concerns with the C&S representative and their sub-contractor. MJW performed quality control checks on all equipment to ensure that they were within acceptable limits. Following the completion of the safety briefing and an MJW instrument QC, a pre-job briefing that outlined the work plan for the day was held. Test pit locations were identified by comparing gamma walkover maps provided by C&S with areas scanned by MJW utilizing a Sodium-Iodide detector paired with a ratemeter. Figure 1 displays the test pit locations over the previously conducted gamma walkover survey.

Once an acceptable location had been identified, the location was documented with a GPS unit and excavation began. During excavation, MJW had a tissue-equivalent dose rate meter constantly running in the general area to provide advance notice of potential radiological impacts to health and safety. Additionally, the buckets of soils were scanned as they came up along with the sides of the test as depth progressed. Refusal was hit at the slag deposit layer consistent across the site, with an approximate depth ranging from 2-4 ft bgs. Soil was placed to the side of the test pit to allow ease of sampling. One composite sample was collected from each test pit to characterize the material anticipated to be excavated during site development.

The test pit was then filled back in utilizing the soil that had been removed. No adverse radiological conditions were detected at any point during the day's work. Field data sheets are located in Attachment A. Instrument paperwork is located in Attachment B. The day concluded without incident.

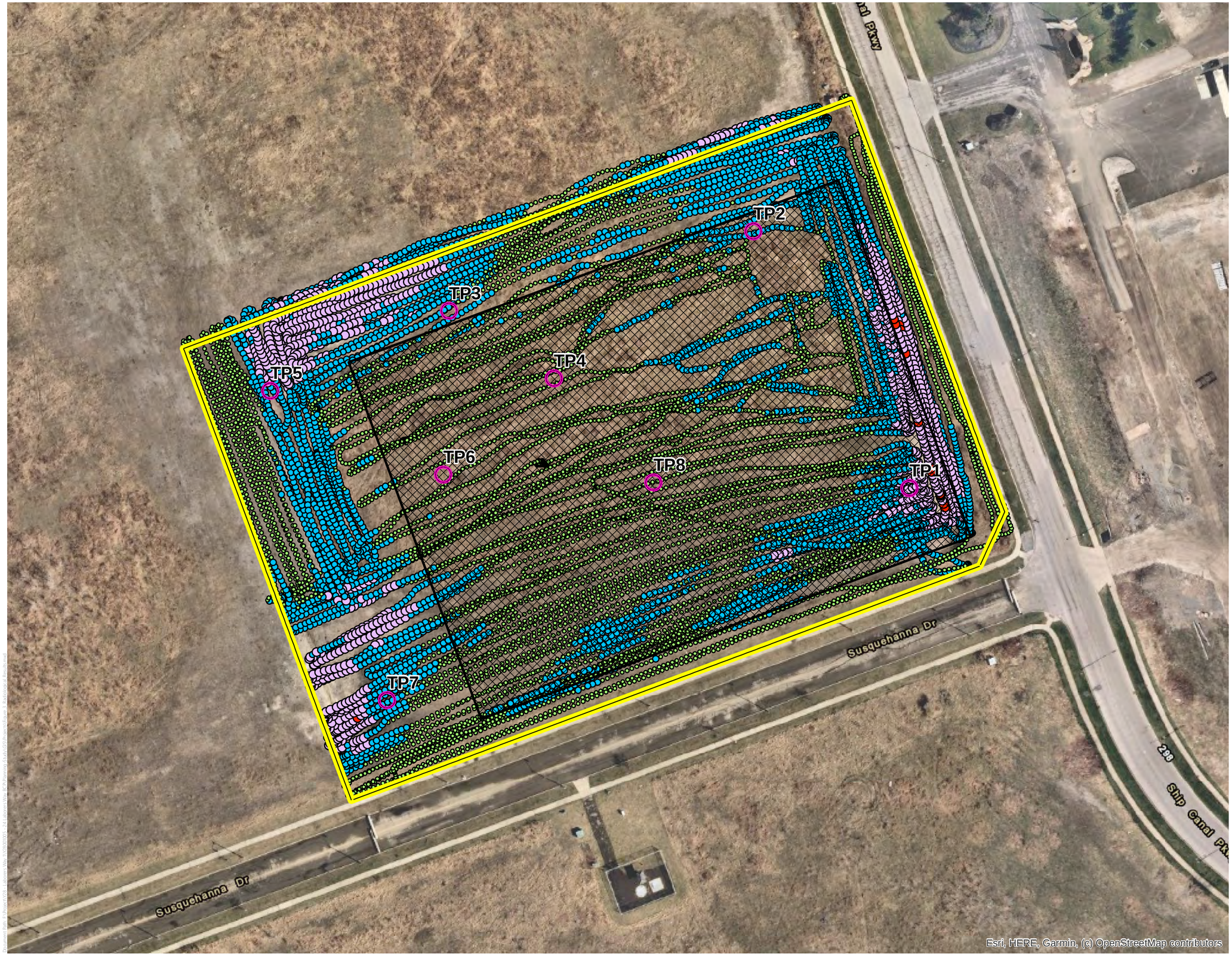
Results

The 8 composite soil Samples were sent to GEL Laboratories LLC for gamma spectroscopy analysis (DOE HASL 300, 4.5.2.3/Ga-01-R), following a 21-day ingrowth period. Table 2 summarizes the gamma scan data and the soil sample analytical data for the relevant radionuclides, as noted below the table, Th-230,

and Ra-226 were reported by the laboratory as having the same concentration as Bi-214 (direct measurement), and Ra-228 and Th-232 were reported by the laboratory as having the same concentration as Ac-228 (direct measurement). Most of the results are at or near background levels. Location TP1 was the most elevated Test Pit. Table 1. displays Western New York (WNY) Regional background concentrations of naturally occurring radioactive material (NORM) using the Record of Discovery (ROD) from a United States Army Corps of Engineers (USACE) project site in WNY.

Table 1. WNY Regional Background Concentrations of NORM using USACE ROD, Praxair Site, Tonawanda, NY

Radionuclide	Concentration (pCi/g)
Ra-226	1.1
Th-230	1.4
U-238	3.1



C&S COMPANIES®

Figure 1

Radiological Characterization Map

Legend

- BCP Boundary
- Radiological Sample Location (August 2022)
- Building Footprint

Gamma Rate (CPM) (June 2022)

- 0 - 5000
- 5001 - 10000
- 10001 - 15000
- 15001 - 20000
- 20001 - 25000

N

0 37.5 75 150 Feet

1 inch = 75 feet
When printed at 11 in. by 17 in.

24 Laborers Way BCP

Sources: . Created by C&S Engineers, Inc.

Table 2. 24 Laborers Way Test Pit Locations, Sample Gamma Scan, and Composite Sample Analytical Results

Test Pit/Boring ID	Test Pit/Boring Location		Depth Interval	Excavated Soil Gamma Count Rate	Soil Description	Composite Sample Analytical Results (pCi/g)					
	Lat	Long	(ft bgs)	(kcpm)		Bi-214[1]	Uncert	U-238	Uncert	Ac-228[2]	Uncert
TP1	42.83825	-78.84828	Surface	13.3	Fill with Topsoil	5.19	0.267	6.28	1.16	0.838	0.327
			0-2'	17	Transition from topsoil to slag						
			2-3'	15	Slag						
TP2	42.83883	-78.84876	Surface	10.7	Topsoil with organics	1.71	0.126	3.55	2.59	0.694	0.163
			0-1'	13	Fill to sand transition						
			1-2'	13.5	Sand to slag transition						
			2-4'	12.5	Slag						
TP3	42.83865	-78.84970	Surface	12	Topsoil with organics	1.55	0.153	2.76	1.69	0.907	0.232
			0-1'	11.2	Soil to slag transition						
			1-2'	12.4	Majority slag						
TP4	42.83850	-78.84938	Surface	9.3	Topsoil with organics	0.972	0.126	2.21	1.55	0.903	0.188
			0-1'	9.4	Fill and minimal slag						
			1-2'	9.1	Soil to slag transition						
			2-4'	9.8	Slag						
TP5	42.83846667	-78.85025278	Surface	17.1	Topsoil with organics	4.35	0.263	-	-	0.903	0.284
			0-1'	18.1	Soil with minimal slag						
			1-2'	18.8	Soil and slag mix						
TP6	42.83828	-78.84972	Surface	9.3	Slag	2.56	0.22	-	-	0.925	0.294
			0-1'	9.5	Slag						
			1-2'	10.6	Slag						
			2-3'	10.7	Slag						
TP7	42.83776	-78.84989	Surface	12.6	Topsoil with organics	3.3	0.197	3.36	0.914	0.969	0.189
			0-1'	14.1	Soil to sand transition						
			1-2'	16.6	Soil/sand transition to slag						
TP8	42.83826	-78.84907	Surface	8.3	Topsoil with organics	2.61	0.174	2.41	0.964	0.778	0.23
			0-1'	8.6	Soil to sand Transition						
			1-2.5'	14.2	Soil/sand transition to slag						
Background			surfac 0-1'	6.7	0-6" organic top soil/underlain w gravel						

Notes:

1. Th-230, Ra-226 results were reported by the Laboratory were the same concentration determined for Bi-214 using gamma spectroscopy method EPA 901.1

2.. Ra-228, Th-232 results reported by the Laboratory are the same concentrations determined for Ac-228 using gamma spectroscopy method EPA 901.1

- U Lab qualified result not reported in table

Attachment A – Field Data Sheets

Soil Boring Survey Log

Location/Activity: Parcel #5 Test Pit Soil Sampling													Survey Number: 20220824-001	Page 3 of 3
Borehole Number & Depth (i.e., BH3 @ 0'-2', BH3 @ 2'-4', etc.)	**Dose Rate * (µrem/hr)**			**Surface Readings (gross cpm)**		**Spoon/Auger LAWs (gross cpm)**		**NaI Soil Core (gross cpm)**		**GM Soil Core (gross cpm)**		**Bucket Law (net cpm)**	
	1 cm	***30 cm***	***1 m***	***NaI***	***GM***	***alpha***	***beta***	***Highest Reading***	***> LC? (Y/N)***	***Highest Reading***	***> LC? (Y/N)***	***alpha***	***beta***
TP7 Surface	11			12.6k	90								
TP7 0'-1'				18.7k	60			14.1k		70			
TP7 1'-2'				24.8k	70			16.6k		60			
TP7 Bottom	20			26.9k	80								
TP8 Surface	8			8.3k	60								
TP8 0'-1'				13.8k	50			8.6k		50			
TP8 1'-2.5'				23.6k	50			14.2k		100			
TP8 Bottom	18			26.9k	50								
Bkg Sample				6718	40								

Comments:
* = dose rates include background

Limiting Conditions: NaI bkg + 2 sigma = _____ cpm; GM bkg + 100 cpm = _____ cpm; Dose Rate = 50 µrem/hr

Reviewed by (print/signature): _____Justin Miceli_____Justin L. Miceli_____ Date: _____10/14/2022_____

Soil Boring Survey Log

Location/Activity: Parcel #5 Test Pit Soil Sampling								Survey Number: 20220824-001					Page 2 of 3
Borehole Number & Depth (i.e., BH3 @ 0'-2', BH3 @ 2'-4', etc.)	**Dose Rate * (µrem/hr)**			**Surface Readings (gross cpm)**		**Spoon/Auger LAWs (gross cpm)**		**NaI Soil Core (gross cpm)**		**GM Soil Core (gross cpm)**		**Bucket Law (net cpm)**	
	1 cm	***30 cm***	***1 m***	***NaI***	***GM***	***alpha***	***beta***	***Highest Reading***	***> LC? (Y/N)***	***Highest Reading***	***> LC? (Y/N)***	***alpha***	***beta***
TP3 0'-1'				20.0k	70			11.2k		70			
TP3 1'-2'				25.0k	90			12.4k		50			
TP3 Bottom	21			25.2k	90								
TP4 Surface	7			9.3k	50								
TP4 0'-1'				11.2k	60			9.4k		60			
TP4 1'-2'				12.6k	60			9.1k		50			
TP4 2'-4'				16.1k	70			9.8k		60			
TP4 Bottom	10			16.9k	90								
TP5 Surface	18			17.1k	90								
TP5 0'-1'				22.2k	90			18.1k		70			
TP5 1'-2'				26.2k	90			18.8k		50			
TP5 Bottom	17			29.0k	110								
TP6 Surface	6			9.3k	60								
TP6 0'-1'				12.8k	60			9.5k		50			
TP6 1'-2'				16.5k	60			10.6k		50			
TP6 2'-3'				20.3k	60			10.7k		60			
TP6 Bottom	14			22.4k	70								

Comments:

* = dose rates include background

Limiting Conditions: NaI bkg + 2 sigma = _____ cpm; GM bkg + 100 cpm = _____ cpm; Dose Rate = 50 µrem/hr

Reviewed by (print/signature): _____Justin Miceli _____Justin L. Miceli_____ Date: _____10/14/2022_____

Soil Boring Survey Log

Location/Activity: Parcel #5 Test Pit Soil Sampling									Survey Number: 20220824-001				Page 1 of 3
Survey Date: 08/24/2022									Surveyed By: EO & FS				
Temperature & Wind Conditions: 75 degrees & 7 mph									Purpose: Parcel #5 soil sampling				
Instrument/Detector Model #				**Inst./Detector Serial #**			**BKG**	**Units/Type**		**% Eff.**	**Nuclide**	**Cal. Due Date**	
(NaI) Ludlum 2241-2 / 44-10				222150 / PR249955			6768	cpm γ		20.01%	Cs-137	6/16/2023	
(PAC) Ludlum 2241-2 / 43-90				262712 / PR277928			1	cpm α		14.19%	Pu-239	3/30/2023	
(GM) Ludlum 3 / 44-9				193024 / PR 070068			40	cpm β		20.96%	Tc-99	4/26/2023	
(DR) Thermo MicroRem				19263			6	µRem / hr γ		N/A	N/A	3/25/2023	

Borehole Number & Depth (i.e., BH3 @ 0'-2',,etc.)	**Dose Rate * (µrem/hr)**			**Surface Readings (gross cpm)**		**Spoon/Auger LAWs (net cpm)**		**NaI Soil Core (gross cpm)**		**GM Soil Core (gross cpm)**		**Bucket Law (net cpm)**	
	1 cm	***30 cm***	***1 m***	***NaI***	***GM***	***alpha***	***beta***	***Highest Reading***	***> LC? (Y/N)***	***Highest Reading***	***> LC? (Y/N)***	***alpha***	***beta***
TP1 Surface	11			13349	80								
TP1 0'-2'	20			20.7k	120			17.0K		90			
TP1 2'-3'	20			25.0k	100			15.0K		90			
TP1 Bottom	19			25.0k	80								
TP2 Surface	9			10.7k	40								
TP2 0'-1'				15.9k	50			13.0K		70			
TP2 1'-2'				20.2k	50			13.5K		60			
TP2 2'-4'				22.4k	60			12.5K		50			
TP2 Bottom	21			24.0k	80								
TP3 Surface	8			12.0k	70								

Comments:

* = dose rates include background

Limiting Conditions: NaI bkg + 2 sigma = _____ cpm; GM bkg + 100 cpm = _____ cpm; Dose Rate = 50 µrem/hr

Reviewed by (print/signature): _____Justin Miceli_____Justin L. Miceli_____ Date: ____10/14/2022_____

Radiological Survey Report Form

Location/Activity: Parcel #5 Soil Sampling	Survey Number: 20220824-002	Page 1 of 1
Survey Date: 08/24/2022	Surveyed By: EO & FS	

Instrument/Detector Model #	Inst./Detector Serial #	BKG	Units/Type	% Eff.	Nuclide	Cal. Due Date
(PAC) Ludlum 2241-2 / 43-90	262712 / PR277928	1	cpm α	14.19%	Pu-239	3/30/2023
(GM) Ludlum 3 / 44-9	193024/ PR070068	40	cpm β	20.96%	Tc-99	4/26/2023
(DR) Thermo MicroRem	19263	6	µRem / hr γ	N/A	N/A	3/25/2023

Area/Material Surveyed (see map)	Total (gross cpm)		Total (dpm/100cm^2)		LAWs (net cpm)		Dose Rate * (µrem/hr)	
	alpha	*beta*	*alpha*	*beta*	*alpha*	*beta*	*30 cm*	*1 cm*
Bucket LAW (Pre)	1	35			0	0		
Blade LAW (Pre)	0	40			0	0		
Bucket (Post)	1	40			0	0		
Blade (Post)	1	40			0	0		
PPE	0	40			0	0		

Comments: α & βγ dpm = net cpm/efficiency

* = dose rates include background

** = instrument used by MJWTS

Reviewed by (print/signature): _____Justin Miceli_____Justin L. Miceli_____ Date: __10/14/2022_____

Attachment B – Instrument Calibration Sheets

RSCS
Radiation Safety & Control Services

Calibration Certificate
ID Number: 262712173599-0

Customer: Alexander Bartels
MJW Corp
15 Hazelwood Dr
Suite 112
Amherst, NY 14228

Instrument
Ludlum Model 2241-2

Serial Number
262712

Probe Model
Ludlum 43-90
Ludlum 44-10

Serial Number
277928
288422

Precision Check

Test 1	Test 2	Test 3	Mean	Results
80.00 Kcpm	80.00 Kcpm	80.00 Kcpm	80.00 Kcpm	Satisfactory

Accuracy Check

Range	Target Value	As Found	As Left
X100	800 Kcpm	800 Kcpm #	800 Kcpm #
X100	200 Kcpm	200 Kcpm #	200 Kcpm #
X10	80 Kcpm	80.0 Kcpm #	80.0 Kcpm #
X10	20 Kcpm	20.0 Kcpm #	20.0 Kcpm #
X1	8 Kcpm	8.00 Kcpm #	8.00 Kcpm #
X1	2 Kcpm	2.01 Kcpm #	2.01 Kcpm #

Readings with * indicate ranges where As-Found readings are >20% of Target value. Readings with ** indicate As-left readings are >10.00% of Target value
Readings with # indicate ranges where pulser was used.

Probe Model & SN	Isotope	Efficiency	NIST Source ID	Geometry
44-10 288422	Am-241	0.0883 C/D	Am-241 (SN: U6-775)	On Contact
44-10 288422	Cs-137(Gamma)	0.1338 C/D	Cs-137(Gamma) (SN: 14290)	On Contact
43-90 277928	Pu-239	0.1419 C/D	Pu-239 (SN: T6-172)	On Contact

MTE Instrument Type	Model	CalDueDate
Pulser	Ludlum 500-4 SN: 98756	11/04/2022

Outer Physical Check: *Pass*
Internal Check: *Pass* Tap Test: *Pass*

Electronics Checks	As Found	As Left
High Voltage	**940 Volts**	**940 Volts**

Comments: As-Found/As-Left High Voltage Settings: DET 1 = 940 V, DET2 = 1154 V

Kirsten Zeller
Calibration
Technician

QA
Review:

Calibration Date: 03/30/2022
Expires: 03/30/2023

Atmospheric Conditions - Temperature: 72°F Humidity: 22% Barometric Pressure: 30.04"hg

This calibration was performed by RSCS using one or more of the following NIST Traceable radiation sources:
Tech Ops Model 773 Cs-137 Beam Calibrator (S/N S-1110), characterized using Exradin Model A6 (S/N 185) and Keithley Electrometer Model 617 (S/N 0547677) in accordance with methods specified in RSCS TSD 11-008, with estimated uncertainty of 6.0%.
J.L. Shepherd and Associates Model 89 Cs-137 Box Calibrator (S/N 9141), characterized using Exradin, Model A6 (S/N 185), A3 (S/N 197), A12 (S/N XA091124), and Keithley Electrometer Model 617 (S/N 0547677) in accordance with methods specified in RSCS TSD 11-001, with estimated uncertainty of 2.7%.
J.L. Shepherd and Associates Model 81-12 Cs-137 Dual Source Gamma Calibrator (SN 7145), characterized using Exradin Models A6 (S/N 185) / A4 (S/N 220) / A5 (S/N 261), GE RSS-131 (S/N 95I00178), and Standard Imaging Electrometer Electrometer Model Maxx4000 (S/N J171510) in accordance with methods specified in RSCS TSD 20-023, with estimated uncertainty of 6.7%.
RSCS Model 149 Neutron Calibrator, Pu:Be Source Model MRC Model 2726-B (S/N 495), characterized using Far West Technologies Model Rem500 TEPC (S/N 271) in accordance with the methods specified in RSCS TSD 21-049, with an uncertainty of 9.4% at a 95% confidence interval.
The reported expanded uncertainty of measurement is stated as the standard uncertainty of measurement multiplied by the coverage factor k such that the coverage probability corresponds to approximately 95%. In tolerance conditions are based on test results falling within specified limits with no reduction by the uncertainty of the measurement.
Unless otherwise stated, calibrations performed in conformance to the following documents: ANSI N323AB-2013; RSCS New Hampshire Radioactive Material License Number 381R.
RSCS calibration services are performed in accordance with the RSCS Radiation Protection Program Manual and Standard Operating Procedures.
Calibration Laboratory is operated in accordance with ANSI/NCSL Z540-1-1994
RSCS, Inc. has been assessed by ANAB and meets the requirements of ISO/IEC 17025:2005 while demonstrating technical competence in the field of calibration. Refer to the Scope of Accreditation AC-2079 for information on the types of calibrations to which this accreditation applies.
This calibration certificate shall not be reproduced except in full without the express written consent of RSCS, Inc.

Radiation Safety and Control Services, Inc
93 Ledge Road, Seabrook, NH 03874
1-800-525-8339 (603) 778-2871 www.radsafety.com

ANAB ACCREDITED CALIBRATION LABORATORY

Designer and Manufacturer of Scientific and Industrial Instruments

www.ludlums.com

CERTIFICATE OF CALIBRATION

LUDLUM MEASUREMENTS, INC.
501 Oak Street
325-235-5494
Sweetwater, TX 79556, U.S.A.

ilac-MRA ACCREDITED CERT # 4084.01

Customer MJW TECHNICAL SERVICES ORDER NO. 20420202/522483

Mfg. Ludlum Measurements, Inc. Model 2241-2 Serial No. 262737

Mfg. Ludlum Measurements, Inc. Model 44-10 Serial No. PR 111127

Cal. Date 9-Apr-22 Cal Due Date 9-Apr-23 Cal. Interval 1 Year Meterface cpm

Check mark ☑ applies to applicable instr. and/or detector IAW mfg. spec. T. 72 °F RH 32 % Alt 728.0 mm Hg

☐ New Instrument Instrument Received ☑ Within Toler. +-10% ☐ 10-20% ☐ Out of Tol. ☐ Requiring Repair ☐ Other-See comments

☑ Mechanical ck. ☐ Meter Zeroed ☐ Background Subtract ☐ Input Sens Linearity
☑ F/S Resp. ck ☐ Reset ck. ☐ Window Operation
☑ Audio ck. ☑ Alarm Setting ck. ☑ Batt. ck.
☑ Calibrated in accordance with LMI SOP 14.8 ☐ Calibrated in accordance with LMI SOP 14.9

Instrument Volt Set Comments V Input Sens. Comment mV Det. Oper. Comments V at Comment mV Threshold Dial Ratio = mV

COMMENTS:

	Det.1	Det.2
Deadtime:	0µSec	0µSec
Cal Constant:	100e-2	100e-2
Alarm:	300kcpm	500kcpm
Alert:	200kcpm	200kcpm
High Voltage:	1250v	750v
Sensitivity:	10mv	10mv
Probe:	44-10	43-90

'Ratemeter Readout' calibration achieved with no deadtime
OL checked but not set
Firmware: P-09-10

Th230 SN:2254 Size:7230dpm, Counts:1486cpm, BG:2cpm, 4pi eff:20.52% (43-90)
Pu239 SN:7053 Size:24900dpm, Counts:6066cpm, BG:2cpm, 4pi eff:24.35% (43-90)
Am241 SN:1895 Size:23871dpm, Counts:7377cpm, BG:4800cpm, 4pi eff:10.79% (44-10)
Cs137 SN:0754 Size:13653 dpm, Counts:19888cpm, BG:4800cpm, 4pi eff:11.05% (44-10)

Gamma Calibration: GM detectors positioned perpendicular to source except for M 44-9 in which the front of probe faces source.
Multimeter uncertainty within 1.3% of reading, Gamma uncertainty within 5.0% of reading, Neutron uncertainty within 7.0% of reading, Count rate uncertainty within 5.4% of reading

RANGE/MULTIPLIER	REFERENCE CAL. POINT	INSTRUMENT REC'D "AS FOUND READING"	INSTRUMENT METER READING
Dig.rate			
Dig.rate			

Range(s) Calibrated Electronically

	REFERENCE CAL. POINT	INSTRUMENT RECEIVED	INSTRUMENT METER READING
Ratemeter Readout	800K cpm	799 Kcpm	799 Kcpm
	200K cpm	199	199
	80K cpm	79	79
	20K cpm	19.9	19.9
	8K cpm	7.9	7.9
	2K cpm	1.99	1.99
	800 cpm	800 cpm	800 cpm
	200 cpm	200	200

	REFERENCE CAL. POINT	INSTRUMENT RECEIVED	INSTRUMENT METER READING
Scaler Readout	800K cpm	79964 (0)	79964 (0)
	200K cpm	19960	19960
	80K cpm	7996	7996
	20K cpm	1996	1996
	8K cpm	799	799
	2K cpm	199	199
	800 cpm	80	80
	200 cpm	20	20

Ludlum Measurements, Inc. certifies that the above instrument has been calibrated by standards traceable to the National Institute of Standards and Technology, or to the calibration facilities of other International Standards Organization members, or have been derived from accepted values of natural physical constants or have been derived by the ratio type of calibration techniques.
All pass/fail determinations are based on the manufacturer's specifications without considering uncertainty factors.
Measurement results represent expanded uncertainties expressed at approximately the 95% level of confidence, using a coverage factor of k=2.
The calibration system conforms to the requirements of ANSI/NCSL Z540-1-1994 and ANSI N323AB-2013
ISO/IEC 17025:2017(E)
State of Texas Calibration License No. LO-1963

Reference Instruments and/or Sources: Cs-137 S/N: ☐ 059 ☐ 2171CP ☐ 2261CP ☐ 720 ☐ 734 ☐ 781 ☐ 1131 ☐ 1616 ☐ 1696 ☐ 1909 ☐ 1916CP ☐ 2324/2521
☐ 5717CO ☐ 5719CO ☐ 60646 ☐ 70897 ☐ 73410 ☐ E552 ☐ G112 ☐ 2168CP ☐ S-394 ☐ S-1054 ☐ T10081 ☐ T10082 Neutron Am-241 Be ☐ T-304 Ra-226 ☐ Y982
☐ E551 ☐ 5105 ☐ CSV280

☑ Alpha S/N Pu239 SN:7053 24900dpm ☐ Beta S/N ☐ Other

☑ m 500 S/N 190566 ☐ Oscilloscope S/N ☑ Multimeter S/N 86250390

Calibrator Jason Flores Title Calibrator Date 9-APR-22

QC'd By Jeremy Thompson Title Final QC Date 11-Apr-22

This certificate shall not be reproduced except in full, without the written approval of Ludlum Measurements, Inc.

www.ludlums.com

Designer and Manufacturer
of
Scientific and Industrial
Instruments

LUDLUM MEASUREMENTS, INC.
501 Oak Street
325-235-5494
Sweetwater TX 79556, U.S.A.

Bench Test Data For Detector

Detector 44-10 Serial No. PR 111127

Customer MJW TECHNICAL SERVICES ORDER NO. 20420202/522483

Counter 2241-2 Serial No. 262737 Counter Input Sensitivity 10 mV

Count Time 6 sec. Distance Source to Detector Surface

Other

High Voltage	Background	Isotope Am 241 Size ≈0.79 uCi	Isotope Size	Isotope Size	Isotope Size
1050	420	6987			
1100	452	7320			
1150	490	7377			
1200	466	7490			
1250	480	7509			
1300	488	7630			
1350	584	7686			
1400	612	7797			
1450	657	7827			
1500	769	8107			

Signature Jason Flores Date 9-Jan-22

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Designer and Manufacturer
of
Scientific and Industrial
Instruments

LUDLUM MEASUREMENTS, INC.
501 Oak Street
325-235-5494
Sweetwater, TX 79556, U.S.A.

Bench Test Data For Alpha Detector

Detector 43-90 Serial No. PR277929

Customer MJW TECHNICAL SERVICES ORDER NO. 20420202/522483

Counter 2241-2 Serial No. 262737 Counter Input Sensitivity 10 mV

Count Time 1 min. Distance Source to Detector Surface

Isotope Pu239 SN:7053 24900dpm Other

43-4/43-44 HV Adjust for Altitude

Altitude	High Voltage
Sea Level	2050 V
1000 foot	2025 V
2000 foot	2000 V
3000 foot	1975 V
4000 foot	1950 V
5000 foot	1925 V
6000 foot	1900 V
7000 foot	1875 V

Alpha Scintillation Detector

HV Plateau	Background	Source Count
650	1	4547
700	2	5861
750	2	6066
800	2	6220
850	6	6236

Operating Voltage Set at 750 V

Air Proportional	43-5	43-65	43-90	Background	Meter Reading	Range/Scale
Toe	Toe	L/S*	Toe	2	5956	1 min
Center	Center	Center	Center	2	6066	5
Heel	Heel	Other**	Heel	2	6111	

☑ Uniformity (± 10%) Average Efficiency 24.26 % (4π)

* Least Sensitive Position (Heel of Detector)
** Opposite Least Sensitive Position (Top of Detector)

Signature Jason Flores Date 9-APR-22

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Sweetwat[illegible], TX 79556, U.S.A.

ilac-MRA ACCREDITED CERT # 4084.01

Customer MJW TECHNICAL SERVICES ORDER NO. 20422142/523817

Mfg. Thermo Model MICRO REM Serial No. 19263

Mfg. _____ Model _____ Serial No. _____

Cal. Date 25-Apr-22 Cal Due Date 25-Apr-23 Cal. Interval 1 Yea Meterface N/A

Check mark ☑ applies to applicable instr. and/or detector IAW mfg. spec. T. 74 °F RH 40 % Alt 707.6 mm Hg

☐ New Instrument Instrument Received ☑ Within Toler. +-10% ☐ 10-20% ☐ Out of Tol. ☐ Requiring Repair ☐ Other-See comments

☑ Mechanical ck. ☑ Meter Zeroed ☐ Background Subtract ☐ Input Sens. Linearity

☑ F/S Resp. ck ☑ Reset ck. ☐ Window Operation ☑ Geotropism

☐ Audio ck. ☐ Alarm Setting ck. ☑ Batt. ck.

☐ Calibrated in accordance with LMI SOP 14.8 ☑ Calibrated in accordance with LMI SOP 14.9

Instrument Volt Set _____ V Input Sens. _____ mV Det. Oper. _____ V at _____ mV Threshold Dial Ratio _____ = _____ mV

☐ HV Readout (2 points) Ref./Inst. _____ / _____ V Ref./Inst. _____ / _____ V

COMMENTS:

Gamma Calibration: GM detectors positioned perpendicular to source except for M 44-9 in which the front of probe faces source.
Multimeter uncertainty within 1.3% of reading, Gamma uncertainty within 5.0% of reading, Neutron uncertainty within 7.0% of reading, Count rate uncertainty within 5.4% of reading

RANGE/MULTIPLIER	REFERENCE CAL. POINT	INSTRUMENT REC'D "AS FOUND READING"	INSTRUMENT METER READING
X 1000	150 mrem/hr	150 mrem/hr	150 mrem/hr
X 1000	50 mrem/hr	50	50
X 100	15 mrem/hr	150	150
X 100	5 mrem/hr	50	50
X 10	1500 µrem/hr	150	150
X 10	500 µrem/hr	50	50
X 1	150 µrem/hr	150	150
X 1	100 µrem/hr	100	100
X 0.1	15 µrem/hr	150	150
X 0.1			

Range(s) Calibrated Electronically

Digital Readout	REFERENCE CAL. POINT	INSTRUMENT RECEIVED	INSTRUMENT METER READING

Log Scale	REFERENCE CAL. POINT	INSTRUMENT RECEIVED	INSTRUMENT METER READING

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All pass/fail determinations are based on the manufacturer's specifications without considering uncertainty factors.
Measurement results represent expanded uncertainties expressed at approximately the 95% level of confidence, using a coverage factor of k=2.
The calibration system conforms to the requirements of ANSI/NCSL Z540-1-1994 and ANSI N323AB-2013

ISO/IEC 17025:2017(E)
State of Texas Calibration License No. LO-1963

Reference Instruments and/or Sources: Cs-137 S/N: ☐ 059 ☐ 2171CP ☐ 2261CP ☐ 720 ☐ 734 ☐ 781 ☐ 1131 ☐ 1616 ☐ 1696 ☐ 1909 ☐ 1916CP ☐ 2324/2521
☐ 5717CO ☐ 5719CO ☐ 60646 ☐ 70897 ☐ 73410 ☐ E552 ☐ G112 ☐ 2168CP ☐ S-394 ☐ S-1054 ☐ T10081 ☐ T10082 Neutron Am-241 Be ☐ T-304 Ra-226 ☐ Y982
☑ E551 ☑ 5105 ☑ CSV280

☐ Alpha S/N _____ ☐ Beta S/N _____ ☑ Other Cs137#NES-356 GRN

☐ m 500 S/N _____ ☐ Oscilloscope S/N _____ ☐ Multimeter S/N _____

Calibrator James McBeth James McBeth Title Calibrator Date 25APR22

QC'd By [signature] Title Final QC Date 26 Apr 22

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AC Inst. Only ☐ Passed Dielectric (Hi-Pot) and Continuity Test ☐ Failed: _____

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A2LA ACCREDITED CERT # 4084.01

Customer MJW TECHNICAL SERVICES ORDER NO. 20422145/523818

Mfg. Ludlum Measurements, Inc. Model 3 Serial No. 193024

Mfg. Ludlum Measurements, Inc. Model 44-9 Serial No. PR0700608

Cal. Date 26-Apr-22 Cal Due Date 26-Apr-23 Cal. Interval 1 Year Meterface 202-002

Check mark ☑ applies to applicable instr. and/or detector IAW mfg. spec. T. 74 °F RH 35 % Alt 714.6 mm Hg

☐ New Instrument Instrument Received ☐ Within Toler. +-10% ☐ 10-20% ☐ Out of Tol. ☑ Requiring Repair ☐ Other-See comments

☑ Mechanical ck. ☑ Meter Zeroed ☐ Background Subtract ☑ Input Sens. Linearity
☑ F/S Resp. ck ☑ Reset ck. ☐ Window Operation ☑ Geotropism
☑ Audio ck. ☐ Alarm Setting ck. ☑ Batt. ck.
☑ Calibrated in accordance with LMI SOP 14.8 ☐ Calibrated in accordance with LMI SOP 14.9

Instrument Volt Set 900 V Input Sens. 33 mV Det. Oper. 900 V at 33 mV Threshold Dial Ratio ____ = ____ mV

☑ HV Readout (2 points) Ref./Inst. ____ / ____ V Ref./Inst. ____ / ____ V

COMMENTS:

4 PI Efficiencies:

Source	Background	Source activity	source count	efficiency
Tc99	40 cpm	33,200dpm	7,000 cpm	20.96 %

2 PI Efficiencies:

Source	Background	Source activity	source count	efficiency
Tc99	40 cpm	20,700cpm	7,000 cpm	33.62 %

Gamma Calibration: GM detectors positioned perpendicular to source except for M 44-9 in which the front of probe faces source.

Multimeter uncertainty within 1.3% of reading, Gamma uncertainty within 5.0% of reading, Neutron uncertainty within 7.0% of reading, Count rate uncertainty within 5.4% of reading

RANGE/MULTIPLIER	REFERENCE CAL. POINT	INSTRUMENT REC'D "AS FOUND READING"	INSTRUMENT METER READING
X100	400kcpm	N/A	400 cpm
X100	100kcpm		100
X10	40kcpm		400
X10	10kcpm		100
X1	4kcpm		400
X1	1kcpm		100
X0.1	400cpm		400
X0.1	100cpm		100

ALL **Range(s) Calibrated Electronically**

Digital Readout	REFERENCE CAL. POINT	INSTRUMENT RECEIVED	INSTRUMENT METER READING

Log Scale	REFERENCE CAL. POINT	INSTRUMENT RECEIVED	INSTRUMENT METER READING

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All pass/fail determinations are based on the manufacturer's specifications without considering uncertainty factors.
Measurement results represent expanded uncertainties expressed at approximately the 95% level of confidence, using a coverage factor of k=2.
The calibration system conforms to the requirements of ANSI/NCSL Z540-1-1994 and ANSI N323AB-2013
ISO/IEC 17025:2017(E)
State of Texas Calibration License No. LO-1963

Reference Instruments and/or Sources: Cs-137 S/N: ☐ 059 ☐ 2171CP ☐ 2261CP ☐ 720 ☐ 734 ☐ 781 ☐ 1131 ☐ 1616 ☐ 1696 ☐ 1909 ☐ 1916CP ☐ 2324/2521
☐ 5717CO ☐ 5719CO ☐ 60646 ☐ 70897 ☐ 73410 ☐ E552 ☑ G112 ☑ 2168CP ☐ S-394 ☐ S-1054 ☐ T10081 ☐ T10082 Neutron Am-241 Be ☐ T-304 Ra-226 ☐ Y982
☐ E551 ☐ 5105 ☐ CSV280

☐ Alpha S/N ____ ☐ Beta S/N ____ ☐ Other ____

☑ m 500 S/N 114520 ☐ Oscilloscope S/N ____ ☑ Multimeter S/N 50970100

Calibrator Whitney Garcia Whitney Garcia Title Calibrator Date 26-Apr-22

QC'd By [signature] Title Final QC Date 27 Apr 22

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AC Inst. Only ☐ Passed Dielectric (Hi-Pot) and Continuity Test ☐ Failed: ____

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Customer MJW TECHNICAL SERVICES ORDER NO. 20422145/523818

Date 26-Apr-22

Model 3 Serial No. 193024 Detector Model 44-9 Serial No. PR0700068

Source CS 137 194.6mci, 3mci High Voltage 900 V

Input Sensitivity 33 mV

Reference Point	"As Found" Readings (CPM): Meter Reading	Range/Scale	After Adjustment Readings (CPM): Meter Reading	Range/Scale
150 mR/hr	2.6 K	X100	2.6 K	X100
50 mR/hr	1.4	x 100	1.4	X 00
15 mR/hr	4.55	X10	4.55	X10
5 mR/hr	1.6	X10	1.6	X10
1.5 mR/hr	4.7	X1	4.7	X1
1.0 mR/hr	3.15	X1	3.15	X1

Signature: Whitney Garcia Whitney Garcia Date 26-Apr-22

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ACCREDITED CERT # 4084.01

Customer MJW TECHNICAL SERVICES ORDER NO. 20424964/525752

Mfg. Ludlum Measurements, Inc. Model 2241-2 Serial No. 207788

Mfg. William B. Johnson Model GSP-2 Serial No. 610

Cal. Date 16-Jun-22 Cal Due Date 16-Jun-23 Cal. Interval 1 Year Meterface DIGITAL

Check mark ☑ applies to applicable instr. and/or detector IAW mfg. spec. T. 72 °F RH 53 % Alt 707.0 mm Hg

☐ New Instrument Instrument Received ☑ Wit hin Toler. +-10% ☐ 10-20% ☐ Out of Tol. ☐ Requiring Repair ☐ Other-See comments

☑ Mechanical ck. ☑ Meter Zeroed ☐ Background Subtract ☐ Input Sens. Linearity
☑ F/S Resp. ck ☑ Reset ck. ☐ Window Operation
☑ Audio ck. ☑ Alarm Setting ck. ☑ Batt. ck.
☑ Calibrated in accordance with LMI SOP 14.8 ☐ Ca ibrated in accordance with LMI SOP 14

Instrument Volt Set Comments V Input Sens. Comment mV Det. Oper. Comments V at Comment mV Threshold Dial Ratio ____ = ____ mV

COMMENTS:

	Det1(GSP-2,Red)	Det2(44-9,Yellow)
Deadtime:	0 µSec	0 µSec
Cal Constant:	100e-2	100e-2
Ratemeter Alarm:	0149 kcpm	05.00 kcpm
Ratemeter Alert:	0200 kcpm	02.00 kcpm
High Voltage:	900V	900V
Sensitivity:	35 mV	35 mV

* See Attachment for efficiencies
Firmware: P-0610
Calibrated using 39" C-cable.
Overload set to 1 R/hr with Det2(44-9).
Pulser calibration "RATEMETER READOUT"
performed without deadtime.

Gamma Calibration: GM detectors positioned perpendicular to source except for M 44-9 in which the front of probe faces source.
Multimeter uncertainty within 1.3% of reading, Gamma uncertainty within 5.0% of reading, Neutron uncertainty within 7.0% of reading, Count rate uncertainty within 5.4% of reading

RANGE/MULTIPLIER	REFERENCE CAL. POINT	INSTRUMENT REC'D "AS FOUND READING"	INSTRUMENT METER READING
Digital			
Digital			

Range(s) Calibrated Electronically

Ratemeter Readout	REFERENCE CAL. POINT	INSTRUMENT RECEIVED	INSTRUMENT METER READING
	800K cpm	796 kc/m	796 kc/m
	200K cpm	199	199
	80K cpm	79.6	79.6
	20K cpm	19.9	19.9
	8K cpm	7.96	7.96
	2K cpm	1.99	1.99
	800 cpm	800 c/m	800 c/m
	200 cpm	200 c/m	200 c/m

Scaler Readout	REFERENCE CAL. POINT	INSTRUMENT RECEIVED	INSTRUMENT METER READING
	800K cpm	796050	796050
	200K cpm	19909	19909
	80K cpm	7960	7960
	20K cpm	1991	1991
	8K cpm	796	796
	2K cpm	199	199
	800 cpm	80	80
	200 cpm	20	20

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All pass/fail determinations are based on the manufacturer's specifications without considering uncertainty factors.
Measurement results represent expanded uncertainties expressed at approximately the 95% level of confidence, using a coverage factor of k=2.
The calibration system conforms to the requirements of ANSI/NCSL Z540-1-1994 and ANSI N323AB-2013
ISO/IEC 17025:2017(E)
State of Texas Calibration License No. LO-1963

Reference Instruments and/or Sources: Cs-137 S/N: ☐ 059 ☐ 2171CP ☐ 2261CP ☐ 720 ☐ 734 ☐ 781 ☐ 1131 ☐ 1616 ☐ 1696 ☐ 1909 ☐ 1916CP ☐ 2324/2521
☐ 5717CO ☐ 5719CO ☐ 60646 ☐ 70897 ☐ 73410 ☐ E552 ☑ G112 ☑ 2168CP ☐ S-394 ☐ S-1054 ☐ TI 0081 ☐ T10082 Neutron Am-241 Be ☐ T-304 Ra-226 ☐ Y982
☐ E551 ☐ 5105 ☐ CSV280

☐ Alpha S/N ____ ☐ Beta S/N ____ ☐ Other ____

☑ m 500 S/N 247891 ☐ Oscilloscope S/N ____ ☑ Multimeter S/N 17500076

Calibrator Scot VanAllen Title Calibrator Date 16 June 22

QC'd By ____ Title Final QC Date 21 Jun 22

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Bench Test Data For Detector

Detector GSP-2 Serial No. 010

Customer MJW TECHNICAL SERVICES ORDER NO. 20424964/525752

Counter 2241-2 Serial No. 207788 Counter Input Sensitivity 35 mV

Count Time 6 SECONDS Distance Source to Detector SURFACE

Other

High Voltage	Background	Isotope Am 241 Size ≈0.79μC	Isotope ____ Size ____	Isotope ____ Size ____	Isotope ____ Size ____
500	5	9			
550	14	19			
600	39	56			
650	104	144			
700	177	310			
750	288	573			
800	336	1369			
850	423	11855			
900	412	13513			
950	451	14833			
1000	442	15336			
→ 1050	428	15498			
1100	406	15105			
1150	409	15207			
1200	508	16656			
1250	856	19049			
1300	1783	20981			

Signature Scot VanAllen Date 16 JUNE 22

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Customer MJW TECHNICAL SERVICES ORDER NO. 20424964/525752

Date 16-Jun-22

Model 2241-2 Serial No. 207788 Detector Model 44-9 Serial No. PR235428

Source Cs-137 194.6 mCi Cs137 3mCi High Voltage 900 V

Count time RATEMETER Input Sensitivity 35 mV

Other

Reference Point	"As Found" Readings (CPM): with Deadtime	"As Found" Readings (CPM): w/o Deadtime	After Adjustment Readings (CPM): with Deadtime	After Adjustment Readings (CPM): w/o Deadtime
150 mR/hr	N/A	N/A	N/A	290
50 mR/hr				134
15 mR/hr				47.6
5 mR/hr				14.2
1.5 mR/hr				4.99
1.0 mR/hr				3.31

Signature: Scot VanAllen Scot VanAllen Date 16 JUNE 22

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Attachment 20424964/525752
Model 224 1-2 s/n· 207788

Efficiencies for GSP-2 (010)

Am241 s/n: 1895-65-1
Activity: 23,864dpm
Source Count: 11,288cpm
Background: 4,594cpm
4pi Eff for Am241: 28.05%

Cs137 s/n: 0754
Activity: 135,954dpm
Source Count: 27,104cpm
Background: 4,594cpm
4pi Eff for Cs137: 16.56%

Efficiencies for 44-9 (PR235428)

Tc99 s/n: 5296
Activity·. 33,076dpm
Source Count: 7,695cpm
Background: 68cpm
4piEff for Tc99: 23.06%

Cs137 s/n: 1075
Activity: 14,754dpm
Source Count: 4,344cpm
Background: 68cpm
4piE ff for Cs137: 28.98%

Scot VanAllen

Date: 16 June 2022

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Customer MJW TECHNICAL SERVICES ORDER NO. 20424964/525752

Mfg. Ludlum Measurements, Inc. Model 2241-2 Serial No. 222150

Mfg. Ludlum Measurements, Inc. Model 44-10 Serial No. PR249955

Cal. Date 16-Jun-22 Cal Due Date 16-Jun-23 Cal. Interval 1 Year Meterface DIGITAL

Check mark ☑ applies to applicable instr. and/or detector IAW mfg. spec. T. 72 °F RH 53 % Alt 707.0 mm Hg

☐ New Instrument Instrument Received ☑ Within Toler +-10% ☐ 10-20% ☐ Out of Tol. ☐ Requiring Repair ☐ Other-See comments

☑ Mechanical ck. ☑ Meter Zeroed ☐ Background Subtract ☐ Input Sens. Linearity
☑ F/S Resp. ck ☑ Reset ck. ☐ Window Operation
☑ Audio ck. ☑ Alarm Setting ck. ☑ Batt. ck.
☑ Calibrated in accordance with LMI SOP 14.8 ☐ Calibrated in accordance with LMI SOP 14.9

Instrument Volt Set Comments V Input Sens. Comment mV Det. Oper. Comments V at Comment mV Threshold Dial Ratio = mV

COMMENTS:

	Det1(44-10,Red)	Det2(44-10,Yellow)	
Deadtime:	0 µSec	0 µSec	Firmware: P-0917
Cal Constant:	100e-2	100e-2	Calibrated using 5' C-cable.
Ratemeter Alarm:	0500 kcpm	0500 kcpm	Overload checked but not set.
Ratemeter Alert:	0300 kcpm	0300 kcpm	Pulser calibration "RATEMETER READOUT"
High Voltage:	1350V	1350V	performed without deadtime.
Sensitivity:	10 mV	10 mV	*See Attachment for efficiencies.

Gamma Calibration: GM detectors positioned perpendicular to source except for M 44-9 in which the front of probe faces source.
Multimeter uncertainty within 1.3% of reading, Gamma uncertainty within 5.0% of reading, Neutron uncertainty within 7.0% of reading, Count rate uncertainty within 5.4% of reading

RANGE/MULTIPLIER	REFERENCE CAL. POINT	INSTRUMENT REC'D "AS FOUND READING"	INSTRUMENT METER READING
Digital			
Digital			

Range(s) Calibrated Electronically

	REFERENCE CAL. POINT	INSTRUMENT RECEIVED	INSTRUMENT METER READING
Ratemeter Readout	800K cpm	796 kc/m	796 kc/m
	200K cpm	199	199
	80K cpm	79.6	79.6
	20K cpm	19.9	19.9
	8K cpm	7.96	7.96
	2K cpm	1.99	1.99
	800 cpm	800 c/m	800 c/m
	200 cpm	200 c/m	200 c/m

	REFERENCE CAL. POINT	INSTRUMENT RECEIVED	INSTRUMENT METER READING
Scaler Readout	800K cpm	79585 (0)	7958 5(0)
	200K cpm	19886 (0)	19886 (0)
	80K cpm	7958 (0)	7958 (0)
	20K cpm	1989 (0)	1989 (0)
	8K cpm	796 (0)	796 (0)
	2K cpm	199 (0)	199 (0)
	800 cpm	80 (0)	80 (0)
	200 cpm	20 (0)	2 00

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Measurement results represent expanded uncertainties expressed at approximately the 95% level of confidence, using a coverage factor of k=2.
The calibration system conforms to the requirements of ANSI/NCSL Z540-1-1994 and ANSI N323AB-2013
ISO/IEC 17025:2017(E)
State of Texas Calibration License No. LO-1963

Reference Instruments and/or Sources: Cs-137 S/N: ☐ 059 ☐ 2171CP ☐ 2261CP ☐ 720 ☐ 734 ☐ 781 ☐ 1131 ☐ 1616 ☐ 1696 ☐ 1909 ☐ 1916CP ☐ 2324/2521
☐ 5717CO ☐ 5719CO ☐ 60646 ☐ 70897 ☐ 73410 ☐ E552 ☐ G112 ☐ 2168CP ☐ S-394 ☐ S-1054 ☐ T10081 ☐ T10082 Neutron Am-241 Be ☐ T-304 Ra-226 ☐ Y982
☐ E551 ☐ 5105 ☐ CSV280

☐ Alpha S/N ☐ Beta S/N ☐ Other

☑ m 500 S/N 247891 ☐ Oscilloscope S/N ☑ Multimeter S/N 17500076

Calibrator Scot VanAllen Title Calibrator Date 16 JUNE 22

QC'd By Title Final QC Date 21 JUN 22

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Bench Test Data For Detector

Detector 44-10 Serial No. PR249955

Customer MJW TECHNICAL SERVICES ORDER NO. 20424964/525752

Counter 2241-2 Serial No. 222150 Counter Input Sensitivity 10 mV

Count Time 6 SECOND Distance Source to Detector SURFACE

Other

High Voltage	Background	Isotope AM 241 Size ≈0.79μC;	Isotope ____ Size ____	Isotope ____ Size ____	Isotope ____ Size ____
1000	468	12571			
1050	478	13150			
1100	429	13483			
1150	456	13577			
1200	510	13747			
1250	495	13361			
1300	547	13708			
→ 1350	504	13806			
1400	730	13594			
1450	2596	15856			

Signature Scot VanAllen Scot VanAll Date 16 JUNE 22

Attachment 20424964/525752
Model 2241-2 s/n: 222150

Efficiencies for 44-10 (PR249955)

Am241 s/n: 1895
Activity: 23,864dpm
Source Count: 15,907cpm
Background: 6,381cpm
4pi Eff for Am241: 39.92%

Cs137 s/n: 0754
Activity: 135,954dpm
Source Count: 33,587cpm
Background: 6,381cpm
4pi Eff for Cs137: 20.01%

Scot VanAllen **Date: 16 June 2022**

RSCS
Radiation Safety & Control Services

Calibration Certificate
ID Number: C239J168553-0

Customer: Alexander Bartels
MJW Corp
15 Hazelwood Dr
Suite 112
Amherst, NY 14228

Instrument
Bicron Model MicroRem

Serial Number
C239J

Precision Check				
Test 1	Test 2	Test 3	Mean	Results
4.00 mrem/hr	4.00 mrem/hr	4.00 mrem/hr	4.00 mrem/hr	Satisfactory

Accuracy Check			
Range	Target Value	As Found	As Left
X1000	160 mrem/hr	145 mrem/hr	160 mrem/hr
X1000	40 mrem/hr	35 mrem/hr	40 mrem/hr
X100	16 mrem/hr	15.5 mrem/hr	16.5 mrem/hr
X100	4 mrem/hr	3.5 mrem/hr	4 mrem/hr
X10	1.6 mrem/hr	1.55 mrem/hr	1.65 mrem/hr
X10	0.4 mrem/hr	0.35 mrem/hr	0.4 mrem/hr
X1	160 µrem/hr	150 µrem/hr	150 µrem/hr
X1	40 µrem/hr	40 µrem/hr #	40 µrem/hr #
X0.1	16 µrem/hr	16 µrem/hr #	16 µrem/hr #
X0.1	4 µrem/hr	4 µrem/hr #	4 µrem/hr #

Readings with * indicate ranges where As-Found readings are >20% of Target value. Readings with ** indicate As-left readings are >10.00% of Target value
Readings with # indicate ranges where pulser was used.

MTE Instrument Type	Model	CalDueDate
Pulser	Ludlum 500-4 SN: 98756	06/14/2022

Outer Physical Check: *Pass*
Internal Check: *Pass*
Geotropism Check: *Pass*
Mechanical Zero: *Pass*
Tap Test: *Pass*

Comments: Unless indicated with a "#" in the table above to indicate a pulser was used, all readings were obtained using the J.L. Shepherd and Associates Model 81-12 Cs-137 Dual Source Gamma Calibrator (SN 7145).
Customer Equipment ID: 00351

Patrick Cashman
Calibration Technician

QA Review:

Calibration Date: 12/20/2021
Expires: 12/20/2022

Atmospheric Conditions - Temperature: 73°F Humidity: 26% Barometric Pressure: 30.29"hg

This calibration was performed by RSCS using one or more of the following NIST Traceable radiation sources:
Tech Ops Model 773 Cs-137 Beam Calibrator (S/N S-1110), characterized using Exradin Model A6 (S/N 185) and Keithley Electrometer Model 617 (S/N 0547677) in accordance with methods specified in RSCS TSD 11-008, with estimated uncertainty of 6.0%.
J.L. Shepherd and Associates Model 89 Cs-137 Box Calibrator (S/N 9141), characterized using Exradin, Model A6 (S/N 185), A3 (S/N 197), A12 (S/N XA091124), and Keithley Electrometer Model 617 (S/N 0547677) in accordance with methods specified in RSCS TSD 11-001, with estimated uncertainty of 2.7%.
J.L. Shepherd and Associates Model 81-12 Cs-137 Dual Source Gamma Calibrator (SN 7145), characterized using Exradin Models A6 (S/N 185) / A4 (S/N 220) / A5 (S/N 261), GE RSS-131 (S/N 95I00178), and Standard Imaging Electrometer Electrometer Model Maxx4000 (S/N J171510) in accordance with methods specified in RSCS TSD 20-023, with estimated uncertainty of 6.7%.
RSCS Model 149 Neutron Calibrator, Pu:Be Source Model MRC Model 2726-B (S/N 495), characterized using Far West Technologies Model Rem500 TEPC (S/N 271) in accordance with the methods specified in RSCS TSD 21-049, with an uncertainty of 9.4% at a 95% confidence interval.
The reported expanded uncertainty of measurement is stated as the standard uncertainty of measurement multiplied by the coverage factor k such that the coverage probability corresponds to approximately 95%. In tolerance conditions are based on test results falling within specified limits with no reduction by the uncertainty of the measurement.
Unless otherwise stated, calibrations performed in conformance to the following documents: ANSI N323AB-2013; RSCS New Hampshire Radioactive Material License Number 381R
RSCS calibration services are performed in accordance with the RSCS Radiation Protection Program Manual and Standard Operating Procedures.
Calibration Laboratory is operated in accordance with ANSI/NCSL Z540-1-1994
RSCS, Inc. has been assessed by ANAB and meets the requirements of ISO/IEC 17025:2005 while demonstrating technical competence in the field of calibration. Refer to the Scope of Accreditation AC-2079 for information on the types of calibrations to which this accreditation applies.
This calibration certificate shall not be reproduced except in full without the express written consent of RSCS, Inc.

Radiation Safety and Control Services, Inc.
93 Ledge Road, Seabrook, NH 03874
1-800-525-8339 (603) 778-2871 www.radsafety.com

ANAB ACCREDITED CALIBRATION LABORATORY

Attachment C – Lab Report

GEL Laboratories LLC
a member of The GEL Group INC

PO Box 30712 Charleston, SC 29417
2040 Savage Road Charleston, SC 29407
P 843.556.8171
F 843.766.1178

gel.com

September 22, 2022

Mr. Forest Shostak
MJW Technical Services
15 Hazelwood Drive
Suite 112
Amherst, New York 14228

Re: 24 Laborers Way
Work Order: 591446

Dear Mr. Shostak:

GEL Laboratories, LLC (GEL) appreciates the opportunity to provide the enclosed analytical results for the sample(s) we received on August 30, 2022. This original data report has been prepared and reviewed in accordance with GEL's standard operating procedures.

Test results for NELAP or ISO 17025 accredited tests are verified to meet the requirements of those standards, with any exceptions noted. The results reported relate only to the items tested and to the sample as received by the laboratory. These results may not be reproduced except as full reports without approval by the laboratory. Copies of GEL's accreditations and certifications can be found on our website at www.gel.com.

Our policy is to provide high quality, personalized analytical services to enable you to meet your analytical needs on time every time. We trust that you will find everything in order and to your satisfaction. If you have any questions, please do not hesitate to call me at (843) 556-8171, ext. 4422.

Sincerely,

Jake Crook
Project Manager

Purchase Order: GELP18-1440
Enclosures

MJW Technical Services
24 Laborers Way
SDG: 591446

Case Narrative

Case Narrative
for
MJW Technical Services
SDG: 591446

September 22, 2022

Laboratory Identification:

GEL Laboratories LLC
2040 Savage Road
Charleston, South Carolina 29407
(843) 556-8171

Summary

Sample Receipt The samples arrived at GEL Laboratories LLC, Charleston, South Carolina on August 30, 2022 for analysis. The samples were delivered with proper chain of custody documentation and signatures. All sample containers arrived without any visible signs of tampering or breakage. There are no additional comments concerning sample receipt.

Sample Identification The laboratory received the following samples:

Laboratory ID	Client ID
591446001	TP1-S-0.3-08.24.22
591446002	TP2-S-0.4-08.24.22
591446003	TP3-S-0.2-08.24.22
591446004	TP4-S-0.4-08.24.22
591446005	TP5-S-0.2-08.24.22
591446006	TP6-S-0.3-08.24.22
591446007	TP7-S-0.2-08.24.22
591446008	TP8-S-0.2.5-08.24.22

Case Narrative

Sample analyses were conducted using methodology as outlined in GEL Laboratories, LLC (GEL) Standard Operating Procedures. Any technical or administrative problems during analysis, data review, and reduction are contained in the analytical case narratives in the enclosed data package.

Data Package

The enclosed data package contains the following sections: General Narrative, Chain of Custody and Supporting Documentation, and data from the following fractions: Radiochemistry.

Jake Crook
Project Manager

List of current GEL Certifications as of 22 September 2022

State	Certification
Alabama	42200
Alaska	17−018
Alaska Drinking Water	SC00012
Arkansas	88−0651
CLIA	42D0904046
California	2940
Colorado	SC00012
Connecticut	PH−0169
DoD ELAP/ ISO17025 A2LA	2567.01
Florida NELAP	E87156
Foreign Soils Permit	P330−15−00283, P330−15−00253
Georgia	SC00012
Georgia SDWA	967
Hawaii	SC00012
Idaho	SC00012
Illinois NELAP	200029
Indiana	C−SC−01
Kansas NELAP	E−10332
Kentucky SDWA	90129
Kentucky Wastewater	90129
Louisiana Drinking Water	LA024
Louisiana NELAP	03046 (AI33904)
Maine	2019020
Maryland	270
Massachusetts	M−SC012
Massachusetts PFAS Approv	Letter
Michigan	9976
Mississippi	SC00012
Nebraska	NE−OS−26−13
Nevada	SC000122023−3
New Hampshire NELAP	2054
New Jersey NELAP	SC002
New Mexico	SC00012
New York NELAP	11501
North Carolina	233
North Carolina SDWA	45709
North Dakota	R−158
Oklahoma	2022−137
Pennsylvania NELAP	68−00485
Puerto Rico	SC00012
S. Carolina Radiochem	10120002
Sanitation Districts of L	9255651
South Carolina Chemistry	10120001
Tennessee	TN 02934
Texas NELAP	T104704235−22−20
Utah NELAP	SC000122021−36
Vermont	VT87156
Virginia NELAP	460202
Washington	C780

Chain of Custody and Supporting Documentation

Page: 1 of 1
Project #
GEL Quote #:
COC Number (1):
PO Number:

GEL Laboratories LLC
gel.com
Chemistry | Radiochemistry | Radiobioassay | Specialty Analytics

Chain of Custody and Analytical Request

GEL Work Order Number: 591446

GEL Project Manager:

GEL Laboratories, LLC
2040 Savage Road
Charleston, SC 29407
Phone: (843) 556-8171
Fax: (843) 766-1178

Client Name: MJW for CBS
Phone # 716-631-8291
Project/Site Name: 24 Laborers Way
Fax #
Address: 15 Hazelwood Dr. Suite 112, Amherst, NY 14228
Collected By: FS & EO
Send Results To: fshostak@mjwcorp.com

Sample Analysis Requested (5) (Fill in the number of containers for each test)

Sample ID (* For composites - indicate start and stop date/time)	*Date Collected (mm-dd-yy)	*Time Collected (Military) (hhmm)	QC Code (2)	Field Filtered (3)	Sample Matrix (4)	Should this sample be considered: Radioactive (if yes, please supply isotopic info.)	Should this sample be considered: (7) Known or possible Hazards	Total number of containers	Gamma Spec 21 Day ICs	<-- Preservative Type (6) / Comments
TP1-S-0.3-8.24.22	08-24-22	0926	G	N	SO	N		1	1	U-238, Th-232, Ra-228, Ra-226, U-234, Ac-228, Bi-214, Th-230
TP2-S-0.4-8.24.22		1008								
TP3-S-0.2-8.24.22		1029								
TP4-S-0.4-8.24.22		1111								
TP5-S-0.2-8.24.22		1122								
TP6-S-0.3-8.24.22		1147								
TP7-S-0.2-8.24.22		1218								
TP8-S-0.2.5-8.24.22		1238								

Please Report as part of gamma spec for each Sample

Chain of Custody Signatures

Relinquished By (Signed)	Date	Time	Received by (signed)	Date	Time
1			1 MA	8/30/22	13:00
2			2		
3			3		

TAT Requested: Normal: X Rush: ____ Specify: ____ (Subject to Surcharge)

Fax Results: [ ] Yes [ ] No

Select Deliverable: [ ] C of A [ ] QC Summary [ ] level 1 [X] Level 2 [ ] Level 3 [ ] Level 4

Additional Remarks:

For Lab Receiving Use Only: *Custody Seal Intact?* [ ] Yes [ ] No ***Cooler Temp:*** ____ °C

> ***For sample shipping and delivery details, see Sample Receipt & Review form (SRR.)***

Sample Collection Time Zone : [X] Eastern [ ] Pacific [ ] Central [ ] Mountain [ ] Other:

1.) Chain of Custody Number = Client Determined

2.) QC Codes: **N** = Normal Sample, **TB** = Trip Blank, **FD** = Field Duplicate, **EB** = Equipment Blank, **MS** = Matrix Spike Sample, **MSD** = Matrix Spike Duplicate Sample, **G** = Grab, **C** = Composite

3.) Field Filtered: For liquid matrices, indicate with a **- Y -** for yes the sample was field filtered or **- N -** for sample was not field filtered.

4.) Matrix Codes: **DW**=Drinking Water, **GW**=Groundwater, **SW**=Surface Water, **WW**=Waste Water, **W**=Water, **ML**=Misc Liquid, **SO**=Soil, **SD**=Sediment, **SL**=Sludge, **SS**=Solid Waste, **O**=Oil, **F**=Filter, **P**=Wipe, **U**=Urine, **F**=Fecal, **N**=Nasal

5.) Sample Analysis Requested: Analytical method requested (i.e. **8260B**, **6010B/7470A**) and number of containers provided for each (i.e. *8260B* **- 3**, *6010B/7470A* **- 1**).

6.) Preservative Type: **HA** = Hydrochloric Acid, **NI** = Nitric Acid, **SH** = Sodium Hydroxide, **SA** = Sulfuric Acid, **AA** = Ascorbic Acid, **HX** = Hexane, **ST** = Sodium Thiosulfate, If no preservative is added = leave field blank

7.) **KNOWN OR POSSIBLE HAZARDS**

RCRA Metals
As = Arsenic **Hg**= Mercury
Ba = Barium **Se**= Selenium
Cd = Cadmium **Ag**= Silver
Cr = Chromium **MR**= Misc. RCRA metals
Pb = Lead

Characteristic Hazards
FL = Flammable/Ignitable
CO = Corrosive
RE = Reactive

TSCA Regulated
PCB = Polychlorinated biphenyls

Listed Waste
LW= Listed Waste
(F,K,P and U-listed wastes.)
Waste code(s):

Other
OT= Other / Unknown
(i.e.: High/low pH, asbestos, beryllium, irritants, other misc. health hazards, etc.)
Description:

Please provide any additional details below regarding handling and/or disposal concerns. *(i.e.: Origin of sample(s), type of site collected from, odd matrices, etc.)*

GEL Laboratories LLC

SAMPLE RECEIPT & REVIEW FORM SC

Client: MSWC	**SDG/AR/COC/Work Order:** 591446
Received By: MVH	**Date Received:** 08/30/2022
Carrier and Tracking Number	Circle Applicable: FedEx Express FedEx Ground UPS Field Services Courier Other 777764950021

Suspected Hazard Information	Yes	No	*If Net Counts > 100cpm on samples not marked "radioactive", contact the Radiation Safety Group for further investigation.
A)Shipped as a DOT Hazardous?		X	Hazard Class Shipped: UN#: If UN2910, Is the Radioactive Shipment Survey Compliant? Yes___ No___
B) Did the client designate the samples are to be received as radioactive?		X	COC notation or radioactive stickers on containers equal client designation.
C) Did the RSO classify the samples as radioactive?		X	Maximum Net Counts Observed* (Observed Counts - Area Background Counts): 20 CPM/ mR/Hr **Classified as: Rad 1 Rad 2 Rad 3**
D) Did the client designate samples are hazardous?		X	COC notation or hazard labels on containers equal client designation.
E) Did the RSO identify possible hazards?		X	If D or E is yes, select Hazards below. PCB's Flammable Foreign Soil RCRA Asbestos Beryllium Other:

	Sample Receipt Criteria	Yes	NA	No	**Comments/Qualifiers (Required for Non-Conforming Items)**
1	Shipping containers received intact and sealed?	X			Circle Applicable: Seals broken Damaged container Leaking container Other (describe)
2	Chain of custody documents included with shipment?	X			Circle Applicable: Client contacted and provided COC COC created upon receipt
3	Samples requiring cold preservation within (0 ≤ 6 deg. C)?*		X		Preservation Method: Wet Ice Ice Packs Dry ice (None) Other: *all temperatures are recorded in Celsius **TEMP:** 24
4	Daily check performed and passed on IR temperature gun?	X			**Temperature Device Serial #:** IR2-21 Secondary Temperature Device Serial # (If Applicable):
5	Sample containers intact and sealed?	X			Circle Applicable: Seals broken Damaged container Leaking container Other (describe)
6	Samples requiring chemical preservation at proper pH?		X		Sample ID's and Containers Affected: If Preservation added, Lot#:
7	Do any samples require Volatile Analysis?			X	If Yes, are Encores or Soil Kits present for solids? Yes___ No___ NA___(If yes, take to VOA Freezer) Do liquid VOA vials contain acid preservation? Yes___ No___ NA___(If unknown, select No) Are liquid VOA vials free of headspace? Yes___ No___ NA___ Sample ID's and containers affected:
8	Samples received within holding time?	X			ID's and tests affected:
9	Sample ID's on COC match ID's on bottles?	X			ID's and containers affected:
10	Date & time on COC match date & time on bottles?			X	Circle Applicable: No dates on containers No times on containers COC missing info Other (describe)
11	Number of containers received match number indicated on COC?	X			Circle Applicable: No container count on COC Other (describe)
12	Are sample containers identifiable as GEL provided by use of GEL labels?			X	
13	COC form is properly signed in relinquished/received sections?	X			Circle Applicable: Not relinquished Other (describe)

Comments (Use Continuation Form if needed):

PM (or PMA) review: Initials AM Date 8/31/22 Page 1 of 1

Data Review Qualifier Definitions

Data Review Qualifier Definitions

Qualifier	Explanation
*	A quality control analyte recovery is outside of specified acceptance criteria
**	Analyte is a surrogate compound
<	Result is less than value reported
>	Result is greater than value reported
^	RPD of sample and duplicate evaluated using +/-RL. Concentrations are <5X the RL
A	The TIC is a suspected aldol-condensation product
B	Target analyte was detected in the associated blank
B	Metals-Either presence of analyte detected in the associated blank, or MDL/IDL < sample value < PQL
BD	Results are either below the MDC or tracer recovery is low
C	Analyte has been confirmed by GC/MS analysis
D	Results are reported from a diluted aliquot of the sample
d	5-day BOD-The 2:1 depletion requirement was not met for this sample
E	Organics-Concentration of the target analyte exceeds the instrument calibration range
E	Metals-%difference of sample and SD is >10%. Sample concentration must meet flagging criteria
H	Analytical holding time was exceeded
h	Preparation or preservation holding time was exceeded
J	Value is estimated
N	Metals-The Matrix spike sample recovery is not within specified control limits
N	Organics-Presumptive evidence based on mass spectral library search to make a tentative identification of the analyte (TIC). Quantitation is based on nearest internal standard response factor
N/A	Spike recovery limits do not apply. Sample concentration exceeds spike concentration by 4X or more
ND	Analyte concentration is not detected above the reporting limit
UI	Gamma Spectroscopy-Uncertain identification
X	Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
Y	QC Samples were not spiked with this compound
Z	Paint Filter Test-Particulates passed through the filter, however no free liquids were observed.

P Organics-The concentrations between the primary and confirmation columns/detectors is >40% difference. For HPLC, the difference is >70%.

U Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.

Appendix D

Groundwater Sampling and Well Construction Logs

Soil Boring/Monitoring Well

Groundwater & Environmental Services, Inc.

ID NO. **SB-101/MW-101**

Project: **Buffalo Lakeside Commercial Park**	Client: **NYSDEC**	Regulatory Case #: **Site No. 915322**
Address: **Laborers Way & Ship Canal Pkwy, Buffalo, NY**		Regulatory Case Mgr: **Jenelle Gaylord**
County: **Erie**	GES Job #: **0901752**	GES Project Mgr: **Eric D. Popken**
Logged By: **J. Clay/P. Colern**	Date Drilled: **10-10-2018**	Sample Tool Diameter: **NA**
Drilling Company: **Cascade Drilling**	Completion Date: **10-25-2018**	Sample Tool Length: **10 ft.**
Drill Operator: **Arlen Little**	Drilling Method: **Sonic Rig**	Soil Classification System: **Modified Burmister**
Drill Rig Type: **Sonic**	Sampling Method: **Sonic Tube**	Field Screening: **MiniRae3000 10.6 eV**
Latitude: **NA**	Longitude: **NA**	Top of Bentonite Seal: **2 fbgs.**
TOC Elevation: **583.73 famsl.**	Borehole Diameter: **4.5 in.**	Type of Seal: **Bentonite Chips**
Total Depth: **20 fbgs.**	Well Diameter: **2 in.**	Top of Sand: **4 fbgs.**
Refusal Depth: **Not Encountered**	Riser Length: **8 ft. (3 ftag)**	Sand Type: **20-40 Mesh Sand Pack**
Initial Depth to Water: **~6 fbgs.**	Screen Slot Size: **0.010-in.**	Well Material Type: **Schedule 40 PVC**
Static Depth to Water: **7.31 ft. btoc.**	Screen Length: **10 ft.**	Top of Grout: **1 fbgs.**

Depth (fbgs)	Sample Interval (feet)	Recovery (ft/ft)	Field Screen (ppm)	Geologic Description	Comments
0	0-1	5.5/10	2.2	TOPSOIL & FILL fine to coarse SAND and GRAVEL, dark brown, moist, loose, no odor	SB-101-A @ 0-1'
	1-2		NA	FILL, fine to coarse SLAG debris, gray, very moist to wet	3 ft. stick up protective casing
	3-4		0.9	FILL, fine to coarse SLAG debris, gray, very moist to wet	
	4-6		1.0	FILL, fine to coarse SLAG debris, gray, very moist to wet	
5	6-8		0.9	FILL, fine to coarse SLAG debris, gray, wet	
	8-10		1.3	FILL, fine to coarse SLAG debris, gray, very moist to wet, at 10 fbgs. CLAY and FILL debris, dark brown-black, very moist-wet, organic odor	SB-101-B @ 8-10'
10	10-12	8.5/10	0.7	CLAY, little SILT, gray, some brown veins, moist	
	12-14		0.6	CLAY, little SILT, gray, some brown veins, moist	SB-101-C @ 12-14'
	14-16		0.5	CLAY, veins of fine SAND, gray, some brown veins, moist	
15	16-18		0.6	CLAY, veins of fine SAND, gray, some brown veins, moist	
	18-20		0.9	CLAY, gray, moist, very soft	Boring ended at 20 fbgs.
20					

Completion Detail: Pro-Casing (1'-3 ftag); Concrete (1-0'); Grout (2-1'); Riser (5'-3 ftag); Bentonite (4-2'); Sand (15-4'); Screen (15-5'); Backfilled (20-15')

Proportions Used:

Trace =	<5%
Little =	6-15%
Few =	16-30%
Some =	31-49%
And =	>50%

Notes:

NA = not available; fbgs. = feet below ground surface
in. = inches; ft.= feet; ppm.= parts per million
Soil Lithologies based on field observations only.
famsl. = feet above mean sea level
btoc = below top-of-casing; ftag = feet above grade
eV = electron volt; PVC = polyvinyl chloride

Blow Count Pentration Resistance:

Consistency (M&C)		Density (G&S)	
<2 =	Very Soft	0-4 =	Very Loose
2-4 =	Soft	4-10 =	Loose
4-8 =	Medium	10-30 =	Medium
8-15 =	Stiff	30-50 =	Dense
15-30 =	Very Stiff	>50 =	Very Dense
>30 =	Hard		

Symbol Legend

Static Water Level

Lab Sample Location

Soil Boring/Monitoring Well

Groundwater & Environmental Services, Inc.

ID NO. **SB-123/MW-123**

Project: **Buffalo Lakeside Commercial Park**	Client: **NYSDEC**	Regulatory Case #: **Site No. 915322**
Address: **Laborers Way & Ship Canal Pkwy, Buffalo, NY**		Regulatory Case Mgr: **Jenelle Gaylord**
County: **Erie**	GES Job #: **0901752**	GES Project Mgr: **Eric D. Popken**
Logged By: **P. Colern/D. Zordan**	Date Drilled: **10-16-2018**	Sample Tool Diameter: **4.5 in.**
Drilling Company: **Cascade Drilling**	Completion Date: **10-25-2018**	Sample Tool Length: **10 ft.**
Drill Operator: **Arlen Little**	Drilling Method: **Sonic Rig**	Soil Classification System: **Modified Burmister**
Drill Rig Type: **Sonic**	Sampling Method: **Sonic Tube**	Field Screening: **MiniRae3000 10.6 eV**
Latitude: **NA**	Longitude: **NA**	Top of Bentonite Seal: **2 fbgs.**
TOC Elevation: **584.12 famsl.**	Borehole Diameter: **4.5 in.**	Type of Seal: **Medium Bentonite Chips**
Total Depth: **20 fbgs.**	Well Diameter: **2 in.**	Top of Sand: **4 fbgs.**
Refusal Depth: **Not Encountered**	Riser Length: **8 ft. (3 ftag)**	Sand Type: **20-40 Mesh Sand Pack**
Initial Depth to Water: **~10 fbgs.**	Screen Slot Size: **0.010-in.**	Well Material Type: **Schedule 40 PVC**
Static Depth to Water: **9.46 ft. btoc.**	Screen Length: **10 ft.**	Top of Grout: **1 fbgs.**

Depth (fbgs)	Sample Interval (feet)	Recovery (ft/ft)	Field Screen (ppm) 0 100	Geologic Description	Comments	Completion Detail
0	0-1	9.5/10	0.0	TOPSOIL and SLAG debris, with little SAND, brown, dry	SB-123-A @ 0-1'	Pro-Casing (1'-3 ftag)
	1-4		0.0	FILL, SLAG debris, some SAND, light brown/gray, slightly moist	3 ft. stick up protective casing	Concrete (1-0')
						Grout (2-1')
						Riser (5'-3 ftag)
	4-6		0.0	FILL, SLAG debris, some SAND, light brown/gray, slightly moist		Bentonite (4-2')
5	6-8		0.0	FILL, SLAG debris, some SAND, light brown/gray, slightly moist		
	8-10		NA	FILL, SLAG debris, few SAND and CLAY, gray, saturated		
10	10-12	-	NA	FILL, SLAG debris, some SAND, gray, saturated	SB-123-B @ 10-12'	Sand (15-4')
						Screen (15-5')
	12-14		NA	PEAT, some WOOD material, little SAND and CLAY, black, moist		
15	14-16		NA	PEAT, some WOOD material, little SAND and CLAY, black, moist		
	16-18		NA	CLAY, some SAND, gray, moist	SB-123-C @ 18-20'	Backfilled (20-15')
	18-20		NA	CLAY, some SAND, gray, moist	Boring ended at 20 fbgs.	
20						

Proportions Used:

Trace =	<5%
Little =	6-15%
Few =	16-30%
Some =	31-49%
And =	>50%

Notes:

NA = not available; fbgs. = feet below ground surface
in. = inches; ft.= feet; ppm.= parts per million
Soil Lithologies based on field observations only.
famsl. = feet above mean sea level
btoc = below top-of-casing; ftag = feet above grade
eV = electron volt; PVC = polyvinyl chloride

Blow Count Pentration Resistance:

Consistency (M&C)		Density (G&S)	
<2 =	Very Soft	0-4 =	Very Loose
2-4 =	Soft	4-10 =	Loose
4-8 =	Medium	10-30 =	Medium
8-15 =	Stiff	30-50 =	Dense
15-30 =	Very Stiff	>50 =	Very Dense
>30 =	Hard		

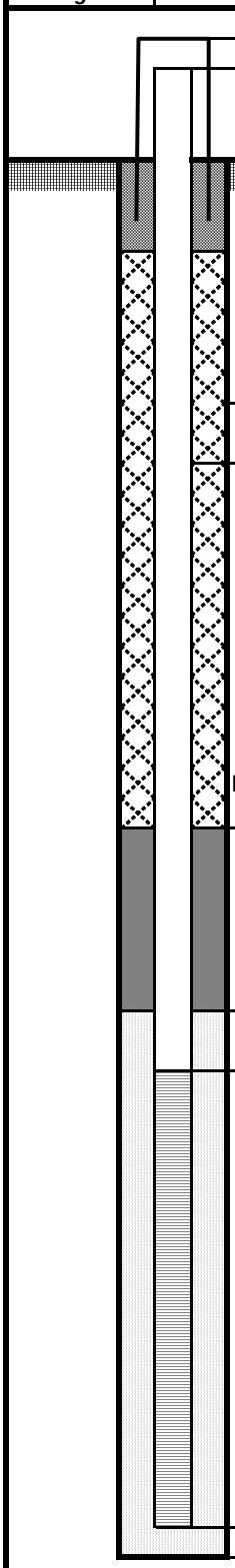
Symbol Legend

Static Water Level

Lab Sample Location

C&S Engineers, Inc.	GROUNDWATER OBSERVATION WELL CONSTRUCTION LOG	Well No.	MW-1
141 Elm Street, Suite 100 Buffalo, New York 14203 Phone: 716-847-1630 Fax: 716-847-1454		Project No.:	Y28.001.005
		Surface Elev.:	
Project Name: 24 Laborers Way		Datum:	
Location: Buffalo, New York		Start Date:	9/6/2022
Client: LW2 LLC		Finish Date:	9/6/2022
Drilling Firm: NW Contracting		Inspector:	A. Brennen
	Drill Rig: HS Auger	Casing:	
	Notes: (provide description of observation well location, method of construction, development method and any other information)		

Casing Height: 3.0 Feet
Casing to Riser: 0.3 feet



3.0' **Top Protective Casing**
2.7' **Top of Riser** DTW

0'-0" **Ground Surface**

Surface Backfill Material
- [ ] Soil Cuttings
- [ ] Bentonite Slurry
- [X] Cement/Bentonite Grout
- [ ] Concrete

4.25" **Bore Hole Diameter**

2.0" **Well Diameter**

Well Material
- [x] PVC
- [ ] Stainless Steel

Backfill Material
- [ ] Soil Cuttings
- [ ] Bentonite Slurry
- [X] Cement/Bentonite Grout
- [ ] Concrete

Depth To:

1.8' **Top of Seal**

Seal Material
- [X] Bentonite Chips/Pellets
- [ ] Bentonite Slurry
- [ ] Cement/Bentonite Grout

4.0' **Top of Filter Pack**

5.0' **Top of Screen**

Screen Slot Size
- [X] 010 in
- [ ] 015 in
- [ ] 020 in
- [ ] 025 in

Filter Material
- [ ] 00 Sand Pack
- [X] 0 Sand Pack
- [ ] 1 Sand Pack
- [ ] 2 Sand Pack
- [ ] 3 Sand Pack
- [ ] 4 Sand Pack

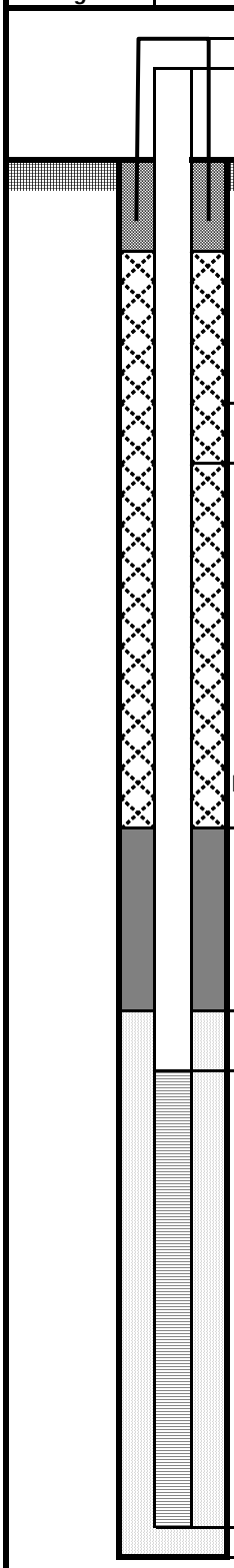
15.0' **Bottom of Screen**
15.0' **Bottom of Bore Hole**

Groundwater Measurement Data

Date	Time	Depth to Water	Water Elevation	Tide Status
9/8/2022	10:00	10.4'		

C&S Engineers, Inc.	GROUNDWATER OBSERVATION WELL CONSTRUCTION LOG	Well No.	MW-2
141 Elm Street, Suite 100 Buffalo, New York 14203 Phone: 716-847-1630 Fax: 716-847-1454		Project No.:	Y28.001.005
		Surface Elev.:	
Project Name: 24 Laborers Way		Datum:	
Location: Buffalo, New York		Start Date:	9/6/2022
Client: LW2 LLC		Finish Date:	9/6/2022
Drilling Firm: NW Contracting		Inspector:	A. Brennen
	Drill Rig: HS Auger	Casing:	
	Notes: (provide description of observation well location, method of construction, development method and any other information)		

Casing Height: 2.7 Feet
Casing to Riser: 0.3 feet



2.7' **Top Protective Casing**
2.4' **Top of Riser** DTW

0'-0" **Ground Surface**

Surface Backfill Material
- [ ] Soil Cuttings
- [ ] Bentonite Slurry
- [X] Cement/Bentonite Grout
- [ ] Concrete

4.25" **Bore Hole Diameter**

2.0" **Well Diameter**

Well Material
- [x] PVC
- [ ] Stainless Steel

Backfill Material
- [ ] Soil Cuttings
- [ ] Bentonite Slurry
- [X] Cement/Bentonite Grout
- [ ] Concrete

Depth To:

2.0' **Top of Seal**

Seal Material
- [X] Bentonite Chips/Pellets
- [ ] Bentonite Slurry
- [ ] Cement/Bentonite Grout

4.0' **Top of Filter Pack**

5.0' **Top of Screen**

Screen Slot Size
- [X] 010 in
- [ ] 015 in
- [ ] 020 in
- [ ] 025 in

Filter Material
- [ ] 00 Sand Pack
- [X] 0 Sand Pack
- [ ] 1 Sand Pack
- [ ] 2 Sand Pack
- [ ] 3 Sand Pack
- [ ] 4 Sand Pack

15.0' **Bottom of Screen**
15.0' **Bottom of Bore Hole**

Groundwater Measurement Data

Date	Time	Depth to Water	Water Elevation	Tide Status
9/8/2022	10:00	7.8'		

C&S Engineers, Inc.
141 Elm Street, Suite 100
Buffalo, New York 14203
Phone: 716-847-1630
Fax: 716-847-1454

GROUNDWATER OBSERVATION WELL CONSTRUCTION LOG

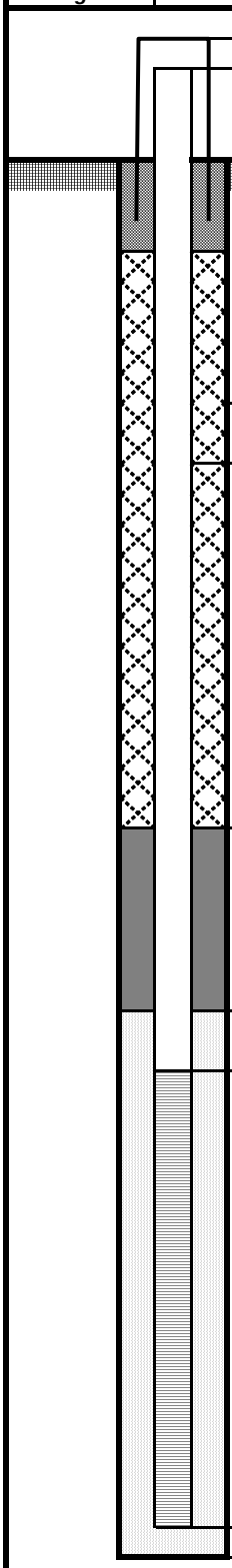
Well No.	**MW-3**
Project No.:	Y28.001.005
Surface Elev.:	
Datum:	
Start Date:	9/6/2022
Finish Date:	9/6/2022
Inspector:	A. Brennen

Project Name:	24 Laborers Way
Location:	Buffalo, New York
Client:	LW2 LLC
Drilling Firm:	NW Contracting

Drill Rig: HS Auger **Casing:**

Notes: (provide description of observation well location, method of construction, development method and any other information)

Casing Height: 2.8 Feet
Casing to Riser: 0.2 feet



2.8' Top Protective Casing
2.6' Top of Riser DTW

0'-0" Ground Surface

Surface Backfill Material
- [ ] Soil Cuttings
- [ ] Bentonite Slurry
- [X] Cement/Bentonite Grout
- [ ] Concrete

4.25" Bore Hole Diameter

2.0" Well Diameter

Well Material
- [x] PVC
- [ ] Stainless Steel

Backfill Material
- [ ] Soil Cuttings
- [ ] Bentonite Slurry
- [X] Cement/Bentonite Grout
- [ ] Concrete

Depth To:

2.0' Top of Seal

Seal Material
- [X] Bentonite Chips/Pellets
- [ ] Bentonite Slurry
- [ ] Cement/Bentonite Grout

4.0' Top of Filter Pack

5.0' Top of Screen

Screen Slot Size
- [X] 010 in
- [ ] 015 in
- [ ] 020 in
- [ ] 025 in

Filter Material
- [ ] 00 Sand Pack
- [X] 0 Sand Pack
- [ ] 1 Sand Pack
- [ ] 2 Sand Pack
- [ ] 3 Sand Pack
- [ ] 4 Sand Pack

15.0' Bottom of Screen
15.0' Bottom of Bore Hole

Groundwater Measurement Data

Date	Time	Depth to Water	Water Elevation	Tide Status
9/8/2022	10:00	7.6'		

C&S Engineers, Inc.
141 Elm Street Suite 100
Buffalo, New York 14203
Phone: 716-847-1630
www.cscos.com

Well Sampling Field Data Sheet

Well Casing Unit Volume (gal/l.f.)		
1¼" = 0.08	2" = 0.17	3" = 0.38
4" = 0.66	6" = 1.5	8" = 2.6

Client Name: LW2 LLC
Site Name: 24 Laborers Way
Project No.: Y28001005
Field Staff: Rich Backert

WELL DATA

Date		9/12/22							
Well Number		MW3							
Diameter (inches)		2"							
Total Sounded Depth (feet)									
Static Water Level (feet)		7.7'							
H_2O Column (feet)									
Pump Intake (feet)									
Well Volume (gallons)									
Amount to Evacuate (gallons)									
Amount Evacuated (gallons)		3.5gal							

FIELD READINGS

Date	Stabilization Criteria	9/12/22							
Time		10:40	10:45	10:50	10:55	11:00			
pH (Std. Units)	+/-0.1	11.70	12.01	11.98	11.90	11.92			
Conductivity (mS/cm)	3%	2.45	2.37	2.40	2.41	2.42			
Turbidity (NTU)	10%	75.2	0.00	0.00	0.00	0.00			
D.O. (mg/L)	10%	3.31	1.17	.98	.96	.89			
Temperature (°C) (°F)	3%	20.42°	16.69°	16.32°	16.24	16.21°			
ORP[3](mV)	+/-10 mv	-111	-234	-216.7	-280	-284			
Appearance		C	C	C	C	C			
Free Product (Yes/No)		NONE	NONE	NONE	NONE	NONE			
Odor		NONE	NONE	NONE	NONE	NONE			
Comments		FD, MS, MSD COLLECTED FROM MW-3							

C = Clear T = Turbid ST = Semi Turbid VT = Very Turbid

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Buffalo, New York 14203
Phone: 716-847-1630
www.cscos.com

Well Sampling Field Data Sheet

Well Casing Unit Volume (gal/l.f.)		
1¼" = 0.08	2" = 0.17	3" = 0.38
4" = 0.66	6" = 1.5	8" = 2.6

Client Name: LW2 LLC
Site Name: 24 Laborers Way
Project No.: Y28001005
Field Staff: Rich Backert

WELL DATA

Date		9/12/22							
Well Number		SB-123							
Diameter (inches)		2"							
Total Sounded Depth (feet)									
Static Water Level (feet)		9.8'							
H_2O Column (feet)									
Pump Intake (feet)									
Well Volume (gallons)									
Amount to Evacuate (gallons)									
Amount Evacuated (gallons)		2gal							

FIELD READINGS

Date	Stabilization Criteria	9/12/22							
Time		12:56	12:58	1:00	1:05	1:10			
pH (Std. Units)	+/-0.1	12.34	12.54	12.58	12.71	12.75			
Conductivity (mS/cm)	3%	2.95	2.98	2.99	3.11	3.18			
Turbidity (NTU)	10%	26.2	7.34	0.00	0.00	0.00			
D.O. (mg/L)	10%	4.42	[redacted]	2.01	1.20	1.00			
Temperature (°C) (°F)	3%	19.15°C	15.44	17.80	16.17°C	15.168°			
ORP[3](mV)	+/-10 mv	-98	-206	-232	-278	-314			
Appearance		C	C	C	C	C			
Free Product (Yes/No)		NONE	NONE	NONE	NONE	NONE			
Odor		NONE	NONE	NONE	NONE	NONE			
Comments									

C = Clear T = Turbid ST = Semi Turbid VT = Very Turbid

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Buffalo, New York 14203
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Well Sampling Field Data Sheet

Well Casing Unit Volume (gal/l.f.)		
1¼" = 0.08	2" = 0.17	3" = 0.38
4" = 0.66	6" = 1.5	8" = 2.6

Client Name: LW2 LLC
Site Name: 24 Laborers Way
Project No.: Y28001005
Field Staff: Rich Backert

WELL DATA

Date		9/12/22							
Well Number		MW-1							
Diameter (inches)		2"							
Total Sounded Depth (feet)									
Static Water Level (feet)		10.4'							
H_2O Column (feet)									
Pump Intake (feet)									
Well Volume (gallons)									
Amount to Evacuate (gallons)									
Amount Evacuated (gallons)		2.5 gal							

FIELD READINGS

Date	Stabilization Criteria	9/12/22							
Time		1:35	1:40	1:45	1:50	1:55			
pH (Std. Units)	+/-0.1	11.96	12.03	12.37	12.38	12.39			
Conductivity (mS/cm)	3%	1.75	1.66	1.67	1.70	1.71			
Turbidity (NTU)	10%	0.00	8.28	314	142	0.00			
D.O. (mg/L)	10%	1.60	.60	.52	.52	.50			
Temperature (°C) (°F)	3%	22.26°C	21.77°C	21.22°C	21.12°C	21.17°C			
ORP[3](mV)	+/-10 mv	-159	-305	-343	-359	-370			
Appearance		ST	C	C	C	C			
Free Product (Yes/No)		NONE	NONE	NONE	NONE	NONE			
Odor		NONE	NONE	NONE	NONE	NONE			
Comments									

C = Clear T = Turbid ST = Semi Turbid VT = Very Turbid

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Buffalo, New York 14203
Phone: 716-847-1630
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Well Sampling Field Data Sheet

Well Casing Unit Volume (gal/l.f.)		
1¼" = 0.08	2" = 0.17	3" = 0.38
4" = 0.66	6" = 1.5	8" = 2.6

Client Name: LW2 LLC
Site Name: 24 Laborers Way
Project No.: Y28001005
Field Staff: Rich Backert

WELL DATA

Date		9/12/22							
Well Number		MW-2							
Diameter (inches)		2"							
Total Sounded Depth (feet)									
Static Water Level (feet)		7.9							
H_2O Column (feet)									
Pump Intake (feet)									
Well Volume (gallons)									
Amount to Evacuate (gallons)									
Amount Evacuated (gallons)		3 gal							

FIELD READINGS

Date	Stabilization Criteria	9/12/22							
Time		2:20	2:25	2:30	2:35	2:40	2:45		
pH (Std. Units)	+/-0.1	12.28	12.34	12.35	12.39	12.40	12.40		
Conductivity (mS/cm)	3%	.981	1.00	1.02	1.09	1.11	1.11		
Turbidity (NTU)	10%	97.1	72.9	62.1	34.3	6.95	0.00		
D.O. (mg/L)	10%	1.46	.93	.70	.61	.61	.63		
Temperature (°C) (°F)	3%	20.41°C	19.26°C	19.06°C	18.95°C	18.96°C	18.90°C		
ORP[3](mV)	+/-10 mv	-101	-168	-186	-229	-253	-255		
Appearance		C	C	C	C	C	C		
Free Product (Yes/No)		NONE	NONE	NONE	NONE	NONE	NONE		
Odor		NONE	NONE	NONE	NONE	NONE	NONE		
Comments									

C = Clear T = Turbid ST = Semi Turbid VT = Very Turbid

C&S Engineers, Inc.
141 Elm Street Suite 100
Buffalo, New York 14203
Phone: 716-847-1630
www.cscos.com

Well Sampling Field Data Sheet

Well Casing Unit Volume (gal/l.f.)		
1¼" = 0.08	2" = 0.17	3" = 0.38
4" = 0.66	6" = 1.5	8" = 2.6

Client Name: LW2 LLC
Site Name: 24 Laborers Way
Project No.: Y28001005
Field Staff: Rich Backert

WELL DATA

Date		9/12/22							
Well Number		SB-101							
Diameter (inches)		2"							
Total Sounded Depth (feet)									
Static Water Level (feet)		7.4'							
H_2O Column (feet)									
Pump Intake (feet)									
Well Volume (gallons)									
Amount to Evacuate (gallons)									
Amount Evacuated (gallons)		2 gal							

FIELD READINGS

Date	Stabilization Criteria	9/12/22							
Time		3:00	3:05	3:10	3:15	3:20			
pH (Std. Units)	+/-0.1	12.11	12.13	12.18	12.21	12.21			
Conductivity (mS/cm)	3%	.860	.975	.891	.916	.913			
Turbidity (NTU)	10%	0.00	0.00	0.00	0.00	0.00			
D.O. (mg/L)	10%	3.51	2.56	1.16	.74	.584			
Temperature (°C) (°F)	3%	20.45°C	19.99°C	19.46°C	19.12°C	19.14°C			
ORP[3](mV)	+/-10 mv	-127	-195	-237	-243	-244			
Appearance		C	C	C	C	C			
Free Product (Yes/No)		NONE	NONE	NONE	NONE	NONE			
Odor		NONE	NONE	NONE	NONE	NONE			
Comments									

C = Clear T = Turbid ST = Semi Turbid VT = Very Turbid

Appendix E
DUSR

DATA USABILITY SUMMARY REPORT (DUSR)

24 Laborers Way BCP
Buffalo, NY
Project #: 48025529

SDG: 480-200986-1
9 Soil samples

Prepared for:

C&S Companies
141 Elm Street, suite 100
Buffalo, NY 14203
Attention: Alex Brennen

September 2022

EDU *Environmental Data Usability 10028 Deer Park Dr. Dansville, NY 14437 585-991-9156*

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REVIEWER'S NARRATIVE
C&S Companies SDG J200986-1: 24 Laborers Way BCP

The data associated with this Sample Delivery Group (SDG) J200986-1, analyzed by Eurofins Buffalo, Buffalo, NY have been reviewed in accordance with assessment criteria provided by the New York State Department of Environmental Conservation following the review procedures provided in the USEPA Functional Guidelines for evaluating organic and inorganic data.

All analytical results reported by the laboratory are considered valid and acceptable except results that have been qualified as rejected, "R". Results qualified as estimated "J", or as non-detects, "U", are considered usable for the purpose of evaluating water and/or soil quality. However, these qualifiers indicate that the accuracy and/or precision of the analytical result is questionable. A summary of all data that have been qualified and the reasons for qualification are provided in the following data usability summary report (DUSR).

Two facts should be noted by all data users. First, the "R" qualifier means that the associated value is unusable. In other words, due to significant quality control (QC) problems, the analysis is invalid and provides no information as to whether the analyte is present or not. Values qualified with an "R" should not appear on the final data tables because they cannot be relied upon, even as the last resort. Second, no analyte concentration, even if it has passed all QC tests, is guaranteed to be accurate. Strict QC serves to increase confidence in data, but any value potentially contains error.

Reviewer's Signature: Michael K. Perry Date: 9/19/2022

Michael K. Perry
Chemist

1.0 SUMMARY

SITE:	24 Laborers Way BCP Buffalo, NY Project #: 48025529
SAMPLING DATE:	August 24, 2022
SAMPLE TYPE:	9 soil samples
LABORATORY:	Eurofins Buffalo Buffalo, NY
SDG Nos.:	J200986-1

2.0 INTRODUCTION

This data usability summary report (DUSR) was prepared in accordance with guidance provided by the New York State Department of Environmental Conservation (NYSDEC). The DUSR is based on a review and evaluation of the laboratory analytical data package. Specifically, the NYSDEC guidance recommends review and evaluation of the following elements of the data package:

- Completeness of the data package as defined under the requirements of the NYSDEC Analytical Services Protocols (ASP) Category B or the United States Environmental Protection Agency (USEPA) Contract Laboratory Program (CLP) deliverables,
- Compliance with established analyte holding times,
- Adherence to quality control (QC) limits and specifications for blanks, instrument tuning and calibration, surrogate recoveries, spike recoveries, laboratory duplicate analyses, and other QC criteria,
- Adherence to established analytical protocols,
- Conformance of data summary sheets with raw analytical data, and
- Use of correct data qualifiers.

Data deficiencies, analytical protocol deviations, and quality control problems identified using the review criteria above and their effect on the analytical results are discussed in this report.

3.0 SAMPLE AND ANALYSIS SUMMARY

The data package consists of analytical results for nine soil samples collected on August 24, 2022. These samples were analyzed for PFASs by EPA 537m.

All analyses were performed by Eurofins Buffalo, Buffalo, NY and analyzed as SDG J200986-1. The analytical results were provided in NYSDEC ASP Category B format, which includes all raw analytical data and laboratory QC data.

4.0 GUIDANCE DOCUMENTS AND DATA REVIEW CRITERIA

The guidance documents appropriate for reviewing laboratory quality control (QC) data and assigning data qualifiers (flags) to analytical results were selected from those listed in Table 4-1. The QC limits established in the documents applicable to this data review were used to assess the quality of the analytical results. In some cases, however, QC limits established internally by the laboratory were taken into account to determine data quality.

The QC criteria considered for assessing the usability of the reported analytical results provided for each analyte type (i.e. VOCs, SVOCs, metals, etc.) are listed in Table 4-2. These criteria may vary with the analytical method utilized by the laboratory. These criteria comply with the guidance recommended in Section 2.0 above.

5.0 DATA VALIDATION QUALIFIERS

The letter qualifiers (flags) used to define data usability are described briefly below. These letters are assigned by the data validator to analytical results having questionable accuracy and/or precision as determined by reviewing the laboratory QC data associated with the analytical results.

TABLE 4-1

Guidance Used For Validating Laboratory Analytical Data

Analyte Group	Guidance	Date
Metals (ICP-AES)	USEPA SOP HW-3a, Rev. 1	September 2016
Metals (Hg & CN)	USEPA SOP HW-3c, Rev. 1	September 2016
Volatile Organic Compounds (by Methods 8260B & 8260C)	USEPA SOP HW-24, Rev. 4	September 2014
Semi-Volatile Organic Compounds (by Method 8270D)	USEPA SOP HW-22 Rev. 5	December 2010
Pesticides (by Method 8181B)	USEPA SOP HW-44, Rev. 1.1	December 2010
Chlorinated Herbicides (by Method 8151A)	USEPA SOP HW-17, Rev. 3.1	December 2010
Polychlorinated Biphenyls (PCBs)	USEPA SOP HW-37A, Rev. 0	June 2015
Volatile Organic Compounds (Air) (by Method TO-15)	USEPA SOP HW-31, Rev. 6	September 2016
Per- and PolyFluoroAlkyl Substances (PFAS)	* NYSDEC	January 2021
General Chemistry Parameters	per NYSDEC ASP	July 2005

* Sampling, Analysis, and Assessment of Per- and Polyfluoroalkyl Substances (PFAS) Under NYSDEC's Part 375 Remedial Programs, Appendix I

TABLE 4-2

QUALITY CONTROL CRITERIA USED FOR VALIDATING LABORATORY ANALYTICAL DATA

VOCs	SVOCs	Pesticides/PCBs	Metals	Gen Chemistry	PFAS
Completeness of Pkg	Completeness of Pkg	Completeness of Pkg	Completeness of Pkg	Completeness of Pkg	Completeness of Pkg
Sample Preservation	Sample Preservation	Sample Preservation	Sample Preservation	Sample Preservation	Sample Preservation
Holding Time	Holding Time	Holding Time	Holding Time	Holding Times	Holding Time
System Monitoring Compounds	Surrogate Recoveries	Surrogate Recoveries	Initial/Continuing Calibration	Calibration	Instr Performance Check
Lab Control Sample	Lab Control Sample	Matrix Spikes	CRDL Standards	Lab Control Samples	Initial Calibration
Matrix Spikes	Matrix Spikes	Blanks	Blanks	Blanks	Continuing Calibration
Blanks	Blanks	Instrument Calibration & Verification	Interference Check Sample	Spike Recoveries	Blanks
Instrument Tuning	Instrument Tuning	Comparison of duplicate GC column results	Spike Recoveries	Lab Duplicates	Surrogates
Internal Standards	Internal Standards	Analyte ID	Lab Duplicate		Lab Fortified Blank
Initial Calibration	Initial Calibration	Lab Qualifiers	Lab Control Sample		Matrix Spikes
Continuing Calibration	Continuing Calibration	Field Duplicate	ICP Serial Dilutions		Internal Standards
Lab Qualifiers	Lab Qualifiers		Lab Qualifiers		
Field Duplicate	Field Duplicate		Field Duplicate		

Method TO-15 (Air)
Completeness of Pkg
Sample Preservation
Holding Time
Canister Certification
Instrument Tuning
Initial Calibration and Instrument Performance
Daily Calibration
Blanks
Lab Control Sample
Field Duplicate

The laboratory may also use various letters and symbols to flag analytical results generated when QC limits were exceeded. The meanings of these flags may differ from those used by the independent data validator. Those used by the laboratory are provided with the analytical results.

NOTE: The assignment of data qualifiers by the data reviewer (validator) to laboratory analytical results should not necessarily be interpreted by the data user as a measure of laboratory ability or proficiency. Rather, the qualifiers are intended to provide a measure of data accuracy and precision to the data user, which, for example, may provide a level of confidence in determining whether or not standards or cleanup objectives have been met.

U The analyte was analyzed for but was not detected at or above the sample quantitation limit.

J The analyte was positively identified; the associated numerical value is the concentration of the analyte in the sample. (The magnitude of any value associated with the result is not determined by data validation).

J+ The result is an estimated quantity and may be biased high.

J- The result is an estimated quantity and may be biased low.

UJ The analyte was analyzed for but not detected. The reported quantitation limit is approximate and may inaccurate or imprecise.

R The sample result is rejected (i.e., is unusable) due to serious deficiencies in the ability to analyze the sample and meet quality control criteria. The presence or absence of the analyte cannot be verified.

NJ The analysis indicates the presence of an analyte that has been "tentatively identified" and the associated numerical value represents its approximate concentration.

The validated analytical results are attached to this report. Validation qualifiers (flags) are indicated in red print. Data sheets having qualified data are signed and dated by the data reviewer.

6.0 RESULTS OF THE DATA REVIEW

The results of the data review are summarized in Table 6-1. The table lists the samples where QC criteria were found to exceed acceptable limits and the actions taken to qualify the associated analytical results.

7.0 TOTAL USABLE DATA

For SDG J200986-1, nine samples were analyzed and results were reported for 189 analytes. All results (100 %) are considered usable. See the summary table for the analyses that have rejected/qualified and the corresponding QC reasons.

Table 6-1 PFASs

SAMPLES AFFECTED	ANALYTES	ACTION	QC VIOLATION	COMMENTS
none			none	

ACRONYMS

BSP	Blank Spike
CCAL	Continuing Calibration
CCB	Continuing Calibration Blank
CCV	Continuing Calibration Verification
CRDL	Contract Required Detection Limit
CRQL	Contract Required Quantitation Limit
%D	Percent Difference
ICAL	Initial Calibration
ICB	Initial Calibration Blank
IS	Internal Standard
LCS	Laboratory Control Sample
MS/MSD	Matrix Spike/Matrix Spike Duplicate
QA	Quality Assurance
QC	Quality Control
%R	Percent recovery
RPD	Relative Percent Difference
RRF	Relative Response Factor
%RSD	Percent Relative Standard Deviation
TAL	Target Analyte List (metals)
TCL	Target Compound List (organics)

Appendix A

Validated Analytical Results

ANALYTICAL REPORT

Job Number: 480-200986-1

Job Description: 24 Laborers Way BCP

For:
C&S Engineers, Inc.
141 Elm Street
Suite 100
Buffalo, NY 14203

Attention: Mr. Alex Brennen



Approved for release.
Steve Hartmann
Project Manager
9/14/2022 4:35 PM

Steve Hartmann, Project Manager
10 Hazelwood Drive, Amherst, NY, 14228-2298
(413)572-4000
Steve.Hartmann@et.eurofinsus.com
09/14/2022

The test results in this report meet all NELAP requirements for parameters for which accreditation is required or available. Any exceptions to the NELAP requirements are noted in this report. Pursuant to NELAP, this report may not be reproduced, except in full, without the written approval of the laboratory. This report is confidential and is intended for the sole use of Eurofins Environment Testing Northeast, LLC Buffalo and its client. All questions regarding this report should be directed to the Eurofins Environment Testing Northeast, LLC Buffalo Project Manager or designee who has signed this report.

The test results in this report relate only to the samples as received by the laboratory and will meet all requirements of the methodology, with any exceptions noted. This report shall not be reproduced except in full, without the express written approval of the laboratory. All questions should be directed to the Eurofins Environment Testing Northeast, LLC Project Manager.This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Job Narrative
480-200986-1

Comments
No additional comments.

Receipt
The samples were received on 8/24/2022 2:00 PM. Unless otherwise noted below, the samples arrived in good condition, and where required, properly preserved and on ice. The temperature of the cooler at receipt was 16.4º C.

LCMS
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Organic Prep
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Sample Summary

Client: C&S Engineers, Inc.
Job ID: 480-200986-1
Project/Site: 24 Laborers Way BCP

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
480-200986-1	TP-1 0-1'	Solid	08/24/22 09:30	08/24/22 14:00
480-200986-2	TP-2 1-2'	Solid	08/24/22 10:00	08/24/22 14:00
480-200986-3	TP-3 0-1'	Solid	08/24/22 10:30	08/24/22 14:00
480-200986-4	TP-4 0-1'	Solid	08/24/22 11:00	08/24/22 14:00
480-200986-5	TP-5 0-1'	Solid	08/24/22 11:30	08/24/22 14:00
480-200986-6	TP-6 2-2.5'	Solid	08/24/22 11:45	08/24/22 14:00
480-200986-7	TP-7 0-1'	Solid	08/24/22 12:00	08/24/22 14:00
480-200986-8	TP-8 0-1'	Solid	08/24/22 12:30	08/24/22 14:00
480-200986-9	FD-220824	Solid	08/24/22 09:30	08/24/22 14:00

Eurofins Buffalo
10 Hazelwood Drive
Amherst, NY 14228-2298
Phone: 716-691-2600 Fax: 716-691-7991

Chain of Custody Record

eurofins | Environment Testing America

Client Information	Sampler: Alex Brennen	Lab PM: Hartmann, Steve	Carrier Tracking No(s):	COC No: 480-176748-37921.3
Client Contact: Mr. Alex Brennen	Phone: 716-946-9133	E-Mail: Steve.Hartmann@et.eurofinsus.com	State of Origin:	Page: Page 3 of 3
Company: C&S Engineers, Inc.	PWSID:			Job #:

Address: 141 Elm Street Suite 100	Due Date Requested: Standard
City: Buffalo	TAT Requested (days):
State, Zip: NY, 14203	Compliance Project: Δ Yes Δ No
Phone: 716-427-6385(Tel)	PO #: Purchase Order not required Y28001005
Email: abrennen@cscos.com	WO #:
Project Name: 24 Laborers Way BCP	Project #: 48025529
Site:	SSOW#:

Analysis Requested

Preservation Codes:
A - HCL, B - NaOH, C - Zn Acetate, D - Nitric Acid, E - NaHSO4, F - MeOH, G - Amchlor, H - Ascorbic Acid, I - Ice, J - DI Water, K - EDTA, L - EDA, M - Hexane, N - None, O - AsNaO2, P - Na2O4S, Q - Na2SO3, R - Na2S2O3, S - H2SO4, T - TSP Dodecahydrate, U - Acetone, V - MCAA, W - pH 4-5, Y - Trizma, Z - other (specify)
Other:

Sample Identification	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	PFC_IDA - PFAS, NY Standard List (21 Analytes)	8260C - TCL VOCs	8082A - TCL PCBs	8081B - TCL Pesticides	8270D - TCL SVOCs	8270D_SIM_MS_ID - 1,4 Dioxane	6010C, 7470A	SM4500_H+ - pH	Total Number of containers	Special Instructions/Note:
			Preservation Code:				N	A	N	N	N	N	D	N		
TP-1 0-1'	8/24	930	C	Water			X									
TP-2 1-2'		1000		Water												
TP-3 0-1'		1030		Water												
TP-4 0-1'		1100		Soil												
TP-5 0-1'		1130														
TP-6 2-2.5'		1145														
TP-7 0-1'		1200														
TP-8 0-1'		1230														
~~FD-1~~ FD-220824		930														
MS/MSD 1-2'		1000														TP-2 sample

480-200986 Chain of Custody

Possible Hazard Identification
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months

Deliverable Requested: I, II, III, IV, Other (specify)

Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

Relinquished by:	Date/Time: 8/24 1400	Company: C+S	Received by:	Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time: 8-24-22 1400	Company TAB

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.	Cooler Temperature(s) °C and Other Remarks:	4.4 #1 NO ICE

Ver: 06/08/2021

Eurofins Buffalo
10 Hazelwood Drive
Amherst, NY 14228-2298
Phone: 716-691-2600 Fax: 716-691-7991

Chain of Custody Record

eurofins | Environment Testing America

Client Information (Sub Contract Lab)	Sampler:	Lab PM: Hartmann, Steve	Carrier Tracking No(s):	COC No: 480-74723.1
Client Contact: Shipping/Receiving	Phone:	E-Mail: Steve.Hartmann@et.eurofinsus.com	State of Origin: New York	Page: Page 1 of 2
Company: Eurofins Lancaster Laboratories Environm		Accreditations Required (See note): NELAP - New York		Job #: 480-200986-1
Address: 2425 New Holland Pike, ,	Due Date Requested: 9/7/2022			
City: Lancaster	TAT Requested (days):			
State, Zip: PA, 17601				
Phone: 717-656-2300(Tel)	PO #:			
Email:	WO #:			
Project Name: 24 Laborers Way BCP	Project #: 48025529			
Site:	SSOW#:			

Analysis Requested

Preservation Codes:
A - HCL, B - NaOH, C - Zn Acetate, D - Nitric Acid, E - NaHSO4, F - MeOH, G - Amchlor, H - Ascorbic Acid, I - Ice, J - DI Water, K - EDTA, L - EDA, M - Hexane, N - None, O - AsNaO2, P - Na2O4S, Q - Na2SO3, R - Na2S2O3, S - H2SO4, T - TSP Dodecahydrate, U - Acetone, V - MCAA, W - pH 4-5, Y - Trizma, Z - other (specify)
Other:

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	PFC_IDA/Shake_Bath_14D PFAS, NY Standard List (21 Analytes)	Moisture/ Percent Moisture	Total Number of containers	Special Instructions/Note:
			Preservation Code:							
TP-1 0-1' (480-200986-1)	8/24/22	09:30 Eastern		Solid			X	X	1	
TP-2 1-2' (480-200986-2)	8/24/22	10:00 Eastern		Solid			X	X	1	
TP-2 1-2' (480-200986-2MS)	8/24/22	10:00 Eastern	MS	Solid			X	X	1	
TP-2 1-2' (480-200986-2MSD)	8/24/22	10:00 Eastern	MSD	Solid			X	X	1	
TP-3 0-1' (480-200986-3)	8/24/22	10:30 Eastern		Solid			X	X	1	
TP-4 0-1' (480-200986-4)	8/24/22	11:00 Eastern		Solid			X	X	1	
TP-5 0-1' (480-200986-5)	8/24/22	11:30 Eastern		Solid			X	X	1	
TP-6 2-2.5' (480-200986-6)	8/24/22	11:45 Eastern		Solid			X	X	1	
TP-7 0-1' (480-200986-7)	8/24/22	12:00 Eastern		Solid			X	X	1	

Note: Since laboratory accreditations are subject to change, Eurofins Environment Testing Northeast, LLC places the ownership of method, analyte & accreditation compliance upon out subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/tests/matrix being analyzed, the samples must be shipped back to the Eurofins Environment Testing Northeast, LLC laboratory or other instructions will be provided. Any changes to accreditation status should be brought to Eurofins Environment Testing Northeast, LLC attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said complicance to Eurofins Environment Testing Northeast, LLC.

Possible Hazard Identification	*Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)*
Unconfirmed	☐ *Return To Client* ☐ *Disposal By Lab* ☐ *Archive For* _____ *Months*
Deliverable Requested: I, II, III, IV, Other (specify) Primary Deliverable Rank: 2	Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
1		8-24-22 1600	TAL			
2	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
3	Relinquished by:	Date/Time:	Company	Received by:	8/25/22 1023	

Custody Seals Intact: ☐ Yes ☐ No | Custody Seal No.: | Cooler Temperature(s) °C and Other Remarks: 1.3

Eurofins Buffalo
10 Hazelwood Drive
Amherst, NY 14228-2298
Phone: 716-691-2600 Fax: 716-691-7991

Chain of Custody Record

eurofins | Environment Testing America

Client Information (Sub Contract Lab)	Sampler:	Lab PM: Hartmann, Steve	Carrier Tracking No(s):	COC No: 480-74723.2
Client Contact: Shipping/Receiving	Phone:	E-Mail: Steve.Hartmann@et.eurofinsus.com	State of Origin: New York	Page: Page 2 of 2
Company: Eurofins Lancaster Laboratories Environm		Accreditations Required (See note): NELAP - New York		Job #: 480-200986-1
Address: 2425 New Holland Pike, ,	Due Date Requested: 9/7/2022			
City: Lancaster	TAT Requested (days):			
State, Zip: PA, 17601				
Phone: 717-656-2300(Tel)	PO #:			
Email:	WO #:			
Project Name: 24 Laborers Way BCP	Project #: 48025529			
Site:	SSOW#:			

Analysis Requested

Preservation Codes:
A - HCL, B - NaOH, C - Zn Acetate, D - Nitric Acid, E - NaHSO4, F - MeOH, G - Amchlor, H - Ascorbic Acid, I - Ice, J - DI Water, K - EDTA, L - EDA, M - Hexane, N - None, O - AsNaO2, P - Na2O4S, Q - Na2SO3, R - Na2S2O3, S - H2SO4, T - TSP Dodecahydrate, U - Acetone, V - MCAA, W - pH 4-5, Y - Trizma, Z - other (specify)
Other:

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	PFC_IDA/Shake_Bath_14D PFAS, NY Standard List (21 Analytes)	Moisture/ Percent Moisture	Total Number of containers	Special Instructions/Note:
			Preservation Code:							
TP-8 0-1' (480-200986-8)	8/24/22	12:30 Eastern		Solid			X	X	1	
FD-220824 (480-200986-9)	8/24/22	10:00 Eastern		Solid			X	X	1	

Note: Since laboratory accreditations are subject to change, Eurofins Environment Testing Northeast, LLC places the ownership of method, analyte & accreditation compliance upon out subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/tests/matrix being analyzed, the samples must be shipped back to the Eurofins Environment Testing Northeast, LLC laboratory or other instructions will be provided. Any changes to accreditation status should be brought to Eurofins Environment Testing Northeast, LLC attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said complicance to Eurofins Environment Testing Northeast, LLC.

Possible Hazard Identification	*Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)*
Unconfirmed	☐ *Return To Client* ☐ *Disposal By Lab* ☐ *Archive For* _____ *Months*
Deliverable Requested: I, II, III, IV, Other (specify) Primary Deliverable Rank: 2	Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
1		8-24-22 1600				
2	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
3	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No | Custody Seal No.: | Cooler Temperature(s) °C and Other Remarks: 1.3

Ver: 06/08/2021

09/14/2022

Method PFC IDA

Fluorinated Hydrocarbons by Method PFAS IDA

No data validation qualifiers were added

MKP 9/19/2022

FORM I
LCMS ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Lancaster Laboratories Environment Testing, LLC Job No.: 480-200986-1

SDG No.:

Client Sample ID: TP-1 0-1' Lab Sample ID: 480-200986-1

Matrix: Solid Lab File ID: 22SEP08-108.d

Analysis Method: 537 (Modified) Date Collected: 08/24/2022 09:30

Extraction Method: SHAKE Date Extracted: 09/06/2022 07:04

Sample wt/vol: 10.05(g) Date Analyzed: 09/09/2022 05:59

Con. Extract Vol.: 20(mL) Dilution Factor: 1

Injection Volume: 2(uL) GC Column: Gemini C18 50mm ID: 3(mm)

% Moisture: 20.8 % Solids: 79.2 GPC Cleanup:(Y/N) N

Cleanup Factor:

Analysis Batch No.: 293723 Units: ng/g

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
27619-97-2	6:2 Fluorotelomer sulfonic acid	ND		0.25	0.062
39108-34-4	8:2 Fluorotelomer sulfonic acid	ND		0.25	0.021
2991-50-6	NEtFOSAA	ND		0.25	0.028
2355-31-9	NMeFOSAA	ND		0.25	0.039
375-73-5	Perfluorobutanesulfonic acid	ND		0.50	0.45
375-22-4	Perfluorobutanoic acid	ND		0.25	0.030
335-77-3	Perfluorodecanesulfonic acid	ND		0.25	0.026
335-76-2	Perfluorodecanoic acid	0.045	J	0.25	0.030
307-55-1	Perfluorododecanoic acid	ND		0.25	0.029
375-92-8	Perfluoroheptanesulfonic acid	ND		0.25	0.025
375-85-9	Perfluoroheptanoic acid	0.039	J	0.25	0.030
355-46-4	Perfluorohexanesulfonic acid	ND		0.25	0.024
307-24-4	Perfluorohexanoic acid	0.053	J	0.25	0.024
375-95-1	Perfluorononanoic acid	0.041	J	0.25	0.029
754-91-6	Perfluorooctanesulfonamide	ND		0.25	0.026
1763-23-1	Perfluorooctanesulfonic acid	0.10	J	0.25	0.044
335-67-1	Perfluorooctanoic acid	0.040	J	0.25	0.028
2706-90-3	Perfluoropentanoic acid	0.11	J	0.25	0.030
376-06-7	Perfluorotetradecanoic acid	ND		0.25	0.030
72629-94-8	Perfluorotridecanoic acid	ND		0.25	0.026
2058-94-8	Perfluoroundecanoic acid	ND		0.25	0.070

FORM I
LCMS ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Lancaster Laboratories Environment Testing, LLC Job No.: 480-200986-1

SDG No.:

Client Sample ID: TP-2 1-2' Lab Sample ID: 480-200986-2

Matrix: Solid Lab File ID: 22SEP08-109.d

Analysis Method: 537 (Modified) Date Collected: 08/24/2022 10:00

Extraction Method: SHAKE Date Extracted: 09/06/2022 07:04

Sample wt/vol: 10.06(g) Date Analyzed: 09/09/2022 06:10

Con. Extract Vol.: 20(mL) Dilution Factor: 1

Injection Volume: 2(uL) GC Column: Gemini C18 50mm ID: 3(mm)

% Moisture: 30.5 % Solids: 69.5 GPC Cleanup:(Y/N) N

Cleanup Factor:

Analysis Batch No.: 293723 Units: ng/g

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
27619-97-2	6:2 Fluorotelomer sulfonic acid	ND		0.29	0.070
39108-34-4	8:2 Fluorotelomer sulfonic acid	ND		0.29	0.024
2991-50-6	NEtFOSAA	ND		0.29	0.031
2355-31-9	NMeFOSAA	ND		0.29	0.044
375-73-5	Perfluorobutanesulfonic acid	ND		0.57	0.52
375-22-4	Perfluorobutanoic acid	ND		0.29	0.034
335-77-3	Perfluorodecanesulfonic acid	ND		0.29	0.030
335-76-2	Perfluorodecanoic acid	ND		0.29	0.034
307-55-1	Perfluorododecanoic acid	ND		0.29	0.033
375-92-8	Perfluoroheptanesulfonic acid	ND		0.29	0.029
375-85-9	Perfluoroheptanoic acid	0.046	J	0.29	0.034
355-46-4	Perfluorohexanesulfonic acid	ND		0.29	0.027
307-24-4	Perfluorohexanoic acid	0.072	J	0.29	0.027
375-95-1	Perfluorononanoic acid	0.076	J	0.29	0.033
754-91-6	Perfluorooctanesulfonamide	ND		0.29	0.030
1763-23-1	Perfluorooctanesulfonic acid	0.24	J	0.29	0.050
335-67-1	Perfluorooctanoic acid	0.16	J	0.29	0.031
2706-90-3	Perfluoropentanoic acid	0.058	J	0.29	0.034
376-06-7	Perfluorotetradecanoic acid	ND		0.29	0.034
72629-94-8	Perfluorotridecanoic acid	ND		0.29	0.030
2058-94-8	Perfluoroundecanoic acid	ND		0.29	0.080

FORM I
LCMS ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Lancaster Laboratories Environment Testing, LLC Job No.: 480-200986-1

SDG No.:

Client Sample ID: TP-3 0-1' Lab Sample ID: 480-200986-3

Matrix: Solid Lab File ID: 22SEP08-112.d

Analysis Method: 537 (Modified) Date Collected: 08/24/2022 10:30

Extraction Method: SHAKE Date Extracted: 09/06/2022 07:04

Sample wt/vol: 10.02(g) Date Analyzed: 09/09/2022 06:44

Con. Extract Vol.: 20(mL) Dilution Factor: 1

Injection Volume: 2(uL) GC Column: Gemini C18 50mm ID: 3(mm)

% Moisture: 10.4 % Solids: 89.6 GPC Cleanup:(Y/N) N

Cleanup Factor:

Analysis Batch No.: 293723 Units: ng/g

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
27619-97-2	6:2 Fluorotelomer sulfonic acid	ND		0.22	0.055
39108-34-4	8:2 Fluorotelomer sulfonic acid	ND		0.22	0.019
2991-50-6	NEtFOSAA	ND		0.22	0.024
2355-31-9	NMeFOSAA	ND		0.22	0.035
375-73-5	Perfluorobutanesulfonic acid	ND		0.45	0.40
375-22-4	Perfluorobutanoic acid	0.079	J	0.22	0.027
335-77-3	Perfluorodecanesulfonic acid	ND		0.22	0.023
335-76-2	Perfluorodecanoic acid	ND		0.22	0.027
307-55-1	Perfluorododecanoic acid	ND		0.22	0.026
375-92-8	Perfluoroheptanesulfonic acid	ND		0.22	0.022
375-85-9	Perfluoroheptanoic acid	ND		0.22	0.027
355-46-4	Perfluorohexanesulfonic acid	ND		0.22	0.021
307-24-4	Perfluorohexanoic acid	0.040	J	0.22	0.021
375-95-1	Perfluorononanoic acid	0.052	J	0.22	0.026
754-91-6	Perfluorooctanesulfonamide	ND		0.22	0.023
1763-23-1	Perfluorooctanesulfonic acid	0.22		0.22	0.039
335-67-1	Perfluorooctanoic acid	0.063	J	0.22	0.024
2706-90-3	Perfluoropentanoic acid	0.050	J	0.22	0.027
376-06-7	Perfluorotetradecanoic acid	ND		0.22	0.027
72629-94-8	Perfluorotridecanoic acid	ND		0.22	0.023
2058-94-8	Perfluoroundecanoic acid	ND		0.22	0.062

FORM I
LCMS ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Lancaster Laboratories Environment Testing, LLC Job No.: 480-200986-1

SDG No.:

Client Sample ID: TP-4 0-1' Lab Sample ID: 480-200986-4

Matrix: Solid Lab File ID: 22SEP08-113.d

Analysis Method: 537 (Modified) Date Collected: 08/24/2022 11:00

Extraction Method: SHAKE Date Extracted: 09/06/2022 07:04

Sample wt/vol: 10.07(g) Date Analyzed: 09/09/2022 06:55

Con. Extract Vol.: 20(mL) Dilution Factor: 1

Injection Volume: 2(uL) GC Column: Gemini C18 50mm ID: 3(mm)

% Moisture: 9.5 % Solids: 90.5 GPC Cleanup:(Y/N) N

Cleanup Factor:

Analysis Batch No.: 293723 Units: ng/g

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
27619-97-2	6:2 Fluorotelomer sulfonic acid	ND		0.22	0.054
39108-34-4	8:2 Fluorotelomer sulfonic acid	ND		0.22	0.019
2991-50-6	NEtFOSAA	ND		0.22	0.024
2355-31-9	NMeFOSAA	ND		0.22	0.034
375-73-5	Perfluorobutanesulfonic acid	ND		0.44	0.40
375-22-4	Perfluorobutanoic acid	0.080	J	0.22	0.026
335-77-3	Perfluorodecanesulfonic acid	ND		0.22	0.023
335-76-2	Perfluorodecanoic acid	ND		0.22	0.026
307-55-1	Perfluorododecanoic acid	ND		0.22	0.025
375-92-8	Perfluoroheptanesulfonic acid	ND		0.22	0.022
375-85-9	Perfluoroheptanoic acid	0.033	J	0.22	0.026
355-46-4	Perfluorohexanesulfonic acid	ND		0.22	0.021
307-24-4	Perfluorohexanoic acid	0.056	J	0.22	0.021
375-95-1	Perfluorononanoic acid	0.040	J	0.22	0.025
754-91-6	Perfluorooctanesulfonamide	ND		0.22	0.023
1763-23-1	Perfluorooctanesulfonic acid	0.24		0.22	0.038
335-67-1	Perfluorooctanoic acid	0.056	J	0.22	0.024
2706-90-3	Perfluoropentanoic acid	0.038	J	0.22	0.026
376-06-7	Perfluorotetradecanoic acid	ND		0.22	0.026
72629-94-8	Perfluorotridecanoic acid	ND		0.22	0.023
2058-94-8	Perfluoroundecanoic acid	ND		0.22	0.061

FORM I
LCMS ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Lancaster Laboratories Environment Testing, LLC Job No.: 480-200986-1

SDG No.:

Client Sample ID: TP-5 0-1' Lab Sample ID: 480-200986-5

Matrix: Solid Lab File ID: 22SEP08-114.d

Analysis Method: 537 (Modified) Date Collected: 08/24/2022 11:30

Extraction Method: SHAKE Date Extracted: 09/06/2022 07:04

Sample wt/vol: 10.10(g) Date Analyzed: 09/09/2022 07:06

Con. Extract Vol.: 20(mL) Dilution Factor: 1

Injection Volume: 2(uL) GC Column: Gemini C18 50mm ID: 3(mm)

% Moisture: 27.1 % Solids: 72.9 GPC Cleanup:(Y/N) N

Cleanup Factor:

Analysis Batch No.: 293723 Units: ng/g

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
27619-97-2	6:2 Fluorotelomer sulfonic acid	ND		0.27	0.067
39108-34-4	8:2 Fluorotelomer sulfonic acid	ND		0.27	0.023
2991-50-6	NEtFOSAA	ND		0.27	0.030
2355-31-9	NMeFOSAA	ND		0.27	0.042
375-73-5	Perfluorobutanesulfonic acid	ND		0.54	0.49
375-22-4	Perfluorobutanoic acid	ND		0.27	0.033
335-77-3	Perfluorodecanesulfonic acid	ND		0.27	0.029
335-76-2	Perfluorodecanoic acid	ND		0.27	0.033
307-55-1	Perfluorododecanoic acid	ND		0.27	0.031
375-92-8	Perfluoroheptanesulfonic acid	ND		0.27	0.027
375-85-9	Perfluoroheptanoic acid	ND		0.27	0.033
355-46-4	Perfluorohexanesulfonic acid	ND		0.27	0.026
307-24-4	Perfluorohexanoic acid	ND		0.27	0.026
375-95-1	Perfluorononanoic acid	ND		0.27	0.031
754-91-6	Perfluorooctanesulfonamide	ND		0.27	0.029
1763-23-1	Perfluorooctanesulfonic acid	ND		0.27	0.048
335-67-1	Perfluorooctanoic acid	ND		0.27	0.030
2706-90-3	Perfluoropentanoic acid	ND		0.27	0.033
376-06-7	Perfluorotetradecanoic acid	ND		0.27	0.033
72629-94-8	Perfluorotridecanoic acid	ND		0.27	0.029
2058-94-8	Perfluoroundecanoic acid	ND		0.27	0.076

FORM I
LCMS ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Lancaster Laboratories Environment Testing, LLC Job No.: 480-200986-1

SDG No.:

Client Sample ID: TP-6 2-2.5' Lab Sample ID: 480-200986-6

Matrix: Solid Lab File ID: 22SEP08-115.d

Analysis Method: 537 (Modified) Date Collected: 08/24/2022 11:45

Extraction Method: SHAKE Date Extracted: 09/06/2022 07:04

Sample wt/vol: 10.03(g) Date Analyzed: 09/09/2022 07:17

Con. Extract Vol.: 20(mL) Dilution Factor: 1

Injection Volume: 2(uL) GC Column: Gemini C18 50mm ID: 3(mm)

% Moisture: 10.3 % Solids: 89.7 GPC Cleanup:(Y/N) N

Cleanup Factor:

Analysis Batch No.: 293723 Units: ng/g

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
27619-97-2	6:2 Fluorotelomer sulfonic acid	ND		0.22	0.054
39108-34-4	8:2 Fluorotelomer sulfonic acid	ND		0.22	0.019
2991-50-6	NEtFOSAA	ND		0.22	0.024
2355-31-9	NMeFOSAA	ND		0.22	0.034
375-73-5	Perfluorobutanesulfonic acid	ND		0.44	0.40
375-22-4	Perfluorobutanoic acid	0.14	J	0.22	0.027
335-77-3	Perfluorodecanesulfonic acid	ND		0.22	0.023
335-76-2	Perfluorodecanoic acid	ND		0.22	0.027
307-55-1	Perfluorododecanoic acid	ND		0.22	0.026
375-92-8	Perfluoroheptanesulfonic acid	ND		0.22	0.022
375-85-9	Perfluoroheptanoic acid	0.047	J	0.22	0.027
355-46-4	Perfluorohexanesulfonic acid	ND		0.22	0.021
307-24-4	Perfluorohexanoic acid	0.065	J	0.22	0.021
375-95-1	Perfluorononanoic acid	0.10	J	0.22	0.026
754-91-6	Perfluorooctanesulfonamide	ND		0.22	0.023
1763-23-1	Perfluorooctanesulfonic acid	0.30		0.22	0.039
335-67-1	Perfluorooctanoic acid	0.17	J	0.22	0.024
2706-90-3	Perfluoropentanoic acid	0.054	J	0.22	0.027
376-06-7	Perfluorotetradecanoic acid	ND		0.22	0.027
72629-94-8	Perfluorotridecanoic acid	ND		0.22	0.023
2058-94-8	Perfluoroundecanoic acid	ND		0.22	0.062

FORM I
LCMS ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Lancaster Laboratories Environment Testing, LLC Job No.: 480-200986-1

SDG No.:

Client Sample ID: TP-7 0-1' Lab Sample ID: 480-200986-7

Matrix: Solid Lab File ID: 22SEP08-117.d

Analysis Method: 537 (Modified) Date Collected: 08/24/2022 12:00

Extraction Method: SHAKE Date Extracted: 09/06/2022 07:04

Sample wt/vol: 10.10(g) Date Analyzed: 09/09/2022 07:39

Con. Extract Vol.: 20(mL) Dilution Factor: 1

Injection Volume: 2(uL) GC Column: Gemini C18 50mm ID: 3(mm)

% Moisture: 17.5 % Solids: 82.5 GPC Cleanup:(Y/N) N

Cleanup Factor:

Analysis Batch No.: 293723 Units: ng/g

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
27619-97-2	6:2 Fluorotelomer sulfonic acid	ND		0.24	0.059
39108-34-4	8:2 Fluorotelomer sulfonic acid	ND		0.24	0.020
2991-50-6	NEtFOSAA	ND		0.24	0.026
2355-31-9	NMeFOSAA	ND		0.24	0.037
375-73-5	Perfluorobutanesulfonic acid	ND		0.48	0.43
375-22-4	Perfluorobutanoic acid	0.14	J	0.24	0.029
335-77-3	Perfluorodecanesulfonic acid	ND		0.24	0.025
335-76-2	Perfluorodecanoic acid	0.037	J	0.24	0.029
307-55-1	Perfluorododecanoic acid	ND		0.24	0.028
375-92-8	Perfluoroheptanesulfonic acid	ND		0.24	0.024
375-85-9	Perfluoroheptanoic acid	0.075	J	0.24	0.029
355-46-4	Perfluorohexanesulfonic acid	ND		0.24	0.023
307-24-4	Perfluorohexanoic acid	0.085	J	0.24	0.023
375-95-1	Perfluorononanoic acid	0.12	J	0.24	0.028
754-91-6	Perfluorooctanesulfonamide	ND		0.24	0.025
1763-23-1	Perfluorooctanesulfonic acid	0.27		0.24	0.042
335-67-1	Perfluorooctanoic acid	0.094	J	0.24	0.026
2706-90-3	Perfluoropentanoic acid	0.11	J	0.24	0.029
376-06-7	Perfluorotetradecanoic acid	ND		0.24	0.029
72629-94-8	Perfluorotridecanoic acid	ND		0.24	0.025
2058-94-8	Perfluoroundecanoic acid	ND		0.24	0.067

FORM I
LCMS ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Lancaster Laboratories Environment Testing, LLC Job No.: 480-200986-1

SDG No.:

Client Sample ID: TP-8 0-1' Lab Sample ID: 480-200986-8

Matrix: Solid Lab File ID: 22SEP08-118.d

Analysis Method: 537 (Modified) Date Collected: 08/24/2022 12:30

Extraction Method: SHAKE Date Extracted: 09/06/2022 07:04

Sample wt/vol: 10.10(g) Date Analyzed: 09/09/2022 07:50

Con. Extract Vol.: 20(mL) Dilution Factor: 1

Injection Volume: 2(uL) GC Column: Gemini C18 50mm ID: 3(mm)

% Moisture: 6.8 % Solids: 93.2 GPC Cleanup:(Y/N) N

Cleanup Factor:

Analysis Batch No.: 293723 Units: ng/g

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
27619-97-2	6:2 Fluorotelomer sulfonic acid	ND		0.21	0.052
39108-34-4	8:2 Fluorotelomer sulfonic acid	ND		0.21	0.018
2991-50-6	NEtFOSAA	ND		0.21	0.023
2355-31-9	NMeFOSAA	ND		0.21	0.033
375-73-5	Perfluorobutanesulfonic acid	ND		0.42	0.38
375-22-4	Perfluorobutanoic acid	0.099	J	0.21	0.025
335-77-3	Perfluorodecanesulfonic acid	ND		0.21	0.022
335-76-2	Perfluorodecanoic acid	ND		0.21	0.025
307-55-1	Perfluorododecanoic acid	ND		0.21	0.024
375-92-8	Perfluoroheptanesulfonic acid	ND		0.21	0.021
375-85-9	Perfluoroheptanoic acid	0.031	J	0.21	0.025
355-46-4	Perfluorohexanesulfonic acid	ND		0.21	0.020
307-24-4	Perfluorohexanoic acid	0.048	J	0.21	0.020
375-95-1	Perfluorononanoic acid	0.033	J	0.21	0.024
754-91-6	Perfluorooctanesulfonamide	ND		0.21	0.022
1763-23-1	Perfluorooctanesulfonic acid	0.18	J	0.21	0.037
335-67-1	Perfluorooctanoic acid	0.065	J	0.21	0.023
2706-90-3	Perfluoropentanoic acid	0.048	J	0.21	0.025
376-06-7	Perfluorotetradecanoic acid	ND		0.21	0.025
72629-94-8	Perfluorotridecanoic acid	ND		0.21	0.022
2058-94-8	Perfluoroundecanoic acid	ND		0.21	0.059

FORM I
LCMS ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Lancaster Laboratories Environment Testing, LLC Job No.: 480-200986-1

SDG No.:

Client Sample ID: FD-220824 Lab Sample ID: 480-200986-9

Matrix: Solid Lab File ID: 22SEP08-119.d

Analysis Method: 537 (Modified) Date Collected: 08/24/2022 09:30

Extraction Method: SHAKE Date Extracted: 09/06/2022 07:04

Sample wt/vol: 10.04(g) Date Analyzed: 09/09/2022 08:01

Con. Extract Vol.: 20(mL) Dilution Factor: 1

Injection Volume: 2(uL) GC Column: Gemini C18 50mm ID: 3(mm)

% Moisture: 32.2 % Solids: 67.8 GPC Cleanup:(Y/N) N

Cleanup Factor:

Analysis Batch No.: 293723 Units: ng/g

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
27619-97-2	6:2 Fluorotelomer sulfonic acid	ND		0.29	0.072
39108-34-4	8:2 Fluorotelomer sulfonic acid	ND		0.29	0.025
2991-50-6	NEtFOSAA	ND		0.29	0.032
2355-31-9	NMeFOSAA	ND		0.29	0.046
375-73-5	Perfluorobutanesulfonic acid	ND		0.59	0.53
375-22-4	Perfluorobutanoic acid	ND		0.29	0.035
335-77-3	Perfluorodecanesulfonic acid	ND		0.29	0.031
335-76-2	Perfluorodecanoic acid	ND		0.29	0.035
307-55-1	Perfluorododecanoic acid	ND		0.29	0.034
375-92-8	Perfluoroheptanesulfonic acid	ND		0.29	0.029
375-85-9	Perfluoroheptanoic acid	ND		0.29	0.035
355-46-4	Perfluorohexanesulfonic acid	ND		0.29	0.028
307-24-4	Perfluorohexanoic acid	ND		0.29	0.028
375-95-1	Perfluorononanoic acid	ND		0.29	0.034
754-91-6	Perfluorooctanesulfonamide	ND		0.29	0.031
1763-23-1	Perfluorooctanesulfonic acid	ND		0.29	0.051
335-67-1	Perfluorooctanoic acid	ND		0.29	0.032
2706-90-3	Perfluoropentanoic acid	0.059	J	0.29	0.035
376-06-7	Perfluorotetradecanoic acid	ND		0.29	0.035
72629-94-8	Perfluorotridecanoic acid	ND		0.29	0.031
2058-94-8	Perfluoroundecanoic acid	ND		0.29	0.082

GENERAL CHEMISTRY

No data validation qualifiers were added

MKP 9/19/2022

COVER PAGE
GENERAL CHEMISTRY

Lab Name: Eurofins Lancaster Laboratories Job Number: 480-200986-1

SDG No.:

Project: 24 Laborers Way BCP

Client Sample ID	Lab Sample ID
TP-1 0-1'	480-200986-1
TP-2 1-2'	480-200986-2
TP-3 0-1'	480-200986-3
TP-4 0-1'	480-200986-4
TP-5 0-1'	480-200986-5
TP-6 2-2.5'	480-200986-6
TP-7 0-1'	480-200986-7
TP-8 0-1'	480-200986-8
FD-220824	480-200986-9

Comments:

General Chemistry Raw Data Report

Job ID: 480-200986-1

Batch: 293341 **Analyst Initials: UVJN**

Method: Moisture **Instrument: NONE**

Lab Sample ID: 480-200986-A-1 **Analysis Date: Sep 07, 2022 08:55**

Analyte	Detector	Dilution	Raw Result	Unit
Percent Moisture	None	1	20.8015267175572	%

Lab Sample ID: 480-200986-A-2 **Analysis Date: Sep 07, 2022 08:55**

Analyte	Detector	Dilution	Raw Result	Unit
Percent Moisture	None	1	30.4812834224599	%

Lab Sample ID: 480-200986-A-3 **Analysis Date: Sep 07, 2022 08:55**

Analyte	Detector	Dilution	Raw Result	Unit
Percent Moisture	None	1	10.3633916554509	%

Lab Sample ID: 480-200986-A-4 **Analysis Date: Sep 07, 2022 08:55**

Analyte	Detector	Dilution	Raw Result	Unit
Percent Moisture	None	1	9.5238095238095	%

Lab Sample ID: 480-200986-A-5 **Analysis Date: Sep 07, 2022 08:55**

Analyte	Detector	Dilution	Raw Result	Unit
Percent Moisture	None	1	27.0833333333333	%

Lab Sample ID: 480-200986-A-6 **Analysis Date: Sep 07, 2022 08:55**

Analyte	Detector	Dilution	Raw Result	Unit
Percent Moisture	None	1	10.2857142857143	%

Lab Sample ID: 480-200986-A-7 **Analysis Date: Sep 07, 2022 08:55**

Analyte	Detector	Dilution	Raw Result	Unit
Percent Moisture	None	1	17.5097276264591	%

Lab Sample ID: 480-200986-A-8 **Analysis Date: Sep 07, 2022 08:55**

Analyte	Detector	Dilution	Raw Result	Unit
Percent Moisture	None	1	6.7771084337349	%

Lab Sample ID: 480-200986-A-9 **Analysis Date: Sep 07, 2022 08:55**

Analyte	Detector	Dilution	Raw Result	Unit
Percent Moisture	None	1	32.2413793103448	%

Appendix B

Laboratory QC Documentation

Appendix C

Validator Qualifications

KENNETH R. APPLIN
Geochemist/Data Validator

Ph.D., Geochemistry and Mineralogy, The Pennsylvania State University

M.S., Geochemistry and Mineralogy, The Pennsylvania State University

B.A., Geological Sciences, SUNY at Geneseo, NY

Dr. Applin has over 35 years of experience working with the geochemistry of natural waters. His prior experience includes working as an Assistant Professor of Geology at the University of Missouri-Columbia and as Chief Hydrogeologist and Geochemist with a leading engineering firm in Rochester, NY. In 1993, he established KR Applin and Associates, a small consulting business that focuses on the geochemistry of natural waters, especially as applied to problems involving the contamination of groundwater and surface water.

Dr. Applin is also an experienced analytical data validator and has provided data validation services since 1994 to a variety of clients performing brownfield cleanup projects, hazardous waste remediation, groundwater monitoring at solid waste facilities, and other projects requiring third-party data validation. Dr. Applin has several years of hands-on experience with the laboratory analysis of natural waters and has successfully completed the USEPA Region II certification courses for performing inorganic and organic analytical data validation.

MICHAEL K. PERRY
Chemist/Data Validator

B.S. Chemistry, Georgia State University, Atlanta, GA

A.A.S., Chemical Technology, Alfred State College, Alfred, NY

Mr. Perry has over 30 years of experience in the analytical laboratory business. During his early career, he spent several years as a laboratory analyst performing the analysis of soil, water, and air samples for inorganic and organic chemical parameters. During his last 20 years in the environmental laboratory business, he managed and directed two major analytical laboratories in Rochester, NY. His management responsibilities included oversight of the daily operations of the lab, staff training and supervision, the selection, purchase, and maintenance of analytical instruments, the introduction of new laboratory methods, analytical quality assurance and quality control, data acquisition and management, and other business-related activities.

Mr. Perry has an extensive working knowledge of the methods and procedures used for sampling and analyzing both inorganic and organic analytes in soil, water, and air. He is an accomplished laboratory chemist and is familiar with the analytical methods and procedures established under the USEPA Contract Laboratory Protocols (CLP), the NYSDEC Analytical Services Protocols (ASP), and the NYSDOH Environmental Laboratory Approval Program (ELAP).

Appendix F
Health & Safety Plan

Health and Safety Plan
for
24 Laborers Way Site

BCP SITE NO. C915322
24 LABORERS WAY SITE
24 LABORERS WAY CITY OF BUFFALO, ERIE COUNTY, NEW YORK

Prepared by

C&S Engineers, Inc.
141 Elm Street, Suite 100
Buffalo, New York 14203

October, 2022

EMERGENCY PHONE NUMBERS

Emergency Medical Service 911

Police Department 911

Fire Department 911

Mercy Hospital of Buffalo 716-826-7000

National Response Center ..... (800) 424-8802

Poison Control Center ..... (800) 222-1222

Center for Disease Control ..... (800) 311-3435

NYSDEC Region 9 (Buffalo, New York) ..... (716) 851-7201

C&S Engineers ..... (315) 455-2000

Jeremy Belgau ..... (619) 818-6181

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FIGURES

Figure 1 Site Location
Figure 2 Site Detail

Attachment A – Map and Directions to Hospital

Appendix A – Guidance on Incident Investigation and Reporting

SECTION 1 – GENERAL INFORMATION

This Health and Safety Plan (HASP) addresses health and safety considerations for the activities that personnel employed by C&S Engineers, Inc., (C&S) may be engaged in during site investigation at the 24 Laborers Way Site located in Buffalo, New York (Site). **Figure 1** and **Figure 2** shows the location and layout of the Site. This HASP will be implemented by the Health and Safety Officer (HSO) during site work.

Compliance with this HASP is required of C&S personnel who enter this Site. The content of the HASP may change or undergo revision based upon additional information made available to the health, safety, and training (H&S) committee, monitoring results or changes in the technical scope of work. Any changes proposed must be reviewed by the H&S committee.

1.1 Responsibilities

Project Manager……	Alex Brennen Phone: (716) 427-6385 Cell: (716) 946-9133
Health and Safety Manager……	Tom Sanford Phone: (315) 703-4104 Cell: (607) 327-2771
Site Health and Safety Officer……....	Alex Brennen Phone: (716) 427-6385 Cell: (716) 946-9133
Emergency Coordinator……..	Alex Brennen Phone: (716) 427-6385 Cell: (716) 946-9133

SECTION 2 - HEALTH AND SAFETY PERSONNEL

The following information briefly describes the health and safety designations and general responsibilities for this Site.

2.1 Project Manager (PM)

The PM is responsible for the overall project including the implementation of the HASP. Specifically, this includes allocating adequate manpower, equipment, and time resources to conduct Site activities safely.

2.2 Health and Safety Manager

- Has the overall responsibility for coordinating and reporting health and safety activities and the health and safety of Site Workers.
- Must have completed, at a minimum, the OSHA 30-Hour Construction Safety Training, and either the 24-Hour training course for the Occasional Hazardous Waste Site Worker or the 40-Hour training course for the Hazardous Waste Operations Worker that meets OHSA 29 CFR 1910.
- Must have completed the 8-Hour Site supervisor/manager's course for supervisors and managers having responsibilities for hazardous waste Site operations and management.
- Directs and coordinates health and safety monitoring activities.
- Ensures that field teams utilize proper personal protective equipment (PPE).
- Conducts initial on-site specific training prior to Site Workers commencing work.
- Conducts and documents daily and periodic safety briefings.
- Ensures that field team members comply with this HASP.
- Immediately notifies the Project Manager of all accident/incidents.
- Determines upgrading or downgrading of PPE based on Site conditions and/or real time monitoring results.
- Ensures that monitoring instruments are calibrated daily or as the manufacturer's instructions determine.
- Provides daily summaries of field operations and progress to the Project Manager.
- Submits and maintains all documentation required in this HASP and any other pertinent health and safety documentation.

2.3 Health and Safety Officer (HSO)

- Must be designated by the Health and Safety Manager and at a minimum, have the 40-Hour training course for the Hazardous Waste Operations Worker that meets OHSA 29 CFR 1910, as well as the OSHA 10-Hour Construction Safety Training.
- Must schedule and attend a Pre-Construction Safety Meeting with the Health and Safety Manager to discuss the Subcontractor Safety Requirements and must attend the Weekly Subcontractor Coordination Meeting.
- Responsible for ensuring subcontractors and their lower tier contractors comply with project safety requirements.

- Must make frequent and regular inspections of their work areas and activities and ensure hazards that are under their control are corrected immediately and all other hazards are reported to the Project Manager and Health and Safety Manager.
- Must report all work related injuries, regardless of severity, to the Project Manager and the Health and Safety Manager within 24 hours after they occur.

2.4 Emergency Coordinator

- Will at a minimum, have the 40-Hour training course for the Hazardous Waste Operations Worker that meets OHSA 29 CFR 1910, as well as the OSHA 10-Hour Construction Safety Training.
- The Emergency Coordinator or his on-site designee will, in coordination with Laborers Way 2, LLC, implement the emergency response procedures outlined in Section 12 whenever conditions at the Site warrant such action.
- The Emergency Coordinator or his on-site designee will be responsible for assuring the evacuation, emergency treatment, emergency transport of C&S personnel as necessary, and notification of emergency response units (refer to phone listing in the beginning of this HASP) and the appropriate management staff.

2.5 Site Workers

- Report any unsafe or potentially hazardous conditions to the Health and Safety Manager.
- Maintain knowledge of the information, instructions, and emergency response actions contained in the HASP.
- Comply with rules, regulations, and procedures as set forth in this HASP, including any revisions that are instituted.
- Prevent unauthorized personnel from entering work Site.

SECTION 3 - PERTINENT SITE INFORMATION

3.1 Site Location and General History

The Site is addressed as 24 Laborers Way and includes 5.40 acres of vacant land, identified as SBL # 132.15-2-2. The Site is bound to the west by a vacant parcel (70 Laborers Way), to the north by a vacant parcel; 310 Ship Canal Parkway, Ship Canal Parkway to the east beyond which is Sonwil Distribution, and to the south by the street Laborers Way. The property is located within an urban area, utilized for industrial and commercial purposes. Site location is depicted on Figure 1.

The Site is vacant, undeveloped land. Drainage features on Site include a drainage ditch along the western property limit. Stormwater generated at the Site, currently discharges to the drainage ditches, then southerly towards the Ship Canal and Lake Erie.

The Site area was historically used for slag dumping and use as a railroad coordinator. Slag and other industrial fill materials use as rail ballasts were noted to be present throughout the properties. Additionally, historical reports also noted possible dumping or landfill activities from at least the 1960s through 2005.

The Site was formerly part of the larger NYSDEC Inactive Hazardous Waste Site (IHWS) #915322, aka "Parcel 5", which was reclassified on June 22, 2020 after the completion of a Site Characterization Report for the NYSDEC by Groundwater & Environmental Services, Inc. (GES). The NYSDEC determined that the Site does not qualify for placement on the IHWS Registry. However, NYSDEC and New York State Department of Health (NYSDOH) recognized "there is the potential for exposures to metals in the soil above NYCRR Part 375 soil cleanup objectives for commercial use on the property.

SECTION 4 – TRAINING

4.1 Site-Specific Training

Training will be provided that specifically addresses the activities, procedures, monitoring, and equipment for the Site operations prior to going on site. Training will include familiarization with Site and facility layout, known and potential hazards, and emergency services at the Site, and details all provisions contained within this HASP. This training will also allow Site Workers to clarify anything they do not understand and to reinforce their responsibilities regarding safety and operations for their particular activity.

4.2 Safety Briefings

C&S project personnel will be given briefings by the HSO on a daily or as needed basis to further assist Site workers in conducting their activities safely. Pertinent information will be provided when new operations are to be conducted. Changes in work practices must be implemented due to new information made available, or if Site or environmental conditions change. Briefings will also be given to facilitate conformance with prescribed safety practices. When conformance with these practices is not occurring or if deficiencies are identified during safety audits, the project manager will be notified.

SECTION 5 - PERSONAL PROTECTIVE EQUIPMENT

5.1 General

The level of protection to be worn by field personnel will be defined and controlled by the HSO. Depending upon the type and levels of material present or anticipated at the site, varying degrees of protective equipment will be needed. If the possible hazards are unknown, a reasonable level of protection will be taken until sampling and monitoring results can ascertain potential risks. The levels of protection listed below are based on USEPA Guidelines. A list of the appropriate clothing for each level is also provided.

Level A protection must be worn when a reasonable determination has been made that the highest available level of respiratory, skin, eye, and mucous membrane protection is needed. It should be noted that while Level A provides maximum available protection, it does not protect against all possible hazards. Consideration of the heat stress that can arise from wearing Level A protection should also enter into the decision making process. Level A protection includes:

- Open circuit, pressure-demand self-contained breathing apparatus (SCBA)
- Totally encapsulated chemical resistant suit
- Gloves, inner (surgical type)
- Gloves, outer, chemical protective
- Boots, chemical protective

Level B protection must be used when the highest level of respiratory protection is needed, but hazardous material exposure to the few unprotected areas of the body (e.g., the back of the neck) is unlikely. Level B protection includes:

- Open circuit, pressure-demand SCBA or pressure airline with escape air bottle
- Chemical protective clothing: Overalls and long sleeved jacket; disposal chemical resistant coveralls; coveralls; one or two piece chemical splash suit with hood
- Gloves, inner (surgical type)
- Gloves, outer, chemical protective
- Boots, chemical protective

Level C must be used when the required level of respiratory protection is known, or reasonably assumed to be, not greater than the level of protection afforded by air purifying respirators; and hazardous materials exposure to the few unprotected areas of the body (e.g. the back of the neck) is unlikely. Level C protection includes:

- Full or half face air-purifying respirator
- Chemical protective clothing: Overalls and long-sleeve jacket; disposable chemical resistant coveralls; coveralls; one or two piece chemical splash suit
- Gloves, inner (surgical type)
- Gloves, outer, chemical protective
- Boots, chemical protective

Level D is the basic work uniform. It cannot be worn on any site where respiratory or skin hazards exist. Level D protection includes:

- Safety boots/shoes
- Safety glasses
- Hard hat with optional face shield

Note that the use of SCBA and airline equipment is contingent upon the user receiving special training in the proper use and maintenance of such equipment.

5.2 Personal Protective Equipment – Site Specific

Level D with some modification will be required when working in the work zone on this Site. In addition to the basic work uniform specified by Level D protection, Nitrile gloves will be required when contact with soil or ground water is likely. Hearing protection will be worn when power equipment is used to perform subsurface investigation work. An upgrade to a higher level (Level C) of protection may occur if determined necessary by the HSO.

SECTION 6 - MONITORING PROCEDURES

6.1 Monitoring During Site Operations

All Site environmental monitoring should be accompanied by periodic meteorological monitoring of appropriate climatic conditions.

6.1.1 Drilling Operations (Monitoring Well Installation and Subsurface Borings)

Monitoring will be performed by the HSO or drilling observer during the conduct of work. A photoionization detector (PID) equipped with an appropriate map (e.g. 10.6 or 11.7 eV) will be utilized to monitor for the presence of volatile organic vapors within the breathing zone, the borehole, and subsurface samples upon their retrieval. Drill cuttings and excavation spoils will also be monitored by use of the PID. The PID will be field checked for calibration accuracy three times per day (morning, lunch, and end of day. If subsurface conditions warrant, a combustible gas indicator (CGI) with oxygen alarm may also be used to monitor the borehole for the presence of combustible gases. Similar monitoring of fluids produced during well development will also be conducted.

6.2 Action Levels

The action threshold for VOCs established in the CAMP is 5 ppm above background. If this value is exceeded for the 15-minute average work will be halted and work may resume once instantaneous readings fall below 5 ppm work.

The action level for dust is 100 (µg/m3) over background during a 15-minute average. If this limit is exceeded, dust suppression techniques will be employed, including using water to wet the area.

6.3 Personal Monitoring Procedures

Personal monitoring shall be performed as a contingency measure in the event that VOC concentrations are consistently above the 10 ppm action level as detected by the PID. If the concentration of VOCs is above this action level, then amendments to the HASP must be made before work can continue at the Site.

SECTION 7 – COMMUNICATIONS

Cell phones will be the primary means of communicating with emergency support services/facilities.

SECTION 8 - SAFETY CONSIDERATIONS FOR SITE OPERATIONS

8.1 General

Standard safe work practices that will be followed include:

- Do not climb over/under drums, or other obstacles.
- Do not enter the work zone alone.
- Practice contamination avoidance, on and off-site.
- Plan activities ahead of time, use caution when conducting concurrently running activities.
- No eating, drinking, chewing or smoking is permitted in work zones.
- Due to the unknown nature of waste placement at the Site, extreme caution should be practiced during excavation activities.
- Apply immediate first aid to any and all cuts, scratches, abrasions, etc.
- Be alert to your own physical condition. Watch your buddy for signs of fatigue, exposure, etc.
- A work/rest regimen will be initiated when ambient temperatures and protective clothing create a potential heat or cold stress situation.
- No work will be conducted without adequate natural light or without appropriate supervision.
- Task safety briefings will be held prior to onset of task work.
- Ignition of flammable liquids within or through improvised heating devices (barrels, etc.) or space heaters is forbidden.
- Entry into areas of spaces where toxic or explosive concentrations of gases or dust may exist without proper equipment is prohibited.
- Any injury or unusual health effect must be reported to the Site health and safety officer.
- Prevent splashing or spilling of potentially contaminated materials.
- Use of contact lenses is prohibited while on site.
- Beards and other facial hair that would impair the effectiveness of respiratory protection are prohibited if respiratory protection is necessary.
- Field crew members should be familiar with the physical characteristics of investigations, including:

    - Wind direction in relation to potential sources
    - Accessibility to co-workers, equipment, and vehicles
    - Communication
    - Hot zones (areas of known or suspected contamination)
    - Site access
    - Nearest water sources

- The number of personnel and equipment in potentially contaminated areas should be minimized consistent with site operations.

8.2 Field Operations

The HSO or designee will be present on-site during all intrusive work (e.g., drilling operations, excavations, trenching) and will provide monitoring to oversee that appropriate levels of protection and safety procedures are utilized by C&S personnel. The use of salamanders or other equipment with an open flame is prohibited and the use of protective clothing, especially hard hats and boots, will be required during drilling or other heavy equipment operations.

SECTION 9 - DECONTAMINATION PROCEDURES

Decontamination involves physically removing contaminants and/or converting them chemically into innocuous substances. Only general guidance can be given on methods and techniques for decontamination. Decontamination procedures are designed to:

- Remove contaminant(s).
- Avoid spreading the contamination from the work zone.
- Avoid exposing unprotected personnel outside of the work zone to contaminants.

Contamination avoidance is the first and best method for preventing spread of contamination from a hazardous site. Each person involved in site operations must practice the basic methods of contamination avoidance listed below. Additional precautions may be required in the HASP.

- Know the limitations of all protective equipment being used.
- Do not enter a contaminated area unless it is necessary to carry out a specific objective.
- When in a contaminated area, avoid touching anything unnecessarily.
- Walk around pools of liquids, discolored areas, or any area that shows evidence of possible contamination.
- Walk upwind of contamination, if possible.
- Do not sit or lean against anything in a contaminated area. If you must kneel (e.g., to take samples), use a plastic ground sheet.
- If at all possible, do not set sampling equipment directly on contaminated areas. Place equipment on a protective cover such as a ground cloth.
- Use the proper tools necessary to safely conduct the work.

Specific methods that may reduce the chance of contamination are:

- Use of remote sampling techniques.
- Opening containers by non-manual means.
- Bagging monitoring instruments.
- Use of drum grapplers.
- Watering down dusty areas.

Equipment which will need to be decontaminated includes tools, monitoring equipment, and personal protective equipment. Items to be decontaminated will be brushed off, rinsed, and dropped into a plastic container supplied for that purpose. They will then be washed with a detergent solution and rinsed with clean water. Monitoring instruments may be wrapped in plastic bags prior to entering the field in order to reduce the potential for contamination. Instrumentation that is contaminated during field operations will be carefully wiped down. Heavy equipment, if utilized for operations where it may be contaminated, will have prescribed decontamination procedures to prevent contaminant materials from potentially leaving the Site. On-site contractors, such as drillers or backhoe operators, will be responsible for decontaminating all construction equipment prior to demobilization.

SECTION 10 – DISPOSAL PROCEDURES

All discarded materials, waste materials, or other objects shall be handled in such a way as to reduce or eliminate the potential for spreading contamination, creating a sanitary hazard, or causing litter to be left on-site. All potentially contaminated materials, e.g., clothing, gloves, etc., will be bagged or drummed as necessary and segregated for proper disposal. All contaminated waste materials shall be disposed of as required by the provisions included in the contract and consistent with regulatory provisions. All non-contaminated materials shall be collected and bagged for appropriate disposal. Investigation Derived Waste (IDW) will be managed and characterized. Characterization of IDW may require TCLP sampling and analysis consistent with the work plan for the Site and DER-10 Technical Guidance for Site Investigation and Remediation.

SECTION 11 - EMERGENCY RESPONSE PROCEDURES

As a result of the hazards at the Site, and the conditions under which operations are conducted, there is the possibility of emergency situations. This section establishes procedures for the implementation of an emergency plan.

11.1 Emergency Coordinator

Emergency Coordinator:..... Alex Brennen.....*Work Phone:* (716) 427-6385

The Emergency Coordinator or his on-site designee will, in concert with Laborers Way 2, LLC, implement the emergency response procedures whenever conditions at the Site warrant such action. The Emergency Coordinator or his on-site designee will be responsible for assuring the evacuation, emergency treatment, emergency transport of C&S personnel as necessary, and notification of emergency response units (**refer to phone listing** in the beginning of this HASP) and the appropriate management staff.

11.2 Evacuation

In the event of an emergency situation, such as fire, explosion, significant release of toxic gases, etc., all personnel will evacuate and assemble in a designated assembly area. The Emergency Coordinator or his on-site designee will have authority to contact outside services as required. Under no circumstances will incoming personnel or visitors be allowed to proceed into the area once the emergency signal has been given. The Emergency Coordinator or his on-site designee must see that access for emergency equipment is provided and that all ignition sources have been shut down once the emergency situation is established. Once the safety of all personnel is established, the Fire Department and other emergency response groups will be notified by telephone of the emergency.

11.3 Potential or Actual Fire or Explosion

Immediately evacuate the Site and notify local fire and police departments, and other appropriate emergency response groups, if LEL values are above 25% in the work zone or if an actual fire or explosion has taken place.

11.4 Environmental Incident (spread or release of contamination)

Control or stop the spread of contamination if possible. Notify the Emergency Coordinator and the Project Manager. Other appropriate response groups will be notified as appropriate.

11.5 Personnel Injury

Emergency first aid shall be applied on-site as necessary. Then, decontaminate (en route if necessary) and transport the individual to nearest medical facility if needed. The ambulance/rescue squad shall be contacted for transport as necessary in an emergency. A map of directions to the nearest hospital is shown in **Attachment A**.

11.6 Personnel Exposure

- *Skin Contact*: Use copious amounts of soap and water. Wash/rinse affected area thoroughly, and then provide appropriate medical attention. Eyes should be thoroughly rinsed with water for at least 15 minutes.
- *Inhalation*: Move to fresh air and/or, if necessary, decontaminate and transport to emergency medical facility.
- *Ingestion*: Decontaminate and transport to emergency medical facility.
- *Puncture Wound/Laceration*: Decontaminate, if possible, and transport to emergency medical facility.

11.7 Adverse Weather Conditions

In the event of adverse weather conditions, the HSO will determine if work can continue without sacrificing the health and safety of field workers.

11.8 Incident Investigation and Reporting

In the event of an incident, procedures discussed in the Medical Emergency/Incident Response Protocol, presented in **Appendix A** of this HASP, shall be followed.

SECTION 12 – COMMUNITY RELATIONS

13.1 Community Health and Safety Plan

13.1.1 Community Health and Safety Monitoring

As part of the site work, three general types of efforts are scheduled, including, non-intrusive reconnaissance tasks, sampling or monitoring tasks (monitoring point sampling), and intrusive tasks (test trenching, subsurface borings, monitoring well installation). During completion of general reconnaissance and sampling or monitoring tasks, potential for health and safety risks to off-site landowners or the local community are not anticipated.

During completion of intrusive efforts at or adjacent to the Site; health and safety monitoring efforts will be concentrated on the area or areas in which intrusive efforts are being completed. Since the air pathway is the most available and likely avenue for the release of potential contaminants to the atmosphere at or near the Site, in addition to limiting public or community access to the areas in which intrusive efforts are completed, health and safety measures will primarily consist of monitoring the air pathway for worker exposure.

13.1.2 Community Air Monitoring Plan

Efforts will be taken to complete field work in a manner which will minimize the creation of airborne dust or particulates. Under dry conditions, work areas may be wetted to control dust. During periods of extreme wind, intrusive field work may be halted until such time as the potential for creating airborne dust or particulate matter as a result of investigation activities is limited. Periodic monitoring following the guidelines of the site's Community Air Monitoring Plan (CAMP) will be implemented during all non-intrusive Site investigation activities, including surface soil and sediment sampling, and collection of groundwater samples from groundwater monitoring wells.

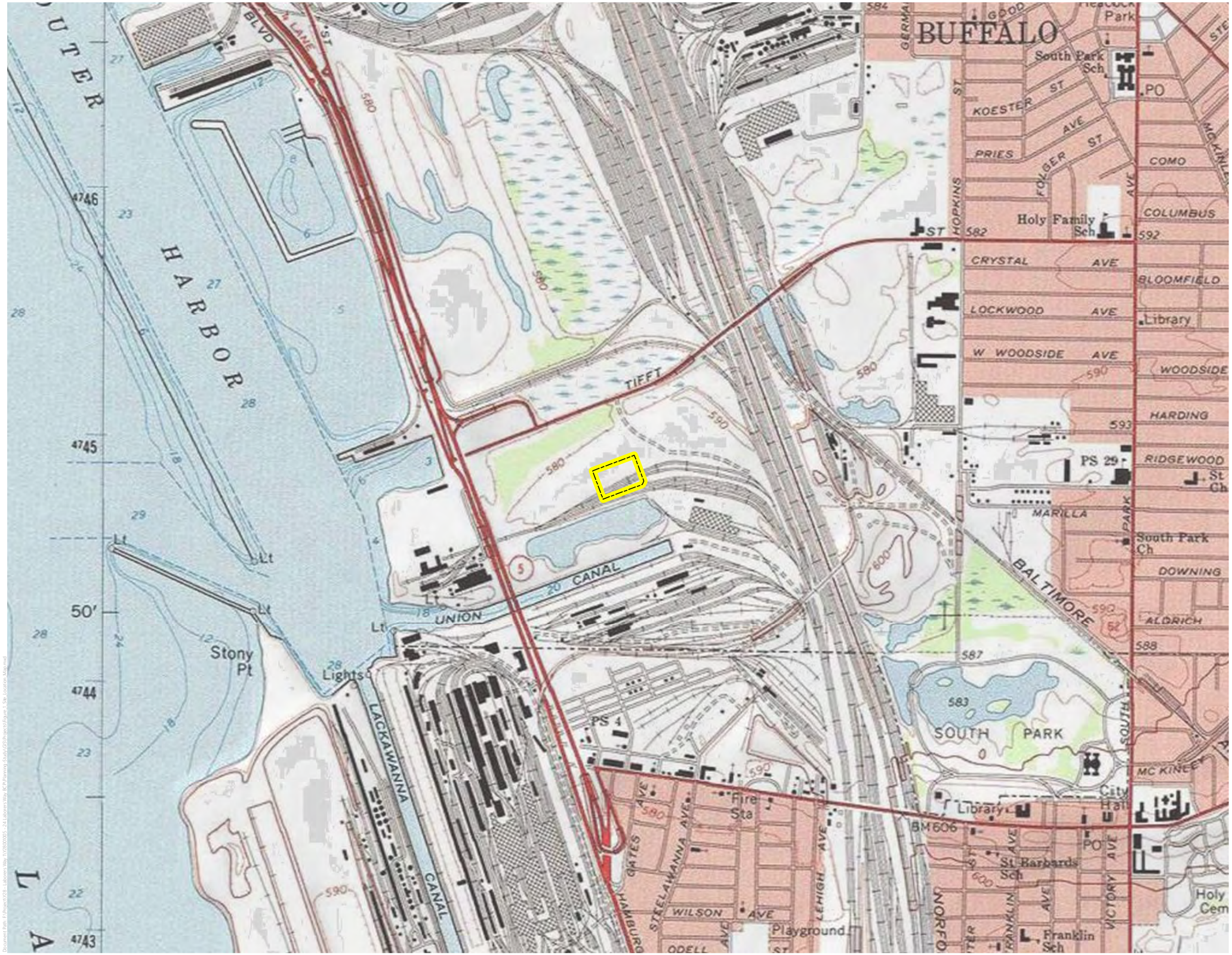
During completion of Site investigation, a CAMP will be implemented for the duration of intrusive activities. These additional air monitoring activities will include establishment of background conditions, continuous monitoring for volatile organic compounds and/or particulates at the downwind work area (exclusion zone) perimeter, recording of monitoring data, and institution and documentation of response levels and appropriate actions consistent with NYSDOH guidance.

SECTION 13 - AUTHORIZATIONS

Personnel authorized to enter the Site while operations are being conducted must be approved by the HSO. Authorization will involve completion of appropriate training courses, medical examination requirements, and review and sign-off of this HASP. No C&S personnel should enter the work zone alone. Each site visitor should check in with the HSO or Project Manager prior to entering the work zones.

FIGURE 1

SITE LOCATION MAP



C&S COMPANIES®

Figure 1

Project Location Map

Legend

BCP Boundary

N

0 600 1,200 2,400 Feet

1 inch = 1,200 feet
When printed at 11 in. by 17 in.

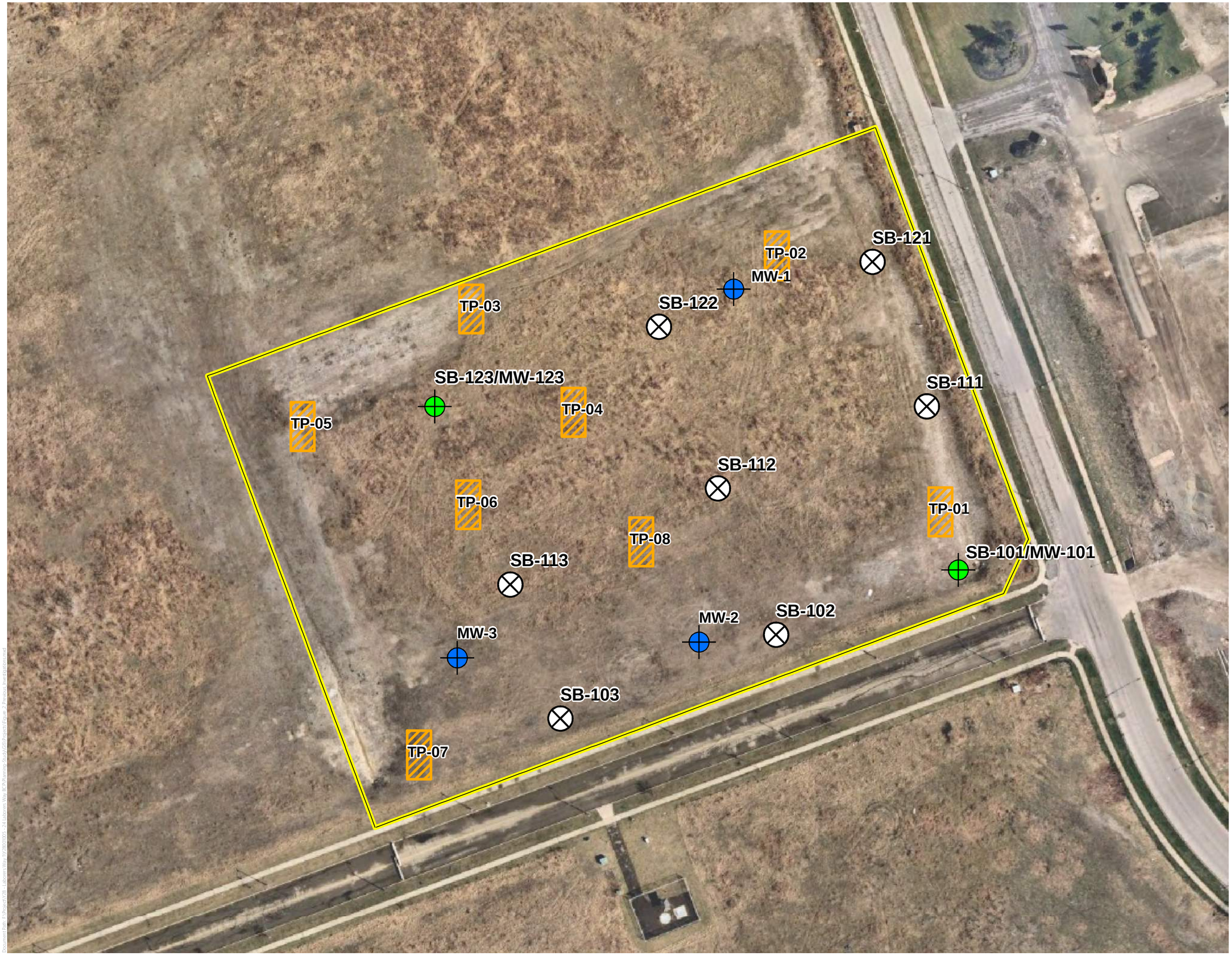
24 Laborers Way BCP

Sources: . Created by C&S Engineers, Inc.

Document Path: P:\Projects\08 - Laborers Way, 10\20200505 - 24 Laborers Way, BCP\Planning & Exh\GIS\Projects\Figure 1 Site Location Mapmxd

FIGURE 2

SITE DETAIL PHOTO



C&S COMPANIES®

Figure 2

Sample Location Map

Legend

- BCP Boundary
- Soil Borings/Well - 2019
- Soil Borings - 2019
- Test Pits - 2022
- Monitoring Wells - 2022

N

0 37.5 75 150 Feet

1 inch = 75 feet
When printed at 11 in. by 17 in.

24 Laborers Way BCP

Sources: . Created by C&S Engineers, Inc.

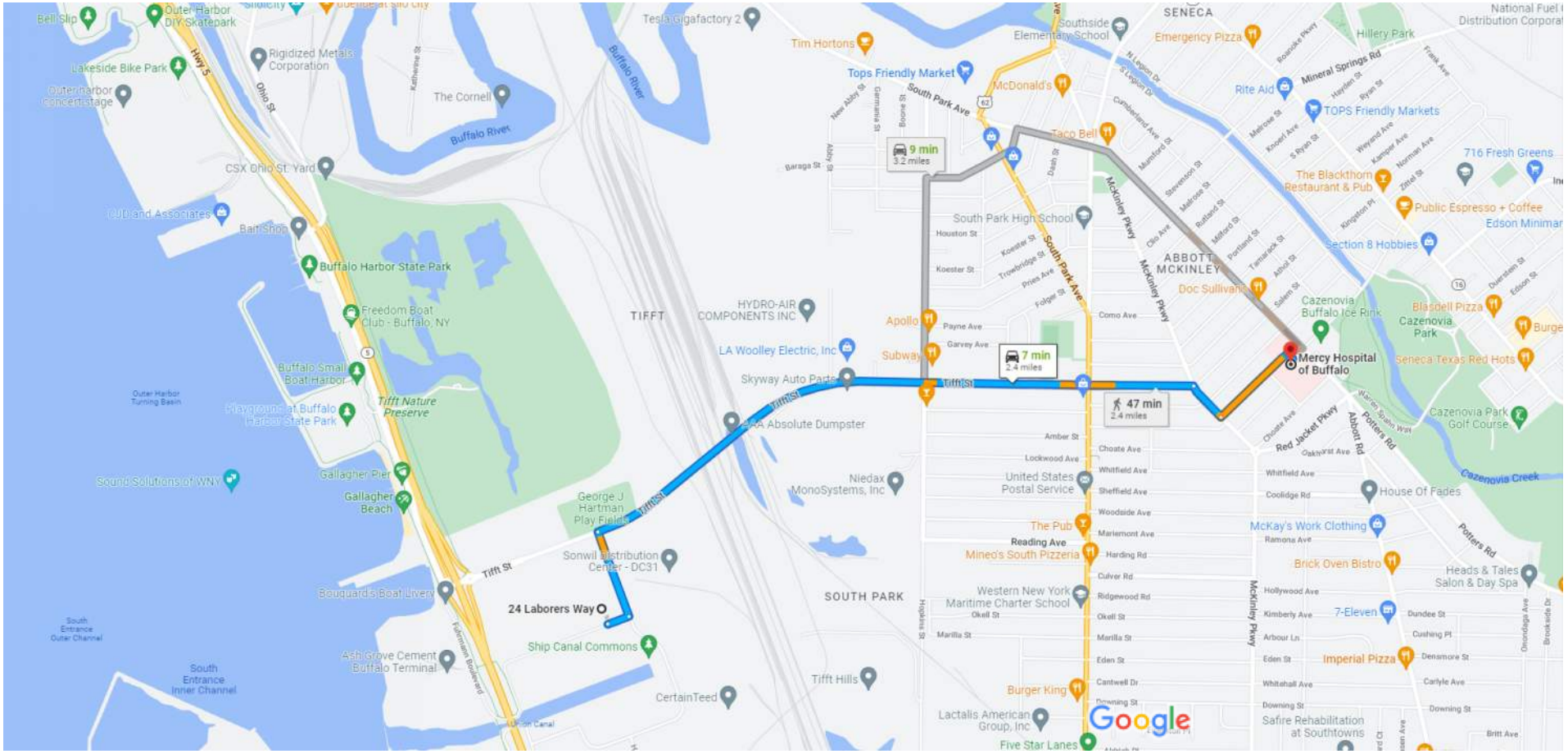
Document Path: I:\Projects\VOB_Laborers Way BCP\2019\05 - 24 Laborers Way BCP\Planning Study\GIS\Projects\Figure 2 - Previous Investigations.mxd

ATTACHMENT A

MAP TO HOSPITAL

Google Maps 24 Laborers Way, Buffalo, NY 14203 to Mercy Hospital of Buffalo, 565 Abbott Rd, Buffalo, NY 14220

Drive 2.4 miles, 7 min



Map data ©2022 1000 ft

24 Laborers Way
Buffalo, NY 14203

1. ↑ Head east on Laborers Way toward Ship Canal Pkwy

318 ft

Appendix A

GUIDANCE ON INCIDENT INVESTIGATION AND REPORTING

MEDICAL EMERGENCY / INCIDENT RESPONSE PROTOCOL

1.0 PURPOSE

From time to time employees of C&S Engineers, Inc. will sustain an injury while working on the job. While every effort is being made to prevent this, in the event of an injury or illness on the job, the following procedures will be implemented. This format may also be utilized in the event of a property damage incident.

2.0 SCOPE

This guideline applies to all C&S Engineers, Inc. job sites and employees.

3.0 GUIDELINES

Upon notification or awareness of an incident/accident with injuries or illness the Emergency Coordinator or his On-Site Designee will:

1. Ensure that the injured employee is receiving immediate first aid and medical care.
2. Notify Emergency Services (911) if injuries are severe.
3. Stabilize the work area; ensure that no one else can be injured.
4. Notify the Project Manager at the earliest possible convenience.
5. Notify the Owner/Client at the earliest possible convenience.

To assist the Health and Safety Manager in the root cause analysis, the Emergency Coordinator or his On-Site Designee will also make an attempt to:

1. Obtain the names and phone numbers of witnesses.
2. Preserve the accident scene if possible for analysis.

3.1 Injury Management

1. If the patient is stable with non-life threatening injuries, the foreman will ensure the employee is transported to the emergency medical facility listed in Section 1 of the HASP. Directions to the nearest emergency medical facility are located in **Attachment A** of the HASP.

At no time will an injured employee drive themselves to medical care.

2. If the patient has serious or life threatening injuries, the emergency coordinator or his on- site designee will notify the emergency services for the area for treatment and transport to a hospital or emergency room. Serious injuries can be considered but not limited to head injuries, loss of consciousness, severe laceration or amputation, fractured bones, burns and eye injuries.

3. Following the treatment and care of the injured employee, the emergency coordinator or his on-site designee and the project manager will initiate the completion of the first injury report. The Health & Safety Manager will assist.

3.2 Project Manager

1. Upon notification of a personal injury or illness on the job site, will notify C&S Engineers, Inc, President and Corporate Legal and C&S Companies Health and Safety Manager.
2. Will report to the worksite to initiate the first injury report.
3. Will report to the treatment facility to check on the well being of the injured employee.
4. The project manager will ensure that the treatment facility is aware that this is a workers compensation case.
5. Will assist the Health and Safety Manager in the analysis of the incident.

3.3 Health & Safety Manager

1. Upon notification of the personal injury will determined if it is necessary to report to the treatment facility or the accident site, depending on the nature of the injuries and the circumstances of the accident.
2. Will report to the worksite to begin a root cause analysis investigation of the accident.
3. The investigation may include interview of witnesses, field crew , and project manager, the photographing of the scene, reconstruction of the accident scene, using test instruments and taking measurements. The Health and Safety Manager may draw diagrams from the information learned.
4. The Health and Safety Manager will work with the owner/client as necessary to investigate the accident.
5. The Health & Safety manager will ensure that the site is safe to resume work.
6. The Health & Safety Manager shall initiate the New York State Compensation form requirements (C-2) and forward a copy of the C-2 to the C & S Engineers, Inc. controller for transmittal to the Compensation Carrier within 8 hrs of notification of the incident or by the end of the next business day.
7. The Health and Safety manager, upon completion of the investigation, will provide the
8. Project Manager with a written investigative report (copy to the President)
9. The accident will be reviewed at the next Project Managers meeting with the intent to prevent further or similar events on other projects.
10. The Health & Safety Manager will assess the incident to determine OSHA record ability and make record if necessary on the OSHA 300 form, within five working days.

4.0 INCIDENT RESPONSE

4.1 Purpose

To prevent the occurrence of accidents on C&S Engineers, Inc., work sites and to establish a procedure for investigation and reporting of incidents occurring in, or related to C&S work activities.

4.2 Scope

Applies to all incidents related to C&S Engineers, Inc. work activities.

4.3 Definitions

Accident - An undesired event resulting in personal injury and/or property damage, and/or equipment failure.

Fatality - An injury or illness resulting in death of the individual.

Incident - Any occurrence which results in, or could potentially result in, the need for medical care or property damage. Such incidents shall include lost time accidents or illness, medical treatment cases, unplanned exposure to toxic materials or any other significant occurrence resulting in property damage or in "near misses."

Incidence Rate - the number of injuries, illnesses, or lost workdays related to a common exposure base of 100 full-time workers. The rate is calculated as:

N/EH x 200,000

N = number of injuries and illnesses or lost workday cases; EH = total hours worked by all associates during calendar year. 200,000 = base for 100 full-time equivalent workers (working 40 hours per week, 50 weeks per year).

Injury - An injury such as a cut, fracture, sprain, amputation, etc. which results from a work accident or from a single instantaneous event in the work environment.

Lost Workday Case - A lost workday case occurs when an injured or ill employee experiences days away from work beginning with the next scheduled work day. Lost workday cases do not occur unless the employee is effected beyond the day of injury or onset of illness.

Recordable Illness - An illness that results from the course of employment and must be entered on the OSHA 300 Log and Summary of Occupational Injuries and Illnesses. These illnesses require medical treatment and evaluation of work related injury. For example, dermatitis, bronchitis, irritation of eyes, nose, and throat can result from work and non-work related incidents.

Recordable Injury - An injury that results from the course of employment and must be entered on the OSHA 300 Log and Summary of Occupational Injuries and Illnesses. These injuries require medical treatment; may involve loss of consciousness; may result in restriction of work or motion or transfer to another job; or result in a fatality.

Near Miss - An incident which, if occurring at a different time or in a different personnel or equipment configuration, would have resulted in an incident.

4.4 Responsibilities

Employees - It shall be the responsibility of all C&S Engineers, Inc. employees to report all incidents as soon as possible to the HSC, regardless of the severity.

Human Resources - has overall responsibility for maintaining accident/ incident reporting and investigations according to current regulations and recording injuries/ illness on the OSHA 300 log, and posting the OSHA 300 log.

Emergency Coordinator - It is the responsibility of the Emergency Coordinator to investigate and prepare an appropriate report of all accidents, illnesses, and incidents occurring on or related to C&S Engineers, Inc. work. The Emergency Coordinator shall complete **Attachment A** within 24 hours of the incident occurrence.

Health and Safety Manager (HSM) - It is the responsibility of the HSM to investigate and prepare an appropriate report of all lost time injuries and illnesses and significant incidents occurring on or related to C&S Companies. The HSM shall maintain the OSHA 300 form.

Project Managers (PM) - It shall be the PM's responsibility to promptly correct any deficiencies in personnel, training, actions, or any site or equipment deficiencies that were determined to cause or contribute to the incident investigated.

5.0 GUIDELINES

5.1 Incident Investigation

The Project Manager will immediately investigate the circumstances surrounding the incident and will make recommendations to prevent recurrence. The HSM shall be immediately notified by telephone if a serious accident/ incident occurs. The incident shall be evaluated to determine whether it is OSHA recordable. If the incident is determined to be OSHA 300 recordable, it shall be entered on the OSHA 300 form.

The Project Manager with assistance from the HSM must submit to the office an incident report form pertaining to any incident resulting in injury or property damage.

5.2 Incident Report

The completed incident report must be completed by the Project Manager within 12 hours of the incident and distributed to the HSM, and Human Resources. This form shall be maintained by Human Resources for at least five years for all OSHA recordable cases. This form serves as an equivalent to the OSHA 101 form.

5.3 Incident Follow-up Report

The Incident Follow-Up Report (**Attachment B**) shall be distributed with the Incident Report within one week of the incident. Delay in filing this report shall be explained in a brief memorandum.

5.4 Reporting of Fatalities or Multiple Hospitalization Accidents

Fatalities or accidents resulting in the hospitalization of three or more employees must be reported to OSHA verbally or in writing within 8 hours. The report must contain 1) circumstances surrounding the accident(s), 2) the number of fatalities, and 3) the extent of any injuries.

5.5 OSHA 300A Summary Form

Recordable cases must be entered on the log within six workdays of receipt of the information that a recordable case has occurred. The OSHA log must be kept updated to within 45 calendar days.

OSHA 300 forms must be updated during the 5 year retention period, if there is a change in the extent or outcome of an injury or illness which affects an entry on a log. If a change is necessary, the original entry should be lined out and a corrected entry made on that log. New entries should be made for previously unrecorded cases that are discovered or for cases that initially weren't recorded but were found to be recordable after the end of the year. Log totals should also be modified to reflect these changes.

5.6 Posting

The log must be summarized at the end of the calendar year and the summary must be posted from February 1 through May 31.

5.7 OSHA 300A

Facilities selected by the Bureau of Labor Statistics (BLS) to participate in surveys of occupational injuries and illnesses will receive the OSHA 300A. The data from the annual summary on the OSHA 300 log should be transferred to the OSHA 300A, other requested information provided and the form returned as instructed by the BLS.

5.8 Access to OSHA Records

All OSHA records (accident reporting forms and OSHA 300 logs) should be available for inspection and copying by authorized Federal and State government officials.

Employees, former employees, and their representatives must be given access for inspection and copying to only the log, OSHA No. 300, for the establishment in which the employee currently works or formerly worked.

6.0 REFERENCES

29 CFR Part 1904

7.0 ATTACHMENTS

Attachment A - Incident Investigation Form
Attachment B - Incident Follow-Up Report
Attachment C - Establishing Recordability

ATTACHMENT A

INCIDENT INVESTIGATION FORM

Accident investigation should include:

Location: _____

Time of Day: _____

Accident Type: _____

Victim: _____

Nature of Injury: _____

Released Injury: _____

Hazardous Material: _____

Unsafe Acts: _____

Unsafe Conditions: _____

Policies, Decisions: _____

_____

Personal Factors: _____

_____

Environmental Factors: _____

_____

_____

ATTACHMENT B

INCIDENT FOLLOW-UP REPORT

Date _____

Foreman: _____

Date of Incident: _____

Site: _____

Brief description of incident: _____

_____

_____

_____

_____

Outcome of incident: _____

_____

_____

_____

Physician's recommendations: _____

_____

_____

_____

Date the injured returned to work: _____

Project Manager Signature: _____

Date: _____

ATTACH ANY ADDITIONAL INFORMATION TO THIS FORM

ATTACHMENT C

ESTABLISHING RECORDABILITY

1. Deciding whether to record a case and how to classify the case.

   Determine whether a fatality, injury or illness is recordable.

   A fatality is recordable if:

   - Results from employment

   An injury is recordable if:

   - Results from employment and
   - It requires medical treatment beyond first aid or
   - Results in restricted work activity or job transfer, or
   - Results in lost work day or
   - Results in loss of consciousness

   An illness is recordable if:

   - It results from employment

2. Definition of "Resulting from Employment"

   Resulting from employment is when the injury or illness results from an event or exposure in the work environment. The work environment is primarily composed of: 1) The employer's premises, and 2) other locations where associates are engaged in work-related activities or are present as a condition of their employment.

   The employer's premises include company rest rooms, hallways, cafeterias, sidewalks and parking lots. Injuries occurring in these places are generally considered work related.

   The employer's premises EXCLUDES employer controlled ball fields, tennis courts, golf courses, parks, swimming pools, gyms, and other similar recreational facilities, used by associates on a voluntary basis for their own benefit, primarily during off work hours.

   Ordinary and customary commute, is not generally considered work related.

   Employees injured or taken ill while engaged in consuming food, as part of a normal break or activity is not considered work related. Employees injured or taken ill as the result of smoking, consuming illegal drugs, alcohol or applying make up are generally not considered work related. Employee injured by un authorized horseplay is generally not considered work related, however, an employee injured as a result of a fight or other workplace violence act, may be considered work related.

Associates who travel on company business are considered to be engaged in work related activities all the time they spend in the interest of the company. This includes travel to and from customer contacts, and entertaining or being entertained for purpose of promoting or discussing business. Incidents occurring during normal living activities (eating, sleeping, recreation) or if the associate deviates from a reasonably direct route of travel are not considered OSHA recordable.

3. Distinction between Medical Treatment and First Aid.

First aid:

Any one-time treatment, and any follow up visit for the purpose of observation, of minor scratches, cuts, burns, splinters, etc., which do not ordinarily require medical care. Such one time treatment, and follow up visit for the purpose of observation, is considered first aid even though provided by a physician or registered professional personnel.

Medical Treatment (recordable):

a) Must be treated only by a physician or licensed medical personnel.
b) Impairs bodily function (i.e. normal use of senses, limbs, etc.).
c) Results in damage to physical structure of a non-superficial nature (fractures).
d) Involves complications requiring follow up medical treatment.

Appendix G
Sub Slab Depressurization System Design

Appendix H
Community Air Monitoring Plan

Community Air Monitoring Plan

for

24 LABORERS WAY SITE
24 LABORERS WAY
CITY OF BUFFALO, ERIE COUNTY, NEW YORK

BCP SITE NO. C915322

October 2022

Community Air Monitoring Plan

Overview

A Community Air Monitoring Plan (CAMP) requires real-time monitoring for volatile organic compounds (VOCs) and particulates (i.e., dust) at the downwind perimeter of each designated work area when certain activities are in progress at contaminated sites. The CAMP is not intended for use in establishing action levels for worker respiratory protection. Rather, its intent is to provide a measure of protection for the downwind community (i.e., off-site receptors including residences and businesses and on-site workers not directly involved with the subject work activities) from potential airborne contaminant releases as a direct result of investigative and remedial work activities. The action levels specified herein require increased monitoring, corrective actions to abate emissions, and/or work shutdown. Additionally, the CAMP helps to confirm that work activities did not spread contamination off-site through the air.

Depending upon the nature of known or potential contaminants at each site, real-time air monitoring for VOCs and/or particulate levels at the perimeter of the exclusion zone or work area will be necessary.

Continuous monitoring will be required for all ground intrusive activities and during the demolition of contaminated or potentially contaminated structures. Ground intrusive activities include, but are not limited to, soil / waste excavation and handling, test pitting or trenching, and the installation of soil borings or monitoring wells.

Periodic monitoring for VOCs will be required during non-intrusive activities such as the collection of soil and sediment samples or the collection of groundwater samples from existing monitoring wells. "Periodic" monitoring during sample collection might reasonably consist of taking a reading upon arrival at a sample location, monitoring while opening a well cap or overturning soil, monitoring during well baling/purging, and taking a reading prior to leaving a sample location. In some instances, depending upon the proximity of potentially exposed individuals, continuous monitoring may be required during sampling activities. Examples of such situations include groundwater sampling at wells on the curb of a busy urban street, in the midst of a public park, or adjacent to a school or residence.

<u>VOC Monitoring, Response Levels and Actions</u>

Volatile organic compounds (VOCs) must be monitored at the downwind perimeter of the immediate work area (i.e., the exclusion zone) on a continuous basis or as otherwise specified. Upwind concentrations should be measured at the start of each workday and periodically thereafter to establish background conditions, particularly if wind direction changes. The monitoring work should be performed using equipment appropriate to measure the types of contaminants known or suspected to be present. The equipment should be calibrated at least daily for the contaminant(s) of concern or for an appropriate

surrogate, such as isobutylene. The equipment should be capable of calculating 15-minute running average concentrations, which will be compared to the levels specified below.

1. If the ambient air concentration of total organic vapors at the downwind perimeter of the work area or exclusion zone exceeds 5 parts per million (ppm) above background for the 15-minute average, work activities must be temporarily halted and monitoring continued. If the total organic vapor level readily decreases (per instantaneous readings) below 5 ppm over background, work activities can resume with continued monitoring.

2. If total organic vapor levels at the downwind perimeter of the work area or exclusion zone persist at levels in excess of 5 ppm over background but less than 25 ppm, work activities must be halted, the source of vapors identified, corrective actions taken to abate emissions, and monitoring continued. After these steps, work activities can resume provided that the total organic vapor level 200 feet downwind of the exclusion zone or half the distance to the nearest potential receptor or residential/commercial structure, whichever is less - but in no case less than 20 feet, is below 5 ppm over background for the 15-minute average.

3. If the organic vapor level is above 25 ppm at the perimeter of the work area, activities must be shutdown.

4. All 15-minute readings must be recorded and be available for State (DEC and NYSDOH) personnel to review. Instantaneous readings, if any, used for decision purposes should also be recorded.

Particulate Monitoring, Response Levels, and Actions

Particulate concentrations should be monitored continuously at the upwind and downwind perimeters of the exclusion zone at temporary particulate monitoring stations. The particulate monitoring should be performed using real-time monitoring equipment capable of measuring particulate matter less than 10 micrometers in size (PM-10) and capable of integrating over a period of 15 minutes (or less) for comparison to the airborne particulate action level. The equipment must be equipped with an audible alarm to indicate exceedance of the action level. In addition, fugitive dust migration should be visually assessed during all work activities.

1. If the downwind PM-10 particulate level is 100 micrograms per cubic meter (mcg/m^3) greater than background (upwind perimeter) for the 15-minute period or if airborne dust is observed leaving the work area, then dust suppression techniques must be employed. Work may continue with dust suppression techniques provided that downwind PM-10 particulate levels do not exceed 150 mcg/m^3 above the upwind level and provided that no visible dust is migrating from the work area.

2. If, after implementation of dust suppression techniques, downwind PM-10 particulate levels are greater than 150 mcg/m^3 above the upwind level, work must be stopped and a re-evaluation of activities initiated. Work can resume provided that dust

suppression measures and other controls are successful in reducing the downwind PM-10 particulate concentration to within 150 mcg/m3 of the upwind level and in preventing visible dust migration.

3. All readings must be recorded and be available for State (DEC and NYSDOH) and County Health personnel to review.

Fugitive Dust and Particulate Monitoring

A program for suppressing fugitive dust and particulate matter monitoring at hazardous waste sites is a responsibility on the remedial party performing the work. These procedures must be incorporated into appropriate intrusive work plans. The following fugitive dust suppression and particulate monitoring program should be employed at sites during construction and other intrusive activities which warrant its use:

1. Reasonable fugitive dust suppression techniques must be employed during all site activities which may generate fugitive dust.

2. Particulate monitoring must be employed during the handling of waste or contaminated soil or when activities on site may generate fugitive dust from exposed waste or contaminated soil. Remedial activities may also include the excavation, grading, or placement of clean fill. These control measures should not be considered necessary for these activities.

3. Particulate monitoring must be performed using real-time particulate monitors and shall monitor particulate matter less than ten microns (PM10) with the following minimum performance standards:

(a) Objects to be measured: Dust, mists or aerosols;
(b) Measurement Ranges: 0.001 to 400 mg/m3 (1 to 400,000 :ug/m3);
(c) Precision (2-sigma) at constant temperature: +/- 10 :g/m3 for one second averaging; and +/- 1.5 g/m3 for sixty second averaging;
(d) Accuracy: +/- 5% of reading +/- precision (Referred to gravimetric calibration with SAE fine test dust (mmd= 2 to 3 :m, g= 2.5, as aerosolized);
(e) Resolution: 0.1% of reading or 1g/m3, whichever is larger;
(f) Particle Size Range of Maximum Response: 0.1-10;
(g) Total Number of Data Points in Memory: 10,000;
(h) Logged Data: Each data point with average concentration, time/date and data point number;
(i) Run Summary: overall average, maximum concentrations, time/date of maximum, total number of logged points, start time/date, total elapsed time (run duration), STEL concentration and time/date occurrence, averaging (logging) period, calibration factor, and tag number;
(j) Alarm Averaging Time (user selectable): real-time (1-60 seconds) or STEL (15 minutes), alarms required;

(k) Operating Time: 48 hours (fully charged NiCd battery); continuously with charger;
(l) Operating Temperature: -10 to 50$_o$ C (14 to 122$_o$ F); and
(m) Particulate levels will be monitored upwind and immediately downwind at the working site and integrated over a period not to exceed 15 minutes.

4. In order to ensure the validity of the fugitive dust measurements performed, there must be appropriate Quality Assurance/Quality Control (QA/QC). It is the responsibility of the remedial party to adequately supplement QA/QC Plans to include the following critical features: periodic instrument calibration, operator training, daily instrument performance (span) checks, and a record-keeping plan.

5. The action level will be established at 150 ug/m3 (15 minutes average). While conservative, this short-term interval will provide a real-time assessment of on-site air quality to assure both health and safety. If particulate levels are detected in excess of 150 ug/m3, the upwind background level must be confirmed immediately. If the working site particulate measurement is greater than 100 ug/m3 above the background level, additional dust suppression techniques must be implemented to reduce the generation of fugitive dust and corrective action taken to protect site personnel and reduce the potential for contaminant migration. Corrective measures may include increasing the level of personal protection for on-site personnel and implementing additional dust suppression techniques (see paragraph 7). Should the action level of 150 ug/m3 continue to be exceeded work must stop and DER must be notified as provided in the site design or remedial work plan. The notification shall include a description of the control measures implemented to prevent further exceedances.

6. It must be recognized that the generation of dust from waste or contaminated soil that migrates off-site, has the potential for transporting contaminants off-site. There may be situations when dust is being generated and leaving the site and the monitoring equipment does not measure PM-10 at or above the action level. Since this situation has the potential to allow for the migration of contaminants off-site, it is unacceptable. While it is not practical to quantify total suspended particulates on a real-time basis, it is appropriate to rely on visual observation. If dust is observed leaving the working site, additional dust suppression techniques must be employed.

7. The following techniques have been shown to be effective for the controlling of the generation and migration of dust during construction activities:

(a) Applying water on haul roads;
(b) Wetting equipment and excavation faces;
(c) Spraying water on buckets during excavation and dumping;
(d) Hauling materials in properly tarped or watertight containers;
(e) Restricting vehicle speeds to 10 mph;
(f) Covering excavated areas and material after excavation activity ceases; and
(g) Reducing the excavation size and/or number of excavations.

Experience has shown that the chance of exceeding the 150ug/m3 action level is remote when the above-mentioned techniques are used. When techniques involving water application are used, care must be taken not to use excess water, which can result in unacceptably wet conditions. Using atomizing sprays will prevent overly wet conditions, conserve water, and provide an effective means of suppressing the fugitive dust.

8. The evaluation of weather conditions is necessary for proper fugitive dust control. When extreme wind conditions make dust control ineffective, as a last resort remedial actions may need to be suspended. There may be situations that require fugitive dust suppression and particulate monitoring requirements with action levels more stringent than those provided above. Under some circumstances, the contaminant concentration and/or toxicity may require additional monitoring to protect site personnel and the public. Additional integrated sampling and chemical analysis of the dust may also be in order. This must be evaluated when a health and safety plan is developed and when appropriate suppression and monitoring requirements are established for protection of health and the environment.

Special Requirements:

In addition or in combination with the above, the following special requirements apply for work within 20 feet of potentially exposed individuals or structures:

When work areas are within 20 feet of potentially exposed populations or occupied structures, the continuous monitoring locations for VOCs and particulates will reflect the nearest potentially exposed individuals and the location of ventilation system intakes for nearby structures. The use of engineering controls such as vapor/dust barriers, temporary negative-pressure enclosures, or special ventilation devices will be considered to prevent exposures related to the work activities and to control dust and odors. Consideration will be given to implementing the planned activities when potentially exposed populations are at a minimum, such as during weekends or evening hours in non-residential settings.

- If total VOC concentrations opposite the walls of occupied structures or next to intake vents exceed 1 ppm, monitoring will occur within the occupied structure(s). Depending upon the nature of contamination, chemical-specific colorimetric tubes of sufficient sensitivity may be necessary for comparing the exposure point concentrations with appropriate pre-determined response levels (response actions should also be pre-determined). Background readings in the occupied spaces must be taken prior to commencement of the planned work. Any unusual background readings should be discussed with NYSDOH prior to commencement of the work.

- If total particulate concentrations opposite the walls of occupied structures or next to intake vents exceed 150 mcg/m^3, work activities will be suspended until controls are implemented and are successful in reducing the total particulate concentration to 150 mcg/m^3 or less at the monitoring point.

- Depending upon the nature of contamination and remedial activities, other parameters (e.g., explosivity, oxygen, hydrogen sulfide, carbon monoxide) may also need to be monitored. Response levels and actions should be pre-determined, as necessary, for each site.

Unless a self-contained, negative-pressure enclosure with proper emission controls will encompass the work area, all individuals not directly involved with the planned work must be absent from the room in which the work will occur. Monitoring requirements are as stated above under "Special Requirements for Work within 20 Feet of Potentially Exposed Individuals or Structures" except that in this instance "nearby/occupied structures" would be adjacent occupied rooms. Additionally, the location of all exhaust vents in the room and their discharge points, as well as potential vapor pathways (openings, conduits, etc.) relative to adjoining rooms, shall be understood and the monitoring locations established accordingly. In these situations, exhaust fans or other engineering controls will be used to create negative air pressure within the work area during remedial activities. Additionally, the planned work will be implemented during hours (e.g. weekends or evenings) when building occupancy is at a minimum.

Appendix I
Excavation Work Plan

24 Laborers Way Site
SITE NO. C915322
Excavation Work Plan

1. NOTIFICATION

At least 15 days prior to the start of any activity that is anticipated to encounter remaining contamination, the site owner or their representative will notify the NYSDEC. **Table 1** includes contact information for the above notification. The information on this table will be updated as necessary to provide accurate contact information.

Table 1: Notifications*

Name	Contact Information
NYSDEC Project Manager David Locey	(716) 851-7220 david.locey@dec.ny.gov
NYSDEC Regional Geologist Stan Radon	(716) 851-7220 stanley.radon@dec.ny.gov
NYSDEC Site Control Kelly Lewandowski	(518) 402-9547 Kelly.lewandowski@dec.ny.gov

* Note: Notifications are subject to change and will be updated as necessary.

The email notification to the Project Manager will include:

- A detailed description of the work to be performed, including the location and areal extent of excavation, plans/drawings for site re-grading, estimated volumes of contaminated soil to be excavated;
- A schedule for the work, detailing the start and completion of all intrusive work;
- A summary of the applicable components of this EWP;
- A statement that the work will be performed in compliance with this EWP and 29 CFR 1910.120;
- A copy of the contractor's health and safety plan (HASP), in electronic format, if it differs from the HASP provided in the Remedial Work Plan (RWP) for the site;
- Identification of disposal facilities for potential waste streams; and
- Identification of sources of any anticipated backfill, along with all required chemical testing results.

2. SOIL SCREENING METHODS

Visual, olfactory and instrument-based (e.g., photoionization detector) soil screening will be performed by a qualified environmental professional during all excavations into known or potentially contaminated material (remaining contamination). Screening will also include scanning for radiological impacts using a Ludlum Model 2221 ratemeter with a 44-10 probe (sodium iodide) or similar model.

Soil screening will be performed when invasive work is done and will include all excavation and invasive work performed during development, such as excavations for foundations and utility work, after issuance of the COC.

Soils will be segregated based on previous environmental data and screening results into material that requires off-site disposal and material that requires testing to determine if the material can be reused on-site as soil beneath a cover or if the material can be used as cover soil. Further discussion of off-site disposal of materials and on-site reuse is provided in Sections 6 and 7 of this Plan.

3. SOIL STAGING METHODS

Potentially contaminated soil stockpiles will be continuously encircled with a berm and/or silt fence. Hay bales will be used as needed near catch basins, surface waters and other discharge points.

Stockpiles will be kept covered at all times with appropriately anchored tarps. Stockpiles will be routinely inspected and damaged tarp covers will be promptly replaced.

Stockpiles will be inspected at a minimum once each week and after every storm event. Results of inspections will be recorded in a logbook and maintained at the site and available for inspection by the NYSDEC.

4. MATERIALS EXCAVATION AND LOAD-OUT

A qualified environmental professional or person under their supervision will oversee all invasive work and the excavation and load-out of any excavated material destined for off-site disposal.

The owner of the property and remedial party (if applicable) and its contractors are responsible for safe execution of all invasive and other work performed under this Plan.

The presence of utilities and easements on the site will be investigated by the qualified environmental professional. It will be determined whether a risk or impediment to the planned work is posed by utilities or easements on the site. Prior to intrusive work, Digsafe NY and National Grid will be notified.

As necessary, loaded vehicles leaving the site will be appropriately lined, tarped, and / or securely covered. Shipments will be manifested, and placarded in accordance with appropriate Federal, State, local, and NYSDOT requirements (and all other applicable transportation requirements).

Locations where vehicles enter or exit the site shall be inspected daily for evidence of offsite soil tracking.

The Qualified Environmental Professional will be responsible for ensuring that all egress points for truck and equipment transport from the site are clean of dirt and other materials derived from the site during intrusive excavation activities. Cleaning of the adjacent streets will be performed as needed to maintain a clean condition with respect to site-derived materials.

5. MATERIALS TRANSPORT OFF-SITE

Transport of regulated materials will be performed by licensed haulers in accordance with appropriate local, State, and Federal regulations, including 6 NYCRR Part 364. Haulers will be appropriately licensed and trucks properly placarded.

Material transported by trucks exiting the site will be properly secured and covered with loose-fitting canvas-type or tight-fitting covers, as appropriate. If loads contain wet material capable of producing free liquid, truck liners will be used.

Truck transport routes must take into account: (a) limiting transport through residential areas and past sensitive sites; (b) use of city mapped truck routes; (c) prohibiting off-site queuing of trucks entering the facility; (d) limiting total distance to major highways; (e) promoting safety in access to highways; and (f) overall safety in transport.

Trucks will be prohibited from stopping and idling in the neighborhood outside the project site.

Egress points for truck and equipment transport from the site will be kept clean of dirt and other materials during site remediation and development.

Queuing of trucks will be performed on-site in order to minimize off-site disturbance. Offsite queuing will be prohibited.

6. MATERIALS DISPOSAL OFF-SITE

Any material to be excavated and removed from the site will be treated as contaminated. Regulated material and will be transported and disposed in accordance with local, state, and federal regulations. If disposal of material from this site is proposed for unregulated off-site disposal (i.e., clean soil removed for development purposes), a formal request with an associated plan will be made to the NYSDEC. Unregulated off-site management of materials from this site will not occur without formal NYSDEC approval.

Off-site disposal locations for excavated soils will be identified in the pre-excavation notification. This will include estimated quantities and a breakdown by class of disposal facility, if appropriate, (e.g., hazardous waste disposal facility, solid waste landfill, petroleum treatment facility, C/D recycling facility, etc.). Actual disposal quantities and associated documentation will be reported to the NYSDEC at the completion of the remedial work. This

documentation will include: waste profiles, test results, facility acceptance letters, manifests, bills of lading and facility receipts.

Non-hazardous historic fill, contaminated soils, and clean construction and demolition debris taken off-site will be handled, at minimum, as a Municipal Solid Waste per 6NYCRR Part 360-1.2. Material that does not meet Unrestricted SCOs is prohibited from being taken to a New York State recycling facility (6NYCRR Part 360-16 Registration Facility).

7. FLUIDS MANAGEMENT

Any liquids to be removed from the site, including but not limited to, excavation dewatering, decontamination waters and groundwater monitoring well purge and development waters, will be handled, transported and disposed in accordance with applicable local, state, and federal regulations. Dewatering, purge and development fluids will not be recharged back to the land surface or subsurface of the site, and will be managed off-site, unless prior approval is obtained from NYSDEC.

Discharge of water generated during large-scale construction activities to surface waters (i.e. a local pond, stream or river) will be performed under a SPDES permit.

8. BACKFILL FROM OFF-SITE SOURCES

All materials proposed for import onto the site will be approved by the qualified environmental professional and will be in compliance with provisions in this RAWP prior to receipt at the site. A Request to Import/Reuse Fill or Soil form, which can be found at http://www.dec.ny.gov/regulations/67386.html, will be prepared and submitted to the NYSDEC project manager allowing a minimum of five business days for review.

Material from industrial sites, spill sites, or other environmental remediation sites or potentially contaminated sites will not be imported to the site.

All imported soils will meet the backfill and cover soil quality standards established in 6NYCRR 375-6.7(d). Soils that meet 'exempt' fill requirements under 6 NYCRR Part 360, but do not meet backfill or cover soil objectives for this site, will not be imported onto the site without prior approval by NYSDEC. Solid waste will not be imported onto the site.

Trucks entering the site with imported soils will be appropriately covered. Imported soils will be stockpiled separately from excavated materials and covered to prevent dust releases.

9. STORMWATER POLLUTION PREVENTION

Erosion and sediment control measures shall be observed to ensure correct operation. Discharge locations or points, where accessible, shall be inspected to ascertain whether erosion control measures are effective in preventing significant impacts to receiving waters. Erosion and sediment control measures specific to the RWP have been listed below:

- Erosion and sediment control devices will be installed on the site as appropriate.
- Downstream stormwater inlets will be protected during site excavation activities using silt socks or similar products.
- Accumulated sediments will be removed as required to keep the silt socks or barriers functional.
- Soil stockpiles accumulate onsite, if any, will be properly tarped and include the installation of perimeter silt-fencing at the end of each work day.

10. EXCAVATION CONTINGENCY PLAN

If underground tanks or other previously unidentified contaminant sources are exposed during remedial or post-remedial subsurface excavations or development related construction, excavation activities may be suspended until sufficient equipment is mobilized to address the condition.

Sampling will be performed on product, sediment and surrounding soils, etc. as necessary to determine the nature of the material and proper disposal method. Chemical analysis will be performed for a full list of analytes (TAL metals; TCL volatiles and semi-volatiles, TCL pesticides and PCBs) unless the site history and previous sampling results provide a sufficient justification to limit the list of analytes. In such cases, a reduced list of analytes will be proposed to the NYSDEC for approval prior to sampling.

Identification of unknown or unexpected contaminated media identified by screening during invasive site work will be promptly communicated by telephone to NYSDEC's Project Manager. Reportable quantities of petroleum product may also be reported to the NYSDEC spills hotline. These findings will be also included in the Periodic Review Report, Monthly Monitoring Report, and/or Final Engineering Report.

11. COMMUNITY AIR MONITORING PLAN

Air sampling locations are to be determined. These locations will be adjusted on a daily or more frequent basis based on actual wind directions to provide an upwind and downwind monitoring stations. Exceedances of action levels listed in the CAMP will be reported to NYSDEC.

12. ODOR CONTROL PLAN

This odor control plan is capable of controlling emissions of nuisance odors off-site. Specific odor control methods to be used on a routine basis is not anticipated to be necessary. If nuisance odors are identified at the site boundary, or if odor complaints are received, work will be halted and the source of odors will be identified and corrected. Work will not resume until all nuisance odors have been abated. NYSDEC and NYSDOH will be notified of all odor events and of any other complaints about the project. Implementation of all odor controls,

including the halt of work, is the responsibility of the remedial party's remediation contractor, and any measures that are implemented will be discussed in the final SMP.

All necessary means will be employed to prevent on- and off-site nuisances. At a minimum, these measures will include:

a) Limiting the area of open excavations and size of soil stockpiles;
b) Shrouding open excavations with tarps and other covers; and
c) Using foams to cover exposed odorous soils.

If odors develop and cannot be otherwise controlled, additional means to eliminate odor nuisances may include:

d) Direct load-out of soils to trucks for off-site disposal;
e) Use of chemical odorants in spray or misting systems; and,
f) Use of staff to monitor odors in surrounding neighborhoods.

If nuisance odors develop during intrusive work that cannot be corrected, or where the control of nuisance odors cannot otherwise be achieved due to on-site conditions or close proximity to sensitive receptors, odor control will be achieved by sheltering the excavation and handling areas in a temporary containment structure equipped with appropriate air venting / filtering systems.

13. DUST CONTROL PLAN

A dust suppression plan that addresses dust management during invasive on-site work will include, at a minimum, the items listed below:

- Dust suppression will be achieved through the use of a dedicated on-site water truck for road wetting. The truck will be equipped with a water cannon capable of spraying water directly onto off-road areas including excavations and stockpiles.
- Clearing and grubbing of larger sites will be done in stages to limit the area of exposed, unvegetated soils vulnerable to dust production.
- Gravel will be used on roadways to provide a clean and dust-free road surface.
- On-site roads will be limited in total area to minimize the area required for water truck sprinkling.

14. OTHER NUISANCES

A plan will be developed and utilized by the contractor for all remedial work to ensure compliance with local noise control ordinances.