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August 18, 2022

Mr. Joshua Vaccaro
New York State Department of Environmental Conservation
Division of Environmental Remediation
270 Michigan Avenue
Buffalo, NY 14203

Project name: Essex-Hope Site, Jamestown New York – Pre-Design Investigation Work Plan Addendum
Project no: JMS015DW.A.CS.EV.01.DM

Subject: Essex-Hope Site, Jamestown New York – Pre-Design Investigation Work Plan Addendum

As you are aware, Jacobs completed a pre-design investigation (PDI) in April 2022 at the Essex-Hope State Superfund site, located at 125 Blackstone Avenue in Jamestown, New York (site). This investigation was completed in accordance with the *Essex-Hope Pre-Design Investigation Work Plan* (Work Plan), which was first submitted to the New York Department of Environmental Conservation (NYSDEC) on March 7, 2022. An updated version of the *Work Plan*, which was revised following feedback from NYSDEC, was submitted to NYSDEC on May 10, 2022.

The results from the April 2022 investigation (hereafter referred to as PDI Phase I) revealed that additional investigation is necessary to refine the chlorinated volatile organic compound (CVOC) impacts in saturated soil to the northeast and southwest of the site. As a result, Jacobs, on behalf of Essex Specialty Products, Inc. (Essex), is planning to complete additional drilling work (hereafter referred to as PDI Phase II) that is critical to further defining the lateral and vertical extents of CVOC impacts to saturated soil and groundwater in both onsite and offsite areas.

An upcoming PDI report will document the results of the PDI Phase I and II activities and will be submitted to NYSDEC and the New York State Department of Health. However, per your email received Monday, July 25, 2022, the results of PDI Phase I are included in this addendum. Table 1 lists the CVOC soil results at all locations, and Figure 1 presents only the trichloroethene soil results at all locations. This *Pre-Design Investigation Work Plan Addendum* focuses only on the scope of the upcoming Phase II work and supplements the final Work Plan submitted to NYSDEC in May 2022, which provides the following information:

- Site background and conceptual site model
- Health and safety
- Community Air Monitoring Plan compliance
- Quality assurance
- Waste management

During PDI Phase II, Jacobs will be conducting soil and groundwater sample collection via direct-push technology (DPT) drilling. Additionally, high-resolution site characterization will be conducted using a DPT rig outfitted with membrane interface probe (MIP) sensors that provide real time, high-resolution data on site geology, hydrogeology, and CVOC distribution to help characterize the offsite plume, including defining the northeastern edge of the plume. The MIP investigation will complement previous MIP data collected primarily onsite in 2016. In accordance with the Work Plan, the following will be completed:

- Utility location
- Surveying
- Quality assurance and quality control sampling
- Post-drilling surveying
- Waste disposal

The PDI Phase II scope of work includes the following:

- Drilling up to 21 offsite MIP soil borings (MIP-14 through MIP-34) (Figure 2) to the geologic contact between the deep silty sand and silty clay, typically encountered between 45 and 48 feet below ground surface (bgs) north of Hopkins Avenue and along Bigelow Avenue, with the following details:
  - Seven of the proposed boring locations (MIP-28 through MIP-34) shown on Figure 2 are contingency locations that will only be advanced if the MIP locations indicate the CVOC impacts extend farther northeast.
  - The DPT drill rig will be equipped with MIP sensors, including a hydraulic profile tool. The DPT will be outfitted with MIP detectors, including photoionization detector (PID), flame ionization detector, and halogen-specific detector that can analyze the CVOC plume in real time at a resolution of 0.5 foot or better. The MIP tool will also be outfitted with an electrical conductivity sensor to evaluate soil grain size. The real-time data will be captured electronically and documented in hard copy logs.
  - Additionally, a hydraulic profile tool will be used to evaluate hydraulic characteristics. Evaluation of six static formation hydraulic pressure measurements (one dissipation test in shallow sand and gravel, and one in deep silty sand at three of the MIP locations) will be completed to determine the static water level and provide an estimate of hydraulic conductivity values.
- Drilling up to two offsite soil borings (DPT-86 and DPT-87) to the deep silty clay typically encountered between 37 and 47 feet bgs north of Hopkins Avenue and west of Bigelow Avenue (Figure 2) using DPT drilling methods and collecting soil samples from six separate intervals above, within, and below the CVOC plume (same rationales and intervals as for DPT-78 through DPT-83, except the deep, fine silty sand is anticipated to be thinner). One groundwater grab sample will be collected from each of the two soil borings in the zone of highest observed impacts based on nearby MIP results; these groundwater samples will be collected from the same depth as a soil sample and will be used to evaluate the degree of CVOC partitioning between soil and groundwater.
- Two groundwater grab samples will be collected via hydropunch from each of the two groundwater-only locations (DPT-84 and DPT-85). These groundwater samples will be collected from the same depth as the greatest observed soil concentrations in soil samples collected during Phase I (DPT-69, 28 to 29 feet bgs and DPT-66, 33 to 34 feet bgs). The groundwater results will be used to evaluate the degree of CVOC partitioning between soil and groundwater.
- Specific target depths, based on nearby stratigraphy; the estimated soil concentrations for the area; and previous MIP results are provided in Table 2.

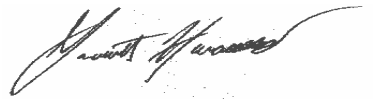
The PDI Phase II is scheduled to be completed during the weeks of October 17 and 24, 2022. As you are aware, Jacobs is planning to implement an in situ thermal treatment system to treat CVOC impacts to soil and groundwater at certain areas of the site. To refine the lateral and vertical extents of the thermal treatment area, design-specific soils data are needed. Thus, Jacobs is collecting additional onsite soils data "at risk" during a 1-week mobilization in August and will include the data resulting from this work in the PDI report.

Date: 18 August 2022
Subject: Essex-Hope Site, Jamestown New York – Pre-Design Investigation Work Plan Addendum

Please contact the Project Manager, Mr. Garrett Hazebrouck, at 401.965.0126 or the Responsible Party's Authorized Representative, Ms. Audrey Sidebottom, at 780.998.5767 if you have questions or comments.

Sincerely,

Jacobs



Garrett Hazebrouck
Project Manager

Copy To:

Audrey Sidebottom/Dow
Tyson Campbell/DuPont
Duncan Oleshak/United Industries
Brian Carling/Jacobs

Tables

Table 1. April 2022 DPT Soils Results

Pre-Design Investigation Work Plan Addendum

Essex-Hope Site, Jamestown, New York

	Location	DPT-066		DPT-066		DPT-066		DPT-066		DPT-066		DPT-066		DPT-067		DPT-067		DPT-067	
	Sample Name	DPT-66-22-23-		DPT-66-2-3-		DPT-66-29-30-		DPT-66-33-34-		DPT-66-35-36-		DPT-66-47-48-		DPT-67-26-27-		DPT-67-30-31-		DPT-67-30-31-	
	Sample Date	4/6/2022		4/6/2022		4/6/2022		4/6/2022		4/6/2022		4/6/2022		4/6/2022		4/6/2022		4/6/2022	
	Sample Type	N		N		N		N		N		N		N		N		FD	
	Depth	22-23		2-3		29-30		33-34		35-36		47-48		26-27		30-31		30-31	
U.S. Environmental Protection Agency Method	Chemical	Units																	
SM2540G	Solids, percent	%	75.8		89.6		79		75.9		74.4		76		82		77.9		77.8	
SW8260C	1,1,1,2-Tetrachloroethane	µg/kg	0.51	UJ	0.54	U	330	U	340	U	36	U	0.5	U	77	U	38	U	36	U
SW8260C	1,1,1-Trichloroethane	µg/kg	0.51	U	0.54	U	330	U	340	U	36	U	0.5	U	77	U	38	U	36	U
SW8260C	1,1,2,2-Tetrachloroethane	µg/kg	0.51	UJ	0.54	U	330	U	340	U	36	U	0.5	UJ	77	U	38	U	36	U
SW8260C	1,1,2-Trichloroethane	µg/kg	1	UJ	1.1	U	660	U	690	U	71	U	1	U	150	U	76	U	72	U
SW8260C	1,1-Dichloroethane	µg/kg	1	U	1.1	U	660	U	690	U	71	U	1	U	150	U	76	U	72	U
SW8260C	1,1-Dichloroethene	µg/kg	1	U	1.1	U	660	U	300	J	60	J	1	U	150	U	76	U	34	J
SW8260C	1,1-Dichloropropene	µg/kg	0.51	U	0.54	U	330	U	340	U	36	U	0.5	U	77	U	38	U	36	U
SW8260C	1,2,3-Trichlorobenzene	µg/kg	2	UJ	2.1	U	1300	U	1400	U	140	U	2	UJ	310	U	150	U	140	U
SW8260C	1,2,3-Trichloropropane	µg/kg	2	UJ	2.1	U	1300	U	1400	U	140	U	2	UJ	310	U	150	U	140	U
SW8260C	1,2,4-Trichlorobenzene	µg/kg	2	UJ	2.1	U	1300	U	1400	U	140	U	2	UJ	310	U	150	U	140	U
SW8260C	1,2,4-Trimethylbenzene	µg/kg	2	UJ	0.5	J	1300	U	1400	U	140	U	2	UJ	310	U	150	U	140	U
SW8260C	1,2-Dibromo-3-chloropropane	µg/kg	3	UJ	3.2	U	2000	U	2000	U	210	U	3	UJ	460	U	230	U	220	U
SW8260C	1,2-Dibromoethane (Ethylene dibromide)	µg/kg	1	UJ	1.1	U	660	U	690	U	71	U	1	U	150	U	76	U	72	U
SW8260C	1,2-Dichlorobenzene	µg/kg	2	UJ	2.1	U	1300	U	1400	U	140	U	2	UJ	310	U	150	U	140	U
SW8260C	1,2-Dichloroethane	µg/kg	1	U	1.1	U	660	U	690	U	71	U	1	U	150	U	76	U	72	U
SW8260C	1,2-Dichloropropane	µg/kg	1	U	1.1	U	660	U	690	U	71	U	1	U	150	U	76	U	72	U
SW8260C	1,3,5-Trimethylbenzene (Mesitylene)	µg/kg	2	UJ	2.1	U	1300	U	1400	U	140	U	2	UJ	310	U	150	U	140	U
SW8260C	1,3-Dichlorobenzene	µg/kg	2	UJ	2.1	U	1300	U	1400	U	140	U	2	UJ	310	U	150	U	140	U
SW8260C	1,3-Dichloropropane	µg/kg	2	UJ	2.1	U	1300	U	1400	U	140	U	2	U	310	U	150	U	140	U
SW8260C	1,4-Dichlorobenzene	µg/kg	2	UJ	2.1	U	1300	U	1400	U	140	U	2	UJ	310	U	150	U	140	U
SW8260C	1,4-Dioxane (P-Dioxane)	µg/kg	81	U	86	U	53000	U	55000	U	5700	U	81	U	12000	U	6100	U	5800	U
SW8260C	2,2-Dichloropropane	µg/kg	2	U	2.1	U	1300	U	1400	U	140	U	2	U	310	U	150	U	140	U
SW8260C	2-Chlorotoluene	µg/kg	2	UJ	2.1	U	1300	U	1400	U	140	U	2	UJ	310	U	150	U	140	U
SW8260C	2-Hexanone	µg/kg	10	UJ	11	U	6600	U	6900	U	710	U	10	U	1500	U	760	U	720	U
SW8260C	4-Chlorotoluene	µg/kg	2	UJ	2.1	U	1300	U	1400	U	140	U	2	UJ	310	U	150	U	140	U
SW8260C	Acetone	µg/kg	6	J	73		6600	U	6900	U	710	U	10	U	1500	U	760	U	720	U
SW8260C	Benzene	µg/kg	0.51	U	0.54	U	330	U	340	U	36	U	0.5	U	120		38	U	36	U
SW8260C	Bromobenzene	µg/kg	2	UJ	2.1	U	1300	U	1400	U	140	U	2	UJ	310	U	150	U	140	U
SW8260C	Bromodichloromethane	µg/kg	0.51	U	0.54	U	330	U	340	U	36	U	0.5	U	77	U	38	U	36	U
SW8260C	Bromoform	µg/kg	4	UJ	4.3	U	2600	U	2700	U	280	U	4	UJ	620	U	300	U	290	U
SW8260C	Bromomethane	µg/kg	2	U	2.1	U	1300	U	1400	U	140	U	2	U	310	U	150	U	140	U
SW8260C	Carbon Disulfide	µg/kg	10	U	11	U	6600	U	6900	U	710	U	10	U	1500	U	760	U	720	U
SW8260C	Carbon tetrachloride	µg/kg	1	U	1.1	U	660	U	690	U	71	U	1	U	150	U	76	U	72	U
SW8260C	Chlorobenzene	µg/kg	0.51	UJ	0.54	U	330	U	340	U	36	U	0.5	U	77	U	38	U	36	U
SW8260C	Chlorobromomethane	µg/kg	2	U	2.1	U	1300	U	1400	U	140	U	2	U	310	U	150	U	140	U
SW8260C	Chloroethane	µg/kg	2	U	2.1	U	1300	U	1400	U	140	U	2	U	310	U	150	U	140	U
SW8260C	Chloroform	µg/kg	1.5	U	1.6	U	990	U	1000	U	110	U	1.5	U	230	U	110	U	110	U
SW8260C	Chloromethane	µg/kg	4	U	4.3	U	2600	U	2700	U	280	U	4	U	620	U	300	U	290	U
SW8260C	cis-1,2-Dichloroethylene	µg/kg	1	U	1.1	U	25000		53000		11000		0.23	J	8300		26000		30000	
SW8260C	cis-1,3-Dichloropropene	µg/kg	0.51	U	0.54	U	330	U	340	U	36	U	0.5	U	77	U	38	U	36	U
SW8260C	Dibromochloromethane	µg/kg	1	UJ	1.1	U	660	U	690	U	71	U	1	U	150	U	76	U	72	U
SW8260C	Dibromomethane (Methylene Bromide)	µg/kg	2	U	2.1	U	1300	U	1400	U	140	U	2	U	310	U	150	U	140	U

Table 1. April 2022 DPT Soils Results

Pre-Design Investigation Work Plan Addendum

Essex-Hope Site, Jamestown, New York

	Location	DPT-067		DPT-067		DPT-067		DPT-067		DPT-068		DPT-068		DPT-068		DPT-068		DPT-068	
	Sample Name	DPT-67-36-37-		DPT-67-42-43-		DPT-67-44-45-		DPT-67-4-5-		DPT-68-2-3-		DPT-68-2-3-		DPT-68-28-29-		DPT-68-32-33-		DPT-68-35-36-	
	Sample Date	4/6/2022		4/6/2022		4/6/2022		4/6/2022		4/11/2022		4/11/2022		4/11/2022		4/11/2022		4/11/2022	
	Sample Type	N		N		N		N		N		FD		N		N		N	
	Depth	36-37		42-43		44-45		4-5		2-3		2-3		28-29		32-33		35-36	
U.S. Environmental Protection Agency Method	Chemical	Units																	
SM2540G	Solids, percent	%	79.2		74.3		79.7		83.2		92.5		88.7		75.2		75.2		79.8	
SW8260C	1,1,1,2-Tetrachloroethane	µg/kg	0.49	U	37	U	0.53	U	0.45	U	0.57	U	0.53	U	36	U	36	U	0.49	U
SW8260C	1,1,1-Trichloroethane	µg/kg	0.49	U	37	U	0.53	U	0.45	U	0.57	U	0.53	U	36	U	36	U	0.49	U
SW8260C	1,1,2,2-Tetrachloroethane	µg/kg	0.49	UJ	37	U	0.53	U	0.45	U	0.57	U	0.53	UJ	36	U	36	U	0.49	U
SW8260C	1,1,2-Trichloroethane	µg/kg	0.98	U	74	U	1.1	U	0.89	U	1.1	U	1	U	72	U	72	U	0.98	U
SW8260C	1,1-Dichloroethane	µg/kg	0.98	U	74	U	1.1	U	0.89	U	1.1	U	1	U	72	U	72	U	0.98	U
SW8260C	1,1-Dichloroethene	µg/kg	0.98	U	24	J	1.1	U	0.89	U	1.1	U	1	U	72	U	72	U	0.98	U
SW8260C	1,1-Dichloropropene	µg/kg	0.49	U	37	U	0.53	U	0.45	U	0.57	U	0.53	U	36	U	36	U	0.49	U
SW8260C	1,2,3-Trichlorobenzene	µg/kg	2	UJ	150	U	2.1	U	1.8	U	2.3	U	2.1	UJ	140	U	140	U	2	U
SW8260C	1,2,3-Trichloropropane	µg/kg	2	UJ	150	U	2.1	U	1.8	U	2.3	U	2.1	UJ	140	U	140	U	2	U
SW8260C	1,2,4-Trichlorobenzene	µg/kg	2	UJ	150	U	2.1	U	1.8	U	2.3	U	2.1	UJ	140	U	140	U	2	U
SW8260C	1,2,4-Trimethylbenzene	µg/kg	2	UJ	150	U	2.1	U	1.8	U	2.3	U	2.1	UJ	140	U	140	U	2	U
SW8260C	1,2-Dibromo-3-chloropropane	µg/kg	2.9	UJ	220	U	3.2	U	2.7	U	3.4	U	3.2	UJ	220	U	210	U	2.9	U
SW8260C	1,2-Dibromoethane (Ethylene dibromide)	µg/kg	0.98	U	74	U	1.1	U	0.89	U	1.1	U	1	U	72	U	72	U	0.98	U
SW8260C	1,2-Dichlorobenzene	µg/kg	2	UJ	150	U	2.1	U	1.8	U	2.3	U	2.1	UJ	140	U	140	U	2	U
SW8260C	1,2-Dichloroethane	µg/kg	0.98	U	74	U	1.1	U	0.89	U	1.1	U	1	U	72	U	72	U	0.98	U
SW8260C	1,2-Dichloropropane	µg/kg	0.98	U	74	U	1.1	U	0.89	U	1.1	U	1	U	72	U	72	U	0.98	U
SW8260C	1,3,5-Trimethylbenzene (Mesitylene)	µg/kg	2	UJ	150	U	2.1	U	1.8	U	2.3	U	2.1	UJ	140	U	140	U	2	U
SW8260C	1,3-Dichlorobenzene	µg/kg	2	UJ	150	U	2.1	U	1.8	U	2.3	U	2.1	UJ	140	U	140	U	2	U
SW8260C	1,3-Dichloropropane	µg/kg	2	U	150	U	2.1	U	1.8	U	2.3	U	2.1	U	140	U	140	U	2	U
SW8260C	1,4-Dichlorobenzene	µg/kg	2	UJ	150	U	2.1	U	1.8	U	2.3	U	2.1	UJ	140	U	140	U	2	U
SW8260C	1,4-Dioxane (P-Dioxane)	µg/kg	78	U	5900	U	85	U	71	U	91	U	85	U	5800	U	5700	U	78	U
SW8260C	2,2-Dichloropropane	µg/kg	2	U	150	U	2.1	U	1.8	U	2.3	U	2.1	U	140	U	140	U	2	U
SW8260C	2-Chlorotoluene	µg/kg	2	UJ	150	U	2.1	U	1.8	U	2.3	U	2.1	UJ	140	U	140	U	2	U
SW8260C	2-Hexanone	µg/kg	9.8	U	740	U	11	U	8.9	U	11	U	10	U	720	U	720	U	9.8	U
SW8260C	4-Chlorotoluene	µg/kg	2	UJ	150	U	2.1	U	1.8	U	2.3	U	2.1	UJ	140	U	140	U	2	U
SW8260C	Acetone	µg/kg	7.4	J	740	U	5.4	J	8.9	U	11	U	10	U	720	U	720	U	9.8	U
SW8260C	Benzene	µg/kg	29		240		0.39	J	0.45	U	0.57	U	0.53	U	36	U	40		0.49	U
SW8260C	Bromobenzene	µg/kg	2	UJ	150	U	2.1	U	1.8	U	2.3	U	2.1	UJ	140	U	140	U	2	U
SW8260C	Bromodichloromethane	µg/kg	0.49	U	37	U	0.53	U	0.45	U	0.57	U	0.53	U	36	U	36	U	0.49	U
SW8260C	Bromoform	µg/kg	3.9	UJ	300	U	4.2	U	3.6	U	4.6	U	4.2	UJ	290	U	290	U	3.9	U
SW8260C	Bromomethane	µg/kg	2	U	150	U	2.1	U	1.8	U	2.3	U	2.1	U	140	U	140	U	2	U
SW8260C	Carbon Disulfide	µg/kg	6.1	J	740	U	11	U	8.9	U	11	U	10	U	720	U	720	U	9.8	U
SW8260C	Carbon tetrachloride	µg/kg	0.98	U	74	U	1.1	U	0.89	U	1.1	U	1	U	72	U	72	U	0.98	U
SW8260C	Chlorobenzene	µg/kg	0.49	U	37	U	0.53	U	0.45	U	0.57	U	0.53	U	36	U	36	U	0.49	U
SW8260C	Chlorobromomethane	µg/kg	2	U	150	U	2.1	U	1.8	U	2.3	U	2.1	U	140	U	140	U	2	U
SW8260C	Chloroethane	µg/kg	2	U	150	U	2.1	U	1.8	U	2.3	U	2.1	U	140	U	140	U	2	U
SW8260C	Chloroform	µg/kg	1.5	U	110	U	1.6	U	1.3	U	1.7	U	1.6	U	110	U	110	U	1.5	U
SW8260C	Chloromethane	µg/kg	3.9	U	300	U	4.2	U	3.6	U	4.6	U	4.2	U	290	U	290	U	3.9	U
SW8260C	cis-1,2-Dichloroethylene	µg/kg	22		9300		2.6		0.89	U	0.44	U	1	U	430	J	10000		2.6	U
SW8260C	cis-1,3-Dichloropropene	µg/kg	0.49	U	37	U	0.53	U	0.45	U	0.57	U	0.53	U	36	U	36	U	0.49	U
SW8260C	Dibromochloromethane	µg/kg	0.98	U	74	U	1.1	U	0.89	U	1.1	U	1	U	72	U	72	U	0.98	U
SW8260C	Dibromomethane (Methylene Bromide)	µg/kg	2	U	150	U	2.1	U	1.8	U	2.3	U	2.1	U	140	U	140	U	2	U

Table 1. April 2022 DPT Soils Results

Pre-Design Investigation Work Plan Addendum

Essex-Hope Site, Jamestown, New York

		Location	DPT-068		DPT-069		DPT-069		DPT-069		DPT-069		DPT-069		DPT-070		DPT-070	
		Sample Name	DPT-68-39-40-		DPT-69-22-23-		DPT-69-28-29-		DPT-69-31-32-		DPT-69-38-39-		DPT-69-42.5-43.5-		DPT-69-5-6-		DPT-70-24-25-		DPT-70-29-30-	
		Sample Date	4/11/2022		4/12/2022		4/12/2022		4/12/2022		4/12/2022		4/12/2022		4/12/2022		4/6/2022		4/6/2022	
		Sample Type	N		N		N		N		N		N		N		N		N	
		Depth	39-40		22-23		28-29		31-32		38-39		42.5-43.5		5-6		24-25		29-30	
U.S. Environmental Protection Agency Method	Chemical	Units																		
SM2540G	Solids, percent	%	79.2		71.3		78.9		77.6		75.6		76.7		80.2		74.8		81.4	
SW8260C	1,1,1,2-Tetrachloroethane	µg/kg	0.49	U	0.56	U	31	U	34	U	0.53	U	0.44	U	0.47	U	32	U	300	U
SW8260C	1,1,1-Trichloroethane	µg/kg	0.49	U	0.56	U	31	U	34	U	0.53	U	0.44	U	0.47	U	32	U	300	U
SW8260C	1,1,2,2-Tetrachloroethane	µg/kg	0.49	U	0.56	U	31	U	34	U	0.53	U	0.44	U	0.47	U	32	U	300	U
SW8260C	1,1,2-Trichloroethane	µg/kg	0.97	U	1.1	U	62	U	68	U	1.1	U	0.89	U	0.94	U	63	U	590	U
SW8260C	1,1-Dichloroethane	µg/kg	0.97	U	1.1	U	62	U	68	U	1.1	U	0.89	U	0.94	U	63	U	590	U
SW8260C	1,1-Dichloroethene	µg/kg	0.97	U	1.1	U	150		76		1.1	U	0.89	U	0.94	U	60	J	590	U
SW8260C	1,1-Dichloropropene	µg/kg	0.49	U	0.56	U	31	U	34	U	0.53	U	0.44	U	0.47	U	32	U	300	U
SW8260C	1,2,3-Trichlorobenzene	µg/kg	1.9	U	2.2	U	120	U	140	U	2.1	U	1.8	U	1.9	U	130	U	1200	U
SW8260C	1,2,3-Trichloropropane	µg/kg	1.9	U	2.2	U	120	U	140	U	2.1	U	1.8	U	1.9	U	130	U	1200	U
SW8260C	1,2,4-Trichlorobenzene	µg/kg	1.9	U	2.2	U	120	U	140	U	2.1	U	1.8	U	1.9	U	130	U	1200	U
SW8260C	1,2,4-Trimethylbenzene	µg/kg	1.9	U	2.2	U	120	U	140	U	2.1	U	1.8	U	1.9	U	130	U	640	J
SW8260C	1,2-Dibromo-3-chloropropane	µg/kg	2.9	U	3.3	U	180	U	200	U	3.2	U	2.7	U	2.8	U	190	U	1800	U
SW8260C	1,2-Dibromoethane (Ethylene dibromide)	µg/kg	0.97	U	1.1	U	62	U	68	U	1.1	U	0.89	U	0.94	U	63	U	590	U
SW8260C	1,2-Dichlorobenzene	µg/kg	1.9	U	2.2	U	120	U	140	U	2.1	U	1.8	U	1.9	U	130	U	1200	U
SW8260C	1,2-Dichloroethane	µg/kg	0.97	U	1.1	U	62	U	68	U	1.1	U	0.89	U	0.94	U	63	U	590	U
SW8260C	1,2-Dichloropropane	µg/kg	0.97	U	1.1	U	62	U	68	U	1.1	U	0.89	U	0.94	U	63	U	590	U
SW8260C	1,3,5-Trimethylbenzene (Mesitylene)	µg/kg	1.9	U	2.2	U	120	U	140	U	2.1	U	1.8	U	1.9	U	130	U	130	J
SW8260C	1,3-Dichlorobenzene	µg/kg	1.9	U	2.2	U	120	U	140	U	2.1	U	1.8	U	1.9	U	130	U	1200	U
SW8260C	1,3-Dichloropropane	µg/kg	1.9	U	2.2	U	120	U	140	U	2.1	U	1.8	U	1.9	U	130	U	1200	U
SW8260C	1,4-Dichlorobenzene	µg/kg	1.9	U	2.2	U	120	U	140	U	2.1	U	1.8	U	1.9	U	130	U	1200	U
SW8260C	1,4-Dioxane (P-Dioxane)	µg/kg	78	U	89	U	4900	U	5400	U	85	U	71	U	75	U	5100	U	47000	U
SW8260C	2,2-Dichloropropane	µg/kg	1.9	U	2.2	U	120	U	140	U	2.1	U	1.8	U	1.9	U	130	U	1200	U
SW8260C	2-Chlorotoluene	µg/kg	1.9	U	2.2	U	120	U	140	U	2.1	U	1.8	U	1.9	U	130	U	1200	U
SW8260C	2-Hexanone	µg/kg	9.7	U	11	U	620	U	680	U	11	U	8.9	U	9.4	U	630	U	5900	U
SW8260C	4-Chlorotoluene	µg/kg	1.9	U	2.2	U	120	U	140	U	2.1	U	1.8	U	1.9	U	130	U	1200	U
SW8260C	Acetone	µg/kg	9.7	U	11	U	620	U	680	U	11	U	8.9	U	9.4	U	630	U	5900	U
SW8260C	Benzene	µg/kg	0.49	U	0.56	U	13	J	34	U	0.53	U	0.44	U	0.47	U	32	U	300	U
SW8260C	Bromobenzene	µg/kg	1.9	U	2.2	U	120	U	140	U	2.1	U	1.8	U	1.9	U	130	U	1200	U
SW8260C	Bromodichloromethane	µg/kg	0.49	U	0.56	U	31	U	34	U	0.53	U	0.44	U	0.47	U	32	U	300	U
SW8260C	Bromoform	µg/kg	3.9	U	4.5	U	250	U	270	U	4.3	U	3.6	U	3.8	U	250	U	2400	U
SW8260C	Bromomethane	µg/kg	1.9	U	2.2	U	120	U	140	U	2.1	U	1.8	U	1.9	U	130	U	1200	U
SW8260C	Carbon Disulfide	µg/kg	9.7	U	11	U	620	U	680	U	11	U	8.9	U	9.4	U	630	U	5900	U
SW8260C	Carbon tetrachloride	µg/kg	0.97	U	1.1	U	62	U	68	U	1.1	U	0.89	U	0.94	U	63	U	590	U
SW8260C	Chlorobenzene	µg/kg	0.49	U	0.56	U	31	U	34	U	0.53	U	0.44	U	0.47	U	32	U	300	U
SW8260C	Chlorobromomethane	µg/kg	1.9	U	2.2	U	120	U	140	U	2.1	U	1.8	U	1.9	U	130	U	1200	U
SW8260C	Chloroethane	µg/kg	1.9	U	2.2	U	120	U	140	U	2.1	U	1.8	U	1.9	U	130	U	1200	U
SW8260C	Chloroform	µg/kg	1.4	U	1.7	U	93	U	100	U	1.6	U	1.3	U	1.4	U	95	U	890	U
SW8260C	Chloromethane	µg/kg	3.9	U	4.5	U	250	U	270	U	4.3	U	3.6	U	3.8	U	250	U	2400	U
SW8260C	cis-1,2-Dichloroethylene	µg/kg	0.52	U	3.7	U	23000		6900		0.39	U	0.89	U	0.19	U	6100		26000	
SW8260C	cis-1,3-Dichloropropene	µg/kg	0.49	U	0.56	U	31	U	34	U	0.53	U	0.44	U	0.47	U	32	U	300	U
SW8260C	Dibromochloromethane	µg/kg	0.97	U	1.1	U	62	U	68	U	1.1	U	0.89	U	0.94	U	63	U	590	U
SW8260C	Dibromomethane (Methylene Bromide)	µg/kg	1.9	U	2.2	U	120	U	140	U	2.1	U	1.8	U	1.9	U	130	U	1200	U

Table 1. April 2022 DPT Soils Results

Pre-Design Investigation Work Plan Addendum

Essex-Hope Site, Jamestown, New York

		Location	DPT-070		DPT-070		DPT-070		DPT-070		DPT-071		DPT-071		DPT-071		DPT-071		DPT-071	
		Sample Name	DPT-70-36-37-		DPT-70-36-37-		DPT-70-44-45-		DPT-70-4-5-		DPT-71-21-22-		DPT-71-21-22-		DPT-71-29-30-		DPT-71-30-31-		DPT-71-39-40	
		Sample Date	4/6/2022		4/6/2022		4/6/2022		4/6/2022		4/5/2022		4/5/2022		4/5/2022		4/5/2022		4/5/2022	
		Sample Type	N		FD		N		N		N		FD		N		N		N	
		Depth	36-37		36-37		44-45		4-5		21-22		21-22		29-30		30-31		39-40	
U.S. Environmental Protection Agency Method	Chemical	Units																		
SM2540G	Solids, percent	%	76.6		77.5		76.8		87.6		78		76.8		74.4		76.8		80.6	
SW8260C	1,1,1,2-Tetrachloroethane	µg/kg	36	U	33	U	0.53	U	0.42	U	0.51	UJ	0.54	UJ	44	U	39	U	0.52	
SW8260C	1,1,1-Trichloroethane	µg/kg	36	U	33	U	0.53	U	0.42	U	0.51	U	0.54	UJ	44	U	39	U	0.52	
SW8260C	1,1,2,2-Tetrachloroethane	µg/kg	36	U	33	U	0.53	UJ	0.42	U	0.51	UJ	0.54	UJ	44	U	39	U	0.52	
SW8260C	1,1,2-Trichloroethane	µg/kg	71	U	67	U	1.1	U	0.83	U	1	UJ	1.1	UJ	87	U	78	U	1	
SW8260C	1,1-Dichloroethane	µg/kg	71	U	67	U	1.1	U	0.83	U	1	U	1.1	UJ	87	U	78	U	1	
SW8260C	1,1-Dichloroethene	µg/kg	44	J	42	J	1.1	U	0.83	U	1	U	1.1	UJ	190		78	U	1	
SW8260C	1,1-Dichloropropene	µg/kg	36	U	33	U	0.53	U	0.42	U	0.51	U	0.54	UJ	44	U	39	U	0.52	
SW8260C	1,2,3-Trichlorobenzene	µg/kg	140	U	130	U	2.1	UJ	1.7	U	2	UJ	2.2	UJ	170	U	160	U	2.1	
SW8260C	1,2,3-Trichloropropane	µg/kg	140	U	130	U	2.1	UJ	1.7	U	2	UJ	2.2	UJ	170	U	160	U	2.1	
SW8260C	1,2,4-Trichlorobenzene	µg/kg	140	U	130	U	2.1	UJ	1.7	U	2	UJ	2.2	UJ	170	U	160	U	2.1	
SW8260C	1,2,4-Trimethylbenzene	µg/kg	140	U	130	U	2.1	UJ	1.7	U	2	UJ	2.2	UJ	170	U	160	U	2.1	
SW8260C	1,2-Dibromo-3-chloropropane	µg/kg	210	U	200	U	3.2	UJ	2.5	U	3	UJ	3.3	UJ	260	U	230	U	3.1	
SW8260C	1,2-Dibromoethane (Ethylene dibromide)	µg/kg	71	U	67	U	1.1	U	0.83	U	1	UJ	1.1	UJ	87	U	78	U	1	
SW8260C	1,2-Dichlorobenzene	µg/kg	140	U	130	U	2.1	UJ	1.7	U	2	UJ	2.2	UJ	170	U	160	U	2.1	
SW8260C	1,2-Dichloroethane	µg/kg	71	U	67	U	1.1	U	0.83	U	1	U	1.1	UJ	87	U	78	U	1	
SW8260C	1,2-Dichloropropane	µg/kg	71	U	67	U	1.1	U	0.83	U	1	U	1.1	UJ	87	U	78	U	1	
SW8260C	1,3,5-Trimethylbenzene (Mesitylene)	µg/kg	140	U	130	U	2.1	UJ	1.7	U	2	UJ	2.2	UJ	170	U	160	U	2.1	
SW8260C	1,3-Dichlorobenzene	µg/kg	140	U	130	U	2.1	UJ	1.7	U	2	UJ	2.2	UJ	170	U	160	U	2.1	
SW8260C	1,3-Dichloropropane	µg/kg	140	U	130	U	2.1	U	1.7	U	2	UJ	2.2	UJ	170	U	160	U	2.1	
SW8260C	1,4-Dichlorobenzene	µg/kg	140	U	130	U	2.1	UJ	1.7	U	2	UJ	2.2	UJ	170	U	160	U	2.1	
SW8260C	1,4-Dioxane (P-Dioxane)	µg/kg	5700	U	5300	U	85	U	67	U	81	U	87	UJ	7000	U	6200	U	83	
SW8260C	2,2-Dichloropropane	µg/kg	140	U	130	U	2.1	U	1.7	U	2	U	2.2	UJ	170	U	160	U	2.1	
SW8260C	2-Chlorotoluene	µg/kg	140	U	130	U	2.1	UJ	1.7	U	2	UJ	2.2	UJ	170	U	160	U	2.1	
SW8260C	2-Hexanone	µg/kg	710	U	670	U	11	U	8.3	U	10	UJ	11	UJ	870	U	780	U	10	
SW8260C	4-Chlorotoluene	µg/kg	140	U	130	U	2.1	UJ	1.7	U	2	UJ	2.2	UJ	170	U	160	U	2.1	
SW8260C	Acetone	µg/kg	710	U	670	U	11	U	8.3	U	6.3	J	6.7	J	870	U	780	U	10	
SW8260C	Benzene	µg/kg	36	U	33	U	0.53	U	0.42	U	0.51	U	0.54	UJ	44	U	39	U	0.52	
SW8260C	Bromobenzene	µg/kg	140	U	130	U	2.1	UJ	1.7	U	2	UJ	2.2	UJ	170	U	160	U	2.1	
SW8260C	Bromodichloromethane	µg/kg	36	U	33	U	0.53	U	0.42	U	0.51	U	0.54	UJ	44	U	39	U	0.52	
SW8260C	Bromoform	µg/kg	280	U	270	U	4.3	UJ	3.3	U	4.1	UJ	4.4	UJ	350	U	310	U	4.1	
SW8260C	Bromomethane	µg/kg	140	U	130	U	2.1	U	1.7	U	2	U	2.2	UJ	170	U	160	U	2.1	
SW8260C	Carbon Disulfide	µg/kg	710	U	670	U	11	U	8.3	U	10	U	11	UJ	870	U	780	U	6.6	
SW8260C	Carbon tetrachloride	µg/kg	71	U	67	U	1.1	U	0.83	U	1	U	1.1	UJ	87	U	78	U	1	
SW8260C	Chlorobenzene	µg/kg	36	U	33	U	0.53	U	0.42	U	0.51	UJ	0.54	UJ	44	U	39	U	0.52	
SW8260C	Chlorobromomethane	µg/kg	140	U	130	U	2.1	U	1.7	U	2	U	2.2	UJ	170	U	160	U	2.1	
SW8260C	Chloroethane	µg/kg	140	U	130	U	2.1	U	1.7	U	2	U	2.2	UJ	170	U	160	U	2.1	
SW8260C	Chloroform	µg/kg	110	U	100	U	1.6	U	1.2	U	1.5	U	1.6	UJ	130	U	120	U	1.6	
SW8260C	Chloromethane	µg/kg	280	U	270	U	4.3	U	3.3	U	4.1	U	4.4	UJ	350	U	310	U	4.1	
SW8260C	cis-1,2-Dichloroethylene	µg/kg	3400		3700		0.22	J	0.43	J	1	U	1.1	UJ	14000		1800		0.23	
SW8260C	cis-1,3-Dichloropropene	µg/kg	36	U	33	U	0.53	U	0.42	U	0.51	U	0.54	UJ	44	U	39	U	0.52	
SW8260C	Dibromochloromethane	µg/kg	71	U	67	U	1.1	U	0.83	U	1	UJ	1.1	UJ	87	U	78	U	1	
SW8260C	Dibromomethane (Methylene Bromide)	µg/kg	140	U	130	U	2.1	U	1.7	U	2	U	2.2	UJ	170	U	160	U	2.1	

Table 1. April 2022 DPT Soils Results

Pre-Design Investigation Work Plan Addendum

Essex-Hope Site, Jamestown, New York

		Location		DPT-071		DPT-071		DPT-072		DPT-072		DPT-072		DPT-072		DPT-072		DPT-073												
		Sample Name	-	DPT-71-43-44-		DPT-71-4-5-		DPT-72-24-25-		DPT-72-32-33-		DPT-72-38-39-		DPT-72-39-40-		DPT-72-4-5-		DPT-73-14-15-												
		Sample Date		4/5/2022		4/5/2022		4/5/2022		4/5/2022		4/5/2022		4/5/2022		4/5/2022		4/7/2022												
		Sample Type		N		N		N		N		N		N		N		N												
		Depth		43-44		4-5		24-45		32-33		38-39		39-40		4-5		14-15												
U.S. Environmental Protection Agency Method	Chemical	Units																												
SM2540G	Solids, percent	%		77		88.5		81.4		77.5		74.5		75.8		84.9		81.5												
SW8260C	1,1,1,2-Tetrachloroethane	µg/kg	U	0.49	U	0.51	U	30	U	36	U	0.54	UJ	0.57	UJ	0.5	U	320	U											
SW8260C	1,1,1-Trichloroethane	µg/kg	U	0.49	U	0.51	U	30	U	36	U	0.54	U	0.57	U	0.5	U	320	U											
SW8260C	1,1,2,2-Tetrachloroethane	µg/kg	UJ	0.49	UJ	0.51	U	30	U	36	U	0.54	UJ	0.57	UJ	0.5	U	320	U											
SW8260C	1,1,2-Trichloroethane	µg/kg	U	0.97	U	1	U	60	U	72	U	1.1	UJ	1.1	UJ	1	U	640	U											
SW8260C	1,1-Dichloroethane	µg/kg	U	0.97	U	1	U	60	U	72	U	1.1	U	1.1	U	1	U	640	U											
SW8260C	1,1-Dichloroethene	µg/kg	U	0.97	U	1	U	60	U	72	U	1.1	U	1.1	U	1	U	640	U											
SW8260C	1,1-Dichloropropene	µg/kg	U	0.49	U	0.51	U	30	U	36	U	0.54	U	0.57	U	0.5	U	320	U											
SW8260C	1,2,3-Trichlorobenzene	µg/kg	UJ	1.9	UJ	2	U	120	U	140	U	2.2	UJ	2.3	UJ	2	U	1300	U											
SW8260C	1,2,3-Trichloropropane	µg/kg	UJ	1.9	UJ	2	U	120	U	140	U	2.2	UJ	2.3	UJ	2	U	1300	U											
SW8260C	1,2,4-Trichlorobenzene	µg/kg	UJ	1.9	UJ	2	U	120	U	140	U	2.2	UJ	2.3	UJ	2	U	1300	U											
SW8260C	1,2,4-Trimethylbenzene	µg/kg	UJ	1.9	UJ	2	U	120	U	140	U	2.2	UJ	2.3	UJ	2	U	7100												
SW8260C	1,2-Dibromo-3-chloropropane	µg/kg	UJ	2.9	UJ	3	U	180	U	220	U	3.3	UJ	3.4	UJ	3	U	1900	U											
SW8260C	1,2-Dibromoethane (Ethylene dibromide)	µg/kg	U	0.97	U	1	U	60	U	72	U	1.1	UJ	1.1	UJ	1	U	640	U											
SW8260C	1,2-Dichlorobenzene	µg/kg	UJ	1.9	UJ	2	U	120	U	140	U	2.2	UJ	2.3	UJ	2	U	1300	U											
SW8260C	1,2-Dichloroethane	µg/kg	U	0.97	U	1	U	60	U	72	U	1.1	U	1.1	U	1	U	640	U											
SW8260C	1,2-Dichloropropane	µg/kg	U	0.97	U	1	U	60	U	72	U	1.1	U	1.1	U	1	U	640	U											
SW8260C	1,3,5-Trimethylbenzene (Mesitylene)	µg/kg	UJ	1.9	UJ	2	U	120	U	140	U	2.2	UJ	2.3	UJ	0.2	J	1500												
SW8260C	1,3-Dichlorobenzene	µg/kg	UJ	1.9	UJ	2	U	120	U	140	U	2.2	UJ	2.3	UJ	2	U	1300	U											
SW8260C	1,3-Dichloropropane	µg/kg	U	1.9	U	2	U	120	U	140	U	2.2	UJ	2.3	UJ	2	U	1300	U											
SW8260C	1,4-Dichlorobenzene	µg/kg	UJ	1.9	UJ	2	U	120	U	140	U	2.2	UJ	2.3	UJ	2	U	1300	U											
SW8260C	1,4-Dioxane (P-Dioxane)	µg/kg	U	78	U	81	U	4800	U	5800	U	87	U	91	U	80	U	52000	U											
SW8260C	2,2-Dichloropropane	µg/kg	U	1.9	U	2	U	120	U	140	U	2.2	U	2.3	U	2	U	1300	U											
SW8260C	2-Chlorotoluene	µg/kg	UJ	1.9	UJ	2	U	120	U	140	U	2.2	UJ	2.3	UJ	2	U	1300	U											
SW8260C	2-Hexanone	µg/kg	U	9.7	U	10	U	600	U	720	U	11	UJ	11	UJ	10	U	6400	U											
SW8260C	4-Chlorotoluene	µg/kg	UJ	1.9	UJ	2	U	120	U	140	U	2.2	UJ	2.3	UJ	2	U	1300	U											
SW8260C	Acetone	µg/kg	U	9.7	U	10	U	600	U	720	U	6.4	J	10	J	14		6400	U											
SW8260C	Benzene	µg/kg	U	0.49	U	0.51	U	18	J	36	U	0.54	U	0.57	U	0.5	U	320	U											
SW8260C	Bromobenzene	µg/kg	UJ	1.9	UJ	2	U	120	U	140	U	2.2	UJ	2.3	UJ	2	U	1300	U											
SW8260C	Bromodichloromethane	µg/kg	U	0.49	U	0.51	U	30	U	36	U	0.54	U	0.57	U	0.5	U	320	U											
SW8260C	Bromoform	µg/kg	UJ	3.9	UJ	4.1	U	240	U	290	U	4.4	UJ	4.5	UJ	4	U	2600	U											
SW8260C	Bromomethane	µg/kg	U	1.9	U	2	U	120	U	140	U	2.2	U	2.3	U	2	U	1300	U											
SW8260C	Carbon Disulfide	µg/kg	J	9.7	U	10	U	600	U	720	U	11	U	11	U	10	U	6400	U											
SW8260C	Carbon tetrachloride	µg/kg	U	0.97	U	1	U	60	U	72	U	1.1	U	1.1	U	1	U	640	U											
SW8260C	Chlorobenzene	µg/kg	U	0.49	U	0.51	U	30	U	36	U	0.54	UJ	0.57	UJ	0.5	U	320	U											
SW8260C	Chlorobromomethane	µg/kg	U	1.9	U	2	U	120	U	140	U	2.2	U	2.3	U	2	U	1300	U											
SW8260C	Chloroethane	µg/kg	U	1.9	U	2	U	120	U	140	U	2.2	U	2.3	U	2	U	1300	U											
SW8260C	Chloroform	µg/kg	U	1.5	U	1.5	U	90	U	110	U	1.6	U	1.7	U	1.5	U	970	U											
SW8260C	Chloromethane	µg/kg	U	3.9	U	4.1	U	240	U	290	U	4.4	U	4.5	U	4	U	2600	U											
SW8260C	cis-1,2-Dichloroethylene	µg/kg	J	0.97	U	1	U	3400		400		0.55	J	1.1	U	1	U	31000												
SW8260C	cis-1,3-Dichloropropene	µg/kg	U	0.49	U	0.51	U	30	U	36	U	0.54	U	0.57	U	0.5	U	320	U											
SW8260C	Dibromochloromethane	µg/kg	U	0.97	U	1	U	60	U	72	U	1.1	UJ	1.1	UJ	1	U	640	U											
SW8260C	Dibromomethane (Methylene Bromide)	µg/kg	U	1.9	U	2	U	120	U	140	U	2.2	U	2.3	U	2	U	1300	U											

Table 1. April 2022 DPT Soils Results

Pre-Design Investigation Work Plan Addendum

Essex-Hope Site, Jamestown, New York

	Location	DPT-073		DPT-073		DPT-073		DPT-073		DPT-073		DPT-074		DPT-074		DPT-074		DPT-074	
	Sample Name	DPT-73-20-21-		DPT-73-29-30-		DPT-73-37-38-		DPT-73-4-5-		DPT-73-49-50-		DPT-74-26-27-		DPT-74-26-27-		DPT-74-31-32-		DPT-74-37-38-	
	Sample Date	4/7/2022		4/11/2022		4/11/2022		4/7/2022		4/11/2022		4/7/2022		4/7/2022		4/7/2022		4/7/2022	
	Sample Type	N		N		N		N		N		N		FD		N		N	
	Depth	20-21		29-30		37-38		4-5		49-50		26-27		26-27		31-32		37-38	
U.S. Environmental Protection Agency Method	Chemical	Units																	
SM2540G	Solids, percent	%	77.1		80.6		78.1		84.9		84.6		77.2		77.6		76		77.5	
SW8260C	1,1,1,2-Tetrachloroethane	µg/kg	180	U	0.56	U	33	U	37	U	0.46	U	90	U	81	U	140	U	0.49	U
SW8260C	1,1,1-Trichloroethane	µg/kg	180	U	0.56	U	33	U	37	U	0.46	U	90	U	81	U	140	U	0.49	U
SW8260C	1,1,2,2-Tetrachloroethane	µg/kg	180	U	0.56	U	33	U	37	U	0.46	U	90	U	81	U	140	U	0.49	UJ
SW8260C	1,1,2-Trichloroethane	µg/kg	360	U	1.1	U	66	U	75	U	0.91	U	180	U	160	U	290	U	0.98	U
SW8260C	1,1-Dichloroethane	µg/kg	360	U	1.1	U	66	U	75	U	0.91	U	180	U	160	U	290	U	0.98	U
SW8260C	1,1-Dichloroethene	µg/kg	180	J	12		110		75	U	0.91	U	180	U	160	U	84	J	0.91	J
SW8260C	1,1-Dichloropropene	µg/kg	180	U	0.56	U	33	U	37	U	0.46	U	90	U	81	U	140	U	0.49	U
SW8260C	1,2,3-Trichlorobenzene	µg/kg	730	U	2.2	U	130	U	150	U	1.8	U	360	U	320	U	570	U	2	UJ
SW8260C	1,2,3-Trichloropropane	µg/kg	730	U	2.2	U	130	U	150	U	1.8	U	360	U	320	U	570	U	2	UJ
SW8260C	1,2,4-Trichlorobenzene	µg/kg	730	U	2.2	U	130	U	150	U	1.8	U	360	U	320	U	570	U	2	UJ
SW8260C	1,2,4-Trimethylbenzene	µg/kg	6800		2.2	U	130	U	180		1.8	U	120	J	100	J	570	U	2	UJ
SW8260C	1,2-Dibromo-3-chloropropane	µg/kg	1100	U	3.3	U	200	U	220	U	2.7	U	540	U	480	U	860	U	3	UJ
SW8260C	1,2-Dibromoethane (Ethylene dibromide)	µg/kg	360	U	1.1	U	66	U	75	U	0.91	U	180	U	160	U	290	U	0.98	U
SW8260C	1,2-Dichlorobenzene	µg/kg	730	U	2.2	U	130	U	150	U	1.8	U	360	U	320	U	570	U	2	UJ
SW8260C	1,2-Dichloroethane	µg/kg	360	U	1.1	U	66	U	75	U	0.91	U	180	U	160	U	290	U	0.98	U
SW8260C	1,2-Dichloropropane	µg/kg	360	U	1.1	U	66	U	75	U	0.91	U	180	U	160	U	290	U	0.98	U
SW8260C	1,3,5-Trimethylbenzene (Mesitylene)	µg/kg	1400		2.2	U	130	U	52	J	1.8	U	360	U	320	U	570	U	2	UJ
SW8260C	1,3-Dichlorobenzene	µg/kg	730	U	2.2	U	130	U	150	U	1.8	U	360	U	320	U	570	U	2	UJ
SW8260C	1,3-Dichloropropane	µg/kg	730	U	2.2	U	130	U	150	U	1.8	U	360	U	320	U	570	U	2	U
SW8260C	1,4-Dichlorobenzene	µg/kg	730	U	2.2	U	130	U	150	U	1.8	U	360	U	320	U	570	U	2	UJ
SW8260C	1,4-Dioxane (P-Dioxane)	µg/kg	29000	U	89	U	5200	U	6000	U	73	U	14000	U	13000	U	23000	U	79	U
SW8260C	2,2-Dichloropropane	µg/kg	730	U	2.2	U	130	U	150	U	1.8	U	360	U	320	U	570	U	2	U
SW8260C	2-Chlorotoluene	µg/kg	730	U	2.2	U	130	U	150	U	1.8	U	360	U	320	U	570	U	2	UJ
SW8260C	2-Hexanone	µg/kg	3600	U	11	U	660	U	750	U	9.1	U	1800	U	1600	U	2900	U	9.8	U
SW8260C	4-Chlorotoluene	µg/kg	730	U	2.2	U	130	U	150	U	1.8	U	360	U	320	U	570	U	2	UJ
SW8260C	Acetone	µg/kg	3600	U	11	U	660	U	750	U	9.1	U	1800	U	1600	U	2900	U	9.8	U
SW8260C	Benzene	µg/kg	180	U	0.55	J	33	U	180		0.46	U	90	U	81	U	140	U	0.31	J
SW8260C	Bromobenzene	µg/kg	730	U	2.2	U	130	U	150	U	1.8	U	360	U	320	U	570	U	2	UJ
SW8260C	Bromodichloromethane	µg/kg	180	U	0.56	U	33	U	37	U	0.46	U	90	U	81	U	140	U	0.49	U
SW8260C	Bromoform	µg/kg	1400	U	4.4	U	260	U	300	U	3.6	U	720	U	640	U	1100	U	3.9	UJ
SW8260C	Bromomethane	µg/kg	730	U	2.2	U	130	U	150	U	1.8	U	360	U	320	U	570	U	2	U
SW8260C	Carbon Disulfide	µg/kg	3600	U	11	U	660	U	750	U	9.1	U	1800	U	1600	U	2900	U	9.8	U
SW8260C	Carbon tetrachloride	µg/kg	360	U	1.1	U	66	U	75	U	0.91	U	180	U	160	U	290	U	0.98	U
SW8260C	Chlorobenzene	µg/kg	180	U	0.56	U	33	U	37	U	0.46	U	90	U	81	U	140	U	0.49	U
SW8260C	Chlorobromomethane	µg/kg	730	U	2.2	U	130	U	150	U	1.8	U	360	U	320	U	570	U	2	U
SW8260C	Chloroethane	µg/kg	730	U	2.2	U	130	U	150	U	1.8	U	360	U	320	U	570	U	2	U
SW8260C	Chloroform	µg/kg	540	U	1.7	U	9.7	U	18	U	1.4	U	270	U	240	U	430	U	1.5	U
SW8260C	Chloromethane	µg/kg	1400	U	4.4	U	260	U	300	U	3.6	U	720	U	640	U	1100	U	3.9	U
SW8260C	cis-1,2-Dichloroethylene	µg/kg	63000	J	1800		6600		550		3.3	U	6700		6500		24000		180	J
SW8260C	cis-1,3-Dichloropropene	µg/kg	180	U	0.56	U	33	U	37	U	0.46	U	90	U	81	U	140	U	0.49	U
SW8260C	Dibromochloromethane	µg/kg	360	U	1.1	U	66	U	75	U	0.91	U	180	U	160	U	290	U	0.98	U
SW8260C	Dibromomethane (Methylene Bromide)	µg/kg	730	U	2.2	U	130	U	150	U	1.8	U	360	U	320	U	570	U	2	U

Table 1. April 2022 DPT Soils Results

Pre-Design Investigation Work Plan Addendum

Essex-Hope Site, Jamestown, New York

	Location	DPT-074		DPT-075		DPT-075		DPT-075		DPT-075		DPT-075		DPT-076		DPT-076		DPT-076	
	Sample Name	DPT-74-4-5-		DPT-75-25-26-		DPT-75-25-26-		DPT-75-33-34-		DPT-75-38-39-		DPT-75-9-10-		DPT-76-18-19-		DPT-76-24-25-		DPT-76-34-34.5-	
	Sample Date	4/7/2022		4/7/2022		4/7/2022		4/7/2022		4/7/2022		4/7/2022		4/12/2022		4/12/2022		4/12/2022	
	Sample Type	N		N		FD		N		N		N		N		N		N	
	Depth	4-5		25-26		25-26		33-34		38-39		9-10		18-19		24-25		34-34.5	
U.S. Environmental Protection Agency Method	Chemical	Units																	
SM2540G	Solids, percent	%	91.4		77.4		79.2		76.5		79.8		88.2		79.1		85.1		83.9	
SW8260C	1,1,1,2-Tetrachloroethane	µg/kg	0.4	U	140	U	17	U	36	U	0.48	UJ	0.5	U	71	U	18	U	0.59	U
SW8260C	1,1,1-Trichloroethane	µg/kg	0.4	U	140	U	17	U	36	U	0.48	U	0.5	U	71	U	18	U	0.59	U
SW8260C	1,1,2,2-Tetrachloroethane	µg/kg	0.4	U	140	U	17	U	36	U	0.48	UJ	0.5	U	71	U	18	U	0.59	U
SW8260C	1,1,2-Trichloroethane	µg/kg	0.79	U	290	U	33	U	72	U	0.96	UJ	1	U	140	U	36	U	1.2	U
SW8260C	1,1-Dichloroethane	µg/kg	0.79	U	290	U	33	U	72	U	0.96	U	1	U	140	U	36	U	1.4	
SW8260C	1,1-Dichloroethene	µg/kg	0.79	U	290	U	12	J	72	U	0.96	U	1	U	140	U	36	U	1.2	U
SW8260C	1,1-Dichloropropene	µg/kg	0.4	U	140	U	17	U	36	U	0.48	U	0.5	U	71	U	18	U	0.59	U
SW8260C	1,2,3-Trichlorobenzene	µg/kg	1.6	U	580	U	67	U	140	U	1.9	UJ	2	U	280	U	73	U	2.4	U
SW8260C	1,2,3-Trichloropropane	µg/kg	1.6	U	580	U	67	U	140	U	1.9	UJ	2	U	280	U	73	U	2.4	U
SW8260C	1,2,4-Trichlorobenzene	µg/kg	1.6	U	580	U	67	U	140	U	1.9	UJ	2	U	280	U	73	U	2.4	U
SW8260C	1,2,4-Trimethylbenzene	µg/kg	1.6	U	270	J	48	J	140	U	1.9	UJ	2	U	280	U	25	J	2.4	U
SW8260C	1,2-Dibromo-3-chloropropane	µg/kg	2.4	U	860	U	100	U	220	U	2.9	UJ	3	U	420	U	110	U	3.6	U
SW8260C	1,2-Dibromoethane (Ethylene dibromide)	µg/kg	0.79	U	290	U	33	U	72	U	0.96	UJ	1	U	140	U	36	U	1.2	U
SW8260C	1,2-Dichlorobenzene	µg/kg	1.6	U	580	U	67	U	140	U	1.9	UJ	2	U	280	U	73	U	2.4	U
SW8260C	1,2-Dichloroethane	µg/kg	0.79	U	290	U	33	U	72	U	0.96	U	1	U	66	J	36	U	1.3	
SW8260C	1,2-Dichloropropane	µg/kg	0.79	U	290	U	33	U	72	U	0.96	U	1	U	140	U	36	U	1.2	U
SW8260C	1,3,5-Trimethylbenzene (Mesitylene)	µg/kg	1.6	U	580	U	9.6	J	140	U	1.9	UJ	2	U	280	U	73	U	2.4	U
SW8260C	1,3-Dichlorobenzene	µg/kg	1.6	U	580	U	67	U	140	U	1.9	UJ	2	U	280	U	73	U	2.4	U
SW8260C	1,3-Dichloropropane	µg/kg	1.6	U	580	U	67	U	140	U	1.9	UJ	2	U	280	U	73	U	2.4	U
SW8260C	1,4-Dichlorobenzene	µg/kg	1.6	U	580	U	67	U	140	U	1.9	UJ	2	U	280	U	73	U	2.4	U
SW8260C	1,4-Dioxane (P-Dioxane)	µg/kg	63	U	23000	U	2700	U	5800	U	77	U	80	U	11000	U	2900	U	95	U
SW8260C	2,2-Dichloropropane	µg/kg	1.6	U	580	U	67	U	140	U	1.9	U	2	U	280	U	73	U	2.4	U
SW8260C	2-Chlorotoluene	µg/kg	1.6	U	580	U	67	U	140	U	1.9	UJ	2	U	280	U	73	U	2.4	U
SW8260C	2-Hexanone	µg/kg	7.9	U	2900	U	330	U	720	U	9.6	UJ	10	U	1400	U	360	U	12	U
SW8260C	4-Chlorotoluene	µg/kg	1.6	U	580	U	67	U	140	U	1.9	UJ	2	U	280	U	73	U	2.4	U
SW8260C	Acetone	µg/kg	7.9	U	2900	U	330	U	720	U	9.6	U	10	U	1400	U	360	U	12	U
SW8260C	Benzene	µg/kg	0.4	U	600		83		61		0.48	U	0.5	U	2200		470		46	
SW8260C	Bromobenzene	µg/kg	1.6	U	580	U	67	U	140	U	1.9	UJ	2	U	280	U	73	U	2.4	U
SW8260C	Bromodichloromethane	µg/kg	0.4	U	140	U	17	U	36	U	0.48	U	0.5	U	71	U	18	U	0.59	U
SW8260C	Bromoform	µg/kg	3.2	U	1200	U	130	U	290	U	3.8	UJ	4	U	570	U	150	U	4.7	U
SW8260C	Bromomethane	µg/kg	1.6	U	580	U	67	U	140	U	1.9	U	2	U	280	U	73	U	2.4	U
SW8260C	Carbon Disulfide	µg/kg	7.9	U	2900	U	330	U	720	U	9.6	U	10	U	1400	U	360	U	12	U
SW8260C	Carbon tetrachloride	µg/kg	0.79	U	290	U	33	U	72	U	0.96	U	1	U	140	U	36	U	1.2	U
SW8260C	Chlorobenzene	µg/kg	0.4	U	140	U	17	U	36	U	0.48	UJ	0.5	U	71	U	18	U	0.59	U
SW8260C	Chlorobromomethane	µg/kg	1.6	U	580	U	67	U	140	U	1.9	U	2	U	280	U	73	U	2.4	U
SW8260C	Chloroethane	µg/kg	1.6	U	580	U	67	U	140	U	1.9	U	2	U	280	U	73	U	2.4	U
SW8260C	Chloroform	µg/kg	1.2	U	430	U	50	U	110	U	1.4	U	1.5	U	210	U	5.1	J	1.8	U
SW8260C	Chloromethane	µg/kg	3.2	U	1200	U	130	U	290	U	3.8	U	4	U	570	U	150	U	4.7	U
SW8260C	cis-1,2-Dichloroethylene	µg/kg	0.79	U	14000		2000		1300		0.88	J	1	U	5100		590		1.2	U
SW8260C	cis-1,3-Dichloropropene	µg/kg	0.4	U	140	U	17	U	36	U	0.48	U	0.5	U	71	U	18	U	0.59	U
SW8260C	Dibromochloromethane	µg/kg	0.79	U	290	U	33	U	72	U	0.96	UJ	1	U	140	U	36	U	1.2	U
SW8260C	Dibromomethane (Methylene Bromide)	µg/kg	1.6	U	580	U	67	U	140	U	1.9	U	2	U	280	U	73	U	2.4	U

Table 1. April 2022 DPT Soils Results

Pre-Design Investigation Work Plan Addendum

Essex-Hope Site, Jamestown, New York

		Location	DPT-076		DPT-076		DPT-076		DPT-076		DPT-077		DPT-077		DPT-077		DPT-077		DPT-077	
		Sample Name	DPT-76-36-37-		DPT-76-42-43-		DPT-76-42-43-		DPT-76-5-6-		DPT-77-13.5-15-		DPT-77-20-25-		DPT-77-29-30-		DPT-77-34-35-		DPT-77-4-5-	
		Sample Date	4/12/2022		4/12/2022		4/12/2022		4/12/2022		4/5/2022		4/5/2022		4/5/2022		4/5/2022		4/5/2022	
		Sample Type	N		N		FD		N		N		N		N		N		N	
		Depth	36-37		42-43		42-43		5-6		13.5-15		20-25		29-30		34-35		4-5	
U.S. Environmental Protection Agency Method	Chemical	Units																		
SM2540G	Solids, percent	%	85.3		89.4		88.9		90.9		81.2		77.6		80.6		78.6		81.1	
SW8260C	1,1,1,2-Tetrachloroethane	µg/kg	0.53	U	0.57	U	0.42	U	0.51	U	0.45	U	0.49	U	33	U	34	U	0.77	UJ
SW8260C	1,1,1-Trichloroethane	µg/kg	0.53	U	0.57	U	0.42	U	0.51	U	0.45	U	0.49	U	33	U	34	U	0.77	UJ
SW8260C	1,1,2,2-Tetrachloroethane	µg/kg	0.53	U	0.57	U	0.42	U	0.51	U	0.45	U	0.49	U	33	U	34	U	0.77	UJ
SW8260C	1,1,2-Trichloroethane	µg/kg	1.1	U	1.1	U	0.84	U	1	U	0.89	U	0.98	U	67	U	67	U	1.5	UJ
SW8260C	1,1-Dichloroethane	µg/kg	1.1	U	0.63	J	0.68	J	1	U	0.89	U	0.98	U	67	U	67	U	1.5	UJ
SW8260C	1,1-Dichloroethene	µg/kg	1.1	U	1.1	U	0.84	U	1	U	0.89	U	0.98	U	59	J	35	J	1.5	UJ
SW8260C	1,1-Dichloropropene	µg/kg	0.53	U	0.57	U	0.42	U	0.51	U	0.45	U	0.49	U	33	U	34	U	0.77	UJ
SW8260C	1,2,3-Trichlorobenzene	µg/kg	2.1	U	2.3	U	1.7	U	2	U	1.8	U	2	U	130	U	130	U	3.1	UJ
SW8260C	1,2,3-Trichloropropane	µg/kg	2.1	U	2.3	U	1.7	U	2	U	1.8	U	2	U	130	U	130	U	3.1	UJ
SW8260C	1,2,4-Trichlorobenzene	µg/kg	2.1	U	2.3	U	1.7	U	2	U	1.8	U	2	U	130	U	130	U	3.1	UJ
SW8260C	1,2,4-Trimethylbenzene	µg/kg	2.1	U	2.3	U	1.7	U	2		1.8	U	2	U	130	U	130	U	3.1	UJ
SW8260C	1,2-Dibromo-3-chloropropane	µg/kg	3.2	U	3.4	U	2.5	U	3	U	2.7	U	2.9	U	200	U	200	U	4.6	UJ
SW8260C	1,2-Dibromoethane (Ethylene dibromide)	µg/kg	1.1	U	1.1	U	0.84	U	1	U	0.89	U	0.98	U	67	U	67	U	1.5	UJ
SW8260C	1,2-Dichlorobenzene	µg/kg	2.1	U	2.3	U	1.7	U	2	U	1.8	U	2	U	130	U	130	U	3.1	UJ
SW8260C	1,2-Dichloroethane	µg/kg	1.1	U	1.2		1.4		1	U	0.89	U	0.98	U	67	U	67	U	1.5	UJ
SW8260C	1,2-Dichloropropane	µg/kg	1.1	U	1.1	U	0.84	U	1	U	0.89	U	0.98	U	67	U	67	U	1.5	UJ
SW8260C	1,3,5-Trimethylbenzene (Mesitylene)	µg/kg	2.1	U	2.3	U	1.7	U	0.93	J	1.8	U	2	U	130	U	130	U	3.1	UJ
SW8260C	1,3-Dichlorobenzene	µg/kg	2.1	U	2.3	U	1.7	U	2	U	1.8	U	2	U	130	U	130	U	3.1	UJ
SW8260C	1,3-Dichloropropane	µg/kg	2.1	U	2.3	U	1.7	U	2	U	1.8	U	2	U	130	U	130	U	3.1	UJ
SW8260C	1,4-Dichlorobenzene	µg/kg	2.1	U	2.3	U	1.7	U	2	U	1.8	U	2	U	130	U	130	U	3.1	UJ
SW8260C	1,4-Dioxane (P-Dioxane)	µg/kg	85	U	92	U	67	U	81	U	71	U	78	U	5400	U	5400	U	120	UJ
SW8260C	2,2-Dichloropropane	µg/kg	2.1	U	2.3	U	1.7	U	2	U	1.8	U	2	U	130	U	130	U	3.1	UJ
SW8260C	2-Chlorotoluene	µg/kg	2.1	U	2.3	U	1.7	U	2	U	1.8	U	2	U	130	U	130	U	3.1	UJ
SW8260C	2-Hexanone	µg/kg	11	U	11	U	8.4	U	10	U	8.9	U	9.8	U	670	U	670	U	15	UJ
SW8260C	4-Chlorotoluene	µg/kg	2.1	U	2.3	U	1.7	U	2	U	1.8	U	2	U	130	U	130	U	3.1	UJ
SW8260C	Acetone	µg/kg	11	U	11	U	8.4	U	33		8.9	U	6.8	J	670	U	670	U	150	J
SW8260C	Benzene	µg/kg	0.53	U	44		48		0.32	J	0.45	U	0.49	U	33	U	34	U	0.77	UJ
SW8260C	Bromobenzene	µg/kg	2.1	U	2.3	U	1.7	U	2	U	1.8	U	2	U	130	U	130	U	3.1	UJ
SW8260C	Bromodichloromethane	µg/kg	0.53	U	0.57	U	0.42	U	0.51	U	0.45	U	0.49	U	33	U	34	U	0.77	UJ
SW8260C	Bromoform	µg/kg	4.2	U	4.6	U	3.3	U	4	U	3.6	U	3.9	U	270	U	270	U	6.1	UJ
SW8260C	Bromomethane	µg/kg	2.1	U	2.3	U	1.7	U	2	U	1.8	U	2	U	130	U	130	U	3.1	UJ
SW8260C	Carbon Disulfide	µg/kg	11	U	11	U	8.4	U	10	U	8.9	U	9.8	U	670	U	670	U	15	UJ
SW8260C	Carbon tetrachloride	µg/kg	1.1	U	1.1	U	0.84	U	1	U	0.89	U	0.98	U	67	U	67	U	1.5	UJ
SW8260C	Chlorobenzene	µg/kg	0.53	U	0.57	U	0.42	U	0.51	U	0.45	U	0.49	U	33	U	34	U	0.77	UJ
SW8260C	Chlorobromomethane	µg/kg	2.1	U	2.3	U	1.7	U	2	U	1.8	U	2	U	130	U	130	U	3.1	UJ
SW8260C	Chloroethane	µg/kg	2.1	U	2.3	U	1.7	U	2	U	1.8	U	2	U	130	U	130	U	3.1	UJ
SW8260C	Chloroform	µg/kg	1.6	U	1.7	U	1.2	U	1.5	U	1.3	U	1.5	U	100	U	100	U	2.3	UJ
SW8260C	Chloromethane	µg/kg	4.2	U	4.6	U	3.3	U	4	U	3.6	U	3.9	U	270	U	270	U	6.1	UJ
SW8260C	cis-1,2-Dichloroethylene	µg/kg	1.1	U	1.5		1.6		1	U	1.7		0.98	U	8300		4800		1.5	UJ
SW8260C	cis-1,3-Dichloropropene	µg/kg	0.53	U	0.57	U	0.42	U	0.51	U	0.45	U	0.49	U	33	U	34	U	0.77	UJ
SW8260C	Dibromochloromethane	µg/kg	1.1	U	1.1	U	0.84	U	1	U	0.89	U	0.98	U	67	U	67	U	1.5	UJ
SW8260C	Dibromomethane (Methylene Bromide)	µg/kg	2.1	U	2.3	U	1.7	U	2	U	1.8	U	2	U	130	U	130	U	3.1	UJ

Table 1. April 2022 DPT Soils Results

Pre-Design Investigation Work Plan Addendum

Essex-Hope Site, Jamestown, New York

		Location	DPT-066		DPT-066		DPT-066		DPT-066		DPT-066		DPT-066		DPT-067		DPT-067		DPT-067	
		Sample Name	DPT-66-22-23-		DPT-66-2-3-		DPT-66-29-30-		DPT-66-33-34-		DPT-66-35-36-		DPT-66-47-48-		DPT-67-26-27-		DPT-67-30-31-		DPT-67-30-31-	
		Sample Date	4/6/2022		4/6/2022		4/6/2022		4/6/2022		4/6/2022		4/6/2022		4/6/2022		4/6/2022		4/6/2022	
		Sample Type	N		N		N		N		N		N		N		N		FD	
		Depth	22-23		2-3		29-30		33-34		35-36		47-48		26-27		30-31		30-31	
U.S. Environmental Protection Agency Method	Chemical	Units																		
SW8260C	Dichlorodifluoromethane	µg/kg	10	U	11	U	6600	U	6900	U	710	U	10	U	1500	U	760	U	720	U
SW8260C	Ethylbenzene	µg/kg	1	UJ	1	J	660	U	690	U	71	U	1	U	150	U	76	U	72	U
SW8260C	Hexachlorobutadiene	µg/kg	4	UJ	4.3	U	2600	U	2700	U	280	U	4	UJ	620	U	300	U	290	U
SW8260C	Isopropylbenzene (cumene)	µg/kg	1	UJ	1.1	U	660	U	690	U	71	U	1	UJ	150	U	76	U	72	U
SW8260C	m,p-Xylene	µg/kg	2	UJ	5.4		1300	U	1400	U	140	U	2	U	310	U	150	U	140	U
SW8260C	Methyl ethyl ketone (2-Butanone)	µg/kg	10	U	11	U	6600	U	6900	U	710	U	10	U	1500	U	760	U	720	U
SW8260C	Methyl isobutyl ketone (4-Methyl-2-pentanone)	µg/kg	10	UJ	11	U	6600	U	6900	U	710	U	10	U	1500	U	760	U	720	U
SW8260C	Methylene chloride	µg/kg	5.1	U	5.4	U	3300	U	3400	U	360	U	5	U	770	U	380	U	360	U
SW8260C	Naphthalene	µg/kg	4	UJ	4.3	U	2600	U	2700	U	280	U	4	UJ	620	U	300	U	290	U
SW8260C	n-Butylbenzene	µg/kg	1	UJ	1.1	U	660	U	690	U	71	U	1	UJ	150	U	76	U	72	U
SW8260C	n-Propylbenzene	µg/kg	1	UJ	1.1	U	660	U	690	U	71	U	1	UJ	150	U	76	U	72	U
SW8260C	o-Xylene (1,2-Dimethylbenzene)	µg/kg	1	UJ	1.8		660	U	690	U	71	U	1	U	150	U	76	U	72	U
SW8260C	p-Isopropyltoluene	µg/kg	1	UJ	1.1	U	660	U	690	U	71	U	1	UJ	150	U	76	U	72	U
SW8260C	sec-Butylbenzene	µg/kg	1	UJ	1.1	U	660	U	690	U	71	U	1	UJ	150	U	76	U	72	U
SW8260C	Styrene	µg/kg	1	UJ	1.1	U	660	U	690	U	71	U	1	U	150	U	76	U	72	U
SW8260C	t-Butylbenzene	µg/kg	2	UJ	2.1	U	1300	U	1400	U	140	U	2	UJ	310	U	150	U	140	U
SW8260C	tert-Butyl methyl ether	µg/kg	2	U	2.1	U	1300	U	1400	U	140	U	2	U	310	U	150	U	140	U
SW8260C	Tetrachloroethylene (PCE)	µg/kg	0.51	UJ	0.54	U	330	U	340	U	36	U	0.5	U	77	U	38	U	36	U
SW8260C	Toluene	µg/kg	1	UJ	1.1	U	660	U	690	U	71	U	1	U	150	U	58	J	52	J
SW8260C	trans-1,2-Dichloroethylene	µg/kg	1.5	U	1.6	U	990	U	170	J	48	J	1.5	U	24	J	320		480	
SW8260C	trans-1,3-Dichloropropene	µg/kg	1	UJ	1.1	U	660	U	690	U	71	U	1	U	150	U	76	U	72	U
SW8260C	Trichloroethene (TCE)	µg/kg	0.51	U	0.54	U	260000		290000		750		1.1		69000		58	J	130	J
SW8260C	Trichlorofluoromethane	µg/kg	4	U	4.3	U	2600	U	2700	U	280	U	4	U	620	U	300	U	290	U
SW8260C	Vinyl acetate	µg/kg	10	U	11	U	6600	U	6900	U	710	U	10	U	1500	U	760	U	720	U
SW8260C	Vinyl chloride	µg/kg	1	U	1.1	U	410	J	450	J	140	J	1	U	150	U	360	J	4300	J
SW8260C	CVOCs	µg/kg	1.5	U	1.6	U	285410		343750		11998		1.33		77324		26738		34944	

Table 1. April 2022 DPT Soils Results

Pre-Design Investigation Work Plan Addendum

Essex-Hope Site, Jamestown, New York

		Location	DPT-067		DPT-067		DPT-067		DPT-067		DPT-068		DPT-068		DPT-068		DPT-068		DPT-068	
		Sample Name	DPT-67-36-37-4/6/2022		DPT-67-42-43-4/6/2022		DPT-67-44-45-4/6/2022		DPT-67-4-5-4/6/2022		DPT-68-2-3-4/11/2022		DPT-68-2-3-4/11/2022		DPT-68-28-29-4/11/2022		DPT-68-32-33-4/11/2022		DPT-68-35-36-4/11/2022	
		Sample Date	4/6/2022		4/6/2022		4/6/2022		4/6/2022		4/11/2022		4/11/2022		4/11/2022		4/11/2022		4/11/2022	
		Sample Type	N		N		N		N		N		FD		N		N		N	
		Depth	36-37		42-43		44-45		4-5		2-3		2-3		28-29		32-33		35-36	
U.S. Environmental Protection Agency Method	Chemical	Units																		
SW8260C	Dichlorodifluoromethane	µg/kg	9.8	U	740	U	11	U	8.9	U	11	U	10	U	720	U	720	U	9.8	U
SW8260C	Ethylbenzene	µg/kg	0.98	U	74	U	1.1	U	0.89	U	1.1	U	1	U	72	U	72	U	0.98	U
SW8260C	Hexachlorobutadiene	µg/kg	3.9	U	300	U	4.2	U	3.6	U	4.6	U	4.2	UJ	290	U	290	U	3.9	U
SW8260C	Isopropylbenzene (cumene)	µg/kg	0.98	UJ	74	U	1.1	U	0.89	U	1.1	U	1	UJ	72	U	72	U	0.98	U
SW8260C	m,p-Xylene	µg/kg	2	U	150	U	2.1	U	1.8	U	2.3	U	2.1	U	140	U	140	U	2	U
SW8260C	Methyl ethyl ketone (2-Butanone)	µg/kg	9.8	U	740	U	11	U	8.9	U	11	U	10	U	720	U	720	U	9.8	U
SW8260C	Methyl isobutyl ketone (4-Methyl-2-pentanone)	µg/kg	9.8	U	740	U	11	U	8.9	U	11	U	10	U	720	U	720	U	9.8	U
SW8260C	Methylene chloride	µg/kg	4.9	U	370	U	5.3	U	4.5	U	5.7	U	5.3	U	360	U	360	U	4.9	U
SW8260C	Naphthalene	µg/kg	3.9	UJ	300	U	4.2	U	3.6	U	4.6	U	4.2	UJ	290	U	290	U	3.9	U
SW8260C	n-Butylbenzene	µg/kg	0.98	UJ	74	U	1.1	U	0.89	U	1.1	U	1	UJ	72	U	72	U	0.98	U
SW8260C	n-Propylbenzene	µg/kg	0.98	UJ	74	U	1.1	U	0.89	U	1.1	U	1	UJ	72	U	72	U	0.98	U
SW8260C	o-Xylene (1,2-Dimethylbenzene)	µg/kg	0.98	U	74	U	1.1	U	0.89	U	1.1	U	1	U	72	U	72	U	0.98	U
SW8260C	p-Isopropyltoluene	µg/kg	0.98	UJ	74	U	1.1	U	0.89	U	1.1	U	1	UJ	72	U	72	U	0.98	U
SW8260C	sec-Butylbenzene	µg/kg	0.98	UJ	74	U	1.1	U	0.89	U	1.1	U	1	UJ	72	U	72	U	0.98	U
SW8260C	Styrene	µg/kg	0.98	U	74	U	1.1	U	0.89	U	1.1	U	1	U	72	U	72	U	0.98	U
SW8260C	t-Butylbenzene	µg/kg	2	UJ	150	U	2.1	U	1.8	U	2.3	U	2.1	UJ	140	U	140	U	2	U
SW8260C	tert-Butyl methyl ether	µg/kg	2	U	150	U	2.1	U	1.8	U	2.3	U	2.1	U	140	U	140	U	2	U
SW8260C	Tetrachloroethylene (PCE)	µg/kg	0.49	U	37	U	0.53	U	0.45	U	0.57	U	0.53	U	36	U	36	U	0.49	U
SW8260C	Toluene	µg/kg	1.8		74	U	1.1	U	0.89	U	1.1	U	1	U	72	U	67	U	0.98	U
SW8260C	trans-1,2-Dichloroethylene	µg/kg	0.36	J	66	J	0.79	J	1.3	U	1.7	U	1.6	U	110	U	20	J	1.5	U
SW8260C	trans-1,3-Dichloropropene	µg/kg	0.98	U	74	U	1.1	U	0.89	U	1.1	U	1	U	72	U	72	U	0.98	U
SW8260C	Trichloroethene (TCE)	µg/kg	5.2		32	J	0.53	U	0.45	U	0.52	U	0.53	U	9200		53		0.49	U
SW8260C	Trichlorofluoromethane	µg/kg	3.9	U	300	U	4.2	U	3.6	U	4.6	U	4.2	U	290	U	290	U	3.9	U
SW8260C	Vinyl acetate	µg/kg	9.8	U	740	U	11	U	8.9	U	11	U	10	U	720	U	720	U	9.8	U
SW8260C	Vinyl chloride	µg/kg	19	J	3400	J	4000	J	0.89	U	1.1	U	1	U	72	U	72	U	11	
SW8260C	CVOCs	µg/kg	46.56		12822		4003.39		1.3	U	1.7	U	1.6	U	9630		10073		11	

Table 1. April 2022 DPT Soils Results

Pre-Design Investigation Work Plan Addendum

Essex-Hope Site, Jamestown, New York

		Location	DPT-068		DPT-069		DPT-069		DPT-069		DPT-069		DPT-069		DPT-070		DPT-070	
		Sample Name	DPT-68-39-40-		DPT-69-22-23-		DPT-69-28-29-		DPT-69-31-32-		DPT-69-38-39-		DPT-69-42.5-43.5-		DPT-69-5-6-		DPT-70-24-25-		DPT-70-29-30-	
		Sample Date	4/11/2022		4/12/2022		4/12/2022		4/12/2022		4/12/2022		4/12/2022		4/12/2022		4/6/2022		4/6/2022	
		Sample Type	N		N		N		N		N		N		N		N		N	
		Depth	39-40		22-23		28-29		31-32		38-39		42.5-43.5		5-6		24-25		29-30	
U.S. Environmental Protection Agency Method	Chemical	Units																		
SW8260C	Dichlorodifluoromethane	µg/kg	9.7	U	11	U	620	U	680	U	11	U	8.9	U	9.4	U	630	U	5900	U
SW8260C	Ethylbenzene	µg/kg	0.97	U	1.1	U	62	U	68	U	1.1	U	0.89	U	0.94	U	63	U	590	U
SW8260C	Hexachlorobutadiene	µg/kg	3.9	U	4.5	U	250	U	270	U	4.3	U	3.6	U	3.8	U	250	U	2400	U
SW8260C	Isopropylbenzene (cumene)	µg/kg	0.97	U	1.1	U	62	U	68	U	1.1	U	0.89	U	0.94	U	63	U	590	U
SW8260C	m,p-Xylene	µg/kg	1.9	U	2.2	U	120	U	140	U	2.1	U	1.8	U	1.9	U	130	U	1200	U
SW8260C	Methyl ethyl ketone (2-Butanone)	µg/kg	9.7	U	11	U	620	U	680	U	11	U	8.9	U	9.4	U	630	U	5900	U
SW8260C	Methyl isobutyl ketone (4-Methyl-2-pentanone)	µg/kg	9.7	U	11	U	620	U	680	U	11	U	8.9	U	9.4	U	630	U	5900	U
SW8260C	Methylene chloride	µg/kg	4.9	U	5.6	U	310	U	340	U	5.3	U	4.4	U	4.7	U	320	U	3000	U
SW8260C	Naphthalene	µg/kg	3.9	U	4.5	U	250	U	270	U	4.3	U	3.6	U	3.8	U	250	U	2400	U
SW8260C	n-Butylbenzene	µg/kg	0.97	U	1.1	U	62	U	68	U	1.1	U	0.89	U	0.94	U	63	U	590	U
SW8260C	n-Propylbenzene	µg/kg	0.97	U	1.1	U	62	U	68	U	1.1	U	0.89	U	0.94	U	63	U	590	U
SW8260C	o-Xylene (1,2-Dimethylbenzene)	µg/kg	0.97	U	1.1	U	62	U	68	U	1.1	U	0.89	U	0.94	U	63	U	590	U
SW8260C	p-Isopropyltoluene	µg/kg	0.97	U	1.1	U	62	U	68	U	1.1	U	0.89	U	0.94	U	63	U	590	U
SW8260C	sec-Butylbenzene	µg/kg	0.97	U	1.1	U	62	U	68	U	1.1	U	0.89	U	0.94	U	63	U	590	U
SW8260C	Styrene	µg/kg	0.97	U	1.1	U	62	U	68	U	1.1	U	0.89	U	0.94	U	63	U	590	U
SW8260C	t-Butylbenzene	µg/kg	1.9	U	2.2	U	120	U	140	U	2.1	U	1.8	U	1.9	U	130	U	1200	U
SW8260C	tert-Butyl methyl ether	µg/kg	1.9	U	2.2	U	120	U	140	U	2.1	U	1.8	U	1.9	U	130	U	1200	U
SW8260C	Tetrachloroethylene (PCE)	µg/kg	0.49	U	0.56	U	31	U	34	U	0.53	U	0.44	U	0.47	U	32	U	400	
SW8260C	Toluene	µg/kg	0.97	U	1.1	U	82	U	68	U	1.1	U	0.89	U	0.94	U	63	U	590	U
SW8260C	trans-1,2-Dichloroethylene	µg/kg	1.4	U	1.7	U	51	J	41	J	1.6	U	1.3	U	1.4	U	19	J	890	U
SW8260C	trans-1,3-Dichloropropene	µg/kg	0.97	U	1.1	U	62	U	68	U	1.1	U	0.89	U	0.94	U	63	U	590	U
SW8260C	Trichloroethene (TCE)	µg/kg	0.13	U	2.1	U	250000		11000		2	U	1.8	U	0.32	U	2100		320000	
SW8260C	Trichlorofluoromethane	µg/kg	3.9	U	4.5	U	250	U	270	U	4.3	U	3.6	U	3.8	U	250	U	2400	U
SW8260C	Vinyl acetate	µg/kg	9.7	U	11	U	620	U	680	U	11	U	8.9	U	9.4	U	630	U	5900	U
SW8260C	Vinyl chloride	µg/kg	0.97	U	1.1	U	290		110	J	1.1	U	0.89	U	0.94	U	230	J	590	U
SW8260C	CVOCs	µg/kg	1.4	U	3.7	U	273491		18127		2	U	1.8	U	1.4	U	8509		346000	

Table 1. April 2022 DPT Soils Results

Pre-Design Investigation Work Plan Addendum

Essex-Hope Site, Jamestown, New York

		Location	DPT-070		DPT-070		DPT-070		DPT-070		DPT-071		DPT-071		DPT-071		DPT-071		DPT-071	
		Sample Name	DPT-70-36-37-		DPT-70-36-37-		DPT-70-44-45-		DPT-70-4-5-		DPT-71-21-22-		DPT-71-21-22-		DPT-71-29-30-		DPT-71-30-31-		DPT-71-39-40	
		Sample Date	4/6/2022		4/6/2022		4/6/2022		4/6/2022		4/5/2022		4/5/2022		4/5/2022		4/5/2022		4/5/2022	
		Sample Type	N		FD		N		N		N		FD		N		N		N	
		Depth	36-37		36-37		44-45		4-5		21-22		21-22		29-30		30-31		39-40	
U.S. Environmental Protection Agency Method	Chemical	Units																		
SW8260C	Dichlorodifluoromethane	µg/kg	710	U	670	U	11	U	8.3	U	10	U	11	UJ	870	U	780	U	10	
SW8260C	Ethylbenzene	µg/kg	71	U	67	U	1.1	U	0.83	U	1	UJ	1.1	U	87	U	78	U	1	
SW8260C	Hexachlorobutadiene	µg/kg	280	U	270	U	4.3	UJ	3.3	U	4.1	UJ	4.4	UJ	350	U	310	U	4.1	
SW8260C	Isopropylbenzene (cumene)	µg/kg	71	U	67	U	1.1	UJ	0.83	U	1	UJ	1.1	UJ	87	U	78	U	1	
SW8260C	m,p-Xylene	µg/kg	140	U	130	U	2.1	U	1.7	U	2	UJ	2.2	UJ	170	U	160	U	2.1	
SW8260C	Methyl ethyl ketone (2-Butanone)	µg/kg	710	U	670	U	11	U	8.3	U	10	U	11	UJ	870	U	780	U	10	
SW8260C	Methyl isobutyl ketone (4-Methyl-2-pentanone)	µg/kg	710	U	670	U	11	U	8.3	U	10	UJ	11	UJ	870	U	780	U	10	
SW8260C	Methylene chloride	µg/kg	360	U	330	U	5.3	U	4.2	U	5.1	U	5.4	UJ	440	U	390	U	5.2	
SW8260C	Naphthalene	µg/kg	280	U	270	U	4.3	UJ	3.3	U	4.1	UJ	4.4	UJ	350	U	310	U	4.1	
SW8260C	n-Butylbenzene	µg/kg	71	U	67	U	1.1	UJ	0.83	U	1	UJ	1.1	UJ	87	U	78	U	1	
SW8260C	n-Propylbenzene	µg/kg	71	U	67	U	1.1	UJ	0.83	U	1	UJ	1.1	UJ	87	U	78	U	1	
SW8260C	o-Xylene (1,2-Dimethylbenzene)	µg/kg	71	U	67	U	1.1	U	0.83	U	1	UJ	1.1	UJ	87	U	78	U	1	
SW8260C	p-Isopropyltoluene	µg/kg	71	U	67	U	1.1	UJ	0.83	U	1	UJ	1.1	UJ	87	U	78	U	1	
SW8260C	sec-Butylbenzene	µg/kg	71	U	67	U	1.1	UJ	0.83	U	1	UJ	1.1	UJ	87	U	78	U	1	
SW8260C	Styrene	µg/kg	71	U	67	U	1.1	U	0.83	U	1	UJ	1.1	UJ	87	U	78	U	1	
SW8260C	t-Butylbenzene	µg/kg	140	U	130	U	2.1	UJ	1.7	U	2	UJ	2.2	UJ	170	U	160	U	2.1	
SW8260C	tert-Butyl methyl ether	µg/kg	140	U	130	U	2.1	U	1.7	U	2	U	2.2	UJ	170	U	160	U	2.1	
SW8260C	Tetrachloroethylene (PCE)	µg/kg	36	U	33	U	0.53	U	0.42	U	0.51	UJ	0.54	UJ	44	U	39	U	0.52	
SW8260C	Toluene	µg/kg	71	U	67	U	1.1	U	0.83	U	1	UJ	1.1	UJ	87	U	78	U	1	
SW8260C	trans-1,2-Dichloroethylene	µg/kg	22	J	25	J	1.6	U	1.2	U	1.5	U	1.6	UJ	80	J	120	U	1.6	
SW8260C	trans-1,3-Dichloropropene	µg/kg	71	U	67	U	1.1	U	0.83	U	1	UJ	1.1	UJ	87	U	78	U	1	
SW8260C	Trichloroethene (TCE)	µg/kg	3000		2400		0.74		0.35	J	0.51	U	0.54	UJ	44	U	39	U	0.52	
SW8260C	Trichlorofluoromethane	µg/kg	280	U	270	U	4.3	U	3.3	U	4.1	U	4.4	UJ	350	U	310	U	4.1	
SW8260C	Vinyl acetate	µg/kg	710	U	670	U	11	U	8.3	U	10	U	11	UJ	870	U	780	U	10	
SW8260C	Vinyl chloride	µg/kg	50	J	41	J	1.1	U	0.83	U	1	U	1.1	UJ	200	J	440		1	
SW8260C	CVOCs	µg/kg	6516		6208		0.96		0.78		1.5	U	1.6	UJ	14470		2240		0.23	

Table 1. April 2022 DPT Soils Results

Pre-Design Investigation Work Plan Addendum

Essex-Hope Site, Jamestown, New York

		Location		DPT-071		DPT-071		DPT-072		DPT-072		DPT-072		DPT-072		DPT-072		DPT-073	
		Sample Name	-	DPT-71-43-44-		DPT-71-4-5-		DPT-72-24-25-		DPT-72-32-33-		DPT-72-38-39-		DPT-72-39-40-		DPT-72-4-5-		DPT-73-14-15-	
		Sample Date		4/5/2022		4/5/2022		4/5/2022		4/5/2022		4/5/2022		4/5/2022		4/5/2022		4/7/2022	
		Sample Type		N		N		N		N		N		N		N		N	
		Depth		43-44		4-5		24-45		32-33		38-39		39-40		4-5		14-15	
U.S. Environmental Protection Agency Method	Chemical	Units																	
SW8260C	Dichlorodifluoromethane	µg/kg	U	9.7	U	10	U	600	U	720	U	11	U	11	U	10	U	6400	U
SW8260C	Ethylbenzene	µg/kg	U	0.97	U	1	U	60	U	72	U	1.1	UJ	1.1	UJ	1	U	250	J
SW8260C	Hexachlorobutadiene	µg/kg	UJ	3.9	UJ	4.1	U	240	U	290	U	4.4	UJ	4.5	UJ	4	U	2600	U
SW8260C	Isopropylbenzene (cumene)	µg/kg	UJ	0.97	UJ	1	U	60	U	72	U	1.1	UJ	1.1	UJ	1	U	120	J
SW8260C	m,p-Xylene	µg/kg	U	1.9	U	2	U	120	U	140	U	2.2	UJ	2.3	UJ	2	U	1000	J
SW8260C	Methyl ethyl ketone (2-Butanone)	µg/kg	U	9.7	U	10	U	600	U	720	U	11	U	11	U	10	U	6400	U
SW8260C	Methyl isobutyl ketone (4-Methyl-2-pentanone)	µg/kg	U	9.7	U	10	U	600	U	720	U	11	UJ	11	UJ	10	U	6400	U
SW8260C	Methylene chloride	µg/kg	U	4.9	U	5.1	U	300	U	360	U	5.4	U	5.7	U	5	U	3200	U
SW8260C	Naphthalene	µg/kg	UJ	3.9	UJ	0.95	J	240	U	290	U	4.4	UJ	4.5	UJ	4	U	2600	U
SW8260C	n-Butylbenzene	µg/kg	UJ	0.97	UJ	1	U	60	U	72	U	1.1	UJ	1.1	UJ	1	U	640	U
SW8260C	n-Propylbenzene	µg/kg	UJ	0.97	UJ	1	U	60	U	72	U	1.1	UJ	1.1	UJ	1	U	760	J
SW8260C	o-Xylene (1,2-Dimethylbenzene)	µg/kg	U	0.97	U	1	U	60	U	72	U	1.1	UJ	1.1	UJ	1	U	550	J
SW8260C	p-Isopropyltoluene	µg/kg	UJ	0.97	UJ	1	U	60	U	72	U	1.1	UJ	1.1	UJ	1	U	640	U
SW8260C	sec-Butylbenzene	µg/kg	UJ	0.97	UJ	1	U	60	U	72	U	1.1	UJ	1.1	UJ	1	U	640	U
SW8260C	Styrene	µg/kg	U	0.97	U	1	U	60	U	72	U	1.1	UJ	1.1	UJ	1	U	640	U
SW8260C	t-Butylbenzene	µg/kg	UJ	1.9	UJ	2	U	120	U	140	U	2.2	UJ	2.3	UJ	2	U	1300	U
SW8260C	tert-Butyl methyl ether	µg/kg	U	1.9	U	2	U	120	U	140	U	2.2	U	2.3	U	2	U	1300	U
SW8260C	Tetrachloroethylene (PCE)	µg/kg	U	0.49	U	0.51	U	30	U	36	U	0.54	UJ	0.57	UJ	0.5	U	1400	
SW8260C	Toluene	µg/kg	U	0.97	U	1	U	60	U	72	U	1.1	UJ	1.1	UJ	1	U	640	U
SW8260C	trans-1,2-Dichloroethylene	µg/kg	U	1.5	U	1.5	U	370		36	J	1.6	U	1.7	U	1.5	U	140	J
SW8260C	trans-1,3-Dichloropropene	µg/kg	U	0.97	U	1	U	60	U	72	U	1.1	UJ	1.1	UJ	1	U	640	U
SW8260C	Trichloroethene (TCE)	µg/kg	U	0.49	U	0.51	U	4600		2000		0.38	J	0.57	U	6.2		280000	
SW8260C	Trichlorofluoromethane	µg/kg	U	3.9	U	4.1	U	240	U	290	U	4.4	U	4.5	U	4	U	2600	U
SW8260C	Vinyl acetate	µg/kg	U	9.7	U	10	U	600	U	720	U	11	U	11	U	10	U	6400	U
SW8260C	Vinyl chloride	µg/kg	U	0.97	U	1	U	60	U	72	U	11	J	4	J	1	U	640	U
SW8260C	CVOCs	µg/kg		1.5	U	1.5	U	8370		2436		11.93		4		6.2		311140	

Table 1. April 2022 DPT Soils Results

Pre-Design Investigation Work Plan Addendum

Essex-Hope Site, Jamestown, New York

		Location	DPT-073		DPT-073		DPT-073		DPT-073		DPT-073		DPT-074		DPT-074		DPT-074		DPT-074	
		Sample Name	DPT-73-20-21-		DPT-73-29-30-		DPT-73-37-38-		DPT-73-4-5-		DPT-73-49-50-		DPT-74-26-27-		DPT-74-26-27-		DPT-74-31-32-		DPT-74-37-38-	
		Sample Date	4/7/2022		4/11/2022		4/11/2022		4/7/2022		4/11/2022		4/7/2022		4/7/2022		4/7/2022		4/7/2022	
		Sample Type	N		N		N		N		N		N		FD		N		N	
		Depth	20-21		29-30		37-38		4-5		49-50		26-27		26-27		31-32		37-38	
U.S. Environmental Protection Agency Method	Chemical	Units																		
SW8260C	Dichlorodifluoromethane	µg/kg	3600	U	11	U	660	U	750	U	9.1	U	1800	U	1600	U	2900	U	9.8	U
SW8260C	Ethylbenzene	µg/kg	130	J	1.1	U	66	U	120		0.91	U	180	U	160	U	290	U	0.98	U
SW8260C	Hexachlorobutadiene	µg/kg	1400	U	4.4	U	260	U	300	U	3.6	U	720	U	640	U	1100	U	3.9	U
SW8260C	Isopropylbenzene (cumene)	µg/kg	92	J	1.1	U	66	U	32	J	0.91	U	180	U	160	U	290	U	0.98	UJ
SW8260C	m,p-Xylene	µg/kg	330	J	2.2	U	130	U	600		1.8	U	360	U	320	U	570	U	2	U
SW8260C	Methyl ethyl ketone (2-Butanone)	µg/kg	3600	U	11	U	660	U	750	U	9.1	U	1800	U	1600	U	2900	U	9.8	U
SW8260C	Methyl isobutyl ketone (4-Methyl-2-pentanone)	µg/kg	3600	U	11	U	660	U	750	U	9.1	U	1800	U	1600	U	2900	U	9.8	U
SW8260C	Methylene chloride	µg/kg	1800	U	5.6	U	330	U	190	J	4.6	U	900	U	810	U	1400	U	4.9	U
SW8260C	Naphthalene	µg/kg	300	J	4.4	U	260	U	540		3.6	U	720	U	640	U	1100	U	3.9	UJ
SW8260C	n-Butylbenzene	µg/kg	360	U	1.1	U	66	U	21	J	0.91	U	180	U	160	U	290	U	0.98	UJ
SW8260C	n-Propylbenzene	µg/kg	530		1.1	U	66	U	63	J	0.91	U	180	U	160	U	290	U	0.98	UJ
SW8260C	o-Xylene (1,2-Dimethylbenzene)	µg/kg	420		1.1	U	66	U	280		0.91	U	180	U	160	U	290	U	0.98	U
SW8260C	p-Isopropyltoluene	µg/kg	360	U	1.1	U	66	U	14	U	0.91	U	180	U	160	U	290	U	0.98	UJ
SW8260C	sec-Butylbenzene	µg/kg	360	U	1.1	U	66	U	15	J	0.91	U	180	U	160	U	290	U	0.98	UJ
SW8260C	Styrene	µg/kg	360	U	1.1	U	66	U	75	U	0.91	U	180	U	160	U	290	U	0.98	U
SW8260C	t-Butylbenzene	µg/kg	730	U	2.2	U	130	U	150	U	1.8	U	360	U	320	U	570	U	2	UJ
SW8260C	tert-Butyl methyl ether	µg/kg	730	U	2.2	U	130	U	150	U	1.8	U	360	U	320	U	570	U	2	U
SW8260C	Tetrachloroethylene (PCE)	µg/kg	470		0.56	U	33	U	23	J	0.46	U	35	J	37	J	140	U	0.49	U
SW8260C	Toluene	µg/kg	560		1.1	U	44	J	600		0.91	U	180	U	160	U	290	U	0.98	U
SW8260C	trans-1,2-Dichloroethylene	µg/kg	130	J	47		180		40	J	1.4	U	270	U	240	U	190	J	1.1	J
SW8260C	trans-1,3-Dichloropropene	µg/kg	360	U	1.1	U	66	U	75	U	0.91	U	180	U	160	U	290	U	0.98	U
SW8260C	Trichloroethene (TCE)	µg/kg	150000		53		32000		13000		0.46	U	740000		670000		120000		78	
SW8260C	Trichlorofluoromethane	µg/kg	1400	U	4.4	U	260	U	300	U	3.6	U	720	U	640	U	1100	U	3.9	U
SW8260C	Vinyl acetate	µg/kg	3600	U	11	U	660	U	750	U	9.1	U	1800	U	1600	U	2900	U	9.8	U
SW8260C	Vinyl chloride	µg/kg	310	J	160		60	J	75	U	4	U	150	J	150	J	1300		190	J
SW8260C	CVOCs	µg/kg	213620		2072		38950		13590		3.3	U	746850		676650		145574		450.01	

Table 1. April 2022 DPT Soils Results

Pre-Design Investigation Work Plan Addendum

Essex-Hope Site, Jamestown, New York

		Location	DPT-074		DPT-075		DPT-075		DPT-075		DPT-075		DPT-075		DPT-076		DPT-076		DPT-076	
		Sample Name	DPT-74-4-5-		DPT-75-25-26-		DPT-75-25-26-		DPT-75-33-34-		DPT-75-38-39-		DPT-75-9-10-		DPT-76-18-19-		DPT-76-24-25-		DPT-76-34-34.5-	
		Sample Date	4/7/2022		4/7/2022		4/7/2022		4/7/2022		4/7/2022		4/7/2022		4/12/2022		4/12/2022		4/12/2022	
		Sample Type	N		N		FD		N		N		N		N		N		N	
		Depth	4-5		25-26		25-26		33-34		38-39		9-10		18-19		24-25		34-34.5	
U.S. Environmental Protection Agency Method	Chemical	Units																		
SW8260C	Dichlorodifluoromethane	µg/kg	7.9	U	2900	U	330	U	720	U	9.6	U	10	U	1400	U	360	U	12	U
SW8260C	Ethylbenzene	µg/kg	0.79	U	290	U	33	U	72	U	0.96	UJ	1	U	140	U	40		1.2	U
SW8260C	Hexachlorobutadiene	µg/kg	3.2	U	1200	U	130	U	290	U	3.8	UJ	4	U	570	U	150	U	4.7	U
SW8260C	Isopropylbenzene (cumene)	µg/kg	0.79	U	290	U	33	U	72	U	0.96	UJ	1	U	140	U	44		1.2	U
SW8260C	m,p-Xylene	µg/kg	1.6	U	580	U	67	U	140	U	1.9	UJ	2	U	280	U	210		2.4	U
SW8260C	Methyl ethyl ketone (2-Butanone)	µg/kg	7.9	U	2900	U	330	U	720	U	9.6	U	10	U	1400	U	360	U	12	U
SW8260C	Methyl isobutyl ketone (4-Methyl-2-pentanone)	µg/kg	7.9	U	2900	U	330	U	720	U	9.6	UJ	10	U	1400	U	360	U	12	U
SW8260C	Methylene chloride	µg/kg	4	U	1400	U	170	U	360	U	4.8	U	5	U	710	U	180	U	5.9	U
SW8260C	Naphthalene	µg/kg	3.2	U	1200	U	130	U	290	U	3.8	UJ	4	U	120	J	150	U	4.7	U
SW8260C	n-Butylbenzene	µg/kg	0.79	U	290	U	33	U	72	U	0.96	UJ	1	U	140	U	36	U	1.2	U
SW8260C	n-Propylbenzene	µg/kg	0.79	U	290	U	6.4	J	72	U	0.96	UJ	1	U	140	U	31	J	1.2	U
SW8260C	o-Xylene (1,2-Dimethylbenzene)	µg/kg	0.79	U	290	U	13	J	72	U	0.96	UJ	1	U	140	U	18	J	1.2	U
SW8260C	p-Isopropyltoluene	µg/kg	0.79	U	290	U	33	U	72	U	0.96	UJ	1	U	140	U	36	U	1.2	U
SW8260C	sec-Butylbenzene	µg/kg	0.79	U	290	U	33	U	72	U	0.96	UJ	1	U	140	U	36	U	1.2	U
SW8260C	Styrene	µg/kg	0.79	U	290	U	33	U	72	U	0.96	UJ	1	U	140	U	36	U	1.2	U
SW8260C	t-Butylbenzene	µg/kg	1.6	U	580	U	67	U	140	U	1.9	UJ	2	U	280	U	73	U	2.4	U
SW8260C	tert-Butyl methyl ether	µg/kg	1.6	U	580	U	67	U	140	U	1.9	U	2	U	280	U	73	U	2.4	U
SW8260C	Tetrachloroethylene (PCE)	µg/kg	0.4	U	210		30		36	U	0.48	UJ	0.5	U	71	U	18	U	0.59	U
SW8260C	Toluene	µg/kg	0.79	U	700		90	U	72	U	0.96	UJ	1	U	550		140	U	1.2	U
SW8260C	trans-1,2-Dichloroethylene	µg/kg	1.2	U	39	J	8.2	J	21	J	1.4	U	1.5	U	28	J	55	U	1.8	U
SW8260C	trans-1,3-Dichloropropene	µg/kg	0.79	U	290	U	33	U	72	U	0.96	UJ	1	U	140	U	36	U	1.2	U
SW8260C	Trichloroethene (TCE)	µg/kg	0.28	J	110000		150000		24	J	0.57	J	0.5	U	64000		9000		0.59	U
SW8260C	Trichlorofluoromethane	µg/kg	3.2	U	1200	U	130	U	290	U	3.8	U	4	U	570	U	150	U	4.7	U
SW8260C	Vinyl acetate	µg/kg	7.9	U	2900	U	330	U	720	U	9.6	U	10	U	1400	U	360	U	12	U
SW8260C	Vinyl chloride	µg/kg	0.79	U	580		200		190		91	J	1	U	130	J	22	J	1.2	U
SW8260C	CVOCs	µg/kg	0.28		124619		152220.2		1535		92.45		1.5	U	69258		9612		1.8	U

Table 1. April 2022 DPT Soils Results

Pre-Design Investigation Work Plan Addendum

Essex-Hope Site, Jamestown, New York

		Location	DPT-076		DPT-076		DPT-076		DPT-076		DPT-077		DPT-077		DPT-077		DPT-077		DPT-077	
		Sample Name	DPT-76-36-37-		DPT-76-42-43-		DPT-76-42-43-		DPT-76-5-6-		DPT-77-13.5-15-		DPT-77-20-25-		DPT-77-29-30-		DPT-77-34-35-		DPT-77-4-5-	
		Sample Date	4/12/2022		4/12/2022		4/12/2022		4/12/2022		4/5/2022		4/5/2022		4/5/2022		4/5/2022		4/5/2022	
		Sample Type	N		N		FD		N		N		N		N		N		N	
		Depth	36-37		42-43		42-43		5-6		13.5-15		20-25		29-30		34-35		4-5	
U.S. Environmental Protection Agency Method	Chemical	Units																		
SW8260C	Dichlorodifluoromethane	µg/kg	11	U	11	U	8.4	U	10	U	8.9	U	9.8	U	670	U	670	U	15	UJ
SW8260C	Ethylbenzene	µg/kg	1.1	U	0.31	J	0.29	J	0.63	J	0.89	U	0.98	U	67	U	67	U	1.5	UJ
SW8260C	Hexachlorobutadiene	µg/kg	4.2	U	4.6	U	3.3	U	4	U	3.6	U	3.9	U	270	U	270	U	6.1	UJ
SW8260C	Isopropylbenzene (cumene)	µg/kg	1.1	U	0.17	J	0.14	J	9.3		0.89	U	0.98	U	67	U	67	U	1.5	UJ
SW8260C	m,p-Xylene	µg/kg	2.1	U	1.2	J	1.1	J	4.8		1.8	U	2	U	130	U	130	U	3.1	UJ
SW8260C	Methyl ethyl ketone (2-Butanone)	µg/kg	11	U	11	U	8.4	U	31	J	8.9	U	9.8	U	670	U	670	U	4.3	J
SW8260C	Methyl isobutyl ketone (4-Methyl-2-pentanone)	µg/kg	11	U	11	U	8.4	U	10	U	8.9	U	9.8	U	670	U	670	U	15	UJ
SW8260C	Methylene chloride	µg/kg	5.3	U	5.7	U	4.2	U	5.1	U	4.5	U	4.9	U	330	U	340	U	7.7	UJ
SW8260C	Naphthalene	µg/kg	4.2	U	4.6	U	3.3	U	4	U	3.6	U	3.9	U	270	U	270	U	15	J
SW8260C	n-Butylbenzene	µg/kg	1.1	U	1.1	U	0.84	U	0.17	J	0.89	U	0.98	U	67	U	67	U	1.5	UJ
SW8260C	n-Propylbenzene	µg/kg	1.1	U	1.1	U	0.84	U	2.6	J	0.89	U	0.98	U	67	U	67	U	1.5	UJ
SW8260C	o-Xylene (1,2-Dimethylbenzene)	µg/kg	1.1	U	1.1	U	0.84	U	1.1		0.89	U	0.98	U	67	U	67	U	1.5	UJ
SW8260C	p-Isopropyltoluene	µg/kg	1.1	U	1.1	U	0.84	U	0.29	J	0.89	U	0.98	U	67	U	67	U	2.9	J
SW8260C	sec-Butylbenzene	µg/kg	1.1	U	1.1	U	0.84	U	0.57	J	0.89	U	0.98	U	67	U	67	U	1.5	UJ
SW8260C	Styrene	µg/kg	1.1	U	1.1	U	0.84	U	1	U	0.89	U	0.98	U	67	U	67	U	1.5	UJ
SW8260C	t-Butylbenzene	µg/kg	2.1	U	2.3	U	1.7	U	2	U	1.8	U	2	U	130	U	130	U	3.1	UJ
SW8260C	tert-Butyl methyl ether	µg/kg	2.1	U	2.3	U	1.7	U	2	U	1.8	U	2	U	130	U	130	U	3.1	UJ
SW8260C	Tetrachloroethylene (PCE)	µg/kg	0.53	U	0.57	U	0.42	U	0.51	U	0.45	U	0.49	U	33	U	34	U	0.77	UJ
SW8260C	Toluene	µg/kg	1.1	U	1.1	U	0.84	U	1		0.89	U	0.98	U	67	U	67	U	1.5	UJ
SW8260C	trans-1,2-Dichloroethylene	µg/kg	1.6	U	1.7	U	1.2	U	1.5	U	1.3	U	1.5	U	36	J	16	J	2.3	UJ
SW8260C	trans-1,3-Dichloropropene	µg/kg	1.1	U	1.1	U	0.84	U	1	U	0.89	U	0.98	U	67	U	67	U	1.5	UJ
SW8260C	Trichloroethene (TCE)	µg/kg	0.15	J	4.1		4.9		0.44	U	24		0.49	U	10000		780		1.7	J
SW8260C	Trichlorofluoromethane	µg/kg	4.2	U	4.6	U	3.3	U	4	U	3.6	U	3.9	U	270	U	270	U	6.1	UJ
SW8260C	Vinyl acetate	µg/kg	11	U	11	U	8.4	U	10	U	8.9	U	9.8	U	670	U	670	U	15	UJ
SW8260C	Vinyl chloride	µg/kg	1.1	U	1.1	U	0.34	J	1	U	0.89	U	0.98	U	33	J	270		1.5	UJ
SW8260C	CVOCs	µg/kg	0.15		5.6		6.84		1.5	U	25.7		1.5	U	18428		5901		1.7	

Table 1. April 2022 DPT Soils Results

Notes:
µg/kg = microgram(s) per kilogram
CVOC = chlorinated volatile organic compounds
J = result is an estimate
N = normal
U = analyte not detected

Table 2. Pre-Design Investigation Phase II Sample Matrix

Pre-Design Investigation Work Plan Addendum

Essex-Hope Site, Jamestown, New York

Location Identification	Anticipated Total Boring Depth[a] (feet bgs)	Sample Media	Geologic Zone	Anticipated Sample Depth Range (feet bgs)	Sample Identification	VOCs (SW8260C)	Location Sampling Objective
Groundwater Sample Borings							
DPT-84	~30	Groundwater	Top of Fine Silty Sand	28-29	DPT-84-GW-YYYYMMDD	x	Characterize Off-Site plume (DPT69 previously drilled here, highest soil concentration at 28-29 ft bgs)
DPT-85	~35	Groundwater	Fine Silty Sand	33-34	DPT-85-GW-YYYYMMDD	x	Characterize Off-Site plume (DPT66 previously drilled here, highest soil concentration at 33-34 ft bgs)
Soil and Groundwater Sample Borings							
DPT-86	48	Soil	Shallow Sand and Gravel	2-6	DPT-86-dd-YYYYMMDD	x[b,c]	Delineate NE (drilled next to MIP-22)
		Soil	Shallow Silty Clay	18-21	DPT-86-dd-YYYYMMDD	x[b]	
		Soil	Fine Silty Sand	26-28	DPT-86-dd-YYYYMMDD	x[b]	
		Soil	Fine Silty Sand	30-35	DPT-86-dd-YYYYMMDD	x[b]	
		Soil	Fine Silty Sand	36-40	DPT-86-dd-YYYYMMDD	x[b,d]	
		Soil	Bottom of Fine Silty Sand	46-48	DPT-86-dd-YYYYMMDD	x[b,e]	
		Groundwater	Based on MIP-22 (co-locate with soil sample)		DPT-86-GW-YYYYMMDD	x	
DPT-87	45	Soil	Shallow Sand and Gravel	2-6	DPT-87-dd-YYYYMMDD	x[b,c]	Delineate NE (drilled next to MIP-26)
		Soil	Shallow Silty Clay	18-21	DPT-87-dd-YYYYMMDD	x[b]	
		Soil	Fine Silty Sand	26-28	DPT-87-dd-YYYYMMDD	x[b]	
		Soil	Fine Silty Sand	32-35	DPT-87-dd-YYYYMMDD	x[b]	
		Soil	Fine Silty Sand	36-40	DPT-87-dd-YYYYMMDD	x[b,d]	
		Soil	Bottom of Fine Silty Sand	43-45	DPT-87-dd-YYYYMMDD	x[b,e]	
		Groundwater	Based on MIP-26 (co-locate with soil sample)		DPT-87-GW-YYYYMMDD	x	

[a] Total boring depth will be based on depth to deep silty clay, the estimated depths in this column are based on nearby borings but are approximate. Sample depths are also approximate and will be determined in the field based on sampling objective, observed geology, and PID readings. Goals are generally to obtain a sample from the vadose zone shallow sand and gravel, shallow silty clay, the top of the fine silty sand (where impacts are generally highest), several samples deeper in the fine silty sand (goal < 25 mg/kg VOCs), and bottom of fine silty sand just above the deep silty clay

[b] Put sample on hold at lab, pending results from nearby borings

[c] Collect sample only if PID or staining indicates impacts in vadose zone

[c] If deep silty clay < 40 feet bgs, target silty sand just above silty clay

[e] Collect this sample only if deep silty clay > 40 feet bgs

Notes:

"dd" indicates sample depth interval in feet

"YYYYMMDD" indicates sample collection date

~ = approximate

Table 2. Pre-Design Investigation Phase II Sample Matrix

Pre-Design Investigation Work Plan Addendum

Essex-Hope Site, Jamestown, New York

Location Identification	Anticipated Total Boring Depth[a] (feet bgs)	Sample Media	Geologic Zone	Anticipated Sample Depth Range (feet bgs)	Sample Identification	VOCs (SW8260C)	Location Sampling Objective

< = less than

> = greater than

bgs = below ground surface

DPT = direct-push technology

mg/kg = milligram(s) per kilogram

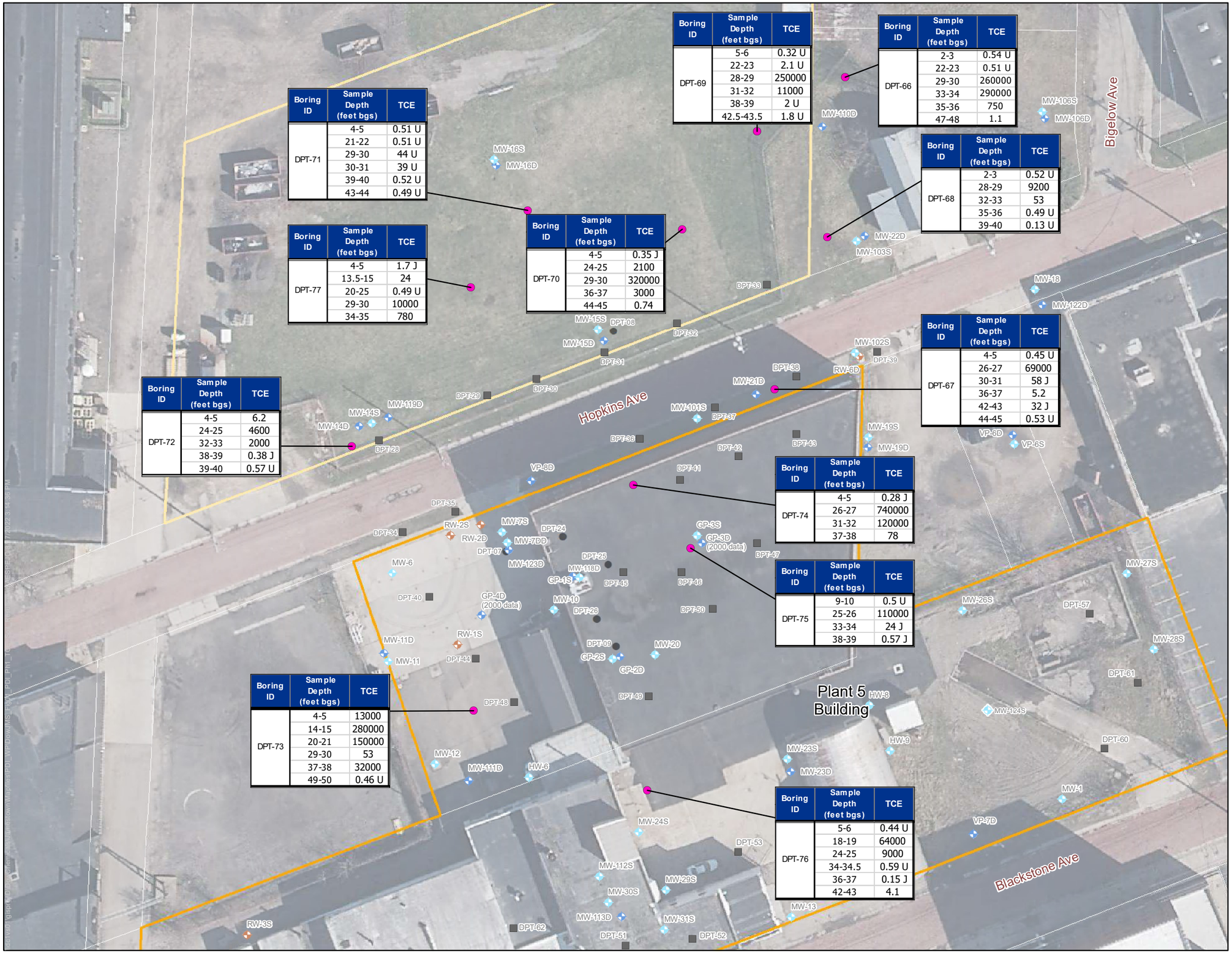
NE = northeast

PID = photoionization detection

SW = southwest

VOC = volatile organic compound

Figures



Boring ID	Sample Depth (feet bgs)	TCE
DPT-71	4-5	0.51 U
	21-22	0.51 U
	29-30	44 U
	30-31	39 U
	39-40	0.52 U
	43-44	0.49 U

Boring ID	Sample Depth (feet bgs)	TCE
DPT-77	4-5	1.7 J
	13.5-15	24
	20-25	0.49 U
	29-30	10000
	34-35	780

Boring ID	Sample Depth (feet bgs)	TCE
DPT-72	4-5	6.2
	24-25	4600
	32-33	2000
	38-39	0.38 J
	39-40	0.57 U

Boring ID	Sample Depth (feet bgs)	TCE
DPT-73	4-5	13000
	14-15	280000
	20-21	150000
	29-30	53
	37-38	32000
	49-50	0.46 U

Boring ID	Sample Depth (feet bgs)	TCE
DPT-70	4-5	0.35 J
	24-25	2100
	29-30	320000
	36-37	3000
	44-45	0.74

Boring ID	Sample Depth (feet bgs)	TCE
DPT-69	5-6	0.32 U
	22-23	2.1 U
	28-29	250000
	31-32	11000
	38-39	2 U
	42.5-43.5	1.8 U

Boring ID	Sample Depth (feet bgs)	TCE
DPT-66	2-3	0.54 U
	22-23	0.51 U
	29-30	260000
	33-34	290000
	35-36	750
	47-48	1.1

Boring ID	Sample Depth (feet bgs)	TCE
DPT-68	2-3	0.52 U
	28-29	9200
	32-33	53
	35-36	0.49 U
	39-40	0.13 U

Boring ID	Sample Depth (feet bgs)	TCE
DPT-67	4-5	0.45 U
	26-27	69000
	30-31	58 J
	36-37	5.2
	42-43	32 J
	44-45	0.53 U

Boring ID	Sample Depth (feet bgs)	TCE
DPT-74	4-5	0.28 J
	26-27	740000
	31-32	120000
	37-38	78

Boring ID	Sample Depth (feet bgs)	TCE
DPT-75	9-10	0.5 U
	25-26	110000
	33-34	24 J
	38-39	0.57 J

Boring ID	Sample Depth (feet bgs)	TCE
DPT-76	5-6	0.44 U
	18-19	64000
	24-25	9000
	34-34.5	0.59 U
	36-37	0.15 J
	42-43	4.1

- Surveyed Boring Location
- Former Hope Plant 6 Area
- Approximate Site Boundary

Sampling Locations

- Deep Monitoring Well
- Shallow Monitoring Well
- Direct Push Location
- Recovery Well
- DPT Boring Location

Boring ID	Sample Depth (feet bgs)	TCE

Notes:
1. bgs = below ground surface
2. TCE = tricholorethene

N

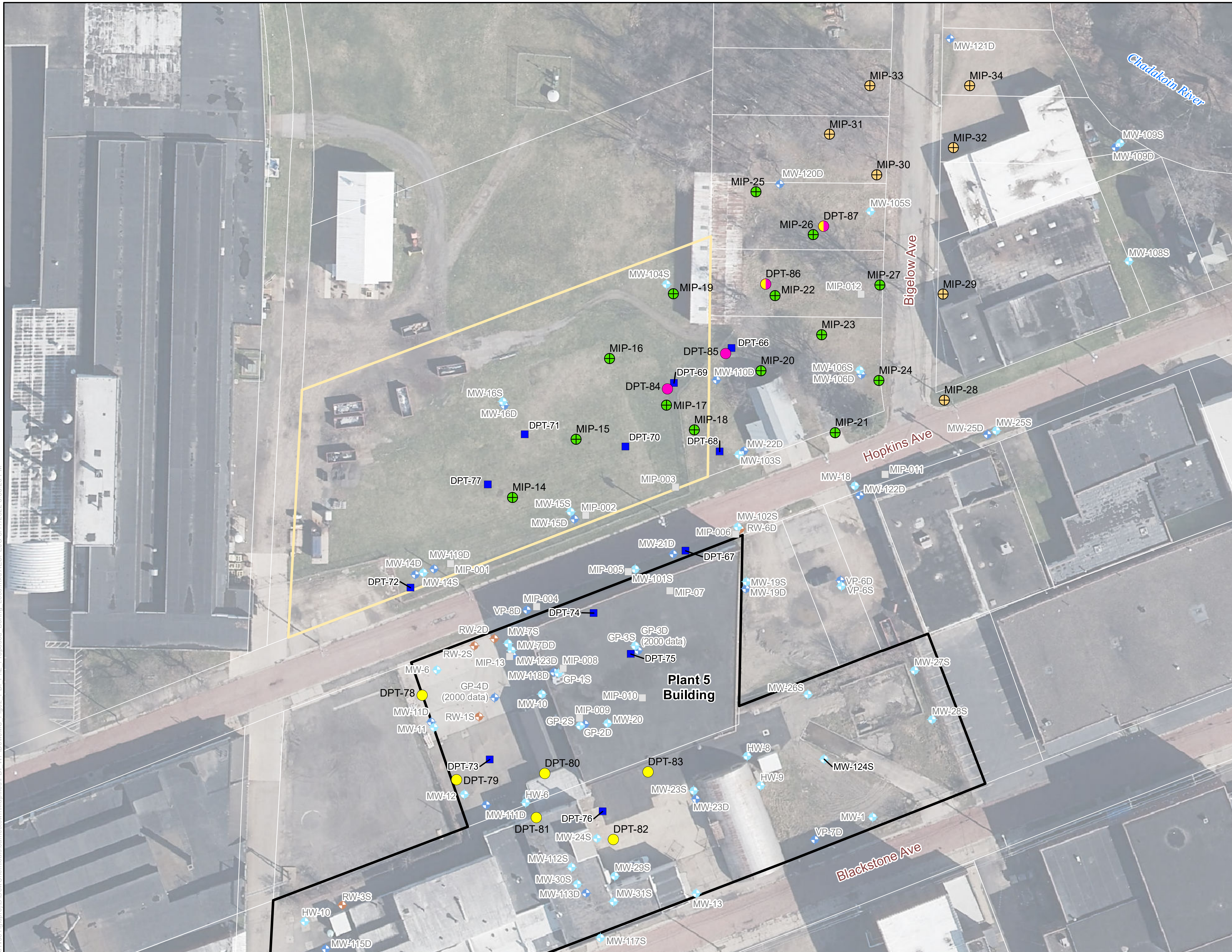
BASE MAP SOURCE:
NYS Office of Information Technology Services, GIS Program Office, Obtained: Feb 2019.

0 22.5 45 90
Scale in Feet

Essex Specialty Products, Inc	Essex/Hope Site, Jamestown, New York

FIGURE 1
PDI Phase I TCE Soil Results
2022 Pre-Design Investigation Work Plan Addendum

CREATED BY: AE	Jacobs
REVIEWED BY: DR	



- Former Hope Plant 6 Area
- Approximate Site Boundary

Sampling Locations

- Deep Monitoring Well
- Shallow Monitoring Well
- Recovery Well
- April 2022 DPT Boring Location
- 2016 MIP Location

Proposed Drilling Locations

- MIP
- MIP Contingency
- Groundwater Sample
- Design-specific Soil Sample
- Soil/Groundwater Sample

N

BASE MAP SOURCE:
NYS Office of Information Technology Services,
GIS Program Office, Obtained: Feb 2019.

0 35 70 140
Scale in Feet

Essex Specialty Products, Inc	Essex/Hope Site, Jamestown, New York

FIGURE 2
PDI Phase II Proposed Boring Locations
2022 Pre-Design Investigation Work Plan Addendum

CREATED BY: AE
REVIEWED BY: DR

Jacobs