

Focused Feasibility Study

Essex Specialty Products, LLC

Operable Unit 01 - Essex-Hope Site, Jamestown, New York

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Acronyms and Abbreviations

µg/L	microgram(s) per liter
AS	air sparging
AST	aboveground storage tank
bgs	below ground surface
COC	constituent of concern
CPM	Custom Production Manufacturing
CVOC	chlorinated volatile organic compound
DER	Division of Environmental Remediation
Dow	The Dow Chemical Company
ERH	electrical resistance heating
Essex	Essex Specialty Products LLC
FFS	Focused Feasibility Study
gpm	gallon(s) per minute
IRM	interim remedial measure
ISCO	in situ chemical oxidation
ISTT	in situ thermal treatment
mg/kg	milligram(s) per kilogram
NA	natural attenuation
NAPL	nonaqueous phase liquid
NPLS	north parking lot sump
NYCRR	<i>New York Codes, Rules and Regulations</i>
NYSDEC	New York State Department of Environmental Conservation
O&M	operations and maintenance
OU	operable unit
PCB	polychlorinated biphenyl
RAO	remedial action objective
ROD	Record of Decision
SCG	standards, criteria, and guidance
SCO	soil cleanup objective
Site	Former Essex-Hope State Superfund Site located at 126 Hopkins Avenue in Jamestown, New York

SVE	soil vapor extraction
SVOC	semivolatile organic compound
TCE	trichloroethene
TTZ	target treatment zone
UI	United Industries, Inc.
UST	underground storage tank
VI	vapor intrusion
VOC	volatile organic compound
WBZ	water-bearing zone

1. Introduction

Jacobs has prepared this Final Focused Feasibility Study (FFS) on behalf of Essex Specialty Products LLC (Essex), a former subsidiary of The Dow Chemical Company (Dow). The purpose of the FFS is to evaluate alternative approaches to meet established remedial action objectives (RAOs) for Operable Unit (OU) 01 at the Former Essex-Hope State Superfund Site located at 126 Hopkins Avenue in Jamestown, New York (Site). The Site, presently owned by United Industries, Inc. (UI), is listed under the New York Superfund Program (Site Number 907015) and managed by the New York State Department of Environmental Conservation (NYSDEC). A Record of Decision (ROD) was issued in 1994 prescribing the implementation of remedial actions at the Site (NYSDEC 1994).

The FFS was first submitted to NYSDEC in draft form on December 16, 2022, to provide NYSDEC the opportunity to review the document. On January 24, 2023, NYSDEC provided feedback and commentary via a letter emailed to Jacobs and Dow. Following receipt of NYSDEC's comments and feedback on January 24, 2023, a teleconference was held on February 6, 2023, with NYSDEC, Jacobs, and Dow representatives in attendance to discuss the feedback on the Draft FFS and the path forward for the Site. On February 10, 2023, NYSDEC provided Jacobs and Dow an update via email regarding NYSDEC's proposed path forward for the Site. NYSDEC decided to separate the onsite and offsite remedial programs into separate OUs. The OU structure NYSDEC proposed includes the following:

- OU-00 – Site Management
- OU-01 – Onsite Remedial Program (revised to Onsite)
- OU-01A – Interim Remedial Measure (IRM) Soil Removal
- OU-02 – Residential Vapor Mitigation System
- OU-03 – Offsite Remedial Program

The FFS was revised to account for the new OU structure of the Site; this document only provides a discussion and evaluation of OU-01. Future documents will discuss and evaluate the other OUs (OU-00, OU-01A, OU-02, and OU-03). In addition, the FFS was revised to account for NYSDEC's comments on the Draft FFS, which were transmitted to Jacobs and Dow via emailed letter on January 24, 2023. The revised FFS was submitted to NYSDEC on April 18, 2023. NYSDEC responded with additional comments on July 5, 2023. This submission incorporates those comments.

1.1 Purpose and Objectives

A significant amount of investigation and remedial work has been performed at the Site since the early 1990s. Although remedial activities completed to date have removed significant chlorinated volatile organic compound (CVOC) and petroleum-related compound mass, resulting in an overall reduction of CVOC and petroleum-related compound concentrations in soil and groundwater, elevated concentrations of Site-related contaminants still remain. Significant investigation efforts as part of a multiphase Supplemental Investigation identified that Site impacts are significant, both in concentration magnitude and extent, and that previous and ongoing remedial efforts, although beneficial, appear unlikely to achieve the RAOs for OU-01 in the foreseeable future. Accordingly, the objective of this FFS is to evaluate a more technologically effective and timely remedial alternative that will achieve RAOs for OU-01 in an acceptable time frame while ensuring continued protection of human health and the environment during remediation.

1.2 Report Organization

This report is organized as follows:

- **Section 1 – Introduction:** Presents the purpose of the report.

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- **Section 2 – Physical Site Setting:** Presents a description of the Site and geologic and hydrogeologic conditions at the Site and provides an overview of the Site's environmental conditions.
 - **Section 3 – Remedial Background:** Summarizes Site-specific RAOs for OU-01 and provides an overview of previous and ongoing remedial actions completed at the Site.
 - **Section 4 – Development of Remedial Alternatives:** Presents the background on the OU-01 alternatives this FFS discusses.
 - **Section 5 – Analysis of Remedial Alternatives:** Presents an overview of the analysis of the remedial alternatives evaluated for OU-01 as part of this FFS against nine evaluation criteria.
 - **Section 6 – Summary:** Summarizes the evaluation of the OU-01 alternatives.
 - **Section 7 – References:** Presents materials cited in this report.

2. Physical Site Setting

This section provides a description of the Site, including Site geology and hydrogeology, and an overview of Site contamination.

2.1 Site Description

The Site is located in a highly industrialized area with numerous metalworking shops and other manufacturing facilities. The OU-01 site boundary as defined by the July 2023 Order on Consent is presented on Figure 2-1. However, the area defined as OU-01 and the focus of this FFS is presented on Figure 2-1a. The property to the north of the Site, beyond Hopkins Avenue, is an undeveloped field previously occupied by Hope Windows Plant 6. To the east and northeast toward the Chadakoin River are several commercial properties or metalworking shops (Viking Property Development LLC [formerly H&H Metal Specialty Inc.], Johnson Machine, and Rollform), as well as several residences along Bigelow Street and Hopkins Avenue. Several manufacturing and commercial businesses are present to the south and southeast of the Site, including Jamestown Metal Products. To the west and southwest of the Site are United Alloys and Blackstone Advanced Technologies (sheet metal fabrication), respectively. Hope Windows Plants 1 and 3 are located to the west and northwest of the Site, respectively.

Historically, two distinct operations occurred at the Site (Figure 2-2). The northern portion of the Site (along Hopkins Avenue) was occupied by Hope's Windows (Hope Plant 5) and was used to manufacture steel and aluminum windows (McFarlene 1991). Following use by Hope's Windows, Essex Specialty Products, LLC operated the Site as a raw materials warehouse (NYSDEC 1990). The constituents of concern (COCs) associated with the northern portion of the Site have historically included polychlorinated biphenyls (PCBs) and currently include CVOCs. The northern portion of the Site is typically referred to as the Plant 5 Building and the former north parking lot sump (NPLS) area.

The Plant 5 Building was used to manufacture aluminum windows and window screens from approximately 1951 to 1985, when Essex Specialty Products purchased the Site (O'Brien & Gere 1992). Essex Specialty Products used the Plant 5 Building as a raw materials warehouse until Custom Production Manufacturing (CPM) purchased the Site in 2000. CPM used the Plant 5 Building for light manufacturing and metals fabrication between 2000 and 2021, when it was sold to UI (Jacobs 2022).

A trichloroethene (TCE) degreaser and a paint/primer tank were historically present in the southwestern corner of the Plant 5 Building, but were both removed in 1985 (NYSDEC 1992). The TCE and sludge in the degreaser pit are suspected to have been pumped out to the sump that was present in the NPLS area (Dow Chemical Company 1992). Accidental spills of TCE have also been reported in the NPLS area (Hallquist 1991). Numerous chemicals, including TCE, were in use by CPM in the Plant 5 Building until 2021 (URS Corporation 2015). UI currently occupies the Plant 5 Building on a part-time, irregular basis. Plant 5 and the surrounding area located between Blackstone and Hopkins Avenues constitute OU-01, which is the focus of this Site (Figure 2-2).

The southern portion of the Site (along Blackstone Avenue) was occupied by Jamestown Finishes, which produced coatings and finishes (NYSDEC 1994). The manufacturing processes resulted in impacts from petroleum-related compounds, including trimethylbenzenes and benzene, toluene, ethylbenzene and xylene, and, to a lesser extent, CVOCs (NYSDEC 1994). Previous operations and remedial actions within the southern portion of the Site generally do not indicate that CVOC impacts are significant, and as such, this FFS does not describe them in detail. An area of bis-2(ethyl)hexyl phthalate soil impacts in the eastern portion of the Site was excavated in the 1990s (O'Brien & Gere 1992).

2.2 Geology and Hydrogeology

Sections 2.2.1 and 2.2.2 provide a brief overview of geologic and hydrogeologic conditions, respectively.

2.2.1 Geology

The Site lies within the Chadakoin River valley. A surficial geology map for the Jamestown area indicates near-surface deposits consist of lacustrine sands at the Site, with mixed deposits mapped just south of the Site (Anderson et al. 1982). The mixed deposits are described as primarily glacial till, interspersed with sand and gravel and lacustrine silts and clays. A U.S. Geological Survey cross section about 2 miles down-valley indicates near-surface “lake sand” underlain by about 50 feet of lacustrine silt and clay and another 100 feet of lacustrine silt and sand (Anderson et al. 1982).

At the Site, the subsurface geological and hydrogeological features have been characterized into four units (O'Brien & Gere 1992), described as follows in descending order from grade:

- A shallow sand and gravel layer that generally ranges from 10 to 15 feet thick. Grain-size analysis indicates the unit contains on average 46% gravel, 39% sand, and 16% fines (predominantly silt) and was mostly classified as silty sands with gravel to gravel with silt and sand (Jacobs 2020). The unit is interpreted as alluvial outwash deposits. This unit is referred to as the shallow water-bearing zone (WBZ).
- A shallow silty clay layer is generally encountered around 15 feet below ground surface (bgs). The shallow silty clay deposits are generally 5 to 10 feet thick, but the thickness and depth can vary considerably and is absent or less than 2 feet thick in some areas, most notable near the NPLS source area. More permeable lenses of silt and fine sand are present in the silty clay in some locations. Grain-size analysis indicates that the unit is 99% fines, evenly divided between silt (53%) and clay (47%) (Jacobs 2020). Where present, the shallow silty clay serves as a leaky aquitard separating the shallow and deep aquifers.
- A deep sandy silt is generally encountered around 20 feet bgs and ranges from 13 to 31.5 feet thick. Based on grain-size analysis, this unit averages 78% silt, 12% sand, and 10% clay (Jacobs 2020). This unit is generally more clay-rich at shallow depths and siltier at depth. This unit is referred to as the deep WBZ.
- A deep silty clay has been determined to represent the lower confining layer. The deep silty clay typically is encountered between 37 and 47 feet bgs, and averages 92% fine-grained materials (roughly evenly divided between silt and clay), 6% sand, and 2% gravel (Jacobs 2020). One deep well at the Site encountered the deep silty clay to a depth of 95 feet bgs, with very fine to coarse sand encountered from 95 to 100 feet bgs (O'Brien & Gere 1992).

2.2.2 Hydrogeology

Two primary WBZs have been identified at the Site and are referred to as the shallow WBZ and the deep WBZ.

An unconfined aquifer is present in the shallow sand and gravel unit, herein referred to as the shallow WBZ, with saturated thicknesses generally 5 to 10 feet thick. Under nonpumping conditions, groundwater flow is to the east-northeast toward the Chadakoin River (CH2M 2015). Outside the capture zone of the pumping wells, groundwater flow is generally to the east-northeast, although groundwater flow to the north of Hopkins Avenue adjacent to the Site is to the southeast. The hydraulic conductivity in the shallow WBZ is 9.1 feet per day with an average groundwater velocity estimated to range from 89 to 177 feet per year (Dow Environmental 1995). Groundwater yield to the shallow WBZ recovery wells at the Site is meager because of the thin saturated interval (5 to 10 feet).

Groundwater is present under confined to semiconfined conditions in the deep sandy silt unit, herein referred to as the deep WBZ. Under nonpumping conditions, groundwater flow in the deep WBZ is to the northeast (CH2M 2015). In locations where the overlying shallow silty clay layer is thin or absent, it is likely there is a hydraulic connection between the shallow and deep WBZs. The average hydraulic conductivity in the deep WBZ is 1.6 feet per day and the average groundwater velocity is approximately 19 feet per year (Dow Environmental 1995). Groundwater yields to the deep WBZ recovery wells are meager because of the low hydraulic conductivity.

2.3 Overview of Site Contamination

Multiple Site investigations have been conducted since the 1990s to investigate Site environmental conditions. COC impacts present at OU-01 include the following:

- A CVOC groundwater plume in the shallow WBZ that extends from the NPLS area to the northeast roughly parallel to Hopkins Avenue (Figure 2-3). The primary COC in this plume is TCE, with concentrations ranging from more than 3,000 micrograms per liter (µg/L) on the north side of the Plant 5 Building to generally less than 100 µg/L in the offsite portion of the plume (Jacobs 2023a).
- Two groundwater plumes consisting of petroleum-related compounds in the shallow WBZ in the southern portion of the Site (Figure 2-3). One plume is primarily located underneath the West Building and consists primarily of xylenes and ethylbenzene. The second, lower concentration plume is in the eastern former underground storage tank (UST) area and consists primarily of 1,2,4- and 1,3,5-trimethylbenzene. The plumes are relatively stable and do not appear to be migrating significantly (Jacobs 2023a).
- There are residual low-level CVOC and petroleum-related compounds in the shallow WBZ in the former aboveground storage tank (AST)/UST area. The groundwater extraction in this area (RW-3S) was suspended in 2017 and residual concentrations are being allowed to naturally attenuate (Jacobs 2023a).
- A CVOC groundwater plume in the deep WBZ extends from the NPLS area to the northeast of the Site (Figure 2-4). Elevated concentrations of TCE, cis-1,2-DCE, and vinyl chloride are present, with concentrations greater than 100,000 µg/L in multiple wells. Nonaqueous phase liquid (NAPL), consisting of a waste oil containing TCE and cis-1,2-DCE, is present in a portion of the plume under the Plant 5 Building, as observed in monitoring wells PZ-4D and MW-118D (Jacobs 2022). Based on historical investigations, NAPL is not present at the bottom of the deep WBZ but does serve as a continuing source for persistently high groundwater concentrations (CH2M 2017, 2018; Jacobs 2019, 2023b).
- A 2022 groundwater sample collected from MW-7DD, which is completed in a deeper WBZ about 50 feet below the deep WBZ, had detected concentrations of TCE (350 µg/L) and cis-1,2-DCE (25 µg/L), orders of magnitude lower than the overlying deep WBZ (Jacobs 2023a). It is believed that migration is related to the MW-7DD well construction. This well will be sampled again and then abandoned before implementation of any new remedy for OU-01. Following remedy implementation, additional investigation of this deeper WBZ will be conducted to evaluate this potential deeper, lower-level contamination.
- CVOC soil impacts are primarily in the NPLS, under the Plant 5 Building, and extending to the northeast (Figure 2-5). Soil impacts are primarily in the saturated zone and at depths greater than 15 feet bgs and generally coincide with the CVOC groundwater plume in the deep WBZ (Jacobs 2023b).
- A vapor intrusion (VI) investigation was conducted in 2016 at the former Plant 5 Building and the adjacent West Building to determine if indoor or subsurface sources were contributing to elevated indoor air volatile organic compound (VOC) concentrations that another contractor observed in the former Plant 5 Building (URS 2015) and to assess the potential for VOCs linked to groundwater and soil at the Site to migrate into the building. The dataset suggested that although the presence of a complete VI pathway could not be ruled out, the previous indoor air concentrations of TCE were primarily controlled by TCE-containing products historically used and stored within the building.

Historical groundwater, soil, and air data are included as Tables 2-1a through 2-1f, Tables 2-2a through 2-2d, and Table 2-3, respectively.

3. Remedial Background

This section outlines remediation goals and RAOs as well as proposed updated remediation goals and standards, criteria, and guidance.

3.1 Remediation Goals and Remedial Action Objectives

The *Record of Decision Essex-Hope Site, City of Jamestown, Chautauqua County, ID Number 9-07-015* (hereinafter referred to as the 1994 ROD) lists the remediation goals and RAOs that currently apply to the Site (NYSDEC 1994). The remediation goals¹ specified in the 1994 ROD include the following:

- Eliminate the potential for direct human or animal contact with the contaminated soils onsite.
- Mitigate the impacts of contaminated groundwater to the environment.
- Mitigate, to the extent practicable, migration of contaminants from onsite source areas to groundwater.
- Provide for attainment of RAOs² (quantitative values) for groundwater and soil quality.

The RAO for groundwater for each CVOC (TCE, trans-1,2-dichloroethene, and vinyl chloride) is 5 µg/L. The RAOs also included petroleum compounds ethylbenzene, toluene, and xylene with RAOs of 5 µg/L and PCBs with an RAO of 0.1 µg/L. For those compounds without an RAO identified in the ROD, the New York Ambient Water Quality Criteria for groundwater is applicable. Table 3-1 summarizes the RAOs set in the ROD.

The RAOs for total VOCs in soil are 1 milligram per kilogram (mg/kg) for each individual compound and 10 mg/kg for the total VOC concentration. The RAOs for soil for each semivolatile organic compound (SVOC) is 50 mg/kg, with a total SVOC concentration RAO of 500 mg/kg. Total PCBs in soil are limited to 10 mg/kg.

3.2 Proposed Updated Remediation Goals and Standards, Criteria, and Guidance

The remediation goals presented in the 1994 ROD are still applicable to OU-01, with the exception that the first goal should be expanded to include potential exposure pathways associated with contaminated groundwater and an RAO addressing the VI pathway. Hence the revised RAOs include the following (with proposed additions in *italics*):

- Eliminate the potential for direct human or animal contact with contaminated soils onsite *and direct contact with or ingestion of contaminated groundwater onsite.*
- Mitigate the impacts of contaminated groundwater to the environment.
- Mitigate, to the extent practicable, migration of contaminants from onsite source areas to groundwater.
- Provide for attainment of *standards, criteria, and guidance (SCGs)* (quantitative values) for groundwater and soil quality.
- *Mitigate impacts to public health resulting from existing, or the potential for, soil VI into buildings within OU-01 at the Site.*

¹ The 1994 ROD used the term “remediation goals,” but they are analogous to NYSDCE’s definition of RAOs. For consistency with the 1994 ROD, this document retains the term “remediation goal” for medium-specific objectives for the protection of public health and the environment.

² The 1994 ROD used the term “RAOs” for quantitative cleanup goals, but the cleanup goals are analogous to NYSDCE’s media-specific standards, criteria, and guidance (SCGs). The term “RAO” is used when referring to the media-specific quantitative cleanup goals in the 1994 ROD, but the term “SCGs” is used to refer to the proposed media-specific quantitative cleanup goals.

Updates to the SCGs (termed RAOs in the 1994 ROD) are warranted to reflect current New York SCG since the ROD was signed in 1994..

For key COCs, Table 3-1 presents the following:

- The 1994 ROD RAOs
- Potentially applicable NYSDEC soil SCGs based on currently promulgated soil cleanup objectives (SCOs) (from Table 375-6.8[b] of 6 *New York Codes, Rules and Regulations* [NYCRR] Part 375, and guidance values provided in NYSDEC Policy CP-51 [NYSDEC 2010a]) for those COCs without promulgated SCOs
- Potentially applicable NYSDEC groundwater SCGs (criteria from 6 NYCRR Part 703.5 and guidance values from Division of Water Technical and Operational Guidance Series 1.1.1 [NYSDEC 1998])
- The proposed SCGs

The proposed soil SCGs are based on the promulgated protection of groundwater SCOs. These protection of groundwater SCOs are applicable to the COCs that are impacting groundwater. There are no ecological resources onsite; therefore, ecological receptor SCOs are not applicable according to 6 NYCRR 375-6.6. Ecological resources that may be present offsite will be addressed as part of future documents under OU-03.

As Section 3.3 describes, previous excavations have remediated soil impacts from bis(2-ethylhexyl)phthalate, di-n-butylphthalate, and PCBs. Therefore, it is recommended that these compounds be dropped as COCs. Confirmation sampling conducted in 1998 as part of the sump excavation in the NPLS indicated PCB concentrations at the excavation limits were less than the RAO of 10 mg/kg (URS 2008). As Table 2-2b indicates, 2017 soil sample concentrations for PCBs collected near the excavation were all less than 1 mg/kg, less than the RAO of 10 mg/kg (CH2M 2018). Phthalates present in soils in the eastern UST area were excavated as part of a 1992 Interim Remedial Measure (O'Brien & Gere 1992) and the 1994 ROD indicated that no further action was warranted.

Table 3-1 presents proposed updated groundwater SCGs for VOCs, which represent promulgated ambient water quality standards in NYCRR Part 703.5. Only COCs with recent exceedances of promulgated ambient water quality standards for groundwater are proposed to have SCGs.

3.3 Past and Ongoing Remediation Summary

Previous Site activities have resulted in impacts to soil and groundwater. and numerous remedial actions have been conducted at the Site since the early 1990s in response to the 1994 ROD. Ongoing remedial actions include operating a groundwater pump-and-treat system and maintaining an asphalt cap that restricts exposure to impacts in soil and limits leaching to groundwater. Institutional controls are also emplaced and are discussed further in Section 3.3.2.

3.3.1 Previous Remedial Actions

To date, the following remedial activities have been performed for OU-01:

- Onsite CVOCs in groundwater
 - Pump-and-treat (shallow and deep WBZs) (Radian Engineering 1998)
 - Soil vapor extraction (SVE) and air sparging (AS) (shallow WBZ) (Radian Engineering 1998)
 - Pilot test of zero valent iron injections (shallow and deep WBZs) (URS Corporation 2001, 2003)
 - In situ chemical oxidation (ISCO) injections (deep WBZ) (URS Corporation 2012)
- Petroleum-related compounds in shallow groundwater in the UST area and West Building
 - Pump-and-treat (UST area) (Radian Engineering 1998)
 - SVE and AS wells (UST area) (Radian Engineering 1998)
 - ISCO injections (UST area) (URS Corporation 2012)

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- Removal of USTs and excavation of soils (UST area) (URS 2003)
 - Vadose zone soil
 - SVE and AS wells (NPLS and AST areas) (Radian Engineering 1998)
 - Capping to prevent direct contact and minimize leaching of COCs to groundwater (NPLS and AST areas) (Radian Engineering 1998)
 - Excavation of soils within a portion of the NPLS area to remove soils with PCB concentrations higher than the RAOs stipulated in the 1994 ROD, as documented in a Basis of Design Report (Dow Environmental 1995) and Remedial Action Construction Close-out Report (Radian Engineering 1998)
 - An IRM consisting of soil excavation was completed in 1992 in response to a release of bis(2-ethylhexyl) phthalate, with all contaminated soil removed except a small area below a tank containment structure (O'Brien & Gere 1992). The 1994 ROD indicated no further action was warranted for this release.

3.3.2 Site Land Use Controls

Institutional controls consisting of a *Declaration of Covenants and Restrictions* were registered in February 2014 with the Chautauqua County Clerk (Essex 2014). The *Declaration of Covenants and Restrictions* applies to OU-01 and includes the following provisions:

- Prohibits the use of the property for any purpose other than industrial uses without a written waiver by NYSDEC.
- Prohibits the construction, use, or occupancy of the Site that results in disturbance or excavation that threatens the integrity of engineering controls or results in unacceptable human exposure to contaminated soils without written approval from NYSDEC.
- Prohibits disturbing, removing, or interfering with installation, use, operation, and maintenance of engineering controls required for the remedy without a written waiver from NYSDEC.
- Prohibits the use of groundwater under the Site without necessary water quality treatment for drinking water or industrial purposes.
- Requires the property owner to periodically certify that the institutional and engineering controls put in place are unchanged. Requires the property owner to continue in full force and effect any institutional controls required for the remedy and maintain such controls.
- Covenant will run with the land and be binding upon all future owners of the property.
- Any deed of conveyance for the property will recite that the conveyance is subject to the *Declaration of Covenants and Restrictions*.

4. Development of Remedial Alternatives

The following sections describe the development rationale of each of the four alternatives and their primary components for OU-01. All four alternatives have several common components as follows:

- Continued implementation of institutional controls at the Site (as described in Section 3.3.2).
- Continued implementation of engineering controls at the Site in the form of low-permeability asphalt and concrete covers in the NPLS, former UST, and former AST/UST areas.
- Implementation of natural attenuation (NA) with monitoring at OU-01.
 - In those areas not treated or contained by the primary OU-01 remedy
 - After the primary OU-01 remedy has been completed
- If it appears that the NA component will not address the contamination, additional active remediation will be required.

The remedial alternatives were developed with consideration of the requirements of NYCRR Part 375-1.8(d) regarding groundwater protection and control measures, including consideration of source removal or control, groundwater quality restoration, and plume containment and stabilization to the extent feasible (NYSDEC 2021).

4.1 Alternative 1 – Continuation of Existing Extraction and Treatment System

Alternative 1 is a baseline scenario that involves continued operations and maintenance (O&M) of the current remedial system within the design capacity and in compliance with the current ROD with the intent of restoring groundwater quality. NA with monitoring would be applied in those areas outside the current hydraulic capture zones within the OU-01 boundary. Once groundwater concentrations have been sufficiently reduced, the extraction and treatment system would be turned off, and NA with monitoring within the OU-01 boundary would be applied until SCGs are met. Additionally, existing institutional and engineering controls for OU-01 would continue.

The extraction and treatment system has operated at the Site since 1997, extracting groundwater from both the shallow WBZ and the deep WBZ. The goal of the system is to provide hydraulic capture in the shallow and deep WBZs to limit the offsite migration of contaminated groundwater; the system also removes dissolved contaminant mass from the subsurface. Figure 4-1 shows the locations of the existing recovery and monitoring wells. Presently two recovery wells, RW-1S and RW-2S, extract groundwater from the shallow WBZ in the NPLS area, and two recovery wells, RW-2D in the NPLS area and RW-6D at the northeast corner of the Plant 5 Building, extract groundwater from the deep WBZ. Total annual extraction volumes have decreased from about 2.5 million gallons in 1999 (4.8 gallons per minute [gpm] combined average rate from seven operating extraction wells) to 1.6 million gallons in 2021 (2.9 gpm average rate from four operating extraction wells). Although the total annual volume of water extracted has decreased by about 1/3, the total annual mass of VOCs removed has increased from 116 pounds in 1999 to 139 pounds in 2021 (Jacobs 2022). This increase in mass removal is primarily because of the addition of RW-6D to the system in 2008, which is extracting deep groundwater with high concentrations of CVOCs. The deep system (RW-2D and RW-6D and briefly RW-1D) has extracted 95% of the total mass removed from the Site groundwater, and 99.7% of the total mass removed since 2008 (Jacobs 2022). Groundwater monitoring indicates that the current extraction system exerts hydraulic control over the NPLS in the shallow WBZ and encompasses the entire Site in the deep WBZ, but that there are CVOCs in groundwater outside the capture zones in both the shallow and deep WBZs (Jacobs 2022). After nearly 25 years of pumping, high concentrations of CVOCs are present downgradient of the capture zone that call into question the overall effectiveness of the current extraction and treatment system. The residual CVOC and petroleum-related compounds present in the shallow WBZ in the former AST/UST area are generally within the shallow extraction well capture zone. The petroleum-related compound plume underneath the

West Building is generally within the shallow extraction well capture zone (Jacobs 2022). The petroleum-related compound plume in the former UST area is managed by NA with monitoring, with decreasing concentrations and a shrinking plume footprint (Jacobs 2022).

In the absence of other remedial actions, it is anticipated that the time required to transition to NA at OU-01 via operation of the current system would be more than 50 years. The extended operating time required to reach NA with monitoring at OU-01 is primarily due to the significant amount of contaminant mass estimated to remain in the onsite source area. The current system is designed to provide hydraulic control and containment of dissolved-phase contaminants but is not designed to maximize mass removal from the onsite source area. The observed mass removal rates indicate that the extraction and treatment system has not been effective at treating source areas, especially in the deep WBZ, because the typical asymptotic decline in mass removal has not been observed and residual NAPL remains. Given the presence of residual NAPL and significant sorbed mass present in the source area, removal of dissolved-phase contaminant mass has a minimal effect on total source area mass. Consequently, the time to sufficiently reduce source area mass and dissolved-phase concentrations to a level where the extraction and treatment system could be turned off and a transition to NA at OU-01 occurs is unlikely in the next 50 years.

4.2 Alternative 2 – Enhancement of Existing Extraction and Treatment System

Alternative 2 consists of upgrading the existing extraction and treatment system to include additional extraction wells within OU-01 to improve contaminant mass removal, hydraulic containment, and groundwater quality restoration when compared with the current extraction and treatment system. Once groundwater concentrations have been sufficiently reduced, the extraction and treatment system would be turned off and NA with monitoring would be applied at OU-01 until SCGs are met. Additionally, existing institutional and engineering controls for OU-01 would continue for Alternative 2. The addition of extraction wells, however, is unlikely to significantly decrease the amount of time required to transition to NA with monitoring at OU-01 compared to Alternative 1 because the source area mass would persist even with pumping. If Alternative 2 is selected as the remedy for the Site, a detailed design would be prepared to identify areas where additional extraction wells would yield greater mass removal and improve hydraulic capture. Figure 4-2 shows potential locations of new extraction wells, but these are provided for broad conceptual purposes and are not final. Existing underground utilities, conveyance piping construction requirements, and traffic or vehicular access would need to be considered when selecting locations for additional extraction wells. Given the low yield of the shallow and deep WBZs and the nature of the overburden geology, multiple wells would likely be required to meet the objectives of this alternative. Potential upgrades to the existing treatment system would also be evaluated during the design phase to ensure adequate treatment of the additional flow and contaminant mass before discharge.

As previously noted, although the expanded extraction well network will increase contaminant mass removal, the addition of extraction wells is unlikely to significantly reduce the amount of time required to transition OU-01 to NA with monitoring, as compared to the current extraction and treatment system, because dissolved-phase mass removal is ineffective at reducing source area contaminant mass and concentration. Furthermore, extraction and treatment systems will eventually reach an asymptotic mass removal rate. These factors hinder Alternative 2's ability to transition to NA with monitoring at OU-01 in a timely manner.

4.3 Alternative 3 – In Situ Thermal Treatment with Natural Attenuation with Monitoring

Alternative 3 consists of in situ thermal treatment (ISTT) within a specified target treatment zone (TTZ) that would be designed based on Jacobs' understanding of the nature and extent of onsite CVOC impacts and focused on source removal. NA with monitoring would be applied in those areas within OU-01 outside

the ISTT TTZ, including the petroleum-related compound plumes. NA with monitoring would be applied to all of OU-01 following ISTT until SCGs are met. Additionally, existing institutional and engineering controls for the Site would continue.

Figure 4-3 shows a proposed TTZ, but this is provided for broad conceptual purposes and is not final. ISTT will be applied to an approximately 24,000-cubic-yard volume (area of 21,600 square feet and vertical extent of approximately 10 to 40 feet bgs) that is estimated to contain approximately 4,900 pounds of total CVOCs. ISTT is an aggressive remedial approach that involves heating the subsurface with either thermal conduction heating or electrical resistance heating (ERH) to volatilize and extract CVOCs in both vapor and liquid phase. Heat is typically applied by electrical resistance, convection, conduction, or some combination of those heat transfer mechanisms. Volatilized CVOCs are usually extracted by soil vapor or multiphase extraction operated simultaneously with the application of heat, with ex situ treatment of the recovered CVOCs. During heating, the multiphase extraction provides hydraulic and pneumatic capture of the TTZ to reduce the likelihood of offsite migration. ISTT can achieve significant reductions in contaminant mass (greater than 90%), including areas of NAPL, in a relatively short construction duration and with little to no long-term O&M components. Short-term O&M requirements are substantial but of limited duration, lasting months instead of years, as would be required with an extraction and treatment system. Based on an evaluation of in situ thermal heating techniques, site conditions (geology, hydrogeology, and existing infrastructure), and costs, ERH is the best-suited technology for the project. This technique uses the natural resistance of subsurface materials to electrical current flow to generate heat. Electrodes are strategically inserted into the subsurface and when an alternating current is applied, the soil's resistance to the current generates heat. As the subsurface temperature rises, contaminants in the soil and groundwater are volatilized and desorbed from soil particles. These vapors are then captured using a vapor recovery system and treated at the surface.

If Alternative 3 is selected, a detailed design process would determine the optimal operating conditions to maximize removal of CVOC mass in the source zone. Alternative 3 would target and reduce CVOC mass in the source zone, which would decrease the amount of time needed to achieve SCGs for the onsite CVOC plumes. However, NA with monitoring of OU-01 applied in the petroleum-related compound plumes and concentrations, especially under the higher concentration West Building, could take a considerable time to reach SCGs. Following ISTT, groundwater monitoring would be performed at new wells installed within the OU-01 TTZ and at existing wells within the downgradient plume (OU-03). These wells would be sampled at a semiannual frequency for the first 2 years and then at an annual frequency for at least 3 additional years after thermal implementation. If it appears that the NA component will not address the contamination, additional active remediation will be required.

4.4 Alternative 4 – In Situ Thermal Treatment of the Onsite CVOC Area and In Situ Chemical Oxidation of the Petroleum Area

Alternative 4 consists of a combination of ISTT and ISCO and is focused on source removal. The ISTT remedy would be the same as that described for Alternative 3, targeting the onsite CVOC source area using ERH. ISCO is an in situ remediation technology that involves the injection of chemical oxidants into the subsurface, the most common of which are permanganate, persulfate, and hydrogen peroxide. ISCO would be implemented for petroleum-related compounds that are primarily present underneath the West Building and in the former UST area. ISCO is appropriate for the Site, as it has been successfully piloted in portions of the former UST areas to destroy petroleum-related compounds (URS 2012). NA with monitoring of OU-01 would be applied in those areas outside the ISTT and ISCO TTZs, such as the former AST/UST area. Following ISTT and ISCO treatment, NA with monitoring would be applied to OU-01 until RAOs are met. Groundwater monitoring will be performed at existing wells and new wells installed within OU-01 and at existing wells within the downgradient plume (OU-03). These wells will be sampled at a semiannual frequency for the first 2 years and then at an annual frequency for at least 3 additional years after thermal implementation. If it appears that the NA component will not address the contamination, additional active remediation will be required. Additionally, existing institutional controls for the Site would continue.

Figure 4-4 shows a proposed TTZ for ISTT and proposed locations for ISCO injections, but these are provided for broad conceptual purposes and are not final. It is estimated that ISTT will be applied to an approximately 24,00-cubic-yard volume (area of 21,600 square feet and vertical extent of approximately 10 to 40 feet bgs) that is estimated to contain approximately 4,900 pounds of total CVOCs. A detailed design process would determine the optimal operating conditions to maximize removal of CVOC mass in the source zone by ISTT. The TTZ for ISCO injections is estimated to be about 5,000 square feet (vertical saturated interval of 9 to 16 feet bgs) to the east, and 6,500 square feet (vertical saturated interval of 8 to 14 feet bgs) to the west. If Alternative 4 is selected, a detailed design process would commence for both ISTT (as previously described for Alternative 3) and ISCO. The ISCO design would focus on refining the TTZ; selecting the most appropriate oxidant, dosing, and activation agent (if needed); and identifying appropriate locations and approach for injections. Alternative 4 would result in the shortest time frame to achieve RAOs because it would use both ISTT and ISCO to treat the onsite contaminant mass of CVOCs and petroleum-related compounds, respectively.

5. Analysis of Remedial Alternatives

The analysis of alternatives presents the relevant information needed to compare the remedial alternatives assembled for achieving remediation goals for CVOC and petroleum impacts within the OU-01 boundary.

The alternatives were subjected to an evaluation against the nine evaluation criteria listed in 6 NYCRR Part 375-1.8(f) and described in NYSDEC's Division of Environmental Remediation (DER) guidance DER-10, *Technical Guidance for Site Investigation and Remediation* (NYSDEC 2010b). The first two criteria, overall protectiveness of public health and the environment and conformance with SCGs, are threshold criteria that must be met, and the next six evaluation criteria are primary balancing criteria that are used to compare the positive and negative aspects of each remedial alternative. The final criterion, community acceptance, is a modifying criterion that will be detailed in a ROD Amendment after a 45-day public comment period. Table 5-1 of this FFS qualitatively evaluates the cost-effectiveness criterion discussed herein; however, a detailed cost estimate of the selected alternative will be prepared during the design phase.

Table 5-1 presents detailed evaluations against each of the nine criteria for the four alternatives in Section 4. The comparative evaluation that the following subsections present highlights the most important factors distinguishing the alternatives. As Section 5.1 and Table 5-1 discuss, Alternative 1 did not pass the threshold criteria and therefore is not included in the comparative evaluation.

5.1 Overall Protectiveness of Public Health and the Environment

There is currently no exposure to CVOC and petroleum impacts associated with the Site. For all alternatives, the existing institutional controls in the 2014 Declaration of Covenant controls potential onsite exposure pathways by prohibiting disturbances of asphalt/concrete caps, soil excavation, or use of groundwater without treatment, thereby preventing direct contact with soils and groundwater and ingestion of groundwater. Plans and controls will be in place to control potential exposure pathways during any remedial action activities and ensure that the cap is repaired following remedial action activities.

The capture zones created by operation of the current system do not fully contain the CVOC plumes, and CVOCs have migrated to OU-03 outside of the capture zones. Therefore, Alternative 1 does not meet the threshold criteria of overall protectiveness of public health and the environment and therefore is not considered in the remainder of the comparative evaluation. Alternative 2 would maintain protectiveness of public health and the environment through improved control (via hydraulic containment) and removal (through treatment of dissolved-phase groundwater extracted) of the CVOC plumes until concentrations decline sufficiently to naturally attenuate and eventually meet SCGs. Alternative 2 would provide sufficient overall protectiveness of public health and the environment within the OU-01 boundary because it would have additional extraction wells to improve contaminant mass removal and hydraulic containment when compared with the current extraction and treatment system. Alternative 3 would maintain protectiveness of public health and the environment through ISTT to remove and treat the CVOC source area, which will result in significant declines in source area mass and groundwater concentrations. Alternative 4 also includes destruction of petroleum-related compounds by oxidation under the West Building, whereas the other alternatives rely on NA with monitoring within the OU-01 boundary.

For all three retained alternatives, areas within the OU-01 boundary but outside the effective treatment or containment zones would continue to be addressed by NA with monitoring, and existing institutional and engineering controls restricting potential receptor exposures would remain in effect until SCGs are met, thereby maintaining protectiveness. Each of the three retained alternatives may eventually achieve or approach the SCGs; however, the time to meet SCGs is expected to be longer for Alternative 2, shorter for Alternative 3, and the shortest for Alternative 4.

5.2 Compliance with Standards, Criteria, and Guidance

As Section 3.2 discussed, SCGs are proposed to be updated to comply with SCGs promulgated or updated after the 1994 ROD. However, the existing extraction and treatment system does not fully achieve the remediation goal to mitigate the impacts of contaminated groundwater to the environment. Additionally, attainment of SCGs for soil and groundwater will require an extended period (at least 50 years).

Alternatives 2 and 3 are expected to achieve the remediation goals and meet or approach RAOs.

Alternative 3 is expected to achieve or approach SCGs within a shorter time frame than Alternative 2 due to the CVOC source removal. Alternative 4 is expected to achieve or approach RAOs within the shortest time frame because of the additional ISCO treatment for petroleum source areas.

5.3 Long-term Effectiveness and Permanence

Alternative 2 has lower permanence than Alternatives 3 and 4 because when the groundwater extraction and treatment system is turned off (including unplanned outages), hydraulic control of the contaminant plume is lost. The petroleum source areas, like the CVOC source areas, would be within the expanded system capture zone; however, reductions in concentrations are expected to be slow.

Alternative 3 has better long-term effectiveness and permanence than Alternative 2. ISTT is expected to significantly and permanently reduce source area CVOC contaminant mass. Remaining CVOC mass postimplementation is expected to naturally attenuate, and there are no expected impacts on human or ecological receptors because of the institutional controls and reduced contaminant mass. This remedy does not address the petroleum area impacts; however, NA is expected to eventually result in reduction of contaminant mass and concentrations.

Alternative 4 has the best long-term effectiveness and permanence. ISTT is expected to significantly (relative to Alternatives 2 and 3) and permanently reduce CVOC source area contaminant mass. In addition, ISCO is expected to permanently reduce petroleum impacts in the West Building area. Remaining mass postimplementation is expected to naturally attenuate, and there are no anticipated exposures to human or ecological receptors because of the institutional controls and reduced contaminant mass.

For all alternatives, long-term effectiveness of NA with monitoring within the OU-01 boundary is dependent on demonstrating that attenuation processes within OU-01 are resulting in declining or stable contaminant concentrations. Given the more aggressive source treatments associated with Alternatives 3 and 4, these remedies are expected to be more effective than Alternative 2, with Alternative 4 being the most effective.

5.4 Reduction in Toxicity, Mobility, or Volume through Treatment

According to 6 NYRR Part 375, technologies that destroy or treat contaminants are preferred over technologies that stabilize, control, or isolate contaminants. Based on this criteria, Alternative 3 is preferred over Alternative 2. Alternative 3 will employ a technology (ISTT) that significantly reduces the toxicity and volume of contaminants by mobilizing contaminants in the CVOC source zone, which are then collected and destroyed by ex situ treatment, but Alternative 4 provides the most reduction in toxicity and volume of contamination because it also will result in permanent destruction of contaminants via oxidant injections that target petroleum-related compounds in the West Building area. Alternative 2 relies primarily on control and isolation of contaminant mass by maintaining a capture zone to reduce contaminant mobility, with minor reduction of toxicity by removing and treating dissolved-phase mass from the subsurface. However, extraction and treatment remedies will ultimately reach an asymptotic removal rate, and the rate of removal is anticipated to significantly decrease over time.

5.5 Short-term Impacts and Effectiveness

Alternative 2 would have some short-term impacts because workers could be exposed to contaminants during installation of additional extraction wells and conveyance piping, and during O&M of the groundwater treatment plant. Alternative 3 would have more short-term impacts than Alternative 2 because they would require mobilization, installation, operation, and demobilization of equipment required for ISTT. There also would be more traffic during ISTT activities, although the duration for Alternative 3 would be shorter than for Alternative 2 because the period of implementation would be on the order of months rather than decades. During the period of ISTT system construction, the existing extraction system will need to be shut down, potentially resulting in downgradient migration of COCs during this brief period. During heating, multiphase extraction will result in hydraulic and pneumatic capture of the TTZ. Alternative 4 would have additional short-term impacts compared with Alternative 3 associated with storage, handling, and deployment of chemical oxidants, including potential daylighting of injected oxidants or accidental spills of the oxidant. The potential exists that ISCO treatment would require multiple rounds of injections (on the order of two to three injections over 2 to 4 years). However, for all alternatives, most short-term impacts (except for increased traffic) can be mitigated by implementing appropriate engineering, monitoring, and administrative controls.

5.6 Implementability

Although all retained alternatives are likely implementable, Alternative 2 is the most implementable, Alternative 3 is more difficult to implement, and Alternative 4 is the most difficult to implement. Alternative 2 has been proven to be implementable because the extraction and treatment system has already been installed and operating, but the alternative would require installation of additional extraction wells, conveyance piping, and potentially upgrades to the existing treatment system. Although Alternative 3 is implementable, there are more challenges than with Alternative 2 given the need to install thermal remediation equipment within a building, achieve sufficient electrical supply and equipment for power demands, and additional permitting requirements. Alternative 4 has the most implementability challenges, given that it has the same implementability challenges as Alternative 3 for the ISTT system, and the injection of oxidants within the West Building would require building access and underground injection control permitting associated with placing injection points or wells. However, these implementability challenges are manageable and can be surmounted during the design process.

5.7 Cost-effectiveness

Table 5-1 provides a qualitative cost comparison of the alternatives. More detailed costs will be developed after remedy selection. Qualitative capital costs for the retained alternatives are ranked from the lowest cost for Alternative 2, middle cost for Alternative 3, and highest cost for Alternative 4. However, long-term operating costs are ranked from the lowest cost for Alternative 4, middle cost for Alternative 3, and highest cost for Alternative 2 (because of the need to operate expanded extraction and treatment system for at least 50 years). These capital and O&M costs result in similar overall costs for the alternatives. Because of the more aggressive treatment, Alternative 4 will be more effective than Alternatives 2 and 3. Cost-effectiveness for Alternative 3 is slightly lower than for Alternative 4 because this alternative will be slightly less effective (because the petroleum source areas will be managed by NA with monitoring).

5.8 Land Use

Land use is primarily light industrial in the area and it is expected that the Site will remain a light industrial property. Institutional controls will remain in place after remedy implementation. No change is expected in any environmental covenants or easements, which include stipulations that the Site use remain industrial.

5.9 Community Acceptance

Community acceptance will be considered after public comments are received on an ROD Amendment.

6. Summary

The results of the evaluation of alternatives Section 5 described indicates that Alternative 4 (ISTT of the CVOC source area, ISCO of the petroleum source area, followed by NA with monitoring, and institutional and engineering controls) is the preferred alternative. ISTT/ISCO will target mass removal in the CVOC and petroleum plumes and will reduce source zone mass in a shorter time frame when compared with the other alternatives. Alternative 4 provides the most efficient means of remediating the volume of contaminant mass within both the CVOC and petroleum source areas with low impact to workers and the surrounding community. Although capital costs will be high for Alternative 4, long-term O&M costs are expected to be lower than for the other alternatives, and Alternative 4 should accelerate the time until a passive technology such as NA with monitoring can be implemented at OU-01.

The existing institutional and engineering controls Section 3.3 described would remain in place upon implementation of the selected remedy to allow for continued protection of human health from Site-related contaminants.

With Alternative 4, the remediation time for the CVOC and petroleum source areas is anticipated to be in terms of years (instead of greater than 50 years for the current remedy).

As Section 4 discussed, a detailed design will be completed upon finalization and public comment on an ROD Amendment that is expected to identify Alternative 4 as the Remedial Action. The results of the detailed design, including anticipated costs for implementation, will be prepared and documented in a Basis of Design report that will be submitted to NYSDEC for review and approval. It is anticipated that NYSDEC and Essex will agree to a revised Consent Order in parallel with the ROD Amendment and design.

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Tables



Table 2-1a. Historical Groundwater Data: Volatile Organic Compounds

Essex-Hope Site, Jamestown, New York

Location ID	DPT-007	DPT-007	DPT-008	DPT-008	DPT-009	DPT-009	DPT-010	DPT-010	DPT-011	DPT-011	DPT-011	DPT-012	DPT-012	DPT-012	DPT-013	DPT-013
Sample Depth (feet bgs)	20-24	30-34	24-28	36-40	22-26	30-34	20-24	32-36	11-15	22-26	32-36	11-15	26-30	36-40	11-15	24-28
Sample Date	9/21/2016	9/21/2016	9/20/2016	9/20/2016	9/20/2016	9/20/2016	9/15/2017	9/15/2017	9/14/2017	9/14/2017	9/15/2017	9/13/2017	9/15/2017	9/15/2017	9/11/2017	9/11/2017
Shallow or Deep WBZ	Deep	Deep	Deep	Deep	Deep	Deep	Deep	Deep	Shallow	Shallow	Shallow	Shallow	Deep	Deep	Shallow	Deep
Onsite/Offsite	OU-01	OU-01	OU-03	OU-03	OU-01	OU-01	OU-03	OU-03	OU-03	OU-03	OU-03	OU-03	OU-03	OU-03	OU-03	OU-03
Sample Type	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
Analyte																
1,1,1,2-Tetrachloroethane	5000 U	1200 U	12000 U	500 U	1000 U	1200 U	100 U	10 U	2.5 U	2.5 U	250 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
1,1,1-Trichloroethane	5000 U	1200 U	12000 U	500 U	1000 U	1200 U	100 U	10 U	2.5 U	2.5 U	250 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
1,1,2,2-Tetrachloroethane	1000 U	250 U	2500 U	100 U	200 U	250 U	20 UJ	2.0 UJ	0.50 UJ	0.50 UJ	50 UJ	0.50 UJ	0.50 UJ	0.50 UJ	0.50 UJ	0.50 UJ
1,1,2-Trichloroethane	3000 U	750 U	7500 U	300 U	600 U	750 U	60 U	6.0 U	1.5 U	1.5 U	150 U	1.5 U	1.5 U	1.5 U	1.5 U	1.5 U
1,1-Dichloroethane	5000 U	1200 U	12000 U	500 U	1000 U	1200 U	100 U	10 U	2.5 U	2.5 U	250 U	2.5 UJ	2.5 U	2.5 U	2.5 U	2.5 U
1,1-Dichloroethene	1000 U	250 U	2500 U	100 U	330	250 U	17 J	8.1	0.50 U	0.50 U	68	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U
1,1-Dichloropropene	5000 U	1200 U	12000 U	500 U	1000 U	1200 U	100 U	10 U	2.5 U	2.5 U	250 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
1,2,3-Trichlorobenzene	5000 UJ	1200 UJ	12000 U	500 U	1000 U	1200 U	100 U	10 U	2.5 U	2.5 U	250 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
1,2,3-Trichloropropane	5000 U	1200 U	12000 U	500 U	1000 U	1200 U	100 U	10 U	2.5 U	2.5 U	250 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
1,2,4-Trichlorobenzene	5000 U	1200 U	12000 U	500 U	1000 U	1200 U	100 U	10 U	2.5 U	2.5 U	250 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
1,2,4-Trimethylbenzene	5000 U	1200 U	12000 U	500 U	1000 U	1200 U	100 U	10 U	2.5 U	2.5 U	250 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
1,2-Dibromo-3-Chloropropane	5000 U	1200 U	12000 U	500 U	1000 U	1200 U	100 U	10 U	2.5 U	2.5 U	250 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
1,2-Dibromoethane (Ethylene Dibromide)	4000 U	1000 U	10000 U	400 U	800 U	1000 U	80 U	8.0 U	2.0 U	2.0 U	200 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
1,2-Dichlorobenzene	5000 U	1200 U	12000 U	500 U	1000 U	1200 U	100 U	10 U	2.5 U	2.5 U	250 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
1,2-Dichloroethane	1000 U	250 U	2500 U	100 U	200 U	250 U	20 U	2.0 U	0.50 U	0.50 U	50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U
1,2-Dichloroethene, cis-	58000	15000	460000	7300	52000	17000	5700	660	11	3.6 U	15000	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
1,2-Dichloroethene, Total	58000	15000	460000	7300	52000	17000	6000	670	11	3.6 U	15000	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
1,2-Dichloroethene, trans-	5000 U	1200 U	12000 U	500 U	1000 U	1200 U	310	14	2.5 U	2.5 U	250 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
1,2-Dichloropropane	2000 U	500 U	5000 U	200 U	400 U	500 U	40 U	4.0 U	1.0 U	1.0 U	100 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,3,5-Trimethylbenzene (Mesitylene)	5000 U	1200 U	12000 U	500 U	1000 U	1200 U	100 U	10 U	2.5 U	2.5 U	250 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
1,3-Dichlorobenzene	5000 U	1200 U	12000 U	500 U	1000 U	1200 U	100 U	10 U	2.5 U	2.5 U	250 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
1,3-Dichloropropane	5000 U	1200 U	12000 U	500 U	1000 U	1200 U	100 U	10 U	2.5 U	2.5 U	250 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
1,3-Dichloropropene, cis-	1000 U	250 U	2500 U	100 U	200 U	250 U	20 U	2.0 U	0.50 U	0.50 U	50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U
1,3-Dichloropropene, Total	1000 U	250 U	2500 U	100 U	200 U	250 U	20 U	2.0 U	0.50 U	0.50 U	50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U
1,3-Dichloropropene, trans-	1000 U	250 U	2500 U	100 U	200 U	250 U	20 U	2.0 U	0.50 U	0.50 U	50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U
1,4-Dichlorobenzene	5000 U	1200 U	12000 U	500 U	1000 U	1200 U	100 U	10 U	2.5 U	2.5 U	250 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
1,4-Dioxane (p-Dioxane)	--	--	1200000 U	50000 U	100000 U	120000 U	10000 U	1000 U	250 U	250 U	25000 U	250 U	250 U	250 U	250 U	250 U
2,2-Dichloropropane	5000 U	1200 U	12000 U	500 U	1000 U	1200 U	100 U	10 U	2.5 U	2.5 U	250 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
2-Chlorotoluene	5000 U	1200 U	12000 U	500 U	1000 U	1200 U	100 U	10 U	2.5 U	2.5 U	250 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
2-Hexanone	10000 U	2500 U	25000 U	1000 U	2000 U	2500 U	200 UJ	20 UJ	5.0 UJ	5.0 UJ	500 UJ	5.0 UJ	5.0 UJ	5.0 UJ	5.0 UJ	5.0 UJ
4-Chlorotoluene	5000 U	1200 U	12000 U	500 U	1000 U	1200 U	100 U	10 U	2.5 U	2.5 U	250 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Acetone	10000 U	2500 U	25000 U	1000 U	2000 U	2500 U	200 UJ	15 J	4.9 J	2.9 J	500 UJ	1.9 J	5.7 J	13 J	24 J	3.8 J
Benzene	1000 U	250 U	2500 U	100 U	120 J	250 U	20 U	5.5	0.50 U	0.50 U	61	0.50 U	0.50 U	0.50 U	0.22 J	0.50 U
Bromobenzene	5000 U	1200 U	12000 U	500 U	1000 U	1200 U	100 U	10 U	2.5 U	2.5 U	250 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Bromodichloromethane	1000 U	250 U	2500 U	100 U	200 U	250 U	20 U	2.0 U	0.50 U	0.50 U	50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U
Bromoform	4000 U	1000 U	10000 U	400 U	800 U	1000 U	80 U	8.0 U	2.0 U	2.0 U	200 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
Bromomethane	5000 U	1200 U	12000 U	500 U	1000 U	1200 U	--	--	--	--	--	--	--	--	--	--
Butylbenzene, n-	5000 U	1200 U	12000 U	500 U	1000 U	1200 U	100 U	10 U	2.5 U	2.5 U	250 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Butylbenzene, sec-	5000 U	1200 U	12000 U	500 U	1000 U	1200 U	100 U	10 U	2.5 U	2.5 U	250 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Butylbenzene, t-	5000 U	1200 U	12000 U	500 U	1000 U	1200 U	100 U	10 U	2.5 U	2.5 U	250 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Carbon Disulfide	10000 U	2500 U	25000 U	1000 U	2000 U	2500 U	200 U	20 U	5.0 U	5.0 U	500 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U

Table 2-1a. Historical Groundwater Data: Volatile Organic Compounds

Essex-Hope Site, Jamestown, New York

Location ID	DPT-007	DPT-007	DPT-008	DPT-008	DPT-009	DPT-009	DPT-010	DPT-010	DPT-011	DPT-011	DPT-011	DPT-012	DPT-012	DPT-012	DPT-013	DPT-013
Sample Depth (feet bgs)	20-24	30-34	24-28	36-40	22-26	30-34	20-24	32-36	11-15	22-26	32-36	11-15	26-30	36-40	11-15	24-28
Sample Date	9/21/2016	9/21/2016	9/20/2016	9/20/2016	9/20/2016	9/20/2016	9/15/2017	9/15/2017	9/14/2017	9/14/2017	9/15/2017	9/13/2017	9/15/2017	9/15/2017	9/11/2017	9/11/2017
Shallow or Deep WBZ	Deep	Deep	Deep	Deep	Deep	Deep	Deep	Deep	Shallow	Shallow	Shallow	Shallow	Deep	Deep	Shallow	Deep
Onsite/Offsite	OU-01	OU-01	OU-03	OU-03	OU-01	OU-01	OU-03	OU-03	OU-03	OU-03	OU-03	OU-03	OU-03	OU-03	OU-03	OU-03
Sample Type	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
Analyte																
Carbon Tetrachloride	1000 U	250 U	2500 U	100 U	200 U	250 U	20 U	2.0 U	0.50 U	0.50 U	50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U
Chlorobenzene	5000 U	1200 U	12000 U	500 U	1000 U	1200 U	100 U	10 U	2.5 U	2.5 U	250 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Chlorobromomethane	5000 U	1200 U	12000 U	500 U	1000 U	1200 U	100 UJ	10 UJ	2.5 UJ	2.5 UJ	250 UJ	2.5 UJ	2.5 UJ	2.5 UJ	2.5 UJ	2.5 UJ
Chloroethane	5000 U	1200 U	12000 U	500 U	1000 U	1200 U	100 UJ	10 UJ	2.5 UJ	2.5 UJ	250 UJ	2.5 UJ	2.5 UJ	2.5 UJ	2.5 UJ	2.5 UJ
Chloroform	5000 U	1200 U	12000 U	500 U	1000 U	1200 U	100 U	10 U	2.5 U	2.5 U	250 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Chloromethane	5000 UJ	1200 UJ	12000 U	500 U	1000 U	1200 U	100 U	10 U	2.5 U	2.5 U	250 U	2.5 U	2.5 U	2.5 U	2.5 UJ	2.5 UJ
Dibromochloromethane	1000 U	250 U	2500 U	100 U	200 U	250 U	20 U	2.0 U	0.50 U	0.50 U	50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U
Dibromomethane (Methylene Bromide)	10000 U	2500 U	25000 U	1000 U	2000 U	2500 U	200 UJ	20 UJ	5.0 UJ	5.0 UJ	500 UJ	5.0 UJ	5.0 UJ	5.0 UJ	5.0 UJ	5.0 UJ
Dichlorodifluoromethane	10000 UJ	2500 UJ	25000 U	1000 U	2000 U	2500 U	200 UJ	20 UJ	5.0 UJ	5.0 UJ	500 UJ	5.0 UJ	5.0 UJ	5.0 UJ	5.0 UJ	5.0 UJ
Ethylbenzene	5000 U	1200 U	12000 U	500 U	1000 U	1200 U	100 U	10 U	2.5 U	2.5 U	250 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Hexachlorobutadiene	5000 U	1200 U	12000 U	500 U	1000 U	1200 U	100 U	10 U	2.5 U	2.5 U	250 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Isopropylbenzene (Cumene)	5000 U	1200 U	12000 U	500 U	1000 U	1200 U	100 U	10 U	2.5 U	2.5 U	250 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Methyl Ethyl Ketone (2-Butanone)	10000 U	2500 U	25000 U	1000 U	2000 U	2500 U	200 UJ	20 UJ	5.0 UJ	5.0 UJ	500 UJ	5.0 UJ	5.0 UJ	5.0 UJ	5.0 UJ	5.0 UJ
Methyl Isobutyl Ketone (4-Methyl-2-Pentanone)	10000 U	2500 U	25000 U	1000 U	2000 U	2500 U	200 U	20 U	5.0 U	5.0 U	500 U	5.0 UJ	5.0 U	5.0 U	5.0 UJ	5.0 UJ
Methyl tert-butyl Ether	5000 U	1200 U	12000 U	500 U	1000 U	1200 U	100 U	10 U	2.5 U	2.5 U	250 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Methylene Chloride	5000 U	1200 U	12000 U	500 U	1000 U	1200 U	100 U	10 U	2.5 U	2.5 U	250 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Naphthalene	5000 U	1200 U	12000 U	500 U	1000 U	1200 U	100 U	10 U	2.5 U	2.5 U	250 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
n-Propylbenzene	5000 U	1200 U	12000 U	500 U	1000 U	1200 U	100 U	10 U	2.5 U	2.5 U	250 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
p-Isopropyltoluene	5000 U	1200 U	12000 U	500 U	1000 U	1200 U	100 U	10 U	2.5 U	2.5 U	250 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Styrene	5000 U	1200 U	12000 U	500 U	1000 U	1200 U	100 U	10 U	2.5 U	2.5 U	250 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Tetrachloroethene	1000 U	250 U	2500 U	100 U	200 U	250 U	20 U	2.0 U	0.50 U	0.50 U	50 U	0.89	0.50 U	0.50 U	0.52	0.50 U
Toluene	5000 U	1200 U	12000 U	500 U	430 J	1200 U	100 U	10 U	2.5 U	2.5 U	250 U	2.5 U	2.5 U	2.5 U	2.1 J	2.5 U
Trichloroethene	100000	10000	62000	1700	71000	30000	900 J	12 J	21 J	14 J	15000 J	6.0 J	0.50 UJ	0.50 UJ	1.1 J	0.50 UJ
Trichlorofluoromethane	5000 U	1200 U	12000 U	500 U	1000 U	1200 U	100 U	10 U	2.5 U	2.5 U	250 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Vinyl Acetate	10000 U	2500 U	25000 U	1000 U	2000 U	2500 U	200 UJ	20 UJ	5.0 UJ	5.0 UJ	500 UJ	5.0 UJ	5.0 UJ	5.0 UJ	5.0 UJ	5.0 UJ
Vinyl Chloride	1000 J	230 J	4800 J	18 J	2900	450 J	89	39	1.0 U	1.0 U	450	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Xylene, m- & p-	5000 U	1200 U	12000 U	500 U	1000 U	1200 U	100 U	10 U	2.5 U	2.5 U	250 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Xylene, o-	5000 U	1200 U	12000 U	500 U	1000 U	1200 U	100 U	10 U	2.5 U	2.5 U	250 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Xylenes, Total	5000 U	1200 U	12000 U	500 U	1000 U	1200 U	100 U	10 U	2.5 U	2.5 U	250 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Total CBTEX	5000 U	1200 U	12000 U	500 U	550 J	1200 U	100 U	5.5	2.5 U	2.5 U	61	2.5 U	2.5 U	2.5 U	2.32 J	2.5 U
Total CVOC	160000 J	25000 J	530000 J	9000 J	130000	47000 J	7016 J	733.1 J	32 J	14 J	30518 J	6.89 J	5 UJ	5 UJ	1.62 J	5 UJ
Total VOC	217000	40230	986800	16318	178780	64450	7016 J	753.6 J	36.9 J	16.9 J	30579 J	8.79 J	5.7 J	13 J	27.94 J	3.8 J

Table 2-1a. Historical Groundwater Data: Volatile Organic Compounds

Essex-Hope Site, Jamestown, New York

Location ID	DPT-013	DPT-014	DPT-014	DPT-015	DPT-015	DPT-015	DPT-016	DPT-016	DPT-016	DPT-017	DPT-017	DPT-018	DPT-018	DPT-019	DPT-020	DPT-021	DPT-022	DPT-051
Sample Depth (feet bgs)	36-40	24-28	36-40	24-28	24-28	34-38	24-28	24-28	34-38	23-27	33-37	28-32	37-41	24-28	10-15	10-15	10-15	12-14
Sample Date	9/11/2017	9/12/2017	9/12/2017	9/12/2017	9/12/2017	9/12/2017	9/5/2017	9/7/2017	9/6/2017	9/7/2017	9/7/2017	9/8/2017	9/8/2017	9/19/2017	9/19/2017	9/19/2017	9/19/2017	9/11/2019
Shallow or Deep WBZ	Deep	Deep	Deep	Deep	Deep	Deep	Deep	Deep	Deep	Deep	Deep	Deep	Deep	Deep	Shallow	Shallow	Shallow	Shallow
Onsite/Offsite	OU-03	OU-03	OU-03	OU-03	OU-03	OU-03	OU-03	OU-03	OU-03	OU-03	OU-03	OU-03	OU-03	OU-03	OU-01	OU-01	OU-03	OU-01
Sample Type	N	N	N	N	FD	N	N	FD	N	N	N	N	N	N	N	N	N	N
Analyte																		
1,1,1,2-Tetrachloroethane	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	6.2 U	2.5 U	2.5 U	120 U	2.5 U	12 U	100 U
1,1,1-Trichloroethane	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	6.2 U	2.5 U	2.5 U	120 U	2.5 U	12 U	100 U
1,1,2,2-Tetrachloroethane	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	1.2 UJ	0.50 UJ	0.50 UJ	25 UJ	0.50 UJ	2.5 UJ	20 U
1,1,2-Trichloroethane	1.5 U	1.5 U	1.5 U	1.5 U	1.5 U	1.5 U	1.5 U	1.5 U	1.5 U	1.5 U	1.5 U	3.8 U	1.5 U	1.5 U	75 U	1.5 U	7.5 U	60 U
1,1-Dichloroethane	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	6.2 U	2.5 U	2.5 U	120 U	2.5 U	12 U	100 U
1,1-Dichloroethene	0.50 U	0.50 UJ	0.50 UJ	0.50 UJ	0.50 UJ	0.50 UJ	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	1.2 U	0.50 U	0.50 U	25 U	0.50 U	2.5 U	20 U
1,1-Dichloropropene	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	6.2 U	2.5 U	2.5 U	120 U	2.5 U	12 U	100 U
1,2,3-Trichlorobenzene	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	6.2 U	2.5 U	2.5 U	120 U	2.5 U	12 U	100 U
1,2,3-Trichloropropane	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	6.2 U	2.5 U	2.5 U	120 U	2.5 U	12 U	100 U
1,2,4-Trichlorobenzene	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	6.2 U	2.5 U	2.5 U	120 U	2.5 U	12 U	100 U
1,2,4-Trimethylbenzene	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	6.2 U	2.5 U	2.5 U	3400	170	12 U	240
1,2-Dibromo-3-Chloropropane	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	6.2 U	2.5 U	2.5 U	120 U	2.5 U	12 U	100 U
1,2-Dibromoethane (Ethylene Dibromide)	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	5.0 U	2.0 U	2.0 U	100 U	2.0 U	10 U	80 U
1,2-Dichlorobenzene	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	6.2 U	2.5 U	2.5 U	120 U	2.5 U	12 U	100 U
1,2-Dichloroethane	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	1.2 U	0.50 U	0.50 U	25 U	0.50 U	2.5 U	20 U
1,2-Dichloroethene, cis-	2.5 U	2.5 U	2.5 U	0.70 J	7.4 J	18	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	6.2 U	2.5 U	2.5 U	120 U	2.5 U	12 U	100 U
1,2-Dichloroethene, Total	2.5 U	2.5 U	2.5 U	0.70 J	7.4 J	19 J	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	6.2 U	2.5 U	2.5 U	120 U	2.5 U	12 U	100 U
1,2-Dichloroethene, trans-	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	0.78 J	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	6.2 U	2.5 U	2.5 U	120 U	2.5 U	12 U	100 U
1,2-Dichloropropane	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.5 U	1.0 U	1.0 U	50 U	1.0 U	5.0 U	40 U
1,3,5-Trimethylbenzene (Mesitylene)	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	6.2 U	2.5 U	2.5 U	120 U	2.5 U	12 U	59 J
1,3-Dichlorobenzene	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	6.2 U	2.5 U	2.5 U	120 U	2.5 U	12 U	100 U
1,3-Dichloropropane	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	6.2 U	2.5 U	2.5 U	120 U	2.5 U	12 U	100 U
1,3-Dichloropropene, cis-	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	1.2 U	0.50 U	0.50 U	25 U	0.50 U	2.5 U	20 U
1,3-Dichloropropene, Total	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	1.2 U	0.50 U	0.50 U	25 U	0.50 U	2.5 U	20 U
1,3-Dichloropropene, trans-	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	1.2 U	0.50 U	0.50 U	25 U	0.50 U	2.5 U	20 U
1,4-Dichlorobenzene	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	6.2 U	2.5 U	2.5 U	120 U	2.5 U	12 U	100 U
1,4-Dioxane (p-Dioxane)	250 U	250 U	250 U	250 U	250 U	250 U	250 U	250 U	250 U	250 U	250 U	620 U	250 U	250 U	12000 U	250 U	1200 U	10000 U
2,2-Dichloropropane	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	6.2 U	2.5 U	2.5 U	120 U	2.5 U	12 U	100 U
2-Chlorotoluene	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	6.2 U	2.5 U	2.5 U	120 U	2.5 U	12 U	100 U
2-Hexanone	5.0 UJ	5.0 UJ	5.0 UJ	5.0 UJ	5.0 UJ	1.9 J	5.0 UJ	5.0 UJ	5.0 UJ	5.0 UJ	5.0 UJ	12 UJ	5.0 UJ	5.0 UJ	250 UJ	5.0 UJ	25 UJ	200 U
4-Chlorotoluene	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	6.2 U	2.5 U	2.5 U	120 U	2.5 U	12 U	100 U
Acetone	3.3 J	3.0 J	2.5 J	5.0 UJ	2.0 J	6.2 J	5.2 J	110 J	5.0 UJ	7.4 J	51 J	16 J	1.7 J	3.6 J	250 UJ	3.6 J	11 J	200 U
Benzene	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	1.2 U	0.50 U	0.50 U	25 U	0.50 U	2.5 U	20 U
Bromobenzene	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	6.2 U	2.5 U	2.5 U	120 U	2.5 U	12 U	100 U
Bromodichloromethane	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	1.2 U	0.50 U	0.50 U	25 U	0.50 U	2.5 U	20 U
Bromoform	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	5.0 U	2.0 U	2.0 U	100 U	2.0 U	10 U	80 U
Bromomethane	--	--	--	--	--	--	2.5 U	2.5 U	2.5 U	2.5 U	2.5 UJ	6.2 UJ	2.5 UJ	2.5 UJ	120 UJ	2.5 UJ	12 UJ	100 UJ
Butylbenzene, n-	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	6.2 U	2.5 U	2.5 U	52 J	1.0 J	5.1 J	100 U
Butylbenzene, sec-	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	6.2 U	2.5 U	2.5 U	120 U	4.1	12 U	100 U
Butylbenzene, t-	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	6.2 U	2.5 U	2.5 U	120 U	1.2 J	12 U	100 U
Carbon Disulfide	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	12 U	5.0 U	5.0 U	250 U	5.0 U	25 U	200 U

Table 2-1a. Historical Groundwater Data: Volatile Organic Compounds

Essex-Hope Site, Jamestown, New York

Location ID	DPT-013	DPT-014	DPT-014	DPT-015	DPT-015	DPT-015	DPT-016	DPT-016	DPT-016	DPT-017	DPT-017	DPT-018	DPT-018	DPT-019	DPT-020	DPT-021	DPT-022	DPT-051
Sample Depth (feet bgs)	36-40	24-28	36-40	24-28	24-28	34-38	24-28	24-28	34-38	23-27	33-37	28-32	37-41	24-28	10-15	10-15	10-15	12-14
Sample Date	9/11/2017	9/12/2017	9/12/2017	9/12/2017	9/12/2017	9/12/2017	9/5/2017	9/7/2017	9/6/2017	9/7/2017	9/7/2017	9/8/2017	9/8/2017	9/19/2017	9/19/2017	9/19/2017	9/19/2017	9/11/2019
Shallow or Deep WBZ	Deep	Deep	Deep	Deep	Deep	Deep	Deep	Deep	Deep	Deep	Deep	Deep	Deep	Deep	Shallow	Shallow	Shallow	Shallow
Onsite/Offsite	OU-03	OU-03	OU-03	OU-03	OU-03	OU-03	OU-03	OU-03	OU-03	OU-03	OU-03	OU-03	OU-03	OU-03	OU-01	OU-01	OU-03	OU-01
Sample Type	N	N	N	N	FD	N	N	FD	N	N	N	N	N	N	N	N	N	N
Analyte																		
Carbon Tetrachloride	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	1.2 U	0.50 U	0.50 U	25 U	0.50 U	2.5 U	20 U
Chlorobenzene	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	6.2 U	2.5 U	2.5 U	120 U	2.5 U	12 U	100 U
Chlorobromomethane	2.5 UJ	2.5 UJ	2.5 UJ	2.5 U	2.5 U	2.5 U	2.5 UJ	2.5 UJ	2.5 UJ	2.5 UJ	2.5 UJ	6.2 UJ	2.5 UJ	2.5 UJ	120 UJ	2.5 UJ	12 UJ	100 U
Chloroethane	2.5 UJ	2.5 UJ	2.5 UJ	2.5 UJ	2.5 UJ	2.5 UJ	2.5 UJ	2.5 UJ	2.5 UJ	2.5 UJ	2.5 UJ	6.2 UJ	2.5 UJ	2.5 U	120 U	2.5 U	12 U	100 U
Chloroform	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	6.2 U	2.5 U	2.5 U	120 U	2.5 U	12 U	100 U
Chloromethane	2.5 UJ	2.5 UJ	2.5 UJ	2.5 UJ	2.5 UJ	2.5 UJ	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	6.2 U	2.5 U	2.5 U	120 U	2.5 U	12 U	100 U
Dibromochloromethane	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	1.2 U	0.50 U	0.50 U	25 U	0.50 U	2.5 U	20 U
Dibromomethane (Methylene Bromide)	5.0 UJ	5.0 UJ	5.0 UJ	5.0 UJ	5.0 UJ	5.0 UJ	5.0 UJ	5.0 UJ	5.0 UJ	5.0 UJ	5.0 UJ	12 UJ	5.0 UJ	5.0 UJ	250 UJ	5.0 UJ	25 UJ	200 U
Dichlorodifluoromethane	5.0 UJ	--	--	--	--	--	5.0 UJ	5.0 UJ	5.0 UJ	5.0 UJ	5.0 UJ	12 UJ	5.0 UJ	5.0 UJ	250 UJ	5.0 UJ	25 UJ	200 U
Ethylbenzene	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	6.2 U	2.5 U	2.5 U	610	7.4	12 U	4100
Hexachlorobutadiene	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	6.2 U	2.5 U	2.5 U	120 U	2.5 U	12 U	100 U
Isopropylbenzene (Cumene)	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	6.2 U	2.5 U	2.5 U	130	28	25	130
Methyl Ethyl Ketone (2-Butanone)	5.0 UJ	5.0 UJ	5.0 UJ	5.0 UJ	3.2 J	31 J	5.0 UJ	5.0 UJ	5.0 UJ	5.0 UJ	5.0 UJ	12 UJ	5.0 UJ	4.8 J	250 UJ	6.0 J	25 UJ	200 U
Methyl Isobutyl Ketone (4-Methyl-2-Pentanone)	5.0 UJ	5.0 UJ	5.0 UJ	5.0 UJ	5.0 UJ	5.0 UJ	5.0 UJ	5.0 UJ	5.0 UJ	5.0 UJ	5.0 UJ	12 UJ	5.0 UJ	5.0 UJ	250 UJ	5.0 UJ	25 UJ	200 U
Methyl tert-butyl Ether	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	6.2 U	2.5 U	2.5 U	120 U	2.5 U	12 U	100 U
Methylene Chloride	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	6.2 U	2.5 U	2.5 U	120 U	2.5 U	12 U	100 U
Naphthalene	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	6.2 U	2.5 U	2.5 U	790	22	22	170
n-Propylbenzene	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	6.2 U	2.5 U	2.5 U	480	71	13	76 J
p-Isopropyltoluene	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	6.2 U	2.5 U	2.5 U	37 J	1.5 J	12 U	100 U
Styrene	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	6.2 U	2.5 U	2.5 U	120 U	2.5 U	12 U	100 U
Tetrachloroethene	0.50 U	0.50 UJ	0.50 UJ	0.50 UJ	0.50 UJ	0.50 UJ	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	1.2 U	0.50 U	0.50 U	25 U	0.50 U	0.90 J	20 U
Toluene	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	6.2 U	2.5 U	2.5 U	120 U	2.5 U	12 U	30 J
Trichloroethene	0.50 UJ	0.50 U	0.50 U	0.50 UJ	3.0 J	8.9	0.50 UJ	0.50 U	0.50 UJ	0.50 U	0.50 UJ	1.2 UJ	0.50 UJ	0.54	25 U	0.50 U	2.5 U	20 U
Trichlorofluoromethane	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	6.2 U	2.5 U	2.5 U	120 U	2.5 U	12 U	100 U
Vinyl Acetate	5.0 UJ	5.0 UJ	5.0 UJ	5.0 UJ	5.0 UJ	5.0 UJ	5.0 UJ	5.0 UJ	5.0 UJ	5.0 UJ	5.0 UJ	12 UJ	5.0 UJ	5.0 UJ	250 UJ	5.0 UJ	25 UJ	200 U
Vinyl Chloride	1.0 U	1.0 UJ	1.0 UJ	1.0 UJ	0.09 J	0.14 J	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.5 U	1.0 U	0.08 J	50 U	1.0 U	5.0 U	40 U
Xylene, m- & p-	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	6.2 U	2.5 U	2.5 U	43 J	2.5 U	12 U	13000
Xylene, o-	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	6.2 U	2.5 U	2.5 U	120 U	1.0 J	12 U	910
Xylenes, Total	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	6.2 U	2.5 U	2.5 U	43 J	1.0 J	12 U	14000
Total CBTEX	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	6.2 U	2.5 U	2.5 U	783 J	36.4 J	25	18000 J
Total CVOC	5 UJ	2.5 UJ	2.5 UJ	0.7 J	10.49 J	27.82 J	5 UJ	5 UJ	5 UJ	5 UJ	5 UJ	12 UJ	5 UJ	0.62 J	250 UJ	5 UJ	0.9 J	200 U
Total VOC	3.3 J	3 J	2.5 J	0.7 J	15.69 J	66.92 J	5.2 J	110 J	250 UJ	7.4 J	51 J	16 J	1.7 J	9.02 J	5542 J	316.8 J	77 J	19000 J

Table 2-1a. Historical Groundwater Data: Volatile Organic Compounds

Essex-Hope Site, Jamestown, New York

Location ID	DPT-052	DPT-053	DPT-054	DPT-055	DPT-055	DPT-057	DPT-058	DPT-059	DPT-060	DPT-060	DPT-061	DPT-062	DPT-063	DPT-064	DPT-065	DPT-084	DPT-084	
Sample Depth (feet bgs)	12-14	10-12	10-12	10-12	10-12	10-12	10-12	10-12	10-12	10-12	10-12	10-12	10-12	10-12	10-12	29	29	
Sample Date	9/11/2019	9/11/2019	9/16/2019	9/16/2019	9/16/2019	9/12/2019	9/12/2019	9/12/2019	9/12/2019	9/12/2019	9/12/2019	9/12/2019	9/13/2019	9/11/2019	9/11/2019	9/11/2019	10/19/2022	10/19/2022
Shallow or Deep WBZ	Shallow	Shallow	Shallow	Shallow	Shallow	Shallow	Shallow	Shallow	Shallow	Shallow	Shallow	Shallow	Shallow	Shallow	Shallow	Deep	Deep	
Onsite/Offsite	OU-01	OU-01	OU-03	OU-03	OU-03	OU-01	OU-01	OU-01	OU-01	OU-01	OU-01	OU-01	OU-01	OU-01	OU-01	OU-03	OU-03	
Sample Type	N	N	N	N	FD	N	N	N	N	N	FD	N	N	N	N	N	FD	
Analyte																		
1,1,1,2-Tetrachloroethane	2.5 U	5.0 U	5.0 U	2.5 U	2.5 U	50 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	10 U	50 U	6.2 U	2500 U	2500 U
1,1,1-Trichloroethane	2.5 U	5.0 U	5.0 U	2.5 U	2.5 U	50 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	10 U	50 U	6.2 U	2500 U	2500 U
1,1,2,2-Tetrachloroethane	0.50 U	1.0 U	1.0 U	0.50 U	0.50 U	10 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	2.0 U	10 U	1.2 U	500 U	500 U
1,1,2-Trichloroethane	1.5 U	3.0 U	3.0 U	1.5 U	1.5 U	30 U	1.5 U	1.5 U	1.5 U	1.5 U	1.5 U	1.5 U	1.5 U	6.0 U	30 U	3.8 U	1500 U	1500 U
1,1-Dichloroethane	2.5 U	5.0 U	5.0 U	2.5 U	2.5 U	50 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	10 U	50 U	6.2 U	2500 U	2500 U
1,1-Dichloroethene	0.50 U	1.0 U	1.0 U	0.50 U	0.50 U	10 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	2.0 U	10 U	1.2 U	470 J	470 J
1,1-Dichloropropene	2.5 U	5.0 U	5.0 U	2.5 U	2.5 U	50 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	10 U	50 U	6.2 U	2500 U	2500 U
1,2,3-Trichlorobenzene	2.5 U	5.0 U	5.0 U	2.5 U	2.5 U	50 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	10 U	50 U	6.2 U	2500 U	2500 U
1,2,3-Trichloropropane	2.5 U	5.0 U	5.0 U	2.5 U	2.5 U	50 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	10 U	50 U	6.2 U	2500 U	2500 U
1,2,4-Trichlorobenzene	2.5 U	5.0 U	5.0 U	2.5 U	2.5 U	50 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	10 U	50 U	6.2 U	2500 U	2500 U
1,2,4-Trimethylbenzene	2.5 U	6.7	330	2.5 U	2.5 U	1600	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	64	72	45 J	5.8 J	2500 U	2500 U
1,2-Dibromo-3-Chloropropane	2.5 U	5.0 U	5.0 U	2.5 U	2.5 U	50 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	10 U	50 U	6.2 U	2500 U	2500 U
1,2-Dibromoethane (Ethylene Dibromide)	2.0 U	4.0 U	4.0 U	2.0 U	2.0 U	40 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	8.0 U	40 U	5.0 U	2000 U	2000 U
1,2-Dichlorobenzene	2.5 U	5.0 U	5.0 U	2.5 U	2.5 U	50 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	10 U	50 U	6.2 U	2500 U	2500 U
1,2-Dichloroethane	0.50 U	1.0 U	1.0 U	0.50 U	0.50 U	10 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	2.0 U	10 U	1.2 U	500 U	500 U
1,2-Dichloroethene, cis-	0.73 J	5.0 U	5.0 U	2.5 U	2.5 U	50 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	10 U	50 U	6.2 U	70000	69000
1,2-Dichloroethene, Total	0.73 J	5.0 U	5.0 U	2.5 U	2.5 U	50 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	10 U	50 U	6.2 U	70000	69000
1,2-Dichloroethene, trans-	2.5 U	5.0 U	5.0 U	2.5 U	2.5 U	50 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	10 U	50 U	6.2 U	2500 U	2500 U
1,2-Dichloropropane	1.0 U	2.0 U	2.0 U	1.0 U	1.0 U	20 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	4.0 U	20 U	2.5 U	1000 U	1000 U
1,3,5-Trimethylbenzene (Mesitylene)	2.5 U	5.0 U	5.0 U	2.5 U	2.5 U	50 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	5.8 J	15 J	6.2 U	2500 U	2500 U
1,3-Dichlorobenzene	2.5 U	5.0 U	5.0 U	2.5 U	2.5 U	50 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	10 U	50 U	6.2 U	2500 U	2500 U
1,3-Dichloropropane	2.5 U	5.0 U	5.0 U	2.5 U	2.5 U	50 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	10 U	50 U	6.2 U	2500 U	2500 U
1,3-Dichloropropene, cis-	0.50 U	1.0 U	1.0 U	0.50 U	0.50 U	10 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	2.0 U	10 U	1.2 U	500 U	500 U
1,3-Dichloropropene, Total	0.50 U	1.0 U	1.0 U	0.50 U	0.50 U	10 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	2.0 U	10 U	1.2 U	500 U	500 U
1,3-Dichloropropene, trans-	0.50 U	1.0 U	1.0 U	0.50 U	0.50 U	10 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	2.0 U	10 U	1.2 U	500 U	500 U
1,4-Dichlorobenzene	2.5 U	5.0 U	5.0 U	2.5 U	2.5 U	50 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	10 U	50 U	6.2 U	2500 U	2500 U
1,4-Dioxane (p-Dioxane)	250 U	500 U	500 U	250 U	250 U	5000 U	250 U	250 U	250 U	250 U	250 U	250 U	250 U	1000 U	5000 U	620 U	250000 U	250000 U
2,2-Dichloropropane	2.5 U	5.0 U	5.0 U	2.5 U	2.5 U	50 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	10 U	50 U	6.2 U	2500 U	2500 U
2-Chlorotoluene	2.5 U	5.0 U	5.0 U	2.5 U	2.5 U	50 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	10 U	50 U	6.2 U	2500 U	2500 U
2-Hexanone	5.0 U	10 U	10 U	5.0 U	5.0 U	100 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	20 U	100 U	12 U	5000 U	5000 U
4-Chlorotoluene	2.5 U	5.0 U	5.0 U	2.5 U	2.5 U	50 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	10 U	50 U	6.2 U	2500 U	2500 U
Acetone	10 U	14 U	10 U	5.0 U	5.0 U	100 U	5.3 U	14 U	6.4 U	6.6 U	7.3 U	5.0 U	20 U	100 U	12 U	5000 U	5000 U	
Benzene	2.4	12	1.0 U	0.50 U	0.50 U	10 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.22 J	0.78 J	10 U	3.1	500 U	500 U	
Bromobenzene	2.5 U	5.0 U	5.0 U	2.5 U	2.5 U	50 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	10 U	50 U	6.2 U	2500 U	2500 U
Bromodichloromethane	0.50 U	1.0 U	1.0 U	0.50 U	0.50 U	10 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	2.0 U	10 U	1.2 U	500 U	500 U
Bromoform	2.0 U	4.0 U	4.0 U	2.0 U	2.0 U	40 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	8.0 U	40 U	5.0 U	2000 U	2000 U
Bromomethane	2.5 UJ	5.0 UJ	5.0 UJ	2.5 UJ	2.5 UJ	50 UJ	2.5 UJ	2.5 UJ	2.5 UJ	2.5 UJ	2.5 UJ	2.5 UJ	2.5 UJ	10 UJ	50 UJ	6.2 UJ	2500 U	2500 U
Butylbenzene, n-	2.5 U	5.0 U	5.0 U	2.5 U	2.5 U	18 J	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	5.4	10 U	50 U	6.2 U	2500 U	2500 U
Butylbenzene, sec-	2.5 U	6.4	5.0 U	2.5 U	2.5 U	50 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.8	10 U	50 U	2.9 J	2500 U	2500 U
Butylbenzene, t-	2.5 U	1.4 J	5.0 U	2.5 U	2.5 U	50 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	10 U	50 U	6.2 U	2500 U	2500 U
Carbon Disulfide	5.0 U	10 U	10 U	5.0 U	5.0 U	100 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	20 U	100 U	12 U	5000 U	5000 U

Table 2-1a. Historical Groundwater Data: Volatile Organic Compounds

Essex-Hope Site, Jamestown, New York

Location ID	DPT-052	DPT-053	DPT-054	DPT-055	DPT-055	DPT-057	DPT-058	DPT-059	DPT-060	DPT-060	DPT-061	DPT-062	DPT-063	DPT-064	DPT-065	DPT-084	DPT-084
Sample Depth (feet bgs)	12-14	10-12	10-12	10-12	10-12	10-12	10-12	10-12	10-12	10-12	10-12	10-12	10-12	10-12	10-12	29	29
Sample Date	9/11/2019	9/11/2019	9/16/2019	9/16/2019	9/16/2019	9/12/2019	9/12/2019	9/12/2019	9/12/2019	9/12/2019	9/12/2019	9/12/2019	9/13/2019	9/11/2019	9/11/2019	10/19/2022	10/19/2022
Shallow or Deep WBZ	Shallow	Shallow	Shallow	Shallow	Shallow	Shallow	Shallow	Shallow	Shallow	Shallow	Shallow	Shallow	Shallow	Shallow	Shallow	Deep	Deep
Onsite/Offsite	OU-01	OU-01	OU-03	OU-03	OU-03	OU-01	OU-01	OU-01	OU-01	OU-01	OU-01	OU-01	OU-01	OU-01	OU-01	OU-03	OU-03
Sample Type	N	N	N	N	FD	N	N	N	N	FD	N	N	N	N	N	N	FD
Analyte																	
Carbon Tetrachloride	0.50 U	1.0 U	1.0 U	0.50 U	0.50 U	10 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	2.0 U	10 U	1.2 U	500 U	500 U
Chlorobenzene	2.5 U	1.8 J	5.0 U	2.5 U	2.5 U	50 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	10 U	50 U	6.2 U	2500 U	2500 U
Chlorobromomethane	2.5 U	5.0 U	5.0 U	2.5 U	2.5 U	50 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	10 U	50 U	6.2 U	2500 U	2500 U
Chloroethane	2.5 U	5.0 U	5.0 UJ	2.5 UJ	2.5 UJ	50 UJ	2.5 UJ	2.5 UJ	2.5 UJ	2.5 UJ	2.5 UJ	2.5 UJ	10 UJ	50 UJ	6.2 U	2500 U	2500 U
Chloroform	2.5 U	5.0 U	5.0 U	2.5 U	2.5 U	50 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	10 U	50 U	6.2 U	2500 U	2500 U
Chloromethane	2.5 U	5.0 U	5.0 U	2.5 U	2.5 U	50 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	10 U	50 U	6.2 U	2500 U	2500 U
Dibromochloromethane	0.50 U	1.0 U	1.0 U	0.50 U	0.50 U	10 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	2.0 U	10 U	1.2 U	500 U	500 U
Dibromomethane (Methylene Bromide)	5.0 U	10 U	10 U	5.0 U	5.0 U	100 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	20 U	100 U	12 U	5000 U	5000 U
Dichlorodifluoromethane	5.0 U	10 U	10 U	5.0 U	5.0 U	100 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	20 U	100 U	12 U	5000 U	5000 U
Ethylbenzene	2.4 J	180	5.0 U	2.5 U	2.5 U	55	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	140	110	960	75	2500 U
Hexachlorobutadiene	2.5 U	5.0 U	5.0 U	2.5 U	2.5 U	50 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	10 U	50 U	6.2 U	2500 U	2500 U
Isopropylbenzene (Cumene)	2.5 U	41	6.9	2.5 U	2.5 U	250	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	31	90	72	15	2500 U
Methyl Ethyl Ketone (2-Butanone)	5.0 U	10 U	10 U	5.0 U	5.0 U	100 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	20 U	100 U	12 U	5000 U	5000 U
Methyl Isobutyl Ketone (4-Methyl-2-Pentanone)	5.0 U	10 U	10 U	5.0 U	5.0 U	100 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	20 U	100 U	12 U	5000 U	5000 U
Methyl tert-butyl Ether	2.5 U	5.0 U	5.0 U	2.5 U	2.5 U	50 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	10 U	50 U	6.2 U	2500 U	2500 U
Methylene Chloride	2.5 U	5.0 U	5.0 U	2.5 U	2.5 U	50 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	10 U	50 U	6.2 U	2500 U	2500 U
Naphthalene	2.5 U	4.9 J	10	2.5 U	2.5 U	380	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	35	4.5 J	18 J	6.5	2500 U
n-Propylbenzene	2.5 U	11	30	2.5 U	2.5 U	570	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	30	40	31 J	2.1 J	2500 U
p-Isopropyltoluene	2.5 U	7.5	5.0 U	2.5 U	2.5 U	50 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	10 U	50 U	6.2 U	2500 U	2500 U
Styrene	2.5 U	5.0 U	5.0 U	2.5 U	2.5 U	50 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	10 U	50 U	6.2 U	2500 U	2500 U
Tetrachloroethene	0.50 U	1.0 U	1.0 U	0.50 U	0.50 U	10 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	2.0 U	10 U	1.2 U	500 U	500 U
Toluene	2.5 U	20	5.0 U	2.5 U	2.5 U	50 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	10 U	50 U	430	2500 U	2500 U
Trichloroethene	0.50 U	1.0 U	0.45 J	0.35 J	0.32 J	10 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.49 J	2.0 U	10 U	0.45 J	320000	350000
Trichlorofluoromethane	2.5 U	5.0 U	5.0 U	2.5 U	2.5 U	50 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	10 U	50 U	6.2 U	2500 U	2500 U
Vinyl Acetate	5.0 U	10 U	10 U	5.0 U	5.0 U	100 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	20 U	100 U	12 U	5000 U	5000 U
Vinyl Chloride	1.0 U	2.0 U	2.0 U	1.0 U	1.0 U	20 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	0.09 J	4.0 U	20 U	2.5 U	1700	1700
Xylene, m- & p-	6.6	470	5.0 U	2.5 U	2.5 U	50 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	110	740	5400	350	2500 U
Xylene, o-	2.5 U	86	5.0 U	2.5 U	2.5 U	50 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	5.1	23	210	93	2500 U
Xylenes, Total	6.6	560	5.0 U	2.5 U	2.5 U	50 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	120	760	5600	440	2500 U
Total CBTEX	11 J	810	6.9	2.5 U	2.5 U	310	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	290 J	960 J	6600	970	2500 U
Total CVOC	0.73 J	1.8 J	0.45 J	0.35 J	0.32 J	100 UJ	5.0 UJ	5.0 UJ	5.0 UJ	5.0 UJ	5.0 UJ	5.0 UJ	0.58 J	20 UJ	100 UJ	0.45 J	392170
Total VOC	12 J	850 J	380 J	0.35 J	0.32 J	2900 J	250 UJ	250 UJ	250 UJ	250 UJ	250 UJ	250 UJ	420 J	1100 J	6800 J	980 J	392170

Table 2-1a. Historical Groundwater Data: Volatile Organic Compounds

Essex-Hope Site, Jamestown, New York

Location ID	DPT-085	GP-1S	HW-6	HW-6	HW-6	HW-8	HW-10	HW-10	MW-1	MW-7D	MW-7D	MW-11D	MW-11D	MW-12	MW-12	MW-13	MW-13
Sample Depth (feet bgs)	32-35	8-13	6-16	6-16	6-16	6-16	7-17	7-17	15-20	35-45	35-45	35-45	35-45	4-14	4-14	8-18	8-18
Sample Date	10/19/2022	10/19/2017	11/3/2016	3/16/2017	10/19/2017	3/16/2017	11/3/2016	10/17/2017	11/4/2016	11/4/2016	11/4/2016	11/4/2016	10/18/2017	11/3/2016	10/18/2017	10/17/2017	3/20/2018
Shallow or Deep WBZ	Deep	Shallow	Shallow	Shallow	Shallow	Shallow	Shallow	Shallow	Shallow	Deep	Shallow	Deep	Deep	Shallow	Shallow	Shallow	Shallow
Onsite/Offsite	OU-03	OU-01	OU-01	OU-01	OU-01	OU-01	OU-01	OU-01	OU-01	OU-01	OU-01	OU-01	OU-01	OU-01	OU-01	OU-01	OU-01
Sample Type	N	N	N	N	N	N	N	N	N	N	Split	N	N	N	N	N	N
Analyte																	
1,1,1,2-Tetrachloroethane	1000 U	2.5 U	--	6.2 U	2.5 U	2.5 U	--	2.5 U	2.5 U	1200 U	--	--	2.5 U	--	2.5 U	2.5 U	2.5 U
1,1,1-Trichloroethane	1000 U	2.5 U	1.0 U	6.2 U	2.5 U	2.5 U	1.0 U	2.5 U	2.5 U	1200 U	100 U	1.0 U	2.5 U	1.0 U	2.5 U	2.5 U	2.5 U
1,1,2,2-Tetrachloroethane	200 U	0.50 U	1.0 U	1.2 U	0.50 UJ	0.50 U	1.0 U	0.50 U	0.5 U	250 U	100 U	1.0 U	0.50 U	1.0 U	0.50 U	0.50 U	0.50 U
1,1,2-Trichloroethane	600 U	1.5 UJ	1.0 U	3.8 UJ	1.5 UJ	1.5 UJ	1.0 U	1.5 UJ	1.5 U	750 U	100 U	1.0 U	1.5 UJ	1.0 U	1.5 UJ	1.5 UJ	1.5 U
1,1-Dichloroethane	1000 U	2.5 U	1.0 U	6.2 U	2.5 U	2.5 U	1.0 U	2.5 U	2.5 U	1200 U	100 U	1.0 U	2.5 U	1.0 U	2.5 U	2.5 U	2.5 U
1,1-Dichloroethene	600	0.50 U	0.83 J	1.2 U	0.34 J	0.50 U	1.0 U	0.50 U	0.5 U	160 J	150	1.0 U	0.50 U	1.0 U	0.50 U	0.50 U	0.50 U
1,1-Dichloropropene	1000 U	2.5 U	--	6.2 U	2.5 U	2.5 U	--	2.5 U	2.5 U	1200 U	--	--	2.5 U	--	2.5 U	2.5 U	2.5 U
1,2,3-Trichlorobenzene	1000 U	2.5 U	--	6.2 U	2.5 U	2.5 U	--	2.5 U	2.5 U	1200 U	--	--	2.5 U	--	2.5 U	2.5 U	2.5 U
1,2,3-Trichloropropane	1000 U	2.5 UJ	--	6.2 U	2.5 UJ	2.5 U	--	2.5 U	2.5 U	1200 U	--	--	2.5 U	--	2.5 U	2.5 U	2.5 U
1,2,4-Trichlorobenzene	1000 U	2.5 U	--	6.2 U	2.5 U	2.5 U	--	2.5 U	2.5 U	1200 U	--	--	2.5 U	--	2.5 U	2.5 U	2.5 U
1,2,4-Trimethylbenzene	1000 U	2.5 U	--	6.2 U	2.5 U	2.5 U	--	2.5 U	2.5 U	1200 U	--	--	2.5 U	--	2.5 U	2.5 U	2.5 U
1,2-Dibromo-3-Chloropropane	1000 U	2.5 UJ	--	6.2 U	2.5 UJ	2.5 U	--	2.5 UJ	2.5 U	1200 U	--	--	2.5 UJ	--	2.5 UJ	2.5 UJ	2.5 UJ
1,2-Dibromoethane (Ethylene Dibromide)	800 U	2.0 U	--	5.0 U	2.0 U	2.0 U	--	2.0 U	2 U	1000 U	--	--	2.0 U	--	2.0 U	2.0 U	2.0 U
1,2-Dichlorobenzene	1000 U	2.5 U	1.0 U	6.2 U	2.5 U	2.5 U	1.0 U	2.5 U	2.5 U	1200 U	100 U	1.0 U	2.5 U	1.0 U	2.5 U	2.5 U	2.5 U
1,2-Dichloroethane	200 U	0.50 U	1.0 U	1.2 U	0.50 U	0.50 U	1.0 U	0.50 U	0.5 U	250 U	100 U	1.0 U	0.50 UJ	1.0 U	0.50 UJ	0.50 U	0.50 U
1,2-Dichloroethene, cis-	78000	16	440	200	180	2.5 U	1.0 U	2.5 U	2.5 U	46000	48000	0.51 J	2.5 U	13	37	5.5	0.99 J
1,2-Dichloroethene, Total	78320 J	16	--	200	180 J	2.5 U	--	2.5 U	2.5 U	46000	48000	--	2.5 U	--	37	5.5	0.99 J
1,2-Dichloroethene, trans-	320 J	2.5 U	3.8	6.2 U	2.1 J	2.5 U	1.0 U	2.5 U	2.5 U	1200 U	150	1.0 U	2.5 U	0.19 J	2.5 U	2.5 U	2.5 U
1,2-Dichloropropane	400 U	1.0 U	1.0 U	2.5 U	1.0 U	1.0 U	1.0 U	1.0 U	1 U	500 U	100 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,3,5-Trimethylbenzene (Mesitylene)	1000 U	2.5 U	--	6.2 U	2.5 U	2.5 U	--	2.5 U	2.5 U	1200 U	--	--	2.5 U	--	2.5 U	2.5 U	2.5 U
1,3-Dichlorobenzene	1000 U	2.5 U	5.0 U	6.2 U	2.5 U	2.5 U	5.0 U	2.5 U	2.5 U	1200 U	100 U	5.0 U	2.5 U	5.0 U	2.5 U	2.5 U	2.5 U
1,3-Dichloropropane	1000 U	2.5 UJ	--	6.2 U	2.5 UJ	2.5 U	--	2.5 UJ	2.5 U	1200 U	--	--	2.5 UJ	--	2.5 UJ	2.5 UJ	2.5 U
1,3-Dichloropropene, cis-	200 U	0.50 U	1.0 U	1.2 U	0.50 U	0.50 U	1.0 U	0.50 U	0.5 U	250 U	100 U	1.0 U	0.50 U	1.0 U	0.50 U	0.50 U	0.50 U
1,3-Dichloropropene, Total	200 U	0.50 U	--	1.2 U	0.50 U	0.50 U	--	0.50 U	0.5 U	250 U	--	--	0.50 U	--	0.50 U	0.50 U	0.50 U
1,3-Dichloropropene, trans-	200 U	0.50 U	1.0 U	1.2 U	0.50 U	0.50 U	1.0 U	0.50 U	0.5 U	250 U	100 U	1.0 U	0.50 U	1.0 U	0.50 U	0.50 U	0.50 U
1,4-Dichlorobenzene	1000 U	2.5 U	1.0 U	6.2 U	2.5 U	2.5 U	1.0 U	2.5 U	2.5 U	1200 U	100 U	1.0 U	2.5 U	1.0 U	2.5 U	2.5 U	2.5 U
1,4-Dioxane (p-Dioxane)	100000 U	250 U	--	620 U	250 U	250 U	--	250 U	250 UJ	120000 UJ	--	--	250 U	--	250 U	250 U	250 UJ
2,2-Dichloropropane	1000 U	2.5 U	--	6.2 U	2.5 U	2.5 U	--	2.5 U	2.5 U	1200 U	--	--	2.5 U	--	2.5 U	2.5 U	2.5 U
2-Chlorotoluene	1000 U	2.5 UJ	--	6.2 U	2.5 UJ	2.5 U	--	2.5 UJ	2.5 U	1200 U	--	--	2.5 UJ	--	2.5 UJ	2.5 UJ	2.5 U
2-Hexanone	2000 U	5.0 UJ	10 U	12 UJ	5.0 UJ	5.0 U	10 U	5.0 UJ	5 UJ	2500 UJ	1000 U	10 U	5.0 UJ	10 U	5.0 UJ	5.0 UJ	5.0 U
4-Chlorotoluene	1000 U	2.5 UJ	--	6.2 U	2.5 UJ	2.5 U	--	2.5 UJ	2.5 U	1200 U	--	--	2.5 UJ	--	2.5 UJ	2.5 UJ	2.5 U
Acetone	2000 U	5.0 UJ	10 U	12 UJ	5.0 UJ	5.0 UJ	10 U	5.0 UJ	5 U	2500 U	1000 U	10 U	5.0 UJ	10 U	5.0 UJ	5.0 UJ	5.0 U
Benzene	140 J	0.50 U	0.30 J	1.2 U	0.16 J	0.50 U	1.0 U	0.50 U	0.5 U	250 U	13 J	1.0 U	0.50 U	1.0 U	0.50 U	0.50 U	0.50 U
Bromobenzene	1000 U	2.5 U	--	6.2 U	2.5 U	2.5 U	--	2.5 U	2.5 U	1200 U	--	--	2.5 U	--	2.5 U	2.5 U	2.5 U
Bromodichloromethane	200 U	0.50 U	1.0 U	1.2 U	0.50 U	0.50 U	1.0 U	0.50 U	0.5 U	250 U	100 U	1.0 U	0.50 U	1.0 U	0.50 U	0.50 U	0.50 U
Bromoform	800 U	2.0 U	1.0 U	5.0 U	2.0 U	2.0 U	1.0 UJ	2.0 U	2 U	1000 U	100 U	1.0 U	2.0 U	1.0 UJ	2.0 U	2.0 U	2.0 U
Bromomethane	1000 U	2.5 UJ	1.0 U	6.2 UJ	2.5 UJ	2.5 UJ	1.0 U	2.5 UJ	2.5 U	1200 U	100 U	1.0 U	2.5 UJ	1.0 U	2.5 UJ	2.5 UJ	2.5 UJ
Butylbenzene, n-	1000 U	2.5 U	--	6.2 U	2.5 U	2.5 U	--	2.5 U	2.5 U	1200 U	--	--	2.5 U	--	2.5 U	2.5 U	2.5 U
Butylbenzene, sec-	1000 U	2.5 U	--	6.2 U	2.5 U	2.5 U	--	0.90 J	2.5 U	1200 U	--	--	2.5 U	--	2.5 U	2.5 U	2.5 U
Butylbenzene, t-	1000 U	2.5 U	--	6.2 U	2.5 U	2.5 U	--	5.3	2.5 U	1200 U	--	--	2.5 U	--	2.5 U	2.5 U	2.5 U
Carbon Disulfide	2000 U	5.0 U	1.0 U	12 UJ	5.0 U	5.0 UJ	1.0 U	5.0 U	5 U	2500 U	1000 U	1.0 U	5.0 U	1.0 U	5.0 U	5.0 U	5.0 U

Table 2-1a. Historical Groundwater Data: Volatile Organic Compounds

Essex-Hope Site, Jamestown, New York

Location ID	DPT-085	GP-1S	HW-6	HW-6	HW-6	HW-8	HW-10	HW-10	MW-1	MW-7D	MW-7D	MW-11D	MW-11D	MW-12	MW-12	MW-13	MW-13
Sample Depth (feet bgs)	32-35	8-13	6-16	6-16	6-16	6-16	7-17	7-17	15-20	35-45	35-45	35-45	35-45	4-14	4-14	8-18	8-18
Sample Date	10/19/2022	10/19/2017	11/3/2016	3/16/2017	10/19/2017	3/16/2017	11/3/2016	10/17/2017	11/4/2016	11/4/2016	11/4/2016	11/4/2016	10/18/2017	11/3/2016	10/18/2017	10/17/2017	3/20/2018
Shallow or Deep WBZ	Deep	Shallow	Shallow	Shallow	Shallow	Shallow	Shallow	Shallow	Shallow	Deep	Shallow	Deep	Deep	Shallow	Shallow	Shallow	Shallow
Onsite/Offsite	OU-03	OU-01	OU-01	OU-01	OU-01	OU-01	OU-01	OU-01	OU-01	OU-01	OU-01	OU-01	OU-01	OU-01	OU-01	OU-01	OU-01
Sample Type	N	N	N	N	N	N	N	N	N	N	Split	N	N	N	N	N	N
Analyte																	
Carbon Tetrachloride	200 U	0.50 U	1.0 U	1.2 U	0.50 U	0.50 U	1.0 U	0.50 U	0.5 U	250 U	100 U	1.0 U	0.50 U	1.0 U	0.50 U	0.50 U	0.50 U
Chlorobenzene	1000 U	2.5 U	0.36 J	6.2 U	2.5 U	2.5 U	0.31 J	2.5 U	2.5 U	1200 U	100 U	1.0 U	2.5 U	1.0 U	2.5 U	2.5 U	2.5 U
Chlorobromomethane	1000 U	2.5 UJ	1.0 U	6.2 UJ	2.5 UJ	2.5 UJ	1.0 U	2.5 UJ	2.5 UJ	1200 UJ	100 U	1.0 U	2.5 UJ	1.0 U	2.5 UJ	2.5 UJ	2.5 U
Chloroethane	1000 U	2.5 U	1.0 U	6.2 UJ	2.5 U	2.5 UJ	1.0 U	2.5 U	2.5 UJ	1200 UJ	100 U	1.0 U	2.5 U	1.0 U	2.5 U	2.5 U	2.5 UJ
Chloroform	1000 U	2.5 U	1.0 U	6.2 U	2.5 U	2.5 U	1.0 U	2.5 U	2.5 U	1200 U	100 U	1.0 U	2.5 U	1.0 U	2.5 U	2.5 U	2.5 U
Chloromethane	1000 U	2.5 UJ	1.0 U	6.2 U	2.5 UJ	2.5 U	1.0 UJ	2.5 UJ	2.5 U	1200 U	100 U	1.0 U	2.5 UJ	1.0 UJ	2.5 UJ	2.5 UJ	2.5 UJ
Dibromochloromethane	200 U	0.50 U	1.0 U	1.2 U	0.50 U	0.50 U	1.0 U	0.50 U	0.5 U	250 U	100 U	1.0 U	0.50 U	1.0 U	0.50 U	0.50 U	0.50 U
Dibromomethane (Methylene Bromide)	2000 U	5.0 UJ	--	12 UJ	5.0 UJ	5.0 UJ	--	5.0 UJ	5 UJ	2500 UJ	--	--	5.0 UJ	--	5.0 UJ	5.0 UJ	5.0 U
Dichlorodifluoromethane	2000 U	5.0 UJ	--	12 U	5.0 UJ	5.0 U	--	5.0 UJ	5 U	2500 U	--	--	5.0 UJ	--	5.0 UJ	5.0 UJ	5.0 U
Ethylbenzene	1000 U	2.5 U	1.0 U	6.2 U	2.5 U	2.5 U	1.0 U	2.5 U	2.5 U	1200 U	100 U	1.0 U	2.5 U	1.0 U	2.5 U	2.5 U	2.5 U
Hexachlorobutadiene	1000 U	2.5 U	--	6.2 U	2.5 U	2.5 U	--	2.5 U	2.5 U	1200 U	--	--	2.5 U	--	2.5 U	2.5 U	2.5 U
Isopropylbenzene (Cumene)	1000 U	2.5 U	1.1	6.2 U	2.5 U	2.5 U	2.8	1.2 J	2.5 U	1200 U	100 U	1.0 U	2.5 U	1.0 U	2.5 U	2.5 U	2.5 U
Methyl Ethyl Ketone (2-Butanone)	2000 U	5.0 UJ	10 U	12 UJ	5.0 UJ	5.0 UJ	10 U	5.0 UJ	5 UJ	2500 UJ	1000 U	10 U	5.0 UJ	10 U	5.0 UJ	5.0 UJ	5.0 U
Methyl Isobutyl Ketone (4-Methyl-2-Pentanone)	2000 U	5.0 UJ	10 U	12 U	5.0 UJ	5.0 U	10 U	5.0 UJ	5 U	2500 U	1000 U	10 U	5.0 UJ	10 U	5.0 UJ	5.0 UJ	5.0 U
Methyl tert-butyl Ether	1000 U	2.5 U	--	6.2 U	2.5 U	2.5 U	--	2.5 U	2.5 U	1200 U	--	--	2.5 U	--	2.5 U	2.5 U	2.5 U
Methylene Chloride	1000 U	2.5 U	1.0 U	6.2 U	2.5 U	2.5 U	1.0 U	2.5 U	2.5 U	1200 U	100 U	1.0 U	2.5 U	1.0 U	2.5 U	2.5 U	2.5 U
Naphthalene	1000 U	2.5 U	--	6.2 U	2.5 U	2.5 U	--	2.5 U	2.5 U	1200 U	100 U	--	2.5 U	--	2.5 U	2.5 U	2.5 U
n-Propylbenzene	1000 U	2.5 UJ	--	6.2 U	2.5 UJ	2.5 U	--	2.5 U	2.5 U	1200 U	--	--	2.5 U	--	2.5 U	2.5 U	2.5 U
p-Isopropyltoluene	1000 U	2.5 U	--	6.2 U	2.5 U	2.5 U	--	2.5 U	2.5 U	1200 U	--	--	2.5 U	--	2.5 U	2.5 U	2.5 U
Styrene	1000 U	2.5 U	1.0 U	6.2 U	2.5 U	2.5 U	1.0 U	2.5 U	2.5 U	1200 U	--	1.0 U	2.5 U	1.0 U	2.5 U	2.5 U	2.5 U
Tetrachloroethene	200 U	0.50 U	1.0 U	1.2 U	0.50 U	0.50 U	1.0 U	0.50 U	0.5 U	250 U	100 U	1.0 U	0.50 U	1.0 U	0.50 U	0.50 U	0.50 U
Toluene	1000 U	2.5 U	1.0 U	6.2 U	2.5 U	2.5 U	1.0 U	2.5 U	2.5 U	1200 U	100 U	1.0 U	2.5 U	1.0 U	2.5 U	2.5 U	2.5 U
Trichloroethene	210000	18	0.62 J	0.59 J	0.50 U	0.50 U	1.0 U	0.24 J	0.5 U	2500	2300	0.32 J	0.18 J	16	18	22	1.6
Trichlorofluoromethane	1000 U	2.5 U	1.0 U	6.2 U	2.5 U	2.5 U	1.0 U	2.5 U	2.5 U	1200 U	100 U	1.0 U	2.5 U	1.0 U	2.5 U	2.5 U	2.5 U
Vinyl Acetate	2000 U	5.0 U	--	12 U	5.0 U	5.0 U	--	5.0 U	5 U	2500 U	--	--	5.0 U	--	5.0 U	5.0 U	5.0 UJ
Vinyl Chloride	1400	0.33 J	430	210	250	1.0 U	1.0 U	1.0 U	1 U	6600	5400	5.1	4.8 J	1.0 U	1.0 UJ	1.3	1.0 UJ
Xylene, m- & p-	1000 U	2.5 U	10 U	6.2 U	2.5 U	2.5 U	10 U	2.5 U	2.5 U	1200 U	1000 U	10 U	2.5 U	10 U	2.5 U	2.5 U	2.5 U
Xylene, o-	1000 U	2.5 U	1.0 U	6.2 U	2.5 U	2.5 U	1.0 U	2.5 U	2.5 U	1200 U	100 U	1.0 U	2.5 U	1.0 U	2.5 U	2.5 U	2.5 U
Xylenes, Total	1000 U	2.5 U	10 U	6.2 U	2.5 U	2.5 U	10 U	2.5 U	2.5 U	1200 U	1000 U	10 U	2.5 U	10 U	2.5 U	2.5 U	2.5 U
Total CBTEX	140 J	2.5 U	1.4 J	6.2 U	0.16 J	2.5 U	2.8	1.2 J	2.5 U	1200 U	13 J	10 U	2.5 U	10 U	2.5 U	2.5 U	2.5 U
Total CVOC	290320	34.33 J	880 J	410.59 J	432.44 J	5 UJ	1.0 U	0.24 J	2.5 UJ	55000 J	56000	5.9 J	4.98 J	29 J	55	28.8	2.59
Total VOC	290460	34.33 J	877.01	410.59 J	432.6 J	250 UJ	3.11	7.64 J	--	101260	56000 J	5.93	4.98 J	29.19	55	28.8	2.59

Table 2-1a. Historical Groundwater Data: Volatile Organic Compounds

Essex-Hope Site, Jamestown, New York

Location ID	MW-13	MW-13	MW-13	MW-13	MW-13	MW-14D	MW-14D	MW-14S	MW-14S	MW-14S	MW-15D	MW-15D	MW-15D	MW-15D	MW-15S	MW-15S	MW-16D
Sample Depth (feet bgs)	8-18	8-18	8-18	8-18	8-18	40-50	40-50	10-20	10-20	10-20	34-44	34-44	34-44	34-44	10-20	10-20	36-46
Sample Date	11/13/2018	11/5/2019	10/28/2020	10/6/2021	10/6/2022	11/1/2016	10/18/2017	11/1/2016	11/1/2016	10/18/2017	11/1/2016	10/18/2017	10/18/2017	10/29/2020	11/1/2016	10/18/2017	11/1/2016
Shallow or Deep WBZ	Shallow	Shallow	Shallow	Shallow	Shallow	Deep	Deep	Shallow	Shallow	Shallow	Deep	Deep	Deep	Deep	Shallow	Shallow	Deep
Onsite/Offsite	OU-01	OU-01	OU-01	OU-01	OU-01	OU-03	OU-03	OU-03	OU-03	OU-03	OU-03	OU-03	OU-03	OU-03	OU-03	OU-03	OU-03
Sample Type	N	N	N	N	N	N	N	N	FD	N	N	N	FD	N	N	N	N
Analyte																	
1,1,1,2-Tetrachloroethane	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	--	2.5 U	--	--	2.5 U	1000 U	2500 U	2500 U	120 U	--	2.5 U	--
1,1,1-Trichloroethane	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	1.0 U	2.5 U	1.0 U	1.0 U	2.5 U	1000 U	2500 U	2500 U	120 U	1.0 U	2.5 U	1.0 U
1,1,2,2-Tetrachloroethane	0.50 UJ	0.50 UJ	0.5 UJ	0.5 U	0.50 U	1.0 U	0.50 U	1.0 U	1.0 U	0.50 UJ	200 U	500 U	500 U	25 U	1.0 U	0.50 U	1.0 U
1,1,2-Trichloroethane	1.5 U	1.5 U	1.5 U	1.5 U	1.5 U	1.0 U	1.5 UJ	1.0 U	1.0 U	1.5 UJ	600 U	1500 UJ	1500 UJ	75 U	1.0 U	1.5 UJ	1.0 U
1,1-Dichloroethane	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	1.0 U	2.5 U	1.0 U	1.0 U	2.5 U	1000 U	2500 U	2500 U	120 U	1.0 U	2.5 U	1.0 U
1,1-Dichloroethene	0.50 U	0.50 U	0.5 U	0.5 U	0.50 U	1.0 U	0.50 U	1.0 U	1.0 U	0.50 U	140 J	220 J	200 J	42	1.0 U	0.50 U	1.0 U
1,1-Dichloropropene	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	--	2.5 U	--	--	2.5 U	1000 U	2500 U	2500 U	120 U	--	2.5 U	--
1,2,3-Trichlorobenzene	2.5 U	2.5 U	2.5 UJ	2.5 U	2.5 U	--	2.5 U	--	--	2.5 U	1000 U	2500 U	2500 U	120 UJ	--	2.5 U	--
1,2,3-Trichloropropane	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	--	2.5 U	--	--	2.5 UJ	1000 U	2500 U	2500 U	120 U	--	2.5 U	--
1,2,4-Trichlorobenzene	2.5 U	2.5 U	2.5 UJ	2.5 U	2.5 U	--	2.5 U	--	--	2.5 U	1000 U	2500 U	2500 U	120 U	--	2.5 U	--
1,2,4-Trimethylbenzene	2.5 U	2.5 U	2.5 U	1.8 J	0.70 J	--	2.5 U	--	--	2.5 U	1000 U	2500 U	2500 U	120 U	--	2.5 U	--
1,2-Dibromo-3-Chloropropane	2.5 UJ	2.5 U	2.5 UJ	2.5 U	2.5 U	--	2.5 UJ	--	--	2.5 UJ	1000 U	2500 UJ	2500 UJ	120 UJ	--	2.5 UJ	--
1,2-Dibromoethane (Ethylene Dibromide)	2.0 U	2.0 U	2 U	2 U	2.0 U	--	2.0 U	--	--	2.0 U	800 U	2000 U	2000 U	100 U	--	2.0 U	--
1,2-Dichlorobenzene	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	1.0 U	2.5 U	1.0 U	1.0 U	2.5 U	1000 U	2500 U	2500 U	120 U	1.0 U	2.5 U	1.0 U
1,2-Dichloroethane	0.50 U	0.50 U	0.5 U	0.5 U	0.50 U	1.0 U	0.50 UJ	1.0 U	1.0 U	0.50 U	200 U	500 UJ	500 UJ	25 U	1.0 U	0.50 UJ	1.0 U
1,2-Dichloroethene, cis-	2.5 U	2.5 U	2.5 U	2.5 U	8.2	1.0 U	2.5 U	1.4	1.2	2.4 J	46000	76000	77000	8000	1.4	1.0 J	1.0 U
1,2-Dichloroethene, Total	2.5 U	2.5 U	2.5 U	2.5 U	8.2	--	2.5 U	--	--	2.4 J	46000	76000	77000	8100 J	--	1.0 J	--
1,2-Dichloroethene, trans-	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	1.0 U	2.5 U	1.0 U	1.0 U	2.5 U	1000 U	2500 U	2500 U	50 J	1.0 U	2.5 U	1.0 U
1,2-Dichloropropane	1.0 U	1.0 U	1 U	1 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	400 U	1000 U	1000 U	50 U	1.0 U	1.0 U	1.0 U
1,3,5-Trimethylbenzene (Mesitylene)	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	--	2.5 U	--	--	2.5 U	1000 U	2500 U	2500 U	120 U	--	2.5 U	--
1,3-Dichlorobenzene	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	5.0 U	2.5 U	5.0 U	5.0 U	2.5 U	1000 U	2500 U	2500 U	120 U	5.0 U	2.5 U	5.0 U
1,3-Dichloropropane	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	--	2.5 UJ	--	--	2.5 UJ	1000 U	2500 UJ	2500 UJ	120 U	--	2.5 UJ	--
1,3-Dichloropropene, cis-	0.50 U	0.50 U	0.5 U	0.5 U	0.50 U	1.0 U	0.50 U	1.0 U	1.0 U	0.50 U	200 U	500 U	500 U	25 U	1.0 U	0.50 U	1.0 U
1,3-Dichloropropene, Total	0.50 U	0.50 U	0.5 U	0.5 U	0.50 U	--	0.50 U	--	--	0.50 U	200 U	500 U	500 U	25 U	--	0.50 U	--
1,3-Dichloropropene, trans-	0.50 U	0.50 U	0.5 U	0.5 U	0.50 U	1.0 U	0.50 U	1.0 U	1.0 U	0.50 U	200 U	500 U	500 U	25 U	1.0 U	0.50 U	1.0 U
1,4-Dichlorobenzene	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	1.0 U	2.5 U	1.0 U	1.0 U	2.5 U	1000 U	2500 U	2500 U	120 U	1.0 U	2.5 U	1.0 U
1,4-Dioxane (p-Dioxane)	250 UJ	250 U	250 U	250 U	250 U	--	250 U	--	--	250 U	100000 UJ	250000 U	250000 U	12000 UJ	--	250 U	--
2,2-Dichloropropane	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	--	2.5 U	--	--	2.5 U	1000 U	2500 U	2500 U	120 U	--	2.5 U	--
2-Chlorotoluene	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	--	2.5 UJ	--	--	2.5 UJ	1000 U	2500 UJ	2500 UJ	120 U	--	2.5 UJ	--
2-Hexanone	5.0 U	5.0 U	5 U	5 U	5.0 U	10 U	5.0 UJ	10 U	10 U	5.0 UJ	2000 UJ	5000 UJ	5000 UJ	250 U	10 U	5.0 UJ	10 U
4-Chlorotoluene	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	--	2.5 UJ	--	--	2.5 UJ	1000 U	2500 UJ	2500 UJ	120 U	--	2.5 UJ	--
Acetone	5.0 U	5.0 U	5 UJ	5 U	5.0 U	10 U	5.0 UJ	10 U	10 U	5.0 UJ	2000 U	5000 UJ	5000 UJ	250 UJ	10 U	5.0 UJ	10 U
Benzene	0.50 U	0.50 U	0.5 U	0.5 U	0.50 U	1.0 U	0.50 U	1.0 U	1.0 U	0.50 U	200 U	500 U	500 U	25 U	1.0 U	0.50 U	1.0 U
Bromobenzene	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	--	2.5 U	--	--	2.5 U	1000 U	2500 U	2500 U	120 U	--	2.5 U	--
Bromodichloromethane	0.50 U	0.50 U	0.5 U	0.5 U	0.50 U	1.0 U	0.50 U	1.0 U	1.0 U	0.50 U	200 U	500 U	500 U	25 U	1.0 U	0.50 U	1.0 U
Bromoform	2.0 U	2.0 U	2 U	2 U	2.0 U	1.0 UJ	2.0 U	1.0 UJ	1.0 UJ	2.0 U	800 U	2000 U	2000 U	100 U	1.0 UJ	2.0 U	1.0 UJ
Bromomethane	2.5 UJ	2.5 UJ	2.5 UJ	2.5 U	2.5 U	1.0 U	2.5 UJ	1.0 U	1.0 U	2.5 UJ	1000 UJ	2500 UJ	2500 UJ	120 UJ	1.0 U	2.5 UJ	1.0 U
Butylbenzene, n-	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	--	2.5 U	--	--	2.5 U	1000 U	2500 U	2500 U	120 U	--	2.5 U	--
Butylbenzene, sec-	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	--	2.5 U	--	--	2.5 U	1000 U	2500 U	2500 U	120 U	--	2.5 U	--
Butylbenzene, t-	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	--	2.5 U	--	--	2.5 U	1000 U	2500 U	2500 U	120 U	--	2.5 U	--
Carbon Disulfide	5.0 U	5.0 U	5 U	5 U	5.0 U	1.0 U	5.0 U	1.0 U	1.0 U	5.0 U	2000 U	5000 U	5000 U	250 U	1.0 U	5.0 U	1.0 U

Table 2-1a. Historical Groundwater Data: Volatile Organic Compounds

Essex-Hope Site, Jamestown, New York

Location ID	MW-13	MW-13	MW-13	MW-13	MW-13	MW-14D	MW-14D	MW-14S	MW-14S	MW-14S	MW-15D	MW-15D	MW-15D	MW-15D	MW-15S	MW-15S	MW-16D
Sample Depth (feet bgs)	8-18	8-18	8-18	8-18	8-18	40-50	40-50	10-20	10-20	10-20	34-44	34-44	34-44	34-44	10-20	10-20	36-46
Sample Date	11/13/2018	11/5/2019	10/28/2020	10/6/2021	10/6/2022	11/1/2016	10/18/2017	11/1/2016	11/1/2016	10/18/2017	11/1/2016	10/18/2017	10/18/2017	10/29/2020	11/1/2016	10/18/2017	11/1/2016
Shallow or Deep WBZ	Shallow	Shallow	Shallow	Shallow	Shallow	Deep	Deep	Shallow	Shallow	Shallow	Deep	Deep	Deep	Deep	Shallow	Shallow	Deep
Onsite/Offsite	OU-01	OU-01	OU-01	OU-01	OU-01	OU-03	OU-03	OU-03	OU-03	OU-03	OU-03	OU-03	OU-03	OU-03	OU-03	OU-03	OU-03
Sample Type	N	N	N	N	N	N	N	N	FD	N	N	N	FD	N	N	N	N
Analyte																	
Carbon Tetrachloride	0.50 U	0.50 U	0.5 U	0.5 U	0.50 U	1.0 U	0.50 U	1.0 U	1.0 U	0.50 U	200 U	500 U	500 U	25 U	1.0 U	0.50 U	1.0 U
Chlorobenzene	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	1.0 U	2.5 U	1.0 U	1.0 U	2.5 U	1000 U	2500 U	2500 U	120 U	1.0 U	2.5 U	1.0 U
Chlorobromomethane	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	1.0 U	2.5 UJ	1.0 U	1.0 U	2.5 UJ	1000 UJ	2500 UJ	2500 UJ	120 U	1.0 U	2.5 UJ	1.0 U
Chloroethane	2.5 U	2.5 U	2.5 UJ	2.5 U	2.5 U	1.0 U	2.5 U	1.0 U	1.0 U	2.5 U	1000 UJ	2500 U	2500 U	120 UJ	1.0 U	2.5 U	1.0 U
Chloroform	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	1.0 U	2.5 U	1.0 U	1.0 U	2.5 U	1000 U	2500 U	2500 U	120 U	1.0 U	2.5 U	1.0 U
Chloromethane	2.5 UJ	2.5 UJ	2.5 U	2.5 U	2.5 U	1.0 UJ	2.5 UJ	1.0 UJ	1.0 UJ	2.5 UJ	1000 U	2500 UJ	2500 UJ	120 U	1.0 UJ	2.5 UJ	1.0 UJ
Dibromochloromethane	0.50 U	0.50 U	0.5 U	0.5 U	0.50 U	1.0 U	0.50 U	1.0 U	1.0 U	0.50 U	200 U	500 U	500 U	25 U	1.0 U	0.50 U	1.0 U
Dibromomethane (Methylene Bromide)	5.0 U	5.0 U	5 U	5 U	5.0 U	--	5.0 UJ	--	--	5.0 UJ	2000 UJ	5000 UJ	5000 UJ	250 U	--	5.0 UJ	--
Dichlorodifluoromethane	5.0 U	5.0 UJ	5 U	5 U	5.0 U	--	5.0 UJ	--	--	5.0 UJ	2000 U	5000 UJ	5000 UJ	250 U	--	5.0 UJ	--
Ethylbenzene	2.5 U	2.5 U	2.5 U	2.5 U	3	1.0 U	2.5 U	1.0 U	1.0 U	2.5 U	1000 U	2500 U	2500 U	120 U	1.0 U	2.5 U	1.0 U
Hexachlorobutadiene	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	--	2.5 U	--	--	2.5 U	1000 U	2500 U	2500 U	120 U	--	2.5 U	--
Isopropylbenzene (Cumene)	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	1.0 U	2.5 U	1.0 U	1.0 U	2.5 U	1000 U	2500 U	2500 U	120 U	1.0 U	2.5 U	1.0 U
Methyl Ethyl Ketone (2-Butanone)	5.0 U	5.0 U	5 UJ	5 U	5.0 U	10 U	5.0 UJ	10 U	10 U	5.0 UJ	2000 UJ	5000 UJ	5000 UJ	250 U	10 U	5.0 UJ	10 U
Methyl Isobutyl Ketone (4-Methyl-2-Pentanone)	5.0 U	5.0 U	5 U	5 UJ	5.0 U	10 U	5.0 UJ	10 U	10 U	5.0 UJ	2000 UJ	5000 UJ	5000 UJ	250 U	10 U	5.0 UJ	10 U
Methyl tert-butyl Ether	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	--	2.5 U	--	--	2.5 U	1000 U	2500 U	2500 U	120 U	--	2.5 U	--
Methylene Chloride	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	1.0 U	2.5 U	1.0 U	1.0 U	2.5 U	1000 U	2500 U	2500 U	120 U	1.0 U	2.5 U	1.0 U
Naphthalene	2.5 U	2.5 U	2.5 UJ	2.5 UJ	2.5 U	--	2.5 U	--	--	2.5 U	1000 U	2500 U	2500 U	120 UJ	--	2.5 U	--
n-Propylbenzene	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	--	2.5 U	--	--	2.5 UJ	1000 U	2500 U	2500 U	120 U	--	2.5 U	--
p-Isopropyltoluene	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	--	2.5 U	--	--	2.5 U	1000 U	2500 U	2500 U	120 U	--	2.5 U	--
Styrene	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	1.0 U	2.5 U	1.0 U	1.0 U	2.5 U	1000 U	2500 U	2500 U	120 U	1.0 U	2.5 U	1.0 U
Tetrachloroethene	0.50 U	0.50 U	0.5 U	0.5 U	0.50 U	1.0 U	0.50 U	1.0 U	1.0 U	0.50 U	200 U	500 U	500 U	25 U	1.0 U	0.50 U	1.0 U
Toluene	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	1.0 U	2.5 U	1.0 U	1.0 U	2.5 U	1000 U	2500 U	2500 U	120 U	1.0 U	2.5 U	1.0 U
Trichloroethene	0.50 U	0.50 U	0.29 J	0.72	38	1.0 U	0.50 U	9.6	11	14	12000	15000	16000	940 J	4.5	5.6	1.0 U
Trichlorofluoromethane	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	1.0 U	2.5 U	1.0 U	1.0 U	2.5 U	1000 U	2500 U	2500 U	120 U	1.0 U	2.5 U	1.0 U
Vinyl Acetate	5.0 U	5.0 UJ	5 U	5 U	5.0 U	--	5.0 U	--	--	5.0 U	2000 U	5000 U	5000 U	250 U	--	5.0 U	--
Vinyl Chloride	1.0 UJ	1.0 U	1 U	1 U	0.15 J	6.9	7.7 J	1.0 U	1.0 U	1.0 U	2600	4100 J	4000 J	4300	1.0 U	1.0 UJ	0.40 J
Xylene, m- & p-	2.5 U	2.5 U	2.5 U	2.5 U	9.3	10 U	2.5 U	10 U	10 U	2.5 U	1000 U	2500 U	2500 U	120 U	10 U	2.5 U	10 U
Xylene, o-	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	1.0 U	2.5 U	1.0 U	1.0 U	2.5 U	1000 U	2500 U	2500 U	120 U	1.0 U	2.5 U	1.0 U
Xylenes, Total	2.5 U	2.5 U	2.5 U	2.5 U	9.3	10 U	2.5 U	10 U	10 U	2.5 U	1000 U	2500 U	2500 U	120 U	10 U	2.5 U	10 U
Total CBTEX	2.5 U	2.5 U	2.5 U	2.5 U	12.3	10 U	2.5 U	10 U	10 U	2.5 U	1000 U	2500 U	2500 U	120 U	10 U	2.5 U	10 U
Total CVOC	1.0 UJ	5.0 UJ	0.29 J	0.72	46.35	6.9	7.7 J	11	12	16.4 J	61000 J	95320 J	97200 J	13332	5.9	6.6 J	0.40 J
Total VOC	5.0 U	250 UJ	0.29	2.52	67.55	6.9	7.7 J	11	12.2	16.4 J	106740	95320 J	97200 J	21432	5.9	6.6 J	0.4

Table 2-1a. Historical Groundwater Data: Volatile Organic Compounds

Essex-Hope Site, Jamestown, New York

Location ID	MW-16D	MW-16D	MW-16D	MW-16D	MW-16D	MW-16D	MW-18	MW-18	MW-18	MW-18	MW-19D	MW-19D	MW-19S	MW-20	MW-20	MW-20	MW-20
Sample Depth (feet bgs)	36-46	36-46	36-46	36-46	36-46	36-46	5-15	5-15	5-15	5-15	34-44	34-44	9-19	6.5-11.5	6.5-11.5	6.5-11.5	6.5-11.5
Sample Date	10/18/2017	11/14/2018	11/7/2019	10/28/2020	10/6/2021	10/6/2022	3/15/2017	11/6/2019	10/5/2021	10/4/2022	11/2/2016	10/17/2017	3/14/2017	11/3/2016	10/19/2017	11/15/2018	11/6/2019
Shallow or Deep WBZ	Deep	Deep	Deep	Deep	Deep	Deep	Shallow	Shallow	Shallow	Shallow	Deep	Deep	Shallow	Shallow	Shallow	Shallow	Shallow
Onsite/Offsite	OU-03	OU-03	OU-03	OU-03	OU-03	OU-03	OU-03	OU-03	OU-03	OU-03	OU-01	OU-01	OU-01	OU-01	OU-01	OU-01	OU-01
Sample Type	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
Analyte																	
1,1,1,2-Tetrachloroethane	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	6.2 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
1,1,1-Trichloroethane	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	6.2 U	2.5 U	2.5 U	2.5 U	1.0 U	2.5 U	2.5 U	1.0 U	2.5 U	2.5 U	2.5 U
1,1,2,2-Tetrachloroethane	0.50 U	0.50 UJ	0.50 U	0.5 U	0.5 U	0.50 U	1.2 U	0.50 U	0.5 U	0.50 U	1.0 U	0.50 U	0.50 U	1.0 U	0.50 UJ	0.50 UJ	0.50 U
1,1,2-Trichloroethane	1.5 UJ	1.5 U	1.5 U	1.5 U	1.5 U	1.5 U	3.8 UJ	1.5 U	1.5 U	1.5 U	1.0 U	1.5 UJ	1.5 UJ	1.0 U	1.5 UJ	1.5 U	1.5 U
1,1-Dichloroethane	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	6.2 U	2.5 U	2.5 U	2.5 U	1.0 U	2.5 U	2.5 U	1.0 U	2.5 U	2.5 U	2.5 U
1,1-Dichloroethene	0.50 U	0.50 U	0.50 U	0.5 U	0.5 U	0.50 U	1.2 U	0.50 U	0.5 U	0.50 U	1.0 U	0.50 U	0.50 U	1.0 U	0.50 U	0.50 U	0.50 U
1,1-Dichloropropene	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	6.2 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
1,2,3-Trichlorobenzene	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	6.2 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
1,2,3-Trichloropropane	2.5 U	2.5 U	2.5 UJ	2.5 U	2.5 U	2.5 U	6.2 U	2.5 UJ	2.5 U	2.5 U	--	2.5 U	2.5 U	--	2.5 UJ	2.5 U	2.5 UJ
1,2,4-Trichlorobenzene	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	6.2 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
1,2,4-Trimethylbenzene	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	6.2 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
1,2-Dibromo-3-Chloropropane	2.5 UJ	2.5 UJ	2.5 U	2.5 U	2.5 U	2.5 U	6.2 U	2.5 U	2.5 U	2.5 U	--	2.5 UJ	2.5 U	--	2.5 UJ	2.5 UJ	2.5 U
1,2-Dibromoethane (Ethylene Dibromide)	2.0 U	2.0 U	2.0 U	2 U	2 U	2.0 U	5.0 U	2.0 U	2 U	2.0 U	--	2.0 U	2.0 U	--	2.0 U	2.0 U	2.0 U
1,2-Dichlorobenzene	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	6.2 U	2.5 U	2.5 U	2.5 U	1.0 U	2.5 U	2.5 U	1.0 U	2.5 U	2.5 U	2.5 U
1,2-Dichloroethane	0.50 UJ	0.50 U	0.50 U	0.5 U	0.5 U	0.50 U	1.2 U	0.50 U	0.5 U	0.50 U	1.0 U	0.50 UJ	0.50 U	1.0 U	0.50 U	0.50 U	0.50 U
1,2-Dichloroethene, cis-	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	65	18	18	4.3	66	2.5 U	2.5 U	1.1	2.5 U	2.5 U	2.5 U
1,2-Dichloroethene, Total	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	65	18	18	4.3	--	2.5 U	2.5 U	--	2.5 U	2.5 U	2.5 U
1,2-Dichloroethene, trans-	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	6.2 U	2.5 U	2.5 U	2.5 U	0.55 J	2.5 U	2.5 U	1.0 U	2.5 U	2.5 U	2.5 U
1,2-Dichloropropane	1.0 U	1.0 U	1.0 U	1 U	1 U	1.0 U	2.5 U	1.0 U	1 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,3,5-Trimethylbenzene (Mesitylene)	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	6.2 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
1,3-Dichlorobenzene	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	6.2 U	2.5 U	2.5 U	2.5 U	5.0 U	2.5 U	2.5 U	5.0 U	2.5 U	2.5 U	2.5 U
1,3-Dichloropropane	2.5 UJ	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	6.2 U	2.5 U	2.5 U	2.5 U	--	2.5 UJ	2.5 U	--	2.5 UJ	2.5 U	2.5 U
1,3-Dichloropropene, cis-	0.50 U	0.50 U	0.50 U	0.5 U	0.5 U	0.50 U	1.2 U	0.50 U	0.5 U	0.50 U	1.0 U	0.50 U	0.50 U	1.0 U	0.50 U	0.50 U	0.50 U
1,3-Dichloropropene, Total	0.50 U	0.50 U	0.50 U	0.5 U	0.5 U	0.50 U	1.2 U	0.50 U	0.5 U	0.50 U	--	0.50 U	0.50 U	--	0.50 U	0.50 U	0.50 U
1,3-Dichloropropene, trans-	0.50 U	0.50 U	0.50 U	0.5 U	0.5 U	0.50 U	1.2 U	0.50 U	0.5 U	0.50 U	1.0 U	0.50 U	0.50 U	1.0 U	0.50 U	0.50 U	0.50 U
1,4-Dichlorobenzene	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	6.2 U	2.5 U	2.5 U	2.5 U	1.0 U	2.5 U	2.5 U	1.0 U	2.5 U	2.5 U	2.5 U
1,4-Dioxane (p-Dioxane)	250 U	250 UJ	250 U	250 U	250 U	250 U	620 U	250 U	250 U	250 U	--	250 U	250 U	--	250 U	250 UJ	250 U
2,2-Dichloropropane	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	6.2 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-Chlorotoluene	2.5 UJ	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	6.2 U	2.5 U	2.5 U	2.5 U	--	2.5 UJ	2.5 U	--	2.5 UJ	2.5 U	2.5 U
2-Hexanone	5.0 UJ	5.0 U	5.0 U	5 U	5 U	5.0 U	12 UJ	5.0 U	5 U	5.0 U	10 U	5.0 UJ	5.0 U	10 U	5.0 UJ	5.0 U	5.0 U
4-Chlorotoluene	2.5 UJ	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	6.2 U	2.5 U	2.5 U	2.5 U	--	2.5 UJ	2.5 U	--	2.5 UJ	2.5 U	2.5 U
Acetone	5.0 UJ	5.0 U	2.5 J	5 U	5 U	5.0 U	12 UJ	2.6 J	5 U	5.0 U	10 U	5.0 UJ	5.0 UJ	10 U	5.0 UJ	5.0 U	2.2 J
Benzene	0.50 U	0.50 U	0.50 U	0.5 U	0.5 U	0.50 U	1.2 U	0.50 U	0.5 U	0.50 U	1.0 U	0.50 U	0.50 U	0.20 J	0.50 U	0.50 U	0.50 U
Bromobenzene	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	6.2 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
Bromodichloromethane	0.50 U	0.50 U	0.50 U	0.5 U	0.5 U	0.50 U	1.2 U	0.50 U	0.5 U	0.50 U	1.0 U	0.50 U	0.50 U	1.0 U	0.50 U	0.50 U	0.50 U
Bromoform	2.0 U	2.0 U	2.0 U	2 U	2 U	2.0 U	5.0 U	2.0 U	2 U	2.0 U	1.0 UJ	2.0 U	2.0 U	1.0 UJ	2.0 U	2.0 U	2.0 U
Bromomethane	2.5 UJ	2.5 U	2.5 UJ	2.5 UJ	2.5 U	2.5 U	6.2 UJ	2.5 UJ	2.5 U	2.5 U	1.0 U	2.5 UJ	2.5 UJ	1.0 U	2.5 UJ	2.5 U	2.5 UJ
Butylbenzene, n-	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	6.2 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
Butylbenzene, sec-	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	6.2 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
Butylbenzene, t-	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	6.2 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
Carbon Disulfide	5.0 U	5.0 U	5.0 U	5 U	5 U	5.0 U	12 UJ	5.0 U	5 U	5.0 U	1.0 U	5.0 U	5.0 UJ	1.0 U	5.0 U	5.0 U	5.0 U

Table 2-1a. Historical Groundwater Data: Volatile Organic Compounds

Essex-Hope Site, Jamestown, New York

Location ID	MW-16D	MW-16D	MW-16D	MW-16D	MW-16D	MW-16D	MW-18	MW-18	MW-18	MW-18	MW-19D	MW-19D	MW-19S	MW-20	MW-20	MW-20	MW-20
Sample Depth (feet bgs)	36-46	36-46	36-46	36-46	36-46	36-46	5-15	5-15	5-15	5-15	34-44	34-44	9-19	6.5-11.5	6.5-11.5	6.5-11.5	6.5-11.5
Sample Date	10/18/2017	11/14/2018	11/7/2019	10/28/2020	10/6/2021	10/6/2022	3/15/2017	11/6/2019	10/5/2021	10/4/2022	11/2/2016	10/17/2017	3/14/2017	11/3/2016	10/19/2017	11/15/2018	11/6/2019
Shallow or Deep WBZ	Deep	Deep	Deep	Deep	Deep	Deep	Shallow	Shallow	Shallow	Shallow	Deep	Deep	Shallow	Shallow	Shallow	Shallow	Shallow
Onsite/Offsite	OU-03	OU-03	OU-03	OU-03	OU-03	OU-03	OU-03	OU-03	OU-03	OU-03	OU-01	OU-01	OU-01	OU-01	OU-01	OU-01	OU-01
Sample Type	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
Analyte																	
Carbon Tetrachloride	0.50 U	0.50 U	0.50 U	0.5 U	0.5 U	0.50 U	1.2 U	0.50 U	0.5 U	0.50 U	1.0 U	0.50 U	0.50 U	1.0 U	0.50 U	0.50 U	0.50 U
Chlorobenzene	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	6.2 U	2.5 U	2.5 U	2.5 U	1.0 U	2.5 U	2.5 U	1.0 U	2.5 U	2.5 U	2.5 U
Chlorobromomethane	2.5 UJ	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	6.2 UJ	2.5 U	2.5 U	2.5 U	1.0 U	2.5 UJ	2.5 UJ	1.0 U	2.5 UJ	2.5 U	2.5 U
Chloroethane	2.5 U	2.5 U	2.5 U	2.5 UJ	2.5 U	2.5 U	6.2 UJ	2.5 U	2.5 U	2.5 U	1.0 U	2.5 U	2.5 UJ	1.0 U	2.5 U	2.5 U	2.5 U
Chloroform	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	6.2 U	2.5 U	2.5 U	2.5 U	1.0 U	2.5 U	2.5 U	1.0 U	2.5 U	2.5 U	2.5 U
Chloromethane	2.5 UJ	2.5 UJ	2.5 UJ	2.5 U	2.5 U	2.5 U	6.2 U	2.5 UJ	2.5 U	2.5 UJ	1.0 UJ	2.5 UJ	2.5 U	1.0 UJ	2.5 UJ	2.5 UJ	2.5 UJ
Dibromochloromethane	0.50 U	0.50 U	0.50 U	0.5 U	0.5 U	0.50 U	1.2 U	0.50 U	0.5 U	0.50 U	1.0 U	0.50 U	0.50 U	1.0 U	0.50 U	0.50 U	0.50 U
Dibromomethane (Methylene Bromide)	5.0 UJ	5.0 U	5.0 U	5 U	5 U	5.0 U	12 UJ	5.0 U	5 U	5.0 U	--	5.0 UJ	5.0 UJ	--	5.0 UJ	5.0 U	5.0 U
Dichlorodifluoromethane	5.0 UJ	5.0 U	5.0 UJ	5 U	5 U	5.0 U	12 U	5.0 UJ	5 U	5.0 U	--	5.0 UJ	5.0 U	--	5.0 UJ	5.0 U	5.0 UJ
Ethylbenzene	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	6.2 U	2.5 U	2.5 U	2.5 U	1.0 U	2.5 U	2.5 U	100	2.5 U	2.5 U	2.5 U
Hexachlorobutadiene	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	6.2 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
Isopropylbenzene (Cumene)	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	6.2 U	2.5 U	2.5 U	2.5 U	1.0 U	2.5 U	2.5 U	20	2.5 U	2.5 U	2.5 U
Methyl Ethyl Ketone (2-Butanone)	5.0 UJ	5.0 U	5.0 U	5 U	5 U	5.0 U	12 UJ	5.0 U	5 U	5.0 U	10 U	5.0 UJ	5.0 UJ	10 U	5.0 UJ	5.0 U	5.0 U
Methyl Isobutyl Ketone (4-Methyl-2-Pentanone)	5.0 UJ	5.0 U	5.0 U	5 U	5 UJ	5.0 U	12 U	5.0 U	5 UJ	5.0 U	10 U	5.0 UJ	5.0 U	10 U	5.0 UJ	5.0 U	5.0 U
Methyl tert-butyl Ether	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	6.2 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
Methylene Chloride	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	6.2 U	2.5 U	2.5 U	2.5 U	1.0 U	2.5 U	2.5 U	1.0 U	2.5 U	2.5 U	2.5 U
Naphthalene	2.5 U	2.5 U	2.5 U	2.5 UJ	2.5 UJ	2.5 U	6.2 UJ	2.5 U	2.5 UJ	2.5 U	--	2.5 U	2.5 U	--	2.5 U	2.5 U	2.5 U
n-Propylbenzene	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	6.2 U	2.5 U	2.5 U	2.5 U	--	2.5 U	2.5 U	--	2.5 UJ	2.5 U	2.5 U
p-Isopropyltoluene	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	6.2 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
Styrene	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	6.2 U	2.5 U	2.5 U	2.5 U	1.0 U	2.5 U	2.5 U	1.0 U	2.5 U	2.5 U	2.5 U
Tetrachloroethene	0.50 U	0.50 U	0.50 U	0.5 U	0.5 U	0.50 U	1.2 U	0.50 U	0.5 U	0.50 U	1.0 U	0.50 U	0.50 U	1.0 U	0.50 U	0.50 U	0.50 U
Toluene	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	6.2 U	2.5 U	2.5 U	2.5 U	1.0 U	2.5 U	2.5 U	1.0 U	2.5 U	2.5 U	2.5 U
Trichloroethene	0.50 U	0.50 U	0.50 U	0.5 UJ	0.5 U	0.50 U	190	38	130	44	1.1	0.51	0.49 J	2.3	0.50 U	0.50 U	0.50 U
Trichlorofluoromethane	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	6.2 U	2.5 U	2.5 U	2.5 U	1.0 U	2.5 U	2.5 U	1.0 U	2.5 U	2.5 U	2.5 U
Vinyl Acetate	5.0 U	5.0 U	5.0 UJ	5 U	5 U	5.0 U	12 U	5.0 UJ	5 U	5.0 U	--	5.0 U	5.0 U	--	5.0 U	5.0 U	5.0 UJ
Vinyl Chloride	0.31 J	0.41 J	0.43 J	0.3 J	0.29 J	0.61 J	0.34 J	1.0 U	1 U	1.0 U	25	21 J	0.22 J	1.0 U	0.17 J	1.0 U	1.0 U
Xylene, m- & p-	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	6.2 U	2.5 U	2.5 U	2.5 U	10 U	2.5 U	2.5 U	240	2.5 U	2.5 U	0.82 J
Xylene, o-	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	6.2 U	2.5 U	2.5 U	2.5 U	1.0 U	2.5 U	2.5 U	1.8	2.5 U	2.5 U	2.5 U
Xylenes, Total	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	6.2 U	2.5 U	2.5 U	2.5 U	10 U	2.5 U	2.5 U	240	2.5 U	2.5 U	0.82 J
Total CBTEX	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	6.2 U	2.5 U	2.5 U	2.5 U	10 U	2.5 U	2.5 U	360 J	2.5 U	2.5 U	0.82 J
Total CVOC	0.31 J	0.41 J	0.43 J	0.3 J	0.29 J	0.61 J	255.34 J	56	148	48.3	93 J	21.51 J	0.71 J	3.4	0.17 J	1.0 U	1.0 U
Total VOC	0.31 J	0.41	2.9 J	0.3	0.29	0.61	255.34 J	59 J	166	52.6	92.65	21.51 J	0.71 J	365.4	0.17 J	5.0 U	5.0 UJ

Table 2-1a. Historical Groundwater Data: Volatile Organic Compounds

Essex-Hope Site, Jamestown, New York

Location ID	MW-20	MW-20	MW-20	MW-21D	MW-21D	MW-21D	MW-21D	MW-21D	MW-22D	MW-22D	MW-22D	MW-23D	MW-23S	MW-23S	MW-23S	MW-23S	MW-23S
Sample Depth (feet bgs)	6.5-11.5	6.5-11.5	6.5-11.5	31.5-41	31.5-41	31.5-41	31.5-41	31.5-41	32.5-42	32.5-42	32.5-42	28-37.5	5-14.5	5-14.5	5-14.5	5-14.5	5-14.5
Sample Date	10/29/2020	10/6/2021	10/5/2022	11/2/2016	11/2/2016	3/14/2017	10/19/2017	10/29/2020	11/3/2016	10/17/2017	10/29/2020	11/2/2016	11/2/2016	10/17/2017	11/13/2018	11/5/2019	11/5/2019
Shallow or Deep WBZ	Shallow	Shallow	Shallow	Deep	Deep	Deep	Deep	Deep	Deep	Deep	Deep	Deep	Shallow	Shallow	Shallow	Shallow	Shallow
Onsite/Offsite	OU-01	OU-01	OU-01	OU-01	OU-01	OU-01	OU-01	OU-01	OU-03	OU-03	OU-03	OU-01	OU-01	OU-01	OU-01	OU-01	OU-01
Sample Type	N	N	N	N	FD	N	N	N	N	N	N	N	N	N	N	N	FD
Analyte																	
1,1,1,2-Tetrachloroethane	5 U	2.5 U	2.5 U	--	--	2500 U	500 U	500 U	25 U	12 U	10 U	2.5 U	--	2.5 U	2.5 U	2.5 U	2.5 U
1,1,1-Trichloroethane	5 U	2.5 U	2.5 U	50 U	50 U	2500 U	500 U	500 U	25 U	12 U	10 U	2.5 U	1.0 U	2.5 U	2.5 U	2.5 U	2.5 U
1,1,2,2-Tetrachloroethane	1 U	0.5 U	0.50 U	50 U	50 U	500 U	100 UJ	100 UJ	5 U	2.5 U	2 UJ	0.5 U	1.0 U	0.50 U	0.50 UJ	0.50 UJ	0.50 UJ
1,1,2-Trichloroethane	3 U	1.5 U	1.5 U	50 U	50 U	1500 UJ	300 UJ	300 U	15 U	7.5 UJ	6 U	1.5 U	1.0 U	1.5 UJ	1.5 U	1.5 U	1.5 U
1,1-Dichloroethane	5 U	2.5 U	2.5 U	50 U	50 U	2500 U	500 U	500 U	25 U	12 U	10 U	2.5 U	1.0 U	2.5 U	2.5 U	2.5 U	2.5 U
1,1-Dichloroethene	1 U	0.5 U	0.50 U	120	100	500 U	100 U	42 J	5 U	1.2 J	2.5	0.5 U	1.0 U	0.50 U	0.50 U	0.50 U	0.50 U
1,1-Dichloropropene	5 U	2.5 U	2.5 U	--	--	2500 U	500 U	500 U	25 U	12 U	10 U	2.5 U	--	2.5 U	2.5 U	2.5 U	2.5 U
1,2,3-Trichlorobenzene	5 U	2.5 U	2.5 U	--	--	2500 U	500 U	500 UJ	25 U	12 U	10 UJ	2.5 U	--	2.5 U	2.5 U	2.5 U	2.5 U
1,2,3-Trichloropropane	5 U	2.5 U	2.5 U	--	--	2500 U	500 UJ	500 U	25 U	12 U	10 U	2.5 U	--	2.5 U	2.5 U	2.5 U	2.5 U
1,2,4-Trichlorobenzene	5 U	2.5 U	2.5 U	--	--	2500 U	500 U	500 UJ	25 U	12 U	10 UJ	2.5 U	--	2.5 U	2.5 U	2.5 U	2.5 U
1,2,4-Trimethylbenzene	16	2.5 U	2.5 U	--	--	2500 U	500 U	500 U	25 U	12 U	10 U	2.5 U	--	2.5 U	2.5 U	2.5 U	2.5 U
1,2-Dibromo-3-Chloropropane	5 U	2.5 U	2.5 U	--	--	2500 U	500 UJ	500 UJ	25 U	12 UJ	10 UJ	2.5 U	--	2.5 UJ	2.5 UJ	2.5 U	2.5 U
1,2-Dibromoethane (Ethylene Dibromide)	4 U	2 U	2.0 U	--	--	2000 U	400 U	400 U	20 U	10 U	8 U	2 U	--	2.0 U	2.0 U	2.0 U	2.0 U
1,2-Dichlorobenzene	5 U	2.5 U	2.5 U	50 U	50 U	2500 U	500 U	500 U	25 U	12 U	10 U	2.5 U	1.0 U	2.5 U	2.5 U	2.5 U	2.5 U
1,2-Dichloroethane	1 U	0.5 U	0.50 U	50 U	50 U	500 U	100 U	100 U	5 U	2.5 U	2 U	0.5 U	1.0 U	0.50 U	0.50 U	0.50 U	0.50 U
1,2-Dichloroethene, cis-	5 U	2.5 U	2.5 U	120000	110000	79000	16000	26000	190	190	440	2.5 U	1.0 U	2.5 U	2.5 U	2.5 U	2.5 U
1,2-Dichloroethene, Total	5 U	2.5 U	2.5 U	120000	110000	79000	16000	26000 J	190	190	440	2.5 U	--	2.5 U	2.5 U	2.5 U	2.5 U
1,2-Dichloroethene, trans-	5 U	2.5 U	2.5 U	440	460	2500 U	500 U	170 J	25 U	12 U	10 U	2.5 U	1.0 U	2.5 U	2.5 U	2.5 U	2.5 U
1,2-Dichloropropane	2 U	1 U	1.0 U	50 U	50 U	1000 U	200 U	200 U	10 U	5.0 U	4 U	1 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,3,5-Trimethylbenzene (Mesitylene)	6.6	2.5 U	2.5 U	--	--	2500 U	500 U	500 U	25 U	12 U	10 U	2.5 U	--	2.5 U	2.5 U	2.5 U	2.5 U
1,3-Dichlorobenzene	5 U	2.5 U	2.5 U	250 U	250 U	2500 U	500 U	500 U	25 U	12 U	10 U	2.5 U	5.0 U	2.5 U	2.5 U	2.5 U	2.5 U
1,3-Dichloropropane	5 U	2.5 U	2.5 U	--	--	2500 U	500 UJ	500 U	25 U	12 UJ	10 U	2.5 U	--	2.5 UJ	2.5 U	2.5 U	2.5 U
1,3-Dichloropropene, cis-	1 U	0.5 U	0.50 U	50 U	50 U	500 U	100 U	100 U	5 U	2.5 U	2 U	0.5 U	1.0 U	0.50 U	0.50 U	0.50 U	0.50 U
1,3-Dichloropropene, Total	1 U	0.5 U	0.50 U	--	--	500 U	100 U	100 U	5 U	2.5 U	2 U	0.5 U	--	0.50 U	0.50 U	0.50 U	0.50 U
1,3-Dichloropropene, trans-	1 U	0.5 U	0.50 U	50 U	50 U	500 U	100 U	100 U	5 U	2.5 U	2 U	0.5 U	1.0 U	0.50 U	0.50 U	0.50 U	0.50 U
1,4-Dichlorobenzene	5 U	2.5 U	2.5 U	50 U	50 U	2500 U	500 U	500 U	25 U	12 U	10 U	2.5 U	1.0 U	2.5 U	2.5 U	2.5 U	2.5 U
1,4-Dioxane (p-Dioxane)	500 U	250 U	250 U	--	--	250000 U	50000 U	50000 U	2500 UJ	1200 U	1000 U	250 UJ	--	250 U	250 UJ	250 U	250 U
2,2-Dichloropropane	5 U	2.5 U	2.5 U	--	--	2500 U	500 U	500 U	25 U	12 U	10 U	2.5 U	--	2.5 U	2.5 U	2.5 U	2.5 U
2-Chlorotoluene	5 U	2.5 U	2.5 U	--	--	2500 U	500 UJ	500 U	25 U	12 UJ	10 U	2.5 U	--	2.5 UJ	2.5 U	2.5 U	2.5 U
2-Hexanone	10 U	5 U	5.0 U	500 U	500 U	5000 UJ	1000 UJ	1000 U	50 UJ	25 UJ	20 U	5 UJ	10 U	5.0 UJ	5.0 U	5.0 U	5.0 U
4-Chlorotoluene	5 U	2.5 U	2.5 U	--	--	2500 U	500 UJ	500 U	25 U	12 UJ	10 U	2.5 U	--	2.5 UJ	2.5 U	2.5 U	2.5 U
Acetone	10 U	5 U	5.0 U	13000	11000	5000 J	1000 UJ	1000 UJ	50 U	25 UJ	20 UJ	5 U	10 U	5.0 UJ	5.0 U	5.0 U	5.0 U
Benzene	1 U	0.5 U	0.50 U	31 J	29 J	500 U	100 U	100 U	5 U	2.5 U	2 U	0.5 U	0.20 J	0.50 U	0.50 U	0.50 U	0.50 U
Bromobenzene	5 U	2.5 U	2.5 U	--	--	2500 U	500 U	500 U	25 U	12 U	10 U	2.5 U	--	2.5 U	2.5 U	2.5 U	2.5 U
Bromodichloromethane	1 U	0.5 U	0.50 U	50 U	50 U	500 U	100 U	100 U	5 U	2.5 U	2 U	0.5 U	1.0 U	0.50 U	0.50 U	0.50 U	0.50 U
Bromoform	4 U	2 U	2.0 U	50 UJ	50 UJ	2000 U	400 U	400 U	20 U	10 U	8 U	2 U	1.0 UJ	2.0 U	2.0 U	2.0 U	2.0 U
Bromomethane	5 UJ	2.5 U	2.5 U	50 U	50 U	2500 UJ	500 UJ	500 UJ	25 U	12 UJ	10 UJ	2.5 U	1.0 U	2.5 UJ	2.5 UJ	2.5 UJ	2.5 UJ
Butylbenzene, n-	5 U	2.5 U	2.5 U	--	--	2500 U	500 U	500 U	25 U	12 U	10 U	2.5 U	--	2.5 U	2.5 U	2.5 U	2.5 U
Butylbenzene, sec-	5 U	2.5 U	2.5 U	--	--	2500 U	500 U	500 U	25 U	12 U	10 U	2.5 U	--	2.5 U	2.5 U	2.5 U	2.5 U
Butylbenzene, t-	5 U	2.5 U	2.5 U	--	--	2500 U	500 U	500 U	25 U	12 U	10 U	2.5 U	--	2.5 U	2.5 U	2.5 U	2.5 U
Carbon Disulfide	10 U	5 U	5.0 U	50 U	50 U	5000 UJ	1000 U	1000 U	50 U	25 U	20 U	5 U	1.0 U	5.0 U	5.0 U	5.0 U	5.0 U

Table 2-1a. Historical Groundwater Data: Volatile Organic Compounds

Essex-Hope Site, Jamestown, New York

Location ID	MW-20	MW-20	MW-20	MW-21D	MW-21D	MW-21D	MW-21D	MW-21D	MW-22D	MW-22D	MW-22D	MW-23D	MW-23S	MW-23S	MW-23S	MW-23S	MW-23S
Sample Depth (feet bgs)	6.5-11.5	6.5-11.5	6.5-11.5	31.5-41	31.5-41	31.5-41	31.5-41	31.5-41	32.5-42	32.5-42	32.5-42	28-37.5	5-14.5	5-14.5	5-14.5	5-14.5	5-14.5
Sample Date	10/29/2020	10/6/2021	10/5/2022	11/2/2016	11/2/2016	3/14/2017	10/19/2017	10/29/2020	11/3/2016	10/17/2017	10/29/2020	11/2/2016	11/2/2016	10/17/2017	11/13/2018	11/5/2019	11/5/2019
Shallow or Deep WBZ	Shallow	Shallow	Shallow	Deep	Deep	Deep	Deep	Deep	Deep	Deep	Deep	Deep	Shallow	Shallow	Shallow	Shallow	Shallow
Onsite/Offsite	OU-01	OU-01	OU-01	OU-01	OU-01	OU-01	OU-01	OU-01	OU-03	OU-03	OU-03	OU-01	OU-01	OU-01	OU-01	OU-01	OU-01
Sample Type	N	N	N	N	FD	N	N	N	N	N	N	N	N	N	N	N	FD
Analyte																	
Carbon Tetrachloride	1 U	0.5 U	0.50 U	50 U	50 U	500 U	100 U	100 U	5 U	2.5 U	2 U	0.5 U	1.0 U	0.50 U	0.50 U	0.50 U	0.50 U
Chlorobenzene	5 U	2.5 U	2.5 U	50 U	50 U	2500 U	500 U	500 U	25 U	12 U	10 U	2.5 U	0.32 J	2.5 U	2.5 U	2.5 U	2.5 U
Chlorobromomethane	5 U	2.5 U	2.5 U	50 U	50 U	2500 UJ	500 UJ	500 U	25 UJ	12 UJ	10 U	2.5 UJ	1.0 U	2.5 UJ	2.5 U	2.5 U	2.5 U
Chloroethane	5 UJ	2.5 U	2.5 U	50 U	50 U	2500 UJ	500 U	500 UJ	25 UJ	12 U	10 UJ	2.5 UJ	1.0 U	2.5 U	2.5 U	2.5 U	2.5 U
Chloroform	5 U	2.5 U	2.5 U	50 U	50 U	2500 U	500 U	500 U	25 U	12 U	10 U	2.5 U	1.0 U	2.5 U	2.5 U	2.5 U	2.5 U
Chloromethane	5 U	2.5 U	2.5 U	50 UJ	50 UJ	2500 U	500 UJ	500 U	25 U	12 UJ	10 U	2.5 U	1.0 UJ	2.5 UJ	2.5 UJ	2.5 UJ	2.5 UJ
Dibromochloromethane	1 U	0.5 U	0.50 U	50 U	50 U	500 U	100 U	100 U	5 U	2.5 U	2 U	0.5 U	1.0 U	0.50 U	0.50 U	0.50 U	0.50 U
Dibromomethane (Methylene Bromide)	10 U	5 U	5.0 U	--	--	5000 UJ	1000 UJ	1000 U	50 UJ	25 UJ	20 U	5 U	--	5.0 UJ	5.0 U	5.0 U	5.0 U
Dichlorodifluoromethane	10 U	5 U	5.0 U	--	--	5000 U	1000 UJ	1000 U	50 U	25 UJ	20 U	5 U	--	5.0 UJ	5.0 U	5.0 UJ	5.0 UJ
Ethylbenzene	220	2.5 U	2.5 U	50 U	50 U	2500 U	500 U	500 U	25 U	12 U	10 U	2.5 U	5.1	2.5 U	2.5 U	2.5 U	2.5 U
Hexachlorobutadiene	5 U	2.5 U	2.5 U	--	--	2500 U	500 U	500 U	25 U	12 U	10 U	2.5 U	--	2.5 U	2.5 U	2.5 U	2.5 U
Isopropylbenzene (Cumene)	46	2.5 U	2.5 U	50 U	50 U	2500 U	500 U	500 U	25 U	12 U	10 U	2.5 U	5.9	2.5 U	2.5 U	2.5 U	2.5 U
Methyl Ethyl Ketone (2-Butanone)	10 U	5 U	5.0 U	500 U	500 U	5000 UJ	1000 UJ	1000 UJ	50 UJ	25 UJ	20 UJ	5 UJ	10 U	5.0 UJ	5.0 U	5.0 U	5.0 U
Methyl Isobutyl Ketone (4-Methyl-2-Pentanone)	10 U	5 UJ	5.0 U	500 U	500 U	5000 U	1000 UJ	1000 U	50 U	25 UJ	20 U	5 U	10 U	5.0 UJ	5.0 U	5.0 U	5.0 U
Methyl tert-butyl Ether	5 U	2.5 U	2.5 U	--	--	2500 U	500 U	500 U	25 U	12 U	10 U	2.5 U	--	2.5 U	2.5 U	2.5 U	2.5 U
Methylene Chloride	5 U	2.5 U	2.5 U	50 U	50 U	2500 U	500 U	500 U	25 U	12 U	10 U	2.5 U	1.0 U	2.5 U	2.5 U	2.5 U	2.5 U
Naphthalene	5 UJ	2.5 UJ	2.5 U	--	--	2500 UJ	500 U	500 UJ	15 J	12 U	10 UJ	2.5 U	--	2.5 U	2.5 U	2.5 U	2.5 U
n-Propylbenzene	14	2.5 U	2.5 U	--	--	2500 U	500 UJ	500 U	25 U	12 U	10 U	2.5 U	--	2.5 U	2.5 U	2.5 U	2.5 U
p-Isopropyltoluene	5 U	2.5 U	2.5 U	--	--	2500 U	500 U	500 U	25 U	12 U	10 U	2.5 U	--	2.5 U	2.5 U	2.5 U	2.5 U
Styrene	5 U	2.5 U	2.5 U	50 U	50 U	2500 U	500 U	500 U	25 U	12 U	10 U	2.5 U	1.0 U	2.5 U	2.5 U	2.5 U	2.5 U
Tetrachloroethene	1 U	0.5 U	0.50 U	50 U	50 U	500 U	100 U	100 U	5 U	2.5 U	2 U	0.5 U	1.0 U	0.50 U	0.50 U	0.50 U	0.50 U
Toluene	5 U	2.5 U	2.5 U	50 U	50 U	2500 U	500 U	500 U	25 U	12 U	10 U	2.5 U	1.0 U	2.5 U	2.5 U	2.5 U	2.5 U
Trichloroethene	0.49 J	0.31 J	0.74	18 J	50 U	500 U	100 U	4000 J	890	700	720 J	0.5 U	1.0 U	0.50 U	0.50 U	0.50 U	0.50 U
Trichlorofluoromethane	5 U	2.5 U	2.5 U	50 U	50 U	2500 U	500 U	500 U	25 U	12 U	10 U	2.5 U	1.0 U	2.5 U	2.5 U	2.5 U	2.5 U
Vinyl Acetate	10 U	5 U	5.0 U	--	--	5000 U	1000 U	1000 U	50 U	25 U	20 U	5 U	--	5.0 U	5.0 U	5.0 UJ	5.0 UJ
Vinyl Chloride	2 U	1 U	1.0 U	39000	37000	40000	16000	7800	1.6 J	2.8 J	7.4	0.67 J	1.0 U	1.0 U	1.0 UJ	1.0 U	1.0 U
Xylene, m- & p-	580	2.5 U	2.5 U	500 U	500 U	2500 U	500 U	500 U	25 U	12 U	10 U	2.5 U	1.9 J	2.5 U	2.5 U	2.5 U	2.5 U
Xylene, o-	5 U	2.5 U	2.5 U	50 U	50 U	2500 U	500 U	500 U	25 U	12 U	10 U	2.5 U	4	2.5 U	2.5 U	2.5 U	2.5 U
Xylenes, Total	580	2.5 U	2.5 U	500 U	500 U	2500 U	500 U	500 U	25 U	12 U	10 U	2.5 U	5.9 J	2.5 U	2.5 U	2.5 U	2.5 U
Total CBTEX	846	2.5 U	2.5 U	31 J	29 J	2500 U	500 U	500 U	25 U	12 U	10 U	2.5 U	17 J	2.5 U	2.5 U	2.5 U	2.5 U
Total CVOC	0.49 J	0.31 J	0.74	160000 J	150000	119000	32000	38012	1100 J	894 J	1169.9	0.67 J	1.0 U	5 UJ	1.0 UJ	5.0 UJ	5.0 UJ
Total VOC	883.09	0.31	0.74	172609	158589	124000 J	32000	64012	1286.6	894 J	1609.9	0.67	17.42	250 UJ	5.0 U	250 UJ	250 UJ

Table 2-1a. Historical Groundwater Data: Volatile Organic Compounds

Essex-Hope Site, Jamestown, New York

Location ID	MW-23S	MW-23S	MW-23S	MW-23S	MW-24S	MW-24S	MW-24S	MW-25D	MW-25D	MW-25D	MW-25D	MW-25D	MW-25D	MW-25D	MW-25S	MW-25S	MW-25S
Sample Depth (feet bgs)	5-14.5	5-14.5	5-14.5	5-14.5	5-14.5	5-14.5	5-14.5	31-41	31-41	31-41	31-41	31-41	31-41	31-41	7-17	7-17	7-17
Sample Date	10/28/2020	10/28/2020	10/5/2021	10/4/2022	11/2/2016	10/17/2017	9/18/2019	11/2/2016	10/19/2017	11/13/2018	11/5/2019	10/28/2020	10/5/2021	10/4/2022	11/2/2016	11/2/2016	10/19/2017
Shallow or Deep WBZ	Shallow	Shallow	Shallow	Shallow	Shallow	Shallow	Shallow	Deep	Deep	Deep	Deep	Deep	Deep	Deep	Shallow	Shallow	Shallow
Onsite/Offsite	OU-01	OU-01	OU-01	OU-01	OU-01	OU-01	OU-01	OU-03	OU-03	OU-03	OU-03	OU-03	OU-03	OU-03	OU-03	OU-03	OU-03
Sample Type	N	FD	N	N	N	N	N	N	N	N	N	N	N	N	N	Split	N
Analyte																	
1,1,1,2-Tetrachloroethane	2.5 U	2.5 U	2.5 U	2.5 U	--	6.2 U	6.2 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
1,1,1-Trichloroethane	2.5 U	2.5 U	2.5 U	2.5 U	1.0 U	6.2 U	6.2 U	1.0 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	1.0 U	2.5 U
1,1,2,2-Tetrachloroethane	0.5 UJ	0.5 UJ	0.5 U	0.50 U	1.0 U	1.2 U	1.2 U	1.0 U	0.50 UJ	0.50 UJ	0.50 UJ	0.5 U	0.5 U	0.50 U	0.5 U	1.0 U	0.50 UJ
1,1,2-Trichloroethane	1.5 U	1.5 U	1.5 U	1.5 U	1.0 U	3.8 UJ	3.8 U	1.0 U	1.5 UJ	1.5 U	1.5 U	1.5 U	1.5 U	1.5 U	1.5 U	1.0 U	1.5 UJ
1,1-Dichloroethane	2.5 U	2.5 U	2.5 U	2.5 U	1.0 U	6.2 U	6.2 U	1.0 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	1.0 U	2.5 U
1,1-Dichloroethene	0.5 U	0.5 U	0.5 U	0.50 U	1.0 U	1.2 U	1.2 U	1.0 U	0.50 U	0.50 U	0.50 U	0.5 U	0.5 U	0.50 U	0.5 U	1.0 U	0.50 U
1,1-Dichloropropene	2.5 U	2.5 U	2.5 U	2.5 U	--	6.2 U	6.2 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
1,2,3-Trichlorobenzene	2.5 UJ	2.5 UJ	2.5 U	2.5 U	--	6.2 U	6.2 U	--	2.5 U	2.5 U	2.5 U	2.5 UJ	2.5 U	2.5 U	2.5 U	--	2.5 U
1,2,3-Trichloropropane	2.5 U	2.5 U	2.5 U	2.5 U	--	6.2 U	6.2 U	--	2.5 UJ	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	--	2.5 UJ
1,2,4-Trichlorobenzene	2.5 UJ	2.5 UJ	2.5 U	2.5 U	--	6.2 U	6.2 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
1,2,4-Trimethylbenzene	19	20	2.5 U	2.5 U	--	12	15	--	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	--	2.5 U
1,2-Dibromo-3-Chloropropane	2.5 UJ	2.5 UJ	2.5 U	2.5 U	--	6.2 UJ	6.2 U	--	2.5 UJ	2.5 UJ	2.5 U	2.5 UJ	2.5 U	2.5 U	2.5 U	--	2.5 UJ
1,2-Dibromoethane (Ethylene Dibromide)	2 U	2 U	2 U	2.0 U	--	5.0 U	5.0 U	--	2.0 U	2.0 U	2.0 U	2 U	2 U	2.0 U	2 U	--	2.0 U
1,2-Dichlorobenzene	2.5 U	2.5 U	2.5 U	2.5 U	1.0 U	6.2 U	6.2 U	1.0 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	1.0 U	2.5 U
1,2-Dichloroethane	0.5 U	0.5 U	0.5 U	0.50 U	1.0 U	1.2 U	1.2 U	1.0 U	0.50 U	0.50 U	0.50 U	0.5 U	0.5 U	0.50 U	0.5 U	1.0 U	0.50 U
1,2-Dichloroethene, cis-	2.5 U	2.5 U	2.5 U	2.5 U	1	6.2 U	6.2 U	1.0 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	28	25	21
1,2-Dichloroethene, Total	2.5 U	2.5 U	2.5 U	2.5 U	--	6.2 U	6.2 U	--	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	28	25	21
1,2-Dichloroethene, trans-	2.5 U	2.5 U	2.5 U	2.5 U	1.0 U	6.2 U	6.2 U	1.0 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	1.0 U	2.5 U
1,2-Dichloropropane	1 U	1 U	1 U	1.0 U	1.0 U	2.5 U	2.5 U	1.0 U	1.0 U	1.0 U	1.0 U	1 U	1 U	1.0 U	1 U	1.0 U	1.0 U
1,3,5-Trimethylbenzene (Mesitylene)	3	3.1	2.5 U	2.5 U	--	2.8 J	4.0 J	--	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	--	2.5 U
1,3-Dichlorobenzene	2.5 U	2.5 U	2.5 U	2.5 U	5.0 U	6.2 U	6.2 U	5.0 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	5.0 U	2.5 U
1,3-Dichloropropane	2.5 U	2.5 U	2.5 U	2.5 U	--	6.2 UJ	6.2 U	--	2.5 UJ	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	--	2.5 UJ
1,3-Dichloropropene, cis-	0.5 U	0.5 U	0.5 U	0.50 U	1.0 U	1.2 U	1.2 U	1.0 U	0.50 U	0.50 U	0.50 U	0.5 U	0.5 U	0.50 U	0.5 U	1.0 U	0.50 U
1,3-Dichloropropene, Total	0.5 U	0.5 U	0.5 U	0.50 U	--	1.2 U	1.2 U	--	0.50 U	0.50 U	0.50 U	0.5 U	0.5 U	0.50 U	0.5 U	--	0.50 U
1,3-Dichloropropene, trans-	0.5 U	0.5 U	0.5 U	0.50 U	1.0 U	1.2 U	1.2 U	1.0 U	0.50 U	0.50 U	0.50 U	0.5 U	0.5 U	0.50 U	0.5 U	1.0 U	0.50 U
1,4-Dichlorobenzene	2.5 U	2.5 U	2.5 U	2.5 U	1.0 U	6.2 U	6.2 U	1.0 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	1.0 U	2.5 U
1,4-Dioxane (p-Dioxane)	250 U	250 U	250 U	250 U	--	620 U	620 U	--	250 U	250 UJ	250 U	250 UJ	250 U	250 U	250 UJ	--	250 U
2,2-Dichloropropane	2.5 U	2.5 U	2.5 U	2.5 U	--	6.2 U	6.2 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-Chlorotoluene	2.5 U	2.5 U	2.5 U	2.5 U	--	6.2 UJ	6.2 U	--	2.5 UJ	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	--	2.5 UJ
2-Hexanone	5 U	5 U	5 U	5.0 U	10 U	12 UJ	12 U	10 U	5.0 UJ	5.0 U	5.0 U	5 U	5 U	5.0 U	5 UJ	10 U	5.0 UJ
4-Chlorotoluene	2.5 U	2.5 U	2.5 U	2.5 U	--	6.2 UJ	6.2 U	--	2.5 UJ	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	--	2.5 UJ
Acetone	5 UJ	5 UJ	5 U	5.0 U	10 U	12 UJ	12 U	10 U	5.0 UJ	5.0 U	35	5 UJ	2.8 J	5.0 U	5 U	10 U	5.0 UJ
Benzene	0.5 U	0.5 U	0.5 U	0.50 U	0.82 J	0.55 J	0.84 J	1.0 U	0.50 U	0.50 U	0.50 U	0.5 U	0.5 U	0.50 U	0.5 U	1.0 U	0.50 U
Bromobenzene	2.5 U	2.5 U	2.5 U	2.5 U	--	6.2 U	6.2 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
Bromodichloromethane	0.5 U	0.5 U	0.5 U	0.50 U	1.0 U	1.2 U	1.2 U	1.0 U	0.50 U	0.50 U	0.50 U	0.5 U	0.5 U	0.50 U	0.5 U	1.0 U	0.50 U
Bromoform	2 U	2 U	2 U	2.0 U	1.0 U	5.0 U	5.0 U	1.0 UJ	2.0 U	2.0 U	2.0 U	2 U	2 U	2.0 U	2 U	1.0 UJ	2.0 U
Bromomethane	2.5 UJ	2.5 UJ	2.5 U	2.5 U	1.0 U	6.2 UJ	6.2 UJ	1.0 U	2.5 UJ	2.5 UJ	2.5 UJ	2.5 UJ	2.5 U	2.5 U	2.5 U	1.0 U	2.5 UJ
Butylbenzene, n-	2.5 U	2.5 U	2.5 U	2.5 U	--	6.2 U	6.2 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
Butylbenzene, sec-	0.94 J	0.98 J	2.5 U	2.5 U	--	6.2 U	6.2 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
Butylbenzene, t-	2.5 U	2.5 U	2.5 U	2.5 U	--	6.2 U	6.2 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
Carbon Disulfide	5 U	5 U	5 U	5.0 U	1.0 U	12 U	12 U	1.0 U	5.0 U	5.0 U	5.0 U	5 U	5 U	5.0 U	5 U	1.0 U	5.0 U

Table 2-1a. Historical Groundwater Data: Volatile Organic Compounds

Essex-Hope Site, Jamestown, New York

Location ID	MW-23S	MW-23S	MW-23S	MW-23S	MW-24S	MW-24S	MW-24S	MW-25D	MW-25D	MW-25D	MW-25D	MW-25D	MW-25D	MW-25D	MW-25S	MW-25S	MW-25S
Sample Depth (feet bgs)	5-14.5	5-14.5	5-14.5	5-14.5	5-14.5	5-14.5	5-14.5	31-41	31-41	31-41	31-41	31-41	31-41	31-41	7-17	7-17	7-17
Sample Date	10/28/2020	10/28/2020	10/5/2021	10/4/2022	11/2/2016	10/17/2017	9/18/2019	11/2/2016	10/19/2017	11/13/2018	11/5/2019	10/28/2020	10/5/2021	10/4/2022	11/2/2016	11/2/2016	10/19/2017
Shallow or Deep WBZ	Shallow	Shallow	Shallow	Shallow	Shallow	Shallow	Shallow	Deep	Deep	Deep	Deep	Deep	Deep	Deep	Shallow	Shallow	Shallow
Onsite/Offsite	OU-01	OU-01	OU-01	OU-01	OU-01	OU-01	OU-01	OU-03	OU-03	OU-03	OU-03	OU-03	OU-03	OU-03	OU-03	OU-03	OU-03
Sample Type	N	FD	N	N	N	N	N	N	N	N	N	N	N	N	N	Split	N
Analyte																	
Carbon Tetrachloride	0.5 U	0.5 U	0.5 U	0.50 U	1.0 U	1.2 U	1.2 U	1.0 U	0.50 U	0.50 U	0.50 U	0.5 U	0.5 U	0.50 U	0.5 U	1.0 U	0.50 U
Chlorobenzene	2.5 U	2.5 U	2.5 U	2.5 U	0.43 J	6.2 U	6.2 U	1.0 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	1.0 U	2.5 U
Chlorobromomethane	2.5 U	2.5 U	2.5 U	2.5 U	1.0 U	6.2 UJ	6.2 U	1.0 U	2.5 UJ	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 UJ	1.0 U	2.5 UJ
Chloroethane	2.5 UJ	2.5 UJ	2.5 U	2.5 U	1.0 U	6.2 U	6.2 U	1.0 U	2.5 U	2.5 U	2.5 U	2.5 UJ	2.5 U	2.5 U	2.5 UJ	1.0 U	2.5 U
Chloroform	2.5 U	2.5 U	2.5 U	2.5 U	1.0 U	6.2 U	6.2 U	1.0 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	1.0 U	2.5 U
Chloromethane	2.5 U	2.5 U	2.5 U	2.5 UJ	1.0 UJ	6.2 UJ	6.2 U	1.0 UJ	2.5 UJ	2.5 UJ	2.5 UJ	2.5 U	2.5 U	2.5 U	2.5 U	1.0 UJ	2.5 UJ
Dibromochloromethane	0.5 U	0.5 U	0.5 U	0.50 U	1.0 U	1.2 U	1.2 U	1.0 U	0.50 U	0.50 U	0.50 U	0.5 U	0.5 U	0.50 U	0.5 U	1.0 U	0.50 U
Dibromomethane (Methylene Bromide)	5 U	5 U	5 U	5.0 U	--	12 UJ	12 U	--	5.0 UJ	5.0 U	5.0 U	5 U	5 U	5.0 U	5 U	--	5.0 UJ
Dichlorodifluoromethane	5 U	5 U	5 U	5.0 U	--	12 UJ	12 U	--	5.0 UJ	5.0 U	5.0 UJ	5 U	5 U	5.0 U	5 U	--	5.0 UJ
Ethylbenzene	2 J	2 J	2.5 U	1.2 J	580	41	6.2 U	1.0 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	1.0 U	2.5 U
Hexachlorobutadiene	2.5 U	2.5 U	2.5 U	2.5 U	--	6.2 U	6.2 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
Isopropylbenzene (Cumene)	5.8	6.1	2.5 U	1.1 J	88	34	29	1.0 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 Ethyl Ketone (2-Butanone)	5 UJ	5 UJ	5 U	5.0 U	10 U	12 UJ	12 U	10 U	5.0 UJ	5.0 U	5.0 U	5 U	5 U	5.0 U	5 UJ	10 U	5.0 UJ
Methyl Isobutyl Ketone (4-Methyl-2-Pentanone)	5 U	5 U	5 U	5.0 U	10 U	12 UJ	12 U	10 U	5.0 UJ	5.0 U	5.0 U	5 U	5 U	5.0 U	5 U	10 U	5.0 UJ
Methyl tert-butyl Ether	2.5 U	2.5 U	2.5 U	2.5 U	--	6.2 U	6.2 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
Methylene Chloride	2.5 U	2.5 U	2.5 U	2.5 U	1.0 U	6.2 U	6.2 U	1.0 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	1.0 U	2.5 U
Naphthalene	4.8 J	4.9 J	2.5 U	0.87 J	--	8.7	6.5	--	2.5 U	2.5 U	2.5 U	2.5 UJ	2.5 U	2.5 U	2.5 U	--	2.5 U
n-Propylbenzene	6.7	7	2.5 U	2.5 U	--	7.6	6.8	--	2.5 UJ	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	--	2.5 UJ
p-Isopropyltoluene	2.5 U	2.5 U	2.5 U	2.5 U	--	6.2 U	6.2 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
Styrene	2.5 U	2.5 U	2.5 U	2.5 U	1.0 U	6.2 U	6.2 U	1.0 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	1.0 U	2.5 U
Tetrachloroethene	0.5 U	0.5 U	0.5 U	0.50 U	1.0 U	1.2 U	1.2 U	1.0 U	0.50 U	0.50 U	0.50 U	0.5 U	0.5 U	0.50 U	0.5 U	1.0 U	0.50 U
Toluene	2.5 U	2.5 U	2.5 U	2.5 U	6.5	6.2 U	6.2 U	1.0 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	1.0 U	2.5 U
Trichloroethene	0.5 UJ	0.5 UJ	0.5 U	0.50 U	1.0 U	1.2 U	1.2 U	1.0 U	0.50 U	0.50 U	0.50 U	0.5 UJ	0.5 U	0.50 U	91	78	82
Trichlorofluoromethane	2.5 U	2.5 U	2.5 U	2.5 U	1.0 U	6.2 U	6.2 U	1.0 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	1.0 U	2.5 U
Vinyl Acetate	5 U	5 U	5 U	5.0 U	--	12 U	12 U	--	5.0 U	5.0 U	5.0 UJ	5 U	5 U	5.0 U	5 U	--	5.0 U
Vinyl Chloride	1 U	1 U	1 U	1.0 U	1.0 U	2.5 U	2.5 U	1.0 U	1.0 U	1.0 UJ	1.0 U	1 U	1 U	1.0 U	1 U	1.0 U	1.0 U
Xylene, m- & p-	1 J	0.93 J	2.5 U	2.5 U	1200	670	510	10 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	10 U	2.5 U
Xylene, o-	2.5 U	2.5 U	2.5 U	5.9	460	14	6.2 U	1.0 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	1.0 U	2.5 U
Xylenes, Total	1 J	0.93 J	2.5 U	5.9	1700	680	510	10 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	10 U	2.5 U
Total CBTEX	8.8	9.03	2.5 U	8.2	2300 J	759.55 J	540 J	10 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	10 U	2.5 U
Total CVOC	1 U	1 U	1 U	1.0 U	1.0	12 UJ	12 U	1.0 U	5 UJ	2.5 U	2.5 U	1 U	1 U	1.0 U	120	100	103
Total VOC	43.24	45.01	5 U	9.07	2336.75	790.65 J	570 J	10 U	250 UJ	5.0 U	5.0 UJ	5 U	2.8	5.0 U	91	78	103

Table 2-1a. Historical Groundwater Data: Volatile Organic Compounds

Essex-Hope Site, Jamestown, New York

Location ID	MW-25S	MW-25S	MW-26S	MW-26S	MW-26S	MW-26S	MW-26S	MW-26S	MW-26S	MW-26S	MW-26S	MW-26S	MW-26S	MW-26S	MW-26S	MW-27S	MW-27S	MW-27S
Sample Depth (feet bgs)	7-17	7-17	5-15	5-15	5-15	5-15	5-15	5-15	5-15	5-15	5-15	5-15	5-15	5-15	5-15	10-20	10-20	10-20
Sample Date	10/5/2021	10/4/2022	11/2/2016	11/2/2016	11/2/2016	3/16/2017	10/19/2017	11/13/2018	11/13/2018	11/13/2018	9/18/2019	11/5/2019	10/28/2020	10/5/2021	10/4/2022	11/2/2016	10/19/2017	11/13/2018
Shallow or Deep WBZ	Shallow	Shallow	Shallow	Shallow	Shallow	Shallow	Shallow	Shallow	Shallow	Shallow	Shallow	Shallow	Shallow	Shallow	Shallow	Shallow	Shallow	Shallow
Onsite/Offsite	OU-03	OU-03	OU-01	OU-01	OU-01	OU-01	OU-01	OU-01	OU-01	OU-01	OU-01	OU-01	OU-01	OU-01	OU-01	OU-01	OU-01	OU-01
Sample Type	N	N	N	Split	FD	N	N	N	N	FD	N	N	N	N	N	N	N	N
Analyte																		
1,1,1,2-Tetrachloroethane	6.2 U	2.5 U	250 U	--	--	250 U	50 U	62 U	50 U	62 U	62 U	62 U	62 U	100 U	25 U	25 U	2.5 U	2.5 U
1,1,1-Trichloroethane	6.2 U	2.5 U	250 U	1.0 U	1.0 U	250 U	50 U	62 U	50 U	62 U	62 U	62 U	62 U	100 U	25 U	25 U	2.5 U	2.5 U
1,1,2,2-Tetrachloroethane	1.2 U	0.50 U	50 U	1.0 U	1.0 U	50 U	10 U	12 UJ	10 UJ	12 U	12 UJ	12 UJ	12 UJ	20 U	5.0 U	5 U	0.50 UJ	0.50 UJ
1,1,2-Trichloroethane	3.8 U	1.5 U	150 U	1.0 U	1.0 U	150 UJ	30 UJ	38 U	30 U	38 U	38 U	38 U	38 U	60 U	15 U	15 U	1.5 UJ	1.5 U
1,1-Dichloroethane	6.2 U	2.5 U	250 U	1.0 U	1.0 U	250 U	50 U	62 U	50 U	62 U	62 U	62 U	62 U	100 U	25 U	25 U	2.5 U	2.5 U
1,1-Dichloroethene	1.2 U	0.50 U	50 U	1.0 U	1.0 U	50 U	10 U	12 U	10 U	12 U	12 U	12 U	12 U	20 U	5.0 U	5 U	0.50 U	0.50 U
1,1-Dichloropropene	6.2 U	2.5 U	250 U	--	--	250 U	50 U	62 U	50 U	62 U	62 U	62 U	62 U	100 U	25 U	25 U	2.5 U	2.5 U
1,2,3-Trichlorobenzene	6.2 U	2.5 U	250 U	--	--	250 U	50 U	62 U	50 U	62 U	62 U	62 UJ	100 U	25 U	25 U	2.5 U	2.5 U	2.5 U
1,2,3-Trichloropropane	6.2 U	2.5 U	250 U	--	--	250 U	50 UJ	62 U	50 U	62 U	62 U	62 U	62 U	100 U	25 U	25 U	2.5 UJ	2.5 U
1,2,4-Trichlorobenzene	6.2 U	2.5 U	250 U	--	--	250 U	50 U	62 U	50 U	62 U	62 U	62 UJ	100 U	25 U	25 U	2.5 U	2.5 U	2.5 U
1,2,4-Trimethylbenzene	6.2 U	2.5 U	3800	--	--	3900	2800	4500 J	2400 J	3800	3200	3900	4300	4400	25 U	14	3.1	3.1
1,2-Dibromo-3-Chloropropane	6.2 U	2.5 U	250 U	--	--	250 U	50 UJ	62 UJ	50 UJ	62 U	62 U	62 UJ	100 U	25 U	25 U	2.5 UJ	2.5 UJ	2.5 UJ
1,2-Dibromoethane (Ethylene Dibromide)	5 U	2.0 U	200 U	--	--	200 U	40 U	50 U	40 U	50 U	50 U	50 U	80 U	20 U	20 U	2.0 U	2.0 U	2.0 U
1,2-Dichlorobenzene	6.2 U	2.5 U	250 U	1.0 U	1.0 U	250 U	50 U	62 U	50 U	62 U	62 U	62 U	62 U	100 U	25 U	25 U	2.5 U	2.5 U
1,2-Dichloroethane	1.2 U	0.50 U	50 U	1.0 U	1.0 U	50 U	10 U	12 U	10 U	12 U	12 U	12 U	12 U	20 U	5.0 U	5 U	0.50 U	0.50 U
1,2-Dichloroethene, cis-	18	6.4	250 U	1.0 U	1.0 U	250 U	50 U	62 U	50 U	62 U	62 U	62 U	62 U	100 U	25 U	25 U	2.5 U	2.5 U
1,2-Dichloroethene, Total	18	6.4	250 U	--	--	250 U	50 U	62 U	50 U	62 U	62 U	62 U	62 U	100 U	25 U	25 U	2.5 U	2.5 U
1,2-Dichloroethene, trans-	6.2 U	2.5 U	250 U	1.0 U	1.0 U	250 U	50 U	62 U	50 U	62 U	62 U	62 U	62 U	100 U	25 U	25 U	2.5 U	2.5 U
1,2-Dichloropropane	2.5 U	1.0 U	100 U	1.0 U	1.0 U	100 U	20 U	25 U	20 U	25 U	25 U	25 U	25 U	40 U	10 U	10 U	1.0 U	1.0 U
1,3,5-Trimethylbenzene (Mesitylene)	6.2 U	2.5 U	1000	--	--	1100	660	840	800	440	340	110	100	35	25 U	2.5 U	2.5 U	2.5 U
1,3-Dichlorobenzene	6.2 U	2.5 U	250 U	5.0 U	5.0 U	250 U	50 U	62 U	50 U	62 U	62 U	62 U	62 U	100 U	25 U	25 U	2.5 U	2.5 U
1,3-Dichloropropane	6.2 U	2.5 U	250 U	--	--	250 U	50 UJ	62 U	50 U	62 U	62 U	62 U	62 U	100 U	25 U	25 U	2.5 UJ	2.5 U
1,3-Dichloropropene, cis-	1.2 U	0.50 U	50 U	1.0 U	1.0 U	50 U	10 U	12 U	10 U	12 U	12 U	12 U	12 U	20 U	5.0 U	5 U	0.50 U	0.50 U
1,3-Dichloropropene, Total	1.2 U	0.50 U	50 U	--	--	50 U	10 U	12 U	10 U	12 U	12 U	12 U	12 U	20 U	5.0 U	5 U	0.50 U	0.50 U
1,3-Dichloropropene, trans-	1.2 U	0.50 U	50 U	1.0 U	1.0 U	50 U	10 U	12 U	10 U	12 U	12 U	12 U	12 U	20 U	5.0 U	5 U	0.50 U	0.50 U
1,4-Dichlorobenzene	6.2 U	2.5 U	250 U	1.0 U	1.0 U	250 U	50 U	62 U	50 U	62 U	62 U	62 U	62 U	100 U	25 U	25 U	2.5 U	2.5 U
1,4-Dioxane (p-Dioxane)	620 U	250 U	25000 UJ	--	--	25000 U	5000 U	6200 UJ	5000 UJ	6200 U	6200 U	6200 U	6200 U	10000 U	2500 U	2500 UJ	250 U	250 UJ
2,2-Dichloropropane	6.2 U	2.5 U	250 U	--	--	250 U	50 U	62 U	50 U	62 U	62 U	62 U	62 U	100 U	25 U	25 U	2.5 U	2.5 U
2-Chlorotoluene	6.2 U	2.5 U	250 U	--	--	250 U	50 UJ	62 U	50 U	62 U	62 U	62 U	62 U	100 U	25 U	25 U	2.5 UJ	2.5 U
2-Hexanone	12 U	5.0 U	500 UJ	10 U	10 U	500 UJ	100 UJ	120 U	100 U	120 U	120 U	120 U	120 U	200 U	50 U	50 UJ	5.0 UJ	5.0 U
4-Chlorotoluene	6.2 U	2.5 U	250 U	--	--	250 U	50 UJ	62 U	50 U	62 U	62 U	62 U	62 U	100 U	25 U	25 U	2.5 UJ	2.5 U
Acetone	12 U	5.0 U	500 U	10 U	10 U	500 UJ	100 UJ	120 U	100 U	120 U	120 U	120 UJ	200 U	50 U	50 U	5.0 UJ	5.0 UJ	5.0 U
Benzene	1.2 U	0.50 U	50 U	0.32 J	0.35 J	50 U	10 U	12 U	10 U	12 U	12 U	12 U	12 U	20 U	5.0 U	5 U	0.50 U	0.50 U
Bromobenzene	6.2 U	2.5 U	250 U	--	--	250 U	50 U	62 U	50 U	62 U	62 U	62 U	62 U	100 U	25 U	25 U	2.5 U	2.5 U
Bromodichloromethane	1.2 U	0.20 J	50 U	1.0 U	1.0 U	50 U	10 U	12 U	10 U	12 U	12 U	12 U	12 U	20 U	5.0 U	5 U	0.50 U	0.50 U
Bromoform	5 U	2.0 U	200 U	1.0 UJ	1.0 UJ	200 U	40 U	50 U	40 U	50 U	50 U	50 U	50 U	80 U	20 U	20 U	2.0 U	2.0 U
Bromomethane	6.2 U	2.5 U	250 U	1.0 U	1.0 U	250 UJ	50 UJ	62 UJ	50 UJ	62 UJ	62 UJ	62 UJ	62 UJ	100 U	25 U	25 U	2.5 UJ	2.5 UJ
Butylbenzene, n-	6.2 U	2.5 U	250 U	--	--	250 U	50 U	62 U	50 U	62 U	62 U	62 U	62 U	100 U	22 J	25 U	2.5 U	2.5 U
Butylbenzene, sec-	6.2 U	2.5 U	250 U	--	--	250 U	15 J	62 U	50 U	62 U	62 U	62 U	62 U	100 U	28	25 U	2.5 U	2.5 U
Butylbenzene, t-	6.2 U	2.5 U	250 U	--	--	250 U	50 U	62 U	50 U	62 U	62 U	62 U	62 U	100 U	25 U	25 U	2.5 U	2.5 U
Carbon Disulfide	12 U	5.0 U	500 U	1.0 U	1.0 U	500 UJ	100 U	120 U	100 U	120 U	120 U	120 U	120 U	200 U	50 U	50 U	5.0 U	5.0 U

Table 2-1a. Historical Groundwater Data: Volatile Organic Compounds

Essex-Hope Site, Jamestown, New York

Location ID	MW-25S	MW-25S	MW-26S	MW-26S	MW-26S	MW-26S	MW-26S	MW-26S	MW-26S	MW-26S	MW-26S	MW-26S	MW-26S	MW-26S	MW-26S	MW-27S	MW-27S	MW-27S
Sample Depth (feet bgs)	7-17	7-17	5-15	5-15	5-15	5-15	5-15	5-15	5-15	5-15	5-15	5-15	5-15	5-15	5-15	10-20	10-20	10-20
Sample Date	10/5/2021	10/4/2022	11/2/2016	11/2/2016	11/2/2016	3/16/2017	10/19/2017	11/13/2018	11/13/2018	11/13/2018	9/18/2019	11/5/2019	10/28/2020	10/5/2021	10/4/2022	11/2/2016	10/19/2017	11/13/2018
Shallow or Deep WBZ	Shallow	Shallow	Shallow	Shallow	Shallow	Shallow	Shallow	Shallow	Shallow	Shallow	Shallow	Shallow	Shallow	Shallow	Shallow	Shallow	Shallow	Shallow
Onsite/Offsite	OU-03	OU-03	OU-01	OU-01	OU-01	OU-01	OU-01	OU-01	OU-01	OU-01	OU-01	OU-01	OU-01	OU-01	OU-01	OU-01	OU-01	OU-01
Sample Type	N	N	N	Split	FD	N	N	N	N	FD	N	N	N	N	N	N	N	N
Analyte																		
Carbon Tetrachloride	1.2 U	0.50 U	50 U	1.0 U	1.0 U	50 U	10 U	12 U	10 U	12 U	12 U	12 U	12 U	20 U	5.0 U	5 U	0.50 U	0.50 U
Chlorobenzene	6.2 U	2.5 U	250 U	1.0 U	1.0 U	250 U	50 U	62 U	50 U	62 U	62 U	62 U	62 U	100 U	25 U	25 U	2.5 U	2.5 U
Chlorobromomethane	6.2 U	2.5 U	250 UJ	1.0 U	1.0 U	250 UJ	50 UJ	62 U	50 U	62 U	62 U	62 U	62 U	100 U	25 U	25 UJ	2.5 UJ	2.5 U
Chloroethane	6.2 U	2.5 U	250 UJ	1.0 U	1.0 U	250 UJ	50 U	62 U	50 U	62 U	62 U	62 U	62 UJ	100 U	25 U	25 UJ	2.5 U	2.5 U
Chloroform	6.2 U	1.1 J	250 U	1.0 U	1.0 U	250 U	50 U	62 U	50 U	62 U	62 U	62 U	62 U	100 U	25 U	25 U	2.5 U	2.5 U
Chloromethane	6.2 U	2.5 UJ	250 U	1.0 UJ	1.0 UJ	250 U	50 UJ	62 UJ	50 UJ	62 U	62 UJ	62 U	62 U	100 U	25 UJ	25 U	2.5 UJ	2.5 UJ
Dibromochloromethane	1.2 U	0.50 U	50 U	1.0 U	1.0 U	50 U	10 U	12 U	10 U	12 U	12 U	12 U	12 U	20 U	5.0 U	5 U	0.50 U	0.50 U
Dibromomethane (Methylene Bromide)	12 U	5.0 U	500 U	--	--	500 UJ	100 UJ	120 U	100 U	120 U	120 U	120 U	120 U	200 U	50 U	50 U	5.0 UJ	5.0 U
Dichlorodifluoromethane	12 U	5.0 U	500 U	--	--	500 U	100 UJ	120 U	100 U	120 U	120 UJ	120 U	120 U	200 U	50 U	50 U	5.0 UJ	5.0 U
Ethylbenzene	6.2 U	2.5 U	480	470	460	240 J	270	230	220	130	290	160	110	150	25 U	2.5 U	2.5 U	2.5 U
Hexachlorobutadiene	6.2 U	2.5 U	250 U	--	--	250 U	50 U	62 U	50 U	62 U	62 U	62 U	62 U	100 U	25 U	25 U	2.5 U	2.5 U
Isopropylbenzene (Cumene)	6.2 U	2.5 U	92 J	140	140	70 J	82	130	130	130	110	130	160	160	25 U	9.6	2.2 J	2.2 J
Methyl Ethyl Ketone (2-Butanone)	12 U	5.0 U	500 UJ	10 U	10 U	500 UJ	100 UJ	120 U	100 U	120 U	120 U	120 U	120 UJ	200 U	50 U	50 UJ	5.0 UJ	5.0 U
Methyl Isobutyl Ketone (4-Methyl-2-Pentanone)	12 U	5.0 U	500 U	10 U	10 U	500 U	100 UJ	120 U	100 U	120 U	120 U	120 U	120 U	200 U	50 U	50 U	5.0 UJ	5.0 U
Methyl tert-butyl Ether	6.2 U	2.5 U	250 U	--	--	250 U	50 U	62 U	50 U	62 U	62 U	62 U	62 U	100 U	25 U	25 U	2.5 U	2.5 U
Methylene Chloride	6.2 U	2.5 U	250 U	1.0 U	1.0 U	250 U	50 U	62 U	50 U	62 U	62 U	62 U	62 U	100 U	25 U	25 U	2.5 U	2.5 U
Naphthalene	6.2 U	2.5 U	91 J	--	--	250 U	74 J	81	85	92	91	64 J	95 J	150 J	25 U	4.5	2.5 U	2.5 U
n-Propylbenzene	6.2 U	2.5 U	580	--	--	510	390 J	610	590	530	460	600	670	810	25 U	7.8 J	1.7 J	1.7 J
p-Isopropyltoluene	6.2 U	2.5 U	250 U	--	--	250 U	50 U	62 U	50 U	62 U	62 U	62 U	62 U	100 U	15 J	25 U	2.5 U	2.5 U
Styrene	6.2 U	2.5 U	250 U	1.0 U	1.0 U	250 U	50 U	62 U	50 U	62 U	62 U	62 U	62 U	100 U	25 U	25 U	2.5 U	2.5 U
Tetrachloroethene	1.2 U	0.50 U	50 U	1.0 U	1.0 U	50 U	10 U	12 U	10 U	12 U	12 U	12 U	12 U	20 U	5.0 U	5 U	0.50 U	0.50 U
Toluene	6.2 U	2.5 U	250 U	1.3	1.3	250 U	50 U	62 U	50 U	62 U	62 U	62 U	62 U	100 U	25 U	25 U	2.5 U	2.5 U
Trichloroethene	310	79	50 U	1.0 U	1.0 U	50 U	10 U	12 U	10 U	12 U	12 U	12 U	12 UJ	20 U	4.0 J	5 U	0.50 U	0.50 U
Trichlorofluoromethane	6.2 U	2.5 U	250 U	1.0 U	1.0 U	250 U	50 U	62 U	50 U	62 U	62 U	62 U	62 U	100 U	25 U	25 U	2.5 U	2.5 U
Vinyl Acetate	12 U	5.0 U	500 U	--	--	500 U	100 U	120 U	100 U	120 U	120 UJ	120 U	120 U	200 U	50 U	50 U	5.0 U	5.0 U
Vinyl Chloride	2.5 U	1.0 U	100 U	1.0 U	1.0 U	100 U	20 U	25 UJ	20 UJ	25 U	25 U	25 U	25 U	40 U	10 U	10 U	1.0 U	1.0 UJ
Xylene, m- & p-	6.2 U	2.5 U	1100	980	990	480	440	440	430	120	230	31 J	100 U	25 U	25 U	2.5 U	2.5 U	2.5 U
Xylene, o-	6.2 U	2.5 U	250 U	1.2	1.1	250 U	50 U	62 U	50 U	62 U	62 U	62 U	62 U	100 U	25 U	25 U	2.5 U	2.5 U
Xylenes, Total	6.2 U	2.5 U	1100	980	990	480	440	440	430	120	230	31 J	100 U	25 U	25 U	2.5 U	2.5 U	2.5 U
Total CBTEX	6.2 U	2.5 U	1700 J	1600 J	1600 J	790 J	792	800	780	380	630	321	270	310	25 U	9.6	2.2	2.2
Total CVOC	328	85.4	250 UJ	1.0 U	1.0 U	500 UJ	100 UJ	25 UJ	20 UJ	25 U	25 U	25 U	25 U	40 U	4.0 J	25 UJ	5 UJ	1.0 UJ
Total VOC	346	93.1	7,143 J	1591.52	1592.75	6300 J	4731 J	6831	4655	5200	4700 J	4995	5435	5774	50 U	35.9 J	7	7

Table 2-1a. Historical Groundwater Data: Volatile Organic Compounds

Essex-Hope Site, Jamestown, New York

Location ID	MW-27S	MW-27S	MW-27S	MW-27S	MW-27S	MW-28S	MW-28S	MW-28S	MW-28S	MW-29S	MW-29S	MW-29S	MW-29S	MW-29S	MW-30S	MW-30S	MW-30S
Sample Depth (feet bgs)	10-20	10-20	10-20	10-20	10-20	7-17	7-17	7-17	7-17	4-14	4-14	4-14	4-14	4-14	10-16	10-16	10-16
Sample Date	9/16/2019	11/5/2019	10/28/2020	10/5/2021	10/4/2022	11/2/2016	3/16/2017	10/19/2017	9/17/2019	11/2/2016	10/18/2017	10/18/2017	9/18/2019	9/18/2019	11/3/2016	10/18/2017	11/14/2018
Shallow or Deep WBZ	Shallow	Shallow	Shallow	Shallow	Shallow	Shallow	Shallow	Shallow	Shallow	Shallow	Shallow	Shallow	Shallow	Shallow	Shallow	Shallow	Shallow
Onsite/Offsite	OU-01	OU-01	OU-01	OU-01	OU-01	OU-01	OU-01	OU-01	OU-01	OU-01	OU-01	OU-01	OU-01	OU-01	OU-01	OU-01	OU-01
Sample Type	N	N	N	N	N	N	N	N	N	N	N	N	FD	N	FD	N	N
Analyte																	
1,1,1,2-Tetrachloroethane	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	--	6.2 U	2.5 U	2.5 U	--	12 U	25 U	25 U	25 U	250 U	120 U	250 U
1,1,1-Trichloroethane	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	1.0 U	6.2 U	2.5 U	2.5 U	10 U	12 U	25 U	25 U	25 U	250 U	120 U	250 U
1,1,2,2-Tetrachloroethane	0.50 U	0.50 UJ	0.5 UJ	0.5 U	0.50 U	1.0 U	1.2 U	0.50 UJ	0.50 U	10 U	2.5 UJ	5.0 UJ	5.0 U	5.0 U	50 U	25 U	50 UJ
1,1,2-Trichloroethane	1.5 U	1.5 U	1.5 U	1.5 U	1.5 U	1.0 U	3.8 UJ	1.5 UJ	1.5 U	10 U	7.5 UJ	15 UJ	15 U	15 U	150 U	75 UJ	150 U
1,1-Dichloroethane	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	1.0 U	6.2 U	2.5 U	2.5 U	10 U	12 U	25 U	25 U	25 U	250 U	120 U	250 U
1,1-Dichloroethene	0.50 U	0.50 U	0.5 U	0.5 U	0.50 U	1.0 U	1.2 U	0.50 U	0.50 U	10 U	2.5 U	5.0 U	5.0 U	5.0 U	50 U	25 U	50 U
1,1-Dichloropropene	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	--	6.2 U	2.5 U	2.5 U	--	12 U	25 U	25 U	25 U	250 U	120 U	250 U
1,2,3-Trichlorobenzene	2.5 U	2.5 U	2.5 UJ	2.5 U	2.5 U	--	6.2 U	2.5 U	2.5 U	--	12 U	25 U	25 U	25 U	250 U	120 U	250 U
1,2,3-Trichloropropane	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	--	6.2 U	2.5 UJ	2.5 U	--	12 UJ	25 UJ	25 U	25 U	250 U	120 U	250 U
1,2,4-Trichlorobenzene	2.5 U	2.5 U	2.5 UJ	2.5 U	2.5 U	--	6.2 U	2.5 U	2.5 U	--	12 U	25 U	25 U	25 U	250 U	120 U	250 U
1,2,4-Trimethylbenzene	0.98 J	2.5 U	2.5 U	2.5 U	2.5 U	--	130	2.5 U	2.0 J	--	13	13 J	120	120	750	150	900
1,2-Dibromo-3-Chloropropane	2.5 U	2.5 U	2.5 UJ	2.5 U	2.5 U	--	6.2 U	2.5 UJ	2.5 U	--	12 UJ	25 UJ	25 U	25 U	250 U	120 UJ	250 UJ
1,2-Dibromoethane (Ethylene Dibromide)	2.0 U	2.0 U	2 U	2 U	2.0 U	--	5.0 U	2.0 U	2.0 U	--	10 U	20 U	20 U	20 U	200 U	100 U	200 U
1,2-Dichlorobenzene	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	1.0 U	6.2 U	2.5 U	2.5 U	10 U	12 U	25 U	25 U	25 U	250 U	120 U	250 U
1,2-Dichloroethane	0.50 U	0.50 U	0.5 U	0.5 U	0.50 U	1.0 U	1.2 U	0.50 U	0.50 U	10 U	2.5 U	5.0 U	5.0 U	5.0 U	50 U	25 UJ	50 U
1,2-Dichloroethene, cis-	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	1.0 U	6.2 U	2.5 U	2.5 U	10 U	12 U	25 U	25 U	25 U	250 U	120 U	250 U
1,2-Dichloroethene, Total	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	--	6.2 U	2.5 U	2.5 U	--	12 U	25 U	25 U	25 U	250 U	120 U	250 U
1,2-Dichloroethene, trans-	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	1.0 U	6.2 U	2.5 U	2.5 U	10 U	12 U	25 U	25 U	25 U	250 U	120 U	250 U
1,2-Dichloropropane	1.0 U	1.0 U	1 U	1 U	1.0 U	1.0 U	2.5 U	1.0 U	1.0 U	10 U	5.0 U	10 U	10 U	10 U	100 U	50 U	100 U
1,3,5-Trimethylbenzene (Mesitylene)	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	--	5.3 J	2.5 U	2.5 U	--	12 U	25 U	16 J	15 J	160 J	120 U	180 J
1,3-Dichlorobenzene	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	5.0 U	6.2 U	2.5 U	2.5 U	50 U	12 U	25 U	25 U	25 U	250 U	120 U	250 U
1,3-Dichloropropane	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	--	6.2 U	2.5 UJ	2.5 U	--	12 UJ	25 UJ	25 U	25 U	250 U	120 UJ	250 U
1,3-Dichloropropene, cis-	0.50 U	0.50 U	0.5 U	0.5 U	0.50 U	1.0 U	1.2 U	0.50 U	0.50 U	10 U	2.5 U	5.0 U	5.0 U	5.0 U	50 U	25 U	50 U
1,3-Dichloropropene, Total	0.50 U	0.50 U	0.5 U	0.5 U	0.50 U	--	1.2 U	0.50 U	0.50 U	--	2.5 U	5.0 U	5.0 U	5.0 U	50 U	25 U	50 U
1,3-Dichloropropene, trans-	0.50 U	0.50 U	0.5 U	0.5 U	0.50 U	1.0 U	1.2 U	0.50 U	0.50 U	10 U	2.5 U	5.0 U	5.0 U	5.0 U	50 U	25 U	50 U
1,4-Dichlorobenzene	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	1.0 U	6.2 U	2.5 U	2.5 U	10 U	12 U	25 U	25 U	25 U	250 U	120 U	250 U
1,4-Dioxane (p-Dioxane)	250 U	250 U	250 U	250 U	250 U	--	620 U	250 U	250 U	--	1200 U	2500 U	2500 U	2500 U	25000 UJ	12000 U	25000 UJ
2,2-Dichloropropane	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	--	6.2 U	2.5 U	2.5 U	--	12 U	25 U	25 U	25 U	250 U	120 U	250 U
2-Chlorotoluene	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	--	6.2 U	2.5 UJ	2.5 U	--	12 UJ	25 UJ	25 U	25 U	250 U	120 UJ	250 U
2-Hexanone	5.0 U	5.0 U	5 U	5 U	5.0 U	10 U	12 UJ	5.0 UJ	5.0 U	100 U	25 UJ	50 UJ	50 U	50 U	500 UJ	250 UJ	500 U
4-Chlorotoluene	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	--	6.2 U	2.5 UJ	2.5 U	--	12 UJ	25 UJ	25 U	25 U	250 U	120 UJ	250 U
Acetone	5.0 U	5.0 U	5 UJ	5 U	5.0 U	10 U	12 UJ	5.0 UJ	5.0 U	100 U	25 UJ	50 UJ	50 U	50 U	500 U	250 UJ	500 U
Benzene	0.50 U	0.50 U	0.5 U	0.5 U	0.50 U	1.0 U	1.2 U	0.50 U	0.50 U	25	21	21	19	19	50 U	25 U	50 U
Bromobenzene	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	--	6.2 U	2.5 U	2.5 U	--	12 U	25 U	25 U	25 U	250 U	120 U	250 U
Bromodichloromethane	0.50 U	0.50 U	0.5 U	0.5 U	0.50 U	1.0 U	1.2 U	0.50 U	0.50 U	10 U	2.5 U	5.0 U	5.0 U	5.0 U	50 U	25 U	50 U
Bromoform	2.0 U	2.0 U	2 U	2 U	2.0 U	1.0 UJ	5.0 U	2.0 U	2.0 U	10 UJ	10 U	20 U	20 U	20 U	200 U	100 U	200 U
Bromomethane	2.5 UJ	2.5 UJ	2.5 UJ	2.5 U	2.5 U	1.0 U	6.2 UJ	2.5 UJ	2.5 UJ	10 U	12 UJ	25 UJ	25 UJ	25 UJ	250 U	120 UJ	250 U
Butylbenzene, n-	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	--	6.2 U	2.5 U	2.5 U	--	12 U	25 U	25 U	25 U	250 U	120 U	250 U
Butylbenzene, sec-	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	--	6.2 U	2.5 U	2.5 U	--	12 U	25 U	25 U	25 U	250 U	120 U	250 U
Butylbenzene, t-	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	--	6.2 U	2.5 U	2.5 U	--	12 U	25 U	25 U	25 U	250 U	120 U	250 U
Carbon Disulfide	5.0 U	5.0 U	5 U	5 U	5.0 U	1.0 U	12 UJ	5.0 U	5.0 U	10 U	25 U	50 U	50 U	50 U	500 U	250 U	500 U

Table 2-1a. Historical Groundwater Data: Volatile Organic Compounds

Essex-Hope Site, Jamestown, New York

Location ID	MW-27S	MW-27S	MW-27S	MW-27S	MW-27S	MW-28S	MW-28S	MW-28S	MW-28S	MW-29S	MW-29S	MW-29S	MW-29S	MW-29S	MW-30S	MW-30S	MW-30S
Sample Depth (feet bgs)	10-20	10-20	10-20	10-20	10-20	7-17	7-17	7-17	7-17	4-14	4-14	4-14	4-14	4-14	10-16	10-16	10-16
Sample Date	9/16/2019	11/5/2019	10/28/2020	10/5/2021	10/4/2022	11/2/2016	3/16/2017	10/19/2017	9/17/2019	11/2/2016	10/18/2017	10/18/2017	9/18/2019	9/18/2019	11/3/2016	10/18/2017	11/14/2018
Shallow or Deep WBZ	Shallow	Shallow	Shallow	Shallow	Shallow	Shallow	Shallow	Shallow	Shallow	Shallow	Shallow	Shallow	Shallow	Shallow	Shallow	Shallow	Shallow
Onsite/Offsite	OU-01	OU-01	OU-01	OU-01	OU-01	OU-01	OU-01	OU-01	OU-01	OU-01	OU-01	OU-01	OU-01	OU-01	OU-01	OU-01	OU-01
Sample Type	N	N	N	N	N	N	N	N	N	N	N	N	FD	N	FD	N	N
Analyte																	
Carbon Tetrachloride	0.50 U	0.50 U	0.5 U	0.5 U	0.50 U	1.0 U	1.2 U	0.50 U	0.50 U	10 U	2.5 U	5.0 U	5.0 U	5.0 U	50 U	25 U	50 U
Chlorobenzene	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	1.0 U	6.2 U	2.5 U	2.5 U	10 U	12 U	25 U	25 U	25 U	250 U	120 U	250 U
Chlorobromomethane	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	1.0 U	6.2 UJ	2.5 UJ	2.5 U	10 U	12 UJ	25 UJ	25 U	25 U	250 UJ	120 UJ	250 U
Chloroethane	2.5 U	2.5 U	2.5 UJ	2.5 U	2.5 U	1.0 U	6.2 UJ	2.5 U	2.5 U	10 U	12 U	25 U	25 U	25 U	250 UJ	120 U	250 U
Chloroform	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	1.0 U	6.2 U	2.5 U	2.5 U	10 U	12 U	25 U	25 U	25 U	250 U	120 U	250 U
Chloromethane	2.5 U	2.5 UJ	2.5 U	2.5 U	2.5 UJ	1.0 UJ	6.2 U	2.5 UJ	2.5 U	10 UJ	12 UJ	25 UJ	25 U	25 U	250 U	120 UJ	250 UJ
Dibromochloromethane	0.50 U	0.50 U	0.5 U	0.5 U	0.50 U	1.0 U	1.2 U	0.50 U	0.50 U	10 U	2.5 U	5.0 U	5.0 U	5.0 U	50 U	25 U	50 U
Dibromomethane (Methylene Bromide)	5.0 U	5.0 U	5 U	5 U	5.0 U	--	12 UJ	5.0 UJ	5.0 U	--	25 UJ	50 UJ	50 U	50 U	500 UJ	250 UJ	500 U
Dichlorodifluoromethane	5.0 U	5.0 UJ	5 U	5 U	5.0 U	--	12 U	5.0 UJ	5.0 U	--	25 UJ	50 UJ	50 U	50 U	500 U	250 UJ	500 U
Ethylbenzene	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	22	11	2.5 U	2.5 U	3200	1500	2000	2000	2200	7300	2100	7600
Hexachlorobutadiene	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	--	6.2 U	2.5 U	2.5 U	--	12 U	25 U	25 U	25 U	250 U	120 U	250 U
Isopropylbenzene (Cumene)	1.2 J	2.5 U	2.5 U	2.5 U	2.5 U	32	36	2.5 U	3.3	62	160	160	170	170	200 J	41 J	200 J
Methyl Ethyl Ketone (2-Butanone)	5.0 U	5.0 U	5 UJ	5 U	5.0 U	10 U	12 UJ	5.0 UJ	5.0 U	100 U	25 UJ	50 UJ	50 U	50 U	500 UJ	250 UJ	500 U
Methyl Isobutyl Ketone (4-Methyl-2-Pentanone)	5.0 U	5.0 U	5 U	5 U	5.0 U	10 U	12 U	5.0 UJ	5.0 U	100 U	25 UJ	50 UJ	50 U	50 U	500 U	250 UJ	500 U
Methyl tert-butyl Ether	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	--	6.2 U	2.5 U	2.5 U	--	12 U	25 U	25 U	25 U	250 U	120 U	250 U
Methylene Chloride	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	1.0 U	6.2 U	2.5 U	2.5 U	10 U	12 U	25 U	25 U	25 U	250 U	120 U	250 U
Naphthalene	2.5 U	2.5 U	2.5 UJ	2.5 U	2.5 U	--	24 J	1.6 J	2.5 U	--	22	21 J	83	90	400	91 J	730
n-Propylbenzene	0.71 J	2.5 U	2.5 U	2.5 U	2.5 U	--	38	2.5 UJ	2.0 J	--	58 J	59 J	68	68	130 J	120 U	140 J
p-Isopropyltoluene	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	--	6.2 U	2.5 U	2.5 U	--	12 U	25 U	25 U	25 U	250 U	120 U	250 U
Styrene	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	1.0 U	6.2 U	2.5 U	2.5 U	10 U	12 U	25 U	25 U	25 U	250 U	120 U	250 U
Tetrachloroethene	0.50 U	0.50 U	0.5 U	0.5 U	0.50 U	1.0 U	1.2 U	0.50 U	0.50 U	1.3 J	2.5 U	5.0 U	5.0 U	5.0 U	50 U	25 U	50 U
Toluene	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	0.25 J	6.2 U	2.5 U	2.5 U	250	7.6 J	11 J	25 U	25 U	250 U	120 U	250 U
Trichloroethene	0.50 U	0.50 U	0.5 UJ	0.5 U	0.50 U	1.0 U	1.2 U	0.50 U	0.50 U	10 U	1.2 J	2.1 J	5.0 U	5.0 U	50 U	25 U	50 U
Trichlorofluoromethane	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	1.0 U	6.2 U	2.5 U	2.5 U	10 U	12 U	25 U	25 U	25 U	250 U	120 U	250 U
Vinyl Acetate	5.0 U	5.0 UJ	5 U	5 U	5.0 U	--	12 U	5.0 U	5.0 U	--	25 U	50 U	50 U	50 U	500 U	250 U	500 U
Vinyl Chloride	1.0 U	1.0 U	1 U	1 U	1.0 U	1.0 U	2.5 U	1.0 U	1.0 U	10 U	5.0 U	10 U	10 U	10 U	100 U	50 UJ	100 U
Xylene, m- & p-	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	13	6.2 U	2.5 U	2.5 U	6800	930	1300	2700	2600	26000	6900	24000
Xylene, o-	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	1.0 U	6.2 U	2.5 U	2.5 U	1800	300	380	130	130	77 J	51 J	120 J
Xylenes, Total	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	13	6.2 U	2.5 U	2.5 U	8600	1200	1700	2800	2700	26000 J	7000 J	24000 J
Total CBTEX	1.2 J	2.5 U	2.5 U	2.5 U	2.5 U	67 J	47	2.5 U	3.3	12000	2918.6 J	3872 J	5000	5100	34000 J	9092 J	31800
Total CVOC	5.0 U	5.0 UJ	1 U	1 U	1.0 U	1.0 U	12 UJ	5 UJ	5.0 U	1.3 J	1.2 J	2.1 J	50 U	50 U	250 UJ	250 UJ	100 U
Total VOC	2.9 J	250 UJ	5 U	5 U	5.0 U	67.25	244.3 J	1.6 J	7.3 J	12138.3	3012.8 J	3967.1 J	5300 J	5400 J	35017	9333 J	33870

Table 2-1a. Historical Groundwater Data: Volatile Organic Compounds

Essex-Hope Site, Jamestown, New York

Location ID	MW-30S	MW-30S	MW-30S	MW-30S	MW-30S	MW-30S	MW-101S	MW-101S	MW-101S	MW-101S	MW-101S	MW-101S	MW-101S	MW-101S	MW-101S	MW-101S	MW-101S
Sample Depth (feet bgs)	10-16	10-16	10-16	10-16	10-16	10-16	8-18	8-18	8-18	8-18	8-18	8-18	8-18	8-18	8-18	8-18	8-18
Sample Date	9/17/2019	11/6/2019	10/29/2020	10/6/2021	10/6/2021	10/5/2022	11/2/2016	3/14/2017	3/14/2017	10/19/2017	11/14/2018	11/6/2019	11/6/2019	10/28/2020	10/28/2020	10/7/2021	10/7/2021
Shallow or Deep WBZ	Shallow	Shallow	Shallow	Shallow	Shallow	Shallow	Shallow	Shallow	Shallow	Shallow	Shallow	Shallow	Shallow	Shallow	Shallow	Shallow	Shallow
Onsite/Offsite	OU-01	OU-01	OU-01	OU-01	OU-01	OU-01	OU-01	OU-01	OU-01	OU-01	OU-01	OU-01	OU-01	OU-01	OU-01	OU-01	OU-01
Sample Type	N	N	N	N	FD	N	N	N	FD	N	N	N	FD	N	FD	N	FD
Analyte																	
1,1,1,2-Tetrachloroethane	6.2 U	120 U	2.5 U	25 U	12 U	62 U	25 U	6.2 U	2.5 U	12 U	2.5 U	5.0 U	5.0 U	62 U	50 U	25 U	12 U
1,1,1-Trichloroethane	6.2 U	120 U	2.5 U	25 U	12 U	62 U	25 U	6.2 U	2.5 U	12 U	2.5 U	5.0 U	5.0 U	62 U	50 U	25 U	12 U
1,1,2,2-Tetrachloroethane	1.2 U	25 U	0.5 U	5 U	2.5 U	12 U	5 U	1.2 U	0.50 U	2.5 UJ	0.50 UJ	1.0 U	1.0 U	12 U	10 U	5 U	2.5 U
1,1,2-Trichloroethane	3.8 U	75 U	1.5 U	15 U	7.5 U	38 U	15 U	3.8 UJ	1.5 UJ	7.5 UJ	1.5 U	3.0 U	3.0 U	38 U	30 U	15 U	7.5 U
1,1-Dichloroethane	6.2 U	120 U	2.5 U	25 U	12 U	62 U	25 U	6.2 U	2.5 U	12 U	2.5 U	5.0 U	5.0 U	62 U	50 U	25 U	12 U
1,1-Dichloroethene	1.2 U	25 U	0.5 U	5 U	2.5 U	12 U	2.3 J	0.56 J	0.62	1.4 J	0.18 J	0.88 J	0.71 J	8 J	5.5 J	2.3 J	1.8 J
1,1-Dichloropropene	6.2 U	120 U	2.5 U	25 U	12 U	62 U	25 U	6.2 U	2.5 U	12 U	2.5 U	5.0 U	5.0 U	62 U	50 U	25 U	12 U
1,2,3-Trichlorobenzene	6.2 U	120 U	2.5 U	25 U	12 U	62 U	25 U	6.2 U	2.5 U	12 U	2.5 U	5.0 U	5.0 U	62 UJ	50 U	25 U	12 U
1,2,3-Trichloropropane	6.2 U	120 UJ	2.5 U	25 U	12 U	62 U	25 U	6.2 U	2.5 U	12 UJ	2.5 U	5.0 UJ	5.0 UJ	62 U	50 U	25 U	12 U
1,2,4-Trichlorobenzene	6.2 U	120 U	2.5 U	25 U	12 U	62 U	25 U	6.2 U	2.5 U	12 U	2.5 U	5.0 U	5.0 U	62 U	50 U	25 U	12 U
1,2,4-Trimethylbenzene	120	410	2.5 U	58	33	980	25 U	6.2 U	2.5 U	12 U	2.5 U	5.0 U	5.0 U	62 U	50 U	25 U	12 U
1,2-Dibromo-3-Chloropropane	6.2 U	120 U	2.5 U	25 U	12 U	62 U	25 U	6.2 U	2.5 U	12 UJ	2.5 UJ	5.0 U	5.0 U	62 UJ	50 U	25 U	12 U
1,2-Dibromoethane (Ethylene Dibromide)	5.0 U	100 U	2 U	20 U	10 U	50 U	20 U	5.0 U	2.0 U	10 U	2.0 U	4.0 U	4.0 U	50 U	40 U	20 U	10 U
1,2-Dichlorobenzene	6.2 U	120 U	2.5 U	25 U	12 U	62 U	25 U	6.2 U	2.5 U	12 U	2.5 U	5.0 U	5.0 U	62 U	50 U	25 U	12 U
1,2-Dichloroethane	1.2 U	25 U	0.5 U	5 U	2.5 U	12 U	5 U	1.2 U	0.50 U	2.5 U	0.50 U	1.0 U	1.0 U	12 U	10 U	5 U	2.5 U
1,2-Dichloroethene, cis-	6.2 U	120 U	1.1 J	25 U	12 U	62 U	240	67	71	240	26	180	160	1900	1700	800	630
1,2-Dichloroethene, Total	6.2 U	120 U	1.1 J	25 U	12 U	62 U	240	67	71	240	26	180	160	1900	1700	800	630
1,2-Dichloroethene, trans-	6.2 U	120 U	2.5 U	25 U	12 U	62 U	25 U	6.2 U	2.5 U	12 U	2.5 U	5.0 U	5.0 U	62 U	50 U	25 U	12 U
1,2-Dichloropropane	2.5 U	50 U	1 U	10 U	5 U	25 U	10 U	2.5 U	1.0 U	5.0 U	1.0 U	2.0 U	2.0 U	25 U	20 U	10 U	5 U
1,3,5-Trimethylbenzene (Mesitylene)	8.5	84 J	2.5 U	11 J	5.7 J	230	25 U	6.2 U	2.5 U	12 U	2.5 U	5.0 U	5.0 U	62 U	50 U	25 U	12 U
1,3-Dichlorobenzene	6.2 U	120 U	2.5 U	25 U	12 U	62 U	25 U	6.2 U	2.5 U	12 U	2.5 U	5.0 U	5.0 U	62 U	50 U	25 U	12 U
1,3-Dichloropropane	6.2 U	120 U	2.5 U	25 U	12 U	62 U	25 U	6.2 U	2.5 U	12 UJ	2.5 U	5.0 U	5.0 U	62 U	50 U	25 U	12 U
1,3-Dichloropropene, cis-	1.2 U	25 U	0.5 U	5 U	2.5 U	12 U	5 U	1.2 U	0.50 U	2.5 U	0.50 U	1.0 U	1.0 U	12 U	10 U	5 U	2.5 U
1,3-Dichloropropene, Total	1.2 U	25 U	0.5 U	5 U	2.5 U	12 U	5 U	1.2 U	0.50 U	2.5 U	0.50 U	1.0 U	1.0 U	12 U	10 U	5 U	2.5 U
1,3-Dichloropropene, trans-	1.2 U	25 U	0.5 U	5 U	2.5 U	12 U	5 U	1.2 U	0.50 U	2.5 U	0.50 U	1.0 U	1.0 U	12 U	10 U	5 U	2.5 U
1,4-Dichlorobenzene	6.2 U	120 U	2.5 U	25 U	12 U	62 U	25 U	6.2 U	2.5 U	12 U	2.5 U	5.0 U	5.0 U	62 U	50 U	25 U	12 U
1,4-Dioxane (p-Dioxane)	620 U	12000 U	250 U	2500 U	1200 U	6200 UJ	2500 UJ	620 U	250 U	1200 U	250 UJ	500 U	500 U	6200 U	5000 U	2500 U	1200 U
2,2-Dichloropropane	6.2 U	120 U	2.5 U	25 U	12 U	62 U	25 U	6.2 U	2.5 U	12 U	2.5 U	5.0 U	5.0 U	62 U	50 U	25 U	12 U
2-Chlorotoluene	6.2 U	120 U	2.5 U	25 U	12 U	62 U	25 U	6.2 U	2.5 U	12 UJ	2.5 U	5.0 U	5.0 U	62 U	50 U	25 U	12 U
2-Hexanone	12 U	250 U	5 U	50 U	25 U	120 U	50 U	12 UJ	5.0 U	25 UJ	5.0 U	10 U	10 U	120 U	100 U	50 U	25 U
4-Chlorotoluene	6.2 U	120 U	2.5 U	25 U	12 U	62 U	25 U	6.2 U	2.5 U	12 UJ	2.5 U	5.0 U	5.0 U	62 U	50 U	25 U	12 U
Acetone	12 U	250 U	5 U	50 U	25 U	120 U	50 U	12 UJ	5.0 UJ	25 UJ	5.0 U	3.4 J	2.9 J	120 U	100 U	50 U	25 U
Benzene	3.6	25 U	0.5 U	5 U	2.5 U	12 U	5 U	1.2 U	0.50 U	2.5 U	0.50 U	1.0 U	1.0 U	12 U	10 U	5 U	2.5 U
Bromobenzene	6.2 U	120 U	2.5 U	25 U	12 U	62 U	25 U	6.2 U	2.5 U	12 U	2.5 U	5.0 U	5.0 U	62 U	50 U	25 U	12 U
Bromodichloromethane	1.2 U	25 U	0.5 U	5 U	2.5 U	12 U	5 U	1.2 U	0.50 U	2.5 U	0.50 U	1.0 U	1.0 U	12 U	10 U	5 U	2.5 U
Bromoform	5.0 U	100 U	2 U	20 U	10 U	50 U	20 U	5.0 U	2.0 U	10 U	2.0 U	4.0 U	4.0 U	50 U	40 U	20 U	10 U
Bromomethane	6.2 UJ	120 UJ	2.5 UJ	25 U	12 U	62 UJ	25 U	6.2 UJ	2.5 UJ	12 UJ	2.5 U	5.0 UJ	5.0 UJ	62 UJ	50 UJ	25 U	12 U
Butylbenzene, n-	2.3 J	120 U	2.5 U	25 U	12 U	62 U	25 U	6.2 U	2.5 U	12 U	2.5 U	5.0 U	5.0 U	62 U	50 U	25 U	12 U
Butylbenzene, sec-	3.4 J	120 U	1.9 J	25 U	12 U	62 U	25 U	6.2 U	2.5 U	12 U	2.5 U	5.0 U	5.0 U	62 U	50 U	25 U	12 U
Butylbenzene, t-	6.2 U	120 U	1.5 J	25 U	12 U	62 U	25 U	6.2 U	2.5 U	12 U	2.5 U	5.0 U	5.0 U	62 U	50 U	25 U	12 U
Carbon Disulfide	12 U	250 U	5 U	50 U	25 U	120 U	50 U	12 UJ	5.0 UJ	25 U	5.0 U	10 U	10 U	120 U	100 U	50 U	25 U

Table 2-1a. Historical Groundwater Data: Volatile Organic Compounds

Essex-Hope Site, Jamestown, New York

Location ID	MW-30S	MW-30S	MW-30S	MW-30S	MW-30S	MW-30S	MW-101S	MW-101S	MW-101S	MW-101S	MW-101S	MW-101S	MW-101S	MW-101S	MW-101S	MW-101S	MW-101S
Sample Depth (feet bgs)	10-16	10-16	10-16	10-16	10-16	10-16	8-18	8-18	8-18	8-18	8-18	8-18	8-18	8-18	8-18	8-18	8-18
Sample Date	9/17/2019	11/6/2019	10/29/2020	10/6/2021	10/6/2021	10/5/2022	11/2/2016	3/14/2017	3/14/2017	10/19/2017	11/14/2018	11/6/2019	11/6/2019	10/28/2020	10/28/2020	10/7/2021	10/7/2021
Shallow or Deep WBZ	Shallow	Shallow	Shallow	Shallow	Shallow	Shallow	Shallow	Shallow	Shallow	Shallow	Shallow	Shallow	Shallow	Shallow	Shallow	Shallow	Shallow
Onsite/Offsite	OU-01	OU-01	OU-01	OU-01	OU-01	OU-01	OU-01	OU-01	OU-01	OU-01	OU-01	OU-01	OU-01	OU-01	OU-01	OU-01	OU-01
Sample Type	N	N	N	N	FD	N	N	N	FD	N	N	N	FD	N	FD	N	FD
Analyte																	
Carbon Tetrachloride	1.2 U	25 U	0.5 U	5 U	2.5 U	12 U	5 U	1.2 U	0.50 U	2.5 U	0.50 U	1.0 U	1.0 U	12 U	10 U	5 U	2.5 U
Chlorobenzene	6.2 U	120 U	2.5 U	25 U	12 U	62 U	25 U	6.2 U	2.5 U	12 U	2.5 U	5.0 U	5.0 U	62 U	50 U	25 U	12 U
Chlorobromomethane	6.2 U	120 U	2.5 U	25 U	12 U	62 U	25 UJ	6.2 UJ	2.5 UJ	12 UJ	2.5 U	5.0 U	5.0 U	62 U	50 U	25 U	12 U
Chloroethane	6.2 U	120 U	2.5 UJ	25 U	12 U	62 U	25 UJ	6.2 UJ	2.5 UJ	12 U	2.5 U	5.0 U	5.0 U	62 UJ	50 UJ	25 U	12 U
Chloroform	6.2 U	120 U	2.5 U	25 U	12 U	62 U	25 U	6.2 U	2.5 U	12 U	2.5 U	5.0 U	5.0 U	62 U	50 U	25 U	12 U
Chloromethane	6.2 U	120 UJ	2.5 U	25 U	12 U	62 UJ	25 U	6.2 U	2.5 U	12 UJ	2.5 UJ	5.0 UJ	5.0 UJ	62 U	50 U	25 U	12 U
Dibromochloromethane	1.2 U	25 U	0.5 U	5 U	2.5 U	12 U	5 U	1.2 U	0.50 U	2.5 U	0.50 U	1.0 U	1.0 U	12 U	10 U	5 U	2.5 U
Dibromomethane (Methylene Bromide)	12 U	250 U	5 U	50 U	25 U	120 U	50 U	12 UJ	5.0 UJ	25 UJ	5.0 U	10 U	10 U	120 U	100 U	50 U	25 U
Dichlorodifluoromethane	12 U	250 UJ	5 U	50 U	25 U	120 U	50 U	12 U	5.0 U	25 UJ	5.0 U	10 UJ	10 UJ	120 U	100 U	50 U	25 U
Ethylbenzene	440	3800	2.6	1100	570	4000	25 U	6.2 U	2.5 U	12 U	2.5 U	5.0 U	5.0 U	62 U	50 U	25 U	12 U
Hexachlorobutadiene	6.2 U	120 U	2.5 U	25 U	12 U	62 U	25 U	6.2 U	2.5 U	12 U	2.5 U	5.0 U	5.0 U	62 U	50 U	25 U	12 U
Isopropylbenzene (Cumene)	48	120	8.6	41	31	250	25 U	6.2 U	2.5 U	12 U	2.5 U	5.0 U	5.0 U	62 U	50 U	25 U	12 U
Methyl Ethyl Ketone (2-Butanone)	12 U	250 U	5 U	50 U	25 U	120 U	50 UJ	12 UJ	5.0 UJ	25 UJ	5.0 U	10 U	10 U	120 U	100 U	50 U	25 U
Methyl Isobutyl Ketone (4-Methyl-2-Pentanone)	12 U	250 U	5 U	50 U	25 U	120 U	50 U	12 U	5.0 U	25 UJ	5.0 U	10 U	10 U	120 U	100 U	50 U	25 U
Methyl tert-butyl Ether	6.2 U	120 U	2.5 U	25 U	12 U	62 U	25 U	6.2 U	2.5 U	12 U	2.5 U	5.0 U	5.0 U	62 U	50 U	25 U	12 U
Methylene Chloride	6.2 U	120 U	2.5 U	25 U	12 U	62 U	25 U	6.2 U	2.5 U	12 U	2.5 U	5.0 U	5.0 U	62 U	50 U	25 U	12 U
Naphthalene	77	240	2.5 UJ	30	20	680	25 U	6.2 UJ	2.5 U	12 U	2.5 U	5.0 U	5.0 U	62 UJ	50 UJ	25 U	12 U
n-Propylbenzene	29	73 J	3	23 J	18	170	25 U	6.2 U	2.5 U	12 UJ	2.5 U	5.0 U	5.0 U	62 U	50 U	25 U	12 U
p-Isopropyltoluene	6.2 U	120 U	2.5 U	25 U	12 U	62 U	25 U	6.2 U	2.5 U	12 U	2.5 U	5.0 U	5.0 U	62 U	50 U	25 U	12 U
Styrene	6.2 U	120 U	2.5 U	25 U	12 U	62 U	25 U	6.2 U	2.5 U	12 U	2.5 U	5.0 U	5.0 U	62 U	50 U	25 U	12 U
Tetrachloroethene	1.2 U	25 U	0.5 U	5 U	2.5 U	12 U	5 U	1.2 U	0.19 J	2.5 U	0.27 J	1.0 U	1.0 U	12 U	10 U	5 U	2.5 U
Toluene	6.2 U	120 U	2.5 U	25 U	12 U	62 U	25 U	6.2 U	2.5 U	12 U	2.5 U	5.0 U	5.0 U	62 U	50 U	25 U	12 U
Trichloroethene	1.2 U	25 U	1 J	3.7 J	2.1 J	12 U	620	170	180	510	75	310	270	3200 J	2800 J	1000	770
Trichlorofluoromethane	6.2 U	120 U	2.5 U	25 U	12 U	62 U	25 U	6.2 U	2.5 U	12 U	2.5 U	5.0 U	5.0 U	62 U	50 U	25 U	12 U
Vinyl Acetate	12 U	250 UJ	5 U	50 U	25 U	120 U	50 U	12 U	5.0 U	25 U	5.0 U	10 UJ	10 UJ	120 U	100 U	50 U	25 U
Vinyl Chloride	2.5 U	50 U	1 U	10 U	5 U	25 U	3.2 J	0.75 J	0.84 J	2.3 J	0.20 J	1.2 J	1.0 J	17 J	15 J	6 J	4.8 J
Xylene, m- & p-	390	10000	4.4	2700	1400	11000	25 U	6.2 U	2.5 U	12 U	2.5 U	5.0 U	5.0 U	62 U	50 U	25 U	12 U
Xylene, o-	18	100 J	1.8 J	35	20	120	25 U	6.2 U	2.5 U	12 U	2.5 U	5.0 U	5.0 U	62 U	50 U	25 U	12 U
Xylenes, Total	410	10000 J	6.2	2700	1400	11000	25 U	6.2 U	2.5 U	12 U	2.5 U	5.0 U	5.0 U	62 U	50 U	25 U	12 U
Total CBTEX	900	14000 J	17.4	3841	2001	15250	25 U	6.2 U	2.5 U	12 U	2.5 U	5.0 U	5.0 U	62 U	50 U	25 U	12 U
Total CVOC	2.5 U	50 U	2.1 J	3.7 J	2.1 J	25 U	870 J	238.31 J	252.65 J	753.7 J	101.65	490 J	430 J	5125 J	4520.5 J	1808.3	1406.6
Total VOC	1100 J	15000 J	27	4001.7	2099.8	17430	1105.5	238.31 J	252.65 J	753.7 J	127.65	500 J	430 J	6220.5	7025	2608.3	2036.6

Table 2-1a. Historical Groundwater Data: Volatile Organic Compounds

Essex-Hope Site, Jamestown, New York

Location ID	MW-101S	MW-102S	MW-102S	MW-102S	MW-102S	MW-102S	MW-102S	MW-102S	MW-102S	MW-103S	MW-103S	MW-103S	MW-103S	MW-103S	MW-104S	MW-104S	MW-104S	MW-104S
Sample Depth (feet bgs)	8-18	9-14	9-14	9-14	9-14	9-14	9-14	9-14	9-14	8-18	8-18	8-18	8-18	8-18	9-14	9-14	9-14	9-14
Sample Date	10/4/2022	11/2/2016	11/2/2016	3/14/2017	10/19/2017	10/19/2017	10/5/2021	10/4/2022	11/1/2016	3/14/2017	10/17/2017	10/5/2021	10/4/2022	11/1/2016	3/14/2017	10/18/2017	11/14/2018	
Shallow or Deep WBZ	Shallow	Shallow	Shallow	Shallow	Shallow	Shallow	Shallow	Shallow	Shallow	Shallow	Shallow	Shallow	Shallow	Shallow	Shallow	Shallow	Shallow	Shallow
Onsite/Offsite	OU-01	Shallow	Shallow	Shallow	Shallow	Shallow	Shallow	Shallow	Shallow	OU-03	OU-03	OU-03	OU-03	OU-03	OU-03	OU-03	OU-03	OU-03
Sample Type	N	N	FD	N	N	FD	N	N	N	N	N	N	N	N	N	N	N	N
Analyte																		
1,1,1,2-Tetrachloroethane	12 U	2.5 U	2.5 U	6.2 U	2.5 U	2.5 U	5 U	2.5 U	2.5 U	2.5 U	5.0 U	25 U	5.0 U	2.5 U	5.0 U	2.5 U	2.5 U	
1,1,1-Trichloroethane	12 U	2.5 U	2.5 U	6.2 U	2.5 U	2.5 U	5 U	2.5 U	2.5 U	2.5 U	5.0 U	25 U	5.0 U	2.5 U	5.0 U	2.5 U	2.5 U	
1,1,2,2-Tetrachloroethane	2.5 U	0.5 U	0.5 U	1.2 U	0.50 UJ	0.50 UJ	1 U	0.50 U	0.5 U	0.50 U	1.0 U	5 U	1.0 U	0.5 U	1.0 U	0.50 U	0.50 UJ	
1,1,2-Trichloroethane	7.5 U	1.5 U	1.5 U	3.8 UJ	1.5 UJ	1.5 UJ	3 U	1.5 U	1.5 U	1.5 UJ	3.0 UJ	15 U	3.0 U	1.5 U	3.0 UJ	1.5 UJ	1.5 U	
1,1-Dichloroethane	12 U	2.5 U	2.5 U	6.2 U	2.5 U	2.5 U	5 U	2.5 U	2.5 U	2.5 U	5.0 U	25 U	5.0 U	2.5 U	5.0 U	2.5 U	2.5 U	
1,1-Dichloroethene	1.4 J	0.58	0.6	2.7	0.24 J	0.22 J	0.61 J	0.50 U	0.5 U	0.50 U	0.44 J	5 U	1.0 U	0.5 U	1.0 U	0.50 U	0.50 U	
1,1-Dichloropropene	12 U	2.5 U	2.5 U	6.2 U	2.5 U	2.5 U	5 U	2.5 U	2.5 U	2.5 U	5.0 U	25 U	5.0 U	2.5 U	5.0 U	2.5 U	2.5 U	
1,2,3-Trichlorobenzene	12 U	2.5 U	2.5 U	6.2 U	2.5 U	2.5 U	5 U	2.5 U	2.5 U	2.5 U	5.0 U	25 U	5.0 U	2.5 U	5.0 U	2.5 U	2.5 U	
1,2,3-Trichloropropane	12 U	2.5 U	2.5 U	6.2 U	2.5 UJ	2.5 UJ	5 U	2.5 U	2.5 U	2.5 U	5.0 U	25 U	5.0 U	2.5 U	5.0 U	2.5 U	2.5 U	
1,2,4-Trichlorobenzene	12 U	2.5 U	2.5 U	6.2 U	2.5 U	2.5 U	5 U	2.5 U	2.5 U	2.5 U	5.0 U	25 U	5.0 U	2.5 U	5.0 U	2.5 U	2.5 U	
1,2,4-Trimethylbenzene	12 U	2.5 U	2.5 U	6.2 U	2.5 U	2.5 U	5 U	2.5 U	2.5 U	2.5 U	5.0 U	25 U	5.0 U	2.5 U	5.0 U	2.5 U	2.5 U	
1,2-Dibromo-3-Chloropropane	12 U	2.5 U	2.5 U	6.2 U	2.5 UJ	2.5 UJ	5 U	2.5 U	2.5 U	2.5 U	5.0 UJ	25 U	5.0 U	2.5 U	5.0 U	2.5 UJ	2.5 UJ	
1,2-Dibromoethane (Ethylene Dibromide)	10 U	2 U	2 U	5.0 U	2.0 U	2.0 U	4 U	2.0 U	2 U	2.0 U	4.0 U	20 U	4.0 U	2 U	4.0 U	2.0 U	2.0 U	
1,2-Dichlorobenzene	12 U	2.5 U	2.5 U	6.2 U	2.5 U	2.5 U	5 U	2.5 U	2.5 U	2.5 U	5.0 U	25 U	5.0 U	2.5 U	5.0 U	2.5 U	2.5 U	
1,2-Dichloroethane	2.5 U	0.5 U	0.5 U	1.2 U	0.50 U	0.50 U	1 U	0.50 U	0.5 U	0.50 U	1.0 U	5 U	1.0 U	0.5 U	1.0 U	0.50 UJ	0.50 U	
1,2-Dichloroethene, cis-	550	85	87	470	44	45	150	42	15	10	70	80	13	4.8	5.0 U	1.0 J	2.5 U	
1,2-Dichloroethene, Total	550	85	87	470	44	45	150	42	15	10	70	80	13	4.8	5.0 U	1.0 J	2.5 U	
1,2-Dichloroethene, trans-	12 U	2.5 U	2.5 U	6.2 U	2.5 U	2.5 U	5 U	2.5 U	2.5 U	2.5 U	5.0 U	25 U	5.0 U	2.5 U	5.0 U	2.5 U	2.5 U	
1,2-Dichloropropane	5.0 U	1 U	1 U	2.5 U	1.0 U	1.0 U	2 U	1.0 U	1 U	1.0 U	2.0 U	10 U	2.0 U	1 U	2.0 U	1.0 U	1.0 U	
1,3,5-Trimethylbenzene (Mesitylene)	12 U	2.5 U	2.5 U	6.2 U	2.5 U	2.5 U	5 U	2.5 U	2.5 U	2.5 U	5.0 U	25 U	5.0 U	2.5 U	5.0 U	2.5 U	2.5 U	
1,3-Dichlorobenzene	12 U	2.5 U	2.5 U	6.2 U	2.5 U	2.5 U	5 U	2.5 U	2.5 U	2.5 U	5.0 U	25 U	5.0 U	2.5 U	5.0 U	2.5 U	2.5 U	
1,3-Dichloropropane	12 U	2.5 U	2.5 U	6.2 U	2.5 UJ	2.5 UJ	5 U	2.5 U	2.5 U	2.5 U	5.0 UJ	25 U	5.0 U	2.5 U	5.0 U	2.5 UJ	2.5 U	
1,3-Dichloropropene, cis-	2.5 U	0.5 U	0.5 U	1.2 U	0.50 U	0.50 U	1 U	0.50 U	0.5 U	0.50 U	1.0 U	5 U	1.0 U	0.5 U	1.0 U	0.50 U	0.50 U	
1,3-Dichloropropene, Total	2.5 U	0.5 U	0.5 U	1.2 U	0.50 U	0.50 U	1 U	0.50 U	0.5 U	0.50 U	1.0 U	5 U	1.0 U	0.5 U	1.0 U	0.50 U	0.50 U	
1,3-Dichloropropene, trans-	2.5 U	0.5 U	0.5 U	1.2 U	0.50 U	0.50 U	1 U	0.50 U	0.5 U	0.50 U	1.0 U	5 U	1.0 U	0.5 U	1.0 U	0.50 U	0.50 U	
1,4-Dichlorobenzene	12 U	2.5 U	2.5 U	6.2 U	2.5 U	2.5 U	5 U	2.5 U	2.5 U	2.5 U	5.0 U	25 U	5.0 U	2.5 U	5.0 U	2.5 U	2.5 U	
1,4-Dioxane (p-Dioxane)	1200 U	250 UJ	250 UJ	620 U	250 U	250 U	500 U	250 U	250 UJ	250 U	500 UJ	2500 U	500 U	250 UJ	500 U	250 U	250 UJ	
2,2-Dichloropropane	12 U	2.5 U	2.5 U	6.2 U	2.5 U	2.5 U	5 U	2.5 U	2.5 U	2.5 U	5.0 U	25 U	5.0 U	2.5 U	5.0 U	2.5 U	2.5 U	
2-Chlorotoluene	12 U	2.5 U	2.5 U	6.2 U	2.5 UJ	2.5 UJ	5 U	2.5 U	2.5 U	2.5 U	5.0 U	25 U	5.0 U	2.5 U	5.0 U	2.5 UJ	2.5 U	
2-Hexanone	25 U	5 UJ	5 UJ	12 UJ	5.0 UJ	5.0 UJ	10 U	5.0 U	5 U	5.0 U	10 UJ	50 U	10 U	5 UJ	10 UJ	5.0 UJ	5.0 U	
4-Chlorotoluene	12 U	2.5 U	2.5 U	6.2 U	2.5 UJ	2.5 UJ	5 U	2.5 U	2.5 U	2.5 U	5.0 UJ	25 U	5.0 U	2.5 U	5.0 U	2.5 UJ	2.5 U	
Acetone	25 U	5 U	5 U	12 UJ	5.0 UJ	5.0 UJ	10 U	5.0 U	5 U	5.0 UJ	10 U	50 U	10 U	5 U	10 UJ	5.0 UJ	5.0 U	
Benzene	2.5 U	0.5 U	0.5 U	1.2 U	0.50 U	0.50 U	1 U	0.50 U	0.5 U	0.50 U	1.0 U	5 U	1.0 U	0.28 J	1.0 U	0.50 U	0.50 U	
Bromobenzene	12 U	2.5 U	2.5 U	6.2 U	2.5 U	2.5 U	5 U	2.5 U	2.5 U	2.5 U	5.0 U	25 U	5.0 U	2.5 U	5.0 U	2.5 U	2.5 U	
Bromodichloromethane	2.5 U	0.5 U	0.5 U	1.2 U	0.50 U	0.50 U	1 U	0.50 U	0.5 U	0.50 U	1.0 U	5 U	1.0 U	0.5 U	1.0 U	0.50 U	0.50 U	
Bromoform	10 U	2 U	2 U	5.0 U	2.0 U	2.0 U	4 U	2.0 U	2 U	2.0 U	4.0 U	20 U	4.0 U	2 U	4.0 U	2.0 U	2.0 U	
Bromomethane	12 U	2.5 U	2.5 U	6.2 UJ	2.5 UJ	2.5 UJ	5 U	2.5 U	2.5 U	2.5 UJ	5.0 UJ	25 U	5.0 U	2.5 UJ	5.0 UJ	2.5 UJ	2.5 U	
Butylbenzene, n-	12 U	2.5 U	2.5 U	6.2 U	2.5 U	2.5 U	5 U	2.5 U	2.5 U	2.5 U	5.0 U	25 U	5.0 U	2.5 U	5.0 U	2.5 U	2.5 U	
Butylbenzene, sec-	12 U	2.5 U	2.5 U	6.2 U	2.5 U	2.5 U	5 U	2.5 U	2.5 U	2.5 U	5.0 U	25 U	5.0 U	2.5 U	5.0 U	2.5 U	2.5 U	
Butylbenzene, t-	12 U	2.5 U	2.5 U	6.2 U	2.5 U	2.5 U	5 U	2.5 U	2.5 U	2.5 U	5.0 U	25 U	5.0 U	2.5 U	5.0 U	2.5 U	2.5 U	
Carbon Disulfide	25 U	5 U	5 U	12 UJ	5.0 U	5.0 U	10 U	5.0 U	5 U	5.0 UJ	10 U	50 U	10 U	5 U	10 UJ	5.0 U	5.0 U	

Table 2-1a. Historical Groundwater Data: Volatile Organic Compounds

Essex-Hope Site, Jamestown, New York

Location ID	MW-101S	MW-102S	MW-102S	MW-102S	MW-102S	MW-102S	MW-102S	MW-102S	MW-102S	MW-103S	MW-103S	MW-103S	MW-103S	MW-103S	MW-104S	MW-104S	MW-104S	MW-104S
Sample Depth (feet bgs)	8-18	9-14	9-14	9-14	9-14	9-14	9-14	9-14	9-14	8-18	8-18	8-18	8-18	8-18	9-14	9-14	9-14	9-14
Sample Date	10/4/2022	11/2/2016	11/2/2016	3/14/2017	10/19/2017	10/19/2017	10/5/2021	10/4/2022	11/1/2016	3/14/2017	10/17/2017	10/5/2021	10/4/2022	11/1/2016	3/14/2017	10/18/2017	11/14/2018	
Shallow or Deep WBZ	Shallow	Shallow	Shallow	Shallow	Shallow	Shallow	Shallow	Shallow	Shallow	Shallow	Shallow	Shallow	Shallow	Shallow	Shallow	Shallow	Shallow	Shallow
Onsite/Offsite	OU-01	Shallow	Shallow	Shallow	Shallow	Shallow	Shallow	Shallow	Shallow	OU-03	OU-03	OU-03	OU-03	OU-03	OU-03	OU-03	OU-03	OU-03
Sample Type	N	N	FD	N	N	FD	N	N	N	N	N	N	N	N	N	N	N	N
Analyte																		
Carbon Tetrachloride	2.5 U	0.5 U	0.5 U	1.2 U	0.50 U	0.50 U	1 U	0.50 U	0.5 U	0.50 U	1.0 U	5 U	1.0 U	0.5 U	1.0 U	0.50 U	0.50 U	
Chlorobenzene	12 U	2.5 U	2.5 U	6.2 U	2.5 U	2.5 U	5 U	2.5 U	2.5 U	2.5 U	5.0 U	25 U	5.0 U	2.5 U	5.0 U	2.5 U	2.5 U	
Chlorobromomethane	12 U	2.5 UJ	2.5 UJ	6.2 UJ	2.5 UJ	2.5 UJ	5 U	2.5 U	2.5 UJ	2.5 UJ	5.0 UJ	25 U	5.0 U	2.5 UJ	5.0 UJ	2.5 UJ	2.5 U	
Chloroethane	12 U	2.5 UJ	2.5 UJ	6.2 UJ	2.5 U	2.5 U	5 U	2.5 U	2.5 UJ	2.5 UJ	5.0 U	25 U	5.0 U	2.5 UJ	5.0 UJ	2.5 U	2.5 U	
Chloroform	12 U	2.5 U	2.5 U	6.2 U	2.5 U	2.5 U	5 U	2.5 U	2.5 U	2.5 U	5.0 U	25 U	5.0 U	2.5 U	5.0 U	2.5 U	2.5 U	
Chloromethane	12 UJ	2.5 U	2.5 U	6.2 U	2.5 UJ	2.5 UJ	5 U	2.5 UJ	2.5 U	2.5 U	5.0 UJ	25 U	5.0 UJ	2.5 U	5.0 U	2.5 UJ	2.5 UJ	
Dibromochloromethane	2.5 U	0.5 U	0.5 U	1.2 U	0.50 U	0.50 U	1 U	0.50 U	0.5 U	0.50 U	1.0 U	5 U	1.0 U	0.5 U	1.0 U	0.50 U	0.50 U	
Dibromomethane (Methylene Bromide)	25 U	5 U	5 U	12 UJ	5.0 UJ	5.0 UJ	10 U	5.0 U	5 U	5.0 UJ	10 UJ	50 U	10 U	5 UJ	10 UJ	5.0 UJ	5.0 U	
Dichlorodifluoromethane	25 U	5 U	5 U	12 U	5.0 UJ	5.0 UJ	10 U	5.0 U	5 U	5.0 U	10 UJ	50 U	10 U	5 U	10 U	5.0 UJ	5.0 U	
Ethylbenzene	12 U	2.5 U	2.5 U	6.2 U	2.5 U	2.5 U	5 U	2.5 U	2.5 U	2.5 U	5.0 U	25 U	5.0 U	2.5 U	5.0 U	2.5 U	2.5 U	
Hexachlorobutadiene	12 U	2.5 U	2.5 U	6.2 U	2.5 U	2.5 U	5 U	2.5 U	2.5 U	2.5 U	5.0 U	25 U	5.0 U	2.5 U	5.0 U	2.5 U	2.5 U	
Isopropylbenzene (Cumene)	12 U	2.5 U	2.5 U	6.2 U	2.5 U	2.5 U	5 U	2.5 U	2.5 U	2.5 U	5.0 U	25 U	5.0 U	2.5 U	5.0 U	2.5 U	2.5 U	
Methyl Ethyl Ketone (2-Butanone)	25 U	5 UJ	5 UJ	12 UJ	5.0 UJ	5.0 UJ	10 U	5.0 U	5 UJ	5.0 UJ	10 UJ	50 U	10 U	5 UJ	10 UJ	5.0 UJ	5.0 U	
Methyl Isobutyl Ketone (4-Methyl-2-Pentanone)	25 U	5 U	5 U	12 U	5.0 UJ	5.0 UJ	10 U	5.0 U	5 U	5.0 U	10 UJ	50 U	10 U	5 UJ	10 U	5.0 UJ	5.0 U	
Methyl tert-butyl Ether	12 U	2.5 U	2.5 U	6.2 U	2.5 U	2.5 U	5 U	2.5 U	2.5 U	2.5 U	5.0 U	25 U	5.0 U	2.5 U	5.0 U	2.5 U	2.5 U	
Methylene Chloride	12 U	2.5 U	2.5 U	6.2 U	2.5 U	2.5 U	5 U	2.5 U	2.5 U	2.5 U	5.0 U	25 U	5.0 U	2.5 U	5.0 U	2.5 U	2.5 U	
Naphthalene	12 U	2.5 U	2.5 U	6.2 UJ	2.5 U	2.5 U	5 U	2.5 U	2.5 U	2.5 U	5.0 U	25 U	5.0 U	2.5 U	5.0 UJ	2.5 U	2.5 U	
n-Propylbenzene	12 U	2.5 U	2.5 U	6.2 U	2.5 UJ	2.5 UJ	5 U	2.5 U	2.5 U	2.5 U	5.0 U	25 U	5.0 U	2.5 U	5.0 U	2.5 U	2.5 U	
p-Isopropyltoluene	12 U	2.5 U	2.5 U	6.2 U	2.5 U	2.5 U	5 U	2.5 U	2.5 U	2.5 U	5.0 U	25 U	5.0 U	2.5 U	5.0 U	2.5 U	2.5 U	
Styrene	12 U	2.5 U	2.5 U	6.2 U	2.5 U	2.5 U	5 U	2.5 U	2.5 U	2.5 U	5.0 U	25 U	5.0 U	2.5 U	5.0 U	2.5 U	2.5 U	
Tetrachloroethene	2.5 U	0.5 U	0.5 U	1.2 U	0.50 U	0.50 U	1 U	0.50 U	0.5 U	0.50 U	1.0 U	5 U	1.0 U	0.37 J	1.0 U	0.50 U	0.26 J	
Toluene	12 U	2.5 U	2.5 U	6.2 U	2.5 U	2.5 U	5 U	2.5 U	2.5 U	2.5 U	5.0 U	25 U	5.0 U	2.5 U	5.0 U	2.5 U	2.5 U	
Trichloroethene	680	62	63	150	30	30	280	180	81	60	180	1500	330	240	93	130	100	
Trichlorofluoromethane	12 U	2.5 U	2.5 U	6.2 U	2.5 U	2.5 U	5 U	2.5 U	2.5 U	2.5 U	5.0 U	25 U	5.0 U	2.5 U	5.0 U	2.5 U	2.5 U	
Vinyl Acetate	25 U	5 U	5 U	12 U	5.0 U	5.0 U	10 U	5.0 U	5 U	5.0 U	10 U	50 U	10 U	5 U	10 U	5.0 U	5.0 U	
Vinyl Chloride	3.4 J	7.8	7.5	1.8 J	0.16 J	0.15 J	0.93 J	0.11 J	1 U	1.0 U	0.17 J	10 U	2.0 U	0.15 J	2.0 U	1.0 UJ	1.0 U	
Xylene, m- & p-	12 U	2.5 U	2.5 U	6.2 U	2.5 U	2.5 U	5 U	2.5 U	2.5 U	2.5 U	5.0 U	25 U	5.0 U	2.5 U	5.0 U	2.5 U	2.5 U	
Xylene, o-	12 U	2.5 U	2.5 U	6.2 U	2.5 U	2.5 U	5 U	2.5 U	2.5 U	2.5 U	5.0 U	25 U	5.0 U	2.5 U	5.0 U	2.5 U	2.5 U	
Xylenes, Total	12 U	2.5 U	2.5 U	6.2 U	2.5 U	2.5 U	5 U	2.5 U	2.5 U	2.5 U	5.0 U	25 U	5.0 U	2.5 U	5.0 U	2.5 U	2.5 U	
Total CBTEX	12 U	2.5 U	2.5 U	6.2 U	2.5 U	2.5 U	5 U	2.5 U	2.5 U	2.5 U	5 UJ	25 U	5.0 U	0.28 J	5 U	2.5 U	2.5 U	
Total CVOC	1234.8	160	160	624.5 J	74.4 J	75.37 J	431.54	222.11	96	70	250.61 J	1580	343	250 J	93	131 J	100.26	
Total VOC	1784.8	240.38	245.1	624.5 J	74.4 J	75.37 J	581.54	264.11	111	70	250.61 J	1660	356	250.4	93	131 J	100.26	

Table 2-1a. Historical Groundwater Data: Volatile Organic Compounds

Essex-Hope Site, Jamestown, New York

Location ID	MW-104S	MW-104S	MW-104S	MW-104S	MW-105S	MW-105S	MW-105S	MW-106D	MW-106D	MW-106D	MW-106D	MW-106D	MW-106D	MW-106D	MW-106D	MW-106D	MW-106D
Sample Depth (feet bgs)	9-14	9-14	9-14	9-14	8-18	8-18	8-18	24-34	24-34	24-34	24-34	24-34	24-34	24-34	24-34	24-34	24-34
Sample Date	11/6/2019	10/29/2020	10/6/2021	10/6/2022	11/1/2016	3/15/2017	10/17/2017	11/1/2016	11/1/2016	3/15/2017	3/15/2017	10/17/2017	3/20/2018	11/14/2018	11/14/2018	11/5/2019	10/29/2020
Shallow or Deep WBZ	Shallow	Shallow	Shallow	Shallow	Shallow	Shallow	Shallow	Deep	Deep	Deep	Deep	Deep	Deep	Deep	Deep	Deep	Deep
Onsite/Offsite	OU-03	OU-03	OU-03	OU-03	OU-03	OU-03	OU-03	OU-03	OU-03	OU-03	OU-03	OU-03	OU-03	OU-03	OU-03	OU-03	OU-03
Sample Type	N	N	N	N	N	N	N	N	FD	N	FD	N	N	N	FD	N	N
Analyte																	
1,1,1,2-Tetrachloroethane	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	12 U	12 U	120 U	100 U	2.5 U	120 U	250 U	120 U	120 U	120 U
1,1,1-Trichloroethane	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	12 U	12 U	120 U	100 U	2.5 U	120 U	250 U	120 U	120 U	120 U
1,1,2,2-Tetrachloroethane	0.50 U	0.5 U	0.5 U	0.50 U	0.5 U	0.50 U	0.50 U	2.5 U	2.5 U	25 U	20 U	0.50 U	25 U	50 UJ	25 UJ	25 UJ	25 U
1,1,2-Trichloroethane	1.5 U	1.5 U	1.5 U	1.5 U	1.5 U	1.5 UJ	1.5 UJ	7.5 U	7.5 U	75 UJ	60 UJ	1.5 UJ	75 U	150 U	75 U	75 U	75 U
1,1-Dichloroethane	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	12 U	12 U	120 U	100 U	2.5 U	120 U	250 U	120 U	120 U	120 U
1,1-Dichloroethene	0.50 U	0.5 U	0.5 U	0.50 U	0.5 U	0.50 U	0.50 U	9.5	8.5	11 J	7.9 J	3	28	56	56	38	18 J
1,1-Dichloropropene	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	12 U	12 U	120 U	100 U	2.5 U	120 U	250 U	120 U	120 U	120 U
1,2,3-Trichlorobenzene	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	12 U	12 U	120 U	100 U	2.5 U	120 U	250 U	120 U	120 U	120 UJ
1,2,3-Trichloropropane	2.5 UJ	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	12 U	12 U	120 U	100 U	2.5 U	120 U	250 U	120 U	120 U	120 U
1,2,4-Trichlorobenzene	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	12 U	12 U	120 U	100 U	2.5 U	120 U	250 U	120 U	120 U	120 UJ
1,2,4-Trimethylbenzene	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	12 U	12 U	120 U	100 U	2.5 U	120 U	250 U	120 U	120 U	120 U
1,2-Dibromo-3-Chloropropane	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 UJ	12 U	12 U	120 U	100 U	2.5 UJ	120 UJ	250 UJ	120 UJ	120 U	120 UJ
1,2-Dibromoethane (Ethylene Dibromide)	2.0 U	2 U	2 U	2.0 U	2 U	2.0 U	2.0 U	10 U	10 U	100 U	80 U	2.0 U	100 U	200 U	100 U	100 U	100 U
1,2-Dichlorobenzene	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	12 U	12 U	120 U	100 U	2.5 U	120 U	250 U	120 U	120 U	120 U
1,2-Dichloroethane	0.50 U	0.5 U	0.5 U	0.50 U	0.5 U	0.50 U	0.50 UJ	2.5 U	2.5 U	25 U	20 U	0.50 U	25 U	50 U	25 U	25 U	25 U
1,2-Dichloroethene, cis-	2.5 U	2.5 U	2.5 U	5	2.5 U	2.5 U	2.5 U	2300	1800	3000	2500	1600	5600	7900	7700	7100	8700
1,2-Dichloroethene, Total	2.5 U	2.5 U	2.5 U	5	2.5 U	2.5 U	2.5 U	2300 J	1800 J	3000	2500	1600 J	5600	7900	7700 J	7100	8700
1,2-Dichloroethene, trans-	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	5 J	4.5 J	120 U	100 U	1.2 J	120 U	250 U	40 J	120 U	120 U
1,2-Dichloropropane	1.0 U	1 U	1 U	1.0 U	1 U	1.0 U	1.0 U	5 U	5 U	50 U	40 U	1.0 U	50 U	100 U	50 U	50 U	50 U
1,3,5-Trimethylbenzene (Mesitylene)	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	12 U	12 U	120 U	100 U	2.5 U	120 U	250 U	120 U	120 U	120 U
1,3-Dichlorobenzene	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	12 U	12 U	120 U	100 U	2.5 U	120 U	250 U	120 U	120 U	120 U
1,3-Dichloropropane	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 UJ	12 U	12 U	120 U	100 U	2.5 UJ	120 U	250 U	120 U	120 U	120 U
1,3-Dichloropropene, cis-	0.50 U	0.5 U	0.5 U	0.50 U	0.5 U	0.50 U	0.50 U	2.5 U	2.5 U	25 U	20 U	0.50 U	25 U	50 U	25 U	25 U	25 U
1,3-Dichloropropene, Total	0.50 U	0.5 U	0.5 U	0.50 U	0.5 U	0.50 U	0.50 U	2.5 U	2.5 U	25 U	20 U	0.50 U	25 U	50 U	25 U	25 U	25 U
1,3-Dichloropropene, trans-	0.50 U	0.5 U	0.5 U	0.50 U	0.5 U	0.50 U	0.50 U	2.5 U	2.5 U	25 U	20 U	0.50 U	25 U	50 U	25 U	25 U	25 U
1,4-Dichlorobenzene	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	12 U	12 U	120 U	100 U	2.5 U	120 U	250 U	120 U	120 U	120 U
1,4-Dioxane (p-Dioxane)	250 U	250 U	250 U	250 U	250 UJ	250 U	250 U	1200 UJ	1200 UJ	12000 U	10000 U	250 UJ	12000 UJ	25000 UJ	12000 UJ	12000 U	12000 UJ
2,2-Dichloropropane	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	12 U	12 U	120 U	100 U	2.5 U	120 U	250 U	120 U	120 U	120 U
2-Chlorotoluene	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 UJ	12 U	12 U	120 U	100 U	2.5 UJ	120 U	250 U	120 U	120 U	120 U
2-Hexanone	5.0 U	5 U	5 U	5.0 U	5 UJ	5.0 U	5.0 UJ	25 UJ	25 UJ	250 UJ	200 UJ	5.0 UJ	250 U	500 U	250 U	250 U	250 U
4-Chlorotoluene	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 UJ	12 U	12 U	120 U	100 U	2.5 UJ	120 U	250 U	120 U	120 U	120 U
Acetone	2.5 J	5 U	5 U	5.0 U	5 U	5.0 UJ	5.0 UJ	25 U	25 U	250 UJ	200 UJ	5.0 UJ	250 U	500 U	250 U	250 U	250 UJ
Benzene	0.50 U	0.5 U	0.5 U	0.50 U	0.5 U	0.50 U	0.50 U	4.3	3.5	25 U	20 U	0.59	13 J	24 J	23 J	11 J	25 U
Bromobenzene	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	12 U	12 U	120 U	100 U	2.5 U	120 U	250 U	120 U	120 U	120 U
Bromodichloromethane	0.50 U	0.5 U	0.5 U	0.50 U	0.5 U	0.50 U	0.50 U	2.5 U	2.5 U	25 U	20 U	0.50 U	25 U	50 U	25 U	25 U	25 U
Bromoform	2.0 U	2 U	2 U	2.0 U	2 U	2.0 U	2.0 U	10 U	10 U	100 U	80 U	2.0 U	100 U	200 U	100 U	100 U	100 U
Bromomethane	2.5 UJ	2.5 UJ	2.5 U	2.5 UJ	2.5 U	2.5 UJ	2.5 UJ	12 UJ	12 UJ	120 UJ	100 UJ	2.5 UJ	120 UJ	250 U	120 U	120 UJ	120 UJ
Butylbenzene, n-	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	12 U	12 U	120 U	100 U	2.5 U	120 U	250 U	120 U	120 U	120 U
Butylbenzene, sec-	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	12 U	12 U	120 U	100 U	2.5 U	120 U	250 U	120 U	120 U	120 U
Butylbenzene, t-	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	12 U	12 U	120 U	100 U	2.5 U	120 U	250 U	120 U	120 U	120 U
Carbon Disulfide	5.0 U	5 U	5 U	5.0 U	5 U	5.0 UJ	5.0 U	25 U	25 U	250 UJ	200 UJ	5.0 U	250 U	500 U	250 U	250 U	250 U

Table 2-1a. Historical Groundwater Data: Volatile Organic Compounds

Essex-Hope Site, Jamestown, New York

Location ID	MW-104S	MW-104S	MW-104S	MW-104S	MW-105S	MW-105S	MW-105S	MW-106D	MW-106D	MW-106D	MW-106D	MW-106D	MW-106D	MW-106D	MW-106D	MW-106D	MW-106D
Sample Depth (feet bgs)	9-14	9-14	9-14	9-14	8-18	8-18	8-18	24-34	24-34	24-34	24-34	24-34	24-34	24-34	24-34	24-34	24-34
Sample Date	11/6/2019	10/29/2020	10/6/2021	10/6/2022	11/1/2016	3/15/2017	10/17/2017	11/1/2016	11/1/2016	3/15/2017	3/15/2017	10/17/2017	3/20/2018	11/14/2018	11/14/2018	11/5/2019	10/29/2020
Shallow or Deep WBZ	Shallow	Shallow	Shallow	Shallow	Shallow	Shallow	Shallow	Deep	Deep	Deep	Deep	Deep	Deep	Deep	Deep	Deep	Deep
Onsite/Offsite	OU-03	OU-03	OU-03	OU-03	OU-03	OU-03	OU-03	OU-03	OU-03	OU-03	OU-03	OU-03	OU-03	OU-03	OU-03	OU-03	OU-03
Sample Type	N	N	N	N	N	N	N	N	FD	N	FD	N	N	N	FD	N	N
Analyte																	
Carbon Tetrachloride	0.50 U	0.5 U	0.5 U	0.50 U	0.5 U	0.50 U	0.50 U	2.5 U	2.5 U	25 U	20 U	0.50 U	25 U	50 U	25 U	25 U	25 U
Chlorobenzene	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	12 U	12 U	120 U	100 U	2.5 U	120 U	250 U	120 U	120 U	120 U
Chlorobromomethane	2.5 U	2.5 U	2.5 U	2.5 U	2.5 UJ	2.5 UJ	2.5 UJ	12 UJ	12 UJ	120 UJ	100 UJ	2.5 UJ	120 U	250 U	120 U	120 U	120 U
Chloroethane	2.5 U	2.5 UJ	2.5 U	2.5 U	2.5 UJ	2.5 UJ	2.5 U	12 UJ	12 UJ	120 UJ	100 UJ	2.5 U	120 UJ	250 U	120 U	120 U	120 UJ
Chloroform	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	12 U	12 U	120 U	100 U	2.5 U	120 U	250 U	120 U	120 U	120 U
Chloromethane	2.5 UJ	2.5 U	2.5 U	2.5 UJ	2.5 U	2.5 U	2.5 UJ	12 U	12 U	120 U	100 U	2.5 UJ	120 UJ	250 UJ	120 UJ	120 UJ	120 U
Dibromochloromethane	0.50 U	0.5 U	0.5 U	0.50 U	0.5 U	0.50 U	0.50 U	2.5 U	2.5 U	25 U	20 U	0.50 U	25 U	50 U	25 U	25 U	25 U
Dibromomethane (Methylene Bromide)	5.0 U	5 U	5 U	5.0 U	5 UJ	5.0 UJ	5.0 UJ	25 UJ	25 UJ	250 UJ	200 UJ	5.0 UJ	250 U	500 U	250 U	250 U	250 U
Dichlorodifluoromethane	5.0 UJ	5 U	5 U	5.0 U	5 U	5.0 U	5.0 UJ	25 U	25 U	250 U	200 U	5.0 UJ	250 U	500 U	250 U	250 UJ	250 U
Ethylbenzene	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	12 U	12 U	120 U	100 U	2.5 U	120 U	250 U	120 U	120 U	120 U
Hexachlorobutadiene	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	12 U	12 U	120 U	100 U	2.5 U	120 U	250 U	120 U	120 U	120 U
Isopropylbenzene (Cumene)	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	12 U	12 U	120 U	100 U	2.5 U	120 U	250 U	120 U	120 U	120 U
Methyl Ethyl Ketone (2-Butanone)	5.0 U	5 U	5 U	5.0 U	5 UJ	5.0 UJ	5.0 UJ	25 UJ	25 UJ	250 UJ	200 UJ	5.0 UJ	250 U	500 U	250 U	250 U	250 U
Methyl Isobutyl Ketone (4-Methyl-2-Pentanone)	5.0 U	5 U	5 UJ	5.0 U	5 UJ	5.0 U	5.0 UJ	25 UJ	25 UJ	250 U	200 U	5.0 UJ	250 U	500 U	250 U	250 U	250 U
Methyl tert-butyl Ether	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	12 U	12 U	120 U	100 U	2.5 U	120 U	250 U	120 U	120 U	120 U
Methylene Chloride	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	12 U	12 U	120 U	100 U	2.5 U	120 U	250 U	120 U	120 U	120 U
Naphthalene	2.5 U	2.5 UJ	2.5 UJ	2.5 U	2.5 U	2.5 U	2.5 U	12 U	12 U	120 UJ	100 U	2.5 U	120 U	250 U	120 U	120 U	120 UJ
n-Propylbenzene	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	12 U	12 U	120 U	100 U	2.5 U	120 U	250 U	120 U	120 U	120 U
p-Isopropyltoluene	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	12 U	12 U	120 U	100 U	2.5 U	120 U	250 U	120 U	120 U	120 U
Styrene	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	12 U	12 U	120 U	100 U	2.5 U	120 U	250 U	120 U	120 U	120 U
Tetrachloroethene	0.32 J	0.24 J	0.41 J	0.50 U	0.24 J	0.50 U	0.20 J	2.5 U	2.5 U	25 U	20 U	0.50 U	25 U	50 U	25 U	25 U	25 U
Toluene	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	12 U	12 U	120 U	100 U	2.5 U	120 U	250 U	120 U	120 U	120 U
Trichloroethene	80	75 J	49	59	0.6	0.22 J	0.77	580	500	73	62	3.4	1400	5500	5400	120	110 J
Trichlorofluoromethane	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	12 U	12 U	120 U	100 U	2.5 U	120 U	250 U	120 U	120 U	120 U
Vinyl Acetate	5.0 UJ	5 U	5 U	5.0 U	5 U	5.0 U	5.0 U	25 U	25 U	250 U	200 U	5.0 U	250 UJ	500 U	250 U	250 UJ	250 U
Vinyl Chloride	1.0 U	1 U	1 U	0.10 J	1 U	1.0 U	1.0 UJ	2800	2900	3000	2500	2300	390 J	290	270	740	2000
Xylene, m- & p-	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	12 U	12 U	120 U	100 U	2.5 U	120 U	250 U	120 U	120 U	120 U
Xylene, o-	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	12 U	12 U	120 U	100 U	2.5 U	120 U	250 U	120 U	120 U	120 U
Xylenes, Total	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	12 U	12 U	120 U	100 U	2.5 U	120 U	250 U	120 U	120 U	120 U
Total CBTEX	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	4.3	3.5	120 U	100 U	0.59	13	24	23	11 J	120 U
Total CVOC	80 J	75.24 J	49.41	64.1	0.84 J	0.22 J	0.97 J	5700 J	5200 J	6084 J	5069.9 J	3907.6 J	7418	13746	13466	8000	10828
Total VOC	83 J	75.24	49.41	69.1	0.84	0.22 J	0.97 J	7998.8	7016.5	6084 J	5069.9 J	3908.19 J	13031	21670	21189	8000 J	19528

Table 2-1a. Historical Groundwater Data: Volatile Organic Compounds

Essex-Hope Site, Jamestown, New York

Location ID	MW-106D	MW-106D	MW-106S	MW-106S	MW-106S	MW-107S	MW-107S	MW-107S	MW-108S	MW-108S	MW-108S	MW-108S	MW-108S	MW-108S	MW-108S	MW-108S	MW-108S
Sample Depth (feet bgs)	24-34	24-34	10-15	10-15	10-15	9-19	9-19	9-19	7-17	7-17	7-17	7-17	7-17	7-17	7-17	7-17	7-17
Sample Date	10/6/2021	10/5/2022	11/1/2016	3/15/2017	10/17/2017	11/1/2016	3/15/2017	10/19/2017	11/1/2016	3/15/2017	3/15/2017	10/19/2017	10/19/2017	3/19/2018	11/14/2018	11/14/2018	11/5/2019
Shallow or Deep WBZ	Deep	Deep	Shallow	Shallow	Shallow	Shallow	Shallow	Shallow	Shallow	Shallow	Shallow	Shallow	Shallow	Shallow	Shallow	Shallow	Shallow
Onsite/Offsite	OU-03	OU-03	OU-03	OU-03	OU-03	OU-03	OU-03	OU-03	OU-03	OU-03	OU-03	OU-03	OU-03	OU-03	OU-03	OU-03	OU-03
Sample Type	N	N	N	N	N	N	N	N	N	N	N	FD	N	FD	N	N	FD
Analyte																	
1,1,1,2-Tetrachloroethane	250 U	100 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	2.5 U	2.5 U
1,1,1-Trichloroethane	250 U	100 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	2.5 U	2.5 U
1,1,2,2-Tetrachloroethane	50 U	20 UJ	0.5 U	0.50 U	0.50 U	0.5 U	0.50 U	0.50 U	0.5 U	0.50 U	0.50 U	0.50 UJ	0.50 UJ	0.50 U	0.50 UJ	0.50 UJ	0.50 UJ
1,1,2-Trichloroethane	150 U	60 U	1.5 U	1.5 UJ	1.5 UJ	1.5 U	1.5 UJ	1.5 UJ	1.5 U	1.5 UJ	1.5 UJ	1.5 UJ	1.5 UJ	1.5 U	1.5 U	1.5 U	1.5 U
1,1-Dichloroethane	250 U	100 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	2.5 U	2.5 U
1,1-Dichloroethene	22 J	35	0.28 J	0.28 J	0.21 J	0.5 U	0.50 U	0.50 U	0.5 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
1,1-Dichloropropene	250 U	100 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	2.5 U	2.5 U
1,2,3-Trichlorobenzene	250 U	100 UJ	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	2.5 U
1,2,3-Trichloropropane	250 U	100 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 UJ	2.5 U	2.5 U	2.5 U	2.5 UJ	2.5 UJ	2.5 U	2.5 U	2.5 U	2.5 U
1,2,4-Trichlorobenzene	250 U	100 UJ	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	2.5 U
1,2,4-Trimethylbenzene	250 U	100 UJ	4	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
1,2-Dibromo-3-Chloropropane	250 U	100 UJ	2.5 U	2.5 U	2.5 UJ	2.5 U	2.5 U	2.5 UJ	2.5 U	2.5 U	2.5 U	2.5 UJ	2.5 UJ	2.5 UJ	2.5 UJ	2.5 UJ	2.5 U
1,2-Dibromoethane (Ethylene Dibromide)	200 U	80 U	2 U	2.0 U	2.0 U	2 U	2.0 U	2.0 U	2 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
1,2-Dichlorobenzene	250 U	100 UJ	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	2.5 U
1,2-Dichloroethane	50 U	20 U	0.5 U	0.50 U	0.50 U	0.5 U	0.50 U	0.50 U	0.5 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
1,2-Dichloroethene, cis-	10000	6800	17	26	11	3.3	7.8	2.5 U	7.6	3.2	3.4	4.6	4.6	9.2	5.8	5.8	9.5
1,2-Dichloroethene, Total	10000	6800 J	17	26	11	3.3	7.8	2.5 U	7.6	3.2	3.4	4.6	4.6	9.2	5.8	5.8	9.5
1,2-Dichloroethene, trans-	250 U	36 J	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	2.5 U
1,2-Dichloropropane	100 U	40 U	1 U	1.0 U	1.0 U	1 U	1.0 U	1.0 U	1 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,3,5-Trimethylbenzene (Mesitylene)	250 U	100 UJ	2.2 J	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
1,3-Dichlorobenzene	250 U	100 UJ	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	2.5 U
1,3-Dichloropropane	250 U	100 U	2.5 U	2.5 U	2.5 UJ	2.5 U	2.5 U	2.5 UJ	2.5 U	2.5 U	2.5 U	2.5 UJ	2.5 UJ	2.5 U	2.5 U	2.5 U	2.5 U
1,3-Dichloropropene, cis-	50 U	20 U	0.5 U	0.50 U	0.50 U	0.5 U	0.50 U	0.50 U	0.5 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
1,3-Dichloropropene, Total	50 U	20 U	0.5 U	0.50 U	0.50 U	0.5 U	0.50 U	0.50 U	0.5 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
1,3-Dichloropropene, trans-	50 U	20 U	0.5 U	0.50 U	0.50 U	0.5 U	0.50 U	0.50 U	0.5 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
1,4-Dichlorobenzene	250 U	100 UJ	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	2.5 U
1,4-Dioxane (p-Dioxane)	25000 U	10000 U	250 UJ	250 U	250 U	250 UJ	250 U	250 U	250 UJ	250 U	250 U	250 U	250 U	250 UJ	--	--	250 U
2,2-Dichloropropane	250 U	100 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	2.5 U	2.5 U
2-Chlorotoluene	250 U	100 UJ	2.5 U	2.5 U	2.5 UJ	2.5 U	2.5 U	2.5 UJ	2.5 U	2.5 U	2.5 U	2.5 UJ	2.5 UJ	2.5 U	2.5 U	2.5 U	2.5 U
2-Hexanone	500 U	200 U	5 UJ	5.0 U	5.0 UJ	5 UJ	5.0 U	5.0 UJ	5 U	5.0 U	5.0 UJ	5.0 UJ	5.0 UJ	5.0 U	5.0 U	5.0 U	5.0 U
4-Chlorotoluene	250 U	100 UJ	2.5 U	2.5 U	2.5 UJ	2.5 U	2.5 U	2.5 UJ	2.5 U	2.5 U	2.5 U	2.5 UJ	2.5 UJ	2.5 U	2.5 U	2.5 U	2.5 U
Acetone	500 U	200 U	5 U	5.0 UJ	5.0 UJ	5 U	5.0 UJ	5.0 UJ	5 U	5.0 UJ	5.0 UJ	5.0 UJ	5.0 UJ	5.0 U	5.0 U	5.0 U	5.0 U
Benzene	50 U	13 J	0.47 J	0.50 U	0.71	0.5 U	0.50 U	0.50 U	0.5 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
Bromobenzene	250 U	100 UJ	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	2.5 U
Bromodichloromethane	50 U	20 U	0.5 U	0.50 U	0.50 U	1.4	2.2	1.4	0.5 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
Bromoform	200 U	80 UJ	2 U	2.0 U	2.0 U	1.1 J	0.99 J	0.89 J	2 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
Bromomethane	250 U	100 U	2.5 U	2.5 UJ	2.5 UJ	2.5 U	2.5 UJ	2.5 UJ	2.5 U	2.5 UJ	2.5 UJ	2.5 UJ	2.5 UJ	2.5 UJ	2.5 UJ	2.5 U	2.5 UJ
Butylbenzene, n-	250 U	100 UJ	1.3 J	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
Butylbenzene, sec-	250 U	100 UJ	1.7 J	0.76 J	0.75 J	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
Butylbenzene, t-	250 U	100 UJ	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	2.5 U
Carbon Disulfide	500 U	200 U	5 U	5.0 UJ	5.0 U	5 U	5.0 UJ	5.0 U	5 U	5.0 UJ	5.0 UJ	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U

Table 2-1a. Historical Groundwater Data: Volatile Organic Compounds

Essex-Hope Site, Jamestown, New York

Location ID	MW-106D	MW-106D	MW-106S	MW-106S	MW-106S	MW-107S	MW-107S	MW-107S	MW-108S	MW-108S	MW-108S	MW-108S	MW-108S	MW-108S	MW-108S	MW-108S	MW-108S
Sample Depth (feet bgs)	24-34	24-34	10-15	10-15	10-15	9-19	9-19	9-19	7-17	7-17	7-17	7-17	7-17	7-17	7-17	7-17	7-17
Sample Date	10/6/2021	10/5/2022	11/1/2016	3/15/2017	10/17/2017	11/1/2016	3/15/2017	10/19/2017	11/1/2016	3/15/2017	3/15/2017	10/19/2017	10/19/2017	3/19/2018	11/14/2018	11/14/2018	11/5/2019
Shallow or Deep WBZ	Deep	Deep	Shallow	Shallow	Shallow	Shallow	Shallow	Shallow	Shallow	Shallow	Shallow	Shallow	Shallow	Shallow	Shallow	Shallow	Shallow
Onsite/Offsite	OU-03	OU-03	OU-03	OU-03	OU-03	OU-03	OU-03	OU-03	OU-03	OU-03	OU-03	OU-03	OU-03	OU-03	OU-03	OU-03	OU-03
Sample Type	N	N	N	N	N	N	N	N	N	N	N	FD	N	FD	N	N	FD
Analyte																	
Carbon Tetrachloride	50 U	20 U	0.5 U	0.50 U	0.50 U	0.5 U	0.50 U	0.50 U	0.5 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
Chlorobenzene	250 U	100 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	2.5 U	2.5 U
Chlorobromomethane	250 U	100 U	2.5 UJ	2.5 UJ	2.5 UJ	2.5 UJ	2.5 UJ	2.5 UJ	2.5 UJ	2.5 UJ	2.5 UJ	2.5 UJ	2.5 UJ	2.5 U	2.5 U	2.5 U	2.5 U
Chloroethane	250 U	100 U	2.5 UJ	2.5 UJ	2.5 U	2.5 UJ	2.5 UJ	2.5 UJ	2.5 U	2.5 UJ	2.5 UJ	2.5 UJ	2.5 U	2.5 U	2.5 UJ	2.5 U	2.5 U
Chloroform	250 U	100 U	2.5 U	2.5 U	2.5 U	1 J	1.8 J	1.1 J	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
Chloromethane	250 U	100 UJ	2.5 U	2.5 UJ	2.5 UJ	2.5 U	2.5 U	2.5 UJ	2.5 U	2.5 U	2.5 U	2.5 UJ	2.5 UJ	2.5 UJ	2.5 UJ	2.5 UJ	2.5 UJ
Dibromochloromethane	50 U	20 U	0.5 U	0.50 U	0.50 U	2	2.3	1.6	0.5 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
Dibromomethane (Methylene Bromide)	500 U	200 U	5 UJ	5.0 UJ	5.0 UJ	5 UJ	5.0 UJ	5.0 UJ	5 U	5.0 UJ	5.0 UJ	5.0 UJ	5.0 UJ	5.0 UJ	5.0 U	5.0 U	5.0 U
Dichlorodifluoromethane	500 U	200 U	5 U	5.0 UJ	5.0 UJ	5 U	5.0 U	5.0 UJ	5 U	5.0 U	5.0 U	5.0 UJ	5.0 UJ	5.0 UJ	5.0 U	5.0 U	5.0 UJ
Ethylbenzene	250 U	100 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	2.5 U	2.5 U
Hexachlorobutadiene	250 U	100 UJ	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	2.5 U
Isopropylbenzene (Cumene)	250 U	100 UJ	1.2 J	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 Ethyl Ketone (2-Butanone)	500 U	200 U	5 UJ	5.0 UJ	5.0 UJ	5 UJ	5.0 UJ	5.0 UJ	5 UJ	5.0 UJ	5.0 UJ	5.0 UJ	5.0 UJ	5.0 UJ	5.0 U	5.0 U	5.0 U
Methyl Isobutyl Ketone (4-Methyl-2-Pentanone)	500 U	200 U	5 UJ	5.0 U	5.0 UJ	5 UJ	5.0 U	5.0 UJ	5 U	5.0 U	5.0 U	5.0 UJ	5.0 UJ	5.0 UJ	5.0 U	5.0 U	5.0 U
Methyl tert-butyl Ether	250 U	100 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	2.5 U	2.5 U
Methylene Chloride	250 U	100 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	2.5 U	2.5 U
Naphthalene	250 U	100 U	0.79 J	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 UJ	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
n-Propylbenzene	250 U	100 UJ	4.2	1.7 J	2.5 U	2.5 U	2.5 U	2.5 UJ	2.5 U	2.5 U	2.5 U	2.5 UJ	2.5 UJ	2.5 U	2.5 U	2.5 U	2.5 U
p-Isopropyltoluene	250 U	100 UJ	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	2.5 U
Styrene	250 U	100 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	2.5 U	2.5 U
Tetrachloroethene	50 U	20 U	0.5 U	0.50 U	0.50 U	0.5 U	0.50 U	0.50 U	0.29 J	0.29 J	0.30 J	0.48 J	0.48 J	0.26 J	0.31 J	0.33 J	0.40 J
Toluene	250 U	100 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	2.5 U	2.5 U
Trichloroethene	50 U	710	45	43	13	14	18	0.50 U	40	26	24	22	22	33	28	28	23
Trichlorofluoromethane	250 U	100 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	2.5 U	2.5 U
Vinyl Acetate	500 U	200 U	5 U	5.0 U	5.0 U	5 U	5.0 U	5.0 U	5 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 UJ	5.0 U	5.0 U	5.0 UJ
Vinyl Chloride	1200	340	4.4	3.6	6.4	1 U	1.0 U	1.0 U	1 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 UJ	1.0 U	1.0 U	1.0 U
Xylene, m- & p-	250 U	100 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	2.5 U	2.5 U
Xylene, o-	250 U	100 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	2.5 U	2.5 U
Xylenes, Total	250 U	100 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	2.5 U	2.5 U
Total CBTEX	250 U	13	1.7 J	2.5 U	0.71	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
Total CVOC	11222	7921	67 J	72.88 J	30.61 J	17	32.1 J	4.1 J	48 J	29.49 J	27.7 J	27.08 J	27.08 J	42.46	34.11	34.13	33 J
Total VOC	21222	14734	99.54	75.34 J	32.07 J	26.1	33.09 J	4.99 J	55.49	29.49 J	27.7 J	27.08 J	27.08 J	51.66	39.91	39.93	33 J

Table 2-1a. Historical Groundwater Data: Volatile Organic Compounds

Essex-Hope Site, Jamestown, New York

Location ID	MW-108S	MW-108S	MW-108S	MW-109D	MW-109D	MW-109D	MW-109D	MW-109D	MW-109D	MW-109D	MW-109D	MW-109S	MW-110D	MW-110D	MW-110D	MW-110D	MW-110D	MW-110D
Sample Depth (feet bgs)	7-17	7-17	7-17	28-38	28-38	28-38	28-38	28-38	28-38	28-38	28-38	7-12	28-38	28-38	28-38	28-38	28-38	28-38
Sample Date	10/28/2020	10/5/2021	10/5/2022	10/17/2017	3/19/2018	11/14/2018	11/5/2019	10/28/2020	10/5/2021	10/4/2022	3/16/2017	11/2/2016	3/14/2017	10/19/2017	3/20/2018	11/15/2018	11/5/2019	
Shallow or Deep WBZ	Shallow	Shallow	Shallow	Deep	Deep	Deep	Deep	Deep	Deep	Deep	Shallow	Deep	Deep	Deep	Deep	Deep	Deep	Deep
Onsite/Offsite	OU-03	OU-03	OU-03	OU-03	OU-03	OU-03	OU-03	OU-03	OU-03	OU-03	OU-03	OU-03	OU-03	OU-03	OU-03	OU-03	OU-03	OU-03
Sample Type	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
Analyte																		
1,1,1,2-Tetrachloroethane	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	1200 U	5000 U	2500 U	2500 U	2500 U	2500 U
1,1,1-Trichloroethane	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	1200 U	5000 U	2500 U	2500 U	2500 U	2500 U
1,1,2,2-Tetrachloroethane	0.5 UJ	0.5 U	0.50 U	0.50 U	0.50 U	0.50 UJ	0.50 UJ	0.5 UJ	0.5 U	0.50 U	0.50 U	0.50 U	250 U	1000 U	500 UJ	500 U	500 UJ	500 UJ
1,1,2-Trichloroethane	1.5 U	1.5 U	1.5 U	1.5 UJ	1.5 U	1.5 U	1.5 U	1.5 U	1.5 U	1.5 U	1.5 U	1.5 UJ	750 U	3000 UJ	1500 UJ	1500 U	1500 U	1500 U
1,1-Dichloroethane	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	1200 U	5000 U	2500 U	2500 U	2500 U	2500 U
1,1-Dichloroethene	0.5 U	0.5 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.5 U	0.5 U	0.50 U	0.50 U	0.50 U	130 J	1000 U	500 U	500 U	170 J	500 U
1,1-Dichloropropene	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	1200 U	5000 U	2500 U	2500 U	2500 U	2500 U
1,2,3-Trichlorobenzene	2.5 UJ	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 UJ	2.5 U	2.5 U	2.5 U	2.5 U	1200 U	5000 U	2500 U	2500 U	2500 U	2500 U
1,2,3-Trichloropropane	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	1200 U	5000 U	2500 UJ	2500 U	2500 U	2500 U
1,2,4-Trichlorobenzene	2.5 UJ	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 UJ	2.5 U	2.5 U	2.5 U	2.5 U	1200 U	5000 U	2500 U	2500 U	2500 U	2500 U
1,2,4-Trimethylbenzene	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	1200 U	5000 U	2500 U	2500 U	2500 U	2500 U
1,2-Dibromo-3-Chloropropane	2.5 UJ	2.5 U	2.5 U	2.5 UJ	2.5 UJ	2.5 UJ	2.5 U	2.5 UJ	2.5 U	2.5 U	2.5 U	2.5 U	1200 U	5000 U	2500 UJ	2500 UJ	2500 UJ	2500 U
1,2-Dibromoethane (Ethylene Dibromide)	2 U	2 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2 U	2 U	2.0 U	2.0 U	2.0 U	1000 U	4000 U	2000 U	2000 U	2000 U	2000 U
1,2-Dichlorobenzene	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	1200 U	5000 U	2500 U	2500 U	2500 U	2500 U
1,2-Dichloroethane	0.5 U	0.5 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.5 U	0.5 U	0.50 U	0.50 U	0.50 U	250 U	1000 U	500 U	500 U	500 U	500 U
1,2-Dichloroethene, cis-	6.4	7.3	16	0.99 J	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 UJ	2.5 U	2.5 U	27000	23000	30000	24000	26000	26000
1,2-Dichloroethene, Total	6.4	7.3	16	0.99 J	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	27000	23000	30000	24000	26000	26000
1,2-Dichloroethene, trans-	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	1200 U	5000 U	2500 U	2500 U	2500 U	2500 U
1,2-Dichloropropane	1 U	1 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1 U	1 U	1.0 U	1.0 U	1.0 U	500 U	2000 U	1000 U	1000 U	1000 U	1000 U
1,3,5-Trimethylbenzene (Mesitylene)	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	1200 U	5000 U	2500 U	2500 U	2500 U	2500 U
1,3-Dichlorobenzene	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	1200 U	5000 U	2500 U	2500 U	2500 U	2500 U
1,3-Dichloropropane	2.5 U	2.5 U	2.5 U	2.5 UJ	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	1200 U	5000 U	2500 UJ	2500 U	2500 U	2500 U
1,3-Dichloropropene, cis-	0.5 U	0.5 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.5 U	0.5 U	0.50 U	0.50 U	0.50 U	250 U	1000 U	500 U	500 U	500 U	500 U
1,3-Dichloropropene, Total	0.5 U	0.5 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.5 U	0.5 U	0.50 U	0.50 U	0.50 U	250 U	1000 U	500 U	500 U	500 U	500 U
1,3-Dichloropropene, trans-	0.5 U	0.5 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.5 U	0.5 U	0.50 U	0.50 U	0.50 U	250 U	1000 U	500 U	500 U	500 U	500 U
1,4-Dichlorobenzene	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	1200 U	5000 U	2500 U	2500 U	2500 U	2500 U
1,4-Dioxane (p-Dioxane)	250 U	250 U	250 U	250 UJ	250 UJ	--	250 U	250 U	250 U	250 U	250 U	250 U	120000 UJ	500000 U	250000 U	250000 UJ	250000 UJ	250000 U
2,2-Dichloropropane	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	1200 U	5000 U	2500 U	2500 U	2500 U	2500 U
2-Chlorotoluene	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	1200 U	5000 U	2500 UJ	2500 U	2500 U	2500 U
2-Hexanone	5 U	5 U	5.0 U	5.0 UJ	5.0 U	5.0 U	5.0 U	5 U	5 U	5.0 U	5.0 UJ	5.0 UJ	2500 U	10000 UJ	5000 UJ	5000 U	5000 U	5000 U
4-Chlorotoluene	2.5 U	2.5 U	2.5 U	2.5 UJ	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	1200 U	5000 U	2500 UJ	2500 U	2500 U	2500 U
Acetone	5 UJ	5 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5 UJ	5 U	5.0 U	5.0 UJ	5.0 UJ	2500 U	10000 UJ	5000 UJ	5000 U	5000 U	5000 U
Benzene	0.5 U	0.5 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.5 U	0.5 U	0.50 U	0.50 U	0.50 U	250 U	1000 U	500 U	500 U	500 U	500 U
Bromobenzene	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	1200 U	5000 U	2500 U	2500 U	2500 U	2500 U
Bromodichloromethane	0.5 U	0.5 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.5 U	0.5 U	0.50 U	0.50 U	0.50 U	250 U	1000 U	500 U	500 U	500 U	500 U
Bromoform	2 U	2 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2 U	2 U	2.0 U	2.0 U	2.0 U	1000 U	4000 U	2000 U	2000 U	2000 U	2000 U
Bromomethane	2.5 UJ	2.5 U	2.5 U	2.5 UJ	2.5 UJ	2.5 U	2.5 UJ	2.5 UJ	2.5 U	2.5 U	2.5 UJ	2.5 UJ	1200 U	5000 UJ	2500 UJ	2500 UJ	2500 U	2500 UJ
Butylbenzene, n-	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	1200 U	5000 U	2500 U	2500 U	2500 U	2500 U
Butylbenzene, sec-	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	1200 U	5000 U	2500 U	2500 U	2500 U	2500 U
Butylbenzene, t-	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 UJ	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	1200 U	5000 U	2500 U	2500 U	2500 U	2500 U
Carbon Disulfide	5 U	5 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5 U	5 U	5.0 U	5.0 UJ	5.0 UJ	2500 U	10000 UJ	5000 U	5000 U	5000 U	5000 U

Table 2-1a. Historical Groundwater Data: Volatile Organic Compounds

Essex-Hope Site, Jamestown, New York

Location ID	MW-108S	MW-108S	MW-108S	MW-109D	MW-109D	MW-109D	MW-109D	MW-109D	MW-109D	MW-109D	MW-109S	MW-110D	MW-110D	MW-110D	MW-110D	MW-110D	MW-110D
Sample Depth (feet bgs)	7-17	7-17	7-17	28-38	28-38	28-38	28-38	28-38	28-38	28-38	28-38	7-12	28-38	28-38	28-38	28-38	28-38
Sample Date	10/28/2020	10/5/2021	10/5/2022	10/17/2017	3/19/2018	11/14/2018	11/5/2019	10/28/2020	10/5/2021	10/4/2022	3/16/2017	11/2/2016	3/14/2017	10/19/2017	3/20/2018	11/15/2018	11/5/2019
Shallow or Deep WBZ	Shallow	Shallow	Shallow	Deep	Deep	Deep	Deep	Deep	Deep	Deep	Shallow	Deep	Deep	Deep	Deep	Deep	Deep
Onsite/Offsite	OU-03	OU-03	OU-03	OU-03	OU-03	OU-03	OU-03	OU-03	OU-03	OU-03	OU-03	OU-03	OU-03	OU-03	OU-03	OU-03	OU-03
Sample Type	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
Analyte																	
Carbon Tetrachloride	0.5 U	0.5 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.5 U	0.5 U	0.50 U	0.50 U	250 U	1000 U	500 U	500 U	500 U	500 U
Chlorobenzene	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	1200 U	5000 U	2500 U	2500 U	2500 U	2500 U
Chlorobromomethane	2.5 U	2.5 U	2.5 U	2.5 UJ	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 UJ	1200 UJ	5000 UJ	2500 UJ	2500 U	2500 U	2500 U
Chloroethane	2.5 UJ	2.5 U	2.5 U	2.5 U	2.5 UJ	2.5 U	2.5 U	2.5 UJ	2.5 U	2.5 U	2.5 UJ	1200 UJ	5000 UJ	2500 U	2500 UJ	2500 U	2500 U
Chloroform	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	1200 U	5000 U	2500 U	2500 U	2500 U	2500 U
Chloromethane	2.5 U	2.5 U	2.5 UJ	2.5 UJ	2.5 UJ	2.5 UJ	2.5 UJ	2.5 U	2.5 U	2.5 UJ	2.5 U	1200 U	5000 U	2500 UJ	2500 UJ	2500 UJ	2500 UJ
Dibromochloromethane	0.5 U	0.5 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.5 U	0.5 U	0.50 U	0.50 U	250 U	1000 U	500 U	500 U	500 U	500 U
Dibromomethane (Methylene Bromide)	5 U	5 U	5.0 U	5.0 UJ	5.0 U	5.0 U	5.0 U	5 U	5 U	5.0 U	5.0 UJ	2500 UJ	10000 UJ	5000 UJ	5000 U	5000 U	5000 U
Dichlorodifluoromethane	5 U	5 U	5.0 U	5.0 UJ	5.0 U	5.0 U	5.0 UJ	5 U	5 U	5.0 U	5.0 U	2500 U	10000 U	5000 UJ	5000 U	5000 U	5000 UJ
Ethylbenzene	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	1200 U	5000 U	2500 U	2500 U	2500 U	2500 U
Hexachlorobutadiene	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	1200 U	5000 U	2500 U	2500 U	2500 U	2500 U
Isopropylbenzene (Cumene)	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	1200 U	5000 U	2500 U	2500 U	2500 U	2500 U
Methyl Ethyl Ketone (2-Butanone)	5 UJ	5 U	5.0 U	5.0 UJ	5.0 U	5.0 U	5.0 U	5 UJ	5 U	5.0 U	5.0 UJ	2500 UJ	10000 UJ	5000 UJ	5000 U	5000 U	5000 U
Methyl Isobutyl Ketone (4-Methyl-2-Pentanone)	5 U	5 U	5.0 U	5.0 UJ	5.0 U	5.0 U	5.0 U	5 U	5 U	5.0 U	5.0 U	2500 U	10000 U	5000 UJ	5000 U	5000 U	5000 U
Methyl tert-butyl Ether	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	1200 U	5000 U	2500 U	2500 U	2500 U	2500 U
Methylene Chloride	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	1200 U	5000 U	2500 U	2500 U	2500 U	2500 U
Naphthalene	2.5 UJ	2.5 U	2.5 U	2.5 U	2.5 U	2.5 UJ	2.5 U	2.5 UJ	2.5 U	2.5 U	2.5 UJ	1200 U	5000 UJ	2500 U	2500 U	2500 U	2500 U
n-Propylbenzene	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	1200 U	5000 U	2500 UJ	2500 U	2500 U	2500 U
p-Isopropyltoluene	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	1200 U	5000 U	2500 U	2500 U	2500 U	2500 U
Styrene	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	1200 U	5000 U	2500 U	2500 U	2500 U	2500 U
Tetrachloroethene	0.38 J	0.5	0.27 J	0.50 U	0.50 U	0.50 U	0.50 U	0.5 U	0.5 U	0.50 U	0.26 J	250 U	1000 U	500 U	500 U	500 U	500 U
Toluene	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	1200 U	5000 U	2500 U	2500 U	2500 U	2500 U
Trichloroethene	17 J	150	200	0.40 J	0.50 U	0.50 U	0.50 U	0.5 UJ	0.5 U	0.50 UJ	0.50 U	64000	120000	78000	120000	140000	120000
Trichlorofluoromethane	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	1200 U	5000 U	2500 U	2500 U	2500 U	2500 U
Vinyl Acetate	5 U	5 U	5.0 U	5.0 U	5.0 UJ	5.0 U	5.0 UJ	5 U	5 U	5.0 U	5.0 U	2500 U	10000 U	5000 U	5000 UJ	5000 U	5000 UJ
Vinyl Chloride	1 U	1 U	1.0 U	0.15 J	1.0 UJ	1.0 U	1.0 U	1 U	1 U	1.0 U	1.0 U	600	430 J	500 J	350 J	440 J	390 J
Xylene, m- & p-	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	1200 U	5000 U	2500 U	2500 U	2500 U	2500 U
Xylene, o-	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	1200 U	5000 U	2500 U	2500 U	2500 U	2500 U
Xylenes, Total	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	1200 U	5000 U	2500 U	2500 U	2500 U	2500 U
Total CBTEX	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	1200 U	5000 U	2500 U	2500 U	2500 U	2500 U
Total CVOC	23.78 J	157.8	216.27	1.54 J	1.0 UJ	1.0 U	1.0 U	1 U	1 U	1.0 U	0.26 J	92000 J	143430 J	108500 J	144350	166610	150000 J
Total VOC	30.18	165.1	232.27	1.54 J	5.0 U	5.0 U	5.0 U	5 U	5 U	5.0 U	0.26 J	118730	143430 J	108500 J	168350	192610	150000 J

Table 2-1a. Historical Groundwater Data: Volatile Organic Compounds

Essex-Hope Site, Jamestown, New York

Location ID	MW-110D	MW-110D	MW-110D	MW-111D	MW-111D	MW-111D	MW-112S	MW-112S	MW-112S	MW-112S	MW-112S	MW-112S	MW-113D	MW-113D	MW-114S	MW-114S	MW-114S	MW-115D
Sample Depth (feet bgs)	28-38	28-38	28-38	32-42	32-42	32-42	6-16	6-16	6-16	6-16	6-16	6-16	29-39	29-39	8-13	8-13	8-13	35-40
Sample Date	10/29/2020	10/5/2021	10/5/2022	11/3/2016	3/14/2017	10/18/2017	11/3/2016	11/3/2016	3/15/2017	10/18/2017	9/17/2019	11/3/2016	3/15/2017	11/3/2016	3/15/2017	10/18/2017	11/3/2016	
Shallow or Deep WBZ	Deep	Deep	Deep	Deep	Deep	Deep	Shallow	Shallow	Shallow	Shallow	Shallow	Shallow	Deep	Deep	Shallow	Shallow	Shallow	Deep
Onsite/Offsite	OU-03	OU-03	OU-03	OU-01	OU-01	OU-01	OU-01	OU-01	OU-01	OU-01	OU-01	OU-01	OU-01	OU-01	OU-01	OU-01	OU-01	OU-01
Sample Type	N	N	N	N	N	N	N	FD	N	N	N	N	N	N	N	N	N	N
Analyte																		
1,1,1,2-Tetrachloroethane	620 U	1000 U	1000 U	2.5 U	2.5 U	2.5 U	25 U	25 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
1,1,1-Trichloroethane	620 U	1000 U	1000 U	2.5 U	2.5 U	2.5 U	25 U	25 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
1,1,2,2-Tetrachloroethane	120 U	200 U	200 U	0.5 U	0.50 U	0.50 U	5 U	5 U	0.50 U	0.50 U	0.50 U	0.50 U	0.5 U	0.50 U	0.5 U	0.50 U	0.50 U	0.5 U
1,1,2-Trichloroethane	380 U	600 U	600 U	1.5 U	1.5 UJ	1.5 UJ	15 U	15 U	1.5 UJ	1.5 UJ	1.5 U	1.5 U	1.5 UJ	1.5 U	1.5 UJ	1.5 UJ	1.5 UJ	1.5 U
1,1-Dichloroethane	620 U	1000 U	1000 U	2.5 U	2.5 U	2.5 U	25 U	25 U	2.5 U	2.5 U	2.5 U	2.5 U	0.95 J	0.76 J	2.5 U	2.5 U	2.5 U	2.5 U
1,1-Dichloroethene	120	280	190 J	0.5 U	0.50 U	0.50 U	5 U	5 U	0.50 U	0.50 U	0.50 U	0.50 U	0.5 U	0.50 U	0.5 U	0.50 U	0.50 U	0.5 U
1,1-Dichloropropene	620 U	1000 U	1000 U	2.5 U	2.5 U	2.5 U	25 U	25 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
1,2,3-Trichlorobenzene	620 UJ	1000 U	1000 U	2.5 U	2.5 U	2.5 U	25 U	25 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
1,2,3-Trichloropropane	620 U	1000 U	1000 U	2.5 U	2.5 U	2.5 U	25 U	25 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
1,2,4-Trichlorobenzene	620 UJ	1000 U	1000 U	2.5 U	2.5 U	2.5 U	25 U	25 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
1,2,4-Trimethylbenzene	620 U	1000 U	1000 U	2.5 U	2.5 U	2.5 U	270	220	8.9	1.4 J	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
1,2-Dibromo-3-Chloropropane	620 UJ	1000 U	1000 U	2.5 U	2.5 U	2.5 UJ	25 U	25 U	2.5 U	2.5 UJ	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 UJ	2.5 U
1,2-Dibromoethane (Ethylene Dibromide)	500 U	800 U	800 U	2 U	2.0 U	2.0 U	20 U	20 U	2.0 U	2.0 U	2.0 U	2.0 U	2 U	2.0 U	2 U	2.0 U	2.0 U	2 U
1,2-Dichlorobenzene	620 U	1000 U	1000 U	2.5 U	2.5 U	2.5 U	25 U	25 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
1,2-Dichloroethane	120 U	200 U	200 U	0.48 J	0.42 J	0.35 J	5 U	5 U	0.50 U	0.50 UJ	0.50 U	0.29 J	0.25 J	0.5 U	0.50 U	0.50 UJ	0.5 U	
1,2-Dichloroethene, cis-	27000	48000	36000	2.2 J	1.7 J	1.1 J	25 U	25 U	2.5 U	2.5 U	2.5 U	0.89 J	0.77 J	2.5 U	2.5 U	2.5 U	2.5 U	
1,2-Dichloroethene, Total	27000	48000	36000	2.2 J	1.7 J	1.1 J	25 U	25 U	2.5 U	2.5 U	2.5 U	0.89 J	0.77 J	2.5 U	2.5 U	2.5 U	2.5 U	
1,2-Dichloroethene, trans-	620 U	1000 U	1000 U	2.5 U	2.5 U	2.5 U	25 U	25 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
1,2-Dichloropropane	250 U	400 U	400 U	1 U	1.0 U	1.0 U	10 U	10 U	1.0 U	1.0 U	1.0 U	1.0 U	1 U	1.0 U	1 U	1.0 U	1.0 U	1 U
1,3,5-Trimethylbenzene (Mesitylene)	620 U	1000 U	1000 U	2.5 U	2.5 U	2.5 U	42	35	0.74 J	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
1,3-Dichlorobenzene	620 U	1000 U	1000 U	2.5 U	2.5 U	2.5 U	25 U	25 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
1,3-Dichloropropane	620 U	1000 U	1000 U	2.5 U	2.5 U	2.5 UJ	25 U	25 U	2.5 U	2.5 UJ	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 UJ	2.5 U
1,3-Dichloropropene, cis-	120 U	200 U	200 U	0.5 U	0.50 U	0.50 U	5 U	5 U	0.50 U	0.50 U	0.50 U	0.5 U	0.50 U	0.5 U	0.50 U	0.50 U	0.50 U	0.5 U
1,3-Dichloropropene, Total	120 U	200 U	200 U	0.5 U	0.50 U	0.50 U	5 U	5 U	0.50 U	0.50 U	0.50 U	0.5 U	0.50 U	0.5 U	0.50 U	0.50 U	0.50 U	0.5 U
1,3-Dichloropropene, trans-	120 U	200 U	200 U	0.5 U	0.50 U	0.50 U	5 U	5 U	0.50 U	0.50 U	0.50 U	0.5 U	0.50 U	0.5 U	0.50 U	0.50 U	0.50 U	0.5 U
1,4-Dichlorobenzene	620 U	1000 U	1000 U	2.5 U	2.5 U	2.5 U	25 U	25 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
1,4-Dioxane (p-Dioxane)	62000 UJ	100000 U	100000 U	250 UJ	250 U	250 U	2500 UJ	2500 UJ	250 U	250 U	250 U	250 UJ	250 U	250 UJ	250 UJ	250 UJ	250 U	250 UJ
2,2-Dichloropropane	620 U	1000 U	1000 U	2.5 U	2.5 U	2.5 U	25 U	25 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-Chlorotoluene	620 U	1000 U	1000 U	2.5 U	2.5 U	2.5 UJ	25 U	25 U	2.5 U	2.5 UJ	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 UJ	2.5 U
2-Hexanone	1200 UJ	2000 U	2000 U	5 UJ	5.0 U	5.0 UJ	50 UJ	50 UJ	5.0 UJ	5.0 UJ	5.0 U	5 UJ	5.0 U	5 UJ	5.0 UJ	5.0 UJ	5.0 UJ	5 UJ
4-Chlorotoluene	620 U	1000 U	1000 U	2.5 U	2.5 U	2.5 UJ	25 U	25 U	2.5 U	2.5 UJ	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 UJ	2.5 U
Acetone	360 J	2000 U	2000 U	5 U	5.0 UJ	5.0 UJ	50 U	50 U	5.0 UJ	5.0 UJ	5.0 U	5 U	5.0 UJ	5 U	5.0 UJ	5.0 UJ	5.0 UJ	5 U
Benzene	120 U	78 J	140 J	5.6	6	2	5 U	5 U	1.1	0.30 J	0.36 J	7.3	6.4	0.5 U	0.29 J	0.50 U	0.5 U	
Bromobenzene	620 U	1000 U	1000 U	2.5 U	2.5 U	2.5 U	25 U	25 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
Bromodichloromethane	120 U	200 U	200 U	0.5 U	0.50 U	0.50 U	5 U	5 U	0.50 U	0.50 U	0.50 U	0.5 U	0.50 U	0.5 U	0.50 U	0.50 U	0.50 U	0.5 U
Bromoform	500 U	800 U	800 U	2 U	2.0 U	2.0 U	20 U	20 U	2.0 U	2.0 U	2.0 U	2 U	2.0 U	2 U	2.0 U	2.0 U	2.0 U	2 U
Bromomethane	620 UJ	1000 U	1000 U	2.5 U	2.5 UJ	2.5 UJ	25 U	25 U	2.5 UJ	2.5 UJ	2.5 UJ	2.5 U	2.5 UJ	2.5 U	2.5 UJ	2.5 UJ	2.5 UJ	2.5 U
Butylbenzene, n-	620 U	1000 U	1000 U	2.5 U	2.5 U	2.5 U	25 U	25 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
Butylbenzene, sec-	620 U	1000 U	1000 U	2.5 U	2.5 U	2.5 U	15 J	14 J	13	4.3	1.4 J	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Butylbenzene, t-	620 U	1000 U	1000 U	2.5 U	2.5 U	2.5 U	25 U	25 U	2.2 J	1.3 J	1.8 J	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Carbon Disulfide	1200 U	2000 U	2000 U	5 U	5.0 UJ	5.0 U	50 U	50 U	5.0 UJ	5.0 U	5.0 U	5 U	5.0 UJ	5 U	5.0 UJ	5.0 U	5.0 U	5 U

Table 2-1a. Historical Groundwater Data: Volatile Organic Compounds

Essex-Hope Site, Jamestown, New York

Location ID	MW-110D	MW-110D	MW-110D	MW-111D	MW-111D	MW-111D	MW-112S	MW-112S	MW-112S	MW-112S	MW-112S	MW-112S	MW-113D	MW-113D	MW-114S	MW-114S	MW-114S	MW-115D
Sample Depth (feet bgs)	28-38	28-38	28-38	32-42	32-42	32-42	6-16	6-16	6-16	6-16	6-16	6-16	29-39	29-39	8-13	8-13	8-13	35-40
Sample Date	10/29/2020	10/5/2021	10/5/2022	11/3/2016	3/14/2017	10/18/2017	11/3/2016	11/3/2016	3/15/2017	10/18/2017	9/17/2019	11/3/2016	3/15/2017	11/3/2016	3/15/2017	10/18/2017	11/3/2016	
Shallow or Deep WBZ	Deep	Deep	Deep	Deep	Deep	Deep	Shallow	Shallow	Shallow	Shallow	Shallow	Shallow	Deep	Deep	Shallow	Shallow	Shallow	Deep
Onsite/Offsite	OU-03	OU-03	OU-03	OU-01	OU-01	OU-01	OU-01	OU-01	OU-01	OU-01	OU-01	OU-01	OU-01	OU-01	OU-01	OU-01	OU-01	OU-01
Sample Type	N	N	N	N	N	N	N	FD	N	N	N	N	N	N	N	N	N	N
Analyte																		
Carbon Tetrachloride	120 U	200 U	200 U	0.5 U	0.50 U	0.50 U	5 U	5 U	0.50 U	0.50 U	0.50 U	0.5 U	0.50 U	0.5 U	0.50 U	0.50 U	0.5 U	0.5 U
Chlorobenzene	620 U	1000 U	1000 U	2.5 U	2.5 U	2.5 U	25 U	25 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
Chlorobromomethane	620 U	1000 U	1000 U	2.5 UJ	2.5 UJ	2.5 UJ	25 UJ	25 UJ	2.5 UJ	2.5 UJ	2.5 U	2.5 UJ	2.5 UJ	2.5 UJ	2.5 UJ	2.5 UJ	2.5 UJ	2.5 UJ
Chloroethane	620 UJ	1000 U	1000 U	2.5 UJ	2.5 UJ	2.5 U	25 UJ	25 UJ	2.5 UJ	2.5 U	2.5 U	2.5 UJ	2.5 UJ	2.5 UJ	2.5 UJ	2.5 UJ	2.5 U	2.5 UJ
Chloroform	620 U	1000 U	1000 U	2.5 U	2.5 U	2.5 U	25 U	25 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
Chloromethane	620 U	1000 U	1000 U	2.5 U	2.5 U	2.5 UJ	25 U	25 U	2.5 U	2.5 UJ	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 UJ	2.5 U
Dibromochloromethane	120 U	200 U	200 U	0.5 U	0.50 U	0.50 U	5 U	5 U	0.50 U	0.50 U	0.50 U	0.5 U	0.50 U	0.5 U	0.50 U	0.50 U	0.50 U	0.5 U
Dibromomethane (Methylene Bromide)	1200 U	2000 U	2000 U	5 UJ	5.0 UJ	5.0 UJ	50 UJ	50 UJ	5.0 UJ	5.0 UJ	5.0 U	5 UJ	5.0 UJ	5 UJ	5.0 UJ	5.0 UJ	5.0 UJ	5 UJ
Dichlorodifluoromethane	1200 U	2000 U	2000 U	5 U	5.0 U	5.0 UJ	50 U	50 U	5.0 U	5.0 UJ	5.0 U	5 U	5.0 U	5 U	5.0 U	5.0 UJ	5.0 UJ	5 U
Ethylbenzene	620 U	1000 U	1000 U	2.5 U	2.5 U	2.5 U	1100	940	28	2.5 U	2.5 U	0.96 J	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Hexachlorobutadiene	620 U	1000 U	1000 U	2.5 U	2.5 U	2.5 U	25 U	25 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
Isopropylbenzene (Cumene)	620 U	1000 U	1000 U	2.5 U	2.5 U	2.5 U	120	110	29	12	1.6 J	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Methyl Ethyl Ketone (2-Butanone)	1200 U	2000 U	2000 U	5 UJ	5.0 UJ	5.0 UJ	50 UJ	50 UJ	5.0 UJ	5.0 UJ	5.0 U	5 UJ	5.0 UJ	5 UJ	5.0 UJ	5.0 UJ	5.0 UJ	5 UJ
Methyl Isobutyl Ketone (4-Methyl-2-Pentanone)	1200 U	2000 U	2000 U	5 U	5.0 U	5.0 UJ	50 U	50 U	5.0 U	5.0 UJ	5.0 U	5 U	5.0 U	5 U	5.0 U	5.0 UJ	5.0 UJ	5 U
Methyl tert-butyl Ether	620 U	1000 U	1000 U	2.5 U	2.5 U	2.5 U	25 U	25 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
Methylene Chloride	620 U	1000 U	1000 U	2.5 U	2.5 U	2.5 U	25 U	25 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
Naphthalene	620 UJ	1000 U	1000 U	2.5 U	2.5 U	2.5 U	220	200	8.6 J	1.9 J	2.4 J	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
n-Propylbenzene	620 U	1000 U	1000 U	2.5 U	2.5 U	2.5 U	72	62	4.4	2.5	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
p-Isopropyltoluene	620 U	1000 U	1000 U	2.5 U	2.5 U	2.5 U	7.8 J	7.4 J	1.3 J	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
Styrene	620 U	1000 U	1000 U	2.5 U	2.5 U	2.5 U	25 U	25 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
Tetrachloroethene	120 U	200 U	200 U	0.5 U	0.50 U	0.50 U	5 U	5 U	0.50 U	0.50 U	0.50 U	0.5 U	0.50 U	0.3 J	0.24 J	0.32 J	0.5 U	0.5 U
Toluene	620 U	1000 U	1000 U	2.5 U	2.5 U	2.5 U	25 U	25 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
Trichloroethene	33000 J	36000	140000 J	0.5 U	0.50 U	0.50 U	5 U	5 U	0.50 U	0.65	0.45 J	0.5 U	0.50 U	0.5 U	0.23 J	0.50 U	0.5 U	0.5 U
Trichlorofluoromethane	620 U	1000 U	1000 U	2.5 U	2.5 U	2.5 U	25 U	25 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
Vinyl Acetate	1200 U	2000 U	2000 U	5 U	5.0 U	5.0 U	50 U	50 U	5.0 U	5.0 U	5.0 U	5 U	5.0 U	5 U	5.0 U	5.0 U	5.0 U	5 U
Vinyl Chloride	580	1100	580	10	11	7.1 J	10 U	10 U	1.0 U	1.0 UJ	0.12 J	3.6	3.4	1 U	1.0 U	1.0 UJ	1 U	1 U
Xylene, m- & p-	620 U	1000 U	1000 U	2.5 U	2.5 U	2.5 U	1700	1400	12	2.5 U	2.5 U	3.4	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Xylene, o-	620 U	1000 U	1000 U	2.5 U	2.5 U	2.5 U	25 U	25 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
Xylenes, Total	620 U	1000 U	1000 U	2.5 U	2.5 U	2.5 U	1700	1400	12	2.5 U	2.5 U	3.4	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Total CBTEX	620 U	78	140	5.6	6	2	2900	2500	70.1	12.3 J	2.0 J	12 J	6.4	2.5 U	0.29 J	2.5 U	2.5 U	2.5 U
Total CVOC	60700 J	85380	176770 J	13 J	13.12 J	8.55 J	25 UJ	25 UJ	5 UJ	0.65	0.57 J	5.7 J	5.18 J	0.30 J	0.47 J	0.32 J	1 U	1 U
Total VOC	88060	133458	212910	20.48	19.12 J	10.55 J	3546.8	2988.4	109.24 J	24.35 J	8.1 J	18.28	11.58 J	0.3	0.76 J	0.32 J	5 U	5 U

Table 2-1a. Historical Groundwater Data: Volatile Organic Compounds

Essex-Hope Site, Jamestown, New York

Location ID	MW-115D	MW-116S	MW-116S	MW-117S	MW-117S	MW-117S	MW-117S	MW-117S	MW-117S	MW-117S	MW-117S	MW-117S	MW-117S	MW-118D	MW-118D	MW-118D	MW-118D	MW-118D
Sample Depth (feet bgs)	35-40	8-13	8-13	6-16	6-16	6-16	6-16	6-16	6-16	6-16	6-16	6-16	6-16	24-34	24-34	24-34	24-34	24-34
Sample Date	3/15/2017	11/3/2016	3/15/2017	11/3/2016	3/15/2017	10/18/2017	11/13/2018	9/18/2019	11/6/2019	10/28/2020	10/6/2021	10/6/2022	10/17/2017	3/21/2018	3/21/2018	11/15/2018	11/6/2019	
Shallow or Deep WBZ	Deep	Shallow	Shallow	Shallow	Shallow	Shallow	Shallow	Shallow	Shallow	Shallow	Shallow	Shallow	Shallow	Deep	Deep	Deep	Deep	Deep
Onsite/Offsite	OU-01	OU-01	OU-01	OU-01	OU-01	OU-01	OU-01	OU-01	OU-01	OU-01	OU-01	OU-01	OU-01	OU-01	OU-01	OU-01	OU-01	OU-01
Sample Type	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	FD	N	N
Analyte																		
1,1,1,2-Tetrachloroethane	2.5 U	2.5 U	2.5 U	25 U	25 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	25 U	5000 U	2500 U	5000 U	5000 U
1,1,1-Trichloroethane	2.5 U	2.5 U	2.5 U	25 U	25 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	25 U	5000 U	2500 U	5000 U	5000 U
1,1,2,2-Tetrachloroethane	0.50 U	0.5 U	0.50 U	5 U	5.0 U	0.50 UJ	0.50 UJ	0.50 U	0.50 U	0.5 UJ	0.5 U	0.50 U	0.50 U	5.0 U	1000 U	500 U	1000 UJ	1000 UJ
1,1,2-Trichloroethane	1.5 UJ	1.5 U	1.5 UJ	15 U	15 UJ	1.5 UJ	1.5 U	1.5 U	1.5 U	1.5 U	1.5 U	1.5 U	1.5 U	15 UJ	3000 U	1500 U	3000 U	3000 U
1,1-Dichloroethane	2.5 U	1.2 J	1.0 J	25 U	25 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	25 U	5000 U	2500 U	5000 U	5000 U
1,1-Dichloroethene	0.50 U	0.5 U	0.50 U	5 U	5.0 U	0.50 U	0.50 U	0.50 U	0.50 U	0.5 U	0.5 U	0.50 U	0.50 U	320	1000 U	300 J	410 J	420 J
1,1-Dichloropropene	2.5 U	2.5 U	2.5 U	25 U	25 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	25 U	5000 U	2500 U	5000 U	5000 U
1,2,3-Trichlorobenzene	2.5 U	2.5 U	2.5 U	25 U	25 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 UJ	2.5 U	2.5 U	2.5 U	25 U	5000 U	2500 U	5000 U	5000 U
1,2,3-Trichloropropane	2.5 U	2.5 U	2.5 U	25 U	25 U	2.5 UJ	2.5 U	2.5 U	2.5 U	2.5 UJ	2.5 U	2.5 U	2.5 U	25 U	5000 U	2500 U	5000 U	5000 U
1,2,4-Trichlorobenzene	2.5 U	2.5 U	2.5 U	25 U	25 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 UJ	2.5 U	2.5 U	2.5 U	25 U	5000 U	2500 U	5000 U	5000 U
1,2,4-Trimethylbenzene	2.5 U	12	1.3 J	80	22 J	1.9 J	2.5 U	3.3	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	25 U	5000 U	2500 U	5000 U	5000 U
1,2-Dibromo-3-Chloropropane	2.5 U	2.5 U	2.5 U	25 U	25 U	2.5 UJ	2.5 UJ	2.5 U	2.5 U	2.5 UJ	2.5 U	2.5 U	2.5 U	25 UJ	5000 UJ	2500 UJ	5000 UJ	5000 U
1,2-Dibromoethane (Ethylene Dibromide)	2.0 U	2 U	2.0 U	20 U	20 U	2.0 U	2.0 U	2.0 U	2.0 U	2 U	2 U	2.0 U	2.0 U	20 U	4000 U	2000 U	4000 U	4000 U
1,2-Dichlorobenzene	2.5 U	2.5 U	2.5 U	25 U	25 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	25 U	5000 U	2500 U	5000 U	5000 U
1,2-Dichloroethane	0.50 U	0.5 U	0.50 U	5 U	5.0 U	0.50 U	0.50 U	0.50 U	0.50 U	0.5 U	0.5 U	0.50 U	0.50 U	1.8 J	1000 U	500 U	1000 U	1000 U
1,2-Dichloroethene, cis-	2.5 U	2.5 U	2.5 U	25 U	25 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	180000	180000	180000	200000	240000
1,2-Dichloroethene, Total	2.5 U	2.5 U	2.5 U	25 U	25 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	180000	180000	180000	200000	240000
1,2-Dichloroethene, trans-	2.5 U	2.5 U	2.5 U	25 U	25 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	5000 U	5000 U	2500 U	5000 U	5000 U
1,2-Dichloropropane	1.0 U	1 U	1.0 U	10 U	10 U	1.0 U	1.0 U	1.0 U	1.0 U	1 U	1 U	1.0 U	1.0 U	10 U	2000 U	1000 U	2000 U	2000 U
1,3,5-Trimethylbenzene (Mesitylene)	2.5 U	4.6	2.5 U	18 J	25 U	2.5 U	2.5 U	0.90 J	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	25 U	5000 U	2500 U	5000 U	5000 U
1,3-Dichlorobenzene	2.5 U	2.5 U	2.5 U	25 U	25 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	25 U	5000 U	2500 U	5000 U	5000 U
1,3-Dichloropropane	2.5 U	2.5 U	2.5 U	25 U	25 U	2.5 UJ	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	25 UJ	5000 U	2500 U	5000 U	5000 U
1,3-Dichloropropene, cis-	0.50 U	0.5 U	0.50 U	5 U	5.0 U	0.50 U	0.50 U	0.50 U	0.50 U	0.5 U	0.5 U	0.50 U	0.50 U	5.0 U	1000 U	500 U	1000 U	1000 U
1,3-Dichloropropene, Total	0.50 U	0.5 U	0.50 U	5 U	5.0 U	0.50 U	0.50 U	0.50 U	0.50 U	0.5 U	0.5 U	0.50 U	0.50 U	5.0 U	1000 U	500 U	1000 U	1000 U
1,3-Dichloropropene, trans-	0.50 U	0.5 U	0.50 U	5 U	5.0 U	0.50 U	0.50 U	0.50 U	0.50 U	0.5 U	0.5 U	0.50 U	0.50 U	5.0 U	1000 U	500 U	1000 U	1000 U
1,4-Dichlorobenzene	2.5 U	2.5 U	2.5 U	25 U	25 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	25 U	5000 U	2500 U	5000 U	5000 U
1,4-Dioxane (p-Dioxane)	250 U	250 UJ	250 U	2500 UJ	2500 U	250 U	--	250 U	250 U	250 U	250 U	250 U	250 U	2500 UJ	500000 UJ	250000 UJ	--	500000 U
2,2-Dichloropropane	2.5 U	2.5 U	2.5 U	25 U	25 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	25 U	5000 U	2500 U	5000 U	5000 U
2-Chlorotoluene	2.5 U	2.5 U	2.5 U	25 U	25 U	2.5 UJ	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	25 UJ	5000 U	2500 U	5000 U	5000 U
2-Hexanone	5.0 U	5 U	5.0 U	50 UJ	50 U	5.0 UJ	5.0 U	5.0 U	5.0 U	5 U	5 U	5.0 U	5.0 U	50 UJ	10000 U	5000 U	10000 U	10000 U
4-Chlorotoluene	2.5 U	2.5 U	2.5 U	25 U	25 U	2.5 UJ	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	25 UJ	5000 U	2500 U	5000 U	5000 U
Acetone	5.0 UJ	5 U	5.0 UJ	50 U	50 UJ	5.0 UJ	5.0 U	5.0 U	2.8 J	5 UJ	5 U	5.0 U	5.0 U	50 UJ	10000 U	5000 U	10000 U	10000 U
Benzene	0.50 U	0.7	0.43 J	6.6	11	0.64	0.50 U	0.43 J	0.50 U	0.5 U	0.5 U	0.50 U	0.50 U	44	1000 U	500 U	1000 U	1000 U
Bromobenzene	2.5 U	2.5 U	2.5 U	25 U	25 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	25 U	5000 U	2500 U	5000 U	5000 U
Bromodichloromethane	0.50 U	0.5 U	0.50 U	5 U	5.0 U	0.50 U	0.50 U	0.50 U	0.50 U	0.5 U	0.5 U	0.50 U	0.50 U	5.0 U	1000 U	500 U	1000 U	1000 U
Bromoform	2.0 U	2 U	2.0 U	20 U	20 U	2.0 U	2.0 U	2.0 U	2.0 U	2 U	2 U	2.0 U	2.0 U	20 U	4000 U	2000 U	4000 U	4000 U
Bromomethane	2.5 UJ	2.5 U	2.5 UJ	25 U	25 UJ	2.5 UJ	2.5 UJ	2.5 UJ	2.5 UJ	2.5 UJ	2.5 U	2.5 U	2.5 U	25 UJ	5000 UJ	2500 UJ	5000 U	5000 UJ
Butylbenzene, n-	2.5 U	2.5 U	2.5 U	25 U	25 U	2.5 U	2.5 U	0.74 J	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	25 U	5000 U	2500 U	5000 U	5000 U
Butylbenzene, sec-	2.5 U	2.5 U	2.5 U	25 U	25 U	1.2 J	2.5 U	1.3 J	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	25 U	5000 U	2500 U	5000 U	5000 U
Butylbenzene, t-	2.5 U	2.5 U	2.5 U	25 U	25 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	25 U	5000 U	2500 U	5000 U	5000 U
Carbon Disulfide	5.0 UJ	5 U	5.0 UJ	50 U	50 UJ	5.0 U	5.0 U	5.0 U	5.0 U	5 U	5 U	5.0 U	5.0 U	50 U	10000 U	5000 U	10000 U	10000 U

Table 2-1a. Historical Groundwater Data: Volatile Organic Compounds

Essex-Hope Site, Jamestown, New York

Location ID	MW-115D	MW-116S	MW-116S	MW-117S	MW-117S	MW-117S	MW-117S	MW-117S	MW-117S	MW-117S	MW-117S	MW-117S	MW-117S	MW-118D	MW-118D	MW-118D	MW-118D	MW-118D
Sample Depth (feet bgs)	35-40	8-13	8-13	6-16	6-16	6-16	6-16	6-16	6-16	6-16	6-16	6-16	6-16	24-34	24-34	24-34	24-34	24-34
Sample Date	3/15/2017	11/3/2016	3/15/2017	11/3/2016	3/15/2017	10/18/2017	11/13/2018	9/18/2019	11/6/2019	10/28/2020	10/6/2021	10/6/2022	10/17/2017	3/21/2018	3/21/2018	11/15/2018	11/6/2019	
Shallow or Deep WBZ	Deep	Shallow	Shallow	Shallow	Shallow	Shallow	Shallow	Shallow	Shallow	Shallow	Shallow	Shallow	Shallow	Deep	Deep	Deep	Deep	Deep
Onsite/Offsite	OU-01	OU-01	OU-01	OU-01	OU-01	OU-01	OU-01	OU-01	OU-01	OU-01	OU-01	OU-01	OU-01	OU-01	OU-01	OU-01	OU-01	OU-01
Sample Type	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	FD	N	N
Analyte																		
Carbon Tetrachloride	0.50 U	0.5 U	0.50 U	5 U	5.0 U	0.50 U	0.50 U	0.50 U	0.50 U	0.5 U	0.5 U	0.50 U	5.0 U	1000 U	500 U	1000 U	1000 U	
Chlorobenzene	2.5 U	2.5 U	2.5 U	25 U	25 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	25 U	5000 U	2500 U	5000 U	5000 U	
Chlorobromomethane	2.5 UJ	2.5 UJ	2.5 UJ	25 UJ	25 UJ	2.5 UJ	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	25 UJ	5000 U	2500 U	5000 U	5000 U	
Chloroethane	2.5 UJ	2.5 UJ	2.5 UJ	25 UJ	25 UJ	2.5 U	2.5 U	2.5 U	2.5 U	2.5 UJ	2.5 U	2.5 U	25 U	5000 UJ	2500 UJ	5000 U	5000 U	
Chloroform	2.5 U	2.5 U	2.5 U	25 U	25 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	25 U	5000 U	2500 U	5000 U	5000 U	
Chloromethane	2.5 U	2.5 U	2.5 U	25 U	25 UJ	2.5 UJ	2.5 UJ	2.5 U	2.5 UJ	2.5 U	2.5 U	2.5 U	25 UJ	5000 UJ	2500 UJ	5000 UJ	5000 UJ	
Dibromochloromethane	0.50 U	0.5 U	0.50 U	5 U	5.0 U	0.50 U	0.50 U	0.50 U	0.50 U	0.5 U	0.5 U	0.50 U	5.0 U	1000 U	500 U	1000 U	1000 U	
Dibromomethane (Methylene Bromide)	5.0 UJ	5 UJ	5.0 UJ	50 UJ	50 UJ	5.0 UJ	5.0 U	5.0 U	5.0 U	5 U	5 U	5.0 U	50 UJ	10000 U	5000 U	10000 U	10000 U	
Dichlorodifluoromethane	5.0 U	5 U	5.0 U	50 U	50 UJ	5.0 UJ	5.0 U	5.0 U	5.0 UJ	5 U	5 U	5.0 U	50 UJ	10000 U	5000 U	10000 U	10000 UJ	
Ethylbenzene	2.5 U	2.5 U	2.5 U	1200	710	51	2.5 U	20	2.5 U	2 J	0.71 J	2.5 U	25 U	5000 U	2500 U	5000 U	5000 U	
Hexachlorobutadiene	2.5 U	2.5 U	2.5 U	25 U	25 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	25 U	5000 U	2500 U	5000 U	5000 U	
Isopropylbenzene (Cumene)	2.5 U	2.5	2.5 U	95	59	13	2.5 U	15	2.5 U	12	2.2 J	0.93 J	25 U	5000 U	2500 U	5000 U	5000 U	
Methyl Ethyl Ketone (2-Butanone)	5.0 UJ	5 UJ	5.0 UJ	50 UJ	50 UJ	5.0 UJ	5.0 U	5.0 U	5.0 U	5 UJ	5 U	5.0 U	50 UJ	10000 U	5000 U	10000 U	10000 U	
Methyl Isobutyl Ketone (4-Methyl-2-Pentanone)	5.0 U	5 U	5.0 U	50 U	50 U	5.0 UJ	5.0 U	5.0 U	5.0 U	5 U	5 UJ	5.0 U	50 UJ	10000 U	5000 U	10000 U	10000 U	
Methyl tert-butyl Ether	2.5 U	2.5 U	2.5 U	25 U	25 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	25 U	5000 U	2500 U	5000 U	5000 U	
Methylene Chloride	2.5 U	2.5 U	2.5 U	25 U	25 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	25 U	5000 U	2500 U	5000 U	5000 U	
Naphthalene	2.5 U	0.91 J	2.5 U	45	25 U	3.4	2.5 U	3.3	2.5 U	2.5 UJ	2.5 UJ	2.5 U	25 U	5000 U	2500 U	5000 U	5000 U	
n-Propylbenzene	2.5 U	1.4 J	2.5 U	45	22 J	4.1 J	2.5 U	6.2	2.5 U	4.7	2.5 U	2.5 U	25 U	5000 U	2500 U	5000 U	5000 U	
p-Isopropyltoluene	2.5 U	2.5 U	2.5 U	25 U	25 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	25 U	5000 U	2500 U	5000 U	5000 U	
Styrene	2.5 U	2.5 U	2.5 U	25 U	25 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	25 U	5000 U	2500 U	5000 U	5000 U	
Tetrachloroethene	0.50 U	0.5 U	0.50 U	5 U	5.0 U	0.50 U	0.50 U	0.50 U	0.50 U	0.5 U	0.5 U	0.50 U	10	1000 U	500 U	1000 U	1000 U	
Toluene	2.5 U	2.5 U	2.5 U	47	29	3	2.5 U	2.0 J	2.5 U	2.5 U	2.5 U	2.5 U	28	5000 U	2500 U	5000 U	5000 U	
Trichloroethene	0.50 U	0.18 J	0.50 U	5 U	5.0 U	0.51	0.50 U	0.50 U	0.50 U	0.5 UJ	2.5	0.50 U	54000	47000	47000	52000	63000	
Trichlorofluoromethane	2.5 U	2.5 U	2.5 U	25 U	25 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	25 U	5000 U	2500 U	5000 U	5000 U	
Vinyl Acetate	5.0 U	5 U	5.0 U	50 U	50 U	5.0 U	5.0 U	5.0 U	5.0 UJ	5 U	5 U	5.0 U	50 U	10000 UJ	5000 UJ	10000 U	10000 UJ	
Vinyl Chloride	1.0 U	0.56 J	0.37 J	10 U	10 U	1.0 U	1.0 UJ	1.0 U	1.0 U	1 U	1 U	1.0 U	9500	5800 J	5900 J	8800	10000	
Xylene, m- & p-	2.5 U	2.5 U	2.5 U	1700	460	57	2.5 U	120	2.5 U	10	2.5	2.5 U	11 J	5000 U	2500 U	5000 U	5000 U	
Xylene, o-	2.5 U	2.5 U	2.5 U	430	140	63	2.5 U	18	2.5 U	2.5 U	2.5 U	2.5 U	8.8 J	5000 U	2500 U	5000 U	5000 U	
Xylenes, Total	2.5 U	2.5 U	2.5 U	2100	600	120	2.5 U	140	2.5 U	10	2.5	2.5 U	20 J	5000 U	2500 U	5000 U	5000 U	
Total CBTEX	2.5 U	3.2	0.43 J	3500	1409	187.64	2.5 U	180 J	2.5 U	24	5.41	0.93	91.8 J	5000 U	2500 U	5000 U	5000 U	
Total CVOC	1.0 U	1.9 J	1.37 J	25 UJ	50 UJ	0.51	2.5 U	5.0 U	5.0 UJ	1 U	1 U	1.0 U	243831.8 J	232800	233200	261210	310000 J	
Total VOC	5.0 U	24.05	3.1 J	3666.6	1453 J	198.75 J	5.0 U	190 J	2.8 J	28.7	7.91	0.93	243923.6 J	412800	413200	461210	310000 J	

Table 2-1a. Historical Groundwater Data: Volatile Organic Compounds

Essex-Hope Site, Jamestown, New York

Location ID	MW-118D	MW-118D	MW-118D	MW-119D	MW-119D	MW-119D	MW-119D	MW-119D	MW-119D	MW-119D	MW-119D	MW-119D	MW-120D	MW-120D	MW-120D	MW-120D	MW-120D	MW-120D
Sample Depth (feet bgs)	24-34	24-34	24-34	22-32	22-32	22-32	22-32	22-32	22-32	22-32	22-32	22-32	28-38	28-38	28-38	28-38	28-38	28-38
Sample Date	10/29/2020	10/6/2021	10/5/2022	10/16/2017	10/16/2017	3/20/2018	11/14/2018	11/7/2019	10/28/2020	10/6/2021	10/6/2022	10/16/2017	3/19/2018	11/15/2018	11/5/2019	11/5/2019	11/5/2019	10/28/2020
Shallow or Deep WBZ	Deep	Deep	Deep	Deep	Deep	Deep	Deep	Deep	Deep	Deep	Deep	Deep	Deep	Deep	Deep	Deep	Deep	Deep
Onsite/Offsite	OU-01	OU-01	OU-01	OU-03	OU-03	OU-03	OU-03	OU-03	OU-03	OU-03	OU-03	OU-03	OU-03	OU-03	OU-03	OU-03	OU-03	OU-03
Sample Type	N	N	N	N	FD	N	N	N	N	N	N	N	N	N	N	N	FD	N
Analyte																		
1,1,1,2-Tetrachloroethane	5000 U	6200 U	1200 U	100 U	100 U	100 U	120 U	100 U	100 U	120 U	50 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
1,1,1-Trichloroethane	5000 U	6200 U	1200 U	100 U	100 U	100 U	120 U	100 U	100 U	120 U	50 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
1,1,2,2-Tetrachloroethane	1000 U	1200 U	250 U	20 U	20 U	20 U	25 UJ	20 U	20 UJ	25 U	10 U	0.50 U	0.50 U	0.50 UJ	0.50 UJ	0.50 UJ	0.50 UJ	0.5 U
1,1,2-Trichloroethane	3000 U	3800 U	750 U	60 UJ	60 UJ	60 U	75 U	60 U	60 U	75 U	30 U	1.5 UJ	1.5 U	1.5 U	1.5 U	1.5 U	1.5 U	1.5 U
1,1-Dichloroethane	5000 U	6200 U	1200 U	100 U	100 U	100 U	120 U	100 U	100 U	120 U	50 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
1,1-Dichloroethene	460 J	620 J	270	15 J	14 J	12 J	13 J	17 J	9.4 J	14 J	14	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.5 U
1,1-Dichloropropene	5000 U	6200 U	1200 U	100 U	100 U	100 U	120 U	100 U	100 U	120 U	50 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
1,2,3-Trichlorobenzene	5000 U	6200 U	1200 U	100 U	100 U	100 U	120 U	100 U	100 UJ	120 U	50 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
1,2,3-Trichloropropane	5000 U	6200 U	1200 U	100 U	100 U	100 U	120 U	100 UJ	100 U	120 U	50 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
1,2,4-Trichlorobenzene	5000 U	6200 U	1200 U	100 U	100 U	100 U	120 U	100 U	100 UJ	120 U	50 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
1,2,4-Trimethylbenzene	5000 U	6200 U	1200 U	100 U	100 U	100 U	120 U	100 U	100 U	120 U	50 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
1,2-Dibromo-3-Chloropropane	5000 U	6200 U	1200 U	100 UJ	100 UJ	100 UJ	120 UJ	100 U	100 UJ	120 U	50 U	2.5 UJ	2.5 UJ	2.5 UJ	2.5 U	2.5 U	2.5 U	2.5 U
1,2-Dibromoethane (Ethylene Dibromide)	4000 U	5000 U	1000 U	80 U	80 U	80 U	100 U	80 U	80 U	100 U	40 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2 U
1,2-Dichlorobenzene	5000 U	6200 U	1200 U	100 U	100 U	100 U	120 U	100 U	100 U	120 U	50 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
1,2-Dichloroethane	1000 U	1200 U	250 U	20 U	20 U	20 U	25 U	20 U	20 U	25 U	10 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.5 U
1,2-Dichloroethene, cis-	270000	290000	280000	4000	4000	5000	5400	6000	3600	4600	3900	0.90 J	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
1,2-Dichloroethene, Total	270000	290000	280000	4100	4100	5100 J	5500 J	6100	3700	4700	4000	0.90 J	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
1,2-Dichloroethene, trans-	5000 U	6200 U	1200 U	120	110	95 J	97 J	130	120	140	140	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
1,2-Dichloropropane	2000 U	2500 U	500 U	40 U	40 U	40 U	50 U	40 U	40 U	50 U	20 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1 U
1,3,5-Trimethylbenzene (Mesitylene)	5000 U	6200 U	1200 U	100 U	100 U	100 U	120 U	100 U	100 U	120 U	50 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
1,3-Dichlorobenzene	5000 U	6200 U	1200 U	100 U	100 U	100 U	120 U	100 U	100 U	120 U	50 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
1,3-Dichloropropane	5000 U	6200 U	1200 U	100 UJ	100 UJ	100 U	120 U	100 U	100 U	120 U	50 U	2.5 UJ	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
1,3-Dichloropropene, cis-	1000 U	1200 U	250 U	20 U	20 U	20 U	25 U	20 U	20 U	25 U	10 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.5 U
1,3-Dichloropropene, Total	1000 U	1200 U	250 U	20 U	20 U	20 U	25 U	20 U	20 U	25 U	10 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.5 U
1,3-Dichloropropene, trans-	1000 U	1200 U	250 U	20 U	20 U	20 U	25 U	20 U	20 U	25 U	10 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.5 U
1,4-Dichlorobenzene	5000 U	6200 U	1200 U	100 U	100 U	100 U	120 U	100 U	100 U	120 U	50 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
1,4-Dioxane (p-Dioxane)	500000 U	620000 U	120000 U	10000 U	10000 U	10000 UJ	12000 UJ	10000 U	10000 U	12000 U	5000 U	250 U	250 UJ	250 UJ	250 U	250 U	250 U	250 U
2,2-Dichloropropane	5000 U	6200 U	1200 U	100 U	100 U	100 U	120 U	100 U	100 U	120 U	50 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
2-Chlorotoluene	5000 U	6200 U	1200 U	100 UJ	100 UJ	100 U	120 U	100 U	100 U	120 U	50 U	2.5 UJ	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
2-Hexanone	10000 U	12000 U	2500 U	200 UJ	200 UJ	200 U	250 U	200 U	200 U	250 U	100 U	5.0 UJ	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5 U
4-Chlorotoluene	5000 U	6200 U	1200 U	100 UJ	100 UJ	100 U	120 U	100 U	100 U	120 U	50 U	2.5 UJ	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Acetone	10000 U	12000 U	2500 U	200 UJ	200 UJ	200 U	250 U	200 U	200 UJ	250 U	100 U	5.0 UJ	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5 U
Benzene	1000 U	1200 U	250 U	20 U	20 U	20 U	25 U	20 U	20 U	25 U	10 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.5 U
Bromobenzene	5000 U	6200 U	1200 U	100 U	100 U	100 U	120 U	100 U	100 U	120 U	50 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Bromodichloromethane	1000 U	1200 U	250 U	20 U	20 U	20 U	25 U	20 U	20 U	25 U	10 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.5 U
Bromoform	4000 U	5000 U	1000 U	80 U	80 U	80 U	100 U	80 U	80 U	100 U	40 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2 U
Bromomethane	5000 UJ	6200 U	1200 U	100 UJ	100 UJ	100 UJ	120 U	100 UJ	100 UJ	120 U	50 UJ	2.5 UJ	2.5 UJ	2.5 U	2.5 UJ	2.5 UJ	2.5 UJ	2.5 UJ
Butylbenzene, n-	5000 U	6200 U	1200 U	100 U	100 U	100 U	120 U	100 U	100 U	120 U	50 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Butylbenzene, sec-	5000 U	6200 U	1200 U	100 U	100 U	100 U	120 U	100 U	100 U	120 U	50 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Butylbenzene, t-	5000 U	6200 U	1200 U	100 U	100 U	100 U	120 U	100 U	100 U	120 U	50 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Carbon Disulfide	10000 U	12000 U	2500 U	200 U	200 U	200 U	250 U	200 U	200 U	250 U	100 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5 U

Table 2-1a. Historical Groundwater Data: Volatile Organic Compounds

Essex-Hope Site, Jamestown, New York

Location ID	MW-118D	MW-118D	MW-118D	MW-119D	MW-119D	MW-119D	MW-119D	MW-119D	MW-119D	MW-119D	MW-119D	MW-119D	MW-120D	MW-120D	MW-120D	MW-120D	MW-120D	MW-120D
Sample Depth (feet bgs)	24-34	24-34	24-34	22-32	22-32	22-32	22-32	22-32	22-32	22-32	22-32	22-32	28-38	28-38	28-38	28-38	28-38	28-38
Sample Date	10/29/2020	10/6/2021	10/5/2022	10/16/2017	10/16/2017	3/20/2018	11/14/2018	11/7/2019	10/28/2020	10/6/2021	10/6/2022	10/16/2017	3/19/2018	11/15/2018	11/5/2019	11/5/2019	11/5/2019	10/28/2020
Shallow or Deep WBZ	Deep	Deep	Deep	Deep	Deep	Deep	Deep	Deep	Deep	Deep	Deep	Deep	Deep	Deep	Deep	Deep	Deep	Deep
Onsite/Offsite	OU-01	OU-01	OU-01	OU-03	OU-03	OU-03	OU-03	OU-03	OU-03	OU-03	OU-03	OU-03	OU-03	OU-03	OU-03	OU-03	OU-03	OU-03
Sample Type	N	N	N	N	FD	N	N	N	N	N	N	N	N	N	N	N	FD	N
Analyte																		
Carbon Tetrachloride	1000 U	1200 U	250 U	20 U	20 U	20 U	25 U	20 U	20 U	25 U	10 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.5 U
Chlorobenzene	5000 U	6200 U	1200 U	100 U	100 U	100 U	120 U	100 U	100 U	120 U	50 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Chlorobromomethane	5000 U	6200 U	1200 U	100 UJ	100 UJ	100 U	120 U	100 U	100 U	120 U	50 U	2.5 UJ	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Chloroethane	5000 UJ	6200 U	1200 U	100 U	100 U	100 UJ	120 U	100 U	100 UJ	120 U	50 U	2.5 U	2.5 UJ	2.5 U	2.5 U	2.5 U	2.5 U	2.5 UJ
Chloroform	5000 U	6200 U	1200 U	100 U	100 U	100 U	120 U	100 U	100 U	120 U	50 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Chloromethane	5000 U	6200 U	1200 U	100 UJ	100 UJ	100 UJ	120 UJ	100 UJ	100 U	120 U	50 UJ	2.5 UJ	2.5 UJ	2.5 UJ	2.5 UJ	2.5 UJ	2.5 UJ	2.5 U
Dibromochloromethane	1000 U	1200 U	250 U	20 U	20 U	20 U	25 U	20 U	20 U	25 U	10 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.5 U
Dibromomethane (Methylene Bromide)	10000 U	12000 U	2500 U	200 UJ	200 UJ	200 U	250 U	200 U	200 U	250 U	100 U	5.0 UJ	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5 U
Dichlorodifluoromethane	10000 U	12000 U	2500 U	200 UJ	200 UJ	200 U	250 U	200 UJ	200 U	250 U	100 U	5.0 UJ	5.0 U	5.0 U	5.0 UJ	5.0 UJ	5.0 UJ	5 U
Ethylbenzene	5000 U	6200 U	1200 U	100 U	100 U	100 U	120 U	100 U	100 U	120 U	50 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Hexachlorobutadiene	5000 U	6200 U	1200 U	100 U	100 U	100 U	120 U	100 U	100 U	120 U	50 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Isopropylbenzene (Cumene)	5000 U	6200 U	1200 U	100 U	100 U	100 U	120 U	100 U	100 U	120 U	50 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Methyl Ethyl Ketone (2-Butanone)	10000 U	12000 U	2500 U	200 UJ	200 UJ	200 U	250 U	200 U	200 UJ	250 U	100 U	5.0 UJ	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5 U
Methyl Isobutyl Ketone (4-Methyl-2-Pentanone)	10000 U	12000 UJ	2500 U	200 UJ	200 UJ	200 U	250 U	200 U	200 U	250 UJ	100 U	5.0 UJ	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5 U
Methyl tert-butyl Ether	5000 U	6200 U	1200 U	100 U	100 U	100 U	120 U	100 U	100 U	120 U	50 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Methylene Chloride	5000 U	6200 U	1200 U	100 U	100 U	100 U	120 U	100 U	100 U	120 U	50 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Naphthalene	5000 UJ	6200 UJ	1200 U	100 U	100 U	100 U	120 U	100 U	100 UJ	120 UJ	50 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 UJ
n-Propylbenzene	5000 U	6200 U	1200 U	100 U	100 U	100 U	120 U	100 U	100 U	120 U	50 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
p-Isopropyltoluene	5000 U	6200 U	1200 U	100 U	100 U	100 U	120 U	100 U	100 U	120 U	50 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Styrene	5000 U	6200 U	1200 U	100 U	100 U	100 U	120 U	100 U	100 U	120 U	50 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Tetrachloroethene	1000 U	1200 U	250 U	20 U	20 U	20 U	25 U	20 U	20 U	25 U	10 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.5 U
Toluene	5000 U	6200 U	1200 U	100 U	100 U	100 U	120 U	100 U	100 U	120 U	50 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Trichloroethene	70000 J	120000	67000	370	360	320	400	420	320 J	320	280	0.7	0.56	0.50 U	0.50 U	0.50 U	0.50 U	0.5 UJ
Trichlorofluoromethane	5000 U	6200 U	1200 U	100 U	100 U	100 U	120 U	100 U	100 U	120 U	50 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Vinyl Acetate	10000 U	12000 U	2500 U	200 U	200 U	200 UJ	250 U	200 UJ	200 U	250 U	100 U	5.0 U	5.0 UJ	5.0 U	5.0 UJ	5.0 UJ	5.0 UJ	5 U
Vinyl Chloride	15000	20000	7700 J	180	180	340 J	370	440	280	320	270 J	1.0 U	1.0 UJ	1.0 U	1.0 U	1.0 U	1.0 U	1 U
Xylene, m- & p-	5000 U	6200 U	1200 U	100 U	100 U	100 U	120 U	100 U	100 U	120 U	50 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Xylene, o-	5000 U	6200 U	1200 U	100 U	100 U	100 U	120 U	100 U	100 U	120 U	50 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Xylenes, Total	5000 U	6200 U	1200 U	100 U	100 U	100 U	120 U	100 U	100 U	120 U	50 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Total CBTEX	5000 U	6200 U	1200 U	100 U	100 U	100 U	120 U	100 U	100 U	120 U	50 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Total CVOC	355460	430620	354970	4685 J	4664 J	5767	6280	7000 J	4329.4	5394	4604	1.6 J	0.56	1.0 U	1.0 U	1.0 U	1.0 U	1 U
Total VOC	625460	720620	634970	4685 J	4664 J	10867	11780	7000 J	8029.4	10094	8604	1.6 J	0.56	5.0 U	5.0 U	5.0 U	5.0 U	5 U

Table 2-1a. Historical Groundwater Data: Volatile Organic Compounds

Essex-Hope Site, Jamestown, New York

Location ID	MW-120D	MW-120D	MW-120D	MW-120D	MW-121D	MW-121D	MW-121D	MW-121D	MW-121D	MW-121D	MW-121D	MW-122D	MW-122D	MW-122D	MW-122D	MW-122D	MW-122D
Sample Depth (feet bgs)	28-38	28-38	28-38	28-38	28-38	28-38	28-38	28-38	28-38	28-38	28-38	22-32	22-32	22-32	22-32	22-32	22-32
Sample Date	10/28/2020	10/5/2021	10/5/2022	10/5/2022	10/17/2017	3/19/2018	11/14/2018	11/6/2019	10/28/2020	10/5/2021	10/5/2022	10/17/2017	3/20/2018	11/13/2018	11/5/2019	10/28/2020	10/7/2021
Shallow or Deep WBZ	Deep	Deep	Deep	Deep	Deep	Deep	Deep	Deep	Deep	Deep	Deep	Deep	Deep	Deep	Deep	Deep	Deep
Onsite/Offsite	OU-03	OU-03	OU-03	OU-03	OU-03	OU-03	OU-03	OU-03	OU-03	OU-03	OU-03	OU-03	OU-03	OU-03	OU-03	OU-03	OU-03
Sample Type	FD	N	N	FD	N	N	N	N	N	N	N	N	N	N	N	N	N
Analyte																	
1,1,1,2-Tetrachloroethane	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	25 U	25 U	25 U	12 U	6.2 U
1,1,1-Trichloroethane	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	25 U	25 U	25 U	12 U	6.2 U
1,1,2,2-Tetrachloroethane	0.5 U	0.5 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 UJ	0.50 U	0.5 UJ	0.5 U	0.50 U	0.50 U	5.0 U	5.0 UJ	5.0 UJ	2.5 UJ	1.2 U
1,1,2-Trichloroethane	1.5 U	1.5 U	1.5 U	1.5 U	1.5 UJ	1.5 U	1.5 U	1.5 U	1.5 U	1.5 U	1.5 U	1.5 UJ	15 U	15 U	15 U	7.5 U	3.8 U
1,1-Dichloroethane	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	25 U	25 U	25 U	12 U	6.2 U
1,1-Dichloroethene	0.5 U	0.5 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.5 U	0.5 U	0.50 U	0.58	5.0 U	5.0 U	5.0 U	1.6 J	2.1
1,1-Dichloropropene	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	25 U	25 U	25 U	12 U	6.2 U
1,2,3-Trichlorobenzene	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 UJ	2.5 U	2.5 U	2.5 U	25 U	25 U	25 U	12 UJ	6.2 U
1,2,3-Trichloropropane	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 UJ	2.5 U	2.5 U	2.5 U	2.5 U	25 U	25 U	25 U	12 U	6.2 U
1,2,4-Trichlorobenzene	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 UJ	2.5 U	2.5 U	2.5 U	25 U	25 U	25 U	12 UJ	6.2 U
1,2,4-Trimethylbenzene	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	25 U	25 U	25 U	12 U	6.2 U
1,2-Dibromo-3-Chloropropane	2.5 U	2.5 U	2.5 U	2.5 U	2.5 UJ	2.5 UJ	2.5 UJ	2.5 U	2.5 UJ	2.5 U	2.5 U	2.5 UJ	25 UJ	25 UJ	25 U	12 UJ	6.2 U
1,2-Dibromoethane (Ethylene Dibromide)	2 U	2 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2 U	2 U	2.0 U	2.0 U	20 U	20 U	20 U	10 U	5 U
1,2-Dichlorobenzene	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	25 U	25 U	25 U	12 U	6.2 U
1,2-Dichloroethane	0.5 U	0.5 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.5 U	0.5 U	0.50 U	0.50 U	5.0 U	5.0 U	5.0 U	2.5 U	1.2 U
1,2-Dichloroethene, cis-	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	56	90	96	110	260	510
1,2-Dichloroethene, Total	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	56	90	96	110	260	510 J
1,2-Dichloroethene, trans-	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	25 U	25 U	25 U	12 U	3.4 J
1,2-Dichloropropane	1 U	1 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1 U	1 U	1.0 U	1.0 U	10 U	10 U	10 U	5 U	2.5 U
1,3,5-Trimethylbenzene (Mesitylene)	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	25 U	25 U	25 U	12 U	6.2 U
1,3-Dichlorobenzene	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	25 U	25 U	25 U	12 U	6.2 U
1,3-Dichloropropane	2.5 U	2.5 U	2.5 U	2.5 U	2.5 UJ	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 UJ	25 U	25 U	25 U	12 U	6.2 U
1,3-Dichloropropene, cis-	0.5 U	0.5 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.5 U	0.5 U	0.50 U	0.50 U	5.0 U	5.0 U	5.0 U	2.5 U	1.2 U
1,3-Dichloropropene, Total	0.5 U	0.5 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.5 U	0.5 U	0.50 U	0.50 U	5.0 U	5.0 U	5.0 U	2.5 U	1.2 U
1,3-Dichloropropene, trans-	0.5 U	0.5 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.5 U	0.5 U	0.50 U	0.50 U	5.0 U	5.0 U	5.0 U	2.5 U	1.2 U
1,4-Dichlorobenzene	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	25 U	25 U	25 U	12 U	6.2 U
1,4-Dioxane (p-Dioxane)	250 U	250 U	250 U	250 U	250 U	250 UJ	250 UJ	250 U	250 U	250 U	250 U	250 UJ	2500 UJ	2500 UJ	2500 U	1200 U	620 U
2,2-Dichloropropane	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	25 U	25 U	25 U	12 U	6.2 U
2-Chlorotoluene	2.5 U	2.5 U	2.5 U	2.5 U	2.5 UJ	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 UJ	25 U	25 U	25 U	12 U	6.2 U
2-Hexanone	5 U	5 U	5.0 U	5.0 U	5.0 UJ	5.0 U	5.0 U	5.0 U	5 U	5 U	5.0 U	5.0 UJ	50 U	50 U	50 U	25 U	12 U
4-Chlorotoluene	2.5 U	2.5 U	2.5 U	2.5 U	2.5 UJ	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 UJ	25 U	25 U	25 U	12 U	6.2 U
Acetone	5 U	5 U	5.0 U	5.0 U	5.0 UJ	5.0 U	5.0 U	3.0 J	5 UJ	5 U	5.0 U	5.0 UJ	50 U	50 U	50 U	25 UJ	12 U
Benzene	0.5 U	0.5 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.5 U	0.5 U	0.50 U	0.21 J	5.0 U	5.0 U	5.0 U	2.5 U	1.2 U
Bromobenzene	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	25 U	25 U	25 U	12 U	6.2 U
Bromodichloromethane	0.5 U	0.5 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.5 U	0.5 U	0.50 U	0.50 U	5.0 U	5.0 U	5.0 U	2.5 U	1.2 U
Bromoform	2 U	2 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2 U	2 U	2.0 U	2.0 U	20 U	20 U	20 U	10 U	5 U
Bromomethane	2.5 UJ	2.5 U	2.5 U	2.5 U	2.5 UJ	2.5 UJ	2.5 U	2.5 UJ	2.5 UJ	2.5 U	2.5 U	2.5 UJ	25 UJ	25 UJ	25 UJ	12 UJ	6.2 U
Butylbenzene, n-	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	25 U	25 U	25 U	12 U	6.2 U
Butylbenzene, sec-	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	25 U	25 U	25 U	12 U	6.2 U
Butylbenzene, t-	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	25 U	25 U	25 U	12 U	6.2 U
Carbon Disulfide	5 U	5 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5 U	5 U	5.0 U	5.0 U	50 U	50 U	50 U	25 U	12 U

Table 2-1a. Historical Groundwater Data: Volatile Organic Compounds

Essex-Hope Site, Jamestown, New York

Location ID	MW-120D	MW-120D	MW-120D	MW-120D	MW-121D	MW-121D	MW-121D	MW-121D	MW-121D	MW-121D	MW-121D	MW-122D	MW-122D	MW-122D	MW-122D	MW-122D	MW-122D
Sample Depth (feet bgs)	28-38	28-38	28-38	28-38	28-38	28-38	28-38	28-38	28-38	28-38	28-38	22-32	22-32	22-32	22-32	22-32	22-32
Sample Date	10/28/2020	10/5/2021	10/5/2022	10/5/2022	10/17/2017	3/19/2018	11/14/2018	11/6/2019	10/28/2020	10/5/2021	10/5/2022	10/17/2017	3/20/2018	11/13/2018	11/5/2019	10/28/2020	10/7/2021
Shallow or Deep WBZ	Deep	Deep	Deep	Deep	Deep	Deep	Deep	Deep	Deep	Deep	Deep	Deep	Deep	Deep	Deep	Deep	Deep
Onsite/Offsite	OU-03	OU-03	OU-03	OU-03	OU-03	OU-03	OU-03	OU-03	OU-03	OU-03	OU-03	OU-03	OU-03	OU-03	OU-03	OU-03	OU-03
Sample Type	FD	N	N	FD	N	N	N	N	N	N	N	N	N	N	N	N	N
Analyte																	
Carbon Tetrachloride	0.5 U	0.5 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.5 U	0.5 U	0.50 U	0.50 U	5.0 U	5.0 U	5.0 U	2.5 U	1.2 U
Chlorobenzene	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	25 U	25 U	25 U	12 U	6.2 U
Chlorobromomethane	2.5 U	2.5 U	2.5 U	2.5 U	2.5 UJ	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 UJ	25 U	25 U	25 U	12 U	6.2 U
Chloroethane	2.5 UJ	2.5 U	2.5 U	2.5 U	2.5 U	2.5 UJ	2.5 U	2.5 U	2.5 UJ	2.5 U	2.5 U	2.5 U	25 UJ	25 U	25 U	12 UJ	6.2 U
Chloroform	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	25 U	25 U	25 U	12 U	6.2 U
Chloromethane	2.5 U	2.5 U	2.5 UJ	2.5 UJ	2.5 UJ	2.5 UJ	2.5 UJ	2.5 UJ	2.5 U	2.5 U	2.5 UJ	2.5 UJ	25 UJ	25 UJ	25 UJ	12 U	6.2 U
Dibromochloromethane	0.5 U	0.5 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.5 U	0.5 U	0.50 U	0.50 U	5.0 U	5.0 U	5.0 U	2.5 U	1.2 U
Dibromomethane (Methylene Bromide)	5 U	5 U	5.0 U	5.0 U	5.0 UJ	5.0 U	5.0 U	5.0 U	5 U	5 U	5.0 U	5.0 UJ	50 U	50 U	50 U	25 U	12 U
Dichlorodifluoromethane	5 U	5 U	5.0 U	5.0 U	5.0 UJ	5.0 U	5.0 U	5.0 UJ	5 U	5 U	5.0 U	5.0 UJ	50 U	50 U	50 UJ	25 U	12 U
Ethylbenzene	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	25 U	25 U	25 U	12 U	6.2 U
Hexachlorobutadiene	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	25 U	25 U	25 U	12 U	6.2 U
Isopropylbenzene (Cumene)	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	25 U	25 U	25 U	12 U	6.2 U
Methyl Ethyl Ketone (2-Butanone)	5 U	5 U	5.0 U	5.0 U	5.0 UJ	5.0 U	5.0 U	5.0 U	5 UJ	5 U	5.0 U	5.0 UJ	50 U	50 U	50 U	25 UJ	12 U
Methyl Isobutyl Ketone (4-Methyl-2-Pentanone)	5 U	5 U	5.0 U	5.0 U	5.0 UJ	5.0 U	5.0 U	5.0 U	5 U	5 U	5.0 U	5.0 UJ	50 U	50 U	50 U	25 U	12 U
Methyl tert-butyl Ether	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	25 U	25 U	25 U	12 U	6.2 U
Methylene Chloride	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	25 U	25 U	25 U	12 U	6.2 U
Naphthalene	2.5 UJ	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 UJ	2.5 U	2.5 U	2.5 U	25 U	25 U	25 U	12 UJ	6.2 U
n-Propylbenzene	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	25 U	25 U	25 U	12 U	6.2 U
p-Isopropyltoluene	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	25 U	25 U	25 U	12 U	6.2 U
Styrene	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	25 U	25 U	25 U	12 U	6.2 U
Tetrachloroethene	0.5 U	0.5 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.5 U	0.5 U	0.50 U	0.50 U	5.0 U	5.0 U	5.0 U	2.5 U	1.2 U
Toluene	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	25 U	25 U	25 U	12 U	6.2 U
Trichloroethene	0.5 UJ	0.5 U	0.50 U	0.50 U	0.30 J	0.50 U	0.50 U	0.50 U	0.5 UJ	0.5 U	0.50 U	360	1100	990	880	660 J	440
Trichlorofluoromethane	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	25 U	25 U	25 U	12 U	6.2 U
Vinyl Acetate	5 U	5 U	5.0 U	5.0 U	5.0 U	5.0 UJ	5.0 U	5.0 UJ	5 U	5 U	5.0 U	5.0 U	50 UJ	50 U	50 UJ	25 U	12 U
Vinyl Chloride	1 U	1 U	1.0 U	1.0 U	1.0 U	1.0 UJ	1.0 U	1.0 U	1 U	1 U	1.0 U	1.4	0.96 J	0.86 J	0.96 J	1 J	1.2 J
Xylene, m- & p-	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	25 U	25 U	25 U	12 U	6.2 U
Xylene, o-	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	25 U	25 U	25 U	12 U	6.2 U
Xylenes, Total	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	25 U	25 U	25 U	12 U	6.2 U
Total CBTEX	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	0.21 J	25 U	25 U	25 U	12 U	6.2 U
Total CVOC	1 U	1 U	1.0 U	1.0 U	0.3 J	1.0 UJ	1.0 U	1.0 U	1 U	1 U	1.0 U	417.98	1190.96	1086.86	990 J	922.6 J	956.7
Total VOC	5 U	5 U	5.0 U	5.0 U	0.3 J	5.0 U	5.0 U	5.0 U	5 U	5 U	5.0 U	418.19 J	1280.96	1182.86	990 J	1182.6	1466.7

Table 2-1a. Historical Groundwater Data: Volatile Organic Compounds

Essex-Hope Site, Jamestown, New York

Location ID	MW-122D	MW-122D	MW-122D	MW-123D	MW-123D	MW-123D	MW-123D	MW-124S
Sample Depth (feet bgs)	22-32	22-32	22-32	25-35	25-35	25-35	25-35	5-15
Sample Date	10/7/2021	10/5/2022	10/5/2022	10/19/2017	3/20/2018	3/20/2018	10/29/2020	9/17/2019
Shallow or Deep WBZ	Deep	Deep	Deep	Deep	Deep	Deep	Deep	Shallow
Onsite/Offsite	OU-03	OU-03	OU-03	OU-01	OU-01	OU-01	OU-01	OU-01
Sample Type	FD	N	FD	N	N	FD	N	N
Analyte								
1,1,1,2-Tetrachloroethane	10 U	5.0 U	5.0 U	1000 U	2500 U	5000 U	2500 U	6.2 U
1,1,1-Trichloroethane	10 U	5.0 U	5.0 U	1000 U	2500 U	5000 U	2500 U	6.2 U
1,1,2,2-Tetrachloroethane	2 U	1.0 UJ	1.0 UJ	200 UJ	500 U	1000 U	500 U	1.2 U
1,1,2-Trichloroethane	6 U	3.0 U	3.0 U	600 UJ	1500 U	3000 U	1500 U	3.8 U
1,1-Dichloroethane	10 U	5.0 U	5.0 U	1000 U	2500 U	5000 U	2500 U	6.2 U
1,1-Dichloroethene	1.7 J	1.4	0.78 J	330	410 J	390 J	500 U	1.2 U
1,1-Dichloropropene	10 U	5.0 U	5.0 U	1000 U	2500 U	5000 U	2500 U	6.2 U
1,2,3-Trichlorobenzene	10 U	5.0 UJ	5.0 UJ	1000 U	2500 U	5000 U	2500 UJ	6.2 U
1,2,3-Trichloropropane	10 U	5.0 U	5.0 U	1000 UJ	2500 U	5000 U	2500 U	6.2 U
1,2,4-Trichlorobenzene	10 U	5.0 UJ	5.0 UJ	1000 U	2500 U	5000 U	2500 UJ	6.2 U
1,2,4-Trimethylbenzene	10 U	5.0 UJ	5.0 UJ	1000 U	2500 U	5000 U	2500 U	390
1,2-Dibromo-3-Chloropropane	10 U	5.0 UJ	5.0 UJ	1000 UJ	2500 UJ	5000 UJ	2500 UJ	6.2 U
1,2-Dibromoethane (Ethylene Dibromide)	8 U	4.0 U	4.0 U	800 U	2000 U	4000 U	2000 U	5.0 U
1,2-Dichlorobenzene	10 U	5.0 UJ	5.0 UJ	1000 U	2500 U	5000 U	2500 U	6.2 U
1,2-Dichloroethane	2 U	1.0 U	1.0 U	200 U	500 U	1000 U	500 U	1.2 U
1,2-Dichloroethene, cis-	490	140	140	59000	87000	83000	58000	6.2 U
1,2-Dichloroethene, Total	490 J	140	140 J	59000	87000	83000	58000	6.2 U
1,2-Dichloroethene, trans-	3.2 J	5.0 U	1.4 J	1000 U	2500 U	5000 U	2500 U	6.2 U
1,2-Dichloropropane	4 U	2.0 U	2.0 U	400 U	1000 U	2000 U	1000 U	2.5 U
1,3,5-Trimethylbenzene (Mesitylene)	10 U	5.0 UJ	5.0 UJ	1000 U	2500 U	5000 U	2500 U	6.2 U
1,3-Dichlorobenzene	10 U	5.0 UJ	5.0 UJ	1000 U	2500 U	5000 U	2500 U	6.2 U
1,3-Dichloropropane	10 U	5.0 U	5.0 U	1000 UJ	2500 U	5000 U	2500 U	6.2 U
1,3-Dichloropropene, cis-	2 U	1.0 U	1.0 U	200 U	500 U	1000 U	500 U	1.2 U
1,3-Dichloropropene, Total	2 U	1.0 U	1.0 U	200 U	500 U	1000 U	500 U	1.2 U
1,3-Dichloropropene, trans-	2 U	1.0 U	1.0 U	200 U	500 U	1000 U	500 U	1.2 U
1,4-Dichlorobenzene	10 U	5.0 UJ	5.0 UJ	1000 U	2500 U	5000 U	2500 U	6.2 U
1,4-Dioxane (p-Dioxane)	1000 U	500 U	500 U	100000 U	250000 UJ	500000 UJ	250000 UJ	620 U
2,2-Dichloropropane	10 U	5.0 U	5.0 U	1000 U	2500 U	5000 U	2500 U	6.2 U
2-Chlorotoluene	10 U	5.0 UJ	5.0 UJ	1000 UJ	2500 U	5000 U	2500 U	6.2 U
2-Hexanone	20 U	10 U	10 U	2000 UJ	5000 U	10000 U	5000 UJ	12 U
4-Chlorotoluene	10 U	5.0 UJ	5.0 UJ	1000 UJ	2500 U	5000 U	2500 U	6.2 U
Acetone	20 U	10 U	10 U	2000 UJ	5000 U	10000 U	5000 UJ	12 U
Benzene	2 U	1.0 U	1.0 U	200 U	500 U	1000 U	500 U	1.2 U
Bromobenzene	10 U	5.0 UJ	5.0 UJ	1000 U	2500 U	5000 U	2500 U	6.2 U
Bromodichloromethane	2 U	1.0 U	1.0 U	200 U	500 U	1000 U	500 U	1.2 U
Bromoform	8 U	4.0 UJ	4.0 UJ	800 U	2000 U	4000 U	2000 U	5.0 U
Bromomethane	10 U	5.0 U	5.0 U	1000 UJ	2500 UJ	5000 UJ	2500 UJ	6.2 UJ
Butylbenzene, n-	10 U	5.0 UJ	5.0 UJ	1000 U	2500 U	5000 U	2500 U	3.0 J
Butylbenzene, sec-	10 U	5.0 UJ	5.0 UJ	1000 U	2500 U	5000 U	2500 U	5.1 J
Butylbenzene, t-	10 U	5.0 UJ	5.0 UJ	1000 U	2500 U	5000 U	2500 U	2.0 J
Carbon Disulfide	20 U	10 U	10 U	2000 U	5000 U	10000 U	5000 U	12 U

Table 2-1a. Historical Groundwater Data: Volatile Organic Compounds

Essex-Hope Site, Jamestown, New York

Location ID	MW-122D	MW-122D	MW-122D	MW-123D	MW-123D	MW-123D	MW-123D	MW-124S
Sample Depth (feet bgs)	22-32	22-32	22-32	25-35	25-35	25-35	25-35	5-15
Sample Date	10/7/2021	10/5/2022	10/5/2022	10/19/2017	3/20/2018	3/20/2018	10/29/2020	9/17/2019
Shallow or Deep WBZ	Deep	Deep	Deep	Deep	Deep	Deep	Deep	Shallow
Onsite/Offsite	OU-03	OU-03	OU-03	OU-01	OU-01	OU-01	OU-01	OU-01
Sample Type	FD	N	FD	N	N	FD	N	N
Analyte								
Carbon Tetrachloride	2 U	1.0 U	1.0 U	200 U	500 U	1000 U	500 U	1.2 U
Chlorobenzene	10 U	5.0 U	5.0 U	1000 U	2500 U	5000 U	2500 U	6.2 U
Chlorobromomethane	10 U	5.0 U	5.0 U	1000 UJ	2500 U	5000 U	2500 U	6.2 U
Chloroethane	10 U	5.0 U	5.0 U	1000 U	2500 UJ	5000 UJ	2500 UJ	6.2 U
Chloroform	10 U	5.0 U	5.0 U	1000 U	2500 U	5000 U	2500 U	6.2 U
Chloromethane	10 U	5.0 UJ	5.0 UJ	1000 UJ	2500 UJ	5000 UJ	2500 U	6.2 U
Dibromochloromethane	2 U	1.0 U	1.0 U	200 U	500 U	1000 U	500 U	1.2 U
Dibromomethane (Methylene Bromide)	20 U	10 U	10 U	2000 UJ	5000 U	10000 U	5000 U	12 U
Dichlorodifluoromethane	20 U	10 U	10 U	2000 UJ	5000 U	10000 U	5000 U	12 U
Ethylbenzene	10 U	5.0 U	5.0 U	1000 U	2500 U	5000 U	2500 U	5.0 J
Hexachlorobutadiene	10 U	5.0 UJ	5.0 UJ	1000 U	2500 U	5000 U	2500 U	6.2 U
Isopropylbenzene (Cumene)	10 U	5.0 UJ	5.0 UJ	1000 U	2500 U	5000 U	2500 U	33
Methyl Ethyl Ketone (2-Butanone)	20 U	10 U	10 U	2000 UJ	5000 U	10000 U	5000 U	12 U
Methyl Isobutyl Ketone (4-Methyl-2-Pentanone)	20 U	10 U	10 U	2000 UJ	5000 U	10000 U	5000 U	12 U
Methyl tert-butyl Ether	10 U	5.0 U	5.0 U	1000 U	2500 U	5000 U	2500 U	6.2 U
Methylene Chloride	10 U	5.0 U	5.0 U	1000 U	2500 U	5000 U	2500 U	6.2 U
Naphthalene	10 U	5.0 U	5.0 U	1000 U	2500 U	5000 U	2500 UJ	60
n-Propylbenzene	10 U	5.0 UJ	5.0 UJ	1000 UJ	2500 U	5000 U	2500 U	76
p-Isopropyltoluene	10 U	5.0 UJ	5.0 UJ	1000 U	2500 U	5000 U	2500 U	2.0 J
Styrene	10 U	5.0 U	5.0 U	1000 U	2500 U	5000 U	2500 U	6.2 U
Tetrachloroethene	2 U	1.0 U	1.0 U	200 U	500 U	1000 U	500 U	1.2 U
Toluene	10 U	5.0 U	5.0 U	1000 U	2500 U	5000 U	2500 U	6.2 U
Trichloroethene	570	490	500	160000	140000	140000	94000 J	1.2 U
Trichlorofluoromethane	10 U	5.0 U	5.0 U	1000 U	2500 U	5000 U	2500 U	6.2 U
Vinyl Acetate	20 U	10 U	10 U	2000 U	5000 UJ	10000 UJ	5000 U	12 U
Vinyl Chloride	1.1 J	0.73 U	0.76 U	4400	6600 J	6400 J	4300	2.5 U
Xylene, m- & p-	10 U	5.0 U	5.0 U	1000 U	2500 U	5000 U	2500 U	6.2 U
Xylene, o-	10 U	5.0 U	5.0 U	1000 U	2500 U	5000 U	2500 U	6.2 U
Xylenes, Total	10 U	5.0 U	5.0 U	1000 U	2500 U	5000 U	2500 U	6.2 U
Total CBTEX	10 U	5.0 U	5.0 U	1000 U	2500 U	5000 U	2500 U	38 J
Total CVOC	1066	632.13	642.94	223730	234010	229790	156300	12 U
Total VOC	1556	772.13	782.94	223730	321010	312790	214300	580 J

Table 2-1a. Historical Groundwater Data: Volatile Organic Compounds
Essex-Hope Site, Jamestown, New York

Notes:
All results in µg/L
Bold indicates detection
µg/L = microgram(s) per liter
bgs = below ground surface
CBTEX = cument, benzene, toluene, ethylbenzene, and xylenes
CVOC = chlorinated volatile organic compounds
FD = field duplicate
ID = identifier
J = estimated detection
N = normal sample
U = analyte not detected
VOC = volatile organic compounds
WBZ = water-bearing zone

Table 2-1b. Historical Groundwater Data: Total Metals*Essex-Hope Site, Jamestown, New York*

Location ID	MW-26S	MW-27S	MW-30S	MW-31S	MW-117S	MW-124S
Sample Date	9/18/2019	9/16/2019	9/17/2019	9/17/2019	9/18/2019	9/17/2019
Shallow or Deep WBZ	Shallow	Shallow	Shallow	Shallow	Shallow	Shallow
Onsite/Offsite	OU-01	OU-01	OU-01	OU-01	OU-01	OU-01
Sample Type	N	N	N	N	N	N
Analyte						
Iron	23.3	3.78	11.6	10.7	0.866	12.7
vz1	8.020	3.405	8.421	9.906	1.371	9.626

Notes:

All results in mg/L

Bold indicates detection

ID = Identifier

mg/L = milligram(s) per liter

N = normal sample

WBZ = water-bearing zone

Table 2-1c. Historical Groundwater Data: Dissolved Metals

Essex-Hope Site, Jamestown, New York

Location ID	HW-6	MW-1	MW-7D	MW-15D	MW-15D	MW-16D	MW-21D	MW-21D	MW-22D	MW-22D	MW-23D	MW-25S	MW-26S	MW-27S	MW-30S	MW-101S
Sample Date	3/16/2017	11/4/2016	11/4/2016	11/1/2016	10/29/2020	10/28/2020	3/14/2017	10/29/2020	11/3/2016	10/29/2020	11/2/2016	11/2/2016	11/2/2016	11/2/2016	11/3/2016	10/28/2020
Shallow or Deep WBZ	Shallow	Shallow	Deep	Deep	Deep	Deep	Deep	Deep	Deep	Deep	Deep	Shallow	Shallow	Shallow	Shallow	Shallow
Onsite/Offsite	OU-01	OU-01	OU-01	OU-03	OU-03	OU-03	OU-01	OU-01	OU-03	OU-03	OU-01	OU-03	OU-01	OU-01	OU-01	OU-01
Sample Type	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
Analyte																
Iron, Dissolved	7.37	7.73	2.18	0.757	0.58	0.49	22.7	9.06	0.028 J	0.05 U	2.16	0.05 U	21.4	0.427	13.9	0.062 U
Manganese, Dissolved	7.113	3.456	0.2398	0.2009	0.1438	0.194	1.070	0.3512	2.165	3.602	0.1682	0.0008 J	9.22	0.9467	18.5	1.577

Notes:
All results in mg/L
Bold indicates detection
J = estimated detection
ID = Identifier
mg/L = milligram(s) per liter
N = normal sample
U = analyte not detected
WBZ = water-bearing zone

Table 2-1c. Historical Groundwater Data: Dissolved Metals

Essex-Hope Site, Jamestown, New York

Location ID	MW-104S	MW-106D	MW-106D	MW-106D	MW-106S	MW-107S	MW-110D	MW-112S	MW-112S	MW-115D	MW-116S	MW-118D	MW-123D
Sample Date	10/29/2020	11/1/2016	11/1/2016	10/29/2020	11/1/2016	11/1/2016	10/29/2020	11/3/2016	11/3/2016	11/3/2016	11/3/2016	10/29/2020	10/29/2020
Shallow or Deep WBZ	Shallow	Deep	Deep	Deep	Shallow	Shallow	Deep	Shallow	Shallow	Deep	Shallow	Deep	Deep
Onsite/Offsite	OU-03	OU-03	OU-03	OU-03	OU-03	OU-03	OU-03	OU-01	OU-01	OU-01	OU-01	OU-01	OU-01
Sample Type	N	N	FD	N	N	N	N	N	N	FD	N	N	N
Analyte													
Iron, Dissolved	0.05 U	0.428	0.41	0.907	0.154	0.05 U	1.08	21	19.9	0.334	10	9.45	2.14
Manganese, Dissolved	0.0031	0.2406	0.2441	0.1684	9.908 J	0.0206	0.2876	16.69	15.65	0.0914	0.8191	1.045	0.3459

Notes:
All results in mg/L
Bold indicates detection
J = estimated detection
ID = Identifier
mg/L = milligram(s) per liter
N = normal sample
U = analyte not detected
WBZ = water-bearing zone

Table 2-1d. Historical Groundwater Data: Perfluoroalkyl and Polyfluoroalkyl Substances

Essex-Hope Site, Jamestown, New York

Location ID	MW-19D	MW-19S	MW-112S	MW-113D	MW-113D	MW-115D	MW-116S
Sample Date	6/27/2018	6/27/2018	6/28/2018	6/28/2018	6/28/2018	6/27/2018	6/27/2018
Shallow or Deep WBZ	Deep	Shallow	Shallow	Deep	Deep	Deep	Shallow
Onsite/Offsite	OU-01	OU-01	OU-01	OU-01	OU-01	OU-01	OU-01
Sample Type	N	N	N	N	FD	N	N
Analyte							
6:2 Fluorotelomer sulfonic acid (6:2 FTS)	0.180 U	0.307 U	3.83 J	0.739 U	0.676 U	0.438 U	0.452 U
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	0.269 U	0.260 U	0.280 U	0.260 U	0.251 U	0.251 U	0.269 U
n-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	0.345 U	0.333 U	0.358 U	0.333 U	0.321 U	0.321 U	0.345 U
n-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	0.232 U	0.224 U	0.241 U	0.224 U	0.745 J	0.216 U	0.232 U
Perfluorobutane sulfonic acid (PFBS)	0.102 U	0.604 J	0.981 J	0.628 J	0.772 J	0.095 U	0.652 J
Perfluorobutanoic acid (PFBA)	2.55	4.68	4.73	9.92	9.42	1.81	5.30
Perfluorodecane sulfonic acid (PFDS)	0.206 UJ	0.198 UJ	0.214 UJ	0.198 UJ	0.192 UJ	0.192 UJ	0.206 UJ
Perfluorodecanoic acid (PFDA)	0.176 U	2.26	3.02	0.170 U	0.164 U	0.164 U	0.176 U
Perfluorododecanoic acid (PFDoDA)	0.085 U	0.082 U	0.088 U	0.082 U	0.079 U	0.079 U	0.085 U
Perfluoroheptane sulfonate (PFHpS)	0.144 U	0.321 J	0.149 U	0.138 U	0.134 U	0.134 U	0.144 U
Perfluoroheptanoic acid (PFHpA)	0.086 U	2.59	5.19	8.90	8.60	0.080 U	3.62
Perfluorohexane sulfonic acid (PFHxS)	0.100 U	0.454 U	1.88 J	0.754 J	0.876 J	0.093 U	1.79 J
Perfluorohexanoic acid (PFHxA)	0.117 U	2.98	5.78	20.3	20.4	0.109 U	5.57
Perfluorononanoic acid (PFNA)	0.093 U	1.42 J	2.13	0.168 J	0.090 J	0.087 U	0.456 J
Perfluorooctane sulfonamide (FOSA)	0.210 U	0.202 UJ	0.277 J	0.202 UJ	0.231 J	0.196 UJ	0.210 UJ
Perfluorooctane sulfonic acid (PFOS)	0.248 U	4.74	5.98	0.100 U	0.097 U	0.096 U	7.03
Perfluorooctanoic acid (PFOA)	0.356 J	5.07	13.1	11.8	10.8	0.245 U	6.20
Perfluoropentanoic acid (PFPeA)	0.079 U	3.92	4.58	30.4	29.9	1.26 J	7.58
Perfluorotetradecanoic acid (PFTeDA)	0.067 U	0.064 U	0.069 U	0.064 U	0.062 U	0.062 U	0.067 U
Perfluorotridecanoic acid (PFTrDA)	0.084 U	0.081 U	0.087 U	0.081 U	0.078 U	0.078 U	0.084 U
Perfluoroundecanoic acid (PFUnDA)	0.177 UJ	0.171 UJ	0.184 U	0.171 U	0.165 U	0.165 UJ	0.177 UJ

Notes:

All results in ng/L

Bold indicates detection

FD = field duplicate

ID = Identifier

J = estimated detection

N = normal sample

ng/L = nanogram(s) per liter

U = analyte not detected

WBZ = water-bearing zone

Table 2-1e. Historical Groundwater Data: Dissolved Gases

Essex-Hope Site, Jamestown, New York

Location ID	HW-6	MW-1	MW-7D	MW-15D	MW-15D	MW-16D	MW-21D	MW-21D	MW-22D	MW-22D	MW-23D	MW-25S	MW-26S	MW-27S	MW-30S	MW-101S
Sample Date	3/16/2017	11/4/2016	11/4/2016	11/1/2016	10/29/2020	10/28/2020	3/14/2017	10/29/2020	11/3/2016	10/29/2020	11/2/2016	11/2/2016	11/2/2016	11/2/2016	11/3/2016	10/28/2020
Shallow or Deep WBZ	Shallow	Shallow	Shallow	Deep	Deep	Deep	Deep	Deep	Deep	Deep	Deep	Shallow	Shallow	Shallow	Shallow	Shallow
Onsite/Offsite	OU-01	OU-01	OU-01	OU-03	OU-03	OU-03	OU-01	OU-01	OU-03	OU-03	OU-01	OU-03	OU-01	OU-01	OU-01	OU-01
Sample Type	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
Analyte																
Ethane	1.92	0.5 U	144 J	13.6 J	--	--	3.70	--	0.5 U	--	1.33	0.5 UJ	0.5 U	0.5 U	0.5 U	--
Ethene	30.0	0.5 U	575 J	532 J	--	--	3670	--	0.5 U	--	1.39	0.5 UJ	0.5 U	0.5 U	0.5 U	--
Methane	4420	285	2660 J	776 J	2950	33.7	15800	20200	31.3	60.9	25100	0.732 J	3780	138	623	36.4

Notes:
All results in µg/L
Bold indicates detection
µg/L = microgram(s) per liter
FD = field duplicate
ID = Identifier
J = estimated detection
N = normal sample
U = analyte not detected
WBZ = water-bearing zone

Table 2-1e. Historical Groundwater Data: Dissolved Gases

Essex-Hope Site, Jamestown, New York

Location ID	MW-104S	MW-106D	MW-106D	MW-106D	MW-106S	MW-107S	MW-110D	MW-112S	MW-112S	MW-115D	MW-116S	MW-118D	MW-123D
Sample Date	10/29/2020	11/1/2016	11/1/2016	10/29/2020	11/1/2016	11/1/2016	10/29/2020	11/3/2016	11/3/2016	11/3/2016	11/3/2016	10/29/2020	10/29/2020
Shallow or Deep WBZ	Shallow	Deep	Deep	Deep	Shallow	Shallow	Deep	Shallow	Shallow	Deep	Shallow	Deep	Deep
Onsite/Offsite	OU-03	OU-03	OU-03	OU-03	OU-03	OU-03	OU-03	OU-01	OU-01	OU-01	OU-01	OU-01	OU-01
Sample Type	N	N	FD	N	N	N	N	N	FD	N	N	N	N
Analyte													
Ethane	--	3.29 J	3.05 J	--	0.5 UJ	0.5 UJ	--	1.23	1.32	0.5 U	2.4	--	--
Ethene	--	172 J	178 J	--	0.711 J	0.5 UJ	--	0.6	0.604	0.5 U	0.5 U	--	--
Methane	2 U	3230 J	3380 J	2070	16.2 J	1.29 J	372	2140	2080	23.6	1520	2770	996

Notes:
All results in µg/L
Bold indicates detection
µg/L = microgram(s) per liter
FD = field duplicate
ID = Identifier
J = estimated detection
N = normal sample
U = analyte not detected
WBZ = water-bearing zone

Table 2-1f. Historical Groundwater Data: General Chemistry

Essex-Hope Site, Jamestown, New York

Location ID	HW-6	MW-1	MW-7D	MW-15D	MW-15D	MW-16D	MW-21D	MW-21D	MW-22D	MW-22D	MW-23D	MW-25S	MW-26S	MW-26S	MW-27S	MW-27S	MW-30S	MW-30S
Sample Date	3/16/2017	11/4/2016	11/4/2016	11/1/2016	10/29/2020	10/28/2020	3/14/2017	10/29/2020	11/3/2016	10/29/2020	11/2/2016	11/2/2016	11/2/2016	9/18/2019	11/2/2016	9/16/2019	11/3/2016	9/17/2019
Shallow or Deep WBZ	Shallow	Shallow	Deep	Deep	Deep	Deep	Deep	Deep	Deep	Deep	Deep	Shallow	Shallow	Shallow	Shallow	Shallow	Shallow	Shallow
Onsite/Offsite	OU-01	OU-01	OU-01	OU-03	OU-03	OU-03	OU-01	OU-01	OU-03	OU-03	OU-01	OU-03	OU-01	OU-01	OU-01	OU-01	OU-01	OU-01
Sample Type	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
Analyte																		
Alkalinity, Total	294	307	207	318	--	--	488	--	141	--	177	82.9	244	244	83.9	95.7	694	560
Chloride (as Cl)	2.28	16.9	51.4	100	63.1	48	141	43.8	117	185	18.2	250	2.51	2.50	8.78	11.8	19.8	14.1
Nitrate (as N)	0.124	0.029 J	0.1 U	0.1 U	0.1 U	0.1 U	0.100 UJ	0.1 U	0.669	0.49	0.1 U	4.26	0.1 U	--	0.1 U	--	0.022 J	--
Nitrite	0.050 U	0.05 U	0.05 U	0.05 U	--	--	0.050 UJ	--	0.05 U	--	0.05 U	0.05 U	0.018 J	--	0.05 U	--	0.01 J	--
Sulfate	40.7	292	37.6	68.7	36.5	132	1.00 U	1.62	111	85.8	1 U	37.3	1.11	--	8.91	--	130	--
Total Organic Carbon	2.96	2.56	1.47	3.27	2.43	1.61	105	6.33	0.81	1.54	0.8 J	1.05	9.14	--	11.1	--	24.2	--
Sulfide, Reactive	--	0.1 UJ	0.1 UJ	0.1 UJ	--	--	0.10 U	--	0.1 U	--	0.1 UJ	0.1 U	--	--	0.1 UJ	--	0.1 U	--

Notes:
All results in mg/L
Bold indicates detection
FD = field duplicate
ID = Identifier
J = estimated detection
mg/L = milligram(s) per liter
N = normal sample
U = analyte not detected
WBZ = water-bearing zone

Table 2-1f. Historical Groundwater Data: General Chemistry

Essex-Hope Site, Jamestown, New York

Location ID	MW-31S	MW-101S	MW-104S	MW-106D	MW-106D	MW-106D	MW-106S	MW-107S	MW-110D	MW-112S	MW-112S	MW-115D	MW-116S	MW-117S	MW-118D	MW-123D	MW-124S
Sample Date	9/17/2019	10/28/2020	10/29/2020	11/1/2016	11/1/2016	10/29/2020	11/1/2016	11/1/2016	10/29/2020	11/3/2016	11/3/2016	11/3/2016	11/3/2016	9/18/2019	10/29/2020	10/29/2020	9/17/2019
Shallow or Deep WBZ	Shallow	Shallow	Shallow	Deep	Deep	Deep	Shallow	Shallow	Deep	Shallow	Shallow	Deep	Shallow	Shallow	Deep	Deep	Shallow
Onsite/Offsite	OU-01	OU-01	OU-03	OU-03	OU-03	OU-03	OU-03	OU-03	OU-03	OU-01	OU-01	OU-01	OU-01	OU-01	OU-01	OU-01	OU-01
Sample Type	N	N	N	N	FD	N	N	N	N	N	FD	N	N	N	N	N	N
Analyte																	
Alkalinity, Total	454	--	--	254	255	--	157 J	126	--	505	511	257	229	234	--	--	219
Chloride (as Cl)	23.7	80.1	1.38	28.2	29.3	36.1	116	52.1	83.8	5.53	5.5	19.3	171	49.7	239	57.5 J	4.40
Nitrate (as N)	--	0.26	2.5	0.1 U	0.1 U	0.1 U	0.498	1.04	0.025 J	0.1 U	0.1 U	0.1 U	0.1 U	--	0.1 U	0.057 J	--
Nitrite	--	--	--	0.05 U	0.014 J	--	0.01 J	0.022 J	--	0.018 J	0.016 J	0.05 U	0.05 U	--	--	--	--
Sulfate	--	44.6	182	39.7	43.8	41.9	33.7	22.8	157	49.9	49.4	59.9	6.12	--	4.52	4.56	--
Total Organic Carbon	--	1.55	1.06	2.44	2.36	2.4	1.84	0.71	2.8	17	16.7	2.14	2.6	--	11.4	2.4	--
Sulfide, Reactive	--	--	--	0.1 U	0.1 UJ	--	--	0.1 UJ	--	0.1 U	0.1 U	0.1 U	0.1 U	--	--	--	--

Notes:
All results in mg/L
Bold indicates detection
FD = field duplicate
ID = Identifier
J = estimated detection
mg/L = milligram(s) per liter
N = normal sample
U = analyte not detected
WBZ = water-bearing zone

Table 2-2a. Historical Soil Data: Volatile Organic Compounds

Essex-Hope Site, Jamestown, New York

Location ID	DPT-001	DPT-001	DPT-001	DPT-002	DPT-002	DPT-003	DPT-003	DPT-004	DPT-004	DPT-004	DPT-005	DPT-005	DPT-005A	DPT-005A	DPT-005A	DPT-005B	DPT-005B	DPT-005B
Sample Depth (feet bgs)	9 - 10	3 - 4	6 - 7	3 - 4	6 - 8	2 - 3	6 - 8	2 - 3	2 - 3	6 - 7	3 - 4	5 - 6	2 - 4	5 - 7	16 - 17	2 - 4	2 - 4	5 - 7
Sample Date	9/19/2016	9/19/2016	9/19/2016	9/20/2016	9/20/2016	9/19/2016	9/19/2016	9/19/2016	9/19/2016	9/19/2016	9/19/2016	9/19/2016	9/20/2017	9/20/2017	9/20/2017	9/19/2017	9/19/2017	9/20/2017
Sample Type	N	N	N	N	N	N	N	N	FD	N	N	N	N	N	N	N	FD	N
Operable Unit	OU-01	OU-01	OU-01	OU-01	OU-01	OU-01	OU-01	OU-01	OU-01	OU-01	OU-01	OU-01	OU-01	OU-01	OU-01	OU-01	OU-01	OU-01
Geologic Unit	Shallow Sand and Gravel	Shallow Sand and Gravel	Shallow Sand and Gravel	Shallow Sand and Gravel	Shallow Sand and Gravel	Shallow Sand and Gravel	Shallow Sand and Gravel	Shallow Sand and Gravel	Shallow Sand and Gravel	Shallow Sand and Gravel	Shallow Sand and Gravel	Shallow Sand and Gravel	Shallow Sand and Gravel	Shallow Sand and Gravel	Shallow Silty Clay	Shallow Sand and Gravel	Shallow Sand and Gravel	Shallow Sand and Gravel
Analyte																		
1,1,1,2-Tetrachloroethane	0.24 U	0.0012 U	0.0012 U	0.0011 U	0.0013 UJ	0.0013 U	0.0011 U	0.089 U	0.082 U	0.001 U	0.0011 U	0.16 U	0.067 U	0.05 U	2.2 U	0.052 U	0.051 U	0.058 U
1,1,1-Trichloroethane	0.24 U	0.0012 U	0.0012 U	0.0011 U	0.0013 UJ	0.0013 U	0.0011 U	0.14	0.1	0.001 U	0.0011 U	0.16 U	0.067 U	0.05 U	2.2 U	0.052 U	0.051 U	0.058 U
1,1,2,2-Tetrachloroethane	0.24 U	0.0012 U	0.0012 U	0.0011 U	0.0013 UJ	0.0013 U	0.0011 U	0.089 U	0.082 U	0.001 U	0.0011 U	0.16 U	0.067 U	0.05 U	2.2 U	0.052 U	0.051 U	0.058 U
1,1,2-Trichloroethane	0.37 U	0.0019 U	0.0017 U	0.0017 U	0.002 UJ	0.0019 U	0.0016 U	0.13 U	0.12 U	0.0015 U	0.0016 U	0.24 U	0.1 U	0.074 U	3.4 U	0.078 U	0.077 U	0.087 U
1,1-Dichloroethane	0.37 U	0.0019 U	0.0017 U	0.0017 U	0.002 UJ	0.0019 U	0.0016 U	0.13 U	0.12 U	0.0015 U	0.0016 U	0.24 U	0.1 U	0.074 U	3.4 U	0.078 U	0.077 U	0.087 U
1,1-Dichloroethene	0.24 U	0.0012 U	0.0012 U	0.0011 U	0.0013 UJ	0.0013 U	0.0011 U	0.089 U	0.082 U	0.001 U	0.0011 U	0.16 U	0.067 U	0.05 U	2.2 U	0.052 U	0.051 U	0.058 U
1,1-Dichloropropene	1.2 U	0.0063 U	0.0058 U	0.0057 U	0.0065 UJ	0.0064 U	0.0054 U	0.44 U	0.41 U	0.005 U	0.0055 U	0.78 U	0.34 U	0.25 U	11 U	0.26 U	0.26 U	0.29 U
1,2,3-Trichlorobenzene	1.2 U	0.0063 U	0.0058 U	0.0057 U	0.0065 UJ	0.0064 U	0.0054 U	0.44 U	0.41 U	0.005 U	0.0055 U	0.78 U	0.34 U	0.25 U	11 U	0.26 U	0.26 U	0.29 U
1,2,3-Trichloropropane	2.4 U	0.012 U	0.012 U	0.011 U	0.013 UJ	0.013 U	0.011 U	0.89 U	0.82 U	0.01 U	0.011 U	1.6 U	0.67 U	0.5 U	22 U	0.52 U	0.51 U	0.58 U
1,2,4-Trichlorobenzene	1.2 U	0.0063 U	0.0058 U	0.0057 U	0.0065 UJ	0.0064 U	0.0054 U	0.44 U	0.41 U	0.005 U	0.0055 U	0.78 U	0.34 U	0.25 U	11 U	0.26 U	0.26 U	0.29 U
1,2,4-Trimethylbenzene	36 J	0.0063 U	0.0058 U	0.0057 U	0.0065 UJ	0.0064 U	0.00023 J	0.18 J	0.27 J	0.005 U	0.0055 U	0.34 J	0.062 J	0.078 J	7.8 J	0.041 J	0.065 J	0.18 J
1,2-Dibromo-3-Chloropropane	1.2 U	0.0063 U	0.0058 U	0.0057 U	0.0065 UJ	0.0064 U	0.0054 U	0.44 U	0.41 U	0.005 U	0.0055 U	0.78 U	0.34 U	0.25 U	11 U	0.26 U	0.26 U	0.29 U
1,2-Dibromoethane (Ethylene Dibromide)	0.98 U	0.005 U	0.0046 U	0.0045 U	0.0052 UJ	0.0051 U	0.0043 U	0.36 U	0.33 U	0.004 U	0.0044 U	0.63 U	0.27 U	0.2 U	9 U	0.21 U	0.2 U	0.23 U
1,2-Dichlorobenzene	1.2 U	0.0063 U	0.0058 U	0.0057 U	0.0065 UJ	0.0064 U	0.0054 U	0.44 U	0.41 U	0.005 U	0.0055 U	0.78 U	0.34 U	0.25 U	11 U	0.26 U	0.26 U	0.29 U
1,2-Dichloroethane	0.24 U	0.0012 U	0.0012 U	0.0011 U	0.0013 UJ	0.0013 U	0.0011 U	0.089 U	0.082 U	0.001 U	0.0011 U	0.16 U	0.067 U	0.05 U	2.2 U	0.052 U	0.051 U	0.058 U
1,2-Dichloroethene, cis-	0.24 U	0.0012 U	0.0012 U	0.0011 U	0.0013 UJ	0.0013 U	0.0011 U	0.089 U	0.082 U	0.001 U	0.0015	0.41	0.03 J	0.2	12	0.035 J	0.05 J	0.4
1,2-Dichloroethene, Total	0.24 U	0.0012 U	0.0012 U	0.0011 U	0.0013 UJ	0.0013 U	0.0011 U	0.089 U	0.082 U	0.001 U	0.0015	0.49 J	0.03 J	0.22 J	12	0.035 J	0.05 J	0.42 J
1,2-Dichloroethene, trans-	0.37 U	0.0019 U	0.0017 U	0.0017 U	0.002 UJ	0.0019 U	0.0016 U	0.13 U	0.12 U	0.0015 U	0.0016 U	0.078 J	0.1 U	0.021 J	3.4 U	0.078 U	0.077 U	0.021 J
1,2-Dichloropropane	0.85 U	0.0044 U	0.0041 U	0.004 U	0.0046 UJ	0.0045 U	0.0038 U	0.31 U	0.29 U	0.0035 U	0.0038 U	0.55 U	0.23 U	0.17 U	7.9 U	0.18 U	0.18 U	0.2 U
1,3,5-Trimethylbenzene (Mesitylene)	2.6 J	0.0063 U	0.0058 U	0.0057 U	0.0065 UJ	0.0064 U	0.0054 U	0.12 J	0.15 J	0.005 U	0.0055 U	0.11 J	0.021 J	0.033 J	1.6 J	0.014 J	0.031 J	0.065 J
1,3-Dichlorobenzene	1.2 U	0.0063 U	0.0058 U	0.0057 U	0.0065 UJ	0.0064 U	0.0054 U	0.44 U	0.41 U	0.005 U	0.0055 U	0.78 U	0.34 U	0.25 U	11 U	0.26 U	0.26 U	0.29 U
1,3-Dichloropropane	1.2 U	0.0063 U	0.0058 U	0.0057 U	0.0065 UJ	0.0064 U	0.0054 U	0.44 U	0.41 U	0.005 U	0.0055 U	0.78 U	0.34 U	0.25 U	11 U	0.26 U	0.26 U	0.29 U
1,3-Dichloropropene, cis-	0.24 U	0.0012 U	0.0012 U	0.0011 U	0.0013 UJ	0.0013 U	0.0011 U	0.089 U	0.082 U	0.001 U	0.0011 U	0.16 U	0.067 U	0.05 U	2.2 U	0.052 U	0.051 U	0.058 U
1,3-Dichloropropene, Total	0.24 U	0.0012 U	0.0012 U	0.0011 U	0.0013 UJ	0.0013 U	0.0011 U	0.089 U	0.082 U	0.001 U	0.0011 U	0.16 U	0.067 U	0.05 U	2.2 U	0.052 U	0.051 U	0.058 U
1,3-Dichloropropene, trans-	0.24 U	0.0012 U	0.0012 U	0.0011 U	0.0013 UJ	0.0013 U	0.0011 U	0.089 U	0.082 U	0.001 U	0.0011 U	0.16 U	0.067 U	0.05 U	2.2 U	0.052 U	0.051 U	0.058 U
1,4-Dichlorobenzene	1.2 U	0.0063 U	0.0058 U	0.0057 U	0.0065 UJ	0.0064 U	0.0054 U	0.44 U	0.41 U	0.005 U	0.0055 U	0.78 U	0.34 U	0.25 U	11 U	0.26 U	0.26 U	0.29 U
1,4-Dioxane (p-Dioxane)	24 U	0.12 U	0.12 U	0.11 U	0.13 U	0.13 U	0.11 U	8.9 U	8.2 U	0.1 U	0.11 U	16 U	2.7 U	2 U	90 U	2.1 U	2 U	2.3 U
2,2-Dichloropropane	1.2 U	0.0063 U	0.0058 U	0.0057 U	0.0065 UJ	0.0064 U	0.0054 U	0.44 U	0.41 U	0.005 U	0.0055 U	0.78 U	0.34 U	0.25 U	11 U	0.26 U	0.26 U	0.29 U
2-Chlorotoluene	1.2 U	0.0063 U	0.0058 U	0.0057 U	0.0065 UJ	0.0064 U	0.0054 U	0.44 U	0.41 U	0.005 U	0.0055 U	0.78 U	0.34 U	0.25 U	11 U	0.26 U	0.26 U	0.29 U
2-Hexanone	2.4 U	0.012 U	0.012 U	0.011 U	0.013 UJ	0.013 U	0.011 U	0.89 U	0.82 U	0.01 U	0.011 U	1.6 U	0.67 U	0.5 U	22 U	0.52 U	0.51 U	0.58 U
4-Chlorotoluene	1.2 U	0.0063 U	0.0058 U	0.0057 U	0.0065 UJ	0.0064 U	0.0054 U	0.44 U	0.41 U	0.005 U	0.0055 U	0.78 U	0.34 U	0.25 U	11 U	0.26 U	0.26 U	0.29 U
Acetone	2.4 U	0.012 U	0.012 U	0.0065 J	0.0096 J	0.013 U	0.011 U	0.89 U	0.82 U	0.012	0.0097 J	1.6 U	0.67 UJ	0.14 J	22 UJ	0.52 UJ	0.51 UJ	0.58 U
Benzene	0.24 U	0.0012 U	0.0012 U	0.0011 U	0.0013 UJ	0.0013 U	0.0011 U	0.034 J	0.043 J	0.001 U	0.00031 J	0.25	0.03 J	0.025 J	2.2 U	0.015 J	0.028 J	0.095
Bromobenzene	1.2 U	0.0063 U	0.0058 U	0.0057 U	0.0065 UJ	0.0064 U	0.0054 U	0.44 U	0.41 U	0.005 U	0.0055 U	0.78 U	0.34 U	0.25 U	11 U	0.26 U	0.26 U	0.29 U
Bromodichloromethane	0.24 U	0.0012 U	0.0012 U	0.0011 U	0.0013 UJ	0.0013 U	0.0011 U	0.089 U	0.082 U	0.001 U	0.0011 U	0.16 U	0.067 U	0.05 U	2.2 U	0.052 U	0.051 U	0.058 U
Bromoform	0.98 U	0.005 U	0.0046 U	0.0045 U	0.0052 UJ	0.0051 U	0.0043 U	0.36 U	0.33 U	0.004 U	0.0044 U	0.63 U	0.27 U	0.2 U	9 U	0.21 U	0.2 U	0.23 U
Bromomethane	0.49 U	0.0025 U	0.0023 U	0.0023 U	0.0026 U	0.0026 U	0.0021 U	0.032 J	0.054 J	0.002 U	0.0022 U	0.31 U	0.13 U	0.099 U	4.5 U	0.1 U	0.1 U	0.12 U
Butylbenzene, n-	0.95 J	0.0012 U	0.0012 U	0.0011 U	0.0013 UJ	0.0013 U	0.0011 U	0.027 J	0.068 J	0.001 U	0.0011 U	0.038 J	0.067 U	0.05 U	2.2 U	0.052 U	0.051 U	0.022 J
Butylbenzene, sec-	0.52 J	0.0012 U	0.0012 U	0.0011 U	0.0013 UJ	0.0013 U	0.0011 U	0.021 J	0.026 J	0.001 U	0.0011 U	0.033 J	0.067 U	0.05 U	2.2 U	0.052 U	0.051 U	0.058 U
Butylbenzene, t-	0.04 J	0.0063 U	0.0058 U	0.0057 U	0.0065 UJ	0.0064 U	0.0054 U	0.44 U	0.41 U	0.005 U	0.0055 U	0.78 U	0.34 U	0.25 U	11 U	0.26 U	0.26 U	0.29 U
Carbon Disulfide	2.4 U	0.012 U	0.012 U	0.011 U	0.013 UJ	0.013 U	0.011 U	0.89 U	0.82 U	0.01 U	0.011 U	1.6 U	0.67 U	0.5 U	22 U	0.52 U	0.51 U	0.58 U

Table 2-2a. Historical Soil Data: Volatile Organic Compounds

Essex-Hope Site, Jamestown, New York

Location ID	DPT-001	DPT-001	DPT-001	DPT-002	DPT-002	DPT-003	DPT-003	DPT-004	DPT-004	DPT-004	DPT-005	DPT-005	DPT-005A	DPT-005A	DPT-005A	DPT-005B	DPT-005B	DPT-005B
Sample Depth (feet bgs)	9 - 10	3 - 4	6 - 7	3 - 4	6 - 8	2 - 3	6 - 8	2 - 3	2 - 3	6 - 7	3 - 4	5 - 6	2 - 4	5 - 7	16 - 17	2 - 4	2 - 4	5 - 7
Sample Date	9/19/2016	9/19/2016	9/19/2016	9/20/2016	9/20/2016	9/19/2016	9/19/2016	9/19/2016	9/19/2016	9/19/2016	9/19/2016	9/19/2016	9/20/2017	9/20/2017	9/20/2017	9/19/2017	9/19/2017	9/20/2017
Sample Type	N	N	N	N	N	N	N	N	FD	N	N	N	N	N	N	N	FD	N
Operable Unit	OU-01	OU-01	OU-01	OU-01	OU-01	OU-01	OU-01	OU-01	OU-01	OU-01	OU-01	OU-01	OU-01	OU-01	OU-01	OU-01	OU-01	OU-01
Geologic Unit	Shallow Sand and Gravel	Shallow Sand and Gravel	Shallow Sand and Gravel	Shallow Sand and Gravel	Shallow Sand and Gravel	Shallow Sand and Gravel	Shallow Sand and Gravel	Shallow Sand and Gravel	Shallow Sand and Gravel	Shallow Sand and Gravel	Shallow Sand and Gravel	Shallow Sand and Gravel	Shallow Sand and Gravel	Shallow Sand and Gravel	Shallow Silty Clay	Shallow Sand and Gravel	Shallow Sand and Gravel	Shallow Sand and Gravel
Analyte																		
Carbon Tetrachloride	0.24 U	0.0012 U	0.0012 U	0.0011 U	0.0013 UJ	0.0013 U	0.0011 U	0.089 U	0.082 U	0.001 U	0.0011 U	0.16 U	0.067 U	0.05 U	2.2 U	0.052 U	0.051 U	0.058 U
Chlorobenzene	0.24 U	0.0012 U	0.0012 U	0.0011 U	0.0013 UJ	0.0013 U	0.0011 U	0.089 U	0.082 U	0.001 U	0.0011 U	0.16 U	0.067 U	0.05 U	2.2 U	0.052 U	0.051 U	0.058 U
Chlorobromomethane	1.2 U	0.0063 U	0.0058 U	0.0057 U	0.0065 UJ	0.0064 U	0.0054 U	0.44 U	0.41 U	0.005 U	0.0055 U	0.78 U	0.34 U	0.25 U	11 U	0.26 U	0.26 U	0.29 U
Chloroethane	0.49 U	0.0025 U	0.0023 U	0.0023 U	0.0026 U	0.0026 U	0.0021 U	0.18 U	0.16 U	0.002 U	0.0022 U	0.31 U	0.13 U	0.099 U	4.5 U	0.1 U	0.1 U	0.12 U
Chloroform	0.37 U	0.0019 U	0.0017 U	0.0017 U	0.002 UJ	0.0019 U	0.0016 U	0.13 U	0.12 U	0.0015 U	0.00044 J	0.24 U	0.1 U	0.074 U	3.4 U	0.078 U	0.077 U	0.087 U
Chloromethane	1.2 U	0.0063 UJ	0.0058 UJ	0.0057 U	0.0065 UJ	0.0064 UJ	0.0054 UJ	0.44 UJ	0.41 UJ	0.005 UJ	0.0055 UJ	0.78 U	0.34 U	0.25 U	11 U	0.26 U	0.26 U	0.29 U
Dibromochloromethane	0.24 U	0.0012 U	0.0012 U	0.0011 U	0.0013 UJ	0.0013 U	0.0011 U	0.089 U	0.082 U	0.001 U	0.0011 U	0.16 U	0.067 U	0.05 U	2.2 U	0.052 U	0.051 U	0.058 U
Dibromomethane (Methylene Bromide)	2.4 U	0.012 U	0.012 U	0.011 U	0.013 UJ	0.013 U	0.011 U	0.89 U	0.82 U	0.01 U	0.011 U	1.6 U	0.67 U	0.5 U	22 U	0.52 U	0.51 U	0.58 U
Dichlorodifluoromethane	2.4 U	0.012 U	0.012 U	0.011 U	0.013 U	0.013 U	0.011 U	0.89 U	0.82 U	0.01 U	0.011 U	1.6 U	0.67 UJ	0.5 UJ	22 UJ	0.52 UJ	0.51 UJ	0.58 UJ
Ethylbenzene	1.1 J	0.0012 U	0.0012 U	0.0011 U	0.0013 UJ	0.0013 U	0.0011 U	0.13 J	0.24 J	0.001 U	0.0011 U	0.23	0.021 J	0.04 J	2.2 U	0.015 J	0.021 J	0.085
Hexachlorobutadiene	1.2 U	0.0063 U	0.0058 U	0.0057 U	0.0065 UJ	0.0064 U	0.0054 U	0.44 U	0.41 U	0.005 U	0.0055 U	0.78 U	0.34 U	0.25 U	11 U	0.26 U	0.26 U	0.29 U
Isopropylbenzene (Cumene)	1.2 J	0.0012 U	0.0012 U	0.0011 U	0.00071 J	0.0013 U	0.0011 U	0.031 J	0.056 J	0.001 U	0.0011 U	0.063 J	0.067 U	0.012 J	2.2 U	0.052 U	0.051 U	0.023 J
Methyl Ethyl Ketone (2-Butanone)	2.4 U	0.012 UJ	0.012 UJ	0.011 U	0.013 UJ	0.013 UJ	0.011 UJ	0.89 UJ	0.82 UJ	0.01 UJ	0.011 UJ	1.6 U	0.67 UJ	0.5 UJ	22 UJ	0.52 UJ	0.51 UJ	0.58 UJ
Methyl Isobutyl Ketone (4-Methyl-2-Pentanone)	2.4 U	0.012 U	0.012 U	0.011 U	0.013 UJ	0.013 U	0.011 U	0.5 J	0.27 J	0.01 U	0.011 U	1.6 U	0.67 U	0.5 U	22 U	0.52 U	0.51 U	0.58 U
Methyl tert-butyl Ether (MTBE)	0.49 U	0.0025 U	0.0023 U	0.0023 U	0.0026 UJ	0.0026 U	0.0021 U	0.18 U	0.16 U	0.002 U	0.0022 U	0.31 U	0.13 U	0.099 U	4.5 U	0.1 U	0.1 U	0.12 U
Methylene Chloride	2.4 U	0.012 U	0.012 U	0.011 U	0.013 UJ	0.013 U	0.011 U	0.89 U	0.82 U	0.01 U	0.002 J	0.48 J	0.67 U	0.5 U	22 U	0.52 U	0.51 U	0.18 J
Naphthalene	1.1 J	0.0063 U	0.0058 U	0.0057 U	0.0065 UJ	0.0064 U	0.0054 U	0.088 J	0.064 J	0.005 U	0.0055 U	0.37 J	0.086 J	0.11 J	11 U	0.062 J	0.1 J	0.21 J
n-Propylbenzene	6.3 J	0.0012 U	0.0012 U	0.0011 U	0.00022 J	0.0013 U	0.0011 U	0.034 J	0.045 J	0.001 U	0.0011 U	0.12 J	0.022 J	0.027 J	0.8 J	0.012 J	0.018 J	0.047 J
p-Isopropyltoluene	0.53 J	0.0012 U	0.0012 U	0.0011 U	0.0013 UJ	0.0013 U	0.0011 U	0.011 J	0.017 J	0.001 U	0.0011 U	0.021 J	0.018 J	0.018 J	2.2 U	0.036 J	0.066	0.027 J
Styrene	0.49 U	0.0025 U	0.0023 U	0.0023 U	0.0026 UJ	0.0026 U	0.0021 U	0.18 U	0.16 U	0.002 U	0.0022 U	0.31 U	0.13 U	0.099 U	4.5 U	0.1 U	0.1 U	0.12 U
Tetrachloroethene	0.24 U	0.0012 U	0.0012 U	0.0011 U	0.0013 UJ	0.0013 U	0.0011 U	0.062 J	0.07 J	0.001 U	0.0011 U	0.028 J	0.067 U	0.05 U	2.2 U	0.052 U	0.051 U	0.058 U
Toluene	0.37 U	0.0019 U	0.0017 U	0.0017 U	0.002 UJ	0.0019 U	0.0016 U	0.85	0.73	0.0015 U	0.00032 J	0.76	0.092 J	0.11	3.4 U	0.048 J	0.081	0.32
Trichloroethene	0.24 U	0.0012 U	0.0012 U	0.0011 U	0.0013 UJ	0.0013 U	0.0011 U	0.089 U	0.082 U	0.001 U	0.014	18	1.6	3.3	180	0.89	1.7	6.9
Trichlorofluoromethane	1.2 U	0.0063 U	0.0058 U	0.0057 U	0.0065 UJ	0.0064 U	0.0054 U	0.44 U	0.41 U	0.005 U	0.0055 U	0.78 U	0.34 U	0.25 U	11 U	0.26 U	0.26 U	0.29 U
Vinyl Acetate	2.4 U	0.012 U	0.012 U	0.011 U	0.013 UJ	0.013 U	0.011 U	0.89 U	0.82 U	0.01 U	0.011 U	1.6 U	0.67 U	0.5 U	22 U	0.52 U	0.51 U	0.58 UJ
Vinyl Chloride	0.49 U	0.0025 U	0.0023 U	0.0023 U	0.0026 UJ	0.0026 U	0.0021 U	0.18 U	0.16 U	0.002 U	0.0022 U	0.31 U	0.13 U	0.099 U	4.5 U	0.1 U	0.1 U	0.12 U
Xylene, m- & p-	0.49 U	0.0025 U	0.0023 U	0.0023 U	0.0026 UJ	0.0026 U	0.0021 U	0.8 J	1.3 J	0.002 U	0.0022 U	0.72	0.085 J	0.12	4.5 U	0.065 J	0.086 J	0.32
Xylene, o-	0.49 U	0.0025 U	0.0023 U	0.0023 U	0.0026 UJ	0.0026 U	0.0021 U	0.44 J	0.85 J	0.002 U	0.0022 U	0.4	0.066 J	0.077 J	4.5 U	0.046 J	0.055 J	0.16
Xylenes, Total	0.49 U	0.0025 U	0.0023 U	0.0023 U	0.0026 UJ	0.0026 U	0.0021 U	1.2 J	2.2 J	0.002 U	0.0022 U	1.1	0.15 J	0.2 J	4.5 U	0.11 J	0.14 J	0.48
Total CBTEX	2.3 J	0.0025 U	0.0023 U	0.0023 U	0.00071 J	0.0026 U	0.0021 U	2.245	3.269	0.002 U	0.00063 J	2.403	0.294 J	0.384 J	4.5 U	0.189 J	0.271 J	1.003 J
Total CVOC	0.49 U	0.0025 U	0.0023 U	0.0023 U	0.0026 UJ	0.0026 U	0.0021 U	0.062	0.07	0.002 U	0.0155	18.516	1.63 J	3.521 J	192	0.925 J	1.75 J	7.501 J
Total VOC	50 J	0.12 U	0.12 U	0.0065 J	0.011 J	0.13 U	0.00023 J	4.7 J	6.6 J	0.012	0.03 J	24 J	2.133 J	4.311 J	202.2 J	1.279 J	2.301 J	9.055 J

Table 2-2a. Historical Soil Data: Volatile Organic Compounds

Essex-Hope Site, Jamestown, New York

Location ID	DPT-005C	DPT-005C	DPT-005D	DPT-005D	DPT-006	DPT-006	DPT-007	DPT-007	DPT-007	DPT-007	DPT-008	DPT-009	DPT-012	DPT-012	DPT-020	DPT-020	DPT-021	DPT-021
Sample Depth (feet bgs)	2 - 4	5 - 7	2 - 4	5 - 7	3 - 4	7 - 8	18 - 19	22 - 23	33 - 34	34 - 36	38 - 39	30 - 32	2 - 4	6 - 8	2 - 4	6 - 8	2 - 4	6 - 8
Sample Date	9/25/2017	9/26/2017	9/20/2017	9/20/2017	9/19/2016	9/19/2016	9/21/2016	9/21/2016	9/21/2016	9/20/2016	9/20/2016	9/20/2016	9/13/2017	9/13/2017	9/19/2017	9/19/2017	9/19/2017	9/19/2017
Sample Type	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
Operable Unit	OU-01	OU-01	OU-01	OU-01	OU-01	OU-01	OU-01	OU-01	OU-01	OU-01	OU-01	OU-01	OU-03	OU-03	OU-03	OU-01	OU-01	OU-01
Geologic Unit	Shallow Sand and Gravel	Shallow Sand and Gravel	Shallow Sand and Gravel	Shallow Sand and Gravel	Shallow Sand and Gravel	Shallow Sand and Gravel	Shallow Silty Clay	Deep Sandy Silt	Deep Sandy Silt	Deep Sandy Silt	Deep Sandy Silt	Deep Sandy Silt	Shallow Sand and Gravel	Shallow Sand and Gravel	Shallow Sand and Gravel	Shallow Sand and Gravel	Shallow Sand and Gravel	Shallow Sand and Gravel
Analyte																		
1,1,1,2-Tetrachloroethane	0.059 U	0.064 U	0.07 U	0.00075 U	0.0012 U	0.0011 U	0.057 U	3.8 U	0.33 U	0.74 U	0.0013 U	0.69 U	0.00088 U	0.00088 U	0.00096 U	0.054 U	0.00098 U	0.11 U
1,1,1-Trichloroethane	0.059 U	0.064 U	0.07 U	0.00075 U	0.0012 U	0.0011 U	0.057 U	3.8 U	0.33 U	0.74 U	0.0013 U	0.69 U	0.00088 U	0.00088 U	0.00096 U	0.054 U	0.00098 U	0.11 U
1,1,2,2-Tetrachloroethane	0.059 U	0.064 U	0.07 U	0.00075 U	0.0012 U	0.0011 U	0.057 U	3.8 U	0.33 U	0.74 U	0.0013 U	0.69 U	0.00088 U	0.00088 U	0.00096 U	0.054 U	0.00098 U	0.11 U
1,1,2-Trichloroethane	0.088 U	0.096 U	0.1 U	0.0011 U	0.0018 U	0.0016 U	0.086 U	5.6 U	0.5 U	1.1 U	0.002 U	1 U	0.0013 U	0.0013 U	0.0014 U	0.082 U	0.0015 U	0.17 U
1,1-Dichloroethane	0.088 U	0.096 U	0.1 U	0.0011 U	0.0018 U	0.0016 U	0.086 U	5.6 U	0.5 U	1.1 U	0.002 U	1 U	0.0013 U	0.0013 U	0.0014 U	0.082 U	0.0015 U	0.17 U
1,1-Dichloroethene	0.059 U	0.064 U	0.07 U	0.00075 U	0.0012 U	0.0011 U	0.057 U	3.8 U	0.22 J	0.74 U	0.00066 J	0.69 U	0.00088 U	0.00088 U	0.00096 U	0.054 U	0.00098 U	0.11 U
1,1-Dichloropropene	0.29 U	0.32 U	0.35 U	0.0037 U	0.0061 U	0.0054 U	0.29 U	19 U	1.6 U	3.7 U	0.0067 U	3.5 U	0.0044 U	0.0044 U	0.0048 U	0.27 U	0.0049 U	0.56 U
1,2,3-Trichlorobenzene	0.29 U	0.32 U	0.35 U	0.0037 U	0.0061 U	0.0054 U	0.29 U	19 U	1.6 U	3.7 U	0.0002 J	3.5 U	0.0044 UJ	0.0044 U	0.0048 U	0.27 U	0.0049 U	0.56 U
1,2,3-Trichloropropane	0.59 U	0.64 U	0.7 U	0.0075 U	0.012 U	0.011 U	0.57 U	38 U	3.3 U	7.4 U	0.013 U	6.9 U	0.0088 U	0.0088 U	0.0096 U	0.54 U	0.0098 U	1.1 U
1,2,4-Trichlorobenzene	0.29 U	0.32 U	0.35 U	0.0037 U	0.0061 U	0.0054 U	0.29 U	19 U	1.6 U	3.7 U	0.0067 U	3.5 U	0.0044 UJ	0.0044 U	0.0048 U	0.27 U	0.0049 U	0.56 U
1,2,4-Trimethylbenzene	0.046 J	0.082 J	0.23 J	0.00093 J	0.0061 U	0.0054 U	1.5	19 U	1.6 U	0.21 J	0.0067 U	0.16 J	0.0044 UJ	0.0044 U	0.0048 U	0.27 U	0.0049 U	0.56 U
1,2-Dibromo-3-Chloropropane	0.29 UJ	0.32 UJ	0.35 U	0.0037 U	0.0061 U	0.0054 U	0.29 U	19 U	1.6 U	3.7 U	0.0067 U	3.5 U	0.0044 UJ	0.0044 U	0.0048 U	0.27 U	0.0049 U	0.56 U
1,2-Dibromoethane (Ethylene Dibromide)	0.23 U	0.26 U	0.28 U	0.0030 U	0.0049 U	0.0043 U	0.23 U	15 U	1.3 U	3 U	0.0054 U	2.8 U	0.0035 U	0.0035 U	0.0038 U	0.22 U	0.0039 U	0.45 U
1,2-Dichlorobenzene	0.29 U	0.32 U	0.35 U	0.0037 U	0.0061 U	0.0054 U	0.29 U	19 U	1.6 U	3.7 U	0.0067 U	3.5 U	0.0044 UJ	0.0044 U	0.0048 U	0.27 U	0.0049 U	0.56 U
1,2-Dichloroethane	0.059 U	0.064 U	0.07 U	0.00075 U	0.0012 U	0.0011 U	0.057 U	3.8 U	0.33 U	0.74 U	0.0013 U	0.69 U	0.00088 UJ	0.00088 UJ	0.00096 U	0.054 U	0.00098 U	0.11 U
1,2-Dichloroethene, cis-	0.11	0.19	0.28	0.00039 J	0.0012 U	0.0011 U	0.66	91	10	11	0.2	11	0.00088 U	0.00088 U	0.00082 J	0.054 U	0.00098 U	0.11 U
1,2-Dichloroethene, Total	0.13 J	0.21 J	0.34 J	0.00039 J	0.0012 U	0.0011 U	0.66	91	10 J	11	0.2 J	11	0.00088 U	0.00088 U	0.00082 J	0.054 U	0.00098 U	0.11 U
1,2-Dichloroethene, trans-	0.022 J	0.02 J	0.063 J	0.0011 U	0.0018 U	0.0016 U	0.086 U	5.6 U	0.19 J	1.1 U	0.00032 J	1 U	0.0013 U	0.0013 U	0.0014 U	0.082 U	0.0015 U	0.17 U
1,2-Dichloropropane	0.2 U	0.22 U	0.24 U	0.0026 U	0.0043 U	0.0038 U	0.2 U	13 U	1.2 U	2.6 U	0.0047 U	2.4 U	0.0031 U	0.0031 U	0.0034 U	0.19 U	0.0034 U	0.39 U
1,3,5-Trimethylbenzene (Mesitylene)	0.023 J	0.04 J	0.078 J	0.0037 U	0.0061 U	0.0054 U	0.39	19 U	1.6 U	3.7 U	0.0067 U	3.5 U	0.0044 UJ	0.0044 U	0.0048 U	0.27 U	0.0049 U	0.56 U
1,3-Dichlorobenzene	0.29 U	0.32 U	0.35 U	0.0037 U	0.0061 U	0.0054 U	0.29 U	19 U	1.6 U	3.7 U	0.0067 U	3.5 U	0.0044 UJ	0.0044 U	0.0048 U	0.27 U	0.0049 U	0.56 U
1,3-Dichloropropane	0.29 U	0.32 U	0.35 U	0.0037 U	0.0061 U	0.0054 U	0.29 U	19 U	1.6 U	3.7 U	0.0067 U	3.5 U	0.0044 U	0.0044 U	0.0048 U	0.27 U	0.0049 U	0.56 U
1,3-Dichloropropene, cis-	0.059 U	0.064 U	0.07 U	0.00075 U	0.0012 U	0.0011 U	0.057 U	3.8 U	0.33 U	0.74 U	0.0013 U	0.69 U	0.00088 U	0.00088 U	0.00096 U	0.054 U	0.00098 U	0.11 U
1,3-Dichloropropene, Total	0.059 U	0.064 U	0.07 U	0.00075 U	0.0012 U	0.0011 U	0.057 U	3.8 U	0.33 U	0.74 U	0.0013 U	0.69 U	0.00088 U	0.00088 U	0.00096 U	0.054 U	0.00098 U	0.11 U
1,3-Dichloropropene, trans-	0.059 U	0.064 U	0.07 U	0.00075 U	0.0012 U	0.0011 U	0.057 U	3.8 U	0.33 U	0.74 U	0.0013 U	0.69 U	0.00088 U	0.00088 U	0.00096 U	0.054 U	0.00098 U	0.11 U
1,4-Dichlorobenzene	0.29 U	0.32 U	0.35 U	0.0037 U	0.0061 U	0.0054 U	0.29 U	19 U	1.6 U	3.7 U	0.0067 U	3.5 U	0.0044 UJ	0.0044 U	0.0048 U	0.27 U	0.0049 U	0.56 U
1,4-Dioxane (p-Dioxane)	2.3 U	2.6 U	2.8 U	0.03 U	0.12 U	0.11 U	5.7 U	380 U	33 U	74 U	0.13 U	69 U	0.035 U	0.035 U	0.038 U	2.2 U	0.039 U	4.5 U
2,2-Dichloropropane	0.29 U	0.32 U	0.35 U	0.0037 U	0.0061 U	0.0054 U	0.29 U	19 U	1.6 U	3.7 U	0.0067 U	3.5 U	0.0044 U	0.0044 U	0.0048 U	0.27 U	0.0049 U	0.56 U
2-Chlorotoluene	0.29 U	0.32 U	0.35 U	0.0037 U	0.0061 U	0.0054 U	0.29 U	19 U	1.6 U	3.7 U	0.0067 U	3.5 U	0.0044 UJ	0.0044 U	0.0048 U	0.27 U	0.0049 U	0.56 U
2-Hexanone	0.59 U	0.64 U	0.7 U	0.0075 U	0.012 U	0.011 U	0.57 U	38 U	3.3 U	7.4 U	0.013 U	6.9 U	0.0088 UJ	0.0088 U	0.0096 U	0.54 U	0.0098 U	1.1 U
4-Chlorotoluene	0.29 U	0.32 U	0.35 U	0.0037 U	0.0061 U	0.0054 U	0.29 U	19 U	1.6 U	3.7 U	0.0067 U	3.5 U	0.0044 UJ	0.0044 U	0.0048 U	0.27 U	0.0049 U	0.56 U
Acetone	0.59 U	0.45 J	0.7 UJ	0.0075 UJ	0.012 U	0.011 U	0.57 U	38 U	3.3 U	7.4 U	0.013 U	6.9 U	0.0088 UJ	0.0088 J	0.0096 UJ	0.54 UJ	0.0098 UJ	1.1 UJ
Benzene	0.025 J	0.027 J	0.31	0.00075 U	0.0012 U	0.0011 U	0.021 J	3.8 U	0.2 J	0.74 U	0.0013 U	0.69 U	0.00088 U	0.00088 U	0.00096 U	0.054 U	0.00098 U	0.11 U
Bromobenzene	0.29 U	0.32 U	0.35 U	0.0037 U	0.0061 U	0.0054 U	0.29 U	19 U	1.6 U	3.7 U	0.0067 U	3.5 U	0.0044 UJ	0.0044 U	0.0048 U	0.27 U	0.0049 U	0.56 U
Bromodichloromethane	0.059 U	0.064 U	0.07 U	0.00075 U	0.0012 U	0.0011 U	0.057 U	3.8 U	0.33 U	0.74 U	0.0013 U	0.69 U	0.00088 U	0.00088 U	0.00096 U	0.054 U	0.00098 U	0.11 U
Bromoform	0.23 U	0.26 U	0.28 U	0.0030 U	0.0049 U	0.0043 U	0.23 U	15 U	1.3 U	3 U	0.0054 U	2.8 U	0.0035 UJ	0.0035 U	0.0038 U	0.22 U	0.0039 U	0.45 U
Bromomethane	0.085 J	0.13 UJ	0.14 U	0.0015 U	0.0024 U	0.0022 U	0.11 U	7.5 U	0.66 U	1.5 U	0.0027 U	1.4 U	0.0018 U	0.0018 U	0.0019 U	0.11 U	0.0020 U	0.22 U
Butylbenzene, n-	0.059 U	0.064 U	0.025 J	0.00075 U	0.0012 U	0.0011 U	0.0086 J	3.8 U	0.33 U	0.74 U	0.0013 U	0.69 U	0.00088 UJ	0.00088 U	0.00096 U	0.054 U	0.00098 U	0.11 U
Butylbenzene, sec-	0.013 J	0.064 U	0.024 J	0.00075 U	0.0012 U	0.0011 U	0.057 U	3.8 U	0.33 U	0.74 U	0.0013 U	0.69 U	0.00088 UJ	0.00088 U	0.00096 U	0.054 U	0.00098 U	0.11 U
Butylbenzene, t-	0.29 U	0.32 U	0.35 U	0.0037 U	0.0061 U	0.0054 U	0.29 U	19 U	1.6 U	3.7 U	0.0067 U	3.5 U	0.0044 UJ	0.0044 U	0.0048 U	0.27 U	0.0049 U	0.56 U
Carbon Disulfide	0.59 U	0.64 U	0.7 U	0.0075 U	0.012 U	0.011 U	0.57 U	38 U	3.3 U	7.4 U	0.013 U	6.9 U	0.0088 U	0.0088 U	0.0096 U	0.1 J	0.0098 U	1.1 U

Table 2-2a. Historical Soil Data: Volatile Organic Compounds

Essex-Hope Site, Jamestown, New York

Location ID	DPT-005C	DPT-005C	DPT-005D	DPT-005D	DPT-006	DPT-006	DPT-007	DPT-007	DPT-007	DPT-007	DPT-008	DPT-009	DPT-012	DPT-012	DPT-020	DPT-020	DPT-021	DPT-021
Sample Depth (feet bgs)	2 - 4	5 - 7	2 - 4	5 - 7	3 - 4	7 - 8	18 - 19	22 - 23	33 - 34	34 - 36	38 - 39	30 - 32	2 - 4	6 - 8	2 - 4	6 - 8	2 - 4	6 - 8
Sample Date	9/25/2017	9/26/2017	9/20/2017	9/20/2017	9/19/2016	9/19/2016	9/21/2016	9/21/2016	9/21/2016	9/20/2016	9/20/2016	9/20/2016	9/13/2017	9/13/2017	9/19/2017	9/19/2017	9/19/2017	9/19/2017
Sample Type	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
Operable Unit	OU-01	OU-01	OU-01	OU-01	OU-01	OU-01	OU-01	OU-01	OU-01	OU-01	OU-01	OU-03	OU-01	OU-03	OU-03	OU-01	OU-01	OU-01
Geologic Unit	Shallow Sand and Gravel	Shallow Sand and Gravel	Shallow Sand and Gravel	Shallow Sand and Gravel	Shallow Sand and Gravel	Shallow Sand and Gravel	Shallow Silty Clay	Deep Sandy Silt	Deep Sandy Silt	Deep Sandy Silt	Deep Sandy Silt	Deep Sandy Silt	Shallow Sand and Gravel	Shallow Sand and Gravel	Shallow Sand and Gravel	Shallow Sand and Gravel	Shallow Sand and Gravel	Shallow Sand and Gravel
Analyte																		
Carbon Tetrachloride	0.059 U	0.064 U	0.07 U	0.00075 U	0.0012 U	0.0011 U	0.057 U	3.8 U	0.33 U	0.74 U	0.0013 U	0.69 U	0.00088 U	0.00088 U	0.00096 U	0.054 U	0.00098 U	0.11 U
Chlorobenzene	0.059 U	0.064 U	0.07 U	0.00075 U	0.0012 U	0.0011 U	0.057 U	3.8 U	0.33 U	0.74 U	0.0013 U	0.69 U	0.00088 U	0.00088 U	0.00096 U	0.054 U	0.00098 U	0.11 U
Chlorobromomethane	0.29 U	0.32 U	0.35 U	0.0037 U	0.0061 U	0.0054 U	0.29 U	19 U	1.6 U	3.7 U	0.0067 U	3.5 U	0.0044 U	0.0044 U	0.0048 U	0.27 U	0.0049 U	0.56 U
Chloroethane	0.12 U	0.13 U	0.14 U	0.0015 U	0.0024 U	0.0022 U	0.11 U	7.5 U	0.66 U	1.5 U	0.0027 U	1.4 U	0.0018 U	0.0018 U	0.0019 U	0.11 U	0.0020 U	0.22 U
Chloroform	0.088 U	0.096 U	0.1 U	0.0011 U	0.0018 U	0.0016 U	0.086 U	5.6 U	0.5 U	1.1 U	0.002 U	1 U	0.0013 U	0.0013 U	0.0014 U	0.082 U	0.0015 U	0.17 U
Chloromethane	0.29 U	0.32 U	0.35 U	0.0037 U	0.0061 UJ	0.0054 UJ	0.29 U	19 U	1.6 U	3.7 U	0.0067 U	3.5 U	0.0044 U	0.0044 U	0.0048 U	0.27 U	0.0049 U	0.56 U
Dibromochloromethane	0.059 U	0.064 U	0.07 U	0.00075 U	0.0012 U	0.0011 U	0.057 U	3.8 U	0.33 U	0.74 U	0.0013 U	0.69 U	0.00088 U	0.00088 U	0.00096 U	0.054 U	0.00098 U	0.11 U
Dibromomethane (Methylene Bromide)	0.59 U	0.64 U	0.7 U	0.0075 U	0.012 U	0.011 U	0.57 U	38 U	3.3 U	7.4 U	0.013 U	6.9 U	0.0088 U	0.0088 U	0.0096 U	0.54 U	0.0098 U	1.1 U
Dichlorodifluoromethane	0.59 UJ	0.64 UJ	0.7 UJ	0.0075 UJ	0.012 U	0.011 U	0.57 U	38 U	3.3 U	7.4 U	0.013 U	6.9 U	0.0088 UJ	0.0088 UJ	0.0096 UJ	0.54 UJ	0.0098 UJ	1.1 UJ
Ethylbenzene	0.015 J	0.067	0.1	0.00075 U	0.0012 U	0.0011 U	0.053 J	3.8 U	0.33 U	0.74 U	0.0013 U	0.69 U	0.00088 U	0.00088 U	0.00096 U	0.054 U	0.00098 U	0.11 U
Hexachlorobutadiene	0.29 U	0.32 U	0.35 U	0.0037 U	0.0061 U	0.0054 U	0.29 U	19 U	1.6 U	3.7 U	0.0067 U	3.5 U	0.0044 UJ	0.0044 U	0.0048 U	0.27 U	0.0049 U	0.56 U
Isopropylbenzene (Cumene)	0.014 J	0.064 U	0.029 J	0.00075 U	0.0012 U	0.0011 U	0.04 J	3.8 U	0.33 U	0.74 U	0.0013 U	0.69 U	0.00088 U	0.00088 U	0.00096 U	0.054 U	0.00098 U	0.11 U
Methyl Ethyl Ketone (2-Butanone)	0.59 UJ	0.64 UJ	0.7 UJ	0.0075 UJ	0.012 UJ	0.011 UJ	0.57 U	38 U	3.3 U	7.4 U	0.013 U	6.9 U	0.0088 UJ	0.0088 UJ	0.0096 UJ	0.54 UJ	0.0098 UJ	1.1 UJ
Methyl Isobutyl Ketone (4-Methyl-2-Pentanone)	0.59 U	0.64 U	0.7 U	0.0075 U	0.012 U	0.011 U	0.57 U	38 U	3.3 U	7.4 U	0.013 U	6.9 U	0.0088 UJ	0.0088 U	0.0096 U	0.54 U	0.0098 U	1.1 U
Methyl tert-butyl Ether (MTBE)	0.12 U	0.13 U	0.14 U	0.0015 U	0.0024 U	0.0022 U	0.11 U	7.5 U	0.66 U	1.5 U	0.0027 U	1.4 U	0.0018 U	0.0018 U	0.0019 U	0.11 U	0.0020 U	0.22 U
Methylene Chloride	0.59 U	0.18 J	0.13 J	0.0075 U	0.012 U	0.011 U	0.57 U	38 U	3.3 U	0.86 J	0.013 U	6.9 U	0.0088 U	0.0088 U	0.0096 U	0.54 U	0.0098 U	1.1 U
Naphthalene	0.076 J	0.24 J	0.2 J	0.00018 J	0.0061 U	0.0054 U	0.29 U	19 U	1.6 U	3.7 U	0.00022 J	3.5 U	0.0044 UJ	0.0044 U	0.0048 U	0.27 U	0.0049 U	0.56 U
n-Propylbenzene	0.059 U	0.028 J	0.05 J	0.00075 U	0.0012 U	0.0011 U	0.22	3.8 U	0.33 U	0.74 U	0.0013 U	0.69 U	0.00088 UJ	0.00088 U	0.00096 U	0.054 U	0.00098 U	0.11 U
p-Isopropyltoluene	0.16	0.064 U	3	0.00075 U	0.0012 U	0.0011 U	0.011 J	3.8 U	0.33 U	0.74 U	0.0013 U	0.69 U	0.00088 UJ	0.00088 U	0.00096 U	0.054 U	0.00098 U	0.11 U
Styrene	0.12 U	0.13 U	0.14 U	0.0015 U	0.0024 U	0.0022 U	0.11 U	7.5 U	0.66 U	1.5 U	0.0027 U	1.4 U	0.0018 UJ	0.0018 U	0.0019 U	0.11 U	0.0020 U	0.22 U
Tetrachloroethene	0.059 U	0.064 U	0.07 U	0.00075 U	0.0012 U	0.0011 U	0.057 U	3.8 U	0.33 U	0.74 U	0.0013 U	0.69 U	0.00087 J	0.00088 U	0.00096 U	0.054 U	0.00098 U	0.11 U
Toluene	0.082 J	0.14	0.57	0.0011 U	0.0018 U	0.0016 U	0.086 U	5.6 U	0.5 U	0.53 J	0.002 U	0.62 J	0.0013 U	0.0013 U	0.0014 U	0.082 U	0.0015 U	0.17 U
Trichloroethene	0.45	6.2	2.6	0.0050	0.0016	0.00027 J	0.17	270	40	76	0.0014	88	0.00088 U	0.00088 U	0.00096 U	0.054 U	0.00098 U	0.11 U
Trichlorofluoromethane	0.29 U	0.32 U	0.35 U	0.0037 U	0.0061 U	0.0054 U	0.29 U	19 U	1.6 U	3.7 U	0.0067 U	3.5 U	0.0044 U	0.0044 U	0.0048 U	0.27 U	0.0049 U	0.56 U
Vinyl Acetate	0.59 U	0.64 U	0.7 U	0.0075 U	0.012 U	0.011 U	0.57 U	38 U	3.3 U	7.4 U	0.013 U	6.9 U	0.0088 UJ	0.0088 U	0.0096 U	0.54 U	0.0098 U	1.1 U
Vinyl Chloride	0.12 U	0.13 U	0.078 J	0.0015 U	0.0024 U	0.0022 U	0.012 J	1.1 J	0.6 J	0.42 J	0.066	0.19 J	0.0018 U	0.0018 U	0.0019 U	0.11 U	0.0020 U	0.22 U
Xylene, m- & p-	0.074 J	0.32	0.4	0.0015 U	0.0024 U	0.0022 U	0.2	7.5 U	0.66 U	1.5 U	0.0027 U	1.4 U	0.0018 U	0.0018 U	0.0019 U	0.11 U	0.0020 U	0.22 U
Xylene, o-	0.057 J	0.14 J	0.21	0.0015 U	0.0024 U	0.0022 U	0.13	7.5 U	0.66 U	1.5 U	0.0027 U	1.4 U	0.0018 UJ	0.0018 U	0.0019 U	0.11 U	0.0020 U	0.22 U
Xylenes, Total	0.13 J	0.46	0.61	0.0015 U	0.0024 U	0.0022 U	0.33	7.5 U	0.66 U	1.5 U	0.0027 U	1.4 U	0.0018 U	0.0018 U	0.0019 U	0.11 U	0.0020 U	0.22 U
Total CBTEX	0.267 J	0.694 J	1.619 J	0.0015 U	0.0024 U	0.0022 U	0.444 J	7.5 U	0.2 J	0.53 J	0.0027 U	0.62 J	0.0018 UJ	0.0018 U	0.0019 U	0.11 U	0.002 U	0.22 U
Total CVOC	0.582 J	6.59 J	3.151 J	0.00539 J	0.0016	0.00027 J	0.842	362.1	51.01	87.42	0.26838	99.19	0.00087 J	0.0018 U	0.00082 J	0.11 U	0.0020 U	0.22 U
Total VOC	1.252 J	8.124 J	8.377 J	0.0065 J	0.0016	0.00027 J	4.4 J	450 J	61 J	100 J	0.47 J	110 J	0.00087 J	0.0088 J	0.00082 J	0.1 J	0.039 UJ	4.5 UJ

Table 2-2a. Historical Soil Data: Volatile Organic Compounds

Essex-Hope Site, Jamestown, New York

Location ID	DPT-022	DPT-022	DPT-022	DPT-024	DPT-024	DPT-024	DPT-024	DPT-025	DPT-025	DPT-025	DPT-025	DPT-026	DPT-026	DPT-026	DPT-026	DPT-027	DPT-027	DPT-027
Sample Depth (feet bgs)	2 - 4	2 - 4	6 - 8	10 - 12	30 - 32	30 - 32	38 - 40	10 - 12	26 - 28	26 - 28	34 - 36	3 - 4.5	8 - 10	24 - 26	36 - 38	8 - 9	22 - 23	33 - 34
Sample Date	9/19/2017	9/19/2017	9/19/2017	9/21/2017	9/21/2017	9/21/2017	9/21/2017	9/21/2017	9/21/2017	9/21/2017	9/21/2017	9/22/2017	9/22/2017	9/22/2017	9/22/2017	10/6/2017	10/6/2017	10/6/2017
Sample Type	N	FD	N	N	N	FD	N	N	N	FD	N	N	N	N	N	N	N	N
Operable Unit	OU-03	OU-03	OU-03	OU-01	OU-01	OU-01	OU-01	OU-01	OU-01	OU-01	OU-01	OU-01	OU-01	OU-01	OU-01	OU-01	OU-01	OU-01
Geologic Unit	Shallow Sand and Gravel	Shallow Sand and Gravel	Shallow Sand and Gravel	Shallow Sand and Gravel	Deep Sandy Silt	Deep Sandy Silt	Deep Sandy Silt	Shallow Sand and Gravel	Deep Sandy Silt	Deep Sandy Silt	Deep Sandy Silt	Shallow Sand and Gravel	Shallow Sand and Gravel	Deep Sandy Silt	Deep Sandy Silt	Deep Sandy Silt	Deep Sandy Silt	Deep Sandy Silt
Analyte																		
1,1,1,2-Tetrachloroethane	0.0010 U	0.00099 U	0.00090 U	0.00085 U	0.35 U	1.2 U	0.059 U	0.00084 U	12 U	0.062 U	0.065 U	0.071 U	0.065 U	3.7 U	0.055 U	0.00086 U	0.93 U	0.095 U
1,1,1-Trichloroethane	0.0010 U	0.00099 U	0.00090 U	0.00085 U	0.35 U	1.2 U	0.059 U	0.00084 U	12 U	0.062 U	0.065 U	0.071 U	0.065 U	3.7 U	0.055 U	0.00086 U	0.93 U	0.095 U
1,1,2,2-Tetrachloroethane	0.0010 U	0.00099 U	0.00090 U	0.00085 U	0.35 U	1.2 U	0.059 U	0.00084 U	12 U	0.062 U	0.065 U	0.071 U	0.065 U	3.7 U	0.055 U	0.00086 U	0.93 U	0.095 U
1,1,2-Trichloroethane	0.0015 U	0.0015 U	0.0013 U	0.0013 U	0.53 U	1.8 U	0.089 U	0.0012 U	18 U	0.092 U	0.097 U	0.11 U	0.098 U	5.6 U	0.082 U	0.0013 U	1.4 U	0.14 U
1,1-Dichloroethane	0.0015 U	0.0015 U	0.0013 U	0.0013 U	0.53 U	1.8 U	0.089 U	0.0012 U	18 U	0.092 U	0.097 U	0.11 U	0.098 U	5.6 U	0.082 U	0.0013 U	1.4 U	0.14 U
1,1-Dichloroethene	0.0010 U	0.00099 U	0.00090 U	0.00085 U	0.2 J	1.2 U	0.059 U	0.00084 U	12 U	0.21	0.065 U	0.071 U	0.065 U	3.7 U	0.055 U	0.00086 U	0.93 U	0.057 J
1,1-Dichloropropene	0.0051 U	0.0050 U	0.0045 U	0.0043 U	1.8 U	6.1 U	0.3 U	0.0042 U	61 U	0.31 U	0.32 U	0.36 U	0.32 U	19 U	0.27 U	0.0043 U	4.6 U	0.47 U
1,2,3-Trichlorobenzene	0.0051 U	0.0050 U	0.0045 U	0.0043 U	1.8 U	6.1 U	0.3 U	0.0042 U	61 U	0.032 J	0.32 U	0.36 U	0.32 U	19 U	0.27 U	0.0043 U	4.6 U	0.47 U
1,2,3-Trichloropropane	0.01 U	0.0099 U	0.0090 U	0.0085 U	3.5 U	12 U	0.59 U	0.0084 U	120 U	0.62 U	0.65 U	0.71 U	0.65 U	37 U	0.55 U	0.0086 U	9.3 U	0.95 U
1,2,4-Trichlorobenzene	0.0051 U	0.0050 U	0.0045 U	0.0043 U	1.8 U	6.1 U	0.3 U	0.0042 U	61 U	0.31 U	0.32 U	0.36 U	0.32 U	19 U	0.27 U	0.0043 U	4.6 U	0.47 U
1,2,4-Trimethylbenzene	0.0051 U	0.0050 U	0.0045 U	0.0043 U	1.8 U	6.1 U	0.3 U	0.0042 U	8.4 J	12 J	0.32 U	0.076 J	0.051 J	14 J	0.27 U	0.0043 U	1.4 J	0.47 U
1,2-Dibromo-3-Chloropropane	0.0051 U	0.0050 U	0.0045 U	0.0043 U	1.8 U	6.1 U	0.3 U	0.0042 U	61 U	0.31 U	0.32 U	0.36 U	0.32 U	19 U	0.27 U	0.0043 U	4.6 U	0.47 U
1,2-Dibromoethane (Ethylene Dibromide)	0.0040 U	0.0040 U	0.0036 U	0.0034 U	1.4 U	4.9 U	0.24 U	0.0034 U	49 U	0.25 U	0.26 U	0.28 U	0.26 U	15 U	0.22 U	0.0034 U	3.7 U	0.38 U
1,2-Dichlorobenzene	0.0051 U	0.0050 U	0.0045 U	0.0043 U	1.8 U	6.1 U	0.3 U	0.0042 U	61 U	0.31 U	0.32 U	0.36 U	0.32 U	19 U	0.27 U	0.0043 U	4.6 U	0.47 U
1,2-Dichloroethane	0.0010 U	0.00099 U	0.00090 U	0.00085 U	0.35 U	1.2 U	0.059 U	0.00084 U	12 U	0.062 U	0.065 U	0.071 U	0.065 U	3.7 U	0.055 U	0.00086 U	0.93 U	0.095 U
1,2-Dichloroethene, cis-	0.0020	0.00099 U	0.00054 J	0.00038 J	13 J	28 J	0.4	0.00040 J	48	56	0.065 U	0.071 U	0.065 U	100	0.02 J	0.00086 U	72	2.7
1,2-Dichloroethene, Total	0.0020	0.00099 U	0.00054 J	0.00038 J	13 J	28 J	0.45 J	0.00040 J	48	56	0.065 U	0.071 U	0.065 U	100	0.02 J	0.00086 U	72	2.8 J
1,2-Dichloroethene, trans-	0.0015 U	0.0015 U	0.0013 U	0.0013 U	0.53 U	1.8 U	0.051 J	0.0012 U	18 U	0.18	0.097 U	0.11 U	0.098 U	5.6 U	0.082 U	0.0013 U	1.4 U	0.12 J
1,2-Dichloropropane	0.0035 U	0.0035 U	0.0031 U	0.0030 U	1.2 U	4.3 U	0.21 U	0.0029 U	43 U	0.22 U	0.23 U	0.25 U	0.23 U	13 U	0.19 U	0.0030 U	3.2 U	0.33 U
1,3,5-Trimethylbenzene (Mesitylene)	0.0051 U	0.0050 U	0.0045 U	0.0043 U	1.8 U	6.1 U	0.3 U	0.0042 U	2.3 J	2.7	0.32 U	0.03 J	0.019 J	3.6 J	0.27 U	0.0043 U	0.33 J	0.47 U
1,3-Dichlorobenzene	0.0051 U	0.0050 U	0.0045 U	0.0043 U	1.8 U	6.1 U	0.3 U	0.0042 U	61 U	0.31 U	0.32 U	0.36 U	0.32 U	19 U	0.27 U	0.0043 U	4.6 U	0.47 U
1,3-Dichloropropane	0.0051 U	0.0050 U	0.0045 U	0.0043 U	1.8 U	6.1 U	0.3 U	0.0042 U	61 U	0.31 U	0.32 U	0.36 U	0.32 U	19 U	0.27 U	0.0043 U	4.6 U	0.47 U
1,3-Dichloropropene, cis-	0.0010 U	0.00099 U	0.00090 U	0.00085 U	0.35 U	1.2 U	0.059 U	0.00084 U	12 U	0.062 U	0.065 U	0.071 U	0.065 U	3.7 U	0.055 U	0.00086 U	0.93 U	0.095 U
1,3-Dichloropropene, Total	0.0010 U	0.00099 U	0.00090 U	0.00085 U	0.35 U	1.2 U	0.059 U	0.00084 U	12 U	0.062 U	0.065 U	0.071 U	0.065 U	3.7 U	0.055 U	0.00086 U	0.93 U	0.095 U
1,3-Dichloropropene, trans-	0.0010 U	0.00099 U	0.00090 U	0.00085 U	0.35 U	1.2 U	0.059 U	0.00084 U	12 U	0.062 U	0.065 U	0.071 U	0.065 U	3.7 U	0.055 U	0.00086 U	0.93 U	0.095 U
1,4-Dichlorobenzene	0.0051 U	0.0050 U	0.0045 U	0.0043 U	1.8 U	6.1 U	0.3 U	0.0042 U	61 U	0.31 U	0.32 U	0.36 U	0.32 U	19 U	0.27 U	0.0043 U	4.6 U	0.47 U
1,4-Dioxane (p-Dioxane)	0.04 U	0.04 U	0.036 U	0.034 U	14 U	49 U	2.4 U	0.034 U	490 U	2.5 U	2.6 U	2.8 U	2.6 U	150 U	2.2 U	0.034 UJ	37 UJ	3.8 U
2,2-Dichloropropane	0.0051 U	0.0050 U	0.0045 U	0.0043 U	1.8 U	6.1 U	0.3 U	0.0042 U	61 U	0.31 U	0.32 U	0.36 U	0.32 U	19 U	0.27 U	0.0043 U	4.6 U	0.47 U
2-Chlorotoluene	0.0051 U	0.0050 U	0.0045 U	0.0043 U	1.8 U	6.1 U	0.3 U	0.0042 U	61 U	0.31 U	0.32 U	0.36 U	0.32 U	19 U	0.27 U	0.0043 U	4.6 U	0.47 U
2-Hexanone	0.01 U	0.0099 U	0.0090 U	0.0085 U	3.5 U	12 U	0.59 U	0.0084 U	120 U	0.62 U	0.65 U	0.71 U	0.65 U	37 U	0.55 U	0.0086 U	9.3 U	0.95 U
4-Chlorotoluene	0.0051 U	0.0050 U	0.0045 U	0.0043 U	1.8 U	6.1 U	0.3 U	0.0042 U	61 U	0.31 U	0.32 U	0.36 U	0.32 U	19 U	0.27 U	0.0043 U	4.6 U	0.47 U
Acetone	0.01 UJ	0.0099 UJ	0.0090 UJ	0.0085 UJ	3.5 UJ	12 UJ	0.59 UJ	0.0084 UJ	120 UJ	0.62 UJ	0.65 UJ	0.71 UJ	0.65 UJ	37 UJ	0.55 UJ	0.0092 J	2.2 J	0.95 U
Benzene	0.0010 U	0.00099 U	0.00090 U	0.00085 U	0.35 U	1.2 U	0.86	0.00084 U	12 U	0.098	0.95	0.071 U	0.065 U	3.7 U	0.52	0.00025 J	0.93 U	0.2
Bromobenzene	0.0051 U	0.0050 U	0.0045 U	0.0043 U	1.8 U	6.1 U	0.3 U	0.0042 U	61 U	0.31 U	0.32 U	0.36 U	0.32 U	19 U	0.27 U	0.0043 U	4.6 U	0.47 U
Bromodichloromethane	0.0010 U	0.00099 U	0.00090 U	0.00085 U	0.35 U	1.2 U	0.059 U	0.00084 U	12 U	0.062 U	0.065 U	0.071 U	0.065 U	3.7 U	0.055 U	0.00086 U	0.93 U	0.095 U
Bromoform	0.0040 U	0.0040 U	0.0036 U	0.0034 U	1.4 U	4.9 U	0.24 U	0.0034 U	49 U	0.25 U	0.26 U	0.28 U	0.26 U	15 U	0.22 U	0.0034 U	3.7 U	0.38 U
Bromomethane	0.0020 U	0.0020 U	0.0018 U	0.0017 U	0.71 U	2.4 U	0.12 U	0.0017 U	24 U	0.12 U	0.13 U	0.14 U	0.13 U	7.5 U	0.11 U	0.0017 U	1.8 U	0.19 U
Butylbenzene, n-	0.0010 U	0.00099 U	0.00090 U	0.00085 U	0.35 U	1.2 U	0.059 U	0.00084 U	12 U	0.16	0.065 U	0.071 U	0.065 U	3.7 U	0.055 U	0.00086 U	0.93 U	0.095 U
Butylbenzene, sec-	0.0010 U	0.00099 U	0.00090 U	0.00085 U	0.35 U	1.2 U	0.059 U	0.00084 U	12 U	0.1	0.065 U	0.071 U	0.065 U	3.7 U	0.055 U	0.00086 U	0.93 U	0.095 U
Butylbenzene, t-	0.0051 U	0.0050 U	0.0045 U	0.0043 U	1.8 U	6.1 U	0.3 U	0.0042 U	61 U	0.31 U	0.32 U	0.36 U	0.32 U	19 U	0.27 U	0.0043 U	4.6 U	0.47 U
Carbon Disulfide	0.01 U	0.0099 U	0.0090 U	0.0085 U	3.5 U	12 U	0.59 U	0.0084 U	120 U	0.62 U	0.65 U	0.71 U	0.65 U	37 U	0.55 U	0.0086 U	9.3 U	0.95 U

Table 2-2a. Historical Soil Data: Volatile Organic Compounds

Essex-Hope Site, Jamestown, New York

Location ID	DPT-022	DPT-022	DPT-022	DPT-024	DPT-024	DPT-024	DPT-024	DPT-025	DPT-025	DPT-025	DPT-025	DPT-026	DPT-026	DPT-026	DPT-026	DPT-027	DPT-027	DPT-027
Sample Depth (feet bgs)	2 - 4	2 - 4	6 - 8	10 - 12	30 - 32	30 - 32	38 - 40	10 - 12	26 - 28	26 - 28	34 - 36	3 - 4.5	8 - 10	24 - 26	36 - 38	8 - 9	22 - 23	33 - 34
Sample Date	9/19/2017	9/19/2017	9/19/2017	9/21/2017	9/21/2017	9/21/2017	9/21/2017	9/21/2017	9/21/2017	9/21/2017	9/21/2017	9/22/2017	9/22/2017	9/22/2017	9/22/2017	10/6/2017	10/6/2017	10/6/2017
Sample Type	N	FD	N	N	N	FD	N	N	N	FD	N	N	N	N	N	N	N	N
Operable Unit	OU-03	OU-03	OU-03	OU-01	OU-01	OU-01	OU-01	OU-01	OU-01	OU-01	OU-01	OU-01	OU-01	OU-01	OU-01	OU-01	OU-01	OU-01
Geologic Unit	Shallow Sand and Gravel	Shallow Sand and Gravel	Shallow Sand and Gravel	Shallow Sand and Gravel	Deep Sandy Silt	Deep Sandy Silt	Deep Sandy Silt	Shallow Sand and Gravel	Deep Sandy Silt	Deep Sandy Silt	Deep Sandy Silt	Shallow Sand and Gravel	Shallow Sand and Gravel	Deep Sandy Silt	Deep Sandy Silt	Deep Sandy Silt	Deep Sandy Silt	Deep Sandy Silt
Analyte																		
Carbon Tetrachloride	0.0010 U	0.00099 U	0.00090 U	0.00085 U	0.35 U	1.2 U	0.059 U	0.00084 U	12 U	0.062 U	0.065 U	0.071 U	0.065 U	3.7 U	0.055 U	0.00086 U	0.93 U	0.095 U
Chlorobenzene	0.0010 U	0.00099 U	0.00090 U	0.00085 U	0.35 U	1.2 U	0.059 U	0.00084 U	12 U	0.062 U	0.065 U	0.071 U	0.065 U	3.7 U	0.055 U	0.00086 U	0.93 U	0.095 U
Chlorobromomethane	0.0051 U	0.0050 U	0.0045 U	0.0043 U	1.8 U	6.1 U	0.3 U	0.0042 U	61 U	0.31 U	0.32 U	0.36 U	0.32 U	19 U	0.27 U	0.0043 U	4.6 U	0.47 U
Chloroethane	0.0020 U	0.0020 U	0.0018 U	0.0017 U	0.71 U	2.4 U	0.12 U	0.0017 U	24 U	0.12 U	0.13 U	0.14 U	0.13 U	7.5 U	0.11 U	0.0017 U	1.8 U	0.19 U
Chloroform	0.0015 U	0.0015 U	0.0013 U	0.0013 U	0.53 U	1.8 U	0.089 U	0.0012 U	18 U	0.092 U	0.097 U	0.11 U	0.098 U	5.6 U	0.082 U	0.0013 U	1.4 U	0.14 U
Chloromethane	0.0051 U	0.0050 U	0.0045 U	0.0043 U	1.8 U	6.1 U	0.3 U	0.0042 U	61 U	0.066 J	0.32 U	0.36 U	0.32 U	19 U	0.27 U	0.00075 J	4.6 U	0.47 U
Dibromochloromethane	0.0010 U	0.00099 U	0.00090 U	0.00085 U	0.35 U	1.2 U	0.059 U	0.00084 U	12 U	0.062 U	0.065 U	0.071 U	0.065 U	3.7 U	0.055 U	0.00086 U	0.93 U	0.095 U
Dibromomethane (Methylene Bromide)	0.01 U	0.0099 U	0.0090 U	0.0085 U	3.5 U	12 U	0.59 U	0.0084 U	120 U	0.62 U	0.65 U	0.71 U	0.65 U	37 U	0.55 U	0.0086 U	9.3 U	0.95 U
Dichlorodifluoromethane	0.01 UJ	0.0099 UJ	0.0090 UJ	0.0085 UJ	3.5 UJ	12 UJ	0.59 UJ	0.0084 UJ	120 UJ	0.62 UJ	0.65 UJ	0.71 UJ	0.65 UJ	37 UJ	0.55 UJ	0.0086 U	9.3 U	0.95 U
Ethylbenzene	0.0010 U	0.00099 U	0.00090 U	0.00085 U	0.35 U	1.2 U	0.059 U	0.00084 U	12 U	0.2	0.065 U	0.071 U	0.065 U	3.7 U	0.055 U	0.00086 U	0.93 U	0.095 U
Hexachlorobutadiene	0.0051 U	0.0050 U	0.0045 U	0.0043 U	1.8 U	6.1 U	0.3 U	0.0042 U	61 U	0.31 U	0.32 U	0.36 U	0.32 U	19 U	0.27 U	0.0043 U	4.6 U	0.47 U
Isopropylbenzene (Cumene)	0.0010 U	0.00099 U	0.00090 U	0.00085 U	0.35 U	1.2 U	0.059 U	0.00084 U	12 U	0.16	0.065 U	0.071 U	0.065 U	3.7 U	0.055 U	0.00086 U	0.93 U	0.095 U
Methyl Ethyl Ketone (2-Butanone)	0.01 UJ	0.0099 UJ	0.0090 UJ	0.0085 UJ	3.5 UJ	12 UJ	0.59 UJ	0.0084 UJ	120 UJ	0.62 UJ	0.65 UJ	0.71 UJ	0.65 UJ	37 UJ	0.55 UJ	0.0086 UJ	9.3 UJ	0.13 J
Methyl Isobutyl Ketone (4-Methyl-2-Pentanone)	0.01 U	0.0099 U	0.0090 U	0.0085 U	3.5 U	12 U	0.59 U	0.0084 U	120 U	0.62 U	0.65 U	0.71 U	0.65 U	37 U	0.55 U	0.0086 U	9.3 U	0.95 U
Methyl tert-butyl Ether (MTBE)	0.0020 U	0.0020 U	0.0018 U	0.0017 U	0.71 U	2.4 U	0.12 U	0.0017 U	24 U	0.12 U	0.13 U	0.14 U	0.13 U	7.5 U	0.11 U	0.0017 U	1.8 U	0.19 U
Methylene Chloride	0.01 U	0.0099 U	0.0090 U	0.0085 U	0.7 J	12 U	0.59 U	0.0084 U	120 U	0.62 U	0.65 U	0.71 U	0.65 U	37 U	0.55 U	0.0086 U	9.3 U	0.95 U
Naphthalene	0.0051 U	0.0050 U	0.0045 U	0.0043 U	1.8 U	6.1 U	0.3 U	0.00018 J	15 J	0.31 J	0.32 U	5.9	6	19 U	0.018 J	0.0043 U	4.6 U	0.47 U
n-Propylbenzene	0.0010 U	0.00099 U	0.00090 U	0.00085 U	0.35 U	1.2 U	0.059 U	0.00084 U	12 U	1	0.065 U	0.071 U	0.065 U	1.1 J	0.055 U	0.00086 U	0.93 U	0.095 U
p-Isopropyltoluene	0.0010 U	0.00099 U	0.00090 U	0.00085 U	0.35 U	1.2 U	0.059 U	0.00084 U	12 U	0.07	0.065 U	0.053 J	0.043 J	3.7 U	0.055 U	0.00086 U	0.93 U	0.095 U
Styrene	0.0020 U	0.0020 U	0.0018 U	0.0017 U	0.71 U	2.4 U	0.12 U	0.0017 U	24 U	0.12 U	0.13 U	0.14 U	0.13 U	7.5 U	0.11 U	0.0017 U	1.8 U	0.19 U
Tetrachloroethene	0.0010 U	0.00099 U	0.00090 U	0.00085 U	0.35 U	1.2 U	0.059 U	0.00084 U	12 U	2.8	0.065 U	0.071 U	0.065 U	2.5 J	0.055 U	0.00086 U	0.31 J	0.095 U
Toluene	0.0015 U	0.0015 U	0.0013 U	0.0013 U	0.53 U	1.8 U	0.089 U	0.0012 U	18 U	0.2	0.097 U	0.11 U	0.015 J	5.6 U	0.082 U	0.00021 J	1.4 U	0.14 U
Trichloroethene	0.00083 J	0.00099 U	0.00090 U	0.0013	56	140	0.075	0.00065 J	1100	1400	0.065 U	0.032 J	0.028 J	1000	0.049 J	0.00060 J	81	9.9
Trichlorofluoromethane	0.0051 U	0.0050 U	0.0045 U	0.0043 U	1.8 U	6.1 U	0.3 U	0.0042 U	61 U	0.31 U	0.32 U	0.36 U	0.32 U	19 U	0.27 U	0.0043 U	4.6 U	0.47 U
Vinyl Acetate	0.01 U	0.0099 U	0.0090 U	0.0085 U	3.5 U	12 U	0.59 U	0.0084 U	120 U	0.62 U	0.65 U	0.71 U	0.65 U	37 U	0.55 U	0.0086 U	9.3 U	0.95 U
Vinyl Chloride	0.0016 J	0.0020 U	0.0018 U	0.0017 U	0.84	2.4 U	1.5	0.00034 J	24 U	0.5	0.83	0.14 U	0.13 U	7.5 U	0.11 U	0.0017 U	1.8 U	0.16 J
Xylene, m- & p-	0.0020 U	0.0020 U	0.0018 U	0.0017 U	0.71 U	2.4 U	0.12 U	0.0017 U	24 U	1.3	0.13 U	0.032 J	0.13 U	7.5 U	0.11 U	0.0017 U	0.36 J	0.19 U
Xylene, o-	0.0020 U	0.0020 U	0.0018 U	0.0017 U	0.71 U	2.4 U	0.12 U	0.0017 U	24 U	0.81	0.13 U	0.14 U	0.13 U	7.5 U	0.11 U	0.0017 U	1.8 U	0.19 U
Xylenes, Total	0.0020 U	0.0020 U	0.0018 U	0.0017 U	0.71 U	2.4 U	0.12 U	0.0017 U	24 U	2.1	0.13 U	0.032 J	0.13 U	7.5 U	0.11 U	0.0017 U	0.36 J	0.19 U
Total CBTEX	0.002 U	0.002 U	0.0018 U	0.0017 U	0.71 U	2.4 U	0.86	0.0017 U	24 U	2.768	0.95	0.032 J	0.015 J	7.5 U	0.52	0.00046 J	0.36 J	0.2
Total CVOC	0.00443 J	0.0099 UJ	0.00054 J	0.00168 J	70.74 J	168 J	2.026 J	0.00139 J	1148	1459.788 J	0.83	0.032 J	0.028 J	1102.5 J	0.069 J	0.00135 J	153.31 J	12.937 J
Total VOC	0.00443 J	0.04 UJ	0.00054 J	0.00168 J	70.74 J	168 J	2.886 J	0.00157 J	1173.7 J	1478.896 J	1.78	6.123 J	6.156 J	1121.2 J	0.607 J	0.01101 J	157.6 J	13.267 J

Table 2-2a. Historical Soil Data: Volatile Organic Compounds

Essex-Hope Site, Jamestown, New York

Location ID	DPT-028	DPT-028	DPT-028	DPT-029	DPT-029	DPT-029	DPT-029	DPT-030	DPT-030	DPT-030	DPT-030	DPT-031	DPT-031	DPT-031	DPT-032	DPT-032	DPT-032	DPT-032
Sample Depth (feet bgs)	9 - 11	11 - 13	14 - 16	10 - 12	18 - 20	20 - 22	26 - 28	10 - 12	18 - 20	18 - 20	20 - 22	10 - 12	17 - 19	21 - 23	11 - 13	20 - 22	22 - 24	22 - 24
Sample Date	9/25/2019	9/25/2019	9/25/2019	9/26/2019	9/26/2019	9/26/2019	9/26/2019	9/26/2019	9/26/2019	9/26/2019	9/26/2019	9/26/2019	9/26/2019	9/26/2019	9/20/2019	9/20/2019	9/20/2019	9/20/2019
Sample Type	N	N	N	N	N	N	N	N	N	FD	N	N	N	N	N	N	N	FD
Operable Unit	OU-03	OU-03	OU-03	OU-03	OU-03	OU-03	OU-03	OU-03	OU-03	OU-03	OU-03	OU-03	OU-03	OU-03	OU-03	OU-03	OU-03	OU-03
Geologic Unit	Shallow Sand and Gravel	Shallow Silty Clay	Deep Sandy Silt	Shallow Sand and Gravel	Shallow Silty Clay	Deep Sandy Silt	Deep Sandy Silt	Shallow Sand and Gravel	Shallow Silty Clay	Shallow Silty Clay	Deep Sandy Silt	Shallow Sand and Gravel	Shallow Silty Clay	Deep Sandy Silt	Shallow Sand and Gravel	Shallow Silty Clay	Deep Sandy Silt	Deep Sandy Silt
Analyte																		
1,1,1,2-Tetrachloroethane	0.00049 U	0.036 U	0.031 U	0.00052 U	0.00060 U	0.033 U	0.039 U	0.00050 U	0.00052 U	0.00060 U	0.034 U	0.00054 U	0.036 U	0.17 U	0.00055 UJ	0.69 U	0.35 U	0.35 U
1,1,1-Trichloroethane	0.00049 U	0.036 U	0.031 U	0.00052 U	0.00060 U	0.033 U	0.039 U	0.00050 U	0.00052 U	0.00060 U	0.034 U	0.00054 U	0.036 U	0.17 U	0.00055 UJ	0.69 U	0.35 U	0.35 U
1,1,2,2-Tetrachloroethane	0.00049 U	0.036 U	0.031 U	0.00052 U	0.00060 U	0.033 U	0.039 U	0.00050 U	0.00052 U	0.00060 U	0.034 U	0.00054 U	0.036 U	0.17 U	0.00055 UJ	0.69 U	0.35 U	0.35 U
1,1,2-Trichloroethane	0.00099 U	0.071 U	0.063 U	0.0010 U	0.0012 U	0.066 U	0.078 U	0.0010 U	0.0010 U	0.0012 U	0.068 U	0.0011 U	0.071 U	0.34 U	0.0011 UJ	1.4 U	0.71 U	0.7 U
1,1-Dichloroethane	0.00099 U	0.071 U	0.063 U	0.0010 U	0.0012 U	0.066 U	0.078 U	0.0010 U	0.0010 U	0.0012 U	0.068 U	0.0011 U	0.071 U	0.34 U	0.0011 UJ	1.4 U	0.71 U	0.7 U
1,1-Dichloroethene	0.00099 U	0.071 U	0.015 J	0.0010 U	0.0012 U	0.034 J	0.043 J	0.0010 U	0.0010 U	0.0012 U	0.05 J	0.0011 U	0.071 U	0.34 U	0.0011 UJ	1.4 U	0.71 U	0.7 U
1,1-Dichloropropene	0.00049 U	0.036 U	0.031 U	0.00052 U	0.00060 U	0.033 U	0.039 U	0.00050 U	0.00052 U	0.00060 U	0.034 U	0.00054 U	0.036 U	0.17 U	0.00055 UJ	0.69 U	0.35 U	0.35 U
1,2,3-Trichlorobenzene	0.0020 U	0.14 U	0.12 U	0.0021 U	0.0024 U	0.13 U	0.16 U	0.0020 U	0.0021 U	0.0024 U	0.14 U	0.0022 U	0.14 U	0.69 U	0.0022 UJ	2.8 U	1.4 U	1.4 U
1,2,3-Trichloropropane	0.0020 U	0.14 U	0.12 U	0.0021 U	0.0024 U	0.13 U	0.16 U	0.0020 U	0.0021 U	0.0024 U	0.14 U	0.0022 U	0.14 U	0.69 U	0.0022 UJ	2.8 U	1.4 U	1.4 U
1,2,4-Trichlorobenzene	0.0020 U	0.14 U	0.12 U	0.0021 U	0.0024 U	0.13 U	0.16 U	0.0020 U	0.0021 U	0.0024 U	0.14 U	0.0022 U	0.14 U	0.69 U	0.0022 UJ	2.8 U	1.4 U	1.4 U
1,2,4-Trimethylbenzene	0.0020 U	0.14 U	0.12 U	0.0021 U	0.0024 U	0.13 U	0.16 U	0.0020 U	0.0021 U	0.0024 U	0.14 U	0.0022 U	0.14 U	0.69 U	0.0022 UJ	2.8 U	1.4 U	1.4 U
1,2-Dibromo-3-Chloropropane	0.0030 U	0.21 U	0.19 U	0.0031 U	0.0036 U	0.2 U	0.23 U	0.0030 U	0.0031 U	0.0036 U	0.2 U	0.0033 U	0.21 U	1 U	0.0033 UJ	4.1 U	2.1 U	2.1 U
1,2-Dibromoethane (Ethylene Dibromide)	0.00099 U	0.071 U	0.063 U	0.0010 U	0.0012 U	0.066 U	0.078 U	0.0010 U	0.0010 U	0.0012 U	0.068 U	0.0011 U	0.071 U	0.34 U	0.0011 UJ	1.4 U	0.71 U	0.7 U
1,2-Dichlorobenzene	0.0020 U	0.14 U	0.12 U	0.0021 U	0.0024 U	0.13 U	0.16 U	0.0020 U	0.0021 U	0.0024 U	0.14 U	0.0022 U	0.14 U	0.69 U	0.0022 UJ	2.8 U	1.4 U	1.4 U
1,2-Dichloroethane	0.00099 U	0.071 U	0.063 U	0.0010 U	0.0012 U	0.066 U	0.078 U	0.0010 U	0.0010 U	0.0012 U	0.068 U	0.0011 U	0.071 U	0.34 U	0.0011 UJ	1.4 U	0.71 U	0.7 U
1,2-Dichloroethene, cis-	0.00099 U	0.55	0.49	0.0010 U	0.0064	18	7.6	0.00061 J	0.0039	0.0025	19	0.0011 U	0.17	45	0.0011 UJ	17	12	13
1,2-Dichloroethene, Total	0.00099 U	0.57 J	0.53 J	0.00026 J	0.0064	18 J	7.8	0.00061 J	0.0039	0.0025	19 J	0.0011 U	0.17	45 J	0.0011 UJ	17	12	13
1,2-Dichloroethene, trans-	0.0015 U	0.016 J	0.04 J	0.00026 J	0.0018 U	0.048 J	0.19	0.0015 U	0.0016 U	0.0018 U	0.052 J	0.0016 U	0.11 U	0.13 J	0.0016 UJ	2.1 U	1.1 U	1 U
1,2-Dichloropropane	0.00099 U	0.071 U	0.063 U	0.0010 U	0.0012 U	0.066 U	0.078 U	0.0010 U	0.0010 U	0.0012 U	0.068 U	0.0011 U	0.071 U	0.34 U	0.0011 UJ	1.4 U	0.71 U	0.7 U
1,3,5-Trimethylbenzene (Mesitylene)	0.0020 U	0.14 U	0.12 U	0.0021 U	0.0024 U	0.13 U	0.16 U	0.0020 U	0.0021 U	0.0024 U	0.14 U	0.0022 U	0.14 U	0.69 U	0.0022 UJ	2.8 U	1.4 U	1.4 U
1,3-Dichlorobenzene	0.0020 U	0.14 U	0.12 U	0.0021 U	0.0024 U	0.13 U	0.16 U	0.0020 U	0.0021 U	0.0024 U	0.14 U	0.0022 U	0.14 U	0.69 U	0.0022 UJ	2.8 U	1.4 U	1.4 U
1,3-Dichloropropane	0.0020 U	0.14 U	0.12 U	0.0021 U	0.0024 U	0.13 U	0.16 U	0.0020 U	0.0021 U	0.0024 U	0.14 U	0.0022 U	0.14 U	0.69 U	0.0022 UJ	2.8 U	1.4 U	1.4 U
1,3-Dichloropropene, cis-	0.00049 U	0.036 U	0.031 U	0.00052 U	0.00060 U	0.033 U	0.039 U	0.00050 U	0.00052 U	0.00060 U	0.034 U	0.00054 U	0.036 U	0.17 U	0.00055 UJ	0.69 U	0.35 U	0.35 U
1,3-Dichloropropene, Total	0.00049 U	0.036 U	0.031 U	0.00052 U	0.00060 U	0.033 U	0.039 U	0.00050 U	0.00052 U	0.00060 U	0.034 U	0.00054 U	0.036 U	0.17 U	0.00055 UJ	0.69 U	0.35 U	0.35 U
1,3-Dichloropropene, trans-	0.00099 U	0.071 U	0.063 U	0.0010 U	0.0012 U	0.066 U	0.078 U	0.0010 U	0.0010 U	0.0012 U	0.068 U	0.0011 U	0.071 U	0.34 U	0.0011 UJ	1.4 U	0.71 U	0.7 U
1,4-Dichlorobenzene	0.0020 U	0.14 U	0.12 U	0.0021 U	0.0024 U	0.13 U	0.16 U	0.0020 U	0.0021 U	0.0024 U	0.14 U	0.0022 U	0.14 U	0.69 U	0.0022 UJ	2.8 U	1.4 U	1.4 U
1,4-Dioxane (p-Dioxane)	0.079 U	5.7 U	5 U	0.083 U	0.095 U	5.3 U	6.2 U	0.081 U	0.083 U	0.095 U	5.4 U	0.087 U	5.7 U	27 U	0.088 UJ	110 UJ	56 UJ	56 U
2,2-Dichloropropane	0.0020 U	0.14 U	0.12 U	0.0021 U	0.0024 U	0.13 U	0.16 U	0.0020 U	0.0021 U	0.0024 U	0.14 U	0.0022 U	0.14 U	0.69 U	0.0022 UJ	2.8 U	1.4 U	1.4 U
2-Chlorotoluene	0.0020 U	0.14 U	0.12 U	0.0021 U	0.0024 U	0.13 U	0.16 U	0.0020 U	0.0021 U	0.0024 U	0.14 U	0.0022 U	0.14 U	0.69 U	0.0022 UJ	2.8 U	1.4 U	1.4 U
2-Hexanone	0.0099 U	0.71 U	0.63 U	0.01 U	0.012 U	0.66 U	0.78 U	0.01 U	0.01 U	0.012 U	0.68 U	0.011 U	0.71 U	3.4 U	0.011 UJ	14 U	7.1 U	7 U
4-Chlorotoluene	0.0020 U	0.14 U	0.12 U	0.0021 U	0.0024 U	0.13 U	0.16 U	0.0020 U	0.0021 U	0.0024 U	0.14 U	0.0022 U	0.14 U	0.69 U	0.0022 UJ	2.8 U	1.4 U	1.4 U
Acetone	0.13 J	0.71 U	0.63 U	0.15 J	0.19 J	0.66 U	0.78 U	0.41 J	0.18 J	0.14 J	0.68 U	0.13 J	0.71 U	3.4 U	1.5 J	14 U	7.1 U	7 U
Benzene	0.00049 U	0.036 U	0.031 U	0.00052 U	0.00060 U	0.033 U	0.014 J	0.00050 U	0.00052 U	0.00060 U	0.034 U	0.00054 U	0.036 U	0.17 U	0.00055 UJ	0.69 U	0.35 U	0.35 U
Bromobenzene	0.0020 U	0.14 U	0.12 U	0.0021 U	0.0024 U	0.13 U	0.16 U	0.0020 U	0.0021 U	0.0024 U	0.14 U	0.0022 U	0.14 U	0.69 U	0.0022 UJ	2.8 U	1.4 U	1.4 U
Bromodichloromethane	0.00049 U	0.036 U	0.031 U	0.00052 U	0.00060 U	0.033 U	0.039 U	0.00050 U	0.00052 U	0.00060 U	0.034 U	0.00054 U	0.036 U	0.17 U	0.00055 UJ	0.69 U	0.35 U	0.35 U
Bromoform	0.0040 U	0.28 U	0.25 U	0.0042 U	0.0048 U	0.26 U	0.31 U	0.0040 U	0.0042 U	0.0048 U	0.27 U	0.0044 U	0.28 U	1.4 U	0.0044 UJ	5.5 U	2.8 U	2.8 U
Bromomethane	0.0020 UJ	0.14 U	0.12 UJ	0.0021 UJ	0.0024 UJ	0.13 U	0.16 UJ	0.0020 UJ	0.0021 UJ	0.0024 UJ	0.14 UJ	0.0022 UJ	0.14 UJ	0.69 UJ	0.0022 UJ	2.8 UJ	1.4 UJ	1.4 UJ
Butylbenzene, n-	0.00099 U	0.071 U	0.063 U	0.0010 U	0.0012 U	0.066 U	0.078 U	0.0010 U	0.0010 U	0.0012 U	0.068 U	0.0011 U	0.071 U	0.34 U	0.0016 J	1.4 U	0.71 U	0.7 U
Butylbenzene, sec-	0.00099 U	0.071 U	0.063 U	0.0010 U	0.0012 U	0.066 U	0.078 U	0.0010 U	0.0010 U	0.0012 U	0.068 U	0.0011 U	0.071 U	0.34 U	0.0029 J	1.4 U	0.71 U	0.7 U
Butylbenzene, t-	0.0020 U	0.14 U	0.12 U	0.0021 U	0.0024 U	0.13 U	0.16 U	0.0020 U	0.0021 U	0.0024 U	0.14 U	0.0022 U	0.14 U	0.69 U	0.0015 J	2.8 U	1.4 U	1.4 U
Carbon Disulfide	0.0099 U	0.71 U	0.63 U	0.01 U	0.012 U	0.66 U	0.78 U	0.01 U	0.01 U	0.012 U	0.68 U	0.011 U	0.71 U	3.4 U	0.011 UJ	14 U	7.1 U	7 U

Table 2-2a. Historical Soil Data: Volatile Organic Compounds

Essex-Hope Site, Jamestown, New York

Location ID	DPT-028	DPT-028	DPT-028	DPT-029	DPT-029	DPT-029	DPT-029	DPT-030	DPT-030	DPT-030	DPT-030	DPT-031	DPT-031	DPT-031	DPT-032	DPT-032	DPT-032	DPT-032
Sample Depth (feet bgs)	9 - 11	11 - 13	14 - 16	10 - 12	18 - 20	20 - 22	26 - 28	10 - 12	18 - 20	18 - 20	20 - 22	10 - 12	17 - 19	21 - 23	11 - 13	20 - 22	22 - 24	22 - 24
Sample Date	9/25/2019	9/25/2019	9/25/2019	9/26/2019	9/26/2019	9/26/2019	9/26/2019	9/26/2019	9/26/2019	9/26/2019	9/26/2019	9/26/2019	9/26/2019	9/26/2019	9/26/2019	9/20/2019	9/20/2019	9/20/2019
Sample Type	N	N	N	N	N	N	N	N	N	FD	N	N	N	N	N	N	N	FD
Operable Unit	OU-03	OU-03	OU-03	OU-03	OU-03	OU-03	OU-03	OU-03	OU-03	OU-03	OU-03	OU-03	OU-03	OU-03	OU-03	OU-03	OU-03	OU-03
Geologic Unit	Shallow Sand and Gravel	Shallow Silty Clay	Deep Sandy Silt	Shallow Sand and Gravel	Shallow Silty Clay	Deep Sandy Silt	Deep Sandy Silt	Shallow Sand and Gravel	Shallow Silty Clay	Shallow Silty Clay	Deep Sandy Silt	Shallow Sand and Gravel	Shallow Silty Clay	Deep Sandy Silt	Shallow Sand and Gravel	Shallow Silty Clay	Deep Sandy Silt	Deep Sandy Silt
Analyte																		
Carbon Tetrachloride	0.00099 U	0.071 U	0.063 U	0.0010 U	0.0012 U	0.066 U	0.078 U	0.0010 U	0.0010 U	0.0012 U	0.068 U	0.0011 U	0.071 U	0.34 U	0.0011 UJ	1.4 U	0.71 U	0.7 U
Chlorobenzene	0.00049 U	0.036 U	0.031 U	0.00052 U	0.00060 U	0.033 U	0.039 U	0.00050 U	0.00052 U	0.00060 U	0.034 U	0.00054 U	0.036 U	0.17 U	0.00055 UJ	0.69 U	0.35 U	0.35 U
Chlorobromomethane	0.0020 U	0.14 U	0.12 U	0.0021 U	0.0024 U	0.13 U	0.16 U	0.0020 U	0.0021 U	0.0024 U	0.14 U	0.0022 U	0.14 U	0.69 U	0.0022 UJ	2.8 U	1.4 U	1.4 U
Chloroethane	0.0020 UJ	0.14 UJ	0.12 UJ	0.0021 UJ	0.0024 UJ	0.13 UJ	0.16 UJ	0.0020 UJ	0.0021 UJ	0.0024 UJ	0.14 UJ	0.0022 UJ	0.14 UJ	0.69 UJ	0.0022 UJ	2.8 UJ	1.4 UJ	1.4 UJ
Chloroform	0.0015 U	0.11 U	0.094 U	0.0016 U	0.0018 U	0.099 U	0.12 U	0.0015 U	0.0016 U	0.0018 U	0.1 U	0.0016 U	0.11 U	0.52 U	0.0016 U	2.1 U	1.1 U	1 U
Chloromethane	0.0040 U	0.28 U	0.25 U	0.0042 U	0.0048 U	0.26 U	0.31 U	0.0040 U	0.0042 U	0.0048 U	0.27 U	0.0044 U	0.28 U	1.4 U	0.0044 UJ	5.5 U	2.8 U	2.8 U
Dibromochloromethane	0.00099 U	0.071 U	0.063 U	0.0010 U	0.0012 U	0.066 U	0.078 U	0.0010 U	0.0010 U	0.0012 U	0.068 U	0.0011 U	0.071 U	0.34 U	0.0011 UJ	1.4 U	0.71 U	0.7 U
Dibromomethane (Methylene Bromide)	0.0020 U	0.14 U	0.12 U	0.0021 U	0.0024 U	0.13 U	0.16 U	0.0020 U	0.0021 U	0.0024 U	0.14 U	0.0022 U	0.14 U	0.69 U	0.0022 UJ	2.8 U	1.4 U	1.4 U
Dichlorodifluoromethane	0.0099 U	0.71 U	0.63 U	0.01 U	0.012 U	0.66 U	0.78 U	0.01 U	0.01 U	0.012 U	0.68 U	0.011 U	0.71 U	3.4 U	0.011 UJ	14 U	7.1 U	7 U
Ethylbenzene	0.00099 U	0.071 U	0.063 U	0.0010 U	0.0012 U	0.066 U	0.078 U	0.0010 U	0.0010 U	0.0012 U	0.068 U	0.0011 U	0.071 U	0.34 U	0.0011 UJ	1.4 U	0.71 U	0.7 U
Hexachlorobutadiene	0.0040 U	0.28 U	0.25 U	0.0042 U	0.0048 U	0.26 U	0.31 U	0.0040 U	0.0042 U	0.0048 U	0.27 U	0.0044 U	0.28 UJ	1.4 U	0.0044 UJ	5.5 U	2.8 U	2.8 U
Isopropylbenzene (Cumene)	0.00099 U	0.071 U	0.063 U	0.0010 U	0.0012 U	0.066 U	0.078 U	0.0010 U	0.0010 U	0.0012 U	0.068 U	0.0011 U	0.071 U	0.34 U	0.00066 J	1.4 U	0.71 U	0.7 U
Methyl Ethyl Ketone (2-Butanone)	0.0027 J	0.71 U	0.63 U	0.01 U	0.012 U	0.66 U	0.78 U	0.0086 J	0.0033 J	0.012 U	0.68 U	0.011 U	0.71 U	3.4 U	0.011 UJ	14 U	7.1 U	7 U
Methyl Isobutyl Ketone (4-Methyl-2-Pentanone)	0.0099 U	0.71 U	0.63 U	0.01 U	0.012 U	0.66 U	0.78 U	0.01 U	0.01 U	0.012 U	0.68 U	0.011 U	0.71 U	3.4 U	0.011 UJ	14 U	7.1 U	7 U
Methyl tert-butyl Ether (MTBE)	0.00062 J	0.14 U	0.12 U	0.0011 J	0.00073 J	0.13 U	0.16 U	0.00096 J	0.00063 J	0.00079 J	0.14 U	0.0010 J	0.14 U	0.69 U	0.0024 J	2.8 U	1.4 U	1.4 U
Methylene Chloride	0.0049 U	0.36 U	0.31 U	0.0052 U	0.0060 U	0.33 U	0.39 U	0.0050 U	0.0052 U	0.0060 U	0.34 U	0.0054 U	0.36 U	1.7 U	0.0055 UJ	6.9 U	3.5 U	3.5 U
Naphthalene	0.0040 U	0.28 U	0.25 U	0.0042 U	0.0048 U	0.26 U	0.31 U	0.0040 U	0.0042 U	0.0048 U	0.27 U	0.0044 U	0.28 U	1.4 U	0.0044 UJ	5.5 U	2.8 U	2.8 U
n-Propylbenzene	0.00099 U	0.071 U	0.063 U	0.0010 U	0.0012 U	0.066 U	0.078 U	0.0010 U	0.0010 U	0.0012 U	0.068 U	0.0011 U	0.071 U	0.34 U	0.0011 UJ	1.4 U	0.71 U	0.7 U
p-Isopropyltoluene	0.00099 U	0.071 U	0.063 U	0.0010 U	0.0012 U	0.066 U	0.078 U	0.0010 U	0.0010 U	0.0012 U	0.068 U	0.0011 U	0.071 U	0.34 U	0.0011 UJ	1.4 U	0.71 U	0.7 U
Styrene	0.00099 U	0.071 U	0.063 U	0.0010 U	0.0012 U	0.066 U	0.078 U	0.0010 U	0.0010 U	0.0012 U	0.068 U	0.0011 U	0.071 U	0.34 U	0.0011 UJ	1.4 U	0.71 U	0.7 U
Tetrachloroethene	0.00049 U	0.036 U	0.031 U	0.00052 U	0.00060 U	0.033 U	0.039 U	0.00050 U	0.00052 U	0.00060 U	0.034 U	0.00054 U	0.036 U	0.17 U	0.00055 UJ	0.69 U	0.35 U	0.35 U
Toluene	0.00099 U	0.071 U	0.063 U	0.0010 U	0.0012 U	0.066 U	0.078 U	0.0010 U	0.0010 U	0.0012 U	0.068 U	0.0011 U	0.071 U	0.34 U	0.0011 UJ	1.4 U	0.71 U	0.7 U
Trichloroethene	0.00082 U	6	7.3	0.00052 U	0.00060 U	0.084	7.5	0.0015	0.016 J	0.00060 U	0.011 J	0.00054 U	4.2	60	0.00055 UJ	190	140	150
Trichlorofluoromethane	0.0040 U	0.28 U	0.25 UJ	0.0042 U	0.0048 U	0.26 U	0.31 U	0.0040 U	0.0042 U	0.0048 U	0.27 U	0.0044 U	0.28 UJ	1.4 U	0.0044 UJ	5.5 U	2.8 U	2.8 U
Vinyl Acetate	0.0099 U	0.71 U	0.63 U	0.01 U	0.012 U	0.66 U	0.78 U	0.01 U	0.01 U	0.012 U	0.68 U	0.011 U	0.71 U	3.4 U	0.011 UJ	14 U	7.1 U	7 U
Vinyl Chloride	0.00099 U	0.071 U	0.063 U	0.0010 U	0.01	0.78	0.084	0.0010 U	0.0022	0.0023	0.48	0.0011 U	0.071 U	0.34 U	0.0011 UJ	1.4 U	0.71 U	0.7 U
Xylene, m- & p-	0.0020 U	0.14 U	0.12 U	0.0021 U	0.0024 U	0.13 U	0.16 U	0.0020 U	0.0021 U	0.0024 U	0.14 U	0.0022 U	0.14 U	0.69 U	0.0022 UJ	2.8 U	1.4 U	1.4 U
Xylene, o-	0.00099 U	0.071 U	0.063 U	0.0010 U	0.0012 U	0.066 U	0.078 U	0.0010 U	0.0010 U	0.0012 U	0.068 U	0.0011 U	0.071 U	0.34 U	0.0011 UJ	1.4 U	0.71 U	0.7 U
Xylenes, Total	0.00099 U	0.071 U	0.063 U	0.0010 U	0.0012 U	0.066 U	0.078 U	0.0010 U	0.0010 U	0.0012 U	0.068 U	0.0011 U	0.071 U	0.34 U	0.0011 UJ	1.4 U	0.71 U	0.7 U
Total CBTEX	0.0020 U	0.14 U	0.12 U	0.0021 U	0.0024 U	0.13 U	0.014 J	0.0020 U	0.0021 U	0.0024 U	0.14 U	0.0022 U	0.14 U	0.69 U	0.00066 J	2.8 U	1.4 U	1.4 U
Total CVOC	0.0099 UJ	6.6 J	7.8 J	0.00026 J	0.016	19 J	15 J	0.0021 J	0.022 J	0.0048	20 J	0.011 UJ	4.4	110 J	0.011 UJ	210	150	160
Total VOC	0.13 J	6.6 J	7.8 J	0.15 J	0.21 J	19 J	15 J	0.42 J	0.21 J	0.15 J	20 J	0.13 J	4.4	110 J	1.5 J	210	150	160

Table 2-2a. Historical Soil Data: Volatile Organic Compounds

Essex-Hope Site, Jamestown, New York

Location ID	DPT-033	DPT-033	DPT-033	DPT-034	DPT-034	DPT-034	DPT-034	DPT-035	DPT-035	DPT-035	DPT-036	DPT-036	DPT-036	DPT-036	DPT-037	DPT-037	DPT-037	DPT-038
Sample Depth (feet bgs)	10 - 12	24 - 26	26 - 28	9 - 11	14 - 16	14 - 16	16 - 18	9 - 11	11 - 13	13 - 15	10 - 12	20 - 22	22 - 24	27 - 28	10 - 12	20 - 22	22 - 24	10 - 12
Sample Date	9/20/2019	9/20/2019	9/20/2019	9/18/2019	9/18/2019	9/18/2019	9/18/2019	9/18/2019	9/18/2019	9/18/2019	9/18/2019	9/18/2019	9/18/2019	9/18/2019	9/19/2019	9/19/2019	9/19/2019	9/19/2019
Sample Type	N	N	N	N	N	FD	N	N	N	N	N	N	N	N	N	N	N	N
Operable Unit	OU-03	OU-03	OU-03	OU-01	OU-01	OU-01	OU-01	OU-01	OU-01	OU-01	OU-01	OU-01	OU-01	OU-01	OU-01	OU-01	OU-01	OU-01
Geologic Unit	Shallow Sand and Gravel	Shallow Silty Clay	Deep Sandy Silt	Shallow Sand and Gravel	Shallow Silty Clay	Shallow Silty Clay	Deep Sandy Silt	Shallow Sand and Gravel	Shallow Silty Clay	Deep Sandy Silt	Shallow Sand and Gravel	Shallow Silty Clay	Deep Sandy Silt	Deep Sandy Silt	Shallow Sand and Gravel	Shallow Silty Clay	Deep Sandy Silt	Shallow Sand and Gravel
Analyte																		
1,1,1,2-Tetrachloroethane	0.00054 U	0.19 U	0.14 U	0.00050 U	0.00065 U	0.00060 U	0.00063 U	0.00051 U	0.063 U	0.00060 U	0.00045 U	0.75 U	0.35 U	0.73 U	0.00049 U	0.079 U	0.13 U	0.00051 U
1,1,1-Trichloroethane	0.00054 U	0.19 U	0.14 U	0.00050 U	0.00065 U	0.00060 U	0.00063 U	0.00051 U	0.063 U	0.00060 U	0.00045 U	0.75 U	0.35 U	0.73 U	0.00049 U	0.079 U	0.13 U	0.00051 U
1,1,2,2-Tetrachloroethane	0.00054 U	0.19 U	0.14 U	0.00050 UJ	0.00065 UJ	0.00060 UJ	0.00063 UJ	0.00051 UJ	0.063 U	0.00060 UJ	0.00045 U	0.75 U	0.35 U	0.73 U	0.00049 U	0.079 U	0.13 U	0.00051 U
1,1,2-Trichloroethane	0.0011 U	0.38 U	0.29 U	0.0010 U	0.0013 U	0.0012 U	0.0013 U	0.0010 U	0.12 U	0.0012 U	0.00090 U	1.5 U	0.7 U	1.4 U	0.00099 U	0.16 U	0.26 U	0.0010 U
1,1-Dichloroethane	0.0011 U	0.38 U	0.29 U	0.0010 U	0.0013 U	0.0012 U	0.0013 U	0.0010 U	0.12 U	0.0012 U	0.00090 U	1.5 U	0.7 U	1.4 U	0.00099 U	0.16 U	0.26 U	0.0010 U
1,1-Dichloroethene	0.0011 U	0.38 U	0.29 U	0.0010 U	0.0013 U	0.0012 U	0.0013 U	0.0010 U	0.12 U	0.0012 U	0.00090 U	1.5 U	0.7 U	1.4 U	0.00099 U	0.16 U	0.26 U	0.0010 U
1,1-Dichloropropene	0.00054 U	0.19 U	0.14 U	0.00050 U	0.00065 U	0.00060 U	0.00063 U	0.00051 U	0.063 U	0.00060 U	0.00045 U	0.75 U	0.35 U	0.73 U	0.00049 U	0.079 U	0.13 U	0.00051 U
1,2,3-Trichlorobenzene	0.0022 U	0.75 U	0.58 U	0.0020 U	0.0026 U	0.0024 U	0.0025 U	0.0020 U	0.25 U	0.0024 U	0.0018 U	3 U	1.4 U	2.9 U	0.0020 U	0.32 U	0.53 U	0.0020 U
1,2,3-Trichloropropane	0.0022 U	0.75 U	0.58 U	0.0020 UJ	0.0026 UJ	0.0024 UJ	0.0025 UJ	0.0020 UJ	0.25 U	0.0024 UJ	0.0018 U	3 U	1.4 U	2.9 U	0.0020 U	0.32 U	0.53 U	0.0020 U
1,2,4-Trichlorobenzene	0.0022 U	0.75 U	0.58 U	0.0020 U	0.0026 U	0.0024 U	0.0025 U	0.0020 U	0.25 U	0.0024 U	0.0018 U	3 U	1.4 U	2.9 U	0.0020 U	0.32 U	0.53 U	0.0020 U
1,2,4-Trimethylbenzene	0.0022 U	0.75 U	0.58 U	0.0020 U	0.0026 U	0.0024 U	0.0025 U	0.0020 U	0.25 U	0.0024 U	0.0018 U	0.83 J	1.4 U	2.6 J	0.0020 U	0.32 U	0.53 U	0.0020 U
1,2-Dibromo-3-Chloropropane	0.0032 U	1.1 U	0.87 U	0.0030 U	0.0039 U	0.0036 U	0.0038 U	0.0030 U	0.38 U	0.0036 U	0.0027 U	4.5 U	2.1 U	4.4 U	0.0030 U	0.47 U	0.8 U	0.0031 U
1,2-Dibromoethane (Ethylene Dibromide)	0.0011 U	0.38 U	0.29 U	0.0010 U	0.0013 U	0.0012 U	0.0013 U	0.0010 U	0.12 U	0.0012 U	0.00090 U	1.5 U	0.7 U	1.4 U	0.00099 U	0.16 U	0.26 U	0.0010 U
1,2-Dichlorobenzene	0.0022 U	0.75 U	0.58 U	0.0020 U	0.0026 U	0.0024 U	0.0025 U	0.0020 U	0.25 U	0.0024 U	0.0018 U	3 U	1.4 U	2.9 U	0.0020 U	0.32 U	0.53 U	0.0020 U
1,2-Dichloroethane	0.0011 U	0.38 U	0.29 U	0.0010 U	0.0013 U	0.0012 U	0.0013 U	0.0010 U	0.12 U	0.0012 U	0.00090 U	1.5 U	0.7 U	1.4 U	0.00099 U	0.16 U	0.26 U	0.0010 U
1,2-Dichloroethene, cis-	0.0011 U	2.3	2.6	0.0010 U	0.00034 J	0.00049 J	0.012	0.0010 U	0.51	0.04	0.00090 U	19	10	17	0.0031	3.4	5.3	0.0041 J
1,2-Dichloroethene, Total	0.0011 U	2.3	2.6	0.0010 U	0.00034 J	0.00065 J	0.014	0.0010 U	0.51	0.041 J	0.00090 U	19	10	17	0.0031	3.4	5.3	0.0041 J
1,2-Dichloroethene, trans-	0.0016 U	0.56 U	0.43 U	0.0015 U	0.0019 U	0.00016 J	0.0020	0.0015 U	0.19 U	0.0011 J	0.0014 U	2.2 U	1 U	2.2 U	0.0015 U	0.24 U	0.4 U	0.0015 U
1,2-Dichloropropane	0.0011 U	0.38 U	0.29 U	0.0010 U	0.0013 U	0.0012 U	0.0013 U	0.0010 U	0.12 U	0.0012 U	0.00090 U	1.5 U	0.7 U	1.4 U	0.00099 U	0.16 U	0.26 U	0.0010 U
1,3,5-Trimethylbenzene (Mesitylene)	0.0022 U	0.75 U	0.58 U	0.0020 U	0.0026 U	0.0024 U	0.0025 U	0.0020 U	0.25 U	0.0024 U	0.0018 U	3 U	1.4 U	0.7 J	0.0020 U	0.32 U	0.53 U	0.0020 U
1,3-Dichlorobenzene	0.0022 U	0.75 U	0.58 U	0.0020 U	0.0026 U	0.0024 U	0.0025 U	0.0020 U	0.25 U	0.0024 U	0.0018 U	3 U	1.4 U	2.9 U	0.0020 U	0.32 U	0.53 U	0.0020 U
1,3-Dichloropropane	0.0022 U	0.75 U	0.58 U	0.0020 U	0.0026 U	0.0024 U	0.0025 U	0.0020 U	0.25 U	0.0024 U	0.0018 U	3 U	1.4 U	2.9 U	0.0020 U	0.32 U	0.53 U	0.0020 U
1,3-Dichloropropene, cis-	0.00054 U	0.19 U	0.14 U	0.00050 U	0.00065 U	0.00060 U	0.00063 U	0.00051 U	0.063 U	0.00060 U	0.00045 U	0.75 U	0.35 U	0.73 U	0.00049 U	0.079 U	0.13 U	0.00051 U
1,3-Dichloropropene, Total	0.00054 U	0.19 U	0.14 U	0.00050 U	0.00065 U	0.00060 U	0.00063 U	0.00051 U	0.063 U	0.00060 U	0.00045 U	0.75 U	0.35 U	0.73 U	0.00049 U	0.079 U	0.13 U	0.00051 U
1,3-Dichloropropene, trans-	0.0011 U	0.38 U	0.29 U	0.0010 U	0.0013 U	0.0012 U	0.0013 U	0.0010 U	0.12 U	0.0012 U	0.00090 U	1.5 U	0.7 U	1.4 U	0.00099 U	0.16 U	0.26 U	0.0010 U
1,4-Dichlorobenzene	0.0022 U	0.75 U	0.58 U	0.0020 U	0.0026 U	0.0024 U	0.0025 U	0.0020 U	0.25 U	0.0024 U	0.0018 U	3 U	1.4 U	2.9 U	0.0020 U	0.32 U	0.53 U	0.0020 U
1,4-Dioxane (p-Dioxane)	0.086 U	30 UJ	23 UJ	0.08 U	0.1 U	0.096 U	0.1 U	0.081 U	10 U	0.097 U	0.072 UJ	120 UJ	56 U	120 UJ	0.079 U	13 UJ	21 UJ	0.082 UJ
2,2-Dichloropropane	0.0022 U	0.75 U	0.58 U	0.0020 U	0.0026 U	0.0024 U	0.0025 U	0.0020 U	0.25 U	0.0024 U	0.0018 U	3 U	1.4 U	2.9 U	0.0020 U	0.32 U	0.53 U	0.0020 U
2-Chlorotoluene	0.0022 U	0.75 U	0.58 U	0.0020 U	0.0026 U	0.0024 U	0.0025 U	0.0020 U	0.25 U	0.0024 U	0.0018 U	3 U	1.4 U	2.9 U	0.0020 U	0.32 U	0.53 U	0.0020 U
2-Hexanone	0.011 U	3.8 U	2.9 U	0.01 U	0.013 U	0.012 U	0.013 U	0.01 U	1.2 U	0.012 U	0.0090 U	15 U	7 U	14 U	0.0099 U	1.6 U	2.6 U	0.01 U
4-Chlorotoluene	0.0022 U	0.75 U	0.58 U	0.0020 U	0.0026 U	0.0024 U	0.0025 U	0.0020 U	0.25 U	0.0024 U	0.0018 U	3 U	1.4 U	2.9 U	0.0020 U	0.32 U	0.53 U	0.0020 U
Acetone	0.37 J	3.8 U	2.9 U	0.073	0.41 J	0.033 J	0.24	0.14	1.2 U	0.091	0.48 J	15 U	7 U	14 U	0.24 J	1.6 U	2.6 U	0.058 J
Benzene	0.00054 U	0.19 U	0.14 U	0.00050 U	0.00065 U	0.00060 U	0.00063 U	0.00051 U	0.063 U	0.0022	0.00045 U	0.75 U	0.35 U	0.73 U	0.00049 U	0.043 J	0.07 J	0.00051 U
Bromobenzene	0.0022 U	0.75 U	0.58 U	0.0020 U	0.0026 U	0.0024 U	0.0025 U	0.0020 U	0.25 U	0.0024 U	0.0018 U	3 U	1.4 U	2.9 U	0.0020 U	0.32 U	0.53 U	0.0020 U
Bromodichloromethane	0.00054 U	0.19 U	0.14 U	0.00050 U	0.00065 U	0.00060 U	0.00063 U	0.00051 U	0.063 U	0.00060 U	0.00045 U	0.75 U	0.35 U	0.73 U	0.00049 U	0.079 U	0.13 U	0.00051 U
Bromoform	0.0043 U	1.5 U	1.2 U	0.0040 U	0.0052 U	0.0048 U	0.0050 U	0.0040 U	0.5 U	0.0048 U	0.0036 U	6 U	2.8 U	5.8 U	0.0039 U	0.63 U	1.1 U	0.0041 U
Bromomethane	0.0022 UJ	0.75 UJ	0.58 UJ	0.0020 UJ	0.0026 UJ	0.0024 UJ	0.0025 UJ	0.0020 UJ	0.25 UJ	0.0024 UJ	0.0018 U	3 UJ	1.4 UJ	2.9 UJ	0.0020 U	0.32 UJ	0.53 UJ	0.0020 U
Butylbenzene, n-	0.0011 U	0.38 U	0.29 U	0.0010 U	0.0013 U	0.0012 U	0.0013 U	0.0010 U	0.12 U	0.0012 U	0.00090 U	1.5 U	0.7 U	1.4 U	0.00099 U	0.16 U	0.26 U	0.0010 U
Butylbenzene, sec-	0.0011 U	0.38 U	0.29 U	0.0010 U	0.0013 U	0.0012 U	0.0013 U	0.0010 U	0.12 U	0.0012 U	0.00090 U	1.5 U	0.7 U	1.4 U	0.00099 U	0.16 U	0.26 U	0.0010 U
Butylbenzene, t-	0.0022 U	0.75 U	0.58 U	0.0020 U	0.0026 U	0.0024 U	0.0025 U	0.0020 U	0.25 U	0.0024 U	0.0018 U	3 U	1.4 U	2.9 U	0.0020 U	0.32 U	0.53 U	0.0020 U
Carbon Disulfide	0.011 U	3.8 U	2.9 U	0.01 U	0.013 U	0.012 U	0.013 U	0.01 U	1.2 U	0.012 U	0.0090 U	15 UJ	7 U	14 UJ	0.0099 U	1.6 UJ	2.6 UJ	0.01 U

Table 2-2a. Historical Soil Data: Volatile Organic Compounds

Essex-Hope Site, Jamestown, New York

Location ID	DPT-033	DPT-033	DPT-033	DPT-034	DPT-034	DPT-034	DPT-034	DPT-035	DPT-035	DPT-035	DPT-036	DPT-036	DPT-036	DPT-036	DPT-037	DPT-037	DPT-037	DPT-038
Sample Depth (feet bgs)	10 - 12	24 - 26	26 - 28	9 - 11	14 - 16	14 - 16	16 - 18	9 - 11	11 - 13	13 - 15	10 - 12	20 - 22	22 - 24	27 - 28	10 - 12	20 - 22	22 - 24	10 - 12
Sample Date	9/20/2019	9/20/2019	9/20/2019	9/18/2019	9/18/2019	9/18/2019	9/18/2019	9/18/2019	9/18/2019	9/18/2019	9/18/2019	9/18/2019	9/18/2019	9/18/2019	9/19/2019	9/19/2019	9/19/2019	9/19/2019
Sample Type	N	N	N	N	N	FD	N	N	N	N	N	N	N	N	N	N	N	N
Operable Unit	OU-03	OU-03	OU-03	OU-01	OU-01	OU-01	OU-01	OU-01	OU-01	OU-01	OU-01	OU-01	OU-01	OU-01	OU-01	OU-01	OU-01	OU-01
Geologic Unit	Shallow Sand and Gravel	Shallow Silty Clay	Deep Sandy Silt	Shallow Sand and Gravel	Shallow Silty Clay	Shallow Silty Clay	Deep Sandy Silt	Shallow Sand and Gravel	Shallow Silty Clay	Deep Sandy Silt	Shallow Sand and Gravel	Shallow Silty Clay	Deep Sandy Silt	Deep Sandy Silt	Shallow Sand and Gravel	Shallow Silty Clay	Deep Sandy Silt	Shallow Sand and Gravel
Analyte																		
Carbon Tetrachloride	0.0011 U	0.38 U	0.29 U	0.0010 U	0.0013 U	0.0012 U	0.0013 U	0.0010 U	0.12 U	0.0012 U	0.00090 U	1.5 U	0.7 U	1.4 U	0.00099 U	0.16 U	0.26 U	0.0010 U
Chlorobenzene	0.00054 U	0.19 U	0.14 U	0.00050 U	0.00065 U	0.00060 U	0.00063 U	0.00051 U	0.063 U	0.00060 U	0.00045 U	0.75 U	0.35 U	0.73 U	0.00049 U	0.079 U	0.13 U	0.00051 U
Chlorobromomethane	0.0022 U	0.75 U	0.58 U	0.0020 U	0.0026 U	0.0024 U	0.0025 U	0.0020 U	0.25 U	0.0024 U	0.0018 U	3 U	1.4 U	2.9 U	0.0020 U	0.32 U	0.53 U	0.0020 U
Chloroethane	0.0022 UJ	0.75 UJ	0.58 UJ	0.0020 UJ	0.0026 UJ	0.0024 UJ	0.0025 UJ	0.0020 UJ	0.25 U	0.0024 UJ	0.0018 U	3 UJ	1.4 UJ	2.9 UJ	0.0020 U	0.32 UJ	0.53 UJ	0.0020 U
Chloroform	0.0016 U	0.56 U	0.43 U	0.0015 U	0.0019 U	0.0018 U	0.0019 U	0.0015 U	0.19 U	0.0018 U	0.0014 U	2.2 U	1 U	2.2 U	0.0015 U	0.24 U	0.4 U	0.0015 U
Chloromethane	0.0043 U	1.5 U	1.2 U	0.0040 UJ	0.0052 UJ	0.0048 UJ	0.0050 UJ	0.0040 UJ	0.5 U	0.0048 UJ	0.0036 U	6 U	2.8 U	5.8 U	0.0015 J	0.63 U	1.1 U	0.0041 U
Dibromochloromethane	0.0011 U	0.38 U	0.29 U	0.0010 U	0.0013 U	0.0012 U	0.0013 U	0.0010 U	0.12 U	0.0012 U	0.00090 U	1.5 U	0.7 U	1.4 U	0.00099 U	0.16 U	0.26 U	0.0010 U
Dibromomethane (Methylene Bromide)	0.0022 U	0.75 U	0.58 U	0.0020 U	0.0026 U	0.0024 U	0.0025 U	0.0020 U	0.25 U	0.0024 U	0.0018 U	3 U	1.4 U	2.9 U	0.0020 U	0.32 U	0.53 U	0.0020 U
Dichlorodifluoromethane	0.011 UJ	3.8 U	2.9 U	0.01 UJ	0.013 UJ	0.012 UJ	0.013 UJ	0.01 UJ	1.2 U	0.012 UJ	0.0090 U	15 U	7 UJ	14 U	0.0099 U	1.6 U	2.6 U	0.01 U
Ethylbenzene	0.0011 U	0.38 U	0.29 U	0.0010 U	0.0013 U	0.0012 U	0.0013 U	0.0010 U	0.12 U	0.0012 U	0.00090 U	1.5 U	0.7 U	1.4 U	0.00099 U	0.16 U	0.26 U	0.0010 U
Hexachlorobutadiene	0.0043 U	1.5 U	1.2 U	0.0040 U	0.0052 U	0.0048 U	0.0050 U	0.0040 U	0.5 U	0.0048 U	0.0036 U	6 U	2.8 U	5.8 U	0.0039 U	0.63 U	1.1 U	0.0041 U
Isopropylbenzene (Cumene)	0.0011 U	0.38 U	0.29 U	0.0010 U	0.0013 U	0.0012 U	0.0013 U	0.0010 U	0.12 U	0.0012 U	0.00090 U	1.5 U	0.7 U	1.4 U	0.00099 U	0.16 U	0.26 U	0.0010 U
Methyl Ethyl Ketone (2-Butanone)	0.0040 J	3.8 U	2.9 U	0.01 UJ	0.0065 J	0.012 UJ	0.013 UJ	0.01 UJ	1.2 UJ	0.012 UJ	0.0059 J	15 U	7 U	14 U	0.0099 U	1.6 U	2.6 U	0.01 U
Methyl Isobutyl Ketone (4-Methyl-2-Pentanone)	0.011 U	3.8 U	2.9 U	0.01 U	0.013 U	0.012 U	0.013 U	0.01 U	1.2 U	0.012 U	0.0090 U	15 U	7 U	14 U	0.0099 U	1.6 U	2.6 U	0.01 U
Methyl tert-butyl Ether (MTBE)	0.0022	0.75 U	0.58 U	0.00044 J	0.0026 U	0.00041 J	0.00050 J	0.00044 J	0.25 U	0.00050 J	0.0018	3 U	1.4 U	2.9 U	0.0020	0.32 U	0.53 U	0.0021
Methylene Chloride	0.0054 U	1.9 U	1.4 U	0.0050 U	0.0065 U	0.0060 U	0.0063 U	0.0051 U	0.63 U	0.0060 U	0.0045 U	7.5 U	3.5 U	7.3 U	0.0049 U	0.79 U	1.3 U	0.0051 U
Naphthalene	0.0043 U	1.5 U	1.2 U	0.0040 U	0.0052 U	0.0048 U	0.0050 U	0.0040 U	0.5 U	0.0048 U	0.0036 U	6 U	2.8 U	5.8 U	0.0039 U	0.63 U	1.1 U	0.0041 U
n-Propylbenzene	0.0011 U	0.38 U	0.29 U	0.0010 U	0.0013 U	0.0012 U	0.0013 U	0.0010 U	0.12 U	0.0012 U	0.00090 U	1.5 U	0.7 U	0.32 J	0.00099 U	0.16 U	0.26 U	0.0010 U
p-Isopropyltoluene	0.0011 U	0.38 U	0.29 U	0.0010 U	0.0013 U	0.0012 U	0.0013 U	0.0010 U	0.12 U	0.0012 U	0.00090 U	1.5 U	0.7 U	1.4 U	0.00099 U	0.16 U	0.26 U	0.0010 U
Styrene	0.0011 U	0.38 U	0.29 U	0.0010 U	0.0013 U	0.0012 U	0.0013 U	0.0010 U	0.12 U	0.0012 U	0.00090 U	1.5 U	0.7 U	1.4 U	0.00099 U	0.16 U	0.26 U	0.0010 U
Tetrachloroethene	0.00054 U	0.19 U	0.14 U	0.00050 U	0.00041 J	0.00060 U	0.00063 U	0.00051 U	0.063 U	0.00060 U	0.00045 U	0.75 U	0.35 U	0.73 U	0.00049 U	0.079 U	0.13 U	0.00051 U
Toluene	0.0011 U	0.38 U	0.29 U	0.0010 U	0.0013 U	0.0012 U	0.0013 U	0.0010 U	0.12 U	0.0012 U	0.00090 U	1.5 U	0.7 U	1.4 U	0.00099 U	0.16 U	0.26 U	0.0010 U
Trichloroethene	0.00054 U	57	48	0.00050 U	0.0064	0.0052	0.094	0.00040 J	16	0.00028 J	0.00026 J	340	170	280	0.048	26	48	0.011
Trichlorofluoromethane	0.0043 U	1.5 U	1.2 U	0.0040 U	0.0052 U	0.0048 U	0.0050 U	0.0040 U	0.5 U	0.0048 U	0.0036 U	6 U	2.8 U	5.8 U	0.0039 U	0.63 U	1.1 U	0.0041 U
Vinyl Acetate	0.011 U	3.8 U	2.9 U	0.01 U	0.013 U	0.012 U	0.013 U	0.01 U	1.2 U	0.012 U	0.0090 U	15 U	7 U	14 U	0.0099 U	1.6 U	2.6 U	0.01 U
Vinyl Chloride	0.0011 U	0.38 U	0.29 U	0.0010 UJ	0.0013 UJ	0.0012 UJ	0.0013 UJ	0.0010 UJ	0.12 U	0.012 J	0.00090 U	1.5 U	0.7 U	1.4 U	0.00099 U	0.076 J	0.16 J	0.0010 U
Xylene, m- & p-	0.0022 U	0.75 U	0.58 U	0.0020 U	0.0026 U	0.0024 U	0.0025 U	0.0020 U	0.25 U	0.0024 U	0.0018 U	3 U	1.4 U	2.9 U	0.0020 U	0.32 U	0.53 U	0.0020 U
Xylene, o-	0.0011 U	0.38 U	0.29 U	0.0010 U	0.0013 U	0.0012 U	0.0013 U	0.0010 U	0.12 U	0.0012 U	0.00090 U	1.5 U	0.7 U	1.4 U	0.00099 U	0.16 U	0.26 U	0.0010 U
Xylenes, Total	0.0011 U	0.38 U	0.29 U	0.0010 U	0.0013 U	0.0012 U	0.0013 U	0.0010 U	0.12 U	0.0012 U	0.00090 U	1.5 U	0.7 U	1.4 U	0.00099 U	0.16 U	0.26 U	0.0010 U
Total CBTEX	0.0022 U	0.75 U	0.58 U	0.0020 U	0.0026 U	0.0024 U	0.0025 U	0.0020 U	0.25 U	0.0022	0.0018 U	3 U	1.4 U	2.9 U	0.0020 U	0.043 J	0.07 J	0.0020 U
Total CVOC	0.011 UJ	59	51	0.01 UJ	0.0072 J	0.0059 J	0.11	0.00040 J	17	0.053 J	0.00026 J	360	180	300	0.053 J	29 J	53 J	0.015 J
Total VOC	0.38 J	59	51	0.073 J	0.42 J	0.039 J	0.35 J	0.14 J	17	0.15 J	0.49 J	360 J	180	300 J	0.29 J	30 J	54 J	0.075 J

Table 2-2a. Historical Soil Data: Volatile Organic Compounds

Essex-Hope Site, Jamestown, New York

Location ID	DPT-038	DPT-038	DPT-038	DPT-039	DPT-039	DPT-039	DPT-040	DPT-040	DPT-040	DPT-040	DPT-041	DPT-041	DPT-041	DPT-042	DPT-042	DPT-042	DPT-042	DPT-043
Sample Depth (feet bgs)	10 - 12	18 - 20	24 - 26	10 - 12	18 - 20	20 - 22	10 - 12	10 - 12	17 - 19	19 - 21	10 - 12	18 - 20	20 - 22	10 - 12	16 - 18	20 - 22	26 - 28	10 - 12
Sample Date	9/19/2019	9/19/2019	9/19/2019	9/19/2019	9/19/2019	9/19/2019	9/17/2019	9/17/2019	9/17/2019	9/17/2019	9/24/2019	9/24/2019	9/24/2019	9/25/2019	9/25/2019	9/25/2019	9/25/2019	9/25/2019
Sample Type	FD	N	N	N	N	N	N	FD	N	N	N	N	N	N	N	N	N	N
Operable Unit	OU-01	OU-01	OU-01	OU-01	OU-01	OU-01	OU-01	OU-01	OU-01	OU-01	OU-01	OU-01	OU-01	OU-01	OU-01	OU-01	OU-01	OU-01
Geologic Unit	Shallow Sand and Gravel	Shallow Silty Clay	Deep Sandy Silt	Shallow Sand and Gravel	Shallow Silty Clay	Deep Sandy Silt	Shallow Sand and Gravel	Shallow Sand and Gravel	Shallow Silty Clay	Deep Sandy Silt	Shallow Sand and Gravel	Shallow Silty Clay	Deep Sandy Silt	Shallow Sand and Gravel	Shallow Silty Clay	Deep Sandy Silt	Deep Sandy Silt	Shallow Sand and Gravel
Analyte																		
1,1,1,2-Tetrachloroethane	0.00048 U	0.00063 U	0.061 U	0.00053 U	0.00053 U	0.00054 UJ	0.00052 U	0.00059 U	0.039 U	0.034 U	0.00044 U	0.035 U	0.36 U	0.00046 U	0.00054 U	0.18 U	0.34 U	0.00048 U
1,1,1-Trichloroethane	0.00048 U	0.00063 U	0.061 U	0.00053 U	0.00053 U	0.00054 UJ	0.00052 U	0.00059 U	0.039 U	0.034 U	0.00044 U	0.035 U	0.36 U	0.00046 U	0.00054 U	0.18 U	0.34 U	0.00048 U
1,1,2,2-Tetrachloroethane	0.00048 U	0.00063 U	0.061 U	0.00053 U	0.00053 U	0.00054 UJ	0.00052 UJ	0.00059 UJ	0.039 U	0.034 U	0.00044 U	0.035 U	0.36 U	0.00046 U	0.00054 U	0.18 U	0.34 U	0.00048 U
1,1,2-Trichloroethane	0.00095 U	0.0012 U	0.12 U	0.0010 U	0.0010 U	0.0011 UJ	0.0010 U	0.0012 U	0.078 U	0.068 U	0.00089 U	0.071 U	0.71 U	0.00091 U	0.0011 U	0.36 U	0.68 U	0.00096 U
1,1-Dichloroethane	0.00095 U	0.0012 U	0.12 U	0.0010 U	0.0010 U	0.0011 UJ	0.0010 U	0.0012 U	0.078 U	0.068 U	0.00089 U	0.071 U	0.71 U	0.00091 U	0.0011 U	0.36 U	0.68 U	0.00096 U
1,1-Dichloroethene	0.00095 U	0.0012 U	0.12 U	0.0010 U	0.0010 U	0.0011 UJ	0.0010 U	0.0012 U	0.078 U	0.068 U	0.00089 U	0.026 J	0.71 U	0.00091 U	0.0011 U	0.36 U	0.68 U	0.00096 U
1,1-Dichloropropene	0.00048 U	0.00063 U	0.061 U	0.00053 U	0.00053 U	0.00054 UJ	0.00052 U	0.00059 U	0.039 U	0.034 U	0.00044 U	0.035 U	0.36 U	0.00046 U	0.00054 U	0.18 U	0.34 U	0.00048 U
1,2,3-Trichlorobenzene	0.0019 U	0.0025 U	0.24 U	0.0021 U	0.0021 U	0.0022 UJ	0.0021 U	0.0024 U	0.16 U	0.14 U	0.0018 U	0.14 U	1.4 U	0.0018 U	0.0022 U	0.72 U	1.4 U	0.0019 U
1,2,3-Trichloropropane	0.0019 U	0.0025 U	0.24 U	0.0021 U	0.0021 U	0.0022 UJ	0.0021 UJ	0.0024 UJ	0.16 U	0.14 U	0.0018 U	0.14 U	1.4 U	0.0018 U	0.0022 U	0.72 U	1.4 U	0.0019 U
1,2,4-Trichlorobenzene	0.0019 U	0.0025 U	0.24 U	0.0021 U	0.0021 U	0.0022 UJ	0.0021 U	0.0024 U	0.16 U	0.14 U	0.0018 U	0.14 U	1.4 U	0.0018 U	0.0022 U	0.72 U	1.4 U	0.0019 U
1,2,4-Trimethylbenzene	0.0019 U	0.0025 U	0.24 U	0.0021 U	0.0021 U	0.0022 UJ	0.0021 U	0.0024 U	0.078 J	0.14 U	0.0018 U	0.14 U	1.4 U	0.0018 U	0.0022 U	2.2	1.4 U	0.0019 U
1,2-Dibromo-3-Chloropropane	0.0028 U	0.0038 U	0.37 U	0.0032 U	0.0032 U	0.0032 UJ	0.0031 U	0.0036 U	0.23 U	0.2 U	0.0027 U	0.21 U	2.1 U	0.0027 U	0.0033 U	1.1 U	2 U	0.0029 U
1,2-Dibromoethane (Ethylene Dibromide)	0.00095 U	0.0012 U	0.12 U	0.0010 U	0.0010 U	0.0011 UJ	0.0010 U	0.0012 U	0.078 U	0.068 U	0.00089 U	0.071 U	0.71 U	0.00091 U	0.0011 U	0.36 U	0.68 U	0.00096 U
1,2-Dichlorobenzene	0.0019 U	0.0025 U	0.24 U	0.0021 U	0.0021 U	0.0022 UJ	0.0021 U	0.0024 U	0.16 U	0.14 U	0.0018 U	0.14 U	1.4 U	0.0018 U	0.0022 U	0.72 U	1.4 U	0.0019 U
1,2-Dichloroethane	0.00095 U	0.0012 U	0.12 U	0.0010 U	0.0010 U	0.0011 UJ	0.0010 U	0.0012 U	0.078 U	0.068 U	0.00089 U	0.071 U	0.71 U	0.00091 U	0.0011 U	0.36 U	0.68 U	0.00096 U
1,2-Dichloroethene, cis-	0.0024 J	0.00026 J	11	0.0025	0.043	0.073 J	0.0010 U	0.0012 U	3.8	1	0.00089 U	2.3	9.1	0.00091 U	0.0011 U	4.3	5.9	0.00096 U
1,2-Dichloroethene, Total	0.0024 J	0.00026 J	11 J	0.0025	0.043 J	0.074 J	0.00018 J	0.0012 U	3.9 J	1 J	0.00089 U	2.3 J	9.1	0.00091 U	0.0011 U	4.3	5.9	0.00096 U
1,2-Dichloroethene, trans-	0.0014 U	0.0019 U	0.032 J	0.0016 U	0.00029 J	0.00077 J	0.00018 J	0.0018 U	0.087 J	0.035 J	0.0013 U	0.01 J	1.1 U	0.0014 U	0.0016 U	0.54 U	1 U	0.0014 U
1,2-Dichloropropane	0.00095 U	0.0012 U	0.12 U	0.0010 U	0.0010 U	0.0011 UJ	0.0010 U	0.0012 U	0.078 U	0.068 U	0.00089 U	0.071 U	0.71 U	0.00091 U	0.0011 U	0.36 U	0.68 U	0.00096 U
1,3,5-Trimethylbenzene (Mesitylene)	0.0019 U	0.0025 U	0.24 U	0.0021 U	0.0021 U	0.0022 UJ	0.0021 U	0.0024 U	0.019 J	0.14 U	0.0018 U	0.14 U	1.4 U	0.0018 U	0.0022 U	0.44 J	1.4 U	0.0019 U
1,3-Dichlorobenzene	0.0019 U	0.0025 U	0.24 U	0.0021 U	0.0021 U	0.0022 UJ	0.0021 U	0.0024 U	0.16 U	0.14 U	0.0018 U	0.14 U	1.4 U	0.0018 U	0.0022 U	0.72 U	1.4 U	0.0019 U
1,3-Dichloropropane	0.0019 U	0.0025 U	0.24 U	0.0021 U	0.0021 U	0.0022 UJ	0.0021 U	0.0024 U	0.16 U	0.14 U	0.0018 U	0.14 U	1.4 U	0.0018 U	0.0022 U	0.72 U	1.4 U	0.0019 U
1,3-Dichloropropene, cis-	0.00048 U	0.00063 U	0.061 U	0.00053 U	0.00053 U	0.00054 UJ	0.00052 U	0.00059 U	0.039 U	0.034 U	0.00044 U	0.035 U	0.36 U	0.00046 U	0.00054 U	0.18 U	0.34 U	0.00048 U
1,3-Dichloropropene, Total	0.00048 U	0.00063 U	0.061 U	0.00053 U	0.00053 U	0.00054 UJ	0.00052 U	0.00059 U	0.039 U	0.034 U	0.00044 U	0.035 U	0.36 U	0.00046 U	0.00054 U	0.18 U	0.34 U	0.00048 U
1,3-Dichloropropene, trans-	0.00095 U	0.0012 U	0.12 U	0.0010 U	0.0010 U	0.0011 UJ	0.0010 U	0.0012 U	0.078 U	0.068 U	0.00089 U	0.071 U	0.71 U	0.00091 U	0.0011 U	0.36 U	0.68 U	0.00096 U
1,4-Dichlorobenzene	0.0019 U	0.0025 U	0.24 U	0.0021 U	0.0021 U	0.0022 UJ	0.0021 U	0.0024 U	0.16 U	0.14 U	0.0018 U	0.14 U	1.4 U	0.0018 U	0.0022 U	0.72 U	1.4 U	0.0019 U
1,4-Dioxane (p-Dioxane)	0.076 UJ	0.1 UJ	9.8 U	0.085 UJ	0.084 UJ	0.087 UJ	0.083 U	0.095 U	6.2 U	5.4 U	0.071 U	5.7 U	57 U	0.073 U	0.087 U	29 U	55 U	0.077 U
2,2-Dichloropropane	0.0019 U	0.0025 U	0.24 U	0.0021 U	0.0021 U	0.0022 UJ	0.0021 U	0.0024 U	0.16 U	0.14 U	0.0018 U	0.14 U	1.4 U	0.0018 U	0.0022 U	0.72 U	1.4 U	0.0019 U
2-Chlorotoluene	0.0019 U	0.0025 U	0.24 U	0.0021 U	0.0021 U	0.0022 UJ	0.0021 U	0.0024 U	0.16 U	0.14 U	0.0018 U	0.14 U	1.4 U	0.0018 U	0.0022 U	0.72 U	1.4 U	0.0019 U
2-Hexanone	0.0095 U	0.012 U	1.2 U	0.01 U	0.01 U	0.011 UJ	0.01 U	0.012 U	0.78 U	0.68 U	0.0089 U	0.71 U	7.1 U	0.0091 U	0.011 U	3.6 U	6.8 U	0.0096 U
4-Chlorotoluene	0.0019 U	0.0025 U	0.24 U	0.0021 U	0.0021 U	0.0022 UJ	0.0021 U	0.0024 U	0.16 U	0.14 U	0.0018 U	0.14 U	1.4 U	0.0018 U	0.0022 U	0.72 U	1.4 U	0.0019 U
Acetone	0.48 J	0.44 J	1.2 U	0.4 J	0.48 J	0.9 J	0.042 J	0.15 J	0.78 U	0.68 U	0.36 J	0.71 U	7.1 U	0.16 J	0.25 J	3.6 U	6.8 U	0.26 J
Benzene	0.00048 U	0.00063 U	0.024 J	0.00053 U	0.00053 U	0.00054 UJ	0.00052 U	0.00059 U	0.039 U	0.034 U	0.00044 U	0.027 J	0.36 U	0.00046 U	0.00054 U	0.12 J	0.15 J	0.00048 U
Bromobenzene	0.0019 U	0.0025 U	0.24 U	0.0021 U	0.0021 U	0.0022 UJ	0.0021 U	0.0024 U	0.16 U	0.14 U	0.0018 U	0.14 U	1.4 U	0.0018 U	0.0022 U	0.72 U	1.4 U	0.0019 U
Bromodichloromethane	0.00048 U	0.00063 U	0.061 U	0.00053 U	0.00053 U	0.00054 UJ	0.00052 U	0.00059 U	0.039 U	0.034 U	0.00044 U	0.035 U	0.36 U	0.00046 U	0.00054 U	0.18 U	0.34 U	0.00048 U
Bromoform	0.0038 U	0.0050 U	0.49 U	0.0042 U	0.0042 U	0.0043 UJ	0.0042 U	0.0047 U	0.31 U	0.27 U	0.0036 U	0.28 U	2.8 U	0.0036 U	0.0044 U	1.4 U	2.7 U	0.0038 U
Bromomethane	0.0019 U	0.0025 U	0.24 UJ	0.0021 UJ	0.0021 UJ	0.0022 UJ	0.0021 UJ	0.0024 UJ	0.16 UJ	0.14 UJ	0.0018 UJ	0.14 UJ	1.4 UJ	0.0018 UJ	0.0022 UJ	0.72 UJ	1.4 UJ	0.0019 UJ
Butylbenzene, n-	0.00095 U	0.0012 U	0.12 U	0.0010 U	0.0010 U	0.0011 UJ	0.0010 U	0.0012 U	0.078 U	0.068 U	0.00089 U	0.071 U	0.71 U	0.00091 U	0.0011 U	0.36 U	0.68 U	0.00096 U
Butylbenzene, sec-	0.00095 U	0.0012 U	0.12 U	0.0010 U	0.0010 U	0.0011 UJ	0.0010 U	0.0012 U	0.078 U	0.068 U	0.00089 U	0.071 U	0.71 U	0.00091 U	0.0011 U	0.36 U	0.68 U	0.00096 U
Butylbenzene, t-	0.0019 U	0.0025 U	0.24 U	0.0021 U	0.0021 U	0.0022 UJ	0.0021 U	0.0024 U	0.16 U	0.14 U	0.0018 U	0.14 U	1.4 U	0.0018 U	0.0022 U	0.72 U	1.4 U	0.0019 U
Carbon Disulfide	0.0095 U	0.012 UJ	1.2 U	0.01 UJ	0.01 UJ	0.011 UJ	0.01 U	0.012 U	0.78 U	0.68 U	0.0089 U	0.71 U	7.1 U	0.0091 U	0.011 U	3.6 U	6.8 U	0.0096 U

Table 2-2a. Historical Soil Data: Volatile Organic Compounds

Essex-Hope Site, Jamestown, New York

Location ID	DPT-038	DPT-038	DPT-038	DPT-039	DPT-039	DPT-039	DPT-040	DPT-040	DPT-040	DPT-040	DPT-041	DPT-041	DPT-041	DPT-042	DPT-042	DPT-042	DPT-042	DPT-043
Sample Depth (feet bgs)	10 - 12	18 - 20	24 - 26	10 - 12	18 - 20	20 - 22	10 - 12	10 - 12	17 - 19	19 - 21	10 - 12	18 - 20	20 - 22	10 - 12	16 - 18	20 - 22	26 - 28	10 - 12
Sample Date	9/19/2019	9/19/2019	9/19/2019	9/19/2019	9/19/2019	9/19/2019	9/17/2019	9/17/2019	9/17/2019	9/17/2019	9/24/2019	9/24/2019	9/24/2019	9/25/2019	9/25/2019	9/25/2019	9/25/2019	9/25/2019
Sample Type	FD	N	N	N	N	N	N	FD	N	N	N	N	N	N	N	N	N	N
Operable Unit	OU-01	OU-01	OU-01	OU-01	OU-01	OU-01	OU-01	OU-01	OU-01	OU-01	OU-01	OU-01	OU-01	OU-01	OU-01	OU-01	OU-01	OU-01
Geologic Unit	Shallow Sand and Gravel	Shallow Silty Clay	Deep Sandy Silt	Shallow Sand and Gravel	Shallow Silty Clay	Deep Sandy Silt	Shallow Sand and Gravel	Shallow Sand and Gravel	Shallow Silty Clay	Deep Sandy Silt	Shallow Sand and Gravel	Shallow Silty Clay	Deep Sandy Silt	Shallow Sand and Gravel	Shallow Silty Clay	Deep Sandy Silt	Deep Sandy Silt	Shallow Sand and Gravel
Analyte																		
Carbon Tetrachloride	0.00095 U	0.0012 U	0.12 U	0.0010 U	0.0010 U	0.0011 UJ	0.0010 U	0.0012 U	0.078 U	0.068 U	0.00089 U	0.071 U	0.71 U	0.00091 U	0.0011 U	0.36 U	0.68 U	0.00096 U
Chlorobenzene	0.00048 U	0.00063 U	0.061 U	0.00053 U	0.00053 U	0.00054 UJ	0.00052 U	0.00059 U	0.039 U	0.034 U	0.00044 U	0.035 U	0.36 U	0.00046 U	0.00054 U	0.18 U	0.34 U	0.00048 U
Chlorobromomethane	0.0019 U	0.0025 U	0.24 U	0.0021 U	0.0021 U	0.0022 UJ	0.0021 U	0.0024 U	0.16 U	0.14 U	0.0018 U	0.14 U	1.4 U	0.0018 U	0.0022 U	0.72 U	1.4 U	0.0019 U
Chloroethane	0.0019 U	0.0025 UJ	0.24 UJ	0.0021 UJ	0.0021 UJ	0.0022 UJ	0.0021 UJ	0.0024 UJ	0.16 U	0.14 U	0.0018 U	0.14 U	1.4 UJ	0.0018 U	0.0022 U	0.72 U	1.4 U	0.0019 UJ
Chloroform	0.0014 U	0.0019 U	0.18 U	0.0016 U	0.0016 U	0.0016 U	0.0016 U	0.0018 U	0.12 U	0.1 U	0.0013 U	0.011 J	0.11 J	0.0014 U	0.0016 U	0.54 U	1 U	0.0014 U
Chloromethane	0.0012 J	0.0017 J	0.49 U	0.0016 J	0.0018 J	0.0018 J	0.0042 UJ	0.0047 UJ	0.31 U	0.27 U	0.0036 U	0.28 U	2.8 U	0.0036 U	0.0044 U	1.4 U	2.7 U	0.0038 U
Dibromochloromethane	0.00095 U	0.0012 U	0.12 U	0.0010 U	0.0010 U	0.0011 UJ	0.0010 U	0.0012 U	0.078 U	0.068 U	0.00089 U	0.071 U	0.71 U	0.00091 U	0.0011 U	0.36 U	0.68 U	0.00096 U
Dibromomethane (Methylene Bromide)	0.0019 U	0.0025 U	0.24 U	0.0021 U	0.0021 U	0.0022 UJ	0.0021 U	0.0024 U	0.16 U	0.14 U	0.0018 U	0.14 U	1.4 U	0.0018 U	0.0022 U	0.72 U	1.4 U	0.0019 U
Dichlorodifluoromethane	0.0095 U	0.012 U	1.2 UJ	0.01 U	0.01 U	0.011 UJ	0.01 UJ	0.012 UJ	0.78 U	0.68 U	0.0089 U	0.71 U	7.1 U	0.0091 U	0.011 U	3.6 U	6.8 U	0.0096 U
Ethylbenzene	0.00095 U	0.0012 U	0.12 U	0.0010 U	0.0010 U	0.0011 UJ	0.0010 U	0.0012 U	0.037 J	0.02 J	0.00089 U	0.071 U	0.12 J	0.00091 U	0.0011 U	0.051 J	0.68 U	0.00096 U
Hexachlorobutadiene	0.0038 U	0.0050 U	0.49 U	0.0042 U	0.0042 U	0.0043 UJ	0.0042 U	0.0047 U	0.31 U	0.27 U	0.0036 U	0.28 U	2.8 U	0.0036 U	0.0044 U	1.4 U	2.7 U	0.0038 U
Isopropylbenzene (Cumene)	0.00095 U	0.0012 U	0.12 U	0.0010 U	0.0010 U	0.0011 UJ	0.0010 U	0.0012 U	0.011 J	0.068 U	0.00089 U	0.071 U	0.71 U	0.00091 U	0.0011 U	0.36 U	0.68 U	0.00096 U
Methyl Ethyl Ketone (2-Butanone)	0.0095 U	0.012 U	1.2 U	0.01 U	0.01 U	0.017 J	0.01 UJ	0.012 UJ	0.78 UJ	0.68 UJ	0.0055 J	0.71 U	7.1 U	0.0091 U	0.0031 J	3.6 U	6.8 U	0.0033 J
Methyl Isobutyl Ketone (4-Methyl-2-Pentanone)	0.0095 U	0.012 U	1.2 U	0.01 U	0.01 U	0.011 UJ	0.01 U	0.012 U	0.78 U	0.68 U	0.0089 U	0.71 U	7.1 U	0.0091 U	0.011 U	3.6 U	6.8 U	0.0096 U
Methyl tert-butyl Ether (MTBE)	0.0024	0.0022 J	0.24 U	0.0028	0.0020 J	0.0029 J	0.00034 J	0.00048 J	0.16 U	0.14 U	0.0018 U	0.14 U	1.4 U	0.0018 U	0.0022 U	0.72 U	1.4 U	0.0019 U
Methylene Chloride	0.0048 U	0.0063 U	0.61 U	0.0053 U	0.0053 U	0.0025 J	0.0052 U	0.0059 U	0.39 U	0.34 U	0.0044 U	0.35 U	3.6 U	0.0046 U	0.0054 U	1.8 U	3.4 U	0.0048 U
Naphthalene	0.0038 U	0.0050 U	0.49 U	0.0042 U	0.0042 U	0.0043 UJ	0.0042 U	0.0047 U	0.31 U	0.27 U	0.0036 U	0.28 U	2.8 U	0.0036 U	0.0044 U	1.4 U	2.7 U	0.0038 U
n-Propylbenzene	0.00095 U	0.0012 U	0.12 U	0.0010 U	0.0010 U	0.0011 UJ	0.0010 U	0.0012 U	0.019 J	0.068 U	0.00089 U	0.071 U	0.71 U	0.00091 U	0.0011 U	0.16 J	0.68 U	0.00096 U
p-Isopropyltoluene	0.00095 U	0.0012 U	0.12 U	0.0010 U	0.0010 U	0.0011 UJ	0.0010 U	0.0012 U	0.078 U	0.068 U	0.00089 U	0.071 U	0.71 U	0.00091 U	0.0011 U	0.36 U	0.68 U	0.00096 U
Styrene	0.00095 U	0.0012 U	0.12 U	0.0010 U	0.0010 U	0.0011 UJ	0.0010 U	0.0012 U	0.078 U	0.068 U	0.00089 U	0.071 U	0.71 U	0.00091 U	0.0011 U	0.36 U	0.68 U	0.00096 U
Tetrachloroethene	0.00048 U	0.00063 U	0.061 U	0.00053 U	0.00053 U	0.00054 UJ	0.00052 U	0.00059 U	0.64	0.034 U	0.00044 U	0.035 U	0.36 U	0.00046 U	0.00054 U	0.18 U	0.34 U	0.00048 U
Toluene	0.00095 U	0.0012 U	0.12 U	0.0010 U	0.0010 U	0.0011 UJ	0.0010 U	0.0012 U	0.078 U	0.068 U	0.00089 U	0.071 U	0.71 U	0.00091 U	0.0011 U	0.27 J	0.68 U	0.00096 U
Trichloroethene	0.0085	0.00028 J	26	0.0090	0.0038	0.0050 J	0.00016 J	0.00020 J	2.2	0.057	0.00044 U	3	120	0.00046 U	0.00054 U	55	88	0.00064
Trichlorofluoromethane	0.0038 U	0.0050 U	0.49 U	0.0042 U	0.0042 U	0.0043 UJ	0.0042 U	0.0047 U	0.31 U	0.27 U	0.0036 U	0.28 U	2.8 U	0.0036 U	0.0044 U	1.4 U	2.7 U	0.0038 U
Vinyl Acetate	0.0095 U	0.012 U	1.2 U	0.01 U	0.01 U	0.011 UJ	0.01 U	0.012 U	0.78 U	0.68 U	0.0089 U	0.71 U	7.1 U	0.0091 U	0.011 U	3.6 U	6.8 U	0.0096 U
Vinyl Chloride	0.00095 U	0.0012 U	0.095 J	0.0010 U	0.00054 J	0.0011 UJ	0.0010 UJ	0.0012 UJ	0.034 J	0.068 U	0.00089 U	0.068 J	0.71 U	0.00091 U	0.0011 U	0.39	0.64 J	0.00096 U
Xylene, m- & p-	0.0019 U	0.0025 U	0.24 U	0.0021 U	0.0021 U	0.0022 UJ	0.0021 U	0.0024 U	0.071 J	0.14 U	0.0018 U	0.14 U	1.4 U	0.0018 U	0.0022 U	0.26 J	1.4 U	0.0019 U
Xylene, o-	0.00095 U	0.0012 U	0.12 U	0.0010 U	0.0010 U	0.0011 UJ	0.0010 U	0.0012 U	0.029 J	0.068 U	0.00089 U	0.071 U	0.71 U	0.00091 U	0.0011 U	0.14 J	0.68 U	0.00096 U
Xylenes, Total	0.00095 U	0.0012 U	0.12 U	0.0010 U	0.0010 U	0.0011 UJ	0.0010 U	0.0012 U	0.1 J	0.068 U	0.00089 U	0.071 U	0.71 U	0.00091 U	0.0011 U	0.4 J	0.68 U	0.00096 U
Total CBTEX	0.0019 U	0.0025 U	0.024 J	0.0021 U	0.0021 U	0.0022 UJ	0.0021 U	0.0024 U	0.15 J	0.02 J	0.0018 U	0.027 J	0.12 J	0.0018 U	0.0022 U	0.84 J	0.15 J	0.0019 U
Total CVOC	0.012 J	0.0022 J	37 J	0.013 J	0.049 J	0.083 J	0.00034 J	0.00020 J	6.8 J	1.1 J	0.0089 U	5.4 J	130 J	0.0091 U	0.011 U	60	95 J	0.00064
Total VOC	0.49 J	0.44 J	37 J	0.42 J	0.53 J	1 J	0.043 J	0.15 J	7 J	1.1 J	0.37 J	5.4 J	130 J	0.16 J	0.25 J	63 J	95 J	0.26 J

Table 2-2a. Historical Soil Data: Volatile Organic Compounds

Essex-Hope Site, Jamestown, New York

Location ID	DPT-043	DPT-043	DPT-043	DPT-044	DPT-044	DPT-044	DPT-044	DPT-045	DPT-045	DPT-045	DPT-045	DPT-046	DPT-046	DPT-046	DPT-047	DPT-047	DPT-047	DPT-047
Sample Depth (feet bgs)	18 - 20	18 - 20	22 - 24	10 - 12	14 - 16	16 - 18	16 - 18	10 - 12	17 - 19	22 - 24	27 - 28	10 - 12	18 - 20	20 - 22	11 - 13	11 - 13	18 - 20	24 - 26
Sample Date	9/25/2019	9/25/2019	9/25/2019	9/17/2019	9/17/2019	9/17/2019	9/17/2019	9/24/2019	9/24/2019	9/24/2019	9/24/2019	9/24/2019	9/24/2019	9/24/2019	9/24/2019	9/24/2019	9/24/2019	9/24/2019
Sample Type	N	FD	N	N	N	N	FD	N	N	N	N	N	N	N	N	FD	N	N
Operable Unit	OU-01	OU-01	OU-01	OU-01	OU-01	OU-01	OU-01	OU-01	OU-01	OU-01	OU-01	OU-01	OU-01	OU-01	OU-01	OU-01	OU-01	OU-01
Geologic Unit	Shallow Silty Clay	Shallow Silty Clay	Deep Sandy Silt	Shallow Sand and Gravel	Shallow Silty Clay	Deep Sandy Silt	Deep Sandy Silt	Shallow Sand and Gravel	Shallow Silty Clay	Deep Sandy Silt	Deep Sandy Silt	Shallow Sand and Gravel	Shallow Silty Clay	Deep Sandy Silt	Shallow Sand and Gravel	Shallow Sand and Gravel	Shallow Silty Clay	Deep Sandy Silt
Analyte																		
1,1,1,2-Tetrachloroethane	0.00055 U	0.00053 U	0.00055 U	0.00054 U	0.035 U	0.063 U	0.072 U	0.00055 U	0.00058 U	0.17 U	1.7 U	0.00047 U	0.00055 U	0.074 U	0.00050 U	0.00051 U	0.00055 U	0.00060 U
1,1,1-Trichloroethane	0.00055 U	0.00053 U	0.00055 U	0.00054 U	0.035 U	0.063 U	0.072 U	0.00055 U	0.00058 U	0.17 U	1.7 U	0.00047 U	0.00055 U	0.074 U	0.00050 U	0.00051 U	0.00055 U	0.00060 U
1,1,2,2-Tetrachloroethane	0.00055 U	0.00053 U	0.00055 U	0.00054 UJ	0.035 U	0.063 U	0.072 U	0.00055 U	0.00058 U	0.17 U	1.7 U	0.00047 U	0.00055 U	0.074 U	0.00050 U	0.00051 U	0.00055 U	0.00060 U
1,1,2-Trichloroethane	0.0011 U	0.0011 U	0.0011 U	0.0011 U	0.07 U	0.13 U	0.14 U	0.0011 U	0.0012 U	0.35 U	3.4 U	0.00094 U	0.0011 U	0.15 U	0.0010 U	0.0010 U	0.0011 U	0.0012 U
1,1-Dichloroethane	0.0011 U	0.0011 U	0.0011 U	0.0011 U	0.07 U	0.13 U	0.14 U	0.0011 U	0.0012 U	0.35 U	3.4 U	0.00094 U	0.0011 U	0.15 U	0.0010 U	0.0010 U	0.0011 U	0.0012 U
1,1-Dichloroethene	0.0011 U	0.0011 U	0.0011 U	0.0011 U	0.07 U	0.13 U	0.14 U	0.0011 U	0.0012 U	0.35 U	3.4 U	0.00094 U	0.0011 U	0.15 U	0.0010 U	0.0010 U	0.0011 U	0.0012 U
1,1-Dichloropropene	0.00055 U	0.00053 U	0.00055 U	0.00054 U	0.035 U	0.063 U	0.072 U	0.00055 U	0.00058 U	0.17 U	1.7 U	0.00047 U	0.00055 U	0.074 U	0.00050 U	0.00051 U	0.00055 U	0.00060 U
1,2,3-Trichlorobenzene	0.0022 U	0.0021 U	0.0022 U	0.0021 U	0.14 U	0.25 U	0.29 U	0.0022 U	0.0023 U	0.69 U	6.8 U	0.0019 U	0.0022 U	0.3 U	0.0020 U	0.0020 U	0.0022 U	0.0024 U
1,2,3-Trichloropropane	0.0022 U	0.0021 U	0.0022 U	0.0021 UJ	0.14 U	0.25 U	0.29 U	0.0022 U	0.0023 U	0.69 U	6.8 U	0.0019 U	0.0022 U	0.3 U	0.0020 U	0.0020 U	0.0022 U	0.0024 U
1,2,4-Trichlorobenzene	0.0022 U	0.0021 U	0.0022 U	0.0021 U	0.14 UJ	0.25 UJ	0.29 UJ	0.0022 U	0.0023 U	0.69 U	6.8 U	0.0019 U	0.0022 U	0.3 U	0.0020 U	0.0020 U	0.0022 U	0.0024 U
1,2,4-Trimethylbenzene	0.0022 U	0.0021 U	0.0022 U	0.0021 U	0.032 J	4.8 J	10 J	0.0022 U	0.0023 U	0.69 U	19	0.0019 U	0.0022 U	0.3 U	0.0020 U	0.0020 U	0.0022 U	0.0024 U
1,2-Dibromo-3-Chloropropane	0.0033 U	0.0032 U	0.0033 U	0.0032 U	0.21 U	0.38 U	0.43 U	0.0033 U	0.0035 U	1 U	10 U	0.0028 U	0.0033 U	0.44 U	0.0030 U	0.0031 U	0.0033 U	0.0036 U
1,2-Dibromoethane (Ethylene Dibromide)	0.0011 U	0.0011 U	0.0011 U	0.0011 U	0.07 U	0.13 U	0.14 U	0.0011 U	0.0012 U	0.35 U	3.4 U	0.00094 U	0.0011 U	0.15 U	0.0010 U	0.0010 U	0.0011 U	0.0012 U
1,2-Dichlorobenzene	0.0022 U	0.0021 U	0.0022 U	0.0021 U	0.14 U	0.25 U	0.29 U	0.0022 U	0.0023 U	0.69 U	6.8 U	0.0019 U	0.0022 U	0.3 U	0.0020 U	0.0020 U	0.0022 U	0.0024 U
1,2-Dichloroethane	0.0011 U	0.0011 U	0.0011 U	0.0011 U	0.07 U	0.13 U	0.14 U	0.0011 U	0.0012 U	0.35 U	3.4 U	0.00094 U	0.0011 U	0.15 U	0.0010 U	0.0010 U	0.0011 U	0.0012 U
1,2-Dichloroethene, cis-	0.0011 U	0.0011 U	0.0011 U	0.0033	0.35	12	17	0.0011 U	0.0012 U	15	39	0.00094 U	0.0011 U	1.9	0.0010 U	0.0010 U	0.0011 U	0.00056 J
1,2-Dichloroethene, Total	0.0011 U	0.0011 U	0.0011 U	0.0033	0.35	12 J	17 J	0.0011 U	0.0012 U	15	39	0.00094 U	0.0011 U	1.9	0.0010 U	0.0010 U	0.0011 U	0.00074 J
1,2-Dichloroethene, trans-	0.0016 U	0.0016 U	0.0016 U	0.0016 U	0.1 U	0.056 J	0.088 J	0.0016 U	0.0017 U	0.52 U	5.1 U	0.0014 U	0.0016 U	0.22 U	0.0015 U	0.0015 U	0.0016 U	0.00018 J
1,2-Dichloropropane	0.0011 U	0.0011 U	0.0011 U	0.0011 U	0.07 UJ	0.13 UJ	0.14 UJ	0.0011 U	0.0012 U	0.35 U	3.4 U	0.00094 U	0.0011 U	0.15 U	0.0010 U	0.0010 U	0.0011 U	0.0012 U
1,3,5-Trimethylbenzene (Mesitylene)	0.0022 U	0.0021 U	0.0022 U	0.0021 U	0.14 U	0.24 J	0.22 J	0.0022 U	0.0023 U	0.69 U	4.7 J	0.0019 U	0.0022 U	0.3 U	0.0020 U	0.0020 U	0.0022 U	0.0024 U
1,3-Dichlorobenzene	0.0022 U	0.0021 U	0.0022 U	0.0021 U	0.14 U	0.25 U	0.29 U	0.0022 U	0.0023 U	0.69 U	6.8 U	0.0019 U	0.0022 U	0.3 U	0.0020 U	0.0020 U	0.0022 U	0.0024 U
1,3-Dichloropropane	0.0022 U	0.0021 U	0.0022 U	0.0021 U	0.14 U	0.25 U	0.29 U	0.0022 U	0.0023 U	0.69 U	6.8 U	0.0019 U	0.0022 U	0.3 U	0.0020 U	0.0020 U	0.0022 U	0.0024 U
1,3-Dichloropropene, cis-	0.00055 U	0.00053 U	0.00055 U	0.00054 U	0.035 U	0.063 U	0.072 U	0.00055 U	0.00058 U	0.17 U	1.7 U	0.00047 U	0.00055 U	0.074 U	0.00050 U	0.00051 U	0.00055 U	0.00060 U
1,3-Dichloropropene, Total	0.00055 U	0.00053 U	0.00055 U	0.00054 U	0.035 U	0.063 U	0.072 U	0.00055 U	0.00058 U	0.17 U	1.7 U	0.00047 U	0.00055 U	0.074 U	0.00050 U	0.00051 U	0.00055 U	0.00060 U
1,3-Dichloropropene, trans-	0.0011 U	0.0011 U	0.0011 U	0.0011 U	0.07 U	0.13 U	0.14 U	0.0011 U	0.0012 U	0.35 U	3.4 U	0.00094 U	0.0011 U	0.15 U	0.0010 U	0.0010 U	0.0011 U	0.0012 U
1,4-Dichlorobenzene	0.0022 U	0.0021 U	0.0022 U	0.0021 U	0.14 U	0.25 U	0.29 U	0.0022 U	0.0023 U	0.69 U	6.8 U	0.0019 U	0.0022 U	0.3 U	0.0020 U	0.0020 U	0.0022 U	0.0024 U
1,4-Dioxane (p-Dioxane)	0.088 U	0.085 U	0.088 U	0.086 U	5.6 U	10 U	11 U	0.088 U	0.093 U	28 U	270 U	0.075 U	0.088 U	12 U	0.08 U	0.082 U	0.088 U	0.096 U
2,2-Dichloropropane	0.0022 U	0.0021 U	0.0022 U	0.0021 U	0.14 U	0.25 U	0.29 U	0.0022 U	0.0023 U	0.69 U	6.8 U	0.0019 U	0.0022 U	0.3 U	0.0020 U	0.0020 U	0.0022 U	0.0024 U
2-Chlorotoluene	0.0022 U	0.0021 U	0.0022 U	0.0021 U	0.14 U	0.25 U	0.29 U	0.0022 U	0.0023 U	0.69 U	6.8 U	0.0019 U	0.0022 U	0.3 U	0.0020 U	0.0020 U	0.0022 U	0.0024 U
2-Hexanone	0.011 U	0.011 U	0.011 U	0.011 U	0.7 U	1.3 U	1.4 U	0.011 U	0.012 U	3.5 U	34 U	0.0094 U	0.011 U	1.5 U	0.01 U	0.01 U	0.011 U	0.012 U
4-Chlorotoluene	0.0022 U	0.0021 U	0.0022 U	0.0021 U	0.14 U	0.25 U	0.29 U	0.0022 U	0.0023 U	0.69 U	6.8 U	0.0019 U	0.0022 U	0.3 U	0.0020 U	0.0020 U	0.0022 U	0.0024 U
Acetone	0.011 U	0.29 J	0.36 J	0.26	0.7 U	1.3 U	1.4 U	0.84 J	0.71 J	3.5 U	34 U	0.41 J	0.51 J	1.5 U	0.19 J	0.96 J	0.53 J	0.57 J
Benzene	0.00055 U	0.00053 U	0.00055 U	0.00054 U	0.035 U	0.063 U	0.072 U	0.00055 U	0.00058 U	0.17 U	1.7 U	0.00047 U	0.00055 U	0.059 J	0.00050 U	0.00051 U	0.00055 U	0.0094
Bromobenzene	0.0022 U	0.0021 U	0.0022 U	0.0021 U	0.14 U	0.25 U	0.29 U	0.0022 U	0.0023 U	0.69 U	6.8 U	0.0019 U	0.0022 U	0.3 U	0.0020 U	0.0020 U	0.0022 U	0.0024 U
Bromodichloromethane	0.00055 U	0.00053 U	0.00055 U	0.00054 U	0.035 U	0.063 U	0.072 U	0.00055 U	0.00058 U	0.17 U	1.7 U	0.00047 U	0.00055 U	0.074 U	0.00050 U	0.00051 U	0.00055 U	0.00060 U
Bromoform	0.0044 U	0.0042 U	0.0044 U	0.0043 U	0.28 U	0.51 U	0.57 U	0.0044 U	0.0046 U	1.4 U	14 U	0.0038 U	0.0044 U	0.59 U	0.0040 U	0.0041 U	0.0044 U	0.0048 U
Bromomethane	0.0022 UJ	0.0021 UJ	0.0022 UJ	0.0021 UJ	0.14 UJ	0.25 UJ	0.29 UJ	0.0022 UJ	0.0023 UJ	0.69 UJ	6.8 UJ	0.0019 UJ	0.0022 UJ	0.3 UJ	0.0020 UJ	0.0020 UJ	0.0022 UJ	0.0024 UJ
Butylbenzene, n-	0.0011 U	0.0011 U	0.0011 U	0.0011 U	0.063 J	0.13	0.18	0.0011 U	0.0012 U	0.35 U	3.4 U	0.00094 U	0.0011 U	0.15 U	0.0010 U	0.0010 U	0.0011 U	0.0012 U
Butylbenzene, sec-	0.0011 U	0.0011 U	0.0011 U	0.0011 U	0.14	0.12 J	0.15	0.0011 U	0.0012 U	0.35 U	3.4 U	0.00094 U	0.0011 U	0.15 U	0.0010 U	0.0010 U	0.0011 U	0.0012 U
Butylbenzene, t-	0.0022 U	0.0021 U	0.0022 U	0.0021 U	0.0096 J	0.25 U	0.29 U	0.0022 U	0.0023 U	0.69 U	6.8 U	0.0019 U	0.0022 U	0.3 U	0.0020 U	0.0020 U	0.0022 U	0.0024 U
Carbon Disulfide	0.011 U	0.011 U	0.011 U	0.011 U	0.7 U	1.3 U	1.4 U	0.011 U	0.012 U	3.5 U	34 U	0.0094 U	0.011 U	1.5 U	0.01 U	0.01 U	0.011 U	0.012 U

Table 2-2a. Historical Soil Data: Volatile Organic Compounds

Essex-Hope Site, Jamestown, New York

Location ID	DPT-043	DPT-043	DPT-043	DPT-044	DPT-044	DPT-044	DPT-044	DPT-045	DPT-045	DPT-045	DPT-045	DPT-046	DPT-046	DPT-046	DPT-047	DPT-047	DPT-047	DPT-047
Sample Depth (feet bgs)	18 - 20	18 - 20	22 - 24	10 - 12	14 - 16	16 - 18	16 - 18	10 - 12	17 - 19	22 - 24	27 - 28	10 - 12	18 - 20	20 - 22	11 - 13	11 - 13	18 - 20	24 - 26
Sample Date	9/25/2019	9/25/2019	9/25/2019	9/17/2019	9/17/2019	9/17/2019	9/17/2019	9/24/2019	9/24/2019	9/24/2019	9/24/2019	9/24/2019	9/24/2019	9/24/2019	9/24/2019	9/24/2019	9/24/2019	9/24/2019
Sample Type	N	FD	N	N	N	N	FD	N	N	N	N	N	N	N	N	FD	N	N
Operable Unit	OU-01	OU-01	OU-01	OU-01	OU-01	OU-01	OU-01	OU-01	OU-01	OU-01	OU-01	OU-01	OU-01	OU-01	OU-01	OU-01	OU-01	OU-01
Geologic Unit	Shallow Silty Clay	Shallow Silty Clay	Deep Sandy Silt	Shallow Sand and Gravel	Shallow Silty Clay	Deep Sandy Silt	Deep Sandy Silt	Shallow Sand and Gravel	Shallow Silty Clay	Deep Sandy Silt	Deep Sandy Silt	Shallow Sand and Gravel	Shallow Silty Clay	Deep Sandy Silt	Shallow Sand and Gravel	Shallow Sand and Gravel	Shallow Silty Clay	Deep Sandy Silt
Analyte																		
Carbon Tetrachloride	0.0011 U	0.0011 U	0.0011 U	0.0011 U	0.07 U	0.13 U	0.14 U	0.0011 U	0.0012 U	0.35 U	3.4 U	0.00094 U	0.0011 U	0.15 U	0.0010 U	0.0010 U	0.0011 U	0.0012 U
Chlorobenzene	0.00055 U	0.00053 U	0.00055 U	0.00054 U	0.035 U	0.063 U	0.072 U	0.00055 U	0.00058 U	0.17 U	1.7 U	0.00047 U	0.00055 U	0.074 U	0.00050 U	0.00051 U	0.00055 U	0.00060 U
Chlorobromomethane	0.0022 U	0.0021 U	0.0022 U	0.0021 U	0.14 U	0.25 U	0.29 U	0.0022 U	0.0023 U	0.69 U	6.8 U	0.0019 U	0.0022 U	0.3 U	0.0020 U	0.0020 U	0.0022 U	0.0024 U
Chloroethane	0.0022 UJ	0.0021 UJ	0.0022 UJ	0.0021 UJ	0.14 U	0.25 U	0.29 U	0.0022 U	0.0023 U	0.69 U	6.8 U	0.0019 U	0.0022 U	0.3 U	0.0020 U	0.0020 U	0.0022 U	0.0024 U
Chloroform	0.0016 U	0.0016 U	0.0016 U	0.0016 U	0.1 U	0.19 U	0.21 U	0.0016 U	0.0017 U	0.52 U	5.1 U	0.0014 U	0.0016 U	0.22 U	0.0015 U	0.0015 U	0.0016 U	0.0018 U
Chloromethane	0.0044 U	0.0042 U	0.0044 U	0.0043 UJ	0.28 U	0.51 U	0.57 U	0.0044 U	0.0046 U	1.4 U	14 U	0.0038 U	0.0044 U	0.59 U	0.0040 U	0.0041 U	0.0044 U	0.0048 U
Dibromochloromethane	0.0011 U	0.0011 U	0.0011 U	0.0011 U	0.07 U	0.13 U	0.14 U	0.0011 U	0.0012 U	0.35 U	3.4 U	0.00094 U	0.0011 U	0.15 U	0.0010 U	0.0010 U	0.0011 U	0.0012 U
Dibromomethane (Methylene Bromide)	0.0022 U	0.0021 U	0.0022 U	0.0021 U	0.14 U	0.25 U	0.29 U	0.0022 U	0.0023 U	0.69 U	6.8 U	0.0019 U	0.0022 U	0.3 U	0.0020 U	0.0020 U	0.0022 U	0.0024 U
Dichlorodifluoromethane	0.011 U	0.011 U	0.011 U	0.011 UJ	0.7 U	1.3 U	1.4 U	0.011 U	0.012 U	3.5 U	34 U	0.0094 U	0.011 U	1.5 U	0.01 U	0.01 U	0.011 U	0.012 U
Ethylbenzene	0.0011 U	0.0011 U	0.0011 U	0.0011 U	0.07 U	0.048 J	0.056 J	0.0011 U	0.0012 U	0.35 U	3.4 U	0.00094 U	0.0011 U	0.15 U	0.0010 U	0.0010 U	0.0011 U	0.0012 U
Hexachlorobutadiene	0.0044 U	0.0042 U	0.0044 U	0.0043 U	0.28 U	0.51 U	0.57 U	0.0044 U	0.0046 U	1.4 U	14 U	0.0038 U	0.0044 U	0.59 U	0.0040 U	0.0041 U	0.0044 U	0.0048 U
Isopropylbenzene (Cumene)	0.0011 U	0.0011 U	0.0011 U	0.0011 U	0.18	0.11 J	0.12 J	0.0011 U	0.0012 U	0.35 U	3.4 U	0.00094 U	0.0011 U	0.15 U	0.0010 U	0.0010 U	0.0011 U	0.0012 U
Methyl Ethyl Ketone (2-Butanone)	0.011 U	0.0030 J	0.0042 J	0.0045 J	0.7 UJ	1.3 UJ	1.4 UJ	0.014	0.0086 J	3.5 U	34 U	0.0062 J	0.0054 J	1.5 U	0.0031 J	0.014 J	0.0055 J	0.0070 J
Methyl Isobutyl Ketone (4-Methyl-2-Pentanone)	0.011 U	0.011 U	0.011 U	0.011 U	0.7 U	1.3 U	1.4 U	0.011 U	0.012 U	3.5 U	34 U	0.0094 U	0.011 U	1.5 U	0.01 U	0.01 U	0.011 U	0.012 U
Methyl tert-butyl Ether (MTBE)	0.0022 U	0.0021 U	0.0022 U	0.0025	0.14 U	0.25 U	0.29 U	0.0015 J	0.0027	0.69 U	6.8 U	0.0028	0.0022	0.3 U	0.0023	0.0034	0.0029	0.0031
Methylene Chloride	0.0055 U	0.0053 U	0.0055 U	0.0054 U	0.35 U	0.63 U	0.72 U	0.0055 U	0.0058 U	1.7 U	17 U	0.0047 U	0.0055 U	0.74 U	0.0050 U	0.0051 U	0.0055 U	0.0060 U
Naphthalene	0.0044 U	0.0042 U	0.0044 U	0.0043 U	0.28 U	0.51 U	0.57 U	0.0044 U	0.0046 U	1.4 U	14 U	0.0038 U	0.0044 U	0.59 U	0.0040 U	0.0041 U	0.0044 U	0.0048 U
n-Propylbenzene	0.0011 U	0.0011 U	0.0011 U	0.0011 U	0.018 J	0.98 J	1.8 J	0.0011 U	0.0012 U	0.35 U	1.7 J	0.00094 U	0.0011 U	0.15 U	0.0010 U	0.0010 U	0.0011 U	0.0012 U
p-Isopropyltoluene	0.0011 U	0.0011 U	0.0011 U	0.0011 U	0.07 U	0.1 J	0.12 J	0.0011 U	0.0012 U	0.35 U	3.4 U	0.00094 U	0.0011 U	0.15 U	0.0010 U	0.0010 U	0.0011 U	0.0012 U
Styrene	0.0011 U	0.0011 U	0.0011 U	0.0011 U	0.07 UJ	0.13 UJ	0.14 UJ	0.0011 U	0.0012 U	0.35 U	3.4 U	0.00094 U	0.0011 U	0.15 U	0.0010 U	0.0010 U	0.0011 U	0.0012 U
Tetrachloroethene	0.00055 U	0.00053 U	0.00055 U	0.00054 U	0.035 U	0.12	0.079	0.00055 U	0.00058 U	0.17 U	2.5	0.00047 U	0.00055 U	0.074 U	0.00050 U	0.00051 U	0.00055 U	0.00060 U
Toluene	0.0011 U	0.0011 U	0.0011 U	0.0011 U	0.07 UJ	0.13 UJ	0.14 UJ	0.0011 U	0.0012 U	0.35 U	3.4 U	0.00094 U	0.0011 U	0.16	0.0010 U	0.0010 U	0.0011 U	0.0012 U
Trichloroethene	0.00055 U	0.00053 U	0.00055 U	0.0058	0.035 U	16	12	0.00055 U	0.00058 U	47	560	0.00047 U	0.00055 U	20	0.00050 U	0.00051 U	0.00055 U	0.00060 U
Trichlorofluoromethane	0.0044 U	0.0042 U	0.0044 U	0.0043 U	0.28 U	0.51 U	0.57 U	0.0044 U	0.0046 U	1.4 U	14 U	0.0038 U	0.0044 U	0.59 U	0.0040 U	0.0041 U	0.0044 U	0.0048 U
Vinyl Acetate	0.011 U	0.011 U	0.011 U	0.011 U	0.7 U	1.3 U	1.4 U	0.011 U	0.012 U	3.5 U	34 U	0.0094 U	0.011 U	1.5 U	0.01 U	0.01 U	0.011 U	0.012 U
Vinyl Chloride	0.0011 U	0.0011 U	0.019	0.0011 UJ	0.07 U	0.078 J	0.073 J	0.0011 U	0.0017	0.22 J	3.4 U	0.00094 U	0.0014	0.15 U	0.0010 U	0.0010 U	0.0011 U	0.05
Xylene, m- & p-	0.0022 U	0.0021 U	0.0022 U	0.0021 U	0.14 U	0.097 J	0.088 J	0.0012 J	0.0023 U	0.69 U	6.8 U	0.0019 U	0.0022 U	0.3 U	0.0020 U	0.0020 U	0.0022 U	0.0024 U
Xylene, o-	0.0011 U	0.0011 U	0.0011 U	0.0011 U	0.07 U	0.13 U	0.14	0.0011 U	0.0012 U	0.35 U	3.4 U	0.00094 U	0.0011 U	0.15 U	0.0010 U	0.0010 U	0.0011 U	0.0012 U
Xylenes, Total	0.0011 U	0.0011 U	0.0011 U	0.0011 U	0.07 U	0.097 J	0.23 J	0.0012 J	0.0012 U	0.35 U	3.4 U	0.00094 U	0.0011 U	0.15 U	0.0010 U	0.0010 U	0.0011 U	0.0012 U
Total CBTEX	0.0022 U	0.0021 U	0.0022 U	0.0021 U	0.18	0.26 J	0.4 J	0.0012 J	0.0023 U	0.69 U	6.8 U	0.0019 U	0.0022 U	0.22 J	0.0020 U	0.0020 U	0.0022 U	0.0094
Total CVOC	0.011 UJ	0.011 UJ	0.019	0.0091	0.35	28 J	29 J	0.011 U	0.0017	62 J	600	0.0094 U	0.0014	22	0.01 U	0.01 U	0.011 U	0.051 J
Total VOC	0.088 UJ	0.29 J	0.38 J	0.28 J	0.79 J	35 J	42 J	0.86 J	0.72 J	62 J	630 J	0.42 J	0.52 J	22 J	0.2 J	0.98 J	0.54 J	0.64 J

Table 2-2a. Historical Soil Data: Volatile Organic Compounds

Essex-Hope Site, Jamestown, New York

Location ID	DPT-048	DPT-048	DPT-048	DPT-048	DPT-049	DPT-049	DPT-049	DPT-050	DPT-050	DPT-050	DPT-050	DPT-066	DPT-066	DPT-066	DPT-066	DPT-066	DPT-066	DPT-067
Sample Depth (feet bgs)	10 - 12	18 - 20	20 - 22	27 - 29	8 - 9	14 - 16	19 - 21	10 - 12	18 - 20	22 - 24	27 - 28	2 - 3	22 - 23	29 - 30	33 - 34	35 - 36	47 - 48	4 - 5
Sample Date	9/17/2019	9/17/2019	9/17/2019	9/17/2019	9/23/2019	9/23/2019	9/23/2019	9/23/2019	9/23/2019	9/23/2019	9/23/2019	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	N	N	N	N	N	N	N	N	N	N
Operable Unit	OU-01	OU-01	OU-01	OU-01	OU-01	OU-01	OU-01	OU-01	OU-01	OU-01	OU-01	OU-03	OU-03	OU-03	OU-03	OU-03	OU-03	OU-01
Geologic Unit	Shallow Sand and Gravel	Shallow Silty Clay	Deep Sandy Silt	Deep Sandy Silt	Shallow Sand and Gravel	Shallow Silty Clay	Deep Sandy Silt	Shallow Sand and Gravel	Shallow Silty Clay	Deep Sandy Silt	Deep Sandy Silt	Shallow Sand and Gravel	Shallow Silty Clay	Deep Sandy Silt	Deep Sandy Silt	Deep Sandy Silt	Deep Sandy Silt	Shallow Sand and Gravel
Analyte																		
1,1,1,2-Tetrachloroethane	0.00052 U	3.6 U	0.076 U	0.064 U	0.00050 U	0.00056 U	0.13 U	0.00048 U	0.00058 U	0.074 U	0.035 U	0.00054 U	0.00051 U	0.33 U	0.34 U	0.036 U	0.00050 U	0.00045 U
1,1,1-Trichloroethane	0.00052 U	3.6 U	0.076 U	0.064 U	0.00050 U	0.00056 U	0.13 U	0.00048 U	0.00058 U	0.074 U	0.035 U	0.00054 U	0.00051 U	0.33 U	0.34 U	0.036 U	0.00050 U	0.00045 U
1,1,2,2-Tetrachloroethane	0.00052 UJ	3.6 U	0.076 UJ	0.064 UJ	0.00050 U	0.00056 U	0.13 U	0.00048 U	0.00058 U	0.074 U	0.035 U	0.00054 U	0.00051 U	0.33 U	0.34 U	0.036 U	0.00050 U	0.00045 U
1,1,2-Trichloroethane	0.0010 U	7.1 U	0.15 U	0.13 U	0.00099 U	0.0011 U	0.26 U	0.00096 U	0.0012 U	0.15 U	0.07 U	0.0011 U	0.0010 UJ	0.66 U	0.69 U	0.071 U	0.0010 U	0.00089 U
1,1-Dichloroethane	0.0010 U	7.1 U	0.15 U	0.13 U	0.00099 U	0.0011 U	0.26 U	0.00096 U	0.0012 U	0.15 U	0.07 U	0.0011 U	0.0010 U	0.66 U	0.69 U	0.071 U	0.0010 U	0.00089 U
1,1-Dichloroethene	0.0010 U	7.1 U	0.072 J	0.049 J	0.00099 U	0.0011 U	0.26 U	0.00096 U	0.0012 U	0.15 U	0.07 U	0.0011 U	0.0010 U	0.66 U	0.3 J	0.06 J	0.0010 U	0.00089 U
1,1-Dichloropropene	0.00052 U	3.6 U	0.076 U	0.064 U	0.00050 U	0.00056 U	0.13 U	0.00048 U	0.00058 U	0.074 U	0.035 U	0.00054 U	0.00051 U	0.33 U	0.34 U	0.036 U	0.00050 U	0.00045 U
1,2,3-Trichlorobenzene	0.0021 U	14 U	0.3 U	0.26 U	0.0020 U	0.0022 U	0.53 U	0.0019 U	0.0023 U	0.3 U	0.14 U	0.0021 U	0.0020 UJ	1.3 U	1.4 U	0.14 U	0.0020 UJ	0.0018 U
1,2,3-Trichloropropane	0.0021 UJ	14 U	0.3 UJ	0.26 UJ	0.0020 U	0.0022 U	0.53 U	0.0019 U	0.0023 U	0.3 U	0.14 U	0.0021 U	0.0020 UJ	1.3 U	1.4 U	0.14 U	0.0020 UJ	0.0018 U
1,2,4-Trichlorobenzene	0.0021 U	14 UJ	0.3 U	0.26 U	0.0020 U	0.0022 U	0.53 U	0.0019 U	0.0023 U	0.3 U	0.14 U	0.0021 U	0.0020 UJ	1.3 U	1.4 U	0.14 U	0.0020 UJ	0.0018 U
1,2,4-Trimethylbenzene	0.0021 U	3.7 J	2.4	0.26 U	0.0020 U	0.0022 U	0.53 U	0.0019 U	0.0023 U	0.3 U	3.4	0.00050 J	0.0020 UJ	1.3 U	1.4 U	0.14 U	0.0020 UJ	0.0018 U
1,2-Dibromo-3-Chloropropane	0.0031 U	21 U	0.46 U	0.38 U	0.0030 U	0.0033 U	0.8 U	0.0029 U	0.0035 U	0.44 U	0.21 U	0.0032 U	0.0030 UJ	2 U	2 U	0.21 U	0.0030 UJ	0.0027 U
1,2-Dibromoethane (Ethylene Dibromide)	0.0010 U	7.1 U	0.15 U	0.13 U	0.00099 U	0.0011 U	0.26 U	0.00096 U	0.0012 U	0.15 U	0.07 U	0.0011 U	0.0010 UJ	0.66 U	0.69 U	0.071 U	0.0010 U	0.00089 U
1,2-Dichlorobenzene	0.0021 U	14 U	0.3 U	0.26 U	0.0020 U	0.0022 U	0.53 U	0.0019 U	0.0023 U	0.3 U	0.14 U	0.0021 U	0.0020 UJ	1.3 U	1.4 U	0.14 U	0.0020 UJ	0.0018 U
1,2-Dichloroethane	0.0010 U	7.1 U	0.15 U	0.037 J	0.00099 U	0.0011 U	0.26 U	0.00096 U	0.0012 U	0.15 U	0.07 U	0.0011 U	0.0010 U	0.66 U	0.69 U	0.071 U	0.0010 U	0.00089 U
1,2-Dichloroethene, cis-	0.0010	26	14	0.56	0.00099 U	0.0011 U	10	0.00096 U	0.0012 U	1.4	1	0.0011 U	0.0010 U	25	53	11	0.00023 J	0.00089 U
1,2-Dichloroethene, Total	0.0010	26	14 J	0.61 J	0.00056 J	0.00029 J	10 J	0.00028 J	0.00021 J	1.4	1	0.0016 U	0.0015 U	25	53	11	0.00023 J	0.0013 U
1,2-Dichloroethene, trans-	0.0016 U	11 U	0.049 J	0.052 J	0.00056 J	0.00029 J	0.051 J	0.00028 J	0.00021 J	0.22 U	0.1 U	0.0016 U	0.0015 U	0.99 U	0.17 J	0.048 J	0.0015 U	0.0013 U
1,2-Dichloropropane	0.0010 U	7.1 UJ	0.15 U	0.13 U	0.00099 U	0.0011 U	0.26 U	0.00096 U	0.0012 U	0.15 U	0.07 U	0.0011 U	0.0010 U	0.66 U	0.69 U	0.071 U	0.0010 U	0.00089 U
1,3,5-Trimethylbenzene (Mesitylene)	0.0021 U	14 U	0.56	0.26 U	0.0020 U	0.0022 U	0.53 U	0.0019 U	0.0023 U	0.3 U	1	0.0021 U	0.0020 UJ	1.3 U	1.4 U	0.14 U	0.0020 UJ	0.0018 U
1,3-Dichlorobenzene	0.0021 U	14 U	0.3 U	0.26 U	0.0020 U	0.0022 U	0.53 U	0.0019 U	0.0023 U	0.3 U	0.14 U	0.0021 U	0.0020 UJ	1.3 U	1.4 U	0.14 U	0.0020 UJ	0.0018 U
1,3-Dichloropropane	0.0021 U	14 U	0.3 U	0.26 U	0.0020 U	0.0022 U	0.53 U	0.0019 U	0.0023 U	0.3 U	0.14 U	0.0021 U	0.0020 UJ	1.3 U	1.4 U	0.14 U	0.0020 U	0.0018 U
1,3-Dichloropropene, cis-	0.00052 U	3.6 U	0.076 U	0.064 U	0.00050 U	0.00056 U	0.13 U	0.00048 U	0.00058 U	0.074 U	0.035 U	0.00054 U	0.00051 U	0.33 U	0.34 U	0.036 U	0.00050 U	0.00045 U
1,3-Dichloropropene, Total	0.00052 U	3.6 U	0.076 U	0.064 U	0.00050 U	0.00056 U	0.13 U	0.00048 U	0.00058 U	0.074 U	0.035 U	--	--	--	--	--	--	--
1,3-Dichloropropene, trans-	0.0010 U	7.1 U	0.15 U	0.13 U	0.00099 U	0.0011 U	0.26 U	0.00096 U	0.0012 U	0.15 U	0.07 U	0.0011 U	0.0010 UJ	0.66 U	0.69 U	0.071 U	0.0010 U	0.00089 U
1,4-Dichlorobenzene	0.0021 U	14 U	0.3 U	0.26 U	0.0020 U	0.0022 U	0.53 U	0.0019 U	0.0023 U	0.3 U	0.14 U	0.0021 U	0.0020 UJ	1.3 U	1.4 U	0.14 U	0.0020 UJ	0.0018 U
1,4-Dioxane (p-Dioxane)	0.083 U	570 U	12 U	10 U	0.08 U	0.089 U	21 U	0.077 U	0.093 U	12 U	5.6 U	0.086 U	0.081 U	53 U	55 U	5.7 U	0.081 U	0.071 U
2,2-Dichloropropane	0.0021 U	14 U	0.3 U	0.26 U	0.0020 U	0.0022 U	0.53 U	0.0019 U	0.0023 U	0.3 U	0.14 U	0.0021 U	0.0020 U	1.3 U	1.4 U	0.14 U	0.0020 U	0.0018 U
2-Chlorotoluene	0.0021 U	14 U	0.3 U	0.26 U	0.0020 U	0.0022 U	0.53 U	0.0019 U	0.0023 U	0.3 U	0.14 U	0.0021 U	0.0020 UJ	1.3 U	1.4 U	0.14 U	0.0020 UJ	0.0018 U
2-Hexanone	0.01 U	71 U	1.5 U	1.3 U	0.0099 U	0.011 U	2.6 U	0.0096 U	0.012 U	1.5 U	0.7 U	0.011 U	0.01 UJ	6.6 U	6.9 U	0.71 U	0.01 U	0.0089 U
4-Chlorotoluene	0.0021 U	14 U	0.3 U	0.26 U	0.0020 U	0.0022 U	0.53 U	0.0019 U	0.0023 U	0.3 U	0.14 U	0.0021 U	0.0020 UJ	1.3 U	1.4 U	0.14 U	0.0020 UJ	0.0018 U
Acetone	0.18	71 U	1.5 U	1.3 U	0.29 J	0.35 J	2.6 U	0.26 J	0.44 J	1.5 U	0.7 U	0.073	0.0060 J	6.6 U	6.9 U	0.71 U	0.01 U	0.0089 U
Benzene	0.00052 U	3.6 U	0.076 U	0.21	0.00050 U	0.00026 J	0.23	0.00048 U	0.00058 U	0.18	0.049	0.00054 U	0.00051 U	0.33 U	0.34 U	0.036 U	0.00050 U	0.00045 U
Bromobenzene	0.0021 U	14 U	0.3 U	0.26 U	0.0020 U	0.0022 U	0.53 U	0.0019 U	0.0023 U	0.3 U	0.14 U	0.0021 U	0.0020 UJ	1.3 U	1.4 U	0.14 U	0.0020 UJ	0.0018 U
Bromodichloromethane	0.00052 U	3.6 U	0.076 U	0.064 U	0.00050 U	0.00056 U	0.13 U	0.00048 U	0.00058 U	0.074 U	0.035 U	0.00054 U	0.00051 U	0.33 U	0.34 U	0.036 U	0.00050 U	0.00045 U
Bromoform	0.0042 U	28 U	0.61 U	0.51 U	0.0040 U	0.0044 U	1.1 U	0.0038 U	0.0046 U	0.59 U	0.28 U	0.0043 U	0.0040 UJ	2.6 U	2.7 U	0.28 U	0.0040 UJ	0.0036 U
Bromomethane	0.0021 UJ	14 UJ	0.3 UJ	0.26 UJ	0.0020 UJ	0.0022 UJ	0.53 UJ	0.0019 UJ	0.0023 UJ	0.3 UJ	0.14 UJ	0.0021 U	0.0020 U	1.3 U	1.4 U	0.14 U	0.0020 U	0.0018 U
Butylbenzene, n-	0.0010 U	7.1 U	0.15 U	0.13 U	0.00099 U	0.0011 U	0.26 U	0.00096 U	0.0012 U	0.15 U	0.07 U	0.0011 U	0.0010 UJ	0.66 U	0.69 U	0.071 U	0.0010 UJ	0.00089 U
Butylbenzene, sec-	0.0010 U	7.1 U	0.15 U	0.13 U	0.00099 U	0.0011 U	0.26 U	0.00096 U	0.0012 U	0.15 U	0.033 J	0.0011 U	0.0010 UJ	0.66 U	0.69 U	0.071 U	0.0010 UJ	0.00089 U
Butylbenzene, t-	0.0021 U	14 U	0.3 U	0.26 U	0.0020 U	0.0022 U	0.53 U	0.00014 J	0.0023 U	0.3 U	0.14 U	0.0021 U	0.0020 UJ	1.3 U	1.4 U	0.14 U	0.0020 UJ	0.0018 U
Carbon Disulfide	0.01 U	71 U	1.5 U	1.3 U	0.0099 U	0.011 U	2.6 U	0.0096 U	0.012 U	1.5 U	0.7 U	0.011 U	0.01 U	6.6 U	6.9 U	0.71 U	0.01 U	0.0089 U

Table 2-2a. Historical Soil Data: Volatile Organic Compounds

Essex-Hope Site, Jamestown, New York

Location ID	DPT-048	DPT-048	DPT-048	DPT-048	DPT-049	DPT-049	DPT-049	DPT-050	DPT-050	DPT-050	DPT-050	DPT-066	DPT-066	DPT-066	DPT-066	DPT-066	DPT-066	DPT-067
Sample Depth (feet bgs)	10 - 12	18 - 20	20 - 22	27 - 29	8 - 9	14 - 16	19 - 21	10 - 12	18 - 20	22 - 24	27 - 28	2 - 3	22 - 23	29 - 30	33 - 34	35 - 36	47 - 48	4 - 5
Sample Date	9/17/2019	9/17/2019	9/17/2019	9/17/2019	9/23/2019	9/23/2019	9/23/2019	9/23/2019	9/23/2019	9/23/2019	9/23/2019	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	N	N	N	N	N	N	N	N	N	N
Operable Unit	OU-01	OU-01	OU-01	OU-01	OU-01	OU-01	OU-01	OU-01	OU-01	OU-01	OU-01	OU-03	OU-03	OU-03	OU-03	OU-03	OU-03	OU-01
Geologic Unit	Shallow Sand and Gravel	Shallow Silty Clay	Deep Sandy Silt	Deep Sandy Silt	Shallow Sand and Gravel	Shallow Silty Clay	Deep Sandy Silt	Shallow Sand and Gravel	Shallow Silty Clay	Deep Sandy Silt	Deep Sandy Silt	Shallow Sand and Gravel	Shallow Silty Clay	Deep Sandy Silt	Deep Sandy Silt	Deep Sandy Silt	Deep Sandy Silt	Shallow Sand and Gravel
Analyte																		
Carbon Tetrachloride	0.0010 U	7.1 U	0.15 U	0.13 U	0.00099 U	0.0011 U	0.26 U	0.00096 U	0.0012 U	0.15 U	0.07 U	0.0011 U	0.0010 U	0.66 U	0.69 U	0.071 U	0.0010 U	0.00089 U
Chlorobenzene	0.00052 U	3.6 U	0.076 U	0.064 U	0.00050 U	0.00056 U	0.13 U	0.00048 U	0.00058 U	0.074 U	0.035 U	0.00054 U	0.00051 U	0.33 U	0.34 U	0.036 U	0.00050 U	0.00045 U
Chlorobromomethane	0.0021 U	14 U	0.3 U	0.26 U	0.0020 U	0.0022 U	0.53 U	0.0019 U	0.0023 U	0.3 U	0.14 U	0.0021 U	0.0020 U	1.3 U	1.4 U	0.14 U	0.0020 U	0.0018 U
Chloroethane	0.0021 UJ	14 U	0.3 UJ	0.26 UJ	0.0020 UJ	0.0022 UJ	0.53 UJ	0.0019 UJ	0.0023 UJ	0.3 UJ	0.14 UJ	0.0021 U	0.0020 U	1.3 U	1.4 U	0.14 U	0.0020 U	0.0018 U
Chloroform	0.0016 U	11 U	0.23 U	0.19 U	0.0015 U	0.0017 U	0.4 U	0.0014 U	0.0017 U	0.22 U	0.1 U	0.0016 U	0.0015 U	0.99 U	1 U	0.11 U	0.0015 U	0.0013 U
Chloromethane	0.0042 UJ	28 U	0.61 UJ	0.51 UJ	0.0040 U	0.0044 U	1.1 U	0.0038 U	0.0046 U	0.59 U	0.28 U	0.0043 U	0.0040 U	2.6 U	2.7 U	0.28 U	0.0040 U	0.0036 U
Dibromochloromethane	0.0010 U	7.1 U	0.15 U	0.13 U	0.00099 U	0.0011 U	0.26 U	0.00096 U	0.0012 U	0.15 U	0.07 U	0.0011 U	0.0010 UJ	0.66 U	0.69 U	0.071 U	0.0010 U	0.00089 U
Dibromomethane (Methylene Bromide)	0.0021 U	14 U	0.3 U	0.26 U	0.0020 U	0.0022 U	0.53 U	0.0019 U	0.0023 U	0.3 U	0.14 U	0.0021 U	0.0020 U	1.3 U	1.4 U	0.14 U	0.0020 U	0.0018 U
Dichlorodifluoromethane	0.01 UJ	71 U	1.5 UJ	1.3 UJ	0.0099 U	0.011 U	2.6 U	0.0096 U	0.012 U	1.5 U	0.7 U	0.011 U	0.01 U	6.6 U	6.9 U	0.71 U	0.01 U	0.0089 U
Ethylbenzene	0.0010 U	7.1 U	0.082 J	0.13 U	0.00099 U	0.0011 U	0.26 U	0.00096 U	0.0012 U	0.022 J	0.02 J	0.0010 J	0.0010 UJ	0.66 U	0.69 U	0.071 U	0.0010 U	0.00089 U
Hexachlorobutadiene	0.0042 U	28 U	0.61 U	0.51 U	0.0040 U	0.0044 U	1.1 U	0.0038 U	0.0046 U	0.59 U	0.28 U	0.0043 U	0.0040 UJ	2.6 U	2.7 U	0.28 U	0.0040 UJ	0.0036 U
Isopropylbenzene (Cumene)	0.0010 U	7.1 U	0.027 J	0.13 U	0.00099 U	0.0011 U	0.26 U	0.00096 U	0.0012 U	0.15 U	0.03 J	0.0011 U	0.0010 UJ	0.66 U	0.69 U	0.071 U	0.0010 UJ	0.00089 U
Methyl Ethyl Ketone (2-Butanone)	0.0040 J	71 UJ	1.5 UJ	1.3 UJ	0.0071 J	0.0048 J	2.6 U	0.0067 J	0.0050 J	1.5 U	0.7 U	0.011 U	0.01 U	6.6 U	6.9 U	0.71 U	0.01 U	0.0089 U
Methyl Isobutyl Ketone (4-Methyl-2-Pentanone)	0.01 U	71 U	1.5 U	1.3 U	0.0099 U	0.011 U	2.6 U	0.0096 U	0.012 U	1.5 U	0.7 U	0.011 U	0.01 UJ	6.6 U	6.9 U	0.71 U	0.01 U	0.0089 U
Methyl tert-butyl Ether (MTBE)	0.0024	14 U	0.3 U	0.26 U	0.0020	0.0013 J	0.53 U	0.0018 J	0.0016 J	0.3 U	0.14 U	0.0021 U	0.0020 U	1.3 U	1.4 U	0.14 U	0.0020 U	0.0018 U
Methylene Chloride	0.0052 U	36 U	0.36 J	0.29 J	0.0050 U	0.0056 U	1.3 U	0.0048 U	0.0058 U	0.74 U	0.35 U	0.0054 U	0.0051 U	3.3 U	3.4 U	0.36 U	0.0050 U	0.0045 U
Naphthalene	0.0042 U	28 U	0.61 U	0.51 U	0.00074 J	0.0044 U	1.1 U	0.0038 U	0.0046 U	0.59 U	0.28 U	0.0043 U	0.0040 UJ	2.6 U	2.7 U	0.28 U	0.0040 UJ	0.0036 U
n-Propylbenzene	0.0010 U	7.1 U	0.24	0.13 U	0.00099 U	0.0011 U	0.26 U	0.00096 U	0.0012 U	0.15 U	0.87	0.0011 U	0.0010 UJ	0.66 U	0.69 U	0.071 U	0.0010 UJ	0.00089 U
p-Isopropyltoluene	0.0010 U	7.1 U	0.017 J	0.13 U	0.00099 U	0.0011 U	0.26 U	0.00096 U	0.0012 U	0.15 U	0.044 J	0.0011 U	0.0010 UJ	0.66 U	0.69 U	0.071 U	0.0010 UJ	0.00089 U
Styrene	0.0010 U	7.1 UJ	0.15 U	0.13 U	0.00099 U	0.0011 U	0.26 U	0.00096 U	0.0012 U	0.15 U	0.07 U	0.0011 U	0.0010 UJ	0.66 U	0.69 U	0.071 U	0.0010 U	0.00089 U
Tetrachloroethene	0.00052 U	3.6 U	1.1	0.064 U	0.00050 U	0.00056 U	0.13 U	0.00048 U	0.00058 U	0.074 U	0.035 U	0.00054 U	0.00051 U	0.33 U	0.34 U	0.036 U	0.00050 U	0.00045 U
Toluene	0.0010 U	7.1 UJ	0.13 J	0.13 U	0.00099 U	0.0011 U	0.55	0.00096 U	0.0012 U	0.086 J	0.07 U	0.0011 U	0.0010 UJ	0.66 U	0.69 U	0.071 U	0.0010 U	0.00089 U
Trichloroethene	0.0017	1300	500	0.99	0.00067	0.00056 U	39	0.00023 J	0.00058 U	18	4.5	0.00054 U	0.00051 U	260	290	0.75	0.0011	0.00045 U
Trichlorofluoromethane	0.0042 U	28 U	0.61 U	0.51 U	0.0040 U	0.0044 U	1.1 U	0.0038 U	0.0046 U	0.59 U	0.28 U	0.0043 U	0.0040 U	2.6 U	2.7 U	0.28 U	0.0040 U	0.0036 U
Vinyl Acetate	0.01 U	71 U	1.5 U	1.3 U	0.0099 U	0.011 U	2.6 U	0.0096 U	0.012 U	1.5 U	0.7 U	0.011 U	0.01 U	6.6 U	6.9 U	0.71 U	0.01 U	0.0089 U
Vinyl Chloride	0.0010 UJ	7.1 U	0.64 J	0.13 UJ	0.00099 U	0.0011 U	0.18 J	0.00096 U	0.00054 J	0.15 U	0.031 J	0.0011 U	0.0010 U	0.41 J	0.45 J	0.14 J	0.0010 U	0.00089 U
Xylene, m- & p-	0.0021 U	14 U	0.43	0.26 U	0.0020 U	0.0022 U	0.53 U	0.0019 U	0.0023 U	0.3 U	0.14 U	0.0054	0.0020 UJ	1.3 U	1.4 U	0.14 U	0.0020 U	0.0018 U
Xylene, o-	0.0010 U	7.1 U	0.2	0.13 U	0.00099 U	0.0011 U	0.26 U	0.00096 U	0.0012 U	0.15 U	0.07 U	0.0018	0.0010 UJ	0.66 U	0.69 U	0.071 U	0.0010 U	0.00089 U
Xylenes, Total	0.0010 U	7.1 U	0.63	0.13 U	0.00099 U	0.0011 U	0.26 U	0.00096 U	0.0012 U	0.15 U	0.07 U	0.0072	0.0020 UJ	1.3 U	1.4 U	0.14 U	0.0020 U	0.0018 U
Total CBTEX	0.0021 U	14 UJ	0.87 J	0.21	0.0020 U	0.00026 J	0.78	0.0019 U	0.0023 U	0.29 J	0.099 J	0.0082 J	0.0020 UJ	1.3 U	1.4 U	0.14 U	0.0020 U	0.0018 U
Total CVOC	0.0027	1300	520 J	2 J	0.0012 J	0.00029 J	49 J	0.00051 J	0.00075 J	19	5.5 J	0.0011 U	0.0010 U	285.41	343.92	11.998	0.00133	0.00089 U
Total VOC	0.19 J	1300 J	520 J	2.2 J	0.3 J	0.36 J	50 J	0.27 J	0.45 J	20 J	11 J	0.0817	0.006	285.41	343.92	11.998	0.00133	0.0089 U

Table 2-2a. Historical Soil Data: Volatile Organic Compounds

Essex-Hope Site, Jamestown, New York

Location ID	DPT-067	DPT-067	DPT-067	DPT-067	DPT-067	DPT-067	DPT-068	DPT-068	DPT-068	DPT-068	DPT-068	DPT-068	DPT-069	DPT-069	DPT-069	DPT-069	DPT-069	DPT-069
Sample Depth (feet bgs)	26 - 27	30 - 31	30 - 31	36 - 37	42 - 43	44 - 45	2 - 3	2 - 3	28 - 29	32 - 33	35 - 36	39 - 40	5 - 6	22 - 23	28 - 29	31 - 32	38 - 39	42.5 - 43.5
Sample Date	4/6/2022	4/6/2022	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	4/11/2022	4/12/2022	4/12/2022	4/12/2022	4/12/2022	4/12/2022	4/12/2022
Sample Type	N	N	FD	N	N	N	N	FD	N	N	N	N	N	N	N	N	N	N
Operable Unit	OU-01	OU-01	OU-01	OU-01	OU-01	OU-01	OU-03	OU-03	OU-03	OU-03	OU-03	OU-03	OU-03	OU-03	OU-03	OU-03	OU-03	OU-03
Geologic Unit	Deep Sandy Silt	Deep Sandy Silt	Deep Sandy Silt	Deep Sandy Silt	Deep Sandy Silt	Deep Silty Clay	Shallow Sand and Gravel	Shallow Sand and Gravel	Shallow Silty Clay	Deep Sandy Silt	Deep Sandy Silt	Deep Silty Clay	Shallow Sand and Gravel	Shallow Silty Clay	Deep Sandy Silt	Deep Sandy Silt	Deep Sandy Silt	Deep Sandy Silt
Analyte																		
1,1,1,2-Tetrachloroethane	0.077 U	0.038 U	0.036 U	0.00049 U	0.037 U	0.00053 U	0.00057 U	0.00053 U	0.036 U	0.036 U	0.00049 U	0.00049 U	0.00047 U	0.00056 U	0.031 U	0.034 U	0.00053 U	0.00044 U
1,1,1-Trichloroethane	0.077 U	0.038 U	0.036 U	0.00049 U	0.037 U	0.00053 U	0.00057 U	0.00053 U	0.036 U	0.036 U	0.00049 U	0.00049 U	0.00047 U	0.00056 U	0.031 U	0.034 U	0.00053 U	0.00044 U
1,1,2,2-Tetrachloroethane	0.077 U	0.038 U	0.036 U	0.00049 U	0.037 U	0.00053 U	0.00057 U	0.00053 U	0.036 U	0.036 U	0.00049 U	0.00049 U	0.00047 U	0.00056 U	0.031 U	0.034 U	0.00053 U	0.00044 U
1,1,2-Trichloroethane	0.15 U	0.076 U	0.072 U	0.00098 U	0.074 U	0.0011 U	0.0011 U	0.0010 U	0.072 U	0.072 U	0.00098 U	0.00097 U	0.00094 U	0.0011 U	0.062 U	0.068 U	0.0011 U	0.00089 U
1,1-Dichloroethane	0.15 U	0.076 U	0.072 U	0.00098 U	0.074 U	0.0011 U	0.0011 U	0.0010 U	0.072 U	0.072 U	0.00098 U	0.00097 U	0.00094 U	0.0011 U	0.062 U	0.068 U	0.0011 U	0.00089 U
1,1-Dichloroethene	0.15 U	0.076 U	0.034 J	0.00098 U	0.024 J	0.0011 U	0.0011 U	0.0010 U	0.072 U	0.072 U	0.00098 U	0.00097 U	0.00094 U	0.0011 U	0.15	0.076	0.0011 U	0.00089 U
1,1-Dichloropropene	0.077 U	0.038 U	0.036 U	0.00049 U	0.037 U	0.00053 U	0.00057 U	0.00053 U	0.036 U	0.036 U	0.00049 U	0.00049 U	0.00047 U	0.00056 U	0.031 U	0.034 U	0.00053 U	0.00044 U
1,2,3-Trichlorobenzene	0.31 U	0.15 U	0.14 U	0.0020 U	0.15 U	0.0021 U	0.0023 U	0.0021 U	0.14 U	0.14 U	0.0020 U	0.0019 U	0.0019 U	0.0022 U	0.12 U	0.14 U	0.0021 U	0.0018 U
1,2,3-Trichloropropane	0.31 U	0.15 U	0.14 U	0.0020 U	0.15 U	0.0021 U	0.0023 U	0.0021 U	0.14 U	0.14 U	0.0020 U	0.0019 U	0.0019 U	0.0022 U	0.12 U	0.14 U	0.0021 U	0.0018 U
1,2,4-Trichlorobenzene	0.31 U	0.15 U	0.14 U	0.0020 U	0.15 U	0.0021 U	0.0023 U	0.0021 U	0.14 U	0.14 U	0.0020 U	0.0019 U	0.0019 U	0.0022 U	0.12 U	0.14 U	0.0021 U	0.0018 U
1,2,4-Trimethylbenzene	0.31 U	0.15 U	0.14 U	0.0020 U	0.15 U	0.0021 U	0.0023 U	0.0021 U	0.14 U	0.14 U	0.0020 U	0.0019 U	0.0019 U	0.0022 U	0.12 U	0.14 U	0.0021 U	0.0018 U
1,2-Dibromo-3-Chloropropane	0.46 U	0.23 U	0.22 U	0.0029 U	0.22 U	0.0032 U	0.0034 U	0.0032 U	0.22 U	0.21 U	0.0029 U	0.0029 U	0.0028 U	0.0033 U	0.18 U	0.2 U	0.0032 U	0.0027 U
1,2-Dibromoethane (Ethylene Dibromide)	0.15 U	0.076 U	0.072 U	0.00098 U	0.074 U	0.0011 U	0.0011 U	0.0010 U	0.072 U	0.072 U	0.00098 U	0.00097 U	0.00094 U	0.0011 U	0.062 U	0.068 U	0.0011 U	0.00089 U
1,2-Dichlorobenzene	0.31 U	0.15 U	0.14 U	0.0020 U	0.15 U	0.0021 U	0.0023 U	0.0021 U	0.14 U	0.14 U	0.0020 U	0.0019 U	0.0019 U	0.0022 U	0.12 U	0.14 U	0.0021 U	0.0018 U
1,2-Dichloroethane	0.15 U	0.076 U	0.072 U	0.00098 U	0.074 U	0.0011 U	0.0011 U	0.0010 U	0.072 U	0.072 U	0.00098 U	0.00097 U	0.00094 U	0.0011 U	0.062 U	0.068 U	0.0011 U	0.00089 U
1,2-Dichloroethene, cis-	8.3	26	30	0.022	9.3	0.0026	0.00044 U	0.0010 U	0.43 J	10	0.0026 U	0.00052 U	0.00019 U	0.0037 U	23	6.9	0.00039 U	0.00089 U
1,2-Dichloroethene, Total	8.3	26.3	30.5	0.022	9.3	0.0034	0.0017 U	0.0016 U	0.43 J	10	0.0026 U	0.0014 U	0.0014 U	0.0037 U	23	6.9	0.0016 U	0.0013 U
1,2-Dichloroethene, trans-	0.024 J	0.32	0.48	0.00036 J	0.066 J	0.00079 J	0.0017 U	0.0016 U	0.11 U	0.02 J	0.0015 U	0.0014 U	0.0014 U	0.0017 U	0.051 J	0.041 J	0.0016 U	0.0013 U
1,2-Dichloropropane	0.15 U	0.076 U	0.072 U	0.00098 U	0.074 U	0.0011 U	0.0011 U	0.0010 U	0.072 U	0.072 U	0.00098 U	0.00097 U	0.00094 U	0.0011 U	0.062 U	0.068 U	0.0011 U	0.00089 U
1,3,5-Trimethylbenzene (Mesitylene)	0.31 U	0.15 U	0.14 U	0.0020 U	0.15 U	0.0021 U	0.0023 U	0.0021 U	0.14 U	0.14 U	0.0020 U	0.0019 U	0.0019 U	0.0022 U	0.12 U	0.14 U	0.0021 U	0.0018 U
1,3-Dichlorobenzene	0.31 U	0.15 U	0.14 U	0.0020 U	0.15 U	0.0021 U	0.0023 U	0.0021 U	0.14 U	0.14 U	0.0020 U	0.0019 U	0.0019 U	0.0022 U	0.12 U	0.14 U	0.0021 U	0.0018 U
1,3-Dichloropropane	0.31 U	0.15 U	0.14 U	0.0020 U	0.15 U	0.0021 U	0.0023 U	0.0021 U	0.14 U	0.14 U	0.0020 U	0.0019 U	0.0019 U	0.0022 U	0.12 U	0.14 U	0.0021 U	0.0018 U
1,3-Dichloropropene, cis-	0.077 U	0.038 U	0.036 U	0.00049 U	0.037 U	0.00053 U	0.00057 U	0.00053 U	0.036 U	0.036 U	0.00049 U	0.00049 U	0.00047 U	0.00056 U	0.031 U	0.034 U	0.00053 U	0.00044 U
1,3-Dichloropropene, Total	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1,3-Dichloropropene, trans-	0.15 U	0.076 U	0.072 U	0.00098 U	0.074 U	0.0011 U	0.0011 U	0.0010 U	0.072 U	0.072 U	0.00098 U	0.00097 U	0.00094 U	0.0011 U	0.062 U	0.068 U	0.0011 U	0.00089 U
1,4-Dichlorobenzene	0.31 U	0.15 U	0.14 U	0.0020 U	0.15 U	0.0021 U	0.0023 U	0.0021 U	0.14 U	0.14 U	0.0020 U	0.0019 U	0.0019 U	0.0022 U	0.12 U	0.14 U	0.0021 U	0.0018 U
1,4-Dioxane (p-Dioxane)	12 U	6.1 U	5.8 U	0.078 U	5.9 U	0.085 U	0.091 U	0.085 U	5.8 U	5.7 U	0.078 U	0.078 U	0.075 U	0.089 U	4.9 U	5.4 U	0.085 U	0.071 U
2,2-Dichloropropane	0.31 U	0.15 U	0.14 U	0.0020 U	0.15 U	0.0021 U	0.0023 U	0.0021 U	0.14 U	0.14 U	0.0020 U	0.0019 U	0.0019 U	0.0022 U	0.12 U	0.14 U	0.0021 U	0.0018 U
2-Chlorotoluene	0.31 U	0.15 U	0.14 U	0.0020 U	0.15 U	0.0021 U	0.0023 U	0.0021 U	0.14 U	0.14 U	0.0020 U	0.0019 U	0.0019 U	0.0022 U	0.12 U	0.14 U	0.0021 U	0.0018 U
2-Hexanone	1.5 U	0.76 U	0.72 U	0.0098 U	0.74 U	0.011 U	0.011 U	0.01 U	0.72 U	0.72 U	0.0098 U	0.0097 U	0.0094 U	0.011 U	0.62 U	0.68 U	0.011 U	0.0089 U
4-Chlorotoluene	0.31 U	0.15 U	0.14 U	0.0020 U	0.15 U	0.0021 U	0.0023 U	0.0021 U	0.14 U	0.14 U	0.0020 U	0.0019 U	0.0019 U	0.0022 U	0.12 U	0.14 U	0.0021 U	0.0018 U
Acetone	1.5 U	0.76 U	0.72 U	0.0074 J	0.74 U	0.0054 J	0.011 U	0.01 U	0.72 U	0.72 U	0.0098 U	0.0097 U	0.0094 U	0.011 U	0.62 U	0.68 U	0.011 U	0.0089 U
Benzene	0.12	0.038 U	0.036 U	0.029	0.24	0.00039 J	0.00057 U	0.00053 U	0.036 U	0.04	0.00049 U	0.00049 U	0.00047 U	0.00056 U	0.013 J	0.034 U	0.00053 U	0.00044 U
Bromobenzene	0.31 U	0.15 U	0.14 U	0.0020 U	0.15 U	0.0021 U	0.0023 U	0.0021 U	0.14 U	0.14 U	0.0020 U	0.0019 U	0.0019 U	0.0022 U	0.12 U	0.14 U	0.0021 U	0.0018 U
Bromodichloromethane	0.077 U	0.038 U	0.036 U	0.00049 U	0.037 U	0.00053 U	0.00057 U	0.00053 U	0.036 U	0.036 U	0.00049 U	0.00049 U	0.00047 U	0.00056 U	0.031 U	0.034 U	0.00053 U	0.00044 U
Bromoform	0.62 U	0.3 U	0.29 U	0.0039 U	0.3 U	0.0042 U	0.0046 U	0.0042 U	0.29 U	0.29 U	0.0039 U	0.0039 U	0.0038 U	0.0045 U	0.25 U	0.27 U	0.0043 U	0.0036 U
Bromomethane	0.31 U	0.15 U	0.14 U	0.0020 U	0.15 U	0.0021 U	0.0023 U	0.0021 U	0.14 U	0.14 U	0.0020 U	0.0019 U	0.0019 U	0.0022 U	0.12 U	0.14 U	0.0021 U	0.0018 U
Butylbenzene, n-	0.15 U	0.076 U	0.072 U	0.00098 U	0.074 U	0.0011 U	0.0011 U	0.0010 U	0.072 U	0.072 U	0.00098 U	0.00097 U	0.00094 U	0.0011 U	0.062 U	0.068 U	0.0011 U	0.00089 U
Butylbenzene, sec-	0.15 U	0.076 U	0.072 U	0.00098 U	0.074 U	0.0011 U	0.0011 U	0.0010 U	0.072 U	0.072 U	0.00098 U	0.00097 U	0.00094 U	0.0011 U	0.062 U	0.068 U	0.0011 U	0.00089 U
Butylbenzene, t-	0.31 U	0.15 U	0.14 U	0.0020 U	0.15 U	0.0021 U	0.0023 U	0.0021 U	0.14 U	0.14 U	0.0020 U	0.0019 U	0.0019 U	0.0022 U	0.12 U	0.14 U	0.0021 U	0.0018 U
Carbon Disulfide	1.5 U	0.76 U	0.72 U	0.0061 J	0.74 U	0.011 U	0.011 U	0.01 U	0.72 U	0.72 U	0.0098 U	0.0097 U	0.0094 U	0.011 U	0.62 U	0.68 U	0.011 U	0.0089 U

Table 2-2a. Historical Soil Data: Volatile Organic Compounds

Essex-Hope Site, Jamestown, New York

Location ID	DPT-067	DPT-067	DPT-067	DPT-067	DPT-067	DPT-067	DPT-068	DPT-068	DPT-068	DPT-068	DPT-068	DPT-068	DPT-068	DPT-069	DPT-069	DPT-069	DPT-069	DPT-069
Sample Depth (feet bgs)	26 - 27	30 - 31	30 - 31	36 - 37	42 - 43	44 - 45	2 - 3	2 - 3	28 - 29	32 - 33	35 - 36	39 - 40	5 - 6	22 - 23	28 - 29	31 - 32	38 - 39	42.5 - 43.5
Sample Date	4/6/2022	4/6/2022	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	4/11/2022	4/12/2022	4/12/2022	4/12/2022	4/12/2022	4/12/2022	4/12/2022
Sample Type	N	N	FD	N	N	N	N	FD	N	N	N	N	N	N	N	N	N	N
Operable Unit	OU-01	OU-01	OU-01	OU-01	OU-01	OU-01	OU-03	OU-03	OU-03	OU-03	OU-03	OU-03	OU-03	OU-03	OU-03	OU-03	OU-03	OU-03
Geologic Unit	Deep Sandy Silt	Deep Sandy Silt	Deep Sandy Silt	Deep Sandy Silt	Deep Sandy Silt	Deep Silty Clay	Shallow Sand and Gravel	Shallow Sand and Gravel	Shallow Silty Clay	Deep Sandy Silt	Deep Sandy Silt	Deep Silty Clay	Shallow Sand and Gravel	Shallow Silty Clay	Deep Sandy Silt	Deep Sandy Silt	Deep Sandy Silt	Deep Sandy Silt
Analyte																		
Carbon Tetrachloride	0.15 U	0.076 U	0.072 U	0.00098 U	0.074 U	0.0011 U	0.0011 U	0.0010 U	0.072 U	0.072 U	0.00098 U	0.00097 U	0.00094 U	0.0011 U	0.062 U	0.068 U	0.0011 U	0.00089 U
Chlorobenzene	0.077 U	0.038 U	0.036 U	0.00049 U	0.037 U	0.00053 U	0.00057 U	0.00053 U	0.036 U	0.036 U	0.00049 U	0.00049 U	0.00047 U	0.00056 U	0.031 U	0.034 U	0.00053 U	0.00044 U
Chlorobromomethane	0.31 U	0.15 U	0.14 U	0.0020 U	0.15 U	0.0021 U	0.0023 U	0.0021 U	0.14 U	0.14 U	0.0020 U	0.0019 U	0.0019 U	0.0022 U	0.12 U	0.14 U	0.0021 U	0.0018 U
Chloroethane	0.31 U	0.15 U	0.14 U	0.0020 U	0.15 U	0.0021 U	0.0023 U	0.0021 U	0.14 U	0.14 U	0.0020 U	0.0019 U	0.0019 U	0.0022 U	0.12 U	0.14 U	0.0021 U	0.0018 U
Chloroform	0.23 U	0.11 U	0.11 U	0.0015 U	0.11 U	0.0016 U	0.0017 U	0.0016 U	0.11 U	0.11 U	0.0015 U	0.0014 U	0.0014 U	0.0017 U	0.093 U	0.1 U	0.0016 U	0.0013 U
Chloromethane	0.62 U	0.3 U	0.29 U	0.0039 U	0.3 U	0.0042 U	0.0046 U	0.0042 U	0.29 U	0.29 U	0.0039 U	0.0039 U	0.0038 U	0.0045 U	0.25 U	0.27 U	0.0043 U	0.0036 U
Dibromochloromethane	0.15 U	0.076 U	0.072 U	0.00098 U	0.074 U	0.0011 U	0.0011 U	0.0010 U	0.072 U	0.072 U	0.00098 U	0.00097 U	0.00094 U	0.0011 U	0.062 U	0.068 U	0.0011 U	0.00089 U
Dibromomethane (Methylene Bromide)	0.31 U	0.15 U	0.14 U	0.0020 U	0.15 U	0.0021 U	0.0023 U	0.0021 U	0.14 U	0.14 U	0.0020 U	0.0019 U	0.0019 U	0.0022 U	0.12 U	0.14 U	0.0021 U	0.0018 U
Dichlorodifluoromethane	1.5 U	0.76 U	0.72 U	0.0098 U	0.74 U	0.011 U	0.011 U	0.01 U	0.72 U	0.72 U	0.0098 U	0.0097 U	0.0094 U	0.011 U	0.62 U	0.68 U	0.011 U	0.0089 U
Ethylbenzene	0.15 U	0.076 U	0.072 U	0.00098 U	0.074 U	0.0011 U	0.0011 U	0.0010 U	0.072 U	0.072 U	0.00098 U	0.00097 U	0.00094 U	0.0011 U	0.062 U	0.068 U	0.0011 U	0.00089 U
Hexachlorobutadiene	0.62 U	0.3 U	0.29 U	0.0039 U	0.3 U	0.0042 U	0.0046 U	0.0042 U	0.29 U	0.29 U	0.0039 U	0.0039 U	0.0038 U	0.0045 U	0.25 U	0.27 U	0.0043 U	0.0036 U
Isopropylbenzene (Cumene)	0.15 U	0.076 U	0.072 U	0.00098 U	0.074 U	0.0011 U	0.0011 U	0.0010 U	0.072 U	0.072 U	0.00098 U	0.00097 U	0.00094 U	0.0011 U	0.062 U	0.068 U	0.0011 U	0.00089 U
Methyl Ethyl Ketone (2-Butanone)	1.5 U	0.76 U	0.72 U	0.0098 U	0.74 U	0.011 U	0.011 U	0.01 U	0.72 U	0.72 U	0.0098 U	0.0097 U	0.0094 U	0.011 U	0.62 U	0.68 U	0.011 U	0.0089 U
Methyl Isobutyl Ketone (4-Methyl-2-Pentanone)	1.5 U	0.76 U	0.72 U	0.0098 U	0.74 U	0.011 U	0.011 U	0.01 U	0.72 U	0.72 U	0.0098 U	0.0097 U	0.0094 U	0.011 U	0.62 U	0.68 U	0.011 U	0.0089 U
Methyl tert-butyl Ether (MTBE)	0.31 U	0.15 U	0.14 U	0.0020 U	0.15 U	0.0021 U	0.0023 U	0.0021 U	0.14 U	0.14 U	0.0020 U	0.0019 U	0.0019 U	0.0022 U	0.12 U	0.14 U	0.0021 U	0.0018 U
Methylene Chloride	0.77 U	0.38 U	0.36 U	0.0049 U	0.37 U	0.0053 U	0.0057 U	0.0053 U	0.36 U	0.36 U	0.0049 U	0.0049 U	0.0047 U	0.0056 U	0.31 U	0.34 U	0.0053 U	0.0044 U
Naphthalene	0.62 U	0.3 U	0.29 U	0.0039 U	0.3 U	0.0042 U	0.0046 U	0.0042 U	0.29 U	0.29 U	0.0039 U	0.0039 U	0.0038 U	0.0045 U	0.25 U	0.27 U	0.0043 U	0.0036 U
n-Propylbenzene	0.15 U	0.076 U	0.072 U	0.00098 U	0.074 U	0.0011 U	0.0011 U	0.0010 U	0.072 U	0.072 U	0.00098 U	0.00097 U	0.00094 U	0.0011 U	0.062 U	0.068 U	0.0011 U	0.00089 U
p-Isopropyltoluene	0.15 U	0.076 U	0.072 U	0.00098 U	0.074 U	0.0011 U	0.0011 U	0.0010 U	0.072 U	0.072 U	0.00098 U	0.00097 U	0.00094 U	0.0011 U	0.062 U	0.068 U	0.0011 U	0.00089 U
Styrene	0.15 U	0.076 U	0.072 U	0.00098 U	0.074 U	0.0011 U	0.0011 U	0.0010 U	0.072 U	0.072 U	0.00098 U	0.00097 U	0.00094 U	0.0011 U	0.062 U	0.068 U	0.0011 U	0.00089 U
Tetrachloroethene	0.077 U	0.038 U	0.036 U	0.00049 U	0.037 U	0.00053 U	0.00057 U	0.00053 U	0.036 U	0.036 U	0.00049 U	0.00049 U	0.00047 U	0.00056 U	0.031 U	0.034 U	0.00053 U	0.00044 U
Toluene	0.15 U	0.058 J	0.052 J	0.0018	0.074 U	0.0011 U	0.0011 U	0.0010 U	0.072 U	0.067 U	0.00098 U	0.00097 U	0.00094 U	0.0011 U	0.082 U	0.068 U	0.0011 U	0.00089 U
Trichloroethene	69	0.058 J	0.13 J	0.0052	0.032 J	0.00053 U	0.00052 U	0.00053 U	9.2	0.053	0.00049 U	0.00013 U	0.00032 U	0.0021 U	250	11	0.0020 U	0.0018 U
Trichlorofluoromethane	0.62 U	0.3 U	0.29 U	0.0039 U	0.3 U	0.0042 U	0.0046 U	0.0042 U	0.29 U	0.29 U	0.0039 U	0.0039 U	0.0038 U	0.0045 U	0.25 U	0.27 U	0.0043 U	0.0036 U
Vinyl Acetate	1.5 U	0.76 U	0.72 U	0.0098 U	0.74 U	0.011 U	0.011 U	0.01 U	0.72 U	0.72 U	0.0098 U	0.0097 U	0.0094 U	0.011 U	0.62 U	0.68 U	0.011 U	0.0089 U
Vinyl Chloride	0.15 U	0.36 J	4.3 J	0.019 J	3.4 J	4 J	0.0011 U	0.0010 U	0.072 U	0.072 U	0.011	0.00097 U	0.00094 U	0.0011 U	0.29	0.11 J	0.0011 U	0.00089 U
Xylene, m- & p-	0.31 U	0.15 U	0.14 U	0.0020 U	0.15 U	0.0021 U	0.0023 U	0.0021 U	0.14 U	0.14 U	0.0020 U	0.0019 U	0.0019 U	0.0022 U	0.12 U	0.14 U	0.0021 U	0.0018 U
Xylene, o-	0.15 U	0.076 U	0.072 U	0.00098 U	0.074 U	0.0011 U	0.0011 U	0.0010 U	0.072 U	0.072 U	0.00098 U	0.00097 U	0.00094 U	0.0011 U	0.062 U	0.068 U	0.0011 U	0.00089 U
Xylenes, Total	0.31 U	0.15 U	0.14 U	0.0020 U	0.15 U	0.0021 U	0.0023 U	0.0021 U	0.14 U	0.14 U	0.0020 U	0.0019 U	0.0019 U	0.0022 U	0.12 U	0.14 U	0.0021 U	0.0018 U
Total CBTEX	0.12	0.058 J	0.052 J	0.0308	0.24	0.00039 J	0.0023 U	0.0021 U	0.14 U	0.107	0.0020 U	0.0019 U	0.0019 U	0.0022 U	0.095	0.14 U	0.0021 U	0.0018 U
Total CVOC	77.324	26.738	34.944	0.04656	12.822	4.00339	0.00096 U	0.0010 U	9.63	10.073	0.011	0.0136	0.00065 U	0.0011 U	273.491	18.127	0.0011 U	0.00089 U
Total VOC	77.444	26.796	34.996	0.09086	13.062	4.00918	0.00096	0.0042 U	9.63	10.18	0.0136	0.00065	0.00051	0.0058	273.586	18.127	0.00239	0.0018

Table 2-2a. Historical Soil Data: Volatile Organic Compounds

Essex-Hope Site, Jamestown, New York

Location ID	DPT-070	DPT-070	DPT-070	DPT-070	DPT-070	DPT-070	DPT-071	DPT-071	DPT-071	DPT-071	DPT-071	DPT-071	DPT-071	DPT-071	DPT-072	DPT-072	DPT-072	DPT-072	DPT-072	DPT-073	DPT-073
Sample Depth (feet bgs)	4 - 5	24 - 25	29 - 30	36 - 37	36 - 37	44 - 45	4 - 5	21 - 22	21 - 22	29 - 30	30 - 31	39 - 40	43 - 44	4 - 5	24 - 45	32 - 33	38 - 39	39 - 40	4 - 5	14 - 15	
Sample Date	4/6/2022	4/6/2022	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	4/5/2022	4/5/2022	4/5/2022	4/5/2022	4/5/2022	4/5/2022	4/5/2022	4/5/2022	4/7/2022	4/7/2022
Sample Type	N	N	N	N	FD	N	N	N	FD	N	N	N	N	N	N	N	N	N	N	N	N
Operable Unit	OU-03	OU-03	OU-03	OU-03	OU-03	OU-03	OU-03	OU-03	OU-03	OU-03	OU-03	OU-03	OU-03	OU-03	OU-03	OU-03	OU-03	OU-03	OU-03	OU-01	OU-01
Geologic Unit	Shallow Sand and Gravel	Shallow Silty Clay	Deep Sandy Silt	Deep Sandy Silt	Deep Sandy Silt	Deep Sandy Silt	Shallow Sand and Gravel	Shallow Silty Clay	Shallow Silty Clay	Deep Sandy Silt	Deep Sandy Silt	Deep Sandy Silt	Deep Sandy Silt	Shallow Sand and Gravel	Deep Sandy Silt	Deep Sandy Silt	Deep Sandy Silt	Deep Sandy Silt	Deep Sandy Silt	Shallow Sand and Gravel	Deep Sandy Silt
Analyte																					
1,1,1,2-Tetrachloroethane	0.00042 U	0.032 U	0.3 U	0.036 U	0.033 U	0.00053 U	0.00051 U	0.00051 U	0.00054 U	0.044 U	0.039 U	0.00052 U	0.00049 U	0.00050 U	0.03 U	0.036 U	0.00054 U	0.00057 U	0.037 U	0.32 U	
1,1,1-Trichloroethane	0.00042 U	0.032 U	0.3 U	0.036 U	0.033 U	0.00053 U	0.00051 U	0.00051 U	0.00054 U	0.044 U	0.039 U	0.00052 U	0.00049 U	0.00050 U	0.03 U	0.036 U	0.00054 U	0.00057 U	0.037 U	0.32 U	
1,1,2,2-Tetrachloroethane	0.00042 U	0.032 U	0.3 U	0.036 U	0.033 U	0.00053 U	0.00051 U	0.00051 U	0.00054 U	0.044 U	0.039 U	0.00052 U	0.00049 U	0.00050 U	0.03 U	0.036 U	0.00054 U	0.00057 U	0.037 U	0.32 U	
1,1,2-Trichloroethane	0.00083 U	0.063 U	0.59 U	0.071 U	0.067 U	0.0011 U	0.0010 U	0.0010 U	0.0011 U	0.087 U	0.078 U	0.0010 U	0.00097 U	0.0010 U	0.06 U	0.072 U	0.0011 U	0.0011 U	0.075 U	0.64 U	
1,1-Dichloroethane	0.00083 U	0.063 U	0.59 U	0.071 U	0.067 U	0.0011 U	0.0010 U	0.0010 U	0.0011 U	0.087 U	0.078 U	0.0010 U	0.00097 U	0.0010 U	0.06 U	0.072 U	0.0011 U	0.0011 U	0.075 U	0.64 U	
1,1-Dichloroethene	0.00083 U	0.06 J	0.59 U	0.044 J	0.042 J	0.0011 U	0.0010 U	0.0010 U	0.0011 U	0.19	0.078 U	0.0010 U	0.00097 U	0.0010 U	0.06 U	0.072 U	0.0011 U	0.0011 U	0.075 U	0.64 U	
1,1-Dichloropropene	0.00042 U	0.032 U	0.3 U	0.036 U	0.033 U	0.00053 U	0.00051 U	0.00051 U	0.00054 U	0.044 U	0.039 U	0.00052 U	0.00049 U	0.00050 U	0.03 U	0.036 U	0.00054 U	0.00057 U	0.037 U	0.32 U	
1,2,3-Trichlorobenzene	0.0017 U	0.13 U	1.2 U	0.14 U	0.13 U	0.0021 U	0.0020 U	0.0020 U	0.0022 U	0.17 U	0.16 U	0.0021 U	0.0019 U	0.0020 U	0.12 U	0.14 U	0.0022 U	0.0023 U	0.15 U	1.3 U	
1,2,3-Trichloropropane	0.0017 U	0.13 U	1.2 U	0.14 U	0.13 U	0.0021 U	0.0020 U	0.0020 U	0.0022 U	0.17 U	0.16 U	0.0021 U	0.0019 U	0.0020 U	0.12 U	0.14 U	0.0022 U	0.0023 U	0.15 U	1.3 U	
1,2,4-Trichlorobenzene	0.0017 U	0.13 U	1.2 U	0.14 U	0.13 U	0.0021 U	0.0020 U	0.0020 U	0.0022 U	0.17 U	0.16 U	0.0021 U	0.0019 U	0.0020 U	0.12 U	0.14 U	0.0022 U	0.0023 U	0.15 U	1.3 U	
1,2,4-Trimethylbenzene	0.0017 U	0.13 U	0.64 J	0.14 U	0.13 U	0.0021 U	0.0020 U	0.0020 U	0.0022 U	0.17 U	0.16 U	0.0021 U	0.0019 U	0.0020 U	0.12 U	0.14 U	0.0022 U	0.0023 U	0.18	7.1	
1,2-Dibromo-3-Chloropropane	0.0025 U	0.19 U	1.8 U	0.21 U	0.2 U	0.0032 U	0.0030 U	0.0030 U	0.0033 U	0.26 U	0.23 U	0.0031 U	0.0029 U	0.0030 U	0.18 U	0.22 U	0.0033 U	0.0034 U	0.22 U	1.9 U	
1,2-Dibromoethane (Ethylene Dibromide)	0.00083 U	0.063 U	0.59 U	0.071 U	0.067 U	0.0011 U	0.0010 U	0.0010 U	0.0011 U	0.087 U	0.078 U	0.0010 U	0.00097 U	0.0010 U	0.06 U	0.072 U	0.0011 U	0.0011 U	0.075 U	0.64 U	
1,2-Dichlorobenzene	0.0017 U	0.13 U	1.2 U	0.14 U	0.13 U	0.0021 U	0.0020 U	0.0020 U	0.0022 U	0.17 U	0.16 U	0.0021 U	0.0019 U	0.0020 U	0.12 U	0.14 U	0.0022 U	0.0023 U	0.15 U	1.3 U	
1,2-Dichloroethane	0.00083 U	0.063 U	0.59 U	0.071 U	0.067 U	0.0011 U	0.0010 U	0.0010 U	0.0011 U	0.087 U	0.078 U	0.0010 U	0.00097 U	0.0010 U	0.06 U	0.072 U	0.0011 U	0.0011 U	0.075 U	0.64 U	
1,2-Dichloroethene, cis-	0.00043 J	6.1	26	3.4	3.7	0.00022 J	0.0010 U	0.0010 U	0.0011 U	14	1.8	0.00023 J	0.00097 U	0.0010 U	3.4	0.4	0.00055 J	0.0011 U	0.55	31	
1,2-Dichloroethene, Total	0.00043 J	6.1	26	3.4	3.7	0.00022 J	0.0015 U	0.0015 U	0.0016 U	14	1.8	0.00023 J	0.0015 U	0.0015 U	3.8	0.44	0.00055 J	0.0017 U	0.59	31.1	
1,2-Dichloroethene, trans-	0.0012 U	0.019 J	0.89 U	0.022 J	0.025 J	0.0016 U	0.0015 U	0.0015 U	0.0016 U	0.08 J	0.12 U	0.0016 U	0.0015 U	0.0015 U	0.37	0.036 J	0.0016 U	0.0017 U	0.04 J	0.14 J	
1,2-Dichloropropane	0.00083 U	0.063 U	0.59 U	0.071 U	0.067 U	0.0011 U	0.0010 U	0.0010 U	0.0011 U	0.087 U	0.078 U	0.0010 U	0.00097 U	0.0010 U	0.06 U	0.072 U	0.0011 U	0.0011 U	0.075 U	0.64 U	
1,3,5-Trimethylbenzene (Mesitylene)	0.0017 U	0.13 U	0.13 J	0.14 U	0.13 U	0.0021 U	0.0020 U	0.0020 U	0.0022 U	0.17 U	0.16 U	0.0021 U	0.0019 U	0.00020 J	0.12 U	0.14 U	0.0022 U	0.0023 U	0.052 J	1.5	
1,3-Dichlorobenzene	0.0017 U	0.13 U	1.2 U	0.14 U	0.13 U	0.0021 U	0.0020 U	0.0020 U	0.0022 U	0.17 U	0.16 U	0.0021 U	0.0019 U	0.0020 U	0.12 U	0.14 U	0.0022 U	0.0023 U	0.15 U	1.3 U	
1,3-Dichloropropane	0.0017 U	0.13 U	1.2 U	0.14 U	0.13 U	0.0021 U	0.0020 U	0.0020 U	0.0022 U	0.17 U	0.16 U	0.0021 U	0.0019 U	0.0020 U	0.12 U	0.14 U	0.0022 U	0.0023 U	0.15 U	1.3 U	
1,3-Dichloropropene, cis-	0.00042 U	0.032 U	0.3 U	0.036 U	0.033 U	0.00053 U	0.00051 U	0.00051 U	0.00054 U	0.044 U	0.039 U	0.00052 U	0.00049 U	0.00050 U	0.03 U	0.036 U	0.00054 U	0.00057 U	0.037 U	0.32 U	
1,3-Dichloropropene, Total	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
1,3-Dichloropropene, trans-	0.00083 U	0.063 U	0.59 U	0.071 U	0.067 U	0.0011 U	0.0010 U	0.0010 U	0.0011 U	0.087 U	0.078 U	0.0010 U	0.00097 U	0.0010 U	0.06 U	0.072 U	0.0011 U	0.0011 U	0.075 U	0.64 U	
1,4-Dichlorobenzene	0.0017 U	0.13 U	1.2 U	0.14 U	0.13 U	0.0021 U	0.0020 U	0.0020 U	0.0022 U	0.17 U	0.16 U	0.0021 U	0.0019 U	0.0020 U	0.12 U	0.14 U	0.0022 U	0.0023 U	0.15 U	1.3 U	
1,4-Dioxane (p-Dioxane)	0.067 U	5.1 U	47 U	5.7 U	5.3 U	0.085 U	0.081 U	0.081 U	0.087 U	7 U	6.2 U	0.083 U	0.078 U	0.08 U	4.8 U	5.8 U	0.087 U	0.091 U	6 U	52 U	
2,2-Dichloropropane	0.0017 U	0.13 U	1.2 U	0.14 U	0.13 U	0.0021 U	0.0020 U	0.0020 U	0.0022 U	0.17 U	0.16 U	0.0021 U	0.0019 U	0.0020 U	0.12 U	0.14 U	0.0022 U	0.0023 U	0.15 U	1.3 U	
2-Chlorotoluene	0.0017 U	0.13 U	1.2 U	0.14 U	0.13 U	0.0021 U	0.0020 U	0.0020 U	0.0022 U	0.17 U	0.16 U	0.0021 U	0.0019 U	0.0020 U	0.12 U	0.14 U	0.0022 U	0.0023 U	0.15 U	1.3 U	
2-Hexanone	0.0083 U	0.63 U	5.9 U	0.71 U	0.67 U	0.011 U	0.01 U	0.01 U	0.011 U	0.87 U	0.78 U	0.01 U	0.0097 U	0.01 U	0.6 U	0.72 U	0.011 U	0.011 U	0.75 U	6.4 U	
4-Chlorotoluene	0.0017 U	0.13 U	1.2 U	0.14 U	0.13 U	0.0021 U	0.0020 U	0.0020 U	0.0022 U	0.17 U	0.16 U	0.0021 U	0.0019 U	0.0020 U	0.12 U	0.14 U	0.0022 U	0.0023 U	0.15 U	1.3 U	
Acetone	0.0083 U	0.63 U	5.9 U	0.71 U	0.67 U	0.011 U	0.01 U	0.0063 J	0.0067 J	0.87 U	0.78 U	0.01 U	0.0097 U	0.014	0.6 U	0.72 U	0.0064 J	0.01 J	0.75 U		

Table 2-2a. Historical Soil Data: Volatile Organic Compounds

Essex-Hope Site, Jamestown, New York

Location ID	DPT-070	DPT-070	DPT-070	DPT-070	DPT-070	DPT-070	DPT-071	DPT-071	DPT-071	DPT-071	DPT-071	DPT-071	DPT-071	DPT-071	DPT-072	DPT-072	DPT-072	DPT-072	DPT-072	DPT-073	DPT-073
Sample Depth (feet bgs)	4 - 5	24 - 25	29 - 30	36 - 37	36 - 37	44 - 45	4 - 5	21 - 22	21 - 22	29 - 30	30 - 31	39 - 40	43 - 44	4 - 5	24 - 45	32 - 33	38 - 39	39 - 40	4 - 5	14 - 15	
Sample Date	4/6/2022	4/6/2022	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	4/5/2022	4/5/2022	4/5/2022	4/5/2022	4/5/2022	4/5/2022	4/5/2022	4/5/2022	4/7/2022	4/7/2022
Sample Type	N	N	N	N	FD	N	N	N	FD	N	N	N	N	N	N	N	N	N	N	N	N
Operable Unit	OU-03	OU-03	OU-03	OU-03	OU-03	OU-03	OU-03	OU-03	OU-03	OU-03	OU-03	OU-03	OU-03	OU-03	OU-03	OU-03	OU-03	OU-03	OU-03	OU-01	OU-01
Geologic Unit	Shallow Sand and Gravel	Shallow Silty Clay	Deep Sandy Silt	Deep Sandy Silt	Deep Sandy Silt	Deep Sandy Silt	Shallow Sand and Gravel	Shallow Silty Clay	Shallow Silty Clay	Deep Sandy Silt	Deep Sandy Silt	Deep Sandy Silt	Deep Sandy Silt	Shallow Sand and Gravel	Deep Sandy Silt	Deep Sandy Silt	Deep Sandy Silt	Deep Sandy Silt	Deep Sandy Silt	Shallow Sand and Gravel	Deep Sandy Silt
Analyte																					
Carbon Tetrachloride	0.00083 U	0.063 U	0.59 U	0.071 U	0.067 U	0.0011 U	0.0010 U	0.0010 U	0.0011 UJ	0.087 U	0.078 U	0.0010 U	0.00097 U	0.0010 U	0.06 U	0.072 U	0.0011 U	0.0011 U	0.075 U	0.64 U	
Chlorobenzene	0.00042 U	0.032 U	0.3 U	0.036 U	0.033 U	0.00053 U	0.00051 U	0.00051 U	0.00054 UJ	0.044 U	0.039 U	0.00052 U	0.00049 U	0.00050 U	0.03 U	0.036 U	0.00054 U	0.00057 UJ	0.037 U	0.32 U	
Chlorobromomethane	0.0017 U	0.13 U	1.2 U	0.14 U	0.13 U	0.0021 U	0.0020 U	0.0020 U	0.0022 UJ	0.17 U	0.16 U	0.0021 U	0.0019 U	0.0020 U	0.12 U	0.14 U	0.0022 U	0.0023 U	0.15 U	1.3 U	
Chloroethane	0.0017 U	0.13 U	1.2 U	0.14 U	0.13 U	0.0021 U	0.0020 U	0.0020 U	0.0022 UJ	0.17 U	0.16 U	0.0021 U	0.0019 U	0.0020 U	0.12 U	0.14 U	0.0022 U	0.0023 U	0.15 U	1.3 U	
Chloroform	0.0012 U	0.095 U	0.89 U	0.11 U	0.1 U	0.0016 U	0.0015 U	0.0015 U	0.0016 UJ	0.13 U	0.12 U	0.0016 U	0.0015 U	0.0015 U	0.09 U	0.11 U	0.0016 U	0.0017 U	0.018 U	0.97 U	
Chloromethane	0.0033 U	0.25 U	2.4 U	0.28 U	0.27 U	0.0043 U	0.0041 U	0.0041 U	0.0044 UJ	0.35 U	0.31 U	0.0041 U	0.0039 U	0.0040 U	0.24 U	0.29 U	0.0044 U	0.0045 U	0.3 U	2.6 U	
Dibromochloromethane	0.00083 U	0.063 U	0.59 U	0.071 U	0.067 U	0.0011 U	0.0010 U	0.0010 UJ	0.0011 UJ	0.087 U	0.078 U	0.0010 U	0.00097 U	0.0010 U	0.06 U	0.072 U	0.0011 UJ	0.0011 UJ	0.075 U	0.64 U	
Dibromomethane (Methylene Bromide)	0.0017 U	0.13 U	1.2 U	0.14 U	0.13 U	0.0021 U	0.0020 U	0.0020 U	0.0022 UJ	0.17 U	0.16 U	0.0021 U	0.0019 U	0.0020 U	0.12 U	0.14 U	0.0022 U	0.0023 U	0.15 U	1.3 U	
Dichlorodifluoromethane	0.0083 U	0.63 U	5.9 U	0.71 U	0.67 U	0.011 U	0.01 U	0.01 U	0.011 UJ	0.87 U	0.78 U	0.01 U	0.0097 U	0.01 U	0.6 U	0.72 U	0.011 U	0.011 U	0.75 U	6.4 U	
Ethylbenzene	0.00083 U	0.063 U	0.59 U	0.071 U	0.067 U	0.0011 U	0.0010 U	0.0010 UJ	0.0011 U	0.087 U	0.078 U	0.0010 U	0.00097 U	0.0010 U	0.06 U	0.072 U	0.0011 UJ	0.0011 UJ	0.12	0.25 J	
Hexachlorobutadiene	0.0033 U	0.25 U	2.4 U	0.28 U	0.27 U	0.0043 UJ	0.0041 U	0.0041 UJ	0.0044 UJ	0.35 U	0.31 U	0.0041 UJ	0.0039 UJ	0.0040 U	0.24 U	0.29 U	0.0044 UJ	0.0045 UJ	0.3 U	2.6 U	
Isopropylbenzene (Cumene)	0.00083 U	0.063 U	0.59 U	0.071 U	0.067 U	0.0011 UJ	0.0010 U	0.0010 UJ	0.0011 UJ	0.087 U	0.078 U	0.0010 UJ	0.00097 UJ	0.0010 U	0.06 U	0.072 U	0.0011 UJ	0.0011 UJ	0.032 J	0.12 J	
Methyl Ethyl Ketone (2-Butanone)	0.0083 U	0.63 U	5.9 U	0.71 U	0.67 U	0.011 U	0.01 U	0.01 U	0.011 UJ	0.87 U	0.78 U	0.01 U	0.0097 U	0.01 U	0.6 U	0.72 U	0.011 U	0.011 U	0.75 U	6.4 U	
Methyl Isobutyl Ketone (4-Methyl-2-Pentanone)	0.0083 U	0.63 U	5.9 U	0.71 U	0.67 U	0.011 U	0.01 U	0.01 UJ	0.011 UJ	0.87 U	0.78 U	0.01 U	0.0097 U	0.01 U	0.6 U	0.72 U	0.011 UJ	0.011 UJ	0.75 U	6.4 U	
Methyl tert-butyl Ether (MTBE)	0.0017 U	0.13 U	1.2 U	0.14 U	0.13 U	0.0021 U	0.0020 U	0.0020 U	0.0022 UJ	0.17 U	0.16 U	0.0021 U	0.0019 U	0.0020 U	0.12 U	0.14 U	0.0022 U	0.0023 U	0.15 U	1.3 U	
Methylene Chloride	0.0042 U	0.32 U	3 U	0.36 U	0.33 U	0.0053 U	0.0051 U	0.0051 U	0.0054 UJ	0.44 U	0.39 U	0.0052 U	0.0049 U	0.0050 U	0.3 U	0.36 U	0.0054 U	0.0057 U	0.19 J	3.2 U	
Naphthalene	0.0033 U	0.25 U	2.4 U	0.28 U	0.27 U	0.0043 UJ	0.00095 J	0.0041 UJ	0.0044 UJ	0.35 U	0.31 U	0.0041 UJ	0.0039 UJ	0.0040 U	0.24 U	0.29 U	0.0044 UJ	0.0045 UJ	0.54	2.6 U	
n-Propylbenzene	0.00083 U	0.063 U	0.59 U	0.071 U	0.067 U	0.0011 UJ	0.0010 U	0.0010 UJ	0.0011 UJ	0.087 U	0.078 U	0.0010 UJ	0.00097 UJ	0.0010 U	0.06 U	0.072 U	0.0011 UJ	0.0011 UJ	0.063 J	0.76 J	
p-Isopropyltoluene	0.00083 U	0.063 U	0.59 U	0.071 U	0.067 U	0.0011 UJ	0.0010 U	0.0010 UJ	0.0011 UJ	0.087 U	0.078 U	0.0010 UJ	0.00097 UJ	0.0010 U	0.06 U	0.072 U	0.0011 UJ	0.0011 UJ	0.014 U	0.64 U	
Styrene	0.00083 U	0.063 U	0.59 U	0.071 U	0.067 U	0.0011 U	0.0010 U	0.0010 UJ	0.0011 UJ	0.087 U	0.078 U	0.0010 U	0.00097 U	0.0010 U	0.06 U	0.072 U	0.0011 UJ	0.0011 UJ	0.075 U	0.64 U	
Tetrachloroethene	0.00042 U	0.032 U	0.4	0.036 U	0.033 U	0.00053 U	0.00051 U	0.00051 U	0.00054 UJ	0.044 U	0.039 U	0.00052 U	0.00049 U	0.00050 U	0.03 U	0.036 U	0.00054 U	0.00057 UJ	0.023 J	1.4	
Toluene	0.00083 U	0.063 U	0.59 U	0.071 U	0.067 U	0.0011 U	0.0010 U	0.0010 UJ	0.0011 UJ	0.087 U	0.078 U	0.0010 U	0.00097 U	0.0010 U	0.06 U	0.072 U	0.0011 UJ	0.0011 UJ	0.6	0.64 U	
Trichloroethene	0.00035 J	2.1	320	3	2.4	0.00074	0.00051 U	0.00051 U	0.00054 UJ	0.044 U	0.039 U	0.00052 U	0.00049 U	0.0062	4.6	2	0.00038 J	0.00057 U	13	280	
Trichlorofluoromethane	0.0033 U	0.25 U	2.4 U	0.28 U	0.27 U	0.0043 U	0.0041 U	0.0041 U	0.0044 UJ	0.35 U	0.31 U	0.0041 U	0.0039 U	0.0040 U	0.24 U	0.29 U	0.0044 U	0.0045 U	0.3 U	2.6 U	
Vinyl Acetate	0.0083 U	0.63 U	5.9 U	0.71 U	0.67 U	0.011 U	0.01 U	0.01 U	0.011 UJ	0.87 U	0.78 U	0.01 U	0.0097 U	0.01 U	0.6 U	0.72 U	0.011 U	0.011 U	0.75 U	6.4 U	
Vinyl Chloride	0.00083 U	0.23 J	0.59 U	0.05 J	0.041 J	0.0011 U	0.0010 U	0.0010 U	0.0011 UJ	0.2 J	0.44	0.0010 U	0.00097 U	0.0010 U	0.06 U	0.072 U	0.011 J	0.0040 J	0.075 U	0.64 U	
Xylene, m- & p-	0.0017 U	0.13 U	1.2 U	0.14 U	0.13 U	0.0021 U	0.0020 U	0.0020 UJ	0.0022 UJ	0.17 U	0.16 U	0.0021 U	0.0019 U	0.0020 U	0.12 U	0.14 U	0.0022 UJ	0.0023 UJ	0.6	1 J	
Xylene, o-	0.00083 U	0.063 U	0.59 U	0.071 U	0.067 U	0.0011 U	0.0010 U	0.0010 UJ	0.0011 UJ	0.087 U	0.078 U	0.0010 U	0.00097 U	0.0010 U	0.06 U	0.072 U	0.0011 UJ	0.0011 UJ	0.28	0.55 J	
Xylenes, Total	0.0017 U	0.13 U	1.2 U	0.14 U	0.13 U	0.0021 U	0.0020 U	0.0020 UJ	0.0022 UJ	0.17 U	0.16 U	0.0021 U	0.0019 U	0.0020 U	0.12 U	0.14 U	0.0022 UJ	0.0023 UJ	0.88	1.55 J	
Total CBTEX	0.0017 U	0.13 U	1.2 U	0.14 U	0.13 U	0.0021 U	0.0020 U	0.0020 UJ	0.0022 UJ	0.17 U	0.16 U	0.0021 U	0.0019 U	0.0020 U	0.018 J	0.14 U	0.0022 UJ	0.0023 UJ	1.812	1.92	
Total CVOC	0.00078 J	8.509	346.4	6.516	6.208	0.00096	0.0010 U	0.0010 U	0.0011 UJ	14.47	2.24	0.00023 J	0.00097 U	0.0062	8.37	2.436	0.01193 J	0.004 J	13.613	312.54	
Total VOC	0.00078	8.509	347.17	6.516	6.208	0.00096	0.00095	0.0063	0.0067	14.47	2.24	0.00683	0.0097 U	0.0204	8.388	2.436	0.01833	0.014	16.518	323.82	

Table 2-2a. Historical Soil Data: Volatile Organic Compounds

Essex-Hope Site, Jamestown, New York

Location ID	DPT-073	DPT-073	DPT-073	DPT-073	DPT-074	DPT-074	DPT-074	DPT-074	DPT-074	DPT-075	DPT-075	DPT-075	DPT-075	DPT-075	DPT-076	DPT-076	DPT-076	DPT-076	DPT-076
Sample Depth (feet bgs)	20 - 21	29 - 30	37 - 38	49 - 50	4 - 5	26 - 27	26 - 27	31 - 32	37 - 38	9 - 10	25 - 26	25 - 26	33 - 34	38 - 39	5 - 6	18 - 19	24 - 25	34 - 34.5	36 - 37
Sample Date	4/7/2022	4/11/2022	4/11/2022	4/11/2022	4/7/2022	4/7/2022	4/7/2022	4/7/2022	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	4/12/2022	4/12/2022
Sample Type	N	N	N	N	N	N	FD	N	N	N	N	FD	N	N	N	N	N	N	N
Operable Unit	OU-01	OU-01	OU-01	OU-01	OU-01	OU-01	OU-01	OU-01	OU-01	OU-01	OU-01	OU-01	OU-01	OU-01	OU-01	OU-01	OU-01	OU-01	OU-01
Geologic Unit	Deep Sandy Silt	Deep Sandy Silt	Deep Sandy Silt	Deep Sandy Silt	Shallow Sand and Gravel	Deep Sandy Silt	Deep Sandy Silt	Deep Sandy Silt	Deep Sandy Silt	Shallow Sand and Gravel	Deep Sandy Silt	Deep Sandy Silt	Deep Sandy Silt	Deep Sandy Silt	Shallow Sand and Gravel	Shallow Silty Clay	Deep Sandy Silt	Deep Sandy Silt	Deep Sandy Silt
Analyte																			
1,1,1,2-Tetrachloroethane	0.18 U	0.00056 U	0.033 U	0.00046 U	0.00040 U	0.09 U	0.081 U	0.14 U	0.00049 U	0.00050 U	0.14 U	0.017 U	0.036 U	0.00048 U	0.00051 U	0.071 U	0.018 U	0.00059 U	0.00053 U
1,1,1-Trichloroethane	0.18 U	0.00056 U	0.033 U	0.00046 U	0.00040 U	0.09 U	0.081 U	0.14 U	0.00049 U	0.00050 U	0.14 U	0.017 U	0.036 U	0.00048 U	0.00051 U	0.071 U	0.018 U	0.00059 U	0.00053 U
1,1,2,2-Tetrachloroethane	0.18 U	0.00056 U	0.033 U	0.00046 U	0.00040 U	0.09 U	0.081 U	0.14 U	0.00049 U	0.00050 U	0.14 U	0.017 U	0.036 U	0.00048 U	0.00051 U	0.071 U	0.018 U	0.00059 U	0.00053 U
1,1,2-Trichloroethane	0.36 U	0.0011 U	0.066 U	0.00091 U	0.00079 U	0.18 U	0.16 U	0.29 U	0.00098 U	0.0010 U	0.29 U	0.033 U	0.072 U	0.00096 U	0.0010 U	0.14 U	0.036 U	0.0012 U	0.0011 U
1,1-Dichloroethane	0.36 U	0.0011 U	0.066 U	0.00091 U	0.00079 U	0.18 U	0.16 U	0.29 U	0.00098 U	0.0010 U	0.29 U	0.033 U	0.072 U	0.00096 U	0.0010 U	0.14 U	0.036 U	0.0012 U	0.0011 U
1,1-Dichloroethene	0.18 J	0.012	0.11	0.00091 U	0.00079 U	0.18 U	0.16 U	0.084 J	0.00091 J	0.0010 U	0.29 U	0.012 J	0.072 U	0.00096 U	0.0010 U	0.14 U	0.036 U	0.0012 U	0.0011 U
1,1-Dichloropropene	0.18 U	0.00056 U	0.033 U	0.00046 U	0.00040 U	0.09 U	0.081 U	0.14 U	0.00049 U	0.00050 U	0.14 U	0.017 U	0.036 U	0.00048 U	0.00051 U	0.071 U	0.018 U	0.00059 U	0.00053 U
1,2,3-Trichlorobenzene	0.73 U	0.0022 U	0.13 U	0.0018 U	0.0016 U	0.36 U	0.32 U	0.57 U	0.0020 U	0.0020 U	0.58 U	0.067 U	0.14 U	0.0019 U	0.0020 U	0.28 U	0.073 U	0.0024 U	0.0021 U
1,2,3-Trichloropropane	0.73 U	0.0022 U	0.13 U	0.0018 U	0.0016 U	0.36 U	0.32 U	0.57 U	0.0020 U	0.0020 U	0.58 U	0.067 U	0.14 U	0.0019 U	0.0020 U	0.28 U	0.073 U	0.0024 U	0.0021 U
1,2,4-Trichlorobenzene	0.73 U	0.0022 U	0.13 U	0.0018 U	0.0016 U	0.36 U	0.32 U	0.57 U	0.0020 U	0.0020 U	0.58 U	0.067 U	0.14 U	0.0019 U	0.0020 U	0.28 U	0.073 U	0.0024 U	0.0021 U
1,2,4-Trimethylbenzene	6.8	0.0022 U	0.13 U	0.0018 U	0.0016 U	0.12 J	0.1 J	0.57 U	0.0020 U	0.0020 U	0.27 J	0.048 J	0.14 U	0.0019 U	0.0020	0.28 U	0.025 J	0.0024 U	0.0021 U
1,2-Dibromo-3-Chloropropane	1.1 U	0.0033 U	0.2 U	0.0027 U	0.0024 U	0.54 U	0.48 U	0.86 U	0.0030 U	0.0030 U	0.86 U	0.1 U	0.22 U	0.0029 U	0.0030 U	0.42 U	0.11 U	0.0036 U	0.0032 U
1,2-Dibromoethane (Ethylene Dibromide)	0.36 U	0.0011 U	0.066 U	0.00091 U	0.00079 U	0.18 U	0.16 U	0.29 U	0.00098 U	0.0010 U	0.29 U	0.033 U	0.072 U	0.00096 U	0.0010 U	0.14 U	0.036 U	0.0012 U	0.0011 U
1,2-Dichlorobenzene	0.73 U	0.0022 U	0.13 U	0.0018 U	0.0016 U	0.36 U	0.32 U	0.57 U	0.0020 U	0.0020 U	0.58 U	0.067 U	0.14 U	0.0019 U	0.0020 U	0.28 U	0.073 U	0.0024 U	0.0021 U
1,2-Dichloroethane	0.36 U	0.0011 U	0.066 U	0.00091 U	0.00079 U	0.18 U	0.16 U	0.29 U	0.00098 U	0.0010 U	0.29 U	0.033 U	0.072 U	0.00096 U	0.0010 U	0.066 J	0.036 U	0.0013	0.0011 U
1,2-Dichloroethene, cis-	63 J	1.8	6.6	0.0033 U	0.00079 U	6.7	6.5	24	0.18 J	0.0010 U	14	2	1.3	0.00088 J	0.0010 U	5.1	0.59	0.0012 U	0.0011 U
1,2-Dichloroethene, Total	63.1 J	1.8	6.8	0.0033 U	0.0012 U	6.7	6.5	24	0.18 J	0.0015 U	14	2	1.3	0.00088 J	0.0015 U	5.1	0.59	0.0018 U	0.0016 U
1,2-Dichloroethene, trans-	0.13 J	0.047	0.18	0.0014 U	0.0012 U	0.27 U	0.24 U	0.19 J	0.0011 J	0.0015 U	0.039 J	0.0082 J	0.021 J	0.0014 U	0.0015 U	0.028 J	0.055 U	0.0018 U	0.0016 U
1,2-Dichloropropane	0.36 U	0.0011 U	0.066 U	0.00091 U	0.00079 U	0.18 U	0.16 U	0.29 U	0.00098 U	0.0010 U	0.29 U	0.033 U	0.072 U	0.00096 U	0.0010 U	0.14 U	0.036 U	0.0012 U	0.0011 U
1,3,5-Trimethylbenzene (Mesitylene)	1.4	0.0022 U	0.13 U	0.0018 U	0.0016 U	0.36 U	0.32 U	0.57 U	0.0020 U	0.0020 U	0.58 U	0.0096 J	0.14 U	0.0019 U	0.00093 J	0.28 U	0.073 U	0.0024 U	0.0021 U
1,3-Dichlorobenzene	0.73 U	0.0022 U	0.13 U	0.0018 U	0.0016 U	0.36 U	0.32 U	0.57 U	0.0020 U	0.0020 U	0.58 U	0.067 U	0.14 U	0.0019 U	0.0020 U	0.28 U	0.073 U	0.0024 U	0.0021 U
1,3-Dichloropropane	0.73 U	0.0022 U	0.13 U	0.0018 U	0.0016 U	0.36 U	0.32 U	0.57 U	0.0020 U	0.0020 U	0.58 U	0.067 U	0.14 U	0.0019 U	0.0020 U	0.28 U	0.073 U	0.0024 U	0.0021 U
1,3-Dichloropropene, cis-	0.18 U	0.00056 U	0.033 U	0.00046 U	0.00040 U	0.09 U	0.081 U	0.14 U	0.00049 U	0.00050 U	0.14 U	0.017 U	0.036 U	0.00048 U	0.00051 U	0.071 U	0.018 U	0.00059 U	0.00053 U
1,3-Dichloropropene, Total	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1,3-Dichloropropene, trans-	0.36 U	0.0011 U	0.066 U	0.00091 U	0.00079 U	0.18 U	0.16 U	0.29 U	0.00098 U	0.0010 U	0.29 U	0.033 U	0.072 U	0.00096 U	0.0010 U	0.14 U	0.036 U	0.0012 U	0.0011 U
1,4-Dichlorobenzene	0.73 U	0.0022 U	0.13 U	0.0018 U	0.0016 U	0.36 U	0.32 U	0.57 U	0.0020 U	0.0020 U	0.58 U	0.067 U	0.14 U	0.0019 U	0.0020 U	0.28 U	0.073 U	0.0024 U	0.0021 U
1,4-Dioxane (p-Dioxane)	29 U	0.089 U	5.2 U	0.073 U	0.063 U	14 U	13 U	23 U	0.079 U	0.08 U	23 U	2.7 U	5.8 U	0.077 U	0.081 U	11 U	2.9 U	0.095 U	0.085 U
2,2-Dichloropropane	0.73 U	0.0022 U	0.13 U	0.0018 U	0.0016 U	0.36 U	0.32 U	0.57 U	0.0020 U	0.0020 U	0.58 U	0.067 U	0.14 U	0.0019 U	0.0020 U	0.28 U	0.073 U	0.0024 U	0.0021 U
2-Chlorotoluene	0.73 U	0.0022 U	0.13 U	0.0018 U	0.0016 U	0.36 U	0.32 U	0.57 U	0.0020 U	0.0020 U	0.58 U	0.067 U	0.14 U	0.0019 U	0.0020 U	0.28 U	0.073 U	0.0024 U	0.0021 U
2-Hexanone	3.6 U	0.011 U	0.66 U	0.0091 U	0.0079 U	1.8 U	1.6 U	2.9 U	0.0098 U	0.01 U	2.9 U	0.33 U	0.72 U	0.0096 U	0.01 U	1.4 U	0.36 U	0.012 U	0.011 U
4-Chlorotoluene	0.73 U	0.0022 U	0.13 U	0.0018 U	0.0016 U	0.36 U	0.32 U	0.57 U	0.0020 U	0.0020 U	0.58 U	0.067 U	0.14 U	0.0019 U	0.0020 U	0.28 U	0.073 U	0.0024 U	0.0021 U
Acetone	3.6 U	0.011 U	0.66 U	0.0091 U	0.0079 U	1.8 U	1.6 U	2.9 U	0.0098 U	0.01 U	2.9 U	0.33 U	0.72 U	0.0096 U	0.033	1.4 U	0.36 U	0.012 U	0.011 U
Benzene	0.18 U	0.00055 J	0.033 U	0.00046 U	0.00040 U	0.09 U	0.081 U	0.14 U	0.00031 J	0.00050 U	0.6	0.083	0.061	0.00048 U	0.00032 J	2.2	0.47	0.046	0.00053 U
Bromobenzene	0.73 U	0.0022 U	0.13 U	0.0018 U	0.0016 U	0.36 U	0.32 U	0.57 U	0.0020 U	0.0020 U	0.58 U	0.067 U	0.14 U	0.0019 U	0.0020 U	0.28 U	0.073 U	0.0024 U	0.0021 U
Bromodichloromethane	0.18 U	0.00056 U	0.033 U	0.00046 U	0.00040 U	0.09 U	0.081 U	0.14 U	0.00049 U	0.00050 U	0.14 U	0.017 U	0.036 U	0.00048 U	0.00051 U	0.071 U	0.018 U	0.00059 U	0.00053 U
Bromoform	1.4 U	0.0044 U	0.26 U	0.0036 U	0.0032 U	0.72 U	0.64 U	1.1 U	0.0039 U	0.0040 U	1.2 U	0.13 U	0.29 U	0.0038 U	0.0040 U	0.57 U	0.15 U	0.0047 U	0.0042 U
Bromomethane	0.73 U	0.0022 U	0.13 U	0.0018 U	0.0016 U	0.36 U	0.32 U	0.57 U	0.0020 U	0.0020 U	0.58 U	0.067 U	0.14 U	0.0019 U	0.0020 U	0.28 U	0.073 U	0.0024 U	0.0021 U
Butylbenzene, n-	0.36 U	0.0011 U	0.066 U	0.00091 U	0.00079 U	0.18 U	0.16 U	0.29 U	0.00098 U	0.0010 U	0.29 U	0.033 U	0.072 U	0.00096 U	0.00017 J	0.14 U	0.036 U	0.0012 U	0.0011 U
Butylbenzene, sec-	0.36 U	0.0011 U	0.066 U	0.00091 U	0.00079 U	0.18 U	0.16 U	0.29 U	0.00098 U	0.0010 U	0.29 U	0.033 U	0.072 U	0.00096 U	0.00057 J	0.14 U	0.036 U	0.0012 U	0.0011 U
Butylbenzene, t-	0.73 U	0.0022 U	0.13 U	0.0018 U	0.0016 U	0.36 U	0.32 U	0.57 U	0.0020 U	0.0020 U	0.58 U	0.067 U	0.14 U	0.0019 U	0.0020 U	0.28 U	0.073 U	0.0024 U	0.0021 U
Carbon Disulfide	3.6 U	0.011 U	0.66 U	0.0091 U	0.0079 U	1.8 U	1.6 U	2.9 U	0.0098 U	0.01 U	2.9 U	0.33 U	0.72 U	0.0096 U	0.01 U	1.4 U	0.36 U	0.012 U	0.011 U

Table 2-2a. Historical Soil Data: Volatile Organic Compounds

Essex-Hope Site, Jamestown, New York

Location ID	DPT-073	DPT-073	DPT-073	DPT-073	DPT-074	DPT-074	DPT-074	DPT-074	DPT-074	DPT-075	DPT-075	DPT-075	DPT-075	DPT-075	DPT-076	DPT-076	DPT-076	DPT-076	DPT-076
Sample Depth (feet bgs)	20 - 21	29 - 30	37 - 38	49 - 50	4 - 5	26 - 27	26 - 27	31 - 32	37 - 38	9 - 10	25 - 26	25 - 26	33 - 34	38 - 39	5 - 6	18 - 19	24 - 25	34 - 34.5	36 - 37
Sample Date	4/7/2022	4/11/2022	4/11/2022	4/11/2022	4/7/2022	4/7/2022	4/7/2022	4/7/2022	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	4/12/2022	4/12/2022
Sample Type	N	N	N	N	N	N	FD	N	N	N	N	FD	N	N	N	N	N	N	N
Operable Unit	OU-01	OU-01	OU-01	OU-01	OU-01	OU-01	OU-01	OU-01	OU-01	OU-01	OU-01	OU-01	OU-01	OU-01	OU-01	OU-01	OU-01	OU-01	OU-01
Geologic Unit	Deep Sandy Silt	Deep Sandy Silt	Deep Sandy Silt	Deep Sandy Silt	Shallow Sand and Gravel	Deep Sandy Silt	Deep Sandy Silt	Deep Sandy Silt	Deep Sandy Silt	Shallow Sand and Gravel	Deep Sandy Silt	Deep Sandy Silt	Deep Sandy Silt	Deep Sandy Silt	Shallow Sand and Gravel	Shallow Silty Clay	Deep Sandy Silt	Deep Sandy Silt	Deep Sandy Silt
Analyte																			
Carbon Tetrachloride	0.36 U	0.0011 U	0.066 U	0.00091 U	0.00079 U	0.18 U	0.16 U	0.29 U	0.00098 U	0.0010 U	0.29 U	0.033 U	0.072 U	0.00096 U	0.0010 U	0.14 U	0.036 U	0.0012 U	0.0011 U
Chlorobenzene	0.18 U	0.00056 U	0.033 U	0.00046 U	0.00040 U	0.09 U	0.081 U	0.14 U	0.00049 U	0.00050 U	0.14 U	0.017 U	0.036 U	0.00048 U	0.00051 U	0.071 U	0.018 U	0.00059 U	0.00053 U
Chlorobromomethane	0.73 U	0.0022 U	0.13 U	0.0018 U	0.0016 U	0.36 U	0.32 U	0.57 U	0.0020 U	0.0020 U	0.58 U	0.067 U	0.14 U	0.0019 U	0.0020 U	0.28 U	0.073 U	0.0024 U	0.0021 U
Chloroethane	0.73 U	0.0022 U	0.13 U	0.0018 U	0.0016 U	0.36 U	0.32 U	0.57 U	0.0020 U	0.0020 U	0.58 U	0.067 U	0.14 U	0.0019 U	0.0020 U	0.28 U	0.073 U	0.0024 U	0.0021 U
Chloroform	0.54 U	0.0017 U	0.0097 U	0.0014 U	0.0012 U	0.27 U	0.24 U	0.43 U	0.0015 U	0.0015 U	0.43 U	0.05 U	0.11 U	0.0014 U	0.0015 U	0.21 U	0.0051 J	0.0018 U	0.0016 U
Chloromethane	1.4 U	0.0044 U	0.26 U	0.0036 U	0.0032 U	0.72 U	0.64 U	1.1 U	0.0039 U	0.0040 U	1.2 U	0.13 U	0.29 U	0.0038 U	0.0040 U	0.57 U	0.15 U	0.0047 U	0.0042 U
Dibromochloromethane	0.36 U	0.0011 U	0.066 U	0.00091 U	0.00079 U	0.18 U	0.16 U	0.29 U	0.00098 U	0.0010 U	0.29 U	0.033 U	0.072 U	0.00096 U	0.0010 U	0.14 U	0.036 U	0.0012 U	0.0011 U
Dibromomethane (Methylene Bromide)	0.73 U	0.0022 U	0.13 U	0.0018 U	0.0016 U	0.36 U	0.32 U	0.57 U	0.0020 U	0.0020 U	0.58 U	0.067 U	0.14 U	0.0019 U	0.0020 U	0.28 U	0.073 U	0.0024 U	0.0021 U
Dichlorodifluoromethane	3.6 U	0.011 U	0.66 U	0.0091 U	0.0079 U	1.8 U	1.6 U	2.9 U	0.0098 U	0.01 U	2.9 U	0.33 U	0.72 U	0.0096 U	0.01 U	1.4 U	0.36 U	0.012 U	0.011 U
Ethylbenzene	0.13 J	0.0011 U	0.066 U	0.00091 U	0.00079 U	0.18 U	0.16 U	0.29 U	0.00098 U	0.0010 U	0.29 U	0.033 U	0.072 U	0.00096 U	0.00063 J	0.14 U	0.04	0.0012 U	0.0011 U
Hexachlorobutadiene	1.4 U	0.0044 U	0.26 U	0.0036 U	0.0032 U	0.72 U	0.64 U	1.1 U	0.0039 U	0.0040 U	1.2 U	0.13 U	0.29 U	0.0038 U	0.0040 U	0.57 U	0.15 U	0.0047 U	0.0042 U
Isopropylbenzene (Cumene)	0.092 J	0.0011 U	0.066 U	0.00091 U	0.00079 U	0.18 U	0.16 U	0.29 U	0.00098 U	0.0010 U	0.29 U	0.033 U	0.072 U	0.00096 U	0.00093	0.14 U	0.044	0.0012 U	0.0011 U
Methyl Ethyl Ketone (2-Butanone)	3.6 U	0.011 U	0.66 U	0.0091 U	0.0079 U	1.8 U	1.6 U	2.9 U	0.0098 U	0.01 U	2.9 U	0.33 U	0.72 U	0.0096 U	0.031 J	1.4 U	0.36 U	0.012 U	0.011 U
Methyl Isobutyl Ketone (4-Methyl-2-Pentanone)	3.6 U	0.011 U	0.66 U	0.0091 U	0.0079 U	1.8 U	1.6 U	2.9 U	0.0098 U	0.01 U	2.9 U	0.33 U	0.72 U	0.0096 U	0.01 U	1.4 U	0.36 U	0.012 U	0.011 U
Methyl tert-butyl Ether (MTBE)	0.73 U	0.0022 U	0.13 U	0.0018 U	0.0016 U	0.36 U	0.32 U	0.57 U	0.0020 U	0.0020 U	0.58 U	0.067 U	0.14 U	0.0019 U	0.0020 U	0.28 U	0.073 U	0.0024 U	0.0021 U
Methylene Chloride	1.8 U	0.0056 U	0.33 U	0.0046 U	0.0040 U	0.9 U	0.81 U	1.4 U	0.0049 U	0.0050 U	1.4 U	0.17 U	0.36 U	0.0048 U	0.0051 U	0.71 U	0.18 U	0.0059 U	0.0053 U
Naphthalene	0.3 J	0.0044 U	0.26 U	0.0036 U	0.0032 U	0.72 U	0.64 U	1.1 U	0.0039 U	0.0040 U	1.2 U	0.13 U	0.29 U	0.0038 U	0.0040 U	0.12 J	0.15 U	0.0047 U	0.0042 U
n-Propylbenzene	0.53	0.0011 U	0.066 U	0.00091 U	0.00079 U	0.18 U	0.16 U	0.29 U	0.00098 U	0.0010 U	0.29 U	0.0064 J	0.072 U	0.00096 U	0.0026 J	0.14 U	0.031 J	0.0012 U	0.0011 U
p-Isopropyltoluene	0.36 U	0.0011 U	0.066 U	0.00091 U	0.00079 U	0.18 U	0.16 U	0.29 U	0.00098 U	0.0010 U	0.29 U	0.033 U	0.072 U	0.00096 U	0.00029 J	0.14 U	0.036 U	0.0012 U	0.0011 U
Styrene	0.36 U	0.0011 U	0.066 U	0.00091 U	0.00079 U	0.18 U	0.16 U	0.29 U	0.00098 U	0.0010 U	0.29 U	0.033 U	0.072 U	0.00096 U	0.0010 U	0.14 U	0.036 U	0.0012 U	0.0011 U
Tetrachloroethene	0.47	0.00056 U	0.033 U	0.00046 U	0.00040 U	0.035 J	0.037 J	0.14 U	0.00049 U	0.00050 U	0.21	0.03	0.036 U	0.00048 U	0.00051 U	0.071 U	0.018 U	0.00059 U	0.00053 U
Toluene	0.56	0.0011 U	0.044 J	0.00091 U	0.00079 U	0.18 U	0.16 U	0.29 U	0.00098 U	0.0010 U	0.7	0.09 U	0.072 U	0.00096 U	0.0010	0.55	0.14 U	0.0012 U	0.0011 U
Trichloroethene	150	0.053	32	0.00046 U	0.00028 J	740	670	120	0.078	0.00050 U	110	150	0.024 J	0.00057 J	0.00044 U	64	9	0.00059 U	0.00015 J
Trichlorofluoromethane	1.4 U	0.0044 U	0.26 U	0.0036 U	0.0032 U	0.72 U	0.64 U	1.1 U	0.0039 U	0.0040 U	1.2 U	0.13 U	0.29 U	0.0038 U	0.0040 U	0.57 U	0.15 U	0.0047 U	0.0042 U
Vinyl Acetate	3.6 U	0.011 U	0.66 U	0.0091 U	0.0079 U	1.8 U	1.6 U	2.9 U	0.0098 U	0.01 U	2.9 U	0.33 U	0.72 U	0.0096 U	0.01 U	1.4 U	0.36 U	0.012 U	0.011 U
Vinyl Chloride	0.31 J	0.16	0.06 J	0.0040 U	0.00079 U	0.15 J	0.15 J	1.3	0.19 J	0.0010 U	0.58	0.2	0.19	0.091 J	0.0010 U	0.13 J	0.022 J	0.0012 U	0.0011 U
Xylene, m- & p-	0.33 J	0.0022 U	0.13 U	0.0018 U	0.0016 U	0.36 U	0.32 U	0.57 U	0.0020 U	0.0020 U	0.58 U	0.067 U	0.14 U	0.0019 U	0.0048	0.28 U	0.21	0.0024 U	0.0021 U
Xylene, o-	0.42	0.0011 U	0.066 U	0.00091 U	0.00079 U	0.18 U	0.16 U	0.29 U	0.00098 U	0.0010 U	0.29 U	0.013 J	0.072 U	0.00096 U	0.0011	0.14 U	0.018 J	0.0012 U	0.0011 U
Xylenes, Total	0.75 J	0.0022 U	0.13 U	0.0018 U	0.0016 U	0.36 U	0.32 U	0.57 U	0.0020 U	0.0020 U	0.58 U	0.013 J	0.14 U	0.0019 U	0.0059	0.28 U	0.228 J	0.0024 U	0.0021 U
Total CBTEX	1.532	0.00055 J	0.044 J	0.0018 U	0.0016 U	0.36 U	0.32 U	0.57 U	0.00031 J	0.0020 U	1.3	0.096	0.061	0.0019 U	0.01715	2.75	0.782	0.046	0.0021 U
Total CVOC	214.09	2.072	38.95	0.0073	0.00028 J	746.885	676.687	145.574	0.45001	0.0010 U	124.829	152.25	1.535	0.09245 J	0.00044	69.258	9.612	0.0027	0.00015
Total VOC	224.652	2.07255	39.0037	0.0073	0.00028	747.005	676.787	145.574	0.45032	0.01 U	126.399	152.5	1.596	0.09245	0.08815	72.194	10.5951	0.0487	0.00015

Table 2-2a. Historical Soil Data: Volatile Organic Compounds

Essex-Hope Site, Jamestown, New York

Location ID	DPT-076	DPT-076	DPT-077	DPT-077	DPT-077	DPT-077	DPT-077	DPT-078	DPT-078	DPT-078	DPT-078	DPT-078	DPT-078	DPT-078	DPT-078	DPT-079	DPT-079	DPT-079	DPT-079
Sample Depth (feet bgs)	42 - 43	42 - 43	4 - 5	13.5 - 15	20 - 25	29 - 30	34 - 35	6 - 7	15 - 16	17 - 18	26 - 27	30 - 31	30 - 31	35 - 36	7 - 8	11 - 12	16 - 17	23 - 24	
Sample Date	4/12/2022	4/12/2022	4/5/2022	4/5/2022	4/5/2022	4/5/2022	4/5/2022	8/23/2022	8/23/2022	8/23/2022	8/23/2022	8/23/2022	8/23/2022	8/23/2022	8/23/2022	8/23/2022	8/23/2022	8/23/2022	
Sample Type	N	FD	N	N	N	N	N	N	N	N	N	N	FD	N	N	N	N	N	
Operable Unit	OU-01	OU-01	OU-03	OU-03	OU-03	OU-03	OU-03	OU-01	OU-01	OU-01	OU-01	OU-01	OU-01	OU-01	OU-01	OU-01	OU-01	OU-01	
Geologic Unit	Deep Sandy Silt	Deep Sandy Silt	Shallow Sand and Gravel	Shallow Silty Clay	Deep Sandy Silt	Deep Sandy Silt	Deep Sandy Silt	Shallow Sand and Gravel	Shallow Silty Clay	Deep Sandy Silt	Deep Sandy Silt	Deep Sandy Silt	Deep Sandy Silt	Deep Silty Clay	Shallow Sand and Gravel	Shallow Sand and Gravel	Deep Sandy Silt	Deep Sandy Silt	
Analyte																			
1,1,1,2-Tetrachloroethane	0.00057 U	0.00042 U	0.00077 UJ	0.00045 U	0.00049 U	0.033 U	0.034 U	0.00051 U	0.032 U	0.03 U	0.031 U	0.00053 U	0.00054 U	0.00049 U	0.00040 U	0.00039 U	0.00041 U	0.00046 U	
1,1,1-Trichloroethane	0.00057 U	0.00042 U	0.00077 UJ	0.00045 U	0.00049 U	0.033 U	0.034 U	0.00051 U	0.032 U	0.03 U	0.031 U	0.00053 U	0.00054 U	0.00049 U	0.00040 U	0.00039 U	0.00041 U	0.00046 U	
1,1,2,2-Tetrachloroethane	0.00057 U	0.00042 U	0.00077 UJ	0.00045 U	0.00049 U	0.033 U	0.034 U	0.00051 U	0.032 U	0.03 U	0.031 U	0.00053 U	0.00054 U	0.00049 U	0.00040 U	0.00039 UJ	0.00041 U	0.00046 U	
1,1,2-Trichloroethane	0.0011 U	0.00084 U	0.0015 UJ	0.00089 U	0.00098 U	0.067 U	0.067 U	0.0010 U	0.064 U	0.061 U	0.063 U	0.0010 U	0.0011 U	0.00098 U	0.00081 U	0.00078 UJ	0.00083 U	0.00093 U	
1,1-Dichloroethane	0.00063 J	0.00068 J	0.0015 UJ	0.00089 U	0.00098 U	0.067 U	0.067 U	0.0010 U	0.064 U	0.061 U	0.063 U	0.0010 U	0.0011 U	0.00098 U	0.00081 U	0.00078 U	0.00083 U	0.0013	
1,1-Dichloroethene	0.0011 U	0.00084 U	0.0015 UJ	0.00089 U	0.00098 U	0.059 J	0.035 J	0.0010 U	0.015 J	0.016 J	0.063 U	0.00098 J	0.0016	0.00098 U	0.00081 U	0.00078 U	0.00083 U	0.00028 J	
1,1-Dichloropropene	0.00057 U	0.00042 U	0.00077 UJ	0.00045 U	0.00049 U	0.033 U	0.034 U	0.00051 U	0.032 U	0.03 U	0.031 U	0.00053 U	0.00054 U	0.00049 U	0.00040 U	0.00039 U	0.00041 U	0.00046 U	
1,2,3-Trichlorobenzene	0.0023 U	0.0017 U	0.0031 UJ	0.0018 U	0.0020 U	0.13 U	0.13 U	0.0020 U	0.13 U	0.12 U	0.12 U	0.0021 U	0.0022 U	0.0020 U	0.0016 U	0.0016 UJ	0.0016 U	0.0019 U	
1,2,3-Trichloropropane	0.0023 U	0.0017 U	0.0031 UJ	0.0018 U	0.0020 U	0.13 U	0.13 U	0.0020 U	0.13 U	0.12 U	0.12 U	0.0021 U	0.0022 U	0.0020 U	0.0016 U	0.0016 UJ	0.0016 U	0.0019 U	
1,2,4-Trichlorobenzene	0.0023 U	0.0017 U	0.0031 UJ	0.0018 U	0.0020 U	0.13 U	0.13 U	0.0020 U	0.13 U	0.12 U	0.12 U	0.0021 U	0.0022 U	0.0020 U	0.0016 U	0.0016 UJ	0.0016 U	0.0019 U	
1,2,4-Trimethylbenzene	0.0023 U	0.0017 U	0.0031 UJ	0.0018 U	0.0020 U	0.13 U	0.13 U	0.0020 U	0.13 U	0.12 U	0.12 U	0.0021 U	0.0022 U	0.0020 U	0.0016 U	0.0016 UJ	0.0016 U	0.0019 U	
1,2-Dibromo-3-Chloropropane	0.0034 U	0.0025 U	0.0046 UJ	0.0027 U	0.0029 U	0.2 U	0.2 U	0.0031 U	0.19 U	0.18 U	0.19 U	0.0032 UJ	0.0032 UJ	0.0029 U	0.0024 U	0.0024 UJ	0.0025 U	0.0028 U	
1,2-Dibromoethane (Ethylene Dibromide)	0.0011 U	0.00084 U	0.0015 UJ	0.00089 U	0.00098 U	0.067 U	0.067 U	0.0010 U	0.064 U	0.061 U	0.063 U	0.0010 U	0.0011 U	0.00098 U	0.00081 U	0.00078 UJ	0.00083 U	0.00093 U	
1,2-Dichlorobenzene	0.0023 U	0.0017 U	0.0031 UJ	0.0018 U	0.0020 U	0.13 U	0.13 U	0.0020 U	0.13 U	0.12 U	0.12 U	0.0021 U	0.0022 U	0.0020 U	0.0016 U	0.0016 UJ	0.0016 U	0.0019 U	
1,2-Dichloroethane	0.0012	0.0014	0.0015 UJ	0.00089 U	0.00098 U	0.067 U	0.067 U	0.0010 U	0.064 U	0.061 U	0.063 U	0.0010 U	0.0011 U	0.00098 U	0.00081 U	0.00078 U	0.00083 U	0.0012	
1,2-Dichloroethene, cis-	0.0015	0.0016	0.0015 UJ	0.0017	0.00098 U	8.3	4.8	0.0010 U	0.6	0.46	0.29	0.037	0.044	0.00098 U	0.00019 J	0.0024	0.0074	0.0024	
1,2-Dichloroethene, Total	0.0015	0.0016	0.0023 UJ	0.0017	0.0015 U	8.3	4.8	0.0015 U	0.6	0.56	0.40	0.046	0.055	0.0015 U	0.00019 J	0.0024	0.0074	0.0029	
1,2-Dichloroethene, trans-	0.0017 U	0.0012 U	0.0023 UJ	0.0013 U	0.0015 U	0.036 J	0.016 J	0.0015 U	0.075 J	0.1	0.11	0.0086	0.011	0.0015 U	0.0012 U	0.0012 U	0.00011 J	0.00049 J	
1,2-Dichloropropane	0.0011 U	0.00084 U	0.0015 UJ	0.00089 U	0.00098 U	0.067 U	0.067 U	0.0010 U	0.064 U	0.061 U	0.063 U	0.0010 U	0.0011 U	0.00098 U	0.00081 U	0.00078 U	0.00083 U	0.00093 U	
1,3,5-Trimethylbenzene (Mesitylene)	0.0023 U	0.0017 U	0.0031 UJ	0.0018 U	0.0020 U	0.13 U	0.13 U	0.0020 U	0.13 U	0.12 U	0.12 U	0.0021 U	0.0022 U	0.0020 U	0.0016 U	0.0016 U	0.0016 U	0.0019 U	
1,3-Dichlorobenzene	0.0023 U	0.0017 U	0.0031 UJ	0.0018 U	0.0020 U	0.13 U	0.13 U	0.0020 U	0.13 U	0.12 U	0.12 U	0.0021 U	0.0022 U	0.0020 U	0.0016 U	0.0016 UJ	0.0016 U	0.0019 U	
1,3-Dichloropropane	0.0023 U	0.0017 U	0.0031 UJ	0.0018 U	0.0020 U	0.13 U	0.13 U	0.0020 U	0.13 U	0.12 U	0.12 U	0.0021 U	0.0022 U	0.0020 U	0.0016 U	0.0016 UJ	0.0016 U	0.0019 U	
1,3-Dichloropropene, cis-	0.00057 U	0.00042 U	0.00077 UJ	0.00045 U	0.00049 U	0.033 U	0.034 U	0.00051 U	0.032 U	0.03 U	0.031 U	0.00053 U	0.00054 U	0.00049 U	0.00040 U	0.00039 U	0.00041 U	0.00046 U	
1,3-Dichloropropene, Total	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
1,3-Dichloropropene, trans-	0.0011 U	0.00084 U	0.0015 UJ	0.00089 U	0.00098 U	0.067 U	0.067 U	0.0010 U	0.064 U	0.061 U	0.063 U	0.0010 U	0.0011 U	0.00098 U	0.00081 U	0.00078 UJ	0.00083 U	0.00093 U	
1,4-Dichlorobenzene	0.0023 U	0.0017 U	0.0031 UJ	0.0018 U	0.0020 U	0.13 U	0.13 U	0.0020 U	0.13 U	0.12 U	0.12 U	0.0021 UJ	0.0022 UJ	0.0020 U	0.0016 U	0.0016 UJ	0.0016 U	0.0019 U	
1,4-Dioxane (p-Dioxane)	0.092 U	0.067 U	0.12 UJ	0.071 U	0.078 U	5.4 U	5.4 U	0.082 U	5.1 U	4.8 U	5 U	0.084 UJ	0.087 UJ	0.078 U	0.065 UJ	0.063 UJ	0.066 U	0.074 UJ	
2,2-Dichloropropane	0.0023 U	0.0017 U	0.0031 UJ	0.0018 U	0.0020 U	0.13 U	0.13 U	0.0020 U	0.13 U	0.12 U	0.12 U	0.0021 U	0.0022 U	0.0020 U	0.0016 U	0.0016 U	0.0016 U	0.0019 U	
2-Chlorotoluene	0.0023 U	0.0017 U	0.0031 UJ	0.0018 U	0.0020 U	0.13 U	0.13 U	0.0020 U	0.13 U	0.12 U	0.12 U	0.0021 U	0.0022 U	0.0020 U	0.0016 U	0.0016 UJ	0.0016 U	0.0019 U	
2-Hexanone	0.011 U	0.0084 U	0.015 UJ	0.0089 U	0.0098 U	0.67 U	0.67 U	0.01 U	0.64 U	0.61 U	0.63 U	0.01 U	0.011 U	0.0098 U	0.0081 U	0.0078 UJ	0.0083 U	0.0093 U	
4-Chlorotoluene	0.0023 U	0.0017 U	0.0031 UJ	0.0018 U	0.0020 U	0.13 U	0.13 U	0.0020 U	0.13 U	0.12 U	0.12 U	0.0021 U	0.0022 U	0.0020 U	0.0016 U	0.0016 UJ	0.0016 U	0.0019 U	
Acetone	0.011 U	0.0084 U	0.15 J	0.0089 U	0.0068 J	0.67 U	0.67 U	0.01 U	0.64 U	0.61 U	0.63 U	0.0060 J	0.011 U	0.0054 J	0.0081 U	0.0068 J	0.0083 U	0.0063 J	
Benzene	0.044	0.048	0.00077 UJ	0.00045 U	0.00049 U	0.033 U	0.034 U	0.00051 U	0.031 J	0.016 J	0.031 U	0.0026	0.0033	0.00049 U	0.00040 U	0.00039 U	0.00041 U	0.00039 J	
Bromobenzene	0.0023 U	0.0017 U	0.0031 UJ	0.0018 U	0.0020 U	0.13 U	0.13 U	0.0020 U	0.13 U	0.12 U	0.12 U	0.0021 U	0.0022 U	0.0020 U	0.0016 U	0.0016 UJ	0.0016 U	0.0019 U	
Bromodichloromethane	0.00057 U	0.00042 U	0.00077 UJ	0.00045 U	0.00049 U	0.033 U	0.034 U	0.00051 U	0.032 U	0.03 U	0.031 U	0.00053 U	0.00054 U	0.00049 U	0.00040 U	0.00039 U	0.00041 U	0.00046 U	
Bromoform	0.0046 U	0.0033 U	0.0061 UJ	0.0036 U	0.0039 U	0.27 U	0.27 U	0.0041 U	0.25 U	0.24 U	0.25 U	0.0042 U	0.0043 U	0.0039 U	0.0032 U	0.0031 UJ	0.0033 U	0.003	

Table 2-2a. Historical Soil Data: Volatile Organic Compounds

Essex-Hope Site, Jamestown, New York

Location ID	DPT-076	DPT-076	DPT-077	DPT-077	DPT-077	DPT-077	DPT-077	DPT-078	DPT-078	DPT-078	DPT-078	DPT-078	DPT-078	DPT-078	DPT-078	DPT-079	DPT-079	DPT-079	DPT-079
Sample Depth (feet bgs)	42 - 43	42 - 43	4 - 5	13.5 - 15	20 - 25	29 - 30	34 - 35	6 - 7	15 - 16	17 - 18	26 - 27	30 - 31	30 - 31	35 - 36	7 - 8	11 - 12	16 - 17	23 - 24	
Sample Date	4/12/2022	4/12/2022	4/5/2022	4/5/2022	4/5/2022	4/5/2022	4/5/2022	8/23/2022	8/23/2022	8/23/2022	8/23/2022	8/23/2022	8/23/2022	8/23/2022	8/23/2022	8/23/2022	8/23/2022	8/23/2022	
Sample Type	N	FD	N	N	N	N	N	N	N	N	N	N	N	FD	N	N	N	N	
Operable Unit	OU-01	OU-01	OU-03	OU-03	OU-03	OU-03	OU-03	OU-01	OU-01	OU-01	OU-01	OU-01	OU-01	OU-01	OU-01	OU-01	OU-01	OU-01	
Geologic Unit	Deep Sandy Silt	Deep Sandy Silt	Shallow Sand and Gravel	Shallow Silty Clay	Deep Sandy Silt	Deep Sandy Silt	Deep Sandy Silt	Shallow Sand and Gravel	Shallow Silty Clay	Deep Sandy Silt	Deep Sandy Silt	Deep Sandy Silt	Deep Sandy Silt	Deep Silty Clay	Shallow Sand and Gravel	Shallow Sand and Gravel	Deep Sandy Silt	Deep Sandy Silt	
Analyte																			
Carbon Tetrachloride	0.0011 U	0.00084 U	0.0015 UJ	0.00089 U	0.00098 U	0.067 U	0.067 U	0.0010 U	0.064 U	0.061 U	0.063 U	0.0010 UJ	0.0011 UJ	0.00098 U	0.00081 U	0.00078 U	0.00083 U	0.00093 U	
Chlorobenzene	0.00057 U	0.00042 U	0.00077 UJ	0.00045 U	0.00049 U	0.033 U	0.034 U	0.00051 U	0.032 U	0.03 U	0.031 U	0.00053 U	0.00054 U	0.00049 U	0.00040 U	0.00039 U	0.00041 U	0.00046 U	
Chlorobromomethane	0.0023 U	0.0017 U	0.0031 UJ	0.0018 U	0.0020 U	0.13 U	0.13 U	0.0020 U	0.13 U	0.12 U	0.12 U	0.0021 U	0.0022 U	0.0020 U	0.0016 U	0.0016 U	0.0016 U	0.0019 U	
Chloroethane	0.0023 U	0.0017 U	0.0031 UJ	0.0018 U	0.0020 U	0.13 U	0.13 U	0.0020 U	0.13 U	0.12 U	0.12 U	0.0021 U	0.0022 U	0.00045 J	0.0016 U	0.0016 U	0.0016 U	0.0019 U	
Chloroform	0.0017 U	0.0012 U	0.0023 UJ	0.0013 U	0.0015 U	0.1 U	0.1 U	0.0015 U	0.095 U	0.091 U	0.094 U	0.0016 U	0.0016 U	0.0015 U	0.0012 U	0.0012 U	0.0012 U	0.0014 U	
Chloromethane	0.0046 U	0.0033 U	0.0061 UJ	0.0036 U	0.0039 U	0.27 U	0.27 U	0.0041 U	0.25 U	0.24 U	0.25 U	0.0042 U	0.0043 U	0.0039 U	0.0032 U	0.0031 U	0.0033 U	0.0037 U	
Dibromochloromethane	0.0011 U	0.00084 U	0.0015 UJ	0.00089 U	0.00098 U	0.067 U	0.067 U	0.0010 U	0.064 U	0.061 U	0.063 U	0.0010 U	0.0011 U	0.00098 U	0.00081 U	0.00078 U	0.00083 U	0.00093 U	
Dibromomethane (Methylene Bromide)	0.0023 U	0.0017 U	0.0031 UJ	0.0018 U	0.0020 U	0.13 U	0.13 U	0.0020 U	0.13 U	0.12 U	0.12 U	0.0021 U	0.0022 U	0.0020 U	0.0016 U	0.0016 UJ	0.0016 U	0.0019 U	
Dichlorodifluoromethane	0.011 U	0.0084 U	0.015 UJ	0.0089 U	0.0098 U	0.67 U	0.67 U	0.01 U	0.64 U	0.61 U	0.63 U	0.01 U	0.011 U	0.0098 U	0.0081 UJ	0.0078 UJ	0.0083 U	0.0093 UJ	
Ethylbenzene	0.00031 J	0.00029 J	0.0015 UJ	0.00089 U	0.00098 U	0.067 U	0.067 U	0.0010 U	0.064 U	0.061 U	0.063 U	0.0010 U	0.0011 U	0.00098 U	0.00081 U	0.00078 U	0.00083 U	0.00093 U	
Hexachlorobutadiene	0.0046 U	0.0033 U	0.0061 UJ	0.0036 U	0.0039 U	0.27 U	0.27 U	0.0041 U	0.25 U	0.24 U	0.25 U	0.0042 U	0.0043 U	0.0039 U	0.0032 U	0.0031 UJ	0.0033 U	0.0037 U	
Isopropylbenzene (Cumene)	0.00017 J	0.00014 J	0.0015 UJ	0.00089 U	0.00098 U	0.067 U	0.067 U	0.0010 U	0.064 U	0.061 U	0.063 U	0.0010 U	0.0011 U	0.00098 U	0.00081 U	0.00078 U	0.00083 U	0.00093 U	
Methyl Ethyl Ketone (2-Butanone)	0.011 U	0.0084 U	0.0043 J	0.0089 U	0.0098 U	0.67 U	0.67 U	0.01 U	0.64 U	0.61 U	0.63 U	0.01 U	0.011 U	0.0098 U	0.0081 U	0.0078 UJ	0.0083 U	0.0093 U	
Methyl Isobutyl Ketone (4-Methyl-2-Pentanone)	0.011 U	0.0084 U	0.015 UJ	0.0089 U	0.0098 U	0.67 U	0.67 U	0.01 U	0.64 U	0.61 U	0.63 U	0.01 U	0.011 U	0.0098 U	0.0081 U	0.0078 UJ	0.0083 U	0.0093 U	
Methyl tert-butyl Ether (MTBE)	0.0023 U	0.0017 U	0.0031 UJ	0.0018 U	0.0020 U	0.13 U	0.13 U	0.0020 U	0.13 U	0.12 U	0.12 U	0.0021 UJ	0.0022 UJ	0.0020 U	0.0016 U	0.0016 U	0.0016 U	0.0019 U	
Methylene Chloride	0.0057 U	0.0042 U	0.0077 UJ	0.0045 U	0.0049 U	0.33 U	0.34 U	0.0051 U	0.32 U	0.3 U	0.31 U	0.0053 U	0.0054 U	0.0049 U	0.0040 U	0.0039 U	0.0041 U	0.0046 U	
Naphthalene	0.0046 U	0.0033 U	0.015 J	0.0036 U	0.0039 U	0.27 U	0.27 U	0.0041 U	0.25 U	0.24 U	0.25 U	0.0042 U	0.0043 U	0.0039 U	0.0032 U	0.0031 UJ	0.0033 U	0.0037 U	
n-Propylbenzene	0.0011 U	0.00084 U	0.0015 UJ	0.00089 U	0.00098 U	0.067 U	0.067 U	0.0010 U	0.064 U	0.061 U	0.063 U	0.0010 U	0.0011 U	0.00098 U	0.00081 U	0.00078 U	0.00083 U	0.00093 U	
p-Isopropyltoluene	0.0011 U	0.00084 U	0.0029 J	0.00089 U	0.00098 U	0.067 U	0.067 U	0.0010 U	0.064 U	0.061 U	0.063 U	0.0010 U	0.0011 U	0.00098 U	0.00081 U	0.00078 UJ	0.00083 U	0.00093 U	
Styrene	0.0011 U	0.00084 U	0.0015 UJ	0.00089 U	0.00098 U	0.067 U	0.067 U	0.0010 U	0.064 U	0.061 U	0.063 U	0.0010 U	0.0011 U	0.00098 U	0.00050 U	0.00048 U	0.00083 U	0.00093 U	
Tetrachloroethene	0.00057 U	0.00042 U	0.00077 UJ	0.00045 U	0.00049 U	0.033 U	0.034 U	0.00051 U	0.032 U	0.03 U	0.031 U	0.00053 U	0.00054 U	0.00049 U	0.00040 U	0.00039 U	0.00033 J	0.00046 U	
Toluene	0.0011 U	0.00084 U	0.0015 UJ	0.00089 U	0.00098 U	0.067 U	0.067 U	0.0010 U	0.064 U	0.061 U	0.063 U	0.0010 U	0.0011 U	0.00098 U	0.00081 U	0.00078 U	0.00083 U	0.00093 U	
Trichloroethene	0.0041	0.0049	0.0017 J	0.024	0.00049 U	10	0.78	0.00049 J	3.8	2.8	3.7	1.9	1.8	0.00049 U	0.0021	0.012 J	0.05	0.0014	
Trichlorofluoromethane	0.0046 U	0.0033 U	0.0061 UJ	0.0036 U	0.0039 U	0.27 U	0.27 U	0.0041 U	0.25 U	0.24 U	0.25 U	0.0042 U	0.0043 U	0.0039 U	0.0032 U	0.0031 U	0.0033 U	0.0037 U	
Vinyl Acetate	0.011 U	0.0084 U	0.015 UJ	0.0089 U	0.0098 U	0.67 U	0.67 U	0.01 U	0.64 U	0.61 U	0.63 U	0.01 UJ	0.011 UJ	0.0098 U	0.0081 U	0.0078 UJ	0.0083 U	0.0093 U	
Vinyl Chloride	0.0011 U	0.00034 J	0.0015 UJ	0.00089 U	0.00098 U	0.033 J	0.27	0.0010 U	0.064 U	0.061 U	0.063 U	0.0010 U	0.00069 J	0.00043 J	0.00081 U	0.00078 U	0.00083 U	0.0073	
Xylene, m- & p-	0.0012 J	0.0011 J	0.0031 UJ	0.0018 U	0.0020 U	0.13 U	0.13 U	0.0020 U	0.13 U	0.12 U	0.12 U	0.0021 U	0.0022 U	0.0020 U	0.0016 U	0.0016 U	0.0016 U	0.0019 U	
Xylene, o-	0.0011 U	0.00084 U	0.0015 UJ	0.00089 U	0.00098 U	0.067 U	0.067 U	0.0010 U	0.064 U	0.061 U	0.063 U	0.0010 U	0.0011 U	0.00098 U	0.00081 U	0.00078 U	0.00083 U	0.00093 U	
Xylenes, Total	0.0012 J	0.0011 J	0.0031 UJ	0.0018 U	0.0020 U	0.13 U	0.13 U	0.0020 U	0.13 U	0.12 U	0.12 U	0.0021 U	0.0022 U	0.0020 U	0.0016 U	0.0016 U	0.0016 U	0.0019 U	
Total CBTEX	0.04568	0.04953	0.0031 UJ	0.0018 U	0.0020 U	0.13 U	0.13 U	0.0020 U	0.031	0.016	0.12 U	0.0026	0.0033	0.0020 U	0.0016 U	0.0016 U	0.0016 U	0.00039 J	
Total CVOC	0.0056	0.00684	0.0017	0.0257	0.00098 U	18.428	5.901	0.00049	4.49	3.376	4.1	1.94658	1.85729	0.00043	0.00229	0.0144	0.05784	0.01187	
Total VOC	0.05311	0.05845	0.1739	0.0257	0.0068	18.428	5.901	0.00049	4.521	3.392	4.1	1.95518	1.86059	0.00628	0.00279	0.02168	0.05784	0.02106	

Table 2-2a. Historical Soil Data: Volatile Organic Compounds

Essex-Hope Site, Jamestown, New York

Location ID	DPT-079	DPT-079	DPT-079	DPT-080	DPT-080	DPT-080	DPT-080	DPT-080	DPT-080	DPT-080	DPT-082	DPT-082	DPT-082	DPT-082	DPT-082	DPT-082	DPT-082	DPT-082
Sample Depth (feet bgs)	28 - 29	36 - 37	42 - 43	6 - 7	13 - 14	20 - 21	23 - 24	25 - 26	35 - 36	42 - 43	8 - 9	8 - 9	15 - 16	23 - 24	31 - 32	35 - 37	47 - 48	47 - 48
Sample Date	8/23/2022	8/23/2022	8/23/2022	8/24/2022	8/24/2022	8/24/2022	8/24/2022	8/24/2022	8/24/2022	8/24/2022	8/24/2022	8/24/2022	8/24/2022	8/24/2022	8/25/2022	8/25/2022	8/25/2022	8/25/2022
Sample Type	N	N	N	N	N	N	N	N	N	N	N	FD	N	N	N	N	N	FD
Operable Unit	OU-01	OU-01	OU-01	OU-01	OU-01	OU-01	OU-01	OU-01	OU-01	OU-01	OU-01	OU-01	OU-01	OU-01	OU-01	OU-01	OU-01	OU-01
Geologic Unit	Deep Sandy Silt	Deep Sandy Silt	Deep Sandy Silt	Shallow Sand and Gravel	Shallow Sand and Gravel	Shallow Silty Clay	Deep Silty Sand	Deep Silty Sand	Deep Silty Sand	Deep Silty Sand	Shallow Sand and Gravel	Shallow Sand and Gravel	Shallow Silty Clay	Deep Sandy Silt	Deep Sandy Silt	Deep Sandy Silt	Deep Sandy Silt	Deep Sandy Silt
Analyte																		
1,1,1,2-Tetrachloroethane	0.00049 U	0.00053 U	0.00052 U	0.00040 U	0.023 U	0.29 U	0.28 U	0.00056 U	0.00057 U	0.00057 UJ	0.025 U	0.026 U	0.00050 U	0.033 U	0.00055 U	0.00050 U	0.00053 U	0.00054 U
1,1,1-Trichloroethane	0.00049 U	0.00053 U	0.00052 U	0.00040 U	0.023 U	0.29 U	0.28 U	0.00056 U	0.00057 U	0.00057 U	0.025 U	0.026 U	0.00050 U	0.033 U	0.00055 U	0.00050 U	0.00053 U	0.00054 U
1,1,2,2-Tetrachloroethane	0.00049 U	0.00053 U	0.00052 U	0.00040 U	0.023 U	0.29 U	0.28 U	0.00056 U	0.00057 U	0.00057 U	0.025 U	0.026 U	0.00050 U	0.033 U	0.00055 U	0.00050 U	0.00053 U	0.00054 U
1,1,2-Trichloroethane	0.00098 U	0.0011 U	0.0010 U	0.00081 U	0.047 U	0.58 U	0.56 U	0.0011 U	0.0011 U	0.0011 U	0.05 U	0.052 U	0.0010 U	0.066 U	0.0011 U	0.0010 U	0.0011 U	0.0011 U
1,1-Dichloroethane	0.00016 J	0.0011 U	0.0010 U	0.00081 U	0.047 U	0.58 U	0.56 U	0.0011 U	0.00023 J	0.0011 U	0.05 U	0.052 U	0.0010 U	0.066 U	0.0011 U	0.0010 U	0.0011 U	0.0011 U
1,1-Dichloroethene	0.00098 U	0.0021	0.0010 U	0.00081 U	0.011 J	0.21 J	1.3	0.0068	0.0011 U	0.0011 U	0.05 U	0.052 U	0.0010 U	0.066 U	0.0011 U	0.0010 U	0.0011 U	0.0011 U
1,1-Dichloropropene	0.00049 U	0.00053 U	0.00052 U	0.00040 U	0.023 U	0.29 U	0.28 U	0.00056 U	0.00057 U	0.00057 U	0.025 U	0.026 U	0.00050 U	0.033 U	0.00055 U	0.00050 U	0.00053 U	0.00054 U
1,2,3-Trichlorobenzene	0.0020 U	0.0021 U	0.0021 U	0.0016 U	0.094 U	1.2 U	1.1 U	0.0022 U	0.0023 U	0.0023 UJ	0.099 U	0.1 U	0.0020 U	0.13 U	0.0022 U	0.0020 UJ	0.0021 U	0.0022 U
1,2,3-Trichloropropane	0.0020 U	0.0021 U	0.0021 U	0.0016 U	0.094 U	1.2 U	1.1 U	0.0022 U	0.0023 U	0.0023 U	0.099 U	0.1 U	0.0020 U	0.13 U	0.0022 U	0.0020 U	0.0021 U	0.0022 U
1,2,4-Trichlorobenzene	0.0020 U	0.0021 U	0.0021 U	0.0016 U	0.094 U	1.2 U	1.1 U	0.0022 U	0.0023 U	0.0023 UJ	0.099 U	0.1 U	0.0020 U	0.13 U	0.0022 U	0.0020 UJ	0.0021 U	0.0022 U
1,2,4-Trimethylbenzene	0.0020 U	0.0021 U	0.0021 U	0.0016 U	0.27	8.6	120	0.0085	0.0079	0.00062 J	3.9	2.9	0.00037 J	0.13 U	0.0016 J	0.00060 J	0.0021 U	0.0022 U
1,2-Dibromo-3-Chloropropane	0.0029 U	0.0032 U	0.0031 U	0.0024 U	0.14 U	1.7 U	1.7 U	0.0034 UJ	0.0034 U	0.0034 UJ	0.15 UJ	0.16 UJ	0.0030 U	0.2 UJ	0.0033 U	0.0030 UJ	0.0032 UJ	0.0033 UJ
1,2-Dibromoethane (Ethylene Dibromide)	0.00098 U	0.0011 U	0.0010 U	0.00081 U	0.047 U	0.58 U	0.56 U	0.0011 U	0.0011 U	0.0011 UJ	0.05 U	0.052 U	0.0010 U	0.066 U	0.0011 U	0.0010 U	0.0011 U	0.0011 U
1,2-Dichlorobenzene	0.0020 U	0.0021 U	0.0021 U	0.0016 U	0.094 U	1.2 U	1.1 U	0.0022 U	0.0023 U	0.0023 UJ	0.099 U	0.1 U	0.0020 U	0.13 U	0.0022 U	0.0020 UJ	0.0021 U	0.0022 U
1,2-Dichloroethane	0.0010	0.00058 J	0.0010 U	0.00081 U	0.047 U	0.58 U	0.56 U	0.0011 U	0.0011 U	0.0011 U	0.05 U	0.052 U	0.0074	0.066 U	0.0011 U	0.0010 U	0.0011 U	0.0011 U
1,2-Dichloroethene, cis-	0.0020	0.09	0.017	0.00015 J	1.9	15	38	1.9	0.0014	0.00029 J	0.05 U	0.052 U	0.0021	0.066 U	0.0011 U	0.0010 U	0.0011 U	0.0011 U
1,2-Dichloroethene, Total	0.0030 J	0.098	0.018	0.00015 J	1.9	15	38.2	1.9	0.0014	0.00029 J	0.074 U	0.078 U	0.0021	0.099 U	0.0016 U	0.0015 U	0.0016 U	0.0016 U
1,2-Dichloroethene, trans-	0.0010 J	0.0079	0.00054 J	0.0012 U	0.0075 J	0.86 U	0.24 J	0.013	0.0017 U	0.0017 U	0.074 U	0.078 U	0.0015 U	0.099 U	0.0016 U	0.0015 U	0.0016 U	0.0016 U
1,2-Dichloropropane	0.00098 U	0.0011 U	0.0010 U	0.00081 U	0.047 U	0.58 U	0.56 U	0.0011 U	0.0011 U	0.0011 U	0.05 U	0.052 U	0.0010 U	0.066 U	0.0011 U	0.0010 U	0.0011 U	0.0011 U
1,3,5-Trimethylbenzene (Mesitylene)	0.0020 U	0.0021 U	0.0021 U	0.0016 U	0.019 J	2.2	37	0.0029	0.0025	0.00022 J	1.1	0.88	0.0020 U	0.13 U	0.00051 J	0.00020 J	0.0021 U	0.0022 U
1,3-Dichlorobenzene	0.0020 U	0.0021 U	0.0021 U	0.0016 U	0.094 U	1.2 U	1.1 U	0.0022 U	0.0023 U	0.0023 UJ	0.099 U	0.1 U	0.0020 U	0.13 U	0.0022 U	0.0020 UJ	0.0021 U	0.0022 U
1,3-Dichloropropane	0.0020 U	0.0021 U	0.0021 U	0.0016 U	0.094 U	1.2 U	1.1 U	0.0022 U	0.0023 U	0.0023 U	0.099 U	0.1 U	0.0020 U	0.13 U	0.0022 U	0.0020 U	0.0021 U	0.0022 U
1,3-Dichloropropene, cis-	0.00049 U	0.00053 U	0.00052 U	0.00040 U	0.023 U	0.29 U	0.28 U	0.00056 U	0.00057 U	0.00057 U	0.025 U	0.026 U	0.00050 U	0.033 U	0.00055 U	0.00050 U	0.00053 U	0.00054 U
1,3-Dichloropropene, Total	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1,3-Dichloropropene, trans-	0.00098 U	0.0011 U	0.0010 U	0.00081 U	0.047 U	0.58 U	0.56 U	0.0011 U	0.0011 U	0.0011 UJ	0.05 U	0.052 U	0.0010 U	0.066 U	0.0011 U	0.0010 U	0.0011 U	0.0011 U
1,4-Dichlorobenzene	0.0020 U	0.0021 U	0.0021 U	0.0016 U	0.094 U	1.2 U	1.1 U	0.0022 UJ	0.0023 U	0.0023 UJ	0.099 UJ	0.1 UJ	0.0020 U	0.13 UJ	0.0022 U	0.0020 UJ	0.0021 UJ	0.0022 UJ
1,4-Dioxane (p-Dioxane)	0.078 UJ	0.085 UJ	0.083 UJ	0.065 U	3.8 U	46 U	45 U	0.09 UJ	0.091 U	0.091 U	4 UJ	4.1 UJ	0.081 U	5.3 UJ	0.088 U	0.08 UJ	0.085 UJ	0.087 UJ
2,2-Dichloropropane	0.0020 U	0.0021 U	0.0021 U	0.0016 U	0.094 U	1.2 U	1.1 U	0.0022 U	0.0023 U	0.0023 U	0.099 U	0.1 U	0.0020 U	0.13 U	0.0022 U	0.0020 U	0.0021 U	0.0022 U
2-Chlorotoluene	0.0020 U	0.0021 U	0.0021 U	0.0016 U	0.094 U	1.2 U	1.1 U	0.0022 U	0.0023 U	0.0023 UJ	0.099 U	0.1 U	0.0020 U	0.13 U	0.0022 U	0.0020 U	0.0021 U	0.0022 U
2-Hexanone	0.0098 U	0.011 U	0.01 U	0.0081 U	0.47 U	5.8 U	5.6 U	0.011 U	0.011 U	0.011 U	0.5 U	0.52 U	0.01 U	0.66 U	0.011 U	0.01 U	0.011 U	0.011 U
4-Chlorotoluene	0.0020 U	0.0021 U	0.0021 U	0.0016 U	0.094 U	1.2 U	1.1 U	0.0022 U	0.0023 U	0.0023 UJ	0.099 U	0.1 U	0.0020 U	0.13 U	0.0022 U	0.0020 UJ	0.0021 U	0.0022 U
Acetone	0.0070 J	0.011 U	0.01 U	0.0052 J	0.47 U	5.8 U	5.6 U	0.0083 J	0.011 U	0.011 U	0.5 U	0.52 U	0.0064 J	0.66 U	0.011 U	0.01 U	0.011 U	0.011 U
Benzene	0.0027	0.0019	0.00052 U	0.00040 U	0.023 U	0.29 U	0.28 U	0.00032 J	0.0048	0.00057 U	0.025 U	0.026 U	0.014	0.033 U	0.0085	0.014	0.00053 U	0.00054 U
Bromobenzene	0.0020 U	0.0021 U	0.0021 U	0.0016 U	0.094 U	1.2 U	1.1 U	0.0022 U	0.0023 U	0.0023 UJ	0.099 U	0.1 U	0.0020 U	0.13 U	0.0022 U	0.0020 UJ	0.0021 U	0.0022 U
Bromodichloromethane	0.00049 U	0.00053 U	0.00052 U	0.00040 U	0.023 U	0.29 U	0.28 U	0.00056 U	0.00057 U	0.00057 UJ	0.025 U	0.026 U	0.00050 U	0.033 U	0.00055 U	0.00050 U	0.00053 U	0.00054 U
Bromoform	0.0039 U	0.0042 U	0.0042 U	0.0032 U	0.19 U	2.3 U	2.3 U	0.0045 U	0.0045 U	0.0045 UJ	0.2 U	0.21 U	0.0040 U	0.26 U	0.0044 U	0.0040 UJ	0.0042 U	0.0044 U
Bromomethane	0.0020 U	0.0021 U	0.0021 U	0.0016 U	0.094 U	1.2 U	1.1 U	0.0022 U	0.0023 U	0.0023 U	0.099 U	0.1 U	0.0020 U	0.13 U	0.0022 U	0.0020 U	0.0021 U	0.0022 U
Butylbenzene, n-	0.00098 U	0.0011 U	0.0010 U	0.00081 U	0.026 J	0.58 U	2.1	0.0011 U	0.0011 U	0.0011 UJ	0.8	0.48	0.0010 U	0.066 U	0.0011 U	0.0010 UJ	0.0011 U	0.0011 U
Butylbenzene, sec-	0.00098 U	0.0011 U	0.0010 U	0.00081 U	0.043 J	0.58 U	0.56 U	0.0011 U	0.0011 U	0.0011 UJ	0.13	0.14	0.0010 U	0.066 U	0.0011 U	0.0010 UJ	0.0011 U	0.0011 U
Butylbenzene, t-	0.0020 U	0.0021 U	0.0021 U	0.0016 U	0.094 U	1.2 U	1.1 U	0.0022 U	0.0023 U	0.0023 UJ	0.099 U	0.1 U	0.0020 U	0.13 U	0.0022 U	0.0020 U	0.0021 U	0.0022 U
Carbon Disulfide	0.0098 U	0.011 U	0.01 U	0.0081 U	0.47 U	5.8 U	5.6 U	0.0061 J	0.011 U	0.011 U	0.5 U	0.52 U	0.01 U	0.66 U	0.011 U	0.01 U	0.011 U	0.011 U

Table 2-2a. Historical Soil Data: Volatile Organic Compounds

Essex-Hope Site, Jamestown, New York

Location ID	DPT-079	DPT-079	DPT-079	DPT-080	DPT-080	DPT-080	DPT-080	DPT-080	DPT-080	DPT-080	DPT-082	DPT-082	DPT-082	DPT-082	DPT-082	DPT-082	DPT-082	DPT-082
Sample Depth (feet bgs)	28 - 29	36 - 37	42 - 43	6 - 7	13 - 14	20 - 21	23 - 24	25 - 26	35 - 36	42 - 43	8 - 9	8 - 9	15 - 16	23 - 24	31 - 32	35 - 37	47 - 48	47 - 48
Sample Date	8/23/2022	8/23/2022	8/23/2022	8/24/2022	8/24/2022	8/24/2022	8/24/2022	8/24/2022	8/24/2022	8/24/2022	8/24/2022	8/24/2022	8/24/2022	8/24/2022	8/25/2022	8/25/2022	8/25/2022	8/25/2022
Sample Type	N	N	N	N	N	N	N	N	N	N	N	FD	N	N	N	N	N	FD
Operable Unit	OU-01	OU-01	OU-01	OU-01	OU-01	OU-01	OU-01	OU-01	OU-01	OU-01	OU-01	OU-01	OU-01	OU-01	OU-01	OU-01	OU-01	OU-01
Geologic Unit	Deep Sandy Silt	Deep Sandy Silt	Deep Sandy Silt	Shallow Sand and Gravel	Shallow Sand and Gravel	Shallow Silty Clay	Deep Silty Sand	Deep Silty Sand	Deep Silty Sand	Deep Silty Sand	Shallow Sand and Gravel	Shallow Sand and Gravel	Shallow Silty Clay	Deep Sandy Silt	Deep Sandy Silt	Deep Sandy Silt	Deep Sandy Silt	Deep Sandy Silt
Analyte																		
Carbon Tetrachloride	0.00098 U	0.0011 U	0.0010 U	0.00081 U	0.047 U	0.58 U	0.56 U	0.0011 UJ	0.0011 U	0.0011 U	0.05 UJ	0.052 UJ	0.0010 U	0.066 UJ	0.0011 U	0.0010 UJ	0.0011 UJ	0.0011 UJ
Chlorobenzene	0.00049 U	0.00053 U	0.00052 U	0.00040 U	0.023 U	0.29 U	0.28 U	0.00056 U	0.00057 U	0.00057 UJ	0.025 U	0.026 U	0.00050 U	0.033 U	0.0020	0.00050 U	0.00053 U	0.00054 U
Chlorobromomethane	0.0020 U	0.0021 U	0.0021 U	0.0016 U	0.094 U	1.2 U	1.1 U	0.0022 U	0.0023 U	0.0023 U	0.099 U	0.1 U	0.0020 U	0.13 U	0.0022 U	0.0020 U	0.0021 U	0.0022 U
Chloroethane	0.0020 U	0.0021 U	0.0021 U	0.0016 U	0.094 U	1.2 U	1.1 U	0.0022 U	0.0023 U	0.0023 U	0.099 U	0.1 U	0.0020 U	0.13 U	0.0022 U	0.0020 U	0.0021 U	0.0022 U
Chloroform	0.0015 U	0.0016 U	0.0016 U	0.0012 U	0.07 U	0.86 U	0.85 U	0.0017 U	0.0017 U	0.0017 U	0.074 U	0.078 U	0.0015 U	0.099 U	0.0016 U	0.0015 U	0.0016 U	0.0016 U
Chloromethane	0.0039 U	0.0042 U	0.0042 U	0.0032 U	0.19 U	2.3 U	2.3 U	0.0045 U	0.0045 U	0.0045 U	0.2 U	0.21 U	0.0040 U	0.26 U	0.0044 U	0.0040 U	0.0042 U	0.0044 U
Dibromochloromethane	0.00098 U	0.0011 U	0.0010 U	0.00081 U	0.047 U	0.58 U	0.56 U	0.0011 U	0.0011 U	0.0011 UJ	0.05 U	0.052 U	0.0010 U	0.066 U	0.0011 U	0.0010 U	0.0011 U	0.0011 U
Dibromomethane (Methylene Bromide)	0.0020 U	0.0021 U	0.0021 U	0.0016 U	0.094 U	1.2 U	1.1 U	0.0022 U	0.0023 U	0.0023 U	0.099 U	0.1 U	0.0020 U	0.13 U	0.0022 U	0.0020 U	0.0021 U	0.0022 U
Dichlorodifluoromethane	0.0098 UJ	0.011 UJ	0.01 UJ	0.0081 U	0.47 U	5.8 U	5.6 U	0.011 U	0.011 U	0.011 U	0.5 U	0.52 U	0.01 U	0.66 U	0.011 U	0.01 U	0.011 U	0.011 U
Ethylbenzene	0.00098 U	0.0011 U	0.0010 U	0.00081 U	0.015 J	0.16 J	0.42 J	0.00066 J	0.0011 U	0.0011 UJ	16 J	8.4 J	0.0023	4.2	0.0082	0.0026	0.0011 U	0.0011 U
Hexachlorobutadiene	0.0039 U	0.0042 U	0.0042 U	0.0032 U	0.19 U	2.3 U	2.3 U	0.0045 U	0.0045 U	0.0045 UJ	0.2 U	0.21 U	0.0040 U	0.26 U	0.0044 U	0.0040 UJ	0.0042 U	0.0044 U
Isopropylbenzene (Cumene)	0.00098 U	0.0011 U	0.0010 U	0.00081 U	0.081	0.14 J	1.3	0.00036 J	0.00019 J	0.0011 UJ	1.5	1.1	0.00026 J	0.0072 J	0.00077 J	0.00030 J	0.0011 U	0.0011 U
Methyl Ethyl Ketone (2-Butanone)	0.0098 U	0.011 U	0.01 U	0.0081 U	0.47 U	5.8 U	5.6 U	0.011 U	0.011 U	0.011 U	0.5 U	0.52 U	0.01 U	0.66 U	0.011 U	0.01 U	0.011 U	0.011 U
Methyl Isobutyl Ketone (4-Methyl-2-Pentanone)	0.0098 U	0.011 U	0.01 U	0.0081 U	0.47 U	5.8 U	5.6 U	0.011 U	0.011 U	0.011 U	0.5 U	0.52 U	0.01 U	0.66 U	0.011 U	0.01 U	0.011 U	0.011 U
Methyl tert-butyl Ether (MTBE)	0.0020 U	0.0021 U	0.0021 U	0.0016 U	0.094 U	1.2 U	1.1 U	0.0022 UJ	0.0023 U	0.0023 U	0.099 UJ	0.1 UJ	0.0020 U	0.13 UJ	0.0022 U	0.0020 UJ	0.0021 UJ	0.0022 UJ
Methylene Chloride	0.0049 U	0.0053 U	0.0052 U	0.0040 U	0.23 U	2.9 U	2.8 U	0.0056 U	0.0057 U	0.0057 U	0.25 U	0.26 U	0.0050 U	0.33 U	0.0055 U	0.0050 U	0.0053 U	0.0054 U
Naphthalene	0.0039 U	0.0042 U	0.0042 U	0.0032 U	0.19 U	2.3 U	0.67 J	0.0045 U	0.0045 U	0.0045 UJ	2.4	1.7	0.0040 U	0.26 U	0.00072 J	0.0040 UJ	0.0042 U	0.0044 U
n-Propylbenzene	0.00098 U	0.0011 U	0.0010 U	0.00081 U	0.18	1.4	19	0.0017	0.0013	0.0011 UJ	1.4	1.2	0.0010 U	0.066 U	0.00053 J	0.00024 J	0.0011 U	0.0011 U
p-Isopropyltoluene	0.00098 U	0.0011 U	0.0010 U	0.00081 U	0.0053 J	0.58 U	2.2	0.0011 U	0.0011 U	0.0011 UJ	0.12	0.12	0.0010 U	0.066 U	0.0011 U	0.0010 UJ	0.0011 U	0.0011 U
Styrene	0.00098 U	0.00063 U	0.0010 U	0.00081 U	0.047 U	0.58 U	0.56 U	0.0011 U	0.0011 U	0.0011 UJ	0.05 U	0.052 U	0.0010 U	0.066 U	0.0011 U	0.0010 U	0.0011 U	0.0011 U
Tetrachloroethene	0.00049 U	0.00053 U	0.00052 U	0.00040 U	0.01 J	1	1.8	0.00056 U	0.00057 U	0.00057 UJ	0.025 U	0.026 U	0.00050 U	0.033 U	0.00055 U	0.00050 UJ	0.00053 U	0.00054 U
Toluene	0.00098 U	0.0011 U	0.0010 U	0.00081 U	0.047 U	0.34 J	0.46 J	0.0011 U	0.0011 U	0.0011 UJ	0.05 U	0.052 U	0.0010 U	0.066 U	0.0011 U	0.0010 U	0.0011 U	0.0011 U
Trichloroethene	0.00049 U	0.00053 U	0.00052 U	0.0036	4.5	1200	290	0.085	0.032	0.0063	0.025 U	0.026 U	0.00050 U	0.033 U	0.00055 U	0.00050 U	0.00053 U	0.00054 U
Trichlorofluoromethane	0.0039 U	0.0042 U	0.0042 U	0.0032 U	0.19 U	2.3 U	2.3 U	0.0045 U	0.0045 U	0.0045 U	0.2 U	0.21 U	0.0040 U	0.26 U	0.0044 U	0.0040 U	0.0042 U	0.0044 U
Vinyl Acetate	0.0098 U	0.011 U	0.01 U	0.0081 U	0.47 U	5.8 U	5.6 U	0.011 UJ	0.011 U	0.011 UJ	0.5 UJ	0.52 UJ	0.01 U	0.66 UJ	0.011 U	0.01 UJ	0.011 UJ	0.011 UJ
Vinyl Chloride	0.0015	0.00082 J	0.00066 J	0.00081 U	0.1	1.3	1.9	0.09	0.0011 U	0.0011 U	0.05 U	0.052 U	0.0027	0.066 U	0.0011 U	0.0010 U	0.0011 U	0.0011 U
Xylene, m- & p-	0.0020 U	0.0021 U	0.0021 U	0.0016 U	0.094 U	0.57 J	0.59 J	0.00075 J	0.0023 U	0.0023 UJ	33 J	11 J	0.0044	0.09 J	0.016	0.0038	0.0021 U	0.0022 U
Xylene, o-	0.00098 U	0.0011 U	0.0010 U	0.00081 U	0.047 U	0.28 J	0.43 J	0.0011 U	0.0011 U	0.0011 UJ	0.023 J	0.052 U	0.0010 U	0.066 U	0.00063 J	0.0010 U	0.0011 U	0.0011 U
Xylenes, Total	0.00098 U	0.0011 U	0.0010 U	0.00081 U	0.047 U	0.85 J	1.02 J	0.00075 J	0.0023 U	0.0023 UJ	33 J	11 J	0.0044	0.09 J	0.01663 J	0.0038	0.0021 U	0.0022 U
Total CBTEX	0.0027	0.0019	0.0010 U	0.00081 U	0.096	1.49 J	3.20	0.00209 J	0.00499	0.0023 UJ	50.5 J	20.5 J	0.02096	4.2972	0.0341	0.0207	0.0021 U	0.0022 U
Total CVOC	0.0045	0.10082	0.0182	0.00375	6.5285	1217.51	333.24	2.0948	0.0334	0.00659	0.05 U	0.052 U	0.0048	0.066 U	0.0011 U	0.0010 U	0.0011 U	0.0011 U
Total VOC	0.01536	0.10393	0.0182	0.00895	7.1678	1231.2	517.41	2.12439	0.05032	0.00743	60.373	27.92	0.03993	4.2972	0.03946	0.02174	0.011 UJ	0.011 UJ

Table 2-2a. Historical Soil Data: Volatile Organic Compounds

Essex-Hope Site, Jamestown, New York

Location ID	DPT-083	DPT-083	DPT-083	DPT-083	DPT-083	DPT-083	DPT-88	DPT-88	DPT-88	DPT-88	DPT-88	DPT-88	DPT-88	DPT-88	DPT-88	MW-111D
Sample Depth (feet bgs)	5 - 6	11 - 12	18 - 19	24 - 25	37 - 38	37 - 38	9 - 10	14 - 15	18 - 20	22 - 23	27 - 28	18 - 20	35 - 36	44 - 45	49 - 50	2 - 4
Sample Date	8/25/2022	8/25/2022	8/25/2022	8/25/2022	8/25/2022	8/25/2022	10/18/2022	10/18/2022	10/18/2022	10/18/2022	10/18/2022	10/18/2022	10/18/2022	10/18/2022	10/18/2022	10/13/2016
Sample Type	N	N	N	N	N	FD	N	N	N	N	N	FD	N	N	N	N
Operable Unit	OU-01	OU-01	OU-01	OU-01	OU-01	OU-01	OU-01	OU-01	OU-01	OU-01	OU-01	OU-01	OU-01	OU-01	OU-01	OU-01
Geologic Unit	Shallow Sand and Gravel	Shallow Silty Clay	Deep Sandy Silt	Deep Sandy Silt	Deep Sandy Silt	Deep Sandy Silt	Deep Sandy Silt	Deep Sandy Silt	Deep Sandy Silt	Shallow Sand and Gravel	Deep Sandy Silt	Deep Sandy Silt	Deep Sandy Silt	Deep Sandy Silt	Deep Silty Clay	Shallow Sand and Gravel
Analyte																
1,1,1,2-Tetrachloroethane	0.00042 U	0.027 U	0.00050 U	0.00049 U	0.00048 U	0.00048 U	0.00046 U	0.028 U	0.00050 U	0.00051 U	0.00057 U	0.00055 U	0.00042 U	0.00037 U	0.00043 U	0.063 U
1,1,1-Trichloroethane	0.00042 U	0.027 U	0.00050 U	0.00049 U	0.00048 U	0.00048 U	0.00046 U	0.028 U	0.00050 U	0.00051 U	0.00057 U	0.00055 U	0.00042 U	0.00037 U	0.00043 U	0.063 U
1,1,2,2-Tetrachloroethane	0.00042 U	0.027 U	0.00050 U	0.00049 U	0.00048 U	0.00048 U	0.00046 U	0.028 U	0.00050 U	0.00051 U	0.00057 U	0.00055 U	0.00042 U	0.00037 U	0.00043 U	0.063 U
1,1,2-Trichloroethane	0.00085 U	0.055 U	0.00099 U	0.00097 U	0.00095 U	0.00097 U	0.00092 U	0.056 U	0.0010 U	0.0010 U	0.0011 U	0.0011 U	0.00085 U	0.00073 U	0.00086 U	0.094 U
1,1-Dichloroethane	0.00085 U	0.055 U	0.00099 U	0.00097 U	0.00095 U	0.00097 U	0.00092 U	0.056 U	0.0010 U	0.0010 U	0.00051 J	0.0011 U	0.00036 J	0.00073 U	0.00086 U	0.094 U
1,1-Dichloroethene	0.00085 U	0.055 U	0.00099 U	0.0024	0.00095 U	0.00097 U	0.00092 U	0.056 U	0.0010 U	0.0010 U	0.0011 U	0.0011 U	0.00085 U	0.00073 U	0.00086 U	0.063 U
1,1-Dichloropropene	0.00042 U	0.027 U	0.00050 U	0.00049 U	0.00048 U	0.00048 U	0.00046 U	0.028 U	0.00050 U	0.00051 U	0.00057 U	0.00055 U	0.00042 U	0.00037 U	0.00043 U	0.31 U
1,2,3-Trichlorobenzene	0.0017 U	0.11 U	0.0020 U	0.0019 U	0.0019 U	0.0019 U	0.0018 U	0.11 U	0.0020 U	0.0020 U	0.0023 U	0.0022 U	0.0017 U	0.0015 U	0.0017 U	0.31 U
1,2,3-Trichloropropane	0.0017 U	0.11 U	0.0020 U	0.0019 U	0.0019 U	0.0019 U	0.0018 U	0.11 U	0.0020 U	0.0020 U	0.0023 U	0.0022 U	0.0017 U	0.0015 U	0.0017 U	0.63 U
1,2,4-Trichlorobenzene	0.0017 U	0.11 U	0.0020 U	0.0019 U	0.0019 U	0.0019 U	0.0018 U	0.11 U	0.0020 U	0.0020 U	0.0023 U	0.0022 U	0.0017 U	0.0015 U	0.0017 U	0.31 U
1,2,4-Trimethylbenzene	0.14	0.26	0.0020 U	0.0019 U	0.0019 U	0.0019 U	0.00046 J	10	0.0010 J	0.0020 U	0.0023 U	0.00043 J	0.0017 U	0.0015 U	0.0017 U	0.25 J
1,2-Dibromo-3-Chloropropane	0.0025 UJ	0.16 UJ	0.0030 UJ	0.0029 UJ	0.0028 UJ	0.0029 UJ	0.0028 U	0.17 U	0.0030 U	0.0031 U	0.0034 U	0.0033 U	0.0026 U	0.0022 U	0.0026 U	0.31 U
1,2-Dibromoethane (Ethylene Dibromide)	0.00085 U	0.055 U	0.00099 U	0.00097 U	0.00095 U	0.00097 U	0.00092 U	0.056 U	0.0010 U	0.0010 U	0.0011 U	0.0011 U	0.00085 U	0.00073 U	0.00086 U	0.25 U
1,2-Dichlorobenzene	0.0017 U	0.11 U	0.0020 U	0.0019 U	0.0019 U	0.0019 U	0.0018 U	0.11 U	0.0020 U	0.0020 U	0.0023 U	0.0022 U	0.0017 U	0.0015 U	0.0017 U	0.31 U
1,2-Dichloroethane	0.00085 U	0.055 U	0.00099 U	0.00097 U	0.00095 U	0.00097 U	0.00092 U	0.056 U	0.0010 U	0.0010 U	0.0011 U	0.0011 U	0.00085 U	0.00073 U	0.00086 U	0.063 U
1,2-Dichloroethene, cis-	0.00085 U	0.055 U	0.00086 J	0.044	0.00095 U	0.00097 U	0.00092 U	0.056 U	0.0010 U	0.0014	0.00027 J	0.00020 J	0.00085 U	0.00073 U	0.00086 U	0.087
1,2-Dichloroethene, Total	0.0013 U	0.082 U	0.0015 U	0.0015 U	0.0014 U	0.0014 U	0.0014 U	0.085 U	0.0015 U	0.00014 J	0.00022 J	0.0017 U	0.0013 U	0.0011 U	0.0013 U	0.087
1,2-Dichloroethene, trans-	0.0013 U	0.082 U	0.0015 U	0.0015 U	0.0014 U	0.0014 U	0.0014 U	0.085 U	0.0015 U	0.00014 J	0.00022 J	0.0017 U	0.0013 U	0.0011 U	0.0013 U	0.094 U
1,2-Dichloropropane	0.00085 U	0.055 U	0.00099 U	0.00097 U	0.00095 U	0.00097 U	0.00092 U	0.056 U	0.0010 U	0.0010 U	0.0011 U	0.0011 U	0.00085 U	0.00073 U	0.00086 U	0.22 U
1,3,5-Trimethylbenzene (Mesitylene)	0.0019	0.1 J	0.0020 U	0.0019 U	0.0019 U	0.0019 U	0.0018 U	2.6	0.00035 J	0.0020 U	0.0023 U	0.0022 U	0.0017 U	0.0015 U	0.0017 U	0.062 J
1,3-Dichlorobenzene	0.0017 U	0.11 U	0.0020 U	0.0019 U	0.0019 U	0.0019 U	0.0018 U	0.11 U	0.0020 U	0.0020 U	0.0023 U	0.0022 U	0.0017 U	0.0015 U	0.0017 U	0.31 U
1,3-Dichloropropane	0.0017 U	0.11 U	0.0020 U	0.0019 U	0.0019 U	0.0019 U	0.0018 U	0.11 U	0.0020 U	0.0020 U	0.0023 U	0.0022 U	0.0017 U	0.0015 U	0.0017 U	0.31 U
1,3-Dichloropropene, cis-	0.00042 U	0.027 U	0.00050 U	0.00049 U	0.00048 U	0.00048 U	0.00046 U	0.028 U	0.00050 U	0.00051 U	0.00057 U	0.00055 U	0.00042 U	0.00037 U	0.00043 U	0.063 U
1,3-Dichloropropene, Total	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.063 U
1,3-Dichloropropene, trans-	0.00085 U	0.055 U	0.00099 U	0.00097 U	0.00095 U	0.00097 U	0.00092 U	0.056 U	0.0010 U	0.0010 U	0.0011 U	0.0011 U	0.00085 U	0.00073 U	0.00086 U	0.063 U
1,4-Dichlorobenzene	0.0017 UJ	0.11 UJ	0.0020 UJ	0.0019 UJ	0.0019 UJ	0.0019 UJ	0.0018 U	0.11 U	0.0020 U	0.0020 U	0.0023 U	0.0022 U	0.0017 U	0.0015 U	0.0017 U	0.31 U
1,4-Dioxane (p-Dioxane)	0.068 UJ	4.4 UJ	0.079 UJ	0.078 UJ	0.076 UJ	0.078 UJ	0.074 U	4.5 U	0.08 U	0.082 U	0.092 U	0.089 U	0.068 U	0.059 U	0.069 U	6.3 U
2,2-Dichloropropane	0.0017 U	0.11 U	0.0020 U	0.0019 U	0.0019 U	0.0019 U	0.0018 U	0.11 U	0.0020 U	0.0020 U	0.0023 U	0.0022 U	0.0017 U	0.0015 U	0.0017 U	0.31 U
2-Chlorotoluene	0.0017 U	0.11 U	0.0020 U	0.0019 U	0.0019 U	0.0019 U	0.0018 U	0.11 U	0.0020 U	0.0020 U	0.0023 U	0.0022 U	0.0017 U	0.0015 U	0.0017 U	0.31 U
2-Hexanone	0.0085 U	0.55 U	0.0099 U	0.0097 U	0.0095 U	0.0097 U	0.0092 U	0.56 U	0.01 U	0.01 U	0.011 U	0.011 U	0.0085 U	0.0073 U	0.0086 U	0.63 U
4-Chlorotoluene	0.0017 U	0.11 U	0.0020 U	0.0019 U	0.0019 U	0.0019 U	0.0018 U	0.11 U	0.0020 U	0.0020 U	0.0023 U	0.0022 U	0.0017 U	0.0015 U	0.0017 U	0.31 U
Acetone	0.064	0.55 U	0.0066 J	0.011	0.0095 U	0.0097 U	0.095	0.56 U	0.01 U	0.0050 J	0.0091 J	0.0055 J	0.0085 U	0.0073 U	0.0086 U	0.17 J
Benzene	0.0014	0.03	0.00050 U	0.0018	0.00048 U	0.00048 U	0.00046 U	0.028 U	0.0018	0.0041	0.0052	0.0020	0.0014	0.00037 U	0.00043 U	0.23
Bromobenzene	0.0017 U	0.11 U	0.0020 U	0.0019 U	0.0019 U	0.0019 U	0.0018 U	0.11 U	0.0020 U	0.0020 U	0.0023 U	0.0022 U	0.0017 U	0.0015 U	0.0017 U	0.31 U
Bromodichloromethane	0.00042 U	0.027 U	0.00050 U	0.00049 U	0.00048 U	0.00048 U	0.00046 U	0.028 U	0.00050 U	0.00051 U	0.00057 U	0.00055 U	0.00042 U	0.00037 U	0.00043 U	0.063 U
Bromoform	0.0034 U	0.22 U	0.0040 U	0.0039 U	0.0038 U	0.0039 U	0.0037 U	0.23 U	0.0040 U	0.0041 U	0.0046 U	0.0044 U	0.0034 U	0.0029 U	0.0034 U	0.25 U
Bromomethane	0.0017 U	0.11 U	0.0020 U	0.0019 U	0.0019 U	0.0019 U	0.0018 U	0.11 U	0.0020 U	0.0020 U	0.0023 U	0.0022 U	0.0017 U	0.0015 U	0.0017 U	0.12 U
Butylbenzene, n-	0.0035	0.055 U	0.00099 U	0.00097 U	0.00095 U	0.00097 U	0.00087 J	0.4	0.0010 U	0.00019 J	0.0011 U	0.0011 U	0.00085 U	0.00073 U	0.00086 U	0.044 J
Butylbenzene, sec-	0.0044	0.0098 J	0.00099 U	0.00097 U	0.00095 U	0.00097 U	0.0019	0.12	0.0010 U	0.00015 J	0.0011 U	0.0011 U	0.00085 U	0.00073 U	0.00086 U	0.035 J
Butylbenzene, t-	0.00079 J	0.11 U	0.0020 U	0.0019 U	0.0019 U	0.0019 U	0.00021 J	0.11 U	0.0020 U	0.0020 U	0.0023 U	0.0022 U	0.0017 U	0.0015 U	0.0017 U	0.31 U
Carbon Disulfide	0.0085 U	0.55 U	0.0099 U	0.0097 U	0.0095 U	0.0097 U	0.0092 U	0.56 U	0.01 U	0.01 U	0.011 U	0.011 U	0.0085 U	0.0073 U	0.0086 U	0.63 U

Table 2-2a. Historical Soil Data: Volatile Organic Compounds

Essex-Hope Site, Jamestown, New York

Location ID	DPT-083	DPT-083	DPT-083	DPT-083	DPT-083	DPT-083	DPT-88	DPT-88	DPT-88	DPT-88	DPT-88	DPT-88	DPT-88	DPT-88	DPT-88	MW-111D
Sample Depth (feet bgs)	5 - 6	11 - 12	18 - 19	24 - 25	37 - 38	37 - 38	9 - 10	14 - 15	18 - 20	22 - 23	27 - 28	18 - 20	35 - 36	44 - 45	49 - 50	2 - 4
Sample Date	8/25/2022	8/25/2022	8/25/2022	8/25/2022	8/25/2022	8/25/2022	10/18/2022	10/18/2022	10/18/2022	10/18/2022	10/18/2022	10/18/2022	10/18/2022	10/18/2022	10/18/2022	10/13/2016
Sample Type	N	N	N	N	N	FD	N	N	N	N	N	FD	N	N	N	N
Operable Unit	OU-01	OU-01	OU-01	OU-01	OU-01	OU-01	OU-01	OU-01	OU-01	OU-01	OU-01	OU-01	OU-01	OU-01	OU-01	OU-01
Geologic Unit	Shallow Sand and Gravel	Shallow Silty Clay	Deep Sandy Silt	Deep Sandy Silt	Deep Sandy Silt	Deep Sandy Silt	Deep Sandy Silt	Deep Sandy Silt	Deep Sandy Silt	Shallow Sand and Gravel	Deep Sandy Silt	Deep Sandy Silt	Deep Sandy Silt	Deep Sandy Silt	Deep Silty Clay	Shallow Sand and Gravel
Analyte																
Carbon Tetrachloride	0.00085 UJ	0.055 UJ	0.00099 UJ	0.00097 UJ	0.00095 UJ	0.00097 UJ	0.00092 U	0.056 U	0.0010 U	0.0010 U	0.0011 U	0.0011 U	0.00085 U	0.00073 U	0.00086 U	0.063 U
Chlorobenzene	0.00021 J	0.027 U	0.00050 U	0.00049 U	0.00048 U	0.00048 U	0.00046 U	0.028 U	0.00050 U	0.00051 U	0.00057 U	0.00055 U	0.00042 U	0.00037 U	0.00043 U	0.063 U
Chlorobromomethane	0.0017 U	0.11 U	0.0020 U	0.0019 U	0.0019 U	0.0019 U	0.0018 U	0.11 U	0.0020 U	0.0020 U	0.0023 U	0.0022 U	0.0017 U	0.0015 U	0.0017 U	0.31 U
Chloroethane	0.0017 U	0.11 U	0.0020 U	0.0019 U	0.0019 U	0.0019 U	0.0018 U	0.11 U	0.0020 U	0.0020 U	0.0023 U	0.0022 U	0.0017 U	0.0015 U	0.0017 U	0.12 U
Chloroform	0.0013 U	0.082 U	0.0015 U	0.0015 U	0.0014 U	0.0014 U	0.0014 U	0.085 U	0.0015 U	0.0015 U	0.0017 U	0.0017 U	0.0013 U	0.0011 U	0.0013 U	0.094 U
Chloromethane	0.0034 U	0.22 U	0.0040 U	0.0039 U	0.0038 U	0.0039 U	0.0037 U	0.23 U	0.0040 U	0.0041 U	0.0046 U	0.0044 U	0.0034 U	0.0029 U	0.0034 U	0.31 U
Dibromochloromethane	0.00085 U	0.055 U	0.00099 U	0.00097 U	0.00095 U	0.00097 U	0.00092 U	0.056 U	0.0010 U	0.0010 U	0.0011 U	0.0011 U	0.00085 U	0.00073 U	0.00086 U	0.063 U
Dibromomethane (Methylene Bromide)	0.0017 U	0.11 U	0.0020 U	0.0019 U	0.0019 U	0.0019 U	0.0018 U	0.11 U	0.0020 U	0.0020 U	0.0023 U	0.0022 U	0.0017 U	0.0015 U	0.0017 U	0.63 U
Dichlorodifluoromethane	0.0085 U	0.55 U	0.0099 U	0.0097 U	0.0095 U	0.0097 U	0.0092 U	0.56 U	0.01 U	0.01 U	0.011 U	0.011 U	0.0085 U	0.0073 U	0.0086 U	0.63 U
Ethylbenzene	0.019	0.14	0.00099 U	0.00097 U	0.00095 U	0.00097 U	0.00024 J	14	0.0012	0.0010 U	0.0011 U	0.00035 J	0.00085 U	0.00073 U	0.00086 U	0.18
Hexachlorobutadiene	0.0034 U	0.22 U	0.0040 U	0.0039 U	0.0038 U	0.0039 U	0.0037 U	0.23 U	0.0040 U	0.0041 U	0.0046 U	0.0044 U	0.0034 U	0.0029 U	0.0034 U	0.31 U
Isopropylbenzene (Cumene)	0.051	0.13	0.00099 U	0.00097 U	0.00095 U	0.00097 U	0.013	0.84	0.00029 J	0.00052 J	0.0011 U	0.00061 J	0.00085 U	0.00073 U	0.00086 U	0.075
Methyl Ethyl Ketone (2-Butanone)	0.0075 J	0.55 U	0.0099 U	0.0097 U	0.0095 U	0.0097 U	0.0092 U	0.56 U	0.01 U	0.01 U	0.011 U	0.011 U	0.0085 U	0.0073 U	0.0086 U	0.63 U
Methyl Isobutyl Ketone (4-Methyl-2-Pentanone)	0.0011 J	0.55 U	0.0099 U	0.0097 U	0.0095 U	0.0097 U	0.0092 U	0.56 U	0.01 U	0.01 U	0.011 U	0.011 U	0.0085 U	0.0073 U	0.0086 U	0.63 U
Methyl tert-butyl Ether (MTBE)	0.0017 UJ	0.11 UJ	0.0020 UJ	0.0019 UJ	0.0019 UJ	0.0019 UJ	0.0018 U	0.11 U	0.0020 U	0.0020 U	0.0023 U	0.0022 U	0.0017 U	0.0015 U	0.0017 U	0.12 U
Methylene Chloride	0.0042 U	0.27 U	0.0050 U	0.0049 U	0.0048 U	0.0048 U	0.0046 U	0.28 U	0.0050 U	0.0051 U	0.0057 U	0.0055 U	0.0042 U	0.0037 U	0.0043 U	0.63 U
Naphthalene	0.0025 J	0.22 U	0.0040 U	0.0039 U	0.0038 U	0.0039 U	0.00061 J	2.8	0.0040 U	0.0041 U	0.0046 U	0.0044 U	0.0034 U	0.0029 U	0.0034 U	0.41
n-Propylbenzene	0.04	0.045 J	0.00099 U	0.00097 U	0.00095 U	0.00097 U	0.016	1.7	0.00034 J	0.00056 J	0.0011 U	0.00067 J	0.00085 U	0.00012 J	0.00086 U	0.12
p-Isopropyltoluene	0.00038 J	0.011 J	0.00099 U	0.00097 U	0.00095 U	0.00097 U	0.00092 U	0.094	0.0010 U	0.0010 U	0.0011 U	0.0011 U	0.00085 U	0.00073 U	0.00086 U	0.019 J
Styrene	0.00085 U	0.055 U	0.00099 U	0.00097 U	0.00095 U	0.00097 U	0.00092 U	0.056 U	0.0010 U	0.0010 U	0.0011 U	0.0011 U	0.00085 U	0.00073 U	0.00086 U	0.12 U
Tetrachloroethene	0.00042 U	0.027 U	0.00050 U	0.00049 U	0.00048 U	0.00048 U	0.0015	0.028 U	0.00050 U	0.00051 U	0.00057 U	0.00055 U	0.00042 U	0.00037 U	0.00043 U	0.024 J
Toluene	0.03	0.055 U	0.00099 U	0.00097 U	0.00095 U	0.00097 U	0.00092 U	0.056 U	0.0010 U	0.0010 U	0.0011 U	0.0011 U	0.00085 U	0.00073 U	0.00086 U	0.81
Trichloroethene	0.00079	0.027 U	0.00050 U	0.00049 U	0.00048 U	0.00048 U	0.00046 U	0.028 U	0.00050 U	0.00051 U	0.00057 U	0.00055 U	0.00042 U	0.00037 U	0.00043 U	10
Trichlorofluoromethane	0.0034 U	0.22 U	0.0040 U	0.0039 U	0.0038 U	0.0039 U	0.0037 U	0.23 U	0.0040 U	0.0041 U	0.0046 U	0.0044 U	0.0034 U	0.0029 U	0.0034 U	0.31 U
Vinyl Acetate	0.0085 UJ	0.55 UJ	0.0099 UJ	0.0097 UJ	0.0095 UJ	0.0097 UJ	0.0092 U	0.56 U	0.01 U	0.01 U	0.011 U	0.011 U	0.0085 U	0.0073 U	0.0086 U	0.63 U
Vinyl Chloride	0.00085 U	0.055 U	0.00099 U	0.0020	0.042	0.039	0.00092 U	0.056 U	0.0010 U	0.0010 U	0.0011 U	0.0011 U	0.0011	0.0025	0.00086 U	0.12 U
Xylene, m- & p-	0.07	16	0.0020 U	0.0019 U	0.0019 U	0.0019 U	0.0018 U	52	0.0042	0.0020 U	0.0023 U	0.0011 J	0.0017 U	0.0015 U	0.0017 U	0.59
Xylene, o-	0.023	0.017 J	0.00099 U	0.00097 U	0.00095 U	0.00097 U	0.00092 U	6.7	0.00064 J	0.0010 U	0.0011 U	0.0011 U	0.00085 U	0.00073 U	0.00086 U	0.41
Xylenes, Total	0.093	16	0.0020 U	0.0019 U	0.0019 U	0.0019 U	0.0018 U	58.7	0.00484 J	0.0020 U	0.0023 U	0.0011 J	0.0017 U	0.0015 U	0.0017 U	1
Total CBTEX	0.1944	16.317	0.0020 U	0.0018	0.0019 U	0.0019 U	0.01324	73.54	0.00813	0.00462	0.0052	0.00406	0.0014	0.0015 U	0.0017 U	2.295
Total CVOC	0.00085 U	0.055 U	0.00099 U	0.0020	0.042	0.039	0.00092 U	0.056 U	0.0010 U	0.0010 U	0.0011 U	0.0011 U	0.0011	0.0025	0.00086 U	0.12 U
Total VOC	0.46147	16.7428	0.00746	0.0612	0.042	0.039	0.12979	91.254	0.00982	0.01206	0.0153	0.01086	0.00286	0.00262	0.0086 U	15 J

Table 2-2a. Historical Soil Data: Volatile Organic Compounds

Essex-Hope Site, Jamestown, New York

Location ID	MW-111D	MW-111D	MW-111D	MW-114S	MW-114S	MW-114S	MW-115D	MW-115D	MW-118D	MW-118D	MW-118D	MW-118D	MW-123D	MW-123D	MW-124S	RW-6DR
Sample Depth (feet bgs)	6 - 8	10 - 12	14 - 15	3 - 4	3 - 4	7 - 8	3 - 4	4 - 5	10.5 - 11.5	23 - 24	25 - 26	34 - 36	2 - 4	6 - 8	10 - 12	4 - 6
Sample Date	10/13/2016	10/13/2016	10/13/2016	9/22/2016	9/22/2016	9/22/2016	9/29/2016	9/29/2016	10/3/2017	10/4/2017	10/4/2017	10/4/2017	9/26/2017	9/27/2017	9/10/2019	10/11/2016
Sample Type	N	N	N	N	FD	N	N	N	N	N	N	N	N	N	N	N
Operable Unit	OU-01	OU-01	OU-01	OU-01	OU-01	OU-01	OU-01	OU-01	OU-01	OU-01	OU-01	OU-01	OU-01	OU-01	OU-01	OU-01
Geologic Unit	Shallow Sand and Gravel	Shallow Sand and Gravel	Deep Sandy Silt	Shallow Sand and Gravel	Shallow Sand and Gravel	Shallow Sand and Gravel	Shallow Sand and Gravel	Shallow Sand and Gravel	Shallow Sand and Gravel	Deep Sandy Silt	Deep Sandy Silt	Deep Sandy Silt	Shallow Sand and Gravel	Shallow Sand and Gravel	Shallow Sand and Gravel	Shallow Sand and Gravel
Analyte																
1,1,1,2-Tetrachloroethane	0.0011 U	0.061 U	3.6 U	0.0012 U	0.0012 U	0.0012 U	0.00093 U	0.11 U	0.00087 U	0.39 U	0.46 U	0.054 U	0.00093 U	0.05 U	0.053 U	0.0012 U
1,1,1-Trichloroethane	0.0011 U	0.061 U	3.6 U	0.0012 U	0.0012 U	0.0012 U	0.00093 U	0.11 U	0.00087 U	0.39 U	0.46 U	0.054 U	0.00093 U	0.05 U	0.053 U	0.0012 U
1,1,2,2-Tetrachloroethane	0.0011 U	0.061 U	3.6 U	0.0012 U	0.0012 U	--	0.00093 U	0.11 U	0.00087 U	0.39 U	0.46 U	0.054 U	0.00093 U	0.05 U	0.053 U	0.0012 U
1,1,2-Trichloroethane	0.0017 U	0.092 U	5.4 U	0.0018 U	0.0018 U	0.0018 U	0.0014 U	0.17 U	0.0013 U	0.58 U	0.69 U	0.082 U	0.0014 U	0.076 U	0.1 U	0.0018 U
1,1-Dichloroethane	0.0017 U	0.092 U	5.4 U	0.0018 U	0.0018 U	0.0018 U	0.0014 U	0.17 U	0.0013 U	0.58 U	0.69 U	0.082 U	0.0014 U	0.076 U	0.1 U	0.0018 U
1,1-Dichloroethene	0.0011 U	0.061 U	3.6 U	0.0012 U	0.0012 U	0.0012 U	0.00093 U	0.11 U	0.00087 U	0.39 U	0.46 U	0.054 U	0.00093 U	0.05 U	0.1 U	0.0012 U
1,1-Dichloropropene	0.0056 U	0.3 U	18 U	0.0059 U	0.006 U	0.0061 U	0.0046 U	0.57 U	0.0043 U	1.9 U	2.3 U	0.27 U	0.0047 U	0.25 U	0.053 U	0.0061 U
1,2,3-Trichlorobenzene	0.0056 U	0.3 U	18 U	0.0059 U	0.006 U	0.0061 UJ	0.0046 U	0.57 U	0.0043 U	1.9 U	2.3 U	0.27 UJ	0.0047 U	0.25 U	0.21 U	0.0061 U
1,2,3-Trichloropropane	0.011 U	0.61 U	36 U	0.012 U	0.012 U	0.012 U	0.0093 U	1.1 U	0.0087 U	3.9 U	4.6 U	0.54 U	0.0093 U	0.5 U	0.21 U	0.012 U
1,2,4-Trichlorobenzene	0.0056 U	0.3 U	18 U	0.0059 U	0.006 U	0.0061 UJ	0.0046 U	0.57 U	0.0043 U	1.9 U	2.3 U	0.27 UJ	0.0047 U	0.25 U	0.21 U	0.0061 U
1,2,4-Trimethylbenzene	0.0056 U	0.019 J	290	0.00059 J	0.0013 J	0.0012 J	0.0046 U	2.4	0.00033 J	2	2.3 U	0.27 UJ	0.0047 U	0.1 J	3.5	0.0061 U
1,2-Dibromo-3-Chloropropane	0.0056 U	0.3 U	18 U	0.0059 U	0.006 U	0.0061 UJ	0.0046 U	0.57 U	0.0043 U	1.9 U	2.3 U	0.27 U	0.0047 UJ	0.25 UJ	0.32 U	0.0061 U
1,2-Dibromoethane (Ethylene Dibromide)	0.0045 U	0.24 U	14 U	0.0047 U	0.0048 U	0.0049 U	0.0037 U	0.46 U	0.0035 U	1.6 U	1.8 U	0.22 U	0.0037 U	0.2 U	0.1 U	0.0049 U
1,2-Dichlorobenzene	0.0056 U	0.3 U	18 U	0.0059 U	0.006 U	0.0061 U	0.0046 U	0.57 U	0.0043 U	1.9 U	2.3 U	0.27 U	0.0047 U	0.25 U	0.21 U	0.0061 U
1,2-Dichloroethane	0.0011 U	0.061 U	3.6 U	0.0012 U	0.0012 U	0.0012 U	0.00093 U	0.11 U	0.00087 U	0.39 U	0.46 U	0.054 U	0.00093 U	0.05 U	0.1 U	0.0012 U
1,2-Dichloroethene, cis-	0.0003 J	0.02 J	3.6 U	0.0012 U	0.0012 U	0.0012 U	0.00093 U	0.11 U	0.0024	91	65	0.13	0.0035	0.034 J	0.1 U	0.0012 U
1,2-Dichloroethene, Total	0.0003 J	0.02 J	3.6 U	0.0012 U	0.0012 U	0.0012 U	0.00093 U	0.11 U	0.0024	91	65	0.13	0.0039 J	0.034 J	0.1 U	0.0012 U
1,2-Dichloroethene, trans-	0.0017 U	0.092 U	5.4 U	0.0018 U	0.0018 U	0.0018 U	0.0014 U	0.17 U	0.0013 U	0.58 U	0.69 U	0.082 U	0.00037 J	0.076 U	0.16 U	0.0018 U
1,2-Dichloropropane	0.0039 U	0.21 U	13 U	0.0041 U	0.0042 U	0.0043 U	0.0032 U	0.4 U	0.0030 U	1.4 U	1.6 U	0.19 U	0.0033 U	0.18 U	0.1 U	0.0043 U
1,3,5-Trimethylbenzene (Mesitylene)	0.0056 U	0.0098 J	72	0.0059 U	0.00061 J	0.00053 J	0.0046 U	1	0.00016 J	0.43 J	2.3 U	0.27 UJ	0.0047 U	0.019 J	0.21 U	0.0061 U
1,3-Dichlorobenzene	0.0056 U	0.3 U	18 U	0.0059 U	0.006 U	0.0061 UJ	0.0046 U	0.57 U	0.0043 U	1.9 U	2.3 U	0.27 UJ	0.0047 U	0.25 U	0.21 U	0.0061 U
1,3-Dichloropropane	0.0056 U	0.3 U	18 U	0.0059 U	0.006 U	0.0061 U	0.0046 U	0.57 U	0.0043 U	1.9 U	2.3 U	0.27 U	0.0047 U	0.25 U	0.21 U	0.0061 U
1,3-Dichloropropene, cis-	0.0011 U	0.061 U	3.6 U	0.0012 U	0.0012 U	0.0012 U	0.00093 U	0.11 U	0.00087 U	0.39 U	0.46 U	0.054 U	0.00093 U	0.05 U	0.053 U	0.0012 U
1,3-Dichloropropene, Total	0.0011 U	0.061 U	3.6 U	0.0012 U	0.0012 U	0.0012 U	0.00093 U	0.11 U	0.00087 U	0.39 U	0.46 U	0.054 U	0.00093 U	0.05 U	0.053 U	0.0012 U
1,3-Dichloropropene, trans-	0.0011 U	0.061 U	3.6 U	0.0012 U	0.0012 U	0.0012 UJ	0.00093 U	0.11 U	0.00087 U	0.39 U	0.46 U	0.054 U	0.00093 U	0.05 U	0.1 U	0.0012 U
1,4-Dichlorobenzene	0.0056 U	0.3 U	18 U	0.0059 U	0.006 U	0.0061 UJ	0.0046 U	0.57 U	0.0043 U	1.9 U	2.3 U	0.27 UJ	0.0047 U	0.25 U	0.21 U	0.0061 U
1,4-Dioxane (p-Dioxane)	0.11 U	6.1 U	360 U	0.12 U	0.12 U	0.12 U	0.093 U	11 U	0.035 UJ	16 UJ	18 UJ	2.2 UJ	0.037 U	2 U	8.4 U	0.12 U
2,2-Dichloropropane	0.0056 U	0.3 U	18 U	0.0059 U	0.006 U	0.0061 U	0.0046 U	0.57 U	0.0043 U	1.9 U	2.3 U	0.27 U	0.0047 U	0.25 U	0.21 U	0.0061 U
2-Chlorotoluene	0.0056 U	0.3 U	18 U	0.0059 U	0.006 U	0.0061 U	0.0046 U	0.57 U	0.0043 U	1.9 U	2.3 U	0.27 UJ	0.0047 U	0.25 U	0.21 U	0.0061 U
2-Hexanone	0.011 U	0.61 U	36 U	0.012 U	0.012 U	0.012 UJ	0.0093 U	1.1 U	0.0087 U	3.9 U	4.6 U	0.54 U	0.0093 U	0.5 U	1 U	0.012 U
4-Chlorotoluene	0.0056 U	0.3 U	18 U	0.0059 U	0.006 U	0.0061 U	0.0046 U	0.57 U	0.0043 U	1.9 U	2.3 U	0.27 UJ	0.0047 U	0.25 U	0.21 U	0.0061 U
Acetone	0.011 U	0.61 U	36 U	0.0075 J	0.017	0.016	0.0021 J	1.1 U	0.014 J	3.9 UJ	4.6 UJ	0.54 UJ	0.031	0.5 U	1 U	0.012 U
Benzene	0.0011 U	0.061 U	3.6 U	0.0012 U	0.0012 U	0.0012 U	0.00093 U	0.11 U	0.00058 J	0.39 U	0.46 U	0.57	0.00030 J	0.01 J	0.053 U	0.0012 U
Bromobenzene	0.0056 U	0.3 U	18 U	0.0059 U	0.006 U	0.0061 U	0.0046 U	0.57 U	0.0043 U	1.9 U	2.3 U	0.27 U	0.0047 U	0.25 U	0.21 U	0.0061 U
Bromodichloromethane	0.0011 U	0.061 U	3.6 U	0.0012 U	0.0012 U	0.0012 U	0.00093 U	0.11 U	0.00087 U	0.39 U	0.46 U	0.054 U	0.00093 U	0.05 U	0.053 U	0.0012 U
Bromoform	0.0045 U	0.24 U	14 U	0.0047 U	0.0048 U	0.0049 UJ	0.0037 U	0.46 U	0.0035 U	1.6 U	1.8 U	0.22 U	0.0037 U	0.2 U	0.42 U	0.0049 U
Bromomethane	0.0022 U	0.12 U	7.3 U	0.0023 U	0.0024 U	0.0024 U	0.0018 U	0.079 J	0.0017 U	0.78 U	0.92 U	0.11 U	0.0019 U	0.1 U	0.21 U	0.0024 U
Butylbenzene, n-	0.0011 U	0.023 J	5.2	0.0012 U	0.0012 U	0.0012 UJ	0.00093 U	0.25	0.00087 U	0.39 U	0.46 U	0.054 UJ	0.00093 U	0.014 J	0.26	0.0012 U
Butylbenzene, sec-	0.0011 U	0.04 J	3.6 U	0.0012 U	0.0012 U	0.0012 U	0.00093 U	0.11	0.00087 U	0.39 U	0.46 U	0.054 UJ	0.00093 U	0.016 J	0.12	0.0012 U
Butylbenzene, t-	0.0056 U	0.3 U	18 U	0.0059 U	0.006 U	0.0061 U	0.0046 U	0.016 J	0.0043 U	1.9 U	2.3 U	0.27 UJ	0.0047 U	0.25 U	0.018 J	0.0061 U
Carbon Disulfide	0.011 U	0.61 U	36 U	0.012 U	0.012 U	0.012 U	0.0093 U	1.1 U	0.0087 U	3.9 U	4.6 U	0.54 U	0.0093 U	0.5 U	1 U	0.012 U

Table 2-2a. Historical Soil Data: Volatile Organic Compounds

Essex-Hope Site, Jamestown, New York

Location ID	MW-111D	MW-111D	MW-111D	MW-114S	MW-114S	MW-114S	MW-115D	MW-115D	MW-118D	MW-118D	MW-118D	MW-118D	MW-123D	MW-123D	MW-124S	RW-6DR
Sample Depth (feet bgs)	6 - 8	10 - 12	14 - 15	3 - 4	3 - 4	7 - 8	3 - 4	4 - 5	10.5 - 11.5	23 - 24	25 - 26	34 - 36	2 - 4	6 - 8	10 - 12	4 - 6
Sample Date	10/13/2016	10/13/2016	10/13/2016	9/22/2016	9/22/2016	9/22/2016	9/29/2016	9/29/2016	10/3/2017	10/4/2017	10/4/2017	10/4/2017	9/26/2017	9/27/2017	9/10/2019	10/11/2016
Sample Type	N	N	N	N	FD	N	N	N	N	N	N	N	N	N	N	N
Operable Unit	OU-01	OU-01	OU-01	OU-01	OU-01	OU-01	OU-01	OU-01	OU-01	OU-01	OU-01	OU-01	OU-01	OU-01	OU-01	OU-01
Geologic Unit	Shallow Sand and Gravel	Shallow Sand and Gravel	Deep Sandy Silt	Shallow Sand and Gravel	Shallow Sand and Gravel	Shallow Sand and Gravel	Shallow Sand and Gravel	Shallow Sand and Gravel	Shallow Sand and Gravel	Deep Sandy Silt	Deep Sandy Silt	Deep Sandy Silt	Shallow Sand and Gravel	Shallow Sand and Gravel	Shallow Sand and Gravel	Shallow Sand and Gravel
Analyte																
Carbon Tetrachloride	0.0011 U	0.061 U	3.6 U	0.0012 U	0.0012 U	0.0012 U	0.00093 U	0.11 U	0.00087 U	0.39 U	0.46 U	0.054 U	0.00093 U	0.05 U	0.1 U	0.0012 U
Chlorobenzene	0.0011 U	0.061 U	3.6 U	0.0012 U	0.0012 U	0.0012 U	0.00093 U	0.11 U	0.00087 U	0.39 U	0.46 U	0.054 U	0.00093 U	0.05 U	0.053 U	0.0012 U
Chlorobromomethane	0.0056 U	0.3 U	18 U	0.0059 U	0.006 U	0.0061 U	0.0046 U	0.57 U	0.0043 U	1.9 U	2.3 U	0.27 U	0.0047 U	0.25 U	0.21 U	0.0061 U
Chloroethane	0.0022 U	0.12 U	7.3 U	0.0023 U	0.0024 U	0.0024 U	0.0018 U	0.23 U	0.0017 U	0.78 U	0.92 U	0.11 UJ	0.0019 U	0.1 U	0.21 U	0.0024 U
Chloroform	0.0017 U	0.092 U	5.4 U	0.0018 U	0.0018 U	0.0018 U	0.0014 U	0.17 U	0.0013 U	0.58 U	0.69 U	0.082 U	0.0014 U	0.076 U	0.16 U	0.0018 U
Chloromethane	0.0056 U	0.3 U	18 U	0.0059 U	0.006 U	0.0061 U	0.0046 U	0.57 U	0.0043 U	1.9 U	2.3 U	0.27 U	0.0047 U	0.25 U	0.42 U	0.0061 U
Dibromochloromethane	0.0011 U	0.061 U	3.6 U	0.0012 U	0.0012 U	0.0012 UJ	0.00093 U	0.11 U	0.00087 U	0.39 U	0.46 U	0.054 U	0.00093 U	0.05 U	0.1 U	0.0012 U
Dibromomethane (Methylene Bromide)	0.011 U	0.61 U	36 U	0.012 U	0.012 U	0.012 U	0.0093 U	1.1 U	0.0087 U	3.9 U	4.6 U	0.54 U	0.0093 U	0.5 U	0.21 U	0.012 U
Dichlorodifluoromethane	0.011 U	0.61 U	36 U	0.012 U	0.012 U	0.012 U	0.0093 U	1.1 U	0.0087 U	3.9 U	4.6 U	0.54 U	0.0093 UJ	0.5 UJ	1 U	0.012 U
Ethylbenzene	0.0011 U	0.061 U	1.4 J	0.0012 U	0.0012 U	0.00022 J	0.00093 U	0.38	0.00087 U	0.39 U	0.46 U	0.054 U	0.00093 U	0.1	0.041 J	0.0012 U
Hexachlorobutadiene	0.0056 U	0.3 U	18 U	0.0059 U	0.006 U	0.0061 UJ	0.0046 U	0.57 U	0.0043 U	1.9 U	2.3 U	0.27 UJ	0.0047 U	0.25 U	0.42 U	0.0061 U
Isopropylbenzene (Cumene)	0.0011 U	0.011 J	6.3	0.0012 U	0.0012 U	0.0012 U	0.00093 U	0.18	0.00087 U	0.39 U	0.46 U	0.054 UJ	0.00093 U	0.04 J	0.19	0.0012 U
Methyl Ethyl Ketone (2-Butanone)	0.011 U	0.61 U	36 U	0.012 U	0.012 U	0.012 U	0.0093 U	1.1 U	0.0087 UJ	3.9 UJ	4.6 UJ	0.54 UJ	0.0093 UJ	0.5 UJ	1 UJ	0.012 U
Methyl Isobutyl Ketone (4-Methyl-2-Pentanone)	0.011 U	0.61 U	36 U	0.012 UJ	0.012 UJ	0.012 UJ	0.0093 U	1.1 U	0.0087 U	3.9 U	4.6 U	0.54 U	0.0093 U	0.5 U	1 U	0.012 U
Methyl tert-butyl Ether (MTBE)	0.0022 U	0.12 U	7.3 U	0.0023 U	0.0024 U	0.0024 U	0.0018 U	0.23 U	0.0017 U	0.78 U	0.92 U	0.11 U	0.0019 U	0.1 U	0.21 U	0.0024 U
Methylene Chloride	0.011 U	0.61 U	36 U	0.012 U	0.012 U	0.012 U	0.0093 U	1.1 U	0.0087 U	3.9 U	4.6 U	0.54 U	0.0093 U	0.5 U	0.53 U	0.012 U
Naphthalene	0.0056 U	0.3 U	18 U	0.001 J	0.0013 J	0.0012 J	0.0046 U	0.12 J	0.0043 U	1.9 U	2.3 U	0.27 U	0.0047 U	0.18 J	0.32 J	0.0061 U
n-Propylbenzene	0.0011 U	0.0079 J	47	0.0012 U	0.0012 U	0.0012 U	0.00093 U	0.57	0.00087 U	0.25 J	0.46 U	0.054 UJ	0.00093 U	0.071	0.8	0.0012 U
p-Isopropyltoluene	0.0011 U	0.061 U	3.8	0.0012 U	0.0012 U	0.00077 J	0.00093 U	0.16	0.00087 U	0.39 U	0.46 U	0.054 UJ	0.00093 U	0.037 J	0.16	0.0012 U
Styrene	0.0022 U	0.12 U	7.3 U	0.0023 U	0.0024 U	0.0024 U	0.0018 U	0.23 U	0.0017 U	0.78 U	0.92 U	0.11 U	0.0019 U	0.1 U	0.1 U	0.0024 U
Tetrachloroethene	0.0011 U	0.061 U	3.6 U	0.0012 U	0.0012 U	0.0012 U	0.00093 U	0.11 U	0.00087 U	0.39 U	0.46 U	0.054 U	0.00093 U	0.05	0.053 U	0.0012 U
Toluene	0.0017 U	0.092 U	5.4 U	0.0018 U	0.00031 J	0.00042 J	0.0014 U	0.17 U	0.0013 U	0.083 J	0.69 U	0.082 U	0.0014 U	0.15	0.1 U	0.0018 U
Trichloroethene	0.0055	0.061 U	3.6 U	0.0012 U	0.0012 U	0.0012 U	0.00093 U	0.11 U	0.012	0.39 U	0.46 U	0.047 J	0.00070 J	0.63	0.053 U	0.0017
Trichlorofluoromethane	0.0056 U	0.3 U	18 U	0.0059 U	0.006 U	0.0061 U	0.0046 U	0.57 U	0.0043 U	1.9 U	2.3 U	0.27 UJ	0.0047 U	0.25 U	0.42 U	0.0061 U
Vinyl Acetate	0.011 U	0.61 U	36 U	0.012 U	0.012 U	0.012 UJ	0.0093 U	1.1 U	0.0087 U	3.9 U	4.6 U	0.54 U	0.0093 U	0.5 U	1 U	0.012 U
Vinyl Chloride	0.0022 U	0.12 U	7.3 U	0.0023 U	0.0024 U	0.0024 U	0.0018 U	0.23 U	0.0017 U	0.14 J	1	0.024 J	0.00068 J	0.1 U	0.1 U	0.0024 U
Xylene, m- & p-	0.0022 U	0.12 U	5.6 J	0.001 J	0.0015 J	0.0018 J	0.0018 U	3	0.00035 J	0.3 J	0.19 J	0.11 U	0.0019 U	0.22	0.21 U	0.0024 U
Xylene, o-	0.0022 U	0.12 U	2.1 J	0.0023 U	0.0015 J	0.0016 J	0.0018 U	0.04 J	0.0017 U	0.2 J	0.92 U	0.11 U	0.0019 U	0.18 J	0.1 U	0.0024 U
Xylenes, Total	0.0022 U	0.12 U	7.7 J	0.001 J	0.003 J	0.0034 J	0.0018 U	3 J	0.00035 J	0.5 J	0.19 J	0.11 U	0.0019 U	0.4	0.1 U	0.0024 U
Total CBTEX	0.0022 U	0.011	15.4	0.001 J	0.00331 J	0.00404 J	0.0018 U	3.56	0.00093 J	0.583 J	0.19 J	0.57	0.0003 J	0.7 J	0.23 J	0.0024 U
Total CVOC	0.0022 U	0.12 U	7.3 U	0.0023 U	0.0024 U	0.0024 U	0.0018 U	0.23 U	0.0144	91.14 J	66	0.201 J	0.00525 J	0.714 J	1 U	0.0017
Total VOC	0.0061 J	0.15 J	440 J	0.011 J	0.027 J	0.027 J	0.0021 J	15 J	0.02982 J	94.403 J	66.19 J	0.771 J	0.03655 J	1.851 J	5.4 J	0.0017

Table 2-2a. Historical Soil Data: Volatile Organic Compounds

Essex-Hope Site, Jamestown, New York

Note:

Bold indicates detection

bgs = below ground surface

CBTEX = cumene, benzene, toluene, ethylbenzene, and total xylenes

CVOC = chlorinated volatile organic compound

FD = field duplicate

ID = identifier

J = estimated detection

mg/kg = milligram(s) per kilogram

N = normal sample

U = analyte not detected

VOC = volatile organic compound

Table 2-2b. Historical Soil Data: Polychlorinated Biphenyls

Essex-Hope Site, Jamestown, New York

Location ID	DPT-005A	DPT-005A	DPT-005A	DPT-005B	DPT-005B	DPT-005B	DPT-005C	DPT-005C	DPT-005C	DPT-005C	MW-123D	MW-123D
Sample Date	9/20/2017	9/20/2017	9/20/2017	9/19/2017	9/19/2017	9/20/2017	9/25/2017	9/26/2017	9/20/2017	9/20/2017	9/26/2017	9/27/2017
Operable Unit	OU-01	OU-01	OU-01	OU-01	OU-01	OU-01	OU-01	OU-01	OU-01	OU-01	OU-01	OU-01
Geologic Unit	Shallow Sand and Gravel	Shallow Sand and Gravel	Shallow Silty Clay	Shallow Sand and Gravel	Shallow Sand and Gravel	Shallow Sand and Gravel	Shallow Sand and Gravel	Shallow Sand and Gravel	Shallow Sand and Gravel	Shallow Sand and Gravel	Shallow Sand and Gravel	Shallow Sand and Gravel
Sample Type	N	N	N	N	FD	N	N	N	N	N	N	N
Sample Depth (feet bgs)	2 - 4	5 - 7	16 - 17	2 - 4	2 - 4	5 - 7	2 - 4	5 - 7	2 - 4	5 - 7	2 - 4	6 - 8
Analyte												
Arochlor, Total (PCB)	0.753	0.546	0.47	0.862	0.588	0.816	0.176 J	0.34	0.894	0.0349 U	0.293	0.0561
Aroclor-1016	0.0771 U	0.0384 U	0.0382 U	0.0723 U	0.0720 U	0.0395 U	0.0376 U	0.0380 U	0.0774 U	0.0349 U	0.0385 U	0.0361 U
Aroclor-1221	0.0771 U	0.0384 U	0.0382 U	0.0723 U	0.0720 U	0.0395 U	0.0376 U	0.0380 U	0.0774 U	0.0349 U	0.0385 U	0.0361 U
Aroclor-1232	0.0771 U	0.0384 U	0.0382 U	0.0723 U	0.0720 U	0.0395 U	0.0376 U	0.0380 U	0.0774 U	0.0349 U	0.0385 U	0.0361 U
Aroclor-1242	0.0771 U	0.0384 U	0.0382 U	0.0723 U	0.0720 U	0.0395 U	0.0376 U	0.0380 U	0.0774 U	0.0349 U	0.0385 U	0.0361 U
Aroclor-1248	0.0771 U	0.0384 U	0.0382 U	0.0723 U	0.0720 U	0.0395 U	0.0376 U	0.0380 U	0.0774 U	0.0349 U	0.0385 U	0.0361 U
Aroclor-1254	0.613	0.447	0.408	0.727	0.484	0.658	0.138	0.34	0.724	0.0349 U	0.237	0.0561
Aroclor-1260	0.14	0.0989	0.0624	0.135	0.104	0.158 J	0.0375 J	0.0380 U	0.17	0.0349 U	0.0561	0.0361 U
Aroclor-1262	0.0771 U	0.0384 U	0.0382 U	0.0723 U	0.0720 U	0.0395 U	0.0376 U	0.0380 U	0.0774 U	0.0349 U	0.0385 U	0.0361 U
Aroclor-1268	0.0771 U	0.0384 U	0.0382 U	0.0723 U	0.0720 U	0.0395 U	0.0376 U	0.0380 U	0.0774 U	0.0349 U	0.0385 U	0.0361 U

Notes:
All results in mg/kg
Bold indicates detection
FD = field duplicate
ID = identifier
J = estimated detection
mg/kg = milligram(s) per kilogram
N = normal sample
U = analyte not detected

Table 2-2c. Historical Soil Data: General Chemistry
Essex-Hope Site, Jamestown, New York

Location ID		DPT-001	DPT-001	DPT-001	DPT-002	DPT-002	DPT-003	DPT-003	DPT-004	DPT-004	DPT-004	DPT-005	DPT-005	DPT-006	DPT-006	DPT-007
Sample Date		9/19/2016	9/19/2016	9/19/2016	9/20/2016	9/20/2016	9/19/2016	9/19/2016	9/19/2016	9/19/2016	9/19/2016	9/19/2016	9/19/2016	9/19/2016	9/19/2016	9/21/2016
Sample Type		N	N	N	N	N	N	N	N	FD	N	N	N	N	N	N
Sample Depth (feet)		3 - 4	6 - 7	9 - 10	3 - 4	6 - 8	2 - 3	6 - 8	2 - 3	2 - 3	6 - 7	3 - 4	5 - 6	3 - 4	7 - 8	18 - 19
Analyte	Unit															
Moisture, Percent	%	17.2	13.8	12.5	8.2	20	22.2	8.6	19	15.8	12.5	12.4	17.9	21.4	9.2	21.1
pH	pH Unit	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Total Organic Carbon %C	%	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--

Note:
Bold indicates detection.
FD = field duplicate
ID = identifier
N = normal

Table 2-2c. Historical Soil Data: General Chemistry
Essex-Hope Site, Jamestown, New York

Location ID		DPT-007	DPT-007	DPT-007	DPT-008	DPT-009	DPT-029	DPT-029	DPT-029	DPT-036	DPT-036	DPT-036	DPT-042	DPT-042	DPT-042	DPT-045
Sample Date		9/21/2016	9/21/2016	9/20/2016	9/20/2016	9/20/2016	9/26/2019	9/26/2019	9/26/2019	9/18/2019	9/18/2019	9/18/2019	9/25/2019	9/25/2019	9/25/2019	9/24/2019
Sample Type		N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
Sample Depth (feet)		22 - 23	33 - 34	34 - 36	38 - 39	30 - 32	10 - 12	18 - 20	20 - 22	10 - 12	20 - 22	22 - 24	10 - 12	16 - 18	20 - 22	10 - 12
Analyte	Unit															
Moisture, Percent	%	23.7	24.6	23.3	22.4	20.8	--	--	--	--	--	--	--	--	--	--
pH	pH Unit	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Total Organic Carbon %C	%	--	--	--	--	--	0.104	0.740	0.506	0.068	0.454	0.300	0.134	0.851	0.731	0.148

Note:
Bold indicates detection.
FD = field duplicate
ID = identifier
N = normal

Table 2-2c. Historical Soil Data: General Chemistry
Essex-Hope Site, Jamestown, New York

Location ID		DPT-045	DPT-045	DPT-048	DPT-048	DPT-048	DPT-050	DPT-050	DPT-050	MW-106D	MW-106D	MW-106D	MW-106D	MW-107S	MW-111D
Sample Date		9/24/2019	9/24/2019	9/17/2019	9/17/2019	9/17/2019	9/23/2019	9/23/2019	9/23/2019	10/5/2016	10/5/2016	10/5/2016	10/5/2016	10/19/2016	10/13/2016
Sample Type		N	N	N	N	N	N	N	N	N	N	N	N	N	N
Sample Depth (feet)		17 - 19	22 - 24	10 - 12	18 - 20	20 - 22	10 - 12	18 - 20	22 - 24	8 - 10	16 - 18	32 - 34	44 - 46	5 - 16	2 - 4
Analyte	Unit														
Moisture, Percent	%	--	--	--	--	--	--	--	--	10.2	23.6	21.6	19	12.8	12.2
pH	pH Unit	--	--	--	--	--	--	--	--	6.7	8.4	8.5	8.9	8	--
Total Organic Carbon %C	%	0.850	0.669	0.291	1.68	0.643	0.104	0.753	0.787	0.091	0.851	0.677	0.748	0.135	--

Note:
Bold indicates detection.
FD = field duplicate
ID = identifier
N = normal

Table 2-2c. Historical Soil Data: General Chemistry
Essex-Hope Site, Jamestown, New York

Location ID		MW-111D	MW-111D	MW-111D	MW-111D	MW-111D	MW-114S	MW-114S	MW-114S	MW-115D	MW-115D	RW-6DR	RW-6DR	RW-6DR	RW-6DR
Sample Date		10/13/2016	10/13/2016	10/13/2016	10/13/2016	10/13/2016	9/22/2016	9/22/2016	9/22/2016	9/29/2016	9/29/2016	10/11/2016	10/11/2016	10/11/2016	10/11/2016
Sample Type		N	N	N	N	N	N	FD	N	N	N	N	N	N	N
Sample Depth (feet)		6 - 8	10 - 12	14 - 15	22 - 24	48 - 50	3 - 4	3 - 4	7 - 8	3 - 4	4 - 5	4 - 6	8 - 10	18 - 20	30 - 32
Analyte	Unit														
Moisture, Percent	%	11	16.4	20.8	23.2	17.6	5.4	5.4	9.2	13	13.2	9.5	8	21.7	21.2
pH	pH Unit	--	7.8	--	7.8	8.4	--	--	--	--	--	--	4.8	8.1	7.9
Total Organic Carbon %C	%	--	0.232	--	0.073	0.247	--	--	--	--	--	--	0.221	0.214	0.063

Note:
Bold indicates detection.
FD = field duplicate
ID = identifier
N = normal

Table 2-2c. Historical Soil Data: General Chemistry

Essex-Hope Site, Jamestown, New York

Location ID		RW-6DR
Sample Date		10/11/2016
Sample Type		N
Sample Depth (feet)		44 - 46
Analyte	Unit	
Moisture, Percent	%	23.7
pH	pH Unit	8.3
Total Organic Carbon %C	%	0.157

Note:

Bold indicates detection.

FD = field duplicate

ID = identifier

N = normal

Table 2-2d. Historical Soil Data: Geotechnical

Essex-Hope Site, Jamestown, New York

Location ID	DPT-029	DPT-029	DPT-029	DPT-036	DPT-036	DPT-036	DPT-042	DPT-042	DPT-042	DPT-045	DPT-045	DPT-045	DPT-048	DPT-048	DPT-048	DPT-050	DPT-050
Sample Date	9/26/2019	9/26/2019	9/26/2019	9/18/2019	9/18/2019	9/18/2019	9/25/2019	9/25/2019	9/25/2019	9/24/2019	9/24/2019	9/24/2019	9/17/2019	9/17/2019	9/17/2019	9/23/2019	9/23/2019
Operable Unit	OU-03	OU-03	OU-03	OU-01	OU-01	OU-01	OU-01	OU-01	OU-01	OU-01	OU-01	OU-01	OU-01	OU-01	OU-01	OU-01	OU-01
Geologic Unit	Shallow Sand and Gravel	Shallow Silty Clay	Deep Sandy Silt	Shallow Sand and Gravel	Shallow Silty Clay	Deep Sandy Silt	Shallow Sand and Gravel	Shallow Silty Clay	Deep Sandy Silt	Shallow Sand and Gravel	Shallow Silty Clay	Deep Sandy Silt	Shallow Sand and Gravel	Shallow Silty Clay	Deep Sandy Silt	Shallow Sand and Gravel	Shallow Silty Clay
Sample Type	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
Sample Depth (feet)	10 - 12	18 - 20	20 -22	10 - 12	20 -22	22 - 24	10 - 12	16 - 18	20 -22	10 - 12	17 - 19	22 - 24	10 - 12	18 - 20	20 -22	10 - 12	18 - 20
Analyte	Unit																
Bulk Density	lb/ft	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Density	lb/ft	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Liquid Limit	none	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Moisture	%	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Plastic Index	none	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Plastic Limit	none	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Clay	%	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Cobbles(> 6 cm)	%	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U
Fines, Total (Silt and Clay)	%	12.0	98.5	95.2	12.7	98.4	78.8	14.2	99.5	74.2	10.5	98.8	97.6	9.60	94.8	73.2	17.5
Gravel, Coarse	%	0.100 U	0.100 U	0.100 U	27.8	0.100 U	5.80	20.7	0.100 U	0.100 U	25.1	0.100 U	0.100 U	34.6	0.300	0.100 U	20.4
Gravel, Fine	%	51.3	0.100 U	0.100 U	26.7	0.100 U	3.20	23.3	0.100 U	0.100 U	26.7	0.100 U	0.100 U	26.4	0.300	0.100 U	22.6
Gravel, Total	%	51.3	0.100 U	0.100 U	54.5	0.100 U	9.00	44.0	0.100 U	0.100 U	51.8	0.100 U	0.100 U	61.0	0.600	0.100 U	43.0
Sand, Coarse	%	16.7	0.200	0.100 U	14.3	0.100	0.100 U	15.4	0.100 U	0.100 U	16.6	0.100 U	0.100	10.1	0.500	0.100	14.4
Sand, Fine	%	5.20	0.400	4.70	6.60	0.700	12.1	8.70	0.300	25.5	5.40	0.500	2.30	5.90	1.50	26.5	8.20
Sand, Medium	%	14.8	0.900	0.100	11.9	0.800	0.100	17.7	0.200	0.300	15.7	0.700	0.100 U	13.4	2.60	0.200	16.9
Sand, Total	%	36.7	1.50	4.80	32.8	1.60	12.2	41.8	0.500	25.8	37.7	1.20	2.40	29.4	4.60	26.8	39.5
Silt	%	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Sieve 0.75 inch (19000 microns), Percent Passing	%	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Sieve 3 inch (75000 microns), Percent Passing	%	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Sieve No. 10 (2000 microns), Percent Passing	%	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Sieve No. 200 (75 microns), Percent Passing	%	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Sieve No. 4 (4750 microns), Percent Passing	%	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Sieve No. 40 (425 microns), Percent Passing	%	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--

Note:

Bold indicates detection.

cm = centimeter(s)

FD = field duplicate

lb/ft³ = pound(s) per cubic foot

N = normal

Table 2-2d. Historical Soil Data: Geotechnical

Essex-Hope Site, Jamestown, New York

Location ID	DPT-050	MW-106D	MW-106D	MW-106D	MW-106D	MW-107S	MW-111D	MW-111D	MW-111D	MW-124S	RW-6DR	RW-6DR	RW-6DR	RW-6DR	RW-6DR
Sample Date	9/23/2019	10/5/2016	10/5/2016	10/5/2016	10/5/2016	10/19/2016	10/13/2016	10/13/2016	10/13/2016	9/10/2019	10/11/2016	10/11/2016	10/11/2016	10/11/2016	10/11/2016
Operable Unit	OU-01	OU-03	OU-03	OU-03	OU-03	OU-03	OU-01	OU-01	OU-01	OU-01	OU-01	OU-01	OU-01	OU-01	OU-01
Geologic Unit	Deep Sandy Silt	Shallow Sand and Gravel	Shallow Silty Clay	Deep Sandy Silt	Deep Sandy Clay	Shallow Sand and Gravel	Shallow Sand and Gravel	Deep Sandy Silt	Deep Sandy Silt	Shallow Sand and Gravel	Shallow Sand and Gravel	Shallow Silty Clay	Shallow Silty Clay	Shallow Silty Clay	Deep Sandy Silt
Sample Type	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
Sample Depth (feet)	22 - 24	8-10	16 - 18	32 - 34	44 - 46	5-16	10 - 12	22 - 24	48 - 50	10 - 12	8 - 10	18 - 20	20 -22	22 - 24	24 - 26
Analyte	Unit														
Bulk Density	lb/ft	--	86.28	91.65	101.7	98.12	91.07	102.2	99.85	93.02	--	92.23	97.93	--	--
Density	lb/ft	--	96.61	117.6	124.9	122.4	102.8	114.8	124.4	112	--	100.4	123.9	--	--
Liquid Limit	none	--	28	40	20	36	30	30	21	31	--	23	35	--	--
Moisture	%	--	12	28.3	22.7	24.7	12.8	12.3	24.6	20.4	--	8.91	26.6	--	--
Plastic Index	none	--	8	17	0 U	17	7	13	0 U	12	--	6	14	--	--
Plastic Limit	none	--	20	23	20	19	23	17	22	19	--	17	21	--	--
Clay	%	--	1.7	45.3	8.1	55.1	1.3	0.7	6.1	24.8	--	1	59.1	40.8	41.3
Cobbles(> 6 cm)	%	0.100 U	--	--	--	--	--	--	--	--	0.100 U	--	--	--	--
Fines, Total (Silt and Clay)	%	87.5	19.5	99.7	84.3	92.3	21.4	27.6	91.5	85.9	14.1	11.9	100	99.8	99.2
Gravel, Coarse	%	0.100 U	--	--	--	--	--	--	--	--	25.8	--	--	--	--
Gravel, Fine	%	0.100 U	--	--	--	--	--	--	--	--	25.5	--	--	--	--
Gravel, Total	%	0.100 U	36.8	0.1 U	0.1 U	4	20.9	32.1	0.1 U	2.3	51.3	57	0.1 U	0.1 U	0.1 U
Sand, Coarse	%	0.100 U	--	--	--	--	--	--	--	--	14.6	--	--	--	--
Sand, Fine	%	12.4	--	--	--	--	--	--	--	--	6.30	--	--	--	--
Sand, Medium	%	0.100	--	--	--	--	--	--	--	--	13.7	--	--	--	--
Sand, Total	%	12.5	43.7	0.3	15.7	3.7	57.7	40.3	8.5	11.8	34.6	31.1	0.1 U	0.2	0.8
Silt	%	--	17.8	54.4	76.2	37.2	20.1	26.9	85.4	61.1	--	10.9	40.9	59	57.9
Sieve 0.75 inch (19000 microns), Percent Passing	%	--	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	--	13.6	0.1 U	0.1 U	0.1 U
Sieve 3 inch (75000 microns), Percent Passing	%	--	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	--	0.1 U	0.1 U	0.1 U	0.1 U
Sieve No. 10 (2000 microns), Percent Passing	%	--	19	0.1 U	0.1 U	0.3	24.4	16.3	0.1 U	1.4	--	11.7	0.1 U	0.1 U	0.1 U
Sieve No. 200 (75 microns), Percent Passing	%	--	7.8	0.2	15.6	2.6	10.4	7.5	8.5	8.2	--	5.8	0.1 U	0.2	0.8
Sieve No. 4 (4750 microns), Percent Passing	%	--	36.8	0.1 U	0.1 U	4	20.9	32.1	0.1 U	2.3	--	43.4	0.1 U	0.1 U	0.1 U
Sieve No. 40 (425 microns), Percent Passing	%	--	16.9	0.1	0.1	0.8	22.9	16.5	0.1 U	2.2	--	13.6	0.1 U	0.1 U	0.1 U

Note:
Bold indicates detection.
cm = centimeter(s)
FD = field duplicate
lb/ft³ = pound(s) per cubic foot
N = normal

Table 2-2d. Historical Soil Data: Geotechnical

Essex-Hope Site, Jamestown, New York

Location ID	RW-6DR	RW-6DR	RW-6DR	RW-6DR	RW-6DR	RW-6DR	RW-6DR	RW-6DR	RW-6DR	RW-6DR	RW-6DR	RW-6DR
Sample Date	10/11/2016	10/11/2016	10/11/2016	10/11/2016	10/11/2016	10/11/2016	10/11/2016	10/11/2016	10/11/2016	10/11/2016	10/11/2016	10/11/2016
Operable Unit	OU-01	OU-01	OU-01	OU-01	OU-01	OU-01	OU-01	OU-01	OU-01	OU-01	OU-01	OU-01
Geologic Unit	Deep Sandy Silt	Deep Sandy Silt	Deep Sandy Silt	Deep Sandy Silt	Deep Sandy Silt	Deep Sandy Silt	Deep Sandy Silt	Deep Sandy Silt	Deep Sandy Silt	Deep Sandy Silt	Deep Sandy Silt	Deep Silty Clay
Sample Type	N	N	FD	N	N	N	N	N	N	N	N	N
Sample Depth (feet)	26 - 28	28 - 30	30 - 32	30 - 32	32 - 34	34 - 36	36 - 38	38 - 40	40 - 42	42 - 43	44 - 46	
Analyte	Unit											
Bulk Density	lb/ft	--	--	--	100.3	--	--	--	--	--	--	86.97
Density	lb/ft	--	--	--	124.2	--	--	--	--	--	--	113.7
Liquid Limit	none	--	--	--	20	--	--	--	--	--	--	31
Moisture	%	--	--	--	23.8	--	--	--	--	--	--	30.7
Plastic Index	none	--	--	--	0 U	--	--	--	--	--	--	12
Plastic Limit	none	--	--	--	23	--	--	--	--	--	--	19
Clay	%	15.3	13.5	12.5	8.5	7.6	5.9	12.5	8.7	7.4	10.2	53.3
Cobbles(> 6 cm)	%	--	--	--	--	--	--	--	--	--	--	--
Fines, Total (Silt and Clay)	%	85.8	90	88	83.4	88	88.3	92.5	83.7	92.4	92.8	98.7
Gravel, Coarse	%	--	--	--	--	--	--	--	--	--	--	--
Gravel, Fine	%	--	--	--	--	--	--	--	--	--	--	--
Gravel, Total	%	0.1 U	0.2	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Sand, Coarse	%	--	--	--	--	--	--	--	--	--	--	--
Sand, Fine	%	--	--	--	--	--	--	--	--	--	--	--
Sand, Medium	%	--	--	--	--	--	--	--	--	--	--	--
Sand, Total	%	14.2	9.8	12	16.6	12	11.7	7.5	16.3	7.6	7.2	1.3
Silt	%	70.5	76.5	75.5	74.9	80.4	82.4	80	75	85	82.6	45.4
Sieve 0.75 inch (19000 microns), Percent Passing	%	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Sieve 3 inch (75000 microns), Percent Passing	%	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Sieve No. 10 (2000 microns), Percent Passing	%	0.1	0.3	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1
Sieve No. 200 (75 microns), Percent Passing	%	14	9.4	12	16.6	12	11.7	7.5	16.3	7.6	7.2	1.1
Sieve No. 4 (4750 microns), Percent Passing	%	0.1 U	0.2	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Sieve No. 40 (425 microns), Percent Passing	%	0.1	0.1	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1

Note:
Bold indicates detection.
cm = centimeter(s)
FD = field duplicate
lb/ft³ = pound(s) per cubic foot
N = normal

Table 2-3. Historical Air Data: Volatile Organic Compounds

Essex-Hope Site, Jamestown, New York

Location ID	HH-01	HH-02	HH-03	HH-04	HH-04	HH-05	HH-06	HH-07	IA-01	IA-01	IA-02	IA-03	IA-04	IA-05	IA-06	JMF-01	JMF-01	JMF-01
Sample Date	11/15/2018	11/15/2018	11/15/2018	11/15/2018	11/15/2018	11/15/2018	11/15/2018	11/15/2018	2/25/2021	2/25/2021	2/25/2021	2/25/2021	2/25/2021	2/25/2021	2/25/2021	11/14/2018	11/14/2018	11/19/2019
Sample Type	N	N	N	N	FD	N	N	N	N	FD	N	N	N	N	N	N	FD	N
Analyte																		
1,1-Dichloroethene	1.77 U	1.73 U	1.71 U	1.93 U	1.90 U	1.78 U	3.53 U	1.68 U	0.079 U	0.079 U	0.23	0.087	0.079 U	0.083	0.083	1.97 U	1.95 U	1.62 U
1,2-Dichloroethene, cis-	11.8	6.90	7.33	4.96	4.64	2.20	26.0	6.98	--	--	--	--	--	--	--	6.78	6.22	3.50
1,2-Dichloroethene, trans-	1.77 U	1.73 U	1.71 U	1.93 U	1.90 U	1.78 U	3.53 U	1.68 U	0.079 U	0.079 U	0.079 U	0.079 U	0.079 U	0.079 U	0.079 U	1.97 U	1.95 U	1.62 U
Tetrachloroethene	24.4	43.5	2.93 U	102	101	31.3	9.90	4.58	0.244	0.231	0.454	0.278	0.292	0.292	0.332	10.4	9.90	4.76
Trichloroethene	33.0	16.7	23.1	14.5	14.0	17.0	1320	473	--	--	--	--	--	--	--	17.8	17.5	49.4 J
Vinyl Chloride	1.14 U	1.12 U	1.10 U	1.24 U	1.23 U	1.15 U	2.28 U	1.08 U	0.051 U	0.051 U	0.051 U	0.051 U	0.051 U	0.051 U	0.051	1.27 U	1.26 U	1.04 U

Notes:
All results in µg/m³.
Bold indicates detection.
µg/m³ = microgram(s) per cubic meter
FD = field duplicate
ID = identifier
J = estimated detection
N = normal sample
U = analyte not detected

Table 2-3. Historical Air Data: Volatile Organic Compounds

Essex-Hope Site, Jamestown, New York

Location ID	JMF-01	JMF-02	JMF-02	JMF-03	JMF-03	JMF-04	JMF-04	OA-01	OA-02	RES1	SS-01	SS-02	SS-03	SS-04	SS-05	SS-05	SS-06	SS-07
Sample Date	11/19/2019	11/14/2018	11/19/2019	11/14/2018	11/19/2019	11/14/2018	11/19/2019	2/25/2021	2/25/2021	4/19/2017	2/24/2021	2/24/2021	2/24/2021	2/24/2021	2/24/2021	2/24/2021	2/24/2021	2/24/2021
Sample Type	FD	N	N	N	N	N	N	N	N	N	N	N	N	N	N	FD	N	N
Analyte																		
1,1-Dichloroethene	1.64 U	1.71 U	1.89 U	1.82 U	1.95 U	1.80 U	1.86 U	0.079 U	0.079 U	--	1.6 UJ	2.06 U	2.05 U	1.97 U	1.59 U	2.03 U	3.22 U	1.6 U
1,2-Dichloroethene, cis-	3.19	4.40	3.58	11.2	4.36	8.45	5.00	--	--	4.76	1.6 UJ	2.06 U	2.05 U	1.97 U	1.59 U	2.03 U	73	4.24
1,2-Dichloroethene, trans-	1.64 U	1.71 U	1.89 U	1.82 U	1.95 U	1.80 U	1.86 U	0.079 U	0.079 U	--	1.6 UJ	2.06 U	2.05 U	1.97 U	1.59 U	2.03 U	3.65	1.6 U
Tetrachloroethene	5.02	2.93 U	10.2	8.68	6.24	14.9	6.85	0.136 U	0.136 U	--	21.5 J	18.6	3.5 U	73.9	3.21	3.47 U	19.2	2.73 U
Trichloroethene	27.0 J	13.0	17.1	23.1	20.9	21.5	15.8	--	--	46.4	3.79 J	2.79 U	2.77 U	2.67 U	8.38	10	1540	354
Vinyl Chloride	1.06 U	1.10 U	1.22 U	1.17 U	1.26 U	1.16 U	1.20 U	0.051 U	0.051 U	--	1.03 UJ	1.33 U	1.32 U	2.94	1.81	1.31 U	2.07 U	1.03 U

Notes:
All results in µg/m³.
Bold indicates detection.
µg/m³ = microgram(s) per cubic meter
FD = field duplicate
ID = identifier
J = estimated detection
N = normal sample
U = analyte not detected

Table 2-3. Historical Air Data: Volatile Organic Compounds

Essex-Hope Site, Jamestown, New York

Location ID	SV-01	SV-01	SV-02	SV-02	SV-03	SV-03	SV-04	SV-04	SV-05	SV-05	SV-06	SV-06	SV-07	SV-07	SV-07	SV-07	SV-08
Sample Date	12/11/2018	11/19/2019	12/11/2018	11/19/2019	12/11/2018	11/20/2019	12/12/2018	11/21/2019	12/12/2018	11/20/2019	12/12/2018	11/20/2019	12/12/2018	12/12/2018	11/21/2019	11/21/2019	12/12/2018
Sample Type	N	N	N	N	N	N	N	N	N	N	N	N	N	FD	N	FD	N
Analyte																	
1,1-Dichloroethene	1.80 U	1.60 U	1.74 U	1.61 U	1.80 U	1.61 U	1.76 U	1.61 U	1.67 U	1.66 U	2.53	1.62 U	1.79 U	1.80 U	1.85 U	1.70 U	1.73 U
1,2-Dichloroethene, cis-	1.80 U	1.60 U	1.74 U	1.61 U	1.80 U	4.60	1.76 U	1.61 U	1.67 U	2.11	1.72 U	1.62 U	5.71 J	3.68 J	2.63	2.00	1.73 U
1,2-Dichloroethene, trans-	1.80 U	1.60 U	1.74 U	1.61 U	1.80 U	1.61 U	1.76 U	1.61 U	1.67 U	1.66 U	1.72 U	1.62 U	1.79 U	1.80 U	1.85 U	1.70 U	1.73 U
Tetrachloroethene	16.2	18.3	15.7	16.5	390	391	3.01 U	2.76 U	16.3	11.2	7.05	6.41	3.07 UJ	8.88 J	3.16 U	2.90 U	2.96 U
Trichloroethene	262	399	2.35 U	3.00	2.45 U	12.4	3.27	5.12	2.26 U	6.40	44.1	9.57	18.3 J	7.79 J	8.60	7.26	2.71
Vinyl Chloride	1.16 U	1.03 U	1.12 U	1.04 U	1.16 U	1.04 U	1.13 U	1.04 U	1.08 U	1.07 U	1.11 U	1.04 U	2.24 J	1.16 UJ	1.61	1.09 U	1.12 U

Notes:
All results in µg/m³.
Bold indicates detection.
µg/m³ = microgram(s) per cubic meter
FD = field duplicate
ID = identifier
J = estimated detection
N = normal sample
U = analyte not detected

Table 2-3. Historical Air Data: Volatile Organic Compounds

Essex-Hope Site, Jamestown, New York

Location ID	SV-08	SV-09	SV-09	SV-10	SV-10	SV-10	SV-10	SV-11	SV-11	SV-12	SV-12	SV-13	SV-14	SV-14	SV-15	SV-15	SV-16
Sample Date	11/20/2019	12/12/2018	11/20/2019	12/13/2018	12/13/2018	11/20/2019	11/20/2019	12/12/2018	11/20/2019	12/12/2018	11/20/2019	12/12/2018	12/13/2018	11/21/2019	12/13/2018	11/21/2019	12/13/2018
Sample Type	N	N	N	N	FD	N	FD	N	N	N	N	N	N	N	N	N	N
Analyte																	
1,1-Dichloroethene	1.61 U	1.71 U	1.77 U	1.80 U	1.80 U	1.83 U	1.76 U	1.70 U	1.76 U	1.71 U	1.76 U	1.74 U	1.70 U	1.78 U	1.76 U	1.82 U	1.76 U
1,2-Dichloroethene, cis-	1.61 U	1.71 U	1.77 U	4.76 J	8.76 J	4.44	3.54	1.70 U	1.76 U	1.72	1.76 U	1.74 U	2.27	1.78 U	2.20	1.82 U	2.67
1,2-Dichloroethene, trans-	1.61 U	1.71 U	1.77 U	1.80 U	1.80 U	1.83 U	1.76 U	1.70 U	1.76 U	1.71 U	1.76 U	1.74 U	1.70 U	1.78 U	1.76 U	1.82 U	1.76 U
Tetrachloroethene	2.76 U	3.57	4.47	3.08 UJ	35.3 J	3.13 U	3.01 U	2.92 U	3.01 U	2.93 U	3.02 U	2.97 U	2.91 U	3.04 U	3.01 U	3.11 U	6.63
Trichloroethene	9.67	8.81	5.07	5.75 J	10.5 J	13.1	11.0	4.77	8.87	6.45	22.0	2.35 U	4.74	3.61	2.39 U	2.47 U	111
Vinyl Chloride	1.04 U	1.10 U	1.14 U	3.02 J	6.03 J	2.06	1.77	1.10 U	1.13 U	1.10 U	1.14 U	1.12 U	1.10 U	1.15 U	1.13 U	1.17 U	1.13 U

Notes:
All results in µg/m³.
Bold indicates detection.
µg/m³ = microgram(s) per cubic meter
FD = field duplicate
ID = identifier
J = estimated detection
N = normal sample
U = analyte not detected

Table 2-3. Historical Air Data: Volatile Organic Compounds

Essex-Hope Site, Jamestown, New York

Location ID	SV-16	WMS-SE-01	WMS-SE-01	WMS-SE-02	WMS-SE-02	WMS-SE-03	WMS-SE-03	WMS-SE-04	WMS-SE-04	WMS-SE-05	WMS-SE-05	WMS-SE-06	WMS-SE-06	WMS-SE-06
Sample Date	11/21/2019	11/16/2018	11/22/2019	11/16/2018	11/22/2019	11/16/2018	11/22/2019	11/16/2018	11/22/2019	11/16/2018	11/22/2019	11/16/2018	11/22/2019	11/22/2019
Sample Type	N	N	N	N	N	N	N	N	N	N	N	N	N	FD
Analyte														
1,1-Dichloroethene	1.76 U	26 U	27 U	26 U	27 U	26 U	27 U	26 U	27 U	26 U	27 U	26 U	27 U	27 U
1,2-Dichloroethene, cis-	1.76 U	4.8 U	5.0 U	140	35	4.8 U	5.0 U	25	8.7	4.9 U	5.0 U	4.9 U	5.0 U	5.0 U
1,2-Dichloroethene, trans-	1.76 U	11 U	12 U	11 U	12 U	11 U	12 U	12 U	12 U	12 U	12 U	12 U	12 U	12 U
Tetrachloroethene	7.73	2.3 U	0.54 J	0.94 J	0.80 J	2.4 U	0.33 J	2.4 U	0.46 J	2.4 U	0.41 J	2.4 U	1.3 J	2.4 U
Trichloroethene	169	3.5 U	3.6 U	94	150	3.5 U	3.7 U	26	34	3.6 U	3.6 U	3.6 U	1.6 J	1.8 J
Vinyl Chloride	1.14 U	30 U	32 U	30 U	32 U	31 U	32 U	31 U	32 U	31 U	32 U	31 U	32 U	32 U

Notes:
All results in µg/m³.
Bold indicates detection.
µg/m³ = microgram(s) per cubic meter
FD = field duplicate
ID = identifier
J = estimated detection
N = normal sample
U = analyte not detected

Table 3-1. Existing Remedial Action Objectives and Proposed Standards, Criteria, and Guidance
Essex-Hope Site, Jamestown, New York

COC	1994 ROD		Soil SCGs 6 NYCRR 375 Table 375-6.8(b)			Groundwater SCGs 6 NYCRR Part 703.5 Table 1/ TOGS 1.1.1	Proposed Updated SCGs	
	Soil RAOs (ppm)	Groundwater RAOs (ppb)	Restricted Use SCOs: Commercial (ppm)	Restricted Use SCOs: Industrial (ppm)	Protection of Groundwater (ppm)	Groundwater AWQS and Guidance Values (µg/L)	Soil Protection of Groundwater (ppm)	Groundwater AWQS (µg/L)
Volatile Organic Compounds (VOCs) ^[a]								
Acetone	1	--	500 ^[e]	1000 ^[f]	0.05	50 ^[h]	0.05	NC
Benzene	1	1 ^[c]	44	89	0.06	1	0.06	1
2-Butanone (Methyl Ethyl Ketone)	1	--	500 ^[e]	1000 ^[f]	0.12	50 ^[h]	0.12	NC
1,2-Dichloroethane	1	0.6 ^[c]	30	60	0.02	0.6	0.02	0.6
1,1-Dichloroethene	1	5 ^[c,d]	500 ^[e]	1000 ^[f]	0.33	5 ^[d]	0.33	5 ^[d]
cis-1,2-Dichloroethylene	1	5 ^[c,d]	500 ^[e]	1000 ^[f]	0.25	5 ^[d]	0.25	5 ^[d]
trans-1,2-Dichloroethylene	1	5	500 ^[e]	1000 ^[f]	0.19	5 ^[d]	0.19	5 ^[d]
Ethylbenzene	1	5	390	780	1.0	5 ^[d]	1.0	5 ^[d]
Isopropylbenzene	1	5 ^[c,d]	NC	NC	2.3 ^[g]	5 ^[d]	2.3 ^[g]	5 ^[d]
Methylene Chloride	1	5 ^[c,d]	500 ^[e]	1000 ^[f]	0.05	5 ^[d]	0.05	5 ^[d]
Tetrachloroethene	1	5 ^[c,d]	150	300	1.3	5 ^[d]	1.3	5 ^[d]
Toluene	1	5	500 ^[e]	1000 ^[f]	0.7	5 ^[d]	0.7	5 ^[d]
1,1,1-Trichloroethane	1	5 ^[c,d]	200	400	0.68	5 ^[d]	0.68	5 ^[d]
Trichloroethene	1	5	190	380	0.47	5 ^[d]	0.47	5 ^[d]
1,2,4-Trimethylbenzene	1	5 ^[c,d]	190	380	3.6	5 ^[d]	3.6	5 ^[d]
1,3,5-Trimethylbenzene	1	5 ^[c,d]	500 ^[e]	1000 ^[f]	8.4	5 ^[d]	8.4	5 ^[d]
Vinyl Chloride	1	5	13	27	0.02	2	0.02	2
Xylenes (total)	1	5	500 ^[e]	1000 ^[f]	1.6	5 ^[d]	1.6	5 ^[d]
Naphthalene	1	5 ^[c,d]	500 ^[e]	1000 ^[f]	12	10 ^[i]	12	NC
n-butylbenzene	1	5 ^[c,d]	500 ^[e]	1000 ^[f]	12	5 ^[d]	12	5 ^[d]
t-butylbenzene	1	5 ^[c,d]	500 ^[e]	1000 ^[f]	5.9	5 ^[d]	5.9	5 ^[d]
sec-butylbenzene	1	5 ^[c,d]	500 ^[e]	1000 ^[f]	11	5 ^[d]	11	5 ^[d]
n-propylbenzene	1	5 ^[c,d]	500 ^[e]	1000 ^[f]	3.9	5 ^[d]	3.9	5 ^[d]
Semivolatile Organic Compounds (SVOCs) ^[b]								
bis(2-ethylhexyl) phthalate	50	5 ^[c]	NC	NC	435 ^[g]	5	N/A	N/A
Di-n-butylphthalate	50	50 ^[c]	NC	NC	8.1 ^[g]	50	N/A	N/A
Polychlorinated Biphenyls (PCBs)	10	0.1	1	25	3.2	0.09 ^[k]	N/A	N/A

^[a] The RAO for total VOCs in soil is 10 ppm; for each individual VOC it is 1 ppm
^[b] The RAO for total SVOCs in soil is 500 ppm; for each individual SVOC it is 50 ppm
^[c] RAO not directly listed in 1994 ROD; obtained from most recent NYSDEC Ambient Groundwater Quality Standards listed in Table 1 of 6 NYCRR Part 703.5
^[d] Listed as a principal organic contaminant in 6 NYCRR Part 703.5 Table 1 Ambient Water Quality Standards, which has a standard of 5 µg/L if compound not listed elsewhere in Table 1
^[e] The SCOs for commercial use were capped at a maximum value of 500 ppm; refer to Technical Support Document Section 9.3.
^[f] The SCOs for industrial use and the protection of groundwater were capped at a maximum value of 1,000 ppm; refer to Technical Support Document Section 9.3.
^[g] Supplemental Soil Cleanup Objective listed in Table 1 of CP-51 (NYSDEC 2010a); these are not promulgated standards
^[h] General organic guidance value, human health as listed in TOGS 1.1.1; not a promulgated standard
^[i] Guidance value, aesthetics as listed in TOGS 1.1.1; not a promulgated standard
^[k] Total PCBs

µg/L = microgram(s) per liter
AWQS = Ambient Water Quality Standards, Class GA
COC = constituent of concern
ID = identifier
N/A = not applicable; previous remedial activities achieved 1994 ROD RAOs; therefore these compounds are no longer COCs
NC = no promulgated criteria
NR = Listed in Table 3 of TOGS 1.1.1 as a substance not regulated by the principal organic contaminant groundwater standard
NYCRR = New York Codes, Rules and Regulations
PCB = polychlorinated biphenyl
ppb = part(s) per billion
ppm = part(s) per million
RAO = Remedial Action Objective (term used for media-specific quantitative cleanup goal in 1994 ROD)
ROD = Record of Decision
SCG = standard, criteria, and guidance
SCO = Soil Cleanup Objective
TOGS 1.1.1 = Division of Water Technical and Operational Guidance Series (1.1.1), Ambient Water Quality Standards and Guidance Values and Groundwater Effluent Limitations, June 1998

Table 5-1. Detailed Evaluation of Alternatives
Essex-Hope Site, Jamestown, New York

Criterion	Alternative 1 – Continuation of Existing Extraction and Treatment System	Alternative 2 – Enhancement of Existing Extraction and Treatment System	Alternative 3 – ISTT with NA with Monitoring	Alternative 4 – ISTT and ISCO
	Continued operation of the existing extraction and treatment system	Enhancement of the existing extraction and treatment system by installing additional extraction wells	Remediation of CVOC source zone via ISTT followed by NA with Monitoring	Remediation of CVOC source zone via ISTT and remediation of petroleum-related constituent area via ISCO
Overall Protection of the Public Health and the Environment				
	The goal of the extraction and treatment system is to maintain overall protectiveness of human health and the environment by hydraulic containment and treatment of dissolved-phase groundwater contamination. However, the capture zones created by operation of the current system have not fully contained the CVOC plumes. This is evidenced by the presence of high concentrations of CVOCs offsite that indicate that the extraction and treatment system has not been effective at mitigating migration of CVOC contaminants offsite. Therefore, this alternative does not meet the threshold criteria of overall protectiveness of public health and the environment. Contaminants within OU-01 but outside the capture zones, including the petroleum-related compound plume in the former UST area, would not be contained and would be subject to NA with monitoring. The extraction and treatment system would operate until concentrations decline sufficiently within the capture zone areas so that NA with monitoring can be implemented sitewide, which would be applied until groundwater RAOs are met. The 2014 Declaration of Covenant controls potential onsite exposure pathways as follows: Direct contact with soils is limited by the asphalt and concrete caps, as well as restrictions on disturbances of these engineering controls and a prohibition on disturbance or excavation that results in unacceptable human and animal exposure to contaminated soils. Direct contact with groundwater is precluded by the prohibition on disturbance or excavation of soils at the site, as well as the prohibition on groundwater use for drinking water or industrial purposes without treatment. Ingestion of groundwater is prohibited by the Covenant restrictions on groundwater use for drinking water without treatment. Implementation of Alternative 1 would not affect existing controls in place for overall protection of human health and the environment.	The expanded extraction and treatment system would maintain overall protectiveness of human health and the environment by hydraulic containment and treatment of dissolved-phase groundwater contamination, including the petroleum-related compound plumes at OU-01. The expanded extraction and treatment system would target supplemental mass removal within OU-01 and operate until concentrations decline sufficiently in the capture areas so that NA with monitoring can be implemented throughout OU-01, which would be applied until groundwater RAOs are met. As summarized for Alternative 1, the 2014 Declaration of Covenant controls potential onsite exposure pathways. Implementation of Alternative 2 would not affect the existing controls in place for overall protection of human health and the environment.	ISTT would maintain overall protectiveness of human health and the environment by aggressively removing and treating the CVOC source area. The petroleum-related compound plumes would be subject to NA with monitoring. These plumes have been relatively stable with generally decreasing concentrations and plume sizes. However, the use of NA with monitoring may result in an extended period to attain RAOs in these areas. After ISTT has been implemented, NA with monitoring would be implemented sitewide until groundwater RAOs are met. As summarized for Alternative 1, the 2014 Declaration of Covenant controls potential onsite exposure pathways. Implementation of Alternative 3 would not affect the existing controls in place for overall protection of human health and the environment.	ISTT would maintain overall protectiveness of human health and the environment by aggressively removing and treating the CVOC source area. Additionally, petroleum-related compounds under the West Building and in the former UST area would be aggressively treated by ISCO. After ISTT and ISCO have reduced concentrations sufficiently, NA with monitoring would be implemented throughout OU-01 until groundwater RAOs are met. As summarized for Alternative 1, the 2014 Declaration of Covenant controls potential onsite exposure pathways. Implementation of Alternative 4 would not affect the existing controls in place for overall protection of human health and the environment. Because of the source treatments, the time to achieve RAOs is expected to be shorter than for other alternatives.
Compliance with Standards, Criteria, and Guidance				
	The existing onsite institutional controls and asphalt/concrete cap, and proposed offsite institutional controls, fulfill the remediation goal to eliminate potential for exposure of potential receptors to contaminated soil and groundwater. However, the extraction and treatment system does not fully achieve the remedial goal to mitigate the impacts of contaminated groundwater to the environment because high concentrations of CVOCs have migrated offsite to OU-03. Additionally, attainment of RAOs for soil and groundwater at OU-01, if technically practicable, will require an extended period (at least 50 years).	The existing onsite institutional controls and asphalt/concrete cap, and proposed offsite institutional controls, fulfill the remediation goal to eliminate potential for exposure of potential receptors to contaminated soil and groundwater. The enhanced extraction and treatment system complies with the remediation goal to mitigate the impacts of contaminated groundwater to the environment by improving capture and increasing the amount of contaminated groundwater treated at OU-01. However, attainment of RAOs for groundwater at OU-01, if technically practicable, would still require an extended period (at	The existing onsite institutional controls and asphalt/concrete cap fulfill the remediation goal to eliminate potential for exposure of potential receptors to contaminated soil and groundwater. ISTT complies with the remediation goal to mitigate the impacts of contaminated groundwater to the environment by aggressively reducing contaminant mass in the CVOC source area. NA with monitoring will be applied to the petroleum source areas, which to date have been attenuating, but concentrations above RAOs will likely remain for an extended period. That said, Alternative 3 is expected to attain or	The existing onsite institutional controls and asphalt/concrete cap fulfill the remediation goal to eliminate potential for exposure of potential receptors to contaminated soil and groundwater. The ISTT and ISCO remedies comply with the remediation goal to mitigate the impacts of contaminated groundwater by aggressively reducing contaminant mass in the CVOC and petroleum-related compound source areas. By employing the most aggressive and potentially effective technology (ISTT) in the CVOC source area and a proven aggressive treatment (ISCO) in the petroleum-related compound area, attainment of RAOs for

Criterion	Alternative 1 – Continuation of Existing Extraction and Treatment System	Alternative 2 – Enhancement of Existing Extraction and Treatment System	Alternative 3 – ISTT with NA with Monitoring	Alternative 4 – ISTT and ISCO
	Continued operation of the existing extraction and treatment system	Enhancement of the existing extraction and treatment system by installing additional extraction wells	Remediation of CVOC source zone via ISTT followed by NA with Monitoring	Remediation of CVOC source zone via ISTT and remediation of petroleum-related constituent area via ISCO
	Achievement of the proposed groundwater RAOs may not be technically practicable given the significant contaminant mass present, low permeability materials, and presence of NAPL. The current extraction and treatment system complies with applicable standards, criteria, and guidance for operation, maintenance, treatment, and discharge.	least 50 years) even with additional extraction wells. Achievement of the proposed groundwater RAOs may not be technically practicable given the significant contaminant mass present, low permeability materials, and presence of NAPL. Similar to the current extraction and treatment system, the enhanced extraction and treatment system would comply with applicable standards, criteria, and guidance for operation, maintenance, treatment, and discharge.	approach soil and groundwater RAOs more quickly than Alternatives 1 and 2. Achievement of the proposed groundwater RAOs may not be technically practicable given the significant contaminant mass present and low permeability materials; any NAPL present in the CVOC area is expected to be treated by the ISTT.	groundwater and soil will be achieved or approached more quickly than Alternatives 1, 2, and 3. Achievement of the proposed groundwater RAOs may not be technically practicable given the significant contaminant mass present and low permeability materials; any NAPL present in the CVOC area is expected to be treated by the ISTT.
Long-term Effectiveness and Permanence				
	Alternative 1 does not meet the threshold criteria; therefore, the balancing criteria are not evaluated.	Groundwater extraction and treatment is a proven technology and effective for hydraulic containment of dissolved-phase groundwater plumes. Although this alternative will increase hydraulic control and mass removal rates at OU-01, this alternative will still require an extended period to reach RAOs because of the substantial mass present. This alternative has low permanence, as hydraulic capture and groundwater treatment can be lost quickly once the system is turned off. Long-term effectiveness is dependent on creating a hydraulic capture zone to prevent or limit downgradient migration of the dissolved phase plume and maximizing contaminant mass removal. NA with monitoring will be applied once contaminant concentrations have declined sufficiently to minimize offsite migration. Although NA can be an effective and permanent approach, monitoring is required to ensure effectiveness. Long-term effectiveness is dependent on demonstrating that contaminant concentrations are attenuating and not migrating to areas where potential receptors could be negatively affected.	Thermal source zone remediation is a proven technology and effective for permanently reducing source zone contaminant volume. Long-term effectiveness is dependent on properly targeting source areas and successfully capturing mobilized contaminants. NA with monitoring is a proven remediation technology for addressing residual impacts that may remain in the CVOC source zone. NA will also be applied in the petroleum-related compound areas; monitoring will be required. Long-term effectiveness is dependent on contaminant concentrations attenuating and not migrating to areas where potential receptors could be negatively affected. Given the concentrations in the petroleum source areas, NA would likely be required for an extended period. Long-term effectiveness of NA is dependent on demonstrating that contaminant concentrations are attenuating and not migrating to areas where potential receptors could be negatively affected.	Thermal source zone remediation and ISCO are proven technologies and effective for permanently reducing source zone contaminant volume. For ISTT, long-term effectiveness is dependent on properly targeting source areas and successfully capturing mobilized contaminants. For ISCO, long-term effectiveness is dependent on injecting oxidants so that they come in direct contact with the contaminants, which can be more difficult to achieve in lower permeability formations. ISCO can also have lower effectiveness if there is significant NAPL present, or if strongly reducing conditions are present that exert high demand for the oxidant. Multiple injections of oxidants are often required to achieve treatment goals. Because some of the petroleum-related compounds are located underneath the West Building, obstructions such as low-clearance ceiling, walls, or equipment may limit the locations where ISCO can be injected, potentially negatively affecting long-term effectiveness. NA with monitoring is a proven remediation technology for addressing residual impacts that may remain following thermal source zone remediation and ISCO. Long-term effectiveness of NA is dependent on demonstrating that contaminant concentrations are attenuating and not migrating to areas where potential receptors could be negatively affected.
Reduction of Toxicity, Mobility, or Volume through Treatment				
	Alternative 1 does not meet the threshold criteria; therefore, the balancing criteria are not evaluated.	This alternative relies primarily on control and isolation of dissolved-phase groundwater contaminants by maintaining a capture zone to reduce contaminant mobility; there is some reduction of toxicity through the treatment of dissolved-phase contaminants in extracted groundwater. NA with monitoring relies on a variety of attenuation processes, some of which (such as abiotic and biotic degradation) result in reduction of toxicity by degradation of COCs or mobility (such as sorption to soils), and which cumulatively can reduce contaminated groundwater volume. However, these NA processes are generally slow.	ISTT is a technology that significantly reduces the toxicity and volume of contaminants in the target treatment zone by mobilizing contaminants, which are then collected and destroyed via ex situ treatment. This technology is effective at mobilizing and removing contaminants in all phases (dissolved, vapor, NAPL, and sorbed), thereby reducing the toxicity and volume of remaining contaminants. NA with monitoring relies on a variety of attenuation processes, some of which (such as abiotic and biotic degradation) result in reduction of toxicity by degradation of COCs or mobility (such as sorption to soils), and which cumulatively can reduce contaminated groundwater volume. However, these NA processes are generally slow.	ISTT is a technology that significantly reduces the toxicity and volume of contaminants in the target treatment zone by mobilizing contaminants, which are then collected and destroyed via ex situ treatment. This technology is effective at mobilizing and removing contaminants in all phases (dissolved, vapor, NAPL, and sorbed), thereby reducing the toxicity and volume of remaining contaminants. ISCO provides a reduction of toxicity and volume for petroleum hydrocarbon source areas and can result in rapid destruction of contaminants. NA with monitoring relies on a variety of attenuation processes, some of which (such as abiotic and biotic degradation) result in reduction of toxicity by degradation of COCs or mobility (such as sorption to soils), and which cumulatively can reduce contaminated groundwater volume. However, these NA processes are generally slow.

Criterion	Alternative 1 – Continuation of Existing Extraction and Treatment System	Alternative 2 – Enhancement of Existing Extraction and Treatment System	Alternative 3 – ISTT with NA with Monitoring	Alternative 4 – ISTT and ISCO
	Continued operation of the existing extraction and treatment system	Enhancement of the existing extraction and treatment system by installing additional extraction wells	Remediation of CVOC source zone via ISTT followed by NA with Monitoring	Remediation of CVOC source zone via ISTT and remediation of petroleum-related constituent area via ISCO
Short-term Impacts and Effectiveness				
	Alternative 1 does not meet the threshold criteria; therefore, the balancing criteria are not evaluated.	Alternative 2 is effective in the short term, although installation of additional extraction wells and conveyance piping may result in short-term impacts resulting from the potential exposure of workers to contaminated soils, groundwater, or vapors during installation. These potential impacts could be controlled during construction work by implementing engineering controls such as covering or containing of generated soils, proper personal protective equipment, and monitoring ambient air concentrations in the work zone during active construction using the existing CAMP. Potential impacts would also be associated with continued operation and maintenance of the groundwater treatment plant, including (1) nuisance conditions from increased traffic associated with workers operating the GWTP and trucks handling spent granular activated carbon, and (2) exposure to contaminated groundwater or vapors during treatment or during maintenance of extraction wells. Based on current operation of the GWTP, the adverse impacts of increased traffic are minimal because site operators are only present one to two times a week and carbon changeouts occur one to two times a year, although the frequency may increase with the expanded system. Potential exposures to groundwater or vapors would be mitigated through continued implementation of engineering and administrative controls such as an operation and maintenance plan, proper personal protective equipment, and implementation of a health and safety plan.	Alternative 3 would have short-term impacts associated with mobilization, installation, operation, and demobilization of equipment required for ISTT. Traffic to and from the site would increase during ISTT installation, operation, and decommissioning. Electrodes and recovery wells would be installed in the subsurface, resulting in short-term impacts from potential exposure of workers to contaminated soils, groundwater, or vapor. Additionally, substantial conveyance piping and aboveground treatment equipment would need to be installed and decommissioned. Some of the equipment would be installed inside a building, which could pose additional short-term impacts such as buildup of vapor or carbon monoxide in indoor air during drilling activities. During ISTT activities, vapors could daylight into ambient or indoor air if the vapor control system is inadequate, and there are potential risks to workers associated with the use of high voltage electricity. These impacts can be managed and mitigated through engineering and administrative controls such as those described for Alternative 2, as well as additional procedures such as electrical lock-out tag-out procedures or ventilating indoor spaces to prevent buildup of carbon monoxide.	Alternative 4 would have similar short-term impacts as Alternative 3 for the ISTT portion of the remedy. There would be additional short-term impacts associated with the implementation of ISCO. There may be potential short-term exposure to contaminated soil, groundwater, and vapor during injection well installation or injection of chemicals. During injection, the oxidant could daylight or there could be accidental releases of the oxidant. The potential exists that multiple rounds of injections may be required. Some of the injections may occur inside a building, which may pose additional short-term risks associated with vapor buildup or chemical handling. These impacts can be managed and mitigated through engineering and administrative controls.
Implementability				
	Alternative 1 does not meet the threshold criteria; therefore, the balancing criteria are not evaluated.	Alternative 2 is likely implementable. Challenges that could potentially be encountered during installation of additional extraction wells and associated piping include the potential for conflicts with subsurface utilities, onsite structures, and site uses by the current owner. The existing groundwater treatment plant may need to be upgraded or expanded to treat and store the additional extracted groundwater, especially because higher groundwater volumes with higher concentrations will likely be extracted than the current system. Approval to install and maintain additional extraction wells and conveyance piping or to expand the groundwater treatment plant may prove challenging given the likely need for access for decades.	Alternative 3 is implementable. Potential challenges may include obtaining and securing the required footprint for in situ thermal treatment equipment, protection of existing utilities and monitoring wells (if not abandoned), connection of the necessary utilities (including transformers and transmission lines sufficient for electrical demand) to operate the equipment and associated permitting, and underground injection permitting if groundwater is recirculated through the subsurface. However, access to the building for the expected duration of ISTT has been negotiated, underground injection permitting can be obtained, and other challenges will be resolved during design.	Alternative 4 is implementable, although the same challenges as noted for Alternative 3 would apply for the ISTT portion. Additional challenges for Alternative 4 are associated with the ISCO remedy component. These challenges include negotiating access to conduct injections in the West Building, and difficulty placing injection wells or DPT injection points, which is dependent upon locations of existing utilities, onsite structures, vehicular traffic patterns, and other potential physical limitations. However, access to the building for the expected duration of ISCO can likely be negotiated, underground injection permitting can be obtained, and other challenges will be resolved during design.
Cost-effectiveness				
	Alternative 1 does not meet the threshold criteria; therefore, the balancing criteria are not evaluated.	Capital Expense: \$ O&M Cost: \$\$\$ Overall Cost: \$\$\$\$ Effectiveness: Lowest (1) Cost-effectiveness: Low Low capital expense associated with installation of new extraction wells and upgrades to groundwater treatment plant. Highest long-term O&M costs associated with operating and maintaining the expanded groundwater treatment plant and	Capital Expense: \$\$ O&M Cost: \$\$ Overall Cost: \$\$\$\$ Effectiveness: Middle (2) Cost-effectiveness: Middle Although there is moderate capital expense associated with ISTT implementation (operating costs of ISTT are included as a capital expense because of their short duration), this alternative has moderate long-term O&M costs associated with long-term monitoring.	Capital Expense: \$\$\$ O&M Cost: \$ Overall Cost: \$\$\$\$ Effectiveness: Highest (3) Cost-effectiveness: High Highest capital expenses are associated with ISTT implementation (operating costs of ISTT are included as a capital expense because of their short duration) and ISCO injection. Lowest long-term O&M costs are associated with long-term monitoring, which should be shortest for this remedy.

Focused Feasibility Study

Criterion	Alternative 1 – Continuation of Existing Extraction and Treatment System	Alternative 2 – Enhancement of Existing Extraction and Treatment System	Alternative 3 – ISTT with NA with Monitoring	Alternative 4 – ISTT and ISCO
	Continued operation of the existing extraction and treatment system	Enhancement of the existing extraction and treatment system by installing additional extraction wells	Remediation of CVOC source zone via ISTT followed by NA with Monitoring	Remediation of CVOC source zone via ISTT and remediation of petroleum-related constituent area via ISCO
		extraction well network for at least 50 years, as well as long-term monitoring. Because this remedy has similar costs to the other alternatives but has the lowest effectiveness, this alternative has low cost-effectiveness.	Because this remedy has similar costs to the other alternatives and moderate effectiveness, this alternative ranks as having moderate cost-effectiveness.	Because of its highest effectiveness and similar cost to the other alternatives, this alternative ranks as having the highest cost-effectiveness.
Land Use				
	Alternative 1 does not meet the threshold criteria; therefore, the balancing criteria are not evaluated.	No change; institutional controls restricting land use to industrial will remain in place after remedy implementation.	No change; institutional controls restricting land use to industrial will remain in place after remedy implementation.	No change; institutional controls restricting land use to industrial will remain in place after remedy implementation.
Community Acceptance				
	Alternative 1 does not meet the threshold criteria; therefore, the balancing criteria are not evaluated.	Community acceptance will be determined after the public comment period.		

CAMP = Community Air Monitoring Plan
COC = constituent of concern
CVOC = chlorinated volatile organic compound
DPT = Direct Push Technology
GWTP = Groundwater Treatment Plant
ISCO = in situ chemical oxidation
ISTT = in situ thermal treatment
NA = natural attenuation
NAPL = nonaqueous phase liquid
OU = operable unit
RAO = remedial action objective
UST = underground storage tank

Figures





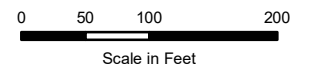
 Approximate OU-01 Site Boundary as defined by the July 2023 Order on Consent

 Parcel

Note:
Offsite area outside of OU-01 boundary is identified
as OU-03. Exact boundary of OU-03 is to be determined.



BASE MAP SOURCE:
Bing Aerial Imagery 2022



Essex Specialty
Products, Inc

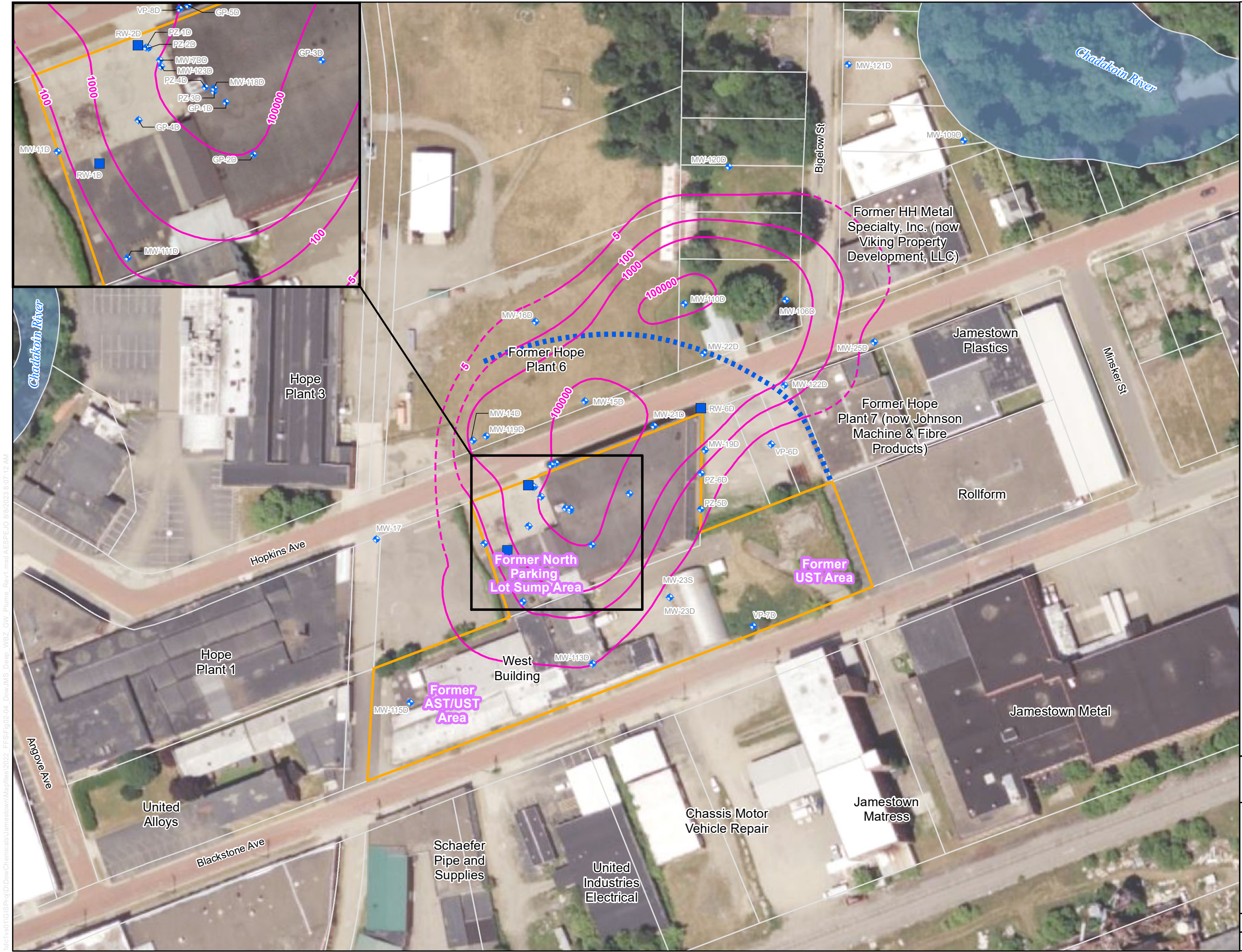
Essex/Hope Site,
Jamestown, New York

FIGURE 2-1
2023 Order on Consent -
Site Overview Map
Focused Feasibility Study

CREATED BY: LA

REVIEWED BY: JK

Jacobs



◆

Deep Monitoring Well

■

Deep Recovery Well

■■■■

Typical Deep WBZ Capture Zone

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Deep WBZ CVOC Contour (µg/L)

□

Approximate OU-01 Focused Feasibility Study Area Boundary

□

Chautauqua County Tax Parcels

■

Chadakoin River

Notes:

1. Most recent data from 2022 Annual Sampling used where available, supplemented with October 2020, September 2019, November 2018, March 2017, October 2017, and September 2016 monitoring well or grab sampling data.

total CVOCs = total chlorinated volatile organic compounds (sum of tetrachloroethene, trichloroethene, cis-1,2-dichloroethene, trans-1,2-dichloroethene, 1,1-dichloroethene, and vinyl chloride detections).

N

BASE MAP SOURCE:  
Bing Aerial Imagery 2022

0 25 50 100

Scale in Feet

Essex Specialty Products, Inc

Essex/Hope Site, Jamestown, New York

FIGURE 2-4

Deep WBZ Groundwater Plume

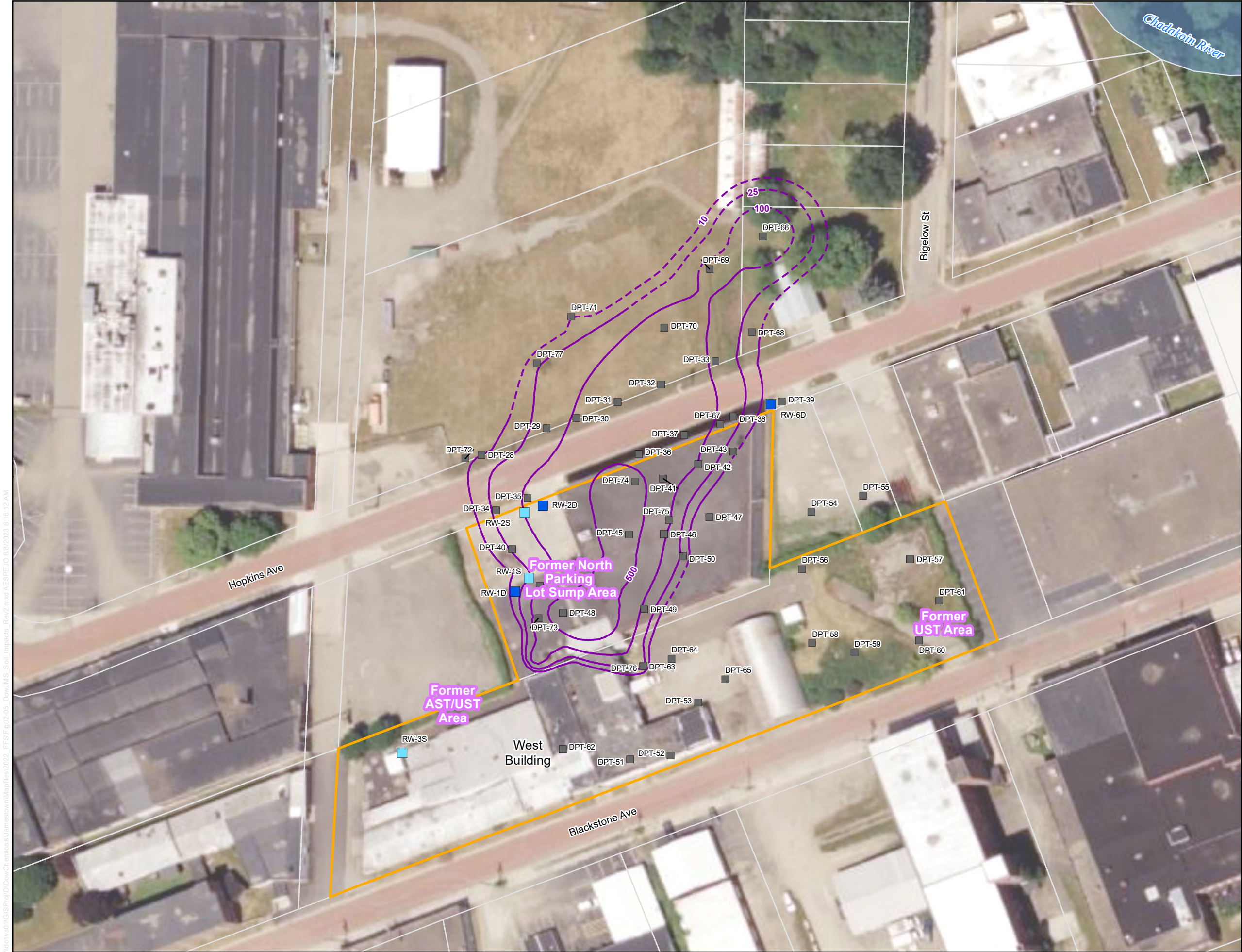
Focused Feasibility Study

CREATED BY: AE

REVIEWED BY: AS

Jacobs

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DPT Boring Location

Deep Recovery Well

Shallow Recovery Well

Soil CVOC Contour (mg/kg)  
(Dashed Where Inferred)

Approximate OU-01 Focused  
Feasibility Study Area Boundary

Chautauqua County Tax Parcels

Chadakoin River

Notes:

1. total CVOCs = total chlorinated volatile organic compounds (sum of tetrachloroethene, trichloroethene, cis-1,2-dichloroethene, trans-1,2-dichloroethene, 1,1-dichloroethene, and vinyl chloride detections)

2. Soil results from 2016 (CH2M, 2017), 2017 (CH2M 2018), 2019 (Jacobs, 2020), and 2022 (this investigation) used in developing contours.

N

BASE MAP SOURCE:  
Bing Aerial Imagery 2022

018.7537.575

Scale in Feet

Essex Specialty  
Products, Inc

Essex/Hope Site,  
Jamestown, New York

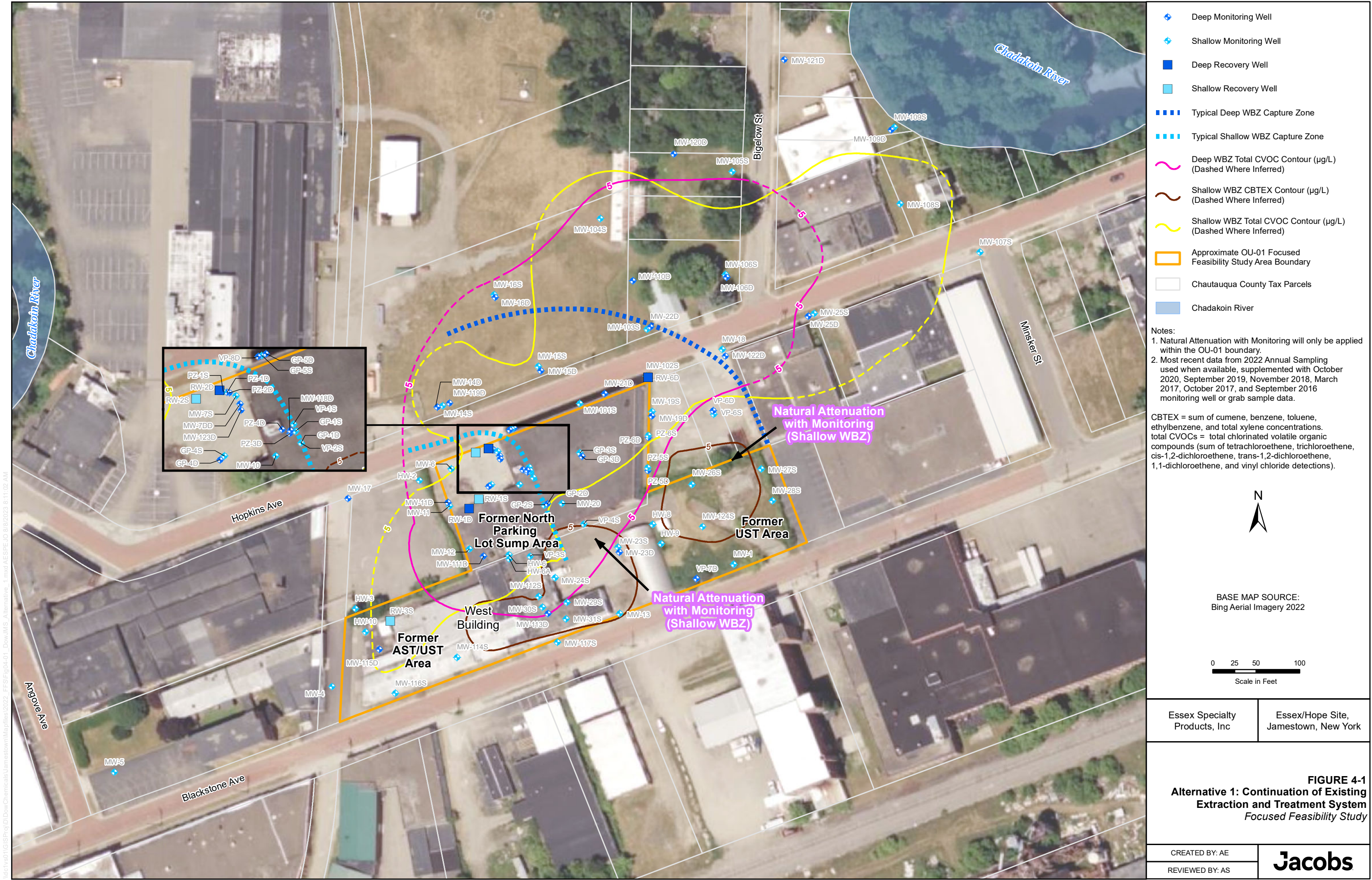
FIGURE 2-5  
Soil Impacts  
Focused Feasibility Study

CREATED BY: AE

REVIEWED BY: AS

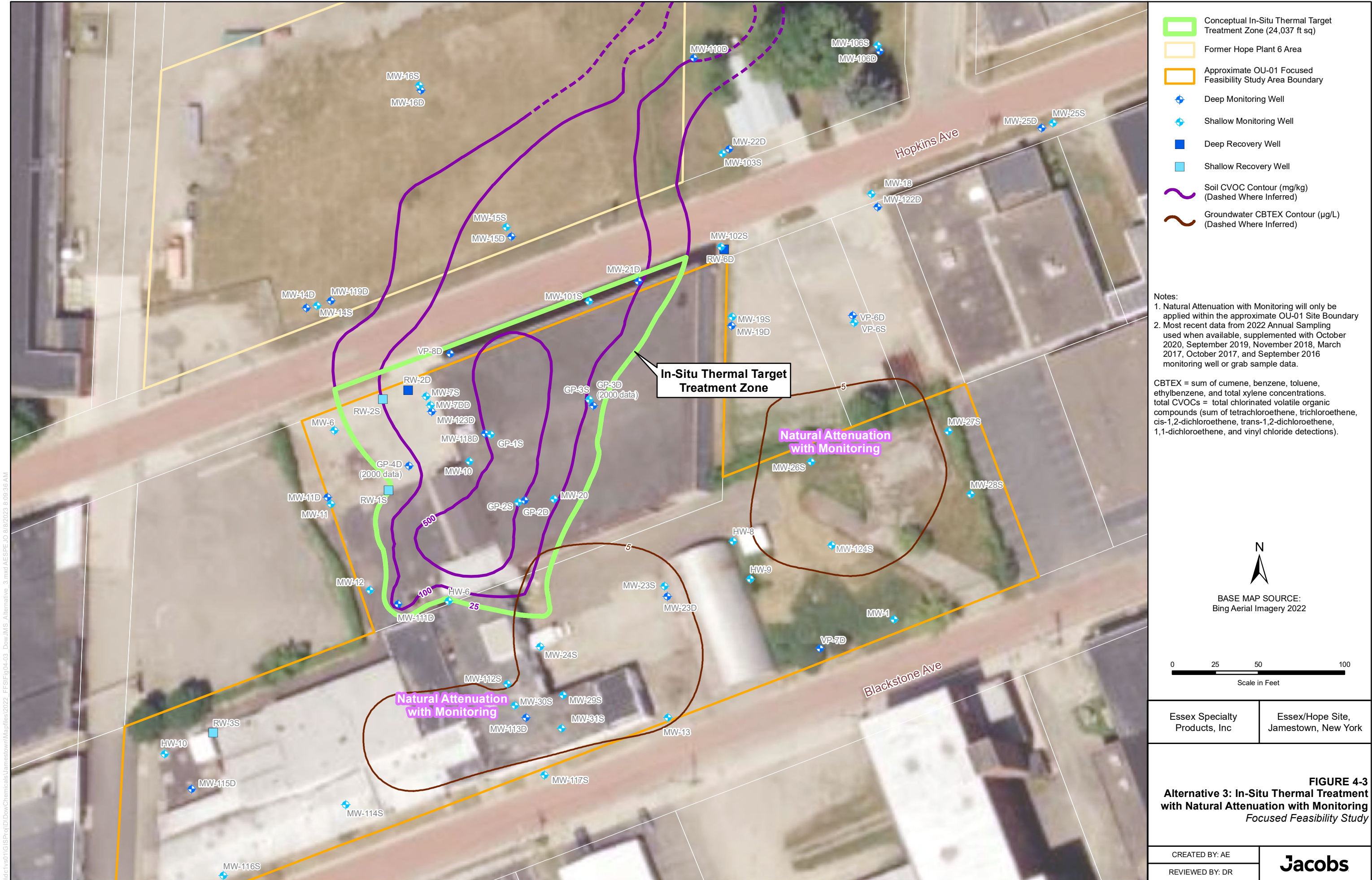
Jacobs

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