

Groundwater Quality Assessment Report

Village Center
East Hampton, Connecticut

June 2015



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Manchester, Connecticut 06040



FUSS & O'NEILL

June 5, 2015 †

Ms. Carla Sylvester
Chair, Brownfields Redevelopment Agency
Town of East Hampton
20 East High Street
East Hampton, CT 06424

RE: Groundwater Quality Assessment Report
Village Center
East Hampton, Connecticut

Dear Ms. Sylvester:

We are pleased to submit the enclosed Groundwater Quality Assessment report for the above-referenced site. This report summarizes the details and results from the assessment activities conducted with the objective to provide a preliminary screening level assessment of the existing groundwater conditions of the unconsolidated deposits aquifer in the Village Center.

This assessment was conducted in accordance with Fuss & O'Neill's authorization dated December 12, 2014 and with the United States Environmental Protection Agency (US EPA) approved Site Specific Quality Assurance Project Plan (QAPP), dated January 2015.

Thank you for the opportunity to conduct this work. Please contact the undersigned if we can be of further assistance.

Sincerely,

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1 Introduction

Fuss & O'Neill, Inc. was retained by the Town of East Hampton (the Town) to conduct a Groundwater Quality Assessment in the vicinity of the Town's "Village Center". The Village Center consists of numerous parcels located along Main Street, Skinner Street, Summit Street, Walnut Avenue and Watrous Street in East Hampton, Connecticut (the Site). The primary objective of this Groundwater Quality Assessment was to provide a preliminary screening level assessment of the existing groundwater conditions of the unconsolidated deposits aquifer in the Village Center and to help identify if potential continuing source(s) of contamination to the unconsolidated deposits aquifer exist.

The Groundwater Quality Assessment was conducted in accordance with the Environmental Protection Agency (EPA)-approved, January 2015 Site Specific Quality Assurance Project Plan (QAPP) addendum and in general conformance with Connecticut Department of Energy and Environmental Protection (DEEP) Remediation Standard Regulations (DEEP, 1996, rev. 2013).

2 Site Overview

2.1 Site History

East Hampton's Village Center was originally established in the mid 1700's and grew rapidly in the 1800s as an industrial hub known nationally for the manufacturing of bells. The first bell factory was constructed in 1808 and up to thirty manufacturers were known to have built and run bell factories in the town during that time period. More recently, several of these former industrial buildings remain underutilized and in disrepair.

According to Town records, previously prepared Brownfields Assessment reports identified a total of 23 Brownfield parcels within the Village Center. As part of the Village Center Revitalization Assessment conducted in December 2006, eleven of these Brownfield parcels (including facilities along Summit Street, Main Street, Skinner Street, Walnut Avenue and Watrous Street) were identified as having a "high" environmental risk. These "high" risk parcels once operated as bell manufacturers, cotton and silk manufactures, automotive paint and repair facilities, toy manufacturers, dry cleaners and gas stations. Some of the environmental concerns associated with these operations included the historic use of volatile organic compounds (VOCs) during bell manufacturing and dry cleaning operations, the presence and potential releases from petroleum underground storage tanks, and the generation of varying quantities of hazardous waste.

The extensive history of industrial manufacturing operations within the Village Center, including at the above-referenced Brownfield properties, has led to probable contamination in the area. Most notably, in 1984, elevated VOC concentrations, above applicable state drinking water maximum contaminant levels, were identified in the public water supply well located at the Center School (7 Summit Street). The elevated concentrations of trichloroethylene (TCE) and tetrachloroethylene (PCE) detected within this public potable water supply well prompted the Town and State Health Departments to conduct additional sampling of public and private supply wells in the area. The subsequent water quality

sampling identified a widespread area of impacted groundwater within the bedrock aquifer in the area of Main Street and Summit Street within the Village Center.

2.2 Physical Description

The subject site, Village Center, is comprised of a mix of residential, commercial and industrial parcels located to the south of the Pocotopaug Lake in East Hampton, Connecticut (Middlesex County). These properties include addresses along Main Street, Skinner Street, Summit Street, Walnut Avenue and Watrous Street. A portion of two United States Geological Survey (USGS) topographic maps showing the subject site location is provided as *Figure 1*.

2.3 Environmental Setting

Village Center is generally located in a topographical valley, sloping downwards toward the Pocotopaug Creek which runs from Pocotopaug Lake through the middle of Village Center, eventually discharging to Pine Brook (a tributary of the Salmon River). Throughout the area's industrial past, the natural location of this creek was altered by several iterations of damming and fill activities.

The regional topography generally slopes moderately to steeply from approximately 450 feet above sea level to approximately 360 feet above sea level (USGS, 1987) towards the Village Center (*Figure 1*).

2.3.1 Geology

Surficial Geology

Surficial materials across the site are identified as thin till (DEEP, 2009). Monitoring well installation activities conducted as part of the groundwater quality assessment confirmed that the unconsolidated materials consisted of compact silt, and fine to coarse-grained sand.

Bedrock Geology

Bedrock beneath the majority of the Site area is mapped as Brimfield Schist, which is characterized as grey, rusty weathering, medium to coarse layered schist and gneiss (Rodgers, 1985). Bedrock was encountered at several locations during the monitoring well installation activities including at depths between approximately 6 to 7 feet below grade (fbg) in the northern portion of Village Center (along Summit Street and Watrous Street). This was consistent with the previous bedrock monitoring well logs indicating bedrock in this area was encountered at depths between 7 to 8 fbg.

2.3.2 Hydrogeology

Groundwater was encountered in the unconsolidated deposits at the Site at depths ranging from 3 to 10 feet below ground surface (FO-05 and FO-03, respectively) during well installation drilling activities.

Depth to groundwater as measured within the newly installed monitoring wells ranges from approximately 2.6 to 9.05 feet below grade. Groundwater elevations were calculated to determine groundwater flow direction and create a groundwater contour map, which is provided as *Figure 2* and is discussed in *Section 6.1*. Groundwater elevation data is provided on *Table 1*.

2.3.3 Water Quality Classifications

Groundwater Classification

The groundwater beneath the Site is classified by the DEEP as GA/GAA, which may be impaired. GA/GAA groundwater is presumed to be able to be used for existing private and potential public or private supplies of water suitable for drinking without treatment (DEEP, 2011); however it is recognized that the groundwater in the Site vicinity may be impaired and may not meet current standards.

Surface Water Classification

The nearest surface water body to the Site is the Pocotopaug Creek, which runs from Pocotopaug Lane through the middle of Village Center (*Figure 2*). The Pocotopaug Creek is classified by the DEEP as B, which designated uses of such inland surface waters are for recreational use, fish and wildlife habitat, agricultural and industrial supply and other legitimate uses including navigation (DEEP, 2011).

3 Regulatory Framework

Analytical results obtained from this assessment were reviewed and compared to the Connecticut Remediation Standard Regulations (RSRs) (Regulations of Connecticut State Agencies [RCSA] Section 22a-133k-1 through 3) numeric criteria. The Connecticut RSRs are the clean-up standards in the State of Connecticut and contain procedures to evaluate whether actions (e.g., remediation or institutional controls) will be required to address identified releases of hazardous substances for sites that are subject to formal compliance with the RSRs.

The analytical results from the groundwater sampling have been compared to the baseline numeric criteria specified in the Connecticut RSRs (Regulations of Connecticut State Agencies Sections 22a-133k-1 through -3; adopted January 30, 1996, amended June 2013) and the CT drinking water Action Levels (CT Department of Public Health [DPH]) to provide a general environmental benchmark. Based on the previously discussed groundwater classification at the site, the analytical results are compared to the following criteria.

3.1 Groundwater Protection Criteria

Groundwater in a GA area may be remediated to a concentration equal to or less than the groundwater protection criteria (GWPC) for each substance if:

- the background concentration for groundwater is equal to or less than such GWPC

- a public water supply distribution system is available within 200 feet of the subject parcel
- the groundwater plume is not located in an aquifer protection area and the groundwater plume is not located within the area of influence of any public water supply well

3.2 Surface Water Protection Criteria

The surface water protection criteria (SWPC) ensure that surface water quality is not impaired by the discharge of contaminated groundwater into a surface water body at constituent concentrations above the Water Quality Standards. The SWPC apply to a groundwater plume at the point where the plume discharges to a surface water body. Alternatively, the SWPC may be evaluated as an average of concentrations within the plume.

3.3 Volatilization Criteria

The volatilization criteria (VC) protects human health from volatile substances in shallow groundwater that may migrate from groundwater into overlying buildings. Under the current regulations, the VC are considered for areas where groundwater is within 15 feet of the ground surface or a structure intended for human occupancy; however, the DEEP is proposing that this compliance depth be increased to 30 feet. The VC are specific to a site's land use (i.e., residential versus industrial/commercial). Residential criteria apply unless an Environmental Land Use Restriction (ELUR) is filed to restrict the site's use to industrial/commercial. In evaluating the site with respect to the volatilization criteria, Fuss & O'Neill will consider the proposed 2003 VC.

3.4 CT DPH Drinking Water Action Levels

The CT DPH established drinking water action levels to be protective of human health. If analytical results from a potable water supply well exceed a drinking water action level, the CTDEEP is authorized to take further action in addressing groundwater contamination at the well location. Action levels were established for the most common groundwater contaminants including pesticides, VOCs, metals and petroleum constituents. Due to the presence of several potable wells in the assessment area, Fuss & O'Neill also evaluated groundwater analytical data with respect to these drinking water action levels.

4 Previous Environmental Assessments/Investigations

Previous environmental investigations conducted within the Village Center district of East Hampton include public and private potable supply well sampling, Phase I Environmental Site Assessments (ESAs) and Phase II ESAs at three town-owned Brownfield properties (13 Watrous Street, 103 Main Street and 3 Walnut Avenue) and sensitive receptor surveys.

As previously discussed, elevated concentrations of VOCs (primarily trichloroethylene [TCE] and tetrachloroethane [PCE]) were identified in the public water supply well located at 7 Summit Street in 1984. Subsequently, a hydrogeologic investigation, including the sampling of private potable supply wells, was conducted in the vicinity of Main Street and Summit Street within Village Center to investigate the extent of the groundwater plume. Analytical results from this investigation identified a widespread area of bedrock aquifer contamination (VOCs) in the area of Main Street and Summit Street, extending from Center School; approximately at the intersection of Summit Street and Bevin Boulevard, south to approximately the intersection of Main Street and Skinner Street. As depicted on the 1984 VOC plume map (provided in *Appendix A*), the VOC contamination extended down-valley in a generally northeast to southwest orientation; following the general strike of the bedrock formation in the area.

Following the identification of the bedrock groundwater plume, 19 private potable wells located within the plume area, as shown on the Figure in *Appendix A*, were appropriately abandoned and potable water supply alternatives were evaluated. In 1990, a second potable water supply well was installed west of the groundwater plume on the Center School property and an extensive groundwater filtration system was installed to provide potable water to parcels within the Village Center.

Phase II ESA activities conducted at 13 Watrous Street, 103 Main Street and 3 Walnut Avenue in 2005 also identified impacts to soil and both the shallow bedrock and overburden groundwater aquifers. Refer to the January 2015 QAPP's "Village Center Parcel Location Map" included as *Appendix B* for the locations of these parcels. These investigation results confirmed that releases had occurred at each of the town-owned properties investigated and contaminants of concern included VOCs, ETPH, PAHs, metals, PCBs and pesticides. Specifically, elevated concentrations of contaminants of concern were detected in groundwater (TCE at 13 Watrous Street, and antimony and lead at 103 Main Street,) at concentrations in excess of the applicable DEEP RSR criteria. These elevated concentrations triggered Significant Environmental Hazards (SEH) for both properties and, in accordance with state regulations, SEH notifications were prepared and submitted to the DEEP in August 2005. During the preparation of the 2005 SEH Notifications, the Town of East Hampton proactively conducted sampling of two previous water supply wells at 13 Watrous Street. Sampling results identified concentrations of TCE and pesticides (specifically chlordane, dieldrin and trans-nonachlor) within one of the former supply wells at this parcel.

Additionally, and in response to the 2005 SEH Notifications, a sensitive receptor survey was conducted which identified the presence of private potable wells within 500-feet of 13 Watrous Street. The potable wells at 45 residences in the area were sampled by Chatham Health Department between October 2005 and June 2006. Analytical results from these sampling events identified VOCs (including methyl-tert-butyl ether [MTBE] and toluene; common gasoline constituents, as well as TCE and 1,2-dichloroethene; a breakdown product of TCE) were detected within samples collected from several supply wells. All of the VOC concentrations detected were below drinking water standards.

Subsequently, a Sensitive Receptor Survey Update was conducted in 2009, which confirmed that 48 properties were located within a 500-foot radius around 13 Watrous Street. Of these properties, 11 were serviced by the Village Center supply wells located at 7 Summit Street and had previously abandoned their former supply wells. The remaining 37 properties in the study area, located primarily upgradient of 13 Watrous Street, were presumably serviced by private water supply wells.

Limited remedial activities, including the removal of PCB-impacted soil, were also conducted at 13 Watrous in 2010. However, documents reviewed indicated that additional soil remediation activities are required at this parcel.

Refer to *Appendix C* for figures and data tables, prepared by Tighe & Bond, summarizing the results of the 2005/2006 groundwater and potable well sampling within Village Center, specifically at 13 Watrous Street, 103 Main Street and 3 Walnut Avenue.

5 Groundwater Quality Assessment Procedures

Groundwater quality assessment activities, including monitoring well installation and development, groundwater sampling, and a monitoring well elevation survey, were conducted at the Site between April 16 and May 1, 2015. This section provides an overview of the data collection and evaluation methods, and describes data quality objectives, constituents of concern, laboratory methods used to analyze environmental samples, and field investigation methods.

5.1 Data Quality Objectives and Reasonable Confidence Protocols

Data quality objectives are used to ensure that data is collected in a manner that permits it to be used to evaluate a site and support decisions based on those evaluations. Procedures used to ensure that the DQOs for the project were met include:

- Selection of analytical methods with appropriate detection limits
- Use of pre-determined sample handling and custody procedures
- Use of pre-determined data management and documentation procedures
- Selection of sampling locations and constituents of concern appropriate to the historical groundwater plume area
- Use of trip blanks, duplicates, and laboratory matrix spikes (MS) for quality assurance/quality control (QA/QC)
- Use of Connecticut's Reasonable Confidence Protocols and laboratory QA/QC procedures

5.2 Constituents of Concern

Based on a review of available previous assessment and investigation reports conducted within the Village Center and in coordination with the Town Brownfields Redevelopment Agency, the following list of constituents of concern (COC) were targeted for the groundwater quality assessment. The analytical methods were selected to identify and evaluate potential releases because they are capable of achieving analytical detection limits less than the baseline numeric RSR criteria applicable to the Site.

- Volatile organic compounds (VOCs) via EPA Method 8260
- Extractable total petroleum hydrocarbons (ETPH) via CT ETPH Method
- Polynuclear aromatic hydrocarbons (PAHs) via EPA Method 8270

The rationale for these COCs are based on the known environmental concerns identified for the former manufacturing processes, presence of petroleum underground storage tanks (USTs), other known site operations at properties within the Village Center and specific project objectives from the Town.

5.3 Monitoring Well Installation & Development

Between April 16 and 17, 2015 six overburden monitoring wells were installed at pre-determined locations throughout the Village Center as indicated in the table below.

Monitoring Well	Approximate Location	Rationale
FO-01	Southwest corner of 7 Summit Street	Downgradient of potential source areas to the east/northeast
FO-02	Southeast corner of 94 Main Street; near intersection of Skinner & Main Street	Located within the approximate southwest extent of the historical VOC plume area and crossgradient from two potential source areas
FO-03	Town ROW at intersection of Barton Hill Road & Main Street	Downgradient of potential sources along Summit Street to the east/northeast and crossgradient of potential source to the north
FO-04	Town ROW just south of Watrous & Summit Street intersection	Cross/downgradient of potential source areas to the east/southeast
FO-05	Town ROW along southern property boundary of 3 Walnut Street	Located within the approximate southern extent of historical VOC plume area
FO-06	Town ROW along east-central boundary of 7 Summit Street & Bevin Blvd	Downgradient of a potential source area to the northeast

Notes:

ROW – Right of Way

Fuss & O'Neill oversaw Glacier Drilling, LLC (Glacier) advance each monitoring well location using their Geoprobe™ 8040 direct-push drill rig. Soil cores were collected continuously from the ground surface using a 60-inch, stainless steel sampler and each core was inspected by a Fuss & O'Neill field hydrogeologist for physical evidence of contamination, such as staining or odors. Soils were also screened for the presence of vapor-phase VOCs using a photoionization detector (PID). All excess drill cuttings were containerized into one 55-gallon drum and staged on the 13 Watrous Street property; pending future disposal as part of remediation activities to be conducted by the Town's Brownfields Redevelopment Agency.

Six, 1.5-inch groundwater monitoring wells (FO-01 through FO-06) were completed at depths ranging from 6 to 16 feet below grade with screened intervals ranging from 2 to 10 feet, depending on the total depth of the wells. A filter sand pack was extended to approximately one-foot above the screened interval and a bentonite seal was installed over the sand pack and screened interval to prevent surface infiltration. Each monitoring well was completed at grade with flush-mount curb boxes set in concrete.

Following installation, each monitoring well was developed using surge-and-purge techniques to remove suspended sediments from the well and to increase the hydraulic connection between the wells and the aquifer. Additionally, three previously existing monitoring wells on 13 Watrous Street (TB-MW-1W through TB-MW-3W) and five previously existing monitoring wells on 103 Main Street (TB-MW-1M through TB-MW-5M) were located and developed using the same surge-and-purge techniques. On April 17, 2015, Fuss & O'Neill measured depth to groundwater at each of the six newly installed monitoring wells and the eight previously existing monitoring wells to calculate water table elevation and determine groundwater flow direction across the Site, as discussed further in *Section 6.1* below.

Well completion details and groundwater elevation data is summarized on *Table 1*, and the monitoring well completion reports are included with the boring logs in *Appendix D*.

5.4 Groundwater Sampling

On April 29, 2015, a Fuss & O'Neill hydrogeologist conducted the groundwater sampling event using a peristaltic pump, dedicated tubing, and EPA-approved low-flow sampling techniques. Groundwater quality parameters including pH, specific conductivity, dissolved oxygen, temperature, turbidity, and oxidation/reduction potential, were monitored, recorded and allowed to stabilize prior to sample collection.

Groundwater samples were collected from a total of seven monitoring wells including the following:

- FO-02 (located at 94 Main Street)
- FO-03 (located at the intersection of Barton Hill Road and Main Street)
- FO-05 (located at 3 Walnut Avenue)
- TB-MW-1W (located on 13 Watrous Street)
- TB-MW-2W (located on 13 Watrous Street)
- TB-MW-3W (located on 13 Watrous Street)
- TB-MW-4M (located on 103 Main Street)

Each of the groundwater samples were collected in laboratory provided glassware and were submitted to Phoenix for analysis of VOCs, ETPH and PAHs, as outlined in the January 2015 Site-Specific QAPP.

It is noted that monitoring wells FO-01, FO-04 and FO-06 had insufficient water volume to obtain a groundwater sample at the time of the sampling event. Additionally, only one monitoring well was sampled from the existing network of wells located on 103 Main Street. The Town's Brownfields Redevelopment Agency made the decision to sample only one well from this parcel due to the fact that

the five existing wells are in very close proximity to each other relative to the potential area of groundwater impacts within the Village Center. Monitoring well TB-MW-4M was selected as the sampling location that would be most representative of groundwater quality of the overburden aquifer from the southern extent of the Village Center.

Copies of the monitoring well field data sheets are included in *Appendix E*.

5.5 Monitoring Well Elevation Survey

On May 1, 2015, Fuss & O'Neill conducted an elevation survey on the six newly installed monitoring wells and seven previously existing monitoring wells located between 13 Watrous Street and 103 Main Street. Each monitoring well location was surveyed in reference to NAD 83/NAVD 88 to obtain measuring point elevations. The monitoring well coordinates and elevation data are provided in *Table 2*.

5.6 QA/QC Review and Data Usability

In order to ensure that the analytical data collected was suitable for evaluating compliance with the RSRs, quality assurance/quality control (QA/QC) samples were collected in the field and also submitted to the laboratory. In addition, the laboratory provided a statement of reasonable confidence and project narrative that accompanied each data package. The following subsections summarize our review of the results of the QA/QC samples and the Reasonable Confidence Protocols (RCP) package and project narratives provided by the laboratory.

Refer to *Appendix F* for the Data Validation Completeness Checklist.

Trip Blanks

A trip blank accompanied the groundwater samples to the laboratory and was analyzed for VOCs to determine whether samples might have been compromised during sample container handling or transport. VOCs were not detected above laboratory reporting limits in the trip blank.

Duplicate Samples

One duplicate groundwater sample was submitted during the groundwater quality assessment to check the precision of laboratory analysis and field sampling procedures. The duplicate was collected at the same time as the corresponding primary sample (TB-MW-2W) and was analyzed for the same parameters (VOCs, ETPH and PAHs). Precision is measured by the relative percent difference (RPD) between the primary and duplicate sample results with RPD goals being ≤ 30 percent for water. Overall, the results between the primary and the duplicate sample were within the acceptable percentage.

Reasonable Confidence Protocols

Fuss & O'Neill reviewed the reasonable confidence protocol packages and case narratives provided with the laboratory analytical report. The laboratory reported that "reasonable confidence" was achieved on all analyses conducted. A review of the narratives identified the following QA/QC issues that were considered in interpreting the data:

- The laboratory control sample (LCS) and/or the LCS Duplicate (LCSD) recovery was below the method criteria for select VOCs including: chloromethane, dichlorodifluoromethane and trichlorofluoromethane. All other QC data was acceptable, however, so therefore there is no significant bias suspected.

Based on the review of the reasonable confidence protocol packages and case narratives provided with the laboratory analytical report, the data is determined to be usable.

6 Groundwater Quality Assessment Results

This section presents the findings of the Groundwater Quality Assessment and relates the data gathered to the previous data for the Site reviewed during preparation of the January 2015 Site-Specific QAPP.

6.1 Groundwater Elevation

The depth to groundwater measurements from April 17, 2015 and monitoring well elevations were used to calculate groundwater elevations across the Village Center, as summarized on *Table 1*.

Bedrock groundwater elevations from the three bedrock monitoring wells located on 13 Watrous Street ranged from 413.41 feet (TB-MW-3W) to 416.27 (TB-MW-2W). Overburden groundwater elevations from the newly installed wells and previously existing wells located on 103 Main Street ranged from 381.38 feet (FO-03) to 366.99 feet (TB-MW-5M).

These elevations were used to generate groundwater contours, which indicate that groundwater flow direction is to the southwest in the shallow bedrock aquifer on 13 Watrous Street. Similarly, the overburden groundwater flow direction along the southwest portion of the Village Center appears to be down valley towards the south/southwest. The groundwater contours and flow direction are depicted on the groundwater contour map provided as *Figure 2*.

6.2 Groundwater Analytical Results

Each of the seven groundwater samples were submitted to Phoenix for analysis of VOCs, ETPH, and PAHs. Laboratory analytical results indicated that ETPH was not detected above laboratory reporting limits in any of the groundwater samples. Groundwater analytical results are discussed below and are summarized on *Table 3*. The laboratory analytical report is included in *Appendix G*.

Concentrations of the VOC constituents toluene and/or trichloroethylene (TCE) were detected in two of the seven samples collected. Toluene was detected at a concentration of 49 micrograms per liter (ug/L) in monitoring well FO-02, which is below the applicable RSR criteria. Although, the concentration of toluene identified in monitoring well FO-02 is below applicable criteria, it could be indicative of a minor release to groundwater in the area of 94 Main Street. Considering the lengthy industrial and commercial history of the properties within Site vicinity, the source of this release could not be immediately identified.

TCE was detected at a concentration of 15 ug/L in monitoring well TB-MW-1W (located on 13 Watrous Street). TCE and other VOCs were not detected in the samples collected from the other two monitoring wells at 13 Watrous Street. Despite the fact that the concentration of TCE detected in the sample from TB-MW-1W in April 2015 exceeds the GWPC of 5 ug/L; a determination of compliance with the GWPC in regard to groundwater quality at 13 Watrous Street will require additional sampling events.

Trace concentrations of one or more PAH constituents were also detected in the samples collected from monitoring wells FO-02, FO-03, FO-05, TB-MW-1W, and TB-MW-2W. These constituents were detected at trace concentrations, however, well below the applicable RSR criteria. PAHs were not detected above laboratory reporting limits in monitoring wells TB-MW-3W or TB-MW-4M.

The 2015 groundwater sampling results were also reviewed with regards to the Significant Environmental Hazard (SEH) conditions Connecticut General Statutes 22a-6u in effect as of the date of this report as outlined by the Connecticut Department of Energy & Environmental Protection (CT DEEP). Specifically, SEH notifications are required if contaminants are identified above the established GWPC at a parcel that is located within 500-feet upgradient of a private or public potable water supply well. An SEH condition was not identified based on review of the April 2015 sampling data.

Although the concentration of TCE exceeded the GWPC in TB-MW-1W, 13 Watrous Street is not located upgradient of a private or public potable water supply well, therefore this detection does not trigger a SEH. Additionally, it is noted that the nearest public water supply well located at 7 Summit Street, is regularly sampled and monitored for the presence of volatile organic compounds.

6.3 Groundwater Results Comparisons

In April 2015, a total of seven groundwater samples were collected from across the Village Center and submitted to Phoenix for analysis of VOCs, ETPH and PAHs. Laboratory analytical results were compared to the applicable RSR criteria and previous groundwater results to provide an updated summary of groundwater quality in the Site vicinity.

6.3.1 13 Watrous Street

Each of the three monitoring wells located on 13 Watrous Street (identified as TB-MW-1W through TB-MW-3W) were sampled as part of this groundwater quality assessment, and the samples were analyzed for VOCs, ETPH and PAHs.

VOC laboratory analytical results from the April 2015 sampling event were compared to results from a previous sampling event conducted by others in August 2005 as depicted in the table below:

Monitoring Well	2005 Sampling Event	2015 Sampling Event
Detected VOCs		
TB-MW-1W	CMA: 1.0 ug/L C12DCE: 0.71 ug/L TCE: 27 ug/L	TCE: 15 ug/L
TB-MW-2W	TCE: 2.4 ug/L PCE: 2.9 ug/L MTBE: 0.91 ug/L	No VOCs Detected.
TB-MW-3W	TCE: 1.7 ug/L Freon11: 1.7 ug/L	No VOCs Detected.
<u>Notes:</u> CMA – Chloromethane C12DCE – Cis-1,2-Dichloroethene TCE – Trichloroethylene PCE – Tetrachloroethane VOCs – Volatile Organic Compounds		

This comparison indicated that overall, VOC concentrations within these three monitoring wells appeared to have decreased, with only TCE detected in one monitoring well (TB-MW-1W) in April 2015. Although the TCE concentration identified in TB-MW-1W is lower than the 2005 concentration within this well, a VOC plume persists in the shallow bedrock aquifer at this property. The concentration of TCE detected in TB-MW-1W is likely associated with historical releases associated with previous on-site metal degreasing and cleaning activities at 13 Watrous Street, as previously identified within environmental assessments conducted for this parcel. Given the lengthy industrial history and density of the surrounding area, however, it is possible that off-site sources of TCE exist in the area.

Additionally, several PAH constituents were detected in April 2015 at monitoring wells TB-MW-1W and TB-MW-2W that were not identified in the 2005 sampling event. These trace PAH concentrations are also indicative of a residual groundwater plume in the shallow bedrock aquifer at this property.

Similarly to the August 2005 results, ETPH was not detected above laboratory reporting limits in any of the groundwater samples collected from 13 Watrous Street during the April 2015 sampling event.

6.3.2 103 Main Street

One of the five existing monitoring wells on the 103 Main Street parcel was sampled during the 2015 Groundwater Quality Assessment. The sample collected from this well (TB-MW-4M) was submitted to Phoenix for analysis of VOCs, ETPH and PAHs. Analytical results indicated that none of the parameters analyzed were detected above laboratory detection limits. These results are consistent with the 2005 analytical results from this monitoring well in which ETPH and VOCs were not detected at this location.

6.3.3 Overall Groundwater Quality – Village Center

Overall, the contaminant concentrations identified in groundwater samples collected from the unconsolidated deposits aquifer from four monitoring well locations throughout the Village Center and three samples collected from the shallow bedrock aquifer at 13 Watrous Street in 2015 appear slightly lower than the previous 2005 sampling event.

Groundwater analytical results obtained during this sampling event indicates a groundwater contaminant source of VOCs (TCE) and PAHs exists in the northeast portion of Village Center in the area of 13 Watrous Street. Additionally, a potential new source of aromatic VOCs (specifically toluene) was identified in the vicinity of monitoring well FO-02 located near the intersection of Main Street and Skinner Street. The current VOC groundwater plume configurations from this sampling event are depicted on *Figure 3* while the PAH groundwater plume configuration is depicted on *Figure 4*.

When compared to the historical data as reported on Fuss & O'Neill's 1986 Hydrogeologic Investigation Map (*Appendix A*), the current VOC concentrations in groundwater appear relatively unchanged. It is noted, however, that the concentrations depicted on the 1986 figure were collected from potable water supply wells installed at greater depths in the bedrock aquifer.

A data gap exists in the identification for a potential source of contamination in the northeast portion of the Village Center because groundwater samples could not be obtained from the location in the northern limit of the previously identified VOC plume (in the vicinity of Bevin Boulevard and Summit Street). As indicated on the 1986 Hydrogeologic Investigation map provided in *Appendix A*, this was the upgradient-most area of the VOC plume; however, samples could not be obtained during the April 2015 sampling event because groundwater in this area is located below the bedrock surface.

7 Conclusions

Fuss & O'Neill conducted the Groundwater Quality Assessment activities at the Site between April 16 and May 1, 2015. Fuss & O'Neill reviewed analytical results obtained from this assessment and compared them to the applicable CT DEEP RSRs numeric criteria, and to the previous groundwater analytical data collected by others.

Current Plume Concentrations & Configuration

An evaluation of this data has indicated that a VOC plume exists in the shallow bedrock groundwater aquifer at 13 Watrous Street and a minor VOC plume exists in the overburden aquifer located in the vicinity of 94 Main Street (monitoring well FO-02). Overall, the VOC concentrations identified in the monitoring wells located at 13 Watrous Street have decreased since the 2005 groundwater sampling event.

Additionally, the 2015 assessment has identified trace concentrations of PAHs in groundwater across the Village Center in both the shallow bedrock aquifer (13 Watrous Street) and in the overburden aquifer as screened by monitoring wells FO-02, FO-03 and FO-05.

Based on the results from the 2015 Groundwater Quality Assessment at the selected monitoring well locations, a VOC plume is present in at least the shallow bedrock aquifer in the northeast portion of the Village Center (13 Watrous Street) and within the overburden aquifer in the southwest portion of the Village Center. This data also suggests that the groundwater plumes in these areas may extend beyond the 2015 sampling locations based on the groundwater flow direction.

Overall, based on the information obtained from the newly installed monitoring well network (which was limited to only town owned parcels and right-of-ways) no evidence was obtained to indicate that the footprint of the 1986 bedrock plume is expanding due to an ongoing release to the unconsolidated deposits aquifer.

8 Limitations of Work Product

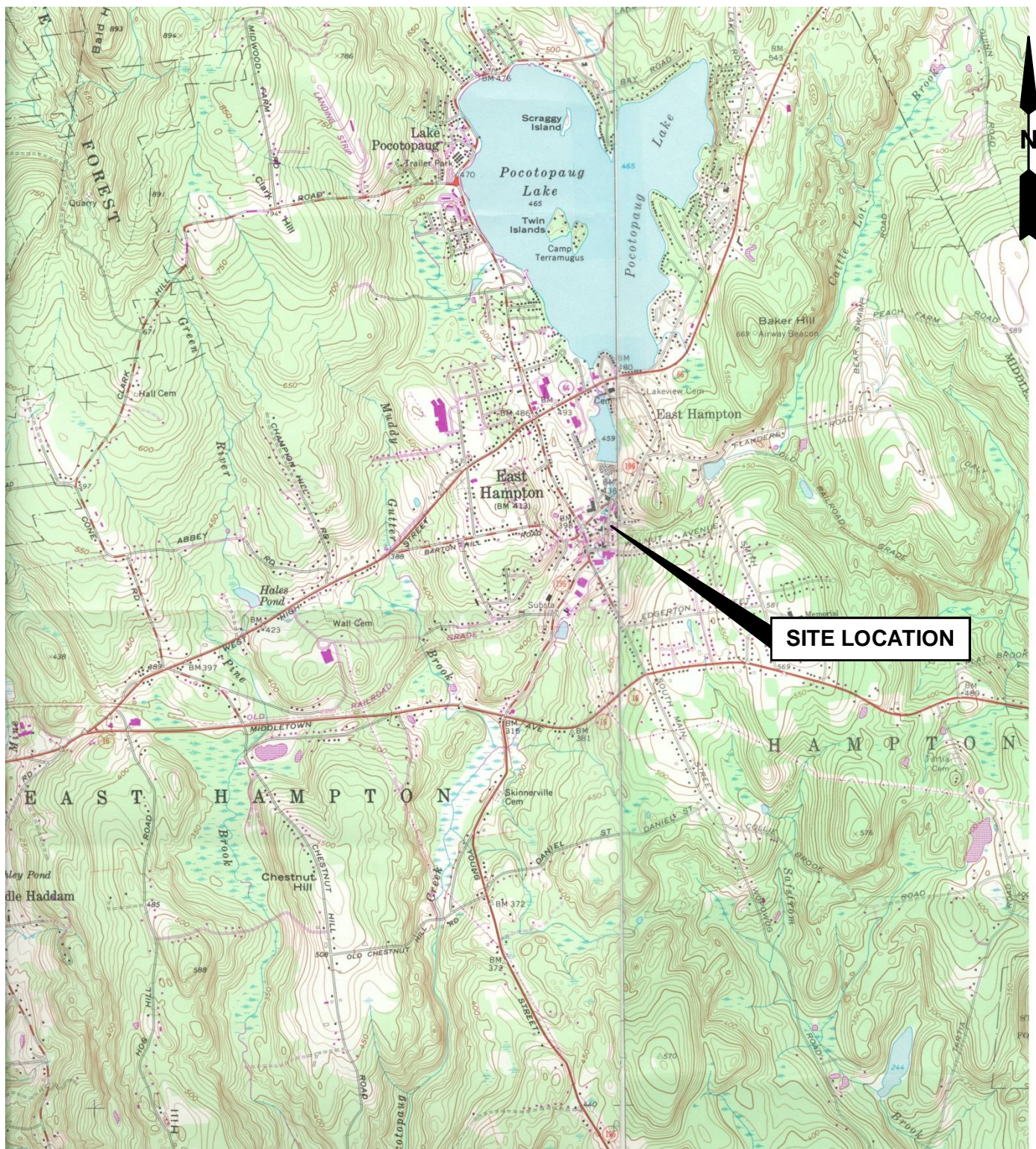
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3. The observations described and upon which the work product was based were made under the conditions stated therein. Any conclusions presented in the work product were based solely upon the services described therein, and not on scientific or engineering tasks or procedures beyond the scope of described services.
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5. If the purpose of this project was to assess the physical characteristics of the Site with respect to the presence in the environment of hazardous substances, waste or petroleum and chemical products and wastes as defined in the work product, unless otherwise noted, no specific attempt was made to check the compliance of present or past owners or operators of the Site with Federal, state, or local laws and regulations, environmental or otherwise.
6. If water level readings have been made, these observations were made at the times and under the conditions stated in the report. However, it must be noted that fluctuations in water levels

may occur due to variations in rainfall, passage of time and other factors and such fluctuations may affect the conclusions and recommendations presented herein.

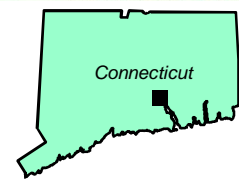
7. Except as noted in the work product, no quantitative laboratory testing was performed as part of the project. Where such analyses have been conducted by an outside laboratory, Consultant has relied upon the data provided, and unless otherwise described in the work product has not conducted an independent evaluation of the reliability of these tests.
8. If the conclusions and recommendations contained in the work product are based, in part, upon various types of chemical data, then the conclusions and recommendations are contingent upon the validity of such data. These data (if obtained) have been reviewed and interpretations made by Consultant. If indicated in the work product, some of these data may be preliminary or screening-level data and should be confirmed with quantitative analyses if more specific information is necessary. Moreover, it should be noted that variations in the types and concentrations of contaminants and variations in their flow paths may occur due to seasonal water table fluctuations, past disposal practices, the passage of time and other factors.
9. Chemical analyses may have been performed for specific parameters during the course of this project, as described in the work product. However, it should be noted that additional chemical constituents not included in the analyses conducted for the project may be present in soil, groundwater, surface water, sediments or building materials at the Site.
10. Ownership and property interests of all documents, including reports, electronic media, drawings and specifications, prepared or furnished by Consultant pursuant to this project are subject to the terms and conditions specified in the contract between the Consultant and Client, whether or not the project is completed.
11. Unless otherwise specifically noted in the work product or a requirement of the contract between the Consultant and Client, any reuse, modification or disbursement of documents to third parties will be at the sole risk of the third party and without liability or legal exposure to Consultant.
12. In the event that any questions arise with respect to the scope or meaning of Consultant's work product, immediately contact Consultant for clarification, explanation or to update the work product. In addition, Consultant has the right to verify, at the party's expense, the accuracy of the information contained in the work product, as deemed necessary by Consultant, based upon the passage of time or other material change in conditions since conducting the work.
13. Any use of or reliance on the work product shall constitute acceptance of the terms hereof.

Figures

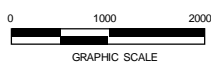


MAP REFERENCE:

THIS MAP WAS PREPARED FROM THE FOLLOWING
 7.5 MINUTE SERIES TOPOGRAPHIC MAP:
 MIDDLE HADDAM, CONN. 1961 REVISED 1984
 MOODUS, CONN. 1967 REVISED 1984



Quadrangle Location



SCALE: 1"=2000'



FUSS & O'NEILL

SITE LOCATION MAP
 VILLAGE CENTER

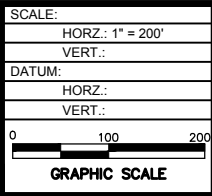
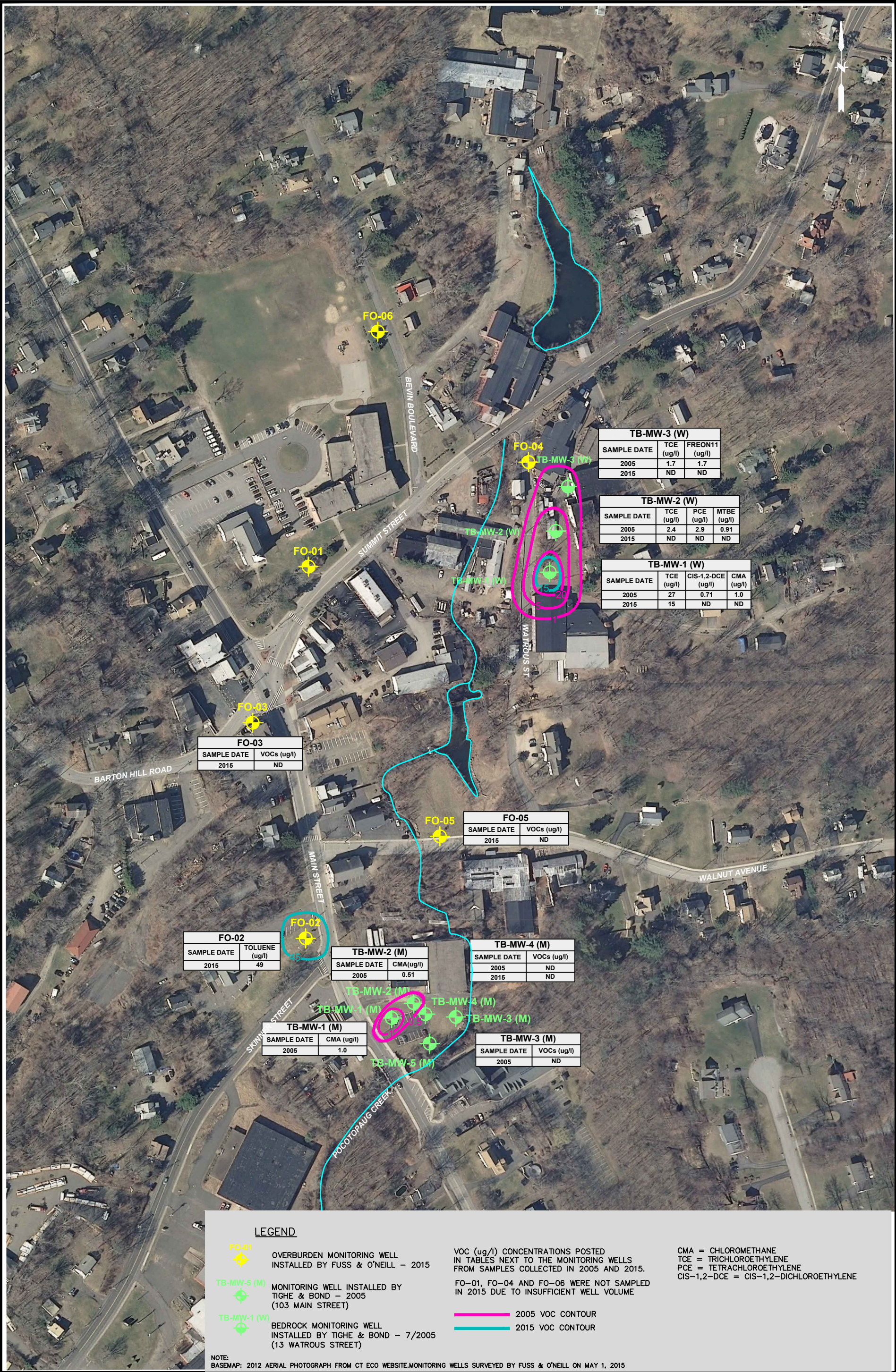
EAST HAMPTON

CONNECTICUT

PROJ. No:20110037A11
 DATE: JUNE 2014

FIGURE 1

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Plotter: DWG TO PDF PC3 CTB File: FO.STB
LAYER STATE:



EAST HAMPTON

VOC PLUME MAP - 2005 vs. 2015

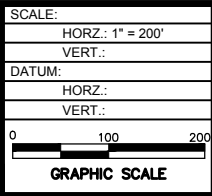
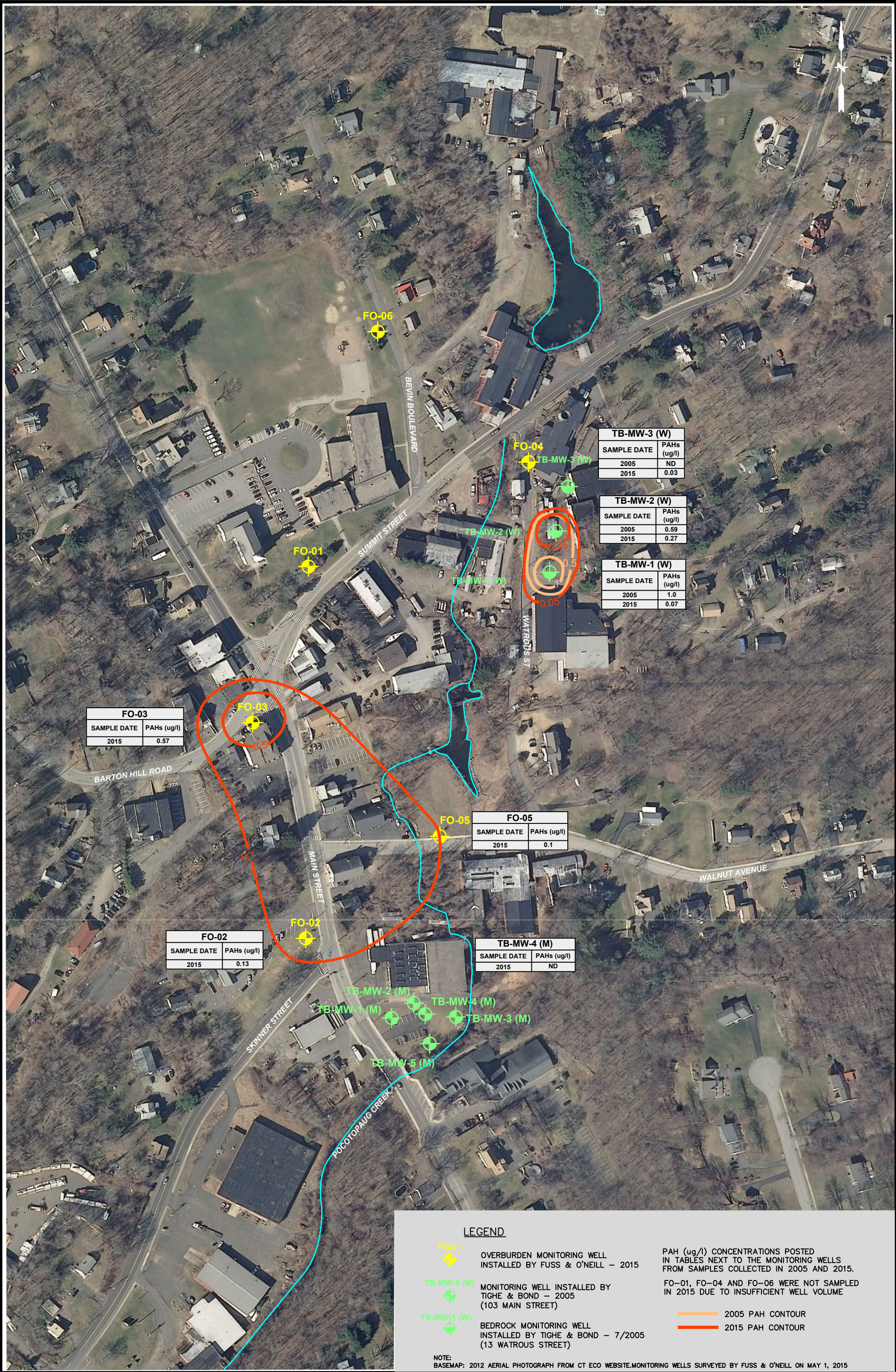
TOWN OF EAST HAMPTON

CONNECTICUT

PROJ. No.: 201110037A11
DATE: MAY 2015

FIGURE 3

File Path: J:\DWG\20110037A11\EnvironmentalPlan\20110037A11_STP05.dwg Layout: 11X17-P Plotted: Mon, June 01, 2015 - 10:55 AM User: srochelt
Plotter: DWG TO PDF PC3 CTB File: FO.STB
LAYER STATE:



EAST HAMPTON

PAH PLUME MAP - 2005 vs. 2015

TOWN OF EAST HAMPTON

CONNECTICUT

PROJ. No.: 20110037A11
DATE: MAY 2015

FIGURE 4

Tables

Table 1
Monitoring Well Construction Details and Groundwater Elevation Data
Groundwater Quality Assessment Report

Village Center
East Hampton, Connecticut

Monitoring Well ID	Monitoring Well Location	Well Construction Details					GW Elevation Data - April 17, 2015		
		MW Installation Date	MW Depth (feet bgs)	MW Diameter (inches)	Screen Interval (feet)	Screened Formation	PVC Elevation (feet)	Depth to Groundwater (feet)	Groundwater Elevation (feet)
FO-01	7 Summit Street	4/16/2015	NM	1.5"	3 - 6	Overburden	406.61	Dry	NM
FO-02	94 Main Street	4/16/2015	16.03	1.5"	6 - 16	Overburden	379.77	8.10	371.67
FO-03	Barton Hill Rd/Main St	4/16/2015	14.93	1.5"	5 - 15	Overburden	391.36	9.05	382.31
FO-04	Summit/Watrous St	4/16/2015	NM	1.5"	4 - 6	Overburden	422.49	Dry	NM
FO-05	3 Walnut Ave	4/17/2015	11.16	1.5"	2 - 11	Overburden	380.23	2.6	377.63
FO-06	7 Summit Street	4/17/2015	NM	1.5"	2 - 7	Overburden	424.72	Dry	NM
TB-MW-1W	13 Watrous Street	7/26/2005	22.69	2"	10 - 20	Bedrock	422.82	11.97	410.85
TB-MW-2W		7/26/2005	22.13	2"	10 - 20	Bedrock	425.20	8.00	417.20
TB-MW-3W		7/26/2005	24.53	2"	10 - 20	Bedrock	426.32	7.40	418.92
TB-MW-1M	103 Main Street	7/21/2005	15.37	2"	5 - 15	Overburden	375.55	6.50	369.05
TB-MW-2M		7/21/2005	14.61	2"	5 - 15	Overburden	376.92	8.24	368.68
TB-MW-3M		7/21/2005	18.06	2"	5 - 15	Overburden	379.90	9.35	370.55
TB-MW-4M		7/21/2005	15.46	2"	5 - 15	Overburden	376.42	6.93	369.49
TB-MW-5M		7/21/2005	14.06	2"	Unk	Unk	372.08	4.15	367.93

Notes:

Well depths were confirmed by Fuss & O'Neill in April 2015. Screened depth intervals for monitoring wells located on 13 Watrous Street and 103 Main Street was obtained from historical information provided by others.

Each monitoring well location was surveyed in reference to NAD 83/ NAVD 88

Unk = unknown

NM = not measured

Village Center
East Hampton, Connecticut

	Northing	Easting	Elevation (feet)
FO-01			
TOS	770779.89	1067834.619	406.91
PVC	770779.869	1067834.606	406.61
FO-02			
TOS	769959.52	1067828.482	380.03
PVC	769959.52	1067828.559	379.77
FO-03			
TOS	770435.329	1067711.532	391.64
PVC	770435.397	1067711.405	391.36
FO-04			
TOS	771010.446	1068319.92	422.68
PVC	771010.453	1068319.815	422.49
FO-05			
TOS	770184.801	1068124.574	380.40
PVC	770184.859	1068124.586	380.23
FO-06			
TOS	771298.371	1067987.666	425.00
PVC	771298.355	1067987.589	424.72
TB-MW-1W			
TOS	770767.403	1068366.741	423.93
PVC	770767.616	1068366.762	422.82
TB-MW-2W			
TOS	770858.445	1068380.113	425.87
PVC	770858.346	1068380.35	425.20
TB-MW-3W			
TOS	770956.567	1068407.037	425.97
PVC	770956.576	1068407.194	426.32
TB-MW-1M			
TOS	769783.96	1068018.247	375.76
PVC	769783.962	1068018.252	375.55
TB-MW-2M			
TOS	769816.545	1068066.919	377.28
PVC	769816.532	1068066.839	376.93
TB-MW-3M			
TOS	769786.242	1068159.671	379.98
PVC	769786.375	1068159.556	379.90
TB-MW-4M			
TOS	769792.526	1068092.434	376.70
PVC	769792.53	1068092.306	376.42
TB-MW-5M			
TOS	769727.496	1068102.033	372.31
PVC	769727.494	1068102.132	372.08

Notes:

Each monitoring well location was surveyed in reference to NAD 83 / NAVD 88.

TOS - Top of steel

PVC - Top of PVC

Table 3
Summary of Groundwater Analytical Results
Groundwater Quality Assessment Report

Village Center
East Hampton, Connecticut

Monitoring Well ID					FO-02	FO-03	FO-05	TB-MW-1W	TB-MW-2W	TB-MW-2W DUP	TB-MW-3W	TB-MW-4M	Trip Blank
Sample ID Sample Date					1176150429-08 4/29/2015	1176150429-09 4/29/2015	1176150429-06 4/29/2015	1176150429-05 4/29/2015	1176150429-03 4/29/2015	1176150429-04 4/29/2015	1176150429-02 4/29/2015	1176150429-07 4/29/2015	1176150429-01 4/29/2015
CONSTITUENTS	GWPC	SWPC	Res VC	CT DPH Drinking Water Action Levels									
Petroleum Hydrocarbons (mg/L) ETPH-CT	0.25	NE	NE	0.25	<0.074	<0.07	<0.072	<0.07	<0.07	<0.074	<0.07	<0.074	NA
PAHs, Total (ug/L)													
Benzo(a)anthracene	0.06	0.3	NE	NE	0.03	0.04	0.03	0.02	0.05	0.03	<0.02	<0.02	NA
Benzo(a)pyrene	0.2	0.3	NE	NE	0.03	0.03	0.02	<0.02	0.05	<0.02	<0.02	<0.02	NA
Benzo(b)fluoranthene	0.08	0.3	NE	NE	0.04	0.04	0.03	0.03	0.07	<0.02	<0.02	<0.02	NA
Benzo(k)fluoranthene	0.5	0.3	NE	NE	<0.02	<0.02	<0.02	<0.02	0.03	<0.02	<0.02	<0.02	NA
Chrysene	[1.1]	[47]	NE	NE	0.03	0.04	0.02	0.02	0.03	<0.02	<0.02	<0.02	NA
Dibenzo(a,h)anthracene	[0.2]	[1.3]	NE	NE	<0.01	<0.01	<0.01	<0.01	<0.01	<0.11	<0.01	<0.01	NA
Fluoranthene	280	3700	NE	NE	<0.1	0.15	<0.11	<0.1	<0.1	<0.11	<0.1	<0.1	NA
Indeno (1,2,3-cd)pyrene	[0.2]	[14.8]	NE	NE	<0.02	<0.02	<0.02	<0.02	0.04	<0.011	<0.02	<0.02	NA
Phenanthrene	200	0.3	[50000]	NE	<0.07	0.1	<0.07	<0.07	<0.07	<0.07	<0.07	<0.07	NA
Pyrene	200	110000	NE	NE	<0.1	0.17	<0.11	<0.1	<0.1	<0.11	<0.1	<0.1	NA
VOCs (ug/L)													
Tetrachloroethylene	5	88	1500	5	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Toluene	1000	4000000	23500	150	49	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Trichloroethylene	5	2340	219	1	<1.0	<1.0	<1.0	15	<1.0	<1.0	<1.0	<1.0	<1.0

Notes:

Units: ug=micrograms, mg=milligrams, L=liter

GWPC = groundwater protection criteria

SWPC = surface water protection criteria

Res VC = residential volatilization criteria

NE = no established criteria

NA = not analyzed

< = constituent not detected at the specified laboratory reporting limit

Bold and shaded cells indicates a concentration reported above baseline RSR criteria

[1.1] = draft proposed 2008 RSR criteria (DEEP approval required)

^DDuplicate sample collected; the highest concentration of the primary and duplicate samples is reported

^{Phenanthrene} 0.077 is listed in the RSRs; however, DEEP has acknowledged that the correct value is 0.3

Appendix A

1986 Hydrogeologic Investigation Groundwater Contamination Map



LEGEND

- # 43 HOUSE NUMBER
- AREA OF VOLATILES AT LEVELS \geq 1 PART PER BILLION
- AREA OF VOLATILES AT LEVELS \geq RECOMMENDED LIMITS
- WELL NOT SAMPLED
- WELL CONTAMINATED WITH VOLATILE ORGANICS \geq 1 PART PER BILLION
- WELL PREVIOUSLY SAMPLED - NO VOLATILES DETECTED
- APPROXIMATE ELEVATION OF WATER - FEBRUARY 1986
- WELL CONTAMINATED WITH VOLATILE ORGANICS ABOVE RECOMMENDED LIMITS
- LOCATION WHERE REMEDIAL ACTION IS RECOMMENDED

REVISIONS
PRELIMINARY MAP DATED
NOVEMBER 1985

FUSS&O'NEILL
CONSULTING ENGINEERS
MANCHESTER, CONNECTICUT

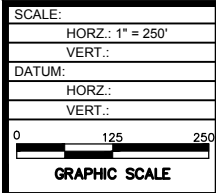
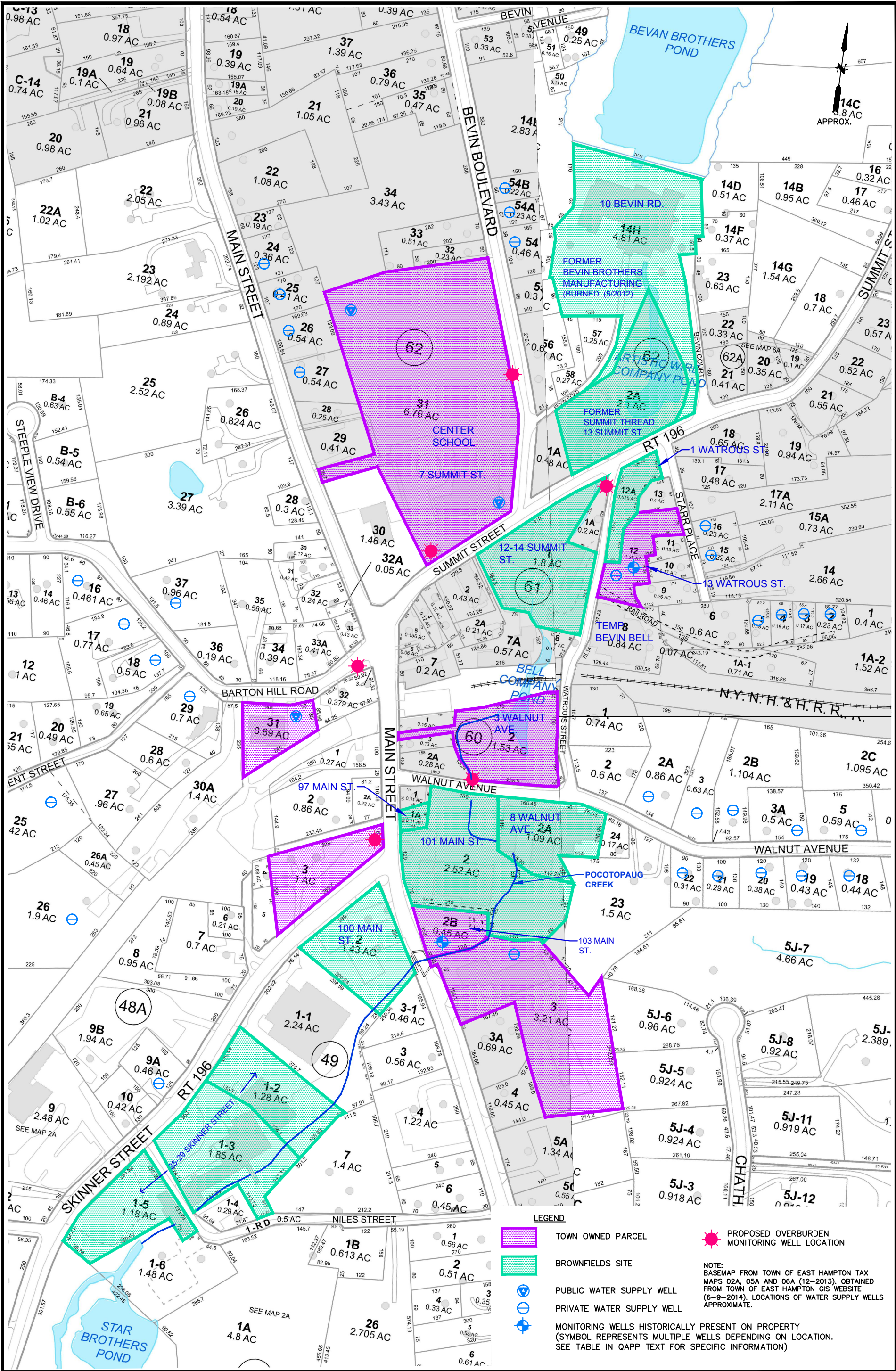
TOWN OF EAST HAMPTON
HYDROGEOLOGIC INVESTIGATION
GROUNDWATER CONTAMINATION
MAIN AND SUMMIT STREET AREAS

PROJ. NO.	DATE	SCALE	FIELD BK.	DESIGNER	CHECKER	SHEET NO.
85-452H/APRIL 1986	1" = 60'	NA	R.S.P.	J.P.H.	1 of 1	

Appendix B

January 2015 QAPP – Village Center Parcel Location Map (Fuss & O'Neill)

File Path: J:\DWG\GP20110037A11\EnvironmentalPlan20110037A11_STP02.dwg Layout: 11X17-P Plotted: Mon, January 26, 2015 - 10:07 AM User: srachelt
Plotter: DWG TO PDF PC3 CTB File: FO.STB
MIS VIEW: LAYER STATE:



TOWN OF EAST HAMPTON
VILLAGE CENTER PARCEL LOCATIONS
AND PROPOSED MONITORING WELLS
VILLAGE CENTER

EAST HAMPTON

CONNECTICUT

PROJ. No.: 201110037A11
DATE: JANUARY 2015

FIGURE 2

Appendix C

2005 Figures & Data Tables:
13 Watrous Street, 103 Main Street, 3 Walnut Avenue & Potable
Sampling Results (Tighe & Bond)

Table 4
Summary of Groundwater Analytical Data
Phase II ESA
13 Watrous Street
East Hampton, CT

Parameter	Connecticut Remediation Standard Regulations (RSRs)						
	GWPC	SWPC	RES GW VC	I/C GW VC	WS MW-1 8/6/05	WS MW-2 8/6/05	WS MW-3 8/6/05
pH (SU)*	NE	NE	NE	NE	6.78	6.94	6.85
Specific Conductance (umhos/cm)*	NE	NE	NE	NE	212	239	310
Total Metals (ug/L)							
Antimony	6	86,000	NE	NE	ND<6	ND<6	ND <6
Arsenic	50	4	NE	NE	ND <10.0	ND <10.0	ND <10.0
Beryllium	4	4	NE	NE	ND <1.0	ND<1.0	ND<1.0
Chromium	5	6	NE	NE	ND <1.0	ND <1.0	ND <1.0
Chromium	50	1,200	NE	NE	6.1	10	9.7
Copper	1,300	48	NE	NE	19	39	21
Lead	15	13	NE	NE	5.4	6.8	7.9
Nickel	100	880	NE	NE	11	20	16
Mercury	2	0.4	NE	NE	ND <0.2	ND <0.2	ND <0.2
Selenium	50	50	NE	NE	ND <10.0	ND <10.0	ND <10.0
Silver	36	12	NE	NE	ND <5.0	ND <5.0	ND <5.0
Thallium	5	63	NE	NE	ND <10.0	ND <10.0	ND <10.0
Zinc	5,000	123	NE	NE	ND <50	ND <50	ND <50
Extractable Petroleum Hydrocarbons (CTETPH) (mg/L)	100	NE	NE	NE	ND <0.1	ND <0.1	ND <0.1
Volatile Organic Compounds (ug/L)**							
Chloromethane	3	NE	390	5,500	1.00	ND <1.0	ND <2.0
cis-1,2 - Dichloroethene	70	NE	830	11,000	0.71	ND <1.0	ND <2.0
Trichloroethene (TCE)	5	2,340	27	67	27.0	2.4	1.7
Tetrachloroethene	5	88	340	810	ND<1.0	2.9	ND <2.0
Methyl-tert-butyl ether (MTBE)	100	NE	21,000	50,000	ND<1.0	0.91	ND <2.0
Trichlorofluoromethane (Freon 11)	1,300	NE	1,300	4,200	ND <1.0	ND <1.0	1.70
Semi Volatile Organic Compounds (ug/L)**							
Di-n-butyl pthalate	3	NE	390	5,500	1.00	0.59	ND <2.0

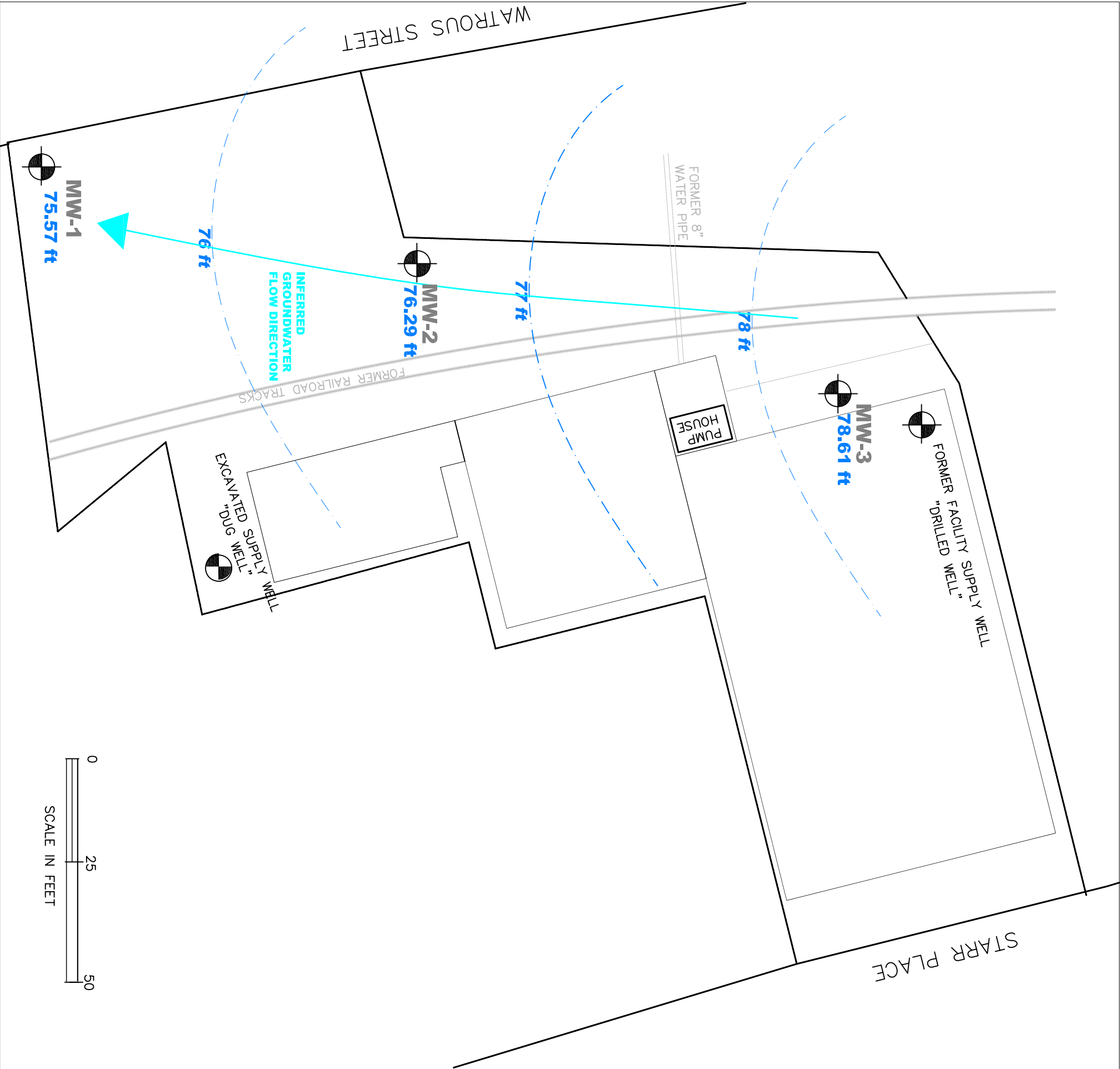
Notes:

Values bolded and shaded exceed applicable standards
* - pH and specific conductance readings were averaged over the time period of sampling
** - Only detected compounds are shown in this table
NE - No Established Criteria
ND - Not Detected
NA - Not Analyzed
RSR - Remediation Standard Regulation
GWPC - Groundwater Protection Criteria
SWPC - Surface Water Protection Criteria
RES VC - Residential Volatilization Criteria
I/C VC - Industrial / Commercial Volatilization Criteria
SU - Standard Units
umhos/cm - microsiemens per centimeter
ug/L - micrograms per liter
mg/L - milligrams per liter

Well Number	Top of PVC Elevation (FT)	Depth to Water (FT)	Relative Elevation (FT)
MW-1	89.26	13.69	75.57
MW-2	90.23	13.94	76.29
MW-3	94.23	15.62	78.61

TOP OF PVC ELEVATIONS BASED PVC ELEVATION RELATIVE TO AN AN ARBITRARY BENCHMARK OF 100 FT

GROUNDWATER ELEVATIONS



LEGEND

- MONITORING WELL
- GROUNDWATER CONTOUR
- RELATIVE GROUNDWATER ELEVATION (FEET)

NOTES:

GROUNDWATER ELEVATIONS ARE RELATIVE AND BASED ON ARBITRARY DATUM

ELEVATION SURVEY CONDUCTED JULY 26, 2005

Tighe&Bond Tighe & Bond – Consulting Engineers 213 Court Street – Suite 900 Middletown, Connecticut 06457 Ph:860-704-4760				Revisions	
				No.	By: Date:
GROUNDWATER CONTOUR MAP 13 Watrous Street East Hampton, CT					
Job No.	12-6136	Designed By:	BCC	Checked By:	JTO
Cad File:	6136/13 WATROUS/FIGURE2.PDF	Drawn By:	BCC	Date:	DECEMBER 2005
				Scale:	1"=10'
				Figure 3	

Table 4
Summary of Groundwater Data
Phase II ESA
103 Main Street
East Hampton, CT

Parameter	Connecticut Remediation Standard Regulations (RSRs)							
	GWPC	SWPC	RES VC	I/C VC	MS MW-1 8/6/05	MS MW-2 8/3/05	MS MW-3 8/3/05	MS MW-4 8/4/05
pH (SU)*	NE	NE	NE	NE	6.59	6.83	6.11	6.78
Specific Conductance (umhos/cm)*	NE	NE	NE	NE	210	258	291	189
Total Metals (ug/L)								
Antimony	6	86,000	NE	NE	ND <6.0	10	ND <6.0	ND <6.0
Arsenic	50	4	NE	NE	ND <10.0	ND <10.0	ND <10.0	16
Beryllium	4	4	NE	NE	ND <1.0	ND <1.0	ND <1.0	ND <1.0
Cadmium	5	6	NE	NE	ND <1.0	ND <1.0	ND <1.0	ND <1.0
Chromium	50	1,200	NE	NE	5.6	6.6	ND <5.0	7.3
Copper	1,300	48	NE	NE	21	66	ND <10.0	28
Lead	15	13	NE	NE	11	70	ND <5.0	18
Nickel	100	880	NE	NE	11	ND <10.0	ND <10.0	ND <10.0
Mercury	2	0.4	NE	NE	ND <0.2	ND <0.2	ND <0.2	0.46
Selenium	50	50	NE	NE	ND <10.0	ND <10.0	ND <10.0	ND <10.0
Silver	36	12	NE	NE	ND <5	ND <5	ND <5	ND <5
Thallium	5	63	NE	NE	ND <10.0	ND <10.0	ND <10.0	ND <10.0
Zinc	5,000	123	NE	NE	ND <50	ND <50	ND <50	ND <50
Extractable Petroleum Hydrocarbons (CTETPH) (mg/L)	100	NE	NE	NE	ND <0.1	ND <0.1	ND <0.1	ND <0.1
Volatile Organic Compounds (ug/L)**								
Chloromethane	3	NE	390	5,500	1.00	0.51	ND <2.0	ND <2.0

Notes:

Values bolded and shaded exceed applicable standards

* - pH and specific conductance readings were averaged over the time period of sampling.

** - Only detected VOCs were included in the report. The full analyte list for EPA Method 8260 was performed.

NE - No Established Criteria

ND - Not Detected

NA - Not Analyzed

RSR - Remediation Standard Regulation

GWPC - Groundwater Protection Criteria

SWPC - Surface Water Protection Criteria

RES VC - Residential Volatilization Criteria

I/C VC - Industrial / Commercial Volatilization Criteria

SU - Standard Units

umhos/cm - microsiemens per centimeter

ug/L - micrograms per liter or parts per billion

mgL - milligeam per liter or parts per million

Table 4

Summary of Groundwater Analytical Data
Phase II Environmental Site Assessment
Water Tower Property
East Hampton, CT

Parameter	GWPC	SWPC	RES VC	I/C VC	ID Date	MW-1 6/5/2006	MW-Dup 6/5/2006	MW-2 6/5/2006	MW-3 6/5/2006	MW-4 6/5/2006
Volatile Organic Compounds (ug/L)										
Methyl tert-butyl Ether (MTBE)	100	NE	21,000	50,000		1.1	1.1	ND	ND	ND
Semi-Volatile Organic Compounds (ug/L)	Varies	Varies	Varies	Varies		ND	ND	ND	ND	ND
Extractable TPH (CTETPH) (mg/L)	0.1	NE	NE	NE		0.15	0.15	0.13	0.14	ND<0.1
Priority Pollutant 13 Metals (ug/L)										
Arsenic	50	4	NE	NE		J<10	J<10	ND<10	ND<10	ND<10
Barium	1,000	NE	NE	NE		42	48	42	20	73
Cadmium	5	6	NE	NE		0.53	0.62	0.52	ND<1.0	ND<1.0
Chromium	50	1,200	NE	NE		4.5	5.3	1.2	J<5.0	ND
Lead	15	13	NE	NE		9.1	12	20	6.7	3.1
Mercury (7471 Method)	2	0.4	NE	NE		ND<0.2	ND<0.2	ND<0.2	ND<0.2	ND<0.2
Selenium	50	50	NE	NE		6.5	5.7	6.1	ND<1.0	ND<1.0
Silver	36	12	NE	NE		1.6	1.5	ND	J<5.0	ND<1.0

Notes:

Highlighted text - Concentration exceeds at least one indicated RSR criteria.

Only detected Constituents of Concern (COC) are included in the table.

Numeric criteria defined by the Connecticut Remediation Standard Regulations (RSRs; January 1996) and subsequent additions/modifications.

Extractable Petroleum Hydrocarbons via Connecticut ETPH Method.

Volatile Organic Compounds via EPA Method 8260.

Priority Pollutant 13 Metals via EPA Method 6010B and 7470A

ND - Not Detected to the indicated limit.

NE - No RSR Criteria Established.

J - Concentration above minimum detection limit (MDL) but below reporting limit. Approximated concentration provided in laboratory reports.

SWPC - Surface Water Protection Criteria

GWPC- Ground Water Protection Criteria





RES VC - Residential Volatilization Criteria

I/C VC - Industrial/Commercial Volatilization Criteria

ug/L - micrograms per liter

mg/L - milligrams per liter

Legend

- 
Well Location
- 
Property Boundary
- 
Groundwater flow direction
- 
Equipotential Contour



NOTE:
Groundwater elevations
are relative and based
on an arbitrary benchmark
established on site

Town of
East Hampton
Water Tower
Property

Overburden
Groundwater
Flow Direction

Walnut Avenue
East Hampton,
Connecticut

July 2006

Work Item Description	12-6136
PROJECT NO:	
FILE:	12-6136-001
DRAWN BY:	BCC
CHECKED:	BCC
APPROVED BY:	JTO

Approximate SCALE: 1" = 25'

Figure 3

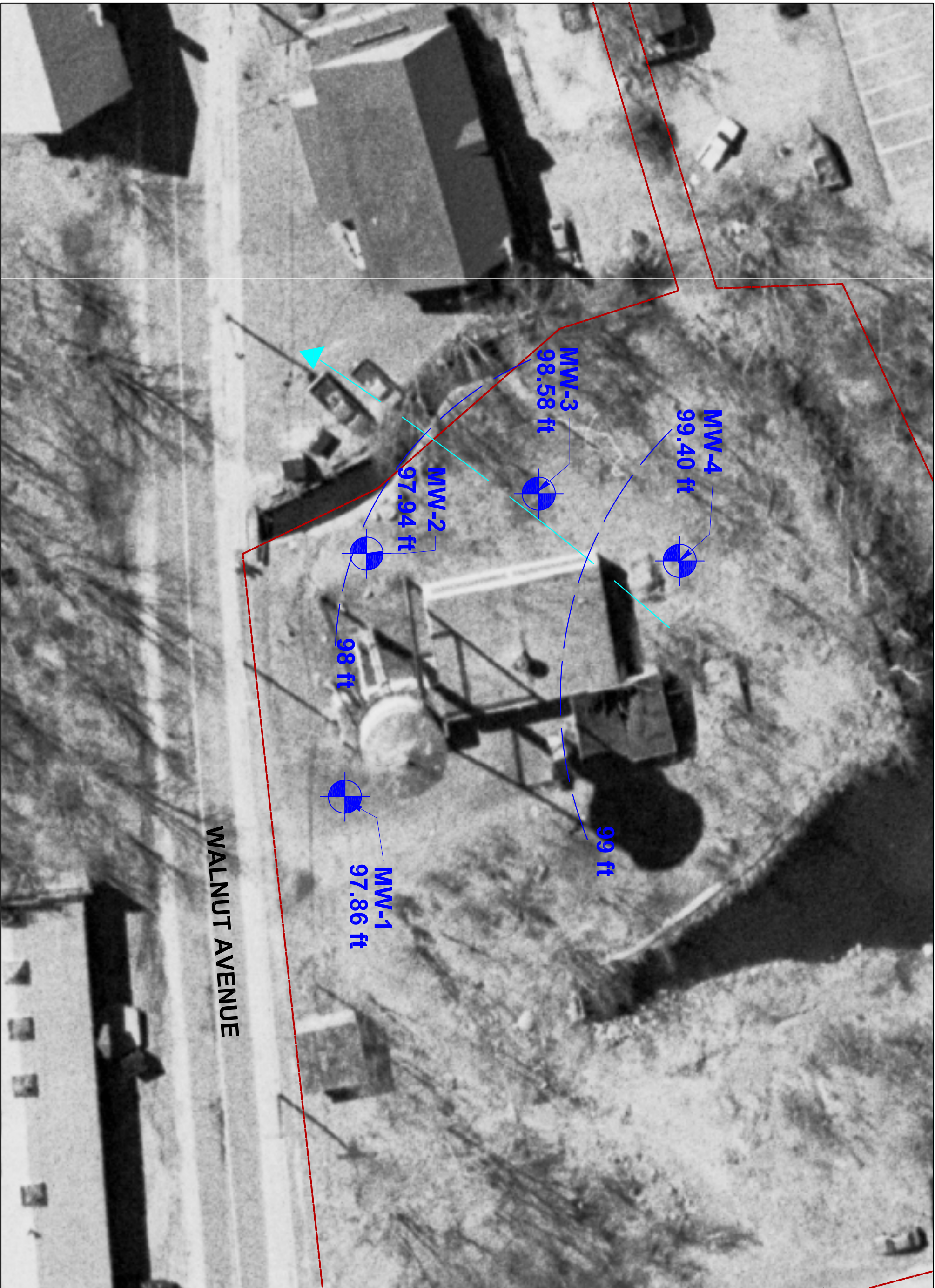


Table 1
Significant Environmental Hazard Report
East Hampton Village Center

	National Primary Drinking Water Regulations	CTDPH Action Level	GWPC	2 Bevin Court	45 Chatham Fields Road	47 Chatham Field Road	64 Main Street	88 Main Street	91 Main Street	95 Main Street	101 Main Street	105 Main Street	107 Main Street	108 Main Street	111 Main Street	112 Main Street	116 Main Street	6 Niles Street
Date Sampled				11/2/2005	10/27/2005	10/27/2005	10/27/2005	10/27/2005	10/27/2005	10/27/2005	10/27/2005	10/27/2005	10/27/2005	10/27/2005	10/27/2005	10/27/2005	10/27/2005	10/27/2005
VOCs via EPA Method 524.2 1 (µg/L)																		
Toluene	1,000	1,000	1,000	ND	ND	ND		ND	ND			ND	ND	ND	ND	ND	ND	ND
Methyl Tert Butyl Ethylene (MTBE)	NS	70	100	ND	ND	ND		J<0.5	J<0.5			J<0.5	0.6	ND	0.6	J<0.5	0.7	J<0.5
Methylene Chloride	NS	NS	5	ND	ND	ND		ND	ND			ND	ND	ND	ND	ND	ND	ND
Trichloroethylene	5	5	5	ND	ND	ND		ND	ND			ND	ND	ND	ND	ND	ND	ND
Chloroform	80 ²	NS	6	ND	ND	ND		ND	ND			ND	ND	ND	ND	ND	ND	ND
Bromoform	80 ²	NS	4	ND	ND	ND		0.9	0.9			ND	ND	ND	ND	ND	ND	ND
Dibromochloromethane	80 ²	NS	NS	ND	ND	ND		0.7	0.8			ND	ND	ND	ND	ND	ND	ND
Bromodichoromethane	80 ²	NS	0.56	ND	ND	ND		J<0.5	0.5			ND	ND	ND	ND	ND	ND	ND
Chloroethane	NS	NS	NS	ND	ND	ND		ND	ND			ND	ND	ND	ND	ND	ND	ND
Trichloroflouroethene	NS	NS	20,000	ND	ND	ND		ND	ND			ND	ND	ND	ND	ND	ND	ND
cis-1,2-Dichloroethylene	70	NS	70					J<0.5	J<0.5			ND	ND	ND	ND	ND	ND	ND
Tetrachloroethylene	5	5	5	ND	ND	ND		ND	ND			ND	ND	ND	ND	ND	ND	ND
Pesticides via EPA Method 505 ¹ (µg/L)																		
Alpha Chlordane	2	0.3	0.3	ND<0.008														
Gamma Chlordane	2	0.3	0.3	ND<0.006														
Dieldrin	NS	0.03	0.002	0.060														
Trans-nonachlor	NS	NS	NS	ND<0.006														
Metals via EPA Method 200.8 (µg/L)																		
Lead	15	NS	15	ND<3		ND<3	ND<3	ND<3	ND<3	ND<3	ND<3	ND<3		ND<3	ND<3	ND<3	4	ND<3
Antimony	6	NS	6	ND<5		ND<5	ND<5	ND<5	ND<5	ND<5	ND<5	ND<5		ND<5	ND<5	ND<5	ND<5	ND<5

Notes:
1 - Only detected analytes listed
2 - Total trihalomethane standard applies.
GWPC - The Connecticut Remediation Standard Regulations Groundwater Protection Criteria
CTDPH - Connecticut Department of Public Health Action Limit for Private Wells, Updated March 2004
National Primary Drinking Water Regulations, update May 2005
Results with border and bold typeface indicate an exceedance of one or more drinking water standards
All results reported in micrograms per liter
VOC - Volatile Organic Compounds
NS - No standard
J - Constituent detected below reporting limit
ND - Not detected. Note: No reporting limits were provided for analytical method 524.2.
All results provided by the Chatham Health Department

Table 1 (continued)
Significant Environmental Hazard Report
East Hampton Village Center

	National Primary Drinking Water Regulations CTDPH Action Level GWPC			4 Railroad Avenue	5 Railroad Avenue	7 Railroad Avenue	9 Railroad Avenue	1 Starr Place	2 Starr Place	3 Starr Place	4 Starr Place	5 Starr Place	6 Starr Place	7 Starr Place	8 Starr Place	9 Starr Place	10 Starr Place
Date Sampled				12/8/2005	10/13/2005	10/13/2005	10/13/2005	11/2/2005	10/13/2005	10/13/2005	6/30/2006	10/13/2005	10/13/2005	10/13/2005	10/13/2005	10/13/2005	6/30/2006
VOCs via EPA Method 524.2 1 (µg/L)																	
Toluene	1,000	1,000	1,000		ND			ND	0.8	ND	ND	ND	1.4		ND		ND
Methyl Tert Butyl Ethylene (MTBE)	NS	70	100		0.5			ND	ND	ND	ND	ND	J<0.5		ND		ND
Methylene Chloride	NS	NS	5		ND			ND	ND	ND	ND	ND	ND		J<0.5		ND
Trichloroethylene	5	5	5		ND			ND	ND	ND	ND	ND	ND		J<0.5		ND
Chloroform	80 ²	NS	6		ND			ND	ND	ND	ND	ND	ND		ND		ND
Bromoform	80 ²	NS	4		ND			ND	ND	ND	ND	ND	ND		ND		ND
Dibromochloromethane	80 ²	NS	NS		ND			ND	ND	ND	J<0.5	ND	ND		ND		ND
Bromodichoromethane	80 ²	NS	0.56		ND			ND	ND	ND	J<0.5	ND	ND		ND		ND
Chloroethane	NS	NS	NS		ND			ND	ND	ND	ND	ND	ND		ND		ND
Trichloroflouroethene	NS	NS	#####		ND			ND	ND	ND	ND	ND	ND		ND		ND
cis-1,2-Dichloroethylene	70	NS	70		ND			ND	ND	ND	ND	ND	ND		ND		ND
Tetrachloroethylene	5	5	5		ND			ND	J<0.5	ND	ND	ND	ND		ND		ND
Pesticides via EPA Method 505 ¹ (µg/L)																	
Alpha Chlordane	2	0.3	0.3	ND<0.008	ND<0.008	ND<0.008	ND<0.008	ND<0.008	ND<0.008	ND<0.008	ND<0.008	ND<0.008	ND<0.008	ND<0.008	ND<0.008	ND<0.008	ND<0.008
Gamma Chlordane	2	0.3	0.3	ND<0.006	ND<0.006	ND<0.006	ND<0.006	ND<0.006	ND<0.006	ND<0.006	ND<0.006	ND<0.006	ND<0.006	ND<0.006	ND<0.006	ND<0.006	ND<0.006
Dieldrin	NS	0.03	0.002	ND<0.006	ND<0.006	ND<0.006	ND<0.006	ND<0.006	0.333	ND<0.006	ND<0.006	ND<0.006	ND<0.006	ND<0.006	ND<0.006	ND<0.006	ND<0.008
Trans-nonachlor	NS	NS	NS	ND<0.006	ND<0.006	ND<0.006	ND<0.006	ND<0.006	ND<0.006	ND<0.006	ND<0.006	ND<0.006	ND<0.006	ND<0.006	ND<0.006	ND<0.006	ND<0.006
Metals via EPA Method 200.8 (µg/L)																	
Lead	15	NS	15					4									
Antimony	6	NS	6					ND<3									

Notes:
1 - Only detected analytes listed
2 - Total trihalomethane standard applies.
GWPC - The Connecticut Remediation Standard Regulations Groundwater Protection Criteria
CTDPH - Connecticut Department of Public Health Action Limit for Private Wells, Updated March 2004
National Primary Drinking Water Regulations, update May 2005
Results with border and bold typeface indicate an exceedance of one or more drinking water standards
All results reported in micrograms per liter
VOC - Volatile Organic Compounds
NS - No standard
J - Constituent detected below reporting limit
ND - Not detected. Note: No reporting limits were provided for analytical method 524.2.
All results provided by the Chatham Health Department

Table 1 (continued)
Significant Environmental Hazard Report
East Hampton Village Center

	National Primary Drinking Water Regulations	CTDPH Action Level	GWPC	11 Starr Place	15 Summit Street	16 Summit Street	18 Summit Street	19 Summit Street	23 Summit Street	8 Walnut Avenue	9 Walnut Avenue	10 Walnut Avenue	12 Walnut Avenue	17 Walnut Avenue	13 Watrous Street Interior Well	13 Watrous Street Exterior Well	17 Watrous Street	22 Watrous Street	29 Watrous Street
Date Sampled				10/13/2005	10/13/2005	10/13/2005	10/13/2005	10/13/2005	11/2/2005	11/2/2005	10/13/2005	10/13/2005	10/13/2005	10/13/2005	8/10/2005	7/12/2005	7/12/2005	6/30/2006	6/30/2006
VOCs via EPA Method 524.2 1 (µg/L)																			
Toluene	1,000	1,000	1,000		ND	ND	ND	ND	ND	ND	ND	ND			ND	ND	ND	ND	ND
Methyl Tert Butyl Ethylene (MTBE)	NS	70	100		ND	ND	ND	ND	ND	ND	ND	ND			ND	ND	ND	J<0.5	J<0.5
Methylene Chloride	NS	NS	5		ND	ND	ND	ND	ND	ND	ND	ND			J<0.5	ND	ND	ND	ND
Trichloroethylene	5	5	5		ND	ND	ND	ND	ND	ND	ND	ND			3.9	ND	2.3	ND	J<0.5
Chloroform	80 ²	NS	6		ND	ND	ND	ND	ND	ND	ND	ND			J<0.5	ND	ND	2.6	ND
Bromoform	80 ²	NS	4		ND	ND	ND	ND	ND	0.6	ND	ND			ND	ND	ND	1.8	ND
Dibromochloromethane	80 ²	NS	NS		ND	ND	ND	ND	ND	0.6	ND	ND			ND	ND	ND	3.5	ND
Bromodichloromethane	80 ²	NS	0.56		ND	ND	ND	ND	ND	J<0.5	ND	ND			ND	ND	ND	3.7	ND
Chloroethane	NS	NS	NS		ND	ND	ND	ND	ND	ND	ND	ND			ND	ND	ND	J<0.5	ND
Trichloroflouroethene	NS	NS	####		ND	ND	ND	ND	ND	ND	ND	ND			7.8	ND	ND	ND	ND
cis-1,2-Dichloroethylene	70	NS	70		ND	ND	ND	ND	ND	J<0.5	ND	ND			ND	ND	0.6	0.6	ND
Tetrachloroethylene	5	5	5		ND	ND	ND	ND	ND	ND	ND	ND			J<0.5	ND	ND	ND	ND
Pesticides via EPA Method 505 ¹ (µg/L)																			
Alpha Chlordane	2	0.3	0.3	ND<0.008	3.66	0.346	ND<0.008	0.38	ND<0.008	ND<0.008	ND<0.008	ND<0.008	ND<0.008	ND<0.008	0.056	ND	ND<0.008		ND<0.006
Gamma Chlordane	2	0.3	0.3	ND<0.006	ND<0.006	ND<0.006	ND<0.006	ND<0.006	ND<0.006	ND<0.006	ND<0.006	ND<0.006	ND<0.006	ND<0.006	0.056	ND	ND<0.006		ND<0.006
Dieldrin	NS	0.03	0	ND<0.008	6.52	2.05	ND<0.008	2.04	ND<0.008	ND<0.008	ND<0.008	ND<0.008	ND<0.008	ND<0.008	1.063	ND	0.096		0.091
Trans-nonachlor	NS	NS	NS	ND<0.006	ND<0.006	ND<0.006	ND<0.006	ND<0.006	ND<0.006	ND<0.006	ND<0.006	ND<0.006	ND<0.006	ND<0.006	0.03	ND	ND<0.006		ND<0.006
Metals via EPA Method 200.8 (µg/L)																			
Lead	15	NS	15							ND<3									
Antimony	6	NS	6							ND<3									

Notes:
1 - Only detected analytes listed
2 - Total trihalomethane standard applies.
GWPC - The Connecticut Remediation Standard Regulations Groundwater Protection Criteria
CTDPH - Connecticut Department of Public Health Action Limit for Private Wells, Updated March 2004
National Primary Drinking Water Regulations, update May 2005
Results with border and bold typeface indicate an exceedance of one or more drinking water standards
All results reported in micrograms per liter
VOC - Volatile Organic Compounds
NS - No standard
J - Constituent detected below reporting limit
ND - Not detected. Note: No reporting limits were provided for analytical method 524.2.
All results provided by the Chatham Health Department

Appendix D

Soil Boring Logs & Monitoring Well Completion Reports



FUSS & O'NEILL

Disciplines to Deliver

BORING LOG

PROJECT: East Hampton Brownfields

LOCATION: East Hampton, CT

SITE ID: FO-01

SHEET: of

PROJECT NO: 20110037.A11

WEATHER: Sunny 60's

CONTRACTOR: Glacier

OPERATOR:

F&O REPRESENTATIVE: D. Cook

DRILLING METHOD: Direct Push

SAMPLING METHOD: 5' Macro Core

HAMMER WT: --- HAMMER FALL (IN) ---

BORING LOCATION: front of School near Gazebo

DATE STARTED: 4/16/15

DATE & TIME COMPLETED: 4/16/15

DEPTH TO SATURATED ZONE: not encountered

SAMPLE PREFIX:

DRILLING DETAILS

MATERIAL DESCRIPTION

ANALYTICAL SAMPLES

START DEPTH (FT)	BLOWS 6"	REC/ PEN (IN)	DEPTH RANGE (FT)	DESCRIPTION	PID	LITHO-LOGIC CODE	SAMPLE NO. & TIME	DEPTH INTERVAL (FT)	JARS & PRESERV.
0	NA	42/60	0-0.3	Top Soil: Silt, sm. F-m sand. ltl. organics. moist, loose, no odor brown 7.5YR 4/3	ND	TS			
↓	↓	↓	0.3-5	F-C SAND: ltl silt, tr. pulverized stone moist, compact, no odor, brown 7.5YR 5/4	ND	SP			
5	↓	10/12	5-6	Same As Above, rock in tip Refusal at 6'	ND	SP			
				off Set, Confirm obstruction with drive point					
0	NA	NA	0-6	Refusal at 6'					
				off set, Confirm obstruction with drive point					
0	NA	NA	0-6	Refusal at 6'					
				low grade gneiss / etc. biotite schist bedrock found in tip at point of refusal.					

BORING DIAMETER

2.5

BORING METHOD

Geoprobe

BORING DEPTH

6

REMARKS

Field Instrument=

If refusal is encountered, describe all efforts used to confirm.

offsets back-filled w/ native material & sand

TIGER PID used for screening soil

Field Decon: ☒ Yes / No / Dedicated Device

PROPORTIONS USED:

Trace (tr) 0 to 10% Some (sm) 20 to 35%
 Little (ltl) 10 to 20% And 35 to 50%

EXAMPLE DESCRIPTION:

SAND, F-M; sm f angular gravel; ltl silt; tr clay; (10R 5/4), wet at 7 ft. Loose. No odor.

Reviewed by Staff:

BACKFILL

Concrete/Asphalt

To

Bentonite Grout/Chips

To

Native Material

To

Other

To

See Monitoring Well Completion Report



FUSS & O'NEILL

Disciplines to Deliver

MONITORING WELL COMPLETION REPORT

GENERAL INFORMATION

Project Name: East Hampton Brownfields
 Project Location: East Hampton, CT
 F&O Engineer/Geologist: D. Cook
 Date of Completion: 4/16/15
 Boring Location: Front of School near Gazebo
 Drilling Contractor/Name: Glacier
 Drilling Method: direct push

Site ID (Boring/Well ID): FO-01
 Project No.: 20110037.A11
 Ground Surface Elevation: _____
 Permit #: _____
 E1 Top of Steel Casing: _____
 E1 Top of PVC Casing: _____
 Measuring Point: TPS / PVC
 Well Cover (see codes): _____

WELL CONSTRUCTION

WELL CASING/RISER

Diameter: 1.5 in.
 Type: PVC
 Stick-up: 0 ft.

SUMP (below screen)

Diameter: 1.5 in.
 Type: PVC
 Length: 2.5 in.

PROTECTIVE CASING

Diameter: 5 in. Type: Road Box / Stand Pipe
 Stick-up: 0 ft. Depth to Bottom: _____ ft
 Seal Material: Concrete

SCREEN INTERVALS

Screen Interval: 6-3 ft. Diameter: 1.5 in. Slot Size: 0.01
 Description: PVC / Other: _____
 Type: Perforated Slotted / Wire-Wrap / Other: _____

BOREHOLE

Diameter: 4.5 in. Total Boring Depth: 6 ft. Refusal: Y / n Depth: 6 ft.

ANNULAR FILL

SURFACE SEAL

(Approximate volumes if available)

Interval: 1-0 ft. Tremied: Y / N Volume: 1/2 bags Description: Concrete / Other: _____

BACKFILL

Interval: _____ ft. Tremied: Y / N Volume: _____ bags Description: Bentonite Grout / Native Material / Sand / Other: _____

LOWER SEAL

Interval: 2-1 ft. Tremied: Y / N Volume: 1/4 bags Description: Bentonite Pellets / Other: _____

FILTER

Interval: 6-2 ft. Tremied: Y / N Volume: 1/2 bags Description: Sand Filter (type: 1) / Other: _____

LOWER BACKFILL

Interval: _____ ft. Tremied: Y / N Volume: _____ bags Description: Bentonite Grout / Native Material / Sand / Other: _____

MONITORING WELL DEVELOPMENT*

Development Method: Surge Block / Submersible Pump / Peristaltic Pump / Water / Bailer / Other: _____
 Date: no water in well. not developed

*See Monitoring Well Development Data Sheet for details



FUSS & O'NEILL
Disciplines to Deliver

BORING LOG

PROJECT:

LOCATION:

SITE ID: FO-02

SHEET: 1 of 1

PROJECT NO: 20110037.A11

WEATHER: Sunny 60's

CONTRACTOR: Glacier

OPERATOR:

F&O REPRESENTATIVE: D. Cook

DRILLING METHOD: Direct Push

SAMPLING METHOD: 5' Macro Core

HAMMER WT: --- HAMMER FALL (IN) ---

BORING LOCATION: 94 Main St. the Corner School

DATE STARTED: 4/16/15

DATE & TIME COMPLETED: 4/16/15

DEPTH TO SATURATED ZONE: ~9'

SAMPLE PREFIX: ---

DRILLING DETAILS

MATERIAL DESCRIPTION

ANALYTICAL SAMPLES

START DEPTH (FT)	BLOWS 6"	REC/ PEN (IN)	DEPTH RANGE (FT)	DESCRIPTION	PID	LITHO-LOGIC CODE	SAMPLE NO. & TIME	DEPTH INTERVAL (FT)	JARS & PRESERV.
0	NA	28/60	0-0.3	TOP SOIL; silt, sm f-m sand, hbl organics. dry, loose, no odor. brown 7.5 yz 4/3	ND	TS			
↓	↓	↓	0.3-5	F-C SAND; sm pulverized rock, tr silt. dry, loose, no odor. brown 7.5 yz 5/4	ND	SP			
5		41/60	5-10	Same As Above. wet at 9'	ND	SP			
10		52/60	10-15	Same As Above	ND	SP			
15	↓	42/48	15-19	Same As Above	ND	SP			

BORING DIAMETER

BORING METHOD

BORING DEPTH

REMARKS

Field Instrument=

If refusal is encountered, describe all efforts used to confirm.

2.5

Geoprobe

19

TIGER PID used for screening soil

Field Decon: Yes / No / Dedicated Device

PROPORTIONS USED:

Trace (tr) 0 to 10% Some (sm) 20 to 35%
Little (lt) 10 to 20% And 35 to 50%

EXAMPLE DESCRIPTION:

SAND, F-M; sm f angular gravel; lt silt; tr clay; (10R 5/4), wet at 7 ft.
Loose. No odor.

Reviewed by Staff:

BACKFILL

Concrete/Asphalt

Bentonite Grout/Chips

Native Material

Other

To

To

To

To

See Monitoring Well
Completion Report



FUSS & O'NEILL

Disciplines to Deliver

MONITORING WELL COMPLETION REPORT

GENERAL INFORMATION

Project Name: East Hampton Brownfields

Site ID (Boring/Well ID): FO-02

Project Location: East Hampton, CT

Project No.: _____

F&O Engineer/Geologist: D. Cook

Ground Surface Elevation: _____

Date of Completion: 4/16/15

Permit #: _____

Boring Location: 94 Main St. the Corner School

E1 Top of Steel Casing: _____

Drilling Contractor/Name: Glacier

E1 Top of PVC Casing: _____

Drilling Method: direct push

Measuring Point: TPS / PVC

Well Cover (see codes): _____

WELL CONSTRUCTION

WELL CASING/RISER

Diameter: 1.5 in.

Type: PVC

Stick-up: 0 ft.

SUMP (below screen)

Diameter: 1.5 in.

Type: PVC

Length: 2.5 in.

PROTECTIVE CASING

Diameter: 5 in. Type: Road Box / Stand Pipe

Stick-up: 0 ft. Depth to Bottom: _____ ft

Seal Material: Concrete

SCREEN INTERVALS

Screen Interval: 16-6 ft. Diameter: 1.5 in. Slot Size: 0.01

Description: PVC / Other: _____

Type: Perforated / Slotted / Wire-Wrap / Other: _____

BOREHOLE

Diameter: 4.5 in. Total Boring Depth: 16 ft. Refusal: y / n Depth: _____ ft.

ANNULAR FILL

SURFACE SEAL

(Approximate volumes if available)

Interval: 1-0 ft. Tremied: Y / N Volume: 1/2 bags Description: Concrete / Other: _____

BACKFILL

Interval: 2-1 ft. Tremied: Y / N Volume: _____ bags Description: Bentonite Grout / Native Material / Sand / Other: _____

LOWER SEAL

Interval: 4-2 ft. Tremied: Y / N Volume: 1 bags Description: Bentonite Pellets / Other: _____

FILTER

Interval: 16-4 ft. Tremied: Y / N Volume: 2 bags Description: Sand Filter (type: 1) / Other: _____

LOWER BACKFILL

Interval: _____ ft. Tremied: Y / N Volume: _____ bags Description: Bentonite Grout / Native Material / Sand / Other: _____

MONITORING WELL DEVELOPMENT*

Development Method: Surge Block / Submersible Pump / Peristaltic Pump / Water / Bailer / Other: _____

Date: 4/17/15

*See Monitoring Well Development Data Sheet for details

**FUSS & O'NEILL**

Disciplines to Deliver

BORING LOG

PROJECT:

LOCATION:

SITE ID: FO-03SHEET: 1 of 1PROJECT NO: 20110037.411WEATHER: Sunny 60'sCONTRACTOR: Glacier

OPERATOR:

F&O REPRESENTATIVE: D. CookDRILLING METHOD: Direct PushSAMPLING METHOD: 5' Macro CoreHAMMER WT: --- HAMMER FALL (IN) ---BORING LOCATION: Corner of Barton Hill Rd & Main StDATE STARTED: 4/16/15DATE & TIME COMPLETED: 4/16/15DEPTH TO SATURATED ZONE: ~8SAMPLE PREFIX: ---

DRILLING DETAILS

MATERIAL DESCRIPTION

ANALYTICAL SAMPLES

START DEPTH (FT)	BLOWS 6"	REC/ PEN (IN)	DEPTH RANGE (FT)	DESCRIPTION	PID	LITHO-LOGIC CODE	SAMPLE NO. & TIME	DEPTH INTERVAL (FT)	JARS & PRESERV.
0	NA	30/60	0-2.5	F-m SAND; sm silt. very moist, loose no odor, brown 7.5YR 5/2	ND	SM			
↓	↓	↓	2.5-5	SILT; ltl F-m sand, very moist, compact no odor, brown 7.5YR 4/3	ND	ML			
5	↓	46/60	5-7	Same As Above	ND	ML			
↓	↓	↓	7-10	F-C SAND; sm pulverized rock, tr silt, strong brown 7.5YR 5/6, wet at tip	ND	SP			
10	↓	51/60	10-13	F-C SAND; ltl gravel, wet, loose, no odor brown 7.5YR 5/4	ND	SP			
↓	↓	↓	13-15	F-C SAND; sm pulverized rock, ltl silt, wet, firm, no odor, brown 7.5YR 5/4	ND	SP			

BORING DIAMETER

BORING METHOD

BORING DEPTH

REMARKS

Field Instrument=

If refusal is encountered, describe all efforts used to confirm.

2.5

Geoprobe

15

24" from marked phone line. Minimum required 18"

TIGER PID USED TO SCREEN SOIL

Field Decon: Yes / No / Dedicated Device

PROPORTIONS USED:

Trace (tr)	0 to 10%	Some (sm)	20 to 35%
Little (ltl)	10 to 20%	And	35 to 50%

EXAMPLE DESCRIPTION:

SAND, F-M; sm f angular gravel; ltl silt; tr clay; (10R 5/4), wet at 7 ft. Loose. No odor.

Reviewed by Staff:

BACKFILL

Concrete/Asphalt

Bentonite Grout/Chips

Native Material

Other

To

To

To

To

See Monitoring Well Completion Report



FUSS & O'NEILL

Disciplines to Deliver

MONITORING WELL COMPLETION REPORT

GENERAL INFORMATION

Project Name: East Hampton Brownfields
 Project Location: East Hampton, CT
 F&O Engineer/Geologist: D. Cook
 Date of Completion: 4/16/15
 Boring Location: Corner of Burton Hill Rd & Main Street
 Drilling Contractor/Name: Glacier
 Drilling Method: direct push

Site ID (Boring/Well ID): FO-03
 Project No.: 20110037.A11
 Ground Surface Elevation: _____
 Permit #: _____
 E1 Top of Steel Casing: _____
 E1 Top of PVC Casing: _____
 Measuring Point: TPS / PVC
 Well Cover (see codes): _____

WELL CONSTRUCTION

WELL CASING/RISER

Diameter: 1.5 in.
 Type: PVC
 Stick-up: 0 ft.

SUMP (below screen)

Diameter: 1.5 in.
 Type: PVC
 Length: 2.5 in.

PROTECTIVE CASING

Diameter: 5 in. Type: Road Box / Stand Pipe
 Stick-up: 0 ft. Depth to Bottom: _____ ft
 Seal Material: Concrete

SCREEN INTERVALS

Screen Interval: 15-5 ft. Diameter: 1.5 in. Slot Size: 0.01

Description: PVC / Other: _____

Type: Perforated / Slotted / Wire-Wrap / Other: _____

BOREHOLE

Diameter: 4.5 in. Total Boring Depth: 15 ft. Refusal: y / n Depth: _____ ft.

ANNULAR FILL

SURFACE SEAL

(Approximate volumes if available)

Interval: 1-0 ft. Tremied: Y / N Volume: 1/2 bags Description: Concrete / Other: _____

BACKFILL

Interval: _____ ft. Tremied: Y / N Volume: _____ bags Description: Bentonite Grout / Native Material / Sand / Other: _____

LOWER SEAL

Interval: 3-1 ft. Tremied: Y / N Volume: 1/2 bags Description: Bentonite Pellets / Other: _____

FILTER

Interval: 15-3 ft. Tremied: Y / N Volume: 2 bags Description: Sand Filter (type: 1) / Other: _____

LOWER BACKFILL

Interval: _____ ft. Tremied: Y / N Volume: _____ bags Description: Bentonite Grout / Native Material / Sand / Other: _____

MONITORING WELL DEVELOPMENT*

Development Method: Surge Block / Submersible Pump / Peristaltic Pump / Water / Bailer / Other _____
 Date: 4/17/15

*See Monitoring Well Development Data Sheet for details



FUSS & O'NEILL
Disciplines to Deliver

BORING LOG

PROJECT: East Hampton Brownfields

LOCATION: East Hampton, CT

SITE ID: FO-04

SHEET: 1 of 1

PROJECT NO: 20110037, 211

WEATHER: Clear 60s

CONTRACTOR: Glacier

OPERATOR:

F&O REPRESENTATIVE: D. Cook

DRILLING METHOD: Direct Push

SAMPLING METHOD: 5' Macro Core

HAMMER WT: --- HAMMER FALL (IN) ---

BORING LOCATION: Watrous Ave, outside of "old fire house"

DATE STARTED: 4/16/15

DATE & TIME COMPLETED: 4/16/15

DEPTH TO SATURATED ZONE: not encountered

SAMPLE PREFIX: ---

DRILLING DETAILS			MATERIAL DESCRIPTION				ANALYTICAL SAMPLES		
START DEPTH (FT)	BLOWS 6"	REC/ PEN (IN)	DEPTH RANGE (FT)	DESCRIPTION	PID	LITHO- LOGIC CODE	SAMPLE NO. & TIME	DEPTH INTERVAL (FT)	JARS & PRESERV.
0	NA	31/160	0-0.25	Asphalt	NA	AS			
↓		↓	0.25-5	F-m SAND; sm silt, moist loose, no odor brown 7.5YR 5/4	ND	SM			
5		10/12	5-5.5	F-m SAND; tr. silt, moist loose no odor brown 7.5YR 5/4	ND	SP			
↓		↓	5.5-6	Pulverized rock: Qtz biotite schist refusal at 6'	ND	RK			
				Off Set, to Conf. rm obstruction with drive point					
0	NA	NA	0-6	Refusal at 4.5'					
				Off Set, Conf. rm obstruction with drive point					
0	NA	NA	0-6	Refusal at 6'					

BORING DIAMETER 2.5	BORING METHOD Geoprobe	BORING DEPTH 6	REMARKS Field Instrument= Off sets back filled with native material, Sand & plugged w/ concrete at surface PID TUBE Used for screenings soil Field Decon: <input checked="" type="checkbox"/> No / Dedicated Device
PROPORTIONS USED: Trace (tr) 0 to 10% Some (sm) 20 to 35% Little (ltl) 10 to 20% And 35 to 50%			
EXAMPLE DESCRIPTION: SAND, F-M; sm f angular gravel; ltl silt; tr clay; (10R 5/4), wet at 7 ft. Loose. No odor.			BACKFILL Concrete/Asphalt _____ To _____ Bentonite Grout/Chips _____ To _____ Native Material _____ To _____ Other _____ To _____
Reviewed by Staff: _____			

See Monitoring Well Completion Report

**FUSS & O'NEILL***Disciplines to Deliver***MONITORING WELL COMPLETION REPORT****GENERAL INFORMATION**Project Name: East Hampton Brown fieldsSite ID (Boring/Well ID): FO-04Project Location: East Hampton, CTProject No.: 20110037.411F&O Engineer/Geologist: D. Cook

Ground Surface Elevation: _____

Date of Completion: 4/16/15

Permit #: _____

Boring Location: Watrous Ave. adjacent "old fire house"

E1 Top of Steel Casing: _____

Drilling Contractor/Name: Glacier

E1 Top of PVC Casing: _____

Drilling Method: direct push

Measuring Point: TPS / PVC

Well Cover (see codes): _____

WELL CONSTRUCTION**WELL CASING/RISER****SUMP** (below screen)**PROTECTIVE CASING**Diameter: 1.5 in.Diameter: 1.5 in.Diameter: 5 in. Type: Road Box / Stand PipeType: PVCType: PVCStick-up: 0 ft Depth to Bottom: _____ ftStick-up: 0 ft.Length: 2.5 in.Seal Material: Concrete**SCREEN INTERVALS**Screen Interval: 6-4 ft Diameter: 1.5 in. Slot Size: 0.01Description: PVC / Other: _____Type: Perforated / Slotted / Wire-Wrap / Other: _____**BOREHOLE**Diameter: 4.5 in.Total Boring Depth: 6 ft.Refusal: Y n Depth: 6 ft.**ANNULAR FILL****SURFACE SEAL**

(Approximate volumes if available)

Interval: 1-0 ft Tremied: Y / N Volume: 1/2 bags Description: Concrete / Other: _____**BACKFILL**

Interval: _____ ft Tremied: Y / N Volume: _____ bags Description: Bentonite Grout / Native Material / Sand / Other: _____

LOWER SEALInterval: 2-1 ft Tremied: Y / N Volume: 1/2 bags Description: Bentonite Pellets / Other: _____**FILTER**Interval: 6-2 ft Tremied: Y / N Volume: 2 bags Description: Sand Filter (type: 1) / Other: _____**LOWER BACKFILL**

Interval: _____ ft Tremied: Y / N Volume: _____ bags Description: Bentonite Grout / Native Material / Sand / Other: _____

MONITORING WELL DEVELOPMENT*

Development Method: Surge Block / Submersible Pump / Peristaltic Pump / Water / Bailer / Other: _____

Date: _____ no water in well, not developed

*See Monitoring Well Development Data Sheet for details



SITE ID: FO-05
SHEET: 1 of 1
PROJECT NO: 20110037.411
WEATHER: Cloudy 50's

BORING LOCATION: Walnut Ave
DATE STARTED: 4/17/15
DATE & TIME COMPLETED: 4/17/15
DEPTH TO SATURATED ZONE: 23
SAMPLE PREFIX: _____

BORING DIAMETER	BORING METHOD	BORING DEPTH	REMARKS
2.5	Geoprobe	10	Field Instrument= _____ If refusal is encountered, describe all efforts used to confirm.
PROPORTIONS USED: Trace (tr) 0 to 10% Some (sm) 20 to 35% Little (ltl) 10 to 20% And 35 to 50%			TIGER P.D. USED for full screening soil Field Decon: Yes / No / Dedicated Device
EXAMPLE DESCRIPTION: SAND, F-M; sm f angular gravel; ltl silt; tr clay; (10R 5/4), wet at 7 ft. Loose. No odor.			BACKFILL Concrete/Asphalt _____ To _____ Bentonite Grout/Chips _____ To _____ Native Material _____ To _____ Other _____ To _____
Reviewed by Staff:			<div style="border: 1px solid black; border-radius: 50%; padding: 10px; display: inline-block;"> See Monitoring Well Completion Report </div>



FUSS & O'NEILL

Disciplines to Deliver

MONITORING WELL COMPLETION REPORT

GENERAL INFORMATION

Project Name: East Hampton Brown Fields
 Project Location: East Hampton, CT
 F&O Engineer/Geologist: D. Cook
 Date of Completion: 4/17/15
 Boring Location: Walnut Ave.
 Drilling Contractor/Name: Galacis
 Drilling Method: direct push

Site ID (Boring/Well ID): FO-05
 Project No.: _____
 Ground Surface Elevation: _____
 Permit #: _____
 E1 Top of Steel Casing: _____
 E1 Top of PVC Casing: _____
 Measuring Point: TPS / PVC
 Well Cover (see codes): _____

WELL CONSTRUCTION

WELL CASING/RISER

Diameter: 1.5 in.
 Type: PVC
 Stick-up: 0 ft.

SUMP (below screen)

Diameter: 1.5 in.
 Type: PVC
 Length: 2.5 in.

PROTECTIVE CASING

Diameter: 5 in. Type: Road Box / Stand Pipe
 Stick-up: 0 ft. Depth to Bottom: _____ ft
 Seal Material: Concrete

SCREEN INTERVALS

Screen Interval: 11-2 ft. Diameter: 1.5 in. Slot Size: 0.01
 Description: PVC / Other: _____
 Type: Perforated / Slotted / Wire-Wrap / Other: _____

BOREHOLE

Diameter: 4.5 in. Total Boring Depth: 11 ft. Refusal: Y / n Depth: 11 ft.

ANNULAR FILL

SURFACE SEAL

(Approximate volumes if available)

Interval: 0.5-0 ft. Tremied: Y / N Volume: 1/2 bags Description: Concrete / Other: _____

BACKFILL

Interval: _____ ft. Tremied: Y / N Volume: _____ bags Description: Bentonite Grout / Native Material / Sand / Other: _____

LOWER SEAL

Interval: 1-0.5 ft. Tremied: Y / N Volume: 1/4 bags Description: Bentonite Pellets / Other: _____

FILTER

Interval: 11-1 ft. Tremied: Y / N Volume: 2 bags Description: Sand Filter (type: 1) / Other: _____

LOWER BACKFILL

Interval: _____ ft. Tremied: Y / N Volume: _____ bags Description: Bentonite Grout / Native Material / Sand / Other: _____

MONITORING WELL DEVELOPMENT*

Development Method: Surge Block / Submersible Pump / Peristaltic Pump / Water / Bailer / Other: _____
 Date: 4/17/15

*See Monitoring Well Development Data Sheet for details



FUSS & O'NEILL
Disciplines to Deliver

BORING LOG

PROJECT: East Hampton Brown Fields
LOCATION:

SITE ID: FO-286
SHEET: 1 of 1
PROJECT NO: 20110037.A11
WEATHER: Cloudy 50s

CONTRACTOR: Glacier
OPERATOR:
F&O REPRESENTATIVE: D. Cook
DRILLING METHOD: Direct Push
SAMPLING METHOD: 5' Macro Core
HAMMER WT: --- HAMMER FALL (IN) ---

BORING LOCATION: Belvin Blvd.
DATE STARTED: 4/17/15
DATE & TIME COMPLETED: 4/17/15
DEPTH TO SATURATED ZONE: Not encountered
SAMPLE PREFIX: ---

DRILLING DETAILS			MATERIAL DESCRIPTION				ANALYTICAL SAMPLES		
START DEPTH (FT)	BLOWS 6"	REC/ PEN (IN)	DEPTH RANGE (FT)	DESCRIPTION	PID	LITHO-LOGIC CODE	SAMPLE NO. & TIME	DEPTH INTERVAL (FT)	JARS & PRESERV.
0	NA	22/30	0-0.3	Asphalt	NA	AS			
		↓	0.3-2.5	F-C SAND; sm pulverized stone moist loose no odor, brown 7.5YR 5/4 refusal at 2.5	ND	SP			
				off set to confirm obstruction with drive point					
0			0-8	refusal at 8'					
				off set, confirm obstruction w/ drive point					
0		43/60	0-0.3	Asphalt	NA	AS			
		↓	0.3-3	F-C SAND; sm pulverized stone, + silt, dry look no odor, brown 7.5YR 5/4	ND	SP			
		↓	3-5	SILT; sm F-C sand, moist, loose, no odor brown 7.5YR 5/3	ND	ML			
5		30/36	5-8	F-C SAND; sm pulverized stone, + silt, moist, compact, no odor, brown 7.5YR 5/4. Refusal at 8'					
				Qtz, biotite schist present in tip					

BORING DIAMETER 2.5	BORING METHOD Geoprobe	BORING DEPTH 8	REMARKS Field Instrument = _____ If refusal is encountered, describe all efforts used to confirm. <u>off sets back filled with native material + sand</u> <u>plugged with concrete at surface</u> Field Decon: <u>Yes</u> / No / Dedicated Device
PROPORTIONS USED: Trace (tr) 0 to 10% Some (sm) 20 to 35% Little (ltl) 10 to 20% And 35 to 50%			
EXAMPLE DESCRIPTION: SAND, F-M; sm f angular gravel; ltl silt; tr clay; (10R 5/4), wet at 7 ft. Loose. No odor. Reviewed by Staff: _____			BACKFILL Concrete/Asphalt _____ To _____ Bentonite Grout/Chips _____ To _____ Native Material _____ To _____ Other _____ To _____

See Monitoring Well Completion Report



MONITORING WELL COMPLETION REPORT

GENERAL INFORMATION

Project Name: East Hampden Brownfields
Project Location: East Hampden Ct
F&O Engineer/Geologist: D. Cook
Date of Completion: 4/17/15
Boring Location: Belvin Blvd
Drilling Contractor/Name: Glacier
Drilling Method: direct push

Site ID (Boring/Well ID): Fo-06
Project No.: _____
Ground Surface Elevation: _____
Permit #: _____
E1 Top of Steel Casing: _____
E1 Top of PVC Casing: _____
Measuring Point: TPS / PVC
Well Cover (see codes): _____

WELL CONSTRUCTION

WELL CASING/RISER

Diameter: 1.5 in.
Type: PVC
Stick-up: 0 ft.

SUMP (below screen)

Diameter: 1.5 in.
Type: PVC
Length: 02.5 in.

PROTECTIVE CASING

Diameter: 5 in. Type: Road Box / Stand Pipe
Stick-up: 0 ft. Depth to Bottom: _____ ft
Seal Material: concrete

SCREEN INTERVALS

Screen Interval: 7-2 ft. Diameter: 1.5 in. Slot Size: 0.01

Description: PVC / Other: _____
Type: Perforated / Slotted / Wire-Wrap / Other: _____

BOREHOLE

Diameter: 4.5 in. Total Boring Depth: 7 ft. Refusal: y / n Depth: 7 ft.

ANNULAR FILL

SURFACE SEAL

(Approximate volumes if available)

Interval: 1-0 ft. Tremied: Y / N Volume: _____ bags Description: Concrete / Other: _____

BACKFILL

Interval: _____ ft. Tremied: Y / N Volume: _____ bags Description: Bentonite Grout / Native Material / Sand / Other: _____

LOWER SEAL

Interval: 1-0.5 ft. Tremied: Y / N Volume: _____ bags Description: Bentonite Pellets / Other: _____

FILTER

Interval: 7-1 ft. Tremied: Y / N Volume: _____ bags Description: Sand Filter (type: 1) / Other: _____

LOWER BACKFILL

Interval: _____ ft. Tremied: Y / N Volume: _____ bags Description: Bentonite Grout / Native Material / Sand / Other: _____

MONITORING WELL DEVELOPMENT*

Development Method: Surge Block / Submersible Pump / Peristaltic Pump / Water / Bailer / Other: no water, not developed
Date: _____


*See Monitoring Well Development Data Sheet for details

Appendix E

Monitoring Well Field Data Sheets

Monitoring Well Sample Log

Low Flow Sampling

Client/Project Name: <u>East Hampton Downfields</u>		 FUSS & O'NEILL <i>Disciplines to Deliver</i>
Project Location: <u>East Hampton, CT</u>	PROJECT #:	
Sample #: <u>1176150429-08</u>	WELL ID: <u>F0-02</u>	

Purge Data

Date: 4/29/15
 Start time: 1628 Stop time: 1647 Sample time: 1650
 Pump Rate: 100 (ml/m) Depth Sampled: 12'
 Total time purged: 19 Sampler: DAC
 Volume Purged: 1.9 (ltr) Weather: Sunny 60's
 Purge Device: Dedicated / Nondedicated
 Device Type: Bladder / Peristaltic / Submersible
 Filtered? N / Y Filter Size: 100 / 0.45u Filtered in: Field / Lab
 Appearance: Clear / Cloudy / opaque
 Well Yield: High / Moderate / Low / Dry
 Well Diameter: 1.5
 Comments:

Sample Data

Container	Quantity	Preservative
<u>100</u>	<u>3</u> ✓	<u>HCL</u>
<u>P250</u>	<u>1</u> ✓	<u>HNO3</u>
<u>AL</u>	<u>3</u> ✓	<u>ICE</u>
<u>P250</u>	<u>1</u> ✓	<u>FHNO3</u>

Field Parameter Data

Instrument ID#

Solinst# <u>2</u>	2020# <u>2</u>	YSI 600 # <u>2</u>					
Water Level (ft) <u>M</u>	Time	Turbidity (ntu)	Dissolved Oxygen (mg/L)	pH	Temp. (deg C)	Specific Conductivity (uS)	ORP(mV)
<u>7.99</u>	<u>1628</u>	<u>Begin</u>	<u>Purge</u>				
<u>9.52</u>	<u>1638</u>	<u>over range</u>	<u>3.46</u>	<u>5.90</u>	<u>8.6</u>	<u>1967</u>	<u>-7.6</u>
<u>9.81</u>	<u>1641</u>		<u>3.40</u>	<u>5.93</u>	<u>8.8</u>	<u>1976</u>	<u>-21.8</u>
<u>10.14</u>	<u>1644</u>		<u>3.39</u>	<u>5.94</u>	<u>8.7</u>	<u>1984</u>	<u>-36.4</u>
<u>10.42</u>	<u>1647</u>		<u>3.41</u>	<u>5.95</u>	<u>8.8</u>	<u>1992</u>	<u>-39.8</u>
<u>—</u>	<u>1650</u>	<u>Sample</u>					

Well Condition Checklist

(circle appropriate item(s), cross out if not applicable)


General Condition: Good / Needs Repair
 Protective Steel: OK / Cracked / Leaking / Bent / Loose / None
 Well # Visible?: Y / N
 Well Cap: Good / Broken / None
 Evidence of rain water between steel and PVC?: Y / N
 Evidence of ponding around well?: Y / N
 Gopher type holes around collar?: Y / N
 Comments:

Is well plumb?: Y / N
 Lock: Good / Broken / None
 Rust around cap: Y / N
 PVC Riser: Good / Damaged / None
 Concrete collar: OK / Cracked / Leaking / None
 Other evidence of: Rodents / Insects / None
 Curb Box: N / Y (key is: Hex / Pent / Other)

5/8

Monitoring Well Sample Log

Low Flow Sampling

Client/Project Name: <u>East Hampton Town Fields</u>		 FUSS & O'NEILL <i>Disciplines to Deliver</i>
Project Location: <u>East Hampton, CT</u>	PROJECT #:	
Sample #: <u>1176150429-09</u>	WELL ID: <u>FO-03</u>	

Purge Data

Date: 4/21/15
 Start time: 1730 Stop time: 1805 Sample time: 1808
 Pump Rate: 180 (ml/m) Depth Sampled: 12
 Total time purged: 35 Sampler: DAC
 Volume Purged: 3.5 (ltr)
 Purge Device: Dedicated / Nondedicated Weather: Sunny 60's
 Device Type: Bladder / Peristaltic / Submersible
 Filtered? N / Y Filter Size: 10u / 0.45u Filtered in: Field / Lab
 Appearance: Clear PVC: 8.07
 Well Yield: High / Moderate / Low / Dry TPS: 8.47
 Well Diameter: 1.5 DTB: 14.30 to 21 = 15.27
 Comments:

Sample Data

Container	Quantity	Preservative
<u>WA</u>	<u>3</u>	<u>HCL</u>
<u>125-</u>	<u>1</u>	<u>HNO3</u>
<u>AL</u>	<u>3</u>	<u>ICE</u>

Field Parameter Data

Instrument ID#

Solinst# <u>2</u>	2020# <u>2</u>	YSI 600 # <u>2</u>					
Water Level (ft) <u>FW</u>	Time	Turbidity (ntu)	Dissolved Oxygen (mg/L)	pH	Temp. (deg C)	Specific Conductivity (uS)	ORP(mV)
<u>8.07</u>	<u>1730</u>	<u>Begin</u>	<u>Purge</u>				
<u>9.30</u>	<u>1740</u>	<u>37.1</u>	<u>2.86</u>	<u>6.48</u>	<u>8.5</u>	<u>1506</u>	<u>-142.8</u>
<u>9.41</u>	<u>1745</u>	<u>40.9</u>	<u>2.26</u>	<u>6.47</u>	<u>8.6</u>	<u>1665</u>	<u>-160.6</u>
<u>9.41</u>	<u>1750</u>	<u>30.8</u>	<u>2.59</u>	<u>6.41</u>	<u>8.7</u>	<u>1743</u>	<u>-128.2</u>
<u>9.41</u>	<u>1755</u>	<u>26.2</u>	<u>2.55</u>	<u>6.43</u>	<u>8.7</u>	<u>1812</u>	<u>-127.8</u>
<u>9.41</u>	<u>1800</u>	<u>18.7</u>	<u>2.61</u>	<u>6.41</u>	<u>8.6</u>	<u>1856</u>	<u>-112.4</u>
<u>9.41</u>	<u>1805</u>	<u>14.0</u>	<u>2.63</u>	<u>6.39</u>	<u>8.6</u>	<u>1898</u>	<u>-104.6</u>
<u>—</u>	<u>1808</u>	<u>Sample</u>					

Well Condition Checklist

(circle appropriate item(s), cross out if not applicable)

General Condition: <u>Good</u> / Needs Repair Protective Steel: <u>OK</u> / Cracked / Leaking / Bent / Loose / None Well # Visible?: <u>Y</u> / <u>N</u> Well Cap: <u>Good</u> / Broken / None Evidence of rain water between steel and PVC?: <u>Y</u> / <u>N</u> Evidence of ponding around well?: <u>Y</u> / <u>N</u> Gopher type holes around collar?: <u>Y</u> / <u>N</u> Comments:	Is well plumb?: <u>Y</u> / <u>N</u> Lock: <u>Good</u> / Broken / <u>None</u> Rust around cap: <u>Y</u> / <u>N</u> PVC Riser: <u>Good</u> / Damaged / None Concrete collar: <u>OK</u> / Cracked / Leaking / None Other evidence of: Rodents / Insects / <u>None</u> Curb Box: <u>N</u> / <u>Y</u> (key is: <u>Hex</u> / Pent / Other) <div style="text-align: right;">5/8</div>
--	---

Low Flow Sampling



FUSS & O'NEILL
Disciplines to Deliver

Sample Data

Field Parameter Data

[illegible]

(circle appropriate item(s), cross out if not applicable)

C:\Users\dcook\Desktop\Water FDS\lowflowdata.doc
Format Revised 1/26/07

Low Flow Sampling



FUSS & O'NEILL
Disciplines to Deliver

WATROUS

Sample Data

Container	Quantity	Preservative
VDA	3	HCL
P250	1	HNO3
A	3	FE
P250	1	FHNO3 10m

Instrument ID#


[illegible]

(circle appropriate item(s), cross out if not applicable)

<p>General Condition: <u>Good</u> / Needs Repair</p> <p>Protective Steel: <u>OK</u> / Cracked / Leaking / Bent / Loose/ None</p> <p>Well # Visible?: Y / <u>N</u></p> <p>Well Cap: <u>Good</u> / Broken / None</p> <p>Evidence of rain water between steel and PVC?: Y / <u>N</u></p> <p>Evidence of ponding around well?: Y / <u>N</u></p> <p>Gopher type holes around collar?: Y / <u>N</u></p> <p>Comments:</p>	<p>Is well plumb: Y / N</p> <p>Lock: Good / Broken / <u>None</u></p> <p>Rust around cap: Y / N</p> <p>PVC Riser: <u>Good</u> / Damaged / None</p> <p>Concrete collar: <u>OK</u> / Cracked / Leaking / None</p> <p>Other evidence of: Rodents / Insects / <u>None</u></p> <p>Curb Box: N / <u>V</u> / key is: <u>Hex</u> / Pent / Other)</p>
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Monitoring Well Sample Log

Low Flow Sampling

Client/Project Name: <u>East Hampton Brown Fields</u>		 FUSS & O'NEILL <i>Disciplines to Deliver</i>
Project Location: <u>East Hampton, CT</u>	PROJECT #:	
Sample #: <u>1176150429-03</u>	WELL ID: <u>MW-2</u>	

-04 duplicate watrous

Purge Data				Sample Data		
Date: <u>4/29/15</u>	Container	Quantity	Preservative			
Start time: <u>1308</u> Stop time: <u>1330</u> Sample time: <u>1335/1345</u>	<u>VMA</u>	<u>3x2</u>	<u>HCL</u>			
Pump Rate: <u>200</u> (ml/m)	<u>P250</u>	<u>1Y2</u>	<u>HNO3</u>			
Total time purged: <u>22</u>	<u>AL</u>	<u>3x2</u>	<u>1LE</u>			
Volume Purged: <u>4.4</u> (ltr)	<u>P250</u>	<u>1Y2</u>	<u>FHNO3</u>			<u>10M</u>
Purge Device: <u>Dedicated</u> / Nondedicated	Weather: <u>Sunny 60's</u>					
Device Type: <u>Bladder</u> / <u>Peristaltic</u> / Submersible						
Filtered? <u>N</u> Filter Size: <u>10u</u> 0.45u Filtered in: <u>Field</u> / Lab						
Appearance: <u>Clear</u>	PVC: <u>7.92</u>					
Well Yield: High / <u>Moderate</u> / Low / Dry	TPS: <u>8.70</u>					
Well Diameter: <u>2"</u>	DTB: <u>21.14 + 0.27 = 21.41</u>					
Comments:						

Field Parameter Data

Instrument ID#

Solinst# <u>2</u>	2020# <u>2</u>	YSI 600 # <u>2</u>					
Water Level (ft) <u>fr</u>	Time	Turbidity (ntu)	Dissolved Oxygen (mg/L)	pH	Temp. (deg C)	Specific Conductivity (uS)	ORP(mV)
<u>7.72</u>	<u>1308</u>	<u>Desin</u>	<u>Pure</u>				
<u>8.00</u>	<u>1318</u>	<u>18.1</u>	<u>7.07</u>	<u>5.67</u>	<u>11.1</u>	<u>608.1</u>	<u>391.8</u>
<u>8.00</u>	<u>1321</u>	<u>20.3</u>	<u>6.84</u>	<u>5.66</u>	<u>10.8</u>	<u>563.5</u>	<u>397.3</u>
<u>8.00</u>	<u>1324</u>	<u>15.4</u>	<u>7.01</u>	<u>5.66</u>	<u>10.9</u>	<u>574.0</u>	<u>377.2</u>
<u>8.00</u>	<u>1327</u>	<u>19.6</u>	<u>6.99</u>	<u>5.67</u>	<u>10.7</u>	<u>582.2</u>	<u>399.3</u>
<u>8.00</u>	<u>1330</u>	<u>16.4</u>	<u>7.03</u>	<u>5.64</u>	<u>10.9</u>	<u>586.6</u>	<u>400.3</u>
<u>—</u>	<u>1335</u>	<u>Sample</u>	<u>—</u>	<u>—</u>	<u>—</u>	<u>—</u>	<u>—</u>
<u>—</u>	<u>1345</u>	<u>Sample duplicate</u>	<u>—</u>	<u>—</u>	<u>—</u>	<u>—</u>	<u>—</u>


Well Condition Checklist

(circle appropriate item(s), cross out if not applicable)

General Condition: <u>Good</u> / Needs Repair Protective Steel: <u>OK</u> / Cracked / Leaking / Bent / Loose / None Well # Visible?: <u>Y</u> / <u>N</u> Well Cap: <u>Good</u> / Broken / None Evidence of rain water between steel and PVC?: <u>Y</u> / <u>N</u> Evidence of ponding around well?: <u>Y</u> / <u>N</u> Gopher type holes around collar?: <u>Y</u> / <u>N</u> Comments:	Is well plumb?: <u>Y</u> / <u>N</u> Lock: <u>Good</u> / Broken / <u>None</u> Rust around cap: <u>Y</u> / <u>N</u> PVC Riser: <u>Good</u> / Damaged / None Concrete collar: <u>OK</u> / Cracked / Leaking / None Other evidence of: Rodents / Insects / <u>None</u> Curb Box: <u>N</u> / <u>Y</u> (key is: <u>Hex</u> / Pent / Other) <div style="text-align: right;">S/B</div>
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Monitoring Well Sample Log

Low Flow Sampling

Client/Project Name: <u>East Hampton Brownfields</u>		 FUSS & O'NEILL <i>Disciplines to Deliver</i>
Project Location: <u>East Hampton, CT</u>	PROJECT #:	
Sample #: <u>1176150429-02</u>	WELL ID: <u>MW-3</u>	

Purge Data

Date: 4/27/15
 Start time: 1200 Stop time: 1227 Sample time: 1230
 Pump Rate: 200 (ml/m) Depth Sampled: 21
 Total time purged: 27 Sampler: DAC
 Volume Purged: 2.7 (ltr)
 Purge Device: Dedicated / Nondedicated
 Device Type: Bladder / Peristaltic / Submersible
 Filtered? N / Y Filter Size: 0.45u Filtered in: field / Lab
 Appearance: Clear PVC: 6.43
 Well Yield: High / Moderate / Low Dry
 Well Diameter: 2" TPS: 6.84
 Comments: DTB: 23.85 + 0.27 = 24.12

Sample Data

Container	Quantity	Preservative
<u>VDA</u>	<u>3</u>	<u>HCL</u>
<u>P250</u>	<u>1</u>	<u>HA03</u>
<u>AL</u>	<u>3</u>	<u>ICE</u>
<u>P250</u>	<u>1</u>	<u>FH03</u>
		<u>10m</u>

Field Parameter Data

Instrument ID#

Solinst# <u>2</u>	2020# <u>2</u>	YSI 600 # <u>2</u>					
Water Level (ft) <u>Pre</u>	Time	Turbidity (ntu)	Dissolved Oxygen (mg/L)	pH	Temp. (deg C)	Specific Conductivity (uS)	ORP(mV)
<u>6.43</u>	<u>1200</u>	<u>Begin</u>	<u>Purge</u>				
<u>9.45</u>	<u>1210</u>	<u>13.7</u>	<u>5.58</u>	<u>5.55</u>	<u>10.2</u>	<u>636.2</u>	<u>395.2</u>
<u>9.72</u>	<u>1213</u>	<u>21.2</u>	<u>5.97</u>	<u>5.55</u>	<u>10.6</u>	<u>643.6</u>	<u>397.7</u>
<u>10.03</u>	<u>1215</u>	<u>16.7</u>	<u>5.82</u>	<u>5.55</u>	<u>10.6</u>	<u>638.4</u>	<u>407.3</u>
<u>10.30</u>	<u>1218</u>	<u>15.1</u>	<u>5.41</u>	<u>5.55</u>	<u>11.1</u>	<u>638.3</u>	<u>404.0</u>
<u>10.45</u>	<u>1221</u>	<u>13.8</u>	<u>5.84</u>	<u>5.55</u>	<u>11.5</u>	<u>640.8</u>	<u>404.4</u>
<u>10.46</u>	<u>1224</u>	<u>14.0</u>	<u>5.87</u>	<u>5.53</u>	<u>11.0</u>	<u>641.6</u>	<u>407.3</u>
<u>10.48</u>	<u>1227</u>	<u>15.0</u>	<u>5.83</u>	<u>5.56</u>	<u>10.9</u>	<u>638.6</u>	<u>407.9</u>
<u>—</u>	<u>1230</u>	<u>Sample</u>					

Well Condition Checklist

(circle appropriate item(s), cross out if not applicable)


General Condition: Good / Needs Repair
 Protective Steel: OK / Cracked / Leaking / Bent / Loose / None
 Well # Visible?: Y / N
 Well Cap: Good / Broken / None
 Evidence of rain water between steel and PVC?: Y / N
 Evidence of ponding around well?: Y / N
 Gopher type holes around collar?: Y / N
 Comments:

Is well plumb?: Y / N
 Lock: Good / Broken / None
 Rust around cap: Y / N
 PVC Riser: Good / Damaged / None
 Concrete collar: OK / Cracked / Leaking / None
 Other evidence of: Rodents / Insects / None
 Curb Box: N / Y (key is: Hex / Pent / Other)

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Monitoring Well Sample Log

Low Flow Sampling

Client/Project Name: <u>East Hampton Brown Fields</u>		 FUSS & O'NEILL <i>Disciplines to Deliver</i>
Project Location: <u>East Hampton, CT</u>	PROJECT #:	
Sample #: <u>1176150429-07</u>	WELL ID: <u>MW-4</u>	

MAIN ST

Purge Data

Sample Data

Date: <u>4/29/15</u>				Container	Quantity	Preservative
Start time: <u>1548</u>	Stop time: <u>1610</u>	Sample time: <u>1614</u>		<u>VOA</u>	<u>3</u>	<u>HCL</u>
Pump Rate: <u>200</u> (ml/m)	Depth Sampled: <u>12</u>	Sampler: <u>DAC</u>		<u>P250</u>	<u>1</u>	<u>HNO3</u>
Total time purged: <u>22</u>	Volume Purged: <u>4.4</u> (ltr)	Weather: <u>Sunny 60's</u>		<u>AL</u>	<u>3</u>	<u>ICE</u>
Purge Device: <u>Dedicated</u> / Nondedicated	Device Type: <u>Bladder</u> / <u>Peristaltic</u> / Submersible	Filtered? <u>N</u> / <u>Y</u> Filter Size: <u>10u</u> / 0.45u	Filtered in: <u>Field</u> / Lab			
Appearance: <u>Clear</u>	Well Yield: <u>High</u> / <u>Moderate</u> / Low / Dry	PVC: <u>6.87</u>	TPS: <u>7.20</u>	<u>P250</u>	<u>1</u>	<u>FHNO3</u>
Well Diameter: <u>2'</u>	Comments:	DTB: <u>14.84 to 12.7</u>				

Field Parameter Data

Instrument ID#

Solinst# <u>2</u>	2020# <u>2</u>	YSI 600 # <u>2</u>					
Water Level (ft) <u>PM</u>	Time	Turbidity (ntu)	Dissolved Oxygen (mg/L)	pH	Temp. (deg C)	Specific Conductivity (uS)	ORP(mV)
<u>6.87</u>	<u>1548</u>	<u>Begin</u>	<u>Purge</u>				
<u>6.88</u>	<u>1550</u>	<u>18.8</u>	<u>0</u>	<u>6.64</u>	<u>9.3</u>	<u>342.9</u>	<u>-125.0</u>
<u>6.88</u>	<u>1601</u>	<u>14.8</u>	<u>0</u>	<u>6.65</u>	<u>9.2</u>	<u>347.9</u>	<u>-139.0</u>
<u>6.88</u>	<u>1604</u>	<u>10.75</u>	<u>0</u>	<u>6.65</u>	<u>9.2</u>	<u>350.9</u>	<u>-142.4</u>
<u>6.88</u>	<u>1607</u>	<u>10.24</u>	<u>0</u>	<u>6.67</u>	<u>9.2</u>	<u>353.1</u>	<u>-148.6</u>
<u>6.88</u>	<u>1610</u>	<u>9.56</u>	<u>0</u>	<u>6.66</u>	<u>9.2</u>	<u>357.0</u>	<u>-153.4</u>
<u>—</u>	<u>1614</u>	<u>Sample</u>					

Well Condition Checklist

(circle appropriate item(s), cross out if not applicable)

General Condition: Good / Needs Repair
 Protective Steel: OK / Cracked / Leaking / Bent / Loose / None
 Well # Visible?: Y / N
 Well Cap: Good / Broken / None
 Evidence of rain water between steel and PVC?: Y / N
 Evidence of ponding around well?: Y / N
 Gopher type holes around collar?: Y / N
 Comments:

Is well plumb?: Y / N
 Lock: Good / Broken / None
 Rust around cap: Y / N
 PVC Riser: Good / Damaged / None
 Concrete collar: OK / Cracked / Leaking / None
 Other evidence of: Rodents / Insects / None
 Curb Box: N / Y (key is: Hex / Pent / Other)

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Appendix F

Data Validation Completeness Checklist

GENERIC QUALITY ASSURANCE PROJECT PLAN
FOR PROJECTS IN CONNECTICUT, MASSACHUSETTS AND RHODE ISLAND
MODIFIED TIER I COMPLETENESS CHECKLIST

	<u>YES</u>	<u>NO</u>
1. SAMPLING AND FIELD MEASUREMENTS:		
Field measurement calibration records	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Groundwater field measurements (if applicable)	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Soil sampling field measurements (if applicable)	N/A	
Sediment sampling field measurements (if applicable)	N/A	
Surface water sampling field measurements (if applicable)	N/A	
Low-flow sampling field measurements (if applicable)	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Documentation of field activities	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Sample numbering and labeling	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Chain-of-Custody records	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Trip blanks	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Duplicate samples	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Equipment blanks	N/A	
Split samples (if any)	N/A	
2. LABORATORY MEASUREMENTS:		
Trip blanks	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Instrument blanks	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Laboratory control samples	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Duplicates samples	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Equipment blanks	N/A	
Matrix spike/matrix spike duplicates	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Analysis type	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Chain-of-Custody records	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Surrogate recoveries	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Sample Project Narratives	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Split samples (if any)	N/A	
TOTAL:	<u>17</u>	<u>0</u>
PERCENT COMPLETE:	<u>100</u>	%

Appendix G

Laboratory Analytical Report



Thursday, May 07, 2015

Attn: Ms Stephanie Wierszchalek
Fuss & O'Neill, Inc.
146 Hartford Road
Manchester, CT 06040

Project ID: EAST HAMPTON BROWNFIELDS
Sample ID#s: BJ10075 - BJ10083

This laboratory is in compliance with the NELAC requirements of procedures used except where indicated.

This report contains results for the parameters tested, under the sampling conditions described on the Chain Of Custody, as received by the laboratory.

A scanned version of the COC form accompanies the analytical report and is an exact duplicate of the original.

If you have any questions concerning this testing, please do not hesitate to contact Phoenix Client Services at ext. 200.

Sincerely yours,

A handwritten signature in black ink that reads "Phyllis Shiller". The signature is written in a cursive style.

Phyllis Shiller
Laboratory Director

NELAC - #NY11301
CT Lab Registration #PH-0618
MA Lab Registration #MA-CT-007
ME Lab Registration #CT-007
NH Lab Registration #213693-A,B

NJ Lab Registration #CT-003
NY Lab Registration #11301
PA Lab Registration #68-03530
RI Lab Registration #63
VT Lab Registration #VT11301



Environmental Laboratories, Inc.
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
Tel. (860) 645-1102 Fax (860) 645-0823



SDG Comments

May 07, 2015

SDG I.D.: GBJ10075

Volatile 8260 analysis:

The reporting level for Acrylonitrile is above the GWP criteria.

1,2-Dibromoethane does not meet GWP criteria, this compound is analyzed by GC/ECD to achieve this criteria.



Environmental Laboratories, Inc.

587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
Tel. (860) 645-1102 Fax (860) 645-0823

Analysis Report

May 07, 2015

FOR: Attn: Ms Stephanie Wierszchalek
Fuss & O'Neill, Inc.
146 Hartford Road
Manchester, CT 06040

Sample Information

Matrix: GROUND WATER
Location Code: F&O
Rush Request: Standard
P.O.#: 20110037.A11

Custody Information

Collected by: DC
Received by: LK
Analyzed by: see "By" below

Date

04/29/15

Time

12:00

04/30/15

11:10

Laboratory Data

SDG ID: GBJ10075
Phoenix ID: BJ10075

Project ID: EAST HAMPTON BROWNFIELDS
Client ID: 1176150429-01

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
<u>Volatiles</u>							
1,1,1,2-Tetrachloroethane	ND	1.0	ug/L	1	05/01/15	MH	SW8260
1,1,1-Trichloroethane	ND	1.0	ug/L	1	05/01/15	MH	SW8260
1,1,2,2-Tetrachloroethane	ND	0.50	ug/L	1	05/01/15	MH	SW8260
1,1,2-Trichloroethane	ND	1.0	ug/L	1	05/01/15	MH	SW8260
1,1-Dichloroethane	ND	1.0	ug/L	1	05/01/15	MH	SW8260
1,1-Dichloroethene	ND	1.0	ug/L	1	05/01/15	MH	SW8260
1,1-Dichloropropene	ND	1.0	ug/L	1	05/01/15	MH	SW8260
1,2,3-Trichlorobenzene	ND	1.0	ug/L	1	05/01/15	MH	SW8260
1,2,3-Trichloropropane	ND	1.0	ug/L	1	05/01/15	MH	SW8260
1,2,4-Trichlorobenzene	ND	1.0	ug/L	1	05/01/15	MH	SW8260
1,2,4-Trimethylbenzene	ND	1.0	ug/L	1	05/01/15	MH	SW8260
1,2-Dibromo-3-chloropropane	ND	1.0	ug/L	1	05/01/15	MH	SW8260
1,2-Dibromoethane	ND	1.0	ug/L	1	05/01/15	MH	SW8260
1,2-Dichlorobenzene	ND	1.0	ug/L	1	05/01/15	MH	SW8260
1,2-Dichloroethane	ND	0.60	ug/L	1	05/01/15	MH	SW8260
1,2-Dichloropropane	ND	1.0	ug/L	1	05/01/15	MH	SW8260
1,3,5-Trimethylbenzene	ND	1.0	ug/L	1	05/01/15	MH	SW8260
1,3-Dichlorobenzene	ND	1.0	ug/L	1	05/01/15	MH	SW8260
1,3-Dichloropropane	ND	1.0	ug/L	1	05/01/15	MH	SW8260
1,4-Dichlorobenzene	ND	1.0	ug/L	1	05/01/15	MH	SW8260
2,2-Dichloropropane	ND	1.0	ug/L	1	05/01/15	MH	SW8260
2-Chlorotoluene	ND	1.0	ug/L	1	05/01/15	MH	SW8260
2-Hexanone	ND	5.0	ug/L	1	05/01/15	MH	SW8260
2-Isopropyltoluene	ND	1.0	ug/L	1	05/01/15	MH	SW8260
4-Chlorotoluene	ND	1.0	ug/L	1	05/01/15	MH	SW8260
4-Methyl-2-pentanone	ND	5.0	ug/L	1	05/01/15	MH	SW8260

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Acetone	ND	25	ug/L	1	05/01/15	MH	SW8260
Acrylonitrile	ND	5.0	ug/L	1	05/01/15	MH	SW8260
Benzene	ND	0.70	ug/L	1	05/01/15	MH	SW8260
Bromobenzene	ND	1.0	ug/L	1	05/01/15	MH	SW8260
Bromochloromethane	ND	1.0	ug/L	1	05/01/15	MH	SW8260
Bromodichloromethane	ND	0.50	ug/L	1	05/01/15	MH	SW8260
Bromoform	ND	1.0	ug/L	1	05/01/15	MH	SW8260
Bromomethane	ND	1.0	ug/L	1	05/01/15	MH	SW8260
Carbon Disulfide	ND	5.0	ug/L	1	05/01/15	MH	SW8260
Carbon tetrachloride	ND	1.0	ug/L	1	05/01/15	MH	SW8260
Chlorobenzene	ND	1.0	ug/L	1	05/01/15	MH	SW8260
Chloroethane	ND	1.0	ug/L	1	05/01/15	MH	SW8260
Chloroform	ND	1.0	ug/L	1	05/01/15	MH	SW8260
Chloromethane	ND	1.0	ug/L	1	05/01/15	MH	SW8260
cis-1,2-Dichloroethene	ND	1.0	ug/L	1	05/01/15	MH	SW8260
cis-1,3-Dichloropropene	ND	0.40	ug/L	1	05/01/15	MH	SW8260
Dibromochloromethane	ND	0.50	ug/L	1	05/01/15	MH	SW8260
Dibromomethane	ND	1.0	ug/L	1	05/01/15	MH	SW8260
Dichlorodifluoromethane	ND	1.0	ug/L	1	05/01/15	MH	SW8260
Ethylbenzene	ND	1.0	ug/L	1	05/01/15	MH	SW8260
Hexachlorobutadiene	ND	0.40	ug/L	1	05/01/15	MH	SW8260
Isopropylbenzene	ND	1.0	ug/L	1	05/01/15	MH	SW8260
m&p-Xylene	ND	1.0	ug/L	1	05/01/15	MH	SW8260
Methyl ethyl ketone	ND	5.0	ug/L	1	05/01/15	MH	SW8260
Methyl t-butyl ether (MTBE)	ND	1.0	ug/L	1	05/01/15	MH	SW8260
Methylene chloride	ND	1.0	ug/L	1	05/01/15	MH	SW8260
Naphthalene	ND	1.0	ug/L	1	05/01/15	MH	SW8260
n-Butylbenzene	ND	1.0	ug/L	1	05/01/15	MH	SW8260
n-Propylbenzene	ND	1.0	ug/L	1	05/01/15	MH	SW8260
o-Xylene	ND	1.0	ug/L	1	05/01/15	MH	SW8260
p-Isopropyltoluene	ND	1.0	ug/L	1	05/01/15	MH	SW8260
sec-Butylbenzene	ND	1.0	ug/L	1	05/01/15	MH	SW8260
Styrene	ND	1.0	ug/L	1	05/01/15	MH	SW8260
tert-Butylbenzene	ND	1.0	ug/L	1	05/01/15	MH	SW8260
Tetrachloroethene	ND	1.0	ug/L	1	05/01/15	MH	SW8260
Tetrahydrofuran (THF)	ND	2.5	ug/L	1	05/01/15	MH	SW8260
Toluene	ND	1.0	ug/L	1	05/01/15	MH	SW8260
Total Xylenes	ND	1.0	ug/L	1	05/01/15	MH	SW8260
trans-1,2-Dichloroethene	ND	1.0	ug/L	1	05/01/15	MH	SW8260
trans-1,3-Dichloropropene	ND	0.40	ug/L	1	05/01/15	MH	SW8260
trans-1,4-dichloro-2-butene	ND	5.0	ug/L	1	05/01/15	MH	SW8260
Trichloroethene	ND	1.0	ug/L	1	05/01/15	MH	SW8260
Trichlorofluoromethane	ND	1.0	ug/L	1	05/01/15	MH	SW8260
Trichlorotrifluoroethane	ND	1.0	ug/L	1	05/01/15	MH	SW8260
Vinyl chloride	ND	1.0	ug/L	1	05/01/15	MH	SW8260
<u>QA/QC Surrogates</u>							
% 1,2-dichlorobenzene-d4	101		%	1	05/01/15	MH	70 - 130 %
% Bromofluorobenzene	99		%	1	05/01/15	MH	70 - 130 %
% Dibromofluoromethane	99		%	1	05/01/15	MH	70 - 130 %

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
% Toluene-d8	99		%	1	05/01/15	MH	70 - 130 %

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level

Comments:

TRIP BLANK INCLUDED.

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Phyllis Shiller, Laboratory Director

May 07, 2015

Reviewed and Released by: Ethan Lee, Project Manager



Environmental Laboratories, Inc.
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
Tel. (860) 645-1102 Fax (860) 645-0823

Analysis Report

May 07, 2015

FOR: Attn: Ms Stephanie Wierszchalek
Fuss & O'Neill, Inc.
146 Hartford Road
Manchester, CT 06040

Sample Information

Matrix: GROUND WATER
Location Code: F&O
Rush Request: Standard
P.O.#: 20110037.A11

Custody Information

Collected by: DC
Received by: LK
Analyzed by: see "By" below

Date

04/29/15

Time

12:30

04/30/15

11:10

Laboratory Data

SDG ID: GBJ10075
Phoenix ID: BJ10076

Project ID: EAST HAMPTON BROWNFIELDS
Client ID: 1176150429-02

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Extraction of CT ETPH	Completed				04/30/15	ET	SW3510C/SW3520C
Semi-Volatile Extraction	Completed				04/30/15	E/D	SW3520C

TPH by GC (Extractable Products)

Ext. Petroleum HC	ND	0.070	mg/L	1	05/01/15	JRB	CTETPH 8015D
Identification	ND		mg/L	1	05/01/15	JRB	CTETPH 8015D

QA/QC Surrogates

% n-Pentacosane	85		%	1	05/01/15	JRB	50 - 150 %
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Volatiles

1,1,1,2-Tetrachloroethane	ND	1.0	ug/L	1	05/01/15	MH	SW8260
1,1,1-Trichloroethane	ND	1.0	ug/L	1	05/01/15	MH	SW8260
1,1,2,2-Tetrachloroethane	ND	0.50	ug/L	1	05/01/15	MH	SW8260
1,1,2-Trichloroethane	ND	1.0	ug/L	1	05/01/15	MH	SW8260
1,1-Dichloroethane	ND	1.0	ug/L	1	05/01/15	MH	SW8260
1,1-Dichloroethene	ND	1.0	ug/L	1	05/01/15	MH	SW8260
1,1-Dichloropropene	ND	1.0	ug/L	1	05/01/15	MH	SW8260
1,2,3-Trichlorobenzene	ND	1.0	ug/L	1	05/01/15	MH	SW8260
1,2,3-Trichloropropane	ND	1.0	ug/L	1	05/01/15	MH	SW8260
1,2,4-Trichlorobenzene	ND	1.0	ug/L	1	05/01/15	MH	SW8260
1,2,4-Trimethylbenzene	ND	1.0	ug/L	1	05/01/15	MH	SW8260
1,2-Dibromo-3-chloropropane	ND	1.0	ug/L	1	05/01/15	MH	SW8260
1,2-Dibromoethane	ND	1.0	ug/L	1	05/01/15	MH	SW8260
1,2-Dichlorobenzene	ND	1.0	ug/L	1	05/01/15	MH	SW8260
1,2-Dichloroethane	ND	0.60	ug/L	1	05/01/15	MH	SW8260
1,2-Dichloropropane	ND	1.0	ug/L	1	05/01/15	MH	SW8260
1,3,5-Trimethylbenzene	ND	1.0	ug/L	1	05/01/15	MH	SW8260
1,3-Dichlorobenzene	ND	1.0	ug/L	1	05/01/15	MH	SW8260

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
1,3-Dichloropropane	ND	1.0	ug/L	1	05/01/15	MH	SW8260
1,4-Dichlorobenzene	ND	1.0	ug/L	1	05/01/15	MH	SW8260
2,2-Dichloropropane	ND	1.0	ug/L	1	05/01/15	MH	SW8260
2-Chlorotoluene	ND	1.0	ug/L	1	05/01/15	MH	SW8260
2-Hexanone	ND	5.0	ug/L	1	05/01/15	MH	SW8260
2-Isopropyltoluene	ND	1.0	ug/L	1	05/01/15	MH	SW8260
4-Chlorotoluene	ND	1.0	ug/L	1	05/01/15	MH	SW8260
4-Methyl-2-pentanone	ND	5.0	ug/L	1	05/01/15	MH	SW8260
Acetone	ND	25	ug/L	1	05/01/15	MH	SW8260
Acrylonitrile	ND	5.0	ug/L	1	05/01/15	MH	SW8260
Benzene	ND	0.70	ug/L	1	05/01/15	MH	SW8260
Bromobenzene	ND	1.0	ug/L	1	05/01/15	MH	SW8260
Bromochloromethane	ND	1.0	ug/L	1	05/01/15	MH	SW8260
Bromodichloromethane	ND	0.50	ug/L	1	05/01/15	MH	SW8260
Bromoform	ND	1.0	ug/L	1	05/01/15	MH	SW8260
Bromomethane	ND	1.0	ug/L	1	05/01/15	MH	SW8260
Carbon Disulfide	ND	5.0	ug/L	1	05/01/15	MH	SW8260
Carbon tetrachloride	ND	1.0	ug/L	1	05/01/15	MH	SW8260
Chlorobenzene	ND	1.0	ug/L	1	05/01/15	MH	SW8260
Chloroethane	ND	1.0	ug/L	1	05/01/15	MH	SW8260
Chloroform	ND	1.0	ug/L	1	05/01/15	MH	SW8260
Chloromethane	ND	1.0	ug/L	1	05/01/15	MH	SW8260
cis-1,2-Dichloroethene	ND	1.0	ug/L	1	05/01/15	MH	SW8260
cis-1,3-Dichloropropene	ND	0.40	ug/L	1	05/01/15	MH	SW8260
Dibromochloromethane	ND	0.50	ug/L	1	05/01/15	MH	SW8260
Dibromomethane	ND	1.0	ug/L	1	05/01/15	MH	SW8260
Dichlorodifluoromethane	ND	1.0	ug/L	1	05/01/15	MH	SW8260
Ethylbenzene	ND	1.0	ug/L	1	05/01/15	MH	SW8260
Hexachlorobutadiene	ND	0.40	ug/L	1	05/01/15	MH	SW8260
Isopropylbenzene	ND	1.0	ug/L	1	05/01/15	MH	SW8260
m&p-Xylene	ND	1.0	ug/L	1	05/01/15	MH	SW8260
Methyl ethyl ketone	ND	5.0	ug/L	1	05/01/15	MH	SW8260
Methyl t-butyl ether (MTBE)	ND	1.0	ug/L	1	05/01/15	MH	SW8260
Methylene chloride	ND	1.0	ug/L	1	05/01/15	MH	SW8260
Naphthalene	ND	1.0	ug/L	1	05/01/15	MH	SW8260
n-Butylbenzene	ND	1.0	ug/L	1	05/01/15	MH	SW8260
n-Propylbenzene	ND	1.0	ug/L	1	05/01/15	MH	SW8260
o-Xylene	ND	1.0	ug/L	1	05/01/15	MH	SW8260
p-Isopropyltoluene	ND	1.0	ug/L	1	05/01/15	MH	SW8260
sec-Butylbenzene	ND	1.0	ug/L	1	05/01/15	MH	SW8260
Styrene	ND	1.0	ug/L	1	05/01/15	MH	SW8260
tert-Butylbenzene	ND	1.0	ug/L	1	05/01/15	MH	SW8260
Tetrachloroethene	ND	1.0	ug/L	1	05/01/15	MH	SW8260
Tetrahydrofuran (THF)	ND	2.5	ug/L	1	05/01/15	MH	SW8260
Toluene	ND	1.0	ug/L	1	05/01/15	MH	SW8260
Total Xylenes	ND	1.0	ug/L	1	05/01/15	MH	SW8260
trans-1,2-Dichloroethene	ND	1.0	ug/L	1	05/01/15	MH	SW8260
trans-1,3-Dichloropropene	ND	0.40	ug/L	1	05/01/15	MH	SW8260
trans-1,4-dichloro-2-butene	ND	5.0	ug/L	1	05/01/15	MH	SW8260

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Trichloroethene	ND	1.0	ug/L	1	05/01/15	MH	SW8260
Trichlorofluoromethane	ND	1.0	ug/L	1	05/01/15	MH	SW8260
Trichlorotrifluoroethane	ND	1.0	ug/L	1	05/01/15	MH	SW8260
Vinyl chloride	ND	1.0	ug/L	1	05/01/15	MH	SW8260
<u>QA/QC Surrogates</u>							
% 1,2-dichlorobenzene-d4	99		%	1	05/01/15	MH	70 - 130 %
% Bromofluorobenzene	97		%	1	05/01/15	MH	70 - 130 %
% Dibromofluoromethane	94		%	1	05/01/15	MH	70 - 130 %
% Toluene-d8	97		%	1	05/01/15	MH	70 - 130 %
<u>Semivolatiles by SIM</u>							
2-Methylnaphthalene	ND	0.10	ug/L	1	05/01/15	DD	SW8270D (SIM)
Acenaphthene	ND	0.10	ug/L	1	05/01/15	DD	SW8270D (SIM)
Acenaphthylene	ND	0.10	ug/L	1	05/01/15	DD	SW8270D (SIM)
Anthracene	ND	0.10	ug/L	1	05/01/15	DD	SW8270D (SIM)
Benz(a)anthracene	ND	0.02	ug/L	1	05/01/15	DD	SW8270D (SIM)
Benzo(a)pyrene	ND	0.02	ug/L	1	05/01/15	DD	SW8270D (SIM)
Benzo(b)fluoranthene	ND	0.02	ug/L	1	05/01/15	DD	SW8270D (SIM)
Benzo(ghi)perylene	ND	0.10	ug/L	1	05/01/15	DD	SW8270D (SIM)
Benzo(k)fluoranthene	ND	0.02	ug/L	1	05/01/15	DD	SW8270D (SIM)
Chrysene	ND	0.02	ug/L	1	05/01/15	DD	SW8270D (SIM)
Dibenz(a,h)anthracene	ND	0.01	ug/L	1	05/01/15	DD	SW8270D (SIM)
Fluoranthene	ND	0.10	ug/L	1	05/01/15	DD	SW8270D (SIM)
Fluorene	ND	0.10	ug/L	1	05/01/15	DD	SW8270D (SIM)
Indeno(1,2,3-cd)pyrene	ND	0.02	ug/L	1	05/01/15	DD	SW8270D (SIM)
Naphthalene	ND	0.10	ug/L	1	05/01/15	DD	SW8270D (SIM)
Phenanthrene	ND	0.07	ug/L	1	05/01/15	DD	SW8270D (SIM)
Pyrene	ND	0.10	ug/L	1	05/01/15	DD	SW8270D (SIM)
<u>QA/QC Surrogates</u>							
% 2-Fluorobiphenyl	69		%	1	05/01/15	DD	30 - 130 %
% Nitrobenzene-d5	74		%	1	05/01/15	DD	30 - 130 %
% Terphenyl-d14	87		%	1	05/01/15	DD	30 - 130 %

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level

Comments:

If there are any questions regarding this data, please call Phoenix Client Services at extension 200.
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Phyllis Shiller, Laboratory Director

May 07, 2015

Reviewed and Released by: Ethan Lee, Project Manager



Environmental Laboratories, Inc.
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
Tel. (860) 645-1102 Fax (860) 645-0823

Analysis Report

May 07, 2015

FOR: Attn: Ms Stephanie Wierszchalek
Fuss & O'Neill, Inc.
146 Hartford Road
Manchester, CT 06040

Sample Information

Matrix: GROUND WATER
Location Code: F&O
Rush Request: Standard
P.O.#: 20110037.A11

Custody Information

Collected by: DC
Received by: LK
Analyzed by: see "By" below

Date

04/29/15

Time

13:35

04/30/15

11:10

Laboratory Data

SDG ID: GBJ10075
Phoenix ID: BJ10077

Project ID: EAST HAMPTON BROWNFIELDS
Client ID: 1176150429-03

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Extraction of CT ETPH	Completed				04/30/15	ET	SW3510C/SW3520C
Semi-Volatile Extraction	Completed				04/30/15	E/D	SW3520C

TPH by GC (Extractable Products)

Ext. Petroleum HC	ND	0.070	mg/L	1	05/01/15	JRB	CTETPH 8015D
Identification	ND		mg/L	1	05/01/15	JRB	CTETPH 8015D

QA/QC Surrogates

% n-Pentacosane	82		%	1	05/01/15	JRB	50 - 150 %
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Volatiles

1,1,1,2-Tetrachloroethane	ND	1.0	ug/L	1	05/01/15	MH	SW8260
1,1,1-Trichloroethane	ND	1.0	ug/L	1	05/01/15	MH	SW8260
1,1,2,2-Tetrachloroethane	ND	0.50	ug/L	1	05/01/15	MH	SW8260
1,1,2-Trichloroethane	ND	1.0	ug/L	1	05/01/15	MH	SW8260
1,1-Dichloroethane	ND	1.0	ug/L	1	05/01/15	MH	SW8260
1,1-Dichloroethene	ND	1.0	ug/L	1	05/01/15	MH	SW8260
1,1-Dichloropropene	ND	1.0	ug/L	1	05/01/15	MH	SW8260
1,2,3-Trichlorobenzene	ND	1.0	ug/L	1	05/01/15	MH	SW8260
1,2,3-Trichloropropane	ND	1.0	ug/L	1	05/01/15	MH	SW8260
1,2,4-Trichlorobenzene	ND	1.0	ug/L	1	05/01/15	MH	SW8260
1,2,4-Trimethylbenzene	ND	1.0	ug/L	1	05/01/15	MH	SW8260
1,2-Dibromo-3-chloropropane	ND	1.0	ug/L	1	05/01/15	MH	SW8260
1,2-Dibromoethane	ND	1.0	ug/L	1	05/01/15	MH	SW8260
1,2-Dichlorobenzene	ND	1.0	ug/L	1	05/01/15	MH	SW8260
1,2-Dichloroethane	ND	0.60	ug/L	1	05/01/15	MH	SW8260
1,2-Dichloropropane	ND	1.0	ug/L	1	05/01/15	MH	SW8260
1,3,5-Trimethylbenzene	ND	1.0	ug/L	1	05/01/15	MH	SW8260
1,3-Dichlorobenzene	ND	1.0	ug/L	1	05/01/15	MH	SW8260

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
1,3-Dichloropropane	ND	1.0	ug/L	1	05/01/15	MH	SW8260
1,4-Dichlorobenzene	ND	1.0	ug/L	1	05/01/15	MH	SW8260
2,2-Dichloropropane	ND	1.0	ug/L	1	05/01/15	MH	SW8260
2-Chlorotoluene	ND	1.0	ug/L	1	05/01/15	MH	SW8260
2-Hexanone	ND	5.0	ug/L	1	05/01/15	MH	SW8260
2-Isopropyltoluene	ND	1.0	ug/L	1	05/01/15	MH	SW8260
4-Chlorotoluene	ND	1.0	ug/L	1	05/01/15	MH	SW8260
4-Methyl-2-pentanone	ND	5.0	ug/L	1	05/01/15	MH	SW8260
Acetone	ND	25	ug/L	1	05/01/15	MH	SW8260
Acrylonitrile	ND	5.0	ug/L	1	05/01/15	MH	SW8260
Benzene	ND	0.70	ug/L	1	05/01/15	MH	SW8260
Bromobenzene	ND	1.0	ug/L	1	05/01/15	MH	SW8260
Bromochloromethane	ND	1.0	ug/L	1	05/01/15	MH	SW8260
Bromodichloromethane	ND	0.50	ug/L	1	05/01/15	MH	SW8260
Bromoform	ND	1.0	ug/L	1	05/01/15	MH	SW8260
Bromomethane	ND	1.0	ug/L	1	05/01/15	MH	SW8260
Carbon Disulfide	ND	5.0	ug/L	1	05/01/15	MH	SW8260
Carbon tetrachloride	ND	1.0	ug/L	1	05/01/15	MH	SW8260
Chlorobenzene	ND	1.0	ug/L	1	05/01/15	MH	SW8260
Chloroethane	ND	1.0	ug/L	1	05/01/15	MH	SW8260
Chloroform	ND	1.0	ug/L	1	05/01/15	MH	SW8260
Chloromethane	ND	1.0	ug/L	1	05/01/15	MH	SW8260
cis-1,2-Dichloroethene	ND	1.0	ug/L	1	05/01/15	MH	SW8260
cis-1,3-Dichloropropene	ND	0.40	ug/L	1	05/01/15	MH	SW8260
Dibromochloromethane	ND	0.50	ug/L	1	05/01/15	MH	SW8260
Dibromomethane	ND	1.0	ug/L	1	05/01/15	MH	SW8260
Dichlorodifluoromethane	ND	1.0	ug/L	1	05/01/15	MH	SW8260
Ethylbenzene	ND	1.0	ug/L	1	05/01/15	MH	SW8260
Hexachlorobutadiene	ND	0.40	ug/L	1	05/01/15	MH	SW8260
Isopropylbenzene	ND	1.0	ug/L	1	05/01/15	MH	SW8260
m&p-Xylene	ND	1.0	ug/L	1	05/01/15	MH	SW8260
Methyl ethyl ketone	ND	5.0	ug/L	1	05/01/15	MH	SW8260
Methyl t-butyl ether (MTBE)	ND	1.0	ug/L	1	05/01/15	MH	SW8260
Methylene chloride	ND	1.0	ug/L	1	05/01/15	MH	SW8260
Naphthalene	ND	1.0	ug/L	1	05/01/15	MH	SW8260
n-Butylbenzene	ND	1.0	ug/L	1	05/01/15	MH	SW8260
n-Propylbenzene	ND	1.0	ug/L	1	05/01/15	MH	SW8260
o-Xylene	ND	1.0	ug/L	1	05/01/15	MH	SW8260
p-Isopropyltoluene	ND	1.0	ug/L	1	05/01/15	MH	SW8260
sec-Butylbenzene	ND	1.0	ug/L	1	05/01/15	MH	SW8260
Styrene	ND	1.0	ug/L	1	05/01/15	MH	SW8260
tert-Butylbenzene	ND	1.0	ug/L	1	05/01/15	MH	SW8260
Tetrachloroethene	ND	1.0	ug/L	1	05/01/15	MH	SW8260
Tetrahydrofuran (THF)	ND	2.5	ug/L	1	05/01/15	MH	SW8260
Toluene	ND	1.0	ug/L	1	05/01/15	MH	SW8260
Total Xylenes	ND	1.0	ug/L	1	05/01/15	MH	SW8260
trans-1,2-Dichloroethene	ND	1.0	ug/L	1	05/01/15	MH	SW8260
trans-1,3-Dichloropropene	ND	0.40	ug/L	1	05/01/15	MH	SW8260
trans-1,4-dichloro-2-butene	ND	5.0	ug/L	1	05/01/15	MH	SW8260

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Trichloroethene	ND	1.0	ug/L	1	05/01/15	MH	SW8260
Trichlorofluoromethane	ND	1.0	ug/L	1	05/01/15	MH	SW8260
Trichlorotrifluoroethane	ND	1.0	ug/L	1	05/01/15	MH	SW8260
Vinyl chloride	ND	1.0	ug/L	1	05/01/15	MH	SW8260
<u>QA/QC Surrogates</u>							
% 1,2-dichlorobenzene-d4	100		%	1	05/01/15	MH	70 - 130 %
% Bromofluorobenzene	96		%	1	05/01/15	MH	70 - 130 %
% Dibromofluoromethane	93		%	1	05/01/15	MH	70 - 130 %
% Toluene-d8	99		%	1	05/01/15	MH	70 - 130 %
<u>Semivolatiles by SIM</u>							
2-Methylnaphthalene	ND	0.10	ug/L	1	05/01/15	DD	SW8270D (SIM)
Acenaphthene	ND	0.10	ug/L	1	05/01/15	DD	SW8270D (SIM)
Acenaphthylene	ND	0.10	ug/L	1	05/01/15	DD	SW8270D (SIM)
Anthracene	ND	0.10	ug/L	1	05/01/15	DD	SW8270D (SIM)
Benz(a)anthracene	0.05	0.02	ug/L	1	05/01/15	DD	SW8270D (SIM)
Benzo(a)pyrene	0.05	0.02	ug/L	1	05/01/15	DD	SW8270D (SIM)
Benzo(b)fluoranthene	0.07	0.02	ug/L	1	05/01/15	DD	SW8270D (SIM)
Benzo(ghi)perylene	ND	0.10	ug/L	1	05/01/15	DD	SW8270D (SIM)
Benzo(k)fluoranthene	0.03	0.02	ug/L	1	05/01/15	DD	SW8270D (SIM)
Chrysene	0.03	0.02	ug/L	1	05/01/15	DD	SW8270D (SIM)
Dibenz(a,h)anthracene	ND	0.01	ug/L	1	05/01/15	DD	SW8270D (SIM)
Fluoranthene	ND	0.10	ug/L	1	05/01/15	DD	SW8270D (SIM)
Fluorene	ND	0.10	ug/L	1	05/01/15	DD	SW8270D (SIM)
Indeno(1,2,3-cd)pyrene	0.04	0.02	ug/L	1	05/01/15	DD	SW8270D (SIM)
Naphthalene	ND	0.10	ug/L	1	05/01/15	DD	SW8270D (SIM)
Phenanthrene	ND	0.07	ug/L	1	05/01/15	DD	SW8270D (SIM)
Pyrene	ND	0.10	ug/L	1	05/01/15	DD	SW8270D (SIM)
<u>QA/QC Surrogates</u>							
% 2-Fluorobiphenyl	61		%	1	05/01/15	DD	30 - 130 %
% Nitrobenzene-d5	60		%	1	05/01/15	DD	30 - 130 %
% Terphenyl-d14	122		%	1	05/01/15	DD	30 - 130 %

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level

Comments:

If there are any questions regarding this data, please call Phoenix Client Services at extension 200.
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Phyllis Shiller, Laboratory Director

May 07, 2015

Reviewed and Released by: Ethan Lee, Project Manager



Environmental Laboratories, Inc.
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
Tel. (860) 645-1102 Fax (860) 645-0823

Analysis Report

May 07, 2015

FOR: Attn: Ms Stephanie Wierszchalek
Fuss & O'Neill, Inc.
146 Hartford Road
Manchester, CT 06040

Sample Information

Matrix: GROUND WATER
Location Code: F&O
Rush Request: Standard
P.O.#: 20110037.A11

Custody Information

Collected by: DC
Received by: LK
Analyzed by: see "By" below

Date

04/29/15

Time

13:45

04/30/15

11:10

Laboratory Data

SDG ID: GBJ10075
Phoenix ID: BJ10078

Project ID: EAST HAMPTON BROWNFIELDS
Client ID: 1176150429-04

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Extraction of CT ETPH	Completed				04/30/15	ET	SW3510C/SW3520C
Semi-Volatile Extraction	Completed				04/30/15	E/D	SW3520C

TPH by GC (Extractable Products)

Ext. Petroleum HC	ND	0.074	mg/L	1	05/02/15	JRB	CTETPH 8015D
Identification	ND		mg/L	1	05/02/15	JRB	CTETPH 8015D

QA/QC Surrogates

% n-Pentacosane	83		%	1	05/02/15	JRB	50 - 150 %
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Volatiles

1,1,1,2-Tetrachloroethane	ND	1.0	ug/L	1	05/01/15	MH	SW8260
1,1,1-Trichloroethane	ND	1.0	ug/L	1	05/01/15	MH	SW8260
1,1,2,2-Tetrachloroethane	ND	0.50	ug/L	1	05/01/15	MH	SW8260
1,1,2-Trichloroethane	ND	1.0	ug/L	1	05/01/15	MH	SW8260
1,1-Dichloroethane	ND	1.0	ug/L	1	05/01/15	MH	SW8260
1,1-Dichloroethene	ND	1.0	ug/L	1	05/01/15	MH	SW8260
1,1-Dichloropropene	ND	1.0	ug/L	1	05/01/15	MH	SW8260
1,2,3-Trichlorobenzene	ND	1.0	ug/L	1	05/01/15	MH	SW8260
1,2,3-Trichloropropane	ND	1.0	ug/L	1	05/01/15	MH	SW8260
1,2,4-Trichlorobenzene	ND	1.0	ug/L	1	05/01/15	MH	SW8260
1,2,4-Trimethylbenzene	ND	1.0	ug/L	1	05/01/15	MH	SW8260
1,2-Dibromo-3-chloropropane	ND	1.0	ug/L	1	05/01/15	MH	SW8260
1,2-Dibromoethane	ND	1.0	ug/L	1	05/01/15	MH	SW8260
1,2-Dichlorobenzene	ND	1.0	ug/L	1	05/01/15	MH	SW8260
1,2-Dichloroethane	ND	0.60	ug/L	1	05/01/15	MH	SW8260
1,2-Dichloropropane	ND	1.0	ug/L	1	05/01/15	MH	SW8260
1,3,5-Trimethylbenzene	ND	1.0	ug/L	1	05/01/15	MH	SW8260
1,3-Dichlorobenzene	ND	1.0	ug/L	1	05/01/15	MH	SW8260

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
1,3-Dichloropropane	ND	1.0	ug/L	1	05/01/15	MH	SW8260
1,4-Dichlorobenzene	ND	1.0	ug/L	1	05/01/15	MH	SW8260
2,2-Dichloropropane	ND	1.0	ug/L	1	05/01/15	MH	SW8260
2-Chlorotoluene	ND	1.0	ug/L	1	05/01/15	MH	SW8260
2-Hexanone	ND	5.0	ug/L	1	05/01/15	MH	SW8260
2-Isopropyltoluene	ND	1.0	ug/L	1	05/01/15	MH	SW8260
4-Chlorotoluene	ND	1.0	ug/L	1	05/01/15	MH	SW8260
4-Methyl-2-pentanone	ND	5.0	ug/L	1	05/01/15	MH	SW8260
Acetone	ND	25	ug/L	1	05/01/15	MH	SW8260
Acrylonitrile	ND	5.0	ug/L	1	05/01/15	MH	SW8260
Benzene	ND	0.70	ug/L	1	05/01/15	MH	SW8260
Bromobenzene	ND	1.0	ug/L	1	05/01/15	MH	SW8260
Bromochloromethane	ND	1.0	ug/L	1	05/01/15	MH	SW8260
Bromodichloromethane	ND	0.50	ug/L	1	05/01/15	MH	SW8260
Bromoform	ND	1.0	ug/L	1	05/01/15	MH	SW8260
Bromomethane	ND	1.0	ug/L	1	05/01/15	MH	SW8260
Carbon Disulfide	ND	5.0	ug/L	1	05/01/15	MH	SW8260
Carbon tetrachloride	ND	1.0	ug/L	1	05/01/15	MH	SW8260
Chlorobenzene	ND	1.0	ug/L	1	05/01/15	MH	SW8260
Chloroethane	ND	1.0	ug/L	1	05/01/15	MH	SW8260
Chloroform	ND	1.0	ug/L	1	05/01/15	MH	SW8260
Chloromethane	ND	1.0	ug/L	1	05/01/15	MH	SW8260
cis-1,2-Dichloroethene	ND	1.0	ug/L	1	05/01/15	MH	SW8260
cis-1,3-Dichloropropene	ND	0.40	ug/L	1	05/01/15	MH	SW8260
Dibromochloromethane	ND	0.50	ug/L	1	05/01/15	MH	SW8260
Dibromomethane	ND	1.0	ug/L	1	05/01/15	MH	SW8260
Dichlorodifluoromethane	ND	1.0	ug/L	1	05/01/15	MH	SW8260
Ethylbenzene	ND	1.0	ug/L	1	05/01/15	MH	SW8260
Hexachlorobutadiene	ND	0.40	ug/L	1	05/01/15	MH	SW8260
Isopropylbenzene	ND	1.0	ug/L	1	05/01/15	MH	SW8260
m&p-Xylene	ND	1.0	ug/L	1	05/01/15	MH	SW8260
Methyl ethyl ketone	ND	5.0	ug/L	1	05/01/15	MH	SW8260
Methyl t-butyl ether (MTBE)	ND	1.0	ug/L	1	05/01/15	MH	SW8260
Methylene chloride	ND	1.0	ug/L	1	05/01/15	MH	SW8260
Naphthalene	ND	1.0	ug/L	1	05/01/15	MH	SW8260
n-Butylbenzene	ND	1.0	ug/L	1	05/01/15	MH	SW8260
n-Propylbenzene	ND	1.0	ug/L	1	05/01/15	MH	SW8260
o-Xylene	ND	1.0	ug/L	1	05/01/15	MH	SW8260
p-Isopropyltoluene	ND	1.0	ug/L	1	05/01/15	MH	SW8260
sec-Butylbenzene	ND	1.0	ug/L	1	05/01/15	MH	SW8260
Styrene	ND	1.0	ug/L	1	05/01/15	MH	SW8260
tert-Butylbenzene	ND	1.0	ug/L	1	05/01/15	MH	SW8260
Tetrachloroethene	ND	1.0	ug/L	1	05/01/15	MH	SW8260
Tetrahydrofuran (THF)	ND	2.5	ug/L	1	05/01/15	MH	SW8260
Toluene	ND	1.0	ug/L	1	05/01/15	MH	SW8260
Total Xylenes	ND	1.0	ug/L	1	05/01/15	MH	SW8260
trans-1,2-Dichloroethene	ND	1.0	ug/L	1	05/01/15	MH	SW8260
trans-1,3-Dichloropropene	ND	0.40	ug/L	1	05/01/15	MH	SW8260
trans-1,4-dichloro-2-butene	ND	5.0	ug/L	1	05/01/15	MH	SW8260

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Trichloroethene	ND	1.0	ug/L	1	05/01/15	MH	SW8260
Trichlorofluoromethane	ND	1.0	ug/L	1	05/01/15	MH	SW8260
Trichlorotrifluoroethane	ND	1.0	ug/L	1	05/01/15	MH	SW8260
Vinyl chloride	ND	1.0	ug/L	1	05/01/15	MH	SW8260
<u>QA/QC Surrogates</u>							
% 1,2-dichlorobenzene-d4	100		%	1	05/01/15	MH	70 - 130 %
% Bromofluorobenzene	99		%	1	05/01/15	MH	70 - 130 %
% Dibromofluoromethane	94		%	1	05/01/15	MH	70 - 130 %
% Toluene-d8	100		%	1	05/01/15	MH	70 - 130 %
<u>Semivolatiles by SIM</u>							
2-Methylnaphthalene	ND	0.11	ug/L	1	05/05/15	DD	SW8270D (SIM)
Acenaphthene	ND	0.11	ug/L	1	05/05/15	DD	SW8270D (SIM)
Acenaphthylene	ND	0.11	ug/L	1	05/05/15	DD	SW8270D (SIM)
Anthracene	ND	0.11	ug/L	1	05/05/15	DD	SW8270D (SIM)
Benz(a)anthracene	0.03	0.02	ug/L	1	05/05/15	DD	SW8270D (SIM)
Benzo(a)pyrene	ND	0.02	ug/L	1	05/05/15	DD	SW8270D (SIM)
Benzo(b)fluoranthene	ND	0.02	ug/L	1	05/05/15	DD	SW8270D (SIM)
Benzo(ghi)perylene	ND	0.11	ug/L	1	05/05/15	DD	SW8270D (SIM)
Benzo(k)fluoranthene	ND	0.02	ug/L	1	05/05/15	DD	SW8270D (SIM)
Chrysene	ND	0.02	ug/L	1	05/05/15	DD	SW8270D (SIM)
Dibenz(a,h)anthracene	ND	0.01	ug/L	1	05/05/15	DD	SW8270D (SIM)
Fluoranthene	ND	0.11	ug/L	1	05/05/15	DD	SW8270D (SIM)
Fluorene	ND	0.11	ug/L	1	05/05/15	DD	SW8270D (SIM)
Indeno(1,2,3-cd)pyrene	ND	0.02	ug/L	1	05/05/15	DD	SW8270D (SIM)
Naphthalene	ND	0.11	ug/L	1	05/05/15	DD	SW8270D (SIM)
Phenanthrene	ND	0.07	ug/L	1	05/05/15	DD	SW8270D (SIM)
Pyrene	ND	0.11	ug/L	1	05/05/15	DD	SW8270D (SIM)
<u>QA/QC Surrogates</u>							
% 2-Fluorobiphenyl	75		%	1	05/05/15	DD	30 - 130 %
% Nitrobenzene-d5	89		%	1	05/05/15	DD	30 - 130 %
% Terphenyl-d14	59		%	1	05/05/15	DD	30 - 130 %

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level

Comments:

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Phyllis Shiller, Laboratory Director

May 07, 2015

Reviewed and Released by: Ethan Lee, Project Manager



Environmental Laboratories, Inc.
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
Tel. (860) 645-1102 Fax (860) 645-0823

Analysis Report

May 07, 2015

FOR: Attn: Ms Stephanie Wierszchalek
Fuss & O'Neill, Inc.
146 Hartford Road
Manchester, CT 06040

Sample Information

Matrix: GROUND WATER
Location Code: F&O
Rush Request: Standard
P.O.#: 20110037.A11

Custody Information

Collected by: DC
Received by: LK
Analyzed by: see "By" below

Date

04/29/15

Time

14:28

04/30/15

11:10

Laboratory Data

SDG ID: GBJ10075
Phoenix ID: BJ10079

Project ID: EAST HAMPTON BROWNFIELDS
Client ID: 1176150429-05

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Extraction of CT ETPH	Completed				04/30/15	ET	SW3510C/SW3520C
Semi-Volatile Extraction	Completed				05/01/15	E/E	SW3520C

TPH by GC (Extractable Products)

Ext. Petroleum HC	ND	0.070	mg/L	1	05/02/15	JRB	CTETPH 8015D
Identification	ND		mg/L	1	05/02/15	JRB	CTETPH 8015D

QA/QC Surrogates

% n-Pentacosane	73		%	1	05/02/15	JRB	50 - 150 %
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Volatiles

1,1,1,2-Tetrachloroethane	ND	1.0	ug/L	1	05/01/15	MH	SW8260
1,1,1-Trichloroethane	ND	1.0	ug/L	1	05/01/15	MH	SW8260
1,1,2,2-Tetrachloroethane	ND	0.50	ug/L	1	05/01/15	MH	SW8260
1,1,2-Trichloroethane	ND	1.0	ug/L	1	05/01/15	MH	SW8260
1,1-Dichloroethane	ND	1.0	ug/L	1	05/01/15	MH	SW8260
1,1-Dichloroethene	ND	1.0	ug/L	1	05/01/15	MH	SW8260
1,1-Dichloropropene	ND	1.0	ug/L	1	05/01/15	MH	SW8260
1,2,3-Trichlorobenzene	ND	1.0	ug/L	1	05/01/15	MH	SW8260
1,2,3-Trichloropropane	ND	1.0	ug/L	1	05/01/15	MH	SW8260
1,2,4-Trichlorobenzene	ND	1.0	ug/L	1	05/01/15	MH	SW8260
1,2,4-Trimethylbenzene	ND	1.0	ug/L	1	05/01/15	MH	SW8260
1,2-Dibromo-3-chloropropane	ND	1.0	ug/L	1	05/01/15	MH	SW8260
1,2-Dibromoethane	ND	1.0	ug/L	1	05/01/15	MH	SW8260
1,2-Dichlorobenzene	ND	1.0	ug/L	1	05/01/15	MH	SW8260
1,2-Dichloroethane	ND	0.60	ug/L	1	05/01/15	MH	SW8260
1,2-Dichloropropane	ND	1.0	ug/L	1	05/01/15	MH	SW8260
1,3,5-Trimethylbenzene	ND	1.0	ug/L	1	05/01/15	MH	SW8260
1,3-Dichlorobenzene	ND	1.0	ug/L	1	05/01/15	MH	SW8260

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
1,3-Dichloropropane	ND	1.0	ug/L	1	05/01/15	MH	SW8260
1,4-Dichlorobenzene	ND	1.0	ug/L	1	05/01/15	MH	SW8260
2,2-Dichloropropane	ND	1.0	ug/L	1	05/01/15	MH	SW8260
2-Chlorotoluene	ND	1.0	ug/L	1	05/01/15	MH	SW8260
2-Hexanone	ND	5.0	ug/L	1	05/01/15	MH	SW8260
2-Isopropyltoluene	ND	1.0	ug/L	1	05/01/15	MH	SW8260
4-Chlorotoluene	ND	1.0	ug/L	1	05/01/15	MH	SW8260
4-Methyl-2-pentanone	ND	5.0	ug/L	1	05/01/15	MH	SW8260
Acetone	ND	25	ug/L	1	05/01/15	MH	SW8260
Acrylonitrile	ND	5.0	ug/L	1	05/01/15	MH	SW8260
Benzene	ND	0.70	ug/L	1	05/01/15	MH	SW8260
Bromobenzene	ND	1.0	ug/L	1	05/01/15	MH	SW8260
Bromochloromethane	ND	1.0	ug/L	1	05/01/15	MH	SW8260
Bromodichloromethane	ND	0.50	ug/L	1	05/01/15	MH	SW8260
Bromoform	ND	1.0	ug/L	1	05/01/15	MH	SW8260
Bromomethane	ND	1.0	ug/L	1	05/01/15	MH	SW8260
Carbon Disulfide	ND	5.0	ug/L	1	05/01/15	MH	SW8260
Carbon tetrachloride	ND	1.0	ug/L	1	05/01/15	MH	SW8260
Chlorobenzene	ND	1.0	ug/L	1	05/01/15	MH	SW8260
Chloroethane	ND	1.0	ug/L	1	05/01/15	MH	SW8260
Chloroform	ND	1.0	ug/L	1	05/01/15	MH	SW8260
Chloromethane	ND	1.0	ug/L	1	05/01/15	MH	SW8260
cis-1,2-Dichloroethene	ND	1.0	ug/L	1	05/01/15	MH	SW8260
cis-1,3-Dichloropropene	ND	0.40	ug/L	1	05/01/15	MH	SW8260
Dibromochloromethane	ND	0.50	ug/L	1	05/01/15	MH	SW8260
Dibromomethane	ND	1.0	ug/L	1	05/01/15	MH	SW8260
Dichlorodifluoromethane	ND	1.0	ug/L	1	05/01/15	MH	SW8260
Ethylbenzene	ND	1.0	ug/L	1	05/01/15	MH	SW8260
Hexachlorobutadiene	ND	0.40	ug/L	1	05/01/15	MH	SW8260
Isopropylbenzene	ND	1.0	ug/L	1	05/01/15	MH	SW8260
m&p-Xylene	ND	1.0	ug/L	1	05/01/15	MH	SW8260
Methyl ethyl ketone	ND	5.0	ug/L	1	05/01/15	MH	SW8260
Methyl t-butyl ether (MTBE)	ND	1.0	ug/L	1	05/01/15	MH	SW8260
Methylene chloride	ND	1.0	ug/L	1	05/01/15	MH	SW8260
Naphthalene	ND	1.0	ug/L	1	05/01/15	MH	SW8260
n-Butylbenzene	ND	1.0	ug/L	1	05/01/15	MH	SW8260
n-Propylbenzene	ND	1.0	ug/L	1	05/01/15	MH	SW8260
o-Xylene	ND	1.0	ug/L	1	05/01/15	MH	SW8260
p-Isopropyltoluene	ND	1.0	ug/L	1	05/01/15	MH	SW8260
sec-Butylbenzene	ND	1.0	ug/L	1	05/01/15	MH	SW8260
Styrene	ND	1.0	ug/L	1	05/01/15	MH	SW8260
tert-Butylbenzene	ND	1.0	ug/L	1	05/01/15	MH	SW8260
Tetrachloroethene	ND	1.0	ug/L	1	05/01/15	MH	SW8260
Tetrahydrofuran (THF)	ND	2.5	ug/L	1	05/01/15	MH	SW8260
Toluene	ND	1.0	ug/L	1	05/01/15	MH	SW8260
Total Xylenes	ND	1.0	ug/L	1	05/01/15	MH	SW8260
trans-1,2-Dichloroethene	ND	1.0	ug/L	1	05/01/15	MH	SW8260
trans-1,3-Dichloropropene	ND	0.40	ug/L	1	05/01/15	MH	SW8260
trans-1,4-dichloro-2-butene	ND	5.0	ug/L	1	05/01/15	MH	SW8260

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Trichloroethene	15	1.0	ug/L	1	05/01/15	MH	SW8260
Trichlorofluoromethane	ND	1.0	ug/L	1	05/01/15	MH	SW8260
Trichlorotrifluoroethane	ND	1.0	ug/L	1	05/01/15	MH	SW8260
Vinyl chloride	ND	1.0	ug/L	1	05/01/15	MH	SW8260
<u>QA/QC Surrogates</u>							
% 1,2-dichlorobenzene-d4	103		%	1	05/01/15	MH	70 - 130 %
% Bromofluorobenzene	97		%	1	05/01/15	MH	70 - 130 %
% Dibromofluoromethane	94		%	1	05/01/15	MH	70 - 130 %
% Toluene-d8	99		%	1	05/01/15	MH	70 - 130 %
<u>Semivolatiles by SIM</u>							
2-Methylnaphthalene	ND	0.10	ug/L	1	05/02/15	DD	SW8270D (SIM)
Acenaphthene	ND	0.10	ug/L	1	05/02/15	DD	SW8270D (SIM)
Acenaphthylene	ND	0.10	ug/L	1	05/02/15	DD	SW8270D (SIM)
Anthracene	ND	0.10	ug/L	1	05/02/15	DD	SW8270D (SIM)
Benz(a)anthracene	0.02	0.02	ug/L	1	05/02/15	DD	SW8270D (SIM)
Benzo(a)pyrene	ND	0.02	ug/L	1	05/02/15	DD	SW8270D (SIM)
Benzo(b)fluoranthene	0.03	0.02	ug/L	1	05/02/15	DD	SW8270D (SIM)
Benzo(ghi)perylene	ND	0.10	ug/L	1	05/02/15	DD	SW8270D (SIM)
Benzo(k)fluoranthene	ND	0.02	ug/L	1	05/02/15	DD	SW8270D (SIM)
Chrysene	0.02	0.02	ug/L	1	05/02/15	DD	SW8270D (SIM)
Dibenz(a,h)anthracene	ND	0.01	ug/L	1	05/02/15	DD	SW8270D (SIM)
Fluoranthene	ND	0.10	ug/L	1	05/02/15	DD	SW8270D (SIM)
Fluorene	ND	0.10	ug/L	1	05/02/15	DD	SW8270D (SIM)
Indeno(1,2,3-cd)pyrene	ND	0.02	ug/L	1	05/02/15	DD	SW8270D (SIM)
Naphthalene	ND	0.10	ug/L	1	05/02/15	DD	SW8270D (SIM)
Phenanthrene	ND	0.07	ug/L	1	05/02/15	DD	SW8270D (SIM)
Pyrene	ND	0.10	ug/L	1	05/02/15	DD	SW8270D (SIM)
<u>QA/QC Surrogates</u>							
% 2-Fluorobiphenyl	58		%	1	05/02/15	DD	30 - 130 %
% Nitrobenzene-d5	67		%	1	05/02/15	DD	30 - 130 %
% Terphenyl-d14	85		%	1	05/02/15	DD	30 - 130 %

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level

Comments:

If there are any questions regarding this data, please call Phoenix Client Services at extension 200.
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Phyllis Shiller, Laboratory Director

May 07, 2015

Reviewed and Released by: Ethan Lee, Project Manager



Environmental Laboratories, Inc.
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
Tel. (860) 645-1102 Fax (860) 645-0823

Analysis Report

May 07, 2015

FOR: Attn: Ms Stephanie Wierszchalek
Fuss & O'Neill, Inc.
146 Hartford Road
Manchester, CT 06040

Sample Information

Matrix: GROUND WATER
Location Code: F&O
Rush Request: Standard
P.O.#: 20110037.A11

Custody Information

Collected by: DC
Received by: LK
Analyzed by: see "By" below

Date

04/29/15

Time

15:30

04/30/15

11:10

Laboratory Data

SDG ID: GBJ10075
Phoenix ID: BJ10080

Project ID: EAST HAMPTON BROWNFIELDS
Client ID: 1176150429-06

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Extraction of CT ETPH	Completed				04/30/15	ET	SW3510C/SW3520C
Semi-Volatile Extraction	Completed				05/01/15	E/E	SW3520C

TPH by GC (Extractable Products)

Ext. Petroleum HC	ND	0.072	mg/L	1	05/02/15	JRB	CTETPH 8015D
Identification	ND		mg/L	1	05/02/15	JRB	CTETPH 8015D

QA/QC Surrogates

% n-Pentacosane	82		%	1	05/02/15	JRB	50 - 150 %
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Volatiles

1,1,1,2-Tetrachloroethane	ND	1.0	ug/L	1	05/01/15	MH	SW8260
1,1,1-Trichloroethane	ND	1.0	ug/L	1	05/01/15	MH	SW8260
1,1,2,2-Tetrachloroethane	ND	0.50	ug/L	1	05/01/15	MH	SW8260
1,1,2-Trichloroethane	ND	1.0	ug/L	1	05/01/15	MH	SW8260
1,1-Dichloroethane	ND	1.0	ug/L	1	05/01/15	MH	SW8260
1,1-Dichloroethene	ND	1.0	ug/L	1	05/01/15	MH	SW8260
1,1-Dichloropropene	ND	1.0	ug/L	1	05/01/15	MH	SW8260
1,2,3-Trichlorobenzene	ND	1.0	ug/L	1	05/01/15	MH	SW8260
1,2,3-Trichloropropane	ND	1.0	ug/L	1	05/01/15	MH	SW8260
1,2,4-Trichlorobenzene	ND	1.0	ug/L	1	05/01/15	MH	SW8260
1,2,4-Trimethylbenzene	ND	1.0	ug/L	1	05/01/15	MH	SW8260
1,2-Dibromo-3-chloropropane	ND	1.0	ug/L	1	05/01/15	MH	SW8260
1,2-Dibromoethane	ND	1.0	ug/L	1	05/01/15	MH	SW8260
1,2-Dichlorobenzene	ND	1.0	ug/L	1	05/01/15	MH	SW8260
1,2-Dichloroethane	ND	0.60	ug/L	1	05/01/15	MH	SW8260
1,2-Dichloropropane	ND	1.0	ug/L	1	05/01/15	MH	SW8260
1,3,5-Trimethylbenzene	ND	1.0	ug/L	1	05/01/15	MH	SW8260
1,3-Dichlorobenzene	ND	1.0	ug/L	1	05/01/15	MH	SW8260

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
1,3-Dichloropropane	ND	1.0	ug/L	1	05/01/15	MH	SW8260
1,4-Dichlorobenzene	ND	1.0	ug/L	1	05/01/15	MH	SW8260
2,2-Dichloropropane	ND	1.0	ug/L	1	05/01/15	MH	SW8260
2-Chlorotoluene	ND	1.0	ug/L	1	05/01/15	MH	SW8260
2-Hexanone	ND	5.0	ug/L	1	05/01/15	MH	SW8260
2-Isopropyltoluene	ND	1.0	ug/L	1	05/01/15	MH	SW8260
4-Chlorotoluene	ND	1.0	ug/L	1	05/01/15	MH	SW8260
4-Methyl-2-pentanone	ND	5.0	ug/L	1	05/01/15	MH	SW8260
Acetone	ND	25	ug/L	1	05/01/15	MH	SW8260
Acrylonitrile	ND	5.0	ug/L	1	05/01/15	MH	SW8260
Benzene	ND	0.70	ug/L	1	05/01/15	MH	SW8260
Bromobenzene	ND	1.0	ug/L	1	05/01/15	MH	SW8260
Bromochloromethane	ND	1.0	ug/L	1	05/01/15	MH	SW8260
Bromodichloromethane	ND	0.50	ug/L	1	05/01/15	MH	SW8260
Bromoform	ND	1.0	ug/L	1	05/01/15	MH	SW8260
Bromomethane	ND	1.0	ug/L	1	05/01/15	MH	SW8260
Carbon Disulfide	ND	5.0	ug/L	1	05/01/15	MH	SW8260
Carbon tetrachloride	ND	1.0	ug/L	1	05/01/15	MH	SW8260
Chlorobenzene	ND	1.0	ug/L	1	05/01/15	MH	SW8260
Chloroethane	ND	1.0	ug/L	1	05/01/15	MH	SW8260
Chloroform	ND	1.0	ug/L	1	05/01/15	MH	SW8260
Chloromethane	ND	1.0	ug/L	1	05/01/15	MH	SW8260
cis-1,2-Dichloroethene	ND	1.0	ug/L	1	05/01/15	MH	SW8260
cis-1,3-Dichloropropene	ND	0.40	ug/L	1	05/01/15	MH	SW8260
Dibromochloromethane	ND	0.50	ug/L	1	05/01/15	MH	SW8260
Dibromomethane	ND	1.0	ug/L	1	05/01/15	MH	SW8260
Dichlorodifluoromethane	ND	1.0	ug/L	1	05/01/15	MH	SW8260
Ethylbenzene	ND	1.0	ug/L	1	05/01/15	MH	SW8260
Hexachlorobutadiene	ND	0.40	ug/L	1	05/01/15	MH	SW8260
Isopropylbenzene	ND	1.0	ug/L	1	05/01/15	MH	SW8260
m&p-Xylene	ND	1.0	ug/L	1	05/01/15	MH	SW8260
Methyl ethyl ketone	ND	5.0	ug/L	1	05/01/15	MH	SW8260
Methyl t-butyl ether (MTBE)	ND	1.0	ug/L	1	05/01/15	MH	SW8260
Methylene chloride	ND	1.0	ug/L	1	05/01/15	MH	SW8260
Naphthalene	ND	1.0	ug/L	1	05/01/15	MH	SW8260
n-Butylbenzene	ND	1.0	ug/L	1	05/01/15	MH	SW8260
n-Propylbenzene	ND	1.0	ug/L	1	05/01/15	MH	SW8260
o-Xylene	ND	1.0	ug/L	1	05/01/15	MH	SW8260
p-Isopropyltoluene	ND	1.0	ug/L	1	05/01/15	MH	SW8260
sec-Butylbenzene	ND	1.0	ug/L	1	05/01/15	MH	SW8260
Styrene	ND	1.0	ug/L	1	05/01/15	MH	SW8260
tert-Butylbenzene	ND	1.0	ug/L	1	05/01/15	MH	SW8260
Tetrachloroethene	ND	1.0	ug/L	1	05/01/15	MH	SW8260
Tetrahydrofuran (THF)	ND	2.5	ug/L	1	05/01/15	MH	SW8260
Toluene	ND	1.0	ug/L	1	05/01/15	MH	SW8260
Total Xylenes	ND	1.0	ug/L	1	05/01/15	MH	SW8260
trans-1,2-Dichloroethene	ND	1.0	ug/L	1	05/01/15	MH	SW8260
trans-1,3-Dichloropropene	ND	0.40	ug/L	1	05/01/15	MH	SW8260
trans-1,4-dichloro-2-butene	ND	5.0	ug/L	1	05/01/15	MH	SW8260

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Trichloroethene	ND	1.0	ug/L	1	05/01/15	MH	SW8260
Trichlorofluoromethane	ND	1.0	ug/L	1	05/01/15	MH	SW8260
Trichlorotrifluoroethane	ND	1.0	ug/L	1	05/01/15	MH	SW8260
Vinyl chloride	ND	1.0	ug/L	1	05/01/15	MH	SW8260
<u>QA/QC Surrogates</u>							
% 1,2-dichlorobenzene-d4	101		%	1	05/01/15	MH	70 - 130 %
% Bromofluorobenzene	99		%	1	05/01/15	MH	70 - 130 %
% Dibromofluoromethane	99		%	1	05/01/15	MH	70 - 130 %
% Toluene-d8	98		%	1	05/01/15	MH	70 - 130 %
<u>Semivolatiles by SIM</u>							
2-Methylnaphthalene	ND	0.11	ug/L	1	05/02/15	DD	SW8270D (SIM)
Acenaphthene	ND	0.11	ug/L	1	05/02/15	DD	SW8270D (SIM)
Acenaphthylene	ND	0.11	ug/L	1	05/02/15	DD	SW8270D (SIM)
Anthracene	ND	0.11	ug/L	1	05/02/15	DD	SW8270D (SIM)
Benz(a)anthracene	0.03	0.02	ug/L	1	05/02/15	DD	SW8270D (SIM)
Benzo(a)pyrene	0.02	0.02	ug/L	1	05/02/15	DD	SW8270D (SIM)
Benzo(b)fluoranthene	0.03	0.02	ug/L	1	05/02/15	DD	SW8270D (SIM)
Benzo(ghi)perylene	ND	0.11	ug/L	1	05/02/15	DD	SW8270D (SIM)
Benzo(k)fluoranthene	ND	0.02	ug/L	1	05/02/15	DD	SW8270D (SIM)
Chrysene	0.02	0.02	ug/L	1	05/02/15	DD	SW8270D (SIM)
Dibenz(a,h)anthracene	ND	0.01	ug/L	1	05/02/15	DD	SW8270D (SIM)
Fluoranthene	ND	0.11	ug/L	1	05/02/15	DD	SW8270D (SIM)
Fluorene	ND	0.11	ug/L	1	05/02/15	DD	SW8270D (SIM)
Indeno(1,2,3-cd)pyrene	ND	0.02	ug/L	1	05/02/15	DD	SW8270D (SIM)
Naphthalene	ND	0.11	ug/L	1	05/02/15	DD	SW8270D (SIM)
Phenanthrene	ND	0.07	ug/L	1	05/02/15	DD	SW8270D (SIM)
Pyrene	ND	0.11	ug/L	1	05/02/15	DD	SW8270D (SIM)
<u>QA/QC Surrogates</u>							
% 2-Fluorobiphenyl	63		%	1	05/02/15	DD	30 - 130 %
% Nitrobenzene-d5	73		%	1	05/02/15	DD	30 - 130 %
% Terphenyl-d14	89		%	1	05/02/15	DD	30 - 130 %

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level

Comments:

If there are any questions regarding this data, please call Phoenix Client Services at extension 200.
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Phyllis Shiller, Laboratory Director

May 07, 2015

Reviewed and Released by: Ethan Lee, Project Manager



Environmental Laboratories, Inc.
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
Tel. (860) 645-1102 Fax (860) 645-0823

Analysis Report

May 07, 2015

FOR: Attn: Ms Stephanie Wierszchalek
Fuss & O'Neill, Inc.
146 Hartford Road
Manchester, CT 06040

Sample Information

Matrix: GROUND WATER
Location Code: F&O
Rush Request: Standard
P.O.#: 20110037.A11

Custody Information

Collected by: DC
Received by: LK
Analyzed by: see "By" below

Date

04/29/15

Time

16:14

04/30/15

11:10

Laboratory Data

SDG ID: GBJ10075
Phoenix ID: BJ10081

Project ID: EAST HAMPTON BROWNFIELDS
Client ID: 1176150429-07

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Extraction of CT ETPH	Completed				04/30/15	ET	SW3510C/SW3520C
Semi-Volatile Extraction	Completed				05/01/15	E/E	SW3520C

TPH by GC (Extractable Products)

Ext. Petroleum HC	ND	0.074	mg/L	1	05/02/15	JRB	CTETPH 8015D
Identification	ND		mg/L	1	05/02/15	JRB	CTETPH 8015D

QA/QC Surrogates

% n-Pentacosane	88		%	1	05/02/15	JRB	50 - 150 %
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Volatiles

1,1,1,2-Tetrachloroethane	ND	1.0	ug/L	1	05/01/15	MH	SW8260
1,1,1-Trichloroethane	ND	1.0	ug/L	1	05/01/15	MH	SW8260
1,1,2,2-Tetrachloroethane	ND	0.50	ug/L	1	05/01/15	MH	SW8260
1,1,2-Trichloroethane	ND	1.0	ug/L	1	05/01/15	MH	SW8260
1,1-Dichloroethane	ND	1.0	ug/L	1	05/01/15	MH	SW8260
1,1-Dichloroethene	ND	1.0	ug/L	1	05/01/15	MH	SW8260
1,1-Dichloropropene	ND	1.0	ug/L	1	05/01/15	MH	SW8260
1,2,3-Trichlorobenzene	ND	1.0	ug/L	1	05/01/15	MH	SW8260
1,2,3-Trichloropropane	ND	1.0	ug/L	1	05/01/15	MH	SW8260
1,2,4-Trichlorobenzene	ND	1.0	ug/L	1	05/01/15	MH	SW8260
1,2,4-Trimethylbenzene	ND	1.0	ug/L	1	05/01/15	MH	SW8260
1,2-Dibromo-3-chloropropane	ND	1.0	ug/L	1	05/01/15	MH	SW8260
1,2-Dibromoethane	ND	1.0	ug/L	1	05/01/15	MH	SW8260
1,2-Dichlorobenzene	ND	1.0	ug/L	1	05/01/15	MH	SW8260
1,2-Dichloroethane	ND	0.60	ug/L	1	05/01/15	MH	SW8260
1,2-Dichloropropane	ND	1.0	ug/L	1	05/01/15	MH	SW8260
1,3,5-Trimethylbenzene	ND	1.0	ug/L	1	05/01/15	MH	SW8260
1,3-Dichlorobenzene	ND	1.0	ug/L	1	05/01/15	MH	SW8260

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
1,3-Dichloropropane	ND	1.0	ug/L	1	05/01/15	MH	SW8260
1,4-Dichlorobenzene	ND	1.0	ug/L	1	05/01/15	MH	SW8260
2,2-Dichloropropane	ND	1.0	ug/L	1	05/01/15	MH	SW8260
2-Chlorotoluene	ND	1.0	ug/L	1	05/01/15	MH	SW8260
2-Hexanone	ND	5.0	ug/L	1	05/01/15	MH	SW8260
2-Isopropyltoluene	ND	1.0	ug/L	1	05/01/15	MH	SW8260
4-Chlorotoluene	ND	1.0	ug/L	1	05/01/15	MH	SW8260
4-Methyl-2-pentanone	ND	5.0	ug/L	1	05/01/15	MH	SW8260
Acetone	ND	25	ug/L	1	05/01/15	MH	SW8260
Acrylonitrile	ND	5.0	ug/L	1	05/01/15	MH	SW8260
Benzene	ND	0.70	ug/L	1	05/01/15	MH	SW8260
Bromobenzene	ND	1.0	ug/L	1	05/01/15	MH	SW8260
Bromochloromethane	ND	1.0	ug/L	1	05/01/15	MH	SW8260
Bromodichloromethane	ND	0.50	ug/L	1	05/01/15	MH	SW8260
Bromoform	ND	1.0	ug/L	1	05/01/15	MH	SW8260
Bromomethane	ND	1.0	ug/L	1	05/01/15	MH	SW8260
Carbon Disulfide	ND	5.0	ug/L	1	05/01/15	MH	SW8260
Carbon tetrachloride	ND	1.0	ug/L	1	05/01/15	MH	SW8260
Chlorobenzene	ND	1.0	ug/L	1	05/01/15	MH	SW8260
Chloroethane	ND	1.0	ug/L	1	05/01/15	MH	SW8260
Chloroform	ND	1.0	ug/L	1	05/01/15	MH	SW8260
Chloromethane	ND	1.0	ug/L	1	05/01/15	MH	SW8260
cis-1,2-Dichloroethene	ND	1.0	ug/L	1	05/01/15	MH	SW8260
cis-1,3-Dichloropropene	ND	0.40	ug/L	1	05/01/15	MH	SW8260
Dibromochloromethane	ND	0.50	ug/L	1	05/01/15	MH	SW8260
Dibromomethane	ND	1.0	ug/L	1	05/01/15	MH	SW8260
Dichlorodifluoromethane	ND	1.0	ug/L	1	05/01/15	MH	SW8260
Ethylbenzene	ND	1.0	ug/L	1	05/01/15	MH	SW8260
Hexachlorobutadiene	ND	0.40	ug/L	1	05/01/15	MH	SW8260
Isopropylbenzene	ND	1.0	ug/L	1	05/01/15	MH	SW8260
m&p-Xylene	ND	1.0	ug/L	1	05/01/15	MH	SW8260
Methyl ethyl ketone	ND	5.0	ug/L	1	05/01/15	MH	SW8260
Methyl t-butyl ether (MTBE)	ND	1.0	ug/L	1	05/01/15	MH	SW8260
Methylene chloride	ND	1.0	ug/L	1	05/01/15	MH	SW8260
Naphthalene	ND	1.0	ug/L	1	05/01/15	MH	SW8260
n-Butylbenzene	ND	1.0	ug/L	1	05/01/15	MH	SW8260
n-Propylbenzene	ND	1.0	ug/L	1	05/01/15	MH	SW8260
o-Xylene	ND	1.0	ug/L	1	05/01/15	MH	SW8260
p-Isopropyltoluene	ND	1.0	ug/L	1	05/01/15	MH	SW8260
sec-Butylbenzene	ND	1.0	ug/L	1	05/01/15	MH	SW8260
Styrene	ND	1.0	ug/L	1	05/01/15	MH	SW8260
tert-Butylbenzene	ND	1.0	ug/L	1	05/01/15	MH	SW8260
Tetrachloroethene	ND	1.0	ug/L	1	05/01/15	MH	SW8260
Tetrahydrofuran (THF)	ND	2.5	ug/L	1	05/01/15	MH	SW8260
Toluene	ND	1.0	ug/L	1	05/01/15	MH	SW8260
Total Xylenes	ND	1.0	ug/L	1	05/01/15	MH	SW8260
trans-1,2-Dichloroethene	ND	1.0	ug/L	1	05/01/15	MH	SW8260
trans-1,3-Dichloropropene	ND	0.40	ug/L	1	05/01/15	MH	SW8260
trans-1,4-dichloro-2-butene	ND	5.0	ug/L	1	05/01/15	MH	SW8260

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Trichloroethene	ND	1.0	ug/L	1	05/01/15	MH	SW8260
Trichlorofluoromethane	ND	1.0	ug/L	1	05/01/15	MH	SW8260
Trichlorotrifluoroethane	ND	1.0	ug/L	1	05/01/15	MH	SW8260
Vinyl chloride	ND	1.0	ug/L	1	05/01/15	MH	SW8260
<u>QA/QC Surrogates</u>							
% 1,2-dichlorobenzene-d4	98		%	1	05/01/15	MH	70 - 130 %
% Bromofluorobenzene	96		%	1	05/01/15	MH	70 - 130 %
% Dibromofluoromethane	92		%	1	05/01/15	MH	70 - 130 %
% Toluene-d8	98		%	1	05/01/15	MH	70 - 130 %
<u>Semivolatiles by SIM</u>							
2-Methylnaphthalene	ND	0.10	ug/L	1	05/02/15	DD	SW8270D (SIM)
Acenaphthene	ND	0.10	ug/L	1	05/02/15	DD	SW8270D (SIM)
Acenaphthylene	ND	0.10	ug/L	1	05/02/15	DD	SW8270D (SIM)
Anthracene	ND	0.10	ug/L	1	05/02/15	DD	SW8270D (SIM)
Benz(a)anthracene	ND	0.02	ug/L	1	05/02/15	DD	SW8270D (SIM)
Benzo(a)pyrene	ND	0.02	ug/L	1	05/02/15	DD	SW8270D (SIM)
Benzo(b)fluoranthene	ND	0.02	ug/L	1	05/02/15	DD	SW8270D (SIM)
Benzo(ghi)perylene	ND	0.10	ug/L	1	05/02/15	DD	SW8270D (SIM)
Benzo(k)fluoranthene	ND	0.02	ug/L	1	05/02/15	DD	SW8270D (SIM)
Chrysene	ND	0.02	ug/L	1	05/02/15	DD	SW8270D (SIM)
Dibenz(a,h)anthracene	ND	0.01	ug/L	1	05/02/15	DD	SW8270D (SIM)
Fluoranthene	ND	0.10	ug/L	1	05/02/15	DD	SW8270D (SIM)
Fluorene	ND	0.10	ug/L	1	05/02/15	DD	SW8270D (SIM)
Indeno(1,2,3-cd)pyrene	ND	0.02	ug/L	1	05/02/15	DD	SW8270D (SIM)
Naphthalene	ND	0.10	ug/L	1	05/02/15	DD	SW8270D (SIM)
Phenanthrene	ND	0.07	ug/L	1	05/02/15	DD	SW8270D (SIM)
Pyrene	ND	0.10	ug/L	1	05/02/15	DD	SW8270D (SIM)
<u>QA/QC Surrogates</u>							
% 2-Fluorobiphenyl	59		%	1	05/02/15	DD	30 - 130 %
% Nitrobenzene-d5	68		%	1	05/02/15	DD	30 - 130 %
% Terphenyl-d14	82		%	1	05/02/15	DD	30 - 130 %

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level

Comments:

If there are any questions regarding this data, please call Phoenix Client Services at extension 200.
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Phyllis Shiller, Laboratory Director

May 07, 2015

Reviewed and Released by: Ethan Lee, Project Manager



Environmental Laboratories, Inc.
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
Tel. (860) 645-1102 Fax (860) 645-0823

Analysis Report

May 07, 2015

FOR: Attn: Ms Stephanie Wierszchalek
Fuss & O'Neill, Inc.
146 Hartford Road
Manchester, CT 06040

Sample Information

Matrix: GROUND WATER
Location Code: F&O
Rush Request: Standard
P.O.#: 20110037.A11

Custody Information

Collected by: DC
Received by: LK
Analyzed by: see "By" below

Date

04/29/15

Time

16:50

04/30/15

11:10

Laboratory Data

SDG ID: GBJ10075
Phoenix ID: BJ10082

Project ID: EAST HAMPTON BROWNFIELDS
Client ID: 1176150429-08

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Extraction of CT ETPH	Completed				04/30/15	ET	SW3510C/SW3520C
Semi-Volatile Extraction	Completed				05/01/15	E/E	SW3520C

TPH by GC (Extractable Products)

Ext. Petroleum HC	ND	0.074	mg/L	1	05/02/15	JRB	CTETPH 8015D
Identification	ND		mg/L	1	05/02/15	JRB	CTETPH 8015D

QA/QC Surrogates

% n-Pentacosane	98		%	1	05/02/15	JRB	50 - 150 %
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Volatiles

1,1,1,2-Tetrachloroethane	ND	1.0	ug/L	1	05/01/15	MH	SW8260
1,1,1-Trichloroethane	ND	1.0	ug/L	1	05/01/15	MH	SW8260
1,1,2,2-Tetrachloroethane	ND	0.50	ug/L	1	05/01/15	MH	SW8260
1,1,2-Trichloroethane	ND	1.0	ug/L	1	05/01/15	MH	SW8260
1,1-Dichloroethane	ND	1.0	ug/L	1	05/01/15	MH	SW8260
1,1-Dichloroethene	ND	1.0	ug/L	1	05/01/15	MH	SW8260
1,1-Dichloropropene	ND	1.0	ug/L	1	05/01/15	MH	SW8260
1,2,3-Trichlorobenzene	ND	1.0	ug/L	1	05/01/15	MH	SW8260
1,2,3-Trichloropropane	ND	1.0	ug/L	1	05/01/15	MH	SW8260
1,2,4-Trichlorobenzene	ND	1.0	ug/L	1	05/01/15	MH	SW8260
1,2,4-Trimethylbenzene	ND	1.0	ug/L	1	05/01/15	MH	SW8260
1,2-Dibromo-3-chloropropane	ND	1.0	ug/L	1	05/01/15	MH	SW8260
1,2-Dibromoethane	ND	1.0	ug/L	1	05/01/15	MH	SW8260
1,2-Dichlorobenzene	ND	1.0	ug/L	1	05/01/15	MH	SW8260
1,2-Dichloroethane	ND	0.60	ug/L	1	05/01/15	MH	SW8260
1,2-Dichloropropane	ND	1.0	ug/L	1	05/01/15	MH	SW8260
1,3,5-Trimethylbenzene	ND	1.0	ug/L	1	05/01/15	MH	SW8260
1,3-Dichlorobenzene	ND	1.0	ug/L	1	05/01/15	MH	SW8260

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
1,3-Dichloropropane	ND	1.0	ug/L	1	05/01/15	MH	SW8260
1,4-Dichlorobenzene	ND	1.0	ug/L	1	05/01/15	MH	SW8260
2,2-Dichloropropane	ND	1.0	ug/L	1	05/01/15	MH	SW8260
2-Chlorotoluene	ND	1.0	ug/L	1	05/01/15	MH	SW8260
2-Hexanone	ND	5.0	ug/L	1	05/01/15	MH	SW8260
2-Isopropyltoluene	ND	1.0	ug/L	1	05/01/15	MH	SW8260
4-Chlorotoluene	ND	1.0	ug/L	1	05/01/15	MH	SW8260
4-Methyl-2-pentanone	ND	5.0	ug/L	1	05/01/15	MH	SW8260
Acetone	ND	25	ug/L	1	05/01/15	MH	SW8260
Acrylonitrile	ND	5.0	ug/L	1	05/01/15	MH	SW8260
Benzene	ND	0.70	ug/L	1	05/01/15	MH	SW8260
Bromobenzene	ND	1.0	ug/L	1	05/01/15	MH	SW8260
Bromochloromethane	ND	1.0	ug/L	1	05/01/15	MH	SW8260
Bromodichloromethane	ND	0.50	ug/L	1	05/01/15	MH	SW8260
Bromoform	ND	1.0	ug/L	1	05/01/15	MH	SW8260
Bromomethane	ND	1.0	ug/L	1	05/01/15	MH	SW8260
Carbon Disulfide	ND	5.0	ug/L	1	05/01/15	MH	SW8260
Carbon tetrachloride	ND	1.0	ug/L	1	05/01/15	MH	SW8260
Chlorobenzene	ND	1.0	ug/L	1	05/01/15	MH	SW8260
Chloroethane	ND	1.0	ug/L	1	05/01/15	MH	SW8260
Chloroform	ND	1.0	ug/L	1	05/01/15	MH	SW8260
Chloromethane	ND	1.0	ug/L	1	05/01/15	MH	SW8260
cis-1,2-Dichloroethene	ND	1.0	ug/L	1	05/01/15	MH	SW8260
cis-1,3-Dichloropropene	ND	0.40	ug/L	1	05/01/15	MH	SW8260
Dibromochloromethane	ND	0.50	ug/L	1	05/01/15	MH	SW8260
Dibromomethane	ND	1.0	ug/L	1	05/01/15	MH	SW8260
Dichlorodifluoromethane	ND	1.0	ug/L	1	05/01/15	MH	SW8260
Ethylbenzene	ND	1.0	ug/L	1	05/01/15	MH	SW8260
Hexachlorobutadiene	ND	0.40	ug/L	1	05/01/15	MH	SW8260
Isopropylbenzene	ND	1.0	ug/L	1	05/01/15	MH	SW8260
m&p-Xylene	ND	1.0	ug/L	1	05/01/15	MH	SW8260
Methyl ethyl ketone	ND	5.0	ug/L	1	05/01/15	MH	SW8260
Methyl t-butyl ether (MTBE)	ND	1.0	ug/L	1	05/01/15	MH	SW8260
Methylene chloride	ND	1.0	ug/L	1	05/01/15	MH	SW8260
Naphthalene	ND	1.0	ug/L	1	05/01/15	MH	SW8260
n-Butylbenzene	ND	1.0	ug/L	1	05/01/15	MH	SW8260
n-Propylbenzene	ND	1.0	ug/L	1	05/01/15	MH	SW8260
o-Xylene	ND	1.0	ug/L	1	05/01/15	MH	SW8260
p-Isopropyltoluene	ND	1.0	ug/L	1	05/01/15	MH	SW8260
sec-Butylbenzene	ND	1.0	ug/L	1	05/01/15	MH	SW8260
Styrene	ND	1.0	ug/L	1	05/01/15	MH	SW8260
tert-Butylbenzene	ND	1.0	ug/L	1	05/01/15	MH	SW8260
Tetrachloroethene	ND	1.0	ug/L	1	05/01/15	MH	SW8260
Tetrahydrofuran (THF)	ND	2.5	ug/L	1	05/01/15	MH	SW8260
Toluene	49	5.0	ug/L	5	05/01/15	MH	SW8260
Total Xylenes	ND	1.0	ug/L	1	05/01/15	MH	SW8260
trans-1,2-Dichloroethene	ND	1.0	ug/L	1	05/01/15	MH	SW8260
trans-1,3-Dichloropropene	ND	0.40	ug/L	1	05/01/15	MH	SW8260
trans-1,4-dichloro-2-butene	ND	5.0	ug/L	1	05/01/15	MH	SW8260

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Trichloroethene	ND	1.0	ug/L	1	05/01/15	MH	SW8260
Trichlorofluoromethane	ND	1.0	ug/L	1	05/01/15	MH	SW8260
Trichlorotrifluoroethane	ND	1.0	ug/L	1	05/01/15	MH	SW8260
Vinyl chloride	ND	1.0	ug/L	1	05/01/15	MH	SW8260
<u>QA/QC Surrogates</u>							
% 1,2-dichlorobenzene-d4	100		%	1	05/01/15	MH	70 - 130 %
% Bromofluorobenzene	99		%	1	05/01/15	MH	70 - 130 %
% Dibromofluoromethane	94		%	1	05/01/15	MH	70 - 130 %
% Toluene-d8	99		%	1	05/01/15	MH	70 - 130 %
<u>Semivolatiles by SIM</u>							
2-Methylnaphthalene	ND	0.10	ug/L	1	05/02/15	DD	SW8270D (SIM)
Acenaphthene	ND	0.10	ug/L	1	05/02/15	DD	SW8270D (SIM)
Acenaphthylene	ND	0.10	ug/L	1	05/02/15	DD	SW8270D (SIM)
Anthracene	ND	0.10	ug/L	1	05/02/15	DD	SW8270D (SIM)
Benz(a)anthracene	0.03	0.02	ug/L	1	05/02/15	DD	SW8270D (SIM)
Benzo(a)pyrene	0.03	0.02	ug/L	1	05/02/15	DD	SW8270D (SIM)
Benzo(b)fluoranthene	0.04	0.02	ug/L	1	05/02/15	DD	SW8270D (SIM)
Benzo(ghi)perylene	ND	0.10	ug/L	1	05/02/15	DD	SW8270D (SIM)
Benzo(k)fluoranthene	ND	0.02	ug/L	1	05/02/15	DD	SW8270D (SIM)
Chrysene	0.03	0.02	ug/L	1	05/02/15	DD	SW8270D (SIM)
Dibenz(a,h)anthracene	ND	0.01	ug/L	1	05/02/15	DD	SW8270D (SIM)
Fluoranthene	ND	0.10	ug/L	1	05/02/15	DD	SW8270D (SIM)
Fluorene	ND	0.10	ug/L	1	05/02/15	DD	SW8270D (SIM)
Indeno(1,2,3-cd)pyrene	ND	0.02	ug/L	1	05/02/15	DD	SW8270D (SIM)
Naphthalene	ND	0.10	ug/L	1	05/02/15	DD	SW8270D (SIM)
Phenanthrene	ND	0.07	ug/L	1	05/02/15	DD	SW8270D (SIM)
Pyrene	ND	0.10	ug/L	1	05/02/15	DD	SW8270D (SIM)
<u>QA/QC Surrogates</u>							
% 2-Fluorobiphenyl	51		%	1	05/02/15	DD	30 - 130 %
% Nitrobenzene-d5	55		%	1	05/02/15	DD	30 - 130 %
% Terphenyl-d14	88		%	1	05/02/15	DD	30 - 130 %

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level

Comments:

If there are any questions regarding this data, please call Phoenix Client Services at extension 200.
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Phyllis Shiller, Laboratory Director

May 07, 2015

Reviewed and Released by: Ethan Lee, Project Manager



Environmental Laboratories, Inc.
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
Tel. (860) 645-1102 Fax (860) 645-0823

Analysis Report

May 07, 2015

FOR: Attn: Ms Stephanie Wierszchalek
Fuss & O'Neill, Inc.
146 Hartford Road
Manchester, CT 06040

Sample Information

Matrix: GROUND WATER
Location Code: F&O
Rush Request: Standard
P.O.#: 20110037.A11

Custody Information

Collected by: DC
Received by: LK
Analyzed by: see "By" below

Date

04/29/15

Time

18:08

04/30/15

11:10

Laboratory Data

SDG ID: GBJ10075
Phoenix ID: BJ10083

Project ID: EAST HAMPTON BROWNFIELDS
Client ID: 1176150429-09

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Extraction of CT ETPH	Completed				05/01/15	W/W	SW3510C/SW3520C
Semi-Volatile Extraction	Completed				05/01/15	E/E	SW3520C

TPH by GC (Extractable Products)

Ext. Petroleum HC	ND	0.070	mg/L	1	05/01/15	JRB	CTETPH 8015D
Identification	ND		mg/L	1	05/01/15	JRB	CTETPH 8015D

QA/QC Surrogates

% n-Pentacosane	64		%	1	05/01/15	JRB	50 - 150 %
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Volatiles

1,1,1,2-Tetrachloroethane	ND	1.0	ug/L	1	05/01/15	MH	SW8260
1,1,1-Trichloroethane	ND	1.0	ug/L	1	05/01/15	MH	SW8260
1,1,2,2-Tetrachloroethane	ND	0.50	ug/L	1	05/01/15	MH	SW8260
1,1,2-Trichloroethane	ND	1.0	ug/L	1	05/01/15	MH	SW8260
1,1-Dichloroethane	ND	1.0	ug/L	1	05/01/15	MH	SW8260
1,1-Dichloroethene	ND	1.0	ug/L	1	05/01/15	MH	SW8260
1,1-Dichloropropene	ND	1.0	ug/L	1	05/01/15	MH	SW8260
1,2,3-Trichlorobenzene	ND	1.0	ug/L	1	05/01/15	MH	SW8260
1,2,3-Trichloropropane	ND	1.0	ug/L	1	05/01/15	MH	SW8260
1,2,4-Trichlorobenzene	ND	1.0	ug/L	1	05/01/15	MH	SW8260
1,2,4-Trimethylbenzene	ND	1.0	ug/L	1	05/01/15	MH	SW8260
1,2-Dibromo-3-chloropropane	ND	1.0	ug/L	1	05/01/15	MH	SW8260
1,2-Dibromoethane	ND	1.0	ug/L	1	05/01/15	MH	SW8260
1,2-Dichlorobenzene	ND	1.0	ug/L	1	05/01/15	MH	SW8260
1,2-Dichloroethane	ND	0.60	ug/L	1	05/01/15	MH	SW8260
1,2-Dichloropropane	ND	1.0	ug/L	1	05/01/15	MH	SW8260
1,3,5-Trimethylbenzene	ND	1.0	ug/L	1	05/01/15	MH	SW8260
1,3-Dichlorobenzene	ND	1.0	ug/L	1	05/01/15	MH	SW8260

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
1,3-Dichloropropane	ND	1.0	ug/L	1	05/01/15	MH	SW8260
1,4-Dichlorobenzene	ND	1.0	ug/L	1	05/01/15	MH	SW8260
2,2-Dichloropropane	ND	1.0	ug/L	1	05/01/15	MH	SW8260
2-Chlorotoluene	ND	1.0	ug/L	1	05/01/15	MH	SW8260
2-Hexanone	ND	5.0	ug/L	1	05/01/15	MH	SW8260
2-Isopropyltoluene	ND	1.0	ug/L	1	05/01/15	MH	SW8260
4-Chlorotoluene	ND	1.0	ug/L	1	05/01/15	MH	SW8260
4-Methyl-2-pentanone	ND	5.0	ug/L	1	05/01/15	MH	SW8260
Acetone	ND	25	ug/L	1	05/01/15	MH	SW8260
Acrylonitrile	ND	5.0	ug/L	1	05/01/15	MH	SW8260
Benzene	ND	0.70	ug/L	1	05/01/15	MH	SW8260
Bromobenzene	ND	1.0	ug/L	1	05/01/15	MH	SW8260
Bromochloromethane	ND	1.0	ug/L	1	05/01/15	MH	SW8260
Bromodichloromethane	ND	0.50	ug/L	1	05/01/15	MH	SW8260
Bromoform	ND	1.0	ug/L	1	05/01/15	MH	SW8260
Bromomethane	ND	1.0	ug/L	1	05/01/15	MH	SW8260
Carbon Disulfide	ND	5.0	ug/L	1	05/01/15	MH	SW8260
Carbon tetrachloride	ND	1.0	ug/L	1	05/01/15	MH	SW8260
Chlorobenzene	ND	1.0	ug/L	1	05/01/15	MH	SW8260
Chloroethane	ND	1.0	ug/L	1	05/01/15	MH	SW8260
Chloroform	ND	1.0	ug/L	1	05/01/15	MH	SW8260
Chloromethane	ND	1.0	ug/L	1	05/01/15	MH	SW8260
cis-1,2-Dichloroethene	ND	1.0	ug/L	1	05/01/15	MH	SW8260
cis-1,3-Dichloropropene	ND	0.40	ug/L	1	05/01/15	MH	SW8260
Dibromochloromethane	ND	0.50	ug/L	1	05/01/15	MH	SW8260
Dibromomethane	ND	1.0	ug/L	1	05/01/15	MH	SW8260
Dichlorodifluoromethane	ND	1.0	ug/L	1	05/01/15	MH	SW8260
Ethylbenzene	ND	1.0	ug/L	1	05/01/15	MH	SW8260
Hexachlorobutadiene	ND	0.40	ug/L	1	05/01/15	MH	SW8260
Isopropylbenzene	ND	1.0	ug/L	1	05/01/15	MH	SW8260
m&p-Xylene	ND	1.0	ug/L	1	05/01/15	MH	SW8260
Methyl ethyl ketone	ND	5.0	ug/L	1	05/01/15	MH	SW8260
Methyl t-butyl ether (MTBE)	ND	1.0	ug/L	1	05/01/15	MH	SW8260
Methylene chloride	ND	1.0	ug/L	1	05/01/15	MH	SW8260
Naphthalene	ND	1.0	ug/L	1	05/01/15	MH	SW8260
n-Butylbenzene	ND	1.0	ug/L	1	05/01/15	MH	SW8260
n-Propylbenzene	ND	1.0	ug/L	1	05/01/15	MH	SW8260
o-Xylene	ND	1.0	ug/L	1	05/01/15	MH	SW8260
p-Isopropyltoluene	ND	1.0	ug/L	1	05/01/15	MH	SW8260
sec-Butylbenzene	ND	1.0	ug/L	1	05/01/15	MH	SW8260
Styrene	ND	1.0	ug/L	1	05/01/15	MH	SW8260
tert-Butylbenzene	ND	1.0	ug/L	1	05/01/15	MH	SW8260
Tetrachloroethene	ND	1.0	ug/L	1	05/01/15	MH	SW8260
Tetrahydrofuran (THF)	ND	2.5	ug/L	1	05/01/15	MH	SW8260
Toluene	ND	1.0	ug/L	1	05/01/15	MH	SW8260
Total Xylenes	ND	1.0	ug/L	1	05/01/15	MH	SW8260
trans-1,2-Dichloroethene	ND	1.0	ug/L	1	05/01/15	MH	SW8260
trans-1,3-Dichloropropene	ND	0.40	ug/L	1	05/01/15	MH	SW8260
trans-1,4-dichloro-2-butene	ND	5.0	ug/L	1	05/01/15	MH	SW8260

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Trichloroethene	ND	1.0	ug/L	1	05/01/15	MH	SW8260
Trichlorofluoromethane	ND	1.0	ug/L	1	05/01/15	MH	SW8260
Trichlorotrifluoroethane	ND	1.0	ug/L	1	05/01/15	MH	SW8260
Vinyl chloride	ND	1.0	ug/L	1	05/01/15	MH	SW8260
<u>QA/QC Surrogates</u>							
% 1,2-dichlorobenzene-d4	101		%	1	05/01/15	MH	70 - 130 %
% Bromofluorobenzene	100		%	1	05/01/15	MH	70 - 130 %
% Dibromofluoromethane	97		%	1	05/01/15	MH	70 - 130 %
% Toluene-d8	98		%	1	05/01/15	MH	70 - 130 %
<u>Semivolatiles by SIM</u>							
2-Methylnaphthalene	ND	0.10	ug/L	1	05/02/15	DD	SW8270D (SIM)
Acenaphthene	ND	0.10	ug/L	1	05/02/15	DD	SW8270D (SIM)
Acenaphthylene	ND	0.10	ug/L	1	05/02/15	DD	SW8270D (SIM)
Anthracene	ND	0.10	ug/L	1	05/02/15	DD	SW8270D (SIM)
Benz(a)anthracene	0.04	0.02	ug/L	1	05/02/15	DD	SW8270D (SIM)
Benzo(a)pyrene	0.03	0.02	ug/L	1	05/02/15	DD	SW8270D (SIM)
Benzo(b)fluoranthene	0.04	0.02	ug/L	1	05/02/15	DD	SW8270D (SIM)
Benzo(ghi)perylene	ND	0.10	ug/L	1	05/02/15	DD	SW8270D (SIM)
Benzo(k)fluoranthene	ND	0.02	ug/L	1	05/02/15	DD	SW8270D (SIM)
Chrysene	0.04	0.02	ug/L	1	05/02/15	DD	SW8270D (SIM)
Dibenz(a,h)anthracene	ND	0.01	ug/L	1	05/02/15	DD	SW8270D (SIM)
Fluoranthene	0.15	0.10	ug/L	1	05/02/15	DD	SW8270D (SIM)
Fluorene	ND	0.10	ug/L	1	05/02/15	DD	SW8270D (SIM)
Indeno(1,2,3-cd)pyrene	ND	0.02	ug/L	1	05/02/15	DD	SW8270D (SIM)
Naphthalene	ND	0.10	ug/L	1	05/02/15	DD	SW8270D (SIM)
Phenanthrene	0.10	0.07	ug/L	1	05/02/15	DD	SW8270D (SIM)
Pyrene	0.17	0.10	ug/L	1	05/02/15	DD	SW8270D (SIM)
<u>QA/QC Surrogates</u>							
% 2-Fluorobiphenyl	59		%	1	05/02/15	DD	30 - 130 %
% Nitrobenzene-d5	70		%	1	05/02/15	DD	30 - 130 %
% Terphenyl-d14	86		%	1	05/02/15	DD	30 - 130 %

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level

Comments:

If there are any questions regarding this data, please call Phoenix Client Services at extension 200.
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Phyllis Shiller, Laboratory Director

May 07, 2015

Reviewed and Released by: Ethan Lee, Project Manager



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QA/QC Report

May 07, 2015

QA/QC Data

SDG I.D.: GBJ0075

Parameter	Blank	Blk RL	LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	% Rec Limits	% RPD Limits
QA/QC Batch 306505 (mg/L), QC Sample No: BJ09503 (BJ10076, BJ10077, BJ10078, BJ10079, BJ10080, BJ10081, BJ10082)										
<u>TPH by GC (Extractable Products) - Ground Water</u>										
Ext. Petroleum HC	ND	0.070	71	82	14.4	76	72	5.4	60 - 120	30
% n-Pentacosane	91	%	94	108	13.9	97	91	6.4	50 - 150	20
QA/QC Batch 306739 (ug/L), QC Sample No: BJ10073 (BJ10075, BJ10076, BJ10077, BJ10078, BJ10079, BJ10080, BJ10081, BJ10082 (1X, 5X) , BJ10083)										
<u>Volatiles - Ground Water</u>										
1,1,1,2-Tetrachloroethane	ND	1.0	90	104	14.4	92	102	10.3	70 - 130	30
1,1,1-Trichloroethane	ND	1.0	80	93	15.0	95	96	1.0	70 - 130	30
1,1,2,2-Tetrachloroethane	ND	0.50	83	99	17.6	78	97	21.7	70 - 130	30
1,1,2-Trichloroethane	ND	1.0	85	98	14.2	79	102	25.4	70 - 130	30
1,1-Dichloroethane	ND	1.0	82	94	13.6	95	98	3.1	70 - 130	30
1,1-Dichloroethene	ND	1.0	76	88	14.6	93	92	1.1	70 - 130	30
1,1-Dichloropropene	ND	1.0	80	93	15.0	99	96	3.1	70 - 130	30
1,2,3-Trichlorobenzene	ND	1.0	93	107	14.0	82	110	29.2	70 - 130	30
1,2,3-Trichloropropane	ND	1.0	80	93	15.0	79	98	21.5	70 - 130	30
1,2,4-Trichlorobenzene	ND	1.0	94	110	15.7	88	112	24.0	70 - 130	30
1,2,4-Trimethylbenzene	ND	1.0	92	109	16.9	112	110	1.8	70 - 130	30
1,2-Dibromo-3-chloropropane	ND	1.0	82	96	15.7	76	103	30.2	70 - 130	30
1,2-Dibromoethane	ND	1.0	88	103	15.7	82	105	24.6	70 - 130	30
1,2-Dichlorobenzene	ND	1.0	88	102	14.7	90	101	11.5	70 - 130	30
1,2-Dichloroethane	ND	1.0	85	98	14.2	86	104	18.9	70 - 130	30
1,2-Dichloropropane	ND	1.0	85	98	14.2	89	99	10.6	70 - 130	30
1,3,5-Trimethylbenzene	ND	1.0	95	110	14.6	115	108	6.3	70 - 130	30
1,3-Dichlorobenzene	ND	1.0	87	100	13.9	94	99	5.2	70 - 130	30
1,3-Dichloropropane	ND	1.0	88	103	15.7	88	102	14.7	70 - 130	30
1,4-Dichlorobenzene	ND	1.0	87	101	14.9	94	100	6.2	70 - 130	30
2,2-Dichloropropane	ND	1.0	79	93	16.3	99	99	0.0	70 - 130	30
2-Chlorotoluene	ND	1.0	84	96	13.3	99	96	3.1	70 - 130	30
2-Hexanone	ND	5.0	84	96	13.3	76	107	33.9	70 - 130	30 r
2-Isopropyltoluene	ND	1.0	89	105	16.5	106	103	2.9	70 - 130	30
4-Chlorotoluene	ND	1.0	85	99	15.2	101	100	1.0	70 - 130	30
4-Methyl-2-pentanone	ND	5.0	81	94	14.9	72	104	36.4	70 - 130	30 r
Acetone	ND	5.0	83	106	24.3	78	84	7.4	70 - 130	30
Acrylonitrile	ND	5.0	85	98	14.2	77	105	30.8	70 - 130	30 r
Benzene	ND	0.70	85	98	14.2	96	98	2.1	70 - 130	30
Bromobenzene	ND	1.0	82	96	15.7	89	95	6.5	70 - 130	30
Bromochloromethane	ND	1.0	86	100	15.1	84	103	20.3	70 - 130	30
Bromodichloromethane	ND	0.50	90	105	15.4	87	103	16.8	70 - 130	30
Bromoform	ND	1.0	92	109	16.9	81	104	24.9	70 - 130	30
Bromomethane	ND	1.0	71	81	13.2	87	93	6.7	70 - 130	30
Carbon Disulfide	ND	1.0	80	94	16.1	99	94	5.2	70 - 130	30
Carbon tetrachloride	ND	1.0	80	93	15.0	95	95	0.0	70 - 130	30

QA/QC Data

SDG I.D.: GBJ10075

Parameter	Blank	Blk RL	LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	% Rec Limits	% RPD Limits
Chlorobenzene	ND	1.0	86	100	15.1	97	100	3.0	70 - 130	30
Chloroethane	ND	1.0	71	82	14.4	96	93	3.2	70 - 130	30
Chloroform	ND	1.0	84	97	14.4	91	99	8.4	70 - 130	30
Chloromethane	ND	1.0	65	75	14.3	90	90	0.0	70 - 130	30
cis-1,2-Dichloroethene	ND	1.0	85	100	16.2	88	100	12.8	70 - 130	30
cis-1,3-Dichloropropene	ND	0.40	90	104	14.4	86	102	17.0	70 - 130	30
Dibromochloromethane	ND	0.50	95	112	16.4	89	105	16.5	70 - 130	30
Dibromomethane	ND	1.0	87	100	13.9	84	102	19.4	70 - 130	30
Dichlorodifluoromethane	ND	1.0	61	70	13.7	82	84	2.4	70 - 130	30
Ethylbenzene	ND	1.0	87	101	14.9	102	97	5.0	70 - 130	30
Hexachlorobutadiene	ND	0.40	83	96	14.5	97	96	1.0	70 - 130	30
Isopropylbenzene	ND	1.0	79	93	16.3	101	92	9.3	70 - 130	30
m&p-Xylene	ND	1.0	88	102	14.7	104	101	2.9	70 - 130	30
Methyl ethyl ketone	ND	5.0	74	85	13.8	60	86	35.6	70 - 130	30
Methyl t-butyl ether (MTBE)	ND	1.0	91	104	13.3	76	105	32.0	70 - 130	30
Methylene chloride	ND	1.0	78	91	15.4	82	94	13.6	70 - 130	30
Naphthalene	ND	1.0	97	113	15.2	80	114	35.1	70 - 130	30
n-Butylbenzene	ND	1.0	84	101	18.4	108	104	3.8	70 - 130	30
n-Propylbenzene	ND	1.0	78	91	15.4	105	94	11.1	70 - 130	30
o-Xylene	ND	1.0	90	104	14.4	101	101	0.0	70 - 130	30
p-Isopropyltoluene	ND	1.0	89	103	14.6	109	104	4.7	70 - 130	30
sec-Butylbenzene	ND	1.0	86	99	14.1	104	97	7.0	70 - 130	30
Styrene	ND	1.0	89	104	15.5	96	101	5.1	70 - 130	30
tert-Butylbenzene	ND	1.0	82	97	16.8	103	92	11.3	70 - 130	30
Tetrachloroethene	ND	1.0	84	97	14.4	103	95	8.1	70 - 130	30
Tetrahydrofuran (THF)	ND	2.5	76	88	14.6	64	97	41.0	70 - 130	30
Toluene	ND	1.0	84	98	15.4	96	96	0.0	70 - 130	30
trans-1,2-Dichloroethene	ND	1.0	84	99	16.4	96	97	1.0	70 - 130	30
trans-1,3-Dichloropropene	ND	0.40	90	106	16.3	82	104	23.7	70 - 130	30
trans-1,4-dichloro-2-butene	ND	5.0	84	100	17.4	77	96	22.0	70 - 130	30
Trichloroethene	ND	1.0	84	98	15.4	99	98	1.0	70 - 130	30
Trichlorofluoromethane	ND	1.0	66	77	15.4	87	88	1.1	70 - 130	30
Trichlorotrifluoroethane	ND	1.0	73	84	14.0	87	88	1.1	70 - 130	30
Vinyl chloride	ND	1.0	71	84	16.8	91	90	1.1	70 - 130	30
% 1,2-dichlorobenzene-d4	96	%	99	100	1.0	96	101	5.1	70 - 130	30
% Bromofluorobenzene	94	%	104	104	0.0	99	104	4.9	70 - 130	30
% Dibromofluoromethane	88	%	97	96	1.0	90	98	8.5	70 - 130	30
% Toluene-d8	98	%	100	99	1.0	99	98	1.0	70 - 130	30

Comment:

A blank MS/MSD was analyzed with this batch.

Additional 8260 criteria: 10% of LCS/LCSD compounds can be outside of acceptance criteria as long as recovery is 40-160%.

QA/QC Batch 306455 (ug/L), QC Sample No: BJ10073 (BJ10076, BJ10077, BJ10078)

Polynuclear Aromatic HC - Ground Water

2-Methylnaphthalene	ND	0.05	70	68	2.9				30 - 130	20
Acenaphthene	ND	0.05	80	75	6.5				30 - 130	20
Acenaphthylene	ND	0.04	63	59	6.6				30 - 130	20
Anthracene	ND	0.05	86	82	4.8				30 - 130	20
Benz(a)anthracene	ND	0.02	81	76	6.4				30 - 130	20
Benzo(a)pyrene	ND	0.02	75	72	4.1				30 - 130	20
Benzo(b)fluoranthene	ND	0.02	82	79	3.7				30 - 130	20
Benzo(ghi)perylene	ND	0.05	65	64	1.6				30 - 130	20
Benzo(k)fluoranthene	ND	0.02	82	78	5.0				30 - 130	20

QA/QC Data

SDG I.D.: GBJ10075

Parameter	Blank	Blk RL	LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	% Rec Limits	% RPD Limits
Chrysene	ND	0.02	83	78	6.2				30 - 130	20
Dibenz(a,h)anthracene	ND	0.01	69	67	2.9				30 - 130	20
Fluoranthene	ND	0.05	83	79	4.9				30 - 130	20
Fluorene	ND	0.05	90	84	6.9				30 - 130	20
Indeno(1,2,3-cd)pyrene	ND	0.02	55	53	3.7				30 - 130	20
Naphthalene	ND	0.05	67	65	3.0				30 - 130	20
Phenanthrene	ND	0.05	80	77	3.8				30 - 130	20
Pyrene	ND	0.05	87	81	7.1				30 - 130	20
% 2-Fluorobiphenyl	66	%	71	67	5.8				30 - 130	20
% Nitrobenzene-d5	84	%	70	69	1.4				30 - 130	20
% Terphenyl-d14	90	%	96	88	8.7				30 - 130	20

Comment:

Additional 8270 criteria: 20% of compounds can be outside of acceptance criteria as long as recovery is at least 10%. (Acid surrogates acceptance range for aqueous samples: 15-110%, for soils 30-130%)

QA/QC Batch 306605 (ug/L), QC Sample No: BJ10079 (BJ10079, BJ10080, BJ10081, BJ10082, BJ10083)

Polynuclear Aromatic HC - Ground Water

2-Methylnaphthalene	ND	0.05	56	55	1.8				30 - 130	20
Acenaphthene	ND	0.05	68	68	0.0				30 - 130	20
Acenaphthylene	ND	0.04	54	54	0.0				30 - 130	20
Anthracene	ND	0.05	80	80	0.0				30 - 130	20
Benz(a)anthracene	ND	0.02	75	76	1.3				30 - 130	20
Benzo(a)pyrene	ND	0.02	74	73	1.4				30 - 130	20
Benzo(b)fluoranthene	ND	0.02	76	76	0.0				30 - 130	20
Benzo(ghi)perylene	ND	0.05	65	64	1.6				30 - 130	20
Benzo(k)fluoranthene	ND	0.02	75	77	2.6				30 - 130	20
Chrysene	ND	0.02	78	77	1.3				30 - 130	20
Dibenz(a,h)anthracene	ND	0.01	68	67	1.5				30 - 130	20
Fluoranthene	ND	0.05	76	76	0.0				30 - 130	20
Fluorene	ND	0.05	79	77	2.6				30 - 130	20
Indeno(1,2,3-cd)pyrene	ND	0.02	56	55	1.8				30 - 130	20
Naphthalene	ND	0.05	51	51	0.0				30 - 130	20
Phenanthrene	ND	0.05	73	73	0.0				30 - 130	20
Pyrene	ND	0.05	79	79	0.0				30 - 130	20
% 2-Fluorobiphenyl	57	%	61	62	1.6				30 - 130	20
% Nitrobenzene-d5	67	%	60	60	0.0				30 - 130	20
% Terphenyl-d14	74	%	88	88	0.0				30 - 130	20

Comment:

A LCS and LCS Duplicate were performed instead of a matrix spike and matrix spike duplicate.

Additional 8270 criteria: 20% of compounds can be outside of acceptance criteria as long as recovery is at least 10%. (Acid surrogates acceptance range for aqueous samples: 15-110%, for soils 30-130%)

QA/QC Batch 306552 (mg/L), QC Sample No: BJ10230 (BJ10083)

TPH by GC (Extractable Products) - Ground Water

Ext. Petroleum HC	ND	0.070	60	61	1.7	53	68	24.8	60 - 120	30
% n-Pentacosane	81	%	90	83	8.1	71	83	15.6	50 - 150	20

l = This parameter is outside laboratory lcs/lcsd specified recovery limits.

m = This parameter is outside laboratory ms/msd specified recovery limits.

r = This parameter is outside laboratory rpd specified recovery limits.

QA/QC Data

SDG I.D.: GBJ10075

Parameter	Blank	Blk RL	LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	% Rec Limits	% RPD Limits
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If there are any questions regarding this data, please call Phoenix Client Services at extension 200.

RPD - Relative Percent Difference
LCS - Laboratory Control Sample
LCSD - Laboratory Control Sample Duplicate
MS - Matrix Spike
MS Dup - Matrix Spike Duplicate
NC - No Criteria
Intf - Interference



Phyllis Shiller, Laboratory Director
May 07, 2015

Sample Criteria Exceedences Report**GBJ10075 - FO**

SampNo	Acode	Phoenix Analyte	Criteria	Result	RL	Criteria	RL Criteria	Analysis Units
BJ10075	\$8260GWR	Acrylonitrile	CT / VOLATILE ORGANIC COMPOUND / GWPC (µg/L)	ND	5.0	0.5	0.5	ug/L
BJ10075	\$8260GWR	1,2-Dibromoethane	CT / VOLATILE ORGANIC COMPOUND / GWPC (µg/L)	ND	1.0	0.05	0.05	ug/L
BJ10076	\$8260GWR	1,2-Dibromoethane	CT / VOLATILE ORGANIC COMPOUND / GWPC (µg/L)	ND	1.0	0.05	0.05	ug/L
BJ10076	\$8260GWR	Acrylonitrile	CT / VOLATILE ORGANIC COMPOUND / GWPC (µg/L)	ND	5.0	0.5	0.5	ug/L
BJ10077	\$8260GWR	1,2-Dibromoethane	CT / VOLATILE ORGANIC COMPOUND / GWPC (µg/L)	ND	1.0	0.05	0.05	ug/L
BJ10077	\$8260GWR	Acrylonitrile	CT / VOLATILE ORGANIC COMPOUND / GWPC (µg/L)	ND	5.0	0.5	0.5	ug/L
BJ10078	\$8260GWR	1,2-Dibromoethane	CT / VOLATILE ORGANIC COMPOUND / GWPC (µg/L)	ND	1.0	0.05	0.05	ug/L
BJ10078	\$8260GWR	Acrylonitrile	CT / VOLATILE ORGANIC COMPOUND / GWPC (µg/L)	ND	5.0	0.5	0.5	ug/L
BJ10079	\$8260GWR	Trichloroethene	CT / VOLATILE ORGANIC COMPOUND / GWPC (µg/L)	15	1.0	5	5	ug/L
BJ10079	\$8260GWR	Acrylonitrile	CT / VOLATILE ORGANIC COMPOUND / GWPC (µg/L)	ND	5.0	0.5	0.5	ug/L
BJ10079	\$8260GWR	1,2-Dibromoethane	CT / VOLATILE ORGANIC COMPOUND / GWPC (µg/L)	ND	1.0	0.05	0.05	ug/L
BJ10080	\$8260GWR	1,2-Dibromoethane	CT / VOLATILE ORGANIC COMPOUND / GWPC (µg/L)	ND	1.0	0.05	0.05	ug/L
BJ10080	\$8260GWR	Acrylonitrile	CT / VOLATILE ORGANIC COMPOUND / GWPC (µg/L)	ND	5.0	0.5	0.5	ug/L
BJ10081	\$8260GWR	1,2-Dibromoethane	CT / VOLATILE ORGANIC COMPOUND / GWPC (µg/L)	ND	1.0	0.05	0.05	ug/L
BJ10081	\$8260GWR	Acrylonitrile	CT / VOLATILE ORGANIC COMPOUND / GWPC (µg/L)	ND	5.0	0.5	0.5	ug/L
BJ10082	\$8260GWR	1,2-Dibromoethane	CT / VOLATILE ORGANIC COMPOUND / GWPC (µg/L)	ND	1.0	0.05	0.05	ug/L
BJ10082	\$8260GWR	Acrylonitrile	CT / VOLATILE ORGANIC COMPOUND / GWPC (µg/L)	ND	5.0	0.5	0.5	ug/L
BJ10083	\$8100SIMR	Phenanthrene	CT / SEMIVOLATILE ORGANIC COMP / SWPC (µg/L)	0.10	0.07	0.077	0.077	ug/L
BJ10083	\$8260GWR	Acrylonitrile	CT / VOLATILE ORGANIC COMPOUND / GWPC (µg/L)	ND	5.0	0.5	0.5	ug/L
BJ10083	\$8260GWR	1,2-Dibromoethane	CT / VOLATILE ORGANIC COMPOUND / GWPC (µg/L)	ND	1.0	0.05	0.05	ug/L

Phoenix Laboratories does not assume responsibility for the data contained in this report. It is provided as an additional tool to identify requested criteria exceedences. All efforts are made to ensure the accuracy of the data (obtained from appropriate agencies). A lack of exceedence information does not necessarily suggest conformance to the criteria. It is ultimately the site professional's responsibility to determine appropriate compliance.

Reasonable Confidence Protocol Laboratory Analysis QA/QC Certification Form

Laboratory Name: Phoenix Environmental Labs, Inc. **Client:** Fuss & O'Neill, Inc.
Project Location: EAST HAMPTON BROWNFIELD **Project Number:**
Laboratory Sample ID(s): BJ10075, BJ10076, BJ10077, BJ10078, BJ10079, BJ10080, BJ10081, BJ10082, BJ10083
Sampling Date(s): 4/29/2015

RCP Methods Used:


☐ 1311/1312 ☐ 6010 ☐ 7000 ☐ 7196 ☐ 7470/7471 ☐ 8081 ☐ EPH ☐ TO15
☐ 8082 ☐ 8151 ☒ 8260 ☒ 8270 ☒ ETPH ☐ 9010/9012 ☐ VPH

1.	For each analytical method referenced in this laboratory report package, were all specified QA/QC performance criteria followed, including the requirement to explain any criteria falling outside of acceptable guidelines, as specified in the CT DEP method-specific Reasonable Confidence Protocol documents?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
1a.	Were the method specified preservation and holding time requirements met?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
1b.	EPH and VPH methods only: Was the VPH or EPH method conducted without significant modifications (see section 11.3 of respective RCP methods)	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> NA
2.	Were all samples received by the laboratory in a condition consistent with that described on the associated Chain-of-Custody document(s)?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
3.	Were samples received at an appropriate temperature (< 6 Degrees C)?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> NA
4.	Were all QA/QC performance criteria specified in the Reasonable Confidence Protocol documents achieved? See Section: VOA Narration.	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
5a.	Were reporting limits specified or referenced on the chain-of-custody?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
5b.	Were these reporting limits met?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> NA
6.	For each analytical method referenced in this laboratory report package, were results reported for all constituents identified in the method-specific analyte lists presented in the Reasonable Confidence Protocol documents?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> NA
7.	Are project-specific matrix spikes and laboratory duplicates included in the data set?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> NA

Note: For all questions to which the response was "No" (with the exception of question #5a, #7), additional information must be provided in an attached narrative. If the answer to question #1, #1A or 1B is "No", the data package does not meet the requirements for "Reasonable Confidence".

I, the undersigned, attest under the pains and penalties of perjury that, to the best of my knowledge and belief and based upon my personal inquiry of those responsible for providing the information contained in this analytical report, such information is accurate and complete.

Authorized
Signature:



Date: Thursday, May 07, 2015

Printed Name: Ethan Lee

Position: Project Manager



Environmental Laboratories, Inc.
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
Tel. (860) 645-1102 Fax (860) 645-0823



RCP Certification Report

May 07, 2015

SDG I.D.: GBJ10075

8270 Semi-volatile Organics:

The client requested a short list for 8270 RCP Semivolatile. Only the PAH constituents are reported as requested on the chain-of-custody.

ETPH Narration

Were all QA/QC performance criteria specified in the Reasonable Confidence Protocol documents achieved? Yes.

Instrument: Au-fid84 05/01/15-1 (BJ10083)

Initial Calibration (FID84 - ETPH_413) - The initial calibration curve was within method criteria and had a %RSD less than 30%.

As per section 7.2.3, a discrimination check standard was run and contained the following outliers: none

Printed Name Jeff Bucko
Position: Chemist
Date: 5/1/2015

Instrument: Au-xl2 05/01/15-2 (BJ10076, BJ10077, BJ10078, BJ10079, BJ10080, BJ10081, BJ10082)

Initial Calibration (FID1 - ETPH_1) - The initial calibration curve was within method criteria and had a %RSD less than 30%.

As per section 7.2.3, a discrimination check standard was run and contained the following outliers: C36

Printed Name Jeff Bucko
Position: Chemist
Date: 5/1/2015



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RCP Certification Report

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SDG I.D.: GBJ10075

QC (Batch Specific)

----- Sample No: BJ09503, QA/QC Batch: 306505 -----

All LCS recoveries were within 60 - 120 with the following exceptions: None.

All LCSD recoveries were within 60 - 120 with the following exceptions: None.

All LCS/LCSD RPDs were less than 30% with the following exceptions: None.

----- Sample No: BJ10230, QA/QC Batch: 306552 -----

All LCS recoveries were within 60 - 120 with the following exceptions: None.

All LCSD recoveries were within 60 - 120 with the following exceptions: None.

All LCS/LCSD RPDs were less than 30% with the following exceptions: None.

SVOASIM Narration

Were all QA/QC performance criteria specified in the Reasonable Confidence Protocol documents achieved? Yes.

Instrument: Chem04 05/01/15-1 (BJ10077, BJ10078)

The DDT breakdown and pentachlorophenol & benzidine peak tailing were evaluated in the DFTPP tune and were found to be in control.

In the event that lower detection levels were requested, the samples may have been analyzed by selective ion monitoring (SIM) mode.

If PAH/base neutral were requested, Phoenix utilized a method that contained a shortened list, so some of the compounds in the narrative may be non-applicable. Initial Calibration Verification (CHEM04/SIM_0428):

100% of target compounds met criteria.

The following compounds had %RSDs >20%: None.

The following compounds did not meet a minimum response factor of 0.01: None.

Continuing Calibration Verification (CHEM04/0501_02-SIM_0428):

100% of target compounds met criteria. Internal standards were within the 50%-200% deviation from the initial calibration. The following compounds did not meet % deviation criteria: None.

The following compounds did not meet maximum % deviations: None.

The following compounds did not meet recommended response factors: 2-nitrophenol (.064)[0.1]

The following compounds did not meet minimum response factors: None.

Printed Name Damien Drobinski

Position: Chemist

Date: 5/1/2015

Instrument: Chem04 05/05/15-1 (BJ10078)

The DDT breakdown and pentachlorophenol & benzidine peak tailing were evaluated in the DFTPP tune and were found to be in control.



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SDG I.D.: GBJ10075

In the event that lower detection levels were requested, the samples may have been analyzed by selective ion monitoring (SIM) mode.

If PAH/base neutral were requested, Phoenix utilized a method that contained a shortened list, so some of the compounds in the narrative may be non-applicable. Initial Calibration Verification (CHEM04/SIM_0428):

100% of target compounds met criteria.

The following compounds had %RSDs >20%: None.

The following compounds did not meet a minimum response factor of 0.01: None.

Continuing Calibration Verification (CHEM04/0505_02-SIM_0428):

100% of target compounds met criteria. Internal standards were within the 50%-200% deviation from the initial calibration. The following compounds did not meet % deviation criteria: None.

The following compounds did not meet maximum % deviations: None.

The following compounds did not meet recommended response factors: 2-nitrophenol (.068)[0.1], Bis(2-chloroethyl)ether (.642)[0.7]

The following compounds did not meet minimum response factors: None.

Printed Name Damien Drobinski

Position: Chemist

Date: 5/5/2015

Instrument: Chem07 05/01/15-1 (BJ10076)

Initial Calibration Verification (CHEM07/SIM_0424):

98% of target compounds met criteria.

The following compounds had %RSDs >20%: 2,4,6-Trichlorophenol (22%)

The following compounds did not meet a minimum response factor of 0.01: None.

Continuing Calibration Verification (CHEM07/0501_03-SIM_0424):

100% of target compounds met criteria. Internal standards were within the 50%-200% deviation from the initial calibration. The following compounds did not meet % deviation criteria: None.

The following compounds did not meet maximum % deviations: None.

The following compounds did not meet recommended response factors: 2-nitrophenol (.056)[0.1]

The following compounds did not meet minimum response factors: None.

Printed Name Damien Drobinski

Position: Chemist

Date: 5/1/2015

Instrument: Chem07 05/02/15-1 (BJ10079, BJ10080, BJ10081, BJ10082, BJ10083)

Initial Calibration Verification (CHEM07/SIM_0424):

98% of target compounds met criteria.

The following compounds had %RSDs >20%: 2,4,6-Trichlorophenol (22%)

The following compounds did not meet a minimum response factor of 0.01: None.

Continuing Calibration Verification (CHEM07/0502_02-SIM_0424):

100% of target compounds met criteria. Internal standards were within the 50%-200% deviation from the initial calibration. The following compounds did not meet % deviation criteria: None.

The following compounds did not meet maximum % deviations: None.



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RCP Certification Report

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SDG I.D.: GBJ10075

The following compounds did not meet recommended response factors: 2-nitrophenol (.056)[0.1]
The following compounds did not meet minimum response factors: None.

Printed Name Damien Drobinski
Position: Chemist
Date: 5/2/2015

QC Comments: QC Batch 306605 05/01/15 (BJ10079, BJ10080, BJ10081, BJ10082, BJ10083)

A LCS and LCS Duplicate were performed instead of a matrix spike and matrix spike duplicate.

QC (Site Specific)

----- Sample No: BJ10079, QA/QC Batch: 306605 -----

All LCS recoveries were within 30 - 130 with the following exceptions: None.

All LCSD recoveries were within 30 - 130 with the following exceptions: None.

All LCS/LCSD RPDs were less than 20% with the following exceptions: None.

QC (Batch Specific)

----- Sample No: BJ10073, QA/QC Batch: 306455 -----

All LCS recoveries were within 30 - 130 with the following exceptions: None.

All LCSD recoveries were within 30 - 130 with the following exceptions: None.

All LCS/LCSD RPDs were less than 20% with the following exceptions: None.

VOA Narration

Were all QA/QC performance criteria specified in the Reasonable Confidence Protocol documents achieved? No.

QC Batch 306739 (Samples: BJ10075, BJ10076, BJ10077, BJ10078, BJ10079, BJ10080, BJ10081, BJ10082, BJ10083): -----

The LCS and/or the LCSD recovery is below the method criteria. All of the other QC is acceptable, therefore no significant bias is suspected. (Chloromethane, Dichlorodifluoromethane, Trichlorofluoromethane)

Instrument: Chem17 05/01/15-1 (BJ10075, BJ10076, BJ10077, BJ10078, BJ10079, BJ10080, BJ10081, BJ10082, BJ10083)

Initial Calibration Verification (CHEM17/VOA_0430):

99% of target compounds met criteria.

The following compounds had %RSDs >20%: Bromoform (22%)

The following compounds did not meet a minimum response factor of 0.01: None.

Continuing Calibration Verification (CHEM17/0501S04-VOA_0430):

100% of target compounds met criteria. Internal standards were within the 50%-200% deviation from the continuing calibration. The following



Environmental Laboratories, Inc.
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
Tel. (860) 645-1102 Fax (860) 645-0823



RCP Certification Report

May 07, 2015

SDG I.D.: GBJ10075

compounds did not meet % deviation criteria: None.
The following compounds did not meet maximum % deviations: None.
The following compounds did not meet recommended response factors: None.
The following compounds did not meet minimum response factors: None.

Printed Name Michael Hahn
Position: Chemist
Date: 5/1/2015

QC Comments: QC Batch 306739 05/01/15 (BJ10075, BJ10076, BJ10077, BJ10078, BJ10079, BJ10080, BJ10081, BJ10082, BJ10083)

A blank MS/MSD was analyzed with this batch.

QC (Batch Specific)

----- Sample No: BJ10073, QA/QC Batch: 306739 -----

All LCS recoveries were within 70 - 130 with the following exceptions: Chloromethane(65%), Dichlorodifluoromethane(61%), Trichlorofluoromethane(66%)

All LCSD recoveries were within 70 - 130 with the following exceptions: None.

All LCS/LCSD RPDs were less than 30% with the following exceptions: None.

Temperature Narration

The samples were received at 4C with cooling initiated.
(Note acceptance criteria is above freezing up to 6°C)



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- ☒ 146 Hartford Road, Manchester, CT 06040
☐ 56 Quarry Road, Trumbull, CT 06611
☐ 1419 Richland Street, Columbia, SC 29201

- ☐ 78 Interstate Drive, West Springfield, MA 01089
☐ 317 Iron Horse Way, Suite 204, Providence, RI 02908
☐ 80 Washington Street, Suite 301, Poughkeepsie, NY

☐ Other

CHAIN-OF-CUSTODY RECORD 34191

Turnaround

☐ 24-Hour* ☐ 72-Hour* ☒ Standard (5 days) ☐ Other _____ (days)
☐ 48-Hour* *Surcharge Applies

PROJECT NAME

PROJECT LOCATION

PROJECT NUMBER

LABORATORY

REPORT TO: East Hampton Bawnfields East Hampton CT

20110037, A11

Phoenix

INVOICE TO: STEFANIE WIERSZCHALEK

Analysis Request

Containers

P.O. No.:

Sampler's Signature: D Cook

Date: 4/29/15

Source Codes:

MW=Monitoring Well PW=Potable Water T=Treatment Facility S=Soil B=Sediment

SW=Surface Water ST=Stormwater W=Waste A=Air C=Concrete

X=Other

TWP Blank

Item No.	Transfer Check				Sample Number	Source Code	Date Sampled	Time Sampled
	1	2	3	4				
1	/	/	/	/	1176150429-01	X	4/29/15	1200
2	/	/	/	/	-02	MW		1230
3	/	/	/	/	-03			1335
4	/	/	/	/	-04			1345
5	/	/	/	/	-05			1428
6	/	/	/	/	-06			1530
7	/	/	/	/	-07			1614
8	/	/	/	/	-08			1650
9	/	/	/	/	-09			1808

Soil VOA Val, □ mechanical □ water □ Na ₂ SO ₄	Other: Res 5 H ₂ O ₂ H ₂ SO ₄	Water VOA Val, □ As is	Class Amber 1000 ml	Plastic - As is, □ 250 ml □ 500 ml	Plastic - H ₂ SO ₄ , □ 250 ml □ 500 ml	Plastic - NaOH, 250 ml	Comments
10075	2	133	1	1	1	1	HOLD METALS
10076	133	1	1	1	1	1	
10077	133	1	1	1	1	1	
10078	133	1	1	1	1	1	
10079	133	1	1	1	1	1	
10080	133	1	1	1	1	1	
10081	133	1	1	1	1	1	
10082	133	1	1	1	1	1	
10083	133	1	1	1	1	1	

Transfer Number	Relinquished By	Accepted By	Date	Time	Charge Exceptions: □ CT Tax Exempt □ Q/A/QC □ Other _____ + Duplicates 1 Blanks (Item Nos: _____)
1	D Cook	640 Lidge	4/29/15	1940	Reporting and Detection Limit Requirements: <input checked="" type="checkbox"/> RCP Deliverables □ MCP CAM Cert.
2	Dr O'Grady	M. Ward	4/30/15	10:50	
3	M. Ward	G. Ward	4/30/15	11:00	Additional Comments:
4	G. Ward	G. Ward	4/30/15	11:00	Additional Comments: SWPC + Res Vc