

Phase II/Limited Phase III Environmental Site Assessment

Former Meriden Hospital

1 King Place
Meriden, Connecticut

City of Meriden

Economic Development
Meriden, Connecticut

June 2016



146 Hartford Road
Manchester, Connecticut 06040



June 16, 2016

Ms. Juliet Burdelski
City of Meriden
Economic Development
142 East Main Street
Meriden, CT

RE: Phase II/Limited Phase III Environmental Site Assessment Report
Former Meriden Hospital
1 King Place, Meriden, CT

Dear Ms. Burdelski:

We are pleased to submit the enclosed report of the Phase II/Limited Phase III Environmental Site Assessment for the above-referenced site. The assessment was conducted in accordance with the Connecticut Department of Energy and Environmental Protection's *Site Characterization Guidance Document* (CTDEP, 2010).

The results of our assessment are summarized in the attached report. 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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Hydrogeologist

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1 Introduction

Fuss & O'Neill, Inc. was retained by the City of Meriden to conduct a Phase II/Limited Phase III Environmental Site Assessment (ESA) of the former Meriden Hospital property located at 1 King Place in Meriden, Connecticut. The objectives of the Phase II investigation activities were to determine whether releases of hazardous substances or petroleum products have occurred at previously identified areas of concern (AOCs). Subsequently, the limited Phase III investigation objectives were to further characterize the degree and extent of releases identified.

The Phase II/Limited Phase III investigation activities were conducted in general conformance with Connecticut Department of Energy and Environmental Protection (DEEP) documents, including the Site Characterization Guidance Document (DEEP, 2010) and the Remediation Standard Regulations (DEEP, 1996, rev. 2013). It is our understanding that this assessment was conducted in an effort to evaluate the environmental conditions at the Site prior to a potential sale of the property for redevelopment and/or reuse; and that the Site is not currently entered into a formal regulatory cleanup program.

1.1 Regulatory Framework

Analytical results obtained from this investigation 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.

It is our current understanding that the Site is not entered in a formal regulatory cleanup program, and, therefore, it is not required for the Site to achieve formal compliance with the CT RSRs. However, RSR numeric criteria were used to provide a general benchmark for the environmental quality at the site; the RSR criteria that would be specific to the Site are discussed in the table below.

RSR Criteria Overview

RSR Soil Criteria	
Direct Exposure Criteria (DEC)	DEC are applicable to soil within 15 feet of the ground surface. Soil impacted by a release is typically compared to the residential (Res) DEC unless alternatives or variances are applied.
Pollutant Mobility Criteria (PMC)	The PMC protect groundwater from constituents leaching out of impacted soil and are dependent upon the groundwater quality classification of a site. Since the Site is located in a GB designated area, the GB pollutant PMC were used. The GB criteria apply only to soil located above the seasonal high water table.
RSR Groundwater Criteria	
Surface Water Protection Criteria (SWPC)	The SWPC ensure that surface water quality is not impaired by the discharge of contaminated groundwater into a surface water body. Groundwater at the Site discharges to Harbor Brook.

Volatilization Criteria (VC)	Volatilization criteria protect human health from volatile substances (i.e. VOCs) in shallow groundwater that may migrate into overlying buildings and apply to groundwater within 15 feet of the ground surface (which is applicable at the Site) or a structure intended for human occupancy. The residential (Res) VC apply unless a land use restriction is recorded.
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1.2 Common RSR Alternatives

The RSRs also define specific alternatives to compliance with the baseline numeric soil and groundwater criteria by including self-implementing options, exceptions, and variances such as:

1. **Industrial / Commercial Criteria** – If a property is used exclusively for industrial or commercial activities and an Environmental Land Use Restriction (ELUR) is recorded to prohibit residential use of such property, the industrial / commercial criteria may be applied. This is applicable for both DEC and VC.
2. **Inaccessible Soil** – The DEC for soil can be waived if the soil is considered inaccessible and an ELUR prohibiting disturbance of such soil is recorded. Inaccessible soil is defined follows:
 - o More than four feet below the ground surface
 - o More than two feet below a paved surface consisting of at least three-inches of bituminous concrete or concrete, which two feet may include the pavement sub-base
 - o Polluted fill beneath a bituminous concrete or concrete surface consisting of at least three-inches of bituminous concrete or concrete if such fill meets the following criteria:
 - § Semi-volatile compounds or petroleum hydrocarbons in the fill exceeding the DEC are normal constituents of bituminous concrete
 - § Metals in the fill do not exceed two times the applicable DEC
 - § No other compounds exceed the DEC
 - o Beneath an existing building or DEEP-approved permanent structure
3. **Engineered Controls** – Section 22a-133k-2(f)(2) of the RSRs provides a variance to the DEC if a DEEP-approved engineered control is installed to physically isolate the underlying soil, thereby minimizing the potential for contact with the soil. The RSRs also provide a variance to the PMC if the DEEP-approved impermeable engineered control is constructed to minimize the migration of liquids through the soil. With an engineered control in place and an ELUR prohibiting unauthorized disturbance of the engineered control recorded, the DEC and/or the PMC do not apply.
4. **SPLP Analysis** – In order to evaluate the actual leaching potential of constituents of concern (COCs), samples can be analyzed using the synthetic precipitate leaching procedure (SPLP) and, for GB areas, compared to ten times the groundwater protection criteria (GWPC).

5. Environmentally Isolated Soil – Soil beneath buildings that contains contaminants other than VOCs can be considered environmentally isolated. The PMC do not apply to environmentally isolated soils, provided an appropriate ELUR is in place.

2 Site Overview

2.1 Physical Description

The Site, 1 King Place, is located on the west side of Cook Avenue in a commercial (C1A) zone of Meriden, Connecticut (New Haven County). A portion of a United States Geological Survey (USGS) topographic map showing the Site location is provided as *Figure 1* (USGS, 1992).

According to City records, the Site is a 5.64-acre irregularly-shaped parcel that has been owned by the City of Meriden since 2014. The Site consists of a vacant hospital building, a parking garage, an asphalt parking lot, and landscaped areas. A Site plan depicting the main building and the portion of the Site located east of King Place is provided as *Figure 2*. An aerial image depicting the entire property, including the parking lot located west of King Place is provided as *Figure 3*.

Since the Site has been vacant and abandoned, the Site utilities have been disconnected and electrical transformers were removed. Previously, however, when the Site was in operation, the property was connected to municipal sewer and water (provided by the City of Meriden Water Pollution Control Division and Water Division, respectively), natural gas (provided by Yankee Gas) and electricity provided by Connecticut Light and Power.

Based on observations made during Site visits and available mapping, properties surrounding the Site appeared primarily residential in nature. West Cemetery is located across Orange Street, north of the Site.

2.2 Site History

The central portion of the Site was developed with a small hospital as early as 1901, with residential structures occupying the remaining portions of the Site east of King Place, and a public school west of King Place. Since that time, the residential structures were razed and multiple iterations of building additions and extensive building expansions occurred at the Site from approximately the 1930s through the 1980s. The public school, formerly located in the southwest portion of the Site was razed in approximately 1979 and was replaced with a parking lot and later a three-tiered parking garage (*Figure 3*). The last remaining residential buildings on the Site, located at the southeast corner of the Site near the intersection of Cook Avenue and Bronson Avenue, were demolished in 2007.

The Site operated as the Meriden-Wallingford Hospital until it closed in approximately 1992. The property has remained vacant since that time.

2.3 Environmental Setting

2.3.1 Topography

The regional topography is hilly but generally slopes down to the south and west toward Harbor Brook and the Quinnipiac River (*Figure 1*). Similarly, the topography of the Site generally slopes down to the south towards Harbor Brook; located approximately 500 feet south of the Site (USGS, 1992).

2.3.2 Geology

Surficial Geology

Surficial material at the Site is mapped as valley train deposits, which are a stratified drift that generally consists of sand overlying fines, which include silt and clay (Hanshaw, 1962). Surficial materials consistent with those described above were identified during the advancement of soil borings at the Site. In addition, historic fill materials (containing brick, asphalt fragments, coal and ash) were observed at some locations to depths up to ten feet below grade.

Bedrock Geology

Bedrock beneath the Site is mapped as New Haven Arkose, a reddish medium- to coarse-grained sedimentary rock known locally as brownstone (Rodgers, 1985). Bedrock was not encountered during investigation activities and is estimated to be greater than 25 feet below grade.

2.3.3 Hydrogeology

Depth to groundwater at the Site ranges from approximately 8 to 17 feet below grade. Depth to groundwater measurements were used to calculate groundwater elevation and ultimately to determine groundwater flow across the Site. Refer to *Table 1* for a summary of groundwater elevation data and to *Figure 3* for a groundwater contour map. Groundwater elevation data indicates that groundwater at the Site generally flows to the east/southeast.

It is noted that several structures were formerly located in the southeastern corner of the Site. Although documentation of the demolition of these structures was not obtained as part of this investigation, the presence of foundations or other underground features related to these former structures may have the potential to affect groundwater flow in this portion of the Site.

2.3.4 Water Quality Classifications

Groundwater Classification

The quality of groundwater beneath the Site is classified by the CT DEEP as GB; which is identified as groundwater that may be not be suitable for human consumption without treatment due to waste discharges, spills, leaks of chemicals, or land use impacts (DEEP, 2011).

Surface Water Classification

The nearest surface water body, Harbor Brook, is located approximately 500 feet south of the Site (USGS, 1992). Harbor Brook is classified by the State of Connecticut as class B; which is identified as surface waters that are known or presumed to be suitable for the following designated uses: recreational use, fish and wildlife habitat, agricultural and industrial supply, and other legitimate uses (DEEP, 2011).

2.3.5 Potential Receptors

A preliminary assessment was conducted to evaluate whether sensitive human health or ecological receptors are present at or directly downgradient of the Site. The results of this evaluation are presented below:

- Endangered Species – No potential threatened or endangered species habitats are present at the Site or within 0.25 miles of the Site (CTECO, 2016).
- Ecological Receptors – An ecological risk assessment has not been conducted; however, the Site is located in a developed area of Meriden and is primarily surrounded by closely spaced residences. The potential for ecological receptors to be impacted by Site conditions is low.
- Wetlands – According to State soil mapping (CTECO, 2016) and observations made during site visits, there are no mapped wetlands located on the Site.
- Surface Waters – The nearest surface water body is Harbor Brook, located approximately 500 feet south/west of the Site. Because of the distance and direction from the Site, Harbor Brook could be affected by potentially impacted groundwater migrating off the Site.
- Aquifer Protection Areas – Two aquifer protection areas were identified within a 0.5-mile radius of the Site (CTECO, 2016); including the Mule Aquifer Protection Area (APA #94) and the Columbus Park Aquifer Protection Area (APA #95), both located approximately 2000 feet north of the Site.
- Public Water Supply Wells – The Atlas of Public Water Supply Sources and Drainage Basins of Connecticut (CTDEEP, 1982) shows no public water supply wells within 0.5-mile radius of the Site.
- Private Water Supply Wells – The Site is located in an urbanized area where municipal water is available to the Site and the surrounding area.
- Physical Contact with Soil – The Site is primarily covered by the Site building or asphalt parking areas (west of King Place), so there is little potential for direct contact with the soil. The potential exists, however, for future Site occupants and visitors to be exposed to impacted soil or fill if redevelopment requires removal of the existing building or asphalt paving.

- Potential for Vapor Intrusion – VOCs are not present in site groundwater at concentrations that could result in potential vapor intrusion into buildings constructed over the groundwater contact plume. Note that additional rounds of groundwater monitoring will be required to evaluate groundwater quality over seasonal trends.

3 Previous Investigations

A Phase I ESA, conducted by VHB, was previously prepared for the Site in May 2014. The findings of this document identified the following interior and exterior recognized environmental conditions (RECs) at the property:

Interior RECs

- Staining around elevator in former nurses building & within basement of main building
- Several transformers and other PCB containing equipment observed in the basement of the nurses building and within the main building
- An abundance of apparently leaking containers (of various sizes, conditions and contents) located throughout the basement of the building, specifically within the mechanical room, crib room and boiler room
- Various floor drains (discharge location unknown)
- An x-ray processing area (basement)
- Solid waste, various containers and an “oil slick” in the loading dock

Exterior RECs

- One UST located in the northern courtyard
- Two USTs located near the smoke stack on the southern side of the Site
- Petroleum impacted groundwater (site wide)
- Storm water catch basin adjacent to smoke stack on south side of the building

Additional RECs, related to the potential for hazardous building materials were also identified in the May 2014 Phase I ESA.

3.1 Historical Remediation

A review of the available historical documentation indicated the removal of a 5,000-gallon diesel UST from the northern courtyard in 1999. Although no visual or olfactory signs of petroleum impact were observed, evidence of vapor-phase volatile organic compounds was detected in the soil remaining along the east side of the excavation area. Approximately 8 cubic yards of soil was removed from along the east sidewall as a conservative measure, and confirmation samples were collected. While low level concentrations of petroleum hydrocarbons remained in soil, subsequent groundwater monitoring did not identify concentrations of constituents of concern.

4 Phase II/Limited Phase III Scope of Study

Phase II/Limited Phase III investigation activities were conducted at the Site between March 14, 2016 and May 12, 2016, and targeted the specific RECs and areas of concern (AOCs) identified in the 2014 Phase I ESA. Specifically, these areas included the following:

- Northern UST Area (Courtyard)

A 5,000-gallon #2 fuel oil UST was installed in 1982 on the north side of the hospital building and was connected to a back-up generator. The tank was removed in March 1999, at which time, polluted soil was also removed. Confirmatory soil samples were collected and indicated the presence of petroleum hydrocarbons at levels below applicable clean-up criteria. Conflicting information indicated that a 2,000-gallon #2 fuel oil UST was installed in the former tank grave, however, no evidence of a current UST was identified this location.

- Southern UST Area (South of Boiler Room)

A 20,000-gallon #6 fuel oil UST was installed in 1968 on the south side of the hospital building adjacent to the boiler room. Later, in 1982, a 2,000-gallon #2 fuel oil UST was installed in this area and connected to a back-up generator, located adjacent to the boiler room inside the Site building. In 1990, the 20,000-gallon UST was reportedly replaced with a 15,000-gallon #6 fuel oil UST; however no documentation of tank closure or sampling was identified. Releases of no. 6 fuel-oil releases were reported in this area in 1997 and 1998, during tank filling operations.

- Dry Well (adjacent to Southern UST Area)

A potential dry well was observed south of the boiler room within the southern UST area.

- Interior Transformers/PCB Equipment (basement of nurses bldg. & main hospital)

The findings of the previous 2014 Phase I ESA and more recent Site walk identified several areas within the building interior which contained transformers and other potentially PCB-containing electrical equipment. While these areas were primarily located in the basement of the Site building, transformer rooms were also noted in select areas of the upper floors of the building.

- Loading Dock (evidence of interior releases)

Based on the past use of the Site and known shipments of hazardous wastes, the potential exists for a release to have occurred in the loading dock area. Additionally, a 1997 spill report from the fuel oil release indicates that no. 6 fuel oil may have migrated to a catch basin in the loading dock area.

- Various Floor Drains & Sumps (discharge locations unknown)

Various floor drains and sumps were observed throughout the building; specifically within the former laundry area and areas within the southern portion of the building near the boiler room. The discharge location of these drains is unknown.

- Boiler Room

Several leaking containers were observed within the boiler room within the southern portion of the Site building. The fuel lines from the exterior USTs were observed to be damaged where they entered the building which resulted in a significant release of oil to the interior floor surface.

During the implementation of Fuss & O'Neill's Phase II ESA scope of work, the following additional RECs/AOCs were also identified:

- Former Incinerators (2)

A review of historical Site plans identified at least two former incinerators. The first (presumably the original) was located north of the boiler room in a small area north of the current generator room, west of the former boiler room. The second incinerator was located in a standalone structure located to the east of the loading dock. This incinerator building was likely constructed to replace the former incinerator during an iteration of building renovations.

- Smoke Stack

A large smoke stack related to the former incinerators is located south of the boiler room in the southern UST area. Residual ash and material was observed within the stack.

- Oil Trenches in Laundry Area (southwest portion of building)

A review of historical Site floor plans indicated a sub-slab "oil trench" was located within the laundry area in the southwestern portion of the building. According to the floor plans, this trench connected the laundry dryer units along the western side of the laundry area and potentially extended further east to other interior areas.

- Chemical Storage Room in Laundry Area

A review of historical Site floor plans indicated a chemical storage room was located within the laundry area in the southwestern portion of the building. The specific chemicals and quantities previously stored in this area, however, are unknown.

- Elevator Rooms

The locations of several elevator rooms were identified during a review of historical site plans. These rooms are enclosed areas in which the mechanics of the elevators, including oil reservoirs are located.

- Switchgear / Generator Room (near courtyard)
A backup generator / electrical switchgear room was identified adjacent to the northern courtyard. Access to this room is from the courtyard area only and therefore this area was not previously identified as an REC in the 2014 Phase I ESA.
- Urban Fill
As with any parcel, located in a heavily urbanized area where former structures have been razed, the potential exists for the presence of urban fill containing ash, coal, asphalt fragments, and demolition debris. Often urban fill materials are found to contain petroleum products and heavy metals due to the presence of ash, asphalt and coal fragments.

This section provides an overview of the methods used to investigate the Site and evaluate the data collected and describes data quality objectives, constituents of concern, laboratory methods used to analyze environmental samples, and field investigation methods.

4.1 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:

- Development of preliminary conceptual models used to guide the selection of appropriate constituents of concern and sampling locations
- 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 potential release area
- Use of trip blanks, equipment 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

4.2 Constituents of Concern

A list of constituents of concern to be investigated was developed for each AOC. The constituent list comprises those compounds most likely to be released based on knowledge of site operations and results of the 2014 Phase I ESA. The constituents of concern at the Site include:

- Volatile organic compounds (VOCs)
- Petroleum hydrocarbons (ETPH)
- Polynuclear aromatic hydrocarbons (PAHs)

- Polychlorinated biphenyls (PCBs)
- Metals

The analytical methods presented in the following table were selected to identify and evaluate potential releases because they are capable of achieving analytical detection limits less than the baseline numeric RSR clean-up criteria.

Constituent of Concern	Analytical Method
VOCs	Field screening using a photoionization detector (PID). Where suspected, VOCs were confirmed with analysis by EPA Method 8260.
Petroleum hydrocarbons	Connecticut ETPH Method
PAHs	EPA Method 8270
PCBs	EPA Method 8082
Metals	SW6010 (arsenic, barium, cadmium, chromium, copper, lead, nickel, selenium, silver, and zinc). SW-7471 (mercury)

All soil, groundwater and concrete chip samples collected from the Site were submitted to Phoenix Environmental Laboratories of Manchester, Connecticut for laboratory analysis of one or more of the constituents of concern.

4.3 Investigative Procedures

The Phase II/Limited Phase III investigation can be broken down into the following general field methods used to develop lines of evidence for each AOC based on its initial conceptual model.

4.3.1 Ground Penetrating Radar Survey

On March 14, 2016, Fuss & O'Neill oversaw Underground Surveying, LLC of Brookfield, Connecticut as they completed a GPR survey of select areas at the Site. The GPR survey was conducted in exterior portions of the Site in an effort to confirm the location and orientation of USTs, subsurface piping, utilities, or other anomalies, which could indicate existing subsurface features such as former building foundations. The survey was conducted with the Geophysical Survey Systems, Inc. SIR-3000™.

4.3.2 Floor Drain Dye Test

The May 2014 Phase I ESA identified various floor drains within the basement of the Site building. Although the discharge locations of these drains were not be confirmed, the Phase I ESA findings indicated that the discharge location was likely to Harbor Brook.

Fuss & O'Neill conducted a dye test on two accessible floor drains; one located in the generator room north of the boiler room and one in the laundry room area in the southwestern portion of the Site building. As part of the dye test and since the municipal water supply has been discontinued at the Site, Fuss & O'Neill introduced approximately 20-25 gallons of water per drain along with the dye.

4.3.3 Direct-Push Soil Sampling

Soil borings were drilled at select locations across the Site using Fuss & O'Neill's direct-push, Geoprobe® drill rig. Soil samples were collected continuously from the ground surface using a 60-inch, stainless steel sampler, and each soil core was inspected by a field scientist for physical evidence of contamination, such as staining or odors. Where VOCs were a potential constituent of concern, samples were also field-screened for vapor-phase VOCs using a photoionization detector (PID).

Soil samples were collected from depth intervals where evidence of a release occurred or, if visual inspection and field screening did not yield evidence of impacted soil, samples were selected for laboratory analysis from predetermined intervals based on the conceptual release model for each REC.

Field observations at each boring were recorded on the boring logs included as *Appendix A*.

4.3.4 Monitoring Well Installation

Four groundwater monitoring wells (MW-10, MW-11, MW-12, and MW-13) were installed at the Site using the direct-push Geoprobe® drill rig. The monitoring wells were completed between approximately 13 to 23 feet below grade and were constructed with standard 1-inch PVC riser and a ten-foot, pre-packed, PVC screened interval that intersected the water table at each location. Each monitoring well was finished with flush-mount curb boxes. The specific monitoring well construction details are provided on the well completion logs in *Appendix A* and are summarized on *Table 1*.

Following installation, the monitoring wells were 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.

4.3.5 Groundwater Sampling

Fuss & O'Neill collected groundwater samples from the four newly installed monitoring wells (MW-10 through MW-14) and two previously existing monitoring wells (MW-01 and MW-02) between March 23, 2016 and May 12, 2016. Prior to groundwater sampling, the depth to water was measured at each well to provide data that could be used to establish water table elevation and groundwater flow direction (*Table 1*).

A Fuss & O'Neill hydrogeologist sampled each well using a peristaltic pump and dedicated tubing, and following low-flow sampling techniques. Groundwater quality parameters including pH, specific conductivity, dissolved oxygen, temperature, turbidity, and oxidation/reduction potential were monitored and recorded at 3 minute intervals until each had stabilize. The groundwater quality parameters were recorded on the field data sheets, provided as *Appendix B*.

4.3.6 Concrete Chip & Residual Material Sampling

A total of 22 concrete chip samples were collected from select locations across the Site. Concrete chip sampling locations targeted areas of the building floor where releases from RECs may have occurred or

potential low spots or floor drains in the floor. Of these 22 samples, 20 were collected from locations within the building interior where former equipment could have impacted the floor surface. In general, these areas included:

- former transformer rooms
- equipment rooms
- a chemical storage area
- elevator rooms
- generator rooms

The concrete chip samples were collected using an impact hammer drill and laboratory provided glassware.

Additionally, a sample of the residual ash material from the smoke stack and samples of residual oily product observed within the Site building were collected. The purpose of sampling these residual materials was to analyze them for preliminary waste characterization parameters in preparation for potential Site renovation/redevelopment.

4.4 QA/QC Review and Data Usability

The results for QA/QC samples submitted by Fuss & O'Neill (trip blanks and duplicate samples) and laboratory narratives provided with each lab report were reviewed to identify issues that could affect the usability of the data. The results of the review are summarized below.

Trip Blanks

Trip blanks for VOC analysis were provided by the laboratory to accompany each cooler of environmental samples to be analyzed for VOCs. Trip blank results were used to determine whether samples may have been compromised as a result of sample container handling or transport.

A total of 5 trip blanks were submitted between the Phase II/Limited Phase III investigation activities; 3 with the soil samples and 2 with the groundwater samples. VOCs were not detected above laboratory reporting limits in any of the trip blanks submitted.

Duplicates

Duplicate samples were generally submitted at a frequency of 1 per 20 soil samples. Each duplicate was collected at the same time as the corresponding primary sample and was analyzed for the same parameters.

Precision is measured by the relative percent difference (RPD) between the primary and duplicate sample results. RPD goals are ≤ 50 percent for soil and ≤ 30 percent for water. RPDs during the Phase II/Limited Phase III investigations were generally within the target range. Where RPDs were higher

than these ranges, the difference was typically attributed to sample heterogeneity and the presence of urban fill materials. Overall, the variation in RPDs is not expected to affect the interpretation of analytical results, but as a conservative measure, release areas were evaluated with respect to the greater of primary or duplicate analytical results.

Reasonable Confidence Protocols

The reasonable confidence protocol packages provided with laboratory reports were reviewed and Phoenix reported that "reasonable confidence" was achieved on all analyses conducted. A review of the narratives identified minor QA/QC issues regarding laboratory method controls/blanks that were considered in interpreting the data. These issues were reviewed and it was determined that the usability of the data was not affected.

5 Phase II/Limited Phase III Investigation Results

The results from the Phase II/Limited Phase III Investigations, conducted between March 14 and May 12, 2016 are presented in the following subsections. The analytical data for samples collected during these investigations as compared to the baseline RSR criteria are summarized in *Tables 2 through 4*.

Copies of the laboratory analytical reports are provided on CD in *Appendix C*.

5.1 GPR Survey Results

Results from the March 14, 2016 GPR survey conducted by Underground Surveying, LLC confirmed the presence of two USTs in place, south of the boiler room (*Figure 2*). In the northern courtyard area, the GPR survey identified an anomaly consistent with a former UST grave, however no indication that a tank remained in place at this location.

The GPR survey did not indicate the presence of any other anomalies along the portion of the Site located east of King Place that would be indicative of any previously unknown subsurface features.

5.2 Floor Drain Dye Test Results

Fuss & O'Neill conducted a dye test on two accessible floor drains one located in the generator room north of the boiler room and one in the laundry room area in the southwestern portion of the Site building.

The dye test included the introduction of approximately 20-25 gallons of water per drain along with a green dye. After allowing at least 1 hour for water to travel drain system, Fuss & O'Neill field personnel assessed three potential discharge locations for visual evidence of dye. The potential discharge locations monitored included:

- The dry well located outside the Boiler Room
- Catch basins along Bronson Avenue
- Sewer manhole covers located in the loading dock area

The results of the dye test remained inconclusive, as no evidence of the dye was visually observed in any of the potential discharge locations monitored. Due to the length of time that the building has been vacant and the evidence of interior flooding observed, it is likely that the floor drain systems are clogged with inert material and the dye may not have made it through the length of the drain systems.

During the Phase II/Limited Phase III investigation activities at the Site, however, historical floor plans were obtained which appeared to indicate that the floor drains in the southern portion of the building likely exit the building in the southwest corner and discharge to the municipal sanitary sewer system.

5.3 Soil Sampling Analytical Results

A total of 29 soil samples were collected and submitted to Phoenix for laboratory analysis of Metals, PCBs, ETPH, PAHs, and/or VOCs. A summary of the soil analytical results compared to the baseline RSR criteria is discussed below and is provided on *Table 2*. A copy of the soil laboratory analytical report is included on CD in *Appendix C*.

5.3.1 ETPH

A summary of the ETPH concentrations reported in Site soil is provided in the table below:

Compound	Number of Samples	Number of Detections	Concentration Range (mg / kg)
ETPH	25	4	150 – 810

Of the 25 soil samples analyzed from across the Site, ETPH was only detected in four samples collected from two soil borings advanced in the area of the boiler room (SB-12 and SB-15) and in two borings advanced in the northern courtyard and UST area (SB-16 and SB-17). The concentrations detected in samples from the northern courtyard/UST area were below baseline RSR criteria and are likely attributable to the historical petroleum impacts identified during the 1999 UST removal in this area.

The concentration of ETPH reported in the sample from SB-12 (1.75-2'), located adjacent to the dry well south of the boiler room, exceeded the Res DEC. This detection could be indicative of a petroleum release to the adjacent drywell.

ETPH was not detected above laboratory reporting limits in any of the other samples analyzed.

5.3.2 Metals

Total Metals (including arsenic, barium, chromium, copper, lead, mercury, nickel, selenium, silver and zinc) were analyzed in fifteen soil samples collected from across the Site. Varying low level concentrations of metals were identified in each of the samples analyzed as summarized in the table below:

Compound	Number of Samples	Number of Detections	Concentration Range (ug / kg)
Arsenic	16	16	2 – 19.8
Barium	16	16	52.6 – 117
Cadmium	16	3	1.19 – 2.8
Chromium	16	16	9.08 – 24.3
Copper	5	5	28.2 – 6,940
Lead	16	16	6.73 – 1,010
Mercury	16	10	0.04 – 0.29
Nickel	5	5	13.1 – 101
Selenium	16	0	ND
Silver	16	4	0.51 – 17.8
Zinc	5	5	46.2 – 1,220

The highest concentrations of metals, specifically arsenic, cadmium and lead, were detected in borings advanced in the parking lot west of King Place at locations where observations of a thick urban fill material layer (coal, ash, concrete, etc.) was identified. At these locations (SB-28, SB-29, SB-30 and SB-31) concentrations of arsenic, cadmium, copper, lead and/or silver exceeded the baseline Res DEC.

Soil samples collected from borings advanced east of King Place had concentrations of metals detected that were generally consistent across the entirety of the eastern portion of the Site. It is noted that only limited observations of fill material were identified in borings on this portion of the Site; primarily in the area south of the boiler room and within the northern courtyard. These detections of metals were below the baseline RSR criteria and appear evident of background concentrations for an urban setting rather than indicative of a release.

Based on the mass metals results, 10 samples were analyzed for arsenic, cadmium, chromium, copper, lead and/or mercury by the synthetic precipitation leaching procedure (SPLP) to determine their potential to leach into groundwater. Of the samples analyzed, SPLP copper and/or lead were detected in three samples; SB-28 (0.3-1.5'), SB-29 (0.3-4') and a duplicate. Although the detection of SPLP metals indicates the potential for metals to leach into groundwater, all of these concentrations were below the baseline GB PMC.

5.3.3 PAHs

PAHs were analyzed in 25 of the 29 soil samples collected from across the Site. Concentrations of various PAH compounds were detected in six of the samples analyzed as summarized in the table below:

Compound	Number of Samples	Number of Detections	Concentration Range (ug / kg)
2-Methylnaphthalene	29	2	860 – 11,000
Acenaphthene	29	2	270 – 560
Acenaphthylene	29	0	ND
Anthracene	29	1	780
Benzo(a)anthracene	29	4	320 – 1,200
Benzo(a)pyrene	29	4	270 – 1,100
Benzo(b)fluoranthene	29	4	260 – 1,000
Benzo(ghi)perylene	29	3	290 – 640
Benzo(k)fluoranthene	29	3	380 – 920
Chrysene	29	4	350 – 1,700
Dibenzo(a,h)anthracene	29	0	ND
Fluoranthene	29	5	260 – 2,800
Fluorene	29	1	480
Indeno(1,2,3-cd)pyrene	29	3	320 – 640
Naphthalene	29	2	380 – 1,700
Phenanthrene	29	4	460 – 3,500
Pyrene	29	4	580 – 2,900

Overall, the PAHs detected in Site soil are relatively low levels and consistent with background concentrations for an urban setting containing fill. Concentrations of PAHs were identified at levels exceeding baseline RSR criteria at two locations (SB-12 and SB-15) which also had other constituents of concern detected which would suggest these concentrations are related to petroleum releases.

5.3.4 PCBs

Eleven soil samples from across the Site were collected in select locations where PCBs were a constituent of concern. Of these 11 samples, PCBs were detected at an elevated concentration of 180 ppm in one shallow sample collected from below the concrete slab floor inside the boiler room (SB-15 [1-3]). Visual evidence of petroleum impacts were also observed within this sample. It is noted that PCBs were not detected in the soil sample collected from the deeper interval (3-6') at this location.

Based on the elevated mass concentration of PCBs identified, SPLP PCBs were also analyzed in this sample to determine the potential for the PCBs to leach into groundwater. SPLP PCBs were not detected above laboratory reporting limits.

PCBs were not detected above laboratory reporting limits in any of the other soil samples analyzed across the Site, including three borings (SB-20, SB-21 and SB-22) advanced within 5 feet of SB-15.

5.3.5 VOCs

Four soil samples were collected from areas on Site where a release of VOCs could have occurred and were submitted for laboratory analysis of VOCs. Select VOCs constituents, including 1,2,4 Trimethylbenzene and Naphthalene, which are typically associated with petroleum products, were detected in one sample collected from SB-15 (1-3') at concentrations well below the baseline RSR criteria. Considering visual evidence of petroleum impact was observed in the boring log at this location, these concentrations are likely attributable to a release beneath the slab floor of the boiler room.

VOCs were not detected above laboratory reporting limits in the other three samples analyzed.

5.4 Groundwater Sampling Analytical Results

Between March 23 and May 12, 2016, six groundwater samples were collected from the four newly installed monitoring wells and two previously existing monitoring wells. The samples were submitted to Phoenix for laboratory analysis of PAHs, Metals, VOCs and/or PCBs.

Low levels of barium, below the baseline GWPC were detected in each of the groundwater samples collected. A trace concentration of lead was also detected in the sample collected from MW-02. No other constituents of concern were detected above laboratory reporting limits in any of the groundwater samples.

Additionally, a sample of the water encountered in the basement tunnel located off the boiler room was collected and analyzed for metals, PCBs, VOCs and PAHs. Trace levels of barium, chromium and lead were identified in the sample at concentrations that were below the baseline RSR criteria. PCBs, VOCs and PAHs were not detected above laboratory reporting limits in the sample.

A summary of the groundwater analytical results compared to the baseline RSR criteria is provided on *Table 3*. A copy of the groundwater laboratory analytical report is included in *Appendix C*.

5.5 Concrete Chip Sampling & Residual Material Analytical Results

Two concrete chip samples were collected from the two exterior former transformer concrete pads; one located UST area south of the boiler room (CC-03) and one in the northern courtyard (CC-10). The remaining 20 concrete chip samples were collected from various locations throughout the interior of the Site building (*Figure 2*).

Each sample was submitted for laboratory analysis of PCBs to determine if a release of PCB-containing oil had occurred in these areas. Select samples were also submitted for laboratory analysis of ETPH and/or Metals based on the location where the sample was collected and potential for or evidence of release.

PCBs were detected in five of the concrete chip samples submitted at concentrations ranging from 0.81 mg/kg to 12 mg/kg. The highest concentration of 12 mg/kg was identified in the sample collected from an interior mechanical equipment storage room (CC-18) located in the north/central portion of the Site building. PCBs were also detected at concentrations greater than 1 mg/kg in samples CC-21 (collected from an elevator room in the first floor of the former nurses building in the northeast corner of the Site building) and in CC-19 (collected from an elevator equipment room in the north/central portion of the Site building).

Seven concrete chip samples also had concentrations of ETPH detected at levels which exceeded baseline direct exposure criteria.

The sample of residual ash material from the smoke stack was submitted for laboratory analysis of total metals, toxicity characterization leaching procedure (TCLP) metals, ETPH, PCBs, VOCs and SVOCs. Analytical results indicated that trace concentrations of metals (mass and TCLP) and SVOCs (primarily PAHs) were detected at levels that were below the baseline RSR criteria.

ETPH, PCBs and VOCs were not detected above laboratory reporting limits in this sample.

A summary of the concrete chip sampling results is included on *Table 4* and the summary of results from the residual stack material is summarized on *Table 5*.

5.6 Identified Releases

The Phase II/Limited Phase III sampling of environmental media identified releases of hazardous materials or petroleum products at the following areas on Site:

- **Boiler Room**
A release was identified within the boiler room located along the southern side of the Site building which impacted the shallow sub-slab soil at one boring location (SB-15).
- **Dry Well – South of Boiler Room**
A petroleum release was identified in shallow soil adjacent to the dry well located south of the boiler room (SB-12).
- **Concrete Interior Floors - Equipment/Elevator/Transformer Rooms**
Petroleum and PCB releases were identified to have impacted the concrete floors in several areas throughout the Site building. The source for the PCBs is inferred to be derived from leaks from former or current equipment such as transformers, elevators or electrical equipment. Severe oil staining or residual oil was not observed on the floor in these areas.
- **Impacted Urban Fill**
Varying thicknesses of urban fill was identified across the Site. Fill material was identified to be impacted with concentrations of metals and PAHs.

6 Data Gap Analysis

A review of the results from the Phase II/Limited Phase III investigations conducted to date have revealed the following data gaps which should be evaluated prior to preparing a remedial action plan for the Site.

- Degree and extent of urban fill layers in parking lot
- Degree and extent of PCBs in shallow soil in boiler room
- Historical building plans indicate “oil trenches” were present in the laundry room area and extended throughout additional portions of the building. The complete length of these trenches were unable to be traced and the origin of the oil is unknown.
- Conditions of all floor drains was not able to be assessed due to accessibility
- All tunnel areas could not be accessed due to standing water

7 Conclusions and Recommendations

Fuss & O'Neill conducted the Phase II/Limited Phase III ESA investigation activities at the Site between March 14 and May 12, 2016. The investigation activities included advancing soil borings at select exterior and interior locations, completion of four borings as groundwater monitoring wells and the collection of soil, groundwater and concrete chip samples for laboratory analysis.

An evaluation of the data obtained during Fuss & O'Neill's investigation has indicated that releases have occurred along the southern portion of the Site, which resulted in PCBs and petroleum impacted soil. Specifically, shallow, sub-slab soil at one location within the boiler room was impacted with an elevated concentration of PCBs (180 ppm) and PAHs. The remediation of PCBs at these concentrations are subject to specific regulatory mandates from the State of Connecticut and the US Environmental Protection Agency, as summarized in *Appendix D*.

Additionally, south of the boiler room, shallow soil adjacent to a dry well had concentrations of ETPH over baseline RSR criteria, which is indicative of a petroleum release. While this could be related to a petroleum release from the boiler room, it is noted that PCBs were not detected in soil outside of the building in this area.

The investigation data also identified residual petroleum impacts around the former UST in the northern courtyard area, at concentrations that are below the baseline RSR criteria. Although contaminant concentrations detected in soil from this area do not exceed baseline RSR criteria, the presence of low level concentrations of petroleum constituents indicates that a historic petroleum release from the former UST may have occurred.

Additionally, the presence of urban fill material (brick, coal, coal ash, etc.) was identified across the Site at varying thicknesses with the thickest layer identified in the southwest corner of the parking lot. If future Site redevelopment plans include the disturbance of soils in the areas where the urban fill was identified, additional characterization of this material is recommended.

Recommendations

Additional sampling will be required to fully delineate release areas to focus remedial planning and to further define remediation costs. Sampling activities should be coordinated with a redevelopment plan for the Site. Additional sampling should occur in portions of the building selected for demolition or renovation that will expose the subsurface or provide access to areas that were not previously accessible. Historical building plans depict an extensive sub-slab utility drain and trench network. These subsurface features could serve as preferential contaminant migration pathways; that if exposed through demolition, could contain local areas of contamination that will require remediation planning. This is supported by the fact that the data collected from this investigation thus far did not reveal any apparent “hot spots” of contamination; rather, depicted only localized areas of contamination.

Furthermore, other development considerations including geotechnical and structural information need to be evaluated in context with the environmental data. For example, additional testing of the fill may be warranted in the portion of the Site west of King Street. However, testing should occur in the areas proposed to be disturbed by new development. In addition, considerations should be made by a qualified engineer if the fill is geotechnically suitable to remain in place for the proposed re-use.

At this time, without a defined development plan, we recommend, at a minimum, additional testing be performed at the following areas:

- Additional sampling in the Boiler Room to determine the degree and extent of the PCB impacts in soil.
- Identify and evaluate the full extent of the oil trenches that begin in the laundry room area and extend east through additional portions of the building.
- Collect additional concrete chip samples from within the interior of the Site building in an effort to fully characterize the extent of the PCB impacts to concrete. This sampling needs to be coordinated with demolition/renovation plans pertaining to the building floor slab.
- Additional rounds of groundwater monitoring to further assess Site groundwater quality compared to seasonal trends.

We assume that the Site will be remediated to formally comply with the clean-up requirements of the RSRs through participation in a State Voluntary Remediation program. Preparation of a Remedial Action Plan for a selected development option will be a required component of the program. To minimize environmental remediation costs, it is important that the Site remediation be integrated into the Site design.

8 References

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Tables

Table 1
Monitoring Well Construction and Groundwater Elevation Data

Former Meriden Hospital
1 King Place, Meriden, CT

Monitoring Well ID	Completion Date	Well Diameter	Well Depth (fbg)	Screened Interval (fbg)	Measuring Point Elevation (ft)	Gauging Date	Depth to Water (ft)	Groundwater Elevation (ft)
MW-01	UNK	2"	25.87	UNK	132.82	3/23/2016	17.40	115.42
						5/12/2016	17.75	115.07
MW-02	UNK	2"	22	UNK	122.63	5/12/2016	8.10	114.53
MW-10	3/14/2016	1.5"	13	3-13	120.13	3/23/2016	5.92	114.21
						5/12/2016	5.88	114.25
MW-11	3/15/2016	1.5"	22.59	13-23	131.53	3/23/2016	16.70	114.83
						5/12/2016	NM	NM
MW-12	3/15/2016	1.5"	20.27	13-23	125.32	3/23/2016	11.16	114.16
						5/12/2016	11.05	114.27
MW-13	5/3/2016	1.5"	22.65	12.5-22.5	126.84	5/12/2016	12.11	114.73

Notes:

Monitoring well measuring point elevations are based on NGVD 29

NM - Not Measured

UNK - Unknown

fbg - feet below grade

ft - feet

Table 2
Summary of Constitunets Detected in Soil

Former Meriden Hospital
Meriden, Connecticut

Sample Location ID				SB-10		SB-11	SB-12	SB-13	SB-14	SB-15		SB-16	SB-17		MW-10	MW-11	SB-18	SB-19
Sample Depth (feet)				7-8.5	12.5-13.5	12-13	1.75-2	5-6	0.5-1.5	1-3	3-5	7-8	3-3.5	3-3.5	0.5-1.5	7-8	1-3	1-3
Sample Date				3/14/2016	3/14/2016	3/14/2016	3/14/2016	3/14/2016	3/14/2016	3/14/2016	3/14/2016	3/15/2016	3/15/2016	3/15/2016	3/14/2016	3/15/2016	5/2/2016	5/2/2016
Sample ID				1176160314-01	1176160314-02W	1176160314-04W	1176160314-05	1176160314-07	1176160314-09	1176160314-11	1176160314-12	1176160314-23	1176160314-24	1176160314-25	1176160314-08	1176160314-27	1176160502-03	1176160502-05
CONSTITUENT	GB PMC	I/C DEC	RES DEC															
Metals, Total (mg/Kg)	(20x GB PMC)																	
Arsenic	10	10	10	3	---	---	2.7	4	2.6	4.1	2.9	3.3	2.2	2	3.7	2.6	---	---
Barium	200	140,000	4,700	52.9	---	---	54.7	86.7	57.8	78.1	64.7	68.6	83.9	69.4	72.6	53.6	---	---
Cadmium	1	1,000	34	< 0.35	---	---	< 0.36	< 0.33	< 0.32	< 0.31	< 0.35	< 0.34	< 0.33	< 0.33	< 0.33	< 0.36	---	---
Chromium	10	100	NE	13.2	---	---	12.7	23.3	13.6	18.4	10.5	13.6	11.7	11.1	17.7	9.08	---	---
Copper	260	76,000	2,500	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Lead	3	1,000	400	6.73	---	---	31.1	29.1	27.9	35.4	25.1	34.6	13.3	12.3	41.5	6.76	---	---
Mercury	0.4	610	20	< 0.03	---	---	0.07	< 0.03	0.07	0.09	0.17	0.04	< 0.03	< 0.03	0.07	< 0.03	---	---
Nickel	20	7,500	1,400	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Selenium	10	10,000	340	< 1.4	---	---	< 1.4	< 1.3	< 1.3	< 1.3	< 1.4	< 1.4	< 1.3	< 1.3	< 1.5	< 1.4	---	---
Silver	7.2	10,000	340	< 0.35	---	---	< 0.36	< 0.33	< 0.32	0.63	0.51	< 0.34	< 0.33	< 0.33	< 0.33	< 0.36	---	---
Zinc				---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Metals, SPLP (mg/L)																		
Arsenic	0.5	N/A	N/A	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Cadmium	0.05	N/A	N/A	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Chromium	0.5	N/A	N/A	---	---	---	---	---	---	< 0.010	---	---	---	---	< 0.010	---	---	---
Copper	13	N/A	N/A	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Lead	0.15	N/A	N/A	---	---	---	< 0.010	---	---	< 0.010	---	< 0.010	---	---	< 0.010	---	---	---
Mercury	0.02	N/A	N/A	---	---	---	---	---	---	---	< 0.0005	---	---	---	---	---	---	---
ETPH (mg/Kg)																		
Ext. Petroleum HC	2,500	2,500	500	< 57	< 58	< 58	810	< 54	< 54	230	< 53	330	150	< 110	< 54	< 54	< 53	< 55
PCBs (mg/Kg)																		
PCB-1254	0.005**	10	1	---	---	---	< 0.35	---	---	180	< 0.35	---	---	---	---	---	---	---
PCBs, SPLP (ug/L)	(GWPC)																	
PCB-1254	0.5	N/A	N/A	---	---	---	---	---	---	< 0.55	---	---	---	---	---	---	---	---
PAHs (ug/Kg)																		
2-Methylnaphthalene	5,600	1,000,000	270,000	< 260	< 270	< 270	< 240	< 260	< 250	11,000	860	< 260	< 250	< 250	< 250	< 250	< 250	< 260
Acenaphthene	84,000	2,500,000	1,000,000	< 260	< 270	< 270	560	< 260	< 250	270	< 240	< 260	< 250	< 250	< 250	< 250	< 250	< 260
Acenaphthylene	84,000	2,500,000	1,000,000	< 260	< 270	< 270	< 240	< 260	< 250	< 240	< 240	< 260	< 250	< 250	< 250	< 250	< 250	< 260
Anthracene	400,000	2,500,000	1,000,000	< 260	< 270	< 270	780	< 260	< 250	< 240	< 240	< 260	< 250	< 250	< 250	< 250	< 250	< 260
Benz(a)anthracene	1,000	7,800	1,000	< 260	< 270	< 270	1,200	< 260	< 250	1,100	< 240	320	< 250	< 250	< 250	< 250	< 250	< 260
Benzo(a)pyrene	1,000	1,000	1,000	< 260	< 270	< 270	1,100	< 260	< 250	650	< 240	270	< 250	< 250	< 250	< 250	< 250	< 260
Benzo(b)fluoranthene	1,000	7,800	1,000	< 260	< 270	< 270	940	< 260	< 250	1,000	< 240	260	< 250	< 250	< 250	< 250	< 250	< 260
Benzo(ghi)perylene	1,000	78,000	8,400	< 260	< 270	< 270	640	< 260	< 250	450	< 240	< 260	< 250	< 250	< 250	< 250	< 250	< 260
Benzo(k)fluoranthene	1,000	78,000	8,400	< 260	< 270	< 270	870	< 260	< 250	920	< 240	< 260	< 250	< 250	< 250	< 250	< 250	< 260
Chrysene	1,000	780,000	8,400	< 260	< 270	< 270	1,400	< 260	< 250	1,700	< 240	350	< 250	< 250	< 250	< 250	< 250	< 260
Dibenz(a,h)anthracene	1,000	1,000	1,000	< 260	< 270	< 270	< 240	< 260	< 250	< 240	< 240	< 260	< 250	< 250	< 250	< 250	< 250	< 260
Fluoranthene	56,000	2,500,000	1,000,000	< 260	< 270	< 270	2,800	< 260	< 250	850	< 240	720	< 250	< 250	< 250	< 250	< 250	< 260
Fluorene	56,000	2,500,000	1,000,000	< 260	< 270	< 270	480	< 260	< 250	< 240	< 240	< 260	< 250	< 250	< 250	< 250	< 250	< 260
Indeno(1,2,3-cd)pyrene	1,000	7,800	1,000	< 260	< 270	< 270	640	< 260	< 250	480	< 240	< 260	< 250	< 250	< 250	< 250	< 250	< 260
Naphthalene	56,000	2,500,000	1,000,000	< 260	< 270	< 270	380	< 260	< 250	1,700	< 240	< 260	< 250	< 250	< 250	< 250	< 250	< 260
Phenanthrene	40,000	2,500,000	1,000,000	< 260	< 270	< 270	3,500	< 260	< 250	460	< 240	520	< 250	< 250	< 250	< 250	< 250	< 260
Pyrene	40,000	2,500,000	1,000,000	< 260	< 270	< 270	2,900	< 260	< 250	860	< 240	580	< 250	< 250	< 250	< 250	< 250	< 260
PAHs, SPLP (ug/L)	(GWPC)																	
2-Methylnaphthalene	28	N/A	N/A	---	---	---	---	---	---	73	---	---	---	---	---	---	---	---
Acenaphthene	420	N/A	N/A	---	---	---	---	---	---	1.9	---	---	---	---	---	---	---	---
Acenaphthylene	420	N/A	N/A	---	---	---	---	---	---	0.34	---	---	---	---	---	---	---	---
Anthracene	2,000	N/A	N/A	---	---	---	---	---	---	0.12	---	---	---	---	---	---	---	---
Benz(a)anthracene	0.06	N/A	N/A	---	---	---	---	---	---	0.08	---	---	---	---	---	---	---	---
Benzo(a)pyrene	0.2	N/A	N/A	---	---	---	---	---	---	<0.02	---	---	---	---	---	---	---	---
Benzo(b)fluoranthene	0.08	N/A	N/A	---	---	---	---	---	---	<0.02	---	---	---	---	---	---	---	---
Benzo(ghi)perylene	0.48	N/A	N/A	---	---	---	---	---	---	<0.10	---	---	---	---	---	---	---	---
Benzo(k)fluoranthene	0.5	N/A	N/A	---	---	---	---	---	---	0.03	---	---	---	---	---	---	---	---
Chrysene	4.8	N/A	N/A	---	---	---	---	---	---	0.07	---	---	---	---	---	---	---	---
Dibenz(a,h)anthracene	0.1	N/A	N/A	---	---	---	---	---	---	<0.01	---	---	---	---	---	---	---	---
Fluoranthene	280	N/A	N/A	---	---	---	---	---	---	0.12	---	---	---	---	---	---	---	---
Fluorene	280	N/A	N/A	---	---	---	---	---	---	1.1	---	---	---	---	---	---	---	---
Indeno(1,2,3-cd)pyrene	0.1	N/A	N/A	---	---	---	---	---	---	<0.02	---	---	---	---	---	---	---	---
Naphthalene	280	N/A	N/A	---	---	---	---	---	---	23	---	---	---	---	---	---	---	---
Phenanthrene	200	N/A	N/A	---	---	---	---	---	---	1	---	---	---	---	---	---	---	---
Pyrene	200	N/A	N/A	---	---	---	---	---	---	0.16	---	---	---	---	---	---	---	---
VOCs (ug/Kg)																		
1,2,4-Trimethylbenzene	28,000	1,000,000	500,000	---	---	---	---	---	< 4.6	11	---	< 4.4	---	---	< 4.7	---	---	---
Naphthalene	56,000	2,500,000	1,000,000	---	---	---	---	---	< 4.6	9,400	---	< 4.4	---	---	< 4.7	---	---	---

Notes:

Bold indicates a result detected above laboratory reporting limit

Bold and shaded cells indicate an exceedance of one or more of the listed criteria

^{DUP} - Duplicate sample collected; the highest concentration of the samples is reported

ug - micrograms / mg - milligrams / kg - kilograms

< # - not detected above given laboratory detection limit

NA = not applicable

N/A - Not Applicable

ETPH - Extractable Total Petroleum Hydrocarbons

PAHs - Polynuclear Aromatic Hydrocarbons

PCBs - Polychlorinated Biphenyls

SPLP - Synthetic Precipitation Leaching Procedure

VOCs - Volatile Organic Compounds

NE - Criteria Not Established

GB PMC - GB Pollutant Mobility Criteria (PMC not applied to samples taken below the water table)

20x GB PMC was used to evaluate the potenial of total metals to leach into groundwater

Res DEC - Residential Direct Exposure Criteria

Red Text - DEEP fast-track approveable additional polluting substances and alternative criteria;

DEEP approval required

Table 2
Summary of Constitunets Detected in Soil
Former Meriden Hospital
Meriden, Connecticut

Sample Location ID Sample Depth (feet) Sample Date Sample ID				SB-20 1-3 5/2/2016 1176160502-10	SB-21 1-3 5/2/2016 1176160502-11	SB-23 0.3-3 5/3/2016 1176160503-17	SB-24 0.3-1 5/3/2016 1176160503-19	SB-25 0.3-1 5/3/2016 1176160503-21	SB-26 1-2 5/3/2016 1176160503-24	SB-27 1-2 5/3/2016 1176160503-26	MW-13 1-2 ^{DUP} 5/3/2016 1176160503-28	SB-28 0.3-1.5 5/3/2016 1176160503-31	SB-29 0.3-4 ^{DUP} 5/3/2016 1176160503-33	SB-30 2-3 5/3/2016 1176160503-36	SB-31 2-3 5/3/2016 1176160503-38	SB-32 1-3 5/4/2016 1176160504-40	SB-33 1-3 5/4/2016 1176160504-42
CONSTITUENT	GB PMC	I/C DEC	RES DEC														
Metals, Total (mg/Kg)	(20x GB PMC)																
Arsenic	10	10	10	---	---	---	---	---	---	---	---	3	12.7	4	19.8	---	---
Barium	200	140,000	4,700	---	---	---	---	---	---	---	---	57.2	58.6	117	94.8	---	---
Cadmium	1	1,000	34	---	---	---	---	---	---	---	---	< 0.38	2.8	1.19	< 0.36	---	---
Chromium	10	100	NE	---	---	---	---	---	---	---	---	13.8	24.3	23.2	12.5	---	---
Copper	260	76,000	2,500	---	---	---	---	---	---	---	---	65	6,940	28.2	35	---	---
Lead	3	1,000	400	---	---	---	---	---	---	---	---	74.2	1,010	29.5	12.5	---	---
Mercury	0.4	610	20	---	---	---	---	---	---	---	---	0.18	0.29	0.07	< 0.03	---	---
Nickel	20	7,500	1,400	---	---	---	---	---	---	---	---	13.3	101	18.1	13.1	---	---
Selenium	10	10,000	340	---	---	---	---	---	---	---	---	< 1.5	< 1.6	< 1.4	< 1.4	---	---
Silver	7.2	10,000	340	---	---	---	---	---	---	---	---	< 0.38	17.8	< 0.35	< 0.36	---	---
Zinc				---	---	---	---	---	---	---	---	100	1,220	533	46.2	---	---
Metals, SPLP (mg/L)																	
Arsenic	0.5	N/A	N/A	---	---	---	---	---	---	---	---	---	<0.004	---	<0.004	---	---
Cadmium	0.05	N/A	N/A	---	---	---	---	---	---	---	---	---	<0.005	---	---	---	---
Chromium	0.5	N/A	N/A	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Copper	13	N/A	N/A	---	---	---	---	---	---	---	---	---	0.045	---	---	---	---
Lead	0.15	N/A	N/A	---	---	---	---	---	---	---	---	0.011	0.028	<0.010	<0.010	---	---
Mercury	0.02	N/A	N/A	---	---	---	---	---	---	---	---	---	---	---	---	---	---
ETPH (mg/Kg)																	
Ext. Petroleum HC	2,500	2,500	500	---	---	< 54	< 55	< 53	---	---	---	< 55	< 61	< 56	< 55	< 51	< 54
PCBs (mg/Kg)																	
PCB-1254	0.005**	10	1	< 0.35	< 0.35	---	---	< 0.36	< 0.35	< 0.35	< 0.36	---	---	---	---	< 0.35	< 0.36
PCBs, SPLP (ug/L)	(GWPC)																
PCB-1254	0.5	N/A	N/A	---	---	---	---	---	---	---	---	---	---	---	---	---	---
PAHs (ug/Kg)																	
2-Methylnaphthalene	5,600	1,000,000	270,000	< 250	< 240	< 260	< 260	< 250	< 250	< 250	< 250	---	---	---	---	< 240	< 250
Acenaphthene	84,000	2,500,000	1,000,000	< 250	< 240	< 260	< 260	< 250	< 250	< 250	< 250	---	---	---	---	< 240	< 250
Acenaphthylene	84,000	2,500,000	1,000,000	< 250	< 240	< 260	< 260	< 250	< 250	< 250	< 250	---	---	---	---	< 240	< 250
Anthracene	400,000	2,500,000	1,000,000	< 250	< 240	< 260	< 260	< 250	< 250	< 250	< 250	---	---	---	---	< 240	< 250
Benzo(a)anthracene	1,000	7,800	1,000	< 250	< 240	< 260	< 260	< 250	< 250	< 250	< 250	420	---	---	---	< 240	< 250
Benzo(a)pyrene	1,000	1,000	1,000	< 250	< 240	< 260	< 260	< 250	< 250	< 250	< 250	430	---	---	---	< 240	< 250
Benzo(b)fluoranthene	1,000	7,800	1,000	< 250	< 240	< 260	< 260	< 250	< 250	< 250	< 250	420	---	---	---	< 240	< 250
Benzo(ghi)perylene	1,000	78,000	8,400	< 250	< 240	< 260	< 260	< 250	< 250	< 250	< 250	290	---	---	---	< 240	< 250
Benzo(k)fluoranthene	1,000	78,000	8,400	< 250	< 240	< 260	< 260	< 250	< 250	< 250	< 250	380	---	---	---	< 240	< 250
Chrysene	1,000	780,000	8,400	< 250	< 240	< 260	< 260	< 250	< 250	< 250	< 250	520	---	---	---	< 240	< 250
Dibenz(a,h)anthracene	1,000	1,000	1,000	< 250	< 240	< 260	< 260	< 250	< 250	< 250	< 250	< 250	---	---	---	< 240	< 250
Fluoranthene	56,000	2,500,000	1,000,000	< 250	< 240	260	< 260	< 250	< 250	< 250	< 250	790	---	---	---	< 240	< 250
Fluorene	56,000	2,500,000	1,000,000	< 250	< 240	< 260	< 260	< 250	< 250	< 250	< 250	< 250	---	---	---	< 240	< 250
Indeno(1,2,3-cd)pyrene	1,000	7,800	1,000	< 250	< 240	< 260	< 260	< 250	< 250	< 250	< 250	---	---	---	---	< 240	< 250
Naphthalene	56,000	2,500,000	1,000,000	< 250	< 240	< 260	< 260	< 250	< 250	< 250	< 250	< 250	---	---	---	< 240	< 250
Phenanthrene	40,000	2,500,000	1,000,000	< 250	< 240	< 260	< 260	< 250	< 250	< 250	< 250	---	---	---	---	< 240	< 250
Pyrene	40,000	2,500,000	1,000,000	< 250	< 240	< 260	< 260	< 250	< 250	< 250	< 250	690	---	---	---	< 240	< 250
PAHs, SPLP (ug/L)	(GWPC)																
2-Methylnaphthalene	28	N/A	N/A	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Acenaphthene	420	N/A	N/A	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Acenaphthylene	420	N/A	N/A	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Anthracene	2,000	N/A	N/A	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Benzo(a)anthracene	0.06	N/A	N/A	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Benzo(a)pyrene	0.2	N/A	N/A	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Benzo(b)fluoranthene	0.08	N/A	N/A	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Benzo(ghi)perylene	0.48	N/A	N/A	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Benzo(k)fluoranthene	0.5	N/A	N/A	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Chrysene	4.8	N/A	N/A	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Dibenz(a,h)anthracene	0.1	N/A	N/A	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Fluoranthene	280	N/A	N/A	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Fluorene	280	N/A	N/A	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Indeno(1,2,3-cd)pyrene	0.1	N/A	N/A	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Naphthalene	280	N/A	N/A	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Phenanthrene	200	N/A	N/A	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Pyrene	200	N/A	N/A	---	---	---	---	---	---	---	---	---	---	---	---	---	---
VOCs (ug/Kg)																	
1,2,4-Trimethylbenzene	28,000	1,000,000	500,000	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Naphthalene	56,000	2,500,000	1,000,000	---	---	---	---	---	---	---	---	---	---	---	---	---	---

Notes:
Bold indicates a result detected above laboratory reporting limit
Bold and shaded cells indicate an exceedance of one or more of the listed criteria
^{DUP} - Duplicate sample collected; the highest concentration of the samples is reported
ug - micrograms / mg - milligrams / kg - kilograms
< # - not detected above given laboratory detection limit
NA = not applicable
N/A - Not Applicable
ETPH - Extractable Total Petroleum Hydrocarbons
PAHs - Polynuclear Aromatic Hydrocarbons
PCBs - Polychlorinated Biphenyls
SPLP - Synthetic Precipitation Leaching Procedure
VOCs - Volatile Organic Compounds
NE - Criteria Not Established
GB PMC - GB Pollutant Mobility Criteria (PMC not applied to samples taken below the water table)
20x GB PMC was used to evaluate the potential of total metals to leach into groundwater
Res DEC - Residential Direct Exposure Criteria
Red Text - DEEP fast-track approveable additional polluting substances and alternative criteria;
DEEP approval required

Table 3
Summary of Constituents Detected in Groundwater

Former Meriden Hospital
Meriden, Connecticut

Sample Location: Sample Date: Sample ID:			MW-01 3/23/2016 1176160323-03	MW-02 5/12/2016 1176160512-02	MW-10 3/23/2016 1176160323-05	Duplicate 1176160323-06	MW-11 3/23/2016 1176160323-02	MW-12 3/23/2016 1176160323-04	MW-13 5/12/2016 1176160512-03	G-01* 3/25/2016 1176160325-01
CONSTITUENT	GWPC	RES VC								
Metals (mg/L)										
Arsenic	0.01	N/A	< 0.004	<0.004	< 0.004	< 0.004	< 0.004	< 0.004	< 0.004	< 0.004
Barium	1	N/A	0.461	0.181	0.144	0.145	0.096	0.208	0.208	0.051
Cadmium	0.005	N/A	< 0.001	<0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
Chromium	0.05	N/A	< 0.001	<0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	0.002
Lead	0.015	N/A	< 0.002	0.003	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	0.002
Mercury	0.002	N/A	< 0.0002	<0.0002	< 0.0002	< 0.0002	< 0.0002	< 0.0002	< 0.0002	< 0.0002
Selenium	0.05	N/A	< 0.010	<0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010
Silver	0.036	N/A	< 0.001	<0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
PCBs (ug/L)										
Total PCBs	0.5	N/A	---	<0.50	---	---	---	<0.10	<0.50	ND
VOCs (ug/L)										
VOCs	Varies	Varies	ND	ND	ND	ND	ND	ND	ND	ND
PAHs (ug/L)										
PAHs	Varies	Varies	ND	ND	ND	ND	ND	ND	ND	ND

Notes:

Bold indicates a detection above laboratory reporting limits

Bold and shaded cells indicate an exceedance of one or more of the listed criteria

ug/L - micrograms per liter

mg/L = milligrams per liter

< # - not detected above given laboratory detection limit

ND - Constituent not detected above laboratory reporting limits

N/A - Not Applicable

GWPC - Groundwater Protection Criteria

RES VC - Residential Volatilization Criteria

*Sample G-01 was collected from water in the basement tunnel off the Boiler Room

PAHs - Polynuclear Aromatic Hydrocarbons

PCBs - Polychlorinated Biphenyls

VOCs - Volatile Organic Compounds

Table 4
Summary of Constituents Detected in Concrete

Former Meriden Hospital
Meriden, Connecticut

Sample Location:		CC-01	CC-02	CC-03	CC-04	CC-05	CC-06	CC-07	CC-08	CC-09	CC-10	CC-11	CC-12	CC-13	CC-14	CC-15	CC-16	CC-17	CC-18	CC-19	CC-20	CC-21	CC-22
Interior Location:		2nd Fl Transformer (over Laundry Area)	Generator Rm (N of Boiler Rm)	Exterior Transformer Pad (Southern UST Area)	Loading Dock	Boiler Room	Transformer (Boiler Room Atrium)	Transformer (Basement - Nurses Bldg)	Elevator (1st Floor - Nurses Bldg)	Mechanical Room (NW portion of Building)	Exterior Transformer Pad (Northern Courtyard)	Basement Sump (Nurses Bldg)	Chemical Storage Room (Laundry Area)	Laundry Area	Boiler Room Transformer	Former Incinerator Room	Generator / Switchgear Room	Basement Equipment Room (Tunnel)	mech. Equip rm 2nd flr	Elev. Equip. Rm. (2nd fl)	Elec. Equip Rm	Elev Rm - 1st fl (stain)	First Floor Dry Well (Southeast corner of Bldg)
Lab Sample ID		BK79038	BK79039	BK79040	BK79041	BK79042	BK79043	BK79044	BK79045	BK79046	BK79047		BN25664	BN25665	BN25672	BN25673	BN25702	BN25703	BN25704	BN25705	BN25706	BN25707	BN25708
Sample Date:		3/14/2016	3/14/2016	3/14/2016	3/14/2016	3/14/2016	3/14/2016	3/15/2016	3/15/2016	3/15/2016	3/15/2016	3/23/2016	5/2/2016	5/2/2016	5/2/2016	5/2/2016	5/4/2016	5/4/2016	5/4/2016	5/4/2016	5/4/2016	5/4/2016	5/4/2016
Sample ID:		1176160314-13	1176160314-14	1176160314-15	1176160314-16	1176160314-17	1176160314-20	1176160314-29	1176160314-30	1176160314-31	1176160314-32	1176160323-07	1176160502-07	1176160502-08	1176160502-15	1176160502-16	1176160504-44	1176160504-45	1176160504-46	1176160504-47	1176160504-48	1176160504-49	1176160504-50
CONSTITUENT	RES DEC																						
Metals, Total (mg/Kg)																							
Arsenic	10	---	2.1	4.2	4	---	---	---	---	---	---	---	4.1	---	---	4.4	---	1.7	---	---	---	---	---
Barium	4,700	---	56.3	142	63	---	---	---	---	---	---	---	89.8	---	---	91	---	67.2	---	---	---	---	---
Cadmium	34	---	3.84	0.32	< 0.31	---	---	---	---	---	---	---	0.72	---	---	0.5	---	0.52	---	---	---	---	---
Chromium	NE	---	14.2	14.1	14.5	---	---	---	---	---	---	---	18.1	---	---	15.4	---	13.8	---	---	---	---	---
Lead	400	---	12.9	34.8	8	---	---	---	---	---	---	---	18.8	---	---	31.2	---	4	---	---	---	---	---
Mercury	20	---	0.92	0.13	0.13	---	---	---	---	---	---	---	0.55	---	---	0.04	---	0.7	---	---	---	---	---
Selenium	340	---	< 1.3	< 1.2	< 1.3	---	---	---	---	---	---	---	< 1.2	---	---	< 1.2	---	< 1.4	---	---	---	---	---
Silver	340	---	5.95	< 0.31	< 0.31	---	---	---	---	---	---	---	1.05	---	---	< 0.31	---	59.7	---	---	---	---	---
ETPH (mg/Kg)																							
ETPH	500	---	2,100	460	1,200	---	---	450	---	82	---	---	---	2,900	28,000	---	340	---	1,600	510	---	16,000	---
PCBs (mg/Kg)																							
PCB-1254	1	< 0.33	< 0.33	< 0.34	< 0.34	< 0.34	< 0.37	< 0.34	0.99	0.81	< 0.35	<0.35	---	< 0.34	< 0.34	< 0.34	< 0.35	< 0.35	12	1.1	< 0.33	3.9	< 0.34

Notes:
Bold indicates result detected above laboratory reporting limit
Bold and shaded indicates result detected above criteria
mg/Kg - milligrams per kilogram
---- Constituent not analyzed
Res DEC -Residential Direct Exposure Criteria
NE - Criteria Not Established
< # - not detected above given laboratory detection limit
ETPH - Extractable Total Petroleum Hydrocarbons
PCBs - Polychlorinated Biphenyls

Table 5
Summary of Constituents Detected in Residual Ash and Oil Material

Former Meriden Hospital
Meriden, Connecticut

Sample ID: Lab Sample ID Sample Date: Sample ID:			Stack Ash Material	Residual Oil Product (Boiler Room)	Residual Oil Product (2nd Floor)
			BN25666	BN38453	BN38454
			5/2/2016	5/17/2016	5/17/2016
			1176160502-09	1176160517-01	1176160517-02
CONSTITUENT	RES DEC	40 CFR 261.24			
Metals, Total (mg / Kg)					
Arsenic	10	N / A	9.9	---	---
Barium	4,700	N / A	59.3	---	---
Cadmium	34	N / A	2.48	---	---
Chromium	NE	N / A	81.7	---	---
Lead	400	N / A	103	---	---
Mercury	20	N / A	0.28	---	---
Selenium	340	N / A	< 1.7	---	---
Silver	340	N / A	< 0.41	---	---
Metals, TCLP (mg / L)					
TCLP Arsenic	N / A	5	0.07	---	---
TCLP Barium	N / A	100	0.04	---	---
TCLP Cadmium	N / A	1	0.06	---	---
TCLP Chromium	N / A	5	0.024	---	---
TCLP Lead	N / A	5	< 0.010	---	---
TCLP Mercury	N / A	0.2	0.0003	---	---
TCLP Selenium	N / A	1	< 0.01	---	---
TCLP Silver	N / A	5	< 0.010	---	---
ETPH (mg / Kg)					
Ext. Petroleum HC	500	N / A	< 59	---	---
PCBs (mg / Kg)					
Total PCBs	1	N / A	< 0.4	<0.99	<0.99
VOCs (ug / Kg)					
1,2,4-Trimethylbenzene	500,000	N / A	< 8.5	---	---
1,3,5-Trimethylbenzene	500,000	N / A	< 8.5	---	---
Naphthalene	1,000,000	N / A	< 8.5	---	---
Toluene	500,000	N / A	< 8.5	---	---
SVOCs (ug / Kg)					
Benzo(a)pyrene	1,000	N / A	300	---	---
Benzo(b)fluoranthene	1,000	N / A	410	---	---
Benzo(ghi)perylene	8,400	N / A	290	---	---
Benzo(k)fluoranthene	8,400	N / A	370	---	---
Chrysene	8,400	N / A	410	---	---
Fluoranthene	1,000,000	N / A	740	---	---
Indeno(1,2,3-cd)pyrene	1,000	N / A	320	---	---
Pyrene	1,000,000	N / A	570	---	---

Notes:

Bold indicates result detected above laboratory reporting limit

Bold and shaded indicates result detected above criteria

mg / Kg - milligrams per kilogram

N / A - not applicable

--- - not analyzed

ETPH - Extractable Total Petroleum Hydrocarbons

PCBs - Polychlorinated Biphenyls

SVOCs - Semi Volatile Organic Compounds

TCLP - Toxicity Characteristic Leaching Procedure

VOCs - Volatile Organic Compounds

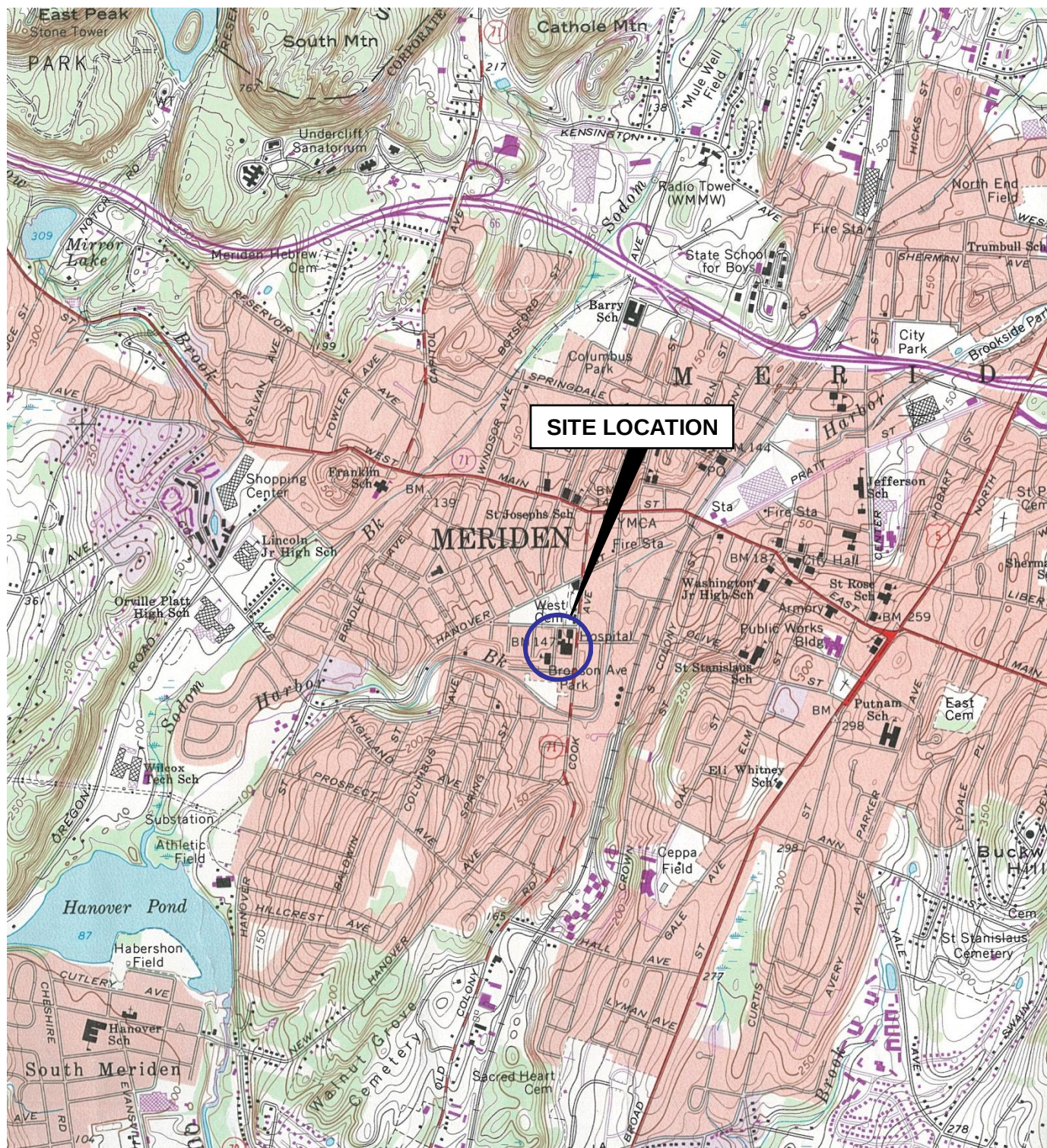
Res DEC - Residential Direct Exposure Criteria

40 CFR 261.24 - EPA's Maximum Concentration of Contaminants for the Toxicity Characteristic

NE - Not Established

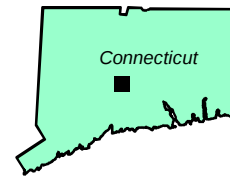
Red Text - DEEP fast-track approveable additional polluting substances and alternative criteria;
DEEP approval required

Figures

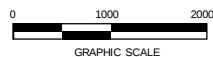


MAP REFERENCE:

THIS MAP WAS PREPARED FROM THE FOLLOWING
7.5 MINUTE SERIES TOPOGRAPHIC MAP:
MERIDEN, CONN. 1967 PHOTOREVISED 1992



Quadrangle Location



SCALE: 1"=2000'



146 HARTFORD RD MANCHESTER, CT 06004 860.646.2469

www.FandO.com

SITE LOCATION MAP
FORMER VETERANS MEMORIAL MEDICAL
CENTER

MERIDEN

CONNECTICUT

PROJ. No: 20120232_C40
DATE: JUNE 2016

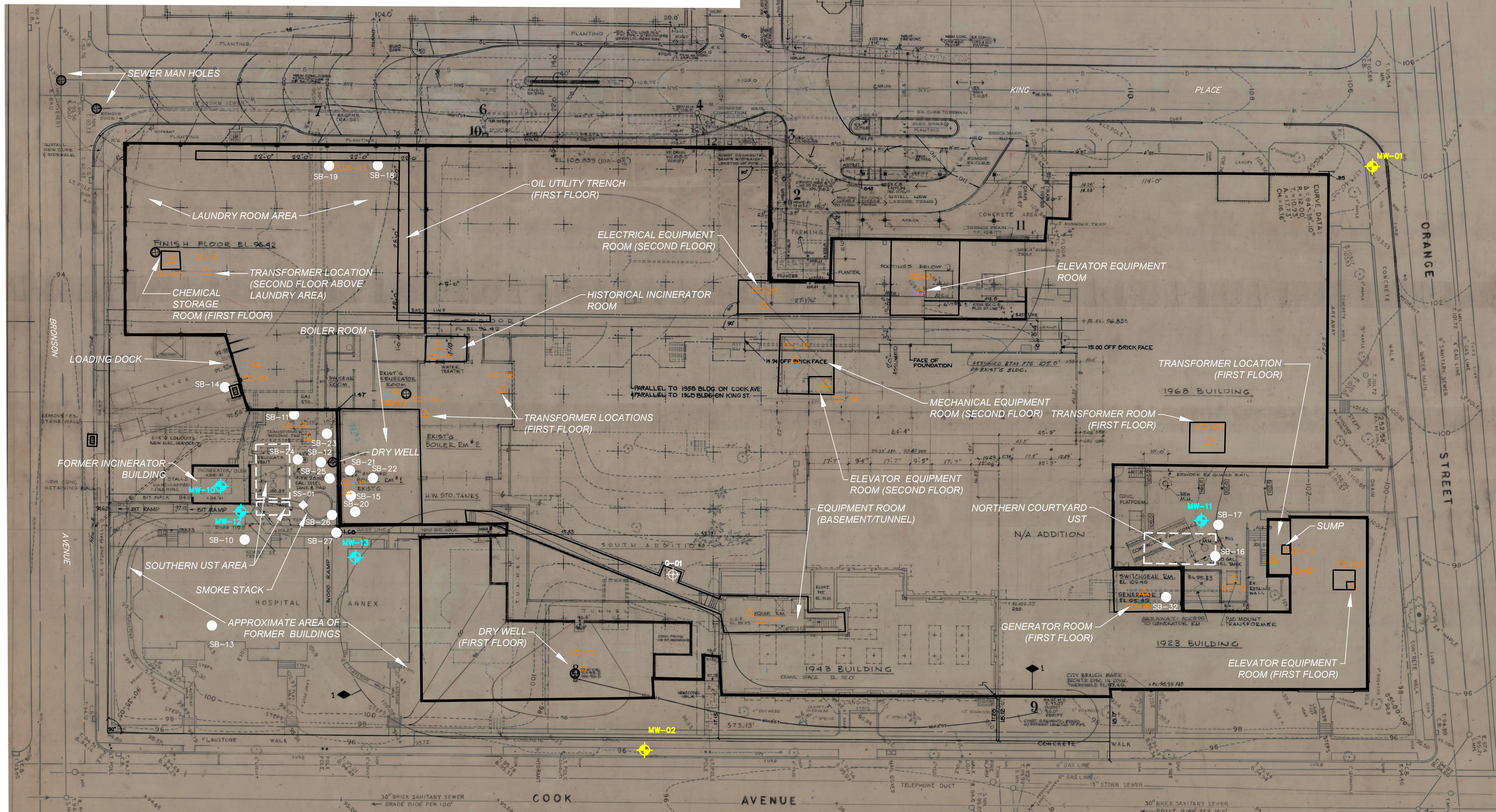
FIGURE 1

LAYOUT LEGEND

MW-10	MONITORING WELL LOCATION
MW-02	EXISTING MONITORING WELL LOCATION
SB-01	SOIL BORING SAMPLE LOCATION
CC-15	CONCRETE CHIP SAMPLE LOCATION
SS-01	SOIL GRAB SAMPLE LOCATION (FROM SMOKE STACK CLEAN OUT)
C-01	WATER GRAB SAMPLE LOCATION (FROM STANDING WATER IN TUNNEL)
	DRY WELL / INTERIOR DRAIN
	CATCH BASIN

GENERAL NOTES

1. SYMBOLS AND LEGENDS OF PROJECT FEATURES ARE GRAPHIC REPRESENTATIONS AND ARE NOT NECESSARILY SHOWN ON THE DRAWINGS TO SCALE OR TO THEIR ACTUAL DIMENSION OR LOCATION.
2. DO NOT RELY SOLELY ON ELECTRONIC VERSIONS OF DRAWINGS, SPECIFICATIONS, AND DATA FILES THAT ARE PROVIDED BY THE ENGINEER. FIELD VERIFY LOCATION OF PROJECT FEATURES.
3. BASE PLAN: THE BUILDING FEATURES WERE OBTAINED FROM A FRID, FERGUSON, MAHAFFEY & PERRY ARCHITECTS PLAN DATED 1-7-1982. INTERIOR AND EXTERIOR FEATURES ARE APPROXIMATE AS NO CURRENT SITE PLAN COULD BE FOUND.
4. MONITORING WELL MEASURING POINT ELEVATIONS ARE BASED NGVD 29.
5. BORING LOCATIONS AND MEASURING POINT ELEVATIONS WERE OBTAINED FROM FUSS & O'NEILL PERSONNEL DURING MARCH 2016 - MAY 2016.



1.	No.	DATE	DESCRIPTION	XX/XX	XX
				DESIGNER	REVIEWER

SCALE:	HORZ.: 1" = 30'
	VERT.: 1" = 30'
DATUM:	HORZ.: NAD 87
	VERT.: NGVD 29
	0 15 30
	GRAPHIC SCALE



MERIDEN

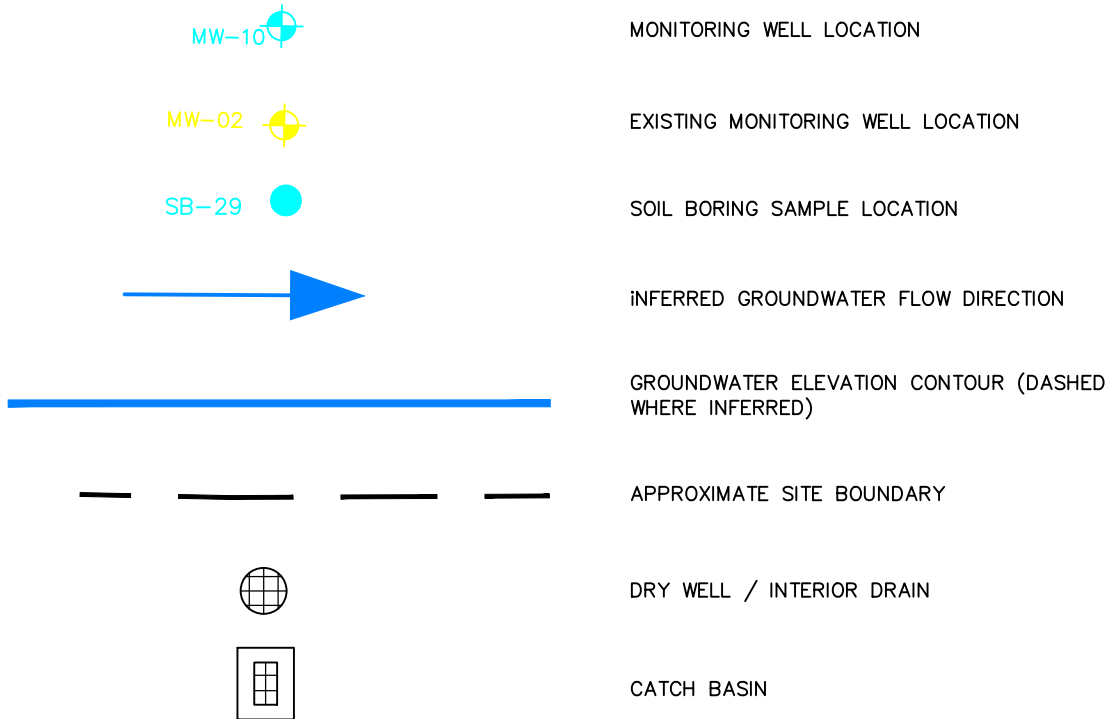
CITY OF MERIDEN
SITE PLAN - MAIN BUILDING & SAMPLING LOCATIONS
FORMER MERIDEN HOSPITAL
1 KING PLACE
CONNECTICUT

PROJ. No.: 20120232.C40
DATE: JUNE 2016

FIGURE 2

File Path: J:\DWG\IP\2012\0232\C40\Environmental\Plan\20120232C40_SWD.dwg Layout: FIG 3 GWC Plotted: Wed, June 15, 2016 - 9:46 AM User: srochelt
LAYER STATE: DWG TO PDF.PC3 CTB File: FO.STB

LAYOUT LEGEND



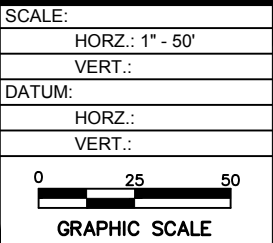
GENERAL NOTES

1. SYMBOLS AND LEGENDS OF PROJECT FEATURES ARE GRAPHIC REPRESENTATIONS AND ARE NOT NECESSARILY SHOWN ON THE DRAWINGS TO SCALE OR TO THEIR ACTUAL DIMENSION OR LOCATION.
2. DO NOT RELY SOLELY ON ELECTRONIC VERSIONS OF DRAWINGS, SPECIFICATIONS, AND DATA FILES THAT ARE PROVIDED BY THE ENGINEER. FIELD VERIFY LOCATION OF PROJECT FEATURES.
3. BASE PLAN: AERIAL PHOTOGRAPH WAS OBTAINED FROM GOOGLE EARTH IMAGERY ACCESSED ON MAY 2016, IMAGERY DATE 10/24/2014. AERIAL IMAGE PROVIDES RELATIVE LAYOUT OF THE BUILDING FEATURES IN RELATION TO SAMPLE LOCATIONS.
4. MONITORING WELL MEASURING POINT ELEVATIONS ARE BASED NGVD 29.
5. DATA INCLUDING BORING LOCATIONS AND MEASURING POINT ELEVATIONS WERE OBTAINED FROM FUSS & O'NEILL PERSONNEL DURING MARCH 2016 - MAY 2016.

* GROUNDWATER ELEVATION FOR MW-11 WAS OBTAINED DURING THE MARCH 2016 GAUGING EVENT,



1.	No.	DATE	DESCRIPTION	DESIGNER	REVIEWER
				xx/xx	xx



MERIDEN

CITY OF MERIDEN
SITE PLAN - PROPERTY BOUNDARY &
MAY 2016 GROUNDWATER ELEVATION CONTOURS
FORMER MERIDEN HOSPITAL
1 KING PLACE
CONNECTICUT

PROJ. No.: 20120232.C40
DATE: JUNE 2016

FIGURE 3

Appendix A

Soil Boring Logs & Monitoring Well Completion Reports



FUSS & O'NEILL

BORING LOG

PROJECT: Meriden Hospital

LOCATION:

SITE ID: MW-10

SHEET: 1 of 1

PROJECT NO: 20120232.C40

WEATHER: Rain 40's

CONTRACTOR: F&O

OPERATOR: D. Levesque

F&O REPRESENTATIVE: D. Cook

DRILLING METHOD: Direct Push

SAMPLING METHOD: 5, Macro Core

HAMMER WT: HAMMER FALL (IN)

BORING LOCATION:

DATE STARTED: 3/14/16

DATE & TIME COMPLETED: ↓

DEPTH TO SATURATED ZONE: ~5

SAMPLE PREFIX: 1176160314-

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	36/60	0-0.5	Concrete	NA				
↓	↓	↓	0.5-3	F-m SAND; sm silt, tr f. gravel, dry, loose, no odor, reddish brown	ND	SM	-08 1230	0.5-1.5	100 G802
5	↓	36/60	5-8	Same as above, wet at 5	ND	SM			

BORING DIAMETER 2.5	BORING METHOD direct push	BORING DEPTH 10	REMARKS Field Instrument = PID/OVM If refusal is encountered, describe all efforts used to confirm. TIGER #2 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%			BACKFILL Asphalt / Concrete _____ To _____ Bentonite Grout/Chips _____ To _____ Cuttings/Native Material _____ To _____ Other _____ To _____
EXAMPLE DESCRIPTION: SAND, F-M; sm F angular gravel; ltl silt; tr clay; (10R 5/4), wet at 7 ft. Loose. No odor.			See Monitoring Well Completion Report
Reviewed by Staff:			



MONITORING WELL COMPLETION REPORT

GENERAL INFORMATION

Project Name: Meriden Hospitas
 Project Location: Meriden, CT
 F&O Engineer/Geologist: D. Cook
 Date of Completion: 3/14/16
 Boring Location: South loading dock
 Drilling Contractor/Name: FnO
 Drilling Method: Direct Push

Site ID (Boring/Well ID): MW-10
 Project No.: 20120232.C40
 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: PC
 Stick-up: 0 ft.

SUMP (below screen)

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

PROTECTIVE CASING

Diameter: _____ in. Type: Road Box / Stand Pipe
 Stick-up: _____ ft Depth to Bottom: 0.75 ft
 Seal Material: _____

SCREEN INTERVALS

Screen Interval: 3-13 ft Diameter: 1.5 in. Slot Size: 0.01
 Description: PVC / Other: _____
 Type: Perforated / Slotted / Wire-Wrap / Other: pc pack

BOREHOLE

Diameter: 3.5 in. Total Boring Depth: 13 ft. Refusal: y / 6 Depth: _____ ft.

ANNULAR FILL

SURFACE SEAL

(Approximate volumes if available)

Interval: 0.50 ft. Tremied: Y / N Volume: 1/2 bags Description: Concrete / Other: _____

BACKFILL

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

LOWER SEAL

Interval: 1.0.5 ft. Tremied: Y / N Volume: 1/4 bags Description: Bentonite Pellets / Other: _____

FILTER

Interval: 13-1 ft. Tremied: Y / N Volume: 1/2 bags Description: Sand Filter (type: 0) / Other: _____

LOWER BACKFILL

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

MONITORING WELL DEVELOPMENT*

Development Method: Surge Block / Submersible Pump / Peristaltic Pump / Water / Bailer / Other: _____
 Date: 3/14/16

*See Monitoring Well Development Data Sheet for details



FUSS & O'NEILL

BORING LOG

PROJECT: Meriden Hospital

LOCATION:

SITE ID: SB-10

SHEET: 1 of 1

PROJECT NO: 20120232.C40

WEATHER: Rain 40's

CONTRACTOR: FNO

OPERATOR: D. Levesque

F&O REPRESENTATIVE: D. Cook

DRILLING METHOD: Direct Push

SAMPLING METHOD: 5, Macro Core

HAMMER WT: HAMMER FALL (IN)

BORING LOCATION:

DATE STARTED: 3/14/16

DATE & TIME COMPLETED: ↓

DEPTH TO SATURATED ZONE: ~13'

SAMPLE PREFIX: 1176160314

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	40/60	0-3.25	F-C SAND: ltl silt, ltl f-m gravel dry, loose, no odor, reddish brown	ND	SW			
5		42/60	5-8.5	F-C SAND: sm silt, dry, loose, no odor reddish brown	ND	SM	-01 1000	7-8.5	W2 G802
10		42/60	10-13.5	Same as above, ret at 13'	ND	SM	-02 1015	12.5-13.5	W2 G802

BORING DIAMETER 2.5	BORING METHOD direct push	BORING DEPTH 15	REMARKS Field Instrument = PID/OVM If refusal is encountered, describe all efforts used to confirm. TIGER #2 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%			BACKFILL Asphalt / Concrete _____ To _____ See Monitoring Well Bentonite Grout/Chips _____ To _____ Completion Report Cuttings/Native Material 0 To 15 Other _____ To _____
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:			



FUSS & O'NEILL

BORING LOG

PROJECT: Meriden Hospital

LOCATION:

SITE ID: SB-11

SHEET: 1 of 1

PROJECT NO: 20120232.C40

WEATHER: RAIN 46°

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

BORING LOCATION:
DATE STARTED: 3/14/16
DATE & TIME COMPLETED: ↓
DEPTH TO SATURATED ZONE: ~12.5
SAMPLE PREFIX: 1176160314-

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	24/60	0-0.3	Asphalt					
↓	↓	↓	0.3-2	SILT; sm F-C sand, moist, compact, no odor, reddish brown	ND	ML			
5	↓	24/60	5-7	F-C SAND; sm silt, dry, no odor reddish brown	ND	SM	-03 1045	6-7	VOL G802
10	↓	36/60	10-12	Same as above	ND	SM			
↓	↓	↓	12-13	F-M SAND; + silt, wet @ 12.5', no odor, reddish brown	ND	SW	-04 1100	12-13	VOL G802

BORING DIAMETER 2.5	BORING METHOD direct push	BORING DEPTH 15	REMARKS Field Instrument = PID/OVM If refusal is encountered, describe all efforts used to confirm. TIGER #2 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%			BACKFILL Asphalt / Concrete 0.3 To 0 Bentonite Grout/Chips To Cuttings/Native Material 15 To 0.3 Other To
EXAMPLE DESCRIPTION: SAND, F-M; sm F angular gravel; lt silt; tr clay; (10R 5/4), wet at 7 ft. Loose. No odor.			See Monitoring Well Completion Report
Reviewed by Staff:			



FUSS & O'NEILL

BORING LOG

PROJECT: Meriden Hospital

LOCATION:

SITE ID: SB-12

SHEET: 1 of 1

PROJECT NO: 20120232.C40

WEATHER: RAIN 40°

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

BORING LOCATION:
 DATE STARTED: 3/14/16
 DATE & TIME COMPLETED: ↓
 DEPTH TO SATURATED ZONE: ~13
 SAMPLE PREFIX: 1176160314-

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	24/60	0-0.3	Asphalt	NA				
↓	↓	↓	0.3-1.75	F-C SAND; sm silt, tr F-m gravel, dry loose, no odor, reddish brown	NA	Sm/FI			
↓	↓	↓	1.75-2	Coal + coal ash, dry, black, no odor	NA	FI	05 1115	1.75-2	VDA Grout
5	↓	24/60	5-7	F-C SAND; sm silt, moist, compact, no odor, reddish brown	NA	Sm			
10	↓	48/60	10-14	Same as above, wet at 13	NA	Sm	06 1120	12.5-13.5	VDA Grout

BORING DIAMETER 2.5	BORING METHOD direct push	BORING DEPTH 15	REMARKS Field Instrument = PID/OVM If refusal is encountered, describe all efforts used to confirm. TIGER #2 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%			BACKFILL Asphalt / Concrete 0 To 0.3 Bentonite Grout/Chips To Cuttings/Native Material 0.3 To 15 Other To
EXAMPLE DESCRIPTION: SAND, F-M; sm F angular gravel; lt silt; tr clay; (10R 5/4), wet at 7 ft. Loose. No odor.			See Monitoring Well Completion Report
Reviewed by Staff:			



FUSS & O'NEILL

BORING LOG

PROJECT: Meriden Hospital

LOCATION:

SITE ID: SB-13

SHEET: 1 of 1

PROJECT NO: 20120232.C40

WEATHER: Rain 40°

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

BORING LOCATION:
DATE STARTED: 3/14/16
DATE & TIME COMPLETED: ↓
DEPTH TO SATURATED ZONE: ~13
SAMPLE PREFIX: 1176160314

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	48/60	0-4	F-C SAND: ltl silt, dry loose, no odor, loose, reddish brown	NO	SW/FI			
5	↓	36/60	5-6	F-C SAND: ltl silt, tr brick & ash, loose no odor, reddish brown	NO	SW/FI	-07 1130	5-6	VOD G1802
↓		↓	6-8	F SAND: tr silt, dry loose, no odor reddish brown	NO	SW/SP			
10		36/60	10-13	same as above, met at 13'	NO	SY			
BORING									

BORING DIAMETER 2.5	BORING METHOD direct push	BORING DEPTH 15	REMARKS Field Instrument = PID/OVM If refusal is encountered, describe all efforts used to confirm. TIGER #12 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%			BACKFILL Asphalt / Concrete _____ To _____ See Monitoring Well Bentonite Grout/Chips _____ To _____ Completion Report Cuttings/Native Material 0 _____ To 15 Other _____ To _____
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:			



FUSS & O'NEILL

BORING LOG

PROJECT: Meriden Hospital

LOCATION:

SITE ID: SB-14

SHEET: 1 of 1

PROJECT NO: 20120232.C40

WEATHER: Rain 40's

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

BORING LOCATION:
 DATE STARTED: 3/14/14
 DATE & TIME COMPLETED:
 DEPTH TO SATURATED ZONE: ~5
 SAMPLE PREFIX: 1176160314-

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	24/60	0-0.3	Asphalt	NA				
↓	↓	↓	0.3-2	F-C SAND; tr Silt, loose, dry, no odor reddish brown	ND	SW	-09 1330	6005 0.5-1.5	VN2 67802
5	↓	36/60	5-8	Same as above wet at 5'	ND	SW	-10 1345	5-6	VN2 67802

BORING DIAMETER 2.5	BORING METHOD direct push	BORING DEPTH 10	REMARKS Field Instrument = PID/OVM If refusal is encountered, describe all efforts used to confirm. TIGER #2 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%			BACKFILL Asphalt / Concrete 0 To 0.3 See Monitoring Well Bentonite Grout/Chips 0.3 To 10 Completion Report Cuttings/Native Material 0 To 10 Other 0 To 10
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:			



FUSS & O'NEILL

BORING LOG

PROJECT: Meriden Hospital

LOCATION:

SITE ID: SB-15

SHEET: 1 of 1

PROJECT NO: 20120232.C40

WEATHER: Cloudy 40°

CONTRACTOR: F&O
 OPERATOR: D. Levesque
 F&O REPRESENTATIVE: D. Cook
 DRILLING METHOD: Direct Push
 SAMPLING METHOD: 2" Macro Core
 HAMMER WT: HAMMER FALL (IN)

BORING LOCATION: boiler room (sub slab)
 DATE STARTED: 3/14/16
 DATE & TIME COMPLETED: ↓
 DEPTH TO SATURATED ZONE: NE
 SAMPLE PREFIX: 1176160314-

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	NA	0-1	Concrete					
1	↓	24/24	1-3	F-C SAND; slight petrol odor, reddish brown dry, loose, trace product staining on sleeve	0.5	SP/F	11 1406	1-3	G 808
3	↓	24/24	3-5	F-C SAND; + Coal & Coal ash at 4'; dry, loose no odor	ND	FI	12 1420	3-5	G 808

BORING DIAMETER 2	BORING METHOD hand geopon	BORING DEPTH 5	REMARKS Field Instrument = PID/OVM TIGER #2 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%			BACKFILL Asphalt / <u>Concrete</u> 0 To 1 See Monitoring Well Bentonite Grout/Chips To Completion Report Cuttings/Native Material 1 To 5 Other To
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:			



FUSS & O'NEILL

BORING LOG

PROJECT: Meriden Hospital

LOCATION:

SITE ID: M21 SB14

SHEET: 1 of 1

PROJECT NO: 20120232.C40

WEATHER: cloudy 40's

CONTRACTOR: FnO

OPERATOR: D. Levesque

F&O REPRESENTATIVE: D. Cook

DRILLING METHOD: Direct Push

SAMPLING METHOD: 5, Macro Core

HAMMER WT: HAMMER FALL (IN)

BORING LOCATION: Courtyard

DATE STARTED: 3/15/16

DATE & TIME COMPLETED: ↓

DEPTH TO SATURATED ZONE:

SAMPLE PREFIX: 176160315

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	0-0.13	asphalt	NA				
	↓	↓	0.13-2.5	Silt, tr f sand moist compact, no odor reddish brown	ND	ML			
5	↓	30/60	5-8	Silt, sm f-c sand tr coal ash & coal from 7-8' reddish brown	ND	FI	23 1125	7-8	WJ G 80%
	—	0/24	10-12	refusal, off set 4'. Concrete in t.p	—	—			
	—	0/18	10-11.5	refusal on concrete					

BORING DIAMETER 2.5	BORING METHOD direct push	BORING DEPTH 12	REMARKS Field Instrument = PID/OVM If refusal is encountered, describe all efforts used to confirm. <u>TIGER #2</u> 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 Asphalt / Concrete <u>0</u> To <u>0.3</u> See Monitoring Well Bentonite Grout/Chips <u>0.3</u> To <u>12</u> Completion Report Cuttings/Native Material <u>0.3</u> To <u>12</u> Other _____ To _____



FUSS & O'NEILL

BORING LOG

PROJECT: Meriden Hospital

LOCATION:

SITE ID:

SB-17

SHEET:

1 of 1

PROJECT NO:

20120232.C40

WEATHER:

cloudy 40's

CONTRACTOR: FNO

OPERATOR: D. Levesque

F&O REPRESENTATIVE: D. Cook

DRILLING METHOD: Direct Push

SAMPLING METHOD: 5, Macro Core

HAMMER WT: HAMMER FALL (IN)

BORING LOCATION: Courtyard

DATE STARTED: 3/15/16

DATE & TIME COMPLETED:

DEPTH TO SATURATED ZONE:

SAMPLE PREFIX: 1176160315

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	asphalt	NA				
↓	↓	↓	0.3-3	Silt, tr fine sand, moist, compact, no odor, reddish brown	ND	ML			
↓	↓	↓	3-3.5	Coal ash & Coal black, dry no odor	ND	FI	24 1200	3-3.5	NA G002
5	↓	42/60	5-8.5	Silt, tr F sand, compact + dry no odor reddish brown	ND	ML	25 1215	3-7.5 dw	NA G002
16	↓	42/40	10-14	F sand, ltl silt, dry loose no odor reddish brown. Refusal at 14' weathered bedrock in top	ND	SM	26 1230	7-8	NA G002

BORING DIAMETER	BORING METHOD	BORING DEPTH	REMARKS Field Instrument = PID/OVM If refusal is encountered, describe all efforts used to confirm. TIGER #2 Field Decon: Yes / No / Dedicated Device
2.5	Direct Push	15	

PROPORTIONS USED: Trace (tr) 0 to 10% Some (sm) 20 to 35% Little (ltl) 10 to 20% And 35 to 50%		BACKFILL Asphalt / Concrete 0.3 To 0 See Monitoring Well Bentonite Grout/Chips To Completion Report Cuttings/Native Material 15 To 0.3 Other To
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:		



FUSS & O'NEILL

BORING LOG

PROJECT: Meriden Hospital

LOCATION:

SITE ID: MW-11

SHEET: 1 of 1

PROJECT NO: 20120232.C40

WEATHER:

CONTRACTOR: FNO

OPERATOR: D. Levesque

F&O REPRESENTATIVE: D. Cook

DRILLING METHOD: Direct Push

SAMPLING METHOD: 5, Macro Core

HAMMER WT: HAMMER FALL (IN)

BORING LOCATION: Courtyard

DATE STARTED:

DATE & TIME COMPLETED:

DEPTH TO SATURATED ZONE:

SAMPLE PREFIX: 1176160315

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	24/60	0-0.3	asphalt	NA	AS			
↓	↓	↓	0.3-2	Silt, + f sand, moist, compact, no odor reddish brown	NO	M-			
5		36/60	5-8	F-m sand, ltl silt, dry loose, no odor reddish brown	NO	Sm	-27 1245	7-8 1245	10A Grout
10		48/60	10-14	Same as above	NO	Sm			
15		48/60	15-19	same as above, wet at 15.5	NO	SA	-28 1300	15-16	10A Grout ^{ms} /m.s.

BORING DIAMETER 2.5	BORING METHOD direct push	BORING DEPTH 20	REMARKS Field Instrument = PID/OVM If refusal is encountered, describe all efforts used to confirm. 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%			BACKFILL Asphalt / Concrete _____ To _____ Bentonite Grout/Chips _____ To _____ Cuttings/Native Material _____ To _____ Other _____ To _____
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:			
See Monitoring Well Completion Report			



MONITORING WELL COMPLETION REPORT

GENERAL INFORMATION

Project Name: Meriden Hospitas
 Project Location: Meriden, CT
 F&O Engineer/Geologist: D. Cook
 Date of Completion: 3/15/16
 Boring Location: Courtyard
 Drilling Contractor/Name: EnO
 Drilling Method: Direct Push

Site ID (Boring/Well ID): MW-11
 Project No.: 20120232.C40
 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: PC
 Stick-up: 0 ft.

SUMP (below screen)

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

PROTECTIVE CASING

Diameter: 6" in. Type: Road Box / Stand Pipe
 Stick-up: 0 ft Depth to Bottom: 0.75 ft
 Seal Material: Concrete

SCREEN INTERVALS

Screen Interval: 13-23 ft Diameter: 1.5 in. Slot Size: 0.01
 Description: PVC / Other:
 Type: Perforated / Slotted / Wire-Wrap / Other: _____

BOREHOLE

Diameter: 3.5 in. Total Boring Depth: 23 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: 10-1 ft. Tremied: Y / N Volume: 1/8 bags Description: Bentonite Grout / Cuttings / Sandy
 Other: _____

LOWER SEAL

Interval: 11-10 ~~23-20~~ ft. Tremied: Y / N Volume: 1/4 bags Description: Bentonite Pellets / Other: _____

FILTER

Interval: 23-11 ~~23-10~~ ft. Tremied: Y / N Volume: 1/2 bags Description: Sand Filter (type: 0) / Other: _____

LOWER BACKFILL

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

MONITORING WELL DEVELOPMENT*

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

*See Monitoring Well Development Data Sheet for details



FUSS & O'NEILL

BORING LOG

PROJECT: Meriden Hospital

LOCATION:

SITE ID: MW-12

SHEET: 1 of 1

PROJECT NO: 20120232.C40

WEATHER:

CONTRACTOR: FNO

OPERATOR: D. Levesque

F&O REPRESENTATIVE: D. Cook

DRILLING METHOD: Direct Push

SAMPLING METHOD: 5 Macro Core

HAMMER WT: HAMMER FALL (IN)

BORING LOCATION:

DATE STARTED: 3/15/16

DATE & TIME COMPLETED:

DEPTH TO SATURATED ZONE: ~13

SAMPLE PREFIX: 1176/60315

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	24/60	0-0.3	Asphalt	NA				
1	↓	↓	0.3-2	Silt, sm f-c sand, dry loose no odor reddish brown	ND	ML			
5	↓	36/60	5-8	Silt, sm f sand dry compact no odor, reddish brown	ND	ML			
10	↓	42/60	10-13.5	Same as above wet at 13'	ND	ML			

BORING DIAMETER	BORING METHOD	BORING DEPTH	REMARKS Field Instrument = PID/OVM If refusal is encountered, describe all efforts used to confirm. Field Decon: Yes / No / Dedicated Device
2.5	direct push	15	

PROPORTIONS USED: Trace (tr) 0 to 10% Some (sm) 20 to 35% Little (lt) 10 to 20% And 35 to 50%		BACKFILL Asphalt / Concrete _____ To _____ Bentonite Grout/Chips _____ To _____ Cuttings/Native Material _____ To _____ Other _____ To _____
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:		See Monitoring Well Completion Report



MONITORING WELL COMPLETION REPORT

GENERAL INFORMATION

Project Name: Meriden Hospitas
 Project Location: Meriden, CT
 F&O Engineer/Geologist: D. Cook
 Date of Completion: 3/15/16
 Boring Location: Tank & Boiler room
 Drilling Contractor/Name: FnO
 Drilling Method: Direct Push

Site ID (Boring/Well ID): MW-12
 Project No.: 20120232.C40
 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: PC
 Stick-up: 0 ft.

SUMP (below screen)

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

PROTECTIVE CASING

Diameter: 6 in. Type: Road Box Stand Pipe
 Stick-up: 0 ft. Depth to Bottom: 0.75 ft.
 Seal Material: Concrete

SCREEN INTERVALS

Screen Interval: 13-23 ft. Diameter: 1.5 in. Slot Size: 0.01
 Description: PVC Other: _____
 Type: Perforated Slotted / Wire-Wrap / Other: _____

BOREHOLE

Diameter: 3.5 in. Total Boring Depth: 23 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: 10-1 ft. Tremied: Y / N Volume: 1/2 bags Description: Bentonite Grout / Cuttings / Sand / Other: _____

LOWER SEAL

Interval: 11-10 ft. Tremied: Y / N Volume: 1/4 bags Description: Bentonite Pellets / Other: _____

FILTER

Interval: 23-11 ft. Tremied: Y / N Volume: 1/2 bags Description: Sand Filter (type: 0) / Other: _____

LOWER BACKFILL

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

MONITORING WELL DEVELOPMENT*

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

Date: _____

*See Monitoring Well Development Data Sheet for details



FUSS & O'NEILL

BORING LOG

PROJECT: Meriden Hospital

LOCATION: Meriden, CT

SITE ID: SB-1B

SHEET: 1 of 1

PROJECT NO: 20120232.C40

WEATHER: inside

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

BORING LOCATION: Laundry Room 1st SB
 DATE STARTED: 5/2/16
 DATE & TIME COMPLETED: 5/2/16
 DEPTH TO SATURATED ZONE: NE
 SAMPLE PREFIX: 11761604502

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	0/0	0-1	Concrete					
1		2-21	1-3	SILT & F-C SAND, reddish brown dry no odor	ND		03 1040	1-3	
3		20-21	3-5	same as above	ND		04 1050	3-5	

BORING DIAMETER 1.75	BORING METHOD Hard geophones	BORING DEPTH	REMARKS Field Instrument = PID/OVM If refusal is encountered, describe all efforts used to confirm. 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%			BACKFILL Asphalt/Concrete 1 To 0 Bentonite Grout/Chips 1 To 0 Cuttings/Native Material 5 To 1 Other _____ To _____
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:			See Monitoring Well Completion Report



FUSS & O'NEILL

BORING LOG

PROJECT: Meriden Hospital

LOCATION: Meriden, CT

SITE ID: SB-19

SHEET: 1 of 1

PROJECT NO: 20120232.C40

WEATHER: 12 Side

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

BORING LOCATION: 14 Under Room 2nd floor
 DATE STARTED: 5/2/16
 DATE & TIME COMPLETED: 1
 DEPTH TO SATURATED ZONE:
 SAMPLE PREFIX: 1176160502

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	MA	MA	0-1	Concrete					
1	↓	21/24	1-3	grit & fragments reddish brown dry loose no odor	ND		05 1140	1-3	
3	↓	20/24	3-5	same as above	Nb		06 1150	3-5	

BORING DIAMETER <u>1.25</u>	BORING METHOD <u>Direct push</u>	BORING DEPTH <u>5</u>	REMARKS Field Instrument = PID/OVM If refusal is encountered, describe all efforts used to confirm. 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%			BACKFILL Asphalt / Concrete <u>1</u> To <u>0</u> Bentonite Grout/Chips <u>5</u> To <u>1</u> Cuttings/Native Material <u>5</u> To <u>1</u> Other <u></u> To <u></u>
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:			See Monitoring Well Completion Report



FUSS & O'NEILL

BORING LOG

PROJECT: Meriden Hospital

LOCATION: Meriden, CT

SITE ID: SB-20

SHEET: 1 of 1

PROJECT NO: 20120232.C40

WEATHER:

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

BORING LOCATION: Boiler Room
 DATE STARTED: 5/2/16
 DATE & TIME COMPLETED:
 DEPTH TO SATURATED ZONE:
 SAMPLE PREFIX: 1176160502

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	NA	0-1	Concrete					
1	↓	29/24	1-3	Silt & Fc sands by no odor reddish brown	NA		10 1310		
		0		Refusal @ 3'					

BORING DIAMETER 1.75	BORING METHOD direct push	BORING DEPTH 5	REMARKS Field Instrument = PID/OVM If refusal is encountered, describe all efforts used to confirm. 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%			BACKFILL Asphalt / Concrete 1 To 0 See Monitoring Well Bentonite Grout/Chips To Completion Report Cuttings/Native Material 5 To 1 Other To
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:			



FUSS & O'NEILL

BORING LOG

PROJECT: Meriden Hospital

LOCATION: Meriden, CT

SITE ID: SB-21

SHEET: 1 of 1

PROJECT NO: 20120232.C40

WEATHER:

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

BORING LOCATION: Boiler Room
 DATE STARTED: 5/2/16
 DATE & TIME COMPLETED:
 DEPTH TO SATURATED ZONE:
 SAMPLE PREFIX: 1176160502

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	MA	MA	0-1	Concrete	MA				
1		18/24	1-3	Silt & fine sand, dry reddish brown w/ odor	MD		11 1330	1-3	
3		19/24	3-5	Same as above	MD		12 1340	3-5	

BORING DIAMETER 1.75	BORING METHOD hand grout	BORING DEPTH 5	REMARKS Field Instrument = PID/OVM If refusal is encountered, describe all efforts used to confirm.
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%			BACKFILL Asphalt / Concrete 1 To 0 See Monitoring Well Bentonite Grout/Chips To Completion Report Cuttings/Native Material 5 To 1 Other To
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:			



FUSS & O'NEILL

BORING LOG

PROJECT: Meriden Hospital

LOCATION: Meriden, CT

SITE ID: SB-22

SHEET: 1 of 1

PROJECT NO: 20120232.C40

WEATHER: _____

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

BORING LOCATION: Boiler room
 DATE STARTED: 5/16/16
 DATE & TIME COMPLETED: _____
 DEPTH TO SATURATED ZONE: _____
 SAMPLE PREFIX: 1176160502

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	NA	0-1	Concrete					
1	↓	2 1/4	1-3	Silt & f-sand dm reddish brown no odor	ND		11-13 1430	1-3	
3	↓	1 1/4	3-5	Same as above	ND		1430-1435 1440		

BORING DIAMETER <u>7.75</u>	BORING METHOD <u>hand grout</u>	BORING DEPTH <u>5</u>	REMARKS Field Instrument = _____ If refusal is encountered, describe all efforts used to confirm. PID/OVM _____	
			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 Asphalt / <u>Concrete</u> <u>1</u> To <u>0</u> See Monitoring Well Bentonite Grout/Chips _____ To _____ Completion Report Cuttings/Native Material <u>AS</u> To <u>1</u> Other _____ To _____	



FUSS & O'NEILL

BORING LOG

PROJECT: Meriden Hospital

LOCATION: Meriden, CT

SITE ID: SB-23

SHEET: 1 of 1

PROJECT NO: 20120232.C40

WEATHER:

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

BORING LOCATION: outside border house
 DATE STARTED: 5/3/16
 DATE & TIME COMPLETED: ↓
 DEPTH TO SATURATED ZONE: NR
 SAMPLE PREFIX: 1176160503

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.
<u>0</u>	<u>MA</u>	<u>10/36</u>	<u>0-0.3</u>	<u>Asphalt</u>	<u>MA</u>	<u>AS</u>			
<u>↓</u>	<u>↓</u>	<u>↓</u>	<u>0.3-3</u>	<u>F-C SAND, sm conc & brick, dry loose no odor reddish brown</u>	<u>ND</u>	<u>FX</u>	<u>-17 0900</u>	<u>0.3-3</u>	<u>Grbk</u>
<u>3</u>	<u>↓</u>	<u>20/24</u>	<u>3-3.5</u>	<u>same as above</u>	<u>ND</u>	<u>FI</u>			
<u>↓</u>	<u>↓</u>	<u>↓</u>	<u>3.5-4.75</u>	<u>F-m SAND; ltl silt + moist reddish brown no odor</u>	<u>ND</u>	<u>SM</u>	<u>-18 0910</u>	<u>3.5 4.75</u>	<u>Grbk</u>
<u>5</u>	<u>↓</u>	<u>30/60</u>	<u>5-7.5</u>	<u>Same as above</u>	<u>ND</u>	<u>SM</u>			

BORING DIAMETER <u>2.5</u>	BORING METHOD <u>Freeopen</u>	BORING DEPTH <u>10</u>	REMARKS Field Instrument = PID/OVM If refusal is encountered, describe all efforts used to confirm. Field Decon: Yes / No / Dedicated Device
PROPORTIONS USED: Trace (tr) 0 to 10% Little (lt) 10 to 20% Some (sm) 20 to 35% And 35 to 50%			BACKFILL Asphalt / Concrete _____ To _____ See Monitoring Well Bentonite Grout/Chips _____ To _____ Completion Report Cuttings/Native Material _____ To <u>0.3</u> Other _____ To _____
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:			



FUSS & O'NEILL

BORING LOG

PROJECT: Meriden Hospital

LOCATION: Meriden, CT

SITE ID: SB-24

SHEET: 1 of 1

PROJECT NO: 20120232.C40

WEATHER: Rain 60s

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

BORING LOCATION:
 DATE STARTED: 5/2/16
 DATE & TIME COMPLETED:
 DEPTH TO SATURATED ZONE: NO
 SAMPLE PREFIX: 1176160503

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	12/36	0-0.3	ASPHALT	NA	AS			
↓	↓	↓	0.3-1	F.M. SAND, ltl coal, redish brown loose, no odor	NO	FI	-19 0930	0.3-1	Grout
3	↓	12/24	3-4	F.M. SAND, ltl silt, moist loose, no odor	NO	SM	-20 0940	3-4	Grout
8	↓	36/60	5-8	Same as above	NO	SM			

BORING DIAMETER 2.5	BORING METHOD Gravity	BORING DEPTH 10	REMARKS Field Instrument = PID/OVM If refusal is encountered, describe all efforts used to confirm. 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%			BACKFILL Asphalt / Concrete 5.3 To 0 Bentonite Grout/Chips To Cuttings/Native Material 10 To 0.3 Other To
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:			
See Monitoring Well Completion Report			



FUSS & O'NEILL

BORING LOG

PROJECT: Meriden Hospital

LOCATION: Meriden, CT

SITE ID: SB-25

SHEET: 1 of 1

PROJECT NO: 20120232.C40

WEATHER:

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

BORING LOCATION:
 DATE STARTED: 5/3/14
 DATE & TIME COMPLETED:
 DEPTH TO SATURATED ZONE: 1/5
 SAMPLE PREFIX: 1176160303

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	12/36	0-0.3	Asphalt	NA	AS			
↓	↓	↓	0.3-1	F-m SAND, Hl Cook & brick, & silt. reddish brown dry loose no odor	ND	FI	-21 0950	0.3-1	Grout
3	↓	12/24	3-4	Same as above. no odor	ND	FI	-22 1000	3-4	Grout
5	↓	48/60	5-9	F-m SAND & silt, & silt dry no odor reddish brown	ND	FI	-23 1010	8-9	Grout

BORING DIAMETER 2.5	BORING METHOD Macro	BORING DEPTH 10	REMARKS Field Instrument = _____ If refusal is encountered, describe all efforts used to confirm. PID/OVM _____ 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%			BACKFILL Asphalt / Concrete 0.3 To 0 See Monitoring Well Bentonite Grout/Chips 10 To 0-3 Completion Report Cuttings/Native Material 10 To 0-3 Other _____ To _____
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: _____			



FUSS & O'NEILL

BORING LOG

PROJECT: Meriden Hospital

LOCATION: Meriden, CT

SITE ID: SB-20
SHEET: 1 of 1
PROJECT NO: 20120232.C40
WEATHER: _____

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

BORING LOCATION: _____
DATE STARTED: _____
DATE & TIME COMPLETED: _____
DEPTH TO SATURATED ZONE: _____
SAMPLE PREFIX: 11761604

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.
<u>0</u>	<u>NA</u>	<u>24/35</u>	<u>0-0.3</u>	<u>Asphalt</u>	<u>NA</u>	<u>AS</u>			
<u>1</u>	<u>↓</u>	<u>↓</u>	<u>0.3-2</u>	<u>F-n Sand, 1+2 Franded gravel loose no odor reddish brown</u>	<u>ND</u>	<u>SW</u>	<u>-24 1015</u>	<u>1-2</u>	
<u>3</u>	<u>↓</u>	<u>18/24</u>	<u>3-4.5</u>	<u>Same as above</u>	<u>ND</u>	<u>SW</u>	<u>-25 1025</u>	<u>3-4</u>	
<u>5</u>	<u>↓</u>	<u>42/60</u>	<u>5-8.5</u>	<u>Same as above</u>	<u>ND</u>	<u>SW</u>			

BORING DIAMETER <u>2.5</u>	BORING METHOD <u>Swamp</u>	BORING DEPTH <u>10</u>	REMARKS Field Instrument = _____ PID/OVM _____ If refusal is encountered, describe all efforts used to confirm. 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%			BACKFILL <u>Asphalt</u> / Concrete <u>0.3</u> To <u>2</u> Bentonite Grout/Chips _____ To _____ Cuttings/Native Material <u>10</u> To <u>0.3</u> Other _____ To _____
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: _____			
See Monitoring Well Completion Report			



FUSS & O'NEILL

BORING LOG

PROJECT: Meriden Hospital

LOCATION: Meriden, CT

SITE ID: SB-27

SHEET: 1 of 1

PROJECT NO: 20120232.C40

WEATHER: Rain 60°

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

BORING LOCATION:
 DATE STARTED: 5/7/14
 DATE & TIME COMPLETED:
 DEPTH TO SATURATED ZONE: No
 SAMPLE PREFIX: 1176160-03

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	MT	24/36	0-0.5	Silt & organic, 1st F sand moist loose no odor reddish brown	MB	TS			
↓	↓	↓	0.5-2	F-C SAND, tr F gravel drs loose n. odor reddish brown	MB	SW	-26 1040	1-2	
3	↓	22/24	3-5	Same as above	N	SW	27 1050	4-5	
5	↓	48/60	5-9	Same as above	MB	SW			

BORING DIAMETER 2.5	BORING METHOD Direct Push	BORING DEPTH 10	REMARKS Field Instrument = PID/OVM 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%			BACKFILL Asphalt / Concrete _____ To _____ See Monitoring Well Bentonite Grout/Chips _____ To _____ Completion Report Cuttings/Native Material 10 To 0 Other _____ To _____
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:			



FUSS & O'NEILL

BORING LOG

PROJECT: Meriden Hospital

LOCATION: Meriden, CT

SITE ID: MW-14

SHEET: 1 of 1

PROJECT NO: 20120232.C40

WEATHER: Clear 60°

CONTRACTOR: F&O

OPERATOR: D. Levesque/D. Cook

F&O REPRESENTATIVE: D. Cook

DRILLING METHOD: Direct Push

SAMPLING METHOD: 5' Macro Core

HAMMER WT: HAMMER FALL (IN)

BORING LOCATION: down gradient of bore

DATE STARTED: 5/3/16

DATE & TIME COMPLETED:

DEPTH TO SATURATED ZONE: ~13

SAMPLE PREFIX: 1176160582

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	MA	24/30	0-1	Silt & sand, moist, no odor reddish brown	ND				
1			1-2	F-C SAND: ltl F gravel dry loose, no odor reddish brown	ND	SW	28 1100	1-2	G 802
2			2-3	Same as above	ND	SW	29 1105	3-4	G 802
3			3-5	Same as above			30 1115		
4			4-5	Same as above					
5			5-9	Same as above					
6			9-10	F-C SAND, ltl F gravel, tr silt, wet at 13' no odor					
7			10-14						

BORING DIAMETER	BORING METHOD	BORING DEPTH	REMARKS
3.5	Campan	15	Field Instrument = PID/OVM
			If refusal is encountered, describe all efforts used to confirm.
			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

Asphalt / Concrete _____ To _____ See Monitoring Well

Bentonite Grout/Chips _____ To _____ Completion Report

Cuttings/Native Material _____ To _____

Other _____ To _____



MONITORING WELL COMPLETION REPORT

GENERAL INFORMATION

Project Name: Meriden Hospitas
 Project Location: Meriden, CT
 F&O Engineer/Geologist: D. Cook
 Date of Completion: _____
 Boring Location: _____
 Drilling Contractor/Name: FnO
 Drilling Method: Direct Push

Site ID (Boring/Well ID): MW-14
 Project No.: 20120232.C40
 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: _____ in. Type: Road Box / Stand Pipe
 Stick-up: _____ ft. Depth to Bottom: 0.75 ft.
 Seal Material: Concrete

SCREEN INTERVALS

Screen Interval: 20.5 - 10.5 ft. Diameter: 1.5 in. Slot Size: 0.01
 Description: PVC / Other: _____
 Type: Perforated / Slotted / Wire-Wrap / Other: Pre-PACKED

BOREHOLE

Diameter: 3.5 in. Total Boring Depth: 20.5 ft. Refusal: y / n Depth: _____ ft.

ANNULAR FILL

SURFACE SEAL

(Approximate volumes if available)

Interval: 1.5-0 ft. Tremied: Y / N Volume: 1/4 bags Description: Concrete / Other: _____

BACKFILL

Interval: 5.5-1.5 ft. Tremied: Y / N Volume: _____ bags Description: Bentonite Grout / Cuttings / Sand / Other: _____

LOWER SEAL

Interval: 8.5-5.5 ft. Tremied: Y / N Volume: _____ bags Description: Bentonite Pellets / Other: _____

FILTER

Interval: 20.5-8.5 ft. Tremied: Y / N Volume: 1/2 bags Description: Sand Filter (type: 0) / Other: _____

LOWER BACKFILL

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

MONITORING WELL DEVELOPMENT*

Development Method: Surge Block / Submersible Pump / Peristaltic Pump / Water / Bailer / Other: _____
 Date: 5/3/16

*See Monitoring Well Development Data Sheet for details



FUSS & O'NEILL

BORING LOG

PROJECT: Meriden Hospital

LOCATION: Meriden, CT

SITE ID: SB-28

SHEET: 1 of 1

PROJECT NO: 20120232.C40

WEATHER: P.A.N 60:

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

BORING LOCATION: Mer SB-06
DATE STARTED: 5/3/14
DATE & TIME COMPLETED: ↓
DEPTH TO SATURATED ZONE: ~7'
SAMPLE PREFIX: 1176160503

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	Asphalt	NA	AS			
↓	↓	↓	0.3-1	Silt, sm f-m sand, lsh gravel dry no odor gray	ND	FI	-3-1236	0.3-1.5	Grout
↓	↓	↓	1-4	Color change to reddish brown	ND	M			
5	↓	48/60	5-7	Same as above, wet ~7'	ND	M	-31-1240	6-7	Grout
↓	↓	↓	7-9	Silt, sm f sand, to organics dark brown, organic odor	ND	M			

BORING DIAMETER	BORING METHOD	BORING DEPTH	REMARKS
2.5	Grease gun	16	Field Instrument = PID/OVM
			If refusal is encountered, describe all efforts used to confirm.
			Field Decon: Yes / No / Dedicated Device

PROPORTIONS USED: Trace (tr) 0 to 10% Little (lt) 10 to 20% Some (sm) 20 to 35% 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 Asphalt/Concrete 0.3 To 0 See Monitoring Well Bentonite Grout/Chips To 0.3 Completion Report Cuttings/Native Material 1.0 To 0.3 Other To
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FUSS & O'NEILL

BORING LOG

PROJECT: Meriden Hospital

LOCATION: Meriden, CT

SITE ID: SB-29

SHEET: 1 of 1

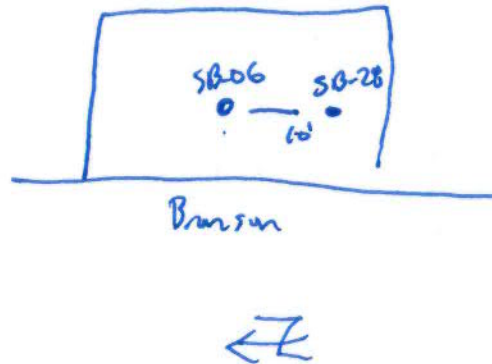
PROJECT NO: 20120232.C40

WEATHER: RAIN 60's

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

BORING LOCATION: Near SB-06
 DATE STARTED: 5/2/16
 DATE & TIME COMPLETED: ↓
 DEPTH TO SATURATED ZONE: 27
 SAMPLE PREFIX: 1176160 503

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	48/60	0-0.3	Asphalt	NA	AS			
	↓	↓	0.3-4	SILT sm Coal, Coal ash & brick, dry Compact, no odor Yellow brown	MB	FI	-32 ms/min 1320 -33 dur 1330	0.3-4 Grout	
5	↓	24/60	5-6	Same as above	MB	FI			
	↓	↓	6-7	SILT, ltl f-m sand wet at 7' no odor reddish brown	MO	SH	34 1340	6-7 Grout	



BORING DIAMETER	BORING METHOD	BORING DEPTH	REMARKS
2.5	Geoprobe	10	Field Instrument = PID/OVM If refusal is encountered, describe all efforts used to confirm.
			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			
Asphalt/Concrete	0.3	To 2	See Monitoring Well
Bentonite Grout/Chips		To 0.3	Completion Report
Cuttings/Native Material	10	To	
Other		To	



FUSS & O'NEILL

BORING LOG

PROJECT: Meriden Hospital

LOCATION: Meriden, CT

SITE ID: SB-30

SHEET: 1 of 1

PROJECT NO: 20120232.C40

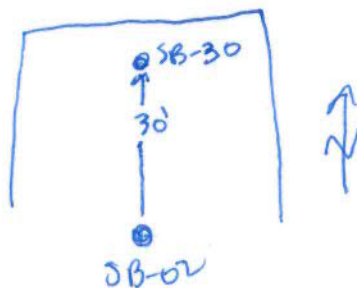
WEATHER: Partly Cloudy

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

BORING LOCATION: near SB-02
 DATE STARTED: 5/3/16
 DATE & TIME COMPLETED:
 DEPTH TO SATURATED ZONE:

SAMPLE PREFIX: 1176160503

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.
	42/60		0-0.3	Asphalt x	NA	AS			
	↓		0.3-3.5	SILT, sm F-c gravel half sand dry compact, no odor redish brown	MD	SP	-36 1400	2-3	G802
	48/60		5-9	same as above	MD	SP	-37	6-7	G802



BORING DIAMETER	BORING METHOD	BORING DEPTH	REMARKS
2.5	Geoprobe	10	Field Instrument = PID/OVM If refusal is encountered, describe all efforts used to confirm. 11622
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			
Asphalt	Concrete	0.3	To 0
Bentonite Grout/Chips			To
Cuttings/Native Material		10	To 0.3
Other			To

See Monitoring Well Completion Report



FUSS & O'NEILL

BORING LOG

PROJECT: Meriden Hospital

LOCATION: Meriden, CT

SITE ID: SB-31

SHEET: 1 of 1

PROJECT NO: 20120232.C40

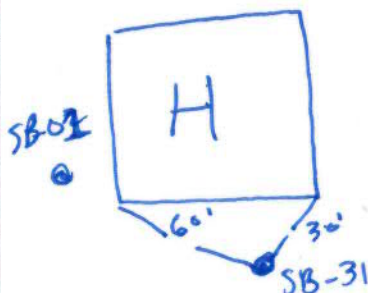
WEATHER: Rain 60°

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

BORING LOCATION: Near SB-02
DATE STARTED: 5/3/16
DATE & TIME COMPLETED:
DEPTH TO SATURATED ZONE:
SAMPLE PREFIX: 1176160503

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	0-0.5	Asphalt	NA	As			
		↓	0.3-3.5	F-C SAND: sm f-m grained ltl silt, dry loose no odor reddish brown	ND	SP	-38 1440	2-3	Grout
5		48/60	5-9	same as above	ND	SP	-39 1450	6-7	Grout

Hospital



BORING DIAMETER 2.5	BORING METHOD direct push	BORING DEPTH 10	REMARKS Field Instrument = PID/OVM If refusal is encountered, describe all efforts used to confirm. TIGER 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%			BACKFILL Asphalt / Concrete 0.3 To 0 Bentonite Grout/Chips 10 To 0.3 Cuttings/Native Material 10 To 0.3 Other 10 To 0.3
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:			See Monitoring Well Completion Report



FUSS & O'NEILL

BORING LOG

PROJECT: Meriden Hospital

LOCATION: Meriden, CT

SITE ID: SB-32

SHEET: 1 of 1

PROJECT NO: 20120232.C40

WEATHER: Cloudy 50s

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

BORING LOCATION: Generator room
 DATE STARTED:
 DATE & TIME COMPLETED:
 DEPTH TO SATURATED ZONE:
 SAMPLE PREFIX: 1176160504

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	NA	0-1	Concrete	NA				
1		20/24	1-3	F-m SAND & silt, dry, loose no odor reddish brown	NO	SM	40 0940	1-3	G802
3		18/24	3-5	same as above	NO	SM	41 0950	3-5	G802

BORING DIAMETER	BORING METHOD	BORING DEPTH	REMARKS
1.5	hand auger	5	Field Instrument = PID/OVM
			If refusal is encountered, describe all efforts used to confirm.
			Field Decon: Yes / No / Dedicated Device

PROPORTIONS USED: Trace (tr) 0 to 10% Little (ltl) 10 to 20% Some (sm) 20 to 35% 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 Asphalt / Concrete 1 To 0 Bentonite Grout/Chips To Cuttings/Native Material 5 To 1 Other To	See Monitoring Well Completion Report
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Reviewed by Staff:



FUSS & O'NEILL

BORING LOG

PROJECT: Meriden Hospital

LOCATION: Meriden, CT

SITE ID: SB-34

SHEET: 1 of 1

PROJECT NO: 20120232.C40

WEATHER: cloudy

CONTRACTOR: FnO

OPERATOR: D. Levesque/D. Cook

F&O REPRESENTATIVE: D. Cook

DRILLING METHOD: Direct Push

SAMPLING METHOD: 5' Macro Core

HAMMER WT: HAMMER FALL (IN)

BORING LOCATION: bs. hr room

DATE STARTED: _____

DATE & TIME COMPLETED: _____

DEPTH TO SATURATED ZONE: _____

SAMPLE PREFIX: 11761604 _____

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	NA	0-1	Concrete	NA				
1	↓	18/24	1-3	F-m Sand, ltl silt, dry loose, no odor, reddish brown	MD	SA	-51 1340	1-3	G806
2		18/24	3-5	Same as above	MD	SA	-52 1350	3-5	G806
									



BORING DIAMETER	BORING METHOD	BORING DEPTH	REMARKS
6.5	hand auger	5	Field Instrument = PID/OVM
			If refusal is encountered, describe all efforts used to confirm.
			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:	BACKFILL
SAND, F-M; sm F angular gravel; ltl silt; tr clay; (10R 5/4), wet at 7 ft.	Asphalt / Concrete <u>4</u> To <u>2</u>
Loose. No odor.	Bentonite Grout/Chips To _____
Reviewed by Staff:	Cuttings/Native Material <u>5</u> To <u>1</u>
	Other _____ To _____



FUSS & O'NEILL

BORING LOG

PROJECT: Meriden Hospital

LOCATION: Meriden, CT

SITE ID: SB-35

SHEET: 1 of 1

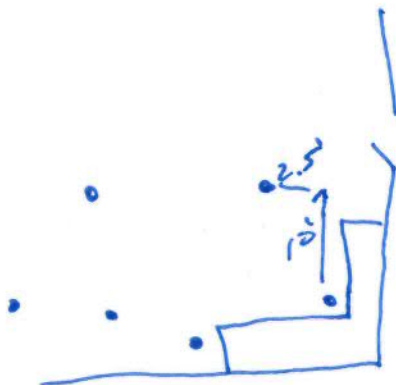
PROJECT NO: 20120232.C40

WEATHER: cloudy 50°

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

BORING LOCATION: Bldg room
 DATE STARTED: 5/4/16
 DATE & TIME COMPLETED: L
 DEPTH TO SATURATED ZONE:
 SAMPLE PREFIX: 1176160 504

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	NR	NR	0-1	Concrete	NR				
1		20/24	1-3	Fine Sand, sm silt, dry loose, no odor reddish brown	MD	SM	53 1440	1-3	G 900
3		23/24	3-5	Same as above	MD	SM	54 1450	3-5	G 800



BORING DIAMETER	BORING METHOD	BORING DEPTH	REMARKS
1.5	hand gear	5	Field Instrument = PID/OVM If refusal is encountered, describe all efforts used to confirm.
			Field Decon: Yes / No / Dedicated Device

PROPORTIONS USED: Trace (tr) 0 to 10% Little (ltl) 10 to 20% Some (sm) 20 to 35% 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 Asphalt / Concrete 1 To 0 See Monitoring Well Bentonite Grout/Chips To Completion Report Cuttings/Native Material 1 To Other To
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Appendix B

Groundwater Sampling Field Data Sheets

Low Flow Sampling



FUSS & O'NEILL

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

Monitoring Well Sample Log

Low Flow Sampling

Client/Project Name: Meriden Hospital		 FUSS & O'NEILL
Project Location: Meriden, CT	PROJECT #: 20120232.C40	
Sample #: 1176160323-05	WELL ID: MW-10	

Purge Data

-06 duplicate

Date: 3/23/2016

Start time: 1345 Stop time: 1425 Sample time: 1430/1435

Pump Rate: 160 (ml/m) Depth Sampled: 10

Total time purged: 40 Sampler: DAC

Volume Purged: 24 (ltr)

Purge Device: Dedicated / Nondedicated

Device Type: Bladder / Peristaltic / Submersible

Filtered? ☒ Y Filter Size: 10u / 0.45u Filtered in: Field / Lab

Appearance: Clear PVC: 5.92

Well Yield: High / Moderate / Low / Dry TPS: 6.18

Well Diameter: 1.5 DTB: 13.06 to 27 = 13.27

Comments:

Sample Data

Container	Quantity	Preservative
WA	3 X 2	HCL
AL	4 X 2	ICL
P250	1 X 2	HN03

Field Parameter Data

Instrument ID#

Solinst# 2	2020# 3	YSI 600 # 3					
Water Level (ft)	Time	Turbidity (ntu)	Dissolved Oxygen (mg/L)	pH	Temp. (deg C)	Specific Conductivity (uS)	ORP(mV)
5.92	1345	Begin	Purge				
7.30	1355	150.15	0.40	7.36	12.3	745	171.2
7.40	1400	101.6	0.38	7.36	12.3	748	102.7
7.50	1405	72.74	0.39	7.37	12.3	750	76.7
7.50	1410	37.57	0.38	7.37	12.3	752	51.6
7.50	1415	21.85	0.39	7.37	12.3	750	50.8
7.50	1420	12.74	0.41	7.37	12.3	746	53.9
7.50	1425	9.71	0.40	7.37	12.3	744	52.4
	1430	Sample					
	1435	Sample duplicate					

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)

Monitoring Well Sample Log

Low Flow Sampling

Client/Project Name: Meriden Hospital		 FUSS & O'NEILL
Project Location: Meriden, CT	PROJECT #: 20120232.C40	
Sample#: 1176160323-02	WELL ID: MW-11	

Purge Data

Date: 3/23/2016
 Start time: 0943 Stop time: 1022 Sample time: 1025
 Pump Rate: 200 (ml/m) Depth Sampled: 19.5
 Total time purged: 42 Sampler: DAC
 Volume Purged: 28.5 (ltr)
 Purge Device: Dedicated / Nondedicated Weather: Sunny 60s
 Device Type: Bladder / Peristaltic / Submersible
 Filtered? ☒ Y / ☐ N Filter Size: 10u / 0.45u Filtered in: Field / Lab
 Appearance: Clear PVC: 16.70
 Well Yield: High / Moderate / Low / Dry TPS: 16.73
 Well Diameter: 1.5 DTB: 22.32 to 27 = 22.59
 Comments:

Sample Data

Container	Quantity	Preservative
VCA	3 ✓	HCL
AL	3 ✓	HCL
P250	1 ✓	HNO3

Field Parameter Data

Instrument ID#

Solinst#	Time	2020#	YSI 600 #	pH	Temp. (deg C)	Specific Conductivity (uS)	ORP(mV)
Water Level (ft) 16.20	0943	Turbidity (ntu) Begin	Dissolved Oxygen (mg/L) Purge				
17.00	0958	34.97	7.67	6.97	9.9	477.5	89.1
17.00	1002	29.67	8.31	6.91	9.9	467.2	79.1
17.00	1006	24.29	8.34	6.92	9.9	463.3	72.2
17.00	1010	19.72	8.40	6.93	9.9	461.5	75.6
17.00	1014	18.73	8.38	6.92	9.9	455.6	70.7
17.00	1018	16.42	8.40	6.92	9.9	450.2	62.0
17.01	1022	12.41	8.39	6.93	9.9	448.7	60.7
—	1025	Sample					

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: Meriden Hospital		 FUSS & O'NEILL
Project Location: Meriden, CT	PROJECT #: 20120232.C40	
Sample#: 1176160323- 04	WELL ID: MW-13 MW-12 (edited by: SKW 4/28/16)	

Purge Data

Date: 3/23/2016
 Start time: 1239 Stop time: 1320 Sample time: 1325
 Pump Rate: 200 (ml/m) Depth Sampled: 16
 Total time purged: 41 Sampler: DAC
 Volume Purged: 28 (ltr)
 Purge Device: Dedicated / Nondedicated
 Device Type: Bladder / Peristaltic / Submersible
 Filtered? N / Y Filter Size: 10u / 0.45u Filtered in: Field / Lab
 Appearance: Clear PVC: 11.16
 Well Yield: High / Moderate / Low / Dry TPS: 11.48
 Well Diameter: 1.5 DTB: 20.00 to 27.70. 20.27
 Comments:

Sample Data

Container	Quantity	Preservative
VBA	3	HCL
AL	3	ICE
P250	1	HNO3

Field Parameter Data

Instrument ID#

Solinst# 2	2020# 3	YSI 600 # 3					
Water Level (ft)	Time	Turbidity (ntu)	Dissolved Oxygen (mg/L)	pH	Temp. (deg C)	Specific Conductivity (uS)	ORP(mV)
11.16	1239	Begin	Purge				
11.46	1300	18.74	1.70	7.30	12.4	739	82.5
11.46	1305	19.87	0.72	7.30	12.6	736	75.7
11.46	1310	12.66	0.73	7.31	12.6	734	72.6
11.46	1315	9.34	0.74	7.33	12.6	732	69.4
11.46	1320	8.28	0.74	7.32	12.4	731	67.6
	1325	Sample					

Well Condition Checklist

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

General Conditions: 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)

Monitoring Well Sample Log

Low Flow Sampling

Client/Project Name: Former Meriden Hospital		 FUSS & O'NEILL
Project Location: Meriden, CT	PROJECT #: 20120232.C40	
Sample#: 1176160512-02	WELL ID: MW-02	

Purge Data

Date: 5/12/2016 0750
 Start time: ~~0809~~ Stop time: 0814 Sample time: 0820
 Pump Rate: 200 (ml/m) Depth Sampled: _____
 Total time purged: 24 Sampler: DAC
 Volume Purged: 4.0 (ltr)
 Purge Device: Dedicated / Nondedicated Weather: _____
 Device Type: Bladder / Peristaltic / Submersible
 Filtered? ☒ Y / ☐ N Filter Size: 10u / 0.45u Filtered in: Field / Lab
 Appearance: Clear PVC: 9.90
 Well Yield: High / ~~Medium~~ / Low / Dry TPS: 10.33
 Well Diameter: 2 DTB: 1m
 Comments:

Sample Data

Container	Quantity	Preservative
Amber L	3 ✓	Ice
VOA	3 ✓	HCl
P 250	1	P/HNO3
P 250	1 ✓	HNO3

Field Parameter Data

Instrument ID#

Solinst#	2020#	YSI 600 #					
Water Level (ft)	Time	Turbidity (ntu)	Dissolved Oxygen (mg/L)	pH	Temp. (deg C)	Specific Conductivity (uS)	ORP(mV)
9.90	0750	Begin	Purge				
10.00	0804	35.80	0.65	—	11.6	926	557.6
10.00	0809	12.64	0.67	—	11.5	957	562.3
10.00	0814	6.21	0.61	—	11.5	968	552.5
	0820	Sample					

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)

Appendix C

Laboratory Analytical Reports (on CD)



Wednesday, March 23, 2016

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

Project ID: MERIDEN HOSPITAL
Sample ID#s: BK79038 - BK79048

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.

All soils, solids and sludges are reported on a dry weight basis unless otherwise noted in the sample comments.

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, appearing to read "Phyllis Shiller".

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

Analysis Report

March 23, 2016

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

Sample Information

Matrix: CONCRETE
Location Code: F&O-PCB
Rush Request: Standard
P.O.#: 20120232.C40

Custody Information

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

Date

03/14/16
03/16/16

Time

14:40
10:00

Laboratory Data

SDG ID: GBK79038
Phoenix ID: BK79038

Project ID: MERIDEN HOSPITAL
Client ID: 1176160314-13

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Percent Solid	99		%		03/16/16	W	SW846-%Solid
Extraction for PCB	Completed				03/16/16	Q/I	SW3540C

PCB (Soxhlet SW3540C)

PCB-1016	ND	0.33	mg/kg	10	03/17/16	AW	SW8082A
PCB-1221	ND	0.33	mg/kg	10	03/17/16	AW	SW8082A
PCB-1232	ND	0.33	mg/kg	10	03/17/16	AW	SW8082A
PCB-1242	ND	0.33	mg/kg	10	03/17/16	AW	SW8082A
PCB-1248	ND	0.33	mg/kg	10	03/17/16	AW	SW8082A
PCB-1254	ND	0.33	mg/kg	10	03/17/16	AW	SW8082A
PCB-1260	ND	0.33	mg/kg	10	03/17/16	AW	SW8082A
PCB-1262	ND	0.33	mg/kg	10	03/17/16	AW	SW8082A
PCB-1268	ND	0.33	mg/kg	10	03/17/16	AW	SW8082A

QA/QC Surrogates

% DCBP	92	%	10	03/17/16	AW	30 - 150 %
% TCMX	94	%	10	03/17/16	AW	30 - 150 %

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
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RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level

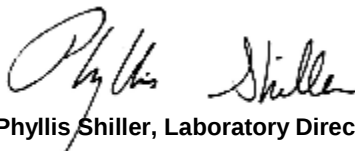
QA/QC Surrogates: Surrogates are compounds (preceded with a %) added by the lab to determine analysis efficiency. Surrogate results(%) listed in the report are not "detected" compounds.

Comments:

All soils, solids and sludges are reported on a dry weight basis unless otherwise noted in the sample 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

March 23, 2016

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

March 23, 2016

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

Sample Information

Matrix: CONCRETE
Location Code: F&O-PCB
Rush Request: Standard
P.O.#: 20120232.C40

Custody Information

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

Date

03/14/16
03/16/16

Time

15:30
10:00

Laboratory Data

SDG ID: GBK79038
Phoenix ID: BK79039

Project ID: MERIDEN HOSPITAL
Client ID: 1176160314-14

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Silver	5.95	0.32	mg/Kg	1	03/17/16	LK	SW6010C
Arsenic	2.1	0.6	mg/Kg	1	03/17/16	LK	SW6010C
Barium	56.3	0.32	mg/Kg	1	03/17/16	LK	SW6010C
Cadmium	3.84	0.32	mg/Kg	1	03/17/16	LK	SW6010C
Chromium	14.2	0.32	mg/Kg	1	03/17/16	LK	SW6010C
Mercury	0.92	0.12	mg/Kg	1	03/18/16	MA	SW7471B
Lead	12.9	0.32	mg/Kg	1	03/17/16	LK	SW6010C
Selenium	< 1.3	1.3	mg/Kg	1	03/17/16	LK	SW6010C
Percent Solid	98		%		03/16/16	W	SW846-%Solid
Extraction of CT ETPH	Completed				03/16/16	BC/CK	SW3545A
Mercury Digestion	Completed				03/18/16	W/W	SW7471B
Extraction for PCB	Completed				03/16/16	Q/I	SW3540C
Total Metals Digest	Completed				03/16/16	G/AG	SW3050B

TPH by GC (Extractable Products)

Ext. Petroleum HC	2100	100	mg/Kg	2	03/18/16	JRB	CTETPH 8015D
Identification	**		mg/Kg	2	03/18/16	JRB	CTETPH 8015D

QA/QC Surrogates

% n-Pentacosane	101		%	2	03/18/16	JRB	50 - 150 %
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PCB (Soxhlet SW3540C)

PCB-1016	ND	0.33	mg/kg	10	03/17/16	AW	SW8082A
PCB-1221	ND	0.33	mg/kg	10	03/17/16	AW	SW8082A
PCB-1232	ND	0.33	mg/kg	10	03/17/16	AW	SW8082A
PCB-1242	ND	0.33	mg/kg	10	03/17/16	AW	SW8082A
PCB-1248	ND	0.33	mg/kg	10	03/17/16	AW	SW8082A
PCB-1254	ND	0.33	mg/kg	10	03/17/16	AW	SW8082A
PCB-1260	ND	0.33	mg/kg	10	03/17/16	AW	SW8082A

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
PCB-1262	ND	0.33	mg/kg	10	03/17/16	AW	SW8082A
PCB-1268	ND	0.33	mg/kg	10	03/17/16	AW	SW8082A
<u>QA/QC Surrogates</u>							
% DCBP	83		%	10	03/17/16	AW	30 - 150 %
% TCMX	91		%	10	03/17/16	AW	30 - 150 %

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

QA/QC Surrogates: Surrogates are compounds (preceded with a %) added by the lab to determine analysis efficiency. Surrogate results(%) listed in the report are not "detected" compounds.

Comments:

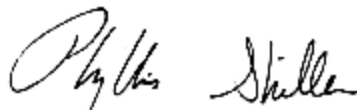
TPH Comment:

**Petroleum hydrocarbon chromatogram contains a multicomponent hydrocarbon distribution in the range of C9 to C36. The sample was quantitated against a C9-C36 alkane hydrocarbon standard.

All soils, solids and sludges are reported on a dry weight basis unless otherwise noted in the sample 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

March 23, 2016

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

March 23, 2016

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

Sample Information

Matrix: CONCRETE
Location Code: F&O-PCB
Rush Request: Standard
P.O.#: 20120232.C40

Custody Information

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

Date

03/14/16
03/16/16

Time

16:00
10:00

Laboratory Data

SDG ID: GBK79038
Phoenix ID: BK79040

Project ID: MERIDEN HOSPITAL
Client ID: 1176160314-15

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Silver	< 0.31	0.31	mg/Kg	1	03/17/16	EK	SW6010C
Arsenic	4.2	0.6	mg/Kg	1	03/17/16	EK	SW6010C
Barium	142	0.31	mg/Kg	1	03/17/16	EK	SW6010C
Cadmium	0.32	0.31	mg/Kg	1	03/17/16	EK	SW6010C
Chromium	14.1	0.31	mg/Kg	1	03/17/16	EK	SW6010C
Mercury	0.13	0.03	mg/Kg	1	03/18/16	MA	SW7471B
Lead	34.8	0.31	mg/Kg	1	03/18/16	LK	SW6010C
Selenium	< 1.2	1.2	mg/Kg	1	03/17/16	LK	SW6010C
Percent Solid	97		%		03/16/16	W	SW846-%Solid
Extraction of CT ETPH	Completed				03/16/16	BC/CK	SW3545A
Mercury Digestion	Completed				03/18/16	W/W	SW7471B
Extraction for PCB	Completed				03/16/16	Q/I	SW3540C
Total Metals Digest	Completed				03/16/16	G/AG	SW3050B

TPH by GC (Extractable Products)

Ext. Petroleum HC	460	51	mg/Kg	1	03/19/16	JRB	CTETPH 8015D
Identification	**		mg/Kg	1	03/19/16	JRB	CTETPH 8015D

QA/QC Surrogates

% n-Pentacosane	113		%	1	03/19/16	JRB	50 - 150 %
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PCB (Soxhlet SW3540C)

PCB-1016	ND	0.34	mg/kg	10	03/17/16	AW	SW8082A
PCB-1221	ND	0.34	mg/kg	10	03/17/16	AW	SW8082A
PCB-1232	ND	0.34	mg/kg	10	03/17/16	AW	SW8082A
PCB-1242	ND	0.34	mg/kg	10	03/17/16	AW	SW8082A
PCB-1248	ND	0.34	mg/kg	10	03/17/16	AW	SW8082A
PCB-1254	ND	0.34	mg/kg	10	03/17/16	AW	SW8082A
PCB-1260	ND	0.34	mg/kg	10	03/17/16	AW	SW8082A

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
PCB-1262	ND	0.34	mg/kg	10	03/17/16	AW	SW8082A
PCB-1268	ND	0.34	mg/kg	10	03/17/16	AW	SW8082A
<u>QA/QC Surrogates</u>							
% DCBP	83		%	10	03/17/16	AW	30 - 150 %
% TCMX	70		%	10	03/17/16	AW	30 - 150 %

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

QA/QC Surrogates: Surrogates are compounds (preceded with a %) added by the lab to determine analysis efficiency. Surrogate results(%) listed in the report are not "detected" compounds.

Comments:

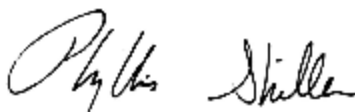
TPH Comment:

**Petroleum hydrocarbon chromatogram contains a multicomponent hydrocarbon distribution in the range of C9 to C36. The sample was quantitated against a C9-C36 alkane hydrocarbon standard.

All soils, solids and sludges are reported on a dry weight basis unless otherwise noted in the sample 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

March 23, 2016

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

March 23, 2016

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

Sample Information

Matrix: CONCRETE
Location Code: F&O-PCB
Rush Request: Standard
P.O.#: 20120232.C40

Custody Information

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

Date

03/14/16
03/16/16

Time

16:30
10:00

Laboratory Data

SDG ID: GBK79038
Phoenix ID: BK79041

Project ID: MERIDEN HOSPITAL
Client ID: 1176160314-16

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Silver	< 0.31	0.31	mg/Kg	1	03/17/16	EK	SW6010C
Arsenic	4.0	0.6	mg/Kg	1	03/17/16	EK	SW6010C
Barium	63.0	0.31	mg/Kg	1	03/17/16	EK	SW6010C
Cadmium	< 0.31	0.31	mg/Kg	1	03/17/16	EK	SW6010C
Chromium	14.5	0.31	mg/Kg	1	03/17/16	EK	SW6010C
Mercury	0.13	0.02	mg/Kg	1	03/18/16	MA	SW7471B
Lead	8.00	0.31	mg/Kg	1	03/18/16	LK	SW6010C
Selenium	< 1.3	1.3	mg/Kg	1	03/17/16	LK	SW6010C
Percent Solid	97		%		03/16/16	W	SW846-%Solid
Extraction of CT ETPH	Completed				03/16/16	BC/CK	SW3545A
Mercury Digestion	Completed				03/18/16	W/W	SW7471B
Extraction for PCB	Completed				03/16/16	Q/I	SW3540C
Total Metals Digest	Completed				03/16/16	G/AG	SW3050B

TPH by GC (Extractable Products)

Ext. Petroleum HC	1200	100	mg/Kg	2	03/18/16	JRB	CTETPH 8015D
Identification	**		mg/Kg	2	03/18/16	JRB	CTETPH 8015D

QA/QC Surrogates

% n-Pentacosane	83		%	2	03/18/16	JRB	50 - 150 %
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PCB (Soxhlet SW3540C)

PCB-1016	ND	0.34	mg/kg	10	03/17/16	AW	SW8082A
PCB-1221	ND	0.34	mg/kg	10	03/17/16	AW	SW8082A
PCB-1232	ND	0.34	mg/kg	10	03/17/16	AW	SW8082A
PCB-1242	ND	0.34	mg/kg	10	03/17/16	AW	SW8082A
PCB-1248	ND	0.34	mg/kg	10	03/17/16	AW	SW8082A
PCB-1254	ND	0.34	mg/kg	10	03/17/16	AW	SW8082A
PCB-1260	ND	0.34	mg/kg	10	03/17/16	AW	SW8082A

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
PCB-1262	ND	0.34	mg/kg	10	03/17/16	AW	SW8082A
PCB-1268	ND	0.34	mg/kg	10	03/17/16	AW	SW8082A
<u>QA/QC Surrogates</u>							
% DCBP	83		%	10	03/17/16	AW	30 - 150 %
% TCMX	87		%	10	03/17/16	AW	30 - 150 %

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

QA/QC Surrogates: Surrogates are compounds (preceded with a %) added by the lab to determine analysis efficiency. Surrogate results(%) listed in the report are not "detected" compounds.

Comments:

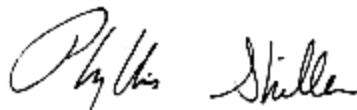
TPH Comment:

**Petroleum hydrocarbon chromatogram contains a multicomponent hydrocarbon distribution in the range of C9 to C36. The sample was quantitated against a C9-C36 alkane hydrocarbon standard.

All soils, solids and sludges are reported on a dry weight basis unless otherwise noted in the sample 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

March 23, 2016

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

March 23, 2016

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

Sample Information

Matrix: CONCRETE
Location Code: F&O-PCB
Rush Request: Standard
P.O.#: 20120232.C40

Custody Information

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

Date

03/14/16
03/16/16

Time

16:40
10:00

Laboratory Data

SDG ID: GBK79038
Phoenix ID: BK79042

Project ID: MERIDEN HOSPITAL
Client ID: 1176160314-17

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Percent Solid	98		%		03/16/16	W	SW846-%Solid
Extraction for PCB	Completed				03/16/16	Q/I	SW3540C

PCB (Soxhlet SW3540C)

PCB-1016	ND	0.34	mg/kg	10	03/17/16	AW	SW8082A
PCB-1221	ND	0.34	mg/kg	10	03/17/16	AW	SW8082A
PCB-1232	ND	0.34	mg/kg	10	03/17/16	AW	SW8082A
PCB-1242	ND	0.34	mg/kg	10	03/17/16	AW	SW8082A
PCB-1248	ND	0.34	mg/kg	10	03/17/16	AW	SW8082A
PCB-1254	ND	0.34	mg/kg	10	03/17/16	AW	SW8082A
PCB-1260	ND	0.34	mg/kg	10	03/17/16	AW	SW8082A
PCB-1262	ND	0.34	mg/kg	10	03/17/16	AW	SW8082A
PCB-1268	ND	0.34	mg/kg	10	03/17/16	AW	SW8082A

QA/QC Surrogates

% DCBP	83	%	10	03/17/16	AW	30 - 150 %
% TCMX	74	%	10	03/17/16	AW	30 - 150 %

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
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RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level

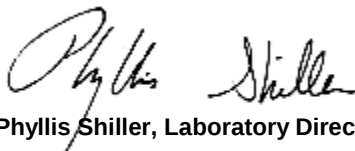
QA/QC Surrogates: Surrogates are compounds (preceded with a %) added by the lab to determine analysis efficiency. Surrogate results(%) listed in the report are not "detected" compounds.

Comments:

All soils, solids and sludges are reported on a dry weight basis unless otherwise noted in the sample 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

March 23, 2016

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

March 23, 2016

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

Sample Information

Matrix: CONCRETE
Location Code: F&O-PCB
Rush Request: Standard
P.O.#: 20120232.C40

Custody Information

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

Date

03/14/16
03/16/16

Time

16:30
10:00

Laboratory Data

SDG ID: GBK79038
Phoenix ID: BK79043

Project ID: MERIDEN HOSPITAL
Client ID: 1176160314-20

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Percent Solid	90		%		03/16/16	W	SW846-%Solid
Extraction for PCB	Completed				03/16/16	Q/I	SW3540C

PCB (Soxhlet SW3540C)

PCB-1016	ND	0.37	mg/kg	10	03/17/16	AW	SW8082A
PCB-1221	ND	0.37	mg/kg	10	03/17/16	AW	SW8082A
PCB-1232	ND	0.37	mg/kg	10	03/17/16	AW	SW8082A
PCB-1242	ND	0.37	mg/kg	10	03/17/16	AW	SW8082A
PCB-1248	ND	0.37	mg/kg	10	03/17/16	AW	SW8082A
PCB-1254	ND	0.37	mg/kg	10	03/17/16	AW	SW8082A
PCB-1260	ND	0.37	mg/kg	10	03/17/16	AW	SW8082A
PCB-1262	ND	0.37	mg/kg	10	03/17/16	AW	SW8082A
PCB-1268	ND	0.37	mg/kg	10	03/17/16	AW	SW8082A

QA/QC Surrogates

% DCBP	81	%	10	03/17/16	AW	30 - 150 %
% TCMX	88	%	10	03/17/16	AW	30 - 150 %

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
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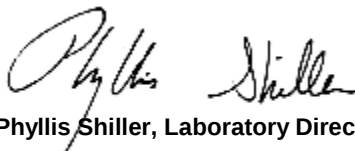
RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level
QA/QC Surrogates: Surrogates are compounds (preceded with a %) added by the lab to determine analysis efficiency. Surrogate results(%) listed in the report are not "detected" compounds.

Comments:

All soils, solids and sludges are reported on a dry weight basis unless otherwise noted in the sample 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

March 23, 2016

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

March 23, 2016

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

Sample Information

Matrix: CONCRETE
Location Code: F&O-PCB
Rush Request: Standard
P.O.#: 20120232.C40

Custody Information

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

Date

03/15/16
03/16/16

Time

11:00
10:00

Laboratory Data

SDG ID: GBK79038
Phoenix ID: BK79044

Project ID: MERIDEN HOSPITAL
Client ID: 1176160314-29

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Percent Solid	96		%		03/16/16	W	SW846-%Solid
Extraction of CT ETPH	Completed				03/16/16	BC/CK	SW3545A
Extraction for PCB	Completed				03/16/16	Q/I	SW3540C

TPH by GC (Extractable Products)

Ext. Petroleum HC	450	52	mg/Kg	1	03/17/16	JRB	CTETPH 8015D
Identification	**		mg/Kg	1	03/17/16	JRB	CTETPH 8015D

QA/QC Surrogates

% n-Pentacosane	Interference		%	1	03/17/16	JRB	50 - 150 %
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PCB (Soxhlet SW3540C)

PCB-1016	ND	0.34	mg/kg	10	03/17/16	AW	SW8082A
PCB-1221	ND	0.34	mg/kg	10	03/17/16	AW	SW8082A
PCB-1232	ND	0.34	mg/kg	10	03/17/16	AW	SW8082A
PCB-1242	ND	0.34	mg/kg	10	03/17/16	AW	SW8082A
PCB-1248	ND	0.34	mg/kg	10	03/17/16	AW	SW8082A
PCB-1254	ND	0.34	mg/kg	10	03/17/16	AW	SW8082A
PCB-1260	ND	0.34	mg/kg	10	03/17/16	AW	SW8082A
PCB-1262	ND	0.34	mg/kg	10	03/17/16	AW	SW8082A
PCB-1268	ND	0.34	mg/kg	10	03/17/16	AW	SW8082A

QA/QC Surrogates

% DCBP	106		%	10	03/17/16	AW	30 - 150 %
% TCMX	93		%	10	03/17/16	AW	30 - 150 %

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
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RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level
QA/QC Surrogates: Surrogates are compounds (preceded with a %) added by the lab to determine analysis efficiency. Surrogate results(%) listed in the report are not "detected" compounds.

Comments:

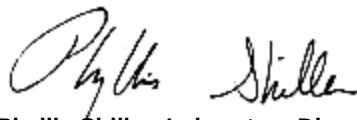
TPH Comment:

**Petroleum hydrocarbon chromatogram contains a multicomponent hydrocarbon distribution in the range of C9 to C36. The sample was quantitated against a C9-C36 alkane hydrocarbon standard.

All soils, solids and sludges are reported on a dry weight basis unless otherwise noted in the sample 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

March 23, 2016

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

March 23, 2016

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

Sample Information

Matrix: CONCRETE
Location Code: F&O-PCB
Rush Request: Standard
P.O.#: 20120232.C40

Custody Information

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

Date

03/15/16
03/16/16

Time

11:15
10:00

Laboratory Data

SDG ID: GBK79038
Phoenix ID: BK79045

Project ID: MERIDEN HOSPITAL
Client ID: 1176160314-30

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Percent Solid	96		%		03/16/16	W	SW846-%Solid
Extraction for PCB	Completed				03/16/16	Q/I	SW3540C

PCB (Soxhlet SW3540C)

PCB-1016	ND	0.35	mg/kg	10	03/17/16	AW	SW8082A
PCB-1221	ND	0.35	mg/kg	10	03/17/16	AW	SW8082A
PCB-1232	ND	0.35	mg/kg	10	03/17/16	AW	SW8082A
PCB-1242	ND	0.35	mg/kg	10	03/17/16	AW	SW8082A
PCB-1248	ND	0.35	mg/kg	10	03/17/16	AW	SW8082A
PCB-1254	0.99	0.35	mg/kg	10	03/17/16	AW	SW8082A
PCB-1260	ND	0.35	mg/kg	10	03/17/16	AW	SW8082A
PCB-1262	ND	0.35	mg/kg	10	03/17/16	AW	SW8082A
PCB-1268	ND	0.35	mg/kg	10	03/17/16	AW	SW8082A

QA/QC Surrogates

% DCBP	87	%	10	03/17/16	AW	30 - 150 %
% TCMX	93	%	10	03/17/16	AW	30 - 150 %

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
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RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level

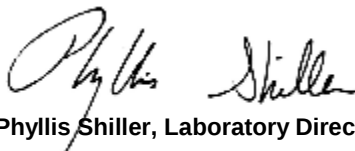
QA/QC Surrogates: Surrogates are compounds (preceded with a %) added by the lab to determine analysis efficiency. Surrogate results(%) listed in the report are not "detected" compounds.

Comments:

All soils, solids and sludges are reported on a dry weight basis unless otherwise noted in the sample 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

March 23, 2016

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

March 23, 2016

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

Sample Information

Matrix: CONCRETE
Location Code: F&O-PCB
Rush Request: Standard
P.O.#: 20120232.C40

Custody Information

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

Date

03/15/16
03/16/16

Time

14:00
10:00

Laboratory Data

SDG ID: GBK79038
Phoenix ID: BK79046

Project ID: MERIDEN HOSPITAL
Client ID: 1176160314-31

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Percent Solid	98		%		03/16/16	W	SW846-%Solid
Extraction of CT ETPH	Completed				03/16/16	BC/CK	SW3545A
Extraction for PCB	Completed				03/16/16	Q/I	SW3540C

TPH by GC (Extractable Products)

Ext. Petroleum HC	82	50	mg/Kg	1	03/17/16	JRB	CTETPH 8015D
Identification	**		mg/Kg	1	03/17/16	JRB	CTETPH 8015D

QA/QC Surrogates

% n-Pentacosane	104		%	1	03/17/16	JRB	50 - 150 %
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PCB (Soxhlet SW3540C)

PCB-1016	ND	0.34	mg/kg	10	03/21/16	AW	SW8082A
PCB-1221	ND	0.34	mg/kg	10	03/21/16	AW	SW8082A
PCB-1232	ND	0.34	mg/kg	10	03/21/16	AW	SW8082A
PCB-1242	ND	0.34	mg/kg	10	03/21/16	AW	SW8082A
PCB-1248	ND	0.34	mg/kg	10	03/21/16	AW	SW8082A
PCB-1254	0.81	0.34	mg/kg	10	03/21/16	AW	SW8082A
PCB-1260	ND	0.34	mg/kg	10	03/21/16	AW	SW8082A
PCB-1262	ND	0.34	mg/kg	10	03/21/16	AW	SW8082A
PCB-1268	ND	0.34	mg/kg	10	03/21/16	AW	SW8082A

QA/QC Surrogates

% DCBP	89		%	10	03/21/16	AW	30 - 150 %
% TCMX	71		%	10	03/21/16	AW	30 - 150 %

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
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RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level
QA/QC Surrogates: Surrogates are compounds (preceded with a %) added by the lab to determine analysis efficiency. Surrogate results(%) listed in the report are not "detected" compounds.

Comments:

TPH Comment:

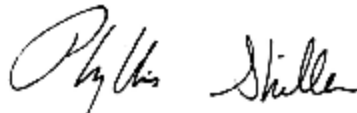
**Petroleum hydrocarbon chromatogram contains a multicomponent hydrocarbon distribution in the range of C14 to C36. The sample was quantitated against a C9-C36 alkane hydrocarbon standard.

PCB Comment:

For PCBs, in order to reach the desired RL, multiple cleanup steps were performed. The extract was cleaned up with a combination of sulfuric acid, potassium permanganate, copper powder and additional florisil.

All soils, solids and sludges are reported on a dry weight basis unless otherwise noted in the sample 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

March 23, 2016

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

March 23, 2016

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

Sample Information

Matrix: CONCRETE
Location Code: F&O-PCB
Rush Request: Standard
P.O.#: 20120232.C40

Custody Information

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

Date

03/15/16
03/16/16

Time

14:30
10:00

Laboratory Data

SDG ID: GBK79038
Phoenix ID: BK79047

Project ID: MERIDEN HOSPITAL
Client ID: 1176160314-32

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Percent Solid	93		%		03/16/16	W	SW846-%Solid
Extraction for PCB	Completed				03/16/16	Q/I	SW3540C

PCB (Soxhlet SW3540C)

PCB-1016	ND	0.35	mg/kg	10	03/17/16	AW	SW8082A
PCB-1221	ND	0.35	mg/kg	10	03/17/16	AW	SW8082A
PCB-1232	ND	0.35	mg/kg	10	03/17/16	AW	SW8082A
PCB-1242	ND	0.35	mg/kg	10	03/17/16	AW	SW8082A
PCB-1248	ND	0.35	mg/kg	10	03/17/16	AW	SW8082A
PCB-1254	ND	0.35	mg/kg	10	03/17/16	AW	SW8082A
PCB-1260	ND	0.35	mg/kg	10	03/17/16	AW	SW8082A
PCB-1262	ND	0.35	mg/kg	10	03/17/16	AW	SW8082A
PCB-1268	ND	0.35	mg/kg	10	03/17/16	AW	SW8082A

QA/QC Surrogates

% DCBP	79	%	10	03/17/16	AW	30 - 150 %
% TCMX	80	%	10	03/17/16	AW	30 - 150 %

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
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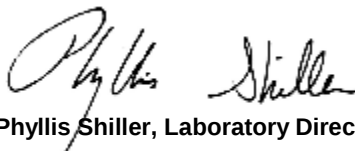
RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level
QA/QC Surrogates: Surrogates are compounds (preceded with a %) added by the lab to determine analysis efficiency. Surrogate results(%) listed in the report are not "detected" compounds.

Comments:

All soils, solids and sludges are reported on a dry weight basis unless otherwise noted in the sample 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

March 23, 2016

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

March 23, 2016

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

Sample Information

Matrix: WATER
Location Code: F&O-PCB
Rush Request: Standard
P.O.#: 20120232.C40

Custody Information

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

Date

03/15/16
03/16/16

Time

15:00
10:00

Laboratory Data

SDG ID: GBK79038
Phoenix ID: BK79048

Project ID: MERIDEN HOSPITAL
Client ID: 1176160314-33

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
PCB Extraction	Completed				03/16/16	TL	SW3510C

Polychlorinated Biphenyls

PCB-1016	ND	0.50	ug/L	1	03/17/16	AW	SW8082A
PCB-1221	ND	0.50	ug/L	1	03/17/16	AW	SW8082A
PCB-1232	ND	0.50	ug/L	1	03/17/16	AW	SW8082A
PCB-1242	ND	0.50	ug/L	1	03/17/16	AW	SW8082A
PCB-1248	ND	0.50	ug/L	1	03/17/16	AW	SW8082A
PCB-1254	ND	0.50	ug/L	1	03/17/16	AW	SW8082A
PCB-1260	ND	0.50	ug/L	1	03/17/16	AW	SW8082A
PCB-1262	ND	0.50	ug/L	1	03/17/16	AW	SW8082A
PCB-1268	ND	0.50	ug/L	1	03/17/16	AW	SW8082A

QA/QC Surrogates

% DCBP	102	%	1	03/17/16	AW	30 - 150 %
% TCMX	96	%	1	03/17/16	AW	30 - 150 %

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
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RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level

QA/QC Surrogates: Surrogates are compounds (preceded with a %) added by the lab to determine analysis efficiency. Surrogate results(%) listed in the report are not "detected" compounds.

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

March 23, 2016

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

QA/QC Report

March 23, 2016

QA/QC Data

SDG I.D.: GBK79038

Parameter	Blank	Blk RL	Sample Result	Dup Result	Dup RPD	LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	% Rec Limits	% RPD Limits
QA/QC Batch 338226 (mg/kg), QC Sample No: BK78641 (BK79039)													
<u>ICP Metals - Soil</u>													
Arsenic	BRL	0.66	9.4	8.19	13.8	114			99.2			75 - 125	30
Barium	BRL	0.33	70.4	58.7	18.1	109			94.8			75 - 125	30
Cadmium	BRL	0.33	<0.37	<0.37	NC	102			88.9			75 - 125	30
Chromium	BRL	0.33	33.9	40.2	17.0	108			96.8			75 - 125	30
Lead	BRL	0.33	46.9	45.4	3.30	107			94.5			75 - 125	30
Selenium	BRL	1.3	<1.5	<1.5	NC	112			92.5			75 - 125	30
Silver	BRL	0.33	<0.37	<0.37	NC	107			104			75 - 125	30
QA/QC Batch 338229 (mg/kg), QC Sample No: BK79024 (BK79040, BK79041)													
<u>ICP Metals - Soil</u>													
Arsenic	BRL	0.67	2.6	2.83	NC	110			94.1			75 - 125	30
Barium	BRL	0.33	57.8	56.9	1.60	105			92.5			75 - 125	30
Cadmium	BRL	0.33	<0.32	<0.34	NC	98.6			90.8			75 - 125	30
Chromium	BRL	0.33	13.6	14.0	2.90	108			97.0			75 - 125	30
Lead	BRL	0.33	27.9	30.9	10.2	101			89.0			75 - 125	30
Selenium	BRL	1.3	<1.3	<1.3	NC	111			87.8			75 - 125	30
Silver	BRL	0.33	<0.32	<0.34	NC	106			95.6			75 - 125	30
QA/QC Batch 338445 (mg/kg), QC Sample No: BK79866 (BK79039, BK79040, BK79041)													
Mercury - Soil	BRL	0.03	<0.03	<0.03	NC	94.3	93.4	1.0	109			70 - 130	30
Comment:													
Additional Mercury criteria: LCS acceptance range for waters is 80-120% and for soils is 70-130%.													



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QA/QC Report

March 23, 2016

QA/QC Data

SDG I.D.: GBK79038

Parameter	Blank	Blk RL	LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	% Rec Limits	% RPD Limits
QA/QC Batch 338075 (ug/L), QC Sample No: BK78637 (BK79048)										
<u>Polychlorinated Biphenyls - Water</u>										
PCB-1016	ND	0.050	106	93	13.1				40 - 140	20
PCB-1221	ND	0.050							40 - 140	20
PCB-1232	ND	0.050							40 - 140	20
PCB-1242	ND	0.050							40 - 140	20
PCB-1248	ND	0.050							40 - 140	20
PCB-1254	ND	0.050							40 - 140	20
PCB-1260	ND	0.050	106	95	10.9				40 - 140	20
PCB-1262	ND	0.050							40 - 140	20
PCB-1268	ND	0.050							40 - 140	20
% DCBP (Surrogate Rec)	89	%	113	98	14.2				30 - 150	20
% TCMX (Surrogate Rec)	87	%	95	87	8.8				30 - 150	20

Comment:

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

QA/QC Batch 338211 (mg/kg), QC Sample No: BK79026 10X (BK79038, BK79039, BK79040, BK79041, BK79042, BK79043, BK79044, BK79045, BK79046, BK79047)

Polychlorinated Biphenyls

PCB-1016	ND	0.17	91	90	1.1	104	73	35.0	40 - 140	30	r
PCB-1221	ND	0.17							40 - 140	30	
PCB-1232	ND	0.17							40 - 140	30	
PCB-1242	ND	0.17							40 - 140	30	
PCB-1248	ND	0.17							40 - 140	30	
PCB-1254	ND	0.17							40 - 140	30	
PCB-1260	ND	0.17	92	93	1.1	99	75	27.6	40 - 140	30	
PCB-1262	ND	0.17							40 - 140	30	
PCB-1268	ND	0.17							40 - 140	30	
% DCBP (Surrogate Rec)	91	%	89	91	2.2	101	74	30.9	30 - 150	30	r
% TCMX (Surrogate Rec)	80	%	95	95	0.0	106	73	36.9	30 - 150	30	r

QA/QC Batch 338230 (mg/Kg), QC Sample No: BK79333 (BK79039, BK79040, BK79041, BK79044, BK79046)

TPH by GC (Extractable Products)

Ext. Petroleum H.C.	ND	50	63	71	11.9	67	65	3.0	60 - 120	30
% n-Pentacosane	62	%	58	72	21.5	73	72	1.4	50 - 150	30

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

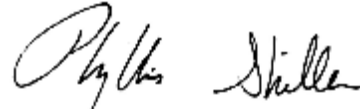
QA/QC Data

SDG I.D.: GBK79038

Parameter	Blk		LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	% Rec Limits	% RPD Limits
	Blank	RL								

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
March 23, 2016

Wednesday, March 23, 2016

Criteria: CT: GBM, RC

State: CT

Sample Criteria Exceedences Report

GBK79038 - FO-PCB

Page 1 of 1

SampNo	Acode	Phoenix Analyte	Criteria	Result	RL	Criteria	RL Criteria	Analysis Units
BK79039	\$ETPH_SMR	Ext. Petroleum HC	CT / PESTICIDES, PCB's, TPH, a / RES DEC (mg/kg)	2100	100	500	500	mg/Kg
BK79041	\$ETPH_SMR	Ext. Petroleum HC	CT / PESTICIDES, PCB's, TPH, a / RES DEC (mg/kg)	1200	100	500	500	mg/Kg

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: MERIDEN HOSPITAL **Project Number:**

Laboratory Sample ID(s): BK79038, BK79039, BK79040, BK79041, BK79042, BK79043, BK79044, BK79045, BK79046, BK79047, BK79048

Sampling Date(s): 3/14/2016, 3/15/2016

RCP Methods Used:

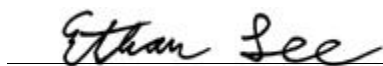
☐ 1311/1312 ☒ 6010 ☐ 7000 ☐ 7196 ☒ 7470/7471 ☐ 8081 ☐ EPH ☐ TO15
☒ 8082 ☐ 8151 ☐ 8260 ☐ 8270 ☒ ETPH ☐ 9010/9012 ☐ VPH

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?	☒ Yes ☐ No
1a.	Were the method specified preservation and holding time requirements met?	☒ Yes ☐ 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)	☐ Yes ☐ No ☒ NA
2.	Were all samples received by the laboratory in a condition consistent with that described on the associated Chain-of-Custody document(s)?	☒ Yes ☐ No
3.	Were samples received at an appropriate temperature (< 6 Degrees C)?	☒ Yes ☐ No ☐ NA
4.	Were all QA/QC performance criteria specified in the Reasonable Confidence Protocol documents achieved?	☒ Yes ☐ No
5a.	Were reporting limits specified or referenced on the chain-of-custody?	☒ Yes ☐ No
5b.	Were these reporting limits met?	☒ Yes ☐ No ☐ 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?	☐ Yes ☒ No ☐ NA
7.	Are project-specific matrix spikes and laboratory duplicates included in the data set?	☐ Yes ☒ No ☐ 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: Wednesday, March 23, 2016

Printed Name: Ethan Lee

Position: Project Manager



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Tel. (860) 645-1102 Fax (860) 645-0823



RCP Certification Report

March 23, 2016

SDG I.D.: GBK79038

SDG Comments

Metals Analysis:

The client requested a shorter list of elements than the 6010 RCP list. Only the RCRA 8 Metals 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-FID11 03/17/16-2

Jeff Bucko, Chemist 03/17/16

BK79044

The initial calibration (ETPH304I) RSD for the compound list was less than 30% except for the following compounds: None.

As per section 7.2.3, a discrimination check standard was run and contained the following outliers: C36 23%L (20%)

The continuing calibration %D for the compound list was less than 30% except for the following compounds:None.

AU-FID11 03/18/16-2

Jeff Bucko, Chemist 03/18/16

BK79040

The initial calibration (ETPH304I) RSD for the compound list was less than 30% except for the following compounds: None.

The continuing calibration %D for the compound list was less than 30% except for the following compounds:None.

AU-XL1 03/17/16-2

Jeff Bucko, Chemist 03/17/16

BK79046

The initial calibration (ETPH308I) RSD for the compound list was less than 30% except for the following compounds: None.

As per section 7.2.3, a discrimination check standard was run and contained the following outliers: C36 44.9%L (20%)

The continuing calibration %D for the compound list was less than 30% except for the following compounds:None.

AU-XL2 03/18/16-2

Jeff Bucko, Chemist 03/18/16

BK79039, BK79041

The initial calibration (ETPH310I) RSD for the compound list was less than 30% except for the following compounds: None.

The continuing calibration %D for the compound list was less than 30% except for the following compounds:None.

QC (Batch Specific):

Batch 338230 (BK79333)

BK79039, BK79040, BK79041, BK79044, BK79046

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.

Mercury Narration

Were all QA/QC performance criteria specified in the analytical method achieved? Yes.

Instrument:

MERLIN 03/18/16 09:25

Mike Arsenault, Chemist 03/18/16

BK790391:10, BK79040, BK79041

The following Initial Calibration Verification (ICV) compounds did not meet criteria: None.

The following Continuing Calibration Verification (CCV) compounds did not meet criteria: CCV 03/18/16 10:03: Mercury 72% (80-120)



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Certification Report

March 23, 2016

SDG I.D.: GBK79038

Mercury Narration

QC (Batch Specific):

Batch 338445 (BK79866)

BK79039, BK79040, BK79041

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

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.

ICP Metals Narration

Were all QA/QC performance criteria specified in the analytical method achieved? Yes.

Instrument:

ARCOS 03/16/16 18:07

Emily Kolominskaya, Laura Kinnin, Chemist 03/16/16

BK79039, BK79040, BK79041

The linear range is defined daily by the calibration range.

The following Initial Calibration Verification (ICV) compounds did not meet criteria: None.

The following Continuing Calibration Verification (CCV) compounds did not meet criteria: None.

The following ICP Interference Check (ICSAB) compounds did not meet criteria: None.

ARCOS 03/17/16 22:18

Emily Kolominskaya, Laura Kinnin, Chemist 03/17/16

BK79040, BK79041

The linear range is defined daily by the calibration range.

The following Initial Calibration Verification (ICV) compounds did not meet criteria: None.

The following Continuing Calibration Verification (CCV) compounds did not meet criteria: None.

The following ICP Interference Check (ICSAB) compounds did not meet criteria: None.

QC (Batch Specific):

Batch 338226 (BK78641)

BK79039

All LCS recoveries were within 75 - 125 with the following exceptions: None.

Batch 338229 (BK79024)

BK79040, BK79041

All LCS recoveries were within 75 - 125 with the following exceptions: None.

PCB Narration

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

Instrument:

AU-ECD3 03/17/16-1

Adam Werner, Chemist 03/17/16

BK79042, BK79044, BK79045

The initial calibration (PC0229AI) RSD for the compound list was less than 20% except for the following compounds: None.

The initial calibration (PC0229BI) RSD for the compound list was less than 20% except for the following compounds: None.

The continuing calibration %D for the compound list was less than 15% except for the following compounds: None.



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RCP Certification Report

March 23, 2016

SDG I.D.: GBK79038

PCB Narration

AU-ECD5 03/17/16-1 Adam Werner, Chemist 03/17/16

BK79038, BK79039, BK79040, BK79041, BK79043, BK79047

The initial calibration (PC0314AI) RSD for the compound list was less than 20% except for the following compounds: None.
The initial calibration (PC0314BI) RSD for the compound list was less than 20% except for the following compounds: None.
The continuing calibration %D for the compound list was less than 15% except for the following compounds: None.

AU-ECD5 03/21/16-1 Adam Werner, Chemist 03/21/16

BK79046

The initial calibration (PC0314AI) RSD for the compound list was less than 20% except for the following compounds: None.
The initial calibration (PC0314BI) RSD for the compound list was less than 20% except for the following compounds: None.
The continuing calibration %D for the compound list was less than 15% except for the following compounds: None.

AU-ECD6 03/17/16-1 Adam Werner, Chemist 03/17/16

BK79048

The initial calibration (PC0308AI) RSD for the compound list was less than 20% except for the following compounds: None.
The initial calibration (PC0308BI) RSD for the compound list was less than 20% except for the following compounds: None.
The continuing calibration %D for the compound list was less than 15% except for the following compounds: None.

QC (Batch Specific):

Batch 338075 (BK78637)

BK79048

All LCS recoveries were within 40 - 140 with the following exceptions: None.
All LCSD recoveries were within 40 - 140 with the following exceptions: None.
All LCS/LCSD RPDs were less than 20% with the following exceptions: None.
A LCS and LCS Duplicate were performed instead of a matrix spike and matrix spike duplicate.

Batch 338211 (BK79026)

BK79038, BK79039, BK79040, BK79041, BK79042, BK79043, BK79044, BK79045, BK79046, BK79047

All LCS recoveries were within 40 - 140 with the following exceptions: None.
All LCSD recoveries were within 40 - 140 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 3C with cooling initiated.
(Note acceptance criteria is above freezing up to 6°C)



FUSS & O'NEILL

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☐ 36 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

3°C WCTP

CHAIN-OF-CUSTODY RECORD 34917

PROJECT NAME

Menden Hospital

PROJECT LOCATION

Menden, CT

PROJECT NUMBER

2012 0232. C40

LABORATORY

Phenix

REPORT TO:

Stefanie Wierszenalek + David Cook

INVOICE TO:

↓

P.O. No.:

Sampler's Signature:

D. L. Cook

Date: 3/14/16

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

Analysis Request

PCB's, Vols, Metals
PCB's, Vols, Metals
PCB's, Vols, Metals

Item No.	Transfer Check 1 2 3 4	Sample Number	Source Code	Date Sampled	Time Sampled
1	/	1176160314-13	C	3/14/16	1440
2	/	-14			1530
3	/	-15			1600
4	/	-16			1630
5	/	-17			1640
6	/	-20			1630

Comments	Soil VOA Vial, □ methanol □ water □ Na ₂ SO ₄	Glass Soil Container () or □	Other	Water VOA Vial □ As is □ HCl □ H ₂ SO ₄	Glass Amber () ml □ As is □ 500 □ 1000 ml	Plastic - As is □ 250 ml □ 500 □ 1000 ml	Plastic - H ₂ SO ₄ □ 250 ml □ 500 □ 1000 ml	Plastic - HNO ₃ □ 250 ml □ 500 □ 1000 ml	Plastic - NaOH, 250 ml
79038									
79039									
79040									
79041									
79042									
79043									

Transfer Number	Relinquished By	Accepted By	Date	Time
1	D. Cook	f. o. freezer	3/14/16	1800
2	f. o. freezer	D. Cook	3/16/16	1000
3	D. Cook	A. Quinn	3/16/16	10:00
4				

Charge Exceptions: ☐ CT Tax Exempt ☐ QA/QC ☐ Other ☐ Duplicates ☒ Blanks (Item Nos:)

Reporting and Detection Limit Requirements: ☒ RCP Deliverables ☐ MCP CAM Cert.

Res DEC 1680mc

Additional Comments:

reporting limits must be <= 1 mg/kg

quartz glass first, still a metals analyzer remaining mine



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☐ 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

306
3/16/16

CHAIN-OF-CUSTODY RECORD 33050

Turnaround

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

PROJECT NAME PROJECT LOCATION PROJECT NUMBER LABORATORY

Menden Hospital Meriden, CT 20120232.C40 Phoenix

REPORT TO: Stefanie Wierszechak + David Cook

INVOICE TO:

P.O. NO.:

Sampler's Signature: D. L. O'Connell

Date: 3/15/16

Source Codes:
MW=Monitoring Well
SW=Surface Water

T=Treatment Facility
W=Waste A=Air

S=Soil
C=Concrete

X=Other Equipment Blank

Analysis Request		Containers	
PCRs v. Soxhlet		Soil VOA Vial, □ methanol	Plastic - NaOH, 250 ml
		Glass Soil Container (4) oz	Plastic - HNO ₃ , 250 ml
PCRs v. Soxhlet		Soil VOA Vial, □ water	Plastic - H ₂ SO ₄ , 250 ml
		Glass Soil Container (4) oz	Plastic - As ₂ S ₃ , 250 ml
PCRs v. Soxhlet		Water VOA Vial, □ As ₂ S ₃	Plastic - As ₂ S ₃ , 250 ml
		Glass VOA Vial, □ As ₂ S ₃	Plastic - H ₂ SO ₄ , 250 ml
PCRs v. Soxhlet		Other	Plastic - H ₂ SO ₄ , 250 ml
		Other	Plastic - NaOH, 250 ml

Item No.	Transfer Check	Sample Number	Source Code	Date Sampled	Time Sampled
7	1	1176160315-29	C	3/15/16	1100
8	1	-30	↓	↓	1115
9	1	-31	↓	↓	1400
10	1	-32	↓	↓	1430
11	1	-33	X	↓	1500

Comments					
7	1	1176160315-29	C	3/15/16	1100
8	1	-30	↓	↓	1115
9	1	-31	↓	↓	1400
10	1	-32	↓	↓	1430
11	1	-33	X	↓	1500

Transfer Number	Relinquished By	Accepted By	Date	Time	Charge Exceptions
1	D. Cook	f10 freezer	3/15/16	1800	☐ CT Tax Exempt ☒ QA/QC ☐ Other _____
2	f10 freezer	D. Cook	3/16/16	1400	☐ Duplicates ☐ Blanks (Item Nos: _____)
3	D. Cook	offshore	3/16/16	10:00	Reporting and Detection Limit Requirements: ☒ RCP Deliverables ☐ MCP CAM Cert.
4					Additional Comments: PCRs must be 100 100% to 1mg/kg analyze PCRs first, remaining values to be analyzed for EPA



Monday, April 18, 2016

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

Project ID: MERIDEN HOSPITAL

Sample ID#s: BK79016 - BK79017, BK79019 - BK79020, BK79022 - BK79024, BK79026 - BK79029

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.

All soils, solids and sludges are reported on a dry weight basis unless otherwise noted in the sample comments.

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

Enclosed are revised Analysis Report pages. Please replace and discard the original pages. 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, appearing to read "Phyllis Shiller".

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

Analysis Report

April 18, 2016

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

Sample Information

Matrix: SOIL
Location Code: F&O-PCB
Rush Request: Standard
P.O.#: 20120232.C40

Custody Information

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

Date

03/14/16
03/16/16

Time

10:00
9:54

Laboratory Data

SDG ID: GBK79016
Phoenix ID: BK79016

Project ID: MERIDEN HOSPITAL
Client ID: 1176160314-01

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Silver	< 0.35	0.35	mg/Kg	1	03/17/16	LK	SW6010C
Arsenic	3.0	0.7	mg/Kg	1	03/17/16	LK	SW6010C
Barium	52.9	0.35	mg/Kg	1	03/17/16	LK	SW6010C
Cadmium	< 0.35	0.35	mg/Kg	1	03/17/16	LK	SW6010C
Chromium	13.2	0.35	mg/Kg	1	03/17/16	LK	SW6010C
Mercury	< 0.03	0.03	mg/Kg	1	03/17/16	RS	SW7471B
Lead	6.73	0.37	mg/Kg	1	03/18/16	LK	SW6010C
Selenium	< 1.4	1.4	mg/Kg	1	03/17/16	LK	SW6010C
Percent Solid	88		%		03/16/16	W	SW846-%Solid
Soil Extraction SVOA PAH	Completed				03/16/16	BB/CKV	SW3545A
Extraction of CT ETPH	Completed				03/16/16	BB/CK	SW3545A
Mercury Digestion	Completed				03/17/16	W/W	SW7471B
Total Metals Digest	Completed				03/17/16	G/AG	SW3050B

TPH by GC (Extractable Products)

Ext. Petroleum HC	ND	57	mg/Kg	1	03/17/16	JRB	CTETPH 8015D
Identification	ND		mg/Kg	1	03/17/16	JRB	CTETPH 8015D

QA/QC Surrogates

% n-Pentacosane	117		%	1	03/17/16	JRB	50 - 150 %
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Polynuclear Aromatic HC

2-Methylnaphthalene	ND	260	ug/Kg	1	03/16/16	DD	SW8270D
Acenaphthene	ND	260	ug/Kg	1	03/16/16	DD	SW8270D
Acenaphthylene	ND	260	ug/Kg	1	03/16/16	DD	SW8270D
Anthracene	ND	260	ug/Kg	1	03/16/16	DD	SW8270D
Benz(a)anthracene	ND	260	ug/Kg	1	03/16/16	DD	SW8270D
Benzo(a)pyrene	ND	260	ug/Kg	1	03/16/16	DD	SW8270D
Benzo(b)fluoranthene	ND	260	ug/Kg	1	03/16/16	DD	SW8270D

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Benzo(ghi)perylene	ND	260	ug/Kg	1	03/16/16	DD	SW8270D
Benzo(k)fluoranthene	ND	260	ug/Kg	1	03/16/16	DD	SW8270D
Chrysene	ND	260	ug/Kg	1	03/16/16	DD	SW8270D
Dibenz(a,h)anthracene	ND	260	ug/Kg	1	03/16/16	DD	SW8270D
Fluoranthene	ND	260	ug/Kg	1	03/16/16	DD	SW8270D
Fluorene	ND	260	ug/Kg	1	03/16/16	DD	SW8270D
Indeno(1,2,3-cd)pyrene	ND	260	ug/Kg	1	03/16/16	DD	SW8270D
Naphthalene	ND	260	ug/Kg	1	03/16/16	DD	SW8270D
Phenanthrene	ND	260	ug/Kg	1	03/16/16	DD	SW8270D
Pyrene	ND	260	ug/Kg	1	03/16/16	DD	SW8270D
<u>QA/QC Surrogates</u>							
% 2-Fluorobiphenyl	71		%	1	03/16/16	DD	30 - 130 %
% Nitrobenzene-d5	72		%	1	03/16/16	DD	30 - 130 %
% Terphenyl-d14	73		%	1	03/16/16	DD	30 - 130 %

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

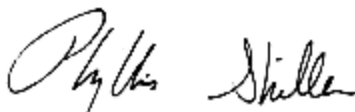
QA/QC Surrogates: Surrogates are compounds (preceded with a %) added by the lab to determine analysis efficiency. Surrogate results(%) listed in the report are not "detected" compounds.

Comments:

All soils, solids and sludges are reported on a dry weight basis unless otherwise noted in the sample 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

April 18, 2016

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

April 18, 2016

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

Sample Information

Matrix: SOIL
Location Code: F&O-PCB
Rush Request: Standard
P.O.#: 20120232.C40

Custody Information

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

Date

03/14/16 10:15
03/16/16 9:54

Time

Laboratory Data

SDG ID: GBK79016
Phoenix ID: BK79017

Project ID: MERIDEN HOSPITAL
Client ID: 1176160314-02W

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Percent Solid	84		%		03/16/16	W	SW846-%Solid
Soil Extraction SVOA PAH	Completed				03/16/16	BB/CKV	SW3545A
Extraction of CT ETPH	Completed				03/16/16	BB/CK	SW3545A

TPH by GC (Extractable Products)

Ext. Petroleum HC	ND	58	mg/Kg	1	03/18/16	JRB	CTETPH 8015D
Identification	ND		mg/Kg	1	03/18/16	JRB	CTETPH 8015D

QA/QC Surrogates

% n-Pentacosane	92		%	1	03/18/16	JRB	50 - 150 %
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Polynuclear Aromatic HC

2-Methylnaphthalene	ND	270	ug/Kg	1	03/17/16	DD	SW8270D
Acenaphthene	ND	270	ug/Kg	1	03/17/16	DD	SW8270D
Acenaphthylene	ND	270	ug/Kg	1	03/17/16	DD	SW8270D
Anthracene	ND	270	ug/Kg	1	03/17/16	DD	SW8270D
Benz(a)anthracene	ND	270	ug/Kg	1	03/17/16	DD	SW8270D
Benzo(a)pyrene	ND	270	ug/Kg	1	03/17/16	DD	SW8270D
Benzo(b)fluoranthene	ND	270	ug/Kg	1	03/17/16	DD	SW8270D
Benzo(ghi)perylene	ND	270	ug/Kg	1	03/17/16	DD	SW8270D
Benzo(k)fluoranthene	ND	270	ug/Kg	1	03/17/16	DD	SW8270D
Chrysene	ND	270	ug/Kg	1	03/17/16	DD	SW8270D
Dibenz(a,h)anthracene	ND	270	ug/Kg	1	03/17/16	DD	SW8270D
Fluoranthene	ND	270	ug/Kg	1	03/17/16	DD	SW8270D
Fluorene	ND	270	ug/Kg	1	03/17/16	DD	SW8270D
Indeno(1,2,3-cd)pyrene	ND	270	ug/Kg	1	03/17/16	DD	SW8270D
Naphthalene	ND	270	ug/Kg	1	03/17/16	DD	SW8270D
Phenanthrene	ND	270	ug/Kg	1	03/17/16	DD	SW8270D
Pyrene	ND	270	ug/Kg	1	03/17/16	DD	SW8270D

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
<u>QA/QC Surrogates</u>							
% 2-Fluorobiphenyl	69		%	1	03/17/16	DD	30 - 130 %
% Nitrobenzene-d5	70		%	1	03/17/16	DD	30 - 130 %
% Terphenyl-d14	66		%	1	03/17/16	DD	30 - 130 %

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

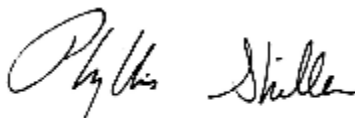
QA/QC Surrogates: Surrogates are compounds (preceded with a %) added by the lab to determine analysis efficiency. Surrogate results(%) listed in the report are not "detected" compounds.

Comments:

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Phyllis Shiller, Laboratory Director

April 18, 2016

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

April 18, 2016

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

Sample Information

Matrix: SOIL
Location Code: F&O-PCB
Rush Request: Standard
P.O.#: 20120232.C40

Custody Information

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

Date

03/14/16
03/16/16

Time

11:00
9:54

Laboratory Data

SDG ID: GBK79016
Phoenix ID: BK79019

Project ID: MERIDEN HOSPITAL
Client ID: 1176160314-04W

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Percent Solid	86		%		03/16/16	W	SW846-%Solid
Soil Extraction SVOA PAH	Completed				03/16/16	BB/CKV	SW3545A
Extraction of CT ETPH	Completed				03/16/16	BB/CK	SW3545A

TPH by GC (Extractable Products)

Ext. Petroleum HC	ND	58	mg/Kg	1	03/18/16	JRB	CTETPH 8015D
Identification	ND		mg/Kg	1	03/18/16	JRB	CTETPH 8015D

QA/QC Surrogates

% n-Pentacosane	93		%	1	03/18/16	JRB	50 - 150 %
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Polynuclear Aromatic HC

2-Methylnaphthalene	ND	270	ug/Kg	1	03/17/16	DD	SW8270D
Acenaphthene	ND	270	ug/Kg	1	03/17/16	DD	SW8270D
Acenaphthylene	ND	270	ug/Kg	1	03/17/16	DD	SW8270D
Anthracene	ND	270	ug/Kg	1	03/17/16	DD	SW8270D
Benz(a)anthracene	ND	270	ug/Kg	1	03/17/16	DD	SW8270D
Benzo(a)pyrene	ND	270	ug/Kg	1	03/17/16	DD	SW8270D
Benzo(b)fluoranthene	ND	270	ug/Kg	1	03/17/16	DD	SW8270D
Benzo(ghi)perylene	ND	270	ug/Kg	1	03/17/16	DD	SW8270D
Benzo(k)fluoranthene	ND	270	ug/Kg	1	03/17/16	DD	SW8270D
Chrysene	ND	270	ug/Kg	1	03/17/16	DD	SW8270D
Dibenz(a,h)anthracene	ND	270	ug/Kg	1	03/17/16	DD	SW8270D
Fluoranthene	ND	270	ug/Kg	1	03/17/16	DD	SW8270D
Fluorene	ND	270	ug/Kg	1	03/17/16	DD	SW8270D
Indeno(1,2,3-cd)pyrene	ND	270	ug/Kg	1	03/17/16	DD	SW8270D
Naphthalene	ND	270	ug/Kg	1	03/17/16	DD	SW8270D
Phenanthrene	ND	270	ug/Kg	1	03/17/16	DD	SW8270D
Pyrene	ND	270	ug/Kg	1	03/17/16	DD	SW8270D

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
<u>QA/QC Surrogates</u>							
% 2-Fluorobiphenyl	72		%	1	03/17/16	DD	30 - 130 %
% Nitrobenzene-d5	70		%	1	03/17/16	DD	30 - 130 %
% Terphenyl-d14	67		%	1	03/17/16	DD	30 - 130 %

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

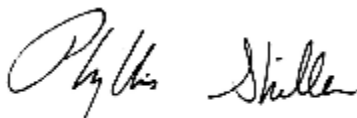
QA/QC Surrogates: Surrogates are compounds (preceded with a %) added by the lab to determine analysis efficiency. Surrogate results(%) listed in the report are not "detected" compounds.

Comments:

All soils, solids and sludges are reported on a dry weight basis unless otherwise noted in the sample comments.

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Phyllis Shiller, Laboratory Director

April 18, 2016

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

April 18, 2016

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

Sample Information

Matrix: SOIL
Location Code: F&O-PCB
Rush Request: Standard
P.O.#: 20120232.C40

Custody Information

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

Date

03/14/16
03/16/16

Time

11:15
9:54

Laboratory Data

SDG ID: GBK79016
Phoenix ID: BK79020

Project ID: MERIDEN HOSPITAL
Client ID: 1176160314-05

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Silver	< 0.36	0.36	mg/Kg	1	03/17/16	LK	SW6010C
Arsenic	2.7	0.7	mg/Kg	1	03/17/16	LK	SW6010C
Barium	54.7	0.36	mg/Kg	1	03/17/16	LK	SW6010C
Cadmium	< 0.36	0.36	mg/Kg	1	03/17/16	LK	SW6010C
Chromium	12.7	0.36	mg/Kg	1	03/17/16	LK	SW6010C
Mercury	0.07	0.03	mg/Kg	1	03/17/16	RS	SW7471B
Lead	31.1	0.33	mg/Kg	1	03/18/16	LK	SW6010C
Selenium	< 1.4	1.4	mg/Kg	1	03/17/16	LK	SW6010C
SPLP Lead	< 0.010	0.010	mg/L	1	04/12/16	LK	SW6010C
SPLP Metals Digestion	Completed				04/11/16	I/I	SW3005A
Percent Solid	94		%		03/16/16	W	SW846-%Solid
Soil Extraction SVOA PAH	Completed				03/16/16	BB/CKV	SW3545A
Extraction of CT ETPH	Completed				03/16/16	BB/CK	SW3545A
Mercury Digestion	Completed				03/17/16	W/W	SW7471B
Extraction for PCB	Completed				03/16/16	Q/I	SW3540C
SPLP Extraction for Metals	Completed				04/08/16	I	SW1312
Total Metals Digest	Completed				03/17/16	G/AG	SW3050B

TPH by GC (Extractable Products)

Ext. Petroleum HC	810	260	mg/Kg	5	03/17/16	JRB	CTETPH 8015D
Identification	**		mg/Kg	5	03/17/16	JRB	CTETPH 8015D

QA/QC Surrogates

% n-Pentacosane	65		%	5	03/17/16	JRB	50 - 150 %
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PCB (Soxhlet SW3540C)

PCB-1016	ND	0.35	mg/kg	10	03/17/16	AW	SW8082A
PCB-1221	ND	0.35	mg/kg	10	03/17/16	AW	SW8082A
PCB-1232	ND	0.35	mg/kg	10	03/17/16	AW	SW8082A

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
PCB-1242	ND	0.35	mg/kg	10	03/17/16	AW	SW8082A
PCB-1248	ND	0.35	mg/kg	10	03/17/16	AW	SW8082A
PCB-1254	ND	0.35	mg/kg	10	03/17/16	AW	SW8082A
PCB-1260	ND	0.35	mg/kg	10	03/17/16	AW	SW8082A
PCB-1262	ND	0.35	mg/kg	10	03/17/16	AW	SW8082A
PCB-1268	ND	0.35	mg/kg	10	03/17/16	AW	SW8082A
<u>QA/QC Surrogates</u>							
% DCBP	66		%	10	03/17/16	AW	30 - 150 %
% TCMX	76		%	10	03/17/16	AW	30 - 150 %

Polynuclear Aromatic HC

2-Methylnaphthalene	ND	240	ug/Kg	1	03/17/16	DD	SW8270D
Acenaphthene	560	240	ug/Kg	1	03/17/16	DD	SW8270D
Acenaphthylene	ND	240	ug/Kg	1	03/17/16	DD	SW8270D
Anthracene	780	240	ug/Kg	1	03/17/16	DD	SW8270D
Benz(a)anthracene	1200	240	ug/Kg	1	03/17/16	DD	SW8270D
Benzo(a)pyrene	1100	240	ug/Kg	1	03/17/16	DD	SW8270D
Benzo(b)fluoranthene	940	240	ug/Kg	1	03/17/16	DD	SW8270D
Benzo(ghi)perylene	640	240	ug/Kg	1	03/17/16	DD	SW8270D
Benzo(k)fluoranthene	870	240	ug/Kg	1	03/17/16	DD	SW8270D
Chrysene	1400	240	ug/Kg	1	03/17/16	DD	SW8270D
Dibenz(a,h)anthracene	ND	240	ug/Kg	1	03/17/16	DD	SW8270D
Fluoranthene	2800	240	ug/Kg	1	03/17/16	DD	SW8270D
Fluorene	480	240	ug/Kg	1	03/17/16	DD	SW8270D
Indeno(1,2,3-cd)pyrene	640	240	ug/Kg	1	03/17/16	DD	SW8270D
Naphthalene	380	240	ug/Kg	1	03/17/16	DD	SW8270D
Phenanthrene	3500	240	ug/Kg	1	03/17/16	DD	SW8270D
Pyrene	2900	240	ug/Kg	1	03/17/16	DD	SW8270D

<u>QA/QC Surrogates</u>							
% 2-Fluorobiphenyl	57		%	1	03/17/16	DD	30 - 130 %
% Nitrobenzene-d5	64		%	1	03/17/16	DD	30 - 130 %
% Terphenyl-d14	55		%	1	03/17/16	DD	30 - 130 %

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
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RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level

QA/QC Surrogates: Surrogates are compounds (preceded with a %) added by the lab to determine analysis efficiency. Surrogate results(%) listed in the report are not "detected" compounds.

Comments:

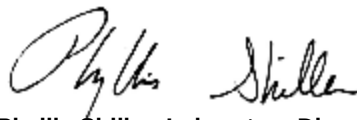
TPH Comment:

**Petroleum hydrocarbon chromatogram contains a multicomponent hydrocarbon distribution in the range of C16 to C36. The sample was quantitated against a C9-C36 alkane hydrocarbon standard.

All soils, solids and sludges are reported on a dry weight basis unless otherwise noted in the sample 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

April 18, 2016

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

April 18, 2016

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

Sample Information

Matrix: SOIL
Location Code: F&O-PCB
Rush Request: Standard
P.O.#: 20120232.C40

Custody Information

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

Date

03/14/16
03/16/16

Time

11:30
9:54

Laboratory Data

SDG ID: GBK79016
Phoenix ID: BK79022

Project ID: MERIDEN HOSPITAL
Client ID: 1176160314-07

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Silver	< 0.33	0.33	mg/Kg	1	03/17/16	LK	SW6010C
Arsenic	4.0	0.7	mg/Kg	1	03/17/16	LK	SW6010C
Barium	86.7	0.33	mg/Kg	1	03/17/16	LK	SW6010C
Cadmium	< 0.33	0.33	mg/Kg	1	03/17/16	LK	SW6010C
Chromium	23.3	0.33	mg/Kg	1	03/17/16	LK	SW6010C
Mercury	< 0.03	0.03	mg/Kg	1	03/17/16	RS	SW7471B
Lead	29.1	0.34	mg/Kg	1	03/18/16	LK	SW6010C
Selenium	< 1.3	1.3	mg/Kg	1	03/17/16	LK	SW6010C
Percent Solid	90		%		03/16/16	W	SW846-%Solid
Soil Extraction SVOA PAH	Completed				03/16/16	BB/CKV	SW3545A
Extraction of CT ETPH	Completed				03/16/16	BB/CK	SW3545A
Mercury Digestion	Completed				03/17/16	W/W	SW7471B
Total Metals Digest	Completed				03/17/16	G/AG	SW3050B

TPH by GC (Extractable Products)

Ext. Petroleum HC	ND	54	mg/Kg	1	03/18/16	JRB	CTETPH 8015D
Identification	ND		mg/Kg	1	03/18/16	JRB	CTETPH 8015D

QA/QC Surrogates

% n-Pentacosane	88		%	1	03/18/16	JRB	50 - 150 %
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Polynuclear Aromatic HC

2-Methylnaphthalene	ND	260	ug/Kg	1	03/17/16	DD	SW8270D
Acenaphthene	ND	260	ug/Kg	1	03/17/16	DD	SW8270D
Acenaphthylene	ND	260	ug/Kg	1	03/17/16	DD	SW8270D
Anthracene	ND	260	ug/Kg	1	03/17/16	DD	SW8270D
Benz(a)anthracene	ND	260	ug/Kg	1	03/17/16	DD	SW8270D
Benzo(a)pyrene	ND	260	ug/Kg	1	03/17/16	DD	SW8270D
Benzo(b)fluoranthene	ND	260	ug/Kg	1	03/17/16	DD	SW8270D

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Benzo(ghi)perylene	ND	260	ug/Kg	1	03/17/16	DD	SW8270D
Benzo(k)fluoranthene	ND	260	ug/Kg	1	03/17/16	DD	SW8270D
Chrysene	ND	260	ug/Kg	1	03/17/16	DD	SW8270D
Dibenz(a,h)anthracene	ND	260	ug/Kg	1	03/17/16	DD	SW8270D
Fluoranthene	ND	260	ug/Kg	1	03/17/16	DD	SW8270D
Fluorene	ND	260	ug/Kg	1	03/17/16	DD	SW8270D
Indeno(1,2,3-cd)pyrene	ND	260	ug/Kg	1	03/17/16	DD	SW8270D
Naphthalene	ND	260	ug/Kg	1	03/17/16	DD	SW8270D
Phenanthrene	ND	260	ug/Kg	1	03/17/16	DD	SW8270D
Pyrene	ND	260	ug/Kg	1	03/17/16	DD	SW8270D
<u>QA/QC Surrogates</u>							
% 2-Fluorobiphenyl	72		%	1	03/17/16	DD	30 - 130 %
% Nitrobenzene-d5	72		%	1	03/17/16	DD	30 - 130 %
% Terphenyl-d14	69		%	1	03/17/16	DD	30 - 130 %

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

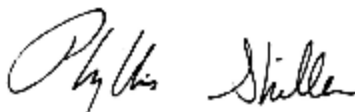
QA/QC Surrogates: Surrogates are compounds (preceded with a %) added by the lab to determine analysis efficiency. Surrogate results(%) listed in the report are not "detected" compounds.

Comments:

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

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Phyllis Shiller, Laboratory Director

April 18, 2016

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

April 18, 2016

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

Sample Information

Matrix: SOIL
Location Code: F&O-PCB
Rush Request: Standard
P.O.#: 20120232.C40

Custody Information

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

Date

03/14/16
03/16/16

Time

12:30
9:54

Laboratory Data

SDG ID: GBK79016
Phoenix ID: BK79023

Project ID: MERIDEN HOSPITAL
Client ID: 1176160314-08

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Silver	< 0.33	0.33	mg/Kg	1	03/17/16	LK	SW6010C
Arsenic	3.7	0.7	mg/Kg	1	03/17/16	LK	SW6010C
Barium	72.6	0.33	mg/Kg	1	03/17/16	LK	SW6010C
Cadmium	< 0.33	0.33	mg/Kg	1	03/17/16	LK	SW6010C
Chromium	17.7	0.33	mg/Kg	1	03/17/16	LK	SW6010C
Mercury	0.07	0.03	mg/Kg	1	03/17/16	RS	SW7471B
Lead	41.5	0.39	mg/Kg	1	03/18/16	LK	SW6010C
Selenium	< 1.5	1.5	mg/Kg	1	03/18/16	LK	SW6010C
SPLP Chromium	< 0.010	0.010	mg/L	1	04/14/16	EK	SW6010C
SPLP Lead	< 0.010	0.010	mg/L	1	04/14/16	EK	SW6010C
SPLP Metals Digestion	Completed				04/11/16	I/I	SW3005A
Percent Solid	90		%		03/16/16	W	SW846-%Solid
Soil Extraction SVOA PAH	Completed				03/16/16	BB/CKV	SW3545A
Extraction of CT ETPH	Completed				03/16/16	BB/CK	SW3545A
Mercury Digestion	Completed				03/17/16	W/W	SW7471B
SPLP Extraction for Metals	Completed				04/08/16	I	SW1312
Total Metals Digest	Completed				03/17/16	G/AG	SW3050B
Field Extraction	Completed				03/14/16		SW5035A

TPH by GC (Extractable Products)

Ext. Petroleum HC	ND	54	mg/Kg	1	03/18/16	JRB	CTETPH 8015D
Identification	ND		mg/Kg	1	03/18/16	JRB	CTETPH 8015D

QA/QC Surrogates

% n-Pentacosane	98		%	1	03/18/16	JRB	50 - 150 %
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Volatiles

1,1,1,2-Tetrachloroethane	ND	4.7	ug/Kg	1	03/17/16	JLI	SW8260
1,1,1-Trichloroethane	ND	4.7	ug/Kg	1	03/17/16	JLI	SW8260

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
1,1,2,2-Tetrachloroethane	ND	2.8	ug/Kg	1	03/17/16	JLI	SW8260
1,1,2-Trichloroethane	ND	4.7	ug/Kg	1	03/17/16	JLI	SW8260
1,1-Dichloroethane	ND	4.7	ug/Kg	1	03/17/16	JLI	SW8260
1,1-Dichloroethene	ND	4.7	ug/Kg	1	03/17/16	JLI	SW8260
1,1-Dichloropropene	ND	4.7	ug/Kg	1	03/17/16	JLI	SW8260
1,2,3-Trichlorobenzene	ND	4.7	ug/Kg	1	03/17/16	JLI	SW8260
1,2,3-Trichloropropane	ND	4.7	ug/Kg	1	03/17/16	JLI	SW8260
1,2,4-Trichlorobenzene	ND	4.7	ug/Kg	1	03/17/16	JLI	SW8260
1,2,4-Trimethylbenzene	ND	4.7	ug/Kg	1	03/17/16	JLI	SW8260
1,2-Dibromo-3-chloropropane	ND	4.7	ug/Kg	1	03/17/16	JLI	SW8260
1,2-Dibromoethane	ND	4.7	ug/Kg	1	03/17/16	JLI	SW8260
1,2-Dichlorobenzene	ND	4.7	ug/Kg	1	03/17/16	JLI	SW8260
1,2-Dichloroethane	ND	4.7	ug/Kg	1	03/17/16	JLI	SW8260
1,2-Dichloropropane	ND	4.7	ug/Kg	1	03/17/16	JLI	SW8260
1,3,5-Trimethylbenzene	ND	4.7	ug/Kg	1	03/17/16	JLI	SW8260
1,3-Dichlorobenzene	ND	4.7	ug/Kg	1	03/17/16	JLI	SW8260
1,3-Dichloropropane	ND	4.7	ug/Kg	1	03/17/16	JLI	SW8260
1,4-Dichlorobenzene	ND	4.7	ug/Kg	1	03/17/16	JLI	SW8260
2,2-Dichloropropane	ND	4.7	ug/Kg	1	03/17/16	JLI	SW8260
2-Chlorotoluene	ND	4.7	ug/Kg	1	03/17/16	JLI	SW8260
2-Hexanone	ND	23	ug/Kg	1	03/17/16	JLI	SW8260
2-Isopropyltoluene	ND	4.7	ug/Kg	1	03/17/16	JLI	SW8260
4-Chlorotoluene	ND	4.7	ug/Kg	1	03/17/16	JLI	SW8260
4-Methyl-2-pentanone	ND	23	ug/Kg	1	03/17/16	JLI	SW8260
Acetone	ND	230	ug/Kg	1	03/17/16	JLI	SW8260
Acrylonitrile	ND	4.7	ug/Kg	1	03/17/16	JLI	SW8260
Benzene	ND	4.7	ug/Kg	1	03/17/16	JLI	SW8260
Bromobenzene	ND	4.7	ug/Kg	1	03/17/16	JLI	SW8260
Bromochloromethane	ND	4.7	ug/Kg	1	03/17/16	JLI	SW8260
Bromodichloromethane	ND	4.7	ug/Kg	1	03/17/16	JLI	SW8260
Bromoform	ND	4.7	ug/Kg	1	03/17/16	JLI	SW8260
Bromomethane	ND	4.7	ug/Kg	1	03/17/16	JLI	SW8260
Carbon Disulfide	ND	4.7	ug/Kg	1	03/17/16	JLI	SW8260
Carbon tetrachloride	ND	4.7	ug/Kg	1	03/17/16	JLI	SW8260
Chlorobenzene	ND	4.7	ug/Kg	1	03/17/16	JLI	SW8260
Chloroethane	ND	4.7	ug/Kg	1	03/17/16	JLI	SW8260
Chloroform	ND	4.7	ug/Kg	1	03/17/16	JLI	SW8260
Chloromethane	ND	4.7	ug/Kg	1	03/17/16	JLI	SW8260
cis-1,2-Dichloroethene	ND	4.7	ug/Kg	1	03/17/16	JLI	SW8260
cis-1,3-Dichloropropene	ND	4.7	ug/Kg	1	03/17/16	JLI	SW8260
Dibromochloromethane	ND	2.8	ug/Kg	1	03/17/16	JLI	SW8260
Dibromomethane	ND	4.7	ug/Kg	1	03/17/16	JLI	SW8260
Dichlorodifluoromethane	ND	4.7	ug/Kg	1	03/17/16	JLI	SW8260
Ethylbenzene	ND	4.7	ug/Kg	1	03/17/16	JLI	SW8260
Hexachlorobutadiene	ND	4.7	ug/Kg	1	03/17/16	JLI	SW8260
Isopropylbenzene	ND	4.7	ug/Kg	1	03/17/16	JLI	SW8260
m&p-Xylene	ND	4.7	ug/Kg	1	03/17/16	JLI	SW8260
Methyl Ethyl Ketone	ND	28	ug/Kg	1	03/17/16	JLI	SW8260
Methyl t-butyl ether (MTBE)	ND	9.3	ug/Kg	1	03/17/16	JLI	SW8260

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Methylene chloride	ND	9.3	ug/Kg	1	03/17/16	JLI	SW8260
Naphthalene	ND	4.7	ug/Kg	1	03/17/16	JLI	SW8260
n-Butylbenzene	ND	4.7	ug/Kg	1	03/17/16	JLI	SW8260
n-Propylbenzene	ND	4.7	ug/Kg	1	03/17/16	JLI	SW8260
o-Xylene	ND	4.7	ug/Kg	1	03/17/16	JLI	SW8260
p-Isopropyltoluene	ND	4.7	ug/Kg	1	03/17/16	JLI	SW8260
sec-Butylbenzene	ND	4.7	ug/Kg	1	03/17/16	JLI	SW8260
Styrene	ND	4.7	ug/Kg	1	03/17/16	JLI	SW8260
tert-Butylbenzene	ND	4.7	ug/Kg	1	03/17/16	JLI	SW8260
Tetrachloroethene	ND	4.7	ug/Kg	1	03/17/16	JLI	SW8260
Tetrahydrofuran (THF)	ND	9.3	ug/Kg	1	03/17/16	JLI	SW8260
Toluene	ND	4.7	ug/Kg	1	03/17/16	JLI	SW8260
Total Xylenes	ND	4.7	ug/Kg	1	03/17/16	JLI	SW8260
trans-1,2-Dichloroethene	ND	4.7	ug/Kg	1	03/17/16	JLI	SW8260
trans-1,3-Dichloropropene	ND	4.7	ug/Kg	1	03/17/16	JLI	SW8260
trans-1,4-dichloro-2-butene	ND	9.3	ug/Kg	1	03/17/16	JLI	SW8260
Trichloroethene	ND	4.7	ug/Kg	1	03/17/16	JLI	SW8260
Trichlorofluoromethane	ND	4.7	ug/Kg	1	03/17/16	JLI	SW8260
Trichlorotrifluoroethane	ND	4.7	ug/Kg	1	03/17/16	JLI	SW8260
Vinyl chloride	ND	4.7	ug/Kg	1	03/17/16	JLI	SW8260
<u>QA/QC Surrogates</u>							
% 1,2-dichlorobenzene-d4	101		%	1	03/17/16	JLI	70 - 130 %
% Bromofluorobenzene	94		%	1	03/17/16	JLI	70 - 130 %
% Dibromofluoromethane	97		%	1	03/17/16	JLI	70 - 130 %
% Toluene-d8	97		%	1	03/17/16	JLI	70 - 130 %
<u>Polynuclear Aromatic HC</u>							
2-Methylnaphthalene	ND	250	ug/Kg	1	03/17/16	DD	SW8270D
Acenaphthene	ND	250	ug/Kg	1	03/17/16	DD	SW8270D
Acenaphthylene	ND	250	ug/Kg	1	03/17/16	DD	SW8270D
Anthracene	ND	250	ug/Kg	1	03/17/16	DD	SW8270D
Benz(a)anthracene	ND	250	ug/Kg	1	03/17/16	DD	SW8270D
Benzo(a)pyrene	ND	250	ug/Kg	1	03/17/16	DD	SW8270D
Benzo(b)fluoranthene	ND	250	ug/Kg	1	03/17/16	DD	SW8270D
Benzo(ghi)perylene	ND	250	ug/Kg	1	03/17/16	DD	SW8270D
Benzo(k)fluoranthene	ND	250	ug/Kg	1	03/17/16	DD	SW8270D
Chrysene	ND	250	ug/Kg	1	03/17/16	DD	SW8270D
Dibenz(a,h)anthracene	ND	250	ug/Kg	1	03/17/16	DD	SW8270D
Fluoranthene	ND	250	ug/Kg	1	03/17/16	DD	SW8270D
Fluorene	ND	250	ug/Kg	1	03/17/16	DD	SW8270D
Indeno(1,2,3-cd)pyrene	ND	250	ug/Kg	1	03/17/16	DD	SW8270D
Naphthalene	ND	250	ug/Kg	1	03/17/16	DD	SW8270D
Phenanthrene	ND	250	ug/Kg	1	03/17/16	DD	SW8270D
Pyrene	ND	250	ug/Kg	1	03/17/16	DD	SW8270D
<u>QA/QC Surrogates</u>							
% 2-Fluorobiphenyl	68		%	1	03/17/16	DD	30 - 130 %
% Nitrobenzene-d5	61		%	1	03/17/16	DD	30 - 130 %
% Terphenyl-d14	65		%	1	03/17/16	DD	30 - 130 %

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
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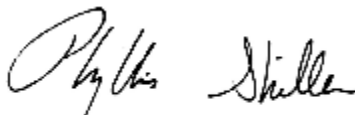
RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level
QA/QC Surrogates: Surrogates are compounds (preceded with a %) added by the lab to determine analysis efficiency. Surrogate results(%) listed in the report are not "detected" compounds.

Comments:

All soils, solids and sludges are reported on a dry weight basis unless otherwise noted in the sample 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

April 18, 2016

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

April 18, 2016

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

Sample Information

Matrix: SOIL
Location Code: F&O-PCB
Rush Request: Standard
P.O.#: 20120232.C40

Custody Information

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

Date

03/14/16
03/16/16

Time

13:30
9:54

Laboratory Data

SDG ID: GBK79016
Phoenix ID: BK79024

Project ID: MERIDEN HOSPITAL
Client ID: 1176160314-09

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Silver	< 0.32	0.32	mg/Kg	1	03/17/16	LK	SW6010C
Arsenic	2.6	0.6	mg/Kg	1	03/17/16	LK	SW6010C
Barium	57.8	0.32	mg/Kg	1	03/17/16	LK	SW6010C
Cadmium	< 0.32	0.32	mg/Kg	1	03/17/16	LK	SW6010C
Chromium	13.6	0.32	mg/Kg	1	03/17/16	LK	SW6010C
Mercury	0.07	0.03	mg/Kg	1	03/17/16	RS	SW7471B
Lead	27.9	0.32	mg/Kg	1	03/17/16	LK	SW6010C
Selenium	< 1.3	1.3	mg/Kg	1	03/17/16	LK	SW6010C
Percent Solid	93		%		03/16/16	W	SW846-%Solid
Soil Extraction SVOA PAH	Completed				03/16/16	BB/CKV	SW3545A
Extraction of CT ETPH	Completed				03/16/16	BB/CK	SW3545A
Mercury Digestion	Completed				03/17/16	W/W	SW7471B
Total Metals Digest	Completed				03/16/16	G/AG	SW3050B
Field Extraction	Completed				03/14/16		SW5035A

TPH by GC (Extractable Products)

Ext. Petroleum HC	ND	54	mg/Kg	1	03/17/16	JRB	CTETPH 8015D
Identification	ND		mg/Kg	1	03/17/16	JRB	CTETPH 8015D

QA/QC Surrogates

% n-Pentacosane	82		%	1	03/17/16	JRB	50 - 150 %
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Volatiles

1,1,1,2-Tetrachloroethane	ND	4.6	ug/Kg	1	03/17/16	JLI	SW8260
1,1,1-Trichloroethane	ND	4.6	ug/Kg	1	03/17/16	JLI	SW8260
1,1,2,2-Tetrachloroethane	ND	2.7	ug/Kg	1	03/17/16	JLI	SW8260
1,1,2-Trichloroethane	ND	4.6	ug/Kg	1	03/17/16	JLI	SW8260
1,1-Dichloroethane	ND	4.6	ug/Kg	1	03/17/16	JLI	SW8260
1,1-Dichloroethene	ND	4.6	ug/Kg	1	03/17/16	JLI	SW8260

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
1,1-Dichloropropene	ND	4.6	ug/Kg	1	03/17/16	JLI	SW8260
1,2,3-Trichlorobenzene	ND	4.6	ug/Kg	1	03/17/16	JLI	SW8260
1,2,3-Trichloropropane	ND	4.6	ug/Kg	1	03/17/16	JLI	SW8260
1,2,4-Trichlorobenzene	ND	4.6	ug/Kg	1	03/17/16	JLI	SW8260
1,2,4-Trimethylbenzene	ND	4.6	ug/Kg	1	03/17/16	JLI	SW8260
1,2-Dibromo-3-chloropropane	ND	4.6	ug/Kg	1	03/17/16	JLI	SW8260
1,2-Dibromoethane	ND	4.6	ug/Kg	1	03/17/16	JLI	SW8260
1,2-Dichlorobenzene	ND	4.6	ug/Kg	1	03/17/16	JLI	SW8260
1,2-Dichloroethane	ND	4.6	ug/Kg	1	03/17/16	JLI	SW8260
1,2-Dichloropropane	ND	4.6	ug/Kg	1	03/17/16	JLI	SW8260
1,3,5-Trimethylbenzene	ND	4.6	ug/Kg	1	03/17/16	JLI	SW8260
1,3-Dichlorobenzene	ND	4.6	ug/Kg	1	03/17/16	JLI	SW8260
1,3-Dichloropropane	ND	4.6	ug/Kg	1	03/17/16	JLI	SW8260
1,4-Dichlorobenzene	ND	4.6	ug/Kg	1	03/17/16	JLI	SW8260
2,2-Dichloropropane	ND	4.6	ug/Kg	1	03/17/16	JLI	SW8260
2-Chlorotoluene	ND	4.6	ug/Kg	1	03/17/16	JLI	SW8260
2-Hexanone	ND	23	ug/Kg	1	03/17/16	JLI	SW8260
2-Isopropyltoluene	ND	4.6	ug/Kg	1	03/17/16	JLI	SW8260
4-Chlorotoluene	ND	4.6	ug/Kg	1	03/17/16	JLI	SW8260
4-Methyl-2-pentanone	ND	23	ug/Kg	1	03/17/16	JLI	SW8260
Acetone	ND	230	ug/Kg	1	03/17/16	JLI	SW8260
Acrylonitrile	ND	4.6	ug/Kg	1	03/17/16	JLI	SW8260
Benzene	ND	4.6	ug/Kg	1	03/17/16	JLI	SW8260
Bromobenzene	ND	4.6	ug/Kg	1	03/17/16	JLI	SW8260
Bromochloromethane	ND	4.6	ug/Kg	1	03/17/16	JLI	SW8260
Bromodichloromethane	ND	4.6	ug/Kg	1	03/17/16	JLI	SW8260
Bromoform	ND	4.6	ug/Kg	1	03/17/16	JLI	SW8260
Bromomethane	ND	4.6	ug/Kg	1	03/17/16	JLI	SW8260
Carbon Disulfide	ND	4.6	ug/Kg	1	03/17/16	JLI	SW8260
Carbon tetrachloride	ND	4.6	ug/Kg	1	03/17/16	JLI	SW8260
Chlorobenzene	ND	4.6	ug/Kg	1	03/17/16	JLI	SW8260
Chloroethane	ND	4.6	ug/Kg	1	03/17/16	JLI	SW8260
Chloroform	ND	4.6	ug/Kg	1	03/17/16	JLI	SW8260
Chloromethane	ND	4.6	ug/Kg	1	03/17/16	JLI	SW8260
cis-1,2-Dichloroethene	ND	4.6	ug/Kg	1	03/17/16	JLI	SW8260
cis-1,3-Dichloropropene	ND	4.6	ug/Kg	1	03/17/16	JLI	SW8260
Dibromochloromethane	ND	2.7	ug/Kg	1	03/17/16	JLI	SW8260
Dibromomethane	ND	4.6	ug/Kg	1	03/17/16	JLI	SW8260
Dichlorodifluoromethane	ND	4.6	ug/Kg	1	03/17/16	JLI	SW8260
Ethylbenzene	ND	4.6	ug/Kg	1	03/17/16	JLI	SW8260
Hexachlorobutadiene	ND	4.6	ug/Kg	1	03/17/16	JLI	SW8260
Isopropylbenzene	ND	4.6	ug/Kg	1	03/17/16	JLI	SW8260
m&p-Xylene	ND	4.6	ug/Kg	1	03/17/16	JLI	SW8260
Methyl Ethyl Ketone	ND	27	ug/Kg	1	03/17/16	JLI	SW8260
Methyl t-butyl ether (MTBE)	ND	9.1	ug/Kg	1	03/17/16	JLI	SW8260
Methylene chloride	ND	9.1	ug/Kg	1	03/17/16	JLI	SW8260
Naphthalene	ND	4.6	ug/Kg	1	03/17/16	JLI	SW8260
n-Butylbenzene	ND	4.6	ug/Kg	1	03/17/16	JLI	SW8260
n-Propylbenzene	ND	4.6	ug/Kg	1	03/17/16	JLI	SW8260

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
o-Xylene	ND	4.6	ug/Kg	1	03/17/16	JLI	SW8260
p-Isopropyltoluene	ND	4.6	ug/Kg	1	03/17/16	JLI	SW8260
sec-Butylbenzene	ND	4.6	ug/Kg	1	03/17/16	JLI	SW8260
Styrene	ND	4.6	ug/Kg	1	03/17/16	JLI	SW8260
tert-Butylbenzene	ND	4.6	ug/Kg	1	03/17/16	JLI	SW8260
Tetrachloroethene	ND	4.6	ug/Kg	1	03/17/16	JLI	SW8260
Tetrahydrofuran (THF)	ND	9.1	ug/Kg	1	03/17/16	JLI	SW8260
Toluene	ND	4.6	ug/Kg	1	03/17/16	JLI	SW8260
Total Xylenes	ND	4.6	ug/Kg	1	03/17/16	JLI	SW8260
trans-1,2-Dichloroethene	ND	4.6	ug/Kg	1	03/17/16	JLI	SW8260
trans-1,3-Dichloropropene	ND	4.6	ug/Kg	1	03/17/16	JLI	SW8260
trans-1,4-dichloro-2-butene	ND	9.1	ug/Kg	1	03/17/16	JLI	SW8260
Trichloroethene	ND	4.6	ug/Kg	1	03/17/16	JLI	SW8260
Trichlorofluoromethane	ND	4.6	ug/Kg	1	03/17/16	JLI	SW8260
Trichlorotrifluoroethane	ND	4.6	ug/Kg	1	03/17/16	JLI	SW8260
Vinyl chloride	ND	4.6	ug/Kg	1	03/17/16	JLI	SW8260
<u>QA/QC Surrogates</u>							
% 1,2-dichlorobenzene-d4	99		%	1	03/17/16	JLI	70 - 130 %
% Bromofluorobenzene	96		%	1	03/17/16	JLI	70 - 130 %
% Dibromofluoromethane	97		%	1	03/17/16	JLI	70 - 130 %
% Toluene-d8	98		%	1	03/17/16	JLI	70 - 130 %
<u>Polynuclear Aromatic HC</u>							
2-Methylnaphthalene	ND	250	ug/Kg	1	03/17/16	DD	SW8270D
Acenaphthene	ND	250	ug/Kg	1	03/17/16	DD	SW8270D
Acenaphthylene	ND	250	ug/Kg	1	03/17/16	DD	SW8270D
Anthracene	ND	250	ug/Kg	1	03/17/16	DD	SW8270D
Benz(a)anthracene	ND	250	ug/Kg	1	03/17/16	DD	SW8270D
Benzo(a)pyrene	ND	250	ug/Kg	1	03/17/16	DD	SW8270D
Benzo(b)fluoranthene	ND	250	ug/Kg	1	03/17/16	DD	SW8270D
Benzo(ghi)perylene	ND	250	ug/Kg	1	03/17/16	DD	SW8270D
Benzo(k)fluoranthene	ND	250	ug/Kg	1	03/17/16	DD	SW8270D
Chrysene	ND	250	ug/Kg	1	03/17/16	DD	SW8270D
Dibenz(a,h)anthracene	ND	250	ug/Kg	1	03/17/16	DD	SW8270D
Fluoranthene	ND	250	ug/Kg	1	03/17/16	DD	SW8270D
Fluorene	ND	250	ug/Kg	1	03/17/16	DD	SW8270D
Indeno(1,2,3-cd)pyrene	ND	250	ug/Kg	1	03/17/16	DD	SW8270D
Naphthalene	ND	250	ug/Kg	1	03/17/16	DD	SW8270D
Phenanthrene	ND	250	ug/Kg	1	03/17/16	DD	SW8270D
Pyrene	ND	250	ug/Kg	1	03/17/16	DD	SW8270D
<u>QA/QC Surrogates</u>							
% 2-Fluorobiphenyl	62		%	1	03/17/16	DD	30 - 130 %
% Nitrobenzene-d5	58		%	1	03/17/16	DD	30 - 130 %
% Terphenyl-d14	55		%	1	03/17/16	DD	30 - 130 %

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
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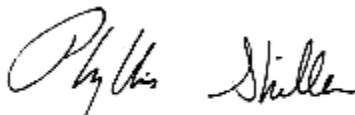
RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level
QA/QC Surrogates: Surrogates are compounds (preceded with a %) added by the lab to determine analysis efficiency. Surrogate results(%) listed in the report are not "detected" compounds.

Comments:

All soils, solids and sludges are reported on a dry weight basis unless otherwise noted in the sample 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

April 18, 2016

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

April 18, 2016

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

Sample Information

Matrix: SOIL
Location Code: F&O-PCB
Rush Request: Standard
P.O.#: 20120232.C40

Custody Information

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

Date

03/14/16
03/16/16

Time

14:06
9:54

Laboratory Data

SDG ID: GBK79016
Phoenix ID: BK79026

Project ID: MERIDEN HOSPITAL
Client ID: 1176160314-11

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Silver	0.63	0.31	mg/Kg	1	03/17/16	LK	SW6010C
Arsenic	4.1	0.6	mg/Kg	1	03/17/16	LK	SW6010C
Barium	78.1	0.31	mg/Kg	1	03/17/16	LK	SW6010C
Cadmium	< 0.31	0.31	mg/Kg	1	03/17/16	LK	SW6010C
Chromium	18.4	0.31	mg/Kg	1	03/17/16	LK	SW6010C
Mercury	0.09	0.02	mg/Kg	1	03/17/16	RS	SW7471B
Lead	35.4	0.31	mg/Kg	1	03/17/16	LK	SW6010C
Selenium	< 1.3	1.3	mg/Kg	1	03/17/16	LK	SW6010C
SPLP Chromium	< 0.010	0.010	mg/L	1	04/12/16	EK	SW6010C
SPLP Lead	< 0.010	0.010	mg/L	1	04/12/16	EK	SW6010C
SPLP Metals Digestion	Completed				04/11/16	I/I	SW3005A
Percent Solid	95		%		03/16/16	W	SW846-%Solid
Soil Extraction SVOA PAH	Completed				03/16/16	BB/CKV	SW3545A
Extraction of CT ETPH	Completed				03/16/16	BB/CK	SW3545A
Mercury Digestion	Completed				03/17/16	W/W	SW7471B
Extraction for PCB	Completed				03/16/16	Q/I	SW3540C
SPLP PCB Extraction	Completed				04/11/16	LZ/T	SW3510C/SW3520C
SPLP Extraction for Metals	Completed				04/08/16	I	SW1312
SPLP Extraction for Organics	Completed				04/08/16	I	SW1312
SPLP Semivolatiles (SIM) Ext.	Completed				04/11/16	P/D	SW3510C/SW3520C
Total Metals Digest	Completed				03/16/16	G/AG	SW3050B
Field Extraction	Completed				03/14/16		SW5035A

TPH by GC (Extractable Products)

Ext. Petroleum HC	230	51	mg/Kg	1	03/17/16	JRB	CTETPH 8015D
Identification	**		mg/Kg	1	03/17/16	JRB	CTETPH 8015D

QA/QC Surrogates

% n-Pentacosane	98		%	1	03/17/16	JRB	50 - 150 %
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Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
<u>PCB (Soxhlet SW3540C)</u>							
PCB-1016	ND	17	mg/kg	500	03/17/16	AW	SW8082A
PCB-1221	ND	17	mg/kg	500	03/17/16	AW	SW8082A
PCB-1232	ND	17	mg/kg	500	03/17/16	AW	SW8082A
PCB-1242	ND	17	mg/kg	500	03/17/16	AW	SW8082A
PCB-1248	ND	17	mg/kg	500	03/17/16	AW	SW8082A
PCB-1254	180	17	mg/kg	500	03/17/16	AW	SW8082A
PCB-1260	ND	17	mg/kg	500	03/17/16	AW	SW8082A
PCB-1262	ND	17	mg/kg	500	03/17/16	AW	SW8082A
PCB-1268	ND	17	mg/kg	500	03/17/16	AW	SW8082A
<u>QA/QC Surrogates</u>							
% DCBP	Diluted Out		%	500	03/17/16	AW	30 - 150 %
% TCMX	Diluted Out		%	500	03/17/16	AW	30 - 150 %
<u>SPLP Polychlorinated Biphenyls</u>							
PCB-1016	ND	0.55	ug/L	1	04/12/16	AW	SW8082A
PCB-1221	ND	0.55	ug/L	1	04/12/16	AW	SW8082A
PCB-1232	ND	0.55	ug/L	1	04/12/16	AW	SW8082A
PCB-1242	ND	0.55	ug/L	1	04/12/16	AW	SW8082A
PCB-1248	ND	0.55	ug/L	1	04/12/16	AW	SW8082A
PCB-1254	ND	0.55	ug/L	1	04/12/16	AW	SW8082A
PCB-1260	ND	0.55	ug/L	1	04/12/16	AW	SW8082A
PCB-1262	ND	0.55	ug/L	1	04/12/16	AW	SW8082A
PCB-1268	ND	0.55	ug/L	1	04/12/16	AW	SW8082A
<u>QA/QC Surrogates</u>							
%DCBP (Surrogate Rec)	48		%	1	04/12/16	AW	30 - 150 %
%TCMX (Surrogate Rec)	110		%	1	04/12/16	AW	30 - 150 %
<u>Volatiles</u>							
1,1,1,2-Tetrachloroethane	ND	5.6	ug/Kg	1	03/17/16	JLI	SW8260
1,1,1-Trichloroethane	ND	5.6	ug/Kg	1	03/17/16	JLI	SW8260
1,1,2,2-Tetrachloroethane	ND	3.3	ug/Kg	1	03/17/16	JLI	SW8260
1,1,2-Trichloroethane	ND	5.6	ug/Kg	1	03/17/16	JLI	SW8260
1,1-Dichloroethane	ND	5.6	ug/Kg	1	03/17/16	JLI	SW8260
1,1-Dichloroethene	ND	5.6	ug/Kg	1	03/17/16	JLI	SW8260
1,1-Dichloropropene	ND	5.6	ug/Kg	1	03/17/16	JLI	SW8260
1,2,3-Trichlorobenzene	ND	5.6	ug/Kg	1	03/17/16	JLI	SW8260
1,2,3-Trichloropropane	ND	5.6	ug/Kg	1	03/17/16	JLI	SW8260
1,2,4-Trichlorobenzene	ND	5.6	ug/Kg	1	03/17/16	JLI	SW8260
1,2,4-Trimethylbenzene	11	5.6	ug/Kg	1	03/17/16	JLI	SW8260
1,2-Dibromo-3-chloropropane	ND	5.6	ug/Kg	1	03/17/16	JLI	SW8260
1,2-Dibromoethane	ND	5.6	ug/Kg	1	03/17/16	JLI	SW8260
1,2-Dichlorobenzene	ND	5.6	ug/Kg	1	03/17/16	JLI	SW8260
1,2-Dichloroethane	ND	5.6	ug/Kg	1	03/17/16	JLI	SW8260
1,2-Dichloropropane	ND	5.6	ug/Kg	1	03/17/16	JLI	SW8260
1,3,5-Trimethylbenzene	ND	5.6	ug/Kg	1	03/17/16	JLI	SW8260
1,3-Dichlorobenzene	ND	5.6	ug/Kg	1	03/17/16	JLI	SW8260
1,3-Dichloropropane	ND	5.6	ug/Kg	1	03/17/16	JLI	SW8260
1,4-Dichlorobenzene	ND	5.6	ug/Kg	1	03/17/16	JLI	SW8260

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
2,2-Dichloropropane	ND	5.6	ug/Kg	1	03/17/16	JLI	SW8260
2-Chlorotoluene	ND	5.6	ug/Kg	1	03/17/16	JLI	SW8260
2-Hexanone	ND	28	ug/Kg	1	03/17/16	JLI	SW8260
2-Isopropyltoluene	ND	5.6	ug/Kg	1	03/17/16	JLI	SW8260
4-Chlorotoluene	ND	5.6	ug/Kg	1	03/17/16	JLI	SW8260
4-Methyl-2-pentanone	ND	28	ug/Kg	1	03/17/16	JLI	SW8260
Acetone	ND	280	ug/Kg	1	03/17/16	JLI	SW8260
Acrylonitrile	ND	5.6	ug/Kg	1	03/17/16	JLI	SW8260
Benzene	ND	5.6	ug/Kg	1	03/17/16	JLI	SW8260
Bromobenzene	ND	5.6	ug/Kg	1	03/17/16	JLI	SW8260
Bromochloromethane	ND	5.6	ug/Kg	1	03/17/16	JLI	SW8260
Bromodichloromethane	ND	5.6	ug/Kg	1	03/17/16	JLI	SW8260
Bromoform	ND	5.6	ug/Kg	1	03/17/16	JLI	SW8260
Bromomethane	ND	5.6	ug/Kg	1	03/17/16	JLI	SW8260
Carbon Disulfide	ND	5.6	ug/Kg	1	03/17/16	JLI	SW8260
Carbon tetrachloride	ND	5.6	ug/Kg	1	03/17/16	JLI	SW8260
Chlorobenzene	ND	5.6	ug/Kg	1	03/17/16	JLI	SW8260
Chloroethane	ND	5.6	ug/Kg	1	03/17/16	JLI	SW8260
Chloroform	ND	5.6	ug/Kg	1	03/17/16	JLI	SW8260
Chloromethane	ND	5.6	ug/Kg	1	03/17/16	JLI	SW8260
cis-1,2-Dichloroethene	ND	5.6	ug/Kg	1	03/17/16	JLI	SW8260
cis-1,3-Dichloropropene	ND	5.6	ug/Kg	1	03/17/16	JLI	SW8260
Dibromochloromethane	ND	3.3	ug/Kg	1	03/17/16	JLI	SW8260
Dibromomethane	ND	5.6	ug/Kg	1	03/17/16	JLI	SW8260
Dichlorodifluoromethane	ND	5.6	ug/Kg	1	03/17/16	JLI	SW8260
Ethylbenzene	ND	5.6	ug/Kg	1	03/17/16	JLI	SW8260
Hexachlorobutadiene	ND	5.6	ug/Kg	1	03/17/16	JLI	SW8260
Isopropylbenzene	ND	5.6	ug/Kg	1	03/17/16	JLI	SW8260
m&p-Xylene	ND	5.6	ug/Kg	1	03/17/16	JLI	SW8260
Methyl Ethyl Ketone	ND	33	ug/Kg	1	03/17/16	JLI	SW8260
Methyl t-butyl ether (MTBE)	ND	11	ug/Kg	1	03/17/16	JLI	SW8260
Methylene chloride	ND	11	ug/Kg	1	03/17/16	JLI	SW8260
Naphthalene	9400	280	ug/Kg	50	03/17/16	JLI	SW8260
n-Butylbenzene	ND	5.6	ug/Kg	1	03/17/16	JLI	SW8260
n-Propylbenzene	ND	5.6	ug/Kg	1	03/17/16	JLI	SW8260
o-Xylene	ND	5.6	ug/Kg	1	03/17/16	JLI	SW8260
p-Isopropyltoluene	ND	5.6	ug/Kg	1	03/17/16	JLI	SW8260
sec-Butylbenzene	ND	5.6	ug/Kg	1	03/17/16	JLI	SW8260
Styrene	ND	5.6	ug/Kg	1	03/17/16	JLI	SW8260
tert-Butylbenzene	ND	5.6	ug/Kg	1	03/17/16	JLI	SW8260
Tetrachloroethene	ND	5.6	ug/Kg	1	03/17/16	JLI	SW8260
Tetrahydrofuran (THF)	ND	11	ug/Kg	1	03/17/16	JLI	SW8260
Toluene	ND	5.6	ug/Kg	1	03/17/16	JLI	SW8260
Total Xylenes	ND	5.6	ug/Kg	1	03/17/16	JLI	SW8260
trans-1,2-Dichloroethene	ND	5.6	ug/Kg	1	03/17/16	JLI	SW8260
trans-1,3-Dichloropropene	ND	5.6	ug/Kg	1	03/17/16	JLI	SW8260
trans-1,4-dichloro-2-butene	ND	11	ug/Kg	1	03/17/16	JLI	SW8260
Trichloroethene	ND	5.6	ug/Kg	1	03/17/16	JLI	SW8260
Trichlorofluoromethane	ND	5.6	ug/Kg	1	03/17/16	JLI	SW8260

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Trichlorotrifluoroethane	ND	5.6	ug/Kg	1	03/17/16	JLI	SW8260
Vinyl chloride	ND	5.6	ug/Kg	1	03/17/16	JLI	SW8260
<u>QA/QC Surrogates</u>							
% 1,2-dichlorobenzene-d4	99		%	1	03/17/16	JLI	70 - 130 %
% Bromofluorobenzene	99		%	1	03/17/16	JLI	70 - 130 %
% Dibromofluoromethane	86		%	1	03/17/16	JLI	70 - 130 %
% Toluene-d8	98		%	1	03/17/16	JLI	70 - 130 %

Polynuclear Aromatic HC

2-Methylnaphthalene	11000	1200	ug/Kg	5	03/17/16	DD	SW8270D
Acenaphthene	270	240	ug/Kg	1	03/17/16	DD	SW8270D
Acenaphthylene	ND	240	ug/Kg	1	03/17/16	DD	SW8270D
Anthracene	ND	240	ug/Kg	1	03/17/16	DD	SW8270D
Benz(a)anthracene	1100	240	ug/Kg	1	03/17/16	DD	SW8270D
Benzo(a)pyrene	650	240	ug/Kg	1	03/17/16	DD	SW8270D
Benzo(b)fluoranthene	1000	240	ug/Kg	1	03/17/16	DD	SW8270D
Benzo(ghi)perylene	450	240	ug/Kg	1	03/17/16	DD	SW8270D
Benzo(k)fluoranthene	920	240	ug/Kg	1	03/17/16	DD	SW8270D
Chrysene	1700	240	ug/Kg	1	03/17/16	DD	SW8270D
Dibenz(a,h)anthracene	ND	240	ug/Kg	1	03/17/16	DD	SW8270D
Fluoranthene	850	240	ug/Kg	1	03/17/16	DD	SW8270D
Fluorene	ND	240	ug/Kg	1	03/17/16	DD	SW8270D
Indeno(1,2,3-cd)pyrene	480	240	ug/Kg	1	03/17/16	DD	SW8270D
Naphthalene	1700	240	ug/Kg	1	03/17/16	DD	SW8270D
Phenanthrene	460	240	ug/Kg	1	03/17/16	DD	SW8270D
Pyrene	860	240	ug/Kg	1	03/17/16	DD	SW8270D

QA/QC Surrogates

% 2-Fluorobiphenyl	74		%	1	03/17/16	DD	30 - 130 %
% Nitrobenzene-d5	76		%	1	03/17/16	DD	30 - 130 %
% Terphenyl-d14	70		%	1	03/17/16	DD	30 - 130 %

SPLP Semivolatiles by SIM

2-Methylnaphthalene	73	0.10	ug/L	1	04/13/16	DD	SW8270D (SIM)
Acenaphthene	1.9	0.10	ug/L	1	04/12/16	DD	SW8270D (SIM)
Acenaphthylene	0.34	0.10	ug/L	1	04/12/16	DD	SW8270D (SIM)
Anthracene	0.12	0.10	ug/L	1	04/12/16	DD	SW8270D (SIM)
Benz(a)anthracene	0.08	0.02	ug/L	1	04/12/16	DD	SW8270D (SIM)
Benzo(a)pyrene	ND	0.02	ug/L	1	04/12/16	DD	SW8270D (SIM)
Benzo(b)fluoranthene	ND	0.02	ug/L	1	04/12/16	DD	SW8270D (SIM)
Benzo(ghi)perylene	ND	0.10	ug/L	1	04/12/16	DD	SW8270D (SIM)
Benzo(k)fluoranthene	0.03	0.02	ug/L	1	04/12/16	DD	SW8270D (SIM)
Chrysene	0.07	0.02	ug/L	1	04/12/16	DD	SW8270D (SIM)
Dibenz(a,h)anthracene	ND	0.01	ug/L	1	04/12/16	DD	SW8270D (SIM)
Fluoranthene	0.12	0.10	ug/L	1	04/12/16	DD	SW8270D (SIM)
Fluorene	1.1	0.10	ug/L	1	04/12/16	DD	SW8270D (SIM)
Indeno(1,2,3-cd)pyrene	ND	0.02	ug/L	1	04/12/16	DD	SW8270D (SIM)
Naphthalene	23	0.10	ug/L	1	04/13/16	DD	SW8270D (SIM)
Phenanthrene	1.0	0.07	ug/L	1	04/12/16	DD	SW8270D (SIM)
Pyrene	0.16	0.10	ug/L	1	04/12/16	DD	SW8270D (SIM)

QA/QC Surrogates

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
% 2-Fluorobiphenyl	71		%	1	04/12/16	DD	30 - 130 %
% Nitrobenzene-d5	63		%	1	04/12/16	DD	30 - 130 %
% Terphenyl-d14	90		%	1	04/12/16	DD	30 - 130 %

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

QA/QC Surrogates: Surrogates are compounds (preceded with a %) added by the lab to determine analysis efficiency. Surrogate results(%) listed in the report are not "detected" compounds.

Comments:

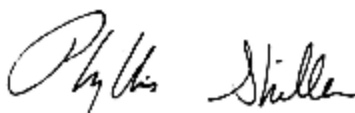
TPH Comment:

**Petroleum hydrocarbon chromatogram contains a multicomponent hydrocarbon distribution in the range of C10 to C36. The sample was quantitated against a C9-C36 alkane hydrocarbon standard.

All soils, solids and sludges are reported on a dry weight basis unless otherwise noted in the sample 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

April 18, 2016

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

April 18, 2016

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

Sample Information

Matrix: SOIL
Location Code: F&O-PCB
Rush Request: Standard
P.O.#: 20120232.C40

Custody Information

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

Date

03/14/16
03/16/16

Time

14:20
9:54

Laboratory Data

SDG ID: GBK79016
Phoenix ID: BK79027

Project ID: MERIDEN HOSPITAL
Client ID: 1176160314-12

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Silver	0.51	0.35	mg/Kg	1	03/17/16	LK	SW6010C
Arsenic	2.9	0.7	mg/Kg	1	03/17/16	LK	SW6010C
Barium	64.7	0.35	mg/Kg	1	03/17/16	LK	SW6010C
Cadmium	< 0.35	0.35	mg/Kg	1	03/17/16	LK	SW6010C
Chromium	10.5	0.35	mg/Kg	1	03/17/16	LK	SW6010C
Mercury	0.17	0.03	mg/Kg	1	03/17/16	RS	SW7471B
Lead	25.1	0.35	mg/Kg	1	03/17/16	LK	SW6010C
Selenium	< 1.4	1.4	mg/Kg	1	03/17/16	LK	SW6010C
SPLP Mercury	< 0.0005	0.0005	mg/L	1	04/11/16	RS	SW7470A
Percent Solid	93		%		03/16/16	W	SW846-%Solid
Soil Extraction SVOA PAH	Completed				03/16/16	BB/CKV	SW3545A
Extraction of CT ETPH	Completed				03/16/16	BB/CK	SW3545A
Mercury Digestion	Completed				03/17/16	W/W	SW7471B
Extraction for PCB	Completed				03/16/16	Q/I	SW3540C
SPLP Digestion Mercury	Completed				04/11/16	I/I	SW1312/SW7470A
SPLP Extraction for Metals	Completed				04/08/16	I	SW1312
Total Metals Digest	Completed				03/16/16	G/AG	SW3050B

TPH by GC (Extractable Products)

Ext. Petroleum HC	ND	53	mg/Kg	1	03/18/16	JRB	CTETPH 8015D
Identification	ND		mg/Kg	1	03/18/16	JRB	CTETPH 8015D

QA/QC Surrogates

% n-Pentacosane	95		%	1	03/18/16	JRB	50 - 150 %
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PCB (Soxhlet SW3540C)

PCB-1016	ND	0.35	mg/kg	10	03/17/16	AW	SW8082A
PCB-1221	ND	0.35	mg/kg	10	03/17/16	AW	SW8082A
PCB-1232	ND	0.35	mg/kg	10	03/17/16	AW	SW8082A

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
PCB-1242	ND	0.35	mg/kg	10	03/17/16	AW	SW8082A
PCB-1248	ND	0.35	mg/kg	10	03/17/16	AW	SW8082A
PCB-1254	ND	0.35	mg/kg	10	03/17/16	AW	SW8082A
PCB-1260	ND	0.35	mg/kg	10	03/17/16	AW	SW8082A
PCB-1262	ND	0.35	mg/kg	10	03/17/16	AW	SW8082A
PCB-1268	ND	0.35	mg/kg	10	03/17/16	AW	SW8082A
<u>QA/QC Surrogates</u>							
% DCBP	78		%	10	03/17/16	AW	30 - 150 %
% TCMX	66		%	10	03/17/16	AW	30 - 150 %

Polynuclear Aromatic HC

2-Methylnaphthalene	860	240	ug/Kg	1	03/17/16	DD	SW8270D
Acenaphthene	ND	240	ug/Kg	1	03/17/16	DD	SW8270D
Acenaphthylene	ND	240	ug/Kg	1	03/17/16	DD	SW8270D
Anthracene	ND	240	ug/Kg	1	03/17/16	DD	SW8270D
Benz(a)anthracene	ND	240	ug/Kg	1	03/17/16	DD	SW8270D
Benzo(a)pyrene	ND	240	ug/Kg	1	03/17/16	DD	SW8270D
Benzo(b)fluoranthene	ND	240	ug/Kg	1	03/17/16	DD	SW8270D
Benzo(ghi)perylene	ND	240	ug/Kg	1	03/17/16	DD	SW8270D
Benzo(k)fluoranthene	ND	240	ug/Kg	1	03/17/16	DD	SW8270D
Chrysene	ND	240	ug/Kg	1	03/17/16	DD	SW8270D
Dibenz(a,h)anthracene	ND	240	ug/Kg	1	03/17/16	DD	SW8270D
Fluoranthene	ND	240	ug/Kg	1	03/17/16	DD	SW8270D
Fluorene	ND	240	ug/Kg	1	03/17/16	DD	SW8270D
Indeno(1,2,3-cd)pyrene	ND	240	ug/Kg	1	03/17/16	DD	SW8270D
Naphthalene	ND	240	ug/Kg	1	03/17/16	DD	SW8270D
Phenanthrene	ND	240	ug/Kg	1	03/17/16	DD	SW8270D
Pyrene	ND	240	ug/Kg	1	03/17/16	DD	SW8270D

QA/QC Surrogates

% 2-Fluorobiphenyl	72		%	1	03/17/16	DD	30 - 130 %
% Nitrobenzene-d5	70		%	1	03/17/16	DD	30 - 130 %
% Terphenyl-d14	68		%	1	03/17/16	DD	30 - 130 %

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

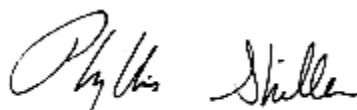
QA/QC Surrogates: Surrogates are compounds (preceded with a %) added by the lab to determine analysis efficiency. Surrogate results(%) listed in the report are not "detected" compounds.

Comments:

All soils, solids and sludges are reported on a dry weight basis unless otherwise noted in the sample 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

April 18, 2016

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

April 18, 2016

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

Sample Information

Matrix: SOIL
Location Code: F&O-PCB
Rush Request: Standard
P.O.#: 20120232.C40

Custody Information

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

Date

03/14/16
03/16/16

Time

17:00
9:54

Laboratory Data

SDG ID: GBK79016
Phoenix ID: BK79028

Project ID: MERIDEN HOSPITAL
Client ID: 1176160314-18

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Field Extraction	Completed				03/14/16		SW5035A

Volatiles

1,1,1,2-Tetrachloroethane	ND	250	ug/Kg	50	03/17/16	JLI	SW8260
1,1,1-Trichloroethane	ND	250	ug/Kg	50	03/17/16	JLI	SW8260
1,1,2,2-Tetrachloroethane	ND	250	ug/Kg	50	03/17/16	JLI	SW8260
1,1,2-Trichloroethane	ND	250	ug/Kg	50	03/17/16	JLI	SW8260
1,1-Dichloroethane	ND	250	ug/Kg	50	03/17/16	JLI	SW8260
1,1-Dichloroethene	ND	250	ug/Kg	50	03/17/16	JLI	SW8260
1,1-Dichloropropene	ND	250	ug/Kg	50	03/17/16	JLI	SW8260
1,2,3-Trichlorobenzene	ND	250	ug/Kg	50	03/17/16	JLI	SW8260
1,2,3-Trichloropropane	ND	250	ug/Kg	50	03/17/16	JLI	SW8260
1,2,4-Trichlorobenzene	ND	250	ug/Kg	50	03/17/16	JLI	SW8260
1,2,4-Trimethylbenzene	ND	250	ug/Kg	50	03/17/16	JLI	SW8260
1,2-Dibromo-3-chloropropane	ND	250	ug/Kg	50	03/17/16	JLI	SW8260
1,2-Dibromoethane	ND	250	ug/Kg	50	03/17/16	JLI	SW8260
1,2-Dichlorobenzene	ND	250	ug/Kg	50	03/17/16	JLI	SW8260
1,2-Dichloroethane	ND	250	ug/Kg	50	03/17/16	JLI	SW8260
1,2-Dichloropropane	ND	250	ug/Kg	50	03/17/16	JLI	SW8260
1,3,5-Trimethylbenzene	ND	250	ug/Kg	50	03/17/16	JLI	SW8260
1,3-Dichlorobenzene	ND	250	ug/Kg	50	03/17/16	JLI	SW8260
1,3-Dichloropropane	ND	250	ug/Kg	50	03/17/16	JLI	SW8260
1,4-Dichlorobenzene	ND	250	ug/Kg	50	03/17/16	JLI	SW8260
2,2-Dichloropropane	ND	250	ug/Kg	50	03/17/16	JLI	SW8260
2-Chlorotoluene	ND	250	ug/Kg	50	03/17/16	JLI	SW8260
2-Hexanone	ND	1300	ug/Kg	50	03/17/16	JLI	SW8260
2-Isopropyltoluene	ND	250	ug/Kg	50	03/17/16	JLI	SW8260
4-Chlorotoluene	ND	250	ug/Kg	50	03/17/16	JLI	SW8260

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
4-Methyl-2-pentanone	ND	1300	ug/Kg	50	03/17/16	JLI	SW8260
Acetone	ND	5000	ug/Kg	50	03/17/16	JLI	SW8260
Acrylonitrile	ND	500	ug/Kg	50	03/17/16	JLI	SW8260
Benzene	ND	250	ug/Kg	50	03/17/16	JLI	SW8260
Bromobenzene	ND	250	ug/Kg	50	03/17/16	JLI	SW8260
Bromochloromethane	ND	250	ug/Kg	50	03/17/16	JLI	SW8260
Bromodichloromethane	ND	250	ug/Kg	50	03/17/16	JLI	SW8260
Bromoform	ND	250	ug/Kg	50	03/17/16	JLI	SW8260
Bromomethane	ND	250	ug/Kg	50	03/17/16	JLI	SW8260
Carbon Disulfide	ND	250	ug/Kg	50	03/17/16	JLI	SW8260
Carbon tetrachloride	ND	250	ug/Kg	50	03/17/16	JLI	SW8260
Chlorobenzene	ND	250	ug/Kg	50	03/17/16	JLI	SW8260
Chloroethane	ND	250	ug/Kg	50	03/17/16	JLI	SW8260
Chloroform	ND	250	ug/Kg	50	03/17/16	JLI	SW8260
Chloromethane	ND	250	ug/Kg	50	03/17/16	JLI	SW8260
cis-1,2-Dichloroethene	ND	250	ug/Kg	50	03/17/16	JLI	SW8260
cis-1,3-Dichloropropene	ND	250	ug/Kg	50	03/17/16	JLI	SW8260
Dibromochloromethane	ND	250	ug/Kg	50	03/17/16	JLI	SW8260
Dibromomethane	ND	250	ug/Kg	50	03/17/16	JLI	SW8260
Dichlorodifluoromethane	ND	250	ug/Kg	50	03/17/16	JLI	SW8260
Ethylbenzene	ND	250	ug/Kg	50	03/17/16	JLI	SW8260
Hexachlorobutadiene	ND	250	ug/Kg	50	03/17/16	JLI	SW8260
Isopropylbenzene	ND	250	ug/Kg	50	03/17/16	JLI	SW8260
m&p-Xylene	ND	250	ug/Kg	50	03/17/16	JLI	SW8260
Methyl Ethyl Ketone	ND	3000	ug/Kg	50	03/17/16	JLI	SW8260
Methyl t-butyl ether (MTBE)	ND	250	ug/Kg	50	03/17/16	JLI	SW8260
Methylene chloride	ND	500	ug/Kg	50	03/17/16	JLI	SW8260
Naphthalene	ND	250	ug/Kg	50	03/17/16	JLI	SW8260
n-Butylbenzene	ND	250	ug/Kg	50	03/17/16	JLI	SW8260
n-Propylbenzene	ND	250	ug/Kg	50	03/17/16	JLI	SW8260
o-Xylene	ND	250	ug/Kg	50	03/17/16	JLI	SW8260
p-Isopropyltoluene	ND	250	ug/Kg	50	03/17/16	JLI	SW8260
sec-Butylbenzene	ND	250	ug/Kg	50	03/17/16	JLI	SW8260
Styrene	ND	250	ug/Kg	50	03/17/16	JLI	SW8260
tert-Butylbenzene	ND	250	ug/Kg	50	03/17/16	JLI	SW8260
Tetrachloroethene	ND	250	ug/Kg	50	03/17/16	JLI	SW8260
Tetrahydrofuran (THF)	ND	500	ug/Kg	50	03/17/16	JLI	SW8260
Toluene	ND	250	ug/Kg	50	03/17/16	JLI	SW8260
Total Xylenes	ND	250	ug/Kg	50	03/17/16	JLI	SW8260
trans-1,2-Dichloroethene	ND	250	ug/Kg	50	03/17/16	JLI	SW8260
trans-1,3-Dichloropropene	ND	250	ug/Kg	50	03/17/16	JLI	SW8260
trans-1,4-dichloro-2-butene	ND	500	ug/Kg	50	03/17/16	JLI	SW8260
Trichloroethene	ND	250	ug/Kg	50	03/17/16	JLI	SW8260
Trichlorofluoromethane	ND	250	ug/Kg	50	03/17/16	JLI	SW8260
Trichlorotrifluoroethane	ND	250	ug/Kg	50	03/17/16	JLI	SW8260
Vinyl chloride	ND	250	ug/Kg	50	03/17/16	JLI	SW8260
<u>QA/QC Surrogates</u>							
% 1,2-dichlorobenzene-d4	97		%	50	03/17/16	JLI	70 - 130 %
% Bromofluorobenzene	97		%	50	03/17/16	JLI	70 - 130 %

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
% Dibromofluoromethane	97		%	50	03/17/16	JLI	70 - 130 %
% Toluene-d8	98		%	50	03/17/16	JLI	70 - 130 %

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level
QA/QC Surrogates: Surrogates are compounds (preceded with a %) added by the lab to determine analysis efficiency. Surrogate results(%) listed in the report are not "detected" compounds.

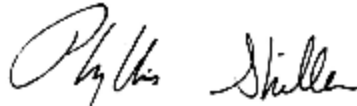
Comments:

Results are reported on an ``as received`` basis, and are not corrected for dry weight., TRIP BLANK INCLUDED.

All soils, solids and sludges are reported on a dry weight basis unless otherwise noted in the sample 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

April 18, 2016

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

April 18, 2016

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

Sample Information

Matrix: SOIL
Location Code: F&O-PCB
Rush Request: Standard
P.O.#: 20120232.C40

Custody Information

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

Date

03/14/16
03/16/16

Time

17:15
9:54

Laboratory Data

SDG ID: GBK79016
Phoenix ID: BK79029

Project ID: MERIDEN HOSPITAL
Client ID: 1176160314-19

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Field Extraction	Completed				03/14/16		SW5035A

Volatiles

1,1,1,2-Tetrachloroethane	ND	5.0	ug/Kg	1	03/17/16	JLI	SW8260
1,1,1-Trichloroethane	ND	5.0	ug/Kg	1	03/17/16	JLI	SW8260
1,1,2,2-Tetrachloroethane	ND	3.0	ug/Kg	1	03/17/16	JLI	SW8260
1,1,2-Trichloroethane	ND	5.0	ug/Kg	1	03/17/16	JLI	SW8260
1,1-Dichloroethane	ND	5.0	ug/Kg	1	03/17/16	JLI	SW8260
1,1-Dichloroethene	ND	5.0	ug/Kg	1	03/17/16	JLI	SW8260
1,1-Dichloropropene	ND	5.0	ug/Kg	1	03/17/16	JLI	SW8260
1,2,3-Trichlorobenzene	ND	5.0	ug/Kg	1	03/17/16	JLI	SW8260
1,2,3-Trichloropropane	ND	5.0	ug/Kg	1	03/17/16	JLI	SW8260
1,2,4-Trichlorobenzene	ND	5.0	ug/Kg	1	03/17/16	JLI	SW8260
1,2,4-Trimethylbenzene	ND	5.0	ug/Kg	1	03/17/16	JLI	SW8260
1,2-Dibromo-3-chloropropane	ND	5.0	ug/Kg	1	03/17/16	JLI	SW8260
1,2-Dibromoethane	ND	5.0	ug/Kg	1	03/17/16	JLI	SW8260
1,2-Dichlorobenzene	ND	5.0	ug/Kg	1	03/17/16	JLI	SW8260
1,2-Dichloroethane	ND	5.0	ug/Kg	1	03/17/16	JLI	SW8260
1,2-Dichloropropane	ND	5.0	ug/Kg	1	03/17/16	JLI	SW8260
1,3,5-Trimethylbenzene	ND	5.0	ug/Kg	1	03/17/16	JLI	SW8260
1,3-Dichlorobenzene	ND	5.0	ug/Kg	1	03/17/16	JLI	SW8260
1,3-Dichloropropane	ND	5.0	ug/Kg	1	03/17/16	JLI	SW8260
1,4-Dichlorobenzene	ND	5.0	ug/Kg	1	03/17/16	JLI	SW8260
2,2-Dichloropropane	ND	5.0	ug/Kg	1	03/17/16	JLI	SW8260
2-Chlorotoluene	ND	5.0	ug/Kg	1	03/17/16	JLI	SW8260
2-Hexanone	ND	25	ug/Kg	1	03/17/16	JLI	SW8260
2-Isopropyltoluene	ND	5.0	ug/Kg	1	03/17/16	JLI	SW8260
4-Chlorotoluene	ND	5.0	ug/Kg	1	03/17/16	JLI	SW8260

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
4-Methyl-2-pentanone	ND	25	ug/Kg	1	03/17/16	JLI	SW8260
Acetone	ND	250	ug/Kg	1	03/17/16	JLI	SW8260
Acrylonitrile	ND	5.0	ug/Kg	1	03/17/16	JLI	SW8260
Benzene	ND	5.0	ug/Kg	1	03/17/16	JLI	SW8260
Bromobenzene	ND	5.0	ug/Kg	1	03/17/16	JLI	SW8260
Bromochloromethane	ND	5.0	ug/Kg	1	03/17/16	JLI	SW8260
Bromodichloromethane	ND	5.0	ug/Kg	1	03/17/16	JLI	SW8260
Bromoform	ND	5.0	ug/Kg	1	03/17/16	JLI	SW8260
Bromomethane	ND	5.0	ug/Kg	1	03/17/16	JLI	SW8260
Carbon Disulfide	ND	5.0	ug/Kg	1	03/17/16	JLI	SW8260
Carbon tetrachloride	ND	5.0	ug/Kg	1	03/17/16	JLI	SW8260
Chlorobenzene	ND	5.0	ug/Kg	1	03/17/16	JLI	SW8260
Chloroethane	ND	5.0	ug/Kg	1	03/17/16	JLI	SW8260
Chloroform	ND	5.0	ug/Kg	1	03/17/16	JLI	SW8260
Chloromethane	ND	5.0	ug/Kg	1	03/17/16	JLI	SW8260
cis-1,2-Dichloroethene	ND	5.0	ug/Kg	1	03/17/16	JLI	SW8260
cis-1,3-Dichloropropene	ND	5.0	ug/Kg	1	03/17/16	JLI	SW8260
Dibromochloromethane	ND	3.0	ug/Kg	1	03/17/16	JLI	SW8260
Dibromomethane	ND	5.0	ug/Kg	1	03/17/16	JLI	SW8260
Dichlorodifluoromethane	ND	5.0	ug/Kg	1	03/17/16	JLI	SW8260
Ethylbenzene	ND	5.0	ug/Kg	1	03/17/16	JLI	SW8260
Hexachlorobutadiene	ND	5.0	ug/Kg	1	03/17/16	JLI	SW8260
Isopropylbenzene	ND	5.0	ug/Kg	1	03/17/16	JLI	SW8260
m&p-Xylene	ND	5.0	ug/Kg	1	03/17/16	JLI	SW8260
Methyl Ethyl Ketone	ND	30	ug/Kg	1	03/17/16	JLI	SW8260
Methyl t-butyl ether (MTBE)	ND	10	ug/Kg	1	03/17/16	JLI	SW8260
Methylene chloride	ND	10	ug/Kg	1	03/17/16	JLI	SW8260
Naphthalene	ND	5.0	ug/Kg	1	03/17/16	JLI	SW8260
n-Butylbenzene	ND	5.0	ug/Kg	1	03/17/16	JLI	SW8260
n-Propylbenzene	ND	5.0	ug/Kg	1	03/17/16	JLI	SW8260
o-Xylene	ND	5.0	ug/Kg	1	03/17/16	JLI	SW8260
p-Isopropyltoluene	ND	5.0	ug/Kg	1	03/17/16	JLI	SW8260
sec-Butylbenzene	ND	5.0	ug/Kg	1	03/17/16	JLI	SW8260
Styrene	ND	5.0	ug/Kg	1	03/17/16	JLI	SW8260
tert-Butylbenzene	ND	5.0	ug/Kg	1	03/17/16	JLI	SW8260
Tetrachloroethene	ND	5.0	ug/Kg	1	03/17/16	JLI	SW8260
Tetrahydrofuran (THF)	ND	10	ug/Kg	1	03/17/16	JLI	SW8260
Toluene	ND	5.0	ug/Kg	1	03/17/16	JLI	SW8260
Total Xylenes	ND	5.0	ug/Kg	1	03/17/16	JLI	SW8260
trans-1,2-Dichloroethene	ND	5.0	ug/Kg	1	03/17/16	JLI	SW8260
trans-1,3-Dichloropropene	ND	5.0	ug/Kg	1	03/17/16	JLI	SW8260
trans-1,4-dichloro-2-butene	ND	10	ug/Kg	1	03/17/16	JLI	SW8260
Trichloroethene	ND	5.0	ug/Kg	1	03/17/16	JLI	SW8260
Trichlorofluoromethane	ND	5.0	ug/Kg	1	03/17/16	JLI	SW8260
Trichlorotrifluoroethane	ND	5.0	ug/Kg	1	03/17/16	JLI	SW8260
Vinyl chloride	ND	5.0	ug/Kg	1	03/17/16	JLI	SW8260
<u>QA/QC Surrogates</u>							
% 1,2-dichlorobenzene-d4	99		%	1	03/17/16	JLI	70 - 130 %
% Bromofluorobenzene	97		%	1	03/17/16	JLI	70 - 130 %

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
% Dibromofluoromethane	96		%	1	03/17/16	JLI	70 - 130 %
% Toluene-d8	99		%	1	03/17/16	JLI	70 - 130 %

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level
QA/QC Surrogates: Surrogates are compounds (preceded with a %) added by the lab to determine analysis efficiency. Surrogate results(%) listed in the report are not "detected" compounds.

Comments:

Results are reported on an ``as received`` basis, and are not corrected for dry weight., TRIP BLANK INCLUDED.

All soils, solids and sludges are reported on a dry weight basis unless otherwise noted in the sample 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

April 18, 2016

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

QA/QC Report

April 18, 2016

QA/QC Data

SDG I.D.: GBK79016

Parameter	Blank	Blk RL	Sample Result	Dup Result	Dup RPD	LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	% Rec Limits	% RPD Limits
QA/QC Batch 338226 (mg/kg), QC Sample No: BK78641 (BK79026, BK79027)													
<u>ICP Metals - Soil</u>													
Arsenic	BRL	0.66	9.4	8.19	13.8	114			99.2			75 - 125	30
Barium	BRL	0.33	70.4	58.7	18.1	109			94.8			75 - 125	30
Cadmium	BRL	0.33	<0.37	<0.37	NC	102			88.9			75 - 125	30
Chromium	BRL	0.33	33.9	40.2	17.0	108			96.8			75 - 125	30
Lead	BRL	0.33	46.9	45.4	3.30	107			94.5			75 - 125	30
Selenium	BRL	1.3	<1.5	<1.5	NC	112			92.5			75 - 125	30
Silver	BRL	0.33	<0.37	<0.37	NC	107			104			75 - 125	30
QA/QC Batch 338263 (mg/kg), QC Sample No: BK78679 (BK79016, BK79020, BK79022, BK79023, BK79024, BK79026, BK79027)													
Mercury - Soil	BRL	0.03	<0.03	<0.03	NC	123	125	1.6	126			70 - 130	30 m
Comment:													
Additional Mercury criteria: LCS acceptance range for waters is 80-120% and for soils is 70-130%.													
QA/QC Batch 338229 (mg/kg), QC Sample No: BK79024 (BK79024)													
<u>ICP Metals - Soil</u>													
Arsenic	BRL	0.67	2.6	2.83	NC	110			94.1			75 - 125	30
Barium	BRL	0.33	57.8	56.9	1.60	105			92.5			75 - 125	30
Cadmium	BRL	0.33	<0.32	<0.34	NC	98.6			90.8			75 - 125	30
Chromium	BRL	0.33	13.6	14.0	2.90	108			97.0			75 - 125	30
Lead	BRL	0.33	27.9	30.9	10.2	101			89.0			75 - 125	30
Selenium	BRL	1.3	<1.3	<1.3	NC	111			87.8			75 - 125	30
Silver	BRL	0.33	<0.32	<0.34	NC	106			95.6			75 - 125	30
QA/QC Batch 341772 (mg/L), QC Sample No: BK79032 (BK79020, BK79023, BK79026)													
<u>ICP Metals - SPLP Extraction</u>													
Chromium	BRL	0.010	<0.010	<0.010	NC	97.0			99.6			75 - 125	20
Lead	BRL	0.010	<0.010	<0.010	NC	97.7			99.7			75 - 125	20
QA/QC Batch 338345 (mg/kg), QC Sample No: BK79757 (BK79023)													
<u>ICP Metals - Soil</u>													
Arsenic	BRL	0.67	16.0	16.7	4.30	106			95.6			75 - 125	30
Barium	BRL	0.33	136	163	18.1	105			106			75 - 125	30
Cadmium	BRL	0.33	1.42	1.35	NC	97.7			95.8			75 - 125	30
Chromium	BRL	0.33	31.0	24.8	22.2	103			96.7			75 - 125	30
Lead	BRL	0.33	148	156	5.30	104			94.8			75 - 125	30
Selenium	BRL	1.3	<1.6	<1.6	NC	108			88.2			75 - 125	30
Silver	BRL	0.33	<0.40	<0.40	NC	101			99.3			75 - 125	30
QA/QC Batch 338344 (mg/kg), QC Sample No: BK79866 (BK79016, BK79020, BK79022)													
<u>ICP Metals - Soil</u>													
Arsenic	BRL	0.67	3.2	3.71	NC	103			92.6			75 - 125	30
Barium	BRL	0.33	17.8	21.1	17.0	109			101			75 - 125	30
Cadmium	BRL	0.33	<0.36	<0.35	NC	87.4			90.7			75 - 125	30
Chromium	BRL	0.33	11.3	13.6	18.5	99.2			96.1			75 - 125	30

QA/QC Data

SDG I.D.: GBK79016

Parameter	Blank	Blk RL	Sample Result	Dup Result	Dup RPD	LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	% Rec Limits	% RPD Limits
Lead	BRL	0.33	3.46	3.89	11.7	99.2			93.4			75 - 125	30
Selenium	BRL	1.3	<1.4	<1.4	NC	99.4			85.6			75 - 125	30
Silver	BRL	0.33	<0.36	<0.35	NC	98.6			95.9			75 - 125	30
QA/QC Batch 341768 (mg/L), QC Sample No: BN09527 (BK79027)													
Mercury - Water	BRL	0.0002	<0.0002	<0.0002	NC	104			79.5			70 - 130	20

Comment:

Additional Mercury criteria: LCS acceptance range for waters is 80-120% and for soils is 70-130%.

m = This parameter is outside laboratory MS/MSD specified recovery limits.



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QA/QC Report

April 18, 2016

QA/QC Data

SDG I.D.: GBK79016

Parameter	Blank	Blk RL	LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	% Rec Limits	% RPD Limits
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QA/QC Batch 338082 (mg/Kg), QC Sample No: BK78737 (BK79016, BK79017, BK79019, BK79020, BK79022, BK79023, BK79024, BK79026, BK79027)

TPH by GC (Extractable Products) - Soil

Ext. Petroleum H.C.	ND	50	64			64	55	15.1	60 - 120	30
% n-Pentacosane	73	%	90			98	76	25.3	50 - 150	30

QA/QC Batch 338207 (ug/kg), QC Sample No: BK79016 (BK79016, BK79017, BK79019, BK79020, BK79022, BK79023, BK79024, BK79026, BK79027)

Polynuclear Aromatic HC - Soil

2-Methylnaphthalene	ND	230	68			74	87	16.1	30 - 130	30
Acenaphthene	ND	230	76			76	87	13.5	30 - 130	30
Acenaphthylene	ND	230	72			74	83	11.5	30 - 130	30
Anthracene	ND	230	78			76	89	15.8	30 - 130	30
Benz(a)anthracene	ND	230	81			76	89	15.8	30 - 130	30
Benzo(a)pyrene	ND	230	76			73	84	14.0	30 - 130	30
Benzo(b)fluoranthene	ND	230	80			74	88	17.3	30 - 130	30
Benzo(ghi)perylene	ND	230	80			77	86	11.0	30 - 130	30
Benzo(k)fluoranthene	ND	230	77			72	87	18.9	30 - 130	30
Chrysene	ND	230	84			80	94	16.1	30 - 130	30
Dibenz(a,h)anthracene	ND	230	78			77	87	12.2	30 - 130	30
Fluoranthene	ND	230	81			80	92	14.0	30 - 130	30
Fluorene	ND	230	79			80	90	11.8	30 - 130	30
Indeno(1,2,3-cd)pyrene	ND	230	79			78	86	9.8	30 - 130	30
Naphthalene	ND	230	66			71	82	14.4	30 - 130	30
Phenanthrene	ND	230	78			76	89	15.8	30 - 130	30
Pyrene	ND	230	84			82	96	15.7	30 - 130	30
% 2-Fluorobiphenyl	49	%	67			69	78	12.2	30 - 130	30
% Nitrobenzene-d5	48	%	65			72	88	20.0	30 - 130	30
% Terphenyl-d14	57	%	78			77	91	16.7	30 - 130	30

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 338872 (ug/kg), QC Sample No: BK79023 (BK79023, BK79024, BK79026 (1X, 50X) , BK79028 (50X) , BK79029)

Volatiles - Soil

1,1,1,2-Tetrachloroethane	ND	5.0	105	109	3.7	104	109	4.7	70 - 130	30
1,1,1-Trichloroethane	ND	5.0	103	108	4.7	107	116	8.1	70 - 130	30
1,1,2,2-Tetrachloroethane	ND	3.0	99	111	11.4	105	114	8.2	70 - 130	30
1,1,2-Trichloroethane	ND	5.0	91	99	8.4	99	105	5.9	70 - 130	30
1,1-Dichloroethane	ND	5.0	100	106	5.8	106	113	6.4	70 - 130	30
1,1-Dichloroethene	ND	5.0	113	115	1.8	112	120	6.9	70 - 130	30
1,1-Dichloropropene	ND	5.0	110	111	0.9	103	110	6.6	70 - 130	30
1,2,3-Trichlorobenzene	ND	5.0	110	118	7.0	76	82	7.6	70 - 130	30
1,2,3-Trichloropropane	ND	5.0	97	107	9.8	110	119	7.9	70 - 130	30
1,2,4-Trichlorobenzene	ND	5.0	115	122	5.9	80	83	3.7	70 - 130	30

QA/QC Data

SDG I.D.: GBK79016

Parameter	Blank	Blk RL	LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	% Rec Limits	% RPD Limits	
1,2,4-Trimethylbenzene	ND	1.0	111	112	0.9	98	105	6.9	70 - 130	30	
1,2-Dibromo-3-chloropropane	ND	5.0	97	115	17.0	119	140	16.2	70 - 130	30	m
1,2-Dibromoethane	ND	5.0	97	108	10.7	106	110	3.7	70 - 130	30	
1,2-Dichlorobenzene	ND	5.0	105	108	2.8	93	99	6.3	70 - 130	30	
1,2-Dichloroethane	ND	5.0	98	106	7.8	107	111	3.7	70 - 130	30	
1,2-Dichloropropane	ND	5.0	98	103	5.0	101	107	5.8	70 - 130	30	
1,3,5-Trimethylbenzene	ND	1.0	111	111	0.0	99	106	6.8	70 - 130	30	
1,3-Dichlorobenzene	ND	5.0	112	113	0.9	93	98	5.2	70 - 130	30	
1,3-Dichloropropane	ND	5.0	96	103	7.0	102	108	5.7	70 - 130	30	
1,4-Dichlorobenzene	ND	5.0	108	111	2.7	92	96	4.3	70 - 130	30	
2,2-Dichloropropane	ND	5.0	109	112	2.7	102	112	9.3	70 - 130	30	
2-Chlorotoluene	ND	5.0	112	112	0.0	101	110	8.5	70 - 130	30	
2-Hexanone	ND	25	84	102	19.4	101	109	7.6	70 - 130	30	
2-Isopropyltoluene	ND	5.0	113	113	0.0	98	107	8.8	70 - 130	30	
4-Chlorotoluene	ND	5.0	111	111	0.0	96	103	7.0	70 - 130	30	
4-Methyl-2-pentanone	ND	25	84	101	18.4	101	114	12.1	70 - 130	30	
Acetone	ND	10	73	86	16.4	96	109	12.7	70 - 130	30	
Acrylonitrile	ND	5.0	89	104	15.5	104	118	12.6	70 - 130	30	
Benzene	ND	1.0	101	103	2.0	102	107	4.8	70 - 130	30	
Bromobenzene	ND	5.0	107	110	2.8	102	109	6.6	70 - 130	30	
Bromochloromethane	ND	5.0	95	105	10.0	104	110	5.6	70 - 130	30	
Bromodichloromethane	ND	5.0	105	111	5.6	107	112	4.6	70 - 130	30	
Bromoform	ND	5.0	102	115	12.0	101	112	10.3	70 - 130	30	
Bromomethane	ND	5.0	113	117	3.5	114	122	6.8	70 - 130	30	
Carbon Disulfide	ND	5.0	113	116	2.6	102	113	10.2	70 - 130	30	
Carbon tetrachloride	ND	5.0	106	109	2.8	104	113	8.3	70 - 130	30	
Chlorobenzene	ND	5.0	103	106	2.9	96	101	5.1	70 - 130	30	
Chloroethane	ND	5.0	109	111	1.8	108	118	8.8	70 - 130	30	
Chloroform	ND	5.0	99	104	4.9	105	112	6.5	70 - 130	30	
Chloromethane	ND	5.0	103	101	2.0	104	111	6.5	70 - 130	30	
cis-1,2-Dichloroethene	ND	5.0	95	100	5.1	97	105	7.9	70 - 130	30	
cis-1,3-Dichloropropene	ND	5.0	100	108	7.7	100	104	3.9	70 - 130	30	
Dibromochloromethane	ND	3.0	106	115	8.1	108	114	5.4	70 - 130	30	
Dibromomethane	ND	5.0	94	107	12.9	105	110	4.7	70 - 130	30	
Dichlorodifluoromethane	ND	5.0	122	122	0.0	116	126	8.3	70 - 130	30	
Ethylbenzene	ND	1.0	104	107	2.8	99	102	3.0	70 - 130	30	
Hexachlorobutadiene	ND	5.0	119	119	0.0	66	77	15.4	70 - 130	30	m
Isopropylbenzene	ND	1.0	109	110	0.9	103	108	4.7	70 - 130	30	
m&p-Xylene	ND	2.0	104	106	1.9	96	100	4.1	70 - 130	30	
Methyl ethyl ketone	ND	5.0	76	93	20.1	94	107	12.9	70 - 130	30	
Methyl t-butyl ether (MTBE)	ND	1.0	96	110	13.6	114	122	6.8	70 - 130	30	
Methylene chloride	ND	5.0	93	100	7.3	183	186	1.6	70 - 130	30	m
Naphthalene	ND	5.0	103	115	11.0	92	100	8.3	70 - 130	30	
n-Butylbenzene	ND	1.0	125	123	1.6	90	98	8.5	70 - 130	30	
n-Propylbenzene	ND	1.0	111	109	1.8	97	103	6.0	70 - 130	30	
o-Xylene	ND	2.0	103	104	1.0	97	103	6.0	70 - 130	30	
p-Isopropyltoluene	ND	1.0	116	117	0.9	96	104	8.0	70 - 130	30	
sec-Butylbenzene	ND	1.0	116	115	0.9	97	106	8.9	70 - 130	30	
Styrene	ND	5.0	102	104	1.9	93	99	6.3	70 - 130	30	
tert-Butylbenzene	ND	1.0	108	109	0.9	97	107	9.8	70 - 130	30	
Tetrachloroethene	ND	5.0	105	106	0.9	95	101	6.1	70 - 130	30	
Tetrahydrofuran (THF)	ND	5.0	81	102	23.0	102	115	12.0	70 - 130	30	
Toluene	ND	1.0	99	101	2.0	97	103	6.0	70 - 130	30	

QA/QC Data

SDG I.D.: GBK79016

Parameter	Blank	Blk RL	LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	% Rec Limits	% RPD Limits
trans-1,2-Dichloroethene	ND	5.0	101	108	6.7	102	111	8.5	70 - 130	30
trans-1,3-Dichloropropene	ND	5.0	102	109	6.6	101	105	3.9	70 - 130	30
trans-1,4-dichloro-2-butene	ND	5.0	116	130	11.4	111	122	9.4	70 - 130	30
Trichloroethene	ND	5.0	101	104	2.9	101	106	4.8	70 - 130	30
Trichlorofluoromethane	ND	5.0	109	111	1.8	107	116	8.1	70 - 130	30
Trichlorotrifluoroethane	ND	5.0	112	116	3.5	110	119	7.9	70 - 130	30
Vinyl chloride	ND	5.0	111	114	2.7	111	121	8.6	70 - 130	30
% 1,2-dichlorobenzene-d4	101	%	99	98	1.0	100	101	1.0	70 - 130	30
% Bromofluorobenzene	97	%	98	100	2.0	98	98	0.0	70 - 130	30
% Dibromofluoromethane	98	%	91	99	8.4	101	102	1.0	70 - 130	30
% Toluene-d8	98	%	101	101	0.0	101	100	1.0	70 - 130	30

Comment:

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

QA/QC Batch 338211 (mg/kg), QC Sample No: BK79026 10X (BK79020, BK79026, BK79027)

Polychlorinated Biphenyls - Soil

PCB-1016	ND	0.17	91	90	1.1	104	73	35.0	40 - 140	30	r
PCB-1221	ND	0.17							40 - 140	30	
PCB-1232	ND	0.17							40 - 140	30	
PCB-1242	ND	0.17							40 - 140	30	
PCB-1248	ND	0.17							40 - 140	30	
PCB-1254	ND	0.17							40 - 140	30	
PCB-1260	ND	0.17	92	93	1.1	99	75	27.6	40 - 140	30	
PCB-1262	ND	0.17							40 - 140	30	
PCB-1268	ND	0.17							40 - 140	30	
% DCBP (Surrogate Rec)	91	%	89	91	2.2	101	74	30.9	30 - 150	30	r
% TCMX (Surrogate Rec)	80	%	95	95	0.0	106	73	36.9	30 - 150	30	r

QA/QC Batch 341853 (ug/L), QC Sample No: BN09532 (BK79026)

Semivolatiles by SIM

2-Methylnaphthalene	ND	0.05	91	84	8.0				30 - 130	20	
Acenaphthene	ND	0.05	86	79	8.5				30 - 130	20	
Acenaphthylene	ND	0.04	81	73	10.4				30 - 130	20	
Anthracene	ND	0.02	101	98	3.0				30 - 130	20	
Benz(a)anthracene	ND	0.02	104	101	2.9				30 - 130	20	
Benzo(a)pyrene	ND	0.02	98	95	3.1				30 - 130	20	
Benzo(b)fluoranthene	ND	0.02	110	113	2.7				30 - 130	20	
Benzo(ghi)perylene	ND	0.02	72	71	1.4				30 - 130	20	
Benzo(k)fluoranthene	ND	0.02	109	101	7.6				30 - 130	20	
Chrysene	ND	0.02	93	92	1.1				30 - 130	20	
Dibenz(a,h)anthracene	ND	0.01	87	83	4.7				30 - 130	20	
Fluoranthene	ND	0.04	98	95	3.1				30 - 130	20	
Fluorene	ND	0.05	87	83	4.7				30 - 130	20	
Indeno(1,2,3-cd)pyrene	ND	0.02	63	61	3.2				30 - 130	20	
Naphthalene	ND	0.05	56	50	11.3				30 - 130	20	
Phenanthrene	ND	0.05	87	85	2.3				30 - 130	20	
Pyrene	ND	0.02	99	98	1.0				30 - 130	20	
% 2-Fluorobiphenyl	68	%	68	58	15.9				30 - 130	20	
% Nitrobenzene-d5	64	%	49	43	13.0				30 - 130	20	
% Terphenyl-d14	94	%	94	89	5.5				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 Data

SDG I.D.: GBK79016

Parameter	Blank	Blk RL	LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	% Rec Limits	% RPD Limits
QA/QC Batch 341676 (ug/L), QC Sample No: BN10304 (BK79026)										
<u>Polychlorinated Biphenyls</u>										
PCB-1016	ND	0.050	67	76	12.6				40 - 140	20
PCB-1221	ND	0.050							40 - 140	20
PCB-1232	ND	0.050							40 - 140	20
PCB-1242	ND	0.050							40 - 140	20
PCB-1248	ND	0.050							40 - 140	20
PCB-1254	ND	0.050							40 - 140	20
PCB-1260	ND	0.050	77	86	11.0				40 - 140	20
PCB-1262	ND	0.050							40 - 140	20
PCB-1268	ND	0.050							40 - 140	20
% DCBP (Surrogate Rec)	78	%	89	88	1.1				30 - 150	20
% TCMX (Surrogate Rec)	49	%	61	77	23.2				30 - 150	20

Comment:

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

m = This parameter is outside laboratory MS/MSD specified recovery limits.

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

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

RPD - Relative Percent Difference

LCS - Laboratory Control Sample

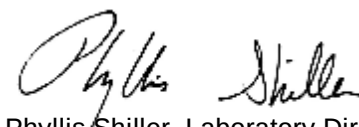
LCSD - Laboratory Control Sample Duplicate

MS - Matrix Spike

MS Dup - Matrix Spike Duplicate

NC - No Criteria

Intf - Interference



Phyllis Shiller, Laboratory Director

April 18, 2016

Monday, April 18, 2016

Criteria: CT: GBM, RC

State: CT

Sample Criteria Exceedences Report

Page 1 of 1

GBK79016 - FO-PCB

SampNo	Acode	Phoenix Analyte	Criteria	Result	RL	Criteria	RL Criteria	Analysis Units
BK79020	\$8100SMR	Benzo(a)pyrene	CT / SEMIVOLATILE ORGANIC COMP / GB PMC (mg/kg)	1100	240	1000	1000	ug/Kg
BK79020	\$8100SMR	Benz(a)anthracene	CT / SEMIVOLATILE ORGANIC COMP / GB PMC (mg/kg)	1200	240	1000	1000	ug/Kg
BK79020	\$8100SMR	Benz(a)anthracene	CT / SEMIVOLATILE ORGANIC COMP / RES DEC (mg/k	1200	240	1000	1000	ug/Kg
BK79020	\$8100SMR	Benzo(a)pyrene	CT / SEMIVOLATILE ORGANIC COMP / RES DEC (mg/k	1100	240	1000	1000	ug/Kg
BK79020	\$ETPH_SMR	Ext. Petroleum HC	CT / PESTICIDES, PCB's, TPH, a / RES DEC (mg/kg)	810	260	500	500	mg/Kg
BK79026	\$8100SMR	Benz(a)anthracene	CT / SEMIVOLATILE ORGANIC COMP / GB PMC (mg/kg)	1100	240	1000	1000	ug/Kg
BK79026	\$8100SMR	Benz(a)anthracene	CT / SEMIVOLATILE ORGANIC COMP / RES DEC (mg/k	1100	240	1000	1000	ug/Kg
BK79026	\$PCB_SOXR	PCB-1221	CT / PESTICIDES, PCB's, TPH, a / RES DEC (mg/kg)	ND	17000	1000	1000	ug/Kg
BK79026	\$PCB_SOXR	PCB-1268	CT / PESTICIDES, PCB's, TPH, a / RES DEC (mg/kg)	ND	17000	1000	1000	ug/Kg
BK79026	\$PCB_SOXR	PCB-1232	CT / PESTICIDES, PCB's, TPH, a / RES DEC (mg/kg)	ND	17000	1000	1000	ug/Kg
BK79026	\$PCB_SOXR	PCB-1242	CT / PESTICIDES, PCB's, TPH, a / RES DEC (mg/kg)	ND	17000	1000	1000	ug/Kg
BK79026	\$PCB_SOXR	PCB-1248	CT / PESTICIDES, PCB's, TPH, a / RES DEC (mg/kg)	ND	17000	1000	1000	ug/Kg
BK79026	\$PCB_SOXR	PCB-1254	CT / PESTICIDES, PCB's, TPH, a / RES DEC (mg/kg)	180000	17000	1000	1000	ug/Kg
BK79026	\$PCB_SOXR	PCB-1260	CT / PESTICIDES, PCB's, TPH, a / RES DEC (mg/kg)	ND	17000	1000	1000	ug/Kg
BK79026	\$PCB_SOXR	PCB-1262	CT / PESTICIDES, PCB's, TPH, a / RES DEC (mg/kg)	ND	17000	1000	1000	ug/Kg
BK79026	\$PCB_SOXR	PCB-1016	CT / PESTICIDES, PCB's, TPH, a / RES DEC (mg/kg)	ND	17000	1000	1000	ug/Kg

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: MERIDEN HOSPITAL **Project Number:**

Laboratory Sample ID(s): BK79016, BK79017, BK79019, BK79020, BK79022, BK79023, BK79024, BK79026, BK79027, BK79028, BK79029

Sampling Date(s): 3/14/2016

RCP Methods Used:

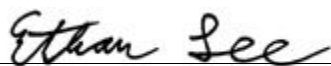
☒ 1311/1312 ☒ 6010 ☐ 7000 ☐ 7196 ☒ 7470/7471 ☐ 8081 ☐ EPH ☐ TO15
☒ 8082 ☐ 8151 ☒ 8260 ☒ 8270 ☒ ETPH ☐ 9010/9012 ☐ VPH

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?	☒ Yes ☐ No
1a.	Were the method specified preservation and holding time requirements met?	☐ Yes ☒ 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)	☐ Yes ☐ No ☒ NA
2.	Were all samples received by the laboratory in a condition consistent with that described on the associated Chain-of-Custody document(s)?	☒ Yes ☐ No
3.	Were samples received at an appropriate temperature (< 6 Degrees C)?	☒ Yes ☐ No ☐ NA
4.	Were all QA/QC performance criteria specified in the Reasonable Confidence Protocol documents achieved? See Section: PCB Narration.	☐ Yes ☒ No
5a.	Were reporting limits specified or referenced on the chain-of-custody?	☒ Yes ☐ No
5b.	Were these reporting limits met?	☒ Yes ☐ No ☐ 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?	☐ Yes ☒ No ☐ NA
7.	Are project-specific matrix spikes and laboratory duplicates included in the data set?	☐ Yes ☒ No ☐ 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: Monday, April 18, 2016

Printed Name: Ethan Lee

Position: Project Manager



Environmental Laboratories, Inc.
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RCP Certification Report

April 18, 2016

SDG I.D.: GBK79016

SDG Comments

Metals Analysis:

The client requested a shorter list of elements than the 6010 RCP list. Only the RCRA 8 Metals are reported as requested on the chain of custody.

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.

BK79026 - The holding time limit was exceeded for SPLP PCB extraction. No significant bias is suspected.

ETPH Narration

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

Instrument:

AU-FID1 03/17/16-2

Jeff Bucko, Chemist 03/17/16

BK79020

The initial calibration (ETPH304I) RSD for the compound list was less than 30% except for the following compounds: None.
The continuing calibration %D for the compound list was less than 30% except for the following compounds:None.

AU-FID11 03/17/16-1

Jeff Bucko, Chemist 03/17/16

BK79024, BK79026

The initial calibration (ETPH304I) RSD for the compound list was less than 30% except for the following compounds: None.
The continuing calibration %D for the compound list was less than 30% except for the following compounds:None.

AU-FID11 03/18/16-1

Jeff Bucko, Chemist 03/18/16

BK79017, BK79019, BK79022, BK79023, BK79027

The initial calibration (ETPH304I) RSD for the compound list was less than 30% except for the following compounds: None.
The continuing calibration %D for the compound list was less than 30% except for the following compounds:None.

AUFID-D1 03/17/16-1

Jeff Bucko, Chemist 03/17/16

BK79016

The initial calibration (ETPH314I) RSD for the compound list was less than 30% except for the following compounds: None.
The continuing calibration %D for the compound list was less than 30% except for the following compounds:None.

QC (Batch Specific):

Batch 338082 (BK78737)

BK79016, BK79017, BK79019, BK79020, BK79022, BK79023, BK79024, BK79026, BK79027

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

Mercury Narration

Were all QA/QC performance criteria specified in the analytical method achieved? Yes.

Instrument:

MERLIN 03/17/16 13:12

Rick Schweitzer, Chemist 03/17/16

BK79016, BK79020, BK79022, BK79023, BK79024, BK79026, BK79027

The method preparation blank contains all of the acids and reagents as the samples; the instrument blanks do not.



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Certification Report

April 18, 2016

SDG I.D.: GBK79016

Mercury Narration

The initial calibration met all criteria including a standard run at or below the reporting level.
All calibration verification standards (ICV, CCV) met criteria.
All calibration blank verification standards (ICB, CCB) met criteria.
The matrix spike sample is used to identify spectral interference for each batch of samples, if within 85-115%, no interference is observed and no further action is taken.
The following Initial Calibration Verification (ICV) compounds did not meet criteria: None.
The following Continuing Calibration Verification (CCV) compounds did not meet criteria: None.

MERLIN 04/11/16 08:44 Rick Schweitzer, Chemist 04/11/16

BK79027

The method preparation blank contains all of the acids and reagents as the samples; the instrument blanks do not.
The initial calibration met all criteria including a standard run at or below the reporting level.
All calibration verification standards (ICV, CCV) met criteria.
All calibration blank verification standards (ICB, CCB) met criteria.
The matrix spike sample is used to identify spectral interference for each batch of samples, if within 85-115%, no interference is observed and no further action is taken.
The following Initial Calibration Verification (ICV) compounds did not meet criteria: None.
The following Continuing Calibration Verification (CCV) compounds did not meet criteria: None.

QC (Batch Specific):

Batch 338263 (BK78679)

BK79016, BK79020, BK79022, BK79023, BK79024, BK79026, BK79027

All LCS recoveries were within 70 - 130 with the following exceptions: None.
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.
Additional Mercury criteria: LCS acceptance range for waters is 80-120% and for soils is 70-130%.

Batch 341768 (BN09527)

BK79027

All LCS recoveries were within 70 - 130 with the following exceptions: None.
Additional Mercury criteria: LCS acceptance range for waters is 80-120% and for soils is 70-130%.

ICP Metals Narration

Were all QA/QC performance criteria specified in the analytical method achieved? Yes.

Instrument:

ARCOS 03/16/16 18:07 Emily Kolominskaya, Laura Kinnin, Chemist 03/16/16

BK79016, BK79020, BK79022, BK79023, BK79024, BK79026, BK79027

The linear range is defined daily by the calibration range.
The following Initial Calibration Verification (ICV) compounds did not meet criteria: None.
The following Continuing Calibration Verification (CCV) compounds did not meet criteria: None.
The following ICP Interference Check (ICSAB) compounds did not meet criteria: None.

ARCOS 03/17/16 22:18 Emily Kolominskaya, Laura Kinnin, Chemist 03/17/16

BK79016, BK79020, BK79022, BK79023

The linear range is defined daily by the calibration range.
The following Initial Calibration Verification (ICV) compounds did not meet criteria: None.



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Certification Report

April 18, 2016

SDG I.D.: GBK79016

ICP Metals Narration

The following Continuing Calibration Verification (CCV) compounds did not meet criteria: None.
The following ICP Interference Check (ICSAB) compounds did not meet criteria: None.

ARCOS 04/11/16 18:19 Emily Kolominskaya, Laura Kinnin, Chemist 04/11/16

BK79020, BK79026

The linear range is defined daily by the calibration range.

The following Initial Calibration Verification (ICV) compounds did not meet criteria: None.

The following Continuing Calibration Verification (CCV) compounds did not meet criteria: None.

The following ICP Interference Check (ICSAB) compounds did not meet criteria: None.

ARCOS 04/14/16 16:20 Emily Kolominskaya, Laura Kinnin, Chemist 04/14/16

BK79023

The linear range is defined daily by the calibration range.

The following Initial Calibration Verification (ICV) compounds did not meet criteria: None.

The following Continuing Calibration Verification (CCV) compounds did not meet criteria: None.

The following ICP Interference Check (ICSAB) compounds did not meet criteria: None.

QC (Batch Specific):

Batch 338226 (BK78641)

BK79026, BK79027

All LCS recoveries were within 75 - 125 with the following exceptions: None.

Batch 338229 (BK79024)

BK79024

All LCS recoveries were within 75 - 125 with the following exceptions: None.

Batch 338344 (BK79866)

BK79016, BK79020, BK79022

All LCS recoveries were within 75 - 125 with the following exceptions: None.

Batch 338345 (BK79757)

BK79023

All LCS recoveries were within 75 - 125 with the following exceptions: None.

Batch 341772 (BK79032)

BK79020, BK79023, BK79026

All LCS recoveries were within 75 - 125 with the following exceptions: None.

PAH Narration

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

Instrument:

CHEM25 03/16/16-1 Damien Drobinski, Chemist 03/16/16

BK79017, BK79019, BK79020, BK79022, BK79023, BK79024, BK79026, BK79027

Initial Calibration Verification (CHEM25/BN_0315):

100% of target compounds met criteria.



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SDG I.D.: GBK79016

PAH Narration

The following compounds had %RSDs >20%: None.
The following compounds did not meet recommended response factors: None.
The following compounds did not meet a minimum response factors: None.

Continuing Calibration Verification (CHEM25/0316_04-BN_0315):
Internal standard areas were within 50 to 200% of the initial calibration with the following exceptions: None.
100% of target compounds met criteria.
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: None.
The following compounds did not meet minimum response factors: None.

PCB Narration

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

QC Batch 341676 (Samples: BK79026) ----

The LCS/LCSD RPD exceeds method criteria for one or more surrogates, therefore there may be variability in the reported result. (%TCMX)

Instrument:

AU-ECD24 04/12/16-1 Adam Werner, Chemist 04/12/16
BK79026

The initial calibration (PC0330AI) RSD for the compound list was less than 20% except for the following compounds: None.
The initial calibration (PC0330BI) RSD for the compound list was less than 20% except for the following compounds: None.
The continuing calibration %D for the compound list was less than 15% except for the following compounds:None.

AU-ECD3 03/17/16-1 Adam Werner, Chemist 03/17/16
BK79026

The initial calibration (PC0229AI) RSD for the compound list was less than 20% except for the following compounds: None.
The initial calibration (PC0229BI) RSD for the compound list was less than 20% except for the following compounds: None.
The continuing calibration %D for the compound list was less than 15% except for the following compounds:None.

AU-ECD5 03/17/16-1 Adam Werner, Chemist 03/17/16
BK79020, BK79026, BK79027

The initial calibration (PC0314AI) RSD for the compound list was less than 20% except for the following compounds: None.
The initial calibration (PC0314BI) RSD for the compound list was less than 20% except for the following compounds: None.
The continuing calibration %D for the compound list was less than 15% except for the following compounds:None.

QC (Batch Specific):

Batch 338211 (BK79026)
BK79020, BK79026, BK79027

All LCS recoveries were within 40 - 140 with the following exceptions: None.
All LCSD recoveries were within 40 - 140 with the following exceptions: None.
All LCS/LCSD RPDs were less than 30% with the following exceptions: None.

Batch 341676 (BN10304)
BK79026



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RCP Certification Report

April 18, 2016

SDG I.D.: GBK79016

PCB Narration

All LCS recoveries were within 40 - 140 with the following exceptions: None.
All LCSD recoveries were within 40 - 140 with the following exceptions: None.
All LCS/LCSD RPDs were less than 20% with the following exceptions: % TCMX (Surrogate Rec)(23.2%)
A LCS and LCS Duplicate were performed instead of a matrix spike and matrix spike duplicate.

SVOA Narration

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

Instrument:

CHEM05 03/17/16-1 Damien Drobinski, Chemist 03/17/16

BK79026

Initial Calibration Verification (CHEM05/SV_0314):

99% of target compounds met criteria.

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

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

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

Continuing Calibration Verification (CHEM05/0317_02-SV_0314):

Internal standard areas were within 50 to 200% of the initial calibration with the following exceptions: None.

99% of target compounds met criteria.

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: None.

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

CHEM06 03/16/16-1 Damien Drobinski, Chemist 03/16/16

BK79016

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

Initial Calibration Verification (CHEM06/SV_0316):

99% of target compounds met criteria.

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

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

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

Continuing Calibration Verification (CHEM06/0316_14-SV_0316):

Internal standard areas were within 50 to 200% of the initial calibration with the following exceptions: None.

100% of target compounds met criteria.

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: None.

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

CHEM27 04/13/16-1 Damien Drobinski, Chemist 04/13/16

BK79026

Initial Calibration Verification (CHEM27/SV_0412):

93% of target compounds met criteria.



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RCP Certification Report

April 18, 2016

SDG I.D.: GBK79016

SVOA Narration

The following compounds had %RSDs >20%: None.
The following compounds did not meet recommended response factors: None.
The following compounds did not meet a minimum response factors: None.

Continuing Calibration Verification (CHEM27/0413_02-SV_0412):
Internal standard areas were within 50 to 200% of the initial calibration with the following exceptions: None.
99% of target compounds met criteria.
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: None.
The following compounds did not meet minimum response factors: None.

QC (Batch Specific):

Batch 338207 (BK79016)

BK79016, BK79017, BK79019, BK79020, BK79022, BK79023, BK79024, BK79026, BK79027
All LCS recoveries were within 30 - 130 with the following exceptions: None.

SVOASIM Narration

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

Instrument:

CHEM04 04/12/16-1

Damien Drobinski, Chemist 04/12/16

BK79026

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_0404):
96% of target compounds met criteria.
The following compounds had %RSDs >20%: None.
The following compounds did not meet recommended response factors: None.
The following compounds did not meet a minimum response factors: None.

Continuing Calibration Verification (CHEM04/0412_02A-SIM_0404):
Internal standard areas were within 50 to 200% of the initial calibration with the following exceptions: None.
100% of target compounds met criteria.
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: None.
The following compounds did not meet minimum response factors: None.

QC (Batch Specific):



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RCP Certification Report

April 18, 2016

SDG I.D.: GBK79016

SVOASIM Narration

Batch 341853 (BN09532)

BK79026

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.

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%)

VOA Narration

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

Instrument:

CHEM14 03/17/16-1

Jane Li, Chemist 03/17/16

BK79023, BK79024, BK79026, BK79028, BK79029

Initial Calibration Verification (CHEM14/VT-0315):

98% of target compounds met criteria.

The following compounds had %RSDs >20%: Acetone 28% (20%), Bromoform 21% (20%)

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

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

Continuing Calibration Verification (CHEM14/0317_06-VT-0315):

Internal standard areas were within 50 to 200% of the initial calibration with the following exceptions: None.

100% of target compounds met criteria.

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: None.

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

QC (Batch Specific):

Batch 338872 (BK79023)

BK79023, BK79024, BK79026, BK79028, BK79029

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

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.

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

Temperature Narration

The samples in this delivery group were received at 3°C.

(Note acceptance criteria is above freezing up to 6°C)



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

30°C
30°C
10

CHAIN-OF-CUSTODY RECORD 34915

PROJECT NAME

Meriden Hospital Meriden, CT

PROJECT LOCATION

PROJECT NUMBER

20120232, C40

LABORATORY

Phoenix

REPORT TO: Stefanie Wierszechak David Coon

INVOICE TO:

P.O. No.:

Sampler's Signature: D. O'Neil

Date: 3/14/16

Source Codes:

MW=Monitoring Well

SW=Surface Water

PW=Potable Water

ST=Stormwater

T=Treatment Facility

W=Waste

A=Air

C=Concrete

X=Other

Analysis Request

Containers

Item No.	Transfer Check 1 2 3 4	Sample Number	Source Code	Date Sampled	Time Sampled	Analysis Request	Containers	Comments
1	/	1176160314-01	S	3/14/16	1000	✓	Soil VOA Vial, Aseptic	79016
2	/	-02W			1015	✓	Soil VOA Vial, Aseptic	79017
3	/	-03			1045		Soil VOA Vial, Aseptic	Hold 79018
4	/	-04W			1100	✓	Soil VOA Vial, Aseptic	79019
5	/	-05			1115	✓	Soil VOA Vial, Aseptic	79020
6	/	-06W			1120	✓	Soil VOA Vial, Aseptic	Hold 79021
7	/	-07			1130	✓	Soil VOA Vial, Aseptic	79022
8	/	-08			1230	✓	Soil VOA Vial, Aseptic	79023
9	/	-09			1330	✓	Soil VOA Vial, Aseptic	79024
10	/	-10W			1345	✓	Soil VOA Vial, Aseptic	Hold 79025

Transfer Number	Relinquished By	Accepted By	Date	Time	Charge Exceptions: ☐ CT Tax Exempt ☐ QA/QC ☐ Other _____
1	D. Coon	f10 freezer	3/14/16	1800	☐ Duplicates _____ ☐ Blanks (Item Nos: _____)
2	f10 freezer	D. Coon	3/16/16	1000	Reporting and Detection Limit Requirements: ☐ RCP Deliverables ☐ MCP CAM Cert.
3	D. Coon	TFCOON	3/16/16	0954	Additional Comments: Res DEC, GB Pmc
4					Hold sample vials for additional analyses

Bobbi - Phoenixlabs

From: Stefanie Wierszchalek [SWierszchalek@fando.com]
Sent: Friday, April 08, 2016 2:41 PM
To: Bobbi - Phoenixlabs
Subject: GBK79016 - Add On Analyses

Good afternoon Bobbi,

I was looking at some results from soil samples we had submitted back in March and I was hoping to have a few additional SPLP analyses run as follows:

Lab Report GBK79016

Sample 1176160314-05 (Lab Sample BK79020):	SPLP Lead & SPLP Mercury
Sample 1176160314-08 (Lab Sample BK79023):	SPLP Lead & SPLP Chromium
Sample 1176160314-11 (Lab Sample BK79026):	SPLP Lead, SPLP Chromium, SPLP PCBs & SPLP PAHs
Sample 1176160314-12 (Lab Sample BK79027):	SPLP Mercury
Sample 1176160314-23 (Lab Sample BK79032):	SPLP Lead

Please do not hesitate to contact me if you have any questions or need more information regarding these add-ons.

Thank you,



Stefanie Wierszchalek
Hydrogeologist

Fuss & O'Neill, Inc | 146 Hartford Road | Manchester, CT 06040

860.646.2469 x5503 | swierszchalek@fando.com | www.fando.com

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4/11/2016

Bobbi - Phoenixlabs

From: Stefanie Wierszchalek [SWierszchalek@fando.com]
Sent: Friday, April 08, 2016 2:44 PM
To: Bobbi - Phoenixlabs
Subject: RE: GBK79016 - Add On Analyses

Hi Bobbi,

I apologize however I made an error in the email request below.

For Sample 1176160314-05 (Lab Sample BK79020); please run SPLP Lead *only* (do not run SPLP Mercury).

Sorry for any confusion.

Thanks,

Stefanie Wierszchalek
Hydrogeologist
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860.646.2469 x5503 | swierszchalek@fando.com |
www.fando.com | [twitter](#) | [facebook](#) | [linkedin](#)

From: Stefanie Wierszchalek
Sent: Friday, April 08, 2016 2:41 PM
To: 'Bobbi - Phoenixlabs'
Subject: GBK79016 - Add On Analyses

Good afternoon Bobbi,

I was looking at some results from soil samples we had submitted back in March and I was hoping to have a few additional SPLP analyses run as follows:

Lab Report GBK79016	
Sample 1176160314-05 (Lab Sample BK79020):	SPLP Lead & SPLP Mercury
Sample 1176160314-08 (Lab Sample BK79023):	SPLP Lead & SPLP Chromium
Sample 1176160314-11 (Lab Sample BK79026):	SPLP Lead, SPLP Chromium, SPLP PCBs & SPLP PAHs
Sample 1176160314-12 (Lab Sample BK79027):	SPLP Mercury
Sample 1176160314-23 (Lab Sample BK79032):	SPLP Lead

Please do not hesitate to contact me if you have any questions or need more information regarding these add-ons.

Thank you,



Stefanie Wierszchalek
Hydrogeologist

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4/11/2016



Thursday, April 14, 2016

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

Project ID: MERIDEN HOSPITAL
Sample ID#s: BK79030 - BK79034, BK79036

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.

All soils, solids and sludges are reported on a dry weight basis unless otherwise noted in the sample comments.

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

Enclosed are revised Analysis Report pages. Please replace and discard the original pages. 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, appearing to read "Phyllis Shiller".

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

Analysis Report

April 14, 2016

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

Sample Information

Matrix: SOIL
Location Code: F&O-PCB
Rush Request: Standard
P.O.#: 20120232.C40

Custody Information

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

Date

03/15/16
03/16/16

Time

10:30
9:54

Laboratory Data

SDG ID: GBK79030
Phoenix ID: BK79030

Project ID: MERIDEN HOSPITAL
Client ID: 1176160314-21

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Field Extraction	Completed				03/15/16		SW5035A

Volatiles

1,1,1,2-Tetrachloroethane	ND	250	ug/Kg	50	03/17/16	JLI	SW8260
1,1,1-Trichloroethane	ND	250	ug/Kg	50	03/17/16	JLI	SW8260
1,1,2,2-Tetrachloroethane	ND	250	ug/Kg	50	03/17/16	JLI	SW8260
1,1,2-Trichloroethane	ND	250	ug/Kg	50	03/17/16	JLI	SW8260
1,1-Dichloroethane	ND	250	ug/Kg	50	03/17/16	JLI	SW8260
1,1-Dichloroethene	ND	250	ug/Kg	50	03/17/16	JLI	SW8260
1,1-Dichloropropene	ND	250	ug/Kg	50	03/17/16	JLI	SW8260
1,2,3-Trichlorobenzene	ND	250	ug/Kg	50	03/17/16	JLI	SW8260
1,2,3-Trichloropropane	ND	250	ug/Kg	50	03/17/16	JLI	SW8260
1,2,4-Trichlorobenzene	ND	250	ug/Kg	50	03/17/16	JLI	SW8260
1,2,4-Trimethylbenzene	ND	250	ug/Kg	50	03/17/16	JLI	SW8260
1,2-Dibromo-3-chloropropane	ND	250	ug/Kg	50	03/17/16	JLI	SW8260
1,2-Dibromoethane	ND	250	ug/Kg	50	03/17/16	JLI	SW8260
1,2-Dichlorobenzene	ND	250	ug/Kg	50	03/17/16	JLI	SW8260
1,2-Dichloroethane	ND	250	ug/Kg	50	03/17/16	JLI	SW8260
1,2-Dichloropropane	ND	250	ug/Kg	50	03/17/16	JLI	SW8260
1,3,5-Trimethylbenzene	ND	250	ug/Kg	50	03/17/16	JLI	SW8260
1,3-Dichlorobenzene	ND	250	ug/Kg	50	03/17/16	JLI	SW8260
1,3-Dichloropropane	ND	250	ug/Kg	50	03/17/16	JLI	SW8260
1,4-Dichlorobenzene	ND	250	ug/Kg	50	03/17/16	JLI	SW8260
2,2-Dichloropropane	ND	250	ug/Kg	50	03/17/16	JLI	SW8260
2-Chlorotoluene	ND	250	ug/Kg	50	03/17/16	JLI	SW8260
2-Hexanone	ND	1300	ug/Kg	50	03/17/16	JLI	SW8260
2-Isopropyltoluene	ND	250	ug/Kg	50	03/17/16	JLI	SW8260
4-Chlorotoluene	ND	250	ug/Kg	50	03/17/16	JLI	SW8260

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
4-Methyl-2-pentanone	ND	1300	ug/Kg	50	03/17/16	JLI	SW8260
Acetone	ND	5000	ug/Kg	50	03/17/16	JLI	SW8260
Acrylonitrile	ND	500	ug/Kg	50	03/17/16	JLI	SW8260
Benzene	ND	250	ug/Kg	50	03/17/16	JLI	SW8260
Bromobenzene	ND	250	ug/Kg	50	03/17/16	JLI	SW8260
Bromochloromethane	ND	250	ug/Kg	50	03/17/16	JLI	SW8260
Bromodichloromethane	ND	250	ug/Kg	50	03/17/16	JLI	SW8260
Bromoform	ND	250	ug/Kg	50	03/17/16	JLI	SW8260
Bromomethane	ND	250	ug/Kg	50	03/17/16	JLI	SW8260
Carbon Disulfide	ND	250	ug/Kg	50	03/17/16	JLI	SW8260
Carbon tetrachloride	ND	250	ug/Kg	50	03/17/16	JLI	SW8260
Chlorobenzene	ND	250	ug/Kg	50	03/17/16	JLI	SW8260
Chloroethane	ND	250	ug/Kg	50	03/17/16	JLI	SW8260
Chloroform	ND	250	ug/Kg	50	03/17/16	JLI	SW8260
Chloromethane	ND	250	ug/Kg	50	03/17/16	JLI	SW8260
cis-1,2-Dichloroethene	ND	250	ug/Kg	50	03/17/16	JLI	SW8260
cis-1,3-Dichloropropene	ND	250	ug/Kg	50	03/17/16	JLI	SW8260
Dibromochloromethane	ND	250	ug/Kg	50	03/17/16	JLI	SW8260
Dibromomethane	ND	250	ug/Kg	50	03/17/16	JLI	SW8260
Dichlorodifluoromethane	ND	250	ug/Kg	50	03/17/16	JLI	SW8260
Ethylbenzene	ND	250	ug/Kg	50	03/17/16	JLI	SW8260
Hexachlorobutadiene	ND	250	ug/Kg	50	03/17/16	JLI	SW8260
Isopropylbenzene	ND	250	ug/Kg	50	03/17/16	JLI	SW8260
m&p-Xylene	ND	250	ug/Kg	50	03/17/16	JLI	SW8260
Methyl Ethyl Ketone	ND	3000	ug/Kg	50	03/17/16	JLI	SW8260
Methyl t-butyl ether (MTBE)	ND	250	ug/Kg	50	03/17/16	JLI	SW8260
Methylene chloride	ND	500	ug/Kg	50	03/17/16	JLI	SW8260
Naphthalene	ND	250	ug/Kg	50	03/17/16	JLI	SW8260
n-Butylbenzene	ND	250	ug/Kg	50	03/17/16	JLI	SW8260
n-Propylbenzene	ND	250	ug/Kg	50	03/17/16	JLI	SW8260
o-Xylene	ND	250	ug/Kg	50	03/17/16	JLI	SW8260
p-Isopropyltoluene	ND	250	ug/Kg	50	03/17/16	JLI	SW8260
sec-Butylbenzene	ND	250	ug/Kg	50	03/17/16	JLI	SW8260
Styrene	ND	250	ug/Kg	50	03/17/16	JLI	SW8260
tert-Butylbenzene	ND	250	ug/Kg	50	03/17/16	JLI	SW8260
Tetrachloroethene	ND	250	ug/Kg	50	03/17/16	JLI	SW8260
Tetrahydrofuran (THF)	ND	500	ug/Kg	50	03/17/16	JLI	SW8260
Toluene	ND	250	ug/Kg	50	03/17/16	JLI	SW8260
Total Xylenes	ND	250	ug/Kg	50	03/17/16	JLI	SW8260
trans-1,2-Dichloroethene	ND	250	ug/Kg	50	03/17/16	JLI	SW8260
trans-1,3-Dichloropropene	ND	250	ug/Kg	50	03/17/16	JLI	SW8260
trans-1,4-dichloro-2-butene	ND	500	ug/Kg	50	03/17/16	JLI	SW8260
Trichloroethene	ND	250	ug/Kg	50	03/17/16	JLI	SW8260
Trichlorofluoromethane	ND	250	ug/Kg	50	03/17/16	JLI	SW8260
Trichlorotrifluoroethane	ND	250	ug/Kg	50	03/17/16	JLI	SW8260
Vinyl chloride	ND	250	ug/Kg	50	03/17/16	JLI	SW8260
<u>QA/QC Surrogates</u>							
% 1,2-dichlorobenzene-d4	96		%	50	03/17/16	JLI	70 - 130 %
% Bromofluorobenzene	98		%	50	03/17/16	JLI	70 - 130 %

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
% Dibromofluoromethane	98		%	50	03/17/16	JLI	70 - 130 %
% Toluene-d8	98		%	50	03/17/16	JLI	70 - 130 %

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level
QA/QC Surrogates: Surrogates are compounds (preceded with a %) added by the lab to determine analysis efficiency. Surrogate results(%) listed in the report are not "detected" compounds.

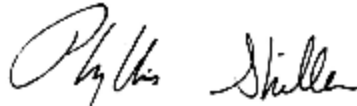
Comments:

Results are reported on an ``as received`` basis, and are not corrected for dry weight., TRIP BLANK INCLUDED.

All soils, solids and sludges are reported on a dry weight basis unless otherwise noted in the sample 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

April 14, 2016

Reviewed and Released by: Ethan Lee, Project Manager



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Analysis Report

April 14, 2016

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

Sample Information

Matrix: SOIL
Location Code: F&O-PCB
Rush Request: Standard
P.O.#: 20120232.C40

Custody Information

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

Date

03/15/16
03/16/16

Time

10:35
9:54

Laboratory Data

SDG ID: GBK79030
Phoenix ID: BK79031

Project ID: MERIDEN HOSPITAL
Client ID: 1176160314-22

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Field Extraction	Completed				03/15/16		SW5035A

Volatiles

1,1,1,2-Tetrachloroethane	ND	5.0	ug/Kg	1	03/17/16	JLI	SW8260
1,1,1-Trichloroethane	ND	5.0	ug/Kg	1	03/17/16	JLI	SW8260
1,1,2,2-Tetrachloroethane	ND	3.0	ug/Kg	1	03/17/16	JLI	SW8260
1,1,2-Trichloroethane	ND	5.0	ug/Kg	1	03/17/16	JLI	SW8260
1,1-Dichloroethane	ND	5.0	ug/Kg	1	03/17/16	JLI	SW8260
1,1-Dichloroethene	ND	5.0	ug/Kg	1	03/17/16	JLI	SW8260
1,1-Dichloropropene	ND	5.0	ug/Kg	1	03/17/16	JLI	SW8260
1,2,3-Trichlorobenzene	ND	5.0	ug/Kg	1	03/17/16	JLI	SW8260
1,2,3-Trichloropropane	ND	5.0	ug/Kg	1	03/17/16	JLI	SW8260
1,2,4-Trichlorobenzene	ND	5.0	ug/Kg	1	03/17/16	JLI	SW8260
1,2,4-Trimethylbenzene	ND	5.0	ug/Kg	1	03/17/16	JLI	SW8260
1,2-Dibromo-3-chloropropane	ND	5.0	ug/Kg	1	03/17/16	JLI	SW8260
1,2-Dibromoethane	ND	5.0	ug/Kg	1	03/17/16	JLI	SW8260
1,2-Dichlorobenzene	ND	5.0	ug/Kg	1	03/17/16	JLI	SW8260
1,2-Dichloroethane	ND	5.0	ug/Kg	1	03/17/16	JLI	SW8260
1,2-Dichloropropane	ND	5.0	ug/Kg	1	03/17/16	JLI	SW8260
1,3,5-Trimethylbenzene	ND	5.0	ug/Kg	1	03/17/16	JLI	SW8260
1,3-Dichlorobenzene	ND	5.0	ug/Kg	1	03/17/16	JLI	SW8260
1,3-Dichloropropane	ND	5.0	ug/Kg	1	03/17/16	JLI	SW8260
1,4-Dichlorobenzene	ND	5.0	ug/Kg	1	03/17/16	JLI	SW8260
2,2-Dichloropropane	ND	5.0	ug/Kg	1	03/17/16	JLI	SW8260
2-Chlorotoluene	ND	5.0	ug/Kg	1	03/17/16	JLI	SW8260
2-Hexanone	ND	25	ug/Kg	1	03/17/16	JLI	SW8260
2-Isopropyltoluene	ND	5.0	ug/Kg	1	03/17/16	JLI	SW8260
4-Chlorotoluene	ND	5.0	ug/Kg	1	03/17/16	JLI	SW8260

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
4-Methyl-2-pentanone	ND	25	ug/Kg	1	03/17/16	JLI	SW8260
Acetone	ND	250	ug/Kg	1	03/17/16	JLI	SW8260
Acrylonitrile	ND	5.0	ug/Kg	1	03/17/16	JLI	SW8260
Benzene	ND	5.0	ug/Kg	1	03/17/16	JLI	SW8260
Bromobenzene	ND	5.0	ug/Kg	1	03/17/16	JLI	SW8260
Bromochloromethane	ND	5.0	ug/Kg	1	03/17/16	JLI	SW8260
Bromodichloromethane	ND	5.0	ug/Kg	1	03/17/16	JLI	SW8260
Bromoform	ND	5.0	ug/Kg	1	03/17/16	JLI	SW8260
Bromomethane	ND	5.0	ug/Kg	1	03/17/16	JLI	SW8260
Carbon Disulfide	ND	5.0	ug/Kg	1	03/17/16	JLI	SW8260
Carbon tetrachloride	ND	5.0	ug/Kg	1	03/17/16	JLI	SW8260
Chlorobenzene	ND	5.0	ug/Kg	1	03/17/16	JLI	SW8260
Chloroethane	ND	5.0	ug/Kg	1	03/17/16	JLI	SW8260
Chloroform	ND	5.0	ug/Kg	1	03/17/16	JLI	SW8260
Chloromethane	ND	5.0	ug/Kg	1	03/17/16	JLI	SW8260
cis-1,2-Dichloroethene	ND	5.0	ug/Kg	1	03/17/16	JLI	SW8260
cis-1,3-Dichloropropene	ND	5.0	ug/Kg	1	03/17/16	JLI	SW8260
Dibromochloromethane	ND	3.0	ug/Kg	1	03/17/16	JLI	SW8260
Dibromomethane	ND	5.0	ug/Kg	1	03/17/16	JLI	SW8260
Dichlorodifluoromethane	ND	5.0	ug/Kg	1	03/17/16	JLI	SW8260
Ethylbenzene	ND	5.0	ug/Kg	1	03/17/16	JLI	SW8260
Hexachlorobutadiene	ND	5.0	ug/Kg	1	03/17/16	JLI	SW8260
Isopropylbenzene	ND	5.0	ug/Kg	1	03/17/16	JLI	SW8260
m&p-Xylene	ND	5.0	ug/Kg	1	03/17/16	JLI	SW8260
Methyl Ethyl Ketone	ND	30	ug/Kg	1	03/17/16	JLI	SW8260
Methyl t-butyl ether (MTBE)	ND	10	ug/Kg	1	03/17/16	JLI	SW8260
Methylene chloride	ND	10	ug/Kg	1	03/17/16	JLI	SW8260
Naphthalene	ND	5.0	ug/Kg	1	03/17/16	JLI	SW8260
n-Butylbenzene	ND	5.0	ug/Kg	1	03/17/16	JLI	SW8260
n-Propylbenzene	ND	5.0	ug/Kg	1	03/17/16	JLI	SW8260
o-Xylene	ND	5.0	ug/Kg	1	03/17/16	JLI	SW8260
p-Isopropyltoluene	ND	5.0	ug/Kg	1	03/17/16	JLI	SW8260
sec-Butylbenzene	ND	5.0	ug/Kg	1	03/17/16	JLI	SW8260
Styrene	ND	5.0	ug/Kg	1	03/17/16	JLI	SW8260
tert-Butylbenzene	ND	5.0	ug/Kg	1	03/17/16	JLI	SW8260
Tetrachloroethene	ND	5.0	ug/Kg	1	03/17/16	JLI	SW8260
Tetrahydrofuran (THF)	ND	10	ug/Kg	1	03/17/16	JLI	SW8260
Toluene	ND	5.0	ug/Kg	1	03/17/16	JLI	SW8260
Total Xylenes	ND	5.0	ug/Kg	1	03/17/16	JLI	SW8260
trans-1,2-Dichloroethene	ND	5.0	ug/Kg	1	03/17/16	JLI	SW8260
trans-1,3-Dichloropropene	ND	5.0	ug/Kg	1	03/17/16	JLI	SW8260
trans-1,4-dichloro-2-butene	ND	10	ug/Kg	1	03/17/16	JLI	SW8260
Trichloroethene	ND	5.0	ug/Kg	1	03/17/16	JLI	SW8260
Trichlorofluoromethane	ND	5.0	ug/Kg	1	03/17/16	JLI	SW8260
Trichlorotrifluoroethane	ND	5.0	ug/Kg	1	03/17/16	JLI	SW8260
Vinyl chloride	ND	5.0	ug/Kg	1	03/17/16	JLI	SW8260
<u>QA/QC Surrogates</u>							
% 1,2-dichlorobenzene-d4	99		%	1	03/17/16	JLI	70 - 130 %
% Bromofluorobenzene	99		%	1	03/17/16	JLI	70 - 130 %

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
% Dibromofluoromethane	99		%	1	03/17/16	JLI	70 - 130 %
% Toluene-d8	99		%	1	03/17/16	JLI	70 - 130 %

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level
QA/QC Surrogates: Surrogates are compounds (preceded with a %) added by the lab to determine analysis efficiency. Surrogate results(%) listed in the report are not "detected" compounds.

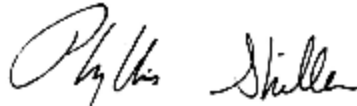
Comments:

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

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Phyllis Shiller, Laboratory Director

April 14, 2016

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

April 14, 2016

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

Sample Information

Matrix: SOIL
Location Code: F&O-PCB
Rush Request: Standard
P.O.#: 20120232.C40

Custody Information

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

Date

03/15/16
03/16/16

Time

11:25
9:54

Laboratory Data

SDG ID: GBK79030
Phoenix ID: BK79032

Project ID: MERIDEN HOSPITAL
Client ID: 1176160314-23

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Silver	< 0.34	0.34	mg/Kg	1	03/17/16	LK	SW6010C
Arsenic	3.3	0.7	mg/Kg	1	03/17/16	LK	SW6010C
Barium	68.6	0.34	mg/Kg	1	03/17/16	LK	SW6010C
Cadmium	< 0.34	0.34	mg/Kg	1	03/17/16	LK	SW6010C
Chromium	13.6	0.34	mg/Kg	1	03/17/16	LK	SW6010C
Mercury	0.04	0.03	mg/Kg	1	03/17/16	RS	SW7471B
Lead	34.6	0.34	mg/Kg	1	03/17/16	LK	SW6010C
Selenium	< 1.4	1.4	mg/Kg	1	03/17/16	LK	SW6010C
SPLP Lead	< 0.010	0.010	mg/L	1	04/12/16	LK	SW6010C
SPLP Metals Digestion	Completed				04/11/16	I/I	SW3005A
Percent Solid	89		%		03/16/16	W	SW846-%Solid
Soil Extraction SVOA PAH	Completed				03/16/16	BB/CKV	SW3545A
Extraction of CT ETPH	Completed				03/16/16	BB/CK	SW3545A
Mercury Digestion	Completed				03/17/16	W/W	SW7471B
SPLP Extraction for Metals	Completed				04/08/16	I	SW1312
Total Metals Digest	Completed				03/16/16	G/AG	SW3050B
Field Extraction	Completed				03/15/16		SW5035A

TPH by GC (Extractable Products)

Ext. Petroleum HC	330	110	mg/Kg	2	03/18/16	JRB	CTETPH 8015D
Identification	**		mg/Kg	2	03/18/16	JRB	CTETPH 8015D

QA/QC Surrogates

% n-Pentacosane	59		%	2	03/18/16	JRB	50 - 150 %
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Volatiles

1,1,1,2-Tetrachloroethane	ND	4.4	ug/Kg	1	03/17/16	JLI	SW8260
1,1,1-Trichloroethane	ND	4.4	ug/Kg	1	03/17/16	JLI	SW8260
1,1,2,2-Tetrachloroethane	ND	2.6	ug/Kg	1	03/17/16	JLI	SW8260

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
1,1,2-Trichloroethane	ND	4.4	ug/Kg	1	03/17/16	JLI	SW8260
1,1-Dichloroethane	ND	4.4	ug/Kg	1	03/17/16	JLI	SW8260
1,1-Dichloroethene	ND	4.4	ug/Kg	1	03/17/16	JLI	SW8260
1,1-Dichloropropene	ND	4.4	ug/Kg	1	03/17/16	JLI	SW8260
1,2,3-Trichlorobenzene	ND	4.4	ug/Kg	1	03/17/16	JLI	SW8260
1,2,3-Trichloropropane	ND	4.4	ug/Kg	1	03/17/16	JLI	SW8260
1,2,4-Trichlorobenzene	ND	4.4	ug/Kg	1	03/17/16	JLI	SW8260
1,2,4-Trimethylbenzene	ND	4.4	ug/Kg	1	03/17/16	JLI	SW8260
1,2-Dibromo-3-chloropropane	ND	4.4	ug/Kg	1	03/17/16	JLI	SW8260
1,2-Dibromoethane	ND	4.4	ug/Kg	1	03/17/16	JLI	SW8260
1,2-Dichlorobenzene	ND	4.4	ug/Kg	1	03/17/16	JLI	SW8260
1,2-Dichloroethane	ND	4.4	ug/Kg	1	03/17/16	JLI	SW8260
1,2-Dichloropropane	ND	4.4	ug/Kg	1	03/17/16	JLI	SW8260
1,3,5-Trimethylbenzene	ND	4.4	ug/Kg	1	03/17/16	JLI	SW8260
1,3-Dichlorobenzene	ND	4.4	ug/Kg	1	03/17/16	JLI	SW8260
1,3-Dichloropropane	ND	4.4	ug/Kg	1	03/17/16	JLI	SW8260
1,4-Dichlorobenzene	ND	4.4	ug/Kg	1	03/17/16	JLI	SW8260
2,2-Dichloropropane	ND	4.4	ug/Kg	1	03/17/16	JLI	SW8260
2-Chlorotoluene	ND	4.4	ug/Kg	1	03/17/16	JLI	SW8260
2-Hexanone	ND	22	ug/Kg	1	03/17/16	JLI	SW8260
2-Isopropyltoluene	ND	4.4	ug/Kg	1	03/17/16	JLI	SW8260
4-Chlorotoluene	ND	4.4	ug/Kg	1	03/17/16	JLI	SW8260
4-Methyl-2-pentanone	ND	22	ug/Kg	1	03/17/16	JLI	SW8260
Acetone	ND	220	ug/Kg	1	03/17/16	JLI	SW8260
Acrylonitrile	ND	4.4	ug/Kg	1	03/17/16	JLI	SW8260
Benzene	ND	4.4	ug/Kg	1	03/17/16	JLI	SW8260
Bromobenzene	ND	4.4	ug/Kg	1	03/17/16	JLI	SW8260
Bromochloromethane	ND	4.4	ug/Kg	1	03/17/16	JLI	SW8260
Bromodichloromethane	ND	4.4	ug/Kg	1	03/17/16	JLI	SW8260
Bromoform	ND	4.4	ug/Kg	1	03/17/16	JLI	SW8260
Bromomethane	ND	4.4	ug/Kg	1	03/17/16	JLI	SW8260
Carbon Disulfide	ND	4.4	ug/Kg	1	03/17/16	JLI	SW8260
Carbon tetrachloride	ND	4.4	ug/Kg	1	03/17/16	JLI	SW8260
Chlorobenzene	ND	4.4	ug/Kg	1	03/17/16	JLI	SW8260
Chloroethane	ND	4.4	ug/Kg	1	03/17/16	JLI	SW8260
Chloroform	ND	4.4	ug/Kg	1	03/17/16	JLI	SW8260
Chloromethane	ND	4.4	ug/Kg	1	03/17/16	JLI	SW8260
cis-1,2-Dichloroethene	ND	4.4	ug/Kg	1	03/17/16	JLI	SW8260
cis-1,3-Dichloropropene	ND	4.4	ug/Kg	1	03/17/16	JLI	SW8260
Dibromochloromethane	ND	2.6	ug/Kg	1	03/17/16	JLI	SW8260
Dibromomethane	ND	4.4	ug/Kg	1	03/17/16	JLI	SW8260
Dichlorodifluoromethane	ND	4.4	ug/Kg	1	03/17/16	JLI	SW8260
Ethylbenzene	ND	4.4	ug/Kg	1	03/17/16	JLI	SW8260
Hexachlorobutadiene	ND	4.4	ug/Kg	1	03/17/16	JLI	SW8260
Isopropylbenzene	ND	4.4	ug/Kg	1	03/17/16	JLI	SW8260
m&p-Xylene	ND	4.4	ug/Kg	1	03/17/16	JLI	SW8260
Methyl Ethyl Ketone	ND	26	ug/Kg	1	03/17/16	JLI	SW8260
Methyl t-butyl ether (MTBE)	ND	8.8	ug/Kg	1	03/17/16	JLI	SW8260
Methylene chloride	ND	8.8	ug/Kg	1	03/17/16	JLI	SW8260

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Naphthalene	ND	4.4	ug/Kg	1	03/17/16	JLI	SW8260
n-Butylbenzene	ND	4.4	ug/Kg	1	03/17/16	JLI	SW8260
n-Propylbenzene	ND	4.4	ug/Kg	1	03/17/16	JLI	SW8260
o-Xylene	ND	4.4	ug/Kg	1	03/17/16	JLI	SW8260
p-Isopropyltoluene	ND	4.4	ug/Kg	1	03/17/16	JLI	SW8260
sec-Butylbenzene	ND	4.4	ug/Kg	1	03/17/16	JLI	SW8260
Styrene	ND	4.4	ug/Kg	1	03/17/16	JLI	SW8260
tert-Butylbenzene	ND	4.4	ug/Kg	1	03/17/16	JLI	SW8260
Tetrachloroethene	ND	4.4	ug/Kg	1	03/17/16	JLI	SW8260
Tetrahydrofuran (THF)	ND	8.8	ug/Kg	1	03/17/16	JLI	SW8260
Toluene	ND	4.4	ug/Kg	1	03/17/16	JLI	SW8260
Total Xylenes	ND	4.4	ug/Kg	1	03/17/16	JLI	SW8260
trans-1,2-Dichloroethene	ND	4.4	ug/Kg	1	03/17/16	JLI	SW8260
trans-1,3-Dichloropropene	ND	4.4	ug/Kg	1	03/17/16	JLI	SW8260
trans-1,4-dichloro-2-butene	ND	8.8	ug/Kg	1	03/17/16	JLI	SW8260
Trichloroethene	ND	4.4	ug/Kg	1	03/17/16	JLI	SW8260
Trichlorofluoromethane	ND	4.4	ug/Kg	1	03/17/16	JLI	SW8260
Trichlorotrifluoroethane	ND	4.4	ug/Kg	1	03/17/16	JLI	SW8260
Vinyl chloride	ND	4.4	ug/Kg	1	03/17/16	JLI	SW8260
<u>QA/QC Surrogates</u>							
% 1,2-dichlorobenzene-d4	99		%	1	03/17/16	JLI	70 - 130 %
% Bromofluorobenzene	97		%	1	03/17/16	JLI	70 - 130 %
% Dibromofluoromethane	94		%	1	03/17/16	JLI	70 - 130 %
% Toluene-d8	96		%	1	03/17/16	JLI	70 - 130 %
<u>Polynuclear Aromatic HC</u>							
2-Methylnaphthalene	ND	260	ug/Kg	1	03/17/16	DD	SW8270D
Acenaphthene	ND	260	ug/Kg	1	03/17/16	DD	SW8270D
Acenaphthylene	ND	260	ug/Kg	1	03/17/16	DD	SW8270D
Anthracene	ND	260	ug/Kg	1	03/17/16	DD	SW8270D
Benz(a)anthracene	320	260	ug/Kg	1	03/17/16	DD	SW8270D
Benzo(a)pyrene	270	260	ug/Kg	1	03/17/16	DD	SW8270D
Benzo(b)fluoranthene	260	260	ug/Kg	1	03/17/16	DD	SW8270D
Benzo(ghi)perylene	ND	260	ug/Kg	1	03/17/16	DD	SW8270D
Benzo(k)fluoranthene	ND	260	ug/Kg	1	03/17/16	DD	SW8270D
Chrysene	350	260	ug/Kg	1	03/17/16	DD	SW8270D
Dibenz(a,h)anthracene	ND	260	ug/Kg	1	03/17/16	DD	SW8270D
Fluoranthene	720	260	ug/Kg	1	03/17/16	DD	SW8270D
Fluorene	ND	260	ug/Kg	1	03/17/16	DD	SW8270D
Indeno(1,2,3-cd)pyrene	ND	260	ug/Kg	1	03/17/16	DD	SW8270D
Naphthalene	ND	260	ug/Kg	1	03/17/16	DD	SW8270D
Phenanthrene	520	260	ug/Kg	1	03/17/16	DD	SW8270D
Pyrene	580	260	ug/Kg	1	03/17/16	DD	SW8270D
<u>QA/QC Surrogates</u>							
% 2-Fluorobiphenyl	61		%	1	03/17/16	DD	30 - 130 %
% Nitrobenzene-d5	65		%	1	03/17/16	DD	30 - 130 %
% Terphenyl-d14	56		%	1	03/17/16	DD	30 - 130 %

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
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RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level
QA/QC Surrogates: Surrogates are compounds (preceded with a %) added by the lab to determine analysis efficiency. Surrogate results(%) listed in the report are not "detected" compounds.

Comments:

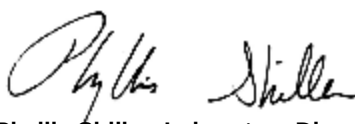
TPH Comment:

**Petroleum hydrocarbon chromatogram contains a multicomponent hydrocarbon distribution in the range of C26 to C36. The sample was quantitated against a C9-C36 alkane hydrocarbon standard.

All soils, solids and sludges are reported on a dry weight basis unless otherwise noted in the sample 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

April 14, 2016

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

April 14, 2016

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

Sample Information

Matrix: SOIL
Location Code: F&O-PCB
Rush Request: Standard
P.O.#: 20120232.C40

Custody Information

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

Date

03/15/16
03/16/16

Time

12:00
9:54

Laboratory Data

SDG ID: GBK79030
Phoenix ID: BK79033

Project ID: MERIDEN HOSPITAL
Client ID: 1176160314-24

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Silver	< 0.33	0.33	mg/Kg	1	03/17/16	LK	SW6010C
Arsenic	2.2	0.7	mg/Kg	1	03/17/16	LK	SW6010C
Barium	83.9	0.33	mg/Kg	1	03/17/16	LK	SW6010C
Cadmium	< 0.33	0.33	mg/Kg	1	03/17/16	LK	SW6010C
Chromium	11.7	0.33	mg/Kg	1	03/17/16	LK	SW6010C
Mercury	< 0.03	0.03	mg/Kg	1	03/18/16	MA	SW7471B
Lead	13.3	0.33	mg/Kg	1	03/17/16	LK	SW6010C
Selenium	< 1.3	1.3	mg/Kg	1	03/17/16	LK	SW6010C
Percent Solid	92		%		03/16/16	W	SW846-%Solid
Soil Extraction SVOA PAH	Completed				03/16/16	BB/CKV	SW3545A
Extraction of CT ETPH	Completed				03/16/16	BB/CK	SW3545A
Mercury Digestion	Completed				03/18/16	W/W	SW7471B
Total Metals Digest	Completed				03/16/16	G/AG	SW3050B

TPH by GC (Extractable Products)

Ext. Petroleum HC	150	110	mg/Kg	2	03/19/16	JRB	CTETPH 8015D
Identification	**		mg/Kg	2	03/19/16	JRB	CTETPH 8015D

QA/QC Surrogates

% n-Pentacosane	67		%	2	03/19/16	JRB	50 - 150 %
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Polynuclear Aromatic HC

2-Methylnaphthalene	ND	250	ug/Kg	1	03/17/16	DD	SW8270D
Acenaphthene	ND	250	ug/Kg	1	03/17/16	DD	SW8270D
Acenaphthylene	ND	250	ug/Kg	1	03/17/16	DD	SW8270D
Anthracene	ND	250	ug/Kg	1	03/17/16	DD	SW8270D
Benz(a)anthracene	ND	250	ug/Kg	1	03/17/16	DD	SW8270D
Benzo(a)pyrene	ND	250	ug/Kg	1	03/17/16	DD	SW8270D
Benzo(b)fluoranthene	ND	250	ug/Kg	1	03/17/16	DD	SW8270D

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Benzo(ghi)perylene	ND	250	ug/Kg	1	03/17/16	DD	SW8270D
Benzo(k)fluoranthene	ND	250	ug/Kg	1	03/17/16	DD	SW8270D
Chrysene	ND	250	ug/Kg	1	03/17/16	DD	SW8270D
Dibenz(a,h)anthracene	ND	250	ug/Kg	1	03/17/16	DD	SW8270D
Fluoranthene	ND	250	ug/Kg	1	03/17/16	DD	SW8270D
Fluorene	ND	250	ug/Kg	1	03/17/16	DD	SW8270D
Indeno(1,2,3-cd)pyrene	ND	250	ug/Kg	1	03/17/16	DD	SW8270D
Naphthalene	ND	250	ug/Kg	1	03/17/16	DD	SW8270D
Phenanthrene	ND	250	ug/Kg	1	03/17/16	DD	SW8270D
Pyrene	ND	250	ug/Kg	1	03/17/16	DD	SW8270D
<u>QA/QC Surrogates</u>							
% 2-Fluorobiphenyl	69		%	1	03/17/16	DD	30 - 130 %
% Nitrobenzene-d5	70		%	1	03/17/16	DD	30 - 130 %
% Terphenyl-d14	64		%	1	03/17/16	DD	30 - 130 %

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

QA/QC Surrogates: Surrogates are compounds (preceeded with a %) added by the lab to determine analysis efficiency. Surrogate results(%) listed in the report are not "detected" compounds.

Comments:

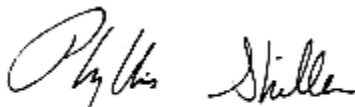
TPH Comment:

**Petroleum hydrocarbon chromatogram contains a multicomponent hydrocarbon distribution in the range of C26 to C36. The sample was quantitated against a C9-C36 alkane hydrocarbon standard.

All soils, solids and sludges are reported on a dry weight basis unless otherwise noted in the sample 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

April 14, 2016

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

April 14, 2016

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

Sample Information

Matrix: SOIL
Location Code: F&O-PCB
Rush Request: Standard
P.O.#: 20120232.C40

Custody Information

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

Date

03/15/16
03/16/16

Time

12:15
9:54

Laboratory Data

SDG ID: GBK79030
Phoenix ID: BK79034

Project ID: MERIDEN HOSPITAL
Client ID: 1176160314-25

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Silver	< 0.33	0.33	mg/Kg	1	03/17/16	LK	SW6010C
Arsenic	2.0	0.7	mg/Kg	1	03/17/16	LK	SW6010C
Barium	69.4	0.33	mg/Kg	1	03/17/16	LK	SW6010C
Cadmium	< 0.33	0.33	mg/Kg	1	03/17/16	LK	SW6010C
Chromium	11.1	0.33	mg/Kg	1	03/17/16	LK	SW6010C
Mercury	< 0.03	0.03	mg/Kg	1	03/18/16	MA	SW7471B
Lead	12.3	0.33	mg/Kg	1	03/17/16	LK	SW6010C
Selenium	< 1.3	1.3	mg/Kg	1	03/17/16	LK	SW6010C
Percent Solid	93		%		03/16/16	W	SW846-%Solid
Soil Extraction SVOA PAH	Completed				03/16/16	BB/CKV	SW3545A
Extraction of CT ETPH	Completed				03/16/16	BB/CK	SW3545A
Mercury Digestion	Completed				03/18/16	W/W	SW7471B
Total Metals Digest	Completed				03/16/16	G/AG	SW3050B

TPH by GC (Extractable Products)

Ext. Petroleum HC	ND	110	mg/Kg	2	03/19/16	JRB	CTETPH 8015D
Identification	ND		mg/Kg	2	03/19/16	JRB	CTETPH 8015D

QA/QC Surrogates

% n-Pentacosane	66		%	2	03/19/16	JRB	50 - 150 %
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Polynuclear Aromatic HC

2-Methylnaphthalene	ND	250	ug/Kg	1	03/17/16	DD	SW8270D
Acenaphthene	ND	250	ug/Kg	1	03/17/16	DD	SW8270D
Acenaphthylene	ND	250	ug/Kg	1	03/17/16	DD	SW8270D
Anthracene	ND	250	ug/Kg	1	03/17/16	DD	SW8270D
Benz(a)anthracene	ND	250	ug/Kg	1	03/17/16	DD	SW8270D
Benzo(a)pyrene	ND	250	ug/Kg	1	03/17/16	DD	SW8270D
Benzo(b)fluoranthene	ND	250	ug/Kg	1	03/17/16	DD	SW8270D

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Benzo(ghi)perylene	ND	250	ug/Kg	1	03/17/16	DD	SW8270D
Benzo(k)fluoranthene	ND	250	ug/Kg	1	03/17/16	DD	SW8270D
Chrysene	ND	250	ug/Kg	1	03/17/16	DD	SW8270D
Dibenz(a,h)anthracene	ND	250	ug/Kg	1	03/17/16	DD	SW8270D
Fluoranthene	ND	250	ug/Kg	1	03/17/16	DD	SW8270D
Fluorene	ND	250	ug/Kg	1	03/17/16	DD	SW8270D
Indeno(1,2,3-cd)pyrene	ND	250	ug/Kg	1	03/17/16	DD	SW8270D
Naphthalene	ND	250	ug/Kg	1	03/17/16	DD	SW8270D
Phenanthrene	ND	250	ug/Kg	1	03/17/16	DD	SW8270D
Pyrene	ND	250	ug/Kg	1	03/17/16	DD	SW8270D
<u>QA/QC Surrogates</u>							
% 2-Fluorobiphenyl	71		%	1	03/17/16	DD	30 - 130 %
% Nitrobenzene-d5	74		%	1	03/17/16	DD	30 - 130 %
% Terphenyl-d14	64		%	1	03/17/16	DD	30 - 130 %

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

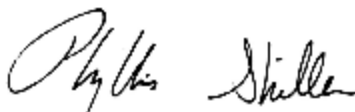
QA/QC Surrogates: Surrogates are compounds (preceded with a %) added by the lab to determine analysis efficiency. Surrogate results(%) listed in the report are not "detected" compounds.

Comments:

All soils, solids and sludges are reported on a dry weight basis unless otherwise noted in the sample comments.

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Phyllis Shiller, Laboratory Director

April 14, 2016

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

April 14, 2016

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

Sample Information

Matrix: SOIL
Location Code: F&O-PCB
Rush Request: Standard
P.O.#: 20120232.C40

Custody Information

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

Date

03/15/16
03/16/16

Time

12:45
9:54

Laboratory Data

SDG ID: GBK79030
Phoenix ID: BK79036

Project ID: MERIDEN HOSPITAL
Client ID: 1176160314-27

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Silver	< 0.36	0.36	mg/Kg	1	03/17/16	LK	SW6010C
Arsenic	2.6	0.7	mg/Kg	1	03/17/16	LK	SW6010C
Barium	53.6	0.36	mg/Kg	1	03/17/16	LK	SW6010C
Cadmium	< 0.36	0.36	mg/Kg	1	03/17/16	LK	SW6010C
Chromium	9.08	0.36	mg/Kg	1	03/17/16	LK	SW6010C
Mercury	< 0.03	0.03	mg/Kg	1	03/18/16	MA	SW7471B
Lead	6.76	0.36	mg/Kg	1	03/17/16	LK	SW6010C
Selenium	< 1.4	1.4	mg/Kg	1	03/17/16	LK	SW6010C
Percent Solid	93		%		03/16/16	W	SW846-%Solid
Soil Extraction SVOA PAH	Completed				03/16/16	BB/CKV	SW3545A
Extraction of CT ETPH	Completed				03/16/16	BB/CK	SW3545A
Mercury Digestion	Completed				03/18/16	W/W	SW7471B
Total Metals Digest	Completed				03/16/16	G/AG	SW3050B

TPH by GC (Extractable Products)

Ext. Petroleum HC	ND	54	mg/Kg	1	03/18/16	JRB	CTETPH 8015D
Identification	ND		mg/Kg	1	03/18/16	JRB	CTETPH 8015D

QA/QC Surrogates

% n-Pentacosane	99		%	1	03/18/16	JRB	50 - 150 %
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Polynuclear Aromatic HC

2-Methylnaphthalene	ND	250	ug/Kg	1	03/17/16	DD	SW8270D
Acenaphthene	ND	250	ug/Kg	1	03/17/16	DD	SW8270D
Acenaphthylene	ND	250	ug/Kg	1	03/17/16	DD	SW8270D
Anthracene	ND	250	ug/Kg	1	03/17/16	DD	SW8270D
Benz(a)anthracene	ND	250	ug/Kg	1	03/17/16	DD	SW8270D
Benzo(a)pyrene	ND	250	ug/Kg	1	03/17/16	DD	SW8270D
Benzo(b)fluoranthene	ND	250	ug/Kg	1	03/17/16	DD	SW8270D

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Benzo(ghi)perylene	ND	250	ug/Kg	1	03/17/16	DD	SW8270D
Benzo(k)fluoranthene	ND	250	ug/Kg	1	03/17/16	DD	SW8270D
Chrysene	ND	250	ug/Kg	1	03/17/16	DD	SW8270D
Dibenz(a,h)anthracene	ND	250	ug/Kg	1	03/17/16	DD	SW8270D
Fluoranthene	ND	250	ug/Kg	1	03/17/16	DD	SW8270D
Fluorene	ND	250	ug/Kg	1	03/17/16	DD	SW8270D
Indeno(1,2,3-cd)pyrene	ND	250	ug/Kg	1	03/17/16	DD	SW8270D
Naphthalene	ND	250	ug/Kg	1	03/17/16	DD	SW8270D
Phenanthrene	ND	250	ug/Kg	1	03/17/16	DD	SW8270D
Pyrene	ND	250	ug/Kg	1	03/17/16	DD	SW8270D
<u>QA/QC Surrogates</u>							
% 2-Fluorobiphenyl	71		%	1	03/17/16	DD	30 - 130 %
% Nitrobenzene-d5	74		%	1	03/17/16	DD	30 - 130 %
% Terphenyl-d14	64		%	1	03/17/16	DD	30 - 130 %

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

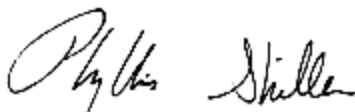
QA/QC Surrogates: Surrogates are compounds (preceeded with a %) added by the lab to determine analysis efficiency. Surrogate results(%) listed in the report are not "detected" compounds.

Comments:

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Phyllis Shiller, Laboratory Director

April 14, 2016

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

QA/QC Report

April 14, 2016

QA/QC Data

SDG I.D.: GBK79030

Parameter	Blank	Blk RL	Sample Result	Dup Result	Dup RPD	LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	% Rec Limits	% RPD Limits
QA/QC Batch 338226 (mg/kg), QC Sample No: BK78641 (BK79032, BK79033, BK79034, BK79036)													
<u>ICP Metals - Soil</u>													
Arsenic	BRL	0.66	9.4	8.19	13.8	114			99.2			75 - 125	30
Barium	BRL	0.33	70.4	58.7	18.1	109			94.8			75 - 125	30
Cadmium	BRL	0.33	<0.37	<0.37	NC	102			88.9			75 - 125	30
Chromium	BRL	0.33	33.9	40.2	17.0	108			96.8			75 - 125	30
Lead	BRL	0.33	46.9	45.4	3.30	107			94.5			75 - 125	30
Selenium	BRL	1.3	<1.5	<1.5	NC	112			92.5			75 - 125	30
Silver	BRL	0.33	<0.37	<0.37	NC	107			104			75 - 125	30

QA/QC Batch 338263 (mg/kg), QC Sample No: BK78679 (BK79032)

Mercury - Soil	BRL	0.03	<0.03	<0.03	NC	123	125	1.6	126			70 - 130	30	m
Comment:														

Additional Mercury criteria: LCS acceptance range for waters is 80-120% and for soils is 70-130%.

QA/QC Batch 341772 (mg/L), QC Sample No: BK79032 (BK79032)

ICP Metals - SPLP Extraction

Lead	BRL	0.010	<0.010	<0.010	NC	97.7			99.7			75 - 125	20
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QA/QC Batch 338445 (mg/kg), QC Sample No: BK79866 (BK79033, BK79034, BK79036)

Mercury - Soil	BRL	0.03	<0.03	<0.03	NC	94.3			109			70 - 130	30
Comment:													

Additional Mercury criteria: LCS acceptance range for waters is 80-120% and for soils is 70-130%.

m = This parameter is outside laboratory MS/MSD specified recovery limits.



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QA/QC Report

April 14, 2016

QA/QC Data

SDG I.D.: GBK79030

Parameter	Blank	Blk RL	LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	% Rec Limits	% RPD Limits
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QA/QC Batch 338082 (mg/Kg), QC Sample No: BK78737 (BK79032, BK79033, BK79034, BK79036)

TPH by GC (Extractable Products) - Soil

Ext. Petroleum HC	ND	50	64			65	56	14.9	30 - 130	30
% n-Pentacosane	73	%	90			98	76	25.3	50 - 150	30

QA/QC Batch 338207 (ug/kg), QC Sample No: BK79016 (BK79032, BK79033, BK79034, BK79036)

Polynuclear Aromatic HC - Soil

2-Methylnaphthalene	ND	230	68			74	87	16.1	30 - 130	30
Acenaphthene	ND	230	76			76	87	13.5	30 - 130	30
Acenaphthylene	ND	230	72			74	83	11.5	30 - 130	30
Anthracene	ND	230	78			76	89	15.8	30 - 130	30
Benz(a)anthracene	ND	230	81			76	89	15.8	30 - 130	30
Benzo(a)pyrene	ND	230	76			73	84	14.0	30 - 130	30
Benzo(b)fluoranthene	ND	230	80			74	88	17.3	30 - 130	30
Benzo(ghi)perylene	ND	230	80			77	86	11.0	30 - 130	30
Benzo(k)fluoranthene	ND	230	77			72	87	18.9	30 - 130	30
Chrysene	ND	230	84			80	94	16.1	30 - 130	30
Dibenz(a,h)anthracene	ND	230	78			77	87	12.2	30 - 130	30
Fluoranthene	ND	230	81			80	92	14.0	30 - 130	30
Fluorene	ND	230	79			80	90	11.8	30 - 130	30
Indeno(1,2,3-cd)pyrene	ND	230	79			78	86	9.8	30 - 130	30
Naphthalene	ND	230	66			71	82	14.4	30 - 130	30
Phenanthrene	ND	230	78			76	89	15.8	30 - 130	30
Pyrene	ND	230	84			82	96	15.7	30 - 130	30
% 2-Fluorobiphenyl	49	%	67			69	78	12.2	30 - 130	30
% Nitrobenzene-d5	48	%	65			72	88	20.0	30 - 130	30
% Terphenyl-d14	57	%	78			77	91	16.7	30 - 130	30

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 338872 (ug/kg), QC Sample No: BK79023 (BK79030 (50X) , BK79031, BK79032)

Volatiles - Soil

1,1,1,2-Tetrachloroethane	ND	5.0	105	109	3.7	104	109	4.7	70 - 130	30
1,1,1-Trichloroethane	ND	5.0	103	108	4.7	107	116	8.1	70 - 130	30
1,1,2,2-Tetrachloroethane	ND	3.0	99	111	11.4	105	114	8.2	70 - 130	30
1,1,2-Trichloroethane	ND	5.0	91	99	8.4	99	105	5.9	70 - 130	30
1,1-Dichloroethane	ND	5.0	100	106	5.8	106	113	6.4	70 - 130	30
1,1-Dichloroethene	ND	5.0	113	115	1.8	112	120	6.9	70 - 130	30
1,1-Dichloropropene	ND	5.0	110	111	0.9	103	110	6.6	70 - 130	30
1,2,3-Trichlorobenzene	ND	5.0	110	118	7.0	76	82	7.6	70 - 130	30
1,2,3-Trichloropropane	ND	5.0	97	107	9.8	110	119	7.9	70 - 130	30
1,2,4-Trichlorobenzene	ND	5.0	115	122	5.9	80	83	3.7	70 - 130	30
1,2,4-Trimethylbenzene	ND	1.0	111	112	0.9	98	105	6.9	70 - 130	30

QA/QC Data

SDG I.D.: GBK79030

Parameter	Blank	Blk RL	LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	% Rec Limits	% RPD Limits	
1,2-Dibromo-3-chloropropane	ND	5.0	97	115	17.0	119	140	16.2	70 - 130	30	m
1,2-Dibromoethane	ND	5.0	97	108	10.7	106	110	3.7	70 - 130	30	
1,2-Dichlorobenzene	ND	5.0	105	108	2.8	93	99	6.3	70 - 130	30	
1,2-Dichloroethane	ND	5.0	98	106	7.8	107	111	3.7	70 - 130	30	
1,2-Dichloropropane	ND	5.0	98	103	5.0	101	107	5.8	70 - 130	30	
1,3,5-Trimethylbenzene	ND	1.0	111	111	0.0	99	106	6.8	70 - 130	30	
1,3-Dichlorobenzene	ND	5.0	112	113	0.9	93	98	5.2	70 - 130	30	
1,3-Dichloropropane	ND	5.0	96	103	7.0	102	108	5.7	70 - 130	30	
1,4-Dichlorobenzene	ND	5.0	108	111	2.7	92	96	4.3	70 - 130	30	
2,2-Dichloropropane	ND	5.0	109	112	2.7	102	112	9.3	70 - 130	30	
2-Chlorotoluene	ND	5.0	112	112	0.0	101	110	8.5	70 - 130	30	
2-Hexanone	ND	25	84	102	19.4	101	109	7.6	70 - 130	30	
2-Isopropyltoluene	ND	5.0	113	113	0.0	98	107	8.8	70 - 130	30	
4-Chlorotoluene	ND	5.0	111	111	0.0	96	103	7.0	70 - 130	30	
4-Methyl-2-pentanone	ND	25	84	101	18.4	101	114	12.1	70 - 130	30	
Acetone	ND	10	73	86	16.4	96	109	12.7	70 - 130	30	
Acrylonitrile	ND	5.0	89	104	15.5	104	118	12.6	70 - 130	30	
Benzene	ND	1.0	101	103	2.0	102	107	4.8	70 - 130	30	
Bromobenzene	ND	5.0	107	110	2.8	102	109	6.6	70 - 130	30	
Bromochloromethane	ND	5.0	95	105	10.0	104	110	5.6	70 - 130	30	
Bromodichloromethane	ND	5.0	105	111	5.6	107	112	4.6	70 - 130	30	
Bromoform	ND	5.0	102	115	12.0	101	112	10.3	70 - 130	30	
Bromomethane	ND	5.0	113	117	3.5	114	122	6.8	70 - 130	30	
Carbon Disulfide	ND	5.0	113	116	2.6	102	113	10.2	70 - 130	30	
Carbon tetrachloride	ND	5.0	106	109	2.8	104	113	8.3	70 - 130	30	
Chlorobenzene	ND	5.0	103	106	2.9	96	101	5.1	70 - 130	30	
Chloroethane	ND	5.0	109	111	1.8	108	118	8.8	70 - 130	30	
Chloroform	ND	5.0	99	104	4.9	105	112	6.5	70 - 130	30	
Chloromethane	ND	5.0	103	101	2.0	104	111	6.5	70 - 130	30	
cis-1,2-Dichloroethene	ND	5.0	95	100	5.1	97	105	7.9	70 - 130	30	
cis-1,3-Dichloropropene	ND	5.0	100	108	7.7	100	104	3.9	70 - 130	30	
Dibromochloromethane	ND	3.0	106	115	8.1	108	114	5.4	70 - 130	30	
Dibromomethane	ND	5.0	94	107	12.9	105	110	4.7	70 - 130	30	
Dichlorodifluoromethane	ND	5.0	122	122	0.0	116	126	8.3	70 - 130	30	
Ethylbenzene	ND	1.0	104	107	2.8	99	102	3.0	70 - 130	30	
Hexachlorobutadiene	ND	5.0	119	119	0.0	66	77	15.4	70 - 130	30	m
Isopropylbenzene	ND	1.0	109	110	0.9	103	108	4.7	70 - 130	30	
m&p-Xylene	ND	2.0	104	106	1.9	96	100	4.1	70 - 130	30	
Methyl ethyl ketone	ND	5.0	76	93	20.1	94	107	12.9	70 - 130	30	
Methyl t-butyl ether (MTBE)	ND	1.0	96	110	13.6	114	122	6.8	70 - 130	30	
Methylene chloride	ND	5.0	93	100	7.3	183	186	1.6	70 - 130	30	m
Naphthalene	ND	5.0	103	115	11.0	92	100	8.3	70 - 130	30	
n-Butylbenzene	ND	1.0	125	123	1.6	90	98	8.5	70 - 130	30	
n-Propylbenzene	ND	1.0	111	109	1.8	97	103	6.0	70 - 130	30	
o-Xylene	ND	2.0	103	104	1.0	97	103	6.0	70 - 130	30	
p-Isopropyltoluene	ND	1.0	116	117	0.9	96	104	8.0	70 - 130	30	
sec-Butylbenzene	ND	1.0	116	115	0.9	97	106	8.9	70 - 130	30	
Styrene	ND	5.0	102	104	1.9	93	99	6.3	70 - 130	30	
tert-Butylbenzene	ND	1.0	108	109	0.9	97	107	9.8	70 - 130	30	
Tetrachloroethene	ND	5.0	105	106	0.9	95	101	6.1	70 - 130	30	
Tetrahydrofuran (THF)	ND	5.0	81	102	23.0	102	115	12.0	70 - 130	30	
Toluene	ND	1.0	99	101	2.0	97	103	6.0	70 - 130	30	
trans-1,2-Dichloroethene	ND	5.0	101	108	6.7	102	111	8.5	70 - 130	30	

QA/QC Data

SDG I.D.: GBK79030

Parameter	Blank	Blk RL	LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	% Rec Limits	% RPD Limits
trans-1,3-Dichloropropene	ND	5.0	102	109	6.6	101	105	3.9	70 - 130	30
trans-1,4-dichloro-2-butene	ND	5.0	116	130	11.4	111	122	9.4	70 - 130	30
Trichloroethene	ND	5.0	101	104	2.9	101	106	4.8	70 - 130	30
Trichlorofluoromethane	ND	5.0	109	111	1.8	107	116	8.1	70 - 130	30
Trichlorotrifluoroethane	ND	5.0	112	116	3.5	110	119	7.9	70 - 130	30
Vinyl chloride	ND	5.0	111	114	2.7	111	121	8.6	70 - 130	30
% 1,2-dichlorobenzene-d4	101	%	99	98	1.0	100	101	1.0	70 - 130	30
% Bromofluorobenzene	97	%	98	100	2.0	98	98	0.0	70 - 130	30
% Dibromofluoromethane	98	%	91	99	8.4	101	102	1.0	70 - 130	30
% Toluene-d8	98	%	101	101	0.0	101	100	1.0	70 - 130	30

Comment:

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

m = This parameter is outside laboratory MS/MSD specified recovery limits.

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

RPD - Relative Percent Difference

LCS - Laboratory Control Sample

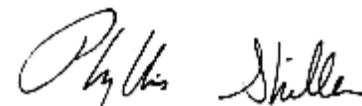
LCSD - Laboratory Control Sample Duplicate

MS - Matrix Spike

MS Dup - Matrix Spike Duplicate

NC - No Criteria

Intf - Interference



Phyllis Shiller, Laboratory Director

April 14, 2016

Thursday, April 14, 2016

Criteria: CT: GBM, RC

State: CT

Sample Criteria Exceedences Report

GBK79030 - FO-PCB

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SampNo	Acode	Phoenix Analyte	Criteria	Result	RL	Criteria	RL Criteria	Analysis Units
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*** No Data to Display ***

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: MERIDEN HOSPITAL **Project Number:**

Laboratory Sample ID(s): BK79030, BK79031, BK79032, BK79033, BK79034, BK79036

Sampling Date(s): 3/15/2016

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?	☒ Yes ☐ No
1a.	Were the method specified preservation and holding time requirements met?	☒ Yes ☐ 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)	☐ Yes ☐ No ☒ NA
2.	Were all samples received by the laboratory in a condition consistent with that described on the associated Chain-of-Custody document(s)?	☒ Yes ☐ No
3.	Were samples received at an appropriate temperature (< 6 Degrees C)?	☒ Yes ☐ No ☐ NA
4.	Were all QA/QC performance criteria specified in the Reasonable Confidence Protocol documents achieved?	☒ Yes ☐ No
5a.	Were reporting limits specified or referenced on the chain-of-custody?	☒ Yes ☐ No
5b.	Were these reporting limits met?	☒ Yes ☐ No ☐ 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?	☐ Yes ☒ No ☐ NA
7.	Are project-specific matrix spikes and laboratory duplicates included in the data set?	☐ Yes ☒ No ☐ 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, April 14, 2016

Printed Name: Ethan Lee

Position: Project Manager



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RCP Certification Report

April 14, 2016

SDG I.D.: GBK79030

SDG Comments

Metals Analysis:

The client requested a shorter list of elements than the 6010 RCP list. Only the RCRA 8 Metals are reported as requested on the chain of custody.

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-FID1 03/18/16-2

Jeff Bucko, Chemist 03/18/16

BK79032, BK79033, BK79034

The initial calibration (ETPH304I) RSD for the compound list was less than 30% except for the following compounds: None.

The continuing calibration %D for the compound list was less than 30% except for the following compounds:None.

AU-FID11 03/18/16-1

Jeff Bucko, Chemist 03/18/16

BK79036

The initial calibration (ETPH304I) RSD for the compound list was less than 30% except for the following compounds: None.

The continuing calibration %D for the compound list was less than 30% except for the following compounds:None.

QC (Batch Specific):

Batch 338082 (BK78737)

BK79032, BK79033, BK79034, BK79036

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

Mercury Narration

Were all QA/QC performance criteria specified in the analytical method achieved? Yes.

Instrument:

MERLIN 03/17/16 13:41

Rick Schweitzer, Chemist 03/17/16

BK79032

The method preparation blank contains all of the acids and reagents as the samples; the instrument blanks do not.

The initial calibration met all criteria including a standard run at or below the reporting level.

All calibration verification standards (ICV, CCV) met criteria.

All calibration blank verification standards (ICB, CCB) met criteria.

The matrix spike sample is used to identify spectral interference for each batch of samples, if within 85-115%, no interference is observed and no further action is taken.

The following Initial Calibration Verification (ICV) compounds did not meet criteria: None.

The following Continuing Calibration Verification (CCV) compounds did not meet criteria: None.

MERLIN 03/18/16 09:25

Mike Arsenault, Chemist 03/18/16

BK79033, BK79034, BK79036

The method preparation blank contains all of the acids and reagents as the samples; the instrument blanks do not.

The initial calibration met all criteria including a standard run at or below the reporting level.



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Certification Report

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SDG I.D.: GBK79030

Mercury Narration

All calibration verification standards (ICV, CCV) met criteria.

All calibration blank verification standards (ICB, CCB) met criteria.

The matrix spike sample is used to identify spectral interference for each batch of samples, if within 85-115%, no interference is observed and no further action is taken.

The following Initial Calibration Verification (ICV) compounds did not meet criteria: None.

The following Continuing Calibration Verification (CCV) compounds did not meet criteria: CCV 03/18/16 10:03: Mercury 72% (80-120)

QC (Batch Specific):

Batch 338263 (BK78679)

BK79032

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

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.

Additional Mercury criteria: LCS acceptance range for waters is 80-120% and for soils is 70-130%.

Batch 338445 (BK79866)

BK79033, BK79034, BK79036

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

Additional Mercury criteria: LCS acceptance range for waters is 80-120% and for soils is 70-130%.

ICP Metals Narration

Were all QA/QC performance criteria specified in the analytical method achieved? Yes.

Instrument:

ARCOS 03/16/16 18:07

Laura Kinnin, Chemist 03/16/16

BK79032, BK79033, BK79034, BK79036

The linear range is defined daily by the calibration range.

The following Initial Calibration Verification (ICV) compounds did not meet criteria: None.

The following Continuing Calibration Verification (CCV) compounds did not meet criteria: None.

The following ICP Interference Check (ICSAB) compounds did not meet criteria: None.

ARCOS 04/11/16 18:19

Laura Kinnin, Chemist 04/11/16

BK79032

The linear range is defined daily by the calibration range.

The following Initial Calibration Verification (ICV) compounds did not meet criteria: None.

The following Continuing Calibration Verification (CCV) compounds did not meet criteria: None.

The following ICP Interference Check (ICSAB) compounds did not meet criteria: None.

QC (Batch Specific):

Batch 338226 (BK78641)

BK79032, BK79033, BK79034, BK79036

All LCS recoveries were within 75 - 125 with the following exceptions: None.

Batch 341772 (BK79032)

BK79032



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ICP Metals Narration

All LCS recoveries were within 75 - 125 with the following exceptions: None.

PAH Narration

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

Instrument:

CHEM25 03/16/16-1 Damien Drobinski, Chemist 03/16/16

BK79032, BK79033, BK79034, BK79036

Initial Calibration Verification (CHEM25/BN_0315):

100% of target compounds met criteria.

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

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

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

Continuing Calibration Verification (CHEM25/0316_04-BN_0315):

Internal standard areas were within 50 to 200% of the initial calibration with the following exceptions: None.

100% of target compounds met criteria.

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: None.

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

SVOA Narration

Were all QA/QC performance criteria specified in the analytical method achieved? Yes.

QC (Batch Specific):

Batch 338207 (BK79016)

BK79032, BK79033, BK79034, BK79036

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

VOA Narration

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

Instrument:

CHEM14 03/17/16-1 Jane Li, Chemist 03/17/16

BK79030, BK79031, BK79032

Initial Calibration Verification (CHEM14/VT-0315):

98% of target compounds met criteria.

The following compounds had %RSDs >20%: Acetone 28% (20%), Bromoform 21% (20%)

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

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

Continuing Calibration Verification (CHEM14/0317_06-VT-0315):

Internal standard areas were within 50 to 200% of the initial calibration with the following exceptions: None.



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RCP Certification Report

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SDG I.D.: GBK79030

VOA Narration

100% of target compounds met criteria.

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: None.

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

QC (Batch Specific):

Batch 338872 (BK79023)

BK79030, BK79031, BK79032

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

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.

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

Temperature Narration

The samples in this delivery group were received at 3°C.

(Note acceptance criteria is above freezing up to 6°C)



Tuesday, March 29, 2016

Attn: Mr Dave Cook
Fuss & O'Neill, Inc.
146 Hartford Road
Manchester, CT 06040

Project ID: FORMER MERIDEN HOSPITAL
Sample ID#s: BK87138

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.

All soils, solids and sludges are reported on a dry weight basis unless otherwise noted in the sample comments.

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, appearing to read "Phyllis Shiller".

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

Analysis Report

March 29, 2016

FOR: Attn: Mr Dave Cook
Fuss & O'Neill, Inc.
146 Hartford Road
Manchester, CT 06040

Sample Information

Matrix: SOLID
Location Code: F&O
Rush Request: Standard
P.O.#: 20120232.C40

Custody Information

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

Date

03/23/16
03/24/16

Time

11:00
11:00

Laboratory Data

SDG ID: GBK87138
Phoenix ID: BK87138

Project ID: FORMER MERIDEN HOSPITAL
Client ID: 1176160323-07

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Percent Solid	94		%		03/24/16	W	SW846-%Solid
Extraction for PCB	Completed				03/24/16	QQ/R	SW3540C

PCB (Soxhlet SW3540C)

PCB-1016	ND	350	ug/Kg	10	03/25/16	AW	SW8082A
PCB-1221	ND	350	ug/Kg	10	03/25/16	AW	SW8082A
PCB-1232	ND	350	ug/Kg	10	03/25/16	AW	SW8082A
PCB-1242	ND	350	ug/Kg	10	03/25/16	AW	SW8082A
PCB-1248	ND	350	ug/Kg	10	03/25/16	AW	SW8082A
PCB-1254	ND	350	ug/Kg	10	03/25/16	AW	SW8082A
PCB-1260	ND	350	ug/Kg	10	03/25/16	AW	SW8082A
PCB-1262	ND	350	ug/Kg	10	03/25/16	AW	SW8082A
PCB-1268	ND	350	ug/Kg	10	03/25/16	AW	SW8082A

QA/QC Surrogates

% DCBP	81	%	10	03/25/16	AW	30 - 150 %
% TCMX	37	%	10	03/25/16	AW	30 - 150 %

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
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RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level

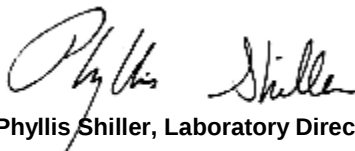
QA/QC Surrogates: Surrogates are compounds (preceded with a %) added by the lab to determine analysis efficiency. Surrogate results(%) listed in the report are not "detected" compounds.

Comments:

All soils, solids and sludges are reported on a dry weight basis unless otherwise noted in the sample 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

March 29, 2016

Reviewed and Released by: Bobbi Aloisa, Vice President



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

QA/QC Report

March 29, 2016

QA/QC Data

SDG I.D.: GBK87138

Parameter	Blank	Blk RL	LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	% Rec Limits	% RPD Limits
QA/QC Batch 339164 (ug/Kg), QC Sample No: BK87041 10X (BK87138)										
Polychlorinated Biphenyls - Solid										
PCB-1016	ND	170	71	87	20.3				40 - 140	30
PCB-1221	ND	170							40 - 140	30
PCB-1232	ND	170							40 - 140	30
PCB-1242	ND	170							40 - 140	30
PCB-1248	ND	170							40 - 140	30
PCB-1254	ND	170							40 - 140	30
PCB-1260	ND	170	80	97	19.2				40 - 140	30
PCB-1262	ND	170							40 - 140	30
PCB-1268	ND	170							40 - 140	30
% DCBP (Surrogate Rec)	96	%	90	103	13.5				30 - 150	30
% TCMX (Surrogate Rec)	77	%	41	72	54.9				30 - 150	30

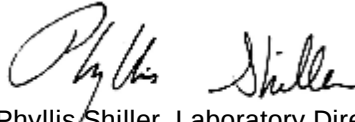
Comment:

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

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

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
March 29, 2016

Tuesday, March 29, 2016

Criteria: CT: RC

State: CT

Sample Criteria Exceedences Report

GBK87138 - FO

Page 1 of 1

SampNo	Acode	Phoenix Analyte	Criteria	Result	RL	Criteria	RL Criteria	Analysis Units
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*** No Data to Display ***

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: FORMER MERIDEN HOSPITAL **Project Number:**

Laboratory Sample ID(s): BK87138

Sampling Date(s): 3/23/2016

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?	☒ Yes ☐ No
1a.	Were the method specified preservation and holding time requirements met?	☒ Yes ☐ 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)	☐ Yes ☐ No ☒ NA
2.	Were all samples received by the laboratory in a condition consistent with that described on the associated Chain-of-Custody document(s)?	☒ Yes ☐ No
3.	Were samples received at an appropriate temperature (< 6 Degrees C)?	☒ Yes ☐ No ☐ NA
4.	Were all QA/QC performance criteria specified in the Reasonable Confidence Protocol documents achieved? See Section: PCB Narration.	☐ Yes ☒ No
5a.	Were reporting limits specified or referenced on the chain-of-custody?	☒ Yes ☐ No
5b.	Were these reporting limits met?	☒ Yes ☐ No ☐ 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?	☒ Yes ☐ No ☐ NA
7.	Are project-specific matrix spikes and laboratory duplicates included in the data set?	☐ Yes ☒ No ☐ 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: Tuesday, March 29, 2016

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

March 29, 2016

SDG I.D.: GBK87138

PCB Narration

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

QC Batch 339164 (Samples: BK87138): -----

The LCS/LCSD RPD exceeds the method criteria for one or more surrogates, therefore there may be variability in the reported result. (% TCMX (Surrogate Rec))

Instrument:

AU-ECD1 03/25/16-1

Adam Werner, Chemist 03/25/16

BK87138

The initial calibration (PC0321AI) RSD for the compound list was less than 20% except for the following compounds: None.

The initial calibration (PC0321BI) RSD for the compound list was less than 20% except for the following compounds: None.

The continuing calibration %D for the compound list was less than 15% except for the following compounds: None.

QC (Batch Specific):

Batch 339164 (BK87041)

BK87138

All LCS recoveries were within 40 - 140 with the following exceptions: None.

All LCSD recoveries were within 40 - 140 with the following exceptions: None.

All LCS/LCSD RPDs were less than 30% with the following exceptions: % TCMX (Surrogate Rec)(54.9%)

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

Temperature Narration

The samples were received at 5C with cooling initiated.

(Note acceptance criteria is above freezing up to 6°C)



Friday, April 01, 2016

Attn: Mr Dave Cook
Fuss & O'Neill, Inc.
146 Hartford Road
Manchester, CT 06040

Project ID: FORMER MERIDEN HOSPITAL
Sample ID#s: BK87132 - BK87137

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, appearing to read "Phyllis Shiller".

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

Analysis Report

April 01, 2016

FOR: Attn: Mr Dave Cook
Fuss & O'Neill, Inc.
146 Hartford Road
Manchester, CT 06040

Sample Information

Matrix: GROUND WATER
Location Code: F&O
Rush Request: Standard
P.O.#: 20120232.C40

Custody Information

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

Date

03/23/16
03/24/16

Time

9:30
11:00

Laboratory Data

SDG ID: GBK87132
Phoenix ID: BK87132

Project ID: FORMER MERIDEN HOSPITAL
Client ID: 1176160323-01

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
<u>Volatiles</u>							
1,1,1,2-Tetrachloroethane	ND	1.0	ug/L	1	03/25/16	MH	SW8260
1,1,1-Trichloroethane	ND	1.0	ug/L	1	03/25/16	MH	SW8260
1,1,2,2-Tetrachloroethane	ND	0.50	ug/L	1	03/25/16	MH	SW8260
1,1,2-Trichloroethane	ND	1.0	ug/L	1	03/25/16	MH	SW8260
1,1-Dichloroethane	ND	1.0	ug/L	1	03/25/16	MH	SW8260
1,1-Dichloroethene	ND	1.0	ug/L	1	03/25/16	MH	SW8260
1,1-Dichloropropene	ND	1.0	ug/L	1	03/25/16	MH	SW8260
1,2,3-Trichlorobenzene	ND	1.0	ug/L	1	03/25/16	MH	SW8260
1,2,3-Trichloropropane	ND	1.0	ug/L	1	03/25/16	MH	SW8260
1,2,4-Trichlorobenzene	ND	1.0	ug/L	1	03/25/16	MH	SW8260
1,2,4-Trimethylbenzene	ND	1.0	ug/L	1	03/25/16	MH	SW8260
1,2-Dibromo-3-chloropropane	ND	1.0	ug/L	1	03/25/16	MH	SW8260
1,2-Dibromoethane	ND	1.0	ug/L	1	03/25/16	MH	SW8260
1,2-Dichlorobenzene	ND	1.0	ug/L	1	03/25/16	MH	SW8260
1,2-Dichloroethane	ND	0.60	ug/L	1	03/25/16	MH	SW8260
1,2-Dichloropropane	ND	1.0	ug/L	1	03/25/16	MH	SW8260
1,3,5-Trimethylbenzene	ND	1.0	ug/L	1	03/25/16	MH	SW8260
1,3-Dichlorobenzene	ND	1.0	ug/L	1	03/25/16	MH	SW8260
1,3-Dichloropropane	ND	1.0	ug/L	1	03/25/16	MH	SW8260
1,4-Dichlorobenzene	ND	1.0	ug/L	1	03/25/16	MH	SW8260
2,2-Dichloropropane	ND	1.0	ug/L	1	03/25/16	MH	SW8260
2-Chlorotoluene	ND	1.0	ug/L	1	03/25/16	MH	SW8260
2-Hexanone	ND	5.0	ug/L	1	03/25/16	MH	SW8260
2-Isopropyltoluene	ND	1.0	ug/L	1	03/25/16	MH	SW8260
4-Chlorotoluene	ND	1.0	ug/L	1	03/25/16	MH	SW8260
4-Methyl-2-pentanone	ND	5.0	ug/L	1	03/25/16	MH	SW8260

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Acetone	ND	25	ug/L	1	03/25/16	MH	SW8260
Acrylonitrile	ND	5.0	ug/L	1	03/25/16	MH	SW8260
Benzene	ND	0.70	ug/L	1	03/25/16	MH	SW8260
Bromobenzene	ND	1.0	ug/L	1	03/25/16	MH	SW8260
Bromochloromethane	ND	1.0	ug/L	1	03/25/16	MH	SW8260
Bromodichloromethane	ND	0.50	ug/L	1	03/25/16	MH	SW8260
Bromoform	ND	1.0	ug/L	1	03/25/16	MH	SW8260
Bromomethane	ND	1.0	ug/L	1	03/25/16	MH	SW8260
Carbon Disulfide	ND	5.0	ug/L	1	03/25/16	MH	SW8260
Carbon tetrachloride	ND	1.0	ug/L	1	03/25/16	MH	SW8260
Chlorobenzene	ND	1.0	ug/L	1	03/25/16	MH	SW8260
Chloroethane	ND	1.0	ug/L	1	03/25/16	MH	SW8260
Chloroform	ND	1.0	ug/L	1	03/25/16	MH	SW8260
Chloromethane	ND	1.0	ug/L	1	03/25/16	MH	SW8260
cis-1,2-Dichloroethene	ND	1.0	ug/L	1	03/25/16	MH	SW8260
cis-1,3-Dichloropropene	ND	0.40	ug/L	1	03/25/16	MH	SW8260
Dibromochloromethane	ND	0.50	ug/L	1	03/25/16	MH	SW8260
Dibromomethane	ND	1.0	ug/L	1	03/25/16	MH	SW8260
Dichlorodifluoromethane	ND	1.0	ug/L	1	03/25/16	MH	SW8260
Ethylbenzene	ND	1.0	ug/L	1	03/25/16	MH	SW8260
Hexachlorobutadiene	ND	0.40	ug/L	1	03/25/16	MH	SW8260
Isopropylbenzene	ND	1.0	ug/L	1	03/25/16	MH	SW8260
m&p-Xylene	ND	1.0	ug/L	1	03/25/16	MH	SW8260
Methyl ethyl ketone	ND	5.0	ug/L	1	03/25/16	MH	SW8260
Methyl t-butyl ether (MTBE)	ND	1.0	ug/L	1	03/25/16	MH	SW8260
Methylene chloride	ND	1.0	ug/L	1	03/25/16	MH	SW8260
Naphthalene	ND	1.0	ug/L	1	03/25/16	MH	SW8260
n-Butylbenzene	ND	1.0	ug/L	1	03/25/16	MH	SW8260
n-Propylbenzene	ND	1.0	ug/L	1	03/25/16	MH	SW8260
o-Xylene	ND	1.0	ug/L	1	03/25/16	MH	SW8260
p-Isopropyltoluene	ND	1.0	ug/L	1	03/25/16	MH	SW8260
sec-Butylbenzene	ND	1.0	ug/L	1	03/25/16	MH	SW8260
Styrene	ND	1.0	ug/L	1	03/25/16	MH	SW8260
tert-Butylbenzene	ND	1.0	ug/L	1	03/25/16	MH	SW8260
Tetrachloroethene	ND	1.0	ug/L	1	03/25/16	MH	SW8260
Tetrahydrofuran (THF)	ND	2.5	ug/L	1	03/25/16	MH	SW8260
Toluene	ND	1.0	ug/L	1	03/25/16	MH	SW8260
Total Xylenes	ND	1.0	ug/L	1	03/25/16	MH	SW8260
trans-1,2-Dichloroethene	ND	1.0	ug/L	1	03/25/16	MH	SW8260
trans-1,3-Dichloropropene	ND	0.40	ug/L	1	03/25/16	MH	SW8260
trans-1,4-dichloro-2-butene	ND	5.0	ug/L	1	03/25/16	MH	SW8260
Trichloroethene	ND	1.0	ug/L	1	03/25/16	MH	SW8260
Trichlorofluoromethane	ND	1.0	ug/L	1	03/25/16	MH	SW8260
Trichlorotrifluoroethane	ND	1.0	ug/L	1	03/25/16	MH	SW8260
Vinyl chloride	ND	1.0	ug/L	1	03/25/16	MH	SW8260
<u>QA/QC Surrogates</u>							
% 1,2-dichlorobenzene-d4	99		%	1	03/25/16	MH	70 - 130 %
% Bromofluorobenzene	94		%	1	03/25/16	MH	70 - 130 %
% Dibromofluoromethane	96		%	1	03/25/16	MH	70 - 130 %

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
% Toluene-d8	98		%	1	03/25/16	MH	70 - 130 %

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

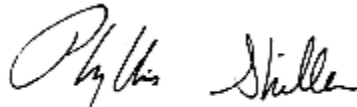
QA/QC Surrogates: Surrogates are compounds (preceded with a %) added by the lab to determine analysis efficiency. Surrogate results(%) listed in the report are not "detected" compounds.

Comments:

TRIP BLANK INCLUDED.

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

This report must not be reproduced except in full as defined by the attached chain of custody.



Phyllis Shiller, Laboratory Director

April 01, 2016

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

April 01, 2016

FOR: Attn: Mr Dave Cook
Fuss & O'Neill, Inc.
146 Hartford Road
Manchester, CT 06040

Sample Information

Matrix: GROUND WATER
Location Code: F&O
Rush Request: Standard
P.O.#: 20120232.C40

Custody Information

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

Date

03/23/16
03/24/16

Time

10:25
11:00

Laboratory Data

SDG ID: GBK87132
Phoenix ID: BK87133

Project ID: FORMER MERIDEN HOSPITAL
Client ID: 1176160323-02

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Silver	< 0.001	0.001	mg/L	1	03/26/16	LK	SW6010C
Arsenic	< 0.004	0.004	mg/L	1	03/26/16	LK	SW6010C
Barium	0.096	0.002	mg/L	1	03/26/16	LK	SW6010C
Cadmium	< 0.001	0.001	mg/L	1	03/26/16	LK	SW6010C
Chromium	< 0.001	0.001	mg/L	1	03/26/16	LK	SW6010C
Mercury	< 0.0002	0.0002	mg/L	1	03/28/16	M/R	SW7470A
Lead	< 0.002	0.002	mg/L	1	03/26/16	LK	SW6010C
Selenium	< 0.010	0.010	mg/L	1	03/26/16	LK	SW6010C
Mercury Digestion	Completed				03/28/16	W/W	SW7470A
Semi-Volatile Extraction	Completed				03/24/16	E/D	SW3520C
Total Metals Digestion	Completed				03/24/16	AG	

Volatiles

1,1,1,2-Tetrachloroethane	ND	1.0	ug/L	1	03/25/16	MH	SW8260
1,1,1-Trichloroethane	ND	1.0	ug/L	1	03/25/16	MH	SW8260
1,1,2,2-Tetrachloroethane	ND	0.50	ug/L	1	03/25/16	MH	SW8260
1,1,2-Trichloroethane	ND	1.0	ug/L	1	03/25/16	MH	SW8260
1,1-Dichloroethane	ND	1.0	ug/L	1	03/25/16	MH	SW8260
1,1-Dichloroethene	ND	1.0	ug/L	1	03/25/16	MH	SW8260
1,1-Dichloropropene	ND	1.0	ug/L	1	03/25/16	MH	SW8260
1,2,3-Trichlorobenzene	ND	1.0	ug/L	1	03/25/16	MH	SW8260
1,2,3-Trichloropropane	ND	1.0	ug/L	1	03/25/16	MH	SW8260
1,2,4-Trichlorobenzene	ND	1.0	ug/L	1	03/25/16	MH	SW8260
1,2,4-Trimethylbenzene	ND	1.0	ug/L	1	03/25/16	MH	SW8260
1,2-Dibromo-3-chloropropane	ND	1.0	ug/L	1	03/25/16	MH	SW8260
1,2-Dibromoethane	ND	1.0	ug/L	1	03/25/16	MH	SW8260
1,2-Dichlorobenzene	ND	1.0	ug/L	1	03/25/16	MH	SW8260
1,2-Dichloroethane	ND	0.60	ug/L	1	03/25/16	MH	SW8260

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
1,2-Dichloropropane	ND	1.0	ug/L	1	03/25/16	MH	SW8260
1,3,5-Trimethylbenzene	ND	1.0	ug/L	1	03/25/16	MH	SW8260
1,3-Dichlorobenzene	ND	1.0	ug/L	1	03/25/16	MH	SW8260
1,3-Dichloropropane	ND	1.0	ug/L	1	03/25/16	MH	SW8260
1,4-Dichlorobenzene	ND	1.0	ug/L	1	03/25/16	MH	SW8260
2,2-Dichloropropane	ND	1.0	ug/L	1	03/25/16	MH	SW8260
2-Chlorotoluene	ND	1.0	ug/L	1	03/25/16	MH	SW8260
2-Hexanone	ND	5.0	ug/L	1	03/25/16	MH	SW8260
2-Isopropyltoluene	ND	1.0	ug/L	1	03/25/16	MH	SW8260
4-Chlorotoluene	ND	1.0	ug/L	1	03/25/16	MH	SW8260
4-Methyl-2-pentanone	ND	5.0	ug/L	1	03/25/16	MH	SW8260
Acetone	ND	25	ug/L	1	03/25/16	MH	SW8260
Acrylonitrile	ND	5.0	ug/L	1	03/25/16	MH	SW8260
Benzene	ND	0.70	ug/L	1	03/25/16	MH	SW8260
Bromobenzene	ND	1.0	ug/L	1	03/25/16	MH	SW8260
Bromochloromethane	ND	1.0	ug/L	1	03/25/16	MH	SW8260
Bromodichloromethane	ND	0.50	ug/L	1	03/25/16	MH	SW8260
Bromoform	ND	1.0	ug/L	1	03/25/16	MH	SW8260
Bromomethane	ND	1.0	ug/L	1	03/25/16	MH	SW8260
Carbon Disulfide	ND	5.0	ug/L	1	03/25/16	MH	SW8260
Carbon tetrachloride	ND	1.0	ug/L	1	03/25/16	MH	SW8260
Chlorobenzene	ND	1.0	ug/L	1	03/25/16	MH	SW8260
Chloroethane	ND	1.0	ug/L	1	03/25/16	MH	SW8260
Chloroform	ND	1.0	ug/L	1	03/25/16	MH	SW8260
Chloromethane	ND	1.0	ug/L	1	03/25/16	MH	SW8260
cis-1,2-Dichloroethene	ND	1.0	ug/L	1	03/25/16	MH	SW8260
cis-1,3-Dichloropropene	ND	0.40	ug/L	1	03/25/16	MH	SW8260
Dibromochloromethane	ND	0.50	ug/L	1	03/25/16	MH	SW8260
Dibromomethane	ND	1.0	ug/L	1	03/25/16	MH	SW8260
Dichlorodifluoromethane	ND	1.0	ug/L	1	03/25/16	MH	SW8260
Ethylbenzene	ND	1.0	ug/L	1	03/25/16	MH	SW8260
Hexachlorobutadiene	ND	0.40	ug/L	1	03/25/16	MH	SW8260
Isopropylbenzene	ND	1.0	ug/L	1	03/25/16	MH	SW8260
m&p-Xylene	ND	1.0	ug/L	1	03/25/16	MH	SW8260
Methyl ethyl ketone	ND	5.0	ug/L	1	03/25/16	MH	SW8260
Methyl t-butyl ether (MTBE)	ND	1.0	ug/L	1	03/25/16	MH	SW8260
Methylene chloride	ND	1.0	ug/L	1	03/25/16	MH	SW8260
Naphthalene	ND	1.0	ug/L	1	03/25/16	MH	SW8260
n-Butylbenzene	ND	1.0	ug/L	1	03/25/16	MH	SW8260
n-Propylbenzene	ND	1.0	ug/L	1	03/25/16	MH	SW8260
o-Xylene	ND	1.0	ug/L	1	03/25/16	MH	SW8260
p-Isopropyltoluene	ND	1.0	ug/L	1	03/25/16	MH	SW8260
sec-Butylbenzene	ND	1.0	ug/L	1	03/25/16	MH	SW8260
Styrene	ND	1.0	ug/L	1	03/25/16	MH	SW8260
tert-Butylbenzene	ND	1.0	ug/L	1	03/25/16	MH	SW8260
Tetrachloroethene	ND	1.0	ug/L	1	03/25/16	MH	SW8260
Tetrahydrofuran (THF)	ND	2.5	ug/L	1	03/25/16	MH	SW8260
Toluene	ND	1.0	ug/L	1	03/25/16	MH	SW8260
Total Xylenes	ND	1.0	ug/L	1	03/25/16	MH	SW8260

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
trans-1,2-Dichloroethene	ND	1.0	ug/L	1	03/25/16	MH	SW8260
trans-1,3-Dichloropropene	ND	0.40	ug/L	1	03/25/16	MH	SW8260
trans-1,4-dichloro-2-butene	ND	5.0	ug/L	1	03/25/16	MH	SW8260
Trichloroethene	ND	1.0	ug/L	1	03/25/16	MH	SW8260
Trichlorofluoromethane	ND	1.0	ug/L	1	03/25/16	MH	SW8260
Trichlorotrifluoroethane	ND	1.0	ug/L	1	03/25/16	MH	SW8260
Vinyl chloride	ND	1.0	ug/L	1	03/25/16	MH	SW8260
<u>QA/QC Surrogates</u>							
% 1,2-dichlorobenzene-d4	99		%	1	03/25/16	MH	70 - 130 %
% Bromofluorobenzene	94		%	1	03/25/16	MH	70 - 130 %
% Dibromofluoromethane	98		%	1	03/25/16	MH	70 - 130 %
% Toluene-d8	99		%	1	03/25/16	MH	70 - 130 %
<u>Semivolatiles by SIM</u>							
2-Methylnaphthalene	ND	0.05	ug/L	1	03/25/16	DD	SW8270D (SIM)
Acenaphthene	ND	0.05	ug/L	1	03/25/16	DD	SW8270D (SIM)
Acenaphthylene	ND	0.05	ug/L	1	03/25/16	DD	SW8270D (SIM)
Anthracene	ND	0.05	ug/L	1	03/25/16	DD	SW8270D (SIM)
Benz(a)anthracene	ND	0.05	ug/L	1	03/25/16	DD	SW8270D (SIM)
Benzo(a)pyrene	ND	0.05	ug/L	1	03/25/16	DD	SW8270D (SIM)
Benzo(b)fluoranthene	ND	0.05	ug/L	1	03/25/16	DD	SW8270D (SIM)
Benzo(ghi)perylene	ND	0.05	ug/L	1	03/25/16	DD	SW8270D (SIM)
Benzo(k)fluoranthene	ND	0.05	ug/L	1	03/25/16	DD	SW8270D (SIM)
Chrysene	ND	0.05	ug/L	1	03/25/16	DD	SW8270D (SIM)
Dibenz(a,h)anthracene	ND	0.01	ug/L	1	03/25/16	DD	SW8270D (SIM)
Fluoranthene	ND	0.05	ug/L	1	03/25/16	DD	SW8270D (SIM)
Fluorene	ND	0.05	ug/L	1	03/25/16	DD	SW8270D (SIM)
Indeno(1,2,3-cd)pyrene	ND	0.05	ug/L	1	03/25/16	DD	SW8270D (SIM)
Naphthalene	ND	0.10	ug/L	1	03/25/16	DD	SW8270D (SIM)
Phenanthrene	ND	0.05	ug/L	1	03/25/16	DD	SW8270D (SIM)
Pyrene	ND	0.05	ug/L	1	03/25/16	DD	SW8270D (SIM)
<u>QA/QC Surrogates</u>							
% 2-Fluorobiphenyl	65		%	1	03/25/16	DD	30 - 130 %
% Nitrobenzene-d5	61		%	1	03/25/16	DD	30 - 130 %
% Terphenyl-d14	89		%	1	03/25/16	DD	30 - 130 %

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
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RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level

QA/QC Surrogates: Surrogates are compounds (preceded with a %) added by the lab to determine analysis efficiency. Surrogate results(%) listed in the report are not "detected" compounds.

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

April 01, 2016

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

April 01, 2016

FOR: Attn: Mr Dave Cook
Fuss & O'Neill, Inc.
146 Hartford Road
Manchester, CT 06040

Sample Information

Matrix: GROUND WATER
Location Code: F&O
Rush Request: Standard
P.O.#: 20120232.C40

Custody Information

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

Date

03/23/16
03/24/16

Time

12:18
11:00

Laboratory Data

SDG ID: GBK87132
Phoenix ID: BK87134

Project ID: FORMER MERIDEN HOSPITAL
Client ID: 1176160323-03

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Silver	< 0.001	0.001	mg/L	1	03/26/16	LK	SW6010C
Arsenic	< 0.004	0.004	mg/L	1	03/26/16	LK	SW6010C
Barium	0.461	0.002	mg/L	1	03/26/16	LK	SW6010C
Cadmium	< 0.001	0.001	mg/L	1	03/26/16	LK	SW6010C
Chromium	< 0.001	0.001	mg/L	1	03/26/16	LK	SW6010C
Mercury	< 0.0002	0.0002	mg/L	1	03/28/16	M/R	SW7470A
Lead	< 0.002	0.002	mg/L	1	03/26/16	LK	SW6010C
Selenium	< 0.010	0.010	mg/L	1	03/26/16	LK	SW6010C
Mercury Digestion	Completed				03/28/16	W/W	SW7470A
Semi-Volatile Extraction	Completed				03/24/16	E/D	SW3520C
Total Metals Digestion	Completed				03/24/16	AG	

Volatiles

1,1,1,2-Tetrachloroethane	ND	1.0	ug/L	1	03/25/16	MH	SW8260
1,1,1-Trichloroethane	ND	1.0	ug/L	1	03/25/16	MH	SW8260
1,1,2,2-Tetrachloroethane	ND	0.50	ug/L	1	03/25/16	MH	SW8260
1,1,2-Trichloroethane	ND	1.0	ug/L	1	03/25/16	MH	SW8260
1,1-Dichloroethane	ND	1.0	ug/L	1	03/25/16	MH	SW8260
1,1-Dichloroethene	ND	1.0	ug/L	1	03/25/16	MH	SW8260
1,1-Dichloropropene	ND	1.0	ug/L	1	03/25/16	MH	SW8260
1,2,3-Trichlorobenzene	ND	1.0	ug/L	1	03/25/16	MH	SW8260
1,2,3-Trichloropropane	ND	1.0	ug/L	1	03/25/16	MH	SW8260
1,2,4-Trichlorobenzene	ND	1.0	ug/L	1	03/25/16	MH	SW8260
1,2,4-Trimethylbenzene	ND	1.0	ug/L	1	03/25/16	MH	SW8260
1,2-Dibromo-3-chloropropane	ND	1.0	ug/L	1	03/25/16	MH	SW8260
1,2-Dibromoethane	ND	1.0	ug/L	1	03/25/16	MH	SW8260
1,2-Dichlorobenzene	ND	1.0	ug/L	1	03/25/16	MH	SW8260
1,2-Dichloroethane	ND	0.60	ug/L	1	03/25/16	MH	SW8260

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
1,2-Dichloropropane	ND	1.0	ug/L	1	03/25/16	MH	SW8260
1,3,5-Trimethylbenzene	ND	1.0	ug/L	1	03/25/16	MH	SW8260
1,3-Dichlorobenzene	ND	1.0	ug/L	1	03/25/16	MH	SW8260
1,3-Dichloropropane	ND	1.0	ug/L	1	03/25/16	MH	SW8260
1,4-Dichlorobenzene	ND	1.0	ug/L	1	03/25/16	MH	SW8260
2,2-Dichloropropane	ND	1.0	ug/L	1	03/25/16	MH	SW8260
2-Chlorotoluene	ND	1.0	ug/L	1	03/25/16	MH	SW8260
2-Hexanone	ND	5.0	ug/L	1	03/25/16	MH	SW8260
2-Isopropyltoluene	ND	1.0	ug/L	1	03/25/16	MH	SW8260
4-Chlorotoluene	ND	1.0	ug/L	1	03/25/16	MH	SW8260
4-Methyl-2-pentanone	ND	5.0	ug/L	1	03/25/16	MH	SW8260
Acetone	ND	25	ug/L	1	03/25/16	MH	SW8260
Acrylonitrile	ND	5.0	ug/L	1	03/25/16	MH	SW8260
Benzene	ND	0.70	ug/L	1	03/25/16	MH	SW8260
Bromobenzene	ND	1.0	ug/L	1	03/25/16	MH	SW8260
Bromochloromethane	ND	1.0	ug/L	1	03/25/16	MH	SW8260
Bromodichloromethane	ND	0.50	ug/L	1	03/25/16	MH	SW8260
Bromoform	ND	1.0	ug/L	1	03/25/16	MH	SW8260
Bromomethane	ND	1.0	ug/L	1	03/25/16	MH	SW8260
Carbon Disulfide	ND	5.0	ug/L	1	03/25/16	MH	SW8260
Carbon tetrachloride	ND	1.0	ug/L	1	03/25/16	MH	SW8260
Chlorobenzene	ND	1.0	ug/L	1	03/25/16	MH	SW8260
Chloroethane	ND	1.0	ug/L	1	03/25/16	MH	SW8260
Chloroform	ND	1.0	ug/L	1	03/25/16	MH	SW8260
Chloromethane	ND	1.0	ug/L	1	03/25/16	MH	SW8260
cis-1,2-Dichloroethene	ND	1.0	ug/L	1	03/25/16	MH	SW8260
cis-1,3-Dichloropropene	ND	0.40	ug/L	1	03/25/16	MH	SW8260
Dibromochloromethane	ND	0.50	ug/L	1	03/25/16	MH	SW8260
Dibromomethane	ND	1.0	ug/L	1	03/25/16	MH	SW8260
Dichlorodifluoromethane	ND	1.0	ug/L	1	03/25/16	MH	SW8260
Ethylbenzene	ND	1.0	ug/L	1	03/25/16	MH	SW8260
Hexachlorobutadiene	ND	0.40	ug/L	1	03/25/16	MH	SW8260
Isopropylbenzene	ND	1.0	ug/L	1	03/25/16	MH	SW8260
m&p-Xylene	ND	1.0	ug/L	1	03/25/16	MH	SW8260
Methyl ethyl ketone	ND	5.0	ug/L	1	03/25/16	MH	SW8260
Methyl t-butyl ether (MTBE)	ND	1.0	ug/L	1	03/25/16	MH	SW8260
Methylene chloride	ND	1.0	ug/L	1	03/25/16	MH	SW8260
Naphthalene	ND	1.0	ug/L	1	03/25/16	MH	SW8260
n-Butylbenzene	ND	1.0	ug/L	1	03/25/16	MH	SW8260
n-Propylbenzene	ND	1.0	ug/L	1	03/25/16	MH	SW8260
o-Xylene	ND	1.0	ug/L	1	03/25/16	MH	SW8260
p-Isopropyltoluene	ND	1.0	ug/L	1	03/25/16	MH	SW8260
sec-Butylbenzene	ND	1.0	ug/L	1	03/25/16	MH	SW8260
Styrene	ND	1.0	ug/L	1	03/25/16	MH	SW8260
tert-Butylbenzene	ND	1.0	ug/L	1	03/25/16	MH	SW8260
Tetrachloroethene	ND	1.0	ug/L	1	03/25/16	MH	SW8260
Tetrahydrofuran (THF)	ND	2.5	ug/L	1	03/25/16	MH	SW8260
Toluene	ND	1.0	ug/L	1	03/25/16	MH	SW8260
Total Xylenes	ND	1.0	ug/L	1	03/25/16	MH	SW8260

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
trans-1,2-Dichloroethene	ND	1.0	ug/L	1	03/25/16	MH	SW8260
trans-1,3-Dichloropropene	ND	0.40	ug/L	1	03/25/16	MH	SW8260
trans-1,4-dichloro-2-butene	ND	5.0	ug/L	1	03/25/16	MH	SW8260
Trichloroethene	ND	1.0	ug/L	1	03/25/16	MH	SW8260
Trichlorofluoromethane	ND	1.0	ug/L	1	03/25/16	MH	SW8260
Trichlorotrifluoroethane	ND	1.0	ug/L	1	03/25/16	MH	SW8260
Vinyl chloride	ND	1.0	ug/L	1	03/25/16	MH	SW8260
<u>QA/QC Surrogates</u>							
% 1,2-dichlorobenzene-d4	99		%	1	03/25/16	MH	70 - 130 %
% Bromofluorobenzene	94		%	1	03/25/16	MH	70 - 130 %
% Dibromofluoromethane	100		%	1	03/25/16	MH	70 - 130 %
% Toluene-d8	98		%	1	03/25/16	MH	70 - 130 %

Semivolatiles by SIM

2-Methylnaphthalene	ND	0.05	ug/L	1	03/25/16	DD	SW8270D (SIM)
Acenaphthene	ND	0.05	ug/L	1	03/25/16	DD	SW8270D (SIM)
Acenaphthylene	ND	0.05	ug/L	1	03/25/16	DD	SW8270D (SIM)
Anthracene	ND	0.05	ug/L	1	03/25/16	DD	SW8270D (SIM)
Benz(a)anthracene	ND	0.05	ug/L	1	03/25/16	DD	SW8270D (SIM)
Benzo(a)pyrene	ND	0.05	ug/L	1	03/25/16	DD	SW8270D (SIM)
Benzo(b)fluoranthene	ND	0.05	ug/L	1	03/25/16	DD	SW8270D (SIM)
Benzo(ghi)perylene	ND	0.05	ug/L	1	03/25/16	DD	SW8270D (SIM)
Benzo(k)fluoranthene	ND	0.05	ug/L	1	03/25/16	DD	SW8270D (SIM)
Chrysene	ND	0.05	ug/L	1	03/25/16	DD	SW8270D (SIM)
Dibenz(a,h)anthracene	ND	0.01	ug/L	1	03/25/16	DD	SW8270D (SIM)
Fluoranthene	ND	0.05	ug/L	1	03/25/16	DD	SW8270D (SIM)
Fluorene	ND	0.05	ug/L	1	03/25/16	DD	SW8270D (SIM)
Indeno(1,2,3-cd)pyrene	ND	0.05	ug/L	1	03/25/16	DD	SW8270D (SIM)
Naphthalene	ND	0.10	ug/L	1	03/25/16	DD	SW8270D (SIM)
Phenanthrene	ND	0.05	ug/L	1	03/25/16	DD	SW8270D (SIM)
Pyrene	ND	0.05	ug/L	1	03/25/16	DD	SW8270D (SIM)

QA/QC Surrogates

% 2-Fluorobiphenyl	44		%	1	03/25/16	DD	30 - 130 %
% Nitrobenzene-d5	23		%	1	03/25/16	DD	30 - 130 %
% Terphenyl-d14	87		%	1	03/25/16	DD	30 - 130 %

3

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
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3 = This parameter exceeds laboratory specified limits.

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

QA/QC Surrogates: Surrogates are compounds (preceded with a %) added by the lab to determine analysis efficiency. Surrogate results(%) listed in the report are not "detected" compounds.

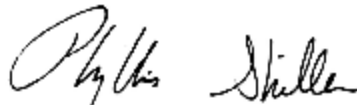
Comments:

Semi-Volatile Comment:

Poor surrogate recovery was observed for one acid and/or one base surrogate. The other surrogates associated with this sample were within QA/QC criteria. No significant bias suspected.

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

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Phyllis Shiller, Laboratory Director

April 01, 2016

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

April 01, 2016

FOR: Attn: Mr Dave Cook
Fuss & O'Neill, Inc.
146 Hartford Road
Manchester, CT 06040

Sample Information

Matrix: GROUND WATER
Location Code: F&O
Rush Request: Standard
P.O.#: 20120232.C40

Custody Information

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

Date

03/23/16
03/24/16

Time

13:25
11:00

Laboratory Data

SDG ID: GBK87132
Phoenix ID: BK87135

Project ID: FORMER MERIDEN HOSPITAL
Client ID: 1176160323-04

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Silver	< 0.001	0.001	mg/L	1	03/26/16	LK	SW6010C
Arsenic	< 0.004	0.004	mg/L	1	03/26/16	LK	SW6010C
Barium	0.208	0.002	mg/L	1	03/26/16	LK	SW6010C
Cadmium	< 0.001	0.001	mg/L	1	03/26/16	LK	SW6010C
Chromium	< 0.001	0.001	mg/L	1	03/26/16	LK	SW6010C
Mercury	< 0.0002	0.0002	mg/L	1	03/28/16	M/R	SW7470A
Lead	< 0.002	0.002	mg/L	1	03/26/16	LK	SW6010C
Selenium	< 0.010	0.010	mg/L	1	03/26/16	LK	SW6010C
Mercury Digestion	Completed				03/28/16	W/W	SW7470A
PCB Extraction	Completed				03/25/16		SW3510C
Semi-Volatile Extraction	Completed				03/24/16	E/D	SW3520C
Total Metals Digestion	Completed				03/24/16	AG	

Polychlorinated Biphenyls

PCB-1016	ND	0.10	ug/L	1	03/28/16	AW	SW8082A
PCB-1221	ND	0.10	ug/L	1	03/28/16	AW	SW8082A
PCB-1232	ND	0.10	ug/L	1	03/28/16	AW	SW8082A
PCB-1242	ND	0.10	ug/L	1	03/28/16	AW	SW8082A
PCB-1248	ND	0.10	ug/L	1	03/28/16	AW	SW8082A
PCB-1254	ND	0.10	ug/L	1	03/28/16	AW	SW8082A
PCB-1260	ND	0.10	ug/L	1	03/28/16	AW	SW8082A
PCB-1262	ND	0.10	ug/L	1	03/28/16	AW	SW8082A
PCB-1268	ND	0.10	ug/L	1	03/28/16	AW	SW8082A

QA/QC Surrogates

% DCBP	73	%	1	03/28/16	AW	30 - 150 %
% TCMX	63	%	1	03/28/16	AW	30 - 150 %

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
<u>Volatiles</u>							
1,1,1,2-Tetrachloroethane	ND	1.0	ug/L	1	03/25/16	MH	SW8260
1,1,1-Trichloroethane	ND	1.0	ug/L	1	03/25/16	MH	SW8260
1,1,2,2-Tetrachloroethane	ND	0.50	ug/L	1	03/25/16	MH	SW8260
1,1,2-Trichloroethane	ND	1.0	ug/L	1	03/25/16	MH	SW8260
1,1-Dichloroethane	ND	1.0	ug/L	1	03/25/16	MH	SW8260
1,1-Dichloroethene	ND	1.0	ug/L	1	03/25/16	MH	SW8260
1,1-Dichloropropene	ND	1.0	ug/L	1	03/25/16	MH	SW8260
1,2,3-Trichlorobenzene	ND	1.0	ug/L	1	03/25/16	MH	SW8260
1,2,3-Trichloropropane	ND	1.0	ug/L	1	03/25/16	MH	SW8260
1,2,4-Trichlorobenzene	ND	1.0	ug/L	1	03/25/16	MH	SW8260
1,2,4-Trimethylbenzene	ND	1.0	ug/L	1	03/25/16	MH	SW8260
1,2-Dibromo-3-chloropropane	ND	1.0	ug/L	1	03/25/16	MH	SW8260
1,2-Dibromoethane	ND	1.0	ug/L	1	03/25/16	MH	SW8260
1,2-Dichlorobenzene	ND	1.0	ug/L	1	03/25/16	MH	SW8260
1,2-Dichloroethane	ND	0.60	ug/L	1	03/25/16	MH	SW8260
1,2-Dichloropropane	ND	1.0	ug/L	1	03/25/16	MH	SW8260
1,3,5-Trimethylbenzene	ND	1.0	ug/L	1	03/25/16	MH	SW8260
1,3-Dichlorobenzene	ND	1.0	ug/L	1	03/25/16	MH	SW8260
1,3-Dichloropropane	ND	1.0	ug/L	1	03/25/16	MH	SW8260
1,4-Dichlorobenzene	ND	1.0	ug/L	1	03/25/16	MH	SW8260
2,2-Dichloropropane	ND	1.0	ug/L	1	03/25/16	MH	SW8260
2-Chlorotoluene	ND	1.0	ug/L	1	03/25/16	MH	SW8260
2-Hexanone	ND	5.0	ug/L	1	03/25/16	MH	SW8260
2-Isopropyltoluene	ND	1.0	ug/L	1	03/25/16	MH	SW8260
4-Chlorotoluene	ND	1.0	ug/L	1	03/25/16	MH	SW8260
4-Methyl-2-pentanone	ND	5.0	ug/L	1	03/25/16	MH	SW8260
Acetone	ND	25	ug/L	1	03/25/16	MH	SW8260
Acrylonitrile	ND	5.0	ug/L	1	03/25/16	MH	SW8260
Benzene	ND	0.70	ug/L	1	03/25/16	MH	SW8260
Bromobenzene	ND	1.0	ug/L	1	03/25/16	MH	SW8260
Bromochloromethane	ND	1.0	ug/L	1	03/25/16	MH	SW8260
Bromodichloromethane	ND	0.50	ug/L	1	03/25/16	MH	SW8260
Bromoform	ND	1.0	ug/L	1	03/25/16	MH	SW8260
Bromomethane	ND	1.0	ug/L	1	03/25/16	MH	SW8260
Carbon Disulfide	ND	5.0	ug/L	1	03/25/16	MH	SW8260
Carbon tetrachloride	ND	1.0	ug/L	1	03/25/16	MH	SW8260
Chlorobenzene	ND	1.0	ug/L	1	03/25/16	MH	SW8260
Chloroethane	ND	1.0	ug/L	1	03/25/16	MH	SW8260
Chloroform	ND	1.0	ug/L	1	03/25/16	MH	SW8260
Chloromethane	ND	1.0	ug/L	1	03/25/16	MH	SW8260
cis-1,2-Dichloroethene	ND	1.0	ug/L	1	03/25/16	MH	SW8260
cis-1,3-Dichloropropene	ND	0.40	ug/L	1	03/25/16	MH	SW8260
Dibromochloromethane	ND	0.50	ug/L	1	03/25/16	MH	SW8260
Dibromomethane	ND	1.0	ug/L	1	03/25/16	MH	SW8260
Dichlorodifluoromethane	ND	1.0	ug/L	1	03/25/16	MH	SW8260
Ethylbenzene	ND	1.0	ug/L	1	03/25/16	MH	SW8260
Hexachlorobutadiene	ND	0.40	ug/L	1	03/25/16	MH	SW8260
Isopropylbenzene	ND	1.0	ug/L	1	03/25/16	MH	SW8260

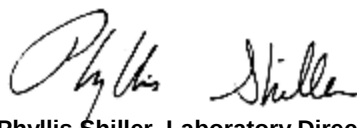
Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
m&p-Xylene	ND	1.0	ug/L	1	03/25/16	MH	SW8260
Methyl ethyl ketone	ND	5.0	ug/L	1	03/25/16	MH	SW8260
Methyl t-butyl ether (MTBE)	ND	1.0	ug/L	1	03/25/16	MH	SW8260
Methylene chloride	ND	1.0	ug/L	1	03/25/16	MH	SW8260
Naphthalene	ND	1.0	ug/L	1	03/25/16	MH	SW8260
n-Butylbenzene	ND	1.0	ug/L	1	03/25/16	MH	SW8260
n-Propylbenzene	ND	1.0	ug/L	1	03/25/16	MH	SW8260
o-Xylene	ND	1.0	ug/L	1	03/25/16	MH	SW8260
p-Isopropyltoluene	ND	1.0	ug/L	1	03/25/16	MH	SW8260
sec-Butylbenzene	ND	1.0	ug/L	1	03/25/16	MH	SW8260
Styrene	ND	1.0	ug/L	1	03/25/16	MH	SW8260
tert-Butylbenzene	ND	1.0	ug/L	1	03/25/16	MH	SW8260
Tetrachloroethene	ND	1.0	ug/L	1	03/25/16	MH	SW8260
Tetrahydrofuran (THF)	ND	2.5	ug/L	1	03/25/16	MH	SW8260
Toluene	ND	1.0	ug/L	1	03/25/16	MH	SW8260
Total Xylenes	ND	1.0	ug/L	1	03/25/16	MH	SW8260
trans-1,2-Dichloroethene	ND	1.0	ug/L	1	03/25/16	MH	SW8260
trans-1,3-Dichloropropene	ND	0.40	ug/L	1	03/25/16	MH	SW8260
trans-1,4-dichloro-2-butene	ND	5.0	ug/L	1	03/25/16	MH	SW8260
Trichloroethene	ND	1.0	ug/L	1	03/25/16	MH	SW8260
Trichlorofluoromethane	ND	1.0	ug/L	1	03/25/16	MH	SW8260
Trichlorotrifluoroethane	ND	1.0	ug/L	1	03/25/16	MH	SW8260
Vinyl chloride	ND	1.0	ug/L	1	03/25/16	MH	SW8260
<u>QA/QC Surrogates</u>							
% 1,2-dichlorobenzene-d4	98		%	1	03/25/16	MH	70 - 130 %
% Bromofluorobenzene	93		%	1	03/25/16	MH	70 - 130 %
% Dibromofluoromethane	97		%	1	03/25/16	MH	70 - 130 %
% Toluene-d8	98		%	1	03/25/16	MH	70 - 130 %
<u>Semivolatiles by SIM</u>							
2-Methylnaphthalene	ND	0.05	ug/L	1	03/25/16	DD	SW8270D (SIM)
Acenaphthene	ND	0.05	ug/L	1	03/25/16	DD	SW8270D (SIM)
Acenaphthylene	ND	0.05	ug/L	1	03/25/16	DD	SW8270D (SIM)
Anthracene	ND	0.05	ug/L	1	03/25/16	DD	SW8270D (SIM)
Benz(a)anthracene	ND	0.05	ug/L	1	03/25/16	DD	SW8270D (SIM)
Benzo(a)pyrene	ND	0.05	ug/L	1	03/25/16	DD	SW8270D (SIM)
Benzo(b)fluoranthene	ND	0.05	ug/L	1	03/25/16	DD	SW8270D (SIM)
Benzo(ghi)perylene	ND	0.05	ug/L	1	03/25/16	DD	SW8270D (SIM)
Benzo(k)fluoranthene	ND	0.05	ug/L	1	03/25/16	DD	SW8270D (SIM)
Chrysene	ND	0.05	ug/L	1	03/25/16	DD	SW8270D (SIM)
Dibenz(a,h)anthracene	ND	0.01	ug/L	1	03/25/16	DD	SW8270D (SIM)
Fluoranthene	ND	0.05	ug/L	1	03/25/16	DD	SW8270D (SIM)
Fluorene	ND	0.05	ug/L	1	03/25/16	DD	SW8270D (SIM)
Indeno(1,2,3-cd)pyrene	ND	0.05	ug/L	1	03/25/16	DD	SW8270D (SIM)
Naphthalene	ND	0.10	ug/L	1	03/25/16	DD	SW8270D (SIM)
Phenanthrene	ND	0.05	ug/L	1	03/25/16	DD	SW8270D (SIM)
Pyrene	ND	0.05	ug/L	1	03/25/16	DD	SW8270D (SIM)
<u>QA/QC Surrogates</u>							
% 2-Fluorobiphenyl	49		%	1	03/25/16	DD	30 - 130 %
% Nitrobenzene-d5	35		%	1	03/25/16	DD	30 - 130 %

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
% Terphenyl-d14	88		%	1	03/25/16	DD	30 - 130 %

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level
QA/QC Surrogates: Surrogates are compounds (preceeded with a %) added by the lab to determine analysis efficiency. Surrogate results(%) listed in the report are not "detected" compounds.

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

April 01, 2016

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

April 01, 2016

FOR: Attn: Mr Dave Cook
Fuss & O'Neill, Inc.
146 Hartford Road
Manchester, CT 06040

Sample Information

Matrix: GROUND WATER
Location Code: F&O
Rush Request: Standard
P.O.#: 20120232.C40

Custody Information

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

Date

03/23/16
03/24/16

Time

14:30
11:00

Laboratory Data

SDG ID: GBK87132
Phoenix ID: BK87136

Project ID: FORMER MERIDEN HOSPITAL
Client ID: 1176160323-05

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Silver	< 0.001	0.001	mg/L	1	03/26/16	LK	SW6010C
Arsenic	< 0.004	0.004	mg/L	1	03/26/16	LK	SW6010C
Barium	0.144	0.002	mg/L	1	03/26/16	LK	SW6010C
Cadmium	< 0.001	0.001	mg/L	1	03/26/16	LK	SW6010C
Chromium	< 0.001	0.001	mg/L	1	03/26/16	LK	SW6010C
Mercury	< 0.0002	0.0002	mg/L	1	03/28/16	RS	SW7470A
Lead	< 0.002	0.002	mg/L	1	03/26/16	LK	SW6010C
Selenium	< 0.010	0.010	mg/L	1	03/26/16	LK	SW6010C
Mercury Digestion	Completed				03/28/16	W/W	SW7470A
Semi-Volatile Extraction	Completed				03/24/16	E/D	SW3520C
Total Metals Digestion	Completed				03/24/16	AG	

Volatiles

1,1,1,2-Tetrachloroethane	ND	1.0	ug/L	1	03/25/16	MH	SW8260
1,1,1-Trichloroethane	ND	1.0	ug/L	1	03/25/16	MH	SW8260
1,1,2,2-Tetrachloroethane	ND	0.50	ug/L	1	03/25/16	MH	SW8260
1,1,2-Trichloroethane	ND	1.0	ug/L	1	03/25/16	MH	SW8260
1,1-Dichloroethane	ND	1.0	ug/L	1	03/25/16	MH	SW8260
1,1-Dichloroethene	ND	1.0	ug/L	1	03/25/16	MH	SW8260
1,1-Dichloropropene	ND	1.0	ug/L	1	03/25/16	MH	SW8260
1,2,3-Trichlorobenzene	ND	1.0	ug/L	1	03/25/16	MH	SW8260
1,2,3-Trichloropropane	ND	1.0	ug/L	1	03/25/16	MH	SW8260
1,2,4-Trichlorobenzene	ND	1.0	ug/L	1	03/25/16	MH	SW8260
1,2,4-Trimethylbenzene	ND	1.0	ug/L	1	03/25/16	MH	SW8260
1,2-Dibromo-3-chloropropane	ND	1.0	ug/L	1	03/25/16	MH	SW8260
1,2-Dibromoethane	ND	1.0	ug/L	1	03/25/16	MH	SW8260
1,2-Dichlorobenzene	ND	1.0	ug/L	1	03/25/16	MH	SW8260
1,2-Dichloroethane	ND	0.60	ug/L	1	03/25/16	MH	SW8260

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
1,2-Dichloropropane	ND	1.0	ug/L	1	03/25/16	MH	SW8260
1,3,5-Trimethylbenzene	ND	1.0	ug/L	1	03/25/16	MH	SW8260
1,3-Dichlorobenzene	ND	1.0	ug/L	1	03/25/16	MH	SW8260
1,3-Dichloropropane	ND	1.0	ug/L	1	03/25/16	MH	SW8260
1,4-Dichlorobenzene	ND	1.0	ug/L	1	03/25/16	MH	SW8260
2,2-Dichloropropane	ND	1.0	ug/L	1	03/25/16	MH	SW8260
2-Chlorotoluene	ND	1.0	ug/L	1	03/25/16	MH	SW8260
2-Hexanone	ND	5.0	ug/L	1	03/25/16	MH	SW8260
2-Isopropyltoluene	ND	1.0	ug/L	1	03/25/16	MH	SW8260
4-Chlorotoluene	ND	1.0	ug/L	1	03/25/16	MH	SW8260
4-Methyl-2-pentanone	ND	5.0	ug/L	1	03/25/16	MH	SW8260
Acetone	ND	25	ug/L	1	03/25/16	MH	SW8260
Acrylonitrile	ND	5.0	ug/L	1	03/25/16	MH	SW8260
Benzene	ND	0.70	ug/L	1	03/25/16	MH	SW8260
Bromobenzene	ND	1.0	ug/L	1	03/25/16	MH	SW8260
Bromochloromethane	ND	1.0	ug/L	1	03/25/16	MH	SW8260
Bromodichloromethane	ND	0.50	ug/L	1	03/25/16	MH	SW8260
Bromoform	ND	1.0	ug/L	1	03/25/16	MH	SW8260
Bromomethane	ND	1.0	ug/L	1	03/25/16	MH	SW8260
Carbon Disulfide	ND	5.0	ug/L	1	03/25/16	MH	SW8260
Carbon tetrachloride	ND	1.0	ug/L	1	03/25/16	MH	SW8260
Chlorobenzene	ND	1.0	ug/L	1	03/25/16	MH	SW8260
Chloroethane	ND	1.0	ug/L	1	03/25/16	MH	SW8260
Chloroform	ND	1.0	ug/L	1	03/25/16	MH	SW8260
Chloromethane	ND	1.0	ug/L	1	03/25/16	MH	SW8260
cis-1,2-Dichloroethene	ND	1.0	ug/L	1	03/25/16	MH	SW8260
cis-1,3-Dichloropropene	ND	0.40	ug/L	1	03/25/16	MH	SW8260
Dibromochloromethane	ND	0.50	ug/L	1	03/25/16	MH	SW8260
Dibromomethane	ND	1.0	ug/L	1	03/25/16	MH	SW8260
Dichlorodifluoromethane	ND	1.0	ug/L	1	03/25/16	MH	SW8260
Ethylbenzene	ND	1.0	ug/L	1	03/25/16	MH	SW8260
Hexachlorobutadiene	ND	0.40	ug/L	1	03/25/16	MH	SW8260
Isopropylbenzene	ND	1.0	ug/L	1	03/25/16	MH	SW8260
m&p-Xylene	ND	1.0	ug/L	1	03/25/16	MH	SW8260
Methyl ethyl ketone	ND	5.0	ug/L	1	03/25/16	MH	SW8260
Methyl t-butyl ether (MTBE)	ND	1.0	ug/L	1	03/25/16	MH	SW8260
Methylene chloride	ND	1.0	ug/L	1	03/25/16	MH	SW8260
Naphthalene	ND	1.0	ug/L	1	03/25/16	MH	SW8260
n-Butylbenzene	ND	1.0	ug/L	1	03/25/16	MH	SW8260
n-Propylbenzene	ND	1.0	ug/L	1	03/25/16	MH	SW8260
o-Xylene	ND	1.0	ug/L	1	03/25/16	MH	SW8260
p-Isopropyltoluene	ND	1.0	ug/L	1	03/25/16	MH	SW8260
sec-Butylbenzene	ND	1.0	ug/L	1	03/25/16	MH	SW8260
Styrene	ND	1.0	ug/L	1	03/25/16	MH	SW8260
tert-Butylbenzene	ND	1.0	ug/L	1	03/25/16	MH	SW8260
Tetrachloroethene	ND	1.0	ug/L	1	03/25/16	MH	SW8260
Tetrahydrofuran (THF)	ND	2.5	ug/L	1	03/25/16	MH	SW8260
Toluene	ND	1.0	ug/L	1	03/25/16	MH	SW8260
Total Xylenes	ND	1.0	ug/L	1	03/25/16	MH	SW8260

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
trans-1,2-Dichloroethene	ND	1.0	ug/L	1	03/25/16	MH	SW8260
trans-1,3-Dichloropropene	ND	0.40	ug/L	1	03/25/16	MH	SW8260
trans-1,4-dichloro-2-butene	ND	5.0	ug/L	1	03/25/16	MH	SW8260
Trichloroethene	ND	1.0	ug/L	1	03/25/16	MH	SW8260
Trichlorofluoromethane	ND	1.0	ug/L	1	03/25/16	MH	SW8260
Trichlorotrifluoroethane	ND	1.0	ug/L	1	03/25/16	MH	SW8260
Vinyl chloride	ND	1.0	ug/L	1	03/25/16	MH	SW8260
<u>QA/QC Surrogates</u>							
% 1,2-dichlorobenzene-d4	102		%	1	03/25/16	MH	70 - 130 %
% Bromofluorobenzene	95		%	1	03/25/16	MH	70 - 130 %
% Dibromofluoromethane	101		%	1	03/25/16	MH	70 - 130 %
% Toluene-d8	100		%	1	03/25/16	MH	70 - 130 %
<u>Semivolatiles by SIM</u>							
2-Methylnaphthalene	ND	0.05	ug/L	1	03/25/16	DD	SW8270D (SIM)
Acenaphthene	ND	0.05	ug/L	1	03/25/16	DD	SW8270D (SIM)
Acenaphthylene	ND	0.05	ug/L	1	03/25/16	DD	SW8270D (SIM)
Anthracene	ND	0.05	ug/L	1	03/25/16	DD	SW8270D (SIM)
Benz(a)anthracene	ND	0.05	ug/L	1	03/25/16	DD	SW8270D (SIM)
Benzo(a)pyrene	ND	0.05	ug/L	1	03/25/16	DD	SW8270D (SIM)
Benzo(b)fluoranthene	ND	0.05	ug/L	1	03/25/16	DD	SW8270D (SIM)
Benzo(ghi)perylene	ND	0.05	ug/L	1	03/25/16	DD	SW8270D (SIM)
Benzo(k)fluoranthene	ND	0.05	ug/L	1	03/25/16	DD	SW8270D (SIM)
Chrysene	ND	0.05	ug/L	1	03/25/16	DD	SW8270D (SIM)
Dibenz(a,h)anthracene	ND	0.01	ug/L	1	03/25/16	DD	SW8270D (SIM)
Fluoranthene	ND	0.05	ug/L	1	03/25/16	DD	SW8270D (SIM)
Fluorene	ND	0.05	ug/L	1	03/25/16	DD	SW8270D (SIM)
Indeno(1,2,3-cd)pyrene	ND	0.05	ug/L	1	03/25/16	DD	SW8270D (SIM)
Naphthalene	ND	0.10	ug/L	1	03/25/16	DD	SW8270D (SIM)
Phenanthrene	ND	0.05	ug/L	1	03/25/16	DD	SW8270D (SIM)
Pyrene	ND	0.05	ug/L	1	03/25/16	DD	SW8270D (SIM)
<u>QA/QC Surrogates</u>							
% 2-Fluorobiphenyl	64		%	1	03/25/16	DD	30 - 130 %
% Nitrobenzene-d5	69		%	1	03/25/16	DD	30 - 130 %
% Terphenyl-d14	90		%	1	03/25/16	DD	30 - 130 %

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
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RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level

QA/QC Surrogates: Surrogates are compounds (preceded with a %) added by the lab to determine analysis efficiency. Surrogate results(%) listed in the report are not "detected" compounds.

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

April 01, 2016

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

April 01, 2016

FOR: Attn: Mr Dave Cook
Fuss & O'Neill, Inc.
146 Hartford Road
Manchester, CT 06040

Sample Information

Matrix: GROUND WATER
Location Code: F&O
Rush Request: Standard
P.O.#: 20120232.C40

Custody Information

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

Date

03/23/16
03/24/16

Time

14:35
11:00

Laboratory Data

SDG ID: GBK87132
Phoenix ID: BK87137

Project ID: FORMER MERIDEN HOSPITAL
Client ID: 1176160323-06

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Silver	< 0.001	0.001	mg/L	1	03/26/16	LK	SW6010C
Arsenic	< 0.004	0.004	mg/L	1	03/26/16	LK	SW6010C
Barium	0.145	0.002	mg/L	1	03/26/16	LK	SW6010C
Cadmium	< 0.001	0.001	mg/L	1	03/26/16	LK	SW6010C
Chromium	< 0.001	0.001	mg/L	1	03/26/16	LK	SW6010C
Mercury	< 0.0002	0.0002	mg/L	1	03/28/16	RS	SW7470A
Lead	< 0.002	0.002	mg/L	1	03/26/16	LK	SW6010C
Selenium	< 0.010	0.010	mg/L	1	03/26/16	LK	SW6010C
Mercury Digestion	Completed				03/28/16	W/W	SW7470A
Semi-Volatile Extraction	Completed				03/24/16	E/D	SW3520C
Total Metals Digestion	Completed				03/24/16	AG	

Volatiles

1,1,1,2-Tetrachloroethane	ND	1.0	ug/L	1	03/26/16	MH	SW8260
1,1,1-Trichloroethane	ND	1.0	ug/L	1	03/26/16	MH	SW8260
1,1,2,2-Tetrachloroethane	ND	0.50	ug/L	1	03/26/16	MH	SW8260
1,1,2-Trichloroethane	ND	1.0	ug/L	1	03/26/16	MH	SW8260
1,1-Dichloroethane	ND	1.0	ug/L	1	03/26/16	MH	SW8260
1,1-Dichloroethene	ND	1.0	ug/L	1	03/26/16	MH	SW8260
1,1-Dichloropropene	ND	1.0	ug/L	1	03/26/16	MH	SW8260
1,2,3-Trichlorobenzene	ND	1.0	ug/L	1	03/26/16	MH	SW8260
1,2,3-Trichloropropane	ND	1.0	ug/L	1	03/26/16	MH	SW8260
1,2,4-Trichlorobenzene	ND	1.0	ug/L	1	03/26/16	MH	SW8260
1,2,4-Trimethylbenzene	ND	1.0	ug/L	1	03/26/16	MH	SW8260
1,2-Dibromo-3-chloropropane	ND	1.0	ug/L	1	03/26/16	MH	SW8260
1,2-Dibromoethane	ND	1.0	ug/L	1	03/26/16	MH	SW8260
1,2-Dichlorobenzene	ND	1.0	ug/L	1	03/26/16	MH	SW8260
1,2-Dichloroethane	ND	0.60	ug/L	1	03/26/16	MH	SW8260

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
1,2-Dichloropropane	ND	1.0	ug/L	1	03/26/16	MH	SW8260
1,3,5-Trimethylbenzene	ND	1.0	ug/L	1	03/26/16	MH	SW8260
1,3-Dichlorobenzene	ND	1.0	ug/L	1	03/26/16	MH	SW8260
1,3-Dichloropropane	ND	1.0	ug/L	1	03/26/16	MH	SW8260
1,4-Dichlorobenzene	ND	1.0	ug/L	1	03/26/16	MH	SW8260
2,2-Dichloropropane	ND	1.0	ug/L	1	03/26/16	MH	SW8260
2-Chlorotoluene	ND	1.0	ug/L	1	03/26/16	MH	SW8260
2-Hexanone	ND	5.0	ug/L	1	03/26/16	MH	SW8260
2-Isopropyltoluene	ND	1.0	ug/L	1	03/26/16	MH	SW8260
4-Chlorotoluene	ND	1.0	ug/L	1	03/26/16	MH	SW8260
4-Methyl-2-pentanone	ND	5.0	ug/L	1	03/26/16	MH	SW8260
Acetone	ND	25	ug/L	1	03/26/16	MH	SW8260
Acrylonitrile	ND	5.0	ug/L	1	03/26/16	MH	SW8260
Benzene	ND	0.70	ug/L	1	03/26/16	MH	SW8260
Bromobenzene	ND	1.0	ug/L	1	03/26/16	MH	SW8260
Bromochloromethane	ND	1.0	ug/L	1	03/26/16	MH	SW8260
Bromodichloromethane	ND	0.50	ug/L	1	03/26/16	MH	SW8260
Bromoform	ND	1.0	ug/L	1	03/26/16	MH	SW8260
Bromomethane	ND	1.0	ug/L	1	03/26/16	MH	SW8260
Carbon Disulfide	ND	5.0	ug/L	1	03/26/16	MH	SW8260
Carbon tetrachloride	ND	1.0	ug/L	1	03/26/16	MH	SW8260
Chlorobenzene	ND	1.0	ug/L	1	03/26/16	MH	SW8260
Chloroethane	ND	1.0	ug/L	1	03/26/16	MH	SW8260
Chloroform	ND	1.0	ug/L	1	03/26/16	MH	SW8260
Chloromethane	ND	1.0	ug/L	1	03/26/16	MH	SW8260
cis-1,2-Dichloroethene	ND	1.0	ug/L	1	03/26/16	MH	SW8260
cis-1,3-Dichloropropene	ND	0.40	ug/L	1	03/26/16	MH	SW8260
Dibromochloromethane	ND	0.50	ug/L	1	03/26/16	MH	SW8260
Dibromomethane	ND	1.0	ug/L	1	03/26/16	MH	SW8260
Dichlorodifluoromethane	ND	1.0	ug/L	1	03/26/16	MH	SW8260
Ethylbenzene	ND	1.0	ug/L	1	03/26/16	MH	SW8260
Hexachlorobutadiene	ND	0.40	ug/L	1	03/26/16	MH	SW8260
Isopropylbenzene	ND	1.0	ug/L	1	03/26/16	MH	SW8260
m&p-Xylene	ND	1.0	ug/L	1	03/26/16	MH	SW8260
Methyl ethyl ketone	ND	5.0	ug/L	1	03/26/16	MH	SW8260
Methyl t-butyl ether (MTBE)	ND	1.0	ug/L	1	03/26/16	MH	SW8260
Methylene chloride	ND	1.0	ug/L	1	03/26/16	MH	SW8260
Naphthalene	ND	1.0	ug/L	1	03/26/16	MH	SW8260
n-Butylbenzene	ND	1.0	ug/L	1	03/26/16	MH	SW8260
n-Propylbenzene	ND	1.0	ug/L	1	03/26/16	MH	SW8260
o-Xylene	ND	1.0	ug/L	1	03/26/16	MH	SW8260
p-Isopropyltoluene	ND	1.0	ug/L	1	03/26/16	MH	SW8260
sec-Butylbenzene	ND	1.0	ug/L	1	03/26/16	MH	SW8260
Styrene	ND	1.0	ug/L	1	03/26/16	MH	SW8260
tert-Butylbenzene	ND	1.0	ug/L	1	03/26/16	MH	SW8260
Tetrachloroethene	ND	1.0	ug/L	1	03/26/16	MH	SW8260
Tetrahydrofuran (THF)	ND	2.5	ug/L	1	03/26/16	MH	SW8260
Toluene	ND	1.0	ug/L	1	03/26/16	MH	SW8260
Total Xylenes	ND	1.0	ug/L	1	03/26/16	MH	SW8260

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
trans-1,2-Dichloroethene	ND	1.0	ug/L	1	03/26/16	MH	SW8260
trans-1,3-Dichloropropene	ND	0.40	ug/L	1	03/26/16	MH	SW8260
trans-1,4-dichloro-2-butene	ND	5.0	ug/L	1	03/26/16	MH	SW8260
Trichloroethene	ND	1.0	ug/L	1	03/26/16	MH	SW8260
Trichlorofluoromethane	ND	1.0	ug/L	1	03/26/16	MH	SW8260
Trichlorotrifluoroethane	ND	1.0	ug/L	1	03/26/16	MH	SW8260
Vinyl chloride	ND	1.0	ug/L	1	03/26/16	MH	SW8260

QA/QC Surrogates

% 1,2-dichlorobenzene-d4	100		%	1	03/26/16	MH	70 - 130 %
% Bromofluorobenzene	94		%	1	03/26/16	MH	70 - 130 %
% Dibromofluoromethane	102		%	1	03/26/16	MH	70 - 130 %
% Toluene-d8	99		%	1	03/26/16	MH	70 - 130 %

Semivolatiles by SIM

2-Methylnaphthalene	ND	0.05	ug/L	1	03/25/16	DD	SW8270D (SIM)
Acenaphthene	ND	0.05	ug/L	1	03/25/16	DD	SW8270D (SIM)
Acenaphthylene	ND	0.05	ug/L	1	03/25/16	DD	SW8270D (SIM)
Anthracene	ND	0.05	ug/L	1	03/25/16	DD	SW8270D (SIM)
Benz(a)anthracene	ND	0.05	ug/L	1	03/25/16	DD	SW8270D (SIM)
Benzo(a)pyrene	ND	0.05	ug/L	1	03/25/16	DD	SW8270D (SIM)
Benzo(b)fluoranthene	ND	0.05	ug/L	1	03/25/16	DD	SW8270D (SIM)
Benzo(ghi)perylene	ND	0.05	ug/L	1	03/25/16	DD	SW8270D (SIM)
Benzo(k)fluoranthene	ND	0.05	ug/L	1	03/25/16	DD	SW8270D (SIM)
Chrysene	ND	0.05	ug/L	1	03/25/16	DD	SW8270D (SIM)
Dibenz(a,h)anthracene	ND	0.01	ug/L	1	03/25/16	DD	SW8270D (SIM)
Fluoranthene	ND	0.05	ug/L	1	03/25/16	DD	SW8270D (SIM)
Fluorene	ND	0.05	ug/L	1	03/25/16	DD	SW8270D (SIM)
Indeno(1,2,3-cd)pyrene	ND	0.05	ug/L	1	03/25/16	DD	SW8270D (SIM)
Naphthalene	ND	0.10	ug/L	1	03/25/16	DD	SW8270D (SIM)
Phenanthrene	ND	0.05	ug/L	1	03/25/16	DD	SW8270D (SIM)
Pyrene	ND	0.05	ug/L	1	03/25/16	DD	SW8270D (SIM)

QA/QC Surrogates

% 2-Fluorobiphenyl	57		%	1	03/25/16	DD	30 - 130 %
% Nitrobenzene-d5	50		%	1	03/25/16	DD	30 - 130 %
% Terphenyl-d14	89		%	1	03/25/16	DD	30 - 130 %

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
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RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level

QA/QC Surrogates: Surrogates are compounds (preceded with a %) added by the lab to determine analysis efficiency. Surrogate results(%) listed in the report are not "detected" compounds.

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

April 01, 2016

Reviewed and Released by: Ethan Lee, Project Manager



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QA/QC Report

April 01, 2016

QA/QC Data

SDG I.D.: GBK87132

Parameter	Blank	Blk RL	Sample Result	Dup Result	Dup RPD	LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	% Rec Limits	% RPD Limits
QA/QC Batch 339326 (mg/L), QC Sample No: BK68009 (BK87133, BK87134, BK87135, BK87136, BK87137)													
<u>ICP Metals - Aqueous</u>													
Arsenic	BRL	0.004	<0.004	<0.004	NC	95.1			98.2			75 - 125	20
Barium	BRL	0.002	0.008	0.008	NC	96.7			100			75 - 125	20
Cadmium	BRL	0.001	<0.001	<0.001	NC	95.2			98.7			75 - 125	20
Chromium	BRL	0.001	<0.001	<0.001	NC	95.8			99.6			75 - 125	20
Lead	BRL	0.002	<0.002	<0.002	NC	94.5			97.8			75 - 125	20
Selenium	BRL	0.010	<0.010	<0.010	NC	99.3			98.7			75 - 125	20
Silver	BRL	0.001	<0.001	<0.001	NC	95.7			99.1			75 - 125	20
QA/QC Batch 339697 (mg/L), QC Sample No: BK87085 (BK87133, BK87134, BK87135)													
Mercury - Water	BRL	0.0002	<0.0002	<0.0002	NC	94.7			100			70 - 130	20
Comment:													
Additional Mercury criteria: LCS acceptance range for waters is 80-120% and for soils is 70-130%.													
QA/QC Batch 339698 (mg/L), QC Sample No: BK88734 (BK87136, BK87137)													
Mercury - Water	BRL	0.0002	<0.0002	<0.0002	NC	100			99.8			70 - 130	20
Comment:													
Additional Mercury criteria: LCS acceptance range for waters is 80-120% and for soils is 70-130%.													



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QA/QC Report

April 01, 2016

QA/QC Data

SDG I.D.: GBK87132

Parameter	Blank	Blk RL	LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	% Rec Limits	% RPD Limits
QA/QC Batch 340439 (ug/L), QC Sample No: BK87045 (BK87132, BK87133, BK87134, BK87135)										
Volatiles - Ground Water										
1,1,1,2-Tetrachloroethane	ND	1.0	95	111	15.5				70 - 130	30
1,1,1-Trichloroethane	ND	1.0	98	110	11.5				70 - 130	30
1,1,2,2-Tetrachloroethane	ND	0.50	90	107	17.3				70 - 130	30
1,1,2-Trichloroethane	ND	1.0	85	102	18.2				70 - 130	30
1,1-Dichloroethane	ND	1.0	92	107	15.1				70 - 130	30
1,1-Dichloroethene	ND	1.0	102	114	11.1				70 - 130	30
1,1-Dichloropropene	ND	1.0	101	110	8.5				70 - 130	30
1,2,3-Trichlorobenzene	ND	1.0	86	99	14.1				70 - 130	30
1,2,3-Trichloropropane	ND	1.0	91	106	15.2				70 - 130	30
1,2,4-Trichlorobenzene	ND	1.0	89	105	16.5				70 - 130	30
1,2,4-Trimethylbenzene	ND	1.0	98	108	9.7				70 - 130	30
1,2-Dibromo-3-chloropropane	ND	1.0	90	111	20.9				70 - 130	30
1,2-Dibromoethane	ND	1.0	89	110	21.1				70 - 130	30
1,2-Dichlorobenzene	ND	1.0	93	106	13.1				70 - 130	30
1,2-Dichloroethane	ND	1.0	86	104	18.9				70 - 130	30
1,2-Dichloropropane	ND	1.0	88	104	16.7				70 - 130	30
1,3,5-Trimethylbenzene	ND	1.0	100	108	7.7				70 - 130	30
1,3-Dichlorobenzene	ND	1.0	96	108	11.8				70 - 130	30
1,3-Dichloropropane	ND	1.0	89	105	16.5				70 - 130	30
1,4-Dichlorobenzene	ND	1.0	95	107	11.9				70 - 130	30
2,2-Dichloropropane	ND	1.0	92	103	11.3				70 - 130	30
2-Chlorotoluene	ND	1.0	100	108	7.7				70 - 130	30
2-Hexanone	ND	5.0	76	104	31.1				70 - 130	30
2-Isopropyltoluene	ND	1.0	101	110	8.5				70 - 130	30
4-Chlorotoluene	ND	1.0	97	106	8.9				70 - 130	30
4-Methyl-2-pentanone	ND	5.0	77	102	27.9				70 - 130	30
Acetone	ND	5.0	72	96	28.6				70 - 130	30
Acrylonitrile	ND	5.0	82	109	28.3				70 - 130	30
Benzene	ND	0.70	94	106	12.0				70 - 130	30
Bromobenzene	ND	1.0	98	108	9.7				70 - 130	30
Bromochloromethane	ND	1.0	90	109	19.1				70 - 130	30
Bromodichloromethane	ND	0.50	91	107	16.2				70 - 130	30
Bromoform	ND	1.0	87	109	22.4				70 - 130	30
Bromomethane	ND	1.0	111	128	14.2				70 - 130	30
Carbon Disulfide	ND	1.0	110	120	8.7				70 - 130	30
Carbon tetrachloride	ND	1.0	95	107	11.9				70 - 130	30
Chlorobenzene	ND	1.0	95	106	10.9				70 - 130	30
Chloroethane	ND	1.0	111	121	8.6				70 - 130	30
Chloroform	ND	1.0	90	105	15.4				70 - 130	30
Chloromethane	ND	1.0	117	130	10.5				70 - 130	30
cis-1,2-Dichloroethene	ND	1.0	89	105	16.5				70 - 130	30

QA/QC Data

SDG I.D.: GBK87132

Parameter	Blank	Blk RL	LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	% Rec Limits	% RPD Limits
cis-1,3-Dichloropropene	ND	0.40	83	100	18.6				70 - 130	30
Dibromochloromethane	ND	0.50	92	110	17.8				70 - 130	30
Dibromomethane	ND	1.0	85	103	19.1				70 - 130	30
Dichlorodifluoromethane	ND	1.0	177	190	7.1				70 - 130	30
Ethylbenzene	ND	1.0	100	111	10.4				70 - 130	30
Hexachlorobutadiene	ND	0.40	97	104	7.0				70 - 130	30
Isopropylbenzene	ND	1.0	101	106	4.8				70 - 130	30
m&p-Xylene	ND	1.0	102	114	11.1				70 - 130	30
Methyl ethyl ketone	ND	5.0	82	111	30.1				70 - 130	30
Methyl t-butyl ether (MTBE)	ND	1.0	85	111	26.5				70 - 130	30
Methylene chloride	ND	1.0	85	99	15.2				70 - 130	30
Naphthalene	ND	1.0	90	106	16.3				70 - 130	30
n-Butylbenzene	ND	1.0	91	103	12.4				70 - 130	30
n-Propylbenzene	ND	1.0	97	104	7.0				70 - 130	30
o-Xylene	ND	1.0	98	111	12.4				70 - 130	30
p-Isopropyltoluene	ND	1.0	97	108	10.7				70 - 130	30
sec-Butylbenzene	ND	1.0	97	107	9.8				70 - 130	30
Styrene	ND	1.0	96	111	14.5				70 - 130	30
tert-Butylbenzene	ND	1.0	97	106	8.9				70 - 130	30
Tetrachloroethene	ND	1.0	97	110	12.6				70 - 130	30
Tetrahydrofuran (THF)	ND	2.5	74	98	27.9				70 - 130	30
Toluene	ND	1.0	94	107	12.9				70 - 130	30
trans-1,2-Dichloroethene	ND	1.0	99	112	12.3				70 - 130	30
trans-1,3-Dichloropropene	ND	0.40	84	101	18.4				70 - 130	30
trans-1,4-dichloro-2-butene	ND	5.0	79	94	17.3				70 - 130	30
Trichloroethene	ND	1.0	99	109	9.6				70 - 130	30
Trichlorofluoromethane	ND	1.0	103	111	7.5				70 - 130	30
Trichlorotrifluoroethane	ND	1.0	99	109	9.6				70 - 130	30
Vinyl chloride	ND	1.0	117	130	10.5				70 - 130	30
% 1,2-dichlorobenzene-d4	99	%	99	99	0.0				70 - 130	30
% Bromofluorobenzene	93	%	97	101	4.0				70 - 130	30
% Dibromofluoromethane	101	%	94	98	4.2				70 - 130	30
% Toluene-d8	99	%	99	100	1.0				70 - 130	30

Comment:

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

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

QA/QC Batch 339748 (ug/L), QC Sample No: BK88734 (BK87136, BK87137)

Volatiles - Ground Water

1,1,1,2-Tetrachloroethane	ND	1.0	105	104	1.0	121	121	0.0	70 - 130	30
1,1,1-Trichloroethane	ND	1.0	97	102	5.0	131	130	0.8	70 - 130	30
1,1,2,2-Tetrachloroethane	ND	0.50	103	102	1.0	114	114	0.0	70 - 130	30
1,1,2-Trichloroethane	ND	1.0	100	99	1.0	114	120	5.1	70 - 130	30
1,1-Dichloroethane	ND	1.0	97	100	3.0	123	122	0.8	70 - 130	30
1,1-Dichloroethene	ND	1.0	98	104	5.9	125	127	1.6	70 - 130	30
1,1-Dichloropropene	ND	1.0	99	104	4.9	114	122	6.8	70 - 130	30
1,2,3-Trichlorobenzene	ND	1.0	111	100	10.4	78	100	24.7	70 - 130	30
1,2,3-Trichloropropane	ND	1.0	103	104	1.0	114	118	3.4	70 - 130	30
1,2,4-Trichlorobenzene	ND	1.0	107	103	3.8	78	99	23.7	70 - 130	30
1,2,4-Trimethylbenzene	ND	1.0	98	102	4.0	97	108	10.7	70 - 130	30
1,2-Dibromo-3-chloropropane	ND	1.0	108	104	3.8	114	116	1.7	70 - 130	30
1,2-Dibromoethane	ND	1.0	103	105	1.9	118	120	1.7	70 - 130	30
1,2-Dichlorobenzene	ND	1.0	101	101	0.0	98	108	9.7	70 - 130	30

QA/QC Data

SDG I.D.: GBK87132

Parameter	Blank	Blk RL	LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	% Rec Limits	% RPD Limits	
1,2-Dichloroethane	ND	1.0	100	98	2.0	121	123	1.6	70 - 130	30	
1,2-Dichloropropane	ND	1.0	97	98	1.0	115	118	2.6	70 - 130	30	
1,3,5-Trimethylbenzene	ND	1.0	97	100	3.0	96	108	11.8	70 - 130	30	
1,3-Dichlorobenzene	ND	1.0	99	100	1.0	91	103	12.4	70 - 130	30	
1,3-Dichloropropane	ND	1.0	103	103	0.0	119	119	0.0	70 - 130	30	
1,4-Dichlorobenzene	ND	1.0	100	101	1.0	93	103	10.2	70 - 130	30	
2,2-Dichloropropane	ND	1.0	92	105	13.2	111	110	0.9	70 - 130	30	
2-Chlorotoluene	ND	1.0	100	100	0.0	100	109	8.6	70 - 130	30	
2-Hexanone	ND	5.0	96	96	0.0	107	110	2.8	70 - 130	30	
2-Isopropyltoluene	ND	1.0	97	99	2.0	97	105	7.9	70 - 130	30	
4-Chlorotoluene	ND	1.0	100	100	0.0	94	105	11.1	70 - 130	30	
4-Methyl-2-pentanone	ND	5.0	98	97	1.0	110	114	3.6	70 - 130	30	
Acetone	ND	5.0	84	96	13.3	115	133	14.5	70 - 130	30	m
Acrylonitrile	ND	5.0	100	104	3.9	116	118	1.7	70 - 130	30	
Benzene	ND	0.70	99	99	0.0	117	121	3.4	70 - 130	30	
Bromobenzene	ND	1.0	101	100	1.0	106	113	6.4	70 - 130	30	
Bromochloromethane	ND	1.0	104	101	2.9	119	121	1.7	70 - 130	30	
Bromodichloromethane	ND	0.50	103	101	2.0	122	127	4.0	70 - 130	30	
Bromoform	ND	1.0	109	108	0.9	117	118	0.9	70 - 130	30	
Bromomethane	ND	1.0	148	155	4.6	157	188	18.0	70 - 130	30	l,m
Carbon Disulfide	ND	1.0	100	105	4.9	120	127	5.7	70 - 130	30	
Carbon tetrachloride	ND	1.0	97	104	7.0	122	127	4.0	70 - 130	30	
Chlorobenzene	ND	1.0	100	101	1.0	110	113	2.7	70 - 130	30	
Chloroethane	ND	1.0	108	115	6.3	139	138	0.7	70 - 130	30	m
Chloroform	ND	1.0	97	98	1.0	121	122	0.8	70 - 130	30	
Chloromethane	ND	1.0	118	125	5.8	154	157	1.9	70 - 130	30	m
cis-1,2-Dichloroethene	ND	1.0	83	99	17.6	116	118	1.7	70 - 130	30	
cis-1,3-Dichloropropene	ND	0.40	96	98	2.1	110	114	3.6	70 - 130	30	
Dibromochloromethane	ND	0.50	106	106	0.0	120	122	1.7	70 - 130	30	
Dibromomethane	ND	1.0	101	99	2.0	115	120	4.3	70 - 130	30	
Dichlorodifluoromethane	ND	1.0	133	147	10.0	148	163	9.6	70 - 130	30	l,m
Ethylbenzene	ND	1.0	102	105	2.9	110	117	6.2	70 - 130	30	
Hexachlorobutadiene	ND	0.40	96	101	5.1	74	99	28.9	70 - 130	30	
Isopropylbenzene	ND	1.0	97	102	5.0	100	110	9.5	70 - 130	30	
m&p-Xylene	ND	1.0	101	104	2.9	105	112	6.5	70 - 130	30	
Methyl ethyl ketone	ND	5.0	91	104	13.3	117	115	1.7	70 - 130	30	
Methyl t-butyl ether (MTBE)	ND	1.0	101	99	2.0	117	119	1.7	70 - 130	30	
Methylene chloride	ND	1.0	92	91	1.1	109	109	0.0	70 - 130	30	
Naphthalene	ND	1.0	115	103	11.0	96	116	18.9	70 - 130	30	
n-Butylbenzene	ND	1.0	96	102	6.1	75	98	26.6	70 - 130	30	
n-Propylbenzene	ND	1.0	96	98	2.1	89	104	15.5	70 - 130	30	
o-Xylene	ND	1.0	101	104	2.9	111	115	3.5	70 - 130	30	
p-Isopropyltoluene	ND	1.0	99	103	4.0	86	103	18.0	70 - 130	30	
sec-Butylbenzene	ND	1.0	98	104	5.9	93	108	14.9	70 - 130	30	
Styrene	ND	1.0	103	104	1.0	111	114	2.7	70 - 130	30	
tert-Butylbenzene	ND	1.0	95	100	5.1	101	111	9.4	70 - 130	30	
Tetrachloroethene	ND	1.0	98	103	5.0	95	111	15.5	70 - 130	30	
Tetrahydrofuran (THF)	ND	2.5	97	98	1.0	112	114	1.8	70 - 130	30	
Toluene	ND	1.0	98	99	1.0	112	118	5.2	70 - 130	30	
trans-1,2-Dichloroethene	ND	1.0	97	101	4.0	115	120	4.3	70 - 130	30	
trans-1,3-Dichloropropene	ND	0.40	100	100	0.0	113	119	5.2	70 - 130	30	
trans-1,4-dichloro-2-butene	ND	5.0	107	108	0.9	101	105	3.9	70 - 130	30	
Trichloroethene	ND	1.0	99	101	2.0	114	120	5.1	70 - 130	30	

QA/QC Data

SDG I.D.: GBK87132

Parameter	Blank	Blk RL	LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	% Rec Limits	% RPD Limits	
Trichlorofluoromethane	ND	1.0	108	117	8.0	138	145	4.9	70 - 130	30	m
Trichlorotrifluoroethane	ND	1.0	95	104	9.0	95	109	13.7	70 - 130	30	
Vinyl chloride	ND	1.0	120	129	7.2	156	159	1.9	70 - 130	30	m
% 1,2-dichlorobenzene-d4	101	%	100	100	0.0	98	101	3.0	70 - 130	30	
% Bromofluorobenzene	94	%	100	101	1.0	102	103	1.0	70 - 130	30	
% Dibromofluoromethane	98	%	100	101	1.0	99	99	0.0	70 - 130	30	
% Toluene-d8	99	%	100	100	0.0	99	102	3.0	70 - 130	30	

Comment:

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

QA/QC Batch 339293 (ug/L), QC Sample No: BK88734 (BK87133, BK87134, BK87135, BK87136, BK87137)

Semivolatiles by SIM - Ground Water

2-Methylnaphthalene	ND	0.05	55	72	26.8	56	60	6.9	30 - 130	20	r
Acenaphthene	ND	0.05	74	86	15.0	71	75	5.5	30 - 130	20	
Acenaphthylene	ND	0.04	83	97	15.6	80	86	7.2	30 - 130	20	
Anthracene	ND	0.02	98	99	1.0	67	68	1.5	30 - 130	20	
Benz(a)anthracene	ND	0.02	93	94	1.1	88	90	2.2	30 - 130	20	
Benzo(a)pyrene	ND	0.02	99	100	1.0	93	93	0.0	30 - 130	20	
Benzo(b)fluoranthene	ND	0.02	112	108	3.6	102	102	0.0	30 - 130	20	
Benzo(ghi)perylene	ND	0.02	75	75	0.0	70	75	6.9	30 - 130	20	
Benzo(k)fluoranthene	ND	0.02	99	105	5.9	98	100	2.0	30 - 130	20	
Chrysene	ND	0.02	79	80	1.3	75	76	1.3	30 - 130	20	
Dibenz(a,h)anthracene	ND	0.01	86	85	1.2	77	87	12.2	30 - 130	20	
Fluoranthene	ND	0.04	104	98	5.9	94	98	4.2	30 - 130	20	
Fluorene	ND	0.05	83	89	7.0	78	83	6.2	30 - 130	20	
Indeno(1,2,3-cd)pyrene	ND	0.02	82	81	1.2	76	83	8.8	30 - 130	20	
Naphthalene	ND	0.05	52	72	32.3	53	56	5.5	30 - 130	20	r
Phenanthrene	ND	0.05	84	86	2.4	78	81	3.8	30 - 130	20	
Pyrene	ND	0.02	107	98	8.8	92	97	5.3	30 - 130	20	
% 2-Fluorobiphenyl	64	%	59	72	19.8	58	60	3.4	30 - 130	20	
% Nitrobenzene-d5	42	%	54	70	25.8	56	60	6.9	30 - 130	20	r
% Terphenyl-d14	84	%	106	93	13.1	87	91	4.5	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 339553 (ug/L), QC Sample No: BK89477 (BK87135)

Polychlorinated Biphenyls - Ground Water

PCB-1016	ND	0.25	79	74	6.5				40 - 140	20	
PCB-1221	ND	0.25							40 - 140	20	
PCB-1232	ND	0.25							40 - 140	20	
PCB-1242	ND	0.25							40 - 140	20	
PCB-1248	ND	0.25							40 - 140	20	
PCB-1254	ND	0.25							40 - 140	20	
PCB-1260	ND	0.25	92	90	2.2				40 - 140	20	
PCB-1262	ND	0.25							40 - 140	20	
PCB-1268	ND	0.25							40 - 140	20	
% DCBP (Surrogate Rec)	147	%	80	84	4.9				30 - 150	20	
% TCMX (Surrogate Rec)	125	%	71	64	10.4				30 - 150	20	

Comment:

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

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.: GBK87132

Parameter	Blk		LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	% Rec Limits	% RPD Limits
	Blank	RL								

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

RPD - Relative Percent Difference

LCS - Laboratory Control Sample

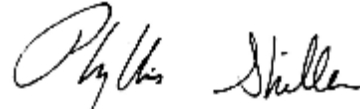
LCSD - Laboratory Control Sample Duplicate

MS - Matrix Spike

MS Dup - Matrix Spike Duplicate

NC - No Criteria

Intf - Interference



Phyllis Shiller, Laboratory Director
April 01, 2016

Friday, April 01, 2016

Criteria: CT: GWP, RV

State: CT

Sample Criteria Exceedences Report

GBK87132 - FO

Page 1 of 1

SampNo	Acode	Phoenix Analyte	Criteria	Result	RL	Criteria	RL Criteria	Analysis Units
BK87133	\$8260GWR	Acrylonitrile	CT / VOLATILE ORGANIC COMPOUND / GWPC (ug/L)	ND	5.0	0.5	0.5	ug/L
BK87133	\$8260GWR	1,2-Dibromoethane	CT / VOLATILE ORGANIC COMPOUND / GWPC (ug/L)	ND	1.0	0.05	0.05	ug/L
BK87134	\$8260GWR	Acrylonitrile	CT / VOLATILE ORGANIC COMPOUND / GWPC (ug/L)	ND	5.0	0.5	0.5	ug/L
BK87134	\$8260GWR	1,2-Dibromoethane	CT / VOLATILE ORGANIC COMPOUND / GWPC (ug/L)	ND	1.0	0.05	0.05	ug/L
BK87135	\$8260GWR	Acrylonitrile	CT / VOLATILE ORGANIC COMPOUND / GWPC (ug/L)	ND	5.0	0.5	0.5	ug/L
BK87135	\$8260GWR	1,2-Dibromoethane	CT / VOLATILE ORGANIC COMPOUND / GWPC (ug/L)	ND	1.0	0.05	0.05	ug/L
BK87136	\$8260GWR	Acrylonitrile	CT / VOLATILE ORGANIC COMPOUND / GWPC (ug/L)	ND	5.0	0.5	0.5	ug/L
BK87136	\$8260GWR	1,2-Dibromoethane	CT / VOLATILE ORGANIC COMPOUND / GWPC (ug/L)	ND	1.0	0.05	0.05	ug/L
BK87137	\$8260GWR	Acrylonitrile	CT / VOLATILE ORGANIC COMPOUND / GWPC (ug/L)	ND	5.0	0.5	0.5	ug/L
BK87137	\$8260GWR	1,2-Dibromoethane	CT / VOLATILE ORGANIC COMPOUND / GWPC (ug/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: FORMER MERIDEN HOSPITAL **Project Number:**

Laboratory Sample ID(s): BK87132, BK87133, BK87134, BK87135, BK87136, BK87137

Sampling Date(s): 3/23/2016

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?	☒ Yes ☐ No
1a.	Were the method specified preservation and holding time requirements met?	☒ Yes ☐ 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)	☐ Yes ☐ No ☒ NA
2.	Were all samples received by the laboratory in a condition consistent with that described on the associated Chain-of-Custody document(s)?	☒ Yes ☐ No
3.	Were samples received at an appropriate temperature (< 6 Degrees C)?	☒ Yes ☐ No ☐ NA
4.	Were all QA/QC performance criteria specified in the Reasonable Confidence Protocol documents achieved? See Sections: SVOASIM Narration, VOA Narration.	☐ Yes ☒ No
5a.	Were reporting limits specified or referenced on the chain-of-custody?	☒ Yes ☐ No
5b.	Were these reporting limits met?	☐ Yes ☒ No ☐ 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?	☐ Yes ☒ No ☐ NA
7.	Are project-specific matrix spikes and laboratory duplicates included in the data set?	☐ Yes ☒ No ☐ 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: Friday, April 01, 2016

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



Certification Report

April 01, 2016

SDG I.D.: GBK87132

ICP Metals Narration

Were all QA/QC performance criteria specified in the analytical method achieved? Yes.

Instrument:

ARCOS 03/25/16 13:15 Laura Kinnin, Chemist 03/25/16

BK87133, BK87134, BK87135, BK87136, BK87137

The linear range is defined daily by the calibration range.

The following Initial Calibration Verification (ICV) compounds did not meet criteria: None.

The following Continuing Calibration Verification (CCV) compounds did not meet criteria: None.

The following ICP Interference Check (ICSAB) compounds did not meet criteria: None.

SDG Comments

Metals Analysis:

The client requested a shorter list of elements than the 6010 RCP list. Only the RCRA 8 Metals are reported as requested on the chain of custody.

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.

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.

Mercury Narration

Were all QA/QC performance criteria specified in the analytical method achieved? Yes.

Instrument:

MERLIN 03/28/16 08:44 Rick Schweitzer, Tom Cowles, Megan Macomber, Chemist 0

BK87133, BK87134, BK87135, BK87136, BK87137

The following Initial Calibration Verification (ICV) compounds did not meet criteria: None.

The following Continuing Calibration Verification (CCV) compounds did not meet criteria: None.

QC (Batch Specific):

Batch 339697 (BK87085)

BK87133, BK87134, BK87135

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

Batch 339698 (BK88734)

BK87136, BK87137

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

PCB Narration

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

Instrument:



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RCP Certification Report

April 01, 2016

SDG I.D.: GBK87132

PCB Narration

AU-ECD1 03/28/16-1

Adam Werner, Chemist 03/28/16

BK87135

The initial calibration (PC0321AI) RSD for the compound list was less than 20% except for the following compounds: None.
The initial calibration (PC0321BI) RSD for the compound list was less than 20% except for the following compounds: None.
The continuing calibration %D for the compound list was less than 15% except for the following compounds: None.

QC (Batch Specific):

Batch 339553 (BK89477)

BK87135

All LCS recoveries were within 40 - 140 with the following exceptions: None.
All LCSD recoveries were within 40 - 140 with the following exceptions: None.
All LCS/LCSD RPDs were less than 20% with the following exceptions: None.
A LCS and LCS Duplicate were performed instead of a matrix spike and matrix spike duplicate.

SVOASIM Narration

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

QC Batch 339293 (Samples: BK87133, BK87134, BK87135, BK87136, BK87137): -----

The LCS/LCSD RPD exceeds the method criteria for one or more analytes, but these analytes were not reported in the sample(s) so no variability is suspected. (2-Methylnaphthalene, Naphthalene)

The LCS/LCSD RPD exceeds the method criteria for one or more surrogates, therefore there may be variability in the reported result. (% Nitrobenzene-d5)

Instrument:

CHEM04 03/25/16-1

Damien Drobinski, Chemist 03/25/16

BK87133, BK87134, BK87135, BK87136, BK87137

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_0308):

94% of target compounds met criteria.

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

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

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

Continuing Calibration Verification (CHEM04/0325_02A-SIM_0308):

Internal standard areas were within 50 to 200% of the initial calibration with the following exceptions: None.

96% of target compounds met criteria.



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RCP Certification Report

April 01, 2016

SDG I.D.: GBK87132

SVOASIM Narration

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

QC (Batch Specific):

Batch 339293 (BK88734)

BK87133, BK87134, BK87135, BK87136, BK87137

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: % Nitrobenzene-d5(25.8%), 2-Methylnaphthalene(26.8%), Naphthalene(32.3%)

VOA Narration

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

QC Batch 339748 (Samples: BK87136, BK87137): ----

The QC recovery for one or more analytes is above the upper range but were not reported in the sample(s), therefore no significant bias is suspected. (Bromomethane, Dichlorodifluoromethane)

QC Batch 340439 (Samples: BK87132, BK87133, BK87134, BK87135): ----

The LCS and/or the LCSD recovery is above the upper range for one or more analytes that were not reported in the sample(s), therefore no significant bias is suspected. (Dichlorodifluoromethane)

The LCS/LCSD RPD exceeds method criteria for one more analytes that were not reported in the samples, therefore no sample variability is suspected. (2-Hexanone)

Instrument:

CHEM17 03/24/16-2

Michael Hahn, Chemist 03/24/16

BK87132, BK87133, BK87134, BK87135

Initial Calibration Verification (CHEM17/VT-S0323):

100% of target compounds met criteria.

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

The following compounds did not meet recommended response factors: 1,2-Dibromo-3-chloropropane 0.036 (0.05), 2-Hexanone 0.066 (0.1), 4-Methyl-2-pentanone 0.086 (0.1), Acetone 0.041 (0.1), Methyl ethyl ketone 0.057 (0.1), Tetrahydrofuran (THF) 0.043 (0.05)

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

Continuing Calibration Verification (CHEM17/0324S27-VT-S0323):

Internal standard areas were within 50 to 200% of the initial calibration with the following exceptions: None.

100% of target compounds met criteria.

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: 1,1,2,2-Tetrachloroethane 0.291 (0.3), 1,2-Dibromo-3-chloropropane 0.034 (0.05), Acrylonitrile 0.041 (0.05), Bromoform 0.091 (0.1), Tetrahydrofuran (THF) 0.031 (0.05)



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RCP Certification Report

April 01, 2016

SDG I.D.: GBK87132

VOA Narration

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

CHEM17 03/25/16-1

Michael Hahn, Chemist 03/25/16

BK87136, BK87137

Initial Calibration Verification (CHEM17/VT-S0325):

100% of target compounds met criteria.

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

The following compounds did not meet recommended response factors: 1,2-Dibromo-3-chloropropane 0.035 (0.05), 2-Hexanone 0.061 (0.1), 4-Methyl-2-pentanone 0.081 (0.1), Acetone 0.035 (0.1), Methyl ethyl ketone 0.054 (0.1), Tetrahydrofuran (THF) 0.039 (0.05)

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

Continuing Calibration Verification (CHEM17/0325S10-VT-S0325):

Internal standard areas were within 50 to 200% of the initial calibration with the following exceptions: None.

100% of target compounds met criteria.

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: 1,1,2,2-Tetrachloroethane 0.283 (0.3), 1,2-Dibromo-3-chloropropane 0.032 (0.05), Acrylonitrile 0.047 (0.05), Tetrahydrofuran (THF) 0.037 (0.05)

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

QC (Batch Specific):

Batch 339748 (BK88734)

BK87136, BK87137

All LCS recoveries were within 70 - 130 with the following exceptions: Bromomethane(148%), Dichlorodifluoromethane(133%)

All LCSD recoveries were within 70 - 130 with the following exceptions: Bromomethane(155%), Dichlorodifluoromethane(147%)

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

Batch 340439 (BK87045)

BK87132, BK87133, BK87134, BK87135

All LCS recoveries were within 70 - 130 with the following exceptions: Dichlorodifluoromethane(177%)

All LCSD recoveries were within 70 - 130 with the following exceptions: Dichlorodifluoromethane(190%)

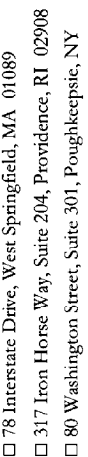
All LCS/LCSD RPDs were less than 30% with the following exceptions: 2-Hexanone(31.1%)

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

Temperature Narration

The samples were received at 5C with cooling initiated.

(Note acceptance criteria is above freezing up to 6°C)

☐ Other _____

34919

TURNAROUND

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

PROJECT NUMBER

Phoenix

Analysis Request

Request

P.O. No.: _____
 Sampler's Signature: D. J. Oca
 Date: 3/23/16

oil
concrete

1

[illegible]

① ✕ ✕

Transfer Number	Relinquished By	Accepted By	Date	Time	Charge Exceptions: ☐ CT Tax Exempt ☒ QA/QC ☐ Other _____ ☒ Duplicates ☐ Blanks (Item Nos: _____)
1	D. Cook	gto l-dg	3/23/16	1630	Reporting and Detection Limit Requirements: ☒ MCP Deliverables ☐ MCP CAM Cert.
2	Ar. Girdy	M. W. Balle	3/24/16	07:55	Res VC, GWRC * 5% Do not run
3	M. W. Balle	G. W. Balle	3/24/16	07:55	Additional Comments: PCBs
4	G. W. Balle	W. W. Balle	3/24/16	11:00	duplicate on all parameters

① add PCBs
Percent D. Cook



Wednesday, May 11, 2016

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

Project ID: FORMER MERIDEN HOSPITAL
Sample ID#s: BN25698, BN25700, BN25702 - BN25708

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.

All soils, solids and sludges are reported on a dry weight basis unless otherwise noted in the sample comments.

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

Analysis Report

May 11, 2016

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

Sample Information

Matrix: SOIL
Location Code: F&O-PCB
Rush Request: Standard
P.O.#: 2012032.C40

Custody Information

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

Date

05/04/16
05/05/16

Time

9:40
9:00

Laboratory Data

SDG ID: GBN25698
Phoenix ID: BN25698

Project ID: FORMER MERIDEN HOSPITAL
Client ID: 1176160504-40

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Percent Solid	95		%		05/05/16	W	SW846-%Solid
Soil Extraction SVOA PAH	Completed				05/05/16	BJ/CKV	SW3545A
Extraction of CT ETPH	Completed				05/05/16	JJ/CK	SW3545A
Extraction for PCB	Completed				05/05/16	QQ/I	SW3540C

TPH by GC (Extractable Products)

Ext. Petroleum HC	ND	51	mg/Kg	1	05/06/16	JRB	CTETPH 8015D
Identification	ND		mg/Kg	1	05/06/16	JRB	CTETPH 8015D

QA/QC Surrogates

% n-Pentacosane	64		%	1	05/06/16	JRB	50 - 150 %
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PCB (Soxhlet SW3540C)

PCB-1016	ND	0.35	mg/kg	10	05/07/16	AW	SW8082A
PCB-1221	ND	0.35	mg/kg	10	05/07/16	AW	SW8082A
PCB-1232	ND	0.35	mg/kg	10	05/07/16	AW	SW8082A
PCB-1242	ND	0.35	mg/kg	10	05/07/16	AW	SW8082A
PCB-1248	ND	0.35	mg/kg	10	05/07/16	AW	SW8082A
PCB-1254	ND	0.35	mg/kg	10	05/07/16	AW	SW8082A
PCB-1260	ND	0.35	mg/kg	10	05/07/16	AW	SW8082A
PCB-1262	ND	0.35	mg/kg	10	05/07/16	AW	SW8082A
PCB-1268	ND	0.35	mg/kg	10	05/07/16	AW	SW8082A

QA/QC Surrogates

% DCBP	74		%	10	05/07/16	AW	30 - 150 %
% TCMX	85		%	10	05/07/16	AW	30 - 150 %

Polynuclear Aromatic HC

2-Methylnaphthalene	ND	240	ug/Kg	1	05/06/16	DD	SW8270D
Acenaphthene	ND	240	ug/Kg	1	05/06/16	DD	SW8270D

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Acenaphthylene	ND	240	ug/Kg	1	05/06/16	DD	SW8270D
Anthracene	ND	240	ug/Kg	1	05/06/16	DD	SW8270D
Benz(a)anthracene	ND	240	ug/Kg	1	05/06/16	DD	SW8270D
Benzo(a)pyrene	ND	240	ug/Kg	1	05/06/16	DD	SW8270D
Benzo(b)fluoranthene	ND	240	ug/Kg	1	05/06/16	DD	SW8270D
Benzo(ghi)perylene	ND	240	ug/Kg	1	05/06/16	DD	SW8270D
Benzo(k)fluoranthene	ND	240	ug/Kg	1	05/06/16	DD	SW8270D
Chrysene	ND	240	ug/Kg	1	05/06/16	DD	SW8270D
Dibenz(a,h)anthracene	ND	240	ug/Kg	1	05/06/16	DD	SW8270D
Fluoranthene	ND	240	ug/Kg	1	05/06/16	DD	SW8270D
Fluorene	ND	240	ug/Kg	1	05/06/16	DD	SW8270D
Indeno(1,2,3-cd)pyrene	ND	240	ug/Kg	1	05/06/16	DD	SW8270D
Naphthalene	ND	240	ug/Kg	1	05/06/16	DD	SW8270D
Phenanthrene	ND	240	ug/Kg	1	05/06/16	DD	SW8270D
Pyrene	ND	240	ug/Kg	1	05/06/16	DD	SW8270D
<u>QA/QC Surrogates</u>							
% 2-Fluorobiphenyl	75		%	1	05/06/16	DD	30 - 130 %
% Nitrobenzene-d5	80		%	1	05/06/16	DD	30 - 130 %
% Terphenyl-d14	66		%	1	05/06/16	DD	30 - 130 %

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

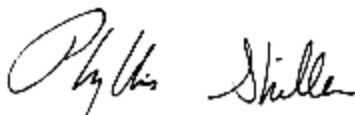
QA/QC Surrogates: Surrogates are compounds (preceded with a %) added by the lab to determine analysis efficiency. Surrogate results(%) listed in the report are not "detected" compounds.

Comments:

All soils, solids and sludges are reported on a dry weight basis unless otherwise noted in the sample 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 11, 2016

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 11, 2016

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

Sample Information

Matrix: SOIL
Location Code: F&O-PCB
Rush Request: Standard
P.O.#: 2012032.C40

Custody Information

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

Date

05/04/16
05/05/16

Time

10:15
9:00

Laboratory Data

SDG ID: GBN25698
Phoenix ID: BN25700

Project ID: FORMER MERIDEN HOSPITAL
Client ID: 1176160504-42

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Percent Solid	90		%		05/05/16	W	SW846-%Solid
Soil Extraction SVOA PAH	Completed				05/05/16	BJ/CKV	SW3545A
Extraction of CT ETPH	Completed				05/05/16	JJ/CK	SW3545A
Extraction for PCB	Completed				05/05/16	QQ/I	SW3540C

TPH by GC (Extractable Products)

Ext. Petroleum HC	ND	54	mg/Kg	1	05/06/16	JRB	CTETPH 8015D
Identification	ND		mg/Kg	1	05/06/16	JRB	CTETPH 8015D

QA/QC Surrogates

% n-Pentacosane	60		%	1	05/06/16	JRB	50 - 150 %
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PCB (Soxhlet SW3540C)

PCB-1016	ND	0.36	mg/kg	10	05/07/16	AW	SW8082A
PCB-1221	ND	0.36	mg/kg	10	05/07/16	AW	SW8082A
PCB-1232	ND	0.36	mg/kg	10	05/07/16	AW	SW8082A
PCB-1242	ND	0.36	mg/kg	10	05/07/16	AW	SW8082A
PCB-1248	ND	0.36	mg/kg	10	05/07/16	AW	SW8082A
PCB-1254	ND	0.36	mg/kg	10	05/07/16	AW	SW8082A
PCB-1260	ND	0.36	mg/kg	10	05/07/16	AW	SW8082A
PCB-1262	ND	0.36	mg/kg	10	05/07/16	AW	SW8082A
PCB-1268	ND	0.36	mg/kg	10	05/07/16	AW	SW8082A

QA/QC Surrogates

% DCBP	98		%	10	05/07/16	AW	30 - 150 %
% TCMX	60		%	10	05/07/16	AW	30 - 150 %

Polynuclear Aromatic HC

2-Methylnaphthalene	ND	250	ug/Kg	1	05/06/16	DD	SW8270D
Acenaphthene	ND	250	ug/Kg	1	05/06/16	DD	SW8270D

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Acenaphthylene	ND	250	ug/Kg	1	05/06/16	DD	SW8270D
Anthracene	ND	250	ug/Kg	1	05/06/16	DD	SW8270D
Benz(a)anthracene	ND	250	ug/Kg	1	05/06/16	DD	SW8270D
Benzo(a)pyrene	ND	250	ug/Kg	1	05/06/16	DD	SW8270D
Benzo(b)fluoranthene	ND	250	ug/Kg	1	05/06/16	DD	SW8270D
Benzo(ghi)perylene	ND	250	ug/Kg	1	05/06/16	DD	SW8270D
Benzo(k)fluoranthene	ND	250	ug/Kg	1	05/06/16	DD	SW8270D
Chrysene	ND	250	ug/Kg	1	05/06/16	DD	SW8270D
Dibenz(a,h)anthracene	ND	250	ug/Kg	1	05/06/16	DD	SW8270D
Fluoranthene	ND	250	ug/Kg	1	05/06/16	DD	SW8270D
Fluorene	ND	250	ug/Kg	1	05/06/16	DD	SW8270D
Indeno(1,2,3-cd)pyrene	ND	250	ug/Kg	1	05/06/16	DD	SW8270D
Naphthalene	ND	250	ug/Kg	1	05/06/16	DD	SW8270D
Phenanthrene	ND	250	ug/Kg	1	05/06/16	DD	SW8270D
Pyrene	ND	250	ug/Kg	1	05/06/16	DD	SW8270D
<u>QA/QC Surrogates</u>							
% 2-Fluorobiphenyl	64		%	1	05/06/16	DD	30 - 130 %
% Nitrobenzene-d5	74		%	1	05/06/16	DD	30 - 130 %
% Terphenyl-d14	60		%	1	05/06/16	DD	30 - 130 %

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

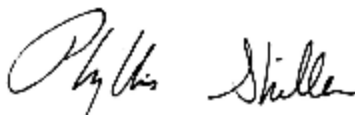
QA/QC Surrogates: Surrogates are compounds (preceded with a %) added by the lab to determine analysis efficiency. Surrogate results(%) listed in the report are not "detected" compounds.

Comments:

All soils, solids and sludges are reported on a dry weight basis unless otherwise noted in the sample 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 11, 2016

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 11, 2016

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

Sample Information

Matrix: CONCRETE
Location Code: F&O-PCB
Rush Request: Standard
P.O.#: 2012032.C40

Custody Information

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

Date

05/04/16
05/05/16

Time

10:30
9:00

Laboratory Data

SDG ID: GBN25698
Phoenix ID: BN25702

Project ID: FORMER MERIDEN HOSPITAL
Client ID: 1176160504-44

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Percent Solid	96		%		05/05/16	W	SW846-%Solid
Extraction of CT ETPH	Completed				05/05/16	JJ/CK	SW3545A
Extraction for PCB	Completed				05/05/16	QQ/I	SW3540C

TPH by GC (Extractable Products)

Ext. Petroleum HC	340	52	mg/Kg	1	05/09/16	JRB	CTETPH 8015D
Identification	**		mg/Kg	1	05/09/16	JRB	CTETPH 8015D

QA/QC Surrogates

% n-Pentacosane	78		%	1	05/09/16	JRB	50 - 150 %
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PCB (Soxhlet SW3540C)

PCB-1016	ND	0.35	mg/kg	10	05/06/16	AW	SW8082A
PCB-1221	ND	0.35	mg/kg	10	05/06/16	AW	SW8082A
PCB-1232	ND	0.35	mg/kg	10	05/06/16	AW	SW8082A
PCB-1242	ND	0.35	mg/kg	10	05/06/16	AW	SW8082A
PCB-1248	ND	0.35	mg/kg	10	05/06/16	AW	SW8082A
PCB-1254	ND	0.35	mg/kg	10	05/06/16	AW	SW8082A
PCB-1260	ND	0.35	mg/kg	10	05/06/16	AW	SW8082A
PCB-1262	ND	0.35	mg/kg	10	05/06/16	AW	SW8082A
PCB-1268	ND	0.35	mg/kg	10	05/06/16	AW	SW8082A

QA/QC Surrogates

% DCBP	79		%	10	05/06/16	AW	30 - 150 %
% TCMX	82		%	10	05/06/16	AW	30 - 150 %

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
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RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level

QA/QC Surrogates: Surrogates are compounds (preceded with a %) added by the lab to determine analysis efficiency. Surrogate results(%) listed in the report are not "detected" compounds.

Comments:

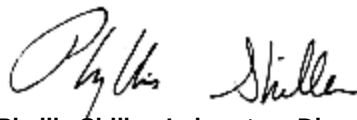
TPH Comment:

**Petroleum hydrocarbon chromatogram contains a multicomponent hydrocarbon distribution in the range of C9 to C36. The sample was quantitated against a C9-C36 alkane hydrocarbon standard.

All soils, solids and sludges are reported on a dry weight basis unless otherwise noted in the sample 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 11, 2016

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 11, 2016

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

Sample Information

Matrix: CONCRETE
Location Code: F&O-PCB
Rush Request: Standard
P.O.#: 2012032.C40

Custody Information

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

Date

05/04/16
05/05/16

Time

11:00
9:00

Laboratory Data

SDG ID: GBN25698
Phoenix ID: BN25703

Project ID: FORMER MERIDEN HOSPITAL
Client ID: 1176160504-45

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Silver	59.7	3.5	mg/Kg	10	05/07/16	LK	SW6010C
Arsenic	1.7	0.7	mg/Kg	1	05/06/16	EK	SW6010C
Barium	67.2	0.35	mg/Kg	1	05/06/16	EK	SW6010C
Cadmium	0.52	0.35	mg/Kg	1	05/06/16	EK	SW6010C
Chromium	13.8	0.35	mg/Kg	1	05/06/16	EK	SW6010C
Mercury	0.70	0.03	mg/Kg	1	05/06/16	RS	SW7471B
Lead	4.00	0.35	mg/Kg	1	05/06/16	EK	SW6010C
Selenium	< 1.4	1.4	mg/Kg	1	05/06/16	LK	SW6010C
Percent Solid	93		%		05/05/16	W	SW846-%Solid
Mercury Digestion	Completed				05/06/16	W/W	SW7471B
Extraction for PCB	Completed				05/05/16	QQ/I	SW3540C
Total Metals Digest	Completed				05/05/16	G/AG	SW3050B

PCB (Soxhlet SW3540C)

PCB-1016	ND	0.35	mg/kg	10	05/06/16	AW	SW8082A
PCB-1221	ND	0.35	mg/kg	10	05/06/16	AW	SW8082A
PCB-1232	ND	0.35	mg/kg	10	05/06/16	AW	SW8082A
PCB-1242	ND	0.35	mg/kg	10	05/06/16	AW	SW8082A
PCB-1248	ND	0.35	mg/kg	10	05/06/16	AW	SW8082A
PCB-1254	ND	0.35	mg/kg	10	05/06/16	AW	SW8082A
PCB-1260	ND	0.35	mg/kg	10	05/06/16	AW	SW8082A
PCB-1262	ND	0.35	mg/kg	10	05/06/16	AW	SW8082A
PCB-1268	ND	0.35	mg/kg	10	05/06/16	AW	SW8082A

QA/QC Surrogates

% DCBP	85	%	10	05/06/16	AW	30 - 150 %
% TCMX	82	%	10	05/06/16	AW	30 - 150 %

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
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RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level

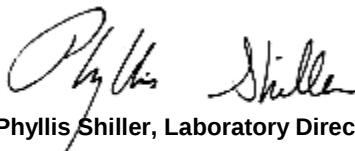
QA/QC Surrogates: Surrogates are compounds (preceded with a %) added by the lab to determine analysis efficiency. Surrogate results(%) listed in the report are not "detected" compounds.

Comments:

All soils, solids and sludges are reported on a dry weight basis unless otherwise noted in the sample 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 11, 2016

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 11, 2016

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

Sample Information

Matrix: CONCRETE
Location Code: F&O-PCB
Rush Request: Standard
P.O.#: 2012032.C40

Custody Information

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

Date

05/04/16
05/05/16

Time

11:15
9:00

Laboratory Data

SDG ID: GBN25698
Phoenix ID: BN25704

Project ID: FORMER MERIDEN HOSPITAL
Client ID: 1176160504-46

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Percent Solid	97		%		05/05/16	W	SW846-%Solid
Extraction of CT ETPH	Completed				05/05/16	JJ/CK	SW3545A
Extraction for PCB	Completed				05/05/16	QQ/I	SW3540C

TPH by GC (Extractable Products)

Ext. Petroleum HC	1600	100	mg/Kg	2	05/09/16	JRB	CTETPH 8015D
Identification	**		mg/Kg	2	05/09/16	JRB	CTETPH 8015D

QA/QC Surrogates

% n-Pentacosane	Diluted Out		%	2	05/09/16	JRB	50 - 150 %
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PCB (Soxhlet SW3540C)

PCB-1016	ND	3.3	mg/kg	100	05/06/16	AW	SW8082A
PCB-1221	ND	3.3	mg/kg	100	05/06/16	AW	SW8082A
PCB-1232	ND	3.3	mg/kg	100	05/06/16	AW	SW8082A
PCB-1242	ND	3.3	mg/kg	100	05/06/16	AW	SW8082A
PCB-1248	ND	3.3	mg/kg	100	05/06/16	AW	SW8082A
PCB-1254	12	3.3	mg/kg	100	05/06/16	AW	SW8082A
PCB-1260	ND	3.3	mg/kg	100	05/06/16	AW	SW8082A
PCB-1262	ND	3.3	mg/kg	100	05/06/16	AW	SW8082A
PCB-1268	ND	3.3	mg/kg	100	05/06/16	AW	SW8082A

QA/QC Surrogates

% DCBP	Diluted Out		%	100	05/06/16	AW	30 - 150 %
% TCMX	Diluted Out		%	100	05/06/16	AW	30 - 150 %

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
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RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level

QA/QC Surrogates: Surrogates are compounds (preceded with a %) added by the lab to determine analysis efficiency. Surrogate results(%) listed in the report are not "detected" compounds.

Comments:

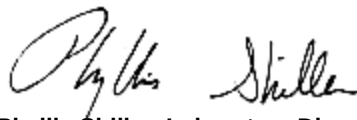
TPH Comment:

**Petroleum hydrocarbon chromatogram contains a multicomponent hydrocarbon distribution in the range of C9 to C36. The sample was quantitated against a C9-C36 alkane hydrocarbon standard.

All soils, solids and sludges are reported on a dry weight basis unless otherwise noted in the sample 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 11, 2016

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 11, 2016

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

Sample Information

Matrix: CONCRETE
Location Code: F&O-PCB
Rush Request: Standard
P.O.#: 2012032.C40

Custody Information

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

Date

05/04/16
05/05/16

Time

11:30
9:00

Laboratory Data

SDG ID: GBN25698
Phoenix ID: BN25705

Project ID: FORMER MERIDEN HOSPITAL
Client ID: 1176160504-47

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Percent Solid	98		%		05/05/16	W	SW846-%Solid
Extraction of CT ETPH	Completed				05/05/16	JJ/CK	SW3545A
Extraction for PCB	Completed				05/05/16	QQ/I	SW3540C

TPH by GC (Extractable Products)

Ext. Petroleum HC	510	250	mg/Kg	5	05/09/16	JRB	CTETPH 8015D
Identification	**		mg/Kg	5	05/09/16	JRB	CTETPH 8015D

QA/QC Surrogates

% n-Pentacosane	Diluted Out		%	5	05/09/16	JRB	50 - 150 %
-----------------	-------------	--	---	---	----------	-----	------------

PCB (Soxhlet SW3540C)

PCB-1016	ND	0.33	mg/kg	10	05/07/16	AW	SW8082A
PCB-1221	ND	0.33	mg/kg	10	05/07/16	AW	SW8082A
PCB-1232	ND	0.33	mg/kg	10	05/07/16	AW	SW8082A
PCB-1242	ND	0.33	mg/kg	10	05/07/16	AW	SW8082A
PCB-1248	ND	0.33	mg/kg	10	05/07/16	AW	SW8082A
PCB-1254	1.1	0.33	mg/kg	10	05/07/16	AW	SW8082A
PCB-1260	ND	0.33	mg/kg	10	05/07/16	AW	SW8082A
PCB-1262	ND	0.33	mg/kg	10	05/07/16	AW	SW8082A
PCB-1268	ND	0.33	mg/kg	10	05/07/16	AW	SW8082A

QA/QC Surrogates

% DCBP	Interference		%	10	05/07/16	AW	30 - 150 %
% TCMX	81		%	10	05/07/16	AW	30 - 150 %

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
-----------	--------	------------	-------	----------	-----------	----	-----------

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

QA/QC Surrogates: Surrogates are compounds (preceded with a %) added by the lab to determine analysis efficiency. Surrogate results(%) listed in the report are not "detected" compounds.

Comments:

PCB Comment:

Due to matrix interference from non target compounds in the sample, surrogate could not be reported.

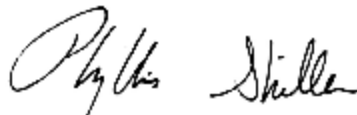
TPH Comment:

**Petroleum hydrocarbon chromatogram contains a multicomponent hydrocarbon distribution in the range of C9 to C36. The sample was quantitated against a C9-C36 alkane hydrocarbon standard.

All soils, solids and sludges are reported on a dry weight basis unless otherwise noted in the sample 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 11, 2016

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 11, 2016

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

Sample Information

Matrix: CONCRETE
Location Code: F&O-PCB
Rush Request: Standard
P.O.#: 2012032.C40

Custody Information

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

Date

05/04/16
05/05/16

Time

11:40
9:00

Laboratory Data

SDG ID: GBN25698
Phoenix ID: BN25706

Project ID: FORMER MERIDEN HOSPITAL
Client ID: 1176160504-48

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Percent Solid	98		%		05/05/16	W	SW846-%Solid
Extraction for PCB	Completed				05/05/16	QQ/I	SW3540C

PCB (Soxhlet SW3540C)

PCB-1016	ND	0.33	mg/kg	10	05/06/16	AW	SW8082A
PCB-1221	ND	0.33	mg/kg	10	05/06/16	AW	SW8082A
PCB-1232	ND	0.33	mg/kg	10	05/06/16	AW	SW8082A
PCB-1242	ND	0.33	mg/kg	10	05/06/16	AW	SW8082A
PCB-1248	ND	0.33	mg/kg	10	05/06/16	AW	SW8082A
PCB-1254	ND	0.33	mg/kg	10	05/06/16	AW	SW8082A
PCB-1260	ND	0.33	mg/kg	10	05/06/16	AW	SW8082A
PCB-1262	ND	0.33	mg/kg	10	05/06/16	AW	SW8082A
PCB-1268	ND	0.33	mg/kg	10	05/06/16	AW	SW8082A

QA/QC Surrogates

% DCBP	86	%	10	05/06/16	AW	30 - 150 %
% TCMX	68	%	10	05/06/16	AW	30 - 150 %

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
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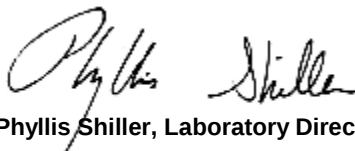
RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level
QA/QC Surrogates: Surrogates are compounds (preceded with a %) added by the lab to determine analysis efficiency. Surrogate results(%) listed in the report are not "detected" compounds.

Comments:

All soils, solids and sludges are reported on a dry weight basis unless otherwise noted in the sample 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 11, 2016

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 11, 2016

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

Sample Information

Matrix: CONCRETE
Location Code: F&O-PCB
Rush Request: Standard
P.O.#: 2012032.C40

Custody Information

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

Date

05/04/16
05/05/16

Time

11:50
9:00

Laboratory Data

SDG ID: GBN25698
Phoenix ID: BN25707

Project ID: FORMER MERIDEN HOSPITAL
Client ID: 1176160504-49

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Percent Solid	98		%		05/05/16	W	SW846-%Solid
Extraction of CT ETPH	Completed				05/05/16	JJ/CK	SW3545A
Extraction for PCB	Completed				05/05/16	QQ/I	SW3540C

TPH by GC (Extractable Products)

Ext. Petroleum HC	16000	1100	mg/Kg	10	05/09/16	JRB	CTETPH 8015D
Identification	**		mg/Kg	10	05/09/16	JRB	CTETPH 8015D

QA/QC Surrogates

% n-Pentacosane	Diluted Out		%	10	05/09/16	JRB	50 - 150 %
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PCB (Soxhlet SW3540C)

PCB-1016	ND	0.34	mg/kg	10	05/07/16	AW	SW8082A
PCB-1221	ND	0.34	mg/kg	10	05/07/16	AW	SW8082A
PCB-1232	ND	0.34	mg/kg	10	05/07/16	AW	SW8082A
PCB-1242	ND	0.34	mg/kg	10	05/07/16	AW	SW8082A
PCB-1248	ND	0.34	mg/kg	10	05/07/16	AW	SW8082A
PCB-1254	3.9	0.34	mg/kg	10	05/07/16	AW	SW8082A
PCB-1260	ND	0.34	mg/kg	10	05/07/16	AW	SW8082A
PCB-1262	ND	0.34	mg/kg	10	05/07/16	AW	SW8082A
PCB-1268	ND	0.34	mg/kg	10	05/07/16	AW	SW8082A

QA/QC Surrogates

% DCBP	103		%	10	05/07/16	AW	30 - 150 %
% TCMX	88		%	10	05/07/16	AW	30 - 150 %

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
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RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level

QA/QC Surrogates: Surrogates are compounds (preceded with a %) added by the lab to determine analysis efficiency. Surrogate results(%) listed in the report are not "detected" compounds.

Comments:

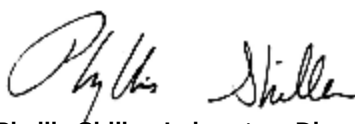
TPH Comment:

**Petroleum hydrocarbon chromatogram contains a multicomponent hydrocarbon distribution in the range of C9 to C36. The sample was quantitated against a C9-C36 alkane hydrocarbon standard.

All soils, solids and sludges are reported on a dry weight basis unless otherwise noted in the sample 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 11, 2016

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 11, 2016

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

Sample Information

Matrix: CONCRETE
Location Code: F&O-PCB
Rush Request: Standard
P.O.#: 2012032.C40

Custody Information

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

Date

05/04/16
05/05/16

Time

12:00
9:00

Laboratory Data

SDG ID: GBN25698
Phoenix ID: BN25708

Project ID: FORMER MERIDEN HOSPITAL
Client ID: 1176160504-50

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Percent Solid	98		%		05/05/16	W	SW846-%Solid
Extraction for PCB	Completed				05/05/16	QQ/I	SW3540C

PCB (Soxhlet SW3540C)

PCB-1016	ND	0.34	mg/kg	10	05/06/16	AW	SW8082A
PCB-1221	ND	0.34	mg/kg	10	05/06/16	AW	SW8082A
PCB-1232	ND	0.34	mg/kg	10	05/06/16	AW	SW8082A
PCB-1242	ND	0.34	mg/kg	10	05/06/16	AW	SW8082A
PCB-1248	ND	0.34	mg/kg	10	05/06/16	AW	SW8082A
PCB-1254	ND	0.34	mg/kg	10	05/06/16	AW	SW8082A
PCB-1260	ND	0.34	mg/kg	10	05/06/16	AW	SW8082A
PCB-1262	ND	0.34	mg/kg	10	05/06/16	AW	SW8082A
PCB-1268	ND	0.34	mg/kg	10	05/06/16	AW	SW8082A

QA/QC Surrogates

% DCBP	93	%	10	05/06/16	AW	30 - 150 %
% TCMX	81	%	10	05/06/16	AW	30 - 150 %

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
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RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level

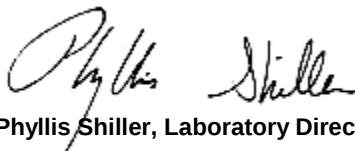
QA/QC Surrogates: Surrogates are compounds (preceded with a %) added by the lab to determine analysis efficiency. Surrogate results(%) listed in the report are not "detected" compounds.

Comments:

All soils, solids and sludges are reported on a dry weight basis unless otherwise noted in the sample 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 11, 2016

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

QA/QC Report

May 11, 2016

QA/QC Data

SDG I.D.: GBN25698

Parameter	Blank	Blk RL	Sample Result	Dup Result	Dup RPD	LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	% Rec Limits	% RPD Limits
QA/QC Batch 344552 (mg/kg), QC Sample No: BN25691 (BN25703)													
<u>ICP Metals - Soil</u>													
Arsenic	BRL	0.67	12.7	12.7	0	103			91.1			75 - 125	30
Barium	BRL	0.33	58.6	58.1	0.90	94.5			96.4			75 - 125	30
Cadmium	BRL	0.33	2.80	3.02	7.60	104			90.3			75 - 125	30
Chromium	BRL	0.33	24.3	24.0	1.20	105			96.0			75 - 125	30
Lead	BRL	0.33	747	885	16.9	97.5			111			75 - 125	30
Selenium	BRL	1.3	<1.6	<1.5	NC	90.8			78.1			75 - 125	30
Silver	BRL	0.33	6.04	5.67	6.30	103			96.6			75 - 125	30
QA/QC Batch 344607 (mg/kg), QC Sample No: BN26358 (BN25703)													
Mercury - Soil	BRL	0.02	0.20	0.16	22.2	120	115	4.3	95.7			70 - 130	30
Comment:													
Additional Mercury criteria: LCS acceptance range for waters is 80-120% and for soils is 70-130%.													



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Tel. (860) 645-1102 Fax (860) 645-0823

QA/QC Report

May 11, 2016

QA/QC Data

SDG I.D.: GBN25698

Parameter	Blank	Blk RL	LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	% Rec Limits	% RPD Limits
QA/QC Batch 344541 (ug/kg), QC Sample No: BN25662 (BN25698, BN25700)										
Polynuclear Aromatic HC - Soil										
2-Methylnaphthalene	ND	230	69	66	4.4	55	63	13.6	30 - 130	30
Acenaphthene	ND	230	81	74	9.0	60	69	14.0	30 - 130	30
Acenaphthylene	ND	230	80	73	9.2	60	68	12.5	30 - 130	30
Anthracene	ND	230	81	77	5.1	61	69	12.3	30 - 130	30
Benz(a)anthracene	ND	230	77	76	1.3	59	67	12.7	30 - 130	30
Benzo(a)pyrene	ND	230	75	73	2.7	56	63	11.8	30 - 130	30
Benzo(b)fluoranthene	ND	230	77	75	2.6	57	67	16.1	30 - 130	30
Benzo(ghi)perylene	ND	230	86	83	3.6	62	70	12.1	30 - 130	30
Benzo(k)fluoranthene	ND	230	79	77	2.6	60	68	12.5	30 - 130	30
Chrysene	ND	230	84	81	3.6	65	73	11.6	30 - 130	30
Dibenz(a,h)anthracene	ND	230	83	80	3.7	60	69	14.0	30 - 130	30
Fluoranthene	ND	230	81	74	9.0	60	66	9.5	30 - 130	30
Fluorene	ND	230	76	71	6.8	58	66	12.9	30 - 130	30
Indeno(1,2,3-cd)pyrene	ND	230	85	81	4.8	58	66	12.9	30 - 130	30
Naphthalene	ND	230	70	67	4.4	56	63	11.8	30 - 130	30
Phenanthrene	ND	230	83	77	7.5	61	69	12.3	30 - 130	30
Pyrene	ND	230	84	78	7.4	63	69	9.1	30 - 130	30
% 2-Fluorobiphenyl	72	%	73	66	10.1	55	63	13.6	30 - 130	30
% Nitrobenzene-d5	67	%	68	63	7.6	57	66	14.6	30 - 130	30
% Terphenyl-d14	69	%	80	71	11.9	55	63	13.6	30 - 130	30
QA/QC Batch 344545 (mg/Kg), QC Sample No: BN25691 (BN25698, BN25700, BN25702, BN25704, BN25705, BN25707)										
TPH by GC (Extractable Products) - Soil										
Ext. Petroleum H.C.	ND	50	62	67	7.8	62	68	9.2	60 - 120	30
% n-Pentacosane	65	%	71	75	5.5	78	78	0.0	50 - 150	30
QA/QC Batch 344548 (mg/kg), QC Sample No: BN25698 10X (BN25698, BN25700, BN25702, BN25703, BN25704, BN25705, BN25706, BN25707, BN25708)										
Polychlorinated Biphenyls - Soil										
PCB-1016	ND	0.17	84	85	1.2	82	88	7.1	40 - 140	30
PCB-1221	ND	0.17							40 - 140	30
PCB-1232	ND	0.17							40 - 140	30
PCB-1242	ND	0.17							40 - 140	30
PCB-1248	ND	0.17							40 - 140	30
PCB-1254	ND	0.17							40 - 140	30
PCB-1260	ND	0.17	94	100	6.2	89	97	8.6	40 - 140	30
PCB-1262	ND	0.17							40 - 140	30
PCB-1268	ND	0.17							40 - 140	30
% DCBP (Surrogate Rec)	107	%	101	108	6.7	93	101	8.2	30 - 150	30
% TCMX (Surrogate Rec)	89	%	77	73	5.3	68	81	17.4	30 - 150	30

QA/QC Data

SDG I.D.: GBN25698

Parameter	Blk		LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	% Rec Limits	% RPD Limits
	Blank	RL								

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

RPD - Relative Percent Difference

LCS - Laboratory Control Sample

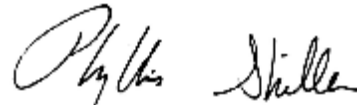
LCSD - Laboratory Control Sample Duplicate

MS - Matrix Spike

MS Dup - Matrix Spike Duplicate

NC - No Criteria

Intf - Interference



Phyllis Shiller, Laboratory Director

May 11, 2016

Wednesday, May 11, 2016

Criteria: CT: GAM, I/C

State: CT

Sample Criteria Exceedences Report

Page 1 of 1

GBN25698 - FO-PCB

SampNo	Acode	Phoenix Analyte	Criteria	Result	RL	Criteria	RL Criteria	Analysis Units
BN25704	\$ETPH_SMR	Ext. Petroleum HC	CT / PESTICIDES, PCB's, TPH, a / GA/GAA PMC (mg/kg)	1600	100	500	500	mg/Kg
BN25704	\$PCB_SOXR	PCB-1254	CT / PESTICIDES, PCB's, TPH, a / I/C DEC (mg/kg)	12000	3300	10000	10000	ug/Kg
BN25705	\$ETPH_SMR	Ext. Petroleum HC	CT / PESTICIDES, PCB's, TPH, a / GA/GAA PMC (mg/kg)	510	250	500	500	mg/Kg
BN25707	\$ETPH_SMR	Ext. Petroleum HC	CT / PESTICIDES, PCB's, TPH, a / GA/GAA PMC (mg/kg)	16000	1100	500	500	mg/Kg
BN25707	\$ETPH_SMR	Ext. Petroleum HC	CT / PESTICIDES, PCB's, TPH, a / I/C DEC (mg/kg)	16000	1100	2500	2500	mg/Kg

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: FORMER MERIDEN HOSPITAL **Project Number:**

Laboratory Sample ID(s): BN25698, BN25700, BN25702, BN25703, BN25704, BN25705, BN25706, BN25707, BN25708

Sampling Date(s): 5/4/2016

RCP Methods Used:

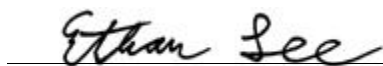
☐ 1311/1312 ☒ 6010 ☐ 7000 ☐ 7196 ☒ 7470/7471 ☐ 8081 ☐ EPH ☐ TO15
☒ 8082 ☐ 8151 ☐ 8260 ☒ 8270 ☒ ETPH ☐ 9010/9012 ☐ VPH

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?	☒ Yes ☐ No
1a.	Were the method specified preservation and holding time requirements met?	☒ Yes ☐ 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)	☐ Yes ☐ No ☒ NA
2.	Were all samples received by the laboratory in a condition consistent with that described on the associated Chain-of-Custody document(s)?	☒ Yes ☐ No
3.	Were samples received at an appropriate temperature (< 6 Degrees C)?	☒ Yes ☐ No ☐ NA
4.	Were all QA/QC performance criteria specified in the Reasonable Confidence Protocol documents achieved?	☒ Yes ☐ No
5a.	Were reporting limits specified or referenced on the chain-of-custody?	☒ Yes ☐ No
5b.	Were these reporting limits met?	☒ Yes ☐ No ☐ 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?	☐ Yes ☒ No ☐ NA
7.	Are project-specific matrix spikes and laboratory duplicates included in the data set?	☐ Yes ☒ No ☐ 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: Wednesday, May 11, 2016

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 11, 2016

SDG I.D.: GBN25698

SDG Comments

Metals Analysis:

The client requested a shorter list of elements than the 6010 RCP list. Only the RCRA 8 Metals are reported as requested on the chain of custody.

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-FID11 05/06/16-1

Jeff Bucko, Chemist 05/06/16

BN25698, BN25700

The initial calibration (ETPH429I) RSD for the compound list was less than 30% except for the following compounds: None.

The continuing calibration %D for the compound list was less than 30% except for the following compounds:None.

AU-FID11 05/09/16-1

Jeff Bucko, Chemist 05/09/16

BN25704, BN25705, BN25707

The initial calibration (ETPH429I) RSD for the compound list was less than 30% except for the following compounds: None.

The continuing calibration %D for the compound list was less than 30% except for the following compounds:None.

AU-XL2 05/09/16-1

Jeff Bucko, Chemist 05/09/16

BN25702

The initial calibration (ETPH427I) RSD for the compound list was less than 30% except for the following compounds: None.

The continuing calibration %D for the compound list was less than 30% except for the following compounds:None.

QC (Batch Specific):

Batch 344545 (BN25691)

BN25698, BN25700, BN25702, BN25704, BN25705, BN25707

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.

Mercury Narration

Were all QA/QC performance criteria specified in the analytical method achieved? Yes.

Instrument:

MERLIN 05/06/16 09:12

Rick Schweitzer, Chemist 05/06/16

BN25703

The method preparation blank contains all of the acids and reagents as the samples; the instrument blanks do not.

The initial calibration met all criteria including a standard run at or below the reporting level.

All calibration verification standards (ICV, CCV) met criteria.

All calibration blank verification standards (ICB, CCB) met criteria.

The matrix spike sample is used to identify spectral interference for each batch of samples, if within 85-115%, no interference is observed and no further action is taken.



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



Certification Report

May 11, 2016

SDG I.D.: GBN25698

Mercury Narration

The following Initial Calibration Verification (ICV) compounds did not meet criteria: None.
The following Continuing Calibration Verification (CCV) compounds did not meet criteria: None.

QC (Batch Specific):

Batch 344607 (BN26358)

BN25703

All LCS recoveries were within 70 - 130 with the following exceptions: None.
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.
Additional Mercury criteria: LCS acceptance range for waters is 80-120% and for soils is 70-130%.

ICP Metals Narration

Were all QA/QC performance criteria specified in the analytical method achieved? Yes.

Instrument:

ARCOS 05/05/16 19:18

Emily Kolominskaya, Laura Kinnin, Chemist 05/05/16

BN25703

The linear range is defined daily by the calibration range.
The following Initial Calibration Verification (ICV) compounds did not meet criteria: None.
The following Continuing Calibration Verification (CCV) compounds did not meet criteria: None.
The following ICP Interference Check (ICSAB) compounds did not meet criteria: None.

ARCOS 05/06/16 20:26

Emily Kolominskaya, Laura Kinnin, Chemist 05/06/16

BN25703

The linear range is defined daily by the calibration range.
The following Initial Calibration Verification (ICV) compounds did not meet criteria: None.
The following Continuing Calibration Verification (CCV) compounds did not meet criteria: None.
The following ICP Interference Check (ICSAB) compounds did not meet criteria: None.

QC (Batch Specific):

Batch 344552 (BN25691)

BN25703

All LCS recoveries were within 75 - 125 with the following exceptions: None.

PAH Narration

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

Instrument:

CHEM06 05/05/16-1

Damien Drobinski, Chemist 05/05/16

BN25698, BN25700

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

Initial Calibration Verification (CHEM06/BN_0505):



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 11, 2016

SDG I.D.: GBN25698

PAH Narration

100% of target compounds met criteria.
The following compounds had %RSDs >20%: None.
The following compounds did not meet recommended response factors: None.
The following compounds did not meet a minimum response factors: None.

Continuing Calibration Verification (CHEM06/0505_14-BN_0505):
Internal standard areas were within 50 to 200% of the initial calibration with the following exceptions: None.
100% of target compounds met criteria.
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: None.
The following compounds did not meet minimum response factors: None.

QC (Batch Specific):

Batch 344541 (BN25662)

BN25698, BN25700

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 30% with the following exceptions: None.

PCB Narration

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

Instrument:

AU-ECD48 05/06/16-1

Adam Werner, Chemist 05/06/16

BN25698

The initial calibration (PC0504AI) RSD for the compound list was less than 20% except for the following compounds: None.
The initial calibration (PC0504BI) RSD for the compound list was less than 20% except for the following compounds: None.
The continuing calibration %D for the compound list was less than 15% except for the following compounds: None.

AU-ECD5 05/06/16-1

Adam Werner, Chemist 05/06/16

BN25702, BN25703, BN25704

The initial calibration (PC0504AI) RSD for the compound list was less than 20% except for the following compounds: None.
The initial calibration (PC0504BI) RSD for the compound list was less than 20% except for the following compounds: None.
The continuing calibration %D for the compound list was less than 15% except for the following compounds: None.

AU-ECD6 05/06/16-1

Adam Werner, Chemist 05/06/16

BN25698, BN25700, BN25705, BN25707

The initial calibration (PC0308AI) RSD for the compound list was less than 20% except for the following compounds: None.
The initial calibration (PC0308BI) RSD for the compound list was less than 20% except for the following compounds: None.
The continuing calibration %D for the compound list was less than 15% except for the following compounds: None.

AU-ECD8 05/06/16-1

Adam Werner, Chemist 05/06/16

BN25706, BN25708

The initial calibration (PC0422AI) RSD for the compound list was less than 20% except for the following compounds: None.
The initial calibration (PC0422BI) RSD for the compound list was less than 20% except for the following compounds: None.
The continuing calibration %D for the compound list was less than 15% except for the following compounds: None.



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 11, 2016

SDG I.D.: GBN25698

PCB Narration

QC (Batch Specific):

Batch 344548 (BN25698)

BN25698, BN25700, BN25702, BN25703, BN25704, BN25705, BN25706, BN25707, BN25708

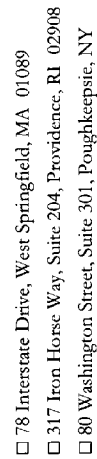
All LCS recoveries were within 40 - 140 with the following exceptions: None.

All LCSD recoveries were within 40 - 140 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 6C with cooling initiated.
(Note acceptance criteria is above freezing up to 6°C)



□ 80 Washington Street, Suite 301, Poughkeepsie, NY

33093

☐ 24-Hour* ☐ 72-Hour* ☐ Other _____ (days)

☐ 48-Hour* ☒ Standard (5 days) *Surcharge Applies

PROJECT NUMBER

20120232.C40

Analysis

Request

Date: 5/9/16

B=Sediment

1

[illegible]

Time

Charge Exceptions: ☐ CT Tax Exempt ☐ QA/QC ☐ Other _____
 _____ Duplicates _____ Blanks (Item Nos: _____)

3

Reporting and Detection Limit Requirements: ☒ MCP Deliverables ☐ MCP CAM Cert.

433

[illegible]

0100

1111-10

201

Additional Comments:

Hold add'l sample volume for add on analyses



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(860) 646-2469 • www.FandO.com

- ☐ 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 33094

Turnaround

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

PROJECT NAME

PROJECT LOCATION

PROJECT NUMBER

LABORATORY

Former Menden Hospital

Meriden, CT

20120322-040

Phoenix

REPORT TO:

Stefanie Wierszender

Analysis Request

Containers

INVOICE TO:

↓

P.O. NO.:

Sampler's Signature:

D. J. O'Connell

Date: 5/9/16

Source Codes:

MW=Monitoring Well
SW=Surface Water

PW=Potable Water
ST=Stormwater

T=Treatment Facility
W=Waste

S=Soil
C=Concrete

X=Other

Item No.	Transfer Check				Sample Number	Source Code	Date Sampled	Time Sampled
	1	2	3	4				
					1176160504-50	C	5/9/16	1200
					-51	S	↓	1340
					-52	↓	↓	1350
					-53	↓	↓	1400
					-54	↓	↓	1450

Item No.	Transfer Check				Sample Number	Source Code	Date Sampled	Time Sampled
	1	2	3	4				
					25708			
					25709			
					25710			
					25711			
					25712			

Comments

Plastic - NaOH, 250 ml
Plastic - HNO₃, 250 ml
Plastic - H₂SO₄, 250 ml
Plastic - As is, 250 ml
Glass Amber () ml As is
Water VOA Vial, 250 ml
Glass VOA Vial, 250 ml
Other: _____
Glass Soil Container () or Na₂SO₄
Soil VOA Vial, 250 ml
Soil VOA Vial, 250 ml
Other: _____

Transfer Number

Relinquished By

Accepted By

Time

Date

Charge Exceptions: ☐ CT Tax Exempt ☐ QA/QC ☐ Other _____
Duplicates _____ Blanks _____ (Item Nos: _____)

Reporting and Detection Limit Requirements: ☒ MCP Deliverables ☐ MCP CAM Cert.

1	Dr. Code	5/9/16	1200	5/9/16	1200	5/9/16	1200	5/9/16	1200
2	Dr. Code	5/9/16	1340	5/9/16	1340	5/9/16	1340	5/9/16	1340
3	Dr. Code	5/9/16	1350	5/9/16	1350	5/9/16	1350	5/9/16	1350
4	Dr. Code	5/9/16	1400	5/9/16	1400	5/9/16	1400	5/9/16	1400

Additional Comments:

Hold add'l sample volume for add on analyses



Thursday, May 12, 2016

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

Project ID: FORMER MERIDEN HOSPITAL

Sample ID#s: BN25658 - BN25660, BN25662, BN25664 - BN25668, BN25672 - BN25673

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.

All soils, solids and sludges are reported on a dry weight basis unless otherwise noted in the sample comments.

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, appearing to read "Phyllis Shiller".

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

Analysis Report

May 12, 2016

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

Sample Information

Matrix: SOIL
Location Code: F&O-PCB
Rush Request: Standard
P.O.#: 20120232.C40

Custody Information

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

Date

05/02/16
05/05/16

Time

9:00
9:00

Laboratory Data

SDG ID: GBN25658
Phoenix ID: BN25658

Project ID: FORMER MERIDEN HOSPITAL
Client ID: 1176160502-01

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Field Extraction	Completed				05/02/16		SW5035A

Volatiles

1,1,1,2-Tetrachloroethane	ND	250	ug/Kg	50	05/07/16	JLI	SW8260
1,1,1-Trichloroethane	ND	250	ug/Kg	50	05/07/16	JLI	SW8260
1,1,2,2-Tetrachloroethane	ND	250	ug/Kg	50	05/07/16	JLI	SW8260
1,1,2-Trichloroethane	ND	250	ug/Kg	50	05/07/16	JLI	SW8260
1,1-Dichloroethane	ND	250	ug/Kg	50	05/07/16	JLI	SW8260
1,1-Dichloroethene	ND	250	ug/Kg	50	05/07/16	JLI	SW8260
1,1-Dichloropropene	ND	250	ug/Kg	50	05/07/16	JLI	SW8260
1,2,3-Trichlorobenzene	ND	250	ug/Kg	50	05/07/16	JLI	SW8260
1,2,3-Trichloropropane	ND	250	ug/Kg	50	05/07/16	JLI	SW8260
1,2,4-Trichlorobenzene	ND	250	ug/Kg	50	05/07/16	JLI	SW8260
1,2,4-Trimethylbenzene	ND	250	ug/Kg	50	05/07/16	JLI	SW8260
1,2-Dibromo-3-chloropropane	ND	250	ug/Kg	50	05/07/16	JLI	SW8260
1,2-Dibromoethane	ND	250	ug/Kg	50	05/07/16	JLI	SW8260
1,2-Dichlorobenzene	ND	250	ug/Kg	50	05/07/16	JLI	SW8260
1,2-Dichloroethane	ND	250	ug/Kg	50	05/07/16	JLI	SW8260
1,2-Dichloropropane	ND	250	ug/Kg	50	05/07/16	JLI	SW8260
1,3,5-Trimethylbenzene	ND	250	ug/Kg	50	05/07/16	JLI	SW8260
1,3-Dichlorobenzene	ND	250	ug/Kg	50	05/07/16	JLI	SW8260
1,3-Dichloropropane	ND	250	ug/Kg	50	05/07/16	JLI	SW8260
1,4-Dichlorobenzene	ND	250	ug/Kg	50	05/07/16	JLI	SW8260
2,2-Dichloropropane	ND	250	ug/Kg	50	05/07/16	JLI	SW8260
2-Chlorotoluene	ND	250	ug/Kg	50	05/07/16	JLI	SW8260
2-Hexanone	ND	1300	ug/Kg	50	05/07/16	JLI	SW8260
2-Isopropyltoluene	ND	250	ug/Kg	50	05/07/16	JLI	SW8260
4-Chlorotoluene	ND	250	ug/Kg	50	05/07/16	JLI	SW8260

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
4-Methyl-2-pentanone	ND	1300	ug/Kg	50	05/07/16	JLI	SW8260
Acetone	ND	5000	ug/Kg	50	05/07/16	JLI	SW8260
Acrylonitrile	ND	500	ug/Kg	50	05/07/16	JLI	SW8260
Benzene	ND	250	ug/Kg	50	05/07/16	JLI	SW8260
Bromobenzene	ND	250	ug/Kg	50	05/07/16	JLI	SW8260
Bromochloromethane	ND	250	ug/Kg	50	05/07/16	JLI	SW8260
Bromodichloromethane	ND	250	ug/Kg	50	05/07/16	JLI	SW8260
Bromoform	ND	250	ug/Kg	50	05/07/16	JLI	SW8260
Bromomethane	ND	250	ug/Kg	50	05/07/16	JLI	SW8260
Carbon Disulfide	ND	250	ug/Kg	50	05/07/16	JLI	SW8260
Carbon tetrachloride	ND	250	ug/Kg	50	05/07/16	JLI	SW8260
Chlorobenzene	ND	250	ug/Kg	50	05/07/16	JLI	SW8260
Chloroethane	ND	250	ug/Kg	50	05/07/16	JLI	SW8260
Chloroform	ND	250	ug/Kg	50	05/07/16	JLI	SW8260
Chloromethane	ND	250	ug/Kg	50	05/07/16	JLI	SW8260
cis-1,2-Dichloroethene	ND	250	ug/Kg	50	05/07/16	JLI	SW8260
cis-1,3-Dichloropropene	ND	250	ug/Kg	50	05/07/16	JLI	SW8260
Dibromochloromethane	ND	250	ug/Kg	50	05/07/16	JLI	SW8260
Dibromomethane	ND	250	ug/Kg	50	05/07/16	JLI	SW8260
Dichlorodifluoromethane	ND	250	ug/Kg	50	05/07/16	JLI	SW8260
Ethylbenzene	ND	250	ug/Kg	50	05/07/16	JLI	SW8260
Hexachlorobutadiene	ND	250	ug/Kg	50	05/07/16	JLI	SW8260
Isopropylbenzene	ND	250	ug/Kg	50	05/07/16	JLI	SW8260
m&p-Xylene	ND	250	ug/Kg	50	05/07/16	JLI	SW8260
Methyl Ethyl Ketone	ND	3000	ug/Kg	50	05/07/16	JLI	SW8260
Methyl t-butyl ether (MTBE)	ND	250	ug/Kg	50	05/07/16	JLI	SW8260
Methylene chloride	ND	500	ug/Kg	50	05/07/16	JLI	SW8260
Naphthalene	ND	250	ug/Kg	50	05/07/16	JLI	SW8260
n-Butylbenzene	ND	250	ug/Kg	50	05/07/16	JLI	SW8260
n-Propylbenzene	ND	250	ug/Kg	50	05/07/16	JLI	SW8260
o-Xylene	ND	250	ug/Kg	50	05/07/16	JLI	SW8260
p-Isopropyltoluene	ND	250	ug/Kg	50	05/07/16	JLI	SW8260
sec-Butylbenzene	ND	250	ug/Kg	50	05/07/16	JLI	SW8260
Styrene	ND	250	ug/Kg	50	05/07/16	JLI	SW8260
tert-Butylbenzene	ND	250	ug/Kg	50	05/07/16	JLI	SW8260
Tetrachloroethene	ND	250	ug/Kg	50	05/07/16	JLI	SW8260
Tetrahydrofuran (THF)	ND	500	ug/Kg	50	05/07/16	JLI	SW8260
Toluene	ND	250	ug/Kg	50	05/07/16	JLI	SW8260
Total Xylenes	ND	250	ug/Kg	50	05/07/16	JLI	SW8260
trans-1,2-Dichloroethene	ND	250	ug/Kg	50	05/07/16	JLI	SW8260
trans-1,3-Dichloropropene	ND	250	ug/Kg	50	05/07/16	JLI	SW8260
trans-1,4-dichloro-2-butene	ND	500	ug/Kg	50	05/07/16	JLI	SW8260
Trichloroethene	ND	250	ug/Kg	50	05/07/16	JLI	SW8260
Trichlorofluoromethane	ND	250	ug/Kg	50	05/07/16	JLI	SW8260
Trichlorotrifluoroethane	ND	250	ug/Kg	50	05/07/16	JLI	SW8260
Vinyl chloride	ND	250	ug/Kg	50	05/07/16	JLI	SW8260
<u>QA/QC Surrogates</u>							
% 1,2-dichlorobenzene-d4	96		%	50	05/07/16	JLI	70 - 130 %
% Bromofluorobenzene	100		%	50	05/07/16	JLI	70 - 130 %

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
% Dibromofluoromethane	98		%	50	05/07/16	JLI	70 - 130 %
% Toluene-d8	97		%	50	05/07/16	JLI	70 - 130 %

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level
QA/QC Surrogates: Surrogates are compounds (preceded with a %) added by the lab to determine analysis efficiency. Surrogate results(%) listed in the report are not "detected" compounds.

Comments:

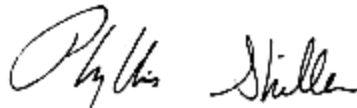
TRIP BLANK INCLUDED.

Results are reported on an ``as received`` basis, and are not corrected for dry weight.

All soils, solids and sludges are reported on a dry weight basis unless otherwise noted in the sample comments.

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

This report must not be reproduced except in full as defined by the attached chain of custody.



Phyllis Shiller, Laboratory Director

May 12, 2016

Reviewed and Released by: Rashmi Makol, 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 12, 2016

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

Sample Information

Matrix: SOIL
Location Code: F&O-PCB
Rush Request: Standard
P.O.#: 20120232.C40

Custody Information

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

Date

05/02/16
05/05/16

Time

9:10
9:00

Laboratory Data

SDG ID: GBN25658
Phoenix ID: BN25659

Project ID: FORMER MERIDEN HOSPITAL
Client ID: 1176160502-02

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Field Extraction	Completed				05/02/16		SW5035A

Volatiles

1,1,1,2-Tetrachloroethane	ND	5.0	ug/Kg	1	05/07/16	JLI	SW8260
1,1,1-Trichloroethane	ND	5.0	ug/Kg	1	05/07/16	JLI	SW8260
1,1,2,2-Tetrachloroethane	ND	3.0	ug/Kg	1	05/07/16	JLI	SW8260
1,1,2-Trichloroethane	ND	5.0	ug/Kg	1	05/07/16	JLI	SW8260
1,1-Dichloroethane	ND	5.0	ug/Kg	1	05/07/16	JLI	SW8260
1,1-Dichloroethene	ND	5.0	ug/Kg	1	05/07/16	JLI	SW8260
1,1-Dichloropropene	ND	5.0	ug/Kg	1	05/07/16	JLI	SW8260
1,2,3-Trichlorobenzene	ND	5.0	ug/Kg	1	05/07/16	JLI	SW8260
1,2,3-Trichloropropane	ND	5.0	ug/Kg	1	05/07/16	JLI	SW8260
1,2,4-Trichlorobenzene	ND	5.0	ug/Kg	1	05/07/16	JLI	SW8260
1,2,4-Trimethylbenzene	ND	5.0	ug/Kg	1	05/07/16	JLI	SW8260
1,2-Dibromo-3-chloropropane	ND	5.0	ug/Kg	1	05/07/16	JLI	SW8260
1,2-Dibromoethane	ND	5.0	ug/Kg	1	05/07/16	JLI	SW8260
1,2-Dichlorobenzene	ND	5.0	ug/Kg	1	05/07/16	JLI	SW8260
1,2-Dichloroethane	ND	5.0	ug/Kg	1	05/07/16	JLI	SW8260
1,2-Dichloropropane	ND	5.0	ug/Kg	1	05/07/16	JLI	SW8260
1,3,5-Trimethylbenzene	ND	5.0	ug/Kg	1	05/07/16	JLI	SW8260
1,3-Dichlorobenzene	ND	5.0	ug/Kg	1	05/07/16	JLI	SW8260
1,3-Dichloropropane	ND	5.0	ug/Kg	1	05/07/16	JLI	SW8260
1,4-Dichlorobenzene	ND	5.0	ug/Kg	1	05/07/16	JLI	SW8260
2,2-Dichloropropane	ND	5.0	ug/Kg	1	05/07/16	JLI	SW8260
2-Chlorotoluene	ND	5.0	ug/Kg	1	05/07/16	JLI	SW8260
2-Hexanone	ND	25	ug/Kg	1	05/07/16	JLI	SW8260
2-Isopropyltoluene	ND	5.0	ug/Kg	1	05/07/16	JLI	SW8260
4-Chlorotoluene	ND	5.0	ug/Kg	1	05/07/16	JLI	SW8260

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
4-Methyl-2-pentanone	ND	25	ug/Kg	1	05/07/16	JLI	SW8260
Acetone	ND	250	ug/Kg	1	05/07/16	JLI	SW8260
Acrylonitrile	ND	5.0	ug/Kg	1	05/07/16	JLI	SW8260
Benzene	ND	5.0	ug/Kg	1	05/07/16	JLI	SW8260
Bromobenzene	ND	5.0	ug/Kg	1	05/07/16	JLI	SW8260
Bromochloromethane	ND	5.0	ug/Kg	1	05/07/16	JLI	SW8260
Bromodichloromethane	ND	5.0	ug/Kg	1	05/07/16	JLI	SW8260
Bromoform	ND	5.0	ug/Kg	1	05/07/16	JLI	SW8260
Bromomethane	ND	5.0	ug/Kg	1	05/07/16	JLI	SW8260
Carbon Disulfide	ND	5.0	ug/Kg	1	05/07/16	JLI	SW8260
Carbon tetrachloride	ND	5.0	ug/Kg	1	05/07/16	JLI	SW8260
Chlorobenzene	ND	5.0	ug/Kg	1	05/07/16	JLI	SW8260
Chloroethane	ND	5.0	ug/Kg	1	05/07/16	JLI	SW8260
Chloroform	ND	5.0	ug/Kg	1	05/07/16	JLI	SW8260
Chloromethane	ND	5.0	ug/Kg	1	05/07/16	JLI	SW8260
cis-1,2-Dichloroethene	ND	5.0	ug/Kg	1	05/07/16	JLI	SW8260
cis-1,3-Dichloropropene	ND	5.0	ug/Kg	1	05/07/16	JLI	SW8260
Dibromochloromethane	ND	3.0	ug/Kg	1	05/07/16	JLI	SW8260
Dibromomethane	ND	5.0	ug/Kg	1	05/07/16	JLI	SW8260
Dichlorodifluoromethane	ND	5.0	ug/Kg	1	05/07/16	JLI	SW8260
Ethylbenzene	ND	5.0	ug/Kg	1	05/07/16	JLI	SW8260
Hexachlorobutadiene	ND	5.0	ug/Kg	1	05/07/16	JLI	SW8260
Isopropylbenzene	ND	5.0	ug/Kg	1	05/07/16	JLI	SW8260
m&p-Xylene	ND	5.0	ug/Kg	1	05/07/16	JLI	SW8260
Methyl Ethyl Ketone	ND	30	ug/Kg	1	05/07/16	JLI	SW8260
Methyl t-butyl ether (MTBE)	ND	10	ug/Kg	1	05/07/16	JLI	SW8260
Methylene chloride	ND	10	ug/Kg	1	05/07/16	JLI	SW8260
Naphthalene	ND	5.0	ug/Kg	1	05/07/16	JLI	SW8260
n-Butylbenzene	ND	5.0	ug/Kg	1	05/07/16	JLI	SW8260
n-Propylbenzene	ND	5.0	ug/Kg	1	05/07/16	JLI	SW8260
o-Xylene	ND	5.0	ug/Kg	1	05/07/16	JLI	SW8260
p-Isopropyltoluene	ND	5.0	ug/Kg	1	05/07/16	JLI	SW8260
sec-Butylbenzene	ND	5.0	ug/Kg	1	05/07/16	JLI	SW8260
Styrene	ND	5.0	ug/Kg	1	05/07/16	JLI	SW8260
tert-Butylbenzene	ND	5.0	ug/Kg	1	05/07/16	JLI	SW8260
Tetrachloroethene	ND	5.0	ug/Kg	1	05/07/16	JLI	SW8260
Tetrahydrofuran (THF)	ND	10	ug/Kg	1	05/07/16	JLI	SW8260
Toluene	ND	5.0	ug/Kg	1	05/07/16	JLI	SW8260
Total Xylenes	ND	5.0	ug/Kg	1	05/07/16	JLI	SW8260
trans-1,2-Dichloroethene	ND	5.0	ug/Kg	1	05/07/16	JLI	SW8260
trans-1,3-Dichloropropene	ND	5.0	ug/Kg	1	05/07/16	JLI	SW8260
trans-1,4-dichloro-2-butene	ND	10	ug/Kg	1	05/07/16	JLI	SW8260
Trichloroethene	ND	5.0	ug/Kg	1	05/07/16	JLI	SW8260
Trichlorofluoromethane	ND	5.0	ug/Kg	1	05/07/16	JLI	SW8260
Trichlorotrifluoroethane	ND	5.0	ug/Kg	1	05/07/16	JLI	SW8260
Vinyl chloride	ND	5.0	ug/Kg	1	05/07/16	JLI	SW8260
<u>QA/QC Surrogates</u>							
% 1,2-dichlorobenzene-d4	99		%	1	05/07/16	JLI	70 - 130 %
% Bromofluorobenzene	99		%	1	05/07/16	JLI	70 - 130 %

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
% Dibromofluoromethane	98		%	1	05/07/16	JLI	70 - 130 %
% Toluene-d8	100		%	1	05/07/16	JLI	70 - 130 %

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

QA/QC Surrogates: Surrogates are compounds (preceded with a %) added by the lab to determine analysis efficiency. Surrogate results(%) listed in the report are not "detected" compounds.

Comments:

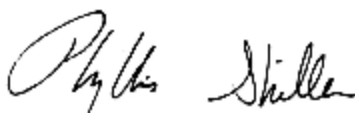
TRIP BLANK INCLUDED.

Results are reported on an ``as received`` basis, and are not corrected for dry weight.

All soils, solids and sludges are reported on a dry weight basis unless otherwise noted in the sample 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 12, 2016

Reviewed and Released by: Rashmi Makol, 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 12, 2016

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

Sample Information

Matrix: SOIL
Location Code: F&O-PCB
Rush Request: Standard
P.O.#: 20120232.C40

Custody Information

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

Date

05/02/16
05/05/16

Time

10:40
9:00

Laboratory Data

SDG ID: GBN25658
Phoenix ID: BN25660

Project ID: FORMER MERIDEN HOSPITAL
Client ID: 1176160502-03

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Percent Solid	92		%		05/05/16	W	SW846-%Solid
Soil Extraction SVOA PAH	Completed				05/05/16	BJ/CKV	SW3545A
Extraction of CT ETPH	Completed				05/09/16	NJ/CK	SW3545A

TPH by GC (Extractable Products)

Ext. Petroleum HC	ND	53	mg/Kg	1	05/10/16	JRB	CTETPH 8015D
Identification	ND		mg/Kg	1	05/10/16	JRB	CTETPH 8015D

QA/QC Surrogates

% n-Pentacosane	74		%	1	05/10/16	JRB	50 - 150 %
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Polynuclear Aromatic HC

2-Methylnaphthalene	ND	250	ug/Kg	1	05/05/16	DD	SW8270D
Acenaphthene	ND	250	ug/Kg	1	05/05/16	DD	SW8270D
Acenaphthylene	ND	250	ug/Kg	1	05/05/16	DD	SW8270D
Anthracene	ND	250	ug/Kg	1	05/05/16	DD	SW8270D
Benz(a)anthracene	ND	250	ug/Kg	1	05/05/16	DD	SW8270D
Benzo(a)pyrene	ND	250	ug/Kg	1	05/05/16	DD	SW8270D
Benzo(b)fluoranthene	ND	250	ug/Kg	1	05/05/16	DD	SW8270D
Benzo(ghi)perylene	ND	250	ug/Kg	1	05/05/16	DD	SW8270D
Benzo(k)fluoranthene	ND	250	ug/Kg	1	05/05/16	DD	SW8270D
Chrysene	ND	250	ug/Kg	1	05/05/16	DD	SW8270D
Dibenz(a,h)anthracene	ND	250	ug/Kg	1	05/05/16	DD	SW8270D
Fluoranthene	ND	250	ug/Kg	1	05/05/16	DD	SW8270D
Fluorene	ND	250	ug/Kg	1	05/05/16	DD	SW8270D
Indeno(1,2,3-cd)pyrene	ND	250	ug/Kg	1	05/05/16	DD	SW8270D
Naphthalene	ND	250	ug/Kg	1	05/05/16	DD	SW8270D
Phenanthrene	ND	250	ug/Kg	1	05/05/16	DD	SW8270D
Pyrene	ND	250	ug/Kg	1	05/05/16	DD	SW8270D

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
<u>QA/QC Surrogates</u>							
% 2-Fluorobiphenyl	71		%	1	05/05/16	DD	30 - 130 %
% Nitrobenzene-d5	77		%	1	05/05/16	DD	30 - 130 %
% Terphenyl-d14	64		%	1	05/05/16	DD	30 - 130 %

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

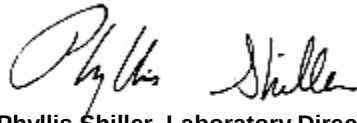
QA/QC Surrogates: Surrogates are compounds (preceded with a %) added by the lab to determine analysis efficiency. Surrogate results(%) listed in the report are not "detected" compounds.

Comments:

All soils, solids and sludges are reported on a dry weight basis unless otherwise noted in the sample 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 12, 2016

Reviewed and Released by: Rashmi Makol, 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 12, 2016

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

Sample Information

Matrix: SOIL
Location Code: F&O-PCB
Rush Request: Standard
P.O.#: 20120232.C40

Custody Information

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

Date

05/02/16
05/05/16

Time

11:40
9:00

Laboratory Data

SDG ID: GBN25658
Phoenix ID: BN25662

Project ID: FORMER MERIDEN HOSPITAL
Client ID: 1176160502-05

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Percent Solid	91		%		05/05/16	W	SW846-%Solid
Soil Extraction SVOA PAH	Completed				05/05/16	BJ/CKV	SW3545A
Extraction of CT ETPH	Completed				05/05/16	BJ/CK	SW3545A

TPH by GC (Extractable Products)

Ext. Petroleum HC	ND	55	mg/Kg	1	05/06/16	JRB	CTETPH 8015D
Identification	ND		mg/Kg	1	05/06/16	JRB	CTETPH 8015D

QA/QC Surrogates

% n-Pentacosane	81		%	1	05/06/16	JRB	50 - 150 %
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Polynuclear Aromatic HC

2-Methylnaphthalene	ND	260	ug/Kg	1	05/05/16	DD	SW8270D
Acenaphthene	ND	260	ug/Kg	1	05/05/16	DD	SW8270D
Acenaphthylene	ND	260	ug/Kg	1	05/05/16	DD	SW8270D
Anthracene	ND	260	ug/Kg	1	05/05/16	DD	SW8270D
Benz(a)anthracene	ND	260	ug/Kg	1	05/05/16	DD	SW8270D
Benzo(a)pyrene	ND	260	ug/Kg	1	05/05/16	DD	SW8270D
Benzo(b)fluoranthene	ND	260	ug/Kg	1	05/05/16	DD	SW8270D
Benzo(ghi)perylene	ND	260	ug/Kg	1	05/05/16	DD	SW8270D
Benzo(k)fluoranthene	ND	260	ug/Kg	1	05/05/16	DD	SW8270D
Chrysene	ND	260	ug/Kg	1	05/05/16	DD	SW8270D
Dibenz(a,h)anthracene	ND	260	ug/Kg	1	05/05/16	DD	SW8270D
Fluoranthene	ND	260	ug/Kg	1	05/05/16	DD	SW8270D
Fluorene	ND	260	ug/Kg	1	05/05/16	DD	SW8270D
Indeno(1,2,3-cd)pyrene	ND	260	ug/Kg	1	05/05/16	DD	SW8270D
Naphthalene	ND	260	ug/Kg	1	05/05/16	DD	SW8270D
Phenanthrene	ND	260	ug/Kg	1	05/05/16	DD	SW8270D
Pyrene	ND	260	ug/Kg	1	05/05/16	DD	SW8270D

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
<u>QA/QC Surrogates</u>							
% 2-Fluorobiphenyl	73		%	1	05/05/16	DD	30 - 130 %
% Nitrobenzene-d5	70		%	1	05/05/16	DD	30 - 130 %
% Terphenyl-d14	64		%	1	05/05/16	DD	30 - 130 %

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

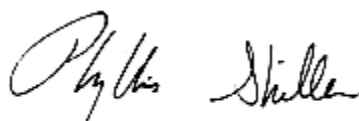
QA/QC Surrogates: Surrogates are compounds (preceded with a %) added by the lab to determine analysis efficiency. Surrogate results(%) listed in the report are not "detected" compounds.

Comments:

All soils, solids and sludges are reported on a dry weight basis unless otherwise noted in the sample 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 12, 2016

Reviewed and Released by: Rashmi Makol, 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 12, 2016

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

Sample Information

Matrix: SOIL
Location Code: F&O-PCB
Rush Request: Standard
P.O.#: 20120232.C40

Custody Information

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

Date

05/02/16
05/05/16

Time

10:50
9:00

Laboratory Data

SDG ID: GBN25658
Phoenix ID: BN25664

Project ID: FORMER MERIDEN HOSPITAL
Client ID: 1176160502-07

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Silver	1.05	0.31	mg/Kg	1	05/06/16	LK	SW6010C
Arsenic	4.1	0.6	mg/Kg	1	05/06/16	EK	SW6010C
Barium	89.8	0.31	mg/Kg	1	05/06/16	EK	SW6010C
Cadmium	0.72	0.31	mg/Kg	1	05/06/16	EK	SW6010C
Chromium	18.1	0.31	mg/Kg	1	05/06/16	EK	SW6010C
Mercury	0.55	0.03	mg/Kg	1	05/06/16	RS	SW7471B
Lead	18.8	0.31	mg/Kg	1	05/06/16	EK	SW6010C
Selenium	< 1.2	1.2	mg/Kg	1	05/06/16	LK	SW6010C
Percent Solid	98		%		05/05/16	W	SW846-%Solid
Mercury Digestion	Completed				05/06/16	W/W	SW7471B
Total Metals Digest	Completed				05/05/16	G/AG	SW3050B
Field Extraction	Completed				05/02/16		SW5035A

Volatiles

1,1,1,2-Tetrachloroethane	ND	4.2	ug/Kg	1	05/09/16	JLI	SW8260
1,1,1-Trichloroethane	ND	4.2	ug/Kg	1	05/09/16	JLI	SW8260
1,1,2,2-Tetrachloroethane	ND	2.5	ug/Kg	1	05/09/16	JLI	SW8260
1,1,2-Trichloroethane	ND	4.2	ug/Kg	1	05/09/16	JLI	SW8260
1,1-Dichloroethane	ND	4.2	ug/Kg	1	05/09/16	JLI	SW8260
1,1-Dichloroethene	ND	4.2	ug/Kg	1	05/09/16	JLI	SW8260
1,1-Dichloropropene	ND	4.2	ug/Kg	1	05/09/16	JLI	SW8260
1,2,3-Trichlorobenzene	ND	4.2	ug/Kg	1	05/09/16	JLI	SW8260
1,2,3-Trichloropropane	ND	4.2	ug/Kg	1	05/09/16	JLI	SW8260
1,2,4-Trichlorobenzene	ND	4.2	ug/Kg	1	05/09/16	JLI	SW8260
1,2,4-Trimethylbenzene	ND	4.2	ug/Kg	1	05/09/16	JLI	SW8260
1,2-Dibromo-3-chloropropane	ND	4.2	ug/Kg	1	05/09/16	JLI	SW8260
1,2-Dibromoethane	ND	4.2	ug/Kg	1	05/09/16	JLI	SW8260
1,2-Dichlorobenzene	ND	4.2	ug/Kg	1	05/09/16	JLI	SW8260

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
1,2-Dichloroethane	ND	4.2	ug/Kg	1	05/09/16	JLI	SW8260
1,2-Dichloropropane	ND	4.2	ug/Kg	1	05/09/16	JLI	SW8260
1,3,5-Trimethylbenzene	ND	4.2	ug/Kg	1	05/09/16	JLI	SW8260
1,3-Dichlorobenzene	ND	4.2	ug/Kg	1	05/09/16	JLI	SW8260
1,3-Dichloropropane	ND	4.2	ug/Kg	1	05/09/16	JLI	SW8260
1,4-Dichlorobenzene	ND	4.2	ug/Kg	1	05/09/16	JLI	SW8260
2,2-Dichloropropane	ND	4.2	ug/Kg	1	05/09/16	JLI	SW8260
2-Chlorotoluene	ND	4.2	ug/Kg	1	05/09/16	JLI	SW8260
2-Hexanone	ND	21	ug/Kg	1	05/09/16	JLI	SW8260
2-Isopropyltoluene	ND	4.2	ug/Kg	1	05/09/16	JLI	SW8260
4-Chlorotoluene	ND	4.2	ug/Kg	1	05/09/16	JLI	SW8260
4-Methyl-2-pentanone	ND	21	ug/Kg	1	05/09/16	JLI	SW8260
Acetone	ND	210	ug/Kg	1	05/09/16	JLI	SW8260
Acrylonitrile	ND	4.2	ug/Kg	1	05/09/16	JLI	SW8260
Benzene	ND	4.2	ug/Kg	1	05/09/16	JLI	SW8260
Bromobenzene	ND	4.2	ug/Kg	1	05/09/16	JLI	SW8260
Bromochloromethane	ND	4.2	ug/Kg	1	05/09/16	JLI	SW8260
Bromodichloromethane	ND	4.2	ug/Kg	1	05/09/16	JLI	SW8260
Bromoform	ND	4.2	ug/Kg	1	05/09/16	JLI	SW8260
Bromomethane	ND	4.2	ug/Kg	1	05/09/16	JLI	SW8260
Carbon Disulfide	ND	4.2	ug/Kg	1	05/09/16	JLI	SW8260
Carbon tetrachloride	ND	4.2	ug/Kg	1	05/09/16	JLI	SW8260
Chlorobenzene	ND	4.2	ug/Kg	1	05/09/16	JLI	SW8260
Chloroethane	ND	4.2	ug/Kg	1	05/09/16	JLI	SW8260
Chloroform	ND	4.2	ug/Kg	1	05/09/16	JLI	SW8260
Chloromethane	ND	4.2	ug/Kg	1	05/09/16	JLI	SW8260
cis-1,2-Dichloroethene	ND	4.2	ug/Kg	1	05/09/16	JLI	SW8260
cis-1,3-Dichloropropene	ND	4.2	ug/Kg	1	05/09/16	JLI	SW8260
Dibromochloromethane	ND	2.5	ug/Kg	1	05/09/16	JLI	SW8260
Dibromomethane	ND	4.2	ug/Kg	1	05/09/16	JLI	SW8260
Dichlorodifluoromethane	ND	4.2	ug/Kg	1	05/09/16	JLI	SW8260
Ethylbenzene	ND	4.2	ug/Kg	1	05/09/16	JLI	SW8260
Hexachlorobutadiene	ND	4.2	ug/Kg	1	05/09/16	JLI	SW8260
Isopropylbenzene	ND	4.2	ug/Kg	1	05/09/16	JLI	SW8260
m&p-Xylene	ND	4.2	ug/Kg	1	05/09/16	JLI	SW8260
Methyl Ethyl Ketone	ND	25	ug/Kg	1	05/09/16	JLI	SW8260
Methyl t-butyl ether (MTBE)	ND	8.4	ug/Kg	1	05/09/16	JLI	SW8260
Methylene chloride	ND	8.4	ug/Kg	1	05/09/16	JLI	SW8260
Naphthalene	180	150	ug/Kg	50	05/07/16	JLI	SW8260
n-Butylbenzene	ND	4.2	ug/Kg	1	05/09/16	JLI	SW8260
n-Propylbenzene	ND	4.2	ug/Kg	1	05/09/16	JLI	SW8260
o-Xylene	ND	4.2	ug/Kg	1	05/09/16	JLI	SW8260
p-Isopropyltoluene	ND	4.2	ug/Kg	1	05/09/16	JLI	SW8260
sec-Butylbenzene	ND	4.2	ug/Kg	1	05/09/16	JLI	SW8260
Styrene	ND	4.2	ug/Kg	1	05/09/16	JLI	SW8260
tert-Butylbenzene	ND	4.2	ug/Kg	1	05/09/16	JLI	SW8260
Tetrachloroethene	ND	4.2	ug/Kg	1	05/09/16	JLI	SW8260
Tetrahydrofuran (THF)	ND	8.4	ug/Kg	1	05/09/16	JLI	SW8260
Toluene	ND	4.2	ug/Kg	1	05/09/16	JLI	SW8260

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Total Xylenes	ND	4.2	ug/Kg	1	05/09/16	JLI	SW8260
trans-1,2-Dichloroethene	ND	4.2	ug/Kg	1	05/09/16	JLI	SW8260
trans-1,3-Dichloropropene	ND	4.2	ug/Kg	1	05/09/16	JLI	SW8260
trans-1,4-dichloro-2-butene	ND	8.4	ug/Kg	1	05/09/16	JLI	SW8260
Trichloroethene	ND	4.2	ug/Kg	1	05/09/16	JLI	SW8260
Trichlorofluoromethane	ND	4.2	ug/Kg	1	05/09/16	JLI	SW8260
Trichlorotrifluoroethane	ND	4.2	ug/Kg	1	05/09/16	JLI	SW8260
Vinyl chloride	ND	4.2	ug/Kg	1	05/09/16	JLI	SW8260
<u>QA/QC Surrogates</u>							
% 1,2-dichlorobenzene-d4	96		%	1	05/09/16	JLI	70 - 130 %
% Bromofluorobenzene	100		%	1	05/09/16	JLI	70 - 130 %
% Dibromofluoromethane	26		%	1	05/09/16	JLI	70 - 130 %
% Toluene-d8	100		%	1	05/09/16	JLI	70 - 130 %

3

3 = This parameter exceeds laboratory specified limits.

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

QA/QC Surrogates: Surrogates are compounds (preceded with a %) added by the lab to determine analysis efficiency. Surrogate results(%) listed in the report are not "detected" compounds.

Comments:

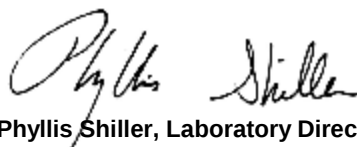
Volatile Comment:

Poor surrogate recovery was observed for volatiles due to matrix interference. Sample was analyzed twice with similar results.

All soils, solids and sludges are reported on a dry weight basis unless otherwise noted in the sample 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 12, 2016

Reviewed and Released by: Rashmi Makol, 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 12, 2016

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

Sample Information

Matrix: SOIL
Location Code: F&O-PCB
Rush Request: Standard
P.O.#: 20120232.C40

Custody Information

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

Date

05/02/16
05/05/16

Time

11:00
9:00

Laboratory Data

SDG ID: GBN25658
Phoenix ID: BN25665

Project ID: FORMER MERIDEN HOSPITAL
Client ID: 1176160502-08

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Percent Solid	97		%		05/05/16	W	SW846-%Solid
Extraction of CT ETPH	Completed				05/05/16	BJ/CK	SW3545A
Extraction for PCB	Completed				05/05/16	QQ/I	SW3540C

TPH by GC (Extractable Products)

Ext. Petroleum HC	2900	500	mg/Kg	10	05/09/16	JRB	CTETPH 8015D
Identification	**		mg/Kg	10	05/09/16	JRB	CTETPH 8015D

QA/QC Surrogates

% n-Pentacosane	Diluted Out		%	10	05/09/16	JRB	50 - 150 %
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PCB (Soxhlet SW3540C)

PCB-1016	ND	0.34	mg/kg	10	05/06/16	AW	SW8082A
PCB-1221	ND	0.34	mg/kg	10	05/06/16	AW	SW8082A
PCB-1232	ND	0.34	mg/kg	10	05/06/16	AW	SW8082A
PCB-1242	ND	0.34	mg/kg	10	05/06/16	AW	SW8082A
PCB-1248	ND	0.34	mg/kg	10	05/06/16	AW	SW8082A
PCB-1254	ND	0.34	mg/kg	10	05/06/16	AW	SW8082A
PCB-1260	ND	0.34	mg/kg	10	05/06/16	AW	SW8082A
PCB-1262	ND	0.34	mg/kg	10	05/06/16	AW	SW8082A
PCB-1268	ND	0.34	mg/kg	10	05/06/16	AW	SW8082A

QA/QC Surrogates

% DCBP	106		%	10	05/06/16	AW	30 - 150 %
% TCMX	82		%	10	05/06/16	AW	30 - 150 %

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
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RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level

QA/QC Surrogates: Surrogates are compounds (preceded with a %) added by the lab to determine analysis efficiency. Surrogate results(%) listed in the report are not "detected" compounds.

Comments:

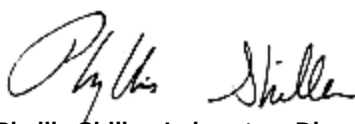
TPH Comment:

**Petroleum hydrocarbon chromatogram contains a multicomponent hydrocarbon distribution in the range of C16 to C36. The sample was quantitated against a C9-C36 alkane hydrocarbon standard.

All soils, solids and sludges are reported on a dry weight basis unless otherwise noted in the sample 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 12, 2016

Reviewed and Released by: Rashmi Makol, 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 12, 2016

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

Sample Information

Matrix: SOIL
Location Code: F&O-PCB
Rush Request: Standard
P.O.#: 20120232.C40

Custody Information

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

Date

05/02/16
05/05/16

Time

13:00
9:00

Laboratory Data

SDG ID: GBN25658
Phoenix ID: BN25666

Project ID: FORMER MERIDEN HOSPITAL
Client ID: 1176160502-09

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Silver	< 0.41	0.41	mg/Kg	1	05/06/16	EK	SW6010C
Arsenic	9.9	0.8	mg/Kg	1	05/06/16	EK	SW6010C
Barium	59.3	0.41	mg/Kg	1	05/06/16	EK	SW6010C
Cadmium	2.48	0.41	mg/Kg	1	05/06/16	EK	SW6010C
Chromium	81.7	0.41	mg/Kg	1	05/06/16	EK	SW6010C
Mercury	0.28	0.03	mg/Kg	1	05/06/16	RS	SW7471B
Lead	103	0.41	mg/Kg	1	05/06/16	EK	SW6010C
Selenium	< 1.7	1.7	mg/Kg	1	05/06/16	LK	SW6010C
TCLP Silver	< 0.010	0.010	mg/L	1	05/06/16	LK	SW6010C
TCLP Arsenic	0.07	0.01	mg/L	1	05/06/16	EK	SW6010C
TCLP Barium	0.04	0.01	mg/L	1	05/06/16	EK	SW6010C
TCLP Cadmium	0.060	0.005	mg/L	1	05/06/16	EK	SW6010C
TCLP Chromium	0.024	0.010	mg/L	1	05/06/16	EK	SW6010C
TCLP Mercury	0.0003	0.0002	mg/L	1	05/06/16	RS	SW7470A
TCLP Lead	< 0.010	0.010	mg/L	1	05/06/16	LK	SW6010C
TCLP Selenium	< 0.01	0.01	mg/L	1	05/06/16	LK	SW6010C
TCLP Metals Digestion	Completed				05/06/16	W/W	SW3005A
Percent Solid	83		%		05/05/16	W	SW846-%Solid
Soil Extraction for SVOA	Completed				05/05/16	BJ/CKV	SW3545A
Extraction of CT ETPH	Completed				05/05/16	BJ/CK	SW3545A
Mercury Digestion	Completed				05/06/16	W/W	SW7471B
Extraction for PCB	Completed				05/05/16	QQ/I	SW3540C
TCLP Digestion Mercury	Completed				05/06/16	W/W	SW7470A
TCLP Extraction for Metals	Completed				05/05/16	W	SW1311
Total Metals Digest	Completed				05/05/16	G/AG	SW3050B
Field Extraction	Completed				05/02/16		SW5035A

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
<u>TPH by GC (Extractable Products)</u>							
Ext. Petroleum HC	ND	59	mg/Kg	1	05/06/16	JRB	CTETPH 8015D
Identification	ND		mg/Kg	1	05/06/16	JRB	CTETPH 8015D
<u>QA/QC Surrogates</u>							
% n-Pentacosane	76		%	1	05/06/16	JRB	50 - 150 %
<u>PCB (Soxhlet SW3540C)</u>							
PCB-1016	ND	0.4	mg/kg	10	05/06/16	AW	SW8082A
PCB-1221	ND	0.4	mg/kg	10	05/06/16	AW	SW8082A
PCB-1232	ND	0.4	mg/kg	10	05/06/16	AW	SW8082A
PCB-1242	ND	0.4	mg/kg	10	05/06/16	AW	SW8082A
PCB-1248	ND	0.4	mg/kg	10	05/06/16	AW	SW8082A
PCB-1254	ND	0.4	mg/kg	10	05/06/16	AW	SW8082A
PCB-1260	ND	0.4	mg/kg	10	05/06/16	AW	SW8082A
PCB-1262	ND	0.4	mg/kg	10	05/06/16	AW	SW8082A
PCB-1268	ND	0.4	mg/kg	10	05/06/16	AW	SW8082A
<u>QA/QC Surrogates</u>							
% DCBP	81		%	10	05/06/16	AW	30 - 150 %
% TCMX	76		%	10	05/06/16	AW	30 - 150 %
<u>Volatiles</u>							
1,1,1,2-Tetrachloroethane	ND	8.5	ug/Kg	1	05/07/16	JLI	SW8260
1,1,1-Trichloroethane	ND	8.5	ug/Kg	1	05/07/16	JLI	SW8260
1,1,2,2-Tetrachloroethane	ND	5.1	ug/Kg	1	05/07/16	JLI	SW8260
1,1,2-Trichloroethane	ND	8.5	ug/Kg	1	05/07/16	JLI	SW8260
1,1-Dichloroethane	ND	8.5	ug/Kg	1	05/07/16	JLI	SW8260
1,1-Dichloroethene	ND	8.5	ug/Kg	1	05/07/16	JLI	SW8260
1,1-Dichloropropene	ND	8.5	ug/Kg	1	05/07/16	JLI	SW8260
1,2,3-Trichlorobenzene	ND	8.5	ug/Kg	1	05/07/16	JLI	SW8260
1,2,3-Trichloropropane	ND	8.5	ug/Kg	1	05/07/16	JLI	SW8260
1,2,4-Trichlorobenzene	ND	8.5	ug/Kg	1	05/07/16	JLI	SW8260
1,2,4-Trimethylbenzene	ND	8.5	ug/Kg	1	05/07/16	JLI	SW8260
1,2-Dibromo-3-chloropropane	ND	8.5	ug/Kg	1	05/07/16	JLI	SW8260
1,2-Dibromoethane	ND	7.0	ug/Kg	1	05/07/16	JLI	SW8260
1,2-Dichlorobenzene	ND	8.5	ug/Kg	1	05/07/16	JLI	SW8260
1,2-Dichloroethane	ND	8.5	ug/Kg	1	05/07/16	JLI	SW8260
1,2-Dichloropropane	ND	8.5	ug/Kg	1	05/07/16	JLI	SW8260
1,3,5-Trimethylbenzene	ND	8.5	ug/Kg	1	05/07/16	JLI	SW8260
1,3-Dichlorobenzene	ND	8.5	ug/Kg	1	05/07/16	JLI	SW8260
1,3-Dichloropropane	ND	8.5	ug/Kg	1	05/07/16	JLI	SW8260
1,4-Dichlorobenzene	ND	8.5	ug/Kg	1	05/07/16	JLI	SW8260
2,2-Dichloropropane	ND	8.5	ug/Kg	1	05/07/16	JLI	SW8260
2-Chlorotoluene	ND	8.5	ug/Kg	1	05/07/16	JLI	SW8260
2-Hexanone	ND	42	ug/Kg	1	05/07/16	JLI	SW8260
2-Isopropyltoluene	ND	8.5	ug/Kg	1	05/07/16	JLI	SW8260
4-Chlorotoluene	ND	8.5	ug/Kg	1	05/07/16	JLI	SW8260
4-Methyl-2-pentanone	ND	42	ug/Kg	1	05/07/16	JLI	SW8260
Acetone	ND	420	ug/Kg	1	05/07/16	JLI	SW8260
Acrylonitrile	ND	8.5	ug/Kg	1	05/07/16	JLI	SW8260

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Benzene	ND	8.5	ug/Kg	1	05/07/16	JLI	SW8260
Bromobenzene	ND	8.5	ug/Kg	1	05/07/16	JLI	SW8260
Bromochloromethane	ND	8.5	ug/Kg	1	05/07/16	JLI	SW8260
Bromodichloromethane	ND	8.5	ug/Kg	1	05/07/16	JLI	SW8260
Bromoform	ND	8.5	ug/Kg	1	05/07/16	JLI	SW8260
Bromomethane	ND	8.5	ug/Kg	1	05/07/16	JLI	SW8260
Carbon Disulfide	ND	8.5	ug/Kg	1	05/07/16	JLI	SW8260
Carbon tetrachloride	ND	8.5	ug/Kg	1	05/07/16	JLI	SW8260
Chlorobenzene	ND	8.5	ug/Kg	1	05/07/16	JLI	SW8260
Chloroethane	ND	8.5	ug/Kg	1	05/07/16	JLI	SW8260
Chloroform	ND	8.5	ug/Kg	1	05/07/16	JLI	SW8260
Chloromethane	ND	8.5	ug/Kg	1	05/07/16	JLI	SW8260
cis-1,2-Dichloroethene	ND	8.5	ug/Kg	1	05/07/16	JLI	SW8260
cis-1,3-Dichloropropene	ND	8.5	ug/Kg	1	05/07/16	JLI	SW8260
Dibromochloromethane	ND	5.1	ug/Kg	1	05/07/16	JLI	SW8260
Dibromomethane	ND	8.5	ug/Kg	1	05/07/16	JLI	SW8260
Dichlorodifluoromethane	ND	8.5	ug/Kg	1	05/07/16	JLI	SW8260
Ethylbenzene	ND	8.5	ug/Kg	1	05/07/16	JLI	SW8260
Hexachlorobutadiene	ND	8.5	ug/Kg	1	05/07/16	JLI	SW8260
Isopropylbenzene	ND	8.5	ug/Kg	1	05/07/16	JLI	SW8260
m&p-Xylene	ND	8.5	ug/Kg	1	05/07/16	JLI	SW8260
Methyl Ethyl Ketone	ND	51	ug/Kg	1	05/07/16	JLI	SW8260
Methyl t-butyl ether (MTBE)	ND	17	ug/Kg	1	05/07/16	JLI	SW8260
Methylene chloride	ND	17	ug/Kg	1	05/07/16	JLI	SW8260
Naphthalene	ND	8.5	ug/Kg	1	05/07/16	JLI	SW8260
n-Butylbenzene	ND	8.5	ug/Kg	1	05/07/16	JLI	SW8260
n-Propylbenzene	ND	8.5	ug/Kg	1	05/07/16	JLI	SW8260
o-Xylene	ND	8.5	ug/Kg	1	05/07/16	JLI	SW8260
p-Isopropyltoluene	ND	8.5	ug/Kg	1	05/07/16	JLI	SW8260
sec-Butylbenzene	ND	8.5	ug/Kg	1	05/07/16	JLI	SW8260
Styrene	ND	8.5	ug/Kg	1	05/07/16	JLI	SW8260
tert-Butylbenzene	ND	8.5	ug/Kg	1	05/07/16	JLI	SW8260
Tetrachloroethene	ND	8.5	ug/Kg	1	05/07/16	JLI	SW8260
Tetrahydrofuran (THF)	ND	17	ug/Kg	1	05/07/16	JLI	SW8260
Toluene	ND	8.5	ug/Kg	1	05/07/16	JLI	SW8260
Total Xylenes	ND	8.5	ug/Kg	1	05/07/16	JLI	SW8260
trans-1,2-Dichloroethene	ND	8.5	ug/Kg	1	05/07/16	JLI	SW8260
trans-1,3-Dichloropropene	ND	8.5	ug/Kg	1	05/07/16	JLI	SW8260
trans-1,4-dichloro-2-butene	ND	17	ug/Kg	1	05/07/16	JLI	SW8260
Trichloroethene	ND	8.5	ug/Kg	1	05/07/16	JLI	SW8260
Trichlorofluoromethane	ND	8.5	ug/Kg	1	05/07/16	JLI	SW8260
Trichlorotrifluoroethane	ND	8.5	ug/Kg	1	05/07/16	JLI	SW8260
Vinyl chloride	ND	8.5	ug/Kg	1	05/07/16	JLI	SW8260
<u>QA/QC Surrogates</u>							
% 1,2-dichlorobenzene-d4	96		%	1	05/07/16	JLI	70 - 130 %
% Bromofluorobenzene	100		%	1	05/07/16	JLI	70 - 130 %
% Dibromofluoromethane	106		%	1	05/07/16	JLI	70 - 130 %
% Toluene-d8	99		%	1	05/07/16	JLI	70 - 130 %

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
<u>Semivolatiles</u>							
1,2,4,5-Tetrachlorobenzene	ND	280	ug/Kg	1	05/06/16	DD	SW8270D
1,2,4-Trichlorobenzene	ND	280	ug/Kg	1	05/06/16	DD	SW8270D
1,2-Dichlorobenzene	ND	280	ug/Kg	1	05/06/16	DD	SW8270D
1,2-Diphenylhydrazine	ND	400	ug/Kg	1	05/06/16	DD	SW8270D
1,3-Dichlorobenzene	ND	280	ug/Kg	1	05/06/16	DD	SW8270D
1,4-Dichlorobenzene	ND	280	ug/Kg	1	05/06/16	DD	SW8270D
2,4,5-Trichlorophenol	ND	280	ug/Kg	1	05/06/16	DD	SW8270D
2,4,6-Trichlorophenol	ND	280	ug/Kg	1	05/06/16	DD	SW8270D
2,4-Dichlorophenol	ND	280	ug/Kg	1	05/06/16	DD	SW8270D
2,4-Dimethylphenol	ND	280	ug/Kg	1	05/06/16	DD	SW8270D
2,4-Dinitrophenol	ND	400	ug/Kg	1	05/06/16	DD	SW8270D
2,4-Dinitrotoluene	ND	280	ug/Kg	1	05/06/16	DD	SW8270D
2,6-Dinitrotoluene	ND	280	ug/Kg	1	05/06/16	DD	SW8270D
2-Chloronaphthalene	ND	280	ug/Kg	1	05/06/16	DD	SW8270D
2-Chlorophenol	ND	280	ug/Kg	1	05/06/16	DD	SW8270D
2-Methylnaphthalene	ND	280	ug/Kg	1	05/06/16	DD	SW8270D
2-Methylphenol (o-cresol)	ND	280	ug/Kg	1	05/06/16	DD	SW8270D
2-Nitroaniline	ND	400	ug/Kg	1	05/06/16	DD	SW8270D
2-Nitrophenol	ND	280	ug/Kg	1	05/06/16	DD	SW8270D
3&4-Methylphenol (m&p-cresol)	ND	400	ug/Kg	1	05/06/16	DD	SW8270D
3,3'-Dichlorobenzidine	ND	280	ug/Kg	1	05/06/16	DD	SW8270D
3-Nitroaniline	ND	400	ug/Kg	1	05/06/16	DD	SW8270D
4,6-Dinitro-2-methylphenol	ND	400	ug/Kg	1	05/06/16	DD	SW8270D
4-Bromophenyl phenyl ether	ND	400	ug/Kg	1	05/06/16	DD	SW8270D
4-Chloro-3-methylphenol	ND	280	ug/Kg	1	05/06/16	DD	SW8270D
4-Chloroaniline	ND	280	ug/Kg	1	05/06/16	DD	SW8270D
4-Chlorophenyl phenyl ether	ND	280	ug/Kg	1	05/06/16	DD	SW8270D
4-Nitroaniline	ND	640	ug/Kg	1	05/06/16	DD	SW8270D
4-Nitrophenol	ND	280	ug/Kg	1	05/06/16	DD	SW8270D
Acenaphthene	ND	280	ug/Kg	1	05/06/16	DD	SW8270D
Acenaphthylene	ND	280	ug/Kg	1	05/06/16	DD	SW8270D
Acetophenone	ND	280	ug/Kg	1	05/06/16	DD	SW8270D
Aniline	ND	400	ug/Kg	1	05/06/16	DD	SW8270D
Anthracene	ND	280	ug/Kg	1	05/06/16	DD	SW8270D
Benz(a)anthracene	ND	280	ug/Kg	1	05/06/16	DD	SW8270D
Benzidine	ND	280	ug/Kg	1	05/06/16	DD	SW8270D
Benzo(a)pyrene	300	280	ug/Kg	1	05/06/16	DD	SW8270D
Benzo(b)fluoranthene	410	280	ug/Kg	1	05/06/16	DD	SW8270D
Benzo(ghi)perylene	290	280	ug/Kg	1	05/06/16	DD	SW8270D
Benzo(k)fluoranthene	370	280	ug/Kg	1	05/06/16	DD	SW8270D
Benzoic acid	ND	800	ug/Kg	1	05/06/16	DD	SW8270D
Benzyl butyl phthalate	ND	280	ug/Kg	1	05/06/16	DD	SW8270D
Bis(2-chloroethoxy)methane	ND	280	ug/Kg	1	05/06/16	DD	SW8270D
Bis(2-chloroethyl)ether	ND	400	ug/Kg	1	05/06/16	DD	SW8270D
Bis(2-chloroisopropyl)ether	ND	280	ug/Kg	1	05/06/16	DD	SW8270D
Bis(2-ethylhexyl)phthalate	ND	280	ug/Kg	1	05/06/16	DD	SW8270D
Carbazole	ND	400	ug/Kg	1	05/06/16	DD	SW8270D
Chrysene	410	280	ug/Kg	1	05/06/16	DD	SW8270D

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Dibenz(a,h)anthracene	ND	280	ug/Kg	1	05/06/16	DD	SW8270D
Dibenzofuran	ND	280	ug/Kg	1	05/06/16	DD	SW8270D
Diethyl phthalate	ND	280	ug/Kg	1	05/06/16	DD	SW8270D
Dimethylphthalate	ND	280	ug/Kg	1	05/06/16	DD	SW8270D
Di-n-butylphthalate	ND	280	ug/Kg	1	05/06/16	DD	SW8270D
Di-n-octylphthalate	ND	280	ug/Kg	1	05/06/16	DD	SW8270D
Fluoranthene	740	280	ug/Kg	1	05/06/16	DD	SW8270D
Fluorene	ND	280	ug/Kg	1	05/06/16	DD	SW8270D
Hexachlorobenzene	ND	280	ug/Kg	1	05/06/16	DD	SW8270D
Hexachlorobutadiene	ND	280	ug/Kg	1	05/06/16	DD	SW8270D
Hexachlorocyclopentadiene	ND	280	ug/Kg	1	05/06/16	DD	SW8270D
Hexachloroethane	ND	280	ug/Kg	1	05/06/16	DD	SW8270D
Indeno(1,2,3-cd)pyrene	320	280	ug/Kg	1	05/06/16	DD	SW8270D
Isophorone	ND	280	ug/Kg	1	05/06/16	DD	SW8270D
Naphthalene	ND	280	ug/Kg	1	05/06/16	DD	SW8270D
Nitrobenzene	ND	280	ug/Kg	1	05/06/16	DD	SW8270D
N-Nitrosodimethylamine	ND	400	ug/Kg	1	05/06/16	DD	SW8270D
N-Nitrosodi-n-propylamine	ND	280	ug/Kg	1	05/06/16	DD	SW8270D
N-Nitrosodiphenylamine	ND	400	ug/Kg	1	05/06/16	DD	SW8270D
Pentachloronitrobenzene	ND	400	ug/Kg	1	05/06/16	DD	SW8270D
Pentachlorophenol	ND	400	ug/Kg	1	05/06/16	DD	SW8270D
Phenanthrene	ND	280	ug/Kg	1	05/06/16	DD	SW8270D
Phenol	ND	280	ug/Kg	1	05/06/16	DD	SW8270D
Pyrene	570	280	ug/Kg	1	05/06/16	DD	SW8270D
Pyridine	ND	400	ug/Kg	1	05/06/16	DD	SW8270D
<u>QA/QC Surrogates</u>							
% 2,4,6-Tribromophenol	65		%	1	05/06/16	DD	30 - 130 %
% 2-Fluorobiphenyl	55		%	1	05/06/16	DD	30 - 130 %
% 2-Fluorophenol	52		%	1	05/06/16	DD	30 - 130 %
% Nitrobenzene-d5	50		%	1	05/06/16	DD	30 - 130 %
% Phenol-d5	53		%	1	05/06/16	DD	30 - 130 %
% Terphenyl-d14	58		%	1	05/06/16	DD	30 - 130 %

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
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RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level

QA/QC Surrogates: Surrogates are compounds (preceded with a %) added by the lab to determine analysis efficiency. Surrogate results(%) listed in the report are not "detected" compounds.

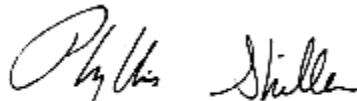
Comments:

Per 1.4.6 of EPA method 8270D, 1,2-Diphenylhydrazine is unstable and readily converts to Azobenzene. Azobenzene is used for the calibration of 1,2-Diphenylhydrazine.

All soils, solids and sludges are reported on a dry weight basis unless otherwise noted in the sample 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 12, 2016

Reviewed and Released by: Rashmi Makol, 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 12, 2016

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

Sample Information

Matrix: SOIL
Location Code: F&O-PCB
Rush Request: Standard
P.O.#: 20120232.C40

Custody Information

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

Date

05/02/16
05/05/16

Time

13:10
9:00

Laboratory Data

SDG ID: GBN25658
Phoenix ID: BN25667

Project ID: FORMER MERIDEN HOSPITAL
Client ID: 1176160502-10

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Percent Solid	94		%		05/05/16	W	SW846-%Solid
Soil Extraction SVOA PAH	Completed				05/05/16	BJ/CKV	SW3545A
Extraction for PCB	Completed				05/05/16	QQ/I	SW3540C

PCB (Soxhlet SW3540C)

PCB-1016	ND	0.35	mg/kg	10	05/06/16	AW	SW8082A
PCB-1221	ND	0.35	mg/kg	10	05/06/16	AW	SW8082A
PCB-1232	ND	0.35	mg/kg	10	05/06/16	AW	SW8082A
PCB-1242	ND	0.35	mg/kg	10	05/06/16	AW	SW8082A
PCB-1248	ND	0.35	mg/kg	10	05/06/16	AW	SW8082A
PCB-1254	ND	0.35	mg/kg	10	05/06/16	AW	SW8082A
PCB-1260	ND	0.35	mg/kg	10	05/06/16	AW	SW8082A
PCB-1262	ND	0.35	mg/kg	10	05/06/16	AW	SW8082A
PCB-1268	ND	0.35	mg/kg	10	05/06/16	AW	SW8082A

QA/QC Surrogates

% DCBP	79		%	10	05/06/16	AW	30 - 150 %
% TCMX	74		%	10	05/06/16	AW	30 - 150 %

Polynuclear Aromatic HC

2-Methylnaphthalene	ND	250	ug/Kg	1	05/06/16	DD	SW8270D
Acenaphthene	ND	250	ug/Kg	1	05/06/16	DD	SW8270D
Acenaphthylene	ND	250	ug/Kg	1	05/06/16	DD	SW8270D
Anthracene	ND	250	ug/Kg	1	05/06/16	DD	SW8270D
Benz(a)anthracene	ND	250	ug/Kg	1	05/06/16	DD	SW8270D
Benzo(a)pyrene	ND	250	ug/Kg	1	05/06/16	DD	SW8270D
Benzo(b)fluoranthene	ND	250	ug/Kg	1	05/06/16	DD	SW8270D
Benzo(ghi)perylene	ND	250	ug/Kg	1	05/06/16	DD	SW8270D
Benzo(k)fluoranthene	ND	250	ug/Kg	1	05/06/16	DD	SW8270D

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Chrysene	ND	250	ug/Kg	1	05/06/16	DD	SW8270D
Dibenz(a,h)anthracene	ND	250	ug/Kg	1	05/06/16	DD	SW8270D
Fluoranthene	ND	250	ug/Kg	1	05/06/16	DD	SW8270D
Fluorene	ND	250	ug/Kg	1	05/06/16	DD	SW8270D
Indeno(1,2,3-cd)pyrene	ND	250	ug/Kg	1	05/06/16	DD	SW8270D
Naphthalene	ND	250	ug/Kg	1	05/06/16	DD	SW8270D
Phenanthrene	ND	250	ug/Kg	1	05/06/16	DD	SW8270D
Pyrene	ND	250	ug/Kg	1	05/06/16	DD	SW8270D
<u>QA/QC Surrogates</u>							
% 2-Fluorobiphenyl	72		%	1	05/06/16	DD	30 - 130 %
% Nitrobenzene-d5	73		%	1	05/06/16	DD	30 - 130 %
% Terphenyl-d14	65		%	1	05/06/16	DD	30 - 130 %

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

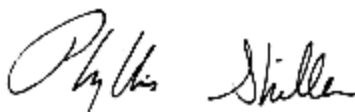
QA/QC Surrogates: Surrogates are compounds (preceded with a %) added by the lab to determine analysis efficiency. Surrogate results(%) listed in the report are not "detected" compounds.

Comments:

All soils, solids and sludges are reported on a dry weight basis unless otherwise noted in the sample comments.

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Phyllis Shiller, Laboratory Director

May 12, 2016

Reviewed and Released by: Rashmi Makol, 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 12, 2016

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

Sample Information

Matrix: SOIL
Location Code: F&O-PCB
Rush Request: Standard
P.O.#: 20120232.C40

Custody Information

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

Date

05/02/16
05/05/16

Time

13:30
9:00

Laboratory Data

SDG ID: GBN25658
Phoenix ID: BN25668

Project ID: FORMER MERIDEN HOSPITAL
Client ID: 1176160502-11

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Percent Solid	94		%		05/05/16	W	SW846-%Solid
Soil Extraction SVOA PAH	Completed				05/05/16	BJ/CKV	SW3545A
Extraction for PCB	Completed				05/05/16	QQ/I	SW3540C

PCB (Soxhlet SW3540C)

PCB-1016	ND	0.35	mg/kg	10	05/06/16	AW	SW8082A
PCB-1221	ND	0.35	mg/kg	10	05/06/16	AW	SW8082A
PCB-1232	ND	0.35	mg/kg	10	05/06/16	AW	SW8082A
PCB-1242	ND	0.35	mg/kg	10	05/06/16	AW	SW8082A
PCB-1248	ND	0.35	mg/kg	10	05/06/16	AW	SW8082A
PCB-1254	ND	0.35	mg/kg	10	05/06/16	AW	SW8082A
PCB-1260	ND	0.35	mg/kg	10	05/06/16	AW	SW8082A
PCB-1262	ND	0.35	mg/kg	10	05/06/16	AW	SW8082A
PCB-1268	ND	0.35	mg/kg	10	05/06/16	AW	SW8082A

QA/QC Surrogates

% DCBP	83		%	10	05/06/16	AW	30 - 150 %
% TCMX	81		%	10	05/06/16	AW	30 - 150 %

Polynuclear Aromatic HC

2-Methylnaphthalene	ND	240	ug/Kg	1	05/06/16	DD	SW8270D
Acenaphthene	ND	240	ug/Kg	1	05/06/16	DD	SW8270D
Acenaphthylene	ND	240	ug/Kg	1	05/06/16	DD	SW8270D
Anthracene	ND	240	ug/Kg	1	05/06/16	DD	SW8270D
Benz(a)anthracene	ND	240	ug/Kg	1	05/06/16	DD	SW8270D
Benzo(a)pyrene	ND	240	ug/Kg	1	05/06/16	DD	SW8270D
Benzo(b)fluoranthene	ND	240	ug/Kg	1	05/06/16	DD	SW8270D
Benzo(ghi)perylene	ND	240	ug/Kg	1	05/06/16	DD	SW8270D
Benzo(k)fluoranthene	ND	240	ug/Kg	1	05/06/16	DD	SW8270D

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Chrysene	ND	240	ug/Kg	1	05/06/16	DD	SW8270D
Dibenz(a,h)anthracene	ND	240	ug/Kg	1	05/06/16	DD	SW8270D
Fluoranthene	ND	240	ug/Kg	1	05/06/16	DD	SW8270D
Fluorene	ND	240	ug/Kg	1	05/06/16	DD	SW8270D
Indeno(1,2,3-cd)pyrene	ND	240	ug/Kg	1	05/06/16	DD	SW8270D
Naphthalene	ND	240	ug/Kg	1	05/06/16	DD	SW8270D
Phenanthrene	ND	240	ug/Kg	1	05/06/16	DD	SW8270D
Pyrene	ND	240	ug/Kg	1	05/06/16	DD	SW8270D
<u>QA/QC Surrogates</u>							
% 2-Fluorobiphenyl	65		%	1	05/06/16	DD	30 - 130 %
% Nitrobenzene-d5	64		%	1	05/06/16	DD	30 - 130 %
% Terphenyl-d14	59		%	1	05/06/16	DD	30 - 130 %

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

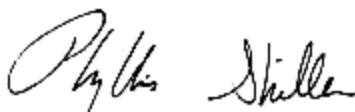
QA/QC Surrogates: Surrogates are compounds (preceded with a %) added by the lab to determine analysis efficiency. Surrogate results(%) listed in the report are not "detected" compounds.

Comments:

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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 12, 2016

Reviewed and Released by: Rashmi Makol, 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 12, 2016

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

Sample Information

Matrix: SOIL
Location Code: F&O-PCB
Rush Request: Standard
P.O.#: 20120232.C40

Custody Information

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

Date

05/02/16
05/05/16

Time

15:15
9:00

Laboratory Data

SDG ID: GBN25658
Phoenix ID: BN25672

Project ID: FORMER MERIDEN HOSPITAL
Client ID: 1176160502-15

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Percent Solid	97		%		05/05/16	W	SW846-%Solid
Extraction of CT ETPH	Completed				05/05/16	BJ/CK	SW3545A
Extraction for PCB	Completed				05/05/16	QQ/I	SW3540C

TPH by GC (Extractable Products)

Ext. Petroleum HC	28000	2500	mg/Kg	50	05/09/16	JRB	CTETPH 8015D
Identification	**		mg/Kg	50	05/09/16	JRB	CTETPH 8015D

QA/QC Surrogates

% n-Pentacosane	Diluted Out		%	50	05/09/16	JRB	50 - 150 %
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PCB (Soxhlet SW3540C)

PCB-1016	ND	0.34	mg/kg	10	05/06/16	AW	SW8082A
PCB-1221	ND	0.34	mg/kg	10	05/06/16	AW	SW8082A
PCB-1232	ND	0.34	mg/kg	10	05/06/16	AW	SW8082A
PCB-1242	ND	0.34	mg/kg	10	05/06/16	AW	SW8082A
PCB-1248	ND	0.34	mg/kg	10	05/06/16	AW	SW8082A
PCB-1254	ND	0.34	mg/kg	10	05/06/16	AW	SW8082A
PCB-1260	ND	0.34	mg/kg	10	05/06/16	AW	SW8082A
PCB-1262	ND	0.34	mg/kg	10	05/06/16	AW	SW8082A
PCB-1268	ND	0.34	mg/kg	10	05/06/16	AW	SW8082A

QA/QC Surrogates

% DCBP	76		%	10	05/06/16	AW	30 - 150 %
% TCMX	91		%	10	05/06/16	AW	30 - 150 %

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
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RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level
QA/QC Surrogates: Surrogates are compounds (preceded with a %) added by the lab to determine analysis efficiency. Surrogate results(%) listed in the report are not "detected" compounds.

Comments:

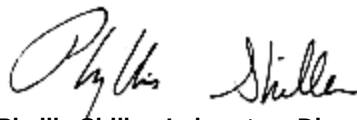
TPH Comment:

**Petroleum hydrocarbon chromatogram contains a multicomponent hydrocarbon distribution in the range of C18 to C36. The sample was quantitated against a C9-C36 alkane hydrocarbon standard.

All soils, solids and sludges are reported on a dry weight basis unless otherwise noted in the sample comments.

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Phyllis Shiller, Laboratory Director

May 12, 2016

Reviewed and Released by: Rashmi Makol, 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 12, 2016

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

Sample Information

Matrix: SOIL
Location Code: F&O-PCB
Rush Request: Standard
P.O.#: 20120232.C40

Custody Information

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

Date

05/02/16
05/05/16

Time

15:30
9:00

Laboratory Data

SDG ID: GBN25658
Phoenix ID: BN25673

Project ID: FORMER MERIDEN HOSPITAL
Client ID: 1176160502-16

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Silver	< 0.31	0.31	mg/Kg	1	05/06/16	EK	SW6010C
Arsenic	4.4	0.6	mg/Kg	1	05/06/16	EK	SW6010C
Barium	91.0	0.31	mg/Kg	1	05/06/16	EK	SW6010C
Cadmium	0.50	0.31	mg/Kg	1	05/06/16	EK	SW6010C
Chromium	15.4	0.31	mg/Kg	1	05/06/16	EK	SW6010C
Mercury	0.04	0.03	mg/Kg	1	05/06/16	RS	SW7471B
Lead	31.2	0.31	mg/Kg	1	05/06/16	EK	SW6010C
Selenium	< 1.2	1.2	mg/Kg	1	05/06/16	LK	SW6010C
Percent Solid	98		%		05/05/16	W	SW846-%Solid
Mercury Digestion	Completed				05/06/16	W/W	SW7471B
Extraction for PCB	Completed				05/05/16	QQ/I	SW3540C
Total Metals Digest	Completed				05/05/16	G/AG	SW3050B

PCB (Soxhlet SW3540C)

PCB-1016	ND	0.34	mg/kg	10	05/06/16	AW	SW8082A
PCB-1221	ND	0.34	mg/kg	10	05/06/16	AW	SW8082A
PCB-1232	ND	0.34	mg/kg	10	05/06/16	AW	SW8082A
PCB-1242	ND	0.34	mg/kg	10	05/06/16	AW	SW8082A
PCB-1248	ND	0.34	mg/kg	10	05/06/16	AW	SW8082A
PCB-1254	ND	0.34	mg/kg	10	05/06/16	AW	SW8082A
PCB-1260	ND	0.34	mg/kg	10	05/06/16	AW	SW8082A
PCB-1262	ND	0.34	mg/kg	10	05/06/16	AW	SW8082A
PCB-1268	ND	0.34	mg/kg	10	05/06/16	AW	SW8082A

QA/QC Surrogates

% DCBP	73	%	10	05/06/16	AW	30 - 150 %
% TCMX	72	%	10	05/06/16	AW	30 - 150 %

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
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RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level

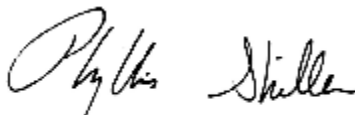
QA/QC Surrogates: Surrogates are compounds (preceded with a %) added by the lab to determine analysis efficiency. Surrogate results(%) listed in the report are not "detected" compounds.

Comments:

All soils, solids and sludges are reported on a dry weight basis unless otherwise noted in the sample 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 12, 2016

Reviewed and Released by: Rashmi Makol, Project Manager



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

QA/QC Report

May 12, 2016

QA/QC Data

SDG I.D.: GBN25658

Parameter	Blank	Blk RL	Sample Result	Dup Result	Dup RPD	LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	% Rec Limits	% RPD Limits
QA/QC Batch 344463 (mg/L), QC Sample No: BN25383 (BN25666)													
<u>ICP Metals - TCLP Extraction</u>													
Arsenic	BRL	0.10	<0.10	<0.10	NC	116			96.3			75 - 125	20
Barium	BRL	0.10	0.32	0.29	NC	102			93.2			75 - 125	20
Cadmium	BRL	0.050	<0.050	<0.050	NC	106			95.1			75 - 125	20
Chromium	BRL	0.10	0.01	<0.10	NC	107			95.4			75 - 125	20
Lead	BRL	0.10	<0.10	<0.10	NC	105			94.5			75 - 125	20
Selenium	BRL	0.10	<0.10	<0.10	NC	122			99.5			75 - 125	20
Silver	BRL	0.10	<0.10	<0.10	NC	114			98.1			75 - 125	20
QA/QC Batch 344552 (mg/kg), QC Sample No: BN25691 (BN25664, BN25666, BN25673)													
<u>ICP Metals - Soil</u>													
Arsenic	BRL	0.67	12.7	12.7	0	103			91.1			75 - 125	30
Barium	BRL	0.33	58.6	58.1	0.90	94.5			96.4			75 - 125	30
Cadmium	BRL	0.33	2.80	3.02	7.60	104			90.3			75 - 125	30
Chromium	BRL	0.33	24.3	24.0	1.20	105			96.0			75 - 125	30
Lead	BRL	0.33	747	885	16.9	97.5			111			75 - 125	30
Selenium	BRL	1.3	<1.6	<1.5	NC	90.8			78.1			75 - 125	30
Silver	BRL	0.33	6.04	5.67	6.30	103			96.6			75 - 125	30
QA/QC Batch 344606 (mg/kg), QC Sample No: BN25691 (BN25664, BN25666)													
Mercury - Soil	BRL	0.03	0.23	0.22	4.40	113	109	3.6	150			70 - 130	30 m
Comment:													
Additional Mercury criteria: LCS acceptance range for waters is 80-120% and for soils is 70-130%.													
QA/QC Batch 344607 (mg/kg), QC Sample No: BN26358 (BN25673)													
Mercury - Soil	BRL	0.02	0.20	0.16	22.2	120	115	4.3	95.7			70 - 130	30
Comment:													
Additional Mercury criteria: LCS acceptance range for waters is 80-120% and for soils is 70-130%.													
QA/QC Batch 344609 (mg/L), QC Sample No: BN26576 (BN25666)													
Mercury - Water	BRL	0.0002	<0.0002	<0.0002	NC	105			101			70 - 130	20
Comment:													
Additional Mercury criteria: LCS acceptance range for waters is 80-120% and for soils is 70-130%.													

m = This parameter is outside laboratory MS/MSD specified recovery limits.



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

QA/QC Report

May 12, 2016

QA/QC Data

SDG I.D.: GBN25658

Parameter	Blank	Blk RL	LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	% Rec Limits	% RPD Limits
QA/QC Batch 344429 (mg/kg), QC Sample No: BN25312 10X (BN25665, BN25666, BN25667, BN25668, BN25672, BN25673)										
Polychlorinated Biphenyls - Soil										
PCB-1016	ND	0.17	75	77	2.6				40 - 140	30
PCB-1221	ND	0.17							40 - 140	30
PCB-1232	ND	0.17							40 - 140	30
PCB-1242	ND	0.17							40 - 140	30
PCB-1248	ND	0.17							40 - 140	30
PCB-1254	ND	0.17							40 - 140	30
PCB-1260	ND	0.17	81	83	2.4				40 - 140	30
PCB-1262	ND	0.17							40 - 140	30
PCB-1268	ND	0.17							40 - 140	30
% DCBP (Surrogate Rec)	87	%	90	91	1.1				30 - 150	30
% TCMX (Surrogate Rec)	72	%	72	74	2.7				30 - 150	30

Comment:

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

QA/QC Batch 344839 (ug/kg), QC Sample No: BN25342 (BN25658 (50X) , BN25659, BN25664 (50X) , BN25666)

Volatiles - Soil

1,1,1,2-Tetrachloroethane	ND	5.0	108	107	0.9	96			70 - 130	30
1,1,1-Trichloroethane	ND	5.0	113	106	6.4	106			70 - 130	30
1,1,2,2-Tetrachloroethane	ND	3.0	107	107	0.0	89			70 - 130	30
1,1,2-Trichloroethane	ND	5.0	106	107	0.9	100			70 - 130	30
1,1-Dichloroethane	ND	5.0	115	110	4.4	108			70 - 130	30
1,1-Dichloroethene	ND	5.0	125	113	10.1	108			70 - 130	30
1,1-Dichloropropene	ND	5.0	119	104	13.5	104			70 - 130	30
1,2,3-Trichlorobenzene	ND	5.0	98	97	1.0	82			70 - 130	30
1,2,3-Trichloropropane	ND	5.0	107	110	2.8	91			70 - 130	30
1,2,4-Trichlorobenzene	ND	5.0	98	91	7.4	81			70 - 130	30
1,2,4-Trimethylbenzene	ND	1.0	105	96	9.0	87			70 - 130	30
1,2-Dibromo-3-chloropropane	ND	5.0	107	113	5.5	83			70 - 130	30
1,2-Dibromoethane	ND	5.0	108	108	0.0	95			70 - 130	30
1,2-Dichlorobenzene	ND	5.0	105	100	4.9	90			70 - 130	30
1,2-Dichloroethane	ND	5.0	109	109	0.0	103			70 - 130	30
1,2-Dichloropropane	ND	5.0	111	108	2.7	104			70 - 130	30
1,3,5-Trimethylbenzene	ND	1.0	107	96	10.8	88			70 - 130	30
1,3-Dichlorobenzene	ND	5.0	105	96	9.0	89			70 - 130	30
1,3-Dichloropropane	ND	5.0	105	106	0.9	93			70 - 130	30
1,4-Dichlorobenzene	ND	5.0	102	95	7.1	87			70 - 130	30
2,2-Dichloropropane	ND	5.0	113	104	8.3	97			70 - 130	30
2-Chlorotoluene	ND	5.0	109	98	10.6	89			70 - 130	30
2-Hexanone	ND	25	86	88	2.3	75			70 - 130	30
2-Isopropyltoluene	ND	5.0	109	98	10.6	90			70 - 130	30
4-Chlorotoluene	ND	5.0	103	94	9.1	87			70 - 130	30

QA/QC Data

SDG I.D.: GBN25658

Parameter	Blank	Blk RL	LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	% Rec Limits	% RPD Limits	
4-Methyl-2-pentanone	ND	25	99	102	3.0	92			70 - 130	30	
Acetone	ND	10	78	83	6.2	69			70 - 130	30	m
Acrylonitrile	ND	5.0	110	115	4.4	107			70 - 130	30	
Benzene	ND	1.0	113	107	5.5	103			70 - 130	30	
Bromobenzene	ND	5.0	109	102	6.6	91			70 - 130	30	
Bromochloromethane	ND	5.0	114	111	2.7	108			70 - 130	30	
Bromodichloromethane	ND	5.0	113	111	1.8	102			70 - 130	30	
Bromoform	ND	5.0	111	114	2.7	91			70 - 130	30	
Bromomethane	ND	5.0	117	110	6.2	74			70 - 130	30	
Carbon Disulfide	ND	5.0	118	108	8.8	105			70 - 130	30	
Carbon tetrachloride	ND	5.0	115	109	5.4	104			70 - 130	30	
Chlorobenzene	ND	5.0	106	102	3.8	94			70 - 130	30	
Chloroethane	ND	5.0	120	112	6.9	21			70 - 130	30	m
Chloroform	ND	5.0	112	108	3.6	97			70 - 130	30	
Chloromethane	ND	5.0	121	115	5.1	109			70 - 130	30	
cis-1,2-Dichloroethene	ND	5.0	113	107	5.5	108			70 - 130	30	
cis-1,3-Dichloropropene	ND	5.0	107	105	1.9	96			70 - 130	30	
Dibromochloromethane	ND	3.0	112	111	0.9	92			70 - 130	30	
Dibromomethane	ND	5.0	111	109	1.8	102			70 - 130	30	
Dichlorodifluoromethane	ND	5.0	126	108	15.4	109			70 - 130	30	
Ethylbenzene	ND	1.0	108	100	7.7	94			70 - 130	30	
Hexachlorobutadiene	ND	5.0	109	91	18.0	91			70 - 130	30	
Isopropylbenzene	ND	1.0	109	98	10.6	90			70 - 130	30	
m&p-Xylene	ND	2.0	106	99	6.8	94			70 - 130	30	
Methyl ethyl ketone	ND	5.0	97	101	4.0	94			70 - 130	30	
Methyl t-butyl ether (MTBE)	ND	1.0	107	110	2.8	105			70 - 130	30	
Methylene chloride	ND	5.0	95	91	4.3	89			70 - 130	30	
Naphthalene	ND	5.0	99	100	1.0	81			70 - 130	30	
n-Butylbenzene	ND	1.0	106	88	18.6	88			70 - 130	30	
n-Propylbenzene	ND	1.0	106	93	13.1	89			70 - 130	30	
o-Xylene	ND	2.0	107	101	5.8	95			70 - 130	30	
p-Isopropyltoluene	ND	1.0	110	95	14.6	91			70 - 130	30	
sec-Butylbenzene	ND	1.0	112	98	13.3	91			70 - 130	30	
Styrene	ND	5.0	103	99	4.0	92			70 - 130	30	
tert-Butylbenzene	ND	1.0	110	99	10.5	90			70 - 130	30	
Tetrachloroethene	ND	5.0	114	98	15.1	104			70 - 130	30	
Tetrahydrofuran (THF)	ND	5.0	100	106	5.8	100			70 - 130	30	
Toluene	ND	1.0	109	103	5.7	100			70 - 130	30	
trans-1,2-Dichloroethene	ND	5.0	114	109	4.5	108			70 - 130	30	
trans-1,3-Dichloropropene	ND	5.0	106	106	0.0	96			70 - 130	30	
trans-1,4-dichloro-2-butene	ND	5.0	104	104	0.0	78			70 - 130	30	
Trichloroethene	ND	5.0	112	104	7.4	103			70 - 130	30	
Trichlorofluoromethane	ND	5.0	114	101	12.1	61			70 - 130	30	m
Trichlorotrifluoroethane	ND	5.0	117	99	16.7	107			70 - 130	30	
Vinyl chloride	ND	5.0	113	105	7.3	102			70 - 130	30	
% 1,2-dichlorobenzene-d4	99	%	99	100	1.0	99			70 - 130	30	
% Bromofluorobenzene	99	%	99	100	1.0	104			70 - 130	30	
% Dibromofluoromethane	104	%	99	103	4.0	103			70 - 130	30	
% Toluene-d8	97	%	102	101	1.0	102			70 - 130	30	

Comment:

The MSD is not reported for 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 Data

SDG I.D.: GBN25658

Parameter	Blank	Blk RL	LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	% Rec Limits	% RPD Limits	
QA/QC Batch 344431 (ug/Kg), QC Sample No: BN25487 (BN25666)											
Semivolatiles - Soil											
1,2,4,5-Tetrachlorobenzene	ND	230	85	84	1.2	51	51	0.0	30 - 130	30	
1,2,4-Trichlorobenzene	ND	230	76	78	2.6	52	47	10.1	30 - 130	30	
1,2-Dichlorobenzene	ND	180	70	66	5.9	46	47	2.2	30 - 130	30	
1,2-Diphenylhydrazine	ND	230	78	84	7.4	45	49	8.5	30 - 130	30	
1,3-Dichlorobenzene	ND	230	67	63	6.2	43	42	2.4	30 - 130	30	
1,4-Dichlorobenzene	ND	230	68	65	4.5	45	44	2.2	30 - 130	30	
2,4,5-Trichlorophenol	ND	230	82	80	2.5	51	49	4.0	30 - 130	30	
2,4,6-Trichlorophenol	ND	130	81	79	2.5	46	48	4.3	30 - 130	30	
2,4-Dichlorophenol	ND	130	84	83	1.2	51	50	2.0	30 - 130	30	
2,4-Dimethylphenol	ND	230	80	80	0.0	46	49	6.3	30 - 130	30	
2,4-Dinitrophenol	ND	230	<10	<10	NC	25	24	4.1	30 - 130	30	I,m
2,4-Dinitrotoluene	ND	130	85	87	2.3	50	50	0.0	30 - 130	30	
2,6-Dinitrotoluene	ND	130	84	87	3.5	49	49	0.0	30 - 130	30	
2-Chloronaphthalene	ND	230	80	80	0.0	48	47	2.1	30 - 130	30	
2-Chlorophenol	ND	230	79	76	3.9	50	53	5.8	30 - 130	30	
2-Methylnaphthalene	ND	230	78	83	6.2	48	50	4.1	30 - 130	30	
2-Methylphenol (o-cresol)	ND	230	78	82	5.0	54	58	7.1	30 - 130	30	
2-Nitroaniline	ND	330	74	73	1.4	38	40	5.1	30 - 130	30	
2-Nitrophenol	ND	230	80	81	1.2	50	53	5.8	30 - 130	30	
3&4-Methylphenol (m&p-cresol)	ND	230	85	84	1.2	45	49	8.5	30 - 130	30	
3,3'-Dichlorobenzidine	ND	130	75	76	1.3	<10	15	NC	30 - 130	30	m
3-Nitroaniline	ND	330	75	77	2.6	40	44	9.5	30 - 130	30	
4,6-Dinitro-2-methylphenol	ND	230	20	19	5.1	35	28	22.2	30 - 130	30	I,m
4-Bromophenyl phenyl ether	ND	230	87	87	0.0	51	49	4.0	30 - 130	30	
4-Chloro-3-methylphenol	ND	230	88	93	5.5	54	58	7.1	30 - 130	30	
4-Chloroaniline	ND	230	88	82	7.1	40	45	11.8	30 - 130	30	
4-Chlorophenyl phenyl ether	ND	230	82	81	1.2	47	48	2.1	30 - 130	30	
4-Nitroaniline	ND	230	84	86	2.4	49	50	2.0	30 - 130	30	
4-Nitrophenol	ND	230	86	81	6.0	47	57	19.2	30 - 130	30	
Acenaphthene	ND	230	82	82	0.0	46	47	2.2	30 - 130	30	
Acenaphthylene	ND	130	84	84	0.0	<10	18	NC	30 - 130	30	m
Acetophenone	ND	230	78	74	5.3	52	54	3.8	30 - 130	30	
Aniline	ND	330	76	75	1.3	40	44	9.5	30 - 130	30	
Anthracene	ND	230	89	89	0.0	NC	NC	NC	30 - 130	30	
Benz(a)anthracene	ND	230	87	89	2.3	NC	NC	NC	30 - 130	30	
Benzidine	ND	330	40	40	0.0	<10	<10	NC	30 - 130	30	m
Benzo(a)pyrene	ND	130	88	88	0.0	NC	NC	NC	30 - 130	30	
Benzo(b)fluoranthene	ND	160	90	92	2.2	NC	NC	NC	30 - 130	30	
Benzo(ghi)perylene	ND	230	94	94	0.0	NC	NC	NC	30 - 130	30	
Benzo(k)fluoranthene	ND	230	90	90	0.0	NC	NC	NC	30 - 130	30	
Benzoic Acid	ND	330	<10	<10	NC	27	34	23.0	30 - 130	30	I,m
Benzyl butyl phthalate	ND	230	89	89	0.0	47	44	6.6	30 - 130	30	
Bis(2-chloroethoxy)methane	ND	230	87	86	1.2	51	52	1.9	30 - 130	30	
Bis(2-chloroethyl)ether	ND	130	69	64	7.5	46	47	2.2	30 - 130	30	
Bis(2-chloroisopropyl)ether	ND	230	65	63	3.1	43	44	2.3	30 - 130	30	
Bis(2-ethylhexyl)phthalate	ND	230	91	91	0.0	50	48	4.1	30 - 130	30	
Carbazole	ND	230	87	87	0.0	31	36	14.9	30 - 130	30	
Chrysene	ND	230	92	92	0.0	NC	NC	NC	30 - 130	30	
Dibenz(a,h)anthracene	ND	130	93	94	1.1	32	32	0.0	30 - 130	30	
Dibenzofuran	ND	230	80	81	1.2	39	41	5.0	30 - 130	30	

QA/QC Data

SDG I.D.: GBN25658

Parameter	Blank	Blk RL	LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	% Rec Limits	% RPD Limits
Diethyl phthalate	ND	230	85	85	0.0	48	50	4.1	30 - 130	30
Dimethylphthalate	ND	230	82	83	1.2	48	49	2.1	30 - 130	30
Di-n-butylphthalate	ND	230	92	93	1.1	49	50	2.0	30 - 130	30
Di-n-octylphthalate	ND	230	88	91	3.4	49	49	0.0	30 - 130	30
Fluoranthene	ND	230	89	91	2.2	NC	NC	NC	30 - 130	30
Fluorene	ND	230	83	83	0.0	46	49	6.3	30 - 130	30
Hexachlorobenzene	ND	130	86	84	2.4	51	49	4.0	30 - 130	30
Hexachlorobutadiene	ND	230	74	77	4.0	48	42	13.3	30 - 130	30
Hexachlorocyclopentadiene	ND	230	78	78	0.0	<10	<10	NC	30 - 130	30
Hexachloroethane	ND	130	65	60	8.0	40	41	2.5	30 - 130	30
Indeno(1,2,3-cd)pyrene	ND	230	91	91	0.0	NC	NC	NC	30 - 130	30
Isophorone	ND	130	78	78	0.0	46	47	2.2	30 - 130	30
Naphthalene	ND	230	79	81	2.5	41	38	7.6	30 - 130	30
Nitrobenzene	ND	130	77	74	4.0	50	52	3.9	30 - 130	30
N-Nitrosodimethylamine	ND	230	57	57	0.0	43	43	0.0	30 - 130	30
N-Nitrosodi-n-propylamine	ND	130	83	78	6.2	53	56	5.5	30 - 130	30
N-Nitrosodiphenylamine	ND	130	96	97	1.0	56	57	1.8	30 - 130	30
Pentachloronitrobenzene	ND	230	83	84	1.2	45	46	2.2	30 - 130	30
Pentachlorophenol	ND	230	76	76	0.0	54	50	7.7	30 - 130	30
Phenanthrene	ND	130	89	88	1.1	NC	NC	NC	30 - 130	30
Phenol	ND	230	82	80	2.5	54	56	3.6	30 - 130	30
Pyrene	ND	230	91	93	2.2	NC	NC	NC	30 - 130	30
Pyridine	ND	230	43	42	2.4	38	38	0.0	30 - 130	30
% 2,4,6-Tribromophenol	53	%	83	75	10.1	48	49	2.1	30 - 130	30
% 2-Fluorobiphenyl	66	%	78	67	15.2	48	47	2.1	30 - 130	30
% 2-Fluorophenol	62	%	79	62	24.1	46	50	8.3	30 - 130	30
% Nitrobenzene-d5	65	%	79	64	21.0	50	53	5.8	30 - 130	30
% Phenol-d5	68	%	85	68	22.2	52	55	5.6	30 - 130	30
% Terphenyl-d14	84	%	96	84	13.3	48	52	8.0	30 - 130	30

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 344445 (mg/Kg), QC Sample No: BN25609 (BN25660, BN25662, BN25665, BN25666, BN25672)

TPH by GC (Extractable Products) - Soil

Ext. Petroleum H.C.	ND	50	64	63	1.6	63	68	7.6	60 - 120	30
% n-Pentacosane	77	%	74	73	1.4	79	83	4.9	50 - 150	30

QA/QC Batch 344541 (ug/kg), QC Sample No: BN25662 (BN25660, BN25662, BN25667, BN25668)

Polynuclear Aromatic HC - Soil

2-Methylnaphthalene	ND	230	69	66	4.4	55	63	13.6	30 - 130	30
Acenaphthene	ND	230	81	74	9.0	60	69	14.0	30 - 130	30
Acenaphthylene	ND	230	80	73	9.2	60	68	12.5	30 - 130	30
Anthracene	ND	230	81	77	5.1	61	69	12.3	30 - 130	30
Benz(a)anthracene	ND	230	77	76	1.3	59	67	12.7	30 - 130	30
Benzo(a)pyrene	ND	230	75	73	2.7	56	63	11.8	30 - 130	30
Benzo(b)fluoranthene	ND	230	77	75	2.6	57	67	16.1	30 - 130	30
Benzo(ghi)perylene	ND	230	86	83	3.6	62	70	12.1	30 - 130	30
Benzo(k)fluoranthene	ND	230	79	77	2.6	60	68	12.5	30 - 130	30
Chrysene	ND	230	84	81	3.6	65	73	11.6	30 - 130	30
Dibenz(a,h)anthracene	ND	230	83	80	3.7	60	69	14.0	30 - 130	30
Fluoranthene	ND	230	81	74	9.0	60	66	9.5	30 - 130	30
Fluorene	ND	230	76	71	6.8	58	66	12.9	30 - 130	30
Indeno(1,2,3-cd)pyrene	ND	230	85	81	4.8	58	66	12.9	30 - 130	30

QA/QC Data

SDG I.D.: GBN25658

Parameter	Blank	Blk RL	LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	% Rec Limits	% RPD Limits
Naphthalene	ND	230	70	67	4.4	56	63	11.8	30 - 130	30
Phenanthrene	ND	230	83	77	7.5	61	69	12.3	30 - 130	30
Pyrene	ND	230	84	78	7.4	63	69	9.1	30 - 130	30
% 2-Fluorobiphenyl	72	%	73	66	10.1	55	63	13.6	30 - 130	30
% Nitrobenzene-d5	67	%	68	63	7.6	57	66	14.6	30 - 130	30
% Terphenyl-d14	69	%	80	71	11.9	55	63	13.6	30 - 130	30

QA/QC Batch 345010 (ug/kg), QC Sample No: BN26324 (BN25664)

Volatiles - Soil

1,1,1,2-Tetrachloroethane	ND	5.0	96	98	2.1	89	88	1.1	70 - 130	30	
1,1,1-Trichloroethane	ND	5.0	119	126	5.7	125	124	0.8	70 - 130	30	
1,1,2,2-Tetrachloroethane	ND	3.0	87	82	5.9	78	84	7.4	70 - 130	30	
1,1,2-Trichloroethane	ND	5.0	104	100	3.9	104	107	2.8	70 - 130	30	
1,1-Dichloroethane	ND	5.0	121	128	5.6	128	127	0.8	70 - 130	30	
1,1-Dichloroethene	ND	5.0	124	137	10.0	133	131	1.5	70 - 130	30	I,m
1,1-Dichloropropene	ND	5.0	107	118	9.8	109	108	0.9	70 - 130	30	
1,2,3-Trichlorobenzene	ND	5.0	84	91	8.0	79	81	2.5	70 - 130	30	
1,2,3-Trichloropropane	ND	5.0	79	83	4.9	80	84	4.9	70 - 130	30	
1,2,4-Trichlorobenzene	ND	5.0	85	93	9.0	82	83	1.2	70 - 130	30	
1,2,4-Trimethylbenzene	ND	1.0	82	93	12.6	79	76	3.9	70 - 130	30	
1,2-Dibromo-3-chloropropane	ND	5.0	92	82	11.5	85	89	4.6	70 - 130	30	
1,2-Dibromoethane	ND	5.0	95	90	5.4	87	91	4.5	70 - 130	30	
1,2-Dichlorobenzene	ND	5.0	87	91	4.5	82	80	2.5	70 - 130	30	
1,2-Dichloroethane	ND	5.0	107	103	3.8	105	108	2.8	70 - 130	30	
1,2-Dichloropropane	ND	5.0	107	111	3.7	106	107	0.9	70 - 130	30	
1,3,5-Trimethylbenzene	ND	1.0	83	94	12.4	79	76	3.9	70 - 130	30	
1,3-Dichlorobenzene	ND	5.0	86	94	8.9	82	80	2.5	70 - 130	30	
1,3-Dichloropropane	ND	5.0	92	89	3.3	84	87	3.5	70 - 130	30	
1,4-Dichlorobenzene	ND	5.0	84	93	10.2	81	80	1.2	70 - 130	30	
2,2-Dichloropropane	ND	5.0	118	127	7.3	125	124	0.8	70 - 130	30	
2-Chlorotoluene	ND	5.0	85	95	11.1	80	78	2.5	70 - 130	30	
2-Hexanone	ND	25	77	66	15.4	69	77	11.0	70 - 130	30	I,m
2-Isopropyltoluene	ND	5.0	83	94	12.4	80	76	5.1	70 - 130	30	
4-Chlorotoluene	ND	5.0	82	92	11.5	80	77	3.8	70 - 130	30	
4-Methyl-2-pentanone	ND	25	98	84	15.4	94	104	10.1	70 - 130	30	
Acetone	ND	10	85	77	9.9	89	99	10.6	70 - 130	30	
Acrylonitrile	ND	5.0	118	107	9.8	124	139	11.4	70 - 130	30	m
Benzene	ND	1.0	107	113	5.5	106	106	0.0	70 - 130	30	
Bromobenzene	ND	5.0	88	92	4.4	81	80	1.2	70 - 130	30	
Bromochloromethane	ND	5.0	121	121	0.0	128	131	2.3	70 - 130	30	m
Bromodichloromethane	ND	5.0	112	112	0.0	108	110	1.8	70 - 130	30	
Bromoform	ND	5.0	104	98	5.9	91	98	7.4	70 - 130	30	
Bromomethane	ND	5.0	115	126	9.1	122	120	1.7	70 - 130	30	
Carbon Disulfide	ND	5.0	117	130	10.5	126	124	1.6	70 - 130	30	
Carbon tetrachloride	ND	5.0	120	131	8.8	128	127	0.8	70 - 130	30	I
Chlorobenzene	ND	5.0	90	97	7.5	86	85	1.2	70 - 130	30	
Chloroethane	ND	5.0	122	134	9.4	130	128	1.6	70 - 130	30	I
Chloroform	ND	5.0	118	125	5.8	127	126	0.8	70 - 130	30	
Chloromethane	ND	5.0	120	126	4.9	123	123	0.0	70 - 130	30	
cis-1,2-Dichloroethene	ND	5.0	120	125	4.1	126	126	0.0	70 - 130	30	
cis-1,3-Dichloropropene	ND	5.0	104	107	2.8	104	106	1.9	70 - 130	30	
Dibromochloromethane	ND	3.0	99	98	1.0	90	93	3.3	70 - 130	30	
Dibromomethane	ND	5.0	107	105	1.9	105	110	4.7	70 - 130	30	

QA/QC Data

SDG I.D.: GBN25658

Parameter	Blank	Blk RL	LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	% Rec Limits	% RPD Limits
Dichlorodifluoromethane	ND	5.0	109	124	12.9	114	114	0.0	70 - 130	30
Ethylbenzene	ND	1.0	91	98	7.4	87	86	1.2	70 - 130	30
Hexachlorobutadiene	ND	5.0	81	101	22.0	85	79	7.3	70 - 130	30
Isopropylbenzene	ND	1.0	84	95	12.3	78	76	2.6	70 - 130	30
m&p-Xylene	ND	2.0	89	98	9.6	87	84	3.5	70 - 130	30
Methyl ethyl ketone	ND	5.0	105	92	13.2	107	123	13.9	70 - 130	30
Methyl t-butyl ether (MTBE)	ND	1.0	119	111	7.0	121	129	6.4	70 - 130	30
Methylene chloride	ND	5.0	100	107	6.8	107	107	0.0	70 - 130	30
n-Butylbenzene	ND	1.0	79	98	21.5	82	79	3.7	70 - 130	30
n-Propylbenzene	ND	1.0	81	94	14.9	78	75	3.9	70 - 130	30
o-Xylene	ND	2.0	91	97	6.4	86	84	2.4	70 - 130	30
p-Isopropyltoluene	ND	1.0	83	98	16.6	83	79	4.9	70 - 130	30
sec-Butylbenzene	ND	1.0	83	97	15.6	81	78	3.8	70 - 130	30
Styrene	ND	5.0	89	93	4.4	85	84	1.2	70 - 130	30
tert-Butylbenzene	ND	1.0	84	94	11.2	79	75	5.2	70 - 130	30
Tetrachloroethene	ND	5.0	104	118	12.6	109	110	0.9	70 - 130	30
Tetrahydrofuran (THF)	ND	5.0	113	97	15.2	113	129	13.2	70 - 130	30
Toluene	ND	1.0	104	110	5.6	105	104	1.0	70 - 130	30
trans-1,2-Dichloroethene	ND	5.0	120	130	8.0	131	128	2.3	70 - 130	30 m
trans-1,3-Dichloropropene	ND	5.0	105	104	1.0	104	108	3.8	70 - 130	30
trans-1,4-dichloro-2-butene	ND	5.0	89	82	8.2	76	82	7.6	70 - 130	30
Trichloroethene	ND	5.0	106	116	9.0	106	107	0.9	70 - 130	30
Trichlorofluoromethane	ND	5.0	111	126	12.7	120	121	0.8	70 - 130	30
Trichlorotrifluoroethane	ND	5.0	112	130	14.9	129	128	0.8	70 - 130	30
Vinyl chloride	ND	5.0	115	123	6.7	116	117	0.9	70 - 130	30
% 1,2-dichlorobenzene-d4	96	%	100	96	4.1	99	100	1.0	70 - 130	30
% Bromofluorobenzene	101	%	104	102	1.9	105	107	1.9	70 - 130	30
% Dibromofluoromethane	106	%	115	111	3.5	119	120	0.8	70 - 130	30
% Toluene-d8	101	%	104	104	0.0	104	106	1.9	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%.

l = This parameter is outside laboratory LCS/LCSD specified recovery limits.

m = This parameter is outside laboratory MS/MSD specified recovery limits.

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

RPD - Relative Percent Difference

LCS - Laboratory Control Sample

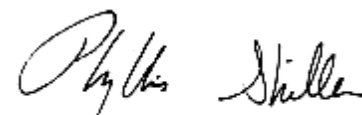
LCSD - Laboratory Control Sample Duplicate

MS - Matrix Spike

MS Dup - Matrix Spike Duplicate

NC - No Criteria

Intf - Interference



Phyllis Shiller, Laboratory Director

May 12, 2016

Thursday, May 12, 2016

Criteria: CT: GAM, RC

State: CT

Sample Criteria Exceedences Report

Page 1 of 1

GBN25658 - FO-PCB

SampNo	Acode	Phoenix Analyte	Criteria	Result	RL	Criteria	RL Criteria	Analysis Units
BN25665	\$ETPH_SMR	Ext. Petroleum HC	CT / PESTICIDES, PCB's, TPH, a / GA/GAA PMC (mg/kg)	2900	500	500	500	mg/Kg
BN25665	\$ETPH_SMR	Ext. Petroleum HC	CT / PESTICIDES, PCB's, TPH, a / RES DEC (mg/kg)	2900	500	500	500	mg/Kg
BN25666	TCLP-AS	TCLP Arsenic	CT / INORGANIC SUBSTANCES / GA/GAA PMC (mg/l)**	0.07	0.01	0.01	0.01	mg/L
BN25666	TCLP-CD	TCLP Cadmium	CT / INORGANIC SUBSTANCES / GA/GAA PMC (mg/l)**	0.060	0.005	0.005	0.005	mg/L
BN25672	\$ETPH_SMR	Ext. Petroleum HC	CT / PESTICIDES, PCB's, TPH, a / GA/GAA PMC (mg/kg)	28000	2500	500	500	mg/Kg
BN25672	\$ETPH_SMR	Ext. Petroleum HC	CT / PESTICIDES, PCB's, TPH, a / RES DEC (mg/kg)	28000	2500	500	500	mg/Kg

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: FORMER MERIDEN HOSPITAL **Project Number:**

Laboratory Sample ID(s): BN25658, BN25659, BN25660, BN25662, BN25664, BN25665, BN25666, BN25667, BN25668, BN25672, BN25673

Sampling Date(s): 5/2/2016

RCP Methods Used:

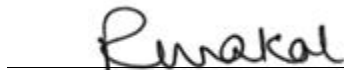
☒ 1311/1312 ☒ 6010 ☐ 7000 ☐ 7196 ☒ 7470/7471 ☐ 8081 ☐ EPH ☐ TO15
☒ 8082 ☐ 8151 ☒ 8260 ☒ 8270 ☒ ETPH ☐ 9010/9012 ☐ VPH

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?	☒ Yes ☐ No
1a.	Were the method specified preservation and holding time requirements met?	☒ Yes ☐ 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)	☐ Yes ☐ No ☒ NA
2.	Were all samples received by the laboratory in a condition consistent with that described on the associated Chain-of-Custody document(s)?	☒ Yes ☐ No
3.	Were samples received at an appropriate temperature (< 6 Degrees C)?	☒ Yes ☐ No ☐ NA
4.	Were all QA/QC performance criteria specified in the Reasonable Confidence Protocol documents achieved? See Sections: ICP Narration, SVOA Narration, VOA Narration.	☐ Yes ☒ No
5a.	Were reporting limits specified or referenced on the chain-of-custody?	☒ Yes ☐ No
5b.	Were these reporting limits met?	☒ Yes ☐ No ☐ 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?	☐ Yes ☒ No ☐ NA
7.	Are project-specific matrix spikes and laboratory duplicates included in the data set?	☒ Yes ☐ No ☐ 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 12, 2016

Printed Name: Rashmi Makol

Position: Project Manager



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



RCP Certification Report

May 12, 2016

SDG I.D.: GBN25658

SDG Comments

BN25664, BN25666, BN25673 - The following analytes from the 6010 RCP Metals list were not reported: Antimony, Beryllium, Copper, Nickel, Thallium, Vanadium, Zinc.

BN25660, BN25662, BN25667, BN25668 - The client requested a short list for 8270 RCP Semivolatile.

ETPH Narration

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

Instrument:

AU-FID11 05/09/16-1 Jeff Bucko, Chemist 05/09/16

BN25665, BN25672

The initial calibration (ETPH429I) RSD for the compound list was less than 30% except for the following compounds: None.
The continuing calibration %D for the compound list was less than 30% except for the following compounds: None.

AU-FID11 05/10/16-1 Jeff Bucko, Chemist 05/10/16

BN25660

The initial calibration (ETPH429I) RSD for the compound list was less than 30% except for the following compounds: None.
The continuing calibration %D for the compound list was less than 30% except for the following compounds: None.

AU-XL2 05/06/16-1 Jeff Bucko, Chemist 05/06/16

BN25662, BN25666

The initial calibration (ETPH427I) RSD for the compound list was less than 30% except for the following compounds: None.
The continuing calibration %D for the compound list was less than 30% except for the following compounds: None.

QC (Batch Specific):

Batch 344445 (BN25609)

BN25660, BN25662, BN25665, BN25666, BN25672

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.

Mercury Narration

Were all QA/QC performance criteria specified in the analytical method achieved? Yes.

Instrument:

MERLIN 05/06/16 09:12 Rick Schweitzer, Chemist 05/06/16

BN25664, BN25666, BN25673

The method preparation blank contains all of the acids and reagents as the samples; the instrument blanks do not.

The initial calibration met all criteria including a standard run at or below the reporting level.

All calibration verification standards (ICV, CCV) met criteria.

All calibration blank verification standards (ICB, CCB) met criteria.

The matrix spike sample is used to identify spectral interference for each batch of samples, if within 85-115%, no interference is observed and no further action is taken.

The following Initial Calibration Verification (ICV) compounds did not meet criteria: None.

The following Continuing Calibration Verification (CCV) compounds did not meet criteria: None.



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Certification Report

May 12, 2016

SDG I.D.: GBN25658

Mercury Narration

QC (Batch Specific):

Batch 344606 (BN25691)

BN25664, BN25666

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

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.

Additional Mercury criteria: LCS acceptance range for waters is 80-120% and for soils is 70-130%.

Batch 344607 (BN26358)

BN25673

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

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.

Additional Mercury criteria: LCS acceptance range for waters is 80-120% and for soils is 70-130%.

Batch 344609 (BN26576)

BN25666

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

Additional Mercury criteria: LCS acceptance range for waters is 80-120% and for soils is 70-130%.

ICP Metals Narration

Were all QA/QC performance criteria specified in the analytical method achieved? No.

CCV (05/06/16 19:13) recovery 111% for Silver was outside the criteria (90-110). A slight high bias is possible for sample BN25664.

Instrument:

ARCOS 05/05/16 19:18

Emily Kolominskaya, Laura Kinnin, Chemist 05/05/16

BN25664, BN25666, BN25673

The linear range is defined daily by the calibration range.

The following Initial Calibration Verification (ICV) compounds did not meet criteria: None.

The following Continuing Calibration Verification (CCV) compounds did not meet criteria: CCV 05/06/16 19:13: Silver 111% (90-110), Selenium 111% (90-110)

The following ICP Interference Check (ICSAB) compounds did not meet criteria: None.

QC (Batch Specific):

Batch 344463 (BN25383)

BN25666

All LCS recoveries were within 75 - 125 with the following exceptions: None.

Batch 344552 (BN25691)

BN25664, BN25666, BN25673

All LCS recoveries were within 75 - 125 with the following exceptions: None.

PAH Narration



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RCP Certification Report

May 12, 2016

SDG I.D.: GBN25658

PAH Narration

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

Instrument:

CHEM06 05/05/16-1 Damien Drobinski, Chemist 05/05/16

BN25660, BN25662, BN25667, BN25668

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

Initial Calibration Verification (CHEM06/BN_0505):

100% of target compounds met criteria.

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

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

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

Continuing Calibration Verification (CHEM06/0505_14-BN_0505):

Internal standard areas were within 50 to 200% of the initial calibration with the following exceptions: None.

100% of target compounds met criteria.

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: None.

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

QC (Batch Specific):

Batch 344541 (BN25662)

BN25660, BN25662, BN25667, BN25668

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 30% with the following exceptions: None.

PCB Narration

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

Instrument:

AU-ECD24 05/06/16-1 Adam Werner, Chemist 05/06/16

BN25665, BN25666, BN25667, BN25668, BN25673

The initial calibration (PC0504AI) RSD for the compound list was less than 20% except for the following compounds: None.

The initial calibration (PC0504BI) RSD for the compound list was less than 20% except for the following compounds: None.

The continuing calibration %D for the compound list was less than 15% except for the following compounds: None.

AU-ECD5 05/06/16-1 Adam Werner, Chemist 05/06/16

BN25672

The initial calibration (PC0504AI) RSD for the compound list was less than 20% except for the following compounds: None.

The initial calibration (PC0504BI) RSD for the compound list was less than 20% except for the following compounds: None.

The continuing calibration %D for the compound list was less than 15% except for the following compounds: None.

QC (Batch Specific):



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RCP Certification Report

May 12, 2016

SDG I.D.: GBN25658

PCB Narration

Batch 344429 (BN25312)

BN25665, BN25666, BN25667, BN25668, BN25672, BN25673

All LCS recoveries were within 40 - 140 with the following exceptions: None.

All LCSD recoveries were within 40 - 140 with the following exceptions: None.

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

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

SVOA Narration

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

QC Batch 344431 (Samples: BN25666): -----

The LCS/LCSD recoveries were below the method criteria, a low bias is suspected for these compounds (4,6-Dinitro-2-methylphenol, Benzoic Acid)

The QC recoveries for one or more analytes is below the method criteria. A slight low bias is likely. (2,4-Dinitrophenol)

Instrument:

CHEM25 05/05/16-1

Damien Drobinski, Chemist 05/05/16

BN25666

Initial Calibration Verification (CHEM25/SV_0505):

98% of target compounds met criteria.

The following compounds had %RSDs >20%: 2,4-Dinitrophenol 44% (20%), 4,6-Dinitro-2-methylphenol 28% (20%)

The following compounds did not meet recommended response factors: 2-Nitrophenol 0.082 (0.1), Hexachlorobenzene 0.094 (0.1)

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

Continuing Calibration Verification (CHEM25/0505_14A-SV_0505):

Internal standard areas were within 50 to 200% of the initial calibration with the following exceptions: None.

100% of target compounds met criteria.

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 0.086 (0.1), Hexachlorobenzene 0.097 (0.1)

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

QC (Batch Specific):

Batch 344431 (BN25487)

BN25666

All LCS recoveries were within 30 - 130 with the following exceptions: 2,4-Dinitrophenol(<10%), 4,6-Dinitro-2-methylphenol(20%), Benzoic Acid(<10%)

All LCSD recoveries were within 30 - 130 with the following exceptions: 2,4-Dinitrophenol(<10%), 4,6-Dinitro-2-methylphenol(19%), Benzoic Acid(<10%)

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

VOA Narration



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RCP Certification Report

May 12, 2016

SDG I.D.: GBN25658

VOA Narration

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

QC Batch 345010 (Samples: BN25664): -----

The LCS and/or the LCSD recovery is above the upper range for one or more analytes that were not reported in the sample(s), therefore no significant bias is suspected. (Carbon tetrachloride, Chloroethane)

The QC recovery for one or more analytes is above the upper range but were not reported in the sample(s), therefore no significant bias is suspected. (1,1-Dichloroethene)

Instrument:

CHEM14 05/07/16-1

Jane Li, Chemist 05/07/16

BN25658, BN25659, BN25664, BN25666

Initial Calibration Verification (CHEM14/VT-0506):

98% of target compounds met criteria.

The following compounds had %RSDs >20%: Acetone 28% (20%), Methylene chloride 31% (20%)

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

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

Continuing Calibration Verification (CHEM14/0507_01-VT-0506):

Internal standard areas were within 50 to 200% of the initial calibration with the following exceptions: None.

100% of target compounds met criteria.

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: None.

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

CHEM14 05/09/16-1

Jane Li, Chemist 05/09/16

BN25664

Initial Calibration Verification (CHEM14/VT-0506):

98% of target compounds met criteria.

The following compounds had %RSDs >20%: Acetone 28% (20%), Methylene chloride 31% (20%)

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

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

Continuing Calibration Verification (CHEM14/0509_02-VT-0506):

Internal standard areas were within 50 to 200% of the initial calibration with the following exceptions: None.

99% of target compounds met criteria.

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: None.

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

QC (Batch Specific):

Batch 344839 (BN25342)

BN25658, BN25659, BN25664, BN25666

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

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



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RCP Certification Report

May 12, 2016

SDG I.D.: GBN25658

VOA Narration

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

The MSD is not reported for this batch.

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

Batch 345010 (BN26324)

BN25664

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

All LCSD recoveries were within 70 - 130 with the following exceptions: 1,1-Dichloroethene(137%), 2-Hexanone(66%), Carbon tetrachloride(131%), Chloroethane(134%)

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

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%.

Temperature Narration

The samples in this delivery group were received at 6°C.

(Note acceptance criteria is above freezing up to 6°C)



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☐ 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 34347

Turnaround

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

PROJECT NAME: **former Meriden Hospital** PROJECT LOCATION: **Menden, CT** PROJECT NUMBER: **2012 0232 C10** LABORATORY: **Phoenix**

REPORT TO: **Stefanie Wiersebach**

INVOICE TO:

P.O. No.:

Sampler's Signature: *[Signature]* Date: **5/2/16**

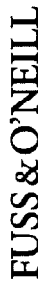
Source Codes:

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 **Tric Blend**

Item No.	Transfer Check				Sample Number	Source Code	Date Sampled	Time Sampled	Analysis Request	Containers									
	1	2	3	4						Soil VOA Vial	Soil VOA Vial	Other	Water VOA Vial	Glass VOA Vial	Plastic - Asis	Plastic - H ₂ SO ₄	Plastic - HNO ₃	Plastic - NaOH	Comments
					1176160502-01	X	5/2/16	0900	✓	RC2A B Metals	✓	✓	✓	✓	✓	✓	✓	✓	25658
					-02	X	5/2/16	0910	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	25659
					-03	S		1010	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	25660
					-04	S		1050	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	Hold 25661
					-05	S		1140	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	25662
					-06	S		1150	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	Hold 25663
					-07	C		1050	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	25664
					-08	C		1100	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	25665
					-09	S		1300	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	25666
					-10	S		1310	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	25667

Transfer Number	Relinquished By	Accepted By	Date	Time	Charge Exceptions:
1	<i>[Signature]</i>	<i>[Signature]</i>	5/2/16	1600	☐ CT Tax Exempt ☐ QA/QC ☐ Other _____
2	<i>[Signature]</i>	<i>[Signature]</i>	5/2/16	08:45	☐ Duplicates _____ ☐ Banks (Item Nos: _____)
3	<i>[Signature]</i>	<i>[Signature]</i>	5/2/16	0900	Reporting and Detection Limit Requirements: ☒ RCP Deliverables ☐ MCP CAM Cert.
4					Additional Comments: Please Hold All add'l sample volume for add on analyses



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- 317 Iron Horse Way, Suite 204, Providence, RI 02908
- 80 Washington Street, Suite 301, Poughkeepsie, NY

☐ Other _____

Turnaround

CHAIN-OF-CUSTODY RECORD 34356

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

PROJECT NAME

PROJECT LOCATION

PROJECT NUMBER

LABORATORY

Former Meriden Hospital	Meriden, CT
-------------------------	-------------

20120232.CY0

Phoen IX

INVOICE TO:

ノ

P.O. No.:

Sampler's Signature:  Date: 5/2/16

Source Codes:

MW=Monitoring Well
SW=Surface Water
PW=Potable Water
ST=Stormwater

T=Treatment Facility
W=Waste A=Air

S=Soil
C=Concrete
B=Sediment

X=Other

[illegible][illegible]

Transfer Number	Relinquished By	Accepted By	Date	Time	Charge Exceptions: ☐ CT Tax Exempt ☐ QA/QC ☐ Other _____ _____ Duplicates _____ Blanks (Item Nos: _____)
1	D. Coan	F40 frida/keene	5/2/16	1600	Reporting and Detection Limit Requirements: ☒ MCP Deliverables ☐ MCP CAM Cert.
2	F40 frida/keene		5/5/16	845	Res DEC 1 GAP MC
3			5/5/16	9:00	Additional Comments:
4					Quoco Hold All ART's CHANGE VOLUME TO: 20000000

Please hold all add'l sample volume for add on analysis



Thursday, May 19, 2016

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

Project ID: FORMER MERIDEN HOSPITAL
Sample ID#s: BN25675, BN25677, BN25679, BN25682, BN25684, BN25686 - BN25687,
BN25689, BN25691 - BN25692, BN25694, BN25696

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.

All soils, solids and sludges are reported on a dry weight basis unless otherwise noted in the sample comments.

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

Enclosed are revised Analysis Report pages. Please replace and discard the original pages. 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, appearing to read "Phyllis Shiller".

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

Analysis Report

May 19, 2016

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

Sample Information

Matrix: SOIL
Location Code: F&O-PCB
Rush Request: Standard
P.O.#: 20120232.C40

Custody Information

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

Date

05/03/16
05/05/16

Time

9:00
9:00

Laboratory Data

SDG ID: GBN25675
Phoenix ID: BN25675

Project ID: FORMER MERIDEN HOSPITAL
Client ID: 1176160503-17

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Percent Solid	90		%		05/05/16	W	SW846-%Solid
Soil Extraction SVOA PAH	Completed				05/05/16	BJ/CKV	SW3545A
Extraction of CT ETPH	Completed				05/05/16	BJ/CK	SW3545A

TPH by GC (Extractable Products)

Ext. Petroleum HC	ND	54	mg/Kg	1	05/06/16	JRB	CTETPH 8015D
Identification	ND		mg/Kg	1	05/06/16	JRB	CTETPH 8015D

QA/QC Surrogates

% n-Pentacosane	68		%	1	05/06/16	JRB	50 - 150 %
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Polynuclear Aromatic HC

2-Methylnaphthalene	ND	260	ug/Kg	1	05/06/16	DD	SW8270D
Acenaphthene	ND	260	ug/Kg	1	05/06/16	DD	SW8270D
Acenaphthylene	ND	260	ug/Kg	1	05/06/16	DD	SW8270D
Anthracene	ND	260	ug/Kg	1	05/06/16	DD	SW8270D
Benz(a)anthracene	ND	260	ug/Kg	1	05/06/16	DD	SW8270D
Benzo(a)pyrene	ND	260	ug/Kg	1	05/06/16	DD	SW8270D
Benzo(b)fluoranthene	ND	260	ug/Kg	1	05/06/16	DD	SW8270D
Benzo(ghi)perylene	ND	260	ug/Kg	1	05/06/16	DD	SW8270D
Benzo(k)fluoranthene	ND	260	ug/Kg	1	05/06/16	DD	SW8270D
Chrysene	ND	260	ug/Kg	1	05/06/16	DD	SW8270D
Dibenz(a,h)anthracene	ND	260	ug/Kg	1	05/06/16	DD	SW8270D
Fluoranthene	260	260	ug/Kg	1	05/06/16	DD	SW8270D
Fluorene	ND	260	ug/Kg	1	05/06/16	DD	SW8270D
Indeno(1,2,3-cd)pyrene	ND	260	ug/Kg	1	05/06/16	DD	SW8270D
Naphthalene	ND	260	ug/Kg	1	05/06/16	DD	SW8270D
Phenanthrene	ND	260	ug/Kg	1	05/06/16	DD	SW8270D
Pyrene	ND	260	ug/Kg	1	05/06/16	DD	SW8270D

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
<u>QA/QC Surrogates</u>							
% 2-Fluorobiphenyl	64		%	1	05/06/16	DD	30 - 130 %
% Nitrobenzene-d5	61		%	1	05/06/16	DD	30 - 130 %
% Terphenyl-d14	53		%	1	05/06/16	DD	30 - 130 %

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

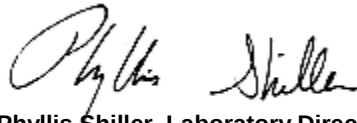
QA/QC Surrogates: Surrogates are compounds (preceded with a %) added by the lab to determine analysis efficiency. Surrogate results(%) listed in the report are not "detected" compounds.

Comments:

All soils, solids and sludges are reported on a dry weight basis unless otherwise noted in the sample 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 19, 2016

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 19, 2016

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

Sample Information

Matrix: SOIL
Location Code: F&O-PCB
Rush Request: Standard
P.O.#: 20120232.C40

Custody Information

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

Date

05/03/16
05/05/16

Time

9:30
9:00

Laboratory Data

SDG ID: GBN25675
Phoenix ID: BN25677

Project ID: FORMER MERIDEN HOSPITAL
Client ID: 1176160503-19

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Percent Solid	90		%		05/05/16	W	SW846-%Solid
Soil Extraction SVOA PAH	Completed				05/05/16	BJ/CKV	SW3545A
Extraction of CT ETPH	Completed				05/05/16	BJ/CK	SW3545A

TPH by GC (Extractable Products)

Ext. Petroleum HC	ND	55	mg/Kg	1	05/06/16	JRB	CTETPH 8015D
Identification	ND		mg/Kg	1	05/06/16	JRB	CTETPH 8015D

QA/QC Surrogates

% n-Pentacosane	75		%	1	05/06/16	JRB	50 - 150 %
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Polynuclear Aromatic HC

2-Methylnaphthalene	ND	260	ug/Kg	1	05/06/16	DD	SW8270D
Acenaphthene	ND	260	ug/Kg	1	05/06/16	DD	SW8270D
Acenaphthylene	ND	260	ug/Kg	1	05/06/16	DD	SW8270D
Anthracene	ND	260	ug/Kg	1	05/06/16	DD	SW8270D
Benz(a)anthracene	ND	260	ug/Kg	1	05/06/16	DD	SW8270D
Benzo(a)pyrene	ND	260	ug/Kg	1	05/06/16	DD	SW8270D
Benzo(b)fluoranthene	ND	260	ug/Kg	1	05/06/16	DD	SW8270D
Benzo(ghi)perylene	ND	260	ug/Kg	1	05/06/16	DD	SW8270D
Benzo(k)fluoranthene	ND	260	ug/Kg	1	05/06/16	DD	SW8270D
Chrysene	ND	260	ug/Kg	1	05/06/16	DD	SW8270D
Dibenz(a,h)anthracene	ND	260	ug/Kg	1	05/06/16	DD	SW8270D
Fluoranthene	ND	260	ug/Kg	1	05/06/16	DD	SW8270D
Fluorene	ND	260	ug/Kg	1	05/06/16	DD	SW8270D
Indeno(1,2,3-cd)pyrene	ND	260	ug/Kg	1	05/06/16	DD	SW8270D
Naphthalene	ND	260	ug/Kg	1	05/06/16	DD	SW8270D
Phenanthrene	ND	260	ug/Kg	1	05/06/16	DD	SW8270D
Pyrene	ND	260	ug/Kg	1	05/06/16	DD	SW8270D

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
<u>QA/QC Surrogates</u>							
% 2-Fluorobiphenyl	47		%	1	05/06/16	DD	30 - 130 %
% Nitrobenzene-d5	49		%	1	05/06/16	DD	30 - 130 %
% Terphenyl-d14	39		%	1	05/06/16	DD	30 - 130 %

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

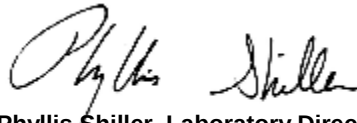
QA/QC Surrogates: Surrogates are compounds (preceded with a %) added by the lab to determine analysis efficiency. Surrogate results(%) listed in the report are not "detected" compounds.

Comments:

All soils, solids and sludges are reported on a dry weight basis unless otherwise noted in the sample comments.

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Phyllis Shiller, Laboratory Director

May 19, 2016

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 19, 2016

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

Sample Information

Matrix: SOIL
Location Code: F&O-PCB
Rush Request: Standard
P.O.#: 20120232.C40

Custody Information

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

Date

05/03/16
05/05/16

Time

9:50
9:00

Laboratory Data

SDG ID: GBN25675
Phoenix ID: BN25679

Project ID: FORMER MERIDEN HOSPITAL
Client ID: 1176160503-21

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Percent Solid	91		%		05/05/16	W	SW846-%Solid
Soil Extraction SVOA PAH	Completed				05/05/16	BJ/CKV	SW3545A
Extraction of CT ETPH	Completed				05/05/16	BJ/CK	SW3545A
Extraction for PCB	Completed				05/05/16	QQ/I	SW3540C

TPH by GC (Extractable Products)

Ext. Petroleum HC	ND	53	mg/Kg	1	05/06/16	JRB	CTETPH 8015D
Identification	ND		mg/Kg	1	05/06/16	JRB	CTETPH 8015D

QA/QC Surrogates

% n-Pentacosane	76		%	1	05/06/16	JRB	50 - 150 %
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PCB (Soxhlet SW3540C)

PCB-1016	ND	0.36	mg/kg	10	05/06/16	AW	SW8082A
PCB-1221	ND	0.36	mg/kg	10	05/06/16	AW	SW8082A
PCB-1232	ND	0.36	mg/kg	10	05/06/16	AW	SW8082A
PCB-1242	ND	0.36	mg/kg	10	05/06/16	AW	SW8082A
PCB-1248	ND	0.36	mg/kg	10	05/06/16	AW	SW8082A
PCB-1254	ND	0.36	mg/kg	10	05/06/16	AW	SW8082A
PCB-1260	ND	0.36	mg/kg	10	05/06/16	AW	SW8082A
PCB-1262	ND	0.36	mg/kg	10	05/06/16	AW	SW8082A
PCB-1268	ND	0.36	mg/kg	10	05/06/16	AW	SW8082A

QA/QC Surrogates

% DCBP	68		%	10	05/06/16	AW	30 - 150 %
% TCMX	78		%	10	05/06/16	AW	30 - 150 %

Polynuclear Aromatic HC

2-Methylnaphthalene	ND	250	ug/Kg	1	05/06/16	DD	SW8270D
Acenaphthene	ND	250	ug/Kg	1	05/06/16	DD	SW8270D

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Acenaphthylene	ND	250	ug/Kg	1	05/06/16	DD	SW8270D
Anthracene	ND	250	ug/Kg	1	05/06/16	DD	SW8270D
Benz(a)anthracene	ND	250	ug/Kg	1	05/06/16	DD	SW8270D
Benzo(a)pyrene	ND	250	ug/Kg	1	05/06/16	DD	SW8270D
Benzo(b)fluoranthene	ND	250	ug/Kg	1	05/06/16	DD	SW8270D
Benzo(ghi)perylene	ND	250	ug/Kg	1	05/06/16	DD	SW8270D
Benzo(k)fluoranthene	ND	250	ug/Kg	1	05/06/16	DD	SW8270D
Chrysene	ND	250	ug/Kg	1	05/06/16	DD	SW8270D
Dibenz(a,h)anthracene	ND	250	ug/Kg	1	05/06/16	DD	SW8270D
Fluoranthene	ND	250	ug/Kg	1	05/06/16	DD	SW8270D
Fluorene	ND	250	ug/Kg	1	05/06/16	DD	SW8270D
Indeno(1,2,3-cd)pyrene	ND	250	ug/Kg	1	05/06/16	DD	SW8270D
Naphthalene	ND	250	ug/Kg	1	05/06/16	DD	SW8270D
Phenanthrene	ND	250	ug/Kg	1	05/06/16	DD	SW8270D
Pyrene	ND	250	ug/Kg	1	05/06/16	DD	SW8270D
<u>QA/QC Surrogates</u>							
% 2-Fluorobiphenyl	73		%	1	05/06/16	DD	30 - 130 %
% Nitrobenzene-d5	72		%	1	05/06/16	DD	30 - 130 %
% Terphenyl-d14	61		%	1	05/06/16	DD	30 - 130 %

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

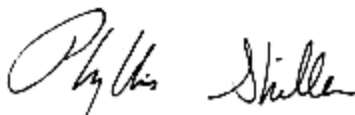
QA/QC Surrogates: Surrogates are compounds (preceded with a %) added by the lab to determine analysis efficiency. Surrogate results(%) listed in the report are not "detected" compounds.

Comments:

All soils, solids and sludges are reported on a dry weight basis unless otherwise noted in the sample 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 19, 2016

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 19, 2016

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

Sample Information

Matrix: SOIL
Location Code: F&O-PCB
Rush Request: Standard
P.O.#: 20120232.C40

Custody Information

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

Date

05/03/16
05/05/16

Time

10:15
9:00

Laboratory Data

SDG ID: GBN25675
Phoenix ID: BN25682

Project ID: FORMER MERIDEN HOSPITAL
Client ID: 1176160503-24

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Percent Solid	92		%		05/05/16	W	SW846-%Solid
Soil Extraction SVOA PAH	Completed				05/05/16	BJ/CKV	SW3545A
Extraction for PCB	Completed				05/05/16	QQ/I	SW3540C

PCB (Soxhlet SW3540C)

PCB-1016	ND	0.35	mg/kg	10	05/06/16	AW	SW8082A
PCB-1221	ND	0.35	mg/kg	10	05/06/16	AW	SW8082A
PCB-1232	ND	0.35	mg/kg	10	05/06/16	AW	SW8082A
PCB-1242	ND	0.35	mg/kg	10	05/06/16	AW	SW8082A
PCB-1248	ND	0.35	mg/kg	10	05/06/16	AW	SW8082A
PCB-1254	ND	0.35	mg/kg	10	05/06/16	AW	SW8082A
PCB-1260	ND	0.35	mg/kg	10	05/06/16	AW	SW8082A
PCB-1262	ND	0.35	mg/kg	10	05/06/16	AW	SW8082A
PCB-1268	ND	0.35	mg/kg	10	05/06/16	AW	SW8082A

QA/QC Surrogates

% DCBP	86	%	10	05/06/16	AW	30 - 150 %
% TCMX	76	%	10	05/06/16	AW	30 - 150 %

Polynuclear Aromatic HC

2-Methylnaphthalene	ND	250	ug/Kg	1	05/06/16	DD	SW8270D
Acenaphthene	ND	250	ug/Kg	1	05/06/16	DD	SW8270D
Acenaphthylene	ND	250	ug/Kg	1	05/06/16	DD	SW8270D
Anthracene	ND	250	ug/Kg	1	05/06/16	DD	SW8270D
Benz(a)anthracene	ND	250	ug/Kg	1	05/06/16	DD	SW8270D
Benzo(a)pyrene	ND	250	ug/Kg	1	05/06/16	DD	SW8270D
Benzo(b)fluoranthene	ND	250	ug/Kg	1	05/06/16	DD	SW8270D
Benzo(ghi)perylene	ND	250	ug/Kg	1	05/06/16	DD	SW8270D
Benzo(k)fluoranthene	ND	250	ug/Kg	1	05/06/16	DD	SW8270D

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Chrysene	ND	250	ug/Kg	1	05/06/16	DD	SW8270D
Dibenz(a,h)anthracene	ND	250	ug/Kg	1	05/06/16	DD	SW8270D
Fluoranthene	ND	250	ug/Kg	1	05/06/16	DD	SW8270D
Fluorene	ND	250	ug/Kg	1	05/06/16	DD	SW8270D
Indeno(1,2,3-cd)pyrene	ND	250	ug/Kg	1	05/06/16	DD	SW8270D
Naphthalene	ND	250	ug/Kg	1	05/06/16	DD	SW8270D
Phenanthrene	ND	250	ug/Kg	1	05/06/16	DD	SW8270D
Pyrene	ND	250	ug/Kg	1	05/06/16	DD	SW8270D
<u>QA/QC Surrogates</u>							
% 2-Fluorobiphenyl	70		%	1	05/06/16	DD	30 - 130 %
% Nitrobenzene-d5	70		%	1	05/06/16	DD	30 - 130 %
% Terphenyl-d14	62		%	1	05/06/16	DD	30 - 130 %

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

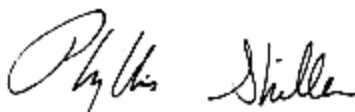
QA/QC Surrogates: Surrogates are compounds (preceded with a %) added by the lab to determine analysis efficiency. Surrogate results(%) listed in the report are not "detected" compounds.

Comments:

All soils, solids and sludges are reported on a dry weight basis unless otherwise noted in the sample 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 19, 2016

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 19, 2016

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

Sample Information

Matrix: SOIL
Location Code: F&O-PCB
Rush Request: Standard
P.O.#: 20120232.C40

Custody Information

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

Date

05/03/16
05/05/16

Time

10:40
9:00

Laboratory Data

SDG ID: GBN25675
Phoenix ID: BN25684

Project ID: FORMER MERIDEN HOSPITAL
Client ID: 1176160503-26

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Percent Solid	93		%		05/05/16	W	SW846-%Solid
Soil Extraction SVOA PAH	Completed				05/05/16	BJ/CKV	SW3545A
Extraction for PCB	Completed				05/05/16	QQ/I	SW3540C

PCB (Soxhlet SW3540C)

PCB-1016	ND	0.35	mg/kg	10	05/06/16	AW	SW8082A
PCB-1221	ND	0.35	mg/kg	10	05/06/16	AW	SW8082A
PCB-1232	ND	0.35	mg/kg	10	05/06/16	AW	SW8082A
PCB-1242	ND	0.35	mg/kg	10	05/06/16	AW	SW8082A
PCB-1248	ND	0.35	mg/kg	10	05/06/16	AW	SW8082A
PCB-1254	ND	0.35	mg/kg	10	05/06/16	AW	SW8082A
PCB-1260	ND	0.35	mg/kg	10	05/06/16	AW	SW8082A
PCB-1262	ND	0.35	mg/kg	10	05/06/16	AW	SW8082A
PCB-1268	ND	0.35	mg/kg	10	05/06/16	AW	SW8082A

QA/QC Surrogates

% DCBP	88		%	10	05/06/16	AW	30 - 150 %
% TCMX	84		%	10	05/06/16	AW	30 - 150 %

Polynuclear Aromatic HC

2-Methylnaphthalene	ND	250	ug/Kg	1	05/06/16	DD	SW8270D
Acenaphthene	ND	250	ug/Kg	1	05/06/16	DD	SW8270D
Acenaphthylene	ND	250	ug/Kg	1	05/06/16	DD	SW8270D
Anthracene	ND	250	ug/Kg	1	05/06/16	DD	SW8270D
Benz(a)anthracene	ND	250	ug/Kg	1	05/06/16	DD	SW8270D
Benzo(a)pyrene	ND	250	ug/Kg	1	05/06/16	DD	SW8270D
Benzo(b)fluoranthene	ND	250	ug/Kg	1	05/06/16	DD	SW8270D
Benzo(ghi)perylene	ND	250	ug/Kg	1	05/06/16	DD	SW8270D
Benzo(k)fluoranthene	ND	250	ug/Kg	1	05/06/16	DD	SW8270D

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Chrysene	ND	250	ug/Kg	1	05/06/16	DD	SW8270D
Dibenz(a,h)anthracene	ND	250	ug/Kg	1	05/06/16	DD	SW8270D
Fluoranthene	ND	250	ug/Kg	1	05/06/16	DD	SW8270D
Fluorene	ND	250	ug/Kg	1	05/06/16	DD	SW8270D
Indeno(1,2,3-cd)pyrene	ND	250	ug/Kg	1	05/06/16	DD	SW8270D
Naphthalene	ND	250	ug/Kg	1	05/06/16	DD	SW8270D
Phenanthrene	ND	250	ug/Kg	1	05/06/16	DD	SW8270D
Pyrene	ND	250	ug/Kg	1	05/06/16	DD	SW8270D
<u>QA/QC Surrogates</u>							
% 2-Fluorobiphenyl	72		%	1	05/06/16	DD	30 - 130 %
% Nitrobenzene-d5	71		%	1	05/06/16	DD	30 - 130 %
% Terphenyl-d14	66		%	1	05/06/16	DD	30 - 130 %

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

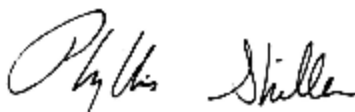
QA/QC Surrogates: Surrogates are compounds (preceded with a %) added by the lab to determine analysis efficiency. Surrogate results(%) listed in the report are not "detected" compounds.

Comments:

All soils, solids and sludges are reported on a dry weight basis unless otherwise noted in the sample 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 19, 2016

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 19, 2016

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

Sample Information

Matrix: SOIL
Location Code: F&O-PCB
Rush Request: Standard
P.O.#: 20120232.C40

Custody Information

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

Date

05/03/16
05/05/16

Time

11:00
9:00

Laboratory Data

SDG ID: GBN25675
Phoenix ID: BN25686

Project ID: FORMER MERIDEN HOSPITAL
Client ID: 1176160503-28

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Percent Solid	90		%		05/05/16	W	SW846-%Solid
Soil Extraction SVOA PAH	Completed				05/05/16	BJ/CKV	SW3545A
Extraction for PCB	Completed				05/05/16	QQ/I	SW3540C

PCB (Soxhlet SW3540C)

PCB-1016	ND	0.36	mg/kg	10	05/06/16	AW	SW8082A
PCB-1221	ND	0.36	mg/kg	10	05/06/16	AW	SW8082A
PCB-1232	ND	0.36	mg/kg	10	05/06/16	AW	SW8082A
PCB-1242	ND	0.36	mg/kg	10	05/06/16	AW	SW8082A
PCB-1248	ND	0.36	mg/kg	10	05/06/16	AW	SW8082A
PCB-1254	ND	0.36	mg/kg	10	05/06/16	AW	SW8082A
PCB-1260	ND	0.36	mg/kg	10	05/06/16	AW	SW8082A
PCB-1262	ND	0.36	mg/kg	10	05/06/16	AW	SW8082A
PCB-1268	ND	0.36	mg/kg	10	05/06/16	AW	SW8082A

QA/QC Surrogates

% DCBP	64		%	10	05/06/16	AW	30 - 150 %
% TCMX	57		%	10	05/06/16	AW	30 - 150 %

Polynuclear Aromatic HC

2-Methylnaphthalene	ND	250	ug/Kg	1	05/06/16	DD	SW8270D
Acenaphthene	ND	250	ug/Kg	1	05/06/16	DD	SW8270D
Acenaphthylene	ND	250	ug/Kg	1	05/06/16	DD	SW8270D
Anthracene	ND	250	ug/Kg	1	05/06/16	DD	SW8270D
Benz(a)anthracene	ND	250	ug/Kg	1	05/06/16	DD	SW8270D
Benzo(a)pyrene	ND	250	ug/Kg	1	05/06/16	DD	SW8270D
Benzo(b)fluoranthene	ND	250	ug/Kg	1	05/06/16	DD	SW8270D
Benzo(ghi)perylene	ND	250	ug/Kg	1	05/06/16	DD	SW8270D
Benzo(k)fluoranthene	ND	250	ug/Kg	1	05/06/16	DD	SW8270D

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Chrysene	290	250	ug/Kg	1	05/06/16	DD	SW8270D
Dibenz(a,h)anthracene	ND	250	ug/Kg	1	05/06/16	DD	SW8270D
Fluoranthene	370	250	ug/Kg	1	05/06/16	DD	SW8270D
Fluorene	ND	250	ug/Kg	1	05/06/16	DD	SW8270D
Indeno(1,2,3-cd)pyrene	ND	250	ug/Kg	1	05/06/16	DD	SW8270D
Naphthalene	ND	250	ug/Kg	1	05/06/16	DD	SW8270D
Phenanthrene	270	250	ug/Kg	1	05/06/16	DD	SW8270D
Pyrene	320	250	ug/Kg	1	05/06/16	DD	SW8270D
<u>QA/QC Surrogates</u>							
% 2-Fluorobiphenyl	73		%	1	05/06/16	DD	30 - 130 %
% Nitrobenzene-d5	75		%	1	05/06/16	DD	30 - 130 %
% Terphenyl-d14	59		%	1	05/06/16	DD	30 - 130 %

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

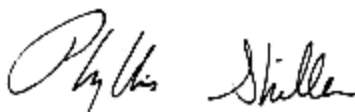
QA/QC Surrogates: Surrogates are compounds (preceded with a %) added by the lab to determine analysis efficiency. Surrogate results(%) listed in the report are not "detected" compounds.

Comments:

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Phyllis Shiller, Laboratory Director

May 19, 2016

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 19, 2016

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

Sample Information

Matrix: SOIL
Location Code: F&O-PCB
Rush Request: Standard
P.O.#: 20120232.C40

Custody Information

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

Date

05/03/16
05/05/16

Time

11:05
9:00

Laboratory Data

SDG ID: GBN25675
Phoenix ID: BN25687

Project ID: FORMER MERIDEN HOSPITAL
Client ID: 1176160503-29

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Percent Solid	91		%		05/05/16	W	SW846-%Solid
Soil Extraction SVOA PAH	Completed				05/05/16	BJ/CKV	SW3545A
Extraction for PCB	Completed				05/05/16	QQ/I	SW3540C

PCB (Soxhlet SW3540C)

PCB-1016	ND	0.36	mg/kg	10	05/06/16	AW	SW8082A
PCB-1221	ND	0.36	mg/kg	10	05/06/16	AW	SW8082A
PCB-1232	ND	0.36	mg/kg	10	05/06/16	AW	SW8082A
PCB-1242	ND	0.36	mg/kg	10	05/06/16	AW	SW8082A
PCB-1248	ND	0.36	mg/kg	10	05/06/16	AW	SW8082A
PCB-1254	ND	0.36	mg/kg	10	05/06/16	AW	SW8082A
PCB-1260	ND	0.36	mg/kg	10	05/06/16	AW	SW8082A
PCB-1262	ND	0.36	mg/kg	10	05/06/16	AW	SW8082A
PCB-1268	ND	0.36	mg/kg	10	05/06/16	AW	SW8082A

QA/QC Surrogates

% DCBP	61		%	10	05/06/16	AW	30 - 150 %
% TCMX	57		%	10	05/06/16	AW	30 - 150 %

Polynuclear Aromatic HC

2-Methylnaphthalene	ND	260	ug/Kg	1	05/06/16	DD	SW8270D
Acenaphthene	ND	260	ug/Kg	1	05/06/16	DD	SW8270D
Acenaphthylene	ND	260	ug/Kg	1	05/06/16	DD	SW8270D
Anthracene	ND	260	ug/Kg	1	05/06/16	DD	SW8270D
Benz(a)anthracene	420	260	ug/Kg	1	05/06/16	DD	SW8270D
Benzo(a)pyrene	430	260	ug/Kg	1	05/06/16	DD	SW8270D
Benzo(b)fluoranthene	420	260	ug/Kg	1	05/06/16	DD	SW8270D
Benzo(ghi)perylene	290	260	ug/Kg	1	05/06/16	DD	SW8270D
Benzo(k)fluoranthene	380	260	ug/Kg	1	05/06/16	DD	SW8270D

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Chrysene	520	260	ug/Kg	1	05/06/16	DD	SW8270D
Dibenz(a,h)anthracene	ND	260	ug/Kg	1	05/06/16	DD	SW8270D
Fluoranthene	790	260	ug/Kg	1	05/06/16	DD	SW8270D
Fluorene	ND	260	ug/Kg	1	05/06/16	DD	SW8270D
Indeno(1,2,3-cd)pyrene	320	260	ug/Kg	1	05/06/16	DD	SW8270D
Naphthalene	ND	260	ug/Kg	1	05/06/16	DD	SW8270D
Phenanthrene	570	260	ug/Kg	1	05/06/16	DD	SW8270D
Pyrene	690	260	ug/Kg	1	05/06/16	DD	SW8270D
<u>QA/QC Surrogates</u>							
% 2-Fluorobiphenyl	68		%	1	05/06/16	DD	30 - 130 %
% Nitrobenzene-d5	69		%	1	05/06/16	DD	30 - 130 %
% Terphenyl-d14	57		%	1	05/06/16	DD	30 - 130 %

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

QA/QC Surrogates: Surrogates are compounds (preceded with a %) added by the lab to determine analysis efficiency. Surrogate results(%) listed in the report are not "detected" compounds.

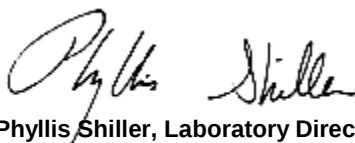
Comments:

DUPLICATE

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Phyllis Shiller, Laboratory Director

May 19, 2016

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 19, 2016

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

Sample Information

Matrix: SOIL
Location Code: F&O-PCB
Rush Request: Standard
P.O.#: 20120232.C40

Custody Information

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

Date

05/03/16
05/05/16

Time

12:30
9:00

Laboratory Data

SDG ID: GBN25675
Phoenix ID: BN25689

Project ID: FORMER MERIDEN HOSPITAL
Client ID: 1176160503-31

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Silver	< 0.38	0.38	mg/Kg	1	05/06/16	EK	SW6010C
Arsenic	3.0	0.8	mg/Kg	1	05/06/16	EK	SW6010C
Barium	57.2	0.38	mg/Kg	1	05/06/16	EK	SW6010C
Cadmium	< 0.38	0.38	mg/Kg	1	05/06/16	EK	SW6010C
Chromium	13.8	0.38	mg/Kg	1	05/06/16	EK	SW6010C
Copper	65.0	0.38	mg/kg	1	05/06/16	EK	SW6010C
Mercury	0.18	0.03	mg/Kg	1	05/06/16	RS	SW7471B
Nickel	13.3	0.38	mg/Kg	1	05/06/16	EK	SW6010C
Lead	74.2	0.38	mg/Kg	1	05/06/16	EK	SW6010C
Selenium	< 1.5	1.5	mg/Kg	1	05/06/16	LK	SW6010C
SPLP Lead	0.011	0.010	mg/L	1	05/18/16	LK	SW6010C
SPLP Metals Digestion	Completed				05/17/16	W/W	SW3005A
Zinc	100	0.38	mg/Kg	1	05/06/16	EK	SW6010C
Percent Solid	90		%		05/05/16	W	SW846-%Solid
Extraction of CT ETPH	Completed				05/05/16	BJ/CK	SW3545A
Mercury Digestion	Completed				05/06/16	W/W	SW7471B
SPLP Extraction for Metals	Completed				05/16/16	W	SW1312
Total Metals Digest	Completed				05/05/16	G/AG	SW3050B

TPH by GC (Extractable Products)

Ext. Petroleum HC	ND	55	mg/Kg	1	05/06/16	JRB	CTETPH 8015D
Identification	ND		mg/Kg	1	05/06/16	JRB	CTETPH 8015D

QA/QC Surrogates

% n-Pentacosane	76		%	1	05/06/16	JRB	50 - 150 %
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Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
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RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level

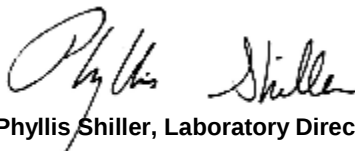
QA/QC Surrogates: Surrogates are compounds (preceded with a %) added by the lab to determine analysis efficiency. Surrogate results(%) listed in the report are not "detected" compounds.

Comments:

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Phyllis Shiller, Laboratory Director

May 19, 2016

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 19, 2016

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

Sample Information

Matrix: SOIL
Location Code: F&O-PCB
Rush Request: Standard
P.O.#: 20120232.C40

Custody Information

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

Date

05/03/16
05/05/16

Time

13:20
9:00

Laboratory Data

SDG ID: GBN25675
Phoenix ID: BN25691

Project ID: FORMER MERIDEN HOSPITAL
Client ID: 1176160503-33

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Silver	6.04	0.40	mg/Kg	1	05/06/16	EK	SW6010C
Arsenic	12.7	0.8	mg/Kg	1	05/06/16	LK	SW6010C
Barium	58.6	0.40	mg/Kg	1	05/06/16	LK	SW6010C
Cadmium	2.80	0.40	mg/Kg	1	05/06/16	LK	SW6010C
Chromium	24.3	0.40	mg/Kg	1	05/06/16	LK	SW6010C
Copper	561	4.0	mg/kg	10	05/07/16	LK	SW6010C
Mercury	0.23	0.03	mg/Kg	1	05/06/16	RS	SW7471B
Nickel	101	0.40	mg/Kg	1	05/06/16	LK	SW6010C
Lead	747	4.0	mg/Kg	10	05/07/16	LK	SW6010C
Selenium	< 1.6	1.6	mg/Kg	1	05/06/16	LK	SW6010C
SPLP Arsenic	< 0.004	0.004	mg/L	1	05/18/16	LK	SW6010C
SPLP Cadmium	< 0.005	0.005	mg/L	1	05/18/16	LK	SW6010C
SPLP Lead	0.016	0.010	mg/L	1	05/18/16	LK	SW6010C
SPLP Metals Digestion	Completed				05/17/16	W/W	SW3005A
Zinc	1220	4.0	mg/Kg	10	05/07/16	LK	SW6010C
Percent Solid	82		%		05/05/16	W	SW846-%Solid
Extraction of CT ETPH	Completed				05/05/16	BJ/CK	SW3545A
Mercury Digestion	Completed				05/06/16	W/W	SW7471B
SPLP Extraction for Metals	Completed				05/16/16	W	SW1312
Total Metals Digest	Completed				05/05/16	G/AG	SW3050B

TPH by GC (Extractable Products)

Ext. Petroleum HC	ND	61	mg/Kg	1	05/06/16	JRB	CTETPH 8015D
Identification	ND		mg/Kg	1	05/06/16	JRB	CTETPH 8015D

QA/QC Surrogates

% n-Pentacosane	69	%	1	05/06/16	JRB	50 - 150 %
Client MS/MSD	Completed			05/17/16		

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
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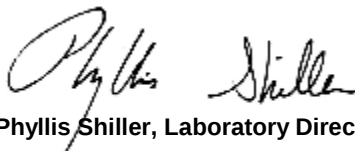
RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level
QA/QC Surrogates: Surrogates are compounds (preceded with a %) added by the lab to determine analysis efficiency. Surrogate results(%) listed in the report are not "detected" compounds.

Comments:

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Phyllis Shiller, Laboratory Director

May 19, 2016

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 19, 2016

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

Sample Information

Matrix: SOIL
Location Code: F&O-PCB
Rush Request: Standard
P.O.#: 20120232.C40

Custody Information

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

Date

05/03/16
05/05/16

Time

13:30
9:00

Laboratory Data

SDG ID: GBN25675
Phoenix ID: BN25692

Project ID: FORMER MERIDEN HOSPITAL
Client ID: 1176160503-34

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Silver	17.8	0.41	mg/Kg	1	05/06/16	LK	SW6010C
Arsenic	10.5	0.8	mg/Kg	1	05/06/16	EK	SW6010C
Barium	52.6	0.41	mg/Kg	1	05/06/16	EK	SW6010C
Cadmium	2.60	0.41	mg/Kg	1	05/06/16	EK	SW6010C
Chromium	21.1	0.41	mg/Kg	1	05/06/16	EK	SW6010C
Copper	6940	41	mg/kg	100	05/07/16	LK	SW6010C
Mercury	0.29	0.03	mg/Kg	1	05/06/16	RS	SW7471B
Nickel	87.8	0.41	mg/Kg	1	05/06/16	EK	SW6010C
Lead	1010	41	mg/Kg	100	05/07/16	LK	SW6010C
Selenium	< 1.6	1.6	mg/Kg	1	05/06/16	LK	SW6010C
SPLP Copper	0.045	0.010	mg/L	1	05/18/16	LK	SW6010C
SPLP Lead	0.028	0.010	mg/L	1	05/18/16	LK	SW6010C
SPLP Metals Digestion	Completed				05/17/16	W/W	SW3005A
Zinc	1170	41	mg/Kg	100	05/07/16	LK	SW6010C
Percent Solid	82		%		05/05/16	W	SW846-%Solid
Extraction of CT ETPH	Completed				05/05/16	BJ/CK	SW3545A
Mercury Digestion	Completed				05/06/16	W/W	SW7471B
SPLP Extraction for Metals	Completed				05/16/16	W	SW1312
Total Metals Digest	Completed				05/05/16	G/AG	SW3050B

TPH by GC (Extractable Products)

Ext. Petroleum HC	ND	60	mg/Kg	1	05/06/16	JRB	CTETPH 8015D
Identification	ND		mg/Kg	1	05/06/16	JRB	CTETPH 8015D

QA/QC Surrogates

% n-Pentacosane	67	%	1	05/06/16	JRB	50 - 150 %
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Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
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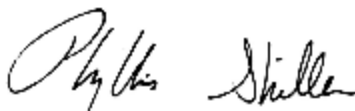
RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level
QA/QC Surrogates: Surrogates are compounds (preceded with a %) added by the lab to determine analysis efficiency. Surrogate results(%) listed in the report are not "detected" compounds.

Comments:

DUPLICATE INCLUDED

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Phyllis Shiller, Laboratory Director

May 19, 2016

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 19, 2016

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

Sample Information

Matrix: SOIL
Location Code: F&O-PCB
Rush Request: Standard
P.O.#: 20120232.C40

Custody Information

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

Date

05/03/16
05/05/16

Time

14:00
9:00

Laboratory Data

SDG ID: GBN25675
Phoenix ID: BN25694

Project ID: FORMER MERIDEN HOSPITAL
Client ID: 1176160503-36

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Silver	< 0.35	0.35	mg/Kg	1	05/06/16	EK	SW6010C
Arsenic	4.0	0.7	mg/Kg	1	05/06/16	EK	SW6010C
Barium	117	0.35	mg/Kg	1	05/06/16	EK	SW6010C
Cadmium	1.19	0.35	mg/Kg	1	05/06/16	EK	SW6010C
Chromium	23.2	0.35	mg/Kg	1	05/06/16	EK	SW6010C
Copper	28.2	0.35	mg/kg	1	05/06/16	EK	SW6010C
Mercury	0.07	0.03	mg/Kg	1	05/06/16	RS	SW7471B
Nickel	18.1	0.35	mg/Kg	1	05/06/16	EK	SW6010C
Lead	29.5	0.35	mg/Kg	1	05/06/16	EK	SW6010C
Selenium	< 1.4	1.4	mg/Kg	1	05/06/16	LK	SW6010C
SPLP Lead	< 0.010	0.010	mg/L	1	05/18/16	LK	SW6010C
SPLP Metals Digestion	Completed				05/17/16	W/W	SW3005A
Zinc	533	3.5	mg/Kg	10	05/07/16	LK	SW6010C
Percent Solid	87		%		05/05/16	W	SW846-%Solid
Extraction of CT ETPH	Completed				05/05/16	BJ/CK	SW3545A
Mercury Digestion	Completed				05/06/16	W/W	SW7471B
SPLP Extraction for Metals	Completed				05/16/16	W	SW1312
Total Metals Digest	Completed				05/05/16	G/AG	SW3050B

TPH by GC (Extractable Products)

Ext. Petroleum HC	ND	56	mg/Kg	1	05/06/16	JRB	CTETPH 8015D
Identification	ND		mg/Kg	1	05/06/16	JRB	CTETPH 8015D

QA/QC Surrogates

% n-Pentacosane	60		%	1	05/06/16	JRB	50 - 150 %
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Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
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RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level

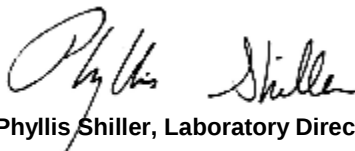
QA/QC Surrogates: Surrogates are compounds (preceded with a %) added by the lab to determine analysis efficiency. Surrogate results(%) listed in the report are not "detected" compounds.

Comments:

All soils, solids and sludges are reported on a dry weight basis unless otherwise noted in the sample 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 19, 2016

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 19, 2016

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

Sample Information

Matrix: SOIL
Location Code: F&O-PCB
Rush Request: Standard
P.O.#: 20120232.C40

Custody Information

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

Date

05/03/16
05/05/16

Time

14:40
9:00

Laboratory Data

SDG ID: GBN25675
Phoenix ID: BN25696

Project ID: FORMER MERIDEN HOSPITAL
Client ID: 1176160503-38

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Silver	< 0.36	0.36	mg/Kg	1	05/06/16	EK	SW6010C
Arsenic	19.8	0.7	mg/Kg	1	05/06/16	EK	SW6010C
Barium	94.8	0.36	mg/Kg	1	05/06/16	EK	SW6010C
Cadmium	< 0.36	0.36	mg/Kg	1	05/06/16	EK	SW6010C
Chromium	12.5	0.36	mg/Kg	1	05/06/16	EK	SW6010C
Copper	35.0	0.36	mg/kg	1	05/06/16	EK	SW6010C
Mercury	< 0.03	0.03	mg/Kg	1	05/06/16	RS	SW7471B
Nickel	13.1	0.36	mg/Kg	1	05/06/16	EK	SW6010C
Lead	12.5	0.36	mg/Kg	1	05/06/16	EK	SW6010C
Selenium	< 1.4	1.4	mg/Kg	1	05/06/16	LK	SW6010C
SPLP Arsenic	< 0.004	0.004	mg/L	1	05/18/16	LK	SW6010C
SPLP Lead	< 0.010	0.010	mg/L	1	05/18/16	LK	SW6010C
SPLP Metals Digestion	Completed				05/17/16	W/W	SW3005A
Zinc	46.2	0.36	mg/Kg	1	05/06/16	EK	SW6010C
Percent Solid	90		%		05/05/16	W	SW846-%Solid
Extraction of CT ETPH	Completed				05/05/16	BJ/CK	SW3545A
Mercury Digestion	Completed				05/06/16	W/W	SW7471B
SPLP Extraction for Metals	Completed				05/16/16	W	SW1312
Total Metals Digest	Completed				05/05/16	G/AG	SW3050B

TPH by GC (Extractable Products)

Ext. Petroleum HC	ND	55	mg/Kg	1	05/06/16	JRB	CTETPH 8015D
Identification	ND		mg/Kg	1	05/06/16	JRB	CTETPH 8015D

QA/QC Surrogates

% n-Pentacosane	66	%	1	05/06/16	JRB	50 - 150 %
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Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
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RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level

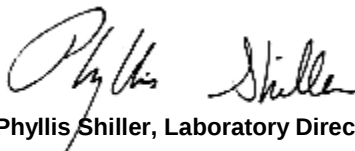
QA/QC Surrogates: Surrogates are compounds (preceded with a %) added by the lab to determine analysis efficiency. Surrogate results(%) listed in the report are not "detected" compounds.

Comments:

All soils, solids and sludges are reported on a dry weight basis unless otherwise noted in the sample 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 19, 2016

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

QA/QC Report

May 19, 2016

QA/QC Data

SDG I.D.: GBN25675

Parameter	Blank	Blk RL	Sample Result	Dup Result	Dup RPD	LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	% Rec Limits	% RPD Limits
QA/QC Batch 344552 (mg/kg), QC Sample No: BN25691 (BN25689, BN25691, BN25692, BN25694, BN25696)													
<u>ICP Metals - Soil</u>													
Arsenic	BRL	0.67	12.7	12.7	0	103			91.1			75 - 125	30
Barium	BRL	0.33	58.6	58.1	0.90	94.5			96.4			75 - 125	30
Cadmium	BRL	0.33	2.80	3.02	7.60	104			90.3			75 - 125	30
Chromium	BRL	0.33	24.3	24.0	1.20	105			96.0			75 - 125	30
Copper	BRL	0.33	561	545	2.90	106			68.6			75 - 125	30 m
Lead	BRL	0.33	747	885	16.9	97.5			111			75 - 125	30
Nickel	BRL	0.33	101	120	17.2	104			82.5			75 - 125	30
Selenium	BRL	1.3	<1.6	<1.5	NC	90.8			78.1			75 - 125	30
Silver	BRL	0.33	6.04	5.67	6.30	103			96.6			75 - 125	30
Zinc	BRL	0.33	1220	1200	1.70	101			NC			75 - 125	30

QA/QC Batch 345805 (mg/L), QC Sample No: BN25691 (BN25689, BN25691, BN25692, BN25694, BN25696)

ICP Metals - SPLP Extraction

Arsenic	BRL	0.004	<0.004	<0.004	NC	100			100			75 - 125	20
Cadmium	BRL	0.005	<0.005	<0.005	NC	102			102			75 - 125	20
Copper	BRL	0.010	0.018	0.018	NC	102			102			75 - 125	20
Lead	BRL	0.010	0.016	0.015	NC	102			101			75 - 125	20

QA/QC Batch 344606 (mg/kg), QC Sample No: BN25691 (BN25689, BN25691, BN25692, BN25694, BN25696)

Mercury - Soil	BRL	0.03	0.23	0.22	4.40	113	109	3.6	150			70 - 130	30 m
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Comment:

Additional Mercury criteria: LCS acceptance range for waters is 80-120% and for soils is 70-130%.

m = This parameter is outside laboratory MS/MSD specified recovery limits.



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QA/QC Report

May 19, 2016

QA/QC Data

SDG I.D.: GBN25675

Parameter	Blank	Blk RL	LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	% Rec Limits	% RPD Limits
QA/QC Batch 344429 (mg/kg), QC Sample No: BN25312 10X (BN25679, BN25682)										
Polychlorinated Biphenyls - Soil										
PCB-1016	ND	0.17	75	77	2.6				40 - 140	30
PCB-1221	ND	0.17							40 - 140	30
PCB-1232	ND	0.17							40 - 140	30
PCB-1242	ND	0.17							40 - 140	30
PCB-1248	ND	0.17							40 - 140	30
PCB-1254	ND	0.17							40 - 140	30
PCB-1260	ND	0.17	81	83	2.4				40 - 140	30
PCB-1262	ND	0.17							40 - 140	30
PCB-1268	ND	0.17							40 - 140	30
% DCBP (Surrogate Rec)	87	%	90	91	1.1				30 - 150	30
% TCMX (Surrogate Rec)	72	%	72	74	2.7				30 - 150	30

Comment:

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

QA/QC Batch 344541 (ug/kg), QC Sample No: BN25662 (BN25675, BN25677, BN25679, BN25682, BN25684, BN25686, BN25687)

Polynuclear Aromatic HC - Soil

2-Methylnaphthalene	ND	230	69	66	4.4	55	63	13.6	30 - 130	30
Acenaphthene	ND	230	81	74	9.0	60	69	14.0	30 - 130	30
Acenaphthylene	ND	230	80	73	9.2	60	68	12.5	30 - 130	30
Anthracene	ND	230	81	77	5.1	61	69	12.3	30 - 130	30
Benz(a)anthracene	ND	230	77	76	1.3	59	67	12.7	30 - 130	30
Benzo(a)pyrene	ND	230	75	73	2.7	56	63	11.8	30 - 130	30
Benzo(b)fluoranthene	ND	230	77	75	2.6	57	67	16.1	30 - 130	30
Benzo(ghi)perylene	ND	230	86	83	3.6	62	70	12.1	30 - 130	30
Benzo(k)fluoranthene	ND	230	79	77	2.6	60	68	12.5	30 - 130	30
Chrysene	ND	230	84	81	3.6	65	73	11.6	30 - 130	30
Dibenz(a,h)anthracene	ND	230	83	80	3.7	60	69	14.0	30 - 130	30
Fluoranthene	ND	230	81	74	9.0	60	66	9.5	30 - 130	30
Fluorene	ND	230	76	71	6.8	58	66	12.9	30 - 130	30
Indeno(1,2,3-cd)pyrene	ND	230	85	81	4.8	58	66	12.9	30 - 130	30
Naphthalene	ND	230	70	67	4.4	56	63	11.8	30 - 130	30
Phenanthrene	ND	230	83	77	7.5	61	69	12.3	30 - 130	30
Pyrene	ND	230	84	78	7.4	63	69	9.1	30 - 130	30
% 2-Fluorobiphenyl	72	%	73	66	10.1	55	63	13.6	30 - 130	30
% Nitrobenzene-d5	67	%	68	63	7.6	57	66	14.6	30 - 130	30
% Terphenyl-d14	69	%	80	71	11.9	55	63	13.6	30 - 130	30

QA/QC Batch 344547 (mg/kg), QC Sample No: BN25684 10X (BN25684, BN25686, BN25687)

Polychlorinated Biphenyls - Soil

PCB-1016	ND	0.17	92	91	1.1	94	92	2.2	40 - 140	30
PCB-1221	ND	0.17							40 - 140	30
PCB-1232	ND	0.17							40 - 140	30

QA/QC Data

SDG I.D.: GBN25675

Parameter	Blank	Blk RL	LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	% Rec Limits	% RPD Limits
PCB-1242	ND	0.17							40 - 140	30
PCB-1248	ND	0.17							40 - 140	30
PCB-1254	ND	0.17							40 - 140	30
PCB-1260	ND	0.17	89	85	4.6	87	90	3.4	40 - 140	30
PCB-1262	ND	0.17							40 - 140	30
PCB-1268	ND	0.17							40 - 140	30
% DCBP (Surrogate Rec)	82	%	80	79	1.3	82	80	2.5	30 - 150	30
% TCMX (Surrogate Rec)	76	%	75	71	5.5	74	70	5.6	30 - 150	30

QA/QC Batch 344545 (mg/Kg), QC Sample No: BN25691 (BN25675, BN25677, BN25679, BN25689, BN25691, BN25692, BN25694, BN25696)

TPH by GC (Extractable Products) - Soil

Ext. Petroleum H.C.	ND	50	62	67	7.8	62	68	9.2	60 - 120	30
% n-Pentacosane	65	%	71	75	5.5	78	78	0.0	50 - 150	30

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 19, 2016

Thursday, May 19, 2016

Criteria: CT: GAM, RC

State: CT

Sample Criteria Exceedences Report

Page 1 of 1

GBN25675 - FO-PCB

SampNo	Acode	Phoenix Analyte	Criteria	Result	RL	Criteria	RL Criteria	Analysis Units
BN25691	AS-SM	Arsenic	CT / INORGANIC SUBSTANCES / RES DEC (mg/kg)	12.7	0.8	10	10	mg/Kg
BN25691	PB-SM	Lead	CT / INORGANIC SUBSTANCES / RES DEC (mg/kg)	747	4.0	400	400	mg/Kg
BN25691	SPLP-PB	SPLP Lead	CT / INORGANIC SUBSTANCES / GA/GAA PMC (mg/l)**	0.016	0.010	0.015	0.015	mg/L
BN25692	AS-SM	Arsenic	CT / INORGANIC SUBSTANCES / RES DEC (mg/kg)	10.5	0.8	10	10	mg/Kg
BN25692	CU-SM	Copper	CT / INORGANIC SUBSTANCES / RES DEC (mg/kg)	6940	41	2500	2500	mg/kg
BN25692	PB-SM	Lead	CT / INORGANIC SUBSTANCES / RES DEC (mg/kg)	1010	41	400	400	mg/Kg
BN25692	SPLP-PB	SPLP Lead	CT / INORGANIC SUBSTANCES / GA/GAA PMC (mg/l)**	0.028	0.010	0.015	0.015	mg/L
BN25696	AS-SM	Arsenic	CT / INORGANIC SUBSTANCES / RES DEC (mg/kg)	19.8	0.7	10	10	mg/Kg

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: FORMER MERIDEN HOSPITAL **Project Number:**

Laboratory Sample ID(s): BN25675, BN25677, BN25679, BN25682, BN25684, BN25686, BN25687, BN25689, BN25691, BN25692, BN25694, BN25696

Sampling Date(s): 5/3/2016

RCP Methods Used:

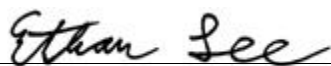
☒ 1311/1312 ☒ 6010 ☐ 7000 ☐ 7196 ☒ 7470/7471 ☐ 8081 ☐ EPH ☐ TO15
☒ 8082 ☐ 8151 ☐ 8260 ☒ 8270 ☒ ETPH ☐ 9010/9012 ☐ VPH

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?	☒ Yes ☐ No
1a.	Were the method specified preservation and holding time requirements met?	☒ Yes ☐ 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)	☐ Yes ☐ No ☒ NA
2.	Were all samples received by the laboratory in a condition consistent with that described on the associated Chain-of-Custody document(s)?	☒ Yes ☐ No
3.	Were samples received at an appropriate temperature (< 6 Degrees C)?	☒ Yes ☐ No ☐ NA
4.	Were all QA/QC performance criteria specified in the Reasonable Confidence Protocol documents achieved? See Sections: ICP Narration, Mercury Narration.	☐ Yes ☒ No
5a.	Were reporting limits specified or referenced on the chain-of-custody?	☒ Yes ☐ No
5b.	Were these reporting limits met?	☒ Yes ☐ No ☐ 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?	☐ Yes ☒ No ☐ NA
7.	Are project-specific matrix spikes and laboratory duplicates included in the data set?	☒ Yes ☐ No ☐ 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 19, 2016

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 19, 2016

SDG I.D.: GBN25675

SDG Comments

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.

Metals Analysis:

The client requested a shorter list of elements than the 6010 RCP list. Only the RCRA 8 Metals plus Copper, Nickel, and Zinc 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-FID1 05/06/16-2

Jeff Bucko, Chemist 05/06/16

BN25677, BN25679, BN25689

The initial calibration (ETPH502I) RSD for the compound list was less than 30% except for the following compounds: None.

As per section 7.2.3, a discrimination check standard was run and contained the following outliers: C36 22.8%L (20%)

The continuing calibration %D for the compound list was less than 30% except for the following compounds:None.

AU-FID11 05/06/16-1

Jeff Bucko, Chemist 05/06/16

BN25691, BN25696

The initial calibration (ETPH429I) RSD for the compound list was less than 30% except for the following compounds: None.

The continuing calibration %D for the compound list was less than 30% except for the following compounds:None.

AU-XL2 05/06/16-1

Jeff Bucko, Chemist 05/06/16

BN25675, BN25691, BN25692, BN25694

The initial calibration (ETPH427I) RSD for the compound list was less than 30% except for the following compounds: None.

The continuing calibration %D for the compound list was less than 30% except for the following compounds:None.

QC (Site Specific):

Batch 344545 (BN25691)

BN25675, BN25677, BN25679, BN25689, BN25691, BN25692, BN25694, BN25696

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.

All MS recoveries were within 50 - 150 with the following exceptions: None.

All MSD recoveries were within 50 - 150 with the following exceptions: None.

All MS/MSD RPDs were less than 30% with the following exceptions: None.

Mercury Narration

Were all QA/QC performance criteria specified in the analytical method achieved? No.

QC Batch 344606 (Samples: BN25689, BN25691, BN25692, BN25694, BN25696): -----

The MS and/or the MSD recovery is above the upper range, therefore a slight high bias is possible. (Mercury)

Instrument:



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Tel. (860) 645-1102 Fax (860) 645-0823



Certification Report

May 19, 2016

SDG I.D.: GBN25675

Mercury Narration

MERLIN 05/06/16 09:12 Rick Schweitzer, Chemist 05/06/16

BN25689, BN25691, BN25692, BN25694, BN25696

The method preparation blank contains all of the acids and reagents as the samples; the instrument blanks do not.

The initial calibration met all criteria including a standard run at or below the reporting level.

All calibration verification standards (ICV, CCV) met criteria.

All calibration blank verification standards (ICB, CCB) met criteria.

The matrix spike sample is used to identify spectral interference for each batch of samples, if within 85-115%, no interference is observed and no further action is taken.

The following Initial Calibration Verification (ICV) compounds did not meet criteria: None.

The following Continuing Calibration Verification (CCV) compounds did not meet criteria: None.

QC (Site Specific):

Batch 344606 (BN25691)

BN25689, BN25691, BN25692, BN25694, BN25696

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

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.

All MS recoveries were within 75 - 125 with the following exceptions: Mercury(150%)

A matrix effect is suspected when a MS/MSD recovery is outside of criteria. No further action is required if LCS/LCSD compounds are within criteria.

Additional Mercury criteria: LCS acceptance range for waters is 80-120% and for soils is 70-130%.

ICP Metals Narration

Were all QA/QC performance criteria specified in the analytical method achieved? No.

QC Batch 344552 (Samples: BN25689, BN25691, BN25692, BN25694, BN25696): -----

The LCS/LCSD recovery is acceptable. One or more analytes in the site specific matrix spike recovery is below the method criteria, therefore a low bias is likely. (Copper)

Instrument:

ARCOS 05/05/16 19:18 Emily Kolominskaya, Laura Kinnin, Chemist 05/05/16

BN25689, BN25691, BN25692, BN25694, BN25696

The linear range is defined daily by the calibration range.

The following Initial Calibration Verification (ICV) compounds did not meet criteria: None.

The following Continuing Calibration Verification (CCV) compounds did not meet criteria: None.

The following ICP Interference Check (ICSAB) compounds did not meet criteria: None.

ARCOS 05/06/16 20:26 Emily Kolominskaya, Laura Kinnin, Chemist 05/06/16

BN25691, BN25692, BN25694

The linear range is defined daily by the calibration range.

The following Initial Calibration Verification (ICV) compounds did not meet criteria: None.

The following Continuing Calibration Verification (CCV) compounds did not meet criteria: None.

The following ICP Interference Check (ICSAB) compounds did not meet criteria: None.

ARCOS 05/17/16 19:23 Emily Kolominskaya, Laura Kinnin, Chemist 05/17/16



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



Certification Report

May 19, 2016

SDG I.D.: GBN25675

ICP Metals Narration

BN25689, BN25691, BN25692, BN25694, BN25696

The linear range is defined daily by the calibration range.

The following Initial Calibration Verification (ICV) compounds did not meet criteria: None.

The following Continuing Calibration Verification (CCV) compounds did not meet criteria: None.

The following ICP Interference Check (ICSAB) compounds did not meet criteria: None.

QC (Site Specific):

Batch 344552 (BN25691)

BN25689, BN25691, BN25692, BN25694, BN25696

All LCS recoveries were within 75 - 125 with the following exceptions: None.

All MS recoveries were within 75 - 125 with the following exceptions: Copper(68.6%)

A matrix effect is suspected when a MS/MSD recovery is outside of criteria. No further action is required if LCS/LCSD compounds are within criteria.

Batch 345805 (BN25691)

BN25689, BN25691, BN25692, BN25694, BN25696

All LCS recoveries were within 75 - 125 with the following exceptions: None.

All MS recoveries were within 75 - 125 with the following exceptions: None.

PAH Narration

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

Instrument:

CHEM06 05/05/16-1

Damien Drobinski, Chemist 05/05/16

BN25675, BN25677, BN25679, BN25682, BN25684, BN25686, BN25687

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

Initial Calibration Verification (CHEM06/BN_0505):

100% of target compounds met criteria.

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

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

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

Continuing Calibration Verification (CHEM06/0505_14-BN_0505):

Internal standard areas were within 50 to 200% of the initial calibration with the following exceptions: None.

100% of target compounds met criteria.

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: None.

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

QC (Batch Specific):

Batch 344541 (BN25662)

BN25675, BN25677, BN25679, BN25682, BN25684, BN25686, BN25687



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



RCP Certification Report

May 19, 2016

SDG I.D.: GBN25675

PAH Narration

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 30% with the following exceptions: None.

PCB Narration

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

Instrument:

AU-ECD24 05/06/16-1 Adam Werner, Chemist 05/06/16

BN25684

The initial calibration (PC0504AI) RSD for the compound list was less than 20% except for the following compounds: None.
The initial calibration (PC0504BI) RSD for the compound list was less than 20% except for the following compounds: None.
The continuing calibration %D for the compound list was less than 15% except for the following compounds: None.

AU-ECD5 05/06/16-1 Adam Werner, Chemist 05/06/16

BN25679

The initial calibration (PC0504AI) RSD for the compound list was less than 20% except for the following compounds: None.
The initial calibration (PC0504BI) RSD for the compound list was less than 20% except for the following compounds: None.
The continuing calibration %D for the compound list was less than 15% except for the following compounds: None.

AU-ECD8 05/06/16-1 Adam Werner, Chemist 05/06/16

BN25682, BN25686, BN25687

The initial calibration (PC0422AI) RSD for the compound list was less than 20% except for the following compounds: None.
The initial calibration (PC0422BI) RSD for the compound list was less than 20% except for the following compounds: None.
The continuing calibration %D for the compound list was less than 15% except for the following compounds: None.

QC (Batch Specific):

Batch 344429 (BN25312)

BN25679, BN25682

All LCS recoveries were within 40 - 140 with the following exceptions: None.
All LCSD recoveries were within 40 - 140 with the following exceptions: None.
All LCS/LCSD RPDs were less than 30% with the following exceptions: None.
A LCS and LCS Duplicate were performed instead of a matrix spike and matrix spike duplicate.

Batch 344547 (BN25684)

BN25684, BN25686, BN25687

All LCS recoveries were within 40 - 140 with the following exceptions: None.
All LCSD recoveries were within 40 - 140 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 6C with cooling initiated.
(Note acceptance criteria is above freezing up to 6°C)



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

CHAIN-OF-CUSTODY RECORD 34344

PROJECT NAME

PROJECT LOCATION

Former Meriden Hospital Meriden, CT

REPORT TO:

Stefanie Wierschen

INVOICE TO:

P.O. NO.:

Sampler's Signature:

D. O'Connell

Date: 5/3/16

Source Codes:

MW=Monitoring Well PW=Potable Water S=Soil B=Sediment

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

X=Other

Transfer Check

1 2 3 4

Item No.

1 2 3 4

Sample Number

Source Code

Date Sampled

Time Sampled

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☐ 317 Iron Horse Way, Suite 204, Providence, RI 02908
☐ 80 Washington Street, Suite 301, Poughkeepsie, NY

6 wk

CHAIN-OF-CUSTODY RECORD 34345

PROJECT NAME

Former Menden Hospital

PROJECT LOCATION

Menden, CT

REPORT TO:

Stefanie Wierschke

INVOICE TO:

P.O. NO.:

Sampler's Signature:

[Signature]

Date: 5/3/16

Source Codes:

MW=Monitoring Well
SW=Surface Water

PW=Potable Water
ST=Stormwater

S=Soil
C=Concrete

B=Sediment

X=Other

PROJECT NUMBER

20120232040

Analysis Request

PCB, PAHs, Cu, Ni, Zn

LABORATORY

Phoenix

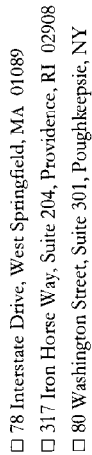
Containers

Turnaround

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

Item No.	Transfer Check 1 2 3 4	Sample Number	Source Code	Date Sampled	Time Sampled	Analysis Request	Soil VOA Vol. □ methanol □ Na ₂ SO ₄ Glass Soil Container (8) oz	Other	Water VOA Vol. □ As is □ HCl Glass Amber () ml □ As is □ H ₂ SO ₄ Plastic - As is □ 250 ml □ 500 □ 1000 ml Plastic - H ₂ SO ₄ □ 250 ml □ 500 □ 1000 ml Plastic - HNO ₃ □ 250 ml □ 500 □ 1000 ml Plastic - NaOH □ 250 ml	Comments
11		1176160503-27	S	5/3/16	1050					
12		-28			1100	X				Hold
13		-29			1105	X				NP charge
14		-30			1115					Hold
15		-31			1230	X				Hold
16		-32			1240	X				ms/msd
17		-33			1320	X				ms/msd
18		-34			1330	X				ms/msd
19		-35			1340	X				Hold
20		-36			1400	X				Hold

Transfer Number	Relinquished By	Accepted By	Date	Time	Charge Exceptions: □ CT Tax Exempt □ QA/QC □ Other
1	D. Copan	[Signature]	5/3/16	1630	2 Duplicates Blanks (Item Nos: 18, 13)
2	[Signature]	[Signature]	5/5/16	0840	Reporting and Detection Limit Requirements: ☒ RCP Deliverables ☐ MCP CAM Cert.
3	[Signature]	[Signature]	5/5/16	0900	GA Pmc & Res DER
4					Additional Comments: Hold Add'l sample volume for add on analyses



le
wip

Time around

☐ 24-Hour* ☒ 72-Hour* ☐ Other _____ (days)

☐ 48-Hour* ☒ Standard (5 days) *Surcharge Applies

PROJECT NUMBER

LABORATORY

20120232. C40

Analysis Request

Date: 5/3/16

X=Other

[illegible]

Transfer Number	Relinquished By	Accepted By	Date	Time	Charge Exceptions: ☐ CT Tax Exempt ☐ QA/QC ☐ Other _____ _____ Duplicates _____ Blanks (Item Nos: _____)
1	DICOP	ASB bridge	5/3/16	1639	Reporting and Detection Limit Requirements: ☐ RCP Deliverables ☐ MCP CAM Cert.
2	ASB bridge	ASB	5/3/16	846	GAC me + Les Dec
3	ASB	ASB	5/5/16	9:00	Additional Comments: Hold Add'l sample volume for all on samples
4					

Hold Add'l sample volume for add on analyses

Bobbi - Phoenixlabs

From: Stefanie Wierszchalek <SWierszchalek@fando.com>
Sent: Monday, May 16, 2016 2:29 PM
To: Bobbi - Phoenixlabs
Subject: GBN25675 - Add On Analyses

Good afternoon Bobbi,

With regards to the Former Meriden Hospital Project, I wanted to request some add-on SPLP analyses to samples included in GBN25675. Specifically, please run the following samples for the additional parameters listed:

	Phoenix ID	F&O Sample ID	Add-On Analysis
•	BN25689	1176160503-31	SPLP Lead
•	BN25691	1176160503-33	SPLP Arsenic SPLP Cadmium SPLP Lead
•	BN25692	1176160503-34	SPLP Copper SPLP Lead
•	BN25694	1176160503-36	SPLP Lead
•	BN25696	1176160503-38	SPLP Arsenic SPLP Lead

Please let me know if you have any questions or need additional information.

Thank you,

 Stefanie Wierszchalek
Hydrogeologist

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860.646.2469 x5503 | swierszchalek@fando.com | www.fando.com

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Wednesday, May 18, 2016

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

Project ID: FORMER MERIDEN HOSPITAL
Sample ID#s: BN30957 - BN30959

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, appearing to read "Phyllis Shiller".

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



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

Analysis Report

May 18, 2016

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

Sample Information

Matrix: WATER
Location Code: F&O
Rush Request: Standard
P.O.#: 20120232C40

Custody Information

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

Date

05/12/16
05/12/16

Time

8:00
12:16

Laboratory Data

SDG ID: GBN30957
Phoenix ID: BN30957

Project ID: FORMER MERIDEN HOSPITAL
Client ID: 1176160512-01

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
<u>Volatiles</u>							
1,1,1,2-Tetrachloroethane	ND	1.0	ug/L	1	05/12/16	MH	SW8260
1,1,1-Trichloroethane	ND	1.0	ug/L	1	05/12/16	MH	SW8260
1,1,2,2-Tetrachloroethane	ND	0.50	ug/L	1	05/12/16	MH	SW8260
1,1,2-Trichloroethane	ND	1.0	ug/L	1	05/12/16	MH	SW8260
1,1-Dichloroethane	ND	1.0	ug/L	1	05/12/16	MH	SW8260
1,1-Dichloroethene	ND	1.0	ug/L	1	05/12/16	MH	SW8260
1,1-Dichloropropene	ND	1.0	ug/L	1	05/12/16	MH	SW8260
1,2,3-Trichlorobenzene	ND	1.0	ug/L	1	05/12/16	MH	SW8260
1,2,3-Trichloropropane	ND	1.0	ug/L	1	05/12/16	MH	SW8260
1,2,4-Trichlorobenzene	ND	1.0	ug/L	1	05/12/16	MH	SW8260
1,2,4-Trimethylbenzene	ND	1.0	ug/L	1	05/12/16	MH	SW8260
1,2-Dibromo-3-chloropropane	ND	1.0	ug/L	1	05/12/16	MH	SW8260
1,2-Dibromoethane	ND	1.0	ug/L	1	05/12/16	MH	SW8260
1,2-Dichlorobenzene	ND	1.0	ug/L	1	05/12/16	MH	SW8260
1,2-Dichloroethane	ND	0.60	ug/L	1	05/12/16	MH	SW8260
1,2-Dichloropropane	ND	1.0	ug/L	1	05/12/16	MH	SW8260
1,3,5-Trimethylbenzene	ND	1.0	ug/L	1	05/12/16	MH	SW8260
1,3-Dichlorobenzene	ND	1.0	ug/L	1	05/12/16	MH	SW8260
1,3-Dichloropropane	ND	1.0	ug/L	1	05/12/16	MH	SW8260
1,4-Dichlorobenzene	ND	1.0	ug/L	1	05/12/16	MH	SW8260
2,2-Dichloropropane	ND	1.0	ug/L	1	05/12/16	MH	SW8260
2-Chlorotoluene	ND	1.0	ug/L	1	05/12/16	MH	SW8260
2-Hexanone	ND	5.0	ug/L	1	05/12/16	MH	SW8260
2-Isopropyltoluene	ND	1.0	ug/L	1	05/12/16	MH	SW8260
4-Chlorotoluene	ND	1.0	ug/L	1	05/12/16	MH	SW8260
4-Methyl-2-pentanone	ND	5.0	ug/L	1	05/12/16	MH	SW8260

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Acetone	ND	25	ug/L	1	05/12/16	MH	SW8260
Acrylonitrile	ND	5.0	ug/L	1	05/12/16	MH	SW8260
Benzene	ND	0.70	ug/L	1	05/12/16	MH	SW8260
Bromobenzene	ND	1.0	ug/L	1	05/12/16	MH	SW8260
Bromochloromethane	ND	1.0	ug/L	1	05/12/16	MH	SW8260
Bromodichloromethane	ND	0.50	ug/L	1	05/12/16	MH	SW8260
Bromoform	ND	1.0	ug/L	1	05/12/16	MH	SW8260
Bromomethane	ND	1.0	ug/L	1	05/12/16	MH	SW8260
Carbon Disulfide	ND	5.0	ug/L	1	05/12/16	MH	SW8260
Carbon tetrachloride	ND	1.0	ug/L	1	05/12/16	MH	SW8260
Chlorobenzene	ND	1.0	ug/L	1	05/12/16	MH	SW8260
Chloroethane	ND	1.0	ug/L	1	05/12/16	MH	SW8260
Chloroform	ND	1.0	ug/L	1	05/12/16	MH	SW8260
Chloromethane	ND	1.0	ug/L	1	05/12/16	MH	SW8260
cis-1,2-Dichloroethene	ND	1.0	ug/L	1	05/12/16	MH	SW8260
cis-1,3-Dichloropropene	ND	0.40	ug/L	1	05/12/16	MH	SW8260
Dibromochloromethane	ND	0.50	ug/L	1	05/12/16	MH	SW8260
Dibromomethane	ND	1.0	ug/L	1	05/12/16	MH	SW8260
Dichlorodifluoromethane	ND	1.0	ug/L	1	05/12/16	MH	SW8260
Ethylbenzene	ND	1.0	ug/L	1	05/12/16	MH	SW8260
Hexachlorobutadiene	ND	0.40	ug/L	1	05/12/16	MH	SW8260
Isopropylbenzene	ND	1.0	ug/L	1	05/12/16	MH	SW8260
m&p-Xylene	ND	1.0	ug/L	1	05/12/16	MH	SW8260
Methyl ethyl ketone	ND	5.0	ug/L	1	05/12/16	MH	SW8260
Methyl t-butyl ether (MTBE)	ND	1.0	ug/L	1	05/12/16	MH	SW8260
Methylene chloride	ND	1.0	ug/L	1	05/12/16	MH	SW8260
Naphthalene	ND	1.0	ug/L	1	05/12/16	MH	SW8260
n-Butylbenzene	ND	1.0	ug/L	1	05/12/16	MH	SW8260
n-Propylbenzene	ND	1.0	ug/L	1	05/12/16	MH	SW8260
o-Xylene	ND	1.0	ug/L	1	05/12/16	MH	SW8260
p-Isopropyltoluene	ND	1.0	ug/L	1	05/12/16	MH	SW8260
sec-Butylbenzene	ND	1.0	ug/L	1	05/12/16	MH	SW8260
Styrene	ND	1.0	ug/L	1	05/12/16	MH	SW8260
tert-Butylbenzene	ND	1.0	ug/L	1	05/12/16	MH	SW8260
Tetrachloroethene	ND	1.0	ug/L	1	05/12/16	MH	SW8260
Tetrahydrofuran (THF)	ND	2.5	ug/L	1	05/12/16	MH	SW8260
Toluene	ND	1.0	ug/L	1	05/12/16	MH	SW8260
Total Xylenes	ND	1.0	ug/L	1	05/12/16	MH	SW8260
trans-1,2-Dichloroethene	ND	1.0	ug/L	1	05/12/16	MH	SW8260
trans-1,3-Dichloropropene	ND	0.40	ug/L	1	05/12/16	MH	SW8260
trans-1,4-dichloro-2-butene	ND	5.0	ug/L	1	05/12/16	MH	SW8260
Trichloroethene	ND	1.0	ug/L	1	05/12/16	MH	SW8260
Trichlorofluoromethane	ND	1.0	ug/L	1	05/12/16	MH	SW8260
Trichlorotrifluoroethane	ND	1.0	ug/L	1	05/12/16	MH	SW8260
Vinyl chloride	ND	1.0	ug/L	1	05/12/16	MH	SW8260
<u>QA/QC Surrogates</u>							
% 1,2-dichlorobenzene-d4	99		%	1	05/12/16	MH	70 - 130 %
% Bromofluorobenzene	95		%	1	05/12/16	MH	70 - 130 %
% Dibromofluoromethane	91		%	1	05/12/16	MH	70 - 130 %

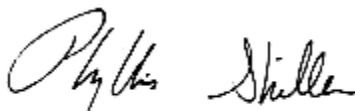
Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
% Toluene-d8	97		%	1	05/12/16	MH	70 - 130 %

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level
QA/QC Surrogates: Surrogates are compounds (preceded with a %) added by the lab to determine analysis efficiency. Surrogate results(%) listed in the report are not "detected" compounds.

Comments:

TRIP BLANK INCLUDED.

If there are any questions regarding this data, please call Phoenix Client Services at extension 200.
This report must not be reproduced except in full as defined by the attached chain of custody.



Phyllis Shiller, Laboratory Director

May 18, 2016

Reviewed and Released by: Maryam Taylor, 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 18, 2016

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

Sample Information

Matrix: WATER
Location Code: F&O
Rush Request: Standard
P.O.#: 20120232C40

Custody Information

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

Date

05/12/16
05/12/16

Time

8:20
12:16

Laboratory Data

SDG ID: GBN30957
Phoenix ID: BN30958

Project ID: FORMER MERIDEN HOSPITAL
Client ID: 1176160512-02

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Silver	< 0.001	0.001	mg/L	1	05/14/16	LK	SW6010C/E200.7
Arsenic	< 0.004	0.004	mg/L	1	05/14/16	LK	SW6010C/E200.7
Barium	0.181	0.002	mg/L	1	05/14/16	LK	SW6010C/E200.7
Cadmium	< 0.001	0.001	mg/L	1	05/14/16	LK	SW6010C/E200.7
Chromium	< 0.001	0.001	mg/L	1	05/14/16	LK	SW6010C/E200.7
Mercury	< 0.0002	0.0002	mg/L	1	05/13/16	RS	SW7470/245.1
Lead	0.003	0.002	mg/L	1	05/14/16	LK	SW6010C/E200.7
Selenium	< 0.010	0.010	mg/L	1	05/14/16	LK	SW6010C/E200.7
Mercury Digestion	Completed				05/13/16	I/W	SW7470/245.1
PCB Extraction	Completed				05/12/16	LZ	SW3510C
Semi-Volatile Extraction	Completed				05/12/16	P/D	SW3520C
Total Metals Digestion	Completed				05/12/16	AG	

Polychlorinated Biphenyls

PCB-1016	ND	0.50	ug/L	1	05/13/16	AW	SW8082A
PCB-1221	ND	0.50	ug/L	1	05/13/16	AW	SW8082A
PCB-1232	ND	0.50	ug/L	1	05/13/16	AW	SW8082A
PCB-1242	ND	0.50	ug/L	1	05/13/16	AW	SW8082A
PCB-1248	ND	0.50	ug/L	1	05/13/16	AW	SW8082A
PCB-1254	ND	0.50	ug/L	1	05/13/16	AW	SW8082A
PCB-1260	ND	0.50	ug/L	1	05/13/16	AW	SW8082A
PCB-1262	ND	0.50	ug/L	1	05/13/16	AW	SW8082A
PCB-1268	ND	0.50	ug/L	1	05/13/16	AW	SW8082A

QA/QC Surrogates

% DCBP	76	%	1	05/13/16	AW	30 - 150 %
% TCMX	87	%	1	05/13/16	AW	30 - 150 %

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
<u>Volatiles</u>							
1,1,1,2-Tetrachloroethane	ND	1.0	ug/L	1	05/12/16	MH	SW8260
1,1,1-Trichloroethane	ND	1.0	ug/L	1	05/12/16	MH	SW8260
1,1,2,2-Tetrachloroethane	ND	0.50	ug/L	1	05/12/16	MH	SW8260
1,1,2-Trichloroethane	ND	1.0	ug/L	1	05/12/16	MH	SW8260
1,1-Dichloroethane	ND	1.0	ug/L	1	05/12/16	MH	SW8260
1,1-Dichloroethene	ND	1.0	ug/L	1	05/12/16	MH	SW8260
1,1-Dichloropropene	ND	1.0	ug/L	1	05/12/16	MH	SW8260
1,2,3-Trichlorobenzene	ND	1.0	ug/L	1	05/12/16	MH	SW8260
1,2,3-Trichloropropane	ND	1.0	ug/L	1	05/12/16	MH	SW8260
1,2,4-Trichlorobenzene	ND	1.0	ug/L	1	05/12/16	MH	SW8260
1,2,4-Trimethylbenzene	ND	1.0	ug/L	1	05/12/16	MH	SW8260
1,2-Dibromo-3-chloropropane	ND	1.0	ug/L	1	05/12/16	MH	SW8260
1,2-Dibromoethane	ND	1.0	ug/L	1	05/12/16	MH	SW8260
1,2-Dichlorobenzene	ND	1.0	ug/L	1	05/12/16	MH	SW8260
1,2-Dichloroethane	ND	0.60	ug/L	1	05/12/16	MH	SW8260
1,2-Dichloropropane	ND	1.0	ug/L	1	05/12/16	MH	SW8260
1,3,5-Trimethylbenzene	ND	1.0	ug/L	1	05/12/16	MH	SW8260
1,3-Dichlorobenzene	ND	1.0	ug/L	1	05/12/16	MH	SW8260
1,3-Dichloropropane	ND	1.0	ug/L	1	05/12/16	MH	SW8260
1,4-Dichlorobenzene	ND	1.0	ug/L	1	05/12/16	MH	SW8260
2,2-Dichloropropane	ND	1.0	ug/L	1	05/12/16	MH	SW8260
2-Chlorotoluene	ND	1.0	ug/L	1	05/12/16	MH	SW8260
2-Hexanone	ND	5.0	ug/L	1	05/12/16	MH	SW8260
2-Isopropyltoluene	ND	1.0	ug/L	1	05/12/16	MH	SW8260
4-Chlorotoluene	ND	1.0	ug/L	1	05/12/16	MH	SW8260
4-Methyl-2-pentanone	ND	5.0	ug/L	1	05/12/16	MH	SW8260
Acetone	ND	25	ug/L	1	05/12/16	MH	SW8260
Acrylonitrile	ND	5.0	ug/L	1	05/12/16	MH	SW8260
Benzene	ND	0.70	ug/L	1	05/12/16	MH	SW8260
Bromobenzene	ND	1.0	ug/L	1	05/12/16	MH	SW8260
Bromochloromethane	ND	1.0	ug/L	1	05/12/16	MH	SW8260
Bromodichloromethane	ND	0.50	ug/L	1	05/12/16	MH	SW8260
Bromoform	ND	1.0	ug/L	1	05/12/16	MH	SW8260
Bromomethane	ND	1.0	ug/L	1	05/12/16	MH	SW8260
Carbon Disulfide	ND	5.0	ug/L	1	05/12/16	MH	SW8260
Carbon tetrachloride	ND	1.0	ug/L	1	05/12/16	MH	SW8260
Chlorobenzene	ND	1.0	ug/L	1	05/12/16	MH	SW8260
Chloroethane	ND	1.0	ug/L	1	05/12/16	MH	SW8260
Chloroform	ND	1.0	ug/L	1	05/12/16	MH	SW8260
Chloromethane	ND	1.0	ug/L	1	05/12/16	MH	SW8260
cis-1,2-Dichloroethene	ND	1.0	ug/L	1	05/12/16	MH	SW8260
cis-1,3-Dichloropropene	ND	0.40	ug/L	1	05/12/16	MH	SW8260
Dibromochloromethane	ND	0.50	ug/L	1	05/12/16	MH	SW8260
Dibromomethane	ND	1.0	ug/L	1	05/12/16	MH	SW8260
Dichlorodifluoromethane	ND	1.0	ug/L	1	05/12/16	MH	SW8260
Ethylbenzene	ND	1.0	ug/L	1	05/12/16	MH	SW8260
Hexachlorobutadiene	ND	0.40	ug/L	1	05/12/16	MH	SW8260
Isopropylbenzene	ND	1.0	ug/L	1	05/12/16	MH	SW8260

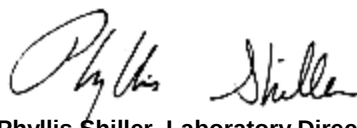
Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
m&p-Xylene	ND	1.0	ug/L	1	05/12/16	MH	SW8260
Methyl ethyl ketone	ND	5.0	ug/L	1	05/12/16	MH	SW8260
Methyl t-butyl ether (MTBE)	ND	1.0	ug/L	1	05/12/16	MH	SW8260
Methylene chloride	ND	1.0	ug/L	1	05/12/16	MH	SW8260
Naphthalene	ND	1.0	ug/L	1	05/12/16	MH	SW8260
n-Butylbenzene	ND	1.0	ug/L	1	05/12/16	MH	SW8260
n-Propylbenzene	ND	1.0	ug/L	1	05/12/16	MH	SW8260
o-Xylene	ND	1.0	ug/L	1	05/12/16	MH	SW8260
p-Isopropyltoluene	ND	1.0	ug/L	1	05/12/16	MH	SW8260
sec-Butylbenzene	ND	1.0	ug/L	1	05/12/16	MH	SW8260
Styrene	ND	1.0	ug/L	1	05/12/16	MH	SW8260
tert-Butylbenzene	ND	1.0	ug/L	1	05/12/16	MH	SW8260
Tetrachloroethene	ND	1.0	ug/L	1	05/12/16	MH	SW8260
Tetrahydrofuran (THF)	ND	2.5	ug/L	1	05/12/16	MH	SW8260
Toluene	ND	1.0	ug/L	1	05/12/16	MH	SW8260
Total Xylenes	ND	1.0	ug/L	1	05/12/16	MH	SW8260
trans-1,2-Dichloroethene	ND	1.0	ug/L	1	05/12/16	MH	SW8260
trans-1,3-Dichloropropene	ND	0.40	ug/L	1	05/12/16	MH	SW8260
trans-1,4-dichloro-2-butene	ND	5.0	ug/L	1	05/12/16	MH	SW8260
Trichloroethene	ND	1.0	ug/L	1	05/12/16	MH	SW8260
Trichlorofluoromethane	ND	1.0	ug/L	1	05/12/16	MH	SW8260
Trichlorotrifluoroethane	ND	1.0	ug/L	1	05/12/16	MH	SW8260
Vinyl chloride	ND	1.0	ug/L	1	05/12/16	MH	SW8260
<u>QA/QC Surrogates</u>							
% 1,2-dichlorobenzene-d4	99		%	1	05/12/16	MH	70 - 130 %
% Bromofluorobenzene	98		%	1	05/12/16	MH	70 - 130 %
% Dibromofluoromethane	97		%	1	05/12/16	MH	70 - 130 %
% Toluene-d8	100		%	1	05/12/16	MH	70 - 130 %
<u>Semivolatiles by SIM</u>							
2-Methylnaphthalene	ND	0.05	ug/L	1	05/13/16	DD	SW8270D (SIM)
Acenaphthene	ND	0.05	ug/L	1	05/13/16	DD	SW8270D (SIM)
Acenaphthylene	ND	0.05	ug/L	1	05/13/16	DD	SW8270D (SIM)
Anthracene	ND	0.05	ug/L	1	05/13/16	DD	SW8270D (SIM)
Benz(a)anthracene	ND	0.05	ug/L	1	05/13/16	DD	SW8270D (SIM)
Benzo(a)pyrene	ND	0.05	ug/L	1	05/13/16	DD	SW8270D (SIM)
Benzo(b)fluoranthene	ND	0.05	ug/L	1	05/13/16	DD	SW8270D (SIM)
Benzo(ghi)perylene	ND	0.05	ug/L	1	05/13/16	DD	SW8270D (SIM)
Benzo(k)fluoranthene	ND	0.05	ug/L	1	05/13/16	DD	SW8270D (SIM)
Chrysene	ND	0.05	ug/L	1	05/13/16	DD	SW8270D (SIM)
Dibenz(a,h)anthracene	ND	0.01	ug/L	1	05/13/16	DD	SW8270D (SIM)
Fluoranthene	ND	0.05	ug/L	1	05/13/16	DD	SW8270D (SIM)
Fluorene	ND	0.05	ug/L	1	05/13/16	DD	SW8270D (SIM)
Indeno(1,2,3-cd)pyrene	ND	0.05	ug/L	1	05/13/16	DD	SW8270D (SIM)
Naphthalene	ND	0.10	ug/L	1	05/13/16	DD	SW8270D (SIM)
Phenanthrene	ND	0.05	ug/L	1	05/13/16	DD	SW8270D (SIM)
Pyrene	ND	0.05	ug/L	1	05/13/16	DD	SW8270D (SIM)
<u>QA/QC Surrogates</u>							
% 2-Fluorobiphenyl	71		%	1	05/13/16	DD	30 - 130 %
% Nitrobenzene-d5	84		%	1	05/13/16	DD	30 - 130 %

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
% Terphenyl-d14	78		%	1	05/13/16	DD	30 - 130 %

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level
QA/QC Surrogates: Surrogates are compounds (preceeded with a %) added by the lab to determine analysis efficiency. Surrogate results(%) listed in the report are not "detected" compounds.

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 18, 2016

Reviewed and Released by: Maryam Taylor, 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 18, 2016

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

Sample Information

Matrix: WATER
Location Code: F&O
Rush Request: Standard
P.O.#: 20120232C40

Custody Information

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

Date

05/12/16
05/12/16

Time

9:25
12:16

Laboratory Data

SDG ID: GBN30957
Phoenix ID: BN30959

Project ID: FORMER MERIDEN HOSPITAL
Client ID: 1176160512-03

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Silver	< 0.001	0.001	mg/L	1	05/14/16	LK	SW6010C/E200.7
Arsenic	< 0.004	0.004	mg/L	1	05/14/16	LK	SW6010C/E200.7
Barium	0.208	0.002	mg/L	1	05/14/16	LK	SW6010C/E200.7
Cadmium	< 0.001	0.001	mg/L	1	05/14/16	LK	SW6010C/E200.7
Chromium	< 0.001	0.001	mg/L	1	05/14/16	LK	SW6010C/E200.7
Mercury	< 0.0002	0.0002	mg/L	1	05/13/16	RS	SW7470/245.1
Lead	< 0.002	0.002	mg/L	1	05/14/16	LK	SW6010C/E200.7
Selenium	< 0.010	0.010	mg/L	1	05/14/16	LK	SW6010C/E200.7
Mercury Digestion	Completed				05/13/16	I/W	SW7470/245.1
PCB Extraction	Completed				05/12/16	LZ	SW3510C
Semi-Volatile Extraction	Completed				05/12/16	P/D	SW3520C
Total Metals Digestion	Completed				05/12/16	AG	

Polychlorinated Biphenyls

PCB-1016	ND	0.50	ug/L	1	05/13/16	AW	SW8082A
PCB-1221	ND	0.50	ug/L	1	05/13/16	AW	SW8082A
PCB-1232	ND	0.50	ug/L	1	05/13/16	AW	SW8082A
PCB-1242	ND	0.50	ug/L	1	05/13/16	AW	SW8082A
PCB-1248	ND	0.50	ug/L	1	05/13/16	AW	SW8082A
PCB-1254	ND	0.50	ug/L	1	05/13/16	AW	SW8082A
PCB-1260	ND	0.50	ug/L	1	05/13/16	AW	SW8082A
PCB-1262	ND	0.50	ug/L	1	05/13/16	AW	SW8082A
PCB-1268	ND	0.50	ug/L	1	05/13/16	AW	SW8082A

QA/QC Surrogates

% DCBP	86	%	1	05/13/16	AW	30 - 150 %
% TCMX	88	%	1	05/13/16	AW	30 - 150 %

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
<u>Volatiles</u>							
1,1,1,2-Tetrachloroethane	ND	1.0	ug/L	1	05/12/16	MH	SW8260
1,1,1-Trichloroethane	ND	1.0	ug/L	1	05/12/16	MH	SW8260
1,1,2,2-Tetrachloroethane	ND	0.50	ug/L	1	05/12/16	MH	SW8260
1,1,2-Trichloroethane	ND	1.0	ug/L	1	05/12/16	MH	SW8260
1,1-Dichloroethane	ND	1.0	ug/L	1	05/12/16	MH	SW8260
1,1-Dichloroethene	ND	1.0	ug/L	1	05/12/16	MH	SW8260
1,1-Dichloropropene	ND	1.0	ug/L	1	05/12/16	MH	SW8260
1,2,3-Trichlorobenzene	ND	1.0	ug/L	1	05/12/16	MH	SW8260
1,2,3-Trichloropropane	ND	1.0	ug/L	1	05/12/16	MH	SW8260
1,2,4-Trichlorobenzene	ND	1.0	ug/L	1	05/12/16	MH	SW8260
1,2,4-Trimethylbenzene	ND	1.0	ug/L	1	05/12/16	MH	SW8260
1,2-Dibromo-3-chloropropane	ND	1.0	ug/L	1	05/12/16	MH	SW8260
1,2-Dibromoethane	ND	1.0	ug/L	1	05/12/16	MH	SW8260
1,2-Dichlorobenzene	ND	1.0	ug/L	1	05/12/16	MH	SW8260
1,2-Dichloroethane	ND	0.60	ug/L	1	05/12/16	MH	SW8260
1,2-Dichloropropane	ND	1.0	ug/L	1	05/12/16	MH	SW8260
1,3,5-Trimethylbenzene	ND	1.0	ug/L	1	05/12/16	MH	SW8260
1,3-Dichlorobenzene	ND	1.0	ug/L	1	05/12/16	MH	SW8260
1,3-Dichloropropane	ND	1.0	ug/L	1	05/12/16	MH	SW8260
1,4-Dichlorobenzene	ND	1.0	ug/L	1	05/12/16	MH	SW8260
2,2-Dichloropropane	ND	1.0	ug/L	1	05/12/16	MH	SW8260
2-Chlorotoluene	ND	1.0	ug/L	1	05/12/16	MH	SW8260
2-Hexanone	ND	5.0	ug/L	1	05/12/16	MH	SW8260
2-Isopropyltoluene	ND	1.0	ug/L	1	05/12/16	MH	SW8260
4-Chlorotoluene	ND	1.0	ug/L	1	05/12/16	MH	SW8260
4-Methyl-2-pentanone	ND	5.0	ug/L	1	05/12/16	MH	SW8260
Acetone	ND	25	ug/L	1	05/12/16	MH	SW8260
Acrylonitrile	ND	5.0	ug/L	1	05/12/16	MH	SW8260
Benzene	ND	0.70	ug/L	1	05/12/16	MH	SW8260
Bromobenzene	ND	1.0	ug/L	1	05/12/16	MH	SW8260
Bromochloromethane	ND	1.0	ug/L	1	05/12/16	MH	SW8260
Bromodichloromethane	ND	0.50	ug/L	1	05/12/16	MH	SW8260
Bromoform	ND	1.0	ug/L	1	05/12/16	MH	SW8260
Bromomethane	ND	1.0	ug/L	1	05/12/16	MH	SW8260
Carbon Disulfide	ND	5.0	ug/L	1	05/12/16	MH	SW8260
Carbon tetrachloride	ND	1.0	ug/L	1	05/12/16	MH	SW8260
Chlorobenzene	ND	1.0	ug/L	1	05/12/16	MH	SW8260
Chloroethane	ND	1.0	ug/L	1	05/12/16	MH	SW8260
Chloroform	ND	1.0	ug/L	1	05/12/16	MH	SW8260
Chloromethane	ND	1.0	ug/L	1	05/12/16	MH	SW8260
cis-1,2-Dichloroethene	ND	1.0	ug/L	1	05/12/16	MH	SW8260
cis-1,3-Dichloropropene	ND	0.40	ug/L	1	05/12/16	MH	SW8260
Dibromochloromethane	ND	0.50	ug/L	1	05/12/16	MH	SW8260
Dibromomethane	ND	1.0	ug/L	1	05/12/16	MH	SW8260
Dichlorodifluoromethane	ND	1.0	ug/L	1	05/12/16	MH	SW8260
Ethylbenzene	ND	1.0	ug/L	1	05/12/16	MH	SW8260
Hexachlorobutadiene	ND	0.40	ug/L	1	05/12/16	MH	SW8260
Isopropylbenzene	ND	1.0	ug/L	1	05/12/16	MH	SW8260

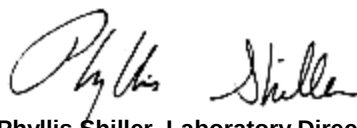
Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
m&p-Xylene	ND	1.0	ug/L	1	05/12/16	MH	SW8260
Methyl ethyl ketone	ND	5.0	ug/L	1	05/12/16	MH	SW8260
Methyl t-butyl ether (MTBE)	ND	1.0	ug/L	1	05/12/16	MH	SW8260
Methylene chloride	ND	1.0	ug/L	1	05/12/16	MH	SW8260
Naphthalene	ND	1.0	ug/L	1	05/12/16	MH	SW8260
n-Butylbenzene	ND	1.0	ug/L	1	05/12/16	MH	SW8260
n-Propylbenzene	ND	1.0	ug/L	1	05/12/16	MH	SW8260
o-Xylene	ND	1.0	ug/L	1	05/12/16	MH	SW8260
p-Isopropyltoluene	ND	1.0	ug/L	1	05/12/16	MH	SW8260
sec-Butylbenzene	ND	1.0	ug/L	1	05/12/16	MH	SW8260
Styrene	ND	1.0	ug/L	1	05/12/16	MH	SW8260
tert-Butylbenzene	ND	1.0	ug/L	1	05/12/16	MH	SW8260
Tetrachloroethene	ND	1.0	ug/L	1	05/12/16	MH	SW8260
Tetrahydrofuran (THF)	ND	2.5	ug/L	1	05/12/16	MH	SW8260
Toluene	ND	1.0	ug/L	1	05/12/16	MH	SW8260
Total Xylenes	ND	1.0	ug/L	1	05/12/16	MH	SW8260
trans-1,2-Dichloroethene	ND	1.0	ug/L	1	05/12/16	MH	SW8260
trans-1,3-Dichloropropene	ND	0.40	ug/L	1	05/12/16	MH	SW8260
trans-1,4-dichloro-2-butene	ND	5.0	ug/L	1	05/12/16	MH	SW8260
Trichloroethene	ND	1.0	ug/L	1	05/12/16	MH	SW8260
Trichlorofluoromethane	ND	1.0	ug/L	1	05/12/16	MH	SW8260
Trichlorotrifluoroethane	ND	1.0	ug/L	1	05/12/16	MH	SW8260
Vinyl chloride	ND	1.0	ug/L	1	05/12/16	MH	SW8260
<u>QA/QC Surrogates</u>							
% 1,2-dichlorobenzene-d4	99		%	1	05/12/16	MH	70 - 130 %
% Bromofluorobenzene	97		%	1	05/12/16	MH	70 - 130 %
% Dibromofluoromethane	93		%	1	05/12/16	MH	70 - 130 %
% Toluene-d8	99		%	1	05/12/16	MH	70 - 130 %
<u>Semivolatiles by SIM</u>							
2-Methylnaphthalene	ND	0.05	ug/L	1	05/13/16	DD	SW8270D (SIM)
Acenaphthene	ND	0.05	ug/L	1	05/13/16	DD	SW8270D (SIM)
Acenaphthylene	ND	0.05	ug/L	1	05/13/16	DD	SW8270D (SIM)
Anthracene	ND	0.05	ug/L	1	05/13/16	DD	SW8270D (SIM)
Benz(a)anthracene	ND	0.05	ug/L	1	05/13/16	DD	SW8270D (SIM)
Benzo(a)pyrene	ND	0.05	ug/L	1	05/13/16	DD	SW8270D (SIM)
Benzo(b)fluoranthene	ND	0.05	ug/L	1	05/13/16	DD	SW8270D (SIM)
Benzo(ghi)perylene	ND	0.05	ug/L	1	05/13/16	DD	SW8270D (SIM)
Benzo(k)fluoranthene	ND	0.05	ug/L	1	05/13/16	DD	SW8270D (SIM)
Chrysene	ND	0.05	ug/L	1	05/13/16	DD	SW8270D (SIM)
Dibenz(a,h)anthracene	ND	0.01	ug/L	1	05/13/16	DD	SW8270D (SIM)
Fluoranthene	ND	0.05	ug/L	1	05/13/16	DD	SW8270D (SIM)
Fluorene	ND	0.05	ug/L	1	05/13/16	DD	SW8270D (SIM)
Indeno(1,2,3-cd)pyrene	ND	0.05	ug/L	1	05/13/16	DD	SW8270D (SIM)
Naphthalene	ND	0.10	ug/L	1	05/13/16	DD	SW8270D (SIM)
Phenanthrene	ND	0.05	ug/L	1	05/13/16	DD	SW8270D (SIM)
Pyrene	ND	0.05	ug/L	1	05/13/16	DD	SW8270D (SIM)
<u>QA/QC Surrogates</u>							
% 2-Fluorobiphenyl	71		%	1	05/13/16	DD	30 - 130 %
% Nitrobenzene-d5	83		%	1	05/13/16	DD	30 - 130 %

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
% Terphenyl-d14	84		%	1	05/13/16	DD	30 - 130 %

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level
QA/QC Surrogates: Surrogates are compounds (preceded with a %) added by the lab to determine analysis efficiency. Surrogate results(%) listed in the report are not "detected" compounds.

Comments:

If there are any questions regarding this data, please call Phoenix Client Services at extension 200.
This report must not be reproduced except in full as defined by the attached chain of custody.



Phyllis Shiller, Laboratory Director

May 18, 2016

Reviewed and Released by: Maryam Taylor, Project Manager



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

QA/QC Report

May 18, 2016

QA/QC Data

SDG I.D.: GBN30957

Parameter	Blank	Blk RL	Sample Result	Dup Result	Dup RPD	LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	% Rec Limits	% RPD Limits
QA/QC Batch 345441 (mg/L), QC Sample No: BN30887 (BN30958, BN30959)													
Mercury - Water	BRL	0.0002	<0.0002	<0.0002	NC	89.7			93.2			70 - 130	20
Comment:													
Additional Mercury criteria: LCS acceptance range for waters is 80-120% and for soils is 70-130%.													
QA/QC Batch 345397 (mg/L), QC Sample No: BN30954 (BN30958, BN30959)													
<u>ICP Metals - Aqueous</u>													
Arsenic	BRL	0.004	0.030	0.024	22.2	96.9			101			75 - 125	20 r
Barium	BRL	0.002	9.74	9.45	3.00	101			NC			75 - 125	20
Cadmium	BRL	0.001	0.074	0.072	2.70	108			80.2			75 - 125	20
Chromium	BRL	0.001	0.009	0.009	0	103			84.5			75 - 125	20
Lead	BRL	0.002	0.235	0.193	19.6	105			79.9			75 - 125	20
Selenium	BRL	0.010	<0.010	<0.010	NC	96.1			96.7			75 - 125	20
Silver	BRL	0.001	<0.001	<0.001	NC	95.6			101			75 - 125	20

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



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QA/QC Report

May 18, 2016

QA/QC Data

SDG I.D.: GBN30957

Parameter	Blank	Blk RL	LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	% Rec Limits	% RPD Limits
QA/QC Batch 345259 (ug/L), QC Sample No: BN30700 (BN30958, BN30959)										
Polychlorinated Biphenyls - Water										
PCB-1016	ND	0.050	64	78	19.7				40 - 140	20
PCB-1221	ND	0.050							40 - 140	20
PCB-1232	ND	0.050							40 - 140	20
PCB-1242	ND	0.050							40 - 140	20
PCB-1248	ND	0.050							40 - 140	20
PCB-1254	ND	0.050							40 - 140	20
PCB-1260	ND	0.050	80	87	8.4				40 - 140	20
PCB-1262	ND	0.050							40 - 140	20
PCB-1268	ND	0.050							40 - 140	20
% DCBP (Surrogate Rec)	51	%	63	61	3.2				30 - 150	20
% TCMX (Surrogate Rec)	52	%	55	61	10.3				30 - 150	20

Comment:

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

QA/QC Batch 345362 (ug/L), QC Sample No: BN30839 (BN30958, BN30959)

Semivolatiles by SIM - Water

2-Methylnaphthalene	ND	0.05	64	78	19.7				30 - 130	20
Acenaphthene	ND	0.05	87	95	8.8				30 - 130	20
Acenaphthylene	ND	0.04	83	91	9.2				30 - 130	20
Anthracene	ND	0.02	106	105	0.9				30 - 130	20
Benz(a)anthracene	ND	0.02	105	105	0.0				30 - 130	20
Benzo(a)pyrene	ND	0.02	100	100	0.0				30 - 130	20
Benzo(b)fluoranthene	ND	0.02	107	106	0.9				30 - 130	20
Benzo(ghi)perylene	ND	0.02	108	104	3.8				30 - 130	20
Benzo(k)fluoranthene	ND	0.02	110	113	2.7				30 - 130	20
Chrysene	ND	0.02	101	101	0.0				30 - 130	20
Dibenz(a,h)anthracene	ND	0.01	117	114	2.6				30 - 130	20
Fluoranthene	ND	0.04	103	105	1.9				30 - 130	20
Fluorene	ND	0.05	90	95	5.4				30 - 130	20
Indeno(1,2,3-cd)pyrene	ND	0.02	114	111	2.7				30 - 130	20
Naphthalene	ND	0.05	63	81	25.0				30 - 130	20
Phenanthrene	ND	0.05	97	96	1.0				30 - 130	20
Pyrene	ND	0.02	108	109	0.9				30 - 130	20
% 2-Fluorobiphenyl	74	%	65	79	19.4				30 - 130	20
% Nitrobenzene-d5	86	%	58	74	24.2				30 - 130	20
% Terphenyl-d14	90	%	93	99	6.3				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 Data

SDG I.D.: GBN30957

Parameter	Blank	Blk RL	LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	% Rec Limits	% RPD Limits
QA/QC Batch 345490 (ug/L), QC Sample No: BN30957 (BN30957, BN30958, BN30959)										
Volatiles - Water										
1,1,1,2-Tetrachloroethane	ND	1.0	101	105	3.9				70 - 130	30
1,1,1-Trichloroethane	ND	1.0	98	101	3.0				70 - 130	30
1,1,2,2-Tetrachloroethane	ND	0.50	104	103	1.0				70 - 130	30
1,1,2-Trichloroethane	ND	1.0	99	100	1.0				70 - 130	30
1,1-Dichloroethane	ND	1.0	98	100	2.0				70 - 130	30
1,1-Dichloroethene	ND	1.0	99	101	2.0				70 - 130	30
1,1-Dichloropropene	ND	1.0	101	105	3.9				70 - 130	30
1,2,3-Trichlorobenzene	ND	1.0	97	100	3.0				70 - 130	30
1,2,3-Trichloropropane	ND	1.0	98	100	2.0				70 - 130	30
1,2,4-Trichlorobenzene	ND	1.0	103	104	1.0				70 - 130	30
1,2,4-Trimethylbenzene	ND	1.0	100	100	0.0				70 - 130	30
1,2-Dibromo-3-chloropropane	ND	1.0	102	100	2.0				70 - 130	30
1,2-Dibromoethane	ND	1.0	102	102	0.0				70 - 130	30
1,2-Dichlorobenzene	ND	1.0	99	100	1.0				70 - 130	30
1,2-Dichloroethane	ND	1.0	100	101	1.0				70 - 130	30
1,2-Dichloropropane	ND	1.0	102	103	1.0				70 - 130	30
1,3,5-Trimethylbenzene	ND	1.0	100	101	1.0				70 - 130	30
1,3-Dichlorobenzene	ND	1.0	100	101	1.0				70 - 130	30
1,3-Dichloropropane	ND	1.0	100	101	1.0				70 - 130	30
1,4-Dichlorobenzene	ND	1.0	100	100	0.0				70 - 130	30
2,2-Dichloropropane	ND	1.0	103	105	1.9				70 - 130	30
2-Chlorotoluene	ND	1.0	102	103	1.0				70 - 130	30
2-Hexanone	ND	5.0	87	90	3.4				70 - 130	30
2-Isopropyltoluene	ND	1.0	101	103	2.0				70 - 130	30
4-Chlorotoluene	ND	1.0	97	100	3.0				70 - 130	30
4-Methyl-2-pentanone	ND	5.0	93	95	2.1				70 - 130	30
Acetone	ND	5.0	76	79	3.9				70 - 130	30
Acrylonitrile	ND	5.0	104	99	4.9				70 - 130	30
Benzene	ND	0.70	100	103	3.0				70 - 130	30
Bromobenzene	ND	1.0	101	102	1.0				70 - 130	30
Bromochloromethane	ND	1.0	101	103	2.0				70 - 130	30
Bromodichloromethane	ND	0.50	103	105	1.9				70 - 130	30
Bromoform	ND	1.0	106	109	2.8				70 - 130	30
Bromomethane	ND	1.0	93	95	2.1				70 - 130	30
Carbon Disulfide	ND	1.0	97	99	2.0				70 - 130	30
Carbon tetrachloride	ND	1.0	99	101	2.0				70 - 130	30
Chlorobenzene	ND	1.0	99	102	3.0				70 - 130	30
Chloroethane	ND	1.0	96	96	0.0				70 - 130	30
Chloroform	ND	1.0	99	99	0.0				70 - 130	30
Chloromethane	ND	1.0	90	91	1.1				70 - 130	30
cis-1,2-Dichloroethene	ND	1.0	97	98	1.0				70 - 130	30
cis-1,3-Dichloropropene	ND	0.40	99	101	2.0				70 - 130	30
Dibromochloromethane	ND	0.50	104	106	1.9				70 - 130	30
Dibromomethane	ND	1.0	99	100	1.0				70 - 130	30
Dichlorodifluoromethane	ND	1.0	86	88	2.3				70 - 130	30
Ethylbenzene	ND	1.0	101	104	2.9				70 - 130	30
Hexachlorobutadiene	ND	0.40	107	109	1.9				70 - 130	30
Isopropylbenzene	ND	1.0	100	102	2.0				70 - 130	30
m&p-Xylene	ND	1.0	100	103	3.0				70 - 130	30
Methyl ethyl ketone	ND	5.0	100	96	4.1				70 - 130	30

QA/QC Data

SDG I.D.: GBN30957

Parameter	Blank	Blk RL	LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	% Rec Limits	% RPD Limits
Methyl t-butyl ether (MTBE)	ND	1.0	100	100	0.0				70 - 130	30
Methylene chloride	ND	1.0	126	128	1.6				70 - 130	30
Naphthalene	ND	1.0	103	105	1.9				70 - 130	30
n-Butylbenzene	ND	1.0	102	104	1.9				70 - 130	30
n-Propylbenzene	ND	1.0	99	100	1.0				70 - 130	30
o-Xylene	ND	1.0	99	102	3.0				70 - 130	30
p-Isopropyltoluene	ND	1.0	105	105	0.0				70 - 130	30
sec-Butylbenzene	ND	1.0	104	106	1.9				70 - 130	30
Styrene	ND	1.0	101	104	2.9				70 - 130	30
tert-Butylbenzene	ND	1.0	101	102	1.0				70 - 130	30
Tetrachloroethene	ND	1.0	99	105	5.9				70 - 130	30
Tetrahydrofuran (THF)	ND	2.5	97	95	2.1				70 - 130	30
Toluene	ND	1.0	100	100	0.0				70 - 130	30
trans-1,2-Dichloroethene	ND	1.0	97	100	3.0				70 - 130	30
trans-1,3-Dichloropropene	ND	0.40	101	102	1.0				70 - 130	30
trans-1,4-dichloro-2-butene	ND	5.0	114	111	2.7				70 - 130	30
Trichloroethene	ND	1.0	100	104	3.9				70 - 130	30
Trichlorofluoromethane	ND	1.0	94	96	2.1				70 - 130	30
Trichlorotrifluoroethane	ND	1.0	100	103	3.0				70 - 130	30
Vinyl chloride	ND	1.0	90	92	2.2				70 - 130	30
% 1,2-dichlorobenzene-d4	100	%	101	100	1.0				70 - 130	30
% Bromofluorobenzene	98	%	100	101	1.0				70 - 130	30
% Dibromofluoromethane	100	%	97	99	2.0				70 - 130	30
% Toluene-d8	99	%	100	101	1.0				70 - 130	30

Comment:

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

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

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

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

RPD - Relative Percent Difference

LCS - Laboratory Control Sample

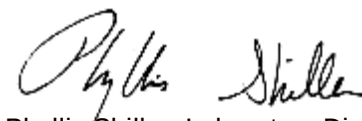
LCSD - Laboratory Control Sample Duplicate

MS - Matrix Spike

MS Dup - Matrix Spike Duplicate

NC - No Criteria

Intf - Interference



Phyllis Shiller, Laboratory Director
May 18, 2016

Sample Criteria Exceedences Report
GBN30957 - FO

Criteria: None

State: CT

SampNo	Acode	Phoenix Analyte	Criteria	Result	RL	Criteria	RL Criteria	Analysis Units
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*** No Data to Display ***

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: FORMER MERIDEN HOSPITAL **Project Number:**

Laboratory Sample ID(s): BN30957, BN30958, BN30959

Sampling Date(s): 5/12/2016

RCP Methods Used:

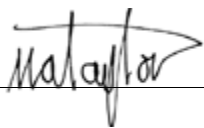
☐ 1311/1312 ☒ 6010 ☐ 7000 ☐ 7196 ☒ 7470/7471 ☐ 8081 ☐ EPH ☐ TO15
☒ 8082 ☐ 8151 ☒ 8260 ☒ 8270 ☐ ETPH ☐ 9010/9012 ☐ VPH

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?	☒ Yes ☐ No
1a.	Were the method specified preservation and holding time requirements met?	☒ Yes ☐ 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)	☐ Yes ☐ No ☒ NA
2.	Were all samples received by the laboratory in a condition consistent with that described on the associated Chain-of-Custody document(s)?	☒ Yes ☐ No
3.	Were samples received at an appropriate temperature (< 6 Degrees C)?	☒ Yes ☐ No ☐ NA
4.	Were all QA/QC performance criteria specified in the Reasonable Confidence Protocol documents achieved? See Section: SVOASIM Narration.	☐ Yes ☒ No
5a.	Were reporting limits specified or referenced on the chain-of-custody?	☐ Yes ☒ No
5b.	Were these reporting limits met?	☐ Yes ☐ No ☒ 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?	☐ Yes ☒ No ☐ NA
7.	Are project-specific matrix spikes and laboratory duplicates included in the data set?	☐ Yes ☒ No ☐ 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: Wednesday, May 18, 2016

Printed Name: Maryam Taylor

Position: Project Manager



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RCP Certification Report

May 18, 2016

SDG I.D.: GBN30957

SDG Comments

Metals Analysis:

The client requested a shorter list of elements than the 6010 RCP list. Only the RCRA 8 Metals are reported as requested on the chain of custody.

8270 Semi-volatile Organics:

Only the PAH constituents are reported as requested on the chain-of-custody. The sample was extracted and analyzed via 8270 selective ion monitoring (SIM).

Mercury Narration

Were all QA/QC performance criteria specified in the analytical method achieved? Yes.

Instrument:

MERLIN 05/13/16 08:05

Rick Schweitzer, Chemist 05/13/16

BN30958, BN30959

The method preparation blank contains all of the acids and reagents as the samples; the instrument blanks do not.

The initial calibration met all criteria including a standard run at or below the reporting level.

All calibration verification standards (ICV, CCV) met criteria.

All calibration blank verification standards (ICB, CCB) met criteria.

The matrix spike sample is used to identify spectral interference for each batch of samples, if within 85-115%, no interference is observed and no further action is taken.

The following Initial Calibration Verification (ICV) compounds did not meet criteria: None.

The following Continuing Calibration Verification (CCV) compounds did not meet criteria: None.

QC (Batch Specific):

Batch 345441 (BN30887)

BN30958, BN30959

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

Additional Mercury criteria: LCS acceptance range for waters is 80-120% and for soils is 70-130%.

ICP Metals Narration

Were all QA/QC performance criteria specified in the analytical method achieved? Yes.

Instrument:

BLUE 05/13/16 17:39

Laura Kinnin, Chemist 05/13/16

BN30958, BN30959

The initial calibration met criteria.

The continuing calibration standards met criteria for all the elements reported. The linear range is defined daily by the calibration range.

The continuing calibration blanks were less than the reporting level for the elements reported.

The ICSA and ICSAB were analyzed at the beginning and end of the run and were within criteria. The linear range is defined daily by the calibration range.

The following Initial Calibration Verification (ICV) compounds did not meet criteria: None.

The following Continuing Calibration Verification (CCV) compounds did not meet criteria: CCV 05/14/16 00:46: Cadmium 111% (90-110)

The following ICP Interference Check (ICSAB) compounds did not meet criteria: None.



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Certification Report

May 18, 2016

SDG I.D.: GBN30957

ICP Metals Narration

QC (Batch Specific):

Batch 345397 (BN30954)

BN30958, BN30959

All LCS recoveries were within 75 - 125 with the following exceptions: None.

PCB Narration

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

Instrument:

AU-ECD24 05/13/16-1

Adam Werner, Chemist 05/13/16

BN30958, BN30959

The initial calibration (PC0504AI) RSD for the compound list was less than 20% except for the following compounds: None.

The initial calibration (PC0504BI) RSD for the compound list was less than 20% except for the following compounds: None.

The continuing calibration %D for the compound list was less than 15% except for the following compounds: None.

QC (Batch Specific):

Batch 345259 (BN30700)

BN30958, BN30959

All LCS recoveries were within 40 - 140 with the following exceptions: None.

All LCSD recoveries were within 40 - 140 with the following exceptions: None.

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

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

SVOASIM Narration

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

QC Batch 345362 (Samples: BN30958, BN30959): -----

The LCS/LCSD RPD exceeds the method criteria for one or more analytes, but these analytes were not reported in the sample(s) so no variability is suspected. (Naphthalene)

The LCS/LCSD RPD exceeds the method criteria for one or more surrogates. Both recoveries are within limits. No significant bias is suspected. (% Nitrobenzene-d5)

Instrument:

CHEM07 05/13/16-1

Damien Drobinski, Chemist 05/13/16

BN30958, BN30959

Initial Calibration Verification (CHEM07/SIM_0316):

96% of target compounds met criteria.

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

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

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

Continuing Calibration Verification (CHEM07/0513_02-SIM_0316):



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RCP Certification Report

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SDG I.D.: GBN30957

SVOASIM Narration

Internal standard areas were within 50 to 200% of the initial calibration with the following exceptions: None.
100% of target compounds met criteria.
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: None.
The following compounds did not meet minimum response factors: None.

QC (Batch Specific):

Batch 345362 (BN30839)

BN30958, BN30959

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: % Nitrobenzene-d5(24.2%), Naphthalene(25.0%)
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%)

VOA Narration

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

Instrument:

CHEM17 05/12/16-1

Michael Hahn, Chemist 05/12/16

BN30957, BN30958, BN30959

Initial Calibration Verification (CHEM17/VT-S0510):

99% of target compounds met criteria.
The following compounds had %RSDs >20%: Acetone 22% (20%)
The following compounds did not meet recommended response factors: 1,2-Dibromo-3-chloropropane 0.038 (0.05)
The following compounds did not meet a minimum response factors: None.

Continuing Calibration Verification (CHEM17/0512S02-VT-S0510):

Internal standard areas were within 50 to 200% of the initial calibration with the following exceptions: None.
100% of target compounds met criteria.
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: 1,2-Dibromo-3-chloropropane 0.039 (0.05)
The following compounds did not meet minimum response factors: None.

QC (Batch Specific):

Batch 345490 (BN30957)

BN30957, BN30958, BN30959

All LCS recoveries were within 70 - 130 with the following exceptions: None.
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.
A LCS and LCS Duplicate were performed instead of a matrix spike and matrix spike duplicate.
Additional 8260 criteria: 10% of LCS/LCSD compounds can be outside of acceptance criteria as long as recovery is 40-160%.



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RCP Certification Report

May 18, 2016

SDG I.D.: GBN30957

Temperature Narration

The samples in this delivery group were received at 5°C.
(Note acceptance criteria is above freezing up to 6°C)



Tuesday, May 31, 2016

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

Project ID: FORMER MERIDEN HOSPITAL
Sample ID#s: BN38453 - BN38454

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, appearing to read "Phyllis Shiller".

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

Analysis Report

May 31, 2016

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

Sample Information

Matrix: OIL
Location Code: F&O
Rush Request: Standard
P.O.#: 20120232.C40

Custody Information

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

Date

05/17/16
05/24/16

Time

12:20
16:11

Laboratory Data

SDG ID: GBN38453
Phoenix ID: BN38453

Project ID: FORMER MERIDEN HOSPITAL
Client ID: 1176160517-01

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Waste Dilution PCB	Completed				05/27/16	JJ/JJ	SW3580A

Polychlorinated Biphenyls

PCB-1016	ND	0.99	mg/kg	2	05/31/16	AW	SW8082A
PCB-1221	ND	0.99	mg/kg	2	05/31/16	AW	SW8082A
PCB-1232	ND	0.99	mg/kg	2	05/31/16	AW	SW8082A
PCB-1242	ND	0.99	mg/kg	2	05/31/16	AW	SW8082A
PCB-1248	ND	0.99	mg/kg	2	05/31/16	AW	SW8082A
PCB-1254	ND	0.99	mg/kg	2	05/31/16	AW	SW8082A
PCB-1260	ND	0.99	mg/kg	2	05/31/16	AW	SW8082A
PCB-1262	ND	0.99	mg/kg	2	05/31/16	AW	SW8082A
PCB-1268	ND	0.99	mg/kg	2	05/31/16	AW	SW8082A

QA/QC Surrogates

% DCBP	78	%	2	05/31/16	AW	30 - 150 %
% TCMX	68	%	2	05/31/16	AW	30 - 150 %

Project ID: FORMER MERIDEN HOSPITAL
Client ID: 1176160517-01

Phoenix I.D.: BN38453

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
-----------	--------	------------	-------	----------	-----------	----	-----------

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level
QA/QC Surrogates: Surrogates are compounds (preceded with a %) added by the lab to determine analysis efficiency. Surrogate results(%) listed in the report are not "detected" compounds.

Comments:

If there are any questions regarding this data, please call Phoenix Client Services at extension 200.
This report must not be reproduced except in full as defined by the attached chain of custody.



Phyllis Shiller, Laboratory Director

May 31, 2016

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 31, 2016

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

Sample Information

Matrix: OIL
Location Code: F&O
Rush Request: Standard
P.O.#: 20120232.C40

Custody Information

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

Date

05/17/16
05/24/16

Time

12:30
16:11

Laboratory Data

SDG ID: GBN38453
Phoenix ID: BN38454

Project ID: FORMER MERIDEN HOSPITAL
Client ID: 1176160517-02

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Waste Dilution PCB	Completed				05/27/16	JJ/JJ	SW3580A

Polychlorinated Biphenyls

PCB-1016	ND	0.99	mg/kg	2	05/31/16	AW	SW8082A
PCB-1221	ND	0.99	mg/kg	2	05/31/16	AW	SW8082A
PCB-1232	ND	0.99	mg/kg	2	05/31/16	AW	SW8082A
PCB-1242	ND	0.99	mg/kg	2	05/31/16	AW	SW8082A
PCB-1248	ND	0.99	mg/kg	2	05/31/16	AW	SW8082A
PCB-1254	ND	0.99	mg/kg	2	05/31/16	AW	SW8082A
PCB-1260	ND	0.99	mg/kg	2	05/31/16	AW	SW8082A
PCB-1262	ND	0.99	mg/kg	2	05/31/16	AW	SW8082A
PCB-1268	ND	0.99	mg/kg	2	05/31/16	AW	SW8082A

QA/QC Surrogates

% DCBP	79	%	2	05/31/16	AW	30 - 150 %
% TCMX	76	%	2	05/31/16	AW	30 - 150 %

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
-----------	--------	------------	-------	----------	-----------	----	-----------

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

QA/QC Surrogates: Surrogates are compounds (preceded with a %) added by the lab to determine analysis efficiency. Surrogate results(%) listed in the report are not "detected" compounds.

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 31, 2016

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

QA/QC Report

May 31, 2016

QA/QC Data

SDG I.D.: GBN38453

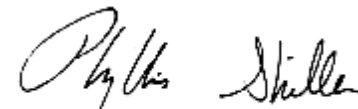
Parameter	Blank	Blk RL	LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	% Rec Limits	% RPD Limits
QA/QC Batch 346090 (mg/kg), QC Sample No: BN35124 2X (BN38453, BN38454)										
Polychlorinated Biphenyls - Oil										
PCB-1016	ND	2.0							40 - 140	30
PCB-1221	ND	2.0							40 - 140	30
PCB-1232	ND	2.0							40 - 140	30
PCB-1242	ND	2.0							40 - 140	30
PCB-1248	ND	2.0	85	80	6.1				40 - 140	30
PCB-1254	ND	2.0							40 - 140	30
PCB-1260	ND	2.0							40 - 140	30
PCB-1262	ND	2.0							40 - 140	30
PCB-1268	ND	2.0							40 - 140	30
%DCBP (Surrogate Rec)	80	%	94	88	6.6				30 - 150	30
%TCMX (Surrogate Rec)	60	%	66	63	4.7				30 - 150	30

Comment:

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

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 31, 2016

Tuesday, May 31, 2016

Criteria: None

State: CT

Sample Criteria Exceedences Report

GBN38453 - FO

Page 1 of 1

SampNo	Acode	Phoenix Analyte	Criteria	Result	RL	Criteria	RL Criteria	Analysis Units
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*** No Data to Display ***

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: FORMER MERIDEN HOSPITAL **Project Number:**

Laboratory Sample ID(s): BN38453, BN38454

Sampling Date(s): 5/17/2016

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?	☒ Yes ☐ No
1a.	Were the method specified preservation and holding time requirements met?	☒ Yes ☐ 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)	☐ Yes ☐ No ☒ NA
2.	Were all samples received by the laboratory in a condition consistent with that described on the associated Chain-of-Custody document(s)?	☒ Yes ☐ No
3.	Were samples received at an appropriate temperature (< 6 Degrees C)?	☒ Yes ☐ No ☐ NA
4.	Were all QA/QC performance criteria specified in the Reasonable Confidence Protocol documents achieved?	☒ Yes ☐ No
5a.	Were reporting limits specified or referenced on the chain-of-custody?	☒ Yes ☐ No
5b.	Were these reporting limits met?	☒ Yes ☐ No ☐ 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?	☒ Yes ☐ No ☐ NA
7.	Are project-specific matrix spikes and laboratory duplicates included in the data set?	☐ Yes ☒ No ☐ 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: Tuesday, May 31, 2016

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 31, 2016

SDG I.D.: GBN38453

PCB Narration

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

Instrument:

AU-ECD3 05/31/16-1

Adam Werner, Chemist 05/31/16

BN38453, BN38454

The initial calibration (PC0506AI) RSD for the compound list was less than 20% except for the following compounds: None.

The initial calibration (PC0506BI) RSD for the compound list was less than 20% except for the following compounds: None.

The continuing calibration %D for the compound list was less than 15% except for the following compounds: None.

QC (Batch Specific):

Batch 346090 (BN35124)

BN38453, BN38454

All LCS recoveries were within 40 - 140 with the following exceptions: None.

All LCSD recoveries were within 40 - 140 with the following exceptions: None.

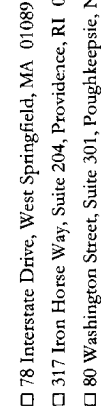
All LCS/LCSD RPDs were less than 30% with the following exceptions: None.

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

Temperature Narration

The samples were received at 4C with cooling initiated.

(Note acceptance criteria is above freezing up to 6°C)

☐ Other

Training

LABORATORY

Phoebe 1x

Containers

Request

1

Additional Comments:

Additional Comments:
Oil product PCBs PL: $\angle 1 = 1 \text{ ms/kg}$

Appendix D

Summary of PCB Clean-up Regulatory Mandates

The clean-up objectives for the PCB-impacted soil and building materials identified at the Site are subject to the regulatory mandates of the USEPA and DEEP, as described below. The regulations that govern the investigation and remediation of PCB release areas at the Site are the “Megarule” from Subpart D of TSCA, specifically 40 CFR §761.61, and DEEP’s RSRs (Regulations of Connecticut State Agencies Sections 22a-113k-(1-3)). Specific aspects of these regulatory backgrounds are summarized in the following subsections.

United States EPA

The Megarule is applicable to “any person storing or disposing of PCB Waste” (40 CFR § 761). On June 29, 1998, waste materials including remediation derived waste containing PCBs as a result of a spill, release, or unauthorized disposal (“PCB remediation waste”) became regulated for cleanup and disposal pursuant to the Megarule if any of the following criteria apply:

1. The waste was disposed prior to April 18, 1978, and is currently at concentrations ≥ 50 parts per million (ppm), regardless of the concentration of the original spill;
2. The waste is currently at any volume or concentration where the original source was ≥ 500 ppm PCBs beginning on April 18, 1978, or ≥ 50 ppm PCBs beginning on July 2 1979; or
3. The waste is currently at any concentration and was spilled or released from a source not authorized for use under 40 CFR 761.

PCB remediation waste meeting the first criteria is presumed not to present an unreasonable risk; however, if the owner or operator chooses to cleanup voluntarily, disposal of the waste must comply with §761.61. PCB remediation waste meeting the second criteria must be remediated in accordance with §761.61 or, if the release occurred after May 4, 1987, with the PCB Spill Cleanup Policy (Subpart G of TSCA). However, the PCB Spill Cleanup Policy was intended to address fresh releases of PCBs and specifically excluded older spills because older spills may evolve into more pervasive contamination and are generally more difficult to clean up. The burden for proving the date that the release occurred and subsequently the applicability of either the Megarule or PCB Spill Cleanup Policy is on the owner or operator of the site.

The self-implementing procedures in 40 CFR §761.61(a) establish cleanup goals for “bulk PCB remediation waste” which includes, but is not limited to non-liquid PCB remediation wastes such as soil, sediment, dredged materials, muds, PCB sewage sludge, and industrial sludge. The self-implementing clean-up goals are based on whether a site is considered a high occupancy or low occupancy area:

- High occupancy areas are defined as “any area where PCB remediation waste has been disposed of on-site and where occupancy for any individual not wearing dermal and respiratory protection for a calendar year is: 840 hours or more (an average of 16.8 hours or more per week) for non-porous surfaces and 335 hours or more (an average of 6.7 hours or more per week) for bulk PCB remediation waste”

- Low occupancy areas are defined as “any area where PCB remediation waste has been disposed of on-site and where occupancy for any individual not wearing dermal and respiratory protection for a calendar year is: less than 840 hours (an average of 16.8 hours per week) for non-porous surfaces and less than 335 hours (an average of 6.7 hours per week) for bulk PCB remediation waste.”

The self-implementing procedures for clean-up that are outlined in §761.61 are for “general, moderately-sized sites where there should be low residual environmental impact from remedial activities”. The self-implementing procedures may be less practical for larger or environmentally diverse sites. For these other sites, the self-implementing procedure still applies, but an EPA Regional Administrator may authorize more practical sampling, clean-up, or disposal procedures through “risk based disposal approval” through §761.61(c). Risk based disposal approval provides a mechanism for the USEPA to approve sampling programs that deviate from standard grid-based programs with limits to maximum spacing between grid points and application of remedial technologies beyond simple excavation and off-site disposal of impacted materials. The site is considered an environmentally diverse site, therefore paragraph (c) of §761.61, which requires parties wishing to sample, cleanup, or dispose of PCB remediation waste to apply in writing to the Regional Administrator for the appropriate region, applies.

For high occupancy areas, the cleanup level for bulk PCB remediation waste is ≤ 1 ppm, without further restrictions; or ≤ 10 ppm, with the installation of a cap that complies with the requirements of 40 CFR §761.61(a)(7) and (8). Pursuant to 40 CFR §761.61(a)(8), deed restrictions must be filed to use a cap in a high occupancy area. For low occupancy areas, the cleanup level for bulk PCB remediation waste is ≤ 25 ppm unless otherwise specified in 40 CFR §761.61(a)(4)(i)(B). A deed restriction must be filed for PCB clean-ups to the low occupancy standard in accordance with pursuant to 40 CFR §761.61(a)(8).

Cleanup activities that are conducted in accordance with the self-implementing procedures of §761.61(a) require notification to the USEPA and the DEEP at least 30 days in advance of proceeding with such clean-up activities.

State of Connecticut

Soil polluted with PCBs must be remediated to comply with the RSRs as well as 40 CFR §761.61. The RSRs regulate soil remediation by substance and release area. Release areas are defined as the area of impacted soil exceeding the analytical reporting limit (RL) for a particular substance, or site-specific background concentration if the substance is naturally occurring. The RSR Standards for Soil Remediation (RCSA Section 22a-133k-2) require impacted soil at a release area to be remediated to meet the Direct Exposure Criteria (DEC) to protect against the effects of human ingestion of contaminants. The baseline numeric DEC generally apply to soils within a depth of 15 feet below grade. However, the current baseline DEC applies to PCB's that are present at depths greater than 15 feet below grade.

PCB concentrations in soil at a release area are required to meet the Residential Direct Exposure Criterion (RDEC) of 1 mg/kg unless the release area is located on a parcel that is either an “outdoor electrical substation” or an “other restricted access location,” as defined in federal regulations, specifically 40 CFR 761.123, and an environmental land use restriction (ELUR) is in effect with respect to such parcel. Other restricted access locations means areas other than electrical substations that are at

least 0.1 km (~330 feet) from a residential/commercial area and limited by man-made barriers (e.g. fences and walls) to substantially limited by naturally occurring barriers such as mountains, cliffs or rough terrain. For release areas that meet these conditions, total PCBs in soil may be remediated to the Industrial/Commercial Direct Exposure Criteria (I/C DEC) of 10 mg/kg as detected by mass analysis.

Soil must also meet the Pollutant Mobility Criteria (PMC) of the RSRs, which are intended to prevent impacts to groundwater through leaching of contaminants from impacted soil. The applicable PMC for a site are dependent on the groundwater classification. In the case of the site, the current groundwater classification is GA. The PMC for PCBs for areas where the groundwater is classified GA is currently 0.5 ug/L as detected by either a Toxicity Characteristic Leaching Procedure (TCLP) analysis or Synthetic Precipitate Leaching Procedure (SPLP) analysis. The GB PMC apply to soil above the seasonal high water table. PCBs detected at mass concentrations of 1 mg/kg or less are assumed to meet the GA PMC and the TCLP or SPLP analysis are not required to demonstrate compliance.